



## **USER AND MAINTAINCE MANUAL**

# **Sport series irrigation hose reel** (Universal Sales T1.3"/328' and T1.6"/426')

(Version 0 - 2015-05-23)



**IRRILAND SRL**

**Via Togliatti 4, z.i. San Giacomo, 42016 Guastalla, RE, Italia**

**UNIVERSAL SALES**

USA PNW Representative

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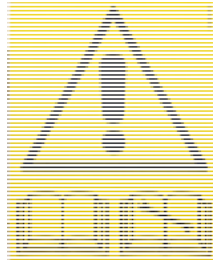
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## INTRODUCTION

Thanks to chose an IRRILAND machine. This manual is a fundamental part of the machine and has to follow it in case you give/sell it to other users.

Before to do any operation the assembling person and the user have to read and follow up strictly the indications given here following.

## ATTENTION



Don't start using the machine if you haven't carefully read this manual first. Don't work with the machine close to kids or close to not authorized personnel. Avoid that the kids go close to the machine.



**Attention when you disconnect the flex supply hose.**

If the machine is equipped with a closing (or shut off) valve the flex supply hose remains pressurized at the end of the cycle so **DO NOT DISCONNECT** the flex supply hose before you release the pressure



**Attention to the sprinkler**

The pressurized water of the sprinkler can cause severe injuries and damages to persons and things.



**Precaution along the freight**

The machine can't circulate (move around) on public roads. Don't exceed the towing speed of 10 km/h (6 mph) on plain roads and 3 km/h (2 mph) on not leveled fields.



**Never service the machine when it's working**

To do any maintenance pls stop the machine and disconnect it from the supply line. It's necessary to mount all the protections before the machine start to work again.



**Precaution with the electric power lines**

The throw of the water hasn't to touch the electric power lines and/or any other item of electric power supply at anytime.

## SYMBOLS ON THE MACHINE AND RELATIVE MEANING



**ATTENTION 1)** This symbol means different risky situations:

**1a)** the operations and the part that can be risky for the user safety. When you see this symbol, pls read carefully the relative information as there's an incident risk.

**1b)** Don't open the couplings in case there's pressure in the pipeline. Before you open the couplings you have to be sure there's no pressure in the pipeline.

**1c)** Electricity risk: you can never place the sprinkler near to any energy source. You must be sure that the sprinkler water will not be in contact with any energy source, house, or working place except what eventually specified by the producer.

**1d)** Read carefully this manual before you use the machine.

**1e)** Before you start the machine and you do any service on it, pls stop it and disconnect it from the feeding pipeline.



**2)** This symbol indicates the risk relative to moving parts. Don't use the machine before you mounted again the safety parts and guards. When you use a winch pls be sure it's allowed by the present norm.



**3)** This symbol means moving parts. Pls stay away from the machine when is working.



**4)** This symbol indicates the point to connect the lifting hooks. Don't connect the hooks in other points of the machine because it can be very dangerous.



**5)** This symbol indicates the points that need to be lubricated: look at the manual carefully and follow up the instructions. A correct lubrication improve the machine efficiency, reduce the risk to brake some parts and extend a lot the machine working life.

## IMPORTANT ADVICE

Read and follow up precisely the instructions labeled on the machines.

They don't substitute the manual but focus the attention on some parts and info that are important for the use, the maintenance and the safety.

**ATTENZIONE**  
NON LASCIARE INSERITA LA MANOVELLA  
SULLA PRESA DI FORZA DOPO L'USO

**CAUTION**  
DO NOT LEAVE THE HANDLE ON THE  
P.T.O. AFTER OPERATION

**ATTENTION**  
NE JAMAIS LAISSER ENCLENCHEE LA MANIVELLE  
SUR LA PRISE DE FORCE APRES L'EMPLOI

**WICHTIG**  
NACH DER ARBEIT MUSS DER HANDGRIFF AN  
DER ZAPFWELLE DEMONTIERT WERDEN

**ATENCIÓN**  
NO DEJAR INTRODUCIDA LA MANIVELA SOBRE  
LA TOMA DE FUERZA DESPUES DEL USO

**ATENCAO**  
NAO DEIXAR INSERIDA A MANIVELA  
NA TOMADA DEPOIS DO USO

**OBS! VIKTIG**  
SETT ALDRI IGJEN SVEIVA PÅ KRAFTUTTAKET  
ETTER ENDT BRUK

3-284-006

**ATTENZIONE!** TENERE LE CATENE SEMPRE TESE  
**CAUTION!** KEEP CHAINS ALWAYS STRETCHED  
**ATTENTION!** TENIR LES CHAÎNES TOUJOURS TIRÉES  
**ACHTUNG!** DIE KETTEN IMMER GESpanNT HALTEN  
**OBS!** KJEDENE MÅ BESTANDIG VÆRE STRAMME  
**ATENCIÓN** TENER LAS CADENA TIRANTES

