

CHAPTER 16
SPECIAL TOOLS

<u>Section</u>	<u>Title</u>	<u>Page</u>
16.100	Special Tools	16.1
16.200	Illustrations and Tasks	16.3

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CHAPTER 16
SPECIAL TOOLS

16.100 Special Tools

The following is a list of Robinson R22 special tools.

R22 special tools are to be used in conjunction with the applicable instructions for continued airworthiness, for their designated maintenance task.

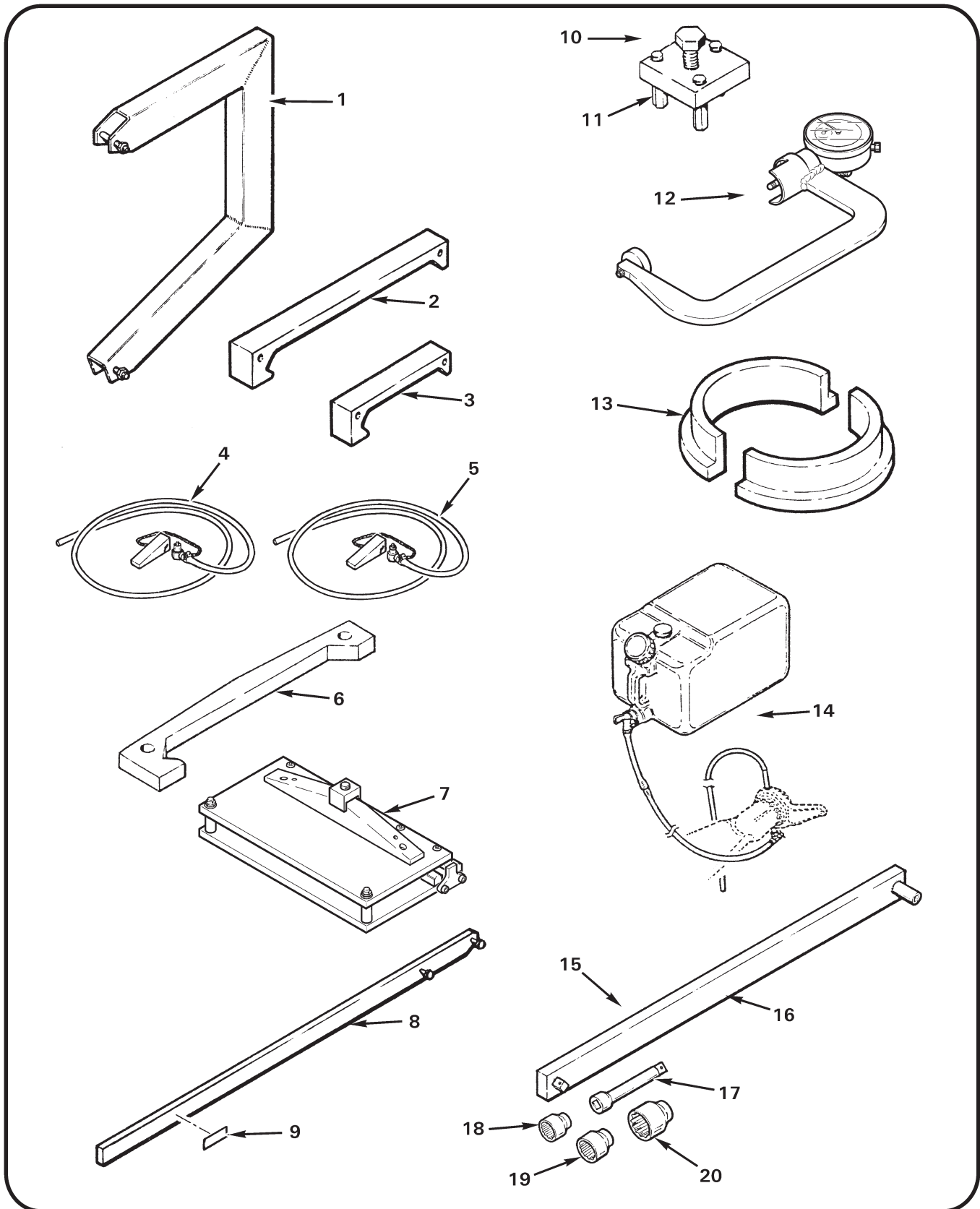


FIGURE 16-1 SPECIAL TOOLS

16.200 Illustrations and Tasks

- 1 MT016-1 Engine Hoist
REFER TO §§ 6.110 ENGINE REMOVAL & 6.120 ENGINE INSTALLATION
- 2 MT050-1 Main Rotor Rigging Fixture
REFER TO §§ 10.120 MAIN ROTOR & 10.122 COLLECTIVE TRAVEL RIGGING
- 3 MT050-2 Tail Rotor Rigging Fixture
REFER TO § 10.140 TAIL ROTOR RIGGING
- 4 MT053-1 Main Rotor Gearbox Drain Assembly – Thread-Type Chip Detector
REFER TO § 1.120 MAIN ROTOR GEARBOX DRAIN AND FLUSH
- 5 MT054-1 Main Rotor Gearbox Drain Assembly – Quick Disconnect Chip Detector
REFER TO § 1.120 MAIN ROTOR GEARBOX DRAIN AND FLUSH
- 6 MT068-1 Horizontal Stabilizer Rigging Tool
REFER TO § 4.325 HORIZONTAL STABILIZER REPLACEMENT
- 7 MT526-1 Main Rotor Blade Trim Tab Bender (stainless steel skin)
