

# **BL Motorcycles Ltd**

*Professional Workshop Manual - English Translation*

## **MZ - MZ\_TS\_125\_150\_250\_1975\_Manual\_de\_intretinere**

### **Index**

We welcome you

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

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

Of course, a wide network of MZ contract workshops is also available to help you with advice and assistance. Their addresses can be found - together with the warranty conditions - in the warranty and inspection booklet. We would like to draw your attention to the latter in particular, so that you do not lose your claim to warranty. And now 'Have a good trip'!

VEB MOTORRADWERK ZSCHOPAU

Table of Contents Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1

<http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

1 of 86 03.11.2008 01:08

### **1. Technical Data**

- 1.1.Engine**
- 1.2.Carburetor**
- 1.3.Electrical System**
- 1.4.Transmission**
- 1.5.Power Transmission**
- 1.6.Chassis**
- 1.7.Dimensions and Weights**
- 1.8.Filling Quantities**
- 1.9.Braking Deceleration**

### **2. Operating Materials**

- 2.1.Fuel**
- 2.2.Engine Oil**
- 2.3.Mixing Ratio**
- 2.4.Lubricant for Power Transmission**
- 2.5.Lubricant for Chassis**
- 2.6.Shock Absorber Filling**

### **3. The First Start**

- 3.1.Ready to Ride?**
- 3.2.We Ride**
- 3.3.... Uphill**
- 3.4.... Downhill**

# **BL Motorcycles Ltd**

*Professional Workshop Manual - English Translation*

3.5.Stopping and Parking

4. Running-in Correctly

5. Driving Economically

6. Maintenance Service

6.1.Checking the Oil Level in the Transmission

6.2.Changing the Transmission Lubricant Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1

[http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts\\_15251b.html](http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts_15251b.html)

2 of 86 03.11.2008 01:08

6.3.Adjusting the Clutch, Replacing the Cable

6.4.Cleaning and Adjusting the Carburetor

6.5.Air Filter and Intake Silencer

6.6.Fuel Tap and its Filter

6.7.Monitoring the Electrical Wiring Network

6.8.Generator and Breaker

6.9.Regulator, Ignition Coil and Fuse Box

6.10.Filling and Maintaining the Battery

6.11.Replacing the Bilux Bulb

6.12.Adjusting the Low Beam

6.13.Extremely Important: the Spark Plug Appearance!

6.14.Chain Lubrication, Checking Sag, Replacing Chain

6.15.Aligning the Wheels

6.16.Adjusting the Brakes

6.17.Shock Absorbers and Telescopic Fork

6.18.Adjusting the Brake Light Contact

6.19.The Correct Tire Pressure

6.20.Tire Mounting

7. MZ Cosmetics

8. 'Mothballing'

9. A Breakdown - What Now?

9.1.First: the Spark Plug Appearance!

9.2.Engine Does Not Start

9.3.Red Indicator Lamp Does Not Go Out at Higher Speed

9.4.Engine Runs Unevenly

9.5.Engine 'Does Not Accept Throttle'

9.6.Fuel Consumption Too High

9.7.Battery Does Not Hold Charge

9.8.Bulbs Do Not Burn Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1

[http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts\\_15251b.html](http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts_15251b.html)

3 of 86 03.11.2008 01:08

Special Accessories

Spare Parts Procurement

Customer Service

Lubrication Chart

Maintenance Schedule

Wiring Diagram

# BL Motorcycles Ltd

Professional Workshop Manual - English Translation

## Folding Panels

Image 1. TS 125 / TS 150 Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1  
<http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

4 of 86 03.11.2008 01:08

Image 2. TS 250/1 1. Technical Data 1.1. Engine

Next point ; Index

TS 125 TS 150 TS 250/1 Engine MM 125/2 MM 150/2 MM 250/4 Working Method Two-stroke reverse scavenging  
Two-stroke reverse scavenging Two-stroke reverse scavenging

Number of Cylinders 1 1 1 Cooling Type Air (headwind) Air (headwind) Air (headwind) Stroke/Bore 58 mm/52 mm 58 mm/56 mm 65 mm/69 mm Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1  
<http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

5 of 86 03.11.2008 01:08

Displacement 123 cm<sup>3</sup> 143 cm<sup>3</sup> 243 cm<sup>3</sup>

Compression Ratio 10 : 1 10 : 1 9.5...10 : 1 Power 7.35 kW = 11.0 SAE-PS (10.0 DIN-PS) at 6000 ... 6300 rpm 8.45 kW = 12.5 SAE-PS (11.5 DIN-PS) at 6000 ... 6300 rpm 14.0 kW = 21 SAE-PS (19 DIN-PS)  
at 5100 ... 5600 rpm

