STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-001-01
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	FUSELAGE		2C	12424	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - LWR FUSELAGE		NOTE	ALL

ZONES	ACCESS PANELS
113 114	113AL NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6A

VISUALLY INSPECT FLIGHT CONTROL (AILERON, ELEVATOR, STABILIZER, FLAP), THRUST CONTROL (IF INSTALLED), AND LANDING GEAR CONTROL (NOSE WHEEL STEERING, BRAKE, LG EXTENSION/RETRACTION) CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS, AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

ACCESS NOTE: STABILIZER TRIM CABLES WITHIN CENTER PEDESTAL IN CREW CABIN TO BE VIEWED FROM BELOW. CABLE SYSTEM MAY NEED TO BE CYCLED IN ORDER TO INSPECT THE UPPER PORTIONS OF THE CABLES OBSCURED BY THE TOP PULLEY.

ACCESS NOTE: FLIGHT CONTROL (AILERON AND FLAP) AND LANDING GEAR CONTROL CABLES WITHIN CENTER PEDESTAL IN CREW CABIN AREA TO BE VIEWED FROM BELOW.

NOTE: LANDING GEAR EXTENSION/RETRACTION VISUAL INSPECTION NOT APPLICABLE TO 767-400ER.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

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C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

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(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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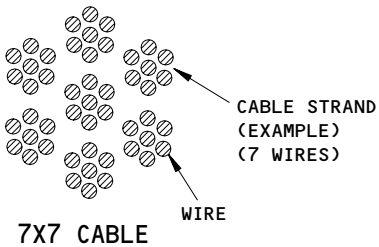
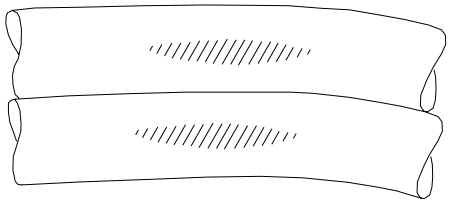
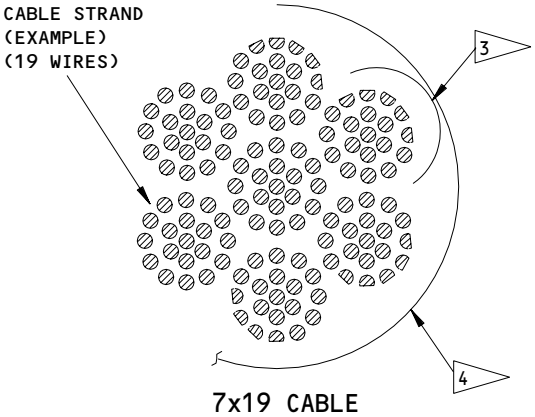


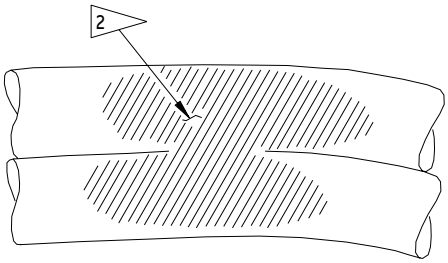
7X7 CABLE



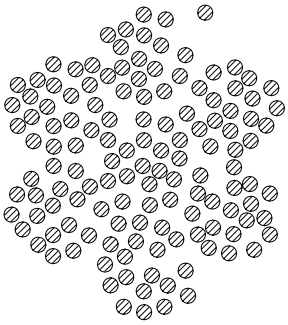
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



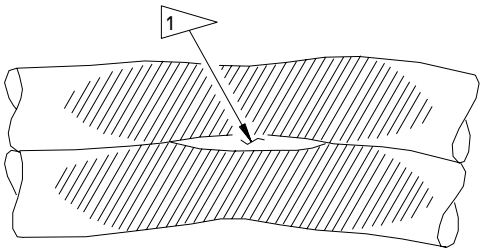
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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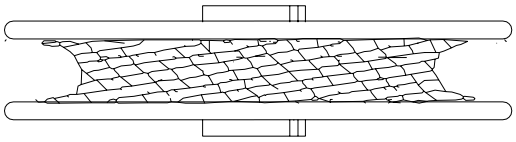
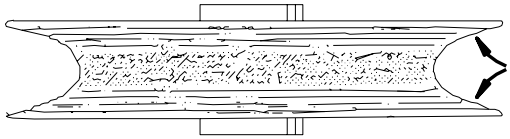
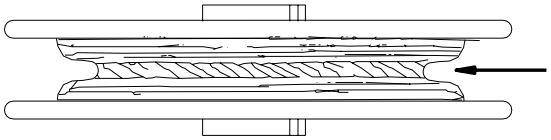


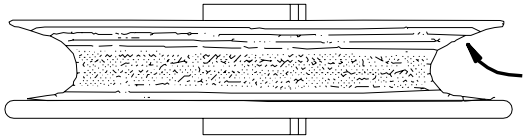
CABLE TENSION TOO HIGH



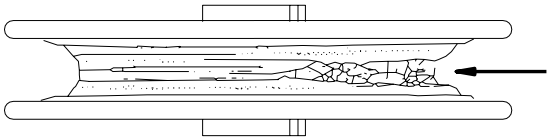
PULLEY NOT ALIGNED CORRECTLY



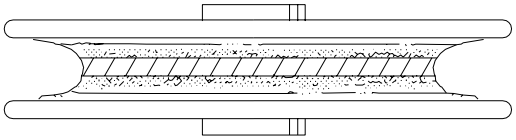
PULLEY GROOVE WITH
EXCESSIVE WEAR



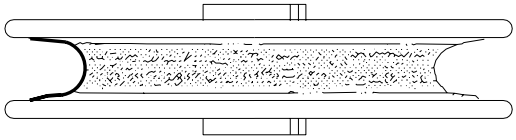
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-001-02
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	MAIN EE CTR		2C	12424	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - LWR FUSELAGE		NOTE	ALL

ZONES	ACCESS PANELS
117 118 119	119AL

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6A

VISUALLY INSPECT FLIGHT CONTROL (AILERON, ELEVATOR, RUDDER, STABILIZER, FLAP), THRUST CONTROL (IF INSTALLED), AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, BRAKE, NOSE WHEEL STEERING, LG EXTENSION/RETRACTION) CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS, AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTIONS ARE NOT APPLICABLE TO 767-400ER AIRPLANES.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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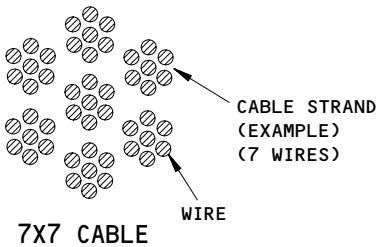
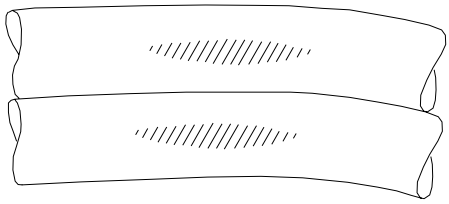
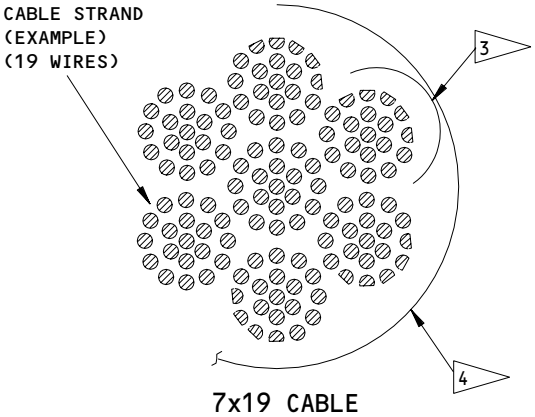


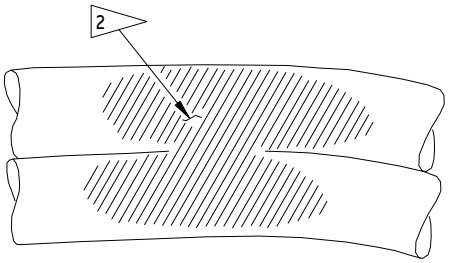
7X7 CABLE



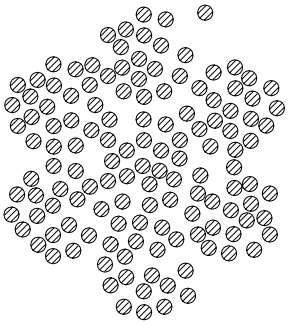
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



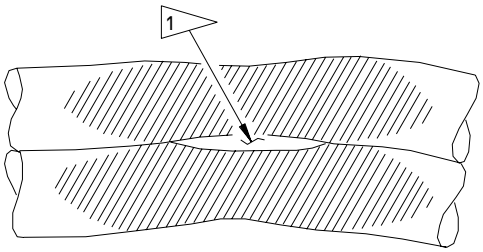
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

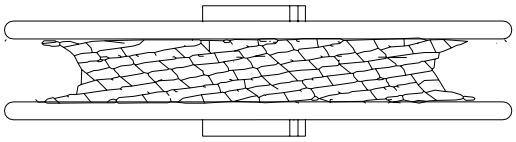
2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

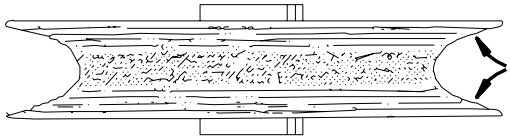
4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

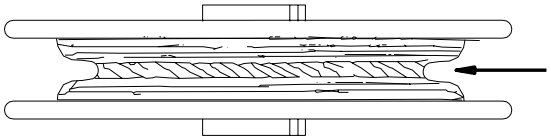
BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



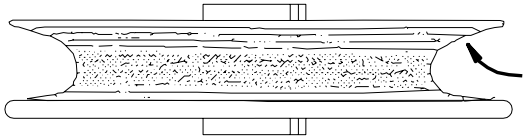
CABLE TENSION TOO HIGH



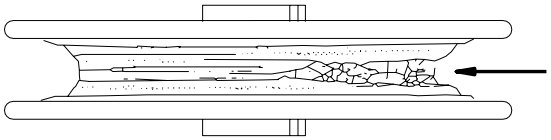
PULLEY NOT ALIGNED CORRECTLY



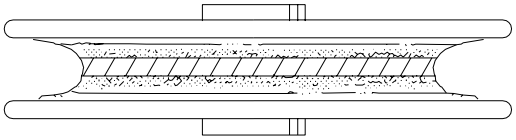
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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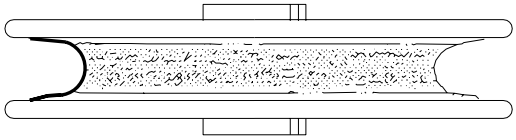

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	A/C MIX BAY		2C	12424	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - LWR FUSELAGE		ALL	ALL

ZONES	ACCESS PANELS
125 126	1251 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6A

VISUALLY INSPECT FLIGHT CONTROL (ELEVATOR, FLAP), THRUST CONTROL (IF INSTALLED), AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, BRAKE) CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

NOTE: ALTERNATE GEAR EXTENSION VISUAL INSPECTION IS NOT APPLICABLE TO 767-400ER AIRPLANES.

ACCESS NOTE: SPECIAL ACCESS 1251 REQUIRES REMOVAL OF THE FWD CARGO COMPT AFT WALL PANELS.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

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MECH	INSP

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

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(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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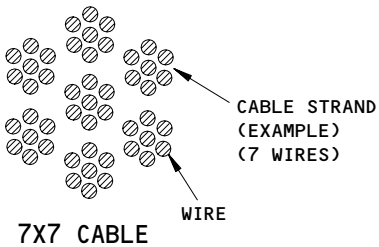
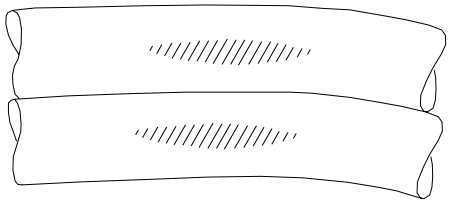
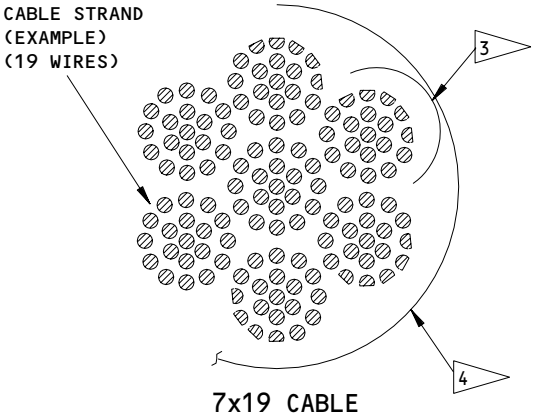


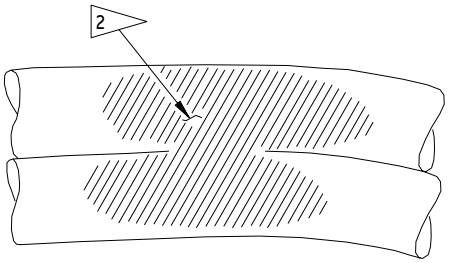
7X7 CABLE



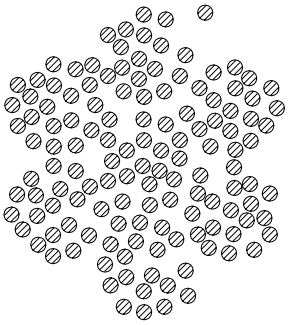
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



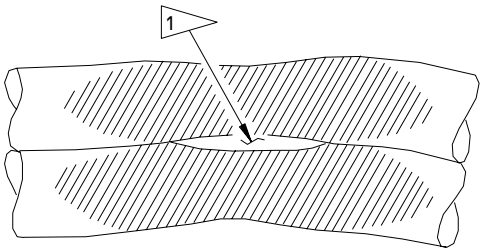
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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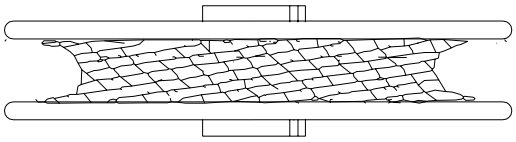
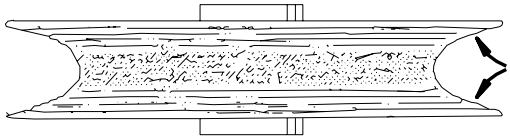
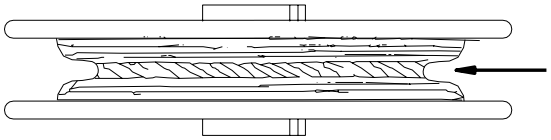


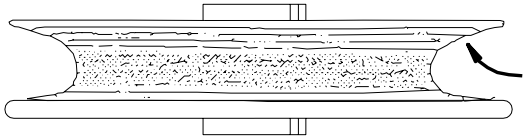
CABLE TENSION TOO HIGH



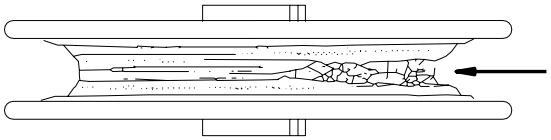
PULLEY NOT ALIGNED CORRECTLY



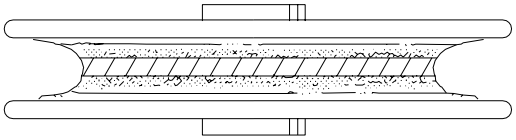
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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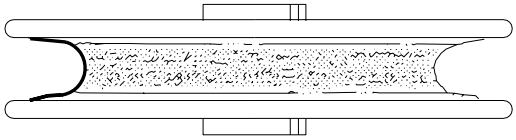

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-002-01
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	FUSELAGE		4C 1/10	14848	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		NOTE	ALL

ZONES	ACCESS PANELS
117 118 119	119AL

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6B

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL (AILERON, ELEVATOR, STABILIZER, FLAP, RUDDER), THRUST CONTROL (IF INSTALLED), AND LANDING GEAR CONTROL (NOSE WHEEL STEERING, BRAKES, ALTERNATE GEAR EXTENSION, LG EXTENSION/RETRACTION) CABLES IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTIONS IS NOT APPLICABLE TO 767-400ER AIRPLANES.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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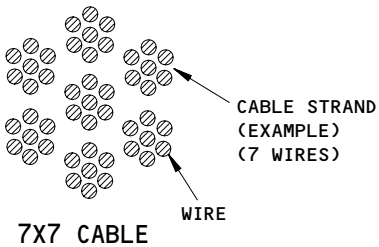
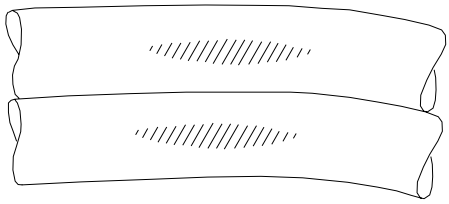
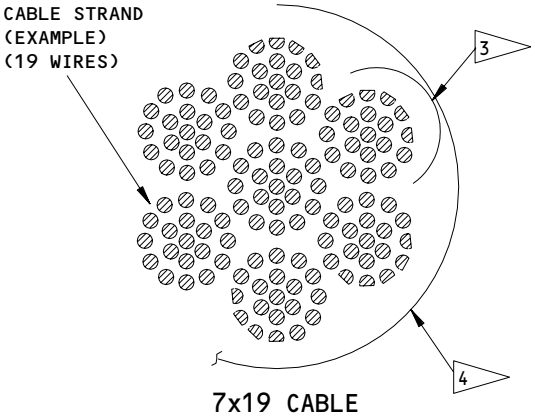


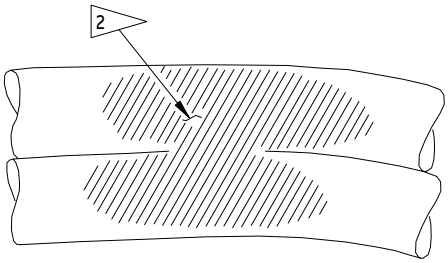
7X7 CABLE



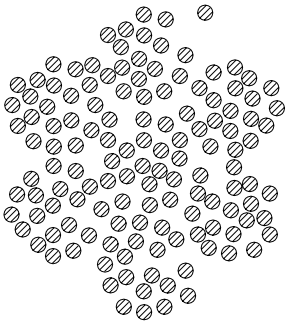
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



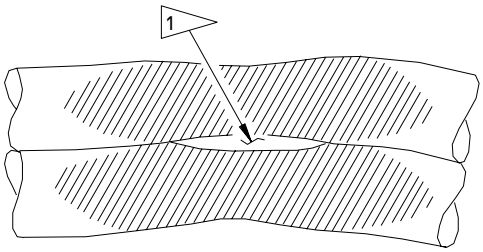
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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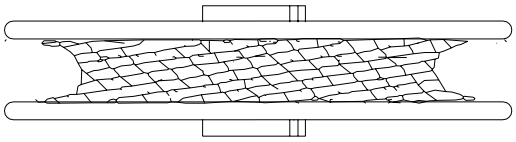
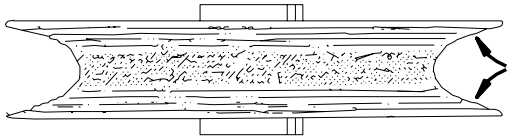
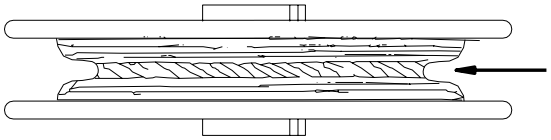


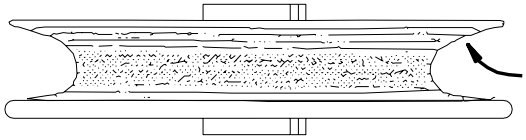
CABLE TENSION TOO HIGH



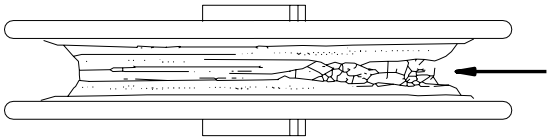
PULLEY NOT ALIGNED CORRECTLY



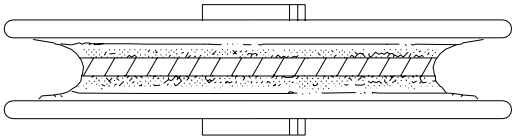
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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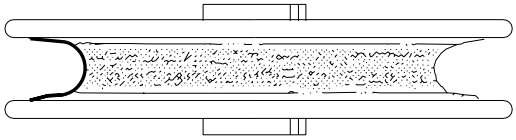

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	FWD CARGO		4C 1/10	14848	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		NOTE	ALL

ZONES	ACCESS PANELS
121 122	1211 1212 1221

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL (AILERON, FLAP, ELEVATOR), THRUST CONTROL (IF INSTALLED), AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, BRAKES, LG EXTENSION/RETRACTION) CABLES IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6B

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTION IS NOT APPLICABLE TO 767-400ER AIRPLANES.

ACCESS NOTE: SPECIAL ACCESS 1211 AND 1221 REQUIRE REMOVAL OF THE LEFT AND RIGHT FWD CARGO COMPARTMENT SIDEWALL PANELS PER MM REF 25-52-01.
SPECIAL ACCESS 1212 REQUIRES REMOVAL OF THE FWD CARGO COMPT CEILING PANELS.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

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MECH	INSP

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

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1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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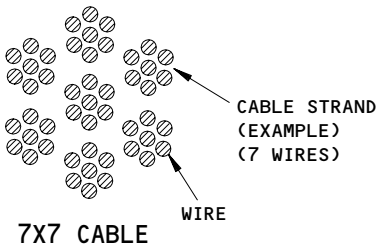
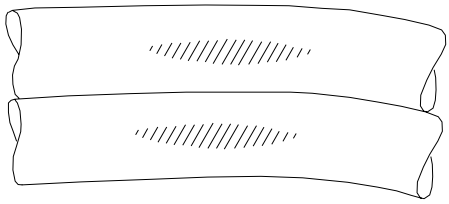
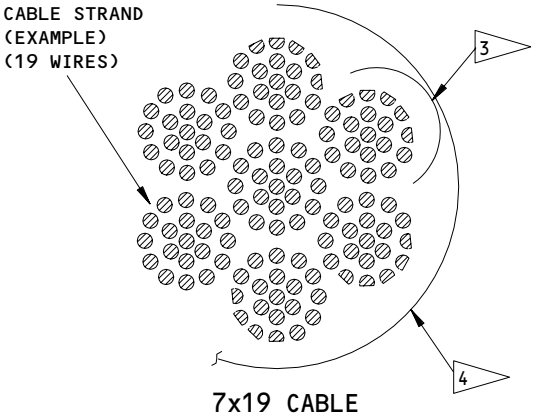


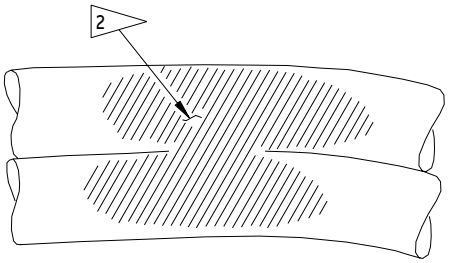
7X7 CABLE



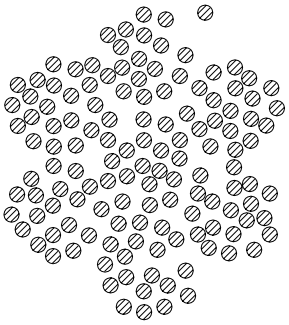
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



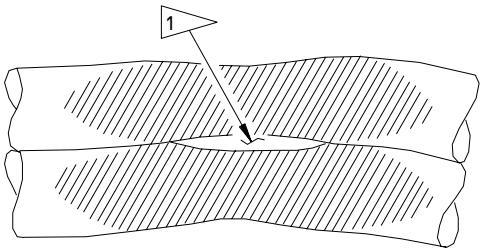
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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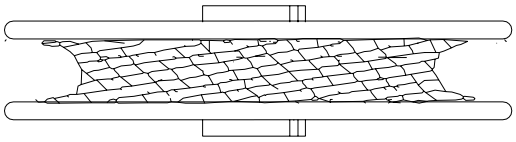
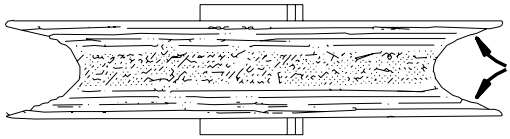
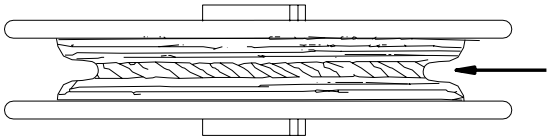


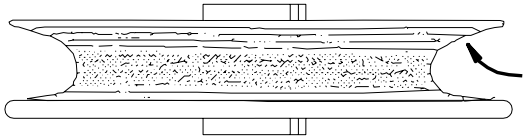
CABLE TENSION TOO HIGH



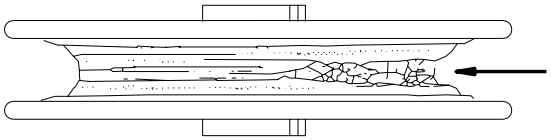
PULLEY NOT ALIGNED CORRECTLY



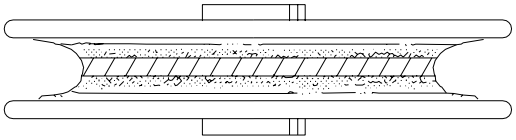
PULLEY GROOVE WITH
EXCESSIVE WEAR



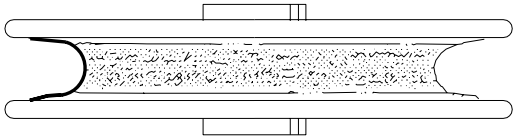
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	A/C MIX BAY		4C 1/10	14848	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		ALL	ALL

ZONES	ACCESS PANELS
125 126	1251 NOTE

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL (AILERON, FLAP, ELEVATOR), THRUST CONTROL (IF INSTALLED), AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, BRAKES, LG EXTENSION/RETRACTION) CABLES IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS, AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6B

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTIONS ARE NOT APPLICABLE TO 767-400 AIRPLANES.

