Operating Instructions

FOR THE MODEL 1300-1340 PEERLESS LAWNMOWER SHARPENER

Manufactured by -

THE FATE-ROOT-HEATH COMPANY

SPECIAL PRODUCTS DIVISION

Plymouth, Ohio, U. S. A.

FIRST PRINTING

FORM 1300

Play Safe with ANY GRINDING WHEEL

OBSERVE THESE SAFE PRACTICES

	D 🗿
1	DO always HANDLE AND STORE wheels in a CAREFUL manner.
2	DO VISUALLY INSPECT all wheels before mounting for possible damage in transit,
3	DO RING TEST each wheel. Tap each wheel gently with a non-metallic object (such as a screwdriver handle) while wheel is held suspended by a finger through the arbor hole. A sound wheel will have a clear ring, a cracked wheel will not.
4	DO CHECK MAXIMUM OPERATING SPEED established for wheel against machine speed.
5	DO CHECK MOUNTING FLANGES for equal and correct diameter. (Should be at least 1/3 diameter of the wheel and relieved around hole.)
6	DO USE MOUNTING BLOTTERS supplied with wheels.
7	DO ALWAYS USE A GUARD covering at least one-half of the grinding wheel.
8	DO ALLOW NEWLY MOUNTED WHEELS to run at operat- ing speed, with guard in place, for at least one minute before grinding. Hold a board or some other protection as a shield between yourself and the wheel when starting for the first time.
9	DO ALWAYS WEAR SAFETY GLASSES or some type of eye protection when grinding.
0	DO TURN OFF COOLANT before stopping wheel to avoid creating an out-of-balance condition.

	D O N' T
	DON'T use a wheel that HAS BEEN DROPPED.
	DON'T FORCE a wheel onto the machine OR ALTER the size of the mounting hole — if wheel won't fit the machine get one that will.
	DON'T ever EXCEED MAXIMUM OPERATING SPEED established for the wheel.
	DON'T use mounting flanges on which the bearing surface ARE NOT CLEAN AND FLAT.
ľ	DON'T TIGHTEN the mounting nut EXCESSIVELY.
	DON'T grind on the side of the wheel unless the whee' specifically designed for that purpose.
	DON'T start the machine until the WHEEL GUARD IS IN PLACE. Use extra protection, a shield of some kind, and stay clear when starting a new wheel for the first time.
l	DON'T JAM work into the wheel.
	DON'T STAND DIRECTLY IN FRONT of a grinding whee whenever a grinder is started.
	DON'T grind material for which the WHEEL IS NOT DESIGNED.

OBSERVE these SAFETY PRECAUTIONS with ANY GRINDING WHEEL and ESPECIALLY WITH WHEELS for IDEAL, PEERLESS and SIMPLEX LAWNMOWER SHARPENERS and GRINDERS. Every procession is taken in the manufacture and handling of grinding wheels for this equipment, however we cannot be responsible for damage that may happen in transit, damage that may make these wheels unsafe.

DON'TS AND CAUTIONS

- Do not attempt to grind mowers until you study these instructions carefully.
- 2. Do not grind a good mower until you are familiar with the sharpener, practice on an old one.
- 3. Use plenty of kerosene oil in pinion gears, clutches, dogs, or ratchets of a mower. This makes slipping clutches grab and hold fast. It also saves installing new ratchets or pawls when not actually needed.
- Do not force set screws, adjusting screws, or bolts. Use a rust-removing penetrating oil on them or heat them to a high temperature with a torch to loosen them.
- 5. Do not forget that by forcing adjusting screws or bolts, you can easily break a lawnmower frame casting.
- Do not try to tighten one adjusting screw without loosening the opposing adjusting screw, something may break.

- 7. Do not force the adjusting screw if the bed knife does not set up to the reel blades. The pivot points at the ends of the bed knife may be rusted fast to the mower frame or the opposite adjusting lug may be dead against the frame with all the adjustment taken up. Take the bed knife out and grind off the lug to fit.
- Do not use case hardened pawls, dogs, or pins in the pinion or drive gears of a mower. They cut out notches rapidly. It is cheaper to replace pawls than pinion gears.
- Do not fail to keep the GD-1377 hook set as close to the grinding wheel as possible. See figure for the correct setting.
- Do not use extra weight on the weight feed for thinbladed mowers. If the cut is too light, retard the travel of the grinding head by hand.

THE FATE-ROOT-HEATH COMPANY SPECIAL PRODUCTS DIVISION PLYMOUTH, OHIO, U.S.A.



J-80	Wing Nut
J-216	Feed Weight, small
J-287	Feed Weight Pulley
J-338	Cronk Collar
J-339	Crank
J-340	Set Collar, ½" bore
J-340X	Set Collar, $\frac{1}{2}$ "bore (2 drilled holes)
J-351	Plastic Knob, large
J-410	Set Collar
JD-55	Feed Weight Chain
JD-92	Plastic Knob, small
JD-94	Crank Collar, % '' bare
P-424	Elevating Nut
P-429	Crank for P-424
P-438	Harizontal Adjusting Nut
P-439	Horizontal Adjusting Screw
R-232	Adjusting Bor
R-330	Lever Stud
GD-198	Clamp Screw Assembly
GD-1301	Lower End Frame
GD-1303	Upper End Frame
GD-1305	Track Shaft

GD-1307	Track Shaft Support
GD-1309	Tie Rod
GD-1311	Elevating Screw Support
GD-1313	Elevating Screw
GD-1317	Left Support Bracket
GD-1321	Mower Support Shoft
GD-1323	Trunnian Bracket
GD-1325	Mower Support
GD-1327	Tie Bar Support
GD-1329	Tíe Bar
GD-1331	Clamp Extension Screw
GD-1333	Bushing
GD-1335	Clamp Arm
GD-1337	Adjustable Clamp
GD-1367	Support Knuckle
GD-1405	Feed Weight Support
GD-1407	Diamond Dresser Assembly Complete
GD-1417	Tool Tray
GD-1418	"V" Support
GD-1437	Weight
GD-1439	Set-up Gauge

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ASSEMBLING INSTRUCTIONS

The Models 1300 and 1340 Peerless Lawnmower Sharpeners are designed for the lawnmower service operator who wants the ultimate in precision grinding combined with the ease of operation, rugged long life service. The Model 1300 offers a combination of "Hook" and "Straight Line" grinding methods, ond the best features of the Model 410 Simplex and the Model 900 Ideal. We are proud to offer these machines at such reasonable prices.

The Model 1300 series is shipped in one crate and is almost completely assembled. It can be set up for operation in a few minutes. Figure #1 shows the Model 1300 completely set up. The main frame must be raised to remove the $\frac{1}{2}$ " cop screws used to secure the feet to the shipping base. After removing the cap screws, add a jam nut to each and replace them in the feet to be used later as leveling screws.

Unpack the carton and check all parts received for shipping damage. Refer to your parts list in figure #1 and determine, in the event of damage, if any ports are missing. Note-if damage or loss is discovered, notify the agent for the carrier of once. Make out a claim and then order from us the parts needed to repair or replace the damage or loss. We must charge you for these parts and you will be reimbursed for the amount of your claim by the carrier. The shipment, by law, becomes your property when it leaves our factory, only YOU can file a claim. Shipments by Express, Roilroad, or Truck are insured by the carrier and any damage or loss is covered. All you have to do is file a claim, In event the damage is discovered later, contact your agent to fill out a concealed damage form. These are more difficult and require a greater length of time. Therefore, a careful inspection now is called for.

Place accurate level across top of track shafts at each end and level machine with the leveling screws in the bose. Then place the level along or lengthwise of the shaft at the center of the machine and level. Recheck the ends. Lock

I. The reel type lawnmower cuts grass using the principles of shears. It is necessary, therefore, to have sharp cutting edges and these edges making close enough contact to cut the grass cleanly. This is the only method of mowing grass that is not harmful as each blade of grass is supported by the bed knife while the reel blade shears it off, thus eliminating bleeding and brown tops that are prevalent when the grass is whipped aff with rotary type mawers.

2. Remember that on a five bloded reel mower, the bed knife does five times the work of any one reel blade as all the reel blades must shear against it. The bed knife, therefore, is the master cutting element and although made of heavier and harder steels, it is impossible to sharpen a mower properly with dull reel blades without sharpening the bed knife too.

3. Many mowers are successfully sharpened by grinding only the bed knife and restoring its shearing edge when the shearing edges of the reel blades are in fair condition. The reverse of this is never true due to the uneven work load imjam nuts on leveling screws after leveling. Leveling screws should be placed on some hard material if floor is wood or if any danger of sinking in or settling exists. The machine is now ready for the grinding carriage. Place on track shafts, as shown in figure #1.

The grinding head has a carriage travel of 35" and stops are provided with rubber bumpers that can be set to limit travel at any point. The grinding head on the Model 1300 moves in a horizontal plane, floating freely on linear ball bushings for hook grinding. A lock, GD-1389, is provided for use in straight line or bed knife grinding. Vertical movement is provided by means of p vertical adjusting screw, GD-1436.

Before installing grinding wheel, suspend wheel by holding it on your index finger or wrench handle. Tap it lightly with wrench ar screw driver handle. This should produce a clear tone, if not cracked. Place on hub, PB-80, and tighten nut, PB-10. Spanner wrench is provided, P8-11, and do not over tighten. Assemble handle, 1342, in position, as shown in figure #14.

Loosen $\frac{1}{2}$ " allen set screw in GD-1358, figure #14. Pull forward on grinding head assembly to tighten belt. Your grinding wheel should be set straight up and down, true vertical.

LUBRICATION. The necessity of Jubrication has been minimized on your Model 1300 and 1340 Grinder. All bearings used are of the anti-friction type life sealed, lubrication not required. The motor is sleeve bearing and requires no lubrication for the first two years, then $\frac{1}{2}$ teaspoon light motor oil annually to each bearing. Instructions are on the mator cover plate. Oil other frictional points lightly, such as screw shafts, plvat joints, etc. Remember that a mixture of emery dust and oil forms a cutting compound which will damage your machine. Excess oil should be removed when machine is in operation.

PRINCIPLES OF SHARPENING

posed on the bed knife.

4. When a mower is brought to you for servicing, it is of the utmost importance to determine the cause of its faulty or unsatisfactory operation that led to its being brought into your shap. Often times, if the mower is operating satisfactorily in every respect except cutting the grass cleanly, it is only in need of adjustment of the bed knife to the reel blades or this adjustment has been attempted by the operator incorrectly. Examination of the cutting edges and shearing corner on the reel blades and bed knife should determine if the mower is in need of a complete grinding job. Often times, properly adjusting the mower will restore it to service or lapping the reel in with emery compound is the best sharpening method.

5. If a complete grinding job is in order, the process of servicing and preparing the mower for sharpening is 75% of the entire operation. The condition check list, starting with paragraph 13, will be a good guide to follow for building a successful business by assuring satisfied customers.

