






Manual  
GB



Tractor winch

W-4011

 <b>Fransgård</b>	
Fredbjergvej 132, Denmark-9640 Farsø. <a href="http://www.fransgard.dk">www.fransgard.dk</a>	
<b>Model</b>	<b>W-4011</b>
<b>Kg.</b>	<b>325</b>
<b>KW</b>	<b>40</b>
<b>Serie n°</b>	
 Made in Denmark	
	

Fransgård Maskinfabrik A/S  
Fredbjergvej 132, Fredbjerg  
DK - 9640 Farsø  
Telefon: ..... +45 98 63 21 22  
Fax: ..... +45 98 63 18 65  
[www.fransgard.dk](http://www.fransgard.dk)  
[mail@fransgard.dk](mailto:mail@fransgard.dk)

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## **Technical Data**

Pulling capacity .....	4.000 daN.
Clutch .....	385 cm <sup>2</sup> .
Power transmission .....	5/8" roller chain.
Drum capacity .....	Ø 9mm. - 80 m
	VDW-PHYTON 6 F-V.
Min. calculated breaking load .....	85 kN
Cable speed .....	0,6 - 1,4 m/s.
Three-point suspension .....	Kat.2.
P.t.o. speed .....	Max. 540 rpm.
Weight .....	325 kg.

## **WARNING!**

Before starting to operate the tractor winch, you must have read this manual thoroughly. The owner of the winch is responsible for ensuring that all operators and assistants are familiar with the tractor winch's operation.

## **Caution!**

1. Never attempt to use this tractor winch without sufficient training.
2. Keep hands, feet and clothing away from moving parts.
3. Before starting the tractor winch, make sure that the cable is in good condition. If the cable breaks, cable fragments may be thrown in all directions. Ensure that all persons are at a safe distance from the cable while the tractor winch is in use.
4. Only handle the cable after stopping the p.t.o.
5. Do not transport logs directly on the cable. Always use the proper chain tree (photo D page 10).
6. Inspect the moving parts. They must be correctly fixed and in good condition. All safety guards must be correctly fitted.
7. This machine has been constructed to skid and push together timber that has been felled and is lying on the ground and may not be used for other purposes. The machine must not be used to pull vertical trees or trees that are wedged or jammed, as this is extremely dangerous.
8. Make sure you are familiar with the controls and know how to turn off the tractor winch and tractor engine in case of emergency.
9. Children and untrained persons must not be allowed to operate the tractor winch.
10. Do not wear loose clothing, sleeves, ties or long, uncovered hair in the vicinity of the machine.
11. Prior to working make sure the tractor winch and tractor are standing on a level piece of ground.
12. When operating the tractor winch with the operating strings you should stand at a sideways distance of least 5 m from the machine.
13. Do not let the tractor run unattended.
14. Use only original spare parts from Fransgård, and do not alter the equipment in any way.
15. All persons working with the winch must be taught about the dangers and how to prevent accidents.
16. Be observant at all times! Do not work with the tractor winch when tired or exhausted.
17. Do not operate the winch over side-angles of more than 30° (photo A page 10).
18. Disregard of the warning labels on the machine or the safety precautions in the manual could lead to serious or fatal injuries.
19. The tractor must not be set in motion while the lower log ends (of the towed logs) are still resting on the ground. If the logs have not been raised and then strike an obstacle, this may cause the tractor to tip over, resulting in serious injury.
20. Set the machine on a firm and level basis. It is the responsibility of the owner and user to make sure that any defects arising from use of the machine are repaired and that the safety conditions are met.
21. At regular intervals and at least twice a year inspect the connecting pins, Item 17, Page 6 ( Spare part book ) for wear. If necessary replace, as in the case of worn pins the clutch arm may seize up.

