

REAR LOADING COMPACTOR

MICRO

USE AND MAINTENANCE MANUAL

NOVEMBER 2004 REVISION- 02



COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV



Do not use the machine before reading this manual.

Most of accidents occurring during work are due to the non-compliance with simple safety rules or basic precautions. For this reason, many accidents can be avoided knowing the causes and preliminarilyy taking the necessary steps.

Please specify the data regarding your equipment in order to improve the quality of our After-sale Service

FARID Industrie S.p.A. Sede Via Moncalieri Frazione Tetti Caglieri 10048 VINOVO (TO) Phone 011/9624381 – 9624382 Fax 011/6400409			
EQUIPMENT EQUIPMENT TYP	E N	AICRO	
PUNCHING	NO. F.	ARID 0044/00	
VEHICLE			
VEHICLE TYPE			
CHASSIS NO.	•••••	•••••	
PUMP UNIT	0206000)	
PTO (CODE 0418000) – KIT PTO (CODE 0418000)			
PUMP (CODE 040200)0)		



CAREFULLY READ THIS MANUAL BEFORE STARTING, USING, PERFORMING MAINTENANCE OR OTHER OPERATIONS ON THIS MACHINE.

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07 – MAINTENANCE



IN ADDITION TO THIS MANUAL INSTRUCTION MANUALS ARE DELIVERED FOR ALL EQUIPMENTS NOT DIRECTLY MANUFACTURED BY FARID, SUCH AS PLC, LUBRICATION SYSTEMS, RADIO EQUIPMENT, WEIGHING SYSTEMS

01 – SAFETY REGULATIONS

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In addition to the specific SAFETY RULES, the manual contains this label to draw your attention to the safety points. Its meaning is the following: CAUTION! BE CAREFUL! IT INVOLVES BOTH YOUR AND THIRD PARTY'S SAFETY

GENERAL

Carefully read this MANUAL before starting, using and performing maintenance or whatsoever on equipment.

- **Never allow** unauthorized people to perform any operation on the equipment .

- **Read and comply with** the safety rules and labels applied on machines before carrying out any operation.

- **Do not wear** rings, watches, necklaces, unlaced clothes, and unbuttoned jackets, which may get entangled in the moving parts.

-People with long hair must gather it under a cap, as it might get caught in moving part.

- Keep the truck cab and the access platforms clean and free from any foreign matter or trace of oil/grease, mud or snow, to avoid any risk of slip or stumble.

- The driver must have a proper driving license.

- Do not run the equipment if unattended by qualified personnel.

-**Never forget** vehicle key on equipment, when unattended by authorized personnel.

- **Individual protection devices** depends on specific use and weather conditions; operators must follow the indications provided for by their employer.

- **Do not** use edges or pipes of vehicle to access to upper parts. Use proper devices.

- **Do not operate the vehicle** and/or the equipment from a site different from the one prescribed by the Operation and Maintenance Manuals (unless specifically indicated in the manual itself). In case the equipment control direct operation site does not ensure safety operation due to the surrounding environment and/or traffic conditions, use the remote control device.

- Notify the personnel in charge of maintenance of every possible operation malfunction regarding either the components or the systems .

- **Do not use controls or flexible pipes as grips**: these components are mobile and do not provide for a stable and safe grip. The involuntarily shifting of a control may provoke the accidental movement of the equipment.

- **Never use the equipment** for purposes other than those it has been designed for.

- **During transport never exceed the overall mass** allowed by cab truck manufacturer.

- **Before leaving the equipment unattended,** always make sure that the engine is turned off, all doors equipped with lock are closed and battery cutout device is in OFF position (batteries OFF).

- For parts not manufactured by FARID (e.g. chassis - cab) carefully OBSERVE the usage and maintenance indications contained in the specific manuals supplied by the manufacturer.

- **During transfers,** operators must use the cab. Operators must not use other parts of the vehicle to be transported.

CAUTION:

This symbol notifies the operator of any danger for people, animals or things possibility provoking serious damages or injuries.

It refers to the compliance with the operation and maintenance rules.

■ It highlights dangerous or forbidden working practices and procedures.

■ It warns operator on the risk of damaging equipment.

Non-respect of the instructions preceded by this symbol may result in either serious injuries or damages of the equipment.

OPERATION

1)- **Before beginning picking-up**, bring the vehicle hydraulic oil to the right temperature; then activate equipment power takeoff and run it for a few minutes, to ensure that equipment oil has reached the right temperature.

2)- Before turning on the power takeoff, put the change gear into neutral and operate the parking brake (hand brake). Before turning on the power takeoff, disengage the clutch: press the clutch pedal for at least 2 - 3 seconds, so that the power takeoff gear shaft rests and enables the best clutch.

3)- Before starting equipment movement, ensure no person or th0ing exists within the operating range of moving parts.

4)- Always have a clear and easy viewon the entire move and working surrounding area. The cabin windshields and the rear-view mirrors must always be efficient and clean.

5)-Make sure the bins are in good conditions and not faulty especially as regards to the points hooking the binlifter (bucket-lifting) device and the cover rotation hinges.

