



PARTS LIST & INSTRUCTIONS

SIOUX VALVE FACE GRINDING MACHINES

Form Z127
Date 2-03/E
Page 1 of 22

No. 2075

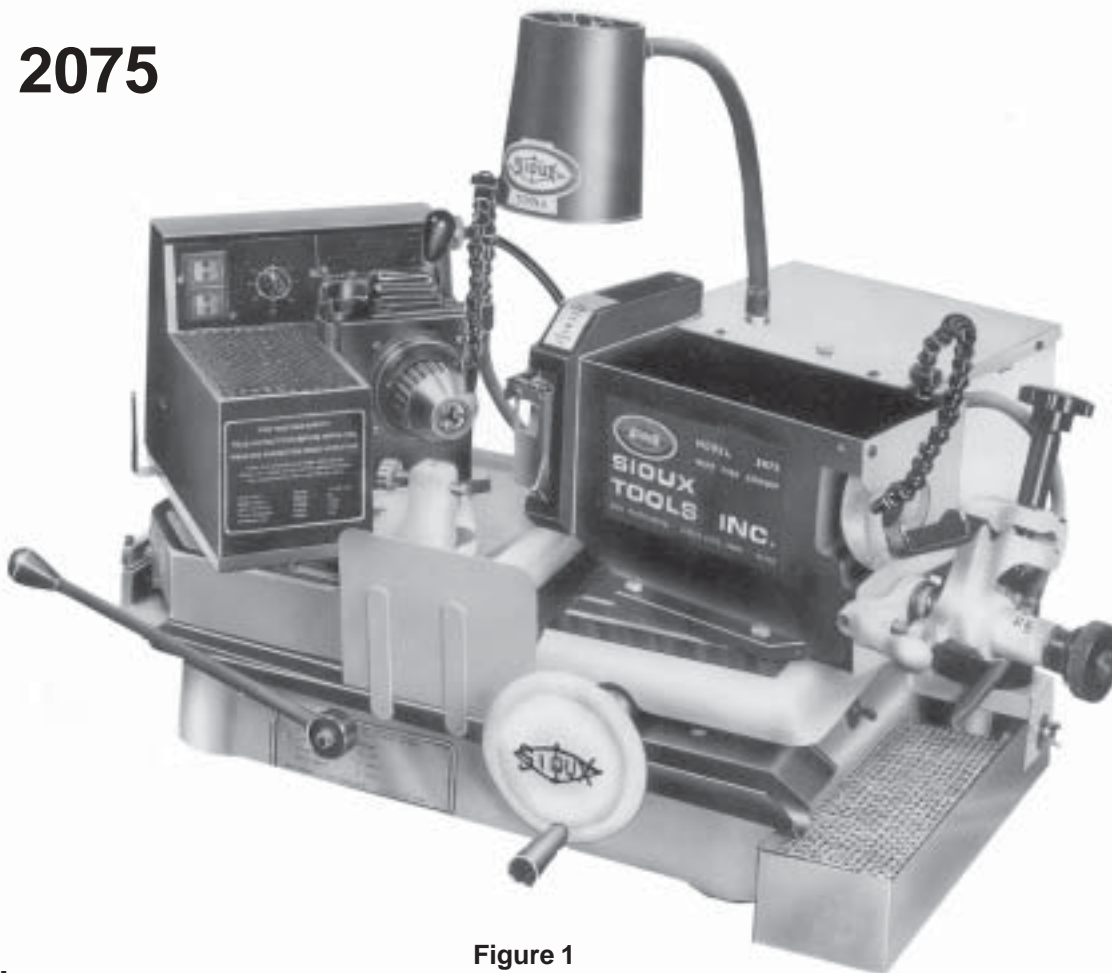


Figure 1

WARNING!

For your own safety read Instruction Manual before operating tool. Wear eye protection.

Safety Instruction

1. Always handle grinding wheels carefully. Do not use a wheel which has been dropped.
2. Visually inspect all wheels for possible damage before mounting. Replace cracked wheel immediately. Refer to ANSI B7.1.
3. Use only wheel flanges and flange screws furnished with this grinder: (Left flange screw has left hand thread); (Right flange screw has right hand thread). **Do not tighten wheel screws beyond 40 in-lb.**
4. Remove adjusting keys and wrenches before turning on. **Always use guards.**
5. Allow newly mounted wheels to operate at least one full minute before using. Do not stand in front of wheel during this period.
6. Use safety glasses when dressing the wheel or grinding.
7. Do not operate the machine without belt guard.
8. Keep machine and work area clean. Cluttered areas invite accidents.
9. **CAUTION! Keep hands away from grinding wheel edges.**

SIOUX TOOLS INC.

250 SNAP-ON DRIVE ■ PO BOX 1596 ■ MURPHY, NC 28906 ■ USA ■

Printed In U.S.A.

Grounding Instructions

1. All grounded, cord-connected tools:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided—if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

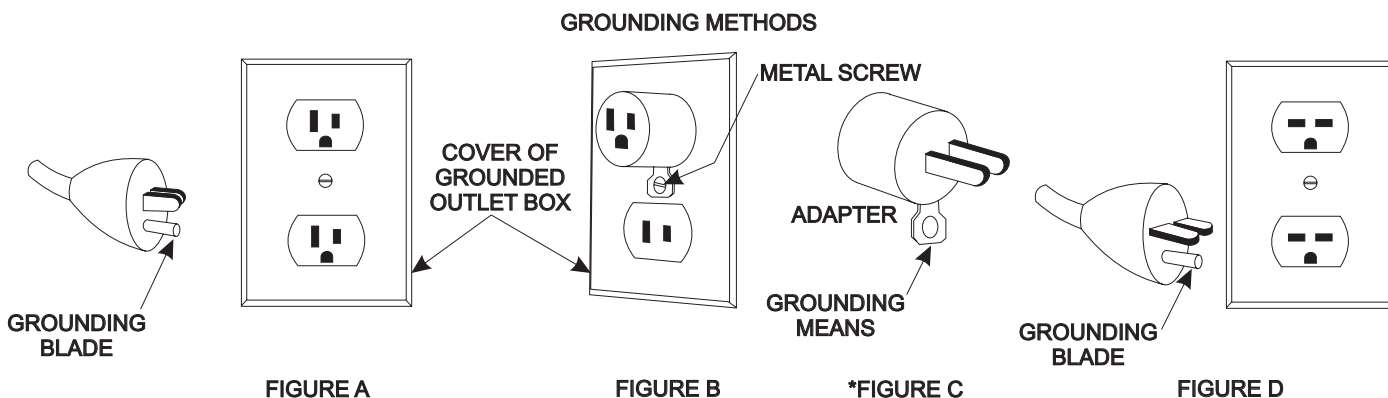
Repair or replace damaged or worn cord immediately.

2. Grounded cord-connected tools intended for use on a supply circuit having a normal rating less than 150 volts:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A shown below. A temporary adapter, which looks like the adapter illustrated in Sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent grounding such as a properly grounded outlet box.

3. Grounded, cord-connected tools intended for use on a supply circuit having a normal rating between 150-250 volts, inclusive:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch D shown below. The tool has a grounding plug that looks like the plug illustrated in Sketch D shown below. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.



*ADAPTER FOR THREE-PRONG GROUNDING TYPE PLUG, AS SHOWN IN FIGURES "B" AND "C", IS NOT APPLICABLE IN CANADA

Figure 2

Machine Preparation

1. Place machine on bench or cabinet. Machine may be fastened in place with base stops if desired. See page 19.
2. Mount tank and pump to end of machine, connect hose and plug in pump on back of grinding head.
3. Wipe off shipping grease, clean thoroughly.
4. **Lubrication: Put a few drops of SAE 20 oil in each oiler every three months or 50 hours of operation. Chuck motor is permanently lubricated and sealed. Oil coolant pump and grinding head motor every six months.**
5. **Coolant:** Use Sioux grinding oil No. 250A which comes ready for use—do not dilute. Coolant tank capacity 2 liters.
6. Attach dressing tool as shown in Fig. 1. (SEE INSTRUCTIONS FOR DRESSING WHEELS.)
7. Turn all switches to OFF position before connecting to power supply.

Safety Instructions

1. KEEP GUARDS IN PLACE and in working order.
NOTE: To prevent personal injury be sure to keep hands clear of grinding wheel when inserting or removing valves.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that the keys and adjusting wrenches are removed from tool before turning it on.
3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
4. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. KEEP ALL BYSTANDERS AWAY. All visitors should be kept safe distance from work area.
6. SECURE WORK AREA with padlocks, master switches, or by removing starter keys.
7. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
8. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.
9. WEAR PROPER APPAREL. Wear no loose clothing, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

10. ALWAYS WEAR SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses.
11. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
12. DON'T OVERREACH. Keep proper footing and balance at all times.
13. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
14. DISCONNECT TOOLS BEFORE SERVICING; when changing accessories, such as blades, bits, cutters, and the like.
15. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.
16. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause injury to persons.
17. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
18. CHECK FOR DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function—check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may effect its operation. A guard or other part that is damaged should be properly repaired or replaced.
19. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
20. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.
21. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one suited to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Do not use an extension cord longer than 50 Ft. or lighter than 16 gage. If in doubt, use the next heavier gage. The smaller the gage number the heavier the cord.

Control Instructions

1. Grinding head and chuck switches light up when on.
2. Grinding head switch controls the grinding head, chuck and oil pump motors. The lamp has its own switch mounted on top of the shade.
3. The carriage shifter arm controls the movement of the carriage. When the arm is completely to the left the carriage is locked in place to prevent accidental movement.
4. The chuck motor starts automatically as the carriage moves from left to right and will stop when the carriage returns completely to the left side.
5. The chuck switch on the chuck cover will turn off the chuck motor during the dressing operation if desired.
6. The chuck speed control is adjustable from 300 RPM to 150 RPM. Slower speeds are recommended on large valves or those that are difficult to grind to a smooth finish.

