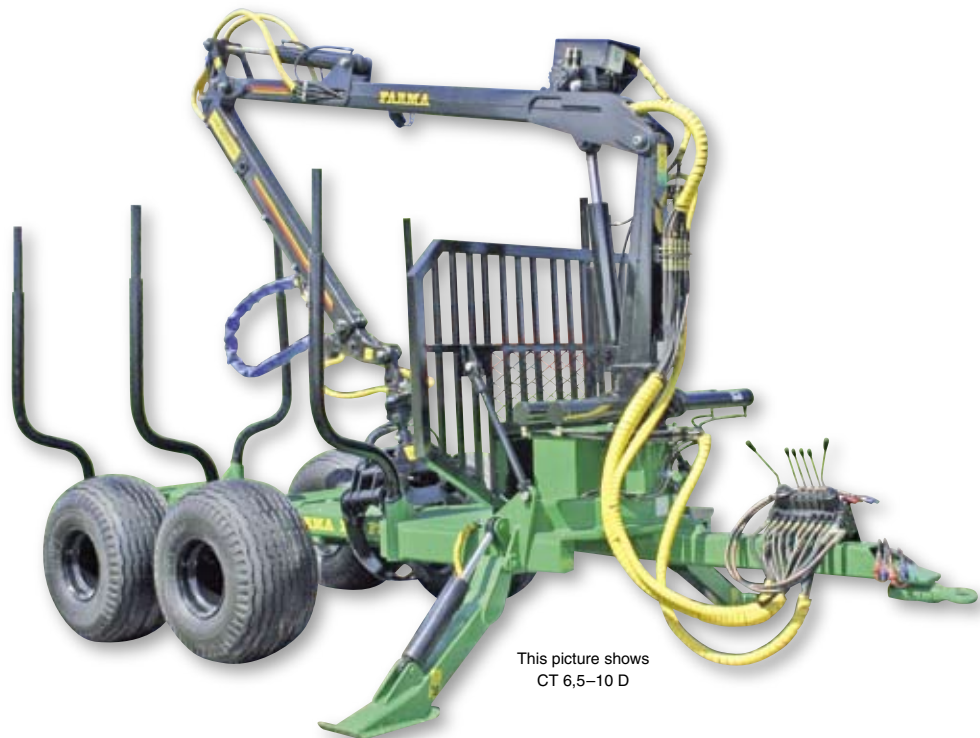


This picture shows
CT 6,5-10 D

INSTRUCTION BOOK

FARMA CT 3,8-6

SERVICE AND SPARE PARTS



INSTRUCTION BOOK

GRAPPLE LOADER
FARMA C 3,8 D

SERVICE AND SPARE PARTS

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1 INTRODUCTION

This manual deals with forest crane **C 3,8D** and contains all the operating and maintenance instructions you need for using the loader safely and correctly.

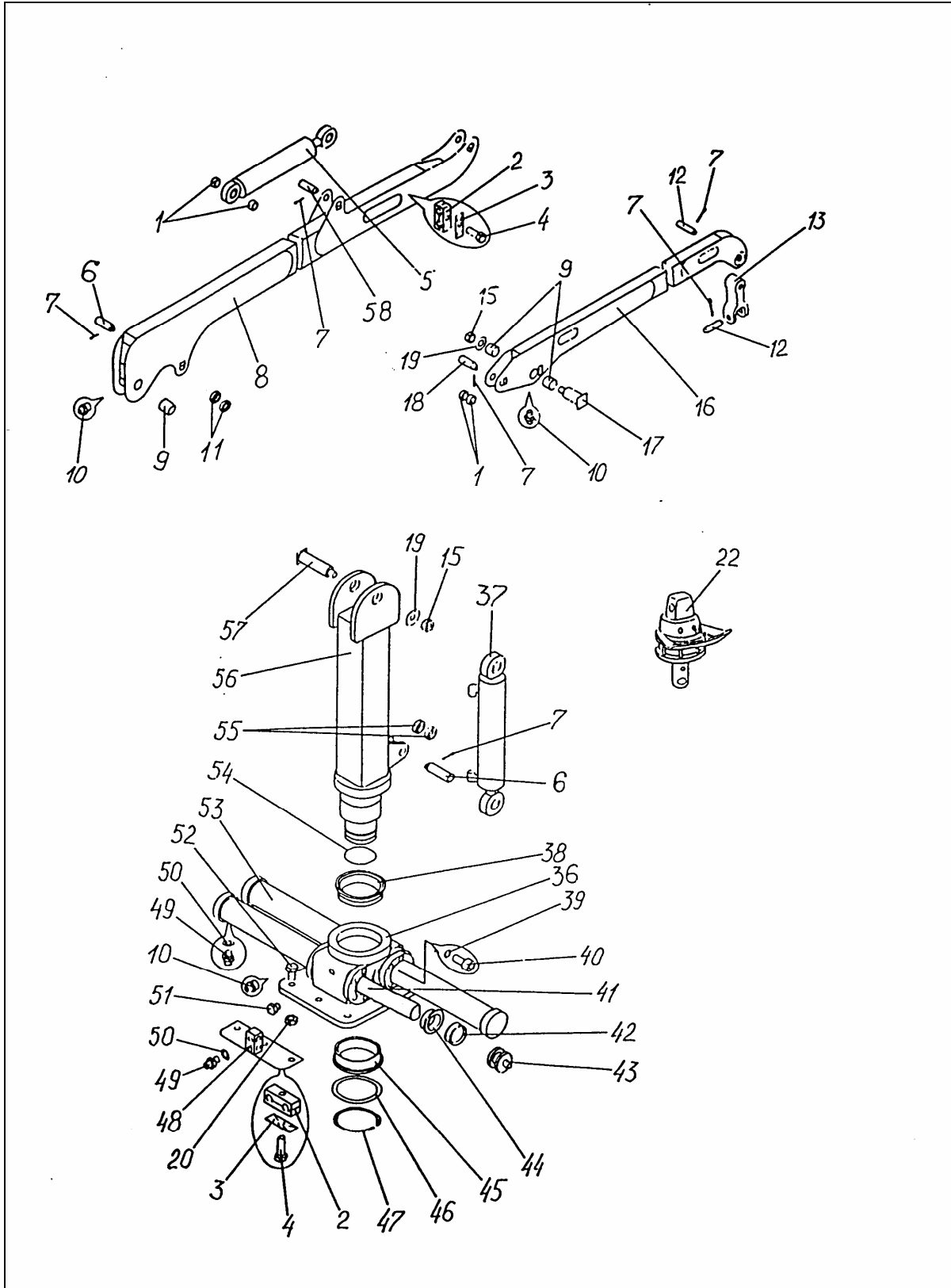
Even if you are experienced user of this kind of equipment, read this manual carefully. It contains information that enables the loader to be used efficiently and safely.

Regular maintenance is essential for troublefree, efficient and economical utilization. The loader delivered testrun and testloaded. The control valve and hydraulic cylinders are tested separately. Test operation at the factory is performed by using universal hydraulic oil (see lubricating instructions).

It is the operator duty to familiarize and obey all safety precautions and instructions carefully.

