$4.00

Accu•turn®
A TURN FOR THE BETTER

BRAKE DRUM LATHE
MODEL 8910

OPERATIONS AND MAINTENANCE MANUAL

Accu Industries, Inc:
P.O. BOX 15540 / RICHMOND, VA 23227
11126 AIR PARK ROAD / ASHLAND, VA 23005
804-798-8922 FAX 804-798-6742

07/97 250
#435048

ACCU-TURN

BRAKE DRUM LATHE
MODEL 8910

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When ordering parts, please give the Serial Number of your machine and the date purchased; this will help in expediting your order.

FOR YOUR RECORDS AND INFORMATION:
Model 8910

Date received:_____

Serial number:_____

07/97 250
#435048

STANDARD ACCESSORIES INCLUDED WITH THE 8910 BRAKE DRUM LATHE

1 Draw Bar with Hex Nut and Washer
Passenger Car & Light Truck Adapter Set:
- 2 Large Bell Clamps
- 2 Small Bell Clamps
- 3 Centering Cones for Floating Rotors and Drums
- 3 Silencers
- 5 Double Taper Radius Adapters
- 1 Boring Bar with Tool Holders, for Drums
- 1 Standard 1" Arbor
- 1 Arbor Nut
- 1 Arbor Spring
- 1 1" Spacer
- 1 Set of Alignment Washers
- 3 Wrenches 1 1/2", 7/8", 3/8"

8910 BRAKE DRUM LATHE SPECIFICATIONS

115 Volt 50/60 --- Hertz 1 Phase 10.00 Amps

Drum Capacity	6" to 28"
Depth of Cut	.6"
Maximum Weight	
On 1" Arbor	150 lbs.
On 1 7/8" Arbor	300 lbs.
Spindle Speed RPM	105
Feeds Per Spindle Revolution	
Disc	.003
Drum	.0046
Motor	1 Horsepower
Weight	424 lbs. Net.
	485 lbs. Ship. Wt.

ACCEPTANCE FROM TRANSPORTATION CARRIER

Carefully inspect all items received in this shipment. If there is damage or evidence of mishandling in transit, determine the extent of damage and notify the transit company as well as ACCU Industries, Inc. immediately. Although we are not responsible for damage incurred in transit, we will assist in the preparation and filing of claims.

SAFETY INFORMATION

This manual has been prepared for the operator and those responsible for the maintenance of the brake lathe. Its purpose, aside from proper maintenance and operations, is to promote safety through the use of accepted practice.

READ AND UNDERSTAND THE SAFETY AND OPERATING INSTRUCTIONS COMPLETELY BEFORE OPERATING THE MACHINE

In order to obtain maximum life expectancy and efficiency from your brake lathe, follow the operating instructions and maintenance manual carefully.

The specifications put forth in this manual were in effect at the time of publication. However, owing to ACCU Industries' policy of continuous improvement, changes to the specifications may be made at any time without obligation on the part of ACCU Industries, Inc.

Safety Instructions

1. Read, understand and follow the safety and operating instructions found in this manual. Know the limitations and hazards associated with operating the machine. A safety rules decal is installed on the machine to serve as a reminder of basic safety practice. It should be read before attempting to use the brake lathe.

2. Special Precautions: This ACCU-Turn brake lathe was designed to machine the portions of the brake drum, disc brake rotor and flywheel surfaces that come in contact with the friction material. When used according to the instructions herein, this lathe will perform satisfactorily within the workpiece size range designated for this model.

   During the machining operation, the workpiece rotates. Be especially cautious of rotating wheel lugs, spokes and

cause a sharp edge to be generated, where a chamfer or radius previously existed. Use care in handling machined parts.

3. Securing the Machine: The model 8944 weighs approximately 470 pounds and must be bolted to an ACCU-TURN Heavy duty Floor Stand or a bench capable of supporting the machine, its accessories and workpiece.

4. Grounding the Machine: 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. The lathe is equipped with an electric cord having an equipment-grounding conductor and a 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 the plug 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 personal if the grounding instructions are not completely understood, or if in doubt as to whether the lathe is properly grounded.

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

   Repair or replace damaged or worn cord immediately.

   This lathe is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure 4.1. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure 4.1. 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, or other grounding means extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

5. Use Proper Extension Cord: Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current the lathe will draw. An undersized cord will cause a drop in line voltage resulting in a loss of power and overheating. Table 5.1 shows the correct size to use depending on the cord length. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

6. Eye Safety: Wear an approved safety face shield, goggles, or safety glasses. (Ordinary eyeglasses are not safety glasses and do not provide the degree of protection necessary.) If the operation or area is dusty a face or dust mask should be used.

7. Personal Protection: Before operating the machine, remove tie, rings, watches, and other jewelry, and roll up sleeves above the elbow. Remove all outer loose clothing and confine long hair. Protective type footwear must be worn. Hearing protectors must be used where noise exceeds the level of exposure allowed in Section 1910.95 of the OSHA Regulations.

DO NOT WEAR GLOVES

8. DO NOT OPERATE MACHINE WITHOUT ITS GUARD(S) IN PLACE AND IN WORKING ORDER.

9. Do Not Use Lathe in Dangerous Environment: Don't use the lathe in damp or wet locations, or expose the lathe to rain. Keep the work area will lighted.

10. Work Area: Keep the floor around the machine clean and free of foreign materials. ACCU Industries recommends the use of anti-skid floor strips where the operator normally stands, and that each machine has its own work area marked off. Make certain that the work area is well-lighted and ventilated. Provide for adequate work space around the machine. The work area should not be readily accessible to anyone except the operator.

11. Do Not Overreach: Maintain a balanced stance and keep your body under control at all times.

12. Hand Safety: Keep hands away from moving parts when the machine is under power. Never clear chips or debris when the machine is under power and never use your hands to clear the chips. Never use compressed air to clean machine; use only a soft bristle brush or vacuum cleaner.

13. Spindle Rotation: Rotate spindle by hand before applying on

power. Be sure that the rotation of the spindle is correct.

14. Machining Preparation: Tighten all locks before operating the lathe. Be sure workpiece is secured. Remove adjusting keys and wrenches. Be sure to check to see that all adjusting wrenches are removed from the lathe before turning the machine

15. Check Damaged Parts: Before further use of the lathe, a guard or other part that is damaged should be carefully checked to determine if 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 the lathe's operation. A guard or other part that is damaged should be properly repaired or replaced.

16. Maintain Tools with Care: Keep tools sharp and clean for best and safest performance. follow instructions for lubricating and changing accessories.

17. Avoid Accidental Starting: Make certain that the motor switch is in the "Off" position before connecting power to the machine.

18. Never Stand on Lathe: Serious injury could occur if the lathe is tipped or if the cutting tool is unintentionally contacted.

19. Machine Capacity: Do not attempt to use the machine for other than passenger car and light truck drums, discs and flywheels, or for operations for which the machine was not intended.

20. Careless Acts: GIVE THE WORK YOU ARE DOING YOUR UNDIVIDED ATTENTION.

21. Disconnect Electrical Power before performing any service, maintenance, or changing of accessories, adapters, or workpieces on machine.