Dressing Left Wheel

(Cat. Nos. 173, 174, 176 & 177)

1. Position chuck carriage to extreme left.
2. Wheel guard may be raised to clear the dressing tool, but should be lowered after dressing.
3. Position diamond holder so that diamond has about 3/8" (9.5 mm) overhang in front of post and is left of left side of grinding wheel and at about 10° to 15° angle to side of wheel. Tighten holding nut. See Fig. 3. Diamond overhang should be kept to a minimum to provide as rigid support for diamond as possible.
4. Rubber shields (631B) should be used to protect chuck from wheel grit while dressing and grinding.
5. The chuck motor can be turned off if desired while dressing. **BE SURE TO TURN MOTOR ON BEFORE GRINDING ANY VALVES.**
6. Turn on machine. Move carriage lever to the right until diamond is in front of wheel and advance grinding head to diamond slowly. When diamond just touches wheel, turn on coolant to keep wheel dust to a minimum.
7. Move carriage lever to the right until diamond clears the wheel then to the left until diamond clears the wheel. Either grinding head feed screw or diamond can be used to advance diamond to dress wheel. Advancement should be only .0005" (.01 mm) per cut. Feed screw micrometer is graduated in .001" (.05 mm) increments. Diamond should occasionally be rotated slightly so that point of diamond will be kept sharp.
8. Slow traverse of carriage lever will give a smooth valve finish. Fast traverse will give a rough dress for fast metal removal of valve but a poor finish. This will also make a hard wheel cut more freely, but if this is continually necessary, a softer grade wheel (Cat. No. 177) should be used. Catalog No. 177 wheel is excellent for stellite valves. Catalog No. 173 comes on the machine and is an all purpose wheel. Catalog No. 176 is used for automotive valves. Catalog No. 174 wheel is excellent for titanium valves.

9. Wheel must be dressed each time grinding head is repositioned or when a new wheel is installed.
10. Be sure to lower wheel guard after dressing.



Figure 3

Dressing Right Wheel

(Cat. No. 81)

Adjust diamond holder in dressing arm until contact with wheel is made. Pass diamond slowly across wheel. Turn diamond holder in 1/16 (20°) turn after each pass until wheel is cleaned up. See Fig. 4.

Valve Reconditioning

1. **True Valve Stem Ends:** To insure proper valve operation, square valve stem ends after dressing right grinding wheel. Remove only enough material to clean up the valve end. See Fig. 5. Renew chamfer with chamfering vee. The chamfer need not exceed 1/32 inch (1 mm), but must clean up completely. See Fig. 6.
2. Loosen chuck head knob on top of chuck. Use handle on side of chuck assembly to locate chuck head at the exact angle you wish to refinish valve, then lock chuck head knob. Degrees marked are 0°, 15°, 19 1/2°, 29°, 30°, 44°, 45°, 46°. Grinding head may have to be repositioned to grind at 0°.
3. Chuck valve by opening chuck sleeve and insert valve so that rollers will engage stem just above worn area. Close chuck sleeve to contact stem. Adjust aligner bar to contact stem. Tighten aligner lock screw. See Fig. 7. Pull lever back and close chuck sleeve 1/4 more turns. Press valve firmly into aligner bar with a slight rotary motion and release lever. NEVER RUN CHUCK SLEEVE DOWN TIGHT AND RELEASE LEVER BECAUSE THIS COULD LOCK UP THE CHUCK.
The chuck will accept all valves of the same size without further adjustment.
4. Remove valve and add chuck shield (631B) and rechuck. Shields will keep oil and grit out of the chuck.
5. Grinding head is positioned from the factory at a 15° angle. This should accommodate a majority of valves. Repositioning can be made by loosening three screws on the head and moving grinding head to an alternate position. Grinding wheel must be dressed after repositioning.
6. Dress left grinding wheel. See instructions.
7. Adjust the guard by loosening the thumbnuts and positioning the guard about 1/16 to 1/8 from the wheel face.
8. Set carriage plate stop nut, see Fig. 8, located under the left skirt so that right edge of valve face is at right edge of wheel, being careful that grinding wheel does not touch valve stem. The wide grinding wheel is for operator's convenience and sometimes the full face of wheel cannot be used. This should not cause any problem. The wheel could be undercut by dressing an additional .005" (.1 mm) off the right portion of the face of wheel and about 1/8" wide. This will actually narrow the effective face of wheel. See Fig. 11.

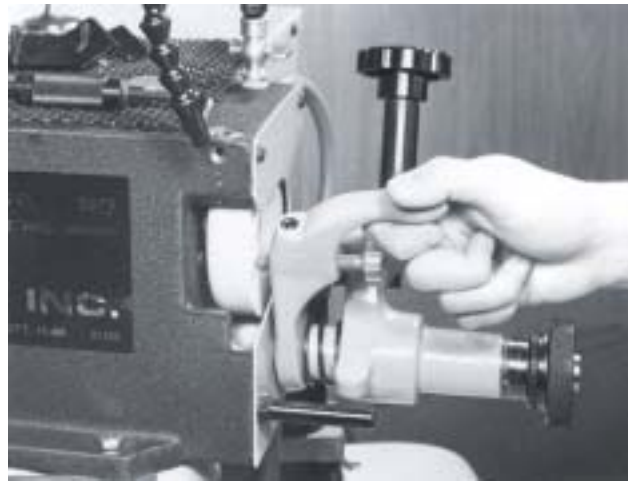


Figure 4



Figure 5



Figure 6



Figure 7

9. Turn on machine. Move valve face in front of wheel and using the feed screw, advance grinding head to just touch valve. Turn on coolant oil. Set micrometer thimble to zero. Begin grinding at left side of wheel, moving from left to right across wheel. **DO NOT AT ANYTIME ALLOW VALVE TO PASS BEYOND EITHER EDGE OF GRINDING WHEEL WHILE GRINDING.** Take light cuts by feeding wheel up to valve about .001"-.002" (.02-.04 mm) at a time. Remove just enough material to make a clean smooth face. When valve face is trued, pause for several seconds, then **BACK GRINDING WHEEL AWAY FROM VALVE BEFORE TRAVERSING CARRIAGE TO LEFT.** Moving valve off grinding wheel before backing grinding wheel away from valve could mar finish of valve face. Keep valves in numbered storage rack to make sure valves are returned to their own guides. If a large amount of material was removed from the valve face it may be necessary to remove the same amount from the stem to maintain proper hydraulic lifter operation.

On large diameter valves or hard faced valves it may be necessary to redress the grinding wheel for a finish grind. **DO NOT REMOVE VALVE FROM CHUCK.** Use Cat. No 177 grinding wheel for hard faced valves and stellite valves. **NOTE: USE CAT. NO. 174 GRINDING WHEEL FOR TITANIUM VALVES.**

10. Good housekeeping is essential to keep any precision machine or tool performing correctly. Use rubber shields (631B) when grinding or dressing to keep grit and coolant out of chuck. Replace grinding coolant and clean out coolant tank periodically. The chuck has been adjusted at the factory to grind valves within .001" (.025 mm) T.I.R. Following these instructions will insure retainment of this accuracy.

CAUTION! Keep your hands away from the grinding wheel edges when loading and unloading valves.



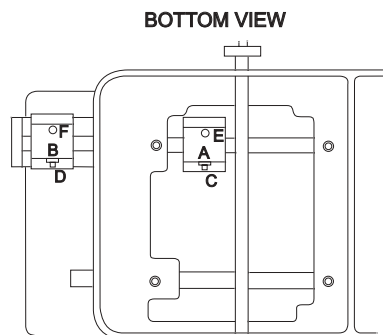
Figure 8

Instructions For 2075

Carriage Adjustment

These instructions are for guidance in the adjustment of the carriage pillow-block ball bushings on the 2075. **DO NOT** over-tighten the adjustment screws, as this may cause damage to the way-bar or bushings.

1. Unplug the unit from the electrical service. Unbolt the oil tank and slide it about 1" away from the machine.
2. **CAREFULLY** Raise the front of the machine and place (2) 6-inch blocks under the front corners of the base to support the front of the machine. Be sure that the machine cannot fall off of the blocks and injure you while making the adjustments under the carriage.
3. Loosen the lock-nuts A & B, set screws C & D, and clamp bolts E & F about one-half turn.
4. Tighten clamp bolt E until it makes contact with the housing. Then tighten to 12 inch pounds torque. Check for smooth operation of the carriage, backing off the bolt tension if necessary to ensure free movement.
5. Repeat this for the other clamp bolt F and pillow block, checking for smooth operation once again.
6. Tighten the allen-head set screw C until a moderate resistance is felt against the wrench. While holding this position tighten the lock-nut A. Check that the carriage still moves freely.
7. Repeat this for set screw D and lock-nut B on the other pillow block. Again check for free movement of the carriage.
8. Lift the back of the carriage and place a suitable wedge between the rear way-bar and carriage. Inspect the way-bar for dents and cleanliness. If necessary the bar may be turned over to use the other side.
9. Check that the rear roller turns freely and is clean.
10. Remove the wedge and blocks. Carefully lower the unit to the bench top. Re-attach the oil tank and plug the machine in.
11. The carriage is now adjusted to factory specifications.



