MWO 55-1520-228-30-34

CHANGE No. 2

DEPARTMENT OF THE ARMY MODIFICATION WORK ORDER

INSTALLATION

OF

WIRE STRIKE PROTECTION SYSTEM (OH-58A HELICOPTER)

Headquarters, Department of the Army, Washington, D.C.
12 August 1985

MWO 55-1520-228-30-34, 8 October 1982 is changed as follows:

Page 1, change time compliance period at top of page. MWO effective date 1 October 1981 and completion date 29 September 1985.

Page 1, REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS change lines 5 and 6 to read: direct to Commander, US Army Aviation Systems Command, ATTN: AMSAV-MPSD, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798.

Page 2, Paragraph d.(1) (b) change to read total of 44 hours downtime for one end item.

Page 2, Paragraph f. change to read: Additional information. If an authorized non-standard modification interferes with installation of WSPS, it will be removed and US Army Aviation Systems Command, ATTN: AMSAV-MEE, 4300 Goodfellow Blvd., St. Louis, MO 63120 contacted for disposition.

Page 10, Paragraph f (8) add at end of paragraph. Torque 990-00026 cap screws to 30-35 in lb.

Page 10, paragraph #2 add at end of paragraph. Torque 990-00026 cap screws to 30-35 in lb.

Page 12, Paragraph g. add at end of paragraph. Fay Seal all components with Pro Seal 890 before final installation.

Page 14, Paragraph 14 b. change lines 2 and 3 to read: the DA Form 2407, mail the NMP copy (Copy 2) to Commander, US Army Aviation Systems Command. ATTN: AMSAV-MPDMC, 4300 Goodfellow Blvd., St. Louis, MO 63120.

Page 19. Add item 18 to read: Strut Assy R/H (365-83015-2). Add item 19 to read: Strut Assy L/H (365-83015-1).

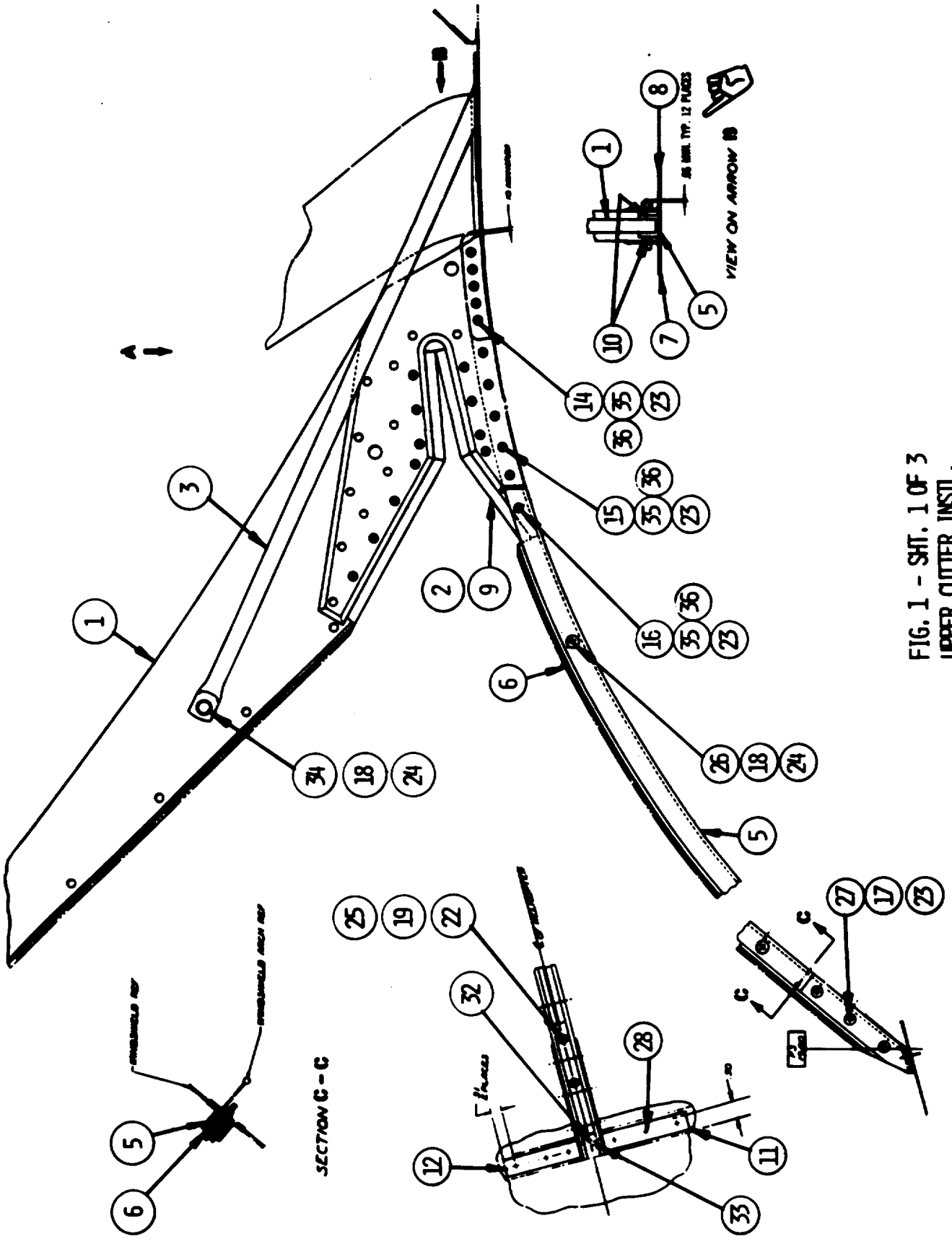


FIG. 1 - SHT. 1 OF 3
UPPER CUTTER INSTL.

