



Sales division
Technical network leadership

TECHNICAL TRAINING

new
VIVACITY



50 CC. 2 STROKE

P/N.VIVA3.001.01/2008.GB V1

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PRESENTATION OF THE MACHINE

- The segment on which the Vivacity has been marketed since it was launched (1998) has considerably changed over the last three years, further to the arrival of a great number of competing vehicles on West European markets.
- The segment of (compact/basic) scooters accounts for a considerable share of the overall 50 cc scooter market, 38% on average in Europe, that is to say 142000 units. It was especially developed on Southern markets where attractive prices and the aspect of utility are essential purchasing factors.

Customer profiling.

- No driving license.
- Traffic and parking problem.
- Used instead of a 2nd car.

Our offer.

- The new Vivacity is an original vehicle which is modern and essential and which shall be a front runner on the 2 -wheeler market thanks to 4 key success factors:
 - **A structured graceful design which is modern and status enhancing:** The overall outline of the vehicle gives a feeling of riding stability and sturdiness.. Its slender shape enhanced by an aerodynamically-slick and structured profile, as well as the clever layout of its headlights make it an elegant vehicle..
 - **Optimized practical features:** Its harmoniously proportioned outline perfectly integrates the exceptional storage capacity of a scooter of such a category: Although it is compact, it features ideal riding stability and many storage arrangements..
 - Considering the wide variety of features offered, its very attractive price is lower than the current Vivacity..
 - **A very complete lineup is soon available.**

PRODUCT HIGHLIGHTS

Modernism.

Exhaust muffler trim.
3 spoke aluminium rims.
Built-in deflector offered as standard equipment
Blue retro-lit instrument panel.
New horizontal engine.

Compactness.

Optimized overall dimensions.
Well thought out seat height.
Record roominess.

Ergonomics.

Optimized Floor panel-to-seat distance.
Ergonomic riding position.
Well dimensioned dual seat
Protective front body panel.
Low centre of gravity.

Design.

Mini GT look (aerodynamically-slick front outline in comparison with capacious back which is more familiar and attractive).
Its styling features emphasizes the spirit of the brand (aestheticism, dynamism and innovation).
High quality finish.



Functional features.

Clever storage arrangements.
Front and underseat storage compartment.
Utility hanger.
Flat floor panel.
12 V plug offered as standard equipment.
Optional parcel carrier and top case.

Price.

Knock-down price for a maximum of functional features.
Cheap price and cost effective.

Fuel efficiency.

8.5 l fuel tank
Record storage capacity with 35 l of total usable volume

Riding comfort and safety.

Aluminium passenger grab handle.
Kickstand offered as standard equipment.
Built-in footrests.
12" wheels.
Flat floor panel.

CHARACTERISTICS

Marking	
Type	2-stroke single-cylinder. Horizontal cylinder
Cooling	By a circulation of forced air by means of a turbine on the flywheel magneto
Bore x stroke	39.9 x 39.8 mm
Cubic capacity	49.9 cc
Max. power output	3 kW at 7000 rpm
Max. torque rating	4 Nm at 5800 rpm
Fuel supply	PZ Ø12 carburettor
Lubrication	Separate lubrication by an electric pump driven by the Oil Pump Control Ignition Unit
Transmission	By 2 variable pulleys and V-type belt
Clutch	Centrifugal automatic
Spark plug	NGK BPR7HS
Magneto flywheel	80W
Exhaust	Catalytic
Standards	Euro2

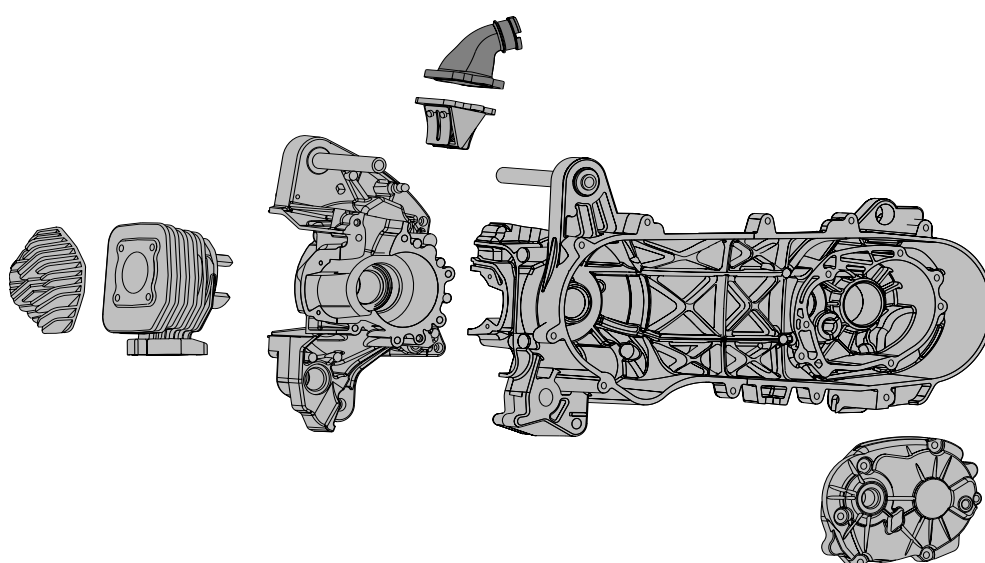
ENGINE

2-stroke single-cylinder. Air cooling.

Cast iron cylinder.

