V100 E5 Maintenance

 Using a dedicated wrench, unscrew the spark plug and remove it from the head.



- Check the state of wear of the spark plug and measure the distance between the electrodes.
- If the value does not lie within the specified value, replace the spark plug with a new one.



# Characteristic Spark plug electrode gap

0.7 mm (0.028 in)

### **Transmission fluid**

## Replacement

### **IMPORTANT**

THE UNIT MUST BE HOT WHEN THE OIL IS CHANGED AS UNDER SUCH CONDITIONS OIL IS FLUID AND THEREFORE EASY TO DRAIN.

NOTE

### RIDE SOME km (miles) TO WARM UP ENGINE OIL

Place a suitable container with a capacity greater than 250 cc (15.26 cu in) under the drain plug (1).



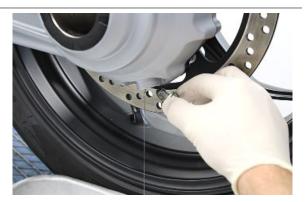
Loosen the drain plug without removing it.



Unscrew and remove the filler plug (2).



Completely unscrew and remove the drain plug. Drain the oil into the container for at least 5 minutes for oil to drain out completely.



Once the oil has drained out, screw in and tighten the drain plug with its washer to the prescribed torque.

Remove metal residues attached to the drain plug magnet.

#### NOTE

DURING REPLACEMENT, USE A NEW SEALING WASHER.

Locking torques (N\*m)

Oil drainage plug 30 Nm (22.1 lb ft)



Using a special syringe, fill in with new oil through the filler cap.

#### **IMPORTANT**

DO NOT ADD ADDITIVES OR OTHER SUBSTANCES TO THE FLUID. WHEN USING A FUNNEL OR ANY OTHER ELEMENT, MAKE SURE IT IS PERFECTLY CLEAN.

### **Recommended products**

75W-140 lubricant for gearboxes and transmissions Synthetic lubricant for gearboxes and transmissions

SAE 75W-140 - API GL5

### Characteristic

### Bevel gear set oil

250 cm3 (15.26 cu in)

### Bevel gear oil (in case of replacement)

225 cc (13.73 cu in) MAX

Screw and tighten the filler cap with its washer to the prescribed torque.

#### NOTE

DURING REPLACEMENT, USE A NEW SEALING WASHER. IMPORTANT

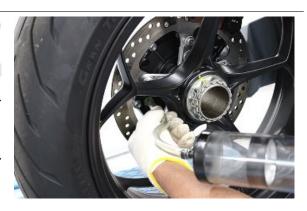
IF IT IS NECESSARY TO INSTALL A NEW TRANSMISSION GEARBOX, PAY SPECIAL ATTENTION TO THE PROCEDURE BELOW

### Locking torques (N\*m)

### Oil load cap 25 Nm (18.43 lb ft)

Since they are already run-in at the factory, the complete transmission boxes coming from the Spare parts department contain a minimum residual oil quantity and therefore after installing them on the vehicle, the following procedure must be performed:

- •Open the filler plug and drain any residual oil from the lower drain plug leaving it to drip for at least 5 minutes.
- •Refit and tighten the lower drain plug and fill with oil from the filler cap.
- •Refit and tighten the filler cap.
- •Assemble the breather cap. If the gearbox arrived with the breather plug already assembled, remove







it and blow it with compressed air to carefully remove any oil residues.

**IMPORTANT** 

DURING REPLACEMENT, USE A NEW SEALING WASHER FOR THE BREATHER CAP.

# **Engine oil**

### Check

Check the engine oil level frequently.

#### NOTE

CARRY OUT MAINTENANCE OPERATIONS AT HALF THE INTERVALS SPECIFIED IF THE VEHICLE IS USED IN PARTICULAR RAINY OR DUSTY CONDITIONS, OFF ROAD OR FOR TRACK USE.

WARNING

THE OIL LEVEL MUST BE CHECKED WHEN THE ENGINE IS WARM.

