

CHAPTER

22

AUTO FLIGHT



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

CHAPTER 22
AUTO FLIGHT

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PART NUMBER: A22001-15, -22

NAME: REMOTE CONTROL UNIT - MAINTENANCE CONTROL DISPLAY PANEL

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

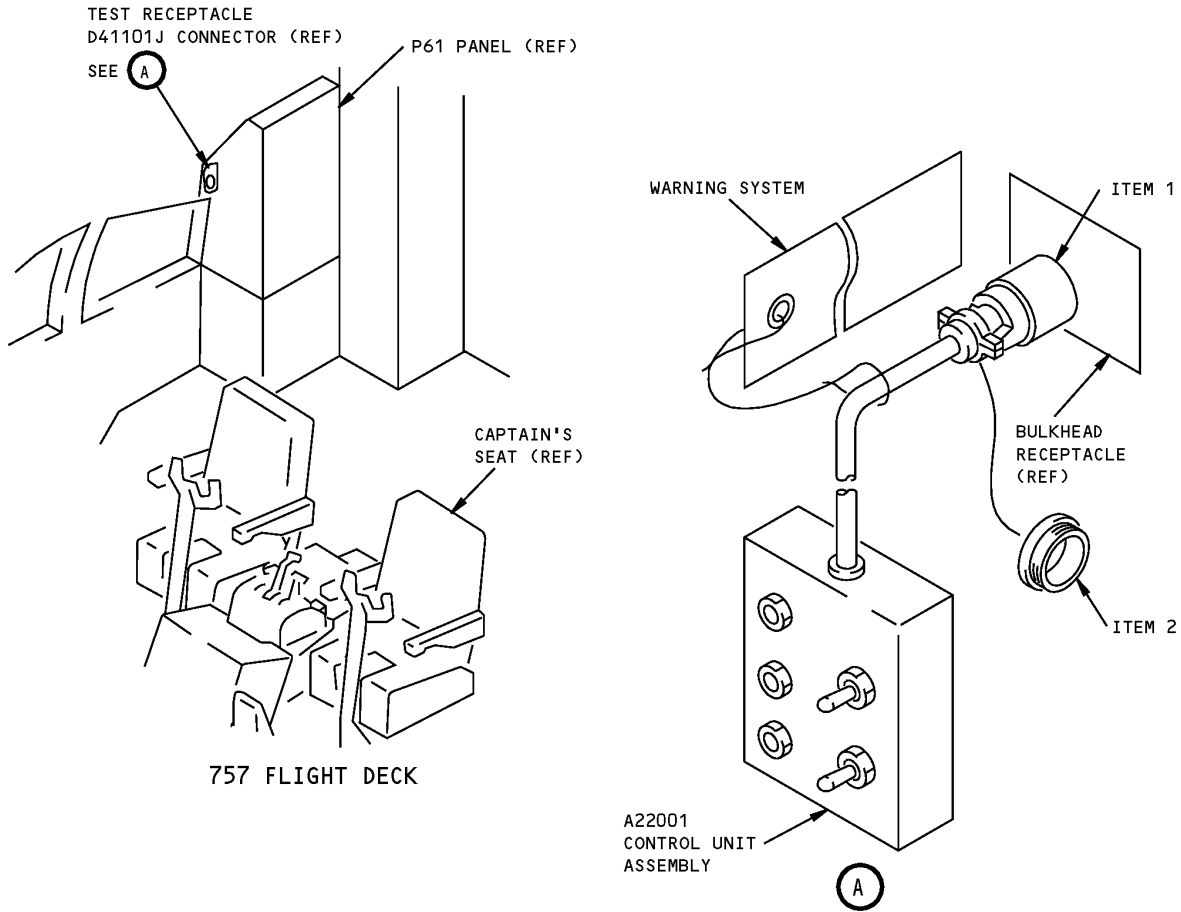
USAGE & DESCRIPTION: This tool enables the remote operation of the maintenance control display panel and the display of its data. Data is displayed on the Engine Indicating Crew Alerting System (EICAS) screen.

WEIGHT: 5 lbs (2.3 kg)

DIMENSIONS: 4 x 9 x 12 inches (102 x 229 x 305 mm)

NOTE: A22001-22 replaces A22001-15 for future procurement.

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Maintenance Control Display Panel Remote Control Unit
Figure 1

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MS24266R16B24P7	CONNECTOR	
2	MS27293-4	CONNECTOR CAP	



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PART NUMBER: B22002-1

NAME: BREAKOUT BOX - YAW DAMPER ELECTROMAGNETIC INTERFERENCE (EMI) FILTER

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B22002 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The B22002 inclusion in the 757 ITEM is for information and historical purposes only.

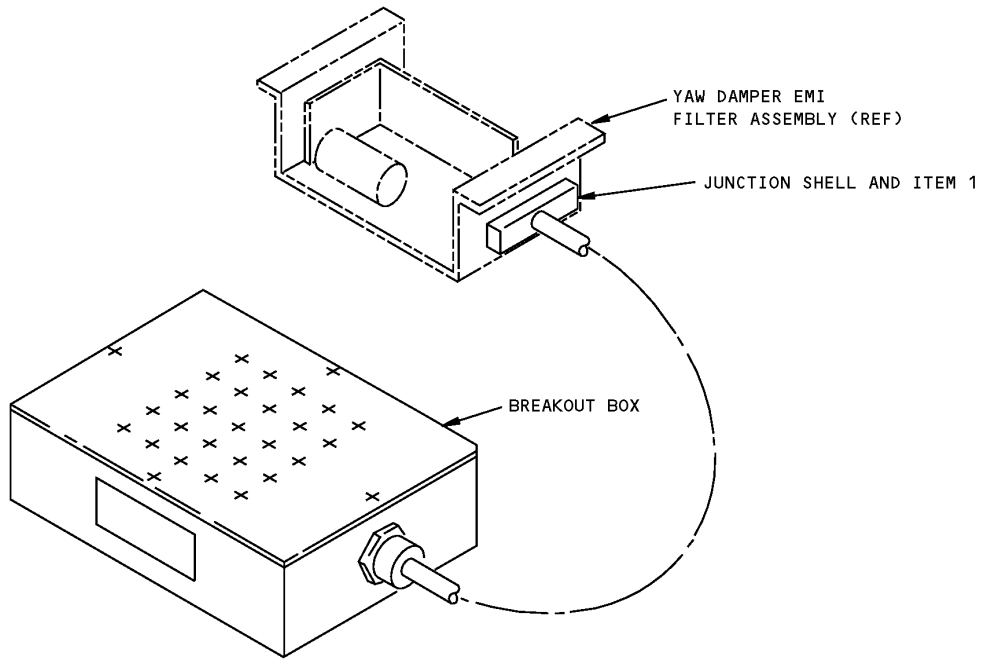
The B22002-1 breakout box is used during component maintenance on 757-200 airplanes equipped with the 285T0013-101 thru -110 yaw damper module. B22002 is used to functionally test the 285T0374 yaw damper electromagnetic interference (EMI) filter assembly. B22002 is used in conjunction with a Simpson 260 (or equivalent) multimeter. Refer to CMM 22-21-65 for complete usage instructions. B22002-1 consists of banana jacks, connectors and electrical circuitry mounted on a panel and chassis assembly.