REFER TO § 10.233 MAIN ROTOR BLADE TRIM TAB ADJUSTMENT

MT526-8 Main Rotor Blade Trim Tab Bender (aluminum skin)
REFER TO § 10.233 MAIN ROTOR BLADE TRIM TAB ADJUSTMENT
- 8 MT091-1 Holder – Engine Ring Gear (Incl item 9)
VARIOUS
- 9 MT091-3 Decal (torquing instructions)
- 10 MT092-1 Fan Puller (Incl item 11)
REFER TO § 6.210 FANWHEEL REMOVAL
- 11 MT092-3 Spacer – Fan Puller
REFER TO § 6.210 FANWHEEL REMOVAL
- 12 MT122-1 Main Rotor Hub, Bolt Elongation (teeter hinges & A154-1 hub coning hinges) |
REFER TO § 9.110 MAIN ROTOR BLADES

MT122-15 Main Rotor Hub, Bolt Elongation (B370-1 hub coning hinges) |
REFER TO § 9.110 MAIN ROTOR BLADES

MT200-1 Dial Indicator
VARIOUS
- 13 MT146-1 Blocks – Swashplate Rigging (set of 2)
REFER TO § 10.112 SWASHPLATE
- 14 MT147-1 Bleed Tool – Main Rotor Blade Spindle
REFER TO §§ 9.115 FILLING ROOT FITTING AND 7.214 CLUTCH ASSEMBLY LUBRICANT INSPECTION AND SERVICING
- 15 MT173-5 Torque Wrench Extension – Tool Set (no longer available)
VARIOUS
- 16 MT173-6 Tube Weldment (no longer available)
- 17 9HT4441 Extension Bar (3/4 square drive x 8 inch)
- 18 MT173-7 Socket – 1-1/2-inch (3/4-inch drive, 12-point)
- 19 MT173-4 Socket – 1-11/16-inch (3/4-inch drive, 12-point)
- 20 MT173-8 Socket – 2-inch (3/4-inch drive, 12-point)

