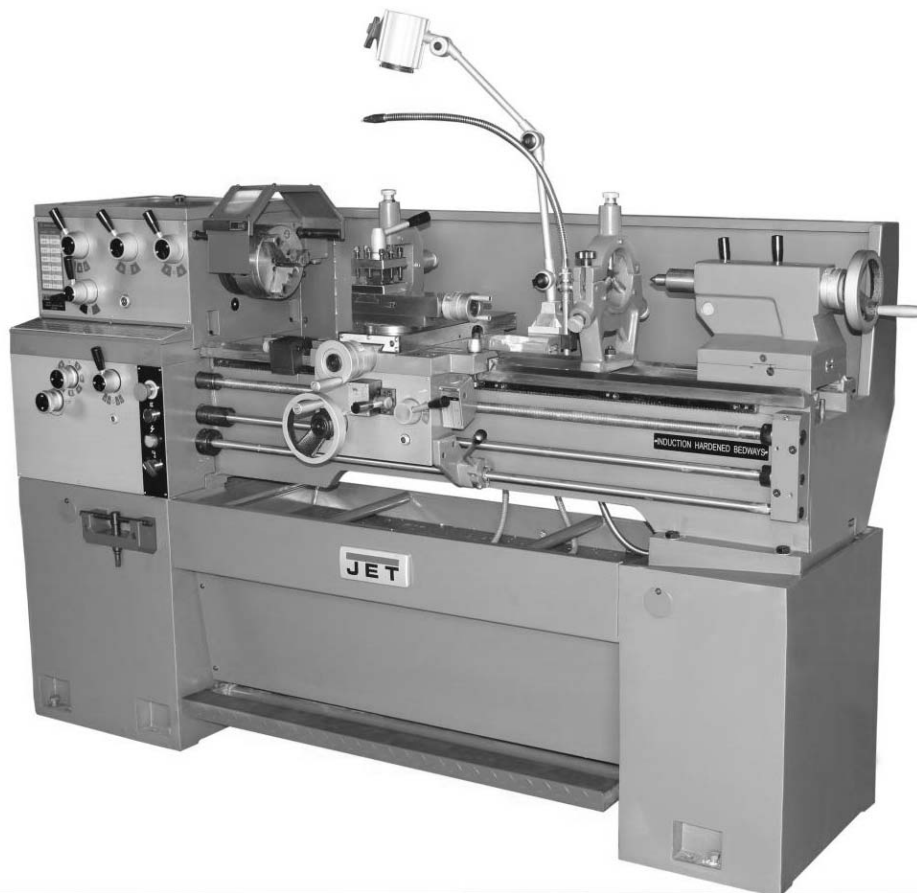




Operation and Maintenance Instructions Geared Head Lathes

Models GH-1340W, GH-1440W



See manual no. M-321810-1 for service parts and electrical diagrams.

JET
427 New Sanford Road
LaVergne, Tennessee 37086
Ph.: 800-274-6848
www.jettools.com

Part No. M-321810
Revision H 06/2016
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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 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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Familiarize yourself with the following safety notices used in this manual:



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



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



3.0 Safety warnings

1. Read and understand the entire instruction manual before attempting assembly or operation.
2. These lathes are 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 lathe, do not use until proper training and knowledge have been obtained.
3. Always wear approved safety glasses/face shield while using this machine.
4. Make certain the machine is properly grounded.
5. Before operating the machine, remove tie, rings, watches, other jewelry, and roll up sleeves above the elbows. Remove all loose clothing and confine long hair. Do **not** wear gloves.
6. Keep the floor around the machine clean and free of scrap material, oil and grease.
7. Keep machine guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
8. Do **not** over reach. Maintain a balanced stance at all times so that you do not fall or lean against blades or other moving parts.
9. Make all machine adjustments or maintenance with the machine unplugged from the power source.
10. Use the right tool. Don't force a tool or attachment to do a job for which it was not designed.
11. Replace warning labels if they become obscured or removed.
12. Make certain the main power switch is in the **OFF** position before connecting the machine to the power supply.
13. Give your work undivided attention. Looking around, carrying on a conversation, and "horse-play" are careless acts that can result in serious injury.
14. 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.
15. Keep visitors a safe distance from the work area.
16. Use recommended accessories; improper accessories may be hazardous.
17. Make a habit of checking to see that keys and adjusting wrenches are removed before turning on the machine.
18. Never attempt any operation or adjustment if the procedure is not understood.
19. Keep fingers away from revolving parts and cutting tools while in operation.
20. Keep belt guard in place and in working order.
21. Never force the cutting action.
22. Do **not** attempt to adjust or remove tools during operation.
23. Always keep cutters sharp.
24. Always use identical replacement parts when servicing.
25. Never operate this machine under the influence of alcohol or drugs.
26. Failure to comply with all of these warnings may cause serious injury.

4.0 Specifications

	GH-1340W-1	GH-1440W-1
	GH-1340W-3	GH-1440W-3
Stock Number (1 Phase)	321810	321830
Stock Number (3 Phase)	321820	321840

Capacities:

Swing Over Bed (in.)	13	14
Swing Over Cross Slide (in.)	7-1/4	8-1/4
Swing Through Gap (in.)	19	20
Length of Gap (in.)	9-3/8	9-3/8
Distance Between Centers (in.)	40	40

Headstock:

Hole Through Spindle (in.)	1-1/2	1-1/2
Spindle Nose	D1-4	D1-4
Taper in Spindle Nose	MT-5	MT-5
Spindle Taper Adapter	MT-3	MT-3
Spindle Bearing Type	Taper Roller Bearing	Taper Roller Bearing
Number of Spindle Speeds	12	12
Range of Spindle Speeds (RPM)	40-1800	40-1800

Gearbox:

Number of Longitudinal and Cross Feeds	40	40
Range of Longitudinal Feeds (inch/rev.)	0.0011 – 0.0271	0.0011 – 0.0271
Range of Cross Feeds (inch/rev.)	0.0003 – 0.0100	0.0003 – 0.0103
Number of Inch Threads	40	40
Range of Inch Threads (T.P.I.)	4 – 112	4 – 112
Number of Metric Threads	22	22
Range of Metric Threads (mm)	0.45 – 7.5	0.45 – 7.5
Leadscrew (in.)	7/8 x 49-1/2	7/8 x 49-1/2
Feed Rod Diameter (in.)	3/4	3/4

Compound and Carriage:

Toolpost Type	4-Way	4-Way
Maximum Tool Size (in.)	5/8 x 5/8	5/8 x 5/8
Maximum Compound Slide Travel (in.)	3-1/2	3-1/2
Maximum Cross Slide Travel (in.)	6-3/8	6-3/8
Maximum Carriage Travel (in.)	37-1/2	37-1/2

Tailstock:

Tailstock Spindle Travel (in.)	4-3/4	4-3/4
Diameter of Tailstock Spindle (in.)	1-25/32	1-25/32
Taper in Tailstock Spindle	MT-3	MT-3

Miscellaneous:

Steady Rest Capacity (in.)	1/4 – 3-1/2	1/4 – 3-1/2
Follow Rest Capacity (in.)	1/4 – 2-3/4	1/4 – 2-3/4
Length of Bed (in.)	54-1/2	54-1/2
Width of Bed (in.)	10-1/4	10-1/4
Height of Bed (in.)	12-3/4	12-3/4
Overall Dimensions (in.)	78L x 38W x 59H	78L x 38W x 59H
Main Motor:		
1-Phase	3HP, 1PH, 230V Only, 18A	3HP, 1PH, 230V Only, 18A
3-Phase	3HP, 3PH, 230/460V, Prewired 230V	3HP, 3PH, 230/460V, Prewired 230V
.....	8.3/4.2A	8.3/4.2A
Net Weight (lbs./approx.)	2,081	2,191
Shipping Weight (lbs./approx.)	2,351	2,491

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

5.0 Uncrating

Open shipping crate and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the Lathe is assembled and running properly.

Compare the contents of your crate with the following parts list to make sure all parts are intact. Missing parts, if any, should be reported to your distributor.

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

5.1 Contents of shipping container

- 1 Lathe
- 1 Steady Rest
- 1 Follow Rest
- 1 6" Three Jaw Chuck w/ Top Reversing Jaws (Direct Mount)
- 1 8" Four Jaw Chuck with Backplate
- 1 12" Face Plate (strapped to container floor)
- 1 Backplate
- 1 Tool Box (p/n GH1440W-TBCP)

Tool Box Contents (p/n GH1440W-TBCP):

(Figure 1)

- 1 No. 1 Cross Point Screwdriver
- 1 No. 1 Flat Blade Screwdriver
- 4 Open End Wrench (9-11, 10-12, 12-14, 17-19mm)
- 6 Hex Socket Wrench (2.5, 3, 4, 5, 6, 8mm)
- 2 Shear Pins
- 1 30T Change Gear
- 1 32T Change Gear
- 2 40T Change Gear
- 1 Oil Can
- 2 No. 3 Morse Taper Dead Center
- 1 No. 5 to No. 3 Spindle Sleeve
- 6 Leveling Pads
- 1 Chuck Key
- 1 Key for Cam Locks
- 1 Tool Post Wrench
- 1 Instruction Manual
- 1 Parts List Manual
- 1 Warranty Card



Figure 1

6.0 Installation

1. Finish removing the wooden crate from around the lathe.
2. Unbolt the lathe from the shipping crate bottom.
3. Choose a location for the lathe that is dry, has good lighting, and has enough room to service the lathe on all four sides
4. Place two steel rods or pipes (of sufficient strength) into four holes (A, Fig. 2) of lathe stand. Sling the lathe with properly rated straps. **Do not lift by spindle.** With adequate lifting equipment, slowly raise the lathe off the shipping crate bottom. Make sure lathe is balanced before moving.
5. To avoid twisting the bed, the lathe's location must be absolutely flat and level. Check for a level condition using a machinist's precision level on the bedways both front to back and side to side. The leveling pads included in the tool box and the leveling screws in the lathe base will help you to reach a level condition. **The lathe must be level to be accurate.**
6. Clean all rust protected surfaces using a mild commercial solvent, kerosene or diesel fuel. Do not use paint thinner, gasoline, or lacquer thinner, as these can damage painted surfaces. Cover all cleaned surfaces with a light film of Mobil DTE® Oil Heavy Medium.
7. Open the end gear door. Clean all components of the end gear assembly and coat all gears with Mobilith® AW 1. Close the door.



Figure 2

6.1 Chuck preparation (three jaw)

⚠WARNING Read and understand all directions for chuck preparation. Failure to comply may cause serious injury and/or damage to the lathe!

Note: Before removing the chuck from the spindle, place a way board across the bedways under the chuck

1. Support the chuck while turning three camlocks 1/4 turn counter-clockwise with the chuck key enclosed in the tool box.
2. Carefully remove the chuck from the spindle and place on an adequate work surface.
3. Inspect the camlock studs. Make sure they have not become cracked or broken during transit. Clean all parts thoroughly with solvent. Also clean the spindle and camlocks.

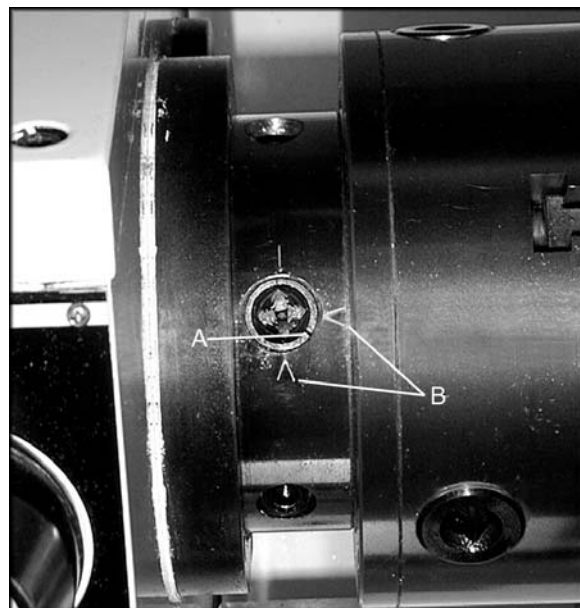


Figure 3

4. Cover all chuck jaws and scroll inside the chuck with Mobilith® AW2. Cover the spindle, cam locks, and chuck body with a light film of Mobil DTE® Oil Heavy Medium.
5. Lift the chuck up to the spindle nose and press onto the spindle. Tighten in place by turning the cam locks 1/4 turn clockwise. The index mark (A, Fig. 3) on the camlock should be between the two indicator arrows (B, Fig. 3). If the index mark is not between the two arrows, remove the chuck and adjust the camlock studs by either turning out one full turn (if cams will not engage) or turning in one full turn (if cams turn beyond indicator marks).
6. Install chuck and tighten in place.

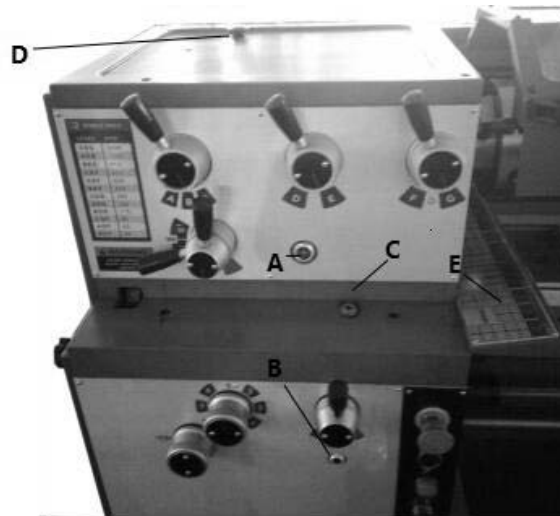


Figure 4

7.0 Lubrication

CAUTION Lathe must be serviced at all lubrication points and all reservoirs filled to operating level before the lathe is put into service. Failure to comply may cause serious damage to the lathe.

1. **Headstock** - Oil must be up to indicator mark in oil sight glass (A, Fig. 4). Top off with Mobil DTE® Oil Heavy Medium. Fill by pulling plug (D, Fig. 4). To drain, remove drain plug (A, Fig. 5) with an 8mm hex wrench. Drain oil completely and refill after the first month of operation. Clean out any metal shavings. Then, change oil in the headstock annually.
2. **Gearbox** - Oil must be up to indicator mark in oil sight glass (B, Fig. 4). Top off with Mobil DTE® Oil Heavy Medium. Fill by lifting off thread chart cover (E, Fig. 4) and remove plug (C, Fig. 4) with an 8mm hex wrench. To drain, remove drain plug (A, Fig. 6) with an 8mm hex wrench. Drain oil completely and refill after the first month of operation. Then, change oil in the Gearbox annually.

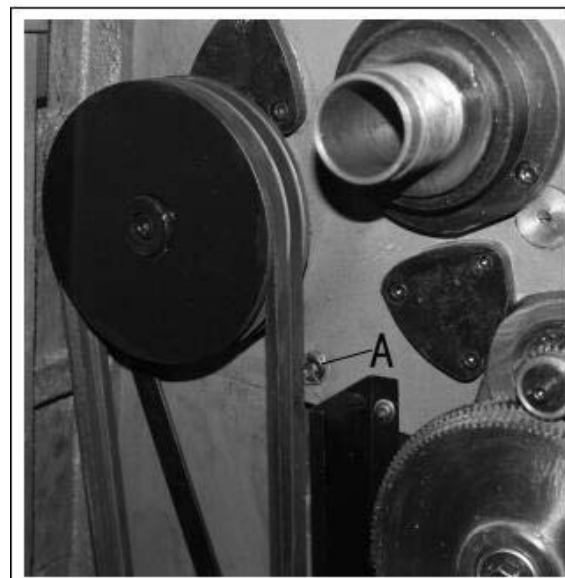


Figure 5

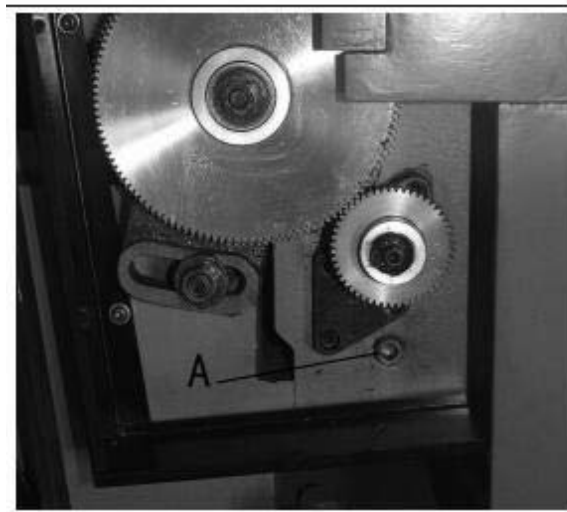


Figure 6

3. **Apron** - oil must be up to indicator mark in oil sight glass (A, Fig. 7). Top off with Mobil DTE® Oil Heavy Medium. Remove oil cap (B, Fig. 7) on top of apron to fill. To drain, remove drain plug on bottom of apron. Drain oil completely and refill after the first month of operation. Then, change oil in the apron annually.
4. **Leadscrew Feed Rod** - lubricate ball oiler (A, Fig. 8) on leadscrew/feed rod bracket with Mobil DTE® Oil Heavy Medium once daily.
5. **Tailstock** - lubricate two ball oilers (B, Fig. 8) on tailstock with Mobil DTE® Oil Heavy Medium once daily.
6. **Cross Slide** - lubricate four ball oilers (A, Fig. 9) with Mobil DTE® Oil Heavy Medium once daily.
7. **Compound Rest** - lubricate one ball oiler (B, Fig. 9) with Mobil DTE® Oil Heavy Medium once daily.
8. **Carriage** - lubricate four ball oilers (D, Fig. 9) with Mobil DTE® Oil Heavy Medium once daily.

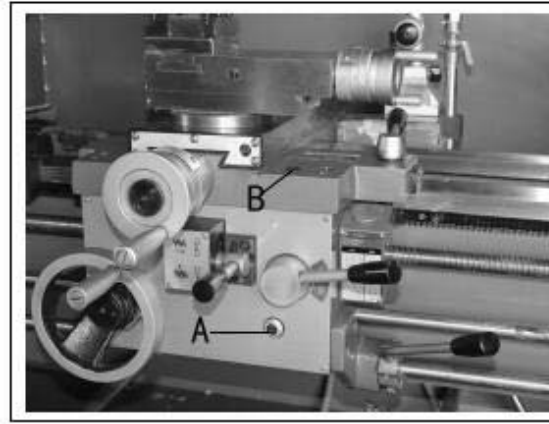


Figure 7

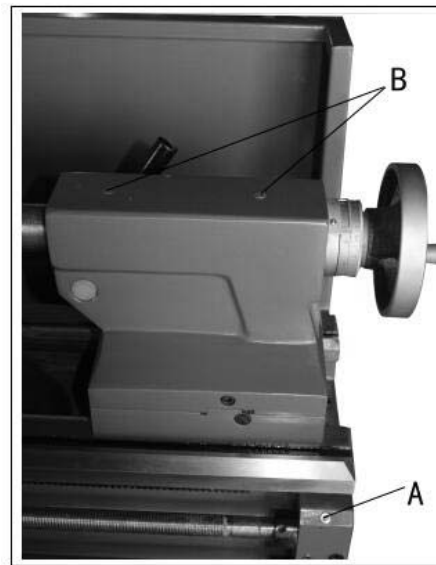


Figure 8

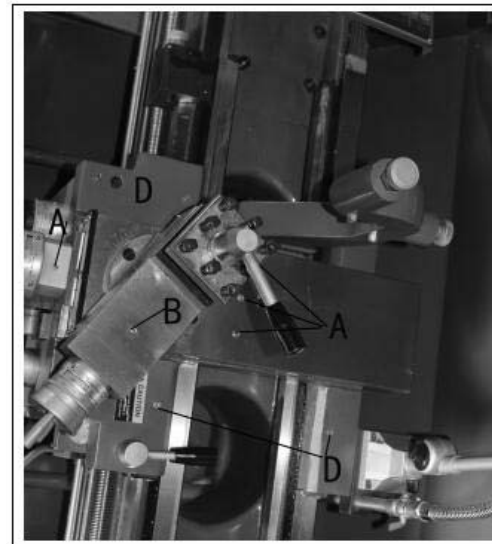


Figure 9

8.0 Coolant preparation

CAUTION Follow coolant manufacturer's recommendations for use, care and disposal.

1. Remove rear access cover on tailstock end. Make sure coolant tank has not shifted during transport and is located properly under the recovery chute (Fig. 10).
2. Pour three gallons of coolant mix into drip pan.
3. After machine has been connected to power, turn on coolant pump and check to see coolant is cycling properly.
4. Fasten coolant door to stand.



Figure 10

9.0 Electrical connections

WARNING All electrical connections must be completed by a qualified electrician. Failure to comply may cause serious injury and/or damage to the machinery and property!

The GH-1340W-1 & GH-1440W-1 Geared Head Lathes are rated at 3HP, 1PH, 230V only. Confirm power available at the lathe's location is the same rating as the lathe.

The GH-1340W-3 & GH-1440W-3 Geared Head Lathes are rated at 3HP, 3PH, 230V/460V prewired 230V. Confirm power available at the lathe's location is the same rating as the lathe.

Lathe Power Source Junction Box: Remove the cover. Run the main power through the strain relief bushing and attach the ground, followed by power leads. Replace the cover.

Main Power Switch: Located on the backside of the machine. Turns the power to the machine on and off.

Make sure the lathe is properly grounded.

Power is connected properly when pulling up on the forward-reverse lever causes the spindle to rotate counter-clockwise as viewed from the tailstock. If the chuck rotates in the clockwise direction, disconnect the lathe from the power source, switch two of three power leads (for GH-1340W-3 & GH1440W-3), and connect the lathe to the power source.

To switch from 230V to 460V operation (GH-1340W-3 & GH1440W-3 only)

WARNING Disconnect the machine from the power source. Failure to do so may cause serious injury!

Main Motor: Change the wires according to the diagram on the inside of the motor junction box.

Transformer: Remove electrical panel on rear of the machine, headstock side, switch wire from 230V terminal to 460V terminal as outlined on the transformer.

Coolant Pump: Open access panel on the base at the tailstock end. Change wires in coolant pump junction box according to diagram on the inside of the junction box cover.

10.0 General description

Lathe bed

The lathe bed (A, Fig. 11) is made of high grade cast iron. By combining high cheeks with strong cross ribs, a bed with low vibration and high rigidity is realized. Two precision ground vee slideways, reinforced by heat hardening and grinding, are an accurate guide for the carriage and headstock. The main drive motor is mounted in the stand below headstock.

Headstock

The headstock (B, Fig. 11) is cast from high grade, low vibration cast iron. It is bolted to the bed by four screws with two adjusting screws for alignment. In the head, the spindle is mounted on two precision taper roller bearings. The hollow spindle has Morse Taper #5 with a 1-1/2" bore.

