

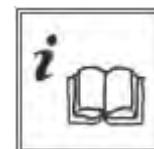
AFFIRMATION OF COMPLIANCE

Manufacturer's name: FRÖSÖ TRÄDGÅRD AB
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We assure that the HIWER machine meets all the requirements of the following standards and regulative documents.

The Machine Directive (89/392 EEC)
 Amendment (91/368/EEC)
 Amendment (93/44/EEC)
 Amendment (93/68/EEC)
 Standard EN 292-1
 EN 292-2

**MANUAL -09**

**PLEASE READ THE INSTRUCTIONS
BEFORE USE**

**PATENT NR:
PCT/SE98/01022**

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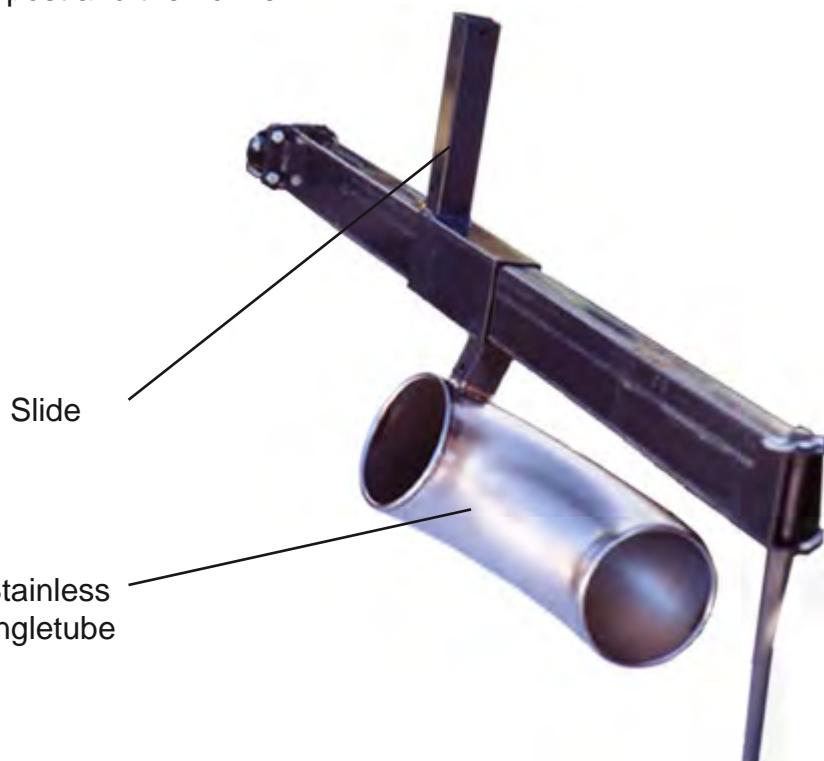
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TECHNICAL INFORMATION

Weight of HIWER	200 kg
Weight of one reel	
Empty	41 kg
With dry fleece	250 kg
With moist fleece	500 kg
With polytene	400 kg
Oilmotor	
Size	400 cc
Max pressure (peak)	180 bar
Max pressure (intermettent)	175 bar
Flow	400 cc/round
Hydraulic piston	
Hose length	1100 mm
Piston rods diameter	20 mm

DEPLOYMENT OF ROWCOVERS

1. Move the stainless angle tube to the bottom of the slider (6).
2. Open the oilvalve in the tractor or remove the pinbolt on the rotating shaft.
3. Angle a metal post in ground.
4. Draw the material backwards through the tube and turn it around the metal post and then drive.



 Do not drive to fast. The driver must all the time have control and check if something unforeseen happens that can damage the material. When the reel turns to be empty it spins very quickly and the driver must slow down.

PRODUCT INFORMATION

HIWER is designed to pick up fleece and polythene from fields. HIWER is also designed to solve the problems with transport, storage and deployment of the material. Non reusable rowcover material can also be handled in a proper way. HIWER can wind up all kind of plastic material from 20 meters wide sheets down to small stripes even when it is windy and rainy.

DIRT, SANDBAGS OR OTHER KIND OF WEIGHTS USED FOR KEEPING THE ROWCOVER IN PLACE MUST BE REMOVED BEFORE USING HIWER.

HIWER demands two double powered outlets for hydraulic oil on the tractor used.

The tractor must also fulfil the safety rules demanded by law.

