



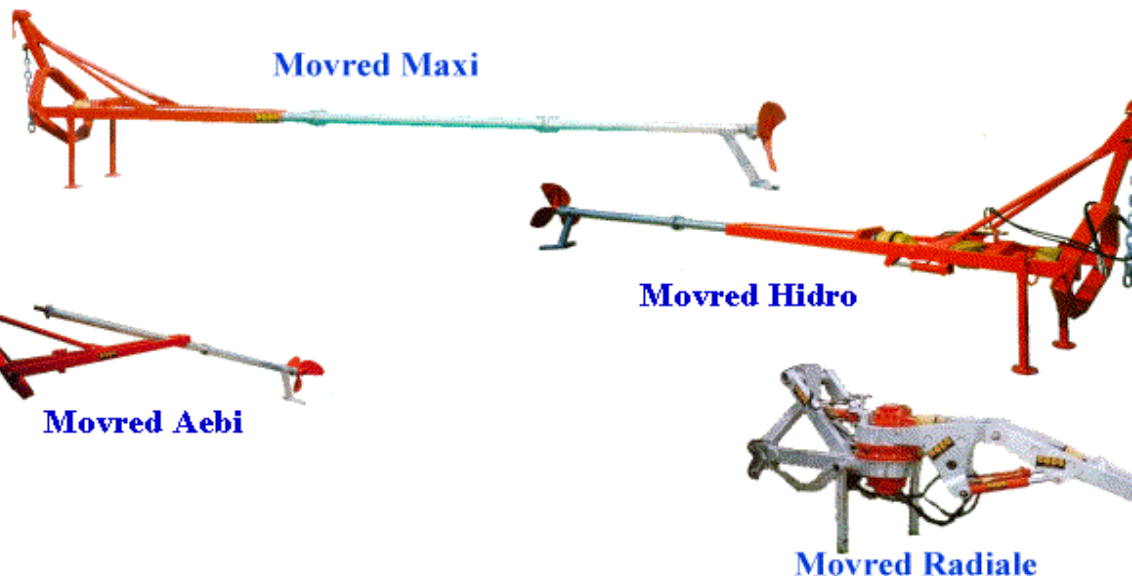
*COSTRUZIONE MACCHINE AGRICOLE di
DODALDO & C SNC*

Via Sante Salmaso 18/20 46010 BUSCOLDO (MN) ITALY
Tel. +39 0376/410043 - Fax. +39 0376/410032
<http://www.doda.com> Email: doda@doda.com

USE AND MAINTENANCE BOOKLET



MOVRED MAXI SERIES AERATOR MIXERS WITH CARDAN JOINT






The data, images and performances identified in this booklet are purely indicative.

The manufacturer reserves the right to make any change or modification, without providing any notice to users.

SYMBOLS USED IN THE MANUAL

The following symbols will be used in the manual to highlight information and warnings of particular importance:

<i>MEANING</i>	<i>NOTE</i>	<i>SYMBOL</i>
PROHIBITION	This symbol indicates that it is prohibited to perform manoeuvres and operations with the machine which may, under certain conditions, pose a risk to the safety of the operator, to the machine itself, or to adjacent parts/structures.	
DANGER	This symbol draws attention to important warning messages that are fundamental to the safety of the operator and of the machine.	
WARNING	This symbol draws attention to a particularly important warning	

DODA thanks you for purchasing a product in its range and invites you to read this booklet.

Inside you will find the necessary information for correct use of the machine you have purchased. Please, therefore, follow the instructions contained herein and read the booklet in all its parts.

Please also store the booklet in a safe place and do not modify it. The content of this manual may be changed without notice, and without additional obligations, in order to include changes and improvement to the units already provided.

Any reproduction or translation of any part of this booklet is prohibited without prior authorisation .

GENERAL INDEX

CHAPTER	DESCRIPTION	PAGE
1.	Introduction	pg. 1- 2
2.	Machine loading and unloading	pg. 4-5
3.	General warnings	pg. 5-6
4.	Preliminary checks	pg. 6
5.	Positioning and transportation	pg. 7-8
6.	Operation	pg. 8-9
7.	Working and Safety Guidelines	pg. 10
8.	Maintenance	pg. 11
9.	Stickers	pg. 11-12
10.	Performance and technical data	pg. 12

**EC DECLARATION OF CONFORMITY
DIRECTIVE 2006/42/EC AS AMENDED**

The machines described in this **"Use and Maintenance"** booklet are jib-type horizontal aerator-mixers for sewage, activated by the tractor's power take off. The jib enables these machines to mix and aerate at a significant distance from the edge.

The machines operate at ground level, in tanks set into the ground. The propeller can be positioned by manual or hydraulic means.

The propeller is particularly noteworthy; it is designed to enable the suction and breakup of the air into extremely small particles, for greater homogenisation of the sewage.

