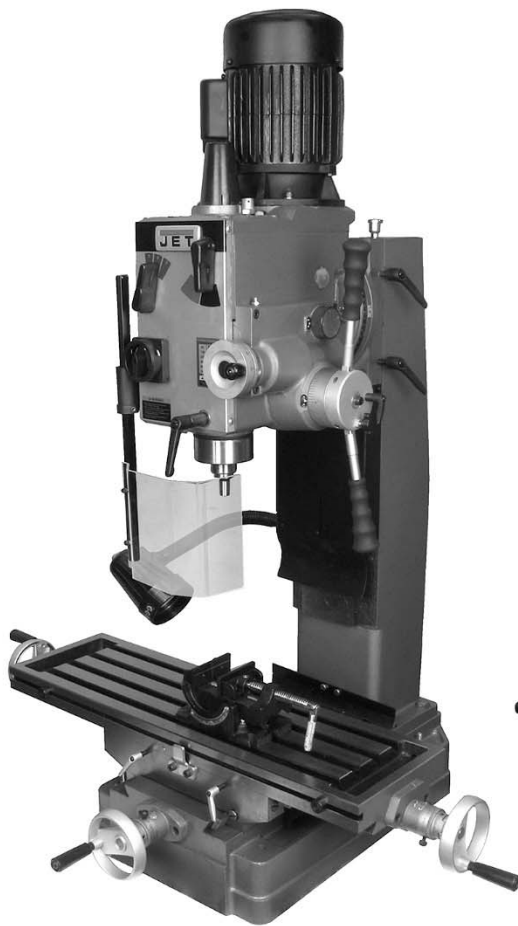




Operating Instructions and Parts Manual Geared Head Mill-Drill Machines

Models: JMD-40GH, JMD-40GHPF, JMD-45GH, JMD-45GHPF



JMD-45GHPF

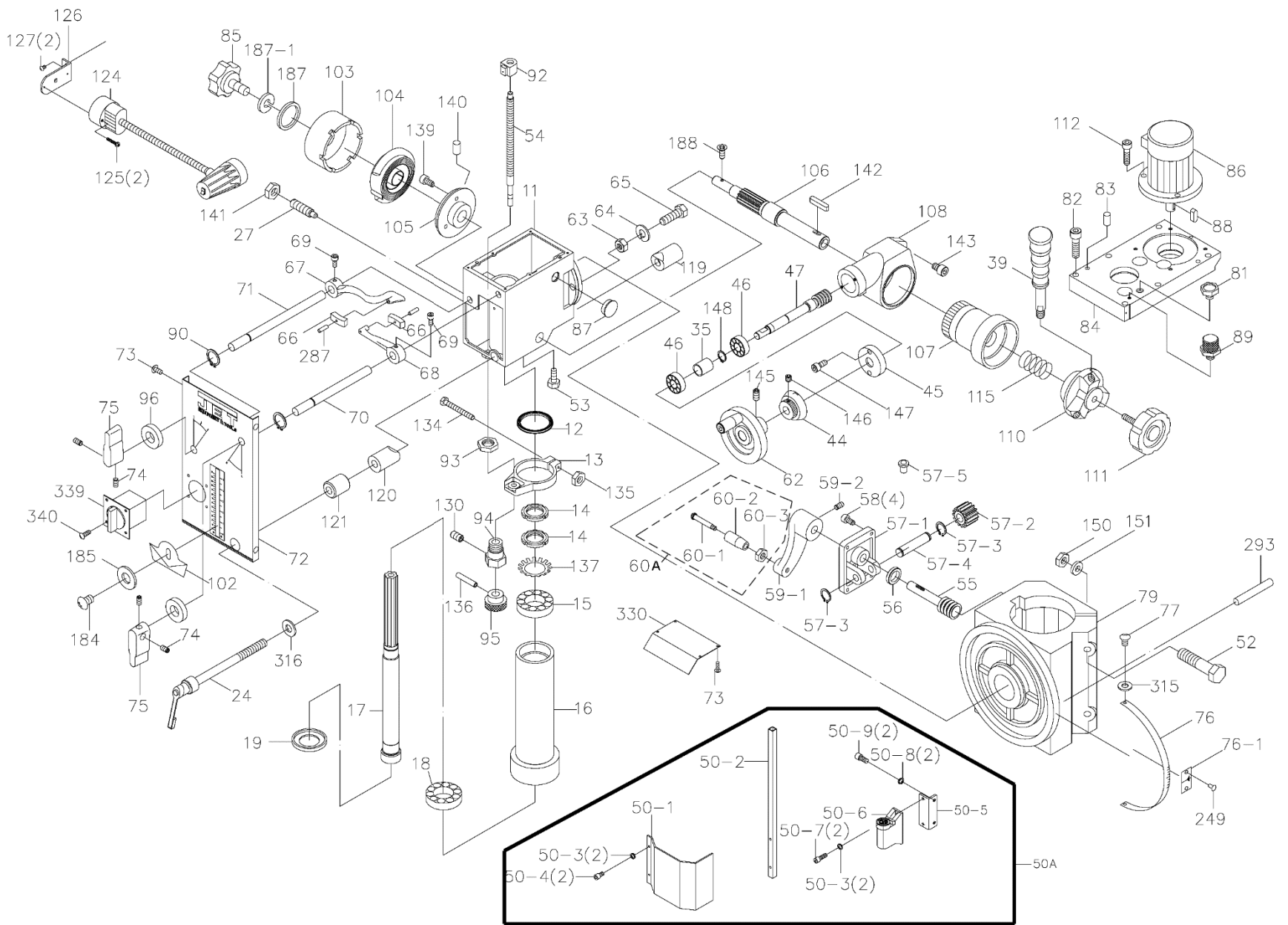


JMD-40GH

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Part No. M-351040
Edition 2 03/2017
ECR 171106155622
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12.2.1 JMD-40GH,-45GH (non-powerfeed) Gear Head Assembly – Exploded View



