



Operating Instructions and Parts Manual JMD-15/18/18PFN Mill/Drill Machine



(JMD-18 shown with optional CS-18 stand)

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1.0 Warranty and Service

JET warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official JET branded website.

- JET products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90 day limited warranty against manufacturer's defects.

Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations or lack of maintenance. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

Warranty Limitations

Woodworking products with a Five Year Warranty that are used for commercial or industrial purposes default to a Two Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. **Please note that you will be asked to provide proof of initial purchase when calling.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the JET website.

More Information

JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

Limitations on This Warranty

JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

JET SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

JET sells through distributors only. The specifications listed in JET printed materials and on official JET website are given as general information and are not binding. JET reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever. JET® branded products are not sold in Canada by JPW Industries, Inc.

Product Listing with Warranty Period

| |
|--|
| 90 Days – Parts; Consumable items |
| 1 Year – Motors; Machine Accessories |
| 2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes |
| 5 Year – Woodworking Machinery |
| Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools; Air Tools |

NOTE: JET is a division of JPW Industries, Inc. References in this document to JET also apply to JPW Industries, Inc., or any of its successors in interest to the JET brand.

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3.0 Warnings

Read and understand the entire contents of this manual before attempting set-up or operation of this mill/drill.

1. **This machine is designed and intended for use by properly trained and experienced personnel only.** If you are not familiar with the proper safe use of mill/drills, do not use this machine until proper training and knowledge has been obtained.
2. **Keep guards in place.** Safety guards must be kept in place and in working order.
3. **Remove adjusting keys and wrenches.** Before turning on machine, check to see that any adjusting wrenches are removed from the tool.
4. **Reduce the risk of unintentional starting.** Make sure switch is in the OFF position before plugging in the tool.
5. **Do not force tools.** Always use a tool at the rate for which it was designed.
6. **Use the right tool.** Do not force a tool or attachment to do a job for which it was not designed.
7. **Maintain tools with care.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubrication and changing accessories.
8. **Always disconnect the tool from the power source before adjusting or servicing.**
9. **Check for damaged parts.** Check for alignment of moving parts, breakage of parts, mounting, and any other condition that may affect the tools operation. A guard or any part that is damaged should be repaired or replaced.
10. **Turn power off. Never leave a tool unattended.** Do not leave a tool until it comes to a complete stop.
11. **Keep work area clean.** Cluttered areas and benches invite accidents.
12. **Do not use in a dangerous environment.** Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
13. **Keep children and visitors away.** All visitors should be kept a safe distance from the work area.
14. **Make the workshop child proof.** Use padlocks, master switches, and remove starter keys.
15. **Wear proper apparel.** Loose clothing, gloves, neckties, rings, bracelets, or other jewelry may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Do not wear any type of glove.
16. **Always use safety glasses.** Every day glasses only have impact resistant lenses; they are not safety glasses.
17. **Do not overreach.** Keep proper footing and balance at all times.
18. **Do not place hands near the cutterhead while the machine is operating.**
19. **Do not perform any set-up work while machine is operating.**
20. **Read and understand all warnings posted on the machine.**
21. **This manual is intended to familiarize you with the technical aspects of this mill/drill.** It is not, nor was it intended to be, a training manual.
22. **Failure to comply with all of these warnings may result in serious injury.**
23. **Some dust created** by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead based paint
 - crystalline silica from bricks and cement and other masonry products, and
 - arsenic and chromium from chemically-treated lumber.**Your risk from those exposures varies,** depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles

4.0 Specifications

| | JMD-15 | JMD-18 | JMD-18PFN |
|-----------------------------------|---|--|--|
| Stock No. | 350017 | 350018 | 350020 |
| Drilling Capacity | 1" | 1-1/4" | 1-1/4" |
| Face Mill Capacity | 2-1/2" | 3" | 3" |
| End Mill Capacity | 1/2" | 3/4" | 3/4" |
| Swing | 14-1/2" | 15-7/8" | 15-7/8" |
| Maximum Distance Spindle to Table | 15" | 18" | 26" |
| Spindle Taper | R-8 | R-8 | R-8 |
| Spindle Travel | 3-1/2" | 5" | 5" |
| Quill Diameter | 2-1/2" | 3" | 3" |
| Head Swivel | 360° | 360° | 360° |
| Column Diameter | 3-5/8" | 4-1/2" | 4-1/2" |
| Number of Power Downfeeds | ---- | ---- | 3 |
| Range of Power Downfeeds | ---- | ---- | 0.0047", 0.007", 0.01" |
| Number of Spindle Speeds | 12 | 12 | 12 |
| Range of Spindle Speeds | 110-2,580 RPM | 150-3,000 RPM | 150-3,000 RPM |
| Maximum Table Travel | 14" | 20-1/2" | 20-1/2" |
| Cross Travel | 6" | 7" | 7" |
| Working Surface of Table | 7-1/2" x 23" | 9-1/2" x 31-3/4" | 9-1/2" x 31-3/4" |
| Number of T-Slots | 4 | 4 | 4 |
| T-Slot Size | 9/16" | 5/8" | 5/8" |
| T-Slot Centers | 1-1/2" | 2-1/8" | 2-1/8" |
| Overall Dimensions | 36-1/2"L x 37-1/2"W x 35-1/2"H | 42-1/2"L x 39-3/4"W x 43-1/2"H | 42-1/2"L x 39-3/4"W x 51-1/2"H |
| Base Dimensions | 12-1/2" x 19-3/4" | 15-3/4" x 23-3/4" | 15-3/4" x 23-3/4" |
| Motor (UL listed) | 1HP, 1PH, 115/230V (prewired 115V) , 60Hz | 2HP, 1PH, 115/230V, (prewired 115V) , 60Hz | 2HP, 1PH, 115/230V, (prewired 115V) , 60Hz |
| Net Weight (approx.) | 440 lbs. | 660 lbs. | 700 lbs. |
| Shipping Weight (approx.) | 540 lbs. | 760 lbs. | 800 lbs. |

The specifications in this manual are given as general information and are not binding. JET reserves the right to effect, at any time and without prior notice, changes or alterations to parts, fittings, and accessory equipment deemed necessary for any reason whatsoever.

5.0 Contents of Shipping Container

1 Mill/Drill Machine

Accessory Package:

- 1 1/2" Drill Chuck w/ Chuck Key
- 1 Adjustable Carbide Facemill
- 1 Facemill Arbor
- 1 Bolts, Nuts, and Washers to Attach Vise to Table
- 1 2-1/2" Angle Vise (JMD-15)
- 1 3" Angle Vise (JMD-18/18PFN)
- 3 Handle Rods (JMD-15/18)
- 3 Rubber Knobs (JMD-15/18)
- 2 Rubber Knobs (JMD-18PFN)
- 1 3/8"x1" Hex Socket Cap Screw
- 1 3/8" Washer
- 1 Crank Body (Installed)
- 1 Crank Handle
- 1 Spindle Guard Assembly
- 1 3mm Hex Wrench
- 1 4mm Hex Wrench
- 1 5mm Hex Wrench
- 1 23mm Wrench (JMD-18/18PFN)
- 3 Hand Wheels w/ Handles
- 1 Can Touch-Up Paint
- 1 Owner's Manual
- 1 Warranty Card
- 1 Lifting Hook (Installed)

6.0 Unpacking and Clean-up

1. Finish removing the crate from the mill/drill. Unbolt the machine from the crate bottom. Report shipping damage, if any, to your distributor.
2. Clean all rust protected surfaces using a mild commercial solvent, kerosene or diesel fuel. Do not use paint thinner, gasoline, or lacquer thinner. These will damage painted surfaces. Cover all cleaned surfaces with a light film of Mobil DTE® Oil Heavy Medium.
3. Open the belt cover and thread the lifting hook into the head.
4. Carefully lift the mill/drill with properly rated equipment to a sturdy stand or work bench.
5. Remove the lifting hook.

Tools Needed for Assembly

8" Adjustable Wrench or 1/4" to 1-1/4" Combination Wrench Set



(JMD-18 shown with optional CS-18 stand)



7.0 Assembly

1. Screw rubber handles (A, Fig. 1) onto handle rod (B, Fig. 1). Screw handle rod into downfeed hub (C, Fig. 1) and tighten. Flat spot on rod accommodates a combination or adjustable wrench. **Note:** Handle shafts are already installed into hub on JMD-18PFN.
2. Repeat for other two rod assemblies.
3. Slide crank (D, Fig. 2) onto shaft and tighten set screw (E, Fig. 2). Be sure set screw seats on flat part of shaft.
4. Thread handle (F, Fig. 2) into crank and tighten.
5. Slide handwheel (G, Fig. 3) onto table handwheel shaft and tighten set screw. Insert handle (H, Fig. 3) into handwheel and tighten.
6. Repeat for two remaining table hand wheels.
7. Install spindle guard assembly (Figure 3a).



Fig. 1

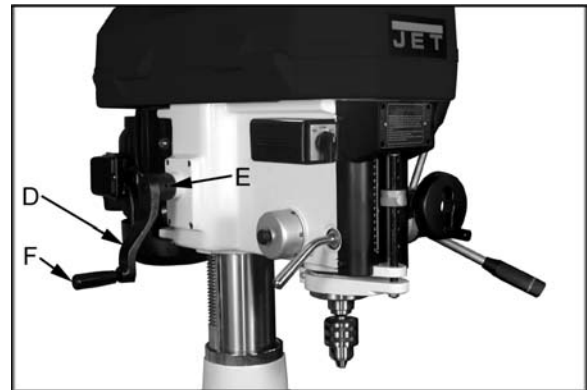


Fig. 2



Fig. 3

8.0 Installation

⚠WARNING Machine is heavy! Use an appropriate lifting device and use extreme caution when moving the machine to its final location. Failure to comply may cause serious injury.

1. The location for the mill/drill should be well lit, dry, and have room enough to allow the head to rotate 360°.
2. Before bolting the mill/drill to a bench or stand, the unit must be level in both directions. Place a level on the table in both directions.
3. If the table is not level, shim under the low corner(s) until level. Tighten the fastening bolts. Check for level again. Adjust as necessary until the mill/drill is level after the fastening hardware has been tightened.



Fig. 3a

9.0 Lubrication

Lubricate ball oilers (A, Fig. 4) by the X/Y-axis hand wheels, the oiler at the raising/lowering crank handle, and the oiler on front of the bed once daily with Mobil DTE® Oil Heavy Medium.

Lubricate the ways (B, Fig. 4) once daily with Mobil DTE® Oil Heavy Medium.

If the head does not rise or lower smoothly, apply Mobilith AW2 to the rack, and Mobil DTE® Oil Heavy Medium to the column.

If the feed handles do not turn smoothly, apply Mobilith AW2 to the cross and longitudinal lead screws (C, Fig. 4). Access the cross lead screw by moving the table forward and removing the way cover.

The spindle bearings are permanently sealed and require no lubrication.

