

**CHAPTER 99**

**SPECIAL TOOLS**

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**CHAPTER 99**  
**SPECIAL TOOLS**

99-10 Special Tools

The following is a list of Robinson R66 special tools.

R66 special tools are to be used in conjunction with the applicable instructions for continued airworthiness, for their designated maintenance task.

99-20 Illustrations and Tasks

Refer to Figure 99-1.

Item	Part Number	Description
1	MT054-1	Main Gearbox Drain Assembly
2	MT107-1	Socket (Pressure Fueling Valve)
3	MT122-6	Micrometer Assembly – Main Rotor Hub, Bolt Stretch
4	MT146-4	Blocks – Swashplate Rigging (set of 2)
5	MT147-1	Bleed Tool – Main Rotor Blade Spindle [includes (2) MT147-2 fittings]
6	MT179-4	Balancing Bar – Tail Rotor Assembly Static Balance
7	MT260-6	Tail Rotor Drive Shaft Runout Attachments Kit
8	MT329-6	Plug – Main Rotor Hub Bearing Installation/Removal
9	MT329-10	Tube – Main Rotor Hub Bearing Removal

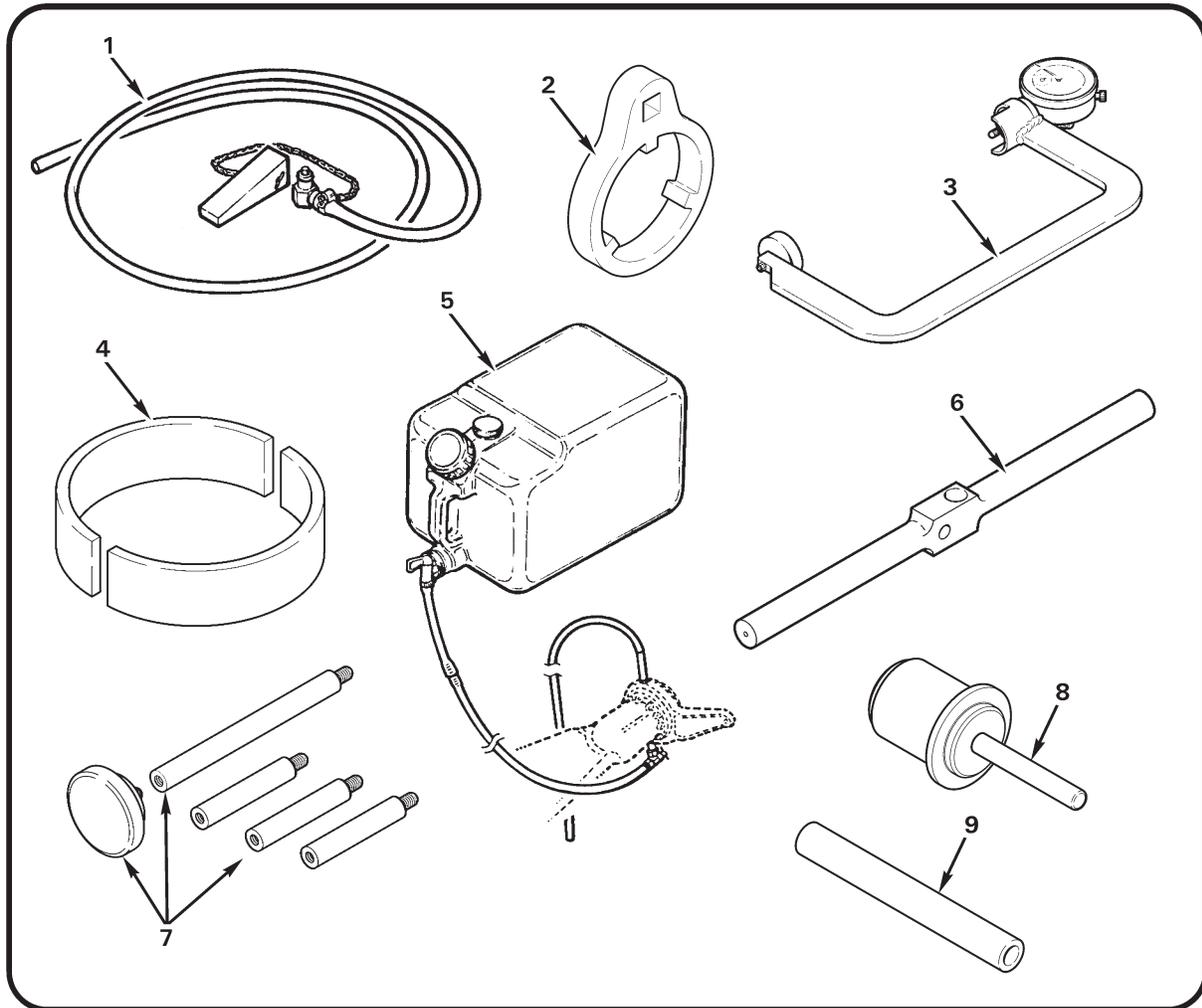


FIGURE 99-1 SPECIAL TOOLS

99-20 Illustrations and Tasks (continued)

Refer to Figure 99-2.