22. Job Completion: If the operator leaves the machine area for any reason, the machine should be turned off, and the spindle brought to a complete stop before the operator departs. In addition, if the operation is complete, the operator should clean the machine and work area. NEVER CLEAN THE MACHINE WITH THE POWER ON.

23. Replacement Parts: Use only ACCU-TURN replacement parts and accessories, risk of injury may result if accessories other

than those recommended are used. USE OF PARTS OTHER THAN ACCU-TURN PARTS WILL VOID THE WARRANTY.

24. Misuse: Do not use the machine for other than its intended use. If used for other purposes, ACCU Industries Inc., disclaims any expressed or implied warranty, and holds tself harmless for any injury or loss that may result.

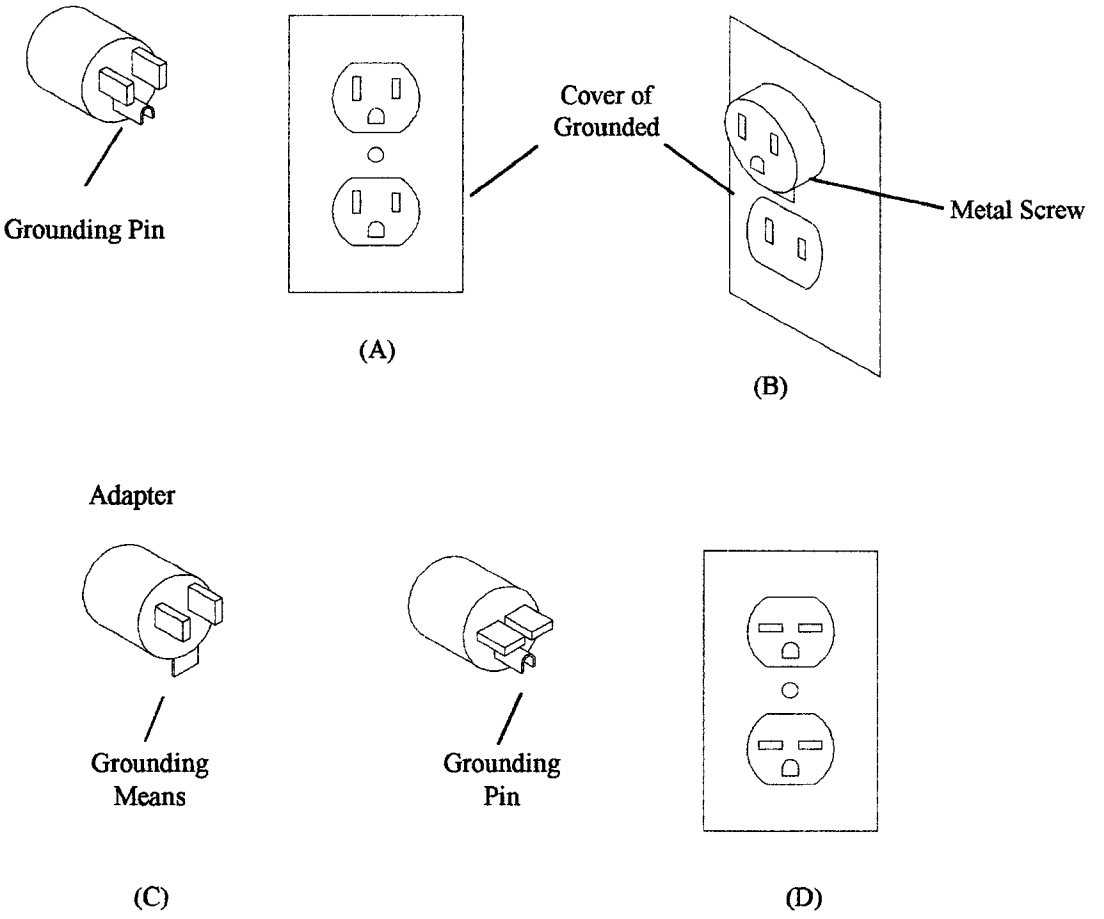


Fig. 4.1

Amper Rating		Volts	Total length of cord in feet
		120 V	25 ft. 50 ft. 100 ft. 150 ft.
More Than	Not More Than	AWG	
12	16	14	12 Not Recommended

Table 5.1

ASSEMBLY OF BRAKE LATHE

Setting Up Brake Lathe For Operation

All machine surfaces are covered with a protective coating before packaging. They must be thoroughly cleaned with solvent. The spindle arbor taper and mounting surface on top of ways should also be cleaned.

Install the draw bar in the arbor, using the end with the longest threads, and screw in snugly. Insert the draw bar through the spindle, and align the match marks on the arbor and spindle. Install the washer and nut on the rear of the draw bar, and tighten until the spindle rotates. Mount the drum boring bar or rotor twin cutter on the machine; make sure all inserts, bolts, and set screws are tight.

Machine must be securely fastened to work bench surface before operating. Four mounting lugs on the base are provided for this purpose.

Lubrication

Lubricate ways by oiling felt wipers on the end of cross slide every week with SAE 10W oil or equivalent, and check gear box by removing vented plug on top rear of housing. Oil level should be about 2 inches from the top. In needed, use MOBIL Synthetic Gear Oil - #411488 or equivalent. Capacity is one quart. DO NOT OVERFILL.

Electrical Information

Standard motors on this machine are wired to 115 volt, 50/60 cycle, single phase. Check electrical input plate on rear of machine. The Off-On Switch is located to the right end of the main housing. Never operate machine unless power supply agrees with electrical plate rating and machine is properly grounded.

ACCU-TURN 8910 BRAKE DRUM LATHE
OPERATION PROCEDURES

Inspection of Brake Drums

IMPORTANT: The maximum amount of metal removed from the finished workpiece should never exceed the manufacturer's specifications. It is dangerous to operate a vehicle with a drum, which has had more material removed than is allowed. Proper operation cannot be established if these specifications have been exceeded. ACCU Industries recommends that each workpiece be checked for size before mounting on the machine.

Mounting of Hubless Drums

1. Clean and check all surfaces that will come in contact with centering cones and/or bell clamps to ensure solid mounting.

2. Add necessary adapters to space the set-up so assembly can be locked on the arbor with threaded nut.

3. Cleaning and properly mounting the drums prior to machining will ensure a minimum of stock removal and more satisfactory brake operation.

4. Excessive runout or wobble of the drum after it has been properly cleaned and mounted on the arbor may indicate sever damage to the drum and therefore should not be used for further service.

5. a. Secure proper size bell clamps and slide one on the arbor.
   b. Slide spring on the arbor.
   c. Find the double tapered radius adapter that fits the center hole of the drum and slide it on the arbor.
   d. Slide the drum on the arbor and then the other bell clamp.
   e. Add necessary spacers (double tapered radius adapters may be used as spacers), alignment washers, hex nut, and tighten securely.

Mounting the Hubbed Drum

1. Find the double tapered radius adapter that properly fits the inside of the large bearing race. It should sit in the race and move side to side in all directions easily. If it binds in any direction, this is an indication of a bad bearing race.

2. Slide the double tapered radius adapter all the way onto the arbor.

3. Using the same steps as in #1, find the double tapered radius adapter for the outside race.

4. Install the drum and position it on the back double tapered radius adapter and then slide the front double tapered radius adapter on the arbor and into the front race.