Carriage

The carriage (A, Fig. 12) is made from high quality cast iron. The sliding parts are smooth ground. The cross slide is mounted on the carriage and moves on a dove tailed slide which can be adjusted for play by means of the gibs.

The compound slide (B, Fig. 12), which is mounted on the cross slide (C, Fig. 12), can be rotated through 360°. The top slide and the cross slide travel in a dovetail slide and have adjustable gibs. A four way tool post is fitted on the top slide.

Four way tool post

The four way toolpost (D, Fig. 12) is mounted on the top slide and allows a maximum of four tools to be mounted simultaneously. Remember to use a minimum of two clamping screws when installing a cutting tool.

Apron

The apron (E, Fig. 12) is mounted to the carriage. In the apron a half nut is fitted. The half nut gibs can be adjusted from the outside. The half nut is engaged by use of a lever. Quick travel of the apron is accomplished by means of a bed mounted rack and pinion, operated by a hand wheel on the front of the apron.

Tailstock

The tailstock (A, Fig. 13) slides on a v-way and can be locked at any location by a clamping lever. The tailstock has a heavy duty spindle with a Morse Taper #3.

Leadscrew and feed Rod

The leadscrew (B, Fig. 13) and feed rod (C, Fig. 13) are mounted on the front of the machine bed. They are connected to the gearbox at the left for automatic feed and lead, and are supported by bushings on both ends. Both are equipped with brass shear pins.

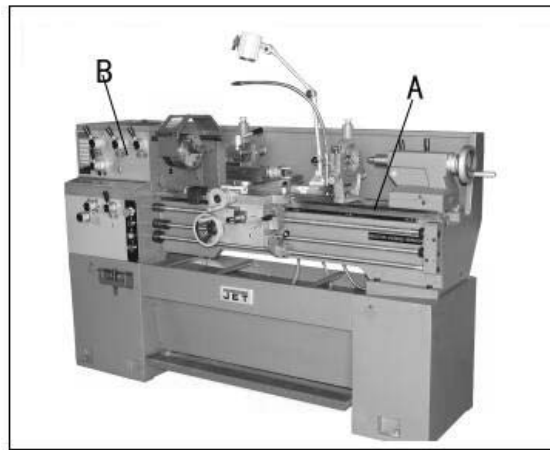


Figure 11

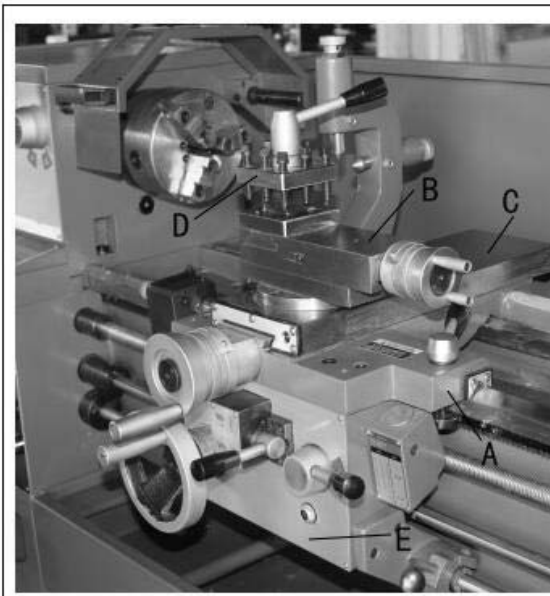


Figure 12

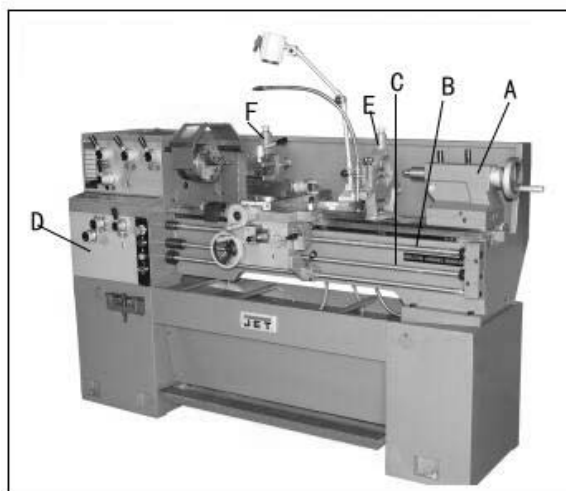


Figure 13

Gear box

The gear box (D, Fig. 13) is made from high quality cast iron and is mounted to the left side of the machine bed.

Steady rest

The steady rest (E, Fig. 13) serves as a support for shafts on the free tailstock end. The steady rest is mounted on the bedway and secured from below with a bolt, nut and locking plate. The sliding fingers require continuous lubrication at the contact points with the workpiece to prevent premature wear.

To set the steady rest:

1. Loosen three hex socket screws.
2. Loosen knurled screw and open sliding fingers until the steady rest can be moved with its fingers around the workpiece. Secure the steady rest in position.
3. Set the fingers snugly to the workpiece and secure by tightening three hex socket cap screws. Fingers should be snug but not overly tight. Lubricate sliding points with Mobil DTE® Oil Heavy Medium.
4. After prolonged use, the fingers will show wear. Re-mill or file the tips of the fingers.

Follow rest

The traveling follow rest (F, Fig. 13) is mounted on the saddle and follows the movement of the turning tool. Only two fingers are required as the place of the third is taken by the turning tool. The follow rest is used for tuning operations on long, slender workpieces. It prevents flexing of the workpiece from the pressure of the cutting tool.

The sliding fingers are set similar to the steady rest, free of play, but not binding. Always lubricate with Mobil DTE® Oil Heavy Medium.

Controls

1. **Control Panel** - located on front of gearbox.
 - A. Coolant On-Off Switch** (A, Fig. 14) – turns coolant pump on and off.
 - B. Power Indicator Light** (B, Fig. 14) – lit whenever lathe has power.
 - C. Emergency Stop Switch** (C, Fig. 14) – depress to stop all machine functions.
Caution: Lathe will still have power.
Twist to re-set.
 - D. Jog Switch** (D, Fig. 14) – Press and release to advance spindle momentarily.

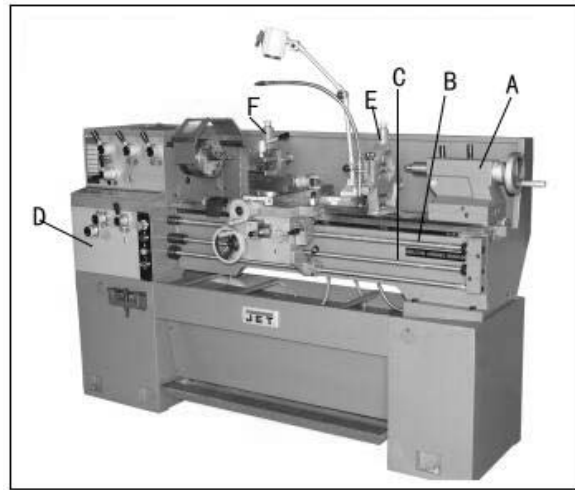


Figure 13 (repeated)

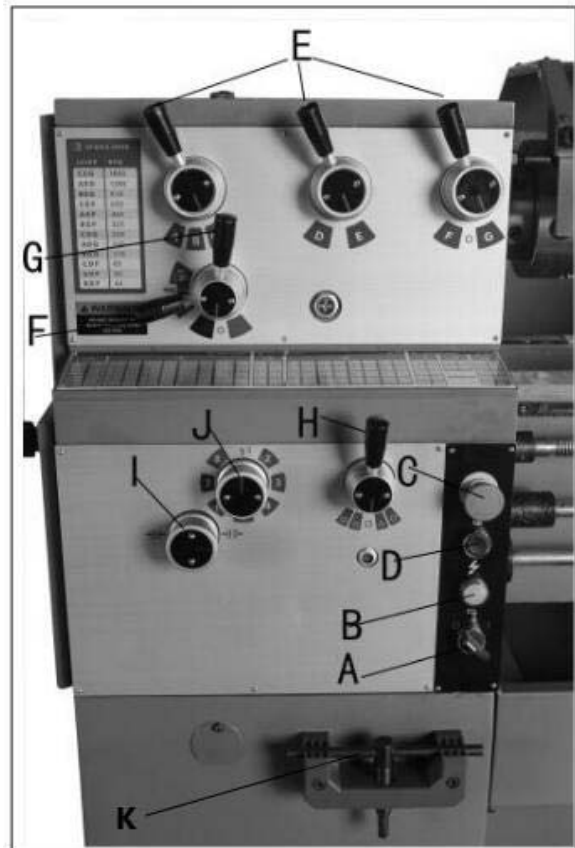


Figure 14

2. **Headstock Gear Change Levers (E, Fig. 14)** – located on front of the headstock. Move levers according to speed chart for desired setting.
3. **Leadscrew/Feed Rod Directional Lever (F, Fig. 14)** – located on front of headstock. Moving the lever up causes carriage travel toward the tailstock. Moving the lever down causes carriage travel toward the headstock. When chuck is spinning in the forward or counter-clockwise direction. Do not move lever while machine is running.
4. **Feed/Lead Selector Lever (G, Fig. 14)** – located on the front of the headstock. Used whenever setting up for threading or feeding.

CAUTION In the "A" position, never run the lathe higher than 650 RPM.

5. **Feed/Lead Selector Lever (H, Fig. 14)** – located on the front of the gearbox. Used in setting up for feeding and threading. Positions "F" and "D" are for the feed rod. Positions "E" and "C" are for the feed screw. Position "O" is neutral.
6. **Lock Knob (I, Fig. 14)** – located on the front of the gearbox. With the knob in the six o'clock position, feed/lead selector knob (J, Fig. 14) may be adjusted. With the knob in the twelve o'clock position, the feed/lead selector knob (J, Fig. 14) is locked.
7. **Feed/Lead Selector Knob (J, Fig. 14)** – located on front of the gearbox. Used for setting up for feeding and threading.
8. **Compound Lock (A, Fig. 15)** – hex socket screw located on left side of compound. Turn clockwise to lock and counter-clockwise to unlock.
9. **Carriage Lock (B, Fig. 15)** – lock handle located on top of carriage. Turn clockwise to lock. Turn counter-clockwise to unlock.

CAUTION Carriage lock must be unlocked before engaging automatic feeds or damage to lathe may occur.

10. **Longitudinal Traverse Hand Wheel - (D, Fig. 15)** – located on the apron assembly. Rotate hand wheel clockwise to move the apron assembly toward the tailstock. Rotate the wheel counter-clockwise to move the apron assembly toward the headstock.
11. **Feed Selector (E, Fig. 15)** – located in the center front of the apron assembly. Pushing lever to the left and down activates the crossfeed function. Pulling lever to the right and up activates the longitudinal function.

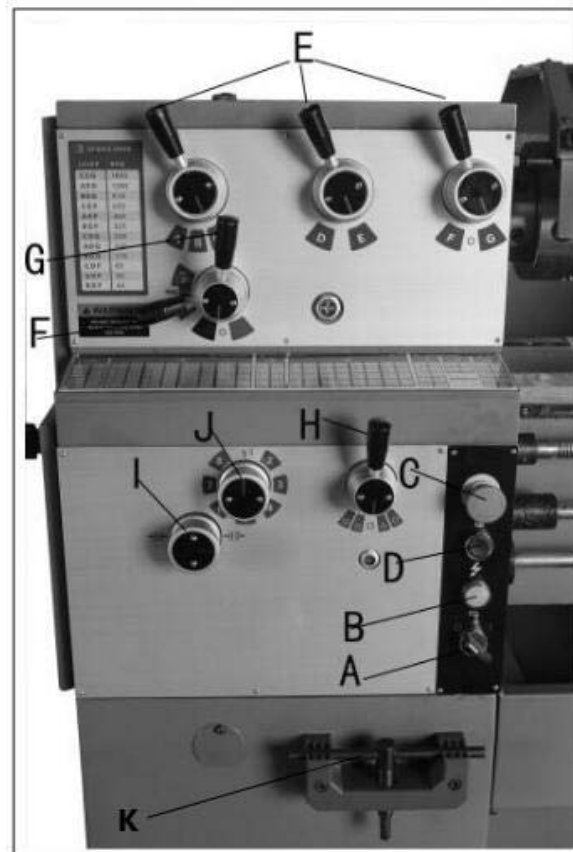


Figure 14 (repeated)

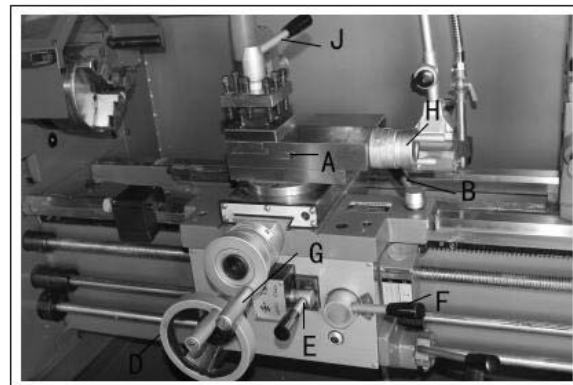


Figure 15

12. **Half Nut Engage Lever (thread cutting)** (F, Fig. 15) – located on front of the apron. Move the lever down to engage. Move the lever up to disengage.
13. **Cross Traverse Handwheel** (G, Fig. 15) – located above the apron assembly. Rotate clockwise or counter-clockwise to move, or position.
14. **Compound Rest Traverse Handwheel** (H, Fig. 15) – located on the end of the compound slide. Rotate clockwise or counter-clockwise to move, or position.
15. **Tool Post Clamping Lever** (J, Fig. 15) – located on top of the tool post. Rotate counter-clockwise to loosen and clockwise to tighten.
16. **Tailstock Quill Clamping Lever** (A, Fig. 16) – located on the tailstock. Lift up to lock the spindle. Push down to unlock.
17. **Tailstock Clamping Lever** (B, Fig. 16) – located on the tailstock. Lift up lever to lock. Push down lever to unlock.
18. **Tailstock Quill Traverse Handwheel** (C, Fig. 16) – located on the tailstock. Rotate clockwise to advance the quill. Rotate counter-clockwise to retract the quill.
19. **Tailstock Off-Set Adjustment** (D, Fig. 16) – Two hex socket cap screws located on the tailstock base are used to off-set the tailstock for cutting tapers. Loosening one screw while tightening the other off sets the tailstock.
20. **Foot Brake** (A, Fig. 17) – located between stand pedestals. Depress to stop all lathe functions.
21. **Micro Carriage Stop** (B, Fig. 17) – located on the lathe bed. Loosen two hex socket cap screws underneath body and slide along bed to desired position. Tighten screws to hold in place.
22. **Main Power Switch** (not shown) – located on the electrical box door on the rear of the lathe. Turns main power to the lathe on and off.

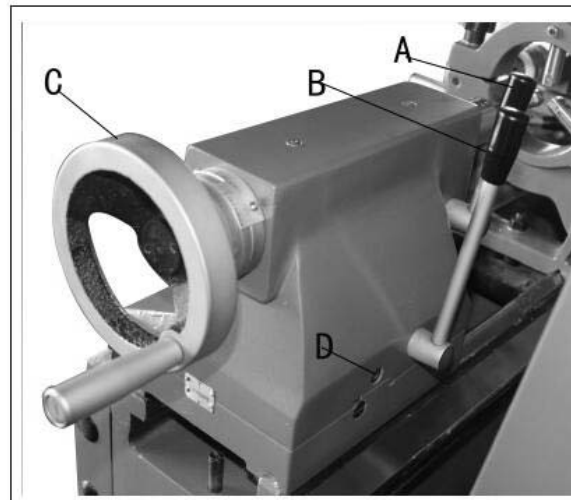


Figure 16

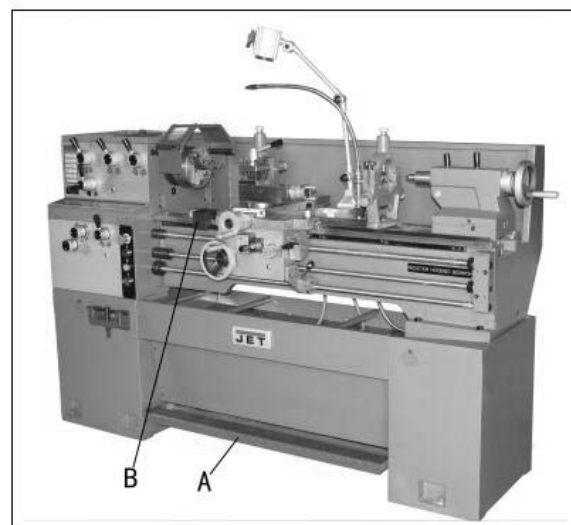


Figure 17

11.0 Operation

11.1 Break-in procedure

During manufacture and testing, this lathe has been operated in the low R.P.M. range for three hours.

To allow time for the gears and bearings to break-in and run smoothly, do not run the lathe above 650 R.P.M. for the first six hours of operation and use.

11.2 Feed and thread selection

1. Reference the feed and thread found on the gear box faceplate tables (A, Fig. 18 and page 24 of this manual).
2. Move levers (B, C, D, E & F, Fig. 18) to the appropriate positions according to the chart.

11.3 Change gears replacement

The 25T, 127T, 50T gears are installed in the end gear compartment when delivered from the factory. This combination will cover most inch feeds and threads under normal circumstances.

The 30T, 32T, and two 40T gears found in the tool box are used with different combinations as indicated on feed and thread tables (A, Fig. 18).

1. **Disconnect the machine from the power source (unplug).**
2. Open the door on the left end of the headstock.
3. Loosen nuts (A & B, Fig. 19).
4. Move quadrant (C, Fig. 19) out of the way and hold in place temporarily by tightening nut (A & B, Fig. 19).
5. Remove hex socket cap screws (D and/or E, Fig. 19), depending on which gear is to be changed.
6. Install new gear(s) and tighten in place with a hex socket cap screw.
7. Loosen nut (B, Fig. 19), move quadrant back so teeth mesh on gears, and tighten nuts (A & B, Fig. 19).
8. **Caution:** Make sure there is a backlash of .002"-.003" between gears. Setting the gears too tight will cause excessive noise and wear.
9. Close the door and connect the machine to the power source.

11.4 Automatic feed operation and feed changes

1. Move the forward/reverse selector (A, Fig. 20) up or down depending on desired direction.
2. Set selector levers (A, B, C, & D, Fig. 21) to desired rate.

Note: for feeding, lever (D) will be set at "F" or "D", depending on desired feed rate.

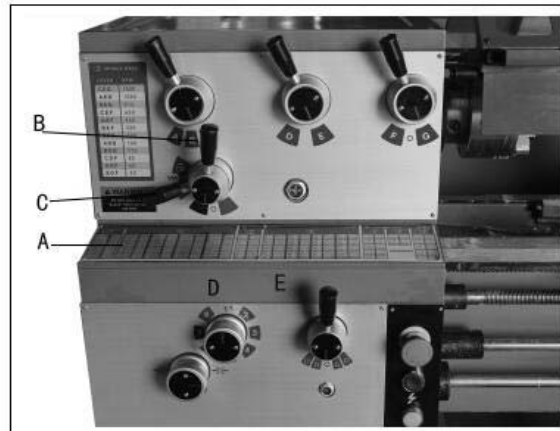


Figure 18

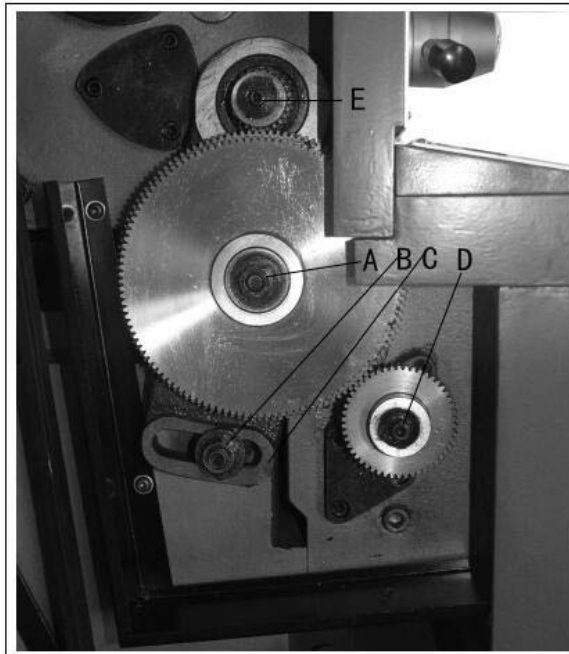


Figure 19

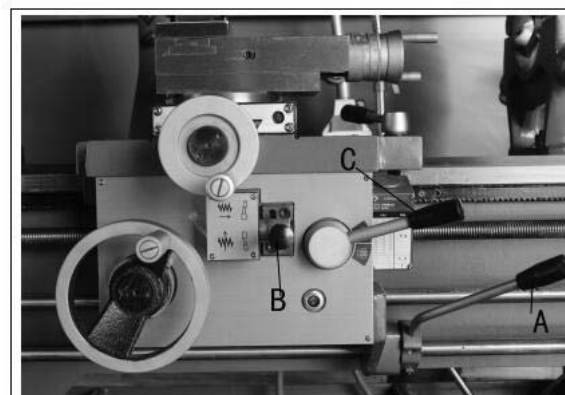


Figure 20

11.5 Powered carriage travel

1. Push lever (B, Fig. 20) to the left and down to engage crossfeed.
2. Pull lever to the right and up to engage longitudinal feed.

11.6 Thread cutting

1. Set forward/reverse lever (A, Fig. 20) up or down depending on the desired direction.
2. Set selector levers (A, B, C, and D, Fig. 21) to desired rate.

Note: For threading, lever (D) will be set at "C" or "E", depending on desired thread.

3. Push lever (B, Fig. 19) to the right.
4. Engage the half nut lever (C, Fig. 20).
5. To cut inch threads, reference the feed and thread tables. The half nut lever and the threading dial are used to thread in the conventional manner. The thread dial chart specifies at which point a thread can be entered using the threading dial.
6. To cut metric threads, the half nuts must be left continually engaged once the start point has been selected and the half nut is initially engaged (thread dial cannot be used).

11.7 Compound rest

The compound rest is located on top of the cross slide and can be rotated 360 degrees. Loosen the two socket head cap screws (A, Fig. 22) on the compound rest base. There is a calibrated dial (in degrees B, Fig. 22) below the rest to assist in placement of the compound to the desired angle.

12.0 Adjustments

After a period of time, wear in some of the moving components may need to be adjusted:

12.1 Saddle

1. Locate four hex nuts found on the bottom rear of the cross slide and back off one full turn each.
2. Turn each of the four set screws with a hex wrench until a slight resistance is felt. Do not over tighten these screws.
3. Move the carriage with the hand wheel and determine if the drag is to your preference. Readjust the set screws as necessary to achieve the desired drag.
4. Hold the socket set screw firmly with a hex wrench and tighten the hex nut to lock the set screw in place.