ACCESS NOTE: SPECIAL ACCESS 1251 REQUIRES REMOVAL OF THE FWD CARGO COMPT AFT WALL PANELS.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

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MECH	INSP

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

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(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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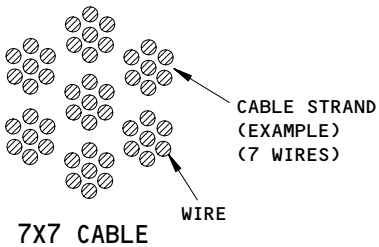
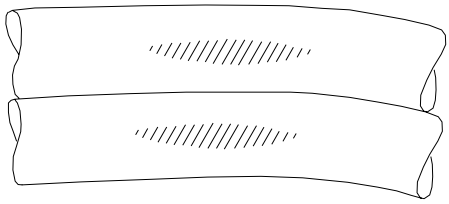
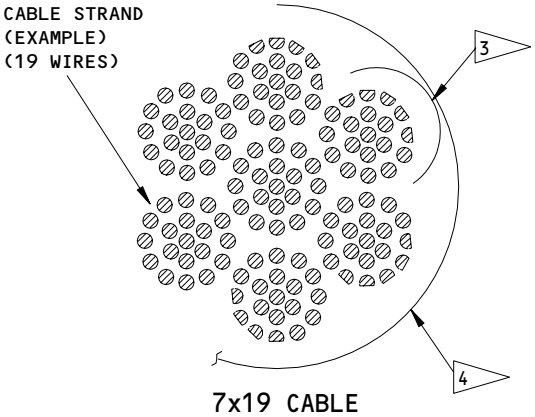


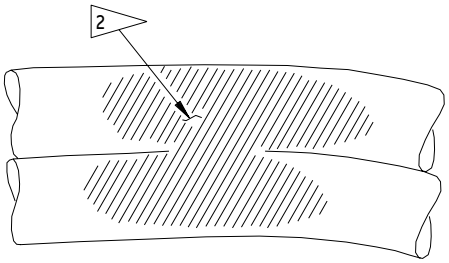
7X7 CABLE



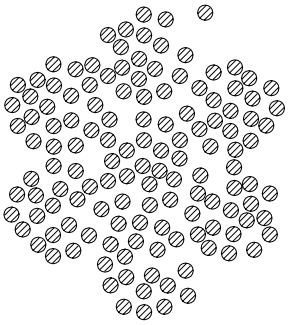
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



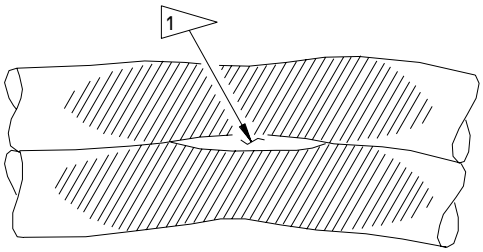
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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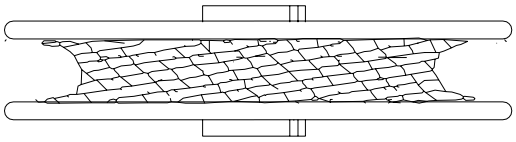
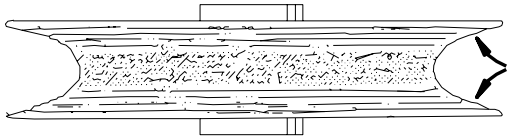
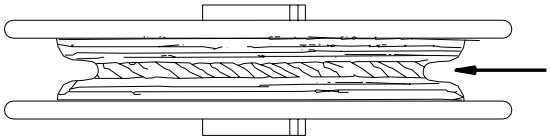


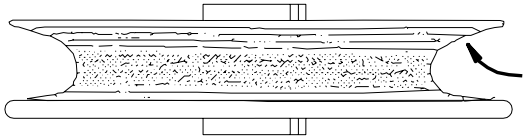
CABLE TENSION TOO HIGH



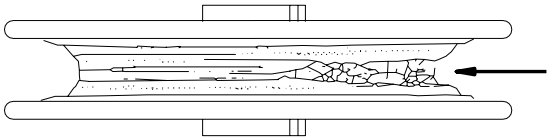
PULLEY NOT ALIGNED CORRECTLY



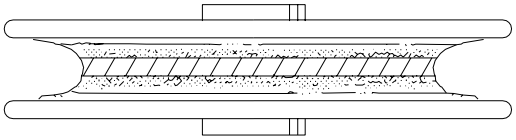
PULLEY GROOVE WITH
EXCESSIVE WEAR



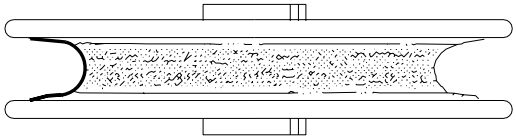
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-002-04
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	FUSELAGE		4C 1/10	14848	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		ALL	ALL

ZONES	ACCESS PANELS
131 132 141 142	1311 1312 1411 1412 2411 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6B

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL (AILERON, ELEVATOR, FLAP) AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, BRAKES, LANDING GEAR EXTENSION/RETRACTION) CABLES IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE RUNS: LBL 70 TO 82; RBL 59 TO 90.

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTIONS IS NOT APPLICABLE TO 767-400 AIRPLANES.

ACCESS NOTE: SPECIAL ACCESS 1311 REQUIRES REMOVING THE CABIN FLOOR COVERING PER MM REFERENCE 25-27-01 AND SPECIAL ACCESS 1312 REQUIRES REMOVING THE CABIN FLOOR PANELS - STA 785 TO 955 PER MM REFERENCE 53-01-01.
SPECIAL ACCESS 1411 REQUIRES REMOVING THE FLOOR PANEL/COVERING - STA 955 TO 1065 PER MM REF 25-27-01.
SPECIAL ACCESS 1412 REQUIRES REMOVING THE CABIN FLOOR PANELS, STA 955 TO 1065 PER MM REF 53-01-01.
SPECIAL ACCESS 2411 REQUIRES REMOVING THE MID CABIN EQUIPMENT STA 785 TO 1065.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

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MECH	INSP

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

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2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

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MECH	INSP

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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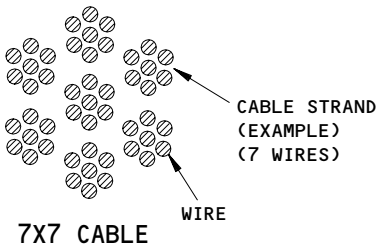
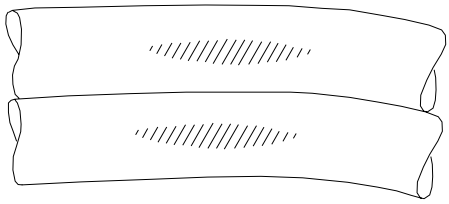
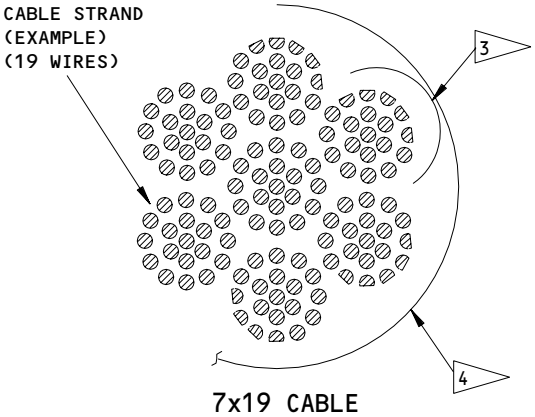


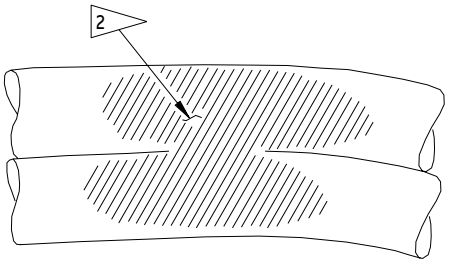
7X7 CABLE



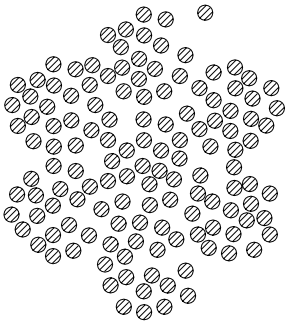
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



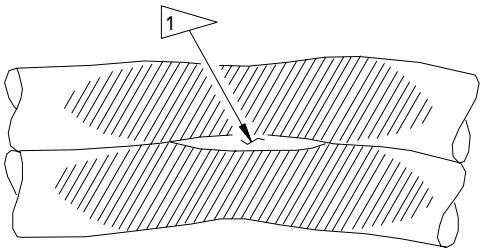
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

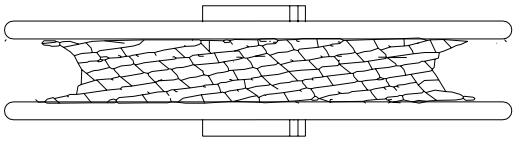
2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

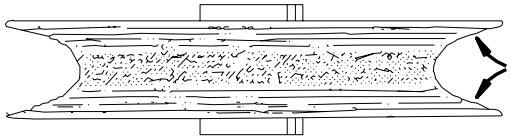
4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

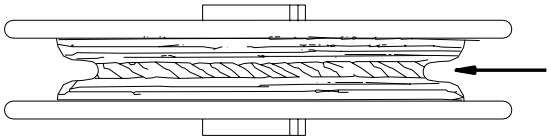
BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



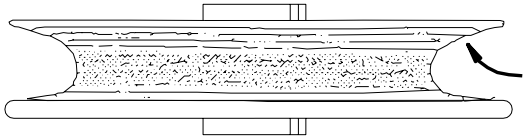
CABLE TENSION TOO HIGH



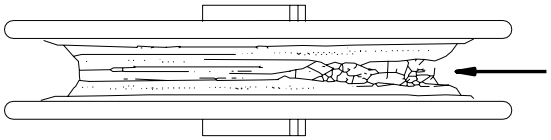
PULLEY NOT ALIGNED CORRECTLY



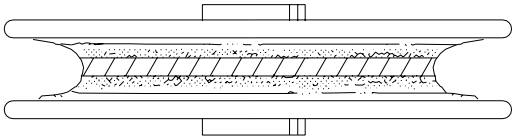
PULLEY GROOVE WITH
EXCESSIVE WEAR



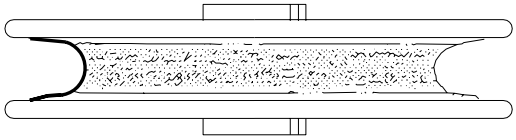
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-003-01
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	FUSELAGE		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - LWR FUSELAGE		ALL	ALL

ZONES	ACCESS PANELS
131 141 142	1311 1312 1411 1412 2411 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6C

VISUALLY INSPECT FLIGHT CONTROL (AILERON, FLAP) AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, BRAKES, LG EXTENSION/RETRACTION) CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE TURN LOCATIONS: STA 954 TO 1015, LBL 59 TO 81 AND RBL 59 TO 88.

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTION IS NOT APPLICABLE TO 767-400ER AIRPLANES.

ACCESS NOTE: SPECIAL ACCESS 1311 REQUIRES REMOVING THE CABIN FLOOR COVERING PER MM REF 25-27-01 AND SPECIAL ACCESS 1312 REQUIRES REMOVING THE CABIN FLOOR PANELS - STA 785 TO 955 PER MM REF 53-01-01.
SPECIAL ACCESS 1411 REQUIRES REMOVING THE FLOOR PANEL/COVERING - STA 955 TO 1065 PER MM REF 25-27-01.
SPECIAL ACCESS 1412 REQUIRES REMOVING THE CABIN FLOOR PANELS, STA 955 TO 1065 PER MM REF 53-01-01.
SPECIAL ACCESS 2411 REQUIRES REMOVING THE MID CABIN EQUIPMENT STA 785 TO 1065.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

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MECH	INSP

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

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2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

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MECH	INSP

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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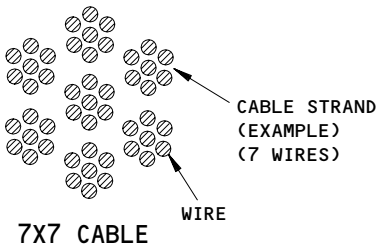
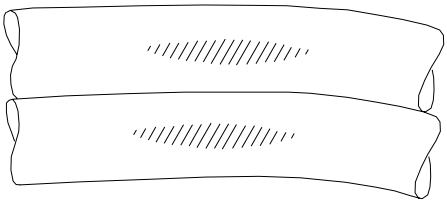
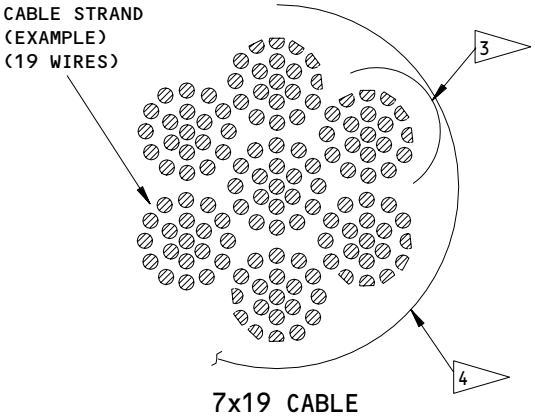


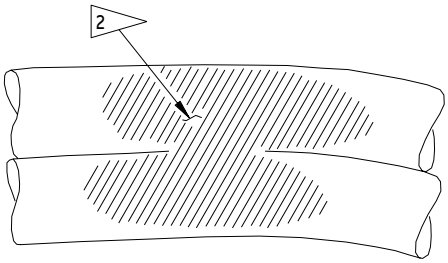
7X7 CABLE



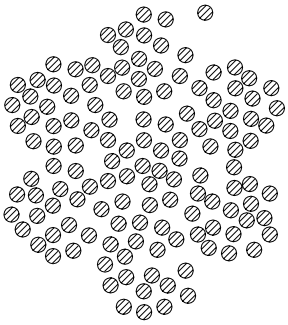
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



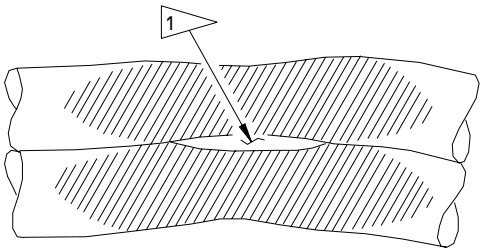
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

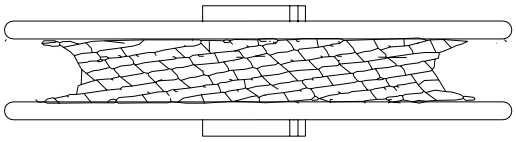
2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

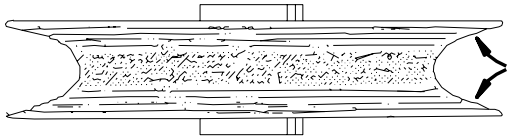
4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

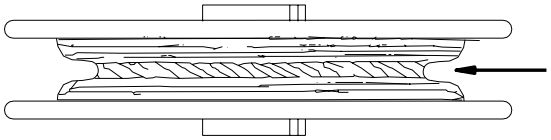
BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



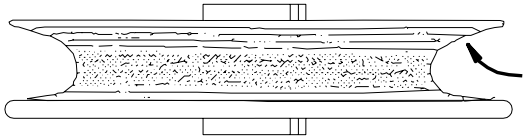
CABLE TENSION TOO HIGH



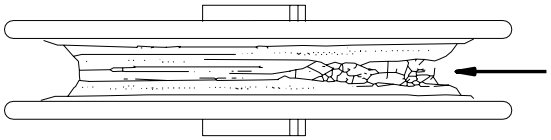
PULLEY NOT ALIGNED CORRECTLY



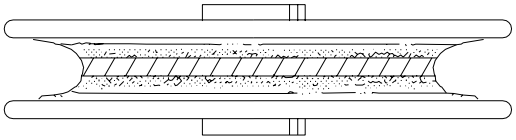
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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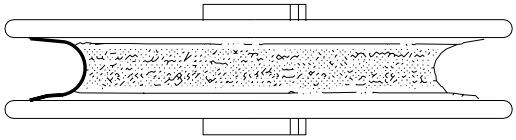

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-004-01-1
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	L MAIN W/W		1C	11212	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
143	1004

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6D

VISUALLY INSPECT EXPOSED/UNPROTECTED FLIGHT CONTROL (AILERON, AILERON BUS) AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, GROUND DOOR RELEASE, BRAKES, LG EXTENSION/RETRACTION) CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTIONS NOT APPLICABLE TO 767-400ER AIRPLANES.

ACCESS NOTE: SPECIAL ACCESS 1004 REQUIRES ACCESSING THE LANDING GEAR THROUGH THE WHEEL WELL DOORS PER MM REF 32-00-15.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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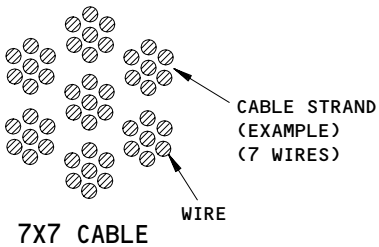
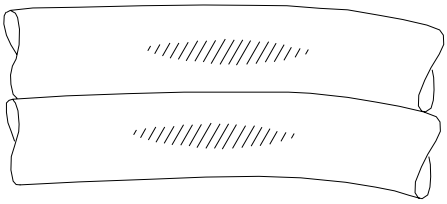


7X7 CABLE



EACH OUTER WIRE WORN
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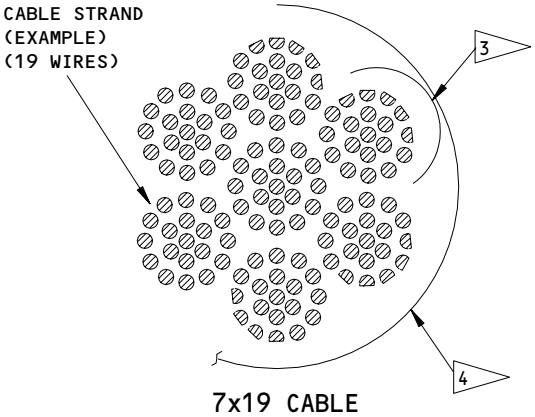
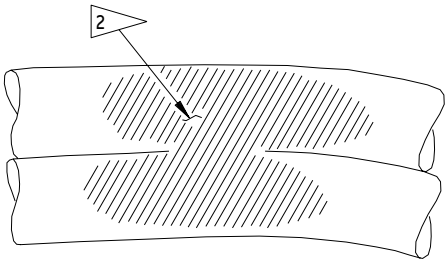
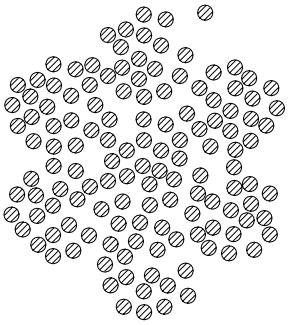


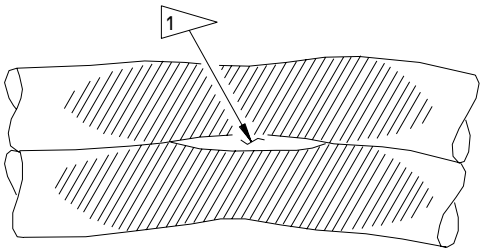
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

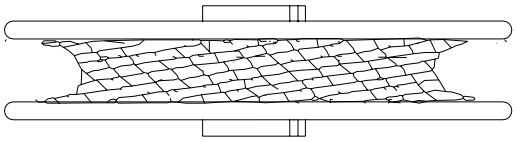
2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

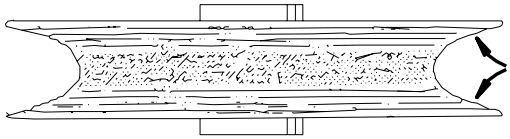
4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

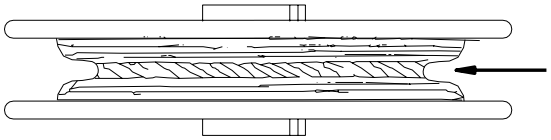
BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



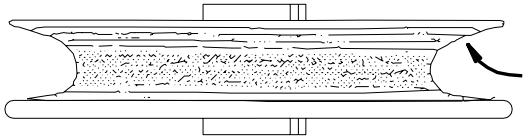
CABLE TENSION TOO HIGH



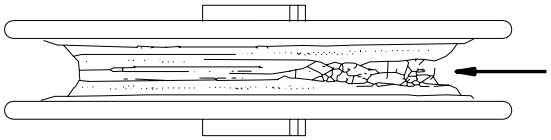
PULLEY NOT ALIGNED CORRECTLY



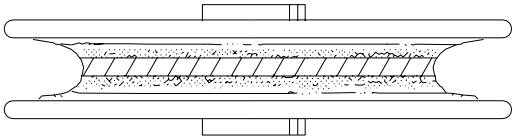
PULLEY GROOVE WITH
EXCESSIVE WEAR



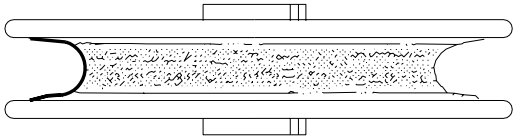
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-004-01-2
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	R MAIN W/W		1C	11212	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
144	1004

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6D

VISUALLY INSPECT EXPOSED/UNPROTECTED FLIGHT CONTROL (AILERON, AILERON BUS) AND LANDING GEAR CONTROL (ALTERNATE GEAR EXTENSION, GROUND DOOR RELEASE, BRAKES, LG EXTENSION/RETRACTION) CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, RACKS AND SECURITY.

NOTE: LANDING GEAR EXTENSION/RETRACTION AND ALTERNATE GEAR EXTENSION VISUAL INSPECTIONS IS NOT APPLICABLE TO 767-400ER AIRPLANES.

