IB INTERNATIONAL Pty Ltd

OCMIS INSTRUCTION MANUAL

HARDHOSE IRRIGATORS
MOD. R1/1 – R2 – R2/1 – R3
R4 – R4/1 – R4/2

IB INTERNATIONAL Pty Ltd

EC declaration of conformity according to the EC regulation 83/392 and following amendments, the undersigned company OCMIS IRRIGAZIONE S.P.A. vi S. Eusebio 7 41014 Castelvetro (Modena) Italy declares on its own responsibility that the new machine hereby described as hose reel irrigator trade-name OCMIS is in conformity with basic safety and health protection measures according to EC regulation 89/392 and following amendments (91/368; 93/44; 93/68).

model

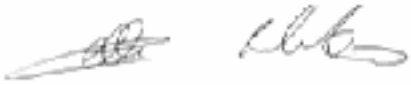
R1/1 – R2 – R2/1 – R3
R3/1 – R4 – R4/1 – R4/2

.....

nome e qualifica del delegato
Name and qualification of the manufacturer delegate

P.I. COLLI ROBERTO

firma del delegato
delegate segnature



Australian Importer and Distributor - IB INTERNATIONAL Pty Ltd
PO Box 5481, Manly Qld 4179 Telephone: 61 7 3348 2909
Facsimile: 61 7 3348 2904, Mobile: 0408 379 619
Email: ibaines@bigpond.net.au,
www.ibinternational.com.au
ABN: 52 113 133 412

IB INTERNATIONAL Pty Ltd

Introduction

Thank you for buying an Ocmis traveler. Please **read this manual carefully before** assembling and operating to get familiar with its many functions. Your safety is our first priority and **failure to follow these instructions may cause serious injury or death.**

Ocmis and IB International is not responsible for machine failure if these procedures and operation instructions are not followed.

C A U T I O N

Do not operate your OCMIS traveller without a serious overview of this manual. Keep children and unauthorised people away from the traveller. Never allow children access to use the traveller.

Use caution when disconnecting couplings.
When the traveller is equipped with shut off valve, the supply hose remains pressurised at the end of the run. FIRST, relieve the pressure, and then disconnect the supply hose.

Use caution when the sprinkler heads (rain guns).
Pressurised water from the sprinkler may cause serious damage to people and things.

Use caution during transport.
Travelers are not made for public transit. Do not exceed 7 mph (10 km/h) on flat roads or 2 mph (3km/h) on steep inclines.

Never service the traveler when it is in operation.
Before servicing stop the traveler and disconnect the supply line. All safety guards and shields must be in place when operating the traveller.

Beware of power lines
Irrigation water should never contact power lines or any other power source. Never let any part of the taveler or any irrigation pipe gets in contact with power sources.

IB INTERNATIONAL Pty Ltd

SIGNS PRESENT ON THE MACHINE AND THEIR MEANING

This sign indicates the operations and parts that may be risky for the safety of the operator. When seeing this sign read carefully the message which follows and beware of possible risk of accident.

This sign indicates pressurised supply lines. Do not release the clamps before making sure that the pressure is released.

This sign indicates dangerous equipment in operation. Never use this machine with safety guards removed. When using a draw bar to pull in the hose use only protected shafts, conforming with the safety standards in force.

This sign indicates a risk of electric power danger.


Never position the rain gun trolley close to power lines or power packs. Make sure that the sprinkled water does not contact any power lines, houses, roads or any working sites.

Before operating the machine read the instruction manual carefully

Before servicing or making any adjustments stop the machine and disconnect the supply line.

This sign indicates machine with automatic start with moving parts. Stay away during the operation.

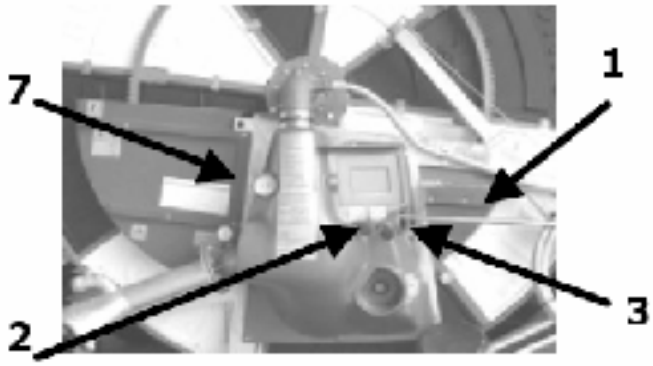
CONDITIONS FOR MACHINE OPERATION

The machines have been designed to be used with water suitable for irrigation and up to a low sand content. They can be used to spread slurry on condition that it does not contain solid matter. The machines can be used with slow rotation rain guns or with spray booms; for the use of both accessories see specific instructions.

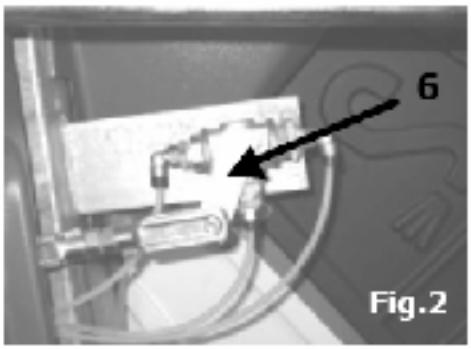
Identification Data

IB INTERNATIONAL Pty Ltd

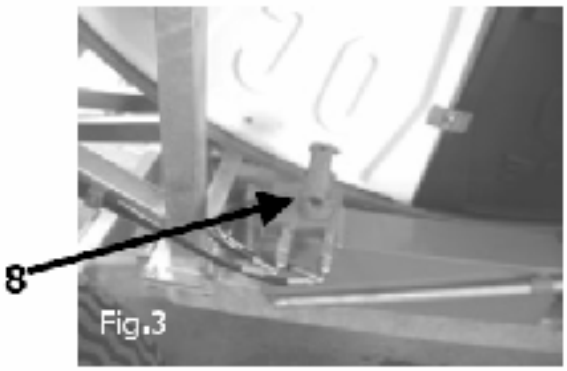
MACHINE CONTROLS
MODEL R1/1 – R2 – R2/1 – R3 – R4 – R4/1 – R4/2



1. Turbine by-pass
2. Gearbox lever.
3. Gearbox idle lever and emergency stop
4. Handle for mechanical rotation of the turret * (Fig 1)



5. Automatic stopping hook
6. 3-way control valve with shut-off valve or discharge valve *(Fig 2)
7. Tachometer
8. Hand hydraulic pump for feet control (Fig 3).

