

Farmi Forest Warranty Costs

Farmi Forest will accept the following labour costs only when warranty repairs are agreed beforehand with Farmi. As principal only the difficult warranty repairs will be paid. If the assembly job of the warranty part can be done by the customer only the part price is accepted.

Unless otherwise agreed, transporting the machine to dealer's workshop for warranty repair shall be at customer's account and risk. Therefore Farmi will not accept any travelling costs as warranty.

NOTE! Especially electric and hydraulic problems sometimes require a longer troubleshooting or fault finding process. Labour costs of troubleshooting and fault finding are not included to these tables. If the fault is not known and not easy to find the maximum accepted working time for troubleshooting is 3 hours. If the problem is not solved after 3 hours the process must be stopped and the mechanic must contact Farmi to get further instructions. You can always ask advice from Farmi before starting the fault finding!

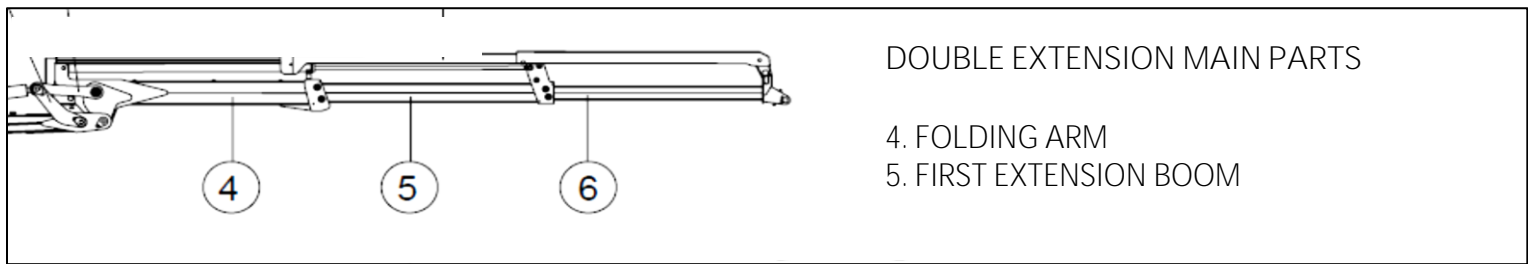
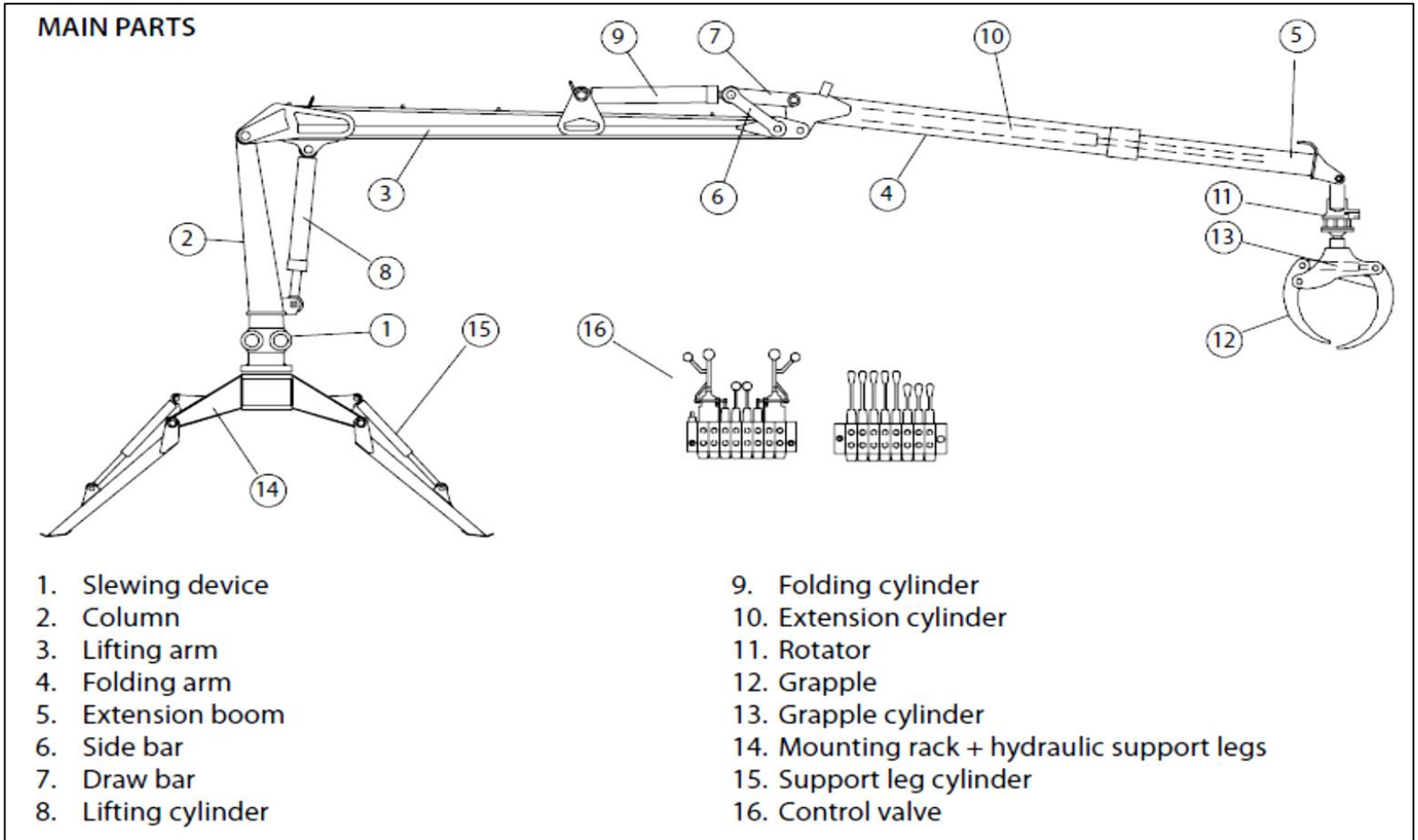
Warranty does not cover any of following generally consumption parts:

- hoses
- hydraulic pipes (normally will be broken when the pipe touches trees or other objects)
- winch cables (normally are broken because of operation failure)
- all kind of knives (chippers, firewood processors)
- all parts for brakes (winches and trailers)
- all kind of springs
- tyres
- transmission belts (chippers, firewood processors)
- oils and lubricants (are never paid, even the leakage is caused by a damage or part or component, which will be covered by warranty)

TABLE OF CONTENTS

-
1. Cranes
 2. Trailers and hydraulic units
 3. Chippers with feeders
 4. Winches
 5. Woodprocessors

1. CRANES



CRANE MAIN PARTS:			
Part:	Repair work:	Hrs:	Notes:
1. Slewing device *	Replacing the complete slewing device housing	3	
1.1 Bearings	Replacing the upper or lower bearings	4	
1.2 Racks and support bearings	Replacing the rack or support bearing.	4	
1.3 Cylinder tube, piston and seals.	Replacing the cylinder tube, piston or piston seals.	-	
2. Column *	Replacing the column.	3	
3. Lifting arm *	Replacing the complete lifting arm.	2,5	
3.1 Pin	Replacing the pin between lifting arm and column.	0,5	
4. Folding arm *	Replacing the folding arm.	2,5	Includes the replacement of extension parts.
4.1 Pin	Replacing the pin between lifting arm and folding arm.	0,5	
5. Extension boom (single) *	Replacing the complete extension boom.	1	
5.1 Inner slide plates	No warranty.		
5.2 Outer slide plates	No warranty.		
6. Side bar	Replacing the side bar.	-	
7. Draw bar	Replacing the draw bar.	-	
8. Lifting cylinder	Replacing the complete lifting cylinder.	-	Replace if leaks from tube or weldings.
8.1 Seal kit	Replacing the seal kit.	1	
8.2 Pins	Replacing the cylinder pins.	-	
8.3 Articulation bearings	Replacing the articulation bearing.	-	
9. Folding cylinder	Replacing the complete folding cylinder.	-	Replace if leaks from tube or weldings.
9.1 Seal kit	Replacing the seal kit.	1	
9.2 Pins	Replacing the cylinder pins.	-	
9.3 Articulation bearings	Replacing the articulation bearing.	-	
10 Extension cylinder *	Replacing the complete extension cylinder.	1	Replace if leaks from tube or weldings.
10.1 Seal Kit	Replacing the seal kit.	1,5	
10.2 Pins	Replacing the cylinder pins.	-	
11. Rotator	Replacing the rotator.	-	
12. Grapple	Replacing the complete grapple.	-	
12.1 Pins	Replacing the grapple pins or slide bearings.	-	
12.2 Frame and claws	Replacing the main frame , reaction bars or claws.	-	
13. Grapple cylinder	Replacing the complete grapple cylinder.	-	Replace if leaks from tube or weldings.
13.1 Seal kit	Replacing the seal kit.	1	
13.2 Pins	Replacing the cylinder pins.	-	
14. Mounting rack and support legs *	Replacing the complete unit.	1	
14.1 Support legs	Replacing the support leg.	-	
14.2 Pins	Replacing the support leg pins.	-	
15. Support leg cylinder	Replacing the complete support leg cylinder.	-	Replace if leaks from tube or weldings.
15.1 Seal kit	Replacing the seal kit.	1	
15.2 Pins	Replacing the cylinder pins.	-	
16. Control valve (mechanical and ON-OFF)	Replacing the complete control valve.	2	
16.1 Shaft seal kit	Replacing the shaft seals.	0,5	
16.2 Seal kit (O-rings between blocks)	Replacing the seal kit.	1,5	Includes all seals or just one kit.
16.3 Working sections (valve blocks)	Replacing the single working section.	1,5	Includes several sections or just one section.
16.4 Pressure relief valves and shock valves.	Replacing the main relief valve or shock valves.	0,5	Pressure adjustment after replacement.
16.5 Levers and rubber covers.	Replacing the lever or rubber cover.	-	
16.6 Magnetic coil.	Replacing the magnetic coil.	-	
16.7 Micro switches	Replacing the micro switch.	-	On-Off valve and HPC valve.
16. Control valve (HPC and EHC)	Replacing the complete control valve.	2,5	
16.1 Shaft seal kit	Replacing the shaft seals.	0,5	
16.2 Seal kit (O-rings between blocks)	Replacing the seal kit.	2	Includes all seals or just one kit.
16.3 Working sections (valve blocks)	Replacing the single working section.	2	Includes several sections or just one section.
16.4 Pressure relief valves and shock valves.	Replacing the main relief valve or shock valves.	0,5	Pressure adjustment after replacement.
16.5 Electric actuators (solenoid valves)	Replacing the electric actuator or solenoid valve.	-	
16.6 Joystics	Replacing the joystic.	-	
16.7 Other electric parts	Replacing other electric parts (Iqan modules etc.).	-	