5. Use adapters or spacers as necessary.

6. Add alignment washers and hex nut, and tighten the assembly on the arbor.

7. WRAP RUBBER SILENCER BAND AROUND DRUM, STARTING WITH THE PLAIN END AND MAINTAIN TENSION UNTIL THE CLIP IS SECURED. DO NOT ATTEMPT TO MACHINE DRUMS WITHOUT USING THE SILENCER BAND.

Machining Hubless and Hubbed Drums

1. Position the tool bar so that the 45 angle tool bit slot is toward the drum, with the capscrew to the top. Tool bar extension should be kept to a minimum.

2. For extra small diameter drums, set the tool bar at an angle towards the arbor while extending the tool bar holder outward from the tool bar.

3. Turn on the machine and slowly run the tool bar in the drum to the point of the greatest wear.

4. Note the reading on the calibrated handwheel; back out and move to the rear of the drum.

5. Set handwheel to .005 deeper than the noted reading; this will ensure a finished drum in one cut.

6. Engage the cross-feed handle for the drum slide with the On-Off Switch to drum position.

**FOR INFORMATION ON SPECIAL APPLICATIONS,
CONTACT YOUR ACCU-TURN DISTRIBUTOR.**

Sharp Tools are Vital to Satisfactory Operation.

When ordering supplies or replacement parts for this machine, always give the serial number of the machine.
Use only ACCU-Turn parts.

8910 DRUM BRAKE LATHE
PARTS LIST

ITEM #	PART #	QTY REQ'D	DESCRIPTION
1	434013	1	Housing
2	434014	1	Cover, Housing
3	434420	1	Gasket .015
4	420772	4	Screw
6	433605	1	Spindle
7	433618	1	Bearing, Cone
8	433619	1	Bearing, Cup
9	433616	1	Bearing, Cone
10	433772	1	Bearing, Cup
11	433622	1	Seal
12	431146	1	Seal
13	433620	1	Seal
14	408129	1	Seal
15	433611	1	Shim
16	433612	1	Shim
17	433613	1	Shim
18	411342	1	Key
19	433606	1	Gear, Worm
20	433974	1	Screw, Set
21	408365	1	Lock Washer
22	408364	1	Lock Nut
23	433607	1	Shaft, Worm
24	433614	2	Bearing, Cone
25	433615	2	Bearing, Cup
26	433608	1	Carrier, Brg.
27	421643	1	Gaskets
28	411389	4	Screw
29	420149	1	Seal
30	433628	1	Dove Tail, Bottom
31	433634	4	Screw
32	433790	2	Wear Strip Assy.
33	433635	1	Way Wiper Assy.
34	433638	10	Screw
35	433629	1	Dove Tail, Center
36	433627	1	Dove Tail, Top
37	433630	8	Screw, Set
38	413294	8	Washer
39	413291	8	Nut, Hex
40	433639	2	Screw, Turn

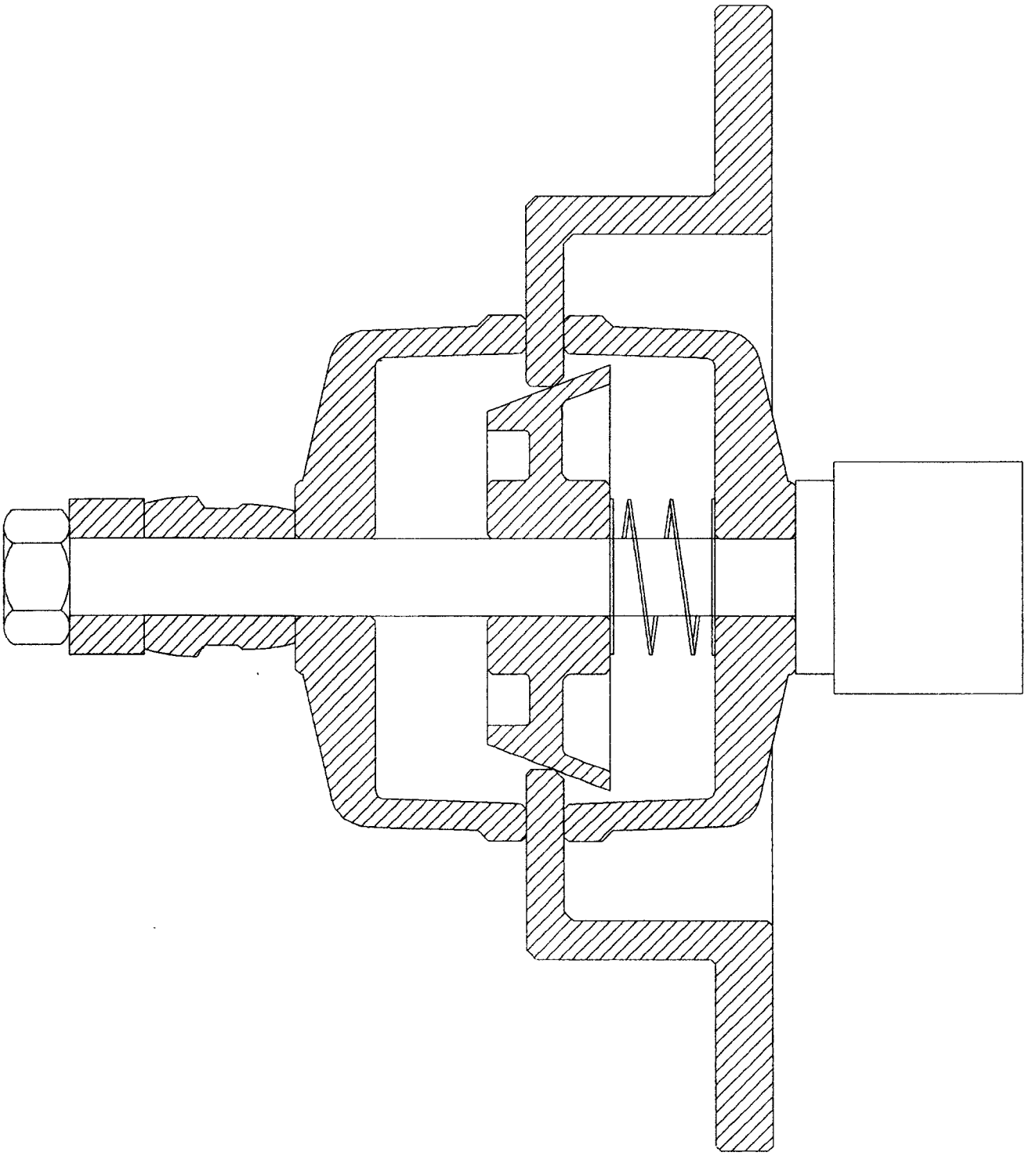
ITEM #	PART #	QTY REQ'D	DESCRIPTION
41	433157	1	Screw, Drum Feed Assy.
42	433156	1	Screw, Rotor Feed Assy.
44	435536	4	Pin
45	435586	4	Bolt, Washer Head
47	433623	2	Bearing, Ball
48	433907	1	Housing, Feedbox
49	433646	1	Nut, Drum Feed
50	433647	1	Nut, Rotor Feed
51	411378	2	Screw
52	417258	2	Screw
53	433641	1	Motor 1/60, 6 RPM
54	434081	4	Screw
55	434384	1	Assembly, Shifting Yoke
56	434016	1	Collar
57	421431	1	Key
58	434439	1	Drive Adapter
59	433974	1	Screw, Set
60	433653	1	Pinion, Spur 55 Teeth
61	433655	1	Spring, Conical
62	433654	1	Washer
63	421077	1	Ring, Retaining External
64	433651	1	Gear, Spur 70 Teeth
65	433649	1	Switch, Limit
68	433908	1	Cover, Feedbox Housing
69	434017	1	Snap-In Nyliner
70	433909	1	Handle, Shifter
71	433974	4	Screw, Set
72	1A2169	1	Spring
73	408373	1	Ball
75	433677	1	Guard, DRM Way Drive Mtr.
76	433638	2	Screw
77	433735	2	Telescoping Way Assembly
78	433648	10	Screw
79	433682	4	Spacer
80	433688	4	Screw
81	433687	4	Screw
82	434362	1	Handwheel Assy. Drum
82 B	433665	1	Handwheel
82 C	433666	1	Handle, Revolving
83 D	433669	1	Decal, Calib. 0-80 Drum
83 E	408409	1	Screw
83 F	433974	1	Screw
83	433829	1	Handwheel Assy.
83 B	433665	1	Handwheel
83 C	433666	1	Handle, Revolving
83 D	433669	1	Decal, Calib. 0-95
83 E	408409	1	Screw
83 F	433974	1	Screw

