



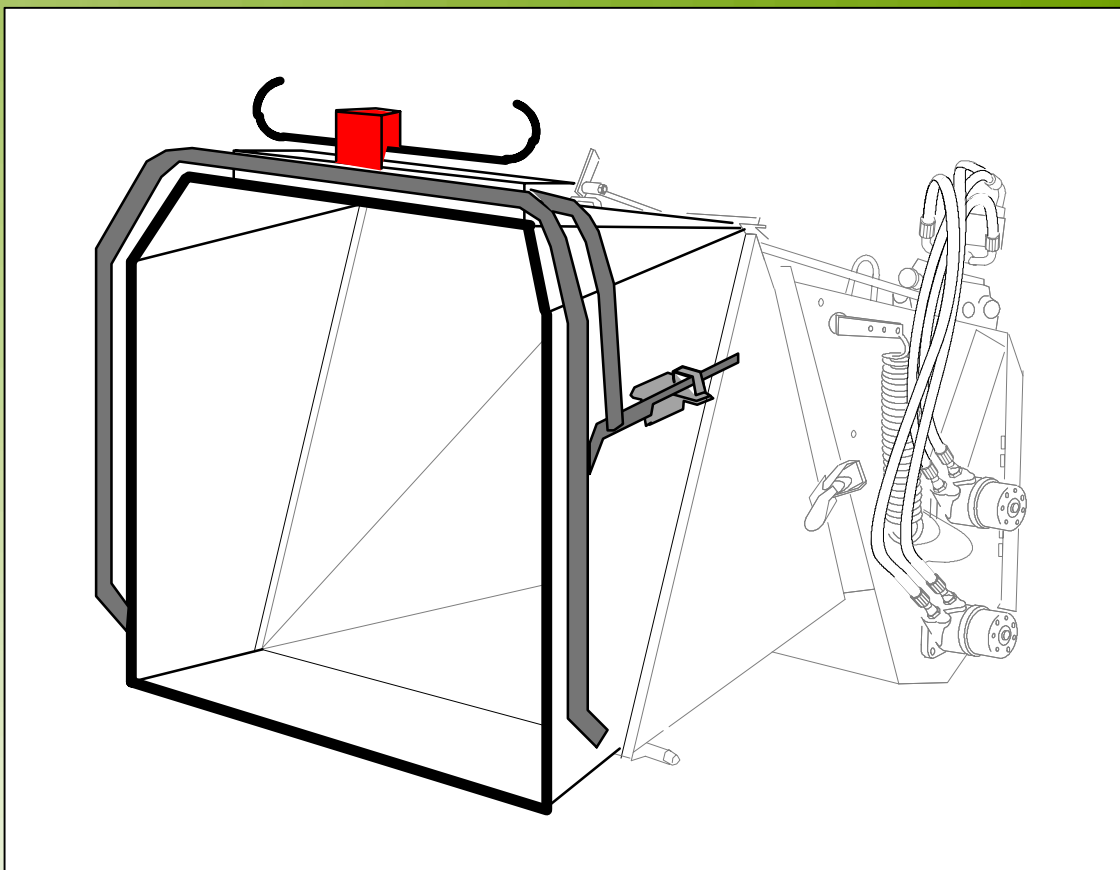
HF 231

OPERATION, MAINTENANCE AND SPARE PARTS

FARMI

HYDRAULIC FEEDER

HF 231



From machine:329 4157

READ THIS OPERATION AND MAINTENANCE MANUAL
CAREFULLY BEFORE USING THE MACHINE

Farmi Forest Corporation

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HF 231

WARNING SYMBOLS IN THIS MANUAL



Imminent danger which could cause serious personal injury or death.



Danger which could cause personal injury.



Conditions or misuse that could damage equipment or machinery.

NOTE!

Reminders, such as for performing checks or carrying out maintenance or repair procedures.

INTRODUCTION

This manual includes the information and maintenance instructions required for operating the machine in the optimal manner.

Although you have experience in using this kind of machinery, read the operation and maintenance instructions carefully since they include information enabling efficient and safe operation. Regular maintenance is the best way to guarantee the efficient and economical performance of the machine.



Each and every operator must read, understand, and follow all safety instructions and procedures.

CUSTOMER FEEDBACK

We are happy to receive your opinions and suggestions for improvements by mail, fax or e-mail. All implemented suggestions for improvements will be rewarded.

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HF 231

GUARANTEE GIVEN BY THE MANUFACTURER OF A DEVICE INTENDED AS A MACHINE PART

Farmi Forest Corporation
Ahmolantie 6, FIN-74510 PELTOSALMI, Finland

Informes that the machine, launched on to the market,

FARMI Hydraulic feeder

(make)

HF 231

(type)

(serial number)

which is incapable of operating individually, has been intended as a structural part of a machine in such a way they together form the machine referred to in Directive 98/37/EEC and in the amendmends related to it as well as in the national statutes which bring them into force.

It shall meet the fundamental requirements of Directive 98/37/EEC relating to this machine part.

The following unified standards have been applied to the design of the machine:

EN292-2, EN294, EN60204-1

The following national standards and specifications have been applied to the design of the machine:

PrEN13252, prEN1553-1

In addition, we inform that this machine part shall not be taken into use before a guarantee of the conformance to the EU requirements has been given, in accordance with Directive 98/37/EEC, the amendmends related to it and the national statutes (VPn 1314/94) which bring them into force, of the machine of which it is a part.

Peltosalmi

(place)



Juha Hallivuori

01.09.2002

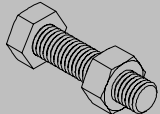
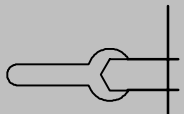
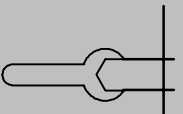
(date)

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 Thread	 Millimeter	 Inch
M6	10	7/16
M8	13	1/2
M10	17	11/16
M12	19	3/4
M16	24	15/16
M20	30	1 3/16

WHEN ORDERING SPARE PARTS, PLEASE INDICATE MACHINES TYPE FROM THE MACHINE PLATE, SPARE-PARTS ORDER NUMBER, DESCRIPTION AND QUANTITY REQUIRED.

Example: HF 231, Upper feed roller, 1 pc

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1. SAFETY

1.1. GENERAL

These safety instructions are intended for personnel operating, servicing, and repairing FARMI equipment.

These instructions will help you to:

- operate the machine safely
- operate the machine appropriately and effectively
- notice, avoid, and prevent potentially hazardous situations

The manufacturer has supplied safety instructions for the machine. The instructions must be kept in the compartment of the machine that is reserved for the instructions, and they must always be available on the site where the machine is used. Before using the machine, each and every operator of the machine must read the safety, maintenance, and operation instructions. These instructions must always be followed.

The machine meets the specified technical standards as well as required and appropriate safety regulations.

In addition to those in the manual, the instructions of the local occupational safety authorities as well as national laws and regulations must be followed.

Using the machine for tasks other than those for which it is intended or exceeding its performance is not appropriate use of the machine. The manufacturer/supplier is not responsible for damage resulting from this kind of usage.

1.2. OPERATIONAL SAFETY



Occupational accidents often take place in abnormal or nonstandard situations. Consider all possible, even unlikely, situations that could occur during each task.

- Due to design considerations, the machine's noise level may exceed 85 dB; wear hearing protection and other appropriate safety equipment.
- Ensure that occupational safety regulations are followed when working.
- Familiarize yourself with the machine's risk zones and prevent unauthorized persons from entering these zones.
- During operation, the operator of the machine is responsible for the safety and risk zones for the entire work site.
- Each time the machine is to be used, first check its operational safety and correct any deficiencies.
- Before starting and using the machine, ensure that it does not pose a danger to other persons or a risk of damage.
- Exceeding the specified performance ratings is prohibited.
- Do not operate the machine while sick or under the influence of alcohol or drugs.
- All of the machine's safety and warning labels must be legible and undamaged. Replace if necessary.
- The operator of the machine must always have unobstructed visibility on-site. If necessary, an assistant must be provided to the operator.
- In the event of any defect compromising operational safety, stop the machine!
- If it is not possible to correct the impairment to operational safety, work must be stopped.

1.3. OPERATION

- Familiarize yourself with the capacity and limitations of the machine and equipment, as well as how they can be used most efficiently.
- Familiarize yourself carefully with the operation and functions of the machine before operating it.
- The operator of the machine must also be familiar with the operation of the accessories.
- Do not stand unnecessarily close to the machine during operation.
- Prevent unauthorized persons from entering the working area during operation.
- The operator of the machine must always have unobstructed visibility of the site.
- Operating a damaged or defective machine is prohibited.
- Ensure the following:
 - That the safety and protective devices of the machine are not removed or modified and that they are used properly.
 - Regular safety tests and similar inspections are carried out.
- Remember that the manufacturer of the machine is not responsible for damage that is caused by:
 - incorrect, careless, or inappropriate use
 - misuse caused by errors on the part of untrained personnel
- When leaving the machine, always secure it from unauthorized and unintended operation.
- When parking, ensure that the machine is properly supported.
- Avoid placing sudden, demanding loads on the machine.
- Use the controls carefully, especially in cold conditions.

HF 231

1.4.OILS AND GREASES

- Always use the oil grades recommended by the manufacturer.
- Use the recommended oils in cold conditions.
- Never mix different fluids or oils with each other.
- Follow the manufacturer's lubrication instructions.

1.5.MAINTENANCE

- Modifications without the manufacturer's permission are prohibited.
- Remember that the manufacturer of the machine is not responsible for damage that is caused by:
 - modifications made without the manufacturer's permission
 - use of non-original spare parts
 - normal wear
- Safety devices must be re-fitted immediately after maintenance.
- Never try to take hold of moving parts when the engine is running.
- Ensure that the machine cannot be started during maintenance.
- Electrical and hydraulic failures are to be repaired by authorized personnel only. The same applies to the welding of load-bearing structures.
- Follow the maintenance intervals listed, and perform the indicated annual safety inspections.

1.6.LIFTING

- Lift only with the proper type of lifting device, and ensure that it has an appropriate lifting capacity.
- Ensure that the lifting equipment is in good working condition. The lifting equipment must be inspected regularly.
- Ensure that you know the weight of the load to be lifted and never exceed the lifting capacity stated by the manufacturer of the lifting device.
- Select routes for lifting that pose no danger.