THE FATE-ROOT	-HEATH CO.
Mower Parts Div.	Plymouth, Obio
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	Thank You

These Claim Checks are available from our Mower Parts Division

6. The process of sharpening a lawnmower is really one of reshaping the cutting edge of the bed knife and the rotary reel blades by grinding, to restore their ability to cut grass. Equally important is the restoration of the match, or fit, of the reel blades to the cutting edge of the bed knife, against which all reel blades shear or cut.

7. For a mower to run easily and cut freely, it is important that proper bevel or relief angle be ground on both the bed knife cutting edge and the reel blades cutting edges. This gives clearance or relief behind the contacting edges and reduces drag and friction. Too little relief angle would leave more metal in contact causing the mower to run hard. Too much clearance or angle would weaken the cutting edges and they would nick easily and would not hold their adjustment. 8. For production reasons, most mower manufacturers spin or cylinder grind their reels. With this method, the reel is revolved on centers or on its bearings while a large grinding wheel passes back and forth grinding the reel to a true cylinder. No bevel or clearance is given to the reel blades and the entire thickness of each blade makes a rubbing contact with the bed knife. The manufacturers do put clearance or bevel on the bed knife, otherwise the mower would run too hard to sell even as new.

9. This is why a new lawnmower, especially a hand mower, can be improved by grinding the reel blades on the Peerless Sharpener. Only when the reel blades are ground one at a time can each blade be given a bevel and thus a desirable clearance behind the cutting edge. A power mower does not need as much clearance as a hand lawnmower as they need not be pushed and the cutting edges need extra strength which results by decreasing the clearance angle.

10. Because the Models 1300 and 1340 Peerless Lawnmower Sharpeners do a precision job of grinding a lawnmower reel to fit its bed knife resulting in equal contact of all the reel blades with all points of the bed knife, it is of the utmost importance that the lawnmower be properly prepared for grinding. The preceding material has dealt with principles and theory and was not intended as specific step-bystep instructions covering specific operations.

11. A typical customer claim check and mower identification lag is shown in figure #3 as a guide for lawnmower repairman and service shops that want to establish or revise an accounting system. The customer's claim stub should be left blank for his protection in case he should lose it, however, you can stamp or print your name and address on it if you wish. These tags, properly filled in and filed, provide you with a complete record and accounting system, list of customers with addresses and phone numbers, record of work done and date of last sharpening, and any other information you may wish to record. You can use this customer list to your advantage in the fall and winter by offering to pick up their mowers, provide winter storage and sharpening, and spring delivery. This will increase your off-season business and leave you free to go after new business in the spring.

12. When a lawnmower is brought to you for sharpening or winter storage, the following checks should be made in the presence of the customer, if possible, and the condition of the mower recorded.

13. CONDITION CHECK LIST. This provides a sound basis for charges to be made as well as a record for future reference. Notes on the condition of the mower and work customer wants done should be written on the large part of the identification tag to guide you when the mower is being serviced.

14. HANDLE. Check for broken welds on steel handles, or splits on wooden handles. Note if cross arm is loose. Make a note on the tag if the handle was not brought to the shop with the mower.

15. **ROLLER.** Check for split or worn (undersized) rollers and loose pins. Also check the roller hangers for excessive wear or breakage. 16. PINIONS AND PAWLS. Turn wheels vigorously by hand to see if the reel is positively driven. If there is slippage, the customer should be advised that new pinion gears and pawls may be needed and the approximate cost of the repairs.

17. FRAME. Check that the front spacer bar and the bed knife are fastened securely and that the frame in general is not loose. If the frame is loose, it is probably out of alignment. This can be checked by sighting along the front spacing bar with reference to the reel axle shaft to determine if these two are running parallel with each other. If not, the mower must be twisted by loosening one end of the spacing bar and one end of the bed knife assembly and twisting the mower frame until alignment is made. Care should be taken when re-tightening the spacing bar to assure the frame is not spread further apart as this will effect the reel bearing adjustment. Examine the side plates for cracks and look for stripped threads on the bed knife adjusting screws.

18. BED KNIFE. Check and determine if the bed knife has enough body left for grinding or if it should be replaced with a new knife blade. Also check general conditions of the cast back and pivot points.

19. **REEL**. Check the reel for proper (free) rotation on its axis (Bearing races) and examine the reel blades for bad nicks that might indicate a twist or sprung spider. Check to see that reel blades are securely fastened to the spiders and that the spiders are secure on the reel shaft. A sprung reel blade can be forced back into place rather than resorting to excessive grinding to restore it.

20. WHEELS AND TIRES. Check for excessive end play or wobble. Wheels may be broken or cracked and tires may need replacing due to wear. Cleaning grease and grass out of the ring gear of the wheel may make the drive more noisy but should result in easier operation. You can take your choice on cleaning the ring gear, however, when new pinions are installed, the ring gears should definitely be cleaned.

21. **REEL BEARINGS.** Check for vertical or end play of the reel due to wear or improper adjustment of the reel bearings or pitted cups and cones. If the bearings are loose or worn and are of the non-adjustable type, new anes will be needed and their cost should be taken into consideration.

22. CLEAN AND TOUCH UP. Most owners appreciate clean machinery and will gladly pay to have their mower thoroughly cleaned and exposed metal parts painted. (Note—the following applies only to power lawnmowers.) Discuss the condition of the engine with the owner and, if necessary, start the engine and check its operation. If you do not work on engines yourself and it is in need of attention, after to remove the angine and have the necessary work done by a garage or authorized service station for that make of engine. A working agreement should be established allowing you a percentage for work you bring in.

23. It is not necessary to remove handles, they can be left in place during the sharpening operation. However, a mower in bad condition can be worked on with more convenience if the handle is removed since it can be turned over and up on end for repairs and adjustment. Loose bearings, misalignment, sticking wheels, wire or grass tangled reel shaft, and exceptionally dirty condition, are a few of the things that must be remedied before a mower can be ground. You can decide if these conditions can be most conveniently remedied with the handle on or off. As for as the operation of the Peerless is concerned, it makes no difference.

24. The same is true for power mowers They can be sharpened in your Peerless Sharpener while completely assembled, engine, handle and all. However, if there is any amount of repair work necessary, it will be more convenient to disassemble them. Power mowers generally are driven by choins which drive the reel oxle, this in turn drives the wheels through the pinion geors which are reversed as compared to a hond mower. Best results are obtained by having the drive chain disconnected as the reel must be free to turn. Some mowers have this chain encased making it difficult to remove. If the driving clutch is such that the reel will revolve fairly free, the drag from the drive chain may not be sufficient to interfere with the sharpening operation.

25. Because this book is a bilateral instruction book to cover both the Models 1300 and 1340 Peerless Lawnmower Sharpeners, it will be necessary to point out that with the two sharpening principles available in the Model 1300, and the straight line principle only in the Model 1340, that exact procedures in sequences will vary depending on the model machine and the principle being used.

26. It is impossible to cover the exact steps and procedures necessary to sharpen every different make and model of hand and power lawnmowers. You will have to use your ability and sometimes ingenuity in following the general instruction laid forth herein and applying them to the different types of mowers encountered.

REMOVING AND GRINDING THE BED KNIFE

27. If the Model 1340 Peerless Lawnmower Shorpener is being used or if the straight line grinding principle is utilized in the Model 1300 Peerless, it is not absolutely necessary to remove and grind the bed knife prior to grinding the reel blades. However, if the hook grinding principle is to be utilized in the Model 1300, then it is necessary to remove and grind the bed knife first.

28. Generally speaking, most shops do remove and grind the bed knife first regordless of the principle being used, as the majority of the lawnmower shops use a separate bed knife grinding machine. By removing the bed knife and grinding first, it affords a more complete inspection of the lawnmower and a check on the reel bearings. Also if more than one operator is utilized, this is a procedure to best work as a team in preparing lawnmowers for sharpening. Most operators prefer to have the mower ready to receive its final adjustment after the reels have been ground to determine the quality of the job achieved and, of course, to do this the bed knife must have been previously sharpened.

29. The first step in sharpening procedure is to remove the bed knife, (sometimes called a straight blade, cutter bor, and other names, we will refer to it as the bed knife) from the mower. Most bed knives are held in the mowers by cap screws or nuts and bolts through the ends of the bed knife cast back and the side frames of the mower. Relieve the

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pressure or tension on the bed knife adjusting screws before removing the end bolts. Put a few drops of oil on all screws or bolts removed or loosened, this will help in re-assembling and adjusting and will prevent rust. This practice will also make mowers easy to work on when brought to you for future sharpening jobs. After the cap screws or bolts are removed, use a large screw driver or pinch bar to spring the side frames of the mower apart so that the bed knife assembly can be removed, see figure #4. Some mowers are constructed differently and the above procedure would not fully apply. However, after you have worked on a few mowers, you will be able to remove any bed knife, no matter how it is constructed, in a very short time.

A large percentage of the bed knives are secured to 30. the cast back with screws. Some operators find it advantageous to use an impact tool and remove these screws thus removing the knife itself from the cast back. They have then provided a special holding means in their bed knife grinder to accommodate just the knives. They sharpen it in this manner and replace it to the cast back, thus eliminating the need of removing the entire bed knife assembly. This is mentioned as a variation and for your general information, it is our opinion that the majority remove the entire assembly. This practice is recommended particularly if the straight line grinding method is being used, as not all cast backs are machined true and many warp or deteriorate from rust in use. Thus the knife itself, though ground straight, would be drawn out of true when replaced to the cast back. In straight line grinding the reel, a good fit would not result. However, hook grinding would grind the reel to fit the bed knife and this procedure could be utilized under hook grinding conditions.

31. After the bed knife assembly is removed, it should be cleaned and inspected. A screw driver or putty knife and wire brush will effectively remove the dirt and grease that accumulates behind the lip of the bed knife. The blade should be cleaned before it is ground.

32. It should be noted if there is a wavy appearance or condition along the top face of the bed knife. This would indicate that the bed knife has been adjusted to the reel with excessive pressure and, very likely, a condition of loose reel bearings exist. Also the contacting area of the top face edge made by the reel blades should be noted. If the mower is quite dull, this area will probably cover the entire thickness of the lip.



Fig. 5

Improper adjustment may result in having more lip left at one end of the bed knife than at the other end. It is advisable to compensate for this by removing more metal at the thick end, bringing the bed knife back to an even thickness after sharpening. The roundness of the front cutting edge should be noted as an equal amount from both the front edge and top face will have to be ground away to arrive at a sharp, shearing corner. If the edge is extremely rounded and dull, it is advisable to remove a little more metal from the front edge.

33. Figure #5 illustrates the angles and relationship of the bed knife to the reel to be ground and to the diameter of the reel blades. There are exceptions to this illustration but this is the more general type that will be found. In all cases, the front edge of the bed knife should be ground first. The wire edge left from this grind will be removed when the top face of the bed knife is ground. The front edge can be ground perfectly square. However, as the illustration in figure #5 shows, an angle of 5 to 10 degrees is desirable. After the front edge has been ground, the top face is ready to be ground and referring again to figure #5, a perfectly level surface will provide clearance. When grinding this surface, the first light cut should show contact with the back edge of the lip indicating clearance behind the front shearing edge when the blade is ground down to provide a new sharp front edge.

