8818

DRUM & DISC BRAKE LATHES. BRAKE SHOE GRINDERS. WHEEL ALIGNMENT RACKS. DRUM & DISC GRINDERS. WHEEL BALANCERS. BRAKE BLEEDERS.



DECELEROMETERS. BRAKE HAND TOOLS. CYLINDER HONES. CAMBER CASTER GAUGES. TORQUE WRENCHES. RIDGE REAMERS. MICROMETERS. AIR JACKS.

AMMCO

"SAFE-ARC" BRAKE SHOE GRINDERS



Operating Instructions & Parts Identification

Model 8000, Model 880 & Model 890

THE PROFESSIONAL BRAKE ALIGNMENT & BALANCING EQUIPMENT

AMMCO

AMMCO TOOLS, INC.
2100 COMMONWEALTH AVENUE
NORTH CHICAGO, ILLINOIS 60064

TABLE OF CONTENTS

Page 2 . . . . . Safety Instructions
3 . . . . . Operating Instructions & Parts Identification
6 . . . . . Electrical Safety Instructions
8 . . . . . General Operating Instructions
10 . . . . . Metric Operating Instructions
11 . . . . . Calibration, English & Metric
12 - 17 . . . . . Parts Lists & Assembly Drawings
18 . . . . . Electrical Hook-up & Running Overload Protection
18 . . . . . Motor Installation, Lubrication & Repair

WARRANTY

The AMMCO Warranty covers defective materials and workmanship, under normal usage, for a year from the date of purchase. Replacement parts may be routinely ordered through your AMMCO Jobber.

EMERGENCY PARTS ORDERS: AMMCO will cooperate fully on all emergency parts orders placed directly with the Jobber. These orders should be written separately and NOT included as an item on a standard part order.

Because of AMMCO's constant program of improvement, specifications are subject to change without notice.

IMPORTANT SAFETY INSTRUCTIONS

FOR ALL TOOLS AS APPLICABLE:

1. KEEP GUARDS IN PLACE and in working order.

2. REMOVE ADJUSTING KEYS AND WRENCHES. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

4. AVOID DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.

5. KEEP CHILDREN AWAY. All visitors should be kept a safe distance away from the work area.

6. MAKE THE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.

7. DON'T FORCE A TOOL. It will do the job better and safer at the rate for which it was designed.

8. USE THE RIGHT TOOL. Don't force a tool or an attachment to do a job for which it was not designed.

9. WEAR PROPER APPAREL. No loose clothing, gloves, neckties, or jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

10. USE SAFETY GLASSES. Also use a face or dust mask if the cutting operation is dusty.

11. SECURE THE WORK. Use clamps or a vise to hold the work when practical. It's safer than using your hand and it frees both hands to operate the 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; and when changing accessories such as blades, bits, cutters, etc.

15. AVOID UNINTENTIONAL STARTING. Make sure the switch is in the OFF position before plugging the tool in.

16. USE RECOMMENDED ACCESSORIES. Consult the manufacturer's catalogs for recommended accessories. The use of improper accessories make cause risk of injuries to persons.

17. NEVER STAND ON A TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.

18. CHECK DAMAGED PARTS. Before the 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 affect 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 TOOLS RUNNING UNATTENDED. TURN THE POWER OFF. And don't leave the tool until it comes to a complete stop.

21. BE SURE EQUIPMENT FOR ASBESTOS DUST CONTROL IS IN GOOD WORKING ORDER. Breathing asbestos dust may cause serious bodily harm.

TABLE OF CONTENTS

Page 2 . . . . . Safety Instructions
3 . . . . . Operating Instructions & Parts Identification
6 . . . . . Electrical Safety Instructions
8 . . . . . General Operating Instructions
10 . . . . . Metric Operating Instructions
11 . . . . . Calibration, English & Metric
12 - 17 . . . . . Parts Lists & Assembly Drawings
18 . . . . . Electrical Hook-up & Running Overload Protection
18 . . . . . Motor Installation, Lubrication & Repair

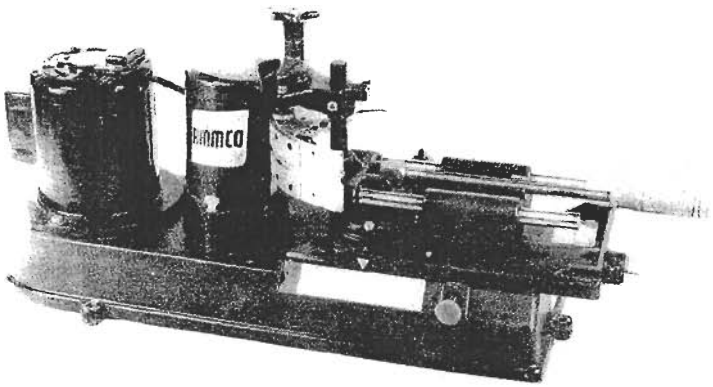
WARRANTY

The AMMCO Warranty covers defective materials and workmanship, under normal usage, for a year from the date of purchase. Replacement parts may be routinely ordered through your AMMCO Jobber.

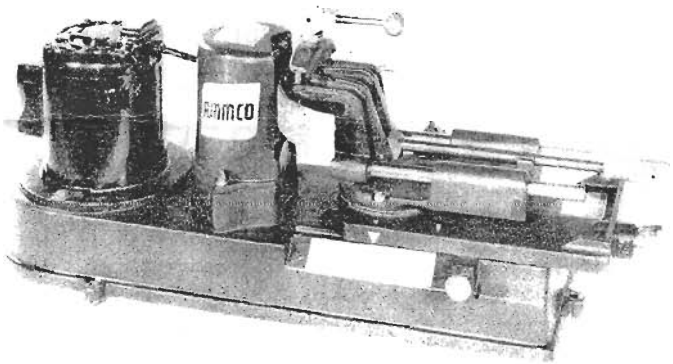
EMERGENCY PARTS ORDERS: AMMCO will cooperate fully on all emergency parts orders placed directly with the Jobber. These orders should be written separately and NOT included as an item on a standard part order.

Because of AMMCO's constant program of improvement, specifications are subject to change without notice.

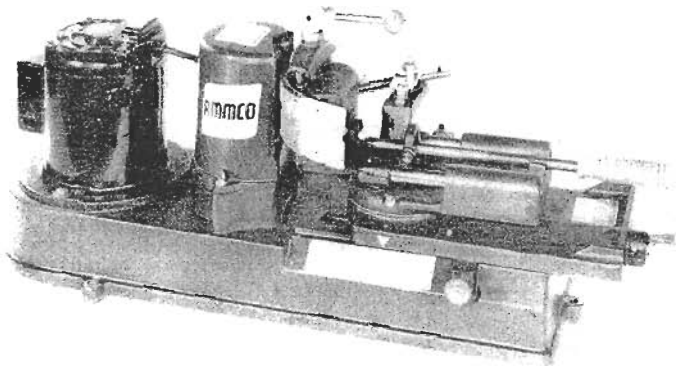
Operating Instructions & Parts Identification



Model 8000 with No. 8050 Universal Brake Shoe Clamp



Model 880 with No. 8150 Cam Action Brake Shoe Clamp



Model 890 with No. 8250 Fixed Anchor Brake Shoe Clamp

Brake shoe grinding remains an important step in the professional brake job:

- **Precision grinding helps cure squeal, grabbing, pulling, spongy pedal and other erratic brake problems.**
- **Precision grinding helps compensate for worn, irregular — even warped shoe cores. Provides correct lining-to-drum contact.**
- **Precision grinding provides near perfect brakes without "wear-in".**

THESE THREE BRAKE SHOE GRINDER MODELS are designed for a variety of Brake Shop and Service Station applications:

MODEL 8000, with the No. 8050 Universal Brake Shoe Clamp, holds the shoe by its backing plate to allow accurate grinding of many types of shoes —including irregular or cast shoes, even Mercedes, and small shoes down to 6".

MODEL 880, with the No. 8150 Cam Action Brake Shoe Clamp (and special Shoe Positioning Stops) provides extra-fast shoe location and grinding in high volume situations.

MODEL 890, with the No. 8250 Fixed Anchor Brake Shoe Clamp, permits the accurate shoe grinding of Bendix type brakes with non-adjustable anchor. The grind duplicates the "brakes applied" shoe position for correct lining-to-drum contact.

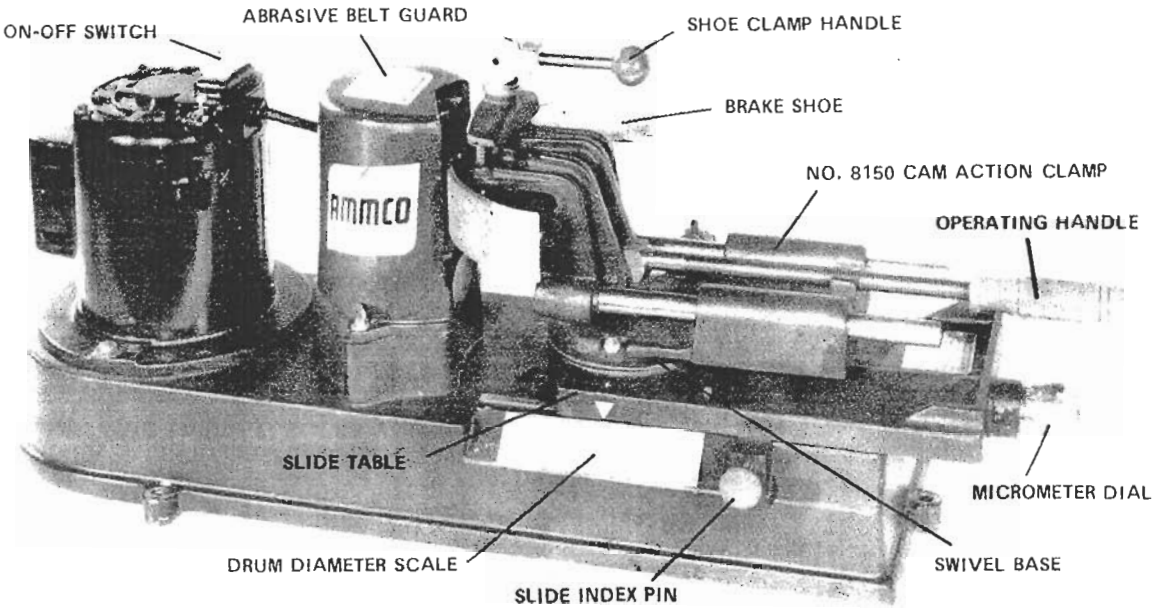
Regardless of which Brake Shoe Grinder and Clamp was purchased initially, the other two Shoe Clamps are available as optional equipment *and are interchangeable.* Thus, as your business grows or vehicle brake types shift in emphasis, your AMMCO Brake Shoe Grinders remain active profit makers.

