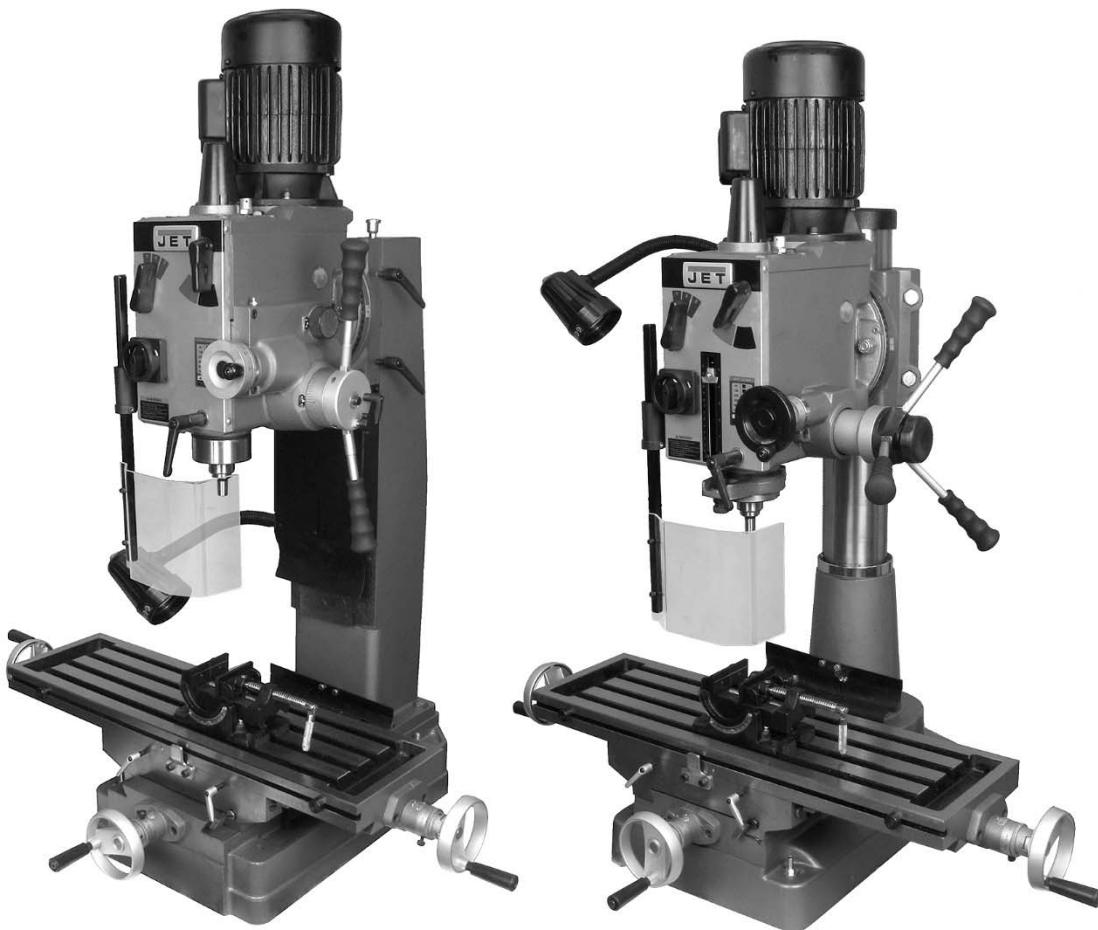




# Operating Instructions and Parts Manual Geared Head Mill-Drill Machines

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



