

URAL Classic Motorcycles

Owner's Manual

2002 Models (All States)

BC-75 (Bavarian Classic)

LC-75 (Luxury Cruiser)

Tourist, Adirondac & Patrol



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INTRODUCTION

Welcome to the URAL Motorcycling Family! Your new Ural motorcycle conforms to all applicable US Federal Motor Vehicle Safety Standards and US Environmental Protection Agency regulations effective on the date of manufacture. This manual covers the Tourist, BC-75 LC-75 Adirondac, and Patrol.

This manual has been prepared to acquaint you with the operation, care and maintenance of your motorcycle, and to provide you with important safety information. Follow these instructions carefully for maximum motorcycle performance and for your personal motorcycling safety and pleasure. Please pay particular attention to the section “Learning to Ride the Ural Motorcycle with Sidecar” and the separate manual “Driving the Ural Sidecar Motorcycle.” It is critical that a beginning sidecar driver becomes thoroughly familiar with the special operating characteristics of sidecar outfits before venturing out on the roads.

Your Owner’s Manual contains instructions for operation, maintenance and minor repairs. Major repairs require the attention of a skilled mechanic and the use of special tools and equipment. Your Authorized Ural Dealer and Ural certified Service Center has the facilities, experience and genuine Ural parts necessary to properly render this valuable service.

The Ural represents an important piece of German and Russian history since it has been continually manufactured with the same general arrangement and outward appearance for the past 60 years after Russian engineers initially copied the BMW’s of 1939. It truly is an “instant antique” as many of our owners have said.

Since the Ural weighs 700 lb. empty with the attached sidecar, has a large frontal area and is powered by an old fashioned 745cc engine, it is not a fast motorcycle. The Ural Tourists’ top speed is 65 mph with a cruising speeds of 55 mph but only after faithful adherence to the break-in period.

If you are a vintage enthusiast, collector, local commuter, hunter, fisherman, have children, grandchildren or a dog that likes to ride, or you just like to be noticed on a rig that draws a crowd wherever you park, welcome aboard!

The classic boxer twin has a German heritage. So effective, simple and powerful is this design that Porsche, Volkswagen, and even Harley (during the war with the XA model) made this design their choice. The reliability and torque of this elegant motor is due to its original design in 1912 by Max Friz, a brilliant German aircraft-engine builder. He devised a compact and rugged engine that delivered significant torque for its displacement, at low and constant rpms, without the gyro effects of other twins. The military and civilian uses became legendary. The German motorbike builder BMW, began using the design in their motorcycles in 1922.

Because of its opposed cylinder layout the “Boxer” as it was dubbed, turns the crankshaft in line with the motorcycle (or airplane!). This allows for a straight-through shaft connection from the engine, through the

gearbox and through a stainless steel driveshaft to a rear wheel final drive gear in the wheel hub. This drivetrain design is exactly like the millions of rear wheel drive automobiles built over the past eighty years! It is a time tested, proven drive system made elegantly simple by the “Boxer” opposed cylinder engine.

Today the “Boxer” engine has evolved into the high tech and electronically sophisticated and complicated versions that can be found not only in BMWs but also in Porsches, Hondas and others. These are wondrous engines at wondrous prices! But they still retain the basic “soul” of Max Friz’s first engines. And although it is not as evolved as the most modern “boxers”, the IMZ 750 cc is true to the earlier versions in looks, but also has many modern internal components. These parts, like pistons, rings, valves, valve seats and oil seals are modern and western made. The carburetors are made in Japan. These parts make the engine more reliable and cleaner.

However, the “boxer” is still an air cooled power plant. As such it must be carefully monitored during operation to prevent overheating. As the gear making and other machine tools in the Ural plant are “vintage” ones, a careful break-in of the engine is very important. Neglecting to follow the prescribed speeds during break-in or the frequent oil changes will cause this wonderful engine to rebel against its “abusing” owner. However, by treating the “boxer” with respect and raising it well, you will be rewarded!

So its true that sometimes simple is better, and old fashioned ideas and designs have strong reasons for the ability to continue for a long time. It is the main reason why over millions of Urals have been sold around the world.

Any suggestions or comments are welcome! Write to us or post an e-mail on the Ural Discussion bulletin board at www.ural.com.

Happy Riding!

Important Notice!

Statements in this manual preceded by the following words are of special importance:

WARNING: *MEANS THERE IS THE POSSIBILITY OF PERSONAL INJURY TO YOURSELF OR OTHERS.*

CAUTION: *Means there is the possibility of damage to the vehicle.*

NOTE: *Other information of particular importance has been placed in italic type.*

CAUTION! *During the initial 2,500 km, a fundamental bedding-in of parts for all the mechanisms of the motorcycle takes place. During this period do not overload the engine or race the motorcycle in excess of the speeds specified in the section "Running-In of New Motorcycle." Doing so will void the warranty.*

Maintenance intervals recommended are based on operational experience under various climatic and road conditions. However, these intervals may be extended or reduced following repeated checks of the lubricant condition and general technical condition of the motorcycle.

Carefully study this Owner's Manual before starting the motorcycle.

Specifications and design are subject to change without notice.

Chapter 1

SPECIFICATIONS

GENERAL

	Tourist, Patrol & Adirondac	BC-75 & LC-75
Maximum speed of motorcycle	120 km/h 74 mph	120 km/h 74 mph
Reference fuel consumption at 85% of maximum speed	12.5 km/L 29 mpg	14 km/L 33 mpg
Dry mass of motorcycle	700 lb	680 lb.
Maximum load-carrying capacity	500 lb. / 485 lb.	400 lb.
Noise level	below 80db	

OVERALL DIMENSIONS

Length	2500 mm / 8 ft
Width	1700 mm / 5 ft 6 in
Height	1100 mm / 3 ft 6 in
Road Clearance	125 mm / 5 in
Seat height	840 mm / 33 in
Wheel base	1470 mm / 58 in

ENGINE

Type	4 stroke, overhead valves, opposed twin-cylinder
Displacement	745 cc
Cylinder bore	78 mm
Piston stroke	78 mm
Compression ratio	8.6 :1
Rated horsepower	26 KW / 35 BHp
Rated rotational speed	5600 RPM
Rated torque	35 ft.-lbs @ 3750 RPM
Lubrication system	Dual system of forced lubrication and splashing
Lubricant	SAE 20W/50

CARBURETOR

Carburetor type	32 CVK Keihin
Number of carburetors	2
Air cleaner	Paper Filter Element
Fuel	91 octane premium unleaded gasoline
PCV Valve	Internal Breather

ELECTRICAL

Ignition system	135.3734.COM-2 (CDI)
Ignition coil	135.3705-2
Spark plugs	Autolite 273
Ignition timing	Automatic spark timer
Alternator	35 amp / 12 Volt
Battery	Interstate #YTX20L-BS or equivalent
Headlight	Sylvania Halogen 6024, 7" round sealed beam

TRANSMISSION

Clutch	Dry double-disk clutch
Gearbox	4 speed gearbox with reverse gear lever

GEAR RATIOS

I gear	3.6
II gear	2.28
III gear	1.5
IV gear	1.19
Reverse gear	4.2
Speedometer drive ratio	0.4
Final drive ratio	4.62

FLUID CAPACITIES

	Tourist, BC-75 LC-75 Adirondac	Patrol
Fuel tank	5 Gal / 19L	5 Gal / 19L
Reserve	.5 Gal / 2L	.5 Gal / 2L
Engine	68 oz / 2L	68oz / 2L
Transmission	34 oz / 1 L	34oz / 1 L
Final drive	3.5 oz / 105 ml	4.5 oz / 135 ml
Telescopic Forks (LC-75 & BC-75)	N/A on Tourist 135ml / 4.5 oz	N/A on Patrol
Shock Absorbers	105 ml / 3.5 oz	105ml / 3.5 oz

RUNNING GEAR

	Tourist, Patrol & Adirondac	BC-75 & LC-75
Frame	Tubular welded	Tubular Welded
Rear wheel suspension	Swing arms with spring shock absorbers	Same
Front fork	Leading link	Telescopic spring
Sidecar	Cushioned body (on rubber cushions) and wheel with hydraulic spring shock absorber	
Brakes	Shoe-type with mechanical drive on front, rear and sidecar wheels, front wheel has dual cams.	
Tires	4" x 19"	3.5" x 18"
	Front 22 psi cold (1.5 Bar / 150 kPa)	Front 22 psi cold
	Side 22 psi cold (1.5 Bar / 150 kPa)	Side 22 psi cold
	Rear 36 psi cold (2.5 Bar / 250 kPa)	Rear 36 psi cold

CLEARANCES

	mm	in
Valves with engine cold	0.05 to 0.1	0.002 to 0.004
Between spark plug electrodes	1.016	0.040
Backlash between tooth faces of bevel gears in final drive	0.1 - 0.3	0.004

FREE TRAVEL / ADJUSTMENTS

	mm	in
Hand brake control lever	5 - 8	0.2 - 0.3
Clutch control lever	5 - 8	0.2 - 0.3
Foot brake drive pedal	¼ of full stroke of pedal, 25 - 30	1.0 - 1.2
Toe-in distance	10 mm	3/8 inch
Lean-out	1° away from sidecar	

TORQUE SPECIFICATIONS

Metric	US Equivalent	Location on Bike
54 to 61 Nm	40 ft/lb to 45 ft/lb	cylinder heads
237 to 251 Nm	175 ft/lb to 185 ft/lb	fly wheel tightening screws
19 to 30 Nm top	14 ft/lb to 22 ft/lb	shock absorber
38 to 49 Nm bottom	28 ft/lb to 36 ft/lb	shock absorber
30 to 35 Nm	22 ft/lb to 26 ft/lb	bearing nut
30 to 35 Nm	22 ft/lb to 26 ft/lb	final drive to swing arm bolts
16 to 19 Nm	12 ft/lb to 14 ft/lb	oil pump bolt
6.7 to 11 Nm	5 ft/lb to 8 ft/lb	engine sump
14 to 19 Nm	10 ft/lb to 14 ft/lb	final drive case nuts
25 to 30 Nm	18 ft/lb to 22 ft/lb	nut fastening the pinion bearing <i>(Patrol rear axle only)</i>
68 to 90 Nm	50 ft/lb to 66 ft/lb	nut fastening the pinion bearing
22 to 27 Nm	16 ft/lb to 20 ft/lb	reverse gear brake lever
19 to 22 Nm	14 ft/lb to 16 ft/lb	generator gear nut
136 to 163 Nm	100 ft/lb to 120 ft/lb	steering stem nut

CONVERSIONS

To convert from mm to in, divide by 25.4 (there are 25.4 mm per inch).

To convert from liters to gallons, divide by 3.785 (there are 3.78 liters per gallon).

To convert from liters to quarts, multiply by 1.056 (there are 1.056 quarts per liter).

To convert from liters to pints, multiply by 2.112 (there are 2.112 pints per liter).

To convert from km to miles, multiply by .62 (there is .62 mile per km).

To convert from km/hr to mph, multiply by .62.

To convert from Newton-meter (Nm) to inch-pound, multiply by 8.86.

To convert from Newton-meter (Nm) to foot-pound, multiply by .7376.

To convert from cm³ (cc) to pints, divide by 473 (there are 473 cc per pint).

To convert Celcius to Fahrenheit: $F^{\circ} = C^{\circ} \times 1.8 + 32$.

To convert Fahrenheit to Celcius, $C^{\circ} = (F^{\circ} - 32) \text{ divide by } 1.8$.

Chapter 2

MOTORCYCLE CONTROLS & INSTRUMENTATION

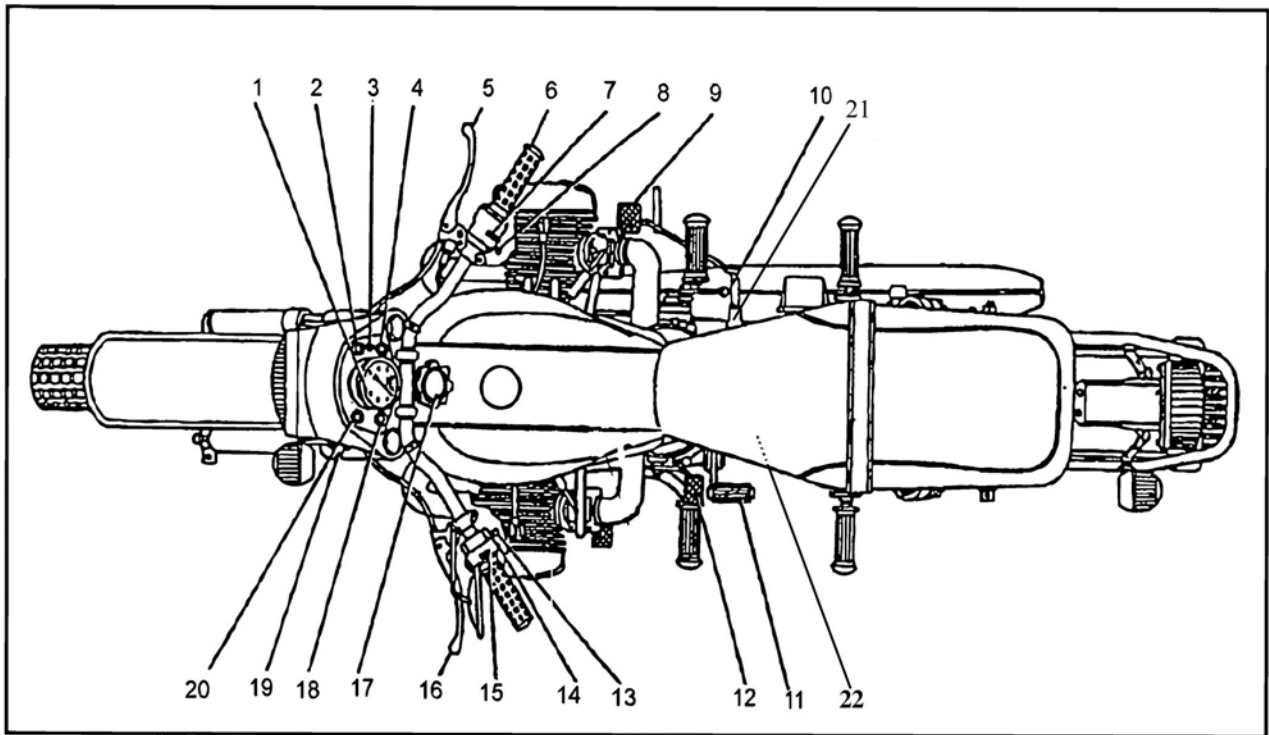


Figure 1. Controls and Instrumentation

- | | |
|--|---|
| 1 - Speedometer | 12 - Gear shift (foot) pedal |
| 2 - Turn indicator lamp | 13 - Turn signal switch |
| 3 - Trip odometer reset knob | 14 - Horn push-button |
| 4 - Neutral and reverse gear engagement indicator lamp | 15 - "High-low" beam switch |
| 5 - Front brake control lever | 16 - Clutch control lever |
| 6 - Throttle control twist grip | 17 - Steering damper tightening bolt |
| 7 - Ignition cutoff switch | 18 - High-beam indicator lamp |
| 8 - Electric Start Button | 19 - Ignition Switch |
| 9 - Rear brake pedal & sidecar wheel brake | 20 - Battery discharge warning lamp |
| 10 - Reverse gear lever | 21 - Parking brake |
| 11 - Kick start lever | 22 - Master battery switch (under seat) |

CONTROLS

Clutch control lever (Fig.1, #16) . When the clutch lever is squeezed, the engine is disengaged from the gearbox. When the lever is released, the engine and gearbox are engaged.

WARNING: *MAKE SURE FINGERS ARE NOT POSITIONED BETWEEN HAND CONTROL LEVERS AND HANDLEBAR GRIPS OR OPERATION OF VEHICLE COULD BE IMPAIRED.*

WARNING: *BEFORE STARTING ENGINE, ALWAYS SHIFT TRANSMISSION TO NEUTRAL TO PREVENT ACCIDENTAL MOVEMENT WHICH COULD CAUSE POSSIBLE DAMAGE TO MOTORCYCLE AND PERSONAL INJURY.*

Front brake control lever (Fig.1, #5). When the lever is squeezed, the front wheel brake is actuated. The front brake should be used together with rear brake.

When the brake lever is squeezed, the stop signal lamps are switched on.

Kick lever (Fig.1, #11) is designed to start the engine. On pressing the lever the crankshaft of the engine is actuated through the gearbox. The lever is returned to its initial position by the spring inside the gearbox. *Note: this is a backup to the electric starter.*

Gear shift foot pedal (Fig.1, #12) is a two-arm type. When the front arm is pressed, shifting from high to lower gears takes place. When the rear arm is pressed, shifting from low to higher gears takes place. Since the heel-toe shift lever is short-coupled, you will find it easier to shift up if you rotate the heel of your left foot in towards the rear arm before stepping on it with your heel. The neutral position is fixed between the I and II gears.