AMMCO TOOLS, INC.
2100 COMMONWEALTH AVENUE
NORTH CHICAGO, ILLINOIS 60064

Printed in U.S.A.

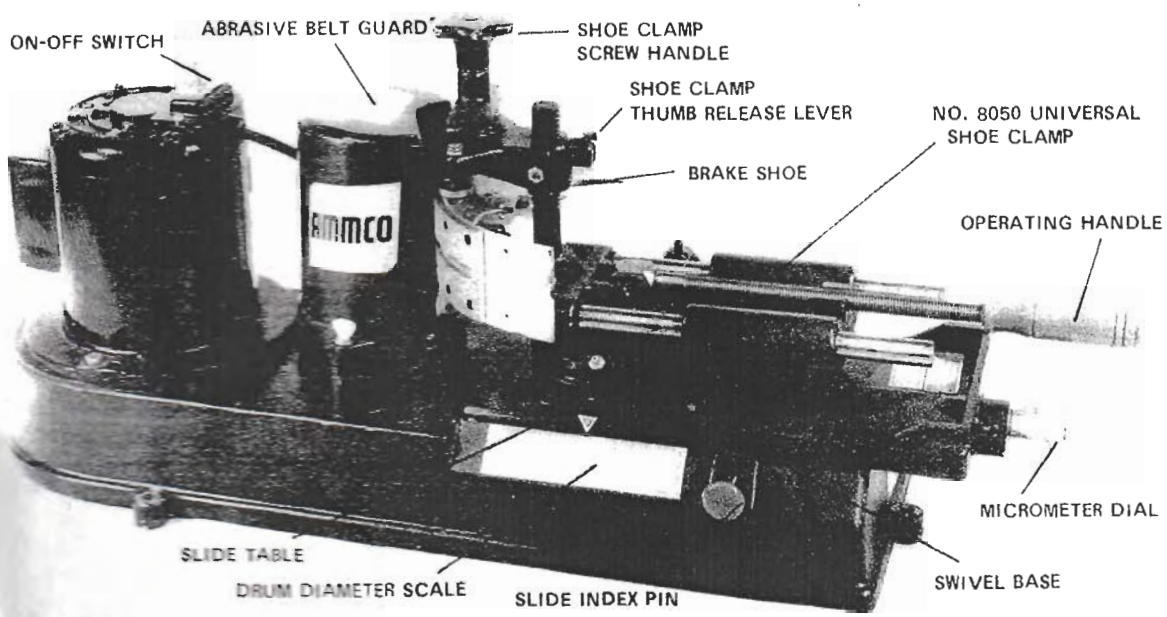
Each AMMCO Shoe Grinder has a common Main Base, Motor, Abrasive Drive and Clamp Swivel Base. The three types of Brake Shoe Clamp provide the necessary variety of shoe location, clamping and arc adjustment to properly grind virtually all brake shoes.

The Drive Motor is a ½ hp, 115/230 v AC, 60 Hz, 8 amp, 1 phase, 1725 rpm, capacitor start, ball bearing motor. It is guaranteed by the motor manufacturer. If warranty service is required on the motor, it should be done by an authorized service station of the motor manufacturer.



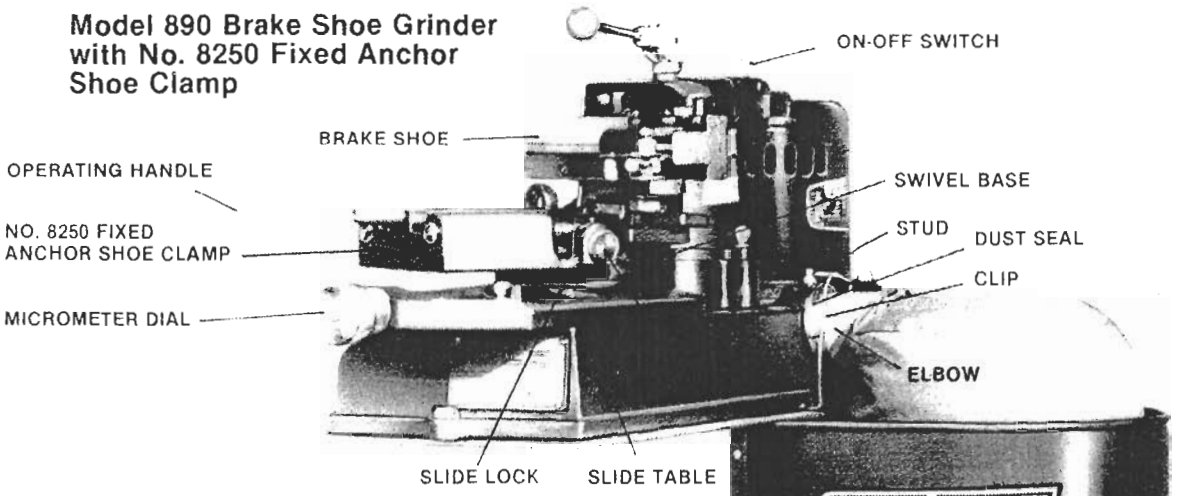
Model 880 Brake Shoe Grinder with No. 8150 Cam Action Clamp

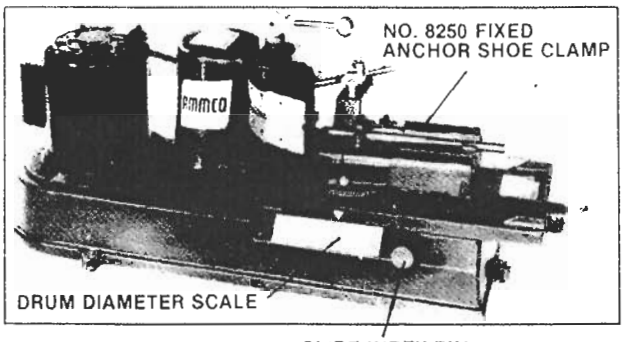
For simplicity of operation and safety, all AMMCO Shoe Grinders have the same basic controls: On-Off Switch, Drum Diameter Scale, Slide Index Pin, Micrometer Dial and Abrasive Belt with Guard. Each Shoe Clamp has an Operating Handle to advance the work and to arc the shoe. The photo above illustrates the high volume type Shoe Grinder, its Cam Action Clamp, and all controls. The photo below illustrates the Grinder recommended for the Brake Specialist that grinds a wide range of brake shoe types.



Model 8000 Brake Shoe Grinder with No. 8050 Universal Shoe Clamp

Model 890 Brake Shoe Grinder with No. 8250 Fixed Anchor Shoe Clamp





This Shoe Grinder is recommended for car dealers, independent garages, brake specialists, tire dealers and other facilities that custom grind shoes to match a specific set of drums — a **must** for shoes with oversize linings.

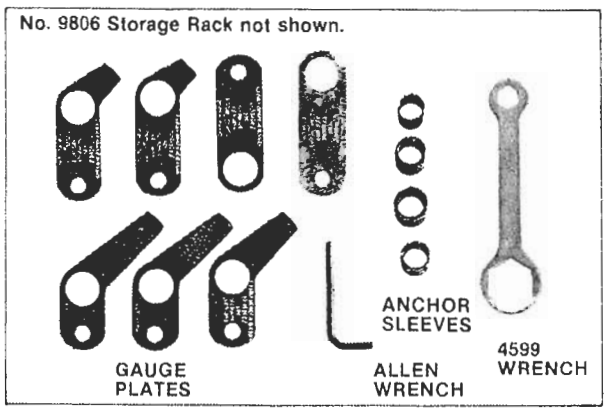
The accessories below are required for fixed anchor grinding. The Anchor Sleeves and Gauge Plates not only set the correct grinding arc for the "brakes applied" positioning, but help compensate for worn anchor eyes commonly found on rebonded or re-riveted brake shoes.



MODEL 8925 DUST COLLECTION SYSTEM

STANDARD ACCESSORIES

GAUGE PLATES AND ANCHOR SLEEVES FOR USE WITH NO. 8250 FIXED ANCHOR SHOE CLAMP.



The Model 8925 Dust Collection System is standard with each Brake Shoe Grinder. In operation, it exceeds Federal Clean Air Standards set by the Occupational Safety and Health Act of 1972.

The AMMCO Dust Collection System provides a highly efficient means of collecting, containing and disposing of dangerous asbestos dust. The powerful suction fan built into each AMMCO Brake Shoe Grinder pulls dust from the surface of the brake shoe and deposits the dust in a sealable plastic bag.

Once properly installed, the System requires only the periodic replacement of the disposal bag to maintain safe operating conditions.

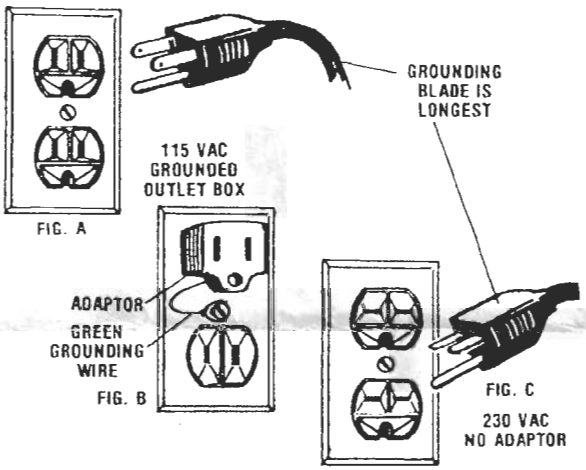
ELECTRICAL SAFETY INSTRUCTIONS

GROUNDING: The Brake Shoe Grinder should be electrically grounded to protect the operator from shock.

Cord-connected Grinders — The Grinder is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal. If your Grinder is for use on less than 150 volts, it has a plug and outlet as illustrated in Figure A.

Adaptors, shown in Figure B, are available to connect Figure A (three prong) plugs to 2-prong receptacles. The green grounding wire extending from the adaptor **must** be connected to a permanent ground, such as to a properly grounded outlet box, usually at the screw holding the cover plate.

There is no adaptor for Figure C plugs and outlets (230 volts).



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

Replace or repair damaged or worn cords immediately.

Permanently connected Grinders — The Grinder may be connected to a grounded, metal-enclosed wiring system such as that installed by a licensed electrician. A separate grounding conductor (wire) should be connected to the equipment grounding terminal on the Grinder Motor.

See manufacturer's recommendations for electrical hook-up wire size, running overload protection, lubrication, repair parts, and installation on page 18.