MAIN RISKS AND SAFETY PRECAUTIONS

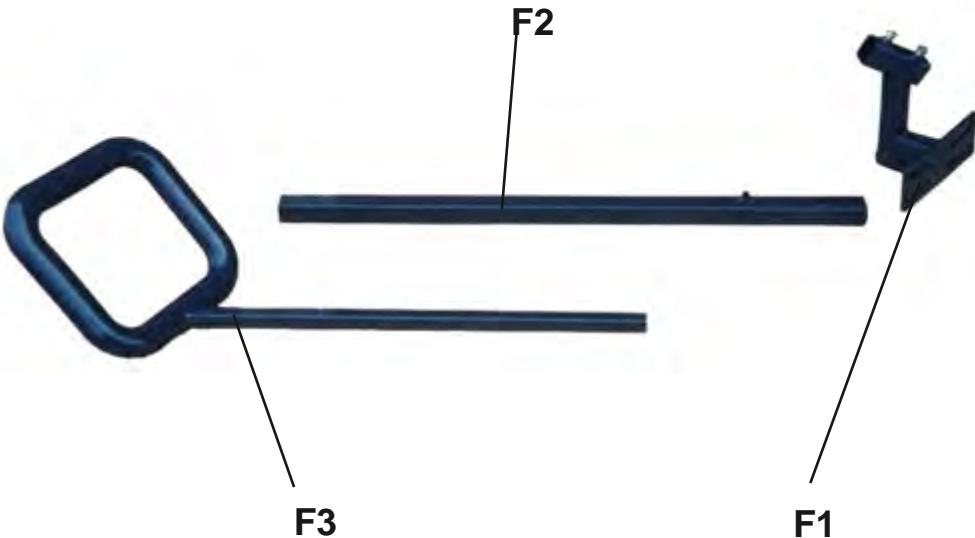


1. A reel full of rowcover is round and heavy and can easily run away. Be sure that the reels are secured.
2. No person is allowed to be closer than 10 meters when HIWER is working.
3. When the driver leaves the tractor to serve the HIWER machine, the motor must be shut off and the parkingbrake must be on.

ASSEMBLY OF THE FRONT CATCHER

The front catcher consists of three pieces.

- F1. Attachment to the tractor
- F2. Prolonging tube
- F3. Catcher



The front catcher makes the tractor wider than normal.

STORAGE OF THE MATERIAL

In the cold climate in Sweden it is common with damages from rodents when storing in buildings. Therefore many farmers prefer to store outdoors, close to the fields. You have to find out what is best for your conditions. We make no recommendations.
Big silage bags fits the reels.
The measures are 2 900 mm x 3 400 mm.
Can be ordered from AB Rani Plast oy, 68700 Terjärv, Finland.



Reels stored directly on the ground will contain ice at the bottom in the spring and are difficult to rewind.
Store on pallets or turn the reels half around some weeks before using them.

PICKING UP ROWCOVERS

1. When it is windy.

HIWER can be used when it is quite windy. There is one restriction in that situation. Do not pick up with the wind coming from the front. That is very heavy. Back wind or side wind causes no problem.

2. When it is raining.

The collecting and picking up is no problem. The difference is that the reels will be very heavy (500 kg), and you should be more careful when transporting and leaving reels on the storage place.

3. When the reel is full with material.

The power of the oil motor is carefully chosen. It can not be to strong nor to weak though the diameter of the reels vary from 60 mm up to 1500 mm. In the beginning it is very easy for the oil motor to spin the reel and it should go quickly. When the reel is beginning to be filled up, the oil motor must run much slower but be very strong. In other words: When the reel becomes full the power of the oil motor is just on the edge to be sufficient. If you have an old tractor with a less effective oil pump, you might be forced to renew it.

4. The end and the beginning of the row cover sheets

Always tie the ends around one spoke of the reel. That must be done on the back end of the reel, not the end facing the tractor.



Do not drive to fast when picking up.
Whiplash can occur that damages the material.
If the reel spins faster than the movement of the tractor causing increased friction in the 90° tube angle, burns to the material could occur. If experiencing burns, increase travelling speed of tractor or decrease reel speed.