2 TECHNICAL SPECIFICATION

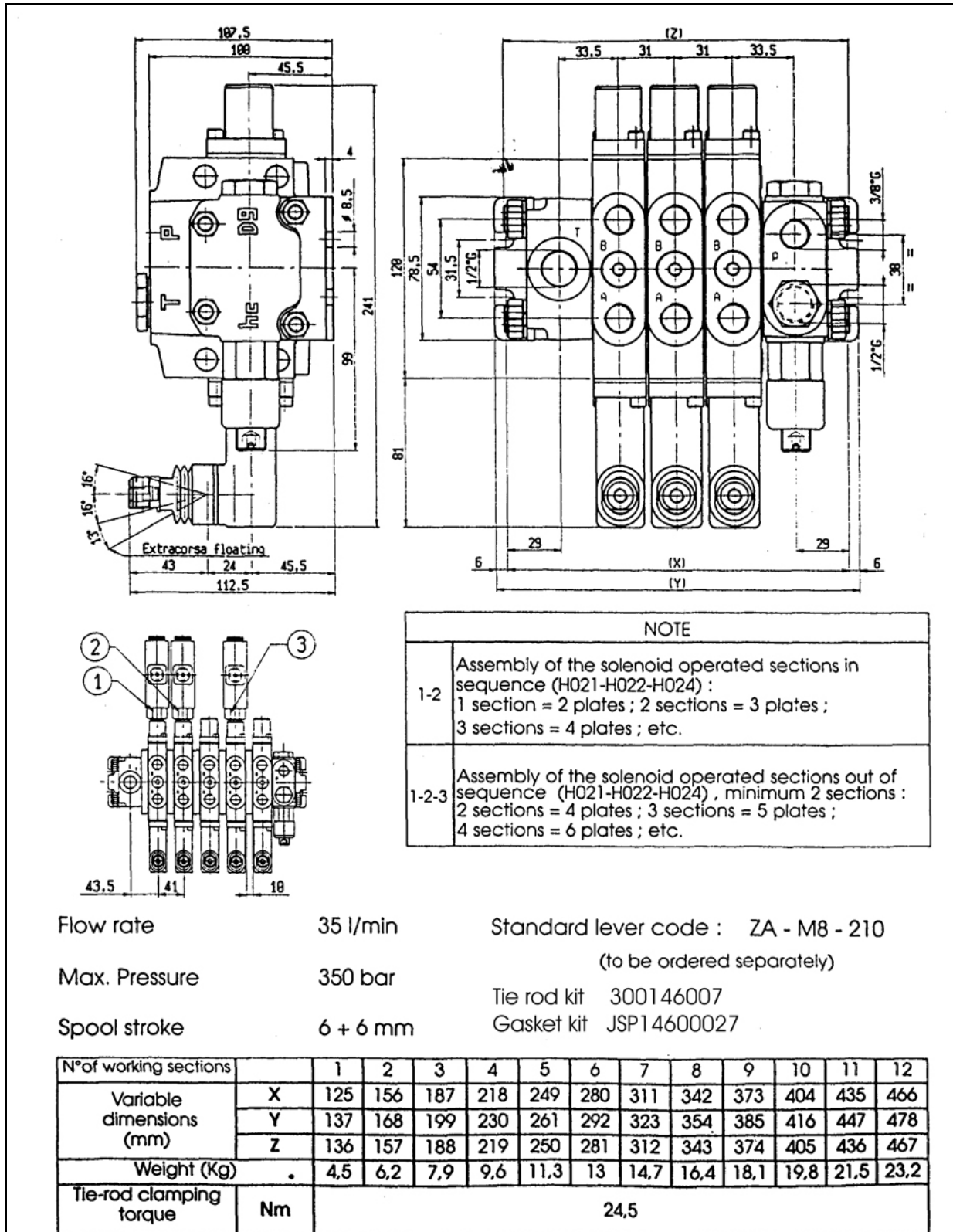
2.1. CONSTRUCTION OF THE LOADER

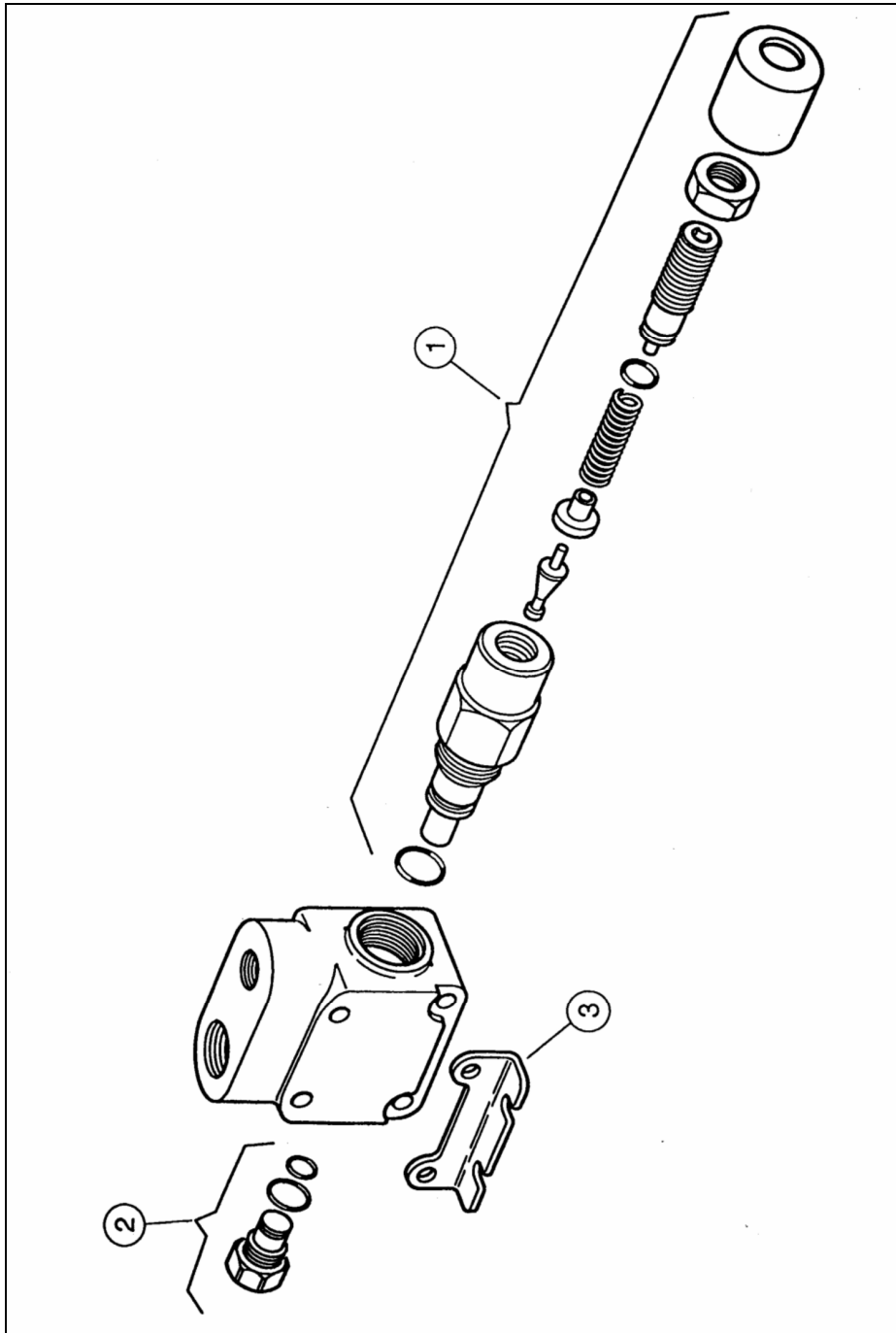


**2.2. FOREST CRANE C 3,8D SPECIFICATION**

Production no F21

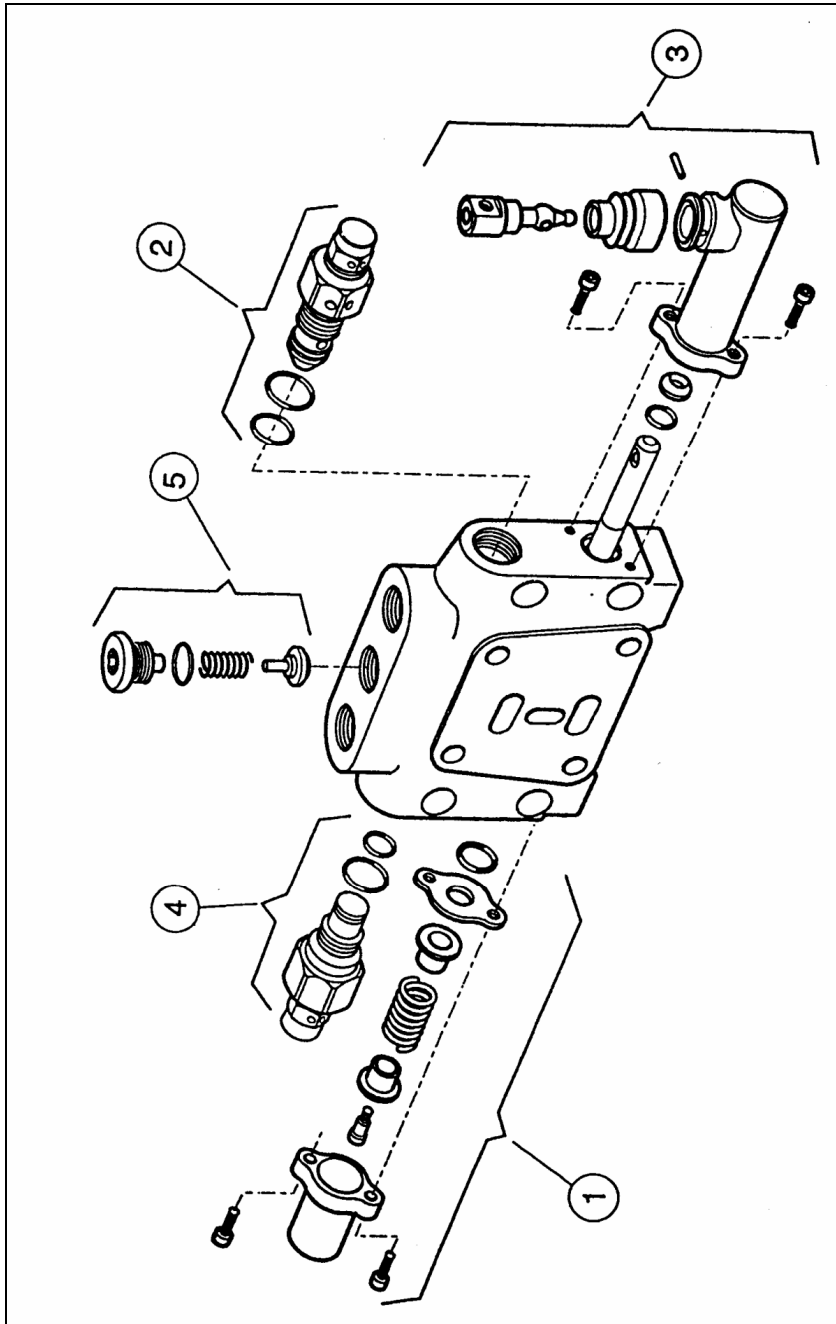
Pos no	Art no	Number	Sparepart	Dimension	Pcs
1	21001	M14-000000.001	Distance ring		4
2	21002		Clamp	E390-42-14	6
3	21003		Cover plate	E394-12-01	6
4	21004		Bolt	M8x40	6
5	21005	M14-100100.000	Hydraulic cylinder	80/40-300	2
6	21006	M13-000000.002-030	Axle bolt		2
7	21007		Splitpin	Ø4x40	5
8	21008	F14-041000.000	Crane beam		1
9	21009		Glide bearing	PAP3530P10	4
10	21010		Grease nipple	1/8"	3
11	21011	M13-000000.017	Distance ring		2
12	21012	M14-000000.002-010	Axle bolt		2
13	21013	M14-020000.000	Rotator fork		1
14	21014		Plane washer	Ø24	2
15	21015		Nut	M24	2
16	21016	F14-031000.000	Crane arm		1
17	21017	M13-010050.000-040	Axle bolt		1
18	21018	M14-000000.002	Axle bolt		1
20	21019		Nut	M20	7
22	21020		Rotator	MTR 30	1
36	21021	M14-130100.000	Turnhouse (body)		1
37	21022	F13-100400.000	Hydraulic cylinder	90/40-300	1
38	21023	M14-130000.003	Glide bearing		1
39	21024		Spring washer	Ø8	24
40	21025		Bolt	M8x25	24
41	21026	M14-130000.001	Rack		2
42	21027		Sealing	55-39-29,8	4
43	21028	M14-130000.005	Piston		4
44	21029	M14-130000.002	Glide bearing		4
45	21030	M14-130000.004	Glide bearing		1
46	21031	M14-130000.006	Cover washer		1
47	21032		Lockring	SGA80	1
48	21033	M14-000030.000	Valve		1
49	21034		Adapter	G002-04-06	10
50	21035		Seal washer	E601-01-06	10
51	21036	M13-130000.007	Plug		1
52	21037		Bolt	M20x80	7
53	21038	M14-130200.000	Hydraulic cylinder	66/55-368	4
54	21039		O-ring	69,2x5,7	1
55	21040	M13-000000.017-010	Distance ring		2
56	21041	F14-130410.000	Column		1
57	21042	M13-010050.000-030	Axle bolt		1
58	21043	M14-000000.002-020	Axle bolt		1
59	21044	L21.38-30	H-hose to turnhouse	L=1920	2
60	21045	L21.38-30	H-hose to turnhouse	L=450	4
61	21046	L21.38-30	H-hose to stick	L=5000	2
62	21047	L21.38-30	H-hose to beam	L=3040	2
63	21048	L21.38-30	H-hose to rotator	L=7450	4
64	21049	L21.38-30	H-hose to valve	L=1500	2
65	21050	G. 0,12	H-hose to grapple	L=350	1
66	21051	G. 0,12	H-hose to grapple	L=450	1