**IMPORTANT** 



DO NOT LET THE ENGINE IDLE WITH THE VEHICLE AT A STANDSTILL TO WARM UP THE ENGINE AND OBTAIN THE OPERATING TEMPERATURE OF ENGINE OIL. THE CORRECT PROCEDURE IS TO CHECK AFTER A JOURNEY OR AFTER RUNNING 15 km (10 mi) ON AN EXTRA-URBAN ROUTE (ENOUGH TO RAISE ENGINE OIL TEMPERATURE).

- Shut off the engine and wait a few seconds:
- Keep the vehicle upright with both wheels on the ground;
- Make sure that the vehicle is on a level surface:
- Unscrew the oil filler cap with dipstick;



- Wipe the dipstick clean and put the dipstick and filler cap back into place without tightening;
- Remove the cap and dipstick again and check the engine oil level;
- The level is correct if it reaches the "MAX" level approximately. Otherwise top off the engine oil.

### **IMPORTANT**

THE OIL LEVEL MUST NEVER DROP BELOW THE MINI-MUM MARKING OR EXCEED THE MAXIMUM MARKING:



V100 E5 Maintenance

AN OIL LEVEL NOT WITHIN THE MINIMUM AND MAXIMUM MARKINGS MAY CAUSE SEVERE ENGINE DAMAGE.

# Replacement

### NOTE

### HOT OIL IS MORE FLUID AND WILL DRAIN OUT MORE EASILY AND COMPLETELY.

Place a collection container of suitable capacity under the drain plug (1).



Unscrew and remove the filler plug (2).



Unscrew the drainage cap.



Remove the drain plug and allow the oil to drip into the container for a few minutes.



Once the oil has drained out, screw in and tighten the drain plug with its washer to the prescribed torque.

Remove metal residues attached to the drain plug magnet.

#### NOTE

DURING REPLACEMENT, USE A NEW SEALING WASHER.



DO NOT DISPOSE OF OIL IN THE ENVIRONMENT. DISPOSE OF ENGINE OIL IN A SEALED CONTAINER AND TAKE IT TO YOUR SUPPLIER OR TO THE NEAREST USED OIL COLLECTION CENTRE.

IT IS ADVISABLE TO WEAR LATEX GLOVES WHEN SERVICING THE VEHICLE.

### Locking torques (N\*m)

Oil drainage plug 20 ± 2 Nm (14.75 ± 1.47 lb ft)

Fill with new oil through the filler cap.

#### **IMPORTANT**

DO NOT ADD ADDITIVES OR OTHER SUBSTANCES TO THE FLUID. WHEN USING A FUNNEL OR ANY OTHER ELEMENT, MAKE SURE IT IS PERFECTLY CLEAN.

### **Recommended products**

Engine oil 10W -50 Synthetic-based lubricant for high performance four-stroke engines.

SAE 10W 50; API SL; JASO MA2



### **Engine oil**

Oil change and oil filter replacement: 4900 cc in (299.02 cu in)

Screw and tighten the filler cap with its washer to the prescribed torque.

### NOTE

DURING REPLACEMENT, USE A NEW SEALING WASHER.

### Locking torques (N\*m)

Oil load cap 2 ± 0.5 Nm (1.47 ± 0.37 lb ft)







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# **Engine oil filter**

Loosen the 3 screws securing the engine oil filter cover.



Place a container with adequate collecting capacity at the engine oil filter cover and completely unscrew the 3 fixing screws.



DO NOT DISPOSE OF OIL IN THE ENVIRONMENT. DISPOSE OF ENGINE OIL IN A SEALED CONTAINER AND TAKE IT TO YOUR SUPPLIER OR TO THE NEAREST USED OIL COLLECTION CENTRE.



Remove engine oil filter cover with the spring.



Remove the engine oil filter.



When reassembling, use a new O-ring seal for the engine oil filter cover.



Insert the new engine oil filter.

NOTE

**NEVER REUSE AN OLD FILTER.** 



Refit the cover with the spring facing downwards.



Screw in and tighten the 3 fixing screws for the engine oil filter cover to the prescribed torque.

# Locking torques (N\*m)

Fixing screws for engine oil filter cover 12  $\pm$  1 Nm (8.85  $\pm$  0.73 lb ft)

