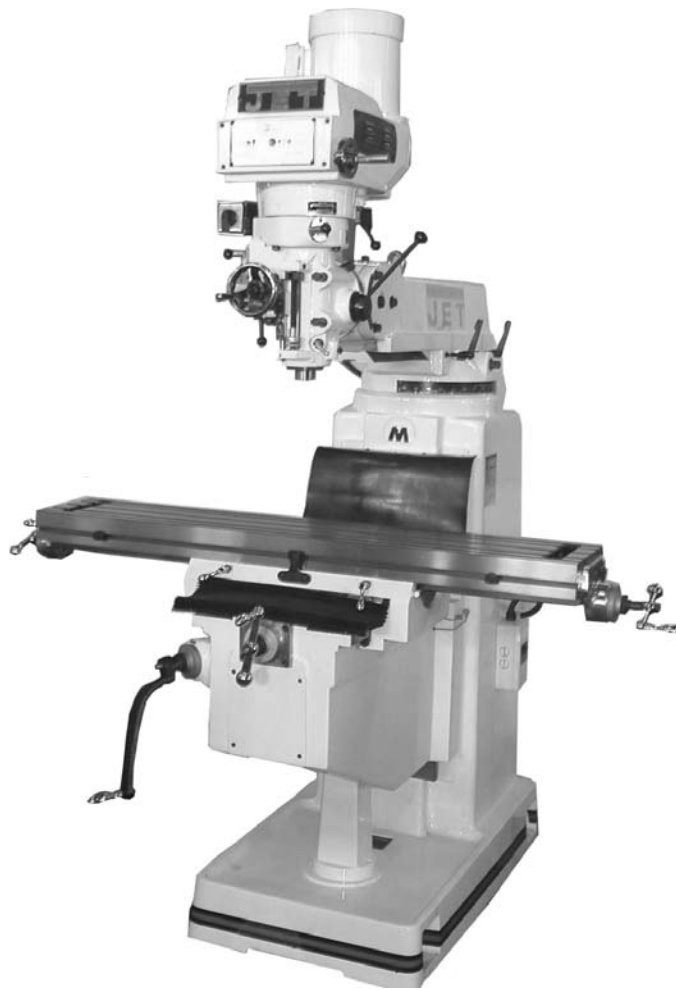


JET[®]

Operating Instructions and Parts Manual Variable Speed Turret Mill

Model: JTM-1054R



For serial no. 120xxxx and higher

WALTER MEIER (Manufacturing) Inc.
427 New Sanford Road
LaVergne, Tennessee 37086
Ph.: 800-274-6848
www.waltermeier.com

Part No. M-690053
Revision B 05/2012

Copyright © 2012 Walter Meier (Manufacturing), Inc.

Warranty and Service

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit waltermeier.com.

WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW = Metalworking, WW = Woodworking).

| | | | | | | | | | | |
|--|------------------------------|---|------------------------------|---|------------------------------|---|------------------------------|---|-------------------------------------|--|
| 90 DAY WARRANTY | 1 YEAR WARRANTY | Body Repair Kits Bottle Jacks Cable Pullers Cold Saws Hoists-Air Hoists-Electric Metal forming Mill/Drills Milling Machines MW Bandsaws MW Drill Presses MW Finishing Equipment MW Lathes MW Precision Vises | 2 YEAR WARRANTY | Palet Trucks Rigging Equip. Service Jacks Stackers Surface Grinders Tapping Trolleys-Air Trolleys-Electric Web Slings Winches-Electric | 3 YEAR WARRANTY | Beam Clamps Chain Hoist- Manual Lever Hoists Pullers-JCH Models Scissor Lift Tables Screw Jacks Trolleys-Gearred Trolleys-Plain Winches-Manual WW Air Filtration WW Bandsaws WW Buffers | 5 YEAR WARRANTY | WW Drill Presses WW Dust Collectors WW Dust Filters WW Dust Fittings WW Jointers WW Lathes WW Planers WW Sanders WW Shapers WW Tablesaws | LIFE LIFETIME WARRANTY | Fastening Tools Mechanics Hand Tools Striking Tools Vises (no -precision) Clamps |
| Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes. | | | | | | | | | | |

WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

WHO IS COVERED?

This warranty covers only the initial purchaser of the product.

WHAT IS THE PERIOD OF COVERAGE?

The general JET warranty lasts for the time period specified in the product literature of each product.

WHAT IS NOT COVERED?

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

HOW TO GET SERVICE

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

HOW STATE LAW APPLIES

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

LIMITATIONS ON THIS WARRANTY

WALTER MEIER (MANUFACTURING) INC., LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

WALTER MEIER 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.

Walter Meier sells through distributors only. The specifications in Walter Meier catalogs are given as general information and are not binding. Members of Walter Meier reserve 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 Walter Meier.

Table of Contents

| | |
|--|----|
| Warranty and Service..... | 2 |
| Table of Contents | 3 |
| Warnings..... | 4 |
| Introduction | 6 |
| Specifications | 6 |
| JTM-1054R Layout | 7 |
| Shipping Container Contents..... | 8 |
| Unpacking and Clean-Up | 8 |
| Site Preparation | 8 |
| Lifting the Mill..... | 9 |
| Lubrication..... | 10 |
| Controls | 10 |
| Operating Precautions | 13 |
| Changing Speed Range..... | 13 |
| Manual Rapid Feed (handle) | 13 |
| Micro Adjusting Nuts for Manual Feed | 13 |
| Setting Up for Automatic Feed..... | 14 |
| Micro Adjusting Nuts for Auto Feed..... | 14 |
| Head Alignment..... | 15 |
| Pivoting the Head..... | 15 |
| Pivot the Ram | 15 |
| Moving the Ram..... | 15 |
| Table Movement Controls | 16 |
| Maintenance | 16 |
| Feed Trip Adjustment | 16 |
| Knee Gib Adjustment | 16 |
| Saddle Gib Adjustment | 17 |
| Table Gib Adjustment | 17 |
| Ram Wear Plate Adjustment | 17 |
| Removing the Motor | 17 |
| Timing Belt Replacement | 17 |
| Drive Belt Replacement | 18 |
| Brake Shoe Replacement | 18 |
| Parts..... | 19 |
| Variable Speed Head Assembly | 19 |
| Head Assembly | 22 |
| Base Assembly | 26 |
| Lead Screw Assembly | 30 |
| One Shot Lubrication System..... | 31 |
| Wiring..... | 32 |
| Forward/Reverse Switch..... | 32 |
| 230V and 460V Motor Configurations | 32 |
| Ordering Replacement Parts | 32 |

The specifications in this manual are given as general information and are not binding. Walter Meier (Manufacturing) Inc., 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.

Warnings

1. For your own safety read instruction manual before operating the variable speed turret mill.
2. Read and understand the entire owner's manual before attempting assembly or operation.
3. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
4. Replace the warning labels if they become obscured or removed.
5. This manual is intended to familiarize you with the technical aspects of this milling machine. It is not, nor is it intended to be, a training manual.
6. This mill is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a variable speed turret mill, do not use until proper training and knowledge have been obtained.
7. Do not use this mill for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
8. Wear eye protection and always use guards and eye shields.
9. Always wear approved safety glasses/face shields while using this machine. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
10. Before operating the variable speed turret mill, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
11. Wear ear protectors (plugs or muffs) during extended periods of operation.
12. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain 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, cement and other masonry products.
 - Arsenic and chromium from chemically treated lumber.Your risk of exposure 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 face or dust masks that are specifically designed to filter out microscopic particles.
13. Some coolants used for machining contain chemicals that may be hazardous to your health if not used properly. Read and understand all user information listed on the coolant container and protect yourself accordingly.
14. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
15. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
16. Make certain the machine is properly grounded.
17. Make all machine adjustments or maintenance with the machine unplugged from the power source.
18. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
19. **KEEP GUARDS IN PLACE** and in working order at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
20. Make sure the variable speed turret mill is firmly secured before use.
21. Keep visitors a safe distance from the work area. **Keep children away.**

Warnings

22. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
23. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
24. Provide for adequate space surrounding work area and non-glare, overhead lighting.
25. Make your workshop child proof with padlocks, master switches or by removing starter keys.
26. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted. Keep the floor around the machine clean and free of scrap material, oil and grease.
27. Maintain a balanced stance at all times so that you do not fall or lean against the grinding wheels or other moving parts. Do not overreach or use excessive force to perform any machine operation.
28. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
29. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like. Use recommended accessories. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons. Improper accessories may be hazardous.
30. Frequently clean this machine. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
31. Make sure the work piece is securely attached or clamped to the table. Never use your hand to hold the work piece.
32. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
33. Do not stand on the machine. Serious injury could occur if the machine tips over.
34. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
35. Remove loose items and unnecessary work pieces from the area before starting the machine.
35. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.

Familiarize yourself with the following safety notices used in this manual:

CAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

WARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

- - SAVE THESE INSTRUCTIONS - -

Introduction

This manual is provided by Walter Meier (Manufacturing) Inc., covering the safe operation and maintenance procedures for the JET JTM-1054R Variable Speed Turret Mill. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This machine has been designed and constructed to provide years of trouble free operation if used in accordance with instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or Walter Meier. Walter Meier can also be reached at our web site: www.waltermeier.com.

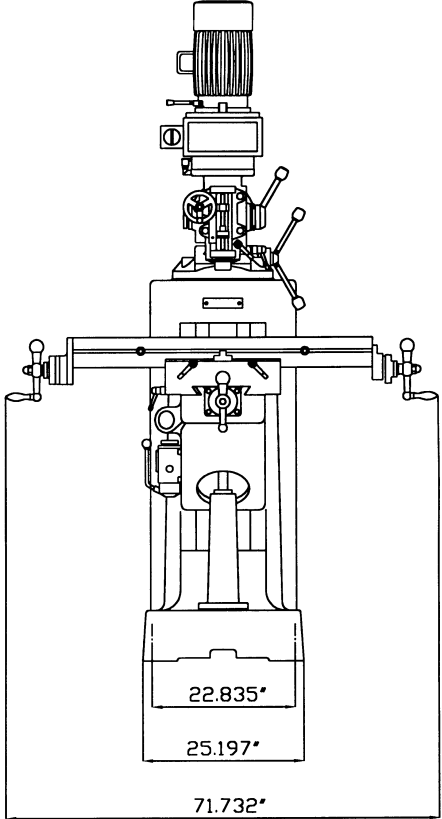
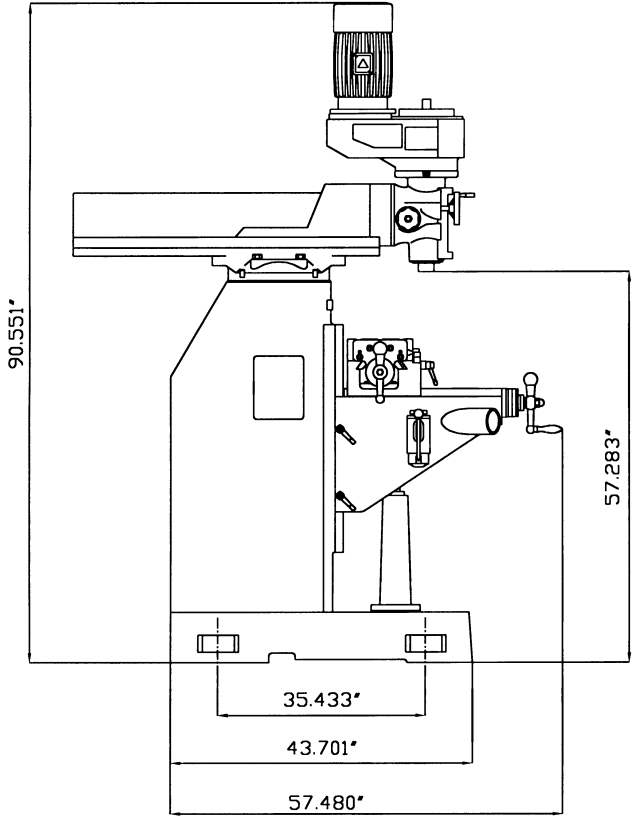
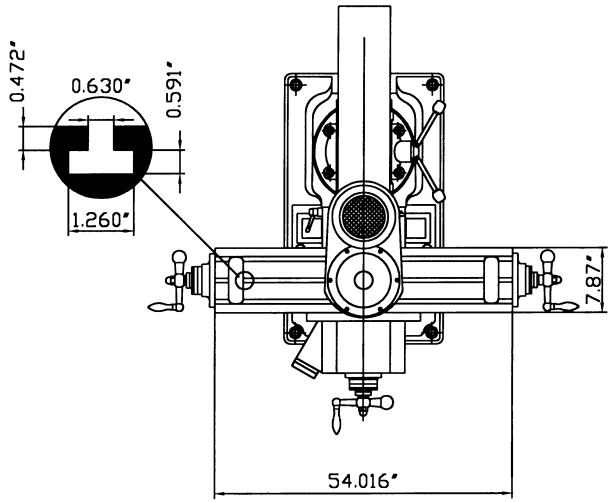
Specifications

| | |
|--|--|
| Model..... | JTM-1054R |
| Stock Number | 690053 |
| Spindle Taper..... | R-8 |
| Diameter of Quill..... | 3-3/8" |
| Number of Spindle Speeds..... | Variable |
| Range of Spindle Speeds..... | 80 to 3800 RPM |
| Downfeeds per Revolution of Spindle..... | 0.0015", 0.003", 0.006" |
| Spindle Travel | 5" |
| Head Movement | 90° L and R; 45° F and B |
| Turret Rotation | 360° |
| Maximum Distance Spindle to Table | 20" |
| Maximum Distance Spindle to Column..... | 26" |
| Collet Capacity | 1/8"-7/8" |
| Table Size | 10" x 54" |
| Longitudinal Table Travel | 32" |
| Table Cross Travel | 16" |
| Number of T-Slots..... | 3 |
| Size of T-Slots..... | 5/8" |
| T-slot Centers..... | 2-1/2" |
| Maximum Table Load..... | 800 lbs. |
| Knee Travel..... | 17-1/2" |
| RAM Travel..... | 20-1/2" |
| Overall Dimensions..... | 108"W x 80"D x 92"H |
| Motor..... | 5 HP, 3PH, 230/460V prewired 230 Volt |
| Net Weight (approx.)..... | 3,300 Lbs. |

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Walter Meier reserves the right to change specifications at any time and without prior notice, without incurring obligations.

