



24-in.  
J.P. MOTOR POWER  
MOWER

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HINTS

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J.P. ENGINEERING CO., LIMITED  
MEYNELL ROAD  
LEICESTER



# HINTS.

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## 24" J.P. MOTOR MOWER

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### LUBRICATION.

Use only a GOOD medium-consistency Bearing Grease and pure SPERM Oil.

NOTE.—ON NO ACCOUNT USE ANY THICK OIL.

BEFORE starting the Engine, apply a little SPERM Oil to :

- (a) Two Oilers on outside A1. Frames opposite the end of Back Axle.
- (b) The Flip-Flap Clutch Oiler higher up on side of A1. Main Side Frame.

Every ten days or so apply SPERM Oil to :

- (c) Free Wheel and Chain got at by removing large round screw cover opposite end of cutter.
- (d) The Pivots of both the Hand and Actuating Levers of Clutch, Front Axle Pivots, Cutter Adjusting Worm, etc.

Every ten days or so apply Bearing Grease by Grease Gun to :

- (e) Two Nipples over Rotary Cutter Bearings inside A1 Side Frames.
- (f) Nipple near Back Axle in smaller A1. Side Frame.
- (g) Nipple projecting from side of larger A1. Side Frame.
- (h) The Speed Change Gears, got at by removing small screw cover in front of Speed Change Lever.

## STARTING PREPARATION.

- (a) Adjust the scissor-contact of Cutters by the Handwheel until the Blades can be heard very LIGHTLY rotating when the Rotary Cutter is spun.
- (b) Adjust the Front Rollers, and take care BOTH Handwheels are tightened.
- (c) Fill smaller tank with Castrol X.L.
- (d) Fill larger tank with Petrol.
- (e) Remove Ignition Plug and free from oil and soot, and replace, screwing up FIRMLY on to the Sealing Washer.
- (f) Break the scissor-contact of the Cutters by swinging Bronze Handle (under the Cutter Adjusting Handwheel) half a turn in direction OPPOSITE the arrow on the Handwheel.
- (g) Throw in the Speed Gear required.
- (h) Put on either Grass Box or Shield—NEVER cut grass without one or the other.

## STARTING ENGINE.

- (a) Turn on Petrol Tap and Oil Tap.
- (b) Adjust Throttle Lever (on L. Handle Bar) approximately to small arrow mark.
- (c) Close the Carburetter Shutter (don't if Engine is warmed).
- (d) Insert end of strap into slot in starting Pulley, and wrap several coils in CLOCKWISE direction, seeing that the FIRST coil is wrapped PARTICULARLY TIGHT ROUND the Pulley.
- (e) Put left foot on tread rest and with both hands pull strap in a straight line with pulley ; immediately the Engine fires OPEN the Carburetter Shutter.
- (f) Move the cutters into contact again by turning the Bronze Lever as FAR as it will go in the direction of the arrow, and the machine is now ready for mowing.

SHOULD several pulls fail to start the engine, it has evidently become glutted with an over-rich charge which will not fire.

This must be cleared as follows :

- (A) CLOSE Carburetter Throttle and push down Carburetter Air Plunger.

- (B) REVOLVE Engine with Starting Strap and thus clear it.
- (C) OPEN Throttle Lever to small mark—. There should be no difficulty in starting engine now. Remember as soon as Engine fires pull up Plunger on Carburetter.

## **MOWING.**

REGULATE the Engine Speed by moving Carburetter Throttle Lever with left thumb. Do not race Engine. Put mower in motion by releasing Clutch Lever. LOWER THE CLUTCH LEVER VERY GENTLY.

As Mower is moving, slightly open throttle to maintain desired speed.

STOP mower by lifting Clutch Lever into lock position, and check Engine speed by partly closing throttle.

## **ROTARY CUTTER—REMOVING from MOWER**

- (a) Remove the large and the small screw covers from each side frame.
- (b) Unscrew the nut (in the recess in the Free Wheel) three turns with the box spanner supplied in the tool kit.
- (c) Tap the end of the spanner (whilst on the nut) with a piece of wood to loosen the cutter shaft.
- (d) Remove the nut, and with the spanner handle push the shaft further through the cutter until its opposite end can be grasped by the right hand.
- (e) Hold the cutter with the left hand and the shaft can then be drawn out and the cutter simultaneously lifted from the machine.

NOTE—Oil the shaft to prevent rusting and replace it in the machine together with the screw caps to keep dirt out.