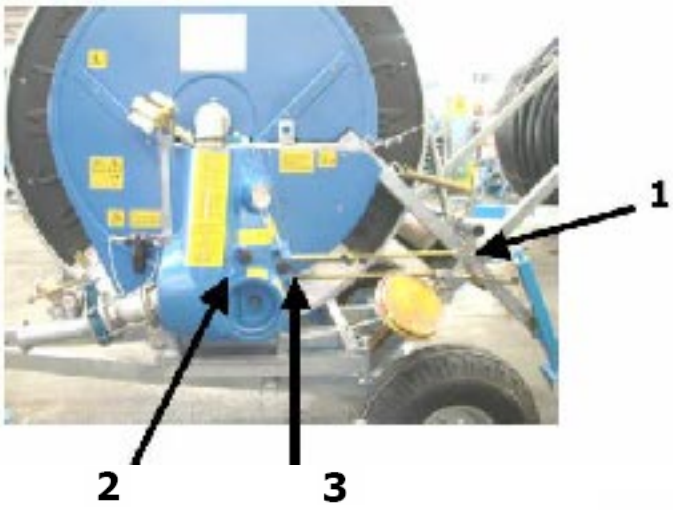


9. Spool valve *for hydraulic rotation control, foot of the hydraulic drawbar *and anchor feet (Fig 4).

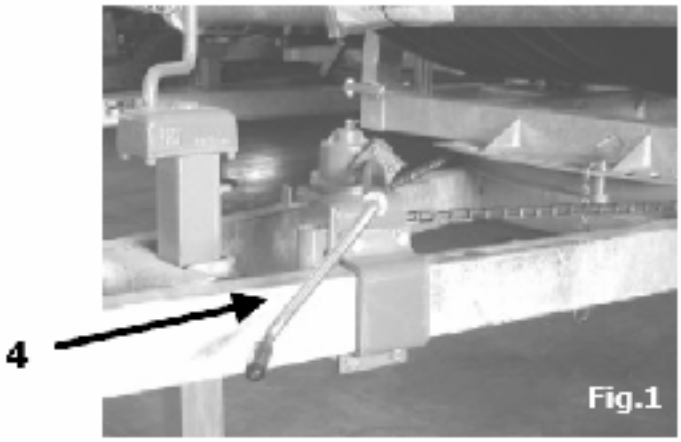
* = optional

IB INTERNATIONAL Pty Ltd

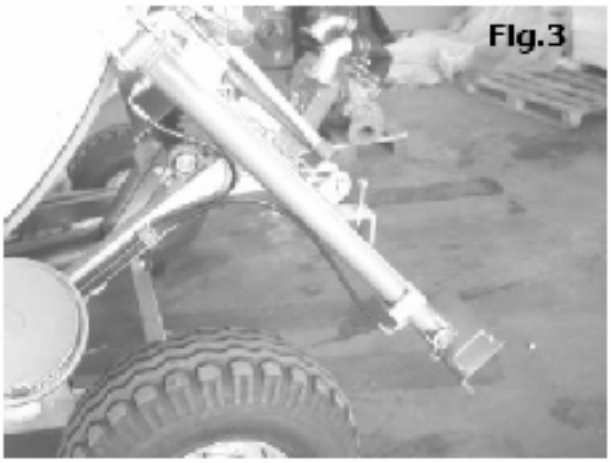
MACHINE CONTROLS
MOD. R1/1 – R2



1. Turbine by-pass
2. Gearbox lever.
3. Gearbox idle lever and emergency stop.
4. Handle for mechanical rotation of the turret. * (Fig 1)

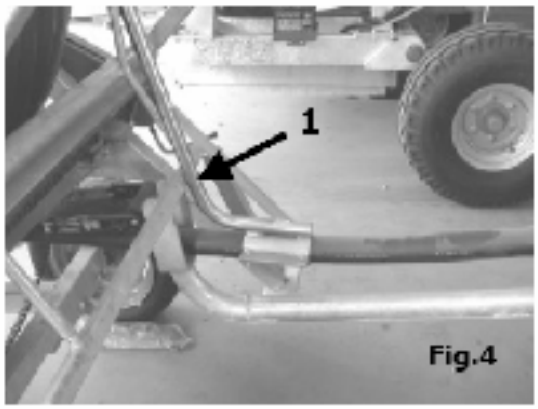


5. Mechanical-hydraulic anchor feet *(Fig 2)
6. Hydraulic anchor feet * (Fig 3)

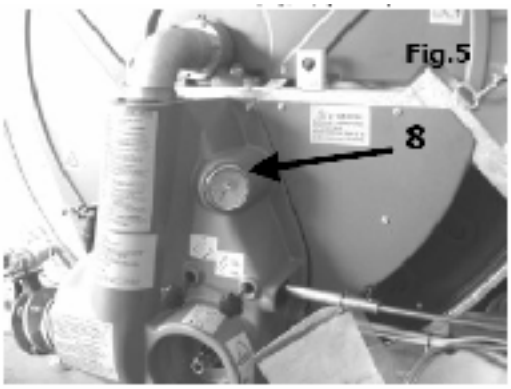


* = optional

7. Automatic stopping hook (Fig 4 pos 1)



8. 3-way control valve with shut-off valve or discharge valve * (Fig 6 pos 7)



9. Tachometer (Fig 5 pos 8)
10. Hand hydraulic pump for feet control * (Fig 7)

- optional

IB INTERNATIONAL Pty Ltd

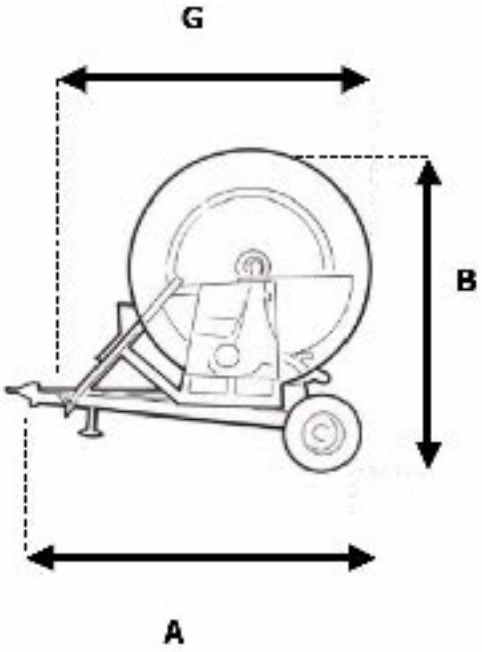
TABLE OF CONTENTS

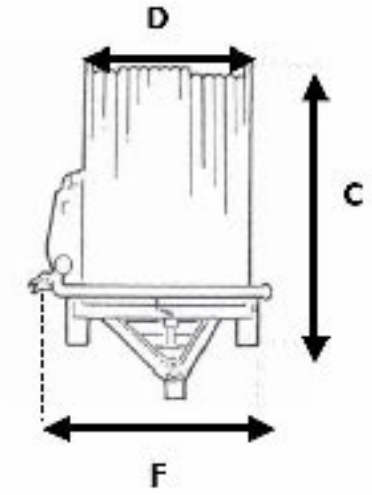
1.0 INFORMATION AND TECHNICAL DATA

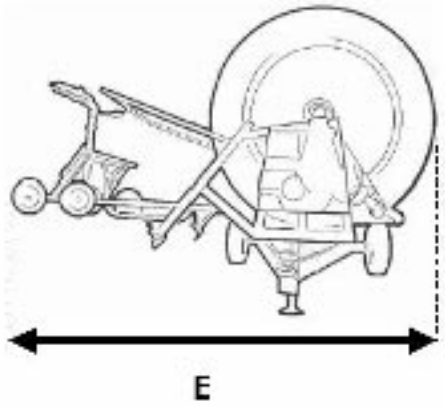
Weight and Dimensions

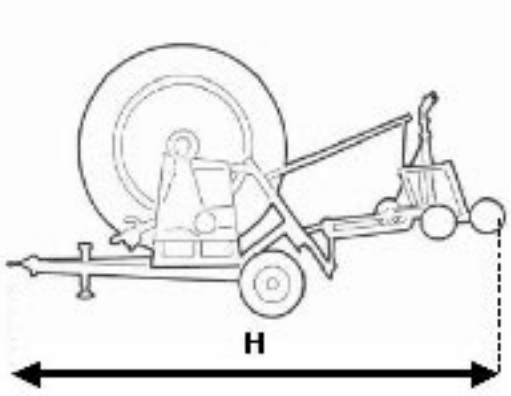
Note: for unloading and assembly operations of the machine, use lift winches and equipment with dimensions proportioned to the weight of the body to be lifted (see tables).
The unloading operations must be carried out by qualified persons.