ITEM #	PART #	QTY REQ'D	DESCRIPTION
84	433729	1	Base, Motor Assy.
85	433626	1	Shaft, Motor Bas. Pivot
86	434228	2	Screw Set
87	433670	1	Motor 115/230 Volt 1 Phase, 1 H.P.
88	434574	4	Washer
89	435757	4	Screw
90	433671	1	Sheave
91	433672	1	Sheave
92	433673	1	V-Belt
93	433675	1	Guard, Belt
94	433638	2	Screw
95	433685	1	Lamp
96	433674	1	Fitting, Relief
97	413281	1	Plug, Pipe
98	411488	32 Oz.	Oil, Mobil Synthetic Gear Oil
99	433830	Trace	Stor-and-Lube
100	411478	1 oz	Grease #2
101	433727	1	Power Cord Assy.
102	433726	1	Motor Cord Assy.
108	433719	3	Clamp, Cable 2 Screw
110	434133	3	Connector, Crimp-On
111/112	434132	2	Connector, Crimp-On
113	433818	1	Screw
114	434402	1	Screw
115	434359	1	Switch, Toggle
116	434360	1	Plate, Indicat. On/Off
117	433732	1	Label, Warning
118	433733	1	Label, Caution
119	436279	1	Nameplate, Accu Ind.
120	434604	1	Nameplate, Serial #
121	433633	1	Bolt, T Slot
122	433777	1	Holder, Boring Bar
123	4B4280	1	Washer
124	433617	1	Nut, Heavy Hex.
125	433778	1	Boring Bar
126	433780	2	Screw, Set
127	433779	1	Holder, Tool Bit
128	433771	1	Screw, Set
129	433717	1	Carbide Bit and Screw
130	434009	2	Car Plug
131	433974	1	Screw, Set
132	434199	1	Way Wiper Assy. Ctr.
133	434378	1	Patent Number Plate
134	406680	3	Shim
136	434519	1	Sticker, Timken Brg.
137	434700	4	Nut, Hex.
138	433994	4 oz	Grease, Exxon Lidok 000
139	434800	1	Plug, Push In
160	434358	1	Spacer, Feedbox
161	420226	2	Screw
	436259	2	Way Wiper Kit

