

INSTRUCTION MANUAL FOR USE AND MAINTENANCE



Beachcleaner Type: Manta Gold

1.5.1 PURPOSE AND CONTENT

The purpose of this manual is to supply the user with all the required information to allow him/her not only to use the machine properly, but also to manage it as autonomously and safely as possible. It includes information pertinent to the technical aspects, machine running, machine downtime, maintenance and safety.

Before carrying out any operation whatsoever, all the operators and qualified technicians must carefully read the instructions contained in here.

If in doubt regarding the correct interpretation of the instructions, please contact the Manufacturer to obtain clarifications.

1.5.2 RECIPIENTS

This manual is to be used and known by both the operator and maintainers of the machine.

The operators must not perform operations reserved for maintenance staff or qualified technicians.

The Manufacturer does not respond to damage deriving from the failure in complying with this prohibition.

1.5.3 STORAGE

The instruction manual must be kept in the immediate vicinity of the equipment, inside a suitable container and, above all, protected from liquids and anything else that may compromise its clear readability.

In case of damage or loss, the Client can ask a new one to the Manufacturer. The request must include: type, serial number, year of construction of the machine.

1.5.4 SYMBOLS USED



DANGER: Indicates a danger with risk, even fatal, for the user.

WARNINGS: Indicates a warning, or a note, to key functions or useful information. Pay maximum attention to texts labelled with such symbol.



MONITORING: The user is required to detect a susceptibility, to check a warning, etc..

QUERY: The user is required to verify the correct position of any part of the machine, before proceeding to any entry.



CONSULTATION: The instruction book must be consulted before performing a specific operation.



ADJUSTMENT: In case of particular operations and/or anomalies, a specific mechanical adjustment and/or calibration.

2.0 MACHINE DESCRIPTION

2.1 OPERATING PRINCIPLES

The machine is designed and built as a beach cleaner able to perform high-quality sand cleaning.

The machine has a strong structure made of electrically welded steel. In this framework, a drive system convert power of the tractor into the power that would move the machine so to fulfill its purposes.

The machine can be assimilated to:

Machinery Directive 2006/42/CEE annex VII part B. That is to say that it is not provided with its own power.

The tractor (minimum power 35hp) must have a PTO unified type 1x3/8 with a rotation speed $330 \div 370$ g/1' and a coupling device cat. ISO 2.

A mechanic system with a width of 1.600m and variable height (it can reach 150mm depth) collects the sand and carries it into a 2-sieves system, which move alternating and separate clean sand from debris. The debris is collected into a waste hopper, which automatically move, and empties out separately. The operator drives the tractor, where he can work safe. The visibility from the drivers seat allows to move the machine in safety, for the driver and also for people who might be in the surrounding area. There are no risks if anyone comes in contact with the machine. The machine doesn't have motion devices that may cause hazardous situation, but they may happen if they involve the powered vehicle (tractor). From the driver seat, the operator has control over all the devices and actions of the machine.

The conformity to the pertinent Laws regarding safety subject is tightly correlated to the machine in which will be incorporated.

It must not be put into service before the carrying machine (tractor), into which it is to be incorporated,

has been declared in conformity with the provisions of the Directive 42/2006 CEE.

ON THE ROAD

According to traffic laws, in Italy, the machine is classified as an integrated part of the tractor, so it is not necessary to homologate it. The machine can be put on the road and circulate abiding the ratified characteristics of the tractor (maximum capacity of the tractor). It is strictly prohibited to work with the machine in areas or environments at fire or explosive risk.

2. 2 DIMENSIONS

The overall dimensions in mm:



2. 3 ENVIRONMENTAL CONDITIONS

The machine doesn't need any particular environmental condition. It operates outside, in the awareness that its power comes from a powered vehicle which pulls it and has its own characteristics for a safe driving.

2. 4 VIBRATIONS

The risk assessment resulting from vibration is to determine the level of exposure faced by workers who use machinery or equipment that produce interesting vibrations to the hand-arm or whole body, in this case the whole body.

The measurement of the level of exposure to vibrations transmitted to the whole body (WBV) must be carried out under D.Lgs.n. 81/2008 according to the requirements of the standard UNI EN ISO 2631-1: 2014. "Mechanical vibration and shock - Evaluation of exposure of man to the vibrations transmitted to the whole body - Part 1: General requirements".

