

INSTRUCTION MANUAL



DOUBLE TURNER

MODEL GE240

UNION FLAX MACHINES

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1. Technical data

1.1 General

	Volume	Oil type	To change after
Oil tank	150 l	ISO 68	4 seasons
Deutz engine BF4M2011	13 l	15W40	One year
Fuel tank	180 l		

1.2 Oil & fuel filters

	type	To change after
Return filter	CS150	One year
Filter on Rexroth pump drive	Rexroth	One year
Oil filter on Deutz engine	2931104	One year
Fuel filter on Deutz engine	1174696	One year

1.3 Tires

	type	Pressure
Front & rear tires	GY 360/70R20 DT812	3,2 bar

General information

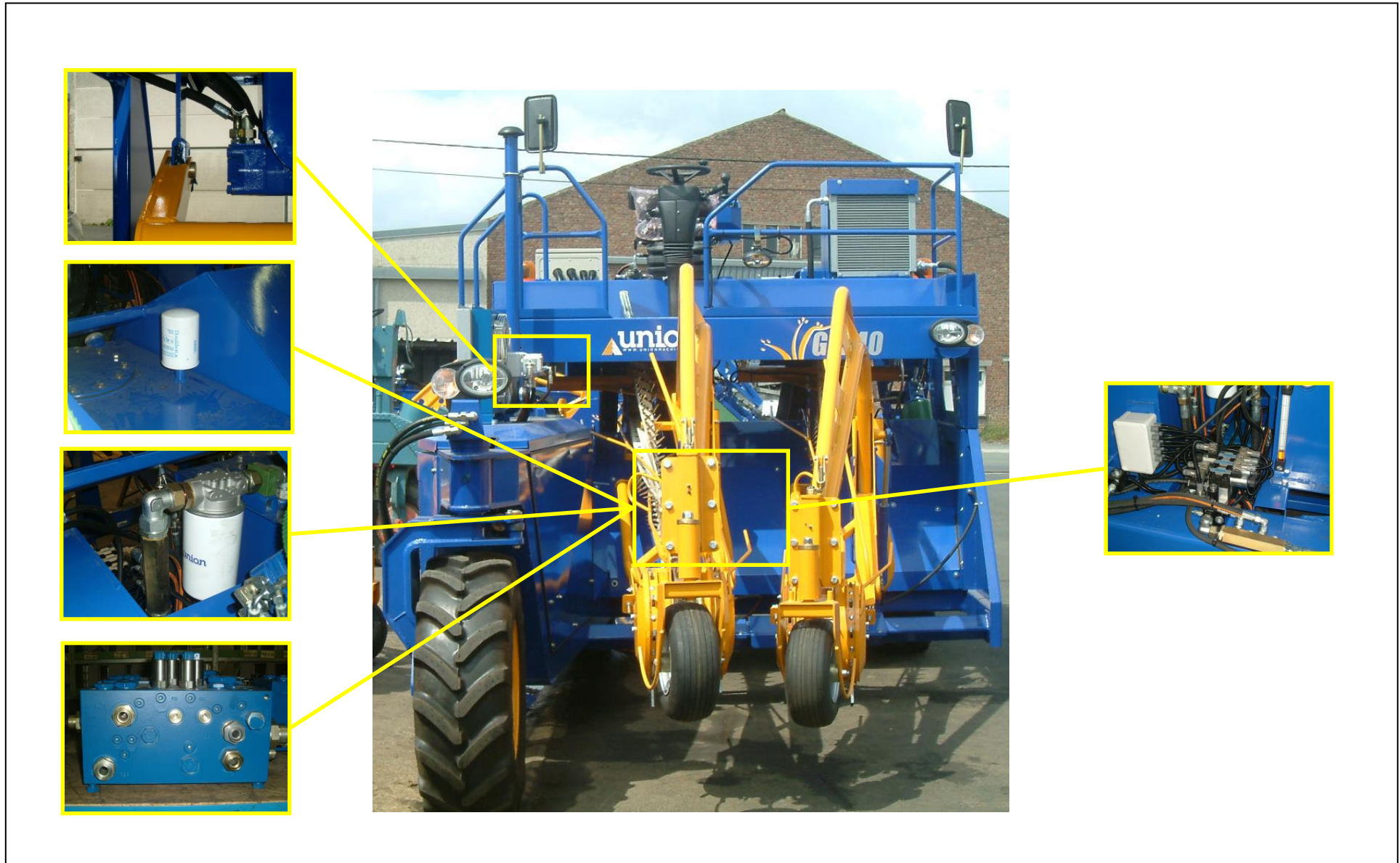
Engine	2011	
Engine power	90 HP at 2800 rpm	
Road speed	0 - 28 km/h	
Field speed	0 - 14 km/h	
Total weight	4580 kg	
Wheel base	4500 mm	
Dimensions	Length	7000 mm
	Width	2700 mm
	Height	3000 mm



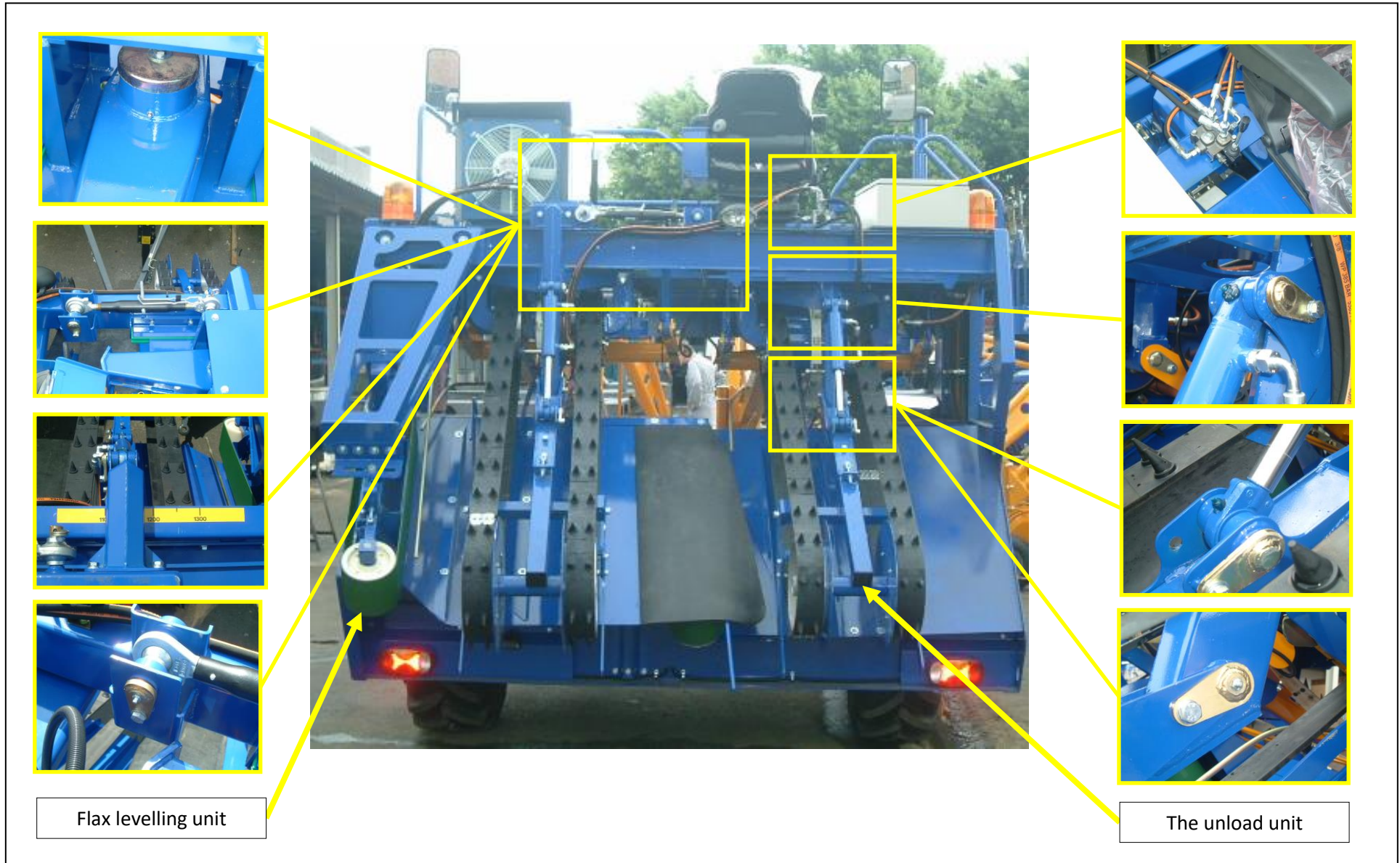
Picture 1



Picture 2



Picture 3



Picture 4

2. Driving the machine

After completing the daily check-up list you can start the engine / machine.

A) Start the engine

1. Turn the battery key
2. Insert the ignition key in the ignition
3. Make sure the joystick is in neutral position
4. Turn the key to start the engine.

If the machine doesn't start, check if the joystick is in neutral position.



Battery key

Picture 5



Neutral position

Picture 6

B) Driving on the road

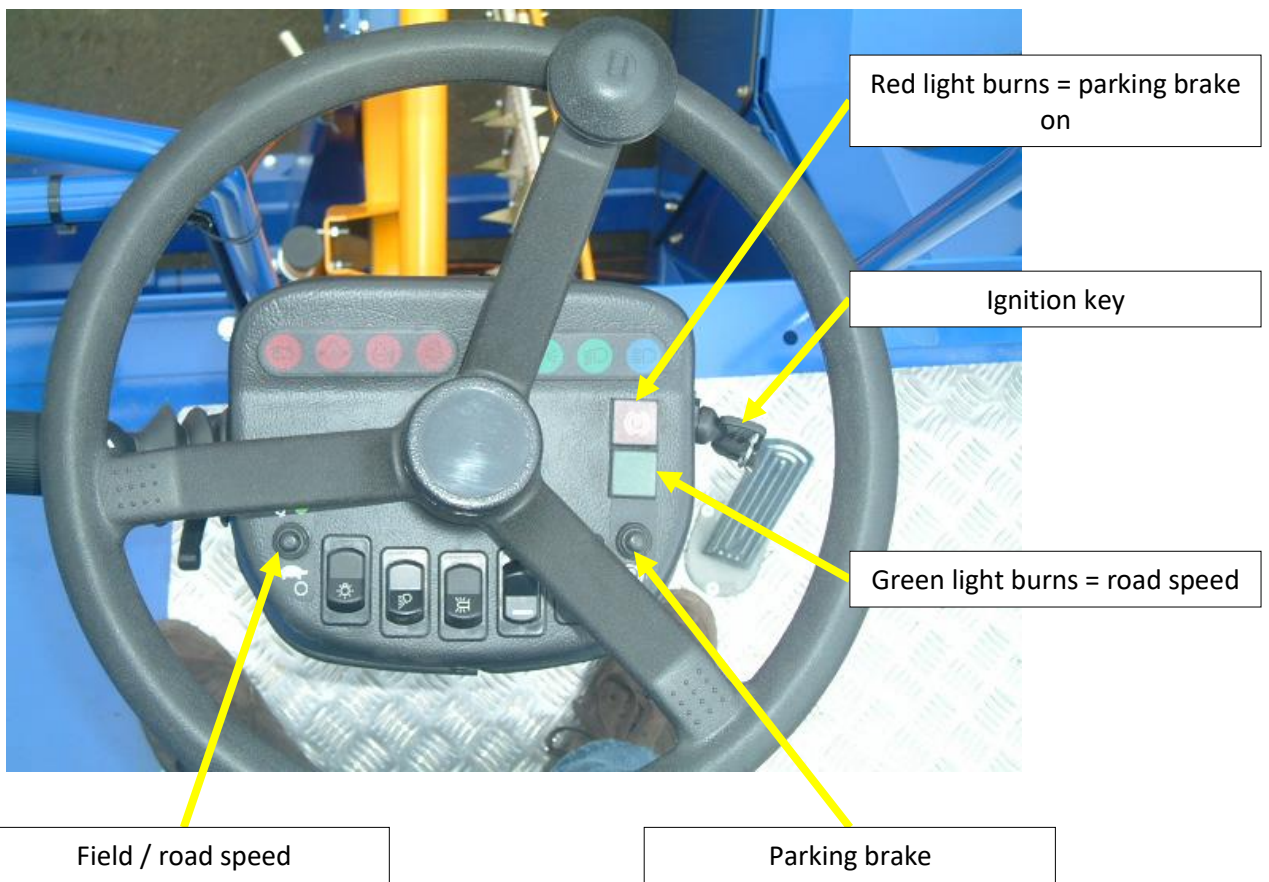
1. Push the button “field / road speed” until the green light burns

(picture 7)