6)-Make sure the bins are properly positioned with reference to the lifting arms and to the binlifter surface plates before moving the bins. Adjust the binlifter motion to ensure its proper coupling (these adjustments are to be performed by authorized personnel).

7)- Waste bins must be safely positioned in the binlifter before beginning the lifting and overturning movement, to prevent their release. Make sure the bin locks (bells) work properly.

8)- During transfers, the binlifter system must be retracted to the stowed position and with possible grab arms closed.

9)- Stand clear and do not pass directly behind the vehicle when the binlifter is running. Make sure that persons possibly staying in the surroundings are out of the range of the mobile devices and outside the bin handling area.

10)- Do not load cumbersome items not contained in the proper bins especially if either fragile or subject to spring back such as glass, wood or sheet, to prevent possible fragments from being thrown towards the rear part of vehicle during the paddle cycle.

11)- Garbage unloading from the satellite to the receiving vehicle must be gradual, allowing the receiving vehicle to accommodate and stow the garbage without letting it fall outside.

12)- During garbage transfer, take care when moving the satellite vehicle close to the receiving vehicle. Operators must remain within the driver's visual field of view and, if necessary, open the loading and unloading tailgates before moving the two vehicles close to each other.

13)- During unloading phase, check stabilizer output sequence (1) is correct, as well as following body overturning (2).

14)- Do not move the vehicle when the arms of the binlifter assembly are open .

15)- In case of manual picking-up/load use only the "human presence" controls.

16)- During any move of the equipment make sure emergency stop pushbutton can be immediately operated.

17)- Daily check effectiveness of the emergency system (both pushbuttons and buzzer) and **at least weekly** the operation of the equipment emergency stop devices.

18)- Do not cross obstacles such as sidewalks, ground unevenness. it is not possible to avoid it, cross the obstacle askew, one wheel at a time and at minimum speed. Remember that the vehicle becomes transversally unstable, when loaded.

19)- Never exceed equipment maximum carrying capacity and the vehicle capacity.

20)- During tip operations, carefully consider the ground nature and do not move vehicle close to a slope edge, especially if traction is difficult. Remember that the tip surface is strewn with dangerous waste, like metal spikes and glass fragments: take the utmost care when moving and wear suitable shoe.

21)- Once completed the work, make sure batteries have been turned OFF using the proper key.

22)- In case of acoustic emergency signal, do not turn off the power takeoff and do not move the vehicle.

23)- Before moving the vehicle verify that the paddle is in the OFF position inside the body to avoid loosing waste during the travel and binlifter is stowed with closed grab arms.

24)- During unloading, ensure that stabilizers are located on a solid ground or <u>safe support.</u>

MAINTENANCE

- **Do not carry out** any operation unless previously authorised.

- **Do not carry out** any support service action on the machine with people staying at the driver's place or near the equipment controls, unless they are qualified operators taking part in the operation.

- Always lock, using external means, the equipment mobile structures to be lifted to carry out operations underneath.

- **Do not allow anybody** to pass near or under the lifted equipment, if it is not safely blocked.

- **Do not use binlifter movements** to reach operation positions located on vehicle high positions. Use only ladders or safety scaffoldings.

- When power takeoff is ON, do not carry out any operation on the equipment if not prescribed in the Operation and Maintenance booklet.

- When carrying out checks with power takeoff in ON position, ask for the assistance of an operator who must visually inspect mechanics and ensure immediate action.

- Do not smoke or approach with free flames when checking or topping up the oil of the equipment and/or vehicle, when checking the battery fluid, standing next to inflammable liquids (it is recommended not to smoke when carrying out checks of the vehicle/equipment).

- Do not stay or stop near ropes or chains used for lifting or towing when they are loaded.

- Never use your fingers to align holes or loops: always use suitable centering devices. Remove any sharp edge or burr from replaced parts.

- When heavy components are to be lifted or transported, use pulleys and/or lifting devices with appropriate capacity, making sure that the sling is properly made.

- Use suitable means to access the areas/parts to be repaired.

- Follow indications in Spare parts catalogue, to properly assembly replaced parts.

- **Do not use** petrol, diesel oil or other flammable fluids as cleansers: use commercially authorized solvents instead.

- When using compressed air for cleaning the components, wear goggles with side protections.

- **Do not use flames** as a lighting system when performing operations or looking for leakages.

- When performing external operations, make sure the ground is even and vehicle is properly blocked. Keep the working area clean and dry.

- The load lifted by rams is always dangerous: before performing any operation transfer the weight resting on the cylinders to suitable support means.

- Never approach head, body, feet, hands next to binlifters and other mobile parts (for example the paddle).

- Unscrew the hydraulic oil tank plug with care to avoid hot oil sprays; MAKE SURE THE ENGINE IS COLD and top up with the power takeoff at rest (OFF).

- Do not lubricate moving components when running.

- Never use your hands to check for any leakages of oil under pressure (the gush of oil under pressure, despite being almost invisible, can penetrate under the skin). Should it occur, immediately call for medical care.

- **Discharge the internal pressure** of the circuits before removing caps, plugs or lids.

