

FJ-AGRO APS

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User manual



FJ irrigation machine



Model

FJ 600, FJ 750

FJ 900, FJ 950

Version f

Pro-tek 75 431593

FJ-AGRO ApS

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1. Preface

Before the irrigation machine can be used it is important that this user manual is read thoroughly. The intention is to achieve a sufficient knowledge to composition and operation, like a correct maintenance make an essential part in this user manual.

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We thank you for choosing a machine solution from FJ-AGRO ApS. We are convinced that the irrigation machine will be of great usefulness. We will be available with advising about machine solutions of use for agriculturalists.

The user manual is valid for:

Irrigation machine FJ 600, FJ 750, FJ 900 and FJ 950

The four models are identical except for the wheel gauge, drum size and center bearing on the chassis. This means that some illustrations and photos can vary compared to the delivered model. The used photos are by model FJ 750. Furthermore can there occur models shown with extra equipment.

2. Conditions

This user manual is a part of the irrigation machine and has to be available for everybody that uses the irrigation machine.

Before usage you have to be familiar with the user manuals content and especially with the part concerning work safety.

FJ-AGRO ApS do not take on any responsibility for the irrigation machines usage for purposes not approved by FJ-AGRO ApS.

FJ-AGRO ApS exempt from all responsibility regarding compensation to the sufferer, who has disregarded the safety provisions as mentioned in this user manual. Random changes of the products construction excludes FJ-AGRO ApS' responsibility for caused damages.

FJ-AGRO ApS cannot be held responsible for errors in the user manual or by direct or indirect loss as a result of delivery, presentation or use of this material.

The content must not be photocopied, reproduced or translated, either whole or partly, without preceding written approval from FJ-AGRO ApS.

If the content of the present technical documentation unintelligible or unclear for the user you should approach FJ-AGRO ApS. Wrong usage can lead to the risk of squeezing persons and animals or other serious health injuries.

The machine is to be used as an irrigation machine only. Alteration or other exploitation of the irrigation machine for other purposes happens without responsibility for the manufacturer. Essential alterations usually demands a new CE-label.

3. Guarantee provisions

The irrigation machines FJ 600, FJ 750, FJ 900 and FJ 950 meets the requirements from the Machinedirective 2006/42/EF, which in Denmark has been completed by the Factories Inspectorate notice nr. 693 of 10th June 2013.

To meet the requirements from the Machinedirective there is placed a CE-label on the irrigation machine and the machine is attended by a agreement declaration which is demanded in the directives enclosure II A.

The agreement declaration is shown in part 5.

FJ-AGRO ApS exempt from gurantee duties on damages that is done by missing maintenance or wrong usage. Guarantee provisions do not apply to natural toil.

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4. Usage and function

4.1 Usage:

The irrigation machine is constructed specially for the irrigation of field crops with ground water. The irrigation process runs automatically because the irrigation machine is constructed with build in stop function and therefore fit for working without supervision. The machine will naturally demand ordinary attention in the form of regular supervision to see if all runs appropriate.

When the irrigation machine is in function the crops are irrigated. The irrigation machine runs because of a water turbine by the water there are pumped forward and is used to irrigate.

The irrigated area is supplied with a homogenous water quantity. They have the opportunity to adjust the water quantity by area by changing the irrigation machines enterprise speed.

The irrigation machine demands a pump station – a hydrant – with a hose that can be hitched together with the irrigation machines hose. (The pump station/hydrant need a pressure switch fit on).

A tractor is demanded as well – with lift – which can transport the irrigation machine to and from the field and which can pull the machine from the hydrant to the irrigated areas starting point.





4.2 Expected abnormal usage:

It is emphasized that use of other fluids than ground water entirely is done under the users own responsibility.

4.3 Wrong usage:



Unauthorized is banned access when the irrigation machine is running.

Under transport stay on the irrigation machine is strictly forbidden.

The drum should always be on brake before the irrigation machine can be transported.

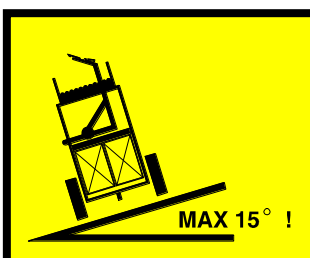
Use only the enclosed lifting equipment when laying out the hose.

Be attentive on the rear aimed wagtail when the tractor is connected to the machines lifting equipment.

Clampdown by belt drive to the drum can only be completed with stopped water turbine.

Outlaying of the irrigation machine with oblique side slope over 15° is not permitted.

It is dangerous to climb the irrigation machine when it is running. Be attentive that the machines work rhythm can shift because of the computers calculations of the irrigation needs on the chosen spot on the field.



Setting of the irrigation canon is to happen always with a stopped irrigation machine and turned off pump station (hydrant).

Setting and adjusting of the irrigation machines few parts is to always happen with a stopped machine and turned off pump station/hydrant. Dismantle the hose or lock the hydrant to secure from unauthorized to start the facility when work is done in the irrigation machines dangerous machine parts.

Keep sufficient supervision with the irrigation machines operation.

Keep domestic animals from the irrigation machine. The safety applies to horses and livestock who have a tendency to become familiar with field tools and therefore risk being squeezed or run down.



Never irrigate close to high voltage lines (could be life threatening)