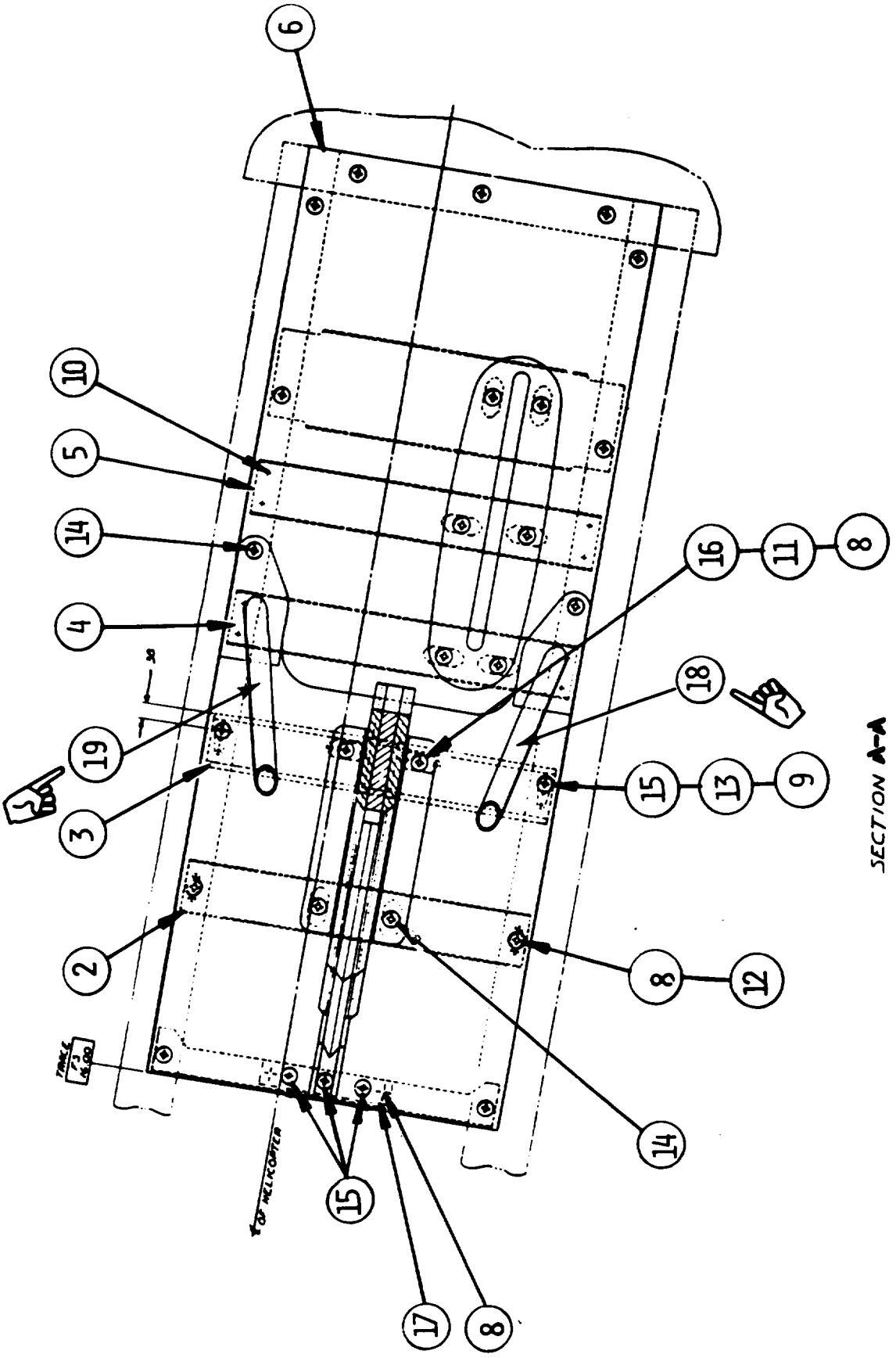


FIG. 2 - LOWER CUTTER INSTL. - SHEET 2 OF 3

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

DONALD J. DELANDRO
Brigadier General, United States Army
The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31A, Direct and General Support Maintenance requirements for Electronic Equipment Configuration: OH-58A.

U.S. GOVERNMENT PRINTING OFFICE: 1985 - 564-030/20082

MWO 55-1520-228-30-34
Change No. 1

DEPARTMENT OF THE ARMY MODIFICATION WORK ORDER

INSTALLATION OF WIRE STRIKE PROTECTION SYSTEM ON OH-58A AND OH-58C (ROUND WINDSHIELD) HELICOPTERS

Headquarters, Department of the Army, Washington, D.C.

9 August 1983

MWO 55-1520-228-30-34,8 October 1982, is changed as follows:

Page 1. "MWO effective date 1 October 1981 and completion date 29 September 1983" is changed to read "MWO effective date 1 October 1981 and completion date 30 September 1984."

Page 1. Title is changed as shown above.

Page 2. paragraph 3 is superseded as follows:

3. End Item or System to be Modified. The following aircraft will be modified:

Nomenclature	National Stock Number	Model Number	Serial Number
Helicopter	1520-00-169-7137 and 1520-01-020-4216	OH-58A and OH-58C	68-16687 thru 68-16986 69-16080 thru 69-16379 70-15050 thru 70-15649 71-20340 thru 71-20865 72-21061 thru 72-21460 73-21861 thru 73-21934

NOTE

Verification kit was installed on OH-58A Serial Number 70-15573.

Page 2. paragraph 6a is superseded as follows:

a. Time Compliance Date. MWO effective date 1 October 1981 and completion date 30 September 1984.

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Major General, United States Army
The Adjutant General

DISTRIBUTION:
To be distributed in accordance with DA Form 12-31, MWO requirements for OH-58 and OH-58C aircraft.

*** U.S. Government Printing Office: 1983 - 664-028/2217:**

NORMAL

MWO Effective Date 1 October 1981 and Completion Date 29 September 1983.

MWO 55-1520-228-30-34

DEPARTMENT OF THE ARMY MODIFICATION WORK ORDER

INSTALLATION OF WIRE STRIKE PROTECTION SYSTEM

ON OH-58A HELICOPTERS

Headquarters, Department of the Army, Washington, D.C.

8 October 1982

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in the back of this manual, direct to: Commander, US Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTS-MPSD, 4300 Goodfellow Blvd., St. Louis, MO 63120. A reply will be furnished directly to you.

1. Purpose of Modification. The purpose of this modification is to provide the helicopter with a significant measure of protection against impact damage from horizontally strung mechanical, electrical, and communication wires and cables.

2. Priority Classification. This modification is classified as NORMAL.

a. Equipment in Use (Including Equipment in Supply or Maintenance Activities Below Depot Level and Equipment in Administrative Storage). Equipment in use will be modified as soon as practicable but no later than the scheduled completion date. Equipment not modified after expiration of MWO completion date will be reported as NOT MISSION CAPABLE (NMC) in accordance with applicable Army regulations.

b. Equipment in Wholesale Depot Supply or Maintenance Activities. All MWOs, to include MWOs which have been incorporated into DMWR, will be accomplished on serviceable material prior to issue and/or subsequent to scheduled completion date. Operational project stock stored at the depots will be modified concurrently with depot stock. The MWO will be applied to unserviceable material during scheduled depot maintenance as applicable.

c. Prepositioned Stock. Equipment which is propositioned will be modified during cyclic maintenance and will be consistent with TM 38-750.

3. End Item or System to be Modified. The following aircraft will be modified:

Nomenclature	National Stock Number	Model Number	Serial Number
Helicopter	1520-00-169-7137	OH-58A	68-16687 thru 68-16986 69-16080 thru 69-16379 70-15050 thru 70-15649 71-20340 thru 71-20865 72-21061 thru 72-21460 73-21861 thru 73-21934

NOTE

Verification kit was installed on OH-58A Serial Number 70-15573.

4. Modules (Components, Assemblies, Subassemblies, Boards, Cards) to be Modified. Not Applicable.

5. Parts to be Modified. Not Applicable.

6. Application.

Time compliance date. MWO effective date 1 October 1981 and completion date 29 September 1983.

b. Level of Maintenance. Aviation Intermediate Maintenance (AVIM).

c. Applied By. Observation Helicopter Repairer (MOS-67V20) -4 hours; Aircraft Structural Repairer (MOS-68G30) -34 hours; Aircraft Electrician (MOS-68F30) -2 hours; Avionic Mechanic (MOS-35K20) -4 hours; Aircraft Quality Control Inspector (MOS-67V30) -1 hour.

d. Time Required.

(1) For completion of MWO application to one end item.

(a) Total of 45 hours.

(b) Total of 144 hours downtime for one end item.

(2) For completion of one assembly or component. Not Applicable.

(3) For completion of one part. Not Applicable.

e. MWO to be applied prior to or concurrently with this MWO. Not Applicable.

f. Additional Information. If an authorized non-standard modification interferes with installation of USPS, it will be removed and US Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTS-MEA, 4300 Goodfellow Blvd., St. Louis, MO 63120 contacted for disposition.

7. Technical Publications Affected/Changed as a Result of this MWO.

TM 55-1520-22810
TM 55-1520-228-23-1
TM 55-1520-228-23-2
TM 55-1520-228-23P
TM 55-1520-228-CL
TM 55-1520-228-PM
TM 55-1520-228-PMD
TM 55-1500-338-S

8. Supply Kits, Parts and Disposition.

a. Kits/parts required to accomplish MWO.