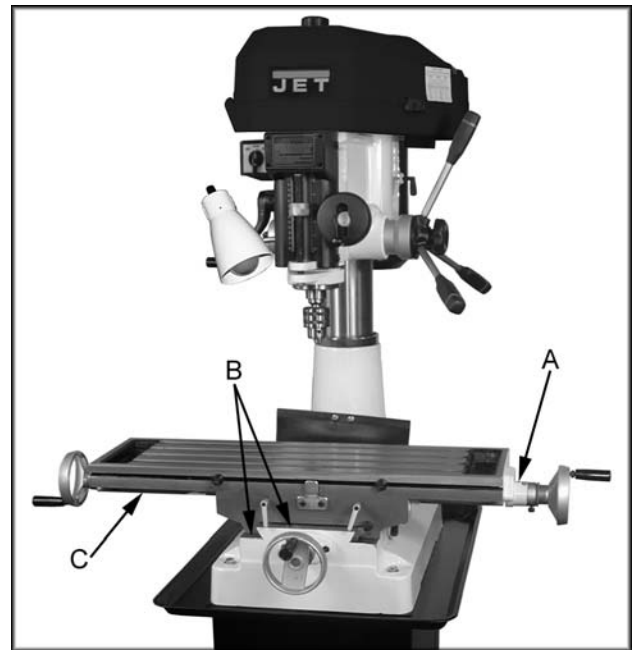


Fig. 4

10.0 Electrical Connections

⚠WARNING A qualified electrician must make all electrical connections. Failure to comply may cause serious injury.

Before making any electrical connections, make sure the power source available is compatible with the machine. Also, turn the machine OFF using the buttons or switch at the front of the machine before connecting to the power source.

The JMD Mill/Drills are rated at 115/230V and come from the factory **prewired at 115V**. The mill/drill comes with a plug designed for use on a circuit with an outlet that looks like the one in Fig. 5, and has a grounding prong as illustrated in Fig. 5.

To switch the Mill/Drill to 230V operation:

1. Disconnect machine from power source.
2. Remove junction box cover on the motor.
3. Change the wires according to the diagram on the inside of the junction box cover, and reinstall junction box cover.
4. Replace thermal relay with one rated for 230V operation (see parts list).
5. Change power plug to one rated 230V, or hard wire the power cord.

Make sure the mill/drill is properly grounded.

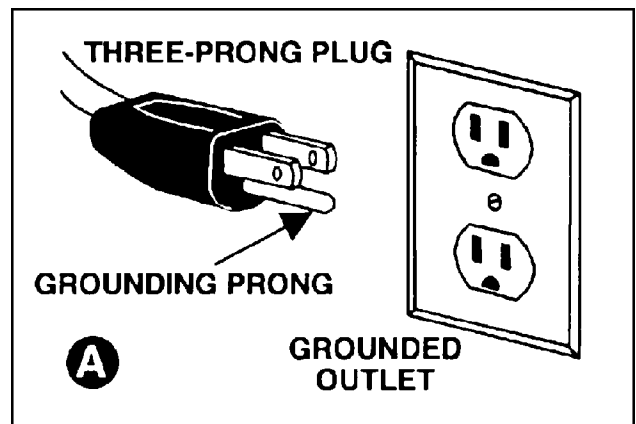


Fig. 5

11.0 Controls

Longitudinal Hand Wheels: (X-axis) (A, Fig. 6)

Located on either side of the table. Moves table side to side.

Cross Feed Hand Wheel: (Y-axis) (B, Fig. 6)

Located on the front of the base. Moves table toward, or away from the column.

Adjustable Table Stops: (C, Fig. 6)

Located on table front. Adjust to stop table at any setting along the longitudinal axis.

Table Locks: (D & E, Fig. 6)

Longitudinal table locks are located on front of the table. Cross-feed table locks are located on the right side under the table. Turn clockwise to lock.

Depth Stop:

JMD-15: (K, Fig. 8) located on the left side. Set nuts for desired depth stop.

JMD-18: (F, Fig. 7) located in the front. Push in the button on the front of the quick adjust stop and move to desired position.

JMD-18PFN: Set the depth stop on the power down feed assembly to desired depth for repetitive drilling to the same depth, see "Power Feed Operation" on page 12.

Downfeed Handles: (G, Fig. 7)

Located on the right side of the head casting. Counter-clockwise movement advances the quill toward the table. Return spring retracts the handles. **Note:** the knob (I, Fig. 7) must be loose for the downfeed handles to work.

Fine Feed Hand Wheel: (H, Fig. 7)

Located on the front of the head casting. To activate, tighten the knob (I Fig. 7) and turn the power feed speed range dial (J, Fig. 7) to zero.

Fig. 6

Fig. 7

Fig. 8

9

Motor Mount Lock Lever: (A, Fig. 9)

Located on the right side of the head casting. Locks and unlocks the motor mounting plate enabling the user to tension v-belts.

Head Pivot Lock: (B, Fig. 9)

Located on the right rear of the head casting. Loosen two hex nuts to rotate the head 360°. Tighten two hex nuts to lock the head in position.

On-Off Switch: (C, Fig. 10)

Turns spindle on and off, and changes spindle direction. Allow the spindle to come to a stop before reversing rotation.

Quill Lock Handle: (D, Fig. 10)

Located on the front left of the head casting. Turn clockwise to lock the quill in the desired position. Turn counter-clockwise to release.

Head Elevating Crank Handle: (E, Fig. 10)

Located at left rear of head casting. Loosen head pivot lock nuts (B, Fig. 9) and turn handle clockwise to raise head on the column and counter-clockwise to lower head.

⚠WARNING This machine is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe use of mill/drills, do not use this machine until proper training and knowledge have been obtained. Failure to comply may cause serious injury.

12.0 Adjustments

12.1 Changing Spindle Speeds

1. Disconnect the machine from the power source, unplug.
2. Loosen the motor mount lock lever (F, Fig. 11) and pull the motor toward the head casting to release tension on the v-belts.

3. Release two latches (G, Fig. 11) on belt cover and slide pulley guard open (I, Fig. 11).



Fig. 9

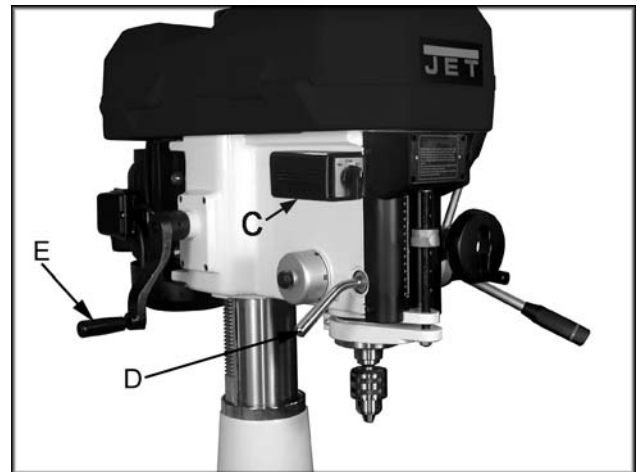


Fig. 10



Fig. 11

4. Arrange the v-belts (A, Fig. 12) on the pulleys (B, Fig. 12) for the desired speed according to the speed chart (H, Fig. 11) on the belt cover.
5. Tension the v-belts by pushing the motor away from the head casting and locking the motor mount lock lever (F, Fig. 11). **Note:** Proper tension is achieved when the slack in the belt is taken up and the belt does not slip during operation of the mill/drill.

12.2 Arbor Replacement

1. **Disconnect machine from the power source, unplug.**
2. Release two latches (G, Fig. 11) on the belt cover and slide the pulley guard open (I, Fig. 11).
3. Hold the spindle pulley (B, Fig. 12) to keep the pulley from moving while loosening the drawbar (C, Fig. 12) with a wrench.
4. Loosen the drawbar approximately three to four full turns.
5. Tap the drawbar head with a rubber mallet to dislodge the arbor.

CAUTION Do not loosen the drawbar more than three or four turns before hitting with a rubber mallet. Damage to the drawbar threads may occur.

6. Grasp the arbor with one hand while loosening the drawbar with the other. Continue to loosen the drawbar until the arbor can be withdrawn from the spindle. Wipe out the spindle with a clean dry rag.
7. Wipe down the new arbor with a clean dry rag and place the arbor into the spindle. Thread the drawbar into the arbor. Tighten the drawbar with a wrench while holding on to the spindle pulley.

WARNING Use caution when tightening drawbar. Do not allow hand to get pinched between pulley and belt. Failure to comply may cause serious injury.

Note: For best results, all milling operations should be done with the quill/spindle as close to the head assembly as possible. Lock spindle and table in place before starting milling operations.



Fig. 12

12.3 Gib Adjustment

After a period of time, movement of the table over the ways will cause normal wear. To adjust the gibs for this wear:

1. The horizontal gib adjustment screw (A, Fig. 13) is found to the right on the table face. The traverse gib adjustment screw (B, Fig. 13) is found on the right side of the saddle under the table.
2. Turn each screw slightly clockwise to tighten. Turn the table hand wheels and check the tension.
3. Re-adjust as required.

12.4 Power Feed Operation (JMD-18PFN only)

CAUTION Make all power feed settings with power to the machine turned off. Failure to comply may cause damage to the machine.

1. Set the power feed speed range dial (C, Fig. 14) to the desired rate.
2. Set the depth stop to the desired setting by lowering the quill to the desired depth and holding in place. Turn the collar (D, Fig. 14) counter-clockwise until zero is indicated and then tighten the lock handle (E, Fig. 14)
3. Start the mill/drill and pull one of two handles (F, Fig. 14) away from the column to start the power downfeed.
4. Once the downfeed has reached the depth stop, the trip will release and the spindle will retract.
5. To stop the feed before the cycle has ended or to disengage the fine feed (G, Fig. 14), press one of two handles toward the column.

12.5 Adjusting Spindle Return Spring

The spindle return comes pre-set from the factory and should not need any adjustment.

1. You do **not** want to remove the spring cap (H, Fig. 15).
2. Loosen knob (I, Fig. 15) just enough to rotate spring cap past the notch (J, Fig. 15).

3. Rotate the spring cap clockwise to decrease spring tension. Rotate the spring cap counter-clockwise to increase spring tension.