3-284-006

#### BRIEF USE INSTRUCTIONS – SPORT SERIES

##### READ THE COMPLETE INSTRUCTION MANUAL OF THE MACHINE BEFORE ANY OPERATION

- 1 - Be sure the rear jack is extended so it can touch the ground very soon when you lift up the towing bar
- 2 - Unfasten the hitch (for machines with tractor towing bar only) and position the machine, aligning the drum with the strip to irrigate
- 3 - Lower the back part of the machine by lifting the towing bar and by using the handle on the rear jack and check the whole horizontal anchoring rod is holding the weight of the machine: this way it will be well anchored
- 4 - Adjust the track width of the sprinkler cart as wide as possible
- 5 - Disengage the gear box: in case it's hard turn a bit the p.t.o. using the hand wheel
- 6 - Adjust the irrigation sector on the sprinkler
- 7 - Connect the towing chain of the sprinkler cart to the towing bar or hitch of the tractor and unroll the polyethylene hose (3 km/h - 2 mph) slowly
- 8 - Engage the gear box
- 9 - Pull the shaft of the small brass valve toward the sprinkler cart
- 10 - Connect the flexible feeding hose and start the irrigation
- 11 - Adjust the speed with the bypass lever
- 12 - Machines with computer: set up the speed on the computer (follow the computer instruction manual)
- 13 - After the run the sprinkler cart will automatically stop the irrigation
- 14 - Disconnect the flexible feeding hose, lift up the rear part of the machine by using the rear jack, pull down the towing bar on the third wheel (if available) or connect it to the tractor to shift it to the next position: MAX SPEED ON GOOD FLAT ROADS 10 KM/H (6 MPH)

##### INSTRUCTIONS FOR REWINDING BY P.T.O.

- A - Be sure the gear box is disengaged: the p.t.o. should turn easily with the hand wheel
- B - Connect the pto shaft only if the tractor is stopped or you are sure the pto can't turn
- C - To prevent damage, stop the motorized roll up with 2-3 meters (6-9 feet) of pipe unrolled. Complete the roll up process by hand with the p.t.o. hand wheel.

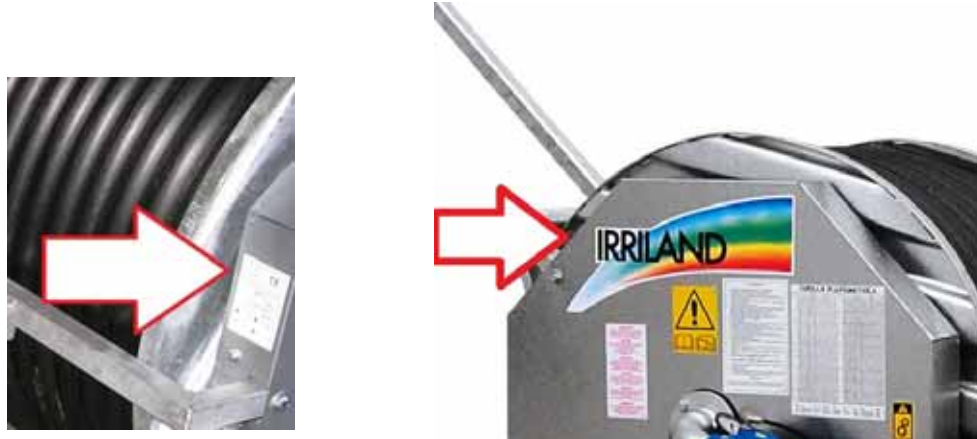
##### WARNING





Don't forget to check the oil level and the chain tension and to grease the points stated in the manual (crown gear, bearings, hubs, jack, brake, joint points) EVERY 20 WORKING HOURS

## USE CONDITIONS

This machine has been designed to be used with water for irrigation. In case of sand and other solids or other solids in the water, the machine can function with up to 3 % solids with reduced efficiency and working life. With more than 3 % solids, the functioning of the machine isn't warranted. The machine can be used with one to three sprinklers with slow return speeds, multiple under foliage nozzles or with an irrigation boom. For all these uses please look at the specific instructions.