WEIGHT: 1 lb (0.45 kg)

DIMENSIONS: 4 x 8 x 10 inches (102 x 203 x 254 mm)

NOTE: B22002-1 replaces A27036-16 for future procurement.

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Yaw Damper EMI Filter Breakout Box
Figure 1

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	M24308/3-3	CONNECTOR	



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PART NUMBER: B29005-17

NAME: SIMULATOR - YAW DAMPER MODULE

AIRPLANE MAINTENANCE: YES

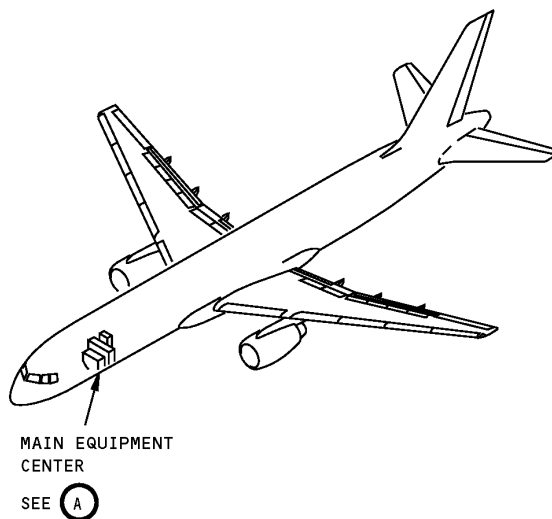
COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B29005-17 simulator is used on 757-200 airplanes equipped with M522 and M523 (285T0013) yaw damper modules. B29005 is used in place of the yaw damper modules when performing tests requiring yaw damper server input for rudder displacement. Refer to AMM 27-21-00 and AMM 29-11-00 for complete usage instructions. The B29005-17 simulator consists of two B29005-18 simulator assemblies contained in a storage box.

WEIGHT: 10 lbs (4.5 kg)

DIMENSIONS: 12 x 17 x 17 inches (305 x 432 x 432 mm)

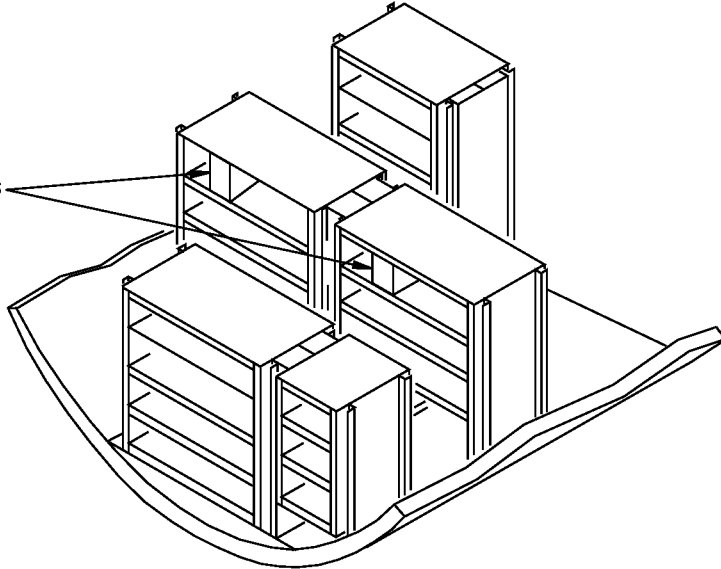
NOTE: B29005-17 supersedes B29005-1.



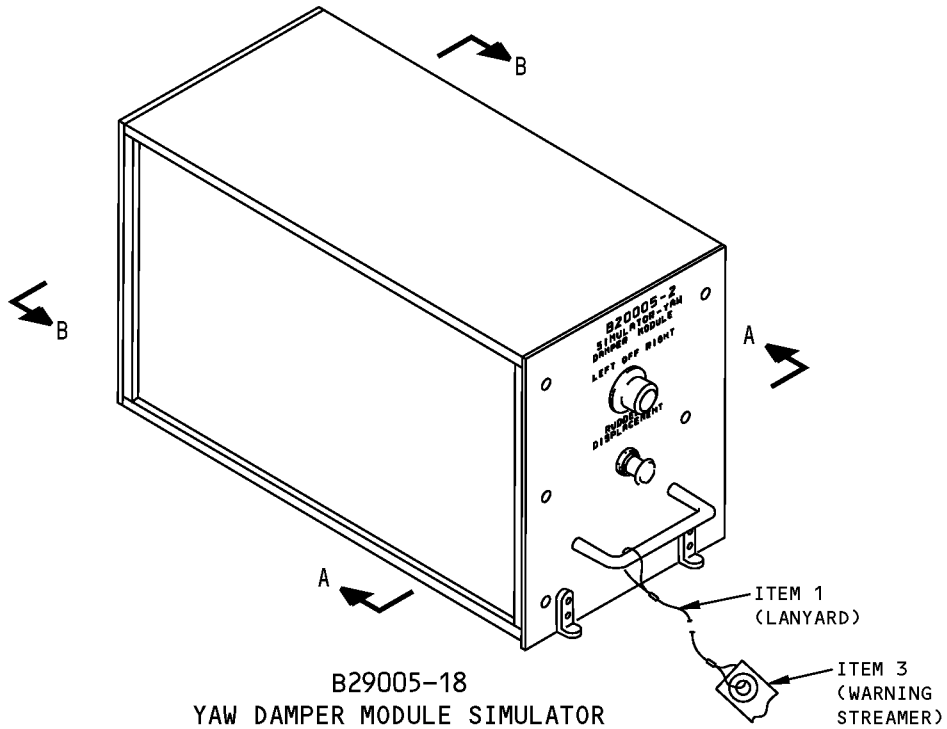
Yaw Damper Module Simulator - Usage Locator
Figure 1