The prescribed limits the extent of transmitted vibration and duration of exposure, in relation to action values are:

VIBRATION WHOLE BODY (WBV)

Daily exposure action value $A(8) = 0,5 \text{ m/s}^2$

Daily exposure limit value $A(8) = 1,15 \text{ m/s}^2$

The exposure measurement must take place in conditions of use complies with the requirements of safe use and the correct use of the machine on a sandy shore where:

a) the machine is in good maintenance conditions;

- b) the machine is used in such conditions as indicated in this manual
- c) the seat of the carrier tractor is not broken or in poor maintenance conditions
- d) the adjustable seat placed on the tractor is adequately adjusted by the operator
- e) the means supporting tires are in good conditions of maintenance

Once the machine is placed on the market in the majority of cases we lose the opportunity to know what will be the carrier, the relationship between the tractor and machine capacity is strongly linked, the operator is seated on the tractor seat.

The structure and type of the carrier machine affects significantly on exposure metering, to give an indication in accordance with current legislation in this field, we have, in the above described conditions, subjected to test of the machine occurs.

Consider the evidence that has been submitted is affected by the lack of data banks to be referenced

for consistent assessment and also by the lack of application of a rule of C type specifies applicable to the machine.

The values emerged in the verification phase are the result of measurements, calculations, tests on a tractor that has been the carrier of the machine, we have determined ii emerged values described below:

Total daily exposure A(8) (m/s²) = 0.70

Risck class 1

The medium carrier used is a tractor with wheels from 42 kW with a pitch of 2.000 mm, a track width of 1,400 mm and a weight of 2,200 kg on a sandy shore with very low percentage of pebbles.

Depending on the Hazard Class detected on the machines, the mandatory preventive measures are:

- *) Adequate worker information and training for the safe and correct use of work equipment, so as to minimize their exposure to mechanical vibration
- *) Health checks and periodic estimates by the competent medical workers exposed to mechanical vibrations
- *) To prepare, where possible, suitable work paths to limit the jolting
- *) Carrying out maintenance programs for work equipment, with special attention to those parts which could increase levels of acceleration and damping devices
- *) Limit, as far as possible, the duration and intensity of exposure to mechanical vibrations in relation to the working activities and / or provide appropriate work schedules with adequate rest periods

Total daily exposure A(8) (m/s²) = 0.70

Risck class 1

Do not overlook that the exposed data may deviate from the exposure values ??measured in the workplace in which the will machine used from time to time, as "the factors that determine the level of exposure to which is subject the workforce, include duration of exposure and the characteristics of the workplace ", in this regard it is advisable to check and perform a risk assessment compared all'arenile on which the machine will be used

2. 5 NOISE EMISSIONS

The machine is designed and manufactured in such a way as to reduce noise level at the source, the measurements detected, in compliance with the relevant standards, are never below of Lwa= 94 dB

Consider that noise emission levels here indicated concern the emission and do not necessarily

represent safe operating levels.

Even though there's a relation between levels of emission and those of exposure, it cannot be used to establish a reliable link to decide whether further precautions are necessary or not.

The factors which determine the level of exposure to which the workforce is subjected, include the duration of exposure, characteristics of the workplace and other sources of noise (number of machines, adjacent processes, etc...).

Moreover, the allowed levels of exposure may vary from country to country.

Eventually these informations will allow the user to better evaluate the danger and the risk he's exposed to.

2. 7 TECHNICAL DATA

Below are the technical data and specifications of the machine to which the Client must refer to for any contact with the customer service of the Manufacturer.

TABLE 2. 7 A

Data and Characteristics

Working width: 1.600 mm

Working depth: 0 ÷ 150 mm

Working capacity: 15.000 m²/h (dependent to the kind of strand and powered vehicle)

Pollutant container: 450 liters

Maximum height of discharge: 1.800 mm

Weight: 430 kg

Index acoustic power: 94 dB(A) (correlated to the tractor)

2. 8 STANDARD EQUIPMENT

In the basic version, the machine is supplied and delivered with:

- PTO universal joint. 1 3/8" z6
- Two sieves: one fine mesh, one large mesh

Any kind of modification or addition of any accessory or device has to be approved and built by the Manufacturer

3. 0 SAFETY

3. 1 GENERAL WARNINGS

CAUTION>> *The operator must carefully read the information contained in this manual, particularly in regards to the appropriate safety precautions listed in this chapter.*

Keep the machine clean

Only use the machine under normal physical and mental condition

Wear clothes suitable as to avoid impediments and/or hazardous entanglement with the machine

- * Wear personal protective equipment depending on the operations to be carried out
- * Do not remove or alter the nameplates mounted on the machine by the manufacturer
- * Do not remove or bypass the safety systems provided by the machine

*Do not leave the engine of the tractor on start without using it. It's a source of pollution so it must be activated only for working purposes. Start it up in a enclosed space only if strictly needed. Do not inhale exhaust gases, they contain carbon monoxide which is colorless, odorless but highly poisonous.