Item	Part Number	Description
1	MT352-1	Main Rotor Blade Trim Tab Gage
2	MT354-4 or -7	Teeter Moment Tool
3	MT357-2	0.375-inch diameter Reamer
4	MT357-3	0.156-inch diameter Cobalt Steel Drill
5	MT357-4	Hex Driver (Snap-On Part No. FABL8)
6	MT357-5	Torque Adapter (Snap-On Part No. FRDH101)
7	MT359-1	Spring Scale (0-30 lb)

\* Ream bore after installation of A139-1 bearing to 0.376-0.375 inch diameter.

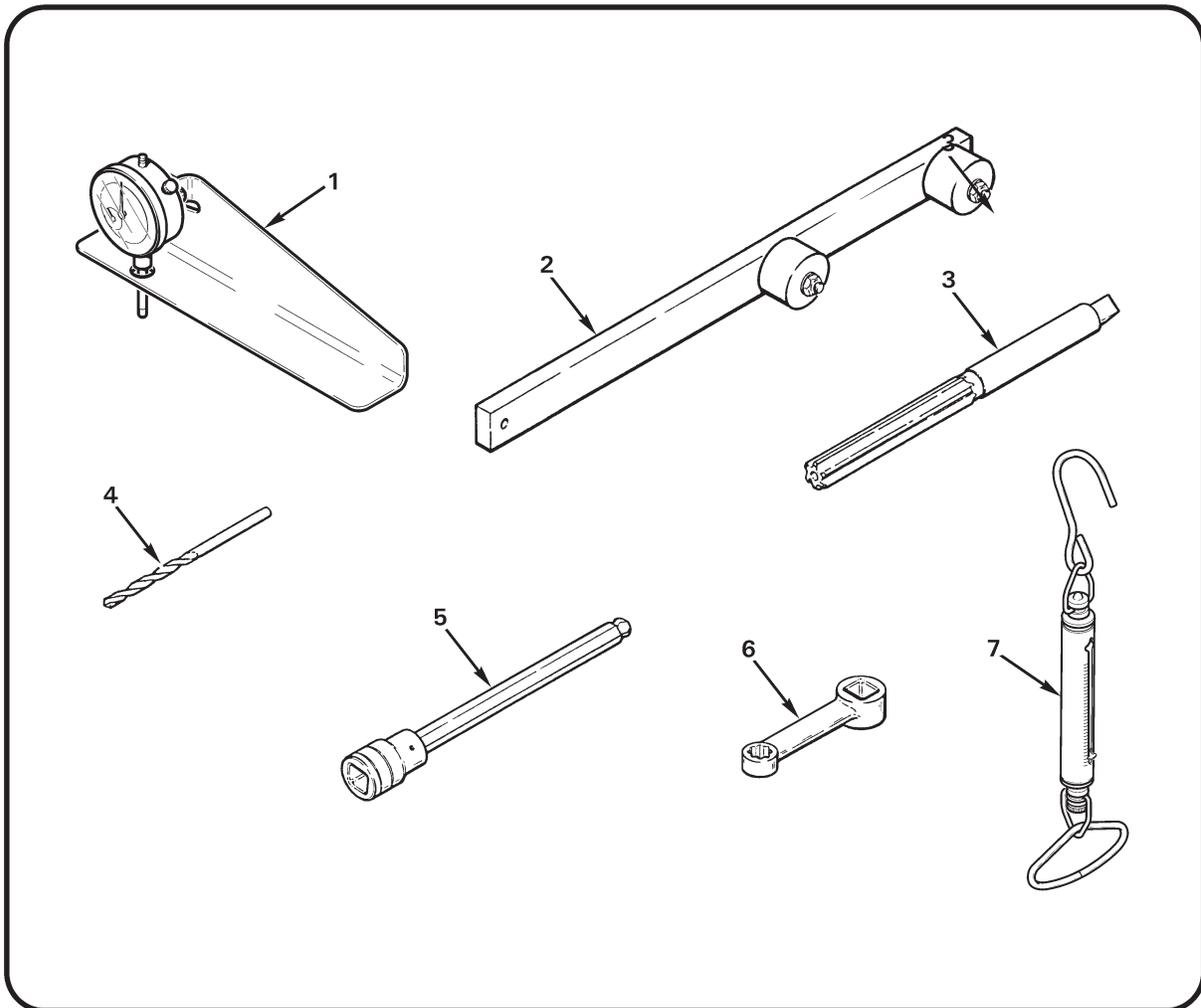


FIGURE 99-2 SPECIAL TOOLS

99-20 Illustrations and Tasks (continued)

Refer to Figure 99-3.