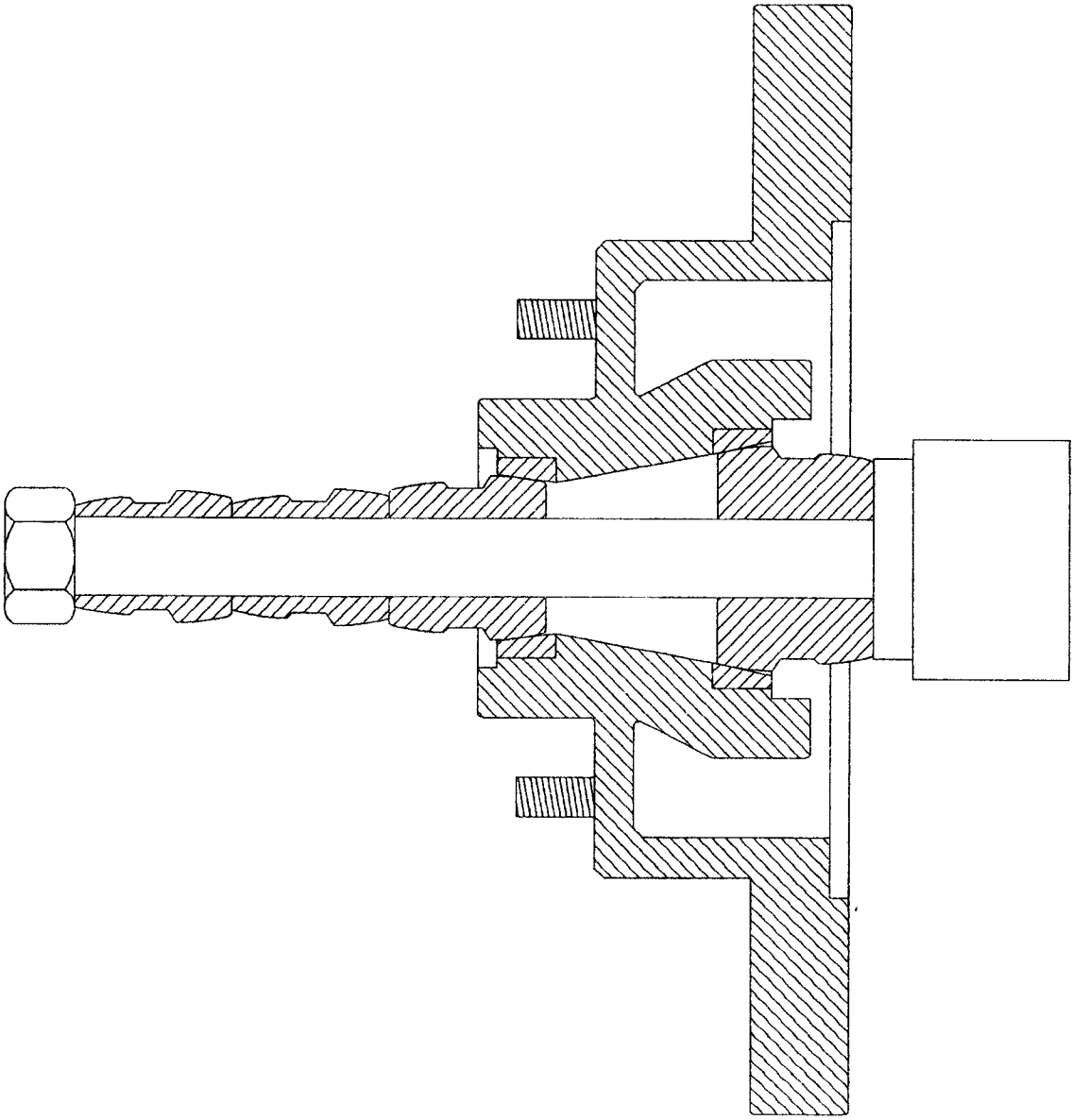
STANDARD ACCESSORIES

ITEM #	PART #	QTY REQ'D	DESCRIPTION
200	433702	1	Bar, Draw
201	4B4280	1	Washer
202	433617	1	Nut, Heavy Hex.
203	433703	2	Plate, Face 1
204	433704	2	Plate, Face 2
205	433705	1	Centering Cone, Drum #1
206	433706	1	Centering Cone, Drum #2
207	433707	1	Centering Cone, Drum #3
208	433708	1	Adapter #1
209	433709	1	Adapter #2
210	433710	1	Adapter #3
211	433711	1	Adapter #4
212	433617	1	Nut, Heavy, Hex.
213	433712	1	Spacer, Arbor
214	433715	1	Washer, Assembly Self Aligning
215	433713	1	Nut, Hex.
217	433716	1	Spring, Arbor
218	433782	1	Silencer, Drum
221	436410	1	Wrench, 1 1/2 Box End
222	433963	1	Adapter #1-A
223	434558	1	Wrench, 3/8" Socket
224	434559	1	Wrench, 7/8" Open End
122,125-129	433172	1	Boring Bar Assembly

PROPER MOUNTING OF HUBLESS ROTOR OR DRUM



PROPER MOUNTING OF HUBBED ROTOR OR DRUM



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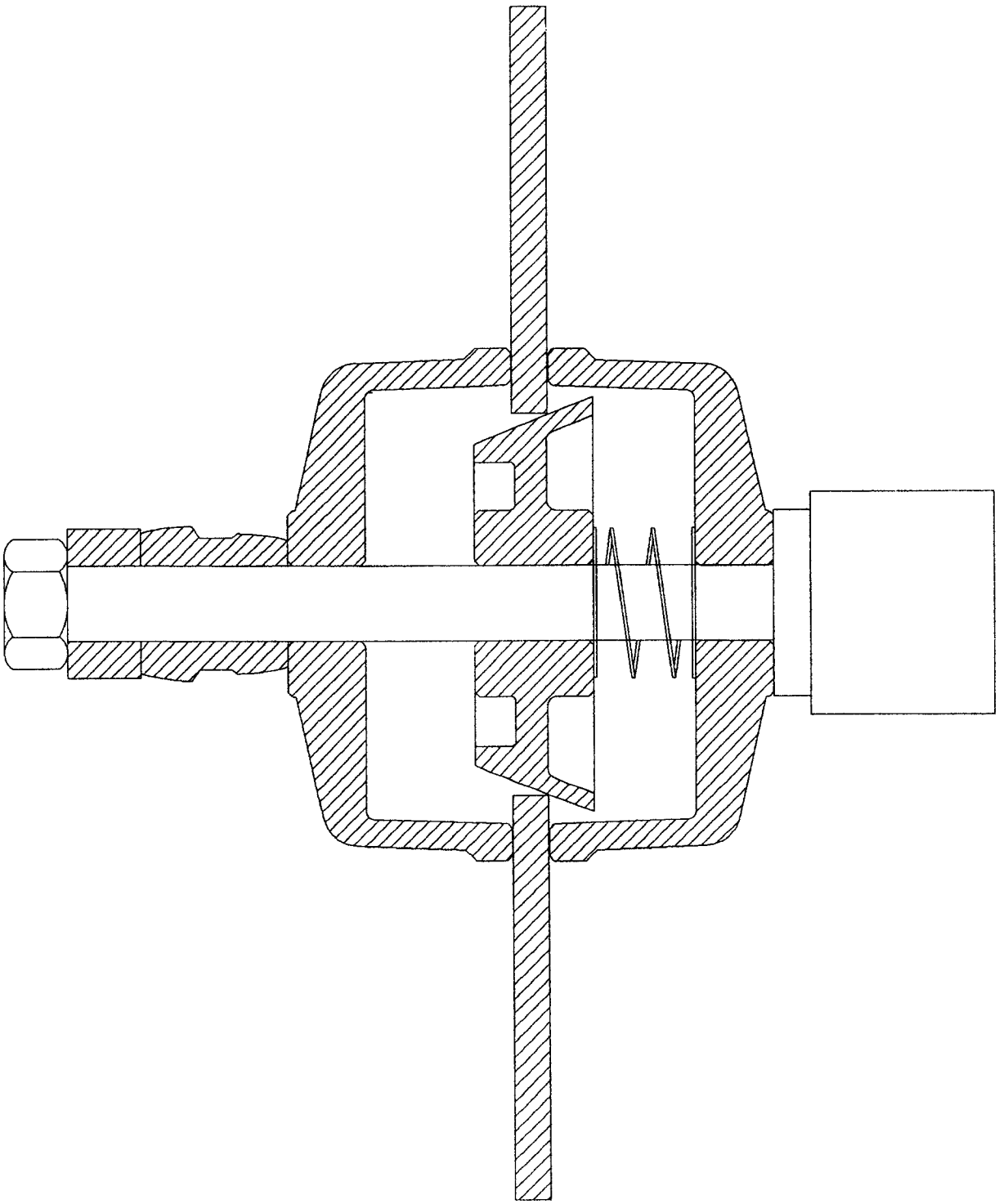