Grinding Valves with Small Head Diameters and 0° Valves

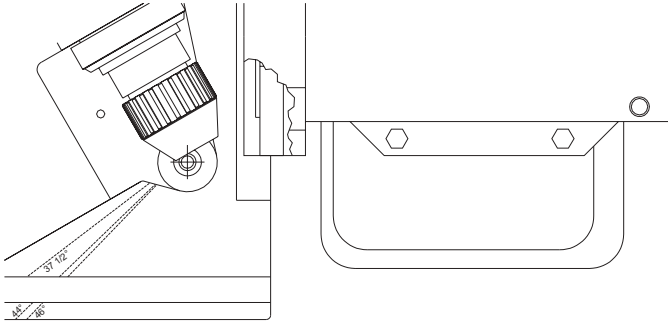


Figure 9

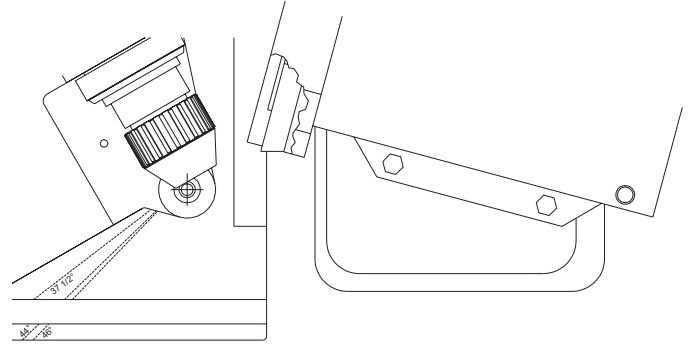


Figure 10

The position of grinding head from factory is set at 15° as shown in Fig. 10. This will accommodate majority of valves. When grinding valves with small head diameters and 0° valves, grinding head may be repositioned. There are 3 sets of holes in cross slide, anyone of which can be used to clamp grinding head, and the unused holes are plugged with set screws. There are 3 positions for the head. 2 at 15° and 1 at 0°.

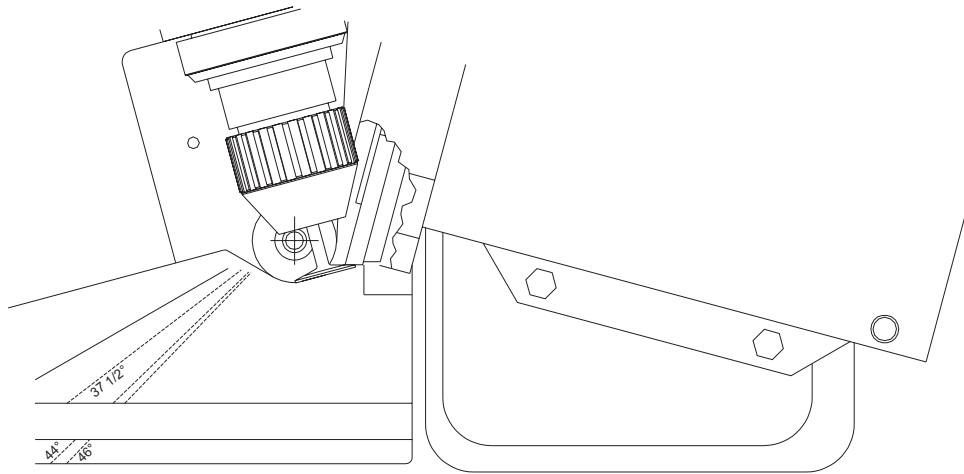


Figure 11

Small valves, of any angle, may be too small to traverse across full width of grinding wheel. This condition tends to create an interference shoulder where the traverse stops, which may impair finish without repeated dressing. Reposition head if necessary and dress wheel. Traverse valve as far to right as possible. Start machine and mark grinding wheel with pencil just inside top edge of valve face. Dress off .002"-.005" (.05-.10 mm) from pencil mark to right edge of grinding wheel. Grind valve on high area of wheel periphery.

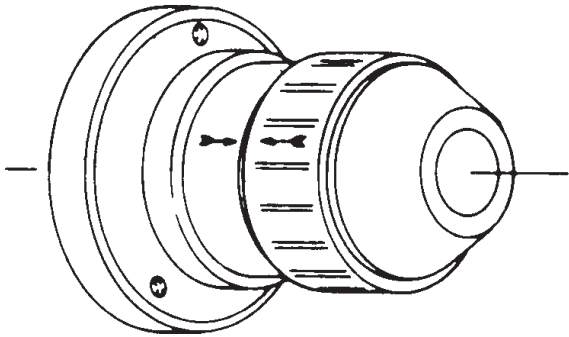
Instructions

Replacing brushes on chuck motor

1. Disconnect power supply.
2. Remove chuck cover screws, lock down knob, chuck release handle, and raise front of cover about 8" (125 mm).
3. On earlier units remove 2 screws and motor end cover. Lift brush tensioning arm and replace brush.
4. On later units unscrew brush caps and replace brushes.
5. Reassemble the unit.
6. Note: brush life is approximately 500 hours of usage.

Remove chuck cover

1. Disconnect power supply.
2. Remove chuck release handle, lock down knob, and screws from chuck cover, lift front of cover 5" (125 mm).
3. Disconnect red and black wires from motor.
4. Remove cover.



Additional Chuck Instructions

The chucks on the valve refacers are accurately adjusted at the factory. This accuracy can be lost if the chuck threads are disengaged, and the same threads of the multiple thread screw are not reengaged.

The chuck parts are now marked with arrows to allow re-engagement in the same thread.

Align the arrows before the threads are reengaged. Press on the chuck body until the threads touch and then turn the chuck clockwise reengaging the threads.

2075 Changing Grinding Head Drive Belt

1. Remove motor cover and light.
2. Lift motor and remove belt from pulley.
3. Remove left guard, wheel and hub.
4. Remove (3) screws and bearing retainer.
5. Remove right guard, wheel, hub, (3) screws, bearing retainer and wave washer.
6. Using a soft mallet, gently drive the shaft to the left until it is free.
7. Remove and replace the belt.

8. Install the shaft, noting that the tolerance ring must be in place in the left bearing bore.
9. Gently drive on the outer race of the left bearing until it is seated.
10. Install the bearing retainer wheels and guards on both ends. Make sure wave washer is replaced on the right end.
11. Place the belt on the motor pulley, checking to see that the belt is seated correctly on both pulleys.
12. Replace the motor cover and light.

Belt Tension Adjustment

1. Remove top cover over the grinding head motor and unplug the light and oil pump motor.
2. Loosen the locknut on the 1/4" bolt at the top of the motor mounting plate.
3. Back out the 1/4" bolt until it clears the rubber mount and the motor is held up by the drive belt.
4. Check the drive belt to ensure that it is seated correctly on the motor pulley, shaft pulley, and the idler.
5. The bottom of the motor mounting plate should be parallel with the cross-slide casting. If it is not, loosen the 4 nuts on the bottom of the plate and reposition the motor until the mount is parallel and retighten the 4 nuts.
6. Turn the tension adjusting bolt in until it contacts the rubber mount. Start the grinding head motor, making sure all objects are clear of the drive belt.
7. Begin to turn the adjusting bolt in. (A 7/16" nutrunner or socket and extension are helpful in doing this.) As the bolt is turned in, you will notice that there are positions where the upper part of the belt will vibrate or "flop". After approximately 6 turns you will be past these vibration points and the belt will be quite loose. It may even be rubbing against the casting at the top of the slot. Now back out the bolt, (increasing belt tension) until the upper part of the belt begins to vibrate. Stop turning the bolt out as soon as this occurs. At this point turn the bolt back in 1/4 turn, so the belt stops vibrating. Tighten the locknut while maintaining this position. The belt tension is now adjusted to the optimum tension for smooth operation. Turn the grinding head off and on several times to check for belt slippage on start-up.

If the belt should slip at start-up this tension setting may be increased as follows. Begin to back out the adjusting bolt 2-4 turns while observing the belt. As tension is increased the belt will vibrate and then slowly stop. When both upper and lower parts of the belt have stopped vibrating, tighten the locknut. This is the maximum belt tension recommended. Do not run with the adjusting bolt backed out further than outlined above.

8. Stop the grinding head motor, connect the light and replace the top cover. Plug in the oil pump motor.

Your machine was designed and manufactured as a precision machine tool. Keep it that way with proper cleaning, lubrication and maintenance.

No. 656G Rocker Arm Attachment Assembly and Operating Instructions

GRINDING ROCKER ARMS

Dress wheel with built-in dressing tool on right side of machine before mounting the SIOUX Rocker Arm.

Assembly and Operation

The grinding wheel should be properly dressed before mounting the Rocker Arm Attachment.

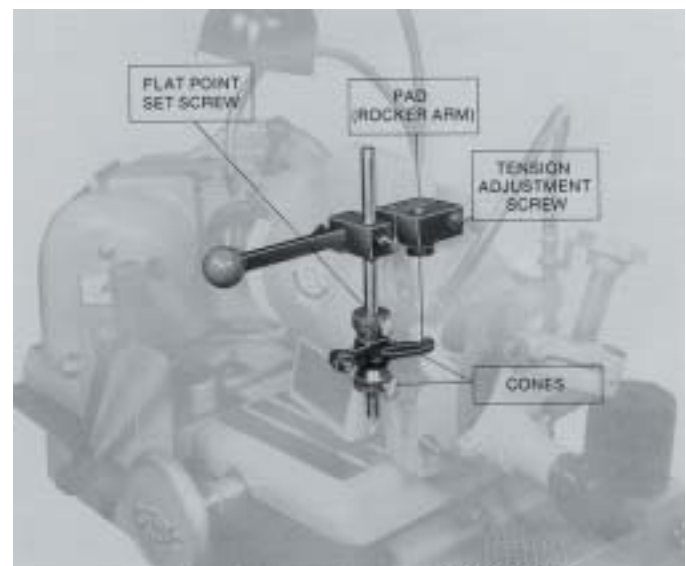
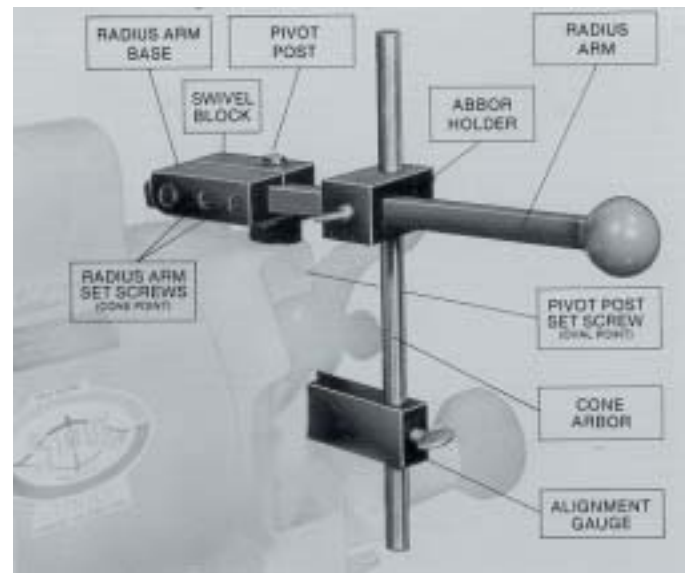
Place the pivot post, with its swivel block base and the radius arm base, in the 3/8" diameter hole in the top of the right wheel guard, the flat on the post facing forward. Seat the post firmly and secure with the oval point set screw.