GRINDER & DUST COLLECTOR SET-UP

The Grinder and Dust Collection System are mounted on the right hand end of a bench and, since the Dust Collector is attached to the bench end panel, the Shoe Grinder should not be bolted down until both units are properly positioned.

On an existing bench (other than an AMMCO Model 9890 Mobile Bench):

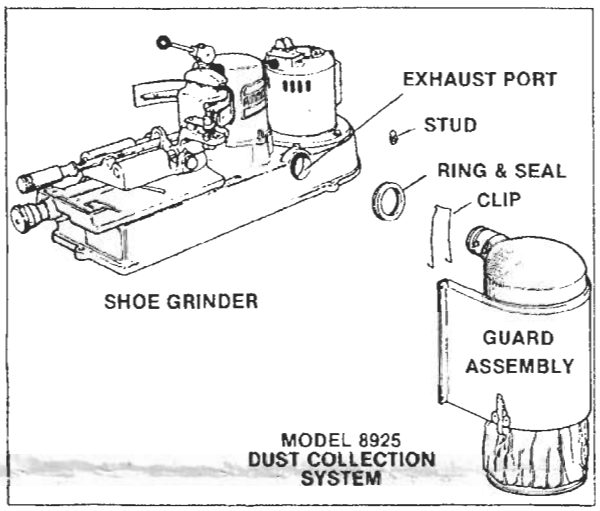
Set the Grinder on the bench top close to the right hand edge, in from the front edge so it is still comfortable to reach brake shoes in the Clamp.

Assemble the complete Dust Collection System and attach it to the Brake Shoe Grinder exhaust port temporarily, supporting it as necessary. Turn the Shoe Grinder ON to inflate the Dust Bag and position both units so there is no air restriction or unnecessary strain on the Dust Bag.

Center punch and drill the four mounting holes in the Guard Assembly and fasten the Dust Collector to the bench end.

On an AMMCO Model 9890 Bench:

Use the template and instructions supplied with the Dust Collection System.



ASSEMBLE THE DUST COLLECTOR

Refer to the illustrated parts list for proper parts positioning.

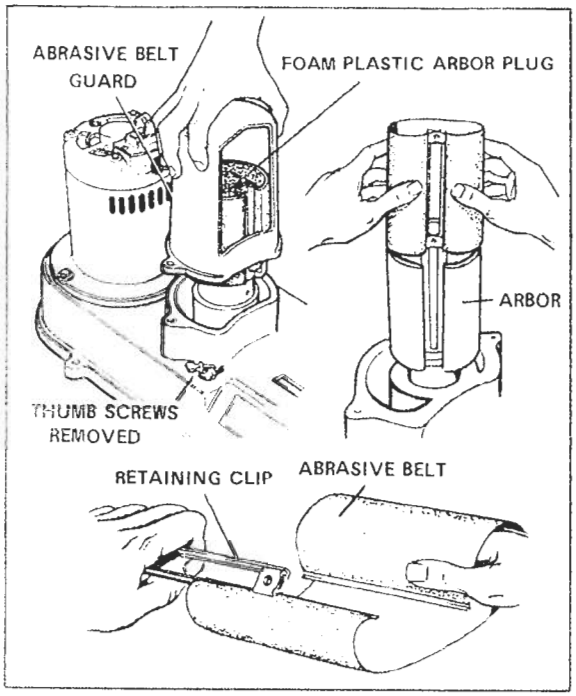
1. Slip the Ring and Seal onto the Collector Elbow and join the Dust Collector to the Grinder exhaust port.

2. The Clip, part number 11197, straddles the Elbow behind the two protruding lugs. The "feet" of the Clip hook under the Grinder Base to provide the necessary grip to seal the two units together when the Clip is snapped over the Stud.

3. The Dust Bag and rubber Seal are pushed down through the Guard to hang above the Pail.

4. Press a plastic Disposal Bag into the bottom of the Pail and fold the excess over the top edge. Lift the Pail up under the Guard Assembly and press it against the rubber Seal to seat it in the Ring. Clamp the Pail on.

ABRASIVE BELTS. To replace an Abrasive Belt, remove the two thumb screws and lift off the Abrasive Belt Guard. Remove the two allen screws from the Retaining Clip, along with the Hold Down Clip. Pull the Retaining Clip up and away from the Belt, or slip the Belt and Clip off the Arbor together. Remove the Clip from the Belt.



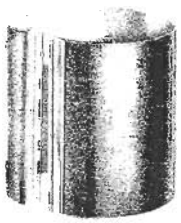
Place a new Belt on the Retaining Clip by sliding the molded ends of the Belt into the groove, as illustrated above. Slip the Belt and the Clip over the Arbor with the back of the Belt contacting the Arbor first.

Work the Belt onto the Arbor from the back, forward and down until the Belt contacts the lower lip of the Arbor completely around the circumference. Replace the alien screws and the Hold-Down Clip and work any looseness out of the Belt with your hands until it is snug on the Arbor. DO NOT over-tighten the alien screws.

Replace the Belt Guard to assure proper removal of asbestos dust. Breathing asbestos dust may cause serious bodily harm.

NOTE: The foam plastic Arbor Plug does NOT have to be removed from the Arbor to replace the Belt. If it is removed for some reason, it should be replaced in the Arbor.

Replacement Abrasive Belts are available from your AMMCO Jobber in the following range of quantities, grits and types:



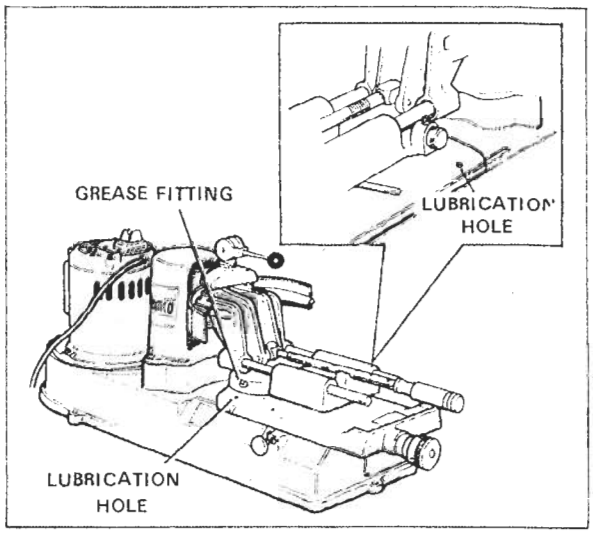
No. 8007
Standard grit for general service . . Pkg. of 10

No. 8010
Standard grit for general service . . Pkg. of 50

No. 8006
Production grit for high volume work . . Pkg. of 25

No. 9970
High performance grit for metallic and high performance racing linings . . . . . Pkg. of 5

LUBRICATION. Frequently clean all exposed metal parts with an oiled rag. Periodically lubricate the grease fitting on the Swivel Base with multi-purpose chassis grease. Add a few drops of oil through the lubrication holes provided on the Grinder.



In general, keep a clean work area. For your environmental safety, do not allow asbestos dust to accumulate anywhere but in the AMMCO Disposal Bag.

CAUTIONS

Use only AMMCO Abrasive Belts for positive results.

Do not let the Shoe Clamp hit the Abrasive Belt when a brake shoe is not loaded in it.

Do not tamper unnecessarily with the set screws in the Micrometer Dial.

Let the motor do the work for you. Do not remove more than .005" on any one cut — more will only slow the motor and reduce dust collection efficiency, thereby exposing the operator to unnecessarily excessive amounts of asbestos dust. Breathing asbestos dust may cause serious bodily harm.

DO NOT attempt to operate the Brake Shoe Grinder without a Disposal Bag in the Pail of the Dust Collector.

BEFORE STARTING the Grinder, always check to be certain the entire Dust Collection System is correctly assembled to the Grinder.

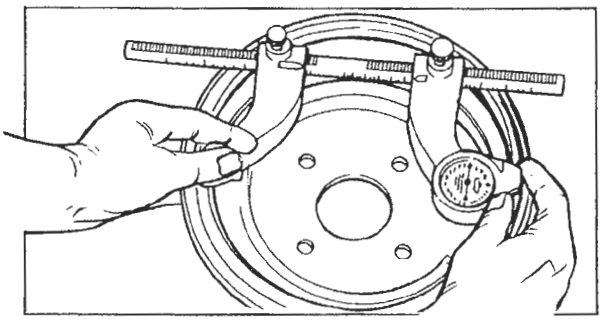
SEAL and REPLACE A Disposal Bag when it is half full. DO NOT empty and reuse a Disposal Bag. DO NOT subject yourself or others to exposure to breathing asbestos dust. Read and understand the Disposal Bag replacement instructions on the label of the Guard Assembly.

The AMMCO No. 5399 Dust Disposal Bags have been specifically designed to comply with the OSHA standards for safe disposal of asbestos waste to safeguard the health of the operator, and must not be reused or substituted.

GENERAL OPERATING INSTRUCTIONS

English measure, scales and dimensions

1. Measure the inside diameter of the finished brake drum in which the shoe is to fit with a Brake Drum Micrometer.

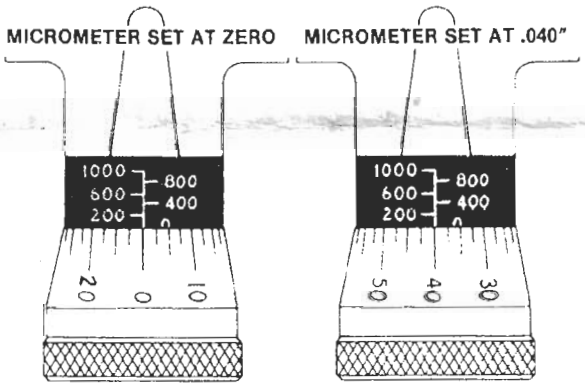


Refer to picture callouts for identification of operating parts.

2. Release the Slide Lock, the lever located beneath the Swivel Base and on top of the Slide Table on the right hand side.

3. Adjust the Micrometer Dial to zero.

4. Pull the Slide Index Pin outward and slide the Table to the proper drum diameter indicated on the Drum Diameter Scale: 6" to 16".



5. Set the Micrometer Dial to the **exact** drum diameter measurement needed: 000" to 1.000". The Dial has a range of 1" of travel and thus can be set for any intermediate dimension. **Each full revolution of the Dial moves the Table .200".**

NOTE

The Grinders are factory calibrated to grind .030" SMALLER than the actual drum diameter. This is done automatically — you set the Micrometer Dial to the EXACT drum diameter needed.

6. Tighten the Slide Lock before grinding by pulling the lever toward you.

CLAMPING THE SHOE: Refer to the illustration that shows the type of Clamp used in your Grinder. In general, the No. 8050 Universal Brake Shoe Clamp grips the shoe **on the edges of the shoe backing plate** while the No. 8150 and No. 8250 Clamps grip the shoe **on its web.**

A. Place the lined shoe in the shoe Clamp:

No. 8050 and No. 8150 Clamps — **visually** center the **lining** in the Clamp — **NOT** the entire shoe.

