

# 125 ČZ MODEL 511

The Czech Motor Cycle Works at Strakonice is known to motorcyclists as traditional motocross motor cycle manufacturer. Ever since motocross motor cycle began to be manufactured ČZ was making them and was the largest motocross motor cycle manufacturer until the onset of the Japanese makes. In the history of the sport ČZ is one of the most successful makes.

The new 125 ČZ model 511, which was put in production and which we are presenting today, is a first step on the way linking it up with the past ČZ success. The design of the new onetwentyfive is based on the experience gained by the ČZ staff in motor cycle development and manufacture taking into account customers' wishes as well as the requirements of the world trend in motocross motor cycle construction.

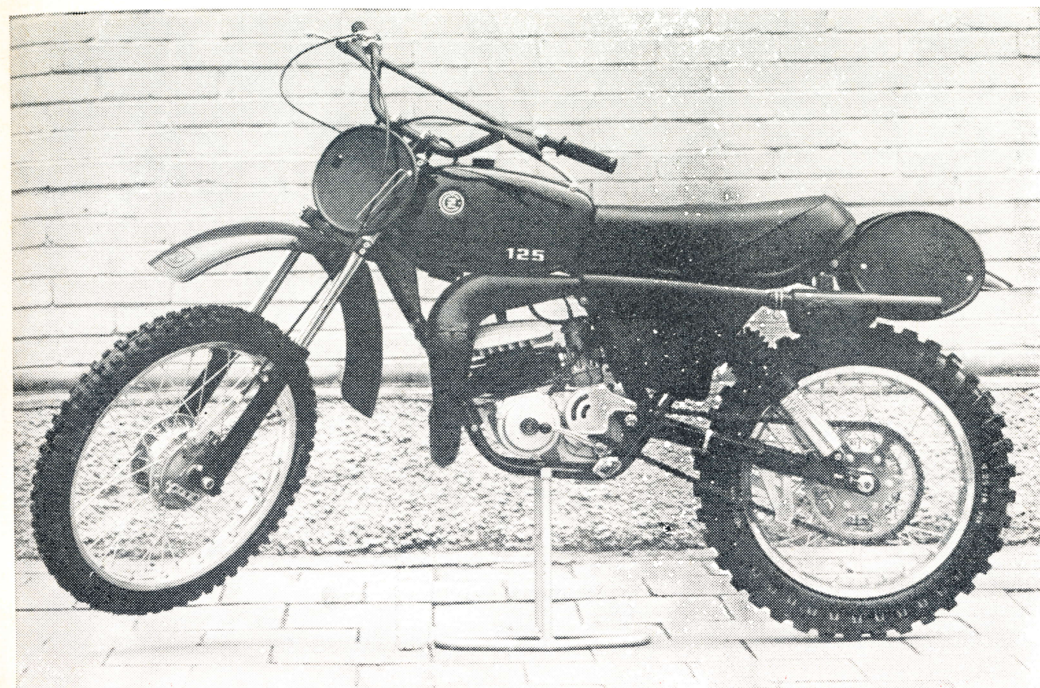
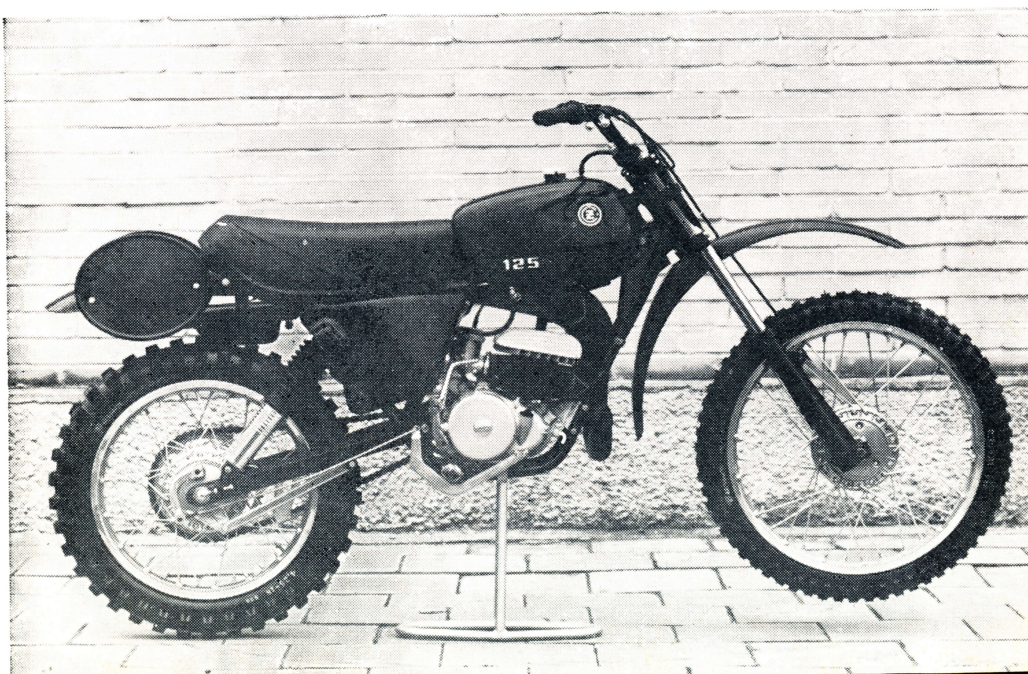
In order to give customers first class quality and well tried out machines prototypes were subjected to tests both by the ČZ experimental department and in world championship meetings. In the general classification of the 125 c. c. class riders Babrovsky took 3rd and Churavý 5th places in the 1975 season, in the 1976 season Churavý 2nd and Velký 3rd. For the 1977 and 1978 seasons specials with increased suspension travel and engine power were derived from the 511 model and these were ridden by Czechoslovak and Soviet internationals.