In thunderstorms staying near the irrigation machine can be life threatening

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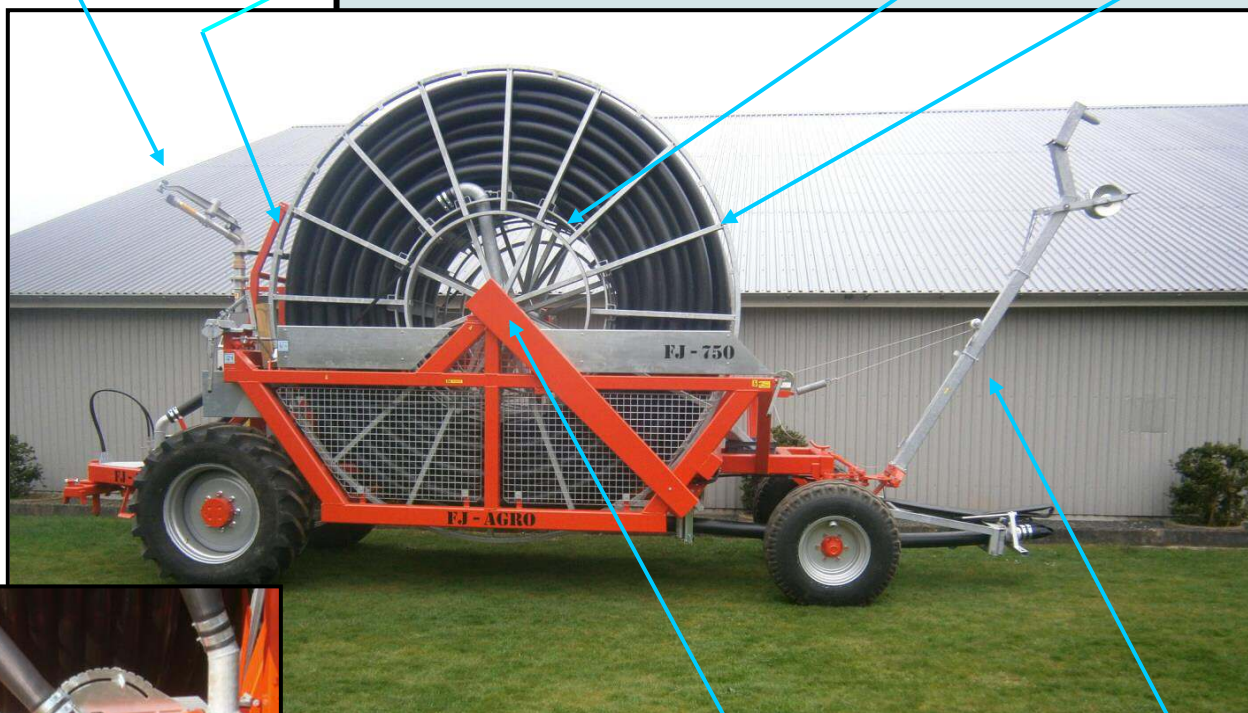
4.4 Function:

Water canon.

Shackle for wild hose

Drum belt drive

Drum.



Water turbine.

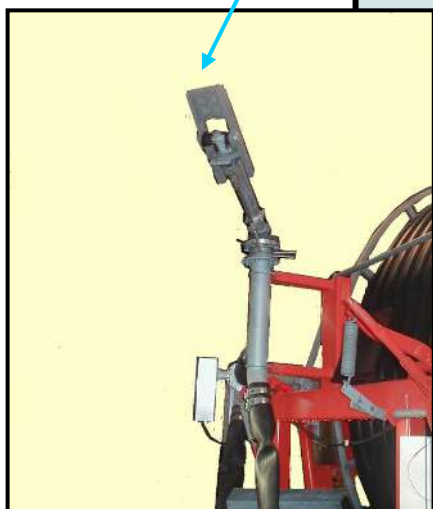
Gear feature for hose control

Wag tail.

Water canon.

Wag tail.

Wire system for stop function



Slide plate

Nose wheel

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Extra equipment:
Solar panel for Program Regn 10
EI-control on drumbrake
EI-control on stopvalve



Hoses for hydraulic brake and hydraulic control cylinder (extra)

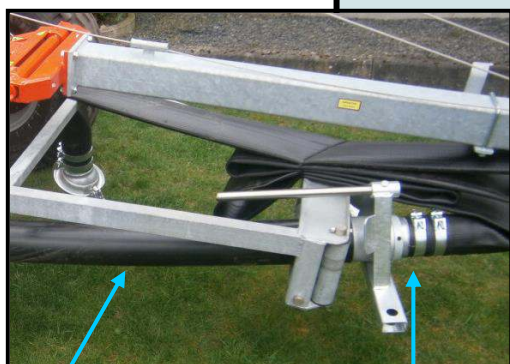
Automatic ei-control on the water turbine.

Selflocking winch for wag tail



The computer constantly controls water quantity and the irrigation machines operation speed. A wheel sensor in one of the front wheels registers the speed. From the computers parameters or preprogrammed water quantities and breaks the speed is transferred to the watering turbine via a link arm from the ei-motor.

Wheel sensor.



Hard hose

Hoselink on soft hose



Wiresystem for stopfunction / emergency stop.

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Worm shaft for hose control

EI-motor for machine stop (extra)

Hydraulic drum brake (extra)

Manually machine stop

Manual control of water turbine

Automatisk control of water turbine.

3 gears.

Clutch for rear axle assembly operation.

High / low gear

Handwheel for changing against bad gear engage in the gear box.

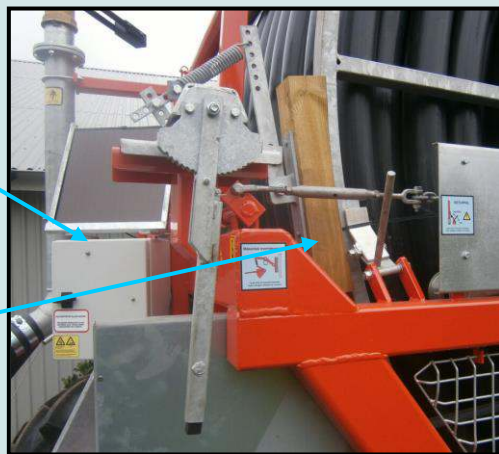
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Electric drum brake in connection to Program Regn 10 (extra)

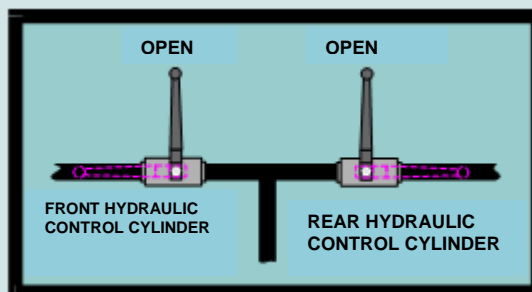
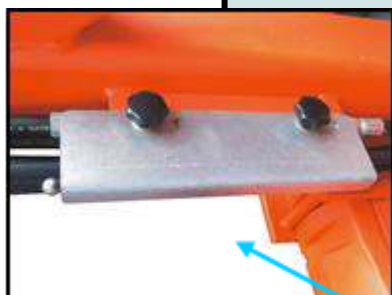
Mechanical drum brake



Program Regn 10 with solar panel (electric control of water quantity) (extra)

Controlpanel for Program Regn 10

12 volt battery



Reverser under locking plate for hydraulic control



Hydraulic control (extra)



Manual control with locking pawl mounted

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EU- CONFORMITY

Manufacturer: FJ-AGRO ApS :
 Vandmosevej 6
 7250 Hejnsvig
 Denmark
 Ph: +45 75 33 52 70

Hereby declares, that machine:



Type:

FJ Irrigation machine

- FJ 600 FJ 750
 FJ 900 FJ 950

Manuf. no.