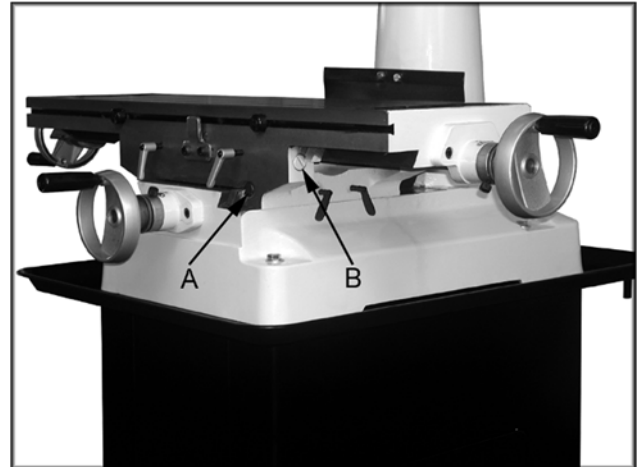


Fig. 13

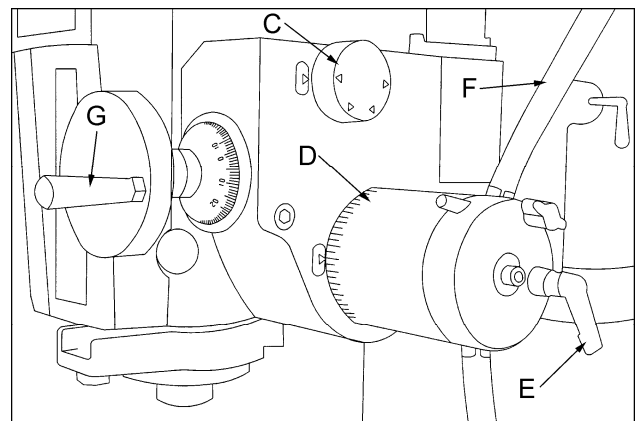


Fig. 14

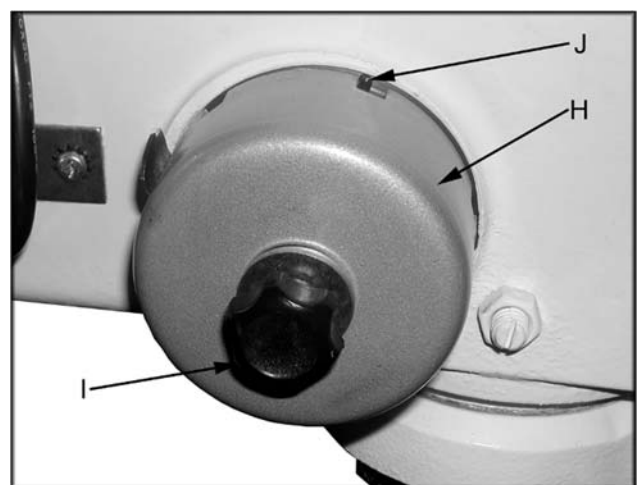
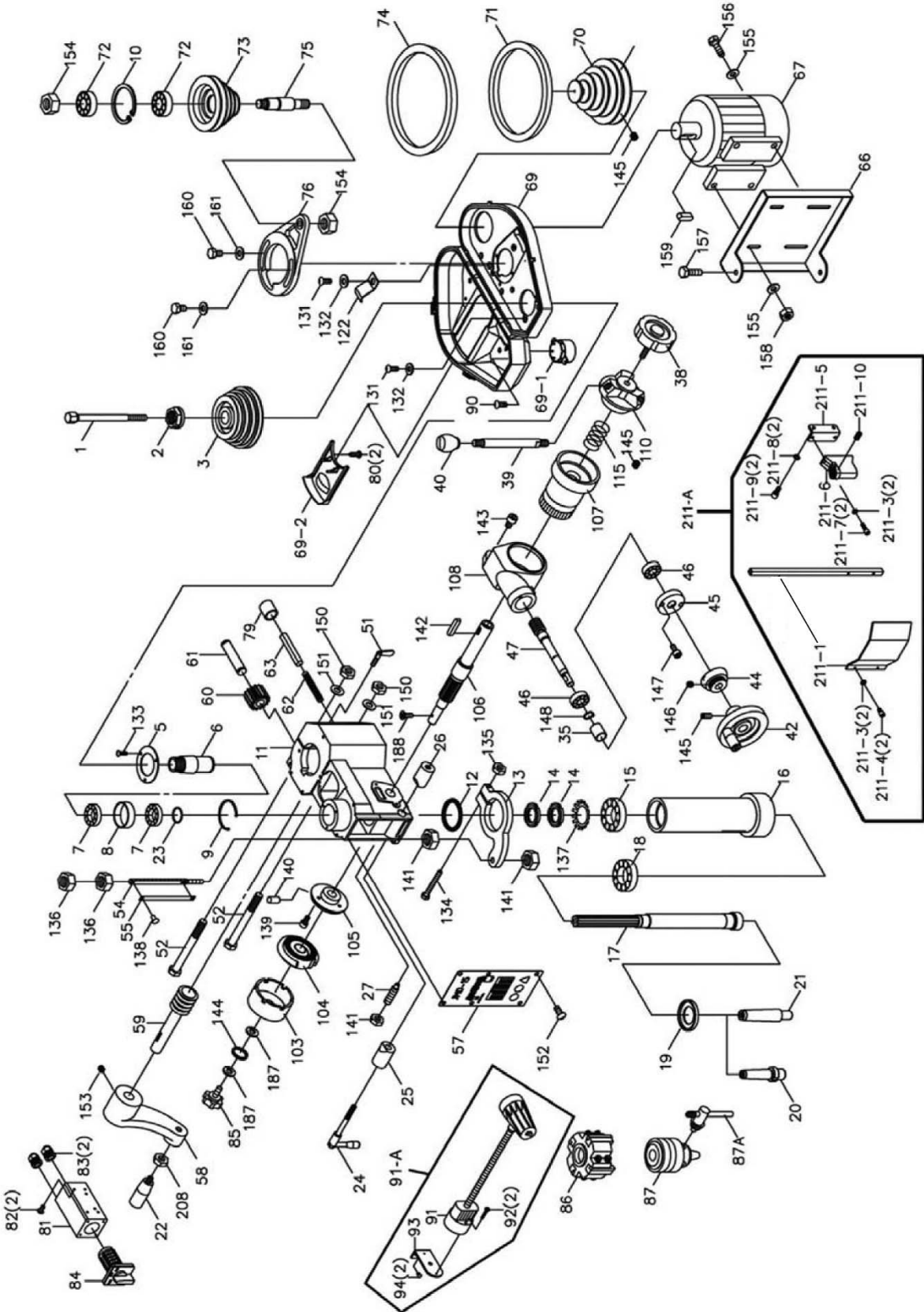


Fig. 15

13.0 Replacement Parts

13.1.1 JMD-15 Head Assembly – Exploded View



13.1.2 JMD-15 Head Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|-------------|--|---------------|-----|
| 1 | JMD15-001 | Drawbar | | 1 |
| 2 | JMD15-002A | Spindle Lock Nut | | 1 |
| 3 | JMD15-003 | Spindle Pulley | | 1 |
| 5 | JMD15-005 | Outer Bearing Plate | | 1 |
| 6 | JMD15-006A | Spindle Taper Sleeve | | 1 |
| 7 | BB-6007ZZ | Ball Bearing | 6007ZZ | 2 |
| 8 | JMD15-008 | Bearing Spacer | | 1 |
| 9 | JMD15-009 | C-Ring | | 1 |
| 10 | JMD18-010 | C-Ring | | 1 |
| 11 | JMD15-011G | Head | | 1 |
| 12 | JMD15-012 | Rubber Flange | | 1 |
| 13 | JMD15-013G | Feed Base | | 1 |
| 14 | JMD15-014 | Lock Nut | | 2 |
| 15 | BB-30205 | Taper Roller Bearing | 30205 | 1 |
| 16 | JMD15-016 | Rack Sleeve | | 1 |
| 17 | JMD15-017 | Spindle Shaft | | 1 |
| 18 | BB-30206 | Taper Roller Bearing | 30206 | 1 |
| 19 | JMD15-019 | Bearing Cap | | 1 |
| 20 | JMD15-020 | Cutting Arbor | | 1 |
| 21 | JMD15-021 | Chuck Arbor | R8 x JT6 | 1 |
| 22 | JMD18-022 | Handle | | 1 |
| 23 | JMD15-023 | Retainer Ring | | 1 |
| 24 | JMD15-024 | Lock Handle (Serial #14022982 and lower) | | 1 |
| | JMD15-024N | Lock Handle (Serial #14022983 and higher) | | 1 |
| 25 | JMD15-025 | Fixed Collar | | 1 |
| 26 | JMD15-026 | Fixed Collar Thread | | 1 |
| 27 | JMD15-027 | Screw Key | 3/8 | 1 |
| 35 | JMD18-035 | Bearing Spacer | | 1 |
| 38 | JMD18-038 | Lock Bolt w/ Knob | | 1 |
| 39 | JMD18-039 | Handle Rod | | 3 |
| 40 | JMD18-040 | Knob | | 3 |
| 42 | JMD18-042 | Feed Handle Wheel | | 1 |
| 44 | JMD18-044 | Micro Adjusting Indicator | | 1 |
| 45 | JMD18-045 | Worm Cover | | 1 |
| 46 | BB-6202Z | Ball Bearing | 6202Z | 2 |
| 47 | JMD18-047 | Worm Shaft | | 1 |
| 51 | JMD18-051 | Leaf Screw | | 1 |
| 52 | JMD15-052 | Head Lock Bolt | 1/2"x7" | 2 |
| 54 | JMD15-054 | Graduated Rod and Dial Assembly | | 1 |
| 55 | JMD15-054 | Depth Scale | | 1 |
| 57 | JMD15-057 | Name Plate (Serial #14022982 and lower) | | 1 |
| | JMD15-057A | Name Plate (Serial #14022983 and higher) | | 1 |
| 58 | JMD15-058 | Head Handle | | 1 |
| 59 | JMD15-059 | Worm Shaft | | 1 |
| 60 | JMD15-060 | Worm Gear | | 1 |
| 61 | JMD15-061 | Shaft | | 1 |
| 62 | JMD18-062 | Compression Spring | | 1 |
| 63 | JMD15-063 | Pin | | 1 |
| 66 | JMD15-066 | Motor Mount | | 1 |
| 67 | JMD15-067 | Motor (Serial #06041349 and lower) | 1HP, 1Ph | 1 |
| | JMD15-067N | Motor (Serial #06041350 and higher) | 1HP, 1Ph | 1 |
| 68 | JMD15-067A | Capacitor (not shown) | 150MF, 250VAC | 1 |
| 69 | JMD15-069P | Belt Cover | | 1 |
| 69-1 | JMD15-069P1 | Upper Belt Cover Cap | | 1 |
| 69-2 | JMD15-069P2 | Upper Belt Cover Plate | | 1 |
| 70 | JMD15-070 | Motor Pulley (Serial #06041349 and lower) | | 1 |
| | JMD15-070N | Motor Pulley (Serial #06041350 and higher) | | 1 |