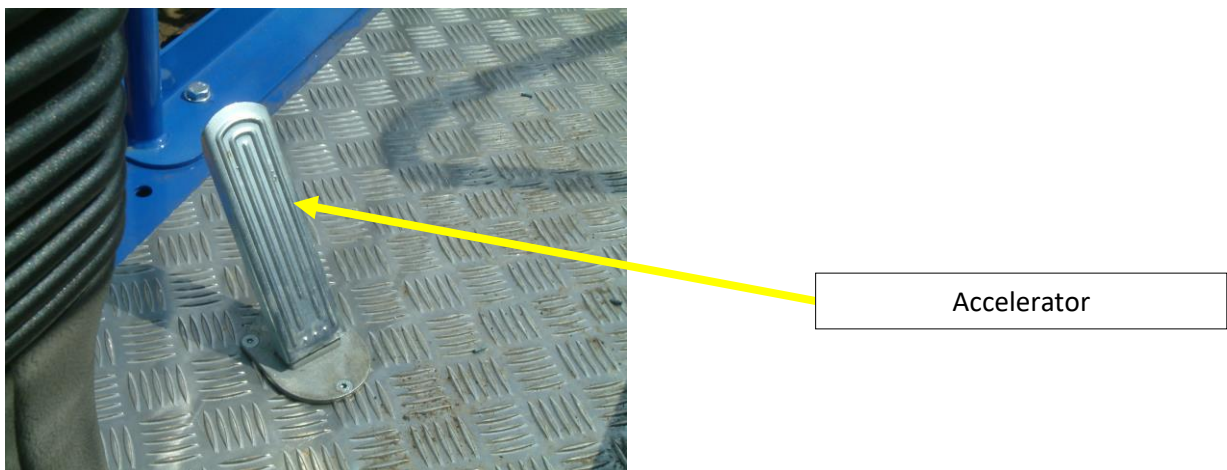
2. Select driving direction: forward or reverse

3. Gently push on the accelerator

(picture 8)

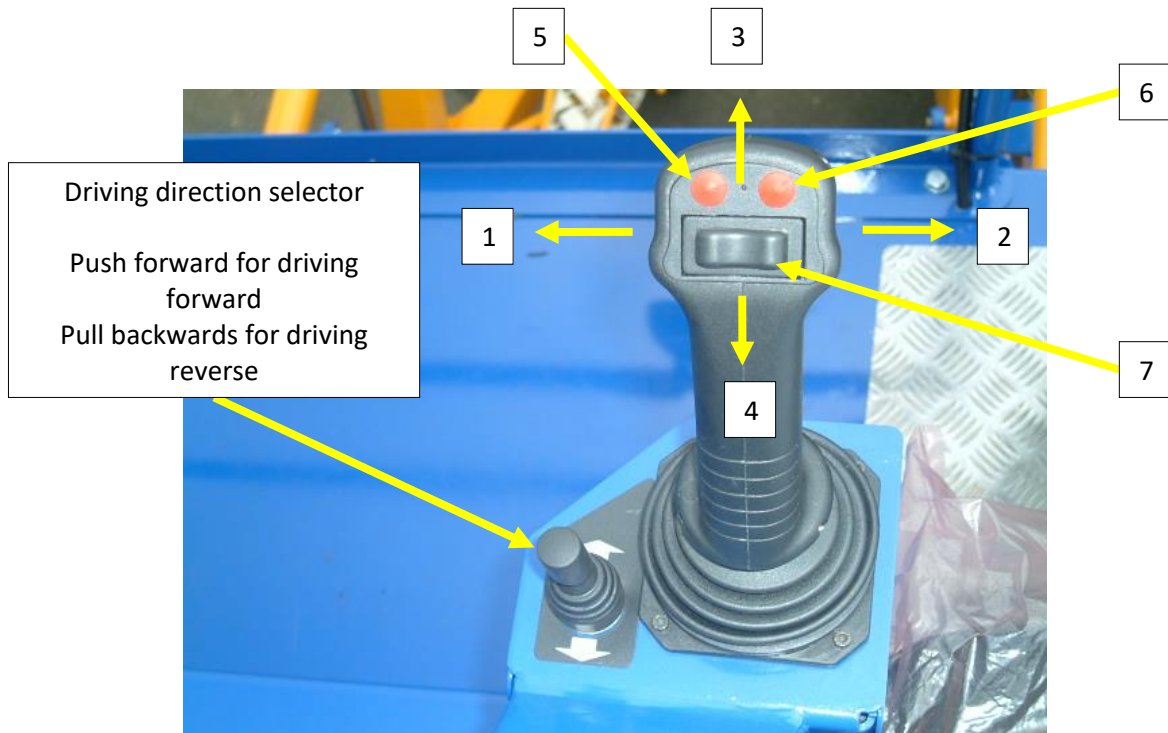


Picture 7

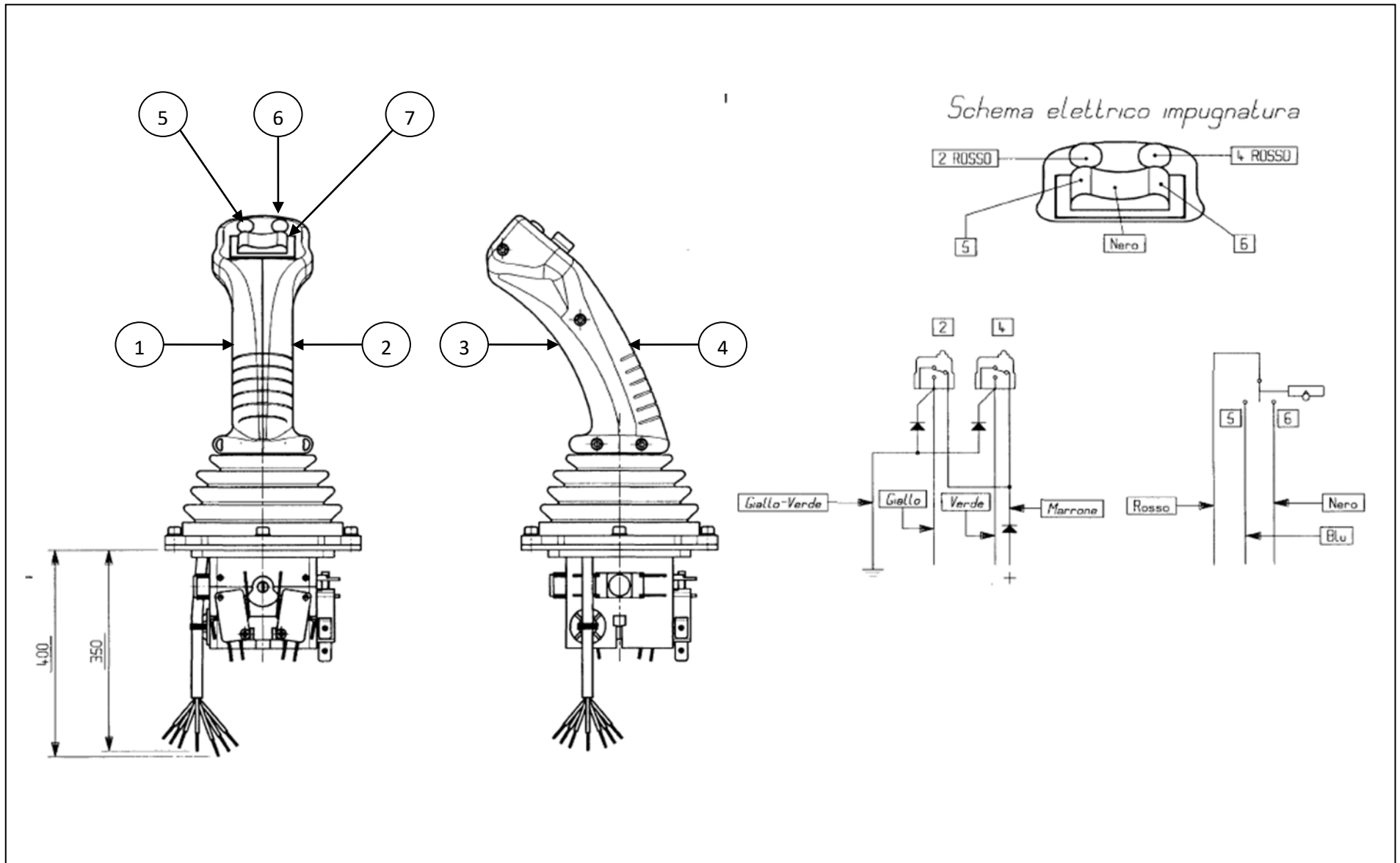


Picture 8

Description	number
Pick-up left: push left	1
Pick-up right: push right	2
Lower the 2 pick-ups: push forward	3
Lift both pick-ups: pull backwards	4
Lower the left pick-up	5
Lower the right pick-up	6
Start / stop both pick-ups	7



Picture 9



Picture 10

C) Stopping the machine

Remove your foot from the accelerator, when the machine is fully stopped you can switch the driving direction selector in neutral position and you can switch off the engine by turning the ignition key.

D) The handbrake

Your machine is equipped with a parking brake. The parking brake may only be used when the joystick is in the neutral position. The parking brake is indicated on the dashboard with a red light.



Red light burns = hand brake
on

Handbrake

Picture 11

E) Adjusting the width between the 2 unload units

1: Pull the lever up

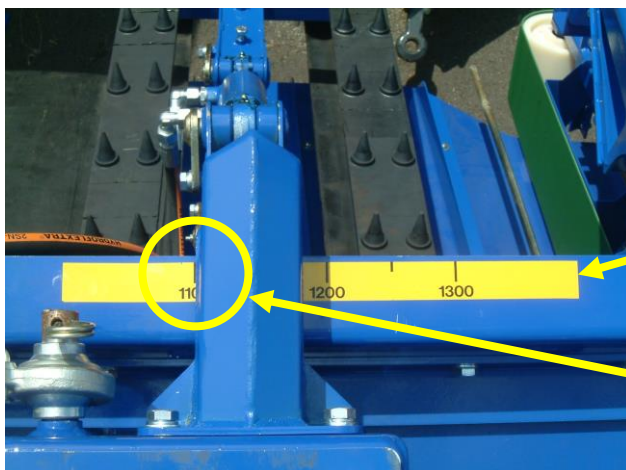
2: Turn the rod to adjust the width, the exact width is indicated on the yellow ruler.



2. Turn rod to adjust width of unload unit

1. Pull lever up

Picture 12



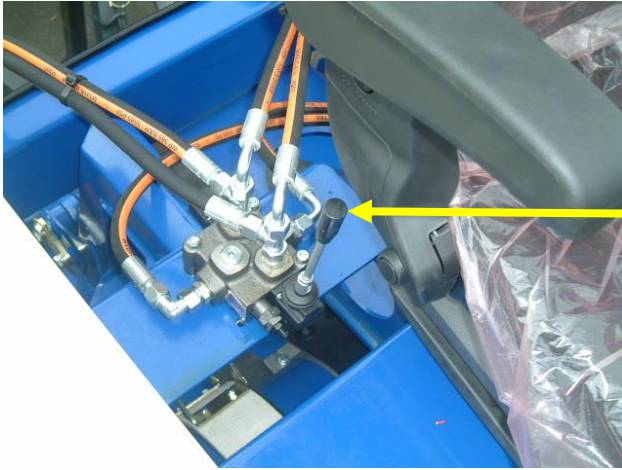
Indication of width between the 2 unload units.

The current width of the unload units shown in this picture is 1100 mm

Picture 13

F) Lift / lower the unload units

It's possible to lift or lower the unload units by using the lever on the right side of the driver's seat.



Lift / lower the 2 unloading units

Picture 14

1. Daily check-up list

	<input checked="" type="checkbox"/>
Check up oil level oil tank (see picture 57)	
Check up oil level Deutz engine	
Check up oil leakages under the machine	
Check up tire pressure	
Check up fixation of cylinder front axle	



Blow the hydraulic cooler clean daily

Picture 16



Blow the engine cooler clean daily

Picture 15

Weekly check-up list

	<input checked="" type="checkbox"/>
Check up greasing points (see chapter 3: Greasing points)	
Check up front wheel axles	

Donaldson recommends to service Air Filters by monitoring the airflow restriction levels in the air intake system

Some vehicle owners and maintenance supervisors, concerned with lowering their operating costs, clean and reuse their heavy-duty air filter.

Factors to consider before you decide whether cleaning or washing of air filters is appropriate for your vehicle or fleet:

- Heavy-duty air filter manufacturers do not recommend any type of cleaning process be used on their products. Donaldson, like other heavy-duty air filter manufacturers, does not warrant the air filter once it has been cleaned.
- Damaged filters should not be cleaned or reused. If the filter is damaged in service, investigate the source of damage and make corrections to avoid future damage.
- Never attempt to clean a safety element. Replace it after three main element services.
- Rather than cleaning or reusing filters, consider upgrading to an extended service filter and service the filter by restriction indicators. Donaldson recommends, when the specified maximum service limits are reached, to follow the proper service procedures and replace the used filter with a new Donaldson filter. Dispose of the used filter in a responsible manner.

Filter dirt holding capacity is reduced 20-40% with each cleaning.

There is a risk of dirt reaching the clean side of the filter while cleaning, plus possible filter damage from high pressure water or compressed air, makes cleaning or washing a gamble. Add the cost of cleaning to the danger of filter damage when determining the risk versus the value of filter cleaning process. Reuse of cleaned heavy duty filters increases the likelihood of improper air cleaner servicing because of the shortened service life. Each time the air intake system is serviced, it is exposed to the possibility of contamination.



What is a Hole and What is a False Alarm?

Donaldson receives filters for inspection each year that customers believe have developed holes. Upon inspection and testing in our labs, most of these suspect filters prove to have no holes or leaks. Most often these filters have areas with low dust buildup where light comes through the media when inspected with a light inside the filter, but in fact the filter functions perfectly.