ACCESS NOTE: SPECIAL ACCESS 1004 REQUIRES ACCESSING THE LANDING GEAR THROUGH THE WHEEL WELL DOORS PER MM REF 32-00-15.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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MECH	INSP

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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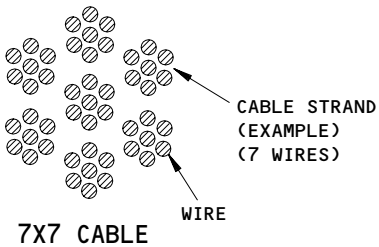
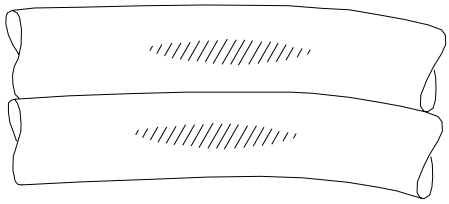
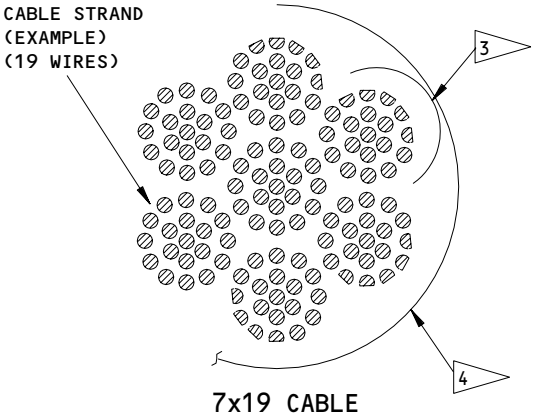


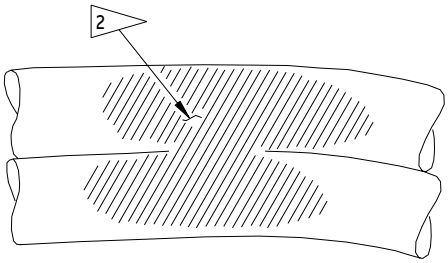
7X7 CABLE



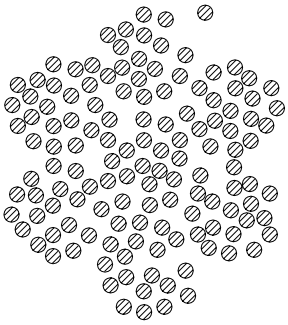
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



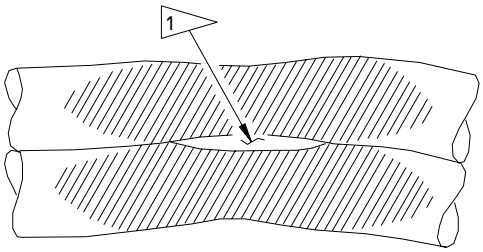
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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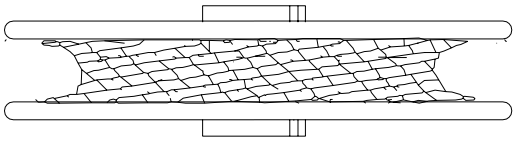
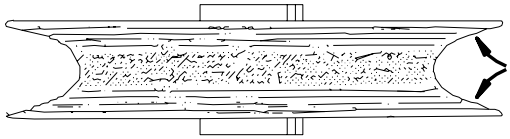
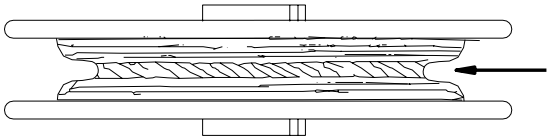


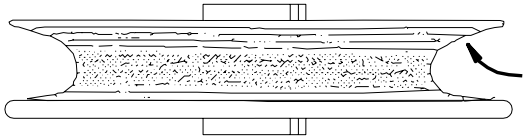
CABLE TENSION TOO HIGH



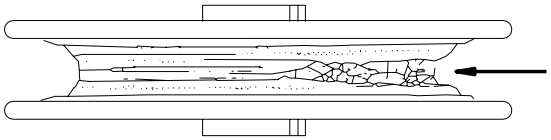
PULLEY NOT ALIGNED CORRECTLY



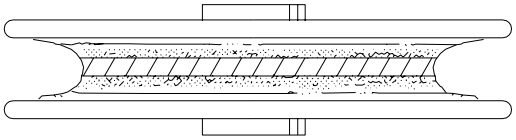
PULLEY GROOVE WITH
EXCESSIVE WEAR



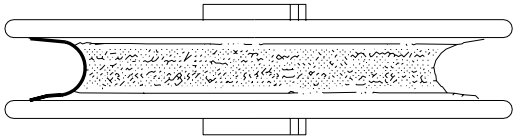
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-004-02-1
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	L WING TE		1C	11212	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
551	

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6D

VISUALLY INSPECT EXPOSED/UNPROTECTED FLIGHT CONTROL (AILERON, AILERON BUS) CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

1. General

   A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

   B. The first task is an inspection of the control cable wire rope.

   C. The second task is an inspection of the control cable fittings.

   D. The third task is an inspection of the pulleys.

   E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

   A. Examine the wire rope.

      (1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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MECH | INSP

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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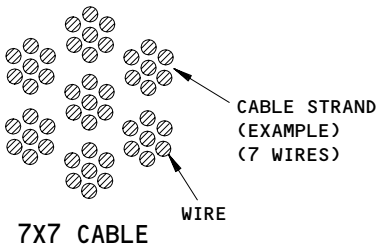
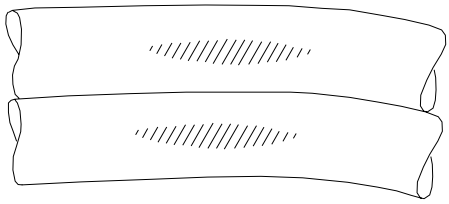
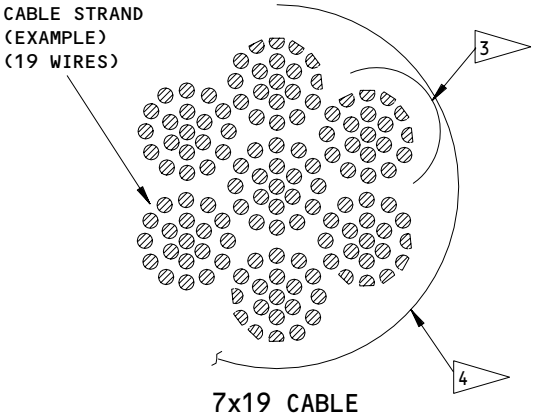


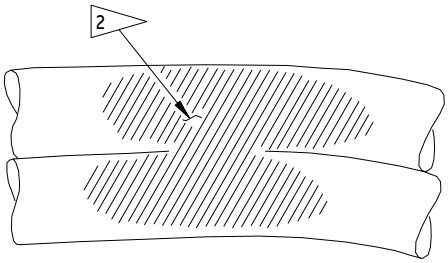
7X7 CABLE



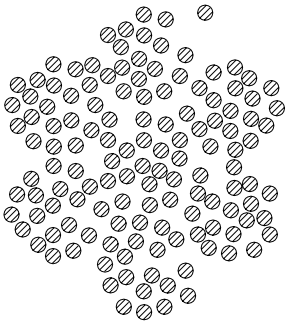
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



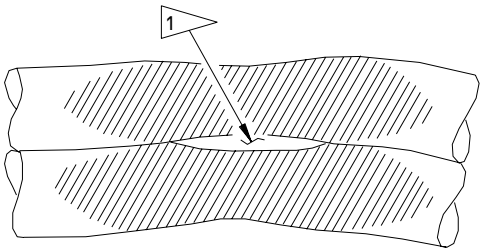
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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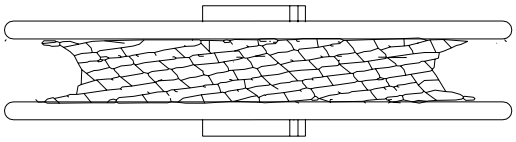
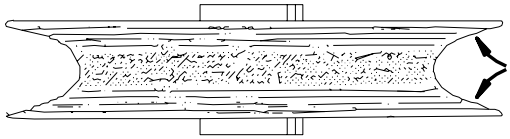
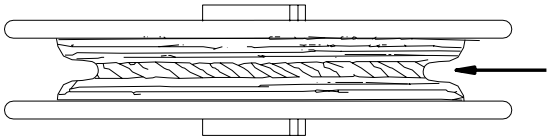


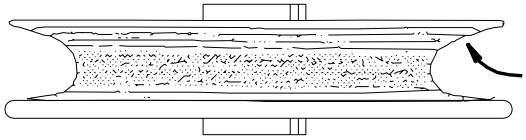
CABLE TENSION TOO HIGH



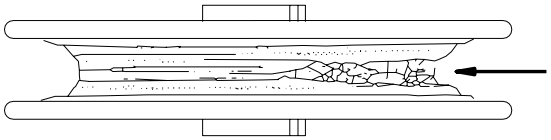
PULLEY NOT ALIGNED CORRECTLY



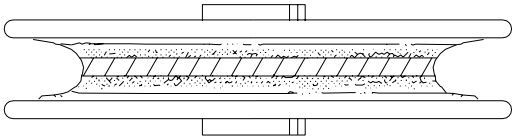
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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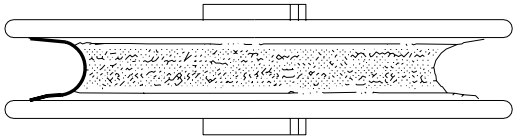

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	R WING TE		1C	11212	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
651	

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT EXPOSED/UNPROTECTED FLIGHT CONTROL (AILERON, AILERON BUS) CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6D

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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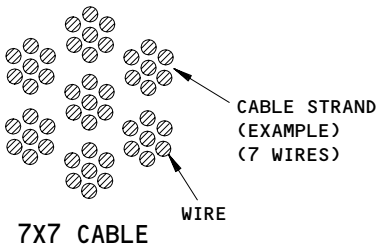
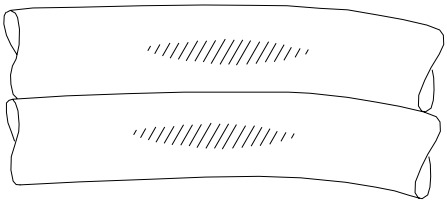
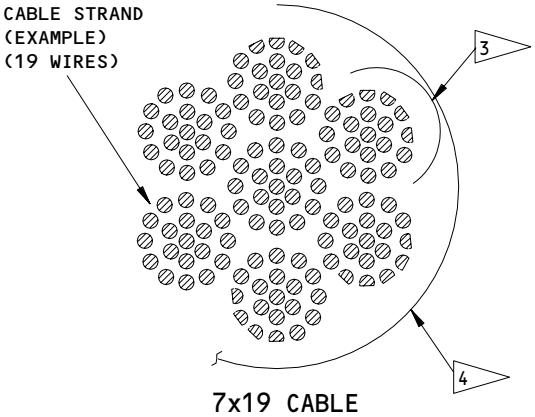


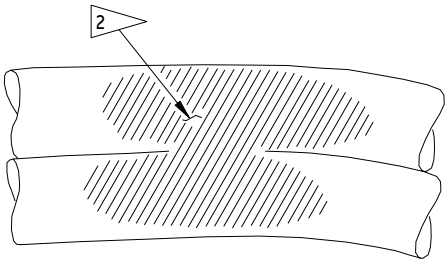
7X7 CABLE



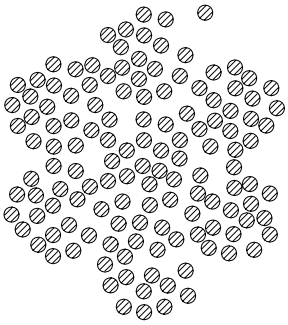
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



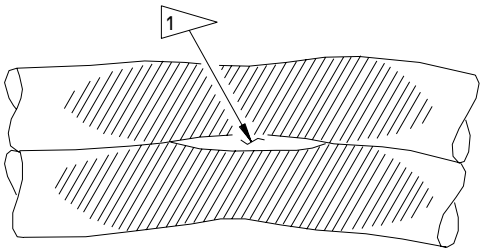
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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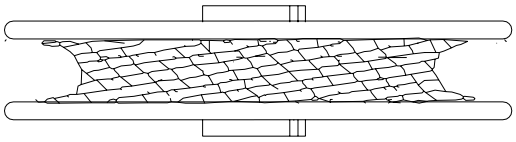
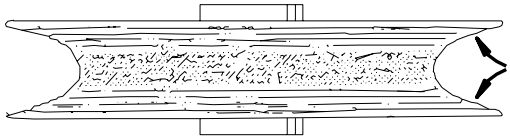
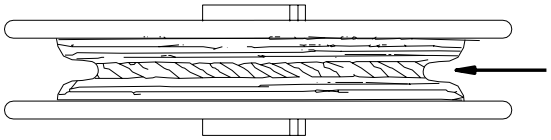


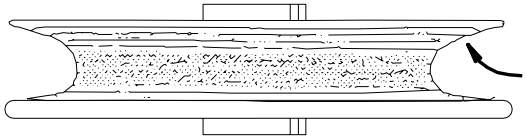
CABLE TENSION TOO HIGH



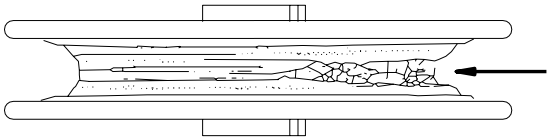
PULLEY NOT ALIGNED CORRECTLY



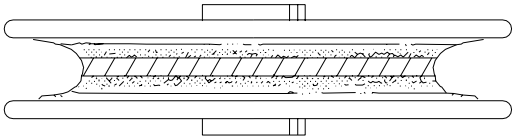
PULLEY GROOVE WITH
EXCESSIVE WEAR



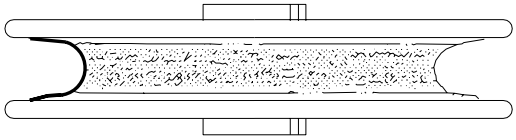
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-004-03-1
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	L WING TE		1C	11212	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
552	5002 561AB 561CB

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6D

VISUALLY INSPECT EXPOSED/UNPROTECTED AILERON CONTROL CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: SPECIAL ACCESS 5002 REQUIRES EXTENDING THE T.E. FLAPS PER MM REF 27-51-00.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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MECH | INSP

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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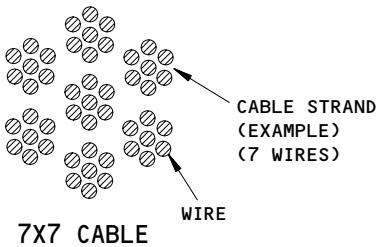
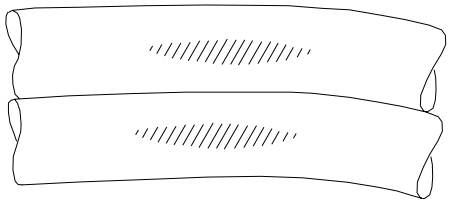
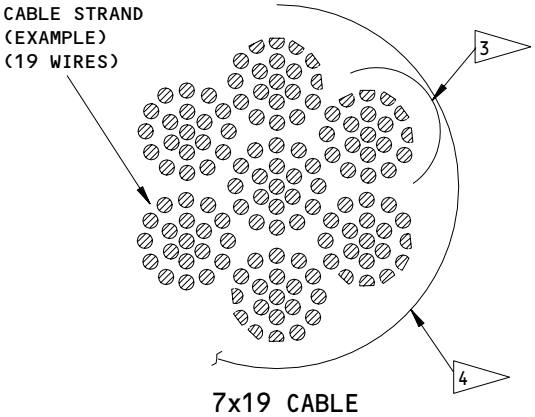


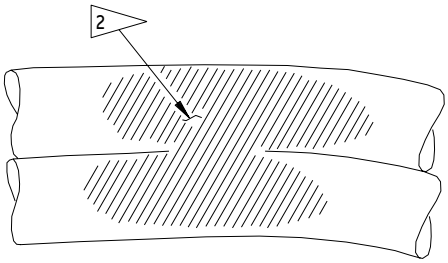
7X7 CABLE



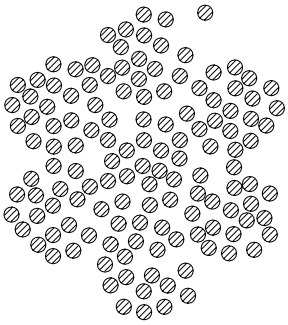
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



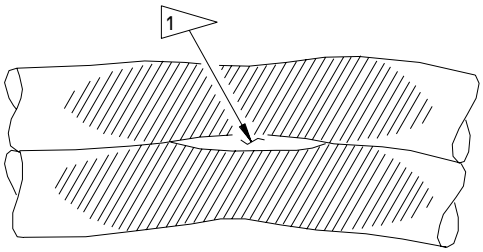
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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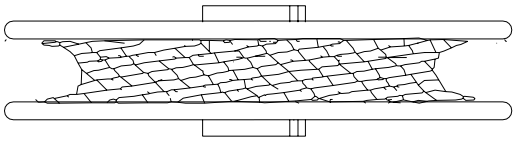
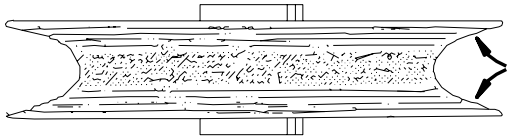
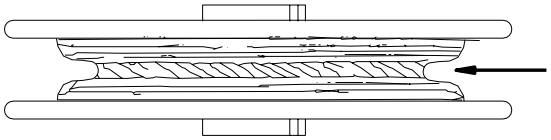


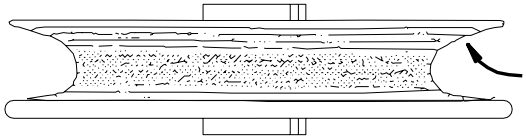
CABLE TENSION TOO HIGH



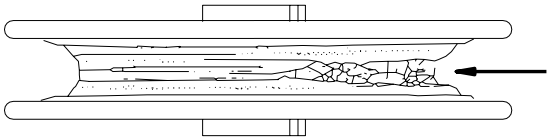
PULLEY NOT ALIGNED CORRECTLY



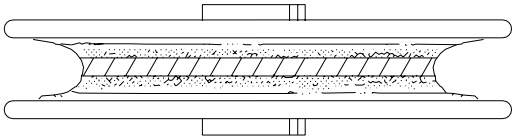
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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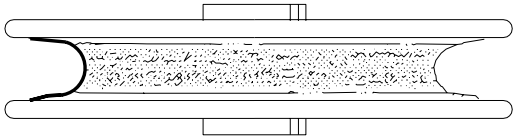

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-004-03-2
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	R WING TE		1C	11212	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
652	5002 661AB 661CB

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6D

VISUALLY INSPECT EXPOSED/UNPROTECTED AILERON CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: SPECIAL ACCESS 5002 REQUIRES EXTENDING THE T.E. FLAPS PER MM REF 27-51-00.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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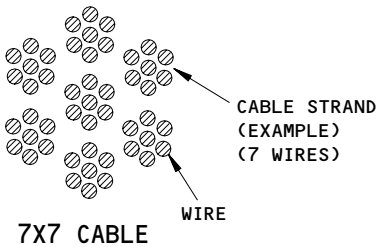
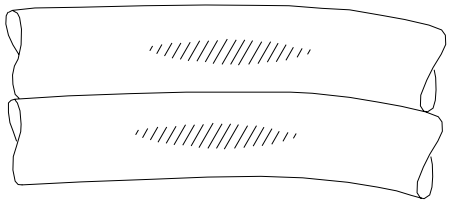
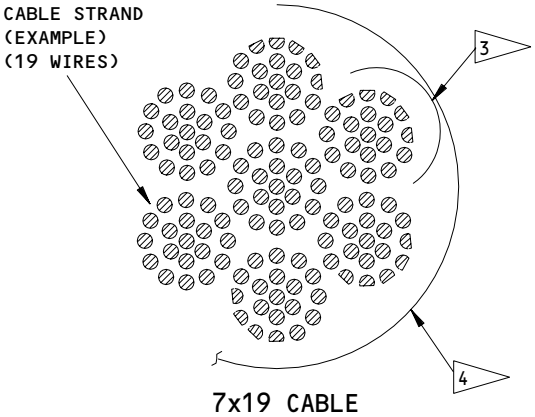


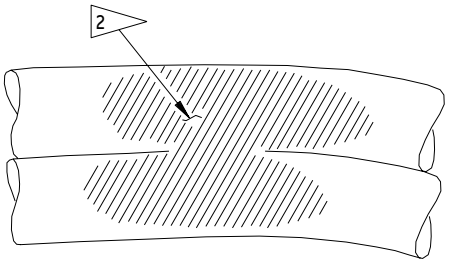
7X7 CABLE



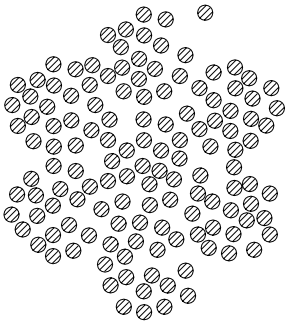
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



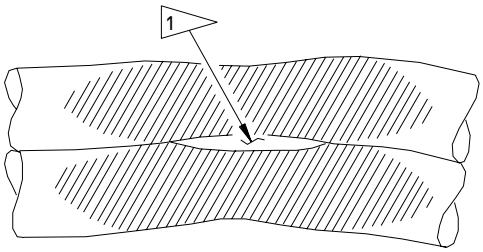
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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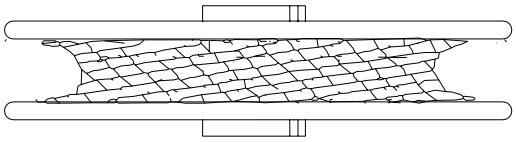
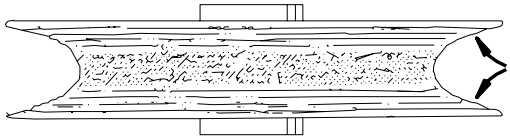
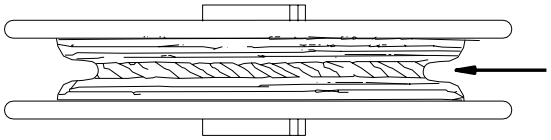


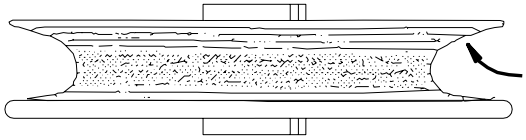
CABLE TENSION TOO HIGH



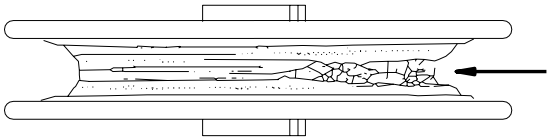
PULLEY NOT ALIGNED CORRECTLY



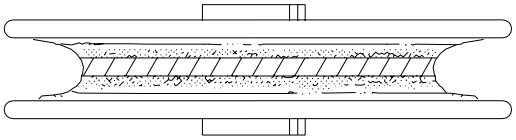
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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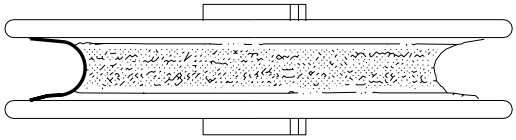

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	L WING TE		1C	11212	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
561	5002 561LB 561MB 561RBX

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT EXPOSED/UNPROTECTED AILERON CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6D

ACCESS NOTE: SPECIAL ACCESS 5002 REQUIRES EXTENDING THE T.E. FLAPS PER MM REF 27-51-00.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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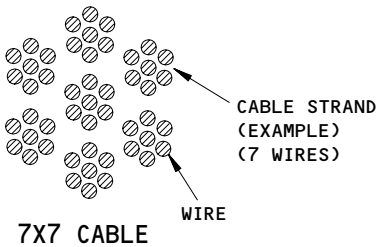
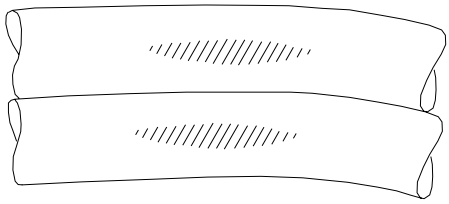
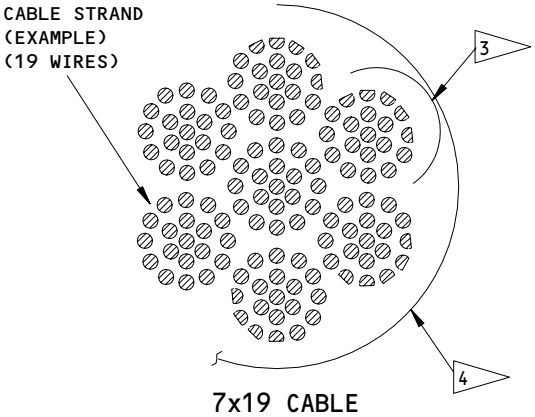


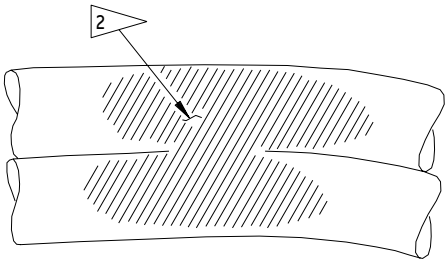
7X7 CABLE



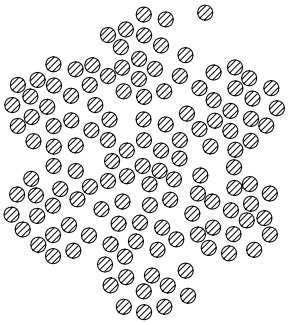
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



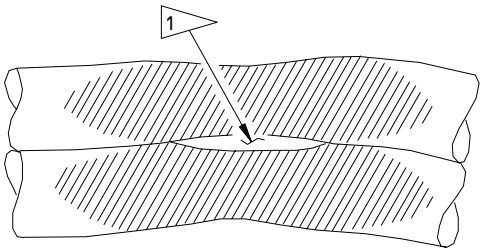
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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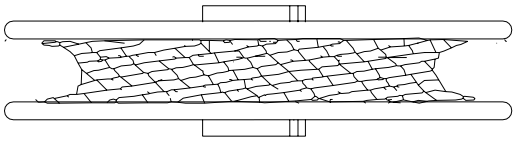
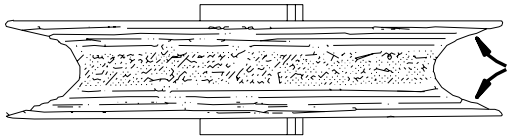
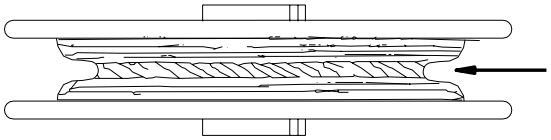