34. If the bed knife grinding attachment, available as an accessory for the Model 1300 series grinders, is to be used, it will be necessary to swing up the bed knife holding "C" clamps and place the bed knife in these clamps, tightening each one equally and allowing the bed knife to extend out from these clamps sufficient for grinding purposes, see figure #6. With the cup grinding wheel arbor installed, it is recommended that the front edge of the bed knife be ground first, referring to figure #7. It is only necessary to square up the bed knife with the horizontal adjustments and using the vertical adjustments, bring the grinding wheel into proper relationship with the front edge of the bed knife to



achieve the desired angle. Then moving the grinding carriage to each end of the bed knife, adjust with the vertical adjustments until equal contact is made at each end, this can be checked by turning the grinding wheel by hand and making a scratching contact. Grinding is then started and continued until the desired amount of metal is removed to provide the necessary results as covered in the previous instructions and figure #7. The bed knife is then rotated approximately 90 degrees and the top edge or face brought into position and again the grinding wheel adjusted to produce a parallel grind as noted in figure #6. Again the vertical adjustments are used to bring the grinding wheel into equal scratching contact at each end of the bed knife and grinding continued until the desired results have been achieved. You must try to avoid excessive heat building up in the bed knife while grinding or once it cools down, you will find the center of your bed knife will be dished out and your reel blades will have a tendancy to miss in the center. The knife can then be removed and the bed knife grinding holding attachment swung out of the way to make the mower support bar available for the lawnmower.

35. After the bed knife has been removed from the machine, we suggest that a small honing stone or a fine mill file be used to slightly hone or touch up the new cutting edge and remove any slight wire edge that might have remained. If the bed knife and the mower are not to be used immediately, apply oil to the ground surfaces to prevent them from rusting. This will further serve to lubricate the sliding of the hook if the hook grinding principle is to be used in grinding the reel blades.

36. Most shops and service men have added the Model 50 Ideal Bed Knife Grinder in their first year of business, some in their second year. Men who are experienced in the lawnmower service field usually order the Model 1300 series and the Model 50 Ideal Bed Knife Grinder together. The Model 50 eliminates the need for the bed knife grinding attachment on the Model 1300 series. The Model 50 is a commercial shop machine designed especially for the grinding of bed knives and if the amount of your work would warrant it, it would speed up your production and increase the number of men you could use to service lawn mowers in your shop.



Fig. 7

37. After replacing the bed knife in the mower, see figure $\# \vartheta$, you should adjust your knife to the reel blades, leaving a gap of approximately 10 to 12 thausandths clearance between the two surfaces. This will allow the reel to rotate freely. A light piece of tin, see figure $\# \vartheta$ will make a good gauge for this and will avoid ruining a set of feeler gauges. The side bar adjusting screws will want to be drawn up tight to hold the bed knife from turning or twisting. This will also pull the side frames in to the position they will be when mowing is being done.

CHECKING AND PREPARING LAWNMOWER FOR SHARPENING

With the mower installed in your machine and secured with the overhead clamps, using one or two depending on the Model of Sharpener and the size of the mower being held, you are now ready to position the mower for grinding the reel blades. Figure ± 10 shows the lawnmower positioning gauge which will serve as your guide for the proper positioning of the lawnmower. As illustrated, this positioning gauge is placed at one end of the mower and allowed to rest across the main track shafts. Position the mower by using the vertical, horizontal adjustments and the overhead clamp or clamps until the bottom surface of the bed knife is squarely up against the end of the positioning gauge. The gauge must fit firmly against the bottom of the bed knife. This controls your in and out distance and the lip edge of the bed knife should be even with the top surface of the gauge which would control your vertical position. When this has been accomplished, the gauge is moved to the opposite end of the mower and the same adjustments repeated. Only the horizontal or the vertical adjustments may be necessary at the opposite end. (Note—you will find when one end has been adjusted to fit the gauge that on rechecking at the opposite end, changes have taken place. It will be necessary to repeat checking the mower position with the gauge at each end until these variations have neutralized and the same fit is achieved at both ends of the lawnmower.) This completes step one of setting your mower up. The position achieved should always remain constant with the exception that after your wheel has worn and reduced itself to near the minimum diameter usable, it may



be necessary, after this operation has been completed to bring the mower in toward the grinding wheel an equal amount at both sides. Perhaps one or two turns of the horizontal adjustments would be required and if applied evenly, will not disturb the alignment of the mower.

39. Before we proceed with step two of your set up instructions, we would like to call your attention to the fact that your feed control screw, which causes the hook to rotate around the grinding wheel, has been provided with a nut which limits the amount of movement you can achieve with this screw. This is done intentionally and the feed screw should never be attempted to be used for grinding when backed out further than the limiting nut will allow. Also you will note that the hook is allowed to extend out of the hook holder $1\frac{4}{3}$ " and this should not be changed until you are very familiar with the operation of your machine, and then should be necessary only for special type mowers and conditions that you may encounter.

GRINDING WITH THE HOOK TYPE METHOD

40. For hook grinding with your Model 1300, the hinged plate on your grinding head should be set at one position and never varied more than one turn more or less than the five turns we instruct you to start with. To get this position, using the adjusting crank, lower the hinged plate until its maximum down position. Now turn the crank in until you fee!



Fig. 9



it make contact and start to raise the plate or base. From this point, count five full turns up and lock the crank with the thumb screw provided to hold it at this position. You now have your grinding head properly set up to proceed with phase two and we suggest you move to the center of the mower to proceed with the following instructions.

41. Move the grinding wheel into the reel, as shown in figure #11. If the hook interferes with the bed knife, it will be necessary for you to raise the hook to clear the front edge of the bed knife by unscrewing the feed screw. After the hook has passed over the front edge and holding the grinding head in position, turn the feed screw in until the hook is lowered and engage the front edge of the bed knife approximately 1/2". Again, referring to figure #11, you will note that in this position the reel blade is just clearing the grinding wheel when you rotate the reel partially back and forth. The finger point, at this time, should be rotated down out of the way behind the hook as illustrated in figure ± 11 so as not to cause interference with this phase of your set up. If the reel can not be rotated partially to cause a reel blade to pass the grinding wheel. it will be necessary to adjust the feed until the blade clears the wheel, If, in making this adjustment to obtain this clearance, the hook must be moved to a point where it disengages, it will then be necessary to re-engage the hook and using the adjustable mower clamp, tip the lawnmower away from the grinding wheel until clearance is obtained, (A slight amount of extra clearance can be obtained by raising the grinding carriage base one additional turn.) If a reverse condition to that described above exists, a reverse use of the adjustments can be utilized to bring the mower into the desired position and lowering the grinding base one turn could be utilized for a slight change. The desired results would thus be explained by having the reel blades pass within $\frac{1}{6}$ " or closer to the wheel when rotated.

42. Step two is achieved by rotating a reel blade with the left hand, back and forth past the grinding wheel while feeding the grinding wheel into the reel using your right hand on the feed control screw. Continue this movement until the



reel blade is just touching lightly as it passes back and forth in front of the grinding wheel face. At this point, you have found what we call the "no clearance point." It is the point where the radius line of two diameters, one formed by the reel and the other by the grinding wheel, is just touching each other. If the bevel control finger were to be set while the reel is at this point, no bevel or clearance would be ground on the reel blade edge.

Move the reel blade down past this point and turn your feed control screw, GD-1380, one half turn to the right. This will cause your grinding wheel to move further into the reel and you will find when you attempt to turn the reel backwards, the reel blade now interferes and makes contact with the grinding wheel. Drop the reel blade below the center of the wheel then bring the reel blade back up until it just touches the grinding wheel. While holding it at this point, rotate the bevel control finger point up until it is just touching the reel blade and lock in this position. To visually check the amount of bevel, you have just adjusted your machine for, you may rotate the grinding wheel with the hand turning knob provided, causing the grinding wheel to turn down in its normal running direction. Scrape an area on both ends of the same reel blade sufficient for you to visually see the amount of bevel acquired. Your scratch mark should be behind the cutting edge, thus assuring you of clearance when you have ground down to a new cutting edge. The amount of bevel can be varied to suit the type of mower. In other words, 36, 1/2, or 56 of a turn on the GD-1380 feed screw will prove to be the proper bevel for practically all mowers in use today. You have now completed step two and are ready to proceed to your final steps prior to actual grinding in step three.

44. A. Step three, now slide the grinding head to the left side of the lawnmower in from the end approximately 1" or in line with the first reel spider. Using the hand turning knob, rotate the grinding wheel in its running direction to determine how hard it is scratching at that position. If it is too tight and can not be rotated, use the left vertical adjusting crank and lower the left side of the mower until the grinding wheel turns free. Now raise it slowly, continuing to turn the grinding wheel by hand until it is just scratching lightly at that position.

B. Move the grinding wheel further to the left until

the hook dis-engages from the end of the bed knife and traverse the arinding head to the right side of the mower and move it in engaging past the end of the bed knife and with a reel blade in its proper position on the finger point, slide it in from the right 1" or until in line with the reel spider in from the right end. At this position, again scratch the grinding wheel by rotating it with hand turning and determine if the contact at that end is the same as at the left side. It will probably require some up and down adjustment to obtain a light scratching contact. If it is necessary to turn more than a 1/2 turn with the vertical adjustment crank to obtain the desired results, you will find that the opposite end has moved slightly too, and it will be necessary to return to the left side and recheck your scratching contact and probably re-adjust the left vertical crank until the desired contact is again achieved. Now re-check again at the right, and again if any amount of adjustment is needed, it will be necessary to re-check at the left. This procedure is repeated at both ends until a light scratching contact is made with the same reel blade.