IMPORTANT! The green pilot lamp glows when the transmission is in neutral and when the reverse gear is engaged (see “Starting the Engine”).

Reverse gear engagement lever (Fig.1, #10) Forward for neutral and/or forward running and back for reverse. **The reverse gear may be engaged only after the motorcycle is completely stopped!**

To engage reverse gear, shift into neutral (or first), then push back the reverse lever.

To disengage the reverse gear, press lever up (forward) to the limit, then the gear shift mechanism is reset to the neutral position. Now you can shift into first gear.

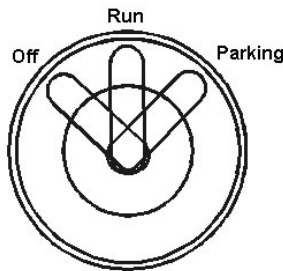
If desired, neutral may be selected by shifting into reverse when the first gear is engaged, and then moving the reverse gear lever forward into neutral.

The **rear brake pedal** (Fig.1, #9) applies the rear wheel and sidecar wheel brakes simultaneously.

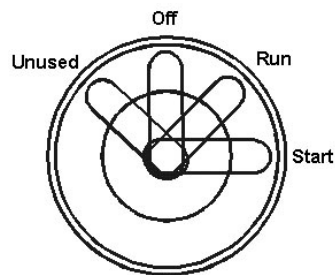
WARNING: *Do NOT apply either brake strongly enough to lock the wheels because this may cause possible loss of control of the motorcycle. ALWAYS use both brakes. NEVER stop with front or rear brake only.*

WARNING: *An improperly adjusted rear brake pedal could interfere with proper rear brake operation resulting in poor brake action.*

Ignition Switch (Fig.1, # 19) has three fixed positions of the key. The position and switching diagram of the ignition locks are shown above.



Tourist, Patrol
Adirondac & LC-75



BC-75

- | | |
|---------|--|
| Off | All electrical systems are off. |
| Run | Voltage is supplied to all electrical systems. |
| Parking | Voltage is supplied to running lights only. |
| Unused | All electrical systems are off. |

Note: Leaving the key in the Run or Parking position will discharge the battery. Always return the key to the Off position before taking it out.

Speedometer is on the dash board, with trip (Note..BC-75 has no trip odometer) and total odometer. The trip odometer is reset to zero by rotating push-button (Fig.1, # 3) counter-clockwise. Note that the odometer reads in kilometers not miles.

The indicator lamps are mounted on the instrument board:

(Fig. 1, # 2) — turn indicator pilot lamp, (orange)

(Fig. 1, # 4) — gearbox neutral and reverse gear engagement, (green)

(Fig. 1, # 18) — head lamp high beam indicator, (dark blue)

(Fig. 1, # 20) — alternator fault indicator lamp, (red)

Note: If the red alternator fault light stays on continuously during normal operation above approximately 1500 RPM, there is a problem with the charging system or battery.

Throttle Control (Fig.1, # 6) is on the right handlebar. Turning the twist grip counterclockwise increases engine speed.

Ignition Cutoff Switch (Fig.1, # 7) has two positions, ignition off (up), and ignition on (down).

Low and High Beam Light Switch (Fig.1, # 15), **turn indicator switch** (Fig.1, #13) and **horn push-button** (Fig.1, # 14) are combined in one unit on the left-hand handle bar control housing.

Master Battery Switch (Fig.1, # 21) is under the seat.

Electric Start Button (Fig. 1, # 8) is located on the right-hand twist grip, below the kill switch.

The **Steering Damper** absorbs lateral kicks on the front wheel. Turning tightening bolt (Fig.1, # 17) clockwise increases friction. This can be used while riding over bad roads.

WARNING: DO NOT TIGHTEN THE DAMPER TO THE POINT WHERE THE STEERING BECOMES STIFF. DOING SO WILL ADVERSELY AFFECT HANDLING QUALITIES.

Parking brake (Fig. 1, # 22) is located on the right side of the motorcycle next to the foot peg. It is engaged by applying the foot brake pedal fully and turning the handle and pushing it down to hold the foot brake lever in the applied position.

Always disengage the parking brake before moving the motorcycle.

Chapter 3

ENGINE OPERATION AND MAINTENANCE

PRE-TRIP PRELIMINARIES

Before each trip, attend to all the requirements of the everyday maintenance as outlined in this manual. When adding fuel and oil to the motorcycle, take all precautions to keep everything neat and clean.

Gasoline level in the tank fully filled should be 10 - 15 mm / $\frac{1}{2}$ - $\frac{3}{4}$ in. below the lower edge of the tank filler. Do not overfill the tank, especially on California models where overfilling can cause fuel contamination of the charcoal cannister. See that the oil level in the engine crankcase is not higher than the top and not lower than the bottom marks on the dipstick with the filler plug undone. (See chapter 4 Lubrication System)

CAUTION: *When draining and refilling oil, be careful that dirt and debris does not contaminate the fresh oil. Do not allow draining oil to get on the rear wheel, tire, or brake components.*

STARTING THE ENGINE

WARNING: *BEFORE STARTING THE ENGINE, MAKE SURE THAT THE GEAR SHIFT MECHANISM IS IN THE NEUTRAL POSITION (BETWEEN 1ST AND 2ND GEARS) TO PREVENT ACCIDENTAL MOVEMENT WHICH COULD CAUSE POSSIBLE DAMAGE TO MOTORCYCLE AND PERSONAL INJURY. (FOR MORE THAN JUST STARTING, I.E. IDLING, IT IS ADVISABLE TO USE NEUTRAL GEAR.)*

When the ignition is switched on, the green & red lamps on the instrument board should light up. Make sure that the reverse gear engagement (lever) is set to the front position. This is important since the green lamp will also be lit if the motorcycle is in reverse gear. Moving the reverse gear lever forward will put the gearbox in neutral.

Gasoline petcock positions are as follows:

OFF



ON



RESERVE



Depending on the engine and ambient temperature, use the carburetor enrichers and starting procedure as follows:

Manual Starting (without electric starter)

1. Turn on the ignition and depress the kick lever (see Fig. 1) about 1/4 of its travel (enough to firmly get the ball of your foot on the lever) with either your left foot or right foot, depending on what position is most comfortable with your right hand on the throttle. Take up the slack in the throttle until you can feel some slight resistance from the return springs in the carburetors. However, do not advance the throttle, since this may flood the engine.

Note: You may find it more comfortable to stand on the left passenger foot peg with your right foot and kick with your left foot.

Give the kick lever a swift kick. When the engine starts, tickle the throttle (quickly increase and decrease it) to keep the engine running, but not too fast. If the engine doesn't start, repeat the kicking procedure. A properly adjusted warm engine should start within a few kicks. If the engine doesn't start, try the procedure described below in item 3. If it still doesn't start or fire, it may be flooded.

Note: Do not open the throttle while kicking the engine over since it may flood the spark plugs.

Electric Starting

1. Set carburetor enrichers as with kick starting. Unlike manual starting, however, the gearbox does not have to be in neutral as the electric starter may be engaged with the clutch lever pulled in, or with the gearbox in neutral. Make sure the Ignition Cutoff Switch is set to "Ignition On" and push the starter button to turn over the engine.
2. When the engine has been standing for several hours but the ambient temperature is high (60°F/15°C degrees or above), try starting it without any enrichers. If it doesn't fire, then use the procedure described below.
3. When the engine is cool or cold and the ambient temperature is between 40°F-60°F/5°C-15°C, depress both enrichers to start. As soon as the engine starts, immediately retract the enrichers. Run the engine at moderate speed for 30-60 seconds. If it starts to die, blip the twist grip throttle (rapidly twist part way towards full throttle and then back off) to keep the engine running. After 1 to 3 minutes, depending on ambient temperature, the engine should run smoothly without "blipping" the throttle.
4. If the engine is cold and ambient temperature is below 40°F, first, give the engine 5-10 (depending on how cold it is) priming kicks with the ignition off. This will get some oil circulated to key internal parts. Engage the enrichers on both carburetors. The engine should

then fire, depending on how cold it is. For example, when the ambient temperature is 0°F, it typically takes about 5-10 rotations to start the engine. As soon as the engine starts, retract both enrichers (after a few seconds).

Note: It is very important to back off on the enrichers as soon as the engine will sustain itself without stalling. Since the Ural is a classic engine design, the plugs will foul quickly (as soon as one minute) if the engine mixture is too rich. If one plug fouls and the other doesn't, the engine will run very unevenly and have greatly reduced power.

When the engine is hot, do not choke or enrichen the carburetors. To do so risks flooding the engine.

To start an engine that is flooded, first open the throttle fully, hold it there and give the engine up to 10 swift kicks. If it still doesn't fire, take the spark plugs out to see if they are wet with gasoline. If they are wet, dry them. Clear excess gasoline from the cylinders by kicking the engine over 10 times with the plugs out and the throttle closed. Then replace the plugs and repeat the starting procedure described at the beginning of this section (1).

WARNING: *SUSTAINED OPERATION ON ONLY ONE CYLINDER FOR EVEN JUST A FEW MINUTES COULD OVERHEAT THE CYLINDER AND CAUSE IRREVERSIBLE DAMAGE TO EITHER THE VALVES OR PISTON. **THIS IS CRITICAL TO IMMEDIATELY SHUT THE ENGINE DOWN IF IT APPEARS TO BE RUNNING ON ONLY ONE CYLINDER.***

Additional Warnings: Once the engine starts, do not allow it to run at a high speed as this could cause abnormal wear of the parts and may lead to seizure of the piston pin and pistons in the cylinders since cold oil flows through the oil ducts with difficulty and fails to ensure sufficient lubrication.

A correctly adjusted warm engine should run steadily at low speed with the throttle control twist grip fully closed.

Do not let the motorcycle sit at idle for more than three minutes, as overheating could result.

OPERATING PRECAUTIONS

WARNING: *MAKE SURE THAT SIDECAR WINDSHIELD IS IN THE FULL BACK POSITION SO IT DOESN'T INTERFERE WITH THE RIGHT HANDLEBAR.*

To move the motorcycle from rest, shift to 1st gear only. Avoid releasing the clutch suddenly, because the engine is liable to stall or the motorcycle will start with a jerk. Do not drive the motorcycle at speeds below the recommended speeds with the 2nd, 3rd or 4th gears engaged. It is not advisable to use the 1st and 2nd gears for a long time, unless so required by road conditions.

WARNING: *WHEN SHIFTING TO LOWER GEARS WITH THE MOTORCYCLE IN MOTION, DO NOT DOWNSHIFT AT SPEEDS HIGHER THAN THOSE LISTED IN THE TABLE. **SHIFTING TO LOWER GEARS WHEN SPEED IS TOO HIGH MAY***

SEVERELY DAMAGE THE TRANSMISSION OR CAUSE THE REAR WHEEL TO LOSE TRACTION.

CAUTION: Do not run the engine at extremely high rpms with clutch disengaged or transmission in neutral. Do not idle the engine unnecessarily for more than a few minutes with the motorcycle standing still.

An engine which has run long distances at high speed must be given closer than ordinary attention to avoid overheating and consequent damage. Have the engine checked regularly and keep it well tuned. Valve seating and good compression are particularly important. This applies particularly to a sidecar motorcycle equipped with windshields, carrying heavy loads, or operating in hot weather.

WARNING: WHEN RIDING ON WET ROADS OR UNDER RAINY CONDITIONS, BRAKING EFFICIENCY IS GREATLY REDUCED AND CAUTION SHOULD BE USED WHEN APPLYING THE BRAKES, ACCELERATING OR TURNING. THIS IS ESPECIALLY TRUE IMMEDIATELY AFTER THE RAIN BEGINS AND THE OIL FROM THE ROAD SURFACE COMBINES WITH THE WATER.

When descending a long, steep grade, downshift and use engine compression together with intermittent application of both brakes to slow the motorcycle. Avoid continuous use of brakes to reduce overheating of the brakes and reduced efficiency.

While using the motorcycle in summer, pay special attention to the condition of the tires. Keep them inflated up to pressures specified in this manual.

RUNNING IN THE NEW MOTORCYCLE

The running-in period for the motorcycle is the first 2,500 km.

Since the Ural engine is a classic design, it is critical to observe this running-in procedure. Failure to do so could cause engine damage and void the warranty.

During the running-in period, a new motorcycle requires the most careful attention. In the course of this period, do not overload the machine. Avoid traveling on freeways and climbing steep hills. Do not race the engine or overheat it at any time. Vary the throttle setting frequently, so as to avoid constant RPMs. Allow the new engine frequent rest periods for cooling down.

Chapter 4

BRIEF DESCRIPTION OF DESIGN & MAINTENANCE

ENGINE

The motorcycle is equipped with a twin-cylinder four-stroke carburetor-type air-cooled engine. Opposed arrangement of cylinders in the horizontal plane is the outstanding feature of the motorcycle design which ensures proper cooling and balancing of the crank gear. The engine valves are located in the cylinder heads.

In summer, carefully observe the heating condition of the engine, power transmission units and the running gear mechanisms. Under normal heating conditions of the engine, the temperature of the cylinder heads should not be over 356°F-428°F/180°C-220°C.

Engine maintenance. During everyday preventive maintenance, clean the engine of mud and dust, paying special attention to the cooling fins as their fouling will impair the efficiency of the engine cooling. Check engine crankcase, cylinders and cylinder heads for leaks of oil and fuel.

Completely follow all maintenance intervals specified in the Service Coupons.

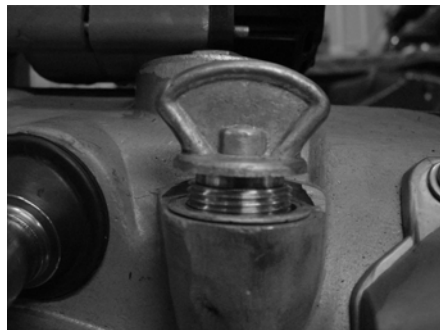
LUBRICATION SYSTEM

The motorcycle engine features a dual lubrication system, some parts are force-lubricated by pressure built up by the oil pump, while others by splashing . A full-flow paper oil filter is provided in the lubrication system to prolong the engine life.

Maintenance of lubrication system. During the daily inspection, check the oil level in the engine crankcase and top off the oil if necessary.

The oil dipstick has two grooves showing the lower and the upper oil level limits. In checking the oil level, wipe the dipstick and insert it into the crankcase *without screwing in the dipstick*.

The dipstick is positioned for correct oil level measurement.



Warm up the engine before changing the oil. Drain used oil from the engine and the oil filter cavity after having unscrewed the drain plug and filter plug. Change oil filter at the intervals shown in the service coupons. Set the rubber sealing bushing into the filter and fit the filter with the bushing onto the adapter of plug, then screw the latter into the front cover. Now screw in the plug. Fill the engine with 68 oz. oil, or until the top mark of the dipstick is reached.

Let the engine run for 3 - 5 min. Check the oil level again adding oil up to the top groove of the dipstick if needed. During motorcycle service, keep oil level in the engine crankcase close to the top groove of the oil dipstick. Don't ride the motorcycle if the oil level is below the lower mark of the dipstick, until sufficient oil is added to raise the oil level to the top mark.

Make sure that the dipstick is screwed down securely after measuring the oil level.

FUEL SYSTEM

The fuel system includes the gasoline tank, the three-way fuel valve with filter and two carburetors.

Fuel valve (petcock). The top threaded portion of the valve is screwed into the gasoline tank.

The lever has three positions: (See Pg. 16)

Down - Reserve

Horizontal - Off

Up - On

WARNING: FUEL VALVE SHOULD ALWAYS BE CLOSED WHEN ENGINE IS NOT RUNNING TO ENSURE AGAINST ACCIDENTALLY FLOODING ENGINE OR SURROUNDINGS WITH GASOLINE.

Note: To maintain a reserve supply, operate the motorcycle with the valve in the on position after refueling.

WARNING: FILL FUEL TANK SLOWLY TO PREVENT FUEL SPILLAGE. DO NOT OVERFILL ABOVE THE BOTTOM OF FILLER NECK INSERT. LEAVE AIR SPACE TO ALLOW FOR FUEL EXPANSION. FUEL EXPANSION CAN CAUSE OVERFLOW THROUGH THE FILLER CAP VENT ONTO SURROUNDING AREAS. AFTER REFUELING, MAKE SURE FILLER CAP IS SECURELY TIGHTENED.

Fuel system maintenance. Before a trip, check the tightness of gasoline piping joints, & proper functioning of throttle cables.

Check fastening and condition of the carburetor flanges. Run the engine and check for proper idle adjustment of the carburetors.

IGNITION SYSTEM

The ignition system incorporates the power supplies, ignition coil, Hall Effect pickup, electronic module, two spark plugs, a set of low and high voltage wires and the ignition switch.