Item	Part Number	Description
1	MT384-1	Hydraulic Test Pump (U.S / Canada / Mexico – 110 V)
2	MT384-2	Hydraulic Test Pump (Outside North America – 220 V)
3	MT524-1	Main Rotor Static Balancing Fixture (Incl 4 and 5)
4	MT524-2	Balancing Fixture Components Without Base
5	MT009-9	Main Rotor Static Balancing Fixture Base

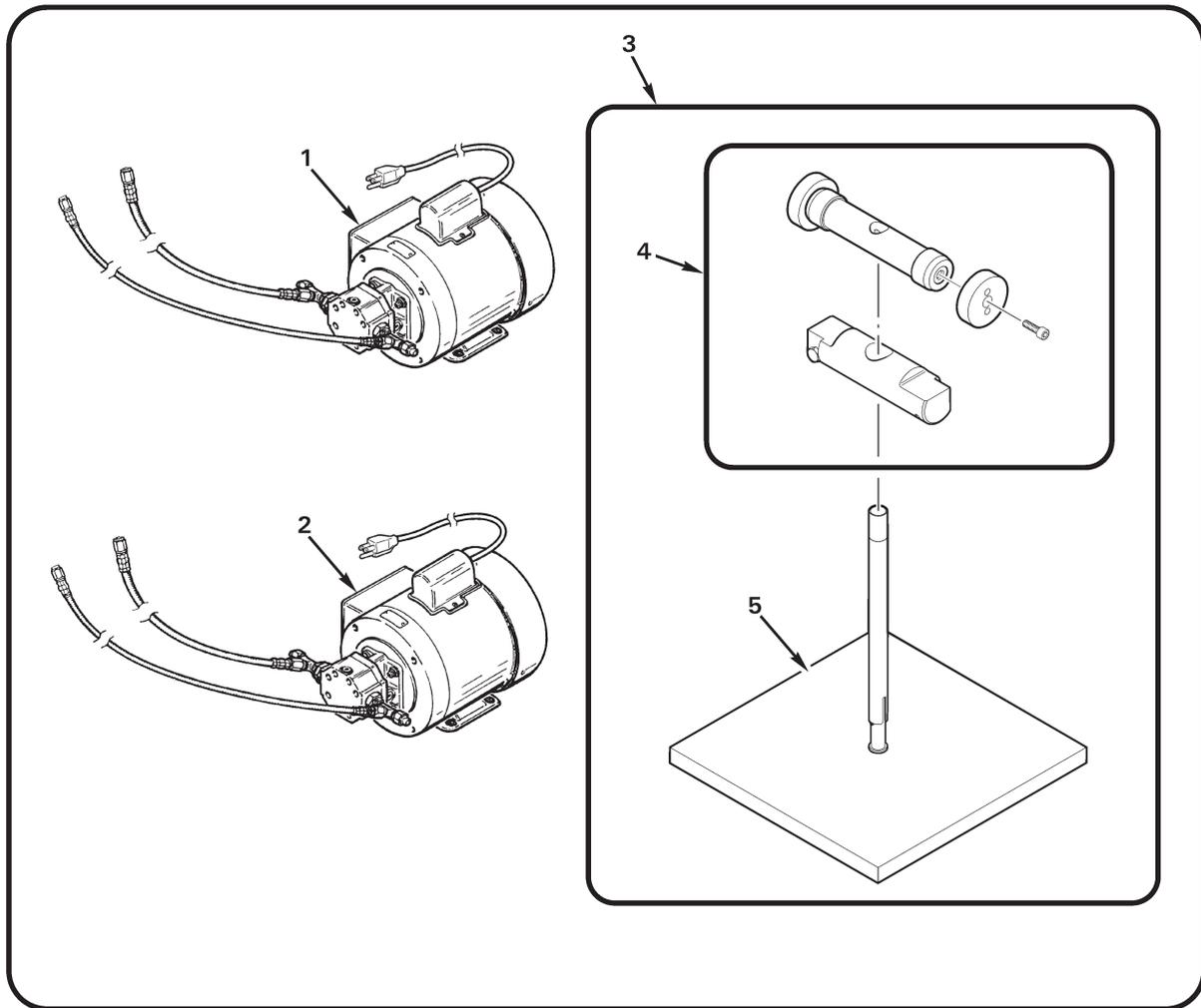


FIGURE 99-3 SPECIAL TOOLS

99-20 Illustrations and Tasks (continued)

Refer to Figure 99-4.