⚠WARNING Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury

JTM-1054R Layout



Shipping Container Contents

- 1 Mill
- 1 Flat Way Cover (rear)
- 1 Accordion Way Cover (front)
- 1 Elevating Crank
- 1 Quill Handle
- 1 Drawbar
- 1 Pin & Nut
- 1 ToolBox: found in base through rear cover
 - 1 Hex Wrench Set (1.5 – 10mm)
 - 1 Wrench Set
 - 1 19mm Combination Wrench
 - 1 #2 Cross Point Screw Driver
 - 1 #2 Flat Blade Screw Driver
 - 1 Plastic Oil Can
 - 1 Owner's Manual
 - 1 Warranty Card
 - 1 Eye Bolt
 - 3 Handles
 - 4 Leveling Bolts
 - 4 Leveling Pads



Unpacking and Clean-Up

- 1. Finish removing the crate. Leave the mill bolted to the pallet until it is ready to be moved to its final location.
- 2. Remove the toolbox from the base. It is accessed by removing four screws that hold the rear cover in place.
- 3. Clean all rust protected surfaces with kerosene, or a light solvent. Do not use gasoline, paint thinner, or lacquer thinner. These will damage painted surfaces.
- 4. Cover all machined surfaces with a film of light machine tool oil to inhibit rust.

Site Preparation

CAUTION Mill must be supported equally under all four corners. Failure to comply may cause the column to twist and put a bind in the bedways.

The mill must be placed on an even surface, bolted to the floor, or placed on the leveling pads. Choose a location for the mill that is dry, has good lighting, and has enough room to be able to service the mill on all four sides. Review the JTM-1054R Layout on page 7.

Lifting the Mill

1. Remove the four nuts that hold the unit to the pallet.
2. Raise the head by loosening four nuts, (A, Fig. 1) with a 22mm wrench, just enough to allow the head to raise into position. **Do not** remove the nuts; just break the nuts loose.
3. Turn the hex head of the worm shaft (B, Fig. 2) using a 19mm socket and breaker bar. Raise the head aligning the zero marks on the scales. With the help of another person support the head while it is raising.
4. Tighten the four bolts (A, Fig. 1).
5. Loosen the two ram locking handles (C, Fig. 1) and move the ram forward by turning the hex head of the ram pinion (D, Fig. 1) with a 19mm socket and breaker bar.
6. Tighten the ram locking handles before lifting.

The preferred method for lifting the mill is with a hook through the eye bolt in the ram (E, Fig. 1). Make sure the chain and hook are properly rated for the weight of the mill. Make sure the chain is not twisted and lift slowly. Make sure the mill is balanced before moving

Carefully move the mill over the site. Lower the mill over the anchor bolts, or leveling pads. The leveling pads included in the toolbox and the leveling screws will help you to reach a level position. Check the mill for level with a machinist's level placed on the table. Mill must be level back to front and side to side. Shim if necessary when bolting to the floor, but remember that the mill must be supported equally at all four corners. Check for level before tightening the anchor bolt nuts and after tightening them. Adjust as necessary.

Electrical Connections

⚠WARNING All electrical connections must be made by a qualified electrician! Failure to comply may cause serious injury!

The JTM-1054R mill is rated at 230/460V, 3Ph and comes from the factory prewired at 230V.

Confirm power at the site matches power requirements of the mill before connecting to the power source. The power source should be dedicated to the JTM-1054R mill. The main power switch is located on the right side of the machine. Remove the cover, and run the main

power cable through the box and attach the ground, followed by power leads. Replace the cover.

Check for proper spindle rotation in the high speed range. The spindle should rotate clockwise when viewed from the top of the machine. If the spindle rotates counter-clockwise, disconnect from the power source, and switch two of the power leads.

To change from 230V to 460V operation, remove the junction box cover on the motor, and change the wires according to the diagram found on the inside of the cover. Also see the wiring diagram at the back of this manual.

The mill must be properly grounded.

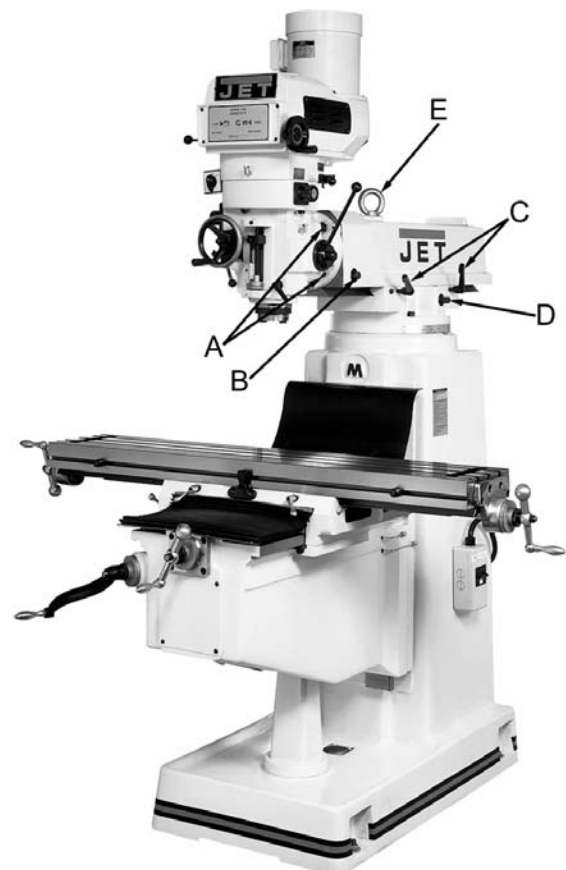


Figure 1

Lubrication

CAUTION Do not operate the mill before lubricating the machine fully. Failure to comply may cause damage to the machine.

1. Spindle Bearings & Quill (A, Fig. 2)- fill oil cups once daily with Mobil DTE® Oil Light.
2. Oil Pump (B, Fig. 2)- fill reservoir as needed by removing cap on top of tank and filling with Mobil DTE® Oil Light. Pump oil with release handle daily. Way surfaces and leadscrews are lubricated in this manner.
3. Grease Fitting for Spindle Gear (not shown): located on the backside of the head's lower housing. Lubricate every month using Mobilith AW2.
4. Knee Leadscrew – lubricate with #2 tube grease once weekly.

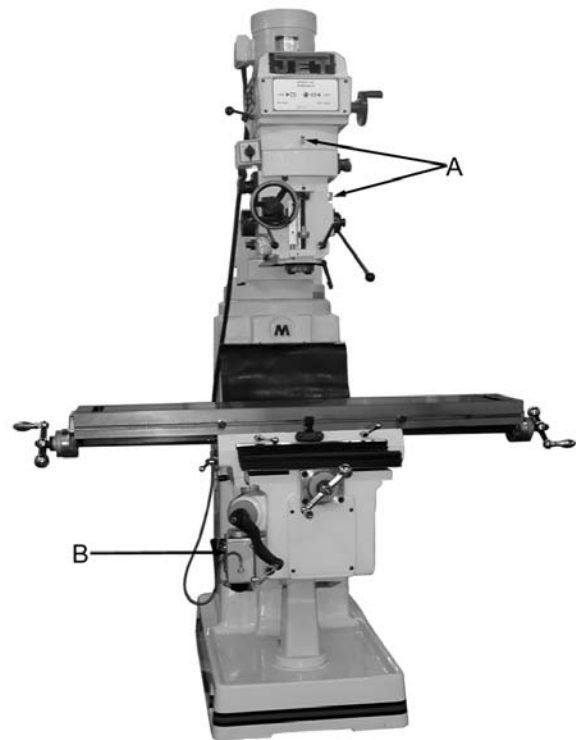


Figure 2

Controls

Referring to Figures 3 through 6:

- A. **Variable Speed Control (A)** - located on the right side of the head assembly. Turn clockwise or counter-clockwise to adjust spindle speed.

CAUTION Change speed only when spindle is turning.

- B. **Variable Speed Dial Indicator (B)** - located on the front of the head assembly. Indicates selected speed in high, or low range.

- C. **Spindle Brake (C)** - located on left side of the head. Move in either direction to stop spindle once power has been turned off.

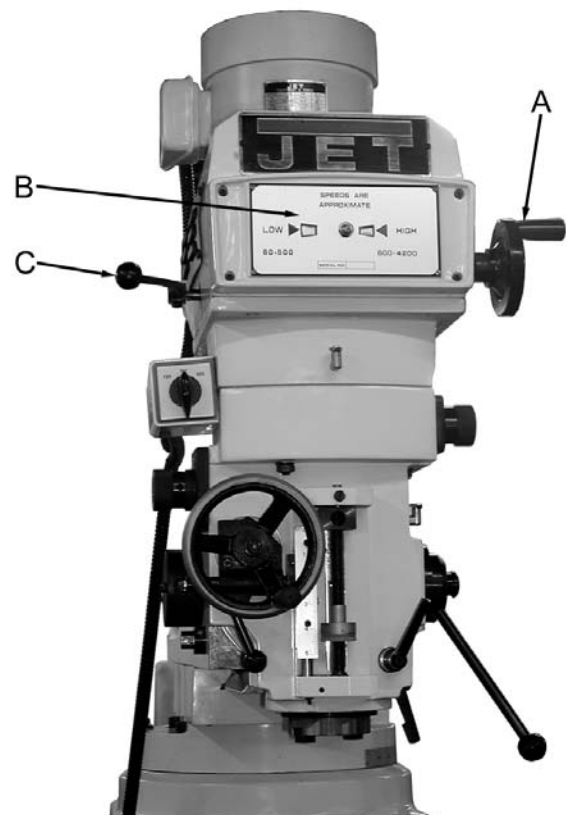


Figure 3

- D. **High-Neutral-Low Lever (D)** - located on the right side of the head. Upper position is high speed (direct drive). Middle position is neutral. Lower position is low speed (back gear). The photo shows the lever in the low speed range. Push the lever in and rotate 90° clockwise for neutral. Rotate the lever another 90° for the high speed range.

CAUTION Do not shift High-Low Gear while motor is running. Rotate the spindle by hand to facilitate changing lever positions.

- E. **Power Feed Transmission Engagement Knob (E)** - located on right side of head. When pointer indicates towards the rear of the machine, power feed worm gear is engaged. To disengage power feed, turn so pointer indicates towards the front of the machine.

CAUTION Power feed may be engaged when spindle is rotating, however, it must be engaged gently to avoid damage to the worm gear.

- Do not use power feed at speeds above 2700 R.P.M.
- It is recommended that the power feed worm gear be disengaged whenever the power feed is not required. This avoids unnecessary wear on the worm gear.
- Maximum loading is a 3/8" (9.5mm) diameter bit for drilling in steel. Use manual feed for bits larger than 3/8".

- F. **Quill Feed Handle (F)** - located on right side of head. Rotate clockwise to lower spindle. Return spring will retract the spindle automatically once the handle is released.

- G. **Quill Lock (G)** - located on the right side of the head. Rotate the handle clockwise to lock the quill in a desired position. Rotate the handle counter-clockwise to release.

- H. **Micro Adjusting Nut (H)**, - located on the front of the head. Use for setting specific spindle depth.

Note: One complete rotation of the micro nut equals 0.05".