For the electric circuit diagram of the motorcycle with electronic ignition system refer to Ignition System schematic diagram.

Ignition coil The ignition coil has two high voltage terminals, each supplying one of the cylinder spark plugs and operating in conjunction with the Hall Effect pickup.

Periodically, check all wires to be sure they aren't crimped or have loose connections.

Spark plugs. In certain situations, spark plugs can quickly foul with carbon or soot. The plugs can be cleaned but it is easier to put in a new set of plugs when on the road. We recommend that you purchase an extra set of these plugs from your Authorized Ural Dealer and carry them in the motorcycle at all times.

WARNING: *DO NOT OVER-TIGHTEN THE SPARK PLUG WHEN MOUNTING IT ON THE ENGINE, SINCE THIS COULD DAMAGE THE CYLINDER HEAD.*

Functioning of ignition system. Both plugs fire simultaneously on the left and right-hand cylinders, one spark being formed when the compression stroke terminates in one of the cylinders and the other during the exhaust stroke.

Chapter 5 CARBURETORS

32mm CVK Keihin Seike carburetors are used on of the Ural motorcycle for compliance with US EPA requirements. They are preset with fixed mixture jetting and adjust automatically for altitude variations. This is due to the vacuum activation mechanism of these constant velocity type carburetors.

WARNING: *TO AVOID SEVERE ENGINE DAMAGE, DO NOT MODIFY CARBURETOR SYNCHRONIZATION, JETS, OR THROTTLE LINKAGE. TAMPERING WITH THE CARBURETORS OR OTHER CRITICAL EMISSION ELEMENTS IS ALSO A FEDERAL OFFENSE AND MAY SUBJECT THE OFFENDER TO CIVIL PUNISHMENT AND FINES. THIS AIR COOLED ENGINE MUST ALWAYS RUN ON BOTH CYLINDERS AS EVENLY AS POSSIBLE. WHENEVER ONE CYLINDER IS NOT FIRING, STOP THE ENGINE AND DETERMINE THE CAUSE AND CORRECT IT BEFORE PROCEEDING.*



Enrichener off



Enrichener on

Use the enricheners only if needed to start a cold engine. Turn the enricheners off as soon as the engine has started to prevent the possible fouling of the spark plugs.

Chapter 6

POWER TRANSMISSION

The power transmission of the motorcycle is comprised of the clutch, gearbox, drive shaft and the final drive.

CLUTCH

The clutch transmits torque from the engine to the gearbox. Disengage the engine from the gearbox during shifting of the gears and during braking to a stop. The clutch provides for smooth starting of the motorcycle from rest, protects the power transmission parts against damage when the engine speed or drive wheel speed is suddenly changed. The clutch is of dry double-disk design. The clutch release mechanism is controlled by the lever on the left grip of the handle bar. With the clutch lever released, the engine is engaged to the gearbox. When the clutch lever is squeezed, the engine is disengaged from the gearbox. **Use the clutch lever for starting from rest and for gear shifting.** Under conditions of heavy traffic, when gears frequently have to be shifted, do not slip the clutch too much, as this will accelerate wear of the disks.

GEARBOX

The reverse gear should be engaged from neutral or first gear when the bike has come to a stop.

Shifting the gears is best accomplished by pushing down on the toe piece for first gear and to downshift from higher gears. To shift up into second, third and fourth gear, use the heel plate (with either heel or toe) and push down quickly and firmly.

CAUTION: Severe damage due to insufficient lubrication of gears, shafts and bearings can result if the oil level is allowed to get lower than the specified level.

FINAL DRIVE

Maintenance of propeller shaft splines and final drive.

Remove the final drive from the swing arm and pull the final drive towards the rear of the bike. When the drive shaft is free, coat the drive shaft splines with grease. At the same time, use a grease gun to force grease into the drive shaft universal joint.

Typical final drive maintenance includes tightening the nuts which fasten the final drive to the swinging fork arm. Failure to tighten the nuts may result in loose joints and the destruction of the final drive cover. Change the final drive oil as determined by the service coupons. Undo the filler and drain plugs and drain the used oil. Fill the casing with fresh 20w / 50 Castrol oil and flush the final drive by turning the rear wheel several times. Drain the 20w / 50 Castrol oil and then refill the final drive with the specified lubricant. (See lubrication list, chapter 11)

Chapter 7

RUNNING GEAR

MOTORCYCLE AND SIDECAR FRAMES

The frame is the principal bearing element of the motorcycle to which all the units and assemblies of the motorcycle are attached. The motorcycle is furnished with a twin closed frame of welded construction.

SPRING LOADED HYDRAULIC SHOCK ABSORBER

The suspension features cam-type adjusters used for varying the pretension of the supporting springs to suit the load and the road condition. The degree of tension of the springs is adjustable allowing two positions. The first (lower) position corresponds to the load due to the motorcycle's own mass, the driver's and one passenger's (sitting in the sidecar) mass; the second (upper) position of moving cam corresponds to the maximum load.

When the motorcycle is used under the maximum load, adjust the spring in the sidecar wheel shock absorber simultaneously while adjusting the compression of the spring in the motorcycle shock absorbers.

Care of shock absorbers. Fill the shock absorber with 105 cm³ of hydraulic fluid. Each time during maintenance, check the bolts fixing the top and bottom ends of the shock absorbers for tightness.

ADJUSTMENT OF SIDECAR INSTALLATION

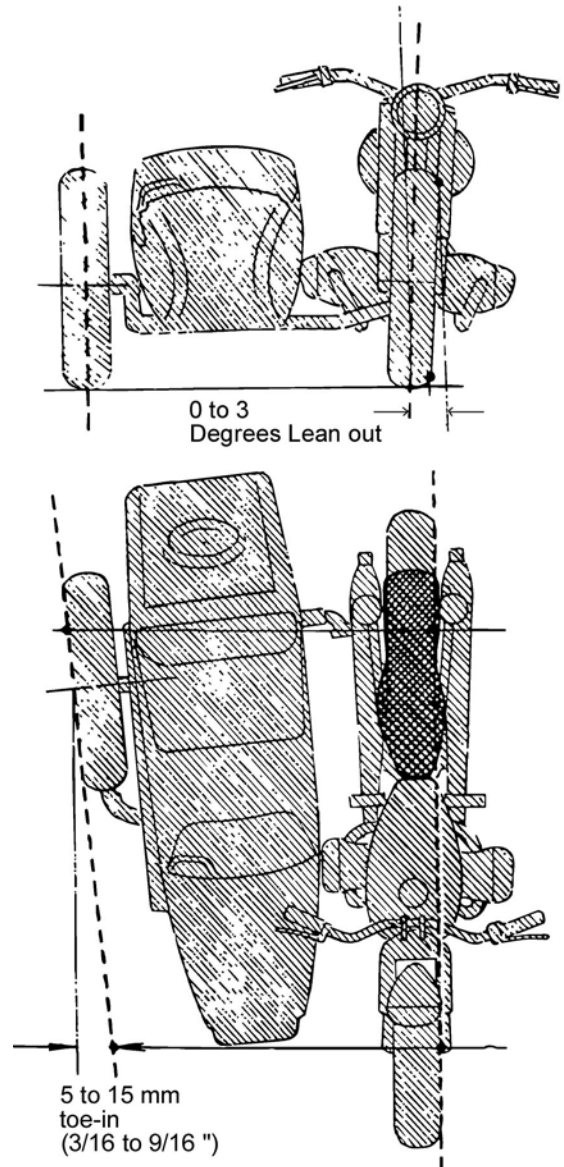
The sidecar should be installed in a definite position relative to the motorcycle. The position is determined by the camber and toe-in of the motorcycle and the sidecar wheels. An incorrectly aligned sidecar will drag the motorcycle to either side and cause extensive tire wear. If the motorcycle is not stable on the road or is difficult to steer, check the alignment. Checking and measuring the alignment should be done on level ground.

Check toe-in of the motorcycle and the sidecar wheels with two straight bars applied to the side faces of the wheels just below the axles. The toe-in should be 5 to 15 mm or 3/16 to 9/16 in. at the front wheel. When adjusting, unbolt the top of the slanting legs fastening the sidecar to the motorcycle, slacken off the bolt clamping the lower rear bracket, adjust the position of the bracket relative to the rear tube of the sidecar frame to obtain necessary toe-in of the wheels. Tighten up the bolt fastening the bracket, adjust the length of the legs and secure them with bolts.

Check the lean-out of the motorcycle using a level gauge or protractor with a plumb bob and a ruler. Adjust the two inclined legs by screwing the forks in or out. When the lean-out is correct, the rider will remain vertical while riding on the local roads which may be slightly sloped to assist with water runoff.

Check the toe-in while the motorcycle is running on the road. With the toe-in properly adjusted, the motorcycle will not pull to either side while running at normal road speed. If it pulls to the right, increase the toe-in, if it pulls to the left, decrease the toe-in.

CAUTION: Double check for correct toe-in before making any change to lean-out.



FRONT FORK

The **telescopic front fork** used on the Cruiser models is equipped with inside springs and the double-acting hydraulic shock absorber.

The **leading link front fork** used on the Tourist and Patrol models use a front lever-type fork with two interchangeable spring-hydraulic shock absorbers.

The friction type **steering damper** is made up of two steel washers, moving and fixed, two fiber washers and tightening bolt with a head. Friction between the steel and the fiber washers makes turning of the front fork more difficult.

WARNING: *Do NOT OVER TIGHTEN THE STEERING DAMPER SINCE THE MOTORCYCLE WILL BECOME VERY DIFFICULT TO HANDLE.*

STEERING HEAD BEARINGS

The steering head bearings must be adjusted periodically to avoid excessive play which might cause steering instability. When properly adjusted, the front fork should turn with just a hint of bearing drag, but not free play or obvious resistance to turning.

WARNING: *IMPROPER ADJUSTMENT OF THE STEERING HEAD (E.G. TOO TIGHT) WILL MAKE THE MOTORCYCLE VERY DIFFICULT TO STEER. THIS ADJUSTMENT IS CRITICAL FOR PROPER HANDLING OF ALL MODELS.*

Chapter 8

WHEELS AND TIRES

The Ural motorcycle is equipped with easily demountable interchangeable wheels with the cast (aluminum) brake drum on short spokes of the same size. Inner splines provided at the right-hand side of the hub receive the splined end of the final drive hub in case the wheel is used as a drive wheel. The bearings are packed with grease (refer to lubricant chart).

Removing wheels. To remove the front wheel, set the motorcycle on its stand, lift it by the front wheel and put a rest under the front portion of the motorcycle frame. (You may want to purchase a scissor jack or bottle jack to carry along in the sidecar storage compartment. This will make it easier to change any of the three wheels on the rig.) Turn home the adjusting screw of the front brake cable and install it so that the screw slot falls onto that of the bracket head. Pull the brake lever up, take the cable enclosure end out of the notch in the adjusting screw and extract the cable through the slots of the screw and the bracket. Bring the hand brake cable end out of the hole in the brake lever making the cable match the lever slot. Slacken the nut of the union bolt at the end-piece base of the fork left-hand leg. Screw out the axle turning it clockwise (left-hand thread) and remove the wheel together with the front brake.

To reinstall the front wheel on the motorcycle follow the reverse order of the above operations seeing to it that the torque stop on the brake cover encompasses the right-hand leg of the fork.

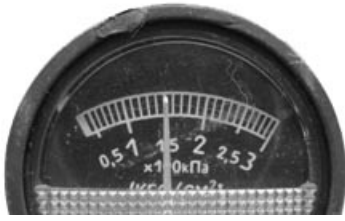
To remove the rear wheel of the motorcycle, lift the motorcycle onto the center stand. Undo the rear wheel axle nut and take it off together with the washer, slacken off the nut on the union bolt of the left-hand leg of the swinging arm, pull out the rear wheel axle with the help of a wrench bar and remove the wheel.

To reinstall the wheel on the motorcycle follow the reverse order of operations. Prior to reassembling, wipe the axle and grease it. Fitting the rear axle, turn it as you push it in to avoid jamming.

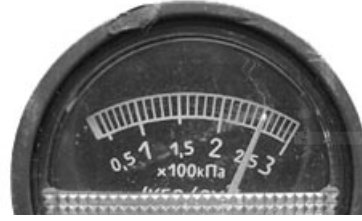
To remove the spare wheel, use the wrench from the tool kit that has two studs that fit the two holes in the round nut holding the luggage rack down.

Care should be taken to keep tires properly inflated. Check before riding when tires are cold. Do not over-inflate tires.

WARNING: *IMPROPER TIRE INFLATION WILL CAUSE ABNORMAL TREAD WEAR AND COULD RESULT IN UNSTABLE HANDLING. UNDER-INFLATION COULD RESULT IN THE TIRE SLIPPING ON THE RIM.*



1.5 Bar



2.5 Bar



or 150 kPa

**Front & Sidecar
tire pressure**



or 250 kPa

**Rear
tire pressure**

Check inflation pressure and inspect tread for punctures, cuts, breaks, etc., at least weekly if in daily use or before each trip, if used occasionally.

WARNING: RIDING WITH EXCESSIVELY WORN, UNBALANCED OR IMPROPERLY INFLATED TIRES IS HAZARDOUS AND WILL ADVERSELY AFFECT TRACTION, STEERING AND HANDLING. SAME AS ORIGINAL EQUIPMENT TIRES MUST BE USED. OTHER TIRES MAY NOT FIT CORRECTLY AND MAY BE HAZARDOUS TO USE.

BECAUSE TIRES, TUBES AND WHEELS ARE CRITICAL SAFETY ITEMS AND SERVICING OF THESE ITEMS REQUIRES SPECIAL TOOLS AND SKILLS, WE RECOMMEND YOU SEE YOUR URAL DEALER FOR THESE SERVICES.

TIRE DATA

WARNING: FOR YOUR OWN PERSONAL SAFETY, TIRES AND TUBES MUST BE CORRECTLY MATCHED TO WHEEL RIMS. SEE YOUR AUTHORIZED URAL DEALER FOR FURTHER INFORMATION. MISMATCHING TIRES, TUBES AND RIMS MAY RESULT IN DAMAGE TO THE TIRE BEAD DURING MOUNTING OR MAY ALLOW THE TIRE TO SLIP ON THE RIM, POSSIBLE CAUSING TIRE FAILURE. IN ADDITION, USING TIRES OTHER THAN THOSE SPECIFIED MAY ADVERSELY AFFECT MOTORCYCLE STABILITY. PROTECTIVE RUBBER RIM STRIPS MUST BE USED. TIRE SIZES ARE MOLDED ON THE TIRE SIDEWALL. TUBE SIZES ARE PRINTED ON THE TUBE.

URAL tires that have been tested by the manufacturer to ensure compliance with DOT requirements are available from your Authorized Ural Dealer.

The following tire data labels are mounted on the front frame of your Ural.

For motorcycle with sidecar accessory 19" tire

Front: 491 lb. (223 kg) with 4.00 x 19 tire, 19 x 3.00 rim, at 22 psi cold (1.5 Bar)

Side: 304 lb. (138 kg) with 4.00 x 19 tire, 19 x 3.00 rim, at 22 psi cold (1.5 Bar)

Rear: 577 lb. (262 kg) with 4.00 x 19 tire, 19 x 3.00 rim, at 36 psi cold (2.5 Bar)

For motorcycle with sidecar accessory 18" tire

Front: 491 lb. (223 kg) with 3.50 x 18 tire, 18 x 3.00 rim, at 22 psi cold (1.5 Bar)

Side: 304 lb. (138 kg) with 3.50 x 18 tire, 18 x 3.00 rim, at 22 psi cold (1.5 Bar)

Rear: 577 lb. (262 kg) with 3.50 x 18 tire, 18 x 3.00 rim, at 36 psi cold (2.5 Bar)

WARNING: *MAXIMUM INFLATION PRESSURE MUST NOT EXCEED SPECIFICATION ON TIRE SIDEWALL.*

WARNING: *WHEN TIRES ARE WORN TO A TIRE CENTER TREAD DEPTHS OF 3/32 IN, THEY SHOULD BE REPLACED.*

RUNNING GEAR MAINTENANCE

During the pre-trip inspection, check air pressure in the tires (chapter 1).

Check assembly units and parts for safe fastening, be sure to tighten the fasteners and eliminate play as soon as they get loose or demonstrate excessive play.

While lubricating, consult the Lubrication Chart in chapter 11.

When servicing, do the following maintenance as per the service coupons.

Check the tension and condition of the wheel spokes (do this with wheels jacked up)

WARNING: *WHEEL TRUING INVOLVING MORE THAN 2 TURNS OF ANY SPOKE NIPPLE SHOULD BE ACCOMPLISHED WITH THE TIRE DISMANTLED SO THAT SPOKE ENDS CAN BE CHECKED TO ENSURE NO SPOKES PROTRUDE INTO THE INNER TUBE.*

Check the condition of the motorcycle, toe-in of the sidecar, the lean-out angle of the motorcycle.