Place arbor holder on radius arm, cone arbor in the arbor holder and alignment gauge on arbor. Place radius arm in the radius arm base. **Do not tighten the two cone point set screws.** Adjust height of alignment gauge to the horizontal center of the grinding wheel and position the arbor holder to allow the recessed pad of the alignment gauge to make full contact with the face of the grinding wheel. Hold recessed pad of alignment gauge against face of grinding wheel while tightening three thumb screws. Hold alignment gauge firmly against wheel face and tighten the two cone point set screws locking the radius arm.

Remove alignment gauge.

Install the cone on arbor, small end down. Place rocker arm on arbor and adjust upper cone position to bring rocker arm pad to horizontal center of wheel. Place lower cone on arbor to firmly hold rocker arm. Position arbor holder to grind full pad area.

Wet grind rocker arms by lightly pressing arm pad against grinding wheel. Swivel attachment left and right until desired surface is attained. The radius arm can be swung upward to facilitate loading and unloading. Proper adjustment of the tension screw will allow the operator to move the radius arm up or down—but not drop accidentally.



CROSS SLIDE FOR 2075

FURNISH CATALOG SERIAL & MODEL NUMBER WHEN ORDERING PARTS

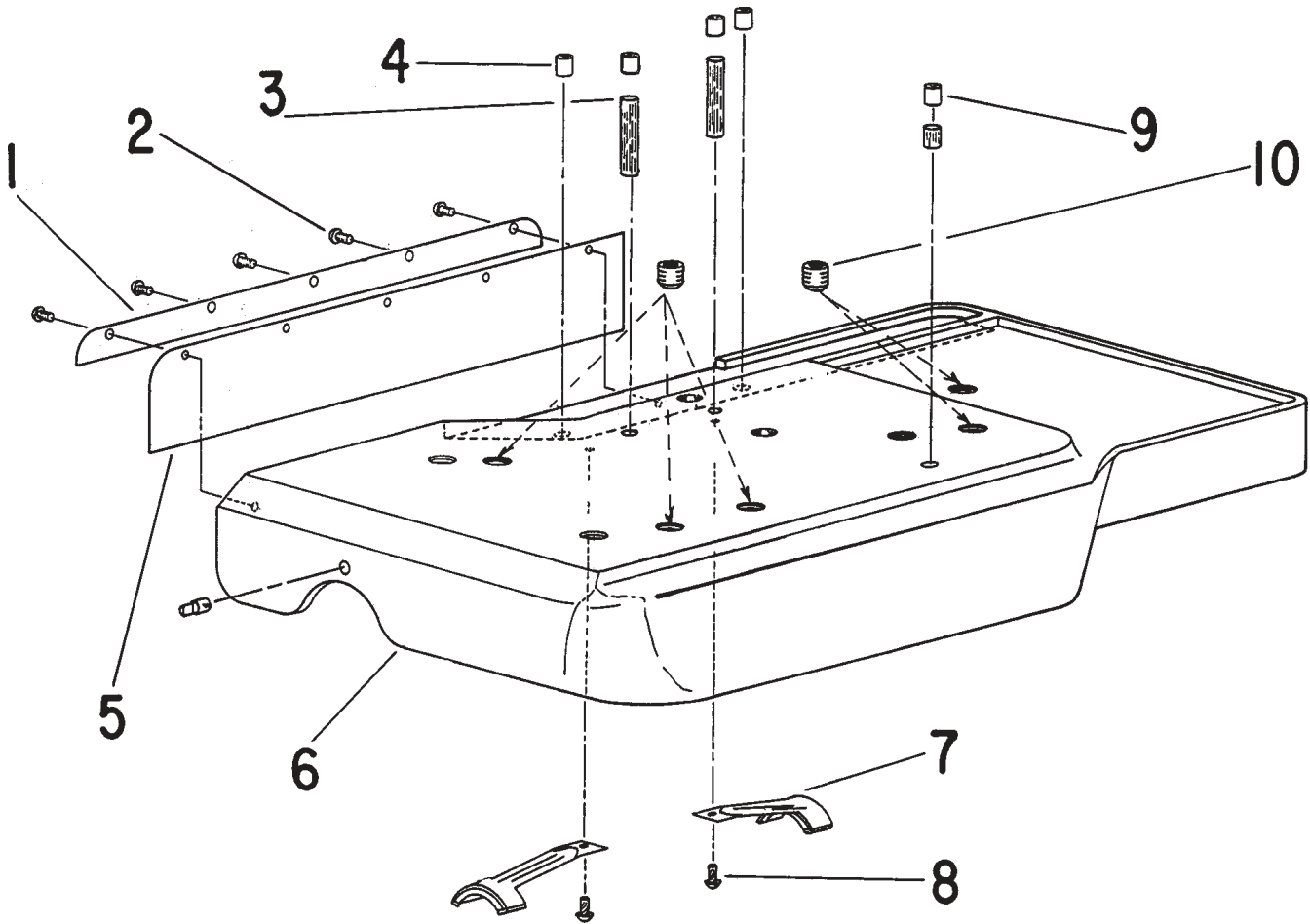
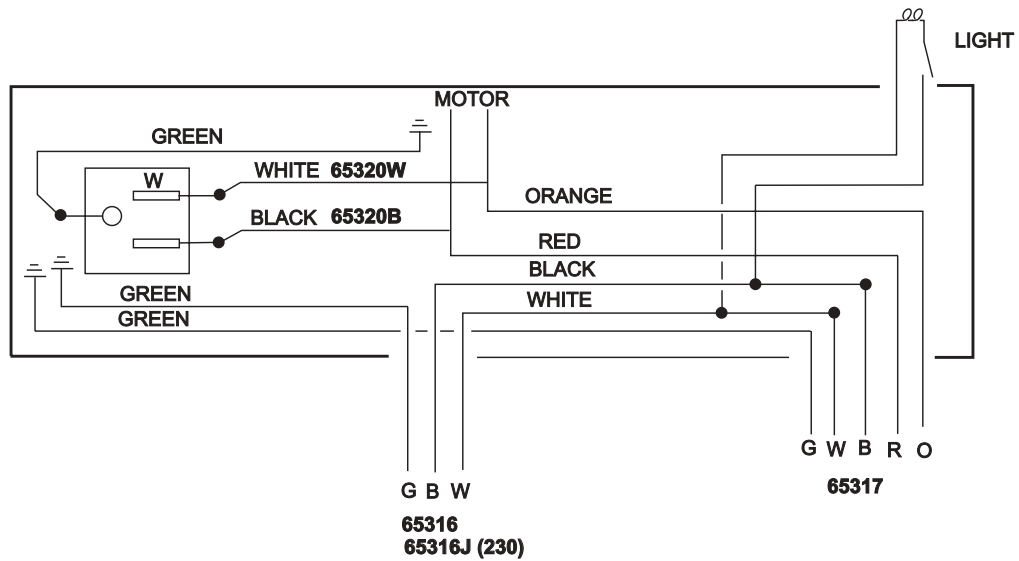


Fig. No.	Part No.	Name
1.	25193	Strip—Guard
2.	65463	Screw—Self Tap (5)*
3.	05015	Wick—Felt (2)*
4.	30073	Cup—Oil (5)*
5.	14214	Seal—Guard
6.	65201	Ass'y—Cross Slide (Includes Figs. 1 thru 10)
7.	23158	Ass'y—Oil Dispenser (2)*
8.	09951	Screw—Drive (2)*
9.	14685	Wick—Felt
10.	09013	Screw—Socket (5)*

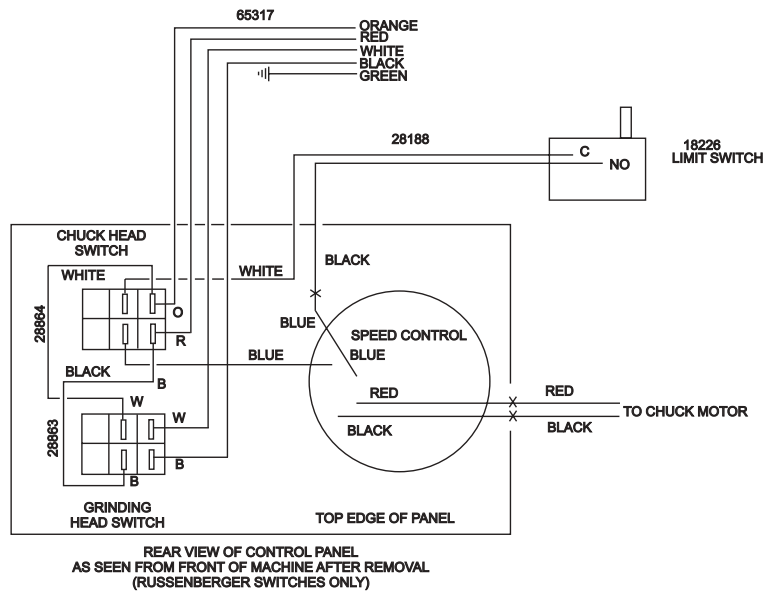
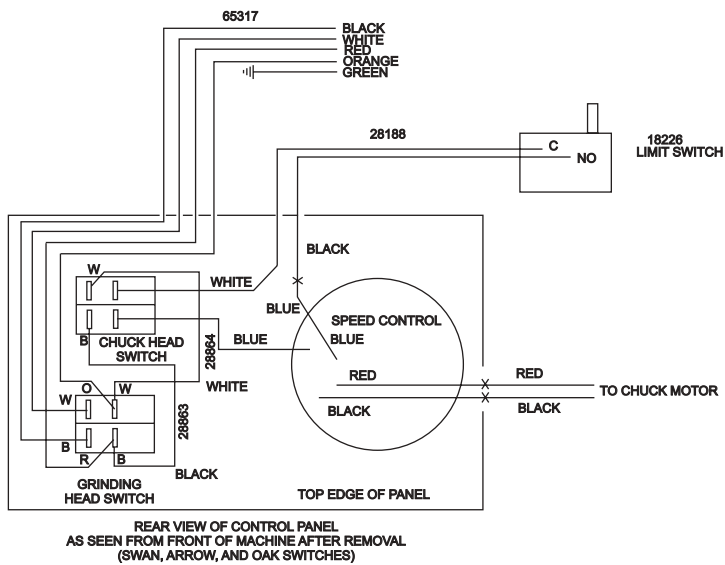
*Order Quantity As Required

