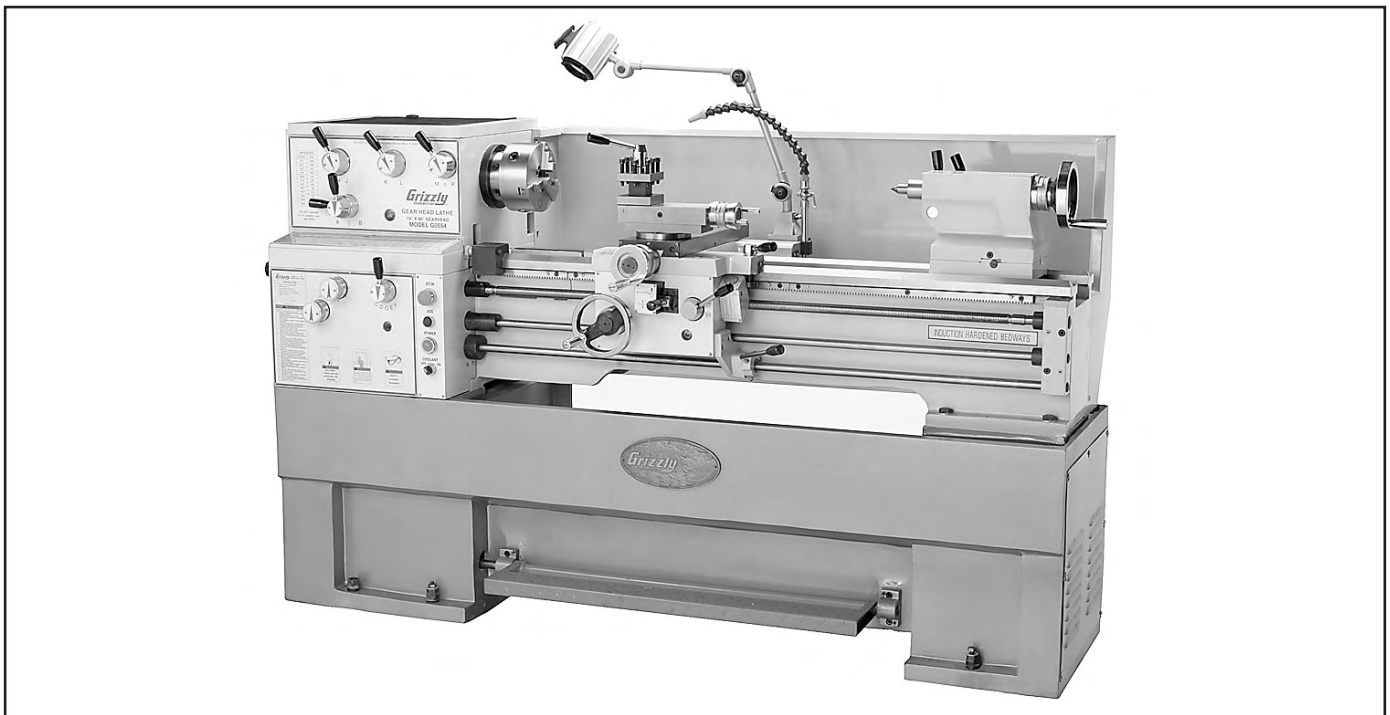


Grizzly *Industrial, Inc.*®

MODEL G0554 GEAR-HEAD FLOOR LATHE OWNER'S MANUAL



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#PC8316 PRINTED IN CHINA



WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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INTRODUCTION

Foreword

We are proud to offer the Model G0554 Gear-Head Floor Lathe. This machine is part of a growing Grizzly family of fine metalworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G0554. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0554 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: <http://www.grizzly.com>





MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G0554 14" X 40" LATHE

Product Dimensions:

Weight..... 2191 lbs.
 Length/Width/Height..... 80 x 29-1/2 x 45 in.
 Foot Print (Length/Width)..... 73-1/2 x 19 in.

Shipping Dimensions:

Type..... Wood Crate
 Content..... Machine
 Weight..... 2738 lbs.
 Length/Width/Height..... 77 x 30 x 59 in.

Electrical:

Switch..... Magnetic Switch with Thermal Overload Protection
 Switch Voltage..... 220V
 Recommended Breaker Size..... 20 amp
 Plug..... No

Motors:

Main

Type..... TEFC Capacitor Start Induction
 Horsepower..... 3 HP
 Voltage..... 220V
 Prewired..... 220V
 Phase..... Single
 Amps..... 14A
 Speed..... 1725 RPM
 Cycle..... 60 Hz
 Number Of Speeds..... 1
 Power Transfer Belt Drive to Gear
 Bearings..... Shielded and Lubricated for Life

Main Specifications:

Operation Info

Swing Over Bed..... 14 in.
 Dist Between Centers..... 40 in.
 Swing Over Cross Slide..... 8-1/2 in.
 Swing Over Saddle..... 8-1/2 in.
 Swing Over Gap..... 20 in.
 Max Tool Bit Size..... 5/8 in.
 Compound Travel..... 3-1/2 in.
 Carriage Travel..... 37-1/2 in.
 Cross Slide Travel..... 7 in.

*The information contained herein is deemed accurate as of 5/26/2006 and represents our most recent product specifications.
 Due to our ongoing improvement efforts, this information may not accurately describe items previously purchased.*



Headstock Info

Spindle Bore..... 1-1/2 in.
 Spindle Taper..... MT#5
 No Of Spindle Speeds..... 12
 Range Of Spindle Speeds..... 40, 60, 85, 115, 160, 230, 325, 460, 650, 910, 1280, 1800 RPM
 Spindle Type..... D1-4 Cam Lock
 Spindle Bearings..... Tapered Roller

Tailstock Info

Tailstock Travel..... 4-5/8 in.
 Tailstock Taper..... MT#3
 Tailstock Barrel Diameter..... 1-25/32 in.

Threading Info

No Of Inch Threads..... 40
 Range Of Inch Threads..... 4 - 112 TPI
 Range Of Longitudinal Feeds..... 0.0012 - 0.0294 in.
 No Of Longitudinal Feeds..... 40
 No Of Cross Feeds..... 40
 Range Of Cross Feeds..... 0.0006 - 0.0147 in./rev.
 No Of Metric Threads..... 22
 Range Of Metric Threads..... 0.45 - 7.5 mm

Dimensions

Bed Width..... 10-1/4 in.
 Leadscrew TPI..... 8
 Leadscrew Length..... 49-1/2 in.
 Steady Rest Capacity..... 1/4 - 3-3/4 in.
 Follow Rest Capacity..... 1/4 - 2-3/4 in.
 Faceplate Size..... 12 in.
 Leadscrew Diameter..... 7/8 in.
 Feed Rod Diameter..... 3/4 in.
 Floor To Center Height..... 40-1/8 in.
 Height With Leveling Jacks..... 41 in.

Construction

Base Construction..... Cast Iron
 Headstock Construction..... Cast Iron
 Headstock Gears Construction..... Flame Hardened Steel
 Bed Construction..... Induction Hardened Cast Iron
 Body Construction..... Cast Iron
 Stand Construction..... Cast Iron
 Paint..... Epoxy

Other

Kilowatt Output..... 2.2

Other Specifications:

Country Of Origin China
 Warranty 1 Year
 Serial Number Location Left Side of Gearbox (Headstock Side) also Tailstock End Between Bed Ways
 Awards Production Technology News Editor's Choice 2004

*The information contained herein is deemed accurate as of 5/26/2006 and represents our most recent product specifications.
 Due to our ongoing improvement efforts, this information may not accurately describe items previously purchased.*



Identification

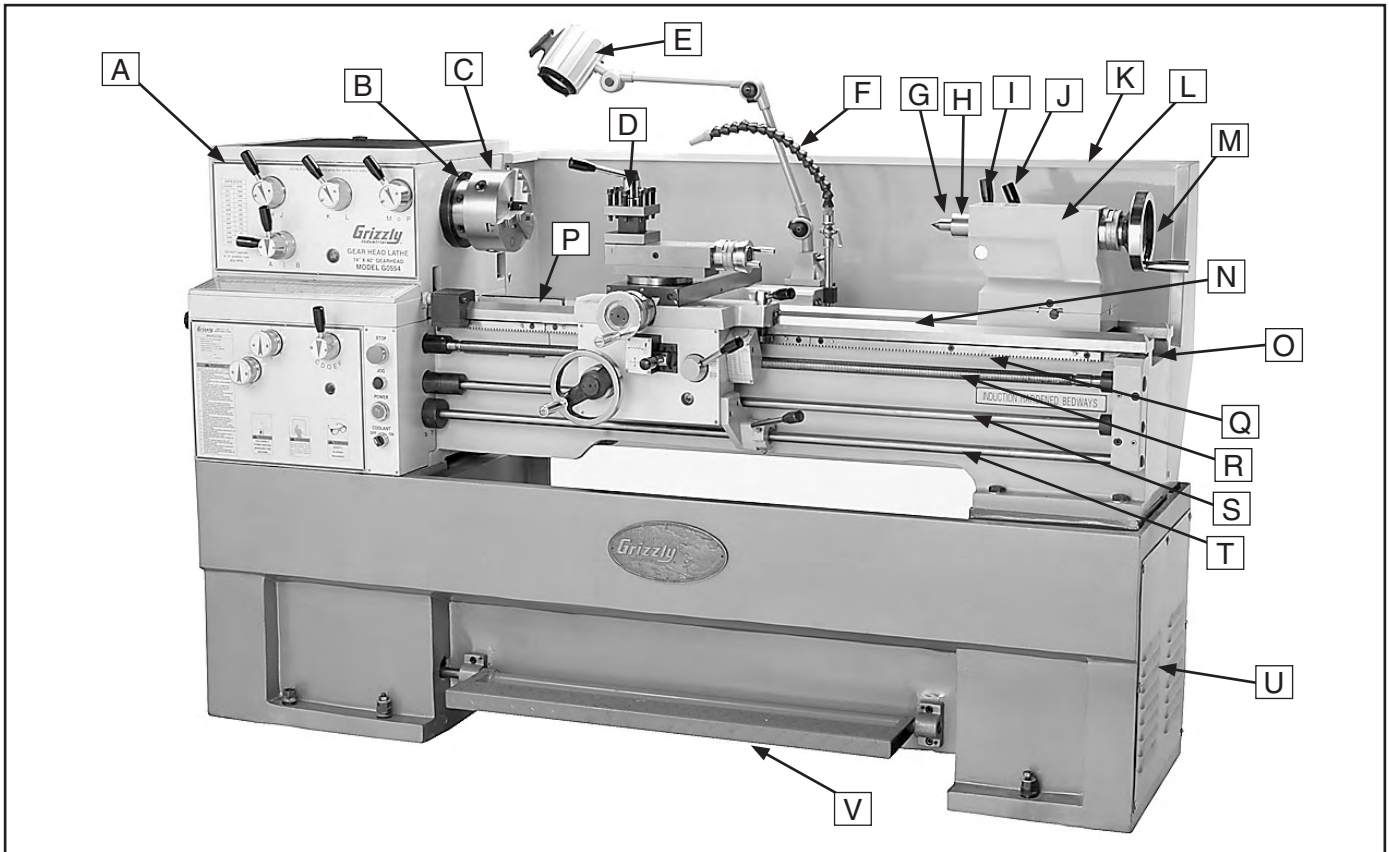


Figure 1. The Model G0554 Gear-Head Floor Lathe.

- | | |
|---------------------------|-----------------------------------|
| A. Headstock | L. Tailstock |
| B. Spindle | M. Tailstock Handwheel |
| C. Three-Jaw Chuck | N. Bed Ways |
| D. Tool Post | O. Bed |
| E. Work Light | P. Gap Bed |
| F. Coolant Hose | Q. Rack |
| G. Dead Center | R. Longitudinal Lead Screw |
| H. Quill | S. Feed Rod |
| I. Quill Lock | T. Power Control Rod |
| J. Tailstock Lock | U. Coolant Reservoir Cover |
| K. Splash Guard | V. Foot Brake |



Headstock Controls

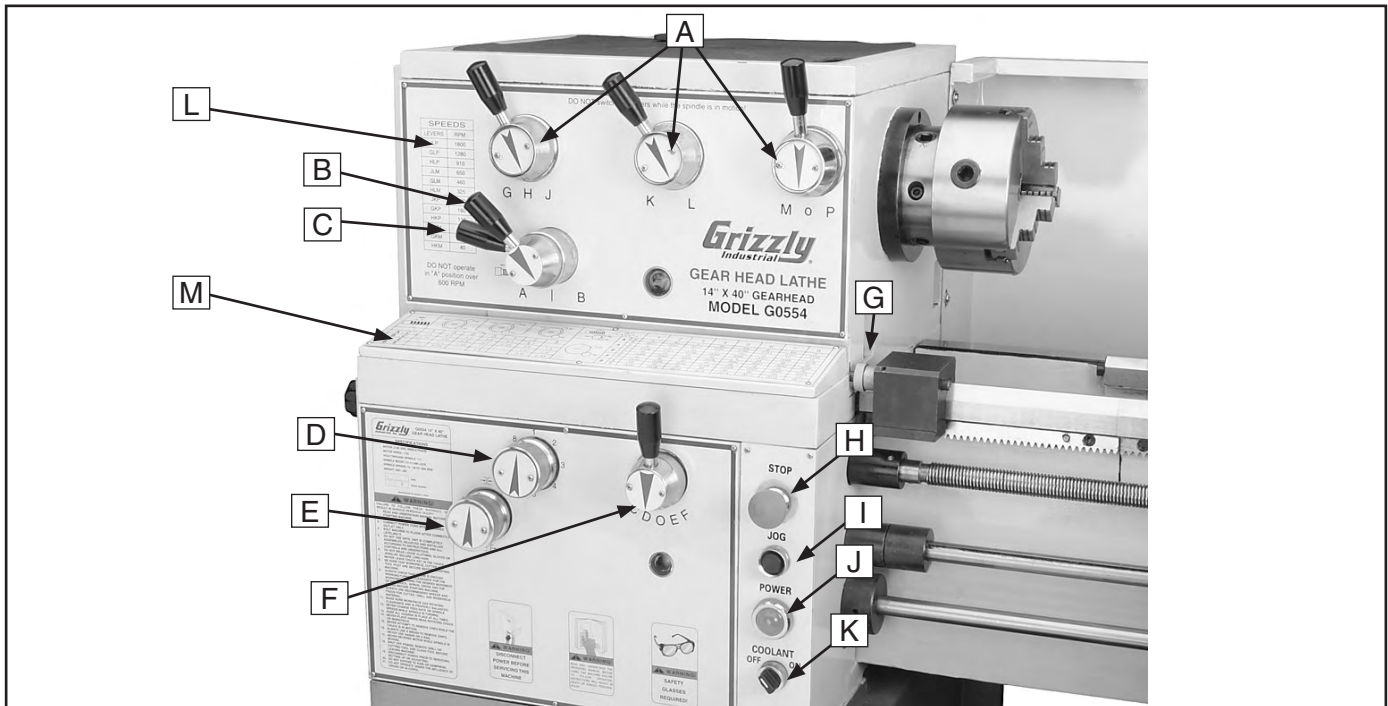


Figure 2. Control panel close-up.

- A. Gear Change Levers:** Used for setting spindle speed.
- B. Feed/Lead Selector Lever:** Used for setting up power feed or threading operations in conjunction with threading charts.
- C. Lead Screw/Feed Rod Direction Lever:** Moving lever up moves carriage toward tailstock—moving lever down moves carriage toward headstock when chuck is spinning. Do not change lever position while machine is running.
- D. Feed/Lead Selection Knob:** Used for setting up power feed or threading operations in conjunction with threading charts.
- E. Feed Rod Lock Knob:** With the knob in the six o'clock position, the **Feed/Lead Selection Knob** can be adjusted. With the knob in the twelve o'clock position, the **Feed/Lead Selection Knob** is locked in position.
- F. Feed/Lead Selector Lever:** Used for setting up power feed or threading operations in conjunction with threading charts.
- G. Carriage Micro Stop:** Used for fine adjustments for repeatable carriage stops. Graduated to 0.001". NOT TO BE USED WITH POWER FEED!
- H. Emergency Stop Button:** Stops all machine functions. Twist to reset.
- I. Jog Button:** Turns all lathe functions **ON** while being pressed.
- J. Power Light:** Indicates the lathe is energized when illuminated. Controlled by the master power switch on the back of the cabinet.
- K. Coolant Pump Switch:** Turns coolant pump **ON**.
- L. Speed Chart:** Shows lever combinations for spindle RPMs.
- M. Threading Chart:** Shows lever and knob combinations for feed and threading operations.



Carriage Controls

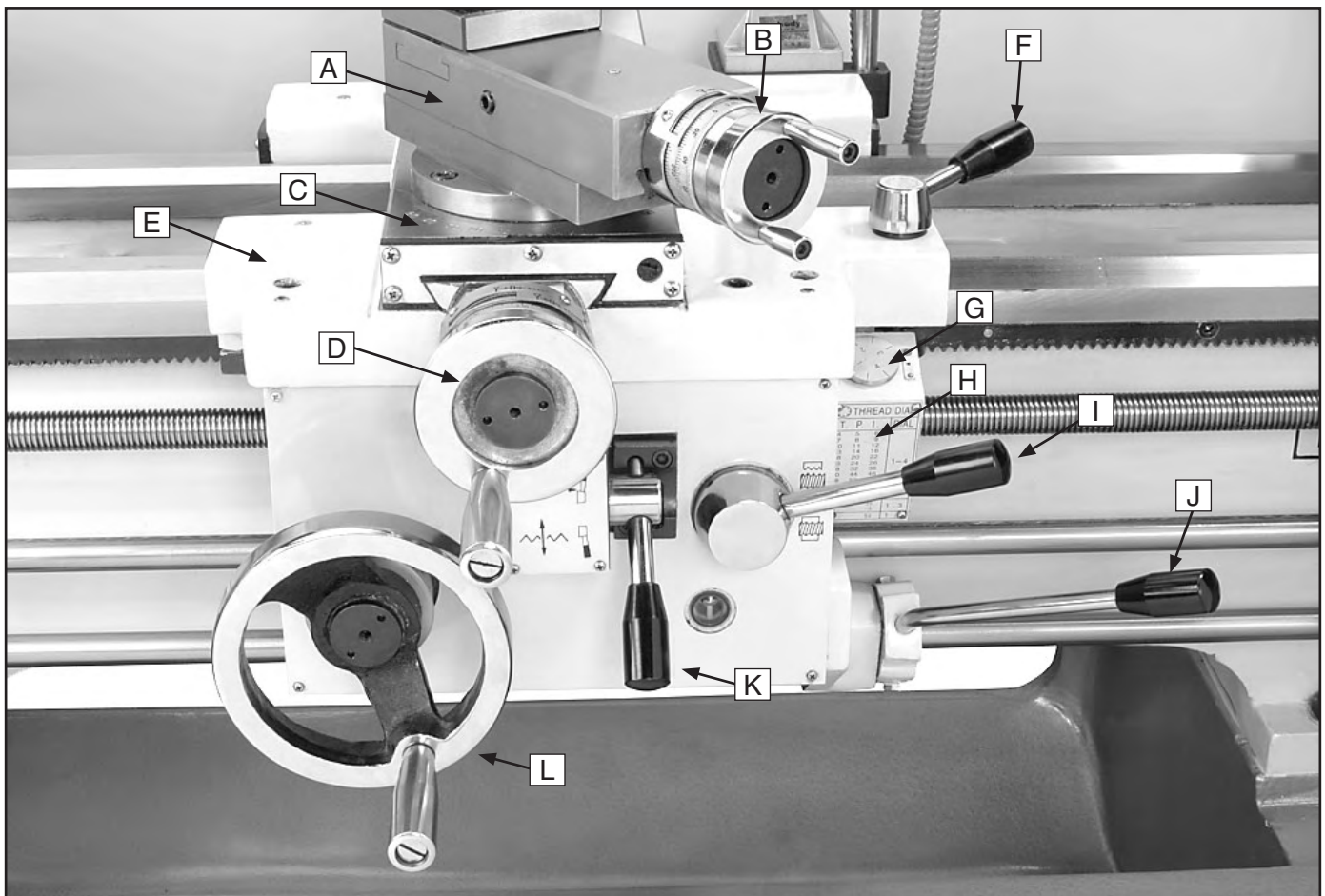


Figure 3. Model G0554 Carriage controls.

- A. **Compound Rest:** Adjustable to 120°.
- B. **Compound Handwheel:** Graduated to 0.001" or 0.02 mm.
- C. **Cross Slide:** Moves back-and-forth along the Y-axis and supports the compound rest.
- D. **Cross Slide Handwheel:** Graduated to 0.001" or 0.02 mm.
- E. **Saddle:** Rides on top of the bed ways while supporting the cross slide and apron.
- F. **Carriage Lock:** Locks the carriage assembly in place for greater rigidity and accuracy when cutting.
- G. **Thread Dial:** Used in conjunction with thread cutting.
- H. **Thread Dial Chart:** Keys for inputting the desired angle of the saw blade.
- I. **Half Nut Lever:** Engages the half nut for longitudinal power feed and threading operations.
- J. **Spindle ON/OFF Lever:** Lifting up turns the spindle **ON** clockwise. Push down for counterclockwise spindle rotation.
- K. **Power Feed Lever:** Determines longitudinal and cross feed directions.
- L. **Longitudinal Handwheel.** Manually moves the carriage in the X-axis. Graduated to 0.005" or 0.1 mm.



SECTION 1: SAFETY

WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

WARNING

Safety Instructions for Machinery

- 1. READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- 3. ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **BE AWARE THAT CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Make sure you know the hazards associated with the type of dust you will be exposed to and always wear a respirator approved for that type of dust.



WARNING

Additional Safety for Metal Lathes

- 1. READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING THIS MACHINE. YOUR SAFETY AND THE PROPER USE OF THIS MACHINE IS YOUR RESPONSIBILITY.**
- 2. CLEARING CHIPS.** Do not clear chips by hand or while the lathe is turning.
- 3. CHUCK KEY SAFETY.** Always remove chuck key. Never walk away from the lathe with the key in the chuck.
- 4. TOOL SELECTION.** Always select the right cutter for the job, and make sure they are sharp. The right tool decreases strain on the lathe components and provides a better finish.
- 5. SECURING THE WORKPIECE.** Make sure workpiece is properly held in chuck before starting lathe. A workpiece thrown from the chuck may cause severe injury to yourself or others.
- 6. CHANGING GEARS.** Turn lathe **OFF** before changing speeds. The spindle must be brought to a complete stop before changing gears.
- 7. SUPPORT LONG STOCK.** Stock extending beyond the headstock **MUST** be supported. Unsupported stock will begin to whip and cause serious injury to operator/ bystanders and cause damage to the lathe. Always turn supported long stock at slow RPM's.
- 8. PINCH HAZARDS.** Protect your hands and the precision ground ways. Always use a chuck cradle or piece of plywood over the ways of the lathe when servicing chucks.
- 9. LATHE MAINTENANCE.** Never operate the lathe with damaged or worn parts. Maintain your lathe in proper working condition. Perform routine inspections and maintenance promptly when needed. Put away adjustment tools after use.
- 10. SAFETY CLEARANCES.** Make sure workpiece has adequate clearance before starting machine. Check tool and tool post clearance, chuck clearance, and saddle clearance before starting the lathe.
- 11. RATES.** Always use the appropriate feed and speed rates.
- 12. STOPPING LATHE.** Never attempt to slow or stop the lathe chuck by using your hand.
- 13. ATTENDANCE.** Never walk away from the lathe while it is running. An unsupervised lathe that is running invites accidents.
- 14. LONG HAIR.** Tie up long hair. Long hair poses a risk of entanglement with moving parts.
- 15. AUTOMATIC FEEDS.** Release any automatic feeds after completing a job.
- 16. TURNING SPEEDS.** Select the turning speed appropriate for the type of work, material, and tool bit. Allow the lathe to gain full speed before beginning a cut.
- 17. MOTOR DIRECTION.** Never reverse motor direction while the lathe is in motion.
- 18. GUARDS.** Make sure all guards are in place and working properly.
- 19. TOOL POST CLEARANCE.** Adjust tool post to provide proper support for the turning tool you will be using. Test tool post clearance by rotating workpiece by hand before turning lathe **ON**.
- 20. CRASHES.** Make sure no part of the tool, tool holder, compound slide, cross slide, or carriage will contact the chuck during operation.



Glossary Of Terms

The following is a list of common definitions, terms and phrases used throughout this manual as they relate to this lathe and metalworking in general. Become familiar with these terms for assembling, adjusting or operating this machine. Your safety is VERY important to us at Grizzly!

Arbor: A machine shaft that supports a cutting tool.

Backlash: Wear in a screw or gear mechanism that may result in slippage, vibration and loss of tolerance.

Collet: A conical shaped split-sleeve bushing that holds round or rectangular tool and/or workpieces by their outside diameter.

Cross Feed: Lathe—Movement of cutting tool across the end of the workpiece.
Mill—The movement of the table toward or away from the column.

Cross Slide: A fixture attached to the lathe carriage that holds the compound rest and can be moved in and out.

Cutting Speed: The distance a point on a cutter moves in one minute, expressed in meters or feet per minute.

Dial Indicator: An instrument used in setup and inspection work that shows on the amount of error in size or alignment of a part.

Dividing Head: A milling machine accessory used to divide a circular object into a number of equal parts.

Down Milling or Climb Milling: Feeding the workpiece in the same direction as the cutter rotation (opposite of standard milling).

End Mill: A cutter with cutting surfaces on both the circumference and end.

Facing: In lathe work, cutting across the end of a workpiece, usually to machine a flat surface.

Feed: The movement of a cutting tool into a workpiece.

Fixture: A device that securely holds the

workpiece in place during cutting operation as opposed to a **Jig** which is used to hold and guide a workpiece through an operation.

Gib: A tapered wedge located along a sliding member to take up wear or to ensure a proper fit.

Headstock: The major lathe component that houses the spindle and motor drive system to turn the workpiece.

Lathe Center: A lathe accessory with a 60° point which is inserted into the headstock or tailstock of the lathe and is used to support the workpiece.

Leadscrew: Lathe—The long screw that is driven by the end gears and supplies power to the carriage. Mill—The screws that move the table in longitudinal, transverse, or vertical directions.

Spindle: The revolving shaft that holds and drives the workpiece or cutting tool.

Tailstock: A moveable fixture opposite of the headstock on a lathe that has a spindle used to support one end of a workpiece and for holding tools.

Toolpost: The part of the compound rest that holds the tool holder.

Turret: Lathe—A machine fixture that holds multiple tools and can be revolved and indexed to position. Mill—The part of a mill that rotates on the column and can be set to a specific degree.

Ways: The precision machined and flat tracks on a lathe or mill on which the carriage, tailstock, mill table, and knee slide.



SECTION 2: CIRCUIT REQUIREMENTS

220V Single-Phase

!WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. **DO NOT** connect the machine to the power source until instructed to do so.

Amperage Draw

The Model G0554 motor draws the following amps under maximum load:

Motor Draw at 220V 14 Amps

Circuit Requirements

We recommend using a dedicated circuit for this machine. You **MUST** connect your machine to a grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

220V Circuit.....20 Amps

Plug/Receptacle Type

Recommended Plug/Receptacle.....NEMA 6-20

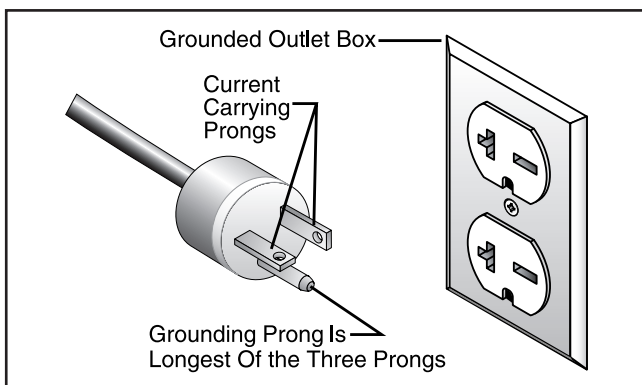
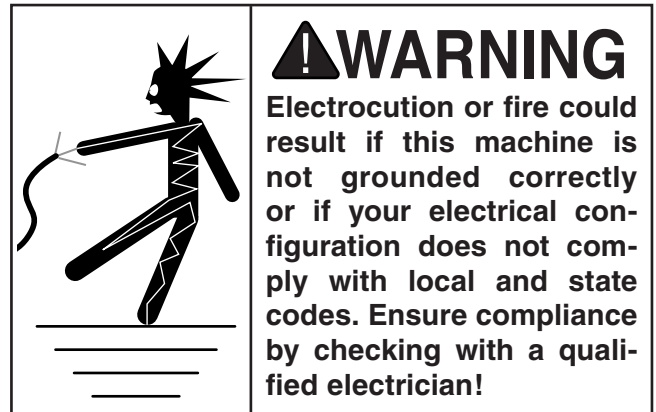


Figure 4. NEMA 6-20 plug and receptacle.

Grounding

In the event of an electrical short, grounding reduces the risk of electric shock. The grounding wire in the power cord must be properly connected to the grounding prong on the plug; likewise, the outlet must be properly installed and grounded. All electrical connections must be made in accordance with local codes and ordinances.



Extension Cords

We do not recommend the use of extension cords. Instead, arrange the placement of your equipment and the installed wiring to eliminate the need for extension cords.

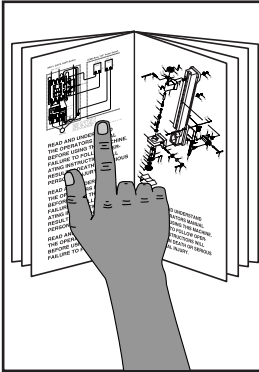
If you find it absolutely necessary to use an extension cord at 220V with your machine:

- Use at least a 14 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage.

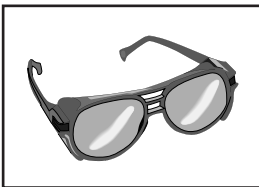


SECTION 3: SETUP

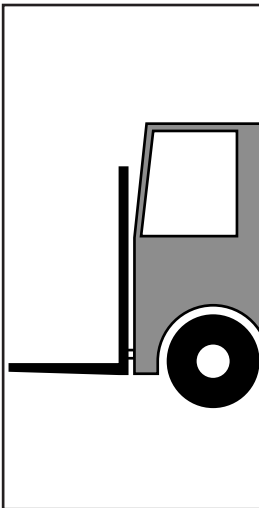
Setup Safety



!WARNING
This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



!WARNING
Wear safety glasses during the entire setup process!



!WARNING
The Model G0554 is an extremely heavy machine. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.

Items Needed for Setup

The following items are needed to complete the setup process, but are not included with your machine:

Description	Qty
• Fork Lift	1
• Lifting Straps (2000 lb capacity each).....	2
• Safety Glasses (for each person)	1
• Helper for Moving.....	1
• Solvent for Cleaning.....	1
• Shop Rags for Cleaning.....	1

Unpacking

The Model G0554 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, you should inventory the contents.



Inventory

After all the parts have been removed from the two boxes, you should have the following items:

Main Crate: (Figures 5 & 6)		Qty
A.	Model G0554 Gear Head Lathe.....	1
B.	12" Faceplate	1

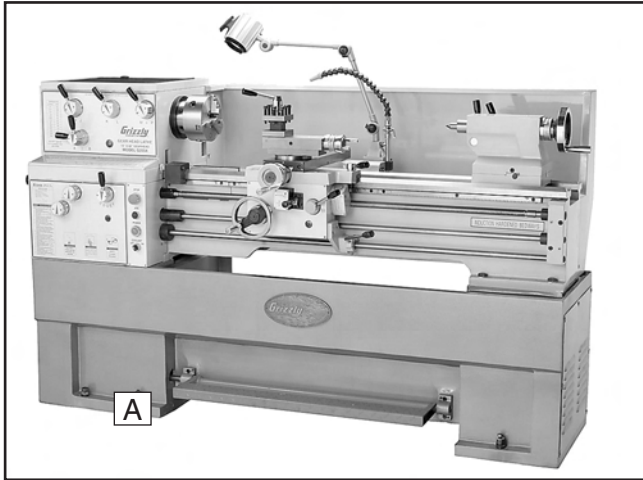


Figure 5. Main Inventory.