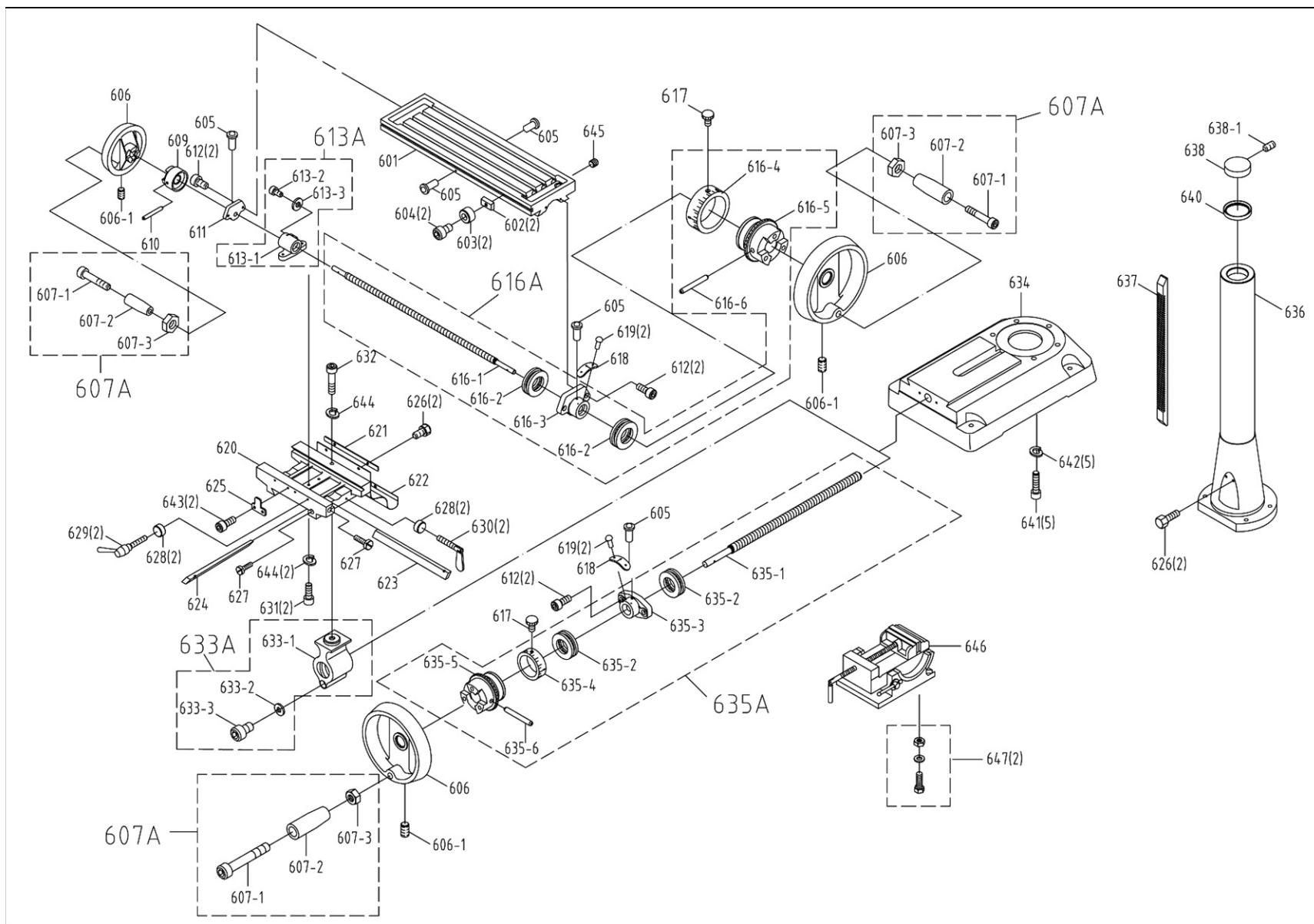
JMD-45GHPF

JMD-40GH

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**12.1.1 JMD-40GH,-40GHPF Table, Base, and Column Assembly – Exploded View**



