

# **BL Motorcycles Ltd**

*Professional Workshop Manual - English Translation*

## **MZ - MZ\_TS\_125\_150\_250\_1978\_Manual\_de\_intretinere**

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We welcome you

as the happy owner of a new MZ motorcycle and thank you for the trust you have shown us with your purchase. Based on

our experience in motorcycle construction, we have endeavored to provide you with a powerful and reliable vehicle. Now it also depends on you

whether you will only enjoy your MZ in the future through correct handling and care. The operating manual should help you with this. We wish you 'Safe travels'!

VEB MOTORRADWERK ZSCHOPAU

Company of the IFA-Kombinat Zweiradfahrzeuge

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- 1. Technical Data
- 1.1. Engine

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TS 125 TS 150 TS 250/1

Engine MM 125/3 MM 150/3 MM 250/4

Operating Method Two-stroke scavenging Two-stroke scavenging Two-stroke scavenging

Power 7.35 kW = 11.0 SAE-PS (10.0 DIN-PS)

at 6000 to 6300 min -1 8.45 kW = 12.5 SAE-PS (11.5 DIN-PS)

at 6000 to 6300 min -1 14.0 kW = 21 SAE-PS (19 DIN-PS) at 5100 to 5600 min -1

Max. Torque 12.3 Nm (1.25 kpm) at 5000 to 5500 min -1 13.7 Nm (1.50 kpm) at 5000 to 5500 min -1 25.5 Nm (2.6 kpm)

at 4600 to 5200 min -1

Lubrication Mixture lubrication 50:1 50:1

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## 1.2. Carburetor

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TS 125 TS 150 TS 250/1

Type BVF 22 N 1-3 BVF 24 N 1-1 BVF 30 N 2-4

Setting Values Throughput in mm 22 24 30

Main Jet 90 95 135

Needle Jet 65 65 70

Part Load Needle No. C 3 C 3 C 6

Needle Position from Above 2...3 1) (3 for the running-in period) 2...4 1) (4 for the running-in period) 4...5 1) (5 for the running-in period)

Starting Jet 70 75 110

Idle Jet 35 40 35

Idle Air Screw 1...2 turns open 2...3 turns open 1 turn open

Fuel Consumption (depending on driving style and load) 2.3...3.6 l/100km 2.4...3.8 l/100km 3.5...5.5 l/100km

1) Observe spark plug face! (The lower plate of the needle holder counts!)

## 1.3. Electrical System

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TS 125 TS 150 TS 250/1

Ignition Battery ignition Battery ignition Battery ignition

Ignition Timing 3.0 -0.5 mm before TDC

fixed set 3.0 -0.5 mm before TDC

fixed set 3.0 -0.5 mm before TDC

fixed set

Breaker Contact Gap 0.3 +0.1 mm 0.3 +0.1 mm 0.3 +0.1 mm

Spark Plug Isolator M 14/240 Isolator M 14/240 Isolator M 14/240

Electrode Gap 0.6 mm 0.6 mm 0.6 mm

Generator DC, 6 V, 60 W, briefly 90 W

Charging Control Lamp (red) in the speedometer, also turn signal control

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

Bulbs Bilux 6 V, 45/40 W, low beam asymmetrical

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

Brake Light 6 V, 21 W, Base Ba 15s 6 V, 21 W, Base Ba 15s

Tail Light 6 V, 5 W, Base BA 15s 6 V, 5 W, Base BA 15s

Turn Signals 6 V, 21 W, Base Ba 15s 6 V, 21 W, Base Ba 15s

Charging Control 6 V, 1.2 W 6 V, 1.2 W 6 V, 1.2 W

Neutral Indicator 6 V, 1.2 W 6 V, 1.2 W 6 V, 1.2 W

Speedometer Illumination 6 V, 1.2 W 6 V, 1.2 W 6 V, 1.2 W

Fuses Main fuse 2x fuse insert A 16 TGL 11135 (16 A)

Turn signal system fuse insert A 8 TGL 11135 (8 A)

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## 1.4. Transmission

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TS 125 TS 150 TS 250/1

Shifting Foot shift left Foot shift left Foot shift left

Number of Gears 4 4 5

Neutral Indicator Electrical indicator lamp (green) in the speedometer

## 1.5. Power Transmission

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TS 125 TS 150 TS 250/1

Ratio Transmission-Rear Wheel 3.2 : 1 = 15 : 48 teeth 3.0 : 1 = 16 : 48 teeth 2.35 : 1 = 20 : 47 teeth (sidecar operation 16 : 47)

Roller Chain 12.7 x 6.4 (1/2 x 1/4 inch) 12.7 x 7.75 (1/2 x 5/16 inch) 120 rollers 120 rollers 126 rollers (124 in sidecar operation)

## 1.6. Chassis

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TS 125 TS 150 TS 250/1

Type of Suspension front Telescopic fork with hydraulic damping, travel 185 mm

rear Shock absorbers with hydraulic damping, travel 105 mm, spring preload adjustable

Wheels Wire spoke wheels

Rims, front 1.6x18 1.6x18 1.6x18

rear 1.85Bx18 1.85Bx18 2.15Bx16

Tires, front 2.75-18 2.75-18 2.75-18

rear 3.00-18 3.00-18 3.50-16

Tire pressure under load with:

75 kg front 150 kPa (1.5 kp/cm<sup>2</sup>) 160 kPa (1.6 kp/cm<sup>2</sup>)

rear 190 kPa (1.9 kp/cm<sup>2</sup>) 190 kPa (1.9 kp/cm<sup>2</sup>)

150 kg front 150 kPa (1.5 kp/cm<sup>2</sup>) 160 kPa (1.6 kp/cm<sup>2</sup>)

rear 260 kPa (2.6 kp/cm<sup>2</sup>) 225 kPa (2.25 kp/cm<sup>2</sup>)

Permissible Total Mass:

front 150 kPa (1.5 kp/cm<sup>2</sup>) 170 kPa (1.7 kp/cm<sup>2</sup>)

rear 270 kPa (2.7 kp/cm<sup>2</sup>) 250 kPa (2.5 kp/cm<sup>2</sup>)

## 1.7. Masses

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TS 125 TS 150 TS 250/1

Empty mass (without tools and fuel) 103 kg 103 kg 130 kg

Permissible total mass 270 kg 270 kg 320 kg

## 1.8. Maximum Speed

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approx. 100 km/h approx. 105 km/h approx. 130 km/h

with sporty posture (slightly crouched) and close-fitting clothing. The vehicle must be run in and the measuring distance must be a straight concrete

or rough asphalt road with a max. 0.3% incline or decline. No headwind!

## 1.9. Filling Quantities

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TS 125 TS 150 TS 250/1

Transmission 0.45 l transmission oil 0.45 l transmission oil 0.9 l transmission oil

Fuel Tank 12.5 l 12.5 l approx. 17.5 l (or 12.5 l)

of which reserve approx. 1.5 l approx. 1.5 l approx. 1.5 l

Image 1. Chassis (1) and engine number (2) for TS 125 and TS 150