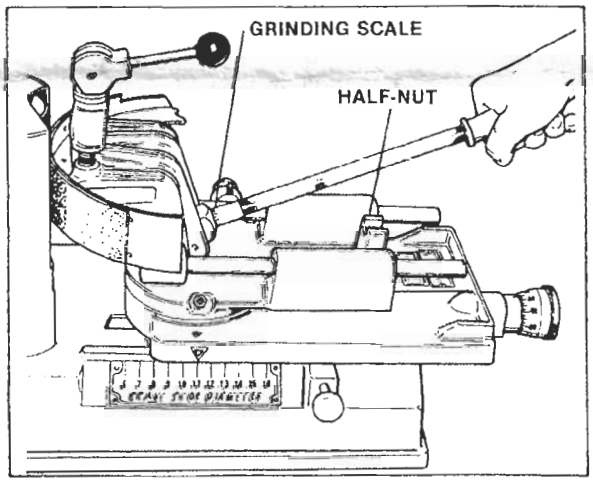
No. 8250 Clamp — the shoe anchor eye is set against the proper Anchor Sleeve. See page 9.

B. When the shoe is fully seated, tighten the Clamp.

GRINDING THE SHOE: ***BEFORE STARTING THE MOTOR,*** be sure the Dust Collection System and Abrasive Belt are correctly installed and in proper working order. The Dust Collector works automatically each time the Shoe Grinder is turned on.

Lift the Operating Handle out of the half-nut and push the entire Clamp with the shoe toward the Abrasive Belt. Stop when the shoe is just barely clear of the Belt and lower the Operating Handle back into the half-nut. Swing the Handle away from you (toward the Dust Bag) and start the motor.

Twisting the Operating Handle clockwise advances the shoe into the Abrasive Belt. The Grinding Scale at the forward end of the Operating Handle is graduated in THOUSANDTHS and is read by the operator to set the amount of grind for each swing of the Handle. It is also read to keep the lining thickness of each set of brake shoes the same.



Advance the shoe no more than .005" at a time and do it ***only when the Operating Handle is on the Dust Bag side of the Grinder.*** This will provide a smooth cut. Move the Handle at an even rate across the entire shoe and try not to grind too fast.

Continue grinding until the shoe lining cleans up across its full arc — then stop. Additional grinding will only waste lining.

Read the total amount of lining removed from the shoe by checking the Grinding Scale. Use this as a reference when grinding the rest of the set of shoes.

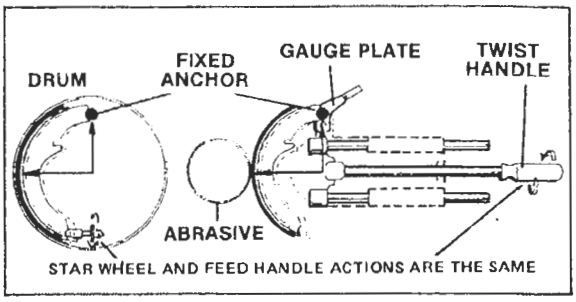
The brake shoe has now been "cam ground" and its radius is .030" smaller than the inside radius of the finished drum. This grind provides a slight toe and heel clearance at the very ends of the shoe lining segment of about .005" to .008".

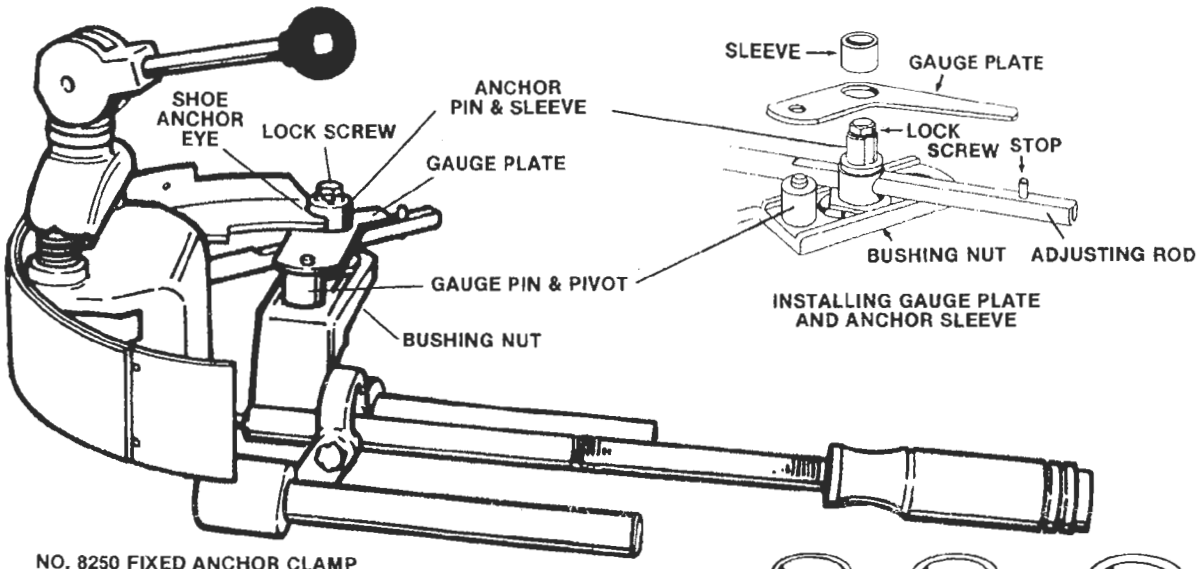
FIXED ANCHOR GRINDING

The No. 8250 Brake Shoe Clamp utilizes an **Anchor Sleeve** to match the anchor eye of the brake shoe. The Clamp also uses a **Gauge Plate** to properly position the shoe relative to the centerline of the brake drum and relative to anchors set high in the drum or low in the drum.

Both types of brake shoes — adjustable anchor and fixed anchor — may be ground in this Brake Shoe Clamp.

The diagram at right illustrates the interrelated actions of the Anchor Sleeve and Gauge Plate on the brake shoe when grinding in a "brakes applied" position.





NO. 8250 FIXED ANCHOR CLAMP

INSTALLING GAUGE PLATE AND ANCHOR SLEEVE

Each Anchor Sleeve and Gauge Plate is identified and an accompanying Reference Chart, No. 4181, relates both Plate and Sleeve to a particular vehicle model and year.

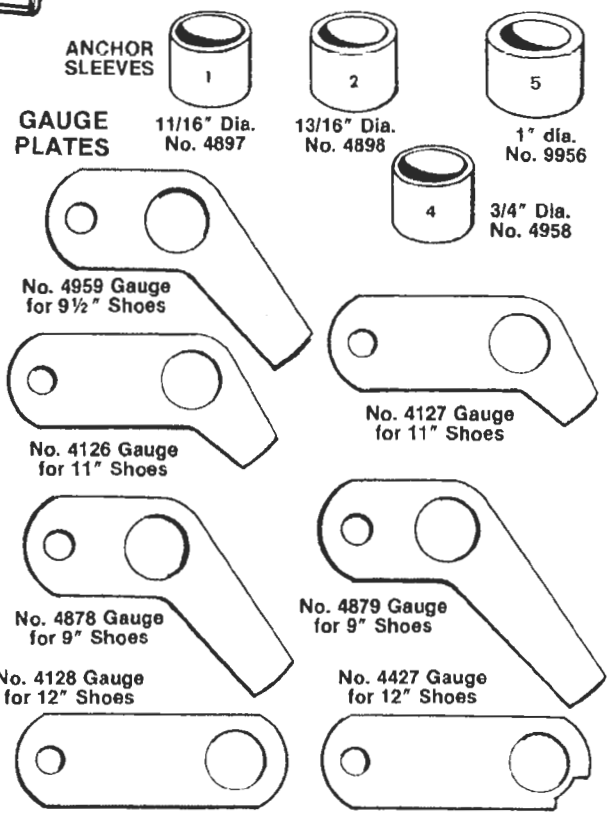
PROCEDURE: 1. The correct Anchor Sleeve is chosen and placed over the Anchor Pin. The Sleeve is the same diameter as the anchor eye of the brake shoe.

2. The correct Gauge Plate is dropped over the Anchor Pin and the Sleeve. The Bushing Nut and the Lock Screw must be loosened to allow the Gauge Pin and Pivot to align with the small reference hole in the Gauge Plate.

3. Move the Operating Handle back and forth to slide the Adjusting Rod "Stop Pin" against the end of the Gauge Plate. Tighten both the Lock Screw and the Bushing Nut when the Gauge Plate is properly in place.

4. Place a brake shoe in the Clamp with its anchor eye against the Sleeve. Push the brake shoe back into the Clamp as far as possible so that the Shoe Locating Pads will grip the web and clamp the shoe.

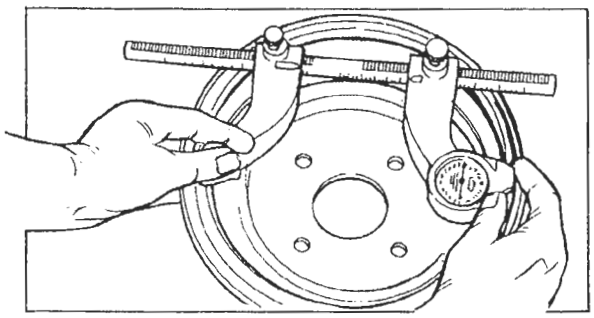
5. Grind the set of shoes in the same manner as described under GENERAL OPERATING INSTRUCTIONS.



METRIC OPERATING INSTRUCTIONS

Metric measure, scales and dimensions

1. Measure the inside diameter of the finished brake drum in which the shoe is to fit with a Brake Drum Micrometer.

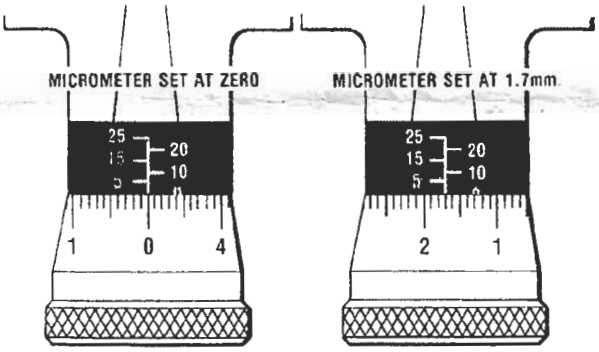


Refer to picture callouts for identification of operating parts.

2. Release the Slide Lock, the lever located beneath the Swivel Base and on top of the Slide Table on the right hand side.