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B29005-18
SIMULATOR REPLACES
YAW DAMPER MODULE
M522 AND M523
(E4-1, E3-1)
SEE (B)



MAIN EQUIPMENT CENTER

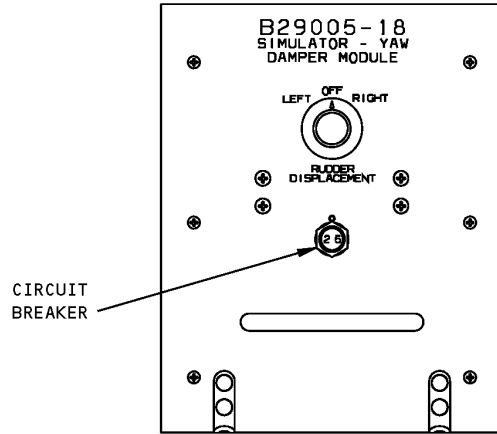


B29005-18
YAW DAMPER MODULE SIMULATOR

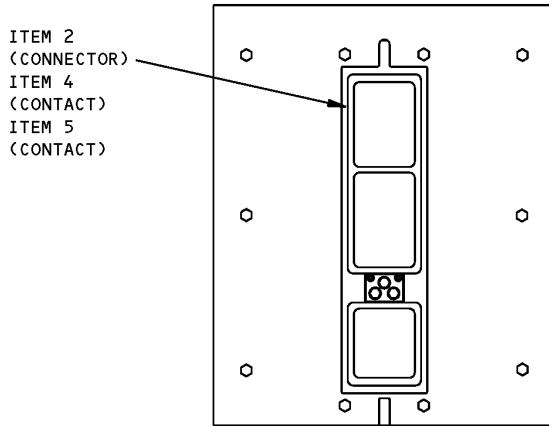


Yaw Damper Module Simulator
Figure 2 (Sheet 1 of 2)

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A-A



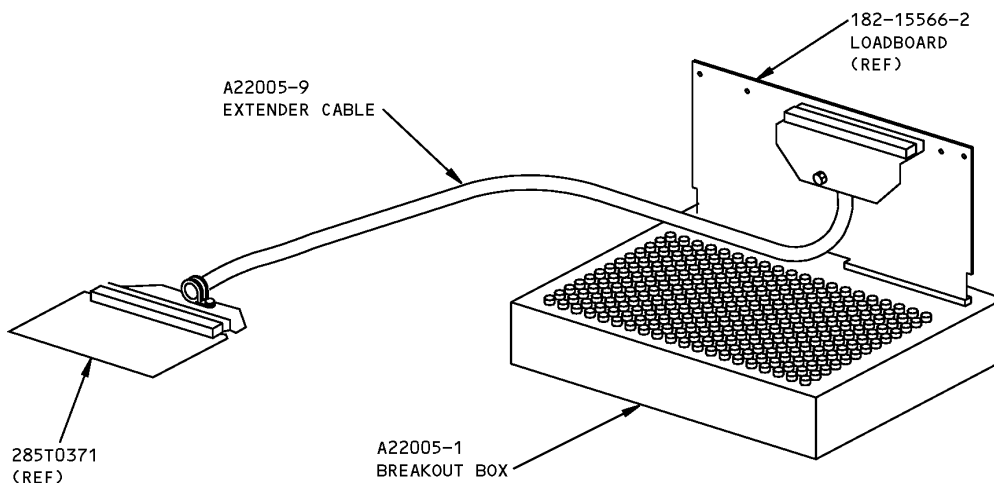
B-B

**Yaw Damper Module Simulator
Figure 2 (Sheet 2 of 2)**

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PART NUMBER: A22005-1, -9**NAME:** BREAKOUT BOX - AUTOMATIC TEST STATION (ATS) LOADBOARD YAW DAMPER MONITOR RECEIVER, PRINTED CIRCUIT ASSEMBLY (PCA)**AIRPLANE MAINTENANCE:** NO**COMPONENT MAINTENANCE:** YES**USAGE & DESCRIPTION:** The A22005 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A22005 inclusion in the 757 ITEM is for information and historical purposes only.

The A22005-1 breakout box and A22005-9 test cable are used together during component maintenance on 757-200 airplanes having a 285T0013-101 thru -110 yaw damper module. Refer to CMM 22-21-70 for complete usage instructions. A22005-1 consists of connectors, banana jacks and electrical circuitry mounted on a panel and chassis. A22005-9 is an extender cable assembly.

WEIGHT: 5 lbs (2.3 kg)**DIMENSIONS:** 17 x 14 x 3 inches (432 x 356 x 76 mm)

