aprilia

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ATLANTIC 125 - 250

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workshopmanual

8140806

UK

UPDATES 9

SUMMARY

9.1. UPDATE

9.1.1. REFERENCE MANUALS

Version 125 cc

SPARE PARTS CATALOGUES

aprilia part# (description)	
6642 rel.03	I F D E UK

SPECIAL TOOLS CATALOGUES

aprilia part# (description)	
001 M	I F D E UK

OWNER'S MANUALS

aprilia part# (description)	
8104853	I
8104854	F D NL DK UK GR J
8104856	E

ENGINE TECHNICAL MANUAL

aprilia part# (description)	
8140680	I
8140681	E
8140682	F
8140683	D
8140684	UK

Version 250 cc

SPARE PARTS CATALOGUES

aprilia part# (description)	
6642 rel.03	I F D E UK

SPECIAL TOOLS CATALOGUES

aprilia part# (description)	
001 M	I F D E UK

OWNER'S MANUALS

aprilia part# (description)	
8104853	I
8104854	F D NL DK UK GR J
8104856	E

ENGINE TECHNICAL MANUAL

aprilia part# (description)	
8140797	I
8140798	E
8140799	F
8140800	D
8140801	UK

9.1.2. TECHNICAL DATA

DIMENSIONS	
Max. length	2085 mm (82.086 in)
Max. width	785 mm (30.905 in)
Max. height (front part of the fairing included)	1370 mm (53.937 in)
Seat height	790 mm (31.102 in)
Wheel base	1460 mm (57.480 in)
Wheel base	1480 mm (58.267 in)
Min. ground clearance	190 mm (7.480 in)
Unladen weight (in the direction of travel)	162 kg (357.148 lb)
Unladen weight (in the direction of travel)	170 kg (374.785 lb)
ENGINE	
Make	M 245 M
Make	M 237 M
Type	Single-cylinder, four-stroke with four valves, wet forced lubrication, overhead camshaft.
Number of cylinders	1
Total displacement	124 cm³ (7.567 in³)
Total displacement	244 cm³ (14.890 in³)
Bore/stroke	57 x 48,6 mm (2.244 x 1.913 in)
Bore/stroke	72 x 60 mm (2.835 x 2.362 in)
Compression ratio	12,0 ± 0,5: 1
Compression ratio	11,0 ± 0,5: 1
Starting	Electric
Engine idling rpm	1600 ± 100 giri/min
Clutch	Centrifugal type
Gearbox	Automatic
Cooling system	Liquid-type (50% water + 50% coolant), with forced circulation
Valve clearances	Intake 0.10 / Exhaust 0.15
CARBURETOR	
Model	CVK 7 30 KEIHIN
Model	WVF 7 Ø 29 WALBRO
FUEL SUPPLY	
Type	Vacuum pump
Fuel	Premium-grade petrol, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.)
CAPACITY	
Fuel (with reserve)	9,5 liters
Fuel reserve	1,5 liters
Engine oil	
- changing engine oil only	1000 cm³ (61.024 in³)
- changing engine oil and engine oil filter	1100 cm³ (67.126 in³)
- changing for engine overhaul	1150 cm³ (70.177 in³)
Transmission oil	150 cm³ (9.154 in³)
Coolant	1.200 cm³ (73.228 in³)
Seats	2
Vehicle max. load (rider + passenger + luggage)	210 kg (462.970 lb)
TRANSMISSION	
Variator	Continuous automatic
Primary	With V-belt
Secondary	Gear-type
Engine/wheel total ratio	
- short	1:29,40
- long	1:8,78
Engine/wheel total ratio	
- short	7:19,30
- long	1:6,80

