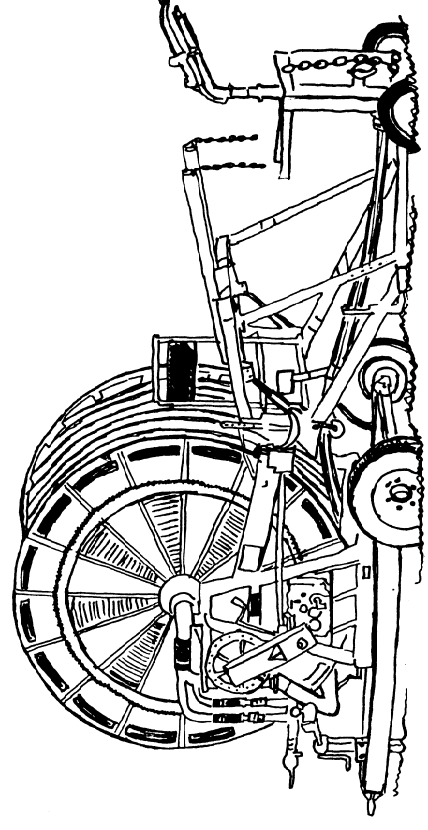


USES AND SERVICING MANUAL

Turbocar Structure	
Turbocar Model	
Year of manufacturing	
Weight (without water)	
Weight (with water)	



INDEX

1- ALLOWED USING CONDITIONS.....	pag. 3
2- WORKING POSITION.....	pag. 3
3- UNLOADING INSTRUCTIONS.....	pag. 4
4- TRANSPORTATION INSTRUCTIONS.....	pag. 5
5- ASSEMBLING.....	pag. 5
6- IRRIGATION INSTRUCTIONS: installation.....	pag. 7
7- IRRIGATION INSTRUCTIONS: Starting and utilization.....	pag. 8
8- ADJUSTMENT INSTRUCTIONS.....	pag. 10
9- WRONG USES.....	pag. 11
10- MAINTENANCE.....	pag. 11
11- STORAGE.....	pag. 13
12- DIGITAL COUNT METER CALIBRATION.....	pag. 13
13- WARRANTY RULES.....	pag. 14

WARRANTY COUPON (customer's copy)

TURBOCAR MOD.
SERIALNUMBER
DELIVERY DATE
TO THE FINAL CUSTOMER.....

TIMBRE AND SIGNATURE
SELLER.....

TIMBRE AND SIGNATURE
CUSTOMER.....

\$-----

WARRANTY COUPON
(copy to resend to Idrofoglia)

TURBOCAR MOD.
SERIALNUMBER
DELIVERY DATE
TO THE FINAL CUSTOMER.....

TIMBRE AND SIGNATURE
SELLER.....

TIMBRE AND SIGNATURE
CUSTOMER.....

WARRANTY RULES

- 1) **Idrofoglia** guarantees for :
 - 3 years from delivery date to the customer all carpentry's parts;
 - 3 years from delivery date to the customer the PE-hose;
 - 6 months from delivery date to the customer or for the first irrigation season all mechanical parts.
- 2) **Idrofoglia** guarantees only for faulty pieces.
There is not warranty for :
 - shipping costs;
 - costs of labour required for the replacement;
 - transfer costs.
- 3) Required spare parts under warranty will be anyway invoiced. Only after had receipt the faulty piece and after had checked the defect Idrofoglia will provide to issue a credit note to the customer.
- 4) The warranty request will must be done from the customer reporting by fax:
 - serial number of the machine;
 - model;
 - found defect.
- 5) The warranty is not valid if :
 - **the customer modifies or stops the payments or commercial businesses agreed before;**
 - the time terms on paragraph "4" are expired;
 - the warranty coupon correctly compiled from the customer will not be sent in 8 days to Idrofoglia for Italy or to the importer for foreign countries;
 - will be found damages caused from carelessness and non-observance of instructions and technical advises written on this booklet;
 - will be found signes of tampering or modifications on the machine that can influence negatively the work of it;
 - the faulty pieces will not be returned within 15 days from the replacement.

