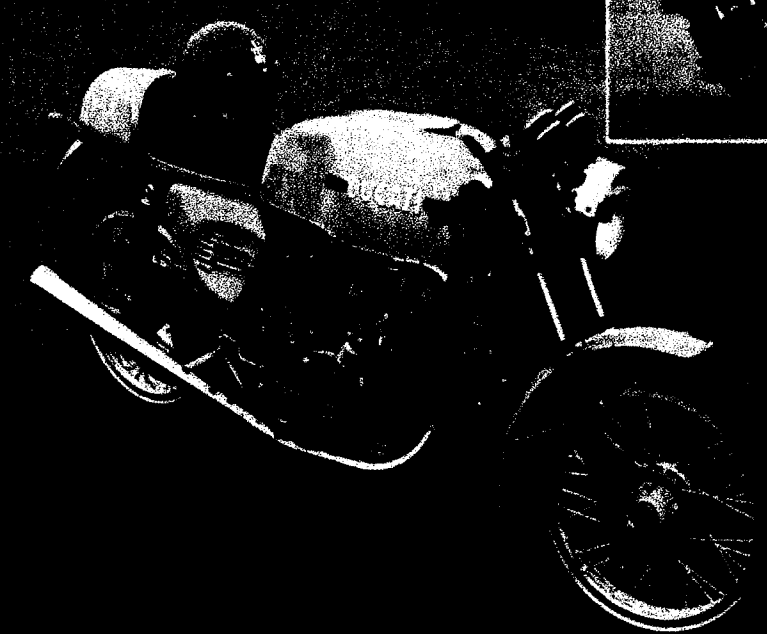
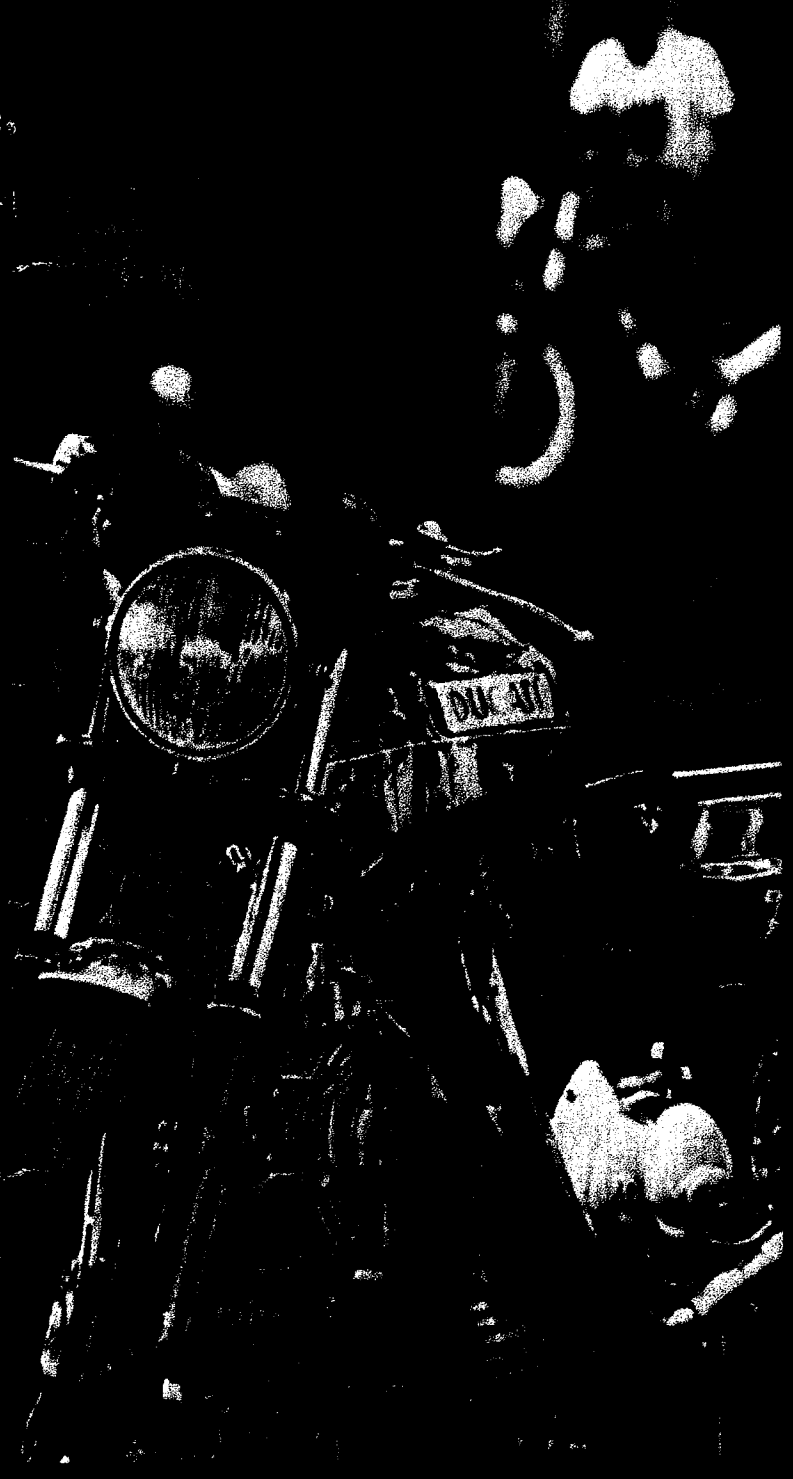