WIRING DIAGRAMS

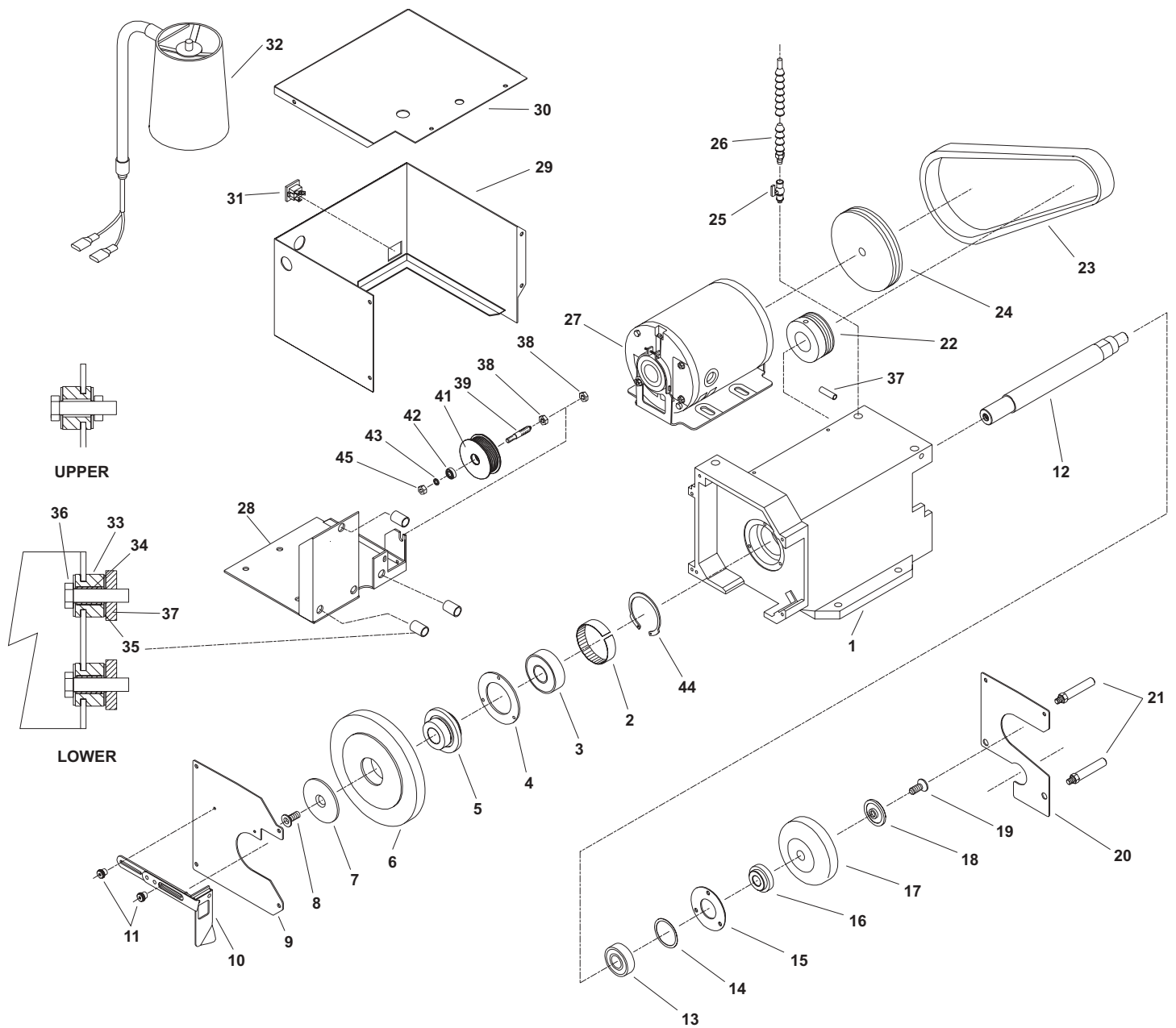


GRINDING HEAD JUNCTION BOX WIRING

AUXILIARY WIRING DIAGRAMS 2075 VFGM



PARTS LIST FOR 2075 GRINDING HEAD



PARTS LIST FOR 2075 GRINDING HEAD

FURNISH CATALOG SERIAL & MODEL NUMBER WHEN ORDERING PARTS

Fig. No.	Part No.	Name
1.	11469	Grinding Head
2.	65108	Tolerance Ring
§ 3.	65107	Bearing
4.	65097	Bearing Retainer—Left
5.	65093	Arbor—Left Wheel
6.	173	Wheel 7" (Dark Gray)(General Grinding)
	176	Wheel 7" (Orange)(General Grinding)
	177	Wheel 7" (White)(Stellite Grinding)
	174	Wheel 7" (Titanium Grinding)
7.	65101	Flange—Outer Left
8.	09096	Screw
9.	65095	Guard—Left
10.	65121	Guard—Assembly
11.	65123	Nut—Finger
§12.	65094	Shaft
§13.	10232	Bearing
14.	65309	Wave Washer
15.	65099	Bearing Retainer—Right
16.	65098	Flange—Inner Right
17.	81	Wheel
18.	24171	Flange—Grinding Wheel
19.	09095	Screw
20.	65096	Guard—Right
21.	54437	Stop (2)*
§22.	65102	Pulley—Shaft
	65370	Set—Screw 1/4-20 (2)*
23.	65117	Belt
24.	65103	Pulley—Motor
	08000	Set—Screw 1/4-20 (2)*
26.	54983-1	Coolant Tube (Includes Valve)
27.	65336	Motor (110V)
	65336J	Motor (230V)
28.	65106	Motor Mount (110V)
	65106J	Motor Mount (230V)
	09549	Nut Hex 5/16-18 (4)*
	25057	Washer (4)*
29.	65112	Ass'y—Side Cover (110V)
	65112J	Ass'y—Side Cover (230V)

Fig. No.	Part No.	Name
30.	65111	Motor Cover
31.	18663	Receptacle (110V)
	18877	Receptacle (230V)
32.	28154	Lamp
33.	65110	Mount—Rubber (3)* Note Position
34.	65116	Mount—Bushing (2)*
35.	35039	Washer (6)*
36.	08250	Screw 1/4-20 (2)*
37.	65357	Spacer (2)*
38.	09556	Nut—Hex 5/16-24 (2)*
39.	65975	Shaft
41.	65974	Pulley—Idler (Includes Figs. 38, 39, 42, 43, 45)
42.	65470	Bearing—Ball (2)*
43.	66177	Washer—Belleville (2)*
44.	65750	Retaining Ring (Serial #1627 & up)
45.	09501	Nut—Hex 1/4-28
§	65751	Ass'y—Shaft (Includes items 3, 12, 13, & 22 to service later heads with #65750) Retaining Ring (Serial #1627 & up)

Items Not Shown

65316	Power Cord (110V)
65316J	Power Cord (230V)
28196	Cord—Grip (2)*
18658	Lock Nut (2)*
07250	Screw #10-32 x 1/2" Torx Head (28)*
09461	Nut #10-32 (2)*
28146	Nylon Cable Clamp (2)*
65202	Bolt 3/8-16 x 8 (1)*
09104	Bolt 3/8-16 x 1 (2)*
09495	Nut 1/4-20
35033	Washer (2)*