ASSEMBLY OF FRONT CATCHER

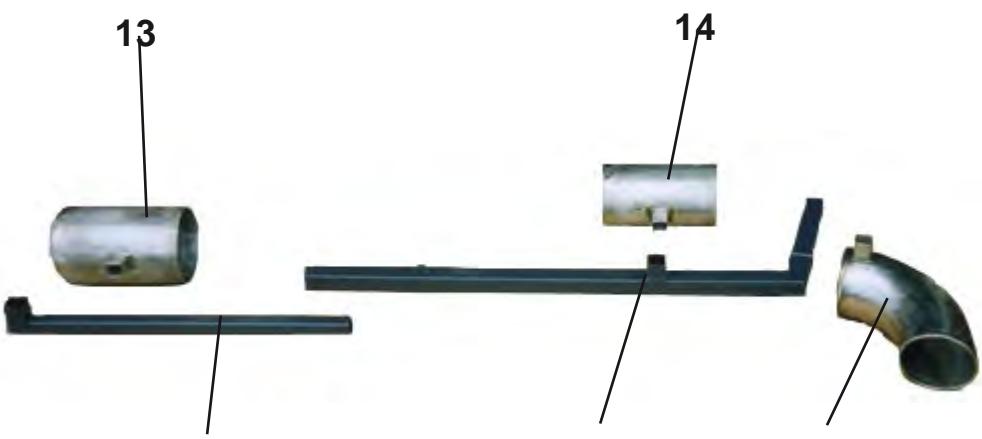
The attachment (nr F1) should be placed straight over the connection axle between the front wheels on the motor frame. Two bolts is sufficient to keep the attachment.

Keep the catcher close to the tractor during transport. Draw it out when picking up floating row-covers in order to get a good distance to the front wheels.



Check that the front wheel does not get stuck in the catchers arm when the wheel is turned or when the front axle is pending. Especially important on 4-wheel drive's.

HIWER IN PIECES



1. Main body with bearings, safety chain and security bolts
2. Prolonging to main body with bolts
3. Bearing shaft
4. The piston mounted on the beam
5. Sleeve for slider with bolts
6. Slider with bolt
7. Oilmotor mounted with reverse valve, and safty valve
8. Rotating tube between oil motor and reel
9. Two long legs to make HIWER stand up
10. One short leg to make HIWER stand up
11. Holder for stainless tubes with bolts
12. Prolonging arm to the holder (11)
13. Friction and steering tube with bolt 300 mm
14. Friction and steering tube with bolt 204 mm
15. Angle tube with bolt 204 mm

HOW TO USE THE REELS

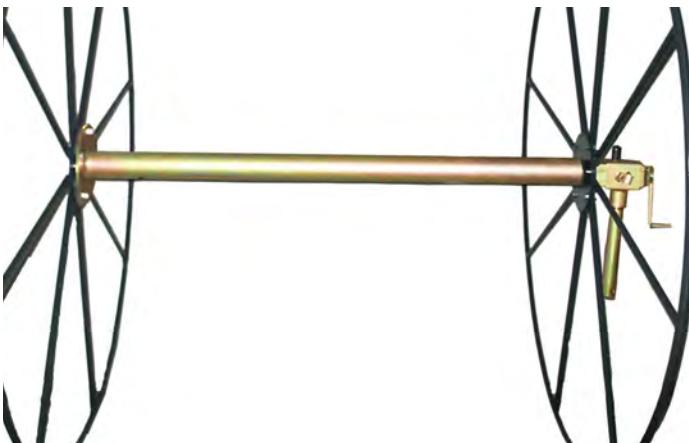
New row covers.

If you deploy the new covers with HIWER it will go three times quicker and you will be less dependent on the wind. When you receive the new material before the season, spool it up on the reels. One reel can hold 3 rolls of fleece or about one hectare.

Special reel for easy disposal of the material

Place a paper or plastic tube between the gables of the special reel before winding up the material.

Tip: *Save the paper - or plastic tubes that are left after winding the new rolls up.* Cut them to fit between the gables of the reels.

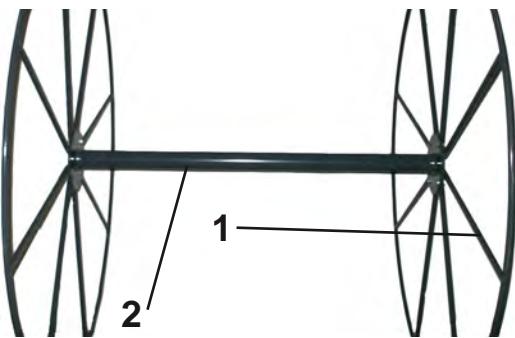


Every machine is equipped with a safety chain.
The chain must be tied around the gable of the reel when transporting to and from the fields.