NOTE: Idrofoglia does not guarantee for eventual damages caused from a wrong work of the machine.

1 – ALLOWED USING CONDITIONS

- 1.1 The machine has been projected and manufactured for the irrigation of any kind of agricultural area, sport grounds, parks, greenhouses.
In case of machine equipped withn engine for the hose rewinding, the utilisation could be also for spreading slurry liquids too.
- 1.2 It's forbidden :
 - to do tampering, modifications and fixing (those not allowed to the operator) on the machines or parts of it, that could change the working or safety conditions of the machines.
- 1.3 The operator must wear the following safety garments : safety helmet, gloves, safety shoes, safety hear-phones (in case of machine driven by engine). It's absolutely forbidden wearing tie, scarf and any kind of flapping garments.
- 1.4 No more than one person must be operating with the machine.
- 1.5 The machine must be used only by people that have already read one time this operating manual and that have accepted to follow the listed directions.
- 1.6 All the informations on the metal plate are required to identify the machine and to avoid any mistake on delivery of spare parts.

<i>Nome e indirizzo della ditta costruttrice</i> MACCHINA SEMOVENTE PER IRRIGAZIONE		
STRUTT.	MOD.	
N° SERIE	ANNO COSTR.	

2 – WORKING POSITIONS

Position 1 for :

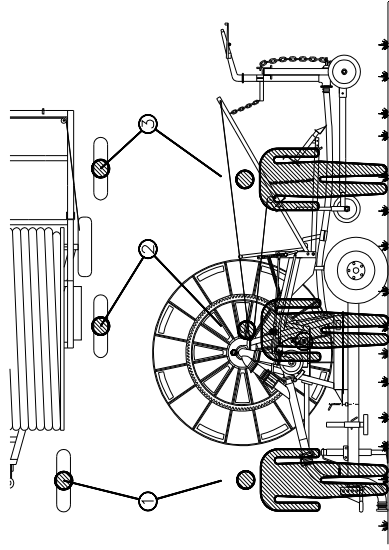
- Hook or/and unhook the tractor from/to the machine ;
- Take off and/or fit the pivoting pins.

Position 2 for :

- Prepare the machine for the PE-hose pulling in or pulling out ;
- Adjust the PE-hose pulling out speed.

Position 3 for :

- Insert or take-off the staker legs into/from the ground;
- Connect or disconnect the sprinkler trolley;
- Start the hydraulic pump to lift or lower the trolley lifter.



3 – UNLOADING INSTRUCTIONS

Unloading operations mean the action to do at the machine delivery or in cases when it is transported by truck or by trailer.

3.1 The unloading must be done by appropriate cranes or tackles related to the machine weight :

3.1.1 Put the appropriate lifting bands "A" around the drum axle as specified on the drawing below ;

3.1.2 Lift 10 cm. The machine from the truck/trailer floor and slowly put it onto the ground ;

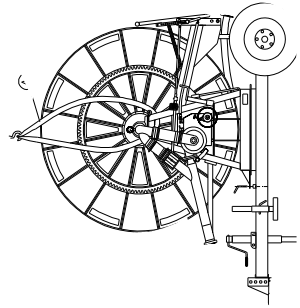
3.1.3 Take off lifting bands "A" .

3.2 With forklift truck : place the forklift under the chassis bottom and paying attention to not swing it, lift carefully and lay the machine down onto the ground.

3.3 With tractor :

3.3.1 Move the truck/trailer close to a load platform with the same height or, if the truck/trailer has place the appropriate chutes ;

3.3.2 Hook the machine to the tractor and unload it at the minimum speed.



- A:** To be checked every 3 irrigations;
- B:** To be checked every 20 irrigations;
- C:** To be checked at the beginning/end of season.

11 – STORAGE

If during the winter the machine will be stored outside or in cold zones (with temperature $-5 - 10\text{ }^{\circ}\text{C}$) is wisest :

11.1 Partially drainage the water from PE-hose following these instructions :

11.1.1 Pull-out 1/3 of the PE-hose ;

11.1.2 Leave the cap from the trolley (where it is possible) ;

11.1.3 Pull-in the PE-hose by P.T.O. drive ;

P.N. It is possible to drainage the water also by compressed air. Blow compressed air (3/4 bar) inside the PE-hose.