## IDENTIFICATION DATA AND MACHINE CONTROLS



IRRILAND S.R.L. Via Togliatti n°4 Z.I. S.Giacomo 42016 Guastalla -RE- ITALY P.I. 01526580350		CE	
TEL. +39 0 522 831544		FAX +39 0 522 831548	
www.irriland.it			
info@irriland.it			
Y.			
MOD.			
N°			
 KG.		 +H <sub>2</sub> O	KG.
 0,5 rad. S <sup>-1</sup>		 P.T.O. 540 n/1'	

**Y. > production year**

**Mod. > machine model (OD in mm and length in m)**

**N° > serial number composed by the order confirmation number and the machine structure (last three numbers / letters)**

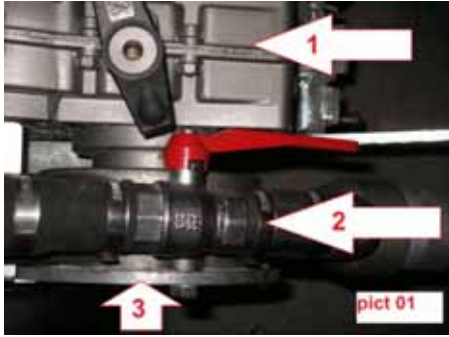
**Kg. > dry machine weight / weight of the machine full of water**

**0,5 rad S-1 > max rotation speed of the sprinkler**

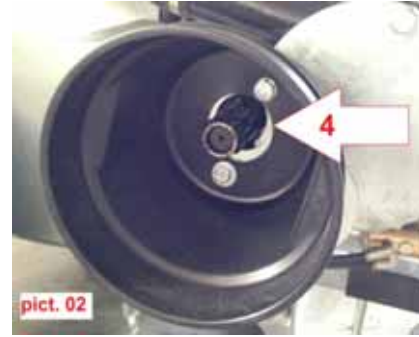
**PTO 540 n/1' > max rpm of the power take off**

**In addition to the CE label the serial nr and the model are printed on the frame!**

## SPORT SERIES: CONTROLS AND DETAILS OF THE MACHINE



1. Gear box  
3. Turbine



2. manual by-pass: lever in open position  
4. Pto shaft with open safety protection



5. Engage/disengage lever: working and transport position

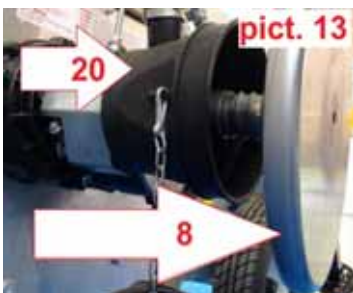
The working and transport position prevents the drum from turning backwards when irrigating and along the transport. You can't pull the sprinkler cart and the pe hose out with the gear box lever in this position.

6. automatic brake



7. Engage/disengage lever: pulling out position

In the pulling out position the gear box is disengaged and allow you to pull out the pe hose.

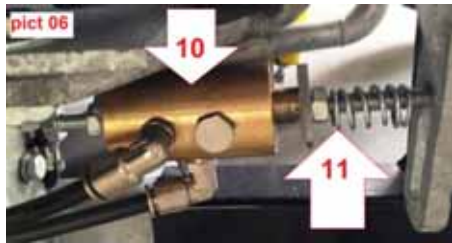


8. Hand wheel for pto: ALWAYS take it off after use

20. pto shaft protection. ALWAYS put the cover on after you have used the pto shaft

9. Crown gear (under the galvanized protection)





10. Brass (switch) valve      11. Irrigation position (toward the sprinkler cart)  
 12. Stop position (toward the drawing bar)

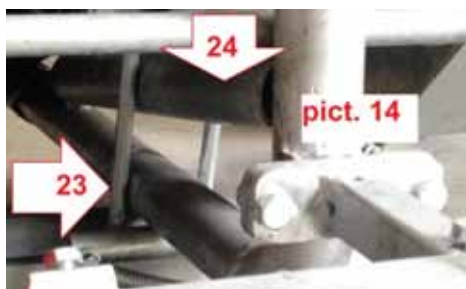


13. Anchoring "L" profile      14. Rear lifting jack      15. Diaphragm valve      16. Pressure gauge



17. Elbow for central drum inlet  
 18. Drum hub (drum inlet)  
 19. Seal position (inside)

23. Hose guide fork      24. Sprinkler cart (vertical stand holder)      25. No end screw  
 26. Block of the no end screw.      27. Insert with grease units on the no end screw