Large Wooden Box: (Figure 6)		Qty
C.	8" Four Jaw Chuck.....	1
D.	Four Jaw Chuck Key	1
E.	Camlock Studs	3
F.	Camlock Stud Set Screws.....	3

Small Wooden Box: (Figure 6)		Qty
G.	Cast Iron Foot Pads	6

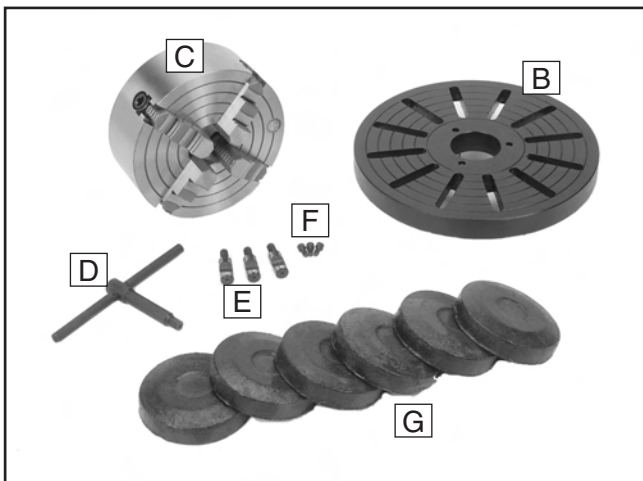


Figure 6. Box Inventory.

Tool Box: (Figure 7)		Qty
H.	Tool Box	1
I.	Touch-up Paint.....	1
J.	Oil Can	1
K.	Slotted Screwdriver	1
L.	Phillips Head Screwdriver #2	1
M.	Handwheel Handles	2
N.	Open End Wrenches 9/11, 10/12, 12/14, 17/14mm	1 each
O.	Hex Wrenches 2.5, 3, 4, 5, 6, & 8mm.....	1 each
P.	MT#5-3 Tapered Sleeve	1
Q.	MT#3 Dead Centers.....	2
R.	Change Gears 30T, 32T, 40T (2).....	1 each
S.	Tool Post Wrench.....	1
T.	3-Jaw Chuck Key	1
U.	Spindle Lock Key	1

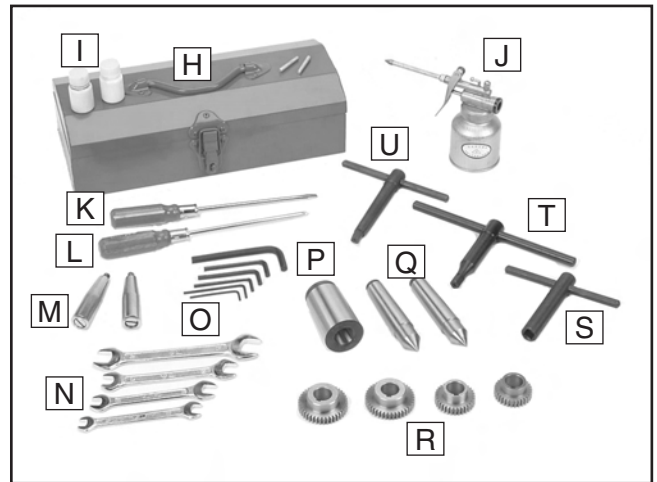


Figure 7. Tool Box Inventory.

In the event that any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.


NOTICE

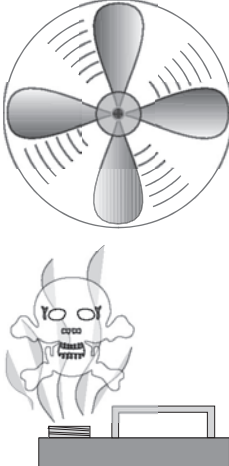
Some hardware/fasteners on the inventory list may arrive pre-installed on the machine. Check these locations before assuming that any items from the inventory list are missing.



Cleanup

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. **For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

	<p>⚠ WARNING Gasoline and petroleum products have low flash points and could cause an explosion or fire if used to clean machinery. DO NOT use gasoline or petroleum products to clean the machinery.</p>
--	---

	<p>⚠ CAUTION Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.</p>
---	---

Site Considerations

Floor Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some floors may require additional reinforcement to support both the machine and operator.

Working Clearances

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 8** for the minimum working clearances.

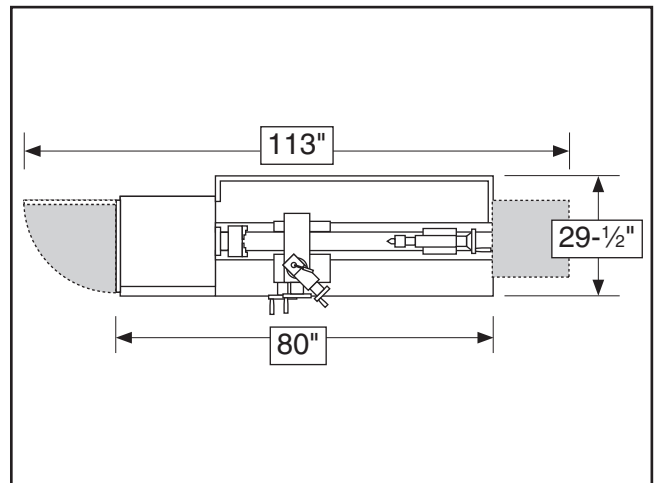
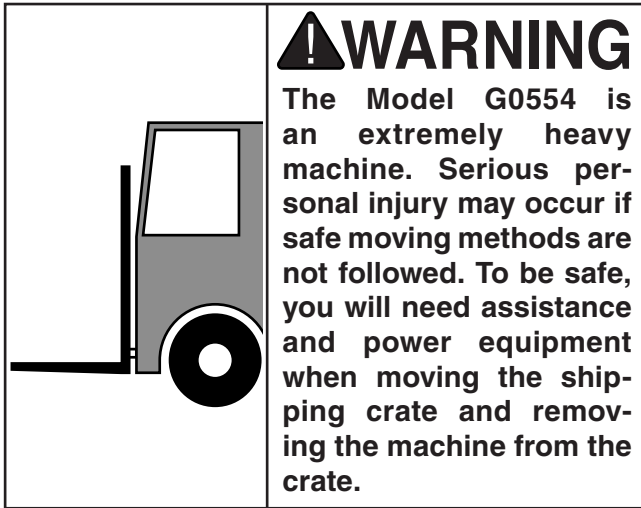


Figure 8. Minimum working clearances.

	<p>⚠ CAUTION Unsupervised children and visitors inside your shop could cause serious personal injury to themselves. Lock all entrances to the shop when you are away and DO NOT allow unsupervised children or visitors in your shop at any time!</p>
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Moving & Placing Base Unit



Use a forklift with slings to lift the machine off the pallet and onto a suitable location. Make sure the slings are behind the control rod, lead screw and feed rod as shown in **Figure 9**. The headstock carries most of the weight on this machine. To provide counter-balance, move the carriage as far to the right as possible. Lock carriage and tailstock in place to avoid possible movement.

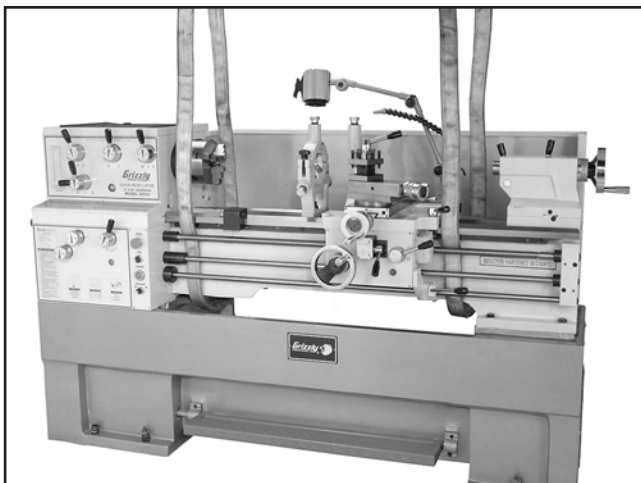


Figure 9. Lifting the G0554.

You can set the lathe on top of the cast iron foot pads and level with the leveling screws shown in **Figure 10**.

Note: Two of the six leveling screws are behind the motor cover.

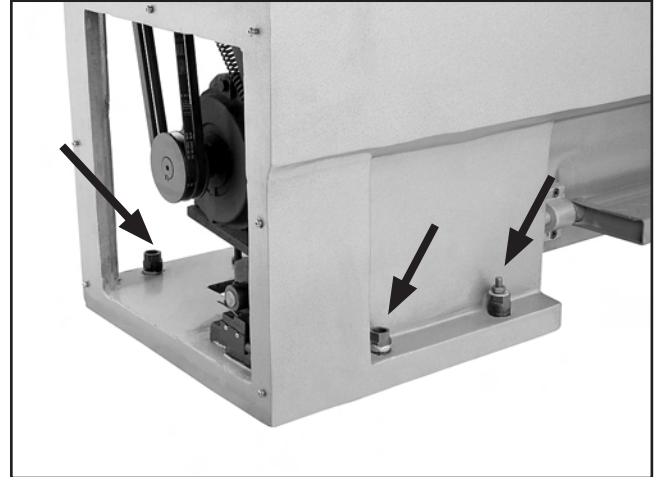


Figure 10. Leveling screws.



Checking Gear Oil

Make sure the gear box has oil in it before running the lathe for the first time to ensure the gears are not damaged. Fill the headstock and apron with SAE 20W or an ISO 68 non-detergent gear oil or an equivalent lubricant.

To check the gear oil:

1. Inspect the oil sight glasses in the headstock and apron (see **Figures 11 & 12**). The oil level must be kept at the indicator marks.



Figure 11. Headstock oil sight location.

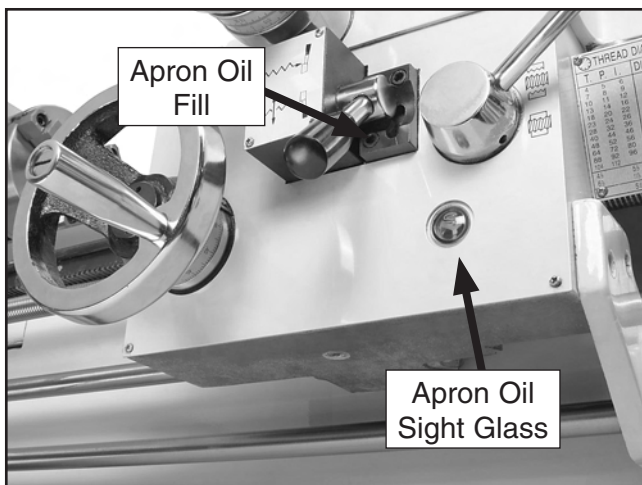


Figure 12. Apron oil sight and fill locations.

2. If necessary, fill the headstock and apron with SAE 20W or ISO 68 non-detergent gear oil, or an equivalent lubricant. See **Lubrication** on **Page 46** for more information.

Turning On Power

Once plugged in, and the master switch (**Figure 13**) on the back of the lathe is turned **ON**, the lathe is energized. The green Power light (**Figure 14**) will be lit to indicate a live connection. If you press the emergency stop button, the power light will go out and cut power to machine operations only. Twisting the EMERGENCY STOP button and letting it pop out will restore power to machine operations. To cut power to the machine entirely, you will need to turn the main switch on the back of the machine **OFF** and unplug the lathe from the outlet.

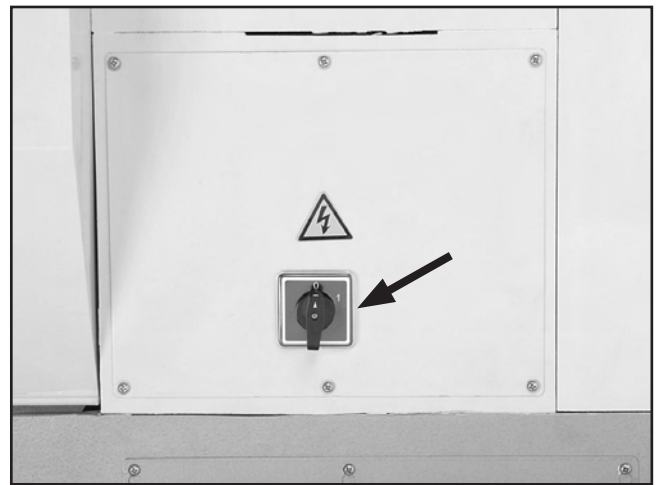


Figure 13. Master switch.

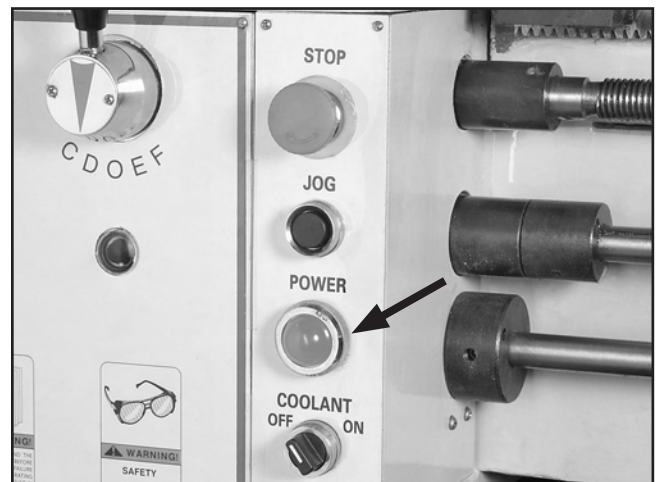


Figure 14. Power light.



Test Run

Once the assembly is complete, test run your machine to make sure safety devices are functional and the lathe runs properly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review the **Troubleshooting on Page 49**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

1. Make sure the gearbox and apron are filled with the proper gear oil. See **Lubrication on Page 46** before doing the test run.
2. Check to make sure that any auto feed is not engaged, the chuck is secure in the spindle, and there are no loose parts around the spindle.
3. Put on safety glasses, and make sure any bystanders are wearing safety glasses and are out of the way.
4. Set the lathe to the slowest RPM. See **Page 34** for adjusting RPM.
5. Turn the machine **ON**.
6. Listen to and watch for abnormal noises or actions. The machine should run smoothly with little or no vibration or rubbing noises.
— Strange or unusual noises should be investigated and corrected before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.
7. Test the foot brake. The lathe should shut **OFF** and the spindle should come to an immediate stop.
8. Test the Emergency Stop Button. The lathe should shut **OFF** immediately.

Spindle Break-in Procedures

NOTICE

Failure to follow start up and spindle break-in procedures will likely cause rapid deterioration of spindle and other related parts.

It is essential to closely follow the proper break-in procedures to ensure trouble free performance. Complete this process once you have familiarized yourself with all instructions in this manual.

To begin the start up and break-in procedure:

1. Check oil levels in the headstock and apron. Follow all lubrication procedures highlighted in **Lubrication** in the **MAINTENANCE** section on **Page 46** of this manual.
2. Make sure there are no obstructions around or underneath the spindle.
3. Turn the spindle ON/OFF switch to either the FORWARD or REVERSE position and verify the spindle rotates in the proper direction.
4. Set the spindle speed to the lowest RPM; refer to section **Setting RPM on Page 34**.
5. Turn the lathe **ON** and let it run for a minimum of 10 minutes.
6. Turn the lathe **OFF**, change gears to the next highest RPM and repeat this step for each RPM setting.

NOTICE

Check all oil levels and lubrication points before starting lathe. Excessive wear will result on moving parts not lubricated!

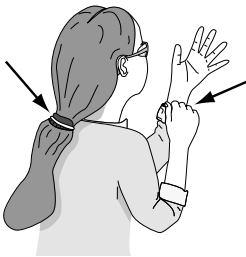
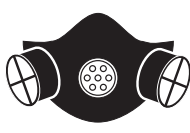


SECTION 4: OPERATIONS

Operation Safety

!WARNING

Damage to your eyes, lungs, and ears could result from using this machine without proper protective gear. Always wear safety glasses, a respirator, and hearing protection when operating this machine.



!WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.

NOTICE

If you have never used this type of machine or equipment before, **WE STRONGLY RECOMMEND** that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

General

The Model G0554 will perform many types of operations that are beyond the scope of this manual. Many of these operations can be dangerous or deadly if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate this machine. **If at any time you are experiencing difficulties performing any operation, stop using the machine!**

If you are an inexperienced operator, we strongly recommend that you read books, trade articles, or seek training from an experienced lathe operator before performing any unfamiliar operations. **Above all, your safety should come first!**

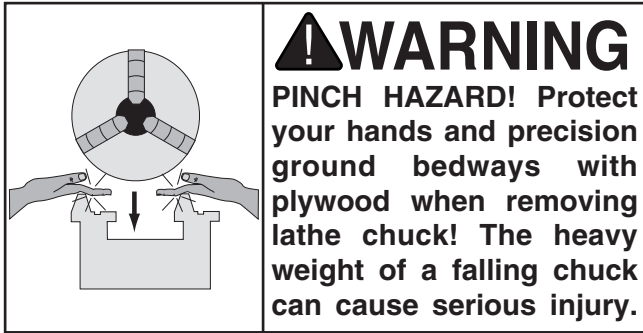
Three-Jaw Direct Mount Scroll Chuck

Three-jaw scroll chucks feature hardened steel jaws that self-center the workpiece within 0.002"-0.003". These jaws are reversible for machining larger workpieces. The 3-jaw direct mount scroll chuck featured in these instructions have three cam-lock studs that hold the chuck tight to the spindle nose.

To remove or mount your three-jaw direct mount scroll chuck, you will need the following tools:

- Chuck Key
- Dead Blow Hammer
- A Chuck Cradle or a piece of plywood large enough to span the bedways and support the weight of the chuck
- Breaker Bar (optional)





To remove the existing chuck:

1. UNPLUG THE LATHE!
2. Lay a chuck cradle or protective layer of plywood over the bedways to protect the precision ground surfaces from damage and to prevent fingers from being pinched (see **Figure 15**).

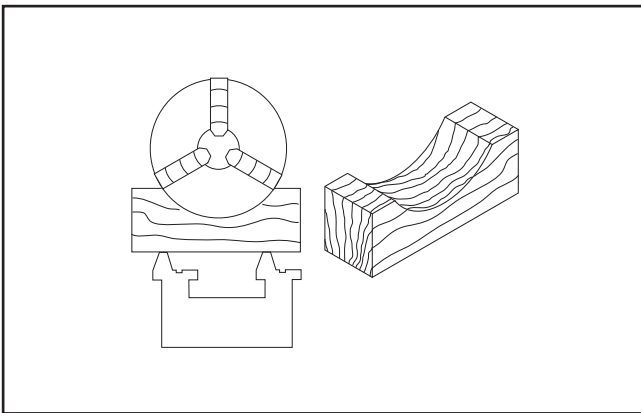


Figure 15. Simple chuck cradle made of scrap lumber.

3. Loosen the three cam-locks by turning the chuck key counterclockwise until the mark on the cam-lock aligns with the single mark on the spindle nose in **Figure 16**. This will be approximately one-third of a turn. If you look carefully, you will see the cam-lock rise up out of the spindle nose. If the cam-lock stud does not freely release from the cam-lock, wiggle the cam-lock until the cam-lock stud releases.

Note: *These cam-locks may be very tight. A breaker bar may be used to add leverage.*

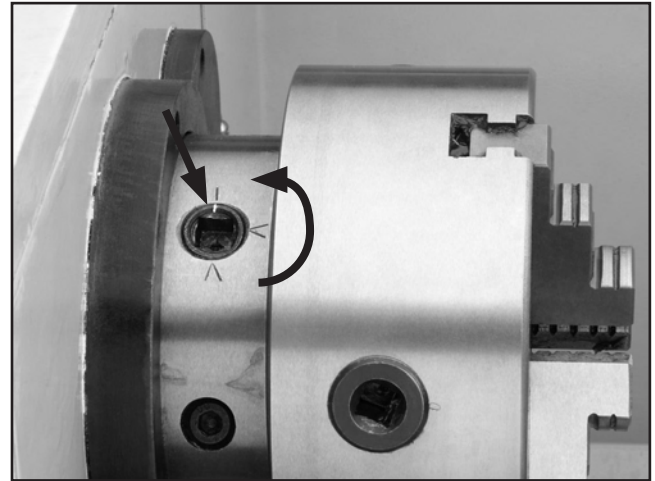
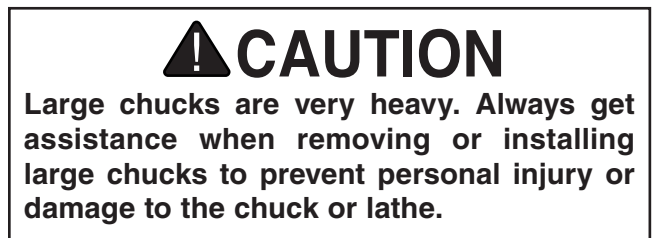


Figure 16. Loosening the cam-locks.



4. Using a dead blow hammer or other soft mallet, lightly tap around the outer circumference of the chuck body to break the chuck free from the cam-locks and from the spindle nose taper.
5. With a rocking motion, carefully remove the chuck from the spindle nose (see **Figure 17**).

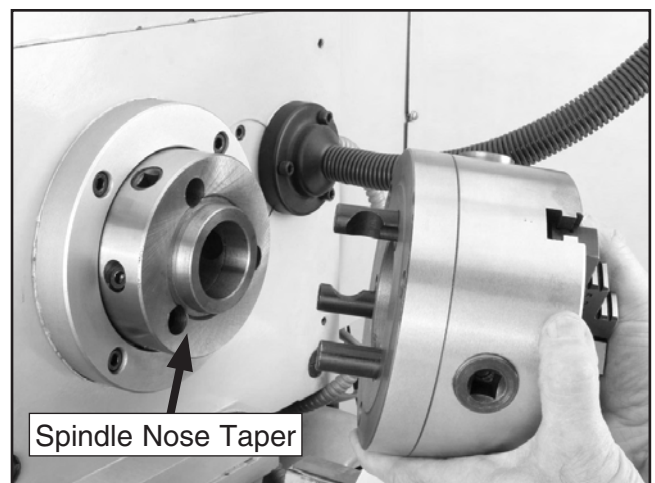


Figure 17. Installing and removing a small chuck.



To install the three-jaw scroll chuck:

1. UNPLUG THE LATHE!
2. Lay a chuck cradle or protective layer of plywood over the bedways to protect the precision ground surfaces from damage and to prevent fingers from being pinched.
3. If the three-jaw scroll chuck does not have the cam-lock studs assembled, screw the cam-lock studs into the chuck body.
4. Using your calipers, measure the height of the cam-lock studs from the previously installed chuck (see **Figure 18**).



Figure 18. Measuring height of cam-lock studs.

5. Adjust the cam-lock studs in the three-jaw chuck to match the measurement from the previous chuck.

Note: *Trial-and-error adjustment will be needed if you do not have a previous cam-lock stud to reference.*

6. Once the proper length is obtained, tighten the cap screws to lock the cam-lock studs in position.
7. Lift the chuck, and insert the studs onto the spindle nose (see **Figure 17**).

8. Tighten each cam-lock clockwise until you feel the cam-lock engage the cam-lock stud. Continue to turn until you can't turn any further. You will see the chuck body draw-up to the spindle nose. Ideally the cam-lock mark will fall between the two pointed arrows on the spindle nose (see **Figure 19**).

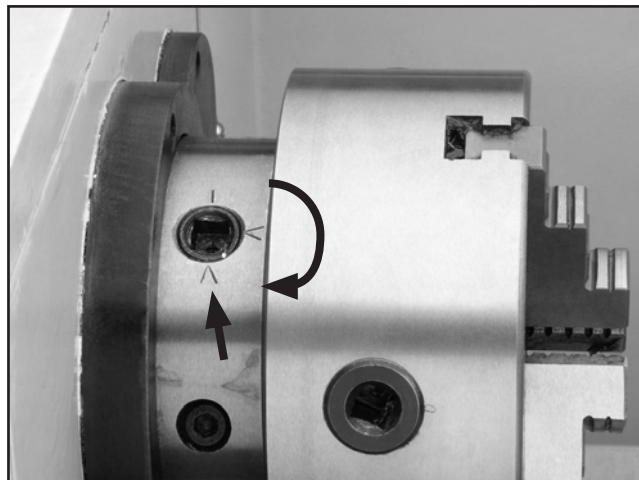


Figure 19. Tightening the cam-locks.

Reversing Jaws

The three-jaw scroll chucks on the Model G0554 are reversible to hold larger workpieces.

To reverse the jaws:

1. UNPLUG THE LATHE!
2. Unbolt, then flip the jaw as shown in **Figures 20-23**, then re-tighten.



Figure 20. Reversing jaw step 1.





Figure 21. Reversing jaw step 2.

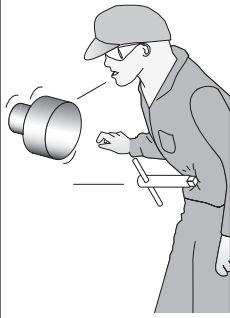


Figure 22. Reversing jaw step 3.



Figure 23. Reversing jaw step 4.

3. Repeat these steps for the other two jaws.



⚠ WARNING
Securely clamp your workpiece and remove the chuck key! Thrown objects from a lathe can cause serious injury or death to the operator and to bystanders many feet away.

To load a workpiece:

1. With the chuck key, open the jaws so the workpiece lays flat against the chuck face and jaw step, or fits in the through hole. For jaw and work holding options, see **Figure 24**.

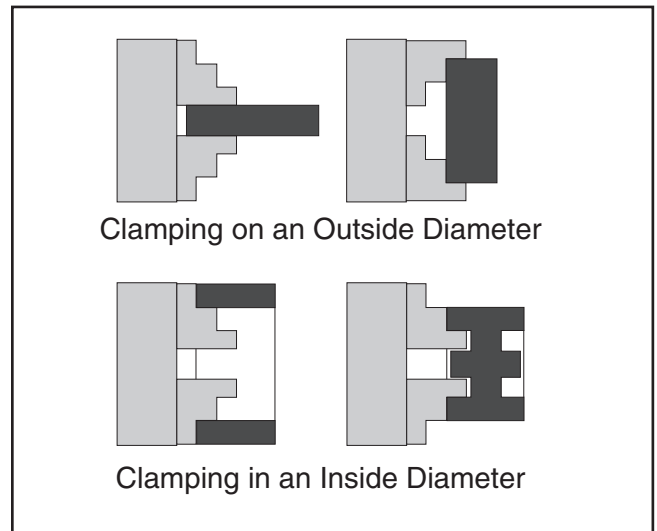
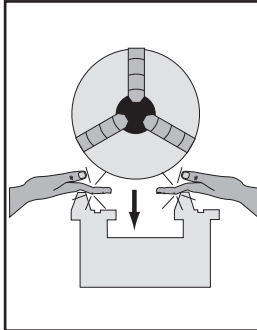


Figure 24. Loading a workpiece.

2. Turn each jaw until it makes contact with the workpiece.
3. Turn the chuck by hand to make sure you have even contact with all three jaws and the workpiece is not off center.
 - If the workpiece is off center, loosen the jaws and adjust the workpiece.
 - If the workpiece is seated correctly, tighten the jaws.



Four-Jaw Direct Mount Independent Chuck



!WARNING
PINCH HAZARD! Protect your hands and precision ground bedways with plywood when removing lathe chuck! The heavy weight of a falling chuck can cause serious injury.

Four-jaw chucks feature hardened steel jaws that are adjusted independently. Each jaw can be removed from the chuck body and be reversed. Independent jaw adjustment and reversal allows for a wide range of work holding versatility.

The four-jaw direct mount independent chuck featured in these instructions mounts the same way as the three-jaw chuck. Refer to the three-jaw chuck instructions beginning on **Page 20**.

To load a workpiece, do these steps:

1. Using the chuck key, open each jaw so the workpiece will lay flat against the chuck face.
2. Support the workpiece.
3. Lock the tailstock and then turn the tailstock quill so the dead center makes contact with the centerpoint of your workpiece.
4. Turn each jaw until it just makes contact with the workpiece.
5. Tighten each jaw in small increments. After you have adjusted the first jaw, continue tightening in opposing sequence (see **Figures 25 & 26**). Check frequently to make sure you have not wandered off your center point due to applying too much pressure to a single jaw.

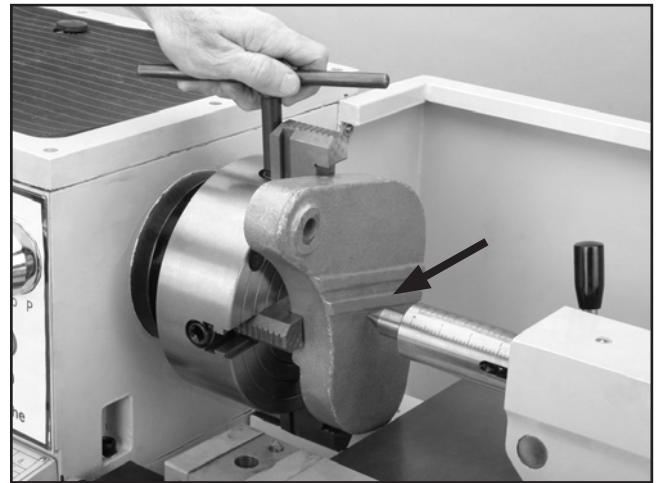


Figure 25. Centering workpiece.

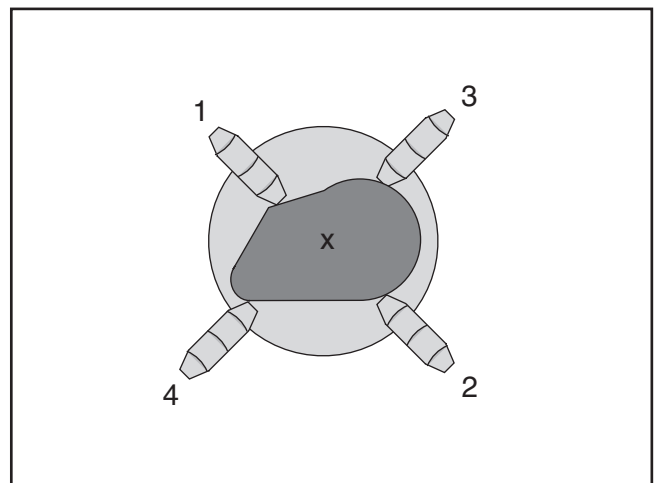


Figure 26. Jaw tightening sequence.

6. After the workpiece is held in place, back the tailstock away and rotate the chuck by hand. The center point will move if the workpiece is out of center (see **Figure 27**).

Continued on next page →



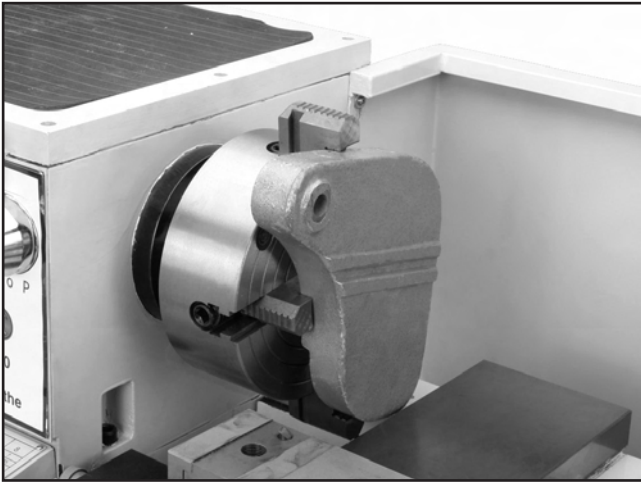


Figure 27. Properly held workpiece for offset machining at low RPM.

7. Make fine adjustments by slightly loosening one jaw and tightening the opposing jaw until the workpiece is precisely aligned.
8. Use a lower RPM when machining heavy eccentric workpieces.

Faceplate

The faceplate can be used to turn non-cylindrical parts or for off-center turning by clamping the workpiece to the faceplate.

Installing the faceplate follows the same steps as any of the lathe chucks. Install according to the instructions for three-jaw chucks found on **Page 20**.

To load a workpiece:

1. Support the workpiece.
2. Slide the tailstock to the workpiece.
3. Lock the tailstock and then turn the tailstock quill so the dead center makes contact with the centerpoint of your workpiece. For more information refer to **Centers** in this section on **Page 30**.

4. Lock the tailstock quill when sufficient pressure is applied to hold the workpiece in place. Depending on the workpiece, some additional support may be needed.

!WARNING

Use a minimum of three independent clamping devices when turning eccentric workpieces. Failure to provide adequate clamping will cause workpiece to eject.

5. Secure the workpiece with a minimum of three independent clamping devices (see **Figure 28**). Take into account rotation and the cutting forces applied to the workpiece when clamping to the faceplate. Make sure your clamping application will not fail!