11.2 Drainage the water from the turbine opening the valve on it;

11.3 Spray a oil and gas oil mix for a better maintenance of the machine painting.

12 – DIGITAL COUNT METER CALIBRATION

With the replacement of an old battery with a new one the count meter must be tared, see following points:

12.1 Place the new battery;

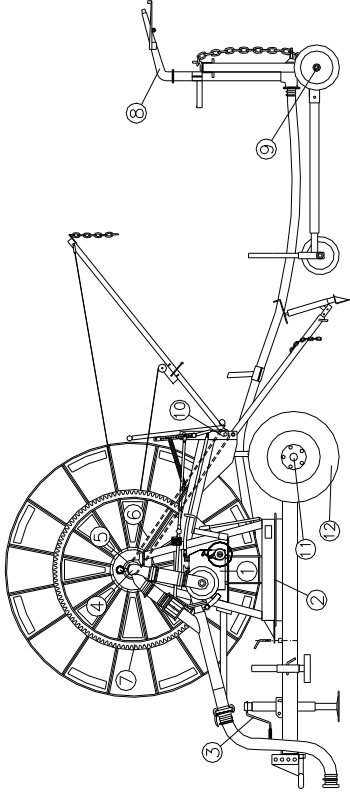
12.2 Push the little rear-button placed on the count meter till obtain RESET;

12.3 Push the red button till there will be a four figures number on display;

12.4 Pushing repeatedly the yellow button and then begin from the first right number to digitize the code written on the count meter, the figures must be memorized one per time ever pushing the red button;

12.5 Pushing continuously the red button till there will be the main menu again (3 "0" will appear on display)

Now the count meter is ready to work and the speed will be calculated in meters per hour (m/h).

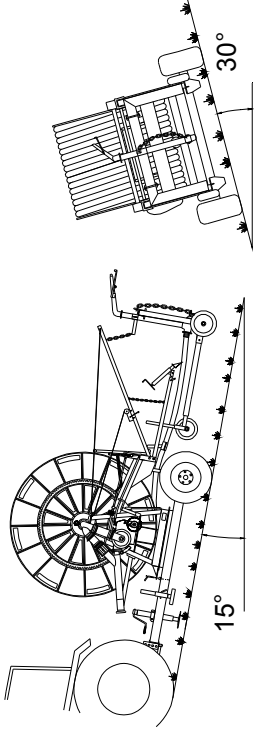


POS.	DESCRIPTION	A	B	C
1	Check oil level on the gearbox		X	X
2	Turntable turret lubrication			X
3	Shaft lifter jack lubrication			X
4	Inlet gasket on drum lubrication (water inlet on drum)	X		X
5	Drum plummer blocks lubrication		X	X
6	Lead screw chain lubrication		X	X
7	Toothed crown lubrication		X	X
8	Gun lubrication (see gun using booklet)			
9	Trolley wheels bearings lubrication		X	X
10	Lead screw lenght, guide block and support bearing lubrication		X	X
11	Machine wheels bearings lubrication		X	X
12	Pressure tyres checking		X	X

4 – TRANSPORTATION INSTRUCTIONS

Transportation means moving or towing the machine by tractor. The transportation must be done :

- at the max speed 10 Km/h, in case of rough roads the speed must be reduced so to avoid dangerous losses of balance for the machine ;
- on ways where the max oblique gradient is 15 degrees and the max longitudinal gradient is 30 degrees.



