1948 Boice Crane Model 2500

Instruction Manual & Parts list

Peerless Motor Parts List

(A Peerless motor came with this particular saw)

INSTRUCTIONS

For Setting-up, Use, and Care

BOICE-CRANE

No. 2500 TILTING-ARBOR SAW

PLEASE READ CAREFULLY

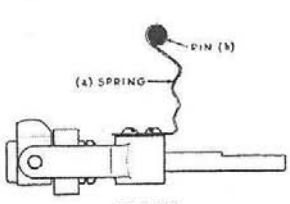
These instructions have been written for the purpose of helping you to properly use your saw and to get the best results from it.

This saw has been carefully manufactured and inspected in our plant. The various points of importance have been checked with accurate indicators and checking devices, and by using true blades in the proper manner you will get accurate results.

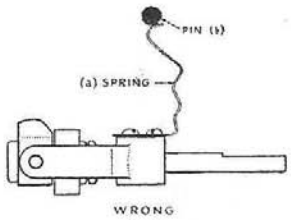
The following instructions for adjustment have not been written to encourage the customer to tamper with the saw, but to help him readjust the saw when necessary due to accident, normal wear, or mishandling.

INSTALLING THE FENCE THE FIRST TIME

See Fig. 1 below. If spring (a) is out of position so loop no longer engages pin (b), be sure to first reposition spring loop so it does engage as shown in sketch. NEVER FORCE OUTSIDE OF LOOP AGAINST UNDERSIDE OF PIN AS SHOWN IN Fig. 2 OR SPRING WILL BE DAMAGED OR EVEN BROKEN.



RIGHT
Fig. 1



WRONG
Fig. 2

THE ROLLING-PULLEY DRIVE

The prime purpose of using a rolling-pulley on the motor to drive your saw is to facilitate placing the motor close behind the saw. By setting the motor or line shaft far enough behind the saw you may also use an ordinary pulley mounted stationary on the shaft.

When mounting the motor or line shaft close behind the saw the center of the motor shaft should be not more than 5" above the top. The shaft should be located fore and aft such that a line passing through the centers of the motor shaft and saw arbor, with the arbor raised HALF-WAY UP, will coincide pretty close with the arrow cast on the side of the dust chute.

If you are setting up a saw-jointer combination unit, just disregard the above, for the motor shaft-center height has been pre-determined for you.

When mounting the rolling pulley on the motor, place the end of the pulley-sleeve with the two set-screws on the motor shaft and tighten the set-screws. Now locate the motor in a sidewise position such that when the pulley is out at the end of the shaft it will be in line with the pulley on the saw arbor with the saw in its vertical position. The proper belt length for this type of mounting is 42" outside circumference.

When the saw is tilted, the rolling-pulley will move to the left to accommodate the swing and tilt of the arbor. **The grooves in the rolling-pulley shaft should be kept clean and occasionally oiled for best operation.**

When the rolling-pulley is used on a line shaft, the shaft may be run right through the pulley sleeve, as it is bored out to accommodate this method, which will allow line shaft bearings to be placed on both sides of the pulley.

Should you desire to drive your saw with a plain motor pulley you should mount the motor so that the center-to-center distance of the two pulleys is at least 27½ inches. With the saw in its vertical position, locate the motor sidewise so that the pulleys line up. Then to accommodate the tilting action, move the motor, or pulley, to the left 1½" as you face the saw. This will put the motor pulley in a mean position between its normal vertical and tilted positions. The proper belt length for such an installation is 66 inches outside circumference.

THE RIPPING FENCE

The ripping fence on this saw is of the single-control-knob type with a rear lock. The large chrome-plated handgrip at the front of the fence is the single-control knob, and the small knurled knob directly above it is the rear lock.

The single-control-knob may be moved vertically to three different positions. The rear lock may be either tightened or loosened.

When putting the fence on the saw or when removing it, the single-control-knob should be at its middle position and the rear lock should be loosened several turns.

With the fence on the saw and the single-control-knob at the middle position the fence may be quickly moved across the table-top by grasping the fence about eight inches back from the front and sliding it along the bars.

When the single-control-knob is at the topmost position, a small rubber wheel is brought into contact with the fence bar and small accurate adjustments may be made by rotating the knob.

When the single-control-knob is placed at its lowest position the cam-lock is brought into play. This cam very effectively locks the fence in place and automatically squares the fence with the saw blade.

