

USE AND MAINTENANCE



### ENGINE 49 cc - TWO STROKE - AUTOMATIC CLUTCH



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## Use and Maintenance

Your « Dove » is fitted with a 49cc two stroke engine, single speed with an automatic clutch. This machine has been designed and built to the latest and most modern techniques to give long and lasting service and to meet every safety requirement.

The high standard of engineering used in the manufacture of this machine ensures maximum performance proportionate with its cubic capacity and minimum maintenance costs.

#### Main Features

Overall length: 64,567" Overall width: 27,165" Overall height: 0,040"

Saddle height: max, 32,677"; min, 29,527"

Wheel Base: 10,039"

Main Frame (pressed steel construction)
Front Suspension - Telescopic type forks

Rear Suspension - Swinging arm with spring/

hydraulic shock absorbers

Centre stand

Unladen weight: 101,41 lb.

Fuel Tank Capacity: 0,77 imp. gal.

Fuel Consumption: 1 gallon 180 miles (approxi-

mately)

#### Engine

Single cylinder two-stroke air cooled

Bore: 1,527" Stroke: 1,653" Capacity: 49.65 cc

Compression Ratio: 8,5:1

Maximum Output: 5600 RPM - 2 HP

6 volt AC lighting system

Ignition by 18 watt alternator flywheel magneto

Spark Plug Type: Champion L7 Lubrication: Petrol/Oil mixture Gear Box Capacity 0,33 cu. in. Oil bath gear case lubrication

Automatic centrifugal clutch in oil bath

#### Carburettor

Dell'Orto SHA 14/12

#### Transmission

Chain from engine sprocket to rear wheel

Chain: 1/2" x 3/16" size Rear Sprocket: 34 teeth Engine Sprocket: 11 teeth

#### Wheels and Brakes

Wheel size: 16"

Tyre Size - front: 2¼" x 16"

Tyre Size - rear: 2¼" x 16"

Pressure - front: 21,30 lbs./sq.in. Pressure - rear: 24,20 lbs./sq.in.

#### **ENGINEERING DETAILS**

All engine casings are manufactured out of light alloy die castings. The cylinder head is of special light high resistance die-cast alloy. The connecting rod and gears are manufactured from high quality chrome nickel steel, drop-forged case hardened and quenched.

The single speed gear box is of a constant mesh type, gears being specially machined to obtain high efficient noiseless running. The moped is started either on the stand when stationery or by pedalling.

With the machine on the stand, position one of the pedals according to which side of the machine you are standing, in the uppermost position. Fully apply the starting lever situated on the left-hand side of the handle bar, press down with the pedal firmly, when your engine should start.

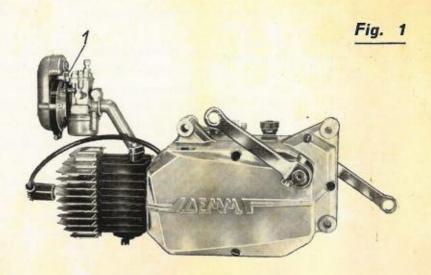
NOTE - When starting on stand, before moving machine off the stand set throttle control to minimum r.p.m.

During cold periods, it may be necessary to apply the carburettor choke to anrichen the petrol mixture.

Depress lever 1) Fig. 1, on the carburettor, and start machine.

The choke will be automatically released on applying full throttle.

The clutch is completely automatic and will operate as soon as the engine r.p.m. is sufficient.



It is essential during the running in period of the machine (first 300 miles), that speeds should not exceed 20-25 m.p.h. and that the engine should not be overloaded - i.e. with hilly conditions assist with pedals.

#### Fuel

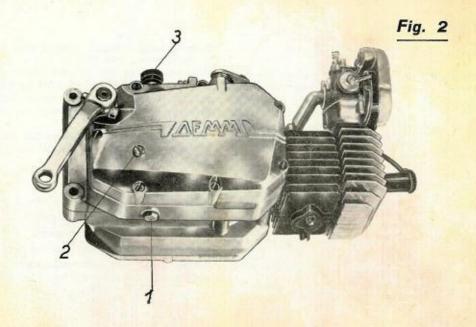
During the running-in period, a petrol/oil mixture of 8 per cent should be used. After this time, a mixture of 5 per cent should be used.

The DOVE engine does not require fuel with high octane grading. A two-star rated petrol is adequate.

#### **Engine Lubrication**

For gearbox lubrication use a high-grade SAE 40 lubricating oil. Check the oil level frequently by unscrewing the screw (2) Fig. 2, wich is a level plug on the gearbox. The oil should be just visible when the plug is removed, if the machine is inclined slightly from the vertical. Add oil to suit, when topping up.

To change the oil (at 1500/2000 mile intelvals) remove the drain plug (1) Fig. 2, and fill to the level plug hole through plug (3) Fig. 2. It is advisable when draining the oil that the engine is hot.



#### Periodical Maintenance

Carburettor - It is advisable to clean the fuel filters every 1500 miles. To clean the petrol tap filter remove the tap from the fuel tank. Remove the carburettor filter, and carefully clean in a container full of clean new petrol. Both filters should then be dried by compressed air before refitting.