*Order Quantity As Required

PARTS LIST FOR 2075, 2075SP, 2075SM CHUCK

FURNISH CATALOG SERIAL & MODEL NUMBER WHEN ORDERING PARTS

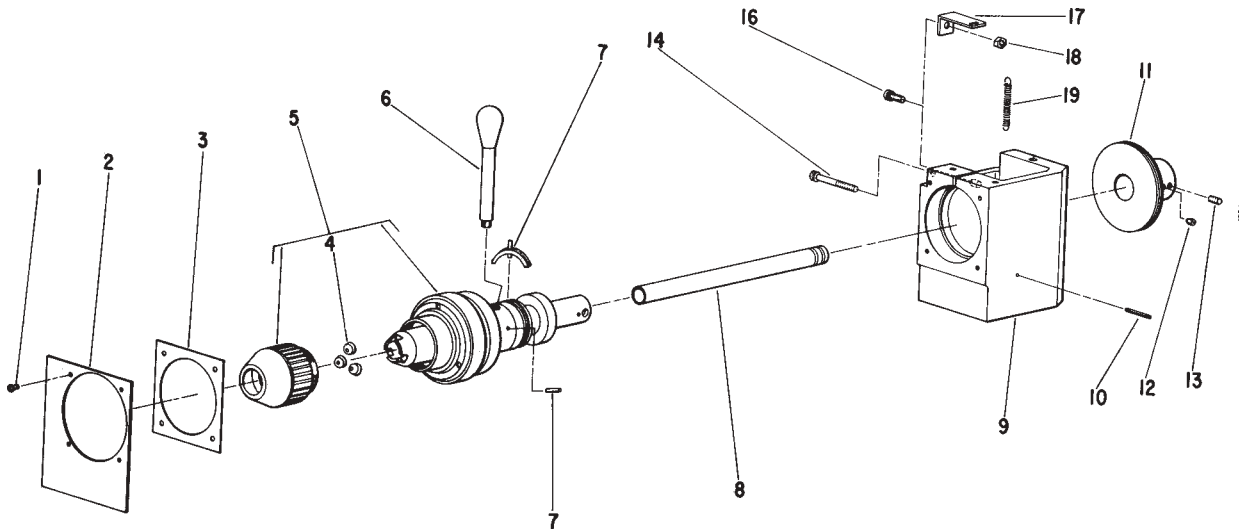


Fig. No.	Part No.	Name
1.	06673	Screw—Phil. Rd. Hd. (8-32)(4)*
2.	35715	Cover—Dust Shield
3.	04297	Shield—Dust
4.	24185	Roller—Chuck (Set of 3)
	34447	Roller—Chuck (Set of 3)(SM only)
5.	63278	Ass'y—Chuck Spindle & Bearing (.230" to 11/16" Cap.)(Includes Fig. No. 7 & 8)
	63278SP	Ass'y—Chuck Spindle & Bearing (5/16" to 3/4" Cap.)(Includes Fig. No. 7 & 8)
	63278SM	Ass'y—Chuck Spindle & Bearing (.170" to 12" Cap.)(Includes Fig. No. 7 & 8)
6.	54874	Handle—Lever
7.	30362	Pin
	54992	Pin & Support
8.	24953	Aligner
	24953SM	Aligner (.170 to 1/2" Cap.)
9.	11456	Head—Chuck
10.	30383	Roll Pin
11.	54980	Pulley
12.	08028	Screw—Set (1/4" Half Dog)
13.	08610	Screw—Aligner
14.	08235	Screw—Soc. Hd. Cap. (1/4" x 2-1/4")(2)*
16.	08232	Screw—Soc. Hd. Cap. (1/4" x 5/8")

Fig. No.	Part No.	Name
17.	35707	Bracket—Cam Pin
18.	09495	Nut—1/4"
19.	41327	Spring—Chuck Lever
	604	Aligner Wrench

Complete Assemblies

63395	Ass'y—Chuck (Includes Figs. 1 thru 20) (Cap. .230" to 11/16") (6 mm to 17.5 mm)
63395SP	Ass'y—Chuck (Includes Figs. 1 thru 20) (Cap. 5/16" to 3/4") (8 mm to 19 mm)
63395SM	Ass'y—Chuck (Includes Figs. 1 thru 20) (Cap. .170" to 1/2") (4.3 mm to 12.7 mm)

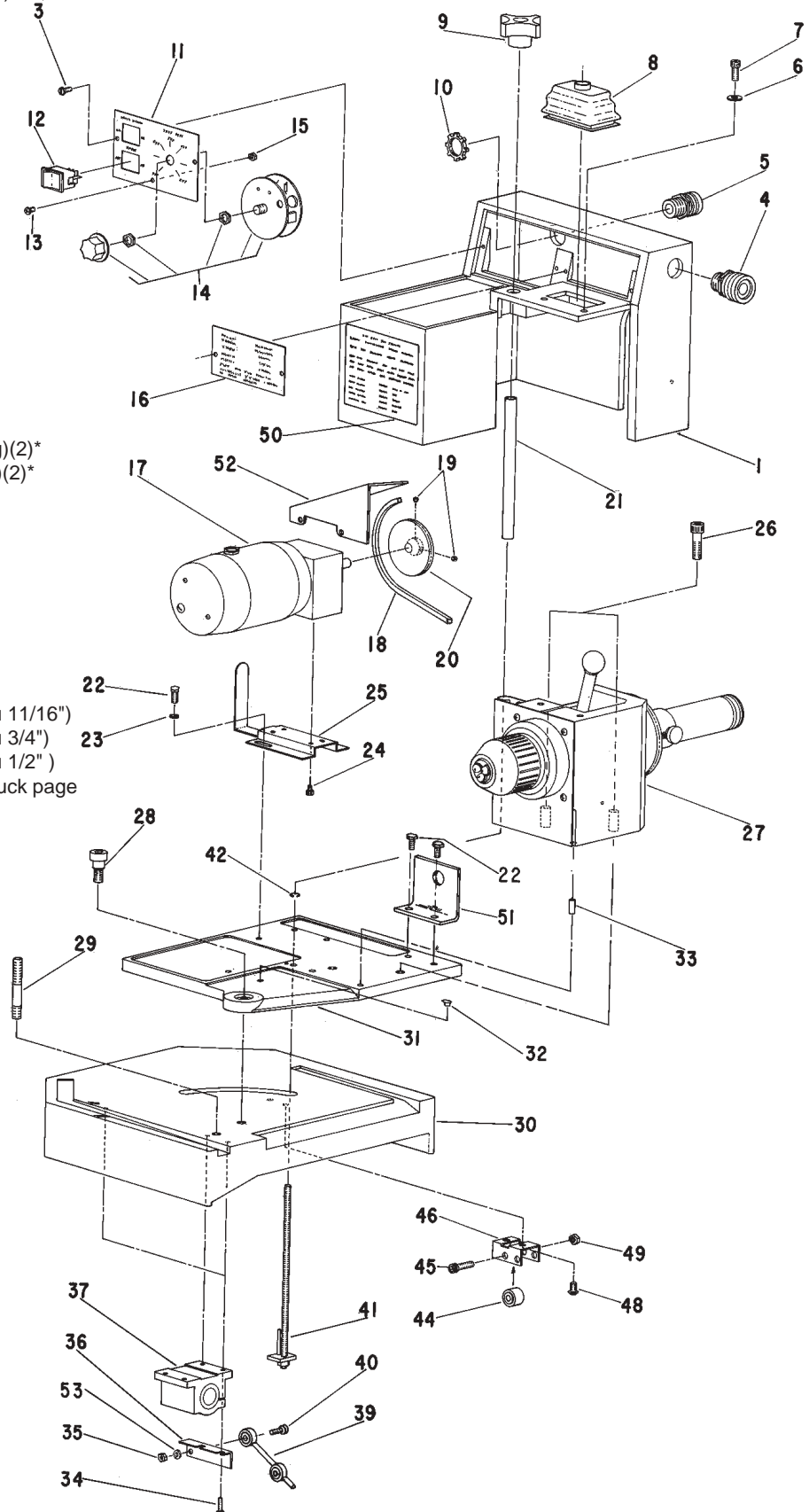
*Order Quantity As Required

PARTS LIST FOR 2075 CARRIAGE PLATE & MOTOR ASSEMBLY

Fig. No.	Part No.	Name
1.	14195	Cover—Chuck
3.	06659	Screw—Self Tap Pan Hd. #8-32 (6)*
4.	28196	Cord—Grip
5.	18679	Cord—Grip
6.	25069	Washer
7.	08232	Screw
8.	04298	Boot—Shifter
9.	14197	Knob
10.	18658	Locknut (2)*
11.	20811	Plate
12.	18221	Switch (115V)(2)*
	18221J	Switch (230V)(2)*
	35760	Guard—Switch (2)*
13.	06241	Screw
14.	28159	Control—Speed (115V)
	28159J	Control—Speed (230V)
15.	09440	Nut
16.	20812	Plate
17.	15144	Motor (115V)
	15144J	Motor (230V)
	18028	Brush—Motor (old style w/o spring)(2)*
	18039	Brush—Motor (new style w/spring)(2)*
18.	14473	Belt
19.	07000	Screw—Set #10-24
20.	54979	Pulley
21.	54873	Tube
22.	08245	Screw (5)*
23.	25069	Washer (3)*
24.	56202	Screw (4)*
25.	35695	Bracket—Motor
26.	09081	Screw (2)*
27.	63395	Ass'y—Chuck (Capacity .230" thru 11/16")
	63395SP	Ass'y—Chuck (Capacity 5/16" thru 3/4")
	63395SM	Ass'y—Chuck (Capacity .170" thru 1/2")
	NOTE: For individual parts see chuck page	
28.	09365	Screw—Shoulder
29.	54444	Stud—3/8" Thread
	66224	Stud—5/16" Thread
30.	11457	Plate—Carriage
31.	11459	Plate—Base
32.	30052	Oiler
33.	54922	Dowel
34.	06500	Screw (8)*
35.	09464	Nut
36.	35713	Linkage
37.	10924	Bushing—Ball (2)*
39.	64822	Link—Connecting
40.	07089	Screw
41.	63309	Ass'y—Chuck Plate Clamp
42.	21813	Ring—Retaining
44.	10084	Follower—Cam
45.	08014	Screw—Soc. Hd.
46.	35714	Support—Roller
48.	08303	Screw (2)*
49.	09495	Nut
50.	20808	Decal
51.	35746	Guard—Belt
52.	35745	Guard—Belt
53.	09724	Washer—Lock #10
Not Shown		
	65323	Bracket—Hose
	54983-2	Hose—Coolant (includes valve)
	04286	Mat—Tool
	65196	Label—Warning