2.3. HYDRAULIC DISTRIBUTOR HC-D9, GENERAL




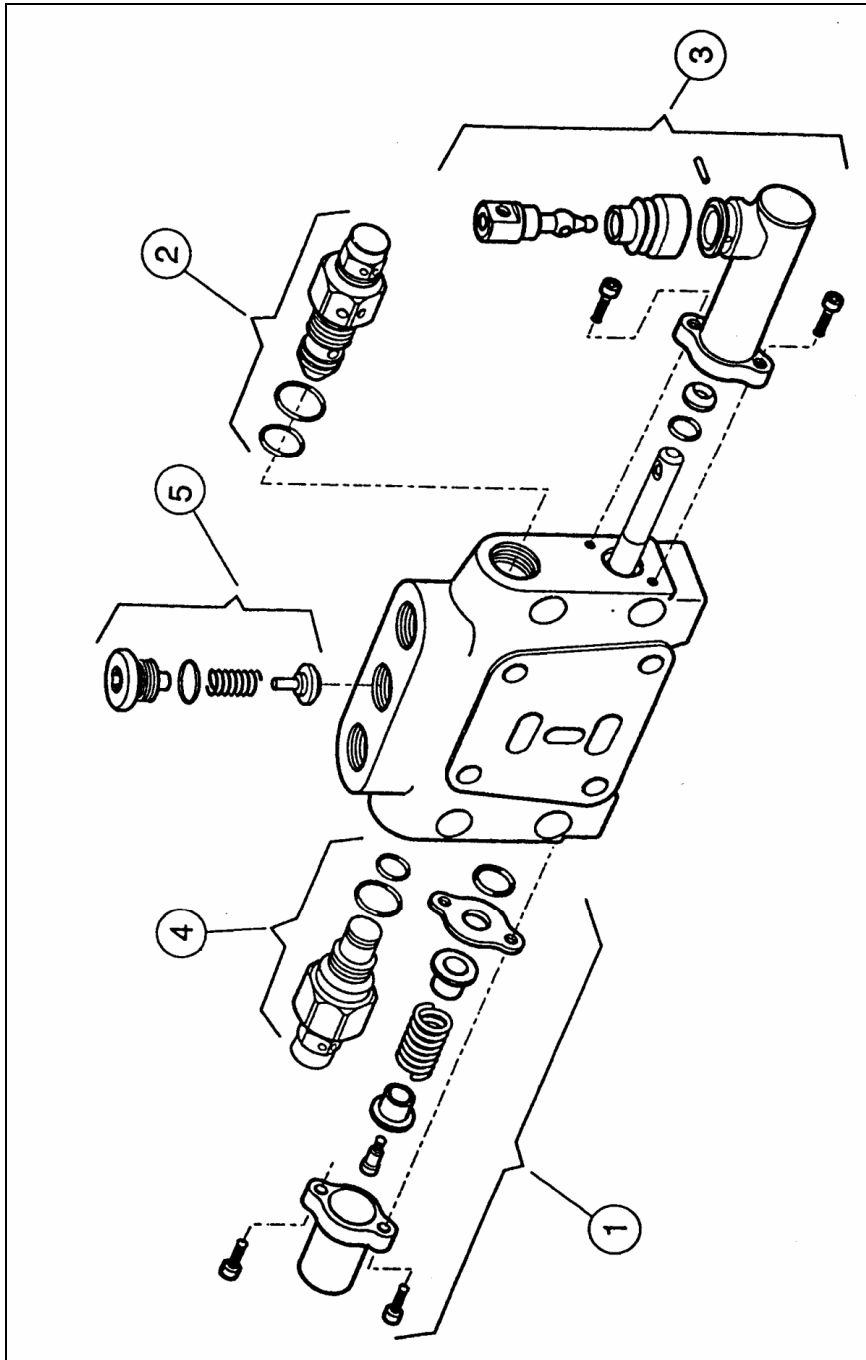
Inlet section - 15912

Pos.	Quantity	Code	Description	Dimension
1	1	14037	Pilot operated pressure relief valve (175) bar	
2	1	430146001	Relief valve plugged	
3	1	423410041	Bracket	



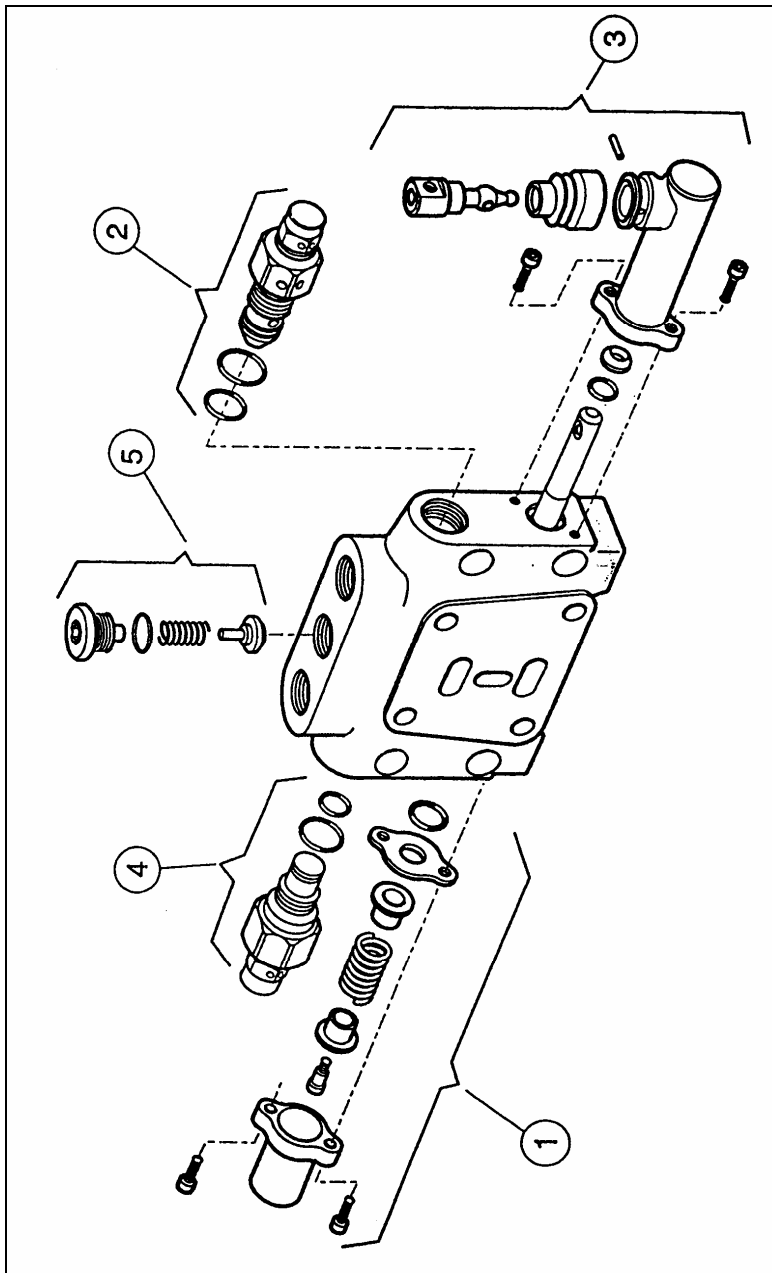
First working section - 15913

Pos.	Quantity	Code	Description	Dimension
1	1	320746002	Spool return action kit	
2	1	8999	Anti-shock valve (130-A) bar	
3	1	320346001	Handle kit	
4	1	8999	Anti-shock valve (130-A) bar	
5	1	320246001	Check valve kit	