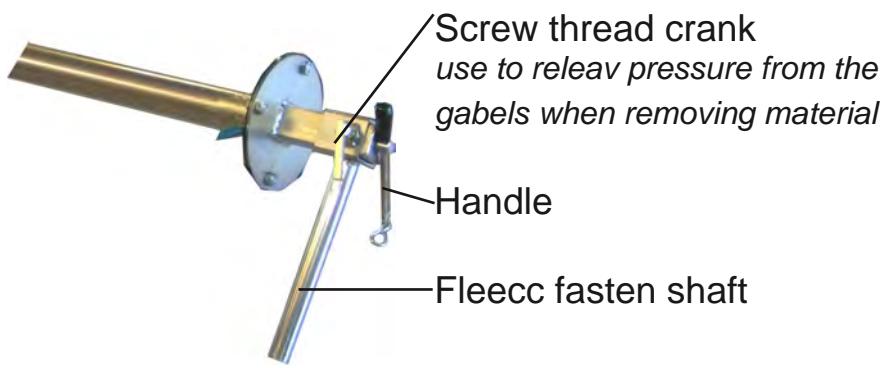
STANDARD REELS

A reel consists of 3

1. 2 gables alike
2. Middle axle

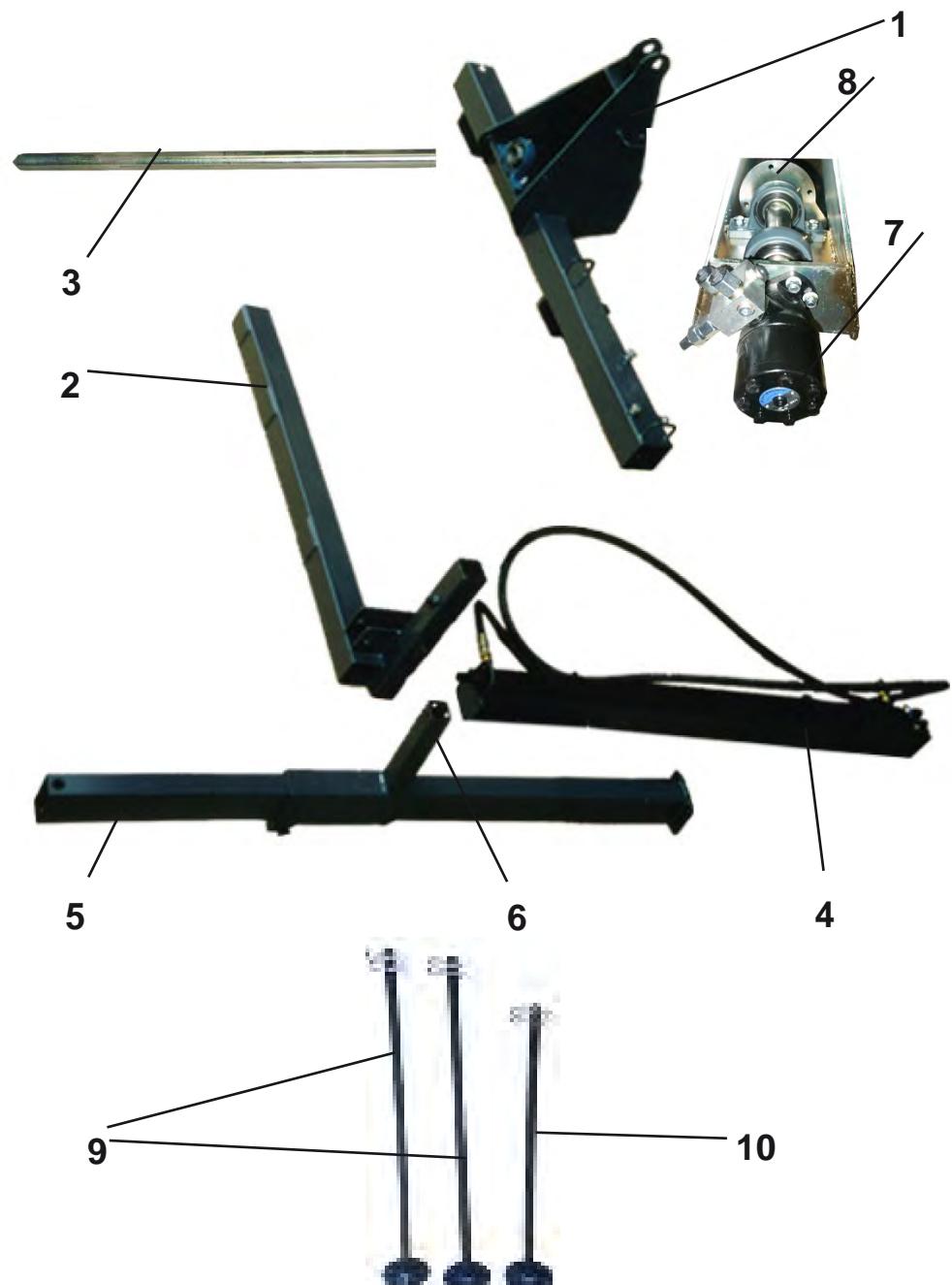


SPECIAL REELS

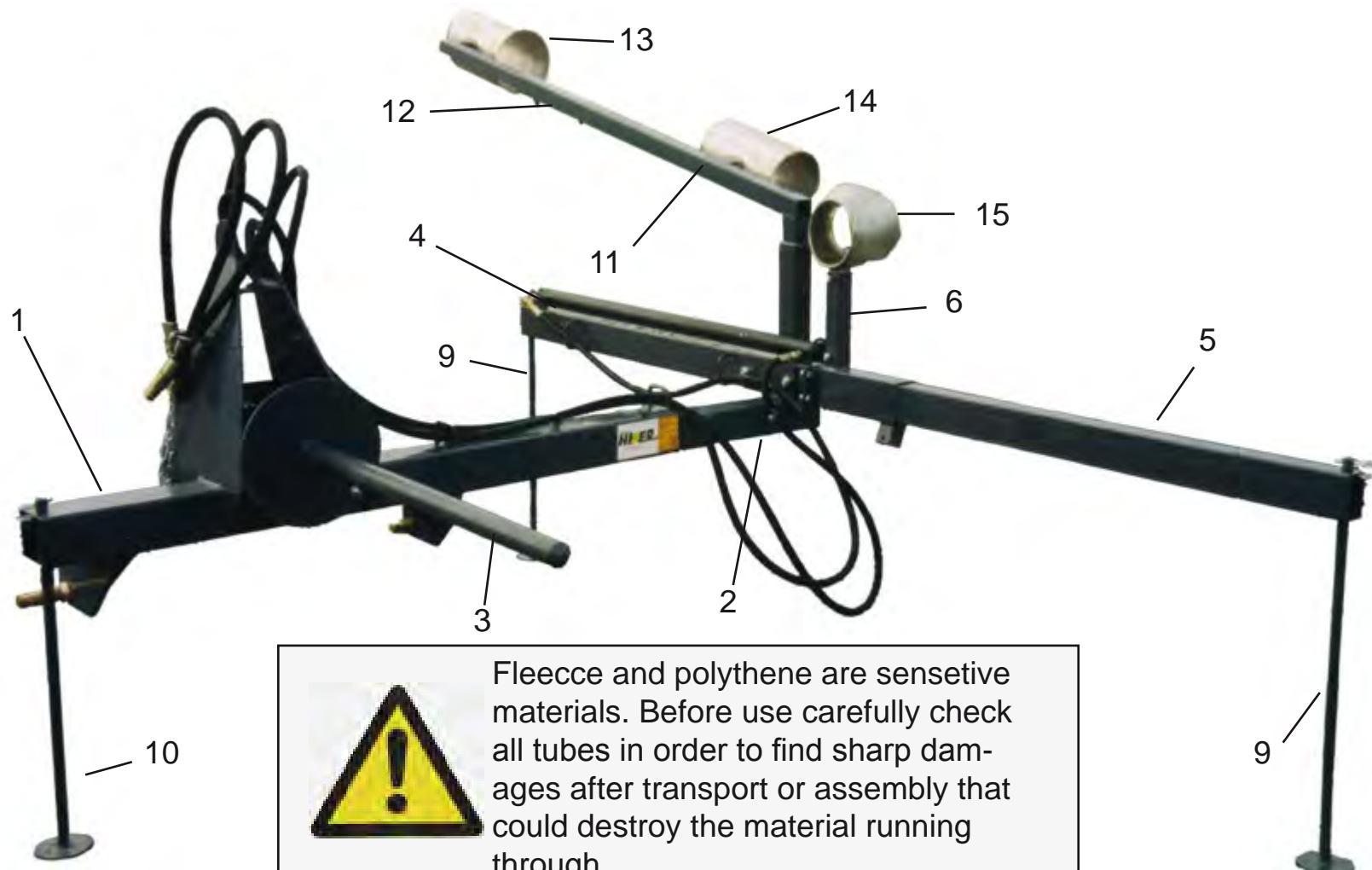


Filled reels are heavy and round. A reel with moist fleece can reach 500 kg and rolls away very easily. Always secure the reels.

PARTS IN RELATION TO EACH OTHER



HIWER ASSEMBLED



Fleece and polythene are sensitive materials. Before use carefully check all tubes in order to find sharp damages after transport or assembly that could destroy the material running through.



Check every season that the security bolts on the bearings (4 pieces) and on the shaft (4 pieces) are tight. If the bolts loosens the shaft can fall off with bad consequences.



HIWER can be regulated sideways but will still be wider than the tractor. Always check before driving that the security bolts on the main body (1) are tight.