

Ural Irbit Motor Works – Russia
Extracted from AvtoExport 1985 as current for that year.

URAL IMZ-8.103: HIGHER COMFORT, SAFETY, MANOEUVREABILITY

Batch production of IMZ-8.103, a new model of the widely known Ural heavy motorcycle with sidecar will soon be launched in Irbit. We asked Chief Designer of the works Aleksandr KHALTURIN for the details.

New Looks

Those who have seen the previous model (M-67-36) will immediately notice the difference.

The entirely re-designed sidecar is more attractive-looking and more comfortable for long trips. The re-shaped petrol tank combined with the new side panels and more comfortable saddle give it an entirely new line. The new wheels with cast spokes and brake drums will also catch your eye.

Time-Tested Features Remain

Our factory has been producing heavy motorcycles for more than forty years. While steadily improving their design, we pass on

to new models only those parts, units and assemblies which have proved their worth during years of operation, especially under exceedingly tough road conditions. The Ural is intended not only for touring and business trips over good roads. It is eminently suitable for carrying people and loads over dirt roads and in off-road conditions. This is one reason why our motorcycle is so popular with hunters, fishermen, foresters, people living in mountainous regions, and travellers. Our reliable and easy-to-handle motorcycle is made primarily for this kind of buyer.

What units have been transferred to the new model from its predecessor?

The IMZ-8.103 features a **four-stroke engine with two opposed cylinders** normally rated at 26.4 kW (36 hp). Compression ratio is 7.2:1. It runs well on cheap grades of petrol with octane numbers 72 or 76. On special orders we can install an engine

running on higher-grade petrols with octane number 93 or 96 (compression ratio 8:1). In this case the engine power increases to 29.4 kW (40 hp). The antifriction bearings fitted in the crankshaft main bearings and connecting-rod big ends facilitate engine starting considerably, especially at low temperatures. The engine ensures fast acceleration and good speed.

We also traditionally use a **cardan drive to the rear wheel** on our Urals. Reliable and long-lasting, it enjoys an excellent reputation. The same applies to the practically faultless **twin-disc clutch**.

The rear suspension pendulum levers are fitted on the outside of the frame rear pipes. This being so, it has been possible to make up the rear suspension assembly from



The IMZ-8.103 looks quite different from its predecessors. It has an elegant sidecar with a drop-down windscreen, a more comfortable seat,

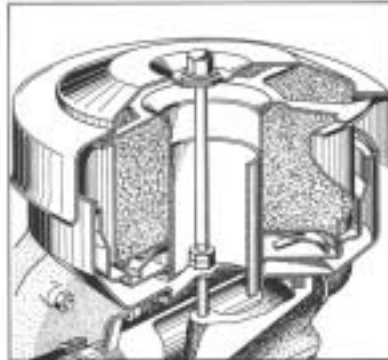
wheels with cast spokes and brake drums, cover plates on the sides and a redesigned fuel tank. All this combines to make a more attractive and comfortable motorcycle.

standardized parts. The pendulum is fitted on silent blocks that do not call for greasing or any attention for up to 50,000 km. The powerful and effective **spring-hydraulic shock-absorbers** are designed for long operation without any maintenance. To improve their characteristics, the shock-absorber liquid used for Lada cars is quite suitable.

The **twin-cam front brake** with 9mm thick linings and a wear compensating device gives trouble-free performance for 50,000 km.

The reverse gear is the most important advantage of the new machine. Most of its gearbox parts are interchangeable with those of the previous model.

The air filter has a resonance chamber that reduces engine noise level.

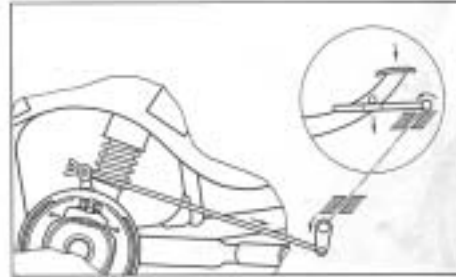
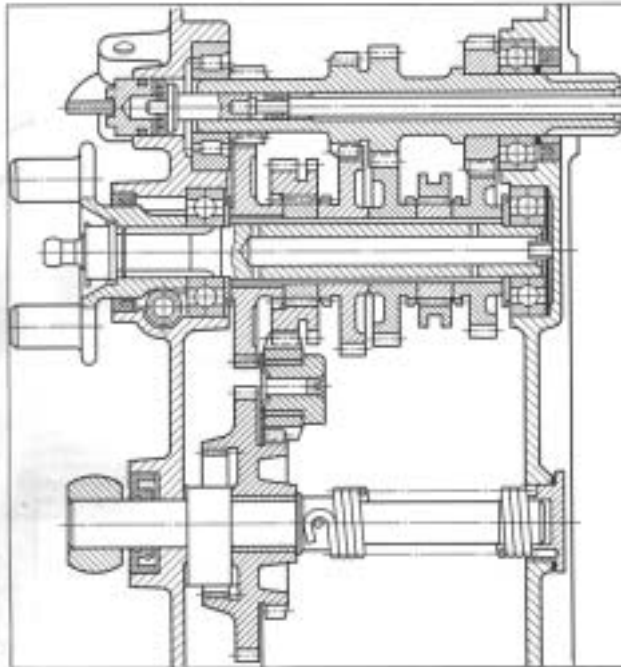


Manoeuvrable and Safe

The most important feature of the new model not found on its predecessors is the **reverse gear**. This has made the motorcycle more manoeuvrable and increased its cross-country capacity. The design of the **new gearbox** ensures full interchangeability with parts from the previous model's gearbox. This is important for dealers who have already sold a considerable number of Urals.