Chapter 9

CONTROLS & INSTRUMENTS

HANDLE BAR AND CONTROLS

The handle bar is mounted on the front fork through two brackets secured on the cross-piece of the front fork. The handle bar is adjustable in the brackets.

The throttle control twist grip is linked to the carburetor throttles by flexible control cables. The clutch lever is linked to the clutch release arm by a cable. The front brake lever is connected by the cable to the lever mounted on the front brake drum cover.

BRAKES

The motorcycle is equipped with shoe-type brakes. The brake consists of a drum, a drum cover, shoes and lever activated cams.

The **front wheel brake** is of the double-cam type.

The brake shoes are provided with adjusting bolts to compensate for the wear of the shoe linings. The adjusting bolts of the brake shoes may be used for adjusting the gap between the brake shoes and the brake drum.

For optimal performance of the brake, tighten the brake cable adjuster until there is just the slightest drag on the wheel. Then back off the adjustment 1 or 2 turns.

For checking the gap, the cover of the brake drum and final drive crankcase are provided with an inspection hole, closed with a rubber plug.

The **sidecar wheel brake** is connected to the rear brake pedal.

The sidecar brake drum cover is secured on the sidecar wheel axle and is held from rotation by a torque stop. Sidecar brake shoes are interchangeable with the motorcycle brake shoes.

The **rear wheel brake** is mounted in the final drive case.

BRAKE ADJUSTMENT

The front wheel brake is adjusted by an adjusting screw located on the drum cover. The foot brake is adjusted by an adjusting nut situated on the rear end of the brake tie rods.

Proceed to adjustment of the foot brake starting from the rear wheel, having first slackened the nut on the tie rod of the sidecar wheel brake. Then adjust the sidecar wheel brake by tightening the nut on the brake tie rod. After the foot brake has been adjusted properly, back up the nut on the tie rod of the sidecar wheel brake by 2-3 turns to keep it from pulling to the right when applying the brake.

Brakes should be “burnished in” during the initial running in period. Follow burnishing procedures carefully. Make approximately 100 stops using 75% of full braking power. This can be done over several periods and need not be done in one session. Choose an area with clean, dry pavement and no obstructions. Travel in a straight line and apply both the hand (front) brake as well as the foot (rear and sidecar) brakes.

After burnishing the brake shoes, adjust your brakes on each wheel to reduce the gap between shoes and drums. This procedure will ensure maximum braking performance during the running-in period and is essential before raising your top speed, after your Ural has been carefully run in (after 2,500 km).

WARNING: *BECAUSE BRAKE PERFORMANCE IS A CRITICAL SAFETY ITEM, WE RECOMMEND THAT YOU SEE YOUR URAL DEALER FOR THESE SERVICES.*

BRAKES MUST BE INSPECTED FOR WEAR AS PER THE SERVICE COUPONS *IF THE BRAKE SHOE FRICTION MATERIAL IS 1/16 IN. THICK OR LESS (THE THICKNESS OF A NICKEL) THE SHOES MUST BE REPLACED IMMEDIATELY. FAILURE TO REPLACE SHOES WHEN NECESSARY COULD RESULT IN BRAKE MALFUNCTION AND PERSONAL INJURY. IF YOU RIDE UNDER ADVERSE CONDITIONS, STEEP HILLS, HEAVY TRAFFIC, ETC., MORE FREQUENT INSPECTION, 1,000 KM OR LESS, WILL BE NECESSARY. FOR THE MOST EFFECTIVE BRAKING EFFECT WE DO NOT RECOMMEND USING THE REAR BRAKE ONLY.*

CONTROL CABLE ADJUSTMENT

The control cables are adjusted by screw adjustments at the cable ends.

With the control levers released:

- for the clutch a play at the clutch lever end should be equal to 5 - 8 mm/0.2 - 0.3 in.
- for the brakes 5 - 8 mm/0.2 - 0.3 in. play of the front brake control lever and a play of the rear brake pedal equal to about 25 - 30 mm/1 - 1.2 in. of the full stroke of the pedal are required
- for the carburetors - carburetor throttle cables synchronized

With the control levers (handles) fully depressed:

- for the clutch — complete disengagement of the engine from the transmission; noiseless shifting of gears means good adjustment of the clutch cable.
- for the carburetors — lift of throttles to the maximum and equal height

- for the brakes — effective braking of the motorcycle before the levers reach their limits.

The brakes are checked when the fully laden motorcycle is running on dry asphalt or concrete pavement. This check is done at a slow speed.

CONTROL CABLE MAINTENANCE

The daily preventative maintenance involves checking the functioning, condition and fastening of the tie rods, cables and braking action. Refer to the Service Coupons for lubrication schedule.

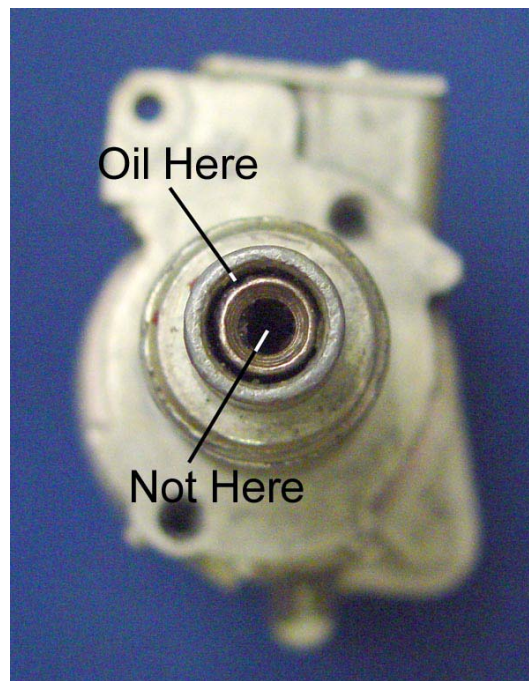
As per the service coupons;

- check the condition of the brakes
- clean the brake shoes and the active surface of the brake drums
- lubricate the hinge pins and the cams of the brake linings, the joints, the linkage of the rear and sidecar wheel brakes, the lever axle, the parking brake, the throttle control twist grip, the lever pins and ends of cables used in the clutch, the front brake control, the control cables used in the clutch, the front brake and the throttles.

SPEEDOMETER

The speedometer scale is illuminated with two lamps. The speedometer is driven by the main shaft of the gearbox via a flexible shaft.

After every 10,000 km, remove the speedometer from the motorcycle and add five or six drops of oil into the speedometer where the cable inserts into the speedometer. This will lubricate the speedometer internally.



Chapter 10

ELECTRICAL EQUIPMENT

The electrical equipment of the motorcycle includes power supplies, auxiliary instruments and electric wiring.

Electric power supplies are a battery and an alternator with a built-in rectifier.

A single wire system is used for wiring the electric circuits, i.e. a single wire carries power to the electrical devices and the frame and engine serve as the second wire (called the “ground”). The negative pole of the battery is connected to the motorcycle frame through the battery master switch. The alternator makes electrical contact to the motorcycle engine and frame through its mounting bolts.

Battery supplies electric power to all the systems of the motorcycle when the engine (and alternator) have stopped. For maintenance information refer to the separate section in chapter 11.

An alternator with built-in rectifier is driven by the engine camshaft driven gear. The alternator is secured with two studs on the engine crankcase. At the drive side, the alternator cover is so designed that by turning the alternator on the studs, the backlash adjustment of the gear mesh gap can be made.

Electric horn. The motorcycle is equipped with a horn which sounds when the ignition is on and the horn button is pressed. The horn can be tuned for loudest performance with an adjusting screw located at the rear portion of the horn body.

Headlight. A 7" diameter DOT approved sealed beam headlight is used on the US Ural. Adjust it so that the high-beam is horizontal when the motorcycle is in its normal loaded condition.

The **stop light switch** is secured on the frame bracket by means of two nuts. If the stop light either stays on or doesn't come on, loosen the nuts and adjust the stop light switch position either up or down on the frame & retightening the two nuts.

The **master battery switch** serves for disconnection of all the motorcycle systems from the storage battery for a long-term parking. The switch is located under the seat.



Master Switch

Electrical Symbols

Diode

The diode is a solid state device which passes electricity in one direction only. Electrons flow through the diode against the direction of the arrow. Diodes typically use 0.7 volts to pass electricity.

Push Button Switch

When the button on the push button switch is pressed, the bar moves down to make a path for the electricity between the two contacts.

Single Pole Double Throw Switch

The switch carries electricity from a single input to none, or one of two possible outputs.

Shorting Switch

The switch carries electricity from a single input to none, one, or both outputs.

Single Pole Triple Throw Switch

The switch carries electricity from a single output to one of three possible outputs. If two or more switches are ganged, then they move together with each other.

Resistor

Passive device used to reduce the flow of electricity from one part of a circuit to another.

Coil

Many turns of wire which act as an electromagnet when electricity flows through the wire.

Fuse

A fuse is a fusible link of metal that is designed to melt if more than the rated amount of power is passed through the device. The melting of the fuse will immediately stop the flow of electricity in a circuit. Fuses are rated in "Amps"

Electrical Circuits

Lead acid batteries such as those found in motorcycles are designed for a charging voltage of 14.25 volts. Batteries which are subjected to greater than 14.25 volts for extended periods of time can suffer permanent damage due to the electrolyte boiling dry. Charging voltage of less than 14.25 volts will result in an inadequate charge delivered to the battery.

Automotive batteries operate at 12 volts. This is not enough voltage to harm people in any way. However, the battery stores a huge amount of electricity in the form of electrons. If the electrons are allowed to flow from the battery without restriction, then the wires carrying the electricity will become hot enough to melt. The melting wires are extremely dangerous and can easily burn you.

Most problems in automotive electrical circuits are caused by poor connections. Make sure that all

connection points are clean and tight.

If the flow of electricity through a wire is interrupted due to a break in the wire or a poor connection, then the circuit is said to be “an open circuit”

The flow of electricity through a circuit always takes the path of least resistance. If there is an accidental path of extremely low resistance created in a circuit, the circuit is said to have a “short circuit” A short circuit will usually result in the melting of the fuse protecting that circuit.

ELECTRICAL EQUIPMENT MAINTENANCE

During the daily preventive inspection, check the functioning and the condition of the electrical equipment. Inspect and or replace the spark plugs and ignition leads as required in the Service Coupons. The gap is readjusted by bending the end of the side electrode.

Care of alternator. In the course of daily inspection, check the fastening of wires to the alternator terminals, fastening of the alternator on the engine crankcase, backlash of the gears (by listening). In case of too little backlash of the drive gear, excessive wear and overheating of the alternator bearings take place.

Check for proper tightening of:

- nuts of the binding post bolts
- the alternator clamping screws
- the alternator fastening nuts

as often as outlined in the Service Coupons.

Electronic Ignition

The electronic ignition system will provide the spark to the spark plugs from 200 to 6000 RPM. With the engine at rest, the ignition system will draw 100 mA. With the engine running, the ignition system will draw 1.5 Amps. The operating voltage for the ignition system ranges between 7 to 16 Volts.

The electronic ignition system will automatically provide the required changes in timing to an accuracy of within + 1°.

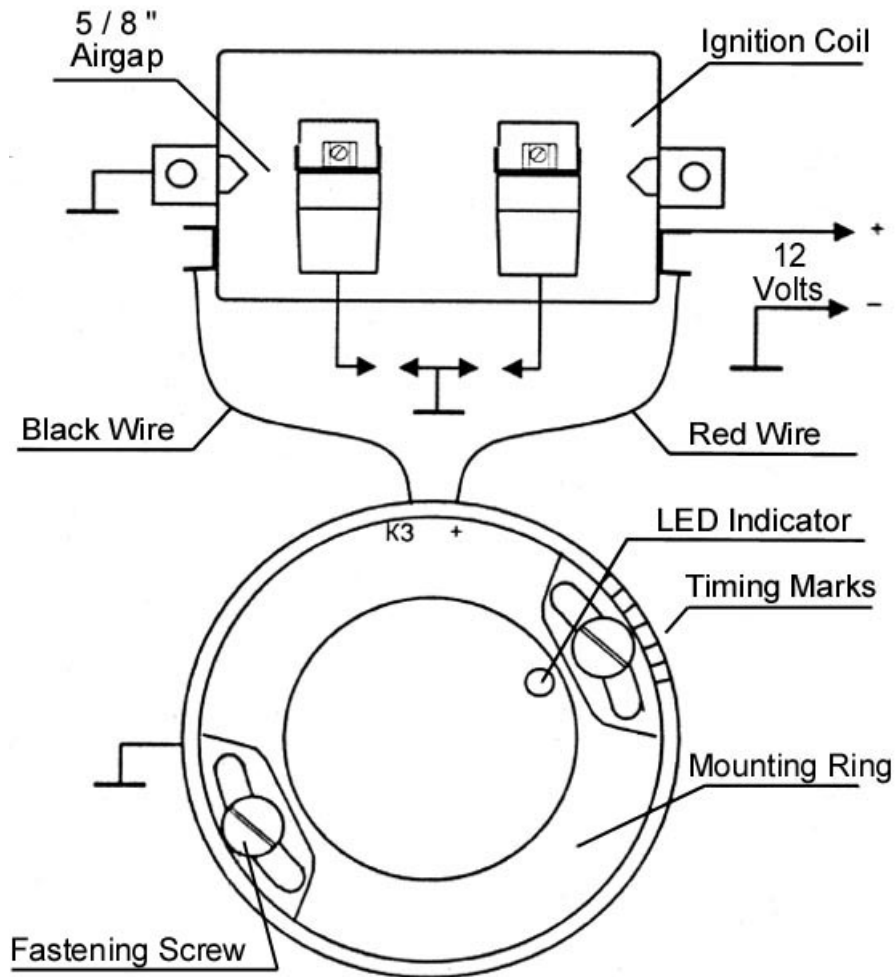
The system is able to operate within the temperature range of -50° C to +100°C.

The best performance from the ignition system is achieved when it is used in combination with the original 135.3705-2 type ignition coil.

Ignition Timing

To set the ignition timing, proceed as follows:

- Match the first mark on the flywheel with the center marks on the engine flywheel window.
- Loosen the fastening screws of the microprocessor unit and turn it counterclockwise until it stops.
- Apply power to the ignition system by switching the ignition on.
- Slowly turn the ignition unit clockwise, (the LED should be on)
- Stop turning the microprocessor unit when the LED turns off.
- Tighten the fastening screws of the microprocessor unit and switch the ignition off.