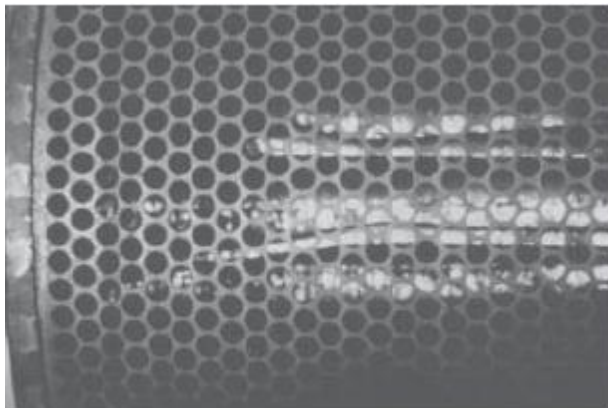
How do you tell the difference between a hole and low dust buildup?

The problem is that normal dust buildup shuts out light completely, while low dust buildup permits light to shine through the media. The contrast is significant and therefore looks like a crack or hole in the media. The contrast between a leak and low dust buildup is not as pronounced, which accounts for mis-identifications.

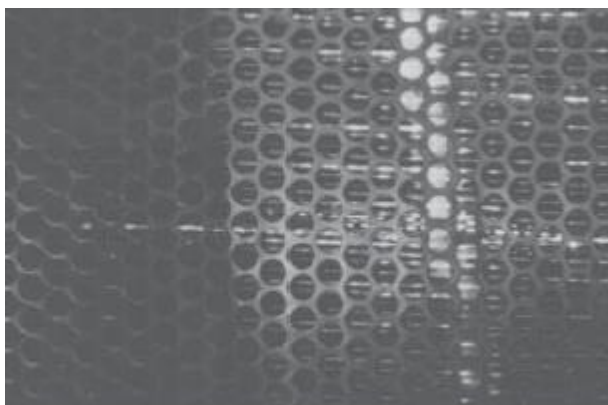
The deceiving low dust areas appear most often at the fold or at the adhesive beading present on some filters.

The secret to identifying a hole in the filter is to realize that when a hole is present you actually see the bright lamp filament shining through the hole, while low dust buildup is merely a bright area where the media is folded and not covered with dust.

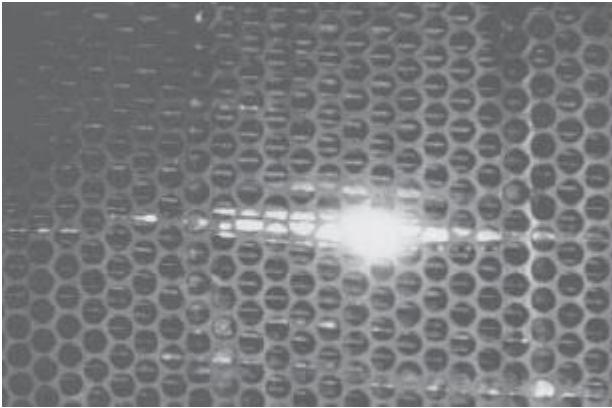
Another basic sign of a hole is dust on the liner or endcap of the clean air side of the filter. If there is no sign of dust on the clean-side liner of the filter you can be quite sure that there is no leak in the filter.



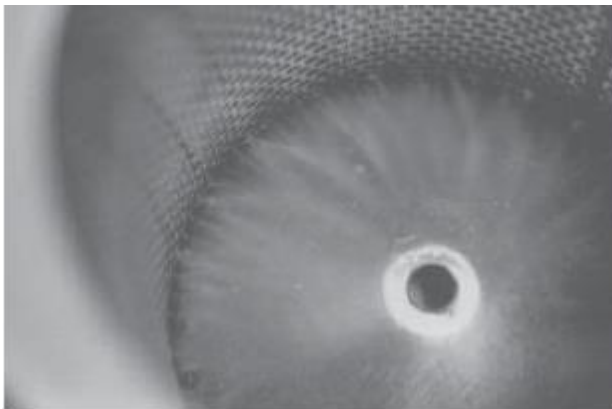
On this photo, it is apparent that the filter has low dust buildup on the pleats or folds, but is functioning efficiently - no holes, no leaks.



Here, light is coming through the adhesive beaded area as well as at the folds. Again no holes, no leaks.



As you look at the photo on the left, you can see it shows a hole in the media. The other light areas are not holes, but rather more low dust areas on the adhesive beading, which is used for pleat spacing.



In this last example, there are obvious dust trails on the liner or endcap of the clean air side of the filter. A dust trail usually indicates a leak.

1 Don't Remove Filter for Inspection

Such a check will always do more harm than good. Ridges of dirt on the gasket sealing surface can drop on the clean filter side when the gasket is released. Stick with the regular maintenance schedule, or, if you service by restriction, believe the gauge or restriction indicator. Get a new indicator if you don't trust your current one.



2 Never Rap a Filter to Clean It

Rapping hard enough to knock off dust damages the filter and destroys your engine protection. Deeply embedded dirt is never released by tapping. It is always safer to keep operating until you can change to a new filter.



3 Never Judge the Filters Life by looking at it. Measure the Airflow Restriction

A dirty-looking filter may still have plenty of life left, while carbon contamination may not be visible to the eye. You can't see the dirt that's embedded deep within the filter paper. Your best bet for lowest filter maintenance costs and best engine protection is to follow a restriction indicator. It's a smart, low-cost investment.



4 Never Leave an Air Cleaner open longer than necessary

Your open air cleaner is a direct entry to the engine! Keep it protected during filter changes. Contaminants smaller than we can see will cause damage to a diesel engine. If the housing is not going to be reassembled immediately, cover the opening. The only way to be sure nothing got in, is to make sure nothing can get in.



5 Don't Ignore a Worn or Damaged Gasket in the Housing

If your air cleaner has a cover gasket, replace it with a new one. Always check to be sure that no piece of the old gasket remains in the housing and that the gasket is not worn. If your filter model calls for a new gasket with each use, never reuse the old one.



6 Don't Use a Damaged or Bunched Filter

Never install a dented or punctured filter because it cannot protect properly against contamination. A dent can make a firm seal impossible or can indicate damaged media. A filter with bunched pleats saps engine power and fuel euros.



7 Replace Missing or Damaged Parts

Check to ensure that there is no damage to the air cleaner housing that could cause a leak. Replace any missing or damaged Vacuum Valves and air cleaner fasteners. Never attempt to repair a damaged filter.



8 Never Substitute an Incorrect Filter Model Number

Filters may look almost identical, but even a fraction of a mm difference in size can prevent a good seal or affect airflow. Selecting a filter by size may give you the wrong media area and grade and therefore affect service life and filter efficiency.!



Technical Bulletin Deutz engine

DEUTZ diesel engines

- All above-mentioned DEUTZ engines
- Product number(s) EKZ:
All product codes of the DEUTZ engines named above
- Assemblies:
99

Coolant

Replacement is made because of:

- Updating
- Introduction
 - of exhaust emission classes Tier 4 interim/class IIIB
 - of new engine series

General information

This technical bulletin applies for all liquid-cooled DEUTZ engines including the newly developed series with exhaust aftertreatment systems for the emission class Tier 4 interim / class IIIB.

Note:

The part numbers indicated in this document are not subject to updating.
Binding for the identification of spare parts is exclusively the spare parts documentation.



All data correspond with the latest state of knowledge.

They do not release the owner from his own obligations for caution due to the possible influences when using these products.

**The cooling system protection agent must be used exclusively for the named purpose
The user will be liable exclusively for damages resulting from this. Respective, country-specific legal conditions must be observed by the user on his own responsibility.**

In liquid-cooled engines the coolant must be prepared by mixing a cooling system protective agent with the fresh water and testing it within the given maintenance intervals.

This prevents damage due to

- corrosion
- cavitation
- freezing
- overheating

You will find products which have been approved liquid-cooled DEUTZ engines in the appendix "Product recommendation cooling system protection agent".



Damages can be expected when using products which have not been released and failing to observe the maintenance intervals as well as the quality of fresh water.

Examples for such damage profiles can be found in the appendix to this bulletin.

Damage due to failure to observe this bulletin are excluded from the warranty.

Fresh water quality

The right quality of fresh water is important for preparing the coolant. Clear, clean, fresh water within the following analysis values should always be used:

Analysis values of the fresh water	
pH value at 20 °C	6.5 to 8.5
Chloride-ion content	max. 100 mg/l
Sulphate-ion content	max. 100 mg/l
Water hardness (ion content of calcium and magnesium)	max. 3.56 mmol/l
Conversion to other units:	
German degrees:	max. 20 °dH
English degrees:	max. 25 °e
French degrees:	max. 35.6 °f
mg/l CaCO ₃ (ppm)	max. 356

T 1 Analysis values



Never use sea water, river water, brackish water, industrial waste water or seepage water for conditioning the coolant.

Data on the fresh water quality can be provided by the local water boards.

If the analysis values of the fresh water are unknown, these must be determined by means of a water analysis.

The fresh water must be conditioned if the analysis values deviate.

- **pH value too low:**
Can lead to corrosion on metal parts.
 - Add diluted caustic or potassium soda. It is advisable to make small test mixtures.
- **Water too hard:**
Water which is too hard leads to deposits of limescale which prevent heat conduction. This can lead to overheating problems.
 - Remedy by mixing with soft, distilled or completely desalinated water.
- **Chlorides and/or sulphates too high:**
Too high a chloride or sulphation content leads to dissolution of the protective layer and thus to corrosion of the metal parts.
 - Remedy by mixing with distilled or completely desalinated water.

A new analysis should be made after conditioning the fresh water.

- Pictures of damaged parts
See:
 - **Typical damage profiles**

Cooling system corrosion protection agent

The coolant for liquid-cooled DEUTZ engines is prepared by adding an antifreeze with corrosion protection inhibitors based on ethylene glycol.

The best results are achieved with the DEUTZ **cooling system protection agent**, see appendix Product recommendation.

This cooling system protective agent is adapted to the materials in DEUTZ engines and is subject to continuous monitoring. The agent must be ordered from the DEUTZ organisation.

If for some important reason, for example delivery restrictions abroad, the DEUTZ cooling system protective agent is not available, alternative products released by DEUTZ may be used as alternatives in exceptional cases. These products are divided into product groups and can be found in the appendix Product recommendation.



Note that products in the same product group can be mixed. Products in different product groups may not be mixed. The entire cooling system must then be cleaned before changing the product between the groups.

To ensure adequate corrosion protection the cooling system protective agent must be used all year round and may not drop below or exceed the following concentration.

Cooling system protective agent	Fresh water	Cold protection up to
max. 35 %	65 %	- 22 °C
40 %	60 %	-28 °C
45 %	55 %	-35 °C
max. 50 %	50 %	- 41 °C

T 2 Mixing ratio



- When using the cooling system protection agent the heat transfer value of the coolant is reduced.
 - DEUTZ cooling systems are designed for a percentage of 50 % cooling system protection agent (up to - 41 °C).

Consult your responsible DEUTZ agent.

- A percentage of >50 % cooling system protection agent leads to poorer cooling performance.

Make sure that the cooling system is designed for this.

When dropping below the minimum concentration the corrosion protection capacity is reduced in addition to the frost protection. The protection effect is therefore lost abruptly and not gradually.

The reduction in the antifreeze content also increase the risk of cavitation especially on the coolant pump and the cylinder liner.

- Pictures of damaged parts

See:

- **Typical damage profiles**

- The use of a chemical corrosion protection agent (without antifreeze) for DEUTZ engines is possible in justifiable exceptional cases.

Consult your responsible DEUTZ agent.



It is prohibited to use corrosion protection oils as cooling system protective agents for DEUTZ engines.

Specifications of the cooling system

- The coolant must be tested constantly and maintained at regular intervals. Monitoring includes inspection of the coolant level, the contamination of the coolant and checking of the cooling system protection concentration, e.g. with a refractometer, see the maintenance schedule in the operation manual.
- The coolant must be renewed and the entire cooling system cleaned if necessary, see TR 0199-99-1116
 - in case of heavy turbidity due to corrosion residue or other floating particles,
 - in case of penetration by lubricating oil,
 - when changing to a different product group, see appendix
 - according to maintenance plan of the operation manual, at the latest every 2 years.
- Coolant may not be poured down the drain. It must be disposed of properly according to legal regulations and specifications of the supplier.

Disposal of the DEUTZ cooling system protective agent

The DEUTZ cooling system protection agent, part no.: 01011490, 01016416 and 12211500 contains monoethylene glycol (1,2-ethanediol). Used coolant must be treated as waste. The owner of the waste is responsible for this himself (cf. German law on recycling (KrW-/AbfG) para. 5 "Basic Obligations of the Cycle Economy").

Used coolant (mixture of cooling system protection agent and fresh water)

The waste code no. for used coolant

Waste code no.:	16-01-14	according to the directive on the European Waste Directory (Waste Directory Directive - AVV), valid as of 10.12.2001
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Used coolant is to be classed in the list of water hazardous substances in water hazard class (appendix 4 of the German Administrative Regulation Regarding Water Pollutants (VwVwS) of 17th of May 1999): (1) slightly hazardous to water.