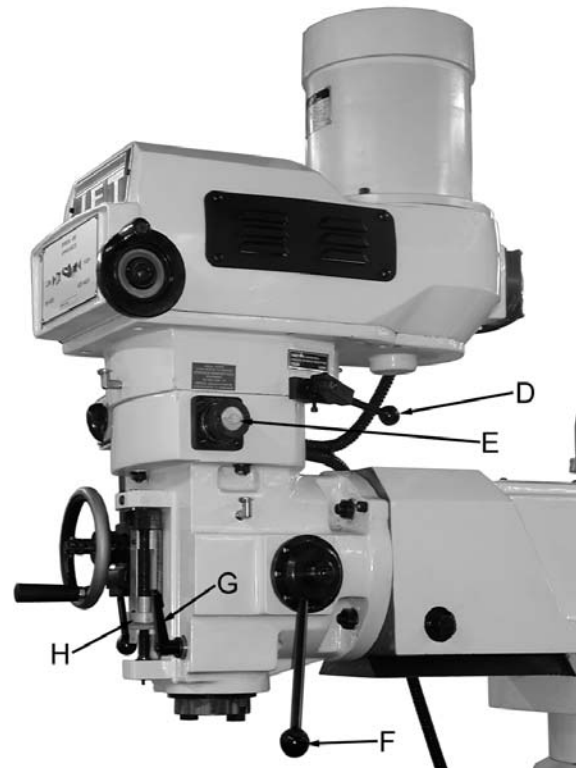


Figure 4

I. **Feed Control Lever (I)** - located on the left side of the head. Engages overload clutch on pinion shaft when the lever is positioned to the left. Stays engaged until quill stop comes in contact with micro adjusting nut (forcing feed control lever to drop out automatically), or until lever is released manually by positioning lever to the right.

J. **Manual Feed Handle and Handwheel (J)** - located on the left front of the head. *Feed reversing knob (K)* must be in the neutral position. The *feed control lever (I)* must be engaged. **Note:** The *manual feed handle and handwheel* may be taken off when not in use.

K. **Feed Reversing Knob (K)** - located in center of manual feed handwheel. Position of the knob depends upon the direction of spindle rotation. If boring with right hand cutting tools, pull feed knob towards operator until clutch becomes engaged. Neutral position is between forward and reverse position.

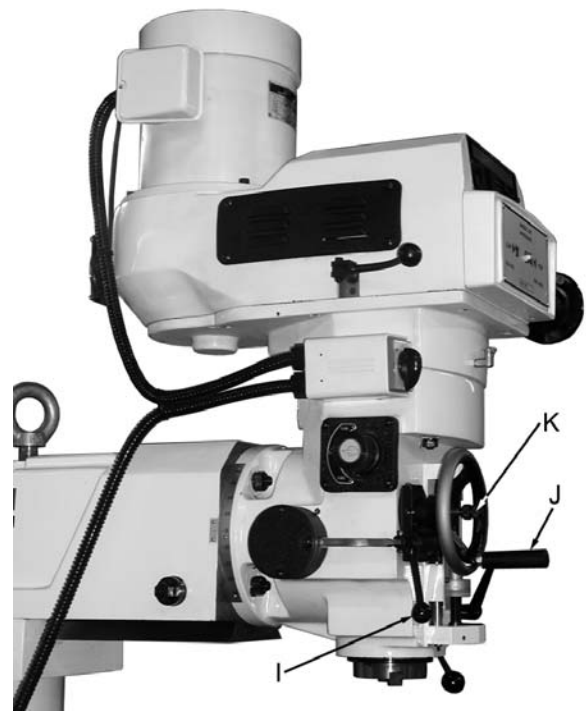


Figure 5

CAUTION It is recommended that the knob be left in the neutral position when not in use.

L. **Quill Stop (L)** - located on the front of head. Used to disengage the automatic feed in either direction as well as the setting point for working to a given depth.

M. **Quill Feed Speed Selector (M)** - located on the left side of the head. Pull out and turn the knob and indicate pointer towards one of three feed speeds (0.0015", 0.003", and 0.006") per spindle revolution. Feed is more readily engaged when spindle is turning.

N. **Reversing Switch (N)** - located on the left side of the head. Switches rotation of spindle.

O. **Drawbar (O)** - located on the top of the head. Used to secure the tool holder in the taper. Use the spindle brake while tightening the drawbar.

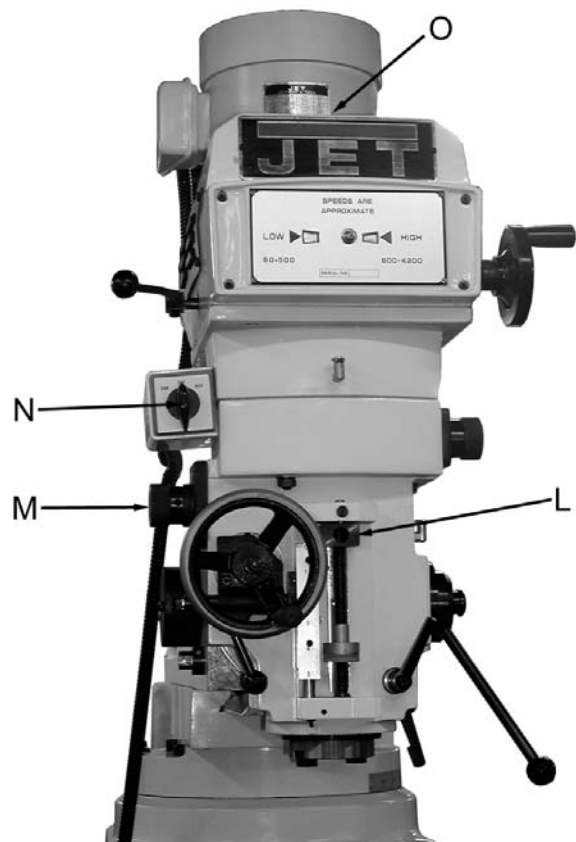


Figure 6

Operating Precautions

- Do not attempt to change spindle RPM while motor is stopped.
- Be certain the spindle brake is released before starting the motor.
- Rotate the spindle by hand to facilitate meshing of the clutch and gears.
- Do **not** use the quill power feed at speeds above 2700 RPM.
- It is recommended that the power feed worm gear be disengaged whenever the power feed is not required. This will avoid unnecessary wear on the worm gear.
- Maximum loading is a 3/8" (9.5mm) diameter bit for drilling in steel. Use manual feed for bits larger than 3/8".
- Overload clutch is factory set to hold up to 200 lbs. down feed pressure on the quill (accommodates drills up to 3/8"). Do **not** attempt to adjust clutch pressure.
- Only change spindle speeds while the motor is running.

Changing Speed Range

To change from high to low speed range, move lever (A, Fig. 7) by pressing in and rotating almost 180. Do not change gears while the spindle is running.

CAUTION It is recommended to rotate the spindle by hand to ensure the clutch is engaged prior to turning on. Do not turn on the machine unless the spindle can be moved freely.

Manual Fine Feed (handwheel)

1. Disengage automatic feed by pulling out and turning knob (B, Fig. 7) so that the pointer indicates towards the front of the machine.
2. Locate the feed reversing knob (C, Fig. 7) in the center or neutral position.
3. Engage feed trip lever (D, Fig. 7) by pulling away from the head assembly.
4. The quill can now be moved up or down by turning the hand wheel.

Manual Rapid Feed (handle)

1. Disengage automatic feed by turning knob (B, Fig. 7) so that the pointer indicates towards the front of the machine.
2. Locate the feed reversing knob (C, Fig. 7) in the center or neutral position.
3. Disengage feed trip lever (D, Fig. 7) by pushing towards head assembly.
4. Engage the manual quill handle (E, Fig. 7) and push, or pull to raise, or lower the quill.

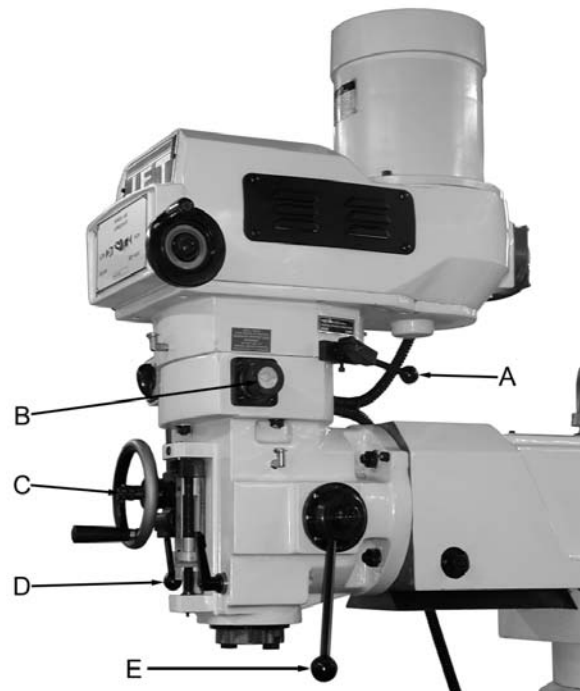


Figure 7

Micro Adjusting Nuts for Manual Feed

1. Lower the quill to the required depth.
2. Tighten the quill lock (A, Fig. 9).
3. Screw the micro nut (B, Fig. 9) against the quill stop (C, Fig. 9), and tighten the micro jam nut (D, Fig. 9).
4. Loosen the quill lock.
5. Use rapid, or fine manual downfeed.

Note: Always make a test cut to verify that the depth of cut is correct.

Setting Up for Automatic Feed

1. Ensure quill lock (A, Fig. 8) is off by rotating counter-clockwise.
2. Set micrometer dial (B, Fig. 8) to desired depth.
3. Engage auto quill feed knob (C, Fig. 8) by turning so pointer indicates towards the rear of the machine.
4. Select feed direction by pulling or pushing the knob (D, Fig. 8) for up/down feed, neutral is in the middle.
5. Select feed rate from feed selector knob (E, Fig. 8) 0.0015", 0.003", and 0.006" per spindle revolution. It is easier to change feed rate while the spindle is turning.
6. Engage feed trip lever (F, Fig. 8) by pulling away from head assembly.

CAUTION Power feed may be engaged when spindle is rotating; however, it must be engaged gently to avoid damage to the worm gear.

- Do not use power feed at speeds above 2700 R.P.M.
- It is recommended that the power feed worm gear be disengaged whenever the power feed is not required.
- Maximum loading is a 3/8" (9.5mm) diameter bit for drilling in steel. Use manual feed for bits larger than 3/8".

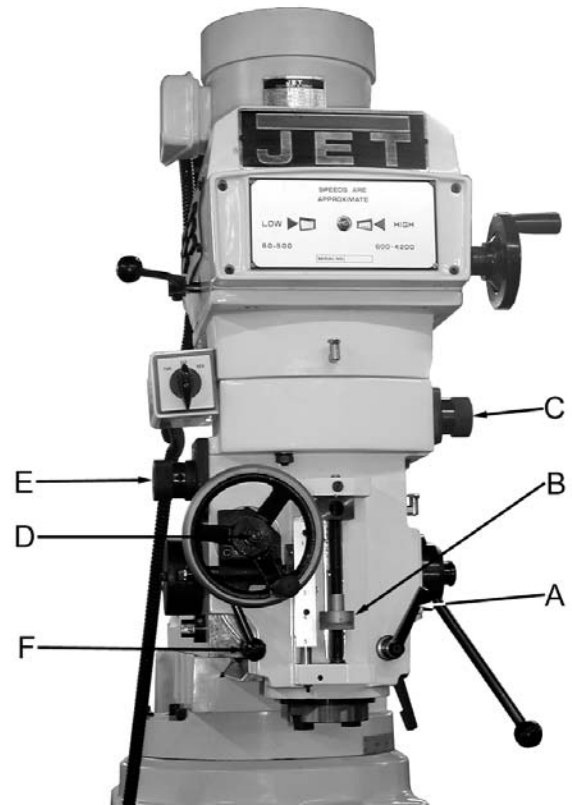


Figure 8

Micro Adjusting Nuts for Auto Feed

1. Lower the quill to the required depth.
2. Tighten the quill lock (A, Fig. 9).
3. Screw the micro nut (B, Fig. 9) against the quill stop (C, Fig. 9), and tighten the micro jam nut (D, Fig. 9).
4. Loosen the quill lock, and engage the power feed knob (E, Fig. 9).
5. Choose the downfeed rate (F, Fig. 9).
6. Engage the feed reversing knob (G, Fig. 9).
7. Engage the feed trip lever (H, Fig. 9).

Note: Always make a test cut to verify that the depth of cut is correct.

