Important
For Your Own Safety
Before Assembling and Operating
This Unit, Read This Operator's
Manual Carefully and Completely.
Learn The Operation, Applications
and Potential Hazards Peculiar To
This Unit.
For Your Own Safety

This unit is equipped with a Foot Switch which turns it on and off.

The switch on the side of the unit determines only the direction of chuck rotation.

Instructions and illustrations in the attached operator's manual are applicable, however, they do not include information on the Foot Switch.

The Foot Switch is for your convenience and safety.

If your present RIDGID Power Drives or Pipe and Bolt Threading Machines are not equipped with Foot Switches, we recommend the RIDGID No. 301 Foot Switch. You will enjoy the convenience as well as the added safety.

This Wiring Diagram supersedes the present Wiring Diagram in this operator's manual.

This unit is wired for A.C. only.

Note: This wiring diagram is typical of 400, 400A, 500 and 555 Machines.

Note: Wire colors in parenthesis represent European color code. European cord the same except for plug.
RIDGID

Pre-Tested Work Saver Tools

RIDGID 502 & 504 G.O. Threader

RIDGID 141 Jam-Proof Threader

RIDGID 65R-TC Threader

RIDGID Universal Drive Shaft

RIDGID No. 2 Reamer

RIDGID Drop Head Threaders

RIDGID 201-202 Pipe Cutter

RIDGID NO. 318 Oilier

Printed in U.S.A.
RIDGID 400
Portable Power Drive

Specifications

MOTOR — regularly furnished — ½ H.P.
Universal — 115 Volt A.C. or D.C. 30 Amp.
Fuse — 15-ft. oil resistant cord. (230 Volt Motors can be furnished upon request — Single Phase Only.) 230 Volt Motor can be operated from a 3-phase line by customer attaching his 3-phase plug to cord and connecting BLACK and WHITE wire of cord to prongs of plug to feed single phase current to motor. Green wire of cord is ground wire.

Motor reduction gears with sealed in lubrication. [Gearbox Grease]... are completely enclosed, protecting them against any foreign matter. Bronze bearings in Power Drive base, for main shaft are pressure greased; and driving gears are coated with lubricating grease.

SWITCH — Forward — Stop — Reverse.

BENCH MOUNTING — Place RIDGID "400" Power Drive on a solid bench in desired position and bolt securely with 3/8" bolts at each foot.

Shipping Weights

Power Drive only 1 gal. 152 lbs.
RIDGID thread cutting oil 59 lbs.
Wheel Stand — "Kit A" 31 lbs.
Leg and Tray Stand — "Kit C" 59 lbs.

No. "400" Portable Power Drive
CAPACITY — 1/8" to 2" Pipe and Conduit; 1/4" to 2" Bolts and Rod. 2-1/2" to 12" Pipe with RIDGID Universal Drive Shaft and Geared Tools.

8. Wear proper apparel. No loose clothing (unbuttoned jackets or loose sleeve cuffs) or jewelry to get caught in moving parts.

Safety

1. Know your machine. Read the Operator's Manual carefully. Learn the operation, application, and limitations as well as the specific potential hazards peculiar to this machine.

2. Avoid accidental starting. Make sure switch is off (center position) before plugging in power cord.

3. Ground the machine. For safety, this machine is equipped with a power cord having a three-prong plug for grounding. Make sure the electrical outlet being used is grounded within the electrical system. If outlet is not grounded, a wire should be run from E-5467 Ground Screw provided on outside of base of machine to a known ground. (Water pipe or pipe driven into ground as examples.)

4. Keep guards in place and in working order.

5. Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches are removed from machine before turning on machine.

6. Support work. Support long, heavy work from the floor with a pipe support.

7. Secure work, machine and accessories. Carefully tighten chuck (and rear centering device if work is sufficiently long) on work. Make sure machine, and stand if used, are stable.

8. Don't overreach. Keep your proper footing and balance at all times. Be sure you can reach switch safely at all times. Do not reach across moving or rotating parts or material being worked on. Keep hands and loose tools away from moving elements.


10. Keep work area clean. Cluttered areas, benches, and slippery floors invite accidents.

11. Avoid dangerous environment. Don't use the machine in damp or wet locations. Keep work area well illuminated. Allow sufficient space to operate machine and accessories properly and for others to pass safely.