This fence has been accurately adjusted at the factory and is of such sturdy design that it can't get out of adjustment unless some serious accident should happen to it, such as a severe bump or by dropping on the floor.

However, adjustments may be made to the fence if necessary. Minor adjustments for bringing the fence in alignment with the saw blade and miter-gauge grooves may be made in the following manner:

Place the single-control-knob in its middle position, and, after loosening the rear lock, remove the fence from the saw and place it upside-down on the bench. By examining the fence assembly you will note that the fence proper is fastened to the casting which slides along the bar, known as the fence bracket, by two large socket-head cap screws.

To adjust the fence, loosen these screws slightly with the Allen wrench supplied, to a point where they are still quite snug. Place the fence back on the saw and line one side of the fence up with one side of the miter-groove at the front of the table. Now lock the fence by placing the single-control-knob in the lower position. By grasping the fence at the rear you can move it slightly to bring it into line with the miter-groove. After the fence has been lined up, carefully remove it from the saw and tighten the two socket-head screws just as tight as you can. The fence should then be replaced on the saw and checked for alignment once more.

MOUNTING THE SAW BLADE ON THE ARBOR

On the arbor of your saw there is 1⅛ inches of usable space. In this space you may put dado heads up to 1⅛ inches thick, cope or moulding heads, sanding discs and other accessories.

Note that there are three loose collars and a nut on the arbor. When placing the saw-blade on the arbor the collars should be arranged as follows: the thickest collar should go on first, next to the pulley, then the middle sized collars, next the saw-blade, which is followed by the small collar and the arbor nut. On the small collar be sure the recess is towards the blade.

When mounting the saw-blade or any accessories on the arbor, always remember that the collars and blade must be **free of dirt, sawdust or foreign matter of any kind, otherwise the blade will not run true.** Also, keep in mind that in 90% of the cases where the blade does not run true the trouble is caused by dirt on the collars or by a blade that is not true, rather than by the collars being out of true. The method of manufacture of these parts guarantees that the faces of these collars are parallel.

THE TABLE INSERT

The proper way in which to lay the insert in the table is to place it so that the finger hole is **towards the front** of the saw.

The insert is supported and kept level with four leveling screws, one under each corner. There are lock-nuts on the screws to keep them tight.

Should it become necessary, the insert may be leveled by loosening the locknuts and turning the screws with a screwdriver from the underside of the table until the desired adjustment is obtained, after which the lock-nuts should be tightened.

THE SAW-TILTING MECHANISM

The saw-tilting mechanism is made up of three main parts: the dust-chute, the intermediate arc-casting with the gear teeth, and the front leg member of the saw. The dust-chute and saw-arbor is tilted by a worm meshing with the teeth on the arc-casting and turned with a handwheel.

The saw-blade should be locked in position each time after a setting has been made by tightening the "vise handle" locking screw which is located directly below the saw top in the center of the front leg. **Do not be surprised if you are able to tilt the saw-blade with the handwheel after you have tightened the locking screw.** The locking screw will easily keep the dust-chute from moving under a heavy cut but it cannot resist the tremendous mechanical advantage developed by the worm.

Should the dust-chute seem to be loose and chattery after the saw has been used for some time, it may be remedied in the following manner: Remove the "vise-handle" locking screw and you will see a castellated nut on a bolt. This is the bolt which holds the dust-chute to the front leg. By tightening the nut you will snug up the fit of these parts and thus remove any looseness.

There are stops provided to limit the tilt of the saw at 90 degrees and 45 degrees. These are small screws with lock-nuts which are located in the wing-like extensions of the arc-casting. These stops have been set at the factory with accurate indicators and should need no further attention unless the ends of the screws have become worn. They may easily be adjusted by loosening the lock-nuts and turning the screw in or out as the case may be.

In checking the saw at 45 and 90 degrees it is best to make a few trial cuts on a straight board and measure the angle or cut rather than to measure the angle between the blade and the table top.

THE SAW RAISING-AND-LOWERING MECHANISM

The saw-arbor and bearing-housing are mounted in the dust-chute through a system of dovetail or V-ways. It is raised and lowered by an Acme-threaded screw, threaded through a floating nut and driven by a handwheel through a pair of spiral gears in the gear-housing.

On both the handwheel shaft and the threaded shaft there is a ball thrust-bearing backed up by a collar with a set-screw to hold it in place. Any lost motion in the handwheel may be taken out by keeping these collars set up snugly against the thrust bearings.