3. Adjust the Micrometer Dial to zero.

4. Pull the Slide Index Pin outward and slide the Table to the proper drum diameter indicated on the Drum Diameter Scale: 150mm to 400mm.



5. Set the Micrometer Dial to the **exact** drum diameter measurement needed: .000 to 25.000mm. The Dial has a range of 25mm of travel and thus can be set for any intermediate dimension. **Each full revolution of the Dial moves the Table 5mm.**

NOTE

The Grinders are factory calibrated to grind 1.6mm SMALLER than the actual drum diameter. This is done automatically — you set the Micrometer Dial to the EXACT drum diameter needed.

6. Tighten the Slide Lock before grinding by pulling the lever toward you.

CLAMPING THE SHOE: Refer to the illustration that shows the type of Clamp used in your Grinder. In general, the No. 8050 Universal Brake Shoe Clamp grips the shoe **on the edges of the shoe backing plate** while the No. 8150 and No. 8250 Clamps grip the shoe **on its web.**

A. Place the lined shoe in the shoe Clamp:

No. 8050 and No. 8150 Clamps — **visually** center the **lining** in the Clamp — **NOT** the entire shoe.

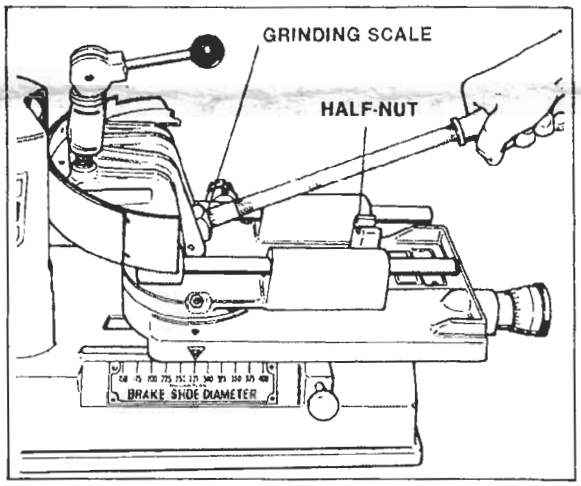
No. 8250 Clamp — the shoe anchor eye is set against the proper Anchor Sleeve. See page 9.

B. When the shoe is fully seated, tighten the Clamp.

GRINDING THE SHOE: ***BEFORE STARTING THE MOTOR,*** be sure the Dust Collection System and Abrasive Belt are correctly installed and in proper working order. The Dust Collector works automatically each time the Shoe Grinder is turned on.

Lift the Operating Handle out of the half-nut and push the entire Clamp with the shoe toward the Abrasive Belt. Stop when the shoe is just barely clear of the Belt and lower the Operating Handle back into the half-nut. Swing the Handle away from you (toward the Dust Bag) and start the motor.

Twisting the Operating Handle clockwise advances the shoe into the Abrasive Belt. The Grinding Scale at the forward end of the Operating Handle is graduated for operator convenience and is read to set the amount of grind for each swing of the Handle. It is also read to keep the lining thickness of each set of brake shoes the same.



Advance the shoe no more than 1 graduation at a time and do it ***only when the Operating Handle is on the Dust Bag side of the Grinder.*** This will provide a smooth cut. Move the Handle at an even rate across the entire shoe and try not to grind too fast.

Continue grinding until the shoe lining cleans up across its full arc — then stop. Additional grinding will only waste lining.

Read the total amount of lining removed from the shoe by checking the Grinding Scale. Use this as a reference when grinding the rest of the set of shoes.

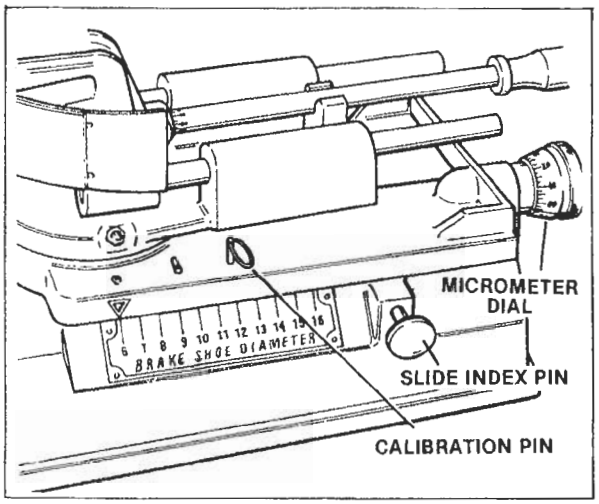
The brake shoe has now been "cam ground" and its radius is 1.6mm smaller than the inside radius of the finished drum. This grind provides a slight toe and heel clearance at the very ends of the shoe lining segment of about .001mm to .002mm.

CALIBRATION CHECK

To ensure accurate grinding to specified diameters, follow these instructions to check the calibration of the Micrometer Dial:

1. Pull out the Slide Index Pin and move the Slide to the 6" setting.

2. Set the Micrometer Dial to zero.



3. Put the 3/16" diameter Calibration Pin (furnished with the machine) through the hole in the Slide.

4. Turn the Micrometer Dial gently back and forth until the Pin drops through under slight pressure. The Micrometer Dial should read zero.

IF THE DIAL DOES NOT READ ZERO, adjust the Micrometer Dial as follows:

1. Leave the Calibration Pin in place and the Slide locked. Loosen the two allen set screws in the Dial until the Dial is free to rotate.

2. Turn the Micrometer Dial to zero and tighten both both set screws evenly while holding the Dial on zero.

3. Release the Slide Lock, remove the Calibration Pin and perform the Calibration Check again.

V-BELT TENSION

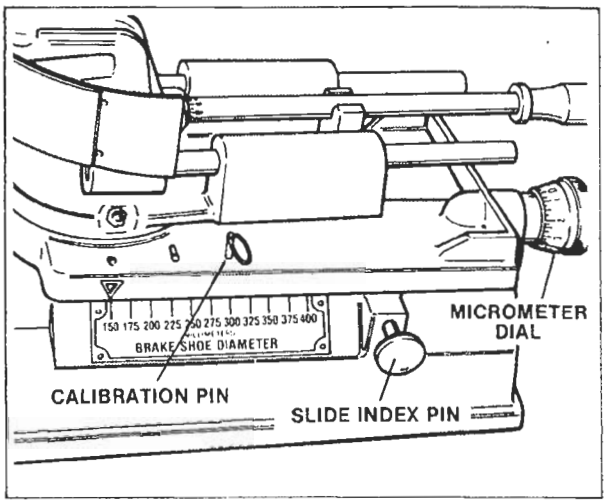
Adjust the tension of the V-Belt to obtain about ¼" of slack. The Grinder must be turned upside down to do this. Remount the Grinder firmly before operating it.

METRIC CALIBRATION CHECK

To ensure accurate grinding to specified diameters, follow these instructions to check the calibration of the Micrometer Dial:

1. Pull out the Slide Index Pin and move the Slide to the 150mm setting.

2. Set the Micrometer Dial to zero.



3. Put the 4.762mm diameter Calibration Pin (furnished with the machine) through the hole in the Slide.

4. Turn the Micrometer Dial gently back and forth until the Pin drops through under slight pressure. The Micrometer Dial should read zero.

IF THE DIAL DOES NOT READ ZERO, adjust the Micrometer Dial as follows:

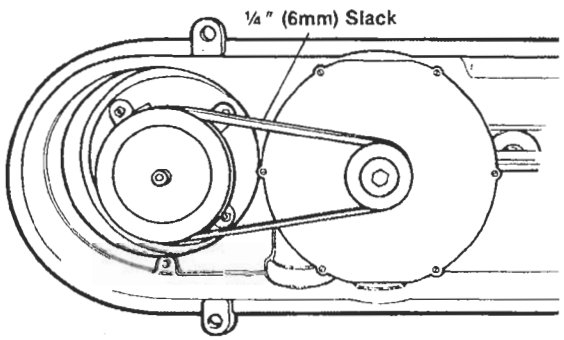
1. Leave the Calibration Pin in place and the Slide locked. Loosen the two allen set screws in the Dial until the Dial is free to rotate.

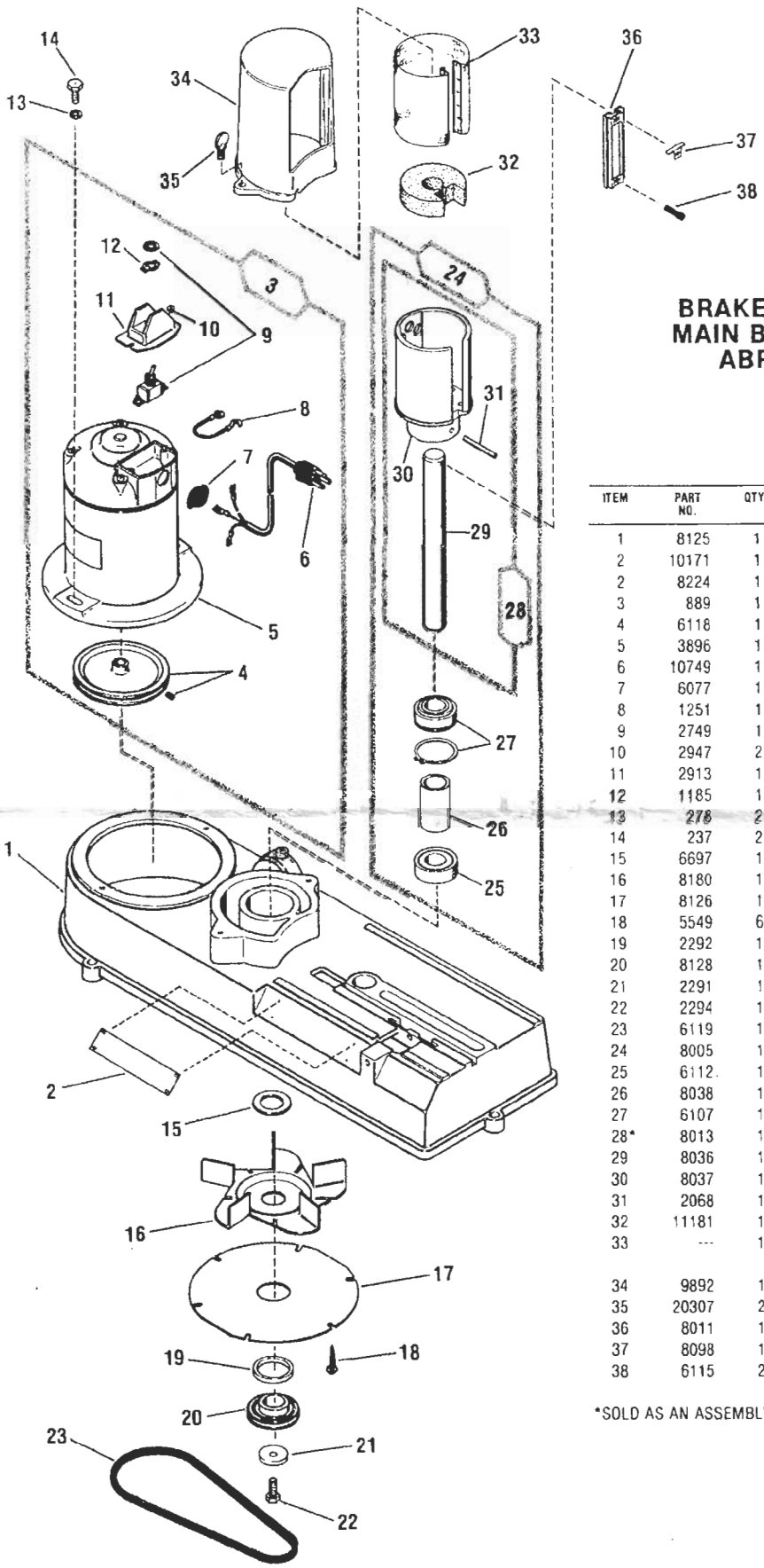
2. Turn the Micrometer Dial to zero and tighten both both set screws evenly while holding the Dial on zero.