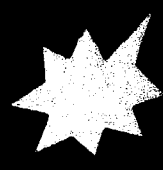
DUCEATI

Motor Cycles



750

GT/SPORT



860



Servicing

DUCEATI

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**750 SPORT/GT
860**

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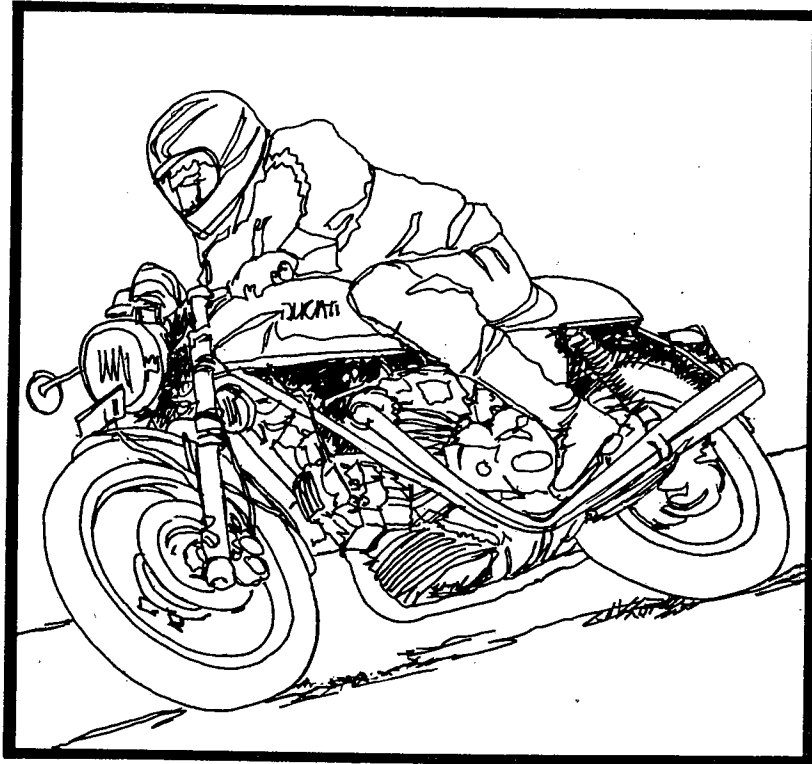
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DUCATI
▪750 GT/SPORT ▪860

CONTENTS

Specifications—750	1
Electrical Systems	4
How to check Ignition Advance	5
Specifications—860	7
Maintenance 750 and 860	8
Care of Battery	11
Locating and Remedying Faults	12
Disassembling and Re-assembling Engine	15
Electronic Ignition—860	57
Wiring Diagram—750 GT	63
Wiring Diagram—750 Sport	65
Wiring Diagram—860	67
Exploded Engine—860	69



SPECIFICATIONS—750

Engine

Two cylinder four stroke "L" configuration

Four stroke twin cylinder 90 degree longitudinal "L" configuration, supported in a cradle frame.

Bore: 80 mm (3.1496")

Stroke: 74.4 mm (2.9291")

Cylinder capacity: 748cc (45.629 cu. in.)

Compression ratio: 8.5:1

Deeply finned cylinders in light alloy with special cast iron liners inserted. Connecting rods in special steel, with roller cage at the big end and the small end bushed to take the gudgeon pin; Light alloy pistons, press forged with the skirt in one piece and three piston rings, one of which is an oil scraper. Cast light alloy cylinder head, closely finned with inserted valve seats.