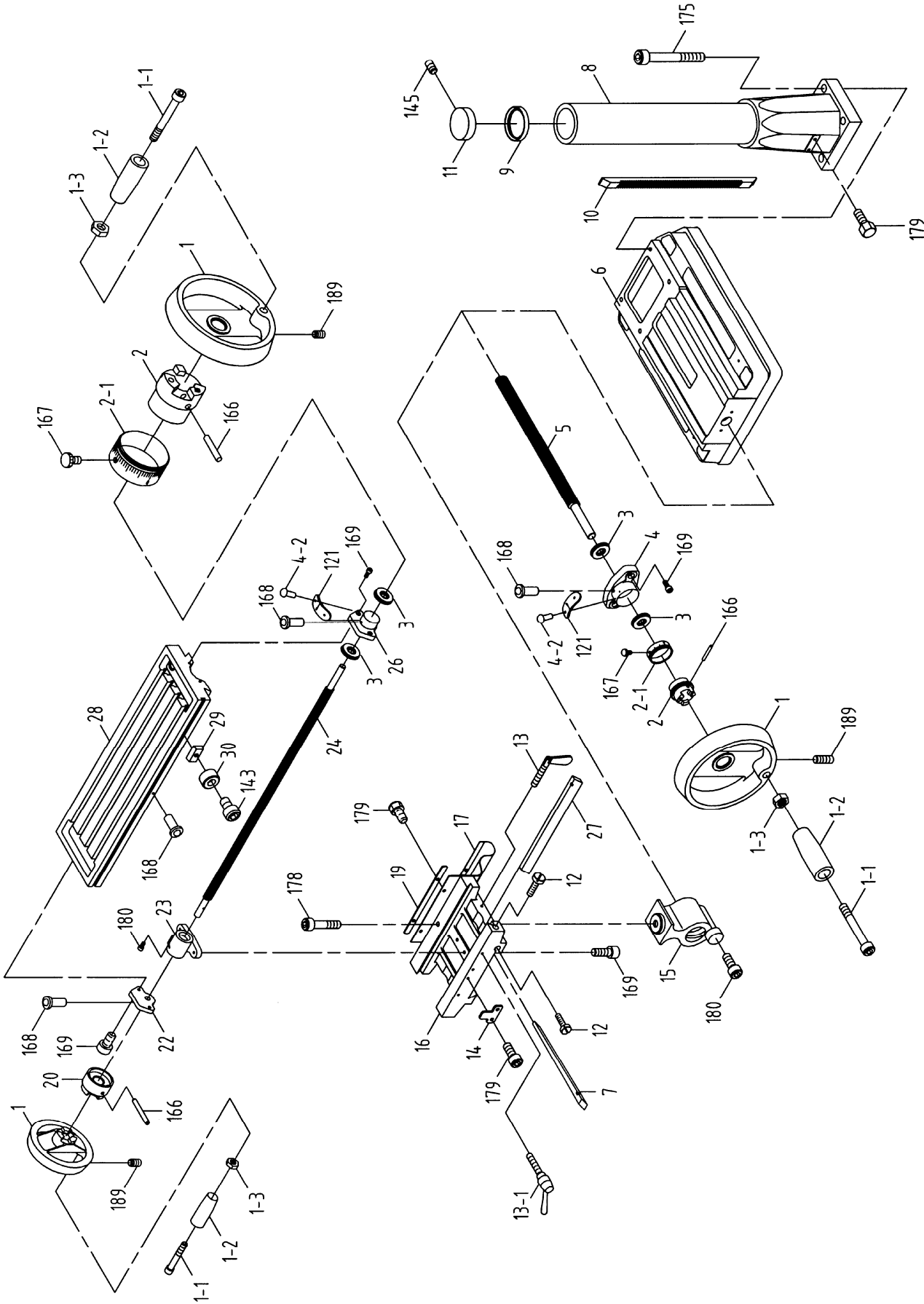
| Index No. | Part No. | Description | Size | Qty |
|-----------|-------------|--------------------------------|-------------|-----|
| 71 | VB-A30 | V-Belt | A30 | 1 |
| 72 | BB-6204Z | Ball Bearing | 6204Z | 2 |
| 73 | JMD15-073 | Inter Pulley | | 1 |
| 74 | VB-A38 | V-Belt | A38 | 1 |
| 75 | JMD15-075P | Inter Pulley Shaft | | 1 |
| 76 | JMD15-076P | Speed Change Inter Pulley Base | | 1 |
| 79 | JMD18-079 | Rubber Collar | | 1 |
| 81 | JMD18-122 | Switch Box | | 1 |
| 82 | JMD18-123 | Cross Round Head Screw | 3/16"x3/8" | 2 |
| 83 | JMD18-124 | Cable setting nut | PG13.5 | 2 |
| 84 | JMD18-121-1 | F/R Switch | | 1 |
| 85 | JMD18-085 | Screw w/ Plumb Knob | | 1 |
| 86 | JMD15-086 | Cutter | | 1 |
| | JMD15-086A | Cutter Insert (not shown) | | 4 |
| 87 | JMD15-087 | Drill Chuck | | 1 |
| 87A | JMD15-087A | Chuck Key | | 1 |
| 90 | JMD15-090 | Self Tapping Screw | | 2 |
| 91-A | JMD18-116 | Lamp Assembly (includes 91~94) | | 1 |
| 91 | JMD18-116-1 | Lamp | | 1 |
| 92 | JMD15-092 | Cross Round Head Screw | M4x35L | 2 |
| 93 | JMD15-093 | Working Lamp Base | | 1 |
| 94 | JMD15-094 | Hex. Socket Head Screw | M6x12L | 2 |
| 103 | JMD18-103 | Spring Cover | | 1 |
| 104 | JMD18-104 | Spring | | 1 |
| 105 | JMD18-105 | Spring Base | | 1 |
| 106 | JMD15-106 | Pinion Shaft | | 1 |
| 107 | JMD18-107 | Worm Gear | | 1 |
| 108 | JMD18-108 | Gear Housing | | 1 |
| 110 | JMD18-110 | Hub | | 1 |
| 115 | JMD18-115 | Spring | | 1 |
| 122 | JMD18-077 | Clip Plate | | 1 |
| 131 | TS-0813032 | Pan Head Screw | 1/4"x1/2" | 4 |
| 132 | TS-0680021 | Washer | 1/4" | 4 |
| 133 | JMD18-133 | Round Head Screw | 1/4"x3/8" | 3 |
| 134 | TS-0050091 | Hex Head Bolt | 1/4"x2" | 1 |
| 135 | TS-0561011 | Hex Nut | 1/4" | 1 |
| 136 | TS-0561051 | Hex Nut | 1/2" | 2 |
| 137 | JMD15-137 | Lock Washer | | 1 |
| 138 | JMD15-138 | Rivet | | 2 |
| 139 | JMD18-139 | Round Head Screw | 3/16"x3/4" | 3 |
| 140 | JMD18-140 | Spring Pin | 3x12" | 2 |
| 141 | TS-0561031 | Hex Nut | 3/8" | 3 |
| 142 | JMD18-142 | Key | 7x7x20 | 1 |
| 143 | TS-0208041 | Hex Socket Cap Screw | 5/16"x3/4" | 2 |
| 144 | TS-0680021 | Washer | 1/4" | 1 |
| 145 | TS-0270021 | Set Screw | 5/16"x5/16" | 3 |
| 146 | TS-0267031 | Set Screw | 1/4"x5/16" | 1 |
| 147 | JMD18-147 | Round Head Screw | 3/16"x1/2" | 2 |
| 148 | JMD18-148 | C-Retainer Ring | | 1 |
| 150 | TS-0561051 | Hex Nut | 1/2" | 2 |
| 151 | TS-0680061 | Washer | 1/2" | 2 |
| 152 | JMD15-152 | Round Head Screw | M6x1.25 | 6 |
| 153 | TS-0271061 | Set Screw | 3/8"x5/8" | 1 |
| 154 | TS-0561071 | Hex Nut | 5/8" | 2 |
| 155 | TS-0680031 | Washer | 5/16" | 8 |
| 156 | TS-0051051 | Hex Head Bolt | 5/16"x1" | 4 |
| 157 | TS-0060051 | Hex Head Bolt | 3/8"x1/2" | 2 |
| 158 | TS-0561021 | Hex Nut | 5/16" | 4 |

| Index No. | Part No. | Description | Size | Qty |
|-----------|-------------|-----------------------------------|--------------|-----|
| 159 | JMD18-159 | Key (Serial #06041349 and lower) | 7x7x40 | 1 |
| | JMD18-159N | Key (Serial #06041350 and higher) | 6x6x45 | 1 |
| 160 | TS-0051071 | Hex Head Bolt | 5/16"x1-1/2" | 1 |
| 161 | TS-0680031 | Washer | 5/16" | 2 |
| 187 | TS-0680021 | Washer | 1/4" | 2 |
| 188 | JMD18-188 | Pan Head Screw | 3/16"x3/8" | 1 |
| 208 | TS-0561031 | Hex Nut | 3/8" | 1 |
| 209 | JMD18-119 | Lifting Hook | 5/16"x50mm | 1 |
| 210 | TS-0570021 | Hex Nut | 5/16"-18 | 1 |
| 211-A | JMD15-211A | Chuck Guard Assembly | | 1 |
| 211-1 | JMD15-211-1 | Chuck Guard & Support Rod | | 1 |
| 211-3 | TS-2361051 | Spring Washer | M5 | 4 |
| 211-4 | TS-1502021 | Socket Head Cap Screw | M5x10 | 2 |
| 211-5 | JMD15-211-5 | Chuck Guard Bracket | | 1 |
| 211-6 | JMD18-125-5 | Rotary Supporting Base | | 1 |
| 211-7 | JMD18-125-6 | Hex. Socket Head Screw | M5x15L | 2 |
| 211-8 | JMD15-211-8 | Spring Washer | M6 | 2 |
| 211-9 | JMD15-211-9 | Hex. Socket Head Screw | M6x15L | 2 |
| 211-10 | JMD18-125-7 | Hex. Socket Headless Screw | M5x10L | 1 |
| | JMD15-SC | Speed Chart Label (not shown) | | 1 |
| | JMD15-JL | Jet Label (not shown) | | 1 |
| | JMD15-ID | I.D. Label (not shown) | | 1 |
| | JMD15-AP | Accessory Package (not shown) * | | 1 |
| | JMD15-303 | Thermal Relay (not shown) | 18A, 115V | 1 |

*** Contents of the Accessory Package (JMD15-AP):**

| | | | | |
|--|------------|----------------|-----|---|
| | JMD15-020 | Cutter Arbor | | 1 |
| | JMD15-039 | Handle Rod | | 3 |
| | JMD15-040 | Knob | | 3 |
| | JMD15-087 | Drill Chuck | | 1 |
| | JMD15-087A | Chuck Key | | 1 |
| | JMD15-086 | Cutter | | 1 |
| | 365534 | Angle Vise | | 1 |
| | JMD15-022 | Handle | | 4 |
| | JMD15-201 | Wheel | | 3 |
| | JMD15-058 | Handle Crank | | 1 |
| | TS-152704 | Hex Wrench | 3mm | 1 |
| | TS-152705 | Hex Wrench | 4mm | 1 |
| | TS-152706 | Hex Wrench | 5mm | 1 |
| | JMD15-381 | Washer | | 1 |
| | JMD15-380 | Hex Bolt | | 1 |
| | JMD15-377 | Hex Bolt | | 2 |
| | JMD15-378 | Hex Nut | | 2 |
| | JMD15-379 | Washer | | 2 |
| | MP-007 | Touch Up Paint | | 1 |

