

# Operator's Manual and Parts Catalog

## MINI-COLLINS®



**WARNING**  
Before operating this unit, read and  
understand the Operator's Manual.  
Become familiar with the potential  
hazards of this unit.

 **ROTHENBERGER**

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## Operator Safety Instructions

The Mini-Collins threading machine is designed for threading pipe, conduit and bolt stock with specified manufacturers drop die heads and geared threaders. The Mini-Collins also powers hoists, winches and operates large valves. Collins adapters, which require no machining, are available to hold various Drop Die Heads and to turn Geared Threaders and other equipment.

To accomplish each of these functions safely requires dexterity and mechanical skills, as well as sound safety habits.

Although this machine is manufactured for safe, dependable operation, it is impossible to anticipate those combinations of circumstances which could result in an accident. The following instructions are recommended for safe operation of the machine.

The operator is cautioned to always practice "Safety First" during each phase of use, including setup and maintenance of this unit.

1. **Read and understand the Instruction Manual.** Before operating or performing maintenance on this machine, read carefully the operator's manual. Become familiar with the machine's operations, applications and limitations. Be particularly aware of its specific hazards. Store the operator's manual in a clean area and always at a readily available location. Additional copies at no charge are available upon request by writing ROTHENBERGER U.S.A.
2. **Inspect the equipment.** Prior to starting the machine, check the movable parts for obstructions such as rags, packing remnants, etc. Be certain that machine parts are properly installed and secured.
3. **Prevent accident startings.** Before inserting the power cord plug into any electrical receptacle depress the operating switch button several times to insure that the switch returns to the "off" position. If the operator releases the switch or handle the machine will stop automatically.

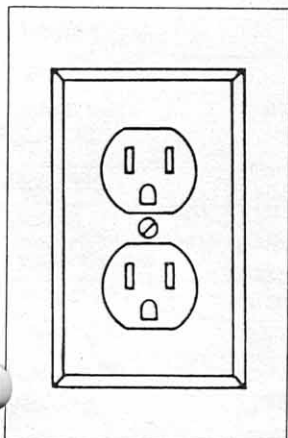


Figure 1 —  
Grounded Receptacle

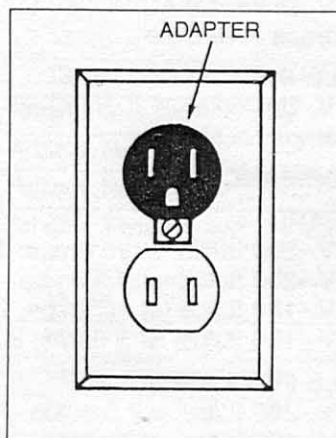
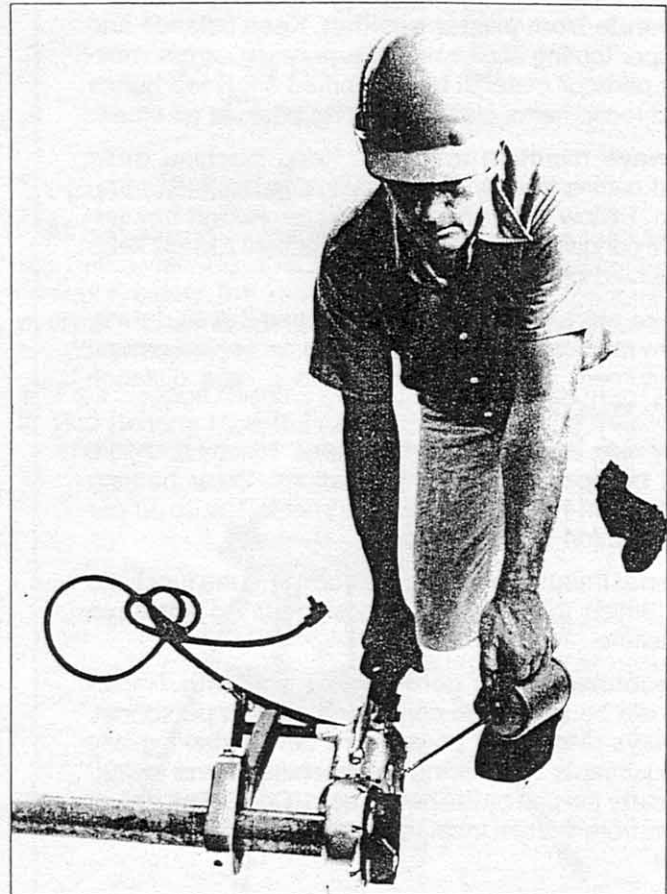