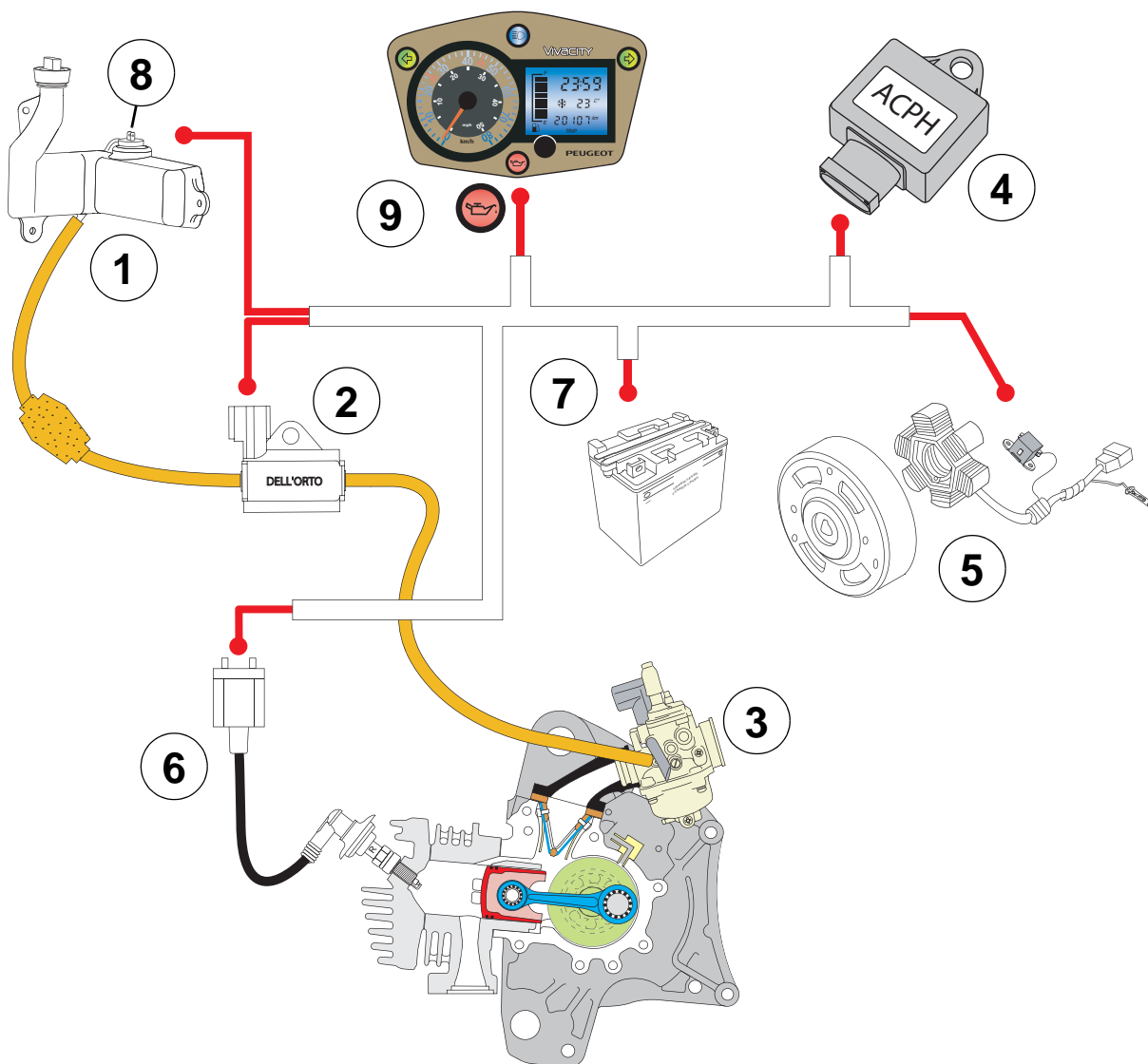
Direct intake via valves into the crankcase.

Cast aluminium alloy engine crankcase.



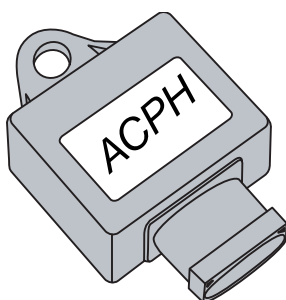
■ Lubrication/Ignition.

- Separate lubrication by an electric pump driven by the Oil Pump Control Ignition Unit.
- 1.3 l tank capacity.



- | | |
|---------------------------|--|
| 1. Oil tank. | 6. HT coil. |
| 2. Electric oil pump. | 7. Battery. |
| 3. Carburettor. | 8. Oil level indicator. |
| 4. Oil pump control unit. | 9. Low oil level and oil pump electric diagnostic warning light. |
| 5. Ignition sensor. | |

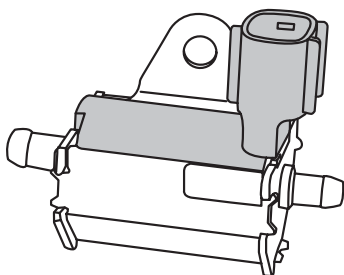
■ Oil pump control unit.



By processing the data received by the ignition sensor, the control unit provides the following functions:

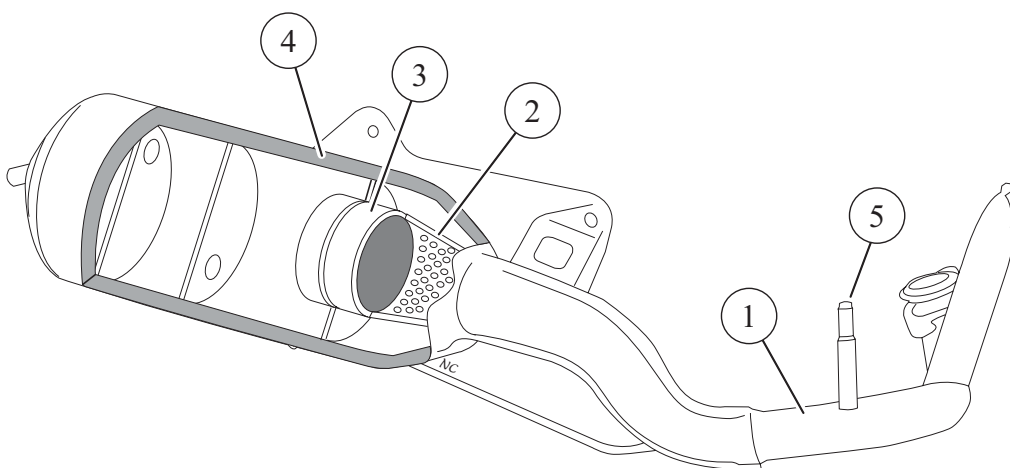
- Ignition.
- Calculated quantity of injected oil.
- Diagnostic of the system by lighting the oil warning light on the instrument panel.

■ Electric oil pump.



