







16-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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## 16" J.P. MOTOR MOWER.

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### LUBRICATION.

USE a GOOD medium-consistency Bearing Grease and pure SPERM OIL—J.P. Super Lawnmower Oil is ideal.

NOTE.—ON NO ACCOUNT USE ANY THICK OIL.

BEFORE starting the motor, apply oil to two flip-flap oilers situate on the smaller Aluminium Side Frame.

EVERY ten days or so apply oil to:—

- (a) Free Wheel and Chain, got at by removing large round screw cover opposite end of rotary cutter.
- (b) Front Axle Pivots and Cutter Adjusting Worm.

EVERY ten days or so apply Bearing Grease to two nipples over Rotary Cutter Bearings inside Aluminium Side Frame.

### STARTING PREPARATION.

- (a) ADJUST scissor-contact of Rotary Cutter and Shear Blade by handwheel, until contact of blades can just be heard when Rotary Cutter is spun by hand. The lightest AUDIBLE CONTACT should be the aim.
- (b) ADJUST the Front Roller. Take care that BOTH Handwheels are tightened afterwards.
- (c) MIX in a very clean Petrol Can, One Gallon of Good Motor Spirit, and ONE HALF PINT of Castrol X.L. or T.T. Mobiloil. Shake MOST THOROUGHLY and pour sufficient for immediate use only into Petrol Tank. (Do not remove gauze filter when filling).
- (d) REMOVE Ignition Plug, free from oil and soot. Replace, screwing up firmly on to Sealing Washer.
- (e) PUT on Grass Box.

## STARTING ENGINE.

- (a) TURN on Tap under Petrol Tank.
- (b) ADJUST Throttle Lever approximately to small arrow mark.
- (c) Partly rotate and push down Plunger on Carburetter.  
Note:—This is not necessary if engine is warm.
- (d) INSERT Starting Strap into slot in Starting Pulley and wrap several coils in a CLOCKWISE DIRECTION, noting that first coil is wrapped particularly tight around pulley.
- (e) STEADY machine with left hand. Obtain a firm grip on Strap and pull sharply in a straight line with pulley, immediately engine fires, pull up plunger on Carburetter.

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) OPEN Release Valve situated near Cylinder Head.
- (C) REVOLVE Engine with Starting Strap and thus clear it.
- (D) TIGHTEN Release Valve.
- (E) 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.

## ENGINE FAILS TO START.

GENERALLY when engine fails to start, test Ignition Plug and Spark. FOLLOW STARTING INSTRUCTIONS WITH CARE. If the trouble cannot be located, consult Carburetter Handbook, this may indicate cause of engine failure.

To test spark, remove ignition plug and lay on some portion of cylinder after refixing magneto cable. Remove engine and watch plug points; if sparking satisfactorily, the trouble lies in other directions.

## 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.

## PUTTING AWAY PRECAUTIONS.

BEFORE storing machine, turn off petrol and run Engine to a standstill, so emptying Carburetter and jets of surplus petrol and preventing oil in the mixture from settling. The possibility of trouble from this direction when starting, is thus avoided.

Finally, run off all remaining PETROIL in tank through Drain Cock, to be found well down the petrol pipe. Run the Petroil into a spare petrol can and seal securely till required.

Note:—ALWAYS thoroughly shake the mixture before returning to the petrol tank, as the oil may have settled through standing.

REMOVE all clinging grass and dirt—make particularly sure that gauze on Carburetter Intake is free from foreign matter.

## REMOVING ROTARY CUTTER FROM MOWER.

- (a) REMOVE screw covers from each side frame.
- (b) UNSCREW nut in centre of freewheel, seen in larger hole, about three turns with spanner provided.
- (c) TAP end of spanner (while still on nut) with a piece of wood—this will loosen cutter shaft.
- (d) REMOVE nut, and with spanner handle push shaft through Rotary Cutter until opposite end can be grasped by right hand.
- (e) HOLD Cutter with left hand, and draw out shaft; then Cutter can be lifted from machine.

NOTE: Oil shaft to prevent rusting, and replace in machine together with screw caps, as a precaution to exclude dirt from the driving members.

## REFIXING.

- (a) THOROUGHLY clean and oil both plain and SPLINED ends of Rotary Cutter and Cutter Shaft.
- (b) PLACE Cutter in position in machine, with splined end close up to Freewheel Sleeve, which will be noted is correspondingly splined.

- (c) Insert Cutter Shaft from opposite end of machine, passing it through the right hand bearing and the Cutter. Bring locating mark on hub of Cutter into line with a similar locating mark seen on Freewheel Sleeve.
- (d) PRESS shaft right through the Cutter and sleeve till screwed end projects through Freewheel recess.
- (e) REPLACE the shaft nut, and screw up tight—finally screw both covers into position on side frames.