Year:

Is manufactured in compliance with:

- The provisions of Council Directive of 17 May 2008 on the approximation of laws relating to machinery (2006/42 / EC as amended) with special reference to Annex II, A and Annex I, the essential health and safety requirements for construction and manufacture of machines*
- The provisions of Council Directive of 15 December 2004 to approximate the laws of Member States relating to electromagnetic compatibility (2004/108 / EC as amended).*

Is manufactured in compliance with following **national/international standards and technical specifications:**

DS/EN ISO 12100:2010 *Safety of machinery - General principles for design - Risk assessment and risk reduction.*
 DS/EN ISO 13857:2008 *Safety of machinery - Safety distances to prevent the hands, arms, legs and feet can reach into the danger areas.*
 DS/EN 349 + A1:2010 *Safety of machinery - Minimum distances to prevent injury*

Nr. 693 Executive Order of 10 June 2013.
 Order on the arrangement of technical aids

Finn Jørgensen

Date:

(Signature)

6. Handling and lift

Crane lift is probably a rare manoeuvre but that does not exclude those situations where the machine has to be lifted for example because of shipping (export). Lifting is to happen with safe hooking in the frames four corners. The water hose has to be emptied for water.



Crane lifting can only be done by people with an approved certificate and thereby knowledge on handling lifting with crane legally and properly.

Possible water in the hoses has to be emptied, as the extra weight will spoil the machine when lifted.

Lift if possible only 0,5m over country and *never* over humans or animals.

Hooking and lifting equipment has to be made to lift the burden.

The weight of the irrigation machine is informed in the section "Technical data".

Truck lifting is not suitable because of the irrigations machines size and is probably unnecessary because the machine is mobile and can be towed directly in the wagon frames front or rear.

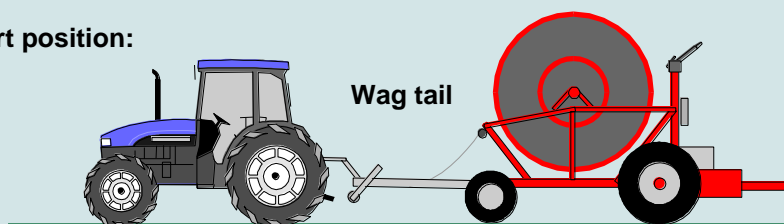
Before the transport/towing the transport direction is examined for persons or objects that could cause accidents.

7. Transport

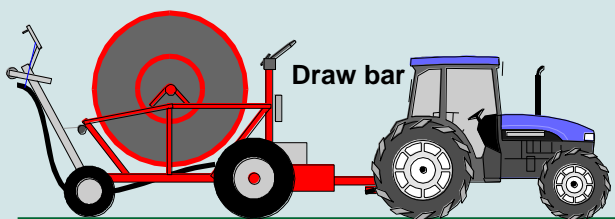
If the irrigation machine is delivered by FJ-AGRO ApS a reviewing of the machines functions and use properties is made.

The irrigation machine is transported to and from the field by a tractor. For the transport the irrigation machines wag tail or drawbar is used.

Transport position:



Field drive:



- The drawbar is secured with a tractor split in the spigot.



- Remember the following when transporting the irrigation machine:

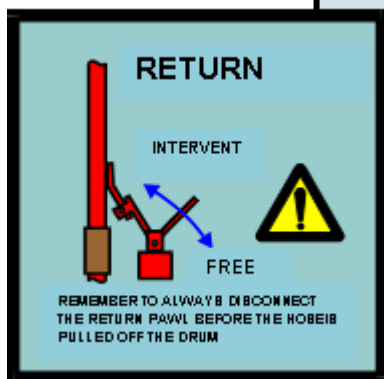


Hydraulic control (extra) and locking pawl mounted.

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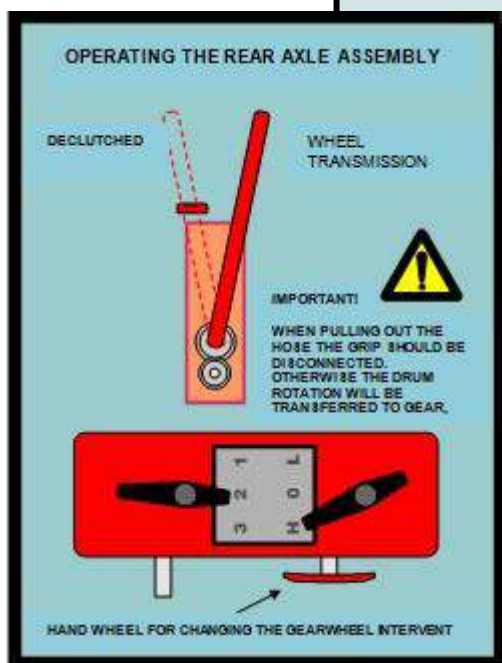
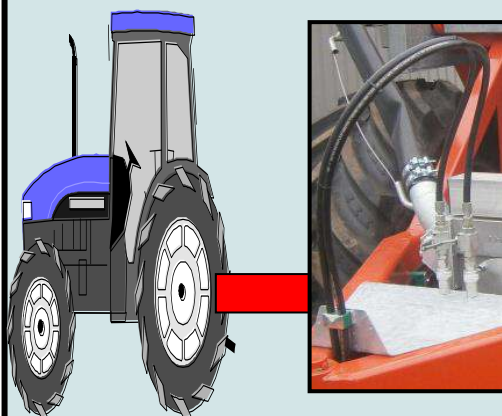
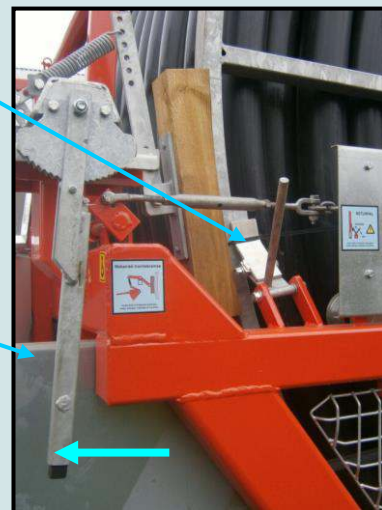
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- The return pawl has to be in measure



The pawl is a safety from a wild drum, if the belt drive break or the like.

- The hose drum has to be on brake



The tractors hydraulic facility has to be connected the irrigation machines hydraulic brake system. Hereby is the automatic brake function overtaken to a permanent buckle pressure on the drum (extra)



- The rear axle assemblies clutch hold has to be in disclutched position.

To avoid the drum transferring return power via the belt drive to the gear box under the transport it is important that the drum operation declutches. The handle is to be turned upwards.