Identification according to the hazardous substances directive: hazardous to health (Xn)

According to the classification as a waste with the waste code number 16-01-14, used coolant is a hazard in the sense of § 41 of the Recycling Management and Waste Act.

The waste classed as hazardous exhibits the properties or features listed in Appendix III of the Directive 91/689/EEC of the Commission of 12th of December 1991 governing hazardous waste products (ABl. EC No. L 377 p. 20):

H4 (total concentration of . 25% in one or more substances classed as a health hazard).

Recording the utilisation of used coolant is governed by the recording directive (usually proof of disposal, accompanying certification). Any national law obligations must be examined regionally from case to case.

The respective valid regulations must be observed.

Pure cooling system protective agent.

Pure, undiluted cooling system protection agent must be disposed of or recycled in a suitable dump or a suitable, approved waste incineration plant.

Please contact an approved disposal company.

Information about approved disposal or recycling methods is obtainable from your representative or the local environmental or health authorities.

Dilution with water for the purpose of disposal is prohibited.

If you have questions on this topic, please contact the staff member(s) below.

Contact:

DEUTZ Engines

E-mail: lubricants.de@deutz.com

or

E-mail: service-kompaktmotoren.de@deutz.com

Service Information

This document has been created digitally and is valid without a signature.

Enclosure(s):

- Production recommendation cooling system protection agent
- Typical damage profiles

Appendix - Product Recommendation Cooling System Protective Agents

Product group A	Supplier	Product name	Observations Sales region
	DEUTZ AG	Cooling system protective agent Part no.: 01011490	5 litre container
		Part no.: 01016416	20 litre container
		Part no.: 12211500	210 litre barrel
	ARAL	Antifreeze Extra	
	AVIA	AVIA ANTIFREEZE APN	
	BASF	Glystantin G48 Protect Plus	
	BUCHER	MOTOREX COOLANT G48	Switzerland
	Castrol	Castrol Antifreeze NF	
	ESSO	ESSO Antifreeze Extra	
	FUCHS Petrolub AG	MAINTAIN FRICOFIN	
	INA Industrja	INA Antifriz AL Super	
	Exxon Mobil	Mobil Antifreeze Extra	
	OMV	OMV coolant plus	
	Opet Petrolcülük	Antifreeze Special	
	Shell	GlycoShell	
	TOTAL	Glacelf MDX	
	Unico Ltd	Shell Triguard PM*	Africa
		Engmans Ready to Use Antifreeze and Coolant *	
	VALVOLINE	G48 Antifreeze	
		Zerex G48	
Eurolub / Hunold	PROCAR Kühlerschutz Extra		
INEOS	INEOS C2270-1		

* When filling the engine, please note that product is a mixture of 50% antifreeze and 50% fresh water.

T 3 Product recommendation

Product group B	Supplier	Product name	Observations Sales region
	AGIP	Antifreeze special	
	ARTECO	Havoline XLC	Europe
			South America
	CALTEX	Caltex Extended Life Coolant	without nitrite
		Caltex Extended Life Coolant -N	with nitrite
	Chevron	Havoline Dexcool Extended Life Coolant	without nitrite
			USA
		Havoline XLC	Eastern Europe
			South America
		Delo Extended Life Coolant NF	Eastern Europe
		Ursa Extended Life Coolant NF	South America
		Texaco Extended Life Coolant	with nitrite and Molybdat
		Delo Extended Life Coolant	
	HDAX Extended Life Coolant		
	Ursa Extended Life Coolant		
	FUCHS Petrolub AG	MAINTAIN FRICOFIN LL	
	LLK Finland Oy	Glycold XLC	
	Orvema B.V.	Orvema Protex LL	Netherlands
	TOTAL	Glacelf Auto Supra	
		Total Organifreeze	
	Technoform	CoolStream Premium C	Eastern Europe
		CoolStream Premium 40	
		CoolStream Premium 65 *	
	YACCO	YACCO LR ORGANIQUE**	
	<p>* When filling the engine, please note that product is a mixture of 65 % antifreeze and 35 % fresh water and corresponds to antifreeze protection up to - 69 . .</p> <p>** Product is already a finished mixture of 50 % antifreeze and 50 % fresh water; there is no need to top up with fresh water.</p>		

T 4 Product recommendation

Typical damage profiles

Examples of damage due to failure to observe the recommended instructions

Damage description	Causes
Corrosion	- pH value too low
	- Chloride and/or sulphates too high
	- Operation with too low a concentration of the cooling system protection agent



A 1 Crankcase



A 2 Cracked cylinder liner

Damage description	Causes
Corrosion	- pH value too low
	- Chloride and/or sulphates too high
	- Operation with too low a concentration of the cooling system protection agent



A 3 Sealing cover, corroded

Damage description	Causes
Corrosion	- Chloride and/or sulphates too high

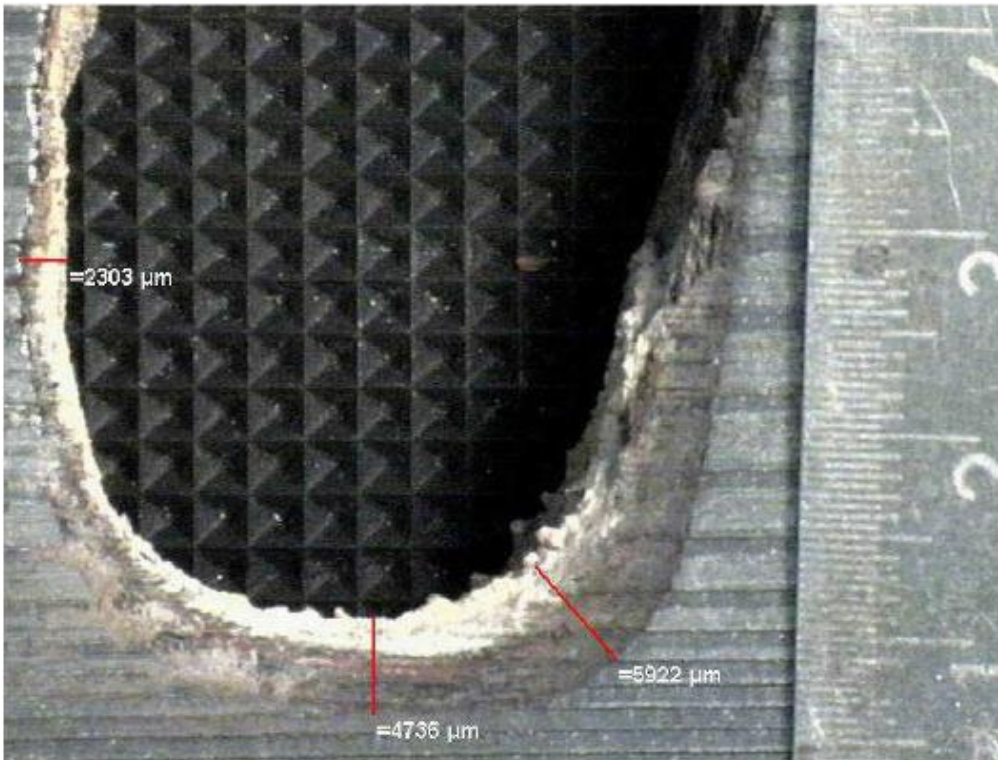


A 4 Aluminium thermostat cover, corroded

Damage description	Causes
Limescale deposits	- Water too hard



A 5 Limescale deposits on a cylinder liner



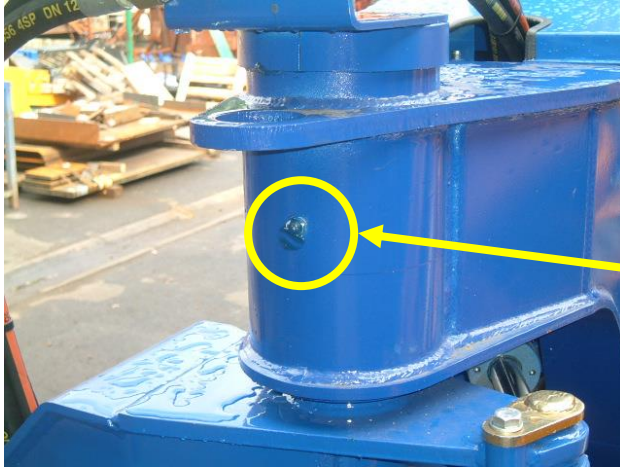
A 6 Thickness of limescale deposits in a cooling channel of a crankcase

Damage description	Causes
Cavitation	- Operation with too low a concentration of the cooling system protection agent