* Any kind of maintenance procedure on the tractor has to be done while its engine is turned off and the key is visibly out of the control panel. Operate as described in the tractors manual.

3. 2 INTENDED USE

As explained in chapter 2.1, the machine is designed and built to clean beaches and sand.

3. 3 IMPROPER USE

The machine must not be used:

- * For uses other than those specified in paragraph 2.1
- * In an explosive atmosphere or at fire risk
- * It is not allowed to transport people or to seat on the machine.

3. 4 DANGEROUS AREAS

The “dangerous areas” of the machine include the areas affected by its moving parts and their immediate surroundings.

3. 5 PROTECTION DEVICES

The machine is equipped with adequate guards both for the protection of people exposed to risks related to moving parts and also to the possible expulsion of objects due to special work processing.

The operator must wear the following personal protective equipment and has the obligation not to allow other people to expose themselves during work operations.

3. 6 SHUT-DOWN FUNCTIONS

The shut-down functions of the machine are interrelated to the pulling vehicle. The operator has to operate strictly as described in the tractor’s manual.

3. 7 SAFE WORKING PROCEDURES

The machine is designed and built with the purpose of eliminating all risks related to its use. However, the impossibility to eliminate all risks due to accidental contact with moving parts exists, so please consider the possibility of:

* **Crushing and cutting:** be careful not to put hands in places where are moving parts. Never allow anyone to get closer or stand by the machine during the working process. Use always the appropriate tools to clean the machine and never operate with bare hands.

Entanglement: before any operation, for personal safety reasons, it’s a good practice to remove rings, watches, bracelets, etc., tighten the sleeves around wrists, remove neckties, tie back the hair with appropriate accessories, use sturdy footwear, wear five-finger gloves strong and soft that do not reduce the sensitivity and grip.

* **Burn:** follow the instructions described in the tractor’s manual made by the builder.

* **Combinations of dangers:** it’s possible that when setting the machine to work, random people might come closer out of curiosity: if the machine is turned on, stop it and ask these people to keep themselves some meters away from the area to clean. If possible, limit the working area or have an operator to check that people will stay at a proper distance. It’s best to clean the beach when there’s no one around.

3.8 HANDLING AND LIFTING

The machine must be handled by specialized and trained personnel, aware that the total weight is around 450 kg.

It is delivered on a wooden pallet suitable for handling with a forklift and suitable for hosting the

machine during periods of inactivity.

During the loading and unloading phase, pay attention to impacts to avoid damage to persons or damage machine.

Before handling and lifting:

- Make sure that the lift truck capacity is suitable for the load to be lifted.

- Make sure the forks are long enough.

- Insert the forks under the wooden floor, on the side of the maximum allowed width.

It is possible to carry out the safe handling of the machine also by means of a lifting system, in the points indicated by pictograms, with the use of slings.

The reach of the sling must be suitable for the load to lift.

Before starting the lifting operations, it is necessary to verify the perfect efficiency of every part of the slings; in particular, check carefully:

- that the hooks are equipped with security device

- that the oval rings and the hooks show no signs of deformation and wear or damaged parts

- that the sling or textile fiber rope has no knotted, damaged, or consumed parts, with cuts and lacerations

- that the reach of the sling is sufficient for the weight to be lifted

- that the rope and the main hook of the crane with its snap safe are working

- The attachment points are highlighted by pictograms on the machine, as much safety in handling depends from it.

- The textile ropes must be arranged so as not to slip during lifting.

- The operator must remain safe, away from the load, to avoid any contact with the load itself while in suspension and visually check each component of the lifting sling during the maneuver.

- No person should stand near the load, especially in narrow spaces, so as not to remain accidentally trapped or even crushed in case of incorrect maneuvers

- The beginning of the maneuver must be preceded by a clearly visible operator signal (arm raised vertically to indicate SLOWLY UP).

- As soon as the load is lifted a few centimeters from the ground, it is necessary to check from a suitable security distance, that it remains in a balanced condition and that the attachment points are stable.