Under transport on public road the transcripts in the Road Traffic Act is valid. The following conditions have to be kept:

- *The hose has to be emptied for water.*
- *The maximum speed is 30km/t*
- *A tractor triangle is to be placed in the back of the irrigation machine.*
- *Rearlights and reflexes is required*
- *Parking light, turning light behind and stop lights is required*



In procession of vehicles with not-registered outboard tool, the outboard tools weight cannot be more than two times the pulling vehicles actual total weight unless the outboard tool is supplied with brakes.

It is the users responsibility to comply with The Road Traffic Acts laws.



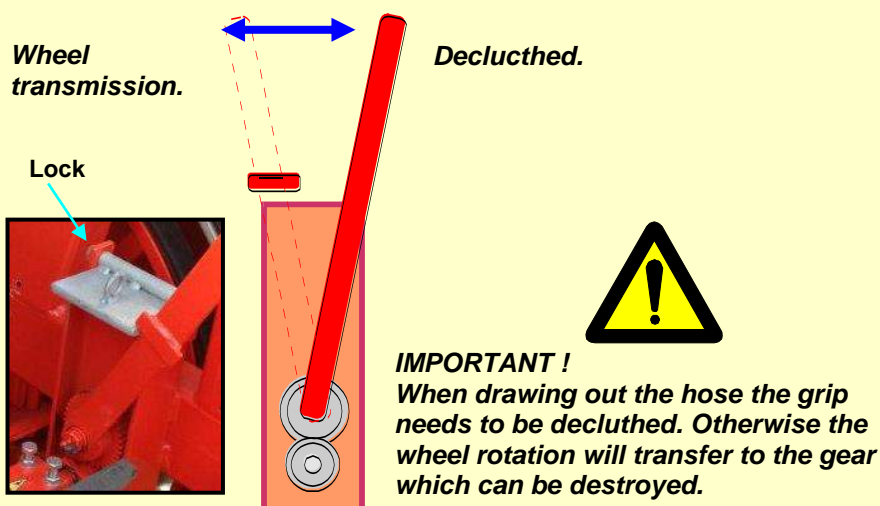
8. Start / Setting up

- Before connecting the hydrant you have to complete the settings that are demanded for the day's irrigation. The irrigation machine has 8 speed settings which have to be set from the watering need the field has. Change of the run speed has to, because of safety reasons, be completed before water pressure is connected.

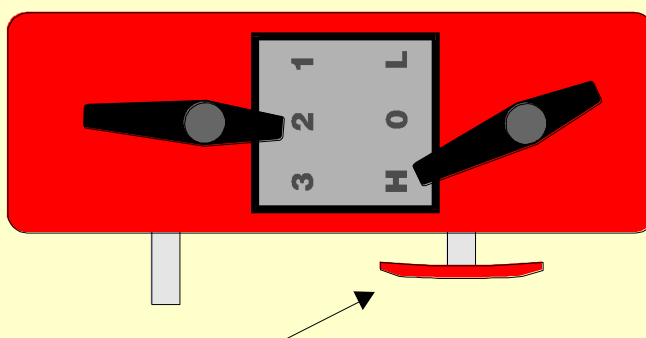


HANDLING OF REAR AXLE ASSEMBLY

Do not handle this place before the irrigation machine has stopped completely and a possible driver of the possible tractor is oriented of your action.



- Setting of speed often depends on experience or by a fundamental assessment based on the tables, which is shown later in this manual. If the gear wheels will not intervene you can turn the front hand wheel until it is possible.

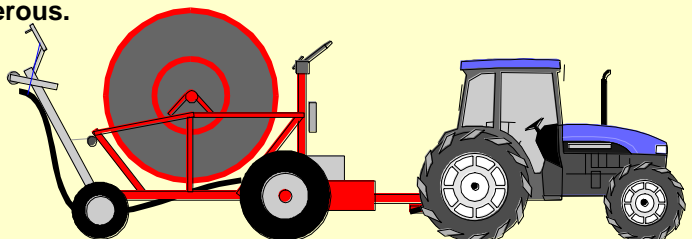


Hand wheel for changing the gear wheels intervention

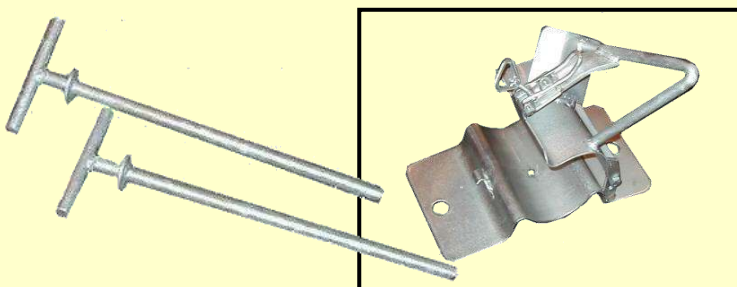
- The irrigation machine is driven in transport position on the field.



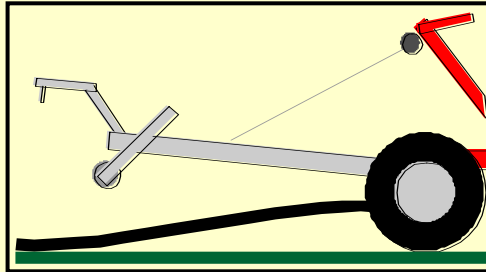
- Pre-set the water canon (see user manual for water canon). Never set the water canon when the machine is in use. The swing happens with great force and the water beam is directly dangerous.



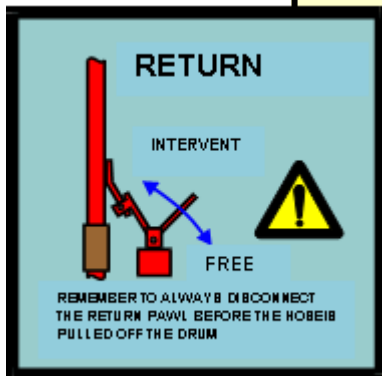
- By the help of a lift beam the tractor is connected in the rear grip arrangement.
- Turn up to the crops. The machines free hose bullock is lowered in the winch and connected with the hose.



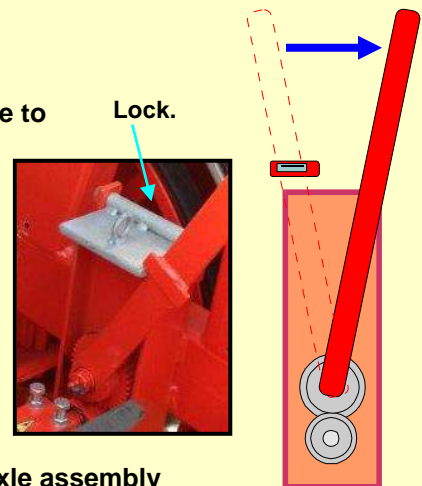
- The stop plate is mounted on the irrigation machines drawn out hose where you wish the irrigation machine should stop. (Extra) Remember to anchor the stop plate properly in the ground so the irrigation machine is not pulling the hydrant.