Electronic Ignition Components



Microprocessor Unit



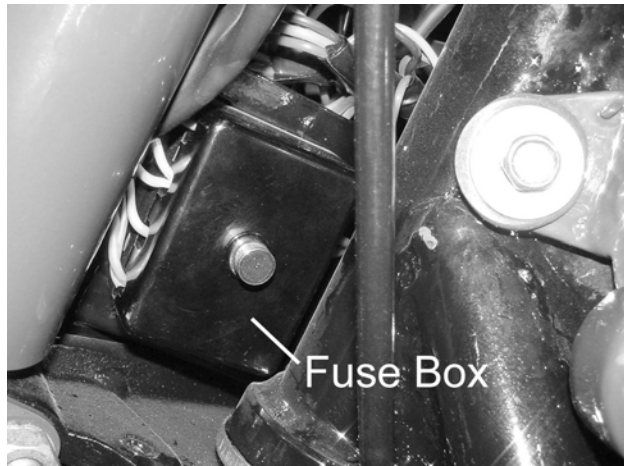
Interrupter



Ignition Coil



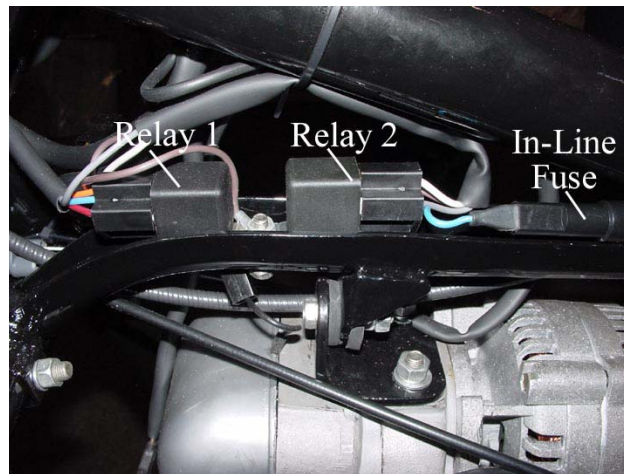
Base Plate



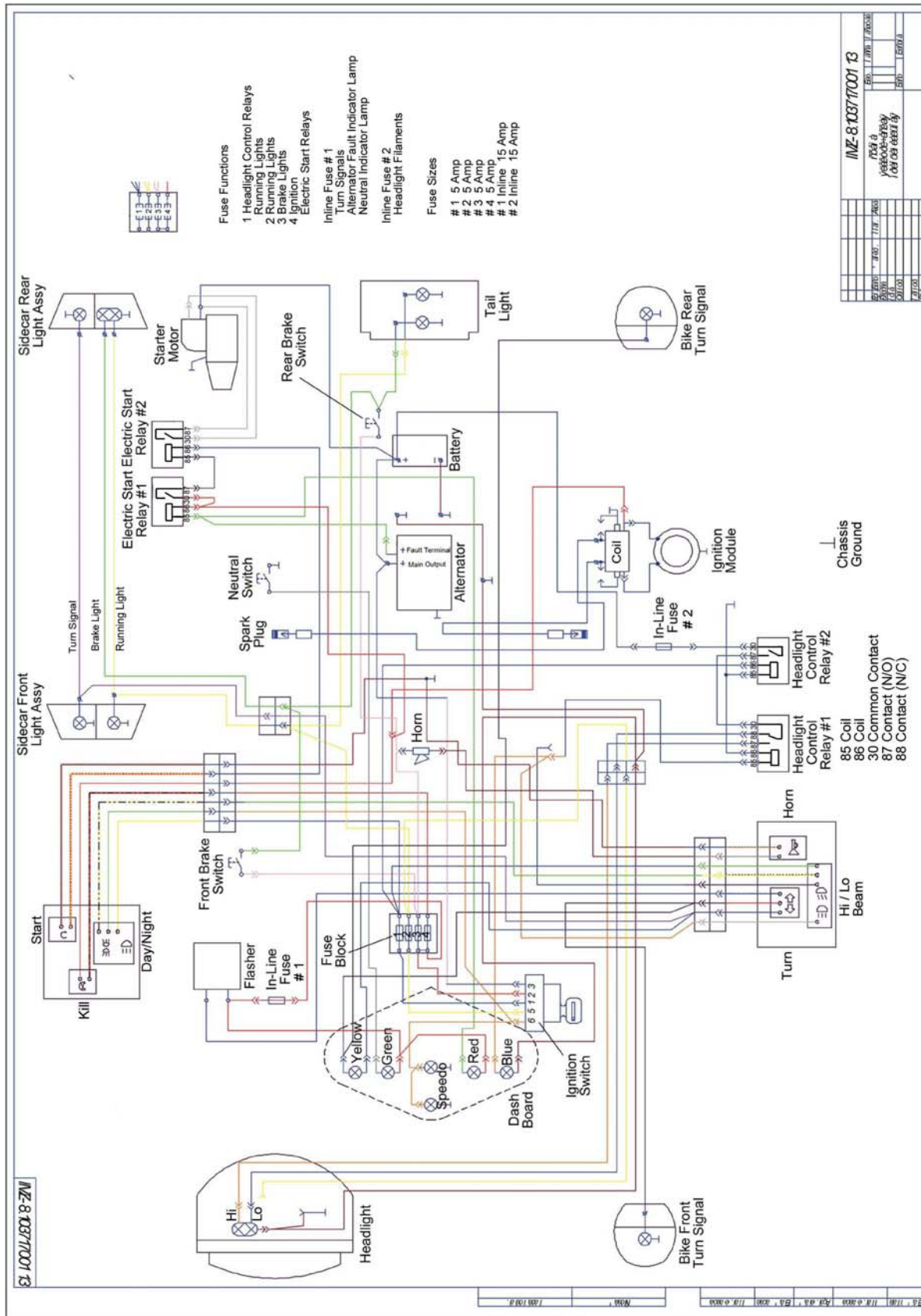
The fuse box is located beside the left front fork.



The #1 in-line fuse is located behind the headlight.



The headlight control relays # 1 & 2 and in-line fuse # 2 are located underneath the fuel tank.



Please note that a color version of this diagram is available with the maintenance CD set available from your dealer, or on line at WWW.URAL.COM

Chapter 11

MAINTENANCE OF MOTORCYCLE

Maintenance should be performed after the specified total kilometers run irrespective of the technical condition of the motorcycle.

Different service duties and technical condition of the motorcycle may necessitate a change in the intervals.

The Lubrication Chart indicating lubrication points of the motorcycle is given in Fig. 35. A summary of lubrication maintenance is given in the lubrication chart.

Cosmetic Maintenance

The enjoyment and resale value of your vehicle is greatly enhanced by consideration to the “look” and cosmetic perfection of your vehicle. Due to the numerous metal surfaces on a sidecar rig, special care must be taken to prevent rust from occurring and/or to removed any rust or oxidation.

LIST OF RECOMMENDED LUBRICANTS

Lubrication Area	Detergent Oil Quantity
Engine	20w/50 Castrol 68 oz. (2.0 L) ¹
Transmission	20w/50 Castrol 34 oz. (1.0 L) ²
Single Wheel Final Drive	80/90 wt.Gearlube 3.5 oz. (105 ml)
Dual Wheel Final Drive	80/90 wt.Gearlube 4.5 oz. (135 ml)

1 68 ozs is an approximate measure. The exact oil quantity will be whatever is required to bring the oil level at the top mark of the dip-stick.

2 34 ozs is an approximate measure. The exact oil quantity will be whatever is required to bring the oil level up to the bottom thread of the transmission oil filler hole.

Note: Since the Ural engine is of a classic design, some leakage, seepage or dripping of oil and/or other lubricants is normal. It is not indicative of any malfunctioning and therefore is not covered as a warranty item unless motorcycle operation or safety are materially affected.

ENGINE
OIL FILL

GEARBOX
OIL FILL

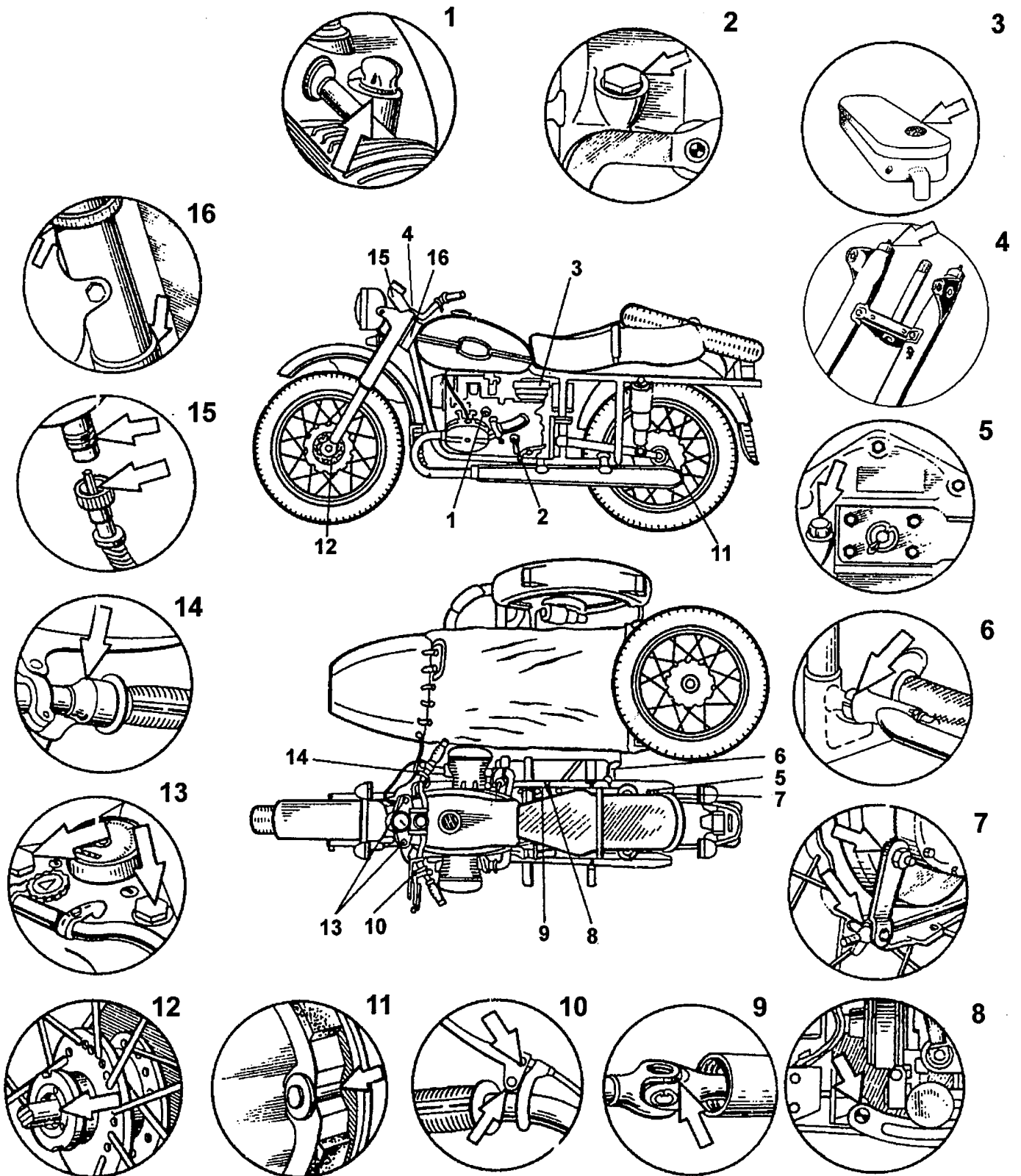


Fig. 35. Lubrication Chart

LUBRICATION CHART

ITEM	PART TO BE LUBRICATED	LUBRICANT
1	Engine crankcase	20W/50 Detergent Oil
2	Transmission	20W/50 Detergent Oil
3	Air cleaner	None
4	Telescopic forks	5wt-10wt Fork Oil
5	Final Drive	80/90 Gear oil
6	Hinges of sidecar collet joint	Spindle oil & WD-40
7	Brake system hinge joints	Spindle oil & WD-40
8	Brake pedal shaft	Grease
9	Drive shaft universal joint	Grease
10	Lever pins & end pieces of clutch & hand brake cables	Grease
11	Pins & cams of brake shoes	Grease
12	Wheel bearing	Grease
13	Front forks	Spindle oil & WD-40
14	Carburetor throttle control twist grip	Grease
15	Speedometer flexible drive cable & speedometer axle	Spindle oil
16	Steering column bearings	Grease

REQUIRED LUBRICATION

The Ural has been certified for EPA with **premium grade SAE 20W/50 petroleum detergent oil**. This oil has been used in both the engine and transmission.

CARE OF MOTORCYCLE PAINT

When washing the motorcycle, use a weak stream of cold or slightly heated water. Never use a pressure washer! Do not remove dust and mud by rubbing the surface with a dry cloth as sand particles will degrade the surface and the paint will rapidly lose its brilliance. While washing, do not use soda solution, kerosene, citric acids or mineral oils. If the surface is stained with mineral oil, degrease by wiping with a rag. If after removal of mud and dust with a jet of water, some dirt is left on the surface, remove it with the help of a sponge, a soft hair brush or a flannel and water, but not allowing separate water drops to dry out on the surface. Finally, polish the painted surfaces with a dry soft flannel.

To repair painted areas, each motorcycle is furnished with a bottle of matching touch up paint.

For patching proceed as follows:

- clean the surface with turpentine
- rub the damaged spot with a waterproof abrasive cloth and water rub thoroughly
- paint using a soft brush or a spray gun.

After patching let the surface dry in air for 15 min, then proceed with drying at 212°F-248°F/ 100°C-120°C with the aid of heat reflector or an electric lamp until the coat is perfectly dry.

Bear in mind that enamels are flammable. Color match may not be perfect due to humidity, fading, temperature and other variables.

The painted surfaces of the motorcycle feature natural gloss. In case some dull spots appear, remedy them by polishing as follows. Take a solution of wax polishing compound and having washed the dull spots thoroughly, smear a thin film of the compound with a soft wad (cotton, cotton gauze or flannel) over the surface. Rub the polishing compound making circular motions with the wad. In 3 - 5 min. of drying, wipe the surface with a clean dry piece of cloth or flannel until luster appears.

PRESERVATION AND STORAGE

If the motorcycle is put in storage for the season, arrange it on supports and proceed with the preservation treatment. Check that the wheel tire pressure is within specifications. Store the motorcycle away from acids, alkalis, mineral fertilizers and other harmful substances.

Prior to placing it in storage, clean the bike thoroughly, drain the carburetors, or start the engine and let it run with the gasoline cock closed to remove gasoline in the float chambers of carburetors.

Then spray storage oil (WD40) into each cylinder through the spark plug holes. Turn the crankshaft by depressing the kick lever pedal to distribute lubricant over the interior of the cylinders. Lubricate the surfaces of chrome and zinc plated parts with a rust inhibitor. Smear all the points provided with grease cups with commercial grease. Seal the outlet holes of the mufflers.

Before starting a trip on the motorcycle that was under preservation, proceed with the jobs listed in the section "Pre-Trip Preliminaries".

Winter Considerations

Motorists in many areas of the US experience the use of salt and other chemicals that are applied to road surfaces in the winter.

Salt or other caustic chemicals should always be removed from your bike's surfaces with fresh water as soon as possible.

Undercoating of fenders is recommended for those areas with salt and/or fine gravel or sand. See your dealer for details.

BATTERY

Storage batteries on the motorcycle should function at ambient air temperature from -40°C to plus 60°C/ 40°F to 140°F.

As the battery is in service:

- regularly check the voltage for 13.8 - 14.2 V
- do not allow the battery to discharge.
- use only distilled water to maintain the normal level of electrolyte.
- coat bolts, nuts, washers and tips with petroleum jelly or battery grease. Use two wrenches for clamping or undoing the nuts to avoid breaking battery parts.

Do not short the terminals together to check for sparking.

Before storage, fully charge the batteries, wash the battery surface with water and wipe dry, clean the bolts and nuts of dirt.

WARNING: BATTERIES CONTAIN SULFURIC ACID WHICH CAN CAUSE SEVERE BURNS. AVOID CONTACT WITH SKIN, EYES OR CLOTHING. **ANTIDOTE:** EXTERNAL — FLUSH WITH WATER. INTERNAL — DRINK LARGE QUANTITIES OF WATER FOLLOWED BY MILK OF MAGNESIA, VEGETABLE OIL, OR BEATEN EGGS. CALL DOCTOR IMMEDIATELY.

Caution: When charging the battery, disconnect the positive terminal (+) from the battery to prevent damage to the electrical components ***Never jump-start the motorcycle!***

WARNING: BATTERIES PRODUCE EXPLOSIVE HYDROGEN GAS AT ALL TIMES — ESPECIALLY WHEN BEING CHARGED. KEEP CIGARETTES, OPEN FLAME, AND SPARKS AWAY FROM BATTERY AT ALL TIMES. VENTILATE AREA WHEN CHARGING BATTERY. ALWAYS PROTECT HANDS AND PROTECT EYES WITH SHIELD OR GOGGLES WHEN WORKING NEAR A BATTERY OR ACID. **KEEP BATTERIES AND ACID OUT OF THE REACH OF CHILDREN!**

CAUTION: If battery is filled to a higher level than specified, some of the solution will be forced out through the vent tube when battery is charging. This will not only weaken the solution, but also may damage parts near the battery. To prevent battery case damage caused by pressure build-up, be sure vent tube is properly routed and not kinked or obstructed.

LIST OF INDIVIDUAL TOOL SET, SPARE PARTS, ACCESSORIES & DOCUMENTS

DESCRIPTION	QTY	DESCRIPTION	QTY
Tools			
Accessories			
1. Wrench 7 x 8	1	1. Air Pump	1
2. Wrench 10 x 12	1	2. Air Pressure Gauge	1
3. Wrench 13 x 14	1	3. Ignition keys	2
4. Wrench 14 x 17	1		
5. Wrench 19 x 22	1		
6. Socket wrench 10 x 12	1		

7. Socket wrench 10 x 13	1
8. Socket wrench 19 x 21	1
9. Wrench 27 mm	1
10. Double head wrench	1
11. Spanner wrench	1
12. Spanner wrench assembly	1
13. Screwdriver 150 mm	1
14. Screwdriver 100 mm	1
15. Punch	1
16. Allen wrench	1
17. 22mm Round wrench	1
(Patrol only)	

Set of Spares

1. Oil filter element	1
2. Fuses	2
3. Touch up paint	1

Documents

1. <i>Owner's Manual</i>	1
2. <i>Driving the URAL Sidecar Motorcycle</i>	1

Note

Be advised that the tool kit is currently under re-development and will be sourced from a different supplier in the near future. Please allow sufficient time for the kits to be produced and stocked, at which time CMSI will be pleased to make the new kit available to our customers. Check with your local dealer for kit availability. We thank you for your patience in this matter!