**ATS Loadboard, Yaw Damper Monitor Receiver PCA, Breakout Box
Figure 1**



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PART NUMBER: A22003-22

NAME: COMPONENT MAINTENANCE EQUIPMENT - AUTOTHROTTLE CLUTCH

AIRPLANE MAINTENANCE: NO

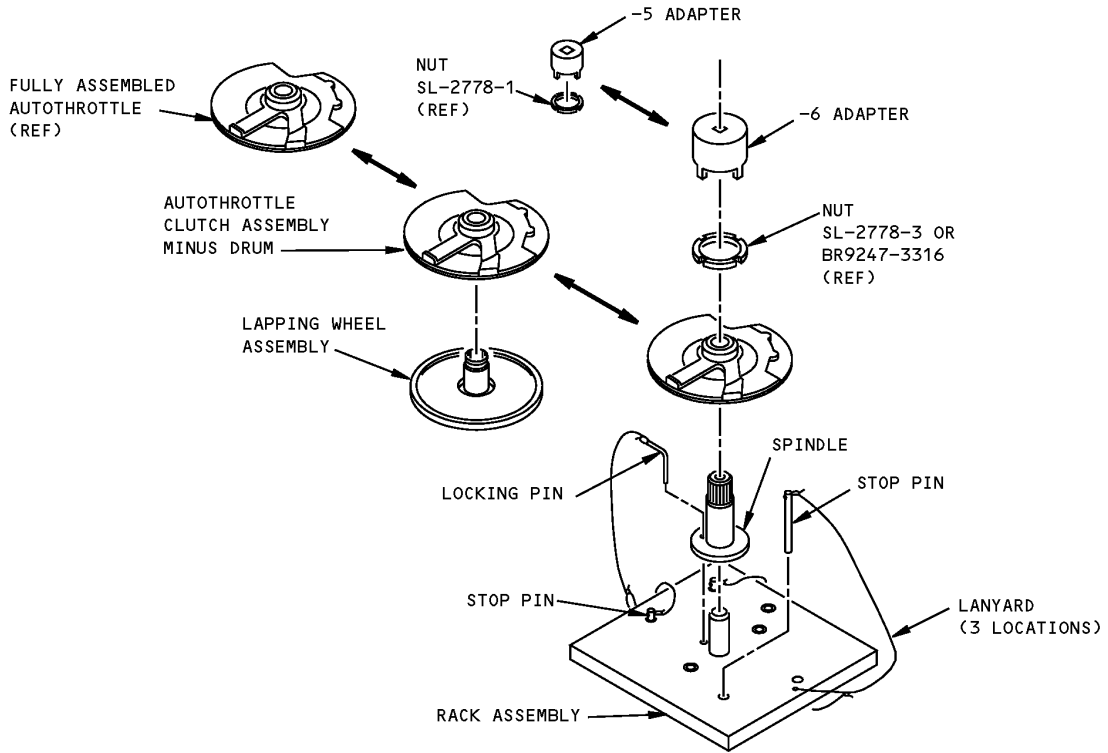
COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: This tool consists of the following: Three adapters, a lapping wheel, spindle assembly, and torque rack assembly. Each adapter is used with a customer-supplied 1/2-inch square drive torque wrench to disassemble/assemble different autothrottle clutch pack assemblies. A lapping wheel, spindle and torque rack assembly are used to mount the clutch assembly to lap the clutch shoe linings. A locking pin secures the clutch assembly for nut removal and a stop pin restrains the clutch pack outer case during the clutch shoe lapping operation. Refer to CMM 22-32-41 and 22-32-51 for further usage instructions.

WEIGHT: 28 lbs (13 kg)

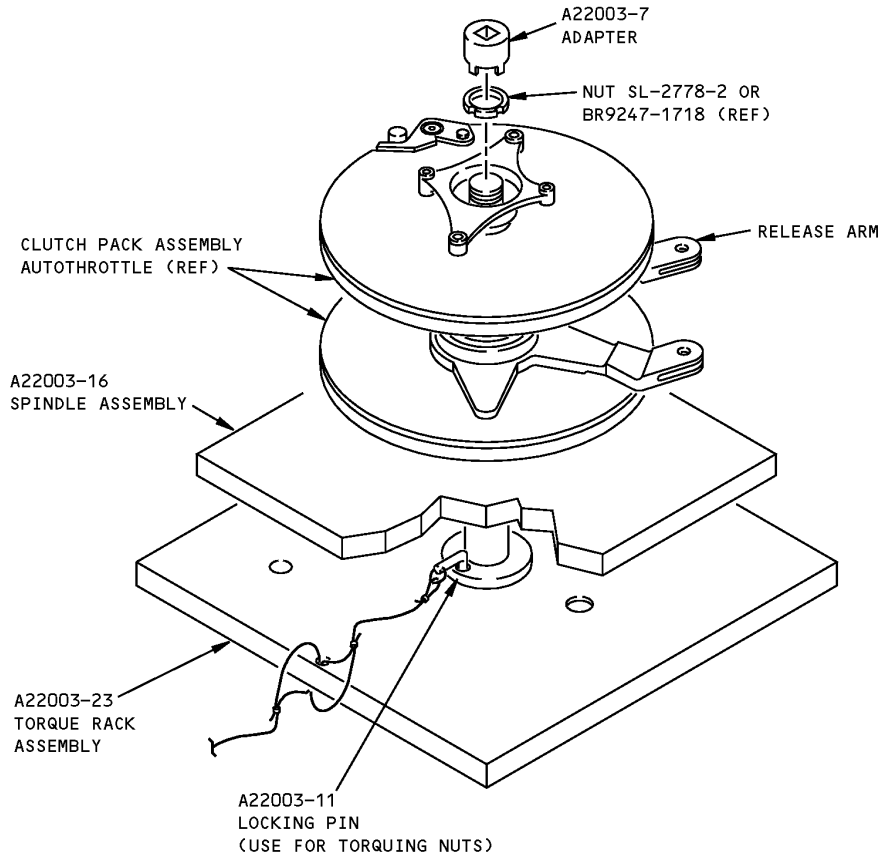
DIMENSIONS: 8 x 17 x 27 inches (203 x 432 x 686 mm)