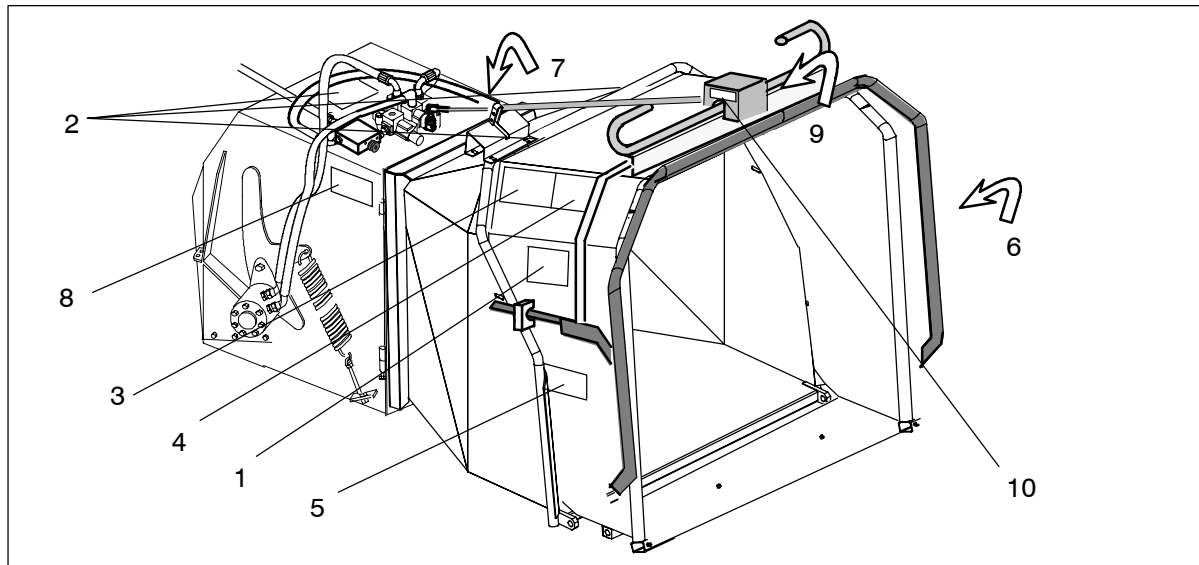
2.SAFETY INSTRUCTIONS FOR HYDRAULIC SYSTEMS

1. Hydraulic systems must be serviced by qualified, experienced hydraulics mechanics only.
2. Check the machine for any leaks and repair them before using the machine.
3. Clean the area to be repaired. Do not use solvents to clean components.
4. Never repair the hydraulic system when it is pressurized.
5. Support the machine before servicing or making repairs. Do not detach the cylinders or their valves before supporting the machine.
6. When replacing hydraulic components and hoses, use original spare parts or parts recommended by the manufacturer. In particular, ensure that the pressure classes correspond to the operating pressure.
7. If oil gets in the eyes, rinse them thoroughly with water and consult a doctor.
8. Oil can be removed from skin by wiping and washing. Use safety equipment when handling oils and greases.
9. Prevent hydraulic oil from escaping into the environment. Waste oil must always be collected in a container to keep the environment clean!
10. When working in ecologically sensitive areas, use bio-oils.
11. Keep oil indoors in closed, original containers. Pour the oil into the tank directly from the container.
12. All caps, funnels, screens, and filling holes must be clean.

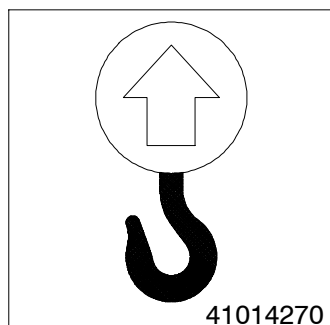
HF 231

3.PLATES AND STICKERS

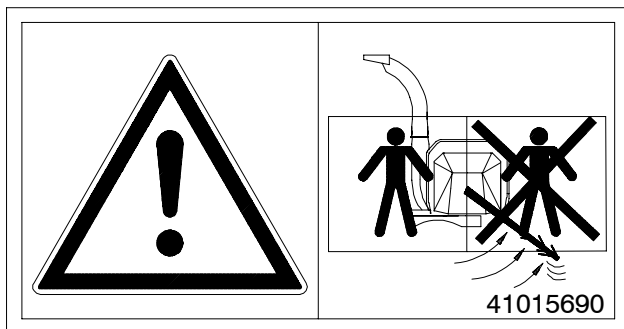
These decals and stickers must be found from feeder. Missing ones must be renewed immediately.



Number 1. Hearing protection (41018330).
2 Pcs.
Wear hearing protection.

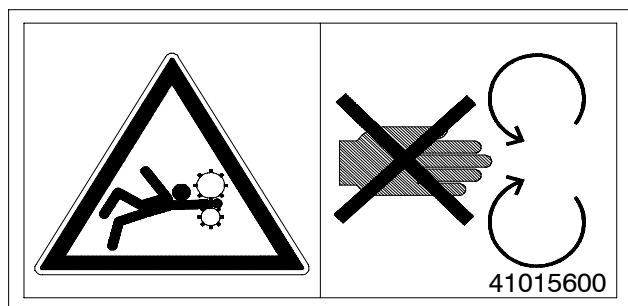


Number 2. Lifting point (41014270).
3 Pcs.

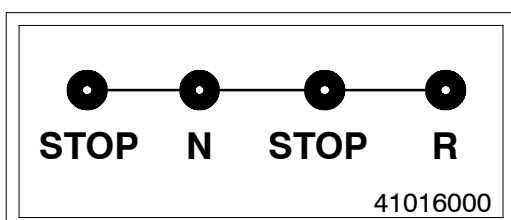


Number 3. Note! (41015690).
2 Pcs.
Stand on the left side of feeder.

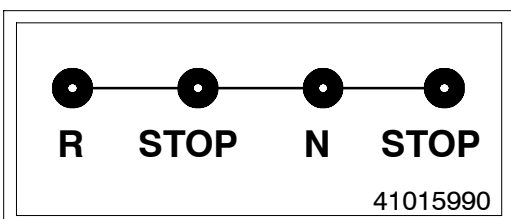
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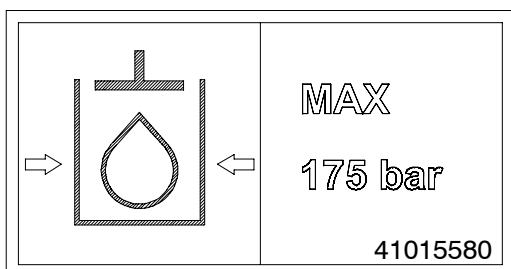
Number 4. Stay away from revolving part (41015600).
2 Pcs.



Number 5. Safety handle left (41016000).
This sticker shows the movements of the safety handle.
STOP = stop
N = neutral
R = reverse



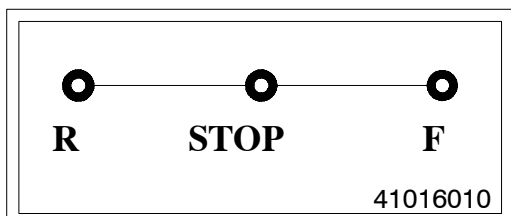
Number 6. Safety handle right (41015990).
This sticker shows the movements of the safety handle.
R = reverse
STOP = stop
N = neutral



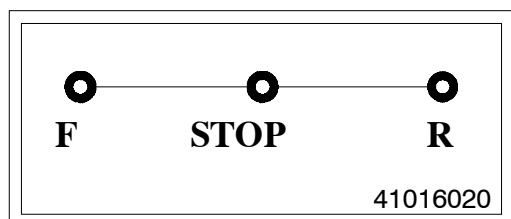
Number 7. Maximum hydraulic pressure
175 bar(41015580).



Number 8. Manufacturer (40605214).



Number 9. Control handle right (41016010)
This sticker shows the movements of the control handle.
R = reverse
STOP = stop
F = feed



Number 10. Control handle left (41016020).
This sticker shows the movements of the control handle.
F = feed
STOP = stop
R = reverse

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4. FEED CHUTE PRESENTATION

4.1. FIELD APPLICATION

The hydraulic feed chute HF 231 makes feeding difficult material easier and more effective. The chip quality improves due to constant feeding speed and is less dependent on knives sharpness.

The HF231 can be driven by the tractor hydraulics or by the optional independent hydraulic unit HD11.

HF231 is easily mounted to the same attachment as the mechanical feed chute and the drop spout.

4.2. MAIN COMPONENTS

1. Control handle
2. Directional valve
3. Flow regulator
4. Hydraulic motors
5. Feed rollers
6. Frame
7. Feed chute
8. Safety handle

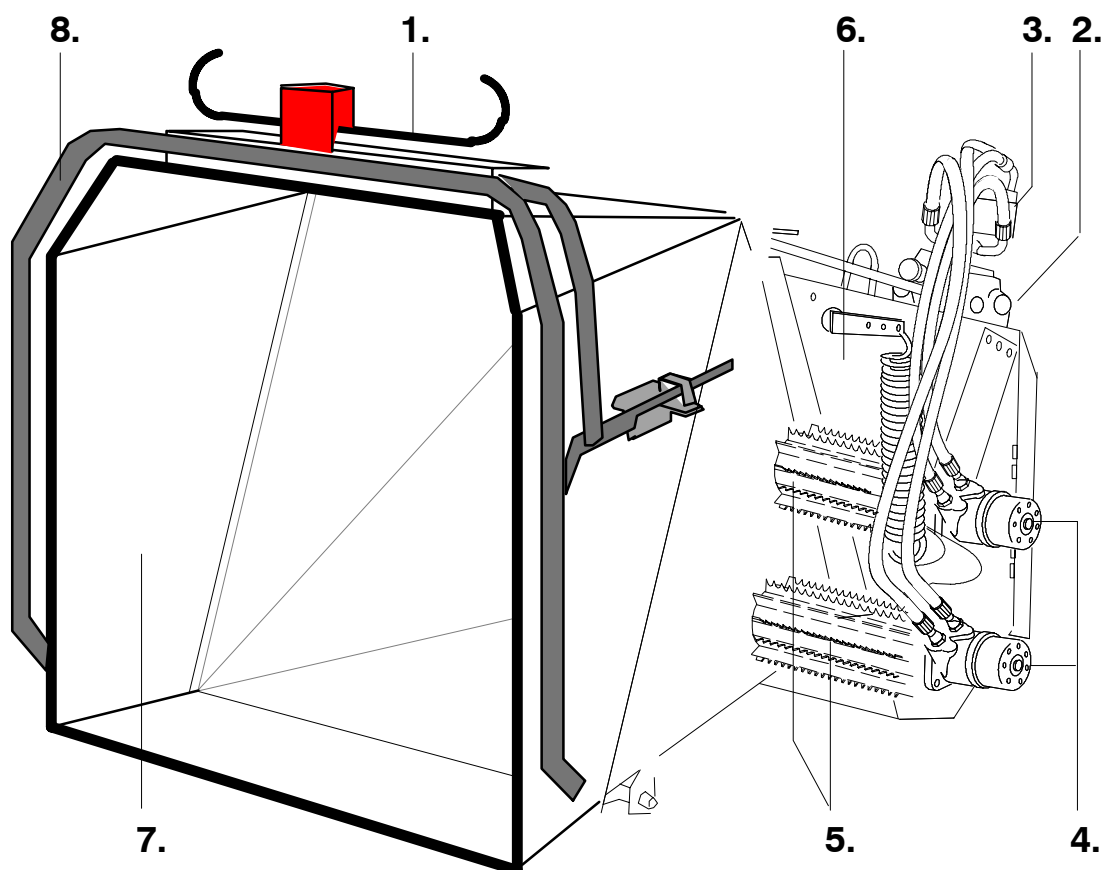


Fig.1. Main parts.