- The starting of hydraulic systems for service interventions must be carried out through the proper controls.

- Before performing electric welding disconnect the + and – battery cables.

-Comply with the Laws and Standards in force for the disposal of the exhausted liquids.

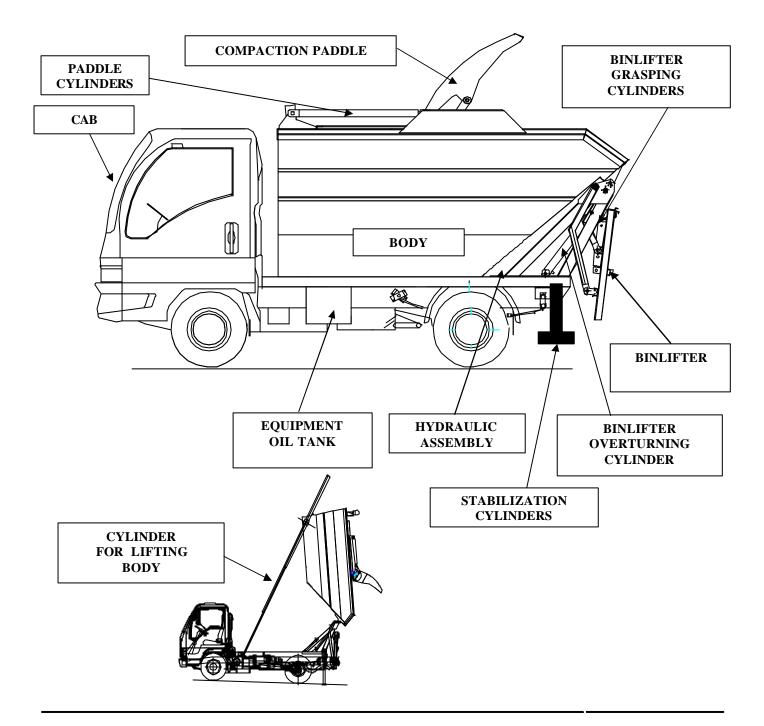
- Liquids must be handled at room temperature only.

- Checks and inspections on the rear section of the ejection plate, on operating pressures and on safety systems must be performed by specialized operators (workshops authorized by FARID).

FARID MINI-COMPACTORS

TERMINOLOGY (In compliance with EN 1501)

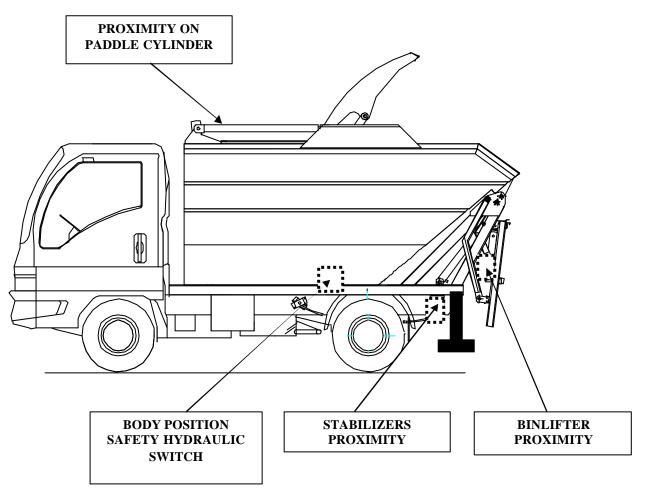
To ease communications and reading of the instructions contained in this manual we suggest the use of the below-mentioned terminology.



TERMINOLOGY (In compliance with EN 1501)

To ease communications and reading of the instructions contained in this manual, we suggest the use of the below-mentioned terminology.

SAFETY DEVICES





These figures show the location of the devices possibly affecting machine safety conditions. ALWAYS ENSURE THAT THESE DEVICES ARE NOT FAULTY. DO NOT USE THE MACHINE IF THESE DEVICES ARE EITHER TAMPERED OR DAMAGED.

SAFETY PUSHBUTTONS MOUNTED ON LATERAL PUSHBUTTON PANEL **EMERGENCY RED HUMAN-PRESENCE** RESCUE **ALLOWED GREEN BUTTON YELLOW BUTTON BUTTON**

NOTES - RIGHT/LEFT-HAND SIDE CORRESPONDS WITH REAR VIEW, WHEN LOOKING AT THE RUNNING DIRECTION - FOR U.K. MARKET, THESE CONTROLS ARE LOCATED ON EQUIPMENT LEFT-HAND SIDE

01 - SAFETY PRESCRIPTIONS

SAFETY PROP

The safety prop must always be used when performing maintenance and cleaning operations under the body.

The safety prop is located on the rear right side of the body, in a specific housing.