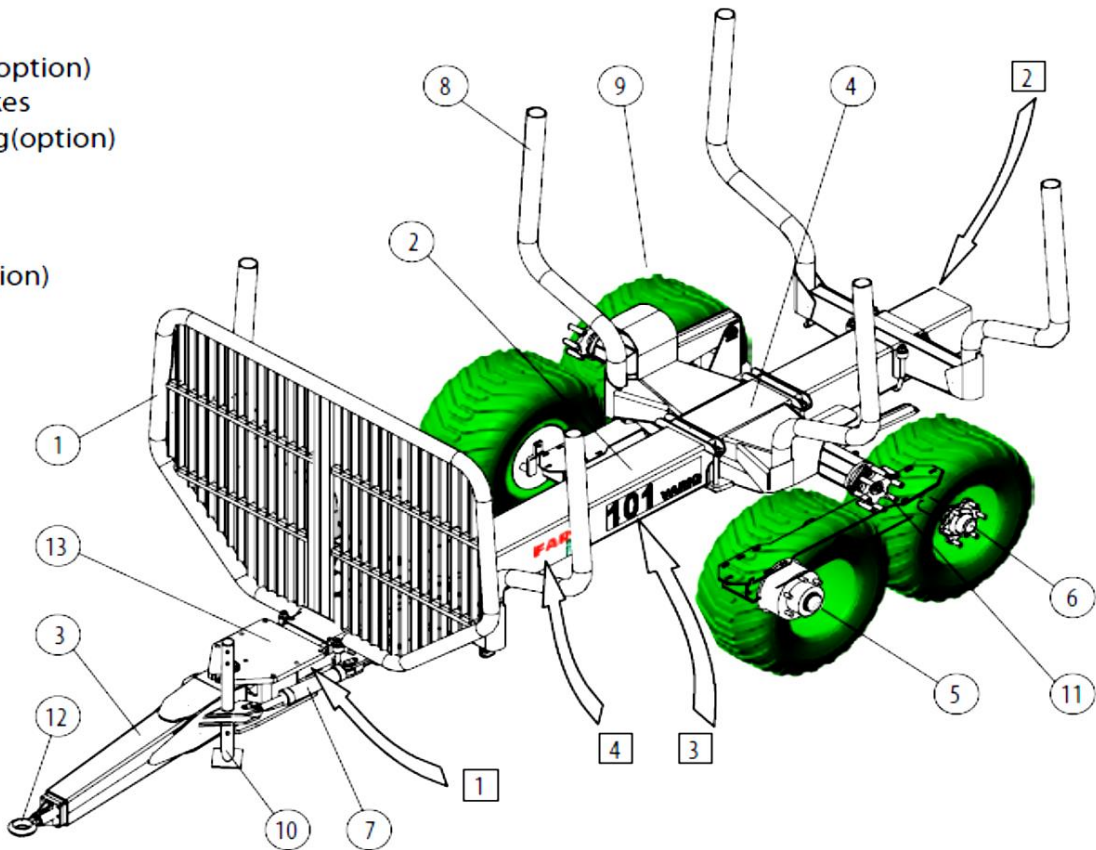
* = Lifting equipment needed for servicing

DOUBLE EXTENSION PARTS:			
Part:	Repair work:	Hrs:	Notes:
4. Folding arm *	Replacing the folding arm.	2,5	Includes the replacement of extension parts.
4.1 Slide plates	No warranty.		
5. First extension boom *	Replacing the complete 1. extension boom.	3	
5.1 Inner slide plates	No warranty.		
5.2 Outer slide plates	No warranty.		
5.3 Extension chain and rollers	Replacing the extension chain or rollers.	3	
6. Second extension boom *	Replacing the complete 2. extension boom.	3	
6.1 Slide plates	No warranty.		
6.2 Extension chain and rollers	Replacing the extension chain or rollers.	3	

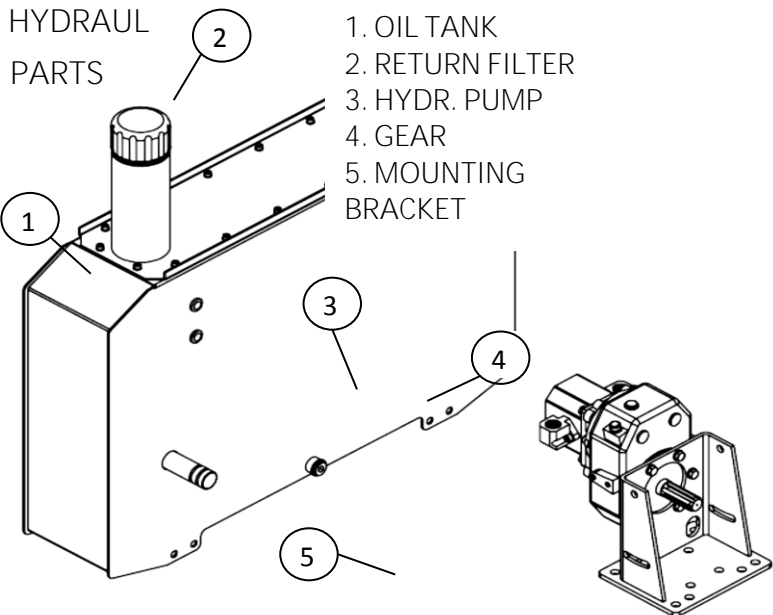
2. TRAILERS AND HYDRAULIC UNITS

MAIN PARTS

- 1. Screen
- 2. Central beam
- 3. Drawbar
- 4. Bogie
- 5. Hub with brakes(option)
- 6. Hub without brakes
- 7. Hydraulic steering(option)
- 8. Bolster
- 9. Tyres
- 10. Stand
- 11. Traction unit (option)
- 12. Eye
- 13. Mounting plate