5. TECHNICAL DATA

HF 231	
Feed roller	2 pcs. Ø208 mm (8 ³ / ₁₆ ")
Max. tree diameter	260 mm (10 ¹ / ₄ ")
Hydraulic motors	250 cm ³ (15 ¹ / ₄ in ³)
Oil demand, P.T.O speed chip ³ / ₁₆ " , 540 rpm. chip ³ / ₁₆ " , 1000 rpm.	30 l/min (6 ¹ / ₂ UK gal / min.) 52 l/min (11 ¹ / ₂ UK gal / min.)
Feed chute opening size	820 mm x 787 mm (32 ⁵ / ₁₆ " x 31")
Dimensions	1090 x 871 x 1820 mm
Weight	210 kg (463 lbs)

HF 231

6.MOUNTING

1. The hydraulic feeder and mechanical feeders include fitting blocks that are installed between the chipper and feeder.
The fitting blocks are installed so that the two guide pins located at the bottom section of the feed opening go through the holes in the fitting block and secure the block. See Fig. 2.

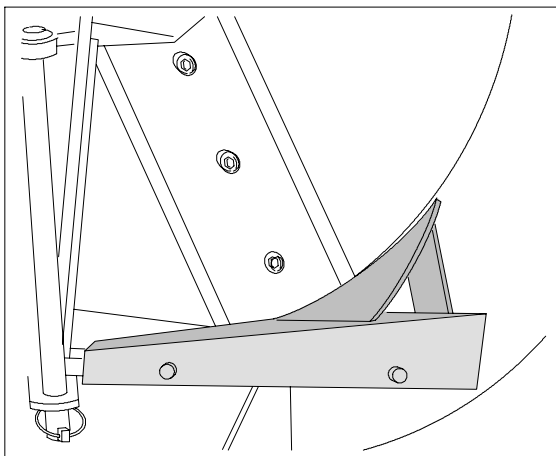


Fig. 2. Installing the fitting block.

2. Attach the feeder frame to the chipper pins and lock bolts. Fig. 3.

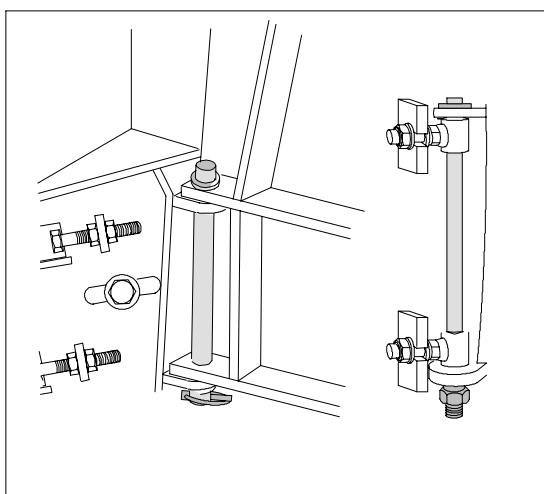


Fig. 3. Mounting the feeder on the chipper.

3. Attach the feed chute to the frame with two M10x110 bolts and lock nuts. Fig. 4.

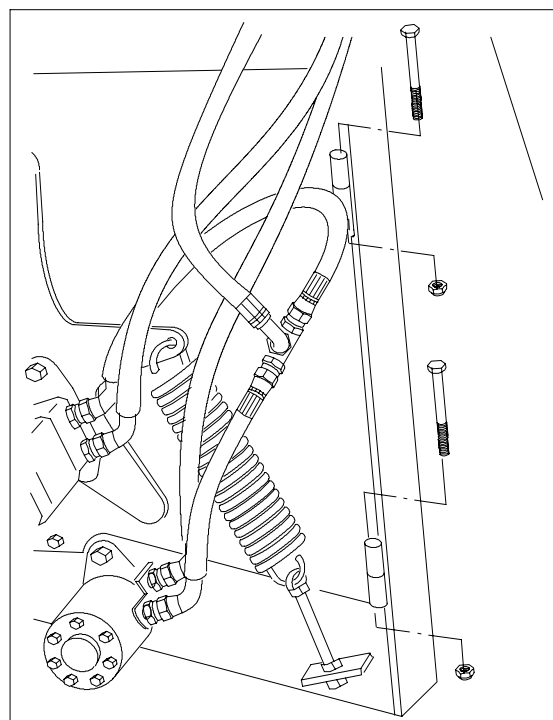


Fig. 4. Installing the hinge bolts.

4. Lock the chute in the operating position.
5. Connect the hydraulic hoses. Connect the pressure hose (P on the valve) to the pressure connector of the tractor's hydraulic system. The maximum operating pressure is 175 bar. Connect the return hose (T) to the return connector of the double-acting valve, or preferably directly to the tank. Fig. 5.

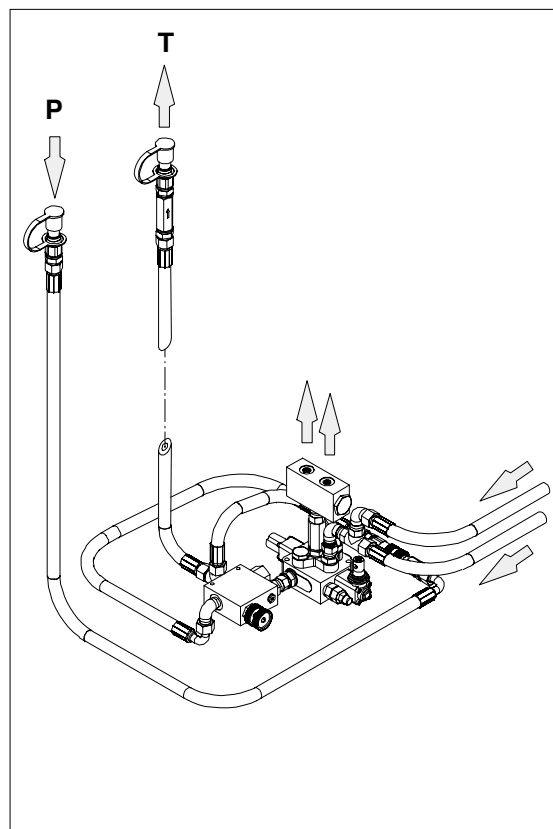


Fig. 5. Connecting the hydraulics, feed.

7. OPERATION

7.1. CONTROL HANDLE

The HF 160 is operated with a control handle, which has 3 positions:

1. FEED FORWARD F

The feeder reel spins inwards and wood can be fed into the chipper. The handle locks in this position.

2. STOP

The feeder reel ceases to spin and the feeding stops. The handle locks in this position.

3. REVERSE R

The feeder reel spins outward and wood comes out of the feeder.

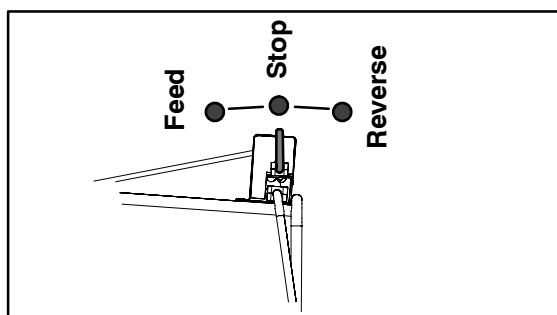


Fig 6. Control handle.

7.2. SAFETY HANDLE

The HF 160 has been equipped with a safety handle, which operates as a safety appliance and as the emergency stop control. The safety handle has 4 positions:

1. STOP

The feeder reel ceases to spin and the feeding stops.

2. NEUTRAL N

The chipper controls are done through the control handle.

3. STOP

The feeder reel ceases to spin and the feeding stops.

4. REVERSE R

The feeder reel spins outward.

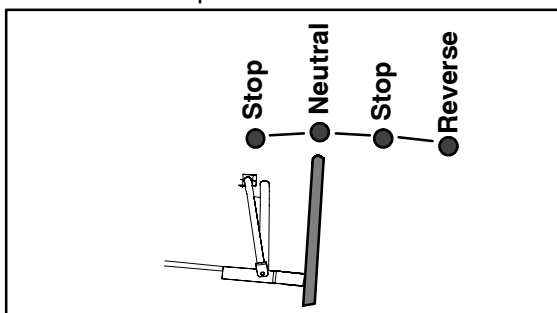


Fig 7. Safety handle.

7.3. OPERATION

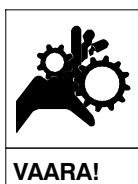
1. Ensure that the feed funnel is empty. Turn on the tractor hydraulics or connect an external power source (OEM).
2. Before feeding the material, ensure that nails, stones etc will not get into the chipper amongst the material to be chipped.
3. If necessary, set the revolving speed of the feeder reel to correspond to the revolving speed of a grinding wheel.

The speed is suitable when the wood does not push against the grinding wheel or the feeder reel spikes do not slow down the feeding of wood. See paragraph 7.4.

4. Set the control handle in the *FEED F* position. The feeder reel will begin to roll when the air has left the hydraulic circuit.
5. Feed the wood into the feed chute. Let go of the wood immediately after the feeder reel begins to pull it



Do not work in front of the feeder if not necessary!
Feeder reels can wrench the wood up or to the right.