02 – LEVELS / WHAT TO DO IF

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02 - LEVELS / WHAT TO DO IF

FOREWORD

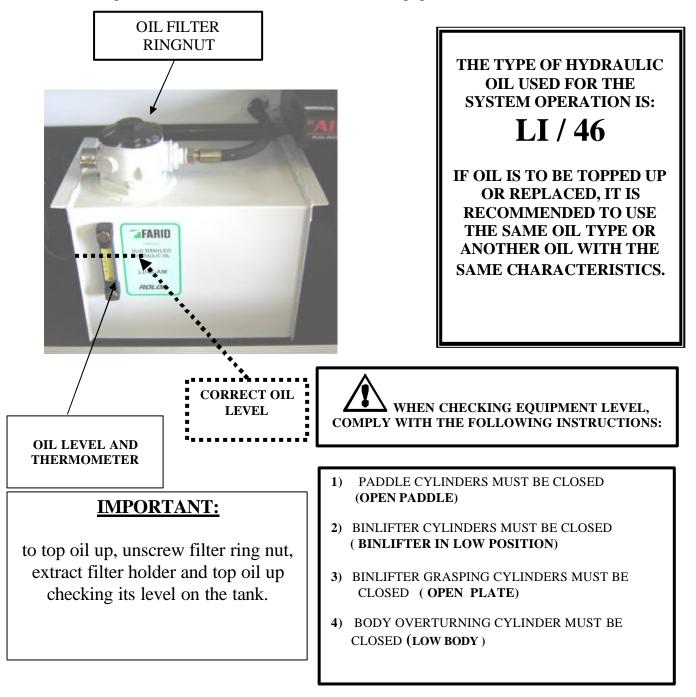
The action of personnel in charge of maintenance is often requested to solve small problems regarding the operation, causing significant machine shutdown troubles.

The following pages provide simple action indications that can be performed directly by users/operators in charge of machines.

LEVELS

Daily check the equipment oil level.

The oil tank is positioned in the front left-hand side of the equipment, near the vehicle's cab. .



02 – LEVELS / WHAT TO DO IF

PROBLEM	POSSIBLE CAUSES	REMEDY
Power takeoff does not turn on	Change gear lock Di	isengage and press the clutch again
	No power supply	Check fuses and connections
Electro-magnetic clutch does not engage (if any)	No power supply Check for	uses and connections
The cycle does not start using th (green pushbutton – compaction		Reset the emergency pushbuttons and press "Reset" pushbutton (in the cab)
	The binlifter system is completely lifted over the hopper	Lower the binlifter
	Body lifted Co	ompletely lower the body
The binlifter system doesn't start	Emergency pressed	Reset the emergency pushbuttons and press "Reset" pushbutton (in the cab)
	The paddle is not completely opened horizontally	Set the paddle to the horizontal open position

02 – LEVELS / WHAT TO DO IF

PROBLEM	POSSIBLE CAUSES	REMEDY
The emergency buzzer rings	Pressed emergency	Reset the emergency pushbutton and press "Reset" pushbutton (in the cab)
	Power switch Power supply to OFF	Place switch to "ON"
	Low stabilizer feet	Lift stabilizer feet up
The white work beacon lights up	No power supply Burnt lamp	Check fuses Replace lamp

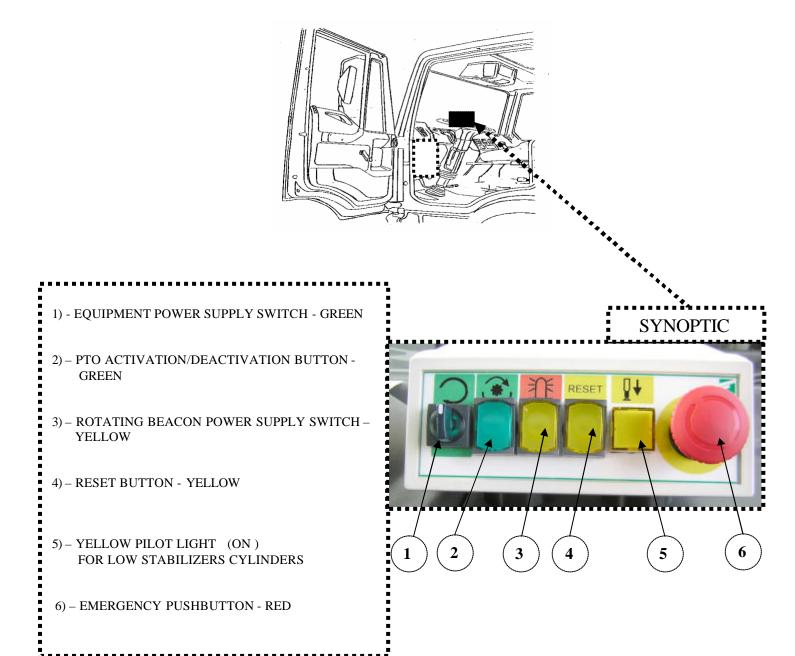
03 – IN CAB

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03 – IN CAB

POWER TAKEOFF CONTROLS (PTO)



03 – IN CAB

OPERATION RULES

1.0 PRELIMINARY OPERATIONS

Before delivery, the equipment is subject to a severe operating test.

Please follow the below-mentioned instructions to ensure vehicle reliability and operation.

Before starting it is advisable to:

- Check hydraulic oil level in the tank and opening of the gate valves positioned under the tank.

- Check that the rear binlifter assembly is perfectly integral to the body.