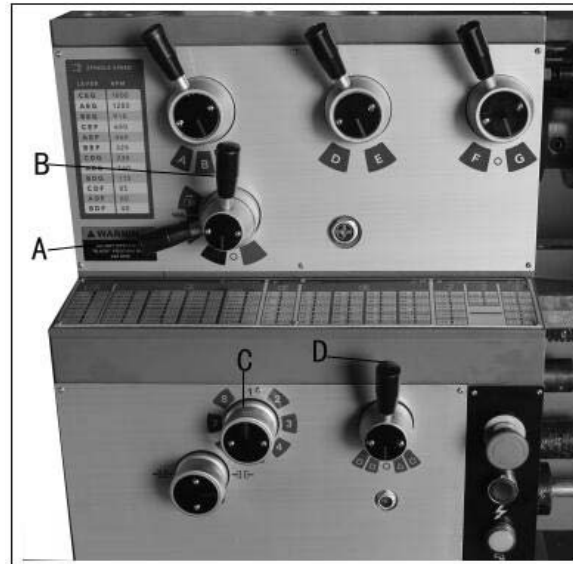


Figure 21

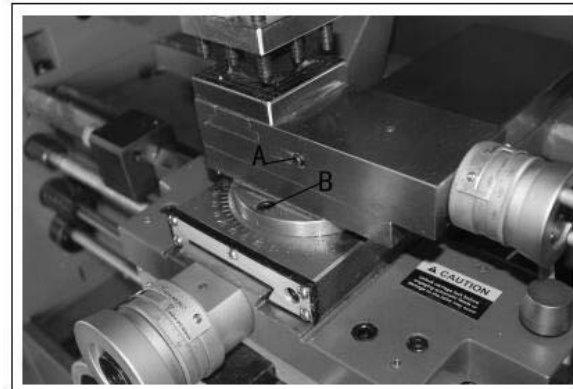


Figure 22

5. Move the carriage again and readjust if necessary.

Note: Over adjustment will cause excessive premature wear of the gibs.

12.2 Cross slide

If the cross slide is too loose, follow procedure below to tighten:

1. Loosen the rear gib screw (not shown) approximately one turn.
2. Tighten the front gib screw (B, Fig. 23) a quarter turn. Turn the cross slide handwheel to see if the cross slide is still loose. If it is still loose, tighten the front screw a bit more and try again.
3. When the cross slide is properly adjusted, tighten the rear gib screw.

Note: Over adjustment will cause excessive and premature wear of the gibs.

12.3 Compound rest

Follow the same procedure as the cross slide adjustment to adjust the compound rest. Rear gib screw is shown (A, Fig. 23). Front gib screw (not shown) is by the handwheel.

12.4 Tailstock

If the handle (A, Fig. 24) will not lock the tailstock, follow the procedure below :

1. Lower the handle to the unlocked position.
2. Slide the tailstock to an area that allows access to the underside of the tailstock.
3. Tighten tailstock clamping bolt (underside of tailstock) 1/4 turn. Test for proper locking. Repeat as necessary.

12.5 Tailstock off-set

Follow the procedure below to off-set the tailstock to cut shallow tapers:

1. Lock tailstock in position by raising locking handle (A, Fig. 24).
2. Alternately loosen and tighten two hex socket cap screws (B, Fig. 24).

12.6 Tailstock gibs

Take up play in the tailstock by tightening two gib screws (C, Fig. 24) on either side of the tailstock base.

Note: Do not over tighten. Excessive tightening will lead to premature wear of the gibs and mating parts

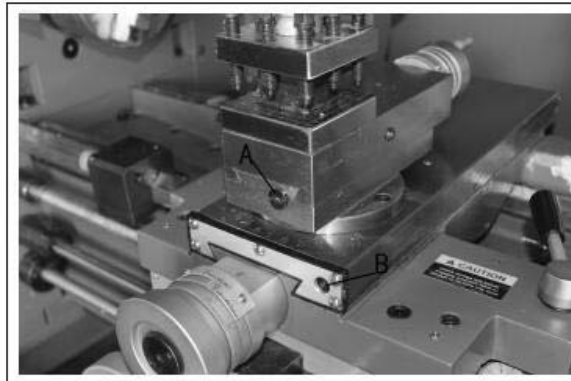


Figure 23

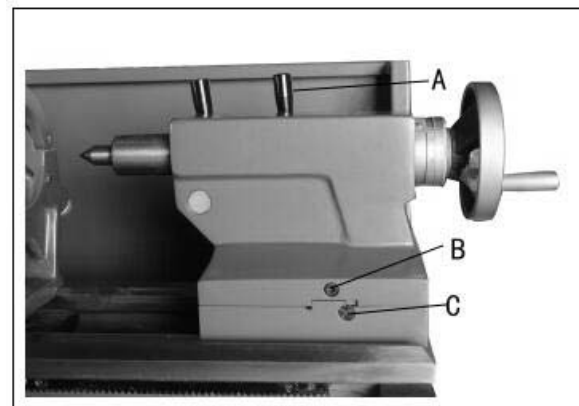


Figure 24

12.7 Headstock alignment

The headstock has been aligned at the factory and should not require adjustment. However, if adjustment is deemed necessary, follow the procedure below to align the headstock:

1. Using a machinist's precision level on the bedways, make sure the lathe is level side to side and front to back. If the lathe is not level, correct to a level condition before proceeding. Re-test alignment if any leveling adjustments were made.
2. From steel bar stock of approximately two inches in diameter, cut a piece approximately eight inches long.
3. Place two inches of bar stock into chuck and tighten chuck. Do not use the tailstock or center to support the other end.
4. Set up and cut along five inches of bar stock.
5. Using a micrometer, measure the bar stock next to the chuck and at the end. The measurement should be the same.
6. If the measurements are not the same and adjustment is required, loosen hex socket cap screws (A, Fig. 25) which holds the headstock to the bed. **Do not** loosen completely; some drag should remain.
7. Adjust two screw nuts (B, Fig. 25) located on the endgear side of the headstock. Loosen one and tighten the other. Make another cut. Keep adjusting screw nuts after each cut until the bar stock measurements are the same. Tighten all headstock screws.

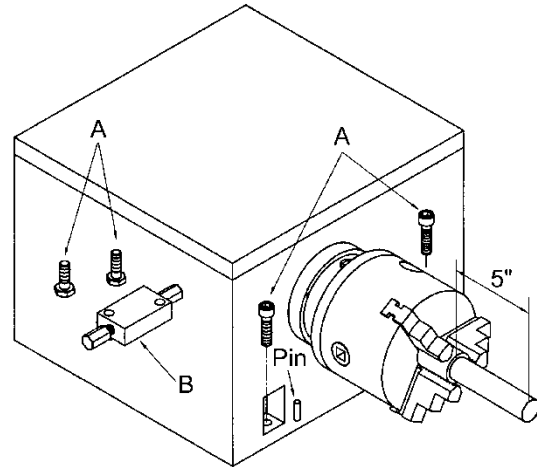


Figure 25

12.8 Removing gap section

1. To remove gap section, locate two nuts (A, Fig. 26) in the center of the gap section.
2. Using an open end wrench, tighten the two nuts. This will cause the taper pins to release. Remove the taper pins.
3. Remove six hex socket cap screws (B, Fig. 26) with a hex key wrench.
4. Gap section can now be removed.

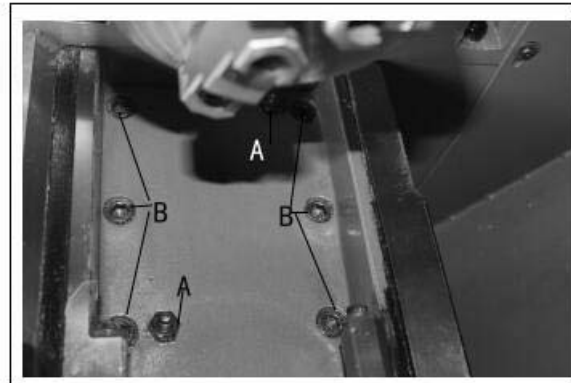


Figure 26

12.9 Installing gap section

1. Clean the bottom and the ends of the gap section thoroughly.
2. Set gap section in place and align.
3. Remove nuts from the taper pins.
4. Slide taper pins in their respective holes and seat using a mallet. Install nuts on the taper pins finger tight.
5. Install six socket head cap screws and tighten securely.

12.10 Belt replacement and adjustment

1. **Disconnect machine from the power source (unplug).**
2. Open the end gear cover and lower cover on the headstock side.
3. Take tension off old belts by loosening motor mount hex nut (A, Fig. 27).
4. Remove belts. Install new belts onto pulleys.
5. Tension by tightening motor mount hex nut until 8 lbs. force causes approximately 3/4" deflection on belts.
6. Close end gear door, install cover and connect lathe to the power source.

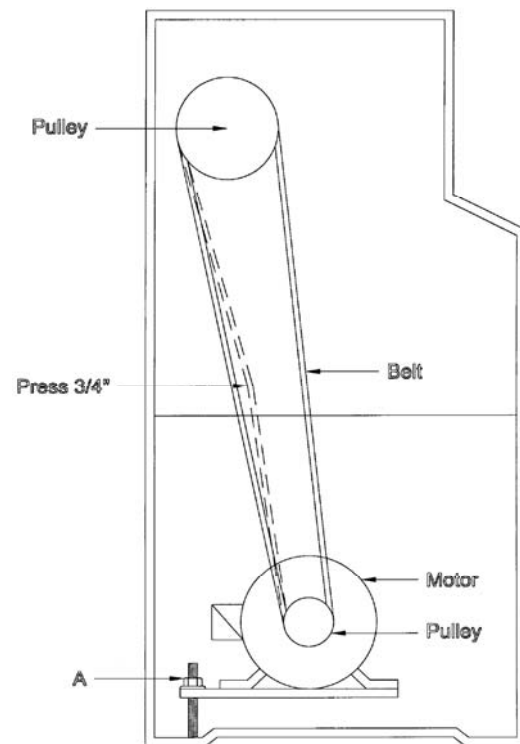


Figure 27

12.11 Aligning tailstock to headstock

Before proceeding, headstock should be aligned. See section labeled "Headstock Alignment".

1. Fit a 12" ground steel bar between centers of the headstock and tailstock (Fig. 28).
2. Fit a dial indicator to the compound slide and traverse the center line of the bar, using the carriage movement.
3. If tailstock adjustment is needed, alternately loosen and tighten front and rear hex socket cap screws (A, Fig. 29).

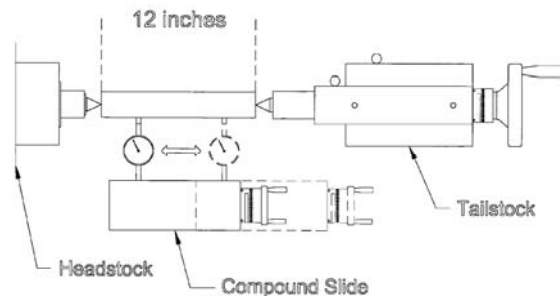


Figure 28

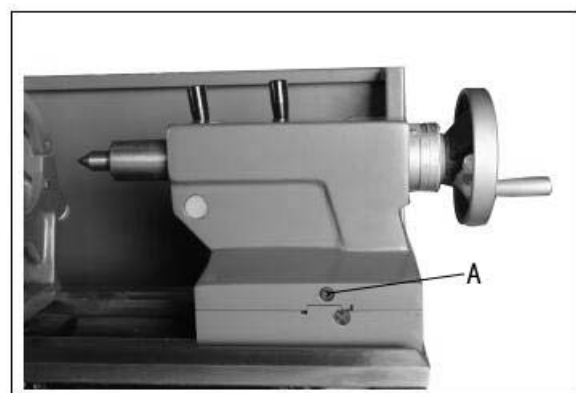
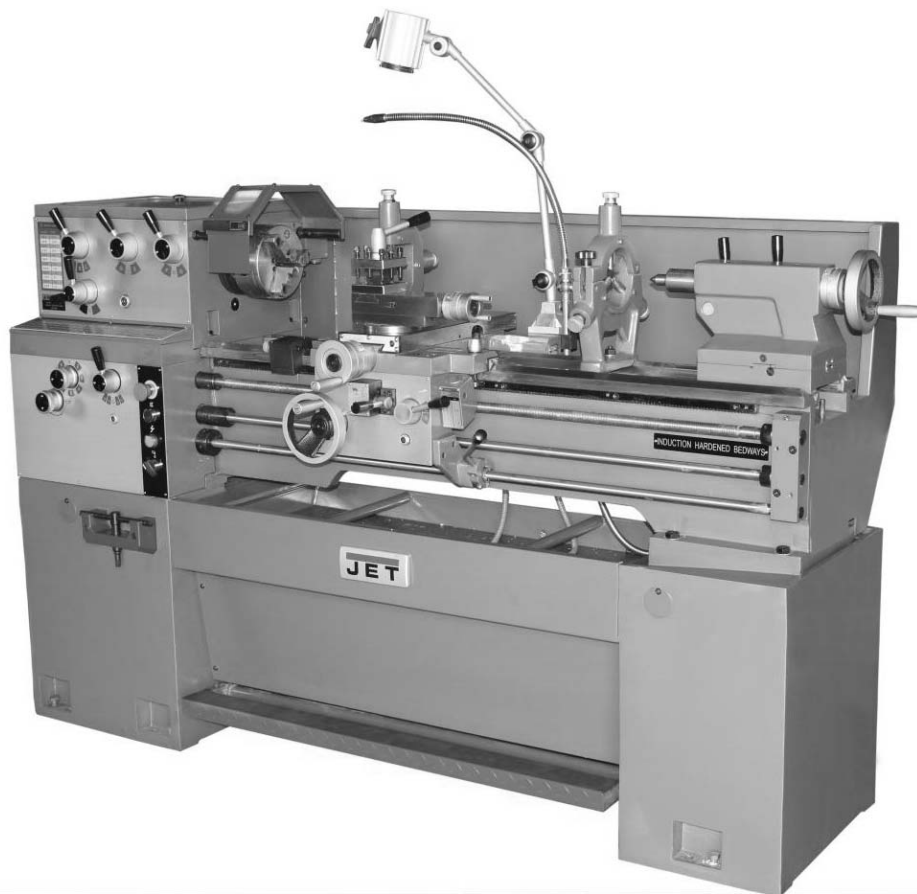


Figure 29



Parts List and Electrical Diagrams Geared Head Lathes

Models GH-1340W, GH-1440W



See manual no. M-321810 for operation and maintenance instructions.

JET

427 New Sanford Road
LaVergne, Tennessee 37086
Ph.: 800-274-6848
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Part No. M-321810-1
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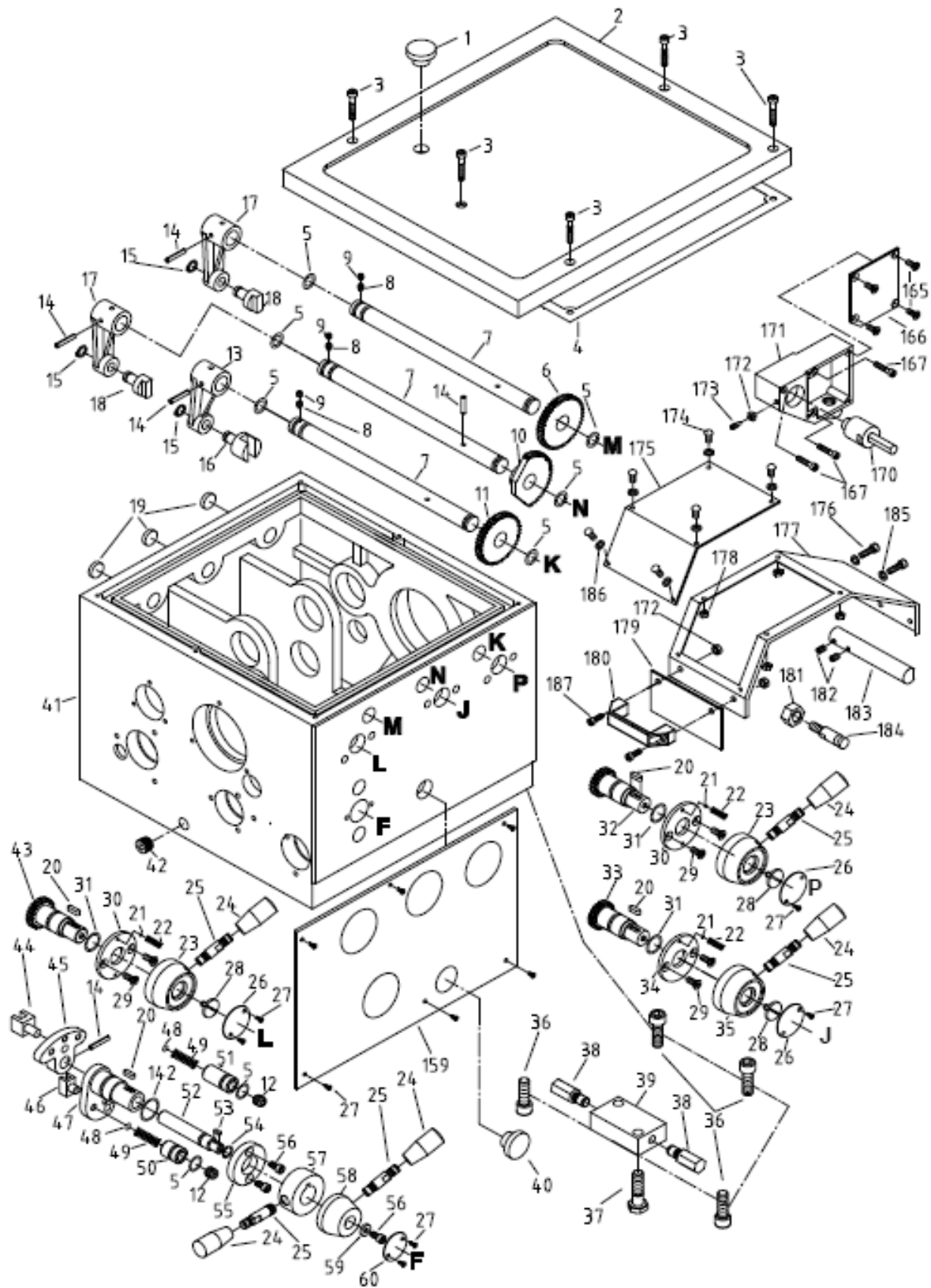
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2.0 Replacement Parts

To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

2.1.1 Headstock Assembly I – Exploded View



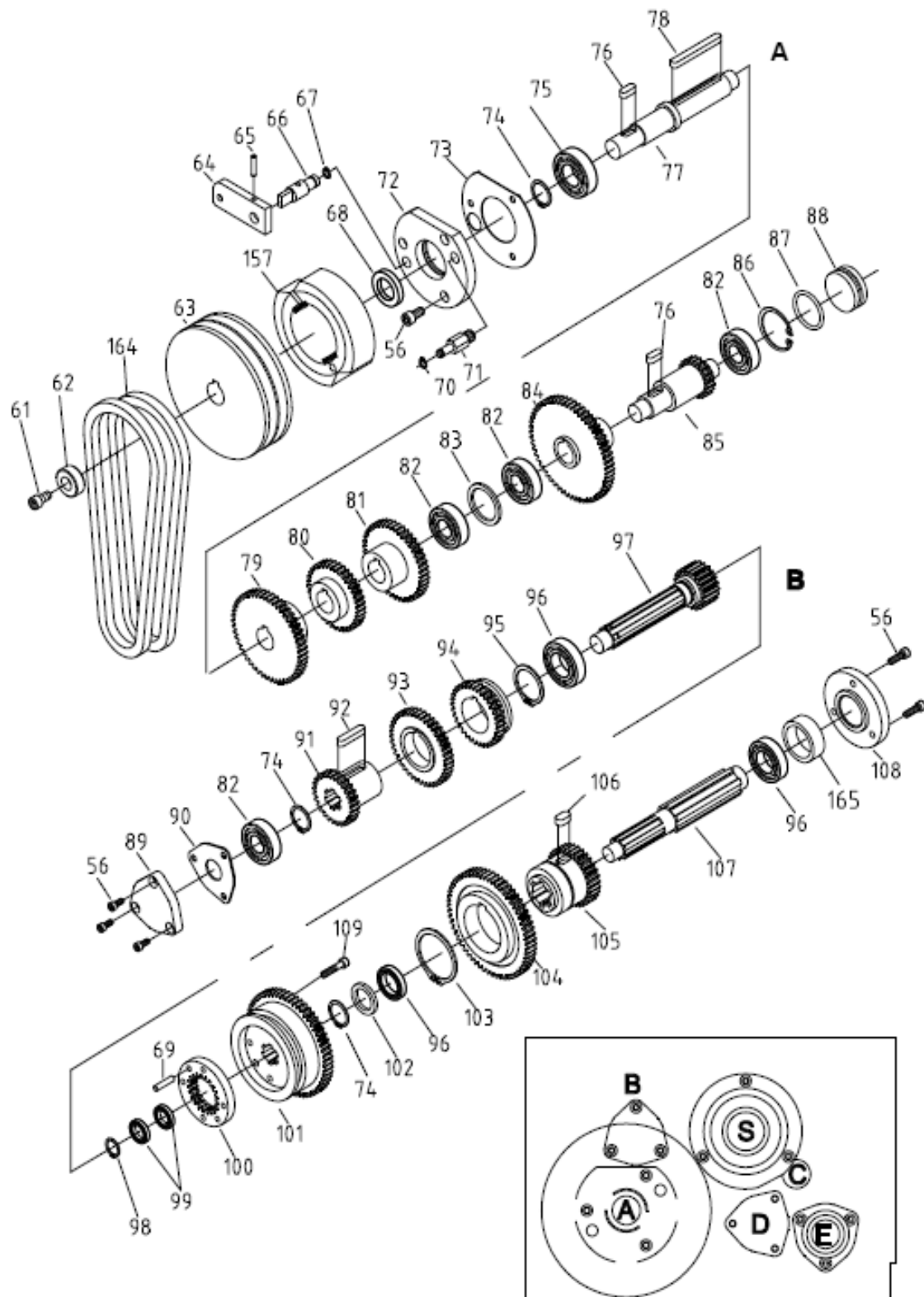
2.1.2 Headstock Assembly I – Parts List

Index No.	Part No.	Description	Size	Qty
1	GH1340A-04-06	Plug		1
2	GH1440W-04-60G	Headstock Cover		1
	GH1440W-02RM	Rubber Mat		1
3	TS-1503081	Hex Socket Cap Screw	M6x35	6
4	GH1440W-04-61	Gasket		1
5	GB3452.1-14X2.65	O-Ring	14x2.65	8
6	GH1440W-04-38	Gear	38T	1
7	GH1440W-04-41	Shaft		3
8	GB75-M6x10	Set Screw	M6x10	3
9	GB77-M6x6	Set Screw	M6x6	3
10	GH1440W-04-37	Gear	48T	1
11	GH1440W-04-36	Gear	43T	1
12	GB77-M12x12	Set Screw	M12x12	2
13	GH1440W-04-43	Shift Arm		1
14	GB879-5X30	Spring Pin	5x30	7
15	GB894.2-12	Retainer Ring	12	3
16	GH1440W-04-45	Shift Fork		1
17	GH1440W-04-35	Shift Arm		2
18	GH1440W-04-44	Gear Shifter		2
19	GH1440W-04-10	Plug		3
20	GB1096-5X16	Key	5x16	4
21	GB308-SB8	Steel Ball	8	5
22	C6240-20018	Spring		5
23	GH1440W-04-49G	Handle Body		2
24	GB4141.14-BM10X50	Handle Cap		5
25	GH1440W-04-34G	Handle Lever		5
26	C6240-20001G	Lever Name Plate		3
27	TS-1531012	Pan Head Machine Screw	M3x6	14
28	GH1440W-04-59	Screw		3
29	TS-1503031	Screw	M6x12	6
30	GH1440W-04-50G	Position Plate		2
31	GB3452.9-19X2.65	O-Ring	19x2.65	3
32	GH1440W-04-40	Gear Shaft	22T	1
33	GH1440W-04-42	Gear Shaft	17T	1
34	GH1440W-04-51G	Position Plate		1
35	GH1440W-04-48G	Handle Body		1
36	TS-1506041	Hex Socket Cap Screw	M12x35	4
37	GB5782-M10x40	Alignment Bolt	M10x40	2
38	GH1440W-04-62	Alignment Bolt		2
39	GH1440W-04-63	Alignment Block		1
40	GB1160.1-89	Oil Sight Glass	20	1
	GHW1160-20A	Oil Sight Glass (serial no. 1002W2659W and higher)	M20x1.5	1
41	GH1440W-04-01G	Headstock Casting (14")		1
	GH1340W-04-01G	Headstock Casting (13")		1
42	05-75	Drain Plug		1
43	GH1440W-04-39	Gear Shaft	27T	1
44	GH1440W-04-47	Shaft Fork		1
45	GH1440W-04-72	Shifting Crank		1
46	GH1440W-04-71	Shaft Fork		1
47	GH1440W-04-56	Shifting Crank		1
48	GB308-SB9	Steel Ball	9	2
49	GH1440W-49	Spring		2
50	GH1440W-04-52	Shaft		1
51	GH1440W-04-54	Shaft		1
52	GH1440W-04-53	Shaft		1
53	GB1096-4X10	Key	4x10	1
54	GB3452.9-10.6X2.65	O-Ring	10.6x2.65	1
55	GH1440W-04-55G	Collar		1
56	TS-1503031	Hex Socket Cap Screw	M6x12	18
57	GH1440W-04-57G	Collar		1