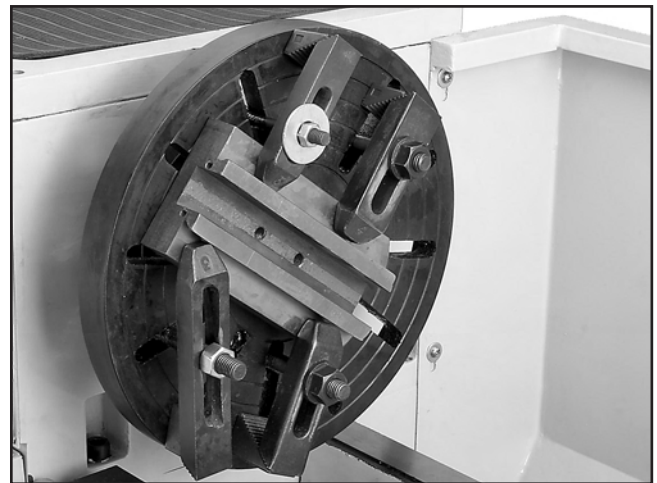
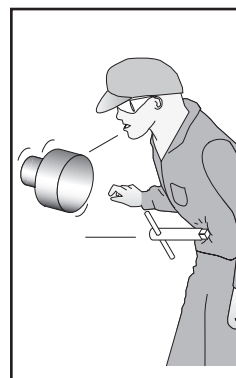


Figure 28. Faceplate with properly clamped eccentric in four locations.

6. Use a lower RPM when machining heavy eccentric workpieces.



!WARNING

Securely clamp your workpiece and remove the chuck key! Thrown objects from a lathe can cause serious injury or death to the operator and to bystanders many feet away.



Gap Removal

The Model G0554 comes equipped with a gap section below the spindle that can be removed for turning large diameter parts or when using a large diameter faceplate.

The gap is installed, then ground at the factory during lathe assembly for precise fit and alignment. Factors during the remaining assembly apply additional forces to the gap; therefore, replacing the gap to the original position will be very difficult. **If you choose to remove the gap, we don't recommend attempting to replace it.**

To remove the gap:

1. Find the two taper pin nuts located on the bed of the gap (see **Figure 29**).

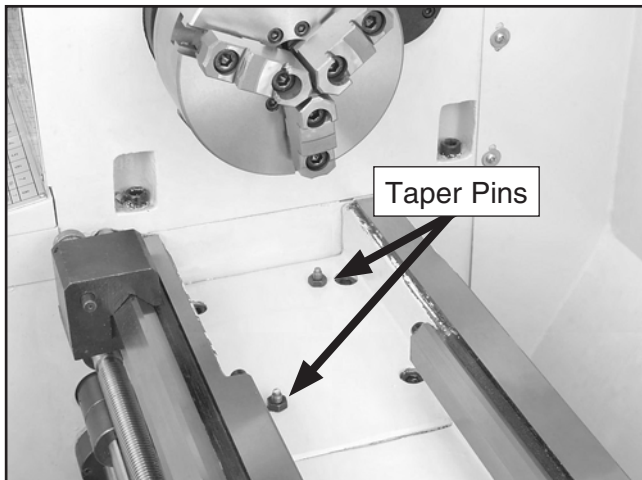


Figure 29. Lathe gap.

2. Using an open-ended wrench, tighten the nut. This will cause the taper pin to release. Remove the taper pin and repeat for the second nut.
3. Remove the four socket head cap screws.
4. Tap the outside of the gap with a dead blow hammer to loosen, and remove the gap section.

Tailstock

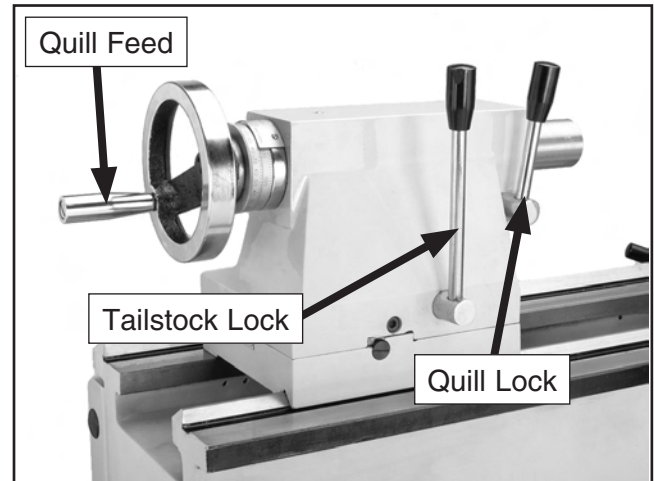


Figure 30. Tailstock and quill lock handles in locked position.

The tailstock (**Figure 30**) of the Model G0554 lathe can be used to support workpieces with the use of a live or dead center. It can drill or bore holes in the center of a part, using a drill chuck fitted with a #3 taper and a drill, or bypass the drill chuck and use a #3 tapered shank drill. The tailstock can also be used for cutting shallow tapers by using the offset adjustment.

To operate the tailstock:

1. Slide the tailstock to the desired position.
2. Pull up on the tailstock lock handle to lock the tailstock in place.

To operate the tailstock quill:

1. With the tailstock locked, push down the quill lock handle to unlock.
2. Turn the quill feed handle clockwise to feed/move the quill towards the spindle, or counterclockwise to move away from the spindle.
3. Pull up on the quill lock handle to lock the quill in place.



Drilling with the Tailstock

To install the tapered drill chuck:

1. With the tailstock locked, push down to unlock the quill lock handle.
2. Turn the quill feed handle clockwise to extend the quill about one inch.
3. Insert a tapered drill arbor (**Figure 31**), or the tapered drill shank (**Figure 32**), into the quill until the taper is firmly seated. The matching tapers hold the arbor.

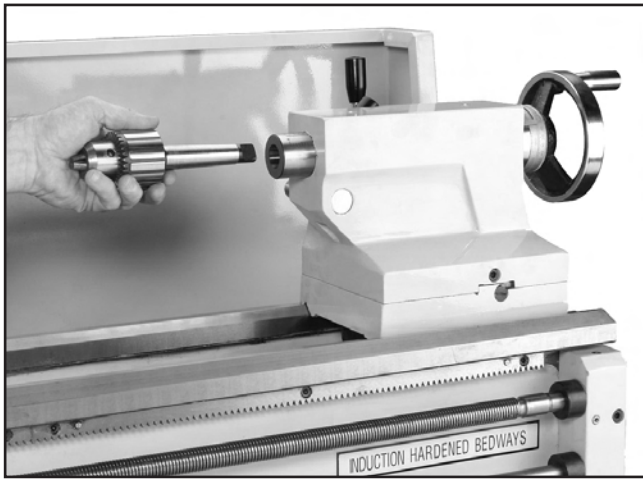


Figure 31. Setting up tailstock for drilling.

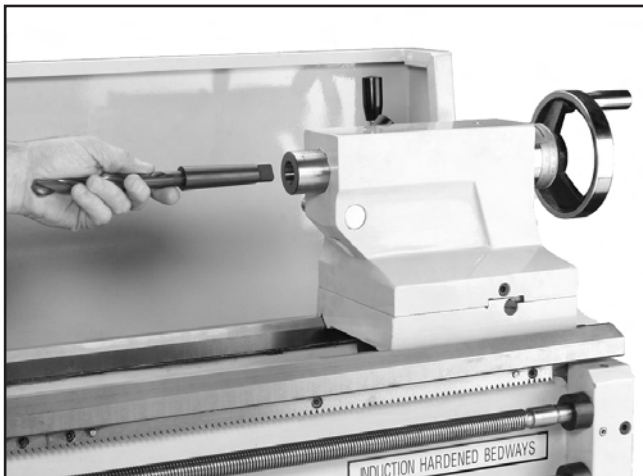


Figure 32. Tapered shank drill fitting into quill taper.

4. Turn the quill feed handle clockwise to feed the drill bit into the rotating workpiece.
5. To remove the chuck taper, turn the quill feed handle counterclockwise until the chuck is pushed out from the tailstock taper.

Cutting Shallow Tapers with the Tailstock

The tailstock can be offset to cut a shallow taper on a part.

To set up the tailstock to cut tapers:

1. Lock the tailstock in position.
2. Loosen the set screw located just above the adjustment screw (see **Figure 33**).

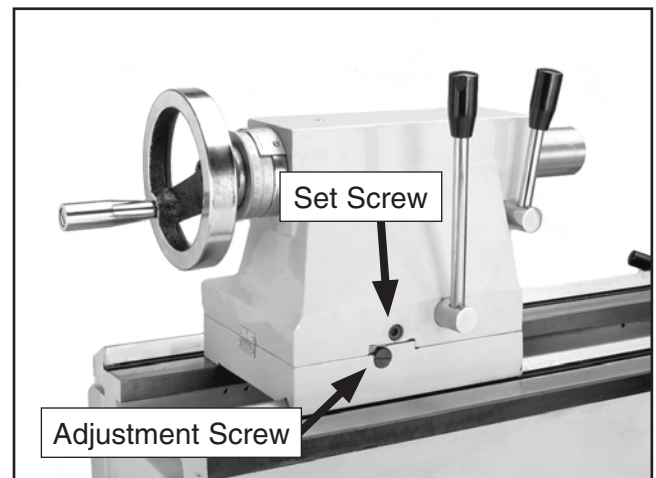


Figure 33. Tailstock off-set adjustments.



- Alternately loosen and tighten the two side adjustment screws until desired offset is indicated on the scale (see **Figure 34**).

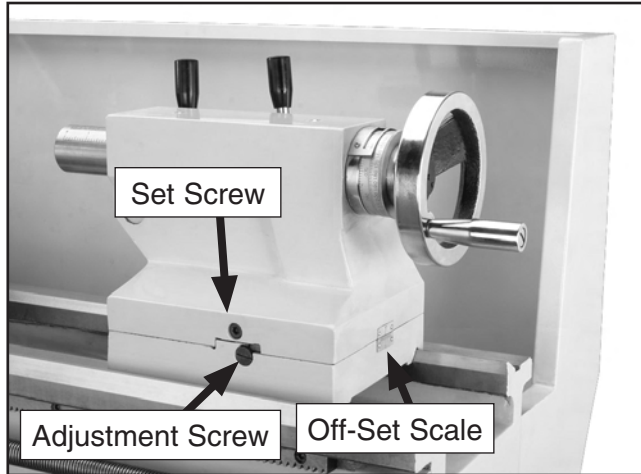


Figure 34. Off-set scale.

- Tighten each set screw to lock the setting.

To return the tailstock back to original position, repeat the process until the centered position is indicated on the scale.

Tailstock Alignment

The tailstock on the Model G0554 is aligned at the factory with the headstock. We recommend that you take the time to ensure that the tailstock is aligned to your own desired tolerances.

To align the tailstock:

- Using a 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 this condition before proceeding.
- Get two pieces of steel round stock, 2.00" in diameter x 6.00" long.
- Center drill both ends of one piece of the round stock. Set it aside for use in **Step 6**.
- Using the other piece of stock, make a dead center by turning a shoulder to make a shank. Flip the piece over in the chuck and turn a 60° point (see **Figure 35**).

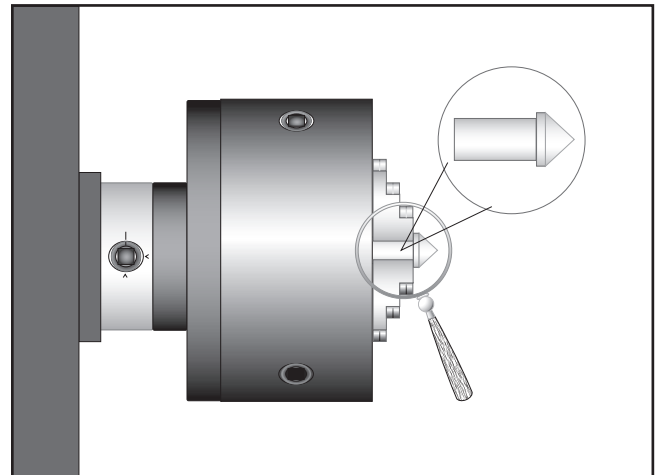


Figure 35. Tailstock centering dead center.

Note: As long as the dead center remains in the chuck, the point of your center will remain true to the spindle axis. Keep in mind that the point will have to be refinished whenever it is removed and returned to the chuck. For more information refer to **Centers** on **Page 29** in this section.



5. Place the live center in the tailstock.
6. Attach a lathe dog to the bar stock and mount it between centers (see **Figure 36**).



Figure 36. Checking tailstock alignment.

7. Turn approximately 0.010" off the diameter.
8. Measure the stock with a micrometer.

—If the stock is thicker at the tailstock end, the tailstock needs to be moved toward the operator half the distance of the amount of the taper (see **Figure 37**).

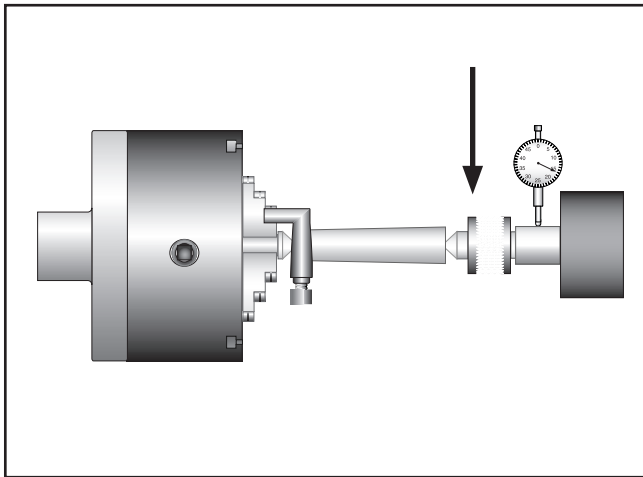


Figure 37. Tailstock adjustment option #1.

—If the stock is thinner at the tailstock end, the tailstock needs to be moved away from the operator half the distance of the amount of the taper (see **Figure 38**).

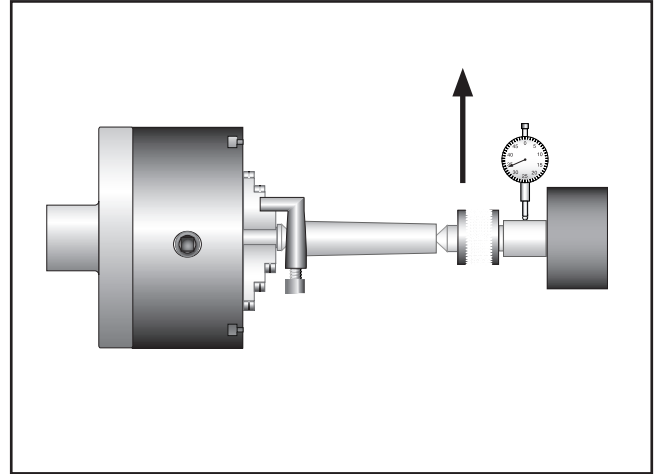


Figure 38. Tailstock adjustment option #2.

9. Mount a dial indicator so the dial plunger is on the tailstock barrel before making adjustments to the tailstock.
10. Refer to **Cutting Shallow Tapers With The Tailstock** on **Page 27** for making adjustments to the tailstock center. Turn another 0.010" off of the diameter and check for a taper. Repeat this process as necessary until the desired amount of accuracy is achieved.



Centers

The dead center is used in the tailstock to support workpieces. When used in the tailstock, make sure to keep the dead center tip and workpiece lubricated.

The Model G0554 lathe is supplied with two MT#3 dead centers—one is HSS and one is carbide tipped. The supplied MT#5-#3 sleeve fits into the spindle taper to hold the MT#3 center.

To install a dead or live center:

1. Feed the quill out about 1" so that the dead center can be inserted.
2. Insert the dead center into the quill opening. Matching tapers provide the locking action (see **Figure 39**).

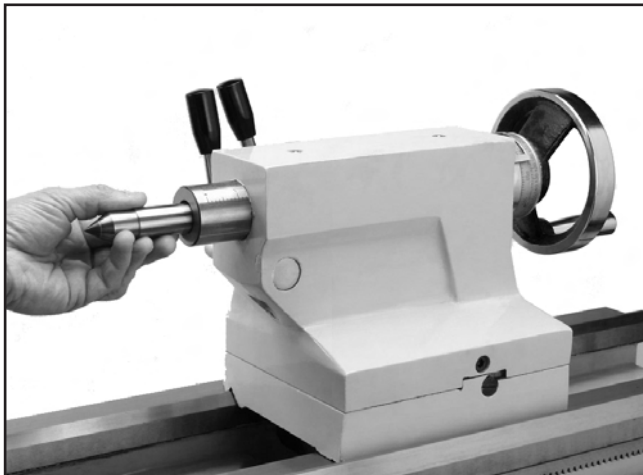


Figure 39. Inserting dead center.

3. Move the tailstock into position and lock in place.
4. Feed the quill into the workpiece.

Note: Make sure there is a center drilled hole in the end of workpiece for the dead center.

5. Lock the quill into place once the live center and the part rotate together. The quill may need to be adjusted during operation.
6. To remove the dead center, retract the quill until the dead center pops free.

The dead center can also be used in the spindle. The most common application is when using the faceplate (see **Figure 40**).

To install the dead center in the spindle:

1. Remove the chuck from the spindle.
2. Install the dead center in the spindle sleeve.
3. Install the sleeve and center into the spindle opening.
4. Attach the faceplate to the spindle.

Note: When using the dead center in the spindle, use a lathe dog so that your part will rotate with the spindle and not spin on the dead center tip.



Figure 40. Typical faceplate and dead center setup.

NOTICE

Failure to keep dead center point well lubricated will damage dead center and workpiece.



Steady Rest

The steady rest serves as a support for long shafts (length to diameter ratio of 3:1 or greater). The steady rest can be placed anywhere along the length of the workpiece.

To install/use the steady rest:

1. Place the steady rest on the lathe bedways so the triangular notch fits over the angled portion of the rear bedway.
2. Loosen the three set screws so the finger positions can be adjusted (see **Figure 41**).



Figure 41. Steady rest adjustments.

3. Loosen the knurled screw and open the steady rest so a workpiece can fit inside of the fingers (see **Figure 42**).

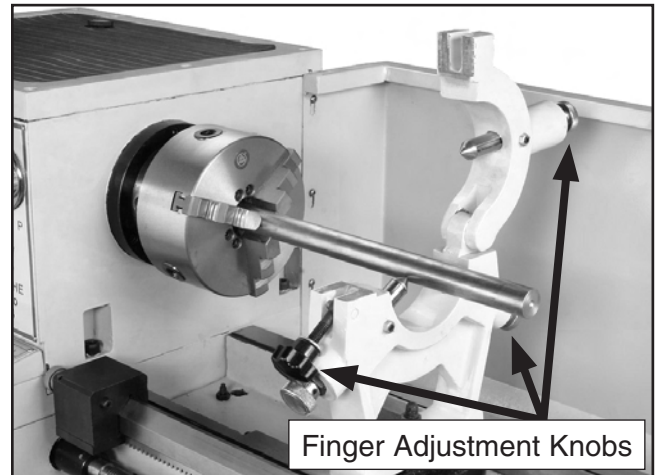


Figure 42. Workpiece in steady rest.

4. Position the steady rest where desired. Tighten the bolt at the base of the steady rest to secure it in place.
5. Close the steady rest so that the workpiece is inside the fingers and tighten the knob.
6. Set fingers snug to the workpiece and secure by tightening the three socket head cap screws. Fingers should be snug and allow rotational movement of the workpiece. Lubricate the finger tips with an anti-seize grease during operation.
7. After prolonged use, the fingers will show wear. Either mill or file the tips for a new contact surface.



Follow Rest

The follow rest in **Figure 43** is mounted on the saddle and follows the movement of the tool. It can be attached/removed by two socket head cap screws located at the base of the follow rest. The follow rest requires only two fingers as the cutting tool acts as the third. The follow rest is used on long, slender parts to prevent flexing of the workpiece from the pressure of the cutting tool. It should be used when the workpiece length to diameter ratio is 3:1 or greater.

The sliding fingers are set similar to those of the steady rest—free of play but not binding. Always lubricate during operation. Remove the follow rest from the saddle when not in use. After prolonged use, the fingers will need to be milled or filed to cleanup the contact surface.



Figure 43. Follow rest attachment.

Setting Compound Slide

The compound slide is used to cut tapers on parts or to set the proper infeed angle when threading. It may also be used to cut specific lengths longitudinally, when set parallel to the spindle axis.

The compound slide handwheel has a graduated dial for precise inch feed increments. The base of the compound slide has a graduated scale for angular setup.

To set the angular position:

1. Loosen the two cap screws, one on each side of the compound slide (see **Figure 44**).

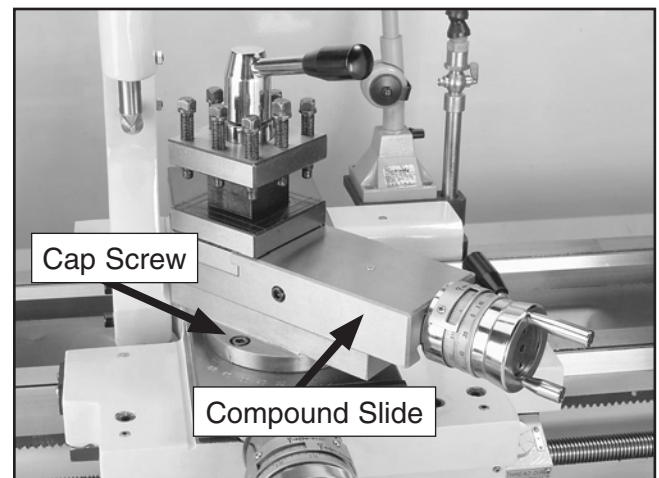


Figure 44. Compound slide set at an angle.

2. Rotate the compound slide to the desired angular position. Use the scale at the base of the slide and the indicator marks on the carriage to set the position.
3. Tighten the two cap screws. Be sure to not overtighten, as you may strip threads.



Four-Way Tool Post

The four-way tool post is mounted on top of the compound slide, and allows a maximum of four tools to be loaded simultaneously.

The four-way tool post allows for quick indexing to new tools. This is accomplished by rotating the top handle counterclockwise and then rotating the tool post to the desired position. Rotate the top handle clockwise to lock the tool into position.

To load the tool post:

1. Choose the desired cutting tool.
2. Loosen the tool post bolts so that the cutting tool can fit underneath the tool post bolts.
3. Use a minimum of two tool post bolts to hold down the cutting tool and tighten firmly (see **Figure 45**).

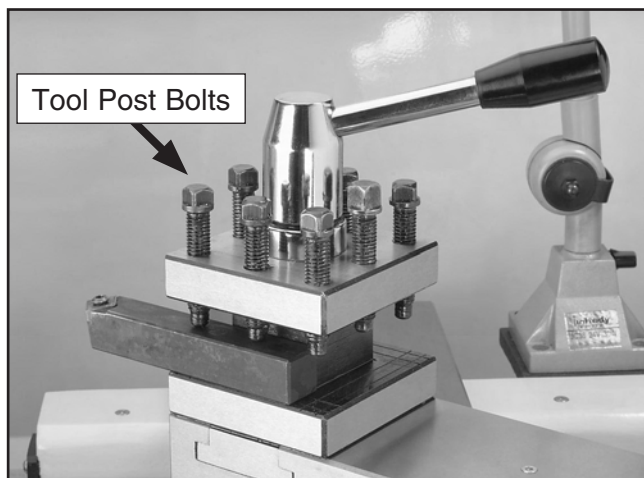


Figure 45. Tool holder and tool post.

4. Repeat **Steps 1-3** for the three remaining openings, as needed.

NOTICE

Immediately remove tool post wrench after use. The tool post wrench could be picked up by a chip and thrown.

Foot Brake

The Model G0554 lathe comes equipped with a foot brake (see **Figure 46**). The foot brake is intended to be used primarily as a time saving tool. The best method for using the foot brake is to turn the spindle **OFF** and then apply pressure to the foot brake with your foot, slowing the spindle to a stop.

Stepping on the foot brake while the spindle is **ON** will kill the power to the spindle control lever and will bring the spindle to a stop. Stopping the spindle in this manner is harder on the machine and should be reserved for panic situations. Once stopped, the control lever will then need to be returned to the neutral position. The power light will show the lathe is energized. Only the circuit to the spindle control lever has been interrupted.

Note: Do not confuse this feature with the emergency stop button. The emergency stop button cuts power to the machine and must be reset to restore power to the lathe.

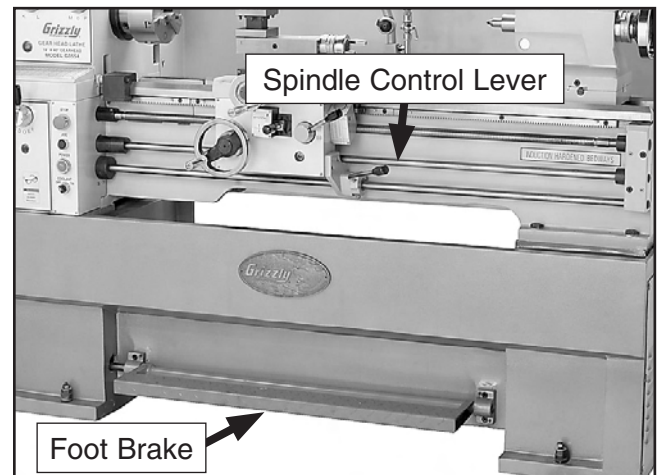


Figure 46. Foot brake and spindle control lever.



Manual Feed

You can manually move the cutting tool around the lathe by three methods. This section will review the individual controls on the carriage and provide descriptions of their uses (see **Figure 47**).

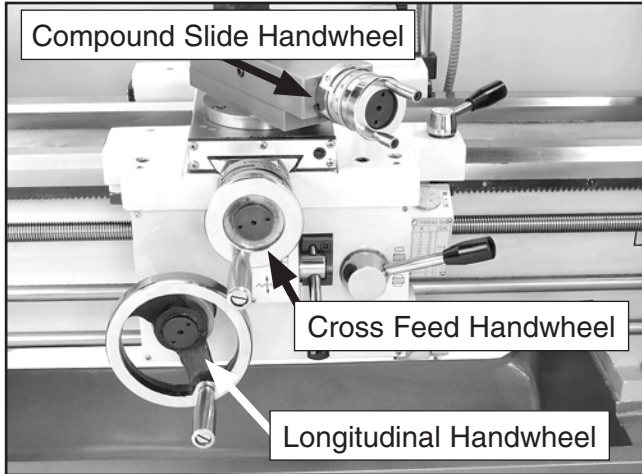


Figure 47. Carriage Controls.

Longitudinal Handwheel

The longitudinal handwheel moves the carriage left or right along the bed. This control is helpful when setting up the machine for turning or when manual movement is desired during turning operations.

Cross Feed Handwheel

The cross slide handwheel moves the top slide toward and away from the work. Turning the dial clockwise moves the slide toward the workpiece. The graduated dial can be adjusted by holding the handwheel with one hand and turning the dial with the other.

Compound Slide Handwheel

The compound slide handwheel controls the position of the cutting tool relative to the workpiece. The compound slide is adjustable for any angle within its range. The graduated dial is adjustable using the same method as the dial on the cross slide. Angle adjustment is controlled by cap screws on the base of the compound slide.

Setting RPM

To determine the needed RPM:

1. Use the table in **Figure 48** to determine the cutting speed required for the material of your workpiece.

⚠ WARNING

Failure to follow RPM and feed rate guidelines may threaten operator safety from ejected parts or broken tools.

Cutting Speeds for High Speed Steel (HSS) Cutting Tools	
Workpiece Material	Cutting Speed (sfm)
Aluminum & Alloys	300
Brass & Bronze	150
Copper	100
Cast Iron, Soft	80
Cast Iron, Hard	50
Mild Steel	90
Cast Steel	80
Alloy Steel, hard	40
Tool Steel	50
Stainless Steel	60
Titanium	50
Plastics	300-800
Wood	300-500

Note: For carbide cutting tools, double the cutting speed. These values are a guideline only. Refer to the *MACHINERY'S HANDBOOK* for more detailed information.

Figure 48. Cutting speed table for HSS cutting tools.

Continued on next page →



- Determine the final diameter, in inches, for the cut you are about to take.

Note: For this step you will need to average out the diameters or work with the finish diameter for your calculations.

- Use the following formula to determine the needed RPM for your operation:

$$(\text{Cutting Speed} \times 4) / \text{Diameter of cut} = \text{RPM}$$

- With the calculated RPM, examine the spindle speed chart in **Figure 49** or on front of the headstock, to find the closest match.

Note: In most cases you will need to make a judgement call on which way to go with the RPM.

- Make sure the spindle is completely stopped before proceeding.

- Move the spindle speed selectors (**Figure 50**) to the appropriate RPM setting. Refer to **Figure 49** for available RPM and the selector combinations.

Note: You may need to rotate the spindle by hand to get the levers to properly engage.

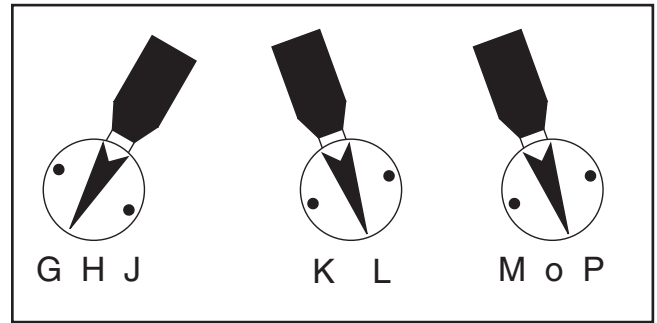


Figure 50. Spindle speed selectors shown set at 1280 RPM.

SPEEDS	
LEVERS	RPM
JLP	1800
GLP	1280
HLP	910
JLM	650
GLM	460
HLM	325
JKP	230
GKP	160
HKP	115
JKM	85
GKM	60
HKM	40

Figure 49. RPM chart.



Power Feed

NOTICE

Feed rate is based on spindle RPM. High feed rates combined with high spindle speeds result in a rapidly moving carriage or cross slide. Pay close attention to the feed rate you have chosen and keep your hand poised over the ON/OFF switch. Failure to fully understand this will cause the carriage to crash into the spindle.

The carriage has longitudinal and cross slide power feed capabilities.

To engage the power feed:

1. Move the feed direction lever to the desired setting. The arrow above the screw thread icon indicates the direction of longitudinal feed. Cross feed directions are as follows: when the arrow points to the left, the cross feed is away from the spindle axis; when arrow points to the right, the cross feed is towards the spindle axis (see **Figure 51**).

Note: These instructions are valid with a counterclockwise rotation of the spindle. All directions reverse when spindle rotation is reversed.

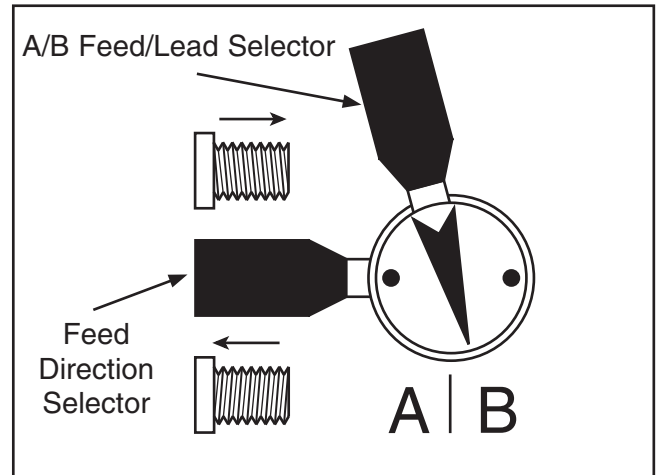


Figure 51. Feed direction and A/B feed/lead selector.

- 2a. Push the power feed lever shown in **Figure 52** to the left and down to engage the cross feed.
- 2b. Pull the power feed lever to the right and up to engage the longitudinal feed.
3. Return the lever to the center position to stop the power feed.

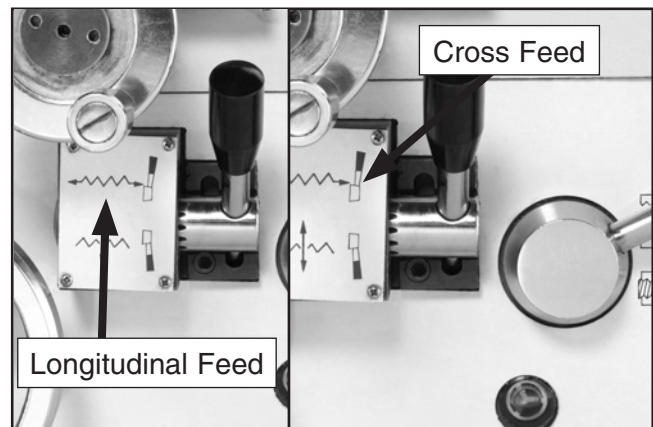


Figure 52. Power feed lever settings.