- The wag tails nose wheel is raised over the country (ca. 0,5m) by the self-locking winch.



- The drums return pawl is declutched
- Inspect that the belt drive to the drum operation is declutched.



- Put the rear axle assembly in neutral (declutched)

Hereby you have declutched the drums rotation and gear.

- Fasten the hose peg to the ground spikes so the hose do not pull the hydrant.

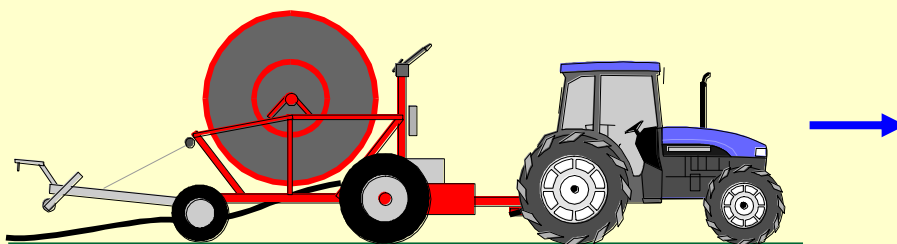


- Before the hose is pulled out the handle is pulled slightly to brake the drum to avoid it running wild while darling out the hose. If there is mounted a hydraulic brake this can be done from the cockpit via a hydraulic grib

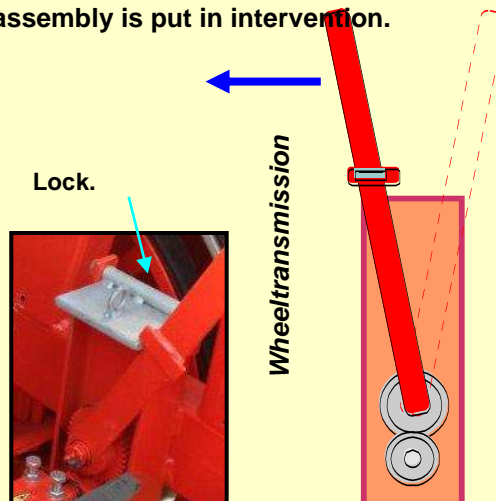
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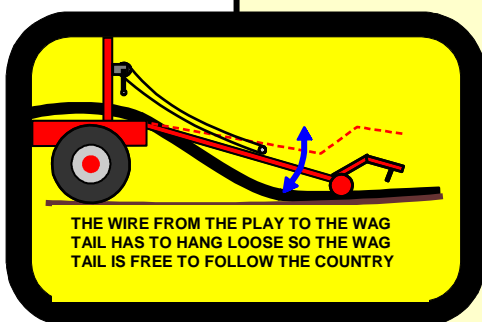
- Afterwards the tractor pulls the irrigation machine out to the water spots beginning. The water filled hose on the drum is drawn out at the same time by the drum.



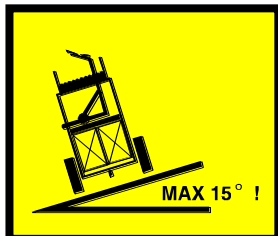
- The tractor is disconnected
- Drum pull and rear axle assembly is put in intervention.



- The wag tails nose wheel is lowered down on the hose and makes sure the wire hangs loose.



The wire from the spool to the wag tail has to hang loose so the nose wheel has contact to the hose during the entire field irrigation.



Remember:

The irrigation machine can only incline 15° before falling.

- The run speed is pre-set in the control locker (see user manual for Program Regn 10)

Program Regn 10 (extra).

Solar panel for Program Regn 10.



Avoid smoking or use of open fire. The battery is charged by solar panels and when over charged leak gas.

To protect the solar panels against ochre covering and dirt you can with advantage cover up the sun surface with cling film. The protecting film is easy to change and the good charge effect is kept.



- Set the pressure switch on the pump station.
- Be vigilant of the max. allowable pressure for your facility.
- Max. 6 bar w/ 20° C.

- Check that there are no people or animals in the irrigation machines work territory.
- Be certain that the water beam do not face high voltage lines, roads, buildings or other objects.
- Start the pump station / hydrant.
- The irrigation machines functions are now activated automatically and the crops are being irrigated.
- When the irrigation machines nose wheel reaches the anchored stop plate on the hose, the stop wire system is activated, where the irrigation machine will stop og the irrigation process stop.
- When the stop wire system is activated, there is closed for the water to the canon. This causes an over pressure in the hose which activates the pump stations/hydrants pressure switch



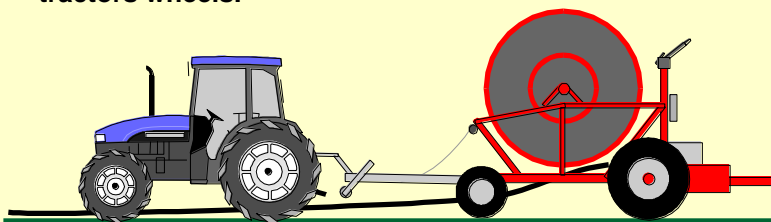
9. Hose roll up with tractor

If the irrigation machine is cut off before the end stop is reached, the drawn out hose draws in on the machine again. This is done by neutral the gear. Now you can run the last piece of hose back on the irrigation machine.

- Stop pump station.
- Rear axle assembly in neutral.



- The tractor is connected to the wag tail where you afterwards drive with the hose laying straight in the middle between the tractors wheels.



Now the wheels can transfer the rotation through the gearbox to the drum and the hose can be rolled up on the machine.

- Eventual new drawing out is completed like explained in the previous section.

The irrigation machines max. work pressure (read on the machines manometer): 6 bar w/ 20°C.





10. Empirical warnings

- The handling of the irrigation machine is to only be completed by trained persons over 18 years, who has knowledge of the irrigation machines functions. Be vigilant of the part that concerns work safety.
- Safety split for pull hook/lift hook is to be mounted before lifting/pulling.
- Unauthorized is not permitted access when the irrigation machine is running.
- Under transport staying on the machine is strictly prohibited.
- The drum should always be braked before transport.
- Never set the water canon when it is operating.
- Drawing out the irrigation machine with a incline over 15° is prohibited.
- Never set the drums hose when in operation.
- Keep an eye on the irrigation machine.
- Use only the irrigation machines lift hook when drawing out the hose.
- Staying on the irrigation machine (e.g. when drawing out the hose) is strictly prohibited.
- Intervention by chain drive can only be done with stopped water turbine.
- Notice the rear wag tail when the tractor is connected to the machines lift hook.
- The stop wire system should be activated before repairs must be done.
- All screens should be mounted correctly and be intact.
- Dismount the hose by the hydrant before repairs are done.
- Never water close to high voltage line (could be lifethreatening)
- Never water in thunderstorms (could be lifethreatening)

Use of personal protection is the owners responsibility. It is recommended that protection as safety shoes and gloves is available for all, who handles the irrigation machine.



