

USE AND MAINTENANCE BOOKLET

CENTRIFUGAL PUMP

TRASHLIB



TABLE OF CONTENTS

1. PRESENTATION.....	page 3
2. WARRANTY.....	page 3
3. MANUFACTURER.....	page 3
4. DESCRIPTION OF THE MACHINE.....	page 4
5. USE.....	page 4
6. SAFETY NORMS	page 5
7. INSTALLATION.....	page 5
8. BEFORE START-UP.....	page 6
9. MAINTENANCE.....	page 6
10. OPERATIONAL HYDRAULIC DEFECTS.....	page 7
11. MOVING THE MOTOR PUMP	page 7
12. SPARE PARTS.....	page 8
13. FEATURES	page 8

1. PRESENTATION

This manual contains all information considered necessary for the knowledge, good use and routine maintenance of the Trashlib centrifugal pump (hereinafter, also called machine), manufactured by CAFFINI CIPRIANO S.r.l., hereinafter also called Manufacturing company or Manufacturer. The non-compliance with this manual causes the cancellation, by the Manufacturing company, of the warranty it supplies with the machine. For any repairs or revisions entailing complex operations, directly contact the Manufacturing company for ready and accurate after-sales technical assistance.

These are copy of original instructions.

2. WARRANTY

Upon receipt of the material, immediately check it for damages due to transport. Also check the exact correspondence of the transport document. Any claims must, under penalty of expiration, be immediately contested to the courier in the transport document and notified within seven days to the Manufacturer by means of registered letter with acknowledgement receipt. When sending any communication, always indicate the type and model of the machine printed on appropriate plate or punched near the oil introduction plug, and the serial and/or series number. All our products have a 12 month warranty starting from the commissioning date and, however, for not more than 18 months from the date of delivery. The repairs carried out under warranty do not interrupt the warranty period. The warranty refers to material or processing defects that jeopardise the functioning of the product or make it unsuitable for the use for which the product is intended, as long as timely notified and, however, not later than 2 days after their finding. The damages deriving from the physical/chemical features of the sucked liquid are excluded, as are the damages of the parts that are, for nature or destination, subject to wear or deterioration (seal gaskets, diaphragms, vacuum and pressure valves, rubber or plastic parts), or that depend from the non-compliance with our use or maintenance instructions, bad or inadequate use or storage of the product or amendments or repairs made by staff not authorised by ourselves.

3. MANUFACTURER

The Trashlib series pumps are manufactured by CAFFINI CIPRIANO S.r.l. with offices in Lemignano di Collecchio (Parma) - ITALY - post code 43044 - Via G. Di Vittorio n. 46 - Tel. +39 0521 804325 Fax +39 0521 804145 – e-mail: info@caffinipumps.it Registered with the Chamber of Commerce of Parma with n. 175881 - in the Company Register - nr. Mechanized PR017469 - tax code and VAT n. IT02002550347.

4. DESCRIPTION OF MACHINE

TRASHLIB pumps are self priming centrifugal pumps with open vane impellers working in a large body, and are capable of handling very large solids. They are driven by gasoline or diesel engine or by an electric motor, assembled as a close-coupled pump set.

The use and maintenance booklet of the fitted motor is always enclosed at the use and maintenance booklet of the pump. It is necessary read the instructions and the safety norms covering the engines fitted to the supplied pump unit and adhere closely to the instructions cited by the manufacturer of the said motor.

MOD./TYPE	TRASHLIB 2"	TRASHLIB 3"	TRASHLIB 4"	TRASHLIB 4"L
HONDA	GX160QX (15)	GX270QX (24)	GX390QX (31)	GX390QX (31)
BRIGGS & STRATTON	VANGUARD 5,5HP (21)	VANGUARD 9HP (27)	VANGUARD 13HP (35)	VANGUARD 13HP (35)
LOMBARDINI DIESEL	15LD315 (33)	15LD400 (45)	25LD330/2 (55)	15LD500 (48)
LOMBARDINI -KOHLER PETROL	COMMAND PRO CH270 (17,5)	COMMAND PRO CH395 (27,8)	COMMAND PRO CH440 (34,7)	COMMAND PRO CH440 (34,7)
KAWASAKI	FE170 (17)	FE290 (34)	FE400 (36)	FE400 (36)
ROBIN	EX17 (15)	EX27/DY41D (21) (45)	EH41 (32)	EH41 (32)
HATZ	1B20 (28)	1D42/1B40 (71) (48)	1D81 (87)	1B50 (52)
Electric motor (special version) Moteurs electric (version special) Motori elettrici (versione speciale)	KW2,2 - 2900(*)RPM/TM Threephase/triphase (20)	KW5,5 - 2800 RPM/TM Threephase/triphase (62)	KW7,5 - 2800 RPM/TM Threephase/triphase (62)	KW7,5 - 2800 RPM/TM Threephase/triphase (62)
Oil hydraulic gear motors Moteurs hydraulic à engrenages Motori oleodinamici	82E2 4HP (5)	82E2 9HP (5)	82E2 13HP (7)	82E2 13HP (7)
(*) Available also single phase (*) Aussi possible monophasé (*) Disponibile anche monofase				

It is dangerous for the user to utilize the motor pump without understand the safety norms written on the two booklets.