Make sure that your clothes or hair do not get tangled in the revolving parts of the appliance when it is turned on.
Feeding rope or barbed wire into the chipper is dangerous, because the rope can get caught on the operator and pull him/her with it to the feed funnel.
Never push limbs into the feed chute when the appliance is turned on.

- When chipping a large tree with a low capacity tractor, the tractor's revolutions will endeavour to fall especially towards the end of a long tree. Stop the feeding occasionally by switching the control handle to **STOP** – position. When the revolutions have increased sufficiently, continue feeding by switching the control handle to *FEED F* -position.
- If you need to remove the tree from the feed funnel in the middle of chipping, switch the control handle to *REVERSE R* -position and hold it there until the feeder reel releases the tree.



Oil will heat when travelling through the hydraulic pump, hydraulic motor and the valves. The heating can be considerable if the tractor has a small hydraulic tank. Check the oil temperatures twice an hour to prevent the oil from overheating. If the oil overheats, let it cool down by stopping the chipping.



Observe the revolutions of the feeder reels. If the feeder reel stops, switch the control handle to REVERSE R position. If the feeder reels are stopped when the control handle is in FEED FORWARD F position, the oil flows through the pressure limit valves and heats very quickly.

7.4. SETTING THE FEEDER SPEED



Do not set the feeder speed when the feeder reels are revolving. This damage the valve. Stop the feeder reels for the duration of the setting and try the speed afterwards.

- Using the flow control valve, set the revolution speed of the feeder reel to correspond with the cutting speed of the blades. By turning the knob anticlockwise, the revolution speed of the feeder reel grows, correspondingly by turning it clockwise, the revolution speed will diminish. See Fig 8.

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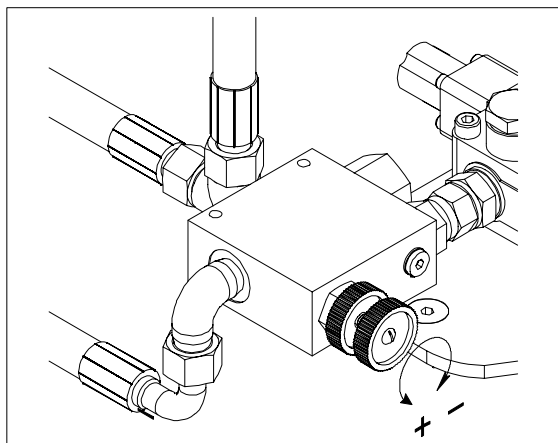


Fig 8. Feeder reel speed settings.

- The speed is suitable when the wood does not push against the grinding wheel or the feeder reel spikes do not slow down the feeding of wood.
- Make sure that you are using clean oil in the hydraulic system. Dirt in the oil will damage valves and hydraulic motors.

7.5. EMPTING THE CHIPPER AFTER USE

- Before stopping the chipper, chip about \varnothing 80–100 mm wood. Let the blades cut a few centimetres, after which reverse the feed direction to clean the blades. Leave the tree into the feeder to remind you that the chipper has been emptied. This way you will avoid a possible jam when you turn on the chipper next time.



When you stop the chipper, wait for all movement to stop. The grinding wheel will continue to revolve like a flywheel once the power outlet has been switched off.

8. CHANGING THE HYDRAULIC UNIT FOR USE WITH CONSTANT PRESSURE PUMPS

The chipper valve is built for fixed displacement pumps. If your tractor has a constant pressure pump, the hydraulic feeder unit should be modified as follows:

- Insert a plug in the directional control valve – see Fig 9.
- Remove the hose and T-nipple and insert a plug in the end of the flow regulator valve – see Fig 10.
- Connect the tank hose directly to the directional control valve – see Fig 11.

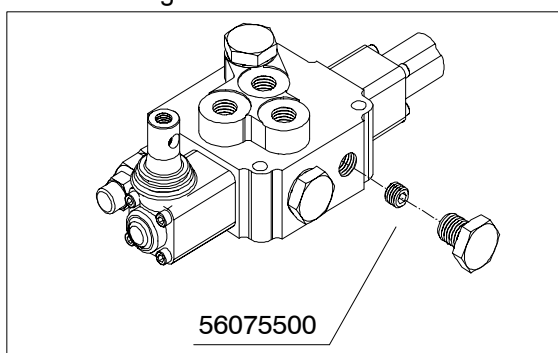


Fig 9. Inserting the plug.

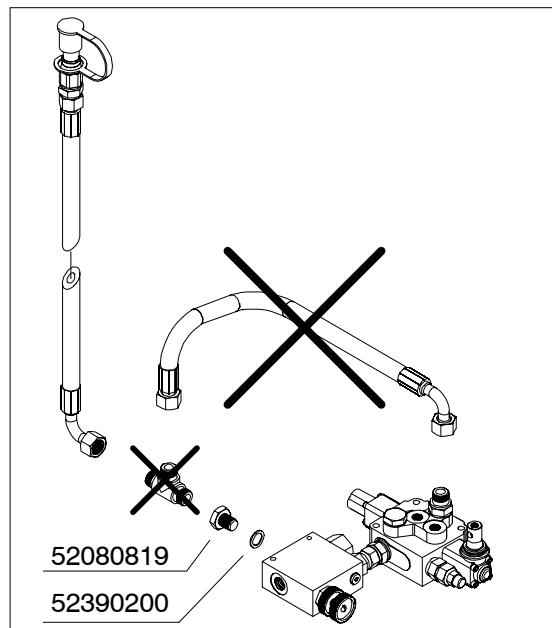


Fig 10. Removing the hose and T-nipple and inserting the plug in the end of the flow regulator valve.

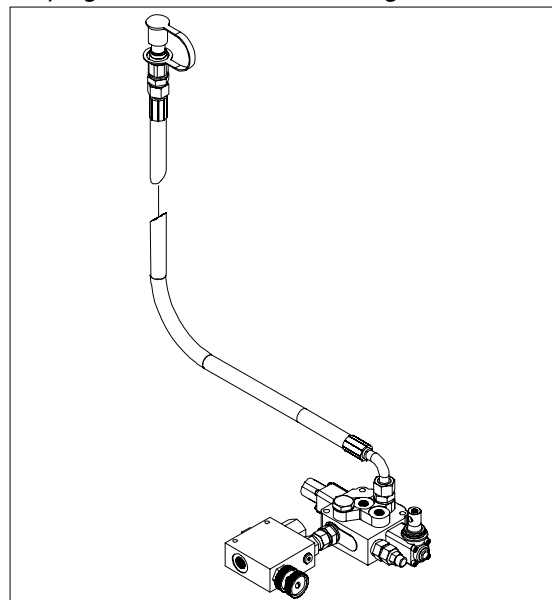


Fig 11. Connecting the tank hose.

- Instructions for connecting the hydraulics when using the optional hydraulic unit can be found in hydraulic units mounting instructions.

9. MAINTENANCE

- The feed roller bearings are sealed and do not require periodic maintenance.
- Lubricate the roller bracket shaft slide bearings after every 20 operating hours.
- Check and tighten loose bolts at regular intervals.
- Check the condition of the hydraulic hoses and regularly inspect the connections for leaks.
- Be sure to use only clean oil in the hydraulic system. The presence of impurities in oil damages the valves and hydraulic motors.

