

MZ - MZ_ES_175_250_1969_Manual_de_intretinere

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Dear MZ Friend! Please do not put this manual aside unread, assuming you already know everything that is in it. While most people are familiar with vehicle technology today, even an old motorcycle enthusiast can still learn something now and then!

Motorcycles have been built in Zschopau for four decades. Therefore, all the prerequisites are factory-set for your vehicle to be reliable and safe - but whether it remains so now depends on you. This does not mean that you should treat your ES like a raw egg, but if you follow what we recommend below about breaking-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 good journey!

VEB MOTORRADWERK ZSCHOPAU

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Picture 1. ES 175/2 - ES 250/2

1. Technical Data

1. 1. Engine

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	ES 175/2	ES 250/2
Operating Method	Two-stroke reverse scavenging	Two-stroke reverse scavenging
Cooling Type	Air (wind)	Air (wind)
Number of Cylinders	1	1
Stroke/Bore	65/58	65/69
Displacement	172 cm ³	246 cm ³
Compression Ratio	9:1	8.5:1
Power	13.5 DIN HP = 9.9 kW at 5200...5500 rpm DIN HP = 12.9 kW at 5000...5300 rpm	17.5 2.5 kpm
Max. Torque	1.85 kpm at 5000...5100 rpm at 4500...4700 rpm	2.5 kpm
Lubrication	Mixture lubrication 33:1 (Hyzet oil)	Mixture lubrication 33:1 (Hyzet oil)
Connecting Rod Bearing	Cage-guided needle bearing (on crank pin and piston pin) Cage-guided needle bearing	
Crankshaft Main Bearing	2 bearings 6305 c 003 f 1 bearing 6302 Lubrication of the crankshaft main bearings through transmission lubricant	2 bearings 6305 c 003 f 1 bearing 6302 Lubrication of the crankshaft main bearings through transmission lubricant
Fuel	VK 'Normal' (OZ 79)	VK 'Normal' (OZ 79)

1. 2. Carburetor

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	ES 175/2	ES 250/2
Carburetor Type	BVF 26 N 1-1 (Startvergaser)	BVF 28 N 1-1 (Startvergaser)
Carburetor Values:		

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Passage in mm	26	28	
Main Jet	100	107	
Needle Jet	65	67	
Part Load Needle	No. K2 with 5 notches		K3 with 5 notches
Needle Position from Above	3...4 *)	3...4 *)	
Starter Jet	90 100		
Idle Jet	40 40		
Idle Air Screw	1 1/2...2 1/2 turns open 2...3 turns open		
Air Filter	Dry air filter in the intake silencer		

*) Always pay attention to the spark plug appearance!

1. 3. Electrical System

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	ES 175/2	
	ES 250/2	
Ignition	Battery ignition with centrifugal advance	
	Battery ignition with centrifugal advance	
Ignition Timing	3.0 mm before TDC, with fully extended centrifugal weights	
	3.0 mm before TDC, with fully extended centrifugal weights	
Breaker Contact Gap	0.3 mm	
	0.3 mm	
Spark Plug	Isolator M 14/260	
	Isolator M 14/260	
Electrode Gap	0.6 mm	
	0.6 mm	
Generator	DC, 6V, 60W, briefly 90W	
	DC, 6V, 60W, briefly 90W	
Charging Indicator Lamp	(red) in the speedometer	
	(red) in the speedometer	

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Regulator	RSC 60/6, under the left side panel RSC 60/6, under the left side panel
Battery	6V, 12 Ah (lead-acid flat battery)
Ignition Coil	6V, under left panel
Headlight	Fixed - light emission 170 mm Dipped beam switch on the left handlebar
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 right handlebar) Turn signal relay in the headlight housing Horn under the fuel tank Headlight flasher is operated by a button under the dipped beam switch

1. 4. Transmission

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	ES 175/2	ES 250/2
:-----	:-----	
Clutch	On the left crankshaft stub - in oil bath (5 friction discs with cork content)	
Shifting	Foot shift	
Number of Gears	4	4
Gear Ratio	1st gear 2.77:1 2nd gear 1.80:1 3rd gear 1.23:1 4th gear 0.92:1	
Neutral Indicator Light	Electrical indicator lamp (green) in the speedometer	

1. 5. Power Transmission

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1. 7. Dimensions and Weights

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	ES 175/2	ES 250/2	
:-----	:-----	:-----	
Wheelbase	1325 mm		

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Length	2090 mm		
Width with Mirror	862 mm		
Height	1060 mm		