12. Wear ear protection if exposed to long periods of very noisy shop operations.

13. Use safety glasses and footwear.

14. Keep visitors away. All visitors should be kept a safe distance from work area.

15. Don't force machine. It will do the job better and be safer at the rate for which it was designed.


17. Disconnect power cord before adjusting and servicing, and before changing accessories. Cord should be in good condition.
To Thread, Cut and Ream with the "400"

POWER DRIVE with Hand Tools

RIDGE

No. 400 POWER DRIVE with Lathe-Type Wrench Chuck

TO THREAD PIPE
1. Insert pipe to be threaded into Power Drive at either front or rear end. Let pipe extend out of chuck far enough for threader to clear chuck while threading.

2. First center pipe and tighten chuck jaws with a moderate twist of the chuck wrench. If the pipe extends out the back of the Power Drive, close the rear centering workholder jaws.

3. Place threader on pipe in usual way. Pull out tool support bar to desired position and allow threader handle to rest on tool support bar on switch side. Hook safety latch over handle.

You are now ready for threading. Turn on switch. It is important that you use plenty of RIDGE thread cutting oil—a high grade, sulphur hard threading and cutting oil—Dark or Nu-Clear.

TO THREAD BOLTS OR CONDUIT
1. Operation is the same as in threading pipe except that you use your bolt or conduit threader.

TO CUT PIPE
1. Insert pipe into "400" and tighten chuck jaws and rear centering device the same as for threading.

2. Put tool support bar in position to support cutter handle. Apply cutter to pipe just as you would if cutting by hand. Let cutter handle rest on tool support bar. Tighten cutter blade to contact with pipe. Turn Power Drive switch to FORWARD, then continue turning cutter blade into pipe until cut is completed.

TO REAM PIPE
1. After pipe is threaded, place your reamer into pipe end, let handle of reamer rest against tool support bar, turn on motor. Press reamer into pipe as needed to remove burr.

RIDGE Close Coupled Method
1. Place geared threader on floor or workbench with the Drive Shatt up.

2. Place 644 Drive Bar on Drive Shaft of threader and tighten the two set screws in Drive Bar head.

3. Insert Drive Bar into the chuck of your RIDGE Power Drive.

4. Tighten the jaws of the Power Drive chuck into the three "V" shaped notches in the head of 644 Drive Bar.

5. Close Rear Centering Device on the Shaft of 644 Drive Bar.

The Ridge Tool Co., Elyria, Ohio, U.S.A.

Operating Instructions for RIDGE

Jam-Proof Geared Threaders For Pipe and Conduit

To thread a No. 4PJ and 141 Threaders and 200, 300, 400, or 400A RIDGE Power Drive, equipment (A, B, C) must be used. For operation set-up see Figure 1, at left, with a 300 Power Drive.

To thread with a No. 163 threader and 200, 300, 400, or 400A RIDGE Power Drive, equipment (A, B, C) must be used. For operation set-up see Figure 2, at left, with a 300 Power Drive.
Threading with RIDGID Universal Drive Shaft

This operation will require a RIDGID Universal Drive Shaft, Foot Switch, Geared Threader, a Vise Stand capable of holding the size pipe desired and a Power Drive. When threading pipe larger than 2", the Power Drive and Vise Stand must be securely anchored or provisions should be made to make sure the Power Drive and Vise Stand are stable. Be sure the Vise Stand is in line, on the same level and approximately the length of the Universal Drive Shaft away from the front chuck of the Power Drive.

Slide long hexagon end of the Universal Drive Shaft into front chuck of Power Drive. Tighten chuck and rear centering device.

Fasten pipe securely in vise on Vise Stand. Long pieces of pipe may have to be supported with a RIDGID No. 92 Pipe Support.

Slide Threader on pipe and carefully center end of pipe in throats of dies. Tighten workholder clamp screw must be tightened securely.

Slip square socket of Universal Drive Shaft over square end of Threader drive shaft and tighten set screws. When properly positioned, sliding shank of Universal Drive Shaft should neither be fully extended nor fully closed. You are now ready to thread.

Plug Power Drive cord into Foot Switch cord and then plug Foot Switch cord into grounded outlet. Put Power Drive switch in FOR (forward) position. Locate Foot Switch as shown above. To start Power Drive use Foot Switch.