Timing

The timing system is provided with overhead valves, inclined at 80° , timed by an overhead camshaft. The valves are made of special steel.

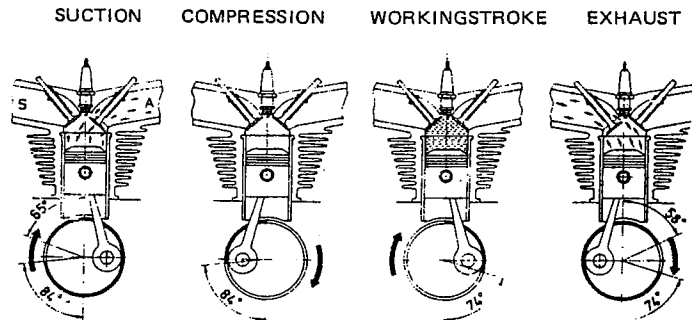


Fig. 1

With a valve/rocker clearance of 0.10 mm (0.0039") for both inlet and exhaust the timing is as follows: Inlet opens 65° before T.D.C. and closes 84° after B.D.C.; Exhaust opens 74° before B.D.C. and closes 58° after T.D.C.

The tappets are adjusted by means shims on the end of the valve stems, and the clearance should be checked after the timing has been set and with the engine cold.

The timing gears in the crankshaft and on the cam shaft are provided with reference marks and care should be taken to re-align these when assembling the engine after repair or maintenance.