- Should the cab chassis be provided with pneumatic system, make sure that the air tank of the cab chassis is pressurized (>/ 6 bars).

- Make sure that there are no clear leaks of air or hydraulic oil from the systems.

2.0 POWER TAKEOFF

2.1 SAFETY FOR VEHICLES WITH ELECTROPNEUMATIC CONTROL PTO

To safeguard the vehicle change gear and the power takeoff, FARID uses a safety device preventing the power takeoff from being turned on when the clutch pedal is not pressed. This safety device allows automatically disengaging the power takeoff by simply pressing the clutch pedal. Turning on the power takeoff does not involve the start-up of any equipment function.

2.1.1 VEHICLES WITH ELECTROMAGNETIC CLUTCH

- Take power supply switch (1) to ("ON") position; the switch lights up.

- PTO is activated/deactivated by green button (2) only.

2.2 POWER TAKEOFF ACTIVATION OPERATIONS

2.2.1 Power takeoff activation

- Put the change gear lever into neutral
- Engage the parking brake (hand brake)
- Take power supply switch (1) to ("ON") position; the switch lights up.
- Press the clutch.
- Press the green button (2), the button lights up.
- Slowly release clutch

- At this stage the power takeoff is engaged and the equipment is ready to operate.

2.2.2 Power takeoff deactivation

- Press the clutch pedal to the limit stop, then slowly release. The green button (2) switches off.

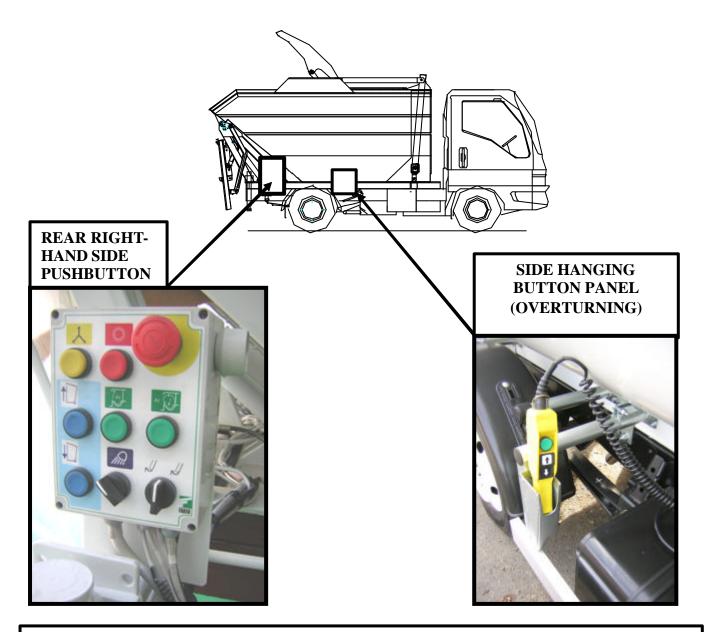
- At this stage, the power takeoff is disengaged and the vehicle is ready to move.

When service is completed, deactivate electric power supply taking switch (1) to ("OFF") position.

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CONTROLS

EQUIPMENT RIGHT-HAND SIDE VIEW

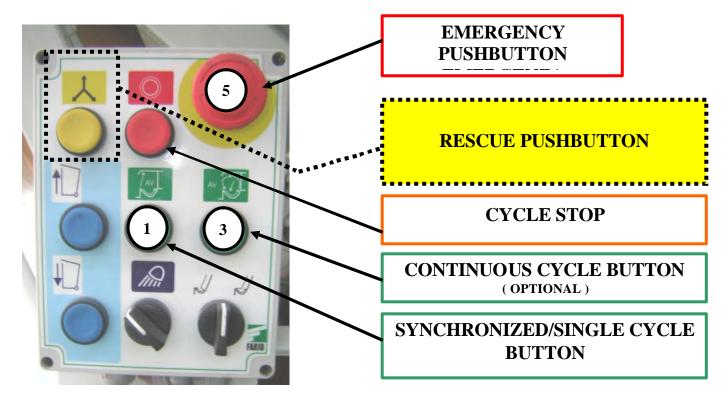


NOTES

 RIGHT/LEFT-HAND SIDE CORRESPONDS WITH REAR VIEW, WHEN LOOKING AT THE RUNNING DIRECTION
 FOR U.K. MARKET, THESE CONTROLS ARE LOCATED ON EQUIPMENT LEFT-HAND SIDE

REAR RIGHT-HAND SIDE PUSHBUTTON PANEL

FARID MINI-COMPACTORS series consists of 2 compacting modes (both in compliance with European Community legal regulations enforced).



- Single cycle mode

Press green button 1: the paddle runs the compaction operation by getting closed; once reached the maximum load position, it is automatically opened with the maximum thrust.

- Synchronized mode

Press green pushbutton 1: the paddle runs the compaction operation by getting closed; once reached the maximum load position, it is automatically opened with the maximum thrust.

After overturning the refuse bin, it automatically restarts a single compaction cycle, when button is released. In these phases, action is interrupted through either the red pushbutton **5** (Emergency mushroom-head pushbutton) or the yellow pushbutton **3** (RESCUE) that is subsequently pressed to operate the release (paddle opening).