MOD	DIAM	MT	A	B	C	D	E	F	G	H	WEIGHT KG
R1/1	63	250	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	960
R1/1	63	280	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	985
R1/1	63	300	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	1002
R1/1	70	220	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	977
R1/1	70	270	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	1029
R1/1	75	220	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	1011
R1/1	75	250	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	1047
R1/1	82	160	3.1	2.3	1.86	1.1	4.4	1.85	2.15	5.3	972
R2	70	300	3.5	2.6	2.14	1.1	4.4	2.1	2.3	5.4	1200
R2	70	350	3.5	2.6	2.14	1.1	4.4	2.1	2.3	5.4	1250
R2	75	300	3.5	2.6	2.14	1.1	4.4	2.1	2.3	5.4	1249
R2	82	270	3.5	2.6	2.14	1.1	4.4	2.1	2.3	5.4	1267
R2	82	300	3.5	2.6	2.14	1.1	4.4	2.1	2.3	5.4	1317
R2	90	220	3.5	2.6	2.14	1.1	4.4	2.1	2.3	5.4	1300
R2/1	75	350	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1631
R2/1	75	400	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1693
R2/1	82	350	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1730
R2/1	82	380	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1818
R2/1	82	400	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1848
R2/1	90	280	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1767
R2/1	90	300	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1805
R2/1	90	350	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1907
R2/1	100	275	3.5	2.92	2.44	1.2	5.2	2.1	3	6	1881
R3	82	430	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2210
R3	90	350	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2246
R3	90	370	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2282
R3	90	400	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2337
R3	100	300	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2219
R3	100	330	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2308
R3	100	350	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2374
R3	110	250	3.7	3.1	2.59	1.42	5.2	2.25	3	6.2	2298
R3/1	90	450	3.7	3.2	2.69	1.42	5.2	2.25	3	6.2	2570
R3/1	110	300	3.7	3.2	2.69	1.42	5.2	2.25	3	6.2	2470
R4	100	400	4.2	3.45	2.85	1.44	5.4	2.4	3.5	6.3	2780
R4	110	300	4.2	3.45	2.85	1.44	5.4	2.4	3.5	6.3	2780
R4	110	330	4.2	3.45	2.85	1.44	5.4	2.4	3.5	6.3	2620
R4	110	350	4.2	3.45	2.85	1.44	5.4	2.4	3.5	6.3	2760
R4	125	250	4.2	3.45	2.85	1.44	5.4	2.4	3.5	6.3	2795
R4/1	100	450	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3150
R4/1	100	470	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3200
R4/1	100	500	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3350
R4/1	110	400	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3280
R4/1	110	420	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3380
R4/1	110	450	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3430
R4/1	120	350	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3220
R4/1	125	310	4.2	3.6	3.03	1.59	5.4	2.5	3.6	6.3	3150
R4/2	100	530	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3724
R4/2	100	580	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3947
R4/2	110	500	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3910
R4/2	110	530	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	4020
R4/2	120	450	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	4192
R4/2	125	350	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3699
R4/2	125	380	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3761
R4/2	125	400	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3830
R4/2	140	250	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3720
R4/2	140	300	4.3	3.84	3.3	1.62	5.7	2.55	3.7	6.5	3650


G
B
A


D
C
F


E


H

1.2 Transport, Delivery and Assembly of the Machine

Due to freight height and space limitations, some assembly may be required with your newly purchased micro traveler. Be sure to follow proper procedures when unloading and assembling the machine to avoid any danger or injury. Hooks are provided on the machine (see Fig 1) to enable you to pick up the machine for unloading, assembly or repair.

If the machine is delivered with assembled reel frame, carry out the unloading operation by hooking as shown in Fig 2.

The machine can be delivered in different versions (with different components). The following instructions concern the machine with the highest number of components, in case some of these components have already been assembled, follow the specific instructions.

Inspections to be carried out during assembly.

1. Assemble the wheel hubs and tighten the clamping bolts (Fig 3).

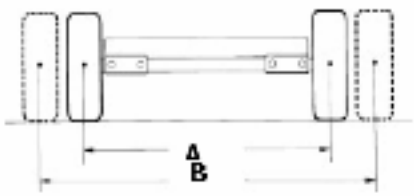
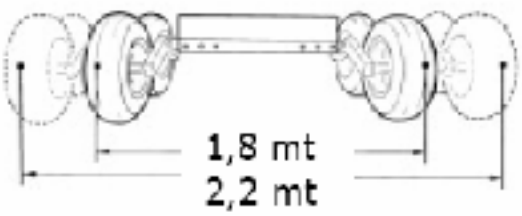


Fig.3

MOD.	A cm	B cm
R1/1	170	170
R2	170	170
R2/1	170	170
R3	190	195
R3/1	190	195
R4	185	185
R4/1	200	200
R4/2	200	200

2. Adjust the wheels width for machines equipped with 4 wheeled tandem frame (Fig 4).

(FIG. 4)



Wheel Type	Inflation pressure	
	Bar	psi
165/70R14	3	42,6
175/65R14 TL	3	42,6
185/55R15	3	42,6
[illegible]	[illegible]	[illegible]
10.0/75 15.3 TT	5,2	74
10.0/75 15.3 TT	5,2	74
11.5/80-15.3 TT	5,0	70,5
400x15.5 TT 6 TORT	4,7	67
11.5/80 15.3 TT	5,6	79,5
[illegible]	[illegible]	[illegible]
4.50x10"	3.1	44

(FIG. 5)

3. Check the wheel nuts are tight (Fig 5). Carry out this inspection periodically.

Fig. 6

4. Check the reel turntable bolts are tight (Fig 6).

5. Assemble the trolley lifting arms with relevant accessories (Fig 7).

Assembling the Rain Gun Trolley

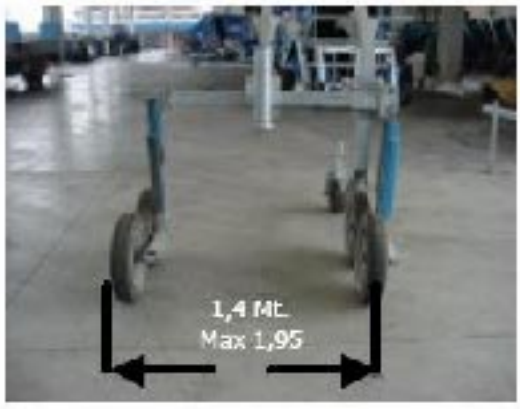
1. Assemble the wheel drop legs to the central beam of the trolley.
2. Assemble the wheels in the axle housings and tighten locking bolts.
3. Adjust the trolley height so that the frame is flat on the ground (Fig 1). For 3 wheeled trolleys adjust the drop legs so that the rain gun works horizontally.

(FIG. 1)

4. Assemble the rain gun to the trolley.

Attention: Use only slow rotation sprinkler guns with a rotation speed not greater than 1 RAD S-1.

(FIG. 2)



5. For offset trolley see Fig 2.

Mounting the Trolley to the Machine

1. Fit the PTO winding handle to the gearbox power takeoff shaft.
2. Turn the handle slightly, rotating the reel clockwise.
3. Disconnect the backstop and secure it with the provided chain (Fig 3).
4. Turn the reel anticlockwise by the handle and pull out 3-4 metres of hose.