Figure 2 —  
Grounded Outlet Box



4. **Ground the machine.** Proper grounding of the machine is essential to eliminate the hazard of electrical shock to the operator. (Not required on 220V. Double Insulated machines.) The machine is equipped with an approved power cord and three-prong plug for use in a properly grounded three-prong electrical receptacle. (Fig. 1)

If only a two-prong receptacle is available a properly grounded three-prong adapter may be used. The green grounding wire or grounding lug must be permanently attached to a properly grounded outlet box. (Fig. 2)

5. **Use proper tool.** We recommend using the Collins SAFVISE® to absorb torque while threading. The SAFVISE® allows both hands to be free while threading horizontally, vertically or overhead. Pipe wrenches and other support arms require repositioning when reversing.
6. **Keep work area clean.** Keep the work area adjacent to the machine clear of clutter for unobstructed movement of the operator. Remove all oil or coolant spills. Maintain proper operating clearance.
7. **Wear proper clothing.** Loose clothing can get easily tangled in moving parts. When operating machine, do not wear unbuttoned jackets, loose sleeve cuffs, gloves, neckties, long hair, etc. Safety glasses and shoes should be worn.



## 4 MINI-COLLINS

8. **Operate from proper position.** Keep balance and proper footing at all times. Never reach across moving parts or material being worked on. Keep hands and loose items clear of moving parts at all times.
9. **Always maintain machine.** Keep machine clean and cutting tools sharp for safe, dependable operation. Follow lubricating instructions. Report any unsafe condition for immediate correction. Always keep machine out of reach of children.
10. **Keep alert.** Do not operate machine if ill or drowsy from medication or fatigue. Avoid horseplay around equipment and keep bystanders a safe distance from equipment.
11. **Operate in proper environment.** Machine should not be operated in damp locations. Wear hearing protection in noisy shop environments. Insure proper illumination in work area.
12. **Do not misuse machine.** Perform only the functions for which the machine is designed. Do not force machine.
13. **Disconnect power cord prior to servicing.** Repair should be attempted only by authorized personnel. Always disconnect power cord before making any adjustments or servicing the machine. Never pickup or carry the unit by the power cord. Do not jerk power cord from the electrical receptable to disconnect the unit.
14. **All allen wrenches must be removed from adapters prior to threading.**
15. **Keep visitors away.** All visitors should be kept a safe distance from work area.
16. **Use only recommended accessories.** Refer to Operator's Manual. Use of improper accessories may be hazardous.