NOTE: A22003-22 supersedes A22003-20
A22003-20 supersedes A22003-1



LAPPING ARM SHOE LINING
USAGE I

**Autothrottle Clutch Component Maintenance
Figure 1 (Sheet 1 of 2)**



**TORQUING AND NUT REMOVAL
USAGE II**

**Autothrottle Clutch Component Maintenance
Figure 1 (Sheet 2 of 2)**



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PART NUMBER: A22004-1

NAME: CHECKING FIXTURE - AUTOTHROTTLE GEARBOX

AIRPLANE MAINTENANCE: NO

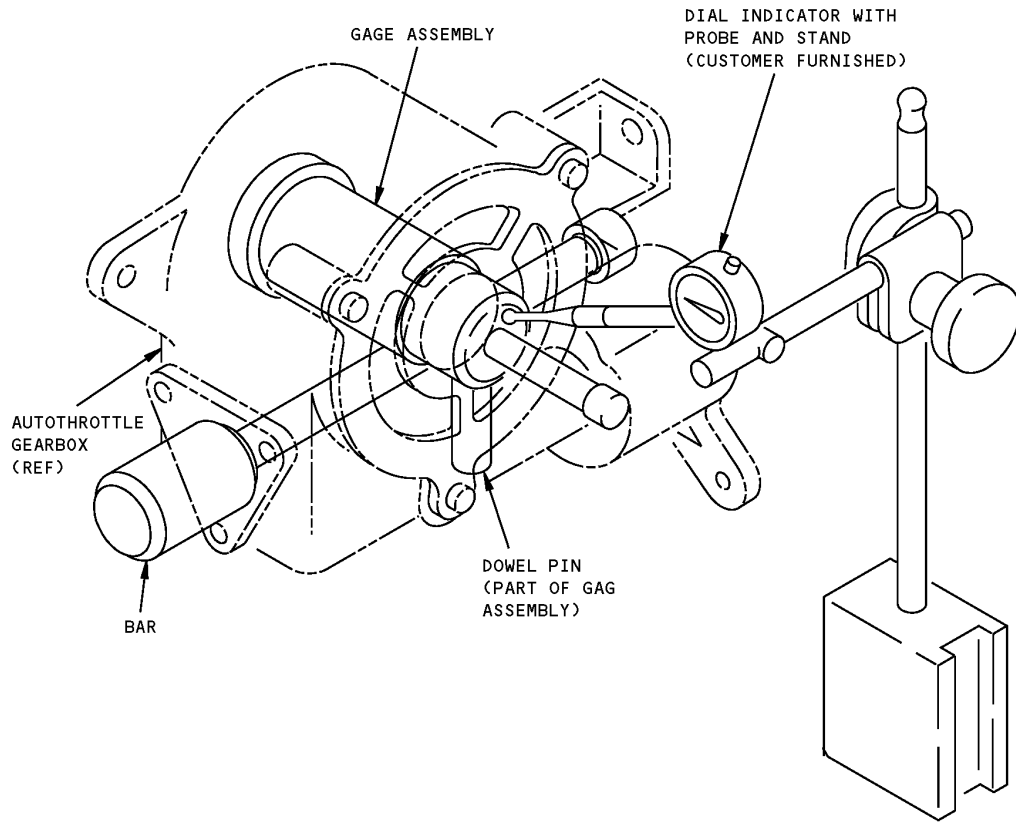
COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: This tool is used to determine shim thickness required to establish the proper mounting distance during autothrottle gearbox assembly. The tool consists of two assemblies, the gage assembly and bar.

WEIGHT: 1.5 lbs (0.7 kg)

DIMENSIONS: 2.3 x 5.6 inches (58 x 142 mm)

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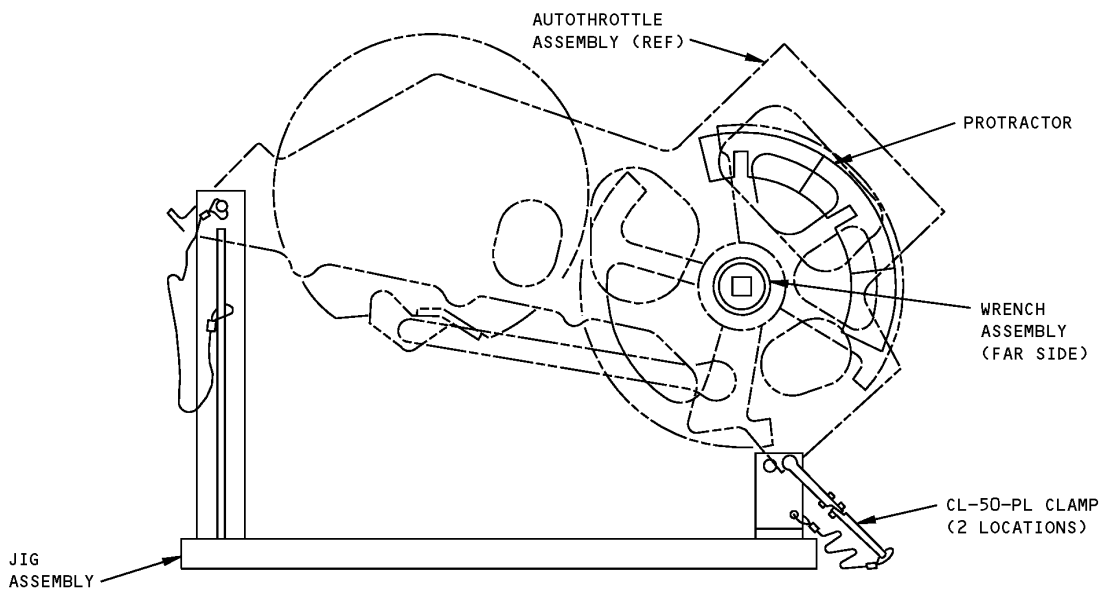


**Autothrottle Gearbox Checking Fixture
Figure 1**

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PART NUMBER: B22001-1**NAME:** JIG EQUIPMENT - AUTO THROTTLE**AIRPLANE MAINTENANCE:** NO**COMPONENT MAINTENANCE:** YES

USAGE & DESCRIPTION: This tool is used to mount the auto throttle, install/remove drum shaft nut and check angle of movement. Refer to CMM 22-32-25 for further usage information. This tool consists of a jig assembly, a protractor, a wrench assembly, in a box assembly.