National Stock Number	Item Name and Part Number,	Quantity Required per End Item/System	Figure and Item Number
1560-01-107-4009	Kit, Wire Strike 965-36503-001	1	
	Part A - Upper Cutter Installation		
Note 1	Cutter Assembly-Upper 365-83003-3	1	1 - 1
1680-01-121-5290	Blade	1	1 - 2
Note 1	365-83006-5		
Note 1	Strut Assembly LH 365-83007-1	1	1 - 3
Note 1	Strut Assembly RH 365-83007-2	1	1 - 4
Note 1	Channel Assembly 365-83008-13	1	1 - 5
Note 1	Insert Assembly 365-83008-15	1	1 - 6
Note 1	Doubler, Upper LH 365-83009-1	1	1 - 7
Note 1	Doubler, Upper RN 365-83009-2	1	1 - 8
Note 1	Shim 365-83024-5 .	2	1 - 9
Note 1	Shim 365-83024-13	6	1 - 1 0
Note 1	Angle - LH 365-83025-1	1	1 - 1 1
Note 1	Angle - RH 365-83025-2	1	1 - 1 2
5310-00-167-0816	Washer AN960-6	34	1 - 1 9
5310-00-515-8058	Washer AN960-8	6	1 - 1 7
5310-00-167-0834	Washer AN960-10L	8	1 - 1 8

National Stock Number	Item Name and Part Number	Quantity Required per End Item/System	Figure and Item Number
5320-00-117-6826	Rivet MS20470AD4-4	15	1 - 2 0
5320-00-117-6828	Rivet MS20470AD4-6	14	1 - 2 1
5310-00-807-1484	Nut MS21042L3	4	1 - 2 4
5310-00-807-1472	Nut MS21042L06	34	1 - 2 2
5310-00-807-1473	Nut MS21042L08	15	1 - 2 3
5305-00-079-1479	Screw MS24693-S29	34	1 - 2 5
5305-00-891-1776	Screw MS27039-0817	3	1 - 2 7
5305-00-912-7308	Screw MS27039-1-14	3	1 - 2 6
5306-00-639-2262	Bolt NAS464P3A10	1	1 - 3 4
5310-00-805-7632	Washer NAS620-8	48	1 - 35
5310-00-834-7420	Washer NAS620-8L	12	1 - 3 6
5320-00-999-2188	Rivet NAS1738B4-3	18	1 - 2 9
5320-00-728-8575	Rivet NAS1738B4-4	28	1 - 3 0
5320-00-800-6277	Rivet NAS1739B4-2	3	1 - 3 1
5320-00-800-6278	Rivet NAS1739B4-3	2	1 - 3 2
5320-00-949-3929	Rivet NAS1738B5-4	6	1 - 2 8
	Screw, Cap 990-00026-1	5	1 - 1 4
	Screw, Cap 990-00026-3	6	1 - 1 5
	Screw, Cap 990-00026-7	1	1 - 1 6
5320-00-779-0292	Rive t NAS1739B5-2	1	1 - 3 3
Note 1	Template 365-83041-1	1	1 - 1 3
	Part B - Lower Cutter Installation		
Note 1	Cutter Assembly - Lower 365-83013-5	1	2 - 1
1680-01-121-5206 Note 1	Stiffener-Cutter 365-83021-21	1	2 - 2

National Stock Number	Item Name and Part Number	Quantity Required per End Item/System	Figure and Item Number
1680-01-123-2536 Note 1	Stiffener - Cutter 365-83021-3	1	2 - 3
1680-01-121-5292 Note 1	Stiffener - Antenna 365-83021-5	1	2 - 4
1680-01-12105293 Note 1	Stiffener - Antenna 365-83021-7	1	2 - 5
1680-01-125-5904 Note 1	Stiffener Assembly 365-83021-25	1	2 - 1 7
Note 1	Template 365-83022-5	1	2 - 7
Note 1	Panel Assembly 365-83022-7	1	2 - 6
5320-00-411-9439	Rivet CCR264SS-3-3	10	2 - 8
5320-00-005-6256	Rivet CCR264SS-3-4	4	2 - 9
5320-00-800-6277	Rivet NAS1739B4-2	8	2 - 10
5310-00-777-5791	Nut, Plate MS21059L3	2	2 - 1 1
5310-00-728-7723	Nut, Plate MS21069L3	2	2 - 1 2
5310-00-764-1790	Nut, Plate MS21071L3	2	2 - 1 3
5305-00-925-7857	Screw MS27039-1-09	4	2 - 1 4
5305-00-925-9674	Screw MS27039-1-10	5	2 - 1 5
5305-00-925-9682	Screw MS27039-1-11	2	2 - 1 6

NOTE

All 365 series part no.'s are identified by a letter D immediately following the part no. i.e., 365-83013-lD. This letter is used by the manufacturer to control in-plant processing of the part and should be ignored by the user.

b. Size 'and weight of kit. The weight and data for the package kit is listed below.

Weight	Dimensions (in.)	Cube (in^3)
18 lbs.	L = 48 W= $8^1/_4$ H = $8^1/_2$	3366

c. Distribution and Issue Instructions. US Forces. Kits to accomplish this modification will not be requisitioned by user/field activities. Requisitioning of kits and application/compliance with this MWO will be accomplished only by depot/ overhaul facilities or HQ TSARCOM sponsored project sites. User activities will

accomplish this MWO when authorized by a negotiated Memorandum of Understanding (MOU) with HQ TSARCOM (AR 750-10).

d. Bulk and consumable materials. The following materials are not furnished with the kit and will be requisitioned to comply with this modification.

National Stock Number	Nomenclature	Quantity	Source
8010-01-042-4196	Lacquer, Acrylic	PT.	G.O.
8030-00-297-0593	Primer, Zinc Chromate	PT.	G.O.
8030-00-723-2746	ProSeal 890, Sealant	PT.	G.O.
7510-00-266-7612	Tape, Masking	RL.	G.O.
5305-00-849-4642	Screw, Machine	10	S9I

e. Parts disposition.

1560-00-144-0094	Skin, Aircraft	206-032-210-133	Scrap
	Stiffener	206-032-210-119	Scrap
	Stiffener	206-032-210-129	Scrap

9. Special Tools, Jigs, Test Measurement and Diagnostic Equipment (TMDE). The following is a list of special tools, jigs/fixtures and TMDE to accomplish this modification:

Nomenclature	National Stock Number	Part No.	Quantity
Cherry Riveter Kit	5120-00-478-7214	784	1
1/8" Nom Rivet Diameter & Counter-sink Head Cherry		G-55	1
Hand Riveter or			
Hand Riveter 90°	5120-00-811-0871	HP-2	1
1/2 in. No. 19 Extension Drill			1
Special Extension Piece	(Reference Figure 3)		1

10. Modification Procedures (Authority ECP D-A-B0008 OH-58)

NOTE

Kit will be checked to assure completeness.

This modification is composed of two parts as follows:
Part A - P/N 365-83038-1 Upper Cutter Installation
Part B - P/N 365-83039-1 Lower Cutter Installation

Part A

a. Prepare the aircraft for maintenance. Ensure the battery is disconnected, aircraft grounded and that external power is not applied and proceed as follows:

NOTE

Refer to TM 11-1520-228-20 and TM 55-1520-228-23 for parts or equipment removal and installation instructions. Refer to TM 55-1520-228-23P for detailed parts. Refer to TM 55-1500-323-25 for aircraft electrical wiring installation practices.

NOTE

Items removed to gain access to work area shall be tagged for identification and protected from damage until reinstalled. Retain all hardware of removed parts for reinstallation unless otherwise specified.

(1) Remove the LH and RH upper soundproofing blankets (206-070-894-1 and -5).

(2) Remove the free air thermometer from windshield. Cover all windshields and overhead windows with suitable material to prevent damages. Mask edges.

(3) Remove the FM ARC 114 antennae (206-075-543-1). Mask mounting holes.

(4) Remove all cable clamps from the wire bundles running down the windshield center post and the forward clamp on the left side of the circuit breaker panel. Lower the bundles as far as possible without disconnecting.

(5) Cover back of circuit breaker panel with suitable material to prevent metal particles from entering electrical area. Mask over cable access holes to instrument panel and the ram air inlet grill.

b. To prepare the aircraft for the installation of the upper cutter, refer to figure 1 for installation details and preceed as follows:

CAUTION

Care must be exercised when drilling out and installing revets to prevent damage to electrical wiring.

(1) Drill out the rivets running between the windshields using a #30 drill.