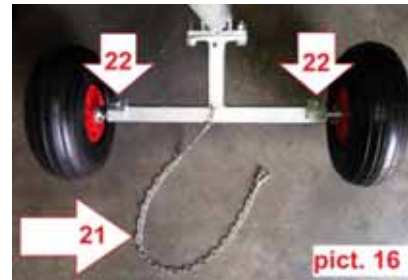




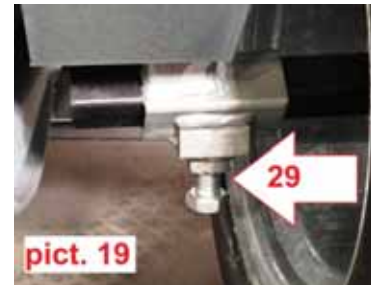
21. towing chain of the sprinkler cart

22. Bolts to adjust the track width on the sprinkler cart

28. Sprinkler mounted on the cart thread



29. bolts to fix the tires axles



## 1.0 INFORMATION AND TECHNICAL DATA

### 1.1 DIMENTIONS AND WEIGHTS

ATTENTION: you have to carefully look at the weight and dimensions before any unloading and assembling of the machine (See chart). The unloading operations have to be done by qualified persons.

LOOK AT THE MACHINE STRUCTURE ON THE IDENFICATION DATA


STRUCTURE	H1	H2	L1	L2	L3	L5
8 (1.3"/328')	1050 41.34"	1100 43.31"	1500 59.06"	1370 53.94"	1250 49.21"	2250 88.58"
10 (1.6"/426)	1160 45.67"	1210 47.64"	1500 59.06"	1370 53.94"	1250 49.21"	2250 88.58"
<i>H1</i>	Height with tires					
<i>H2</i>	Height with no tires					
<i>L1</i>	Length with no sprinkler cart					
<i>L2</i>	Max width					
<i>L3</i>	Necessary space for machines loaded in series on flats with 2,45 m width					
<i>L5</i>	Approx total length with the towing bar and the sprinkler cart					

**WEIGHT:** always look at the weight indicated in the identification label on the machine !!

## 2.0 FREIGHT, DELIVERY AND COMMISSIONING OF THE MACHINE

### Attention: always work with working gloves!!

To facilitate the freight and the loading/unloading some parts can be dismantled: tires, drum and upper chassis, legs...can be delivered dismantled.

The producer of the person in charge will fix the machine on the loading flat paying attention to the instructions. To load and unload the machine it's necessary to hang it on the points indicated with the symbol  or fix it safely on a pallet



The following instructions are relative to the machine with dismantled parts. Follow up carefully the relative instructions.

Controls to be made when you assemble the dismantled parts:

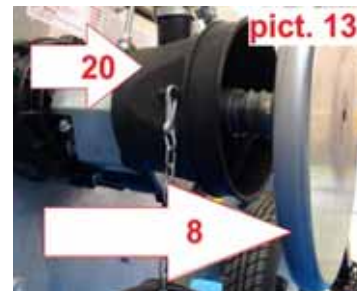
- 1) Mount the axles for the tires and tight well the bolts to fix them: pict. 18 pos. 29  
You can adjust the tire's width but be sure the axle ends at least 3 cm (1.2") after the bolt.



- 2) Mount the sprinkler pos 28 onto the central pipe of the sprinkler cart.
- 3) Fix the pipes for the width adjustment with the bolts pos. 34



- 4) Mount the pto shaft protection (20) and its cover in case they weren't already mounted



## 3.0 PREPARATION OF THE MACHINE FOR THE USE ON THE FIELD

### CONTROLS TO BE DONE:

- 1) Check the gear box oil level and, if needed, add the Sae 90 oil till the cap level (30)



- Lubricate the machine using any greasing point on the machine (look at the symbol page 3) and also the crown gear of the drum. Main points to lubricate: crown gear, brake on the gear box, no end screw.



**It's necessary to lubricate every 50 working hours**

- Check the machine and the cart tire pressure (if inflatable): look at the proper pressure on the tires and if necessary adjust it.

### 3.1 MACHINE SET UP ON THE FIELD

**Attention: always work with the working gloves!!**

- Tractor towing bar (32):** to hook the machine with the tractor, lower the towing bar by turning rear jack handle (14), then pull it down by hand and connect it to the tractor's hitch.