C. When these results have been achieved, you are ready to start your grinding operation. While at the right side of the mower, set your travel stop so that the hook just dis-engages from the end of the bed knife and the corriage is stopped by the JD-57 rubber bumper before the grinding wheel can come in contact with the end frame of the lawnmower. Using a piece of chalk, go to the left or starting end and select the blade you used for your scratching contact as #1 blade and number the blade 2, 3, 4, 5, etc. in the direction they will turn while grinding. The reel blades will turn down toward the bed knife and it will, therefore, be necessary for you to number up to the next blade each time for proper rotation. With this accomplished, connect your weight feed and move your grinding carriage to the left side of the mower and start motor. Move carriage in to where the hook is just starting to engage, holding the grinding carrage with your left hand and the reel blades with your right, rotate the reel until blade #1 is just below the bevel control finger point. This finger point is tapered and once the carriage has been moved in until the reel blade is against the side of the finger point and below the top of it, you will find it is then only necessary to rotate the reel causing the blade to move upward until it reaches the top of the finger point. At this moment, it will engage in on top of the finger point and the grinding wheel will make contact and start to grind. The carriage will be automatically moved across the mower from left to right and on reaching the end, will dis-engage and drop back away from the bed knife approximately $\frac{1}{2}$ ". The first time across the reel blades, it is recommended that the feed be left where it has been set and the only grinding be done with the light scratching contact made as described in paragraph "B," This process is now repeated on blades 2, 3, 4, 5, or any number the lawnmower may have until you have returned to blade #1. When you are back to #1, unlock the thumb screw, securing the feed control screw, and turn approximately 1/16 to ½ of a turn to the right to increase the feed. Again repeat your grinding procedure on blades 1, 2, 3, etc. and if, during the grinding, the sound of the grinding and the sparks thrown by the grinding wheel indicate one side of the mower to be ground is heavier or lighter than the other during the grinding operation, you can change your vertical adjustment slightly to compensate

for this variation in grinding pressure. We would suggest if one end is lighter than the other, that this end be raised perhaps 1/16 of a turn with the vertical crank and then on the following blade determine if the grinding pressure is equal the full length across the reef blades. When it seems to be grinding the same, these adjustments need not be disturbed further. Continue with the instructions just covered for grinding the reel blades, one thru five or back to one, increasing the feed each time on #1 until a new sharp cutting edge has been established on each reel blade for its full length. When this has been achieved, you are ready for your finish cut. This time now, for a finish cut on blade # 1, only increase your feed about half the amount you have been giving the feed control screw and again grind one through to the last blade. In most cases, it will be a five bladed mower and blade #5 would be the last one. Upon completion of grinding blade ± 5 , (and note, this is important) do not disturb the feed, take blade ± 5 or the last blade and grind it immediately again the second time and proceed from this blade backwards through 4, 3, 2, and finish on blade #1. This procedure counteracts the wear of the grinding wheel and in as much as you have increased your feed on blade #1 and then ground through to the last blade each time, the grinding wheel each time must wear slightly to cut. Therefore, blade #1 was ground the most and blade #5 would have been ground the least on each rotation of the reel. By grinding blade #5 twice on the finish cut and then proceeding backwards through 4, 3, 2, and 1, the wear of this wheel has been counteracted. Blade #1, for example, got the most metal removed the first time and the least the second. Blade #5 had gotten the least the first time and the most the second time, balancing out the condition. When this procedure has been completed, your mower is finished. The motor can be shut down and your weight feed disconnected. If you choose, you can use your horizontal adjustments and move your lawnmower away further from the grinding head and perhaps move the grinding head to the end of the machine, clearing any obstructions to the lawnmower reel. We suggest that the final adjustment of the bed knife covered in paragraph D be made with the lawnmower still in the machine.

D. You have just completed grinding your reel blades and if the instructions were followed properly, the grinding carriage should have performed equally and smoothly on all blades, particularly in your finish cuts, assuring you of all blades being of equal heighth and assuring a good fit between them and the reel blade when the final adjustment is made. Move around to the back of the machine and with the proper tools for the mower being serviced, proceed to make your final adjustment of the bed knife to the reel. We suggest when contact is made you revolve the reel backwards to prevent your new edges from bitting into each other during your initial adjustments. Attempt to maintain the pressure on the bed knife equally as it is brought up to make contact with the reel blades and I think you will find you have achieved a perfect fit from your hook principle grinding just completed. Do not permit your ear to fool you in making this final adjustment. Although the fit sounds good, check each side with a piece of paper by backing a reel blade over it. If it shears the paper at one end but not the other, you have detected the side that is adjusted slightly lighter than its opposite. Continue to adjust until the reel



Model	1340 Head Assembly	Fig. 12
J-388	Crank Collar	
J-399	Crank	
J-340	Set Collar, ½" bore	
J-351	Plastic Knob, large	
JD-92	Plastic Knob, small	
PB-10	Nut	
PB-80	Нив	
PB- 2 44	Switch	
R-73	Motor	
R-129X	Bearing (N.D. 87501) (M.R.C. 20)1-FSF)
R-211G	Guard	
R-2 14	Finger Point	
R-216	Horizontal Feed Screw	
R-221	Sliding Plate	
R-223	Guide Strip	
R-224	Retainer Strip	
R-225	Axle Stud	
R-227	Spring	
R-228	Guard Clamp Screw	
R-237	Carriage Hold Down	
R-257	Handle	
R-2 58	Guard	
R-265	Motor Plate	
R-308	"V" Belt (41340)	
R-369	Feed Nut	
R-388	Bearing and Arbor Assembly (N.D	- 885801-B)
GD-1319	Clamp Screw	
GD-1358	Shaft Supports	
GD-1360	Grinding Head Shaft	
GD-1407	Corriage Plate	
GD-1436	Vertical Feed Screw	
555	Handle Grip	
W-75	Grinding Wheel (see Current Whee	el List)

blades either shear the paper or mark the paper equally on both sides. Achieve this condition before you attempt to revolve your reel blades in the forward or cutting direction. Many operators prefer to use a final emery compound and lap the reel from this point on to seat the two edges together and remove the initial sharp edges that could cut into each other before allowing the reel to turn in its cutting direction. See the section covering the lapping-in procedure further in this book, if you choose to use this procedure in your operation.



GRINDING REEL BLADES WITH THE STRAIGHT LINE METHOD

45. You must adjust your mower to the machine the same way you would do for hook type grinding, see paragraphs A through D.

46. On straight line grinding you may grind the bed knife either before or after you grind your reel whereas on the hoak grinding principle, you must grind it first. We do recommend all mowers be ground with the bed knife in place, if at all possible, to insure grinding in a true "straight line" with the bed knife. This will also pull the side frames in where they belong, thereby squaring the mower up.

47. After squaring your lawnmower to the track shafts and grinding head assembly with your set up gauge, move the grinding wheel to center of mower. Adjust the head assembly in with the GD-1391 horizontal adjusting sciew until contact is made with one of the reel blades, as it is rotated back and forth past the grinding wheel. When blade is just touching the wheel, adjust wheel in 1/4 to 1/3 of a turn on the GD-1391 horizontal adjusting screw and swing the reel blades below center on the grinding wheel. With this adjustment, the reel blade, when rotated up, will contact the wheel and not pass easily. At this point of contact, hold the reel blade and rotate the R-214 finger point by loosening and moving the GD-1398 locking handle until the finger is holding the reel blade at this point of contact with the wheel. See figure #12 (straight line head only). Do not apply force to the finger, just position it firmly against the bottom of the reel blade. Lock the finger at this position and your proper bevel is set for grinding the reel blades.

48. Number the reel blades an the back side at the end of the reel that hits the bed knife first. Grinding can be done from either direction but is recommended that direction be used that will cause the finger point to rotate the reel. On a left hand spiral reel this would be from right to left and vice versa for right hand spiral reels. A mower is known to have a right or left hand spiral reel by the direction it throws the cut grass to one side or the other as the operator stands behind the mower. Cut grass wind-row to right of the operator, right hand spiral and vice versa.



Fig. 14

Model 1300 Head Assembly

1-339	Crank
J-345	Spring
J-351	Plastic Knob, large
JD-92	Plastic Knob, small
JD-94	Crank Collar, ¾" bore
GD-1341	Left Rear Corriage Mounting
GD-1342	Carriage Operating Handle
GD-1343	Front Carriage Mounting
GD-1347	Bearing Block
GD-1351	Front and Rear Sleeves
GD-1352	Spacer
GD-1353	Dust Guard
GD-1355	Corrage Bearing Plate
GD-1356	Motor Base
GD-1358	Shaft Support
GD-1369	Grinding Head Casting
GD-1373	Hook Support Collar
GD-1375	Hoak Support
GD-1377	Hook
GD-1380	Feed Control Screw Assembly
GD-1381	Guard and Finger Point Holder
GD-1389	Carriage Lock
GD-1391	Carriage Adjusting Screw
GD-1392	Adjusting Screw Support
GD-1393	Lock Nut, Aluminum
GD-1398	Finger Point Control Knob
GD-1401	% h.p. Electric Motor
GD-1413	Drive Pulley Belt Guard, large
GD-1415	Drive Pulley Belt Guard, small
GD-1436	Vertical Feed Screw
PB-10	Nut
PB- 80	Ниь
PB-244	Switch
PB-252	Cord
R-129X	Bearing, {N.D. 87501-M.R.C. 201-FSF)
R-369	Feed Nut
R-38 8	Bearing and Arbor (N.D. 885801-B)
55 5	Plastic Handle Grip
W-135	Wheel, 7"—see Current Wheel List

49. Set grinding head travel limit stops (rubber bumpers) so grinding wheel just passes the ends of the reel blades

and start to grind. Increase the feed a small amount after each complete circle of the reel, or before starting on blade #1 each time around, until a new sharp edge is produced the entire length of each blade. On the last time around, a lighter cut should be used and when the circle is completed, without changing the feed, grind the last blade again. Then, proceeding backwards, grind the next to the last, etc., until the reel has been ground in reverse order back to and including blade #1. This counteracts the wear of the grinding wheel and assures that each reel blade has been ground alike.

50. As stated in paragraph 48 above, grinding can be accomplished in either direction regardless of the spiral of the reel blades. Some operators prefer to grind both directions during the roughing cuts, this can be done if the reel rotates freely enough but the last two finish cuts should follow the procedure as outlined in paragraph 52. It is recommended that the reel blades be de-burred with a small metal scraper or file before removing the mower from the grinding machine.

Final adjustment can be made on the mower without 51. removing it from the Peerless. We recommend that it be done in the machine. However, you may remove the mower to a workbench or the floor, if you prefer. Do not tighten the bed knife bolts too firmly until after adjustment. While making this adjustment of the bed knife to the reel blades, turn the reel backward, never forward, until you are sure the two will not catch or injure one another. Put sufficient pressure on the adjusting screws to hold the bed knife securely, but do not see how tight you can set them. After adjustment, tighten the end bolts through the frame and recheck the adjustment to see if it has changed. If center of bed knife is not making good contact with the reel blades, try easing the pressure on the adjusting screws as they may be too tight, and cause the bed knife to spring away in the middle.

52. Figure # 13 shows the optional real holding attachment in position on the Peerless with a reel in grinding position. To use this attachment, slide the mower support centers to the extreme ends of the mower support bar and attach the two reel holder supports (according to the length of the reel) in a position that will approximately center the reel in the machine. The roller bearings should support the reel on the bearing surfaces of the reel shaft, if possible. If these surfaces are tapered, support the reel as closely as possible to them to eliminate any end play. These supports have a hold down rod which holds the reel firmly on the bearings. Once in position, grinding procedure is the same as though the reel were in the mower and you can refer to paragraph 45 for the grinding steps to follow. This attachment is not included as standard equipment since it is of value only to those shops which tear a mower completely down and have occasion to grind the reel separately.

53. If your machine is the Model 1300 and you are using the straight line grinding feature, you should first remove the hook. All of your set ups should be made with the head assembly locked firmly in place with the GD-1389 carriage lock, see figure #14. Once you have adjusted your head assembly for proper straight line grinding, bring the lock nut, GD-1393, up tight against the motor base assembly, locking the head assembly firmly in place, see figure #14. All of your adjustments for in and out will be made with the horizontal feed screw located on the back of your head assembly, GD-1391, and the vertical adjusting crank, GD-1436. On the Model 1300, once you grind across one reel blade, you then lift the carriage lock, GD-1389, out of the slot and let the head assembly fall back to clear the reel blades. Slide the carriage assembly back to the original starting point, re-engage the carriage lock and you are ready to grind number 2 reel blade to the exact precision grind you have given the first blade.

