Russian Motorcycle Brakes
Part X-2: New Brembo Disc Brakes
(See also Part X: Brembo Disc Brake Evolution and Part X-1: Ural Brembo Disc Brake Repair)

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02 / 2018
2014 Ural Motorcycles: First Look

• Since 2003, Ural Has Utilized Brembo Hydraulic Disc Brakes on Front Wheel, with Drum Brakes on Rear and Sidecar Wheels
  – Drum Brakes Required Rider to Apply More Force to Brake Pedal
  – Required More Frequent Maintenance and Adjustment
• April 2014: Ural Factory Delivered Sidecars with Disc Brakes on All 3 Wheels
  – To Facilitate New Rear Braking System, Ural Redesigned Wheel Hubs, Utilizing Standard Sealed Bearings and New Dust Seals
  – Exchanged Cast Drive Splines in Rear Hubs for Hardened, Bolt-On Spline Flanges
  – Front Brake: 295mm NG Floating-Disc (Rotor) with Four-Piston, Fixed Brembo Opposed Caliper
  – Rear Brake: 256mm NG Fixed-Disc with HB (Hayes Brakes) Integrated, Big-Bore, Single-Piston, Floating Caliper
    • Caliper Also Incorporates Mechanical Parking Brake
    • Parking Brake Actuation Lever Redesigned and Conveniently Located to Simplify Rider Operation
  – Sidecar Brake: 245mm NG Floating-Disc Pinched by Two-Piston, Fixed Brembo Caliper
  – Both Rear Calipers Operated by Their Own Brembo Master Cylinders
• New System Provides Dramatically Increased Stopping Power, While Requiring Less Rider Effort
• Having Three Individual Braking Systems Provides for Highest Level of Redundancy and Ability to Precisely Tune the Entire System
2014: Disc Brakes to Three Wheels

Sidecar: Axle Nut Wheel Cover
Brembo Disc Brakes Added to Rear and Sidecar Wheels

• Introduction of Disc Brakes Allowed Ural to Develop New Final Drive Housing
  – Lighter and Universal Across Entire Model Line
• Disc Brakes Replace Drums on Both Rear and Sidecar Wheels
• Big-bore, Single-Piston Caliper from Hayes Brake in Wisconsin Also Serves as the Parking Brake
• Wheels: All Spoked Aluminum, 2.5” x 19”
• Improved Stopping Power
  – With Old Drum on Rear and Sidecar Wheels, Brake Pedal Travel Required One to Bury Their Shin in the Right Intake Manifold before Bike Would Begin to Slow
  – Once Properly Adjusted, New Disc Brakes on Those Wheels Only Require Slight Pedal Pressure to Apply Fully and Have Much Better Feel
  – Still Need to Use Them in Combination with Front Disc to Stop the Bike Quickly
  – Large Brembo, Opposed 4-piston Caliper Up Front Still Does Most of the Work
Brembo Disc Brakes Added to Rear and Sidecar Wheels
Front Brake Reaction Link

- Front Brake Reaction Link on Leading Link Forks Now Made by FRAP (Italy) and Utilizes Higher-Quality Ball Joints of Increased Strength
Rear and Sidecar Disc Brakes

Rear Disc (hydraulic + mechanical) Hayes Brakes with Single-Piston Floating Caliper and Integrated Parking Brake

Universal Housing Main Gear Under Rear Brake Disc

Brembo Disc Brake with 2-Piston Caliper and NG Floating Disc
Parking Brake Now a Comfortable Grip

- Parking Brake Actuation Lever Redesigned and Conveniently Located to Simplify Rider Operation
Detachable Slotted Hub for Drive Wheels

• 2014: Rear Hubs No Longer Utilize Cast-In Drive Splines
• Now Equipped with Replaceable, Hardened, Bolt-On Spline Flanges
• Rear Wheel Hubs No Longer Replaced Due to Worn Drive Splines
Cast Aluminum Hubs with Steel Sleeve Bearings and Plastic Protective Cover

- To Facilitate New Rear Braking System, Ural Redesigned Wheel Hubs, Utilizing Standard Sealed Bearings and New Dust Seals
- New Rear Aluminum-Cast Hub with Pressed-In Steel Sleeve and Plastic Protective Cover
- New Front / Sidecar Aluminum-Cast Hubs with Pressed-In Steel Sleeves
- Removable Splined Flange for Rear and Sidecar Wheel for 2WD Models
- Wheel Bearing Installed with Circlips and Protected with Extra Seal
# Description | Part number
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1 | Brake hose | IMZ-8.1037-27015-08 withdraw from production. Use IMZ-8.1037-27015-09
2 | Front brake switch | IMZ-8.1037-17021
3 | Front brake master cylinder 10.6880.32 | IMZ-8.1238-27003-20
4 | Front brake caliper 20.9230.50 | IMZ-8.1238-27005-01
5 | Brake pads set | IMZ-8.1238-27097
12 | Brake disc | IMZ-8.1037-06026-10
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