Item	Part Number	Description
1	MT525-7	Main Rotor Blade Rigging Fixture
2	MT525-9	Tail Rotor Blade Rigging Fixture
3	MT526-8	Bender Assembly – Trim Tab, Main Rotor Blade (aluminum)
4	MT527-1	Helicopter Lifting Fixture
5	MT548-8	Fitting (engine hoist adapter)

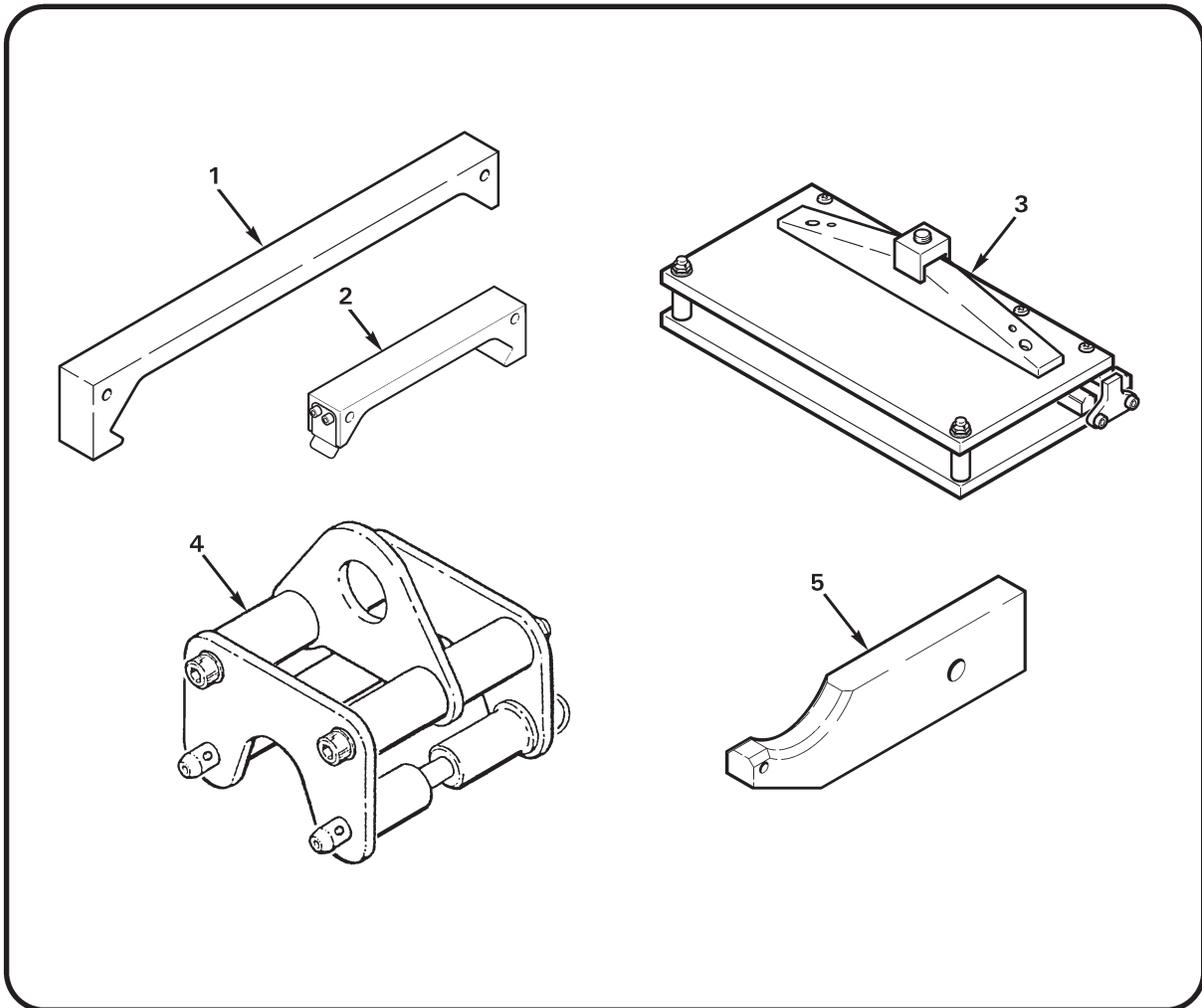


FIGURE 99-4 SPECIAL TOOLS

99-20 Illustrations and Tasks (continued)

Refer to Figure 99-5.