The pump set can be mounted: on a fixed frame or on a two wheeled, rubber-tyres hand trolley with lifting bail.

N.B. No additional accessory can be connected to the close- coupled pump or electric pump unit during hoisting and transport.

The motor pump when running has an acoustic pressure level and a continuous "A" weighting sound pressure equivalent at that reported in the conformity EC declaration.

5. USE

The pump MARINE VERSION (SWR) is NOT suitable for the transfer of dangerous or inflammable liquids but is suitable to move liquids or mud with solids in suspension.

Concerning the use of the fitted motor, you have to refer to the norms (given from the motor's manufacturer) enclosed at this booklet.



ATTENTION! Do not perform maintenance operation while the pump is running.

Not running the pump in dry conditions.

Not open the wing nut or the pump casing when the pump is running.



6. SAFETY NORMS

Do not operate gasoline or diesel engines in a close environment, they produce exhaust gases which contain the deadly gas carbon monoxide.

keep hands and feet clear from moving parts, and away from parts which are hot.

Do not hold, pour or use fuel in the presence of a naked flame or apparatus such as stoves, boilers or other equipment which might produce sparks.

These pump sets must therefore be used only in well ventilated areas.

Do not start the engine if there is any indication of a fuel leak such as the smell of fuel or visible signs of leakage.

Do not remove the fuel filler-cap while the engine is running or while the engine is hot. In hazardous(EX) zones, gasoline-engined units must not be used. Diesel-engined units may be used only with the prior permission of the Site Safety Officer.

Do not transport the pump with fuel in the tank, or with hoses connected.

Electric-motor-driven units should be connected through an easily-accessible, fused, isolator\starter with thermal overload device. Check that the electricity supply is the same as that as shown on the electric-motor rating before making any connection.

Do not check the ignition with the spark plug cable disconnected.

Do not hit the flywheel with metallic or blunt objects, because this could cause the breakage or the detachment of the metal components during movement.

Do not touch the silencers, cylinders or cooling fins when they are hot , because the contact could cause burns.



7. INSTALLATION NORMS

Install the pump driven by electric motor or diesel and gasoline engines base plate on stable foundations and anchor them securely to the ground. If the pump is trolley-mounted, make sure the wheels cannot move.

The connecting hoses to the pump must be flexible and must have flexible rubber hoses to damp the vibrations due to the pulse flow capacity.

It is good practice to avoid the entrance of large solids, which might break the impeller, by mounting a protective suction strainer, which can be supplied on request.

Suction and delivery hoses must not be smaller than the pump connections.

Delivery hose is not required to be reinforced but avoid the use of "lay-flat" hose for best performance.

Whenever possible, avoid curves, elbows or throats which might limit the inflow or outflow of liquids to or from the pump.

Do not mount foot valves : the pump is provided with clapet valves which act as one way valve

Do not install flow throttle valves on the delivery ; to divide the capacity; use by-pass hoses with return to the suction basin, regulated by a gate valve or ball valve. Check that all of the joints are

perfectly airtight : check the threading, the flange branches, seals and the quick fit joints. Install the pump as close as possible to the liquid to be pumped , whenever possible try to limit the length of the suction hose; in this way the priming time is reduced and a greater capacity is obtained. For the versions with the electric motors the pump must be connected to an electrical unit which is earthed in accordance with the local electric regulations in force.

For the mono-phase version keep to the current technical Standards.

Check that the voltage on the plate is the same as that of the mains supply.

Before any installation or maintenance operation make sure that the electric pump is disconnected from the mains supply. Do not use the electric supply cable to move or hoist the pump.

It is advisable to install a highly sensitive differential switch, so as to give added protection against electric shocks should the earthing be insufficient.

In the three-phase version connect the earth wire(yellow-green) of the supply cable to the mains earth. It is the responsibility of the installer to ensure that the feed system is earthed in accordance with the norms in force.

With the three-phase version attach the pump to the supply line via an overload cut-out switch or a contractor with a cut-out switch relay.

Every time that the pump with three-phase motor is attached to a different feed line, there are equal possibilities that it could rotate in one direction or the other. Rotation in the wrong direction will provoke a significant reduction in capacity. If the motor does not turn in the correct direction, disconnect the power supply and invert the two phases.

When installing units with gasoline engines, check that the motor does not tilt more than 35°. In the transverse or longitudinal directions, so as to guarantee a correct lubrication.

Do not hit the flywheel with metallic or blunt objects, because this could cause the breakage or the detachment of the metal components during movement.

Do not touch the silencers, cylinders or cooling fins when they are hot, because the contact could cause burns.

8. BEFORE STARTING

Read the instructions and the safety norms covering the engines fitted to the supplied pump unit and adhere closely to the instructions cited by the manufacturer of the motor.