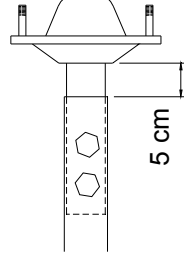
5 – ASSEMBLING

In case of machine delivered with disassembled trolley-lifter and/or trolley and/or wheels and/or tow-bar the assembling must be done as follows:

5.1 Machine wheels assembling::

5.1.1 Fit stub axle into the axle, as specified on the drawing below, and screw the fixing bolts ;

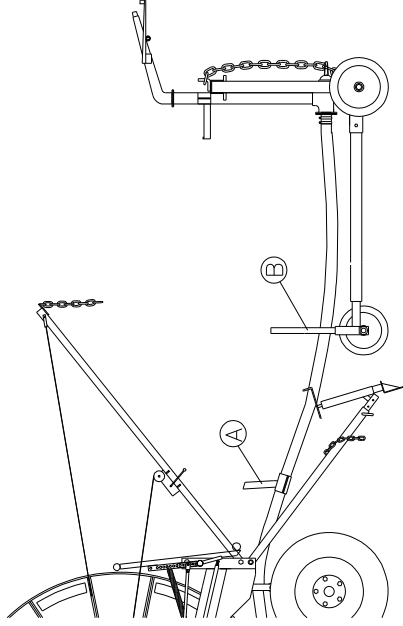
5.1.2 Fit the wheels.



5.2 Sprinkler trolley assembling :

5.2.1 Pull out (see instructions points 7.27.6) 2 meters of PE-hose so to enable the fitting of the knock-off fin "A" in correspondance of the sticker ;

5.2.2 Put PE-hose in the fork "B" then link PE-hose to trolley.



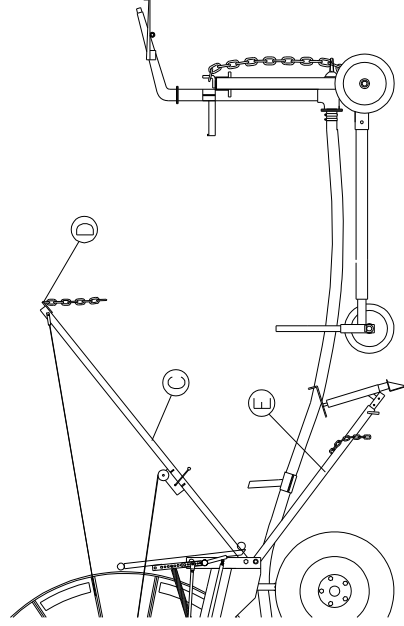
5.3 Trolley lifter assembling :

5.3.1 Mount both staker legs "E",

5.3.2 Mount trolley lifter frame "C",

5.3.3 Mount both trolley lifter arms with chains "D" on trolley lifter "C" following the measures and indications specified on drawing below ;

5.3.4 Mount the sprinkler on trolley flange.



9 – WRONG USES

9.1 Do not pull out the PE hose parallelly to ditches closer than 5 meters;
9.2 Put wooden rods under the layed PE-hose before rewinding it in muddy grounds (every 10-15 meters);

9.3 Never leave the handle in the PTO;

9.4 The machine is not homologated for traffic circulation;

9.5 Beware : water spray must not hit electric lines;

9.6 During the moving it is forbidden to get up or sit on the machine;

9.7 After pull out do not leave PE-hose layed on the ground too long because dangerous sticking phenomena may happen, if it is not possible pull a rope under its total lenght;

9.8 After engaging the lever into gear control the rewinding of PE-hose and make sure that the machine is fixed to the ground and does not move otherwise dig the staker legs into the ground.

9.9 When the PE-hose is partly used :

A) To pull out the PE-hose carefully in order to avoid that the remaining part in the drum loosens. We suggest to pull it out at lower speed and to stop it gradually ;

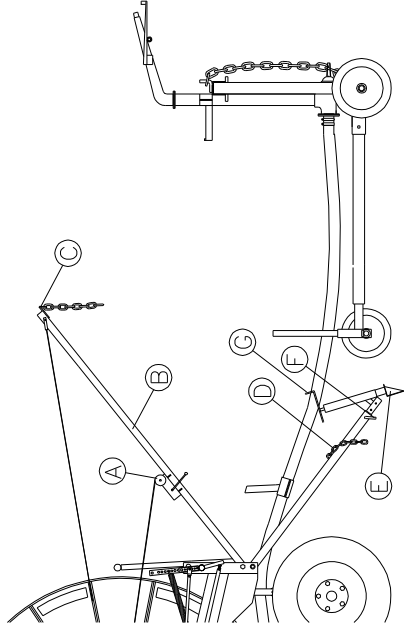
B) To make irrigations periodically, pulling out the PE-hose for at least 80-90% of its total lenght.