(2) Drill out the rivets located within one inch both sides of the center post on the upper windshield retaining strip using a #30 drill. Enlarge holes using a #27 drill. Countersink and replace with rivets (NAS 1739B4-2).

(3) Drill out the remainder of the blind rivets on the upper windshield retaining strips out to the overhead window locations using a #30 drill. Drill out the entire row of rivets aft of the windshield retaining strips and the twelve protruding rivets surrounding the FM ARC 114 antenna base using a #30 drill. Drill out the rivets on the overhead window retaining strips using a #30 drill.

(4) Drill out the seven centrally located lower windshield retaining strip rivets using a #30 drill. Enlarge holes using a #16 drill. Countersink and install a flush rivet (NAS 1739B5-2) in the centerhole position.

c. Using template (365-83041-1) and a hole finder, locate and drill the lower twelve of the thirty four rivet holes in the windshield center post through the template using a #30 drill.

(1) Position the template on channel (365-83008-13), and transfer the holes from the template to the channel section using a #30 drill.

(2) Position the charnel using cleco fasteners. Ensure channel is centrally located. Back drill the remaining twenty-two holes in the channel using a #30 drill.

(3) Enlarge the holes using a #28 drill and countersink to accommodate screw (MS 24693S29).

(4) Remove the channel, deburr, and clean out all metal particles. Reposition the channel using screw (MS 24693S29) as temporary dowel pins. Trim lower end of channel to clear ram air inlet grill as required.

(5) Remove channel and apply a bead of ProSeal 890 along its entire mounting surface to prevent entry of water between the channel and the retainer.

NOTE

Examine windshield retainer (206-032-115-18) for signs of separation from the windshields. If separation exists remove the retainer and reseal using ProSeal 890. Allow sealant to cure until tack free.

(6) Install the channel using thirty-four screws (MS 24693S9), thirty-four nuts (MS 21042L06), and thirty-four washers (AN960-6). Start at the lower end of the channel and work up.

(7) Using a #27 drill, drill a new hole aft of the existing rivet under channel allowing sufficient edge distance. Countersink and install rivet (NAS 1739B4-3) applying ProSeal 890 under the head.

(8) Using a #27 drill, drill a new hole in the upper end of the channel approximately in line with the second rivet row and countersink. Install rivet (NAS 1739B4-3) using the extension piece referenced in figure 3. Apply ProSeal 890 under the head.

d. Position lower angles (365-83025-1 and -2) firmly against the channel and using a hole finder locate the six lower windshield retaining strip rivet positions where the rivets were removed at step 10.b. (4) and drill through using a #16 drill. Remove, clean, and cleco one angle into position and locate the three 0.165-0.169 inch holes in channel (365-83008-13). Remove and drill through using a #19 extension drill. Repeat for other angle. Apply ProSeal 890 to the angle mounting surfaces and rivet the angles into position using six rivets (NAS 1738B5-4).

e. Position the cutter assembly (365-83003-3) into the top end of the channel and proceed as follows:

(1) Check the gap between the outer sides of the channel and the cutter assembly cheek plates. Shim as required using shims (365-83024-13). Ensure that the cutter assembly is positioned centrally within the channel and perpendicular to the airframe.

(2) Ensure the back of the cutter is flush with the end of the channel and that the front end is pushed down and bottoming in the channel.

(3) Locate the second hole from the forward end of the cutter cheek plate and drill through the cheek plate and through the channel using a #19 extension drill. Align using screw (990-00026-3).

(4) Pull the cutter back until it bottoms in the channel and, using a #19 extension drill, drill through the cutter cheek plates and channel at the aft lower hole position. Align using screw (990-00026-1).

(5) Drill the remaining cutter attachment holes using a #19 extension drill.

f. Position doublers (365-83009-1 and -2) so that their flanges cover the five aft bolt holes in the channel. Ensure the correct edge distance is obtained at the ends of the doubler flanges.

(1) Trim the doubler flanges as required to match cutter assembly (365-83003-3) and to clear the FM ARC 114 antenna base.

(2) Position one doubler and holding firmly in place, drill the forward hole through the doubler flange by back drilling through the cutter cheek plates using a #19 extension drill. Repeat for other doubler. Secure doublers in place using screw (990-00026-1) and nut (MS 21042L08).

(3) From inside the cockpit area, locate and mark the FM ARC 114 antenna cable access holes. Locate all other rivet holes with a hole finder and drill using a #30 drill. Enlarge the NAS rivet holes (forty six) using a #27 drill.

(4) Mark and drill two new hole positions in the doubler forward edges and twelve new hole positions in the doubler aft edges using a #30 drill. See figure 1.

(5) Remove one doubler and with the other doubler held firmly in position with clecos and screw (990-00026-1), drill the four remaining holes in the doubler flange by back drilling through the cutter cheek plates using a #19 extension drill. Repeat for other doubler.

(6) Remove the cutter and doublers. Cut and dress the antenna cable access hole and enlarge the antenna mounting bolt holes using a #8 drill. Clean, deburr and prime edges as required using primer, zinc chromate, NSN 8030-00-297-0593.

(7) Apply ProSeal 890 between the cutter shims, cheekplates, channel, and both doubler airframe mounting surfaces. Place all parts in position and secure the doublers with cleco fasteners.

(8) Secure the cutter and doubler flanges to the channel using five screws (990-00026-1), four screws (990-00026-3), washer (NAS 620-8 or 8L) as required, and nine nuts (MS 21042L08).

(9) Rivet the doublers into position using eighteen rivets (NAS 1738B4-3) in the second row, twenty-eight rivets (NAS 1738B4-4) in the first row and in the roof support angles, and fifteen rivets (MS 20470AD4-4) in the aft and side rows except for the strut assembly mounting positions.

NOTE

Due to difference in material thickness caused by sealing materials; the length of rivet (MS 20427AD4-4) may vary.

g. Attach strut assemblies (365-83007-1 and -2) to cutter assembly (365-83003-3) using bolt (NAS 464P3A10) two washers (AN960-10L), nut (MS 21042L3) and proceed as follows:

(1) Locate each strut foot position over the remaining seven holes each side and mark through from underneath. Remove and drill holes using a #30 drill. Clean and deburr.

(2) Apply ProSeal 890 to the strut feet. Reposition the struts and rivet the feet into position using fourteen rivets (MS 20470AD4-6). Reinstall and tighten the bolt, nut, and washers.

h. Align blade (365-83006-5) with the mounted blade (365-83006-3) in the channel. Use shim (365-83024-5) as required. Ensure that the forward end of the blade is bottomed in the channel and drill through the two pilot holes in the cheek plates using a #19 extension drill.

(1) Remove the blade and shims. Place the blade on the outside of the cheek plate, align with the existing holes and temporarily pin into position. Using the blade as a drill jig, drill the last hole using a #19 extension drill.

(2) Remove the blade, clean and deburr as necessary. Apply ProSeal 890 between the blade, shims and channel and reinstall using two screws (990-00026-3), washer (NAS 620-8 or -8L) as required, two nuts (MS 21042L08) in the aft holes and screw (990-00026-7), washer (NAS 620-8 or -8L) as required and nut (MS 21042L08) in the forward hole.

i. Position insert assembly (365-83008-15) into the channel. If interference between the cutter blade and the insert assembly is encountered, remove sufficient material from the insert to obtain the necessary clearance. Ensure the assembly is bottoming in the channel and that the mounting holes are aligned. Remove, clean, and install the insert using three screws (MS 27039-1-14), three nuts (MS 21042L3), six washers (AN 960-10L), and three screws (MS 27039-0817), three nuts (MS 21042L08) and six washers (AN 960-8) as shown in figure 1.

j. Reinstall the cable clamps using existing hardware and reposition the wire bundle. Remove the circuit breaker panel and glareshield covering and thoroughly clean up the cockpit interior to remove all metal particles.

(1) Use lacquer, acrylic, NSN 8010-01-042-4196 to touch up exterior surfaces of newly installed cutter assembly, doublers, channel, and insert.