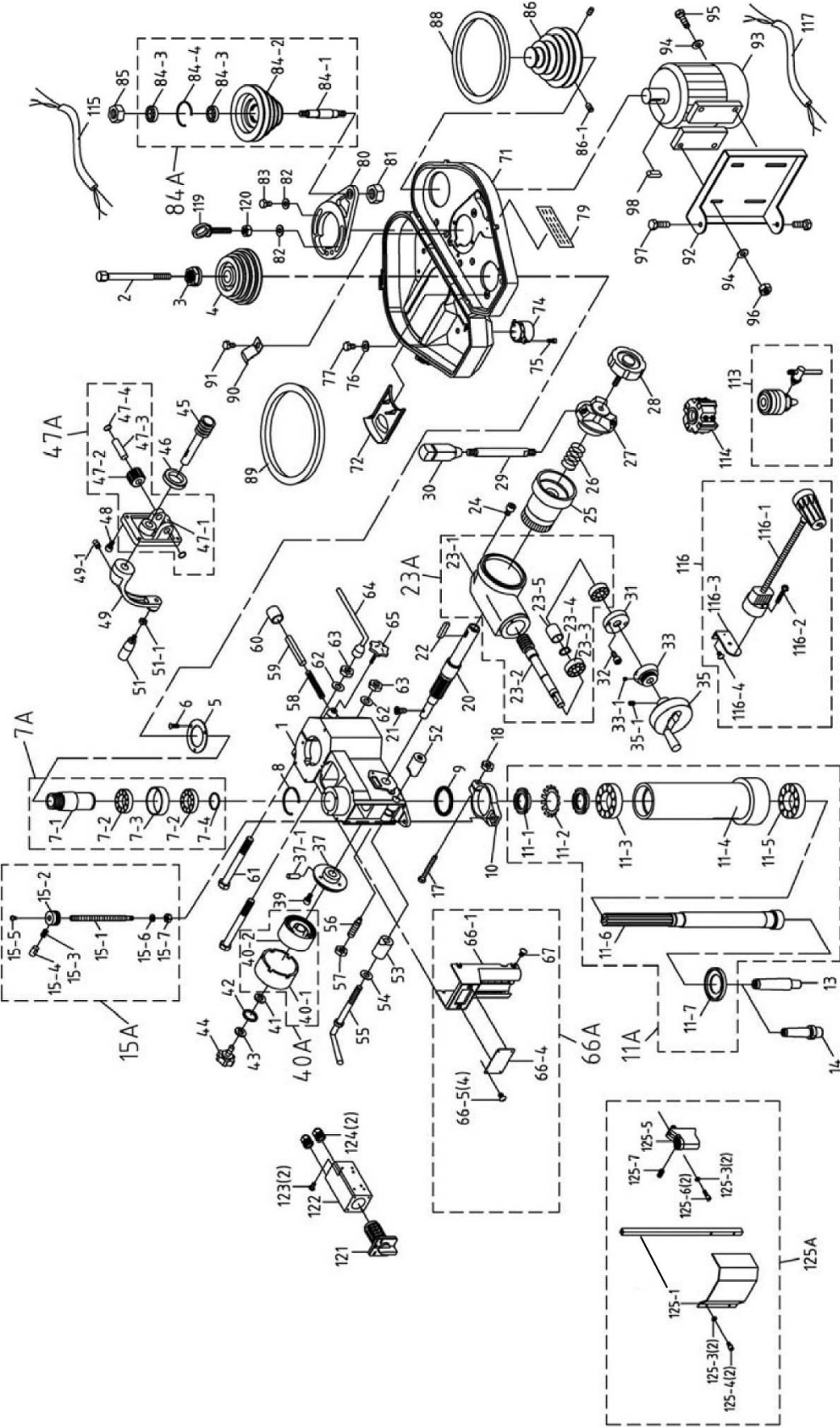
13.2.1 JMD-15 Table, Base, and Column Assembly – Exploded View



13.2.2 JMD-15 Table, Base, and Column Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|-------------|-------------------------|--------------|-----|
| 1 | JMD18-201 | Table Hand Wheel | | 3 |
| 1-1 | JMD18-201-1 | Bolt | | 3 |
| 1-2 | JMD18-201-2 | Handle | | 3 |
| 1-3 | JMD18-201-3 | Nut | | 3 |
| 2 | JMD18-202 | Dial Clutch | | 2 |
| 2-1 | JMD18-202-1 | Graduated Dial | | 2 |
| 3 | BB-51103 | Thrust Bearing | 51103 | 4 |
| 4 | JMD15-204 | Square Flange | | 1 |
| 4-2 | JMD18-204-2 | Rivet | | 4 |
| 5 | JMD15-205 | Table Screw | | 1 |
| 6 | JMD15-206G | Base | | 1 |
| 7 | JMD15-207 | Gib Strip | | 1 |
| 8 | JMD15-208G | Column Base | | 1 |
| 9 | JMD15-209 | Column Flange Ring | | 1 |
| 10 | JMD15-210 | Rack | | 1 |
| 11 | JMD15-211 | Column Cap | | 1 |
| 12 | JMD15-212 | Adjustment Screw | | 2 |
| 13 | JMD18-213 | Leaf Screw | | 2 |
| 13-1 | JMD18-213 | Locking Handle | | 2 |
| 14 | JMD18-214 | Block | | 1 |
| 15 | JMD18-215 | Table Base Nut | | 1 |
| 16 | JMD15-216G | Center Base | | 1 |
| 17 | JMD15-217 | Way Cover | | 1 |
| 19 | JMD18-219 | Bracket Plate | | 1 |
| 20 | JMD18-220 | Table Clutch | | 1 |
| 22 | JMD15-222 | Left Flange | | 1 |
| 23 | JMD18-223 | Table Nut | | 1 |
| 24 | JMD15-224 | Table Screw | | 1 |
| 26 | JMD15-226 | Right Flange | | 1 |
| 27 | JMD15-227 | Gib Strip | | 1 |
| 28 | JMD15-228G | Table | | 1 |
| 29 | JMD18-229 | Block | | 2 |
| 30 | JMD18-230 | Ring | | 2 |
| 121 | JMD15-121 | Indicator Plate | | 2 |
| 143 | TS-0207021 | Hex Socket Cap Screw | 1/4"x1/2" | 2 |
| 145 | TS-0270021 | Set Screw | 5/16"x5/16" | 1 |
| 166 | JMD18-366 | Spring Pin | | 3 |
| 167 | JMD18-367 | Zero Indicator w/ Screw | 1/4"x3/8" | 2 |
| 168 | JMD18-368 | Oil Ball | | 5 |
| 169 | TS-0209031 | Hex Socket Cap Screw | 3/8"x3/4" | 8 |
| 175 | TS-0061071 | Hex Head Bolt | 7/16"x2" | 4 |
| 178 | TS-0208111 | Hex Cap Bolt | 5/16"x2-1/4" | 1 |
| 179 | TS-0051011 | Hex Cap Bolt | 5/16"x1/2" | 6 |
| 180 | TS-1502041 | Hex Socket Cap Screw | M5x16 | 2 |
| 189 | TS-0267041 | Set Screw | 1/4"x3/8" | 3 |

13.3.1 JMD-18/18PFN Head Assembly – Exploded View



13.3.2 JMD-18/18PFN Head Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|--------------|-------------------------------|------------|-----|
| 1 | JMD18N-001G | Head Body | | 1 |
| 2 | JMD18-001 | Drawbar | R8 | 1 |
| 3 | JMD18-002A | Spindle Lock Nut | | 1 |
| 4 | JMD18-003A | Spindle Pulley | | 1 |
| 5 | JMD18-005 | Outer Bearing Plate | 105x66 | 1 |
| 6 | JMD18-133 | Round Head Screw | 1/4"x3/8" | 3 |
| 7A | JMD18-006A | Spindle Taper Sleeve Assembly | | 1 |
| 7-1 | JMD18-006 | Spindle Taper Sleeve | | 1 |
| 7-2 | BB-6009ZZ | Ball Bearing | 6009ZZ | 2 |
| 7-3 | JMD18-008 | Spacer | 74x68 | 1 |
| 7-4 | JMD18-023 | Fixed Ring | 2x4 | 1 |
| 8 | JMD18-009 | C-Retaining Ring | 3x80 | 1 |
| 9 | JMD18-012 | Rubber Flange | | 1 |
| 10 | JMD18N-010G | Feed Base | | 1 |
| 11A | JMD18-014A | Rack Sleeve Set | | 1 |
| 11-1 | JMD18-014 | Lock Nut | | 2 |
| 11-2 | JMD18-137 | Lock Washer | 30206 | 1 |
| 11-3 | BB-30206 | Taper Roller Bearing | | 1 |
| 11-4 | JMD18-016 | Rack Sleeve | R8 | 1 |
| 11-5 | BB-30207 | Taper Roller Bearing | 30207 | 1 |
| 11-6 | JMD18-017 | Spindle Shaft | R8 | 1 |
| 11-7 | JMD18-019 | Bearing Cap | R8 | 1 |
| 13 | JMD18-021 | Chuck Arbor | R8 7/16" | 1 |
| 14 | JMD18-020 | Cutter Arbor | 25.4 7/16" | 1 |
| 15A | JMD18N-015A | Graduated Rod Assembly | | 1 |
| 15-1 | JMD18N-15-1 | Depth Scale Stud | | 1 |
| 15-2 | JMD18N-15-2 | Adjustable Stop | | 1 |
| 15-3 | JMD18N-15-3 | Spring | | 1 |
| 15-4 | JMD18N-15-4 | Push Button | | 1 |
| 15-5 | JMD18N-15-5 | Hex Socket Cap Screw | M5x10 | 1 |
| 15-6 | JMD18N-15-6 | Washer | 3/8" | 1 |
| 15-7 | JMD18N-15-7 | Hex Nut | 3/8" | 1 |
| 17 | TS-0050091 | Hex Head Screw | 1/4"x2" | 1 |
| 18 | TS-0561011 | Hex Nut | 1/4" | 1 |
| 20 | JMD18-106 | Pinion Shaft | | 1 |
| 21 | JMD18-188 | Flat Cross Head Screw | 3/16"x3/8" | 1 |
| 22 | JMD18-142 | Key | 7x7x20mm | 1 |
| 23A | JMD18N-023A | Gear Housing Assembly | | 1 |
| 23-1 | JMD18N-023G | Gear Housing | | 1 |
| 23-2 | JMD18-047 | Worm Shaft | | 1 |
| 23-3 | BB-6202Z | Ball Bearing | 6202ZZ | 2 |
| 23-4 | JMD18-148 | C-ring | 15 | 1 |
| 23-5 | JMD18-035 | Bearing Spacer | 34x27.5 | 1 |
| 24 | TS-0208021 | Hex Socket Cap Screw | 5/16"x1/2" | 2 |
| 25 | JMD18-107 | Worm Gear | | 1 |
| 26 | JMD18-115 | Spring | | 1 |
| 27 | JMD18-110 | Hub | | 1 |
| 28 | JMD18-038 | Knob | | 1 |
| 29 | JMD18-039 | Handle Rod | | 3 |
| 30 | JMD18N-030 | Knob | | 3 |
| 31 | JMD18-045 | Flange | | 1 |
| 32 | JMD18-047 | Round Head Screw | 3/16"x3/8" | 2 |
| 33 | JMD18N-033 | Micro Adjusting Indicator | | 1 |
| 33-1 | TS-0267021 | Set Screw | 1/4"x1/4" | 1 |
| 35 | JMD18N-035A | Feed Handle Wheel Assembly | | 1 |
| 35-1 | JMD18N-035-1 | Set Screw | M8x10 | 1 |