10 – MAINTENANCE

Maintenance means all the operations needed for a perfect running and for a long working life of the machine.

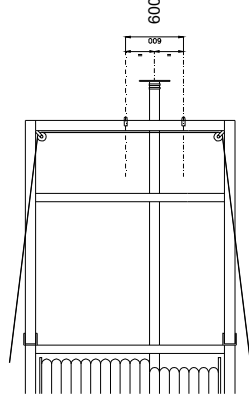
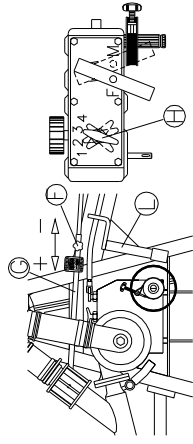
All the operations must be done periodically : see drawing below and schedule

7.15 Close the staker legs "E" and connect them to the trolley lifter "B" using the towchains "D" then hook the trolley at the chain "C" and using the little winch "A" lift up the trolley to prepare the machine for the transport.



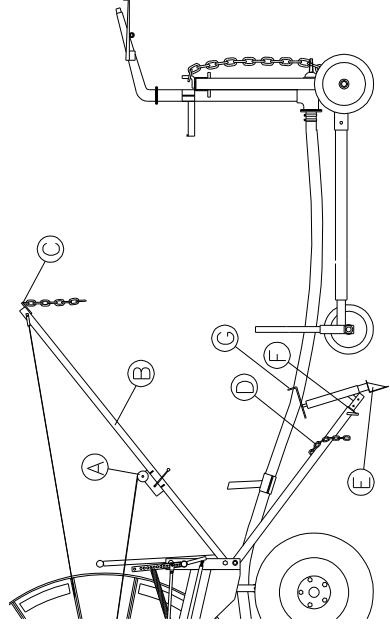
8 – ADJUSTMENT INSTRUCTIONS

- 8.1 Speed adjustment by manual by pass valve
- 8.1.1 Unscrewing the knob "F" and moving the lever "G" it is possible to change the speed during the irrigation;
- 8.2 Speed adjustment by manual gear placed on the gearbox **(WITHOUT PRESSION WATER)**:
- 8.2.1 Move the gear speed lever "H" from the current position to the desired one;
- 8.2.2 If this operation is too difficult, working with a not-synchronized gear, it is useful to turn slightly, using the winch "L", the gears and at the main time repeat the operation "8.2.1".



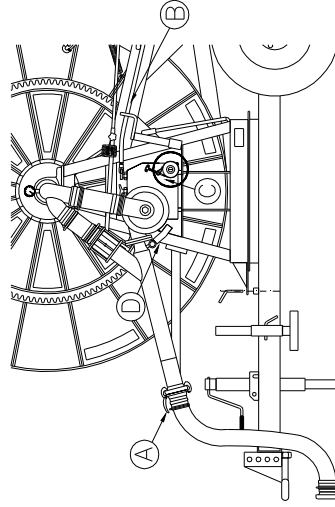
6 – IRRIGATION INSTRUCTIONS : installation

- 6.1 Tow by a tractor the machine in an operating area, paying attention that the area is flat, if not make an appropriate area on the field;
- 6.2 Lay the central staker leg, unhook the tractor and lay the two legs next to the tow-bar;
- 6.3 Take off the two drum locking pins from their own seat and proceed, with attention, to the rotation of the hose drum till the desired position (the PE-hose line must be parallel to the PE-hose way);
- 6.4 Refit one of the two locking pins in its own seat;
- 6.5 Anchor the machine on the ground :
- 6.5.1 Lower the trolley lifter "B" by the small winch "A" till allowing trolley releasing from chains "C".
- 6.5.2 Always use the small winch "A" to lift the trolley lifter "B", then unhook chains "E", dig as much as possible the blades of the staker legs "D" into the ground.
- 6.5.3 Fit the locking pin "E" on its own seat.