The galvanised structure, oil bath transmission system and quality of the materials used guarantee the long life of the machine and its simple maintenance.

Technologically, we have also applied the concept adopted for other DODA products to this machine:

"Highest quality to obtain the maximum reliability and durability."

MOVRED MAXI

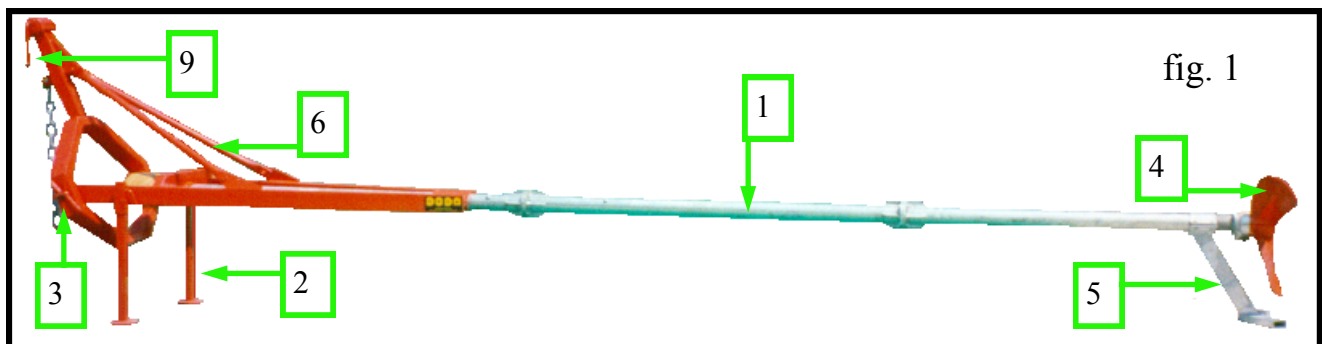


fig. 1

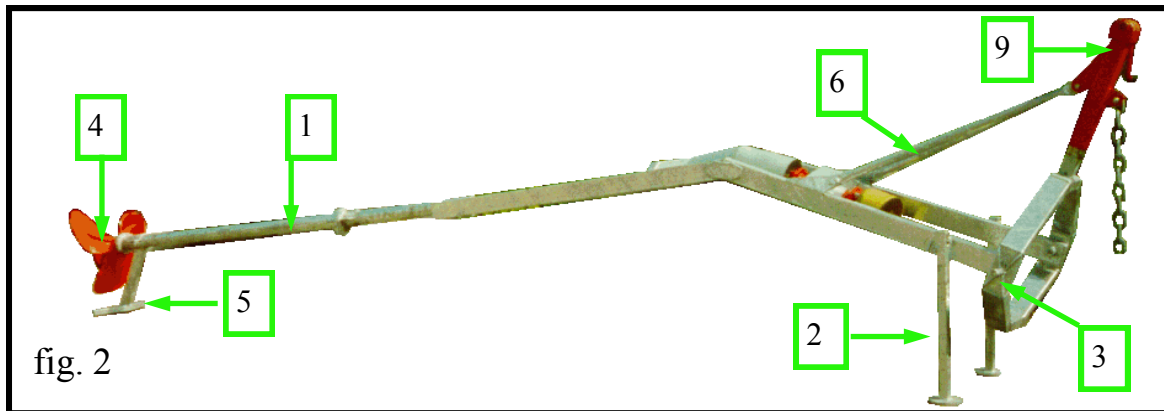
Suitable (Maxi-Gazzo) for mixing sewage in pits set into the ground without protruding walls. A manual winch is used to enable the insertion and positioning of the propeller.

- 1) Transmission pipe
- 2) Support feet
- 3) Three point linkage
- 4) Mixing propeller
- 5) Ground spacer

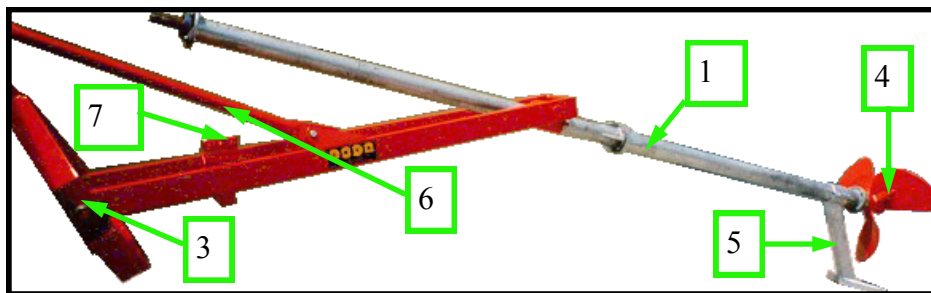
- 6) Tie rod
- 7) Hose clamp
- 8) Pistons
- 9) Manual winch