## 12.1.2 JMD-40GH,-40GHPF Table, Base, and Column Assembly – Parts List

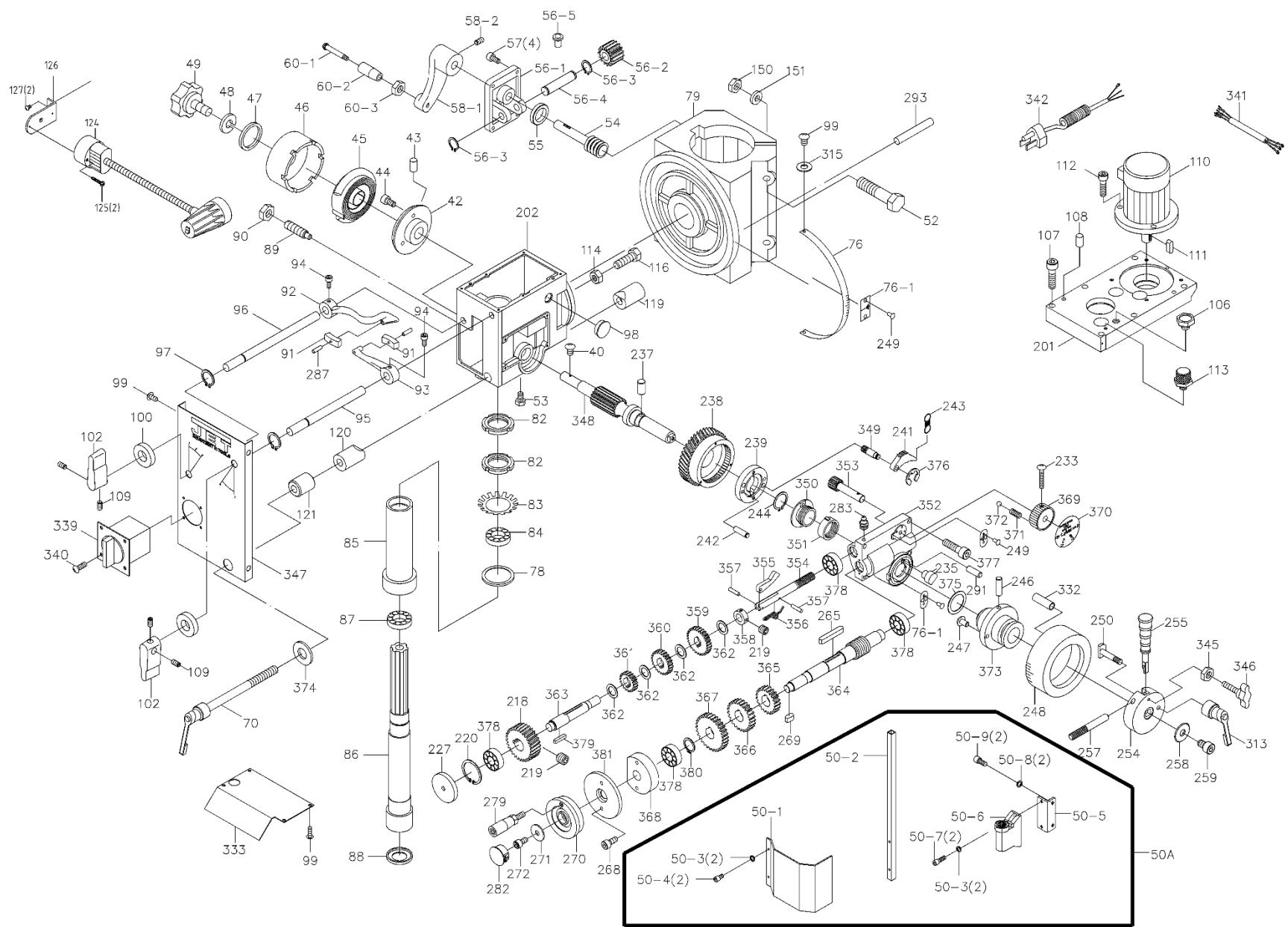
<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty</b>
601	JMD18-228G	Table.....	31L.....	1
602	JMD18-229	Fixed T-Block.....		2
603	JMD18-230	Stop Ring.....		2
604	TS-0207021	Hex Socket Head Cap Screw .....	1/4"-20x1/2"	2
605	JMD18-368	Ball Oiler.....	1/4"	5
606	JMD18-201	Table Handwheel.....		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 613-3).....		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
633-1	JMD18-215	ACME Nut .....	TM23.....	1
633-2	TS-1550031	Flat Washer .....	M5	1
633-3	TS-1502041	Hex Socket Head Cap Screw .....	M5x16	1
634	JMD18N-634G	Base.....		1
635A	JMD18-205A	ACME Nut Assembly (#63-1 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
636	JMD18N-636G	Column Base .....		1
637	JMD18N-637	Rack.....	600.5L.....	1
638	JMD18-211	Column Cap .....		1
638-1	TS-0270021	Set Screw .....	5/16"-18x5/16"	1
640	JMD18-209	Column Flange Ring .....		1
641	F004999	Hex Socket Head Cap Screw .....	5/8"-11x2-1/2"	5