## SAFETY INSTRUCTIONS FOR FORESTRY SKIDDING WINCHES

1. Work safely!  
The relevant health and safety regulations and the operating instructions must be complied with.
2. Operation and maintenance of the cable winch may only be entrusted to suitable and reliable persons over 18 years of age who are familiar with this type of work.
3. Wear personal safety equipment (helmet, safety shoes, protective gloves).
4. Working alone is only permissible if there is a radio emergency call system.
5. The cable winch must be checked before use, but at least once every working day, to make sure that it is in perfect operating condition (safety guard, dead-man's circuit, overload protection, brake function).  
Any faults must be remedied professionally.
6. The winch drive must be turned off when malfunctions are being remedied or repairs and maintenance are being carried out. It is not enough to disengage the winch drive. The drive motor of the skidder must be turned off.
7. The safety devices on the winch must not be disabled.
8. Only use load suspension devices, e.g. lifting hooks, choker cables, chains, pulleys and straps, that are suitable for the pulling power of the winch.
9. Only use stress-relieved cables of sufficient strength for pulling as per the specifications on the cable winch's name plate and the operating instructions. The breaking load of the choker and skidding chains must be twice the pulling power specified on the winch for the first turn.
10. Damaged cables and chains must be replaced promptly.
11. Do not use cables that are too long. When the cable is fully wound, the flange rings must still project beyond the top turn by at least one and a half times the diameter of the cable.
12. Before starting the skidding winch, the machine operator must satisfy himself that no one is in danger.
13. The winch operator must make sure that at least two turns of the cable remain on the drum under load except in a hazardous situation (adjust overrun brake correctly).
14. Only wind the cable in under load (unwind cable completely and wind in evenly at least once a day and more often if necessary).
15. The winch must only be operated from a safe position where the winch operator is not at risk from the winch itself, the load, the cable or the hitchings. The driver's cab of the skidder can be regarded as a safe position if there is an adequate safety guard between the winch and the driver's seat.  
  
The winch operator must be provided with appropriate protection when operating the winch from outside the driver's cab.  
  
The skidder itself might be used as protection or the operator might stand at a safe distance from the skidder behind a tree, for example.  
  
If radio-controlled winch operation requires the winch operator to accompany the log, he must stay close to the hitching.  
  
Long logs can be accompanied at the side, next to the hitching, while log sections can be accompanied from diagonally behind the load, **see figure 1**.
16. From his position the winch operator must be able to keep the skidding load under observation at all times; otherwise arrangements must be made to have the path of

the load watched by other persons, with constant contact being maintained between the observer and winch operator by means of pre-arranged signals.

17. When cables are being used, there must be no one between the load and the cable winch or in the danger zone between the winch, pulley and load, **see figure 2**.
18. In the case of skidding on slopes, there must be no one below the log hitched to the cable.

Figure 1

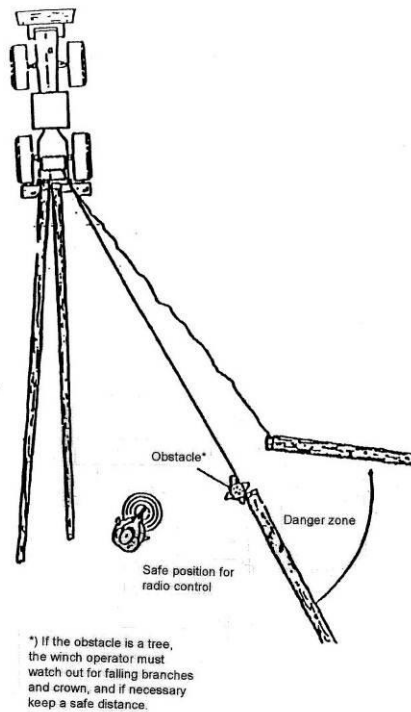
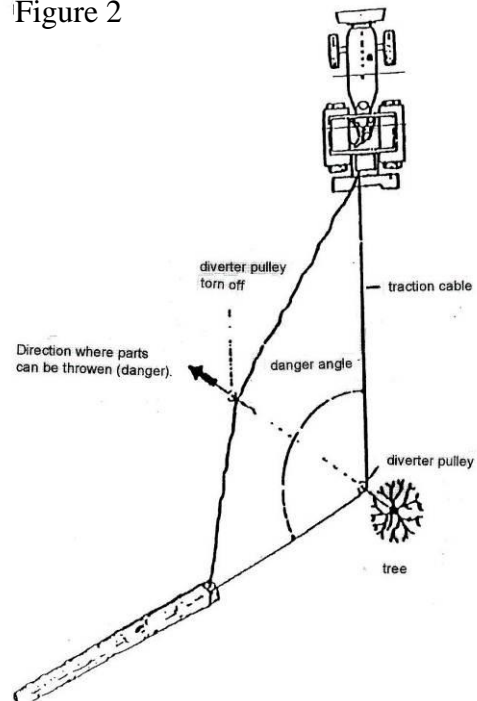
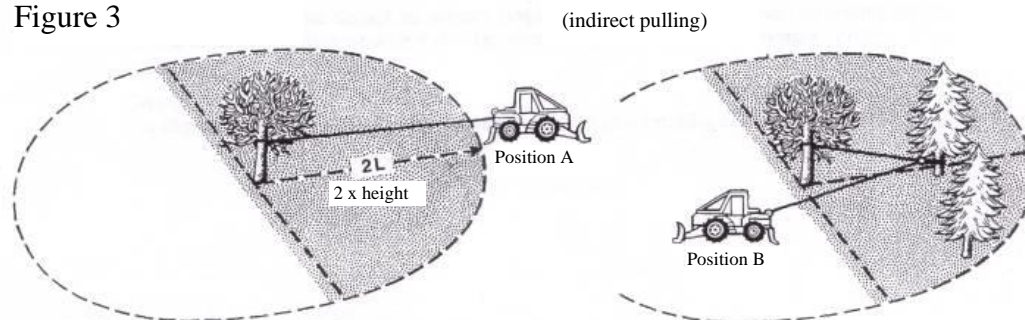