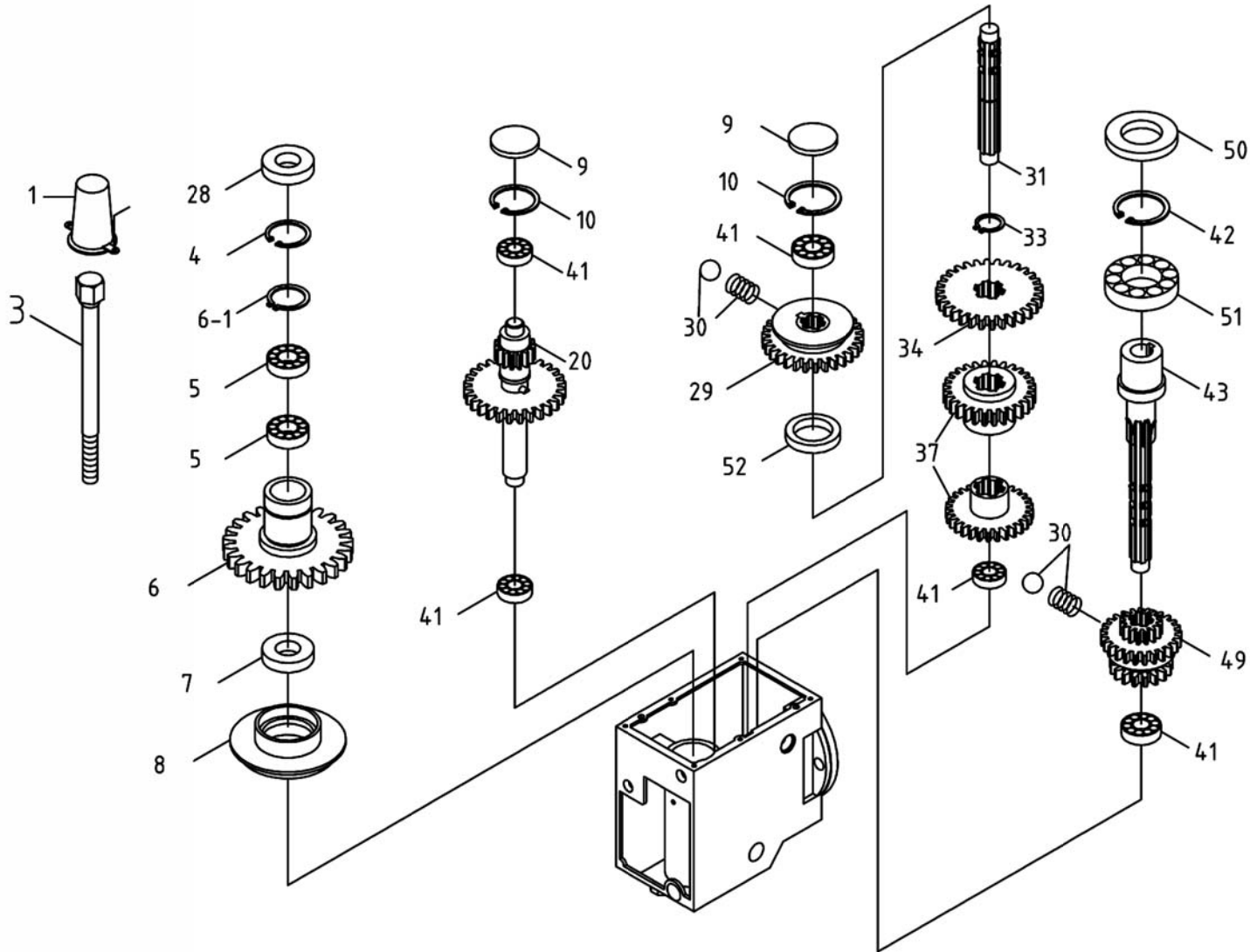
12.2.2 JMD-40GH,-45GH (non-powerfeed) Gear Head Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|--------------|--|------------------|-----|
| 11 | 2401011G | Head Casting | | 1 |
| 12 | 6112 | Rubber Gasket | | 1 |
| 13 | 6513 | Feed Base | | 1 |
| 14 | 6114 | Lock Nut | | 2 |
| 15 | BB-30206 | Taper Roller Bearing | 30206 | 1 |
| 16 | 6116-R8 | Quill | R8 | 1 |
| 17 | 6117-R8 | Spindle Shaft | R8 | 1 |
| 18 | BB-30207 | Taper Roller Bearing | 30207 | 1 |
| 19 | 6119 | Bearing Cap | | 1 |
| 24 | 2421003 | Handle Rod Assembly | | 1 |
| 27 | 6127 | Screw Key | | 1 |
| 35 | 6135 | Bearing Spacer | | 1 |
| 39 | 6139N | Handle Rod | | 3 |
| 44 | 6144 | Micro Adjusting Indicator | | 1 |
| 45 | 6145 | Worm Cover | | 1 |
| 46 | BB-6202Z | Ball Bearing | 6202Z | 2 |
| 47 | 6147 | Worm Shaft | | 1 |
| 50-A | GHD20-50-A | Chuck Guard Assembly (#50-1 thru 50-9) | | 1 |
| 50-1 | JMD18-125-1 | Chuck Guard and Support Rod | | 1 |
| 50-2 | JMD18-125-2 | Support Rod (RE: JMD18-125-1) | | 1 |
| 50-3 | TS-2361051 | Lock Washer | M5 | 4 |
| 50-4 | TS-1502021 | Hex Socket Head Cap Screw | M5 x 10 | 2 |
| 50-5 | GHD20-50-5 | Chuck Guard Bracket | | 1 |
| 50-6 | JMD18-125-5 | Rotary Support Base | | 1 |
| 50-7 | JMD18-125-6 | Hex Socket Head Cap Screw | M5x15L | 2 |
| 50-8 | TS-1551041 | Lock Washer | M6 | 2 |
| 50-9 | 6286490 | Hex Socket Head Cap Screw | M6x15L | 2 |
| 52 | TS-0071141 | Hex Cap Screw | 5/8"-11 x 5-1/2" | 2 |