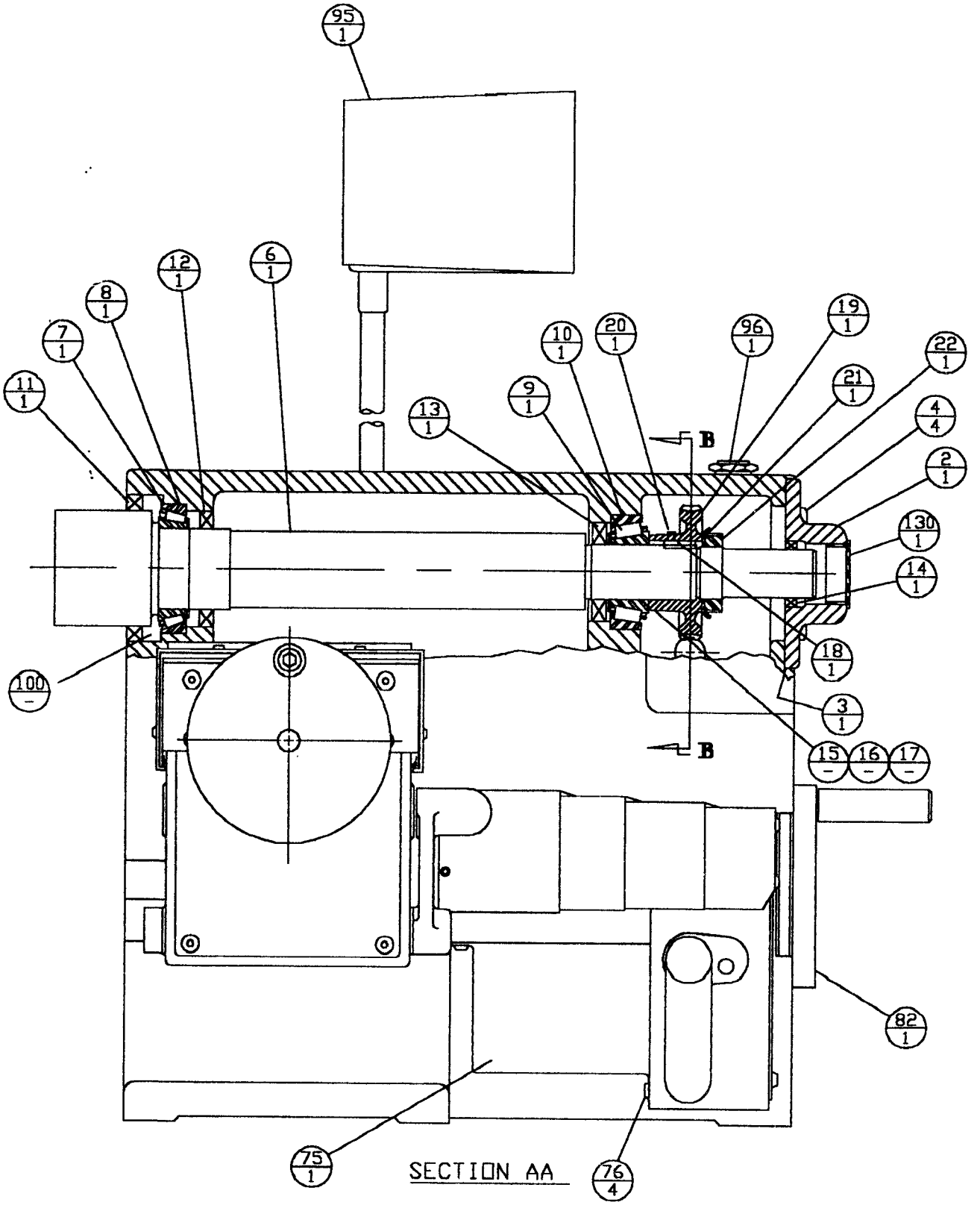
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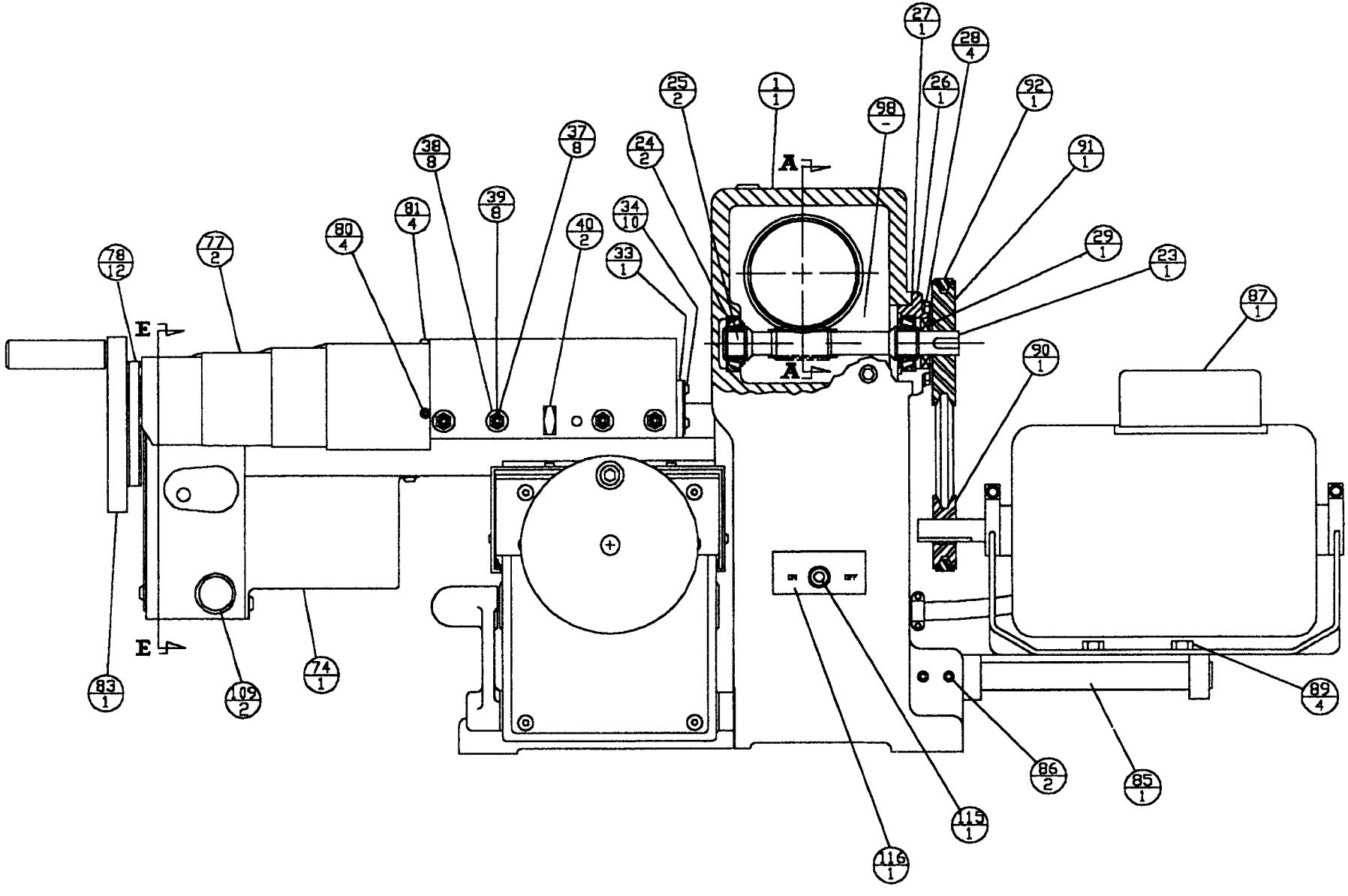
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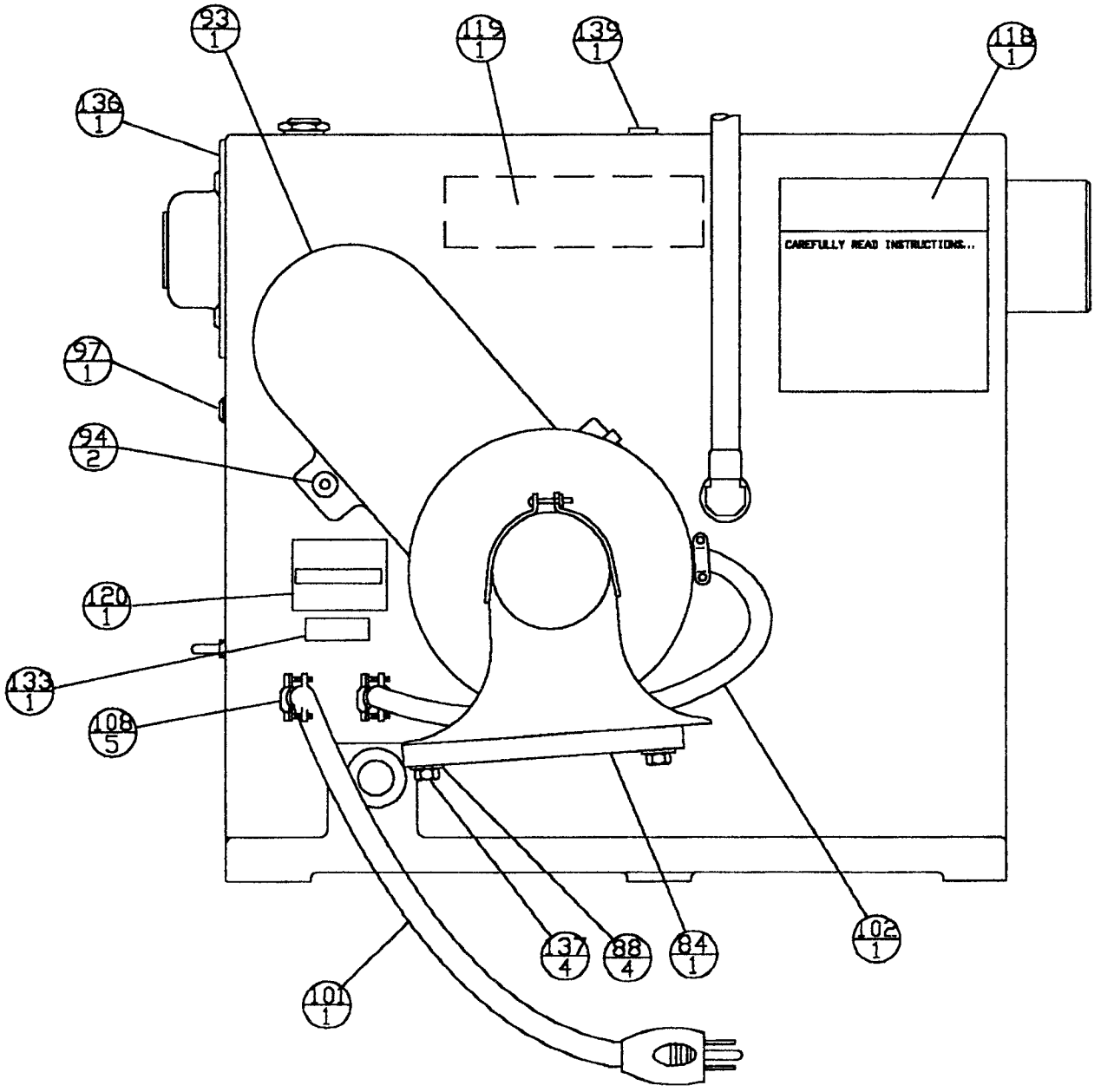
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CAREFULLY READ INSTRUCTIONS...