When driving in extremely dusty conditions, the carburettor intake filter should be cleaned at least every 1500/2000 miles; remove the filter and wash off in clean petrol. Dry with compressed air and immerse before refitting to the carburettor in a petrol/oil mixture of 10 per cent.

When cleaning carburettor jets NEVER USE wire or other such metal.

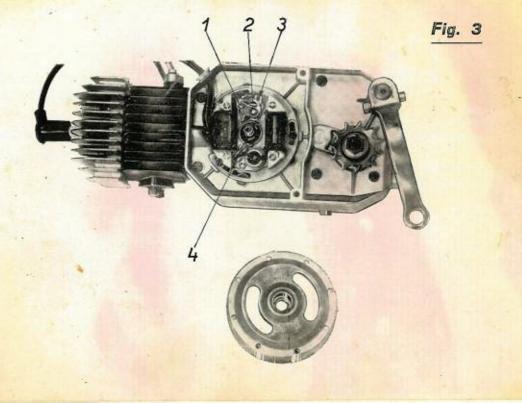
Compressed air should be all that is required.

Decarbonising - Should general loss of power be experienced, this may be due to a build-up of carbon within the cylinder head/piston and exhaust pipe. These parts should be dismantled and the carbon deposit removed. Care must obviously be taken not to damage the aluminium surfaces.

Every 3500/4500 miles the piston should dismantled and the carbon deposit removed from under the piston rings.

Ignition - From time to time it will be necessary to adjust the contact breaker points, particularly if difficult starting is experienced.

Fig. 3 shows the magneto with the flywheel rota removed. Contact breaker adjustment is achieved by loosening screw (2) Fig. 3, which clamps the fixed magneto contact.



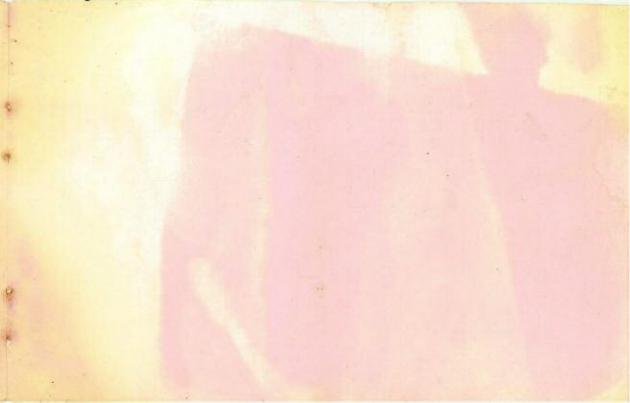
Adjust points by inserting a screwdriver into the slot provided 3, Fig 3, to a maximum setting of between 0.35 to 0.45 mm (0,014 to 0,018 ins.). If the magneto points are dirty or oily they must be removed and thoroughly cleaned.

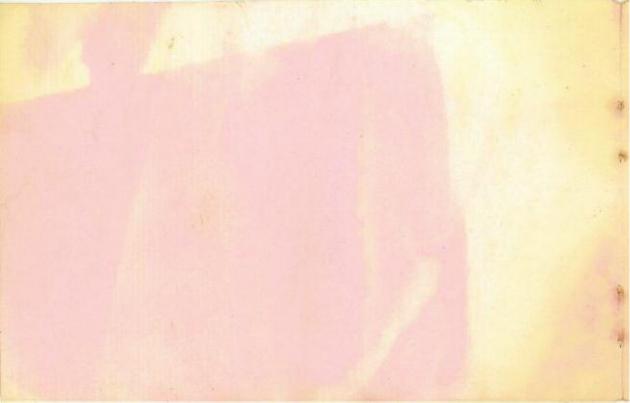
The spark advance is 2.8 mm before the piston reaches top dead centre.

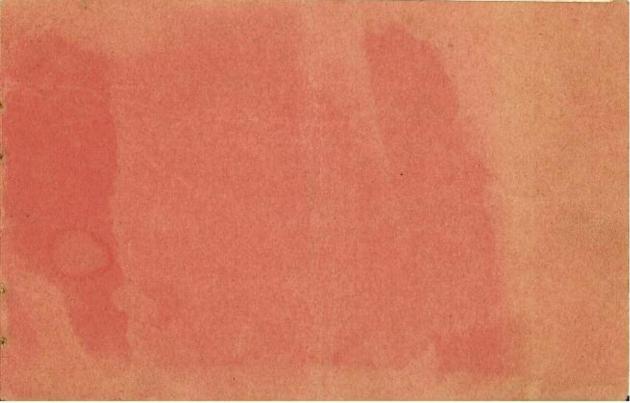
At 3000 mile intervals add a little lubricating oil (a few drops) to the cam oiling felt 4, Fig 3.

Spark Plug to be maintained regularly, with an electrode setting of between 0.4 to 0.5 mm. (0,016 to 0,020 ins.).









# MOTORISED CYCLES LIMITED

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