| 53 | GHD20-53 | Oil Plug | | 1 |
| 54 | GHD20-54 | Threaded Rod | | 1 |
| 55 | JMD40GH-55 | Worm Shaft | | 1 |
| 56 | JMD40GH-56 | O-Ring | | 1 |
| 57-1 | JMD40GH-57-1 | Bracket | | 1 |
| 57-2 | JMD40GH-57-2 | Worm Gear | | 1 |
| 57-3 | F006042 | C-Ring, External | S14 | 2 |
| 57-4 | JMD40GH-57-4 | Shaft | | 1 |
| 57-5 | JMD40GH-57-5 | Ball Oiler | | 1 |
| 58 | TS-0207041 | Hex Socket Head Cap Screw | 1/4"-20x3/4" | 4 |
| 59-1 | JMD40GH-59-1 | Crank | | 1 |
| 59-2 | TS-0271052 | Set Screw | 3/8"-24x1/2" | 1 |
| 60A | JMD18-201A | Handle Assembly (#60-1 thru 60-3) | | 1 |
| 60-1 | TS-0561031 | Hex Socket Head Cap Screw | 3/8"-16x16UNC | 1 |
| 60-2 | JMD18-201-2 | Handle | | 1 |
| 60-3 | TS-0561031 | Hex Nut | 3/8"-16 | 1 |
| 62 | 6142-2 | Handwheel | | 1 |
| 63 | F001600 | Full Nylon Insert Lock Nut | 5/8"-11 | 3 |
| 64 | TS-0680081 | Flat Washer | 5/8" | 2 |
| 65 | F008242 | Hex Cap Screw | 5/8"-11 x 2-1/4" | 3 |
| 66 | 2401066 | Gear Lever Bracket | | 2 |
| 67 | 2401067 | Gear Lever (Left) | | 1 |
| 68 | 2401068 | Gear Lever (Right) | | 1 |
| 69 | GHD20-69 | Screw | 1/4" x 1/2" | 2 |
| 70 | 2401070 | Lever Shaft (Right) | | 1 |
| 71 | 2401071 | Lever Shaft (Left) | | 1 |
| 72 | JMD40GH-72 | Name Plate | | 1 |
| | JET-92 | JET Logo (not shown) | 92x38MM | 1 |
| 73 | GHD20-73 | Phillips Head Screw | 3/16" x 3/8" | 8 |
| 74 | TS-0267021 | Set Screw | 1/4"-20 x 1/4" | 8 |
| 75 | 2401075 | Speed Lever | | 2 |
| 76 | 2401076 | Scale | | 1 |

