

A.J.S. Motor Cycles

This envelope contains application Post Card for Instruction Booklet containing details of Guarantee in respect of A.J.S. machine No. The Post Card should be completed and posted to

A. J. S. MOTOR CYCLES,

PLUMSTEAD ROAD,

LONDON, S.E.18.

This envelope should be handed to the purchaser unopened.

THIS CARD SHOULD BE RETAINED BY PURCHASER AND KEPT FOR REFERENCE

ABBREVIATED RUNNING & OILING INSTRUCTIONS FOR A.J.S. MOTOR CYCLES.

IMPORTANT.

1.—A new machine should not be driven on full throttle up hill, or at a speed greater than 20 m.p.h. on the level, on top gear, with a corresponding low-medium speed in other gears, for at least the first 500 miles. Never allow the engine to labour but change gear early.

TAKING OVER A NEW MACHINE.

2.—Carefully examine and memorize controls. See that tyres are correctly inflated. Check over fuel kit. Fill up with petrol and oil (average tank capacity, petrol 2-2½ galls., oil ½ gall.).

3.—For Engine—Use Wakenfield CASTROL XL.

For Gear Box—Use Wakenfield CASTROLEASE MEDIUM.
For Hubs, Brake Joints, etc.—Use Wakenfield CASTROLEASE MEDIUM.

STARTING.

4.—The petrol is turned on by pushing inwards the end of sliding plunger marked ON. Flood the carburettor by depressing the holder on float chamber cap until petrol overflows from vent hole. Place gear in neutral position, advance ignition about ½, open throttle about ¼, and compresser down etc. Then raise valve lifter and turn engine over a few revolutions in charge cylinder or cylinders. Give accelerator pedal a vigorous push, releasing valve lifter when pedal has almost reached bottom of its travel. Repeat if necessary and when engine starts reduce throttle opening to check speed.

RUNNING.

5.—Do not race the engine while cold, but allow to idle for a moment or so to warm up. Then, seated on cycle, raise clutch lever (left hand-side) and engage first gear. Then gently release the clutch lever, when cycle will begin to move forward. When well under way, again raise the clutch lever and simultaneously move gear lever into next higher gear, releasing clutch lever gently but smartly when the change has been made. Repeat operation until top gear is reached. In all changes make the movement of clutch and gear levers as firm and quickly as possible, in each case the clutch should be released a fraction of a second prior to shifting the gear lever. With reasonable care, gear changes either up or down can be made without a sound. Take a guide therefore, in a smooth, silent change.

STOPPING.

6.—To come to a standstill, close throttle and when the road speed has fallen to about 10 m.p.h., release the clutch and gently apply the brake, and when at a standstill, with clutch still disengaged, shift the gear lever to neutral position.

In a traffic stop of short duration, the starting gear may be engaged in readiness for the signal to re-start, holding the clutch out of engagement until such signal is received. This practice is not recommended for a stop of more than a few seconds duration.

LUBRICATION.

Single Cylinder Models 34/S, 6, B/6, 8, B/8, 9, and 12.

7.—A wet sump non-circulating oiling system is employed, and a double acting oil pump plunger is used, one end of which delivers oil to the engine, and the other end draws oil from the tank and immediately returns same, in order to provide a self-take by which the correct functioning of the pump unit can be checked at a glance on lifting the oil tank cap.

NOTES ON OILING SYSTEM.

8.—The adjustment of the pump is made by means of the control knob on pump unit. Screwing the knob down cuts down the amount of oil, turning the reverse way increases the amount of oil. A stop fitted beneath the control knob prevents the supply being cut right off. After the engine has been well run in for the first 500 to 600 miles or if the engine smokes excessively, screw the control knob down about ¼ of a turn, if still too much oil, screw down a further ¼ and so on. Every 2,000 to 3,000 miles drain crankcase through the plug in the bottom of crankcase and replace half a pint of clean oil through plug near base of cylinder on driving side. Do not put petrol or paraffin in the crankcase.

LUBRICATION.

On Model 34/2.

9.—Engine lubrication is by means of the "dry sump" continuous circuit system. The integral oil pump possesses a double diameter plunger operated from a worm on the engine main shaft. The larger end of this plunger is employed for lubricating the crankcase sump, but the smaller end for delivering fresh oil to the various parts of the engine from whence it drains back to the sump to be

(Continued.)

returned to the supply tank. The functioning of the oil delivery is observed on panel equipped Electric Meters through a sight indicator, and on other Models the oil can be seen returning to the oil tank via the spill spout, exposed by removing the filter cap. This cap should be removed upon starting the engine prior to a run, in order not only to verify the correct functioning of the pump, but also to check the oil level.

NOTES ON OILING SYSTEM.

Model 34/2.