Another advantage of the new model is an **additional drum-type brake on the sidecar wheel** which has sharply increased the effectiveness of braking. The braking distance at 30 kph has been reduced to 8 metres, and the motorbike is reliably controlled during braking at bends.

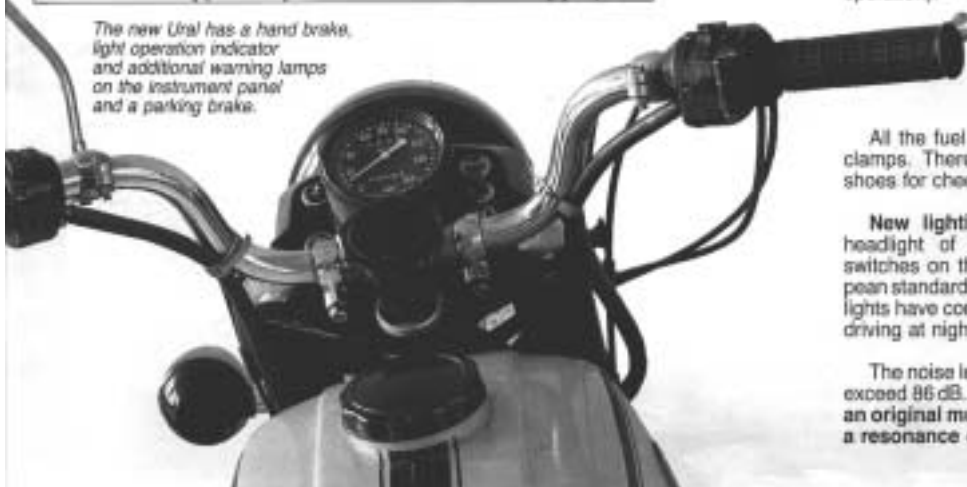
The simple design of the additional brake ensures its dependable performance in all conditions.



The additional drum brake on the sidecar wheels means more effective braking and reliable control of the bike using brakes at turns.

We also introduced the following new items in the IMZ-8.103 for higher comfort and ease of driving: parking brake; hand brake stop light transducer; warning lamps on the instrument panel (neutral gear engagement, turn indicators, distance light and generator operation).

The new Ural has a hand brake, light operation indicator and additional warning lamps on the instrument panel and a parking brake.



All the fuel hoses are reliably fixed with clamps. There are special ports in brake shoes for checking brake lining wear.

New lighting equipment: a powerful headlight of the European Beam type, switches on the handle bar meeting European standards, and new lamps and warning lights have considerably increased safety of driving at night and in poor visibility.

The noise level of the IMZ-8.103 does not exceed 86 dB. It was reduced with the aid of an original muffler and an air filter having a resonance chamber.



The four-stroke opposed-type twin-cylinder engine is available in two variants—for cheap and for high-octane grades of petrol.

The new lamps ensure greater driving safety at night and in poor visibility conditions.



SPECIFICATIONS OF URAL IMZ-8.103

Dry weight, kg	350
Maximum load, kg	250
Engine power, kW (hp)	26.4 (36)
Engine displacement, cc	450
Top speed, kph	105
Fuel consumption, l/100 km (maximum)	8
Braking distance from 30 kph, m	6
Clutch	dry, double-disc type
Gearbox	four-speed, with reverse gear
Gear ratios:	
1st gear	16.63:1
2nd gear	10.55:1
3rd gear	7.85:1
4th gear	6.01:1
reverse	19.4:1
Electrical equipment:	
ignition system	battery and automatic ignition advance
rated voltage in circuit, V	12
instruments	speedometer with trip meter, warning lamps (generator, turn indicators, distance light, neutral gear engagement)

On Special Order

In addition to the power unit running on a high-grade petrol, our works can deliver on request specially equipped Ural motorcycles. For example, we can fit them with a cross-country type driving or spare wheel. The instrument panel can be equipped with an electronic tachometer. For Retro style enthusiasts we can supply a Ural with split seats. Our factory also puts out solo motorbikes, including patrol variants with intermittent side lights and a mechanical siren. Motorcycles without sidecar have wheels of smaller diameter, and, for higher stability, the engine has been displaced somewhat with respect to the bike's longitudinal axis.

**The Ural
IMZ-8.103**