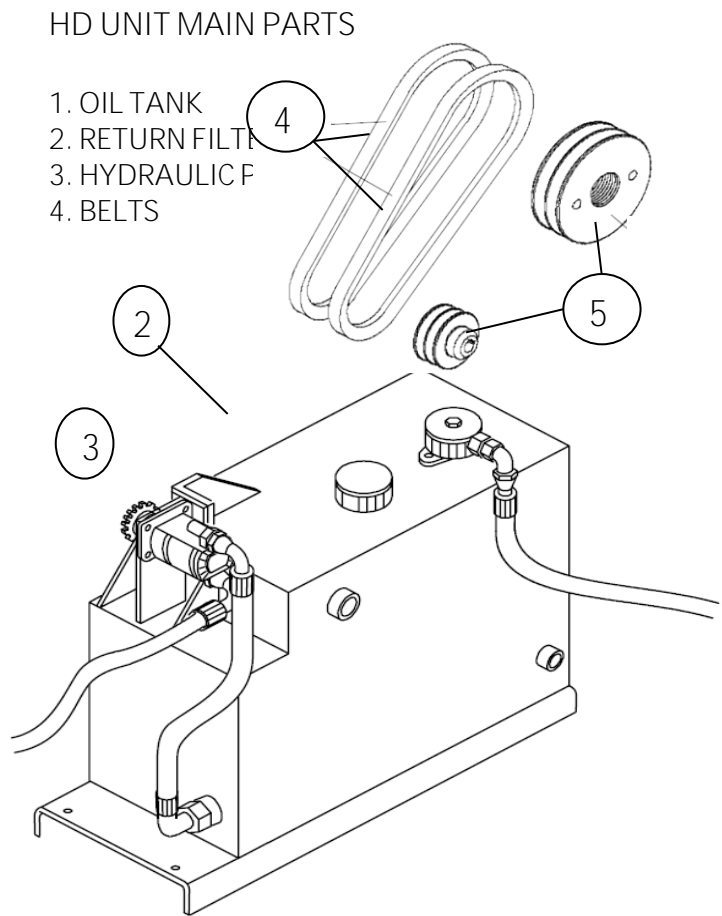
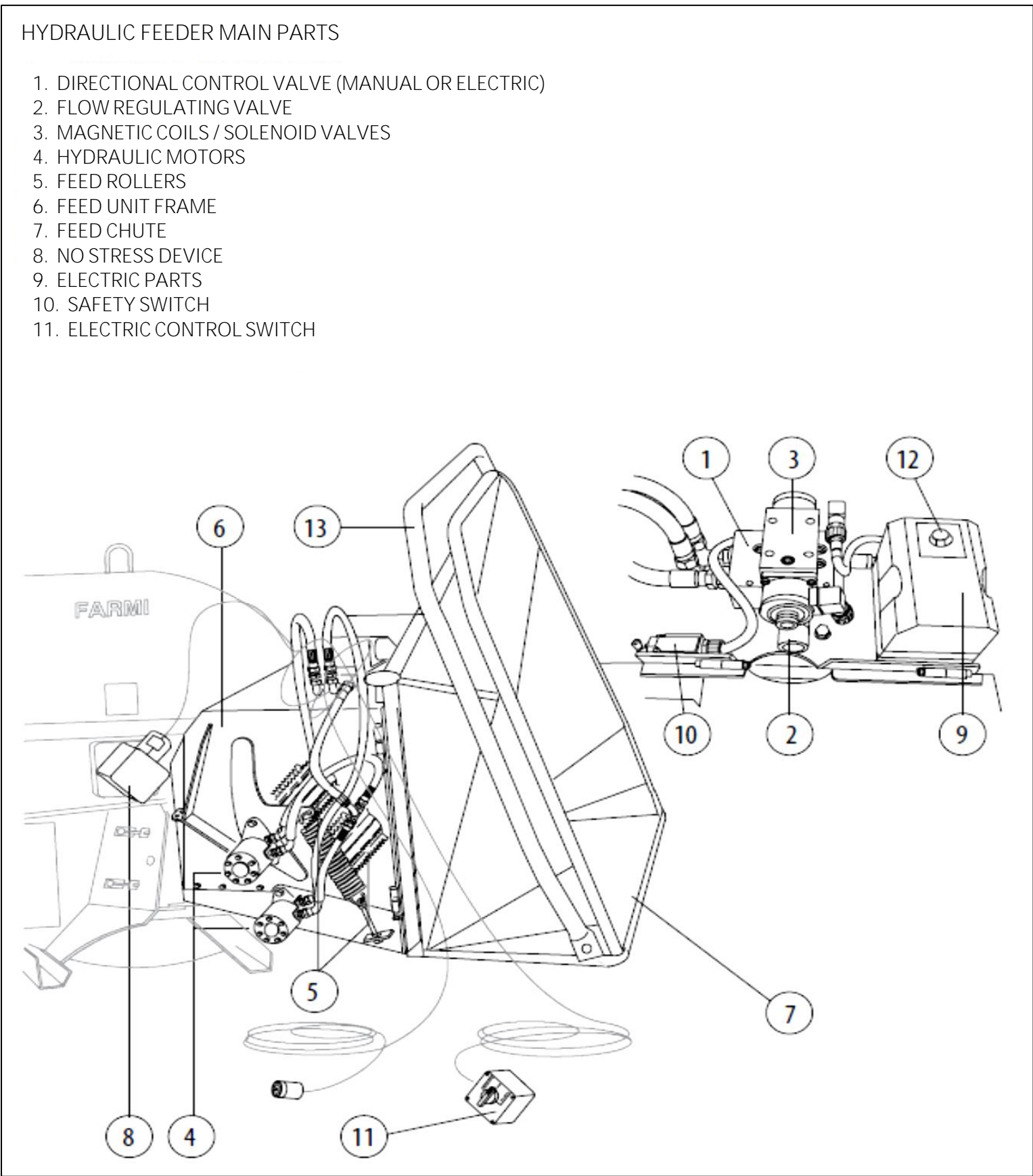
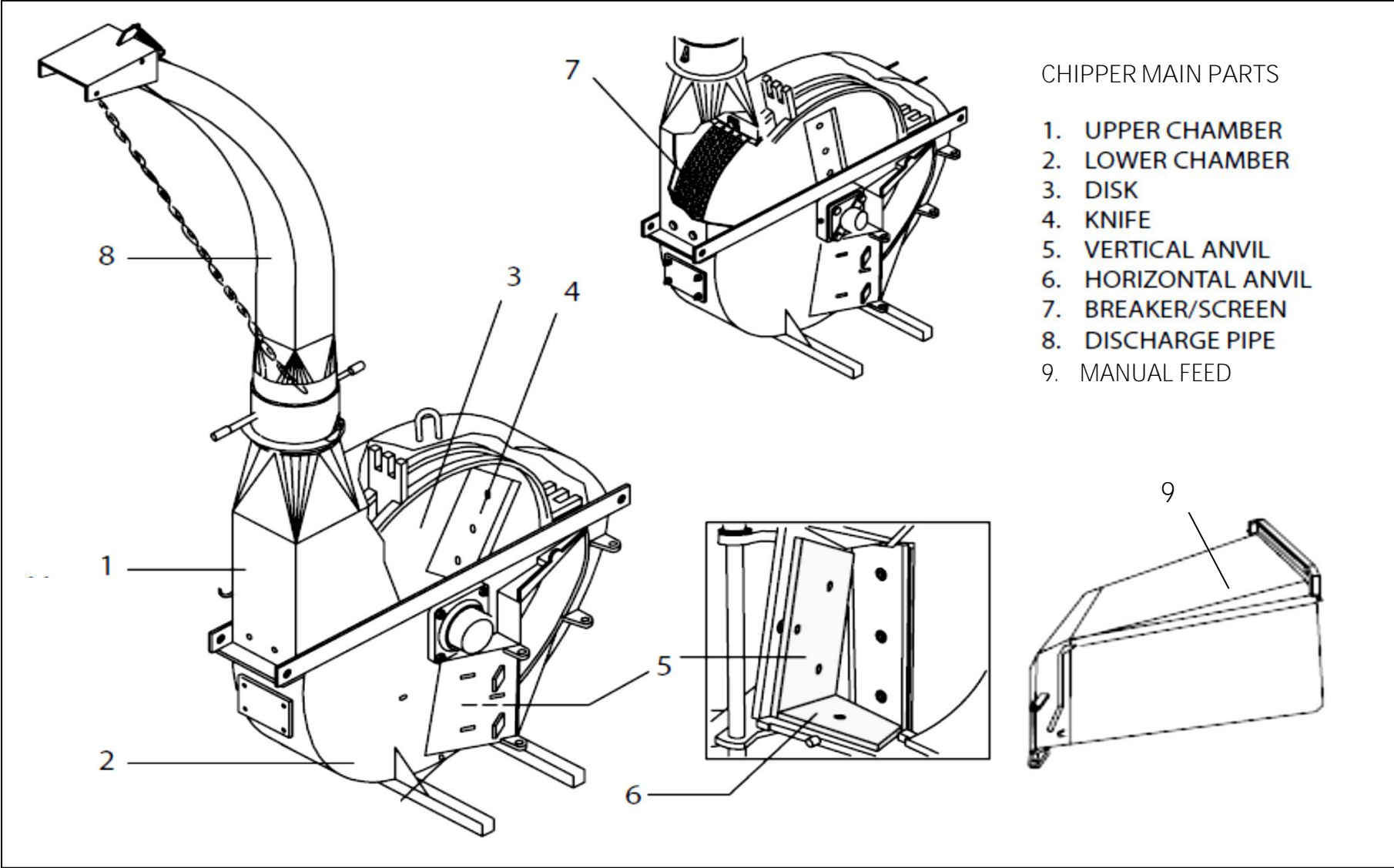
HYDRAUL
PARTS