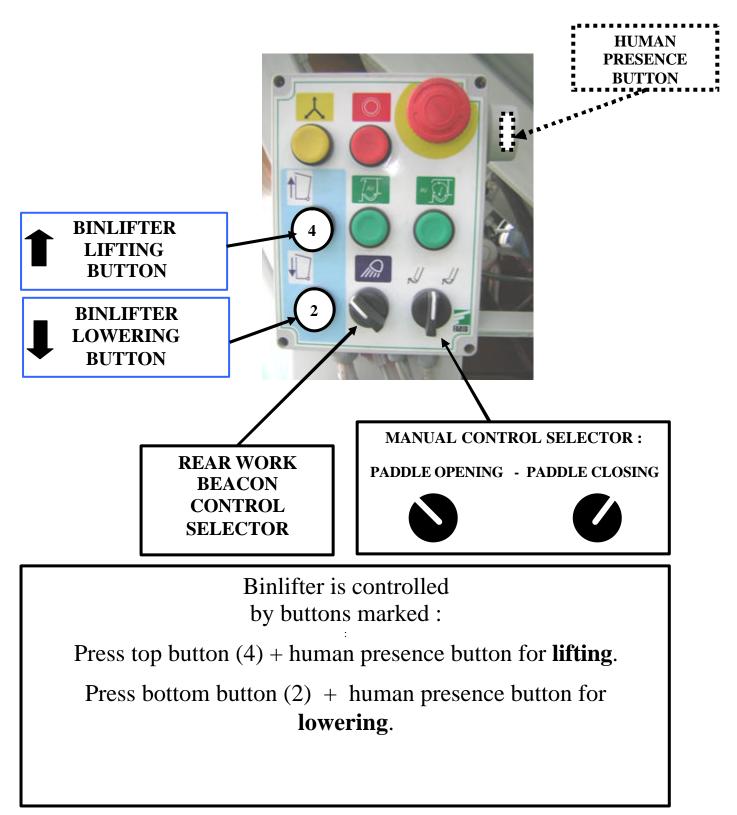
Automatic - Continuous mode

Press button **3**; the paddle closes and cyclically reopens until it is stopped by CYCLE STOP red button.



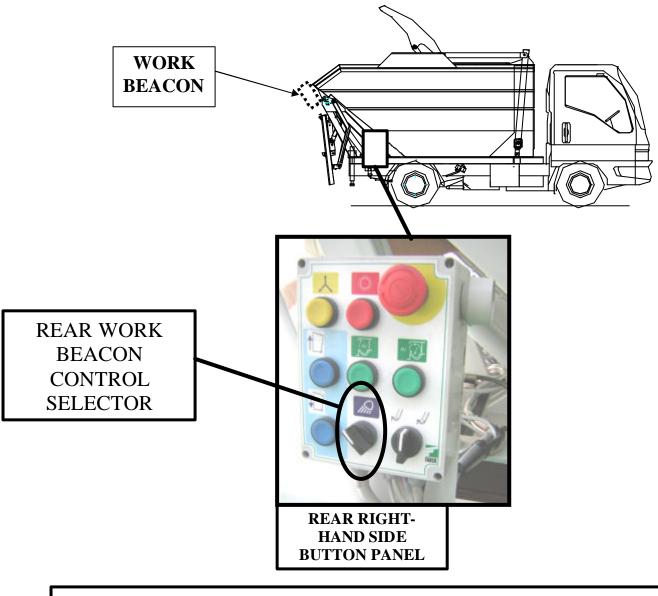
The yellow (RESCUE) button operates <u>independently</u> of the red button 5 (EMERGENCY PUSHBUTTON)

REAR RIGHT-HAND SIDE PUSHBUTTON PANEL



WORK BEACON CONTROL

EQUIPMENT RIGHT-HAND SIDE VIEW



<u>NOTES</u>

The rear work beacon only lights up when vehicle ignition key is on (position "ON" under the key).

It can be noted: ensure orientation does not provoke any trouble to car drivers.