When the machine is hooked, turn the handle counter wise to lift up the rear jack and avoid problems along the shifting. When arrived at the right place turn the handle to extend the rear jack as much as possible, then unlock the towing bar and lift it up till the rear jack is on the ground.

Attention: max transport speed is 10 km/h (6 mph) on flat roads.

**Drawing bar with tire (31):** to get the machine weight on three tires, lower the drawing bar by turning rear jack handle (14), then pull it down by hand till the drawing bar tire is on the ground.

Then you can push the machine till the point it has to be placed.

When arrived at the right place lift up the drawing bar till the rear jack is on the ground



- 2) Put the drum in the proper direction toward the irrigation strip in order to get it aligned with the pull out direction of the pe hose: go on the towing bar side of the machine and look along the side of the drum its alignment with the pulling out direction (pict 26). Eventually turn the machine till when the drum is well aligned.

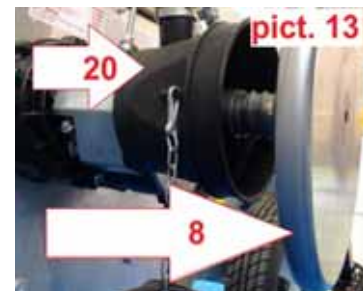


- 3) Lift up the rear jack (14) and check that the anchoring rod (13) is parallel to the ground and can hold the machine properly in its position. In case of very hard soil maybe you will have to secure it planting two points (one each side) in the angle between the anchoring rod and the frame.



- 4) Turn the gear box lever (7) in the “pulling out” position as you see in picture 04. In case it’s locked put the hand wheel (8) onto the pto shaft, push it and turn a bit counterclockwise and turn the gear box lever (7). Always keep pushing the hand wheel when you use it and take it off the pto after use and mount the cover onto the protection.

**Pay attention to the hand wheel: never leave it on the pto shaft if you’re not using it as above described! It’s very dangerous and can cause serious injuries**



- 5) Hook the towing chain (21) of the sprinkler cart to the tractor and pull out the cart along the field with the max speed of 3 km/h (2 mph). Before you stop the pulling pls reduce the speed smoothly. There’s no alarm nor signal about the pe hose length so be careful to don’t pull it out too much!

Check if the sprinkler irrigation sectors are ok and eventually adjust them.

Disconnect the tractor and drive back to the machine.

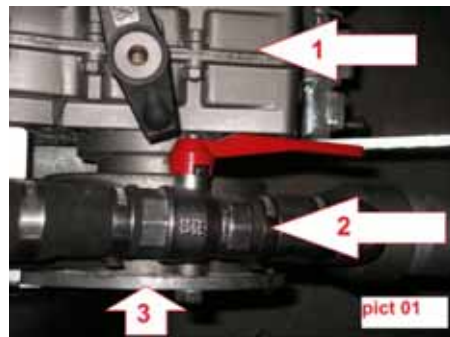


**Important:** always leave at least one pe hose ring rolled on the drum and remember that along the first use of the machine is necessary to pull out the complete pe hose not leaving more than one or two rings on the drum : you'll need to roll up all the pe hose with inside pressure.

- 6) Engage the gear box turning the lever (5) in “working and transport position” as you see in Picture 03



- 7) Turn the bypass lever in position “open” as you see in picture 01 (red lever): to be open it has to be aligned with the bypass.



- 8) Connect the main line (hydrant head or pipeline outlet) to the machine by using the flexible hose. Open the hydrant gate valve a bit till when the water is coming out from the sprinkler, then open it completely. Control properly if the flexible hose couplings are well hooked before you open the hydrant: it's a pressurized system and could be dangerous if it's not managed properly.
- 9) Adjust the speed by closing the bypass lever: to reach the max speed turn the lever perpendicular to the bypass to shut it off completely. This way all the water flows through the turbine.

### 3.2 MACHINE AUTOMATIC STOP

When the pe hose has been completely rewound, the sprinkler cart pushes the pipe pos. 33 connected to the lever pos. 34 toward the brass (switch) valve (pict. 23): it opens the flow to the top of the diaphragm valve: the turbine/bypass flow will be shut off and the rewinding stops immediately.

The gear box remains engaged (working and freight position) till when it will be manually disengaged to pull out the polyethylene hose. In case there's no diaphragm valve on the machine the irrigation continues and the rewinding will be stopped by an additional system that opens the bypass completely when the cart arrives against the machine. This way the turbine hasn't enough power to damage any part.