(2) Reinstall the FM ARC 114 antenna, apply a generous amount of ProSeal 890 to the antenna mating surface to fill the gap between the doublers.

(3) Remove the windshield and overhead window covering and reinstall the free air thermometer.

(4) Close the circuit breaker panel and reinstall the soundproofing blankets.

PART B

a. To prepare the aircraft for installation of the lower cutter assembly (365-83013-5), refer to figure 2 installation details and proceed as follows-:

(1) Remove skin, aircraft (206-032-210-133). Disconnect antenna cable and remove the ARC 116 UHP antenna from skin. Route antenna to a safe storage area. Retain mounting screws (6).

(2) Using a #30 drill, drill out the attaching rivets and remove antenna mounting stiffeners (206-032-210-119) at both locations.

(3) Using a #40 drill remove the four nut plates located in the second and third positions from the front of the access opening on both sides. Remove stiffener (206-032-210-129).

(4) Using a #40 drill remove the nut plate located in the forward center position; flatten dimpled rivet holes.

b. Locate stiffener assembly (365-83021-25) and attach loosely to the aircraft through the forward center hole position using screw (MS 27039-1-10) and proceed as follows:

(1) Transfer two additional nut plate holes to aircraft structure using a hole finder and a #8 drill.

(2) Transfer stiffener assembly (365-83021-25) mounting holes using a hole finder and a #40 drill.

(3) Remove stiffener assembly (365-83021-25) and dimple two mounting holes.

(4) Install stiffener assembly (365-83021-25) using two rivets (CCR264SS-3-3).

c. Locate the panel and stiffener mounting holes on template (365-83022-5) as follows:

(1) Transfer the skin (206-032-210-133) outer mounting hole locations to the template using a #8 drill. Ensure that the forward center hole is centered exactly on the template pilot hole, and that the two drain holes are located in the forward right hand position. Trim fore and aft edges of the template to match the skin.

(2) Position the template and attach loosely to the aircraft with existing screws. Using a hole finder pick up the hole patterns of the removed nutplates and rivets. Pickup additional nut plate holes drilled at b.(1).

(3) Locate stiffeners (365-83021-21, -5, and -7) in their respective positions on the template. Attach to the template using screws (MS 27039-1-04) through the antenna and cutter predrilled position holes. Due to the floating anchor nuts, the stiffeners can move slightly on the template; therefore, use a square to ensure correct 900 alignment between the stiffeners and the template, then tighten locating screws. Back-drill the stiffener mounting holes using a #30 drill, the nut plate mounting holes using a #40 drill, and the nut plate screw holes using a #8 drill. Remove the stiffeners and trim both ends sufficiently to allow proper fit to the aircraft ensuring correct hole edge distance is maintained. Dimple stiffeners (365-83021-5 and -7) and countersink stiffener (365-83021-21) to match the existing holes on the aircraft.

d. Identify stiffener (365-83021-3) per figure 2 and locate and drill the nutplate and screw hole locations. Trim both ends of stiffener to allow for proper fit to the aircraft. Countersink holes to match existing dimpled holes on aircraft and secure by installing two nutplates (MS 21071L3) using four rivets (CCR264SS-3-4).

e. Place cutter support stiffener (365-83021-21) and antenna support stiffeners (365-8302105 and -7) into their respective positions. Install stiffener (365-83021-21) using two nutplates (MS 21069L3) and four rivets (CCR264SS-3-3). Install stiffeners (365-83021-5 and -7) using eight rivets (NAS 1739B4-2).

f. Temporarily mount the template to the aircraft and check the alignment. Back drill the cutter assembly mounting holes through stiffener (365-83021-3) using a #8 drill. Remove the template. Locate the nut plate mounting hole locations on the stiffener and drill using a #40 drill. Countersink holes and install two nutplates (MS 21059L3) using four rivets (CCR264SS-3-3).

g. Position the template on top of panel (365-83022-7), and cleco together through the cutter and antenna mounting holes. Ensure the forward center hole is perfectly aligned. Drill the panel outer holes using a #8 drill. Do not drill through the nut plate and stiffener rivet locating holes. Transfer the two drain holes from template to the panel only if required. Trim the fore and aft edges of the panel to match the template if necessary. Remove the panel, deburr and prime cut edges using Primer, Zinc Chromate, NSN 8030-00-297-0593.

h. Position the cutter assembly (365-83013-5) on panel (365-83022-7) and cleco through the four cutter mounting holes. Check fore and aft alignment and clamp. Locate the panel outer holes and match by back drilling using a #8 drill, through the panel into the cutter assembly doubler and strut feet. Remove and deburr.

i. Reroute the ARC 116 UHF antenna cable so that it drops between stiffeners (365-83021-5 and -7). Using existing hardware, loosely attach the antenna to panel (365-83022-7) by the two rear mounting screws. Position the panel and connect the antenna cable. Loosely install the remaining four antenna mounting screws and the aft seven panel mounting screws.

j. Position cutter assembly (365-83013-5) and loosely install the two forward mounting screws (MS 27039-1-09), and the two aft mounting screws (MS 27039-1-11). Check the cutter alignment, install and tighten the panel forward center screw (MS 27039-1-10) first to ensure the cutter alignment is maintained. Install and tighten the balance of the panel, cutter and antenna mounting screws except as follows: use two screws (MS 27039-1-10) in stiffener (365-83021-3) location; use two screws (MS 27039-1-10) In stiffener assembly (365-83021025) location; and two screws (MS 27039-1-09) in the strut foot locations.

k. Connect the battery.

l. Perform functional test of the ARC 114 and ARC 116 radio systems.