Setting Feedrate

NOTICE

Make sure all power feed settings are disengaged before starting the lathe! Thoroughly familiarize yourself with all the controls and their functions before using power feed!

1. Turn the spindle **OFF** and wait until it comes to a complete stop before making any gear changes.
2. Move the feed rod lock knob to the open position (see **Figure 53**). This will disengage the feed rod so gears can be changed.

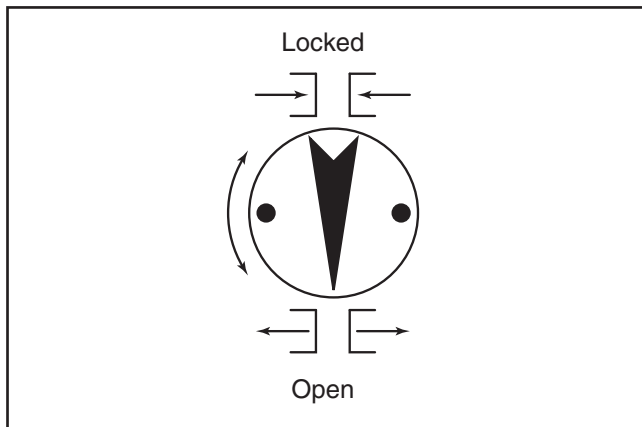


Figure 53. Feed rod lock knob.

3. Examine the feed/thread chart (**Figure 55**) to determine the correct lever combination for the desired feedrate.

mm	127 40		127 40		127 30		127 35		TPI in/rev	1	2	3	4	5	6	7	8	
	1	3	6	3	1	2	3	6		A	C	4	4 1/2	5	5 1/2	5 3/4	6	6 1/2
AC	7.5	6.0	5.0	4.8	4.5	4.0		3.5	A	D	.0271	.0241	.0217	.0197	.0189	.0181	.0167	.0155
BC	3.75	3.0	2.5	2.4	2.25	2.0	1.8	1.75	A	C	8	9	10	11	11 1/2	12	13	14
AE		1.5	1.25	1.2		1.0	0.9		A	D	.0136	.0121	.0109	.0099	.0095	.0091	.0084	.0078
BE		0.75		0.6		0.5	0.45		B	C	16	18	20	22	23	24	26	28
									B	D	.0068	.0060	.0054	.0049	.0047	.0045	.0042	.0039
									A	E	32	36	40	44	46	48	52	56
									A	F	.0040	.0035	.0032	.0029	.0028	.0027	.0025	.0023
									B	E	64	72	80	88	92	96	104	112
									B	F	.0020	.0018	.0016	.0015	.0014	.0013	.0012	.0011

Figure 55. Feed and Thread Chart in IPR, TPI and metric pitch.

4. Feeds rates are controlled by the combination of three different switches. The A/B feed/lead selector in **Figure 54**, the 1-8 feed rod selector, and the C/D/E/F feed/lead selector combinations in **Figure 54**.

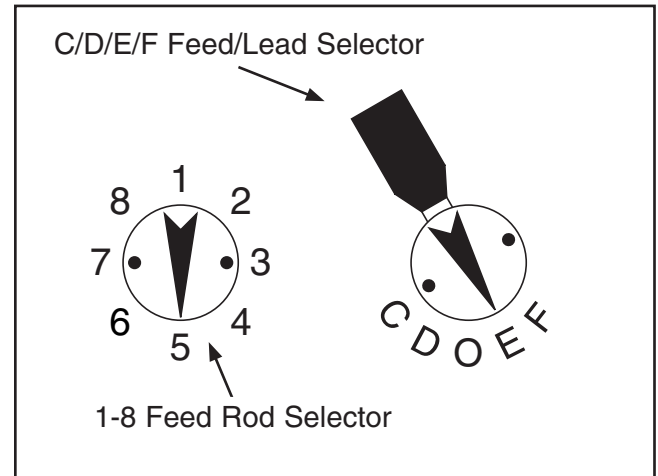


Figure 54. Feed rod/lead screw selector.

For example: To set the lathe to the slowest feed rate of 0.0011" per inch, locate 0.0011 on the chart. The lever combination on the chart is B, F and 8. Set the appropriate levers to these positions.

Note: You may need to rotate the chuck by hand or move the longitudinal handwheel to get selectors and gears to engage.

5. Return the feed rod lock knob to the locked position to engage the feed rod.



Thread Settings

NOTICE

Some threading operations may damage the lead screw if performed at high speeds. Always use the slowest speed possible for your particular operation!

The Model G0554 lathe is capable of cutting inch and metric threads. Most inch threads can be cut without changing gears. Metric threads and a few inch threads require that you change the gears. This will be explained in the next sub-section. Below are instructions for setting levers and changing gears for threading.

To determine thread settings:

1. Determine the threads per inch (TPI) for inch threads or pitch for metric threads.
2. Examine the appropriate thread chart. For inch threads and metric threads (see **Figure 55**) or examine chart on the front of the headstock (see **Figure 56**).



Figure 56. Headstock thread chart.

3. Find the corresponding thread info from the chart and work to the left and up to determine the correct lever settings.

Example: To cut 20 TPI thread, the handle combination would be "B, C and 3".

4. Move the feed rod lock knob to the open position (see **Figure 53**).
5. Move the selectors to the appropriate letter/number setting by rotating the handle left or right.
6. Move the feed direction selector to the desired direction for movement (see **Figure 51**).
7. Move the feed rod lock knob to the locked position.

Note: The spindle must be **OFF** to make changes that affect the gear box. You may also need to rotate the spindle by hand or move the apron right/left to get gears to engage properly.

Changing Gears for Feed/Threads

The Model G0554 lathe comes with the 25T, 127T, & 50T gears installed. This set of gears will cover most feeds and inch threads. The 30T, 32T, and two 40T gears are provided so that additional feeds and inch/metric threads may be cut.

To change the gears:

1. UNPLUG THE LATHE!
2. Open the end cover door to expose the headstock gears.
3. Loosen the hex nut on the pivot just below the large gear in **Figure 57**, Item A.



Threading

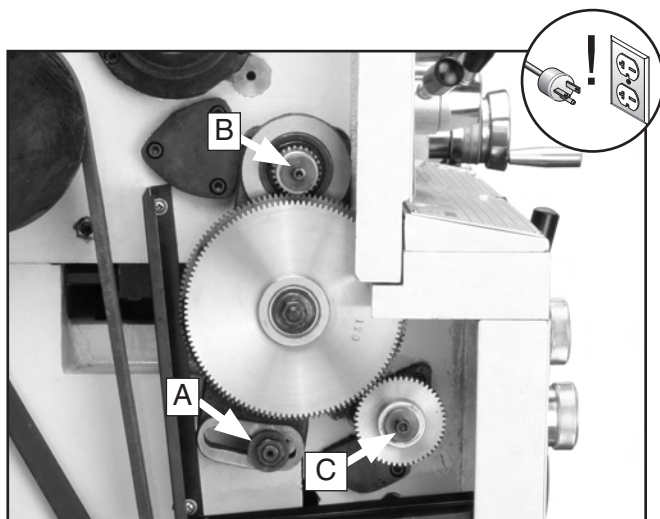


Figure 57. Gear change locations.

4. Drop the large gear set out of mesh and temporarily lock in place by tightening the hex nut loosened in **Step 3**.
5. Remove the cap screw in **Figure 57**, Item B or C, depending on which gear is to be changed.

Note: To loosen the cap screw, it may be necessary to wedge a small piece of wood between the two gears to keep them from spinning.

6. Install the new gear(s) and tighten in place with the cap screw removed in **Step 5**. DO NOT overtighten. These cap screws merely hold the gear in place. Overtightening will make them harder to remove later.
7. Loosen the hex nut in **Figure 57**, Item A, and move the gear set up until the larger gears mesh with the smaller gears. Tighten the nut to hold the large gear set in place. Make sure there is a gap of 0.001"-0.002" between gears.

Note: Setting the gears too tight will cause excessive wear and noise. Setting the gears too loose may cause slippage and possibly break gear teeth.

8. Close the end cover door and reconnect power to the machine.

NOTICE

Failure to follow RPM and feed rate guidelines in this manual will put undue strain on moving parts, shorten tool life, and create poor workpiece results.

1. Set the compound rest to the appropriate angle for the given thread you want to cut. For a Unified National Series thread, this is 29° off vertical to spindle axis.
2. Set the tool tip perpendicular to the workpiece and center it vertically.
3. Make sure the thread dial is engaged with the lead screw. If not, use a hex key wrench to loosen the screw and rotate the thread dial until the gear engages with the lead screw, then tighten the screw to hold the dial in place.
4. Select the RPM you want to use. A slower RPM will give you more time to react especially if threading over a short distance or threading up to a shoulder.
5. Set the feed direction lever for either right or left-handed threads.
6. Examine the thread charts (inch or metric), see **Figure 58**, and then set the feed rate selectors to the appropriate settings.

Continued on next page →



THREAD DIAL			DIAL
T.P.I			
4	5	6	1-4
7	8	9	
10	11	12	
13	14	16	
18	20	22	
23	24	26	
28	32	36	
40	44	46	
48	52	56	
64	72	80	
88	92	96	1 or 3
104	112		
	4-1/2	5-1/2	
	6-1/2	1-1/2	1
		5-3/4	

Figure 58. Thread dial chart.

NOTICE

DO NOT engage the half nut when spindle is operating over 200 RPM. Disregarding this warning may cause damage to the leadscrew and bearings.

- Turn **ON** the spindle to verify settings. Check to see that the lead screw is turning and verify that the apron moves in the correct direction by engaging the half nut lever shown in **Figure 59**.

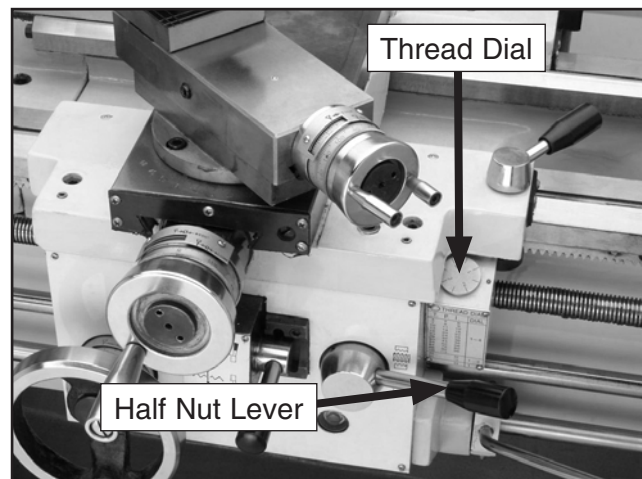


Figure 59. Half nut and thread dial locations.

- Once you are confident the settings are correct, disengage the half nut and turn **OFF** the spindle.
- Examine the thread dial chart to determine which numbers (on the thread dial) will engage the half nut.

Note: There are a total of eight marks on the thread dial, including the numbers 1-4. Any mark can be used to cut even numbered threads. Use the numbered lines, 1, 2, 3, or 4 to cut odd numbered threads. To maintain accuracy and consistency, engage the half nut on the same mark on each pass. Failure to start on the same number each time may lead to cutting off the thread made in the previous pass.

- If cutting metric threads, you will not use the thread dial. Once the half nut is engaged, you must leave it engaged until the threads are complete.



SECTION 5: ACCESSORIES

This section includes the most common accessories available for this lathe through the Grizzly catalog, online at www.grizzly.com, or by calling 1-800-523-4777.

G7895—Citrus Degreaser

This citrus based degreaser is perfect for cleaning cosmolene off of new equipment. It also works for cleaning auto parts, tools, concrete, and porcelain surfaces. Natural, safe for the environment, and contains no CFC's.



Figure 60. G7895 Citrus Degreaser.

G7984—Face Shield

H1298—Dust Sealed Safety Glasses

H1300—UV Blocking, Clear Safety Glasses

H2347—Uvex® Spitfire Safety Glasses

H0736—Shop Fox® Safety Glasses

Safety Glasses are essential to every shop. If you already have a pair, buy extras for visitors or employees. You can't be too careful when it comes to shop safety!



Figure 61. Our most popular safety glasses.

G2871—Boeshield® T-9 12 oz Spray

G2870—Boeshield® T-9 4 oz Spray

This ozone friendly protective spray penetrates deep and really holds up against corrosive environments. Lubricates metals for months and is safe for use on most paints, plastics, and vinyls.



Figure 62. Boeshield® T-9 spray.

H3788—G96® Gun Treatment 12 oz Spray

H3789—G96® Gun Treatment 4.5 oz Spray

This triple action gun treatment cleans, lubricates, and protects all metal parts. Contains solvents that completely remove all traces of rust and corrosion and leaves no gummy residue.



Figure 63. G96® Gun Treatment spray.

Call 1-800-523-4777 To Order



G5948—Quick Change Collet Closer

This Quick Change Collet Closer allows you to quickly interchange parts on your Model G0554 Metal-Cutting Lathe. The positive-locking handle clamps standard 5-C collets safely and securely for precision turning.

See the current Grizzly catalog for a full line of 5-C collets.

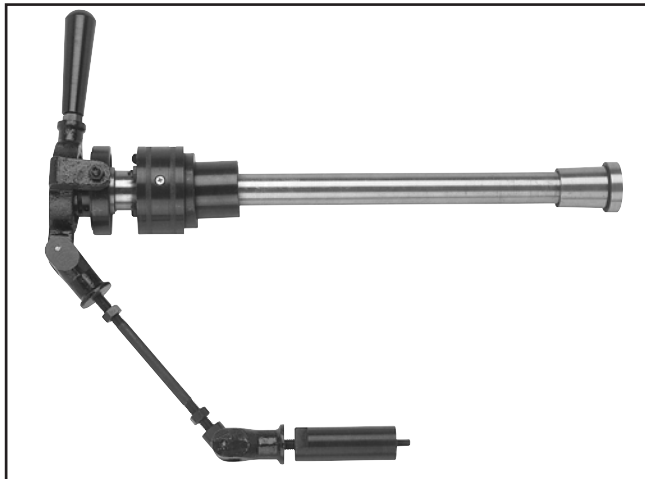


Figure 64. G5948 Quick Change Collet Closer.

H5949—Taper Attachment for the G0554 Lathe.

The Model H5949 mounts to the back of the carriage and bed way to produce accurate tapers up to 12" without repositioning. It features inch-per-foot and degree scales at both ends and a fine thread screw for exacting control when adjusting taper angles.

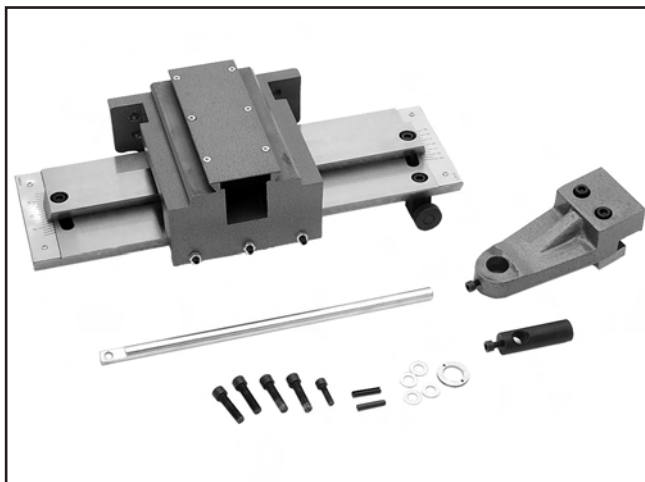


Figure 65. H5949 Taper Attachment.

G9256—6" Dial Caliper

G9257—8" Dial Caliper

G9258—12" Dial Caliper

These traditional dial calipers are accurate to 0.001" and can measure outside surfaces, inside surfaces, and heights/depths. Features stainless steel, shock resistant construction and a dust proof display. An absolute treat for the perfectionist!

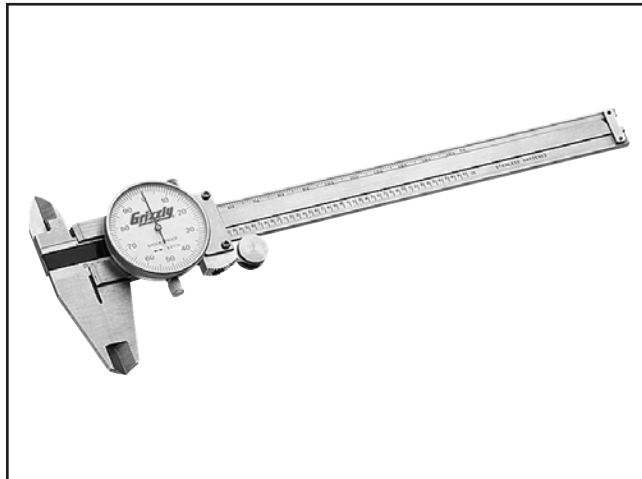


Figure 66. Grizzly® Dial Calipers.

H3022—Measurement Tool Set

Includes magnetic base, 1" dial indicator (.001"), and 6" dial caliper (.001"). The extremely low price has made this a very popular seller!



Figure 67. H3022 Measurement Tool Set.

Call 1-800-523-4777 To Order



H2670—HSS Square Tool Bits ½" x ½" x 4

Our ground tool bits are M-2 HSS, making them some of the most durable tool bits around. Make your own specialized cutters in any shape using a silicon carbide grinding wheel (G8235-37) on your grinder.

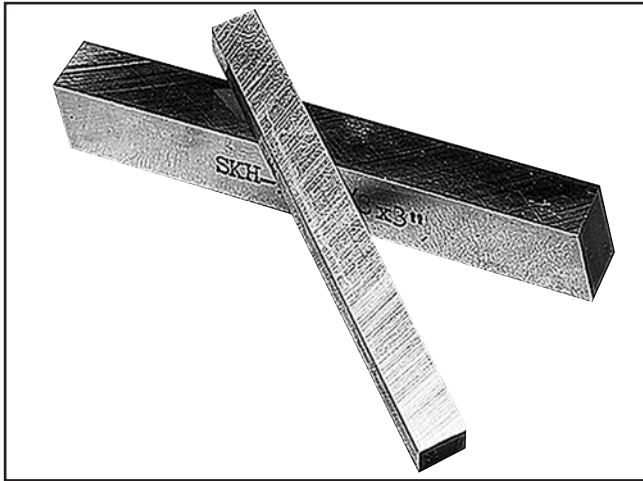


Figure 68. H2670 HSS Square Tool Bits.

H5687—8-Pc. Pre-Ground Tool Bit Set

Tired of grinding your blank high speed steel tool bits? We've done it for you! 8-pc set comes with these sharpened profiles: offset right and left hand tools with chip breaker, straight and chip breaker style threading tools, internal threading tool, parting tool, boring tool and turning tool. These tool bits are evenly hardened to better than 64C.

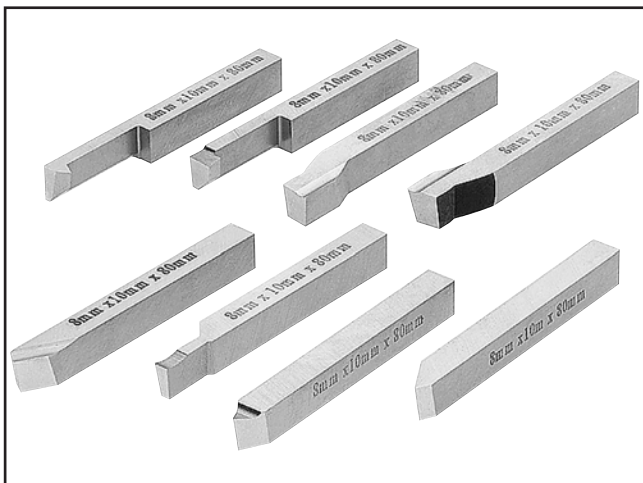


Figure 69. H5687 Pre-Ground Tool Bit Set.

G9777—20-Pc. Carbide Tipped Tool Bit Set

An exceptional value for carbide lathe tool bits! This twenty-piece set offers tremendous savings over bits sold individually, plus every type is duplicated and ready at hand when you need it. The carbide is C-6 grade for cutting steel and alloys.

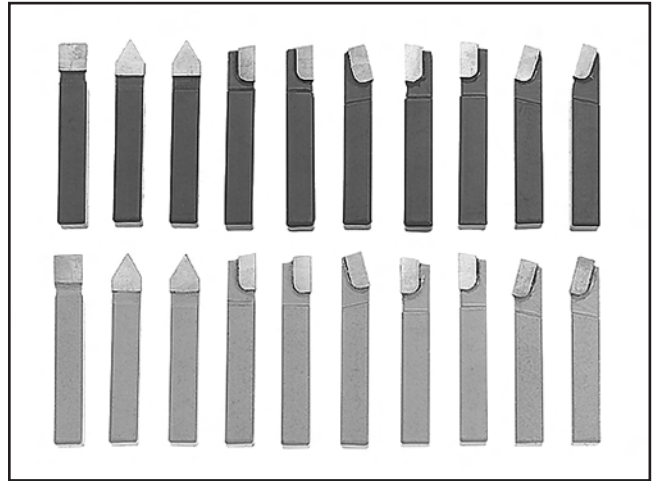


Figure 70. G9777 20 Pc. Carbide Tool Set.

G5640—5-Pc. Indexable Carbide Tool Set ½"

G6706—Replacement TiN Coated Carbide Indexable Insert

Five-piece turning tool set features indexable carbide inserts with "spline" type hold-down screw that allow indexing without removing the screw. Each set includes AR, AL, BR, BL, and E style tools with carbide inserts, hex wrench, extra hold-down screws and a wooden case.

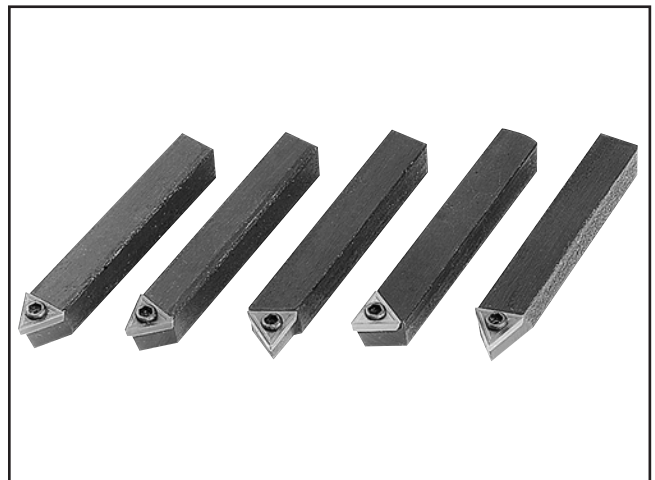


Figure 71. G5640 5 Pc. Indexable Tool Set.



H2972—Cut Off Holder with Blade

H4268— $\frac{3}{32}$ " x $\frac{5}{8}$ " x 5" Replacement Blade

Small enough to fit most 4-way turret tool posts, but rugged enough to handle the job, this cut-off tool holder is a must. Comes with a wrench and cut-off tool bit. Uses $\frac{3}{32}$ " x $\frac{5}{8}$ " x 5" tool bits. Shank measures $\frac{1}{2}$ " x $\frac{1}{4}$ " x 3".



Figure 72. H2972 Cut Off Holder with Blade.

H2996—Double Ended Boring Bar

This is a well made boring bar and holder. The boring bar holds the tool bit at 90° at one end and 45° at the other. Comes with a wrench and tool bit. Bar size is $\frac{3}{8}$ " x 4 $\frac{1}{2}$ ", holder is 2 $\frac{1}{4}$ " x $\frac{1}{2}$ ", uses $\frac{1}{8}$ " tool bits.

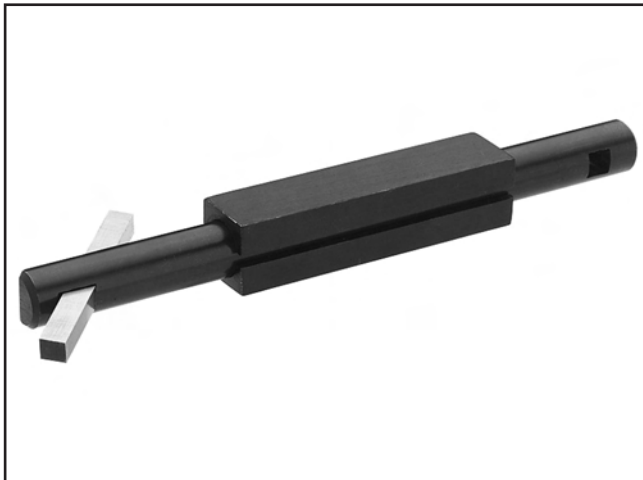


Figure 73. H2996 Double Ended Boring Bar.

H5936—2 Pc. Knurling Tool Set

This 2 piece set includes a $\frac{1}{2}$ " x 4" Single Knurling Toolholder and a $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " Double Knurling Toolholder with Pivoting Head. Both have a black oxide finish.



Figure 74. H5936 2 Pc. Knurling Tool Set.

H2987— $\frac{1}{2}$ " Bent Lathe Dog

H2988—1" Bent Lathe Dog

H2989—1 $\frac{1}{2}$ " Bent Lathe Dog

H2990—2" Bent Lathe Dog

H2991—3" Bent Lathe Dog

Just the thing for precision machining between centers! These bent tail Lathe Dogs are made of durable cast iron and feature square head bolts.



Figure 75. H2987-91 Lathe Dogs.



MODEL	SIZE	BODY DIA.	DRILL DIA.	OVERALL LENGTH
H4456	1	1/8"	3/64"	1 1/4"
H4457	2	3/16"	5/64"	1 7/8"
H4458	3	1/4"	7/64"	2"
H4459	4	5/16"	1/8"	2 1/8"
H4460	5	7/16"	3/16"	2 3/4"
H4461	6	1/2"	7/32"	3"
H4462	7	5/8"	1/4"	3 1/4"
H4463	8	3/4"	5/16"	3 1/2"

These High Speed Steel Center Drills are precision ground for unsurpassed accuracy.

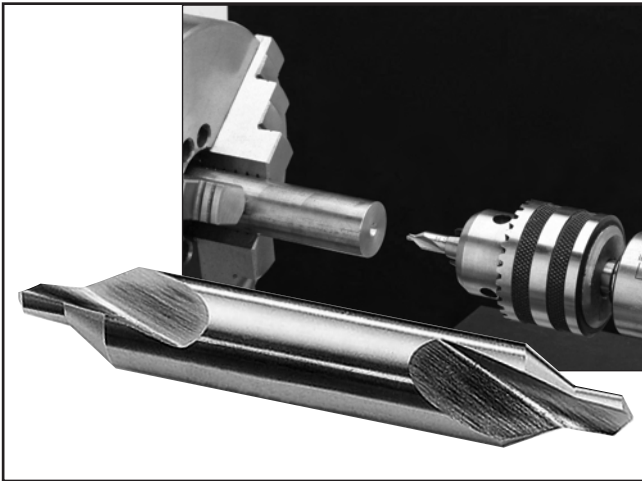


Figure 76. H4456-63 HSS Ground Center Drills.

G1070—MT3 Live Center Set

A super blend of quality and convenience, this live center set offers seven interchangeable tips. High-quality needle bearings prolong tool life and special tool steel body and tips are precision ground. Supplied in wooden box.



Figure 77. G1070 Live Center Set.

G5690—12" to 14" Swing Quick Change Tool Post Set

Speed up your lathe operations and enjoy the convenience of easy tool set-up with this Quick Change Tool Post Set. Tool posts feature piston type mechanism and come with five tool holders including: turning holder, knurling/turning holder, parting tool holder, boring bar holder and boring/turning holder. All milled surfaces are hardened and precision ground for repeatable accuracy. Each set comes with a blank T-nut which requires machining to fit your lathe.



Figure 78. G5690 Quick Change Tool Post Set.

Call 1-800-523-4777 To Order



SECTION 6: MAINTENANCE



Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Checks and Maintenance:

- Loose mounting bolts.
- Damaged V-Belts.
- Worn or damaged wires.
- Coolant Level
- Lubrication Levels
- Remove Chips
- Any other unsafe condition.

Monthly Check:

- Change Coolant As Needed.

Cleaning

Cleaning the Model G0554 is relatively easy. Make sure to unplug the lathe before cleaning it. Clean your machine every day or more often as needed. Remove chips as they accumulate. Chips left on the machine soaked with water based coolant will eventually invite oxidation and gummy residue to build up around moving parts. Cleaning will help keep your lathe running smoothly. Always be safe and responsible with the use and disposal of cleaning products.

Unpainted Cast Iron

Keep unpainted cast iron rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9 (see **SECTION 5: ACCESSORIES** on **Page 41** for more details).

Lubrication

The headstock, gear box and apron use 20W non-detergent gear oil or an equivalent lubricant. The oil level should be kept at the indicator mark in the sight glasses, as shown in **Figures 79 & 81**. After three months of operation, drain the oil completely and refill. (It will be necessary to remove the L bracket to access the gear box drain shown in **Figure 80**). After that, change the headstock oil on an annual basis or more frequently if heavier machine use requires it.

For other lubrication, we recommend you use the manual oiler (oil can supplied with the lathe) filled with ISO 68 or SAE 20W non-detergent oil or similar lubricant.

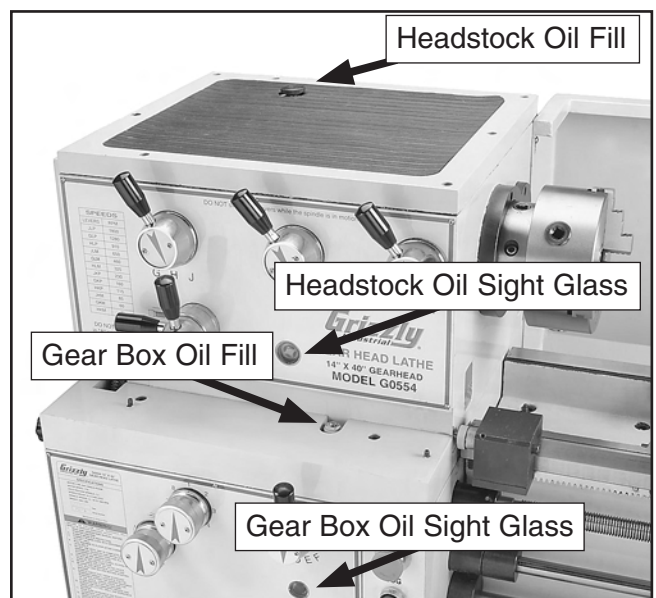


Figure 79. Oil sights and filler locations.



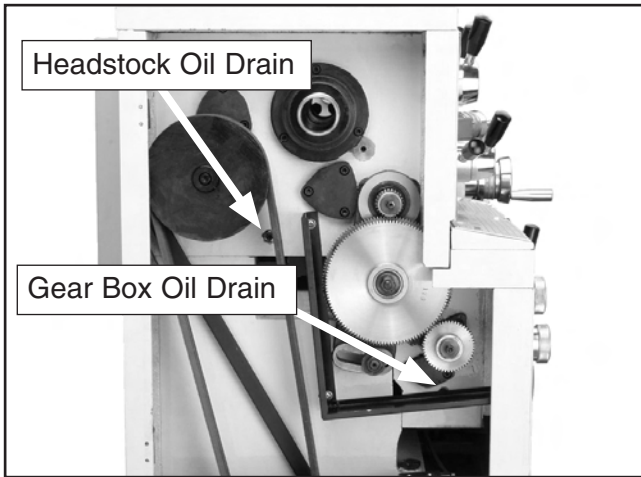


Figure 80. Headstock and gear box drain locations.

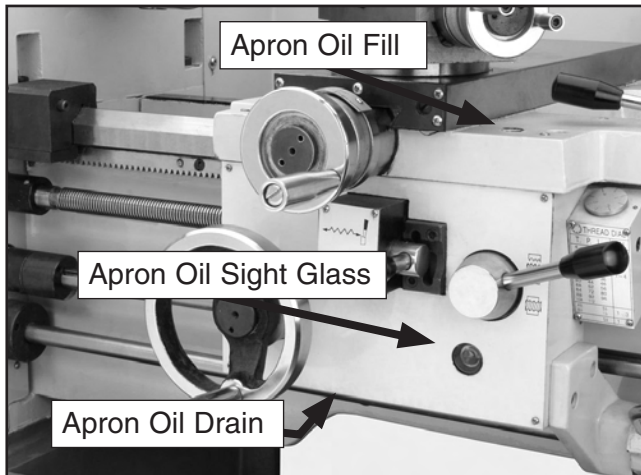


Figure 81. Apron lubrication locations.

NOTICE

Failure to follow lubrication guidelines will lead to rapid deterioration of lathe components.