ROTARY BLADE SHARPENING

54. The rotary blade grinding plate shown in figure #15 is an optional attachment available for either the Model 1300 or the 1340. The V-rest roller support bar should be pivoted down around until the side nearest you is in a vertical position. The rotary blade plate should then be clamped to this as near the center of the bar as possible. The grinding wheel carriage is then centered with the slotted plate. Use the carriage limit stops with the rubber bumpers to lock the head assembly firmly in place.

The V-belt will have to be given a half twist as shown to make the grinding wheel travel away from the blode instead of into it. If the belt is not twisted, the grinding wheel will pull the rotary blade into the plate and a broken wheel may result. To grind a rotary blade, place the blade on the slotted plate and adjust the grinding wheel up or down until the old bevel, or the desired new bevel, is obtained. Turn the grinding wheel against the blade, using the scratcher knob located on the grinding wheel. This will determine the area of contact on the blade, showing you how much bevel will be given. The higher the wheel is elevated, the more the blade can move in under the wheel, increasing the amount of bevel. If the wheel is lowered, the bevel angle becomes much steeper.

55. Start the motor and draw the rotary blade through under the grinding wheel beginning at the inside of the cutting edge and ending at the tip. Rest the blade firmly on the plate and draw the blade through as mony times as needed to restore the bevel and a sharp cutting edge. Occasionally you may find it necessary to hold the underside of the blade against the upper part of the grinding wheel to remove the wire edge that builds up. This prepares a good straight surface on the new cutting edge. If the cutting edge is not straight, holding the blade against the side of the wheel will square up the area you are sharpening. After one end is sharpened, repeat the process on the opposite end. Check the blade for balance after sharpening both ends and remove extra metal to restore balance if necessary. We offer two types of rotary blade balancers for this purpose. The rotary grinding plate described here is extra optional equipment and would not have been included with your Peerless unless ordered.

56. Due to the extreme overall length of the Roseman units, we offer a special bar to those shops which normally grind several of these lawnmowers. This is also an optional piece of equipment that will fit either the Model 1300 or 1340 Peerless Lawnmower Sharpeners.



Fig. 15 ROSEMAN OFFSET HOLDING BAR

57. Figure #16 shows a Raseman unit in the Model 1300 utilizing the special bar. The step in mounting this bar is to remove the GD-1323 Castings and turn them upside down Remove the two cap screws that hold the GD-1327 Tie Bar Supports before turning the castings upside down. Once your castings are inverted, replace the tie bar supports. This will insure your having clearance on the top of your mower-

58. Slide both GD-1323 Trunnion Brackets back toward the main shafts approximately 8" to get the V-rest support bar out of the way of your mower. Remove both GD-1418 V-support assemblies from the mower support bar and mount them on the offset Roseman Bar.

59. As shown in figure #16, the overhead arm support assemblies have to be turned slightly to grasp the tow bars of the Roseman units. From this point the normal set up can be followed for a precision job of grinding.



الم المجامع MODEL 330 PEERLESS HOIST

60. Establish right and left side of your Model 1300 or 1340 Peerless by standing behind the motor in the position used to operate your machine. First clamp the drill template





supplied into depression in upper left end frame closest to operator's position, as shown in figure ± 17 . Once clamped securely, drill through the costing with a 21/64" drill.

Stand the swivel post with the $\frac{3}{4}$ " pin, upright against the end frame with the pin up. Fosten the clamp plate over the post and to the side trame using the two 5/16" x 3" bolts supplied for this. Level the post vertically and tighten the bolts securely.

Assemble the bottom cross member with the castor wheels attached, to your second vertical post using $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " bolts Mount the overhead channel bar to the top of this bar using one $\frac{3}{6}$ " x 1 $\frac{1}{2}$ " bolt. Install corner brace to overhead channel and vertical post with $\frac{3}{6}$ x 1" and $\frac{3}{5}$ x 2 $\frac{1}{2}$ " bolts. You have a $\frac{3}{4}$ " for washer that must fit down over the $\frac{3}{4}$ " pin on the bar that you have bolted to the end frame. Place the swivel end of the overhead bar over this $\frac{3}{4}$ " pin and on the washer. This will allow the lift assembly to swing in a radius around your machine.

Install the crank-winch to the vertical post with castors. We drilled several holes in and near the center of this post to enable the operator to locate the crank to best suit his height. Thread the rope through the pulley arrangements beginning in the center underside of the over-head support channel. Run it through the lock plate on the crank drum and fasten as securely as possible

Figure \Rightarrow 18 shows our hoist utilizing a small set of chains on the mower to pick it up in a balanced position. These are easily obtained in all localities, therefore we will not be offering these chains for sale with the hoist. All mowers tested here at our plant (including a 32" model weighing over 4001bs.) were easily handled by one man.

DIAMOND DRESSER ATTACHMENT



Fig. 19

Figure #19 shows the #1347 Diamond Dresser Attachment in place on the Model 1300 Peerless head assembly. The dresser attachment is standard equipment on the Model 1300 and optional on the Model 1340.

This mechanical dresser is mounted on a sealed ball bearing and enables you to keep your wheel dressed to the proper crown at all times. It also enables you to keep your wheel perfectly round and thus eliminates the possibility of your wheel becoming egg shaped which would cause excessive vibration. You will notice that the grinding wheel has a tendency to wear flat and at an angle, which is caused by the spiral of the reel blades. Grinding the reel blades should always be done with the center of the grinding wheel directly behind the R-214 finger point and in line with the GD-1377 hook.

On the Model 1300, the dresser mounts on the cap screw through the top of the wheel guard whereas on the Model 1340, it fastens on the bottom of the guard. The Diamond Dresser Attachment need only be adjusted the first time it is used. The dresser is adjusted sideways by the two nuts on the supporting eye bolt that attach the dresser to the connecting link which is held by the nut. This lateral adjustment should be made so when the diamond dresser is extending straight up and down the point, or diamond, is at the middle of the grinding wheel face. The diamond dresser holder assembly should also be rotated so the diamond dresser is pointing toward the center of the grinding wheel.

INSTRUCTIONS FOR ORDERING REPAIR PARTS

- Give the serial number of your machine with each order for parts. This serial number is stamped on the name plate which is fastened to the right hand main frame. This is very important to assure that you will receive the proper parts for your machine.
- Order by part number from the Parts and Price List which covers your machine. Give all the information you can.
- Please observe the terms stated on the Parts and Price List. We cannot open ledger accounts for parts orders.
- Be sure your name and address is on your order, we do not save the envelopes so your address on the envelope is not enough.
- 5. If at all possible, anticipate your needs and order early. Our busy season lasts from February to July and we may be several days behind on shipments during this period. Parts orders at any other time are assured of prompt shipment.

We Manufacture the Following **Equipment For the Lawnmower Shop**

THE IDEAL BED KNIFE GRINDER (Model 50)

This is a bench-mounted bed knife grinder for fast and accurate sharpening of mower bed knives and other straight edge tools. It will also sharpen ice skates.

THE SIMPLEX RECONDITIONER (Model 500D)

This is a separate floor type or bench type reconditioner for busy shops that require a separate "back-lapping" machine.

THE SIMPLEX LAPPING MACHINES (Models 150 and 175)

These are portable lapping machines for reconditioning hand or power mowers on the floor or out on the grass. These units are carried to the mower.

THE PEERLESS ROTARY BLADE GRINDER (Model 21)

For sharpening all rotary mower blades, also cutlery knives, scissors efc.

THE PEERLESS SAW CHAIN GRINDER

For grinding chain saw cutters, both hand operated and automatic models.

PLYMOUTH PAPER KNIFE GRINDERS

Precision knife grinding on all straight edge paper knives. Available in 42", 72", & 102" lengths.

Other Products of THE FATE-ROOT-HEATH COMPANY

PLYMOUTH LOCOMOTIVES

These are general switching and hauling locomotives ranging in size from 3 to 120 tons.

F-R-H CERAMIC MACHINERY

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De-airing Brick and Tile Machines, Cutters, Hydraulic Presses, Pug Mills, Conveyors and special ceramic machinery.

THE FATE-ROOT-HEATH COMPANY

SPECIAL PRODUCTS DIVISION PLYMOUTH, OHIO, U.S.A.

Repair Parts Price List

MODEL 1300 & 1340

Peerless LAWNMOWER SHARPENER

SERIAL NUMBER 13001 AND UP

EFFECTIVE AUGUST 1, 1967

IMPORTANT: ORDER PARTS BY PART NUMBER AND GIVE THE SERIAL NUMBER OF YOUR MODEL 1300 OR 1340 PEERLESS SHARPENER. WE CANNOT GUARANTEE THAT YOU WILL RECEIVE THE CORRECT PARTS UNLESS WE CAN CHECK YOUR SERIAL NUMBER.

The serial number is stamped on the metal plate which will be found on one of the side frames. Changes have been made from time to time which make it necessary to check parts ordered against the serial number. Be sure to put this serial number on each order.

Please send sufficient remittance with order to cover cost of parts, postage and insurance. Any overpayment will be promptly refunded. Orders without remittance will be shipped C.O.D.

NOTE: All Prices Quoted Are F.O.B. Lansing, Michigan, Subject To Change Without Notice.