11. Settings

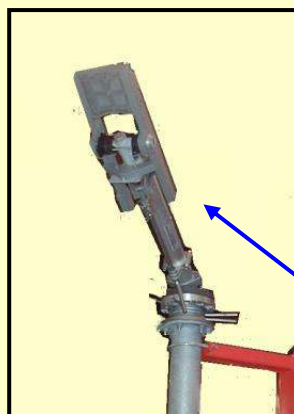
The machine speed can be adjusted/set by changing the strap position on the turbine belt drive.

(Notice: The turbine has to be interrupted under this setting).

The speed of the drive is fine-tuned from the control locker.

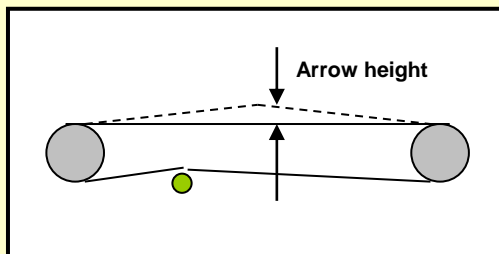
(see user manual for Program Regn 10)(extra)

The belt tightness generally minds itself but with time the belt can get loose. This is changed by adjusting the turnbuckles on the belts. It is very important that the belts are tightened equally.



The water canon has many settings. Here is referred to the enclosed manual from the supplier. In some cases the machine can be mounted another manufacture than the shown model.

In the back in this manual rainfall tables have been enclosed that could be useful in connection to the calculation of the water canon's productivity.



The chains tightness down to the hose control is adjusted in the shown plate.

Check for missing lubrication of the chain itself.

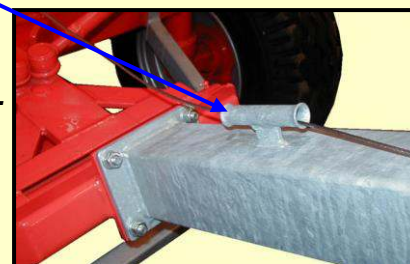
The chain screen *is to be* mounted while operating.

12. Directions on maintenance

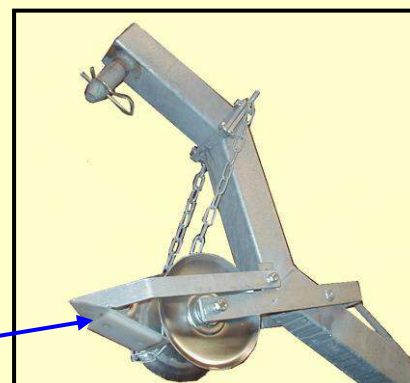
After approx. 75 operation hours nuts and bolts get tightened again. Among these specially wire connections, wheel nuts and hose connections.

- Wire connections are checked often to see if it is worn and if there is thread defect.

It is important that the machine stops when it meets the end stop on the hose. Therefore the wire connection to the stop valve needs to be full functioning.



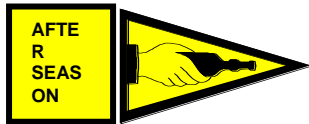
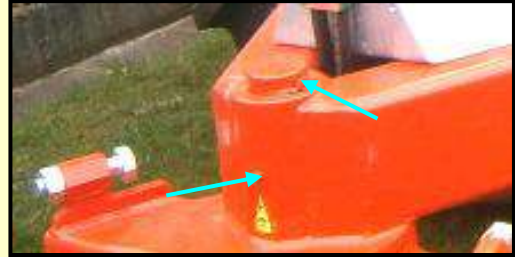
If the nose wheel runs off the straw divider will go down into the ground which means the machine will stop.



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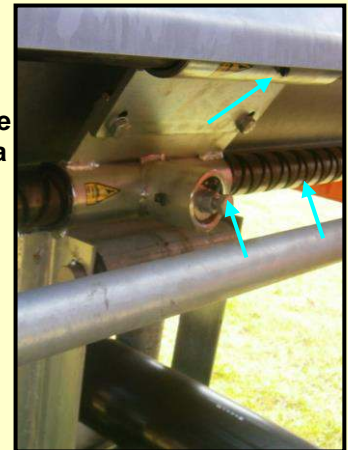
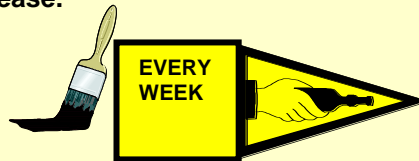
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- The front wheels bearing condition is controlled for play 1 time each year.
- Steering gear connections are controlled for play 1 time each year.

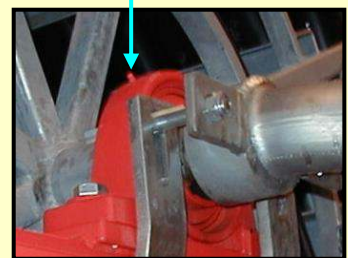


- Steering gear connections gets pressure smeared often and as needed with graphite holding water resistant grease. *This smearing is recommended to be done after ended irrigation season, because the water will be pressed out before the frost will come*

The vessel axle for hose control and vesselhouse is smeared at least once a week in the irrigation season with a graphite holding water resistant grease.



- The bearings at the drum axle are pressure smeared once a year with graphite holding water resistant grease. The grease must not be pressed too hard into it because the sealings can be damaged.



- The chains are smeared with graphite holding water resistant grease at regular intervals through the season and by the end of the season.

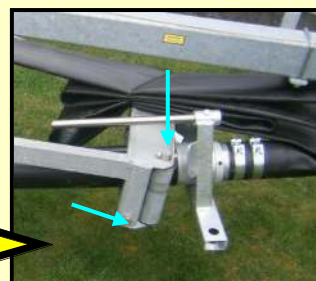


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- All bushings are smeared often and as needed.
- All bearings are smeared at the end of the season.



- The water turbine demands no special maintenance.



- The water canon is maintained according to the directions from the supplier. The manual to this comes with the irrigation machine.



Level plug.

Drawing out plug.

Turn wheel until the plug turns downwards for drawing out



- The rear axle assembly is checked for oil after each season and is filled up as needed. Here a 80/90 gear oil is used in a good quality. The capacity is 8,0L.

The oil is drawn off into waste trays and is disposed off at approved municipal recipient stations.