WEIGHT: 25 lbs (11.3 kg)**DIMENSIONS:** 15 x 20 x 25 inches (381 x 508 x 635 mm)

**Auto Throttle Jig Equipment
Figure 1**



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PART NUMBER: B76002-1, -11

NAME: RIGGING EQUIPMENT - PW2037 AUTOTHROTTLE RESOLVER

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: YES

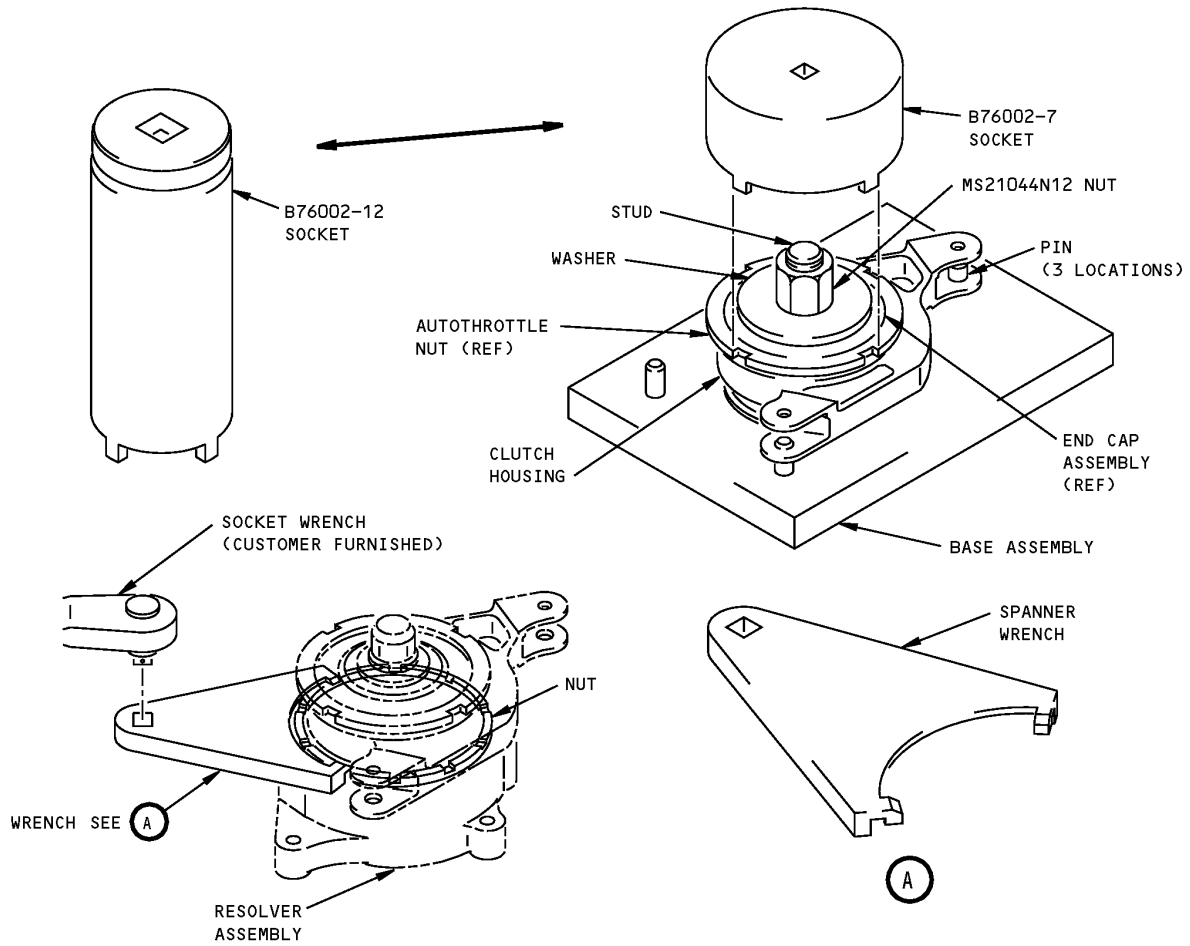
USAGE & DESCRIPTION: This tool is used to compress the housing assembly with the end cap assembly, and install or remove the autothrottle nut. The tool is also used to assemble and disassemble the autothrottle resolver assembly. Refer to AMM 73-21-11 and CMM 22-32-26 for further usage instructions. The tool consists of a base assembly, socket, wrench, wrench assembly, washer, and nut.

WEIGHT: 26 lbs (12 kg)

DIMENSIONS: 10 x 16 x 27 inches (254 x 406 x 686 mm)

NOTE: B76002-11 replaces B76002-1 for future procurement.

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PW2037 Autothrottle Resolver Rigging Equipment
Figure 1



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PART NUMBER: B22003-39

NAME: TEST EQUIPMENT - AUTOTHROTTLE CLUTCH

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

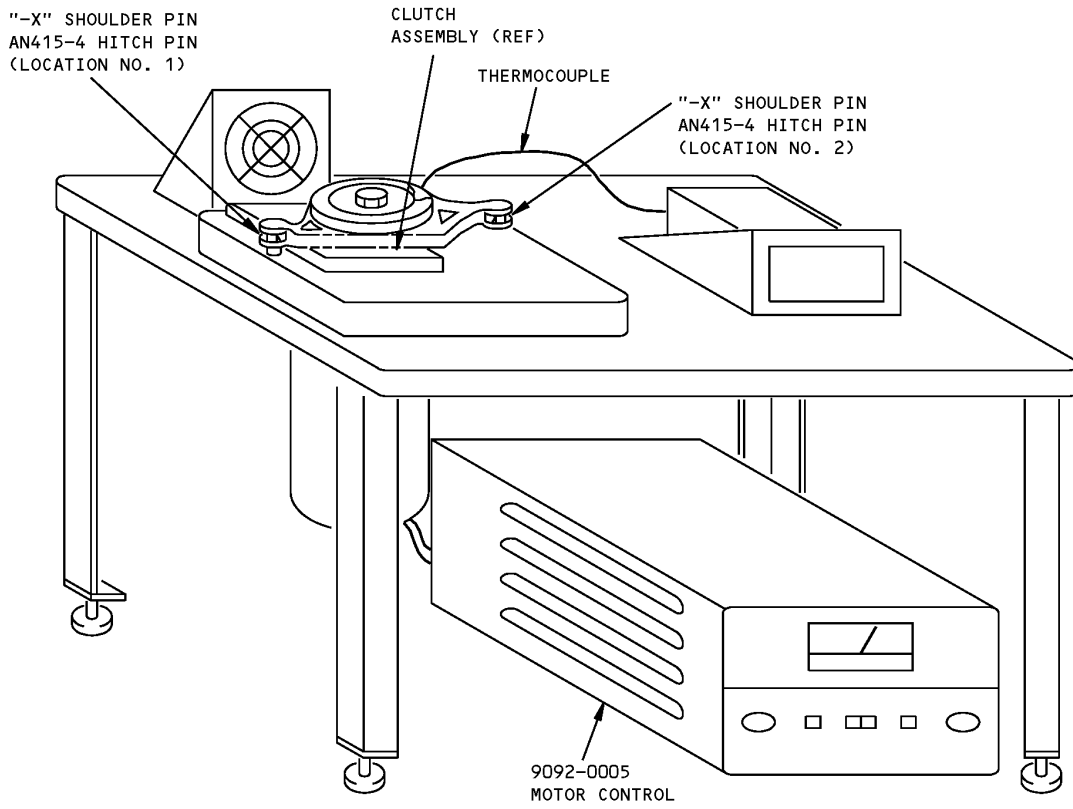
USAGE & DESCRIPTION: Use for run-in procedure of the autothrottle clutch assembly. Refer to CMM 22-32-26 for further usage instructions.

