

2.14 CHECKING THE ENGINE OIL LEVEL AND TOPPING UP

Carefully read 2.1 (INTRODUCTION) and 1.4.2 (LUBRICANTS).

(*) For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

For the proper lubricants type, see 1.12 (LUBRICANT CHART).

Periodically check the engine oil level. (*)
Change the engine oil (*), see 2.15 (CHANGING THE ENGINE OIL AND THE ENGINE OIL FILTER).

WARNING


It is critical to the safe operation of your vehicle that the proper lubricants, maintained at the proper levels, are used.

Failure to heed this warning can lead to an engine seizure with subsequent accident, serious injury or death.

CHECKING

NOTE Place the vehicle on firm and flat ground.

WARNING

The engine oil level must be checked with warm engine. If the check is carried out with cold engine, the oil level may temporarily lower below the "MIN" mark. This is not a problem, provided that the engine oil pressure warning light LED  does not come on.

WARNING

Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled.

Do not start the engine in closed or badly-ventilated rooms.

Failure to observe this warning may cause loss of consciousness or even lead to death by asphyxia.

- ◆ Check the oil when the engine is warm, having been ridden for at least 10 mi (15 km).

NOTE If the engine is cold, warm it up for riding, preferably on a hilly road, for approximately 10 mi (15 km) before checking the oil.

- ◆ Stop the engine before checking the oil.

WARNING

Should your vehicle overturn, it will leak gasoline, which is extremely flammable.

Flames or sparks may cause a fire, which could destroy not only the vehicle, but also the building in which it is located, and cause serious injuries or even death.

- ◆ Keep the vehicle vertical with the two wheels resting on the ground.

NOTE If you attempt to check the oil with the vehicle leaned in either direction from the vertical, your measurement will be inaccurate.

If the engine oil tank is dirty, wipe it with a clean cloth so that you can see the "MIN" and "MAX" marks.

Follow 

Follow ►

- ◆ Look through the appropriate slot (1) in the left fairing. Check the level of the oil in the sight gauge (2).

MAX = maximum level**MIN** = minimum level

The difference between "**MAX**" and "**MIN**" is about 0.53 US qt (500 cm³).

- ◆ The level is correct if the oil reaches approx the "**MAX**" mark.

⚠ WARNING

Never exceed the "**MAX**" mark, nor leave the oil below the "**MIN**" mark, in order to avoid serious damage to the engine.

If necessary, top up the engine oil tank:

When warmed up, the engine contains hot oil and the engine oil tank (3) is warm; therefore, while carrying out the operations described here below be particularly careful, in order to avoid burns.

⚠ CAUTION

Use thick gloves to prevent burns.

- ◆ Remove the left fairing, see 7.1.28 (REMOVING THE SIDE FAIRINGS).

⚠ CAUTION

Before unscrewing and removing the filler cap (4), clean it and the area of the tank around it with a clean cloth.

Prevent any foreign matter from falling into the oil tank, this could cause serious engine damage.

Do not use any flammable solvents such as alcohol or gasoline when wiping the oil tank.

The oil tank is hot enough to cause ignition of flammable solvents.

Use only a nature fiber cloth, i.e. cotton.

Man made fabrics such as polyester, etc. could ignite.

- ◆ Unscrew and remove the filler cap (4).

⚠ CAUTION

If you use any container or funnel for topping up, ensure that it is perfectly clean.

Any foreign matter getting into the oil tank may lead to severe damage.

⚠ WARNING

Do not add any additives or other substances to the engine oil.

When topping up, never exceed the "**MAX**" level.

- ◆ Top up the engine oil tank (3) through the filler neck (5), with high-quality engine oil, see 1.12 (LUBRICANT CHART).
- ◆ Replace and tighten the filler cap (4).