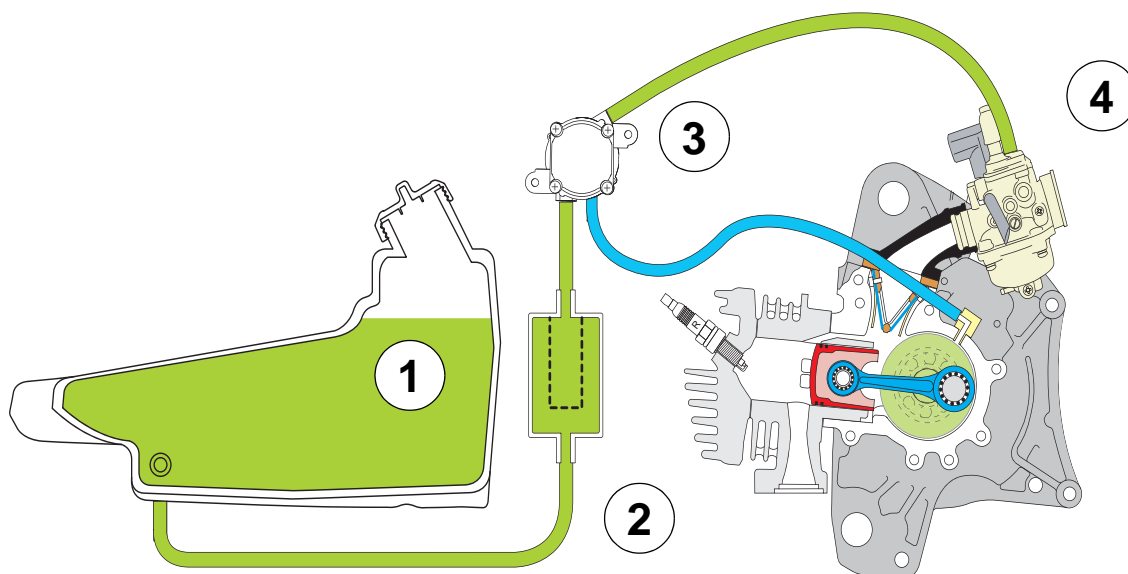
The oil pump which is governed by the control unit sends oil to the carburettor's venturi. The flow depends on the engine's running speed.

■ Exhaust.



1. Exhaust pipe.
2. Catalyser cone.
3. Catalytic block.
4. Heat insulation.
5. Injected air intake.

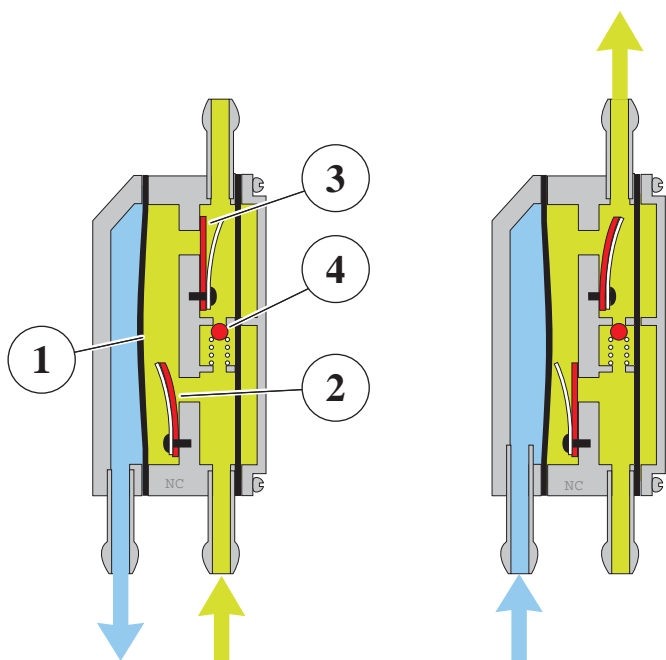
■ Petrol circuits.



- 1. Fuel tank.
- 2. Petrol filter.

- 3. Vacuum pump.
- 4. Carburettor.

■ Vacuum pump.



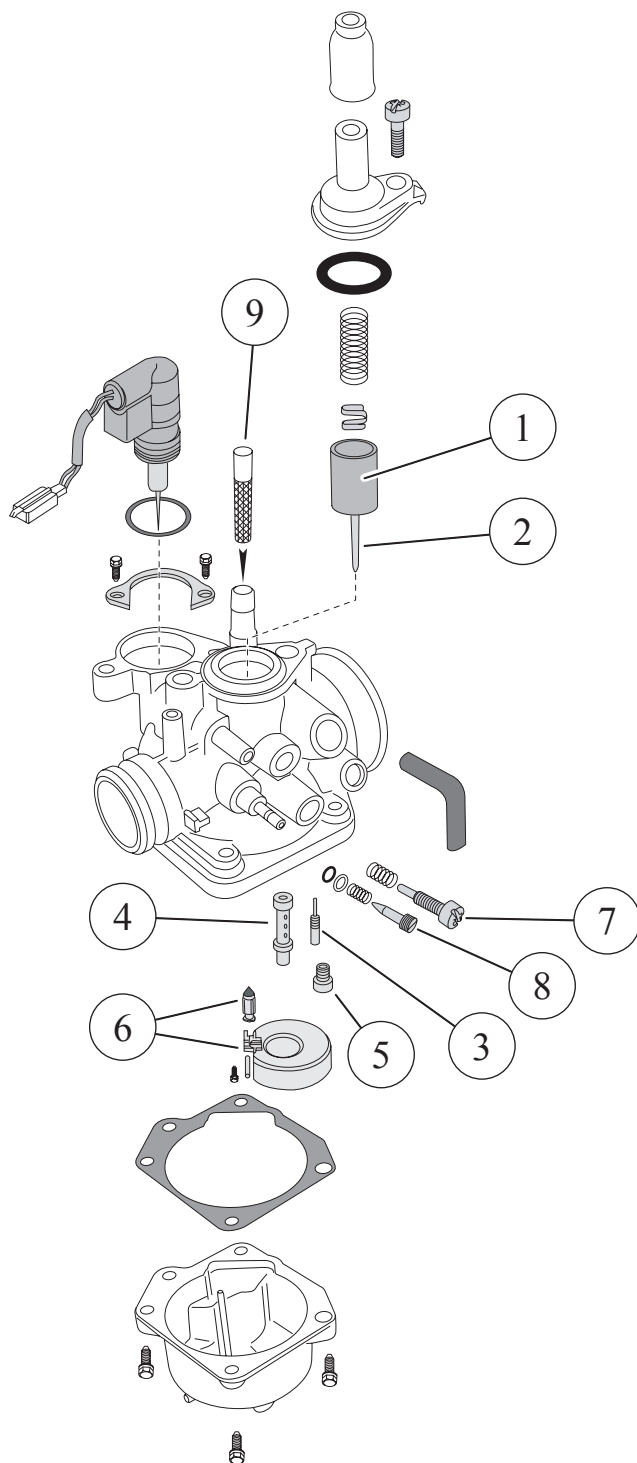
Functioning.

Under the effect of pulses, the diaphragm (1) pumps in and out the fuel by means of reed valves (2) and (3).

Safety.

When the ball (4) lifts, fuel can flow into the pump when the needle valve closes inside the carburettor or when there is a boost pressure at the fuel pump outlet.

■ Carburettor.