(FIG.3)

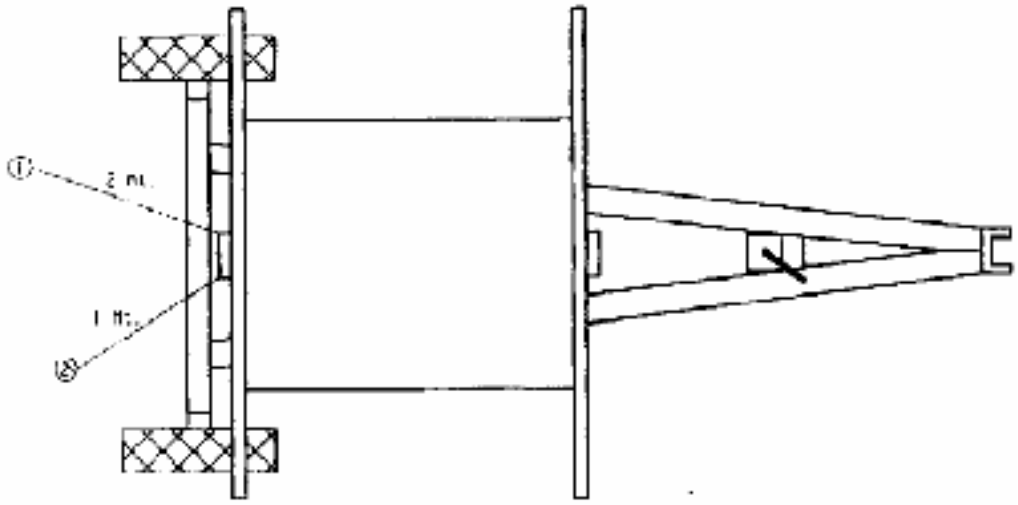
5. Secure the rain gun trolley to the flange located at the (PE) hose end (Fig 4).
6. Turn the reel clockwise and rewind the PE hose until the limit stop hook has reached the stop position.
7. Operating the hand hydraulic pump or the spool valve if the machine is not equipped with the pump.

(FIG.4)

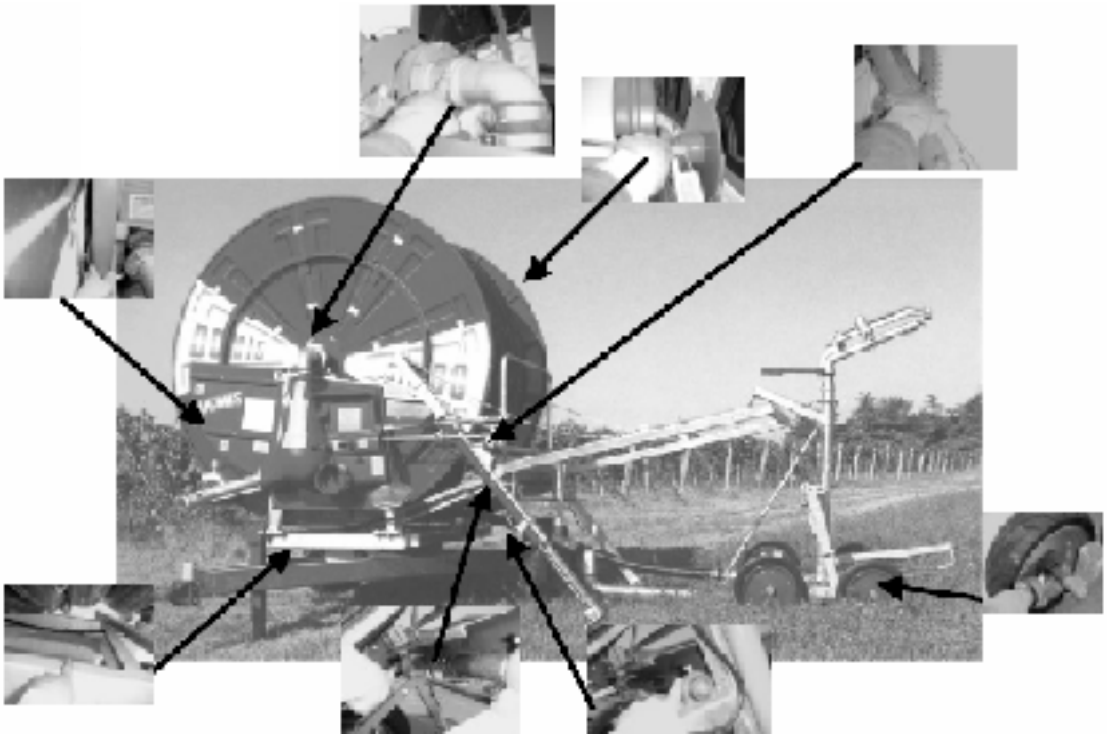
1.3 Noise Level

SOUND PRESSURE LEVEL

Pos.1	70 d B (A)
Pos.2	74 d B (A)



2. CHECKING MACHINE BEFORE START UP (CHECK LIST)



INSPECTIONS TO BE CARRIED OUT

1. Check the oil level of the grearbox and if necessary add SAE 90.
2. Grease the machine thoroughly (all grease fittings) and thereafter grease every 100 hours (See Fig 1).
3. Check the tyre pressure.

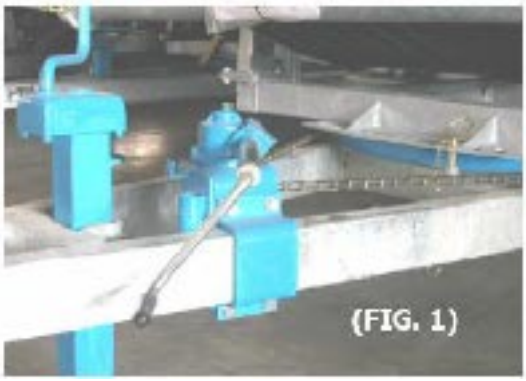
Lubrication Table

Gearbox	Oil Sae 90
Reel supports	Grease ISO MOV S2
Greasers	Grease CH NFS 55
Hydraulic system	Oil HD 10 W Sae 10
Compressor	Oil Sae 90

2.1 Start Up Procedure

1. Tow the machine up to the working site (max speed allowed 10 km/h – 7 mph).
2. Direct the reel towards the area to be irrigated as straight as possible to the direction of the run.

   If the machine is equipped with mechanical rotation connect the winding handle to the winding device and turn to rotate the reel (Fig 1).



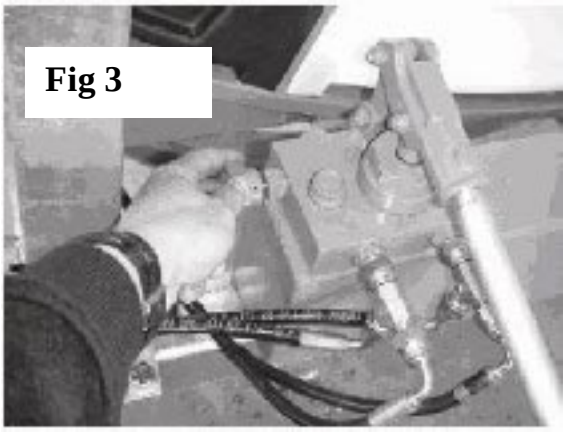
   If the machine is equipped with hydraulic rotation, rotate the reel by using the hydraulic spool valve lever (Fig 2).