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty</b>
642 .....	TS-0720131 .....	Lock Washer.....	5/8"	5
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
	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
.....JMD18-021.....	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

## 12.4.1 JMD-40GHPF,-45GHPF (powerfeed) Gear Head Assembly – Exploded View



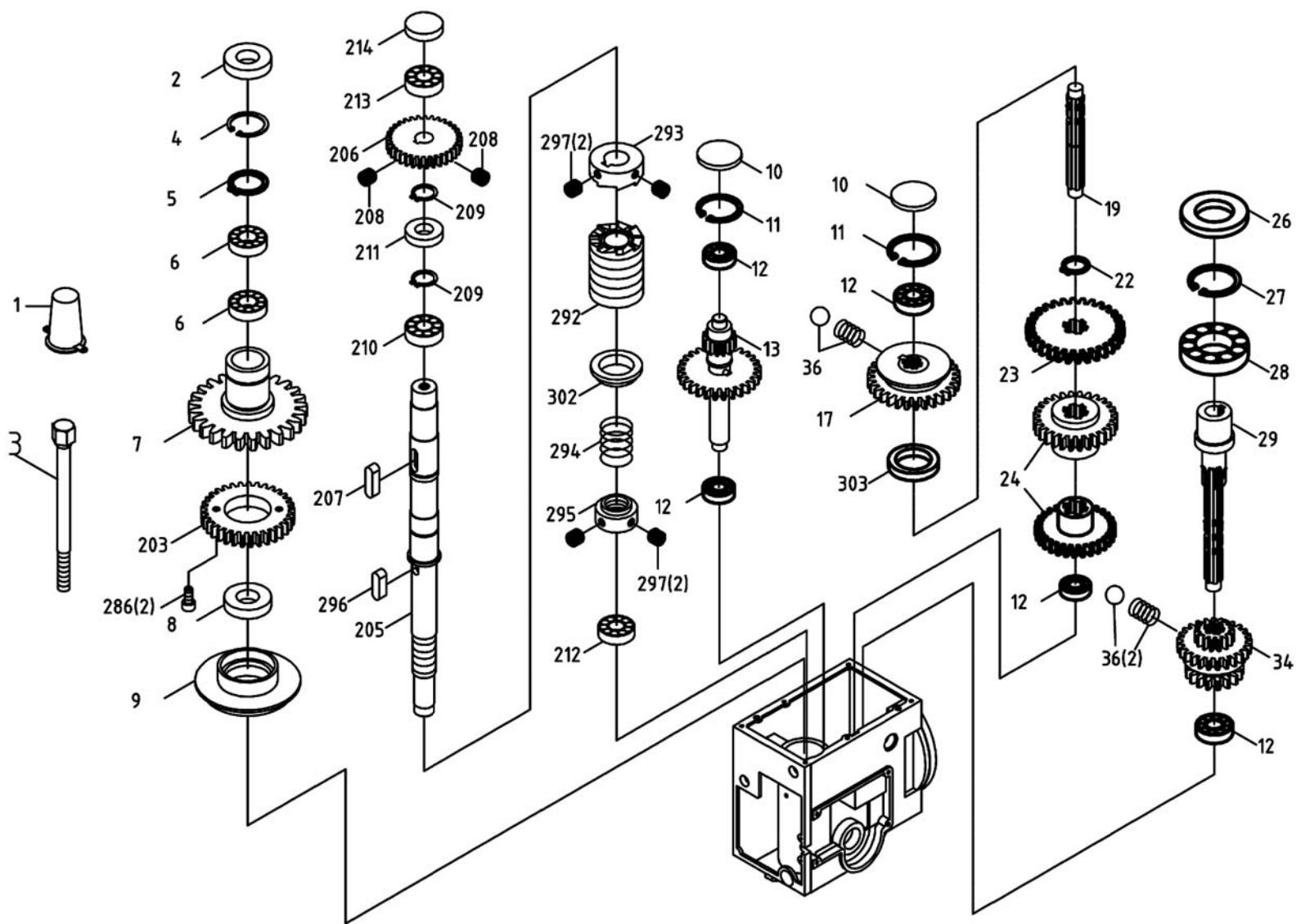
## 12.4.2 JMD-40GHPF,-45GHPF (powerfeed) Gear Head Assembly – Parts List