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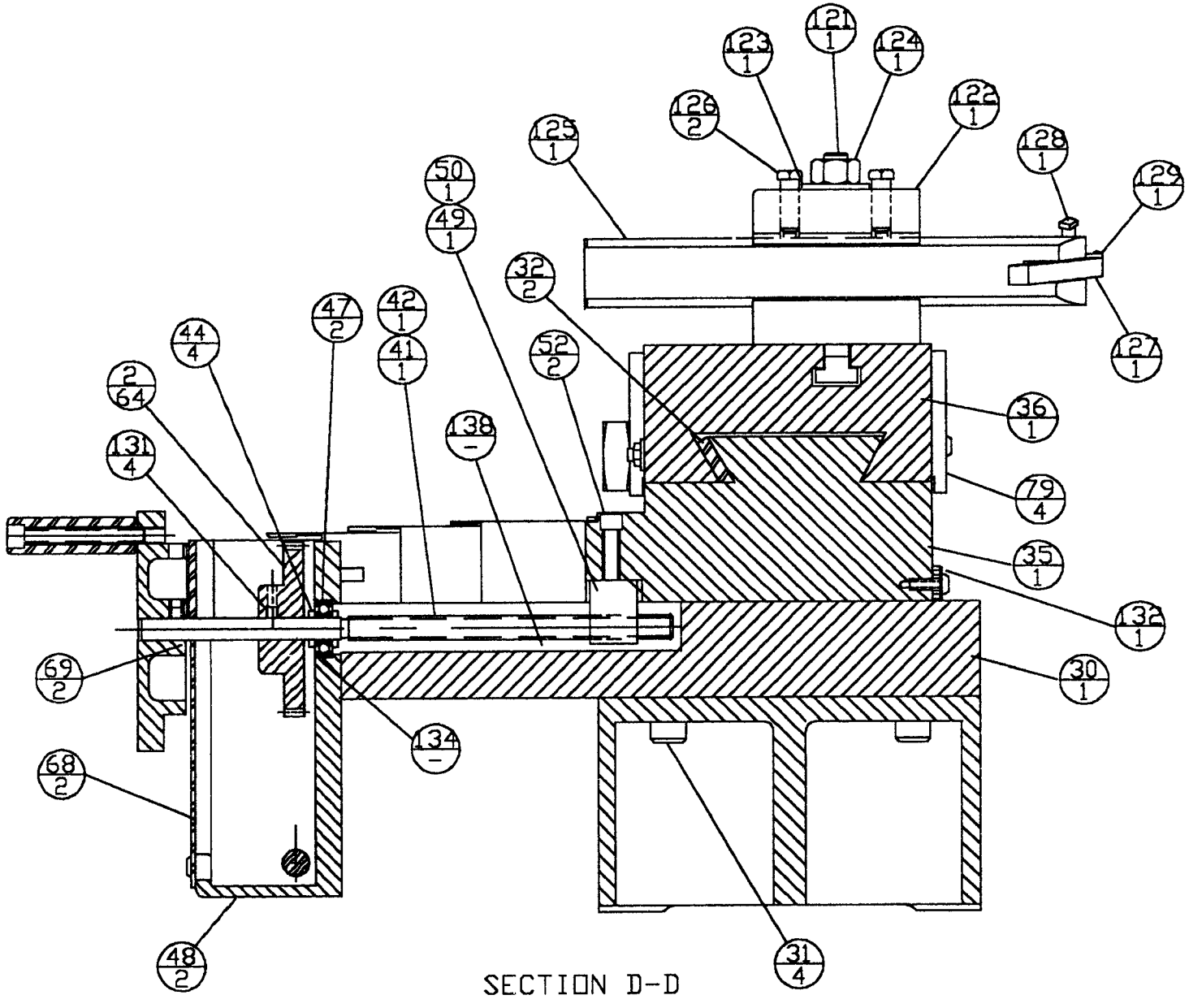
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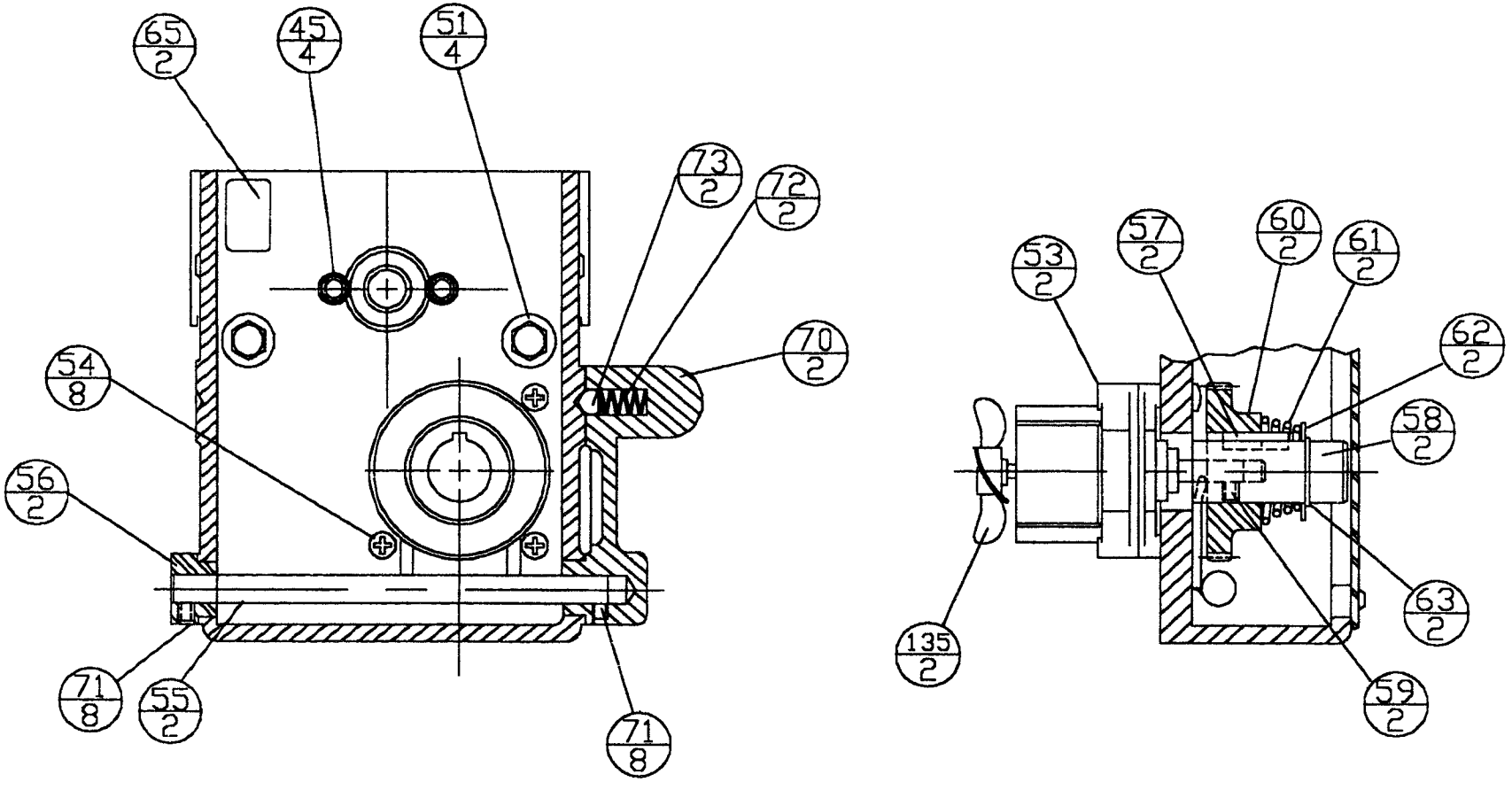