Index No.	Part No.	Description	Size	Qty
58	GH1440W-04-58G	Handle Body		1
59	04-62	Washer		1
60	04-90G	Indicator Disk		1
142	GB3452.9-25X2.65	O-Ring	25x2.65	3
159	GH1340W-04-02G	Name Plate		1
	GH1440W-04-02G	Name Plate		1
	GH1440W-CGA	Chuck Guard Assembly* (includes #165 thru 187)		1
165	TS-1534041	Screw	M5 x10	4
166	GH1440W-10F-08G	Electrical Box Cover		1
167	TS-1502101	Hex Socket Cap Screw	M5x45	3
170	GH1440W-10F-06	Cam Shaft		1
171	GH1440W-10F-05G	Electrical Box		1
172	TS-1540041	Hex Nut	M6	1
173	TS-1523051	Set Screw	M6x16	1
174	TS-1532042	Pan Head Screw	M4x12	6
175	GH1440W-10F-02	Chuck Guard Glass		1
176	TS-1502021	Hex Socket Cap Screw	M5x10	2
177	GH1440W-10F-01G	Chuck Guard Frame		1
178	TS-1541001	Hex Nylon Lock Nut	M4	6
179	GH1440W-10F-11G	Extension Plate		1
180	GH1440W-10F-07	Handle		1
181	TS-1540081	Hex Nut	M12	1
182	GB77-M8x8	Hex Socket Flat End Set Screw	M8x8	2
183	GH1440W-10F-04	Shaft Sleeve		1
184	GH1440W-10F-14	Stop Pin		1
185	TS-2361051	Lock Washer	M5	2
186	TS-1550031	Flat Washer	M5	6
187	TS-1503051	Hex Socket Cap Screw	M6 x20	2
	321449	3-Jaw Chuck, 6-inch (not shown)	6"	1
	GH1340W-CKW	Chuck Key (3-jaw)(not shown)		1
	321430	4-Jaw Chuck, 8 inch (not shown)	8"	1

* Chuck Guard Assembly introduced from serial number 1312W3209W

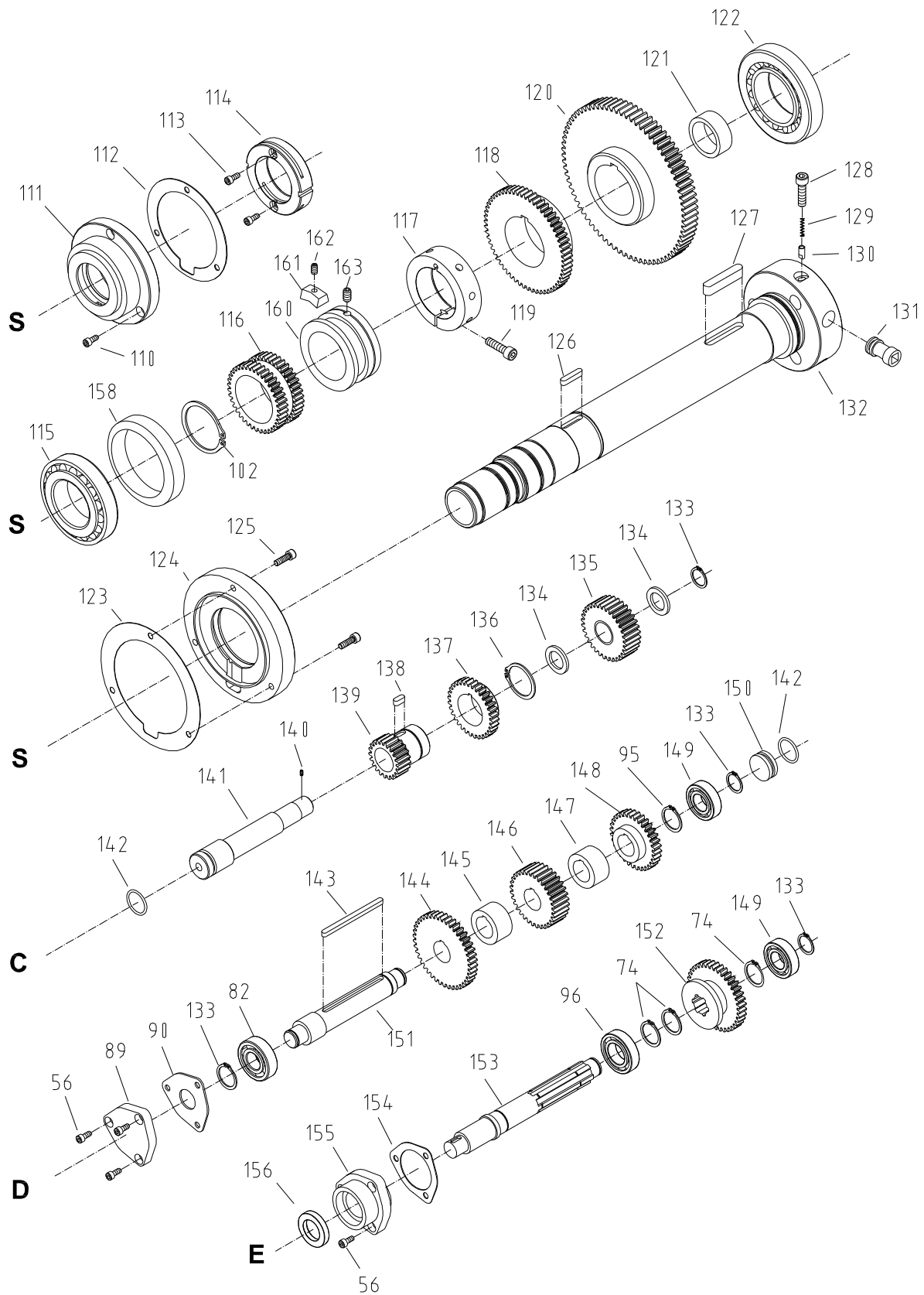
2.2.1 Headstock Assembly II – Exploded View



2.2.2 Headstock Assembly II – Parts List

Index No.	Part No.	Description	Size	Qty
56	TS-1503031	Hex Socket Cap Screw	M6x12	18
61	TS-1504041	Hex Socket Cap Screw	M8x20	1
62	04-12	Washer		1
63	04-11	Pulley		1
64	11-10	Break Block		1
65	GB879-5X16	Pin	5x16	1
66	11-09	Brake Actuator Shaft		1
67	GB894.2-12	Retainer Ring	12	1
68	GB9877.1-SD25X45X7	Spacer	SD25x45x7	1
69	GB117-A6X26	Pin	A6x26	2
70	GB894.2-8	Retainer Ring	8	1
71	11-11	Brake Retainer Stud		1
72	04-13	Cover		1
73	04-14	Gasket		1
74	GB894.2-25	Retainer Ring	25	6
75	GB/T276-6205	Ball Bearing	6205/p5	1
76	GB1096-8X20	Key	8x20	2
77	GH1440W-04-03	Shaft		1
78	GB1096-8X72	Key	8x72	1
79	GH1440W-04-04	Gear	50T	1
80	GH1440W-04-05	Gear	37T	1
81	GH1440W-04-06	Gear	43T	1
82	GB/T276-6204	Ball Bearing	6204/p5	5
83	GH1440W-04-17	Washer		1
84	GH1440W-04-12	Gear	57T	1
85	GH1440W-04-11	Gear Shaft	20T	1
86	GB893.1-47	Retainer Ring	47	1
87	GB3452.1-40X2.65	O-Ring	40x2.65	1
88	04-28	Plug		1
89	04-53	Bearing Cap		2
90	04-52	Bearing Cap Gasket		2
91	GH1440W-04-08	Gear	28T	1
92	GB1096-8X38	Key	8x38	1
93	GH1440W-04-09	Gear	41T	1
94	GH1440W-04-10	Gear	34T	1
95	GB894.2-40	Retainer Ring	40	1
96	GB/T276-6005	Ball Bearing	6005/p5	4
97	GH1440W-04-07	Gear Shaft	21T	1
98	GB894.2-17	Retainer Ring	17	1
99	GB/T276-61803	Ball Bearing	61803/p5	2
100	GH1440W-04-15	Gear	21T	1
101	GH1440W-04-14	Gear	58T	1
102	GH1440W-04-16	Washer		1
103	GB894.2-55	Retainer Ring	55	1
104	GH1440W-04-19	Gear	59T	1
105	GH1440W-04-18	Gear	31T	1
106	GB1096-10X18	Key	10x18	1
107	GH1440W-04-13	Spline Shaft		1
108	GH1440W-04-24	Cover		1
109	TS-1503081	Hex Socket Cap Screw	M6x35	4
157	11-15	Brake Shoe Assembly		1
164	VB-A73	V-Belt (GH-1340W-1/3 & GH-1440W-1)		2
	VB-A74	V-Belt (GH-1440W-3)		2
165	GH1440W-04-24/1	Washer		1

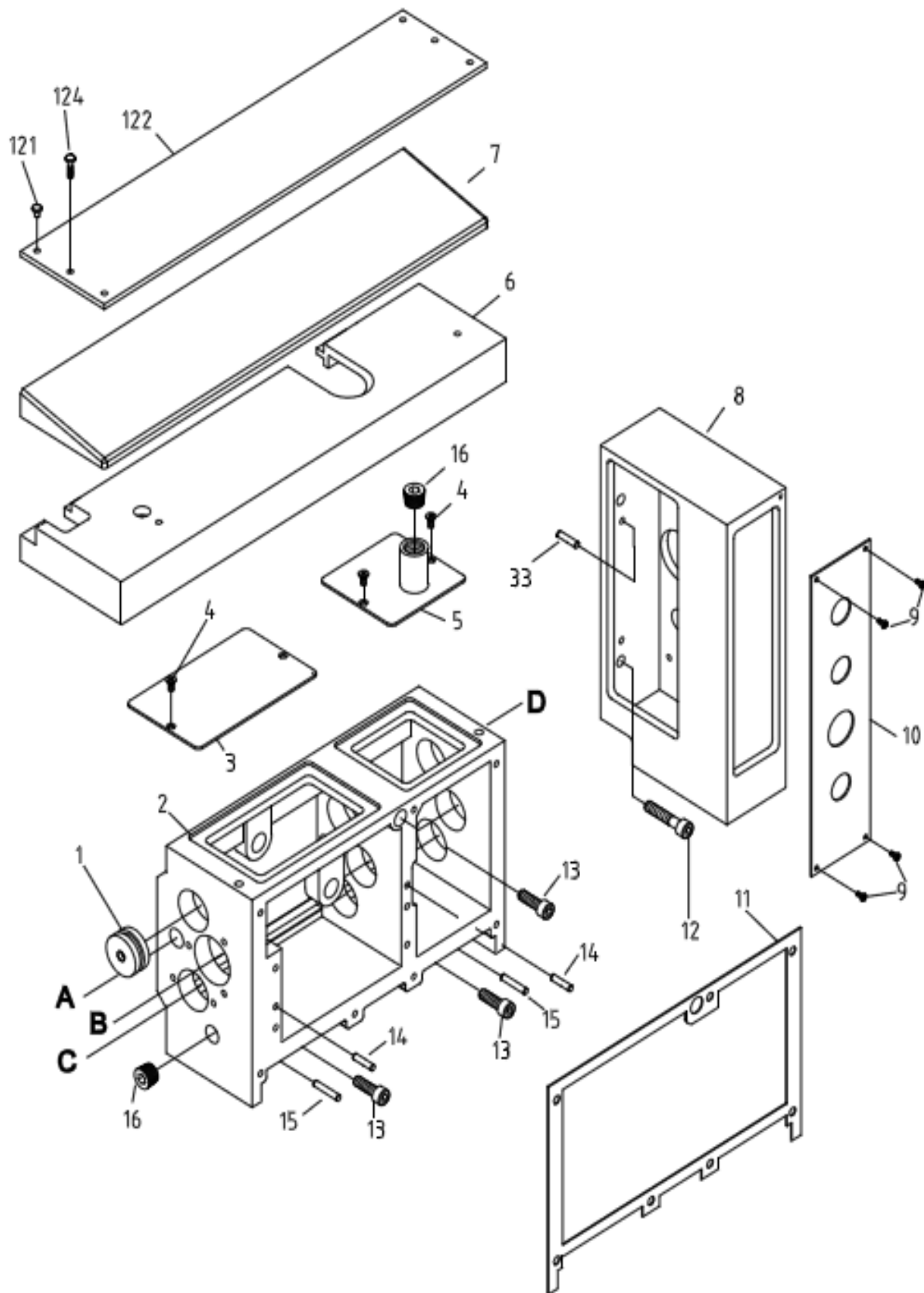
2.3.1 Headstock Assembly III – Exploded View



2.3.2 Headstock Assembly III – Parts List

Index No.	Part No.	Description	Size	Qty
56	TS-1503031	Hex Socket Cap Screw	M6x12	18
74	GB894.2-25	Retainer Ring	25	6
82	GB/T276-6204	Ball Bearing	6204/p5	5
89	04-53	Bearing Cap		2
90	04-52	Bearing Cap Gasket		2
95	GB894.2-40	Retainer Ring	40	1
96	GB/T276-6005	Ball Bearing	6005/p5	4
102	GH1440W-04-16	Washer		1
110	TS-1503041	Hex Socket Cap Screw	M6x16	3
111	GH1440W-04-29	Cover		1
112	04-60	Gasket		1
113	TS-1502031	Hex Socket Cap Screw	M5x12	2
114	GH1440W-04-31	Nut		1
115	GB/T297-32011	Tapered Roller Bearing	32011/p5	1
116	GH1440W-04-30	Gear	38T	1
117	GH1440W-04-27	Lock Collar		1
118	GH1440W-04-21	Gear	59T	1
119	TS-1504061	Hex Socket Cap Screw	M8x30	1
120	GH1440W-04-23	Gear	87T	1
121	GH1440W-04-25	Collar		1
122	GB/T297-30212	Tapered Roller Bearing	30212/p5	1
123	GH1440W-04-32	Gasket		1
124	GH1440W-04-28	Cover		1
125	TS-1503051	Hex Socket Cap Screw	M6x20	3
126	GB1096-6X30	Key	6x30	1
127	GB1096-10X55	Key	10x55	1
128	TS-1504031	Hex Socket Cap Screw	M8x16	3
129	04-31/1	Spring		3
130	04-86	Camlock Set Pin		3
131	04-85	Camlock		3
132	GH1440W-04-22	Spindle		1
133	GB894.2-20	Retainer Ring	20	4
134	04-36	Spacer		2
135	04-35	Gear	32T	1
136	GB894.2-37	Retainer Ring	37	1
137	04-54	Gear	32T	1
138	GB1096-5X16	Key	5x16	1
139	04-55	Gear	32T	1
140	TS-1523041	Set Screw	M6x12	1
141	04-37	Shaft		1
142	GB3452.9-25X2.65	O-Ring	25x2.65	3
143	04-47/1	Key	6x90	1
144	04-46	Gear	42T	1
145	04-45	Collar		1
146	04-44	Gear	32T	1
147	04-39	Collar		1
148	04-41	Gear	32T	1
149	GB/T276-6004	Ball Bearing	6004/p5	2
150	GH1440W-04-33	Plug		1
151	04-47	Shaft (D)		1
152	04-43	Gear	38T	1
153	04-42	Spline Shaft (E)		1
154	04-48	Housing Gasket		1
155	04-49	Housing		1
156	GB9877.1-SD25X40X7	Spacer	SD25x40x7	1
158	GH1440W-04-65	Collar		1
160	GH1440W-04-66	Balance Space		1
161	GH1440W-04-67	Balance Block		1
162	TS-1523041	Set Screw	M6x12	1
163	TS-1524031	Set Screw	M8x12	1

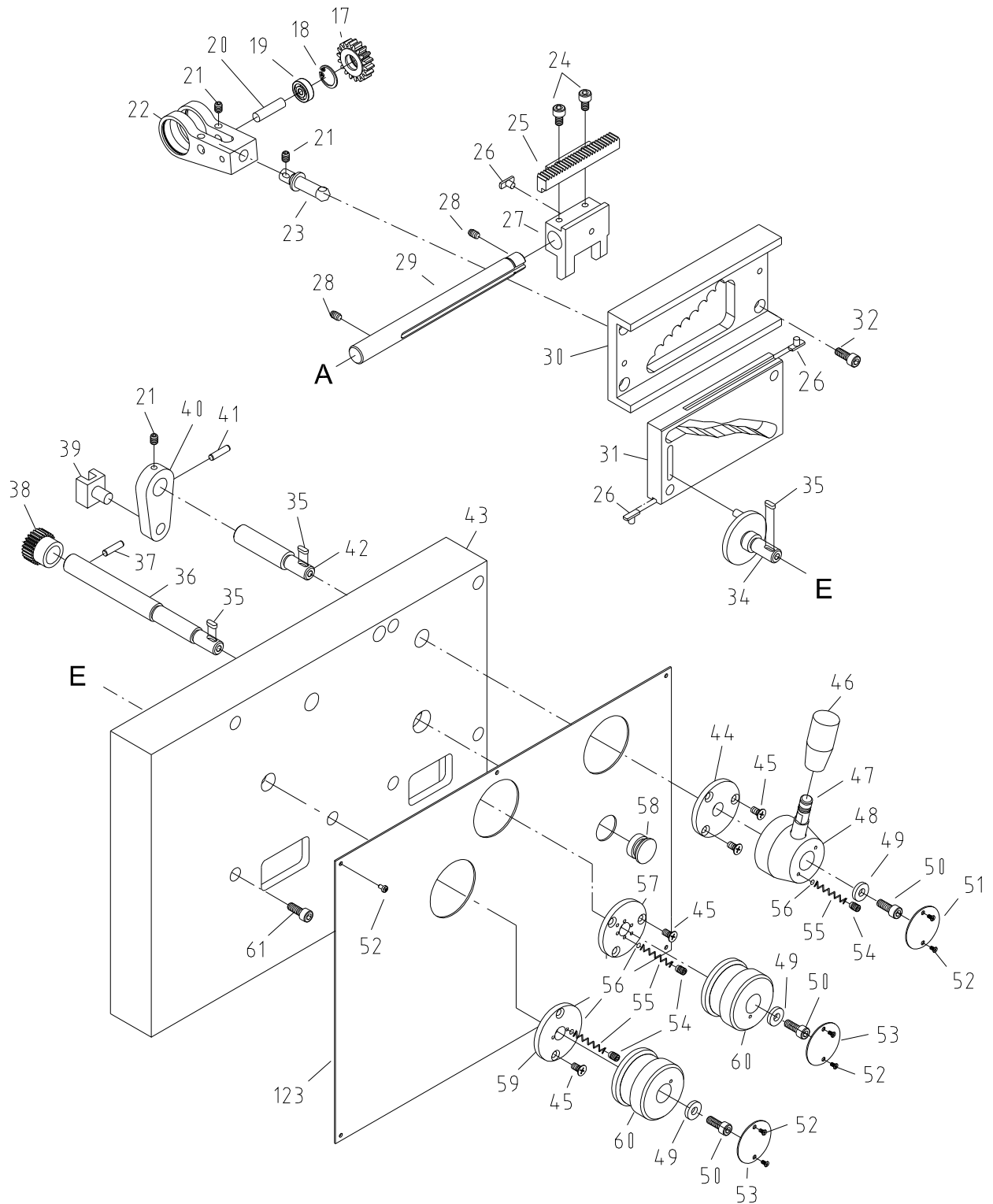
2.4.1 Gearbox Assembly I – Exploded View



2.4.2 Gearbox Assembly I – Parts List

Index No.	Part No.	Description	Size	Qty
1	05-73	Plug		1
2	GH1440W-05-06AG	Gearbox Casting		1
3	05-07G	Front Cover		1
4	TS-1532032AG	Flat Head Machine Screw	M4x10	4
5	GH1440W-05-26AG	Oil Cover (14")		1
	GH1340W-05-26AG	Oil Cover (13")		1
6	GH1440W-05-07/1G	Cover (14")		1
	GH1340W-05-07/1G	Cover (13")		1
7	GH1440W-05-08G	Top Cover		1
8	GH1440W-05-09G	Bracket		1
9	TS-1531012	Pan Head Machine Screw	M3x6	4
10	GH1440W-05-11G	Electrical Plate		1
11	05-61	Gearbox Gasket		1
12	TS-1504081	Hex Socket Cap Screw	M8x40	2
13	TS-1504051	Hex Socket Cap Screw	M8x25	3
14	GH1440W-14	Pin	5x20	2
15	GH1440W-15	Pin	5x28	2
16	05-75	Plug		2
33	GB118-A8X30	Pin	A8x30	2
121	GB867-2X4	Rivet	2x4	4
122	GH-1440W-05-12/1G	Speed Chart		1