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty</b>
40	GHD20PF-40	Screw.....	3/16" x 3/8"	1
42	61105	Spring Base .....		1
43	GHD20PF-43	Spring Pin .....	3 x 12 mm .....	2
44	GHD20PF-44	Screw.....	3/16" x 3/4"	3
45	61103S	Spring and Cover (includes #46) .....		1
46	61103	Spring Cover (RE:61103S) .....		1
47	TS-0680021	Flat Washer .....	1/4"	1
48	TS-0720071	Lock Washer.....	1/4"	1
49	6185	Lock Knob .....		1
50A	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 .....	M5 x 15L .....	2
50-8	TS-1551041	Lock Washer.....	M6 .....	2
50-9	6286490	Hex Socket Head Cap Screw .....	M6 x 15L .....	2
52	TS-0071141	Hex Cap Screw.....	5/8"-11 x 5-1/2" .....	2
53	GHD20-53	Oil Plug .....	1/4"PT .....	1
54	JMD40GH-55	Worm Shaft .....		1
55	JMD40GH-56	O-Ring .....		1
56-1	JMD40GH-57-1	Bracket .....		1
56-2	JMD40GH-57-2	Worm Gear .....		1
56-3	F006042	C-Ring, External .....	S14 .....	2
56-4	JMD40GH-57-4	Shaft .....		1
56-5	JMD40GH-57-5	Ball Oiler .....		1
57	TS-0207041	Hex Socket Head Cap Screw .....	1/4"-20 x 3/4"L .....	4
58-1	JMD40GH-59-1	Crank .....		1
58-2	TS-0271052	Set Screw .....	3/8"-16 x 1/2)L .....	1
60A	JMD18-201A	Handle Assembly (#60-1 thru 60-3) .....		1
60-1	JMD18-201-1	Hex Socket Head Cap Screw .....	3/8" x 16UNC .....	1
60-2	JMD18-201-2	Handle .....		1
60-3	TS-0561031	Hex Nut .....	3/8"-16 .....	1
70	2421003	Handle Rod Assembly .....		1
76	2401076	Scale .....		1
76-1	2450060	Pointer .....		3
78	6112	Rubber Gasket .....		1
79	2412001G	Casting .....		1
82	6114	Lock Nut .....		1
83	GHD20PF-83	Star Washer, External Tooth .....	M30 .....	1
84	BB-30206	Taper Roller Bearing .....	30206 .....	1
85	6116-R8	Quill .....	R8 .....	1
86	6117-R8	Spindle Shaft .....	R8 .....	1
87	BB-30207	Taper Roller Bearing .....	30207 .....	1
88	6119	Bearing Cap .....		1
89	6127	Screw Key .....		1
90	TS-0561031	Hex Nut .....	3/8"-16 .....	1
91	2401066	Gear Lever Bracket .....		2
92	2401067	Gear Lever (Left) .....		1
93	2401068	Gear Lever (Right) .....		1
94	TS-0207021	Hex Socket Head Cap Screw .....	1/4"-20 x 1/2" .....	1
95	2401070	Lever Shaft (Right) .....		1
96	2401071	Lever Shaft (Left) .....		1
97	GHD20PF-97	C-Ring, External .....	S12 .....	2
98	GHD20PF-98	Oil Sight Glass .....		1
99	GHD20PF-99	Screw .....	3/16" x 3/8" .....	8
100	GHD20PF-100	Oil Seal .....	G12 .....	2
102	2401075	Speed Lever .....		2