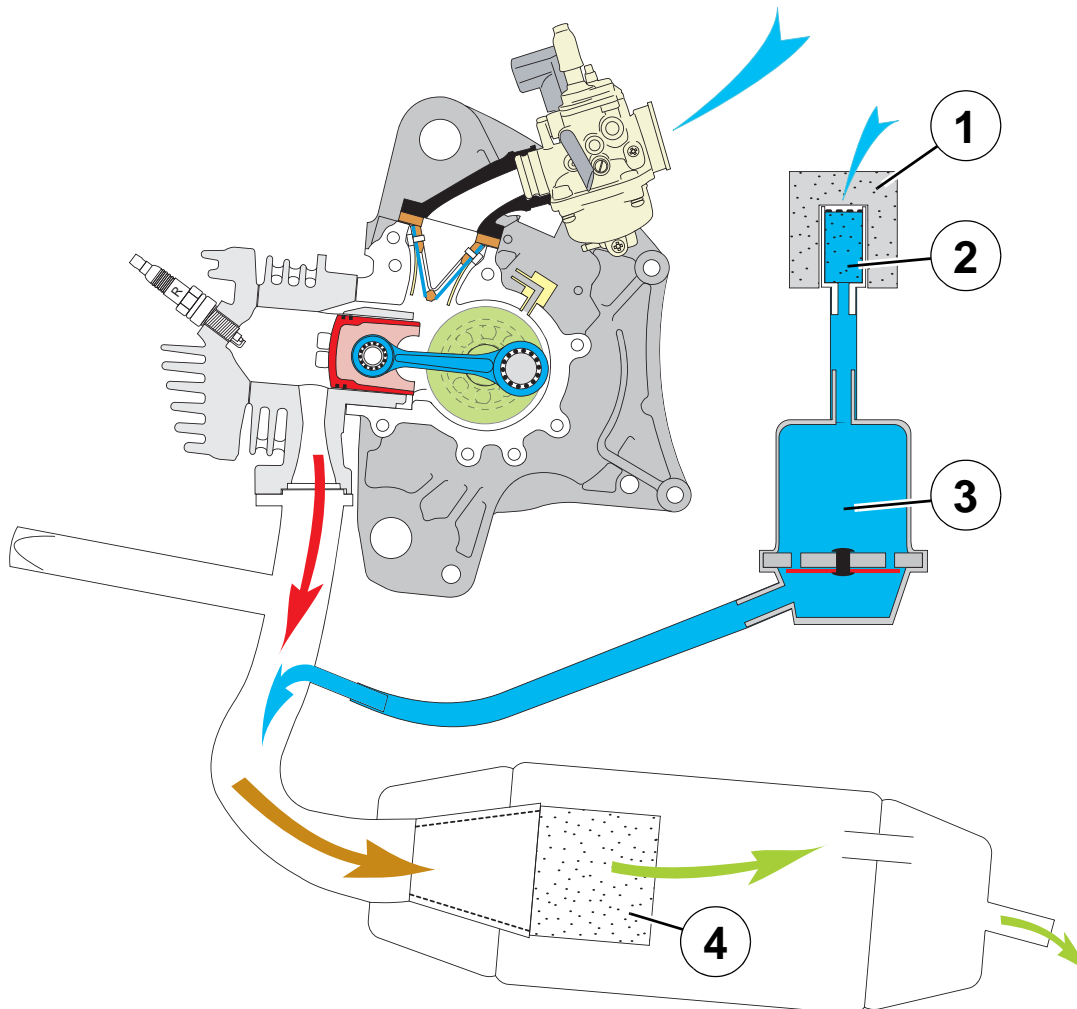


1. Piston.
2. Needle.
3. Idle jet.
4. Venturi.
5. Main jet.
6. Float and needle.
7. Idle screw.
8. Mixture screw.
9. Petrol filter.

■ Pollutant emission control system.

Pulsair.

Catalytic exhaust



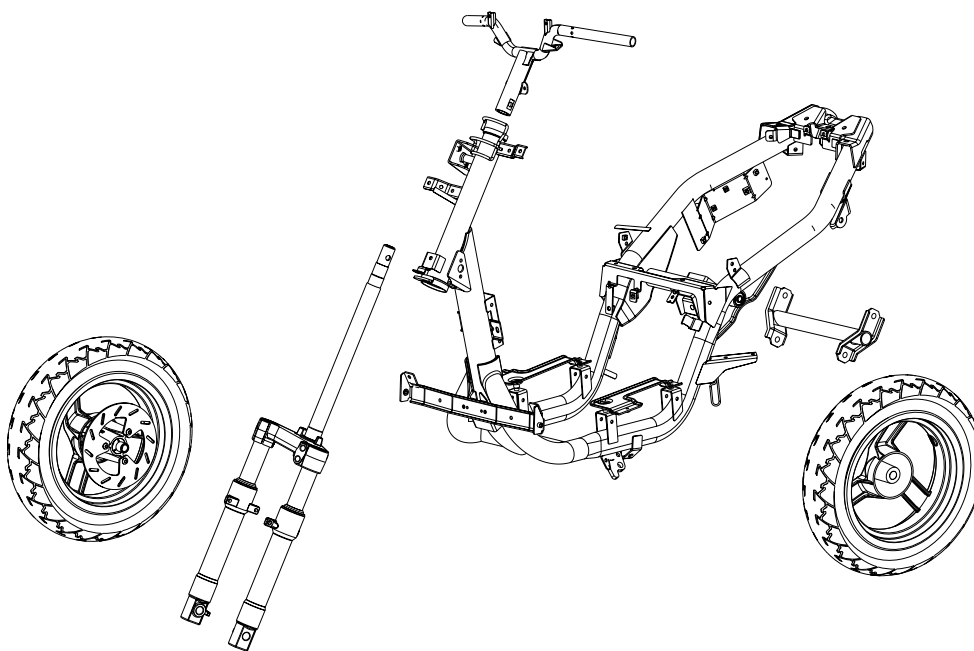
1. Silencer.
2. Primary filter.
3. Pulsair reed valve.
4. Catalytic block.

CYCLE PART**■ Chassis.**

Chassis	Steel tube
Front suspension	32 mm Ø telescopic front fork Oil capacity: 85 cc Travel: 75 mm
Rear suspension	Combined spring and hydraulically-damped shock absorber Travel: 65 mm
Front tyre	120/70 - 12
Rear tyre	120/70 - 12
Front tyre pressure	1.8 bars
Rear tyre pressure	2 bars

■ Dimensions and weight.