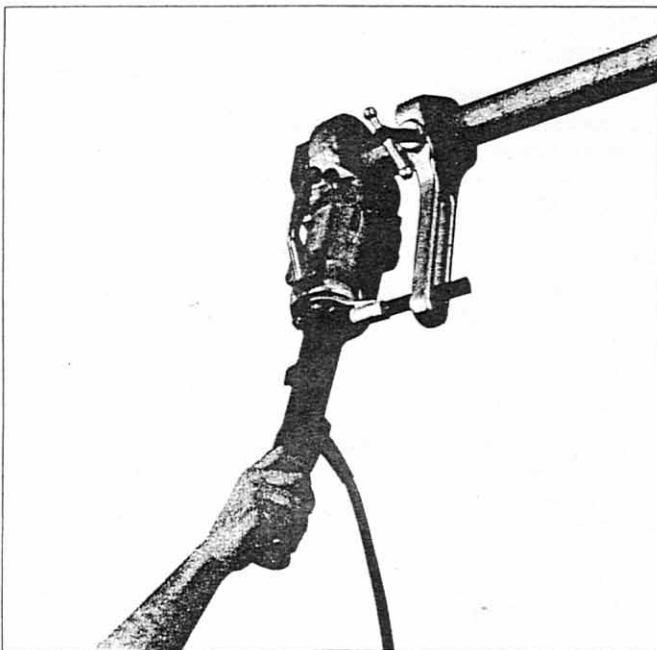


Figure 4 — Threads overhead and in close quarters

## Specifications

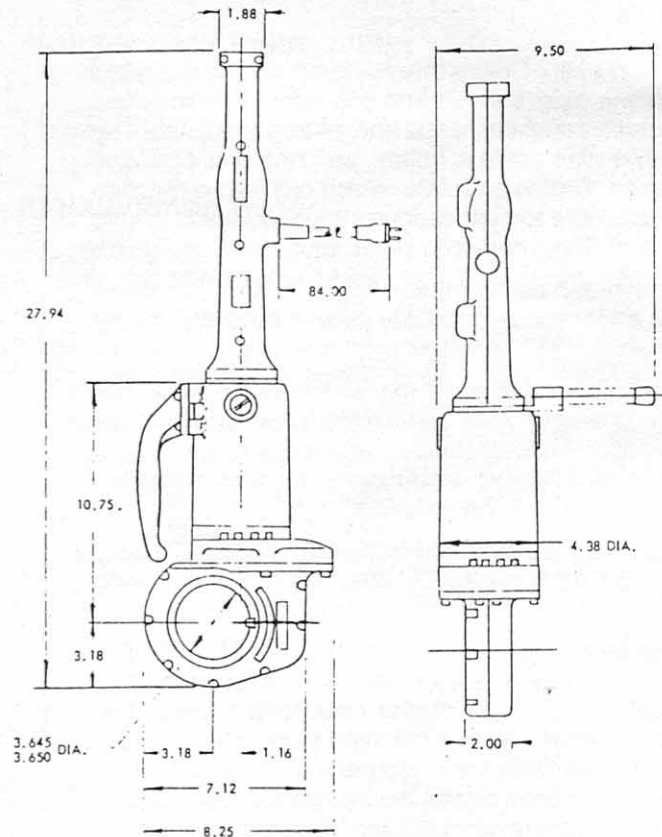


Figure 5 — Specifications in inches

### THREADING CAPACITY

Pipe and Conduit ..... 1/8" thru 2"  
(through 6" with geared threaders)  
Bolt or Rod ..... 1/4" thru 1"  
(with drop die heads)

### MOTOR

#### STANDARD

115 V. Universal AC/DC, 50-60 cycle  
15 amps reversible or  
230 V. Universal AC/DC, 50-60 cycle  
8 amps reversible

#### DOUBLE INSULATED

220 V. Universal AC/DC, 50-60 cycle  
9 amps reversible

### PERFORMANCE

#### STANDARD

115 V.—200 ft./lbs. at 15 amps, 15 RPM  
230 V.—200 ft./lbs. at 7.5 amps, 15 RPM  
115 V.—100 ft./lbs. at 10 amps, 20 RPM  
230 V.—100 ft./lbs. at 5 amps, 20 RPM

#### DOUBLE INSULATED

220 V.—200 ft./lbs. at 7.5 amps, 15 RPM  
220 V.—100 ft./lbs. at 5 amps, 20 RPM

### SWITCH, OPERATING

Bump proof, momentary on (normally off)

**SWITCH, DIRECTIONAL**

Bump proof, rocker type (forward-reverse)

**GEARBOX**

Heat treated helical gear, worm screw and bronze worm gear construction, reduction ratio: 717:1.  
Spring-loaded plunger, or square drive key type.

**SHIPPING WEIGHT**

22 lbs. without die heads or accessories.

**Adapters**

SAFVISE .....	No. 13980
Chain Vise and Tripod Assembly .....	No. 13809
Oil Sump and Gun Assembly .....	No. 12630
Pipe Support Stand .....	No. 13894
Adapters, various size .....	See Chart
Metal Carrying Case .....	No. 13979
Thread Cutting Oil, 1 gallon .....	No. 1922

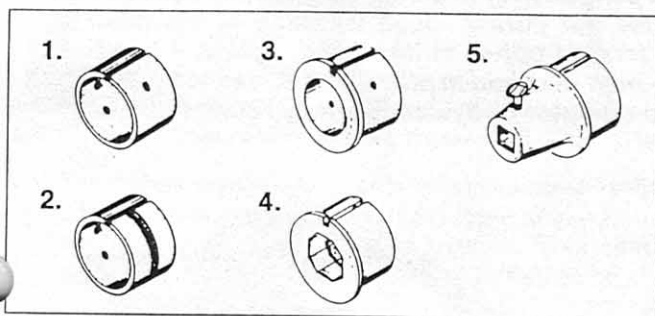


Figure 6 — Adapters

To Drive	Use Adapter No.	See No.
Armstrong 292R	12133	2
Central C	13145	3
Central NR.C	13146	3
NYE N60	13147	3
NYE N12	No Adapter Needed	—
Reed 72-82	13149	3
Rems EVA	13152	4
Ridgid 00-R	13146	3
Ridgid 111-R	13145	3
Ridgid 11-R	13152	4
Ridgid 12-R	No Adapter Needed	—
Rola C2	No Adapter Needed	—
Rola H2	No Adapter Needed	—
Rola S	No Adapter Needed	—
Rothenberger	13152	4
Toledo 12	13150	1
Toledo 11	13151	3
Unicum 69	13152	4
Virax 62	13152	4
7/8" Square Shaft	13153	5
1" Square Shaft	13154	5
1 1/4" Square Shaft	12307	5

**Preparing for Operation****Secure Material**

All non-stationary material is best secured in the Collins Chain Vise (No. 13809) (Fig. 7) prior to threading. For operator safety the material must also be supported every 10' by a material support system. Collins Machinery offers two systems.