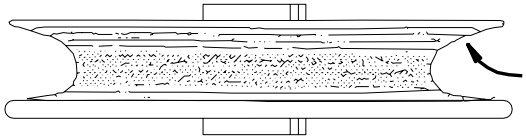
CABLE TENSION TOO HIGH



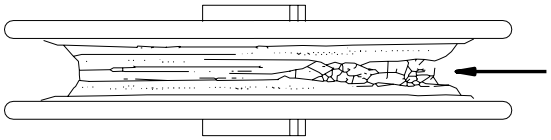
PULLEY NOT ALIGNED CORRECTLY



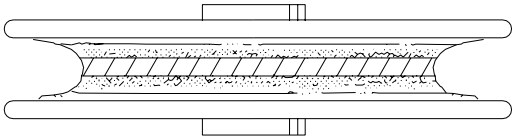
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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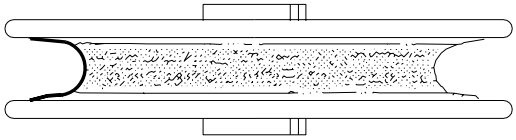

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	R WING TE		1C	11212	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - EXPOSED/UNPROTECTED		ALL	ALL

ZONES	ACCESS PANELS
661	5002 661LB 661MB 661RBX

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT EXPOSED/UNPROTECTED AILERON CONTROL CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6D

ACCESS NOTE: SPECIAL ACCESS 5002 REQUIRES EXTENDING THE T.E. FLAPS PER MM REF 27-51-00.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

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(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

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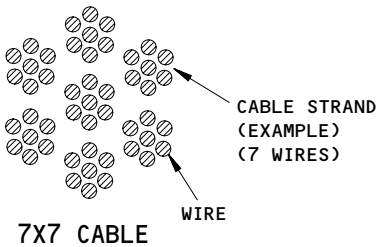
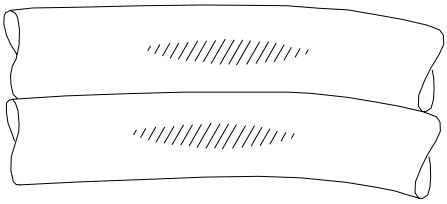


7X7 CABLE



EACH OUTER WIRE WORN
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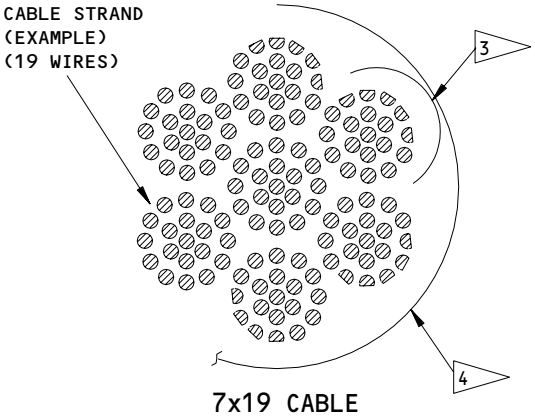
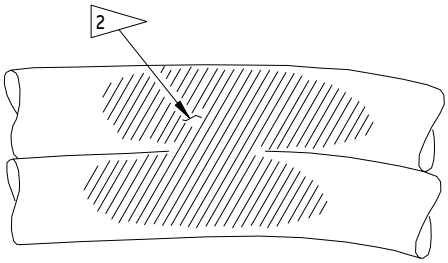


7x19 CABLE



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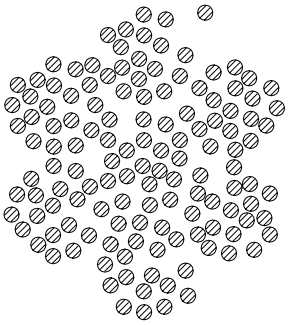
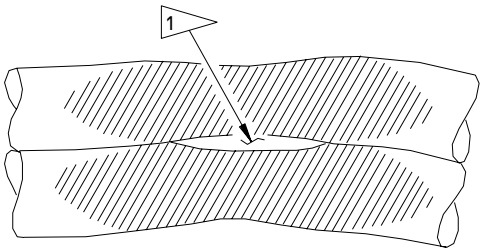


EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

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2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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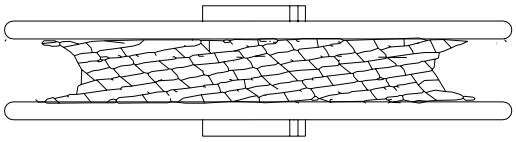
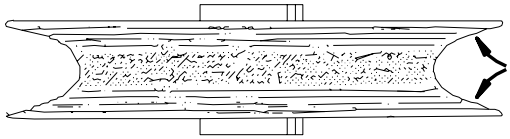
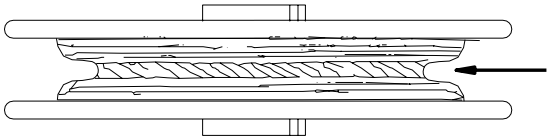


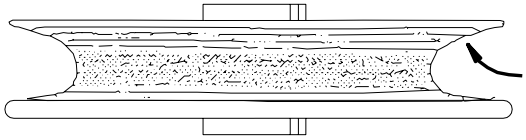
CABLE TENSION TOO HIGH



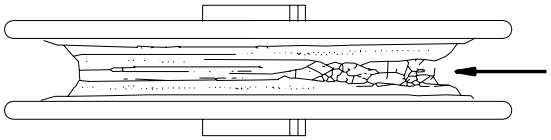
PULLEY NOT ALIGNED CORRECTLY



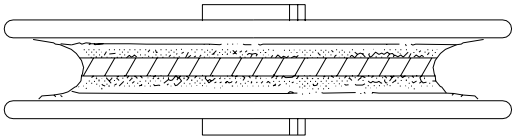
PULLEY GROOVE WITH
EXCESSIVE WEAR



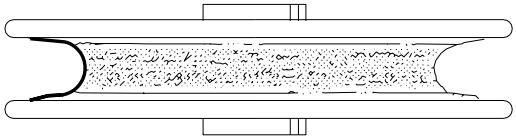
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-005-01
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	AFT CARGO		4C 1/10	14848	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		ALL	ALL

ZONES	ACCESS PANELS
153	1532 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6E

VISUALLY INSPECT STRAIGHT RUNS OF ELEVATOR CONTROL CABLES IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE RUN: LBL 82.

ACCESS NOTE: SPECIAL ACCESS 1532 REQUIRES REMOVAL OF THE AFT CARGO COMPT CEILING PANELS PER MM REF 25-52-01.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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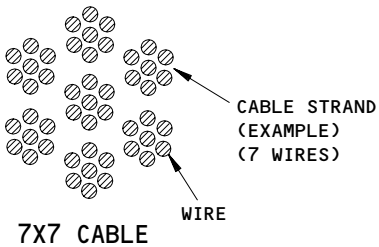
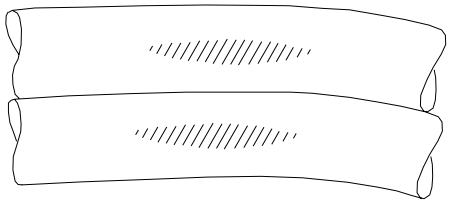
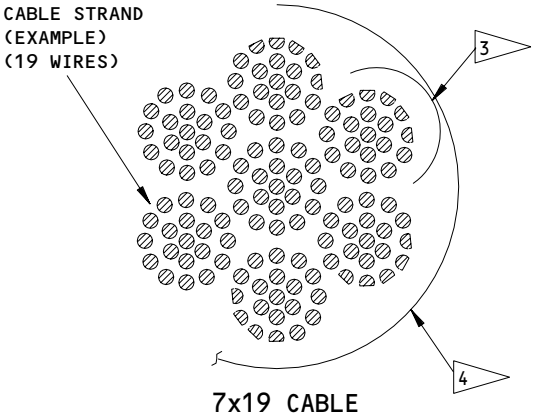


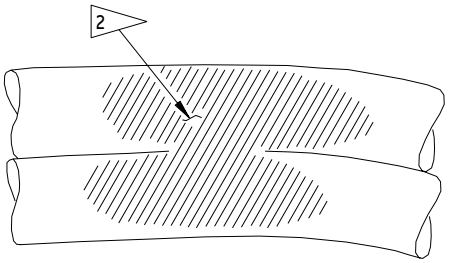
7X7 CABLE



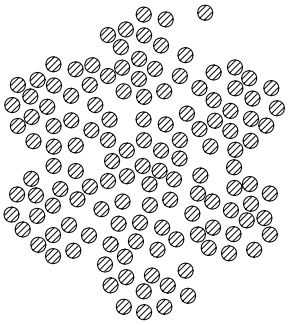
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



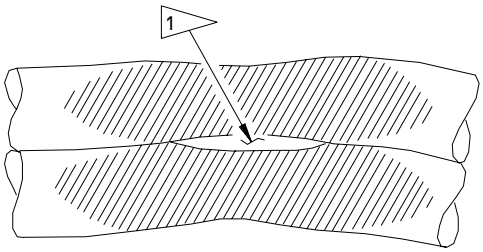
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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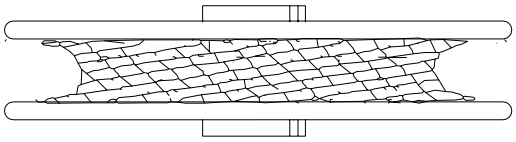
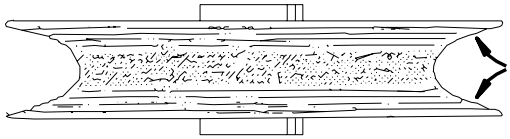
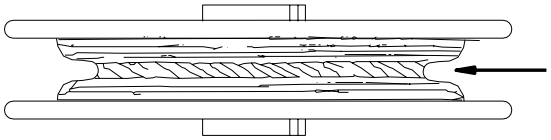


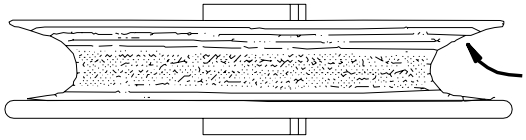
CABLE TENSION TOO HIGH



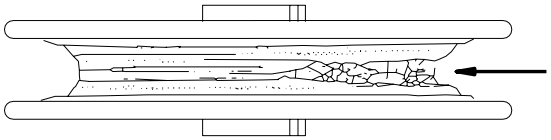
PULLEY NOT ALIGNED CORRECTLY



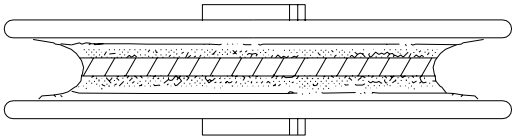
PULLEY GROOVE WITH
EXCESSIVE WEAR



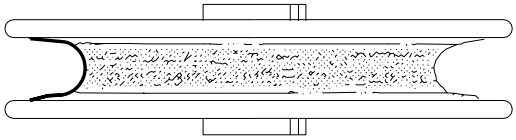
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-005-02
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	BULK CARGO		4C 1/10	14848	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		ALL	ALL

ZONES	ACCESS PANELS
161	1611 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6E

VISUALLY INSPECT STRAIGHT RUNS OF ELEVATOR CONTROL CABLES IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE RUN: LBL 82.

ACCESS NOTE: SPECIAL ACCESS 1611 REQUIRES REMOVAL OF THE BULK CARGO COMPT LEFT SIDE PANELS PER MM REF 25-52-01.

1. General

   A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

   B. The first task is an inspection of the control cable wire rope.

   C. The second task is an inspection of the control cable fittings.

   D. The third task is an inspection of the pulleys.

   E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

   A. Examine the wire rope.

      (1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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MECH | INSP

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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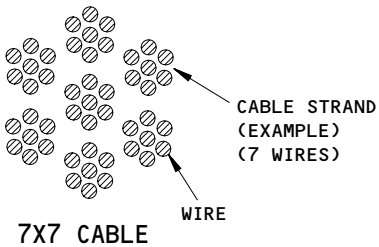
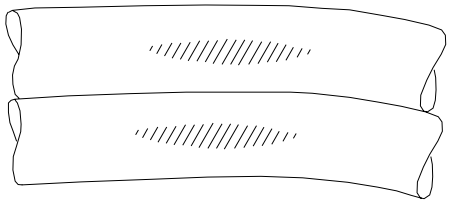
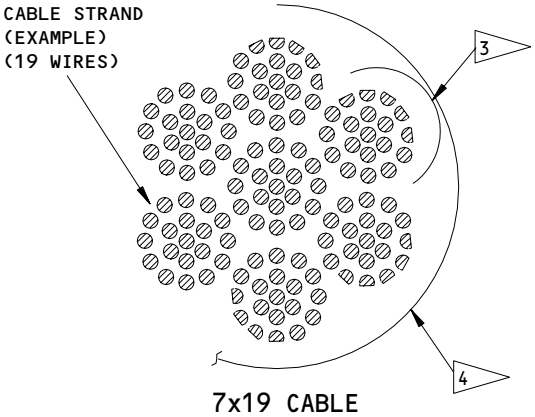


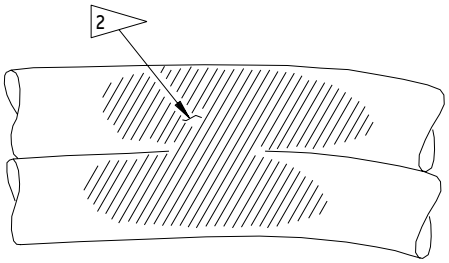
7X7 CABLE



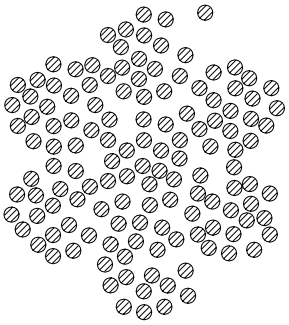
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



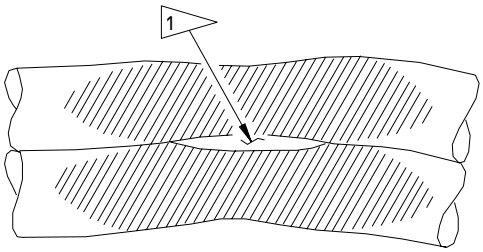
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

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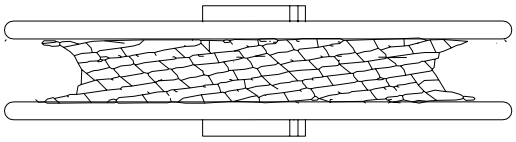
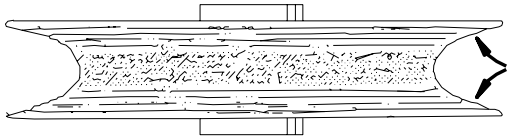
Cable Wear Patterns
Figure 601

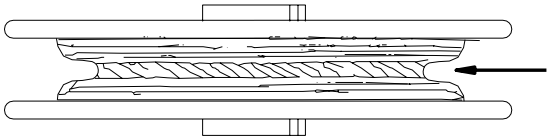
BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



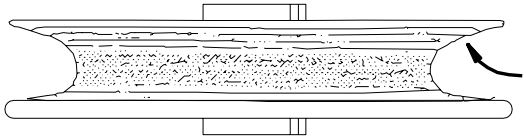
CABLE TENSION TOO HIGH



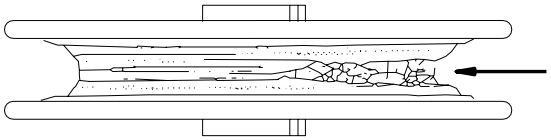
PULLEY NOT ALIGNED CORRECTLY



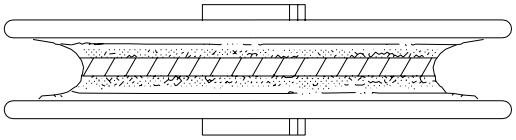
PULLEY GROOVE WITH
EXCESSIVE WEAR



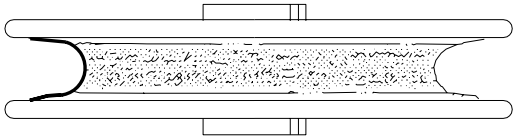
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	FUSELAGE		4C 1/10	14848	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		ALL	ALL

ZONES	ACCESS PANELS
165	1651

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6E

VISUALLY INSPECT STRAIGHT RUNS OF ELEVATOR CONTROL CABLES IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: SPECIAL ACCESS 1651 REQUIRES REMOVAL OF THE BULK CARGO COMPT AFT WALL PANELS.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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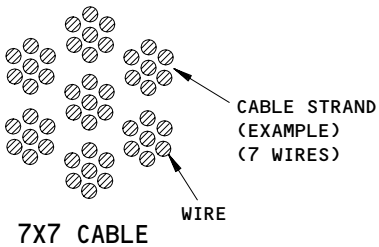
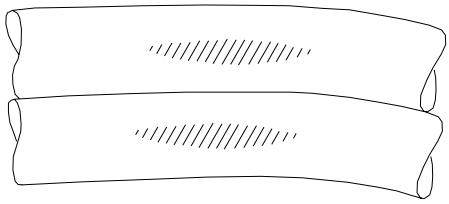
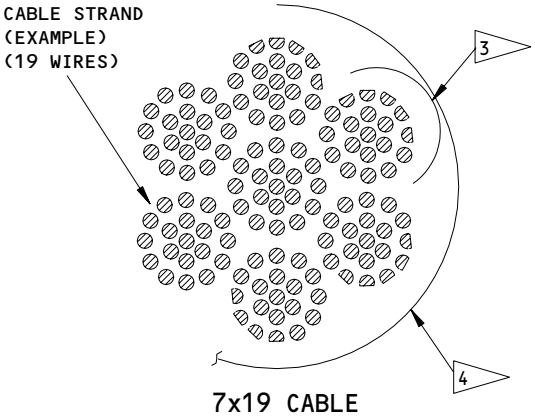


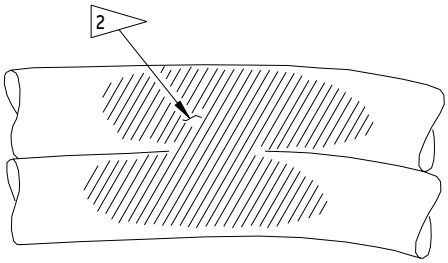
7X7 CABLE



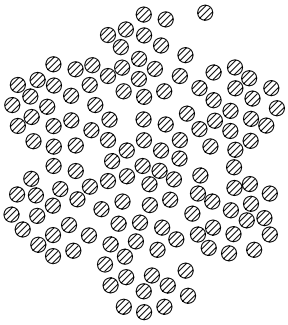
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



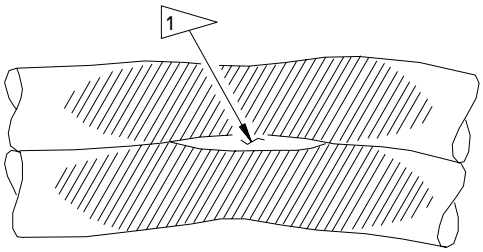
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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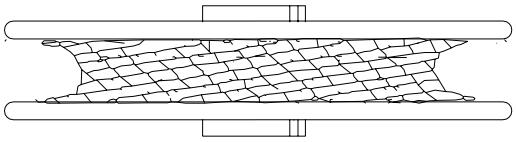
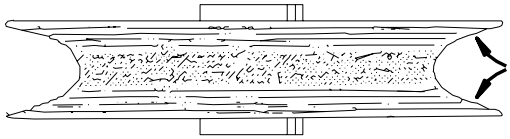
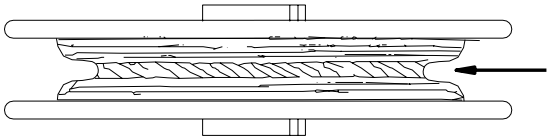


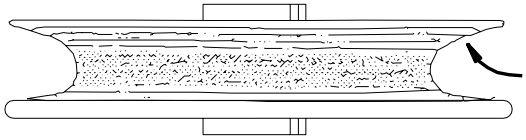
CABLE TENSION TOO HIGH



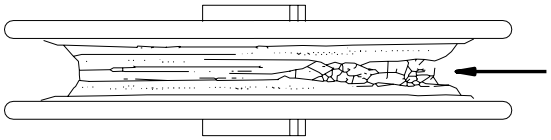
PULLEY NOT ALIGNED CORRECTLY



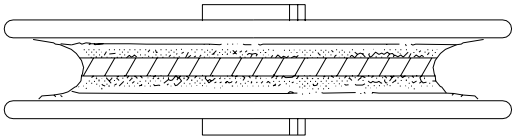
PULLEY GROOVE WITH
EXCESSIVE WEAR



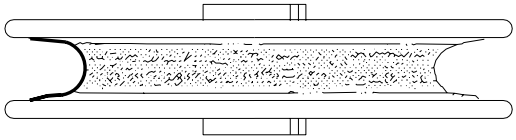
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-006-01
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	AFT CARGO		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - LWR FUSELAGE		ALL	ALL

ZONES	ACCESS PANELS
152	1511 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6F

VISUALLY INSPECT FLAP CONTROL CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE TURN: STA 1069 TO 1073, RBL 10 TO 73.

ACCESS NOTE: SPECIAL ACCESS 1511 REQUIRES REMOVAL OF THE AFT CARGO COMPT FWD WALL PANELS PER MM REF 25-52-01.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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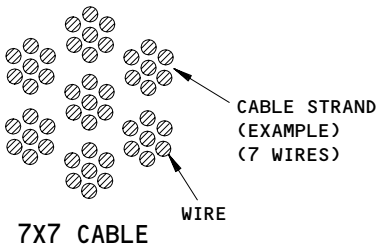
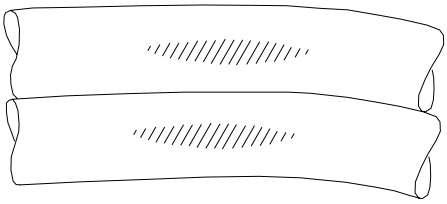
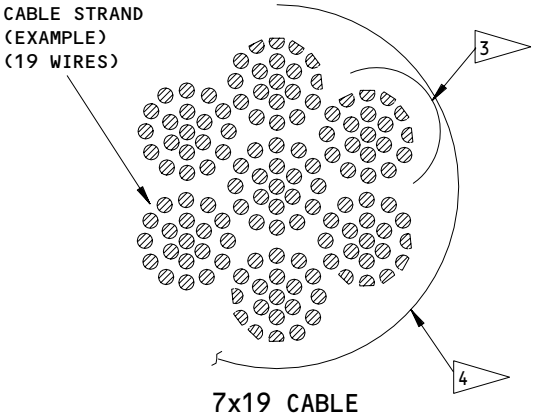


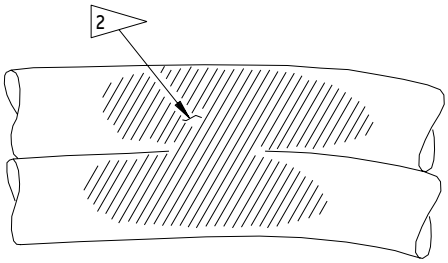
7X7 CABLE



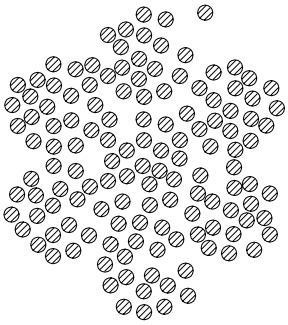
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



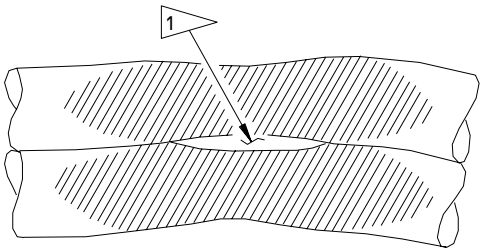
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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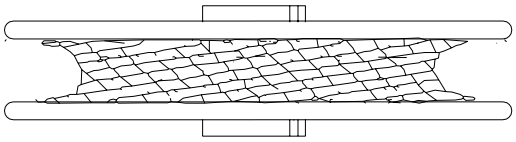
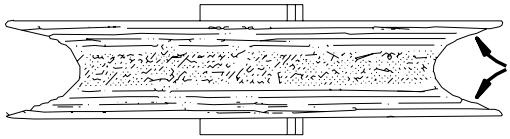
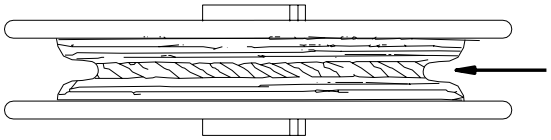


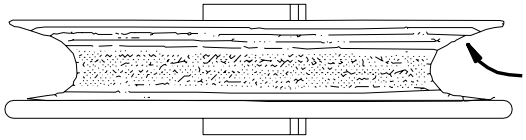
CABLE TENSION TOO HIGH



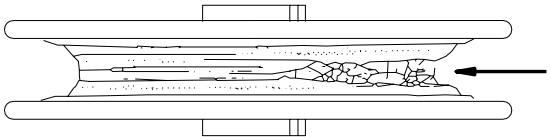
PULLEY NOT ALIGNED CORRECTLY



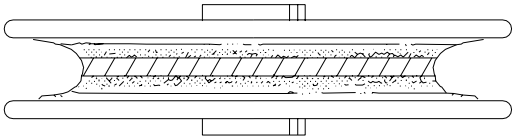
PULLEY GROOVE WITH
EXCESSIVE WEAR



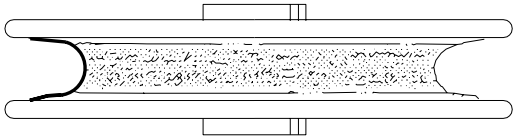
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-006-02
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	BULK CARGO		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - LWR FUSELAGE		ALL	ALL

ZONES	ACCESS PANELS
161	1611 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6F

VISUALLY INSPECT ELEVATOR CONTROL CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE TURN: STA 1508, LBL 82.