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty</b>
106 .....	GHD20PF-106 .....	Oil Plug .....	.....	1
107 .....	TS-0209081 .....	Hex Socket Head Cap Screw .....	3/8"-16 x 3/4" .....	6
108 .....	GHD20PF-108 .....	Miter Pin .....	.....	2
109 .....	TS-0267021 .....	Set Screw .....	1/4"-20 x 1/4" .....	4
110 .....	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
111 .....	GHD20PF-111 .....	Double Rd. Hd. Key .....	6 x 6 x 30mm .....	1
112 .....	TS-0209031 .....	Hex Socket Head Cap Screw .....	3/8"-16 x 3/4" .....	6
113 .....	GHD20-89 .....	Brass Fitting .....	.....	1
114 .....	TS-0561071 .....	Hex Nut .....	5/8"-11 .....	3
116 .....	F008242 .....	Hex Cap Screw .....	5/8"-11 x 2-1/4" .....	3
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 .....	M6x12L .....	2
150 .....	TS-0561071 .....	Hex Nut .....	5/8"-11 .....	2
151 .....	TS-0680081 .....	Flat Washer .....	5/8" .....	2
201 .....	2450001G .....	Head Body Cover .....	.....	1
202 .....	2450002G .....	Head Body Casting .....	.....	1
218 .....	2450008 .....	Worm Gear .....	.....	1
219 .....	TS-1523011 .....	Set Screw .....	M6 x 6 .....	4
220 .....	F006033 .....	C-Ring, Internal .....	R35 .....	4
227 .....	2450014 .....	Cover .....	.....	1
233 .....	GHD20PF-233 .....	Screw .....	M4 x 25 .....	1
235 .....	2450020 .....	Release Block .....	.....	1
236 .....	2450021 .....	Small Pinion Shaft .....	.....	1
237 .....	2450022A .....	Cylindrical Key .....	M8x12 .....	2
238 .....	2450023 .....	Worm Gear .....	.....	1
239 .....	2450024 .....	Clutch Key Base .....	.....	1
241 .....	2450026 .....	Clutch Key .....	.....	2
242 .....	2450027 .....	Spring Pin .....	Ø5x18L .....	2
243 .....	2450028 .....	Spring .....	.....	2
244 .....	GHD20PF-244 .....	C-Ring, External .....	S25 .....	1
246 .....	2450030 .....	Bushing Pin .....	.....	1
247 .....	2450031 .....	Bushing Stop .....	.....	1
248 .....	2450032 .....	Scale Base .....	.....	1
249 .....	GHD20PF-249 .....	Rivet .....	ø2x4L .....	8
250 .....	2450033 .....	Scale Base Set Screw .....	.....	1
254 .....	2450037 .....	Handle Hub .....	.....	1
255 .....	2450038N .....	Handle Rod .....	.....	2
257 .....	2450039 .....	Handle Rod Pin .....	.....	2
258 .....	2450040 .....	Washer .....	.....	1
259 .....	TS-1504021 .....	Hex Socket Head Cap Screw .....	M8-1.25 x 12 .....	1
265 .....	GHD20PF-265 .....	Double Rd. Hd. Key .....	5 x 5 x 32mm .....	1
266 .....	2450045 .....	Cover .....	.....	1
268 .....	TS-1502031 .....	Hex Socket Head Cap Screw .....	M5-0.8 x 12 .....	2
269 .....	GHD20PF-269 .....	Key .....	4 x 4 x 10mm .....	1
270 .....	24500470 .....	Handwheel .....	.....	1
271 .....	GHD20PF-271 .....	Washer .....	.....	1
272 .....	TS-1503031 .....	Hex Socket Head Cap Screw .....	M6-1.0 x 12 .....	1
279 .....	JMD40GH-279 .....	Handle Assembly .....	5/16" .....	1
282 .....	GHD20PF-282 .....	Plug .....	7/8" .....	1
283 .....	GHD20PF-283 .....	Oil Seal .....	.....	1
287 .....	GHD20PF-287 .....	Spring Pin .....	4x16mm .....	2