1. Pipe Support Stand ..... No. 13894 (Fig. 8)
2. Ball Bearing Pipe Support ..... No. 13206 (Fig. 9)  
and Pipe Support Fitting ..... No. 13324 (Fig. 9)

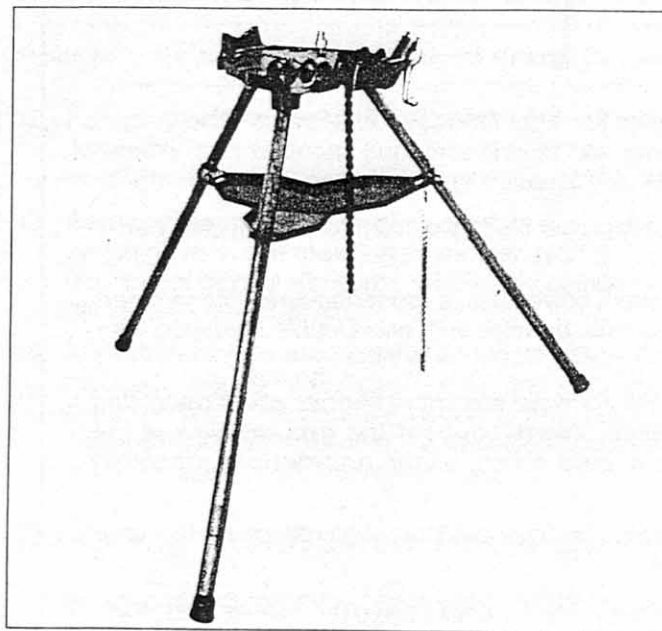


Figure 7 — Chain Vise and Tripod Assembly

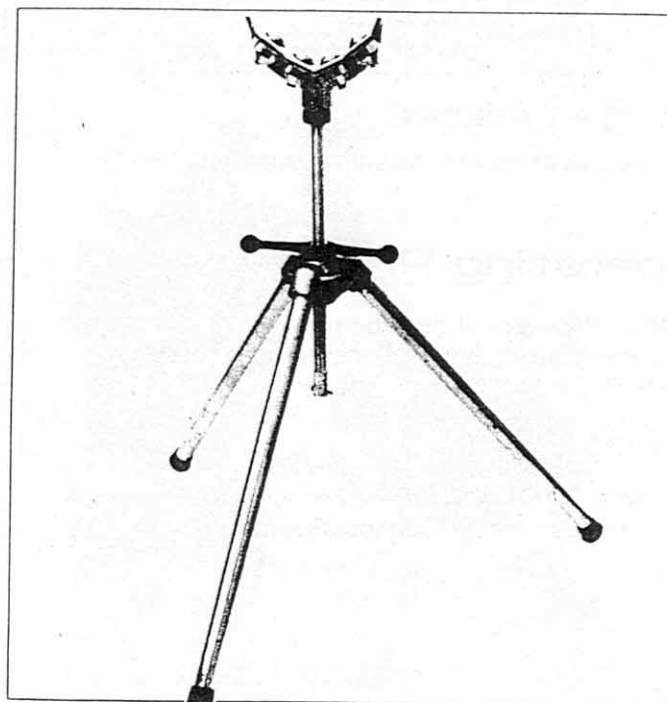


Figure 8 — Pipe Support Stand

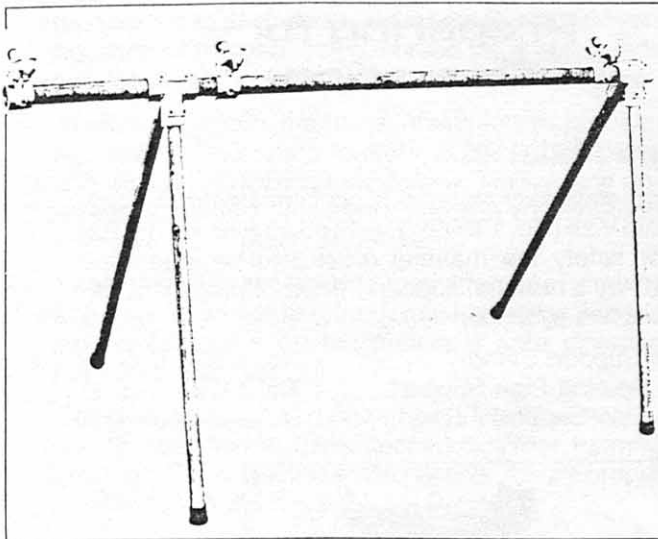


Figure 9 — Ball Bearing Pipe Support and Fitting

## Power

Use only proper electric current as specified on nameplate.

To prevent power loss, a grounded three-prong extension cord must be used with non-Double Insulated Mini-Collins.

**CAUTION:** To avoid electrical shocks when operating in the field, always connect the ground wire of the extension cord when using non-double insulated tool.

Damaged cords should be repaired or replaced as required.

POWER	CORD LENGTH	WIRE SIZE AVG.
115 V	Below 50'	12-3
	50'-100'	10-3
230 V	Below 50'	14-3
	50'-100'	12-3

## Selecting an Adapter

Select the proper adapter as shown on adapter chart (page 5).

## Operating Procedure

**WARNING:** Operators should be thoroughly familiar with preceding Safety Precautions before attempting to operate this equipment.

## Threading Instructions

1. Connect the power cord to the correct voltage fused circuit as described in Operator Safety Instructions.
2. Unscrew the Torque Rod from the end of Mini-Collins handle and screw into Torque Bracket on side of machine. (Fig. 10)