11. Calibration Requirements. Not Applicable.

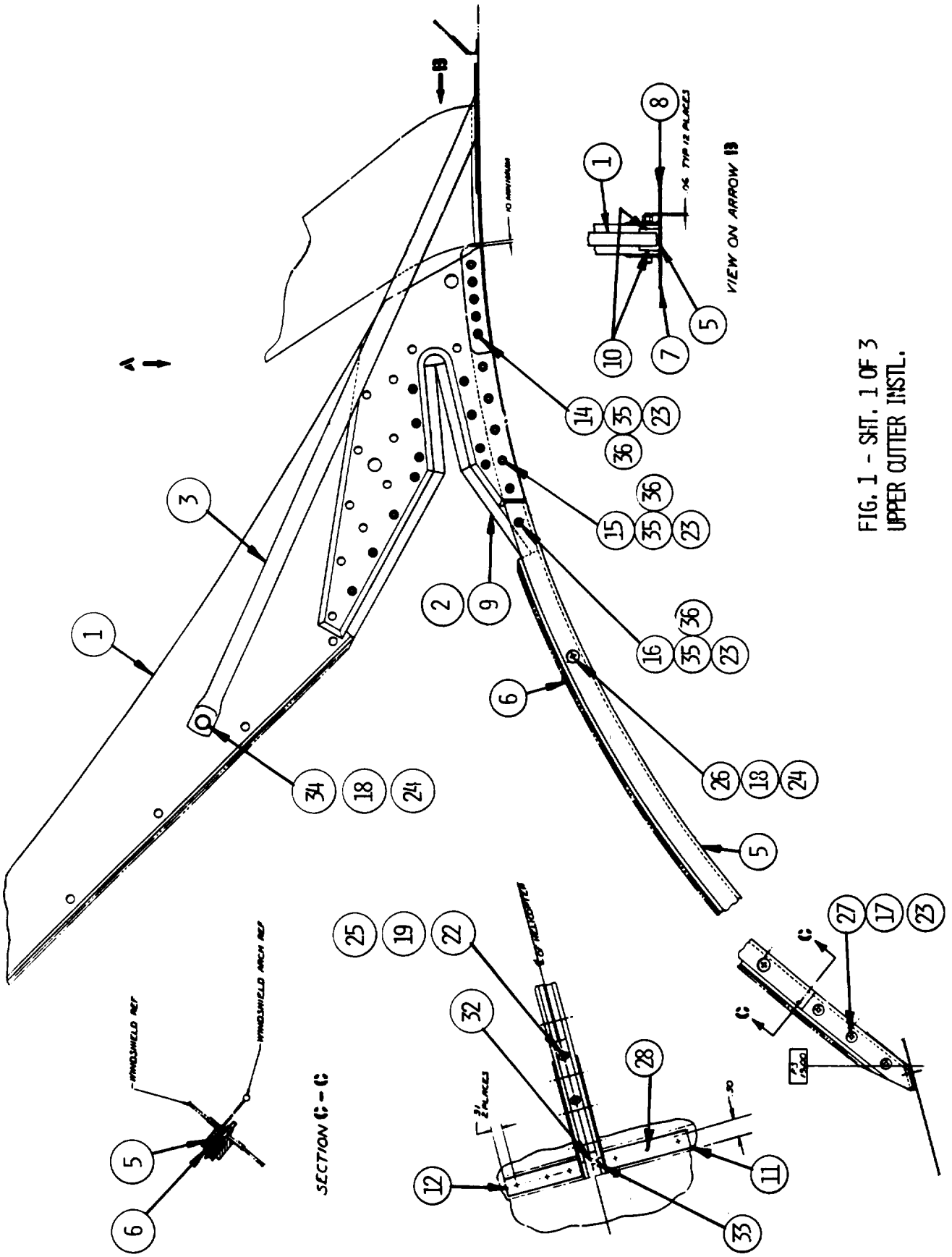


FIG. 1 - SHT. 1 OF 3
UPPER CUTTER INSTL.

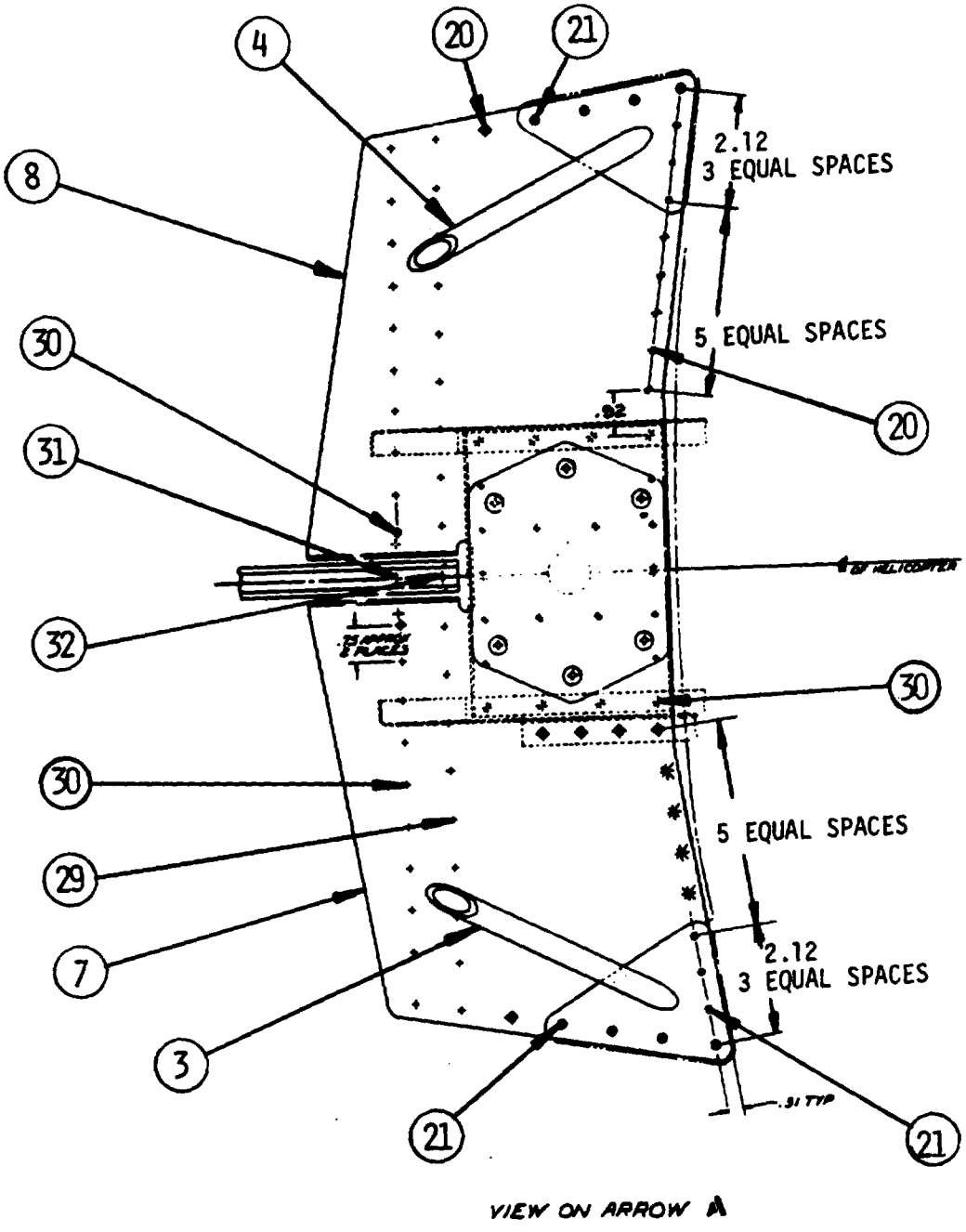


FIG. 1 - UPPER CUTTER INSTL. - SHEET 2 OF 3

- L E G E N D -

1.	CUTTER ASSEMBLY	(365-83003-3)	19.	WASHER	(AN960 - 6)
2.	BLADE	(365-83006-5)	20.	RIVET	(MS20470AD4-4)
3.	STRUT ASSEMBLY	(365-83007-1)	21.	RIVET	(MS20470AD4-6)
4.	STRUT ASSEMBLY	(365-83007-2)	22.	NUT	(MS21042L06)
5.	CHANNEL ASSEMBLY	(365-83008-13)	23.	NUT	(MS21042L08)
6.	INSERT ASSEMBLY	(365-83008-15)	24.	NUT	(MS21042L3)
7.	DOUBLER	(365-83009-1)	25.	SCREW	(MS24693-S29)
8.	DOUBLER	(365-83009-2)	26.	SCREW	(MS27039-1-14)
9.	SHIM	(365-83024-5)	27.	SCREW	(MS27039-0817)
10.	SHIM	(365-83024-13)	28.	RIVET	(NAS1738B5-4)
11.	ANGLE	(365-83025-1)	29.	RIVET	(NAS1738B4-3)
12.	ANGLE	(365-83025-2)	30.	RIVET	(NAS1738B4-4)
13.	TEMPLATE	(365-83041-1)	31.	RIVET	(NAS1739B4-2)
14.	SCREW	(990-00026-1)	32.	RIVET	(NAS1739B4-3)
15.	SCREW	(990-00026-3)	33.	RIVET	(NAS1739B5-2)
16.	SCREW	(990-00026-7)	34.	BOLT	(NAS464P3A10)
17.	WASHER	(AN960 - 8)	35.	WASHER	(NAS620-8)
18.	WASHER	(AN960 - 10L)	36.	WASHER	(NAS620-8L)

FIGURE 1 - UPPER CUTTER INSTALLATION (SHEET 3 OF 3)