MOVRED MAXI GAZZO

pg. 2

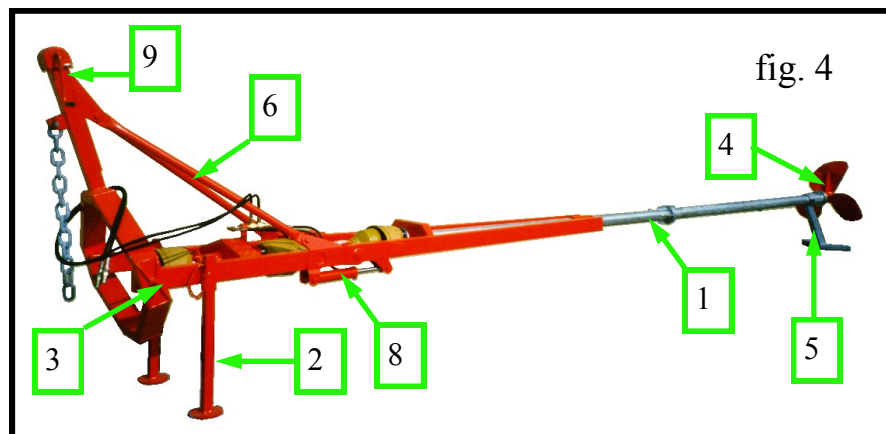


MOVRED MAXI AEBI

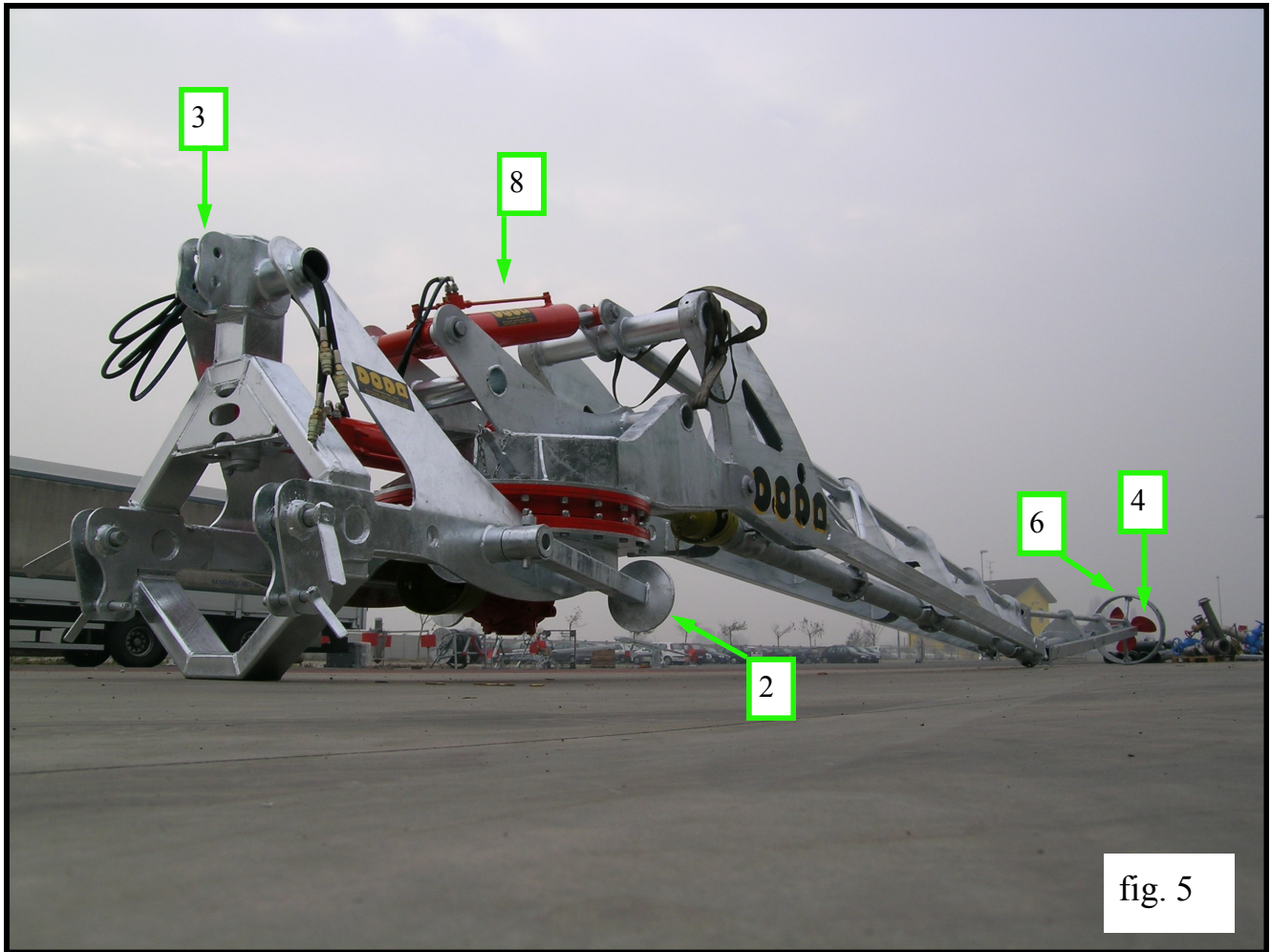


This machine is a variant of the Movred Maxi, and as such the technical and manufacturing specifications are the same; the difference is that this model offers the option to rotate the transmission pipe, for better insertion in narrower tanks.