TRAILER MAIN PARTS:			
Part:	Repair work:	Hrs:	Notes:
1. Screen	Replacing the screen.	-	
2. Central beam	Replacing the central beam.	8	
3. Drawbar	Replacing the complete draw bar.	-	
3.1 Pin and slide bearings	Replacing the pin or slide bearings.	1	If bearings are replaced.
4. Bogie	Replacing the complete bogie.	2	Bogie for one side only.
4.1 Slide bearings	Replacing the bogie slide bearing.	2,5	For one side.
5. Hub with brakes	Replacing the complete hub with brakes.	5	Ask permission from Farmi.
5.1 Bearings	Replacing the hub bearings.	2	
5.2 Brake cylinder (internal)	Replacing the brake cylinder inside the hub.	2	Inside the hub.
5.2 Brake cylinder (external)	Replacing the brake cylinder outside the hub.	-	
5.3 Brake shoes and accessories	No warranty.		Unless the cylinder has been leaking.
5.4 Dust cover	Replacing the dust cover.	-	
6. Hub without brakes	Replacing the complete hub without brakes.	5	Ask permission from Farmi.
6.1 Bearings	Replacing the hub bearing.	2	
6.2 Dust cover	Replacing the dust cover.	-	
7. Hydraulic steering	Replacing the complete hydraulic steering.	1,5	Cylinders and hoses.
7.1 Cylinders with accessories.	Replacing the steering cylinder or accessories.	-	
8. Bolster	Replacing the complete bolster set.	1	
8.1 Stake	Replacing the stake tube.	-	
9. Tyres			
9.1 Rims	No warranty.		Accepted if rim supplier agrees.
9.2 Inner tube and outer tyre	No warranty.		Accepted if tyre supplier agrees.
10. Stand	Replacing the stand.	-	
11. Traction unit	Replacing the complete traction unit.	2,5	Includes the mounting brackets.
11.1 Hydraulic motor and traction rollers.	Replacing the hydraulic motor or traction roller.	1	
11.2 Seal kit for motor.	Replacing the hydraulic motor seals.	1,5	
11.3 Cylinder	Replacing the hydraulic cylinder.	-	
11.4 Seal kit for cylinder	Replacing the cylinder seal kit.	1	
11.5 Traction unit frame and brackets	Replacing the frame or brackets of traction unit.	2,5	
11.6 Electric control valve (option)	Replacing the complete control valve.	1,5	
11.6.1 Electric control valve seals	Replacing the seals for electric control valve.	2	
12. Eye	Replacing the complete eye.	-	If bolt mounted.
13. Mounting plate	Replacing or repairing the mounting plate.	6	Ask welding instructions from Farmi.

HYDRAULIC UNIT PARTS:			
Part:	Repair work:	Hrs:	Notes:
1. Oil tank	Replacing the oil tank.	1,5	
2. Return filter	Replacing the complete return filter.	-	With housing. Replace if leaks.
3. Hydraulic pump			
3.1 Gear pump (fixed displacement)	Replacing the gear pump.	1	
3.2 Piston pump (variable displacement)	Replacing the piston type pump (variable displacement).	1,5	Pressure adjustment after replacement.
4. Gear	Replacing the complete gear.	1	
4.1 Seals and bearings	Replacing the gear shaft seals or bearings.	2	Special tools needed.
5. Mounting bracket	Replacing the mounting bracket.	1	