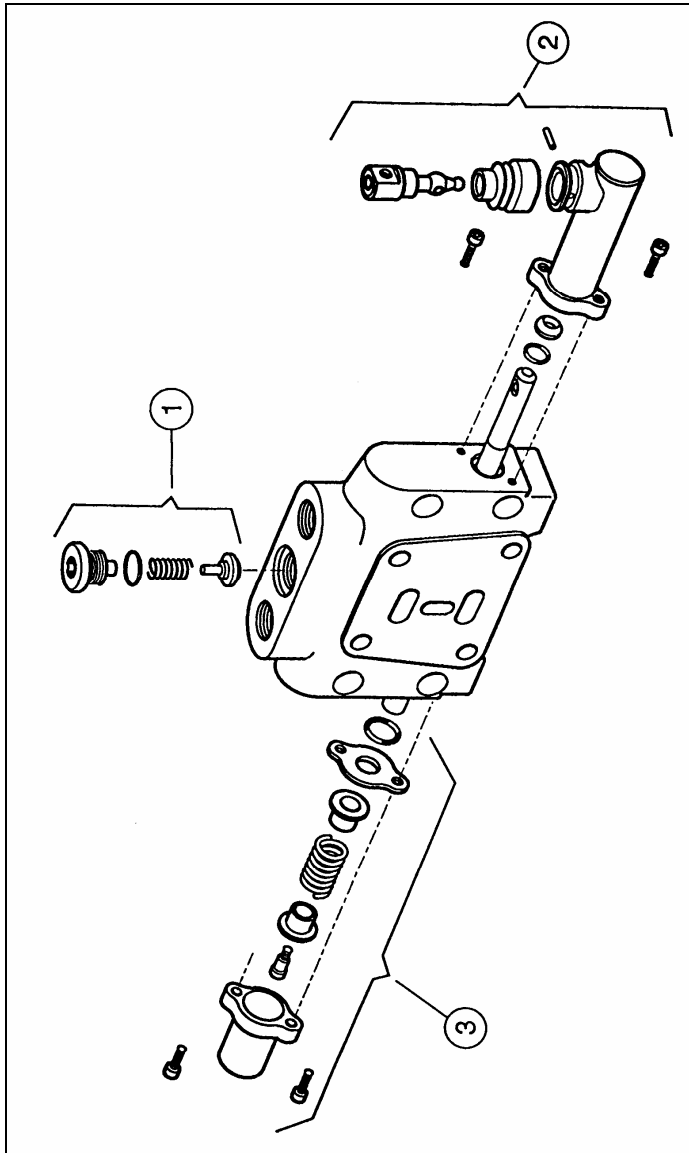
Second working section - 15516

Pos.	Quantity	Code	Description	Dimension
1	1	320746002	Spool return action kit	
2	1	5128	Anti-shock valve (175-A) bar	
3	1	320346001	Handle kit	
4	1	13171	Anti-shock valve (90-A) bar	
5	1	320246001	Check valve kit	



Third working section - 15914

Pos.	Quantity	Code	Description	Dimension
1	1	320746002	Spool return action kit	
2	1	5128	Anti-shock valve (175-A) bar	
3	1	320346001	Handle kit	
4	1	13171	Anti-shock valve (90-A) bar	
5	1	320246001	Check valve kit	



4th, 5th, 6th, 7th working section - 14938

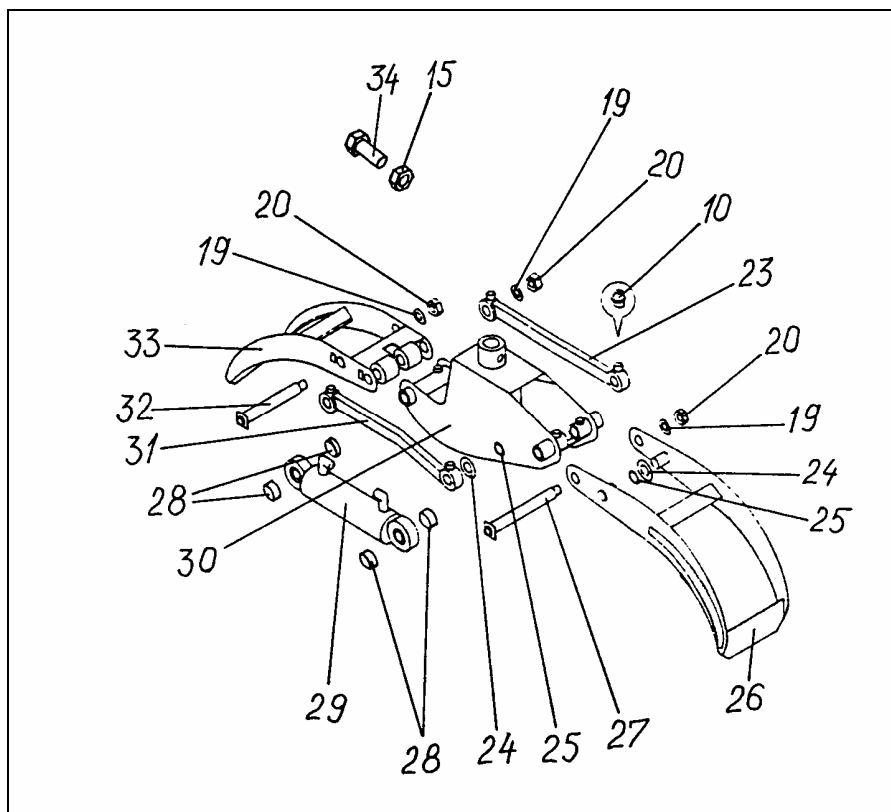
Pos.	Quantity		Description	Dimension
1	1	320246001	Check valve kit	
2	1	320346001	Handle kit	
3	1	320746002	Spool return action kit	

Section	Code
5th working section	14938
6th working section	14938
7th working section	14938
Outlet section	11999
Tie rod kit	300146007
Gasket kit	JSP14600027

2.4. GRAPPLE FARMA 0,12

| Produktions nr FMW 16.

Pos no	Art no	Number	Sparepart	Dimension	Pcs
10	930105		Grease nipple	1/8"	7
15	907249		Nut	M24	1
19	908270		Plane washer	Ø20	3
20	907243		Nut	M20	3
23	37016044	F43-000040.000	Tie-rod 12A		1
24	37016013	M14-010000.001	Distance ring		2
25	911255		Lock ring	SGA25	2
26	37016005	F13-000010.000	Grip (outside)		1
27	37016024	M14-010050.000-020	Axlebolt		1
28	37016014	M14-010000.002	Distance ring		4
29	313113	M14-100200.000-010	Hydraulic cylinder	63/32-130	1
30	37016010	F43-000030.000	Body		1
31	37016045	F43-000040.000-010	Tie-rod 12B		1
32	34016025	M14-010050.000-030	Axlebolt		2
33	37016006	F13-000020.000	Grip (inside)		1
34	37019020	M13-000000.004	Rotatorbolt		1



**2.5. HYDRAULIC CYLINDERS**

Lift cylinder, 90/40-300

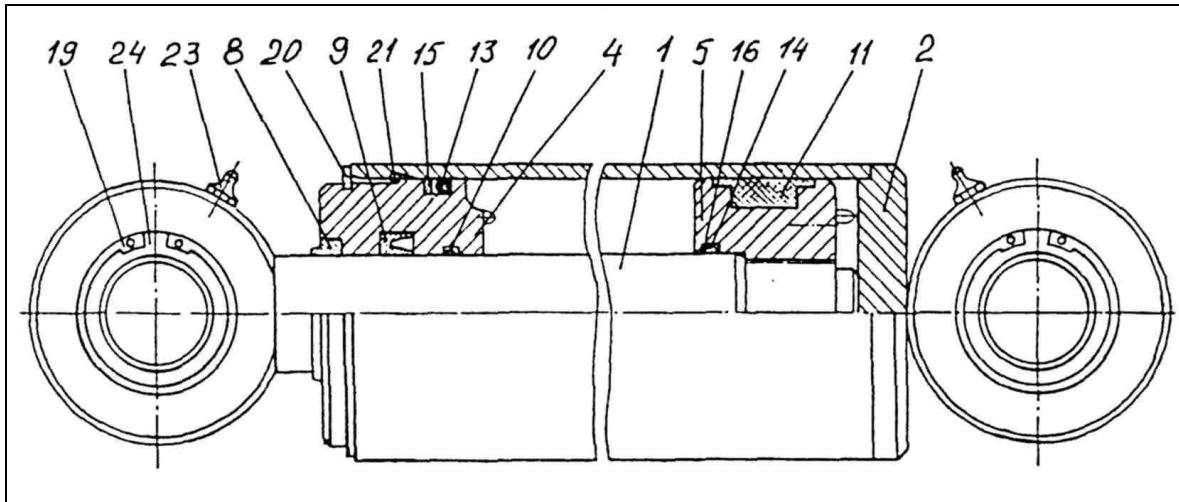
Production no F13-100400.000

Pos no	Art no	Number	Sparepart	Dimension	Pcs
1	56301	F13-100410.000	Piston rod		1
2	56302	F13-100110.000	Tube		1
4	56303	M13-100100.001	Front bush		1
5	56304	M13-100100.002	Piston		1
8	56305		Scrape-ring	AS40-50-7-10	1
9	56306		Sealing	NI 300 40-55-10	1
10	56307		Buch	DFI 40-45-5,5	1
11	56308		Sealing	Simco 5x2 90-70-33,8	1
13	56309		O-ring	79,2x5,7	1
14	56310		O-ring	40,2x3,0	1
15	56311		Sealing	SRA 90-5,1-1,5	1
16	56312		Sealing	SRI 40-2,6-1,5	2
19	56313		Lock-ring	SGH 55	2
20	56314		Lock-ring	SGA 87	1
21	56315		Lock-ring	N°72290	1
23	56316		Grease-nipple	1/8"	2
24	56317		Joint bearing	GE35ES	2