Figure 2



19. When standing trees are being pulled over, the pulling cable must be hitched to the tree before felling work is commenced. In this case the position of the skidder must be chosen so as to ensure that the distance from the tree to be pulled over is at least twice the height of the tree – or the same as the height of the tree if a pulley and indirect pulling are used, **see figure 3**. Do not stand in the danger zone when using pulleys.

Figure 3



20. The tread of the tyres on the skidder on which the winch is mounted must grip well, i.e. lug treads with at least 40% of the tread depth of new tyres or the vehicle must be

fitted with tyre chains. Tyre chains must always be used on hard-packed snow and in icy conditions.

21. Skidders must be immobilised with a sprag brake or the like. If necessary, secure the tractor with a cable hitched opposite to the pulling direction should the sprag brake not provide sufficient hold owing to the soil conditions.
22. The skidding load and speed must be such that, taking the design and nature of the vehicle, the gradient of the terrain and the soil conditions into account, the vehicle cannot tip over and steering/braking are not affected.  
Make sure that the cable entry is as close to the winch's pulling direction as possible, i.e. without lateral deflection if possible. Use a pulley if necessary.
23. Do not approach the logs in order to unhook the load until the cable has been slackened by releasing the brake.
24. When using a tractor with hydrodynamic drive, make sure that the following vital precautions have been taken before leaving the driver's cab to operate the winch:
  - the tractor's or winch's sprag brake has been lowered all the way to the ground
  - the tractor's immobilisation brake has been activated
  - the traction drive is in neutral
25. Make sure that the winch is only parked on a level surface that is capable of bearing the load. Deploy the landing gear beforehand. Put the cardan shaft in the appropriate retainer.
26. The road traffic licensing regulations and road traffic regulations must be complied with.  
  
The road traffic licensing regulations apply to driving on public roads. Identification and lighting in accordance with the relevant regulations for mounted implements, for example, may be necessary.
27. The relevant regulations for mounted implements must be complied with if a drawbar coupling is used on the mounted winch.
28. Depending on the winch type, the manufacturer may have additional safety instructions. These will be listed separately in the operating instructions.

## INSTRUCTIONS FOR USE

### Assembling the equipment:

To store the machine, put it on level hard surface, so there is no dangers for the surroundings.

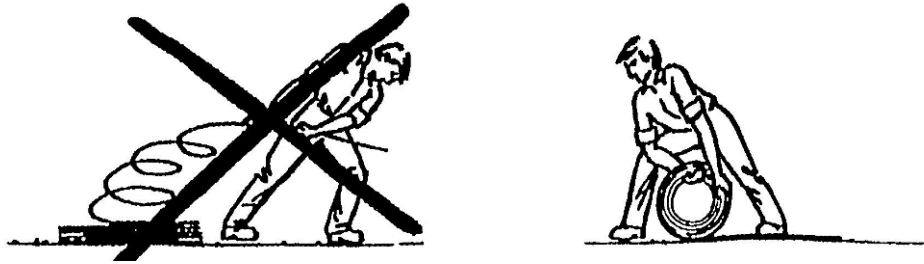
Attach the tractor winch to the tractor's three-point suspension. Mount first the tractors lift arms with the supplied lift arms bolts, there after mount the top link. Lift the machine and rise the support legs and adjust the lift arms to prevent the winch to swing horizontal too much. Adjust the length of the top-link so that the machine will not interfere with the tractor cabin and the winch stands straight.