FRAME	
Type	Single-beam with twin overlapped cradle
Steering inclination angle	27°
Trail	104 mm (4.094 in)
SUSPENSIONS	
Front	telescopic fork with hydraulic operation
Stroke	105 mm (4.134 in)
Rear	n. 1 Hydraulic monoshock
Stroke	105 mm (4.134 in)
BRAKES	
Front	Hydraulic disc brake - Ø 240 mm (9.449 in)
Rear	Hydraulic disc brake - Ø 190 mm (7.480 in) (combined with front brake)
WHEELS	
Front	E – 13 x 3,00 DOT – D
Rear	E – 13 x 3,50 DOT – D
TYRES	
Type	Tubeless
Front	110 / 90 – 13" 56 P
Rear	130 / 70 – 13" 63 P
Front	
Rear	200 kPa (2,0 bar)
INFLATION PRESSURES FOR CARRYING A	220 kPa (2,2 bar)
PASSENGER	
Front	230 kPa (2,0 bar)
Rear	250 kPa (2,2 bar)
IGNITION	
Type	Capacitive discharge, variable spark advance
Timing advance	Variable, controlled by the ECU 5°/min - 24°/>4000 rpm
Timing advance	Variable, controlled by the ECU 4°/min - 15°/4000 -6000 rpm
SPARK PLUG	
Standard	NGK CR 8 EB
As an alternative	NGK CR 7 EB
	NGK CR 9 EB
	CHAMPION RG 6 YC
	CHAMPION RG 4 HC
Electrode gap	0,7 – 0,8 mm (0.028 – 0.031 in)
ELECTRIC SYSTEM	
Battery	12 V – 12 Ah
Fuses	20 – 15 – 7,5 A
Generator (with permanent magnet)	12 V – 180 W
Generator (with permanent magnet)	12 V – 235 W
BULBS	
Low beam	12 V – 55 W
High beam	12 V – 55 W
Parking light	12 V – 16 W
Direction indicators	12 V – 10 W
Tail lights/Number plate light/ Stop light	12 V – 5 W / 21 W
WARNING LIGHTS	
Instrument panel lights	12 V – 1,2 W
Direction indicators	12 V – 1,2 W
Engine oil pressure	12 V – 1,2 W
Low beam	12 V – 1,2 W
High beam	12 V – 1,2 W
Fuel reserve	12 V – 1,2 W

9.1.3. LUBRICANT CHART

LUBRICANT	PRODUCT
Engine oil	RECOMMENDED: IP SUPERBIKE 4, SAE 5W – 40 or Agip 4T FORMULA RACING, SAE 5W - 40. As an alternative to the recommended oils, it is possible to use select oils having properties in compliance with or even above A.P.I. SJ specifications.
Transmission oil	RECOMMENDED: IP F.C., SAE 75W 90 or Agip GEAR SYNTH, SAE 75W - 90. As an alternative to the recommended oil, use select oils having properties in compliance with or even above A.P.I. GL3 specifications
Fork oil	RECOMMENDED: IP F.A. 5W or IP F.A. 20W, as an alternative Agip FORK 5W or Agip FORK 20W. Should you wish to reach an average behavior between those offered by IP F.A. 5W and by IP F.A. 20W or Agip FORK 5W and by Agip FORK 20W, mix the products as follows: SAE 10W = IP F.A. 5W 67% of the volume, + IP F.A. 20W 33% of the volume. Agip FORK 5W 67% of the volume + Agip FORK 20W 33% of the volume. SAE 15W = IP F.A. 5W 33% of the volume, + IP F.A. 20W 67% of the volume. Agip FORK 5W 33% of the volume + Agip FORK 20W 67% of the volume.
Bearings and other lubrication points	RECOMMENDED: IP BIMOL GREASE 481 + Agip GREASE SM2. As an alternative to the recommended product, use select oil for rolling bearings, useful temperature range -30°C…+140°C (-22°F…+284°F), dripping point 150°C…230°C (302°F…446°F), highly anticorrosive, water and oxidization resistant.
Battery terminals	Neutral grease or vaseline.
Brake fluid	RECOMMENDED: IP F.F. DOT 4 (DOT 5 compatible) - Agip BRAKE 5.1 DOT 4 (DOT 5 compatible). As an alternative to the recommended fluid, use fluids having properties in compliance with or even above SAE J1703, NHTSA 116 DOT 4, ISO 4925 specifications. ***NOTE*** *Before mixing different makes or types of oil, check their compatibility.*
Engine coolant	RECOMMENDED: IP ECOBLU – 40° C (-40°F) + Agip COOL. As an alternative to the recommended fluid, use fluids having properties in compliance or even above basic ethylene glycol CUNA NC 956-16 specifications. ***NOTE*** *Use only nitrite-free anti-freeze and corrosion inhibitors with a freezing point of -35°C (-31°F) as a minimum.*