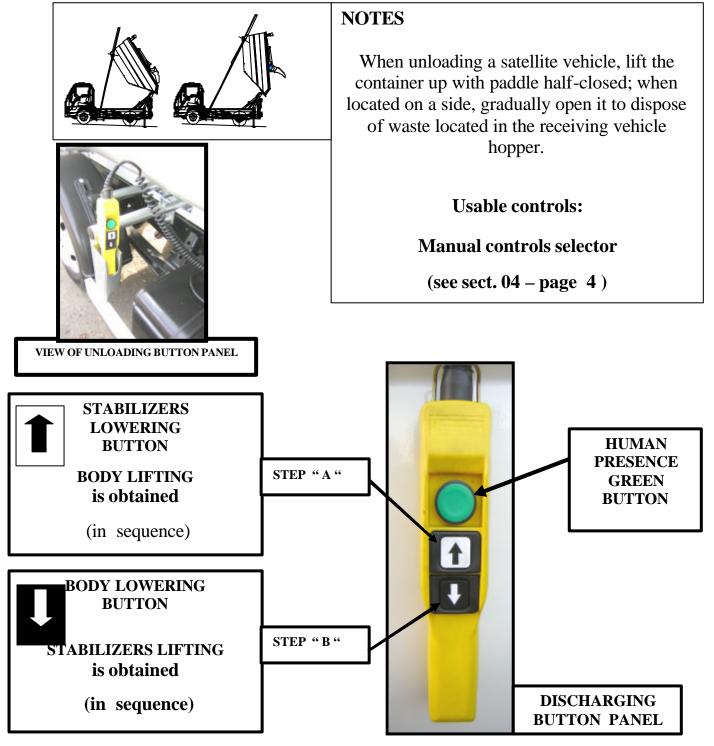
05 – UNLOADING OPERATIONS

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05 – UNLOADING OPERATIONS

SIDE HANGING BUTTON PANEL (UNLOADING)

The following controls apply for unloading phase.



To perform Unloading - Stabilizers lowering/Body lifting - Perform phase "A" (Automatic sequence) **Initially, paddle locates in horizontal position** To perform Body lowering/Stabilizers lifting perform - phase "B" (Automatic sequence)

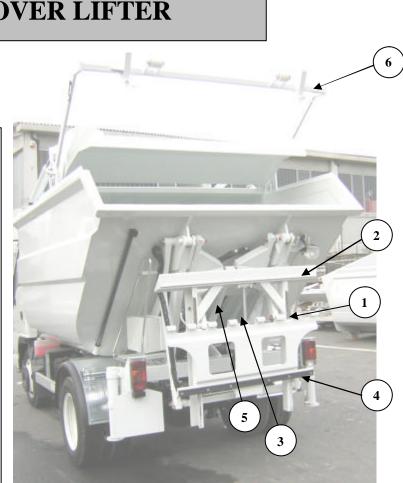
06 – BINLIFTER AND COVER LIFTER

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06 – BINLIFTER AND COVER LIFTER

DESCRIPTION

- 1 Bin clamping plate
- 2 Plate stop
- 3 Container grasping cylinders
- 4 Body stop
- 5 Binlifter cylinder
- 6 Cover lifter (optional)



BIN LIST

Your equipment is designed to discharge the following bins:

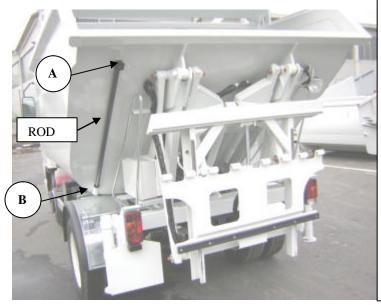
120 to 1000 litre bins, provided with plate attachment and swinging flat covers. 1100 Din containers with tilting cover and cover lifter (optional)

> THE USE OF BIN DIFFERENT FROM THE ONES LISTED MAY BE DANGEROUS FOR PEOPLE AND CAUSE DAMAGES TO THE EQUIPMENT OR TO THE BINS THEMSELVES.

The binlifter operating controls are described in Chapter 04 (cycle controls), page 4.

06 – BINLIFTER AND COVER LIFTER

COVER LIFTER USE

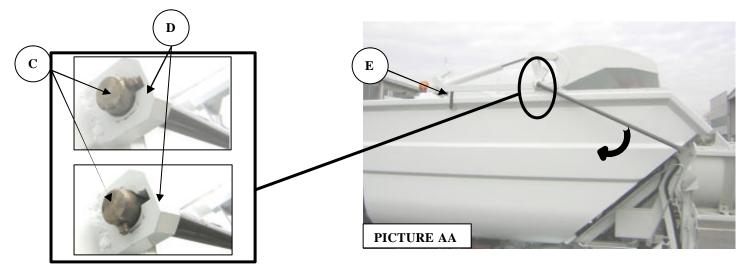


STEP (1)

When using the cover lifter, the rod must be used first, to place it in proper operating position.

- Unscrew the plastic roller (A)
- Release rod from bottom support (B)
- Engage rod clutch (C) in coupling grid (D) (see picture $\mathbf{A}\mathbf{A}$)
- Rotate rod by at least 90° so that it cannot be extracted from coupling grid (D)
- Release the device fastening belt (E)

- Rotate rod clockwise until the cover lifter device reaches the limit stop and locates in proper operating position (see picture **BB** on page bottom side) Remove rod, replace and fasten it in its original seat (see side picture).





STEP (2)

After taking the cover lifter to running position, perform the following operations:

- Use the rod available and take the cover lifter to its original position, as shown in picture $\mathbf{A}\mathbf{A}$.

- Fasten safety belt (E); after placing the available rod in its original seat, ensure it is properly fastened. Now, vehicle running can be started again.