MOVRED MAXI HIDRO



Like the Movredi Maxi, this machine is suitable for use in ground level tanks without boundary walls. Thanks to the two hydraulic pistons, the mixing propeller can be positioned while the operator remains seated on the tractor.



This machine is a variant of the Movred Maxi, and so the technical and manufacturing specifications are the same; the difference is that this model offers the option to rotate the transmission pipe both horizontally and vertically, for better insertion in narrower tanks. Thanks to the hydraulic pistons and the fifth wheel with hydraulic motor, the mixing propeller can be positioned while the operator remains seated on the tractor.



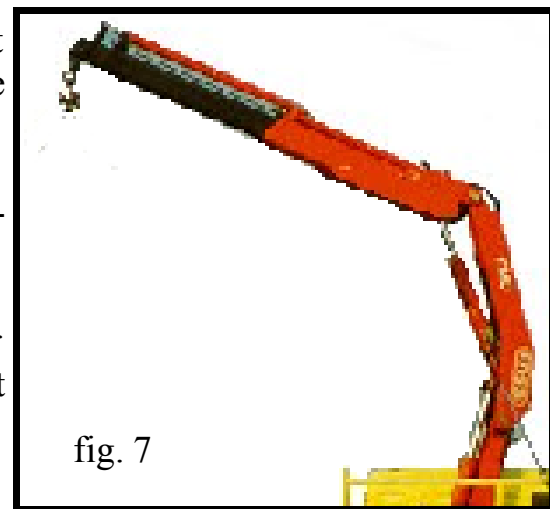
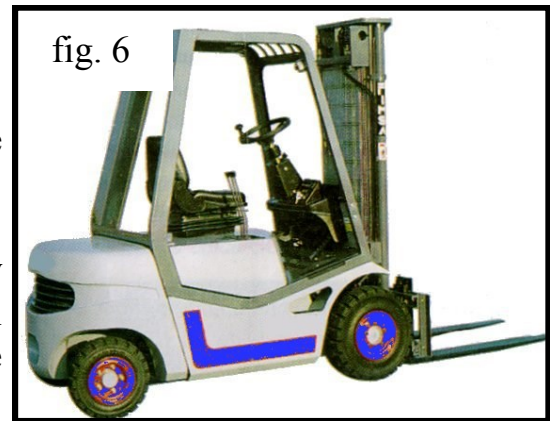
The machine loading-unloading operation can be carried out:

- using a forklift truck;
- using a hoisting crane. **N.B.: the carrying capacity of the sling must be at least seven times the total weight of the machine (if it is made from textile fibre).**

WARNING: in both cases, the machine must not be lifted by gripping onto the weakest parts of the structure (outlet pipes, etc.).

WARNING: before lifting, ensure that the structure is balanced

WARNING: do not make sudden manoeuvres, or knock the steel parts with the forks of the forklift truck.



Before lifting, ensure that the structure is balanced!



Never stand under the suspended load when lifting, transporting or unloading the mixer!



Never leave a suspended load unsupervised!



Do not make sudden manoeuvres, or knock the steel parts with the forks of the forklift truck.