ACCESS NOTE: SPECIAL ACCESS 1611 REQUIRES REMOVAL OF THE BULK CARGO COMPT CEILING PANELS PER MM REF 25-52-01.

1. General

   A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

   B. The first task is an inspection of the control cable wire rope.

   C. The second task is an inspection of the control cable fittings.

   D. The third task is an inspection of the pulleys.

   E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

   A. Examine the wire rope.

      (1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH | INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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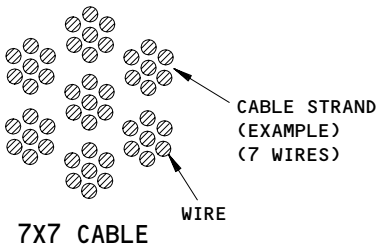
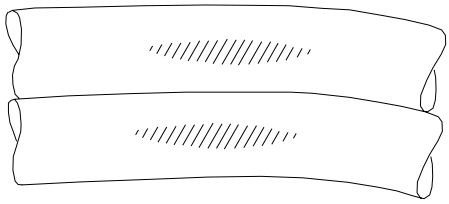
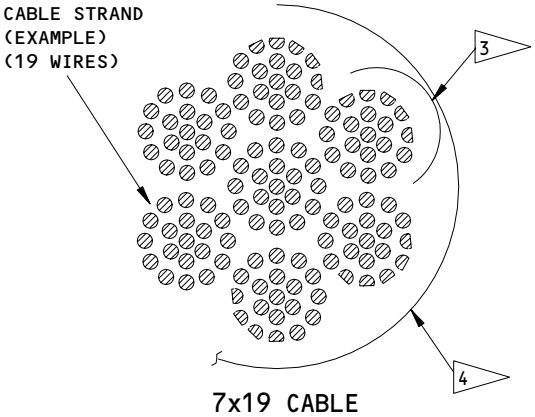


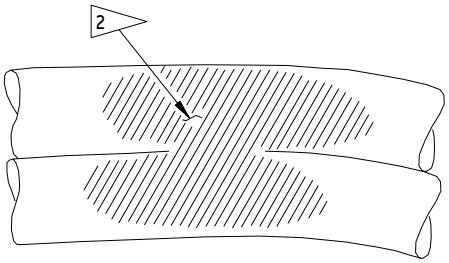
7X7 CABLE



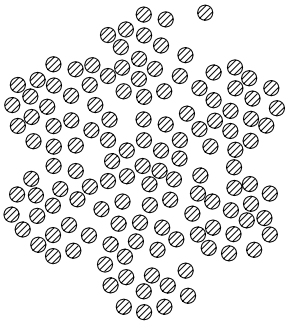
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



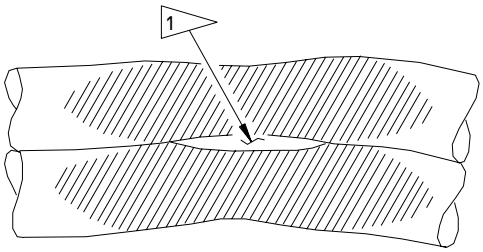
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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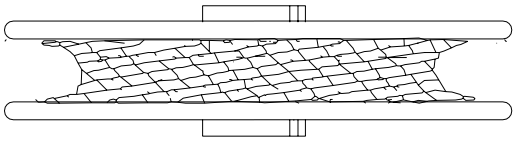
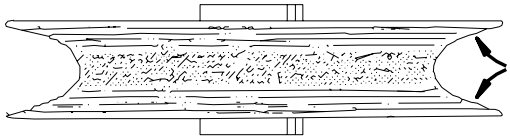
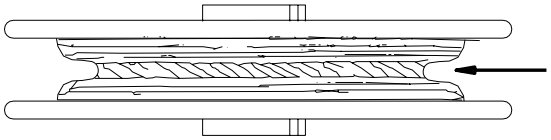


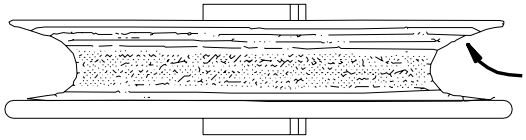
CABLE TENSION TOO HIGH



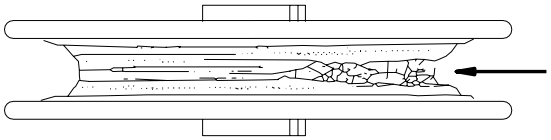
PULLEY NOT ALIGNED CORRECTLY



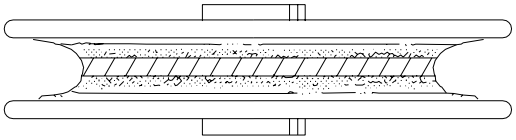
PULLEY GROOVE WITH
EXCESSIVE WEAR



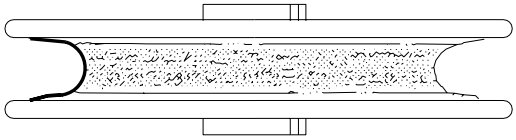
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-006-03
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	AFT COMPT		2C	12424	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - LWR FUSELAGE		ALL	ALL

ZONES	ACCESS PANELS
165	1651

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6F

VISUALLY INSPECT ELEVATOR CONTROL CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: SPECIAL ACCESS 1651 REQUIRES REMOVAL OF THE BULK CARGO COMPT AFT WALL PANELS.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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MECH	INSP

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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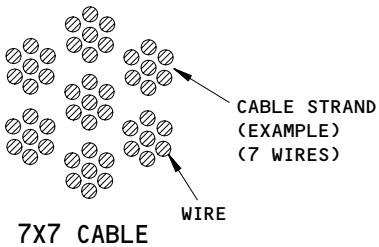
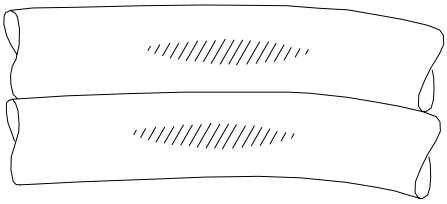
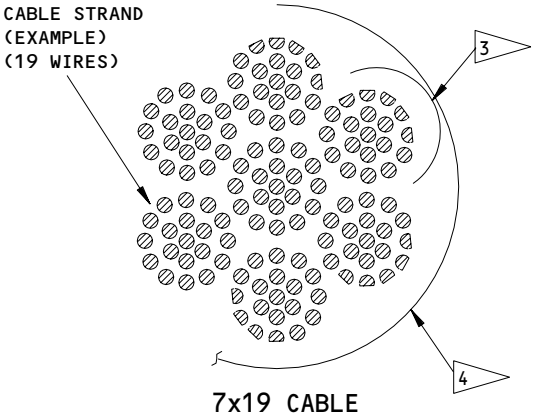


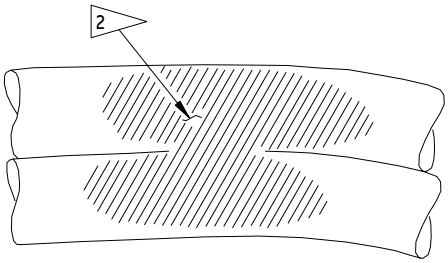
7X7 CABLE



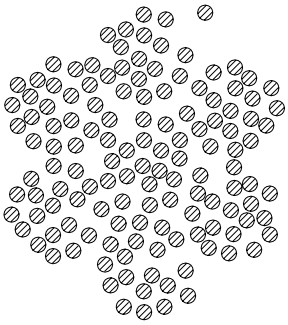
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



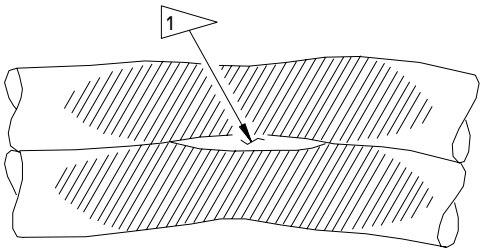
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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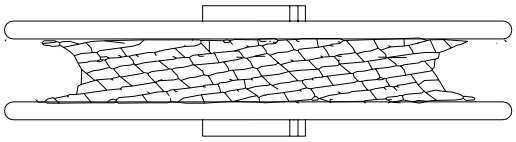
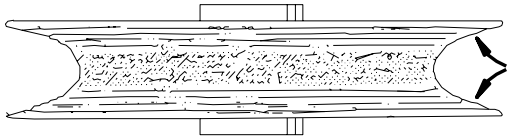
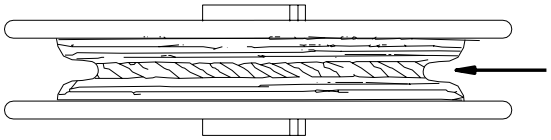


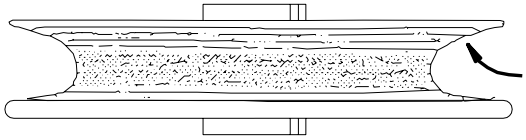
CABLE TENSION TOO HIGH



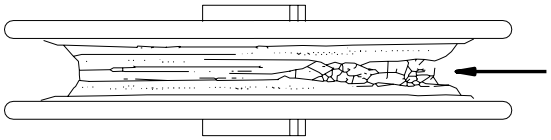
PULLEY NOT ALIGNED CORRECTLY



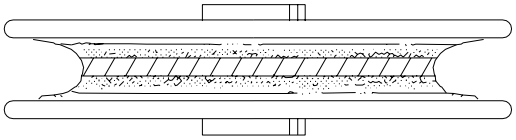
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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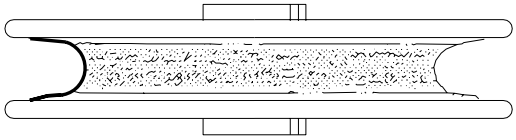

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		4C 1/10	14848	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		NOTE	ALL

ZONES	ACCESS PANELS
223 224	2231 2232 NOTE

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL CABLES (ELEVATOR, STABILIZER, RUDDER) IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR CORROSION, CRACKS AND SECURITY. 20-20-02-6G

ACCESS NOTE: CABLE RUNS: LBL 3 TO 9, RBL 4 TO 17.

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

ACCESS NOTE: SPECIAL ACCESS 2231 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS - STA 367 TO 455.
SPECIAL ACCESS 2232 REQUIRES REMOVAL OF THE FWD LOWERED CEILING PANEL NO. 1 - FWD OF STA 284.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

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MECH	INSP

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

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1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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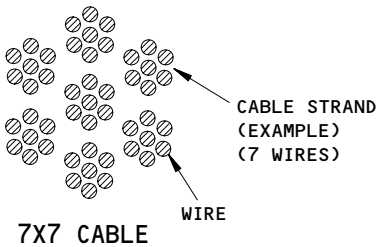
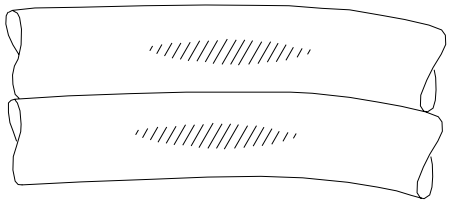
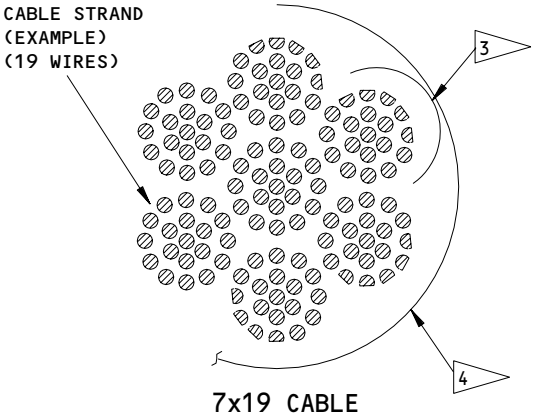


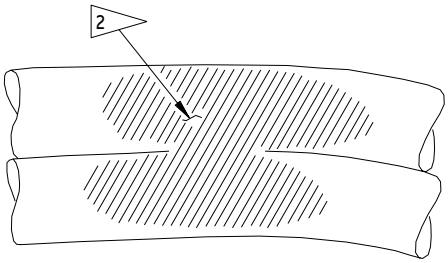
7X7 CABLE



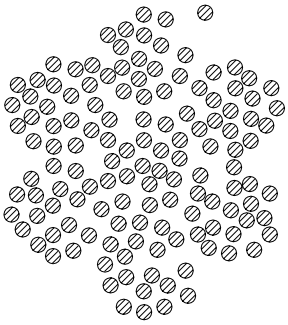
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



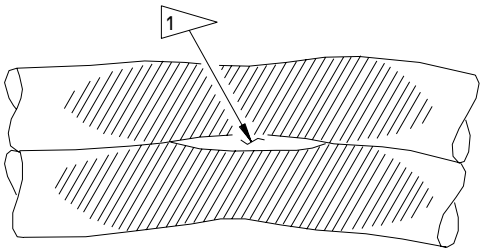
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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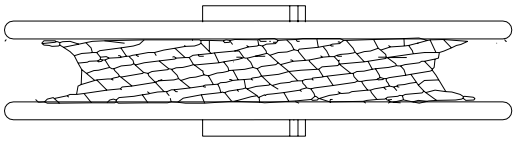
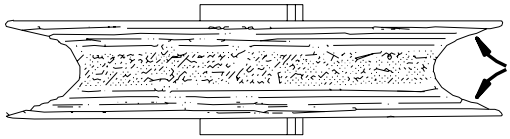
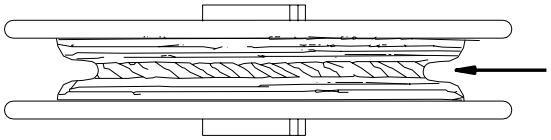


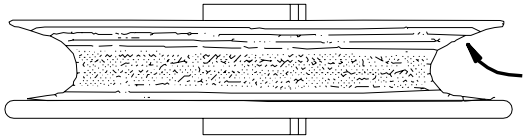
CABLE TENSION TOO HIGH



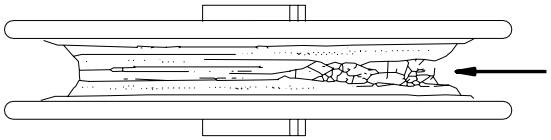
PULLEY NOT ALIGNED CORRECTLY



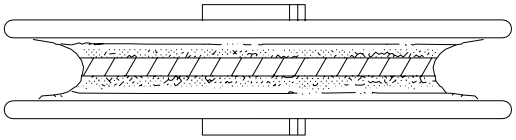
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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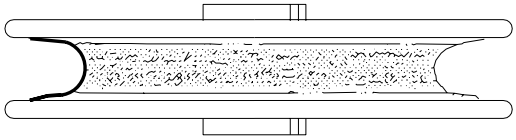

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		4C 1/10	14848	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		NOTE	ALL

ZONES	ACCESS PANELS
233 234	2331 NOTE

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL CABLES (ELEVATOR, STABILIZER, RUDDER) IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6G

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

ACCESS NOTE: CABLE RUNS: LBL 3 TO 39, RBL 3 TO 39.

ACCESS NOTE: SPECIAL ACCESS 2331 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS STA 434 TO 785.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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MECH | INSP

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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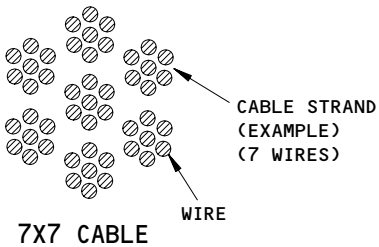
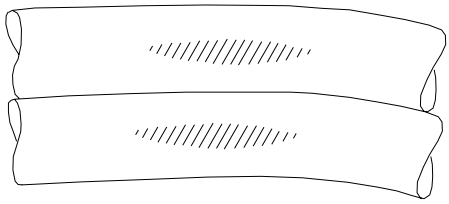
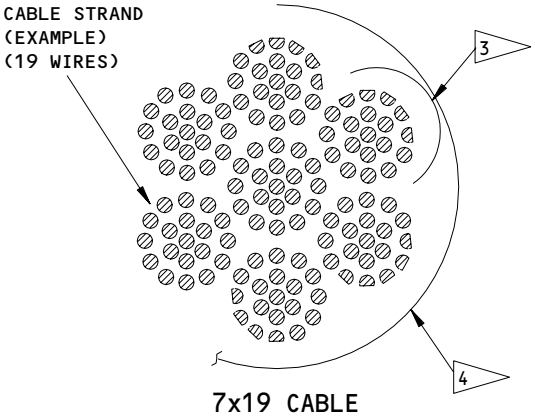


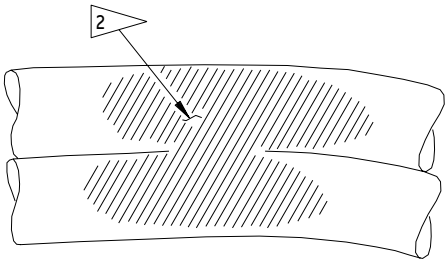
7X7 CABLE



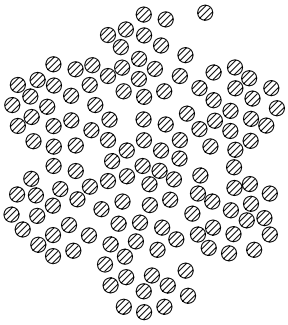
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



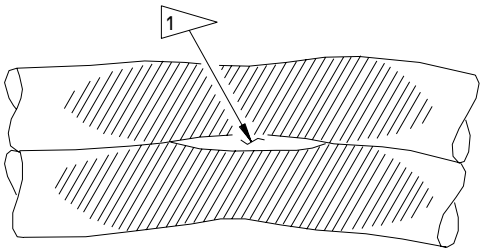
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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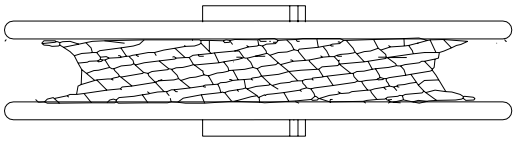
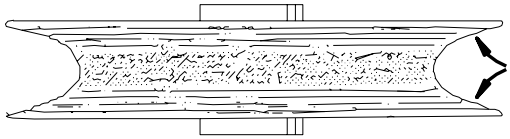
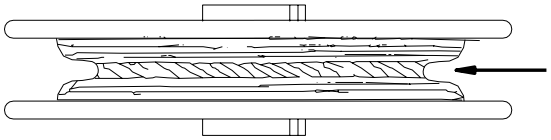


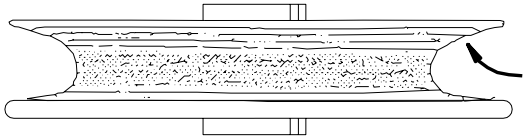
CABLE TENSION TOO HIGH



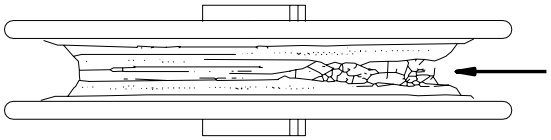
PULLEY NOT ALIGNED CORRECTLY



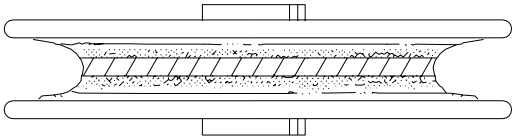
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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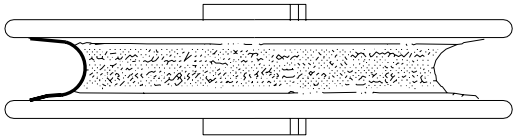

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		4C 1/10	14848	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		NOTE	ALL

ZONES	ACCESS PANELS
243 244	2431 NOTE

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL CABLES (ELEVATOR, STABILIZER, RUDDER) IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6G

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

ACCESS NOTE: CABLE RUNS: LBL 3 TO 39, RBL 3 TO 38.

ACCESS NOTE: SPECIAL ACCESS 2431 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS - STA 785 TO 1065.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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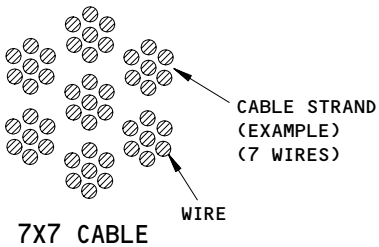
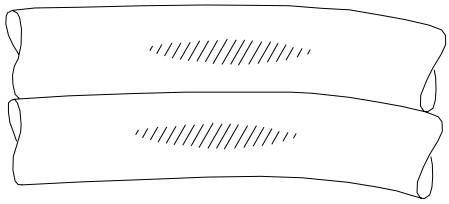
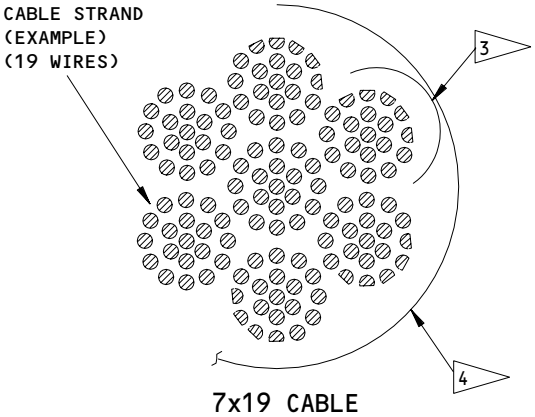


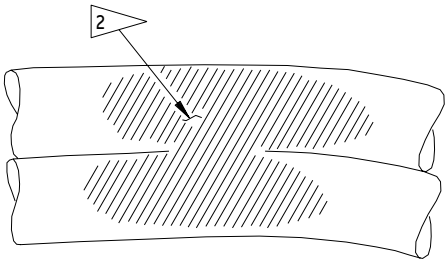
7X7 CABLE



EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



7x19 CABLE



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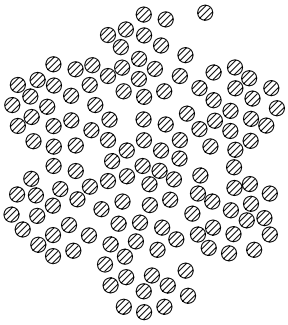
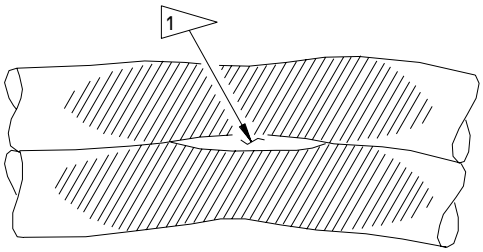


EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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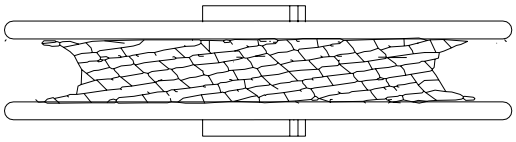
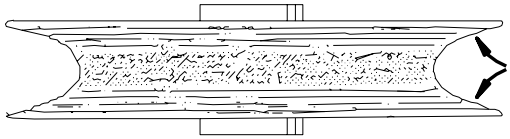
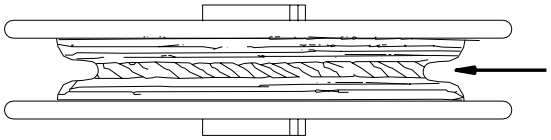


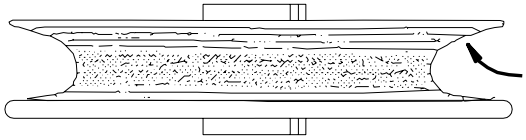
CABLE TENSION TOO HIGH



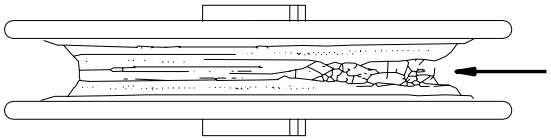
PULLEY NOT ALIGNED CORRECTLY



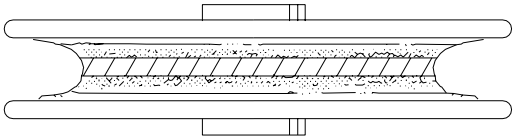
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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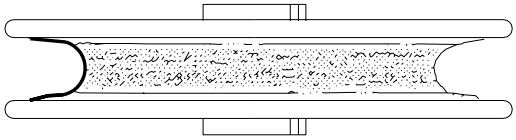

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-007-04
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		4C 1/10	14848	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	ENGINE
CHECK/INSP	CONTROL CABLES - STRAIGHT RUNS		NOTE	ALL

ZONES	ACCESS PANELS
253 254	2531 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6G

VISUALLY INSPECT STRAIGHT RUNS OF FLIGHT CONTROL CABLES (ELEVATOR, STABILIZER, RUDDER) IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

ACCESS NOTE: CABLE RUNS: LBL 3 TO 39, RBL 1 TO 39.