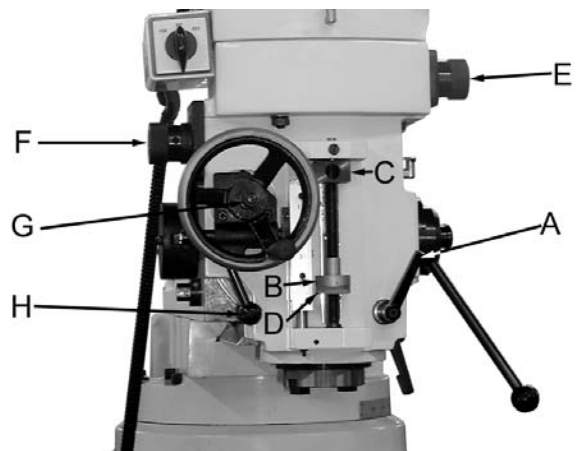


Figure 9

Head Alignment

The quill housing, and ram were pinned at the factory. The pin has been removed for shipping. The pin can be found in the toolbox.

1. Loosen four nuts (A, Fig. 10) with a 22mm wrench, just enough to allow the head to pivot into position. **Do not** remove the nuts; just break the nuts loose.
2. Back off the nut so it is flush with the end of the pin. This will allow you to tighten the nut and remove the pin if needed.
3. Gently tap the pin into the hole while slightly rocking the hex head of the worm shaft (C, Fig. 10) back and forth.

The scale on the ram adapter and for head rotation are guides only. Close tolerance work will require the use of a dial indicator to make sure the head is 90° to the table in the X and Y axis. Please note the table is fitted to be slightly higher in the front, usually about .0005".

Pivoting the Head

1. Remove the pin (B, Fig. 10) by tightening the nut.
2. Loosen four nuts, (A, Fig. 10) with a 22mm wrench, just enough to allow the head to move into position. **Do not** remove the nuts; just break the nuts loose.
3. Turn the hex head of the worm shaft (C, Fig. 10) using a 19mm socket and breaker bar. Pivot the head aligning the scale marks to the desired angle.
4. Tighten the four bolts (A, Fig. 10).

Note: Always make a test cut to verify that the angle of cut is correct.

Pivot the Ram

1. Loosen four bolts, (A, Fig. 11) with a 21mm wrench.
2. Remove the pin (B, Fig. 11) by tightening the nut.
3. Pivot the head and ram assembly to the required angle and tighten four bolts.

Moving the Ram

1. Loosen two ram locking handles (A, Fig. 12).
2. Move the ram by turning the hex head of the ram pinion (B, Fig. 12) with a 19mm socket and breaker bar.



Figure 10



Figure 11



Figure 12

Table Movement Controls

Referring to Figure 13:

- A. **Longitudinal Movement (A)** - handles located on opposite ends of the table; controls the X-axis.
- B. **Stops (B)** - located on the front of the table; controls how far the table travels in either direction.
- C. **Table Locks (C)** - located on the front of the saddle used for locking the table in position.
- D. **Cross Feed Movement (D)** - located on the front of the knee; controls the Y-axis.
- E. **Knee Handle (E)** - located on the corner of the knee; controls the Z-axis.

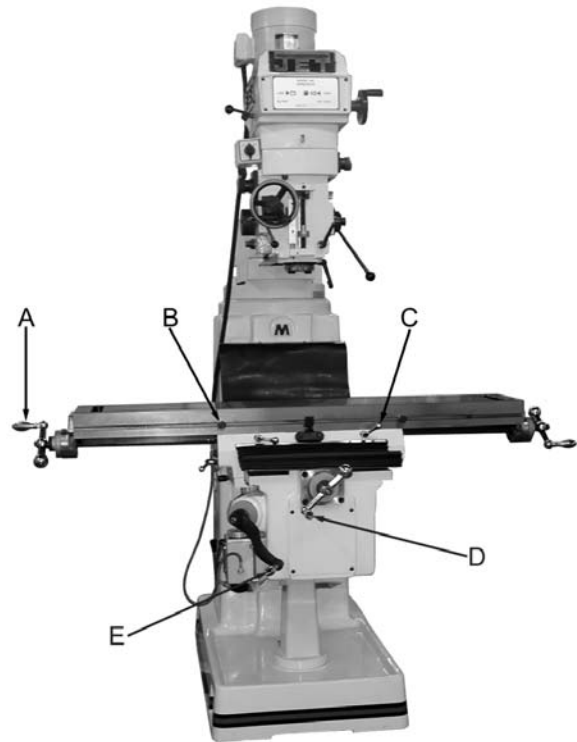


Figure 13

Maintenance

⚠WARNING Always disconnect the machine from the power source before performing any maintenance. If you do not have the knowledge or the training to complete the maintenance, have an authorized JET service center maintain your mill. Failure to comply may cause serious bodily injury!

Feed Trip Adjustment

1. Loosen lock nut (A, Fig. 14).
2. Engage trip handle (C, Fig. 14) by pulling away from head assembly.
3. Adjust micro nuts (E, Fig. 14) against quill stop (B, Fig. 14).
4. Slowly turn adjusting screw (D, Fig. 14) until lever (C, Fig. 14) trips.
5. Tighten lock nut (A, Fig. 14)

Knee Gib Adjustment

Note: When adjusting the gibs for the knee, the saddle, and the table always start with the knee first, the saddle second, and adjust the table last.

Adjust three gibs located between the knee and the base. Use a dial indicator to measure the amount of movement in the knee. Adjust the gib until the indicator reading is within 0.003”.

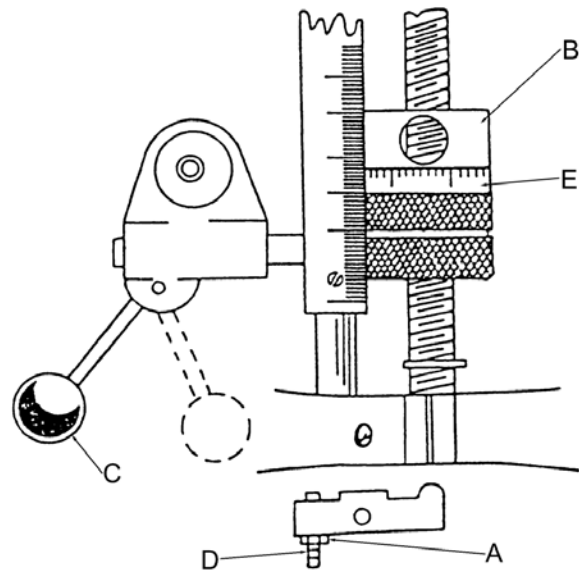


Figure 14

Saddle Gib Adjustment

Adjust two gibs located between the saddle and the knee. Use a dial indicator to measure the amount of movement in the saddle. Adjust the gib until the indicator reading is within 0.003".

Table Gib Adjustment

Adjust one gib located between the table and the saddle. Use a dial indicator to measure the amount of movement in the table. Adjust the gib until the indicator reading is within 0.003".

Ram Wear Plate Adjustment

Adjust one wear plate located between the ram and the turret. Use a dial indicator to measure the amount of movement in the ram. Adjust the wear plate until the indicator reading is within 0.003".

Removing the Motor

Referring to Figure 15:

1. Adjust the head to the lowest speed.
2. Disconnect the machine from the power source.
3. Remove three screws (A) and plate (B).
4. Use two screws (A-1) to compress the spring (C).
5. Rotate the high-neutral-low lever (D, Fig. 4) to the high speed range.
6. Remove the reversing switch (N, Fig. 6) from the belt housing.
7. Remove two locking nuts (D).
8. Lift and tilt the motor so that it rests on stud (E).
9. Ease the belt over the lower drive disc and remove the motor.

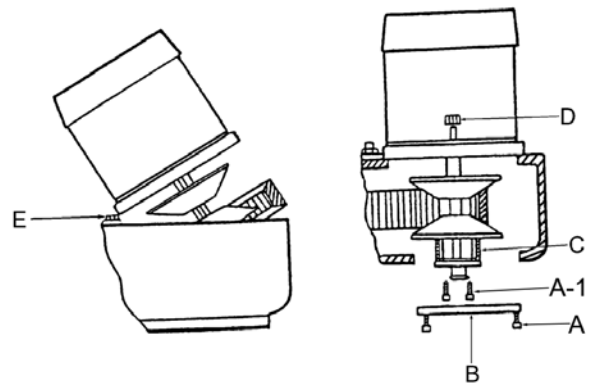


Figure 15

Timing Belt Replacement

Referring to Figure 16:

1. Disconnect the machine from the power source.
2. Remove the motor.
3. Lower the quill to the full extent.
4. Remove the two lower screws (A) from the variable speed housing.
5. Remove six screws (B) from underneath.
6. Remove the top assembly (C) and tap to clear dowels.
7. Replace the belt.

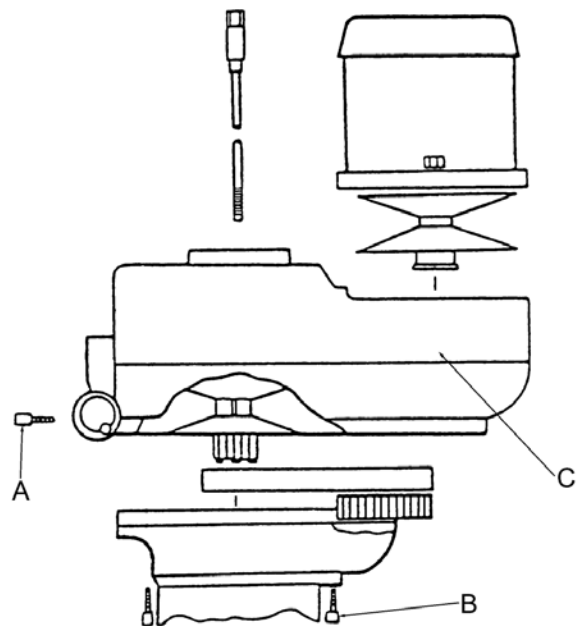


Figure 16

Drive Belt Replacement

1. Disconnect the machine from the power source.
2. Remove the motor.
3. Remove the three screws (A, Fig. 17). Thread the screws into the adjacent tapped holes and back off the cover (B, Fig. 17).
4. Remove the two screws and bushings (C, Fig. 17) from the tilting plate.
5. Remove four screws (D, Fig. 17) and one screw (E, Fig. 17).
6. Remove four screws from the variable speed housing (F, Fig. 17).
7. Remove the top housing (G, Fig. 17) and tap to clear dowels.
8. Replace the belt.

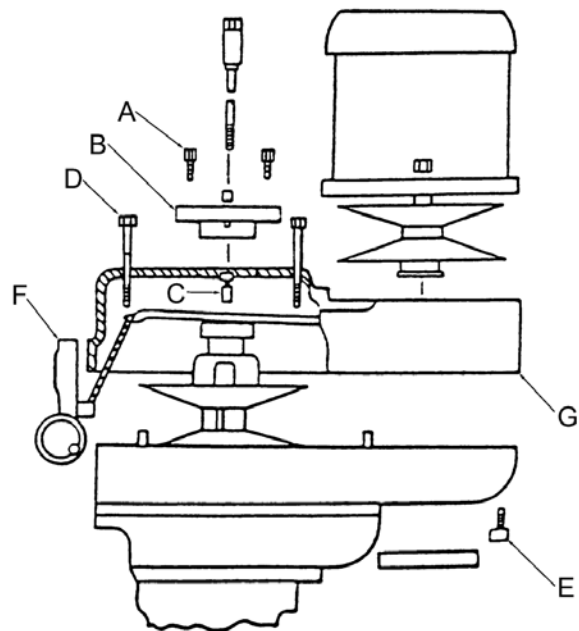


Figure 17

Brake Shoe Replacement

1. Disconnect the machine from the power source.
2. Remove the top section.
3. Remove the two screws (A, Fig. 18).
4. Remove the clutch hub assembly (B & D, Fig. 18).
5. Replace the brake shoes (C, Fig. 18).