A 7 Flywheel of the coolant pump, cavitated

2. Greasing points



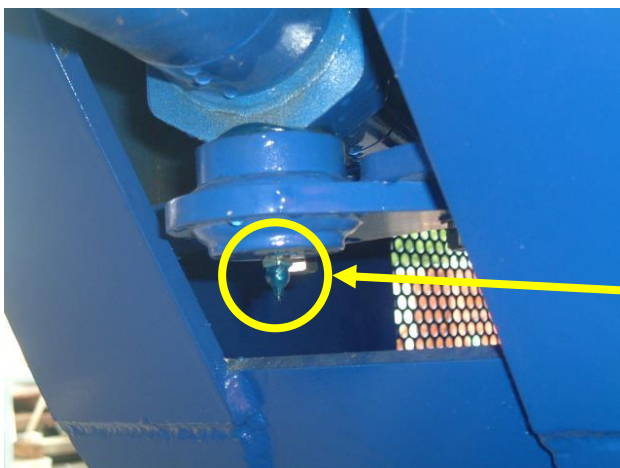
To grease weekly

Picture 17



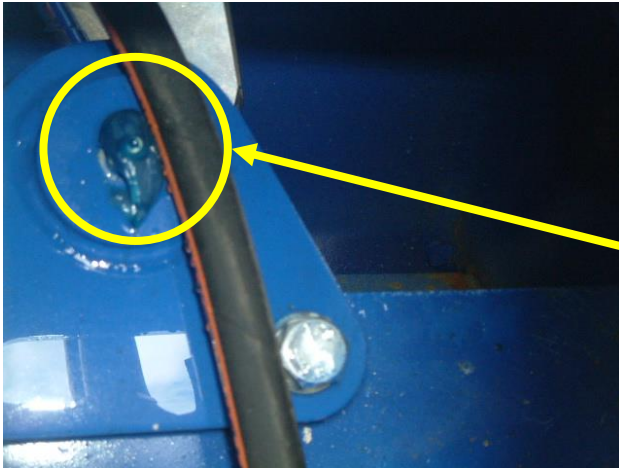
To grease weekly

Picture 18



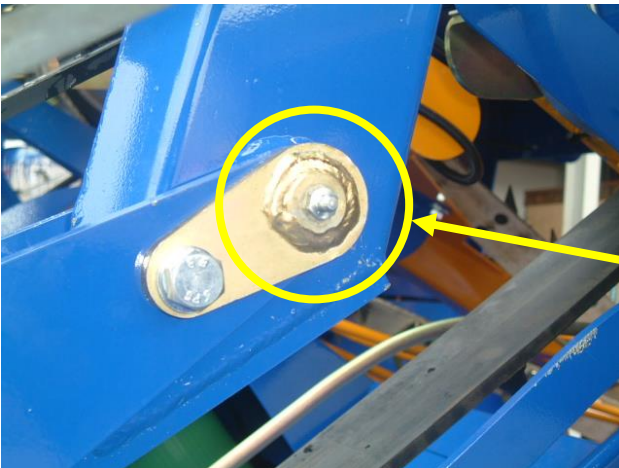
To grease weekly

Picture 19



To grease weekly

Picture 20



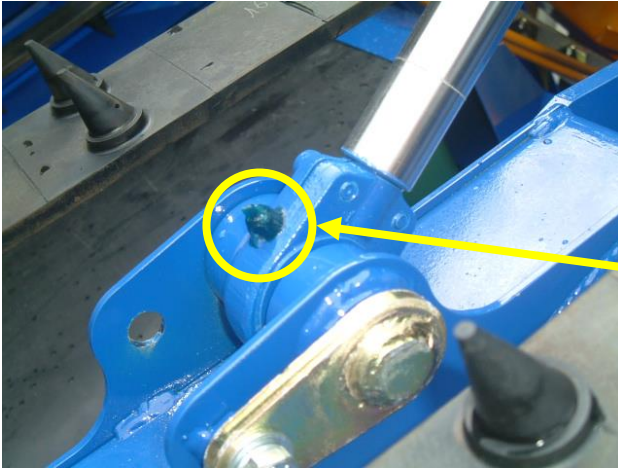
To grease weekly

Picture 21



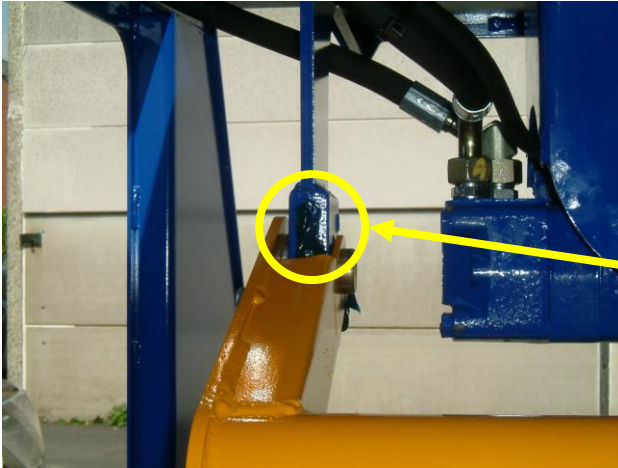
To grease weekly

Picture 22



To grease weekly

Picture 24



To grease weekly

Picture 23



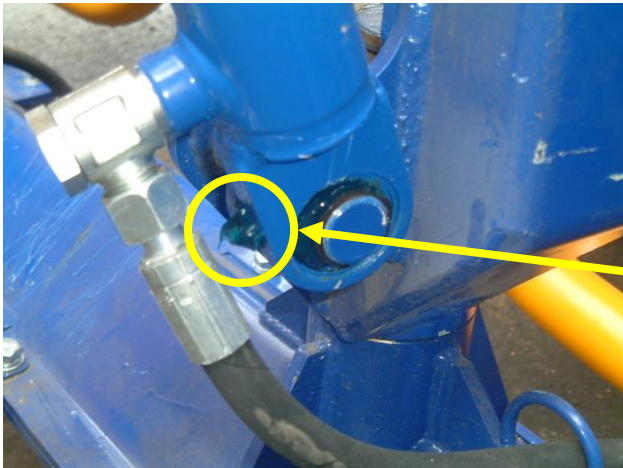
To grease weekly

Picture 25



To grease weekly

Picture 26



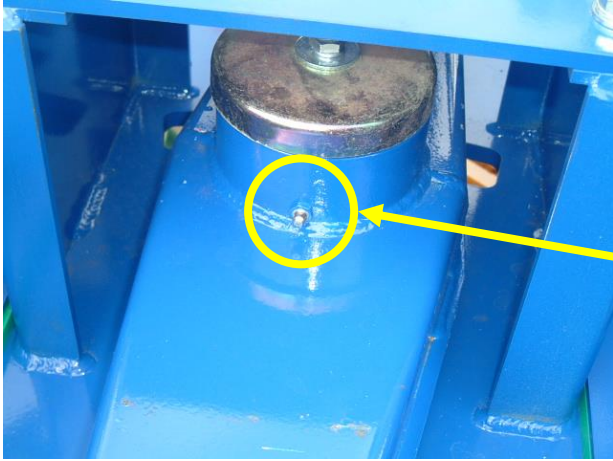
To grease weekly

Picture 27



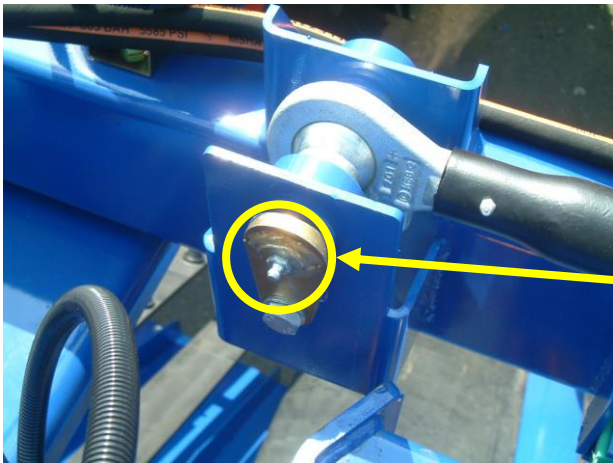
To grease weekly

Picture 28



To grease monthly

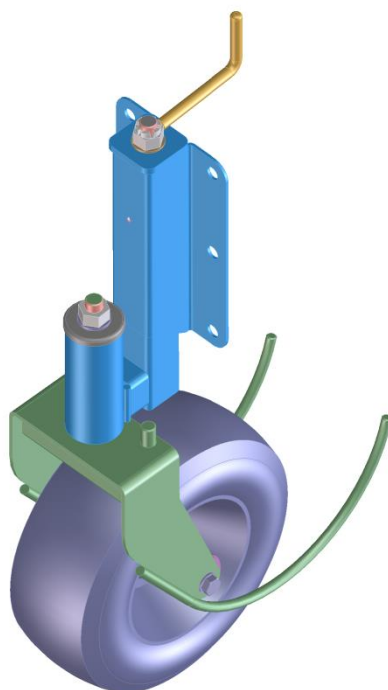
Picture 29



To grease monthly

Picture 30

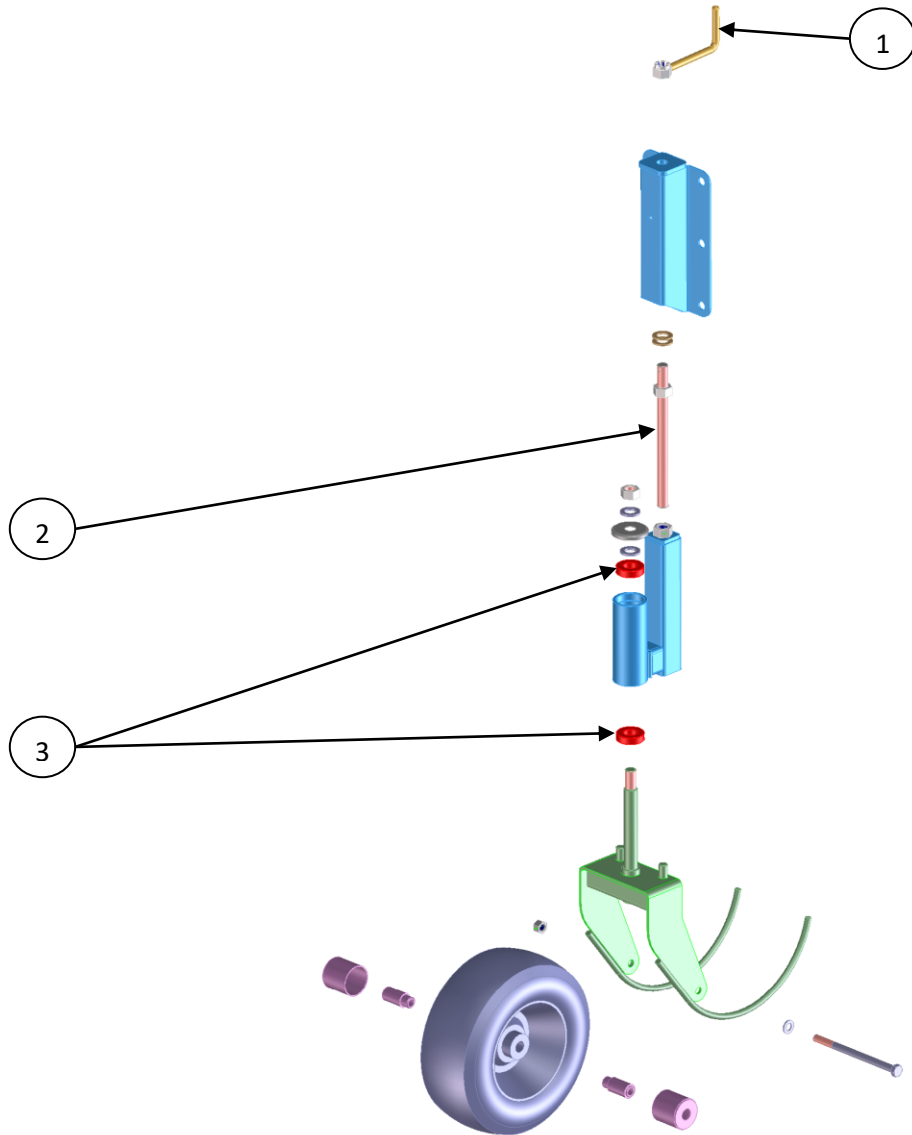
Spare parts book
Support wheel



Picture 31

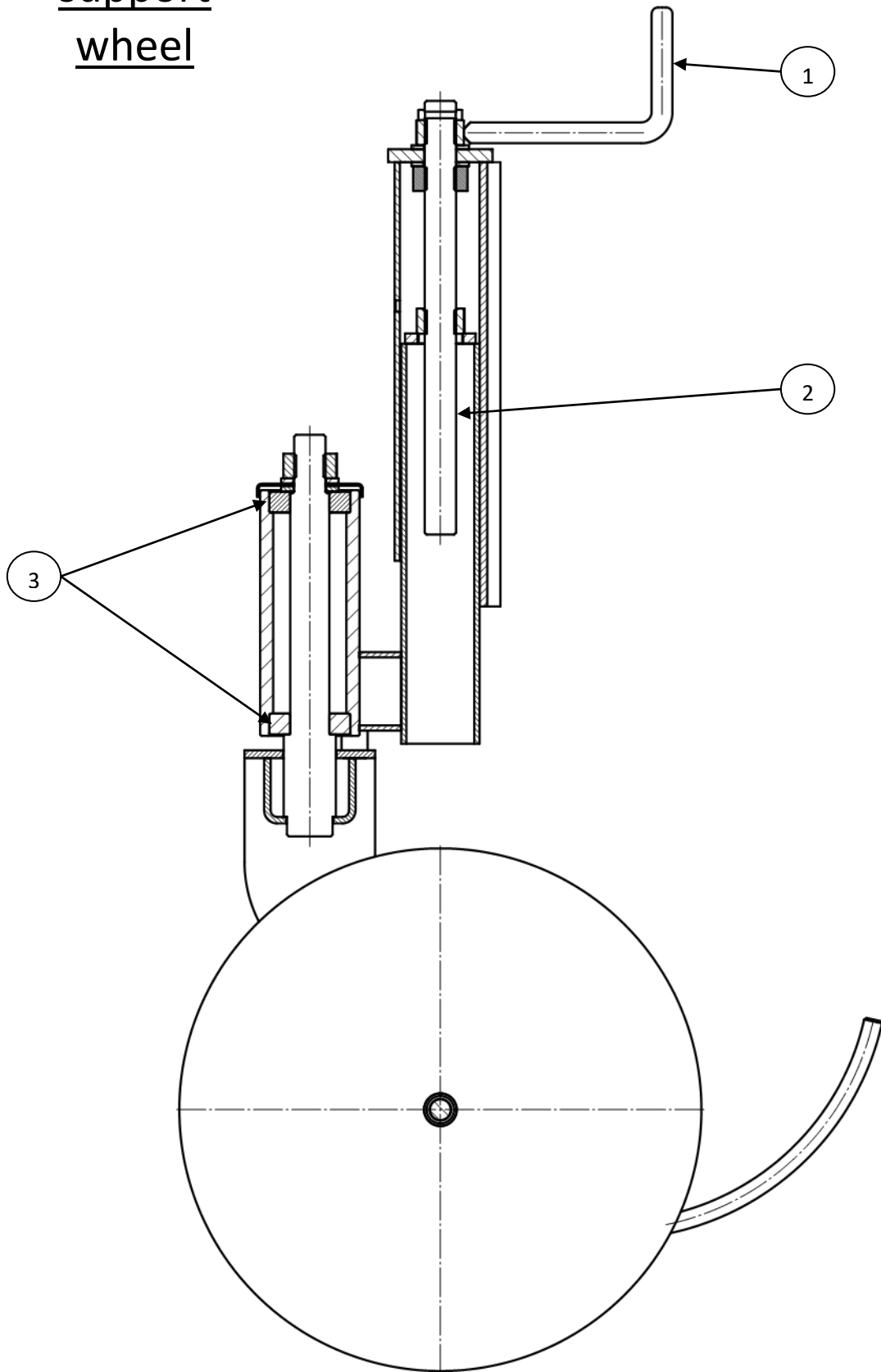
Description	Number	Reference	Drawing
Adjusting lever	1	24VL01	T00001018
Adjusting rod	2	24VL02	T00001425
Bearing 6205-2RS	3	24VL03	