| Index No. | Part No. | Description | Size | Qty |
|-----------|---------------|----------------------------------|--------------------|-----|
| 76-1 | 2401076-1 | Pointer | | 1 |
| 77 | GHD20-77 | Screw | | 2 |
| 79 | 2412001G | Casting | | 1 |
| 81 | GHD20-81 | Oil Plug | | 1 |
| 82 | TS-0209031 | Hex Socket Cap Screw | 3/8"-16 x 3/4" | 6 |
| 83 | GHD20-83 | Miter Pin | | 2 |
| 84 | 2401084G | Cover | | 1 |
| 85 | 6185 | Lock Knob | | 1 |
| 86 | JMD40GH-86 | Motor | 1.5HP 1PH 115/230V | 1 |
| | JMD40GH-86MF | Motor Fan | | 1 |
| | JMD40GH-86MFC | Motor Fan Cover | | 1 |
| | JMD40GH-86SC | Start Capacitor | 400MFD 125VAC | 1 |
| | JMD40GH-86CC | Capacitor Cover | | 1 |
| | JMD40GH-86JB | Junction Box | | 1 |
| | JMD40GH-86JBC | Junction Box Cover | | 1 |
| 87 | GHD20-87 | Oil Sight Glass | | 1 |
| 88 | GHD20-88 | Key | 6 x 6 x 30mm | 1 |
| 89 | GHD20-89 | Brass Fitting | | 1 |
| 90 | 6286478 | C-Ring, External | S12 | 2 |
| 92 | 6192 | Block | | 1 |
| 93 | 6193 | Nut | | 1 |
| 94 | 6194 | Support Base | | 1 |
| 95 | 6195 | Knurled Knob Assembly | | 1 |
| 96 | GHD20-96 | Oil Seal | | 2 |
| 102 | 61102 | Limit Plate | | 1 |
| 103 | 61103S | Spring and Cover (includes #104) | | 1 |
| 104 | 61104 | Spring (RE:61103S) | | 1 |
| 105 | 61105 | Spring Base | | 1 |
| 106 | 61106 | Pinion Shaft | | 1 |
| 107 | 61107 | Worm Gear | | 1 |
| 108 | 61108G | Feed Cover | | 1 |
| 110 | 61110 | Spring Base | | 1 |
| 111 | 6138 | Lock Bolt w/ Knob | | 1 |
| 112 | TS-0209051 | Hex Socket Head Cap Screw | 3/8"-16 x 1" | 3 |
| 115 | 61115 | Compression Spring | | 1 |
| 119 | 6126-1 | Collar (threaded) | | 1 |
| 120 | 6125-1 | Collar Nut | | 1 |
| 121 | 6125-2 | Collar | | 1 |
| 124 | JMD40GH-124 | Lamp Assembly | 110V | 1 |
| 125 | TS-2284352 | Phillips Pan Head Machine Screw | M4-0.7x35L | 2 |
| 126 | GHD20-126 | Lamp Base | | 1 |
| 127 | TS-1503031 | Hex Socket Head Cap Screw | M6-1.0 x 12L | 2 |
| 130 | TS-1501021 | Hex Socket Head Cap Screw | M4-0.7 x 8 | 1 |
| 134 | TS-0050091 | Hex Cap Screw | 1/4"-20 x 2" | 1 |
| 135 | TS-0561011 | Hex Nut | 1/4"-20 | 1 |
| 136 | F012072 | Roll Pin | Ø4x20L | 1 |
| 137 | GHD20-137 | Star Washer, Ext. Tooth | M30 | 1 |
| 139 | GHD20-139 | Screw | 3/16" x 3/4" | 3 |
| 140 | GHD20-140 | Spring Pin | Ø3x12L | 1 |
| 141 | TS-0561031 | Hex Nut | 3/8"-16 | 1 |
| 142 | GHD20-142 | Double Rd. Hd. Key | 7 x 7 x 20 mm | 1 |
| 143 | TS-0208021 | Hex Socket Head Cap Screw | 5/16"-18 x 1/2" | 2 |
| 145 | TS-0270021 | Set Screw | 5/16"-18x 5/16" | 1 |
| 146 | TS-0267021 | Set Screw | 1/4"-20 x 1/4" | 1 |
| 147 | GHD20-147 | Hex Socket Head Cap Screw | 3/16" x 7/16" | 2 |
| 148 | GHD20-148 | C-Ring, External | S15 | 1 |
| 150 | TS-0561071 | Hex Nut | 5/8"-11 | 2 |
| 151 | TS-0680081 | Flat Washer | 5/8" | 2 |
| 184 | F000197 | Phillips Pan Hd Machine Screw | #8-32 x 1/4" | 1 |
| 185 | GHD20-185 | Flat Washer | 1/4" | 1 |
| 187 | TS-0680021 | Flat Washer | 1/4" | 1 |
| 187-1 | TS-0720071 | Lock Washer | 1/4" | 1 |

| Index No. | Part No. | Description | Size | Qty |
|-----------|-------------|--|-------------------------------------|-----|
| 188 | GHD20-188 | Screw | 3/16" x 3/8" | 1 |
| 249 | GHD20-249 | Rivet | | 2 |
| 287 | GHD20-287 | Spring Pin | Ø4x16Lmm | 2 |
| 293 | HP309 | Taper Pin | M6xØ7 (1:48) | 1 |
| 315 | TS-0680011 | Flat Washer | 3/16" | 2 |
| 316 | GHD20-374 | Flat Washer | 1/2"x7/8"x2" | 1 |
| 330 | 2401085 | Dust Plate | | 1 |
| 339 | JMD40GH-339 | For/Rev Switch | | 1 |
| 340 | GHD20-340 | Screw | | 2 |
| 341 | JMD40GH-341 | Motor Cord (not shown) | 14AWGx5C 300V | 1 |
| 342 | JMD40GH-342 | Power Cord (not shown) | .3x3.31mm ² 12AWG, 5-20P | 1 |
| | LM000286 | Warning Label, Mill-Drills (not shown) | | 1 |