ACCESS NOTE: SPECIAL ACCESS 2531 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS - STA 1065 TO 1569.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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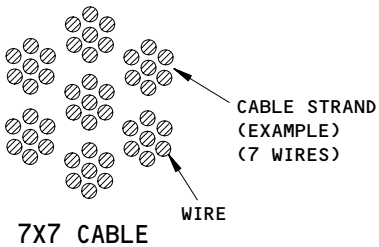
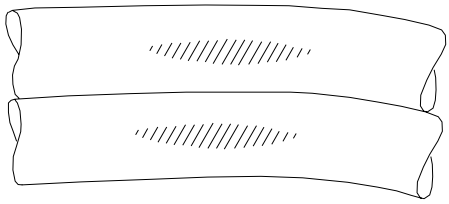
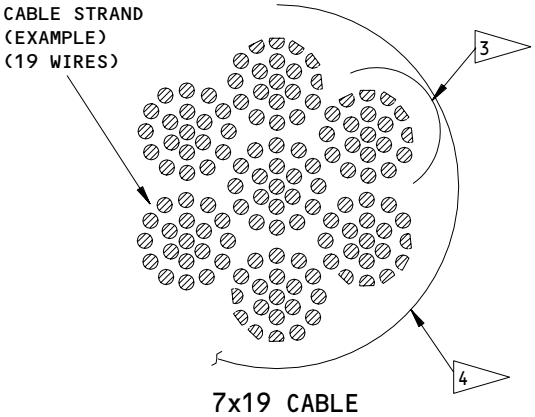


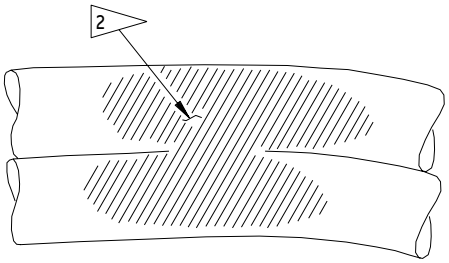
7X7 CABLE



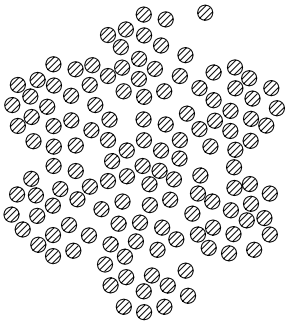
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



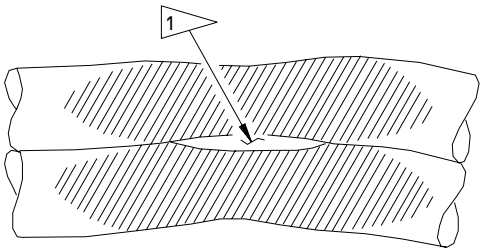
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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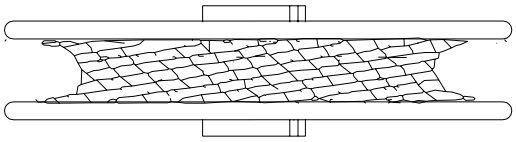
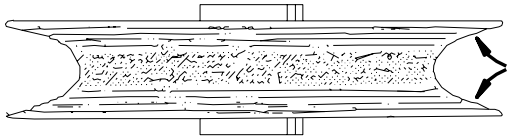
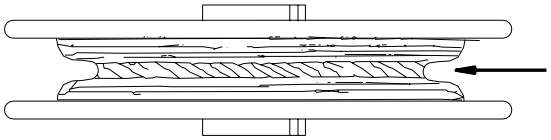


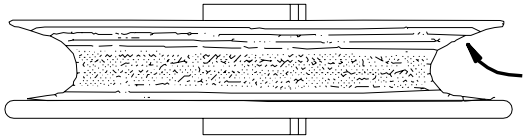
CABLE TENSION TOO HIGH



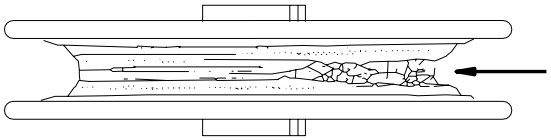
PULLEY NOT ALIGNED CORRECTLY



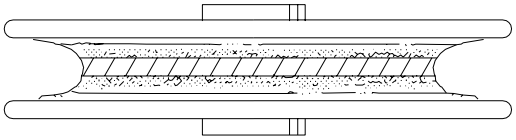
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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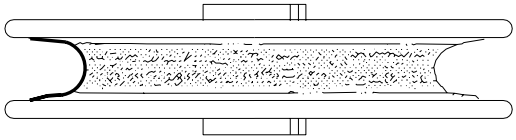

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-008-02
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		2C	12424	016	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - UPPER FUSELAGE		NOTE	ALL

ZONES	ACCESS PANELS
223 224	2231 2232 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6H

VISUALLY INSPECT FLIGHT CONTROL CABLE (RUDDER, STABILIZER, ELEVATOR) TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE TURNS: STA 268 AND 434, LBL 3 TO 9, RBL 3 TO 9. PROTECTIVE PULLEY COVERS MUST BE REMOVED FOR POSITIVE INSPECTION OF PULLEYS AND CABLE AT STA 268. CABLE SYSTEM MAY NEED TO BE CYCLED IN ORDER TO VIEW OBSCURED PORTIONS OF CABLE.

AIRPLANE NOTE: APPLICABLE TO AIRPLANES WITH FLIGHT DECK BULKHEAD AT STA. 265 (PRIOR TO LINE NO. 289).

NOTE: AIRPLANES PRODUCTION LINE NO. 265 AND 276 TO 288 HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CONTROL CABLES.

ACCESS NOTE: SPECIAL ACCESS 2231 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS - STA 367 TO 455.
SPECIAL ACCESS 2232 REQUIRES REMOVAL OF THE FWD LOWERED CEILING PANEL NO. 1 - FWD OF STA 284.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

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MECH	INSP

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

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2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

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MECH	INSP

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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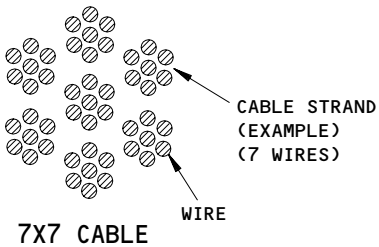
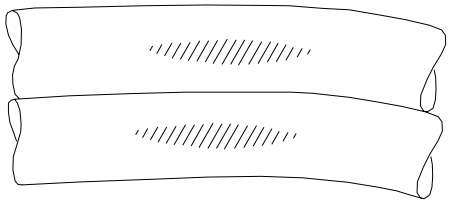
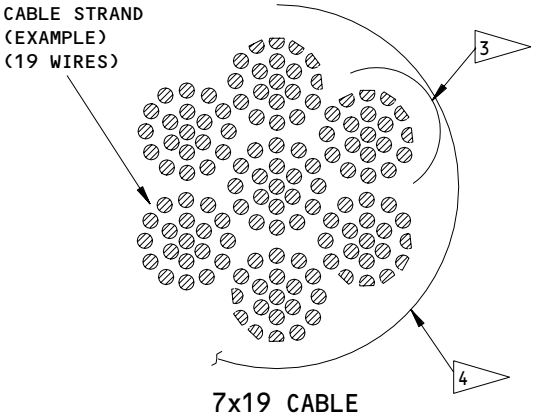


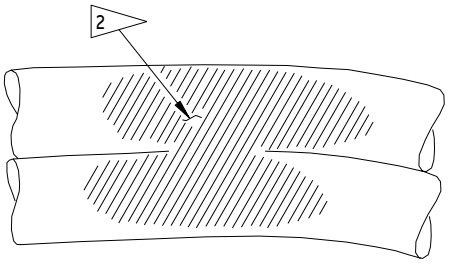
7X7 CABLE



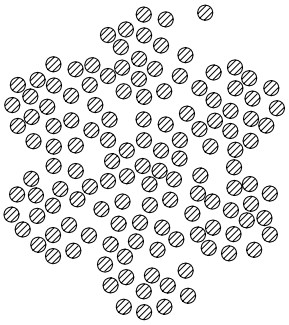
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



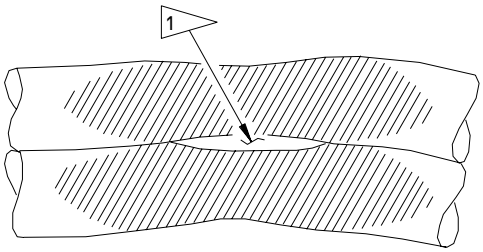
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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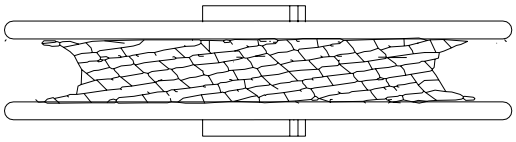
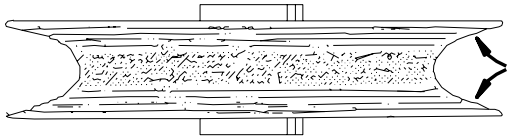
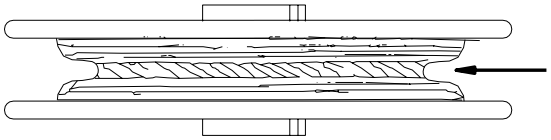


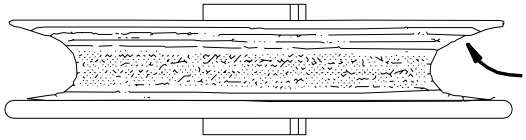
CABLE TENSION TOO HIGH



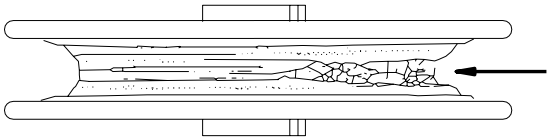
PULLEY NOT ALIGNED CORRECTLY



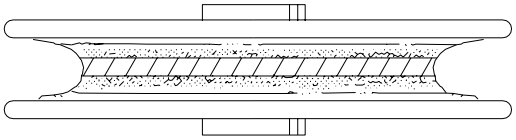
PULLEY GROOVE WITH
EXCESSIVE WEAR



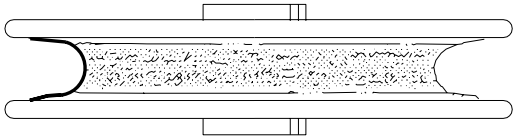
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-008-03
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - UPPER FUSELAGE		NOTE	ALL

ZONES	ACCESS PANELS
233 234	2331 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6H

VISUALLY INSPECT STABILIZER CONTROL CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE TURNS: STA 606 TO 650, LBL 7 TO 39, RBL 7 TO 39.

AIRPLANE NOTE: APPLICABLE TO AIRPLANES WITH STABILIZER TRIM CONTROL CABLES, PRODUCTION LINE NUMBER 1 THROUGH 264 AND 266 THROUGH 275.

ACCESS NOTE: SPECIAL ACCESS 2331 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS STA 434 TO 785.

1. General

   A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

   B. The first task is an inspection of the control cable wire rope.

   C. The second task is an inspection of the control cable fittings.

   D. The third task is an inspection of the pulleys.

   E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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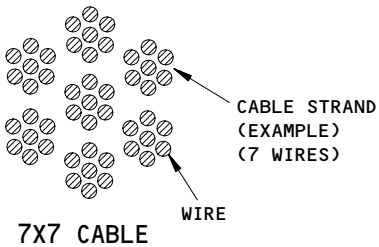
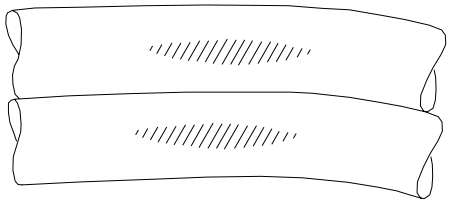
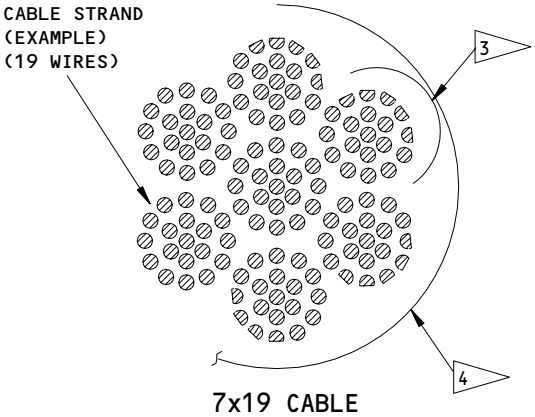


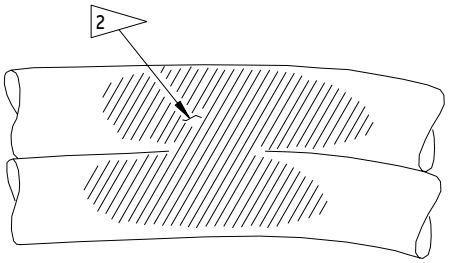
7X7 CABLE



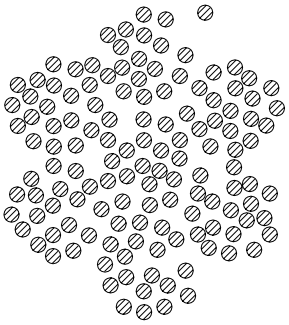
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



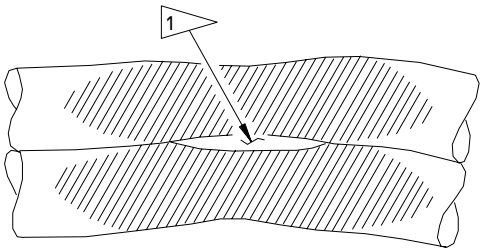
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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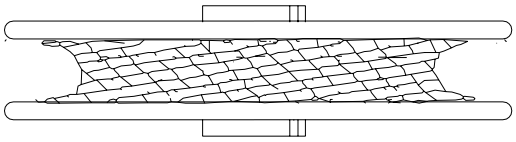
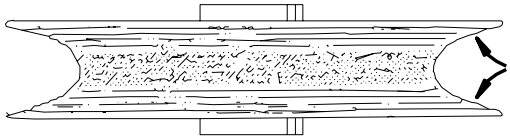
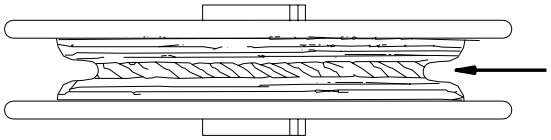


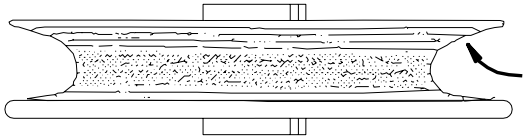
CABLE TENSION TOO HIGH



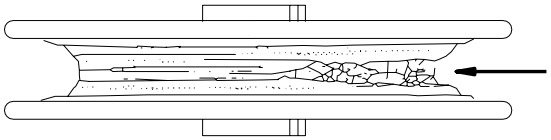
PULLEY NOT ALIGNED CORRECTLY



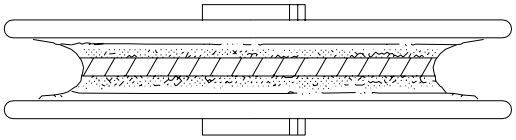
PULLEY GROOVE WITH
EXCESSIVE WEAR



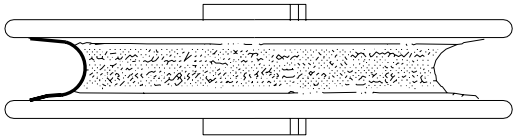
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-008-04
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - UPPER FUSELAGE		NOTE	ALL

ZONES	ACCESS PANELS
243 244	2431 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6H

VISUALLY INSPECT STABILIZER CONTROL CABLE TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

ACCESS NOTE: CABLE TURNS: STA 852, LBL 37 TO 40 AND RBL 37 TO 40.

AIRPLANE NOTE: APPLICABLE TO AIRPLANES WITH STABILIZER TRIM CONTROL CABLES, PRODUCTION LINE NUMBER 1 THROUGH 264 AND 266 THROUGH 275.

ACCESS NOTE: SPECIAL ACCESS 2431 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS - STA 785 TO 1065.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

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MECH	INSP

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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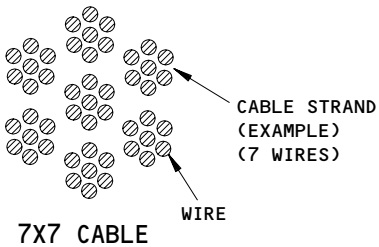
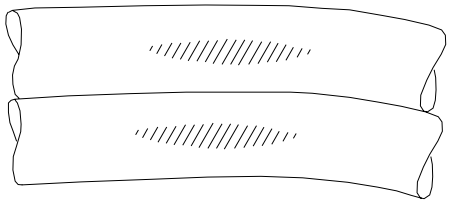
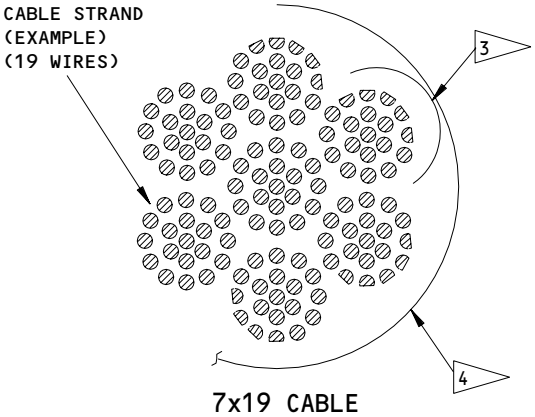


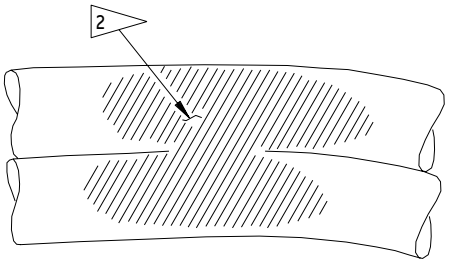
7X7 CABLE



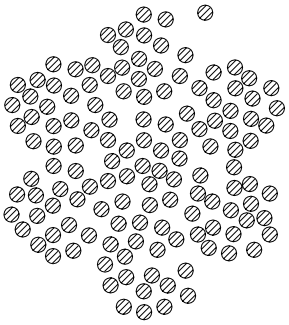
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



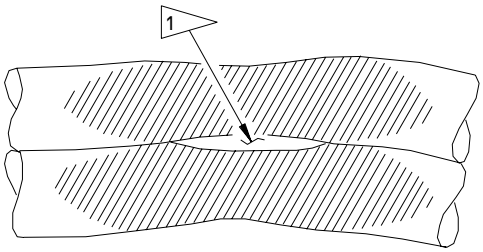
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

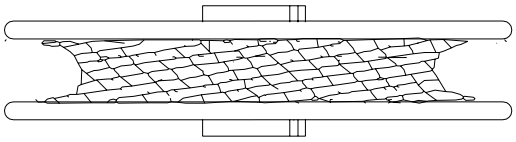
2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

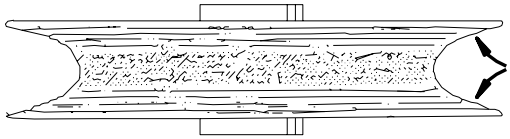
4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

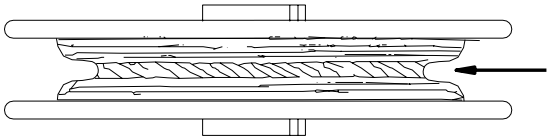
BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



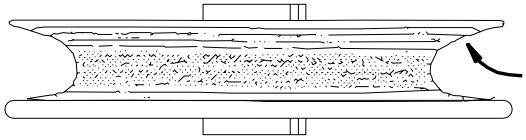
CABLE TENSION TOO HIGH



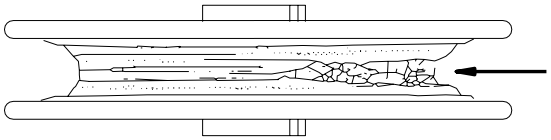
PULLEY NOT ALIGNED CORRECTLY



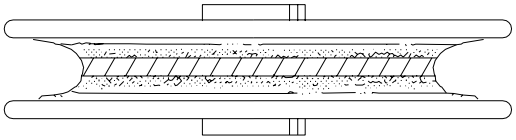
PULLEY GROOVE WITH
EXCESSIVE WEAR



CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



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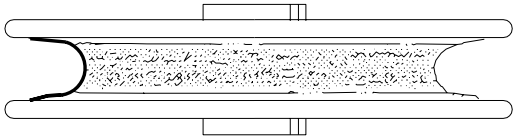

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-008-05
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		2C	12424	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - UPPER FUSELAGE		NOTE	ALL

ZONES	ACCESS PANELS
253 254	2531 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6H

VISUALLY INSPECT FLIGHT CONTROL CABLE TURNS (RUDDER, STABILIZER, ELEVATOR) IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

ACCESS NOTE: CABLE TURNS: STA 1240 TO 1403, LBL 3 TO 40 AND RBL 3 TO 40.

ACCESS NOTE: SPECIAL ACCESS 2531 REQUIRES REMOVAL OF THE SCULPTURED CEILING PANELS - STA 1065 TO 1569.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

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MECH	INSP

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

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2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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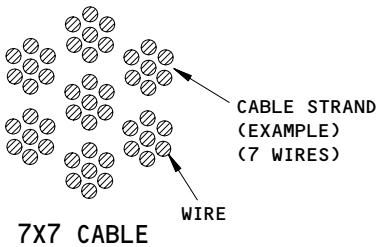
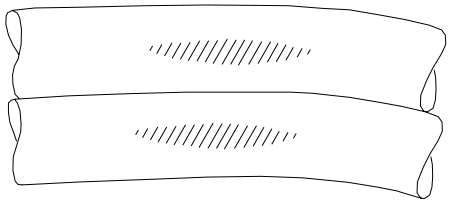
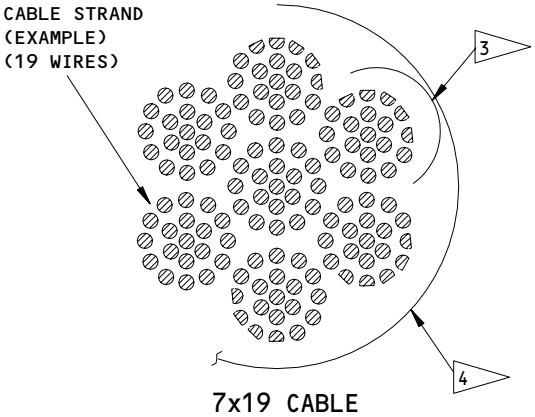


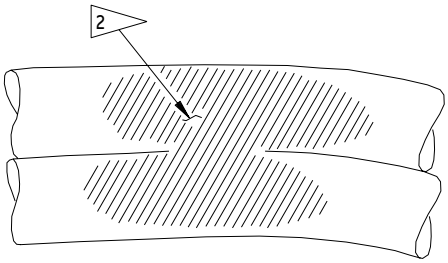
7X7 CABLE



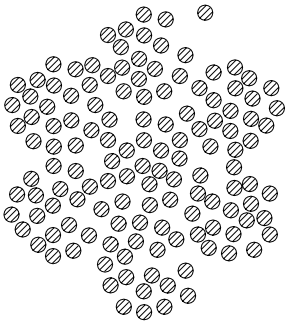
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



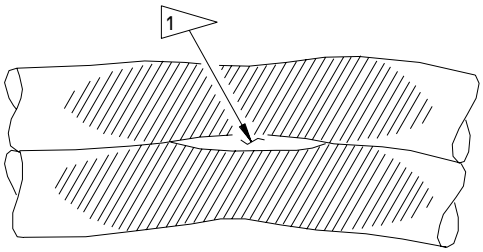
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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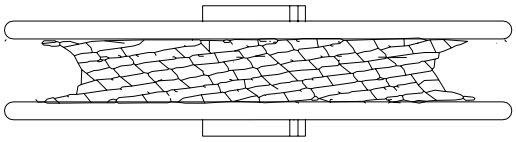
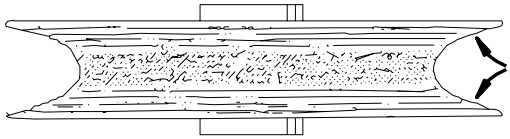
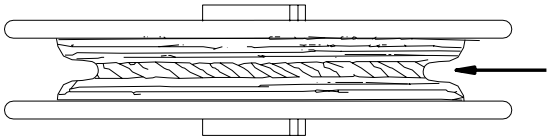


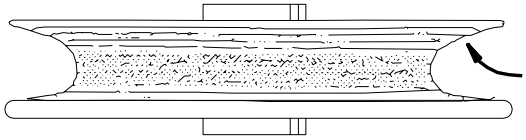
CABLE TENSION TOO HIGH



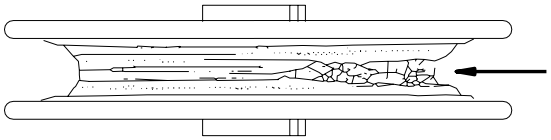
PULLEY NOT ALIGNED CORRECTLY



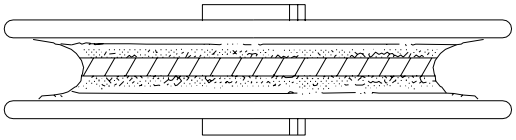
PULLEY GROOVE WITH
EXCESSIVE WEAR



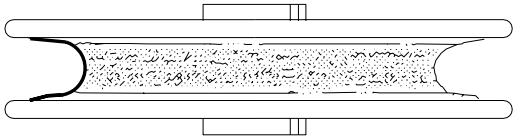
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-008-26
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	PASS CABIN		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLE TURNS - UPPER FUSELAGE		NOTE	ALL

ZONES	ACCESS PANELS
221 222 223 224	2116 2233 NOTE

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6H

VISUALLY INSPECT FLIGHT CONTROL CABLE (RUDDER ELEVATOR) TURNS IN FUSELAGE FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURN BUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

NOTE: CABLE SYSTEM MAY NEED TO BE CYCLED IN ORDER TO VIEW OBSCURED PORTIONS OF CABLE.