support
wheel



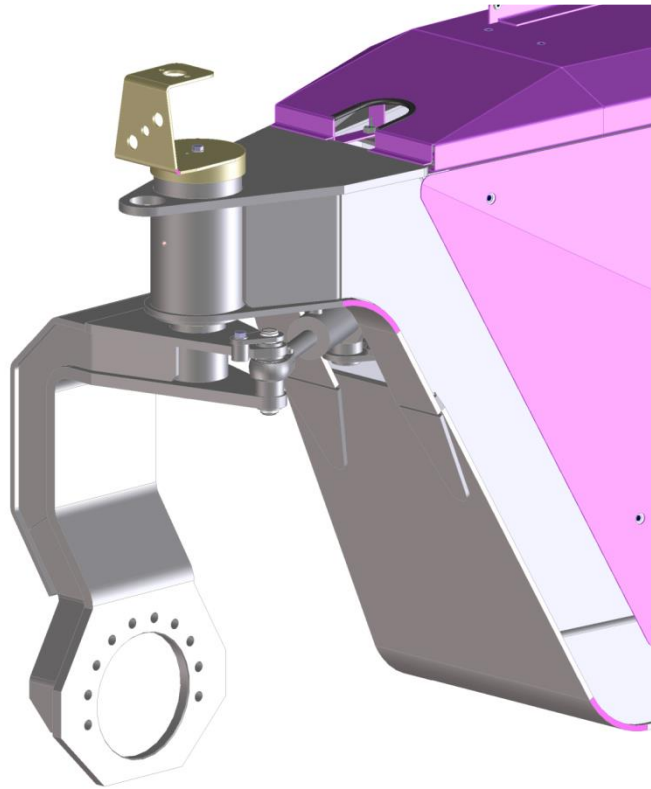
Picture 32

support
wheel



Picture 33

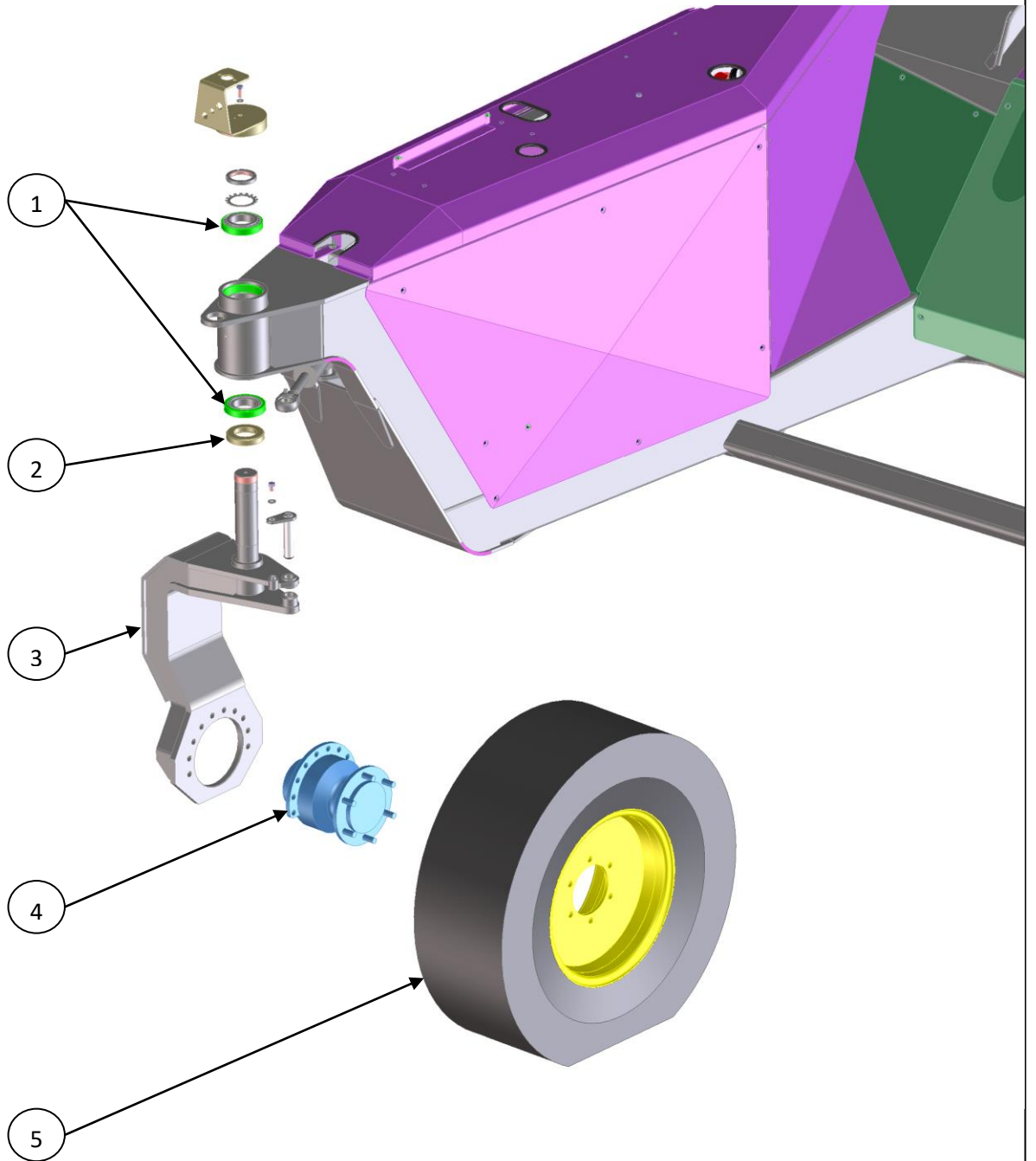
Front fork



Picture 34

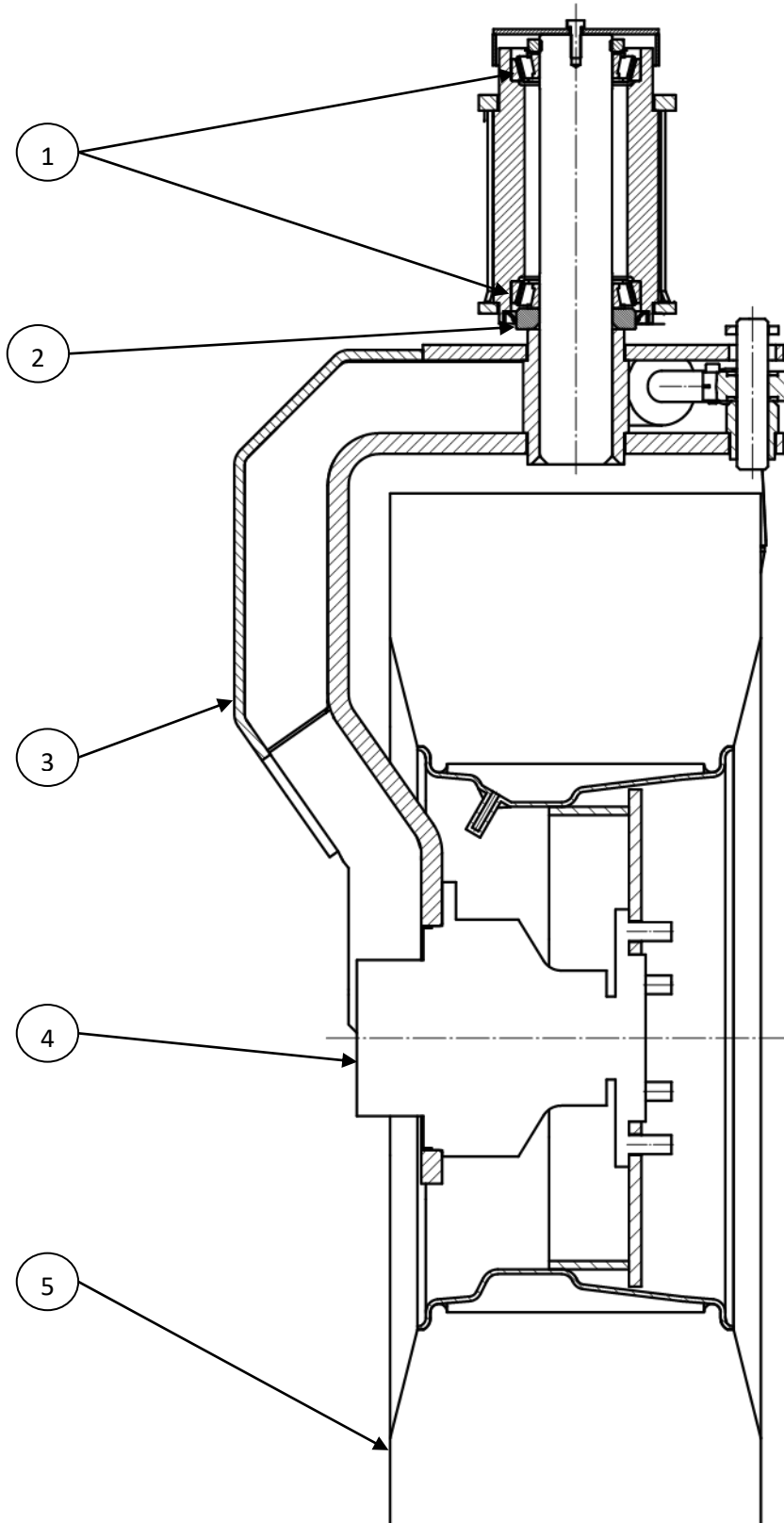
Description	Number	Reference	Drawing
Bearing	1	25VV01	T00001495
Spacer	2	25VV02	T00001494
Front fork	3	25VV03	T00001451
Poclair engine	4	25VV04	T00008121
Front wheel	5	25VV05	T00002686

Front fork



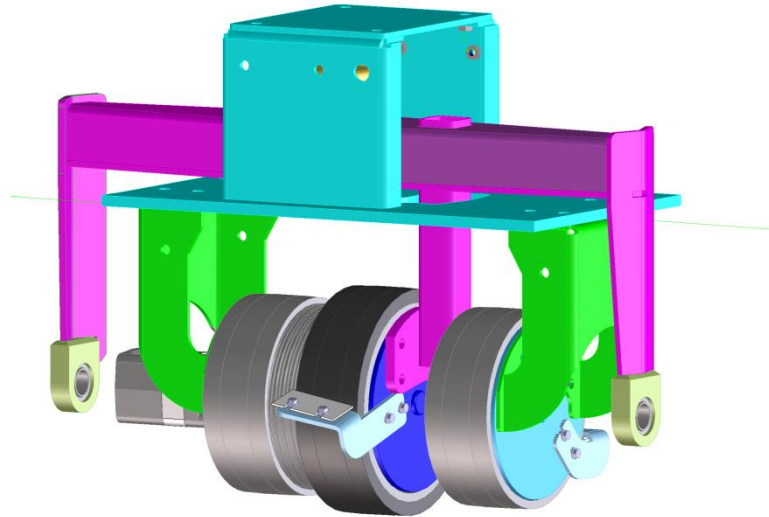
Picture 35

Front fork



Picture 36

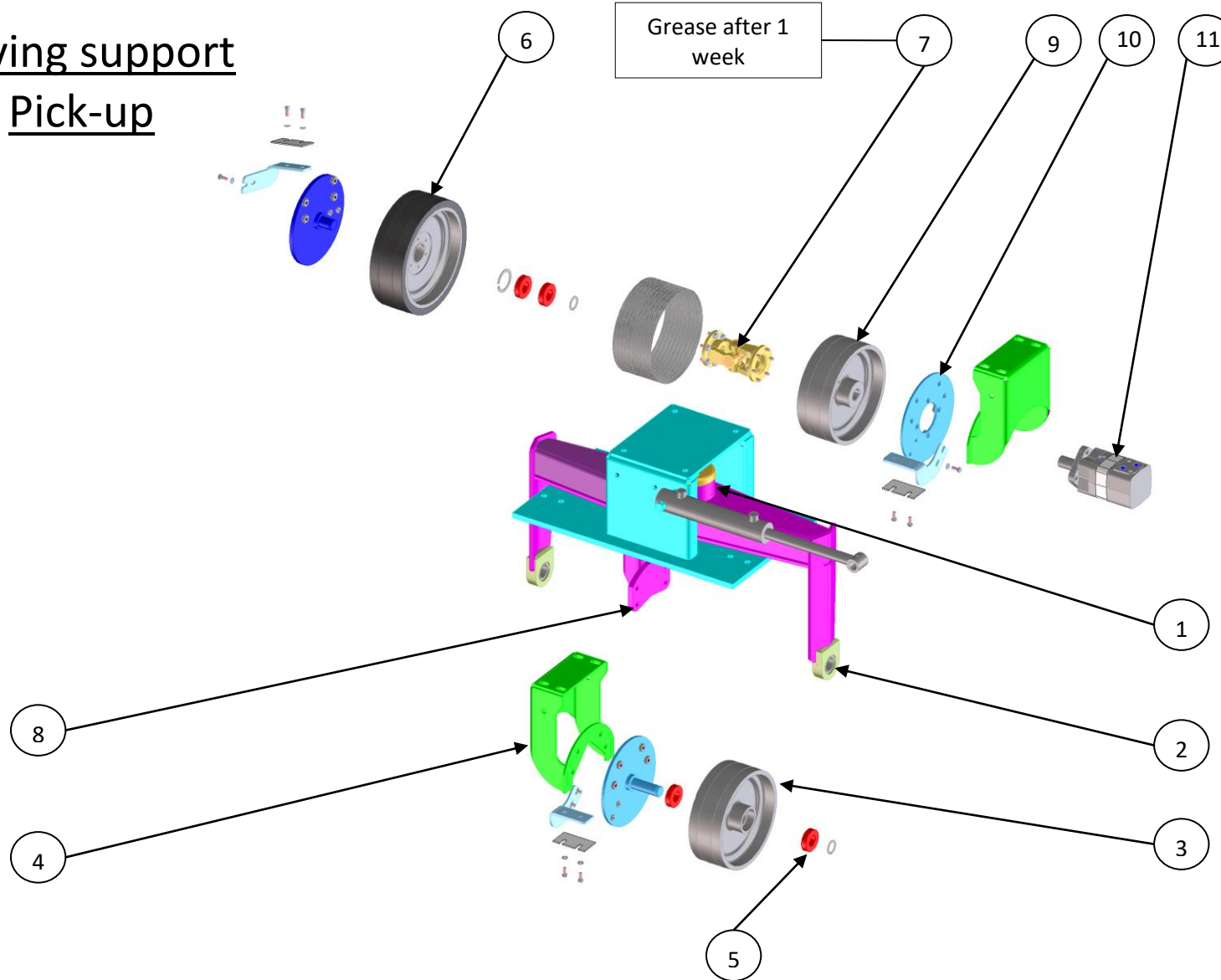
Driving support pick-up



Picture 37

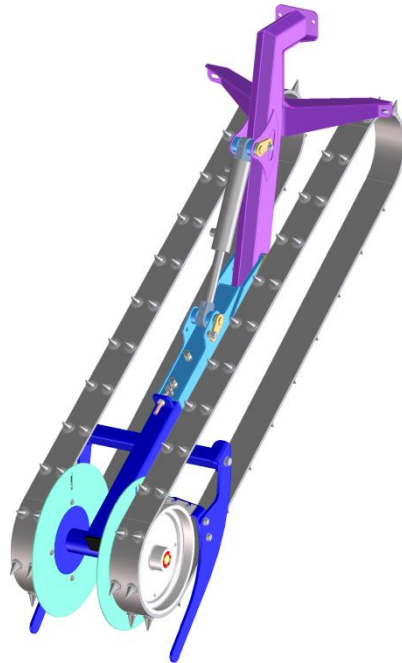
Description	Number	Reference	Drawing
Lubricator	1	24AS01	
Rod end	2	24AS02	T00002172
Alu pulley ø280	3	24AS03	T00004706
Support Alu pulley	4	24AS04	T00002168
Bearing	5	24AS05	
Rubber coated alu pulley ø280	6	24AS06	T00003179
Universal joint	7	24AS07	T00002174
Middle support alu pulley	8	24AS08	T00000901
Driving alu pulley	9	24AS09	T00004706
Support driving pulley	10	24AS10	T00002629
Danfoss engine	11	24AS11	T00002167