By mounting the PTO the tractor has to be off and the key removed. Check the length of the power take-off shaft both in working position and in transport position and if necessary shorten it.

When the winch is dismounted, put it on level horizontal hard surface. Lower the support legs and dismount the lift arms. By dismounting the PTO the tractor has to be stopped and the key removed. The PTO is positioned in the special bracket for it.

Insert the cable via the upper pulley and mount on the drum. Lock the cable to the drum with the cable fastener (Page 8). Make sure that the cable is properly attached and undamaged. The cable must be fully rolled out and coiled up under load before being rolled onto the drum.

**Important!** Use only cable type VDW-PYTHON 6 F-V.



#### **Releasing the brake:**

Lower the tractor winch until it is resting on the ground with its support plate. Release the brakes by slowly pulling the red string (Page 10, fig. B1). **Warning!** When the cable is under load, the brakes must **only** be released with the red string. Keep a safe distance!

#### **Side-pulling the cable:**

When the brake is released, the cable can be paid out. Important! Adjust the drum speed reducer, so in fact that the drum does stop **immediately** when arriving to the log that is to be moved (Page 10, fig. F).

#### **Towing/side-pulling:**

Choose a safe position to stand, which gives you a good view of the load.

Activate towing by pulling the green string (Page 10, fig. B2).

Always pull the green string, so the clutch part (Page 11, fig. G) do reach the welded stop, through that unnecessary wear of the clutch lining will be avoided.

#### **Hauling:**

Attach the log firmly to the chain tree and lift the tractor winch until the ends of the logs are free of the ground.

#### **LUBRICATION AND MAINTENANCE:**

- Lubricate the cardan shaft minimum once a week.
- Lubricate all slide connectors once a week.
- All ball bearings are permanently lubricated.
- The chain must be greased every 50 working hours or minimum once every year (page 10 fig E). We recommend Stuctobis® BHD or oil of same quality. The machines must be detached.
- Take care that no oil or grease falls on the clutch lining.
- Grease daily the upper cable roller as required through the lubricating nipple on the turning plate and put daily grease on the support turning plate.
- To save pulley-power in the operating strings for clutch and brake it is very important to grease the nylon wheels with a reliable oil, we can recommend type WD40® or similar quality (Page 10, fig. E).

#### **SETTING THE BRAKE.**

The brake is preset at the factory, so it is not necessary to adjust the start of the application. After prolonged use, there is some wear on the brake band, so an adjustment or new brake band is necessary. Adjustment is done when the brake lever is pulled, and the wire can be pulled out slightly. Distance between the nut and brake levers must be 10 mm. (Page 10, fig. C).