Remove the pump filler cap(on top of the pump) and fill the pump casing with liquid. The pump casing will remain full in normal operation, as the non-return valve at the pump suction connection prevents the pump draining by reverse flow when pumping stops.

Start the pump, and if using a gasoline -or diesel-engined unit, open the throttle gradually until the required performance is achieved.

Do not run the engine at full throttle in an attempt to pump more liquid than the design rating of the pump.

The shaft seal has a grease point which must be filled with grease NLSX0T56-TOTAL OIL (or equivalent grade) until grease appears through the seal.

After the first 60 working hours , change the oil .

Do not use the pump without the suction's strainer.

Remember regularly to check the fuel, oil, air filter level.

9. MAINTENANCE

All maintenance operations must be carried out only after the pump has been used on a liquid containing anything corrosive or noxious, ensure that proper protective clothing is worn-apron, gloves, face-mask or eyesheld- to avoid contact with the liquid.

If electric-motor driven, disconnect the electricity supply.

After removing the hoses, remove the drain plug- just below the suction connection-and drain the pump.

Do not put hands or feet inside the pump casing when the pump is running.

During winter ,when the machine is stationary, it must be protected against freezing, and it is necessary to remove the drain plug- just below the suction connection-and drain the pump.

Remove the front cover and inspect the impeller for damage.

To verify before to use the pump casing cleaners , the impeller integrity ,the locking cover pump , the discharge and filling plug screw.

To grease every 300 hours of work the pump's mechanical seal.

If the impeller clearance exceeds 2mm. replace the wear ring.

Engine maintenance must be carried out in accordance with the handbook supplied.

TIGHTENING TORQUE TABLE

Code		Modele	KGM
TL001/01	Nut	Trashlib 2"	3,0
TL001/31	Nut	Trashlib 3"	4,5
TL001/32	Nut	Trashlib 3"-4"-4"L	4,5
TL002/21	Stud	Trashlib 2"	3,0
TL002/31	Stud	Trashlib 3"	4,5
TL002/32	Stud	Trashlib 3"-4"-4"L	4,5
TL011/0	Impeller lock-nut	Trashlib 2"	2,5
TL011/3	Impeller lock-nut	Trashlib 3"	3,2
TL011/3	Impeller lock-nut	Trashlib 4"-4"L petrol	3,2
TL011/4	Impeller lock-nut	Trashlib 4" diesel	5,0

10. OPERATIONAL HYDRAULIC DEFECTS

The pump does not suck up or fails to deliver .

Causes:

Casing of pump not completely filled before starting.

Pump speed too low to generate the required discharge head.

A "kink" in the suction hose or suction hose blocked or not correctly fitted and air could be drawn by turbulence.

Discharge point too high.

Obstructions in the pump.

The impeller or the wear plate are broken or too distant.

Delivery hose blocked.

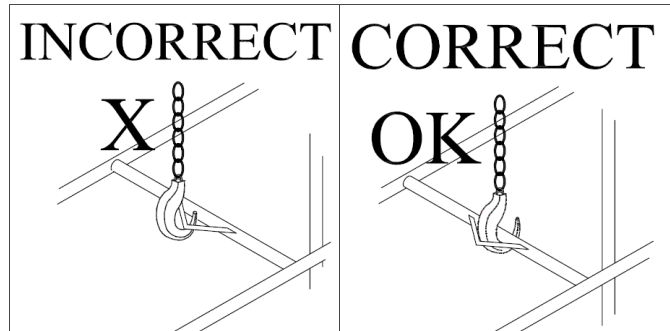
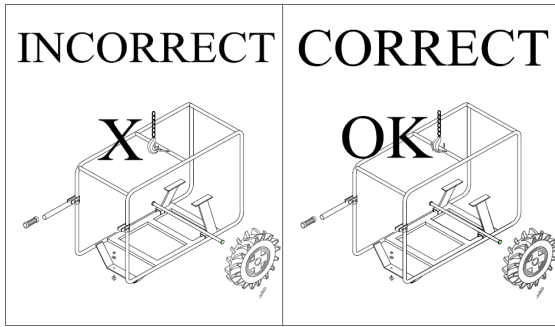
Hoses diameter not correct.

11.MOVING THE MOTOR PUMP.

The mass of the pump is shown clearly and indelibly on the pump.

The pump can be moved only with the suction and delivery hoses disconnected and with the feed motor stationary or disengaged.

The pump can be pulled with suitable safety systems to the hoisting hook of the trolley.



12. SPARE PARTS

Order spare parts from your pump supplier, using the name of the part, the part number-and the serial number of the pump or driver for which the part is required.

13. FEATURES

PERFORMANCES	TRASHLIB 2"	TRASHLIB 3"	TRASHLIB 4"L
Max capacity - m ³ /h (*)	51	100	144
Max total discharge head - mt	30	28	32
Max solids handling – mm	28	38	40
Bare pump weight– kg	15	29	47

(*) at 3600 rpm with 1 mt suction lift

A spare parts catalogue is attached to the use and maintenance manual.

CAFFINI CIPRIANO S.R.L.