## Description

### Engine:

Two stroke air cooled single cylinder with piston controlled ports, petroil lubricated. Light alloy cylinder with pressed in cast iron liner. Light alloy cylinder head with central

The new 125 CZ Motocross model seen from the right



The same motor cycle from the left

combustion chamber. Crankshaft assembly pressed of forged webs with pins, carried in ball bearings in die cast crankcase. Big and small end needle roller bearings. Forged piston with a single ring.

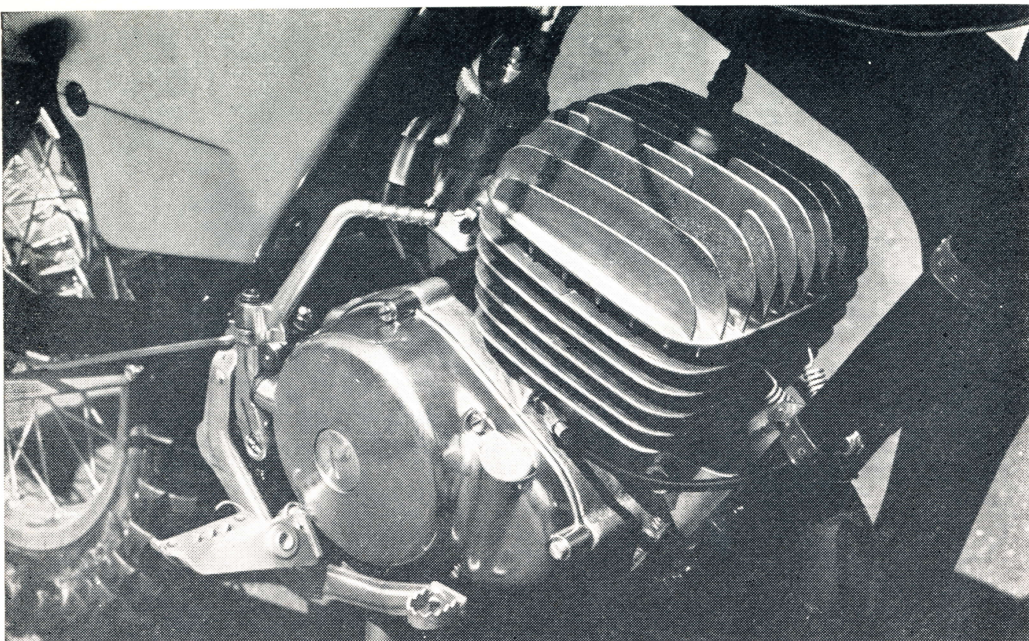
Motoplát contactless, electronic, ignition. Jikov carburettor linked with the engine by rubber stub. Primary drive by spur gear cluster. Multiplate clutch in oil bath, operated by rod in the gearbox main shaft bore. Six speed gearbox with spur gears. Gearbox control by short travel pedal. Gears shifted in engagement by selector forks controlled by cams on built-up roller. Engine starting by kickstarter pedal. Final drive by chain. The gearbox sprocket is enclosed in a light alloy die cast protective case. Upswept exhaust with silencer complying with FIM regulations.