- Once it is established that the conditions of stability are permanent, it is possible to proceed with the lifting, communicating to the crane operator to continue the maneuver, always with a signal from the operator

(vertical raised arm to indicate UP).

- One should never perform abrupt operations, such as sudden lifts and releases, uncontrolled rotations and oscillations, nor overloads or transversal shots, to avoid compromising the load stability.

- If there is a sudden instability, the operator must immediately suspend each maneuver-giving signal to the crane operator (both arms raised horizontally to indicate STOP).

- Never try to correct any load instabilities by hand lifting: it is an extremely dangerous and forbidden operation.

- Instability can have serious consequences on the lifting equipment (causing failure of the textile rope slings and of the accessories connected to them) and on the load itself (causing damage or breakage).

Stopping or passing under suspended loads is strictly prohibited.

3.9 RESIDUAL RISKS

DANGER >> During normal processing cycle and during maintenance, the operators are exposed to some residual risks that, by the very nature of the operations, cannot be totally eliminated.

When using the machine it's necessary to comply with the following prohibitions:

It is forbidden to disable the safety devices

It is forbidden to inspect the machine during operation

Sit and / or stand on top of the protective devices or the machine itself

Use of the machine or even part of it for purposes other than those listed in this manual

Change or modify components and any other part, including the application of additional devices

** It is forbidden to use any type of solvents as alcohol, gasoline, thinner, etc. for the cleaning of all the machine surfaces*

**** It is strictly forbidden to use the machine in explosive environments***

In the event of a malfunction due to a failure to comply with the instructions above, the manufacturing and supplying company is not liable for any consequences

3.10 NAMEPLATES

The plate (illustrated below) is placed on the machine frame and it's possible to see that the characteristic data for the identification of the machine is written on it.

When it is necessary to contact the builder, it's essential to have the above data at hand.



On the protection hood there are explanatory pictograms regarding safety functions.

They must never be removed, covered or damaged.

THE WARNING LABELS WORK AS A SAFETY FUNCTIONS AND SHOULD NOT BE REMOVED, COVERED OR DAMAGED

4. 0 MACHINE PREPARATION

DANGER: Turn off the engine of the tractor and remove the key from the control panel

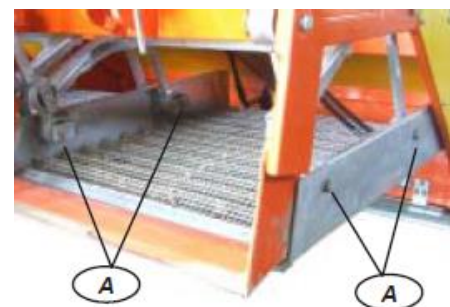
CAUTION: Use gloves, overalls without fluttering parts, safety shoes

4.1 REPLACEMENT OF THE SIEVE

It is an ordinary maintenance phase. The sieve to separate debris from sand is the element most involved in the success of the cleaning work, characterized by a more or less tight mesh depending on the granularity and dampness of the beach.

Replacing the sieve is easy. Turn off the machine, disconnect it from the power system and also from the tractor, then remove keys from the control panel. Release the "A" bolts (on the sides of the machine) using two wrenches, one for the head and one for the nut.

Once removed 4+4 bolts, take out the sieve and replace it with the suitable one. To assemble again, do the process backwards.



4.2 CONNECTION TO THE TRACTOR

DANGER: Turn off the engine of the tractor, remove keys from the control panel

The connection must be done by qualified personnel, who have to have technical knowledge of work on the machine.

Concerning this issue, the building company when delivering the machine give all the needed instructions on how to carry out the process depending to the kind of powered vehicle. That's to say that every explanation of the joint positions is given.

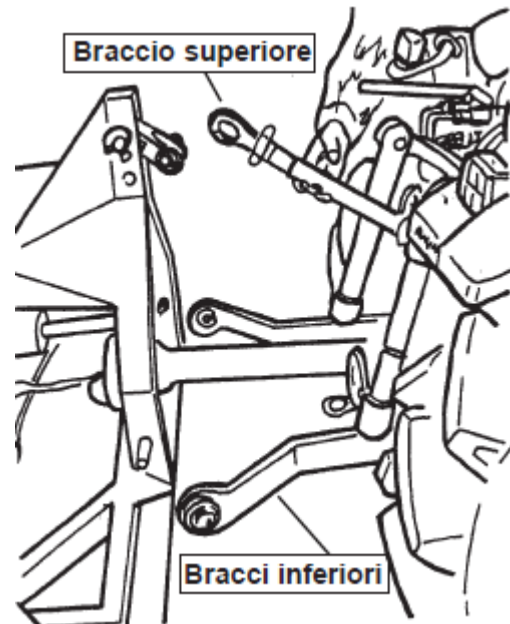


Place the tractor with its loading system in front of the sand cleaner. Turn off the engine and remove the keys from the control panel.

