

# **BL Motorcycles Ltd**

*Professional Workshop Manual - English Translation*

## **MZ - MZ\_500R\_1991\_Manual\_de\_reparatie**

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#### **REPAIR INSTRUCTIONS MZ 500 R**

Repair Manual - Type 348

Repair manual MZ 500 R - Type 348

Manuale di officina - Tipo 348 Repair Manual for the MZ 500 R Motorcycle (Engine) - Miraculis

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## 1. TECHNICAL DATA

### 1.1. Engine and Power Transmission

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Engine Type Rotax 504 E

Operating method 4-stroke SOHC, 4 valves

Displacement 494 cm<sup>3</sup>

Power 20 kW ECE (27 hp) at 6,500 rpm

Max. Torque 32 Nm at 4,500 rpm

Lubrication Dry sump lubrication for engine and gearbox with 2-stage trochoid pump

Gearbox Number of gears 5

Neutral indicator in the speedometer, combined with oil level indicator Repair Manual for the MZ 500 R Motorcycle (Engine) - Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/mz50r/mz50r.html>

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Lubrication Pump-splash oil lubrication

Power transmission to the rear wheel Roller chain 5/8" x 1/4", 102 rollers

Gearbox-rear wheel ratio 2.11 (18/38 teeth)

### 1.2. Carburetor

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Type Dell'orto PHF 34 GS

Intake manifold diameter 34 mm

Main jet 120

Needle jet 265

Throttle needle K28

Throttle needle position from above 3

Starting jet 60

Idle air jet 45

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Idle correction jet 100

Idle mixture screw 1.5 -> better: 2 ... 2 1/4

Idle speed about 900 ... 1,100 rpm adjusted with throttle stop screw

Carbon monoxide content 2.5 to 4 % at idle speed Repair Manual for the MZ 500 R Motorcycle (Engine) - Miraculis

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## 1.3. Chassis

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Front suspension Telescopic fork with hydraulic damping, 185 mm travel

Rear Suspension struts with hydraulic damping, 135 mm travel, adjustable spring preload and angle of attack

Wheels Cast wheels made of aluminum alloy

Rims front 1.85 x 18

rear 2.50 x 16

Tires front 90/90-18 S

rear 110/80-16 S

Tire inflation pressure (overpressure) Solo

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

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

with permissible total mass

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

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

Brakes front hydraulically operated disc brake

rear Simplex internal shoe brake Repair Manual for the MZ 500 R Motorcycle (Engine) - Miraculis

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## 1.4. Electrical System

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Nominal voltage 12 V

Ignition Contactless capacitor ignition, fully electronic, with ignition advance

Ignition timing non-adjustable 3° BTDC at 1,500 rpm, advance continuously from 2,000 rpm to 29° BTDC at 6,000 rpm

Spark plug NGK D8 E-A

Electrode gap 0.7 mm

Generator 3-phase alternator 12V, 190W

Battery 12V / 14Ah

Bulbs Headlight H4, 12V, 60/55W, dipped beam asymmetrical

Parking light 12V/4W, socket BA 9s

Tail light 12V/5W, double filament lamp P25-2-12V (21/5W)

Brake light 12V/21W, double filament lamp P25-2-12V (21/5W)

Turn signal 12V/10W - DIN 72601-R 19/10

Indicator lights 12V/1.2W, socket W 2x4.6d (glass bulb lamp)

Instrument lighting 12V/2W, socket W 2.1x9.5d (glass bulb lamp)

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Fuses Main fuse fuse element 16A

Direction indicator fuse element 4A Repair Manual for the MZ 500 R Motorcycle (Engine) - Miraculis

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## 1.5. Weights

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Empty weight (with fuel and tools) 157 kg

Permissible total weight 330 kg

## 1.6. Filling Quantities

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Fuel tank unleaded, min. RON 95

Classic 17.0 l

Tour 19.0 l

Fun 24.0 l

of which reserve 1.5 l

Engine oil API