

A front-facing view of a white Ural M-100 motorcycle with a sidecar. The motorcycle features a large central headlight, two smaller side lights, and two antennae-like structures on top. The sidecar is attached to the left side. The background is a blurred outdoor setting with trees and a road.

Russian Police Motorcycles
Part II: Ural M-100

(see also Parts I – VII)

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May 2014

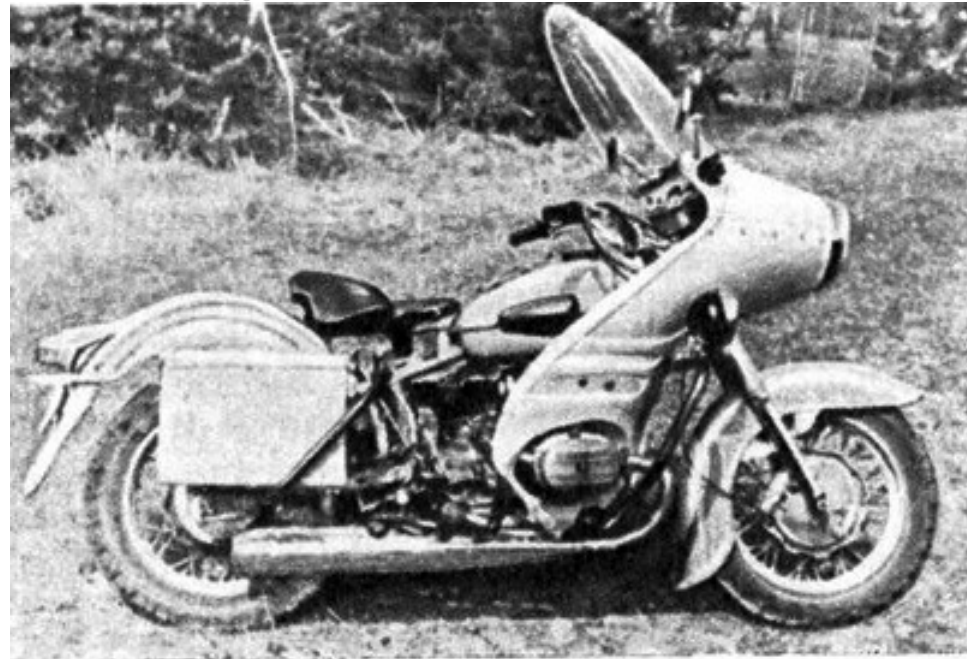
Call for Special Police Motorcycle Version

(metalhram.su/publ/3-1-0-11)

- **Original Heavy Motorcycle with Sidecar: M-72, Refitted for Police Service**
- **1962 Resolution of the Central Committee of the CPSU (17.08.1962 № 900-387) "On Measures to Improve the Functioning of the Soviet Militia (Police)"**
 - **Improve and Motorize Police Warehouse by Creating a Technological Break-Thru**
 - **Ministry of Public Order (MOOP) (MOI) Proposed Developing a Special Patrol Motorcycle**
 - **MOOP Provide Traffic Inspector Superiority Over All Roads of the Soviet Union**
 - **Speed Requirement of New Vehicle:**
 - **150 km/h (93 mph) for "Solo"**
 - **120 km/h (75 mph) for "Sidecar"**
 - **Above Speeds Would Enable ORUD-GAI to Dominate While on Domestic Roads**
 - **Special Conditions: Wind, Knee Pads to Protect Driver from Wind, Rain and Mud**
 - **Special Equipment: Radio Transceiver, Public Address (PA), Siren, Flashing Lights, Directional Turn Indicators, Stop Light, 12-volt Electrical System, Hydraulic Brake System on Rear and Sidecar Wheels**
- **Irbit (Ural) Plant Created a Solo and Sidecar M-100 Prototype**
 - **Initial and Final M-100 Engine Modifications**
 - **Displacement Increased from 745 cc to 1,040 cc**
 - **Increased Engine Speed from 4,500 to 5,200 rpm**
 - **Spherical Combustion Chamber Cylinder Head**
 - **Changed Configuration of Piston and Piston Pin**
 - **Developed Increased Volume Air Filter Element of Porous Polyurethane Foam, Impregnated with Oil**
 - **Increased Compression Ratio from 7:1 to 8:1, Increased Octane Rating to 85 or Greater**
 - **Carburetors (E-300) K-38 Diffuser Counter-Bored to 34 mm**
 - **Developed Completely New Wind Fairing to Reduce Windage**
 - **Used the Recently-Started M-63 Chassis**
 - **Swing-Arm with Hydraulic Shock Absorbers to Match Road Conditions**
 - **Pendulum Swung on Two Conical Bearings**
 - **Replaced Rubber Silent Blocks**
 - **Increased Wind Deflector with Built-In Lights**
 - **Added Directional Turn Signals**

The M-100 was Ural's attempt at meeting the request for a technology break-thru.