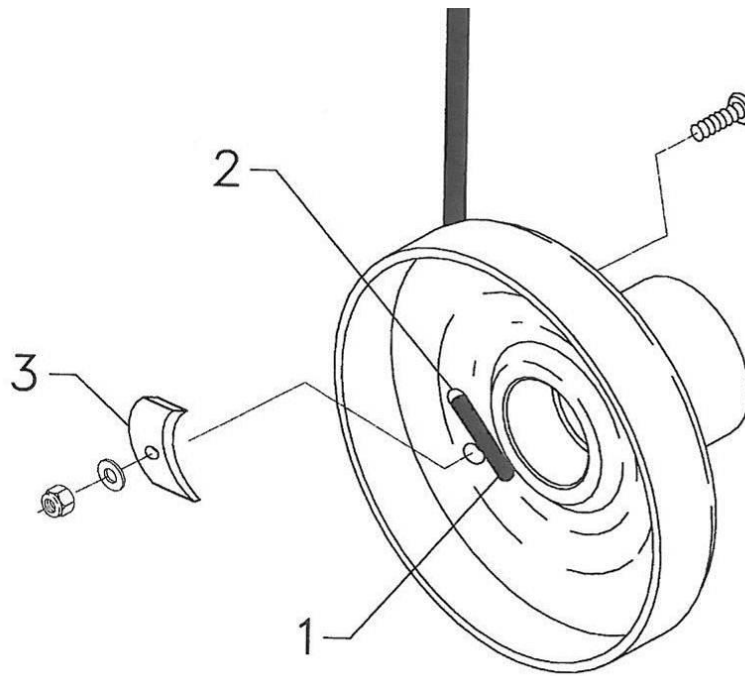


**ADJUSTMENT OF THE DRIVE CHAINS.**

After 10 hours operation, the drive chains shall be inspected and if necessary adjusted. fluctuations of the chains must be max 4mm. chains inspected every 100 hours of operation (Page 11, fig G,H)

**TRACTOR SIZE.**

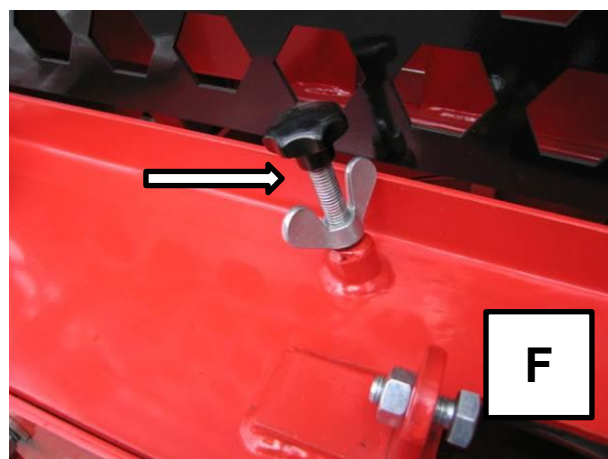
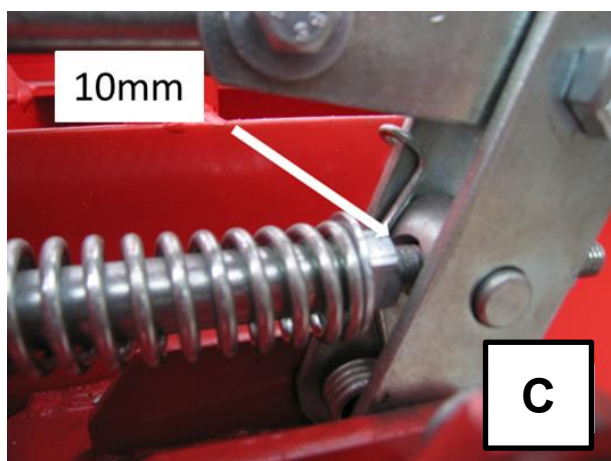
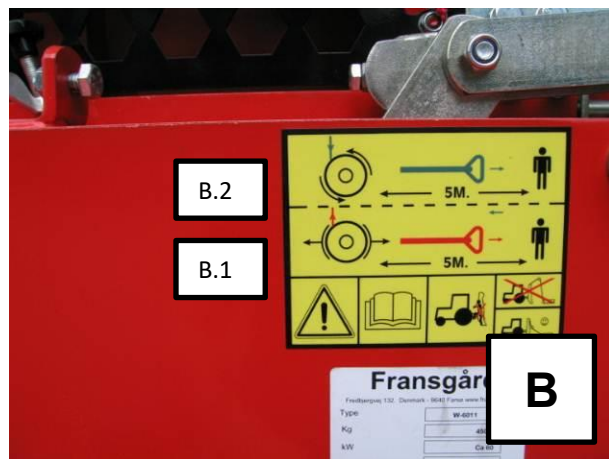
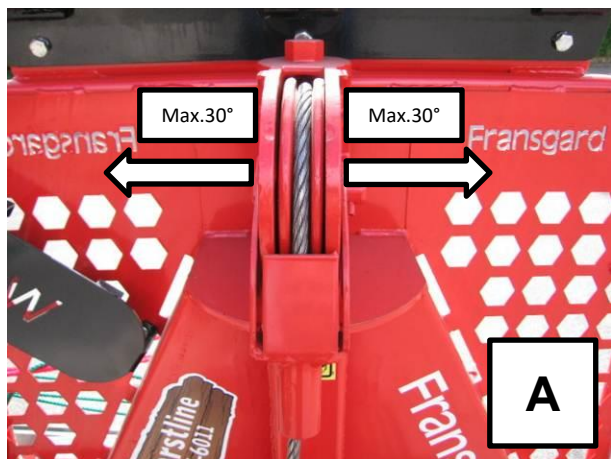
As recommended size of tractor a four wheel drive with enough weight on the front axles, and 10KW engine size for each 10KN maximum pulling capacity.