3. CHIPPERS WITH FEEDERS

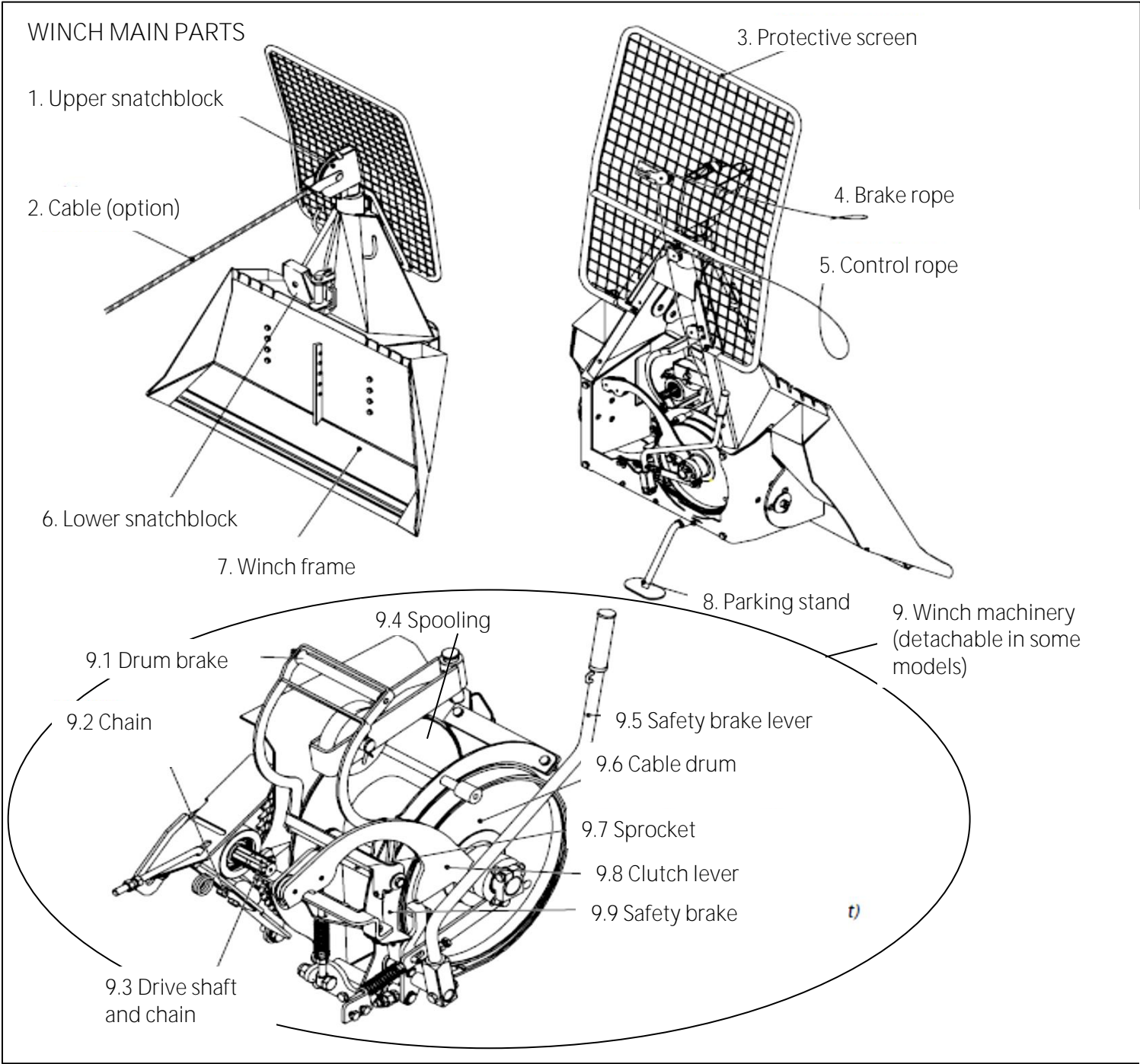


CHIPPER MAIN PARTS:				
Part:	Repair work:	Hrs:	Notes:	
1. Upper chamber	Replacing the upper chamber. (CH380 only)	2		
1.1 Twig blade	No warranty.			
2. Lower chamber	Replacing the complete lower chamber.	8	Ask permission from Farmi.	
2.1 Twig blade	No warranty.			
3. Disk	Replacing the complete disk.	3	Adjustment needed after installing.	
3.1 Bearings	Replacing a rotor bearing.	3	One or both bearings.	
4. Knife	No warranty.			
4.1 Knife bracket	Replacing a knife bracket.	-	Adjustment needed after installing.	
5. Vertical anvil	No warranty.			
6. Horizontal anvil	No warranty.			
7. Breaker/screen	No warranty.			
8. Discharge pipe				
8.1 Discharge pipe (CH180 - CH260)	Replacing the compl. discharge pipe for chippers CH180 - CH260.	-		
8.1.1 Limiter chain and spring	Replacing the limiter chain or spring.	-		
8.1.2 Hydraulic parts (optional)	Replacing the hydraulic motor or cylinders.	-		
8.2 Discharge pipe (CH380)	Replacing the complete discharge pipe for CH380 chipper.	2		
8.2.1 Hydraulic parts	Replacing the hydraulic motor or cylinders for discharge pipe.	-		
8.2.2 Discharge pipe rotator parts	Replacing the discharge pipe rotator parts (chain etc.)	-		
9. Manual feed chute	Replacing the manual feed chute.	-		

HYDRAULIC FEEDER PARTS:				
Part:	Repair work:	Hrs:	Notes:	
1. Directional control valve (HF180 - HF260)	Replacing the complete control valve for HF180 - HF260	1	Pressure adjustment after replacement.	
1.1 Seals	Replacing the control valve seals (O-rings or shaft seals).	1.5		
1.2 Main relief valve	Replacing the main relief valve.	1	Pressure adjustment after replacement.	
1.3 Flow dividing valve	Replacing the flow dividing valve.	1		
1.4 Valve spool.	Replacing the valve spool.	1		
1.5 Manual valve lever case.	Replacing the manual valve's lever case for HF180 and HF231.	1	Previni lever case.	
1. Directional control valve (CH380)	Replacing the complete control valve for CH380.	2		
1.1 Spool seals	Replacing the spool seals.	2		
1.2 Seal kit for valve blocks (O-rings)	Replacing the O-rings between working sections.	3		
1.3 Main relief valve	Replacing the main relief valve.	1	Pressure adjustment after replacement.	
1.4 Flow dividing valve	Replacing the flow dividing valve.	1		
1.5 Valve spool	Replacing a valve spool.	1		
2. Flow regulating valve	Replacing the flow regulating valve.	1		
3. Magnetic coils / solenoid valves	Replacing a magnetic coil or solenoid valve.	-		
4. Hydraulic motors	Replacing a complete hydraulic motor.	-		
4.1 Seal kit	Replacing the motor seal kit.	1.5	Follow the motor manufacturer instructions.	
5. Feed rollers	Replacing the feed roller.	2.5		
6. Feed unit frame	Replacing the complete feed unit frame.	3		
7. Feed chute	Replacing the complete feed chute.	-		
8. No stress device	Replacing the no stress device.	-	No stress sensor or relays.	
9. Electric parts	Replacing the complete electric set (with no stress sensor)	1		
9.1 Relays	Replacing a relay.	-	No stress relays or safety relay.	
9.2 Switches and connectors	Replacing a switch or connector.	-		
9.3 Cables	Replacing a cable.	-		
10. Safety switch	Replacing the safety switch.	-		
11. Electric control switch	Replacing the electric control switch.	-		
12. Emergency stop switch	Replacing the emergency stop switch.	-		