10.—Add fresh oil to tank frequently by preference to allowing the level to fall very low and then replenishing, the reason for this being, that the more oil the tank contains the cooler it will keep in circulation. Remove filters every 1,000 miles, and thoroughly clean in petrol. Remove filters oil tank and wash out with petrol once every 5,000 miles, afterwards fill with fresh clean oil. Do not allow the oil level to fall below the half-full mark, and do not allow the oil when engine has been standing overnight, higher than 1 in. below the return spout, as when next starting for a time oil will drain back to the sump, and will the level in tank gear housing is automatically restored by the delivery pump, more oil will be returned to the tank than is being drawn from it by the smaller delivery end of the pump plunger, which fact might cause overflowing if the tank is too full of oil.

LUBRICATION.

Models 34/7 and 34/10.

11.—On O.H.C. Machines 34/7 and 34/10 the lubrication is by means of the "dry sump" continuous circuit system, see notes on 34/2 Model. No indicator is fitted in the panel equipment, and the oil can be seen returning to the oil tank via the spill spout exposed by removing the filter cap. A separate pump is fitted to the roller box shell for draining the roller box, this pump lubricates the chain mechanism and then drains back into the sump of the engine.

CHAINS.

12.—If sump frequently and maintain level of oil in front case, the position of inspection cap prevents the case being ever filled. Remove the rear chain every 2,000 miles and thoroughly wash in petrol to remove dirt. After carefully striking immerse in a bath of motor chain grease such as CASTROL EASE Oil. A proper substitute is ordinary Engine Oil. If this is used, the chain should be soaked in a bath overnight.

GEAR BOX.

13.—About once every 1,000 miles two or three ounces of Wakefield CASTROL EASE (Medium Grade) should be added. The gear box must not be entirely filled and under normal circumstances the addition mentioned above will be found ample.

NOTE.—Wakefield CASTROL EASE is conveniently supplied in collapsible tins provided with a suitable bent spout to facilitate injection into the gear box interior.

FORK SPINDLES.

14.—Inject grease every 500 miles until it is observed exuding from the joints.

GREASE GUN.

15.—Frequent use of the grease gun on all the nipples provided will greatly prolong the life of the parts. Little and often is the correct practice, and is in every instance preferable to expeditious maintenance intervals. Fill grease gun with CASTROL EASE MEDICAL.

MAINTENANCE.

16.—Engines.—Keep tappets correctly adjusted. .004" clearance on inlet and .006" for exhaust on S.V. Models. Check the adjustment when engine is warm. On O.H.V. Models the clearance between the rocker studs and valves should be the nearest approach to nil obtainable. It should be checked that the hardened steel valve stem caps are free to rotate with the stems. The adjustment to be made when the engine is cold. For O.H.C. Models the clearance should be .010" inlet and .008" on exhaust, this adjustment to be made when engine is cold.

17.—Chains.—Keep correctly adjusted. When adjusting find the tightest place and adjust with a little vertical play on the top run. While making adjustment to the front chain tension, the top and bottom runs of the rear chain should be slightly clamped together in order to strain the gear box backward as far as possible. Otherwise, owing to the greater pull on the rear chain on low gear the gear box may be strained back sufficiently to make the front chain tight notwithstanding its correct adjustment previously. To obviate any movement of the gear box, the front chain should certainly be adjusted a little too tightly and brought to the correct adjustment by moving the gear box forward.

18.—Brakes.—Adjustment of brakes should be made so that when machine is placed on the stand the objects will freely revolve when the brake pedal or lever is released.

19.—Gear Box.—Adjusting the front chain may necessitate a readjustment of the gear control rod. To test, jack up back wheel on stand, and while moving wheel to and fro, shift the gear lever either side of the neutral notch until the dogs can be felt ratch. The movement each side of the neutral notch should be identical, and any necessary correction is made by screwing the top gear rod yoke rod up or down as the need may be. Secure the yoke and lock nut firmly after making adjustments. Above applies to hand gear change models only.

DECARBONISING.

20.—Carbon deposit should be removed after the first 1,000 miles, and subsequently every 1,000 to 2,000 miles. During each alternate process of decarbonizing the cutter spindle should be removed to permit of inspecting and cleaning the piston rings and their grooves. At the same interval the valves should be carefully ground to fit remove all pit marks from the seatings, and the stems together with guides carefully cleaned of all deposit.

A special valve spring compressor is supplied for the O.H.V. Models at \$9. This tool is not a part of the standard tool kit, but is arranged to fold up for insertion in the tool bag if desired.

A small clamp tommy wrench is furnished to facilitate valve grinding on O.H.V. Models can be supplied at a cost of 5s.

For full details of further advice see Instructions Book supplied free upon receipt of application card provided with each cycle. (Specification copies 1/2 each.)

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PLUMSTEAD, LONDON, S.E. 18.