HF 231

10. HYDRAULICS CIRCUIT DIAGRAM

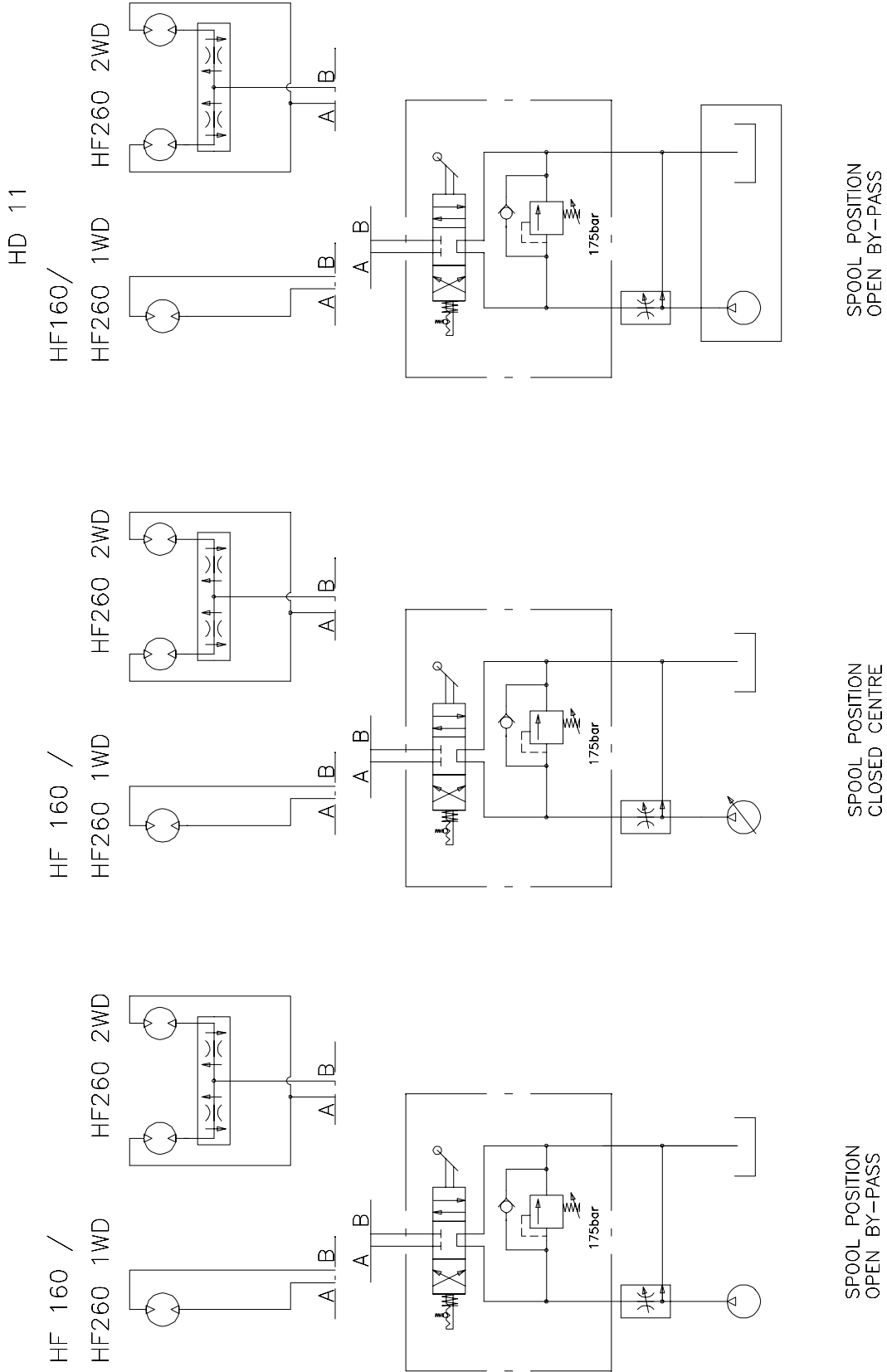
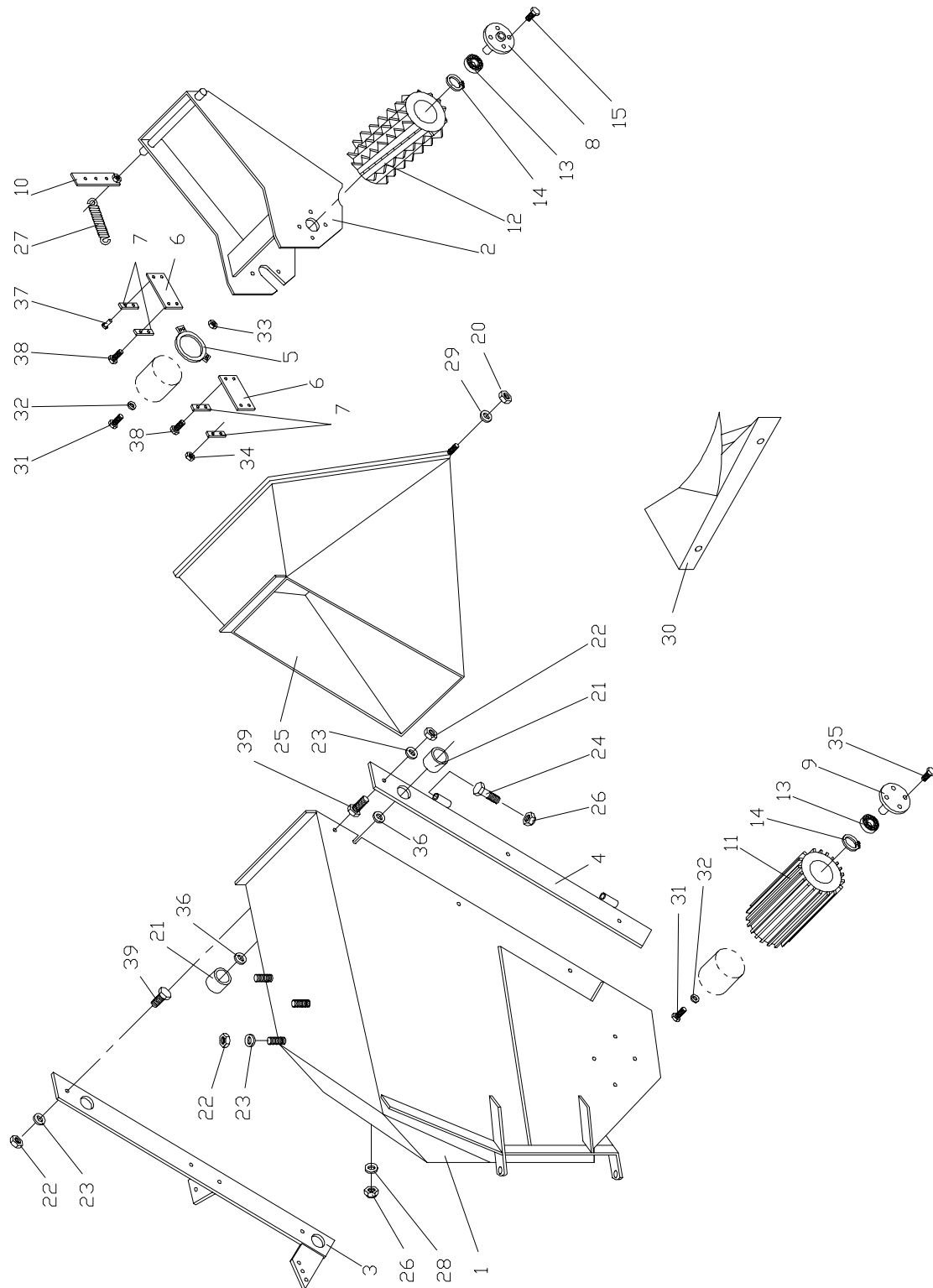


Fig 12.43484050.

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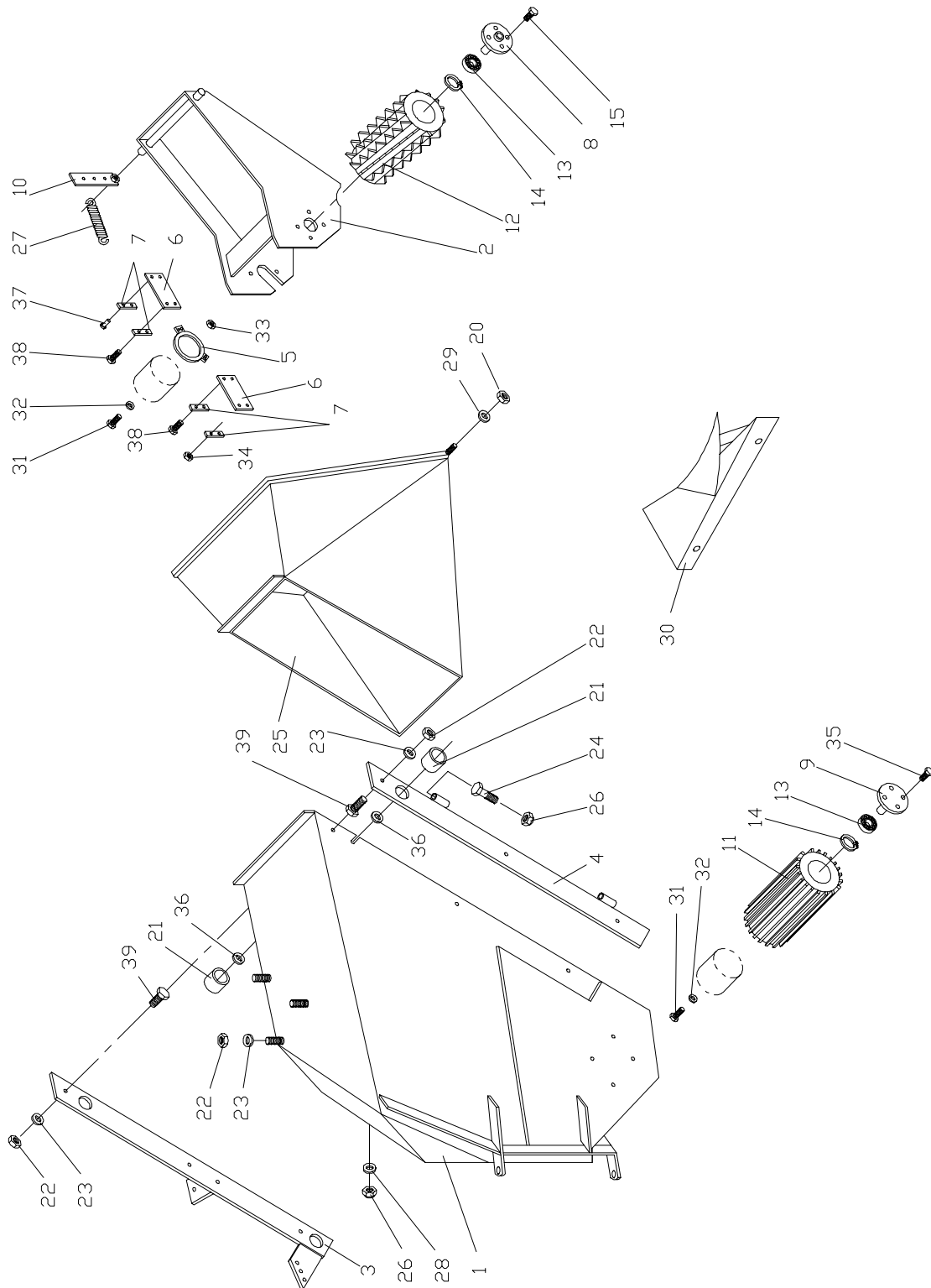
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HF 231

Part Osa Teil Pièce	Order No. Til.nro. Best Nt No. de ordre	Description Bezeichnung	Nimitys Désignation	Remarks Huom. Obs Obs	Qty. Kpl. St. Pc.
1.	13291562 ...	Frame Rahmen	Runko Châssis		1
2.	13291802 ...	Fastening flange Rollebefestigung	Rullan kannatin Support du rouleau		1
3.	33291873 ...	Fastener Träger	Kannatin Support	R	1
4.	43293786 ...	Fastener Träger	Kannatin Support	L	1
5.	33291931 ...	Motor mounting flange Motorträger	Moottorin kiinnitin Support du moteur		1
6.	43291962 ...	Protective rubber Schutzgummi	Suojakumi Caoutchouc de protection		2
7.	43291970 ...	Fastener Verschluss	Suojakumin kiinnitin Support		4
8.	43291988 ...	Upper roller support Obere Walzenstütz	Ylärullan tuki Support du rouleau		1
9.	43292002 ...	Lower roller support Untere Walzenstütz	Alarullan tuki Support du rouleau		1
10.	43291996 ...	Spring lever Federhebel	Jousen vipu Levier		1
11.	23292048 ...	Lower feed roller Untere Walzen	Alasyöttörulla Rouleau d'alimentation		1
12.	23292105 ...	Upper feed roller Obere Walzen	Yläsyöttörulla Rouleau d'alimentation		1
13.	54511431 ...	Bearing Lager	Laakeri Palier		2
14.	52230034 ...	Circlip Sicherungsring	Akselivarmistin Arrêt de sécurité de l'ax		2
15.	52090438 ...	Hexagonal screw Sechskanntschaube	Kuusioruuvi Vis hexagonale	M10x20 DIN 7991 ...	4
16.	-				
17.	-				
18.	-				
19.	-				
20.	-				
21.	54561022 ...	Bearing Lager	Laakeri Palier		2
22.	52110046 ...	Nut Mutter	Mutteri Ecrou	M10 DIN934	9
23.	52211042 ...	Washer Scheibe	Aluslevy Rondelle	M10 DIN 127	6
24.	52060332 ...	Hexagonal screw Sechskanntschaube	Kuusioruuvi Vis hexagonale	M10 x 110 DIN931 ..	2
25.	23295678 ...	Chute Trichter	Suppilo Tremie		1