Item	Part Number	Description
1	MT549-1	Spacer – Spindle Boot (set of 2)
2	MT549-2	Plate – Spindle Boot
3	MT556-11	Kit Tools – Tail Rotor Hub Bearing Replacement
4	MT569-2	Guide Assembly – Drill (main rotor hub nut)
5	MT640-2	Open-End Crowfoot Wrench (N1 Plug)
6	MT642-4	Pressing Tool – Seal (MGB Input Shaft Seal)
7	MT643-1	Support Weldment – Main Rotor Hub Bearing Installation
8	MT759-1	Blocks – Cyclic Rigging (see Figure 18-7A)
	MT759-2	Blocks – Cyclic Rigging (see Figure 18-7A)

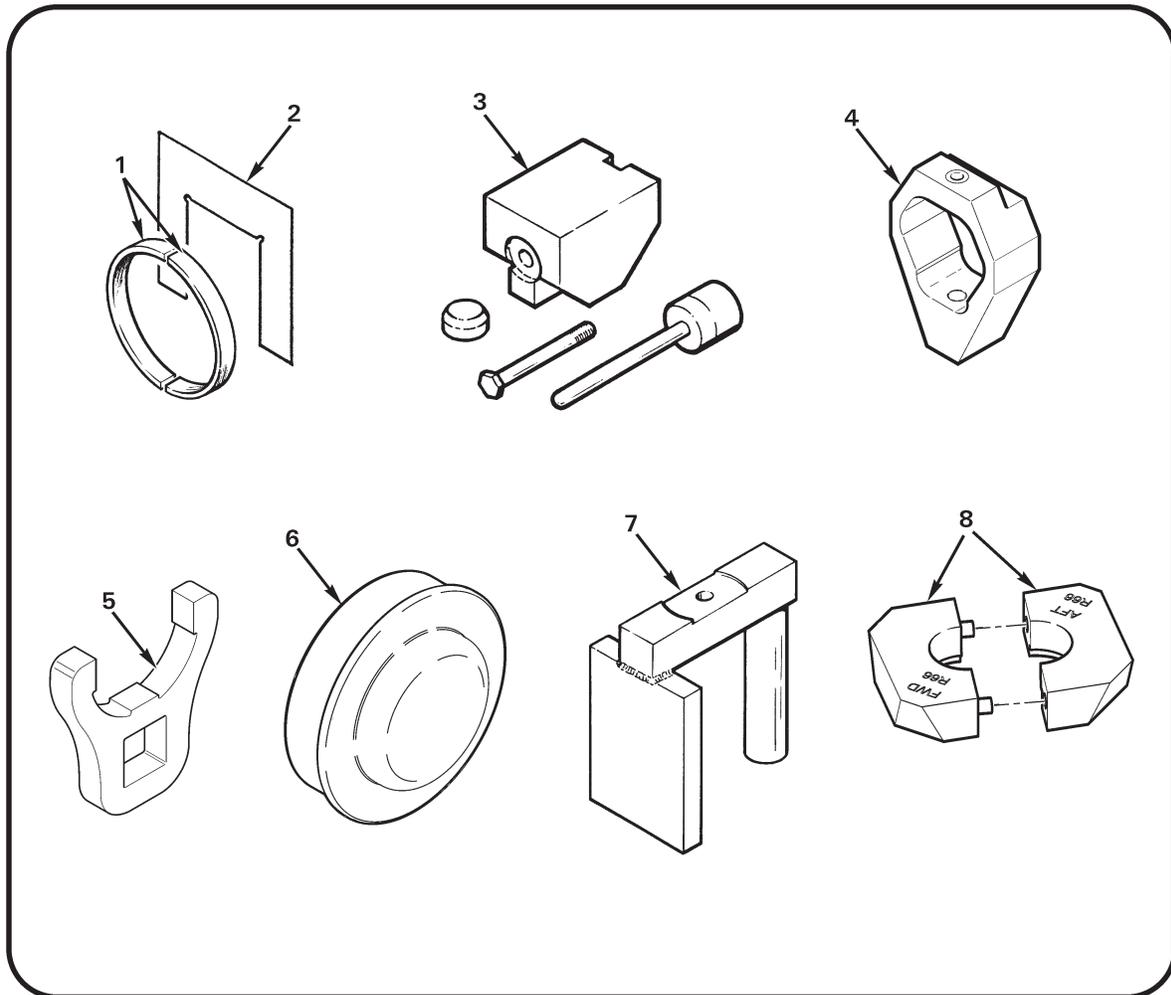


FIGURE 99-5 SPECIAL TOOLS

99-20 Illustrations and Tasks (continued)

Refer to Figure 99-6.