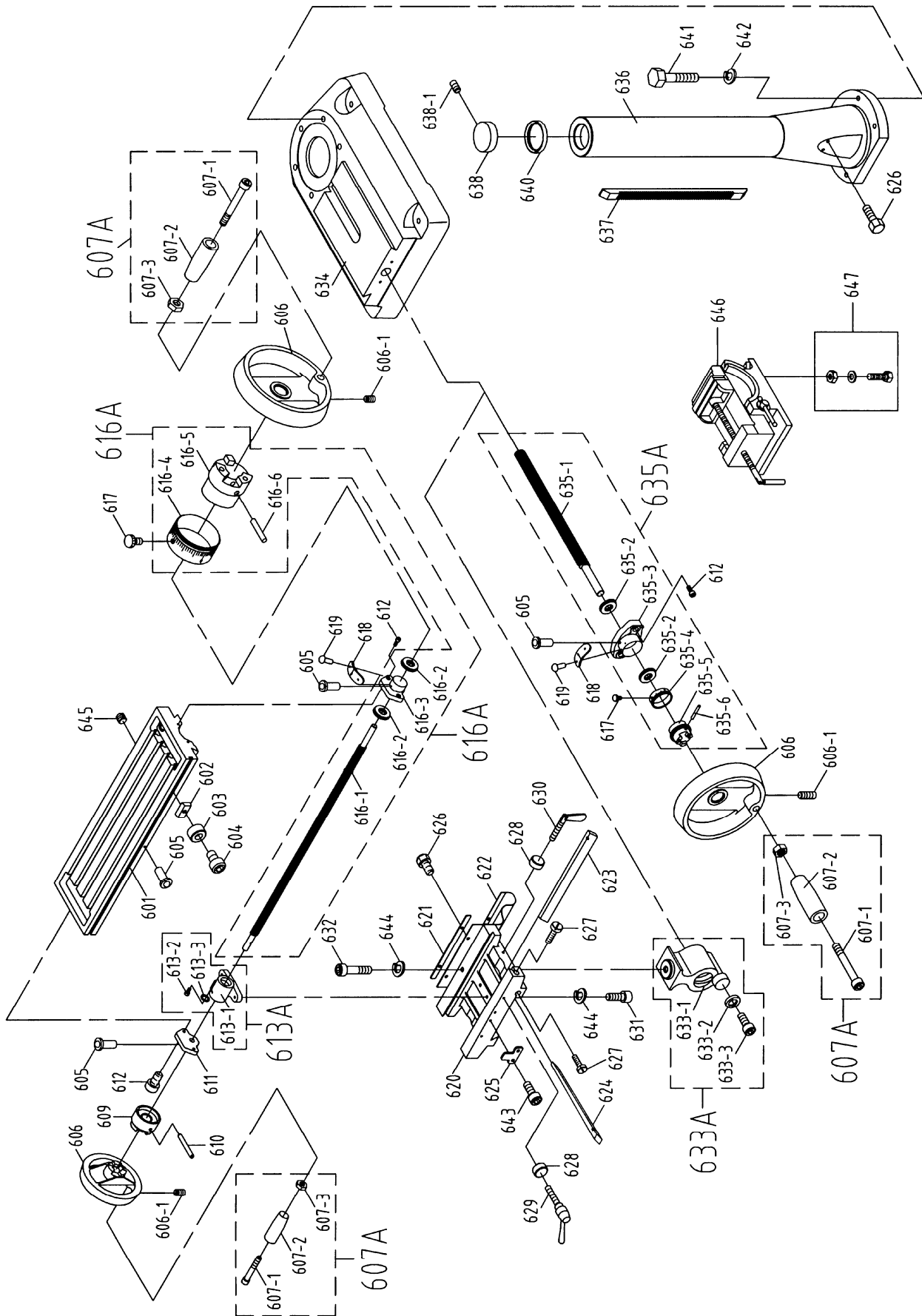
| Index No. | Part No. | Description | Size | Qty |
|-----------|--------------|--|--------------|-----|
| 37 | JMD18-105 | Spring Base | | 1 |
| 37-1 | JMD18-140 | Spring Pin | | 2 |
| 39 | JMD18-139 | Round Head Screw | 3/16"x3/4" | 3 |
| 40A | JMD18-103A | Spring Cover Assembly | | 1 |
| 40-1 | JMD18-103 | Spring Cover | | 1 |
| 40-2 | JMD18-104 | Spring | | 1 |
| 41 | JMD18-187 | Washer | 1/4"x1" | 1 |
| 42 | TS-0680021 | Washer | 1/4" | 1 |
| 43 | JMD18-187 | Lock Washer | 1/4"x1" | 1 |
| 44 | JMD18-085 | Knob | | 1 |
| 45 | JMD18-059 | Worm Shaft | | 1 |
| 46 | JMD18-114 | Bushing | | 1 |
| 47A | JMD18-101AG | Head Raise Bracket Assembly | | 1 |
| 47-1 | JMD18-101 | Head Raise Bracket | | 1 |
| 47-2 | JMD18-060 | Worm Gear | | 1 |
| 47-3 | JMD18-061 | Shaft | 9/16" | 1 |
| 47-4 | JMD18-154 | C-ring | S14 | 2 |
| 48 | TS-0207061 | Hex Socket Cap Screw | 1/4"x1" | 4 |
| 49 | JMD18-058 | Head Handle | | 1 |
| 49-1 | TS-0271061 | Set Screw | 3/8"x5/8" | 1 |
| 51 | JMD18-022 | Handle | | 1 |
| 51-1 | TS-0561031 | Hex Nut | 3/8" | 1 |
| 52 | JMD18-026 | Fixed Collar (Thread) | | 1 |
| 53 | JMD18-025 | Fixed Collar | | 1 |
| 54 | JMD18N-054 | Washer | 1/2"x7/8" | 1 |
| 55 | JMD18-024 | Handle Rod | | 1 |
| 56 | JMD18-027 | Screw Key | 3/8" | 1 |
| 57 | TS-0561031 | Hex Nut | 3/8" | 1 |
| 58 | JMD18-062 | Spring | | 1 |
| 59 | JMD18-063 | Pin | | 1 |
| 60 | JMD18-079 | Rubber Collar | | 1 |
| 61 | JMD18-052 | Bolt | 5/8"x6" | 2 |
| 62 | TS-0680081 | Washer | 5/8" | 2 |
| 63 | TS-0561071 | Hex Nut | 5/8" | 2 |
| 64 | JMD18-050 | Lock Handle | | 1 |
| 65 | JMD18N-065 | Knob | | 1 |
| 66A | JMD18N-066A | Front Cover Plate Assembly (<i>serial no: previous to 11043083</i>) | | 1 |
| 66A | JMD18N-066B | Front Cover Plate Assembly (<i>includes 66-1,66-4,66-5</i> <i>serial no: 11043083 and higher</i>) | | 1 |
| 66-1 | JMD18N-066-1 | Front Cover Plate | | 1 |
| 66-4 | JMD18N-066-4 | Front Cover Plate | | 1 |
| 66-5 | TS-1533032 | Phillips Pan Head Machine Screw | M5x10 | 4 |
| 67 | JMD18N-067 | Round Head Screw | M6x12 | 4 |
| 71 | JMD18-069 | Poly Belt Cover | | 1 |
| 72 | JMD18-069A | Pulley Cover | | 1 |
| 74 | JMD18-069-1 | Spindle Cover | | 1 |
| 75 | JMD18-069-3 | Screw | 3mm | 2 |
| 76 | TS-0680032 | Flat Washer | 5/16" | 4 |
| 77 | TS-0051011 | Hex Head Bolt | 5/16"x1/2" | 4 |
| 79 | JMD18-SC | Spindle Speed Chart | | 1 |
| 80 | JMD18N-080 | Pulley Base | | 1 |
| 81 | TS-0561071 | Hex Nut | 5/8" | 1 |
| 82 | TS-0680031 | Washer | 5/16" | 2 |
| 83 | TS-0051071 | Hex Head Bolt | 5/16"x1-1/2" | 1 |
| 84A | JMD18-075A | Inter Pulley Assembly | | 1 |
| 84-1 | JMD18-075 | Inter Pulley Shaft | | 1 |
| 84-2 | JMD18-073 | Inter Pulley | | 1 |
| 84-3 | BB-6204Z | Ball Bearing | 6204ZZ | 2 |

| Index No. | Part No. | Description | Size | Qty |
|-----------|--------------|---|---------------------|-----|
| 84-4 | JMD18-010 | C-ring | 2x52 | 1 |
| 85 | TS-0561071 | Hex Nut | 5/8" | 1 |
| 86 | JMD18-070 | Motor Pulley (Serial #06013377 and lower) | | 1 |
| | JMD18-070N | Motor Pulley (Serial #06013378 and higher) | | 1 |
| 86-1 | TS-0270021 | Set Screw | 5/16"x5/16" | 2 |
| 88 | VB-B33 | V-Belt | B33 | 1 |
| 89 | VB-B42 | V-Belt | B42 | 1 |
| 90 | JMD18-077 | Wire Relief Retainer | | 1 |
| 91 | TS-0051011 | Hex Head Screw | 5/16"x1/2" | 1 |
| 92 | JMD18-066 | Motor Mount Plate | | 1 |
| 93 | JMD18-067 | Motor (Serial #06013377 and lower) | 2HP, 1Ph, 230V Only | 1 |
| | JMD18-067N | Motor (Serial #06013378 and higher) | 2HP, 1Ph, 230V Only | 1 |
| | JMD18-067AN | Motor (Serial #11053083 and higher) | 2HP, 1PH, 115/230V | 1 |
| 94 | TS-0680031 | Flat Washer | 5/16" | 8 |
| 95 | TS-0051051 | Hex Head Bolt | 5/16"x1" | 4 |
| 96 | TS-0561021 | Hex Nut | 5/16" | 4 |
| 97 | TS-0061011 | Hex Head Bolt | 7/16"x3/4" | 2 |
| 98 | JMD18-159 | Key (Serial #06013377 and lower) | 7x7x37mm | 1 |
| | JMD18-159N | Key (Serial #06013378 and higher) | 8x7x45mm | 1 |
| 113 | 561704 | Drill Chuck w/ Chuck Key | 1/2" JT6 | 1 |
| 114 | JMD18-086 | Milling Cutter Assembly | 25.4mm (3") | 1 |
| | JMD18-086A | Cutter Insert | 12x12mm | 4 |
| 115 | JMD18N-115 | Power Cable | 230V | 1 |
| 116 | JMD18-116 | Lamp Assembly (includes 116-1~116-4) | | 1 |
| 116-1 | JMD18-116-1 | Lamp | | 1 |
| 116-2 | JMD15-092 | Cross Round Head Screw | M4x35L | 2 |
| 116-3 | JMD15-093 | Working Lamp Base | | 1 |
| 116-4 | JMD15-094 | Hex. Socket Head Screw | M6x12L | 2 |
| 117 | JMD18N-117 | Motor Cable | | 1 |
| 119 | JMD18-119 | Lifting Hook | 5/16"x50mm | 1 |
| 120 | TS-0570021 | Hex Nut | 5/16"-18 | 1 |
| 121 | JMD18-121-1 | F/R Switch | | 1 |
| 122 | JMD18-122 | Switch Box | | 1 |
| 123 | JMD18-123 | Cross Round Head Screw | 3/16"-24UNCx3/8"L | 2 |
| 124 | JMD18-124 | Cable Setting Nut (Serial #13053752 and lower) | PG13.5 | 2 |
| | JMD18-124N | Cable Setting Nut (Serial #13053753 and higher) | PG16 | 2 |
| 125A | JMD18-125A | Spindle Guard Assembly | | 1 |
| 125-1 | JMD18-125-1 | Chuck Guard & Support Rod | | 1 |
| 125-3 | TS-2361051 | Spring Washer | M5 | 4 |
| 125-4 | TS-1502021 | Socket Head Cap Screw | M5x10L | 2 |
| 125-5 | JMD18-125-5 | Rotary Supporting Base | | 1 |
| 125-6 | JMD18-125-6 | Hex Socket Head Screw | M5x15L | 2 |
| 125-7 | JMD18-125-7 | Hex. Socket Headless Screw | M5x10L | 1 |
| | JMD15-JL | Jet Label (not shown) | | 1 |
| | JMD18-ID | I.D. Label (not shown) | | 1 |
| | JMD18-303 | Thermal Relay (not shown) | 15A, 220V | 1 |
| | JMD18-303-1 | Thermal Relay (not shown) | 30A 115V | 1 |
| | JMD18-320-01 | Special Arbor Washer (not shown) | | 1 |
| | JMD18-320-02 | Special Arbor Bolt (not shown) | | 1 |
| | JMD18-36701 | Capacitor (not shown) | 300MF, 250VAC | 1 |
| | BD1325R-X02 | Centrifugal Switch (not shown) | | 1 |
| | JMD18-AP | Accessory Package (not shown) * | | 1 |

