

MZ - MZ_ES_175_250_1962_Manual_de_intretinere

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Dear MZ Friend! Please do not put these operating instructions aside unread, assuming you already know everything that is written in them. Although most people are familiar with vehicle technology these days, even an old motorcycle hand can still learn something now and then!

Motorcycles have been built in Zschopau for four decades. Therefore, all the factory prerequisites are in place to ensure that your vehicle is reliable and safe to operate - whether it stays that way, however, now depends on you. This is not to say that you should treat your ES like a raw egg, but if you follow what we recommend below about running in, correct operating fluids, maintenance and care, you will find that your ES is indestructible. Therefore, take our advice to heart, your ES will thank you for it! We wish you a pleasant journey!

VEB MOTORRADWERK ZSCHOPAU

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Image 1. ES 175, View from the Right

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Technical Data

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ES 175/1 ES 250/1

Engine

Operating method 2-stroke reverse scavenging 2-stroke reverse scavenging

Number of cylinders 1 1

Stroke 65 65

Bore 58 70

Displacement 172 cm³ 250 cm³

Compression ratio 8:1 7.7:1

Cooling type Air (wind) Air (wind)

Power at 5000 rpm 11 HP 14.25 HP

Lubrication Mixture lubrication 25:1 'Hyzet' Mixture lubrication 25:1 'Hyzet'

Carburetor BVF 25.5 KN 1-1 (slide valve) BVF 27 KN 1-1 (slide valve)

Carburetor settings:

Passage in mm 25.5 27

Main jet 100 (95 after run-in period) 105 (100 after run-in period)

Needle jet 67 67

Idle jet 45 45

Needle position 4 4

Slide cutaway 4 mm 4 mm

Idle air screw 2 1/2 ... 3 turns open 2 1/2 ... 3 turns open

Air filter Wet air filter with intake noise damper Wet air filter with intake noise damper

Ignition Battery ignition Battery ignition

Spark plug Isolator M 14/240 Isolator M 14/240

Electrode gap 0.6 mm 0.6 mm

Pre-ignition 4 mm BTDC with fully extended centrifugal weights 3.5 mm BTDC with fully extended centrifugal weights

Alternator GM 6V, 60W, briefly 90W GM 6V, 60W, briefly 90W

Clutch Multi-disc clutch in oil bath Multi-disc clutch in oil bath

Gearshift Foot shift Foot shift

Number of gears 4 4

Gear ratios

1st gear 2.77:1 2.77:1

2nd gear 1.63:1 1.63:1

3rd gear 1.23:1 1.23:1

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4th gear 0.92:1 0.92:1

Ratio from engine to gearbox 2.43:1 = 28:68 teeth 2.43:1 = 28:68 teeth

Ratio from gearbox to rear wheel 2.67:1 = 18:48 teeth 2.25:1 = 20:45 teeth

Power transmission to the rear wheel = roller chain 12.7 x 7.75 x 8.51 mm 12.7 x 7.75 x 8.51 mm

Chassis

Type of suspension

Front Strut with oil shock absorption, 142 mm travel Strut with oil shock absorption, 142 mm travel

Rear Strut with oil shock absorption, adjustable, 115 mm travel Strut with oil shock absorption, adjustable, 115 mm travel

Wheels Wire-spoke wheels Wire-spoke wheels

Rim size

Front 1.85 B x 16 1.85 B x 16

Rear 2.15 B x 16 2.15 B x 16

Tires

Front 3.25 x 16 3.25 x 16

Rear 3.50 x 16 3.50 x 16

Tire pressure

Front 1.4 atm 1.4 atm

Rear 1.9 atm for solo riding 1.9 atm for solo riding

Rear 2.1 atm for riding with a passenger 2.1 atm for riding with a passenger and sidecar

Brakes Central brake 160 mm diameter. 30 mm wide Central brake 160 mm diameter. 30 mm wide

Wheelbase 1325 mm 1325 mm

Length 2000 mm 2000 mm

Width 790 mm with mirror 790 mm with mirror

Height 1185 mm with mirror unloaded 1185 mm with mirror unloaded

Ground clearance 175 mm 175 mm

Empty weight 159 kg 162 kg

Permissible load 171 kp 167 kp

Permissible total weight 320 kg 320 kg

Maximum speed approximately 95 km/h approximately 110 km/h

Filling Quantities

Gearbox 900 cm³ Engine oil 900 cm³ Engine oil

Fuel tank approximately 15 l Fuel mixture 25:1 approximately 15 l Fuel mixture 25:1

of which reserve approximately 1.5 l approximately 1.5 l

Struts 80 cm³ shock absorber oil 'Globo' per strut 80 cm³ shock absorber oil 'Globo' per strut

With a favorable coefficient of friction on a grippy concrete road (highway), a

braking deceleration of 7.2 m/s²

can be achieved. Prerequisite are, good tire condition and correct brake adjustment. With proper operation of both brakes, the following

braking distances result:

30 km/h 4.8 m, 60 km/h 19.4 m, 90 km/h 44.0 m.

These values do not include the driver's reaction time!

Image 3.