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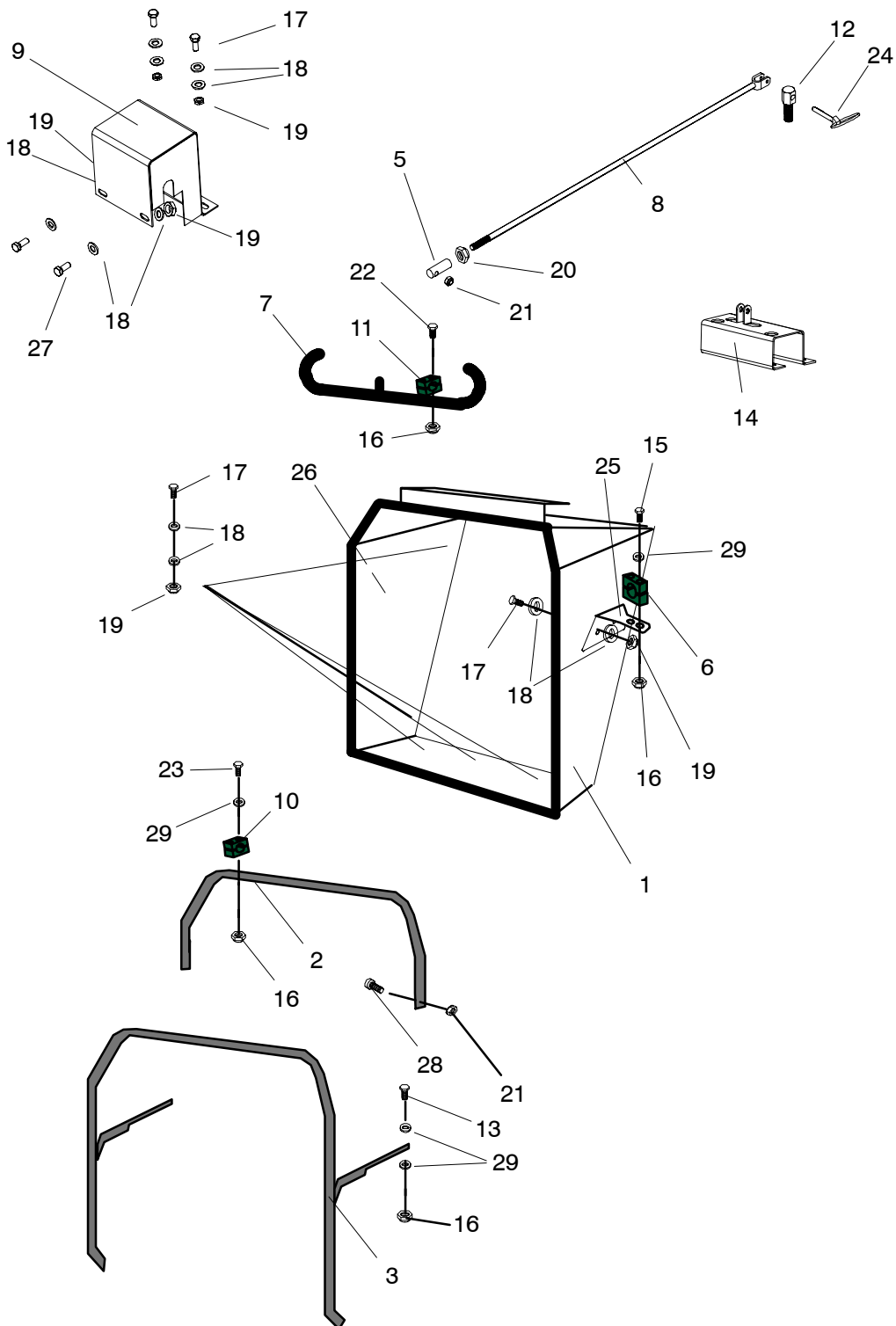
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Part Osa Teil Pièce	Order No. Til.nro. Best Nt No. de ordre	Description Bezeichnung	Nimitys Désignation	Remarks Huom. Obs Obs	Qty. Kpl. St. Pc.
26.	52117108 ...	Lock nut Schlossmutter	Lukkomutteri Écrou à mâchoires	M10 DIN985	1
27.	94617073 ...	Spring Feder	Jousi Ressort		1
28.	52200045 ...	Washer Scheibe	Aluslevy Rondelle	M10 DIN126	4
29.	–				
30.	33297380 ...	Adaptor piece Anpassteil	Täytepala Bloc de montage		1
31.	52062023 ...	Hexagonal screw Sechskanntschaube	Kuusioruuvi Vis hexagonale	M12x30 DIN933	4
32.	52211059 ...	Washer Scheibe	Aluslevy Rondelle	M12 DIN 127	4
33.	52110053 ...	Nut Mutter	Mutteri Écrou	M12 DIN934	2
34.	52110020 ...	Nut Mutter	Mutteri Écrou	M6 DIN934	9
35.	52060225 ...	Hexagonal screw Sechskanntschaube	Kuusioruuvi Vis hexagonale	M10x25 DIN933	4
36.	43292325 ...	Spacer ring Distanzring	Soviterengas Anneau intermédiaire		2
37.	52832102 ...	Rivet Niete	Vetoniitti Rivet explosif	4,8x15	3
38.	52060381 ...	Hexagonal screw Sechskanntschaube	Kuusioruuvi Vis hexagonale	M6x12 DIN933	6
39.	52004272 ...	Hexagonal screw Sechskanntschaube	Kuusioruuvi Vis hexagonale	M10x35 DIN7991 10.9 6	

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2 lever use – 2 vipukäyttö – 2 Hebelgebrauch – 2 Utilisation levier