ACCESS NOTE: CABLE TURNS: STA 242 AND 434, LBL 5 TO 3, RBL 7 TO 10.

AIRPLANE NOTE: AIRPLANES WITH FLIGHT DECK BULKHEAD AT STA 239 (LINE NO. 289 AND ON).

ACCESS NOTE: SPECIAL ACCESS 2116 REQUIRES REMOVAL OF THE FLIGHT DECK BULKHEAD FWD PANEL - CABLE ACCESS PANELS (LINE NO. 289 AND ON). SPECIAL ACCESS 2233 REMOVAL OF THE CEILING PANEL CREW REST AREA, STA 258 LBL 16 TO RBL 19.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

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MECH	INSP

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

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1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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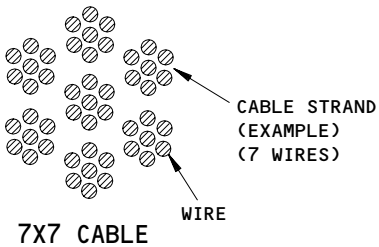
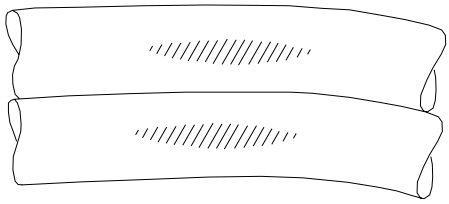
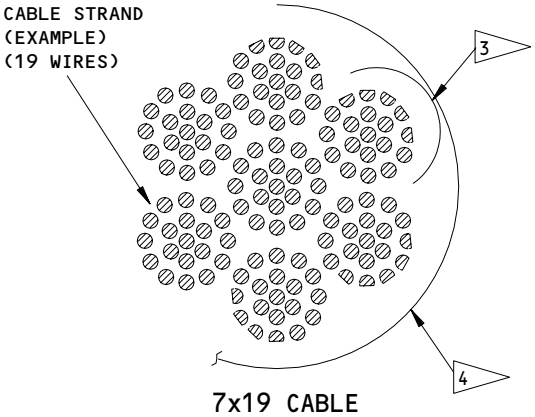


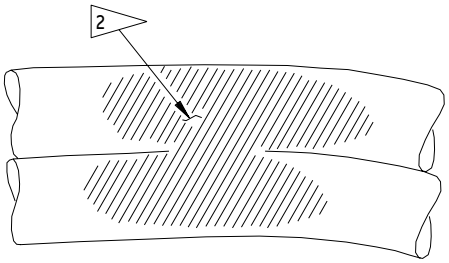
7X7 CABLE



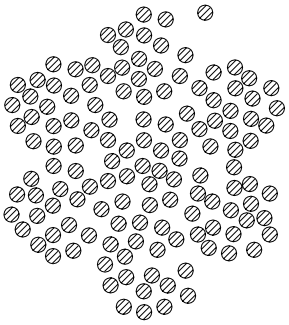
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



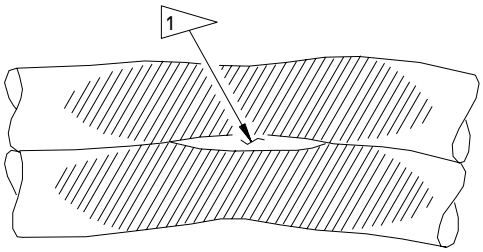
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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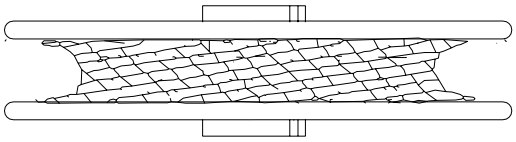
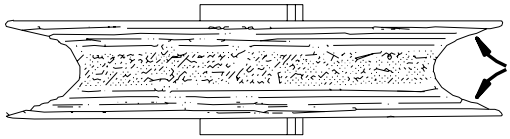
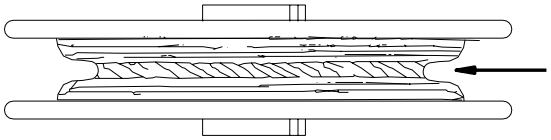


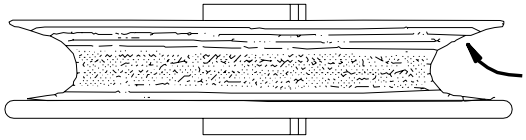
CABLE TENSION TOO HIGH



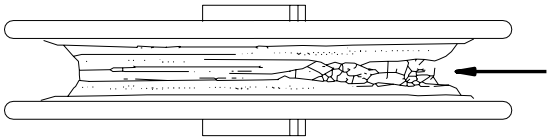
PULLEY NOT ALIGNED CORRECTLY



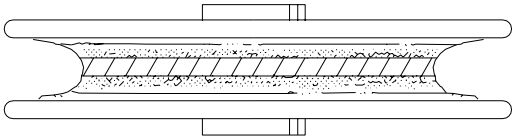
PULLEY GROOVE WITH
EXCESSIVE WEAR



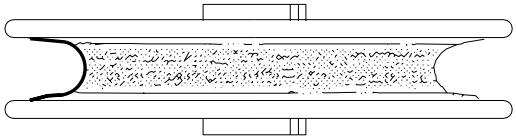
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-009-01
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	STAB COMPT		2C	12424	018	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - PROTECTED		NOTE	ALL

ZONES	ACCESS PANELS
311 312	312AR

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6I

VISUALLY INSPECT PROTECTED FLIGHT CONTROL CABLES (ELEVATOR, RUDDER, STABILIZER) FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

AIRPLANE NOTE: AIRPLANE PRODUCTION LINE NO. 265 AND 276 AND ON HAVE ELECTRICAL STABILIZER TRIM ALTERNATE CONTROL IN LIEU OF STABILIZER TRIM CABLES.

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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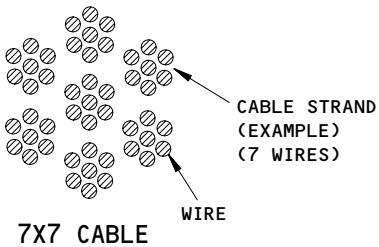
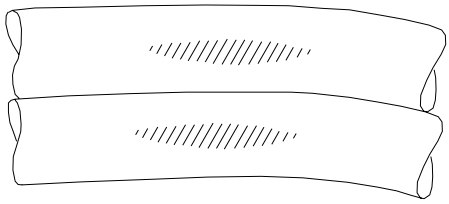
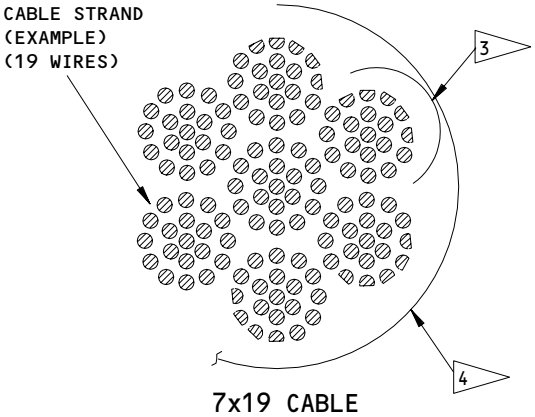


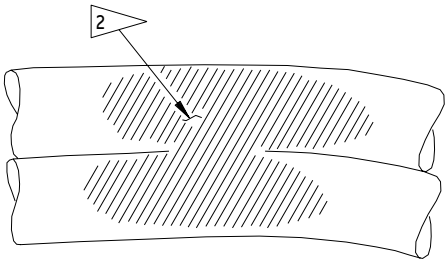
7X7 CABLE



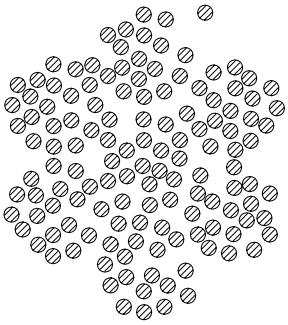
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



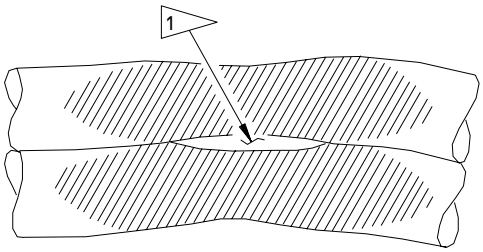
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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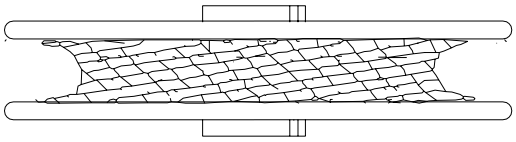
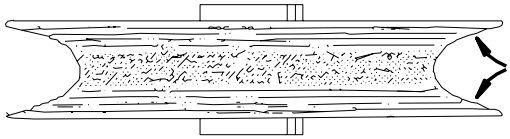
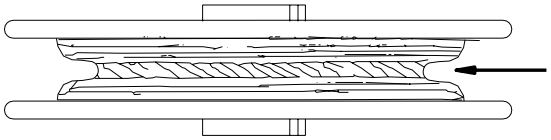


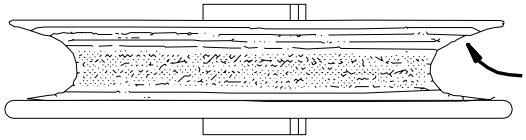
CABLE TENSION TOO HIGH



PULLEY NOT ALIGNED CORRECTLY



PULLEY GROOVE WITH
EXCESSIVE WEAR



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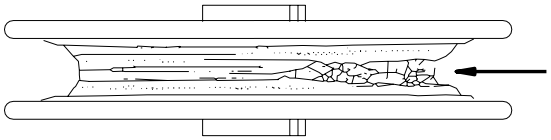
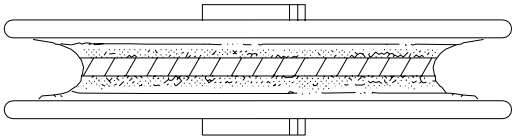


PULLEY WILL NOT TURN



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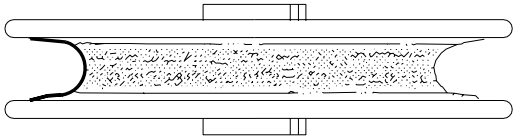

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-009-02
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	STABLIZR BX		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - PROTECTED		ALL	ALL

ZONES	ACCESS PANELS
313 314	313AL

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6I

VISUALLY INSPECT PROTECTED FLIGHT CONTROL CABLES (ELEVATOR, RUDDER) FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

1. General

   A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

   B. The first task is an inspection of the control cable wire rope.

   C. The second task is an inspection of the control cable fittings.

   D. The third task is an inspection of the pulleys.

   E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

   A. Examine the wire rope.

      (1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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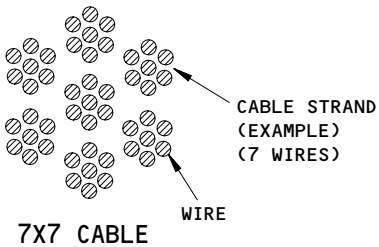
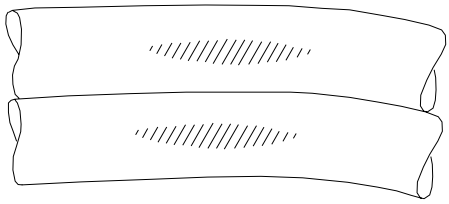
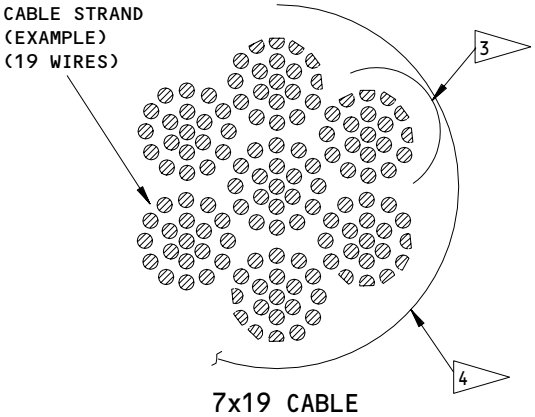


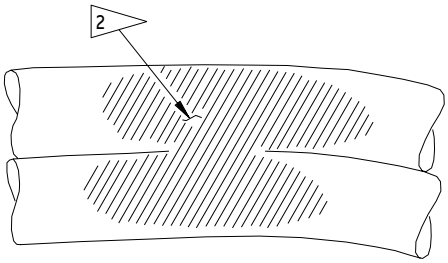
7X7 CABLE



EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



7x19 CABLE



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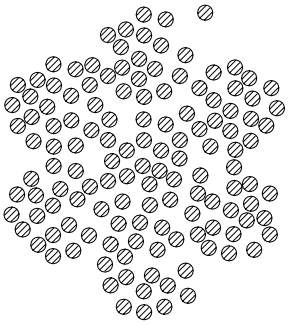
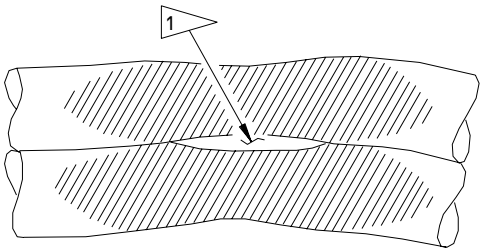


EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

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Cable Wear Patterns
Figure 601

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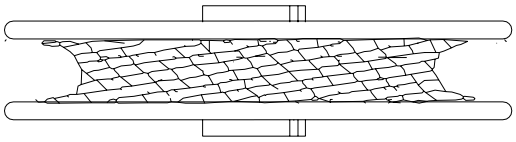
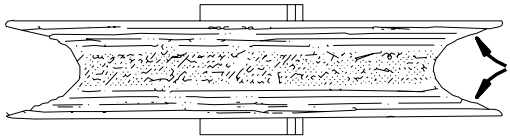
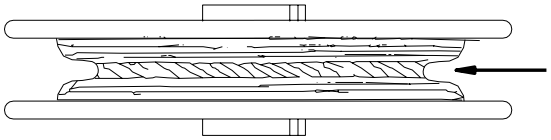


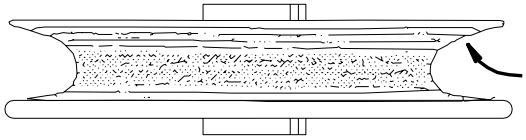
CABLE TENSION TOO HIGH



PULLEY NOT ALIGNED CORRECTLY



PULLEY GROOVE WITH
EXCESSIVE WEAR



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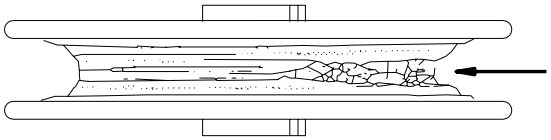
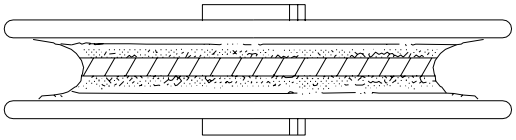


PULLEY WILL NOT TURN



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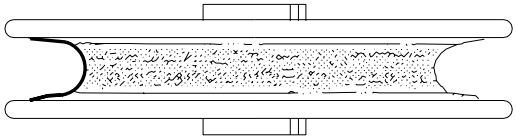

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	V STABLIZER		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - PROTECTED		ALL	ALL

ZONES	ACCESS PANELS
323	311AZ 312AR

MECH | INSP | MPD ITEM NUMBER

VISUALLY INSPECT PROTECTED RUDDER CONTROL CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY. 20-20-02-6I

1. General

A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

B. The first task is an inspection of the control cable wire rope.

C. The second task is an inspection of the control cable fittings.

D. The third task is an inspection of the pulleys.

E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

A. Examine the wire rope.

(1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

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(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

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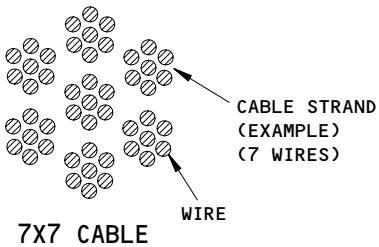

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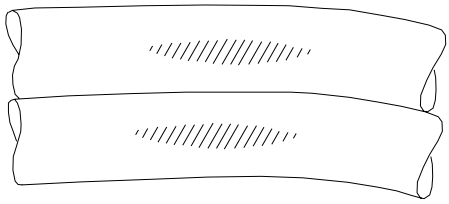

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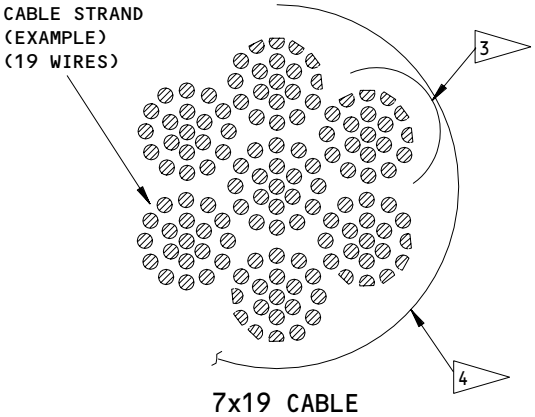

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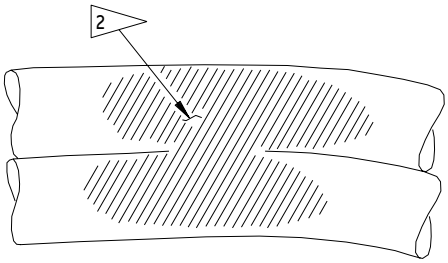

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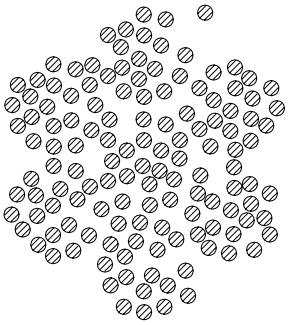

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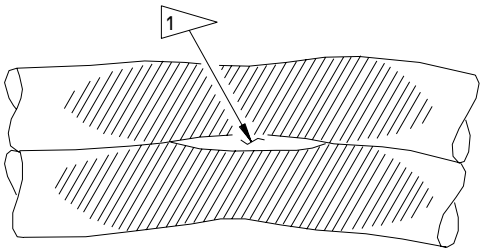

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Cable Wear Patterns
Figure 601

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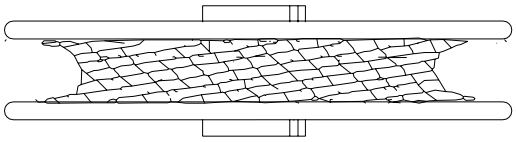
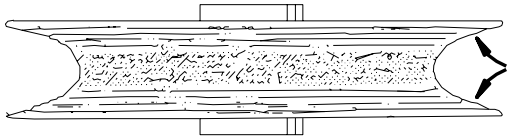
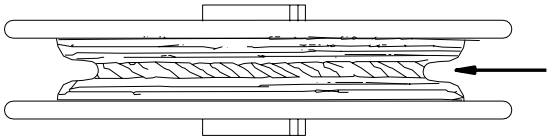


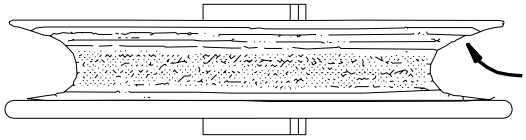
CABLE TENSION TOO HIGH



PULLEY NOT ALIGNED CORRECTLY



PULLEY GROOVE WITH
EXCESSIVE WEAR



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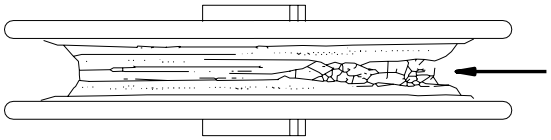
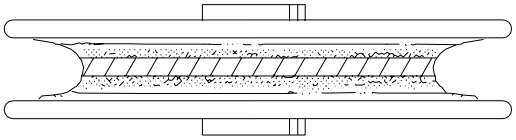


PULLEY WILL NOT TURN



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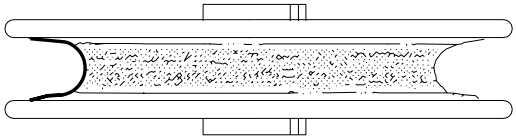

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-009-04
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	V STABLIZER		2C	12424	012	AUG 22/05

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - PROTECTED		ALL	ALL

ZONES	ACCESS PANELS
324	324BL

MECH	INSP	MPD ITEM NUMBER
		20-20-02-6I

VISUALLY INSPECT PROTECTED RUDDER CONTROL CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.

1. General

   A. Use these procedures to verify the integrity of the control cable system. The procedures must be performed along the entire cable run in each system. To ensure verification of the portions of the cables that are in contact with pulleys and quadrants, the control cables must be moved by operation of the applicable system's controls, to expose those portions of the cables.

   B. The first task is an inspection of the control cable wire rope.

   C. The second task is an inspection of the control cable fittings.

   D. The third task is an inspection of the pulleys.

   E. These three tasks may be performed concurrently at one location of the cable system on the airplane if desired for convenience.

2. Inspection of the control cable wire rope.

   A. Examine the wire rope.

      (1) Clean the cables (as necessary) for the inspection (AMM 12-21-31/301).

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MECH	INSP

(2) Perform a detailed visual inspection to make sure that the cable does not contact parts other than pulleys, quadrants, cable seals or grommets installed to control the cable routing. The minimum cable clearance from power feeder cables is 1.0 inch. The minimum cable clearance from other parts is 0.20 inches except 0.10 inches within 10 inches of a pulley or quadrant. Look for evidence of contact with other parts. Correct the condition if inadequate clearance or evidence of contact is found.

(3) Perform a detailed visual inspection of the cable runs for incorrect routing, kinks in the wire rope, or other damage.

(a) Replace the cable assembly if:

1) The individual wires in each strand appear to blend together (outer wires worn 40 percent or more) (Refer to Fig. 601).

2) If a kink is found.

3) If corrosion is found.

(4) Perform a detailed visual inspection of the cable. To do a check for broken wires, rub a cloth along the cable. The cloth will identify broken wires by catching on them.

(a) Replace the 7 x 7 cable assembly if:

1) There is two or more broken wires in 12 continuous inches of cable.

2) There is three or more broken wires anywhere in the total cable assembly.

(b) Replace the 7 X 19 cable assembly if:

1) There is four or more broken wires in 12 continuous inches of cable.

2) There is six or more broken wires anywhere in the total cable assembly.

(5) Inspect the carbon steel control cable lubrication.

(a) Make sure there is sufficient lubrication on the control cable.

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(b) If the lubrication is not sufficient, lubricate the control cables (AMM 12-21-31/301).

NOTE: Do not apply the grease or oil to stainless steel (CRES) control cables.

3. Inspection of the control cable fittings.

A. Examine the control cable fittings.

(1) Perform a detailed visual inspection to make sure that the means of locking the joints are intact, (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

(2) Perform a detailed visual inspection of the swaged portions of swaged end fittings for surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

(3) Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than two degrees.

(4) Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of pulleys.

A. Examine the pulleys.

(1) Perform a detailed visual inspection to make sure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

(2) Replace any pulleys that match the description in Fig. 602.