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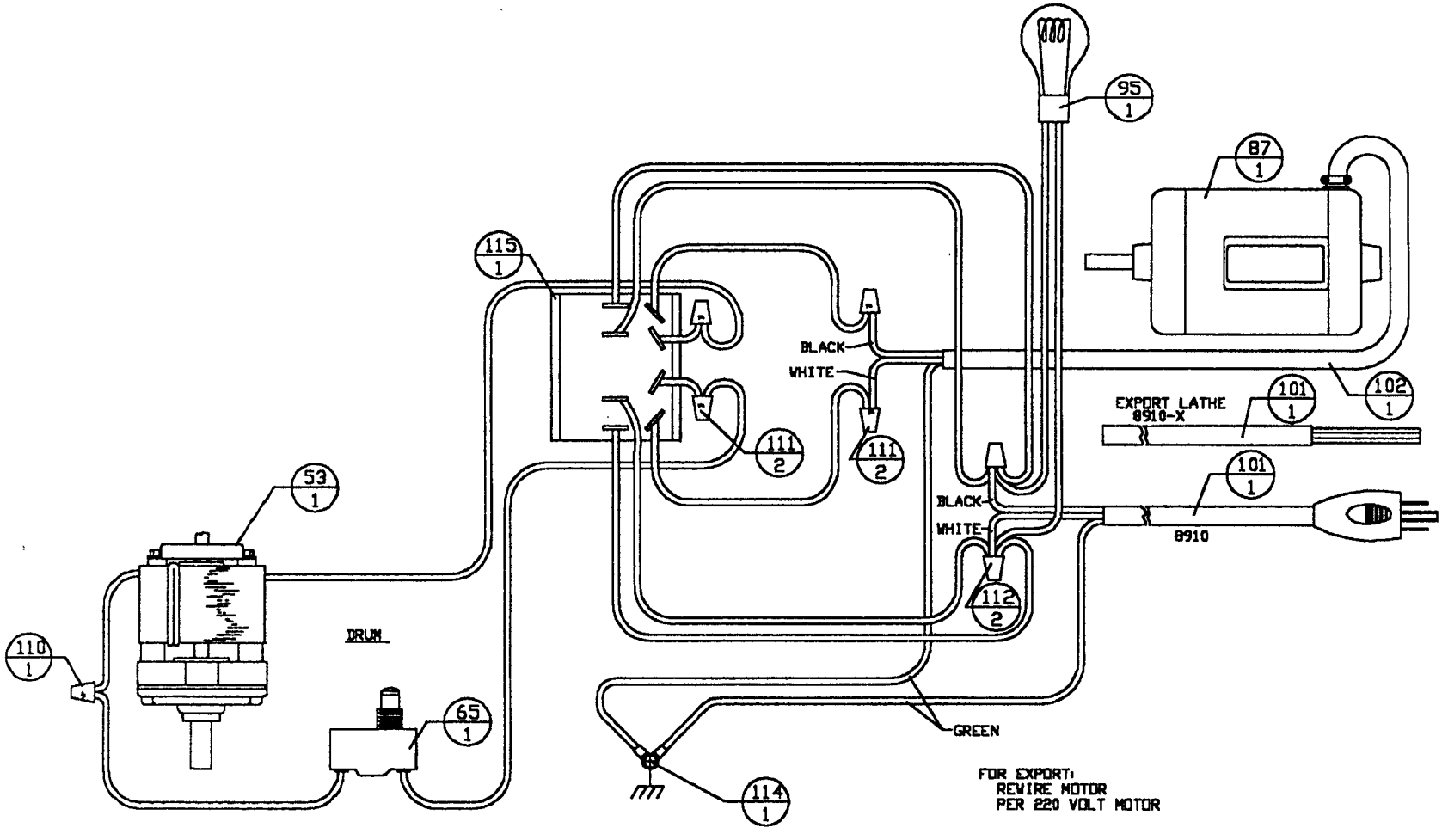
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FOR EXPORT:
REWIRE MOTOR
PER 220 VOLT MOTOR