

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

MZ - MZ_ETZ_125_150_Manual_de_intretinere

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Dear friend of MZ, these Operating Instructions are intended for you as a help to ensure that your motorcycle will always be your reliable companion. Due to our experiences gathered in many years of motorcycle construction, the ETZ machine is a sturdy, highly efficient, reliable vehicle that requires but little maintenance. In order that this will remain so for ever, we ask you to observe the following information regarding care and treatment of your motorcycle.

"Bon voyage"!

VEB Motorradwerk Zschopau
Betrieb des IFA-Kombinates Zweiradfahrzeuge

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Wiring diagram (fold-out plate)

1. Technical Data

1.1. Engine and Power Transmission

ETZ 125 ETZ 150 ETZ 150

Type of engine EM 125 EM 150.2 EM 150 Cycle two-stroke reserve scavenging

Output 7.5 kW at 6,000 rpm 9 kW at 6,000 rpm 10.5 kW at 6,500 rpm

Maximum torque 12.3 Nm at 5,500 rpm 15 Nm at 5,500 rpm 15.8 Nm at 6,200 rpm

Lubrication petrol lubrication 50:1

Gearbox

Number of speeds 5 5 5

Idling tell-tale light yellow tell-tale lamp - only for de luxe model

Power transmission to rear wheel

Roller chain 0,8 B-1-128 TGL 11796 (12.7 x 7.75 x 128)

Transmission gearbox - rear wheel 3.2 (15:48 teeth) 3.0 (16:48 teeth) 3.2 (15:48 teeth)

1.2. Carburettor

ETZ 125 ETZ 150 ETZ 150

Type 22 N 2-2 24 N 2-2 24 N 2-2

Suction pipe diameter 22 mm 24 mm 24 mm

Main jet 100 120 120

Needle jet 70 2) 70 2) 70 2)

Partial load needle 2,5 A 513 2,5 A 513 2,5 A 513

Partial load needle position from top 3 1) (2 after running-in) 3 1) (2 after running-in) 3 1) (2 after running-in)

Starting jet 70 70 70

Idling jet 40 40 40

Idle air adjusting screw for about 1.5 revolutions open, but adjustment of the maximum concentration of CO in exhaust gas to 2.5 to 3.5 per cent

by volume at 1,200 rpm

1) Pay attention to the sparking-plug appearance!

The lower plate of the needle holder counts!

2) with 2 compensator tack-type jets 60

1.3. Cycle Parts

ETZ 125 ETZ 150 ETZ 150

Springing front telescopic fork with hydraulic damping, spring deflection 185 mm

rear suspension units with hydraulic damping, spring deflection 105 mm, spring pre-load and setting angle adjustable

Wheels wire spokes

Rims front 1.60 x 18 1.60 x 18 1.60 x 18

rear 1.85Bx16 1.85Bx16 1.85Bx16

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Tyres front 2.75 x 18 2.75 x 18 2.75 x 18
rear 3.25 x 16 3.25 x 16 3.25 x 16
Tyre inflation pressure (gauge pressure)
Solo front 150 kPa (1.5 kp/cm)
rear 190 kPa (1.9 kp/cm)
with permissible total mass front 150 kPa (1.5 kp/cm)
rear 270 kPa (2.7 kp/cm)
Brakes front Simplex internal expanding shoe brake or
hydraulically actuated disk brake
rear Simplex internal expanding shoe brake

1.4. Electrical Equipment

ETZ 125 ETZ 150 ETZ 150
Rated voltage 12 V 12 V 12 V
Ignition 2.5 +0.5 mm (22°45' to 23°45') before top dead centre,
Ignition timing invariable
battery ignition
Contact-breaker gap 0.3 +0.1 mm (closing angle 132° + 5° in idling)
Sparking-plug Isolator ZM 14-260 or comparable foreign types (multi range plugs)
Electrode gap 0.6 mm 0.6 mm 0.6 mm
Three-phase current dynamo three-phase current 14 V, 15 A with rectifier and regulator
Battery 12 V, 5.5 Ah 12 V, 5.5 Ah 12 V, 5.5 Ah
Electric bulbs headlamp 12 V, 45/40 W, TGL 11413, or H 4, passing beam asymmetric
parking light 12 V, 4 W, cap BA 9 s, TGL 10833
tail light 12 V, 5 W, cap BA 15 s
stop light 12 V, 21 W, cap BA 15 s
flashing light 12 V, 21 W, cap BA 15 s
control lamps and instrument lighting 12 V, 2 W, cap BA 7 s, TGL 10833
Fuses main fuse 2 x fuse link A 16 TGL 11135 (16 A)
flashing-light direction indicator system fuse link A 4 TGL 11135 (4 A)
dynamo excitation fuse link T 2 A (miniature fuse 2 A)

1.5. Masses

ETZ 125 ETZ 150 ETZ 150
Empty mass (with fuel and tools) 118 kg 1)
120 kg 2) 118 kg 1)
120 kg 2) 118 kg 1)
120 kg 2)
Permissible total mass 290 kg 290 kg 290 kg
1) Variant with drum brake
2) Variant with disk brake

1.6. Capacities

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ETZ 125 ETZ 150 ETZ 150

Fuel tank 13 l 13 l 13 l

including reserve of 1.5 l 1.5 l 1.5 l

Gear oil 0.5 l 0.5 l 0.5 l

1.7. Road Performances

ETZ 125 ETZ 150 ETZ 150.1

Maximum speed 100 km/h 105 km/h 110 km/h

depending on load, atmospheric conditions and sitting position

Fuel consumption 2.3 to 3.5 l/100 km 2.4 to 3.6 l/100 km 2.6 to 4.0 l/100 km

2. Fuel, Lubricants etc.

Engine Petrol having an octane rating of 88 (ROZ) which is mixed with two-stroke engine oil in the ratio of 50:1.

Example: 10 l fuel to be mixed with 0.2 l of two-stroke engine oil.

Gearbox Gear oil SAE 80 or non-additive type of engine oil SAE 40 for summer and winter. In the GDR, oil of grade GL 100 is used.

Cycle parts Gear oil SAE 80 and antifriction bearing grease.

Electrical equipment For a new battery use accumulator sulphuric acid having a density of 1.28 g/cm³ (in the tropics 1.23 g/cm³) at 25 °C. For topping up the battery, only use distilled water. Use grease battery terminals for protection against corrosion of the battery connections. Use hypoid oil (gear oil of a high degree of viscosity) for the contact-breaker lubricating felt pad.

3. Operation

3.1. Controls

Figs. 1 to 9 show all control elements required for operating the motorcycle and their functions. Please, familiarise yourself with them thoroughly before the first start.

Fig. 1. Controls of the motorcycle