WEIGHT: 55 lbs (25 kg)

DIMENSIONS: 24 x 12 x 20 inches (610 x 305 x 508 mm)

NOTE: G22003 replaces B22003 for future procurement.
B22003-39 supersedes B22003-20, -1.

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**Autothrottle Clutch Test Equipment
Figure 1**



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PART NUMBER: G22003-132, -133, -134, -135

NAME: TEST EQUIPMENT - AUTOTHROTTLE CLUTCH

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

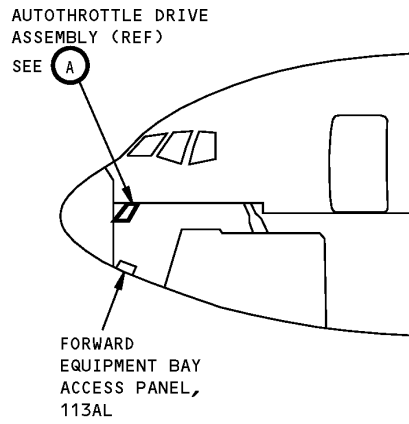
USAGE & DESCRIPTION: G22003-132, -133, -134 or -135 test equipment is used during component maintenance for all 757 airplanes. G22003 is used to perform run-in and acceptance tests on the 254N1163 autothrottle clutch. G22003-132 and -134 test equipment are used with 60 Hz power requirements. G22003-133 and -135 test equipment are used with 50 Hz power requirements. G22003-134 (60 Hz) and G22003-135 (50 Hz) test equipment are preferred for future procurement. G22003-132, -133, -134, or -135 test equipment each consist of a test unit assembly, which includes a test box assembly, transducer assembly, test base and motor, various accessories and attaching hardware. Each G22003-132, -133, -134 or -135 test equipment is contained in its own storage box. Refer to CMM 22-32-26 for further usage instructions.

WEIGHT: 110 lbs (50 kg)

DIMENSIONS: 19 x 19 x 24 inches (483 x 483 x 610 mm)

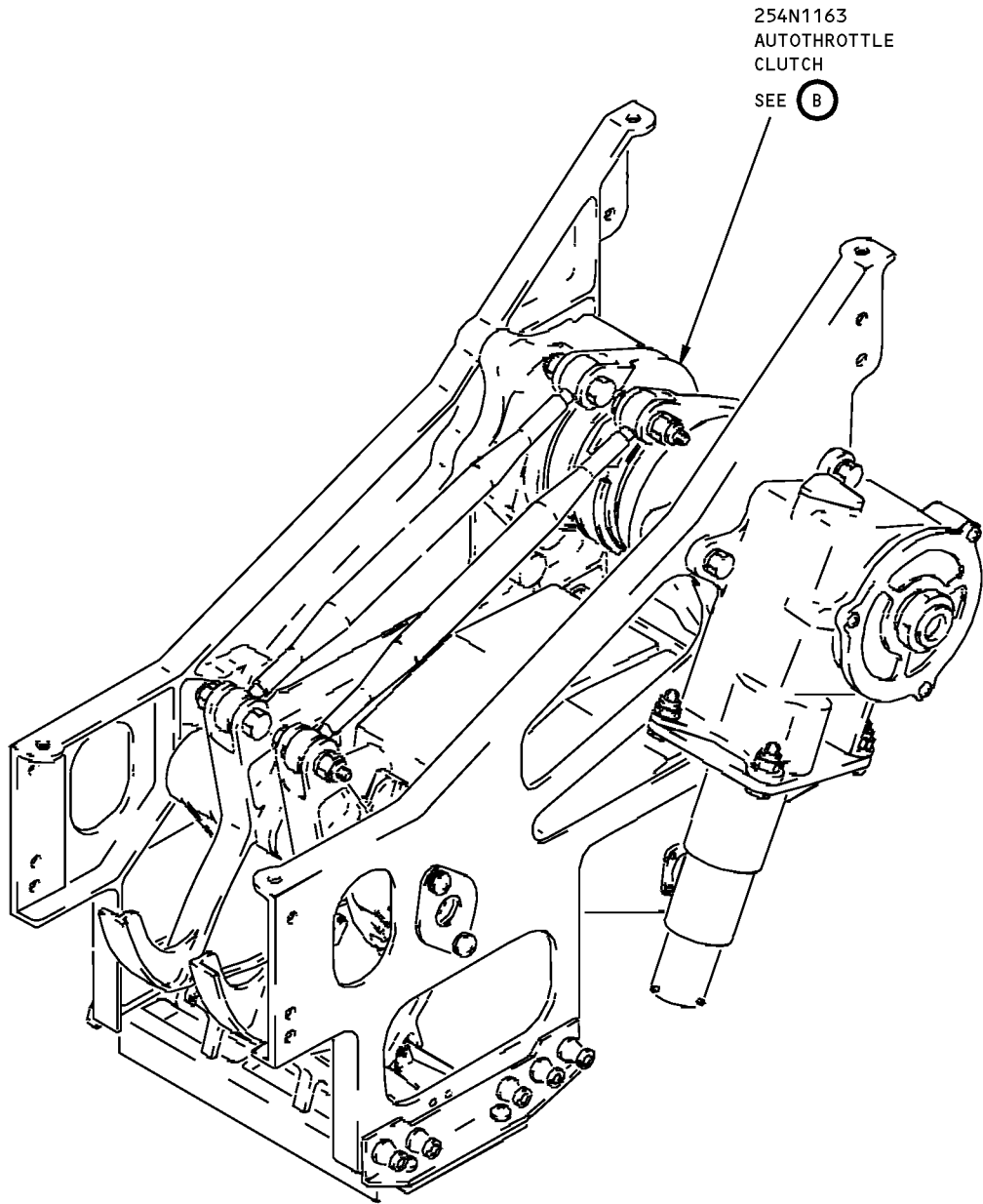
NOTE: G22003-135 supersedes G22003-133 for future procurement.
G22003-134 supersedes G22003-132 for future procurement.
G22003-133 supersedes G22003-108.
G22003-132 supersedes G22003-107.