### 3.3 SET UP CONTROLS

- 1) Check that the hose guide fork is positioned properly: it has to be well aligned with the pe hose when the pe hose has been completely unrolled. In case of need pls adjust the guide fork position as follows:

- FIRST OF ALL STOP THE MACHINE!!

- take the elastic ring that fix the scroll bar insert off the block  
Pict 27 pos 58

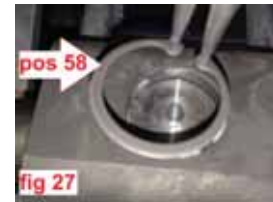
- take the insert off the block pulling it out from the greasing unit and look carefully the direction (position) of the half moon below pict 28 pos 59

- Align the guide fork to the polyethylene hose and put the insert inside the block paying attention the half moon below is in the same direction as before.

- put the elastic ring back in its place and assure it's well positioned all around the grove

- 2) Check the engagement/disengagement lever pict. 04 pos. 7: to be disengaged it has to be aligned with the gear box (toward the field). This is the "pulling out" position.

The "working and transport" position is as you see in pict. 03 pos. 5



In case you can't engage/disengage the gear box moving the lever directly you can turn a bit the drum by using the hand wheel on the pto shaft: look at " 3.1 MACHINE SET UP ON THE FIELD, point 4.

**ATTENTION:** don't forget to use *working protection gloves!*

- 10) Check that the gear box pinion is aligned with the crown gear and the teeth work well inside each other (allowed tolerance 0,5-2 mm / 0,02"-0,8" ). In case of any problem call the authorized dealer.

Stand clear from the crown gear and the pinion to check the alignment and after you disengage the gear box you can test by hand the pinion and the crown gears are adjusted properly: turn the pto shaft with one hand left and right side. It should turn free just a little bit both sides.



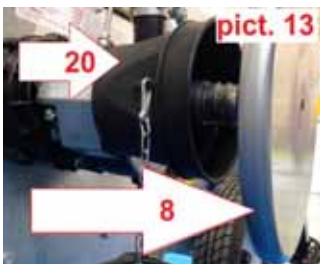
**Due to safety reasons this operation can be done only when the machine has been stopped.**

4) Check that all the bolts and screws are well tightened and that all the points indicated in this manual are well lubricate. One exception: don't tighten the bolts of the drum inlet elbow: if they are too tight the seal will be damaged!

### 3.4 EMERGENCY PE HOSE REWINDING

The pto (power take off ) of the gear box can be used for the emergency rewinding of the pe hose: it will be connected to the tractor by means of a cardan shaft.

- 1) Put the gear box lever pict 04 pos. 7 is on neutral (pulling out position) because otherwise you can cause serious damages to the gear box.



- 2) Connect the cardan shaft to the pto shaft of the gear box: same position as the hand wheel pict 13 pos. 8

- 3) Start the pto shaft to rewind the pe hose.

**Attention:** when you use the pto drive the machine doesn't stop at the rewinding when the cart arrives. The rewinding has to be stopped before the cart arrives against the machine. The last 2 / 3 meters (6' / 10' feet) have to be rolled up manually with the hand wheel.

If you want to rewind them with the tractor you can but you should roll it up very slowly and stop the rewinding before the cart is against the machine. Don't forget that the gear box lever has to be in "pulling out" position before you start up rewinding the pe hose: look pict 04.



**Attention:** if the pe hose has been totally pulled out, to avoid an excessive ovalization is better to put some pressure inside before you start the rewinding.

### 3.5 USE OF THE MACHINE ALONG THE NIGHT

The machine isn't provided with an own electric energy and or lamp (except the small battery needed for the computer if you bought this option): in case the machine has to be used with insufficient light it's important to provide an adequate lamp to follow up all the previously given instructions and avoid risks to persons and things.

### 4.0 MANTAINANCE

- 1) Lubricate the parts indicated on the machine at least every 50 working hours: the main parts are the crown gear, the drum hub, the scroll bar (hose guide system), the front jack and the rear anchoring jacks.
- 2) Change the gear box oil every irrigation season or at least every 3000 working hours.

- 3) Control periodically the tires pressure.
- 4) Lubricate the sprinkler every 400 hours: only some sprinklers have to be lubricated.
- 5) Lubricate the connecting joints of the disengagement lever (that pushes the brass valve) every 100 working hours.