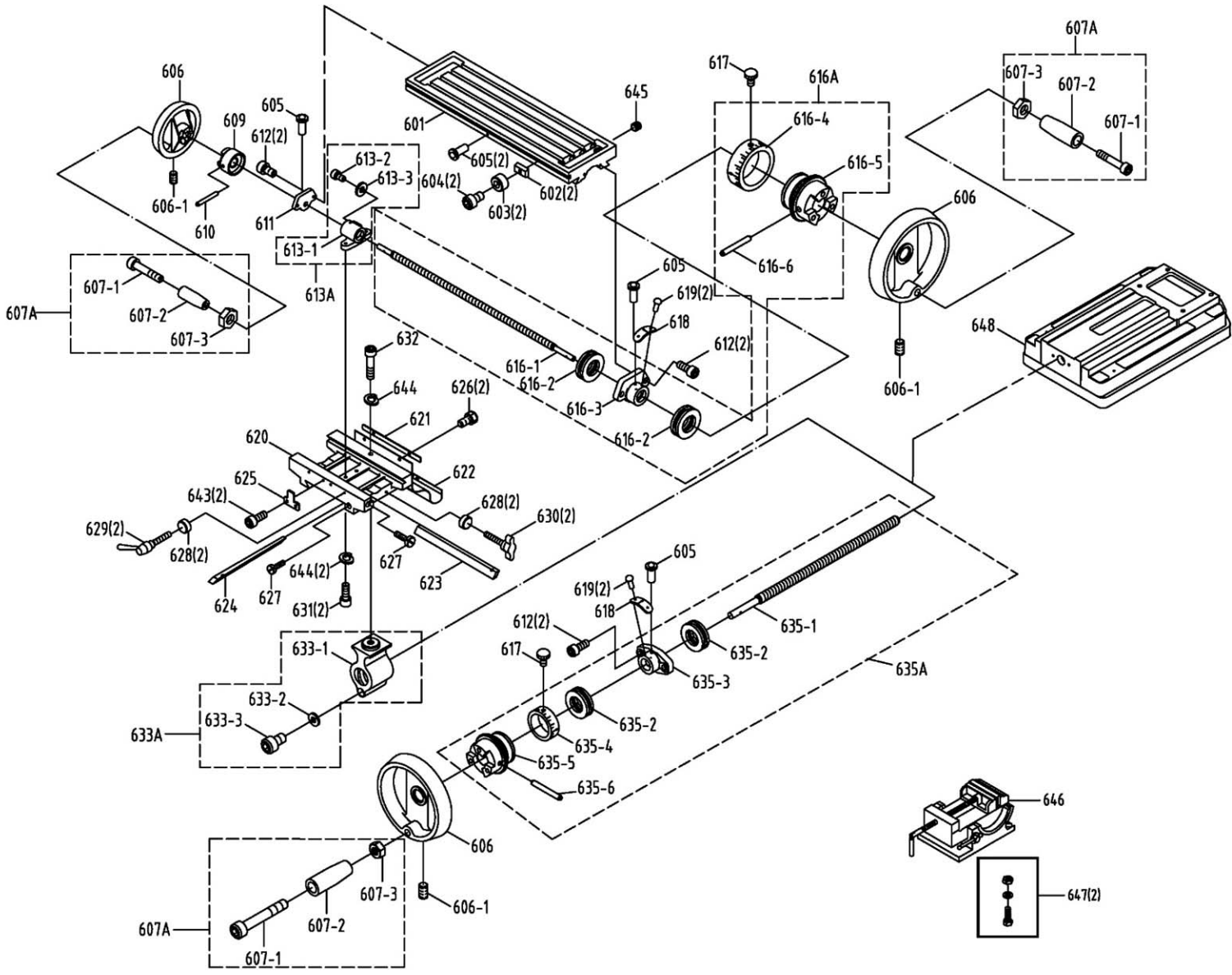
12.3.1 JMD-40GH,-45GH (non-powered) Gears Assembly – Exploded View