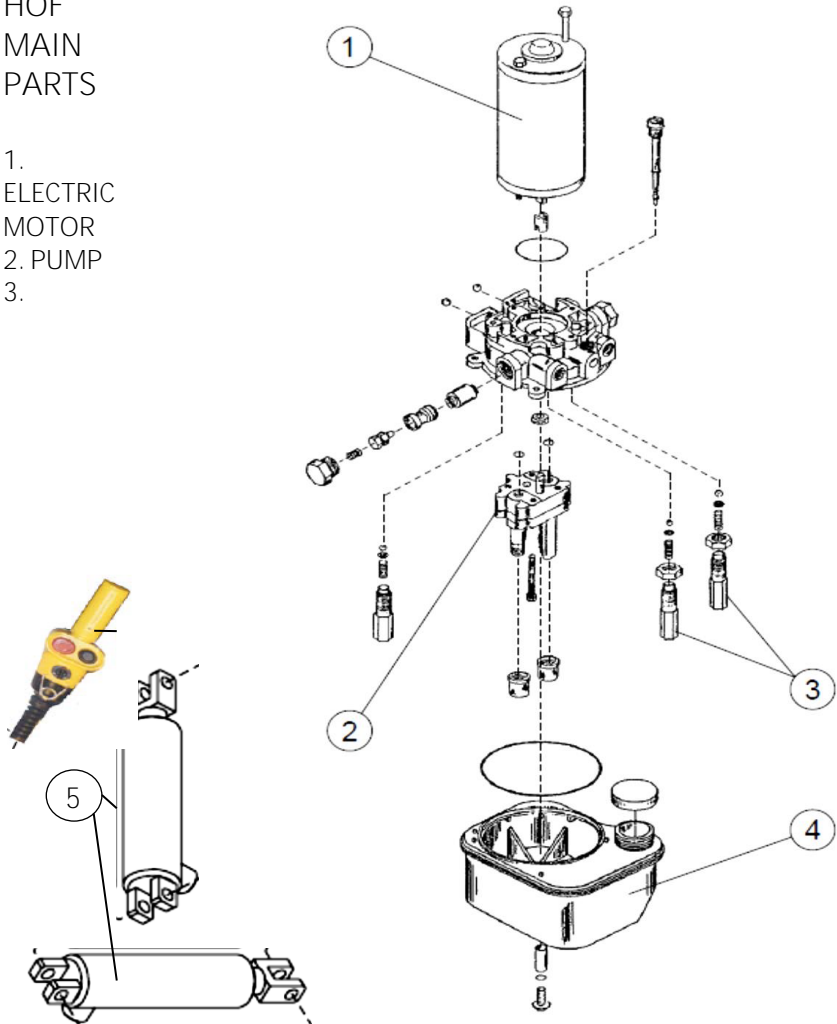
HD UNIT PARTS:				
Part:	Repair work:	Hrs:	Notes:	
1. Oil tank				
1.1 Oil tank (HD11)	Replacing the oil tank of HD11.	-		
1.2 Oil tank (CH380)	Replacing the oil tank of CH380.	4		
2. Return filter	Replacing the complete return filter.	-	With housing. Replace if leaks.	
3. Hydraulic pump	Replacing the complete hydraulic pump.	1		
3.1 Support bearing	Replacing the pump support bearing.	1		
3.2 Splined bushing	Replacing the splined bushing between the pump and bearing.	1		
4. Belts	No warranty.			
5. Belt pulleys				
5.1 Primary pulley	Replacing the primary pulley.	1	On the rotor shaft.	
5.2 Secondary pulley	Replacing the secondary pulley.	1	On the support bearing.	