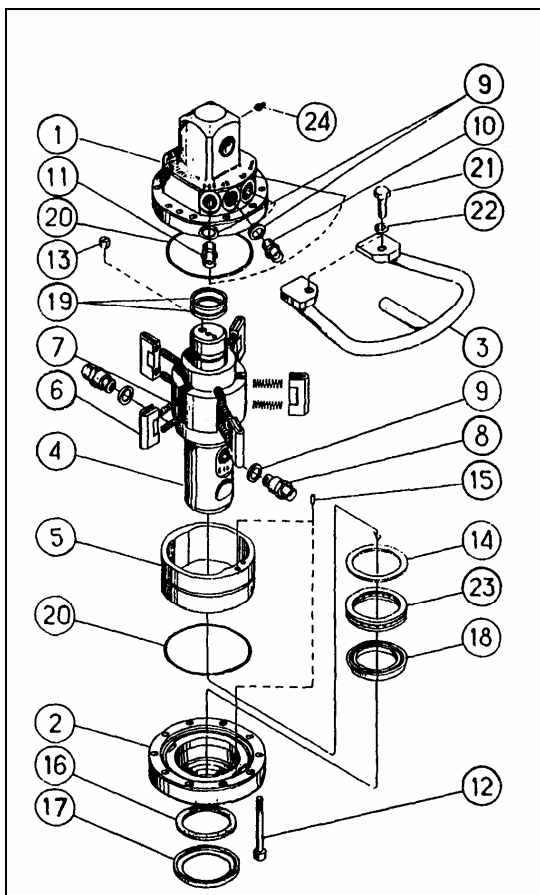
Beam cyl, 80/40-300

Production no F14-100100.000

Pos no	Art no	Number	Sparepart	Dimension	Pcs
1	56001	F14-100120.000	Piston rod		1
2	56002	F14-100110.000	Tube		1
4	56003	F13-100100.001	Front bush		1
5	56004	F13-100100.002	Piston		1
8	56005		Scrape ring	AS40-50-7-10	1
9	56006		Sealing	NI 300 40-55-10	1
10	56007		Buch	DFI 40-45-5,5	1
11	56008		Sealing	SIMKO 5x2 80-60-33,8	1
13	56009		O-ring	79,2x5,7	1
14	56010		O-ring	40,2x3,0	1
15	56011		Sealing	SRA 90-5,1-1,5	1
16	56012		Sealing	SRI 40-2,6-1,5	2
19	56013		Lock ring	SGH 55	2
20	56014		Lock ring	SGA 87	1
21	56015		Lock ring	No 72290	1
23	56016		Grease nipple	1/8"	2
24	56017		Joint bearing	GE35ES	2



2.6. ROTATOR FMTR 30



Pos	Art no	Sparepart	Pcs
1	MTR 30.01	Upper body	1
2	MTR 30.02	Lower body	1
3	MTR 30.03	Protection frame	1
4	MTR 30.005	Rotor axle	1
5	MTR 30.006	Stator ring	1
6	MTR 30.007	Wing	5
7	MTR 30.008	Spring	10
8	MTR 30.009	Adapter	2
9	GB-6 Tredo 3/8"	Tightening washer	6
10/11	0101-6 3/8"	Adapter	4
12	MC6S 12.9 M10x70	Bolt	10
13	MTR 835-02	Plug	1
14	MTR 45.011	Washer	1
15	MTR 30.015	Pin	2
16	MTR 45.009	Protection washer	1
17	MTR 45.010	Washer	1
18	KI 310 60/70x7,5	Sealing	1
19	GHH/R 40/47,5x3,2	Sealing	2
20	OR 122,0x2,50-N70	O-ring	2
21		Bolt	2
22		Spring washer	2
23		Bearing	1

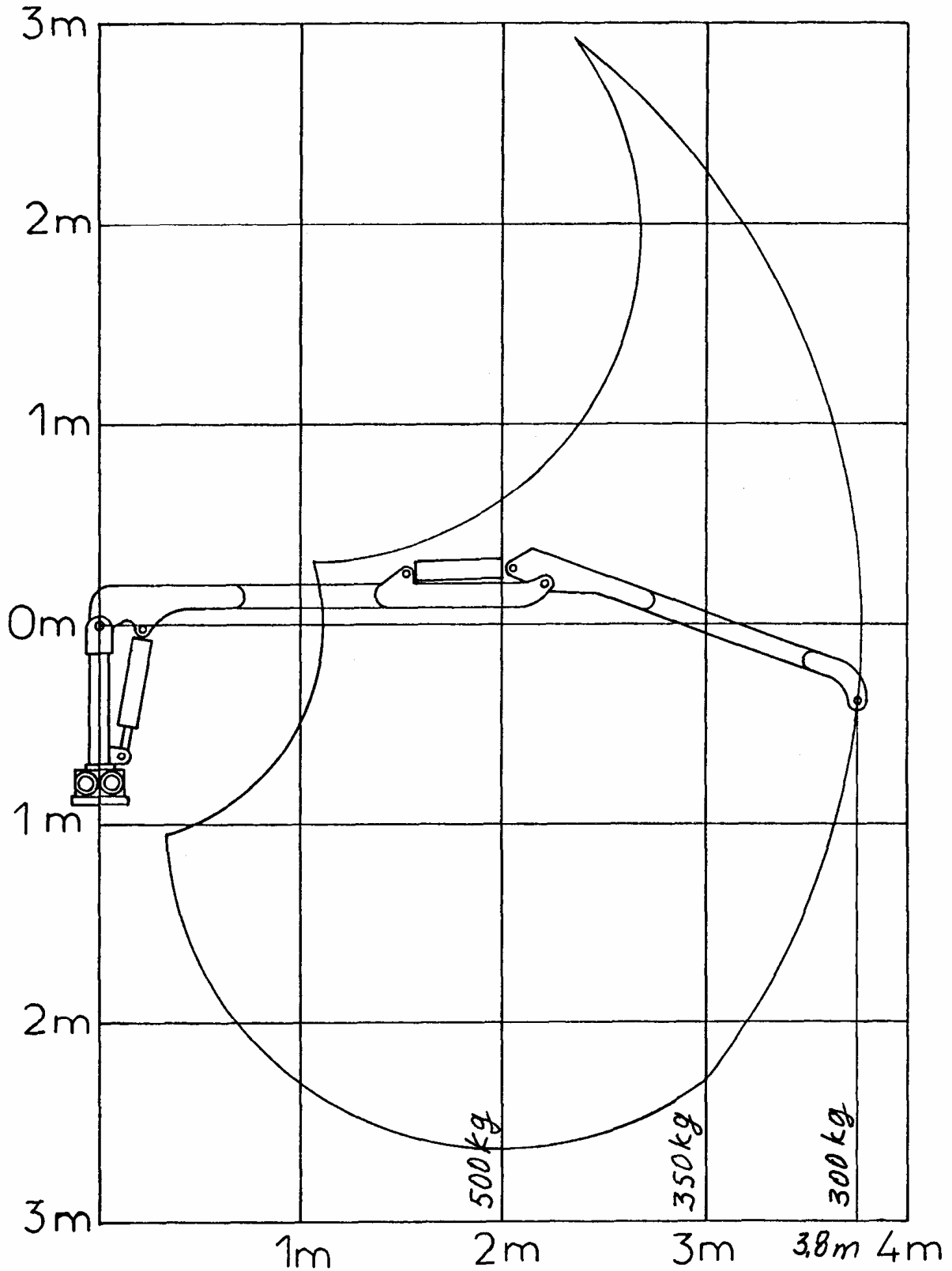
2.7. TECHNICAL DATA

Forest Crane	C 3,8D
Lifting capacity net, kNm	22
Outreach, m	3,8
Recommended pump capacity, l/min	15-30
Working pressure, bar	180
Lifting power, full reach, kg	300
Revolving moment, kNm	3
Turning angle, °	360
Loader weight, kg	260
Valve HC-D9, 7 levers	

GRAPPLE, m²	0,12
Opening, max, mm	780
Smallest appr diam, mm	30
Weight, kg	50

ROTATOR	FMTR 30
Revolving moment, Nm	700
Weight, kg	17

2.8. WORKING AREA



3 OPERATING INSTRUCTIONS

3.1. SAFETY

- ❑ Read the manual before operating the forest crane. Neglecting the instructions can cause danger to operator and machine.
- ❑ Operator must have sufficient training for using this machine.
- ❑ Do not use the loader until you are familiar with the controls.
- ❑ Before loading works, ensure there is no one in danger zone.



DANGER ZONE IS 20 METRES!

Operator must have full visibility all over working area.

The vehicle must be on stable ground and positioned securely. Support legs must be used while loading to prevent the loader tipping over.

Don't forget to lift the support legs up before moving to another place.

Use vehicles parking brakes during the loading.

Do not exceed maximum loading values.

Never leave the boom on UP position without supervising. Do not use the loader for personnel lifting.

In installation hoistings take note of booms slow descending.

When working close to live conductors observe the special safety distance.

Take special care when lifting a heavy load from platform and then turning the loader to the side.

Do not use the loader for hauling.

Do not be under a hanging load.



READ AND UNDERSTAND THE OPERATION AND SAFETY INSTRUCTIONS BEFORE USING THE LOADER

3.2. PRACTISING

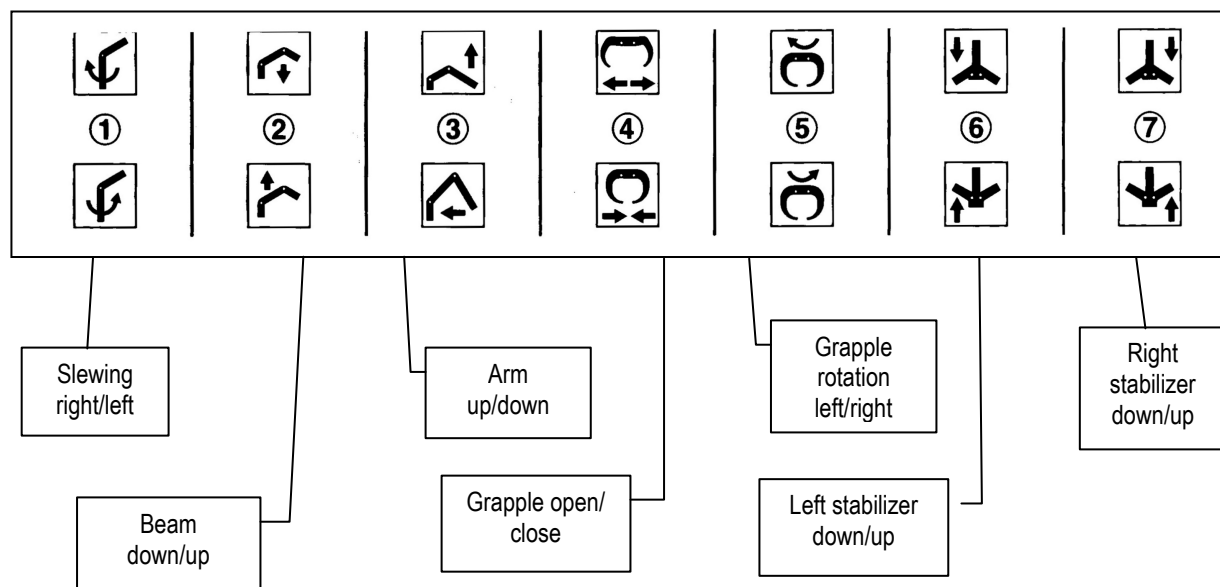
Learn control valves operation. Drive through every function without load.