Length	1923 mm
Width	670 mm
Height (without rear-view mirrors)	1170 mm
Saddle height	786 mm
Wheelbase	1337 mm
Weight	95 kg

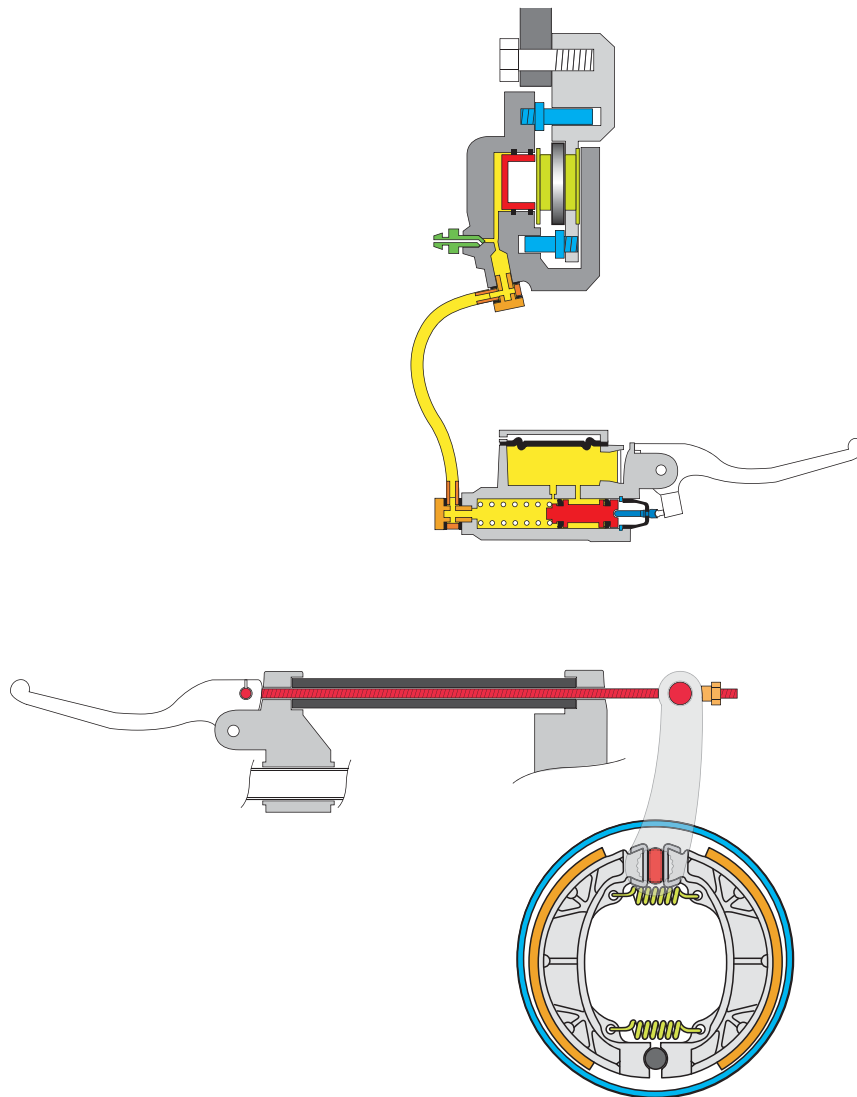


■ Brakes.

Front brake

Single disc type, hydraulic control

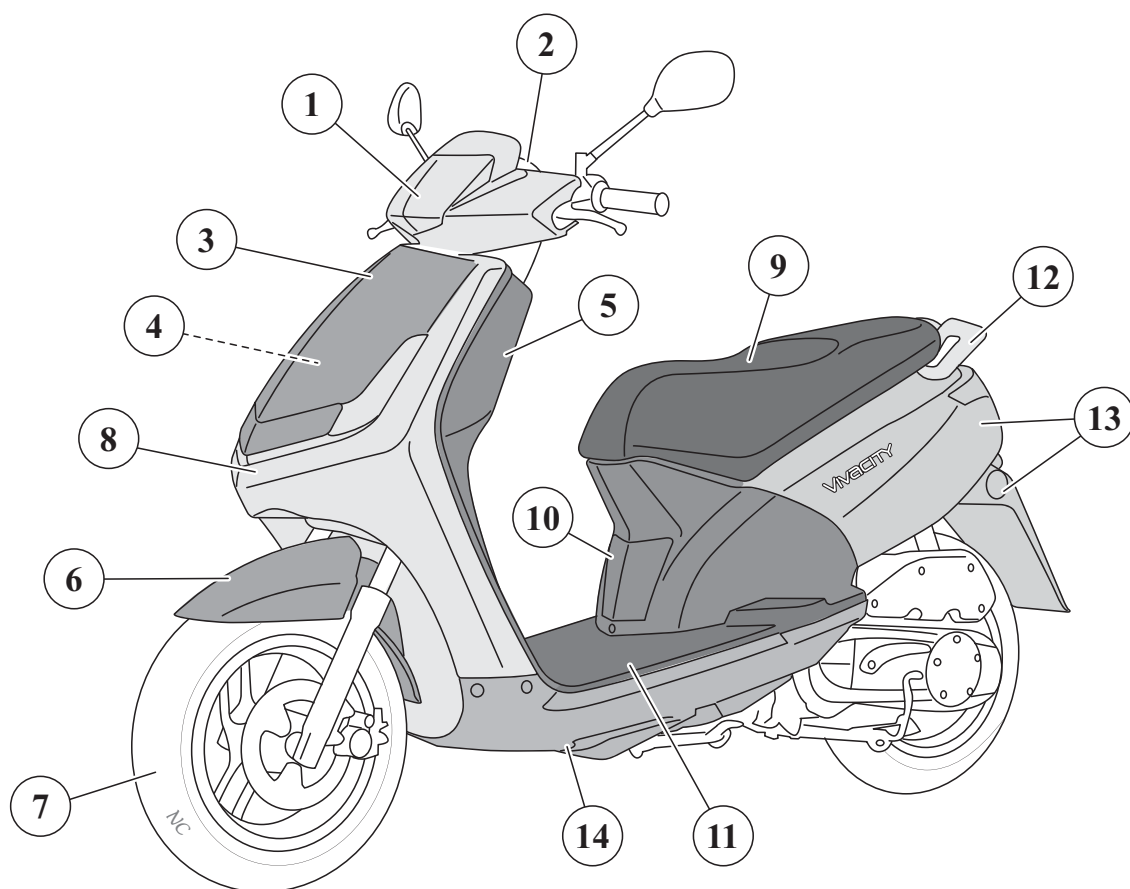
Disc diameter and thickness: 200 mm- 3.5 mm