3. Lower the telescopic anchor feet and the trolley at the same time.
   To lower the feet turn the knob of the side hydraulic pump (Fig 3) and proceed pumping with the lever (Fig 4).

   By turning the knob clockwise the feet are lowered. By turning the knob anticlockwise the feet are raised.

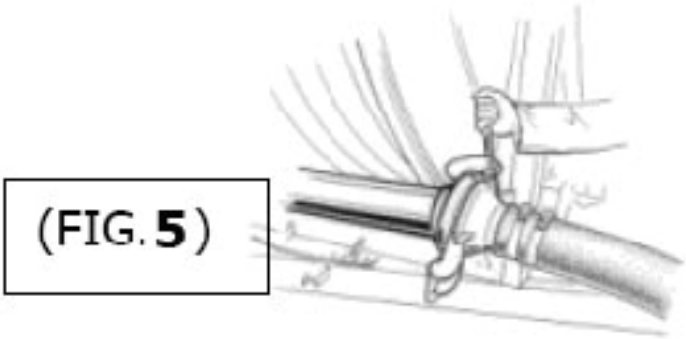
   If the machine is equipped with a hydraulic system operated by the tractor, operate the hydraulic spool valve to lower and raise the feet.

4. Close one water inlet of the galvanised supply pipe with the end cap.



5. Connect the machine to the hydrant with the high pressure connection hose (Fig 5).

NB: Before connecting the hose to the machine it is advisable to check there is no foreign matter inside the hose itself in order to revent blockages at the turbine.

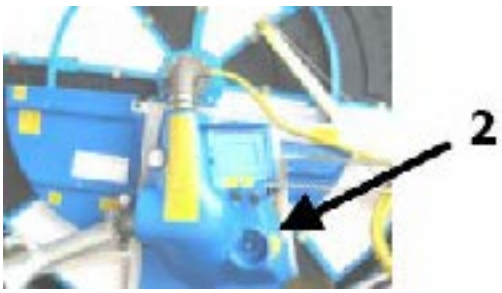


(FIG. **5**)

6. Set the backstop (Fig 6) in the idle position 0. To facilitate the operation connect the winding handle to the P.T.O. power takeoff of the gearbox and rotate the reel clockwise.

(FIG. 6)

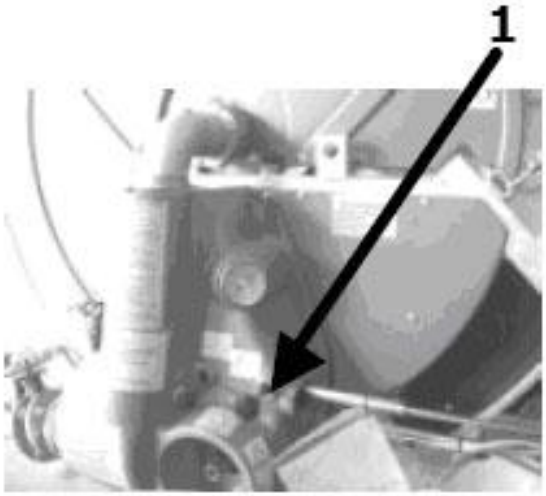
7. Make sure that the gearbox lever no 2 is in the idle position 0. To bring the gearbox lever no 2 to the idle position 0, pull the lever outwards (Fig 7).

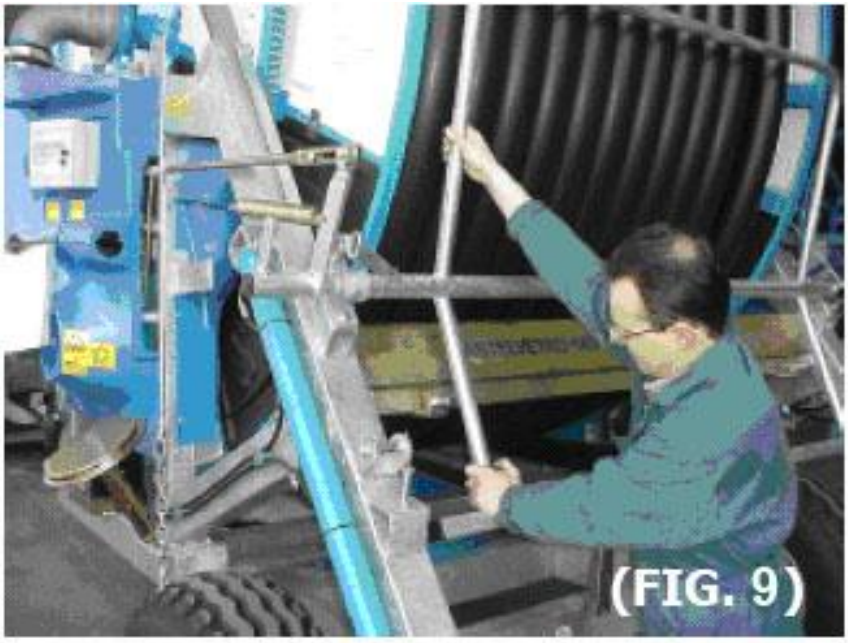


(FIG. 7)

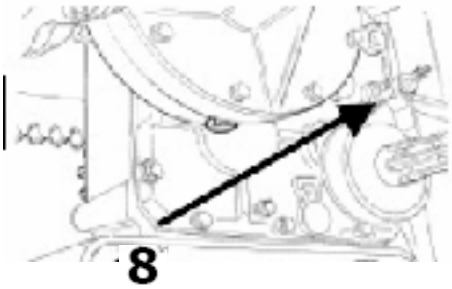
7/B Make sure that the gearbox lever no 2 (Fig 8 pos 1) is in the idle position 0. To carry out this operation, push the automatic disengaging lever towards the machine (Fig 9).

MOD. R1/1 – R2
R2/1 – R3
R3/1
(FIG. 8)





8. The machine is provided with an automatic band brake located on the gearbox (Fig 10). When the hose is laid down for the first time, check that the automatic brake works properly. If necessary adjust the brake by the spring loaded nut.



(FIG. 10)

9. Lay down the hose at a constant speed (2-3 km/h) and slow down when approaching the stop position.

NB: Always leave at least one turn of hose on the reel

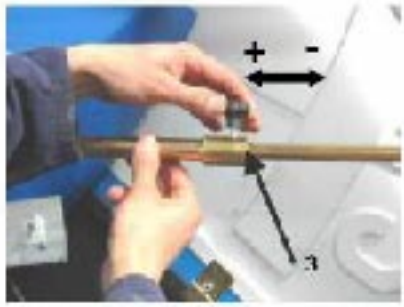
10. The first time the machine is operated the hose must be completely laid down. Leave on the reel not more than 1 or 2 turns of hose in order to be able to check the exact adjustment of the hose-guiding fork.

2.2 Automatic Hose Rewind

(FIG. 1)

1. Release the backstop (Fig 1) into the operating position.
2. Increase the machine pressure slowly until it reaches the operating pressure.
3. Select the gear with the level no 1 of the gearbox (Fig 2 pos 1) and operate the lever no 2 of the gearbox (Fig 2 pos 2).

(FIG. 2)



(FIG. 3)

Final speed is set by opening and closing the by-ass (Fig 3 – pos 3). This adjustment is carried out by unscrewing the knob and blocking it in the required position.

Example of Gear Selection as per requested speed.