⚠ CAUTION

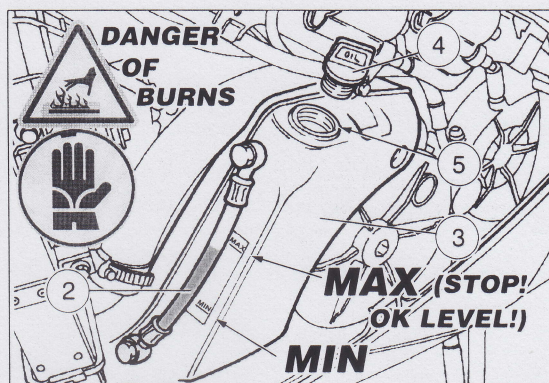
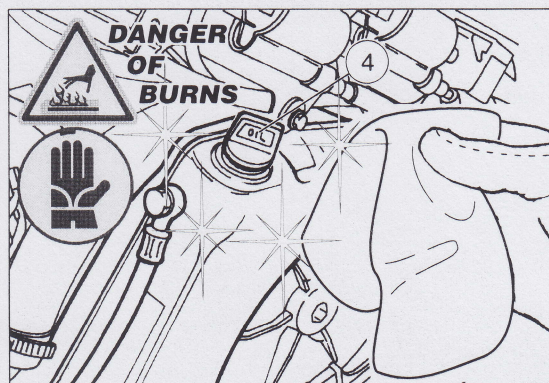
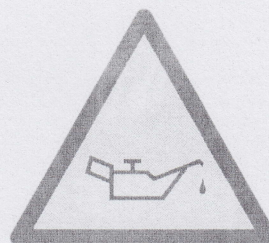
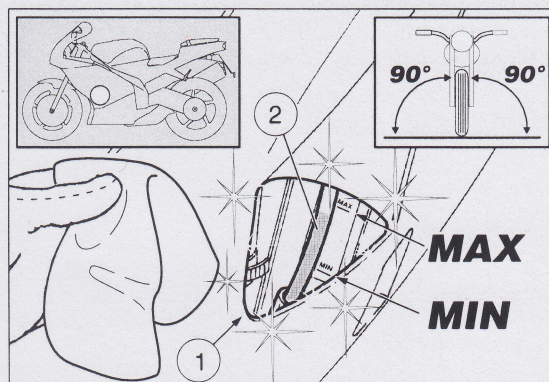
Tighten the filler cap (4) snugly to insure no oil leak.

- ◆ Replace the left fairing, see 7.1.28 (REMOVING THE SIDE FAIRINGS).

⚠ CAUTION

Never ride your vehicle with low engine oil, or with contaminated oil, or with unapproved oil.

Any of these will greatly accelerate wear of your engine, and cause irreparable damage.



2.15 CHANGING THE ENGINE OIL AND THE ENGINE OIL FILTER

Carefully read 1.4.2 (LUBRICANTS) and 2.1 (INTRODUCTION).

(*) For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

For the proper lubricants type, see 1.12 (LUBRICANT CHART).

Periodically check the engine oil level, see 2.14 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP) (*). Change the oil (*).

CAUTION

If the vehicle is used in dusty areas, change the engine oil more frequently.

For competition use, change the engine oil (*).

2.15.1 CHANGING THE ENGINE OIL

NOTE Be sure to warm the engine up completely before attempting to change the oil. This will ensure that the oil is "thinner" and that all of the old oil will drain completely.

It is best to change the oil after the vehicle has been thoroughly warmed up, that is, ridden at least 20 or 30 miles.

WARNING

When warmed up, the engine contains hot oil; therefore, while carrying out the operations described here below be particularly careful, in order to avoid burns.

NOTE Place the vehicle on the side stand on firm and level ground.

- ◆ Remove the lower fairing, see 7.1.34 (REMOVING THE LOWER FAIRING).
- ◆ Place a container (1) with a capacity of greater than 4.25 US qt (4,000 cm³) underneath the drain plug (2) on the bottom of the oil tank.
- ◆ Unscrew and remove the drain plug (2) on the bottom of the oil tank.
- ◆ Unscrew and remove the filler plug (3).
- ◆ Drain the oil and let it drop for a few minutes inside the container (1).
- ◆ Check and if necessary replace the gasket of the drain plug (2).
- ◆ Screw and tighten the drain plug (2).

Drain plug on the bottom of the oil tank tightening torque: 10.8 ftlb (15 Nm).

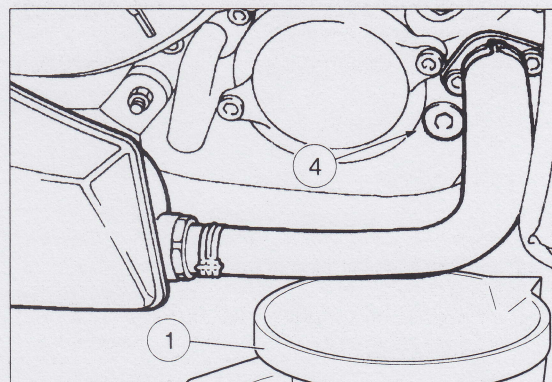
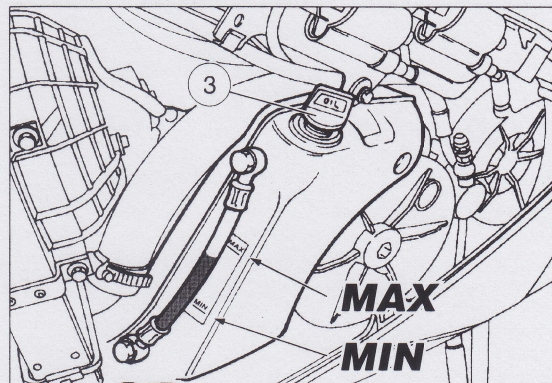
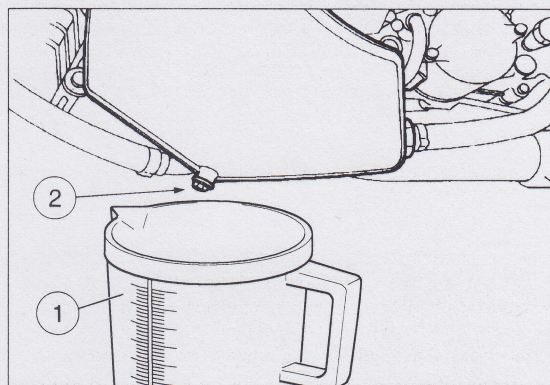
- ◆ Move the container (1) under the engine oil drain plug (4) on the engine.
- ◆ Unscrew and remove the engine oil drain plug (4).
- ◆ Allow the oil to completely drain, it will drip for a few minutes.