**Cable controlled rear brake**

cable-controlled, single cam drum type

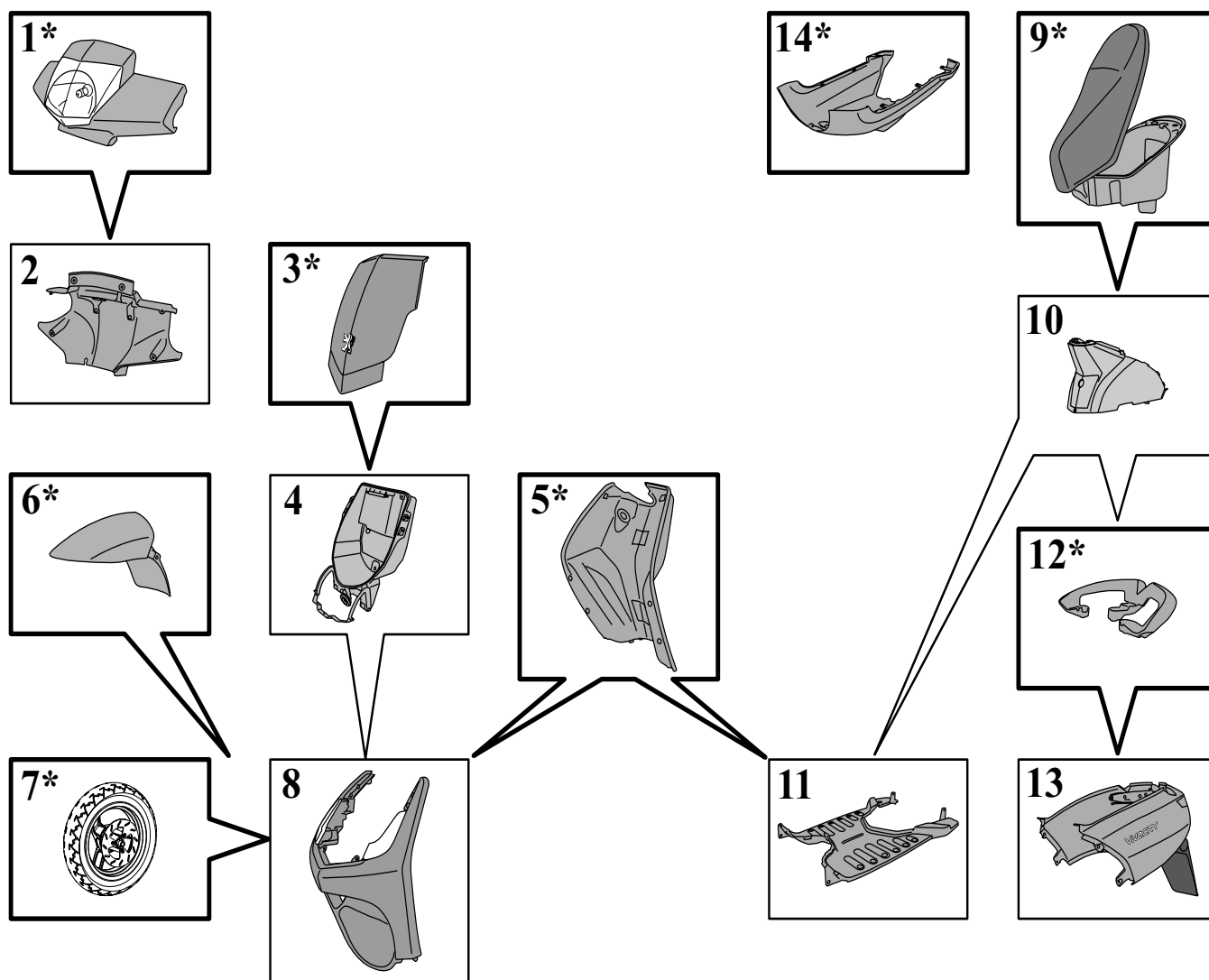
Brake drum diameter: 110 mm

Brake lining thickness: 4 mm

BODY PANELS■ **Description.**

- | | |
|------------------------------|-----------------------------------|
| 1. Handlebar front fairing | 8. Front shield panels |
| 2. Handlebar rear fairing | 9. Saddle and storage compartment |
| 3. Tool compartment cover | 10. Central panel |
| 4. Front storage compartment | 11. Footboard |
| 5. Rear shield | 12. Grab handle |
| 6. Front mudguard | 13. Rear panels |
| 7. Front wheel | 14. Bottom panel |

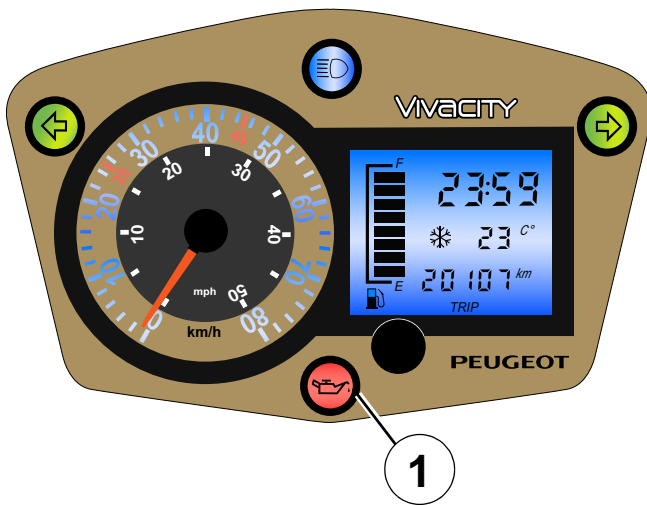
■ Body component sequence of disassembly.



- 1. Handlebar front fairing
- 2. Handlebar rear fairing
- 3. Tool compartment cover
- 4. Front storage compartment
- 5. Rear shield
- 6. Front mudguard
- 7. Front wheel

- 8. Front shield panels
- 9. Saddle and storage compartment
- 10. Central panel
- 11. Footboard
- 12. Grab handle
- 13. Rear panels
- 14. Bottom panel

* : This item may be removed on its own

INSTRUMENT PANEL.

If the low oil warning light (1) goes on or blinks, it means that the function of the engine's lubrication system is faulty.



Goes on if the temperature is lower than 3 °C

■ Outside temperature gauge



Outside temperature sensor.

Checking values:

- 45°C 4.912 kΩ.
- 20°C 12.09 kΩ.
- 0°C 27.28 kΩ.
- -10°C 42.45 kΩ.