Learn to use several functions simultaneously. This enables smooth, precise operation and prevents unnecessary strain. Note that movements become slower when the same oil flow is divided to several cylinders.

Move control levers smoothly and steadily, avoid

quick and jerky movements. In practice operation it is beneficial to adjust pumps output as low as possible. This makes avoiding sudden movements easier.

After getting accustomed to loaders movements choose the engine speed so that operation is efficient but you still have movements well under your control.



3.3. INSTRUCTIONS FOR SAFE OPERATION

SUPPORTING THE LOADER

- ❑ Always engage the base machines parking brakes before loading. If necessary put some obstacles in front of wheels.
- ❑ Always use support legs. Make sure the loader is situated at firm terrain.



DO NOT USE SUPPORT LEGS FOR LIFTING THE LOAD. USE SUPPORT LEGS ONLY FOR SUPPORTING THE LOADER

- ❑ Do not turn the crane before load is sufficiently high.
- ❑ Take special care when lifting a heavy load from platform while turning the crane sideways.

MANIPULATING THE LOAD



NEVER DRIVE LOADER FROM ONE EXTREME POSITION TO OTHER WITH SPEED! THIS MAY CAUSE OVERTURNING OF VEHICLE AND LOADER AND ALSO DAMAGING OF BEARINGS

- ❑ Avoid loading on a slanted ground or at least work with extreme cautiousness.
- ❑ When working on a slanted surface do not charge with full lifting moment.



ALWAYS ENGAGE THE BASE MACHINES PARKING BRAKES BEFORE LOADING. IF NECESSARY PUT SOME OBSTACLES IN FRONT OF WHEELS

3.4. DAILY INSPECTIONS

Examine visually the loader. Note defects and failures that might affect safety. Repair possible defects and failures.

Check there is no leakages on hydraulic system, nor damaged hoses.

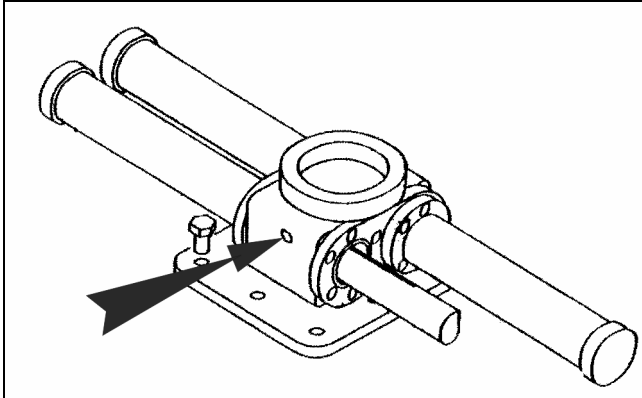
Check loaders fastening bolts, booms

articulations nuts, grapples fastening, loaders.

Grease the loader if necessary (see lubricating instructions).

Drive through every function to its extreme position.

Check that the oil is on level as shown in figure.



The oil level needs to be checked regularly. The oil level needs to be filled up to 1 cm underneath the refilling hole. For direction of plug see arrow above.

3.5. ACTING IN DANGEROUS SITUATION



IF THE LOADER STARTS TO FALL OVER LOWER THE LOAD CAREFULLY TO THE GROUND!

- Do not drop the load by opening the grapple!
- Do not jump out from vehicle.
- If the booms start descending due overloading try to transfer the load closer to the column; do not open the grapple.



IF THE LOADER COMES INTO CONTACT WITH HIGH VOLTAGE ELECTRIC WIRES COMPLY WITH FOLLOWING INSTRUCTIONS:

IF YOU ARE OUTSIDE THE MACHINE

Do not attempt to get into the machine.
Keep everybody out from the machines vicinity.
Do not touch any part of machine.

IF YOU ARE INSIDE THE MACHINE

Get out of it by **JUMPING**. Avoid touching any conducting parts.
Do not make yourself a wire through which electricity may flow.
Get away from the machine by **JUMPING** so that both feet do not touch the ground at the same time. Electric field at ground can cause fatal voltage between legs at about 20 meters away you are safe.

3.6. WORKING AT EXTREME CONDITIONS

Recommended working temperature range for loader is **-30°C up to +40°C** .

Note that working at low temperatures accelerates hydraulic gaskets wearing and increases hydraulic hoses exposure to damages and steel constructions exposure to brittle fracture. When working at lower temperature than it is recommended lift the lighter loads than usual.

Before start working at cold conditions let the oil circulate freely through system a few minutes.

Slowly drive every action through several times so that gaskets come pliable before they receive full pressure.

At exceptionally warm conditions beware of hydraulic oils excessive heating. Too high oil temperature (higher **+80°C**) degrades oil and damages gaskets.

4 MAINTENANCE INSTRUCTIONS

4.1. SAFETY



READ THE MAINTENANCE INSTRUCTIONS BEFORE SERVICE OR MAINTENANCE WORKS. DO NOT ATTEMPT TO PERFORM SUCH MAINTENANCE WORKS WHICH YOU DO NOT FULLY UNDERSTAND

Repair all safety endangering defects immediately.

Check that the loader is on a level and stable ground.

Use vehicles parking brake during maintaining the loader. Make sure that nobody can unnecessarily have access to loaders or vehicles controls.

Never attempt to do maintenance works on the hydraulic system before you are sure there is no pressure.

Do not tighten or repair a leaking hydraulic couplings while the system is pressurized.

Never attempt to localize a leakage from hoses or connections by feeling with hand. The high pressure oil jet can penetrate skin and cause serious burns and damages. High pressure oil is also highly flammable.

Do not work under such device that is sustained only by hydraulics. During maintenance use supports.

Do not detach boom cylinders until booms are lowered, the hydraulic system de-pressurized and loader supported to prevent overturning. Avoid direct skin exposure with oil.

Avoid getting oil into eyes. Use safety goggles and gloves.

4.2. GENERAL

- Maintenance works must be carried out regularly to ensure safe and malfunction-free operation.
- Maintenance works do not require any special tools, so most operations can be performed by the user.
- Use correct tools.
- Attempt to localize the defects as well as possible, so you don't have to open the system unnecessarily.
- Keep disassembled parts and repair area protected from dirt.
- Keep spare parts in their packages until needed for installation.
- Valve adjustments and repairs are recommended to be performed by dedicated service personnel.

4.3. CHANGING HYDRAULIC COMPONENTS

When replacing hydraulic components such as hoses, gaskets etc. make sure they correspond with original parts.

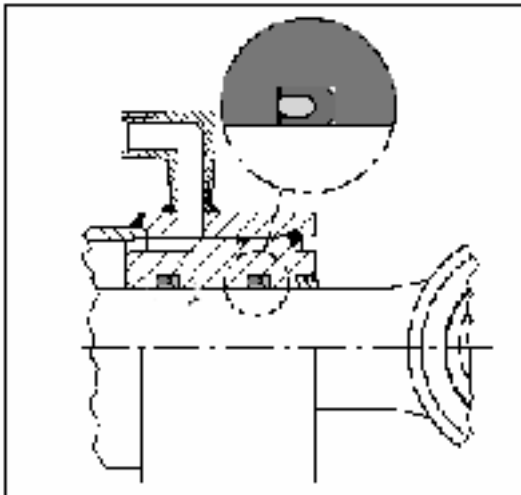
To minimize malfunctions and ensure safe operation use original spareparts.

CHANGING THE SEALS

Change all cylinder seals at the same time. The piston cannot be split. The seals must be slipped over the piston edge. Be careful not to break the seals when fitting them in place.

1. After removing the old seals clean the grooves carefully before fitting the new seals into place.
2. Lubricate the new seals with hydraulic oil.

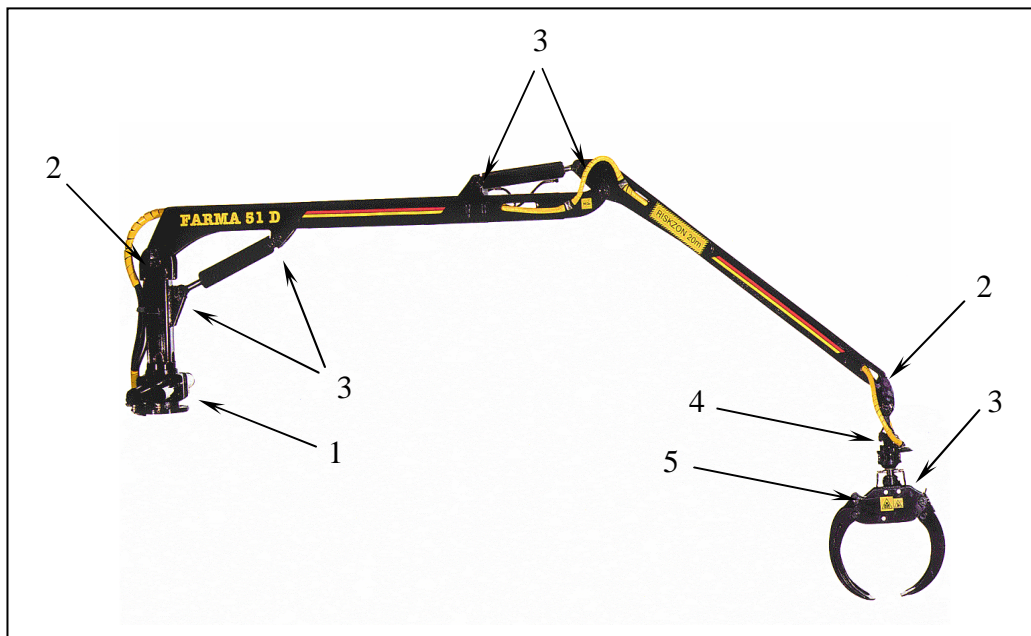
3. Open the pistons lock nut.
4. Screw the piston off.
5. Withdraw the guide piece from the rod.
6. Change the guide piece seals; make sure that the piston rod seal is the right way round, i.e. the lip against the pressure (see fig).