12.3.2 JMD-40GH,-45GH (non-powerfeed) Gears Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|------------|--|-----------|-----|
| 1 | 2401001-2 | Main Shaft Cover | | 1 |
| 3 | JMD40GH-03 | Draw Bar | 7/16" | 1 |
| 4 | GHD20-4 | Retainer Ring, Internal | R68 | 1 |
| 5 | BB-6008ZZ | Ball Bearing | 6008ZZ | 2 |
| 6 | 2401006 | Idle Gear | 53T | 1 |
| 6-1 | F006055 | C-Ring, External | S40 | 1 |
| 7 | GHD20-7 | Oil Seal | | 1 |
| 8 | 2401008 | Oil Seal Ring | | 1 |
| 9 | GHD20-9 | Dust Cover | | 2 |
| 10 | GHD20-10 | C-Ring, External | S17 | 2 |
| 20 | 2401020A | Gear Shaft Assembly | 15/41T | 1 |
| 28 | GHD20-28 | Oil Seal | | 1 |
| 29 | 2401029N | Idle Gear | 42/16T | 1 |
| 30 | GHD20-30 | Steel Ball w/ Spring | 5/16" | 3 |
| 31 | 2401031 | Pinion Shaft (RE: T2401031BS) | | 1 |
| | T2401031BS | Pinion Shaft w/Gear Assembly (includes #29,31,33,34,37,52) | | 1 |
| 33 | GHD20-33 | C-Ring | S18 | 1 |
| 34 | 2401055N | Idle Gear | 44T | 1 |
| 37 | 2401037N | Idle Gear (2 piece) | 35/28T | 1 |
| 41 | BB-6002ZZ | Ball Bearing | 6002ZZ | 5 |
| 42 | GHD20-42 | C-Ring, Internal | R62 | 1 |
| 43 | 2401043 | Pinion Shaft (RE: T2401043BS) | | 1 |
| | T2401043BS | Pinion Shaft w/Gear Assembly (includes #,43,49,50) | | 1 |
| 49 | 2401049N | Idle Gear (RE: T2401043BS) | 15/31/23T | 1 |
| 50 | GHD20-50 | Oil Seal | | 1 |
| 51 | BB-6007ZZ | Ball Bearing | 6007ZZ | 1 |
| 52 | 2401192 | Bushing | | 1 |