Item	Part Number	Description
1	MT850-1	Engine Stand Assembly (RR300)
2	AN970-4*	Washer – Tap Test Tool
3	MT990-1 MT990-2	Charger Assembly (BatteryMinder – 24 VDC, 120 VAC, 50/60 Hz) Charger Assembly (BatteryMinder – 24 VDC, 240 VAC, 50/60 Hz)
4	2020HR	ACES Probalancer Analyzer (or equivalent dynamic balancer)

\* Or 1965 or later U.S. quarter dollar coin in good condition.

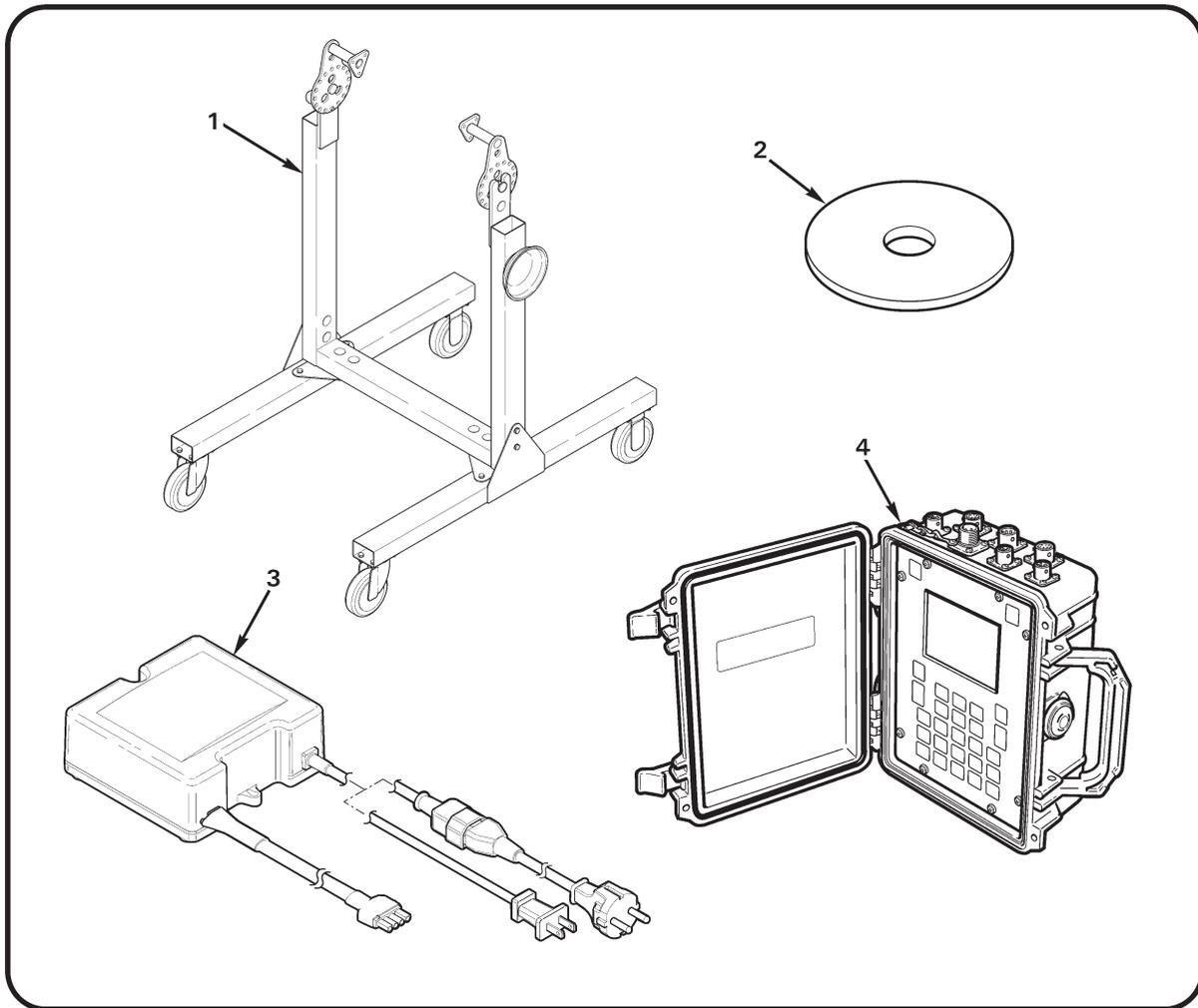


FIGURE 99-6 SPECIAL TOOLS

99-20 Illustrations and Tasks (continued)

Refer to Figure 99-7.