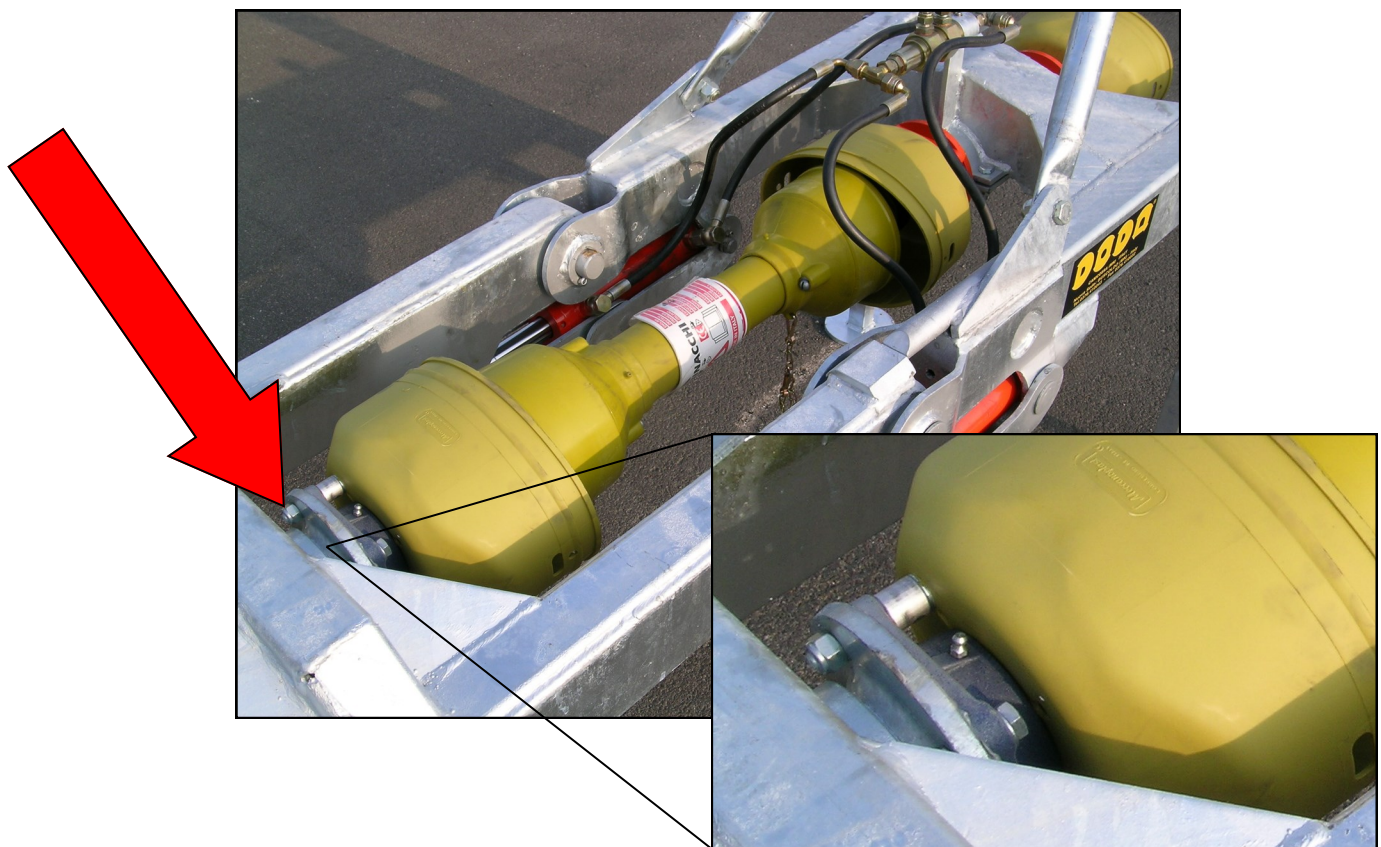


IMPORTANTE !!!



In certain situations, to facilitate transport, the new machine will be delivered with the transmission separate to the load-bearing structure. For the **Hidro** version, it is very important that the transmission is in a certain position to prevent damage to the machine:

THE FLANGE NEAR THE PROTECTIVE COVER MUST BE CLOSE TO THE SUPPORT, AS SHOWN IN THE PHOTO BELOW



3. GENERAL WARNINGS



- 1) Check that no component has been damaged during transportation. If damage has occurred, contact your dealer immediately.
- 2) The power connection must be carried out in accordance with the DODA instructions, by qualified personnel (by connecting the cables of the electric motor to the power or the pump to the tractor by cardan shaft). DODA is in no way responsible for the electrical connections (please follow the instructions on the motor plate and the sticker which indicates rotation direction).
- 3) Before starting the machine, check that the rotating parts of the transmission are adequately protected as required by their manufacturer.
- 4) The protection of the rotating parts not supplied with the machine must be performed by the operator based upon existing provisions of law.
- 5) DODA accepts no responsibility for changes that alter the characteristics of the purchased machine.
- 6) DODA machines may not be installed on structures that do not comply with EC safety requirements .

- 7) Before operating the machine, it is essential to read the instructions contained in the **Use and Maintenance Booklet**. In particular, ensure that you have fully understood the operation of the machine.
- 8) The machine was designed and constructed to treat water and sewage, but not chemical products. Treating the latter substances may cause permanent damage.
- 9) Check that the length of the machine is appropriate to the depth of the tank.
- 10) As regards machines with oil bath transmission, the transmission pipe and the gear units, if present, should be filled with oil.
- 11) During assembly, ensure that the rubber parts of the machine do not come into contact with oil, grease or oil derivatives .