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**Autothrottle Drive Assembly
Figure 1 (Sheet 1 of 2)**

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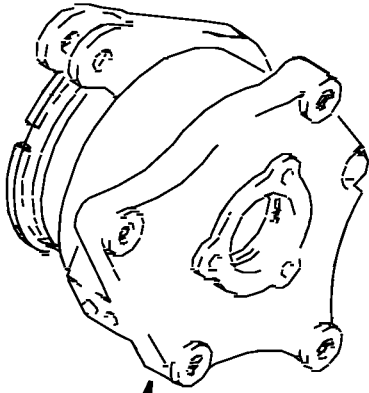
254N1163
AUTOHROTTLE
CLUTCH
SEE (B)

AUTOTHROTTLE DRIVE ASSEMBLY

(A)

Autothrottle Drive Assembly
Figure 1 (Sheet 2 of 2)

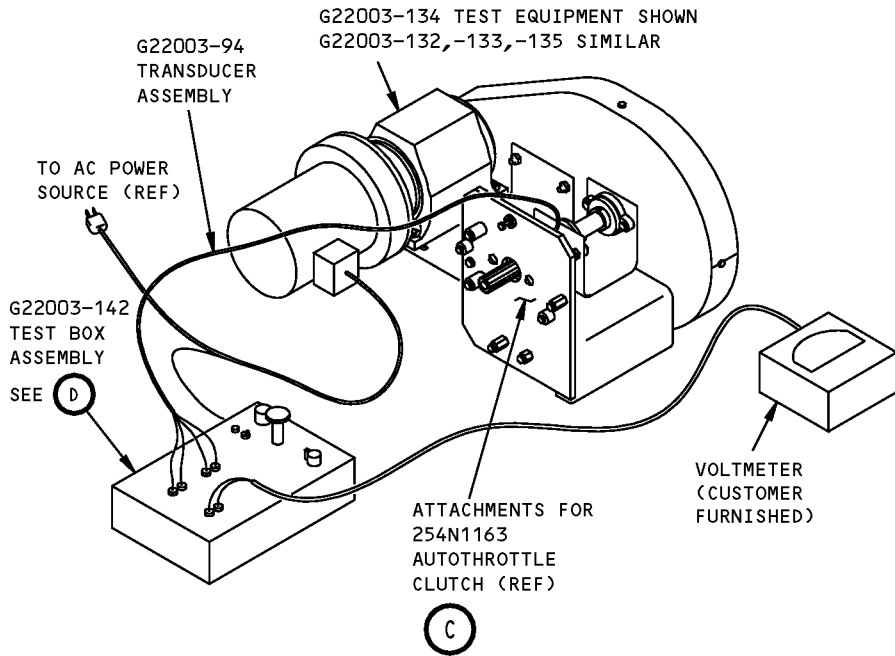
ILLUSTRATED TOOL AND EQUIPMENT MANUAL



SEE (C)

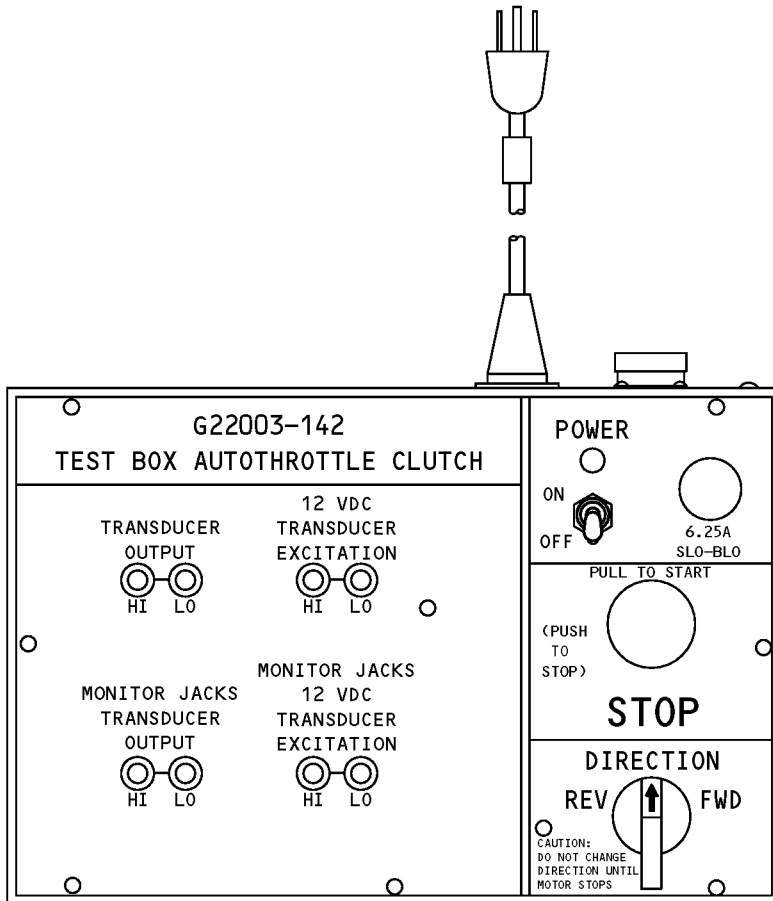
254N1163 AUTOHROTTLE CLUTCH

(B)



Autothrottle Clutch Test Equipment
Figure 2 (Sheet 1 of 2)

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G22003-142
TEST BOX ASSEMBLY SHOWN
(PART OF G22003-134)
G22003-140, 141, -143 SIMILAR

(D)

**Autothrottle Clutch Test Equipment
Figure 2 (Sheet 2 of 2)**