Ball fittings, shown in **Figure 82**, are responsible for the majority of the machine lubrication. To lubricate ball fittings, clean the outside of the ball fitting, depress the ball with the tip of the oil can nozzle and squirt a little oil inside the fitting.

To lubricate the following areas every day:

1. Wipe off the oil port before and after oiling to keep out contaminants.
2. Oil the areas daily shown by arrows in **Figure 82**, with one to two shots of SAE 20W non-detergent oil or equivalent. Some areas may require fewer or more shots depending on use. These areas include:

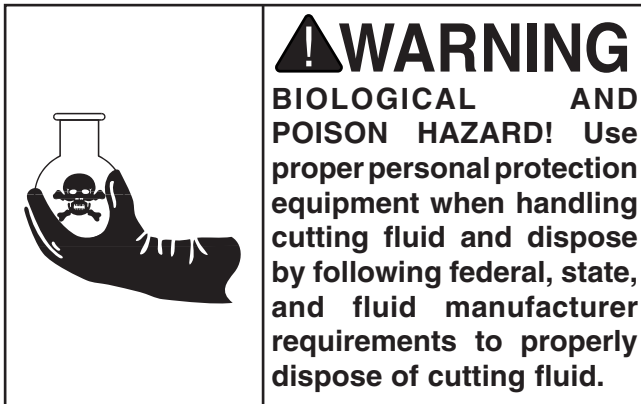
- Cross Slide
- Compound Rest
- Carriage
- Tailstock
- Lead Screw and Feed Rod
- Cross Feed Handwheel



Figure 82. Ball fitting locations.



Coolant System



The coolant pump and reservoir are located in the base under the cover on the right hand side of the base (see **Figure 83**).

To perform regular maintenance on the coolant system:

1. Remove the access cover.
2. Empty the old coolant and remove large chips from 1st and 2nd stage separators. Clean out any remaining debris.
3. Fill the reservoir with approximately three gallons of coolant solution. Closely follow the coolant manufacturer's instructions for mixing.

4. Open the valve on the coolant nozzle.
5. Turn the coolant pump **ON** to prime the coolant system and to see if the coolant is cycling properly.
6. Replace the access cover.

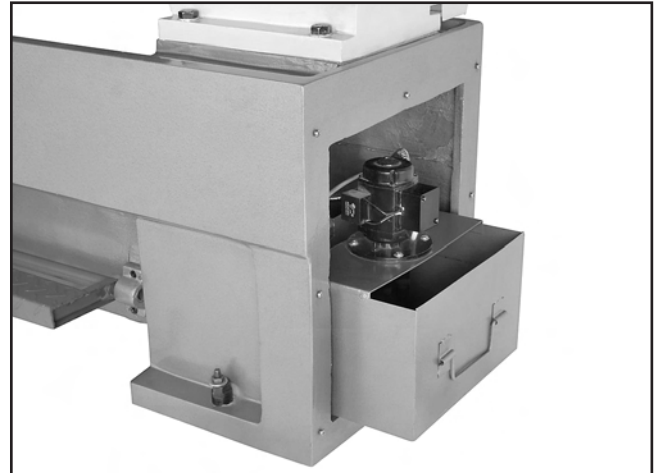


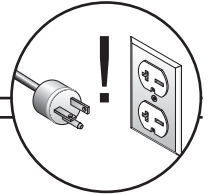
Figure 83. Coolant pump and reservoir.



SECTION 7: SERVICE

Review the troubleshooting and procedures in this section to fix your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Fuse has blown. 2. Plug/receptacle is at fault or wired incorrectly. 3. Start capacitor is at fault. 4. Emergency stop push-button is engaged/faulty. 5. Motor connection wired incorrectly. 6. Thermal overload relay has tripped. 7. Contactor not getting energized/has burnt contacts. 8. Wall fuse/circuit breaker is blown/tripped. 9. Power supply is at fault/switched OFF. 10. Motor ON button or ON/OFF switch is at fault. 11. Wiring is open/has high resistance. 12. Motor is at fault. 13. Spindle rotation switch is at fault. 14. Foot brake is engaged. 15. Foot brake safety switch is faulty. 	<ol style="list-style-type: none"> 1. Correct short/replace fuse on board/control panel. 2. Test for good contacts; correct the wiring. 3. Test/replace if faulty. 4. Rotate clockwise slightly until it pops out/replace it. 5. Correct motor wiring connections. 6. Turn cut-out dial to increase working amps and push the reset pin. Replace if tripped multiple times (weak relay). 7. Test for power on all legs and contactor operation. Replace unit if faulty. 8. Ensure correct size for machine load; replace weak breaker. 9. Ensure hot lines have correct voltage on all legs and main power supply is switched ON. 10. Replace faulty ON button or ON/OFF switch. 11. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary. 12. Test/repair/replace. 13. Turn switch to FWD/REV; replace bad switch. 14. Check to see that foot brake is up. 15. Test, replace if needed.
Loud, repetitious noise coming from machine at or near the motor.	<ol style="list-style-type: none"> 1. Pulley setscrews or keys are missing or loose. 2. Motor fan is hitting the cover. 	<ol style="list-style-type: none"> 1. Inspect keys and setscrews. Replace or tighten if necessary. 2. Tighten fan or shim cover, or replace items.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded. 2. Air circulation through the motor restricted. 	<ol style="list-style-type: none"> 1. Reduce load on motor. 2. Clean out motor to provide normal air circulation.
Motor is loud when cutting. Overheats or bogs down in the cut.	<ol style="list-style-type: none"> 1. Excessive depth of cut or feed rate. 2. RPM or feed rate wrong for cutting operation. 3. Cutting tool is dull. 4. Gear setup is too tight, causing them to bind. 	<ol style="list-style-type: none"> 1. Decrease depth of cut or feed rate. 2. Refer to RPM feed rate chart for appropriate rates. 3. Sharpen or replace the cutting tool. 4. Readjust the gear setup with a small amount of backlash so the gears move freely and smoothly when the chuck is rotated by hand.



Operation and Work Results

Symptom	Possible Cause	Possible Solution
Entire machine vibrates excessively upon start-up and while running.	<ol style="list-style-type: none"> 1. Workpiece is unbalanced. 2. Loose or damaged belt(s). 3. V-belt pulleys are not properly aligned. 4. Worn or broken gear present. 5. Chuck or faceplate has become unbalanced. 6. Spindle bearings badly worn. 	<ol style="list-style-type: none"> 1. Reinstall workpiece so it is as centered with the spindle bore as possible. 2. Tighten/replace the belt as necessary. 3. Align the V-belt pulleys. 4. Inspect gears and replace if necessary. 5. Rebalance chuck or faceplate; contact a local machine shop for help. 6. Replace spindle bearings.
Bad surface finish.	<ol style="list-style-type: none"> 1. Wrong RPM or feed rate. 2. Dull tooling or poor tool selection. 3. Too much play in gibs. 4. Tool too high. 	<ol style="list-style-type: none"> 1. Adjust for appropriate RPM and feed rate. 2. Sharpen tooling or select a better tool for the intended operation. 3. Tighten gibs. 4. Lower the tool position.
Can't remove tapered tool from tailstock quill.	<ol style="list-style-type: none"> 1. Quill had not retracted all the way back into the tailstock. 2. Debris was not removed from taper before inserting into quill. 	<ol style="list-style-type: none"> 1. Turn the quill handwheel until it forces taper out of quill. 2. Always make sure that taper surfaces are clean.
Cross slide, compound slide, or carriage feed has sloppy operation.	<ol style="list-style-type: none"> 1. Gibs are out of adjustment. 2. Handwheel is loose. 3. Lead screw mechanism worn or out of adjustment. 	<ol style="list-style-type: none"> 1. Tighten gib screw(s). 2. Tighten handwheel fasteners. 3. Tighten any loose fasteners on lead screw mechanism.
Cross slide, compound slide, or carriage feed handwheel is hard to move.	<ol style="list-style-type: none"> 1. Gibs are loaded up with shavings, dust, or grime. 2. Gib screws are too tight. 3. Backlash setting too tight (cross slide only). 4. Bedways are dry. 	<ol style="list-style-type: none"> 1. Remove gibs, clean ways/dovetails, lubricate, and readjust gibs. 2. Loosen gib screw(s) slightly, and lubricate bedways. 3. Slightly loosen backlash setting by loosening the locking screw and adjusting the spanner ring at the end of the handle. 4. Lubricate bedways and handles.
Cutting tool or machine components vibrate excessively during cutting.	<ol style="list-style-type: none"> 1. Tool holder not tight enough. 2. Cutting tool sticks too far out of tool holder; lack of support. 3. Gibs are out of adjustment. 4. Dull cutting tool. 5. Incorrect spindle speed or feed rate. 	<ol style="list-style-type: none"> 1. Check for debris, clean, and retighten. 2. Reinstall cutting tool so no more than $\frac{1}{3}$ of the total length is sticking out of tool holder. 3. Tighten gib screws at affected component. 4. Replace or resharpen cutting tool. 5. Use the recommended spindle speed.
Inaccurate turning results from one end of the workpiece to the other.	<ol style="list-style-type: none"> 1. Headstock and tailstock are not properly aligned with each other. 	<ol style="list-style-type: none"> 1. Realign the tailstock to the headstock spindle bore center line.
Chuck jaws won't move or don't move easily.	<ol style="list-style-type: none"> 1. Chips lodged in the jaws. 	<ol style="list-style-type: none"> 1. Remove jaws, clean and lubricate chuck threads, and replace jaws.
Carriage won't feed.	<ol style="list-style-type: none"> 1. Gears are not all engaged. 2. Gears are broken. 3. Loose screw on the feed handle. 	<ol style="list-style-type: none"> 1. Adjust gear positions. 2. Replace. 3. Tighten.



Operation and Work Results

Symptom	Possible Cause	Possible Solution
Carriage hard to move.	<ol style="list-style-type: none"> 1. Carriage lock is tightened down. 2. Chips have loaded up on bedways. 3. Bedways are dry and in need of lubrication. 4. Longitudinal stops are interfering. 5. Gibs are too tight. 	<ol style="list-style-type: none"> 1. Check to make sure table locks are fully released. 2. Frequently clean away chips that load up during turning operations. 3. Lubricate bedways and handles. 4. Check to make sure that stops are floating and not hitting the center stop. 5. Loosen gib screw(s) slightly.
Gear change levers will not shift into position.	<ol style="list-style-type: none"> 1. Gears not aligned in headstock. 	<ol style="list-style-type: none"> 1. Rotate spindle by hand until gear falls into place.
Loud, repetitious noise coming from machine.	<ol style="list-style-type: none"> 1. Gears not aligned in headstock or no backlash. 2. Broken gear or bad bearing. 3. Workpiece is hitting stationary object. 	<ol style="list-style-type: none"> 1. Adjust gears and establish backlash. 2. Replace broken gear or bearing. 3. Stop lathe immediately and correct interference problem.
Tailstock quill will not feed out of tailstock.	<ol style="list-style-type: none"> 1. Quill lock knob is tightened down. 	<ol style="list-style-type: none"> 1. Turn knob counterclockwise.



Cross Feed Backlash

Backlash is the amount of play found in a lead screw. It can be found by turning the cross slide handwheel in one direction, and then turning the handwheel the other direction. When the cross slide begins to move, the backlash has been taken up.

To remove excessive backlash:

1. UNPLUG THE LATHE!
2. Tighten the socket head cap screw in small increments (see **Figure 84**).

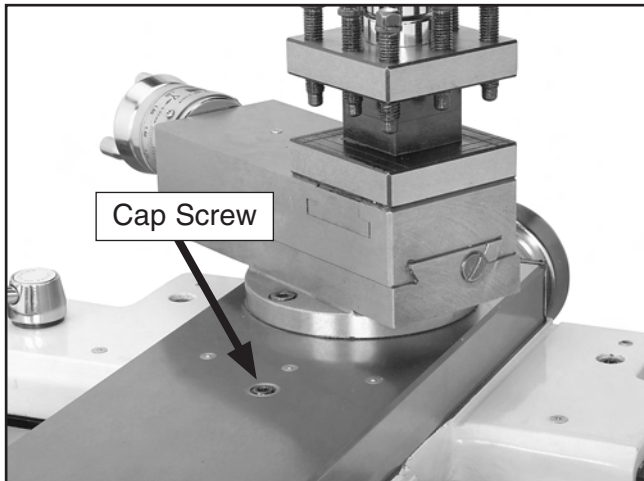


Figure 84. Cross feed backlash adjustment socket head cap screw.

3. Test after each adjustment until the backlash meets the needs of the operator and operation.

Note: Avoid the temptation to overtighten the socket head cap screw. Overtightening will cause excessive wear to the sliding block and lead screw.

Gibs

The saddle, cross feed, compound rest, and tailstock gibs can all be adjusted on the Model G0554 lathe.

Note: When adjusting gibs, keep in mind that the goal of gib adjustment is to remove sloppiness without causing the slides to bind. Loose gibs may cause poor finishes on the workpiece and may cause undue wear on the slide. Over-tightening may cause premature wear on the slide, lead screw, and nut.

To adjust the saddle gib:

1. Loosen four hex nuts found at the bottom rear of the cross slide and back off one full turn each (see **Figure 85**).

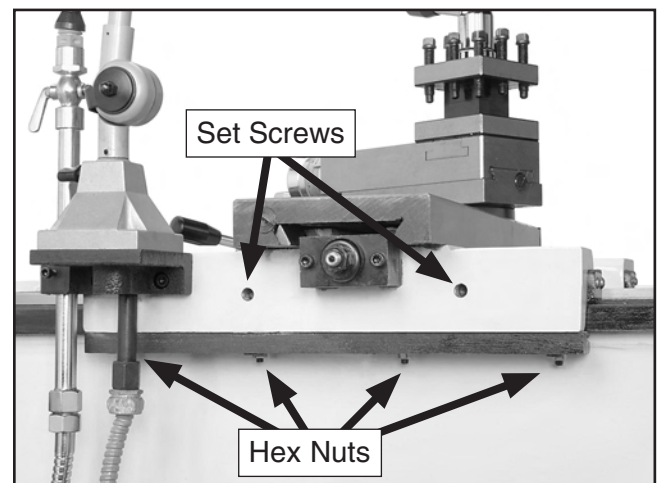


Figure 85. Saddle gib adjustments.



2. Turn the two set screws with a hex wrench until a slight resistance is felt. DO NOT over-tighten.
3. Move the carriage with the handwheel to feel the current drag. Adjust set screws until the desired drag is achieved.

Note: Overtightening will cause excessive premature wear on the gibs.

4. Tighten the four hex nuts.

To adjust the cross feed and compound rest gibs:

1. Loosen the rear gib screw approximately one turn (see **Figure 86**).

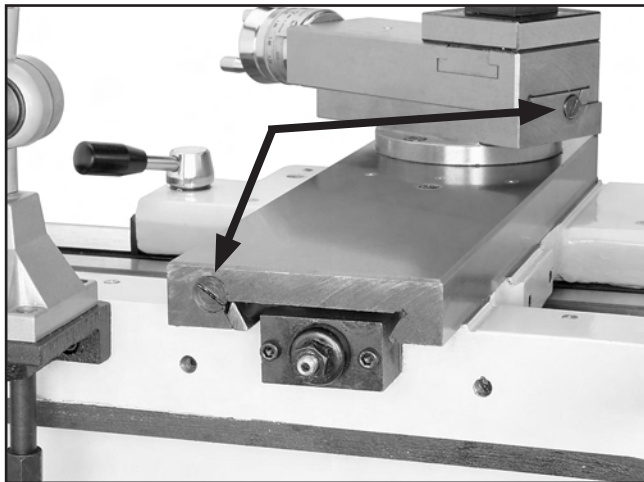


Figure 86. Rear cross feed and compound rest gib screws.

2. Tighten the front gib screw a quarter turn (see **Figure 87**).



Figure 87. Front cross feed and compound rest gib screws.

3. Turn the cross feed handwheel to feel the current drag and adjust the front screw until the desired drag is achieved.

To adjust the tailstock lock:

1. Move the tailstock lock handle to the unlocked position.
2. Slide the tailstock to an area that will allow access to the hex nut under the tailstock block.
3. Tighten the tailstock hex nut $\frac{1}{4}$ turn. Test to see that sufficient clamping pressure is applied so the tailstock will not move. Repeat as necessary (see **Figure 88**).

To adjust the tailstock gib:

1. Take up play in the tailstock by tightening the two gib screws (**Figure 88**) on either side of the tailstock base.



Figure 88. Tailstock nut and gib adjustment.



Replacing V-Belt

To replace the V-belts on the lathe:

1. UNPLUG THE LATHE!
2. Open the end cover door on the headstock and the lower cover at the headstock end of the lathe.
3. Remove the tension off the old V-belts by loosening the motor mount hex nut (see **Figure 89**).
4. Remove the old belts and install the new ones. Always replace these belts in pairs.
5. Tighten the motor mount hex nut until 8 lbs. of force applied to the belts causes approximately $\frac{3}{4}$ " of deflection.
6. Close end cover door and install lower cover. Then reconnect the machine to its power source.

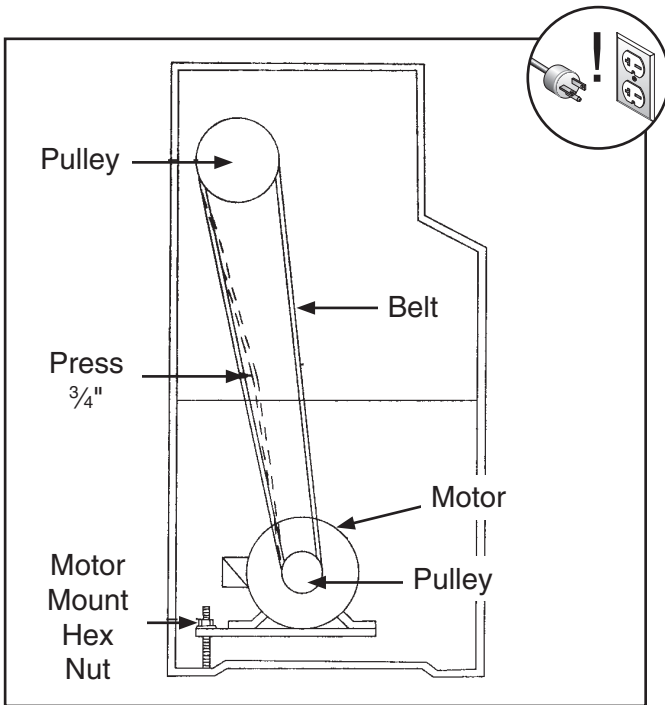


Figure 89. V-belt adjustments.



Electrical Components

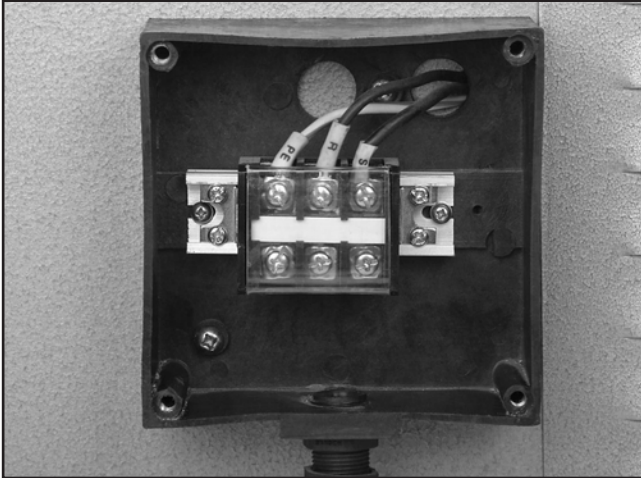


Figure 90. Power cord terminal.

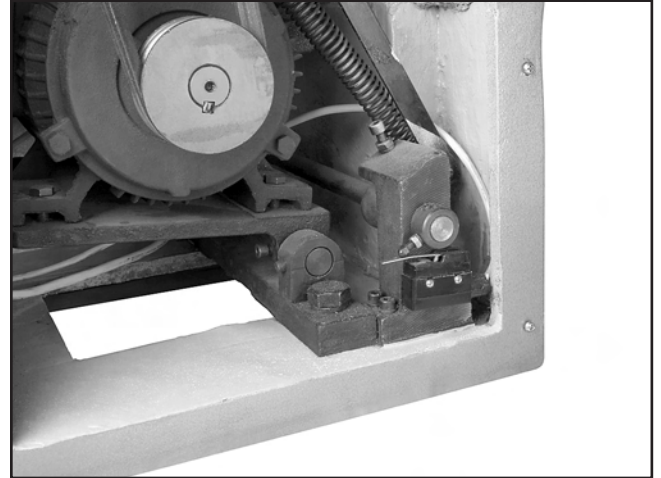


Figure 92. Brake switch.



Figure 91. Panel switches.

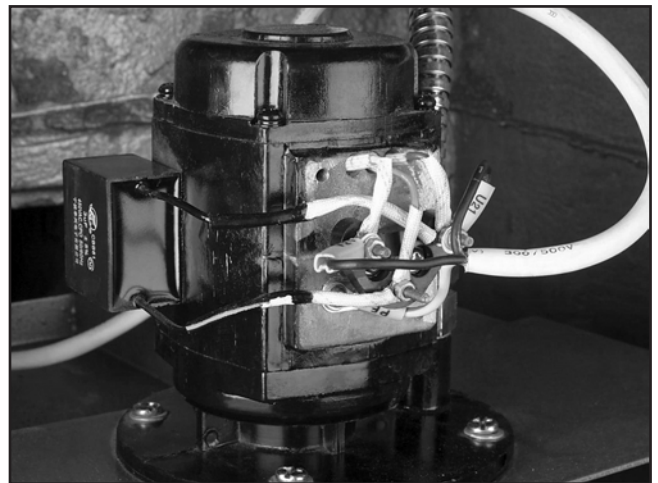


Figure 93. Pump motor.



Wiring Diagram

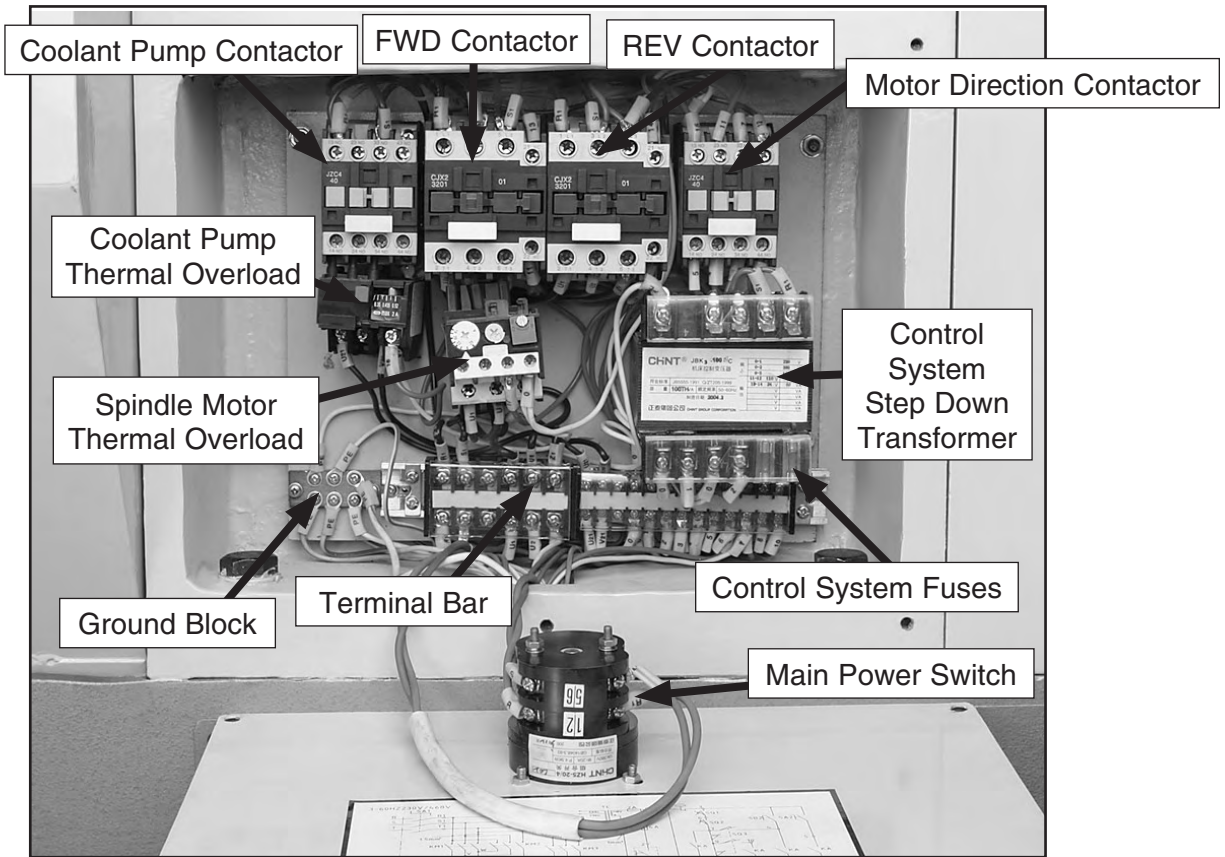


Figure 94. Model G0554 Electrical panel.

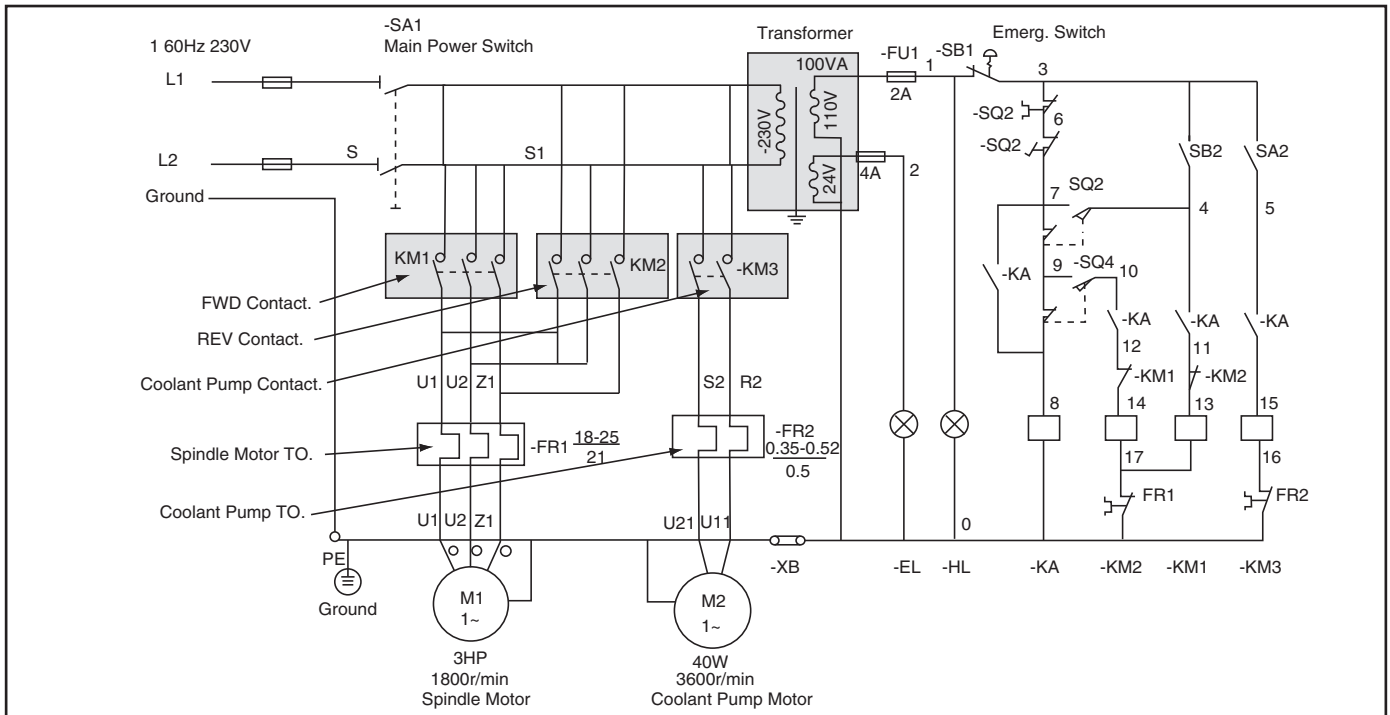
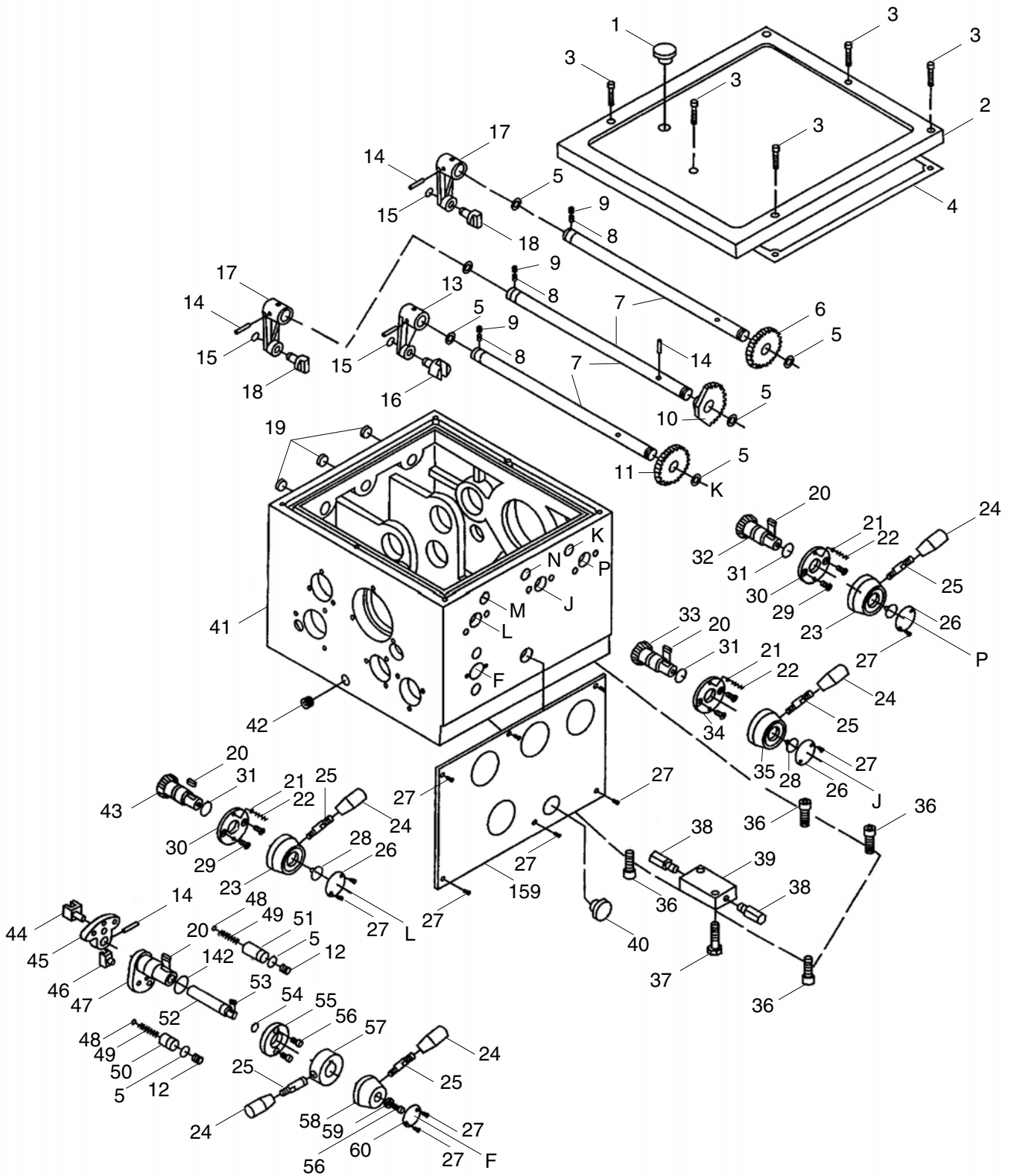


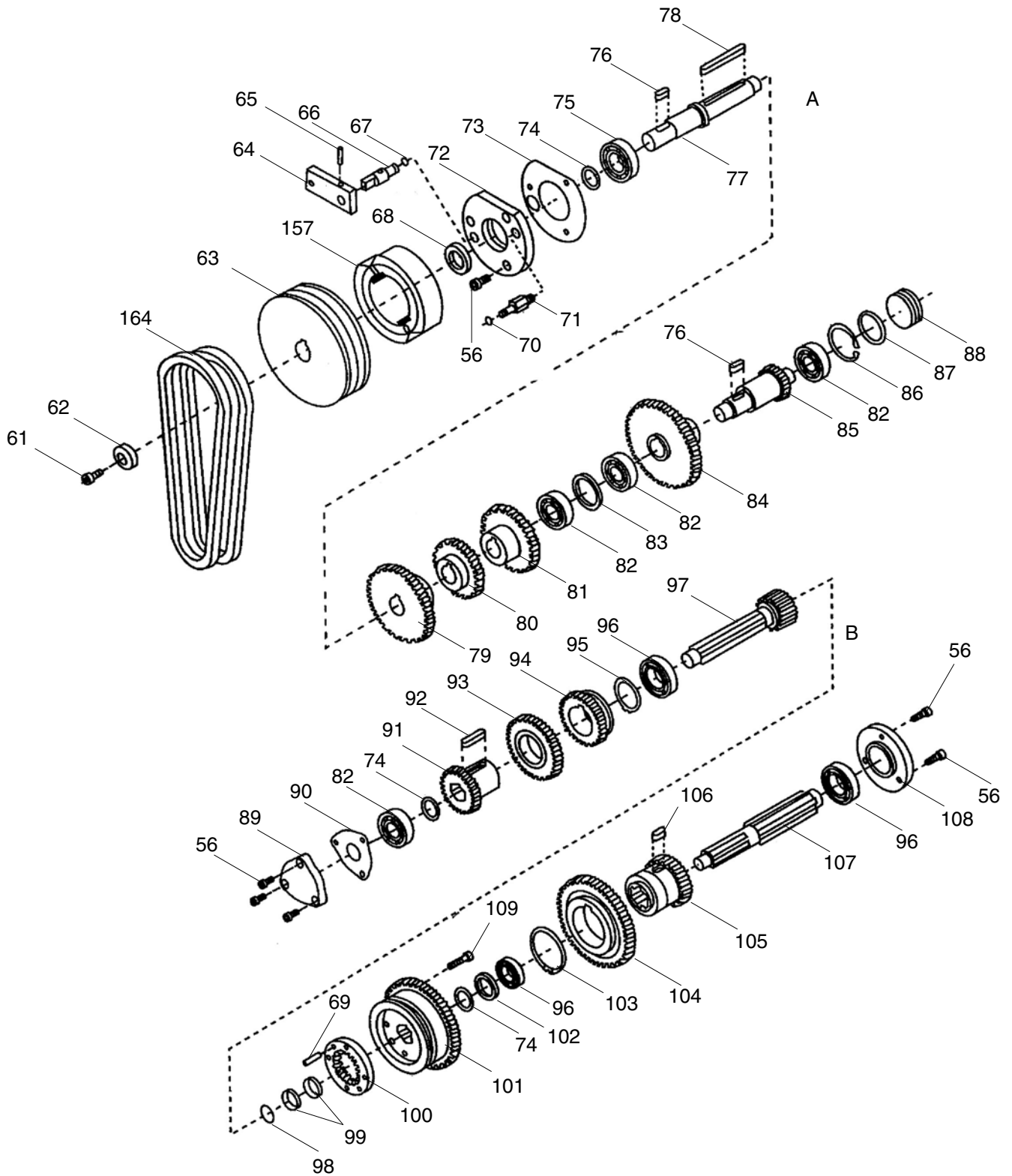
Figure 95. Model G0554 Electrical schematic.