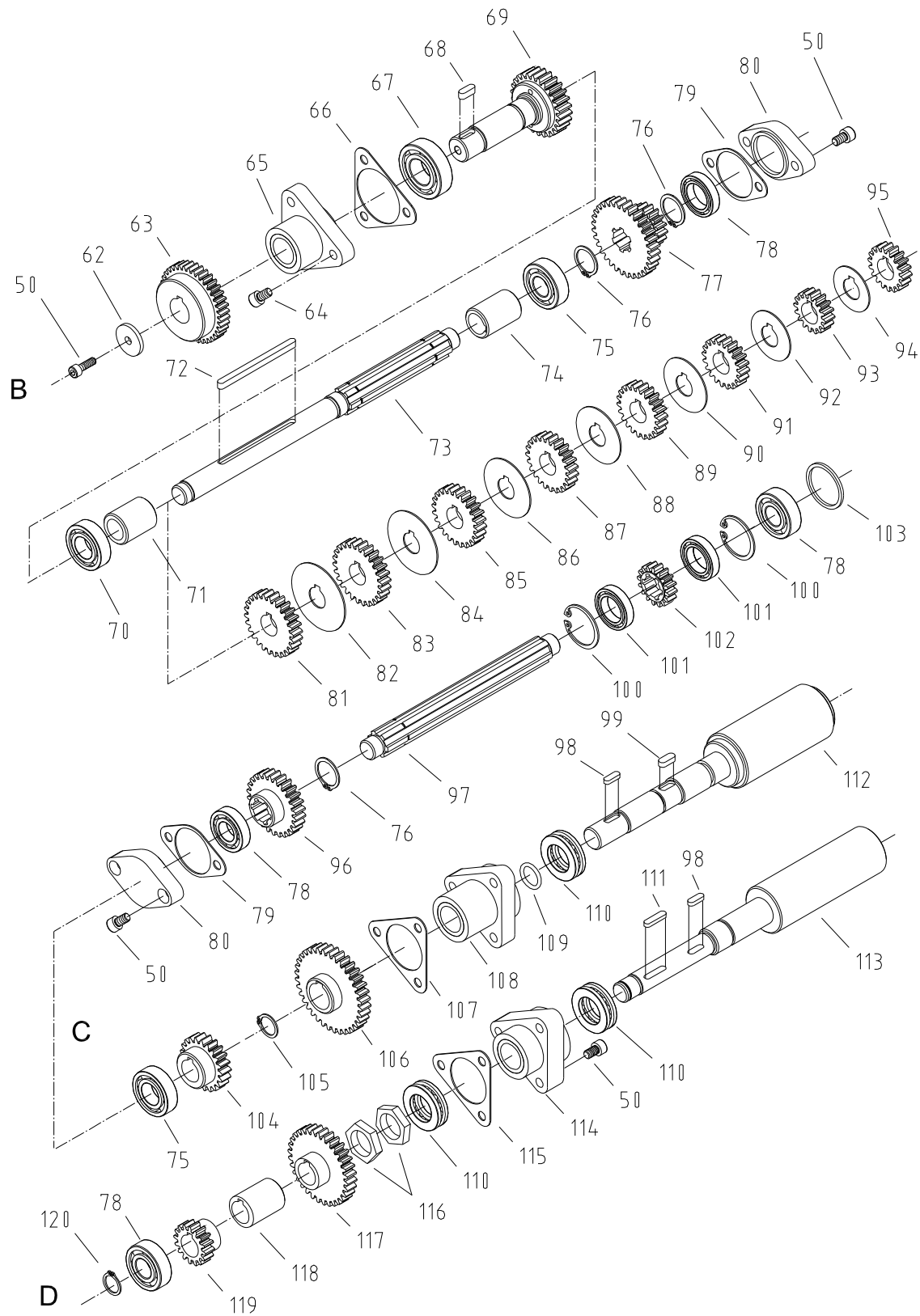
2.5.1 Gearbox Assembly II – Exploded View



2.5.2 Gearbox Assembly II – Parts List

Index No.	Part No.	Description	Size	Qty
17	05-49	Gear	16T	1
18	GH893.1-19	Retainer Ring	19	1
19	GB/T276-6198	Bearing	6198/p5	1
20	05-51	Shaft		1
21	TS-1523021	Set Screw	M6x8	4
22	05-03	Shifter		1
23	05-02	Shaft		1
24	TS-1503051	Hex Socket Cap Screw	M6x20	2
25	05-13	Rack		1
26	05-01	Shift Key		3
27	05-12	Shift Fork		1
28	TS-1523021	Set Screw	M6x8	2
29	05-15	Shaft		1
30	05-05	Locating Plate		1
31	05-04	Control Plate		1
32	TS-1503031	Hex Socket Cap Screw	M6x12	4
33	GB118-A8X30	Pin	A8x30	2
34	05-60	Shift Hub		1
35	GB1096-4X10	Key	4x10	3
36	GH1440W-05-02	Shaft		1
37	GB879-5X20	Pin	5x20	1
38	05-14	Gear	26T	1
39	05-55	Shift Fork		1
40	05-56	Shift Lever		1
41	GB879-5X20	Pin	5x20	1
42	GH1440W-05-03	Shaft		1
43	GH1440W-05-01G	Cover		1
44	05-58	Locating Disk		1
45	GB819-M5X10	Flat Head Machine Screw	M5x10	8
46	GB4141.14-BM10X50	Knob		1
47	GH1440W-05-15G	Handle Shaft		1
48	GH1440W-05-14G	Shift Hub		1
49	05-08	Washer		3
50	TS-1503041	Hex Socket Cap Screw	M6x16	14
51	04-90G	Indicator Disk		1
52	TS-1531012	Pan Head Machine Screw	M3x6	12
53	05-70G	Indicator Disk		2
54	TS-1524011	Set Screw	M8x8	4
55	GH1440W-05-72	Spring		4
56	GB308-SB6.5	Steel Ball	6.5	4
57	05-10	Locating Disk		1
58	GH1440W-05-27	Oil Sight Glass		1
	GHW1160-16A	Oil Sight Glass (serial no. 1007W2720W and higher)	M16x1.5	1
59	05-59	Locating Disk		1
60	GH1440W-05-13G	Shift Hub		2
61	TS-1503081	Hex Socket Cap Screw	M6x35	7
123	GH1440W-05-10G	Name Plate		1

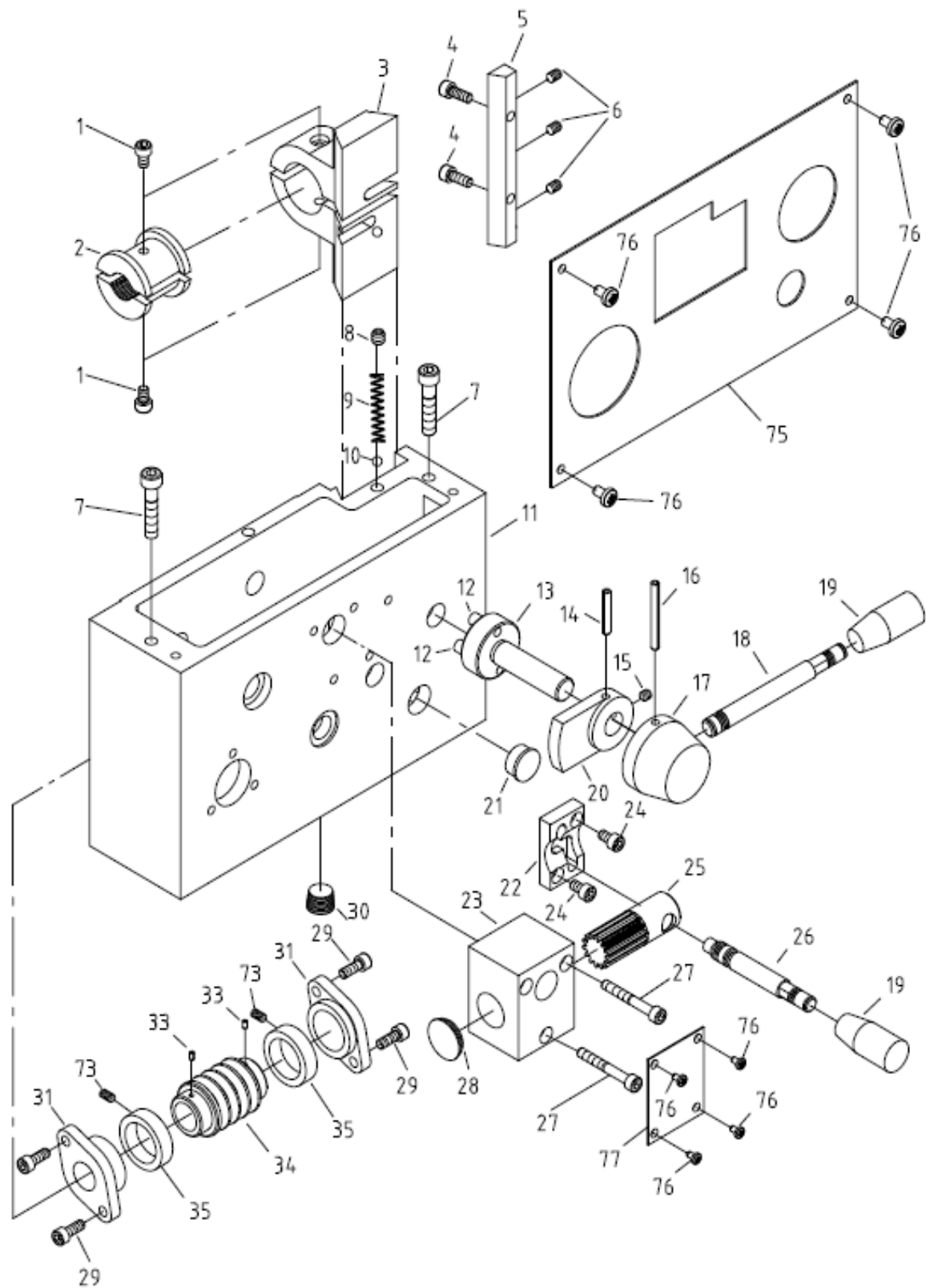
2.6.1 Gearbox Assembly III – Exploded View



2.6.2 Gearbox Assembly III – Parts List

Index No.	Part No.	Description	Size	Qty
50	TS-1503041	Hex Socket Cap Screw	M6x16	14
62	05-42	Washer		1
63	05-41	Gear	50T	1
64	TS-1503051	Hex Socket Cap Screw	M6x20	3
65	05-39	Flange		1
66	05-38	Gasket		1
67	GB/T276-6004	Ball Bearing	6004/P5	1
68	GB1096-5X14	Key	5x14	1
69	05-40	Gear Shaft Assembly		1
70	GB/T276-6002	Ball Bearing	6002/p5	1
71	05-36	Shaft Collar		1
72	GB1096-5X75	Key	5x75	1
73	05-27	Shaft		1
74	05-67	Shaft Collar		1
75	GB/T276-6003	Ball Bearing	6003/p5	2
76	GB894.1-20	Retainer Ring	20	3
77	05-21	Gear	16T/32T	1
78	GB/T276-6202	Ball Bearing	6202/p5	4
79	05-48	Gasket		2
80	05-47	Flange		2
81	05-35	Gear	28T	1
82	GH1440W-05-19	Washer		1
83	05-34	Gear	26T	1
84	GH1440W-05-20	Washer		1
85	05-33	Gear	24T	1
86	GH1440W-05-21	Washer		1
87	05-32	Gear	23T	1
88	GH1440W-05-22	Washer		1
89	05-31	Gear	22T	1
90	GH1440W-05-23	Washer		1
91	05-30	Gear	20T	1
92	GH1440W-05-24	Washer		1
93	05-29	Gear	18T	1
94	GH1440W-05-25	Washer		1
95	05-28	Gear	16T	1
96	05-37	Gear	26T	1
97	05-52	Spline Shaft		1
98	GB1096-5X14	Key	5x14	2
99	GB1096-6X14	Key	6x14	1
100	GB893.1-32	Retainer Ring	32	2
101	GB/T276-61804	Bearing	61804/p5	2
102	05-49	Gear	16T	1
103	GH1340A-05-66	Washer		1
104	05-25	Gear	21T	1
105	GB896-15	Retainer Ring	15	1
106	05-19	Gear	36T	1
107	05-53	Gasket		1
108	05-17	Flange		1
109	GB3452.1-15X2.65	O-Ring	15x2.65	1
110	GB301-8104	Ball Bearing	8104	3
111	GB1096-5X20	Key	5x20	1
112	GH1440W-05-04	Shaft		1
113	GH1440W-05-05	Shaft		1
114	05-18	Flange		1
115	05-53	Gasket		1
116	05-20	Nut		2
117	05-22	Gear	32T	1
118	05-24	Collar		1
119	05-26	Gear	16T	1
120	GB894.1-15	Retainer Ring		1

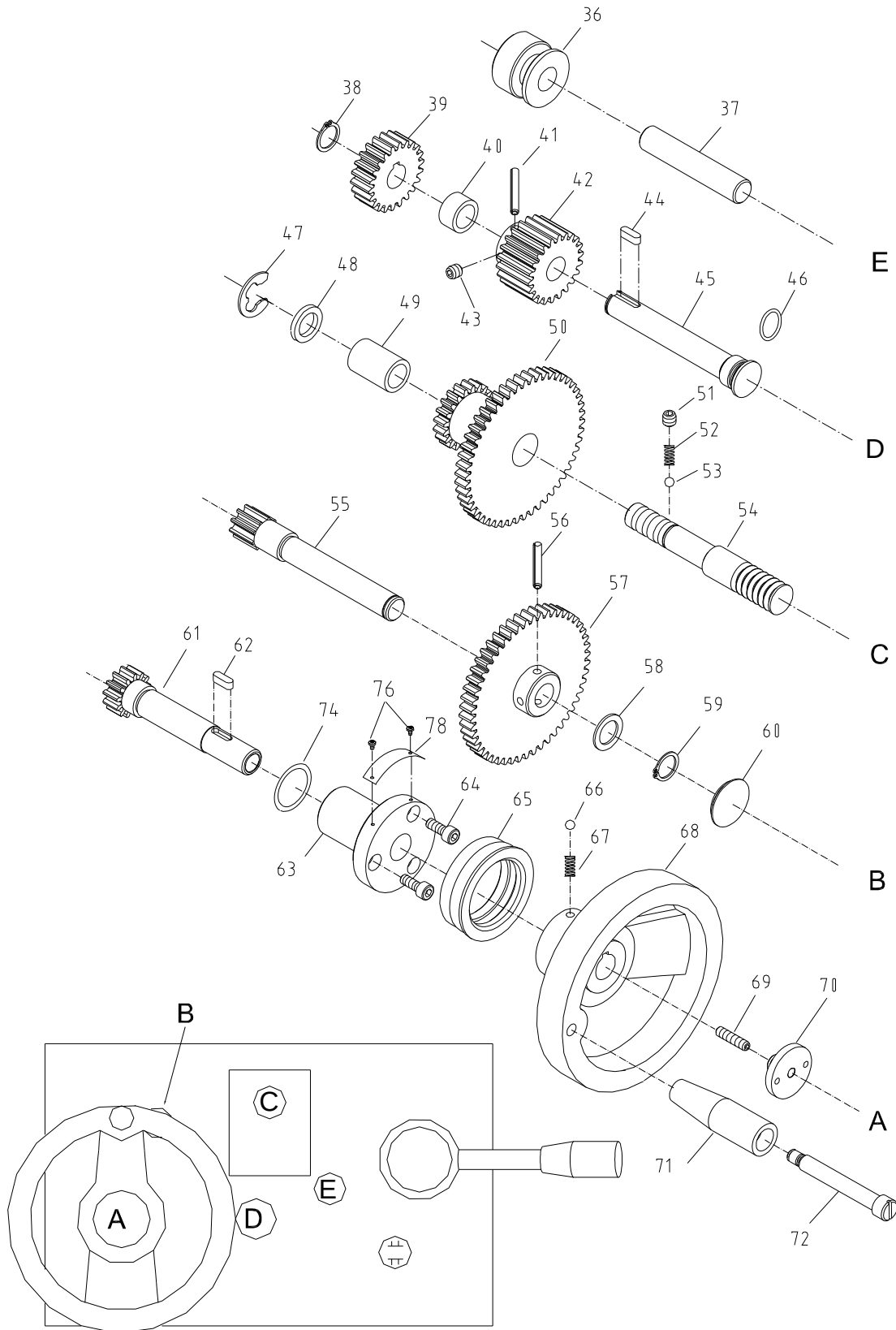
2.7.1 Apron Assembly I – Exploded View



2.7.2 Apron Assembly I – Parts List

Index No.	Part No.	Description	Size	Qty
1	TS-1503021	Hex Socket Cap Screw	M6x10	2
2	06-37	Half Nut		1
3	06-36	Bracket		1
4	TS-1503041	Hex Socket Cap Screw	M6x16	2
5	06-33	Gib		1
6	TS-1523031	Set Screw	M6x10	3
7	TS-1504081	Hex Socket Cap Screw	M8x40	2
8	TS-1524011	Set Screw	M8x8	1
9	06-39	Spring		1
10	GB308-SB6	Steel Ball	6	1
11	06-01G	Casting		1
12	06-42-1	Pin		2
13	06-42	Half Nut Cam		1
14	GB879-5X35	Pin	5x35	1
15	TS-1523011	Set Screw	M6x6	1
16	GB879-5X50	Pin	5x50	1
17	GH1440W-06-09G	Hub		1
18	GH1440W-06-04G	Handle Shaft		1
19	GB4141.14-BM10X50	Knob		2
20	06-40	Safety Catch		1
21	GB1160-12	Oil Sight Glass	12	1
	GHW1160-16A	Oil Sight Glass (<i>serial no. 1007W2720W and higher</i>)	M16x1.5	1
22	GH1340W-06-04	Bracket		1
23	06-16	Block		1
24	TS-1503031	Hex Socket Cap Screw	M6x12	2
25	GH1440W-06-07G	Spline Shaft		1
26	GH1440W-06-08G	Handle Shaft		1
27	TS-1503101	Hex Socket Cap Screw	M6x45	3
28	06-02	Plug		1
29	TS-1503041	Hex Socket Cap Screw	M6x16	4
30	06-35	Drain Plug		1
31	06-34	Flange		2
32	GB1096-5X56	Key	5x56	1
33	GB879-3X5	Pin	3x5	2
34	06-27	Worm		1
35	06-50	Collar		2
73	TS-1522031	Set Screw	M5x10	2
75	GH1440W-06-01G	Apron Label		1
76	TS-1531012	Pan Head Screw	M3x6	10
77	GH1440W-06-03G	Thread Dial Label		1
	GHW-AP-CA	Apron Assembly Complete		

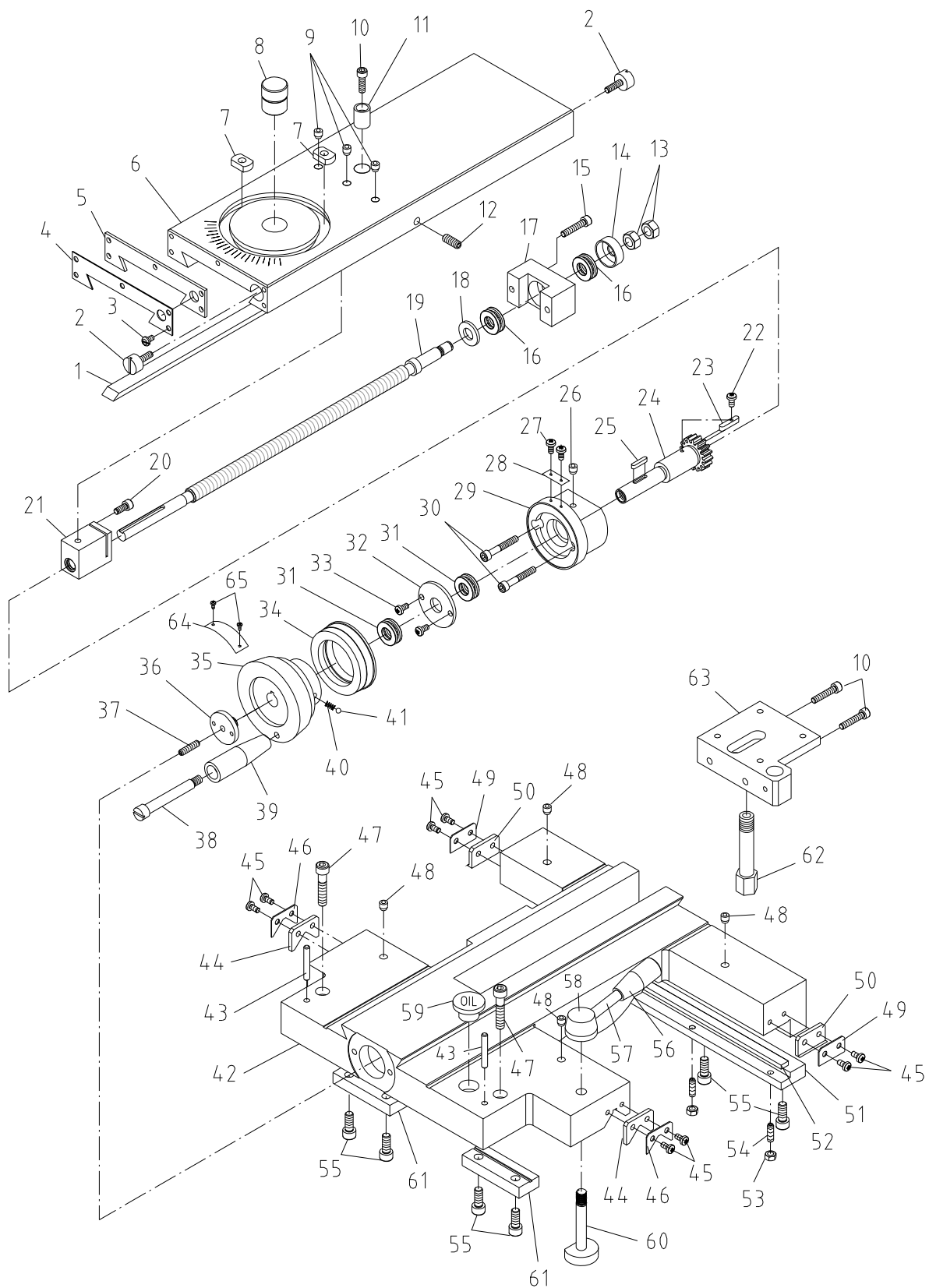
2.8.1 Apron Assembly II – Exploded View



2.8.2 Apron Assembly II – Parts List

Index No.	Part No.	Description	Size	Qty
36	06-44	Bushing		1
37	06-43	Shaft		1
38	GB894.1-16	Retainer Ring	16	1
39	06-28	Gear	22T	1
40	06-26	Collar		1
41	GB879-5X35	Pin	5x35	1
42	06-20	Gear	24T	1
43	TS-1523011	Set Screw	M6x6	1
44	GB1096-5X15	Key	5x15	1
45	06-19	Shaft		1
46	GB3452.1-17X1.8	O-Ring	17x1.8	1
47	GB896-12	Retainer Ring	12	1
48	06-10	Bushing		1
49	06-15-1	Collar		1
50	GH1440W-06-15	Cluster Gear	50T/20T	1
51	TS-1524011	Set Screw	M8x8	1
52	GH1440W-06-14	Spring		1
53	GB308-SB6	Steel Ball	6	1
54	GH1440W-06-13	Shaft		1
55	06-06	Shaft		1
56	GB879-5X30	Pin	5x30	1
57	06-08	Gear	50T	1
58	06-10	Bushing		1
59	GB894.1-16	Retainer Ring	16	1
60	06-11	Plug		1
61	06-07	Shaft		1
62	GB1096-5X15	Key	5x15	1
63	GH1440W-06-05G	Wheel Flange		1
64	TS-1503041	Hex Socket Cap Screw	M6x16	3
65	06-31	Indicator Ring		1
66	GB308-SB6	Steel Ball	6	2
67	06-32	Spring		2
68	GH1440W-06-06G	Wheel		1
69	TS-1523071	Set Screw	M6x25	1
70	06-30	Wheel Stud		1
71	GH1440W-06-11G	Handle Sleeve		1
72	GH1440W-06-10G	Handle Lever		1
73	TS-1522031	Set Screw	M5x10	2
74	GB3452.1-25.8X3.55	O-Ring	25.8x3.55	1
76	TS-1531012	Pan Head Screw	M3x6	10
78	GH1440W-06-38	Indicator Label		1