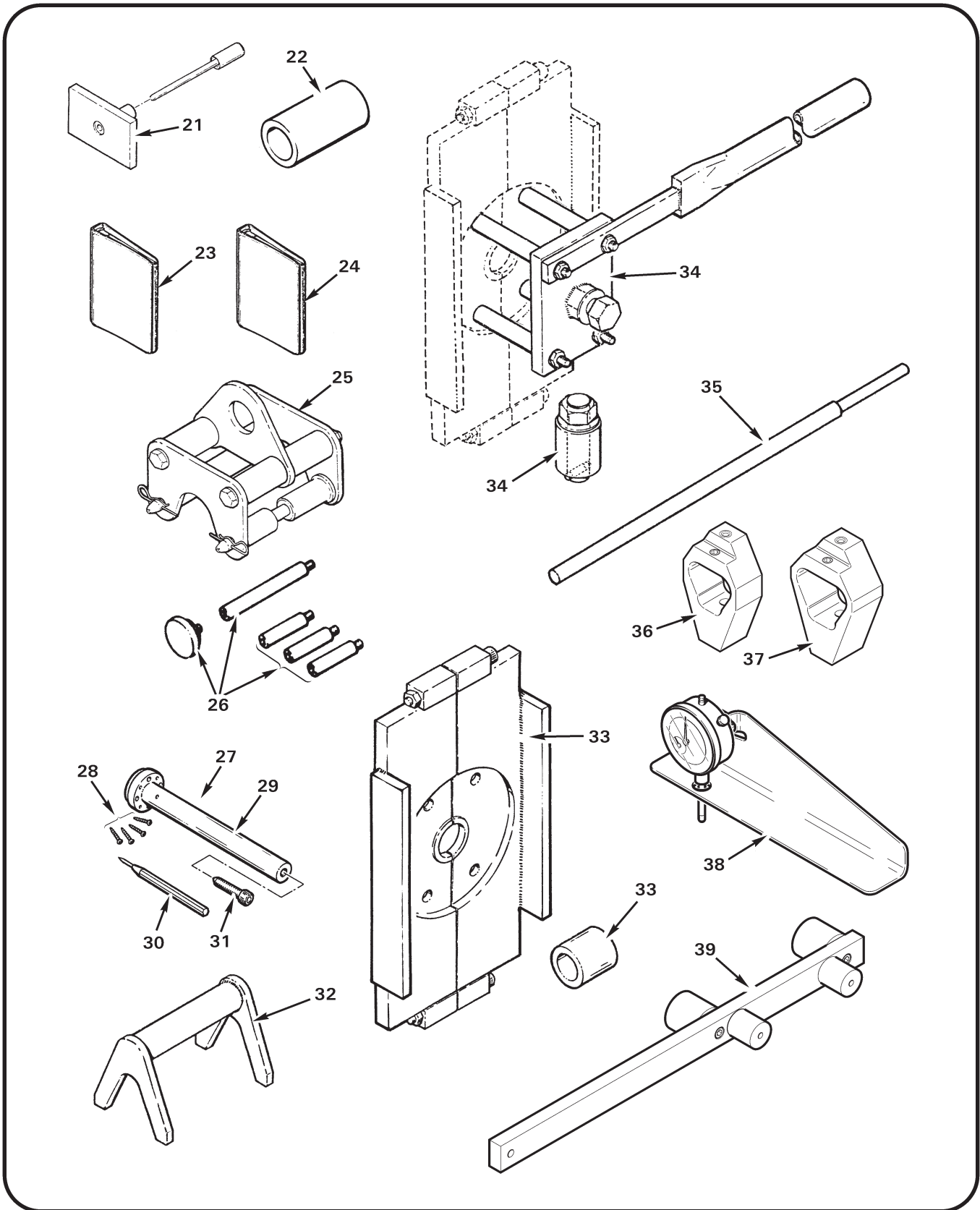


FIGURE 16-2 SPECIAL TOOLS

16.200 Illustrations and Tasks (continued)

- 21 MT201-1 Pressing Fixture – Tail Rotor Hub Bearing
REFER TO § 9.214 TAIL ROTOR HUB SPHERICAL BEARING REPLACEMENT
- 22 MT227-1 Pressing Tool – A184 Bearing
REFER TO §§ 7.211 A184 BEARING REMOVAL & 7.212 A184 BEARING INSTALLATION
- 23 60297-16 Engine Operator’s Manual (O-320 engine)
- 24 60297-12 Engine Operator’s Manual (O-360 engine)
- 25 MT234-1 Helicopter Lifting Fixture
REFER TO § 1.220 JACKING, HOISTING, AND LEVELING
- 26 MT260-6 Tail Rotor Drive Shaft Runout Tool
REFER TO § 7.340 CHECKING TAIL ROTOR DRIVE SHAFT RUNOUT
- 27 MT295-1 Tail Rotor Gearbox Output Shaft Seal Replacement Tools (Incl items 28 thru 31)
REFER TO § 7.450 A021 TAIL ROTOR GEARBOX OUTPUT SHAFT SEAL REPLACEMENT
- 28 92470A113 Screw (#4 X 0.75 inch)
REFER TO § 7.450 A021 TAIL ROTOR GEARBOX OUTPUT SHAFT SEAL REPLACEMENT
- 29 MT295-10 Mandrel
REFER TO § 7.450 A021 TAIL ROTOR GEARBOX OUTPUT SHAFT SEAL REPLACEMENT
- 30 MT295-3 Punch
REFER TO § 7.450 A021 TAIL ROTOR GEARBOX OUTPUT SHAFT SEAL REPLACEMENT
- 31 MT295-6 Screw