3. Release the Slide Lock, remove the Calibration Pin and perform the Calibration Check again.

V-BELT TENSION

Adjust the tension of the V-Belt to obtain about 6mm of slack. The Grinder must be turned upside down to do this. Remount the Grinder firmly before operating it.





BRAKE SHOE GRINDER MAIN BASE, MOTOR and ABRASIVE DRIVE

ITEM	PART NO.	QTY.	DESCRIPTION
1	8125	1	Main Base
2	10171	1	Diameter Setting Plate - English
2	8224	1	Diameter Setting Plate - Metric
3	889	1	½ H.P. Motor Assembly
4	6118	1	"V" Pulley & Set Screw
5	3896	1	Motor
6	10749	1	Electric Cord Set
7	6077	1	Cord Grip
8	1251	1	Jumper Wire
9	2749	1	On-Off Switch & Nut
10	2947	2	Binding Head Machine Screw
11	2913	1	Switch Mounting Plate
12	1185	1	Switch Plate
13	278	2	Washer
14	237	2	Cap Screw
15	6697	1	Washer
16	8180	1	Exhaust Fan
17	8126	1	Exhaust Fan Cover
18	5549	6	Screw
19	2292	1	Dust Seal
20	8128	1	Spindle Pulley
21	2291	1	Washer
22	2294	1	Left Hand Bolt
23	6119	1	"V" Belt
24	8005	1	Arbor, Spindle & Bearing Assembly
25	6112	1	Ball Bearing
26	8038	1	Bearing Spacer
27	6107	1	Ball Bearing with Snap Ring
28*	8013	1	Arbor & Spindle Assembly
29	8036	1	Spindle
30	8037	1	Arbor
31	2068	1	Coil Pin
32	11181	1	Arbor Plug
33	---	1	Replacement Abrasive Belt- See Page 4.
34	9892	1	Abrasive Belt Guard
35	20307	2	Thumbscrew
36	8011	1	Abrasive Belt Retainer
37	8098	1	Hold Down Clip
38	6115	2	Nylock Socked Head Cap Screw

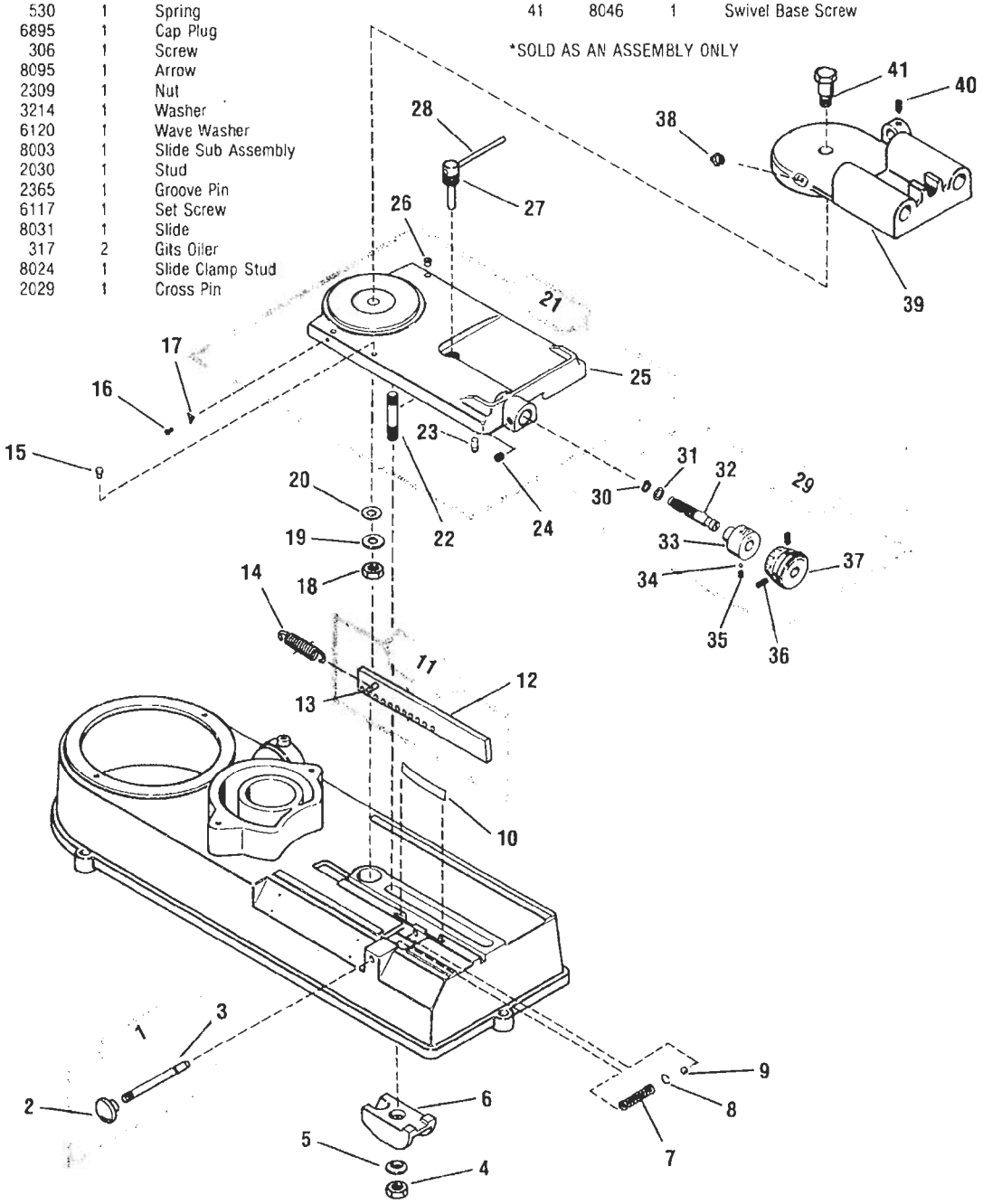
*SOLD AS AN ASSEMBLY ONLY

BRAKE SHOE GRINDER
SWIVEL BASE ASSEMBLY and MISCELLANEOUS PARTS

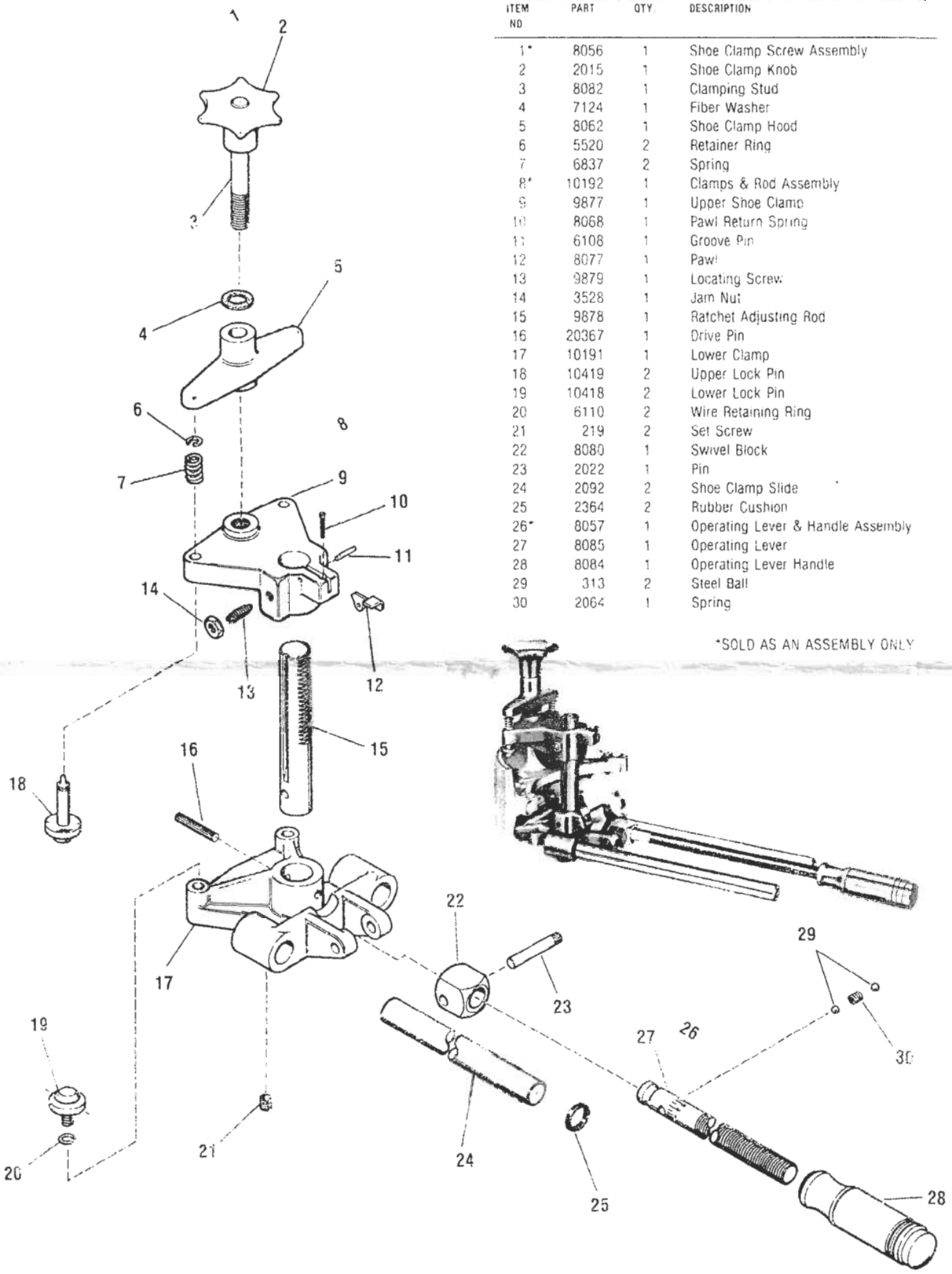
ITEM	PART NO.	QTY.	DESCRIPTION
1*	8009	1	Locating Pin & Knob Assembly
2	8047	1	Knob
3	8048	1	Locking Pin
4	2309	1	Stop Nut
5	2031	1	Spherical Washer
6	2032	1	Slide Clamp Screw
7	2018	1	Locating Pin Spring
8	2304	1	Spring Retaining Ring
9	2130	1	Ball
10	2131	1	Leaf Spring
11*	8008	1	Adjusting Key Assembly
12	8045	1	Slide Adjusting Key - English
12	8223	1	Slide Adjusting Key - Metric
13	2366	1	Groove Pin
14	530	1	Spring
15	6895	1	Cap Plug
16	306	1	Screw
17	8095	1	Arrow
18	2309	1	Nut
19	3214	1	Washer
20	6120	1	Wave Washer
21	8003	1	Slide Sub Assembly
22	2030	1	Stud
23	2365	1	Groove Pin
24	6117	1	Set Screw
25	8031	1	Slide
26	317	2	Gits Oiler
27	8024	1	Slide Clamp Stud
28	2029	1	Cross Pin