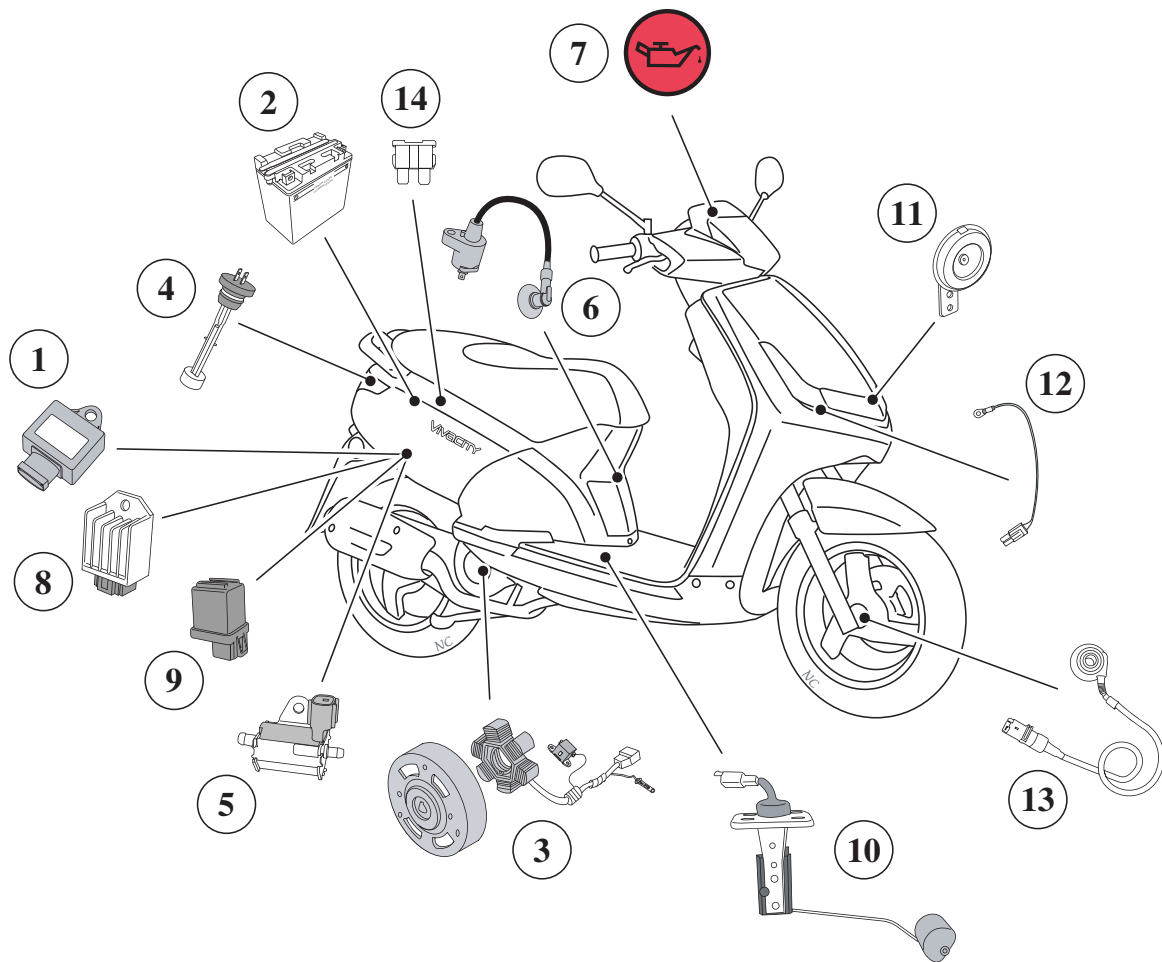
■ Diagnostic.

Note: The light comes on when the ignition is turned on to check it is operational and comes off as soon as the engine starts if there is no incident.

The engine is running :

1. If the low oil warning light (1) flashes or remains lit, replenish the oil tank.
2. If the low oil warning light flashes or remains lit, with the correct oil level function, carry out the trouble-shooting method. (See manual and method N°26 page 9).

