

**Vespa®**

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**WORKSHOP MANUAL**

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**633572**

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**LX 150 4T USA**

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# WORKSHOP MANUAL

## LX 150 4T USA

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# WORKSHOP MANUAL

## LX 150 4T USA

This workshop manual has been drawn up by Piaggio & C. Spa to be used by the workshops of Piaggio-Gilera dealers. This manual is addressed to Piaggio service mechanics who are supposed to have a basic knowledge of mechanics principles and of vehicle fixing techniques and procedures. Any important changes made to the vehicles or to specific fixing operations will be promptly reported by updates to this manual. Nevertheless, no fixing work can be satisfactory if the necessary equipment and tools are unavailable. It is therefore advisable to read the sections of this manual relating to specific tools, along with the specific tool catalogue.

**N.B.** Provides key information to make the procedure easier to understand and carry out.

**CAUTION** Refers to specific procedures to carry out for preventing damages to the vehicle.

**WARNING** Refers to specific procedures to carry out to prevent injuries to the repairer.



**Personal safety** Failure to completely observe these instructions will result in serious risk of personal injury.



**Safeguarding the environment** Sections marked with this symbol indicate the correct use of the vehicle to prevent damaging the environment.



**Vehicle intactness** The incomplete or non-observance of these regulations leads to the risk of serious damage to the vehicle and sometimes even the invalidity of the guarantee.



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## Rules

This section describes general safety rules for any interventions to be performed on the vehicle.

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### Safety rules

- Should it be necessary to keep the engine running while servicing, make sure that the area or room is well ventilated, and use special exhaust fans, if required. Never let the engine running in closed rooms. In fact, exhaust gases are toxic.
  - The battery electrolyte contains sulphuric acid. Protect your eyes, cloths and skin. Sulphuric acid is highly corrosive; in the event of contact with your eyes or clothes, rinse thoroughly with water and consult a doctor immediately.
  - The battery produces hydrogen, a gas that can be highly explosive. Do not smoke and avoid sparks and flames when close to the battery, especially during recharge.
  - Fuel is highly flammable, and in some conditions it can be explosive. Do not smoke in the working area, and avoid free flames or sparks.
  - Clean the brake pads in a well ventilated environment, directing the compressed air jet so as to not intake the dust produced by the wear of the friction material. Even though the latter contains no asbestos, dust inhalation is harmful.
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### Maintenance rules

- Use original PIAGGIO spare parts and lubricants recommended by the Manufacturer. Non-original or non-conforming spares may damage the vehicle.
  - Use only the specific tools designed for this vehicle.
  - Always use new gaskets, sealing rings and split pins upon reassembly.
  - After removal, clean the components using non-flammable or low fire-point solvent. Lubricate all working surfaces before reassembly, except for conical couplings.
  - After reassembly, check that all components have been installed properly and that they are in good working order.
  - For removal, overhaul and reassembly operations use only tools provided with metric measures. Metric bolts, nuts and screws are not interchangeable with coupling members with English measurement. Using improper coupling members and tools may impair the vehicle.
  - Should any interventions to the vehicle electric system be required, check that the electrical connections - especially earth and battery connections - have been implemented properly.
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### Vehicle identification

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**VEHICLE IDENTIFICATION**

Specification	Desc./Quantity
Chassis prefix	ZAPM 428 F5
engine prefix	M442M+1001

**Dimensions and mass****DIMENSIONS AND WEIGHT**

Specification	Desc./Quantity
Curbside weight	110 ± 5 kg
Maximum height	1140 mm
Width	740 mm
Wheelbase	1280 mm
Length	1800 mm

**Engine****ENGINE**

Specification	Desc./Quantity
Engine	Single cylinder 4-stroke Piaggio LEADER
Timing system	Single Over-Head Cam shaft (SOHC), 2 valves
Valve play	suction 0,10 exhaust: 0,15
Bore per stroke	62,6 x 48,6 mm
Dry weight	150,46 cm <sup>3</sup>
Compression ratio	10.5 : 1
Carburettor	KEIHIN CVEK26
Idling	~ 1600 ÷ 1800 r.p.m.
Starter system	Electric
Max power	11,6 CV at 7750 rpm
Cooling	Forced air.



















































































































































































































































































































































































































































