3. Practically all makes of drop die heads may be used. Consult the adapter table (page 5) for the correct adapter to be used.

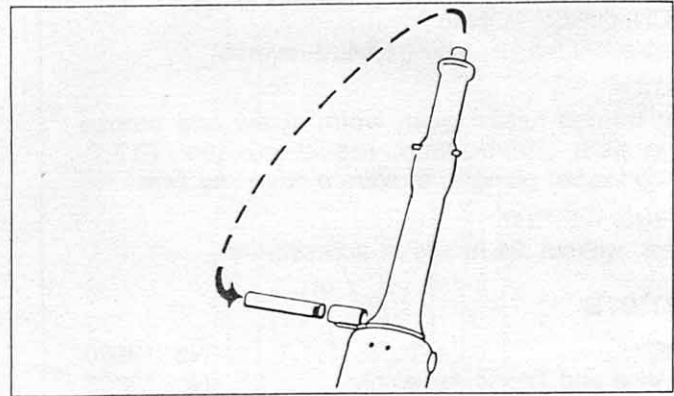


Figure 10 — Screw Torque Rod into Torque Bracket

4. Insert die head or adapter from side of housing with directional arrow. Push die head or adapter squarely into the drive gear until secure. (Fig. 11)

**CAUTION:** Threading die heads and adapters are not secured permanently in the Mini-Collins Die head and may come out during rough handling or overhead work if foreign object strikes head. Operator is advised to hold die head in place until thread is started. Injury to operator or bystanders may result if care is not used.

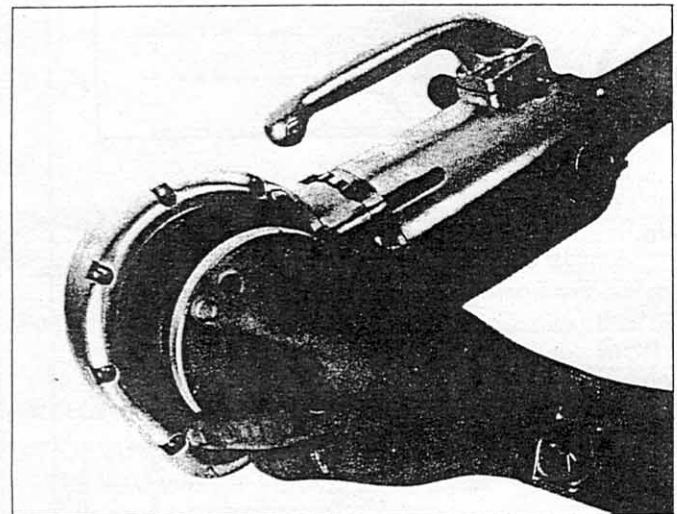


Figure 11 — Installing Die Head

5. Apply Collins Thred-O-Matic cutting oil to pipe or conduit before starting thread. Oiling should be continued generously while threading. Collins Machinery offers an oil sump and gun assembly for this purpose.
6. Place the Mini-Collins handle in the right hand and the left hand on the gear housing.
7. Put the drive on the pipe as would be done in operating a hand ratchet die stock. Lift the handle to a vertical position.
8. With palm of the left hand against the face of the die head, center the dies on the end of the pipe.
9. While pressing the heel of the left hand firmly against the die head, bring the handle down quickly with the right hand, forcing the dies to bite into the pipe. (Fig. 12)