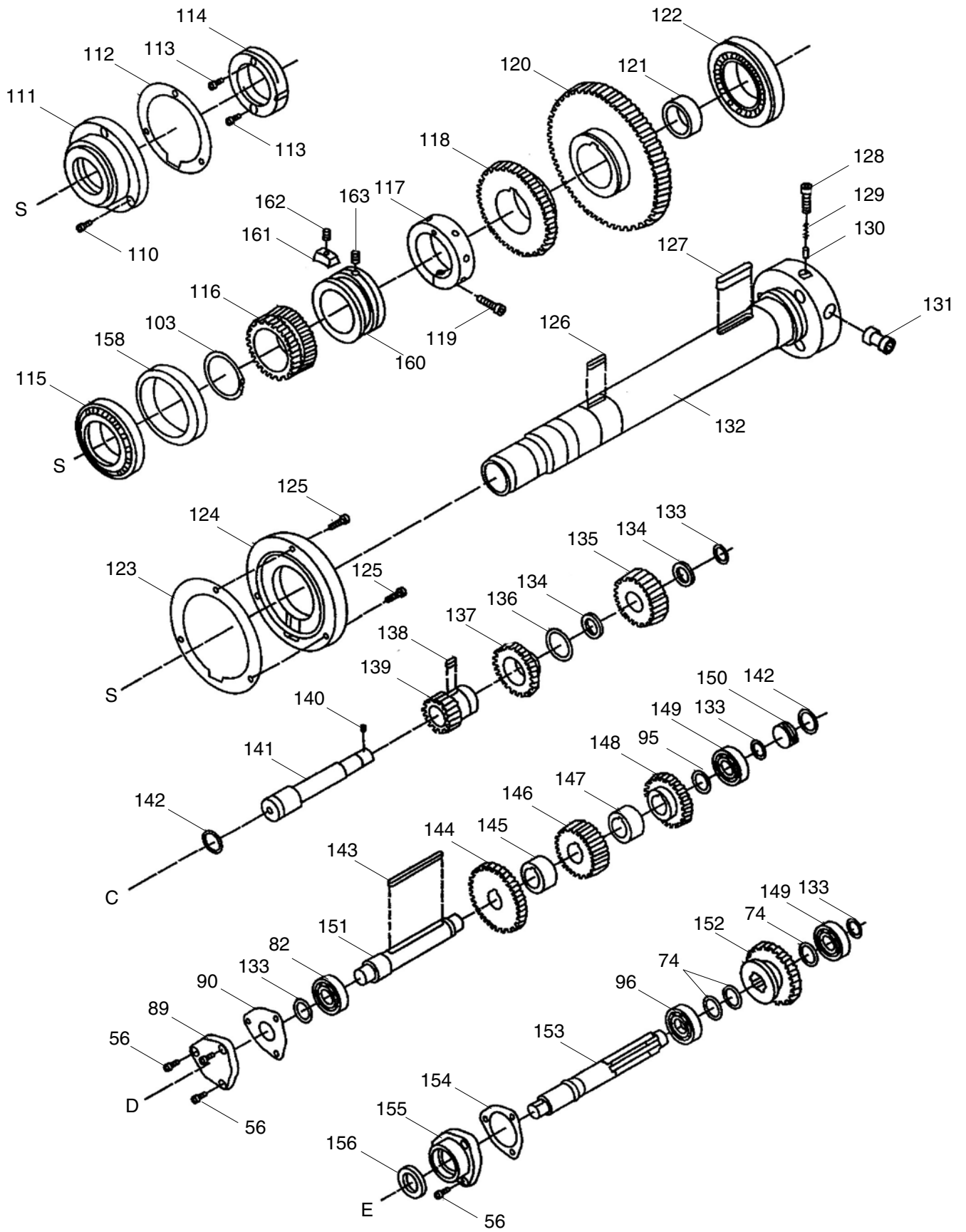
Headstock Assembly



Headstock Assembly



Headstock Assembly



Headstock Parts List

REF	PART #	DESCRIPTION
1	P0554001	PLUG
2	P0554002	HEADSTOCK COVER
3	PSB48M	CAP SCREW M6-1 X 35
4	P0554004	GASKET
5	P0554005	O-RING
6	P0554006	GEAR 38T
7	P05540107	SHAFT
8	PSS01M	SET SCREW M6-1 X 10
9	PSS02M	SET SCREW M6-1 X 6
10	P0554010	GEAR 48T
11	P0554011	GEAR 43T
12	PSS15M	SET SCREW M12-1.75 X 12
13	P0554013	SHIFT ARM
14	PRP05M	ROLL PIN 5 X 30
15	PR03M	EXT RETAINING RING 12MM
16	P0554016	SHIFT FORK
17	P0554017	SHIFT ARM
18	P0554018	GEAR SHIFTER
19	P0554019	PLUG
20	PK08M	KEY 5 X 5 X 16
21	P0554021	STEEL BALL
22	P0554022	COMPRESSION SPRING
23	P0554023	HANDLE BODY
24	P0554024	HANDLE CAP
25	P0554025	HANDLE LEVER
26	P0554026	LEVER NAME PLATE
27	PS12M	PHLP HD SCR M3-.5 X 6
28	PW03M	FLAT WASHER 6MM
29	PSB26M	CAP SCREW M6-1 X 12
30	P0554030	POSITION PLATE
31	P0554031	O-RING
32	P0554032	GEAR SHAFT 22T
33	P0554033	GEAR SHAFT 17T
34	P0554034	POSITION PLATE
35	P0554035	HANDLE BODY
36	PSB111M	CAP SCREW M12-1.75 X 35
37	P0554037	ALIGNMENT BOLT M10 X 40
38	P0554038	ALIGNMENT BOLT M12 X 17
39	P0554039	ALIGNMENT BLOCK
40	P0554040	OIL SIGHT GLASS
41	P0554041	HEADSTOCK CASTING 14"
42	P0554042	DRAIN PLUG
43	P0554043	GEAR SHAFT 27T
44	P0554044	SHAFT FORK
45	P0554045	SHIFTING CRANK
46	P0554046	SHAFT FORK
47	P0554047	SHIFTING CRANK
48	P0554048	STEEL BALL 9
49	P0554049	COMPRESSION SPRING
50	P0554050	SHAFT

REF	PART #	DESCRIPTION
51	P0554051	SHAFT
52	P0554052	SHAFT
53	PK05M	KEY 4 X 4 X 10
54	P0554054	O-RING 12.6 X 2.65
55	P0554055	COLLAR
56	PSB26M	CAP SCREW M6-1 X 12
57	P0554057	COLLAR
58	P0554058	HANDLE BODY
59	PW03M	FLAT WASHER 6MM
60	P0554060	INDICATOR DISC
61	PSB14M	CAP SCREW M8-1.25 X 20
62	PW01M	FLAT WASHER 8MM
63	P0554063	PULLEY
64	P0554064	BREAK BLOCK
65	PRP24M	ROLL PIN 5 X 16
66	P0554066	BREAK ACTUATOR SHAFT
67	PR03M	EXT RETAINING RING 12MM
68	P0554068	SPACER SD 25 X 45 X 7
69	PRP46M	ROLL PIN 6 X 28
70	PR39M	EXT RETAINING RING 8MM
71	P0554071	BRAKE RETAINER STUD
72	P0554072	COVER
73	P0554073	GASKET
74	PR11M	EXT RETAINING RING 25MM
75	P6205	BALL BEARING 6205ZZ
76	PK107M	KEY 8 X 8 X 20
77	P0554077	SHAFT
78	P0554078	KEY 8 X 8 X 72
79	P0554079	GEAR 50T
80	P0554080	GEAR 37T
81	P0554081	GEAR 43T
82	P6204	BALL BEARING 6204ZZ
83	PW13M	FLAT WASHER 20MM
84	P0554084	GEAR 57T
85	P0554085	GEAR SHAFT
86	PR25M	INT RETAINING RING 47MM
87	P0554087	O-RING 40 X 2.65
88	P0554088	PLUG
89	P0554089	BEARING CAP
90	P0554090	BEARING CAP GASKET
91	P0554091	GEAR 28T
92	PK121M	KEY 8 X 8 X 38
93	P0554093	GEAR 41T
94	P0554094	GEAR 34T
95	PR68M	EXT RETAINING RING 40MM
96	P6005	BALL BEARING 6005ZZ
97	P0554097	GEAR SHAFT 21T
98	PR18M	EXT RETAINING RING 17MM
99	P0554099	BALL BEARING 61803/P5
100	P0554100	GEAR 21T



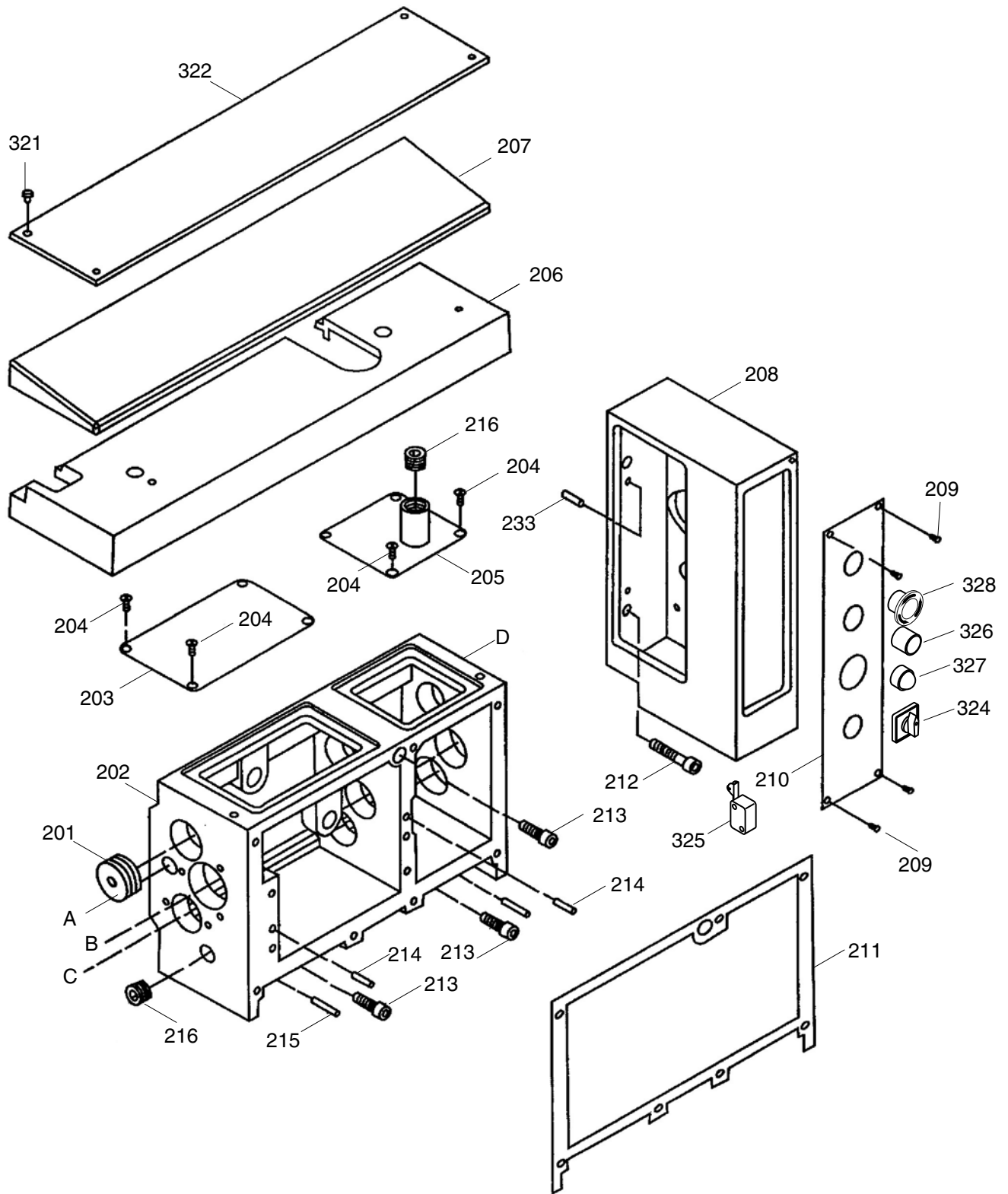
Headstock Parts List

REF	PART #	DESCRIPTION
101	P0554101	GEAR 58T
102	PW19M	FLAT WASHER 25MM
103	PR78M	EXT RETAINING RING 55MM
104	P0554104	GEAR 59T
105	P0554105	GEAR 31T
106	PK122M	KEY 10 X 10 X 18
107	P0554107	SPLINE SHAFT
108	P0554108	COVER
109	PSB48M	CAP SCREW M6-1 X 35
110	PSB01M	CAP SCREW M6-1 X 16
111	P0554111	COVER
112	P0554112	GASKET
113	PSB33M	CAP SCREW M5-.8 X 12
114	P0554114	COLLAR M55 X 1.5
115	P0554115	TAPERED BEARING 32011/P5
116	P0554116	GEAR 38T
117	P0554117	LOCK COLLAR
118	P0554118	GEAR 59T
119	PSB13M	CAP SCREW M8-1.25 X 30
120	P0554120	GEAR 87T
121	P0554121	COLLAR
122	P0554122	TAPERED BEARING 320212/P5
123	P0554123	GASKET
124	P0554124	COVER
125	PSB02M	CAP SCREW M6-1 X 20
126	PK42M	KEY 6 X 6 X 30
127	PK123M	KEY 10 X 10 X 55
128	PSB11M	CAP SCREW M8-1.25 X 16
129	P0554129	COMPRESSION SPRING
130	P0554130	CAMLOCK SET PIN
131	P0554131	CAMLOCK
132	P0554132	SPINDLE

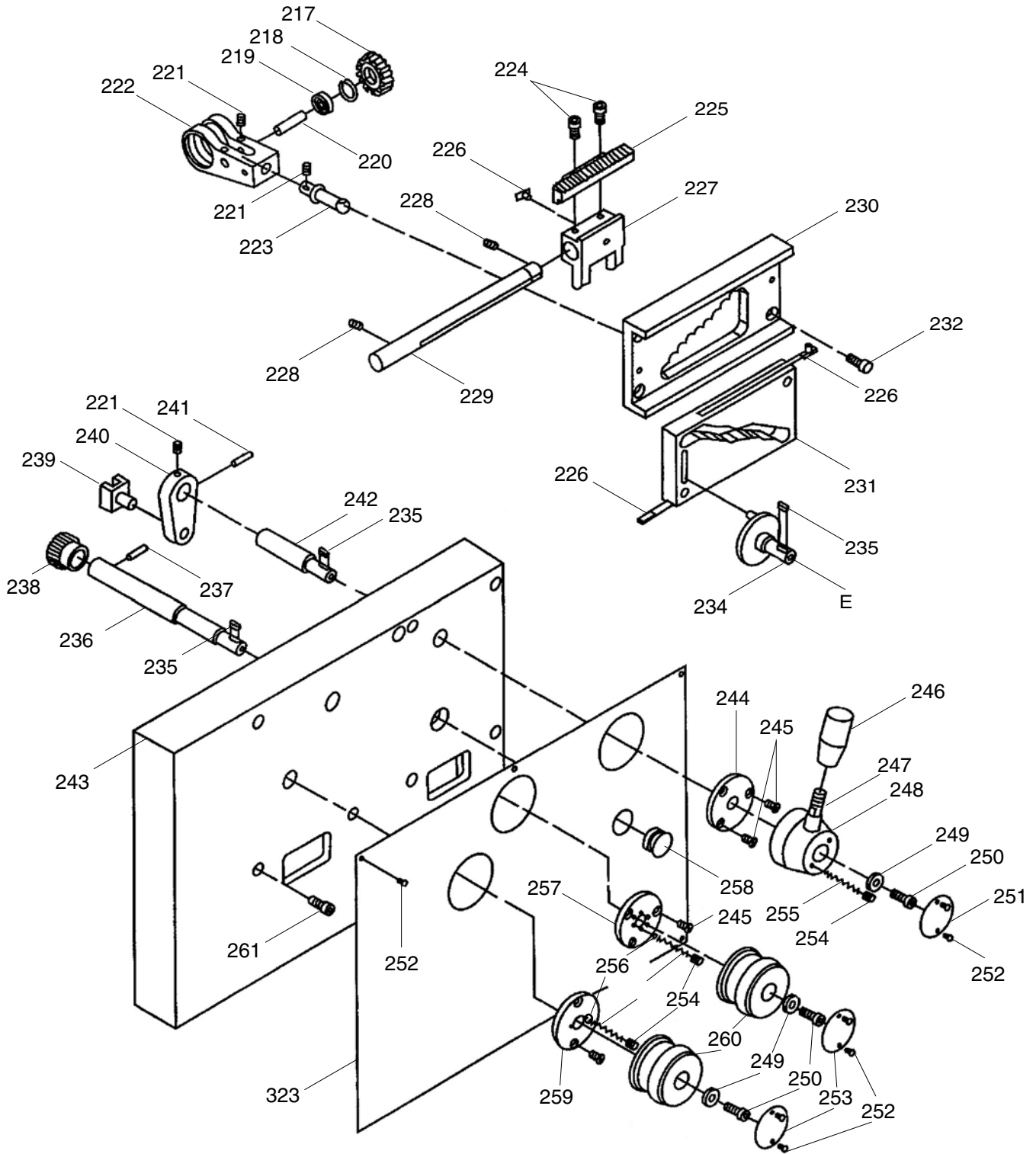
REF	PART #	DESCRIPTION
133	PR09M	EXT RETAINING RING 20MM
134	P0554134	SPACER
135	P0554135	GEAR 32T
136	PR77M	EXT RETAINING RING 37MM
137	P0554137	GEAR 32T
138	PK08M	KEY 5 X 5 X 16
139	P0554139	GEAR 32T
140	PSS04M	SET SCREW M6-1 X 12
141	P0554141	SHAFT
142	P0554142	O-RING 25 X 2.65
143	PK100M	KEY 6 X 6 X 90
144	P0554144	GEAR 42T
145	P0554145	COLLAR
146	P0554146	GEAR 32T
147	P0554147	COLLAR
148	P0554148	GEAR 32T
149	P6004	BALL BEARING 6004ZZ
150	P0554150	PLUG
151	P0554151	SHAFT (D)
152	P0554152	GEAR 38T
153	P0554153	SPLINE SHAFT (E)
154	P0554154	HOUSING GASKET
155	P0554155	HOUSING
156	P0554156	SPACER SD25 X 40 X 7
157	P0554157	BRAKE SHOE ASSEMBLY
158	P0554158	COLLAR
159	P0554159	COVER W/WARNING LABELS
160	P0554160	BALANCE SPACE
161	P0554161	BALANCE BLOCK
162	PSS04M	SET SCREW M6-1 X 12
163	PSS14M	SET SCREW M8-1.25 X 12
164	PVA67	V-BELT PVA67



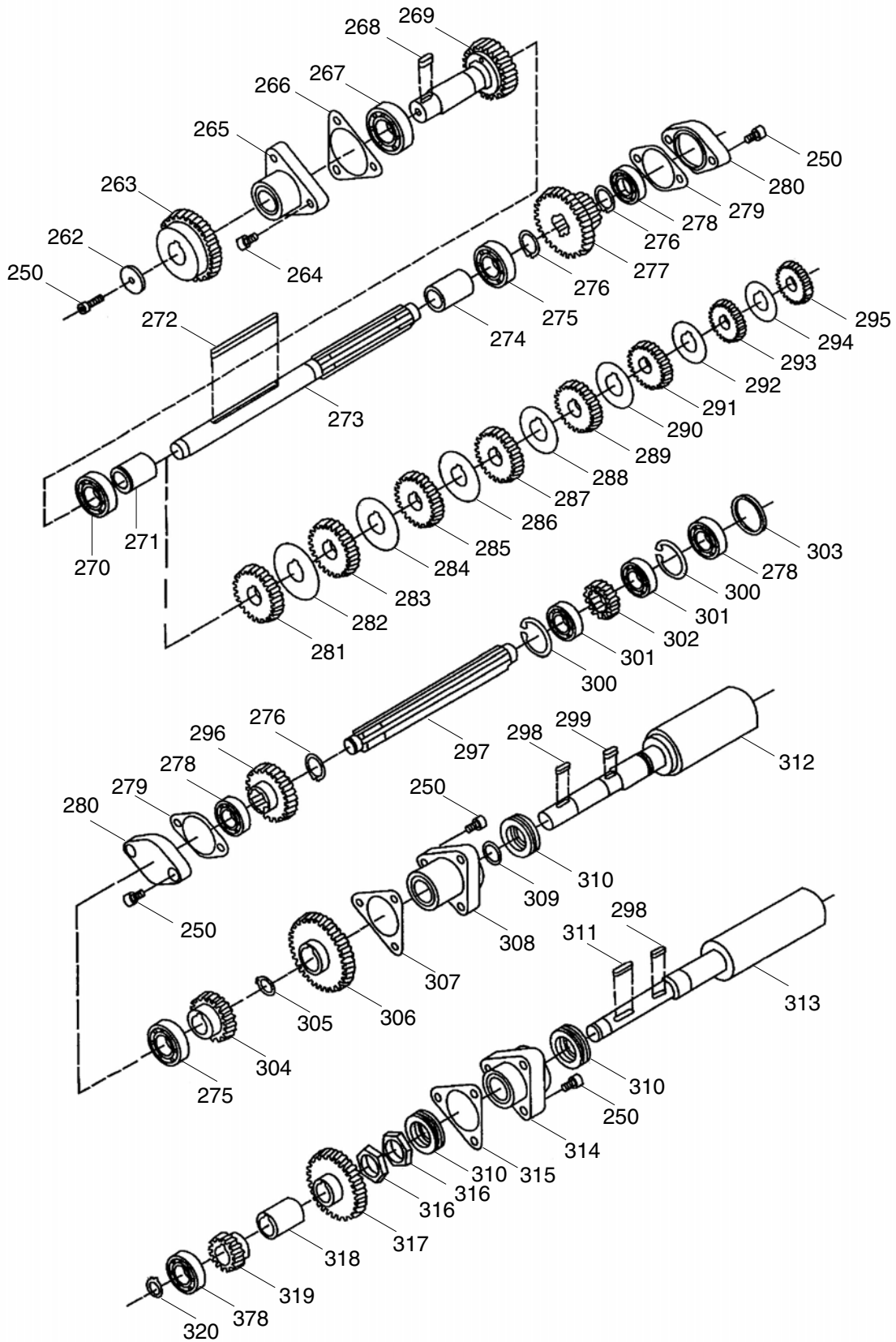
Gearbox Assembly



Gearbox Assembly



Gearbox Assembly



Gearbox Parts List

REF	PART #	DESCRIPTION
201	P0554201	PLUG
202	P0554202	GEARBOX CASTING
203	P0554203	FRONT COVER
204	PFH19M	FLAT HD SCR M4-.7 X 10
205	P0554205	OIL COVER
206	P0554206	COVER
207	P0554207	TOP COVER
208	P0554208	BRACKET
209	PS12M	PHLP HD SCR M3-.5 X 6
210	P0554210	ELECTRICAL PLATE
211	P0554211	GEARBOX GASKET
212	PSB12M	CAP SCREW M8-1.25 X 40
213	PSB31M	CAP SCREW M8-1.25 X 25
214	PRP03M	ROLL PIN 5 X 20
215	PRP27M	ROLL PIN 5 X 28
216	P0554216	PLUG
217	P0554217	GEAR 16T
218	PR08M	EXT RETAINING RING 19MM
219	P698ZZ	BALL BEARING 698ZZ
220	P0554220	SHAFT
221	PSS03M	SET SCREW M6-1 X 8
222	P0554222	SHIFTER
223	P0554223	SHAFT
224	PSB02M	CAP SCREW M6-1 X 20
225	P0554225	RACK
226	P0554226	SHIFT KEY
227	P0554227	SHIFT FORK
228	PSS03M	SET SCREW M6-1 X 8
229	P0554229	SHAFT
230	P0554230	LOCATING PLATE
231	P0554231	CONTROL PLATE
232	PSB26M	CAP SCREW M6-1 X 12
233	PRP90M	ROLL PIN 8 X 30
234	P0554234	SHIFT HUB
235	PK05M	KEY 4 X 4 X 10
236	P0554236	SHAFT
237	PRP03M	ROLL PIN 5 X 20
238	P0554238	GEAR 26T
239	P0554239	SHIFT FORK
240	P0554240	SHIFT LEVER

REF	PART #	DESCRIPTION
241	PRP03M	ROLL PIN 5 X 20
242	P0554242	SHAFT
243	P0554243	COVER
244	P0554244	LOCATING DISC
245	PFH07M	FLAT HD SCR M5-.8 X 10
246	P0554246	HANDLE
247	P0554247	HANDLE SHAFT
248	P0554248	SHIFT HUB
249	PW09M	FLAT WASHER 7MM
250	PSB01M	CAP SCREW M6-1 X 16
251	P0554251	INDICATOR DISC
252	PS12M	PHLP HD SCR M3-.5 X 6
253	P0554253	INDICATOR DISC
254	PSS20M	SET SCREW M8-1.25 X 8
255	P0554255	COMPRESSION SPRING 5.8 X 25
256	P0554256	STEEL BALL 6.5
257	P0554257	LOCATING DISC
258	P0554258	OIL SIGHT
259	P0554259	LOCATING DISC
260	P0554260	SHIFT HUB
261	PSB48M	CAP SCREW M6-1 X 35
262	PW03M	FLAT WASHER 6MM
263	P0554263	GEAR 50T
264	PSB02M	CAP SCREW M6-1 X 20
265	P0554265	FLANGE
266	P0554266	GASKET
267	P6004	BALL BEARING 6004ZZ
268	PK19M	KEY 5 X 5 X 14
269	P0554269	GEAR SHAFT ASSEMBLY
270	P6002	BALL BEARING 6002ZZ
271	P0554271	SHAFT COLLAR
272	PK120M	KEY 5 X 5 X 75
273	P0554273	SHAFT
274	P0554274	SHAFT COLLAR
275	P6003	BALL BEARING 6003ZZ
276	PR09M	EXT RETAINING RING 20MM
277	P0554277	GEAR 16T/32T
278	P6202	BALL BEARING 6202
279	P0554279	GASKET
280	P0554280	FLANGE



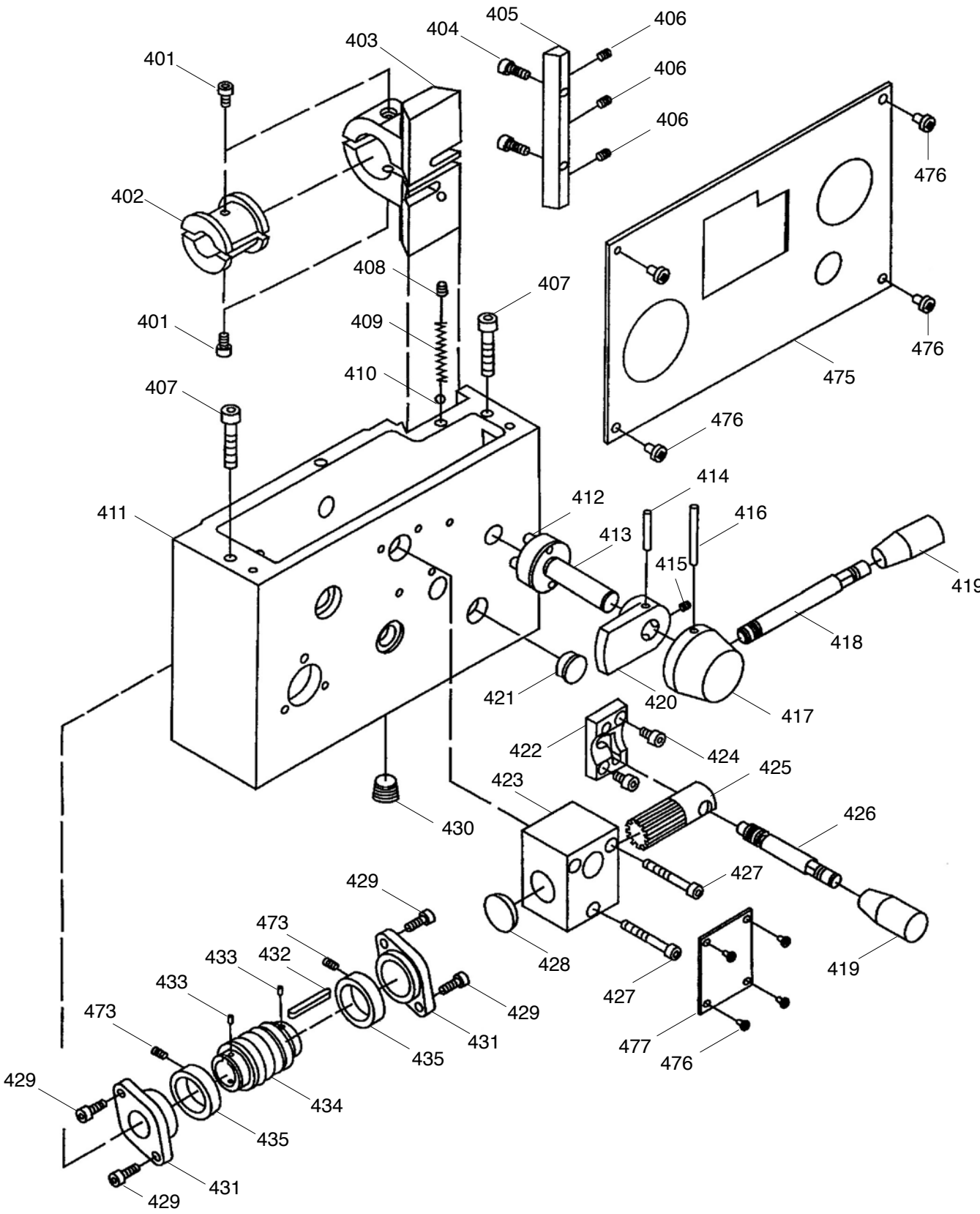
Gearbox Parts List

REF	PART #	DESCRIPTION
281	P0554281	GEAR 28T
282	P0554282	KEYED WASHER 52MM
283	P0554283	GEAR 26T
284	P0554284	KEYED WASHER 48.5MM
285	P0554285	GEAR 24T
286	P0554286	KEYED WASHER 45MM
287	P0554287	GEAR 23T
288	P0554288	KEYED WASHER 43MM
289	P0554289	GEAR 22T
290	P0554290	KEYED WASHER 41.5MM
291	P0554291	GEAR 20T
292	P0554292	KEYED WASHER 38MM
293	P0554293	GEAR 18T
294	P0554294	KEYED WASHER 34.5MM
295	P0554295	GEAR 16T
296	P0554296	GEAR 26T
297	P0554297	SPLINE SHAFT
298	PK19M	KEY 5 X 5 X 14
299	PK101M	KEY 6 X 6 X 14
300	PR29M	INT RETAINING RING 32MM
301	P0554301	BALL BEARING 61804
302	P0554302	GEAR 16T
303	PW23M	FLAT WASHER 30MM
304	P0554304	GEAR 21T