2.9.1 Carriage and Cross Slide Assembly – Exploded View

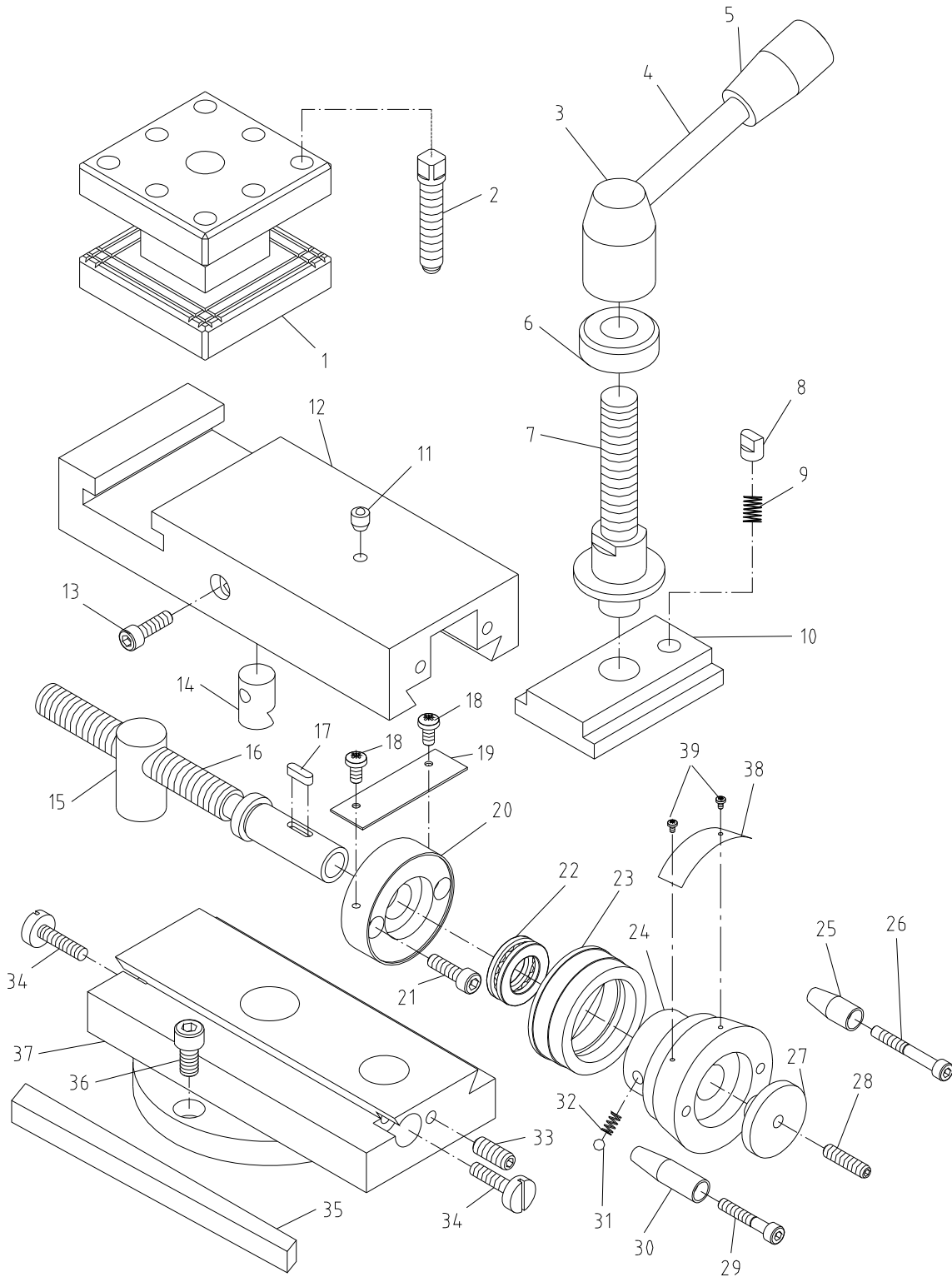


2.9.2 Carriage and Cross Slide Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	GH1440W-07-04	Gib		1
2	07-28	Gib Adjusting Screw		2
3	GB818-M5X10	Pan Head Machine Screw	M5x10	5
4	GH1440W-07-12	Plate		1
5	GH1440W-07-11	Plate Wiper		1
6	GH1440W-07-02	Cross Slide Body		1
7	07-07	Clamp Nut		2
8	07-08	Hub		1
9	GB1155-8	Oiler	8	3
10	TS-1503051	Hex Socket Cap Screw	M6x20	1
11	07-05	Sleeve		1
12	TS-1524011	Set Screw	M8x8	1
13	GB6172-M10	Hex Nut	M10	2
14	07-02	Bearing Cap		1
15	TS-1503071	Hex Socket Cap Screw	M6x30	2
16	GB301-8101	Thrust Bearing	8101	2
17	07-03	Block		1
18	07-25	Spacer		1
19	GH1440W-07-16	Leadscrew		1
20	TS-1503031	Hex Socket Cap Screw	M6x12	1
21	GH1440W-07-10	Crossfeed Nut		1
22	GB819-M3X5	Pan Head Machine Screw	M3x5	1
23	07-21	Key	5X25	1
24	GH1440W-07-14	Gear Shaft		1
25	GB1096-4X20	Key	4x20	2
26	GB1155-6	Oiler	6	1
27	GB818-M3X6	Pan Head Screw	M3x6	2
28	07-04-01	Indicator Label		1
29	GH1440W-07-13	Housing		1
30	TS-1503091	Hex Socket Cap Screw	M6x40	2
31	GB301-8102	Thrust Bearing	8102	2
32	07-18	Washer		1
33	TS-2285102	Pan Head Machine Screw	M5x10	2
34	07-17	Index Ring		1
35	GH1440W-07-18G	Compound Handle		1
36	07-15	Cover Screw		1
37	TS-1523071	Set Screw	M6x25	1
38	GH1440W-07-17G	Handle Lever		1
39	GH1440W-07-26G	Handle Sleeve		1
40	GB2089-0.7X5X9	Spring	0.7x5x9	2
41	GB308-SB6	Steel Ball	6	2
42	GH1440W-07-01G	Saddle		1
43	GB117-6X40	Pin	6x40	2
44	GH1440W-07-03	Plate Wiper		2
45	TS-2285102	Pan Head Machine Screw	M5x10	8
46	GH1440W-07-07	Plate		2
47	TS-1515051	Hex Socket Cap Screw	M8x40	2
48	GB1155-79	Oiler		4
49	GH1440W-07-05	Plate		2
50	GH1440W-07-06	Plate Wiper		2
51	07-24	Rear Pressure Plate		1
52	07-23	Gib		1
53	GB6170-M6	Lock Nut	M6	4
54	TS-1523061	Set Screw	M6x20	4
55	TS-1504041	Hex Socket Cap Screw	M8x20	6
56	GB4141.14-M10X50	Handle Knob	M10x50	1
57	GH1440W-07-27G	Handle Shaft		1
58	GH1440W-07-25G	Hub		1
59	04-06	Oil Cap		1

Index No.	Part No.	Description	Size	Qty
60	GH1440W-07-08	Lock Stud		1
61	GH1440W-07-09	Front Pressure Plate		2
62	14-04	Connected Tube		1
63	14-03	Lamp Bracket		1
	GHW-CFLA	Cross Feed Lead Screw & Nut Assy. (includes #19-21)		
	GHW1440W-CFDA	Cross Feed Dial Assy. (includes 22-26, 29-41)		

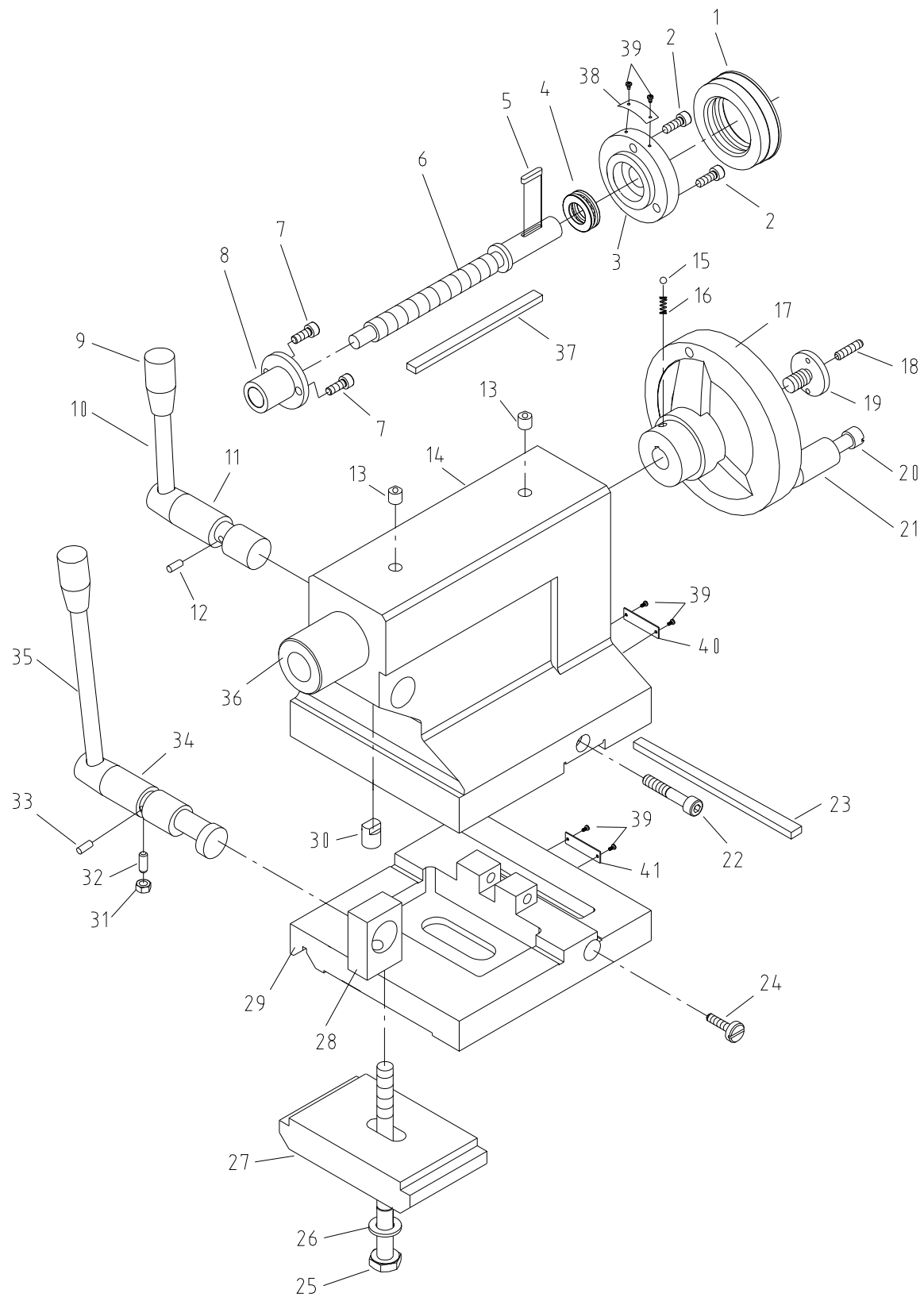
2.10.1 Four Way Tool Post and Compound Slide Assembly – Exploded View



2.10.2 Four Way Tool Post and Compound Slide Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	07-32	Tool Post		1
2	GB83-10X50	Tool Lock Screw	10x50	8
3	GH1440W-07-20	Handle Hub		1
4	GH1440W-07-21G	Handle Shaft		1
5	GB4141.14-BM10X50	Knob		1
6	GH1440W-07-19G	Spacer		1
7	07-34G	Tool Post Pin		1
8	07-29	Tool Post Pin		1
9	GB2089-1X8X11	Spring	1x8x11	1
10	07-37	Clamp Nut		1
11	GB1155-89	Oiler	8	1
12	07-49	Compound Slide		1
13	TS-1503051	Hex Socket Cap Screw	M6x20	1
14	07-09	Position Pin		1
15	07-39	Nut		1
16	07-40	Compound Screw		1
17	GB1096-4X14	Key	4x14	1
18	TS-1531012	Pan Head Machine Screw	M3x6	2
19	07-04-02	Name Plate		1
20	GH1440W-07-22G	Screw Bushing		1
21	TS-1503051	Hex Socket Cap Screw	M6x20	2
22	GB301-8103	Thrust Bearing	8103	1
23	07-42	Index Ring		1
24	GH1440W-07-28G	Handwheel		1
25	GH1440W-07-23G	Handle		1
26	TS-1513051	Hex Socket Cap Screw	M5x25	1
27	07-15	Cover Screw		1
28	TS-1523071	Set Screw	M6x25	1
29	TS-1502091	Hex Socket Cap Screw	M5x40	1
30	GH1440W-07-24G	Handle		1
31	GB308-SB6	Steel Ball	6	2
32	GB2089-0.7X5X5	Spring	0.7x5x5	2
33	TS-1523051	Set Screw	M6x16	1
34	07-28	Gib Adjusting Screw		2
35	07-10	Gib		1
36	TS-1515011	Hex Socket Cap Screw	M8x16	2
37	GH1440W-07-15	Swivel Slide (14")		1
	GH1340W-07-15	Swivel Slide (13")		1
38	07-04-02	Indicator Label		1
39	GB818-M3X6	Pan Head Screw	M3x6	2
	GHW-THA	Tool Post Assy. (includes #1 & 2)		1
	GH1440W-CPA	Compound Assy. (includes # 11-39 for 14")		1
	GH1340W-CPA	Compound Assy. (includes # 11-39 for 13")		1

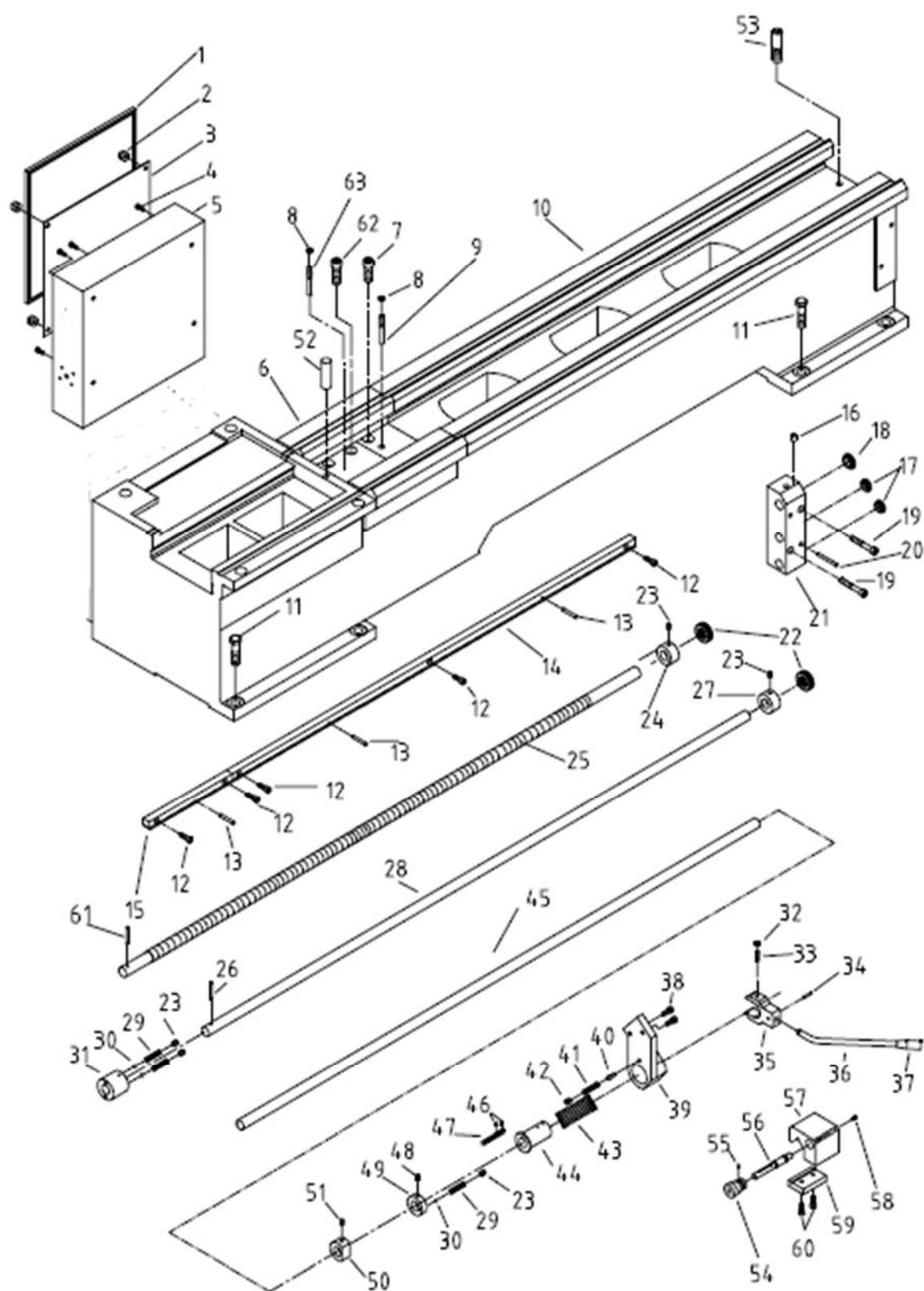
2.11.1 Tailstock Assembly – Exploded View



2.11.2 Tailstock Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	08-09	Index Ring		1
2	TS-1503051	Hex Socket Cap Screw	M6x20	3
3	GH1440W-08-07G	Hub		1
4	GB301-8103	Thrust Bearing	8103	1
5	GB1096-4X20	Key	4x20	1
6	08-05	Screw		1
7	TS-1503041	Hex Socket Cap Screw	M6x16	2
8	08-06	Flange		1
9	GB4141.14-BM10X50	Knob		2
10	GH1440W-06-04G	Lever Handle		1
11	GH1440W-08-06G	Eccentric Shaft		1
12	GB879-5X12	Pin	5x12	1
13	GB1155-10	Oiler	10	2
14	GH1440W-08-01G	Tailstock Body		1
15	GB308-SB6	Steel Ball	6	1
16	GB2089-0.7X5X12	Spring	0.7x5x12	1
17	GH1440W-08-09G	Wheel		1
18	TS-1523071	Set Screw	M6x25	1
19	08-12	Wheel Screw		1
20	GH1440W-06-10G	Handle Lever		1
21	GH1440W-06-11G	Handle Sleeve		1
22	GH1440W-T22	Hex Socket Cap Screw	M8x70	2
23	GH1440W-08-03	Gib		1
24	08-18	Gib Adjusting Screw		2
25	TS-1492091	Hex Cap Bolt (for 14")	M12x90	1
	TS-1492071	Hex Cap Bolt (for 13")	M12x70	1
26	TS-1550081	Washer	12	1
27	GH1440W-08-04	Tailstock Clamp Plate		1
28	08-16	Block		1
29	GH1440W-08-02G	Tailstock Base (for 14")		1
	GH1340W-08-02G	Tailstock Base (for 13")		1
30	08-02	Stop Pin		1
31	TS-1540041	Nut	M6	1
32	TS-1523051	Set Screw	M6x16	1
33	GB879-5X12	Pin	5x12	1
34	GH1440W-08-05G	Eccentric Shaft		1
35	GH1440W-08-08G	Lever Handle		1
36	08-04	Spindle		1
37	08-24	Key	3x6x55	1
38	08-07	Indicator Label		1
39	GHW-TA39	Pan Head Screw	M3x6	6
40	08-22	Indicator Label		1
41	08-23	Indicator Label		1
	GH1440W-TA-CA	Tailstock Complete Assembly (for 14")		1
	GH1340W-TA-CA	Tailstock Complete Assembly (for 13")		1