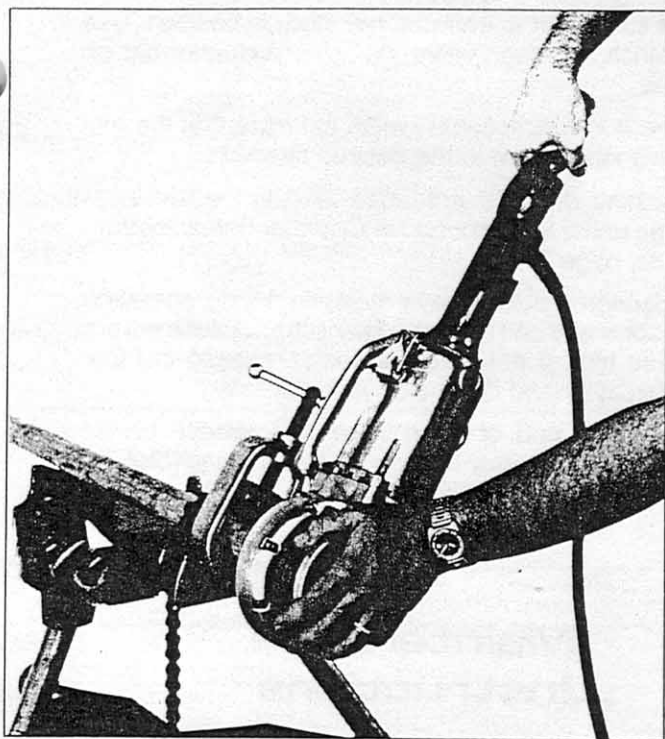


Figure 12 — Starting Thread

10. Place the Collins Safvise or a 14" pipe wrench on the pipe as shown in Fig. 13. **NOTE:** Leave ample space between the Safvise or pipe wrench. This space must be greater than the length of thread to be cut.

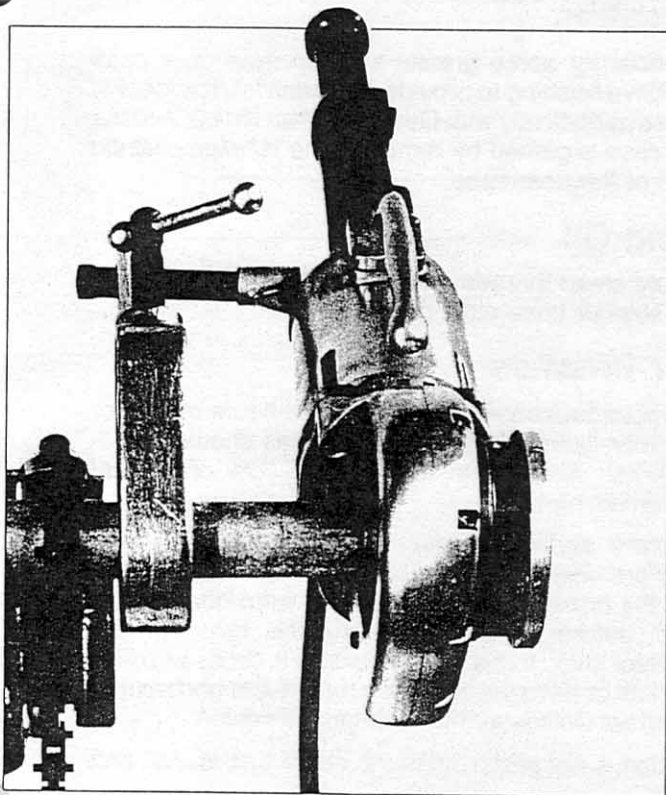


Figure 13 — Allow sufficient space for travel

11. The Mini-Collins is equipped with two switches for operator safety. The black switch is on-off while the red switch controls the forward-reverse direction of the tool.