S. I. P. GRINDING MACHINE CO.

Order No.	Description	Price Each	Shipping Weight
GD-198	Clamp Screw Assembly	\$ 1.10	2 07
GD-1301	Lower End Frame	67.00	
GD-1303	Upper End Frame	92.50	30 lbs.
GD-1305	Track Shaft Support	35.90	25 lbs.
GD-1308	Brace	2 00	
GD-1309	Tie Rod	4.30	7 lbs
GD-1310	Tie Rod	7.00	
GD-1311	Elevating Screw Support	7.20	1½ lbs.
GD-1313	Elevating Screw	7.10	5 lbs.
GD-1315 GD 1217	Right Support Bracket	26.70	5½ lbs.
GD-1319	Clamp Screw	20.70	
GD-1321	Mower Support Shaft	18.50	13 lbs
GD-1323	Trunnion Bracket	22.50	
GD-1325	Mower Support	22.70	17 lbs.
GD-1327	Tie Bar Support	4.00	4 lbs.
GD-1329 GD-1331	Clemp Extension Screw	22.90	
GD-1333	Bushing	10.20	1 ID. 1½ Ibc
GD-1335	Clamp Arm	3.00	1½ ibs.
GD-1337	Adjustable Clamp	.80	8 oz.
GD-1338	Adjustable Clamp	.50	6 oz.
GD-1339	Right Rear Carriage Mounting	17.70	2 lbs.
GD-1341	Left Hear Carriage Mounting	17.70	
GD-1342	Front Carriage Mounting	28 70	1 iD. 5 ibe
GD-1345	Carriage Shaft	14.00	1½ lbs.
GD-1347	Bearing Block	11.90	1 ½ lbs.
GD-1349	Ball Bushing, Linear	7.70	1 lb.
GD-1351	Front and Rear Shaft Sleeves	1.70	2 oz.
GD-1352	Spacer	.10	1 lb.
GD-1353 GD-1355	Carriage Rearing Diste	2.20	
GD-1355	Motor Base	13 30	10 lbs.
GD-1358	Shaft Support	16.20	2 lbs.
GD-1360	Grinding Head Shaft	1.90	2½ lbs.
GD-1367	Support Knuckle	5. 80	1 lb.
GD-1369	Grinding Head Casting	33.70	5 lbs.
GD-13/3	Hook Support Color	10.50	
GD-1375	Hook	11 70	3 07
GD-1380	Feed Control Screw Assembly.	1.50	
GD-1381	Guard and Finger Point Holder	17.20	3 lbs.
GD-1389	Carriage Lock	4.90	8 oz.
GD-1391	Carriage Adjusting Screw	3.90	1 ib.
GD-1392	Adjusting Screw Support	6.90	1 lb.
GD-1393	Wavy Washer	40	0 0Z. 1 oz
GD-1395	Piug	.20	1 oz.
GD-1397	Bushing	.20	1 oz.
GD-1398	Finger Point Control Knob	2.70	8 oz.
GD-1401	Motor, ¾ h.p	72.70	30 lbs.
GD-1394	Wavy Washer	.40	1 oz.
GD-1395	Piug	.20	1 oz.
GD-1397	Busning	.20	1 OZ.
GD-1338	Mator 3/4 h.n.	72 70	30 lbs
GD-1405	Feed Weight Support	.80	
GD-1409	Pulley, 4" O.D., 5/8" bore	2.00	1 lb.
GD-1413	Drive Pulley Belt Guard, large	9.40	2 lbs.
GD-1415	Drive Pulley Belt Guard, small	1.70	1 lb.
GD-1417	Tool Shelf	17.50	
GD-1418	V Support	4.70	Z IDS.
GD-1421	Trunnion	2.60	8 07
GD-1431	Trunnion Housing	11.20	1 lb.
GD-1432	Right Support Bracket	4.30	2 lbs.
GD-1433	Left Support Bracket	4.30	2 lbs.
GD-1436	Vertical Feed Screw	1.40	
GD-1437	vveignt ,	2 50	
3D-1439	Gauge Brass Pluc	2.50	1 07
J-80	Wing Nut	.30	
J-216	Feed Weight, small	1.00	8 oz.
J-234	"S" Type Hook	.20	1 oz.
J-287	Feed Weight Pulley	.70	<u>3</u> oz.
J-316	Bearing, N.D. 8013-T	6.20	3 oz.