M-100 Prototype Police Motorcycle (1963 – 1969)



Ural's M-100 was an innovative solution for the police requirements. 3

Call for Special Police Motorcycle Version (cont.)

- **Ural Supplied Three Samples (with or without sidecar) in Fall of 1963**
 - **Passed Interdepartmental Tests in Serpukhov**
- **Results of M-100 1965 Tests at TSKEB Motoproma Serpukhov**
 - **Motorcycle Became Unmanageable at High-Speed Due to Large Sail**
 - **Increased Wind Deflector on Solo Handlebars Created a Danger to Driver, Especially at Junction of Oncoming Traffic at Speed Greater than 100 km / hr**
 - **Flipped Over on a Straight Section of Test Site**
 - **Solo Version Developed a Speed of 132 km/hr**
 - **Speed with Sidecar Accelerated to 108 km/hr**
- **Modifications in 1967**
 - **Wind Fairing Made of Steel and Fiberglass**
 - **Changed Transmission Ratio**
 - **Worked with Camshaft and “Hyped” the Engine to 5,200 rpm**
 - **Used Steel Hemispherical Combustion Chamber, Instead of Wedge**
 - **Changed the Configuration of Pistons and Piston Pins**
 - **Developed New Air Filter of Polyurethane Foam, Impregnated with Oil**
 - **Increased Compression from 7:1 to 8:1**
 - **Forced to Use Gasoline with Octane Rating No Lower than 85**
 - **K-38 Carburetor Diffusers Counter-Bored to 34 mm**
 - **Tires**
 - **Changed from 3.75” X 19” to 4.00” x 17”**
 - **Developed Well-Proven Tread for Virgin Snow**
- **Results of M-100 1967 Tests**
 - **Speed without Sidecar Accelerated to 150 km/hr**
 - **Speed with Sidecar Accelerated 120 km/hr**

**Ural accomplished many innovative solutions
to meet the rigid demands of the police.**

M-100 Prototype Police Motorcycle (1963 – 1969)



The M-100 had a panoramic wind-screen and aerodynamic flarings.

Call for Special Police Motorcycle Version (cont.)

- **Received Order in 1969 for 1,500 Ural M-100s**
- **Plant Produced M-63 on Assembly Line**
 - **Could Not Put Police Model M-100 on Assembly Line**
 - **Factory Not Prepared for Introduction of New Line**
 - **Patrol M-100 Was Several Times More Expensive than Production Motorcycles**
- **First Batch of M-100 Limited to Only 12 Units**
 - **Units Delivered with Sidecars**
 - **Delivered to Moscow Traffic Police**
 - **Remainder of the Soviet Police Received M-63P model**
 - **M-63P Cheaper than the M-100, also Showed Good Results**
 - **Solo Version of M-63P Squeezed to 143 km/hr, But Without Wind-Shield**
 - **Sidecar Version of M-63P Could Accelerate to 111 km/hr, But Without Wind-Shields**
 - **Modified Specifically for the M-100 Siren and Other Equipment**
 - **Siren Originally Connected to Rear Wheel**
 - » **When Motorcycle Was Moving - Siren Worked, When Stationary - Fell Silent siren**
 - » **M-63P Connected the Siren to the Flywheel**
- **Ural Released the First Batch of M-63P's in 1969, with or without a sidecar**
 - **Added Letter "P" (Patrol) to the Designation of the M-63 in Production**
 - **Additionally Equipped with Siren and Signal Lights**
 - **Painted in Two Colors: Blue and Yellow**
 - **Later Came the M-66P, M-67P, 1987 IMZ-8.903 (with sidecar) and IMZ-8.923 (solo), the Last of Which Came Off the Assembly Line in 1994**