Driving support
Pick-up



Picture 38

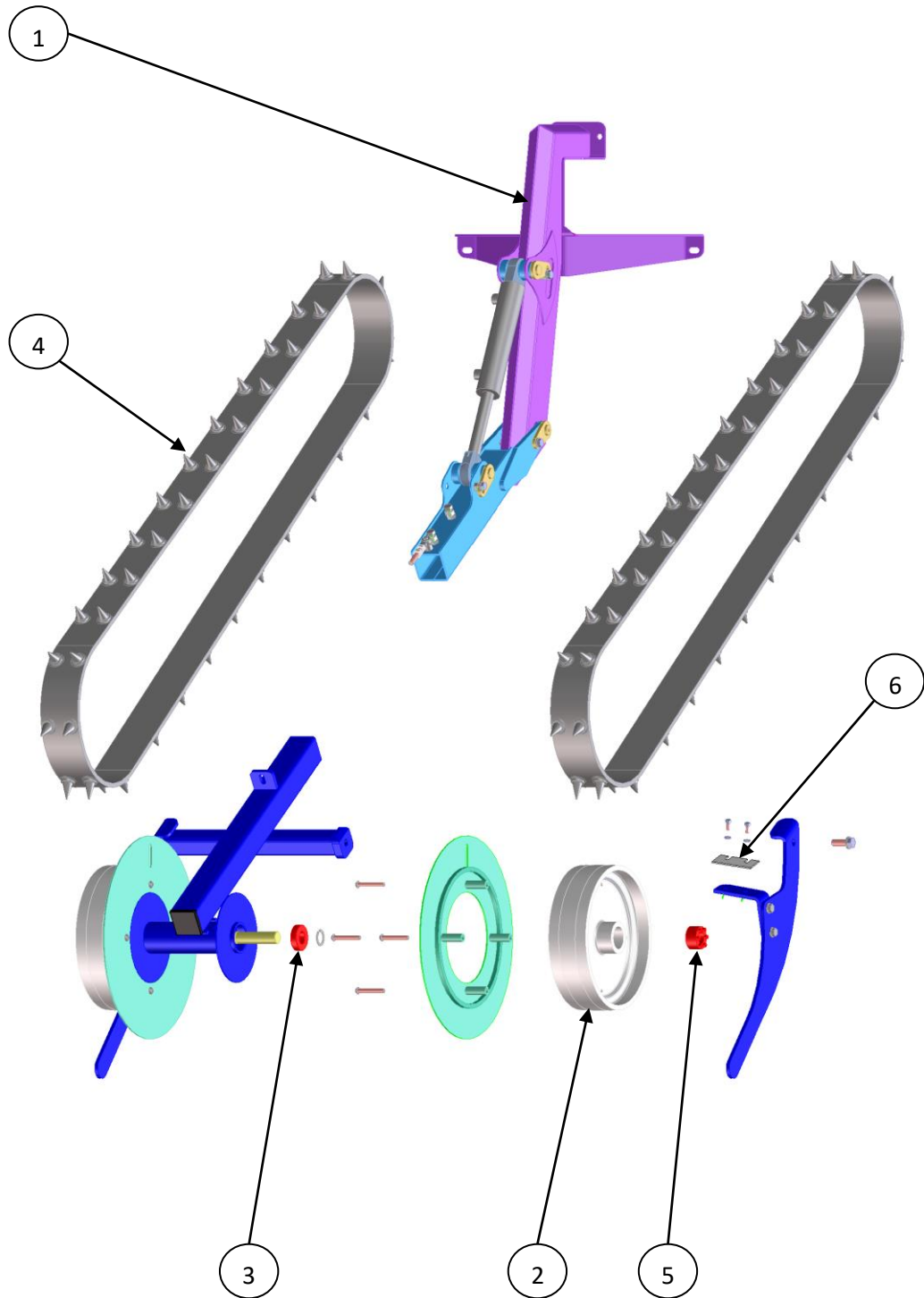
The unload unit



Picture 40

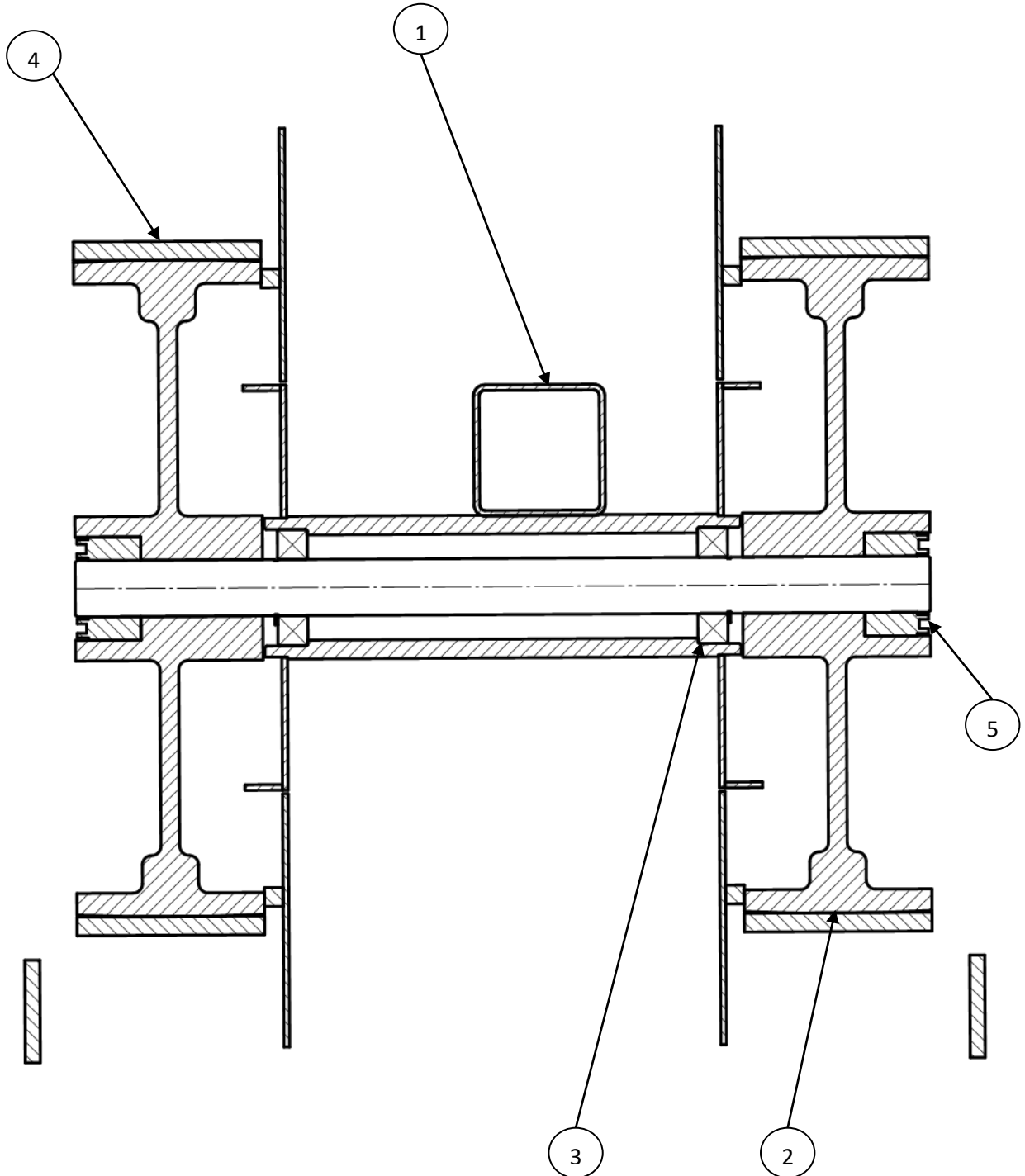
Description	Number	Reference	Drawing
Frame	1	24AF01	T00002358
Alu pulley ø350	2	24AF02	T00004701
Bearing 6206 2RS1	3	24AF03	
Unloading belt Belt length: 4230mm	4	24AF04	T00004702
Locking assembly	5	24AF05	T00002362
Scraper	6	24AF06	T00000784