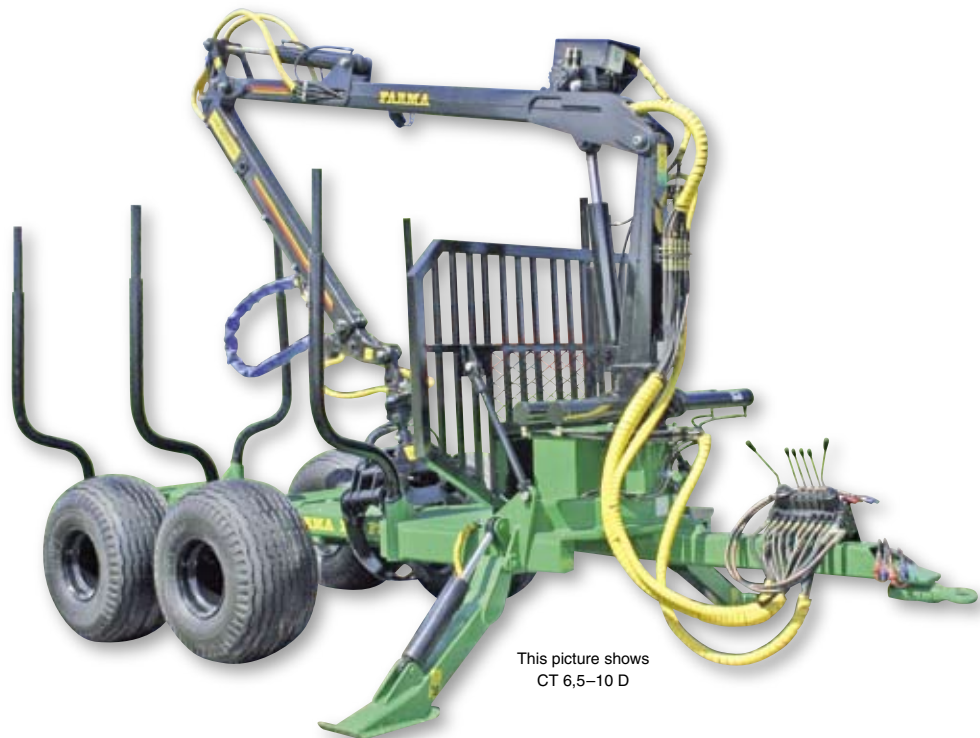


4.4. LUBRICATION

Lubricating point	Qty	Lubricant	Interval (working hours)
1. Slewing bearings	1	Grease	50 h
2. Articulation	3	Grease	50 h
3. Cylinder end	6	Grease	50 h
4. Rotator	1	Grease	50 h
5. Grapple	8	Grease	50 h

Loader model:	Oil volume:
C 3,2	1 litre
C 3,5	1 litre
C 3,8	1 litre
C 4,6 S	2,5 litre
C 4,6 D	2,5 litre
C 5,1	2,5 litre
C 6,0	2,5 litre
C 6,5	1 litre





This picture shows
CT 6,5-10 D

INSTRUCTION BOOK

FARMA T 6

SERVICE AND SPARE PARTS

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4.1	SAFETY	8
4.2	LUBRICATION	9

1 INTRODUCTION

This manual deals with the **T 6** forest trailer and contains all the operating and maintenance instructions you need for using the trailer safely and correctly.

Even if you are experienced user of this kind of equipment, read this manual carefully.

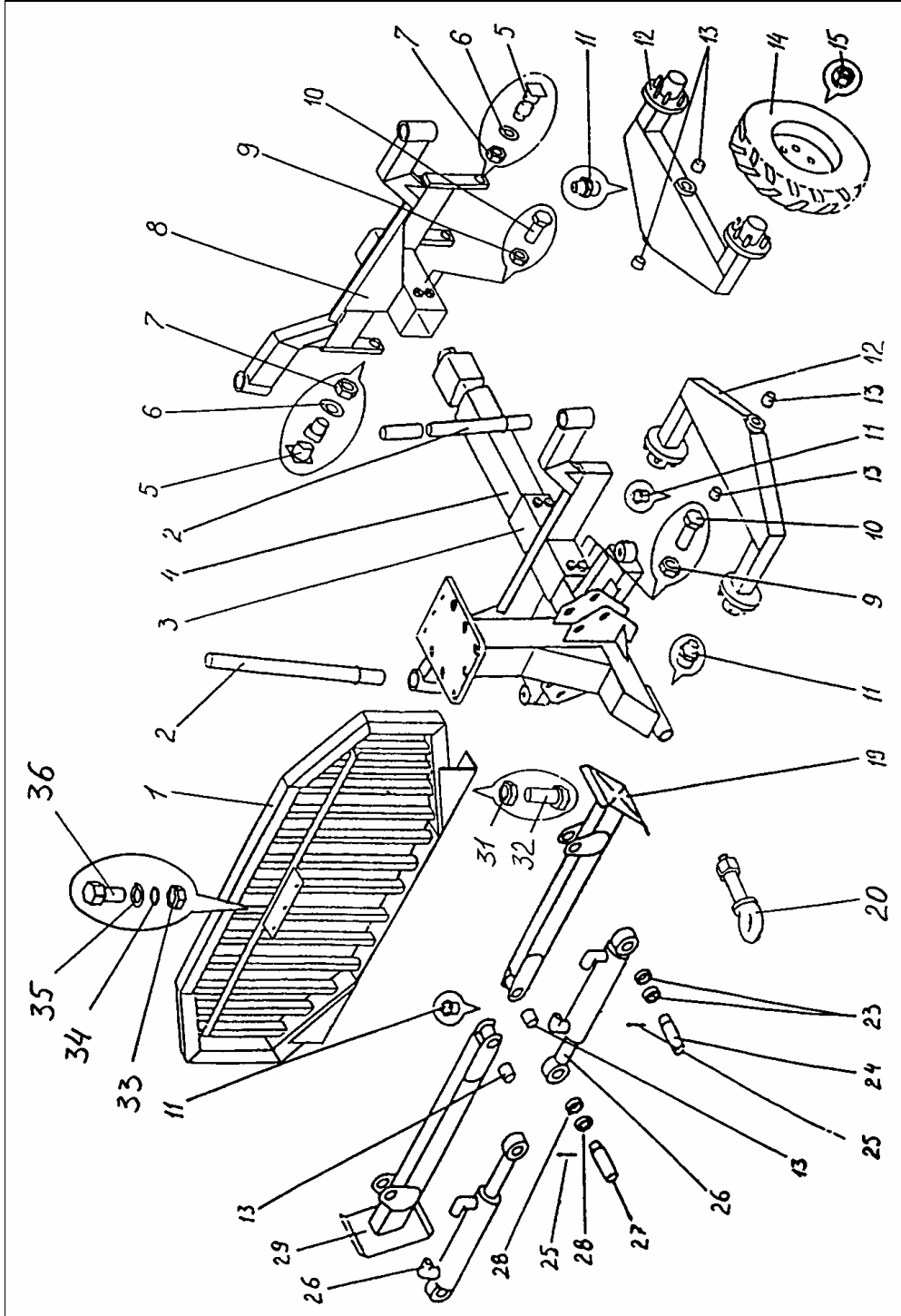
It contains information that enables the trailer to be used efficiently and safely. Make sure that this trailer corresponds to your demands.

Regular maintenance is essential for troublefree, efficient and economical utilization.

It is the operator duty to familiarize and obey all safety precautions and instructions carefully.