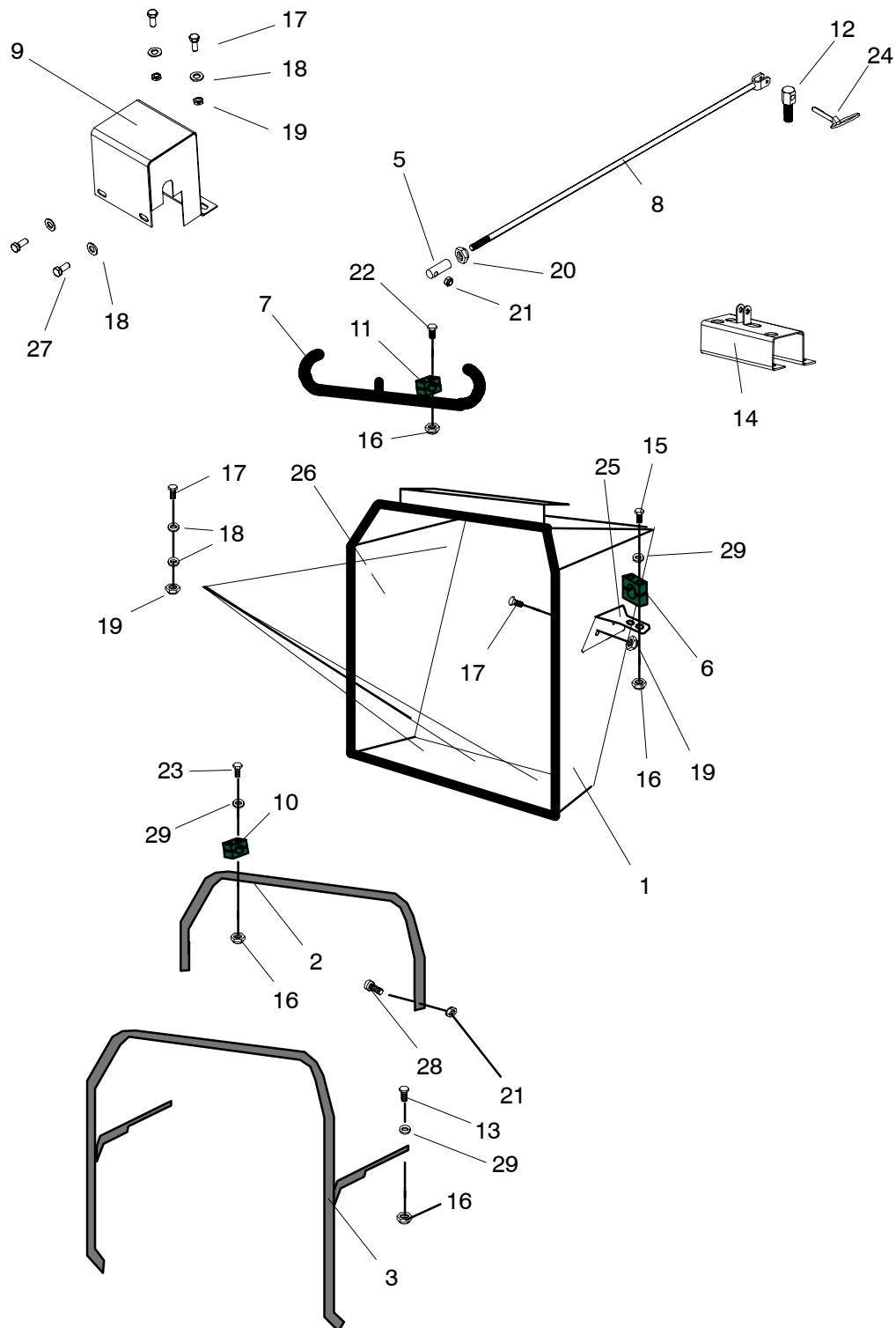
HF 231

2 lever use – 2 vipukäyttö – 2 Hebelgebrauch – 2 Utilisation levier

Part Osa Teil Pièce	Order No. Til.nro. Best Nt No. de ordre	Description Bezeichnung	Nimitys Désignation	Remarks Huom. Obs Obs	Qty. Kpl. St. Pc.
1.	43299610 ...	Additional visor Verlängerungsstück	Jatkopala Entonnoir d'alimentation		1
2.	43486320 ...	Swing rod Stange	Keinun tanko Tige oscillante		1
3.	43486400 ...	Safety handle Sicherheitsgriff	Turvasanka Manette de sécurité		1
4.	–				
5.	43486370 ...	Connector Konnektor	Liitin Connecteur		1
6.	43486240 ...	Plastic collar Büsche	Muoviholkki Bague en plastique		2
7.	43486300 ...	Control handle Bedienungshebel	Ohjauskahva Manette de contrôle		1
8.	43299850 ...	Control rod Benienungstange	Ohjaustanko Tige de contrôle		1
9.	43486230 ...	Cover Deckel	Kansi Couvercle		1
10.	54916085 ...	Pipe connector Konnektor	Kiinnike Connecteur de tuyaux	Stauff 322	6
11.	54916044 ...	Pipe connector Konnektor	Kiinnike Connecteur de tuyaux	Stauff 218	6
12.	43486450 ...	Connector Konnektor	Liitin Connecteur	M10	1
13.	52060050 ...	Screw Schraube	Kuusioruuvi Vis	M6X40 DIN933 8.8ZN	2
14.	43299660 ...	Protective gutter Platte	Suojakouru Goulotte de protection		1
15.	52060068 ...	Screw Schraube	Kuusioruuvi Vis	M6x50 DIN933 8.8ZN	4
16.	52117066 ...	Lock nut Schlossmutter	Lukitusmutteri Écrou à mâchoires	M6 DIN985	12
17.	52060696 ...	Screw Schraube	Kuusioruuvi Vis	M8x25 DIN933 8.8ZN13	
18.	52200334 ...	Washer Scheibe	Aluslevy Rondelle	M8 DIN440 ZN	26
19.	52110038 ...	Nut Mutter	Mutteri Écrou	M8 DIN934 8.8ZN	13
20.	52111051 ...	Nut Mutter	Mutteri Écrou	M8 DIN936 8.8ZN	1
21.	52117108 ...	Lock nut Schlossmutter	Lukitusmutteri Écrou à mâchoires	M10 DIN985	3
22.	52070125 ...	Socketed head screw Innensechskantschraube	Kuusikoloruuvi Vis hexagonale à tête creuse	M6x40 DIN912 8.8ZN	6
23.	52001548 ...	Socketed head screw Innensechskantschraube	Kuusikoloruuvi Vis hexagonale à tête creuse	M6x25 DIN912 8.8ZN	6
24.	52842168 ...	Ring cotter Ringsplint	Rengassokka Clavette ronde	6,5x40	1
25.	43299480 ...	Slip bearer, right Verschluss, rechts	Liun kannatin, oikea Coussine, droit		1

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2 lever use – 2 vipukäyttö – 2 Hebelgebrauch – 2 Utilisation levier



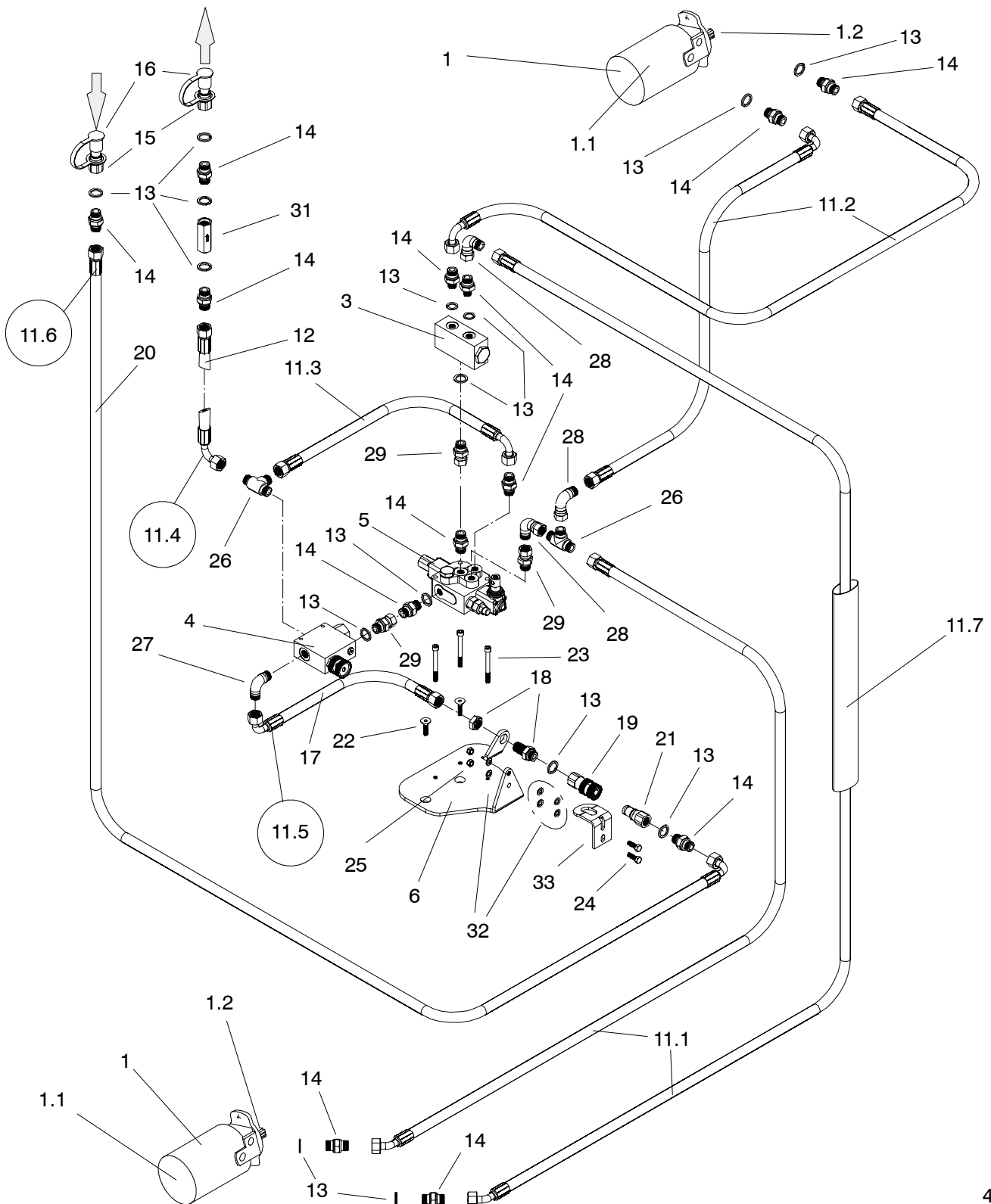
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2 lever use – 2 vipukäyttö – 2 Hebelgebrauch – 2 Utilisation levier

Part	Order No.	Description	Nimitys	Remarks	Qty.
Osa	Til.nro.	Bezeichnung	Désignation	Huom.	Kpl.
Teil	Best Nt			Obs	St.
Pièce	No. de ordre			Obs	Pc.
26.	43299490 ...	Slip bearer, left	Liun kannatin, vasen		1
.....		Verschluss, links	Coussine, gauche		
27.	52070620 ...	Screw	Kuusioruuvi	M8x16 DIN7500 D ...	2
.....		Schraube	Vis		
28.	52060233 ...	Screw	Kuusioruuvi	M10x30 DIN933 8.8ZN2	
.....		Schraube	Vis		
29.	52200029 ...	Washer	Aluslevy	M6 DIN126 5.8ZN ..	12
.....		Scheibe	Rondelle		

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Hydraulics – Hydraulikka – Hydraulik – Hydraulique



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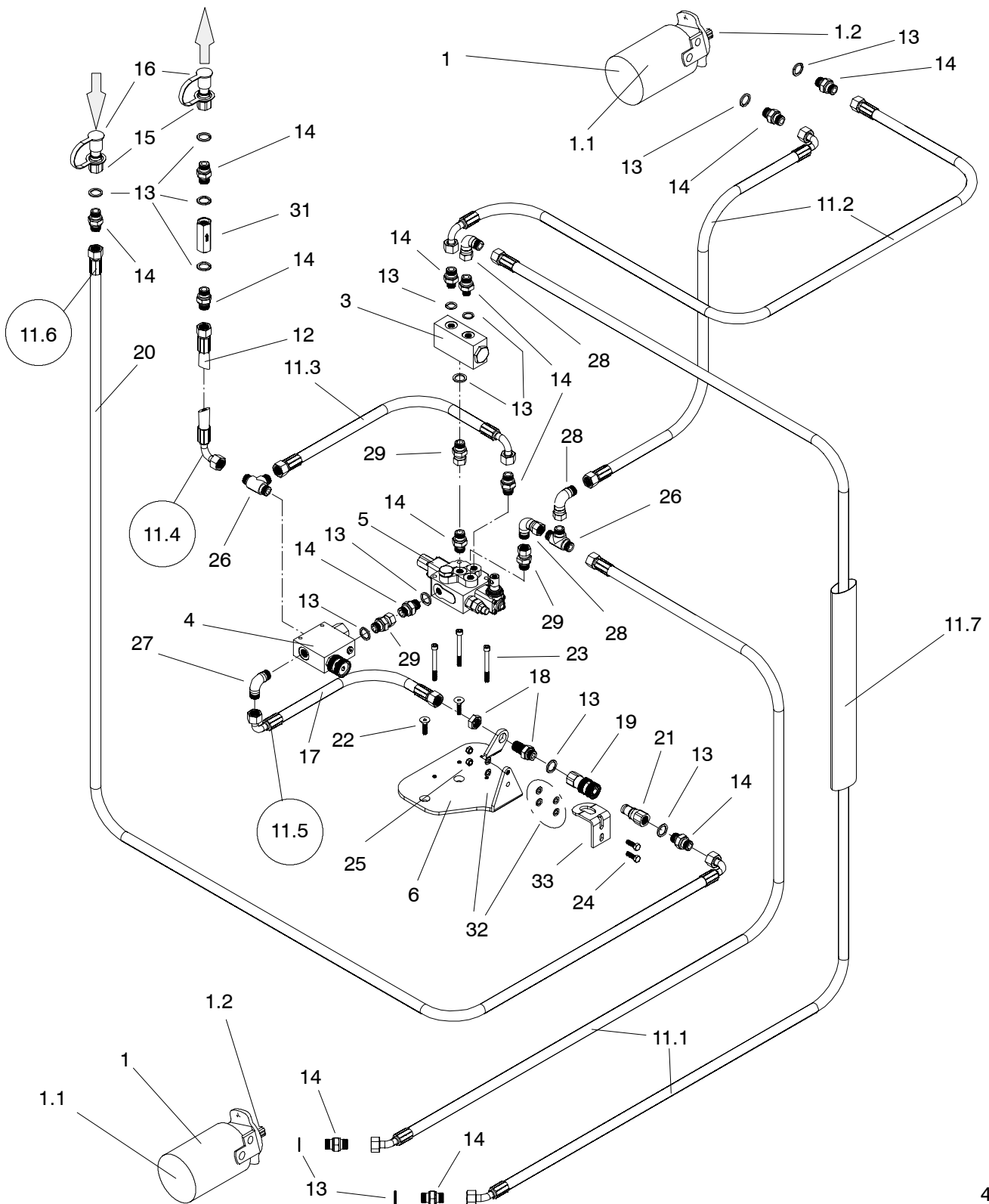
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Hydraulics – Hydraulikka – Hydraulik – Hydraulique