Max. Torque 1.25 kpm at 5000 ... 5500 rpm 1.50 kpm at 5000 ... 5500 rpm 2.6 kpm at 4600...5600 rpm Lubrication  
Mixture lubrication 33:1 (two-stroke oil) 50:1 Crankshaft Bearings 3 pieces ball bearings 6303 c 3 f2 Bearing 6306 c 3 f and 1 bearing 6302

Lubrication of all crankshaft main bearings by transmission lubricant Mixture 50:1

Fuel VK 88 (ROZ 88)

1.2. Carburetor

Next point ; Index

TS 125 TS 150 TS 250/1 Type BVF 22 N 1-3 (round slide, starter carburetor) BVF 24 N 1-1 (round slide, starter carburetor) BVF 30 N 2-4 (round slide, starter carburetor)

Setting Values Passage in mm 22 24 30

Main Jet 90 95 145

Needle Jet 65 65 72 Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1  
<http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

6 of 86 03.11.2008 01:08

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 1.5 turns open Air Filter Dry air filter with intake silencer 1) Note spark plug appearance! (The lower plate of the needle holder counts!)

1.3. Electrical System

Next point ; Index

TS 125 TS 150 TS 250/1 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

# BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Fixed set

Breaker Contact Gap 0.3 +0.1 mm

Spark Plug 'Isolator' M 14/240 Electrode Gap 0.6 mm Generator Direct current, 6 V, 60 W, briefly 90 W Charging indicator lamp (red) in the speedometer, also turn signal indicator Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1 <http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

7 of 86 03.11.2008 01:08

Regulator RSC 60/6 under the left side panel under the seat Battery 6 V, 12 Ah (lead-acid flat battery) Ignition coil 6 V, under the left side panel on the frame tube right Headlight Light emission 170 mm, asymmetrical Dimmer switch on the handlebars left Tail light combined with Light emission 100 mm

Brake Light Contact on the rear brake lever Horn under the fuel tank High beam is activated by pressing the button under the dimmer switch Four-light turn signal system Switch on the handlebars right Bulbs Bilux 6 V, 45/40 W, low beam asymmetrical Parking light 6 V, 4 W, base BA 9s Brake light 6 V, 21 W, base Ba 15s Tail light 6 V, 5 W, base BA 15s Turn signals 6 V, 21 W, base Ba 15s Charging control 6 V, 1.2 W Neutral indicator 6 V, 1.2 W Speedometer lighting 6 V, 1.2 W Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1 <http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

8 of 86 03.11.2008 01:08

1.4. Transmission

Next point ; Index

TS 125 TS 150 TS 250/1 Clutch Multi-disc clutch in oil bath (on the transmission main shaft) on the left crankshaft stub in oil bath (5 friction discs with cork content)

Shift Foot shift left Number of Gears 4 4 5

Gear Ratio 1st Gear 3.05 : 1 3.0 : 1

2nd Gear 1.805 : 1 1.87 : 1

3rd Gear 1.285 : 1 1.33 : 1

4th Gear 1 : 1 1.05 : 1

5th Gear 0.87 : 1

Neutral Indicator Electrical indicator lamp (green) in the speedometer

1.5. Power Transmission

Next point ; Index

TS 125 TS 150 TS 250/1 Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1 <http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

9 of 86 03.11.2008 01:08

Ratio Engine-Transmission 2.31 : 1 = 16 : 37 teeth 3/8x3/16 inch, 48 links 2.43 : 1 through helical spur gears, 28 : 68 teeth

Ratio Transmission-Rear Wheel 3.2 : 1 = 15 : 48 teeth 3.0 : 1 = 16 : 48 teeth 2.23 : 1 = 21 : 47 teeth (SW 16 : 47)

Roller Chain 12.7 x 6.4 x 8.51 (1/2 x 1/4 inch) 120 rollers 12.7 x 7.75 x 8.51 (1/2 x 5/6 inch) 126 rollers

1.6. Chassis

Next point ; Index

TS 125 TS 150 TS 250/1 Frame Closed pressed steel frame, folded Central tube frame, welded. Elastic engine mounting in rubber

Type of Suspension Front Telescopic fork and rear long swingarm Front telescopic fork with hydraulic damping, travel 185 mm Rear shock absorbers with hydraulic damping, travel 105 mm, spring rate adjustable

# **BL Motorcycles Ltd**

*Professional Workshop Manual - English Translation*

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 Operating Manual for MZ Motorcycles TS 125 - TS 150 - TS 250/1

<http://www.mz-b.de/miraculis/aw/mz/text/ts15251b/ts15251b.html>

10 of 86 03.11.2008 01:08