## 5.0 MACHINE STORAGE AT THE END OF THE IRRIGATION SEASON

- 1) If the winter temperature will drop below freezing in the place the machine will be stored, it's better to partially empty the pe hose. to do it you should pull out half of the polyethylene hose as you do for a normal irrigation, then you take the sprinkler cart off and then you rewind the polyethylene hose by means of the pto shaft (look at point 3.4). You can also use an air purge and leave the hose rewound on the drum
- 3) For a longer lifetime of the machine is suggested to clean the machine with a water gun and after it's dry again, look at the point that eventually need some antioxidant.
- 4) Lubricate all the indicated points as you do for the normal maintenance.
- 5) Open and close the by pass valve and then leave half open to avoid damages along the winter.
- 6) Disconnect and drain the hoses of the diaphragm and the brass valve (pict 7 and 11) and turn the 90° elbow down.

## 6.0 PROBLEMS AND SOLUTIONS

### 1 The machines can't rewind the polyethylene hose.

- Open and close completely the bypass by turning the bypass lever from completely closed to completely open and vice versa.
  - In case the machine has been equipped with the Controller, pls follow the relative instructions
  - If the bypass valve works properly and the turbine impeller doesn't turn is possible that the turbine nozzle is blocked by a solid: dismount the inlet pipe, check and eventually clean it.
- Is also possible a long fiber as a rope or something similar went inside the turbine and has been rewound all around the impeller: to check and eventually clean it you should take the pto shaft protection and the turbine cover off.
- Also check the gearbox position: in case the drive pinion is too far or too much against the crown gear of the drum, it will not move. To check it disengage the gear box, hold the pto shaft by hand (mandatory with working gloves) and turn it backward and forward: if the gearbox position is ok you should be able to move it a bit and hear a clear "tac" "tac"...every time the pinion teeth match the crown gear teeth. Between the pinion teeth and the crown gear teeth base you should have about 1 mm (0, 04") space.
  - The gear box doesn't work: if the turbine impeller turns (you hear the noise) but the drum doesn't move, is possible that the lever on top of the gear box isn't well positioned and the gear box hasn't been engaged. Place the lever in working position (perpendicular to the gear box) naturally after the sprinkler cart has been pulled out at least 1 m / 3 feet. If the turbine impeller turns, the gear box is well engaged and the drum doesn't turn pls call the local authorized service as maybe you have to change/repair the gear box.
  - The sprinkler nozzle is partially stopped and only some water comes out. Dismantle the nozzle and check.
  - The filter (if ordered or mounted later on) at the machine inlet is full or at least dirty. Disconnect the flexible supply hose following the instructions for the pressurized systems and clean the filter.
  - The sprinkler is always supplied with some nozzles of different sizes. Is possible to change the nozzle with a smaller and/or with a larger one. The turbine nozzle is generally similar to the sprinkler nozzle. The sprinkler nozzle you use depends on the available flow and pressure. Try different nozzles and for each nozzle note carefully the sprinkler nozzle diameter, the pressure at the machine pressure gauge and the pull in speed you can reach. This way the service will have a complete and clear picture about the situation and will be able to help you.



- The pressure isn't enough at the turbine/machine inlet: first of all engage the gear box placing the lever in working position. If the drum doesn't turn try to increase the pressure or advise the local authorized service and give all the data listed at the previous point.
- The polyethylene hose has been pulled out, the gear box is properly engaged and all the above mentioned parts have been checked. The gear box may be damaged: call the local authorized service.

## **2 The machine isn't stable and try to move.**

- The machine hasn't been placed properly and the anchoring rod doesn't match the ground on all its length. Place the machine better to be sure the complete anchoring rod will touch the ground and will hold the machine in its position.
- In case of very hard soil maybe the anchoring rod can't hold the machine: in this case follow the instructions at 3.1 MACHINE SET UP ON THE FIELD, point 3.
- The polyethylene hose has been pulled out, lays on the field and is difficult to pull in. Wait that the soil becomes dry, then shift the polyethylene hose beside its position by a chain or a rope: put the chain under the polyethylene hose and connect it to the tractor lifting system (or hold it by hand) and drive the tractor (or walk) all along the polyethylene hose shifting the polyethylene hose beside. You can also put a wooden block under the polyethylene hose every 6 m (18 feet) or less: the target is to detach the polyethylene hose from the sticky place and also clean it.