*Order Quantity As Required

**FURNISH CATALOG SERIAL & MODEL
NUMBER WHEN ORDERING PARTS**



Valve End Attachment for 2075 Valve Face Grinding Machines

Furnish Machine and Serial Number When Ordering Parts

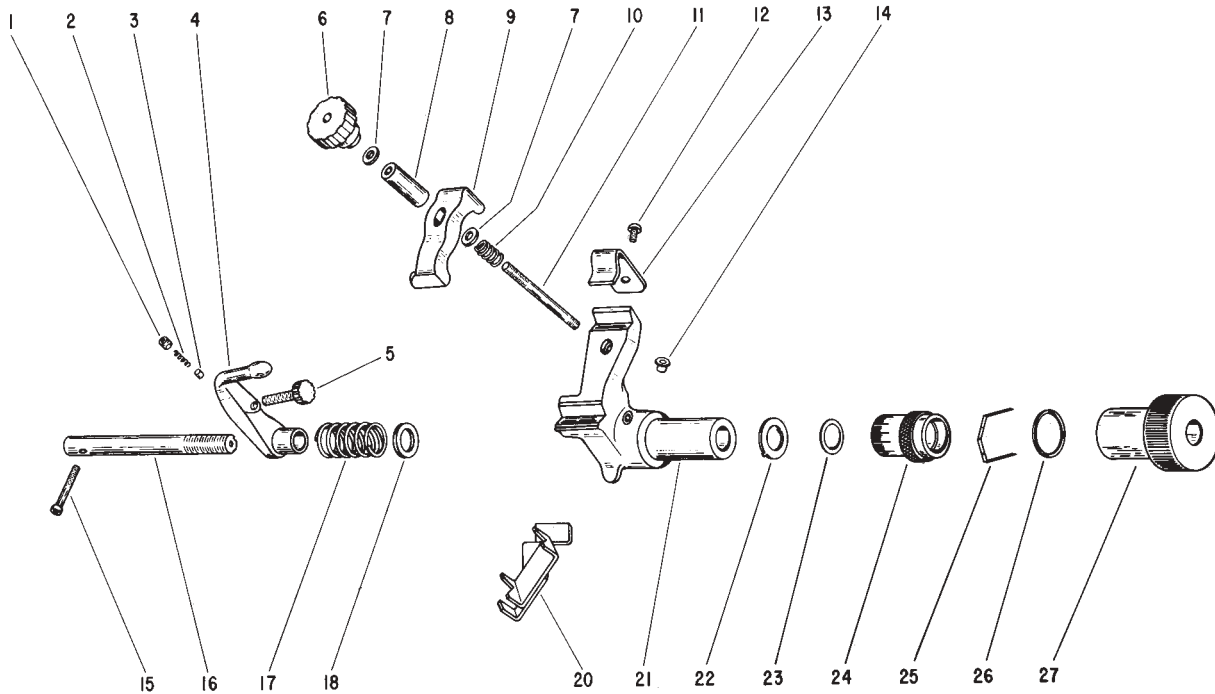


Fig. No.	Part No.	Name
1.	09275	Screw—7/16"
2.	04261	Spring—Friction Slug
3.	13020	Slug—Friction
4.	11442	Arm—Dressing
5.	1715	Diamond—Dressing
6.	14198	Knob
7.	25403	Washer (2)*
8.	44661	Sleeve—Handle
9.	11308	Clamp—Valve
10.	21344	Spring—Lift
11.	34362	Stud—Handle
12.	06672	Screw—1/4"
13.	25874	Clip—Valve Clamp
14.	30073	Cup—Oil
15.	08836	Screw—5/16"

Fig. No.	Part No.	Name
16.	54463	Stud—Swivel
17.	21220	Spring—Valve Holder
18.	25871	Washer—Thrust (1)*
20.	53589	Ass'y—Chamfering Vee
21.	11402	Ass'y—Valve Holder (Includes 30073 Oiler)
22.	25657	Washer—Thrust
23.	25155	Washer—Bearing
24.	24162	Thimble
	24162M	Thimble (Metric)
25.	21224	Spring—Friction
26.	25153	Washer—Crimped
27.	24163	Knob—Adjusting

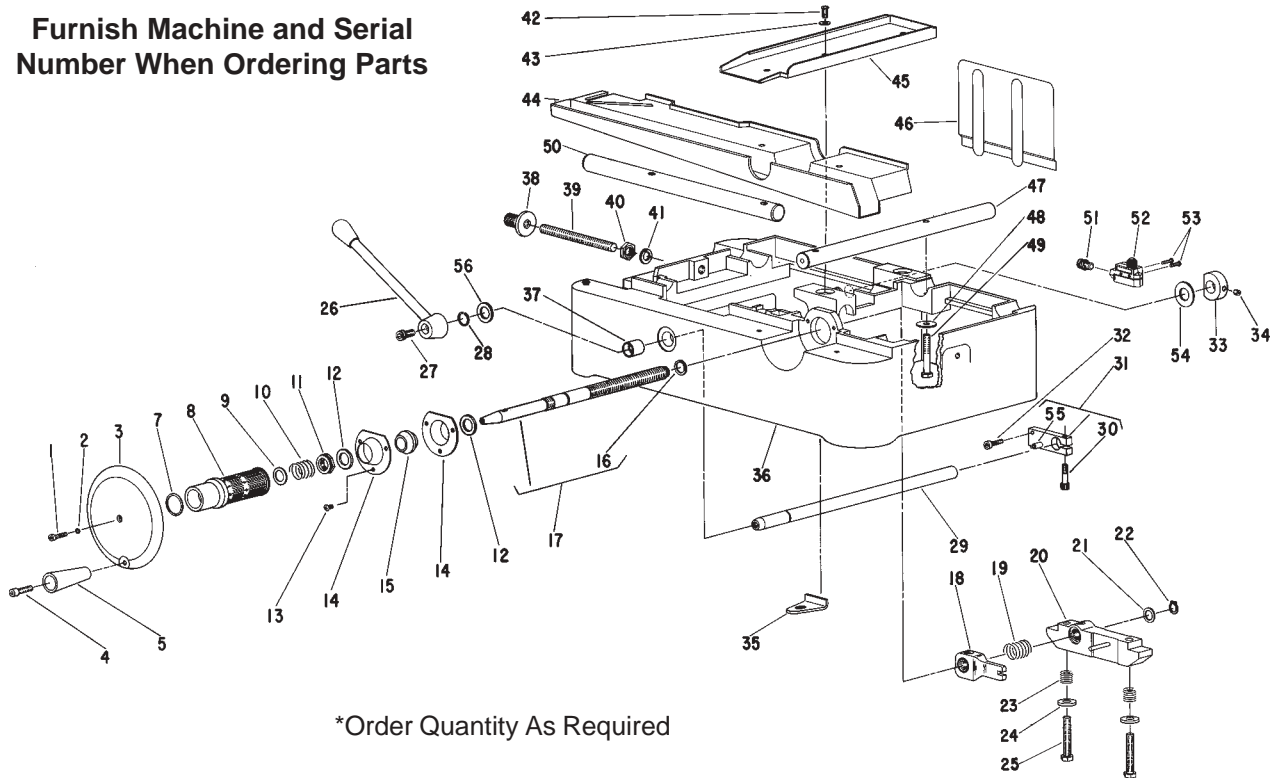
COMPLETE ASSEMBLY

643 Attachment—Valve End Grinding (Minus Fig. 20)

*Order Quantity As Required

PARTS LIST FOR 2075 BASE

Furnish Machine and Serial Number When Ordering Parts



*Order Quantity As Required

Fig. No.	Part No.	Name
1.	07114	Screw—Phil. Fil. Hd. #10-24 x 3/4"
2.	09724	Washer—Lock #10
3.	12442	Wheel—Hand
4.	08305	Screw
5.	04007	Handle
7.	25155	Bearing—Washer
8.	54440	Thimble—Micrometer
	54440M	Thimble (Metric)
9.	35375	Washer
10.	21303	Spring
11.	09653	Nut—Lock (5/8" x 18)
12.	25860	Washer (2)*
13.	07205	Screw—Phil. Rd. Hd. (#10-24 x 3/8")(3)*
14.	35348	Retainer—Feed Screw Bearing (2)*
15.	10435	Bearing—Feed Screw
16.	21793	Ring—Retainer
17.	54399	Screw—Feed (Includes Fig. 22)
18.	11395	Dog—Aux. Feed Screw
19.	21245	Spring—Tension
20.	11396	Clamp—Cross Slide
21.	25921	Washer
22.	21787	Ring—Retaining
23.	21316	Spring—Tension (2)*
24.	34824	Washer (2)*
25.	09126	Screw—Hex Head Cap. (2)*
26.	53571	Ass'y—Shifter
27.	08835	Screw—Soc. Hd. Cap. 5/16"
28.	21482	Ring—Retaining
29.	54879	Shaft—Carriage Shifter
30.	08014	Screw—Soc. Hd. Cap. 1/4"-20 x 1 "
31.	63365	Ass'y—Shifter Arm

Fig. No.	Part No.	Name
32.	07089	Screw
33.	54914	Switch—Cam
34.	08001	Screw—Set 1/4"-20 x 1/4"
35.	53588	Ass'y—Base Stop (Set of 4)
36.	11458	Base
37.	14152	Bushing (2)*
38.	54436	Nut—Adjusting
39.	34912	Stud—Carriage Stop
40.	09613	Nut—Hex 7/16"-14
41.	09796	Washer—Lock 7/16"
42.	08120	Screw—Truss Hd. 1/4"-20 x 1/2" (6)*
43.	04246	Washer (5)*
44.	14153	Tray—Drain (Front)
45.	14149	Tray—Drain (Top)
46.	53564	Ass'y—Splash Shield
47.	54611	Bar—Way (3)*
48.	09770	Washer—Lock (6)*(Use with Fig. 47)
	09748	Washer—Lock (2)*(Use with Fig. 50)
49.	08841	Screw—Soc. Hd. Cap. 5/16"-18 x 1-3/4" (6)* (Use with Fig. 47)
	08234	Screw—Soc. Hd. Cap (2)*(Use with Fig. 50)
50.	54872	Bar—Way (Carriage Plate-Front)
51.	18679	Cord—Grip
52.	18226	Switch—Serial
53.	06365	Screw—#6-32 x 1 (2)*
	08233	Screw—Socket Hd. 1/4"-20 x 1-1/4" (2)*
	11464	Way Bar Clamp
54.	24295	Flange
55.	04332	Bumper
56.	25206	Washer
57.	53522	Ass'y—Feed Screw [Includes Fig. 11, 12 (2) & 22]