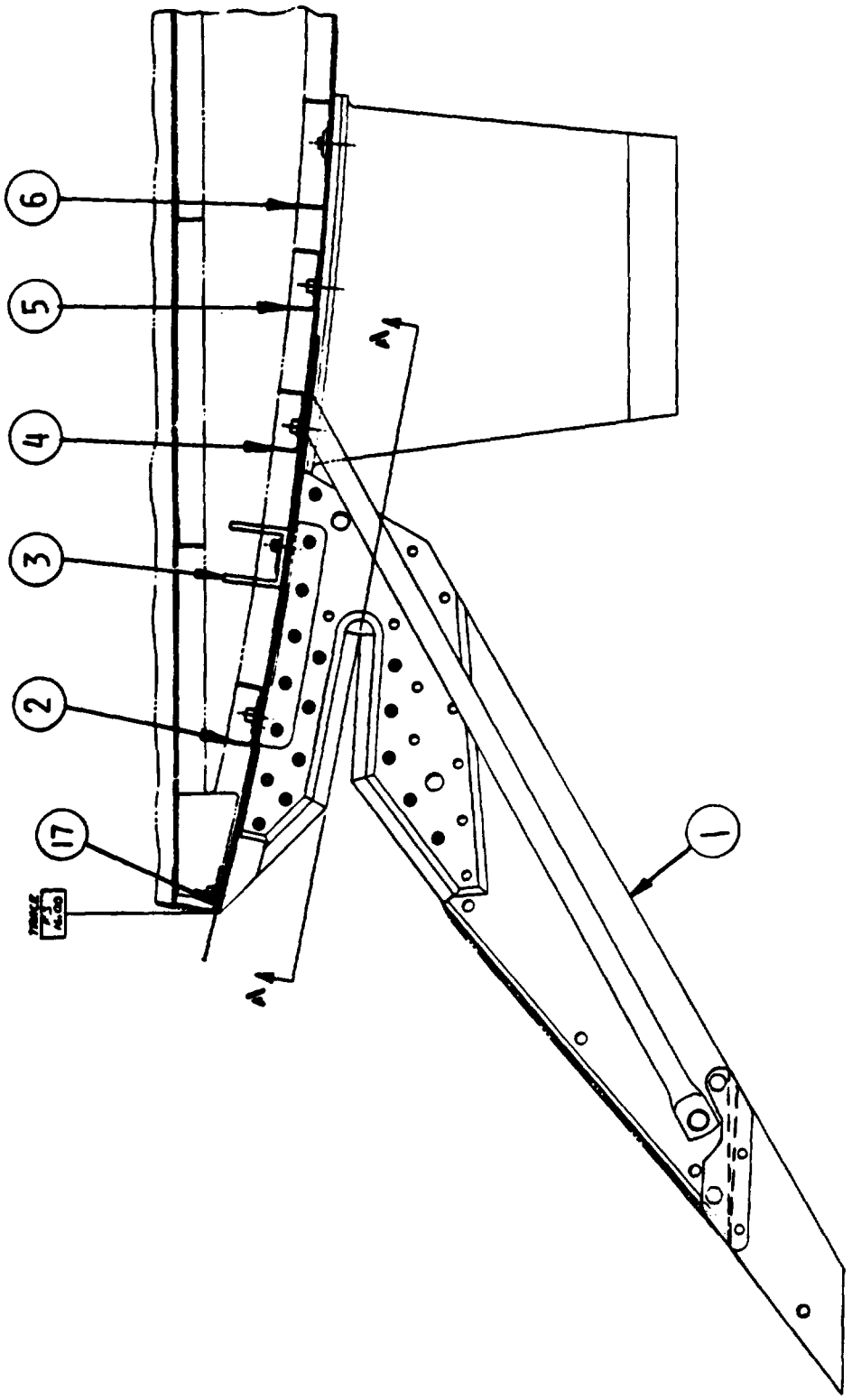


FIG. 2 - LOWER CUTTER INSTL. - SHEET 1 OF 3

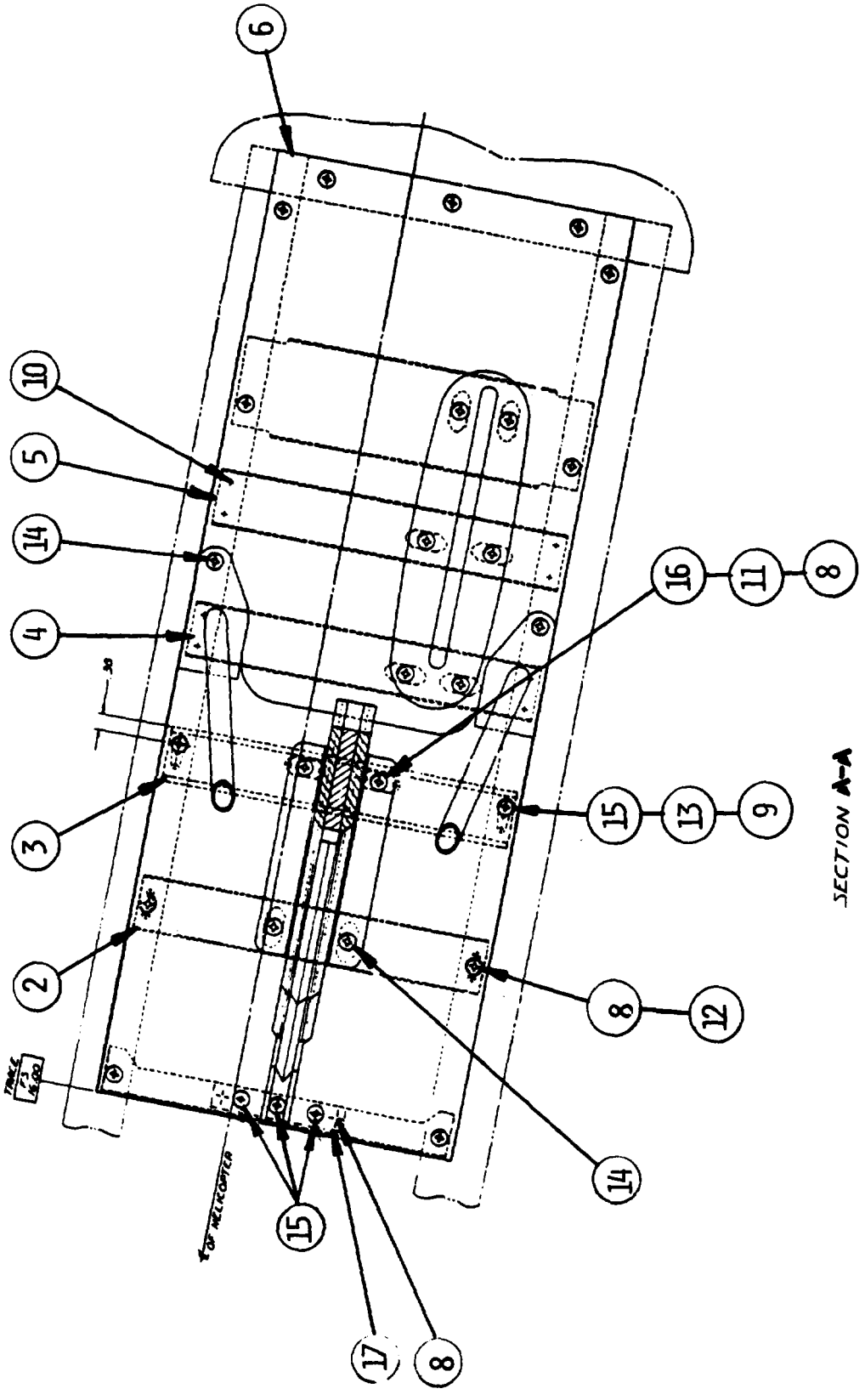
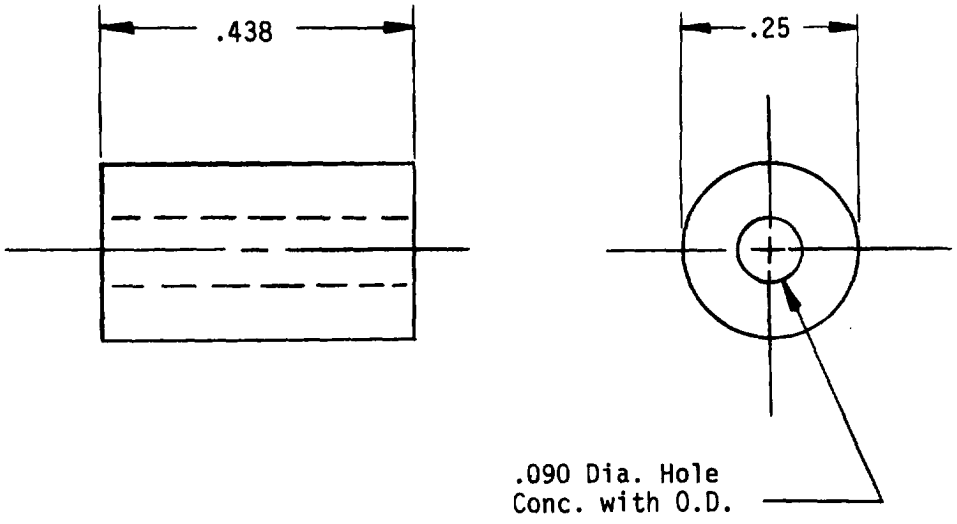