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty</b>
291 .....	2450051 .....	Pin.....	.....	1
293 .....	HP309 .....	Taper Pin .....	M6xø7 (1:48) .....	1
313 .....	2450063 .....	Handle .....	.....	1
315 .....	TS-0680011 .....	Flat Washer .....	3/16".....	2
332 .....	GHD20PF-332 .....	Pin.....	.....	1
333 .....	2450069 .....	Dust Plate .....	.....	1
339 .....	JMD40GH-339 .....	For/Rev Switch .....	.....	1
340 .....	GHD20-340 .....	Screw.....	.....	1
341 .....	JMD40GH-341 .....	Motor Cord.....	14AWGx5C 300V .....	1
342 .....	JMD40GH-342 .....	Power Cord.....	.3x3.31mm <sup>2</sup> 12AWG, 5-20P.....	1
345 .....	TS-0640081 .....	Hex Nut.....	5/16"-18 .....	1
346 .....	GHD20PF-346 .....	Manual Feed Knob .....	.....	1
347 .....	JMD40GHPF-347.....	Name Plate .....	.....	1
.....	JET-92.....	JET Logo (not shown) .....	92x38MM .....	1
348 .....	2450086A.....	Pinion Shaft .....	.....	1
349 .....	2450097 .....	Clutch Key Pin .....	Ø7x23L mm .....	2
350 .....	2450096 .....	Clutch Screw.....	.....	1
351 .....	2450095 .....	Clutch Nut.....	.....	1
352 .....	2450068G .....	Gear Box.....	.....	1
353 .....	2450081A.....	Gear Shaft .....	.....	1
354 .....	2450082A.....	Speed Change Lever.....	.....	1
355 .....	2450083A.....	Stop .....	.....	1
356 .....	2450084A.....	Spring Leaf .....	.....	1
357 .....	GHD20PF-357 .....	Pin.....	Ø3x10L mm .....	2
358 .....	2450089A.....	Fixed Bushing.....	.....	1
359 .....	2450072A.....	Gear .....	.....	1
360 .....	2450071A.....	Gear .....	.....	1
361 .....	2450070A.....	Gear .....	.....	1
362 .....	2450074A.....	Washer .....	.....	4
363 .....	2450073A.....	Shaft .....	.....	1
364 .....	2450078A.....	Transmission Worm.....	.....	1
365 .....	2450075A.....	Gear .....	.....	1
366 .....	2450076A.....	Gear .....	.....	1
367 .....	2450077A.....	Gear .....	.....	1
368 .....	2450085A.....	Spacer Ring .....	.....	1
369 .....	2450079 .....	Speed Lever .....	.....	1
370 .....	GHD20PF-370 .....	Speed Scale .....	.....	1
371 .....	290089 .....	Spring .....	.....	1
372 .....	SB-8MM .....	Steel Ball.....	8mm .....	1
373 .....	2450087A.....	Clutch Bushing .....	.....	1
374 .....	GHD20-374 .....	Flat Washer .....	1/2" x 7/8" x 2" .....	1
375 .....	2450100 .....	Washer .....	.....	1
376 .....	GHD20PF-376 .....	E-Retainer Ring .....	E5 .....	2
377 .....	TS-0208071 .....	Hex Socket Head Cap Screw .....	5/16"-18 x 1-1/4"L .....	4
378 .....	CA6003ZZ .....	Ball Bearing .....	.....	4
379 .....	GHD20PF-379 .....	Double Rd. Hd. Key .....	5 x 5 x 28L mm .....	1
380 .....	GHD20PF-380 .....	C-Ring.....	.....	1
381 .....	2450088A.....	Graduated Bottom Plate .....	.....	1
.....	LM000286 .....	Warning Label, Mill-Drills (not shown) .....	.....	1