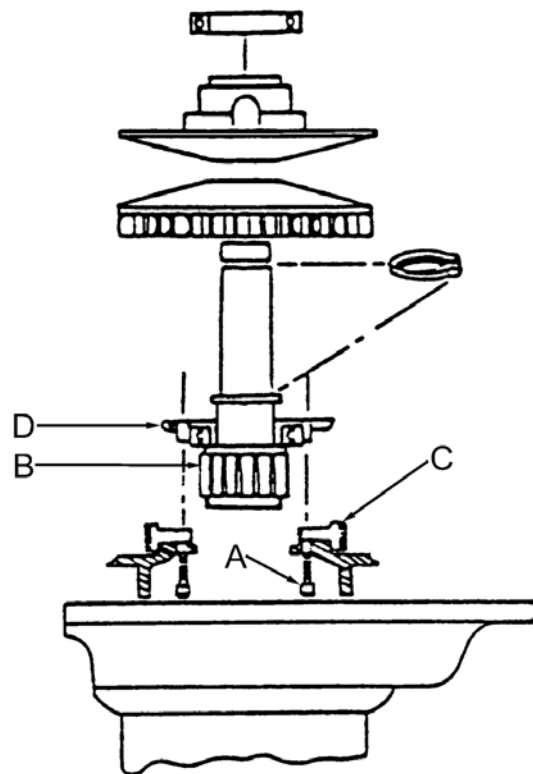


Figure 18

Parts

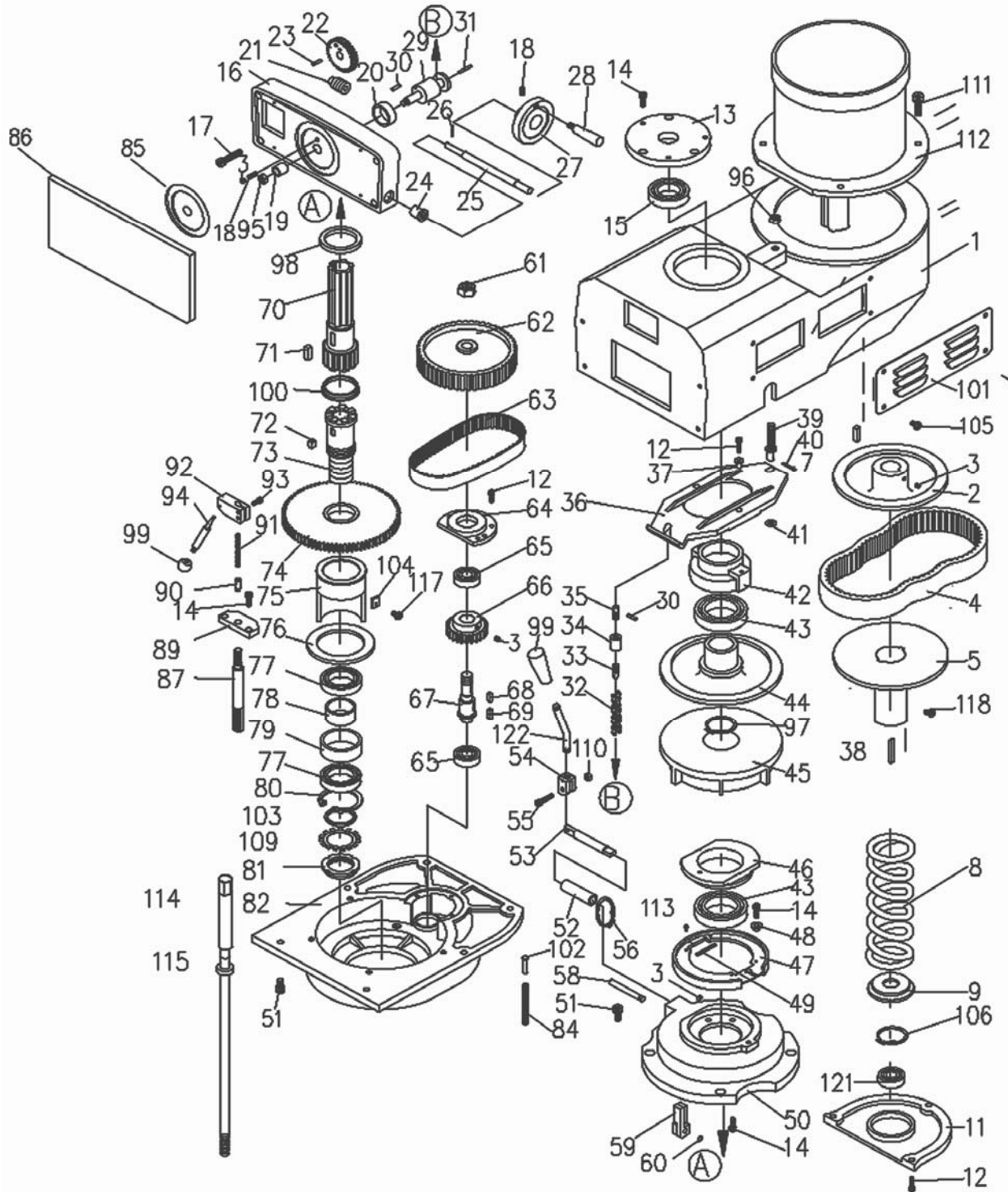
Variable Speed Head Assembly

| Index No | Part No | Description | Size | Qty |
|----------|------------|-----------------------|---------|-----|
| 1 | PVS-001 | Housing | | 1 |
| 2 | PVS-002 | Motor Pulley | | 1 |
| 3 | TS-1523011 | Set Screw | M6x6 | 4 |
| 4 | PVS-004 | Belt | 3830900 | 1 |
| 5 | PVS-005 | Motor Pulley | | 1 |
| 7 | KEY7725 | key | 7x7x25 | 1 |
| 8 | PVS-008 | Motor Pulley Spring | | 1 |
| 9 | PVS-009 | Spring Stop Washer | | 1 |
| 11 | PVS-011 | Motor Pulley Cover | | 1 |
| 12 | TS-1502051 | Hex Socket Cap Screw | M5x20 | 9 |
| 13 | PVS-013 | Cover | | 1 |
| 14 | TS-1502041 | Hex Socket Cap Screw | M5x16 | 1 |
| 15 | BB-6007ZZ | Ball Bearing | 6007ZZ | 1 |
| 16 | PVS-016 | Dial Cover | | 1 |
| 17 | TS-1502081 | Hex Socket Cap Screw | M5x35 | 4 |
| 18 | TS-1503041 | Hex Socket Cap Screw | M6x16 | 3 |
| 19 | PVS-019 | Bushing | | 1 |
| 20 | PVS-020 | Bushing | | 1 |
| 21 | PVS-021 | Worm | | 1 |
| 22 | PVS-022 | Worm Gear | | 1 |
| 23 | PVS-023 | Spring Pin | 5x10 | 2 |
| 24 | PVS-024 | Bushing | | 2 |
| 25 | PVS-025 | Dial Control Shaft | | 1 |
| 26 | PVS-026 | Spring Pin | 3x12 | 2 |
| 27 | PVS-027 | Dial Wheel | | 1 |
| 28 | PVS-028 | Wheel Handle | | 1 |
| 29 | PVS-029 | Shaft | | 1 |
| 30 | PVS-030 | Spring Pin | 4x35 | 2 |
| 31 | PVS-031 | Spring Pin | 3x25 | 1 |
| 32 | PVS-032 | Speed Change Chain | | 1 |
| 33 | PVS-033 | Adjustment Stud | | 1 |
| 34 | PVS-034 | Sleeve Nut | | 1 |
| 35 | PVS-035 | Adjustment Stud | | 1 |
| 36 | PVS-036 | Tilter | | 1 |
| 37 | PVS-037 | Bushing | | 2 |
| 38 | KEY8760 | Key | 8x7x60 | 2 |
| 39 | PVS-039 | Regulating Screw | | 1 |
| 40 | PVS-040 | Spring Pin | 4x12 | 1 |
| 41 | PVS-041 | Washer | | 1 |
| 42 | PVS-042 | Support | | 1 |
| 43 | BB-6010ZZ | Ball Bearing | 6010ZZ | 2 |
| 44 | PVS-044 | Drive Pulley Assembly | | 1 |
| 45 | PVS-045 | Steady Pulley | | 1 |
| 46 | PVS-046 | Bearing Cover | | 1 |
| 47 | PVS-047 | Brake Lining | | 1 |
| 48 | PVS-048 | Lock Screw | | 1 |
| 49 | PVS-049 | Brake Spring | | 2 |
| 50 | PVS-050 | Lower Housing Cover | | 1 |
| 51 | TS-1503051 | Hex Socket Cap Screw | M6x20 | 10 |
| 52 | PVS-052 | Brake Shaft Sleeve | | 1 |
| 53 | PVS-053 | Brake Lock Shaft | | 1 |
| 54 | PVS-054 | Brake Lock Block | | 1 |
| 55 | TS-1503061 | Hex Socket Cap Screw | M6x25 | 1 |
| 56 | PVS-056 | Snap Ring | S-12 | 1 |

Variable Speed Head Assembly

| Index No | Part No | Description | Size | Qty |
|----------|------------|-------------------------|------------|-----|
| 58 | PVS-058 | Brake Finger Pivot Stud | | 1 |
| 59 | PVS-059 | Brake Stud | | 2 |
| 60 | PVS-060 | Snap Ring | S-8 | 1 |
| 61 | PVS-061 | Nut | 5/8"-18NF | 1 |
| 62 | PVS-062 | Timing Belt Pulley | | 1 |
| 63 | PVS-063 | Timing Belt | 225L100 | 1 |
| 64 | PVS-064 | Bearing Housing | | 1 |
| 65 | BB-6203ZZ | Ball Bearing | 6203ZZ | 2 |
| 66 | PVS-066 | Bull Gear | | 1 |
| 67 | PVS-067 | Counter Shaft | | 1 |
| 68 | KEY5515 | Key | 5x5x15 | 1 |
| 69 | KEY5518 | Key | 5x5x18 | 1 |
| 70 | PVS-070 | Spindle Pulley Hub | | 1 |
| 71 | KEY8720 | Key | 8x7x20 | 1 |
| 72 | KEY8712 | Key | 8x7x12 | 1 |
| 73 | PVS-073 | Spindle Gear Hub | | 1 |
| 74 | PVS-074 | Gear | | 1 |
| 75 | PVS-075 | Rack Cup | | 1 |
| 76 | PVS-076 | Washer | | 1 |
| 77 | BB-6908ZZ | Ball Bearing | 6908ZZ | 2 |
| 78 | PVS-078 | Bearing Washer | | 1 |
| 79 | PVS-079 | Bearing Washer | | 1 |
| 80 | PVS-080 | Snap Ring | C-62 | 1 |
| 81 | PVS-081 | Nut | | 1 |
| 82 | PVS-082 | Housing | | 1 |
| 84 | PVS-084 | Spring | | 3 |
| 85 | PVS-085 | Vari-Speed Plate | | 1 |
| 86 | PVS-086 | Plastic Face Plate | | 1 |
| 87 | PVS-087 | Gear Shaft Pinion | | 1 |
| 89 | PVS-089 | Deter Plate | | 1 |
| 90 | PVS-090 | Bearing Stop | | 1 |
| 91 | PVS-091 | Spring | | 1 |
| 92 | PVS-092 | Pinion Block | | 1 |
| 93 | TS-1503011 | Hex Socket Cap Screw | M5x14 | 2 |
| 94 | PVS-094 | Pinion Crank | | 1 |
| 95 | PVS-095 | Cap Nut | | 1 |
| 96 | PVS-096 | Nut | 3/8" | 1 |
| 98 | PVS-098 | Wave Washer | | 1 |
| 99 | PVS-099 | Plastic Ball | | 2 |
| 100 | PVS-100 | Collar | | 1 |
| 101 | PVS-101 | Cover | | 2 |
| 102 | PVS-102 | Spring Shaft | | 3 |
| 103 | PVS-103 | Washer | | 1 |
| 105 | PVS-105 | Round Head Screw | 3/16"x3/8" | 1 |
| 106 | PVS-106 | Snap Ring | S-28 | 1 |
| 109 | PVS-109 | Lock Washer | | 1 |
| 110 | TS-1540041 | Nut | M6 | 1 |
| 111 | TS-0209051 | Hex Socket Cap Screw | 3/8"x1" | 2 |
| 112 | PVS-112 | Motor | | 1 |
| 113 | PVS-113 | Round Head Screw | 1/8"x1/4" | 4 |
| 114 | PVS-114 | Draw Bar | | 1 |
| 115 | PVS-115 | Draw Bar Washer | | 1 |
| 118 | PVS-118 | Hex Socket Cap Screw | M5x6 | 1 |
| 121 | BB-6024ZZ | Ball Bearing | 6204ZZ | 1 |
| 122 | PVS-122 | Handle | | 1 |