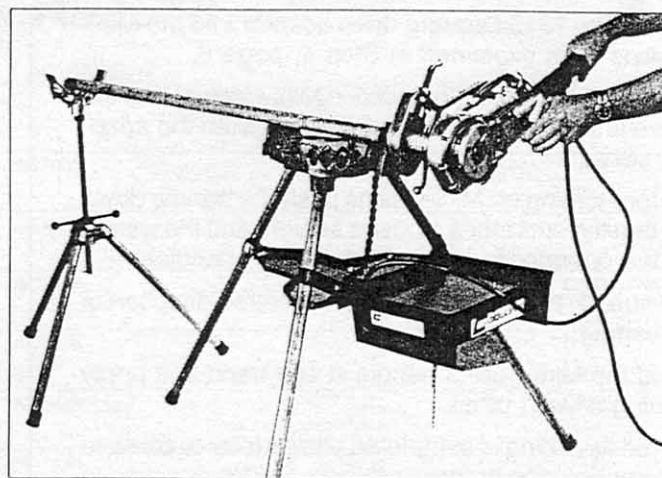


Figure 14 — Mini-Collins with Chain Vise and Material Supports

12. For operator safety the Collins Chain Vise and Tripod Assembly and Material Supports should be used when threading any non-stationary material. (Fig. 14)
13. Always allow motor to idle to a complete stop before switching from one direction to another. **NOTE:** Frequent changing of directions without stopping may cause switch failure.
14. After threading to the designated length, allow the motor to stop completely before flipping the directional switch into the reverse position to back-off drop head. **CAUTION:** Hold onto the Mini-Collins handle firmly to resist initial reversing torque.

## Threading with Geared Threaders

1. Be sure pipe to be threaded is properly secured in Chain Vise and supported by Material Supports and that the geared threader is properly adjusted according to the manufacturer's operating instructions.

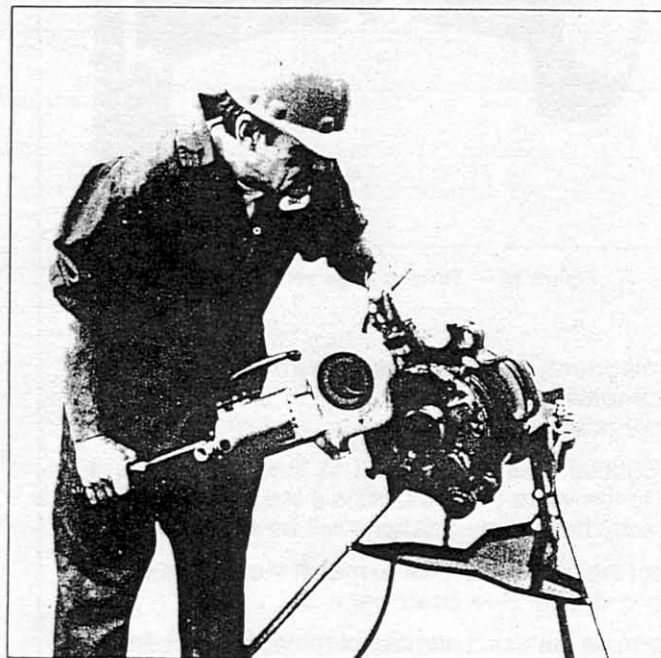


Figure 15 — Mini-Collins with Geared Threader

2. Insert No. 13154 square drive adapter into the Mini-Collins as is explained in Step 4, page 6.
3. Slip 13154 adapter (installed in Mini-Collins) into the drive shaft of geared threader and tighten the adapter set screw.
4. Before turning on Mini-Collins push the handle down so that the operator's elbow is straight and the weight of the operator is squarely above the handles.
5. Be sure direction switch is set for desired direction of threading.
6. Hold the Mini-Collins handle in one hand and apply cutting oil with other.
7. When threading is completed allow motor to come to a complete stop before reversing. Switch direction to the reverse of what was required for threading.
8. Be sure geared threader dies are free from end of pipe before removing adapter.