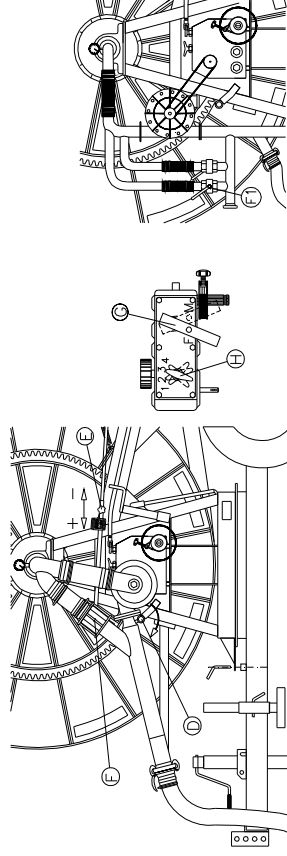
7 – IRRIGATION INSTRUCTIONS: **Starting and utilization**

- 7.1 Connect one extremity of the supply hose "A" to the water inlet paying attention to the fact that the hooks of junction are plugged in;
- 7.2 Slightly brake the gear-box by brake "C";
- 7.3 Check that the handle control lever "B" is in position "0" (zero);
- 7.4 Disconnect brake "D" from the toothed crown;



- 7.5 Move the tractor at the right position to hook the sprinkler trolley by the pertinent towchain on it.
- 7.6 Start pulling-out PE-hose at a max speed of 3 Km/h and keeping a straight lane and a constant speed, run till the end of the field and lower speed when starting the last 25 meters; in case of field longer than PE-hose, save 1.5 - 2.0 PE-hose coils in the drum. **It is important to make the first irrigation pulling out the PE-hose for at least 80-90% of its total length and then rewind it by irrigation.**
- 7.7 Check that the irrigation angle of the sprinkler is the desired one, if not adjust it using the pertinent devices on the sprinkler (without water) ;
- 7.8 Start the pump or open the valve between water pipe-line and supply hose, running water into the machine slowly, as far as the water is starting exiting from gun. After put water at the required level (3.5 - 8.0 bar from Ø 40 to Ø 70 and 4.0 - 10.0 bar from Ø 75 to Ø 140).

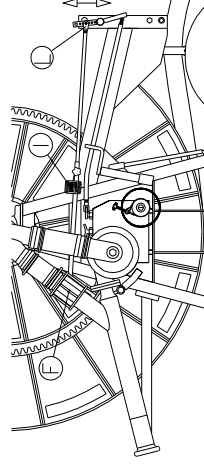
- 7.9 Fit the locking pin "D" on toothed crown and move the knobs "G" and "H" on the desired speed;
- 7.10 Control the PE-hose pull-in speed by the valve "F" of the manual by pass, to do this it is necessary to slow down the knob "E" and using the movement of the lever it is possible to change the speed. (Operate on valve F1 to adjust the speed on belt drive machines).



- 7.11 As soon as PE-hose pull-in starts, check if the PE-hose coils left into the drum are tight ;
- 7.12 To control the pull-in speed of the machine check the revolution counter "L".

ADVISE : SPEED ADJUSTMENT REGULATION

IF THE MACHINE DURING THE PE-HOSE PULL-IN LOSES TOO SPEED IT IS NECESSARY THAT THE VALVE "F" OF THE BY PASS, THAT IN THIS CASE WORKS LIKE SPEED ADJUSTMENT, IS LESS OPENED. TO DO THIS IT IS USEFUL MOVE THE LEVER "L" TO A LOWER HOLE. IF THE MACHINE DURING THE PE-HOSE PULL-IN INCREASES THE SPEED MOVE THE LEVER "L" TO A HIGHER HOLE.



- 7.13 At the end of irrigation, the bracket mounted on the PE-hose will provide to disconnect the gearbox.
- 7.14 Switch off the pump and/or close the valve between water line and supply hose ;