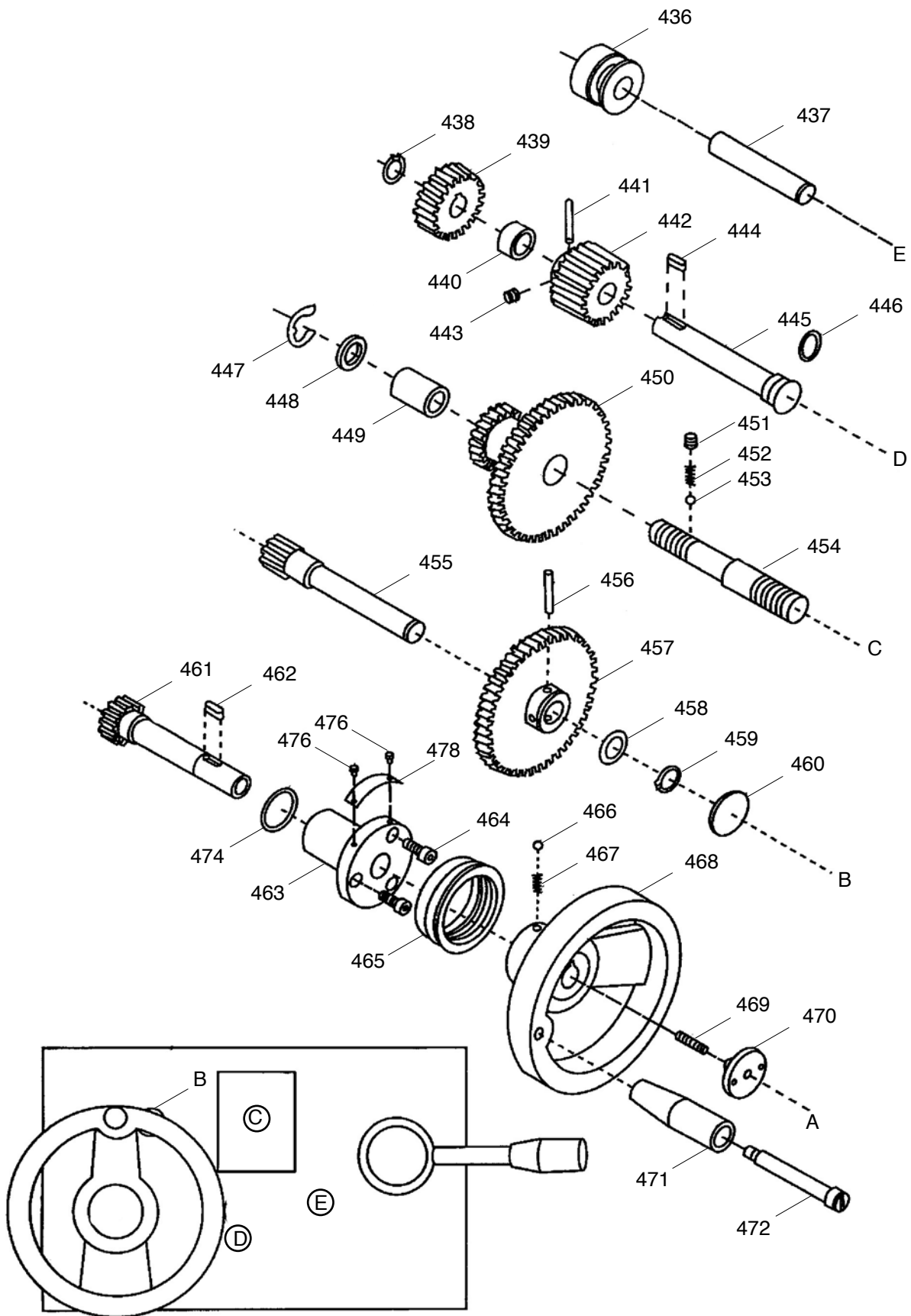
REF	PART #	DESCRIPTION
305	PR05M	EXT RETAINING RING 15MM
306	P0554306	GEAR 36T
307	P0554307	GASKET
308	P0554308	FLANGE
309	P0554309	O-RING 15 X 2.65
310	P51104	THRUST BEARING 51104
311	PK34M	KEY 5 X 5 X 20
312	P0554312	SHAFT
313	P0554313	SHAFT
314	P0554314	FLANGE
315	P0554315	GASKET
316	PN17M	HEX NUT M20-1.5
317	P0554317	GEAR 32T
318	P0554318	COLLAR
319	P0554319	GEAR 16T
320	PR05M	EXT RETAINING RING 15MM
321	P0554321	RIVET 2 X 4
322	P0554322	SPEED CHART
323	P0554323	NAME PLATE
324	P0554324	COOLANT ON/OFF SWITCH
325	P0554325	FWD/REV SWITCH
326	P0554326	JOG BUTTON
327	P0554327	POWER ON LIGHT
328	P0554328	EMERGENCY STOP SWITCH



Apron Assembly



Apron Assembly



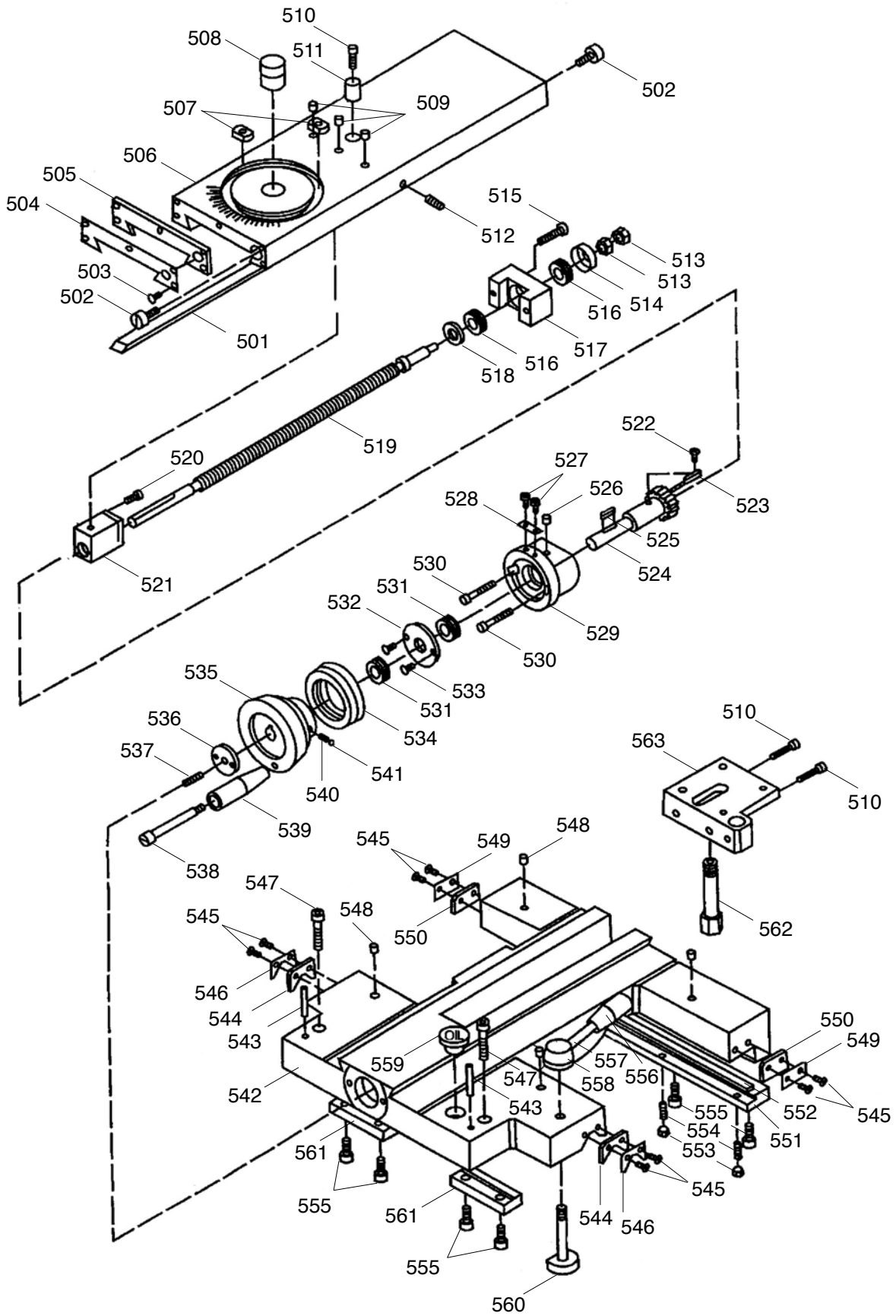
Apron Parts List

REF	PART #	DESCRIPTION
400	P0554400	COMPLETE APRON ASSY
401	PSB04M	CAP SCREW M6-1 X 10
402	P0554402	HALF NUT M23 X 3.175
403	P0554403	BRACKET
404	PSB01M	CAP SCREW M6-1 X 16
405	P0554405	GIB
406	PSS01M	SET SCREW M6-1 X 10
407	PSB12M	CAP SCREW M8-1.25 X 40
408	PSS20M	SET SCREW M8-1.25 X 8
409	P0554409	COMPRESSION SPRING 6 X 42
410	P0554410	STEEL BALL 6
411	P0554411	CASTING
412	P0554412	DOWEL PIN
413	P0554413	HALF NUT CAM 16 X 75
414	PRP10M	ROLL PIN 5 X 36
415	PSS02M	SET SCREW M6-1 X 6
416	PRP30M	ROLL PIN 5 X 50
417	P0554417	HUB
418	P0554418	HANDLE SHAFT
419	P0554419	KNOB
420	P0554420	SAFETY CATCH
421	P0554421	SIGHT GLASS 12
422	P0554422	BRACKET
423	P0554423	BLOCK
424	PSB26M	CAP SCREW M6-1 X 12
425	P0554425	SPLINE SHAFT
426	P0554426	HANDLE SHAFT
427	PSB30M	CAP SCREW M6-1 X 45
428	P0554428	PLUG
429	PSB01M	CAP SCREW M6-1 X 16
430	P0554430	DRAIN PLUG
431	P0554431	FLANGE
432	PK119M	KEY 5 X 5 X 56
433	PRP14M	ROLL PIN 3 X 6
434	P0554434	WORM
435	P0554435	COLLAR
436	P0554436	BUSHING
437	P0554437	SHAFT
438	PR06M	EXT RETAINING RING 16MM
439	P0554439	GEAR 22T

REF	PART #	DESCRIPTION
440	P0554440	COLLAR
441	PRP10M	ROLL PIN 5 X 36
442	P0554442	GEAR 24T
443	PSS02M	SET SCREW M6-1 X 6
444	PK20M	KEY 5 X 5 X 15
445	P0554445	SHAFT
446	P0554446	O-RING 17 X 1.8
447	PR03M	EXT RETAINING RING 12MM
448	P0554448	BUSHING
449	P0554449	COLLAR
450	P0554450	CLUSTER GEAR 50T/20T
451	PSS20M	SET SCREW M8-1.25 X 8
452	P0554452	COMPRESSION SPRING 6 X 22
453	P0554410	STEEL BALL 6
454	P0554454	SHAFT
455	P0554455	SHAFT
456	PRP05M	ROLL PIN 5 X 30
457	P0554457	GEAR 50T
458	P0554458	BUSHING
459	PR06M	EXT RETAINING RING 16MM
460	P0554460	PLUG
461	P0554461	SHAFT
462	PK20M	KEY 5 X 5 X 15
463	P0554463	WHEEL FLANGE
464	PSB01M	CAP SCREW M6-1 X 16
465	P0554465	INDICATOR RING
466	P0554410	STEEL BALL 6
467	P0554467	COMPRESSION SPRING 6 X 12.6
468	P0554468	WHEEL
469	PSS12M	SET SCREW M6-1 X 25
470	P0554470	WHEEL STUD
471	P0554471	HANDLE SLEEVE
472	P0554472	HANDLE LEVER
473	PSS05M	SET SCREW M5-.8 X 10
474	P0554474	O-RING 25.8 X 3.55
475	P0554475	APRON LABEL
476	PS12M	PHLP HD SCR M3-.5 X 6
477	P0554477	THREAD DIAL LABEL
478	P0554478	INDICATOR LABEL



Carriage Assembly



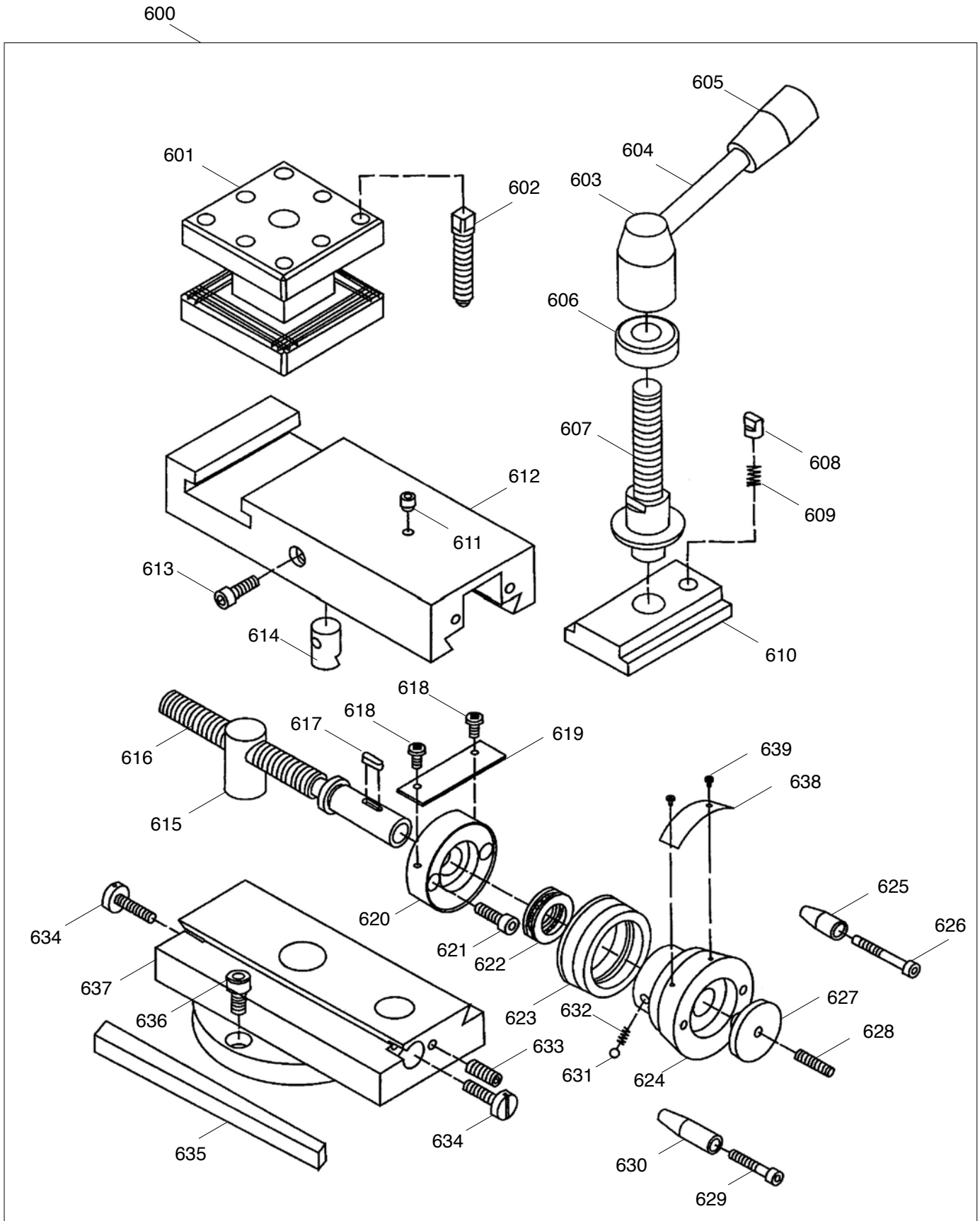
Carriage Parts List

REF	PART #	DESCRIPTION
501	P0554501	GIB
502	P0554502	GIB ADJUSTING SCREW M6 X 23
503	PS09M	PHLP HD SCR M5-.8 X 10
504	P0554504	PLATE
505	P0554505	PLATE WIPER
506	P0554506	CROSS SLIDE BODY
507	P0554507	CLAMP NUT M8
508	P0554508	HUB
509	P0554509	OILER 8
510	PSB02M	CAP SCREW M6-1 X 20
511	P0554511	SLEEVE
512	PSS20M	SET SCREW M8-1.25 X 8
513	PN02M	HEX NUT M10-1.5
514	P0554514	BEARING CAP
515	PSB07M	CAP SCREW M6-1 X 30
516	P8101	THRUST BEARING 8101
517	P0554517	BLOCK
518	P0554518	SPACER
519	P0554519	LEADSCREW M15 X 2.54
520	PSB26M	CAP SCREW M6-1 X 12
521	P0554521	CROSSFEED NUT M15.5 X 2.54
522	PS49M	PHLP HD SCR M3-.5 X 5
523	PK23M	KEY 5 X 5 X 25
524	P0554524	GEAR SHAFT
525	PK48M	KEY 4 X 4 X 20
526	P0554526	OILER 6
527	PS12M	PHLP HD SCR M3-.5 X 6
528	P0554528	INDICATOR LABEL
529	P0554529	HOUSING
530	PSB29M	CAP SCREW M6-1 X 40
531	P8102	THRUST BEARING 8102
532	PW08M	FLAT WASHER 16MM

REF	PART #	DESCRIPTION
533	PS09M	PHLP HD SCR M5-.8 X 10
534	P0554534	INDEX RING
535	P0554535	COMPOUND HANDLE HUB
536	P0554536	COVER SCREW M12 X 7
537	PSS12M	SET SCREW M6-1 X 25
538	P0554538	HANDLE LEVER
539	P0554539	HANDLE SLEEVE
540	P0554540	COMPRESSION SPRING
541	P0554410	STEEL BALL 6
542	P0554542	SADDLE
543	PRP32M	ROLL PIN 6 X 40
544	P0554544	PLATE WIPER
545	PS09M	PHLP HD SCR M5-.8 X 10
546	P0554546	PLATE
547	PSB12M	CAP SCREW M8-1.25 X 40
548	P0554548	OILER
549	P0554549	PLATE
550	P0554550	PLATE WIPER
551	P0554551	REAR PRESSURE PLATE
552	P0554552	GIB
553	PLN03M	LOCK NUT M6-1
554	PSS25M	SET SCREW M6-1 X 20
555	PSB14M	CAP SCREW M8-1.25 X 20
556	P0554556	HANDLE KNOB M10 X 50
557	P0554557	HANDLE SHAFT
558	P0554558	HUB
559	P0554559	OIL CAP
560	P0554560	LOCK STUD
561	P0554561	FRONT PRESSURE PLATE
562	P0554562	CONNECTED TUBE
563	P0554563	LAMP BRACKET



Tool Post Assembly



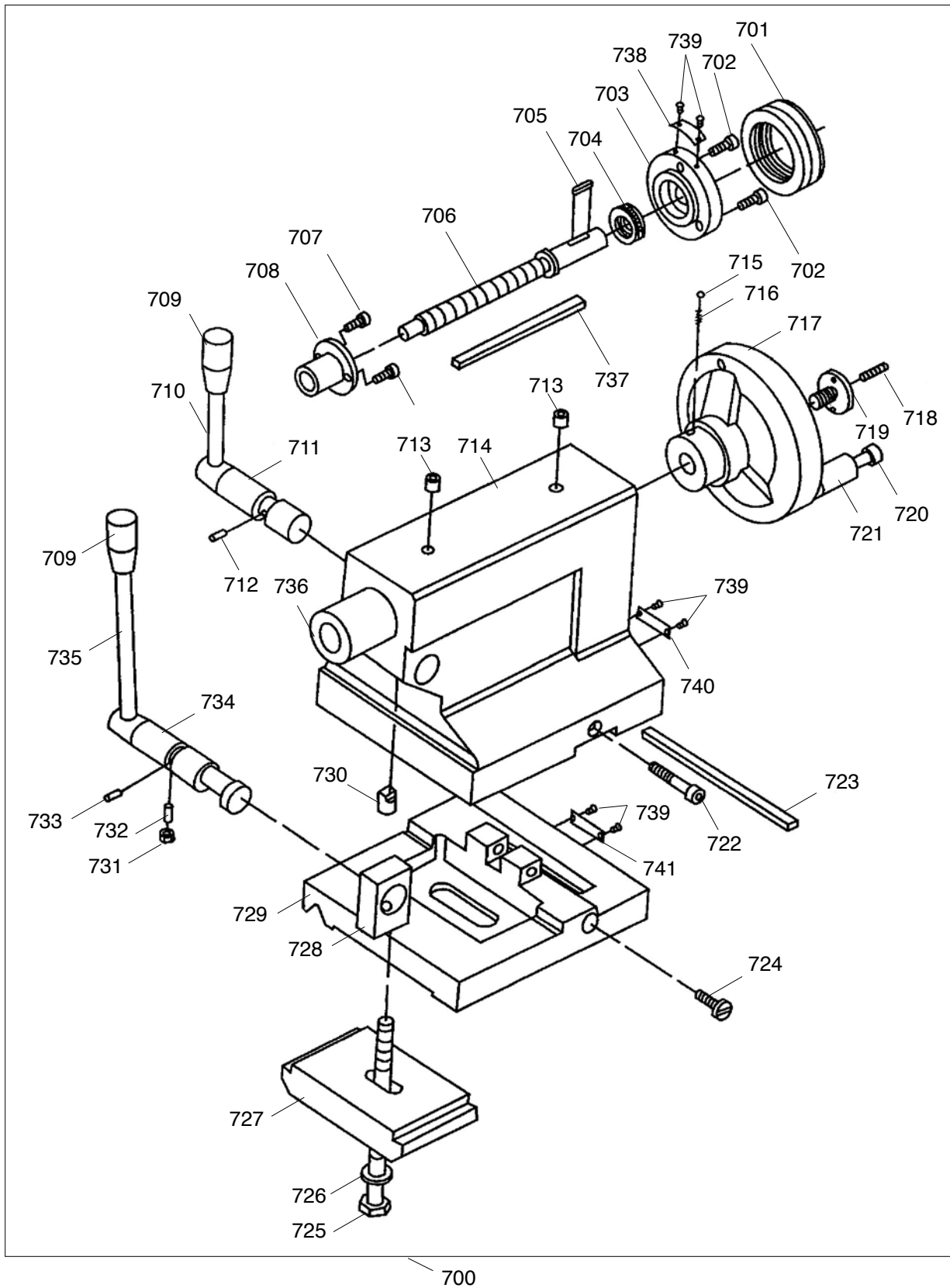
Tool Post Parts List

REF	PART #	DESCRIPTION
600	P0554600	TOOL POST ASSY
601	P0554601	TOOL POST
602	P0554602	TOOL LOCK SCREW 10 X 50
603	P0554603	HANDLE HUB
604	P0554604	HANDLE SHAFT
605	P0554605	HANDLE
606	P0554606	SPACER
607	P0554607	TOOL POST PIN
608	P0554608	TOOL POST PIN
609	P0554609	COMPRESSION SPRING
610	P0554610	CLAMP NUT M18 X 1.5
611	P0554509	OILER 8
612	P0554612	COMPOUND SLIDE
613	PSB02M	CAP SCREW M6-1 X 20
614	P0554614	POSITION PIN
615	P0554615	THREADED PIN
616	P0554616	COMPOUND SCREW
617	PK97M	KEY 4 X 4 X 14
618	PS12M	PHLP HD SCR M3-.5 X 6
619	P0554619	NAME PLATE

REF	PART #	DESCRIPTION
620	P0554620	SCREW BUSHING
621	PSB02M	CAP SCREW M6-1 X 20
622	P8103	THRUST BEARING 8103
623	P0554623	INDEX RING
624	P0554624	HANDWHEEL
625	P0554625	HANDLE
626	PSB38M	CAP SCREW M5-.8 X 25
627	P0554627	COVER SCREW M12 X 7
628	PSS12M	SET SCREW M6-1 X 25
629	PSB78M	CAP SCREW M5-.8 X 40
630	P0554630	HANDLE
631	P0554410	STEEL BALL 6
632	P0554632	COMPRESSION SPRING
633	PSS11M	SET SCREW M6-1 X 16
634	P0554634	GIB ADJUSTING SCREW M6 X 23
635	P0554635	GIB
636	PSB11M	CAP SCREW M8-1.25 X 16
637	P0554637	SWIVEL SLIDE
638	P0554638	SCALE
639	PS12M	PHLP HD SCR M3-.5 X 6



Tailstock Assembly



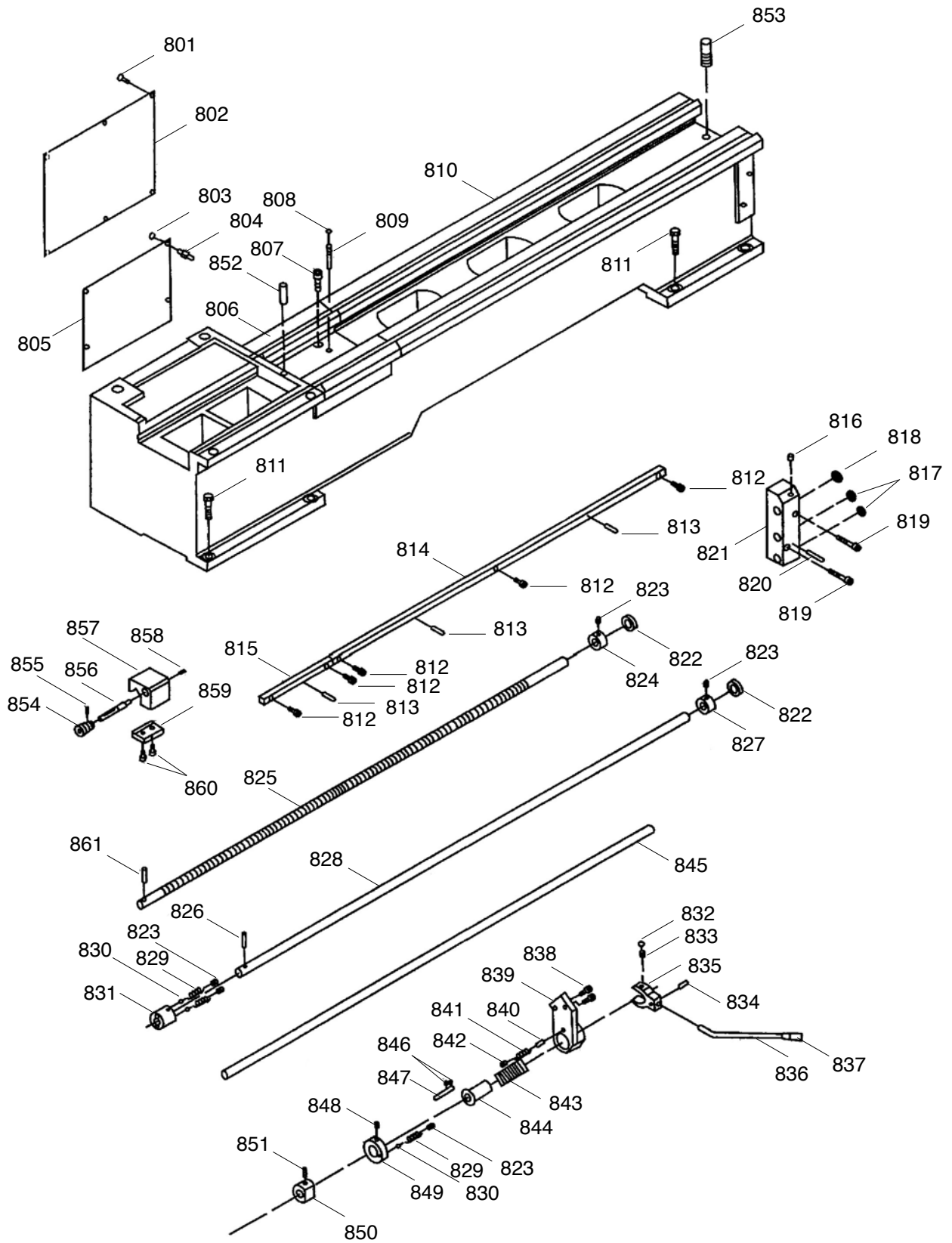
Tailstock Parts List

REF	PART #	DESCRIPTION
700	P0554700	TAILSTOCK ASSY
701	P0554701	INDEX RING
702	PSB02M	CAP SCREW M6-1 X 20
703	P0554703	HUB
704	P8103	THRUST BEARING 8103
705	PK48M	KEY 4 X 4 X 20
706	P0554706	FEED SCREW
707	PSB01M	CAP SCREW M6-1 X 16
708	P0554708	FLANGE
709	P0554709	KNOB
710	P0554710	LEVER HANDLE
711	P0554711	ECCENTRIC SHAFT
712	PRP59M	ROLL PIN 5 X 12
713	P0554713	OILER 10
714	P0554714	TAILSTOCK BODY
715	P0554410	STEEL BALL 6
716	P0554716	COMPRESSION SPRING
717	P0554717	WHEEL
718	PSS15M	SET SCREW M12-1.75 X 12
719	P0554719	WHEEL SCREW M6 X 15
720	P0554720	HANDLE LEVER

REF	PART #	DESCRIPTION
721	P0554721	HANDLE SLEEVE
722	PSB128M	CAP SCREW M8-1.25 X 70
723	P0554723	GIB
724	P0554724	GIB ADJUSTING SCREW 71
725	PSB101M	CAP SCREW M12-1.75 X 90
726	PW06M	FLAT WASHER 12MM
727	P0554727	TAILSTOCK CLAMP PLATE
728	P0554728	BLOCK
729	P0554729	TAILSTOCK BASE
730	P0554730	STOP PIN
731	PN01M	HEX NUT M6-1
732	PSS11M	SET SCREW M6-1 X 16
733	PRP59M	ROLL PIN 5 X 12
734	P0554734	ECCENTRIC SHAFT
735	P0554735	LEVER HANDLE
736	P0554736	SPINDLE
737	P0554737	KEY 3 X 6 X 55
738	P0554738	INDICATOR LABEL
739	PS12M	PHLP HD SCR M3-.5 X 6
740	P0554740	INDICATOR LABEL
741	P0554741	INDICATOR LABEL