First, connect the two lower arms —the hitch lifting arms— of the three-point hitch (cat. ISO 1 or ISO 2), place the linch pin (to block pivots in their slot) and only after that do the remaining connection with the third and upper arm —the top link—. Linch pins (anti-extraction safety devices) of the three-point hitch must be placed in their own housing to guarantee a safe balance for the machine and its powered vehicle.

Insert the joint pivot, then block the position by inserting a linch pin

Remember to check the top link to avoid swinging during transport and work session



Spina fissaggio



Spina a scatto



Reminder: the regulation has to be done by the third point of the elevator, in order to avoid machine swinging during the work phase.

Detach the machine

The machine detachment must be done by laying the machine on the ground (solid, flat ground); disconnect the power take-off (PTO), turn off the tractor's engine and remove its keys from the control panel.

The pictures in this manual are used only for representative purposes. They can refer to another type of machine

4.3 PTO SHAFT

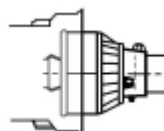
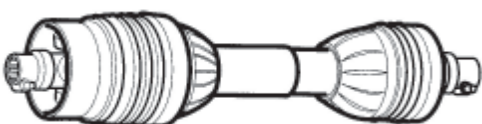


Serie	Tipo	540 r.p.m.		Coppia max		Tipo P.T.O.
		kw	CV - HP - PS	Nm	In. lb.	
T - S - E	40	26	35	460	4.050	1 - 2

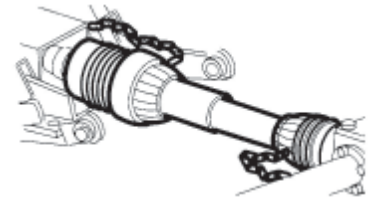
DANGER: Before moving close to the machine and / or perform maintenance operations (tractor and / or sand-cleaning machine) turn off the engine of the tractor, remove the keys from the control panel and verify that all the parts in rotation and / or movement are firm.

All maintenance and repair operations must be carried out with suitable safety equipment.

- 1) During the use of the transmission do not exceed the speed and power conditions indicated by the table above, avoid overloads.
- 2) Before starting work, check that the transmission has efficient protections and that they are properly attached, see image below



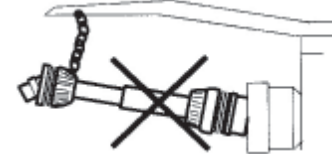
3) Overall view of the correct coupling, fix always the anti-rotation chains of the protection



4) The tractor stamped on the guard indicates the carrier side of the transmission



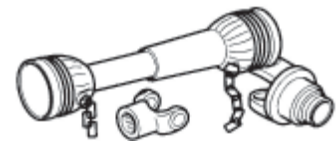
5) Do not use chains to carry or support the cardan transmission at the end of work. Use a specific support.



6) Do not use the cardan transmission as support or as a step



7) Replace damaged or worn parts only with original spare parts



MONITORING: The use and maintenance manual of the cardan transmission installed on the machine, is supplied together with this manual, follow its indications for correct operation and maintenance as well as for operator's safety and security procedures.

CONSULTATION: Follow the periodic maintenance procedure of the transmission system with specific reference to the state of wear of its components.

Check the mechanical parts stressed by the transmission work, providing their replacement in the predictive phase.

Do not neglect to keep its parts lubricated and greased.

Always transport the cardan shaft keeping it in a horizontal position, thus avoiding any slippage that can cause accidents or damage to the protections.

While waiting its use, place it in the special supports in the warehouse.



NOT CORRECT



CORRECT

The cardan joint must be maintained efficient by checking the state of protections, lubrication and greasing of the joints; it must be kept on the specific support present on the machine or, once removed from the power take-off, in special supports in the warehouse.