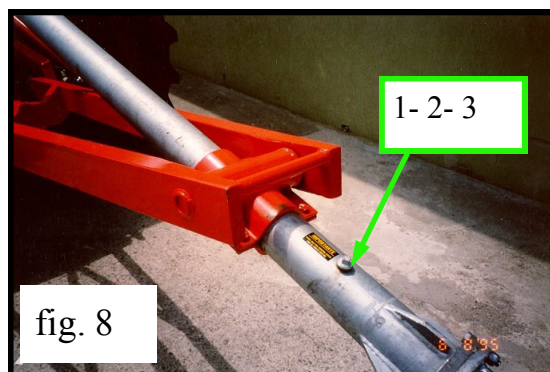
4. PRELIMINARY CHECKS



The machines are supplied without lubricating oil both in the transmission pipes and the gear units. Before starting the machine, ensured they are filled correctly:

- unscrew the caps: fill and vent;
- add SAE 90 oil **very slowly**, see oil quantity table;

- add synthetic oil for reducers that are resistant to high temperatures (AFI REVERSE GEAR UNIT ONLY);
- wait at least 3 hours (FOR TRANSMISSION PIPES ONLY) before checking the oil level by way of the specific cap;
- close the caps.
- Check the level cap periodically: the oil must never fall below the level .



- 1) OIL Inlet Cap
- 2) OIL Outlet Cap
- 3) OIL Level Cap

N.B. During filling and checking, when the machine is stopped, the transmission pipe should be in the horizontal position.

INDICATIVE OIL QUANTITY LEVELS FOR TRANSMISSION PIPE

Cardan joint transmission type	Type A (4 m)	Type B (5 m)	Type C (6 m)
Oil quantity (kg)	7.7	9.5	15



N.B.: for all cardan joint machines, connect the cardan shaft between the tractor's power take off and the machine unit. In order to operate properly, the cardan shaft must be parallel to the ground during operation. Also ensure that the chain, supplied to protect the cardan joint, is attached to the dedicated ring.

N.B.: for transporting the machine over long distances, load it onto an appropriate vehicle, following the instructions in the paragraph “MACHINE LOADING AND UNLOADING”. Never use the tractor for road transportation.

For positioning operations, connect the machine's three point linkage to the lift arms of the tractor.

Reverse up to the edge of the tank.

Lower the lift mechanism until the machine's cardan joint is aligned with the tractor's power take off.

Place the support feet on the ground to better support the machine .



fig. 9

MOVRED HIDRO

For versions with automatic positioning system, connect the hydraulic pipes of the pistons to the tractor; use the tractor's hydraulic system levers to position the mixing propeller.

MOVRED MAXI- GAZZO

For insertion into the tank, tilt the machine using the manual winch (9).

For narrow openings, disconnect the tie rod (6), rotate the frame, insert the mixing propeller into the tank, reposition the frame and reattach the tie rod before starting the machine.

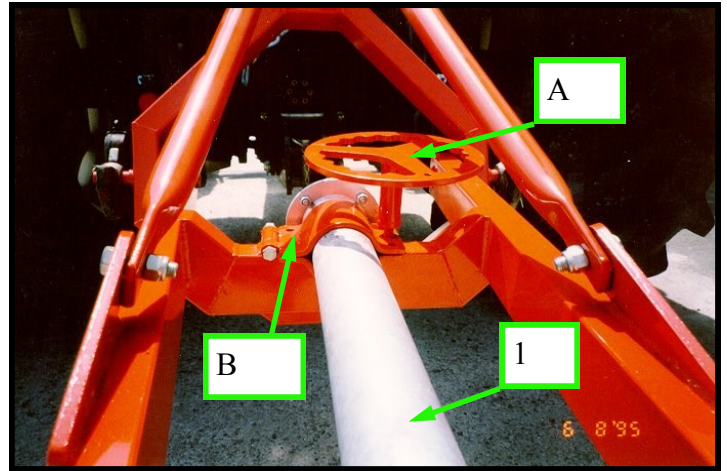


fig. 10

MOVRED AEBI

pg. 8

This machine enables insertion in even narrower tanks, thanks to the independent rotation of the transmission pipe: unscrew the handwheel (A), open the hose clamp (B), rotate the transmission pipe until it is in a vertical position, position the mixing propeller inside the tank, return pipe 1 to the hose clamp and tighten the handwheel.



6. OPERATION



NOTE: prior to starting the machine, read the “GENERAL WARNINGS” chapter. After preparing the machine and ensuring its stability in normal operation, it may be used.

Steps for start-up:

- start the tractor;
- activate the tractor power take off;
- bring the tractor to the required number of RPMs

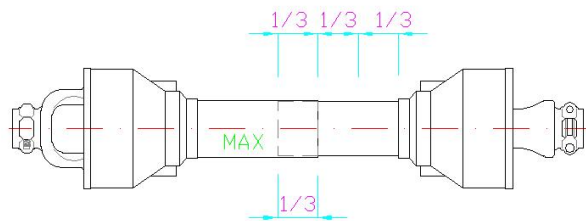
Steps for shutdown:

- deactivate the tractor power take off;
- shut off the tractor motor;
- disconnect the cardan shaft on both the tractor side and the machine side.