Part Osa Teil Pièce	Order No. Til.nro. Best Nt No. de ordre	Description Bezeichnung	Nimitys Désignation	Remarks Huom. Obs Obs	Qty. Kpl. St. Pc.
1.	56001951 ...	Hydraulic motor Hydraulikmotor	Hydraulimoottori Moteur hydraulique	OMP400	2
1.1. ...	58217746 ...	Seal kit Dichtungssatz	Tiivistesarja Série isolation		1
1.2. ...	57609125 ...	Key Keil	Kiila Coin		1
2.	–				
3.	56075252 ...	Flow divider valve Stromteilventil	Virtauksenjakoventtiili		1
4.	56070832 ...	Flow regulator valve Durchflussmengenregler	Virtauksensäätöventtiili Soupape de contrôle du débit		1
5.	56075260 ...	Directional control valve Steuerventil	Suuntaventtiili Vanne de direction	Eur	1
6.	43486490 ...	Plate Platte	Levy Plat		1
7.	–				
8.	–				
9.	–				
10.	–				
11.	03485310 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux		1
11.1. ...	56525157 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	V1/2”S L=1,0m	2
11.2. ...	56526130 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	K1/2”S L=0,9m	2
11.3. ...	56526015 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	K1/2”S L=0,3m	1
11.4. ...	03485290 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	Osat:12,13,14,15,16	1
11.5. ...	03485360 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	Osat:13,17,18,19	1
11.6. ...	03484320 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	Osat:14,15,16,20,21	1
11.7. ...	54921473 ...	Hose cover Schutz	Letkusuoja Tuyau de protection	10 m	1
12.	56526288 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	K1/2”S L=2,3m	1
13.	52390200 ...	Usit ring Usit–Dichtung	Usit– rengas Bague Usit	U21,5x28,7x2,5	13
14.	52432051 ...	Double fitting Doppelnippel	Kaksoisnippa Double embout	R1/2”	8
15.	52449022 ...	Quick fitting Schnappkupplung	Pikaliitinnippa Embout douille à baïonnette	1/2” SK	2

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Hydraulics – Hydraulikka – Hydraulik – Hydraulique



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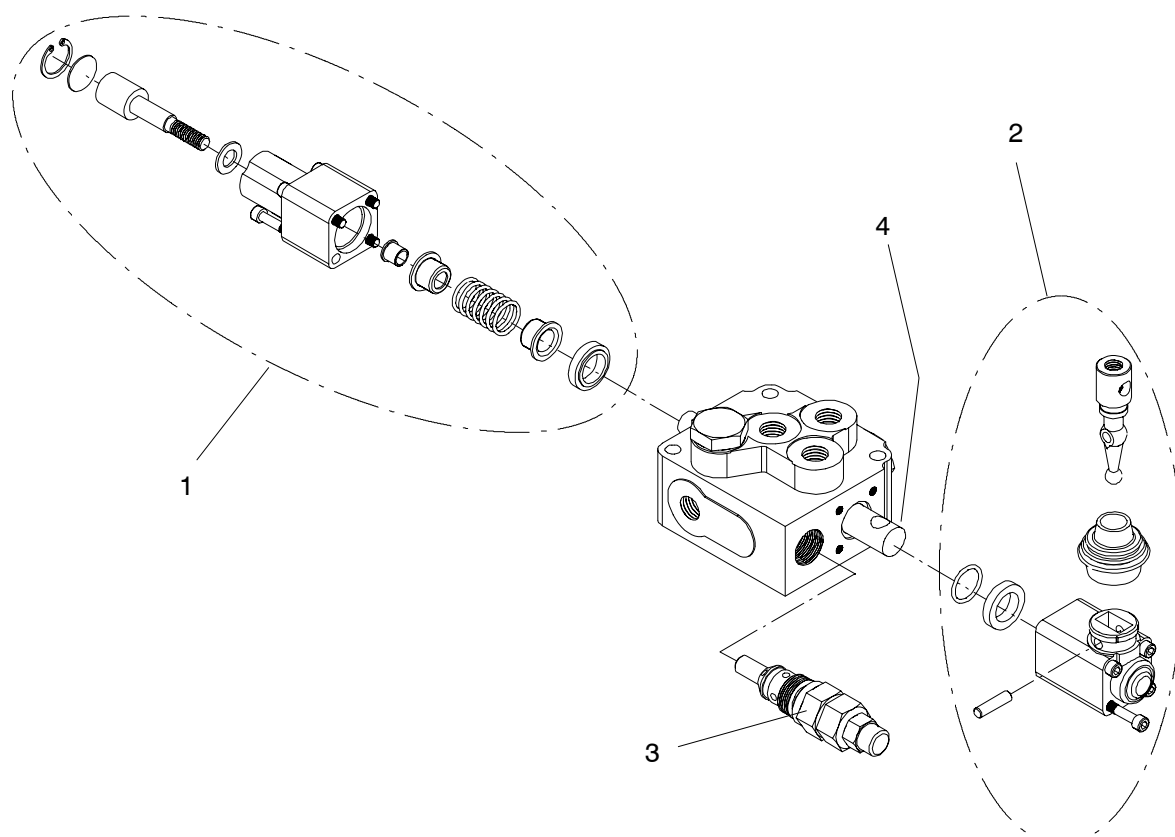
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Hydraulics – Hydraulikka – Hydraulik – Hydraulique

Part Osa Teil Pièce	Order No. Til.nro. Best Nt No. de ordre	Description Bezeichnung	Nimitys Désignation	Remarks Huom. Obs Obs	Qty. Kpl. St. Pc.
16.	54922141 ...	Plug Schutz	Suojahattu Bouchon	1/2"	2
17.	56526049 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	K1/2" S L=0,45m	1
18.	52435336 ...	Bulkhead fitting Nippel	Läpivientinippa Embout de passage	R1/2"	1
19.	52449758 ...	Quick fitting coupling Schnappkupplung	Pikaliitinrunko Corps de la douille baïonnette	R1/2" Flat	1
20.	56526353 ...	Hose assy Schlauchsatz	Letkuasetelma Ensemble de tuyaux	K1/2" S L=3,0m	1
21.	52449766 ...	Quick fitting Schnappkupplung	Pikaliitinippa Embout douille à baïonnette	R1/2" Flat	1
22.	52090438 ...	Socketed head screw Innensechskantschraube ...	Kuusiokoloruuvi Vis hexagonale à tête creuse	M10x20 DIN7991 ...	2
23.	52070414 ...	Socketed head screw Innensechskantschraube ...	Kuusiokoloruuvi Vis hexagonale à tête creuse	M8x60 DIN912	3
24.	52060175 ...	Hexagonal screw Sechskanntschraube	Kuusioruuvi Vis hexagonale	M8x25 DIN933	12
25.	52110038 ...	Nut Mutter	Mutteri Ecrou	M8 DIN934	2
26.	52443686 ...	T– nipple T–Nippel	T– nippa Embout en T	R1/2"	2
27.	52442175 ...	Angle nipple Winkelnippel	Kulmanippa Embout coudé	R1/2"	1
28.	52442365 ...	Angle nipple Winkelnippel	Kulmanippa Embout coudé	R1/2"	3
29.	52435773 ...	Swivel fitting Copplung	Yhdysnippa Embout de raccord	R1/2"	3
30.	–
31.	556013246 ..	Directional control valveFitting Steuerventil	Suuntaventtiili Vanne de direction	1
32.	52200037 ...	Washer Scheibe	Aluslevy Rondelle	M8 DIN126	2
33.	43487680 ...	Limitter Begrenzer	Rajoitin Limite	1

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Directional control valve – Suuntaventtiili – Steuerventil – Vanne de direction



Part Osa Teil Pièce	Order No. Til.nro. Best Nt No. de ordre	Description Bezeichnung	Nimitys Désignation	Remarks Huom. Obs Obs	Qty. Kpl. St. Pc.
	56075260 ...	Directional control valve Steuerventil	Suuntaventtiili Vanne de direction	Eur	1
1.	58219007 ...	Rear case Hintergehäuse	Takakotelo Boîtier arrière		1
2.	58218975 ...	Lever case Hebelgehäuse	Vipukotelo Boîtier de levier		1
3.		Pressure relief valve Druckventil	Painerajaventtiili Soupape de décharge	175 bar	1
4.		Spindle Spindel	Kara Tiroir cylindrique		1



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GUARANTEE

FARMI Forest products are guaranteed to be free from defects in materials and workmanship for 12 months from the date of purchase.

This warranty does not cover defects resulting from:

- misuse of the product
- inadequate maintenance
- modifications of the product made without the manufacturer's consent

The warranty is effective only, if the lower portion of this page is completed and returned to the manufacturer within 14 days of receipt of the product..

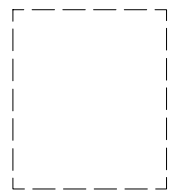
Important

Before putting your FARMI to use, be sure to read the instruction and service booklet provided with the machine

FARMI Forest Corporation

Ahmolantie 6

74510 PELTOSALMI



FARMI Forest

Ahmolantie 6

FIN-74 510 PELTOSALMI

FINLAND



Date of delivery: ____ / ____ 20 ____

Dealer: _____

Dealer's address: _____

Dealer's tel: _____

Product and type: _____

Serial number: _____



Return to the manufacturer

Date of delivery: ____ / ____ 20 ____

Dealer: _____

Dealer's address: _____

Dealer's tel: _____

Customer: _____

Customer's address: _____

Customer's tel: _____

Product and type: _____

Serial number: _____

Notes: _____



FARMI®

Forest
Made in Finland

