

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

MZ - MZ_ETZ_125_150_1986_Manual_de_intretinere

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Dear MZ Friend! With this manual, we want to contribute to ensuring that your motorcycle will always be a reliable companion. The ETZ is, as a result of our many years of experience in motorcycle construction, a robust, powerful, reliable, and low-maintenance vehicle. To ensure that it always remains that way, please observe the following instructions for handling and care.

We wish you 'Good Ride'!

VEB Motorradwerk Zschopau
Operation of the IFA Combine Two-Wheel Vehicles

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- 1. Technical Data
- 1.1. Engine and Power Transmission

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	ETZ 125	ETZ 150	ETZ 150	
Engine Type	EM 125	EM 150.2	EM 150	
Working Method	Two-stroke loop scavenging			
Power	7.5 kW at 6000 rpm	9 kW at 6000 rpm	10.5 kW at 6500 rpm	
Max. Torque	12.3 Nm at 5500 rpm	15 Nm at 5500 rpm	15.8 Nm at 6200 rpm	
Lubrication	Mixture lubrication 50:1			
Gearbox				
Number of Gears	5	5	5	
Neutral Indicator	yellow indicator light - only for luxury version			
Power Transmission to Rear Wheel				
Roller Chain	0.8 B-1-128 TGL 11796 (12.7 x 7.75 x 128)			
Gearbox-Rear Wheel Ratio	3.2 (15:48 teeth)	3.0 (16:48 teeth)	3.2 (15:48 teeth)	

- 1.2. Carburetor

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	ETZ 125	ETZ 150	ETZ 150	
Type	22 N 2-2	24 N 2-2	24 N 2-2	
Intake Manifold Diameter	22 mm	24 mm	24 mm	
Main Jet	100	120	120	
Needle Jet	70 2)	70 2)	70 2)	
Part Throttle Needle	2.5 A 513	2.5 A 513	2.5 A 513	
Part Throttle Needle Position from Top	3 1) (2, after break-in)	3 1) (2, after break-in)	3 1) (2, after break-in)	
Starting Jet	70	70	70	
Idle Jet	35	35	35	
Idle Air Screw	Approx. 1.5 turns open, but adjust for max. concentration of CO in exhaust gas to 2.5...3.5 Vol.% at 1200 rpm			
1) Observe spark plug face! The lower plate of the needle holder counts!				
2) With 2 compensating air jets 60				

- 1.3. Chassis

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ETZ 125	ETZ 150
ETZ 150	
-----	-----
-----	-----
Suspension Front Telescopic fork with hydraulic damping, travel 185 mm	
Suspension Rear Spring struts with hydraulic damping, travel 105 mm, spring preload and angle adjustable	
Wheels Wire-spoked wheels	
Rims Front 1.60 x 18	1.60 x 18
1.60 x 18	
Rims Rear 1.85Bx16	1.85Bx16
1.85Bx16	
Tires Front 2.75 x 18	2.75 x 18
2.75 x 18	
Tires Rear 3.25 x 16	3.25 x 16
3.25 x 16	
Tire Pressure (Overpressure) Solo Front 150 kPa (1.5 kp/cm)	
Tire Pressure (Overpressure) Solo Rear 190 kPa (1.9 kp/cm)	
Tire Pressure (Overpressure) with Permissible Total Mass Front 150 kPa (1.5 kp/cm)	
Tire Pressure (Overpressure) with Permissible Total Mass Rear 270 kPa (2.7 kp/cm)	

ETZ 125	ETZ 150	ETZ 150
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Brakes Front Simplex internal shoe brake or hydraulically operated disc brake		
Brakes Rear Simplex internal shoe brake		

1.4. Electrical System

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ETZ 125 ETZ 150 ETZ 150
----- ----- ----- -----
Nominal Voltage 12 V 12 V 12 V
Ignition Battery ignition depending on the version via breaker points or electronically controlled
Ignition Timing 2.5 +0.5 mm (22°45' ... 23°45') before top dead center, fixed
Breaker Contact Gap 0.3 +0.1 mm (dwell angle 132° + 5° at idle)
Dwell Angle of Electronic Ignition 180° or 50%
Spark Plug Isolator ZM 14-260 or comparable foreign types (multi-range plugs)
Electrode Gap 0.6 mm 0.6 mm 0.6 mm
Generator Three-phase AC 14 V, 15 A, with rectifier and regulator

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Battery 12 V, 5.5 Ah 12 V, 5.5 Ah 12 V, 5.5 Ah
Bulbs
Headlight 12 V, 45/40 W, TGL 11413, or H 4, 12 V, 60/55 W, low beam asymmetric
Parking Light 12 V, 4 W, Base BA 9 s, TGL 10833
Tail Light 12 V, 5 W, Base BA 15 s
Brake Light 12 V, 21 W, Base BA 15 s
Turn Signal 12 V, 21 W, Base BA 15 s
Indicator Lights and Instrument Lighting 12 V, 2 W, Base BA 7 s, TGL 10833
Fuses
Main Fuse 2 x Fuse Insert A 16 TGL 11135 (16 A)
Turn Signal System Fuse Insert A 4 TGL 11135 (4 A)
Alternator Excitation Fuse Insert T 2 A (Fine Fuse 2 A)

1.5. Masses

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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) Version with drum brake
2) Version with disc brake

1.6. Filling Quantities

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ETZ 125 ETZ 150 ETZ 150
----- ----- ----- -----
Fuel Tank 13 l 13 l 13 l
thereof Reserve 1.5 l 1.5 l 1.5 l
Gearbox Oil 0.5 l 0.5 l 0.5 l

1.7. Performance

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ETZ 125 ETZ 150 ETZ 150.1
----- ----- ----- -----
Maximum Speed 100 km/h 105 km/h 110 km/h
depending on load, weather conditions and seating position
Fuel Consumption 2.3 ... 3.5 l/100 km 2.4 ... 3.6 l/100 km 2.6 ... 4.0 l/100 km

2. Operating Fluids

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Engine: Carburetor fuel 'Normal', mixed in a ratio of 50:1 with two-stroke engine oil.

Example: Mix 10 l of fuel with 0.2 l of two-stroke engine oil.

Gearbox: Gearbox oil SAE 80 or unalloyed engine oil SAE 40 for summer and winter. In the GDR, GL 100 oil is used.

Chassis: Gearbox oil SAE 80 and roller bearing grease.

Electrical System: For a new battery, use accumulator sulfuric acid with a density of 1.28g/cm³ (1.23g/cm³ in the tropics) at 25 °C, and only use distilled water to top up the battery.

Pole grease as corrosion protection for the battery connections. Hypoid oil (viscous gearbox oil) for the breaker point lubricating felt.

3. Operation

3.1. Controls

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Figures 1 ... 9 show all the controls required to operate the motorcycle and their functions. Please familiarize yourself with them before starting for the first time.