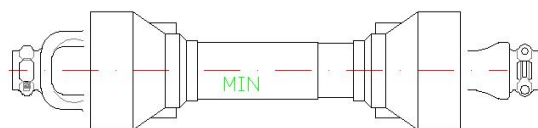
IMPORTANT!



-Ensure that the length of the cardan shaft can compensate for the machine movements (tilting and height differences); in all working conditions, the telescopic pipes must overlap by at least

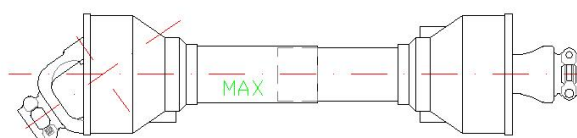


1/3 of their length when fully extended, or by at least 1/2 of their length when fully compressed, and must retain at least 10 cm of play when compressed.



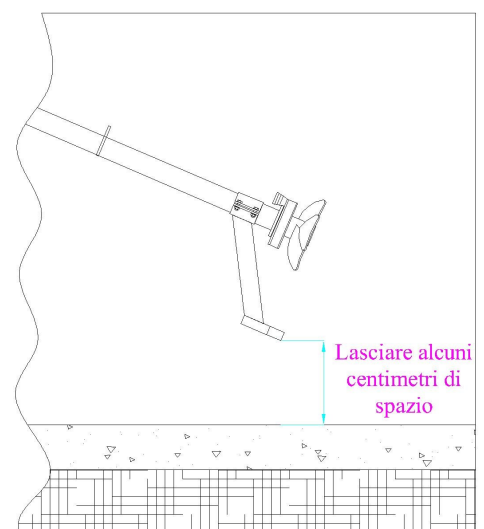
-Comply with the angular compensation limits for the cardan joint; check the data provided by the manufacturer for these limits.

Verificare i dati del produttore



-The jib must be free for these machines to work.

The safety spacer must not touch the bottom when the propeller is rotating.





- 1) During working and inspections of the machine, wear appropriate clothing (overalls, gloves, helmet, safety shoes, fastened clothes, etc..).
- 2) The machine should be used in appropriately lit areas.
- 3) Given that gases emitted by sewage are poisonous, check that:
 - the work area is adequately ventilated;
 - there are no naked flames in the vicinity.
- 4) Never inspect the liquid sewage alone. In the case of loss of balance or fainting due to fumes, immediate assistance will be required.
- 5) When you do not need to perform operations in the tank, it should remain covered.
- 6) The machine should only be used by responsible adults and in a location inaccessible to children.
- 7) Do not perform repairs or adjustments when the machine is in operation or when it is connected to the power supply.
- 8) The machine should only be used when all protective equipment is in place, following the instructions identified in the above paragraphs in order to avoid contact with moving parts. Do not damage or remove the protective equipment.
- 9) Never operate the machine without having filled the oil (transmission pipes and gear units).
- 10) Prior to starting the work phases, ensure that the entire working unit (machine and tractor) is stable.
- 11) During maintenance, ensure that the machine is completely at a standstill and disconnected from the power supply.
- 12) Do not use the truck for road transportation (if required).
- 13) During use, adjustment or maintenance operations, ensure that the rubber parts of the machine (gaskets, etc.) do not come into contact with oil, grease or oil derivatives.
- 14) Ensure that the motor is rotating in a clockwise direction as indicated by the arrow positioned on the motor (where appropriate).
- 15) For all electrically operated machines, the connection should be carried out in a location protected from rainfall.
- 16) Use and store the machine in a dry place, protected from rainfall, when not being used for prolonged periods .



Before carrying out any maintenance operations, stop the machine and disconnect it from the power supply.

- 1) Regularly check the oil level of the parts that require lubrication (transmission pipes and gear units), and replace them completely every two years (SAE 90).
- 2) Every 50 hours of operation, grease the rotating parts: lubricators, piston articulated joints, toothed wheels, fifth wheel (figure 15) etc..
- 3) At the end of its use, wash the machine to prevent the sewage from solidifying, causing damage over time.
- 4) Check the state of wear of the mixing propeller and replace it if necessary.
- 5) If the air inlet pipe becomes blocked, unblock it immediately by introducing water from the top end.
- 6) Change the oil in the two units of the Movred Radiale every 100 hours, using 3 lt of SAE 90 for each see figure 16.