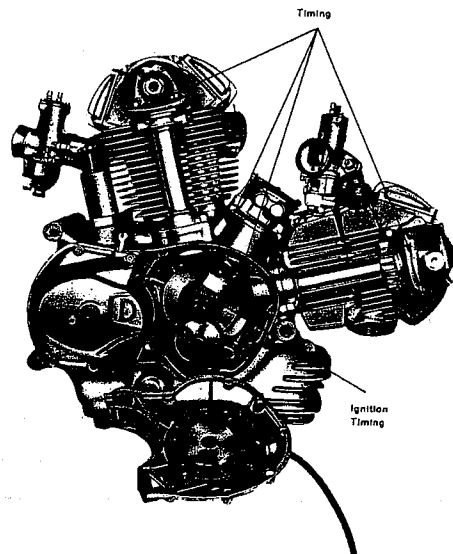


Fig. 2

IDLING ADJUSTMENT

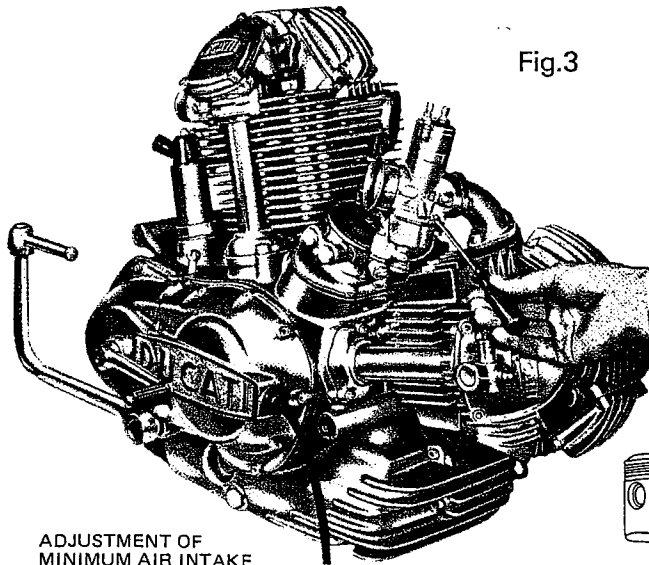


Fig. 3

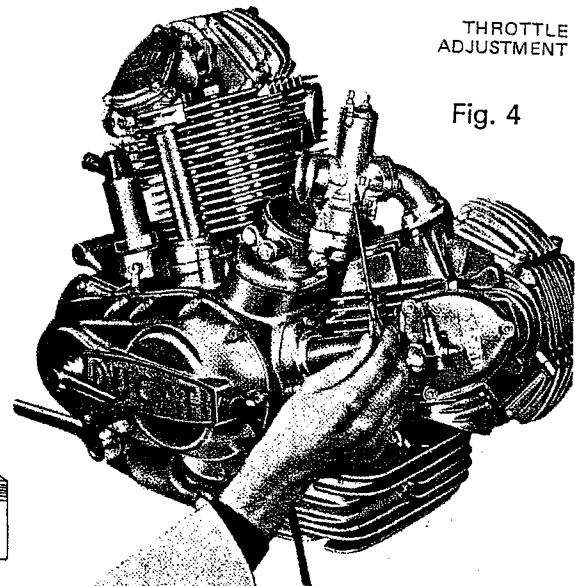
THROTTLE
ADJUSTMENT

Fig. 4

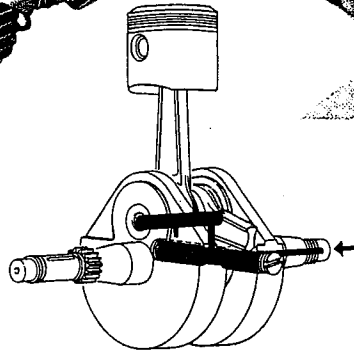
ADJUSTMENT OF
MINIMUM AIR INTAKE

Fig. 5

Fuel

Petrol is gravity fed to the engine through two Amal carburetors with air filters. The tank holds 17 litres (3.74 gallons) and has two three-position cocks: close-open-reserve. The reserve is about 1.6 litres (0.35 gallons)

Lubrication

The engine is pressure lubricated by means of a gear pump driven by the crankshaft. This pump takes the oil from the lowest point in the crankcase, through a filter and forces it through a series of oilways to all parts of the engine requiring lubrication. The oil return is by gravity.

The sump capacity is about 4.5 Kg (1.10 gallons) and an oil filter with dipstick and sealing gasket allows easy oil level measurement.

The filler plug dipstick is marked with two notches to indicate lowest and highest permissible levels and the level is checked by resting the plug on the filler.

The system is quite simple and requires no special maintenance other than topping up the oil every 500 Km (300 miles) and changing the oil and cleaning the filter every 2,000 Km (1,200 miles).

Cooling

The engine is air cooled by means of fins on both the cylinder barrel and cylinder head.

Ignition

Ignition is by battery and coil with 10° advance when the engine is stopped and 29° automatic advance at over 1,200 r.p.m., a total of 38°.

To time the ignition see the figure on page 6. The clearance between the platinum plated contacts should be 0.3 to 0.4 mm (0.0118" to 0.0157") and should be checked with a feeler gauge.

The spark plugs are Lodge 3 HN or a similar model and are located on the left side of the cylinder head.

When replacing the plugs make sure the plug is aligned correctly in the thread so as to avoid cross threading. Screw the plug in lightly at first, then tighten it.

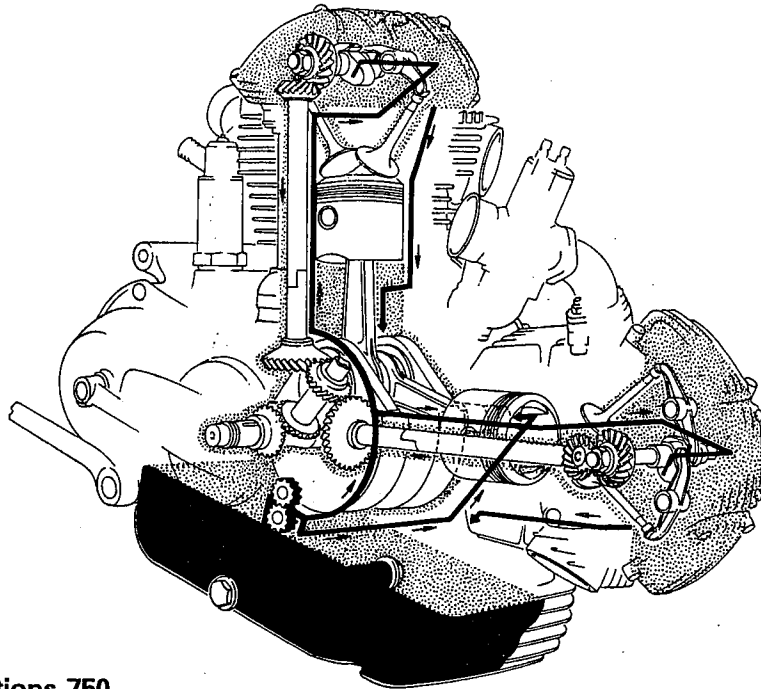


Fig. 6

Running-in Precautions 750

During the first 1000 Km (620 miles) the rev counter should not exceed 4,500—5,000 r.p.m. and do not maintain the maximum allowed speed through the gears for long periods.