Please note on the right-hand side of the machine that there is a "vise-handle" locking screw and that directly above and below this screw there is a set-screw with a lock-nut. These are the screws for adjusting the tightness of the V-way.

This gib must be adjusted quite snugly so as to keep the saw accurate and free from chatter; however, they must not be adjusted so tightly as to cause the raising handwheel to turn hard.

The proper procedure in adjusting the gib is to lower the saw to its lower limit and adjust the lower set-screw to give a snug fit in the V-way. Next, raise the saw to its upper limit and adjust the upper set-screw in the same manner. After again checking the adjustments at the upper and lower limits the lock-nuts may be set up tight and the adjustment will hold.

When the saw is in use the "vise-handle" locking screw should be loosened each time before raising or lowering the blade and always tightened afterwards.

To insure the original accuracy of the saw throughout the year, this V-way should be kept clean, free of caked sawdust, and well lubricated at all times with grease.

Should it become necessary to remove the bearing-housing from the dust-chute, it may be easily done by first removing the two bolts which hold the gear-housing to the dust-chute and running the screw out of the floating nut. Then loosen the gib set-screws and locking screw which will allow the gib to be dropped out of the way. This will allow the bearing-housing to be taken out of the dust-chute.

ADJUSTING THE SCALE POINTERS ON THE RIP-FENCE

When the rip-fence is to the right of the saw-blade the left-hand pointer is used to measure the cut, and when the fence is on the left-hand side, the right-hand pointer is used.

The large numerals on the fence-bar are used when the bars are set in their normal position. The smaller numerals are used when the bars are extended out to the right for greater ripping capacity.

The rip-fence pointer should be set to measure the cut as it is actually ripped and not just the distance from the fence to the saw-blade. To properly set the pointers you should lock the fence in position at about 2 inches from the saw-blade and carefully rip a piece of straight stock. Measure the width of the board you have ripped and adjust the pointer to read the same dimension. Then rip another piece at a different setting and check the reading again.

SETTING THE DEPTH-OF-CUT SCALE

The depth-of-cut scale may be found below the table top and directly above the raising and lowering gear housing.

The proper procedure in setting this pointer is to raise the saw to a nominal height, about one inch, and cut through a two-inch piece of stock. Carefully measure the depth of the cut and by loosening the set-screw which holds the pointer you may adjust the pointer to correspond with the depth of the cut.

LUBRICATION OF THE MODEL 2500 SAW

The arbor bearings of this saw are of the double-seal greased-for-life type and they need no further greasing or attention.

The raising-and-lowering gears are greased-packed and sealed so that they will stay lubricated for the life of the saw.

A few drops of oil should be placed on the thrust-bearings of the raising mechanism from time to time to keep them working easily. A little grease should be spread on the Acme-threaded raising screw; the floating nut should also be oiled occasionally for easy operation and to keep it from rusting.

The dovetailed slideways of the bearing housing should be kept clean and greased occasionally.

If the saw is to be left idle for some time in the basement or in damp surroundings, it is a good practice to lightly grease all ground or finished surfaces which might become rusted.