4.WINCHES



HOF
MAIN
PARTS

1. ELECTRIC MOTOR
2. PUMP
3.



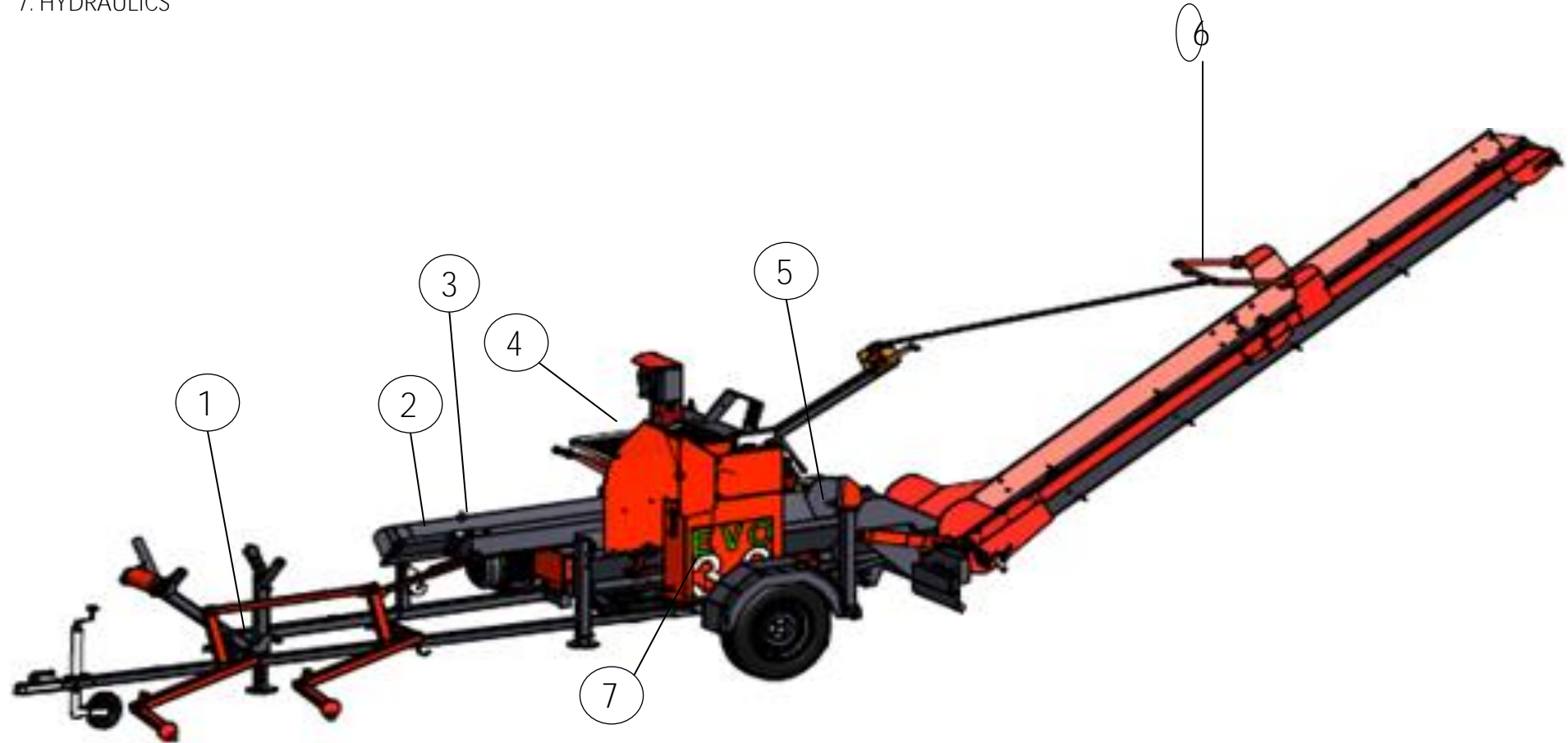
WINCH MAIN PARTS:			
Part:	Repair work:	Hrs:	Notes:
1. Upper snatchblock	Replacing the complete upper snatchblock	-	
1.1 Bearings	Replacing the upper snatchblock bearing.	1	
2. Cable (option)	No warranty.		
3. Protective screen	Replacing the protective screen.	-	
4. Brake rope	No warranty.		
5. Control rope	No warranty.		
6. Lower snatchblock	Replacing the complete lower snatchblock.	-	
6.1 Bearings	Replacing the lower snatchblock bearing.	1	
7. Winch frame	Replacing or repairing the winch frame.	5	Ask permission from Farmi.
7.1 Dozer blade (ALP 85)	Replacing the dozer blade for ALP 85.	-	
8. Parking stand	Replacing a parking stand.	-	
9. Winch machinery			
9. Winch machinery (detachable)	Replacing the complete winch machinery.	-	Models with detachable machinery.
9. Winch machinery (fixed)	Replacing the complete winch machinery.	3	Models with fixed machinery.
9.1 Drum brake	Replacing the complete drum brake.	2	
9.2 Chain tightener	Replacing the complete chain tightener.	1	
9.3 Drive shaft and chain	Replacing the complete drive shaft.	2	
9.3.1 Chain	No warranty.		
9.3.2 Drive shaft bearings	Replacing a drive shaft bearing.	2,5	
9.4 Spooling device	Replacing the complete spooling device.	-	
9.4.1 Bearings	Replacing a spooling device bearing.	1	
9.5 Safety brake lever	Replacing the safety brake lever.	-	
9.6 Cable drum	Replacing the complete cable drum.	3	
9.6.1 Bearings	Replacing a cable drum bearing or compression bearing.	3,5	
9.7 Sprocket	Replacing the complete sprocket.	3	
9.7.1 Sprocket bearings	Replacing the sprocket bearings.	3,5	
9.7.2 Friction plates	No warranty.		
9.8 Clutch lever	Replacing the complete clutch lever.	-	Detachable lever.
9.8.1 Clutch parts on the drum shaft	Replacing the clutch parts located on the drum shaft.	1,5	
9.9 Safety brake	Replacing the complete safety brake system.	2	Not a ratchet brake.
9.9.1 Brake band	No warranty.		

HOF PARTS:			
NOTE : Individual HOF hydraulic unit components should not be replaced without informing Farmi beforehand.			
Part:	Repair work:	Hrs:	Notes:
COMPLETE HOF SYSTEM	Replacing the complete HOF system.	1,5	
1. Electric motor	Replacing the electric motor.	2	Ask the permission from Farmi.
2. Pump	Replacing the hydraulic pump.	2	Ask the permission from Farmi.
3. Pressure relief valves	Replacing a pressure relief valve.	2	Ask the permission from Farmi.
4. Oil tank	Replacing the oil tank.	2	Replace if leaking.
5. Hydraulic cylinders	Replacing a complete hydraulic cylinder.	-	
5.1 Seal kit	Replacing the seal kit for HOF cylinder.	1	
6. Electrics	Replacing an electric component (relays, cables, connectors etc.)	1	

5.WOODPROCESSORS

WOODPROCESSOR MAIN PARTS

- 1. MAIN FRAME (LOG LIFTERS AS OPTION)
- 2. MOVING FEED TABLE
- 3. COMBUSTION MOTOR OR ELECTRIC MOTOR (OPTION)
- 4. SAW
- 5. SPLITTING KNIFE
- 6. CONVEYOR
- 7. HYDRAULICS



WOODPROCESSOR MAIN PARTS:			
Part:		Repair work:	Hrs: Notes:
1. Main frame		Replacing the main frame parts or log lifters.	-
2. Moving feed table		Replacing the moving feed table.	-
3. Combustion motor or electric motor		Replacing the combustion motor or electric motor.	1 Ask the permission from Farmi.
4. Saw		Replacing the complete saw unit with hydraulic motor.	1,5 Includes the motor.
4.1 Saw blade		No warranty.	
4.2 Saw chain		No warranty.	
5. Splitting knife		No warranty.	
6. Conveyor		Replacing the complete conveyor with frame and belt.	1
6.1 Conveyor belt		Replacing the conveyor belt.	1
6.2 Diverting pulley and bearings		Replacing the diverting pulley or bearings.	1
7. Hydraulics			
7.1 Hydraulic motors		Replacing a complete hydraulic motor.	-
7.1.1 Seal kit		Replacing the seal kit for hydraulic motor.	1
7.2 Valves		Replacing a valve (relief valves, check valves etc.)	1 Pressure adjustment needed.
7.3 Hydraulic pump		Replacing a complete hydraulic pump.	1
7.3.1 Gear		Replacing a gear.	1
7.4 Oil tank		Replacing the complete oil tank.	2 Includes the return filter.
7.4.1 Return filter		Replacing the complete return filter with housing.	- Replace if leaks.