After the first 500 Km (300 miles) and after the first 1,000 Km (600 miles) with the engine still warm, change the crankcase oil, adjust the tappets, fitting the appropriate rocker shim and check the cylinder-head tie-rods as well as nuts and bolts generally. Adjust the platinum contact breaker points in accordance with the data shown under Specifications, and check the chain tension and lubrication.

Transmission

The transmission components consist of a clutch and gearbox. The clutch is of the multiple plate type, with steel and phenolic resin discs, turning in an oil bath. It is mounted on the primary shaft of the gear box. The clutch housing, which is made of special hardened steel, turns on two internal bearings and is lubricated with the engine sprocket.

The clutch is operated by a hand lever on the left hand side of the handlebar.

The transmission between the engine and the primary shaft of the gear box is through gears with a reduction ratio of 2.448:1.

The constant mesh, 5-speed gearbox is mounted in the crankcase and is operated by a foot pedal.

Bottom gear	— 2.236:1
Second gear	— 1.562:1
Third gear	— 1.203:1
Fourth gear	— 1.000:1
Fifth gear	— 0.887:1

Transmission between the gearbox and rear wheel is effected by a chain drive with a ratio of 2.250:1.

Frame

The frame of the Ducati 750 GT is made of high tensile steel in a stylish modern design and is of the central girder type.

Suspension

The front suspension consists of Ducati double action, long stroke hydraulic forks.

The rear suspension is effected by a strong hinged fork with double action hydraulic shock

absorbers which can be adjusted to three different loads.

In the Ducati 750 GT the fork fulcrum spindle is fixed to the frame while the fork rotates around it through a bronze bush, giving the machine greater solidity and stability. On the left hand side bush there is a grease nipple for the spindle.

Wheels

The wheels are of the spoke rim type in light alloy, the front being 19" x 2" and the rear, 18" x 3" at the rim. Both wheels have a detachable spindle. The rear wheel has a special cushion drive and can be dismantled without removing the chain.

Brakes

The front brake is a disc brake with a telehydraulic control on the handlebar, while the rear brake is of the drum type, pedal controlled.

The front disc diameter is 280 mm (11.02") and the diameter of the double cam rear drum is 200 mm (7.87").

ELECTRICAL SYSTEM

General specifications

The electrical system consists of the following main parts:

Headlamp — A powerful, two filament 12 Volt, 40/45W headlamp is fitted, together with a 12 Volt, 3W parking light. Inside the headlamp there is a relay for the emergency lights as well as a circuit for the fitting of direction indicators.

Dashboard — This is mounted on the handlebars and contains the speedometer and tachometer as well as three warning lights for ignition key, high beam and parking light. The instruments are lit by two independent lights.

Coils — The two 12 Volt high tension coils are fitted under the tank and become live only when the ignition key is inserted. When replacing them be sure not to reverse the connections.

Horn — The 12 Volt horn is mounted under the handlebars.

Stop lamp switch — A new type of switch is mounted on the left and rear of the frame and is operated by the brake pedal. **IMPORTANT:** The two wires must be inserted in such a way as to avoid contact with the central sheath and they must be properly insulated.

Key switch — This is positioned under the saddle on the left hand side, on models fitted with an electric starter there is an additional starting position.

Fuse box — There are four fuses located under the saddle, inside the tool box. The fuses are F.1 15A to protect the parking light, F.2 25A to protect the headlight, F.3 15A to protect the horn and stop light and F.4 15A to protect the emergency light and direction indicator circuit. **IMPORTANT** When replacing a fuse, flex the contact springs so that they hold the fuse firmly in position.

Battery — The battery is a Yuasa 12N-12A-4A-12V, with 6 cells and Volt — 12Ah capacity. It has a transparent case to allow easy checking of the electrolyte level and is cushioned by a special rubber mounting. When checking the battery level with an ammeter always ensure that the engine is STOPPED.

Regulator — A standard 12 Volt regulator is fitted. Please note that the negative cable from the battery must be connected to the regulator frame.

Alternator — The alternator has an output of 150 Watts and is mounted within the engine on the clutch side. The three wires from the alternator connect directly to the regulator and it is important not to confuse them. When opening the engine take care not to damage the alternator windings.