Chapter 12

PATROL MOTORCYCLE WITH ENGAGEABLE SIDECAR DRIVE

DESCRIPTION

When engaged by the operator for “off-road” use, the sidecar wheel is driven by a drive shaft connected with the motorcycle main drive with a universal joint.



Sidecar Drive Disengaged



Sidecar Drive Engaged

NOTE: *the sidecar drive should only be engaged when the motorcycle is stopped, and only when venturing “off-road”*

HANDLING DIFFERENCES FROM THE SINGLE WHEEL DRIVE

When the sidecar wheel is engaged, the motorcycle handles differently from the standard (single wheel drive) motorcycle. When the rear wheel and sidecar wheel are “locked” together on paved surfaces, maneuvering is very difficult. Forcing the rig to turn on paved surfaces with the sidecar drive engaged is extremely hazardous and can result in loss of control of the motorcycle. It also voids the warranty.

The dual wheel drive should be engaged whenever poor traction is encountered in any off-road condition such as mud, snow, streams, rocks, gravel, loose dirt, sand, etc. In these conditions the extra traction afforded by the sidecar wheel will be very helpful, especially if some weight is also added to the sidecar. Some difficulty in making sharp turns may still be noticed.

SIDECAR MAINTENANCE

Check before driving that the final drive swing arm, propeller shaft fork and sun gear flange are bolted tightly.

Grease the drive shaft splines sufficiently as outlined in the service coupons. Do not over grease the drive shaft splines as this may prevent the drive shaft from moving freely in the hub.

The sidecar wheel bearing requires no maintenance.

Chapter 13

LEARNING TO RIDE THE URAL MOTORCYCLE WITH SIDECAR ACCESSORY

The Ural sidecar motorcycle, since it has three wheels, behaves quite differently from either a solo motorcycle or a car. For these reasons the following label has been attached to your motorcycle tank:

WARNING: *LEFT-HAND AND RIGHT-HAND TURNS MAY BE DANGEROUS. EXCESSIVE SPEED AND AN UNWEIGHTED SIDECAR MUST BE AVOIDED. READ AND PRACTICE THE TECHNIQUES IN THE PROVIDED “DRIVING THE URAL SIDECAR.”*

The bottom line is that, like any other motor vehicle, if the Ural is driven beyond its design limits, you can get hurt. Properly driven, since you have the added stability of the third wheel in case of sand, ice or slippery road conditions, the Ural will give you a much safer ride than a solo motorcycle.

Finally, you will enjoy the fact that the Ural will not expose you to tipping over at stop signs, which has happened all too frequently to beginners as well as experienced solo motorcycle drivers.

Even though special skills are required, these skills are not difficult to master. They are clearly defined in the *Driving the URAL Sidecar Motorcycle* manual.

This manual is included with each new Ural sidecar motorcycle outfit. Before driving your new Ural, carefully study this manual from cover-to-cover, fill in the exam questions, review the manual to check your answers and practice all the maneuvers outlined in the manual before going out into traffic.

If possible, an experienced sidecar driver (preferably your Authorized Ural dealer) should ride along during your first ride. If not, put about 100 LB of ballast in the sidecar during your initial training. Although an experienced driver can safely drive the Ural with an empty sidecar a beginner should always have ballast or a passenger in the chair.

Check with your local Ural Dealer to find out your particular state’s sidecar driver’s license requirements.

As described in the *Driving the Ural Sidecar Motorcycle*, the sidecar weight, drag and geometry will result in the following characteristics for your Ural :

When you accelerate, the Ural will pull slightly to the right due to the inertia and drag of the sidecar.

When you let off the gas it will pull slightly to the left due to the inertia of the sidecar.

Note: The Patrol with engageable sidecar wheel handles differently with the sidecar driveshaft engaged and cannot turn on paved roads. For this reason, the sidecar drive must only be engaged when operating the vehicle off-road or where snow, ice and mud conditions are encountered on road.

The best way to make friends with your Ural is to take it to a large, paved, non-congested parking lot. Practice starting and stopping from various speeds, shifting up and down, accelerating and decelerating in each gear, turning right and left at slow-to-medium speeds. Move on to practice the general maneuvers outlined in the *Driving the Ural Sidecar Motorcycle*.

Finally, practice lifting the sidecar. To do this drive in a clockwise circle about 20 feet in diameter. Gradually increase your speed until the sidecar wheel lifts from the surface 6 - 12 inches. Then roll off the throttle and ease steering pressure on the grips so it gradually comes back down. Repeat doing this until you feel comfortable with the wheel in the air. Remember, the moment you roll off the throttle it will come down. When you have mastered "flying the chair" to the point where you can keep it in the air for a full circle you will have a good feel for the speed and turn radius that will lift the sidecar. Then carefully experiment with larger and smaller circles.

If, after gaining proficiency with the Ural, you plan to drive on the street with an empty sidecar, go back to the parking lot and practice the above maneuvers as well as all other maneuvers outlined in the *Driving the Ural Sidecar Motorcycle* with an empty sidecar. You'll find that the sidecar will lift much more readily when it is empty, especially if you enter a decreasing radius turn (such as a freeway off ramp) at too high a speed. This is why we recommend generally carrying about 100 lbs. or more in the sidecar.

SAFE OPERATING RULES

Before operating your Ural it is your responsibility to read and follow operating and maintenance instructions in this manual and follow these basic rules for your personal safety.

- Know and respect the Rules of the Road in your state.
- Use only Ural approved parts and accessories.
- Gasoline is extremely flammable and is explosive under certain conditions.
- Refuel in a well ventilated area with the engine stopped. Do not smoke or allow open flames or sparks when refueling or servicing the fuel system. Always close the fuel supply valve when the engine is not running to prevent flooding of the carburetors. Do not overfill fuel tank. Fill tank slowly to prevent fuel spillage. Leave air space to allow for fuel expansion. Do not fill more than about an inch below the lower edge of the tank filler.
- Motorcycle exhaust contains poisonous carbon monoxide gas. Do not inhale exhaust gases and never run the engine in a closed garage or confined area.
- Before starting engine, check for proper operation of brake, clutch, shifter, throttle controls, correct fuel and oil supply.
- A new motorcycle must be operated according to a special break-in procedure (see Running-In The New Motorcycle).
- Operate the motorcycle only at moderate speed and out of traffic until you have become thoroughly familiar with its operation and handling characteristics under all conditions. If you are an inexperienced rider we recommend that you obtain information and training in correct motorcycle riding technique. For the sidecar motorcycle, carefully study the *Driving the Ural Sidecar Motorcycle*.
- Do not exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions exist. High speed increases the influence of any other condition affecting stability and the possibility of loss of control.
- Pay strict attention to road surfaces and wind conditions. Any two or three-wheeled vehicle may be subject to upsetting forces. Wind blasts from passing trucks, holes in the pavement, rough road surfaces, rider control error, etc., may influence the handling characteristics of your motorcycle. Should this happen, reduce speed and guide the motorcycle with a relaxed grip to a straightaway position. Do not brake abruptly or force the handlebars as this may aggravate an unstable condition. New riders should gain experience under various conditions while driving at moderate speeds.
- Operate your motorcycle defensively. Remember, a motorcycle does not afford the same protection as an automobile in an accident.
- Wear an approved helmet, clothing and footgear suited to motorcycle riding. Bright or light colors are best for greater visibility in traffic especially at night. Avoid loose flowing garments and scarves.
- The exhaust pipes and mufflers get very hot when the engine is running and remain too hot to touch for some time after the engine is shut off.

- Wear clothing that will completely cover the legs when riding and avoid contact with the exhaust system.
- Do not allow others, under any circumstances to operate your motorcycle unless you are certain that they are experienced, licensed riders and are familiar with the operation of your particular motorcycle.
- When leaving the motorcycle unattended, remove ignition key from switch. Protect your motorcycle against theft.
- Safe motorcycle operation requires mental awareness and good judgment combined with a defensive driving attitude. Don't allow fatigue, alcohol or drugs to endanger your safety or the safety of others.
- Maintain your motorcycle in proper operating condition in accordance with the service coupons in this Owner's Manual. Particularly important to motorcycle stability is the tire inflation pressure, tread condition, and proper adjustment of wheel bearings and steering head bearings.
Do not operate motorcycle with loose, worn or damaged steering system or front or rear suspension system as handling will be adversely affected. Contact your dealer for repair of steering or suspension system wear or damage.
- Do not tow a trailer.
- At street intersections, give the right-of-way to the vehicle on your right. Do not presume too much when you have the right-of-way, the other driver may not know you have it.
- Always signal when preparing to stop or turn.
- All traffic signs, including those used for the control of traffic at intersections, should be obeyed promptly and to the letter. SLOW DOWN signs near schools and CAUTION signs at railroad crossings should always be observed and your actions governed accordingly.
- Never anticipate a traffic light. When a change is indicated from GO to STOP (or vice versa) in the traffic control systems at intersections, await the change.
- When intending to turn to the left, give signal at least 100 feet before reaching the turning point. Move over to the centerline of the street (unless local rules require otherwise), slow down passing the intersection of the street and then turn carefully to the left.
- In turning either right or left, watch for pedestrians as well as vehicles.
- Do not leave the curb or parking area without signaling and seeing that your way is clear to drive into moving traffic. A moving line of traffic has the right-of-way.
- See that your license tags are installed in the position specified by law and that they are clearly visible under all conditions. Keep them clean.
- Ride at a safe speed — a speed consistent with the type of highway you are on, and always note whether the road is dry, oily, icy or wet. Each varying condition on the highway means adjusting your speed accordingly.

Chapter 14

WARRANTY

TERMS USED IN THIS WARRANTY SECTION

The terms listed below have the following meaning in this section.

Classic Motorcycles and Sidecars, Inc. (Hereafter referred to as Classic Motorcycles) the manufacturer of Ural products in the US, a Washington corporation located at 8146 304th Ave. SE, Preston, WA 98050. Tel. (425) 222-7738, Fax (425) 222-7739, Internet <http://www.ural.com>.

Motorcycle

Any two-wheeled street model identified as a motorcycle and distributed by Classic Motorcycles.

Motorcycle Sidecar Rig

Any three-wheeled motorcycle with attached sidecar, street model identified as a motorcycle sidecar rig and distributed by Classic Motorcycles.

Authorized URAL Dealer

A dealer within the United States, Canada, or Mexico authorized to sell Ural motorcycles distributed by Classic Motorcycles.

First Purchaser

The original buyer of a new Ural from an Authorized Ural Dealer.

Term

1 year from date of purchase.

WARRANTY RESPONSIBILITIES

The Distributor

Classic Motorcycles

To repair or replace, at its option, any part which is proven to be defective in material or factory workmanship under normal use for the applicable warranty period.

- The repair or replacement of defective parts under this limited warranty must be made by an Authorized Ural Dealer. Warranty repairs will be made at no charge to you for parts or labor.
- Parts repaired or replaced under these warranties are warranted only during the balance of the applicable warranty's period.

The Authorized Ural Dealer

To give you complete warranty documentation when you pick up your motorcycle.

To perform warranty repairs to any Ural that qualifies for such repairs.

The selling dealer should have also signed the Acceptance Certificate and Card of Delivery upon delivery of the motorcycle.

- This Card of Delivery outlines the steps your dealer has taken to fulfill their responsibility to properly assemble and service your new Ural and inform you of proper break-in, warranty and service.

You, the Ural Owner

To maintain your Ural motorcycle according to the Service Coupons in this manual.

- Keep the Acceptance Certificate and the Service Coupons for future reference.
- Service inspections and replacements in accordance with the time and mileage intervals given in the Maintenance Schedule are essential. The Maintenance Schedule in this manual assumes you will use your motorcycle only as intended.
- You are responsible for paying all maintenance costs, including service interval costs.
- Your warranty coverage will not be voided if you choose to perform the maintenance yourself.
- Failures which occur due to improper maintenance are not covered under this warranty.

Your Ural dealer is your best source for scheduled maintenance on your Ural.

Regardless of who performs your maintenance, if warranty repairs are needed, your Ural dealer may ask you for documentation which may consist of one or more of the following:

- A Maintenance Record (such as the one in the Service Coupons section in the back of this manual) showing the odometer mileage and service date. Each entry should be signed or stamped by a person who is qualified to service your motorcycle.
- Copies of repair orders or other receipts for required maintenance that include the odometer mileage and service date.
- A statement that you performed the maintenance yourself, showing the odometer mileage and service date. Receipts for replacement parts (fluids, filters, gaskets, etc.) should accompany this statement.

NOTE: All maintenance receipts should remain with the motorcycle.

WARRANTY DISCLAIMERS, LIMITATIONS & EXCLUSIONS

Disclaimer of Consequential Damage & Limitation of Implied Warranties

Classic Motorcycles disclaims any responsibility for

- loss of time
- loss of use of motorcycle
- transportation expenses
- any other incidental or consequential damage

Duration of Implied Warranties

Any implied warranties, including the implied warranty of merchant ability and fitness for a particular purpose are limited to the duration of this written warranty.

State Laws May Vary

The previously listed limitations or exclusions may not apply to your motorcycle because of state laws. Some states may not allow limitations on how long an implied warranty lasts. Some states may not allow exclusion or limitation of incidental or consequential damages.

Your Legal Rights

These warranties give you specific legal rights. You may also have other rights which vary from state to state.

These Warranties Do Not Cover

Failures which are not due to a defect in material or factory workmanship.

Parts or accessories affected or damaged by

- lack of required maintenance
- owner abuse or misuse
- accident and/or collision
- normal wear
- neglect
- improper installation
- unsuitable use in an application for which the part was not designed
- the incorporation or use of unsuitable attachments or parts
- the unauthorized alteration of any part
- deterioration from the elements
- failure to follow "break-in" procedures, maintenance and/or speeds
- engaging sidecar drive on Patrol models while operating on paved roads.

Replacement of expendable maintenance items including, but not limited to:

- spark plugs
- gaskets
- coolant
- belts
- clutch plates
- filters
- hoses
- lubricants
- fuses
- rubber pedals

Paint and/or decals fading, peeling, blistering or chipping.

See “Maintenance of Motorcycle” section for oil from seals and/or gaskets.

Motorcycles converted to another model without specific written approval by Classic Motorcycles.

Use for the following activities, such use will VOID coverage:

- racing
- competition
- rental or other commercial uses
- towing

Alteration of the odometer so that the actual mileage cannot be determined may VOID coverage.

Additional Warranty Exclusions For Tires and Replacement Parts

Please refer to the “This Warranty Does Not Cover” section of these warranties for a listing of additional items and circumstances that are not covered.

CMSI reserves the right to examine any or all parts claimed for replacement under warranty prior to reimbursement.

DISTRIBUTORS LIMITED WARRANTIES - NEW MOTORCYCLE

Classic Motorcycles warrants to the first retail purchaser and subsequent purchasers of this Ural motorcycle that the motorcycle is free from defects in materials and workmanship for the period stated below.

To Qualify For This Warranty

- The Ural motorcycle must originally have been purchased from a dealer within the United States who is authorized by Classic Motorcycles to sell motorcycles.
- Prior to delivery to the purchaser, setup and pre-delivery service must be performed by a dealer or service center who is authorized by Classic Motorcycles to deliver motorcycles.

WARRANTY TIME PERIOD

Duration

For 2002 and later model Ural motorcycles a 12 month basic manufacturer's limited warranty.

Coverage Begins

- the date the motorcycle is sold to the first purchaser, or
- the date the motorcycle is first used as a demonstrator, lease or company motorcycle, whichever comes first.

Warranty Coverage

Classic Motorcycles will repair or replace, at its options, any part that is found defective in material or workmanship under normal use.

Parts or Labor

No charge to you.

DISTRIBUTOR'S LIMITED WARRANTIES - MOTORCYCLE TIRES

Warranty Time Period

Duration

Until the tire tread is worn down to the service limit specified in this manual.

Coverage Begins

- original tire on motorcycle - date of delivery
- tire purchased as replacement - date of purchase

Warranty Coverage

Tires distributed and sold by Classic Motorcycles which are either

- original equipment on URAL motorcycles, or
- specified by Classic Motorcycles for the URAL model the tire is installed on and purchased from an Authorized URAL Dealer for replacement use.

To qualify for this warranty

- The tire, or the motorcycle upon which the tire has been factory mounted, must have been purchased from an Authorized URAL Dealer.
- The tire must have been used for its designed purpose.

Warranty will not apply to any other use not approved in writing by Classic Motorcycles.

The obligation of Classic Motorcycles

To replace any tire which is proven to be defective in material or factory workmanship under normal use - until the tire tread is worn to the service limit specified in this manual. At that point, there will be no further warranty consideration, regardless of the tire's age or mileage.

Your obligation

To practice proper tire care and prudent motorcycle operation. You must maintain tire inflation pressure and load in accordance with information in the manual, the tire information label on the motorcycle, and restrictions molded into the tire sidewalls.