LOCATION OF COMPONENTS

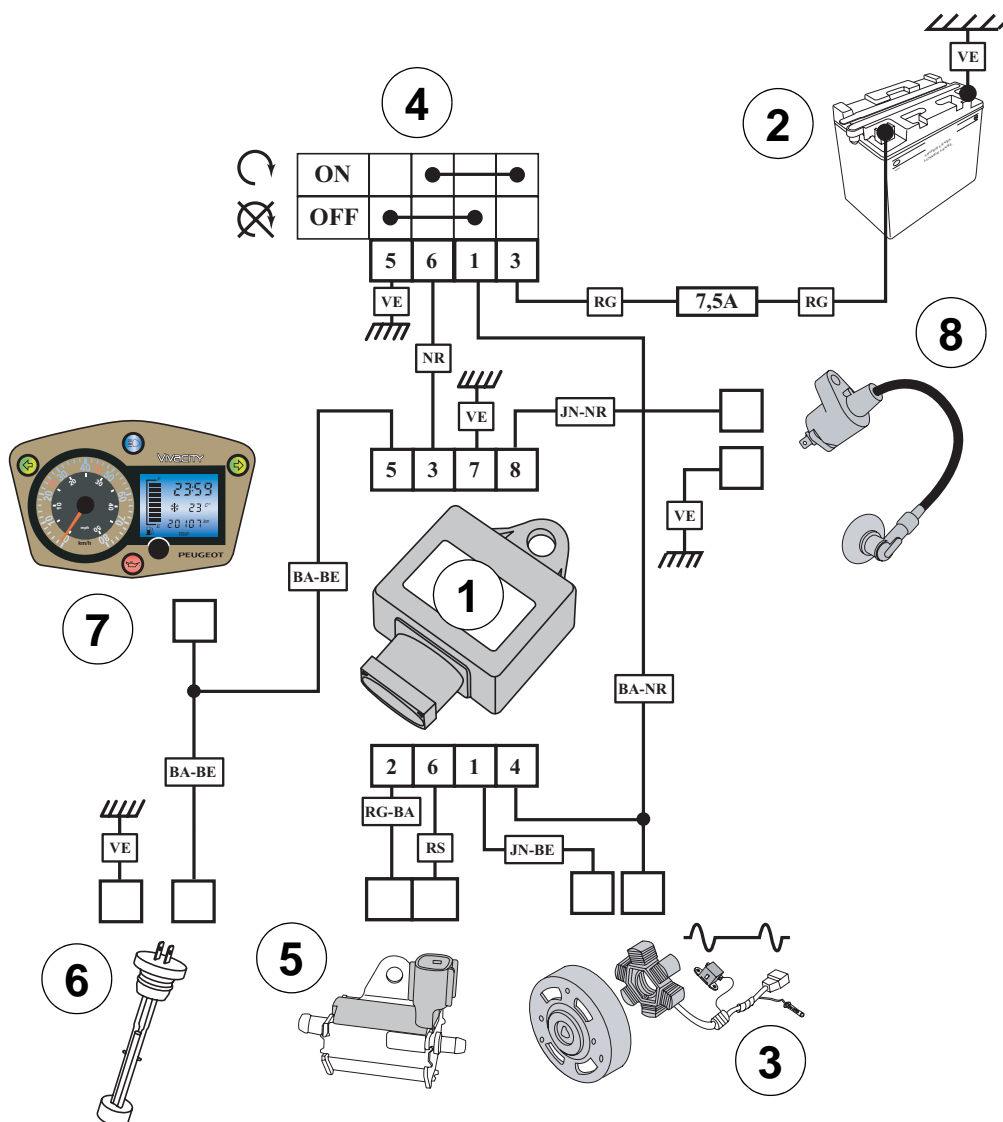


- 1. Oil pump control unit.
- 2. Battery.
- 3. Magneto flywheel.
- 4. Oil level indicator.
- 5. Oil pump.
- 6. HT coil.
- 7. Low oil level warning light.

- 8. Regulator.
- 9. Starter motor relay.
- 10. Fuel gauge.
- 11. Horn.
- 12. Outside temperature sensor.
- 13. Speed sensor.
- 14. Fuses

WIRING DIAGRAM

■ Ignition/Oil pump cable. (ACPH)



- | | |
|---------------------------|---------------------------------|
| 1. Oil pump control unit. | 5. Oil pump. |
| 2. Battery. | 6. Oil level indicator. |
| 3. Ignition sensor. | 7. Low oil level warning light. |
| 4. Ignition switch. | 8. Ignition coil. |

SERVICE SCHEDULE AND COMMISSIONING

Heavy duty servicing applies to vehicles used under rugged operating conditions: door-to-door deliveries, intensive urban use (courier), short journeys with engine cold, dusty areas, ambient temperature over 30°C.

Service operations	1000 kms or 1 months	Every 5000 kms	Every 10000 kms	Every 20000 kms
Heavy duty servicing	500 kms	Every 2500 kms	Every 5000 kms	Every 10000 kms

■ Check.

Throttle cable play	C	C	C	C
Steering column play	C	C	C	C
Operation of electrical equipment	C	C	C	C
Condition of front and rear brake hydraulic controls	C	C	C	C
Condition of petrol pipes	C	C	C	C
Condition of oil pipes	C	C	C	C
Tyre condition, pressure and wear	C	C	C	C
Condition of the front suspension	C	C	C	C
Condition of the rear suspension	C	C	C	C
Brake fluid level	C	C	C	C
Battery electrolyte level *	C	C	C	C
Tightness of nuts and bolts	C	C	C	C

■ Change.

Spark plug			R	R
Filter element		C	R	R
Front brake pads #		C	C	C
Rear brake linings #		C	C	C
Drive pulley bearings and guides #			C	C
Transmission belt				R
Petrol filter			C	
Relay box oil	R		C	
Brake fluid	Once every 2 years			

C: Check.

N: Clean.

R: Change.

G: Check and lubricate.

*Depending on equipment.

Change if necessary.

Service operations	1000 kms or 1 months	Every 5000 kms	Every 10000 kms	Every 20000 kms
Heavy duty servicing	500 kms	Every 2500 kms	Every 5000 kms	Every 10000 kms

■ **Check and lubricate.**

Driven pulley: Moving flange and needle bush.			G	G
Drive pulley/Movable face			G	G

■ **Test machine.**

On road	C	C	C	C
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C: Check.

N: Clean.

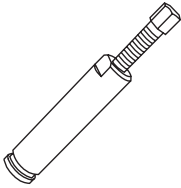
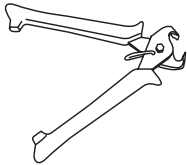
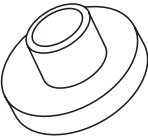
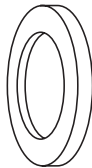
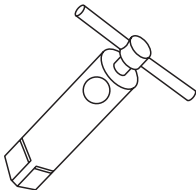


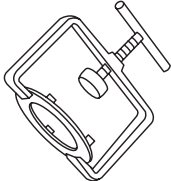
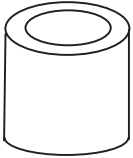
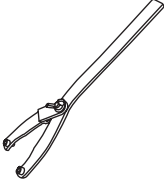
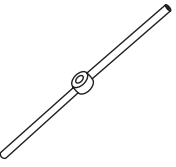
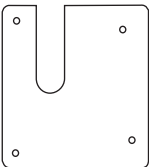

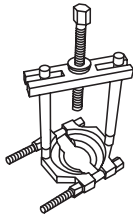
R: Change.

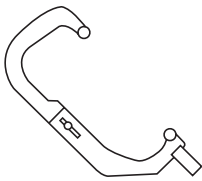
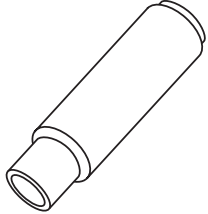
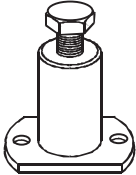
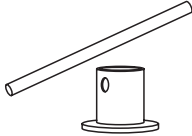
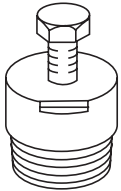
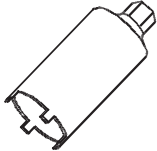
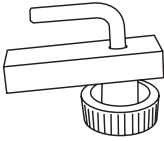
G: Check and lubricate.

*Depending on equipment.

Change if necessary.

SPECIAL TOOLS

	Tool N°	Designation	Used with		Tool N°	Designation	Used with
	64706	Casing extractor and opening tool	754006 750069		750539	Tie-wrap pliers	
	64710	Shouldered centering tool	64706		750808	Thrust washer	64706
	64765	Engine mount	755982		752000	Piston circlip pliers	
	68007	Protective end-piece small model	755985		752127	Clutch compression tool	756725
	69098	Protective end-piece large model	64706		752237	Adjustable pin wrench	
	69104	Pin nut	750069		754006	Modified casing opening plate	67706
	750069	Pin Ø10 pitch 125	69104		755585	Bearing extractor tool	

	Tool N°	Designation	Used with		Tool N°	Designation	Used with
	755982	Engine mount adapter	64765		756668	Crank assembly lip seal tool	
	755983	Casing opening tool	68007		756725	38 mm pipe wrench	752127
	755985	Flywheel puller	68007		757860	Steering tool	
	755996	Hose clamp					