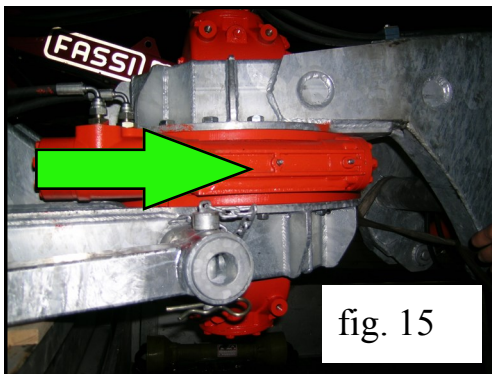


fig. 15

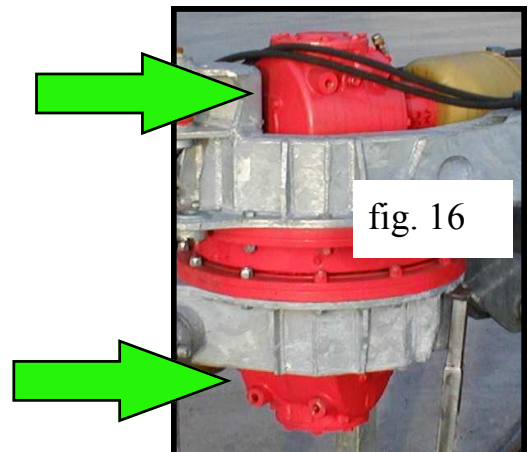


fig. 16

Contact DODA authorised dealers directly for all spare parts .

9. STICKERS

The stickers found on the machine are the following:

IMPORTANTE

PRIMA DELL'USO RIEMPIRE D'OLIO

FINO A LIVELLO (SAE 90)

IMPORTANT: prior to use, fill with oil up to the level (SAE 90).

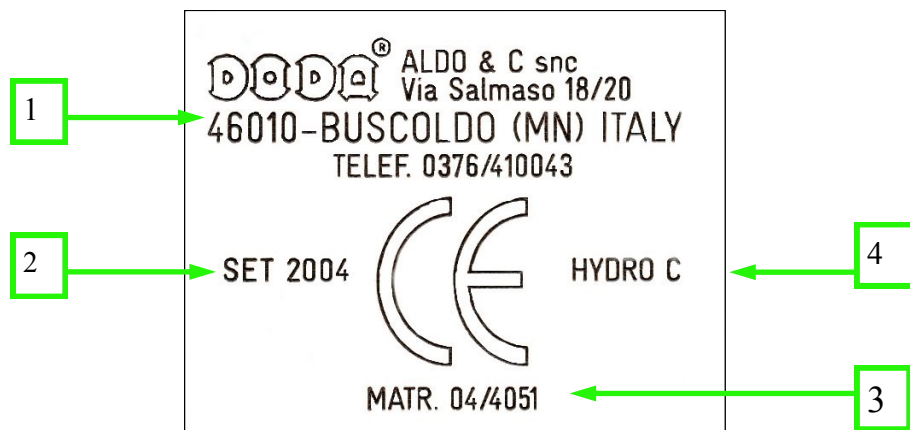
**LIVELLO
OLIO**

FILL WITH OIL UP TO THE LEVEL
REGULARLY CHECK THE LEVEL

ATTENZIONE
Prima di posizionare la macchina verificare che il motore sia collegato nel senso di rotazione indicato dalla freccia.

WARNING
Before placing the pump control the turning direction of the motor it must run as pointed out by the arrow. 

THIS STICKER REMINDS YOU TO CHECK THE ROTATION DIRECTION OF THE ELECTRIC MOTOR BEFORE STARTING THE MACHINE.



Sticker for conformity with EEC regulations.

- 1) **COMPANY NAME**
- 2) **MONTH AND YEAR OF MANUFACTURE**
- 3) **PRODUCT IDENTIFICATION CODE**
- 4) **MACHINE TYPE**

10. PERFORMANCE AND TECHNICAL DATA

There are numerous technical details which guarantee the high reliability and long life of a DODA pump:

- Fully hot-galvanised structure.
- Oil bath transmission.
- Widia-Widia mechanical seal.
- Gear reducer units.
- Stainless steel fan support shaft.
- Self-cleaning propeller.
- Sewage aeration system.
- Variable mixing depth with hydraulic system.
- Option to work in multiple adjacent tanks

**EC DECLARATION OF CONFORMITY DIRECTIVE
2006/42/EC AS AMENDED**

WE

DODA di Doda Aldo & C. S.n.c.

Via Sante Salmaso, 18/20
46010 Buscoldo (Mantova)

DECLARE UNDER OUR EXCLUSIVE RESPONSIBILITY THAT THE PRODUCTS
MOVRED MAXI SERIES AERATOR MIXERS

TO WHICH THIS DECLARATION REFERS CONFORM TO THE REQUIREMENTS
OF DIRECTIVE 2006/42/EC AS AMENDED.

BUSCOLDO (MANTOVA)

ALDO DODA
LEGAL REPRESENTATIVE



COSTRUZIONE MACCHINE AGRICOLE
di DODA ALDO & C SNC

Via Sante Salmaso 18/20 46010 BUSCOLDO (MN) ITALY
Tel. +39 0376/410043 - Fax. +39 0376/410032
<http://www.doda.com>
Email doda@doda.com