Variable Speed Head Assembly



Head Assembly

| Index No | Part No | Description | Size | Qty |
|----------|------------|------------------------|--------|-----|
| 1 | TS-1503031 | Hex Socket Cap Screw | M6x12 | 1 |
| 2 | B-2 | Washer | | 1 |
| 3 | B-3 | Feed Bevel Pinion | | 1 |
| 4 | B-4 | Worm Gear Shaft Sleeve | | 1 |
| 5 | B-5 | Bushing | | 1 |
| 6 | TS-1522011 | Set Screw | | 1 |
| 8 | B-8 | Worm Gear | | 1 |
| 10 | KEY3312 | Key | 3x312 | 1 |
| 12 | TS-1504031 | Hex Socket Cap Screw | M8x16 | 1 |
| 13 | B-13 | Washer | | 1 |
| 14 | KEY3308 | Key | 3x3x8 | 2 |
| 15 | B-15 | Bevel Gear | | 1 |
| 16 | B-16 | Feed Engage Pin | | 1 |
| 17 | 1050B-17 | Worm Gear Cradle | | 1 |
| 18 | B-18 | Worm Gear Cradle Shaft | | 1 |
| 19 | 1050B-19 | Shaft Sleeve | | 1 |
| 20 | B-20 | Gear Shaft Plunger | | 2 |
| 21 | B-21 | Spring | | 2 |
| 22 | 1050B-22 | Spring Pin | 3x20 | 2 |
| 23 | B-23 | Shift Crank | | 2 |
| 24 | B-24 | Black Plastic Ball | | 3 |
| 25 | TS-1503010 | Hex Socket Cap Screw | M5/12 | 3 |
| 27 | B-27 | Bushing | | 1 |
| 28 | B-28 | Gear | | 1 |
| 29 | KEY3345 | Key | 3x3x45 | 1 |
| 31 | 1050B-31 | Gear Shaft | | 1 |
| 32 | 1050B-32 | Snap Ring | S-16 | 1 |
| 33 | 1050B-33 | Bevel Gear Bushing | | 1 |
| 34 | 1050B-34 | Spacer | | 1 |
| 36 | 1050B-36 | Gear | | 1 |
| 39 | TS-1540031 | Nut | M5 | 1 |
| 40 | 1050B-40 | Feed Drive Gear | | 1 |
| 41 | 1050B-41 | Needle Bearing | | 1 |
| 42 | 1050B-42 | Bushing | | 1 |
| 43 | 1050B-43 | Worm Gear | | 1 |
| 44 | B-44 | Bushing | | 1 |
| 47 | B-47 | Washer | | 1 |
| 48 | B-48 | Bushing | | 2 |
| 49 | B-49 | Bevel Gear | | 2 |
| 50 | B-50 | Feed Reverse Clutch | | 1 |
| 54 | TS-1503061 | Hex Socket Cap Screw | M6x25 | 1 |
| 55 | B-55 | Reverse Clutch Rod | | 1 |
| 56 | B-56 | Spring Pin | 3x20 | 1 |
| 57 | B-57 | Feed Worm Shaft | | 1 |
| 58 | TS-1523011 | Set Screw | M6x6 | 1 |
| 59 | B-59 | Spring Pin | 3x12 | 2 |
| 60 | B-60 | Chip Guards | | 1 |
| 61 | TS-1522031 | Set Screw | M5x10 | 1 |
| 62 | KEY3315 | KEY | 3x3x15 | 2 |
| 63 | B-63 | Feed Gear Shift Fork | | 1 |
| 64 | B-64 | Gear Shift Crank | | 1 |
| 66 | B-66 | Cluster Gear Cover | | 1 |
| 67 | TS-1502031 | Hex Socket Cap Screw | M5x12 | 4 |
| 73 | TS-1502081 | Hex Socket Cap Screw | M5x35 | 2 |
| 74 | B-74 | Clutch Ring Pin | | 2 |
| 75 | B-75 | Clutch Ring | | 1 |

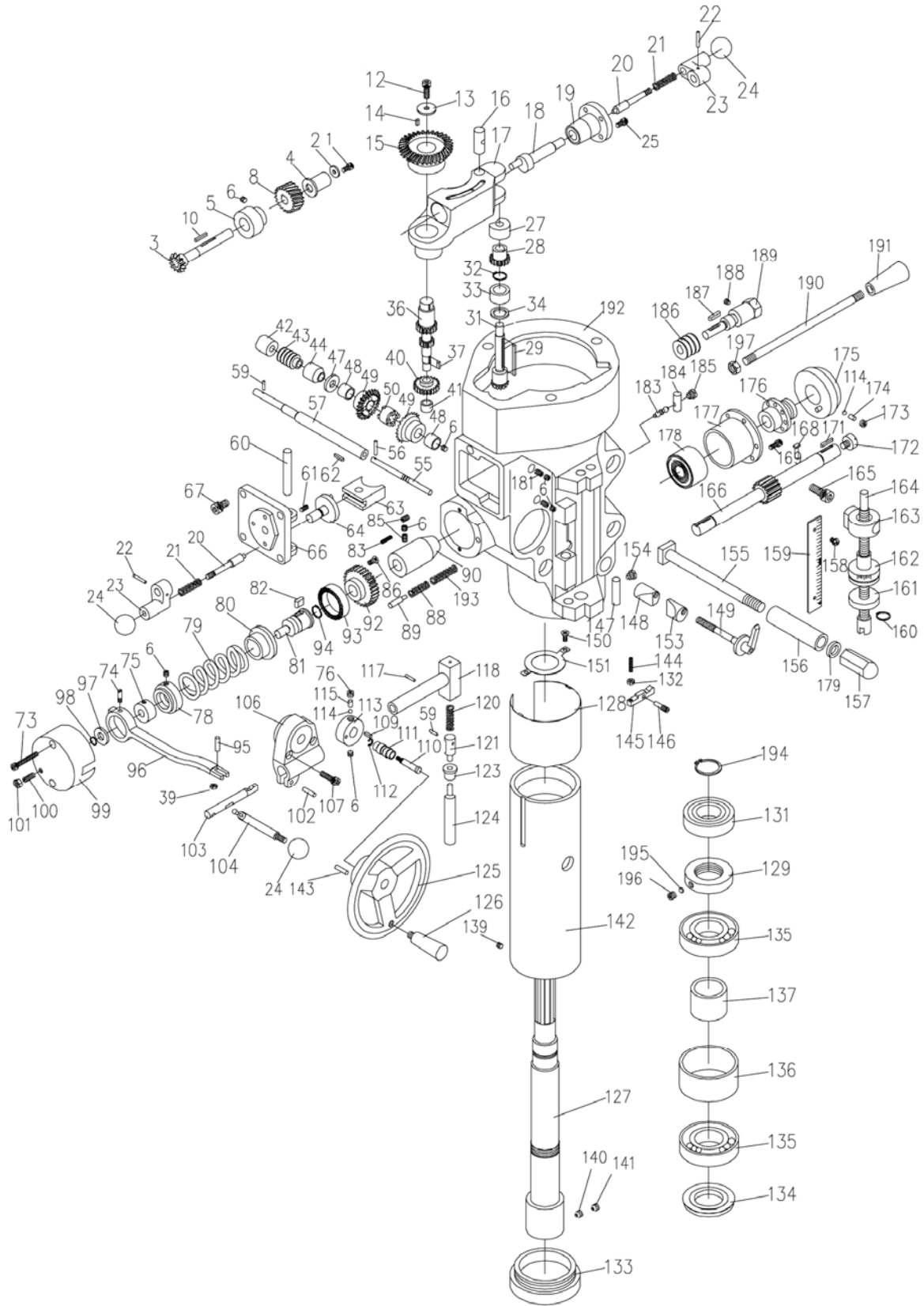
Head Assembly

| Index No | Part No | Description | Size | Qty |
|----------|------------|------------------------|--------|-----|
| 76 | TS-1523021 | Set Screw | M6x8 | 1 |
| 78 | B-78 | Clutch Locknut | | 1 |
| 79 | B-79 | Safety Clutch Locknut | | 1 |
| 80 | B-80 | Overload Clutch | | 1 |
| 81 | B-81 | Overload Clutch Sleeve | | 1 |
| 82 | KEY5813 | Key | 5x8x13 | 1 |
| 83 | B-83 | Hex Socket Head Bolt | | 3 |
| 85 | TS-1523011 | Set Screw | M6x6 | 2 |
| 86 | B-86 | Cross Plate Screw | M4x16 | 4 |
| 88 | B-88 | Spring | | 1 |
| 89 | B-89 | Spring Plunger | | 1 |
| 90 | B-90 | Bushing | | 1 |
| 92 | B-92 | Worm Gear | | 1 |
| 93 | B-93 | Clutch Ring | | 1 |
| 94 | B-94 | Snap Ring | S-10 | 1 |
| 95 | TS-1502051 | Hex Socket Cap Screw | M5x20 | 1 |
| 96 | B-96 | Clutch Trip Lever | | 1 |
| 97 | B-97 | Clutch Washer | | 1 |
| 98 | B-98 | Snap Ring | S-10 | 1 |
| 99 | B-99 | Clutch Arm Cover | | 1 |
| 100 | C-19-1 | Set Screw | M6x16 | 1 |
| 101 | TS-1540041 | Nut | M6 | 1 |
| 102 | B-102 | Spring Pin | 5x18 | 1 |
| 103 | B-103 | Cam Rod | | 1 |
| 104 | B-104 | Trip Handle | | 1 |
| 106 | B-106 | Feed Trip Bracket | | 1 |
| 107 | TS-1503051 | Hex Socket Cap Screw | M6x20 | 1 |
| 108 | TS-1523031 | Set Screw | M6x10 | 1 |
| 109 | KEY3310 | Key | 3x3x10 | 1 |
| 110 | B-110 | Knob Stud | | 1 |
| 111 | B-111 | Reverse Knob | | 1 |
| 112 | B-112 | E-Ring | E-6 | 1 |
| 113 | B-113 | Handle Wheel Clutch | | 1 |
| 114 | B-114 | Steel Ball | 3/16" | 2 |
| 115 | B-115 | Compression Spring | | 2 |
| 116 | B-116 | Set Screw | M8x6 | 1 |
| 117 | B-117 | Spring Pin | 3x15 | 1 |
| 118 | B-118 | Cam Rod Sleeve | | 1 |
| 119 | B-119 | Spring Pin | 3x12 | 1 |
| 120 | B-120 | Compression Spring | | 1 |
| 121 | B-121 | Trip Plunger | | 1 |
| 123 | B-123 | Bushing | | 4 |
| 124 | B-124 | Feed Trip Plunger | | 1 |
| 125 | B-125 | Handle Wheel | | 1 |
| 126 | B-126 | Handle | | 1 |
| 127 | B-127 | Spindle | | 1 |
| 128 | B-128 | Quill Skirt | | 1 |
| 129 | B-129 | Locknut | | 1 |
| 131 | BB-6206ZZ | Ball Bearing | 6206ZZ | 1 |
| 132 | B-132 | Nut | M4 | 1 |
| 133 | B-133 | Nose Piece | | 1 |
| 134 | B-134 | Spindle Dirt Shield | | 1 |
| 135 | BB-7207C | Angular Bearing | 7207 | 1 |
| 136 | B-136 | Spacer | | 1 |
| 137 | B-137 | Spacer | | 1 |
| 138 | BB-7207C | Angular Bearing | 7207 | 1 |

Head Assembly

| Index No | Part No | Description | Size | Qty |
|----------|------------|-------------------------|------------|-----|
| 139 | B-139 | Set Screw | | 1 |
| 140 | B-140 | Set Screw | | 1 |
| 141 | TS-1523011 | Set Screw | M6x6 | 1 |
| 142 | B-142 | Quill | | 1 |
| 143 | B-143 | Spring Pin | 3x16 | 1 |
| 144 | B-144 | Set Screw | M4x20 | 1 |
| 145 | B-145 | Feed Trip Lever | | 1 |
| 146 | B-146 | Trip Lever Pin | | 1 |
| 147 | B-147 | Indicator Rod | | 1 |
| 148 | B-148 | Quill Lock Sleeve | | 1 |
| 149 | B-149 | Lock Handle | | 1 |
| 150 | B-150 | Round Head Screw | M5x8 | 2 |
| 151 | B-151 | Washer | M5 | 2 |
| 153 | B-153 | Quill Lock Sleeve | | 1 |
| 154 | B-154 | Indicator Rod Screw | | 1 |
| 155 | B-155 | T-Bolt | | 4 |
| 156 | B-156 | Spacer | | 4 |
| 157 | B-157 | Adaptor Nut | | 4 |
| 158 | B-158 | Round Head Screw | | 2 |
| 159 | B-159 | Micrometer Scale | | 1 |
| 160 | B-160 | Snap Ring | S-16 | 1 |
| 161 | B-161 | Quill Micro-Stop Nut | | 1 |
| 162 | B-162 | Quill Micro-Stop Nut | | 1 |
| 163 | B-163 | Quill Stop Knob | | 1 |
| 164 | B-164 | Quill Micro-Stop Nut | | 1 |
| 165 | B-165 | Round Head Screw | M10x15 | 1 |
| 166 | B-166 | Quill Pinion Shaft | | 1 |
| 168 | B-168 | Pin | | 1 |
| 169 | TS-1503010 | Hex Socket Cap Screw | M5x12 | 2 |
| 171 | KEY3320 | Key | 3x3x20 | 1 |
| 172 | B-172 | Pinion Shaft Hub Screw | | 1 |
| 173 | B-173 | Set Screw | 5/16"x1/4" | 1 |
| 174 | B-174 | Compression Spring | | 1 |
| 175 | B-175 | Handle Hub | | 1 |
| 176 | B-176 | Hub Sleeve | | 1 |
| 177 | B-177 | Spring Cover | | 1 |
| 178 | B-178 | Clock Spring | | 1 |
| 179 | B-179 | Washer | | 4 |
| 181 | TS-1523041 | Set Screw | M6x12 | 2 |
| 183 | B-183 | Reverse Trip Ball Lever | | 1 |
| 184 | B-184 | Reverse Trip Plunger | | 1 |
| 185 | B-185 | Trip Ball Lever Screw | | 1 |
| 186 | B-186 | Worm Gear | | 1 |
| 187 | KEY4418 | Key | 4x4x18 | 1 |
| 188 | B-188 | Set Screw | | 1 |
| 189 | B-189 | Worm Shaft | | 1 |
| 190 | B-190 | Pinion Shaft Hub Handle | | 1 |
| 191 | B-191 | Black Plastic Ball | | 1 |
| 192 | B-192 | Quill Housing | | 1 |
| 193 | B-193 | Compression Spring | | 1 |
| 194 | B-194 | Snap Ring | S-30 | 1 |
| 195 | B-195 | Bush | | 1 |
| 196 | TS-1523011 | Set Screw | M6x6 | 1 |
| 197 | B-197 | Nut | | 1 |