Model 1300 Head Assembly

Model 1340 Head Assembly



J-340 Set Collar, 's'' bore. .70 6 oz. J-340X Set Collar, 's'' bore. 1.50 6 oz. J-345 Spring. .40 2 oz. J-346 Groove Pin .10 2 oz. J-345 Plastic Knob. lerge, 1'A'' dia. .30 2 oz. J-410 Set Collar .110 8 oz. J-10 Set Collar .110 8 oz. J-53 Stop Collar .260 6 oz. J-55 Feed Weight Chain .70 6 oz. JD-56 Pied Weight Chain .40 .30 .20 JD-71 Thrust Bearing, Nice No. 608 .290 .60 .20 .70 .60 .20 JD-76 Axle. .30 .30 .20 .20 .60 .20 .20 .60 .20 .20 .60 .20 .20 .60 .20	Order No.	Description	Price Each		Shipping Weight
J-340X Set Collar, 1/2" bore. 1.50 6 oz. J-345 Spring. 40 2 oz. J-346 Groove Pin 10 2 oz. J-347 Plastic Knob. large, 1¼" dia. 30 2 oz. J-410 Set Collar 1.10 8 oz. JD-53 Stop Collar 2.60 6 oz. JD-55 Feed Weight Chain. 2.60 6 oz. JD-56 Pin. 40 30. 2 oz. JD-76 Axie 30 2 oz. 30. 2 oz. JD-77 Thrust Bearing, Nice No. 608 2.90 6 oz. 30. 2 oz. JD-94 Crank Collar, 5/8" bore. 1.50 4 oz. 30. 30. 2 oz. JD-911 Wrusght Iron Washer 0.6 1 oz. 4 oz. 30. 30. 2 oz. 32.31. 30. 30. 2 oz. 32.31. 30. 30. 30. 30. 30. 2 oz. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30.	J-340	Set Collar, ½″ bore	70		6 oz.
J-345 Spring 40 2 oz. J-351 Plastic Knob, large, 1%" dia 30 2 oz. J-351 Plastic Knob, large, 1%" dia 30 2 oz. J-53 Stop Collar 10 8 oz. 30 2 oz. JD-53 Stop Collar 2.60 6 oz. JD-56 Pin 70 6 oz. JD-56 Pin A0 30 2 oz. JD-57 Rubber Bumper 50 2 oz. JD-76 Azke 30 2 oz. JD-76 Azke 30 2 oz. JD-71 Thrust Bearing, Nice No. 608 2.90 6 oz. JD-76 Azke 30 2 oz. JD-71 Thrust Bearing, Nice No. 608 30 2 oz. JD-76 Azke 30 2 oz. JD-76 Azke 30 2 oz. JD-70 Soz. JD-76 Azke 30 2 oz. JD-70 Soz. JD-70 Soz. JD-70 Cap Plugs, 7/8" ore 10 10 10z. JD-72 Sp2 Collar, 5/8" bore 90 4 oz. JD-71 Soz. Soz. Soz.	J-340X	Set Collar, 1/2" bore	. 1.50	·····	6 oz.
J-346 Groove Pin 10 2 oz. J-351 Plastic Knob, large, 1%" dia. 30 2 oz. J-410 Set Collar 1.10 8 oz. JD-53 Stop Collar 2.60 6 oz. JD-55 Feed Weight Chain 70 6 oz. JD-56 Red Weight Chain 40 3 oz. JD-71 Thrust Bearing, Nice No. 608 2.90 6 oz. JD-74 Axle 30 2 oz. JD-75 Rubber Bumper 30 2 oz. JD-76 Axle 30 2 oz. JD-77 Thrust Bearing, Nice No. 608 30 2 oz. JD-78 Crank Collar, 5/8" bore 30 3 oz. JD-110 Steel Pulley, 2" 180 8 oz. JD-111 Wrought Iron Washer 06 1 oz. P-27 Set Collar, 5/8" bore 90 4 oz. JD-170 Cap Plugs, 7/8" 10 1 oz. JD-170 Cap Plugs, 7/8" 90 4 oz. JD-170 Cap Plugs, 7/8" 90 4 oz.	J-345	Spring	40	• • • • • • • • • • • • • • •	2 oz .
J-351 Plastic Knob, large, 1/* dia. .30 2 oz. JD-53 Stop Collar .10 8 oz. JD-55 Feed Weight Chain .70 6 oz. JD-56 Pin .40 3 oz. JD-57 Rubber Bumper .50 2 oz. JD-71 Thrust Bearing, Nice No. 608 .290 6 oz. JD-76 Axle .30 .30 2 oz. JD-76 Axle .30 .30 .30 .202. JD-76 Axle .30 .30 .30 .30 .30 .30 .30 .202. JD-71 Thrust Bearing, Nice No. 608 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30 .30 .202. .30 .	J-346	Groove Pin	10		2 oz.
J.410 Set Collar 1.10 8 cz. JD-53 Stop Collar 2.60 6 cz. JD-55 Feed Weight Chain 70 6 cz. JD-57 Rubber Bumper 40 3 cz. JD-57 Rubber Bumper 50 2 co. JD-71 Thrust Bearing, Nice No. 608 2.90 6 cz. JD-92 Plastic Knob, small, ³ /' dia. 30 30 2 cz. JD-94 Crank Collar, 5/8'' bore. 1.50 4 cz. 30	J-351	Plastic Knob, large, 1%" dia	30		2 oz.
JD-53 Stop Collar 2.60 6 cz. JD-55 Feed Weight Chain 70 6 cz. JD-56 Pin 40 3 cz. JD-57 Rubber Bumper 50 2 cz. JD-71 Thrust Bearing, Nice No. 608 2.90 6 cz. JD-76 Axle 30 2 cz. JD-76 Axle 30 30 2 cz. JD-92 Plastic Knob, small, '4'' dia 30 30 2 cz. JD-10X Steel Pulley, 2'' 1.80 8 cz. 30 30 2 cz. JD-110X Steel Pulley, 7.9'' 1.80 8 cz. 30 30 2 cz. JD-111 Wrought Iron Washer .06 1 cz. 5,2''''''''''''''''''''''''''''''''''''	J-410	Set Collar	. 1,10	•••••	8 oz.
JD-56 Feed Weight Chain 70 6 cz. JD-57 Rubber Bumper 50 2 oz. JD-71 Thrust Bearing, Nice No. 608 2.90 6 oz. JD-76 Axle 30 2 oz. JD-92 Plastic Knob, small, ¼" dia. 30 30 30 JD-94 Crank Collar, 5/8" bore 1.50 4 oz. JD-111 Wrought Iron Washer 0.6 102. JD-111 Wrought Iron Washer 0.6 102. JD-111 Wrought Iron Washer 0.6 102. JD-111 Wrought Iron Washer 10 10 102. JD-110 Steel Fulley, 2" Set Collar, 5/8" bore 90 4 oz. P-27 Set Collar, 5/8" bore 90 4 oz. 30. JD-111 Wrought Iron Washer 10 102. 30. 302. JD-110 Cap Plugs, 7/8". 10 102. 30. 4 oz. JD-111 Wrought Iron Washer .06 102. 30. 4 oz. P-27 Set Collar, 5/8" bore .90 4 oz. <	JD-53	Stop Collar	. 2.60	····	6 oz.
JD-56 Pin. 40 3 oz. JD-57 Rubber Bumper 50 2 oz. JD-71 Thrust Bearing, Nice No. 608 2.90 6 oz. JD-76 Axke 30 2 oz. JD-76 Axke 30 2 oz. JD-92 Plastic Knob, small, ¾'' dia. 30 30 2 oz. JD-94 Crank Collar, 5/8'' bore 1.50 4 oz. JD-110X Steel Pulley, 2'' 1.80 8 oz. JD-170 Cap Plugs, 7/8''. 10 1 oz. JD-170 Cap Plugs, 7/8''. 10 1 oz. P27 Set Collar, 5/8'' bore 90 4 oz. P256C Finger Point 8.70 2 oz. JD-111 Wrought Iron Washer 06 1 oz. JD-170 Cap Plugs, 7/8''. 10 0 oz. P237 Set Collar, 5/8'' bore 90 4 oz.	JD-55	Feed Weight Chain	70		6 oz.
JD-57 Hubber Bumper 50 2 oz. JD-71 Thrust Bearing, Nice No. 608 2.90 6 oz. JD-76 Axle 30 2 oz. JD-94 Crank Collar, 5/8" bore 1.50 4 oz. JD-111 Wrought Iron Washer 06 1.50 4 oz. JD-111 Wrought Iron Washer 06 1 oz. 1 oz. P-27 Set Collar, 5/8" bore 90 4 oz. 10 1 oz. P-27 Set Collar, 5/8" bore 90 4 oz. 30.2 2 oz. P-27 Set Collar, 5/8" bore 90 4 oz. 30.2 2 oz. P-27 Set Collar, 5/8" bore 90 4 oz. 30.2 2 oz. JD-111 Wrought Iron Washer 06 1 oz. 30.2 2 oz. JD-110 Cap Plugs, 7/8" 10 1 oz. 30.2 2 oz. JD-111 Wrought Iron Washer 06 1 oz. 30.2 2 oz. 30.3 3 oz. P-27 Set Collar, 5/8" bore 90 4 oz. 4 oz. 4 oz. 4 oz. 4 oz.<	JD-56	Pin.	40	•••••	<u>3</u> oz.
JD-71 Thrust Bearing, Nice No. 608 2.90 6 oz. JD-76 Axle 30 2 oz. JD-92 Plastic Knob, small, ¾" dia. 30 3 oz. 2 oz. JD-94 Crank Collar, 5/8" bore. 1.50 4 oz. 4 oz. JD-110X Steel Pulley, 2". 1.80 8 oz. 1 oz. JD-110X Steel Pulley, 2". 10 1 oz. 1 oz. P-27 Set Collar, 5/8" bore. 90 4 oz. 2 oz. P-256C Finger Point. 8.70 2 oz. 2 oz. JD-110 Wrought Iron Washer 06 1 oz. 2 oz. JD-111 Wrought Iron Washer 06 1 oz. 2 oz. JD-170 Cap Plugs, 7/8". 10 1 oz. 2 oz. P-27 Set Collar, 5/8" bore. 90 4 oz. 2 oz. P-27 Set Collar, 5/8" bore. 90 4 oz. 2 oz. P-27 Set Collar, 5/8" bore. 90 4 oz. 2 oz. P-373 Stud for Diamond Dresser Attachment .90 2 oz. P-388	JD-57	Rubber Bumper	50		2 oz.
JD-76 Axle .30 2 oz. JD-92 Plastic Knob, small, ¾" dia. .30 30. 30. JD-94 Crank Collar, 5/8" bore. .150 4 oz. JD-110X Steel Pulley, 2" .180 8 oz. JD-111 Wrought Iron Washer .06 1 oz. JD-170 Cap Plugs, 7/8" .10 1 oz. P-27 Set Collar, 5/8" bore. .90 4 oz. P-256C Finger Point. .8.70 2 oz. Sy211v.n Steel %vinky:z-cincore Antichement .80 30 30. JD-111 Wrought Iron Washer .10 1 oz. 30 30. 2 oz. Sy211v.n Steel %vinky:z-cincore Antichement .80 30. 2 oz. 30. 4 oz. P-27 Set Collar, 5/8" bore. .90 4 oz. 90. 4 oz. 90. 4 oz. P-256C Finger Point. .8.70 2 oz. 2.02 2.02 90. 4 oz. P-277 Set Collar, 5/8" bore. .90 2 oz. 90. 2 oz. 90. 2 oz.	JD-71	Inrust Bearing, Nice No. 608	. 2.90	•••••	., 6 oz.
JD-92 Plastic Knob, small, %" dia	JD-76	Axie	30		2 oz.
JD-94 Crank Collar, 5/8" bore 1.50 4.02 JD-110X Steel Pulley, 2" 1.80 8.02 JD-111 Wrought Iron Washer .06 1.02 JD-170 Cap Plugs, 7/8" .06 1.02 P-27 Set Collar, 5/8" bore .90 4.02 P-256C Finger Point .80 .80 Studi for Nasher .06 1.02 .02 JD-111 Wrought Iron Washer .06 1.02 JD-170 Cap Plugs, 7/8" .10 1.02 P-27 Set Collar, 5/8" bore .90 4.02 P-373 Stud for Diamond Dresser Attachment .90 2.02 P-374 Dresser Holder Casting .50 3.02 P-438 Rod End .50 .02 P-424 Elevating Nut .200 6.02 P-429 Crank for P-424 .90 .50	JD-92	Plastic Knob, small, %′′ dia	30		3 oz.
JD-1110X Steel Pulley, 2" 1.80 8 oz. JD-111 Wrought Iron Washer 06 1 oz. P-27 Set Collar, 5/8" bore 90 4 oz. P-256C Finger Point 870 2 oz. JD-111 Wrought Iron Washer 06 1 oz. JD-111 Wrought Iron Washer 06 1 oz. JD-111 Wrought Iron Washer 06 1 oz. JD-170 Cap Plugs, 7/8". 10 1 oz. P-27 Set Collar, 5/8" bore 90 4 oz. P-373 Stud for Diamond Dresser Attachment 90 2 oz. P-374 Dresser Holder Casting 3.50 3 oz. P-438 Rod End 1.50 6 oz. P-424 Elevating Nut 2.00 6 oz. P-438 Horizontal Adjusting Nut 2.80	JD-94	Crank Collar, 5/8" bore	. 1.50	•••••	4 oz.
JD-111 Wrought Iron Washer 06 1 oz. JD-170 Cap Plugs, 7/8". 10 1 oz. P-27 Set Collar, 5/8" bore 90 4 oz. P-256C Finger Point 8.70 2 oz. Steld, Fuilely, 72md Decese Attachment 1.80 3 62. JD-111 Wrought Iron Washer 06 1 oz. JD-170 Cap Plugs, 7/8" 10 1 oz. JD-170 Cap Plugs, 7/8" 10 1 oz. P27 Set Collar, 5/8" bore 90 4 oz. P-256C Finger Point 8.70 2 oz. P373 Stud for Diamond Dresser Attachment 90 2 oz. P-374 Dresser Holder Casting 90 5 oz. P-424 Elevating Nut 8.10 12 oz. P-429 Crank for P-424. 2.00 6 oz. P-439 Horizontal Adjusting Nut 2.80	JD-110X	Steel Pulley, 2"	. 1.80	•••••	8 oz.
JD-170 Cap Plugs, 7/8" 10 1 oz, P-27 Set Collar, 5/8" bore. 90 4 oz, Staff Toxa Sted for Diamond Dresser Attachment 8.70 2 oz, JD-111 Wrought Iron Washer 06 1 oz, JD-170 Cap Plugs, 7/8" 10 1 oz, P-27 Set Collar, 5/8" bore. 90 4 oz, P-27 Set Collar, 5/8" bore. 90 2 oz, P-378 Rot End 1.50 6 oz, P-343 Link 10 12 oz, P-424 Elevating Nut 2.80	JD-111	Wrought Iron Washer	06		1 oz.
P-27 Set Collar, 5/8" bore 90 4 oz. P-256C Finger Point. 8.70 2 oz. JD-110x Studi fruicity: 2 and December Attachment 1.80 3 dt. JD-111 Wrought Iron Washer 06 1 oz. JD-170 Cap Plugs, 7/8". 10 1 oz. P-27 Set Collar, 5/8" bore 90 4 oz. P-27 Set Collar, 5/8" bore 90 4 oz. P-27 Set Collar, 5/8" bore 90 4 oz. P-373 Stud for Diamond Dresser Attachment 90 2 oz. P-374 Dresser Holder Casting 3.50 3 oz. P-374 Dresser Holder Casting 3.50 6 oz. P-413 Link 90 5 oz. 90 P-424 Elevating Nut 2 80 6 oz. 90 5 oz. P-429 Crank for P-424. 810 1 b. 1 b. P-438 Horizontal Adjusting Nut 2 80 6 oz. P-446 Link End. 2 400 8 oz. PB-10 Nut 60 3 oz. <	JD-170	Cap Plugs, 7/8"	10		1 oz.
P-256C Finger Point 8.70 2 oz. JJ-111 Wrought Iron Washer .06 1 oz. JD-110 Cap Plugs, 7/8". .10 1 oz. P-27 Set Collar, 5/8" bore .90 4 oz. P-256C Finger Point .90 4 oz. P-256C Finger Point .90 2 oz. P-373 Stud for Diamond Dresser Attachment .90 .2 oz. P-374 Dresser Holder Casting .90 5 oz. P-388 Rod End .150 6 oz. P-413 Link .90 .5 oz. P-429 Crank for P-424. .90 .5 oz. P-438 Horizontal Adjusting Nut .2 800 6 oz. P-439 Horizontal Adjusting Screw .5 60 1 lb. P-446 Link End .440 8 oz. PB-11 'U' Wrench .60 .3 oz. PB-52 Fibre Washer. .10 .2 oz. PB-55 Clamp Screw .180 .7 oz. PB-52 Fibre Washer. .400 4 oz. <	P-27	Set Collar, 5/8′′ bore	90		., 4 oz.
5L2710A Studi for Idly: 2 and Diversion Attachment 1.80 3.62. JD-111 Wrought Iron Washer 06 1 oz. JD-170 Cap Plugs, 7/8''. 10 1 oz. P-27 Set Collar, 5/8'' bore 90 4 oz. P-256C Finger Point 8.70 2 oz. P-373 Stud for Diamond Dresser Attachment 90 2 oz. P-374 Dresser Holder Casting 3.50 3 oz. P-388 Rod End 1.50 6 oz. P-413 Link 90 5 oz. P-424 Elevating Nut 8.10 12 oz. P-428 Crank for P-424. 2.00 6 oz. P-438 Horizontal Adjusting Nut 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-32-6 Wheel Hub, 6'' 10 2 oz. PB-52 Fibre Washer 10 2 oz. PB-80 Hub, Right Hand Thread 6.10 <t< td=""><td>P-256C</td><td>Finger Point</td><td>. 8.70</td><td>•••••••••••••</td><td> 2 oz.</td></t<>	P-256C	Finger Point	. 8.70	•••••••••••••	2 oz.
JD-111 Wrought Iron Washer 06 1 oz. JD-170 Cap Plugs, 7/8". 10 1 oz. P-27 Set Collar, 5/8" bore. 90 4 oz. P-256C Finger Point. 8.70 2 oz. P-373 Stud for Diamond Dresser Attachment. 90 2 oz. P-374 Dresser Holder Casting. 3 50 3 oz. P-413 Link 90 5 oz. P-429 Crank for P-424. 8 10 12 oz. P-429 Crank for P-424. 2.00 6 oz. P-438 Horizontal Adjusting Nut. 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-51 Clamp Screw 10 2 oz. PB-55 Clamp Screw 1.80 7 oz. PB-55 Clamp Screw 1.80 7 oz. PB-52 Fibre Washer. 90 6 oz. PB-55 Clamp Screw 1.80 7 oz.	5J-77vz	Studi fruiligy, 2 and Drasser Attachment	. т.80	•••••	3 6z.
JD-170 Cap Plugs, 7/8"	JD-111	Wrought Iron Washer	06		1 oz .
P-27 Set Collar, 5/8" bore	JD-170	Cap Plugs, 7/8"	10		1 oz .
P-256C Finger Point. 8.70 2 oz. P-373 Stud for Diamond Dresser Attachment .90 2 oz. P-374 Dresser Holder Casting 3.50 3 oz. P-388 Rod End 1.50 6 oz. P-413 Link .90 5 oz. P-424 Elevating Nut 8.10 12 oz. P-438 Horizontal Adjusting Nut 2.00 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-11 ''U' Wrench 60 3 oz. PB-52 Fibre Washer. 10 2 oz. PB-55 Clamp Screw 1.80 7 oz. PB-52 Fibre Washer. 1.0 2 oz. PB-52 Fibre Washer. 7.40 4 oz. PB-52 Cord. 4.30 1 lb. PB-52 Cord. 4.30 1 lb. PB-53 Ground Adapter. .90 6 oz. PB-542 Cord.	P-27	Set Collar, 5/8″ bore	90		., 4 oz.
P-373 Stud for Diamond Dresser Attachment .90 2 oz. P-374 Dresser Holder Casting 3.50 3 oz. P-388 Rod End 1.50 6 oz. P-413 Link .90 5 oz. P-424 Elevating Nut .90 5 oz. P-429 Crank for P-424. 2.00 6 oz. P-438 Horizontal Adjusting Nut 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut .60 3 oz. PB-11 'U' Wrench .60 3 oz. PB-52 Fibre Washer. .00 2 oz. PB-55 Clamp Screw 1.80 7 oz. PB-52 Fibre Washer. .10 2 oz. PB-55 Clamp Screw .180 7 oz. PB-252 Cord .10 .10 .10 PB-253 Ground Adapter .90 .60 .10 .11 PB-253 Ground Adapter .90 .60	P-256C	Finger Point	. 8.70		2 oz.
P-374 Dresser Holder Casting. 3.50 3 oz. P-388 Rod End 1.50 6 oz. P-413 Link 90 5 oz. P-424 Elevating Nut 8.10 12 oz. P-429 Crank for P-424. 2.00 6 oz. P-438 Horizontal Adjusting Nut 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-11 "U" Wrench 60 3 oz. PB-52 Fibre Washer 10 2 oz. PB-55 Clamp Screw 1.80 7 oz. PB-244 Switch 7.40 4 oz. PB-252 Cord 4.30 1 lb. PB-253 Ground Adapter 90 6 oz. PB-253 Ground Adapter 90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 10 R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz.	P-373	Stud for Diamond Dresser Attachment	90		2 oz.
P-388 Rod End 1.50 6 oz. P-413 Link 90 5 oz. P-424 Elevating Nut 8.10 12 oz. P-429 Crank for P-424 2.00 6 oz. P-438 Horizontal Adjusting Nut 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-11 ''U'' Wrench 60 3 oz. PB-52 Fibre Washer 10 2 oz. PB-55 Clamp Screw 1 80 7 oz. PB-80 Hub, Right Hand Thread 6.10 1 lb. PB-252 Cord 4.30 1 lb. PB-253 Ground Adapter 90 6 oz. PB-253 Ground Adapter 90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. R-232 Adiusting Bar 2 oz. 2 oz.	P-374	Dresser Holder Casting	. 3.50		<u>3 oz</u> .
P-413 Link .90 5 oz. P-424 Elevating Nut 8.10 12 oz. P-429 Crank for P-424 2.00 6 oz. P-438 Horizontal Adjusting Nut 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-11 ''U'' Wrench .60 3 oz. PB-52 Fibre Washer .10 2 oz. PB-55 Clamp Screw .180 7 oz. PB-80 Hub, Right Hand Thread 6.10 1 lb. PB-252 Cord. 4.30 1 lb. PB-253 Ground Adapter .90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) .430 2 oz. R-232 Adjusting Bar .210 3 oz.	P-388	Rod End	. 1.50		6 oz.
P-424 Elevating Nut. 8.10 12 oz. P-429 Crank for P-424. 2.00 6 oz. P-438 Horizontal Adjusting Nut. 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut. 4.40 8 oz. PB-11 ''U'' Wrench 60 3 oz. PB-32-6 Wheel Hub, 6''. 17.30 12 oz. PB-52 Fibre Washer 10 2 oz. PB-55 Clamp Screw 1.80 7 oz. PB-80 Hub, Right Hand Thread 6.10 1 lb. PB-252 Cord. 4.30 4 oz. PB-253 Ground Adapter 90 6 oz. PB-253 Ground Adapter 90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. R-232 Adjusting Bar 2 10 3 oz.	P-413	Link	90		5 oz.
P-429 Crank for P-424	P- 424	Elevating Nut	. 8.10		12 oz.
P-438 Horizontal Adjusting Nut 2.80 6 oz. P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-11 'U'' Wrench 60 3 oz. PB-32-6 Wheel Hub, 6''. 17.30 12 oz. PB-55 Clamp Screw 10 2 oz. PB-55 Clamp Screw 1.80 7 oz. PB-244 Switch 7.40 4 oz. PB-55 Cord. 4.30 1 lb. PB-252 Cord. 4.30 1 lb. PB-253 Ground Adapter 90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. R-232 Adjusting Bar 2 oz. 2.10 3 oz.	P-429	Crank for P-424	. 2.00		6 oz.
P-439 Horizontal Adjusting Screw 5.60 1 lb. P-446 Link End 2.40 8 oz. PB-10 Nut 4.40 8 oz. PB-11 'U' Wrench 60 3 oz. PB-32-6 Wheel Hub, 6''. 17.30 12 oz. PB-52 Fibre Washer. 10 2 oz. PB-55 Clamp Screw 180 7 oz. PB-244 Switch 6.10 1 lb. PB-252 Cord. 4.30 4 oz. PB-253 Ground Adapter 90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. R-232 Adjusting Bar 2 oz. 2 10 3 oz.	P-438	Horizontal Adjusting Nut	. 2.80		6 oz.
P-446 Link End	P-439	Horizontal Adjusting Screw	. 5.60		1 lb.
PB-10 Nut 4.40 8 oz. PB-11 ''U'' Wrench .60 3 oz. PB-32-6 Wheel Hub, 6'' .17.30 .12 oz. PB-52 Fibre Washer. .10 2 oz. PB-55 Clamp Screw .10 2 oz. PB-80 Hub, Right Hand Thread 6.10 1 lb. PB-252 Cord. 7.40 4 oz. PB-252 Cord. .90 .6 oz. PB-253 Ground Adapter .90 .6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) .4.30 .2 oz. R-232 Adjusting Bar .2 10 .3 oz.	P-446	Link End	. 2.40		8 oz.
PB-11 ''U'' Wrench	PB-10	Nut	. 4.40		., 8 oz.
PB-32-6 Wheel Hub, 6"	PB-11	"U" Wrench	60		<u>3 oz</u> .
PB-52 Fibre Washer. 10 2 oz. PB-55 Clamp Screw. 1.80 7 oz. PB-80 Hub, Right Hand Thread. 6.10 1 lb. PB-244 Switch. 7.40 4 oz. PB-252 Cord. 4.30 1 lb. PB-253 Ground Adapter. .90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF). 4.30 2 oz. R-232 Adjusting Bar. 2 oz. 2.10 3 oz.	PB-32-6	Wheel Hub, 6''	. 17.30		12 oz.
PB-55 Clamp Screw. 1.80 7 oz. PB-80 Hub, Right Hand Thread. 6.10 1 lb. PB-244 Switch. 7.40 4 oz. PB-252 Cord. 4.30 1 lb. PB-253 Ground Adapter. 90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF). 4.30 2 oz. R-232 Adjusting Bar. 2 oz. 2.10 3 oz.	PB-52	Fibre Washer	10		2 oz.
PB-80 Hub, Right Hand Thread 6.10 1 lb. PB-244 Switch 7.40 4 oz. PB-252 Cord 4.30 1 lb. PB-253 Ground Adapter 90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. B-232 Adjusting Bar 2.10 3 oz.	PB-55	Clamp Screw	. 1.80		7 oz.
PB-244 Switch 7.40 4 oz. PB-252 Cord. 4.30 1 lb. PB-253 Ground Adapter .90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. B-232 Adjusting Bar 2.10 3 oz.	PB- 80	Hub, Right Hand Thread	. 6.10		1 lb.
PB-252 Cord	PB-244	Switch	. 7.40		4 oz.
PB-253 Ground Adapter .90 6 oz. R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. B-232 Adjusting Bar 2.10 3 oz.	PB-252	Cord	. 4.30		1 lb.
R-129X Bearing, N. D. 87501 (MRC 201-FSF) 4.30 2 oz. B-232 Adjusting Bar 3 oz. 3 oz.	PB-253	Ground Adapter	. ,90		6 oz.
B-232 Adjusting Bar	R-129X	Bearing, N. D. 87501 (MRC 201-FSF)	. 4.30		2 oz.
	R-232	Adjusting Bar	. 2.10		3 oz.
R-274 Spring on GD-1337	R-274	Spring on GD-1337	30		2 oz.