CAUTION

Dispose of oil properly. Do not pour oil down the drain, in a storm sewer, or any place else except an approved oil recycling facility.

- ◆ Carefully wipe any magnetic residue from the engine oil drain plug magnet.
- ◆ Replace and tighten the engine oil drain plug (4).

Engine oil drain plug (on the engine) tightening torque: 8.7 ftlb (12 Nm).



2.15.2 CHANGING THE ENGINE OIL FILTER

Change the engine oil filter (*) (or every time you change the oil).

(*) For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

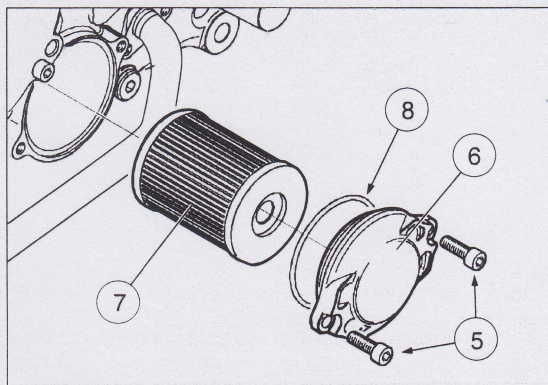
- ◆ Unscrew the two screws (5) and remove the cover (6).
- ◆ Remove the engine oil filter (7).

CAUTION

Never reuse a used filter. Use only new, original equipment **aprilia** filter.

- ◆ Spread a thin film of oil or grease on the O-ring (8) of the new engine oil filter.
- ◆ Fit the new engine oil filter.
- ◆ Replace the cover (6), screw and tighten the two screws (5).

Screw (5) tightening torque: 8 ftlb (11 Nm).



2.15.3 CLEANING THE ENGINE OIL FILTER ON THE TANK

Clean the engine oil tank filter (9) (*) or every two engine oil changes.

(*) For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

NOTE Have the appropriate special tool **OPT** available:
– **aprilia** part# 0277295 (click clamp installation pliers).

CAUTION

Upon installation, replace the click clamp that has been removed with a new click clamp having the same dimensions, see 0.4.2 (SPARE PARTS CATALOGUE).

Do not attempt to reinstall the removed click clamp, since it is unusable.

Do not replace the removed click clamp with a screw-type clamp (10) or with other types of clamps.

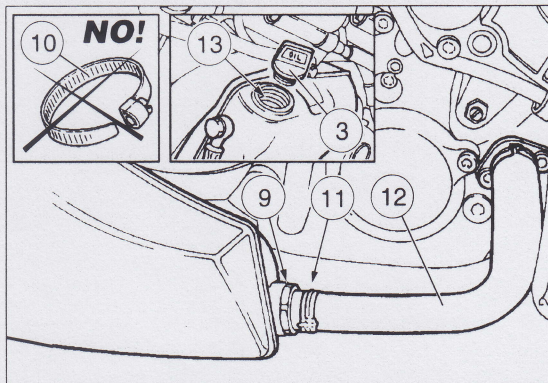
- ◆ Release the click clamp (11).
- ◆ Disconnect the pipe (12).
- ◆ Unscrew and remove the engine oil tank filter (9), wash it in fire-proof solvent, and clean and dry with a blast of compressed air.
- ◆ Upon reassembly, carefully inspect the seal, then install the engine oil tank filter.

Engine oil tank filter tightening torque:
21.7 ftlb (30 Nm).

- ◆ Refit the pipe (12), securing it in place using a new click clamp.

CAUTION

Do not add additives or other substances into the oil. If you use a funnel or other similar items, ensure that they are perfectly clean.



- ◆ Pour about 3.7 US qt (3,500 cm³) of engine oil through the filling opening (13), see 1.12 (LUBRICANT CHART).

- ◆ Tighten the filler cap (3).

WARNING

Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled.

Do not start the engine in closed or badly-ventilated rooms.

Failure to observe this warning may cause loss of consciousness or even lead to death by asphyxia.

CAUTION

Start the engine and let it run **ONLY** for the time necessary for the checking.

- ◆ Start the engine and let it idle for about one minute, to ensure that the engine oil system is completely filled.
- ◆ Check the oil level and top up if necessary, see 2.14 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).