- The gear is checked for oil after the irrigation season and is filled up as needed. Used is:
- An 80/90 gear oli in a good quality.
- Capacity is 8,5 L.

The oil is drawn off into waste trays and is disposed off at approved municipal recipient stations.

Ventilation and upfilling plug.



Plug for oil level.

- When the oil in the gears have been stagnant (approx. 2 days) it is appropriate to release the gears bottom plug so that eventual condensation can be drawn off. The gear is filled up with 80/90 gear oil to the upper level plug on the side.
- The drawn out oil is stored/drawn out environmentally correct – avoid contact with oil.

- When the machines have solar panels it is appropriate to cover op the solar panel with cling film.

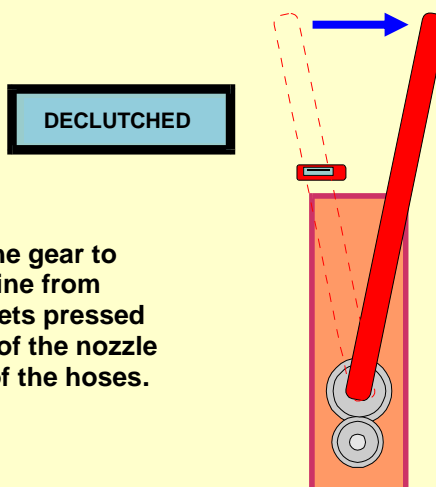
This is easily removed and prevents impurities and ochre covering on the solar panels.



13. Winter preparation

Because of the winters cold temperatures with freezing the irrigation machine **MUST** be emptied for water.

- The irrigation machines hose is emptied for water by leading compressed air from a compressor directly into the hose. Hereby the water gets pressed out of the water canon.



- Remember to disclutch the gear to avoid the irrigation machine from moving when the water gets pressed out. When air comes out of the nozzle the water should be out of the hoses.

- When the irrigation machine is emptied for water the shown tap is opened to empty the whole irrigation machine.



- The tire pressure can be read on the tire itself and is checked before the machine is put away.
- The machine is put away inside a dry and level place.

14. Repairs



Always use benders on a solid bottom if one of the wheels is dismantled. If breakdown happens in the field and where the country is soaked strong foundation plates are used where jack and benders can be placed.

The stop wire system has to be activated before the repairs can be done

Dismount the hose by the hydrant before repairs are done.

Always mount safety screens correctly after ended repair.

Paint damages on the irrigation machine can be repaired with sharpening followed by priming and machine paint.

When the irrigation machine is done it must be disposed of and separated according to municipal decommissioning regulations. Be vigilant to correct dismantling of batteries and drawing out oil from gears and rear axle assembly.

Dismounting the drum

Dismounting of the drum can only be done with lifts in the drums center pipe. The hose has to be emptied for water previously to this by being pulled out by a tractor – as described before in this manual.

Setting of hose control

- Place the drum's hose accession piece between 8 and 9 o'clock (viewed from the machines right side).
- Then place the vessel house in the turning position in the machines right side.
- Mount the chain.

Service

FJ-AGRO ApS` special educated service fitters secures you a correct and careful service of the machine.

Eventual appointment regarding service can be done by calling phone: (+45) 7533 5270

See last section in this manual.

15. Technical data

FJ 600, FJ 750, FJ 900, FJ 950

The irrigation machines speed: 10 - 100 m/time.

Hose dimension PE, 8 bar: 110 mm / 125 mm

Capacity: 25-80 m³/ t

Hose lenght with 110 hose: up to 1400 m

Hose lenght with 125 hose: up to 950 m

Irrigation canon: Twin Komet SR 140 standard
Twin Komet SR 160
Twin Komet SR 202

Dimensions:

Lenght (when wag tail is up): 675 cm
Height: 368 cm
Width: 210 cm
Gauge: 165 / 1800 - 200 cm
Axle distance: 345 cm
Free height over country: 43 cm

Front wheel: 12,5"/80 x 18/12PR
Rear wheel: 12,4"/11 x 32/6PR
Tire pressure: Read on tire.

Noise level: Under 70 dB

15.1 Equipment for FJ irrigation machines

- This table is shown to give a general view of the equipment that can be delivered to FJ 600, FJ 750, FJ 900 and FJ 950 irrigation machines like it shows the same opportunities to our Donslund FJ 1650, Donslund FJ 1800 and Donslund 1800 XL irrigation machines.
- Mounting of Program Regn 10 and hydraulic brake demands approx. 1 weeks work by our excellent blacksmiths. Please call in advance so we can have the parts ready for the alteration.

Udstyr	FJ 600	FJ 750	FJ 900	FJ 950	Donslund	
					1650	1800
Ranger Kanon m/ 3 dyser	X	X	X	X	X	X
Twin 202 Kanon m/ 3 dyser	⊙	⊙	⊙	⊙	⊙	⊙
Stop ved overtryk eller undertryk	X	X	X	X	X	X
Hydraulisk bremse	⊙	⊙	⊙	⊙	⊙	⊙
Fuldstrømskabine	X	X	X	⊙	X	X
100 mm tromleaksel med lejer	⊙	X	X	X	⊙	⊙
Kraftig industribagtøj med differentialer	X	X	X	X	X	X
Selvopstrammende dobbelt remtræk	X	X	X	X	⊙	⊙
Hejs på stjert	X	X	X	X	X	X
Varmegalvaniseret tromle	X	X	X	X	X	X
Sandblæst, grundet og malet	X	X	X	X	X	X
Hydraulisk tvangsstyring af forhjul	⊙	X	X	X	⊙	⊙
Program Regn 10	⊙	⊙	⊙	⊙	⊙	⊙
Solcelle batterioplader	⊙	⊙	⊙	⊙	⊙	⊙
Pressostat	⊙	⊙	⊙	⊙	⊙	⊙
Overvågning	⊙	⊙	⊙	⊙	⊙	⊙
Brede baghjul 480/657R28/136	⊙	⊙	X	X	⊙	⊙

X = Standardudstyr

⊙ = Ekstraudstyr

15.2 Table for rainfall calculations

Approx. water usage

Diameter nozzle mm. inches	Nozzle pressure bar	Water usage m3/h	Throw lenght meters
18 0,71"	3	21,6	35
	4	24,9	40
	5	27,9	43
	6	30,5	46
20 0,79"	3	25,6	37
	4	30,7	42
	5	34,4	46
	6	37,6	49
22 0,87"	3	32,2	39
	4	37,2	44
	5	41,6	49
	6	45,5	52
24 0,94"	3	38,3	41
	4	44,3	46
	5	49,5	51
	6	54,2	54
26 1,02"	3	45,0	43
	4	51,9	48
	5	58,1	53
	6	63,6	57
28 1.10"	3	52,2	44
	4	60,2	50
	5	67,3	55
	6	73,8	59
30 1.18"	3	59,9	45
	4	69,1	51
	5	77,3	56
	6	84,7	61
32 1,26"	3	68,1	46
	4	78,7	52
	5	88,0	57
	6	96,4	62

Rule of thumb to deciding driving speed:

$$\frac{1 \text{ cm}}{36 \text{ sek.}} = \frac{100 \text{ cm}}{3600 \text{ sek.}}$$

The irrigation machines droven distance is read – in cm – on a placed tape measure after 36 sec. drive.