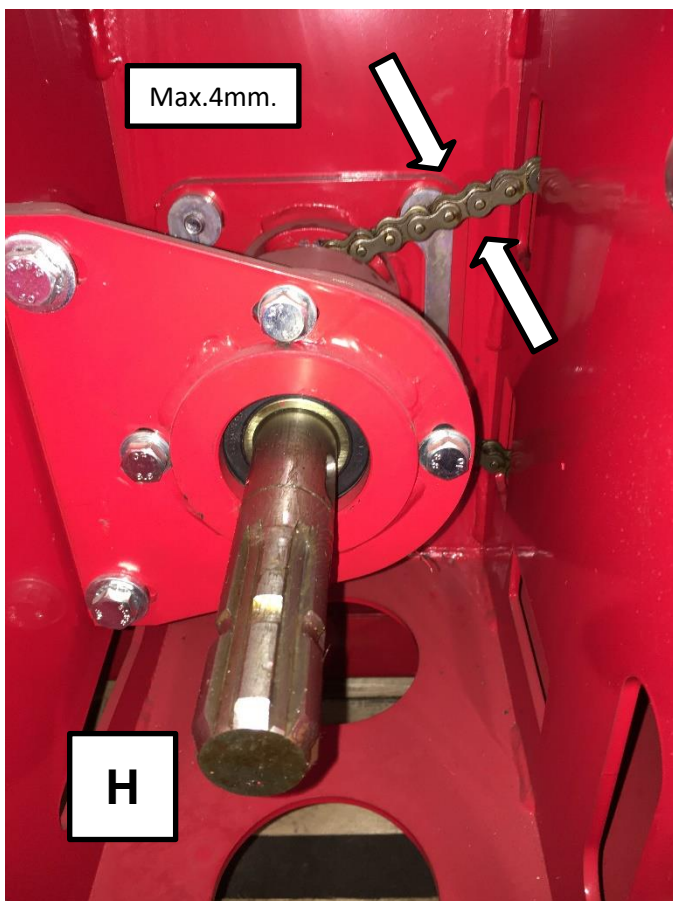


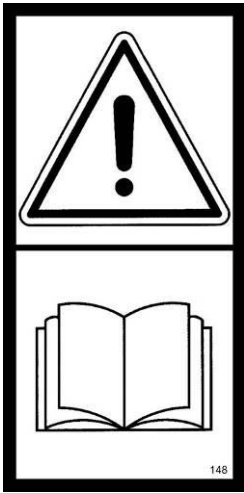
### **Instructions for mounting the wire.**

- 1.) Pull about 1 metre of the wire **1** out through hole **2** .
- 2.) Mount the wire fixing block **3** (making sure that only 15 mm. of the wire are introduced into the fixing









Carefully read operator's manual before handling the machine.  
Observe instructions and safety rules when operating.



Shut off engine and remove key before performing maintenance or repair work.



Stay clear of draft link lifting range while operating rockshaft controls.



Stay clear of swinging area of machine.



Do not lift only pull

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## EC Declaration of Conformity

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12. december 2012

### Manufacturer

*Name:* Fransgård Maskinfabrik A/S  
*Address:* Fredbjergvej 130, Fredbjerg  
DK 9640 Farsø  
*Country:* Danmark  
*Telephone:* +45 98632122

which itself brings together the technical file

hereby declare that

### Product

*No.:* W-4011  
*Name:* Skovspil W-4011  
*Type:* W-4011  
*Serial no.:* 7  
*Company Name:*

is in conformity with

Directive 2006/42/EC of the European Parliament and of the Council of 17  
May 2006 on machinery

*Position:* Udviklingschef  
*Name:* Ivan Kristensen  
*Company Name:* Fransgård  
Maskinfabrik A/S

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Date

Signature

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**Fransgård**