Head Assembly



Base Assembly

| Index No | Part No | Description | Size | Qty |
|----------|---------------|-------------------------------|----------|-----|
| 1 | JTM1050C-11 | Hook | | 1 |
| 2 | 1050C-10 | Ram | | 1 |
| 3 | 1050C-1 | Worm Gear | | 1 |
| 3-1 | 1050C-14 | Spring Pin | | 1 |
| 3-2 | TS-1504061 | Hex Socket Cap Screw | M8*30 | 2 |
| 4 | 1050C-4 | Lock Nut | | 1 |
| 5 | 1050C-3 | Adaptor Scale | | 1 |
| 6 | 1050C-16 | Rivet | | 6 |
| 7 | C-120 | Ram Pinion | | 1 |
| 7-1 | JTM1054R-7-1 | Crank | | 1 |
| 7-2 | JTM1054R-7-2 | Plastic Ball | | 1 |
| 8 | C-124 | Turret | | 1 |
| 9 | C-111 | Gib | | 1 |
| 10 | C-127 | Bolt | | 4 |
| 10-1 | C-123 | Spring Washer | | 4 |
| 11 | C-128 | Set Screw | | 1 |
| 12 | C-38A | Lock Handle | 1/2"x25L | 2 |
| 13 | C-110 | Set Screw | 3/8"X60 | 2 |
| 13-1 | C-109 | Hex Nut | 3/8" | 2 |
| 13-2 | C-126 | Ram Lock Plunger | | 2 |
| 14 | JTM1054R-14 | Scale Label | | 1 |
| 15 | JTM1055-B15 | Rivet | | 4 |
| 16 | C-118 | Spider | | 1 |
| 17 | JTM1055-B17N | Base (s/n 120xxxx and higher) | | 1 |
| 18 | JTM1055-B18 | Cover | | 1 |
| 18-1 | JTM1055-B18-1 | Round Head Screw | M5x10 | 4 |
| 19 | C-132A | Breaker Box (W/#21) | | 1 |
| 20 | C-133 | Beaker | | 1 |
| 21 | C-134 | Breaker Box Cover | | 1 |
| | C-133A | Breaker Box Assembly | | 1 |
| 22 | JTM1055-B22 | Strainer | | 1 |
| 23 | JTM1055-B23 | Lead Screw Housing | | 1 |
| 23-1 | TS-1503041 | Hex Socket Cap Screw | M6x16 | 3 |
| 24 | JTM1055-B24 | Flange | | 1 |
| 24-1 | TS-1503061 | Hex Socket Cap Screw | M6x35 | 2 |
| 25 | JTM1055-B25 | Lead Screw | | 1 |
| 25-1 | JTM1055-B25-1 | Key | 5x5x20 | 1 |
| 26 | JTM1055-B26 | Flange | | 1 |
| 26-1 | TS-1503051 | Hex Socket Cap Screw | M6x20 | 3 |
| 27 | JTM1055-B27 | Ball Bearing | 6204ZZ | 3 |
| 28 | JTM1055-B28 | Bevel Gear | | 1 |
| 29 | JTM1055-B29 | Washer | | 1 |
| 30 | JTM1055-B30 | Hex Nut | | 1 |
| 31 | JTM1055-B31 | Bearing Cover | | 1 |
| 32 | JTM1055-B32 | Bearing Stop | | 1 |
| 33 | JTM1055-B33 | Dial Holder | | 1 |
| 34 | JTM1055-B34 | Dial Ring | | 1 |
| 35 | JTM1055-B35 | Dial Lock Nut | | 1 |
| 36 | JTM1055-B36 | Gear Shear Clutch | | 1 |
| 37 | JTM1055-B37 | Elevating Crank | | 1 |
| 38 | JTM1055-B38 | Handle | | 1 |
| 39 | JTM1055-B39N | Knee (s/n 120xxxx and higher) | | 1 |
| 40 | JTM1055-B40 | Knee Front Cover | | 1 |
| 40-1 | JTM1055-B40-1 | Cross Head Screw | M5x20 | 4 |
| 41 | JTM1055-B41 | Shaft | | 1 |

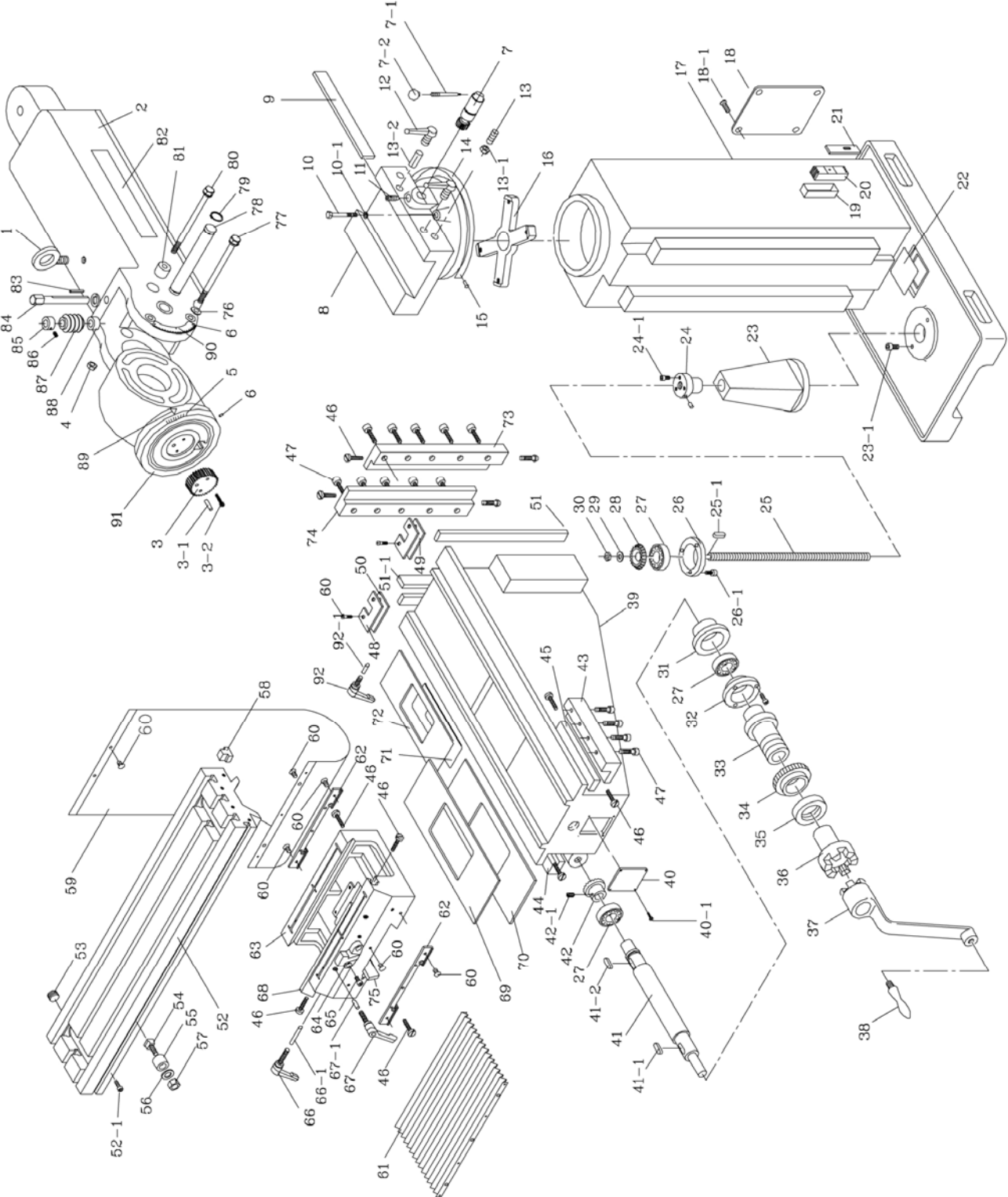
Base Assembly

| Index No | Part No | Description | Size | Qty |
|----------|----------------|--------------------------------|--------|-----|
| 41-1 | JTM1055-B41-1 | Key | 3x3x10 | 1 |
| 41-2 | JTM1055-B41-2 | Key | 4x4x16 | 1 |
| 42 | JTM1055-B42 | Bevel Gear | | 1 |
| 42-1 | JTM1055-B42-1 | Set Screw | M6x20 | 1 |
| 43 | JTM1055-B43 | Gib Holder-R | | 1 |
| 44 | JTM1055-B44 | Gib Holder-L | | 1 |
| 45 | JTM1055-B045 | Gib | | 2 |
| 46 | JTM1055-B46 | Adjusting Screw | | 12 |
| 47 | JTM1055-B47 | Hex Socket Cap Screw | M12x35 | 18 |
| 48 | JTM1055-B48 | Wiper Cover | | 2 |
| 49 | JTM1055-B49 | Wiper-R | | 1 |
| 50 | JTM1055-B50 | Wiper-L | | 1 |
| 51 | JTM1055-B51N | Gib (s/n 120xxxx and higher) | | 2 |
| 51-1 | JTM1055-B51-1N | Gib (s/n 120xxxx and higher) | | 1 |
| 52 | JTM1055-B52 | Table | | 1 |
| 52-1 | TS-1502061 | Hex Socket Cap Screw | M5x25 | 2 |
| 53 | JTM1055-B53 | Plug | | 2 |
| 54 | JTM1055-B54 | T-Bolt | | 2 |
| 55 | JTM1055-B55 | Bushing | | 2 |
| 56 | JTM1055-B56 | Flat Washer | | 2 |
| 57 | JTM1055-B57 | Hex Nut | | 2 |
| 58 | JTM1055-B58 | Rubber T-Nut | | 6 |
| 59 | JTM1055-B59 | Chip Guard | | 1 |
| 60 | JTM1055-B60 | Screw | | 22 |
| 61 | JTM1055-B61 | Dust Protective Cover | | 1 |
| 62 | JTM1055-B62N | Wiper (s/n 120xxxx and higher) | | 2 |
| 63 | JTM1055-B63 | Saddle | | 1 |
| 64 | JTM1055-B64 | Stop Block | | 1 |
| 65 | JTM1055-B65 | Hex Socket Cap Screw | | 2 |
| 66 | JTM1055-B66 | Handle | | 2 |
| 66-1 | JTM1055-B66-1 | Brass Block | | 2 |
| 67 | JTM1055-B67 | Handle | | 2 |
| 67-1 | JTM1055-B67-1 | Brass Block | | 2 |
| 68 | JTM1055-B68N | Gib (s/n 120xxxx and higher) | | 1 |
| 69 | JTM1055-B69 | Chip Guard-XL | | 1 |
| 70 | JTM1055-B70 | Chip Guard-L | | 1 |
| 71 | JTM1055-B71 | Chip Guard-M | | 1 |
| 72 | JTM1055-B72 | Chip Guard-S | | 1 |
| 73 | JTM1055-B73 | Gib Holder-R | | 1 |
| 74 | JTM1055-B74 | Gib Holder-L | | 1 |
| 75 | JTM1055-B75N | Gib (s/n 120xxxx and higher) | | 1 |
| | JTM1055-TBC | Tool Box complete(not shown) | | 1 |
| | JTM1055-LP | Leveling Pad(not shown) | | 4 |
| | JTM1055-LB | Leveling Bolt w/Nut(not shown) | | 4 |
| | JTM1055-JS | JET Striping(not shown) | | 1 |
| | JTM1055-ID | ID & Warning Label(not shown) | | 1 |
| 76 | C-18 | Washer | | 2 |
| 77 | C-19 | Locking Bolt | | 2 |
| 78 | JTM1050C-17 | Adaptor Pivot Stud | | 1 |
| 79 | JTM1050C-79 | C-Ring | | 1 |
| 80 | C-19 | Locking Bolt | | 1 |
| 81 | C-19-1 | Collar | | 1 |
| 82 | JTM1054R-82 | Name Plate | | 1 |
| 83 | KEY5550 | KEY | 5*5*50 | 1 |
| 84 | 1050C-8 | Worm Shaft | | 1 |