REPAIR PARTS

Price List

Part No.	Item	Qty.	Price
TABLE ASSEMBLY			
2500-1	Table Casting 20x27½" w/leveling screws	ea.	$26.30
2500-2	Table Insert for blades	ea.	2.05
REAR-TRUNNION ASSEMBLY			
2500-46*	Rear Female Trunnion w/bolts (bolts to table)	ea.	1.00
2500-45	Rear Male Trunnion w/bolts (bolts to dust chute)	ea.	1.00
2500-4	Rear Legs	ea.	3.70
DUST CHUTE ASSEMBLY			
2500-13	Dust Chute and Dovetail Slideway Casting	ea.	7.00
2500-7	Arc Casting with segment of circular rack teeth, less screws and degree scale	ea.	4.40
2500-8	Angle of Tilt, Degree Scale with screws	ea.	.40
2500-14	Depth of Cut, "Inch Scale" with screws	ea.	.40
2500-18	Adjustable Steel Gib to fit dovetail slideway only	ea.	.75
	Cone Pointed Adj. Screws (3 to set)	ea.	.05
	Jam Nuts (3 to set)	ea.	.03
2500-15-SA	Hand Levered Lock Screw (locks vertical travel)	ea.	.90
SAW-ARBOR HOUSING ASSEMBLY			
2500-19-SA	Saw Arbor Housing, complete	ea.	19.90
2500-20	Saw Arbor Housing Casting with Dovetail slide	ea.	3.50
XN-34	Arbor Nut Hexagon	ea.	.40
2500-26	Beveled Collar for Arbor 5/16" thick	ea.	.90
2500-25	Small Spacing Collar for Arbor, 2" dia. x ⅜" thick	ea.	.90
2500-24	Large Spacing Collar for Arbor, 2" dia. x 9/16" thick	ea.	.90
2500-21	Saw Arbor including Combination "V-Pulley and Tight Collar," taper pinned in position	ea.	5.25
2500-22	Spacing Collar (Between Ball-bearing and V-Pulley)	ea.	.30
LW-832	Lock Washers (4 to set)	ea.	.15
ND-88504	Ball-Bearing (Nearest Saw Blade end)	ea.	4.40
XMR-3	Bearing Retainer Screws (4 to set)	ea.	.10
ND-88504	Ball-Bearing (farthest from blade end)	ea.	4.40
2500-17	Depth of Cut Pointer, with set screw	ea.	.15
	Bevel Gears for No. 1500 Saw	set	3.30
	Universal Joint for No. 1500 Saw	ea.	2.55
	Complete Raising and Lowering Assembly	ea.	10.70
ELEVATING OF ARBOR, GEAR MECHANISM			
2500-28-SA	Arbor Raising Assembly	ea.	10.60
2500-37	Floating Nut for engaging elevating screw	ea.	1.10
2500-38	Transverse Floating Journal for above nut	ea.	.90
2500-30-SA	Acme, 7/16 x 14 Pitch, Elevating Screw with steel spiral gear	ea.	2.60
2500-36	Collar for above elevating shaft w/set screw	ea.	.45
603-¼	Ball Thrust Bearing (2 to set)	ea.	.90
2500-33-SA	Horizontal Shaft with steel spiral gear, one unit	ea.	2.40
2500-36	Collar for above horizontal shaft with set screw	ea.	.45
2508	Handle	ea.	2.75
2500-29	Gear Box Housing Casting, with bolts	ea.	2.60
XPW-24	Welch Expansion Plugs for same, per pair	pr.	.35
TILTING OF ARBOR MECHANISM			
2508	Hand Wheel with rotating handle with set screw	ea.	2.75
2500-41-SA	Shaft with Worm, for tilting arbor (one unit)	ea.	2.00
2500-40	Collar for above shaft, w/set screw	ea.	.45
XWF-1064	Fiber Washer	ea.	.15
FRONT TRUNNION LOCKING DEVICE			
2500-10-SA	Vice-handled Hollow Nut	ea.	1.10
2500-L-4	Castellated Adjusting Nut, with cotter key	ea.	.15
2500-9	Special Trunnion-Locking Bolt	ea.	.65
FRONT LEG CASTING, OR FRONT TRUNNION			
2500-3	Front Leg Casting, or Front Trunnion	ea.	6.15
2500-44	Degree Scale Pointer, with screw	ea.	.45