The replacement of a defective tire under this warranty must be made by an Authorized URAL Dealer.

Replacement Charges - up to 50% tread wear

Tire: No charge for a new direct replacement tire.

Labor: No charge for mounting and balancing - if you are the tire's original purchaser and the tire was factory or dealer installed.

You pay for mounting and balancing - if the tire was sold uninstalled.

Replacement Charges - after 50% tread wear

Tire: You pay a partial (pro rata) charge for a comparable new tire. This charge equals the percentage of tread worn from the tire times the dealer's normal retail price.

You also pay all applicable state and local taxes based on the tire's retail purchase price. (Example: For a tire with 70% of its tread worn away: you pay 70% of retail, plus taxes on 100% of retail.)

Labor: You pay all mounting and balancing charges.

This Warranty Does Not Cover

The following exclusions apply specifically to tires, in addition to the exclusions listed.

- tires installed on non-URAL motorcycles.
- tires worn beyond the service limit specified in the appropriate Owner's Manual.
- tires rendered unserviceable by road hazard damage, such as impact breaks, punctures, cuts, or snags.
- tires rendered unserviceable by running while flat, spinning, improper inflation, overloading, misalignment, improper mounting during replacement or after repair, or installation on unsuitable rims.
- tires rendered unserviceable due to abuse or misuse such as towing a trailer.
- tube-type tires fitted without inner tubes.
- tires which have been repaired.
- tires whose sidewalls have been modified by the addition or removal of material.
- tires with superficial weathering, checking, or cracking.
- tires used in racing or other competition.

DISTRIBUTOR'S LIMITED WARRANTIES
EMISSION CONTROL SYSTEMS
(49 - State)

Warranty Time Period

Duration

Time or mileage based on engine displacement - whichever occurs first.

Time: five (5) years

Mileage - for motorcycles with engine displacement of 745 cc, 30,000 km (18,642 miles)

Coverage Begins:

- the date the motorcycle is delivered to the first retail purchaser, or
- the date the motorcycle is first placed in service as a demonstrator, rental, lease or company motorcycle prior to retail sale.

Warranty Coverage

This warranty applies to new URAL motorcycles distributed by Classic Motorcycles and sold by

Authorized URAL Dealers.

This warranty is given in addition to the Distributor's Limited Warranty and is the only express emission control system warranty applicable to URAL motorcycles.

Classic Motorcycles warrants to the first retail purchaser and each subsequent purchaser that

- the motorcycle is designed, built and equipped to conform, at the time of sale, with all US EPA emission standards applicable at the time of manufacture.

- the motorcycle, when properly maintained and used, will meet applicable emission regulations within the time and mileage periods.

The obligation of Classic Motorcycles

To repair or replace, at its option, any part or parts of the emission control systems which are proven to be defective in material or factory workmanship under normal use for the applicable period.

Parts & Labor

No charge to you.

Your obligation

To have required maintenance performed in accordance with the Maintenance Schedule contained in this manual. Failure to have required maintenance performed may result in losing coverage

under this warranty.

Claims for repairs or adjustments found to be caused solely by defects in materials or workmanship will not be denied because the motorcycle or engine was not properly maintained and used.

DISTRIBUTOR'S LIMITED WARRANTIES - NOISE CONTROL SYSTEMS

Warranty Time Period

Duration

Time or mileage, whichever occurs first

Time: twelve (12) months

Mileage: 6,000 kilometers (3,728 miles)

Coverage Begins

- the date the vehicle is delivered to the first retail purchaser, or
- the date the vehicle is first placed in service as a demonstrator, lease or company vehicle prior to the first retail sale.

Warranty

This warranty applies to factory installed noise systems on URAL motorcycles manufactured on or after January 1, 1994, distributed by Classic Motorcycles and sold by Authorized URAL Dealers. Classic Motorcycles warrants to the first retail purchaser and each subsequent purchaser that the motorcycle

- was designed, built and equipped to conform at the time of first retail purchase, with all US EPA noise emission standards.
- when properly maintained and used, will meet applicable noise emission regulations within the stated mileage and time periods.

The obligation of Classic Motorcycles

To repair or replace, at its option, any part of the exhaust system, or exhaust system's components, which are proven to be defective in material or factory workmanship under normal use for the applicable period.

Parts and Labor

No charge for replacement of defective parts.

Your obligation

To have required maintenance works performed in accordance with this manual and Service Coupons. Failure to have required maintenance performed may result in losing warranty coverage.

Note: The following items are not covered by the Noise Control System Warranty

- Failures which arise as a result of misuse, alterations or accident.
- Replacing, removing or modifying any portion of the Noise Control System (with parts not certified to be noise legal for street use)

- loss of time, inconvenience, loss of motorcycle use or other consequential damages.
- any motorcycle on which the odometer reading has been changed so that the actual usage cannot be determined.

DISTRIBUTOR'S LIMITED WARRANTIES - REPLACEMENT PARTS

Warranty Time Period

Duration:

Six (6) months coverage of genuine URAL parts for defects in material and workmanship: Genuine URAL parts repaired or replaced under this warranty are covered for the remainder of the six (6) months warranty period of the purchased part.

Coverage Begins: The date of purchase from an Authorized URAL Dealer.

To qualify for this warranty, the genuine URAL part

- must have been purchased from an Authorized URAL Dealer
- must have been used in an application for which it was designed or otherwise approved in writing by Classic Motorcycles.

Warranty Coverage

Classic Motorcycles will repair or replace, at its option, any genuine URAL part that is defective in material or workmanship under normal use.

Parts installed by an Authorized URAL Dealer:

Parts & Labor: No charge.

Parts not installed by an Authorized URAL Dealer:

Parts: No charge.

Labor: You pay for removal/installation charges.

This Warranty Does Not Cover

The following exclusions apply specifically to replacement parts in addition to the exclusions listed.

- tires
- the machine in which the part is installed
- parts replaced under the warranty of the machine in which the part is installed
- the color match of painted components (Classic Motorcycles makes no warranty, express or implied, regarding the color match of painted components)

DISTRIBUTOR'S LIMITED WARRANTIES - URAL ACCESSORIES

Warranty Time Period

Duration: Three Months

Bolt-on Accessories (other than audio equipment):

- If installed on an unsold URAL motorcycle, motorcycle's warranty period applies to the accessory as well.
- If installed on a URAL motorcycle which is already in service: motorcycle's remaining warranty period - or a period of three (3) months from the date of the accessory's installation whichever is longer.

Coverage Begins: The date of purchase from an Authorized URAL Dealer.

Warranty Coverage

Classic Motorcycles will repair or replace, at its option, any URAL accessory that is defective in material or workmanship under normal use.

To qualify for this warranty, the URAL accessory:

- must have been purchased from a URAL Dealer authorized to sell URAL accessories

AND

- must have been used in an application for which it was designed or otherwise approved in writing by Classic Motorcycles

EPA NOISE REGULATIONS

EPA noise regulations require that the following statements be included in this Owner's Manual:

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED: Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair or replacement of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

1. Replacing the muffler (s) and/or the entire exhaust system with parts not certified to be noise legal for street use.
2. Removing or modifying the muffler internal baffles in any way.
3. Replacing the air intake/cleaner assembly with one not certified to be noise legal for street use.
4. Modifying the air intake/cleaner assembly in such a way as to make the vehicle no longer noise legal for street use.

Classic Motorcycles recommends that any and all noise related maintenance be done by an Authorized URAL Dealer using the genuine URAL parts.

IMPORTANT: If you move from your present address or sell your motorcycle, please fill out and mail the form at the back of this manual.

CLASSIC MOTORCYCLES EMISSION CONTROL SYSTEM WARRANTY

The following warranty applies to the emission control system and is in addition to the LIMITED WARRANTY and NOISE CONTROL SYSTEM WARRANTY.

Classic Motorcycles warrants to the first owner and each subsequent owner that his vehicle is designed and built so as to conform at the time of sale with applicable regulations of the US Federal Environmental Protection Agency at the time of manufacture and that it is free from defects in materials and workmanship which cause the motorcycle not to meet US Environmental Protection Agency Standards within 5 years or 18,642 miles (30,000 kilometers) whichever occurs first.

The warranty period shall begin on the date the motorcycle is delivered to the first retail purchaser or, if the motorcycle is placed in service as a demonstrator or company vehicle prior to sale at retail, on the date it is first placed in service.

The following items are not covered by the emission control system warranty:

1. Failures which arise as a result of misuse, alterations, accident or non-performance of maintenance as specified in the Owner's Manual and the Service Coupons.
2. The replacement of parts (such as spark plugs, fuel and oil filters, etc.) used in required maintenance.
3. Loss of time, inconvenience, loss of motorcycle use or other consequential damages.
4. Any motorcycle on which the odometer mileage has been changed so that the mileage cannot be determined.

RECOMMENDATIONS FOR REQUIRED MAINTENANCE

IT IS RECOMMENDED THAT ANY EMISSION SYSTEM MAINTENANCE BE PERFORMED BY AN AUTHORIZED URAL[®] DEALER USING GENUINE URAL[®] REPLACEMENT PARTS. THE MAINTENANCE, REPLACEMENT OR REPAIR OF THE EMISSION CONTROL SYSTEM MAY BE PERFORMED BY ANY OTHER QUALIFIED SERVICE OUTLET OR INDIVIDUAL. NON-GENUINE PARTS MAY BE USED ONLY IF SUCH PARTS ARE CERTIFIED TO COMPLY WITH US ENVIRONMENTAL PROTECTION AGENCY STANDARDS.

Vehicle Emission Control Information;

Engine tune-up specifications for Classic Motorcycles & Sidecars Inc.

URALMOTO JSC, "IMZ/URAL" Engine Family: 2YPXC.750URL

(Please Read Owner's Manual For Details)

Idle speed: 750 RPM, (at normal temp)

Max RPM: 6,000

Ignition timing: factory preset

Idle Mixture: factory preset

Plug type; Autolite 273 or equivalent

Lubricant SAE 20W50

Plug Gap; 0.040 (1.0 - 1.02 mm)

Fuel: 91 RON min.

Valve clearance (cold): 0.05 - 0.10 mm, (.002 - .004 in.) (Exhaust & Intake)

This vehicle conforms to US EPA and California regulations applicable to 2002 Model Year New Motorcycles and is certified to 1.4 HC g/km engine family exhaust emissions standard in California. Engine Exhaust Control System EM EVAP Family 2YPXE0066URL

Classic Motorcycles, Preston, Washington 98050, USA

CLASSIC MOTORCYCLES NOISE CONTROL SYSTEM WARRANTY

The following warranty applies to the noise control system and is in addition to the LIMITED WARRANTY and EMISSION CONTROL SYSTEM WARRANTY.

Classic Motorcycles warrants to the first owner and each subsequent owner that his vehicle is designed and built so as to conform at the time of sale with applicable regulations of the US Environmental Protection Agency Standards within 1 year or 3,728 miles (6,000 kilometers) whichever occurs first.

The warranty period shall begin on the date the motorcycle is delivered to the first retail purchaser or, if the motorcycle is placed in service as a demonstrator or company vehicle prior to sale at retail, on the date it is first place in service.

The following items are not covered by the noise control system warranty:

1. Failures which arise as a result of misuse, alterations or accident as specified in the Owner's Manual and Service Coupons.
2. Replacing, removing or modifying any portion of the NOISE CONTROL SYSTEM (consisting of the exhaust system and air intake/cleaner assembly) with parts not certified to be noise legal for street use.
3. Loss of time, inconvenience, loss of motorcycle use or other consequential damages.
4. Any motorcycle on which the odometer mileage has been changed so that the mileage cannot be determined.

RECOMMENDATIONS FOR REQUIRED MAINTENANCE

IT IS RECOMMENDED THAT ANY NOISE SYSTEM MAINTENANCE BE PERFORMED BY AN AUTHORIZED URAL® DEALER USING GENUINE URAL® REPLACEMENT PARTS. THE MAINTENANCE, REPLACEMENT OR REPAIR OF THE NOISE CONTROL SYSTEM MAY BE PERFORMED BY ANY OTHER QUALIFIED SERVICE OUTLET OR INDIVIDUAL. NON-GENUINE PARTS MAY BE USED ONLY IF SUCH PARTS ARE CERTIFIED TO COMPLY WITH US ENVIRONMENTAL PROTECTION AGENCY STANDARDS.

Classic Motorcycles, Preston, Washington 98050, USA

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect which could cause an accident or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Classic Motorcycles.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. For this reason it is very important for you to notify Classic Motorcycles of any change of address or ownership. There is a form in the back of this manual. NHTSA cannot become involved in individual problems between you, your dealer or Classic Motorcycles.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or (202) 366-0123 in Washington, DC area) or write to: NHTSA, US Department of Transportation, Washington, DC 20590. You can also obtain other information about motor vehicle safety from the hotline.

Classic Motorcycles & Sidecars, Inc. - Emission Control System Warranty Statement

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Classic Motorcycles & Sidecars, Inc. (hereinafter "Classic Motorcycles ") are pleased to explain the emission control system warranty on your 1999 and later motorcycle. In California new motor vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. Classic Motorcycles must warrant the emission control system on your motorcycle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your motorcycle.

Your emission control system may include parts such as the carburetor or fuel injection system, the ignition system, catalytic converter and engine computer. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exists, Classic Motorcycles will repair your motorcycle at no cost to you, including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE

Class III motorcycles (280 cc and larger): for a period of use of five (5) years or 30,000 kilometers (18,641 miles), whichever first occurs.

If an emission-related part on your motorcycle is defective, the part will be repaired or replaced by Classic Motorcycles. This is your emission control system DEFECTS WARRANTY.

OWNER'S WARRANTY RESPONSIBILITIES

- As the motorcycle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Classic Motorcycles recommends that you retain all receipts covering maintenance on your motorcycle, but Classic Motorcycles cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- You are responsible for presenting your motorcycle to a Classic Motorcycles dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.
- As the motorcycle owner, you should be aware that Classic Motorcycles may deny your warranty coverage if your motorcycle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact Classic Motorcycles & Sidecars, Inc., 8146 304th Ave. SE, Preston, WA 98050, or the California Air Resources Board at P.O. Box 8001, 9528 Telstar Avenue, El Monte, CA 91734-8001.

Classic Motorcycles & Sidecars, Inc. - Limited Warranty on Emission Control System

Classic Motorcycles & Sidecars, Inc., 8146 304th Ave. SE, Preston, WA 98050, (hereinafter "Classic Motorcycles") warrants that each new 1999 and after Classic Motorcycles motorcycle, that includes as standard equipment a headlight, taillight and stoplight, and is street legal:

- A. is designed, built and equipped so as to conform at the time of initial retail purchase with all applicable regulations of the United States Environmental Protection Agency, and the California Air Resources Board; and
 - B. is free from defects in material and workmanship which cause such motorcycle to fail to conform with applicable regulations of the United States Environmental Protection Agency or the California Air Resources Board for a period of use, depending on the engine displacement, of 12,000 kilometers (7,456 miles), if the motorcycle's engine displacement is less than 170 cubic centimeters; of 18,000 kilometers (11,185 miles), if the motorcycle's engine displacement is equal to or greater than 170 cubic centimeters but less than 280 cubic centimeters; or of 30,000 kilometers (18,641 miles), if the motorcycle's engine displacement is 280 cubic centimeters or greater; or 5 (five) years from the date of initial retail delivery, whichever first occurs.
- I. COVERAGE.** Warranty defects shall be remedied during customary business hours at any authorized Classic Motorcycles motorcycle dealer located within the United States of America in compliance with the Clean Air Act and applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board. Any part or parts replaced under this warranty shall become the property of Classic Motorcycles.

In the State of California only, emission related warranted parts are specifically defined by the state's Emission Warranty Parts List. These warranted parts are: carburetor and internal parts; intake

manifold; fuel tank; fuel injection system; spark advance mechanism; crankcase breather; air cutoff valves; fuel tank cap for evaporative emission controlled vehicles; oil filler cap; pressure control valve; fuel/vapor separator; canister; igniters; breaker governors; ignition coils; ignition wires; ignition points; condensers, and spark plugs if failure occurs prior to the first scheduled replacement; and hoses, clamps, fittings and tubing used directly in these parts. Since emission related parts may vary from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts.

In the State of California only, Emission Control System emergency repairs, as provided for in the California Administrative Code, may be performed by other than an authorized Classic Motorcycles dealer. An emergency situation occurs when an authorized Classic Motorcycles dealer is not reasonably available, a part is not available within 30 days, or a repair is not complete within 30 days. Any replacement part can be used in an emergency repair. Classic Motorcycles will reimburse the owner for the expenses, including diagnosis, not to exceed Classic Motorcycles suggested retail price for all warranted parts replaced and labor charges based on Classic Motorcycles recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed parts in order to receive compensation.