*** Contents of the 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..... | 1 |
| JMD18-086 | Cutter..... | 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..... | 3/8x1..... 1 |
| TS-0680041 | Flat Washer..... | 3/8..... 1 |
| 365534-01 | Hardware Package(Hex Cap Screw,Nut,and Washer)..... | 2 |

13.4.1 JMD-18 Table, Base, and Column Assembly – Exploded View

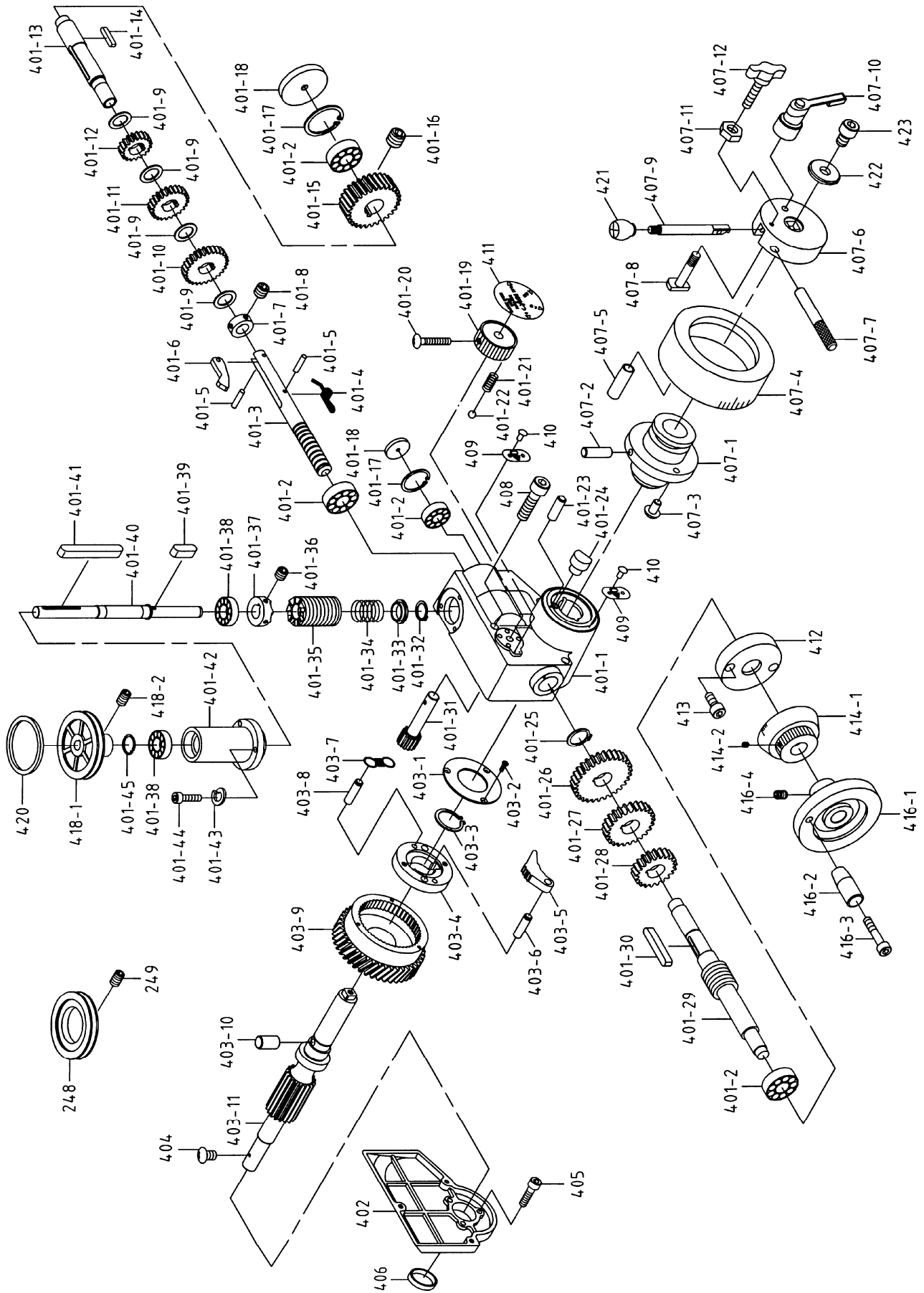


13.4.2 JMD-18 Table, Base, and Column Assembly – Parts List

| Index No. | Part No. | Description | Size | Qty |
|-----------|-------------|-------------------------|--------------|-----|
| 601 | JMD18-228G | Table | 31L | 1 |
| 602 | JMD18-229 | Fixed Block | | 2 |
| 603 | JMD18-230 | Movable Ring | | 2 |
| 604 | TS-0207021 | Hex Socket Head Screw | 1/4"x1/2" | 2 |
| 605 | JMD18-368 | Oil Ball | 1/4" | 5 |
| 606 | JMD18-201 | Table Handle Wheel | | 3 |
| 606-1 | TS-0267041 | Set Screw | 1/4"x3/8" | 3 |
| 607A | JMD18-201A | Handle Assembly | | 3 |
| 607-1 | JMD18-201-1 | Hex Socket Head Screw | 3/8"x16UNC | 3 |
| 607-2 | JMD18-201-2 | Knob | | 3 |
| 607-3 | JMD18-201-3 | Hex Nut | 3/8" | 3 |
| 609 | JMD18-220 | Table Clutch | | 1 |
| 610 | JMD18-366 | Pin | 5x38 | 1 |
| 611 | JMD18-222 | Left Flange | | 1 |
| 612 | TS-0208062 | Hex Socket Head Screw | 5/16"x1" | 6 |
| 613A | JMD18-223A | Table Nut Set | | 1 |
| 613-1 | JMD18-223 | Table Nut | TM23.7-10 | 1 |
| 613-2 | TS-1502041 | Cheese Head Mach Screw | M5x16 | 1 |
| 613-3 | TS-1550031 | Flat Washer | M5 | 1 |
| 616A | JMD18-224A | Table Screw Assembly | | 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 | Pin | 5x38L | 1 |
| 617 | JMD18N-617 | Link Screw | | 2 |
| 618 | JMD18-121 | Link Plate | | 2 |
| 619 | JMD18-204-2 | Rivet | 2mm | 4 |
| 620 | JMD18-216G | Center Base | 31L | 1 |
| 621 | JMD18-219 | Antidust Plate | | 1 |
| 622 | JMD18-217 | Antidust 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 Head Screw | 5/16"x1/2" | 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 Screw | 5/16"x1" | 2 |
| 632 | TS-0051101 | Hex Socket Head Screw | 5/16"x2-1/4" | 1 |
| 633A | JMD18-215A | ACME Nut Assembly | | 1 |
| 633-1 | JMD18-215 | ACME Nut | TM23 | 1 |
| 633-2 | TS-1550031 | Flat Washer | M5 | 1 |
| 633-3 | TS-1502041 | Hex Socket Head Screw | M5x16 | 1 |
| 634 | JMD18N-634G | Base | | 1 |
| 635A | JMD18-205A | ACME Nut Assembly | | 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 | Pin | 5x38 | 1 |
| 636 | JMD18N-636G | Column Base | | 1 |
| 637 | JMD18N-637 | Rack | 600.5L | 1 |
| 638 | JMD18-211 | Column Cap | | 1 |

| Index No. | Part No. | Description | Size | Qty |
|------------------|-----------------|--|-------------|------------|
| 638-1 | TS-0270021 | Set Screw | 5/16"x5/16" | 1 |
| 640 | JMD18-209 | Column Flange Ring | | 1 |
| 641 | JMD18-641 | Hex Socket Cap Bolt | 5/8"x2-1/2" | 5 |
| 642 | TS-0720131 | Lock Washer | 5/8" | 5 |
| 643 | TS-0208022 | Hex Socket Head Screw | 5/16"x1/2" | 2 |
| 644 | JMD18N-644 | Lock Washer | 5/16" | 3 |
| 645 | JMD18N-645 | Plug | PT1/4"x3/8" | 1 |
| 646 | 365534 | Vise | | 1 |
| 647 | 365534-01 | Hardware Package (Bolt, Nut, and Washer) | | 2 |

13.5.1 JMD-18PFN Power Feed Assembly – Exploded View



13.5.2 JMD-18PFN Power Feed Assembly – Parts List

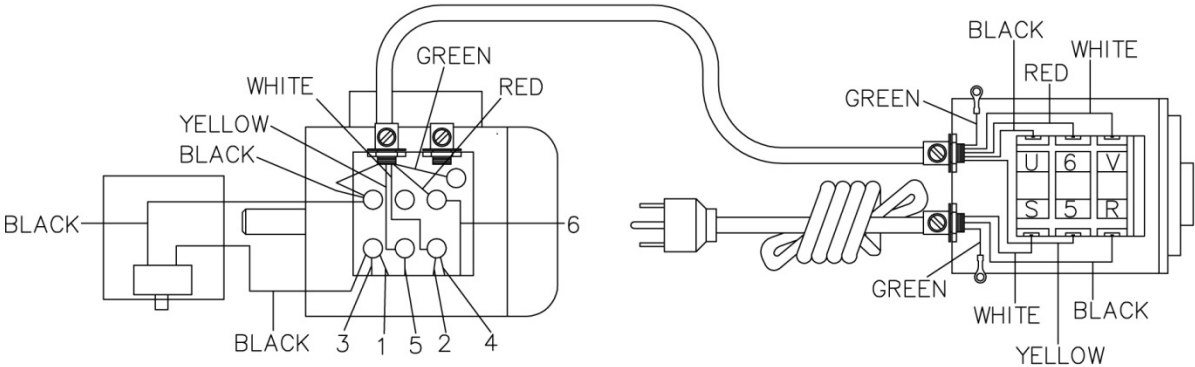
| Index No. | Part No. | Description | Size | Qty |
|-----------|--------------|-----------------------------|-----------|-----|
| 248 | 290111 | Main Pulley | | 1 |
| 249 | JMD18PFN-249 | Set Screw | 1/4"x3/8" | 2 |
| | 291022AS | Complete Gear Box Assembly | | 1 |
| 401-1 | 291022AG | Gear Box | | 1 |
| 401-2 | BB-6003ZZ | Bearing | 6003ZZ | 4 |
| 401-3 | 2450082A | Change Gear Lever | | 1 |
| 401-4 | 2450084B | Tension Spring | | 1 |
| 401-5 | JMD18PFN-360 | Pin | | 2 |
| 401-6 | 2450083A | Stop | | 1 |
| 401-7 | 2450089A | Collar | | 1 |
| 401-8 | TS-1523011 | Set Screw | M6x6 | 2 |
| 401-9 | 2450074A | Spacer | | 4 |
| 401-10 | 2450072A | Gear | | 1 |
| 401-11 | 2450071A | Gear | | 1 |
| 401-12 | 2450070A | Gear | | 1 |
| 401-13 | 291026A | Shaft | | 1 |
| 401-14 | JMD18PFN-269 | Key | 5x5x25 | 1 |
| 401-15 | 291047 | Worm Gear | | 1 |
| 401-16 | TS-1523011 | Set Screw | M6x6 | 2 |
| 401-17 | JMD18PFN-282 | C-Ring | R35 | 2 |
| 401-18 | 2450014 | Cover | | 2 |
| 401-19 | 2450079 | Speed Knob | | 1 |
| 401-20 | JMD18PFN-303 | Round Head Screw | M4x25 | 1 |
| 401-21 | 290089 | Spring | | 1 |
| 401-22 | SB-5/16 | Steel Ball | 5/16" | 1 |
| 401-23 | 2450051 | Pin | | 1 |
| 401-24 | 2450020 | Release Block | | 1 |
| 401-25 | JMD18PFN-373 | C-Ring | S19 | 1 |
| 401-26 | 2450077A | Gear | | 1 |
| 401-27 | 2450076A | Gear | | 1 |
| 401-28 | 2450075A | Gear | | 1 |
| 401-29 | 291028A | Transmission Worm | | 1 |
| 401-30 | JMD18PFN-358 | Key | 5x5x32 | 1 |
| 401-31 | 291027A | Pinion | | 1 |
| 401-32 | JMD18PFN-369 | C-ring | S15 | 1 |
| 401-33 | 2450057 | Bushing | | 1 |
| 401-34 | 2450054 | Spring | | 1 |
| 401-35 | 291046 | Worm Shaft | | 1 |
| 401-36 | TS-1523011 | Set Screw | M6x6 | 2 |
| 401-37 | 291050 | Clutch Block | | 1 |
| 401-38 | BB-6003ZZ | Ball Bearing | | 2 |
| 401-39 | JMD18PFN-262 | Key | 5x5x10 | 1 |
| 401-40 | 291023A | Transmission Shaft | | 1 |
| 401-41 | JMD18PFN-389 | Key | 5x5x45 | 1 |
| 401-42 | 291024A | Bearing Housing | | 1 |
| 401-43 | TS-0720071 | Lock Washer | 1/4" | 3 |
| 401-44 | TS-0207041 | Hex Socket Cap Screw | 1/4"x3/4" | 3 |
| 401-45 | JMD18PFN-255 | C-Ring | S17 | 1 |
| 402 | 291032A | Base | | 1 |
| | 291029AS | Complete Worm Gear Assembly | | 1 |
| 403-1 | 2450048 | Worm Gear Cover | | 1 |
| 403-2 | JMD18PFN-346 | Flat Cross Head Screw | M4x4 | 3 |
| 403-3 | JMD18PFN-320 | C-Ring | S25 | 1 |
| 403-4 | 2450024 | Clutch Gear Case | | 1 |
| 403-5 | 2450026 | Clutch Key | | 2 |
| 403-6 | 2450025 | Clutch Key Pin | | 2 |