Part No.	Item	Qty.	Price
FRONT AND REAR, FENCE BARS			
F-2507	Rear Angle Bar with screws. Standard length as on 2500 Saw	ea.	1.75
2500-74	Rear Angle Bar with screws. Special length as on 2505 Saws	ea.	2.60
F-2505*	Front Tubular. Graduated Bar with full set of flanged castings and bolts (2). Standard length as on 2500 Saws, 2 brackets	ea.	4.35
2500-71-SA	Front Tubular, Graduated Bar. Special length as on 2505 Saws, 4 brackets	ea.	6.15
2500-72	Die Cast Tubular Bar Bracket	ea.	.65
2500-75	Wrench for lugs	ea.	.15
RIPPING FENCE ASSEMBLY			
2500-55-SA	Cam Lock Assembly, complete	ea.	5.75
XHC-103	Hollow Hd. Set Screw ¼-20 x ¼ 2 Required	ea.	.15
XCS-309	Hollow Hd. Cap Screw ⅜-16 x ½ 2 Required	ea.	.15
XMR-3	Rd. Hd. Mach. Screw 8/32 x ¼ 2 Required	ea.	.10
DKL-1	Decal, 1 Required	ea.	N. C.
2500-66	Rip Fence Casting only	ea.	8.35
2500-67	Rear Lock Finger Casting only	ea.	.60
2500-68	Pivot Screw for rear finger	ea.	.30
2500-69	Rear Lock Operating Rod, with thumb nut	ea.	1.35
2500-70	Knuckle Thumb Nut for No. F-2515	ea.	.35
2500-50-SA	Fence Bracket Casting, comp.	ea.	12.05
2500-52	Fence Bracket Casting for fence (F-2501)	ea.	2.60
2500-53	Cross-pin for spring engagement	ea.	.30
2500-54	Pointer for "Inch-Scale" w/screw (2 to set)	set	.15
F-2512	Rubber Friction Wheel (new Type)	ea.	.75
2500-57	Special Spring for 3-way positionment of shaft	ea.	.20
2500-64	Pivot Pins for Cam lock casting Per pair	pr.	.35
2500-56	Milled-Cam, Lock Casting	ea.	1.10
F-2511	Single Control Shaft w/nut and washers only	ea.	1.50
HG-1-SA	Hand Grip Knob, for "micro-set" motion	ea.	1.30
2500-49-SA	Rip Fence Assembly, complete	ea.	20.05
MITER GAUGE CONE POINTED PLUNGER TYPE OF "MICRO-SET"			
G-1501	Miter Gauge Casting only	ea.	3.95
G-1502	Slide Bar only	ea.	1.10
G-1503	Special Central Pivot Stud	ea.	.45
G-1504	Stud	ea.	.25
G-1505	Hand Knob to lock gauge at angle	ea.	.90
G-1506	Bevel Washer	ea.	.05
G-1511	Lock Nut (3 to set)	set	.50
G-1512	Vee-Type Adjusting Screw	ea.	.35
G-1513	Knurled Thumb Screw. To lock end-stop rod (2 used)	ea.	.30
G-1507*	Combination Pointer and Plunger Housing Assembly	ea.	1.30
G-1515*	Miter Guide Extension Rods	ea.	1.95
SAW GUARD ASSEMBLY			
XMR-110	Round Hd. Mach. Screw ¼-20 x ¾" L	2	.15
XNJ-100	Hex. Jam Nut, ¼-20	2	.15
XC-104	Hex. Hd. Cap Screw, ¼-20 x ¾" L	4	.30
	Washer 11/16" OD. x 5/16" ID x 1/16" thick	4	.15
XHC-103	Hollow Hd. Set Screw ¼-20 x ¼" L	ea.	.15
SN-½	Snap Ring	4	.30
G-2501	Saw Guard Basket Casting Pattn. No. 425	ea.	3.30
G-2502	Saw Guard Alum Arm Cstg. No. 424	ea.	2.75
G-2503	Pivot Pin ½" dia. x 1⅝" long	ea.	.20
G-2504	Anti Kick Back Pawls 4⅜" long	2	.95
G-2505	Anti Kick Back Pawls 2 3/16" long	2	.90
G-2506	Pivot Pins, ½" dia. x 1" long	ea.	.20
G-2507*	Splitter Plate with Welded Bars	ea.	4.05
G-2509	Pivot Pin, ½" dia. x 1¼" long	ea.	.20
G-2510	Stiffening Plate, ¼ x 1¼ x 3" long	ea.	.65
G-2511	Splitter Bracket Cstg. No. 422	ea.	.95
G-2512	Rear Arm Iron Cstg. No. 423	ea.	1.95

Notes: 1. Minimum order $1.00

2. Prices in this list apply only to parts ordered for repair or replacement. They are not to be used for "allowance" values when ordering machines "less" certain parts. Write for quotations on such special machines.