## Turning Valves

The Mini-Collins with a No. 13153 or No. 13154 square drive adapter may be used for opening and closing valves which have a  $\frac{3}{8}$ " or 1" square valve stem end. (Fig.16)

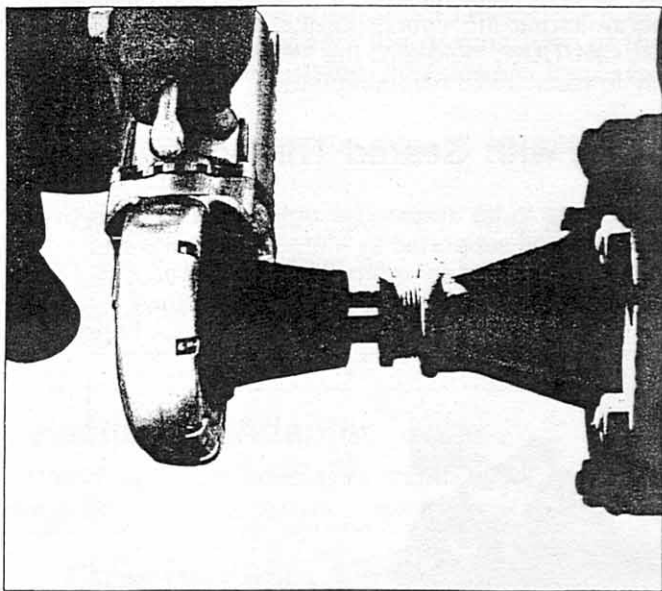


Figure 16 — Turning large valve

It is important that the operator knows the exact number of rotations required to open or close the valve prior to operating the tool.

**NOTE:** Serious injury can result to the operator, and damage to the valve or Mini-Collins if the user does not know exactly how many rotations will be required.

1. Select the correct adapter to match the square valve stem end size. See chart page 5.
2. Determine the exact number of rotations by opening valve manually. Mark valve stem to insure accurate counting of rotations while operating tool.

3. Be sure stem is free and not stuck in position. Use wrench to loosen valve, do not use cheater bar on tool.
4. Check tool directional switch to insure that the tool turns valve stem in the desired direction.
5. Machine must be grounded (except Double Insulated units) as described in Operator Safety Instructions, page 3.
6. Operator should always maintain a safe operating position so that if the valve snags the machine will not injure him. If the machine snags, release the tool completely and it will stop automatically.
7. Anticipate end of stem travel and release power switch prematurely to allow for free running rotation.

## Maintenance Instructions

**WARNING:** Always unplug power cord before servicing machine.

**NOTE:** If any maintenance is required other than that listed below take machine to an authorized Collins Warranty Repair Center or return to factory.

### Lubrication

It is normal for some grease to seep from gear case around drive bushing to provide adequate lubrication. Fill gear case periodically with Gear Lube No. 13102. Access to gear case is gained by removing the  $\frac{1}{8}$ " pipe plug on the side of the gear case.

### Cutting Oil

To assure clean threads and long wear on chasers use Collins sulphur base cutting oil No. 1922.

### Motor Brushes

Check motor brushes for wear every 50 hours of use, or when motor lacks power. Motor brushes should be replaced when worn down to  $\frac{3}{16}$ " (25-30% of original length remaining.)

Commutator should be inspected for wear each time brushes are checked. If commutator is even and clean, replace the brushes. If commutator is worn unevenly or grooved, before replacing the brushes, dress it with commutator stick. If this fails to smooth it, dress with fine emery cloth or have the armature turned and undercut at your nearest Collins authorized service center.

Lubrication is not required as the motor has sealed ball bearings.

**NOTE:** Always use original factory replacement parts.

### Service

Should you have any questions regarding your tool, contact your nearest Collins service center.






ACTION	DATE
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### ***LIFETIME WARRANTY***

ROTHENBERGER USA, INC., warrants all our products against defects in materials or workmanship. This warranty covers replacement or repair of defective parts for the lifetime of the product (excluding motors and electrical parts, which are warranted for a period of one year from date of sale), provided that failure is not due to abuse, abnormal use, or by normal wear and tear. NO OTHER WARRANTY, EITHER WRITTEN OR ORAL, SHALL APPLY. Pipe and drain cleaning tools and cables are not covered by this warranty and are considered expendable materials.

Products must be returned, freight prepaid, to ROTHENBERGER USA, INC. If the warranty applies, the product will be repaired or replaced at no charge to the customer and returned freight prepaid. Only ROTHENBERGER USA, INC. can make warranty judgments and we retain the right to the final decision regarding warranty application. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS. IN NO EVENT DOES ROTHENBERGER'S USA, INC. LIABILITY EXTEND BEYOND REPAIR OR REPLACEMENT OF ITS PRODUCT WARRANTED ABOVE.



955 Monterey Pass Road • Monterey Park, CA 91754

Tel 323-268-1381

Fax 323-260-4971

[www.rothenberger-usa.com](http://www.rothenberger-usa.com)