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Equipment cleaning	2
Equipment lubrication	
FARID SERVICE	

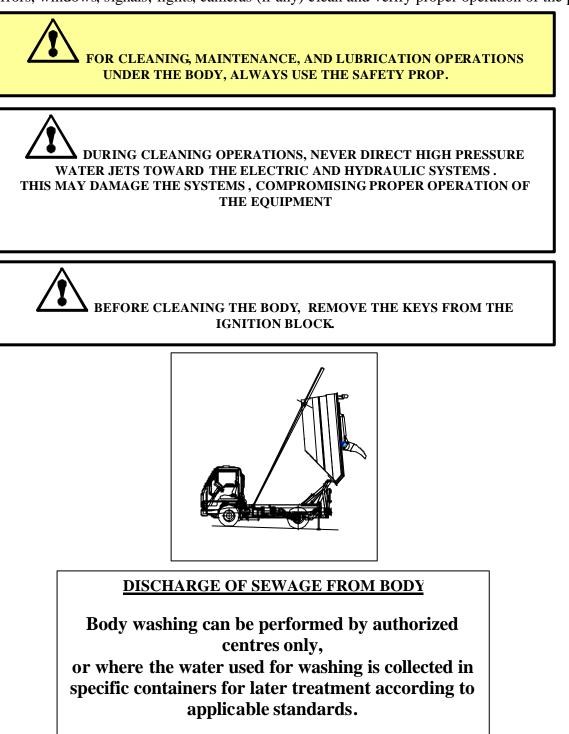
Annexes:

Maintenance plan

List of FARID centres

CLEANING

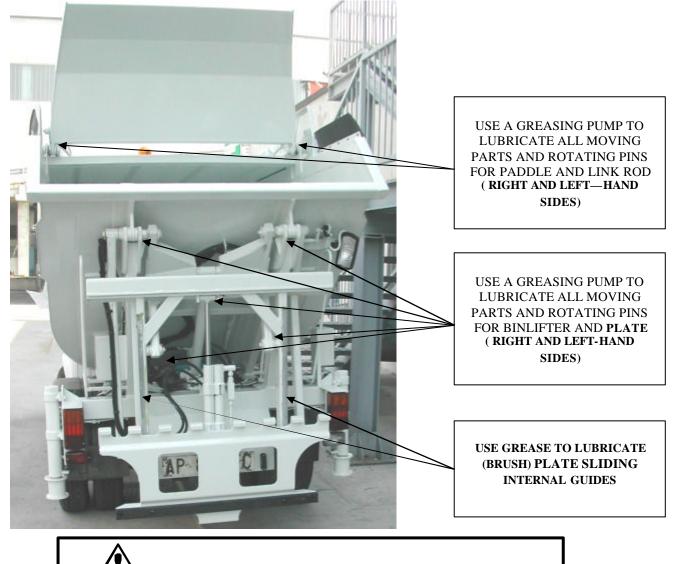
The vehicle should be washed at the end of each shift to avoid refuse buildup and subsequent issues. Daily check for refuses stuck in the packer plate operational area to avoid jamming. Keep mirrors, windows, signals, lights, cameras (if any) clean and verify proper operation of the parts.



LUBRICATION

To operate properly, the equipment must be periodically lubricated, possibly after every shift, and also after the washing.

Points to be always lubricated are shown below.



WHEN LUBRICATING, MAKE SURE THAT THE KEYS HAVE BEEN REMOVED FROM THE IGNITION PANEL.

WE RECOMMEND USING GREASE HAVING THE FOLLOWING FEATURES:

FIAT LUBRICANTS - J1 LITEX EP/1

FARID SERVICE recommends carrying out checks and replacements according to the attached plan in order to reduce running costs and ensure the constant functionality of your equipment.

FARID is also available to offer check coupons and scheduled maintenance plans by contacting the regional offices or our authorised workshops.

List of Service FARID Centres (SEE THE FOLLOWING PAGES)

FARID SERVICE

	Code	ACTION DESCRIPTION	
_	A1	Equipment washing and cleaning	
(st	A2	Level check (oil, equipment)	
ПОН	A3	Equipment oil leakage check	
(5	A4	Rotating beacon operating check	
DAILY (5 HOURS)	A5	Operating check on emergency and rescue buttons, and safety devices	
JURS)	B1	Binlifter system check (screw tightening and levers clearance)	
WEEKLY (25 HOURS)	B2	Greasing of compaction and binlifter systems	
WEEKL	B3	Check on fastening screws to chassis	
8	C1	Greasing of overturning cylinder	
Υ (1 (S)	C2	Fastening check on binlifter and compaction lever hinges with their cylinders	
MONTHLY (100 HOURS)	СЗ	Tightening check on hoses and hydraulic fittings	
000	D1	Oil filter cartridge replacement (first replacement at 250 hours)	
YEARLY (1 HOURS)	D2	Bronze bushes replaced on compaction system	
TWO-YEAR (2000 HOURS)	E1	Bronze bushes replaced on binlifter system	
0M	E2	Check on PTO and pumps	
F	E3	Gaskets replaced on binlifter cylinders	





SERVICE FARID CENTRES

FARID - MUNICIPAL VEHICLES LTD.Rudford Industrial EstateFord Arundel - West SussexUNITED KINGDOM - BN 18 ODBE-mail : fariduk@demon.co.uktPhone + 44-1903-732604Fax + 44-1903-732605

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