REFER TO § 7.450 A021 TAIL ROTOR GEARBOX OUTPUT SHAFT SEAL REPLACEMENT
- 32 MT294-1 Collective Spring Retainer
REFER TO §§ 8.211 COLLECTIVE STICK REMOVAL & 8.223 COLLECTIVE SPRING ADJUSTMENT FOR A038-1 THRU -4 ASSEMBLY
- 33 MT303-1 Clutch Bearing (A184) Removal and Installation Tools
REFER TO §§ 7.211 A184 BEARING REMOVAL & 7.212 A184 BEARING INSTALLATION
- 34 MT303-3 Clutch Bearing (A184) Removal and Installation Tools (use with MT303-1 tools when hydraulic press is unavailable)
REFER TO §§ 7.211 A184 BEARING REMOVAL & 7.212 A184 BEARING INSTALLATION
- 35 MT331-4 Sheave Alignment Bar
REFER TO § 7.230 CLUTCH SHEAVE ALIGNMENT
- 36 MT569-1 Main Rotor Bolt Drilling Fixture (teeter hinge & A154-1 hub coning hinge bolts) |
REFER TO § 9.116 DRILLING MAIN ROTOR HUB BOLTS
- 37 MT569-6 Main Rotor Bolt Drilling Fixture (B370-1 hub coning hinge bolts) |
REFER TO § 9.116 DRILLING MAIN ROTOR HUB BOLTS
- 38 MT352-1 Main Rotor Trim Tab Bending Measuring Tool (includes MT200-1 dial indicator as shown)
REFER TO § 9.116 DRILLING MAIN ROTOR HUB BOLTS
- 39 MT354-7 Teeter Moment Tool (R22, R44, R66)
REFER TO § 9.124 ADJUSTMENT OF HINGE FRICTION