2.12.1 Bed Assembly – Exploded View

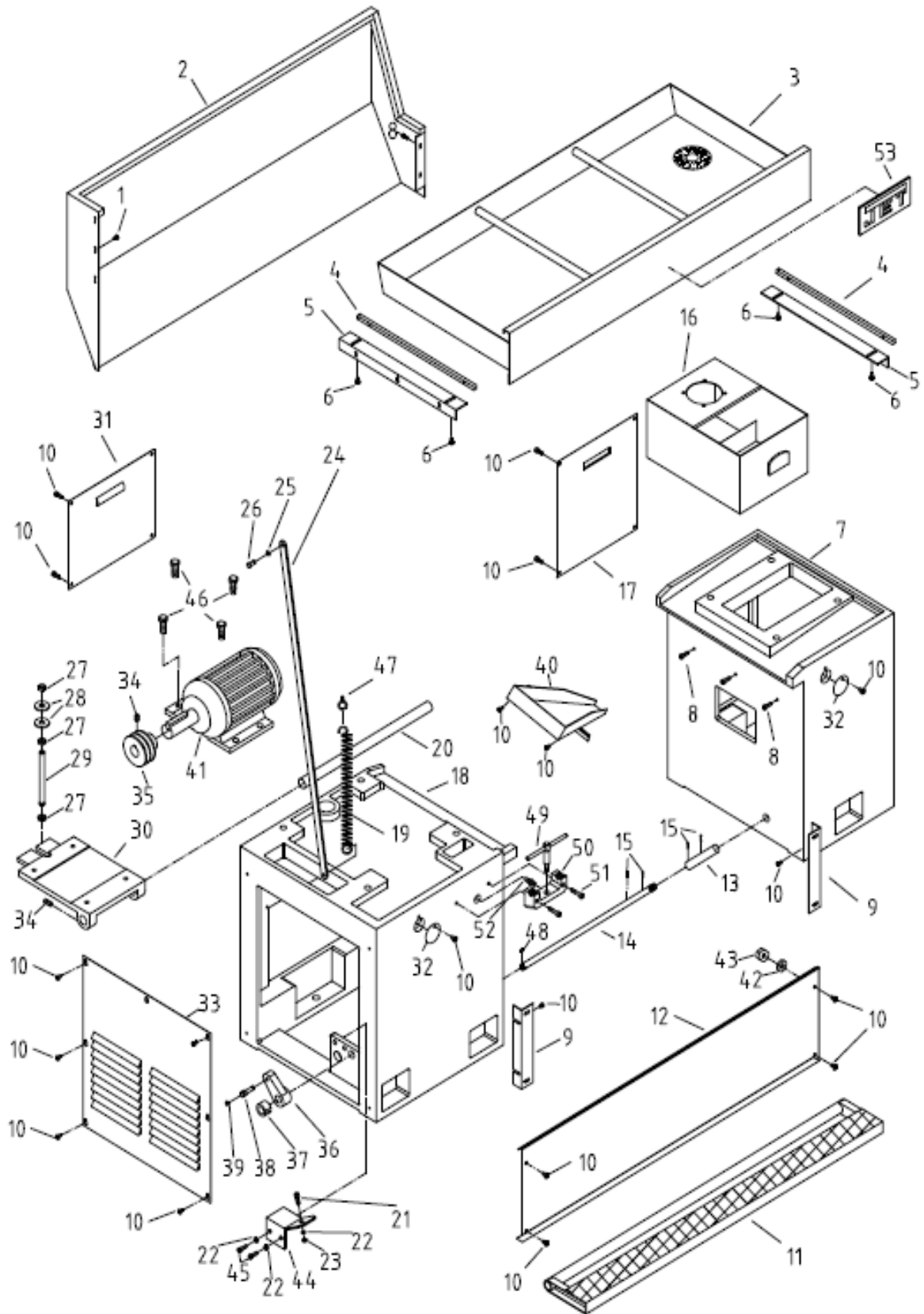


2.12.2 Bed Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	GH1440W-12-11AG	Electrical Box Cover		1
2	TS-1540061	Hex Nut	M8	4
3	GH1440W-12-12AG	Electrical Plate		1
4	TS-1503021	Hex Socket Cap Screw	M6x10	4
5	GH1440W-12-1210AG	Electrical Box		1
6	GH1440W-01-02G	Gap		1
7	TS-1506051	Hex Socket Cap Screw	M12x40	4
8	TS-1540061	Hex Nut	M8	2
9	GB881-8X60	Pin	8x60	2
10	GH1440W-01-01G	Bed		1
11	GB5782-M16X50	Hex Cap Bolt	M16x50	8
12	TS-1503061	Hex Socket Cap Screw	M6x25	6
13	GB879-5X35	Pin	5x35	6
14	01-07	Rack (long)		2
15	01-06	Rack (short)		1
16	GB1155-10	Oiler	10	1
17	01-41	Plug		2
18	01-42	Plug		1
19	TS-1504111	Hex Socket Cap Screw	M8x55	2
20	GB118-8X60	Pin	8x60	2
21	01-13G	End Bracket		1
22	GB301-51104	Bearing	51104	2
23	TS-1524021	Socket Set Screw	M8x10	5
24	01-10	Collar		1
25	01-11	Lead Screw		1
26	GB879-5X35	Pin	5x35	1
27	01-16	Collar		1
28	01-15	Feed Shaft		1
29	01-38	Spring		3
30	GB308-SB6	Steel Ball	6	3
31	01-05	Clutch		1
32	TS-1540041	Hex Nut	M6	2
33	TS-1523061	Set Screw	M6x20	2
34	GB879-3X20	Pin	3x20	1
35	01-086/6G	Control Fork		1
36	01-081/6G	Control Handle		1
37	GB4141.14-BM10X50	Knob		1
38	TS-1503041	Hex Socket Cap Screw	M6x16	2
39	01-084/6G	Control Bracket		1
40	01-082/6	Pin		1
41	01-38	Spring	1.2x6x20	1
42	TS-1524011	Set Screw	M8x8	1
43	GB2089-3X35X70	Spring	3x35x70	1
44	01-085/6	Sleeve		1
45	GH1440W-01-21	Spindle Control Shaft		1
46	TS-1520021	Set Screw	M3x6	2
47	01-083/6	Key	5x56	1
48	TS-1523031	Set Screw	M6x10	1
49	GH1440W-01-26	Collar		1
50	GH1440W-01-22	Shift Collar		1
51	TS-1523051	Set Screw	M6x16	1
52	GB119-16X40	Pin	16x40	1
53	01-19	Pin		1
	GH1340W-MCSA	Micro Carriage Stop Assembly (index #54-60)		1
54	13-03	Index Ring		1
55	GB879-3X5	Pin	3x5	1
56	13-02	Shaft		1
57	GH1440W-13-01	Bracket		1
58	GB79-M6X12	Set Screw	M6x12	1

Index No.	Part No.	Description	Size	Qty
59	13-04	Plate		1
60	TS-1503041	Hex Socket Cap Screw	M6x16	2
61	05-74	Pin(for serial#009W038W and lower)	4x37	1
	05-74N	Pin(for serial#011W039W and higher)	4x37	1
62	TS-1506061	Hex Socket Cap Screw	M12x45	4
63	GB881-10X90	Pin	10x90	1
	GH1440W-TBCP	Tool Box Complete (not shown)		1

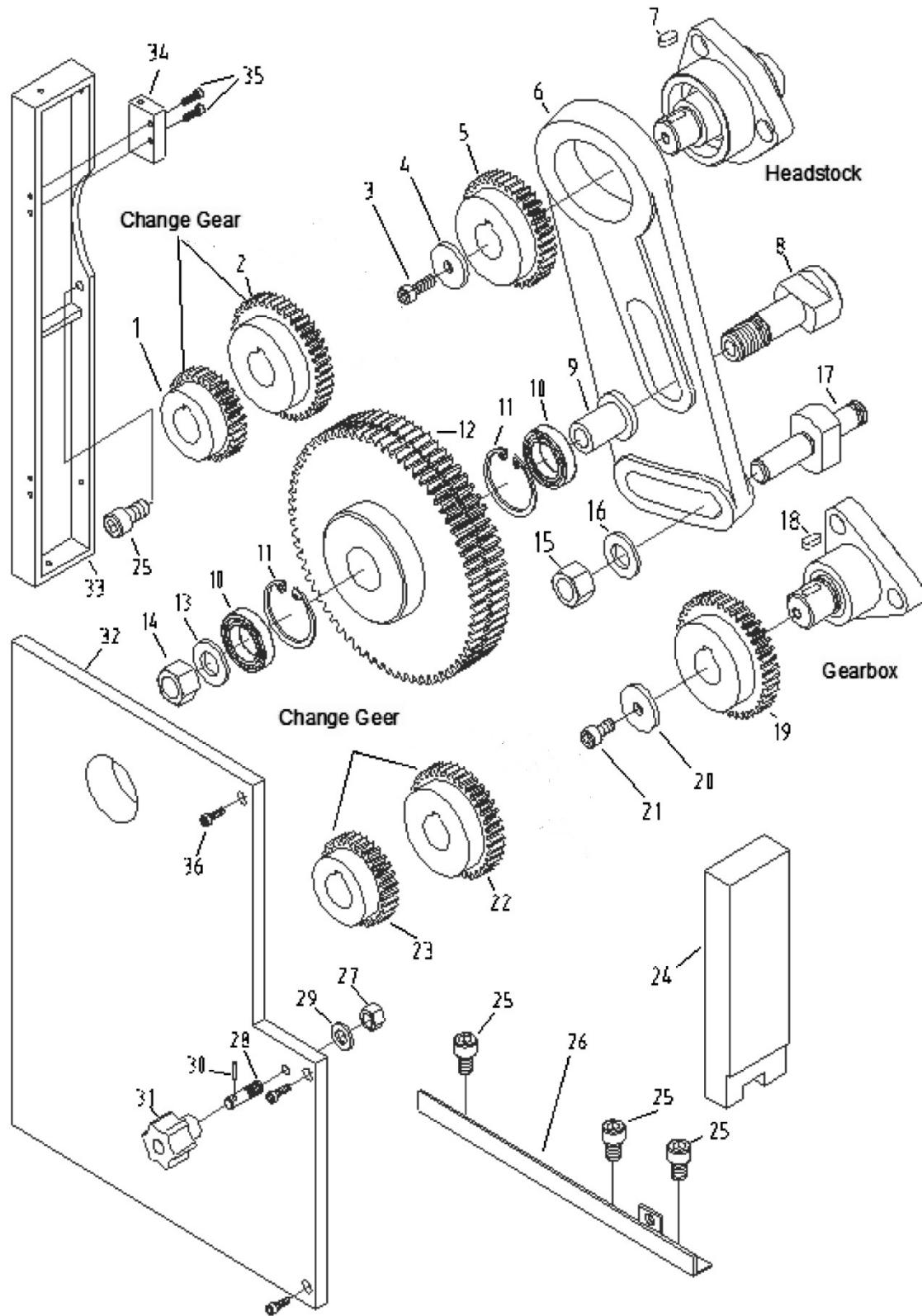
2.13.1 Stand Assembly – Exploded View



2.13.2 Stand Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	GB818-M6X10	Pan Head Machine Screw	M6x10	3
2	GH1440W-01-23G	Splash Guard		1
3	GH1440W-01-05G	Chip Tray		1
4	GH1440W-01-07	Guide		2
5	GH1440W-01-06G	Bracket		2
6	GB818-M6X10	Pan Head Machine Screw	M6x10	4
7	GH1440W-01-04G	Pedestal (right)		1
8	TS-1503021	Hex Socket Cap Screw	M6x10	8
9	GH1440W-01-08G	Bracket		2
10	GB818-M6X10	Pan Head Machine	M6x10	29
11	GH1440W-01-12	Brake Pedal		1
12	GH1440W-01-09G	Front Plate		1
13	11-01	Shaft		1
14	GH1440W-01-13	Shaft		1
15	GB879-5X15	Pin	5x15	4
16	14-01G	Coolant Tank		1
17	GH1440W-01-10G	Cover		1
18	GH1440W-01-03G	Pedestal (left)		1
19	11-04	Spring		1
20	GH1440W-01-14	Shaft		1
21	12-08	Switch Box		1
22	GB818-M6X10	Pan Head machine Screw	M6x10	4
23	12-09	Switch Box Cover		1
24	GH1440W-01-15	Connector Bar (for 14")		1
	GH1340W-01-15	Connector Bar (for 13")		1
25	GB896-6	Retaining Clip	6	1
26	11-12	Pin		1
27	GB6172-M12	Hex Nut	M12	3
28	GB96-12	Washer	12	2
29	01-23	Screw		1
30	GHW-SB-30-1	Motor Mounting Bracket (for 1 phase motor)		1
	GHW-SB-30-3	Motor Mounting Bracket (for 3 phase motor)		1
31	01-25G	Cover		1
32	01-27G	Cover		4
33	GH1440W-01-11G	Cover		1
34	TS-1524011	Set Screw	M8x8	3
35	GH1440W-01-20	Pulley		1
36	GH1440W-01-24	Link		1
37	11-07	Link Nut		1
38	11-05	Shaft Pin		1
39	GB896-6	Retaining Clip	6	1
40	01-12G	Tray		1
41	GHW-M1-1	Main Motor (1 Phase)		1
	GHW-M1-3	Main Motor (3 Phase)		1
	GH1440W-3MF	Motor Fan (not shown)		1
	GHW-CPS	Start Capacitor (for pre-2001 models)	800MFD 125VAC	1
	GHW-CPS-01	Start Capacitor (for post-2001 models)	150MFD 250VAC	1
	GHW-CP	Run Capacitor (for pre-2001 models)	60µF 450VAC	1
	GHW-CP-01	Run Capacitor (for post-2001 models)	30µF 500VAC	1
42	TS-1550041	Washer	6	4
43	TS-1540041	Hex Nut	M6	4
44	GH-1340A-11-13	Angle Steel		1
45	GB70-85	Hex Socket Cap Screw		2
46	GB5782	Hex Cap Bolt	M10x25	4
47	GHW-01-1E	Fastener		1
48	GB1096-79	Key	5x30	1
49	GHW-01-2E	Chuck key		1
50	GH1440W-01-30	Bracket		1
51	TS-1504101	Hex Socket Cap Screw	M8x50	2
52	GH1440W-1152	Proximity switch	M12x1	1
53	JET-165	JET Logo	165x68mm	1

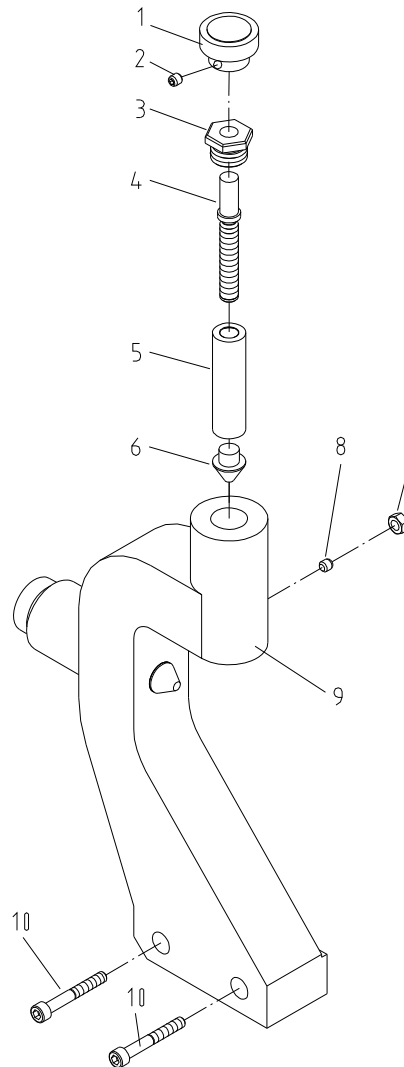
2.14.1 End Gear Assembly – Exploded View



2.14.2 End Gear Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	15-02	Gear	30T	1
2	15-04	Gear	40T	1
3	TS-1502041	Hex Socket Cap Screw	M5x16	1
4	04-51	Washer		1
5	04-50	Gear	25T	1
6	GH1440W-15-01	Quadrant		1
7	GB1096-5X14	Key	5x14	1
8	05-43	Thread Shaft		1
9	05-45	Collar		1
10	BB-6103	Bearing	6103	2
11	GB893.1-35	Retaining Ring	35	2
12	05-65	Gear	120/127	1
13	05-44	Washer		1
14	TS-1540071	Hex Nut	M10	1
15	TS-1540081	Hex Nut	M12	1
16	GB97.2-85	Washer		1
17	GH1440W-15-20	Stud		1
18	GB1096-5X14	Key	5x14	1
19	05-41	Gear	50T	1
20	05-42	Washer		1
21	TS-1503041	Hex Socket Cap Screw	M6x16	1
22	15-03	Gear	32T	1
23	15-04	Gear	40T	1
24	GH1440W-01-17G	Front Plate (for 14" model)		1
	GH1340W-01-17G	Front Plate (for 13" model)		1
25	TS-1504041	Hex Socket Cap Screw	M8x20	7
26	GH1440W-01-19	Plate		1
27	TS-1540071	Hex Nut	M10	1
28	C6240-10001G	Shaft		1
29	GB96-12	Washer	10	1
30	GB879-4X24	Pin	4x24	1
31	GB4141.29A-85	Knob		1
32	GH1440W-01-16G	Change Gear Cover (for 14")		1
	GH1340W-01-16G	Change Gear Cover (for 13")		1
33	GH1440W-01-18G	Rear Plate (for 14")		1
	GH1340W-01-18G	Rear Plate (for 13")		1
34	C6240-10004	Plate		2
35	TS-1503021	Hex Socket Cap Screw	M6x10	4

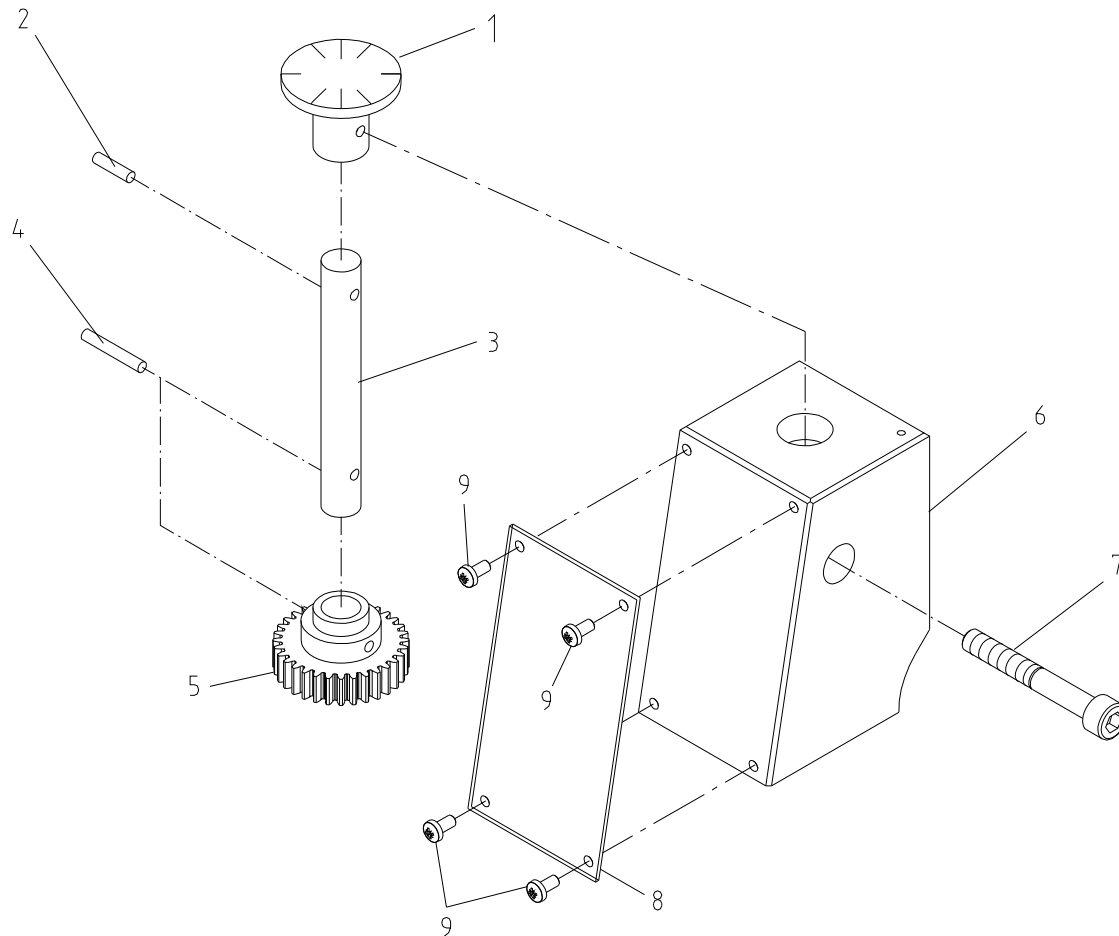
2.15.1 Follow Rest – Exploded View



2.15.2 Follow Rest – Parts List

Index No.	Part No.	Description	Size	Qty
1	GH1440W-09-02G	Knob		2
2	TS-1523011	Set Screw	M6x6	2
3	10B-04	Bushing		2
4	10B-05	Screw		2
5	10B-02	Sleeve		2
6	10B-06	Brass Finger		1
7	TS-1540041	Hex Nut	M6	2
8	TS-1523011	Set Screw	M6x6	2
9	GH1440W-09-01G	Body Casting (for 14" model)		1
	GH1340W-09-01G	Body Casting (for 13" model)		1
10	TS-1504121	Hex Socket Cap Screw	M8x60	2
	GH1440W-FR-CA	Follow Rest Complete Assembly (for 14")		1
	GH1340W-FR-CA	Follow Rest Complete Assembly (for 13")		1

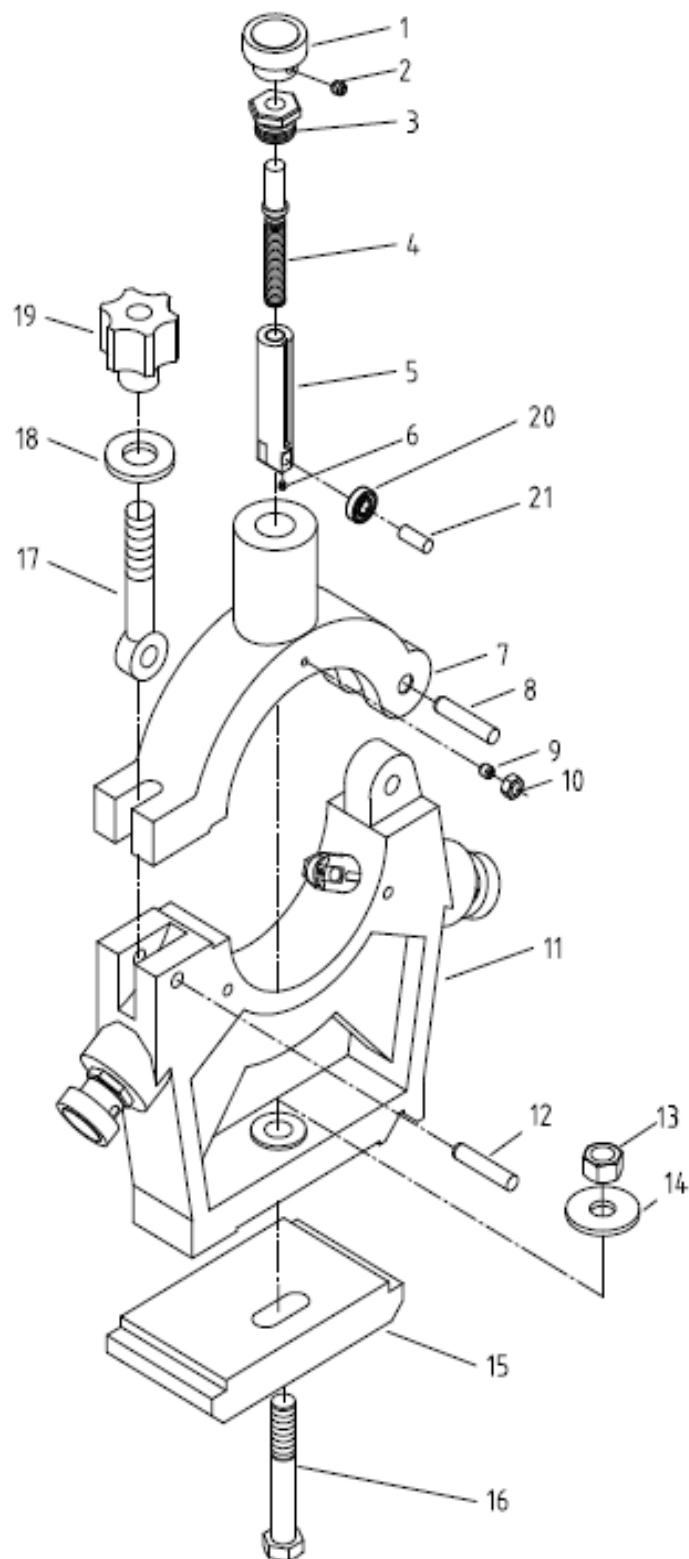
2.16.1 Thread Dial Assembly – Exploded View