3. All Prices are F.O.B., Toledo, Ohio and subject to change without notice.

TYPE "H" BALL BEARING SINGLE PHASE MOTORS

Peerless Electric

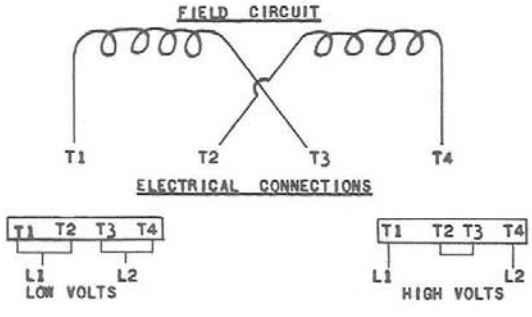
DO NOT THROW THIS SHEET AWAY

It should be retained, for use in case your Motor needs repair

SEND TO YOUR REPAIR SHOP WITH MOTOR IN CASE OF TROUBLE

BEFORE STARTING YOUR MOTOR

1. UNPACKING — When unpacking the motor, look for signs of damage at once. Save the Connection Diagrams and Instruction Tags shipped with motor.
2. Peerless motors are fully tested and inspected before shipment. Any trouble which appears to lie within the motor may, in the majority of cases, be due to causes outside of the motor.
3. Check voltage of line and the terminal lead connections, before starting motor. Run motor idle for a few minutes as preliminary test to check for unusual noise and direction of rotation.
4. VOLTAGE — Should be within 10% of name plate readings.
5. OVERLOAD PROTECTION — See that the proper fuses or overload protective devices are installed in the line.
6. ROTATION—The rotation is set to suit driven machine, but can be changed by shifting the brushholder. Brushholder rings should be set with the pointer mark exactly opposite marks on brushholder frame, according to the rotation desired. To shift the brushholder for a new rotation, loosen locking clip, the brushholder ring will then move freely.
7. BRUSHES — Should move freely in holders. If brushes stick it is usually due to accumulated dirt and oil. Brushes should be inspected occasionally to see that they are long enough to press firmly against the commutator. Brush springs should have equal tension. Only brushes of the same size and shape as those originally supplied and that are connected by a shunt, should be used.
8. LUBRICATION—No attention will be required for one to three years, depending on the amount of use Motor has had. Then use light grade ball bearing grease as required.



FOR CARE AND IN CASE OF TROUBLE

1. CLEANING—To secure the best results and longest life from your motor, occasionally clean and blow out accumulated dirt and dust and wipe off any overflow oil from the bearings. Once a year, or if short circuit mechanism sticks due to dirt, dismantle motor and clean out any accumulation of dirt that may be causing the trouble.
2. NO VOLTAGE—Check with test lamp or voltmeter.
3. GROUND FIELD—If motor gets very hot, produces shock when touched, or if watts are excessive, test for field ground with test lamp between field leads and frame.
4. OPEN CIRCUIT FIELD—Apply line circuit to leads No. 1 and 3 or No. 2 and 4 separately, with a test lamp in series with the line and motor leads, if lamp does not light, circuit is open.
5. SHORT CIRCUITED FIELD—If motor draws excessive watts and at the same time lacks torque, gets hot or hums, a shorted field winding is indicated.
6. COMMUTATOR—If the commutator becomes rough and burned, it should be cleaned by holding a piece of sandpaper (No. 1 or No. 0) against it with a block of wood. (Never use emery cloth or paper.)
7. See that the commutator is in good condition. If it has become roughened or black, clean and polish as described before. If badly burned, commutator should have light cut taken off on a lathe.
8. Type H Motors are of the non-brush lifting type and will continue to run when the short circuiting mechanism has failed to function. However, if this faulty operation is continued for any considerable length of time, the commutator will become blackened and burned, and an early complete overhaul of the motor will be necessitated.
9. To detect a short circuit in the armature, disconnect motor from load, and remove brushes. Close the circuit to motor and revolve armature by hand. If there is a short circuit in the armature it will tend to stick under each pole. If it turns smoothly and freely, the winding is alright.
10. If any of the above defects are indicated return motor to Factory or an authorized repair shop for repairs.
11. Excessive Load — May be approximately determined by checking the ampere input with the name plate marking. Excessive load may prevent the motor from starting or accelerating to full speed.
12. HOT MOTOR — Do not judge temperature by hand. A thermometer is necessary. Motor insulation will successfully withstand a maximum observable temperature of 95°C (200°F.)