### Cycle Part:

Duplex frame welded of seamless steel tubes. Steel stamped folding footrests. Hydro-pneumatic telescopic front fork with steel springs. Light alloy sliders. Front wire wheel with light alloy die cast hub, internal expanding brake and light alloy rim. Plastic front mudguard. The steel tube handlebars are blackened and carry lever brackets. The levers are light alloy forgings. Induction silencer made of light alloy sheet with Twin Air type cleaner element. The air is drawn from underneath the side cover. Light alloy sheet tank with makers stickers and 125 markings. It is linked up with the saddle with plastic frame and foam latex padding lined with plastic leather.

The pivoted rear fork of steel stampings is carried in plain bearings. In its front part on the rear chain side it is protected by a plastic cover. CZ hydropneumatic suspension units.

The rear wire wheel with die cast hub and internal expanding brake is equipped with chainwheel cush drive. Rear wheel brake control is by tie rod and pedal. The plastic



A view of the CZ 125 Motocross from the right revealing the clutch control mechanism. The engine is a neat job

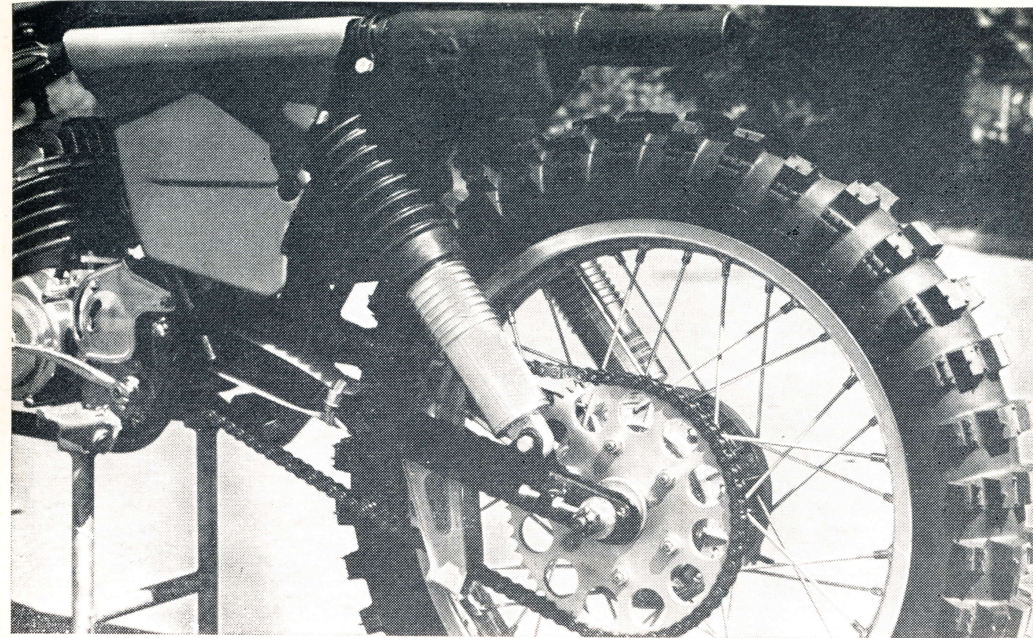
rear mudguard carries on its flanks plastic competition number plates. The position of the rear competition number plates complies with the FIM regulations. The plastic side covers enclose the space in which the induction silencer is situated.