12.6.1 JMD-45GH,-45GHPF Table and Base Assembly – Exploded View



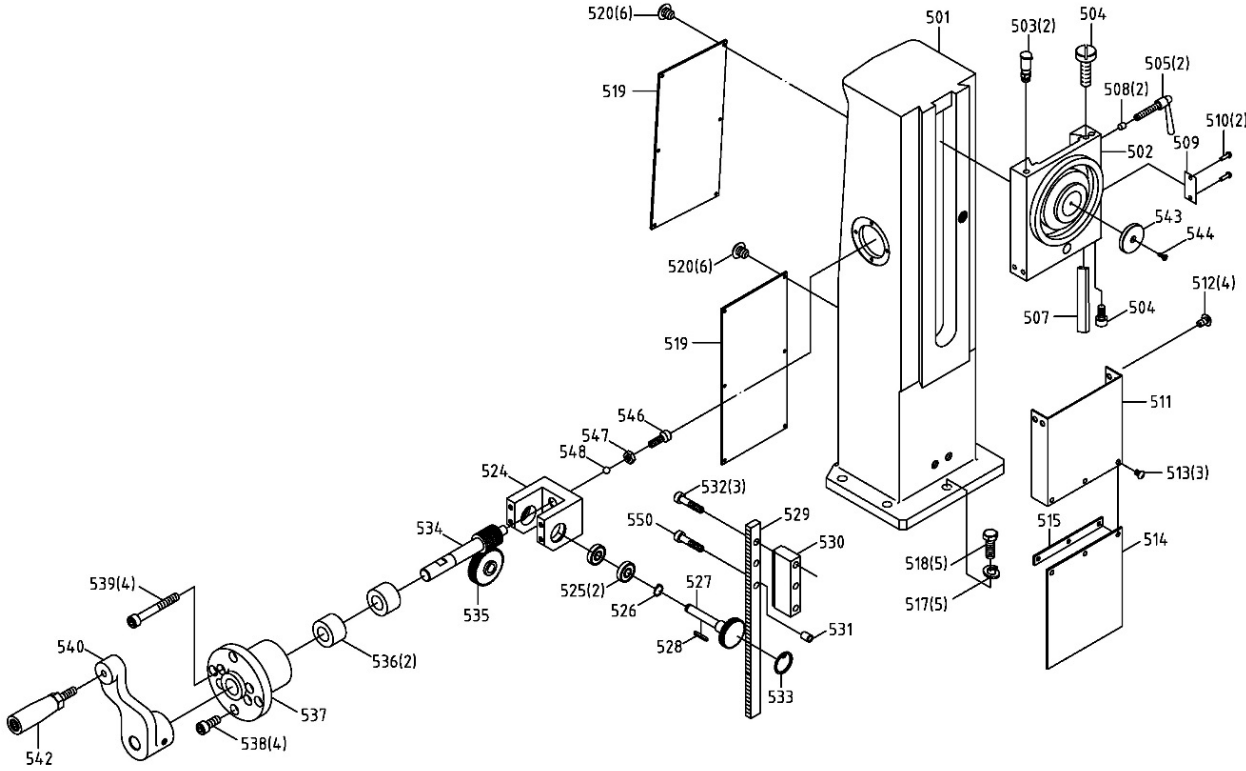
12.6.2 JMD-45GH,-45GHPF Table and Base Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|-------------|---|-----------------|-----|
| 601 | JMD18-228G | Table | 31L | 1 |
| 602 | JMD18-229 | Fixed T-Block | | 2 |
| 603 | JMD18-230 | Stop Ring | | 2 |
| 604 | TS-0207021 | Hex Socket Head Cap Screw | 1/4"-20x1/2" | 2 |
| 605 | JMD18-368 | Ball Oiler | 1/4" | 5 |
| 606 | JMD18-201 | Table Handwheel | | 3 |
| 606-1 | TS-0267041 | Set Screw | 1/4"-20x3/8" | 3 |
| 607A | JMD18-201A | Handle Assembly (#607-1 thru 607-3) | | 3 |
| 607-1 | JMD18-201-1 | Hex Socket Head Cap Screw (RE: JMD18-201-2) | 3/8"-16x16 | 3 |
| 607-2 | JMD18-201-2 | Handle | | 3 |
| 607-3 | TS-0561031 | Hex Nut | 3/8"-16 | 3 |
| 609 | JMD18-220 | Table Clutch | | 1 |
| 610 | JMD18-366 | Spring Pin | 5x38L mm | 1 |
| 611 | JMD18-222 | Left Flange | | 1 |
| 612 | TS-0208061 | Hex Socket Head Cap Screw | 5/16"-18x1" | 6 |
| 613A | JMD18-223A | Table Nut Set (#613-1 thru 616-3) | | 1 |
| 613-1 | JMD18-223 | Table Nut | TM23.7-10 | 1 |
| 613-2 | TS-1502041 | Hex Socket Head Cap Screw | M5-0.8x16 | 1 |
| 613-3 | TS-1550031 | Flat Washer | M5 | 1 |
| 616A | JMD18-224A | Table Screw Assembly (#616-1 thru 616-6) | | 1 |
| 616-1 | JMD18-224 | Table Lead Screw | | 1 |
| 616-2 | BB-51103 | Thrust Bearing | 51103 | 2 |
| 616-3 | JMD18-226 | Right Flange | | 1 |
| 616-4 | JMD18-202-1 | Graduated Dial | | 1 |
| 616-5 | JMD18-202 | Dial Clutch | | 1 |
| 616-6 | JMD18-366 | Spring Pin | 5x38L mm | 1 |
| 617 | JMD18N-617 | Link Screw | | 2 |
| 618 | JMD18-121 | Indicator Plate | | 2 |
| 619 | JMD18-204-2 | Rivet | 2mm | 4 |
| 620 | JMD18-216G | Center Base | 31L | 1 |
| 621 | JMD18-219 | Anti-Dust Plate | | 1 |
| 622 | JMD18-217 | Anti-Dust Plate Assembly | | 1 |
| 623 | JMD18-227 | Gib Strip | 31L | 1 |
| 624 | JMD18-207 | Gib Strip | 31L | 1 |
| 625 | JMD18-214 | Fixed Block | | 1 |
| 626 | TS-0051011 | Hex Cap Screw | 5/16"-18x1/2" | 4 |
| 627 | JMD18-212 | Gib Strip Bolt | | 2 |
| 628 | JMD18N-628 | Bushing | | 4 |
| 629 | JMD18-213-1 | Locking Handle | | 2 |
| 630 | JMD18-213 | Leaf Screw | | 2 |
| 631 | TS-0208061 | Hex Socket Head Cap Screw | 5/16"-18x1" | 2 |
| 632 | TS-0051101 | Hex Socket Head Cap Screw | 5/16"-18x2-1/4" | 1 |
| 633A | JMD18-215A | ACME Nut Assembly (#633-1 thru 633-3) | | 1 |
| 635A | JMD18-205A | ACME Nut Assembly (#635-1 thru 635-6) | | 1 |
| 635-1 | JMD18-205 | Cross Lead Screw | TM23 | 1 |
| 635-2 | BB-51103 | Thrust Bearing | 51103 | 2 |
| 635-3 | JMD18-204 | Square Flange | | 1 |
| 635-4 | JMD18-202-1 | Graduated Dial | | 1 |
| 635-5 | JMD18-202 | Dial Clutch | | 1 |
| 635-6 | JMD18-366 | Spring Pin | 5x38 mm | 1 |
| 643 | TS-0208022 | Hex Socket Head Cap Screw | 5/16"-24x1/2" | 2 |
| 644 | JMD18N-644 | Lock Washer | 5/16" | 3 |
| 645 | JMD18N-645 | Plug | PT1/4"x3/8" | 1 |
| 646 | 365534 | Angle Vise | | 1 |
| 647 | 365534-01 | Hardware Package (2 Bolts, 2 Nuts, 2 Washers) | | 1 |
| 648 | JMD45GH-648 | Base | | 1 |
| | JMD40GH-AP | Accessory Package (not shown) * | | 1 |