## **ROTARY CUTTER—“REFIXING.”**

- (a) Thoroughly clean and oil BOTH the plain and the splined ends of the cutter and of the cutter shaft.
- (b) Place the cutter in position in the machine with the splined end close up to the Free Wheel Sleeve which is correspondingly splined.

- (c) Insert the cutter shaft from the opposite side of the machine through the bearings and cutter, bringing the locating mark on the Free Wheel Sleeve into LINE with that on the hub of the Rotary Cutter.
- (d) Press the shaft right through the cutter and sleeve till the screwed end projects to the recess of the Free Wheel.
- (e) Replace the shaft nut and screw up tight.
- (f) Screw both covers into position.

### **SHEAR BLADE—“REVERSING.”**

There are two cutting edges which, when one is worn, reverse as follows :—

- (a) Lay the machine on its side with the large aluminium frame on a clean sheet of brown paper.
- (b) Unscrew the twelve screws with a screwdriver.
- (c) Carefully clean the BLADE and the frame FACE, and apply a slight smear of clean oil.
- (d) Replace the blade reversed and insert the screws loosely.
- (e) Tighten up the two END screws first and finally tighten up the rest.

### **POWER UNIT—DETACHING FROM MOWER.**

- (a) Unscrew the petrol-pipe union below the carburetter and remove the carburetter from the induction pipe. Unscrew oil pipe union.
- (b) Unscrew the nut which secures the swing clip at the front of the engine sump.
- (c) Unscrew for a few turns the bolts in the two clip rings at the rear of the engine sump and tap each ring sideways clear of the engine cradle arms. Remove bolts from flexible coupling.
- (d) Unscrew large nut on exhaust pipe.
- (e) Tilt up the front end of the engine first and finally lift it clear of rear guide bars.

### **POWER UNIT—REFIXING ON MOWER.**

- (a) Separate the two clip rings on the rear guide bar and place the Power Unit in position between them, holding its front slightly tilted up.

- (b) Lower the front cradle arm on to the other guide bar until it is seated correctly.
- (c) Push the Power-Unit along the bars until the flexible coupling engages.
- (d) Tap the Power-Unit backwards about 1-64th in. for running clearance.
- (e) Slip the two clip rings on to each side of the rear cradle arm and tighten up the bolts.
- (f) Close the front clip and swing the eyebolt into slot and screw up securely.
- (g) Replace the carburetter on the induction pipe, tightening up clip screw.
- (h) Recouple the petrol-pipe union at the bottom of carburetter, and oil pipe at base of pump.

### **REAR AXLE—REMOVING.**

For cleaning out and for re-greasing the gear, this requires to be done two or three times during the season, as follows:—

- (a) Unscrew the two hexagon head screws opposite the ends of the rear axle and remove with the attached lubricating tubes.
- (b) Lay the Mower sideways on its larger side frame on a clean sheet of brown paper.
- (c) Unscrew the cap nuts in each side frame and remove the two caps.
- (d) Take the rear axle out of the machine and clean and grease the gears.

NOTE.—Take care to reassemble in the correct order and to get the Thrust Washers in the proper position.

### **CLUTCH ADJUSTMENT.**

If, after oiling, the clutch fails to release satisfactorily, adjust the clutch cable and test by lowering the clutch lever and simultaneously shaking the cable lever, when a very slight freedom should be discernible before it contacts with the clutch thrust rod.

### **CARBURETTER CONTROL CABLE ADJUSTMENT.**

The Bowden cable should be adjusted to just remove any slack that can be discerned by lifting the cable from the socket on the carburetter when hand-lever is shut.

For the convenience of handling Mower it is sometimes preferred to screw the adjustment nipple out a few turns so that with the hand lever shut the carburetter is set correctly for slow running (in which case the starting position of hand lever should not be quite up to the ordinary mark).

Generally, when engine fails to start, test Ignition Plug and SPARK, and FOLLOW starting instructions with CARE. If this does not locate the cause of trouble, consult the CARBURETTER handbook, as it will probably be somewhere there.

CUTTING CYLINDER DRIVE is automatically controlled, and will slip when cutter and blade come in contact with any foreign matter, such as stones. This cutting cylinder drive can be withdrawn when the machine is standing by tightening the circular wing nut inside the starting pulley. This will enable the machine to be used, when desired, for roller only.

OIL FRONT ROLLERS through spring oilers fitted to inner sides of rollers.