ITEM	PART NO.	QTY.	DESCRIPTION
29	8096	1	Micrometer Dial & Screw Assy.
30	6113	1	Retaining Ring
31	6451	1	Washer
32	8027	1	Micrometer Screw
33	8020	1	Micrometer Barrel - English
33	8226	1	Micrometer Barrel - Metric
34	6407	1	Nylon Ball
35	6148	1	Set Screw
36	6117	2	Set Screw
37	8021	1	Micrometer Dial - English
37	8225	1	Micrometer Dial - Metric
38	2999	1	Grease Fitting
39	8033	1	Swivel Base
40	2915	1	Set Screw
41	8046	1	Swivel Base Screw

*SOLD AS AN ASSEMBLY ONLY



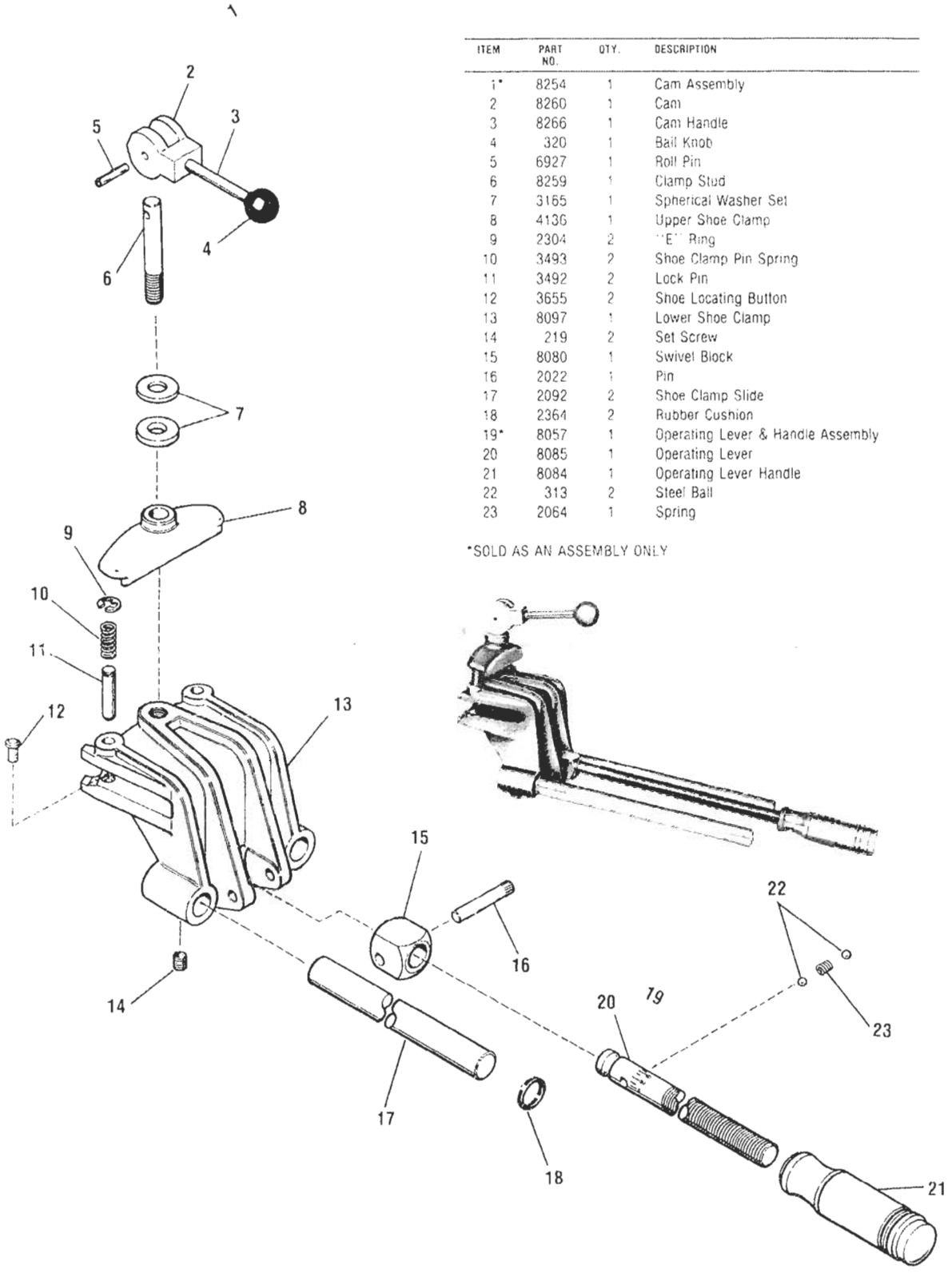
NO. 8050 UNIVERSAL BRAKE SHOE CLAMP



ITEM NO	PART	QTY.	DESCRIPTION
1*	8056	1	Shoe Clamp Screw Assembly
2	2015	1	Shoe Clamp Knob
3	8082	1	Clamping Stud
4	7124	1	Fiber Washer
5	8062	1	Shoe Clamp Hood
6	5520	2	Retainer Ring
7	6837	2	Spring
8*	10192	1	Clamps & Rod Assembly
9	9877	1	Upper Shoe Clamp
10	8068	1	Pawl Return Spring
11	6108	1	Groove Pin
12	8077	1	Pawl
13	9879	1	Locating Screw
14	3528	1	Jam Nut
15	9878	1	Ratchet Adjusting Rod
16	20367	1	Drive Pin
17	10191	1	Lower Clamp
18	10419	2	Upper Lock Pin
19	10418	2	Lower Lock Pin
20	6110	2	Wire Retaining Ring
21	219	2	Set Screw
22	8080	1	Swivel Block
23	2022	1	Pin
24	2092	2	Shoe Clamp Slide
25	2364	2	Rubber Cushion
26*	8057	1	Operating Lever & Handle Assembly
27	8085	1	Operating Lever
28	8084	1	Operating Lever Handle
29	313	2	Steel Ball
30	2064	1	Spring

*SOLD AS AN ASSEMBLY ONLY

NO. 8150 CAM ACTION BRAKE SHOE CLAMP



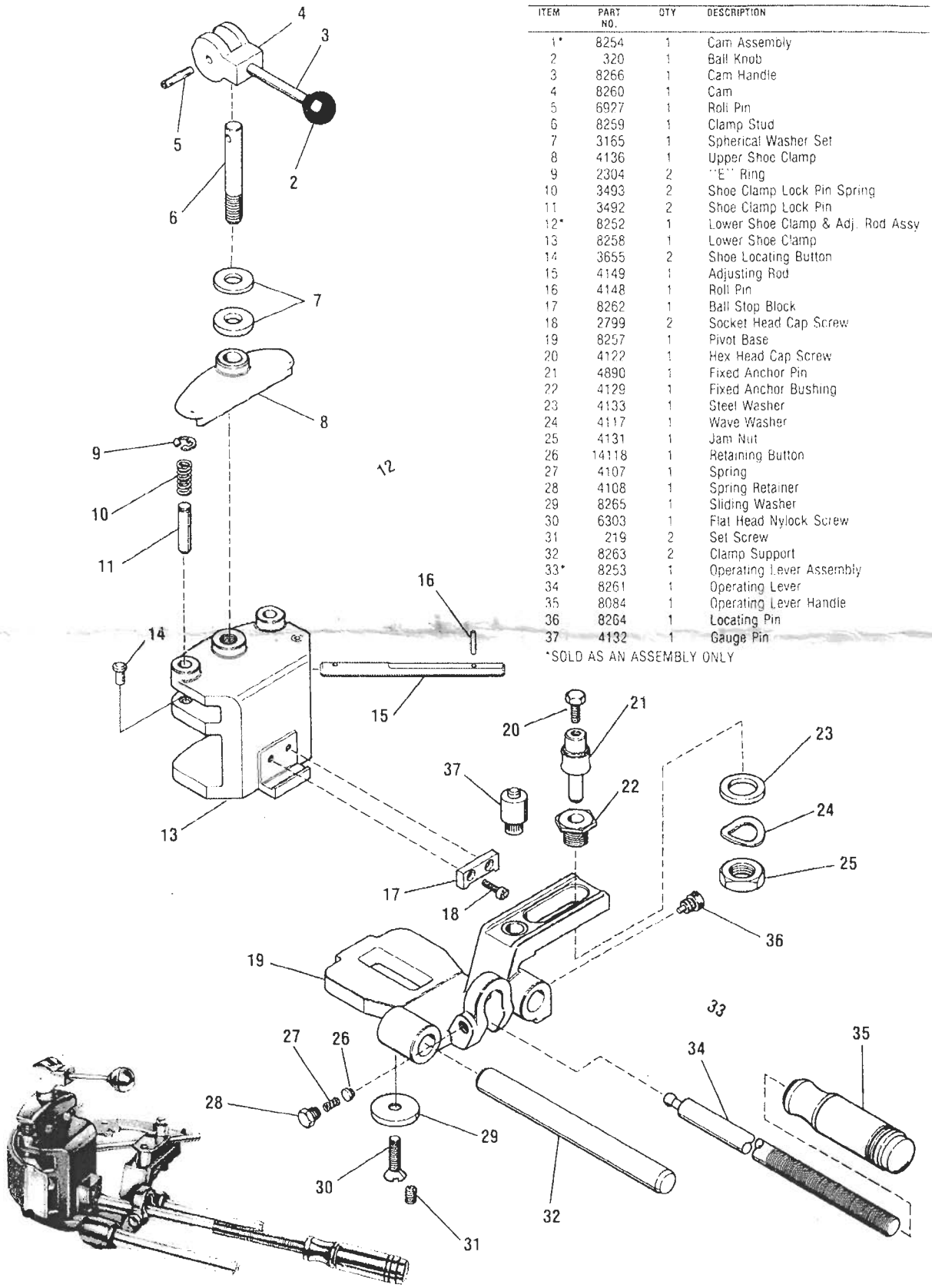
ITEM	PART NO.	QTY.	DESCRIPTION
1*	8254	1	Cam Assembly
2	8260	1	Cam
3	8266	1	Cam Handle
4	320	1	Ball Knob
5	6927	1	Roll Pin
6	8259	1	Clamp Stud
7	3165	1	Spherical Washer Set
8	4136	1	Upper Shoe Clamp
9	2304	2	"E" Ring
10	3493	2	Shoe Clamp Pin Spring
11	3492	2	Lock Pin
12	3655	2	Shoe Locating Button
13	8097	1	Lower Shoe Clamp
14	219	2	Set Screw
15	8080	1	Swivel Block
16	2022	1	Pin
17	2092	2	Shoe Clamp Slide
18	2364	2	Rubber Cushion
19*	8057	1	Operating Lever & Handle Assembly
20	8085	1	Operating Lever
21	8084	1	Operating Lever Handle
22	313	2	Steel Ball
23	2064	1	Spring