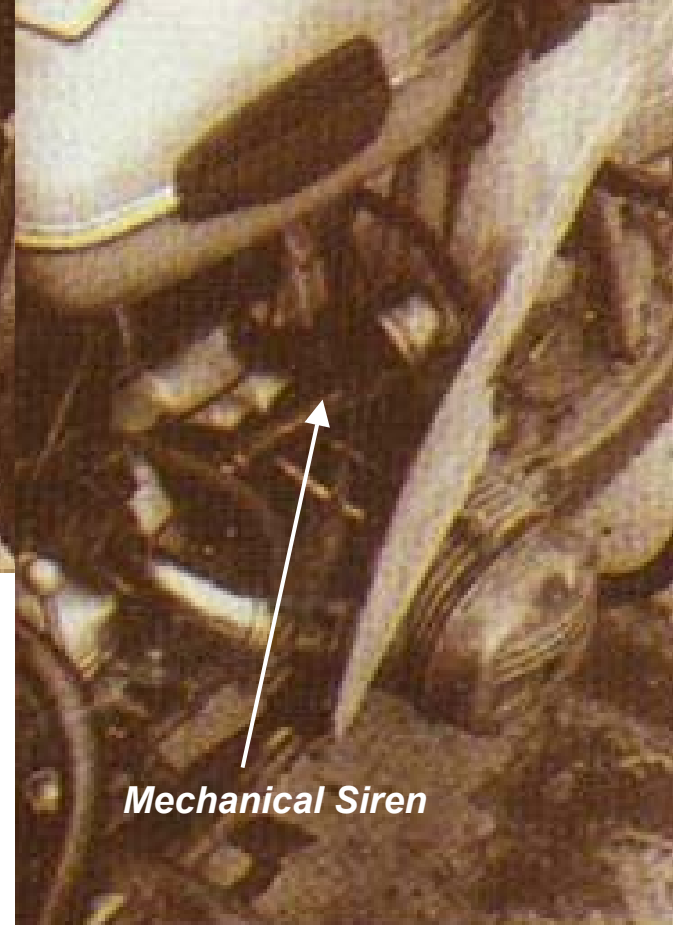
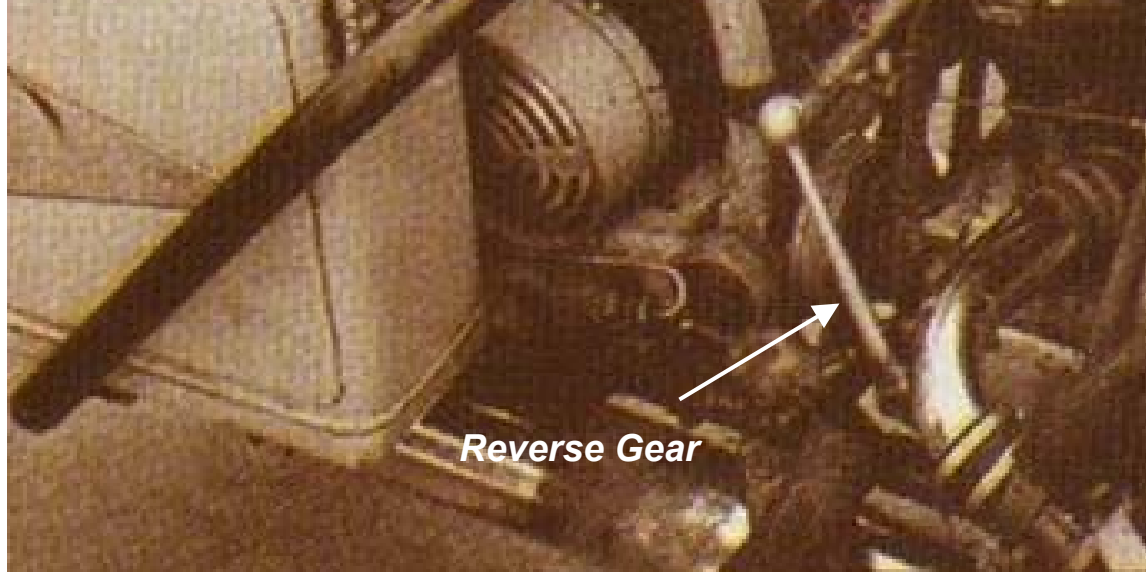
Alas, a great motorcycle was born at the wrong time.

1967 M-100



There are very few of Ural's M-100 available today.

Ural' M-100 Prototype Police Motorcycle



Ural's M-100 had a reverse-gear and mechanical siren.