Base Assembly

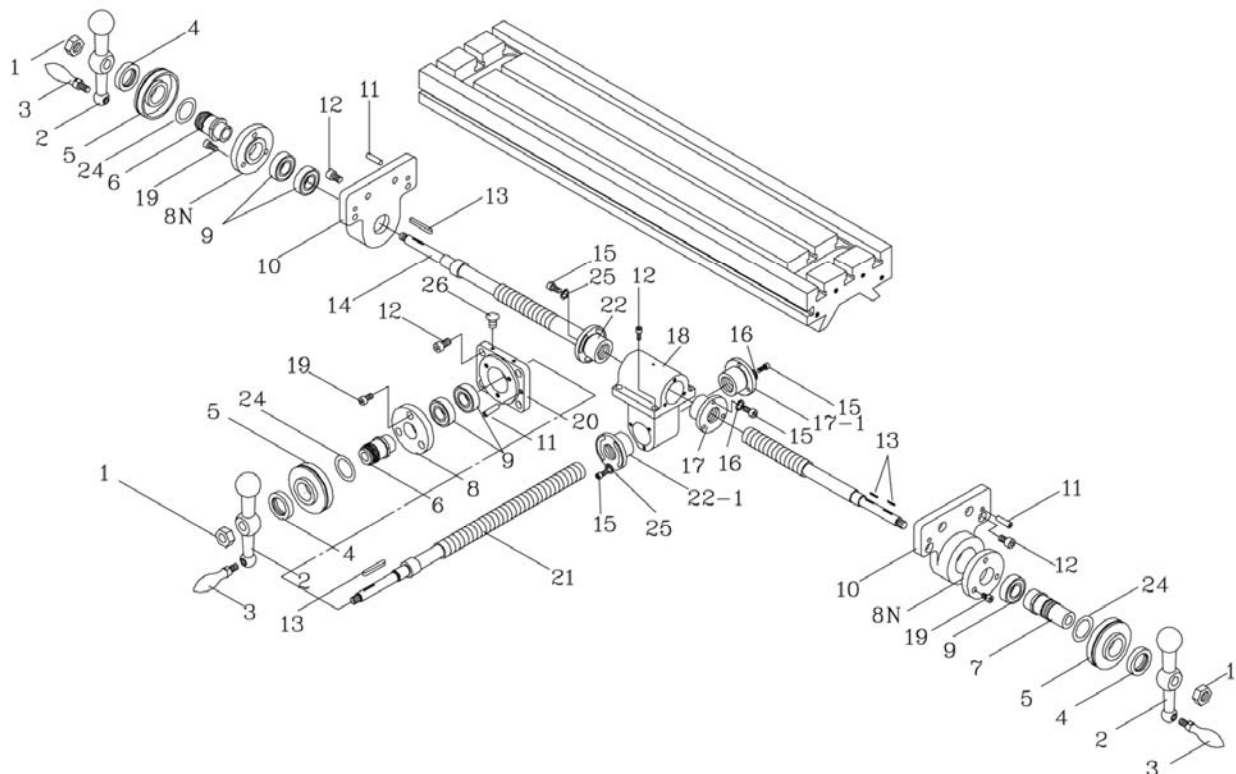
| Index No | Part No | Description | Size | Qty |
|----------|---------------|--------------------------|-----------|---------|
| 85 | C-7-1 | Washer | | 1 |
| 86 | JTM1050-C86 | Set Screw | M6*8L | 1 |
| 87 | 1050C-6 | Worm Gear | | 1 |
| 88 | 1050C-12 | Collar | | 1 |
| 89 | JTM-1050C-89 | Index Plate | | 1 |
| 90 | JTM-1050C-15 | Angle Plate | 90° | 1 |
| 91 | 1050C-2 | Ram Adaptor | | 1 |
| 92 | JTM1055-B12 | Lock Handle | 1/2"x40L | 2 |
| 92-1 | JTM1055-B12-1 | Brass Block | | 2 |
| | STRIPE-1-3/4 | JET Striping (not shown) | 1-3/4" W. | per ft. |

Base Assembly



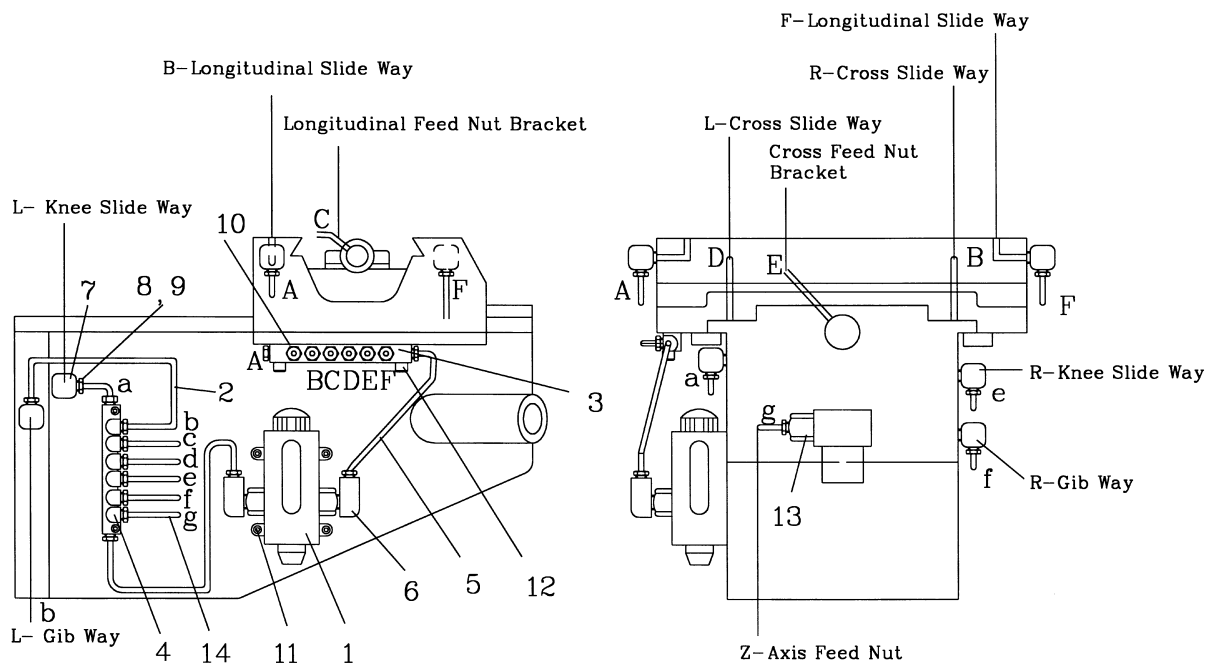
Lead Screw Assembly

| Index No | Part No | Description | Size | Qty |
|-----------|-------------------|--|-----------------|-----|
| 1..... | JTM1055-L01 | Nut | 1/2-20UNF | 3 |
| 2..... | JTM1055-L02 | Ball Crank | | 3 |
| 3..... | JTM1055-L03 | Handle | | 3 |
| 4..... | JTM1055-L04 | Dial Lock Nut..... | | 3 |
| 5..... | JTM1055-L05 | Dial | | 3 |
| 6..... | JTM1055-L06 | Dial Holder | | 2 |
| 7..... | JTM1055-L07 | Dial Holder-(left) | | 1 |
| 8..... | JTM1055-L08 | Bearing Stop for Y-Axis..... | | 1 |
| 8N..... | JTM1055-L08N..... | Bearing Stop for X-Axis (<i>s/n 120xxx and higher</i>)..... | | 2 |
| 9..... | BB-6204ZZ | Ball Bearing..... | | 5 |
| 10..... | JTM1055-L10N..... | Extended Bearing Bracket (<i>s/n 120xxx and higher</i>) | | 2 |
| 11..... | JTM1055-L11 | Spring Pin | M5X20 | 6 |
| 12..... | TS-1505031 | Hex Socket Cap Screw | M10X25 | 16 |
| 13..... | JTM1055-L13 | Key | 3X3X25 | 4 |
| 14..... | JTM1055-L14N..... | Lead Screw for Ext. Bearing Bracket (<i>s/n 120xxx and higher</i>) | | 1 |
| 15..... | TS-1503041 | Hex Socket Cap Screw | M6X25 | 8 |
| 16..... | TS-1550041 | Washer | M6 | 2 |
| 17..... | JTM1055-L17 | Feed Screw Nut for X axis..... | | 1 |
| 17-1..... | JTM1055-L17-1 | Feed Screw Nut for Y axis..... | | 1 |
| 18..... | JTM1055-L18 | Feed Nut Bracket..... | | 1 |
| 19..... | TS-1514011 | Hex Socket Cap Screw | M6X12 | 9 |
| 20..... | JTM1055-L20 | Cross Feed Bearing Bracket..... | | 1 |
| 21..... | JTM1055-L21 | Cross Feed Screw | | 1 |
| 22..... | JTM1055-L22 | Adjustable Feed Nut for X axis..... | | 1 |
| 22-1..... | JTM1055-L22-1 | Adjustable Feed Nut for Y axis..... | | 1 |
| 24..... | JTM1055-L24 | Spacer | | 3 |
| 25..... | JTM1055-L25 | Lock Washer | M6 | 2 |
| 26..... | JTM1055-L26 | Cross Head Screw..... | | 2 |



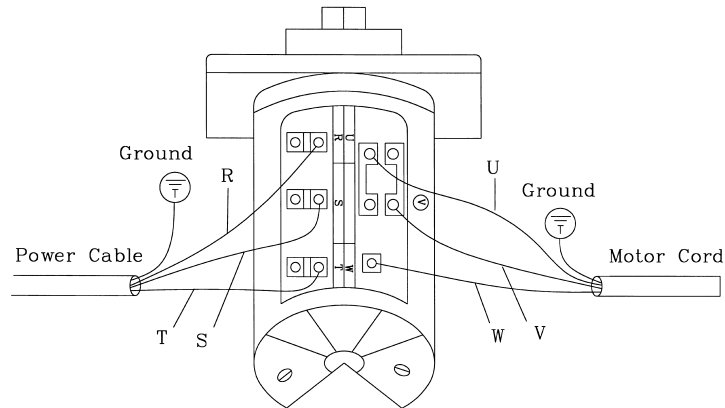
One Shot Lubrication System

| Index No | Part No | Description | Size | Qty |
|----------|-------------|----------------------------|-----------|-----|
| 1 | JTM1055-CLA | Lubricating Pump | | 1 |
| 2 | ALMP-04 | Aluminum Pipe | 13.5x450L | 1 |
| 3 | A-8 | Oil Regulating Distributor | | 1 |
| 4 | JTM1055-A4 | Oil Regulating Distributor | | 1 |
| 5 | A-5 | Flexible Steel Tube | 4X550 | 1 |
| 6 | PH-4011 | Elbow joint | | 2 |
| 7 | PI-401 | Elbow joint | | 8 |
| 8 | PA-4 | Thimble Nut | | 26 |
| 9 | PB-4 | Thimble | | 26 |
| 10 | PG-004 | Union | | 1 |
| 11 | TS-1503031 | Hex Socket Cap Screw | M6X12 | 4 |
| 12 | TS-1502061 | Hex Socket Cap Screw | M5X25 | 4 |
| 13 | PD-401 | Straight Joint | | 1 |
| 14 | A-14 | Nylon Piece | 4X700 | 1 |

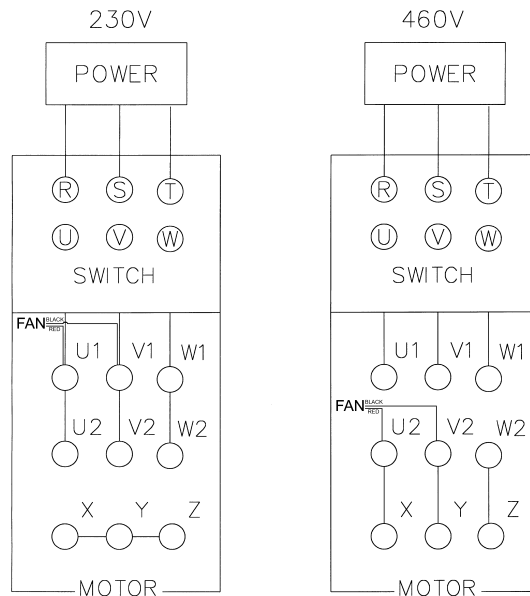


Wiring

Forward/Reverse Switch



230V and 460V Motor Configurations



Ordering Replacement Parts

To order parts or reach our service department, call 800-274-6848 Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.



WALTER MEIER (Manufacturing) Inc.
427 New Sanford Road
LaVergne, Tennessee 37086
Phone: 800-274-6848
www.waltermeier.com