MOD. R4 R4/1 R4/2	LEVER NO. 1	LEVER NO. 2
from 10 – 15 m/h	1	1
from 15 – 30 m/h	2	1
from 30 – 60 m/h	3	1
60 mt/h	4	1

MOD. R2/1 – R3 – R3/1	LEVER NO. 1	LEVER NO. 2
from 10 – 15 m/h	1	1
from 15 – 25 m/h	2	1
from 25 – 40 m/h	1	2
from 40 - 60 m/h	3	1
from 60 – 90 m/h	2	2
above 90 mt/h	3	2

MOD.R1/1 – R2	LEVER NO. 1	LEVER NO. 2
from 10 – 15 m/h	1	1
from 15 – 30 m/h	2	1
above 30 mt/h	3	1

Attention:

Never change gear using the lever no 1 without putting the backstop in the idle position 0. NB to change gear, decrease the rotation speed of the turbine by opening the by-pass through the special lever.

Attention:
Whenever the pumping system stops supplying water, the machine will stop and automatically starts working again when the pressure is restored. Before any maintenance or lubrication of the machine disconnect the water hose.

2.3 Automatic Machine Stop

(FIG. 1)

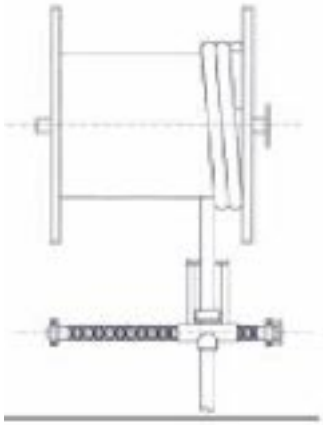
When the hose is completely wound, the hose stopping hook pushes against the lever (Fig 1) and puts the gearbox automatically in the idle position 0, thus stopping the hose winding. At the same time the water discharge valve and the shut-off valve are operated for the automatically stopping in the pumping stations (if the machine is equipped with one of these valves).

2.4 Inspections to be Carried out during Start Up Operation

1. Check that the hose-guide fork is in the correct position (line dup with the hose or slightly pressing it towards the already wound up loop).

   This inspection must be carried out with the hose completely laid out.

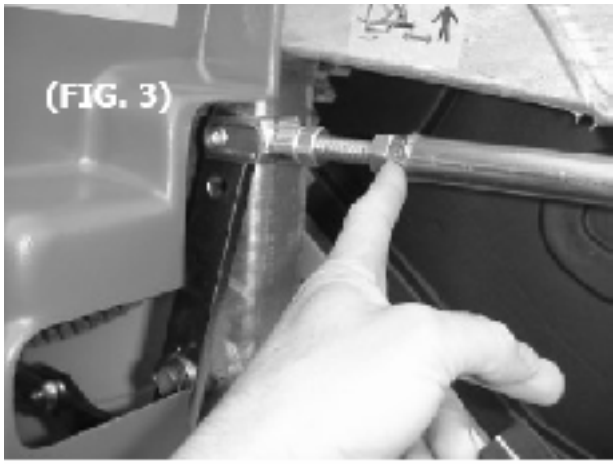
   To adjust the position of the hose-guide fork take the protection guard of the reel side chain off (Fig 1). Open the connecting link of the chain, then rotate the hose-guide scroll bar to the right or to the left until the hose-guide fork is in the correct position.



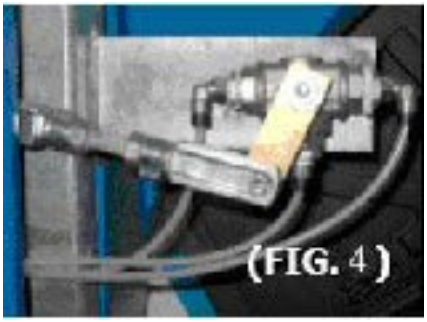
(FIG. 1)

For safety reasons this operation must be carried out when the machine is not operative.

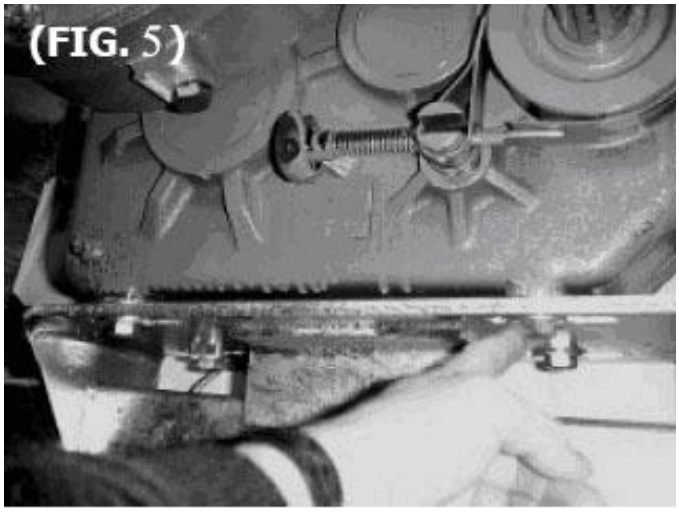
2. Check that the automatic disengaging system at the end of the stroke is adjusted properly by putting the backstop in the idle position 0 (Fig 2) and pushing manually on the automatic disengaging bar and check that the gearbox is neutral. If the gearbox stopping lever is not properly adjusted, adjust it through the screw (Fig 3).



Attention
When the machine is put in the idle position with the hose laid down, the reel makes a violent half turn backwards. Before carrying out this operation make sure that nobody is near the reel.



3. If the machine is fitted also with shut-off or discharge valve, check that both the automatic disengaging system at the end of the stroke and the 3-way valve which controls the opening and the shutting of the valves is activated. If necessary, adjust the stroke of the valve drive rod (Fig 4).



4. Check that the gearbox pinion and the reel drive gear engage correctly (maximum tolerance 1-2 mm). If it is necessary to adjust the clearance, loosen the 4 fixing bolts on the gearbox and then slide the gearbox within the slots to achieve the correct setting (Fig 5).

For safety reasons this operation must be carried out when the machine is not operational.

2.5 Adjusting of the Speed Equaliser

If the speed decreases during the hose retraction, the position of the regulation lever should be changed in order to reduce the by-pass when the speed equaliser is activated. Put the lever (Fig 1) into the lower hole, and in the opposite side bring it to the hole which is more distant from the by-pass pin. If the speed increases, put the abovementioned lever into the top hole and into the hole which is nearest to the by-pass pin.

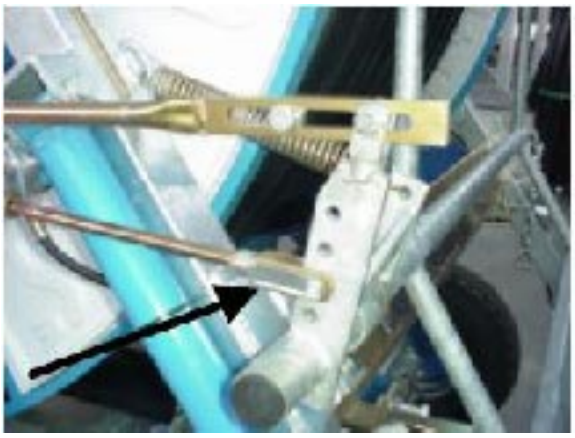


FIG. 1

2.6 Use of the Machine Equipped with Computer System (Optional)

If the machine is equipped with a computer the by-pass adjusting is automatic. For computer use see the use and maintenance manual.