Item	Part Number	Description*
1	R6683	Tow Cart Crate (31 in. x 38 in. x 66.50 in.)
2	R5387	Windshield Box (21.75 in. x 40 in. x 66 in.; cardboard. Holds up to four windshields.)
3	R5352	Main Rotor Blade Crate (21.75 in. x 17 in. x 206.50 in.)
4	R5385	Push-Pull Tube/Tail Rotor Drive Shaft Crate (10.25 in. x 11.50 in. x 192 in.)

\* Dimensions are approximate and expressed in inches. Dimensions are provided in height x width x length.

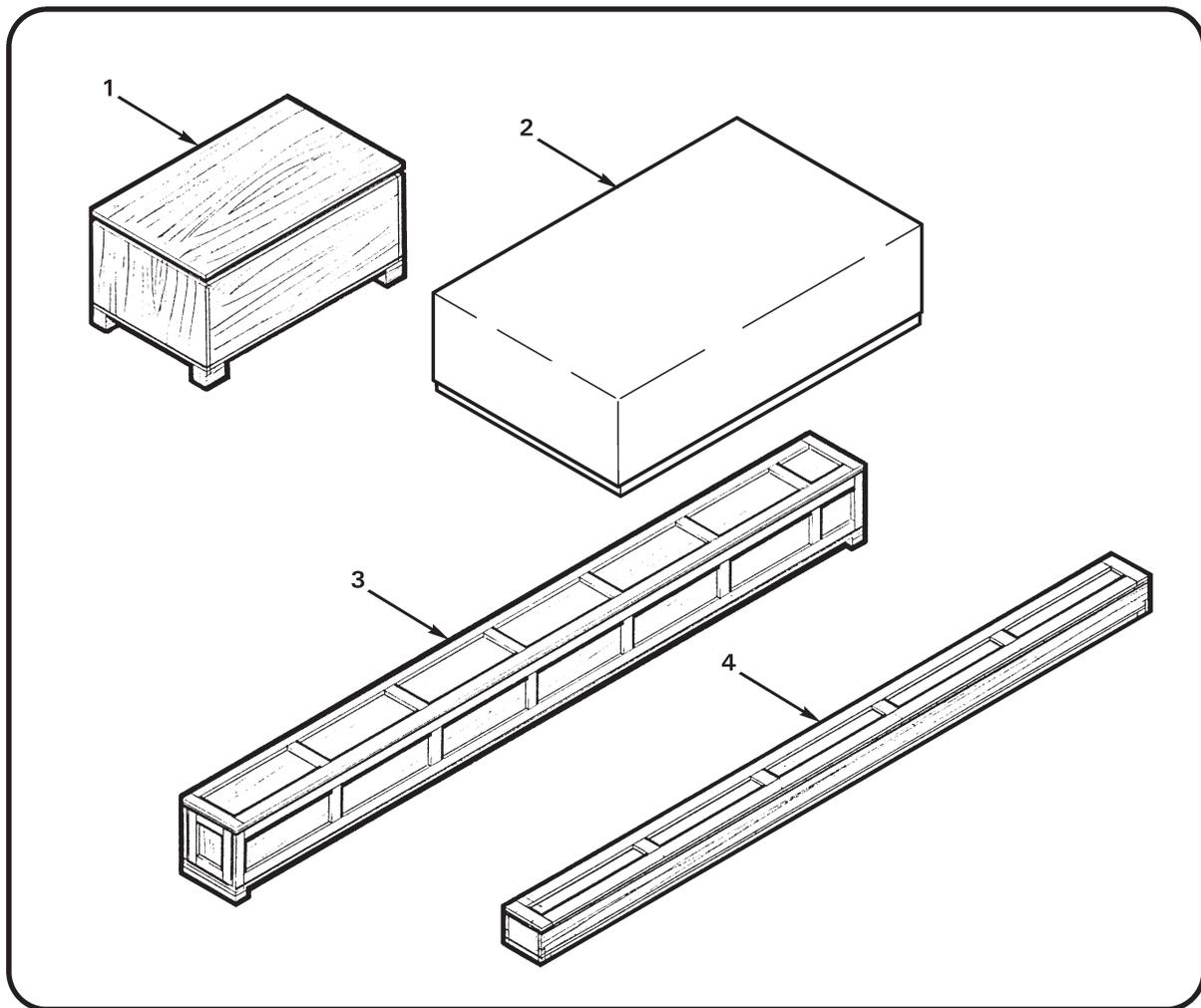


FIGURE 99-7 SHIPPING CRATES

99-20 Illustrations and Tasks (continued)

Refer to Figure 99-8.