| Index No. | Part No. | Description | Size | Qty |
|-----------|-----------------|----------------------------------|--------------|-----|
| 403-7 | 2450028 | Spring | | 2 |
| 403-8 | 2450027 | Spring Pin | | 2 |
| 403-9 | 2450023 | Worm Gear | | 1 |
| 403-10 | 2450022 | Key | | 2 |
| 403-11 | 291029A | Pinion Shaft | | 1 |
| 404 | JMD18PFN-250 | Flat Head Screw | 3/16"x3/8" | 1 |
| 405 | TS-0208061 | Hex Socket Cap Screw | 5/16"x1-1/4" | 3 |
| 406 | 291049 | Bearing Spacer | | 1 |
| | 291030AS | Complete Clutch Bushing Assembly | | 1 |
| 407-1 | 291030A | Clutch Bushing | | 1 |
| 407-2 | 2450030 | Bushing Pin | | 1 |
| 407-3 | 2450031 | Bushing Stop | | 1 |
| 407-4 | 2450032A | Scale Base | | 1 |
| 407-5 | JMD18PFN-326 | Pin | | 1 |
| 407-6 | 2450037 | Hub | | 1 |
| 407-7 | 2450039 | Pin | | 2 |
| 407-8 | 2450033 | Scale Base Set Screw | | 1 |
| 407-9 | 2450038 | Handle Rod | | 2 |
| 407-10 | 2450063 | Graduated Base Handle | | 1 |
| 407-11 | H02050 | Hex Nut | 5/16" | 1 |
| 407-12 | JMD18PFN-407-12 | Set Screw | 5/16"x3/4" | 1 |
| 408 | JMD18PFN-350 | Hex Socket Cap Screw | 5/16"x3-1/2" | 3 |
| 409 | 2450060 | Pointer | | 2 |
| 410 | JMD18PFN-309 | Rivet | | 4 |
| 411 | JMD18PFN-354 | Speed Scale | | 1 |
| 412 | 6145 | Worm Cover | | 1 |
| 413 | JMD18PFN-376 | Hex Socket Cap Screw | 3/16"x3/8" | 2 |
| 414-1 | 291051A | Micro Adjusting Indicator | | 1 |
| 414-2 | TS-0267031 | Set Screw | 1/4"x5/16" | 1 |
| | 6142-2S | Complete Wheel Assembly | | 1 |
| 416-1 | 6142-2 | Hand Wheel | | 1 |
| 416-2 | 6580 | Handle | | 1 |
| 416-3 | 6581 | Handle Screw | | 1 |
| 416-4 | TS-0270021 | Set Screw | 5/16"x5/16" | 1 |
| 418-1 | 290110 | Sub-Pulley | | 1 |
| 418-2 | TS-0267031 | Set Screw | 1/4"x5/16" | 1 |
| 420 | JMD18PF-114 | Belt | | 1 |
| 421 | 290086 | Knob | | 2 |
| 422 | 2450040 | Washer | M8 | 1 |
| 423 | TS-1504031 | Hex Socket Cap Screw | M8x16 | 1 |
| | 291001-CPN | Gear Box Assembly Complete | | 1 |

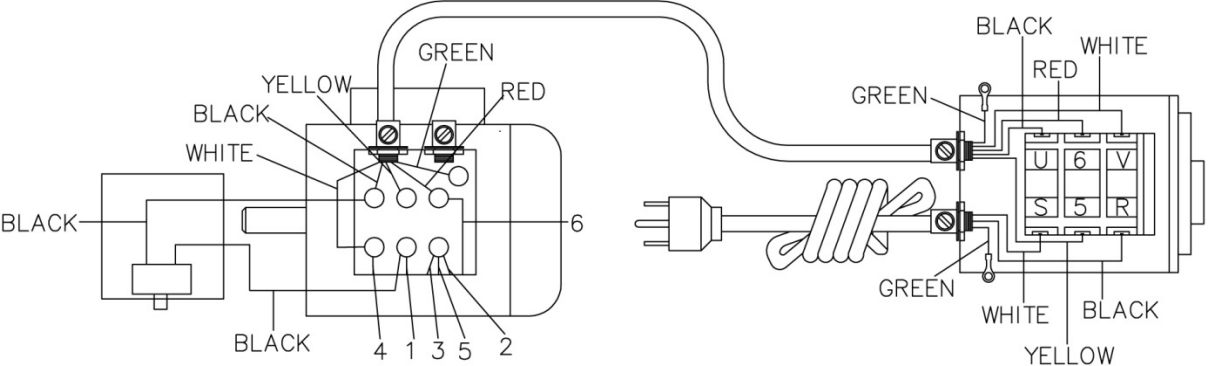
14.0 Electrical Connections

14.1 Wiring Diagram: JMD-15 Only

110V

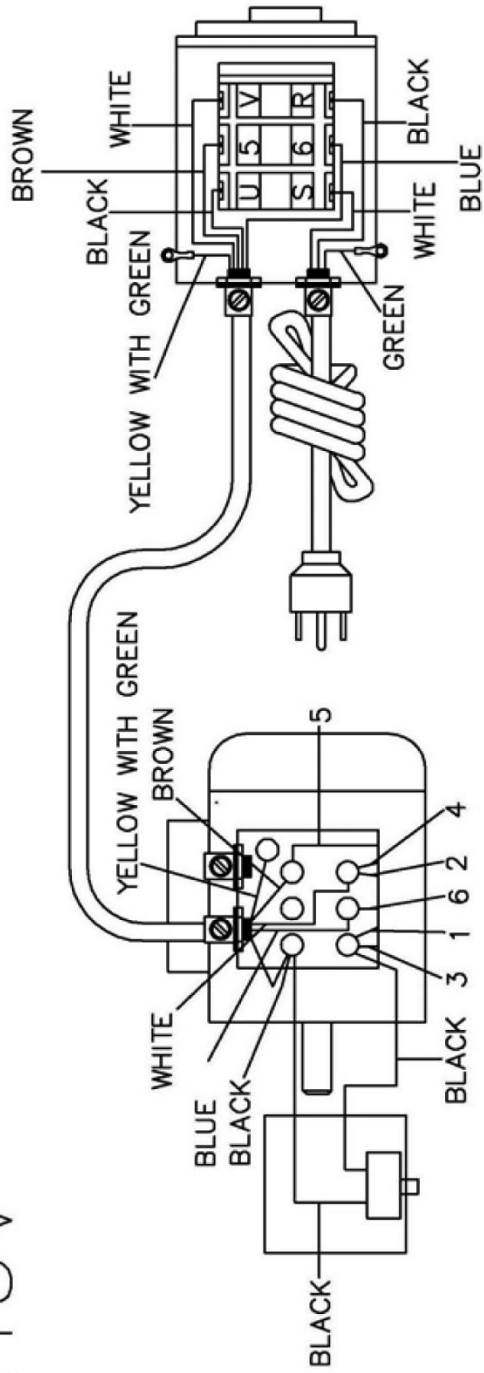


220V

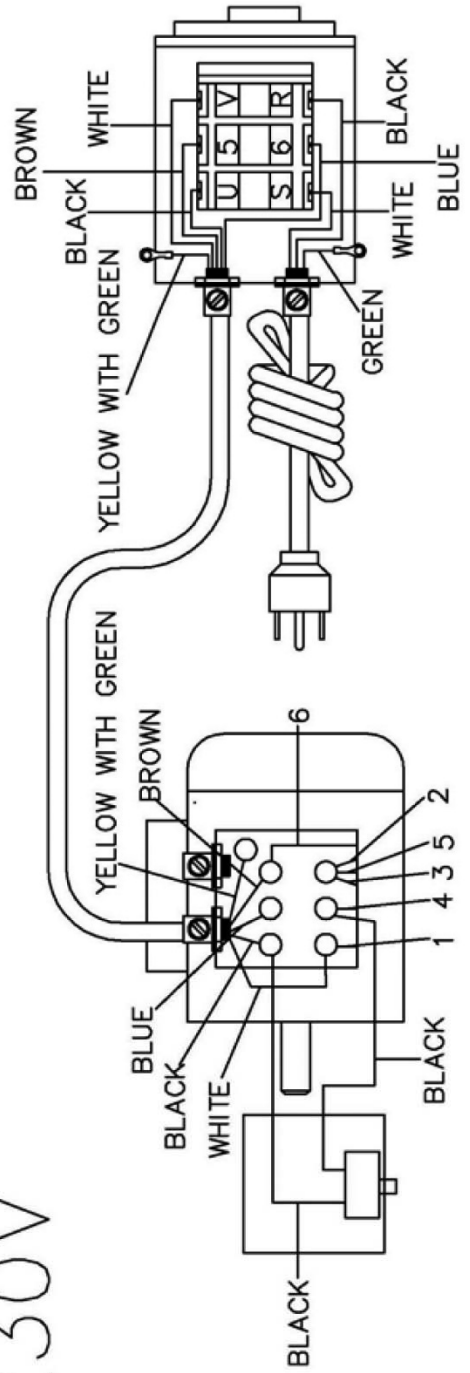


14.2 Wiring Diagram: JMD-18 Only

115V



230V





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