#### Specification

##### Dimensions:

Overall length	2005 mm
Width (across handlebars)	840 mm
Height (handlebars)	1100 mm
Saddle height	880 mm
Ground clearance under maximum load	130 mm
Wheelbase	1390 mm
Fuel tank capacity	8.5 cu. dm
Front wheel – rim	1.6×21 in.
tyre	2.75×21 in. Barum S 27
Rear wheel – rim	1.60×18 in.
tyre	4.25×18 in. Barum S 28
Brakes internal expanding,	
mechanical – front	dia 125×25 mm
rear	dia 125×25 mm

**ČZ** 125  
511



Much attention was paid to the suspension of both wheels and to their reinforcement

#### Weights and Carrying Capacity

Motor cycle weight	85 kg
Ready for track weight	92 kg
Total weight	172 kg
Carrying capacity	80 kg

#### Engine

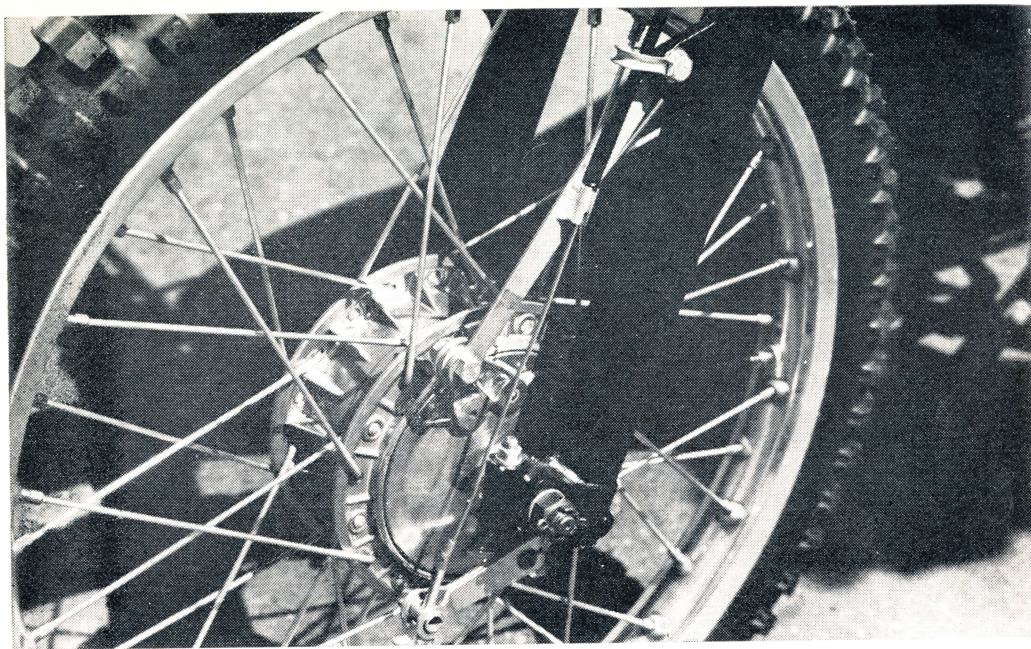
Cylinder capacity	123.5 c.c.
Bore	55 mm
Stroke	52 mm
Compression ratio	14.7 to 1
Power output	18 kW at 10,400 rpm
Torque	17.65 Nm at 9,000 rpm
Ignition advance	1.6 mm
Fuel – petrol min. octane rating	96
Engine lubrication by petrol mixture	20 to 1
for Bel-Ray oil	40 to 1

Recommended oils: MS 20; BP Corse; Bel-Ray

Clutch: multiplate in oil bath. OSINEK 100 plate material.

#### Gearbox

Number of speeds	6
Overall ratios: 1st	34.640 to 1
applicable to 2nd	24.296 to 1
54/14 final drive 3rd	19.559 to 1
ratio 4th	16.633 to 1



Not less attention was given to the front wheel construction; note the heavy brake reaction anchoring

5th	14.319 to 1
6th	12.930 to 1
Gearbox capacity	0.7 cu. dm
Oil	Mogul Special 20 W-30
<b>Carburetter:</b>	JIKOV 2934 CD
Setting – main jet	138
– idling jet	45
– needle position	2nd notch
– idling screw slackened	1.5 turn
Ignition – MOTOPLAT electronic	
Sparking plug PAL 14/15	
<b>Suspension</b>	
Front fork – suspension travel	210 mm
Capacity 160 c.c. damper oil in each leg	
Rear suspension – hydropneumatic units – suspension travel	100 mm
Capacity 190 + 1 c.c. AMG 10 oil in each unit	
Air pressure in each unit	0.29 MPa
Rear wheel suspension travel	175 mm
Final drive – by ČZ chain 1×12.7×7.75	ČSN 02331121
number of links	124

From Czechoslovak Motor Review, March 1979  
Scan Courtesy [www.czechpoint.net](http://www.czechpoint.net)