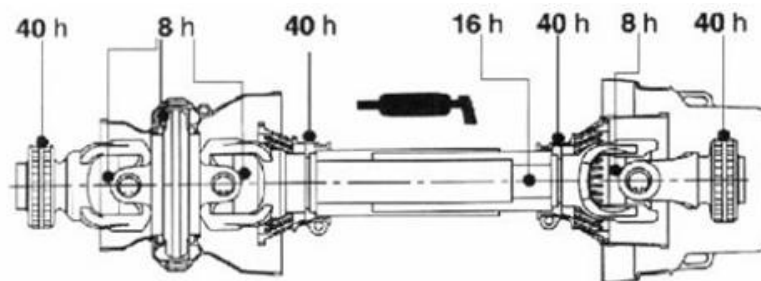
The user must guarantee the maintenance of the functioning of the cardan transmission; the maintenance and recovery operations must be carried out in compliance with the indications provided by the manufacturer in the instruction manual.

These operations must be carried out wearing the appropriate PPE: gloves, overalls and safety shoes.

Do not carry out any maintenance work with the tractor in motion; always remove the key from the tractor. The various components of the transmission must be lubricated according the way and time provided in the manual of instructions or in any case after long periods of inactivity. The telescopic elements must be greased separating the two parts of the tree.

Replace any damaged or missing parts only with original spare parts, which must be installed correctly, without modifying or tampering with any component.

Here below are the intervention times for shaft lubrication and greasing, which can be also found in the instruction manual that accompanies it.



SUBSTITUTION OF CARDAN-SHAFT TRANSMISSION

If the transmission shaft is purchased new, it must be equipped with its protection, and have the CE mark with its own declaration of conformity.

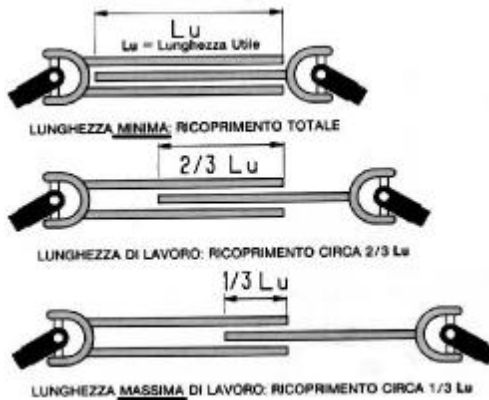


It must also include the pictograms that call the attention of the operator and must be maintained throughout the life period of the joint:



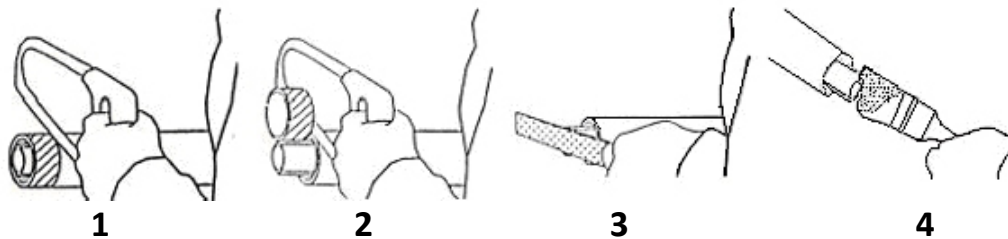
It is important to check for each use that the transmission length complies with minimum and maximum elongation conditions.

In this regard, the ends of the telescopic tubes must not touch the internal forks of each joint and, on the contrary, the overlapping of the inner and external tube must never be lower than 1/3 of the working length of the tubes themselves.



Correct working lengths of the cardan shafts in the various operational situations.

Once the inadequacy has been verified, it is possible, as needed, to intervene with simple tools on it, proceed as follows:



- 1- shorten the plastic guards
- 2- shorten the inner tubes of the same size
- 3- delete eventual smears
- 4- grease the inner tube

4.4 Connection to the Power Take Off

The cardan shaft is the means that transmits power from a driving machine, tractor, to the operating machine in an offset manner, allowing the tractor and the operating machine to perform curves, lifts and lowering.

The cardan shaft consists of two joints connected together by two telescopic tubular elements, that can slide into one another.

There are therefore two constructive limits in a longitudinal sense: complete enclosure, could lead to an excessive axial load stress, while the other one, total opening, which could cause the telescopic elements to slip out and uncouple the machines.

Power outlets and transmission shafts with universal joint are often responsible for accidents with very serious consequences.

- Before connecting, verify that all the transmission protections, the tractor and the operating machine are present and functioning; any damaged or missing parts will have to be replaced with original spare parts and correctly installed, as showed in the instruction manual;
- Carry the cardan shaft by keeping it horizontally, to prevent any scrolling may cause accidents or damage the protections;
- Before connecting, clean and grease the PTO of the tractor and to the cardan shaft.