9.1.4. ROUTINE MAINTENANCE TABLE

Parts	After running-in [1000 km (621 mi)]	Every 6000 km (3728 mi) or 8 months	Every 12000 km (7456 mi) or 16 months
Idle misture (CO)	-	1	-
Belt, converter rollers and plastic guides	-	1	3
Converter belt	-	3	-
Steering bearings	1	1	-
Wheel bearings	-	1	-
Converter cover air filter	-	2	-
Secondary air scoop filter	-	2	-
Clutch shoes	-	-	1
Valve clearance	-	1	-
Brake fluid	1	1	1 / every 2 years: 3
Front fork oil	1	1	3
Engine oil filter mesh and magnetic screw	1	1	-
Converter rollers and plastic guides	-	1	3
Wheels/tyres	-	1	-
Nuts and bolts torque	1	1	-
Cylinder head nuts torque	1	-	-
Brake bleeding	1	-	-
Battery terminals tightening	1	-	-
Fuel line	-	1	every 2 years: 3
Rear shock absorbers	1	1	-
Battery - Battery fluid level	1	1	-
Spark plug	1	1	3
Carburettor - idle rpm	4	-	1
Air cleaner	-	2	-
Engine oil filter	3	3	-
Throttle operation	1	1	-
Brake operation	1	1	-
Converter grease	-	3	-
Brake light switch	-	1	-
Coolant	1	every 1000 km (621 mi): 1 / every 16 months: 3	
Engine oil	3	every 1000 km (621 mi): 1 / every 6000 km (3728 mi): 3	
Transmission oil	3	every 6000 km (3728 mi): 1 / every 24000 km (14913 mi): 3	
Beam setting/operation	-	1	-
Tyres/inflation pressure	every month: 1		
Battery terminals tightening	1	-	-
Front fork	1	1	-
Brake pads wear	1	every 2000 km: (1250 mi): 1	

1 = check and clean, adjust, lubricate or change, if necessary; 2 = clean; 3 = change; 4 = adjust.
Perform the maintenance operations more often if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

( ) = OPERATIONS TO BE MADE ALSO BY THE USER

9.1.5. CARBURETTOR SPECIFICATIONS

COMPONENTS	SPECIFICATIONS	
	125 cc	250 cc
Type	CVK 7 30 KEHIN	WVF 7 Ø 29 WALBRO
Throttle port (Venturi)	Ø 29	Ø 29
Engine-side fitting	Ø 40	Ø 40
Float	5.9 g (0.035 oz)	-
Float valve - needle seat	1.5	1.2
Start air inlet hole	200	150
Starter jet	50	42
Idling adj. hole	-	-
Idle jet	36	38
Mixture control screw open by (turns)	2 5/8	2 1/2
Idle air hole	100	115
Maximum rpm air hole	115	70
Main jet	108	100
Throttle valve slide	Standard	Standard
Mixing tube	Ø 2.7 mm (0.106 in)	Ø 2.8 mm (0.110 in)
Nozzle needle	51C	NDWA
Notch	2°	-

9.1.6. CHECKING AND TOPPING UP TRANSMISSION OIL LEVEL

NOTE *Use the recommended oil only, see 9.1.4 (LUBRICANT CHART).*

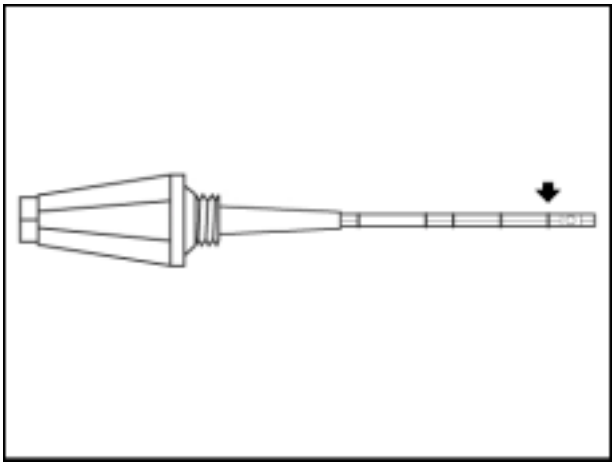
- Ride until covering several kilometres to warm up engine up to operating temperature and then stop the engine.

CHECKING LEVEL

- Place the vehicle on firm and level ground.
- Put the vehicle on the centre stand.

WARNING
Allow several minutes for the engine and exhaust system to cool down.

- Unscrew and extract the plug/dipstick (1).
- Clean the part in contact with the oil with a clean cloth.
- Tighten the plug/dipstick (1) fully into the filler opening (2).
- Extract the plug/dipstick (1) again and check oil level on the dipstick.



- Correct level is achieved when the oil reaches approximately the first mark over the dot.
- Top up if needed.

TOPPING UP

- Pour a small quantity of oil into the filler opening (2). Allow one minute for oil to flow into the crankcase.
- Check level and top up if needed.
- Top up with small quantities of oil until obtaining the correct level.
- When finished, tighten the plug/dipstick (1).

NOTE *Do not use the vehicle when lubricant levels are low or lubricant has become contaminated. Use specified lubricants only. Improper lubrication will lead to moving parts fretting, resulting in irreparable damage.*

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