* Contents of JMD40GH-AP Accessory Package:

| | | |
|-----------------------|--|--------------------------|
|JMD18-020..... | Cutter Arbor | 1 |
|JMD18-022..... | Handle | 4 |
|JMD18-039..... | Handle Rod..... | 3 |
|JMD18-040..... | Knob | 3 |
|JMD18-050..... | Lock Handle..... | 1 |
|561704 | Drill Chuck w/Chuck Key | JT6, 1/2" (13mm) 1 |
|JMD18-086..... | Face Mill Cutter Assembly..... | 3" (74mm) 1 |
|JMD18-086A | Cutter Insert (Installed) | 4 |
|JMD18-021..... | Chuck Arbor (Installed)..... | 1 |
|365534 | Angle Vise | 1 |
|JMD18-058..... | Handle Crank..... | 1 |
|JMD18-201..... | Wheel..... | 3 |
|TS-152704 | Hex Wrench..... | 3mm..... 1 |
|TS-152705 | Hex Wrench..... | 4mm..... 1 |
|TS-152706 | Hex Wrench..... | 5mm..... 1 |
|TS-0209051 | Hex Socket Cap Screw..... | 3/8"-16x1" 1 |
|TS-0680041 | Flat Washer | 3/8"..... 1 |
|365534-01 | Hardware Package (2 Bolts, 2 Nuts, 2 Washers) | 1 |
|JMD40GH-PW | Plum Wrench | 1 |

12.7.1 JMD-45GH,-45GHPF Square Column Assembly – Exploded View



12.7.2 JMD-45GH,-45GHPF Square Column Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|--------------|----------------------------------|-----------------|-----|
| 501 | JMD45GH-501 | Vertical Square Column | | 1 |
| 502 | JMD45GH-502 | Headstock Swivel Base | | 1 |
| 503 | JMD45GH-503 | Oil Cup | PT1/8" | 2 |
| 504 | JMD45GH-504 | Adjustable Screw | | 2 |
| 505 | JMD45GH-505 | Handle | | 2 |
| 507 | JMD45GH-507 | Gib | | 1 |
| 508 | JMD45GH-508 | Bushing | | 2 |
| 509 | JMD45GH-509 | Index | | 1 |
| 510 | JMD45GH-510 | Rivet | φ2-5L | 2 |
| 511 | JMD45GH-511 | Anti-Dust Plate | | 1 |
| 512 | F001216 | Phillips Pan Hd Machine Screw BO | M5x10L | 4 |
| 513 | F001175 | Phillips Pan Hd Machine Screw BO | M4x8L | 3 |
| 514 | JMD45GH-514 | Anti-Dust Plate | | 1 |
| 515 | JMD45GH-515 | Press Board | | 1 |
| 517 | TS-0720131 | Lock Washer | 5/8" | 5 |
| 518 | TS-0071051 | Hex Cap Screw | 5/8"-11x2-1/2"L | 5 |
| 519 | JMD45GH-519 | Steel Plate | | 2 |
| 520 | F001216 | Phillips Pan Hd Machine Screw BO | M5x10L | 12 |
| 524 | JMD45GH-524 | Bracket | | 1 |
| 525 | BB-6003ZZ | Ball Bearing | 6003ZZ | 2 |
| 526 | F006045 | C-Retainer Ring, External | S17 | 1 |
| 527 | JMD45GH-527 | Gear Shaft | | 1 |
| 528 | JMD45GH-528 | Key, Double Rd. Head | 5x5x28L mm | 1 |
| 529 | JMD45GH-529 | Rack | | 1 |
| 530 | JMD45GH-530 | Block | | 1 |
| 531 | JMD45GH-531 | Bushing | | 1 |
| 532 | F005671 | Hex Socket Head Cap Screw | M12x85L | 4 |
| 533 | F006033 | C-Retainer Ring, Internal | R35 | 1 |
| 534 | JMD45GH-534 | Worm Shaft | | 1 |
| 535 | JMD45GH-535 | Worm Gear | | 1 |
| 536 | JMD45GH-536 | Bearing | | 2 |
| 537 | JMD45GH-537 | Support Flange | | 1 |
| 538 | TS-1504051 | Hex Socket Head Cap Screw | M8x25L | 4 |
| 539 | TS-1504121 | Hex Socket Head Cap Screw | M8x60L | 4 |
| 540 | JMD40GH-59-1 | Crank | | 1 |
| 542 | JMD18-201A | Handle Assembly | | 1 |
| 543 | JMD45GH-543 | Swivel Base Flange | | 1 |
| 544 | JMD45GH-544 | Hex Socket Flat Head Screw | | 1 |
| 546 | TS-1504041 | Hex Socket Head Cap Screw | M8x20L | 1 |
| 547 | TS-1540061 | Hex Nut | M8 | 1 |
| 548 | SB-6MM | Steel Ball | Ø6mm | 1 |
| 550 | F005461 | Hex Socket Head Cap Screw | M12-1.75x75 | 1 |