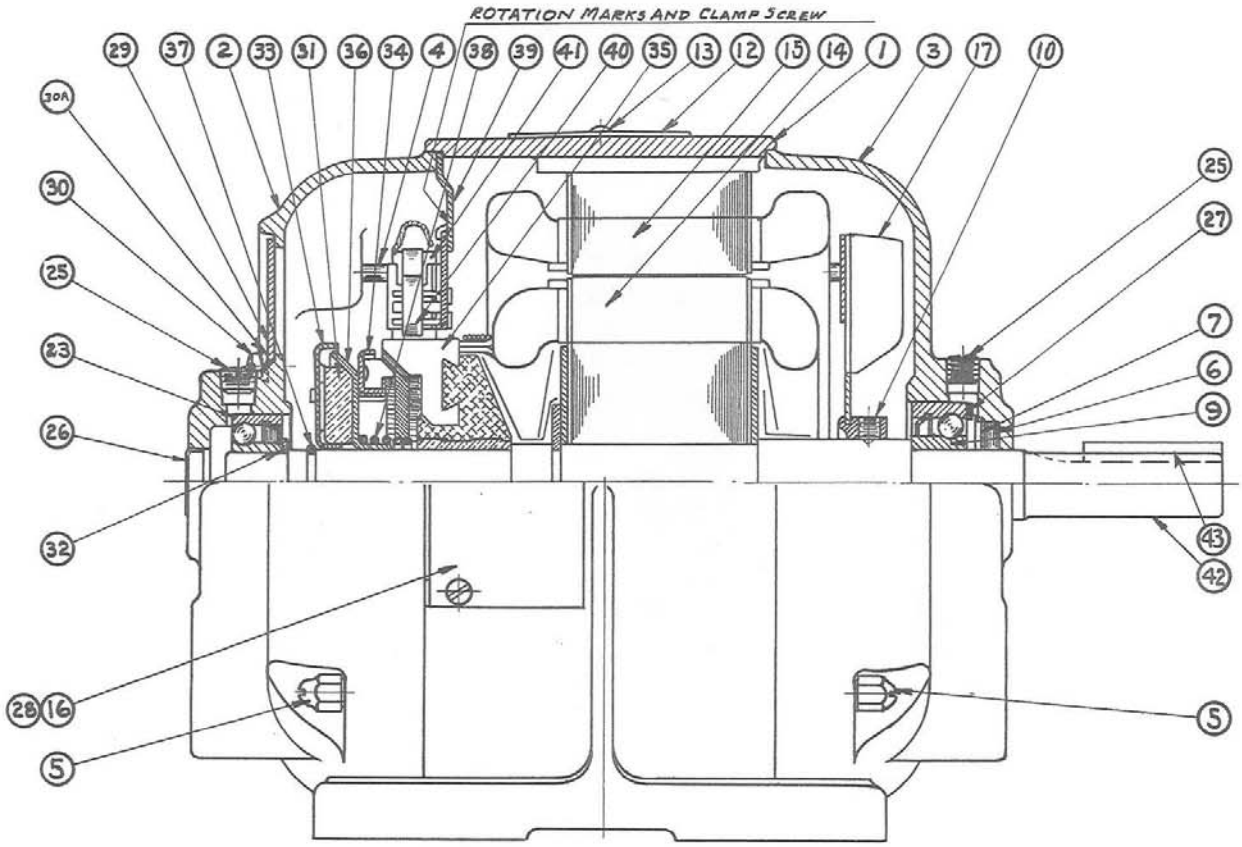
IN CASE OF EXCESSIVE NOISE

13. Check for loose parts in motor. Loose through bolts, loose hold down bolts, bad alignment of hoods, sprung shaft, etc.
14. Check for unbalanced rotor and faulty bearings.
15. In addition to the above, make sure the air gap is free of any foreign residue, such as dust or dirt. If air gap fills up, this will overload your motor and cause undue heating. If motor is operating in dirty surroundings, the ventilation fan will suck dirt which may fill the air gap.

THE PEERLESS ELECTRIC CO.

WARREN, OHIO

TYPE "H" MOTOR
CROSS SECTION



DWG. C-4809

MATERIAL LIST

1. Field Shell
2. Front Hood
3. Pulley Hood
4. Hood Bolts
5. Hood Bolt Nuts
6. Felt Washer
7. Washer Retainer
9. P. E. Ball Bearing
10. Fan Set Screw
12. Name Plate
13. Name Plate Pins
14. Wound Rotor Complete
15. Wound Stator Core
16. Terminal Box
17. Fan Assembly
23. C. E. Ball Bearing
25. Oil Plug
26. Dust Cap
27. Loading Spring
28. Terminal Box Cover
29. Front Hood Cover
30. Cover Screws
30A. Cover Washer
31. Gov. Weight
32. F. E. Bearing Spacer
33. Sh. Cir. Support
34. Short Cir. Assembly
35. Commutator
36. Gov. Weight Back
37. Gov. Mech. Snap Ring
38. Gov. Weight Spring
39. Brush Holder Assembly
40. B. H. Spring
41. Carbon Brush (2 to set)
42. Rotor Shaft
43. Pulley Key