II. LIMITATIONS. This Emission Control System warranty shall not cover any of the following:

- A.** Repair or replacement required as a result of
 - (1) accident,
 - (2) misuse,
 - (3) repairs improperly performed or replacements improperly installed,
 - (4) use of replacement parts or accessories not conforming to Classic Motorcycles & Sidecars, Inc. specifications which adversely affect performance and/or
 - (5) use in competitive racing or related events.
- B.** Inspections, replacement of parts and other services and adjustments required for required maintenance.
- C.** Any motorcycle on which the odometer mileage has been changed so that actual mileage cannot be readily determined.

III. LIMITED LIABILITY

- A.** The liability of Classic Motorcycles under this Emission Control System Warranty is limited solely to the remedying of defects in material or workmanship by an authorized Classic Motorcycles motorcycle dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the motorcycle or transportation of the motorcycle to or from the Classic Motorcycles dealer. Classic Motorcycles SHALL NOT BE LIABLE FOR ANY OTHER EXPENSES, LOSS OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY ARISING IN CONNECTION WITH THE SALE OR USE OF OR INABILITY TO USE THE Classic Motorcycles MOTORCYCLE FOR ANY PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.
- B.** NO EXPRESS EMISSION CONTROL SYSTEM WARRANTY IS GIVEN BY Classic Motorcycles EXCEPT AS SPECIFICALLY SET FORTH HEREIN. ANY EMISSION CONTROL SYSTEM WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE EXPRESS EMISSION CONTROL SYSTEM WARRANTY TERMS STATED IN THIS WARRANTY. THE FOREGOING STATEMENTS OF WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.
- C.** No dealer is authorized to modify this Classic Motorcycles Limited Emission Control System Warranty.

- IV. LEGAL RIGHTS.** THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
- V.** THIS WARRANTY IS IN ADDITION TO THE CLASSIC MOTORCYCLES LIMITED MOTORCYCLE WARRANTY.
- VI. ADDITIONAL INFORMATION.** Any replacement part that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. However, Classic Motorcycles is not liable for these parts. The owner is responsible for the performance of all required maintenance. Such maintenance may be performed at a service establishment or by any individual. The warranty period begins on the date the motorcycle is delivered to an ultimate purchaser.

Chapter 15

SERVICE COUPONS

IMPORTANT

Long and trouble-free enjoyment of your URAL motorcycle depends on **following the break-in procedures** outlined throughout the manual and summarized in Chapter 3, together with regular and proper servicing according to the service coupons provided on the following pages.

Dependable performance may be anticipated if your motorcycle is entrusted for maintenance to an Authorized URAL Dealer. A current list of Authorized URAL dealers may be obtained from our web site www.ural.com or by sending a self-addressed stamped envelope to:

Classic Motorcycles and Sidecars Inc.
P.O. Box 969
Preston, WA 98050

Authorized URAL Dealers carry spare parts, have special tools for disassembling the motorcycle and employ experienced specialists to service and repair this motorcycle. Make it a practice to have your motorcycle serviced regularly at the mileage indicated on the Service Coupons.

An owner who is qualified and capable of doing his or her own service work is allowed to do so, without voiding the manufacturer's warranty, PROVIDED that you sign the Service Coupon and date it after the work has been performed.

WARNING: *FOR YOUR PERSONAL WELFARE, ALL THE LISTED SERVICE AND MAINTENANCE RECOMMENDATIONS IN THIS MANUAL SHOULD BE FOLLOWED BECAUSE THEY MAY AFFECT THE SAFE OPERATION OF YOUR MOTORCYCLE.*

Note: The performance of new motorcycle initial service is required to keep your new motorcycle warranty in force and to ensure proper emissions system operation.

WARNING: *STOP THE ENGINE AND SUPPORT THE MOTORCYCLE SECURELY BEFORE PERFORMING ALL SERVICE PROCEDURES. SERVICE SHOULD BE PERFORMED IN AN ADEQUATELY LIGHTED AND VENTILATED WORK AREA USING THE PROPER TOOLS. WHEN WORKING ON THE MOTORCYCLE, DO NOT SUPPORT MOTORCYCLE BY PLACING SUPPORTS UNDER BRAKE PEDAL. DAMAGE TO THE BRAKE SYSTEM COULD OCCUR CAUSING POSSIBLE MALFUNCTION AND PERSONAL INJURY.*

SERVICE COUPON NO 1. 500 KM
(To be performed between 400 to 600 km)

Date _____

Odometer reading _____ km

1. Change engine oil and filter.
2. Change transmission oil.
3. Change final drive oil.
4. Check condition of the gasoline petcock, remove any contaminants, replace in-line fuel filters.
5. Check carburetors while idling for synchronous operation.
6. Check tension of wheel spokes.
7. Check fasteners for proper tightening.
8. Check steering column bearings.
9. Check alternator bolts

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO 2. 2,500 KM
(To be performed between 2,400 to 2,600 km)

Date _____

Odometer reading _____ km

1. Change engine oil and filter. (*See Lubrication List, chapter 11*)
2. Check final drive oil level.
3. Inspect air filter element.
4. Check fasteners for proper tightening.
5. Check steering column bearings.
6. Check all wheels for correct bearing adjustment.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 3. 5,000 KM
(To be performed between 4,900 to 5,100 km)

Date _____

Odometer reading _____ km.

1. Change engine oil and filter. *(See Lubrication List, chapter 11)*
2. Check transmission oil level.
3. Check final drive oil level.
4. Inspect air filter element.
5. Check condition of the gasoline petcock, remove any contaminants, replace in-line fuel filters
6. Check carburetors while idling for synchronous operation.
7. Check :
 - A Adjustment of steering column bearings.
 - B Tension of wheel spokes
8. Lubricate:
 - A Lever pins, thimbles of clutch and brake control cables
 - B Hinges of the foot brake pedal shaft and linkage.
9. Check condition and action of brakes.
10. Check tires for tread depth greater than 3/32"
11. Check fasteners for proper tightening.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 4. 7,500 KM
(To be performed between 7,400 to 7,600 km)

Date _____

Odometer reading _____ km.

1. Change engine oil. *(See Lubrication List, chapter 11)*
2. Check final drive oil level.
3. Inspect air filter element.
4. Check fasteners for proper tightening.
5. Check steering column bearings.
6. Check adjustment of wheel bearings.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 5. 10,000 KM
(To be performed between 9,900 to 10,100 km)

Date _____

Odometer reading _____ km.

1. Change engine oil and filter. *(See Lubrication List, chapter 11)*
2. Change transmission oil. *(See Lubrication List, chapter 11)*
3. Change final drive oil. *(See Lubrication List, chapter 11)*
4. Inspect air filter element.
5. Torque cylinder head stud nuts.
6. Adjust valve tappet clearance.
7. Change oil in front fork shock absorbers (on telescopic fork models)
8. Replace the spark plugs and inspect ignition leads.
9. Replace in-line fuel filters.
10. Check:
 - A Carburetors while idling for synchronous operation
 - B Check steering column bearings & adjust if required.
 - C The condition and action of the brakes, lubricate the brake shoe fulcrum pins and cams.
 - D The tension of wheel spokes. Adjust if necessary.
 - E The toe-in and camber angle of the motorcycle and sidecar.
 - F Electric wiring. Tighten connections if required.
 - G Fasteners for proper tightening.
11. Re-pack the grease in wheel bearings, adjust the bearings.
12. Lubricate:
 - A Foot brake pedal shaft
 - B Hinges of foot brake pedal shaft and linkage.
 - C Lever pins and thimbles of clutch and front wheel brake control cables.
 - D Drive shaft splines
13. Check battery electrolyte level.
14. Check tires, tread depth greater than 3/32"
14. Check the timing.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 6. 12,500 KM
(To be performed between 12,400 to 12,600 km)

Date _____

Odometer reading _____ km

1. Change engine oil. *(See Lubrication List, chapter 11)*
2. Check final drive oil level.
3. Inspect air filter element.
4. Check fasteners for proper tightening.
5. Check adjustment of wheel bearings.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 7 15,000 KM
(To be performed between 14,900 to 15,100 km)

Date _____

Odometer reading _____ km

1. Change engine oil and filter. *(See lubrication, chapter 11)*
2. Change transmission oil. *(See lubrication, chapter 11)*
3. Inspect air filter element
4. Check carburetors while idling for synchronous operation.
5. Check adjustment of steering column bearings.
6. Lubricate:
 - A Lever pins
 - B Hinges of the foot brake pedal shaft and linkage
7. Check condition and action of brakes
8. Check adjustment of wheel bearings.
9. Check tires for tread depth greater than 3/32".
10. Check fasteners for proper tightening.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 8. 17,500 KM
(To be performed between 17,400 to 17,600 km)

Date _____

Odometer reading _____ km

1. Change engine oil. (*See Lubrication List, chapter 11*)
2. Check final drive oil level.
3. Inspect air filter element.
4. Check fasteners for proper tightening.
5. Check adjustment of wheel bearings.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 9. 20,000 KM
(To be performed between 19,900 to 20,100 km)

Date _____

Odometer reading _____ km.

1. Change engine oil and filter. *(See Lubrication List, chapter 11)*
2. Change transmission oil. *(See Lubrication List, chapter 11)*
3. Change final drive oil. *(See Lubrication List, chapter 11)*
4. Inspect air filter element.
5. Torque cylinder head stud nuts.
6. Adjust valve tappet clearance.
7. Change oil in front fork shock absorbers (on telescopic fork models)
8. Replace the spark plugs and inspect ignition leads.
9. Replace in-line fuel filters.
10. Check:
 - A Carburetors while idling for synchronous operation
 - B Check steering column bearings & adjust if required.
 - C The condition and action of the brakes, lubricate the brake shoe fulcrum pins and cams.
 - D The tension of wheel spokes. Adjust if necessary.
 - E The toe-in and camber angle of the motorcycle and sidecar.
 - F Electric wiring. Tighten connections if required.
 - G Fasteners for proper tightening.
11. Repack the grease in wheel bearings, adjust the bearings.
12. Lubricate:
 - A Foot brake pedal shaft
 - B Hinges of foot brake pedal shaft and linkage.
 - C Lever pins and thimbles of clutch and front wheel brake control cables.
 - D Drive shaft splines
13. Check battery electrolyte level.
14. Check tires, tread depth greater than 3/32"
14. Check the timing.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 10. 22,500 KM
(To be performed between 22,400 to 22,600 km)

Date _____

Odometer reading _____ km

1. Change engine oil. (*See Lubrication List, chapter 11*)
2. Check final drive oil level.
3. Inspect air filter element.
4. Check fasteners for proper tightening.
5. Check steering column bearings.
6. Check adjustment of wheel bearings.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 11. 25,000 KM
(To be performed between 24,900 to 25,100 km)

Date _____

Odometer reading _____ km.

1. Change engine oil and filter. (*See Lubrication List, chapter 11*)
2. Change transmission oil. (*See Lubrication List, chapter 11*)
3. Inspect air filter element.
4. Check carburetors while idling for synchronous operation.
5. Check:
 - A Adjustment of steering column bearings.
 - B Tension of wheel spokes
 - C Toe-in and camber of the motorcycle and sidecar
6. Lubricate:
 - A Lever pins
 - B Foot brake pedal shaft
 - C Hinges of the foot brake pedal shaft and linkage.
7. Check condition and action of brakes
8. Check tires for tread depth greater than 3/32"
9. Check fasteners for proper tightening.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO 12. 27,500 KM
(To be performed between 27,400 to 27,600 km)

Date _____

Odometer reading _____ km

1. Change engine oil. (*See Lubrication List, chapter 11*)
2. Check final drive oil *level*.
3. Inspect air filter element.
4. Check fasteners for proper tightening.
5. Check steering column bearings.
6. Check adjustment of wheel bearings.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

SERVICE COUPON NO. 13. 30,000 KM
(To be performed between 29,900 to 30,100 km)

Date _____

Odometer reading _____ km.

1. Change engine oil and filter. *(See Lubrication List, chapter 11)*
2. Change transmission oil. *(See Lubrication List, chapter 11)*
3. Change final drive oil. *(See Lubrication List, chapter 11)*
4. Inspect air filter element.
5. Torque cylinder head stud nuts.
6. Adjust valve tappet clearance.
7. Change oil in front fork shock absorbers (on telescopic fork models)
8. Replace the spark plugs and inspect ignition leads.
9. Replace in-line fuel filters.
10. Check:
 - A Carburetors while idling for synchronous operation
 - B Check steering column bearings & adjust if required.
 - C The condition and action of the brakes, lubricate the brake shoe fulcrum pins and cams.
 - D The tension of wheel spokes. Adjust if necessary.
 - E The toe-in and camber angle of the motorcycle and sidecar.
 - F Electric wiring. Tighten connections if required.
 - G Fasteners for proper tightening.
11. Repack the grease in wheel bearings, adjust the bearings.
12. Lubricate:
 - A Foot brake pedal shaft
 - B Hinges of foot brake pedal shaft and linkage.
 - C Lever pins and thimbles of clutch and front wheel brake control cables.
 - D Drive shaft splines
13. Check battery electrolyte level.
14. Check tires, tread depth greater than 3/32"
15. Check the timing.

The maintenance above has been performed as described.

Owner's Signature

Service Technician's Signature

NEW ADDRESS FORM

If you move, please fill out this form and mail to the address below. This will insure that you continue to receive all correspondence from Classic Motorcycles & Sidecars Inc.

VEHICLE IDENTIFICATION NUMBER

X	T	B		7	6	4	A								
---	---	---	--	---	---	---	---	--	--	--	--	--	--	--	--

OWNER'S NAME _____

OLD ADDRESS _____ APT. NO. _____

CITY _____ STATE _____ ZIP CODE _____

MY NEW ADDRESS IS:

NEW ADDRESS _____ APT. NO. _____

CITY _____ STATE _____ ZIP CODE _____

Send this form to:

**Classic Motorcycles
P.O. Box 969
Preston, WA 98050**

**or fax to:
(425) 222-7739**

NEW OWNER FORM

If you purchase a Ural Motorcycle from somebody other than a dealer, please fill out this form and mail to the address below. This will insure that you receive all correspondence from Classic Motorcycles & Sidecars Inc.

VEHICLE IDENTIFICATION NUMBER

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NEW OWNER'S NAME _____

ADDRESS _____ APT. NO. _____

CITY _____ STATE _____ ZIP CODE _____

DATE OF SALE _____

MO / DAY / YEAR

Purchased From _____

City _____ State _____ Zip Code _____

Send this form to:

**Classic Motorcycles
P.O. Box 969
Preston, WA 98050**

**or fax to:
(425) 222-7739**

URAL - STARTING & RUNNING TIPS

Starting the Engine

1. Open carburetor enrichers on both carburetors (pull lever out) if temperature is below 50 degrees.
2. Make sure fuel petcock is open “**ON**” or on reserve “**RES.**” Fuel petcock handle should be in 6 or 12 o’clock position.
3. Ignition “**RUN,**” “**KILL,**” switch set to “**RUN**” (down), gearbox in “**NEUTRAL,**” master battery switch (under seat) “**ON.**”
4. Push starter button until engine fires, **OR...**
5. With foot on kick-starter lever, push foot down **swiftly and hard** open the throttle grip *slightly*. Repeat until engine fires (usually 2 or 3 kicks). Turn **OFF** enrichers.
6. Let the engine warm up for 1-3 minutes, depending on the temperature.
7. After the engine has warmed up, operate the motorcycle under moderate loads and speeds for several miles until the oil has circulated well and the engine and gearbox are functioning smoothly.

Trouble Shooting

If engine does not start with above method, the problem(s) may be one or more of the following:

1. Engine is “flooded,” i.e.; the spark plugs have been “fouled” by too much throttle (and fuel) and will not spark.
Correction: Flooding is corrected by removing the spark plugs and drying them.
2. Too little fuel is getting to the engine due to low fuel in tank and/or plugged fuel lines or fuel petcock.
Correction: Clogged fuel lines or filter are corrected by blowing through fuel lines from carburetor end to remove any debris from lines. Fuel petcock filter can be cleaned by removing and cleaning.
3. Little or no spark is available to the engine due to a low battery, (dim headlight), or loose ignition wires.
Correction: Dead battery is corrected by charging battery, loose or broken ignition wires are corrected by replacing broken wire(s) or by reconnecting wires at either the spark plug cap, the ignition module, or at the ignition coil under the front cover of the engine.
- *4. **Not enough compression in the cylinders due to excessive wear or incorrect adjustment of valve(s).**
* item 4 above requires the attention of a qualified mechanic at your URAL dealer.

*****WARNING!...Reverse Gear Damage... WARNING!*****

Attempting to engage reverse gear while the motorcycle is moving may cause **SEVERE** damage to the gearbox and will void the warranty. Engage the reverse gear only when the motorcycle is completely stopped and is either in 1st gear or neutral.