**3 If the pe hose hasn't been rolled up properly** pls check the drum is well aligned with the pulling out direction, pull the hose out and follow up the instruction to align the guide fork and then roll up the pe hose with pressure (inside the pe hose): it's possible to roll up the pipe by cardan shaft/pto or by turbine but always with pressure inside to avoid the polyethylene hose excessive ovalisation.

## **7.0 IMPORTANT SUGGESTIONS**

- During the machine transport the max allowed speed is 10 km/h (6 mph) on good level flat roads.
- Before you roll up the polyethylene hose by cardan shaft pls be sure the gear box lever is on neutral (pulling out) position otherwise the gear box and also the machine can be strongly damaged
- The first time you pull the polyethylene hose out to start the irrigation, you have to pull it out completely leaving only 1 or 2 rings on the drum.
- Any modification (that hasn't been authorized in written form by the supplier) invalid the warranty
- If the polyethylene lays on the soil, then it rains, it's possible that the polyethylene hose will stick to the soil so prior to start the irrigation and rewind it, it's mandatory to clean and shift it beside with a rope or chain as indicated at point 6.2 above
- If the polyethylene hose has been partially pulled out, probably some rings became loose on the drum and it's necessary to pull it out completely to roll it up again so it will be all well tightened.
- If both, drum alignment and polyethylene hose complete rewinding with pressure inside the hose, have been done and you still have problems, pls call the local authorized service.
- Don't pull out the polyethylene hose or achieve any other function on the machine when the hand wheel is mounted on the pto shaft of the gear box. Always take it off the shaft after use.
- Don't use the machine when the protections aren't mounted and always stand clear from any possible squeezing point.

***IMPORTANT NOTE: if these instructions will not be correctly followed, if non original parts will be installed or in case of not written authorized modifications the warranty is totally invalid. In this case the producer is not more responsible for any risk, injuries and damages may happen to the operator, to third parties.***

## **8.0 ADDITIONAL RISKS**

Even if IRRILAND pays attention to avoid dangers for the user during the design and the construction with functions and guards generally safe, it's always possible that some additional risk appear during the use of the machine.

- 1) Risk to hook and displacement between the drum and the structure during the structure and the drum rotation. This risk is higher during the machine placement and during the polyethylene hose pulling out and rewinding. Be sure nobody is next to the machine when you're moving it and during the polyethylene hose pulling out and rewinding. Only the authorized persons can remain close to the machine, nobody more.
- 2) Flattering and trapped risk between the polyethylene hose and the drum along the rewinding. Avoid any contact with the polyethylene hose during the rewinding and be sure no authorized persons can't access to the area.
- 3) Overturn risk: along the machine shifting and freight there's a serious risk to overturn the machine. The risk increases a lot if the slope is more than 6°. Drive with particular attention, don't increase the speed and drive through the best parts of the road. In case of excessive risk drive back and look for other way. If you move the machine by hand (no tractor) be particularly careful and do it only if the area is completely flat. In case of any slop it's mandatory to use a tractor of the adequate power and weight.
- 4) Electricity risk: during the irrigation the sprinkler throw can match the power cables. The risk of a very dangerous electric shock through the metal structure is very high. Be sure there aren't electric lines in the sprinkler radius all along the pull.
- 5) Risk to impact directly the sprinkler throw. When the machine will be started and the water will be supplied to the machine, the throw can start suddenly and strong. It's always better to release the flow partially till the water pass through the sprinkler and then increase it till the normal working flow. Anyway be sure nobody is next to the sprinkler when you start the machine.
- 6) Shock risk against plugs and couplings of the machine and the flex hose. Don't open nor disconnect the plugs and the couplings with the pressure inside. Be sure there's no pressure before you release any plug or coupling. Control them carefully before you get pressure in the machine.
- 7) Risk of incidents on roads. Set up the sprinkler cart and the sprinkler in a way that the water throw will not wet a transit area to avoid damages to persons and things.

## **9.0 SHIFTING OF MACHINES CONNECTED TO PRESSURISED MAIN LINES**

When the machine has finished the cycle, pls reduce the pressure at the machine as follows:

- 1) Shut off the hydrant valve (where is connected the flex supply hose of the machine) and in case the machine is equipped with a shut off valve, open it (or open the discharge valve on the turbine if available).
- 2) When the pressure gauge indicates pressure "0" and there's no more pressure in the flex supply hose you can disconnect the couplings of flex supply hose and shift the machine to the next position.