E.g.: Read 15 cm after 36 sec drive.
Driving speed is approx.. 15m/t.

15.2 Table for rainfall calculations

Approx. rainfall in mm (irrigation width = approx. 65 m)

Water usage m ³ / t	5	10	15	20	25	30	35	40	45	50	55	60
70							30,8	26,9	23,9	21,5	19,6	18,0
64							28,6	25,0	22,2	20,0	18,2	16,7
60				30,8	36,4	23,1	20,5	18,5	16,8	15,4		
55				28,2	24,2	21,2	18,8	16,9	15,4	14,1		
50				30,8	25,6	22,0	19,2	17,1	15,4	14,0	12,8	
45				27,7	23,1	19,8	17,3	15,4	13,8	12,6	11,5	
40			30,8	24,6	20,5	17,6	15,4	13,7	12,3	11,2	10,3	
35			26,9	31,5	17,9	15,4	13,5	12,0	10,8	9,8	9,0	
30		30,8	23,1	18,5	15,4	13,2	11,5	10,3	9,2	8,4	7,7	
25		25,6	19,2	15,4	12,8	11,0	9,6	8,5	7,7	7,0	6,4	
20	30,8	25,5	15,4	13,3	10,3	8,8	7,7	6,8	6,2	5,6	5,1	
15	23,1	15,4	11,5	9,2	7,7	6,6	5,8	5,1	4,6	4,2	3,9	
10	30,8	15,4	10,3	7,7	6,2	5,1	4,4	3,9	3,4	3,1	2,8	2,6
5	15,4	7,7	5,1	3,9	3,1	2,6	2,2	1,9	1,7	1,5	1,4	1,3

15.2 Table for rainfall calculations

Approx. rainfall in mm (irrigation width = approx. 100 m)

Water usage m ³ / t	5	10	15	20	25	30	35	40	45	50	55	60
70		46,7	35,0	28,0	23,3	20,0	17,5	15,6	14,0	12,7	11,7	
64		43,3	32,5	26,0	21,7	18,6	16,3	14,4	13,0	11,8	10,8	
60		40,0	30,0	24,0	20,0	17,1	15,0	13,3	12,0	10,9	10,0	
55		36,7	27,5	22,0	18,3	15,7	13,8	12,2	11,0	10,0	9,2	
50	50,0	33,3	25,0	20,0	16,7	14,3	12,5	11,1	10,0	9,1	8,3	
45	45,0	30,0	22,5	18,0	15,0	12,9	11,3	10,0	9,0	8,2	7,5	
40	40,0	26,7	20,0	16,0	13,3	11,4	10,0	8,9	8,0	7,3	6,7	
35	35,0	23,3	17,5	14,0	11,7	10,0	8,8	7,8	7,0	6,4	5,8	
30	30,0	20,0	15,0	12,0	10,0	8,6	7,5	6,7	6,0	5,5	5,0	
25	50,0	25,0	16,7	12,5	10,0	8,3	7,1	6,3	5,6	5,0	4,5	4,2
20	40,0	20,0	13,3	10,0	8,0	6,7	5,7	5,0	4,4	4,0	3,6	3,3
15	30,0	15,0	10,0	7,5	6,0	5,0	4,3	3,8	3,3	3,0	2,7	2,5
10	20,0	10,0	6,7	5,0	4,0	3,3	2,9	2,5	2,2	2,0	1,8	1,7
5	10,0	5,0	3,3	2,5	2,0	1,7	1,4	1,3	1,1	1,0	0,9	0,8

Driving speed
m/ t

16. Spare parts

In the mentioned below spare part summary on considerably toil parts you can choose the spare part you want changed.

You are asked to give up the type no. and the machine no. which is on the irrigation machine.

Always use original spare parts.

FJ-AGRO APS

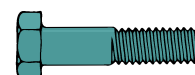
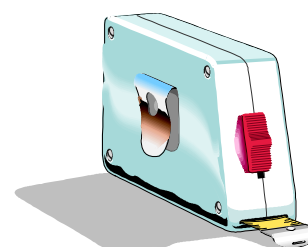
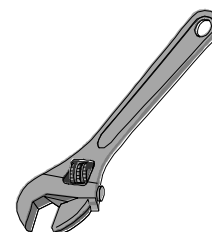
SMEDEMESTEREN APS WWW.FJ-AGRO.DK

Maskine:	FJ-AGRO	Type:	FJ 750	
Maskin nr:	750-D-032	År:	2014	
Ydelse:	30-100 m³/t	Slange:	ø125	

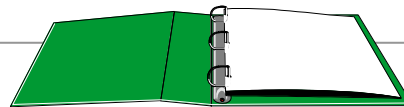
FJ-AGRO APS
FINN JØRGENSEN
VANDMOSEVEJ 6
7250 HEJNSVIG
TELEFON: 0045 75 33 52 70
MAIL: FJ@FJ-AGRO.DK

Important toil parts:

1	Belt for drum pull
2	Tightener roll for drum pull
3	Chain for hose control
4	Chain tightener to chain
5	Effort for hose control
6	V-belt by turbine operation
7	
8	
9	Front wheel: 12,5"/80 x 18/12PR
10	Rear wheel: 12,4"/11 x 32/6PR
11	
12	Stop plate with 2 earth spears
13	
14	Winch for wag tail
15	
16	User manual
17	Complete set signs
18	Sliding piece by steering roll
19	
20	
21	Hydraulic hose for tractor
22	Equalizing container for hydraulic emergency control
23	Hydraulic steering cylinder by emergency control front/ rear
24	
25	Hydraulic brake cylinder
26	
27	Water canon Twin 140
28	Water canon Twin 160
29	Water canon Twin 202
30	
31	Turbine
32	
33	Program Regn 10
34	Wheel censor for Program Regn 10
35	12 V battery
36	Solar panel for Program Regn 10 (extra)
37	Pressure switch for Program Regn 10 (extra)
38	12 volt batteri
39	Surveillance for Program Regn 10 (extra)
40	Linak control of turbine (extra)
41	Linak control of pressure valve (extra)



17. Notes



18. Dealer and service



Dealer stamp: