

Service-Information



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| Group 00 Maintenance And General Hints | June 1981 | Bulletin No. 00 022 81 (2034) |
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- For U.S.A. and Canada Only -

Re: Pre-Delivery Inspection for All 1981 Models

The following instructions are intended for use with our Pre-Delivery Inspection forms which are available for your convenience free of charge.

State and federal statutes require a properly completed copy, with the necessary signatures and other valuable information, of a pre-delivery checklist be retained in the dealer's customer file, a copy also should be handed over to the retail purchaser.

Every customer will be grateful and will become your friend, once you turn over to him a carefully prepared motorcycle with written proof.

The following are simple guidelines, in conjunction with the checklist, should support you in performing the initial pre-delivery service.

Engine:

Oil level is between the two marks on dipstick.
Difference between Min/Max mark is 850 cc

1981 All (Except R80 G/S) on capacity:

With Filter Change 2500 cc
With Oil Cooler 2750 cc

1981 G/S

With Filter Change 2250 cc

Use only brand name four-stroke oil API class SE. Refer to chart in Manual for recommended viscosity/outside temperature.

Transmission:

Check oil level by removing 8 mm Allen Filler Plug. Correct level is to lower edge of filler opening with motorcycle on its center stand.

Use only brand name hypoid gear oil of the correct viscosity:

SAE 80 below 5°C (41°F)

SAE 90 above 5°C (41°F)

Total capacity 800 cc.

Rear Swinging Arm Housing:

Check oil by detaching filler plug (17mm hex wrench). Insert a suitable rod vertically and allow it to rest on the rear drive bevel. The correct level is 2mm above bevel with motorcycle in level position.

1981 All Models 150 cc.

Use brand name hypoid gear oil of correct viscosity.

SAE 80 below 5°C (41°F)

SAE 90 above 5°C (51°F)

Rear Drive:

1981 - Check level by detaching control plug. Correct level is at lower edge of opening with motorcycle in level position.

All 1981 Model 350 cc (Increased from
1980 Models)

Use brand name hypoid gear oil of correct viscosity.

SAE 80 below 5°C (41°F)

SAE 90 above 5°C (51°F)

Front Forks:

To check oil level, remove rubber end caps and filler plugs (8mm Allen). Insert a rod 5mm dia. (3/16") and 1m (3') long until it touches bottom.

Correct level is 300mm ± 5mm and identical on both sides with motorcycle on the center stand. Total capacity each fork leg 220cc ± 10cc.

R65:

To check oil level, remove filler plugs (8mm Allen and 19mm hex wrench). Insert a rod 5mm (3/16") dia. and 1m (3') long until it touches bottom.

Correct level is 30mm and identical on both sides with motorcycle on center stand and in level position.

Total capacity each fork leg 190cc.

Brake Reservoirs:

Note: Brake fluid is hygroscopic and, therefore, capable of absorbing moisture from the atmosphere over a considerable period of time. It is recommended to replace brake fluid annually.

Warning: Brake fluid is also dangerous to pain finish. Whenever a reservoir is open, cover all painted surfaces with a suitable material.

Brake fluid levels are correct when at the "max" mark on all models with front or rear disc brakes.

Use only "DOT 4" designated brake fluid. If silicone, "DOT 5" or others are substituted, it could be harmful to the correct operation of the brake system.

Lubrication:

Use brand name, multi-purpose grease with a 180°C (356°F) drip point on all pivot points and provided grease fittings.

Front Brake Lever; All Models:

Lever free play is fixed and not adjustable.

Rear Brake (Drum Type):

Position of foot brake pedal is adjustable at brake light switch by stop nut and screw. Adjustment of free travel is then necessary.

Foot brake pedal free play is 16-24mm (3/4 - 1") adjustable at linkage nut on rear drive.

Rear Brake (Disc Type):

Foot brake pedal free play is fixed and not adjustable. If pressure of hand or foot disc brake levers are too low or spongy, bleed the brake system.

Steering Bearings; All Models:

Check steering bearing pre-load using special tools:
88886314750 and 88886002570

Complete instructions are found in the Repair Manual and Service Information 32001 (1011R).

Clutch Operation:

Clutch lever free travel is 2 ± 0.5 mm. With knurled screw on handlebar, adjust clutch throw-out-lever on the gearbox to 4 degrees backwards (20 ± 2 mm see Riders Manual) then adjust free travel to 2 ± 0.5 mm by lock nut and screw on throw out lever.

Cylinder Heads:

After removal of rocker covers, check the torque of the four cylinder head nuts (15mm) on rocker arm shaft mounts and the two retaining nuts (15mm) by breaking each loose and retorquing to 35 - 39 Nm (25 - 28 ft. lb).

Note: Engine must be cold when torquing cylinder heads and adjusting valves.

Valve Clearance:

Valve Clearance must be set after the cylinder heads are torqued down correctly.

R65 - only

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| From New to 600 miles | Intake | 0.10mm | (.004") |
| | Exhaust | 0.25mm | (.010") |
| Over 600 miles | Intake | 0.25 | (.006") |
| | Exhaust | 0.20 | (.008") |

All Other Models

| | | | |
|-----------------------|---------|------|---------|
| From new to 600 miles | Intake | 0.15 | (.006") |
| | Exhaust | 0.20 | (.008") |
| After 600 miles | Intake | 0.10 | (.004") |
| | Exhaust | 0.15 | (.006") |

Spark Plugs:

Check correct heat range.

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|--------------------------|----------|------|
| All Models except R80G/S | Bosch | W6D |
| | Champion | N7Y |
| R80G/S | Bosch | W7D |
| | Champion | N10Y |

Adjust gap to 0.6 + 0.1mm (.23" - .024"). It is also recommended to apply a little graphite grease to threads and torque to 17-22 ft. lbs.

Throttle Cables:

Free movement of both throttle cables must be identical 0.5-1mm (1/64" - 1/32").

Ignition Timing:

Warning: Electronic ignition system voltage is extremely high and may be harmful when touching open connections or spark plug caps, ignition cables and coil when engine is running or ignition is switched on.

Electronic Ignition - This system is maintenance free.

Caution: Timing the ignition by means of a test lamp is not possible. It may damage the impulse transmitter.

All Models

Use a good quality timing light. Increase engine speed to approximately 3500 RPM's (fully advanced).

At this speed, the flywheel mark "Z" (ignition timing, 32° BTDC) should be visible in line with the mark in the inspection hole. If the spot is above the mark, the ignition is too far advanced; if below the mark, the ignition is too far retarded.

Adjusting timing is done by turning the distributor housing in the same direction as engine rotation (clockwise, looking at front side to retard the timing, and turning it against the direction of engine rotation to advance the timing.

Carburetion:

Due to EPA requirements, follow special Service Information:

1978 - 11 005 78 (1040R)

1979 - 11 008 78 (1053R)

1980 - 11 012 79 (2006R)

1981 - 11 016 80 (2019)

Re-Tighten Nuts & Bolts:

1. Engine Mounts - Front and Rear: 52 - 57 ft. lb.
2. Centerstand to Frame: 32 - 35 ft. lb.
3. Four Driveshaft Bolts: 27 - 30 ft. lb.
4. Wheel Axle Nuts - Front and Rear: 33 - 35 ft. lb.
5. R80G/S - Rear Wheel Nuts: 62 ft. lb.
6. Axle Clamp Bolts
 - Front: 10 - 12 ft. lb.
 - Rear: 11 - 13 ft. lb.
7. Bottom Screws On Fork Sliders:
(Shock absorber mounting to fork sliders)
 - R65 22 - 29 ft. lb.
 - All Other 1981 Models 25 ft. lb.
8. Rear Shock Absorber Upper Mount: 25 - 29 ft. lb.
9. Rear Shock Absorber Lower Mount:
 - Left: 22 - 26 ft. lb.
 - Right: 25 - 29 ft. lb.
 - R80G/S: 25 - 29 ft. lb.
10. Hose clamps at Telescopic Fork, Carburetors and Fork Boots.

Electrical Components:

Check the operation of:

Headlights - high & low beam - adjust if necessary.
Parking Lights
Brake Light
Turn Indicator Lights
Horn
High Beam Indicator
Battery Charge Indicator
Neutral Indicator
Oil Pressure Light
Hazard Warning Flasher (if so equipped)

Handlebars:

Adjust to customer's desire and tighten clamps.

Tire/Wheels:

Check tire beads for correct mounting. Record DOT tire data.
Check tire pressure:

All Models except R80G/S:

Solo: Front 27 lb./sq.in.
Rear 26 lb./sq.in.

Double: Front 30 lb./sq.in.
Rear 29 lb./sq.in.

R80G/S:

Solo: Front 27 lb./sq.in.
Rear 26 lb./sq.in.

Double: Front 30 lb./sq.in.
Rear 32 lb./sq.in.

Test Ride:

Check Performance, Handling and Operation.

Transmission and Clutch - Ease of Operation.

Acceleration - Throttle Response.

Cruising - Smoothness.

Handling - Stability and Cornering.

Brakes - Smoothness and Stopping Power.

Idling - Smoothness and RPM.

Instruments - Proper Operation.

Upon Completion, Check for Fuel or Oil Leaks.

CUSTOMER DELIVERY

Accessories:

Check presence of:

1. Rider's Manual (complete Pre-Delivery documentation in Rider's Manual.)

2. Complete tool kit, cable lock and tire pump (if so equipped).
3. All keys.

Warranty:

Complete Retail Delivery Report Card and forward to
BMW of North America, Inc.

Explain provisions of the motorcycle limited warranty
using the Rider's Manual as a guideline.

Yours truly,



Herb Neas
National Service Manager

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