

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

MZ - MZ_ES_125_150_1972_Manual_de_intretinere

Index

We welcome you

as the fortunate owner of a new MZ and simultaneously thank you for the trust you have shown in our nationally owned enterprise through your purchase. Based on our fifty years of experience in motorcycle construction, we have endeavored to provide you with a high-performance and reliable vehicle. Now, however, it also depends on you whether you will only have pleasure from your MZ in the future through correct treatment and care. The operating manual is intended to help you with this. Please pay attention to everything that is recommended about fuel and oil, running-in, maintenance and care, as well as economical driving, before you are explained on the basis of a workshop bill what you have done wrong!

We deliberately chose an informal conversational tone to make studying palatable to you, and hope in your own interest that you really do so. Only those who are really familiar with their vehicle drive without breakdowns and economically in the long run.

Even for an 'old motorcycle hand' it is worth reading through. You will certainly be reminded of valuable information that you may have long forgotten!

Of course, a widely branched network of MZ contract workshops is also at your side with advice and help. Their addresses can be found - together with the warranty conditions - in the warranty and inspection booklet. We would like to draw particular attention to the latter, so that your claim to warranty service is not lost. We hope that you will act according to our instructions and that this small manual will become for you what it should be - a constant companion and advisor on your journeys. To this end, we wish you 'Good Journey'!

VEB MOTORRADWERK ZSCHOPAU Operating Manual for MZ Motorcycles ES 125/1 - ES 150/1

<http://www.mz-b.de/miraculis/aw/mz/text/es151b/es151b.html>

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Image 2. Engine ES 125/1 - ES 150/1 in Section

1. Technical Data

1.1. Engine

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Operating Principle Two-stroke reverse scavenging Two-stroke reverse scavenging Operating Manual for MZ Motorcycles ES 125/1 - ES 150/1 <http://www.mz-b.de/miraculis/aw/mz/text/es151b/es151b.html>

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Number of Cylinders 1 1

Cooling Type Air (Airflow) Air (Airflow)

Stroke/Bore 58/52 58/56

Displacement 123 cm³ 143 cm³

Compression Ratio 10 : 1 10 : 1

Power at 6000 ... 6300 rpm 7.35 kW (10.0 DIN-PS = 11.0 SAE-PS) 8.46 kW (11.5 DIN-PS = 12.5 SAE-PS)

Max. Torque at 5000 ... 5500 rpm 1.25 kpm 1.50 kpm

Lubrication Mixture lubrication 33 : 1 (Two-stroke oil)

Connecting Rod Bearing Caged needle bearing

Crankshaft Bearing 3 pieces ball bearing 6303 c 003 f

Lubrication of all crankshaft main bearings through transmission lubricant

Fuel VK 88 (ROZ 88)

1.2. Carburetor

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Type BVF 22 N 1-3 (Round slide, starting carburetor) BVF 24 N 1-1 (Round slide, starting carburetor)

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Setting Values

Passage in mm 22 24 Operating Manual for MZ Motorcycles ES 125/1 - ES 150/1

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Main Jet 87 92

Needle Jet 65 65

Needle Position from Above 2...3 1) (3 for the running-in period) 2...4 1) (4 for the running-in period)

Starting Jet 70 75

Idle Jet 35 40

Idle Air Screw 2...3 turns open 2...3 turns open

Air Filter Dry air filter with intake silencer

1) Note spark plug condition! (The lower plate of the needle holder counts!)

1.3. Electrical System

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Ignition Battery ignition Battery ignition

Ignition Timing 3.0 -0.5 mm before TDC

Fixed 3.0 -0.5 mm before TDC

Fixed

Breaker Contact Gap 0.3 +0.1 mm 0.3 +0.1 mm

Spark Plug 'Isolator' M 14/260 'Isolator' M 14/260

Electrode Gap 0.6 mm 0.6 mm

Generator DC, 6 V, 60 W, short-term 90 W

Charging Control Lamp (red) in the speedometer

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Regulator RSC 60/6

Battery 6 V, 12 Ah (Lead-acid flat battery)

Ignition Coil 6 V, under the left side panel

Headlight Fixed - Light Emission 136 mm

Tail Light combined with

Light Emission 95 mm

Brake Light Contact on the rear brake lever

Turn Signals on both sides at the handlebar end

(Switch on the handlebar right)

Flasher Relay in the headlight housing

Horn under the fuel tank

Headlight Flasher is actuated by push button under the low beam switch

Bulbs Bilux 6 V, 45/40 W

Low beam asymmetric

Parking Light 6 V, 4 W, Socket BA 9s

Brake Light 6 V, 18 W, Socket S 8.5

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Tail Light 6 V, 5 W, Socket S 8

Turn Signal 6 V, 18 W, Socket S 8.5

Charging Control 6 V, 1.2 W

Neutral Indicator 6 V, 1.2 W

Speedometer Illumination 6 V, 1.2 W Operating Manual for MZ Motorcycles ES 125/1 - ES 150/1

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1.4. Transmission

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Clutch Multi-disc clutch in oil bath

Gearshift Foot shift left

Number of Gears 4 4

Gear Ratio 1st Gear 3.05 : 1

2nd Gear 1.805 : 1

3rd Gear 1.285 : 1

4th Gear 1 : 1

Neutral Indicator Electric control lamp (green) in the speedometer

1.5. Power Transmission

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Gear Ratio Engine-Transmission 2.31 : 1 = 16 : 37 teeth Operating Manual for MZ Motorcycles ES 125/1 - ES 150/1

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Sleeve Chain A 9.5 x 9.5 (3/8 x 3/8 inch) 48 Links

Gear Ratio Transmission-Rear Wheel 3.2 : 1 = 15 : 48 teeth 3.0 : 1 = 16 : 48 teeth

Roller Chain 12.7 x 6.4 x 8.51 (1/2 x 1/4 inch) 120 Rollers

1.6. Chassis

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Frame Closed pressed steel frame, folded

Type of Suspension Front and Rear Long swing arm front

Shock absorbers with hydraulic damping, spring travel 150 mm

Rear Shock absorbers with hydraulic damping, spring travel 100 mm, spring hardness adjustable

Wheels Wire spoke wheels

Rims, Front/Rear 1.6x18/1.85Bx18 1.6x18/1.85Bx18

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Tires, Front 2.75-18 2.75-18

Rear 3.00-18 3.00-18

Tire Pressure Front 1.5 atm (overpressure) 1.5 atm (overpressure)

Rear 1.8 atm (overpressure) for solo ride

2.0 atm with passenger 1.8 atm (overpressure) for solo ride

2.0 atm with passenger Operating Manual for MZ Motorcycles ES 125/1 - ES 150/1

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