12.5.1 JMD-40GHPF,-45GHPF (powerfeed) Gears Assembly- Exploded View



## 12.5.2 JMD-40GHPF,-45GHPF (powerfeed) Gears Assembly – Parts List

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty</b>
1	2401001-2	Main Shaft Cover .....		1
2	GHD20-28	Oil Seal .....		1
3	JMD45GH-03	Draw Bar.....	7/16"	1
4	GHD20-4	Retainer Ring, Internal.....	R68 .....	1
5	GHD20PF-5	Retainer Ring, External .....	S40 .....	1
6	BB-6008ZZ	Ball Bearing .....	6008ZZ .....	2
7	2401006	Idle Gear .....	53T .....	1
8	GHD20-7	Oil Seal .....		1
9	2401008	Oil Seal Ring.....		1
10	GHD20-9	Dust Cover .....		2
11	GHD20-10	C-Ring.....		2
12	BB-6002ZZ	Ball Bearing .....	6002ZZ .....	5
13	2401020A	Gear Shaft Assembly.....	15/41T .....	1
17	2401029N	Idle Gear .....	42/16T .....	1
19	2401031	Pinion Shaft (RE: T2401031BS) .....		1
	T2401031BS	Pinion Shaft w/Gear Assembly (includes #17,19,22,23,24,303) .....		1
22	GHD20-33	C-Ring, Ext .....	S18 .....	1
23	2401055N	Idle Gear .....	44T .....	1
24	2401037N	Idle Gear (2piece) .....	35/28T .....	1
26	GHD20-50	Oil Seal .....		1
27	GHD20-42	C-Ring, Internal.....	R62 .....	1
28	BB-6007ZZ	Ball Bearing .....	6007ZZ .....	1
29	2401043	Pinion Shaft (RE: T2401043BS) .....		1
	T2401043BS	Pinion Shaft W/Gear Assembly (includes #29,34) .....		1
34	2401049N	Idle Gear (RE: T2401043BS) .....	15/31/23T .....	1
36	GHD20-30	Steel Ball W/ Spring.....	5/16" .....	3
203	2450003	Idle Gear .....	33T .....	1
205	2450004	Transmission Worm .....		1
206	2450005	Idle Gear .....	33T .....	1
207	GHD20PF-207	Double Rd. Hd. Key .....	5x5x16 .....	1
208	TS-1523011	Set Screw .....	M6x6 .....	2
209	GHD20PF-209	C-Ring, External .....	S17 .....	2
210	BB-6003ZZ	Ball Bearing .....	6003ZZ .....	1
211	GHD20PF-211	Oil Seal .....		1
212	BB-6001ZZ	Ball Bearing .....	6001ZZ .....	1
213	BB-6202ZZ	Ball Bearing .....	6202ZZ .....	1
214	GHD20-214	Oil Seal Cover .....		1
286	TS-1502031	Hex Socket Head Cap Screw .....	M5x12 .....	2
292	2450052	Worm Shaft .....		1
293	2450053	Clutch Block .....		1
294	2450054	Spring .....		1
295	2450055	Adjustable Bolt .....		1
296	GHD20PF-296	Key .....	5x5x10 .....	1
297	GHD20PF-297	Set Screw .....	M5x5 .....	4
302	2450057	Washer .....		1
303	2401192	Bushing .....		1