The transmission of motion from the tractor to the operating machine comes from the cardan shaft, which will have to be connected to its power socket. The cardan shaft (with CE marking) has to be properly connected to the PTO complying with the direction of rotation, and its holding chains have to be hooked to the recommended spots to avoid the rotation of the protection guards.

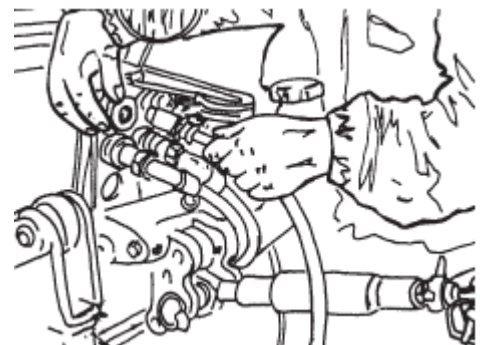


The connection of the PTO between the tractor and the operating machine must be done as showed in the picture. Check that both the insertion and the blocking status of the attachment systems.

4.5 Connection to the hydraulic control system

To execute the lifting and overturning commands concerning the waste bin container, it is necessary to connect the machine to the tractor's hydraulic power system.

In order to prevent the intrusion of external objects, hose's fittings are isolated with rubber stoppers that have to be kept on the fittings when the machine is disconnected from the tractor. The stoppers, at the ends of the hoses, are colored: each couple of hoses, indeed, sets in motion a distinct function of the machine, and a particular function is associated with each color.



In case of loss/damage to the stoppers or hose's replacement, it is recommended to reassemble the stoppers with the correct coloration.

PAY ATTENTION: the connection operation of the hoses to the tractor's circuit is crucial for the safe use of the machine; the risk is the inversion of the functions.

Connect the flexible hoses to the hydraulic system's valve control of the tractor, with the "double effect" property; the flow/return and return/flow functions are activated according to the position in which the operator sets the lever from the tractor's driving cabin.

WARNING: check daily and/or before every work start the state of wear of the hoses, both rigid and flexible. They have to be replaced if they present crushing, abrasions, cuts and so on. If any loss is located, it is necessary to immediately fix it to prevent accidents. The new hoses must have the same features and quality prescribed by the machine's Manufacturer.



The hoses can't support components that are alien to the machine. All the pressurized liquids, and mostly the hydraulic circuit's oil, may procure even serious injuries to the skin; in case of any wounds, consult a doctor immediately: there may be danger of infection!



5.0 OPERATION

5.1 EMPLOYEES

The machine was conceived to be used by a single operator, placed on the seat of the carrier machine (the tractor). Employees who are going to drive the machine must match (or get by adequate formation and training) the following requirements:

- Possess the necessary knowledge to safely drive the carrying machine;
- Have read, understood and known this manual;
- Possess a sufficient level of general and technical culture in order to understand the contents of the carrying and carried machine's user manual;
- Know the main hygienic and accident-prevention principles;
- Know how to get the individual protection tools, and how to use them properly;

The maintenance technicians, in addition to the above requirements, must also possess a proper technical knowledge.

Individual protection tools

Keep in mind that operating with both the machine and the tractor necessarily requires the following individual protection tools, as well as the obligation not to allow other people to expose themselves during the working operations.

5.2 START-UP

Before starting the machine up, consult the carrying machine's (tractor) user and maintenance manual for a safe driving.

As the machine can be paired with different types of tractors, we can't provide safe and reliable indications about the safety.

The operator assigned to the driving must know the machine, hence he must operate knowingly with the relative commands.

The carried machine accomplishes the sand cleaning functions following some main rules, controlled by the driver:

- a) Lift and lower the machine by the tractor's hydraulic hitch;
- b) Fix the PTO speed rotation to $330 \div 370 \text{ g/1'}$;
- c) Lift the waste collector by the proper commands of the carrying machine's hydraulic power system;
- d) By means of the hydraulic power of the tractor, activate the overturning of the waste bin collector for the high dumping (up to 1.800 mm from the walking surface);

The moving speed of the tractor during the working phase depends on the structure of the sand. The results of our tests show that the average speed on a medium-compact terrain with little presence of pebbles is about $5 \div 6 \text{ km/h}$; in case of accumulation of dirt inside the sieve, reduce the speed.

The in-depth working regulation must not exceed 150mm.