During threading operation, use RIDGID Thread Cutting Oil freely. When changing setup or dismantling operation, always unplug power cord.
To Assemble Legs, Wheels and Tray

Wheel Type
1. Insert front legs into Power Drive Base. Front legs have small posts to support tray (D-309). The lower posts must face toward the rear legs. Tighten wingnuts (E-908).
2. Insert rear legs with the bends as shown. Making sure hubs are in a straight line for the axle. Tighten wingnuts.
3. Slide axle thru both hubs. Add wheels. A washer outside each wheel, and cotter pins.
4. Insert tray (D-309) by engaging holes on front leg posts as shown. Adjust the supports (E-443) and slide up as far as possible. Tighten wingnuts (E-976).
5. Thread handles (E-1348) into brackets (E-996).

Stand Type
1. Insert front legs into power drive base. Front legs (E-2574 right, E-2575 left) have small posts which support tray (D-309). These must face toward the rear legs.
2. The feet on rear (F-544) should toe back, as shown. Tighten wingnuts (E-908).
3. Insert tray by engaging holes in tray onto front leg posts as shown. Adjust supports (E-443) and slide up as far as possible. Tighten wingnuts (E-976).

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Elyria, Ohio, U.S.A.

IMPORTANT:
When ordering, be sure to give serial number and your model number to avoid possible mistakes.

RIGID No 1 Speed Grip Chuck Adaptor for "400" Power Drive

INSTRUCTIONS FOR CONVERTING "400" TO "400A"

1. Install the No. 1 Speed Grip Adaptor. For instructions, see the "400A" manual. When the adaptor is in the extended position, the chuck should be placed on the chuck base. The adaptor is then locked in place by turning the wing screw clockwise.
FOR BEST SERVICE AND PERFORMANCE

Simplicity of design and operation have made the RIDGID 400 Power Drive so easy to use that very few instructions are necessary.

1. As a safety factor, always remove chuck wrench even though there is an automatic ejector.

2. Use sharp dies at all times — it pays. Dull dies require more power from motor.

3. Flood dies with RIDGID Thread Cutting Oil, a high grade sulphur-and-lead base cutting oil.

4. For supporting long lengths of pipe, use a RIDGID quick-adjusting Pipe Support Stand.

5. Grease main shaft bearings every six months or oftener if Power Drive is subject to hard usage. (2 grease fittings on underside of base; 1 at each end of shaft). Use a good grade of cup grease.

6. RIDGID 400 Power Drives are furnished with 115 volt motors. (230 volt motors available upon request — single phase only). 230 volt motor can be operated from a 3-phase line by customer attaching his 3-phase plug to cord and connecting black and white wire of cord to prongs of plug to feed single-phase current to motor. Green wire of cord is ground wire.

7. Plug cord into any outlet which carries the same voltage as the motor. (See nameplate on motor). Be sure motor and power supply are both the same. Plug and 15 feet of oil resistant cord furnished; if you add cord, use 12-gage wire; if 100 feet or more is added, use 10 gage. Using smaller gage wires will cause voltage drop to motor and power drive will not operate efficiently.

8. Use only 30 ampere fuses.

9. Inspect motor brushes regularly and replace when worn.

10. Roundpost of cord plug is the ground wire. (Green wire of cord).

11. To remove motor: pull 4-pronged plug from switch box in power drive — remove 4 screws holding motor and lift motor and bracket out. There are no wires to disconnect or connect. Only one way to insert motor plug.

DIAGRAM SERIAL No. 25922 to 43100

DIAGRAM SERIAL No. 43101 and up

The Ridge Tool Co. Elyria, Ohio, U.S.A.
Full Lifetime Warranty

All RIDGID Power Equipment and Hand Tools are warranted against defects in workmanship and material. This warranty covers all RIDGID products except electric motors, which are warranted for six months from date of sale. NO OTHER WARRANTY, WRITTEN, OR ORAL APPLIES. No employee, agent, dealer, or other person is authorized to give any warranty on behalf of The Ridge Tool Company. Claims cannot be honored until the questioned product has been received freight prepaid at our factory or your nearest Authorized Warranty Repair Station for Power Equipment (See accompanying listing). Defective products will be repaired or replaced, at our option, at no charge to you. Such replacement or repair is the exclusive remedy available from Ridge. RIDGE IS NOT LIABLE FOR DAMAGE OF ANY SORT, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGES.

Authorized Warranty Repair Centers — The following RIDGID Warranty Repair Centers are conveniently located to service your needs for parts and repairs on RIDGID and RIDGID/Kollmorgen Power Tools. They are authorized to conform to our warranty. Please prepay transportation charges when sending a tool in for repair, and include specific instructions stating what you want done. This will prevent delays in returning the repaired tool to you in operating condition.