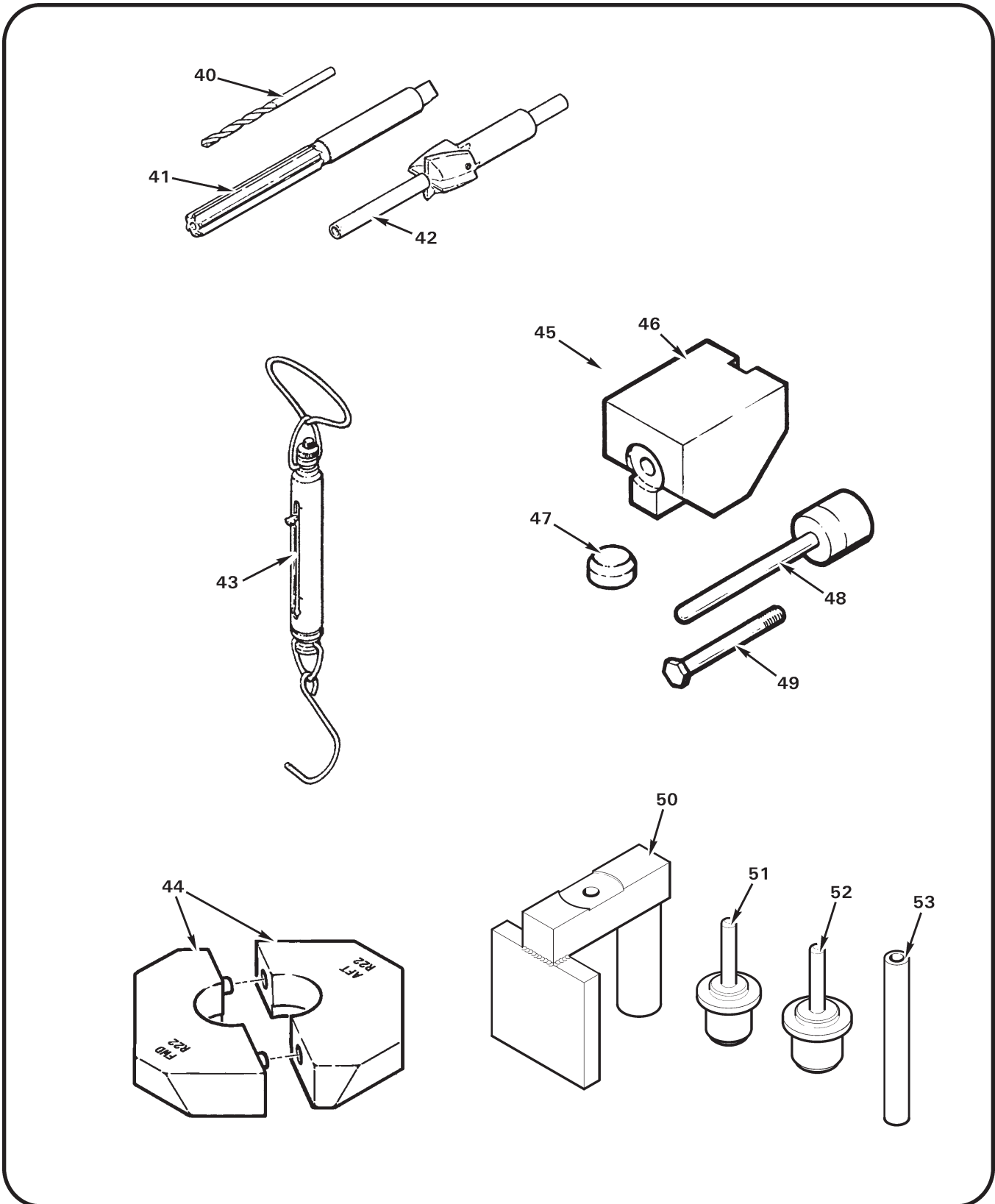


FIGURE 16-3 SPECIAL TOOLS

16.200 Illustrations and Tasks (continued)

- 40 MT357-1 0.125-inch dia Cobalt Drill Bit
REFER TO § 9.116 DRILLING MAIN ROTOR HUB BOLTS
- 41 MT357-2 0.375-inch dia Reamer
REFER TO §§ 8.212 COLLECTIVE STICK INSTALLATION, 8.532 BELLCRANK INSTALLATION, & 8.620 A139-1 BEARING INSTALLATION
- 42 MT358-1 0.750-inch dia Spot-Facing Tool
REFER TO §§ 8.522 A317-1 LOWER BELLCRANK INSTALLATION & 8.620 A139-1 BEARING INSTALLATION
- 43 MT359-1 Spring Scale
VARIOUS
- 44 MT376-1 Blocks – Main Rotor Rigging (set; holds cyclic in neutral position)
REFER TO § 10.111 CYCLIC CONTROLS
- 45 MT556-1 Tail Rotor Elastomeric Bearing Replacement Tools (Incl items 45 thru 48)
REFER TO § 9.215 TAIL ROTOR HUB ELASTOMERIC BEARING REPLACEMENT
- 46 MT556-5 Support
REFER TO § 9.215 TAIL ROTOR HUB ELASTOMERIC BEARING REPLACEMENT
- 47 MT556-6 Cap
REFER TO § 9.215 TAIL ROTOR HUB ELASTOMERIC BEARING REPLACEMENT
- 48 MT556-2 Mandrel Assembly
REFER TO § 9.215 TAIL ROTOR HUB ELASTOMERIC BEARING REPLACEMENT
- 49 AN4-25A Bolt
REFER TO § 9.215 TAIL ROTOR HUB ELASTOMERIC BEARING REPLACEMENT
- 50 MT329-13 Support Weldment
REFER TO § 9.126 MAIN ROTOR HUB BEARING REPLACEMENT
- MT329-2 Support Weldment (A154-1 Hub)
REFER TO § 9.126 MAIN ROTOR HUB BEARING REPLACEMENT
- 51 MT329-1 Plug Assembly (A648-1 or A648-3 Bearings)
REFER TO § 9.126 MAIN ROTOR HUB BEARING REPLACEMENT
- 52 MT329-11 Plug Assembly (A648-2 Bearings)
REFER TO § 9.126 MAIN ROTOR HUB BEARING REPLACEMENT
- 53 MT329-10 Tube
REFER TO § 9.126 MAIN ROTOR HUB BEARING REPLACEMENT

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