*SOLD AS AN ASSEMBLY ONLY

NO. 8250 FIXED ANCHOR CLAMP

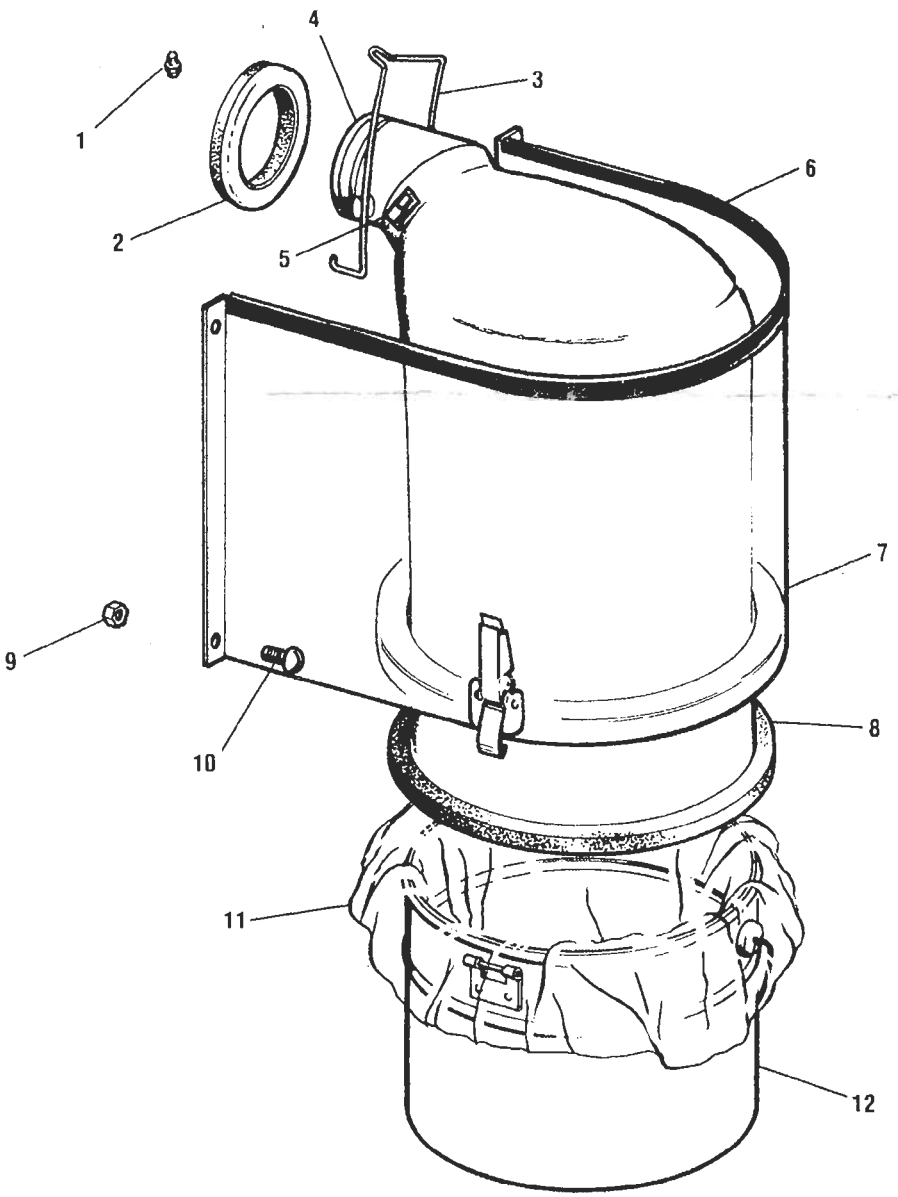
ITEM	PART NO.	QTY	DESCRIPTION
1*	8254	1	Cam Assembly
2	320	1	Ball Knob
3	8266	1	Cam Handle
4	8260	1	Cam
5	6927	1	Roll Pin
6	8259	1	Clamp Stud
7	3165	1	Spherical Washer Set
8	4136	1	Upper Shoe Clamp
9	2304	2	"E" Ring
10	3493	2	Shoe Clamp Lock Pin Spring
11	3492	2	Shoe Clamp Lock Pin
12*	8252	1	Lower Shoe Clamp & Adj. Rod Assy
13	8258	1	Lower Shoe Clamp
14	3655	2	Shoe Locating Button
15	4149	1	Adjusting Rod
16	4148	1	Roll Pin
17	8262	1	Ball Stop Block
18	2799	2	Socket Head Cap Screw
19	8257	1	Pivot Base
20	4122	1	Hex Head Cap Screw
21	4890	1	Fixed Anchor Pin
22	4129	1	Fixed Anchor Bushing
23	4133	1	Steel Washer
24	4117	1	Wave Washer
25	4131	1	Jam Nut
26	14118	1	Retaining Button
27	4107	1	Spring
28	4108	1	Spring Retainer
29	8265	1	Sliding Washer
30	6303	1	Flat Head Nylock Screw
31	219	2	Set Screw
32	8263	2	Clamp Support
33*	8253	1	Operating Lever Assembly
34	8261	1	Operating Lever
35	8084	1	Operating Lever Handle
36	8264	1	Locating Pin
37	4132	1	Gauge Pin

*SOLD AS AN ASSEMBLY ONLY



MODEL 8925 DUST COLLECTION SYSTEM

ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
1	11192	1	Stud	7	11201	1	Ring & Guard Assembly
2	11203	1	Ring & Seal Assembly	8	11199	1	Dust Bag & Seal
3	11197	1	Clip	9	11213	1	Nut
4	11164	1	Dust Collector Elbow	10	6617	1	Screw
5	11190	1	Hose Clamp	11	5399	1	Pkg. of 6 Plastic Disposable Bags
6	11207	1	Rubber Extrusion	12	11205	1	Pail



FOR MOTOR CONNECTIONS, SEE MOTOR NAMEPLATE

Wire Size For 115 & 230 Volt Single Phase Circuits

Distance of Motor to Fuse or Meter Box in Feet

Motor HP	100 ft.		200 ft.		300 ft.		500 ft.	
	115 V	230 V	115 V	230 V	115 V	230 V	115 V	230 V
1/2	#10	#12	#8	#10	#6	#8	#4	#6
1	#8	#10	#6	#8	#4	#6		#4

RUNNING OVERLOAD PROTECTION

TIME DELAY FUSES AND THERMAL CUTOFFS — Use 125% of full load amps, as shown on the nameplate, for motors with 40 degree C rise or service factor over 1.0. Use 115% of full load amps, shown on the nameplate, for all other motors.

THERMAL PROTECTOR — Motors equipped with built-in thermal protection have the words "Thermally Protected" on the nameplate. Thermal protectors open the motor circuit electrically when the motor becomes too hot or is overloaded. Motors with a red button (manual) may be restarted by pressing the button after the motor cools. Motors with internal protectors (automatic) will reset themselves after the motor cools.

WARNING: **DISCONNECT POWER BEFORE WORKING ON MOTOR DRIVEN EQUIPMENT. MOTORS WITH AUTOMATIC THERMAL PROTECTORS WILL AUTOMATICALLY RESTART WHEN THE PROTECTOR TEMPERATURE DROPS SUFFICIENTLY. DO NOT USE MOTORS WITH AUTOMATIC THERMAL PROTECTORS IN APPLICATIONS WHERE AUTOMATIC RESTART WILL BE HAZARDOUS TO PERSONNEL OR EQUIPMENT.**

INSTALLATION INSTRUCTIONS

WARNING: These instructions must be followed to ensure safe and proper operation of the motor or generator.

A. Before coupling a motor or generator to a load or applying power:

1. Check for shipping or handling damage.
2. Check for proper wiring. Line wiring must be of sufficient size to carry the current required in accordance with the NATIONAL ELECTRIC CODE and local codes.
3. Check for proper fuse size as required by the NATIONAL ELECTRIC CODE and local codes.
4. Shaft must be free to turn by hand.
5. Line voltage and frequency must match the motor or generator nameplate voltage and frequency.
6. Motor must be electrically grounded per NATIONAL ELECTRIC CODE and local codes.

B. Before coupling the motor to the load, apply power to determine whether:

1. Motor runs properly.
2. Rotation is correct.

C. After coupling the motor or generator to the load and applying power, make sure the motor comes up to speed and is not overloaded.

LUBRICATION

BALL BEARINGS — Sealed lubricated bearings require no attention during the life of the bearing. Motors with provisions for regreasing should have bearing grease sdded every 2000 hours of motor operation. Use Shell Oil Co. Alvania #2 or equivalent grease having a 200° safe operating temperature.

NOTE: If lubrication instructions are shown on the motor, they will supersede this general instruction.

REPAIR PARTS

Do not use unauthorized repair parts. These can affect the proper operation and safe operation if wrong. Use only authorized service stations and parts.