FIG. 2 - LOWER CUTTER INSTL. - SHEET 2 OF 3

- LEGEND -

1.	CUTTER ASSEMBLY	(365-83013-5)
2.	STIFFENER	(365-83021-21)
3.	STIFFENER	(365-83021-3)
4.	STIFFENER	(365-83021-5)
5.	STIFFENER	(365-83021-7)
6.	PANEL ASSEMBLY	(365-83022-7)
7.	TEMPLATE	(365-83022-5)
8.	RIVET	(CCR264SS-3-3)
9.	RIVET	(CCR264SS-3-4)
10.	RIVET	(NAS1739B4-2)
11.	PLATE NUT	(MS21059L3)
12.	PLATE NUT	(MS21069L3)
13.	PLATE NUT	(MS21071L3)
14.	SCREW	(MS27039-1-09)
15.	SCREW	(MS27039-1-10)
16.	SCREW	(MS27039-1-11)
17.	STIFFENER ASSY.	(365-83021-25)

FIGURE 2 - LOWER CUTTER INSTALLATION (SHEET 3 OF 3)



EXTENSION PIECE FOR
CHERRY LOCK TOOL MODEL
G55 - MAKE FROM ¼ INCH
MILD STEEL ROD

FIG. 3

12. Weight and Balance Data. Weight and balance change as a result of this MWO is as follows:

a. Change in basic weight +16.3.

b. Moment arm 34.59.

c. Change in basic moment 563.8 inch pounds.

d. Chart "C" entries (DD Form 365C, Basic Weight and Balance Record).

DESCRIPTION	WEIGHT (ADDED)	ARM (INCHES)	MOMENT/100 (INCH LBS)
MWO 55-1520-228-30-34	16.3	34.59	5.6

13. Quality Assurance Requirements. Inspection of complete MWO application for full compliance with the technical requirements of the instructions will be accomplished by qualified personnel in accordance with an approved prescribed inspection system. The inspection, in effect will be determined on the basis of instructions issued at the site of work; i.e., Army Org/DS/GS, Army Depot, Contractor, etc.

14. Recording and Reporting of the Modification.

a. Record accomplishment of the modification in accordance with the procedures prescribed in TM 38-750. The following forms are applicable: DA Form 2407 (Maintenance Request), DA Form 2408-5 (Equipment Modification Record - Aircraft), DA Form 2408-13 (Aircraft Inspection and Maintenance Record).

b. Report the application of the MWO using DA Form 2407. After completing the DA Form 2407, mail the NMP Copy (Copy 2) to Commander, US Army Troop Support and Aviation Materiel Readiness Command (TSARCOM, ATTN: DRSTS-MPDMC, 4300 Goodfellow Blvd., St. Louis, MO 63120. If the application is accomplished by field personnel under negotiated MOU and requires reimbursement, mail the Control Copy (Copy 3) to Commander, US Army Depot System Command (DESCOM), ATTN: DRSDS-PM, Chambersburg, PA 17201. Procurement Request Order Number (PRON), Memorandum of Understanding (MOU) Number and fiscal station code will be annotated in Block 16A. If application is accomplished by depot or contractor teams, Copy 3 will not be submitted to DESCOM and may be disposed of in accordance with TM 38-750.

15. Product Improvement Proposal (PIP) Number. PIP Number 1-80-01-0216 is authority for this MWO.

By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Major General, United States Army
The Adjutant General

DISTRIBUTION:
To be distributed in accordance with DA Form 12-31, MWO Requirements for OH-58 aircraft.

***U.S. GOVERNMENT PRINTING OFFICE: 1982-564029/1362**

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)
PFC JOHN DOE
COA, 3d ENGINEER BN
FT. LEONARDWOOD, MO 63108

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
MWO 55-1520-228-30-34	8 Oct 1982	Wire Strike Protection Sys - OH-58 Helicopters

BE EXACT . . PIN-POINT WHERE IT IS

PAGE NO	PARAGRAPH	FIGURE NO	TABLE NO	IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
6	2-1 a			In line 6 of paragraph 2-1a the manual states the engine has 6 Cylenders. The engine on my set only has 4 Cylenders. Change the manual to show 4 Cylenders.
B1		4-3		Callout 16 on figure 4-3 is pointing at a bolt. In key to figure 4-3, item 16 is called a shim - Please correct one or the other.
125	line 20			I ordered a gasket, item 19 on figure B-16 by NSN 2910-00-762-3001. I got a gasket but it doesn't fit. Supply says I got what I ordered, so the NSN is wrong. Please give me a good NSN

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER [redacted] SIGN HERE John Doe

John Doe, PFC (268) 317-7111 JOHN DOE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

DRSTS-M Overprint 1, 1 Nov 80

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

TEAR ALONG PERFORATED LINE

REVERSE OF DA FORM 2028-2 Reverse of DRSTS-M Overprint 2, 1 Nov 80

TEAR Along PERFORATED LINE

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD 314

U.S.MAIL

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

COMMANDER
U S ARMY SUPPORT AND AVIATION MATERIEL READINESS COMMAND
ATTN: DRSTS-MPSD
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
MWO 55-1520-228-30-34	8 Oct 1982	Wire Strike Protection Sys - OH-58 Helicopters

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARAGRAPH	FIGURE NO	TABLE NO

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE

DA FORM 1 JUL 79 **2028-2**

PREVIOUS EDITIONS ARE OBSOLETE.

DRSTS-M Overprint 2, 1 Nov 80.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

REVERSE OF DA FORM 2028-2 Reverse of DRSTS-M Overprint 2, 1 Nov 80

TEAR ALONG PERFORATED LINE

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

_____

_____

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD 314

COMMANDER
U S ARMY SUPPORT AND AVIATION MATERIEL READINESS COMMAND
ATTN: DRSTS-MPSD
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
MWO 55-1520-228-30-34	8 Oct 1982	Wire Strike Protection Sys - OH-58 HELICOPTERS

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO	PARAGRAPH	FIGURE NO	TABLE NO

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

DRSTS-M Overprint 2, 1 Nov 80.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

REVERSE OF DA FORM 2028-2 Reverse of DRSTS-M Overprint 2, 1 Nov 80

TEAR ALONG PERFORATED LINE

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

_____

_____

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD 314

COMMANDER
U S ARMY SUPPORT AND AVIATION MATERIEL READINESS COMMAND
ATTN: DRSTS-MPSD
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
MWO 55-1520-228-30-34	8 Oct 1982	Wire Strike Protection Sys - OH-58 Helicopters

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO	PARAGRAPH	FIGURE NO	TABLE NO

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

DRSTS-M Overprint 2, 1 Nov 80.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

REVERSE OF DA FORM 2028-2 Reverse of DRSTS-M Overprint 2, 1 Nov 80

TEAR AT PERFORATED LINE

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

_____

_____

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD 314

COMMANDER
U S ARMY SUPPORT AND AVIATION MATERIEL READINESS COMMAND
ATTN: DRSTS-MPSD
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120

PIN: 051696-000