PARTS LIST FOR 2075 COOLANT PUMP

Furnish Machine and Serial
Number When Ordering Parts

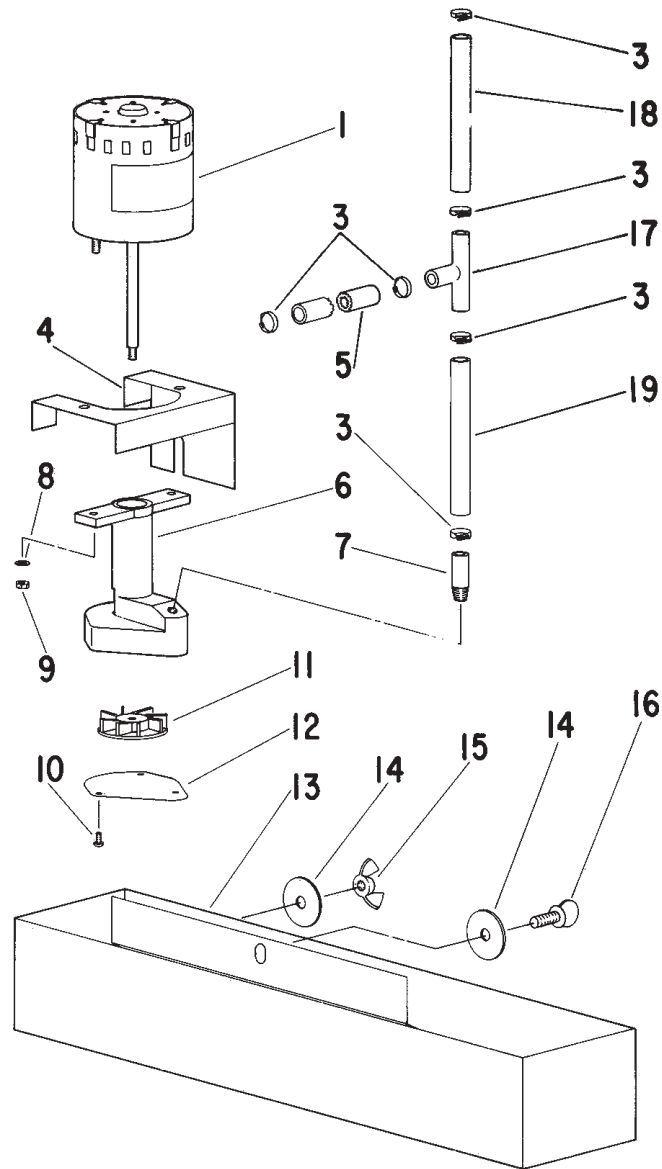


Fig. No.	Part No.	Name
1.	15124	Motor (Specify Voltage & Cycle)
3.	30744	Clamp—Hose (6)*
4.	35361	Mount—Pump
5.	65325	Hose—Coolant
6.	12385	Housing—Pump
7.	30734	Tube—Adapter
8.	09712	Washer—Lock (2)*
9.	09450	Nut—Steel Hex (2)*
10.	06235	Screw—Phil. Rd. Hd. (3)*
11.	12386	Impeller
12.	35368	Cover—Pump
13.	53484	Tank—Coolant
14.	25366	Washer (2)*

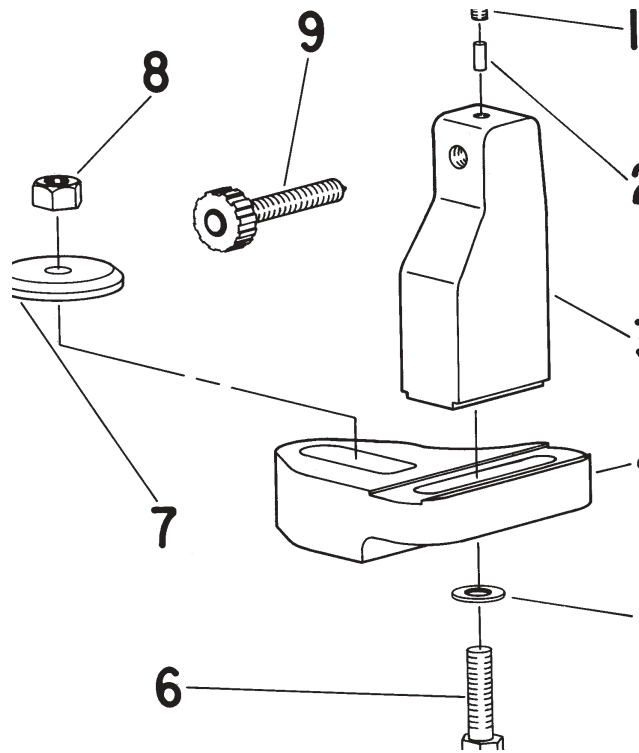
Fig. No.	Part No.	Name
15.	09571	Nut—Wing
16.	08764	Screw—Thumb
17.	04000	Tee
18.	04301	Hose—Coolant
19.	65324	Hose—Coolant
	30698	Screen—Tank (Item Not Shown)

COMPLETE ASSEMBLY

53568 Ass'y—Coolant Pump (Includes Figs. 1, 4, 6
thru 12)(Specify Voltage and Cycle)

*Order Quantity As Required

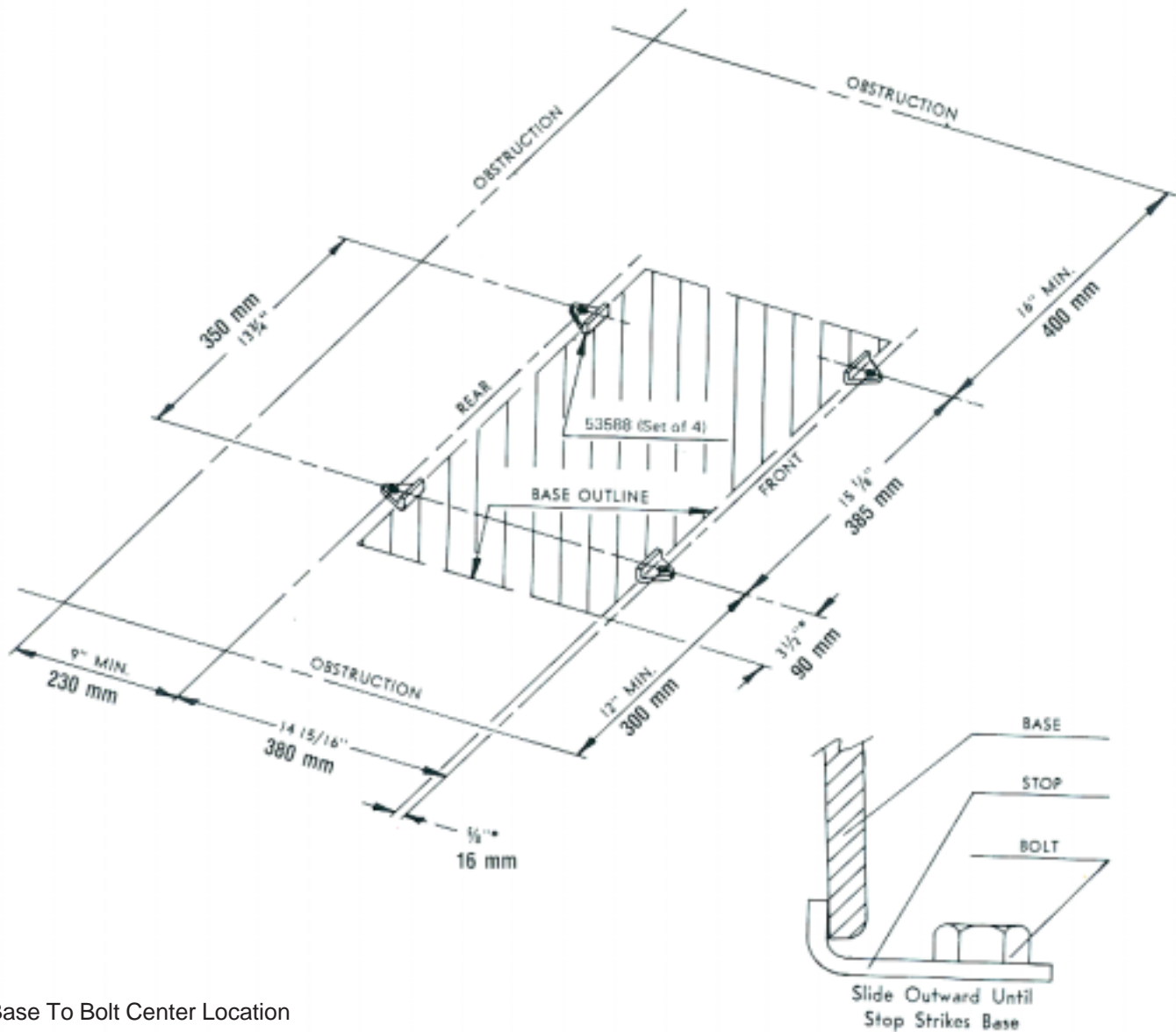
PARTS LIST FOR 2075 DRESSING TOOL



**FURNISH CATALOG SERIAL & MODEL NUMBER
WHEN ORDERING PARTS**

Fig. No.	Part No.	Name	Fig. No.	Part No.	Name
1.	08001	Screw—Set	7.	54443	Washer
2.	04253	Slug—Friction	8.	09590	Nut—3/8" (Older Units)
3.	11460	Post—Diamond Holder		66223A	Lever 5/16" Thread (Newer Units)
4.	11421	Base—Dressing Tool	9.	1715	Diamond—Dressing
5.	25403	Washer		63283	Ass'y—Complete (Includes Fig. 1-6 & 9)
6.	09106	Screw—Hex Hd. Cap			

LOCATION DIAGRAM FOR BASE STOPS 2075 VALVE GRINDING MACHINES



*Base To Bolt Center Location

Locate position for 3/8" Dia. Hold Down Bolts (not provided) as shown above. Make certain that minimum clearances are observed. Locate base so that the bolts will start 3 1/2" to the right from the left side of the base and the front of the base will be 5/8" behind the front bolts. Place vertical flanges of the stops inside of the base casting. Pull the stops out until they strike the base and bolt into place.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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