### **REVERSING SHEAR BLADE.**

The shear blade has two cutting edges, when one is worn reverse blade as follows:—

- (a) LAY machine on its side with the larger Aluminium side frame on a sheet of brown paper.
- (b) UNSCREW eight screws holding Shear Blade with a wide screw-driver.
- (c) CAREFULLY clean Blade and the Frame Face on which Blade sits. Apply a smear of oil to both mating faces.
- (d) REVERSE the Blade and insert the eight screws loosely.
- (e) TIGHTEN up two END screws first, and finally tighten remainder.

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

- (a) UNSCREW petrol pipe union below Carburetter.
- (b) REMOVE Throttle Control Lever from handlebar (unscrew nut on underside of handlebar).
- (c) UNSCREW nut which secures eyebolt at front of Engine Cradle. Swing eyebolt free from slot.
- (d) UNSCREW for a few turns the screws in two clip rings at rear of Engine Cradle and tap each ring sideways till clear of cradle arms. REMOVE Bolts from Flexible Coupling.
- (e) SLIP Engine along guide bars until clear of exhaust below.
- (f) TILT up front end of engine first, then lift it clear of rear guide bars.

### **REFIXING.**

- (a) SEPARATE the two clip rings on rear guide bar, and place Power Unit in position between them.



- (b) RAISE front of engine cradle and slip eyebolt into position in its slot.
- (c) PUSH power unit along bars and replace bolts in flexible couplings with split pins in bolts.
- (d) TAP power unit backwards about 1/64" to give running clearance.
- (e) SLIP the two clip rings on to rear cradle arm and tighten up screws.
- (f) SWING front eyebolt into position and tighten nut.
- (g) FIX Throttle Control Lever on to Handlebar.
- (h) RE-COUPLE petrol pipe union on underside of Carburetter.

### CLUTCH ADJUSTMENT.

THIS member needs but little attention. The clutch should have about 1/16" float, this is regulated by screw and locknut projecting from rear axle bearing cap.

Should machine be sluggish in starting or stopping, some adjustment of the clutch is indicated. Test cable first. Stop engine and lower Clutch Lever. With the lever in this position, there should be a slight amount of freedom in the cable at the point where it enters the handle bar. If the slackness is excessive or entirely absent, adjust screwed sleeve in handlebar, this may eliminate the trouble. Should sluggishness still be apparent, adjustment of the clutch is necessary. This is made through screw connecting TWO ACTUATING LEVERS seen projecting from the small side frame. Proceed as follows:—

- (a) Slack off lock nut.
- (b) With suitable spanner TURN SCREW ONE HALF TURN TO THE LEFT.
- (c) Tighten lock nut.
- (d) RE-ADJUST cable to give slight float mentioned above.  
Note:—This is important and must be attended to each time clutch adjustment is altered.
- (e) Test Machine—If improvement in running is slight, repeat above sequence—not forgetting cable.

### CARBURETTER CONTROL CABLE ADJUSTMENT.

The Bowden cable through which the Throttle is controlled, should be periodically adjusted to just remove any slackness that can be discerned by lifting cable from the adjusting socket on the Carburetter, when control lever is closed.

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

## DRIVING CHAIN ADJUSTMENT.

After a month's hard wear, the Driving Chain will probably have stretched.

- (a) REMOVE Bearing Cap at top of Larger Side Frame (unscrew two nuts and lift off).
- (b) ATTEMPT to lift Starting Pulley—if more than 1/32" lift is discernable, the Driving Chain needs adjusting.

ADJUSTMENT is made through Bronze Disc to be seen at about the centre of the Larger Side frame. Proceed as follows:—

- (c) LOOSEN nut seen in centre of disc.
- (d) TURN disc in a clockwise direction with fingers till the Starting Pulley can be lifted 1/32" only.
- (e) TIGHTEN up centre nut, making sure that Bronze Disc does not turn with nut.
- (f) Replace Bearing Cap.

If first adjustment is made with due care the Chain should not need any further attention for a considerable period.

## SAFETY DEVICE FOR CUTTING CYLINDER.

To avoid undue damage to Cutter and Blade when coming into contact with stones, etc., the Freewheel Sleeve is in two portions connected only by two copper rivets, which will shear if foreign matter becomes wedged between the Cutter and Blade.

To renew the rivets remove large screwed cap and cork from end of Sleeve. The old rivets can then be removed and new ones inserted. Replace Cork and Screwed Cap.

Oil Front Rollers through spring oilers fitted to inner side of rollers.