2 TECHNICAL SPECIFICATION

2.1 CONSTRUCTION OF THE TRAILER



2.2 SPAREPART LIST FOR TRAILER T 6

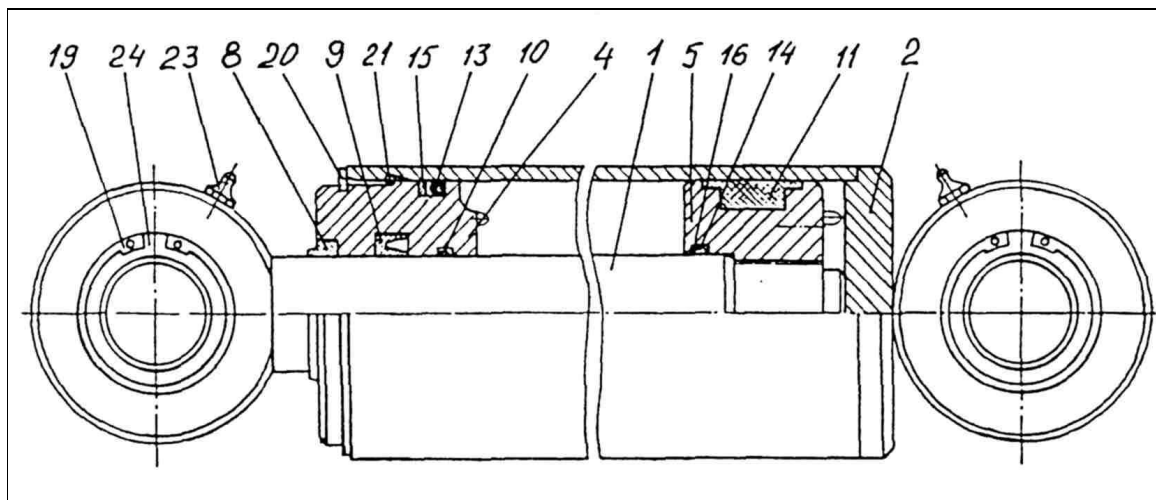
Production no FMW 14

Pos no	Art no	Number	Sparepart	Dimension	Pcs
1	14001	F14-0820000.000	Backwall		1
2	14002	F14-150000.000	Pin		4
3	14003	F14-160000.000	Material holder		1
4	14004	F14-0710000.000	Frame		1
5	14005	M13-01005000.000-010	Axle-bolt		2
6	14006		Plane washer	ø20	2
7	14007		Nut	M24	4
8	14008	M14-060000.000	Wheel support		1
9	14009		Nut	M16	8
10	14010		Bolt	M16x45	8
11	14011		Grease nipple	1/8"	7
12	14012	M14-090000.000	Bogie side		2
13	14013		Glide bearing	PAP2530P10	8
14	14014		Wheel	11,50/80-15,3	4
15	14015		Wheel nut		24
19	14016	M14-140000.000-010	Stabilizer leg		1
20	14017	M13-000010.000	Pull hook		1
23	14018	M14-000000.001-010	Distance ring		4
24	14019	M14-000000.002	Axle bolt		2
25	14020		Split pin	ø4x40	7
26	14021	M14-100100.000-020	Hydraulic cylinder	63/32-300	2
27	14022	M14-000000.002-020	Axle bolt		4
28	14023	M14-000000.001	Distance ring		4
29	14024	M14-140000.000	Stabilizer		1
30	14025	S 5,5	H-hose for stabilizer	L=3350	4
32	14026		Bolt	M20x80	2
33	14027		Nut	M12	3
34	14028		Spring washer	12 mm	3
35	14029		Washer	12 mm	3
36	14030		Bolt	M12x40	3

2.3 HYDRAULIC CYLINDERS

Sparepartlist for Hydraulic-cylinder 63/32-300
 Stabilizer cylinder for trailer T6; T7; T8 ton trailer
 Production no M14-100100000-020.

Pos nr	Art no	Number	Sparepart	Dimension	Pcs
1	55601	M13-100320.000-020	Piston rod		1
2	55602	M14-100110.000-020	Tube		1
4	55603	M13-100300.001	Front bush		1
5	55604	M13-100300.002	Piston		1
8	55605		Scrape-ring	AS 32-45-7-10	1
9	55606		Sealing	NI300 32-47-10	1
10	55607		Buch	DFI 32-35,1-4,0	1
11	55608		Sealing	Simco 5x2 63-47-29,8	1
13	55609		O-ring	52,2x5,7	1
14	55610		O-ring	32,2-3,0	1
15	55611		Sealing	SRA 63-5,1-1,5	1
16	55612		Sealing	SRI 32-2,6-1,0	2
19	55613		Lock-ring	SGH 42	2
20	55614		Lock-ring	SGA 60	1
21	55615		Lock-ring	N 72240	1
23	55616		Grease-nipple	1/8"	2
24	55617		Joint bearing	GE25ES	2



2.4 TECHNICAL DATA

TRAILER T 6	6 t
Loading area, m ²	1,4
Ground clearance, mm	400
Center beam, mm	120x120x6,3
Axle, mm	60x60
Length, m	4,2
Width, m	1,8
Wheels	11,5/80-15,3
Loader weight, kg	900

3 OPERATING INSTRUCTIONS

3.1 SAFETY

- ❑ Read the manual before operating the trailer. Neglecting the instructions can cause danger to operator and machine.
- ❑ Operator must have sufficient training for using this machine.
- ❑ Do not use the trailer until you are familiar with the controls.
- ❑ Before loading works, ensure there is no one in danger zone (20 m).



DON'T FORGET TO LIFT THE SUPPORT LEGS UP BEFORE MOVING TO ANOTHER PLACE.

- ❑ Operator must have full visibility all over working area.
- ❑ The vehicle must be on stable ground and positioned securely. Support legs must be used while loading to prevent the trailer tipping over.
- ❑ Use vehicles parking brakes during the loading.
- ❑ Do not exceed maximum loading values.

3.2 INSTRUCTIONS FOR SAFE OPERATION

SUPPORTING THE TRAILER

- Always engage the base machines parking brakes before loading. If necessary put some obstacles in front of wheels.
- Always use support legs. Make sure the trailer is situated at firm terrain.



DO NOT USE SUPPORT LEGS FOR LIFTING THE LOAD. USE SUPPORT LEGS ONLY FOR SUPPORTING THE TRAILER.

MANIPULATING THE HYDRAULIC FUNCTIONS



NEVER CONTROL THE HYDRAULIC FUNCTIONS FROM ONE EXTREME POSITION TO ANOTHER WITH SPEED! THIS MAY CAUSE OVERTURNING THE TRAILER.

- Avoid loading on a slanted ground or at least work with extreme cautiousness.
- When working on a slanted surface load less than usual.



ALWAYS ENGAGE THE BASE MACHINES PARKING BRAKES BEFORE LOADING WORKS. IF NECESSARY PUT SOME OBSTACLES IN FRONT OF WHEELS.

3.3 WORKING AT EXTREME CONDITIONS

Recommended working temperature range for trailer is **-30°C up to +40°C** .

Note that working at low temperatures accelerates hydraulic gaskets wearing and increases hydraulic hoses exposure to damages and steel constructions exposure to brittle fracture. Before start working at cold conditions let the oil circulate freely through system a few minutes.

Slowly drive every action through several times so that gaskets come pliable before they receive full pressure.

At exceptionally warm conditions beware of hydraulic oils excessive heating. Too high oil temperature (higher +80°C) degrades oil and damages gaskets.

4 MAINTENANCE INSTRUCTIONS

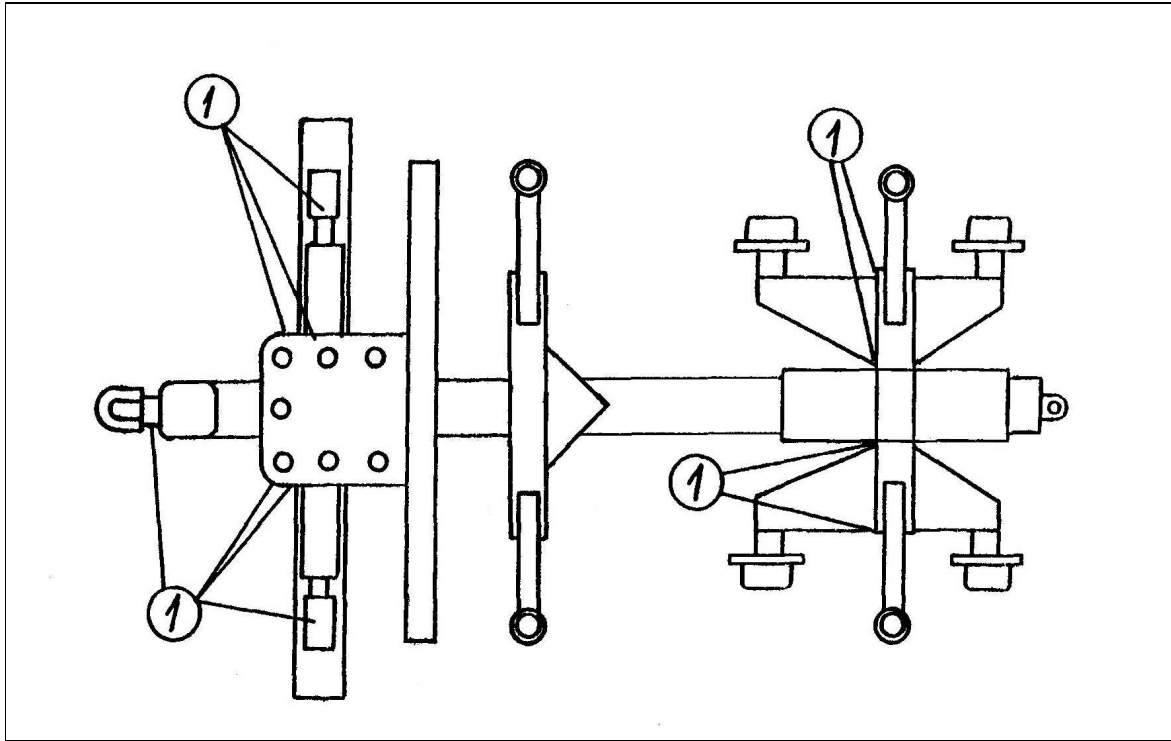
4.1 SAFETY



READ THE MAINTENANCE INSTRUCTIONS BEFORE SERVICE OR MAINTENANCE WORKS. DO NOT ATTEMPT TO PERFORM SUCH MAINTENANCE WORKS WHICH YOU DO NOT FULLY UNDERSTAND

- Repair all safety endangering defects immediately.
- Check that the trailer is on a level and stable ground.
- Use vehicles parking brake during maintaining the trailer. Make sure that nobody can unnecessarily have access to trailers or vehicles controls.
- Never attempt to do maintenance works on the hydraulic system before you are sure there is no pressure.
- Do not tighten or repair a leaking hydraulic couplings while the system is pressurized.
- Never attempt to localize a leakage from hoses or connections by feeling with hand. The high pressure oil jet can penetrate skin and cause serious burns and damages. High pressure oil is also highly flammable.
- Do not work under such device that is sustained only by hydraulics. During maintenance use supports.
- Avoid getting oil into eyes. Use safety goggles and gloves.

4.2 LUBRICATION



Recommended grease BP LS-EP2 , I 21M



**PAY SPECIAL ATTENTION TO THE TOWBAR CYLINDER.
GREASE IT AFTER EVERY 50 WORKING HOURS.**