Bed Assembly



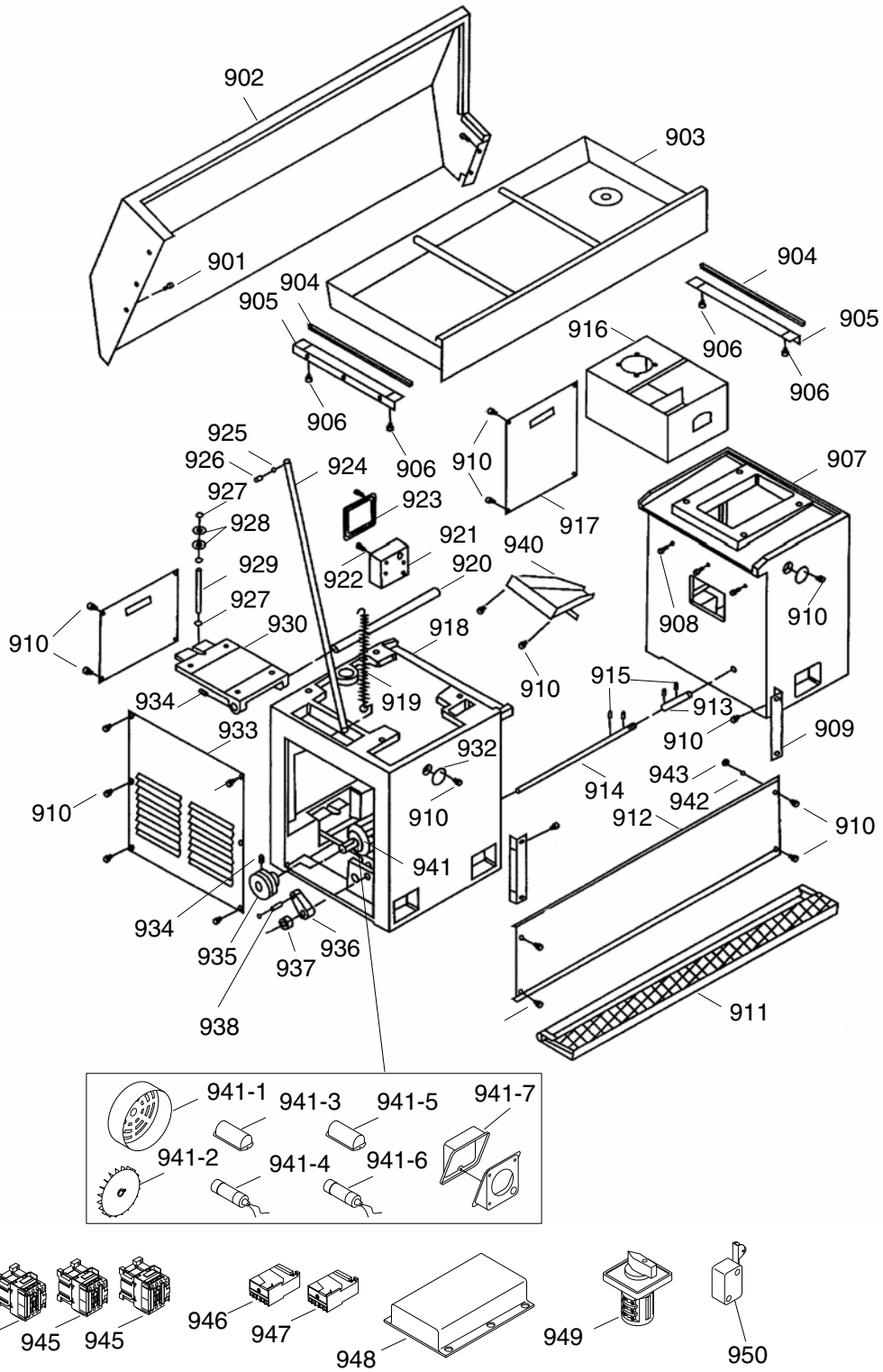
Bed Parts List

REF	PART #	DESCRIPTION
801	PS39M	PHLP HD SCR M8-1.25 X 10
802	P0554802	ELECTRICAL BOX COVER
803	PN03M	HEX NUT M8-1.25
804	P0554804	STUD
805	P0554805	ELECTRICAL PLATE
806	P0554806	GAP
807	PSB92M	CAP SCREW M12-1.75 X 40
808	PN03M	HEX NUT M8-1.25
809	PRP48M	ROLL PIN 8 X 60
810	P0554810	BED
811	PB51M	HEX BOLT M16-2 X 50
812	PSB06M	CAP SCREW M6-1 X 25
813	PRP10M	ROLL PIN 5 X 36
814	P0554814	RACK (LONG)
815	P0554815	RACK (SHORT)
816	P0554713	OILER 10
817	P0554817	PLUG
818	P0554818	PLUG
819	PSB60M	CAP SCREW M8-1.25 X 55
820	PRP48M	ROLL PIN 8 X 60
821	P0554821	END BRACKET
822	P51104	THRUST BEARING 51104
823	PSS16M	SET SCREW M8-1.25 X 10
824	P0554824	COLLAR
825	P0554825	LEADSCREW M22 X 3.175
826	PRP10M	ROLL PIN 5 X 36
827	P0554827	COLLAR
828	P0554828	FEED SHAFT
829	P0554829	COMPRESSION SPRING
830	P0554410	STEEL BALL 6
831	P0554831	CLUTCH

REF	PART #	DESCRIPTION
832	PN01M	HEX NUT M6-1
833	PSS25M	SET SCREW M6-1 X 20
834	PRP42M	ROLL PIN 3 X 20
835	P0554835	CONTROL FORK
836	P0554836	CONTROL HANDLE
837	P0554837	HANDLE
838	PSB01M	CAP SCREW M6-1 X 16
839	P0554839	CONTROL BRACKET
840	P0554840	DOWEL PIN
841	P0554841	COMPRESSION SPRING
842	PSS20M	SET SCREW M8-1.25 X 8
843	P0554843	COMPRESSION SPRING
844	P0554844	SLEEVE
845	P0554845	SPINDLE CONTROL SHAFT
846	PSS45M	SET SCREW M3-.5 X 6
847	PK119M	KEY 5 X 5 X 56
848	PSS01M	SET SCREW M6-1 X 10
849	P0554849	COLLAR
850	P0554850	SHIFT COLLAR
851	PSS11M	SET SCREW M6-1 X 16
852	P0554852	DOWEL PIN
853	P0554853	DOWEL PIN
854	P0554854	INDEX RING
855	PRP14M	ROLL PIN 3 X 6
856	P0554856	SHAFT
857	P0554857	BRACKET
858	PSS04M	SET SCREW M6-1 X 12
859	P0554859	PLATE
860	PSB01M	CAP SCREW M6-1 X 16
861	PRP10M	ROLL PIN 5 X 36



Stand Breakdown



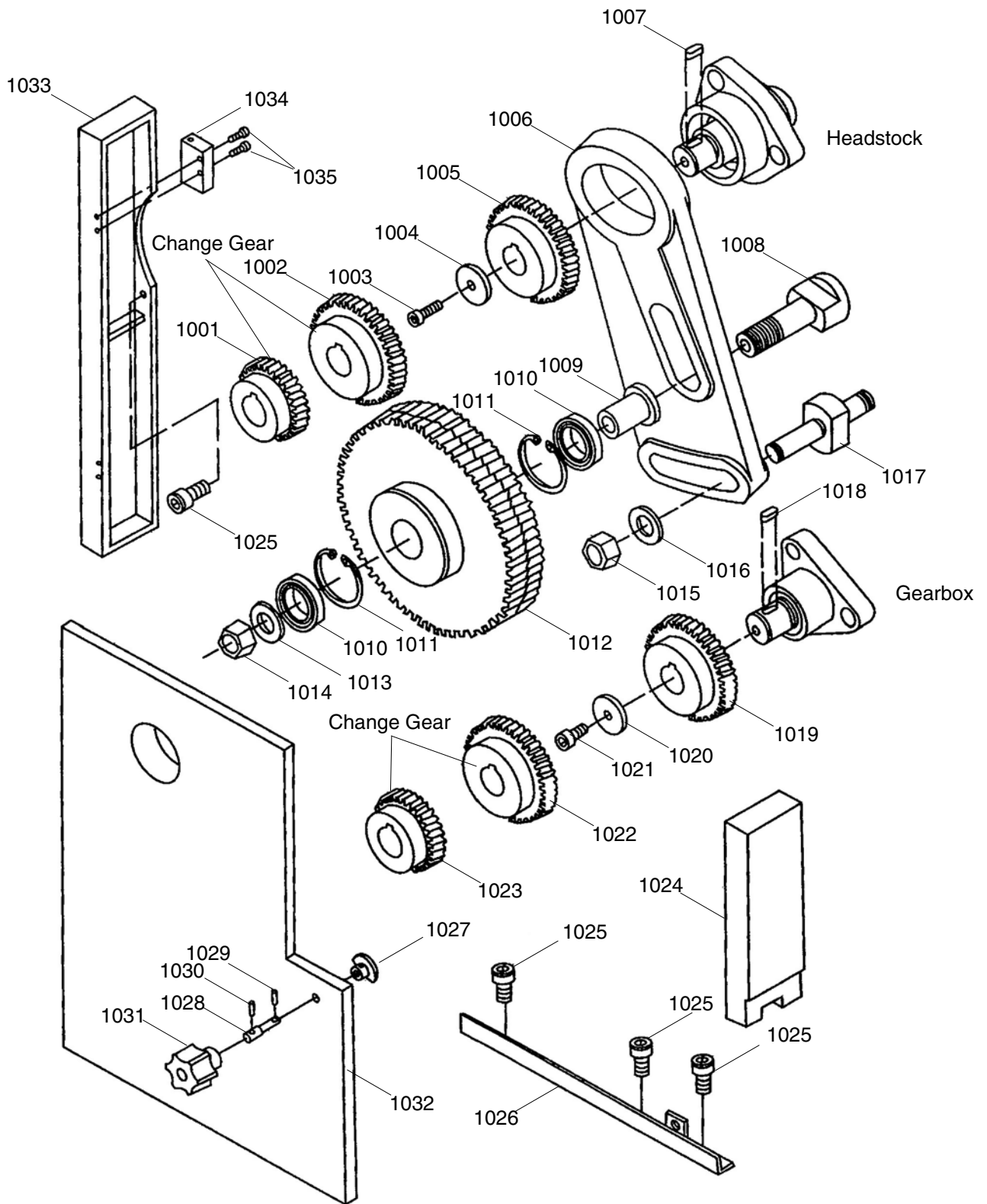
Stand Parts List

REF	PART #	DESCRIPTION
901	PS68M	PHLP HD SCR M6-1 X 10
902	P0554902	REAR SPLASH GUARD
903	P0554903	CHIP TRAY
904	P0554904	GUIDE
905	P0554905	BRACKET
906	PS68M	PHLP HD SCR M6-1 X 10
907	P0554907	PEDESTAL (RIGHT)
908	PSB04M	CAP SCREW M6-1 X 10
909	P0554909	BRACKET
910	PS68M	PHLP HD SCR M6-1 X 10
911	P0554911	BRAKE PEDAL
912	P0554912	FRONT PLATE
913	P0554913	SHAFT
914	P0554914	SHAFT
915	PRP24M	ROLL PIN 5 X 16
916	P0554916	COOLANT TANK
917	P0554917	COVER
918	P0554918	PEDESTAL (LEFT)
919	P0554919	EXTENSION SPRING
920	P0554920	SHAFT
921	P0554921	SWITCH BOX
922	PS68M	PHLP HD SCR M6-1 X 10
923	P0554923	SWITCH BOX COVER
924	P0554924	CONNECTOR BAR
925	PR04M	EXT RETAINING RING 6MM
926	P0554926	DOWEL PIN
927	PN09M	HEX NUT M12-1.75
928	PW06M	FLAT WASHER 12MM

REF	PART #	DESCRIPTION
929	P0554029	THREADED ROD 12MM
930	P0554930	MOTOR MOUNTING BRACKET
932	P0554932	COVER
933	P0554933	COVER
934	PSS20M	SET SCREW M8-1.25 X 8
935	P0554935	PULLEY
936	P0554936	LINK
937	P0554937	LINK NUT
938	P0554938	SHAFT PIN
940	P0554940	TRAY
941	P0554941	MAIN MOTOR (1 PHASE)
941-1	P0554941-1	FAN COVER
941-2	P0554941-2	FAN
941-3	P0554941-3	CAPACITOR COVER
941-4	P0554941-4	CAPACITOR 30MFD 400VAC
941-5	P0554941-5	CAPACITOR COVER
941-6	PC150A	CAPACITOR 150MFD 250VAC
941-7	P0554941-7	WIRING BOX
942	PW03M	FLAT WASHER 6MM
943	PN01M	HEX NUT M6-1
944	P0554944	CONTACTOR JZC440
945	P0554945	CONTACTOR CJX23201
946	P0554946	OVERLOAD RELAY 0.35-0.52
947	P0554947	OVERLOAD RELAY 18-25
948	P0554948	TRANSFORMER
949	P0554949	MAIN POWER SWITCH
950	P0554950	BRAKE LIMIT SWITCH



End Gear Assembly



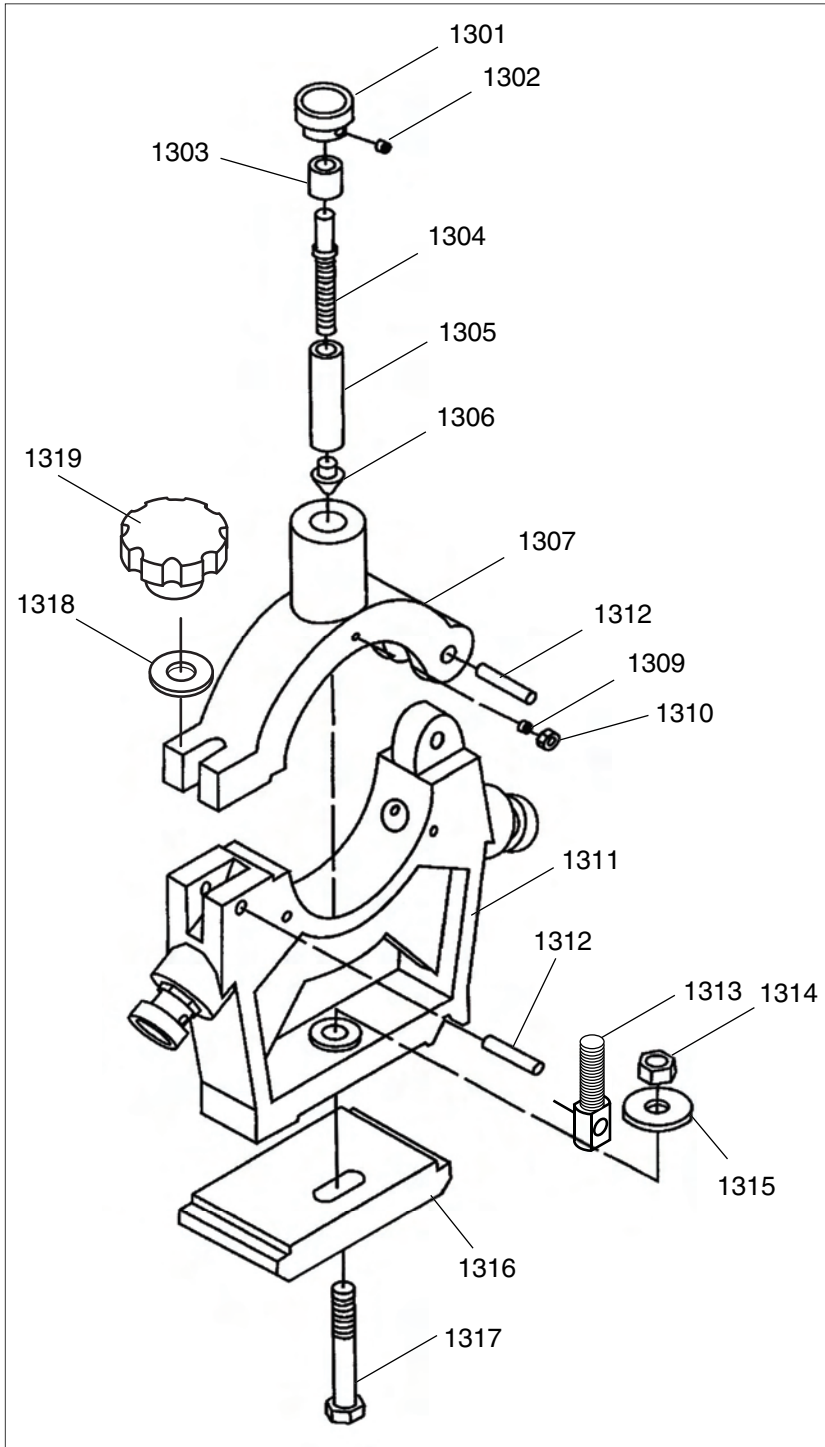
End Gear Parts List

REF	PART #	DESCRIPTION
1001	P05541001	GEAR 30T
1002	P05541002	GEAR 40T
1003	PSB24M	CAP SCREW M5-.8 X 16
1004	PW03M	FLAT WASHER 6MM
1005	P05541005	GEAR 25T
1006	P05541006	QUADRANT
1007	PK19M	KEY 5 X 5 X 14
1008	P05541008	THREAD SHAFT
1009	P05541009	COLLAR
1010	P6103ZZ	BALL BEARING 6103
1011	PR21M	INT RETAINING RING 35MM
1012	P05541012	GEAR 120/127
1013	PW04M	FLAT WASHER 10MM
1014	PN02M	HEX NUT M10-1.5
1015	PN09M	HEX NUT M12-1.75
1016	PW06M	FLAT WASHER 12MM
1017	P05541017	STUD
1018	PK19M	KEY 5 X 5 X 14

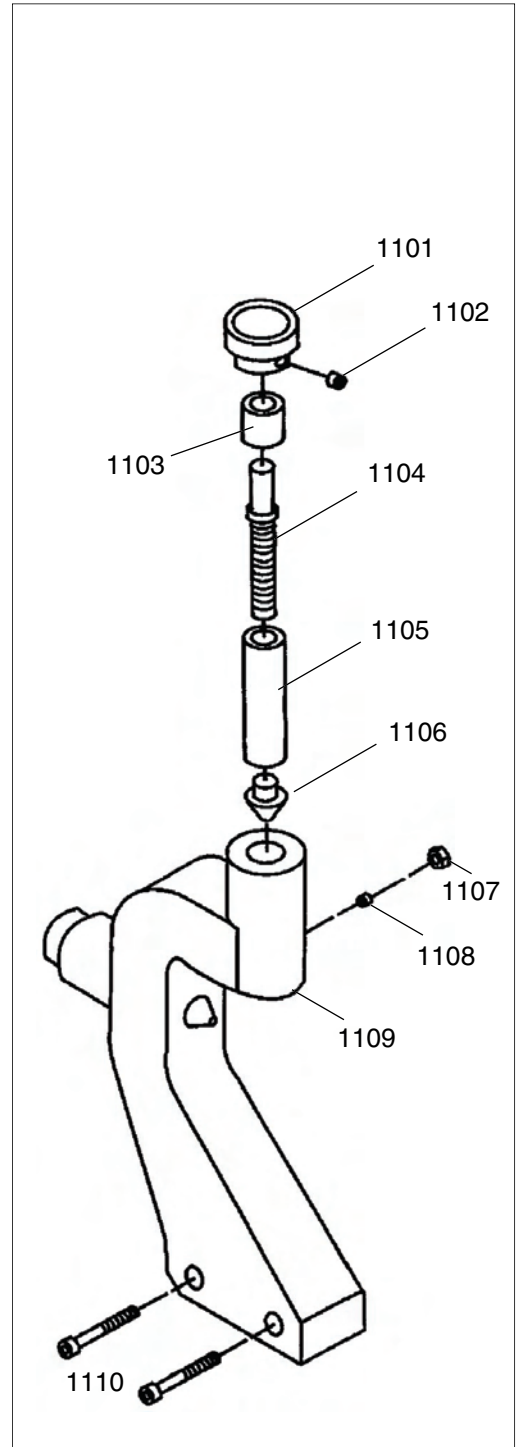
REF	PART #	DESCRIPTION
1019	P05541019	GEAR 50T
1020	PW03M	FLAT WASHER 6MM
1021	PSB01M	CAP SCREW M6-1 X 16
1022	P05541022	GEAR 32T
1023	P05541023	GEAR 40T
1024	P05541024	FRONT PLATE
1025	PSB14M	CAP SCREW M8-1.25 X 20
1026	P05541026	PLATE
1027	P05541027	DOOR LATCH
1028	P05541028	SHAFT
1029	PRP01M	ROLL PIN 4 X 18
1030	PRP04M	ROLL PIN 4 X 24
1031	P05541031	STAR KNOB, PINNED
1032	P05541032	CHANGE GEAR COVER
1033	P05541033	REAR PLATE
1034	P05541034	PLATE
1035	PSB04M	CAP SCREW M6-1 X 10



Steady & Follow Rest Assemblies



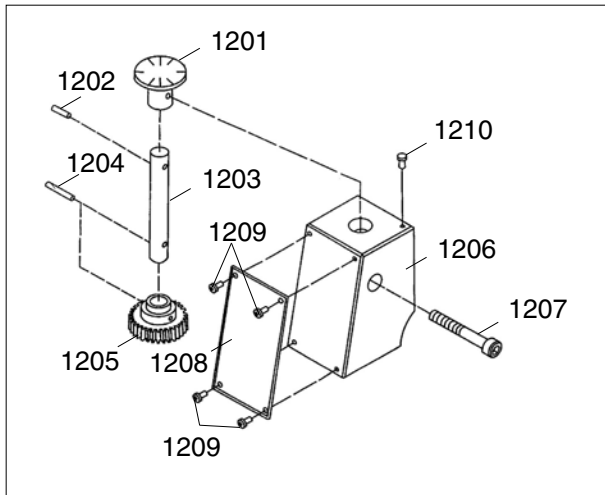
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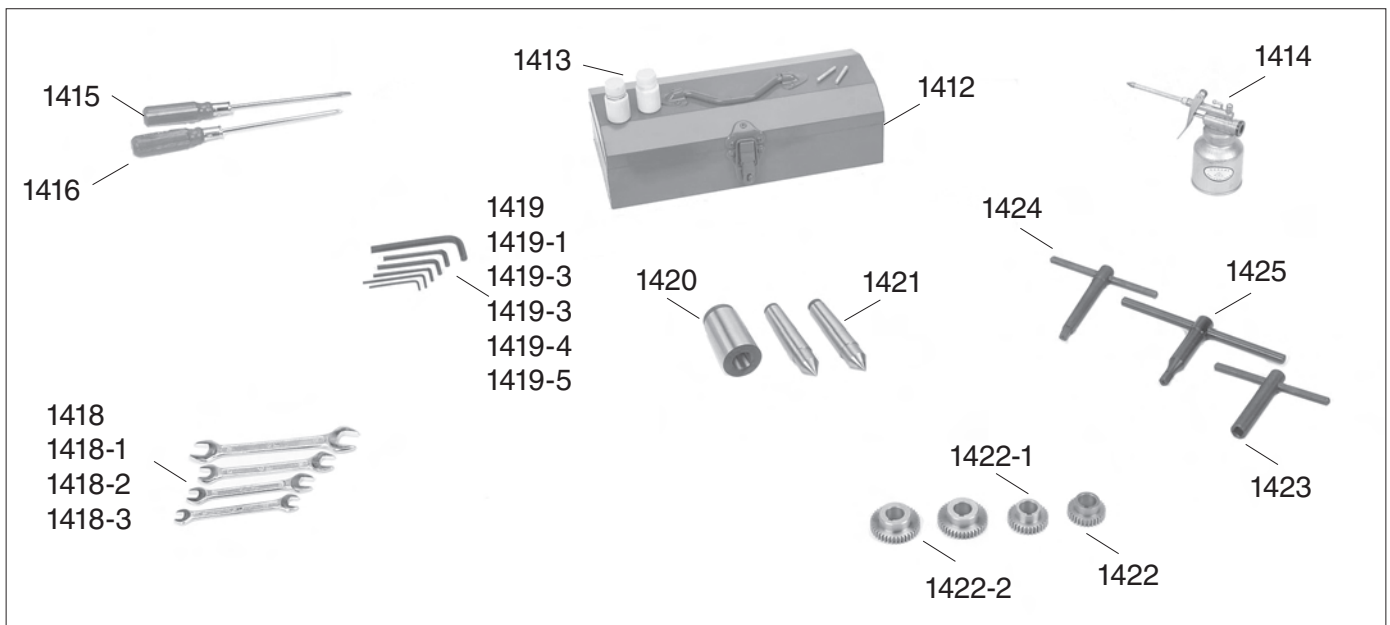
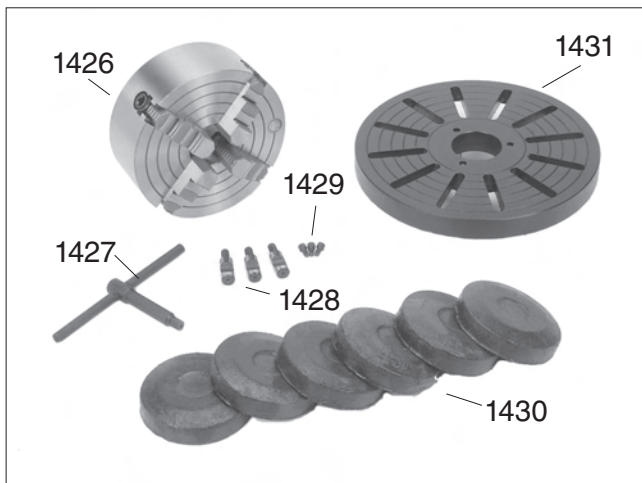
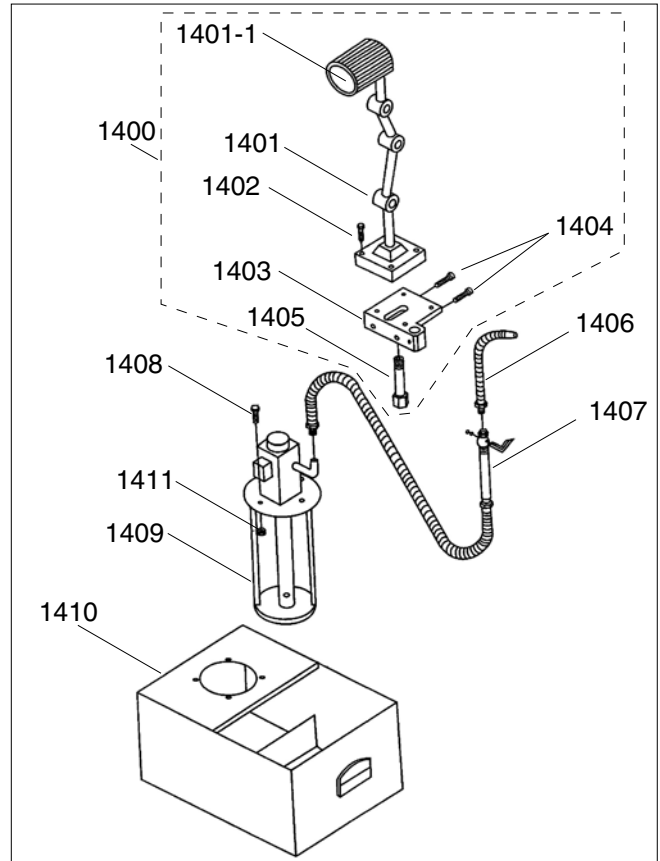
1100



Coolant, Worklight, Boxes, & Thread Dial Assembly



1200



Coolant, Worklight, Boxes, Thread Dial, Steady & Follow Rest Parts List

REF	PART #	DESCRIPTION
1100	P05541100	FOLLOW REST COMPLETE ASSY
1101	P05541101	HANDLE
1102	PSS02M	SET SCREW M6-1 X 6
1103	P05541103	BUSHING
1104	P05541104	SPECIAL SCREW
1105	P05541105	SLEEVE
1106	P05541106	BRASS FINGER
1107	PN01M	HEX NUT M6-1
1108	PSS25M	SET SCREW M6-1 X 20
1109	P05541109	BODY CASTING
1110	PSB35M	CAP SCREW M8-1.25 x 60
1200	P05541200	THREADING DIAL ASSY
1201	P05541201	DIAL
1202	PRP61M	ROLL PIN 3 X 12
1203	P05541203	SHAFT
1204	PRP42M	ROLL PIN 3 X 20
1205	P05541205	GEAR 32T
1206	P05541206	BODY
1207	PSB30M	CAP SCREW M6-1 X 45
1208	P05541208	NAME PLATE
1209	PS12M	PHLP HD SCR M3-.5 X 6
1210	P05541210	RIVET 2 X 4
1300	P05541300	COMPLETE STEADY REST
1301	P05541301	HANDLE
1302	PSS02M	SET SCREW M6-1 X 6
1303	P05541303	BUSHING
1304	P05541304	SPECIAL SCREW
1305	P05541305	SLEEVE
1306	P05541306	BRASS FINGER
1307	P05541307	UPPER BODY CASTING
1309	PSS25M	SET SCREW M6-1 X 20
1310	PN01M	HEX NUT M6-1
1311	P05541311	LOWER BODY CASTING
1312	P05541312	LOCK PIN
1313	P05541313	LOCK BOLT M8-1.25
1314	PN09M	HEX NUT M12-1.75
1315	PW06M	FLAT WASHER 12MM
1316	P05541316	CLAMP PLATE
1317	PB43M	HEX BOLT M12-1.75 X 75
1318	PW01M	FLAT WASHER 8MM
1319	P05541319	KNOB M8-1.25
1400	P05541400	WORK LIGHT COMPLETE ASSY

REF	PART #	DESCRIPTION
1401	P05541401	WORK LIGHT
1401-1	P05541401-1	LIGHT SOCKET
1402	PS15M	PHLP HD SCR M6-1 X 14
1403	P05541403	LAMP BRACKET
1404	PSB02M	CAP SCREW M6-1 X 20
1405	P05541405	CONNECTED TUBE
1406	P05541406	COOLANT DEVICE (PLASTIC)
1407	P05541407	RUBBER TUBE
1408	PSB38M	CAP SCREW M5-.8 X 25
1409	P05541409	COOLANT PUMP
1410	P05541410	WATER TANK
1411	PN06M	HEX NUT M5-.8
1412	P05541412	TOOLBOX
1413	P05541413	TOUCH-UP PAINT
1414	P05541414	OIL CAN
1415	PSDS2	#2 STANDARD SCREWDRIVER
1416	PSDP2	#2 PHILLIPS SCREWDRIVER
1417	P05541417	THREE-JAW CHUCK*
1418	PWR911	OPEN-END WRENCH 9/11MM
1418-1	PWR1012	COMBO WRENCH 10/12MM
1418-2	PWR1214	COMBO WRENCH 12/14MM
1418-3	PWR1417	WRENCH 17/14MM
1419	PAW02.5M	HEX WRENCH 2.5MM
1419-1	PAW03M	HEX WRENCH 3MM
1419-2	PAW04M	HEX WRENCH 4MM
1419-3	PAW05M	HEX WRENCH 5MM
1419-4	PAW06M	HEX WRENCH 6MM
1419-5	PAW08M	HEX WRENCH 8MM
1420	P05541420	MT#5-3 TAPERED SLEEVE
1421	P05541421	MT#3 DEAD CENTERS
1422	P05541422	CHANGE GEARS 30T
1422-1	P05541422-1	CHANGE GEARS 32T
1422-2	P05541422-2	CHANGE GEARS 40T
1423	P05541423	TOOL POST WRENCH
1424	P05541424	3-JAW CHUCK KEY
1425	P05541425	SPINDLE LOCK KEY
1426	P05541426	8" FOUR JAW CHUCK
1427	P05541427	FOUR JAW CHUCK KEY
1428	P05541428	CAMLOCK STUD
1429	P05541429	CAMLOCK STUD SET SCREW
1430	P05541430	CAST IRON FOOT PAD
1431	P05541431	12" FACE PLATE

* NOT SHOWN IN PARTS BREAKDOWN



Safety Label Placement



WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine **MUST** maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, **REPLACE** that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.



WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We 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.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.





WARRANTY CARD

Name _____
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 Model # _____ Order # _____ Serial # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

Advertisement Friend Catalog
 Card Deck Website Other:

2. Which of the following magazines do you subscribe to?

<input type="checkbox"/> Cabinet Maker	<input type="checkbox"/> Popular Mechanics	<input type="checkbox"/> Today's Homeowner
<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wood
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Handy	<input type="checkbox"/> Practical Homeowner	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Live Steam	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Modeltec	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other:
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Shotgun News	

3. What is your annual household income?

\$20,000-\$29,000 \$30,000-\$39,000 \$40,000-\$49,000
 \$50,000-\$59,000 \$60,000-\$69,000 \$70,000+

4. What is your age group?

20-29 30-39 40-49
 50-59 60-69 70+

5. How long have you been a woodworker/metalworker?

0-2 Years 2-8 Years 8-20 Years 20+ Years

6. How many of your machines or tools are Grizzly?

0-2 3-5 6-9 10+

7. Do you think your machine represents a good value? Yes No

8. Would you recommend Grizzly Industrial to a friend? Yes No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?

Note: We never use names more than 3 times. Yes No

10. Comments: _____

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