Before the delivery and during the testing phase, our team already arranged the best working setting for the machine; please follow it carefully. In case of any driving problem while working on a different kind of sand, immediately contact our technicians. They will be glad to fully set up the machine.

MANUFACTURER'S NOTICE: Machine leveling. The best condition to get good results from the cleaning is obtained by setting up the machine while slightly inclined: the rear unloading area should be 2-3 cm higher than the loading area. In order to achieve this condition, act on the tensioner showed in the picture.

This kind of regulation will also prevent the swinging of the machine during the working and carrying phases.

An excessive filling of the rampart zone should be avoided in order to obtain a good beach cleaning; the operator, from the driving cabin, has to regulate the machine's speed up to allow a normal flow between the incoming and the outcoming masses.

The in-depth working regulation must not exceed 150mm.

Before the delivery and during the testing phase, our team already arranged the best working setting for the machine; please follow it carefully. In case of any driving problem while working on a different kind of sand, immediately contact our technicians. They will be glad to fully set up the machine.

WARNING: at every start of work check systematically the command operation.

- a) from the driving cabin start the tractor's engine
- b) check the hydraulic lifting system; by activating the specific levers, the machine will have to get up and down
- c) move the arms connected to the waste bin collector up to the "high" position; then check the waste bin command efficiency during the rotation and return-to-working position phases
- d) bring back the lifter to the working altitude only after reporting the waste bin parallel to the ground

DANGER: while preparing the working operations, the people in place could approaching for curiosity; if the machine is moving, safely arrest it and keep the people wide out of the working zone. If possible, border the working zone or make sure that an attendant keeps people away; anyway, we suggest to operate with the machine when there are fewer people around.

5.3 UNLOAD THE WASTE BIN

During the beach cleaning work, thanks to its movements, the machine releases the sand in the same place it has been taken and moves the trash into a collector which has to be emptied regularly. This is the conduction phase.



Stop the machine in proximity of the waste-collecting zone, like a truck or a towed cart, and do as follows:

- a) lift the waste bin collector by the machine's hydraulic power system commands
- b) again, by the hydraulic power of the tractor, overturn the high-discharge waste bin (up to 1.800 mt from the ground)

With the same operation, reversed, you can bring back the machine to the normal working condition for the beach cleaning.

DANGER: during the collecting and discharging operations, the driver must neither get out of the machine nor co-operate with another person from the ground.

6.0 MAINTENANCE

NOTE: before any maintenance, repairing and cleaning intervention, remove the machine from the carrying tractor and storage it in a safe place, in order to prevent any accident.

6.1 MAINTENANCE

Before any maintenance and repairing work, or before looking for the cause of a break/malfunction, be sure that the tractor's engine is still, the tractor's panel key is not inserted and the machine is firmly anchored on a flat solid ground.

Regularly check the tightening of screws and bolts. Tighten them if necessary!

Wear the protection gloves and use only proper tools in order to replace any component of the machine.

The protection gears which could wear out must be regularly checked. Replace them immediately if damaged.

Before starting electric welding operations on the machine, remove the tractor's battery and alternator cables.

The repairs concerning under-pressure bodies (springs, hydraulic circuit, etc...) requires a proper knowledge and need a regulatory equipment. They must be performed by qualified personnel only.

The spare parts must match with the standards and features determined by the Manufacturer, therefore you have to use original spare parts only.

During maintenance, repairing and cleaning operations, please comply to the followings:

- before starting the operations, expose a cartel "MACHINE IN MAINTENANCE" clearly visible;
- do not use compressed air for the cleaning. Fresh water and brushes guarantee a good outcome;
- do not use solvents and flammable materials;
- check that the equipment has not been damaged during the working phase. Otherwise, immediately warn the maintenance personnel or in case the authorized dealer/the Manufacturer; repair or replace the protections and/or the worn components.

Restore and fix correctly all the protections and covers previously removed.

6.2 DECOMMISSION

In case of prolonged periods of inactivity, it is necessary to storage the machine, preserving it with a proper cover and disconnecting it from any source of energy.

Signal the machine's state "OUT OF SERVICE" by means of a cartel.

When the machine is stored for medium/long term periods, it's recommended to:

- carefully wash every component with fresh water;
- grease the PTO;
- lubricate all the machine to avoid corrosion;
- protect the scratched parts with products appropriated against saltiness.

In case of extended periods of inactivity, as between seasons, we recommend to cover the machine in order to protect it from humidity and dust.

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