Item	Part Number	Description*
1	R5386	Cabin Door Crate (23.75 in. x 34 in. x 60 in.; holds [1] bubble or [2] regular doors)
2	R5388	Tailcone Crate (27.25 in. x 24 in. x 192 in.)
3	R5702	Main Rotor Blade/Tailcone Crate (28 in. x 30 in. x 208 in.)
4	R7982	Main Rotor Gearbox Crate (27 in. x 28.75 in. x 89.50 in.)

\* Dimensions are approximate and expressed in inches. Dimensions are provided in height x width x length.

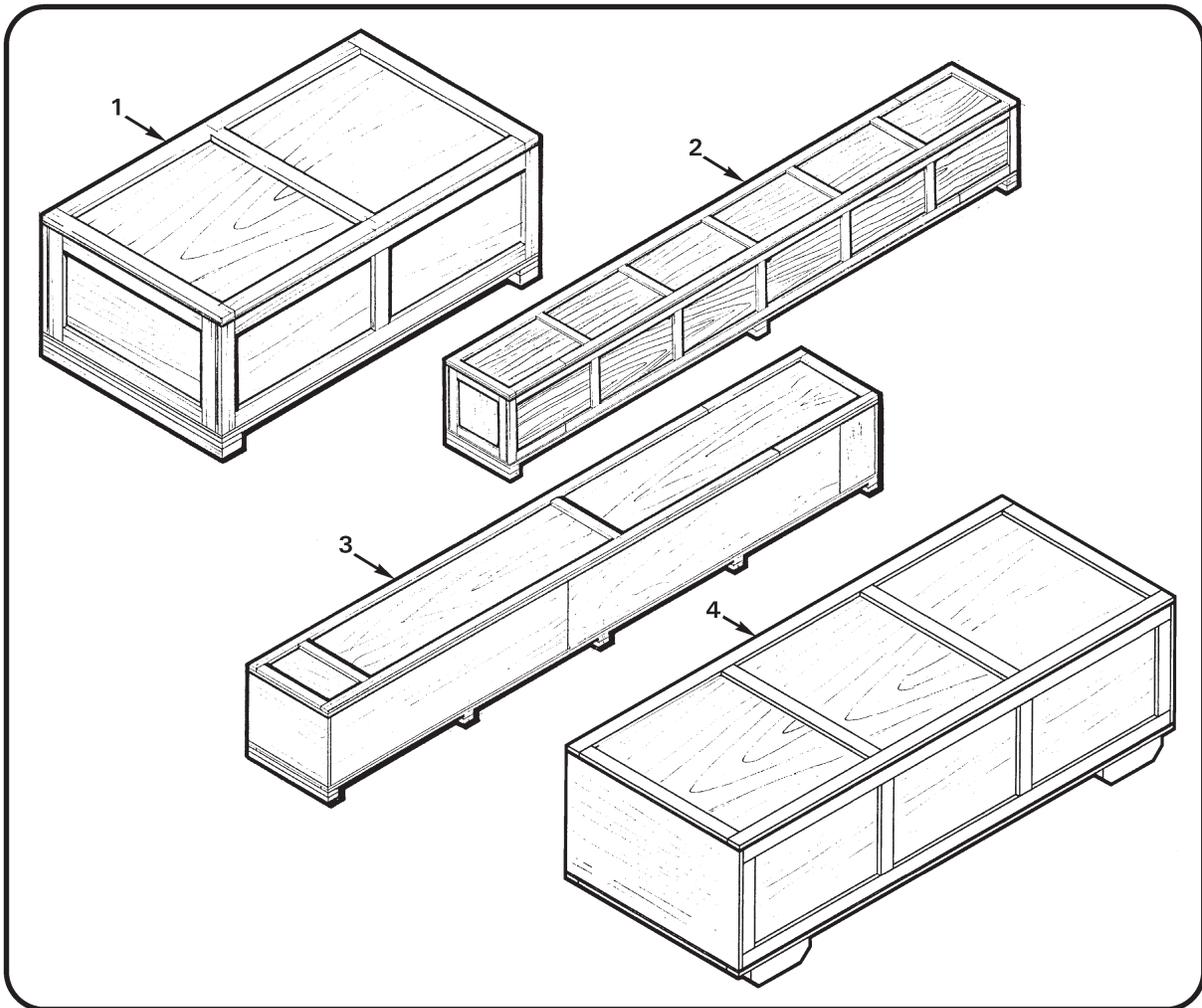


FIGURE 99-8 SHIPPING CRATES

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