2.16.2 Thread Dial Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	06-22	Dial		1
2	GB879-3X12	Pin	3x12	1
3	06-23	Shaft		1
4	GB879-3X20	Pin	3x20	1
5	06-25	Gear	32T	1
6	06-24G	Body		1
7	TS-1503101	Hex Socket Cap Screw	M6x45	1
8	GHW-06-02G	Name Plate		1
9	GHW-TD09	Pan Head Machine Screw	M3x6	4
10	GHW-TD10	Rivet	2x4	1
	GHW-TD-CA	Threading Dial Assembly		1

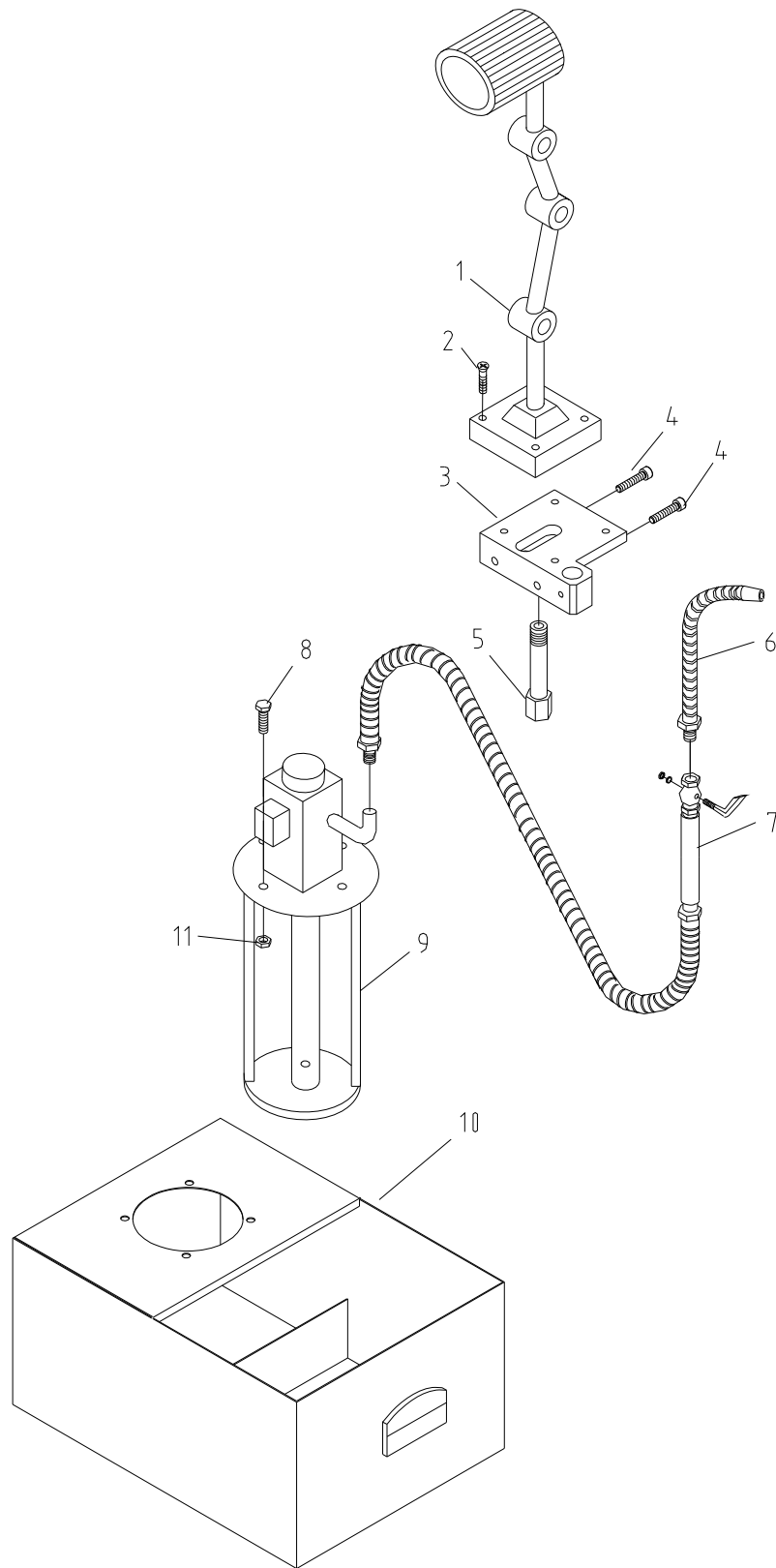
2.17.1 Steady Rest – Exploded View



2.17.2 Steady Rest – Parts List

Index No.	Part No.	Description	Size	Qty
1	GH1440W-09-02G	Knob		3
2	TS-1523011	Set Screw	M6x6	3
3	10A-05	Bushing		3
4	10A-06	Screw		3
5	GH1440W-10-03G	Sleeve		3
6	10A-08	Brass Finger		3
7	GH1440W-10-01G	Upper Body Casting		1
8	GB119-8X40	Pin	8x40	1
9	TS-1523061	Set Screw	M6x20	3
10	TS-1540041	Hex Nut	M6	3
11	GH1440W-10-01G	Lower Body Casting (for 14")		1
	GH1340W-10-01G	Lower Body Casting (for 13")		1
12	10A-02	Lock Pin		1
13	TS-1540081	Hex Nut	M12	1
14	TS-1550081	Flat Washer	12	1
15	GH1440W-10-02	Clamp Plate		1
16	TS-1550081	Flat Washer	12	1
17	TS-1492081	Hex Cap Bolt	M12x80	1
17	GB98-88	Screw Rod	M10x50	1
18	TS-1550081	Flat Washer	10	1
19	GH1440W-10-119	Radial grip	BM10x40	1
20	GH1440W-10-120	Ball Bearing	619/7-2Z	3
21	GH1440W-10-04	Shaft		3
	GH1440W-SR-CAG	Steady Rest Complete Assembly (for 14")		1
	GH1340W-SR-CAG	Steady Rest Complete Assembly (for 13")		1

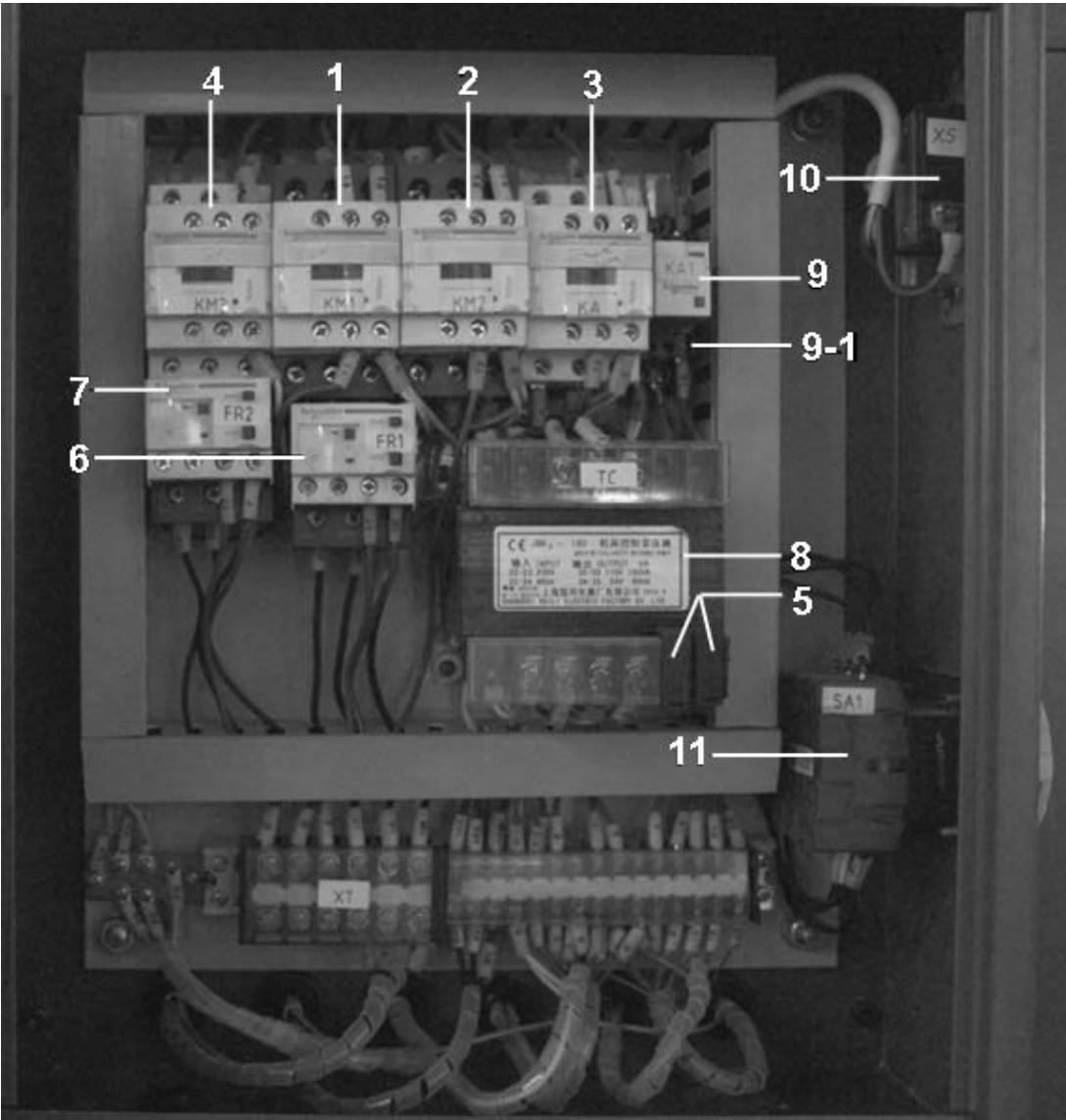
2.18.1 Coolant and Work Light Assembly – Exploded View



2.18.2 Coolant and Work Light Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	JC38	Work Light**		1
2	GHW-CW02	Cross Head Screw**	M6x14	4
3	14-03	Lamp Bracket**		1
4	TS-1503051	Hex Socket Cap Screw**	M6x20	2
5	14-04	Connected Tube**		1
6	GHW-CW06	Coolant Device		1
7	GHW-CW07	Rubber Tube		1
8	GHW-CW08	Hex Cap Bolt	M5x25	4
9	GHW-M2-1G	Coolant Pump (1 Phase)	1/8HP	1
9	GHW-M2-3	Coolant Pump (3 Phase)	1/8HP	1
10	14-01G	Water Tank		1
11	TS-1540031	Nut	M5	4
**	GHW-WL-CA	Work Light Complete Assembly (includes #1-5)		1

2.19.1 Electrical Components



2.19.2 Electrical Components – Parts List

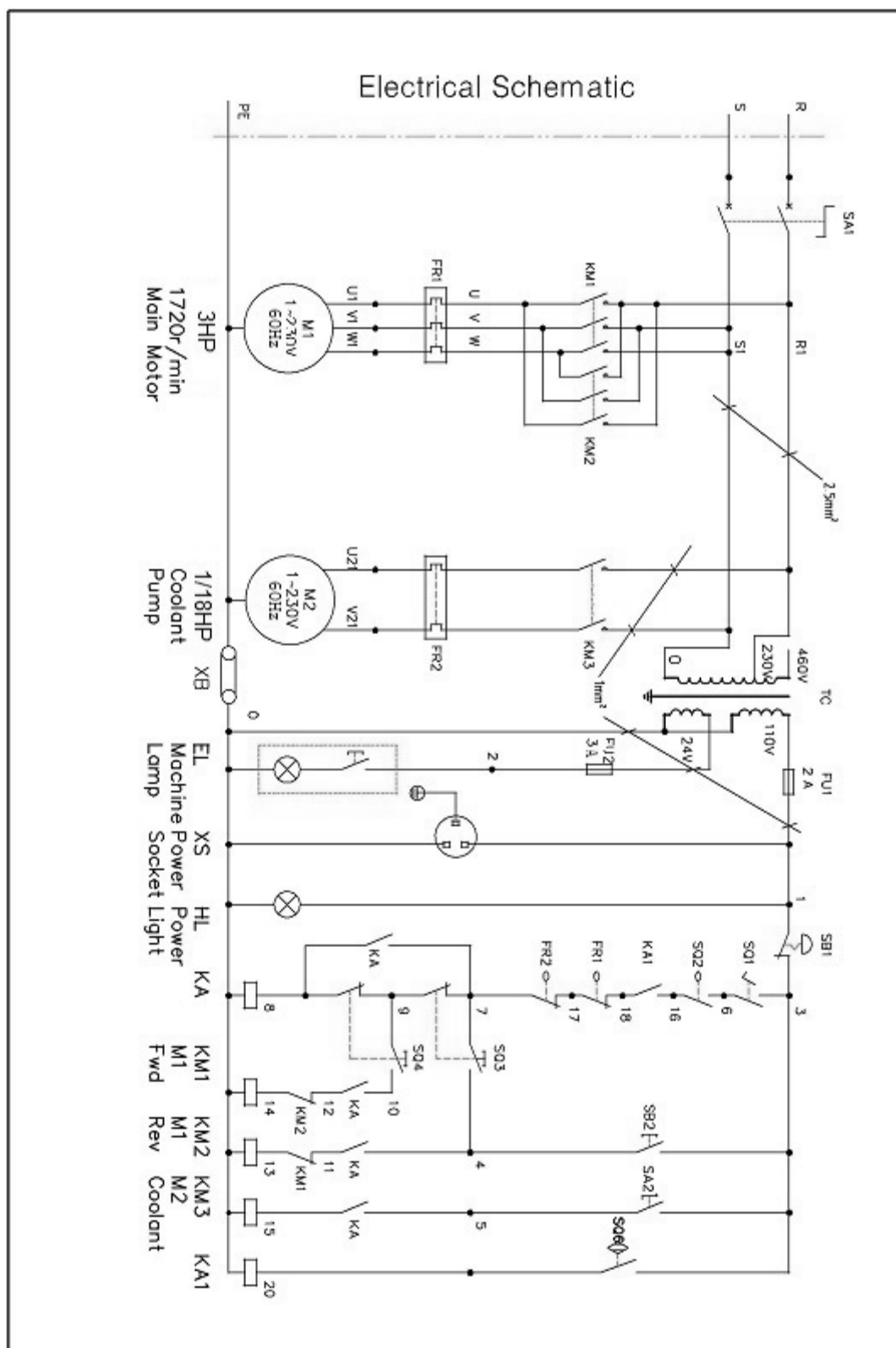
Index No.	Part No.	Description	Qty
1	GH1440W-KM1G	Magnetic Starter (1 Phase, forward)	1
	GH1340A-KM1G	Magnetic Starter (3 Phase, forward)	1
2	GH1440W-KM2G	Magnetic Starter (1 Phase, reverse)	1
	GH1340A-KM2G	Magnetic Starter (3 Phase, reverse)	1
3	GH1440W-KAG	Control Contactor	1
4	GH1440W-KM3G	Coolant Pump Contactor	1
5	GH1440W-F1	2 Amp Fuse (local purchase)	1
	GH1440W-F2	4 Amp Fuse (local purchase)	1
6	GH1440W-FR1G	Motor Overload Relay (1 Phase)	1
	GH1340A-FR1G	Motor Overload Relay (3 Phase)	1
7	GH1440W-FR2G	Control Relay (1 Phase)	1
	GH1340A-FR2G	Control Relay (3 Phase)	1
8	GH1440W-TCG	Transformer (1 Phase)	1
	GH1440W-TC-3G	Transformer (3 Phase)	1
9	GH1440W-KA1	Relay	1
9-1	GH1440W-KA1-1	Relay seat	1
10	GH1440W-XS	American socket	1

11	GH1440W-SA1G	Power On /Off Switch (not shown)	1
12	GH1440W-SQ2G	Door Switch (not shown)	1
13	GH1440W-SQ1G	Brake Switch (not shown)	1
14	GH1440W-SB1G	Off Switch (not shown)	1
15	GH1440W-SB2G	Jog Switch (not shown)	1
16	GH1440W-HLG	Power Indicator Light (not shown)	1
17	GH1440W-SA2G	Coolant Pump Switch (not shown)	1
18	GH1440W-SQ3G	Forward Switch (not shown)	1
19	GH1440W-SQ4G	Reverse Switch (not shown)	1
	GHW-M1-1	Main Motor (1 Phase, not shown)	1
	GHW-M1-3	Main Motor (3 Phase, not shown)	1
	GHW-M2-1	Coolant Pump (1 Phase, not shown)	1
	GHW-M2-3	Coolant Pump (3 Phase, not shown)	1

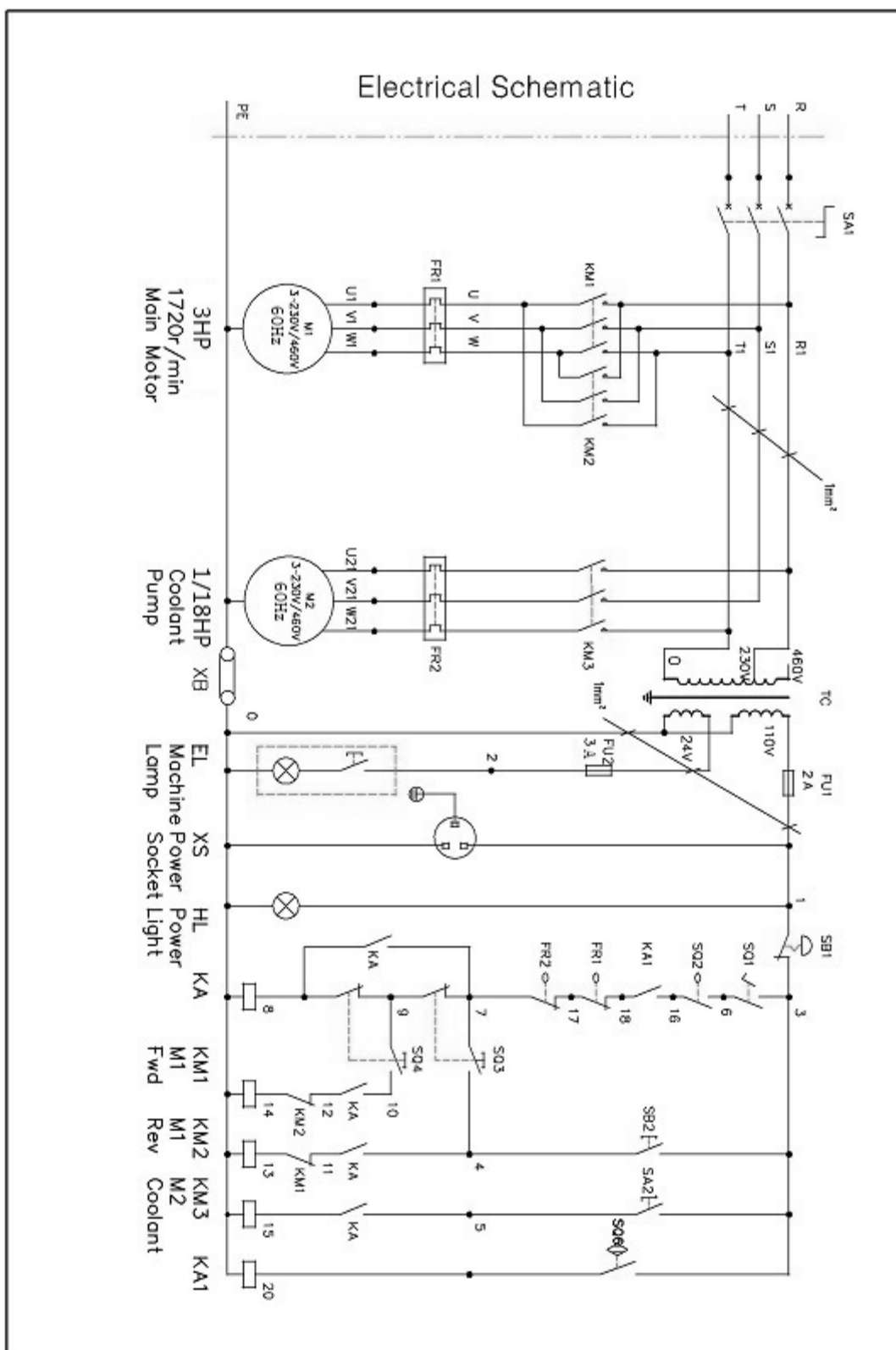
2.19.3 W Series Lathes Electrical Schematic Symbol Glossary

Symbol	Component	Location
SB1	Off Switch	Front Panel
SB2	Jog Switch	Front Panel
HL	Power Indicator Light	Front Panel
SA2	Coolant Pump Switch	Front Panel
SQ1	Brake Switch	Inside Bottom Cover-Headstock End
SQ2	Door Switch	Inside Change Gear Cover
SQ3	Forward Switch	Inside Front Panel (Right Of Gearbox)
SQ4	Reverse Switch	Inside Front Panel (Right Of Gearbox)
SA1	Power On/Off Switch	On Electrical Panel Cover-Rear of Machine
KM3	Coolant Pump Contactor	Electrical Control Box- Rear of Machine
KA	Control Contactor	Electrical Control Box- Rear of Machine
FR1	Motor Overload Relay	Electrical Control Box- Rear of Machine
FR2	Coolant Pump O/L Relay	Electrical Control Box- Rear of Machine
KM1	Magnetic Starter-Forward	Electrical Control Box- Rear of Machine
KM2	Magnetic Starter-Reverse	Electrical Control Box- Rear of Machine
TC	Control Transformer	Electrical Control Box- Rear of Machine
XS	American Socket	Electrical Control Box- Rear of Machine
M1	Main Motor	Inside Stand-Headstock End
M2	Coolant Pump Motor	Inside Stand-Tailstock End
SQ6	Proximity Switch	Left Side of machine bed legs

3.1.1 Wiring Diagram – 1 Phase



3.1.2 Wiring Diagram – 3 Phase





427 New Sanford Road
LaVergne, Tennessee 37086
Phone: 800-274-6848
www.jettools.com