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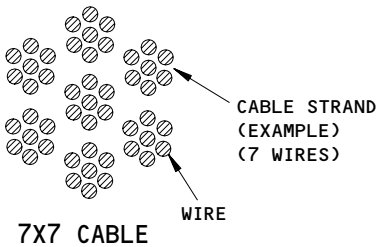
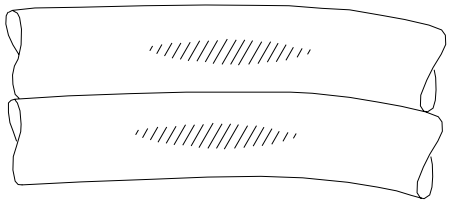
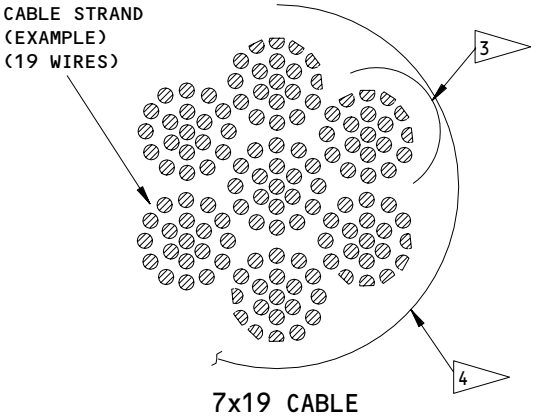


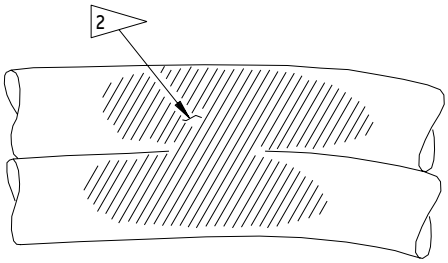
7X7 CABLE



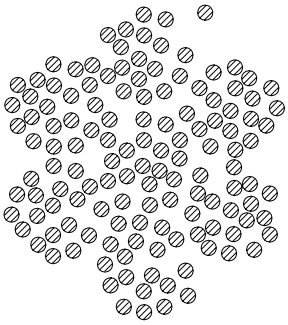
EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



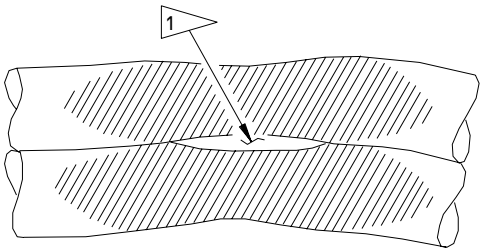
7x19 CABLE



EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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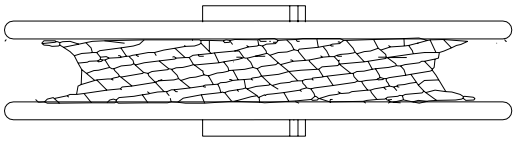
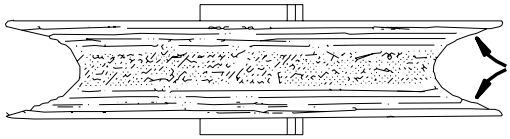


CABLE TENSION TOO HIGH



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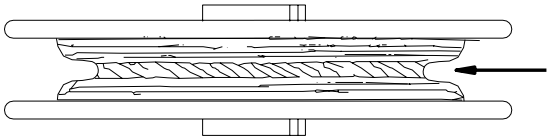
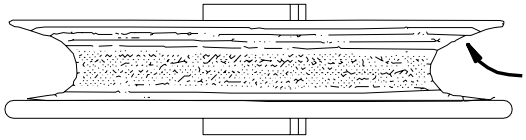


PULLEY GROOVE WITH
EXCESSIVE WEAR



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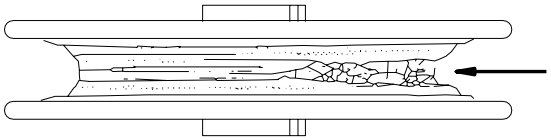

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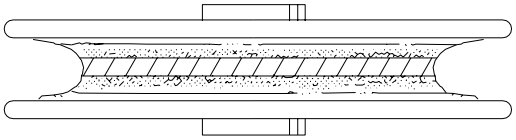

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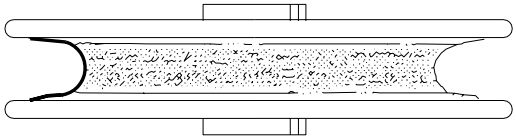

NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-011-01-1
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	L STABLIZER		2C	12424	012	APR 22/03

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - PROTECTED		ALL	ALL

ZONES	ACCESS PANELS
335	312AR 335DB 335EB 335GB 335HB 341AZ

MECH	INSP		MPD ITEM NUMBER
		VISUALLY INSPECT PROTECTED ELEVATOR SLAVE CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.	20-20-02-6K

EFFECTIVITY

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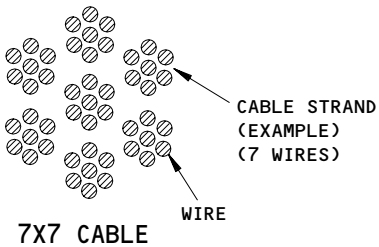
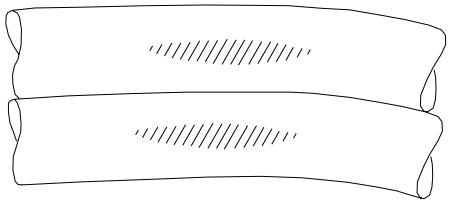


7X7 CABLE



EACH OUTER WIRE WORN
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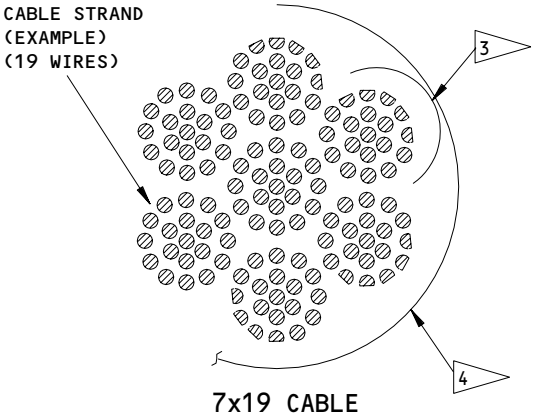
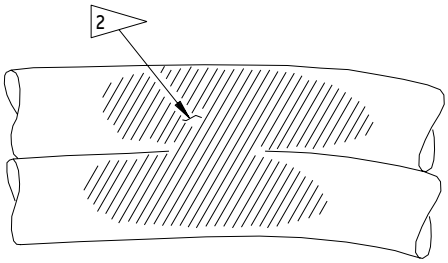
(WORN AREAS NOT BLENDED)



7x19 CABLE



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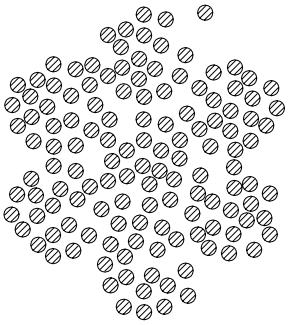
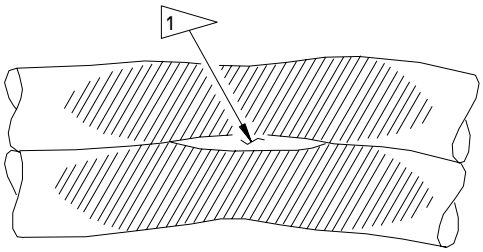


EXAMPLE OF INTERNAL WEAR



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Cable Wear Patterns
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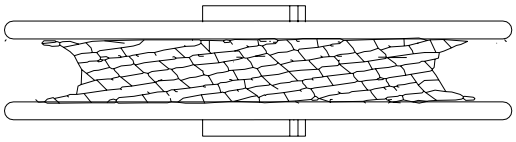

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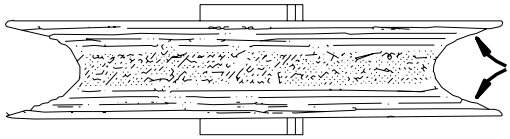

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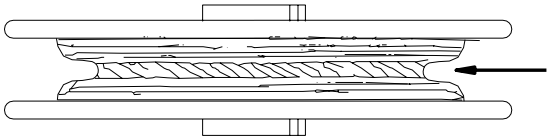
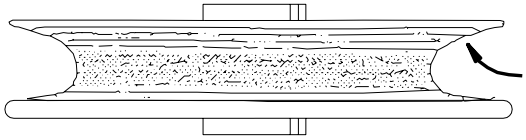


PULLEY GROOVE WITH
EXCESSIVE WEAR



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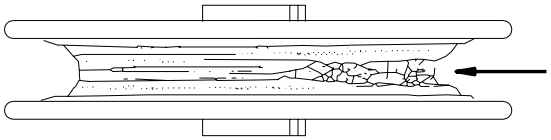

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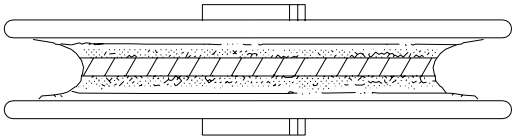

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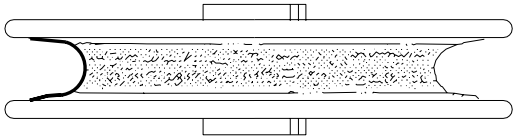


NORMAL CONDITION

Pulley Wear Patterns
Figure 602

BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.

STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-011-01-2
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
AIRPL	R STABLIZER		2C	12424	012	APR 22/03

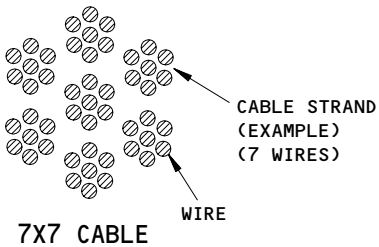
TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CONTROL CABLES - PROTECTED		ALL	ALL

ZONES	ACCESS PANELS
345	312AR 341AZ 345DB 345EB 345GB 345HB

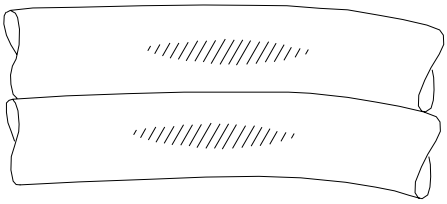
MECH	INSP		MPD ITEM NUMBER
		VISUALLY INSPECT PROTECTED ELEVATOR SLAVE CABLES FOR WEAR, BROKEN STRANDS, CORROSION, KINKS AND BIRD CAGING. CHECK END FITTINGS, TURNBUCKLES, PULLEYS, BRACKETS, FAIRLEADS AND QUADRANTS FOR WEAR, CORROSION, CRACKS AND SECURITY.	20-20-02-6K

EFFECTIVITY

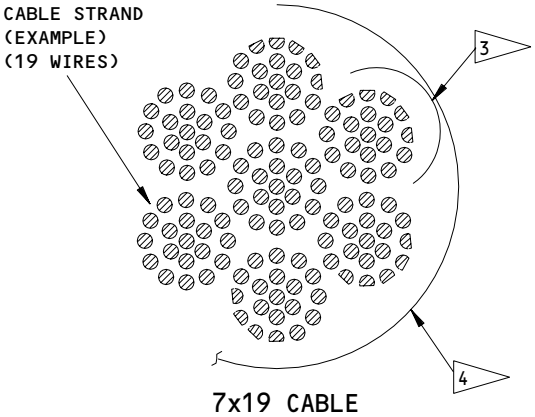
BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



7X7 CABLE



EACH OUTER WIRE WORN
LESS THAN 40%
(WORN AREAS NOT BLENDED)



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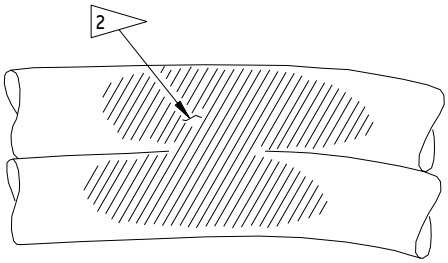
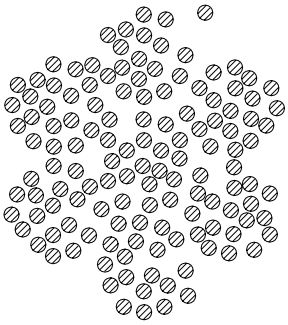
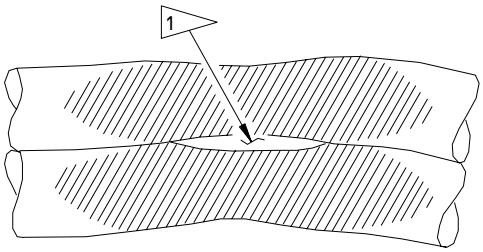


EACH OUTER WIRE WORN 40-50%
(WORN AREAS ARE BLENDED)



EXAMPLE OF INTERNAL WEAR



EACH WIRE IS WORN MORE THAN 50%

1 VISIBLE SPACE BETWEEN WIRES.

2 WEAR CONDITION RESULTING IN BLENDED SURFACES BETWEEN WIRES.

3 THE OUTER WIRE WEAR AREA ON CABLE STRAND. A VISIBLE SPACE BETWEEN WIRES 1 OR A FULLY BLENDED SURFACE 2 SURFACE.

4 CABLE WEAR MAY OCCUR ON ONE SIDE ONLY OR ON FULL CIRCUMFERENCE. CABLE WEAR CAN EXTEND ALONG THE CABLE FOR A DISTANCE EQUAL TO USUAL CABLE TRAVEL.

Cable Wear Patterns
Figure 601

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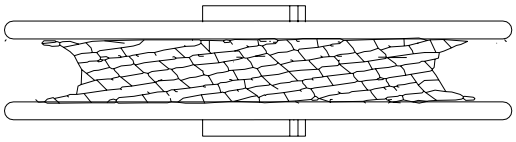
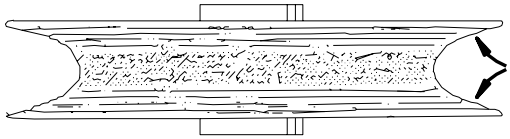
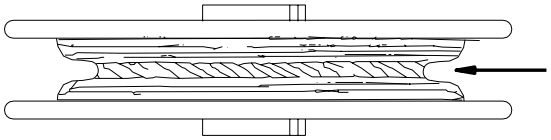


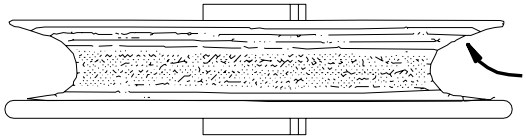
CABLE TENSION TOO HIGH



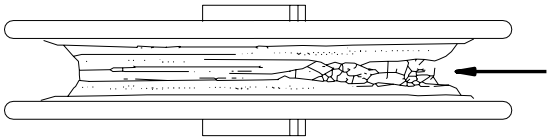
PULLEY NOT ALIGNED CORRECTLY



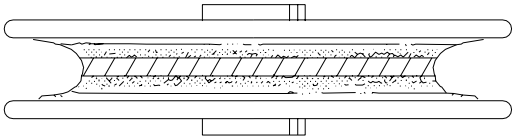
PULLEY GROOVE WITH
EXCESSIVE WEAR



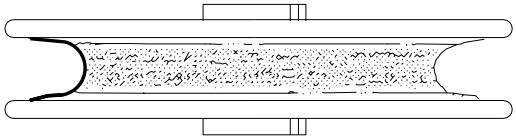
CABLE NOT ALIGNED CORRECTLY



PULLEY WILL NOT TURN



OR



NORMAL CONDITION

Pulley Wear Patterns
Figure 602

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	WG CTR SECT		4C	14848	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	INSPECT EWIS		NOTE	ALL

ZONES	ACCESS PANELS
133 134	1331 134AZ 134BZ 134CZ 136KZ

MECH | INSP | MPD ITEM NUMBER

INSPECT (DETAILED) THE EXPOSED EWIS IN THE ZONE, ZONES 133/134. (SFAR 88) (EZAP) — 20-60-03-2B

AIRPLANE NOTE: IF AUXILIARY TANKS ARE INSTALLED.

ACCESS NOTE: FOR THE 4 BAY CENTER TANK ALSO OPEN 134DZ, 134EZ, 134FZ AND 134GZ.

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

   A. General

      (1) This procedure performs a detailed inspection of wiring.

      (2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

   B. References

      (1) AMM (applicable procedure(s))

      (2) SWPM (applicable procedure(s))

      (3) WDM (applicable procedure(s))

   C. Equipment and Materials

      (1) Mirror - Inspection, Telescoping

   D. Procedure

      (1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	L WING TANK		6C	22472	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CENTER AUXILIARY TANKS LH		ALL	ALL

ZONES	ACCESS PANELS
531	1331 531AB 531BB

MECH	INSP	MPD ITEM NUMBER
		20-60-03-2D

INSPECT (DETAILED) THE FQIS EXPOSED EWIS INSIDE THE CENTER AUXILIARY FUEL TANK - LEFT WING. (SFAR 88) (EZAP)

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

A. General

(1) This procedure performs a detailed inspection of wiring.

(2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

B. References

(1) AMM (applicable procedure(s))

(2) SWPM (applicable procedure(s))

(3) WDM (applicable procedure(s))

C. Equipment and Materials

(1) Mirror - Inspection, Telescoping

D. Procedure

(1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	L WING TANK		6C	22472	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	MAIN TANK LH		ALL	ALL

ZONES	ACCESS PANELS
532	5001 532AB 532BB 532DB 532EB

MECH	INSP	MPD ITEM NUMBER
		20-60-03-2E

INSPECT (DETAILED) THE EXPOSED EWIS IN THE MAIN TANK (INBD SECT) LEFT WING. (SFAR 88) (EZAP)

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

   A. General

      (1) This procedure performs a detailed inspection of wiring.

      (2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

   B. References

      (1) AMM (applicable procedure(s))

      (2) SWPM (applicable procedure(s))

      (3) WDM (applicable procedure(s))

   C. Equipment and Materials

      (1) Mirror - Inspection, Telescoping

   D. Procedure

      (1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	L WING TANK		6C	22472	011	AUG 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	MAIN FUEL TANK LEFT HAND SIDE		ALL	ALL

ZONES	ACCESS PANELS
541	5001 541AB 541CB 541DB 541EB 541FB 541GB 541HB 541JB 541KB 541LB 541MB 541NB 541PB 541QB 541RT 541SB 541TB 541UB 541VB 541WB 541XB

MECH | INSP | MPD ITEM NUMBER

INSPECT (DETAILED) THE EXPOSED EWIS IN THE MAIN TANK (OUTBD SECT) LEFT WING. (SFAR 88) (EZAP) — 20-60-03-2F

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

   A. General

      (1) This procedure performs a detailed inspection of wiring.

      (2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

   B. References

      (1) AMM (applicable procedure(s))

      (2) SWPM (applicable procedure(s))

      (3) WDM (applicable procedure(s))

   C. Equipment and Materials

      (1) Mirror - Inspection, Telescoping

   D. Procedure

      (1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	L WING TANK		6C	22472	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	SURGE TANK LEFT HAND SIDE		ALL	ALL

ZONES	ACCESS PANELS
542	5401 542AB 542BB 542CB

MECH	INSP	MPD ITEM NUMBER
		20-60-03-2G

INSPECT (DETAILED) THE EXPOSED EWIS IN THE LEVEL SENSOR IN THE SURGE TANK - LEFT WING. (SFAR 88) (EZAP)

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

   A. General

      (1) This procedure performs a detailed inspection of wiring.

      (2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

   B. References

      (1) AMM (applicable procedure(s))

      (2) SWPM (applicable procedure(s))

      (3) WDM (applicable procedure(s))

   C. Equipment and Materials

      (1) Mirror - Inspection, Telescoping

   D. Procedure

      (1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	R WING TANK		6C	22472	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	CENTER AUXILIARY TANKS RH		ALL	ALL

ZONES	ACCESS PANELS
631	1331 631AB 631BB

MECH | INSP | MPD ITEM NUMBER

INSPECT (DETAILED) FQIS EXPOSED EWIS INSIDE THE CENTER AUXILIARY FUEL TANK - RIGHT WING. (SFAR 88) (EZAP) 20-60-03-2I

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

A. General

(1) This procedure performs a detailed inspection of wiring.

(2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

B. References

(1) AMM (applicable procedure(s))

(2) SWPM (applicable procedure(s))

(3) WDM (applicable procedure(s))

C. Equipment and Materials

(1) Mirror - Inspection, Telescoping

D. Procedure

(1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	R WING TANK		6C	22472	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	MAIN TANK RH		ALL	ALL

ZONES	ACCESS PANELS
632	632AB 632BB 632DB 632EB 632FB

MECH	INSP	MPD ITEM NUMBER
		20-60-03-2J

INSPECT (DETAILED) EXPOSED EWIS IN THE MAIN TANK (INBD SEC) RIGHT WING. (SFAR 88) (EZAP)

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

   A. General

      (1) This procedure performs a detailed inspection of wiring.

      (2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

   B. References

      (1) AMM (applicable procedure(s))

      (2) SWPM (applicable procedure(s))

      (3) WDM (applicable procedure(s))

   C. Equipment and Materials

      (1) Mirror - Inspection, Telescoping

   D. Procedure

      (1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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STATION		BOEING CARD NO.
TAIL NO.	SAS BOEING 767 TASK CARD	20-055-01
DATE		AIRLINE CARD NO.

SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	R WING TANK		6C	22472	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	MAIN FUEL TANK RH		ALL	ALL

ZONES	ACCESS PANELS
641	6001 641CB 641DB 641EB 641FB 641GB 641HB 641JB 641KB 641LB 641MB 641NB 641PB 641QB 641RT 641SB 641TB 641UB 641VB 641WB 641XB

MECH	INSP	MPD ITEM NUMBER

INSPECT (DETAILED) THE EXPOSED EWIS IN THE MAIN TANK (OUTBOARD SECTION) RIGHT WING. (SFAR 88) (EZAP) — 20-60-03-2K

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

   A. General

      (1) This procedure performs a detailed inspection of wiring.

      (2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

   B. References

      (1) AMM (applicable procedure(s))

      (2) SWPM (applicable procedure(s))

      (3) WDM (applicable procedure(s))

   C. Equipment and Materials

      (1) Mirror - Inspection, Telescoping

   D. Procedure

      (1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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SKILL	WORK AREA	RELATED TASK	INTERVAL	PHASE	MPD REV	TASK CARD REVISION
ELECT	R WING TANK		6C	22472	011	APR 22/09

TASK	TITLE	STRUCTURAL ILLUSTRATION REFERENCE	APPLICABILITY AIRPLANE	APPLICABILITY ENGINE
CHECK/INSP	SURGE TANK RH		ALL	ALL

ZONES	ACCESS PANELS
642	642AB 642BB 642CB

MECH	INSP	MPD ITEM NUMBER
		20-60-03-2L

INSPECT (DETAILED) THE EXPOSED EWIS IN THE LEVEL SENSOR IN THE SURGE TANK RIGHT WING. (SFAR 88) (EZAP)

DETAILED WIRING INSPECTION (EZAP) - MAINTENANCE PRACTICES

1. Detailed Wiring Inspection

   A. General

      (1) This procedure performs a detailed inspection of wiring.

      (2) This procedure is an enhanced zonal analysis procedure (EZAP) task.

   B. References

      (1) AMM (applicable procedure(s))

      (2) SWPM (applicable procedure(s))

      (3) WDM (applicable procedure(s))

   C. Equipment and Materials

      (1) Mirror - Inspection, Telescoping

   D. Procedure

      (1) Remove panels as necessary to gain access to the wiring (AMM (applicable procedure(s)).

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MECH	INSP

(2) Do these steps to perform a detailed inspection of the wire bundles bundles:

NOTE: You do not need to pull on the wire bundles, shake the wire bundles, or disconnect the connectors to perform this inspection.

(a) Check the wire bundles and the area around them for combustible material.

1) If combustible material is found do this task: Cleaning to Remove Combustible Material Around Wiring (EZAP), AMM 20-60-02/201.

(b) Check the wire and the wire harnesses for contact, chafing, sagging, security, visible damage, lacing tape/ties installation, sheath/conduit deformity or installation, end of sheath rubbing on end attachment, missing or damaged grommets, dust and lint accumulation, surface contamination, deterioration of previous repairs.

(c) Check connectors for external corrosion, backshell tail, pad/packing on backshell, backshell wire securing device, fool proofing chain, missing or broken safety wire, discoloration or evidence of overheating on terminal lugs or blocks, torque stripe misalignment.

(d) Check switches for rear protection cap damage.

(e) Check ground points for corrosion, bonding braid/bonding jumper, broken or disconnected braid, multiple strands corroded or broken.

(f) Check wiring clamps or brackets for presence, corrosion, bends or twists, attachment, protection/cushion.

(g) Check supports (rails or tubes/conduit) for breaks, deformity, missing fasteners, missing edge protection on rims of feed through holes, race track cushion damage.

(h) Repair or replace any wire bundles found with defects (SWPM applicable procedure(s)).

(3) Install all panels removed for access (AMM (applicable procedure(s)).

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