2.7 Use of the Compressor (Optional)

Connect the compressor pipe to a water inlet with the special ring, open the breather placed on the connecting pipe (Fig 1) and close the second water inlet with the cap. Take off the end cap under the rain gun trolley (Fig 2). Operate the tractor P.T.O. setting the speed rate immediately at 540rpm. Close the breather placed over the connecting pipe to let the air flow completely into the machine. When the machine is empty (3-4 minutes) open the breather and stop the P.T.O.

FIG.1

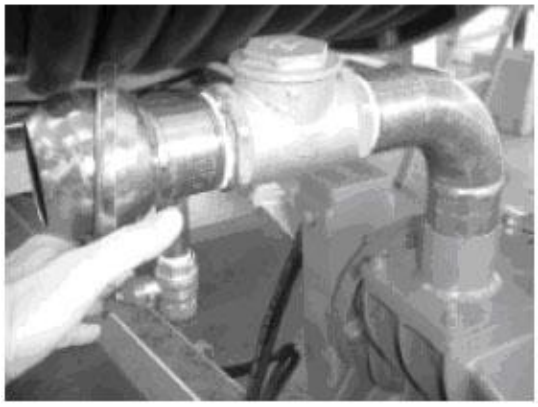


FIG. 2

CAUTION

When the machine has been drained through the compressor, a residual pressure of 2-3 bar remains inside the hose so it is dangerous to take off the end cap without having opened the breather.

Check the lubrication of the compressor during the draining, the oil must pour through the valve placed over the compressor (visible through the transparent glass bowl). If necessary, regulate the flow using the adjusting screw.

2.8 Rapid Hose Retraction

The function of the P.T.O. power take off on the gearbox is to rewind the hose quickly by the tractor. In case of inconvenience such as rainfall etc., to rewind the hose by the P.T.O. proceed as follows:

1. Check that the lever no 2 on the gearbox is in the idle position, **or severe damage will be caused to the gearbox.**

2. Connect the P.T.O. shaft from the tractor to the gearbox power take off.

3. Activate the power take off and wind up the hose.

When using the P.T.O. shaft there is no automatic stop at the end of the run. The power take off must therefore be stopped before the hose is completely wound up. It is recommended the last 2-3 metres of the hose be wound up by means of the handle.

 **ATTENTION:**
To avoid extremely irregular rewinding of the hose when it is completely laid out, it may be necessary to pressure the machine as in a normal irrigation operation to avoid an excessive ovalisation of the hose.

2.9 Use of the Machine at Night

As the machine is not provided with an independent power source, in case of use in conditions of insufficient light the machine must be adequately illuminated.

3.0 MAINTENANCE

1. Lubrificate all grease nipples every 100 hours of work.

2. Lubrificate the wheel hubs of the gun trolley every 100 hours.

3. Change the gearbox oil every season.

4. Check tyre pressure every 4 weeks.

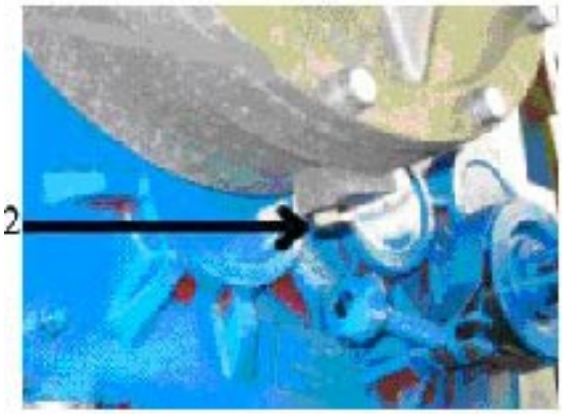
5. Grease the rain gun very 400 hours.

4.0 END OF THE SEASON STORAGE PREPARATION

1. It is recommended to drain the water hose. To carry out this operation the hose partially should be laid down as for a normal irrigation run. Remove the end cap from the trolley and pull in the hose by the power takeoff.

2. Take off the plug placed under the turbine (Fig 1 pos 2) and the water inlet caps.

3. In order to protect the paint on the machine it is suggested that the machine be washed with a pressure water jet and when it has dried, all metal parts should be sprayed with an oil-naptha mixture.



(FIG. 1)

5.0 FAULT FINDING

5.1 Hose does not wind up

The impeller of the turbine is blocked by foreign matter. Remove the cover and clean the turbine housing.

The rain gun nozzle is partly clogged up and only a small quantity of water comes out. Proceed with clearing the nozzle.

The injection nozzle into the turbine is clogged up. Disassemble the hose at the turbine entry and clean it.

The rain gun nozzle is too small compared to the machine model. It must be replaced by a nozzle with a bigger diameter or a 4mm smaller injection nozzle must be installed in the turbine.

Insufficient pressure at the machine entry. Increase it.

The hose has been wound up with the speed gear engaged on the gearbox thus damaging the gearbox itself. Proceed with repairs.

5.2 The Machine Tends not to Stay Anchored or Moves

The anchor feet are badly fixed so anchor the machine better by creating more friction under the feet.

The hose has been laid down on a humid soil and it produces too much friction. Wait until the soil humidity is reduced.

6.0 RECOMMENDATIONS

When moving the machine never exceed the max speed of 10 km/h.

If the hose is wound up by the drive make sure that the lever no 2 of the gearbox is in the idle position 0 or the gearbox will be seriously damaged.

At the beginning of each irrigation season pull out the hose completely, leave only two turns of hose on the reel.

Any modification made to any part of the machine before the expiry of the warranty would make the warranty invalid.

If the hose remains laid out on the ground especially after a rainfall, it may stick to the ground. Before starting irrigation, it must be raised by passing a rope under the whole length of the hose. In that way damage to the machine or to the hose itself will be avoided.

If the reel is being frequently operated on short runs, the machine hose may wind up incorrectly. It is recommended that it is pulled out once completely in o9rder to enable the hose to be set up in the right position again.

The trolley skid must always be positioned evenly on the ground. If the trolley is not properly adjusted, it could cause a misaligned movement and damage the crops.

Never change gear when the backstop is engaged.

Damage to the gearbox can be caused if the gear is changed when the gear box level no 1 is engaged without having first put the lever no 2 in the idle position an decreased the turbine revolutions.

Never lay down the hose or carry out control operations when the handle is connected to the gearbox P.T.O.

The machine must not be operated without the protection guards.

NB: The non-observance of these instructions, the use of non original spare parts or unauthorised changes to the machine will result in all warranties being cancelled.

7.0 RESIDUAL RISKS

Despite OCMIS taking all due precautions in the design and construction stages to eliminate any dangers to operators, some risks remain unavoidable in the operation of the machine.

7.1 Hooking and Crushing Risk

Between the support vertical rod of the reel and the reel itself when this is rotating. This risk exists especially during the laying down of the hose. So before starting this operation make sure that nobody is near the machine and that only authorised persons are in the work area.

7.2 Risk of Crushing and Trapping between PE Hose and Reel.

No part of the body should be between the hose and the reel when the machine is in operation. Unauthorised people should have o access to the machine.

7.3 Risk of the Machine Overturning

If the machine is transported on land having a gradient higher than 6° there are high risks of the machine overturning.

7.4 Risk of Sudden rotation of the Reel Turret.

During the positioning of the machine if on a slope, there is a the risk of sudden and uncontrolled rotation of the reel turret. To operate in these conditions the machine must be equipped with a hydraulic or mechanical device for turret turning (kit upon request) or the rotation operation must be carried out by two persons in order to control the turret turning.