Order No.	Description	Price Each	Shipping Weight
R-330	Lever Stud	.50	3 oz.
R-369	Feed Nut	4.00	8 oz.
R-386A	Housing	18.70	2 lbs.
R-388	Bearing and Arbor (N. D. 885801-B)	17.50	2 lbs.
#555	Plastic Grip, 3/4.	.50	2 02.
W-44	6" Cup Wheel (see up to date wheel price list)		- •
W-135	7" Flat Wheel (see up to date wheel price list)		
W-180T	Diamond Dresser Stick (see up to date wheel list)		

ALL PARTS LISTED BELOW ARE FOR MODEL 1340 ONLY

Order	Description	Price		Shipping
NO.	Description	Each		weight
GD-1407	Carriage Plate	\$12.60		10 lbs.
JD-51	Steel Pulley, 31/2" Dia., 5/8" bore	2.40		2 lbs.
PB-21	Fibre Washer, 1/2"	.10		1 oz.
PB-108	Bearing, Nice No. 6184	4.80		2 oz.
R-69	Link	1.70		6 oz.
R-211G	Wheel Guard	1 3 .70		2 lbs.
R-214	Finger Point	5.70		8 oz.
R-215	Horizontal Feed Nut	3.20		8 oz.
R-216	Horizontal Feed Screw	2.90		1 Ib.
R-221	Sliding Plate	15.30	••••••	6 lbs.
R-223	Guide Strip	1.80		1 lb.
R-224	Retainer Strip	.80		1 lb.
R-225	Axle Stud	.50		5 oz.
R-227	Spring	.60		3 oz.
R-228	Guard Clamp Screw	1.70		6 oz.
R-237	Carriage Hold Down	1.50		1 oz.
R-258B	Belt Guard	4.70		2 lbs.
R-259	Spacer	.20		1 lb.
R-265	Notor Plate	12.20		9 lbs.
R-280	Spacer	.20		2 oz.
W-75	6" Wheel, (see up to date wheel price list)			



1347 Diamond Dresser Assembly — This diamond dresser holder is designed to use the W-180-T Diamond Dresser in dressing the traveling, grinding wheel on the Peerless Sharpener. See current grinding wheel price list.



Reconditioner — The reconditioner is illustrated as used with the Peerless Models 1300 and 1340, however, part numbers are the same on the Simplex 150 Lapping Machine.

S. I. P. GRINDING MACHINE CO.