7.5 Risk of Machine Overturning during the Rotation of the Reel Frame

If the machine is equippec a spray boom instead of rain gun troll4ey, the PE hose must be filled with water before lifting the spray boom with the special trailer and before turning the turret in order to make the machine stable.

7.6 Risk of Flashover

If the water jet of the rain gun comes accidentally in contact with electric power lines there is hi8gh risk of electrical discharges to the ground through the machine structure Make sure that in the rain gun radius of action there are no electric power lines.

7.7 Risk of Violent Impact with the Water Jet

When the machine starts the water comes out suddenly and violently from the nozzle. Do not stay in front or near the rain gun.

7.8 Risk of Violent Impact with the Machine End Caps

Never remove the end caps from the machine without being sure that there is no pressure in the machine. If the caps are removed when the machine is under pressure there is high risk that they will be ejected violently.

7.9 Risk of violent Impact with the Hydraulic Circuit Oil

Never use the hydraulic circuit without having first exhausted the oil pressure through the had pump or through the spool valve levers.

7.10 Danger of Accident on a Public Road

Position the rain gun trolley so that the water jet never goes onto areas thus causing dangers to persons or property.

8.0 Use of the Shut-Off Valve (optional)

FIG 1

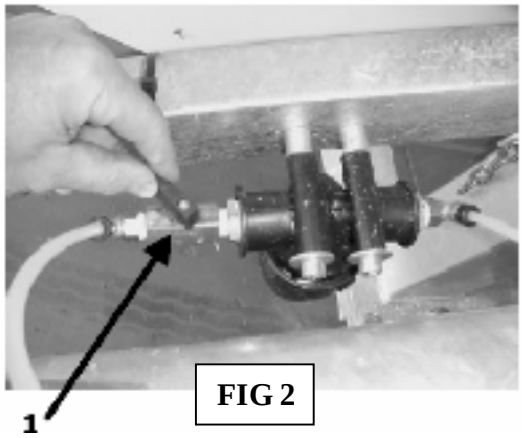


FIG 2

If the machine is equipped with shut-off valve, proceed as follows:

1. Check that the butterfly valve is completely open by pulling the special lever (fig 1 pos 1).
2. Check that the speed adjusting valve is completely closed (fig 2 pos 1)
3. Increase the machine pressure as for standard irrigation.

8.1 Operation Sequence for the Shut-off Valve Adjusting

1. Simulate the limit stop by pulling the special lever.
2. Open the speed adjusting valve till the desired shutting speed is reached.

When using machines with water inlet shut-off valves, the pumping systems must be provided with a cut off system at high pressure. If the pumping systems do not stop an excessive pressure in the machine and in the pipework could be generated.

8.2 Repositioning of the Machine

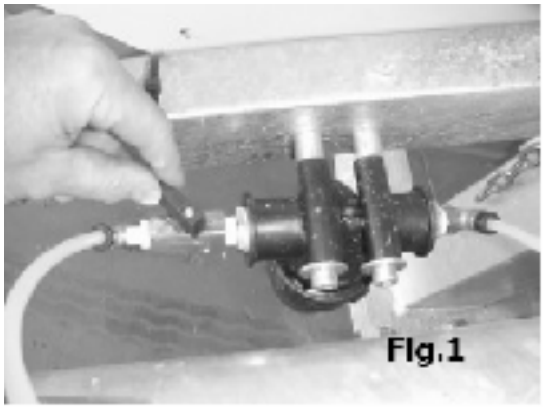
When the machine has stopped irrigating and the valve is closed, the pipework remains under pressure and in order to disconnect the machine from the pipework proceed as follows:

1. Shut the hydrant supply valve off.
2. Open the breather valve manually.
3. Open the butterfly valve by the special knob in order to eliminate the remaining pressure.
4. Then close the breather valve, disconnect the machine connection hose and proceed with moving the machine.

8.3 Maintenance

1. Periodically clean the filter (fig 1)
2. At the end of the season unscrew and empty the filter
3. Check that the butterfly valve is open and drain the water from the piston.

8.4 Caution



If during the operation the valve on the filter is altered with (fig 1), the piston that controls the butterfly valve could shut off violently and generate water hammer or could fail to shut the valve.

9.0 Use of the Discharge Valve (optional)

If the machine is equipped with a discharge valve, before starting operation proceed as follows:

1. Take off the plug on the outlet connector of the valve (fig 1).

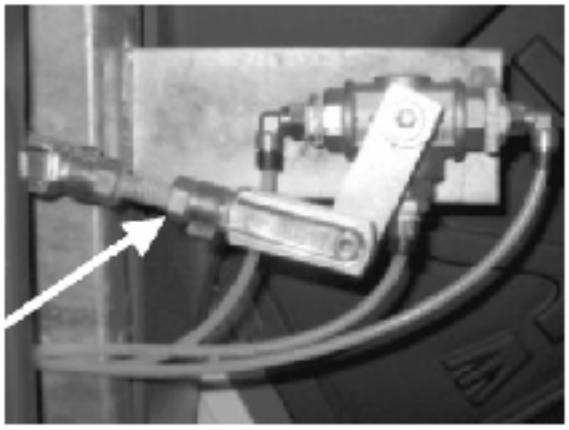
FIG. 1

2. Set the machine in operation.
3. Check that at the end of the stroke, the valve is opened by the 3 way valve that drives it.

To check if the 3-way valve opens the discharge valve:

1. Push the manual disengaging rod manually and simulate the end of the working phase.
2. If the valve does not open, adjust the stroke of the control valve lever using the adjusting screw (fig 2).

(FIG. 2)



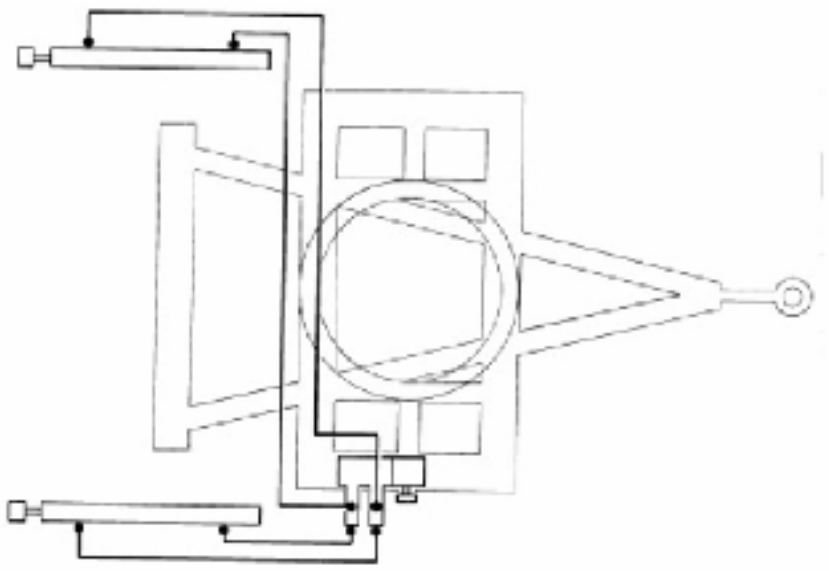
Attention:
When the discharge valve is opened water comes out suddenly and violently. Do not stay near the outlet pipe**.**

DANGER:

If the machine is located near a road or a work site, make sure that the water ejected from discharge valve cannot reach persons or places of transit.

In order to avoid this kind of danger it is necessary to connect a hose to the outlet connector of the discharge valve in order to drain the water to the ground without danger.

10. Hydraulic System Diagram



11. Hydraulic System Diagram with Jack Connections to the Tractor