The unload unit



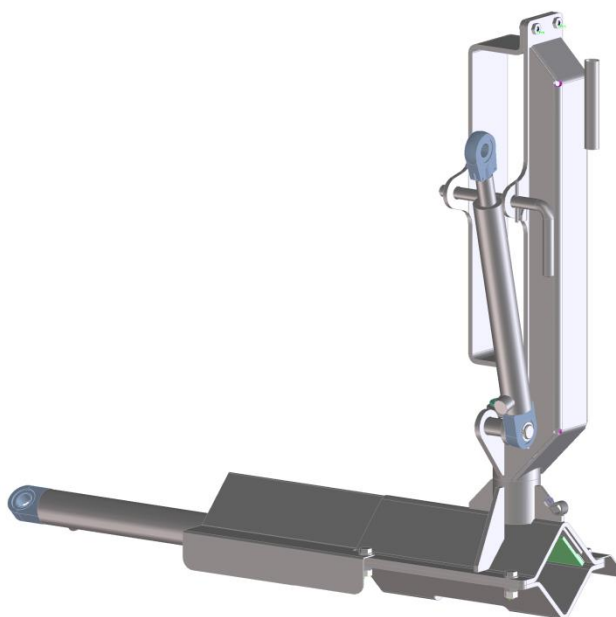
Picture 41

The unload unit



Picture 42

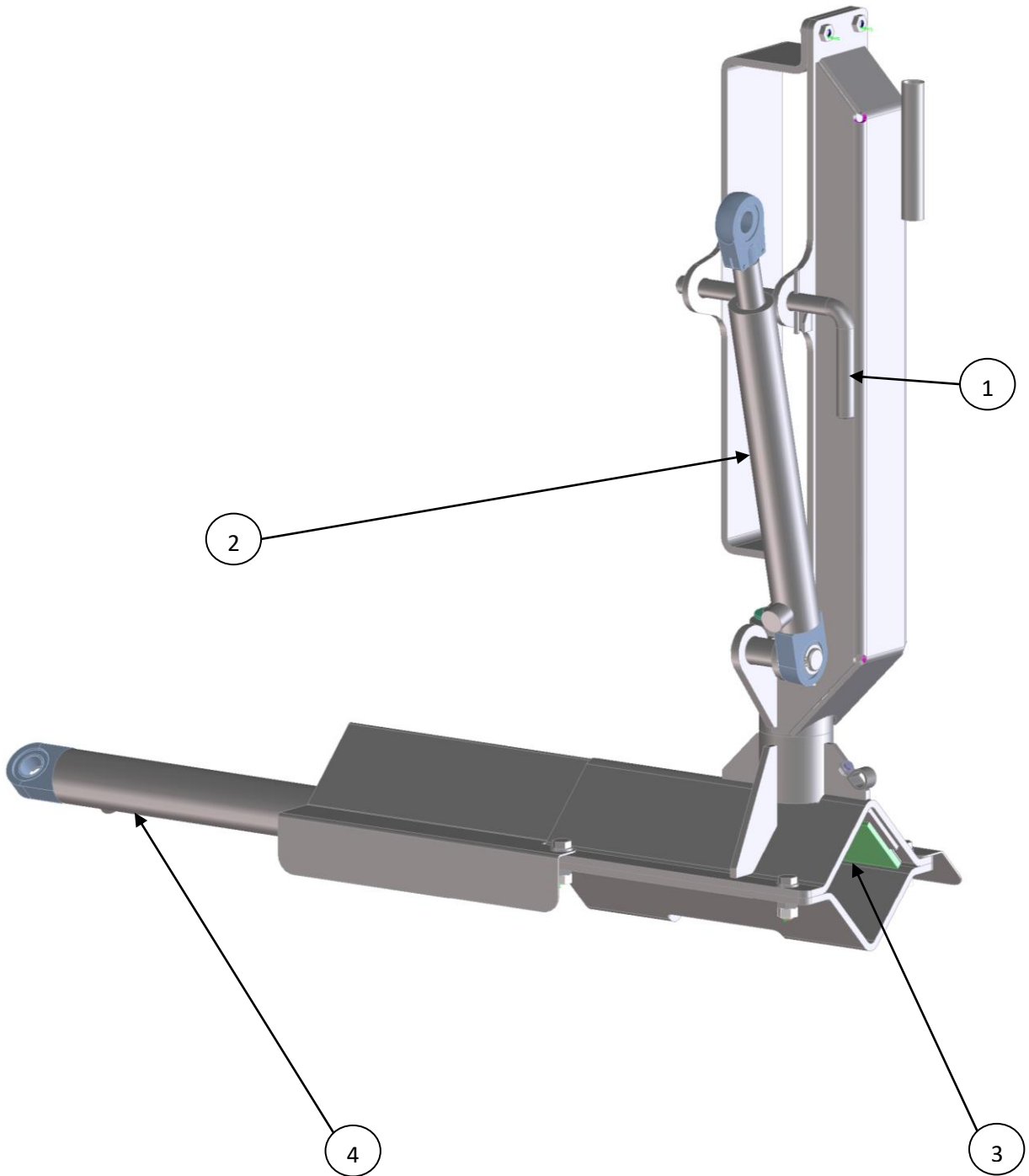
Left Pick-up support



Picture 43

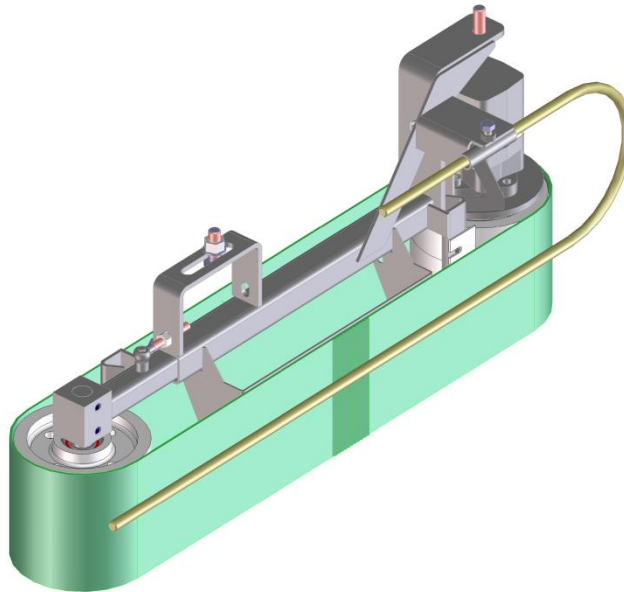
Description	Number	Reference	Drawing
Pin for blocking Pick-up	1	24PU-SUP01	T00003341
Cylinder for lifting Pick-up	2	24PU-SUP02	T00000859
Sliding plate	3	24PU-SUP03	T00001347
Cylinder for moving Pick-up to the left	4	24PU-SUP04	T00000875

Left Pick-up
support



Picture 44

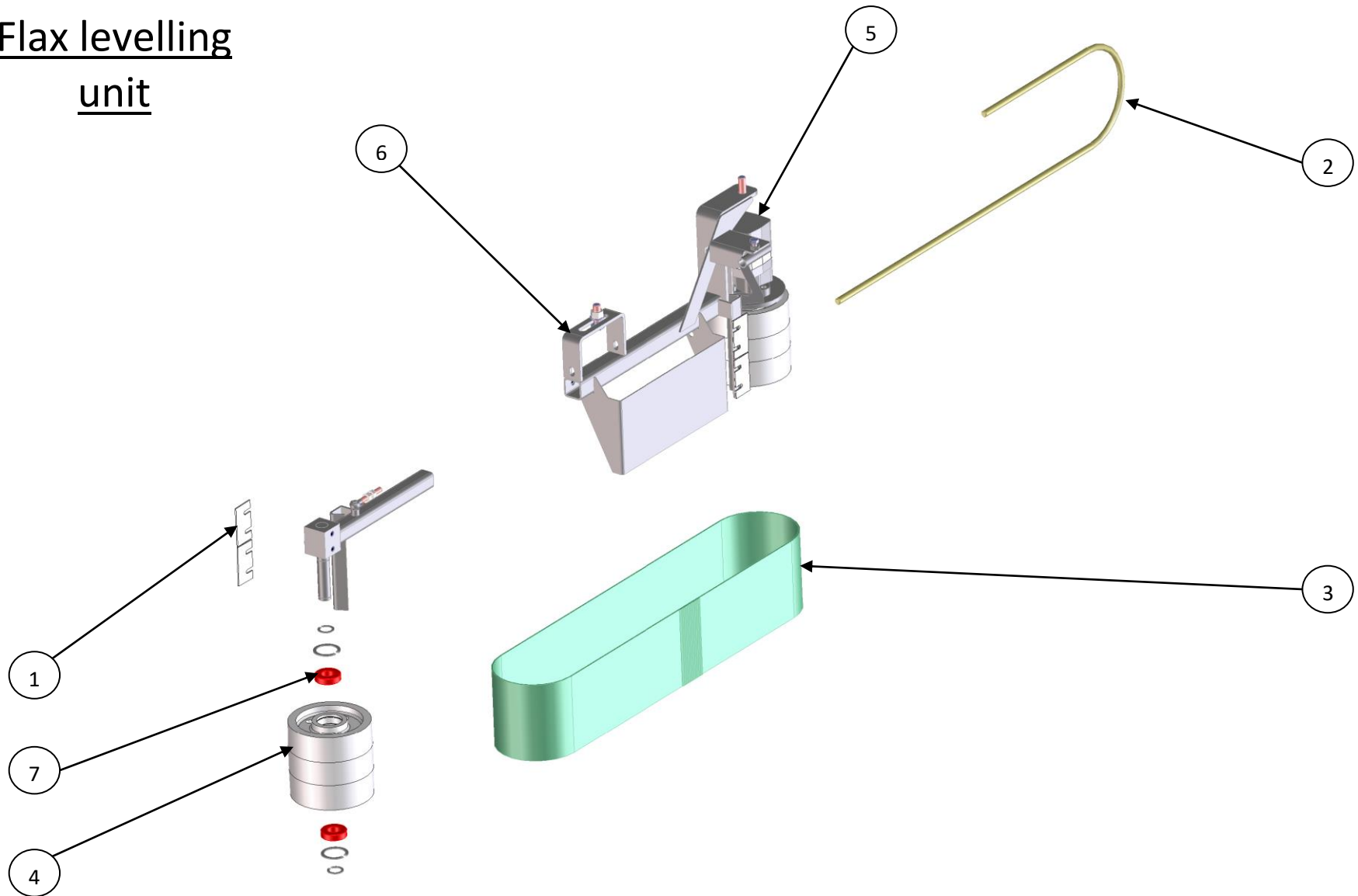
Flax levelling unit



Picture 45

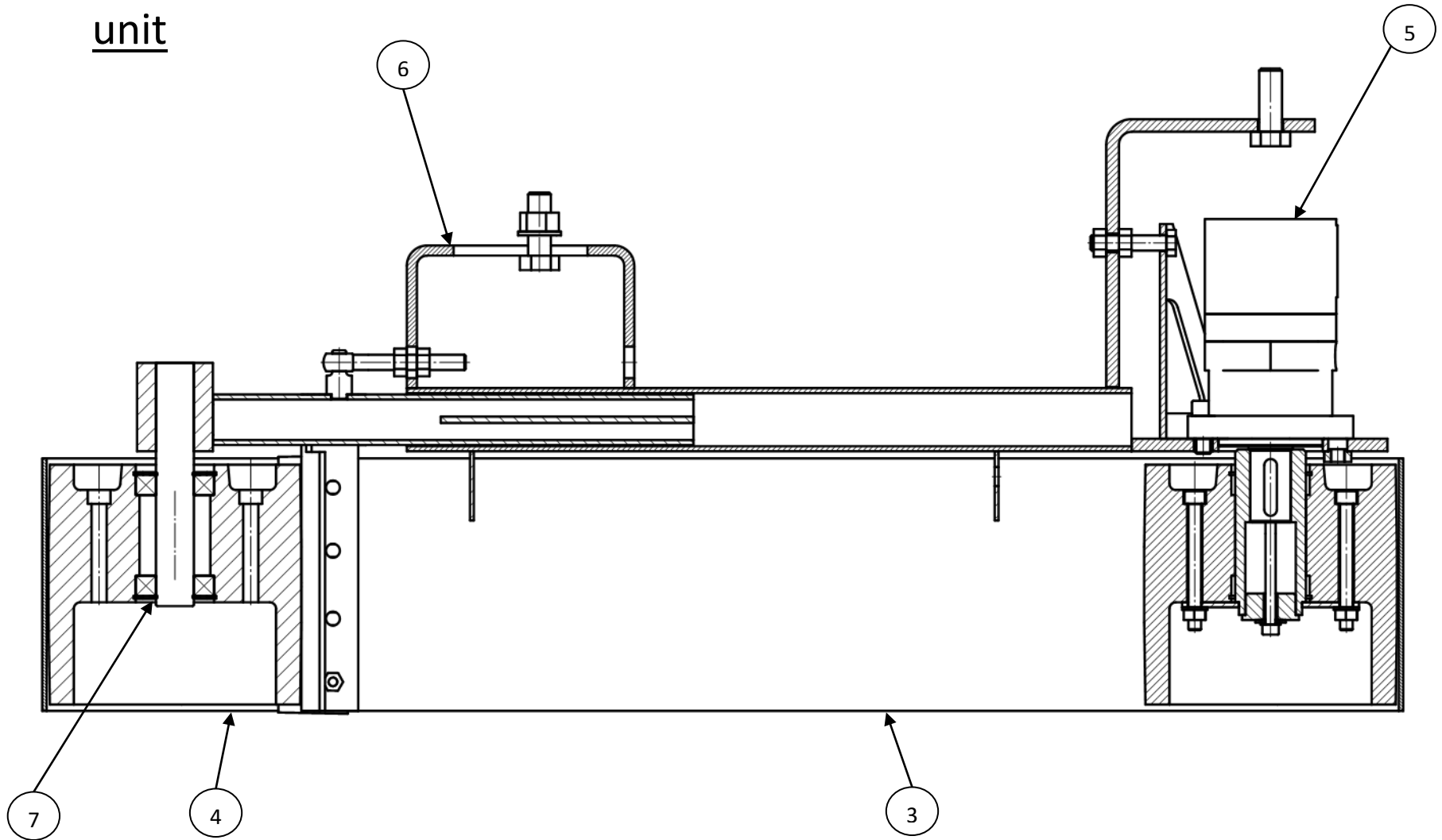
Description	Number	Reference	Drawing
Scraper	1	24EF01	T00000784
Flax guider	2	24EF02	T00002574
Flax levelling belt Belt length: 2370mm	3	24EF03	T00000785
Turning roll	4	24EF04	T00002570
Danfoss engine	5	24EF05	T00002020
Support	6	24EF06	T00003505
Ball Bearing 6206 2RS1	7	24EF07	

Flax levelling unit



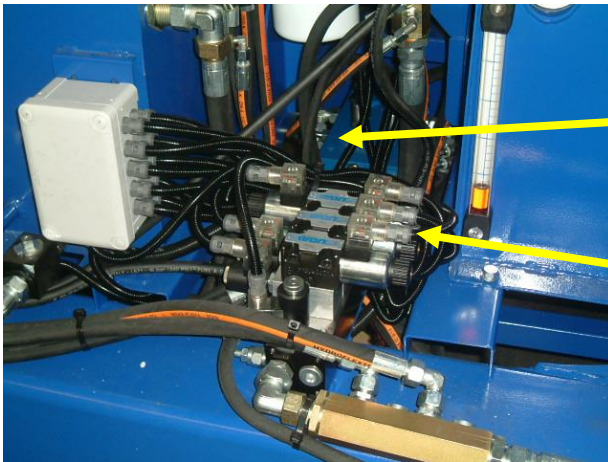
Picture 46

Flax levelling unit



Picture 47

3. General electrical information & electric scheme



Manifold block

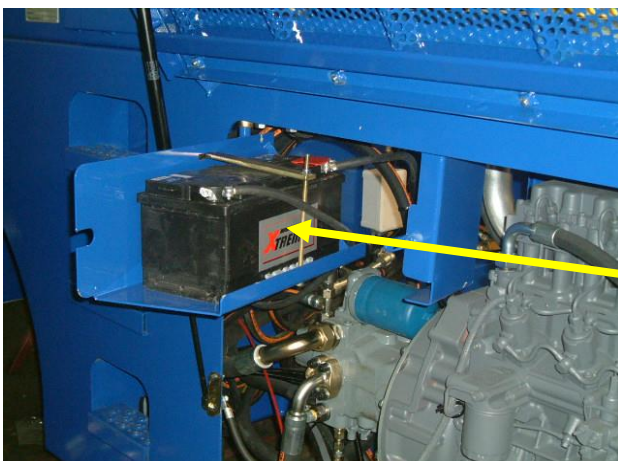
Hydraulic valve block

Picture 48



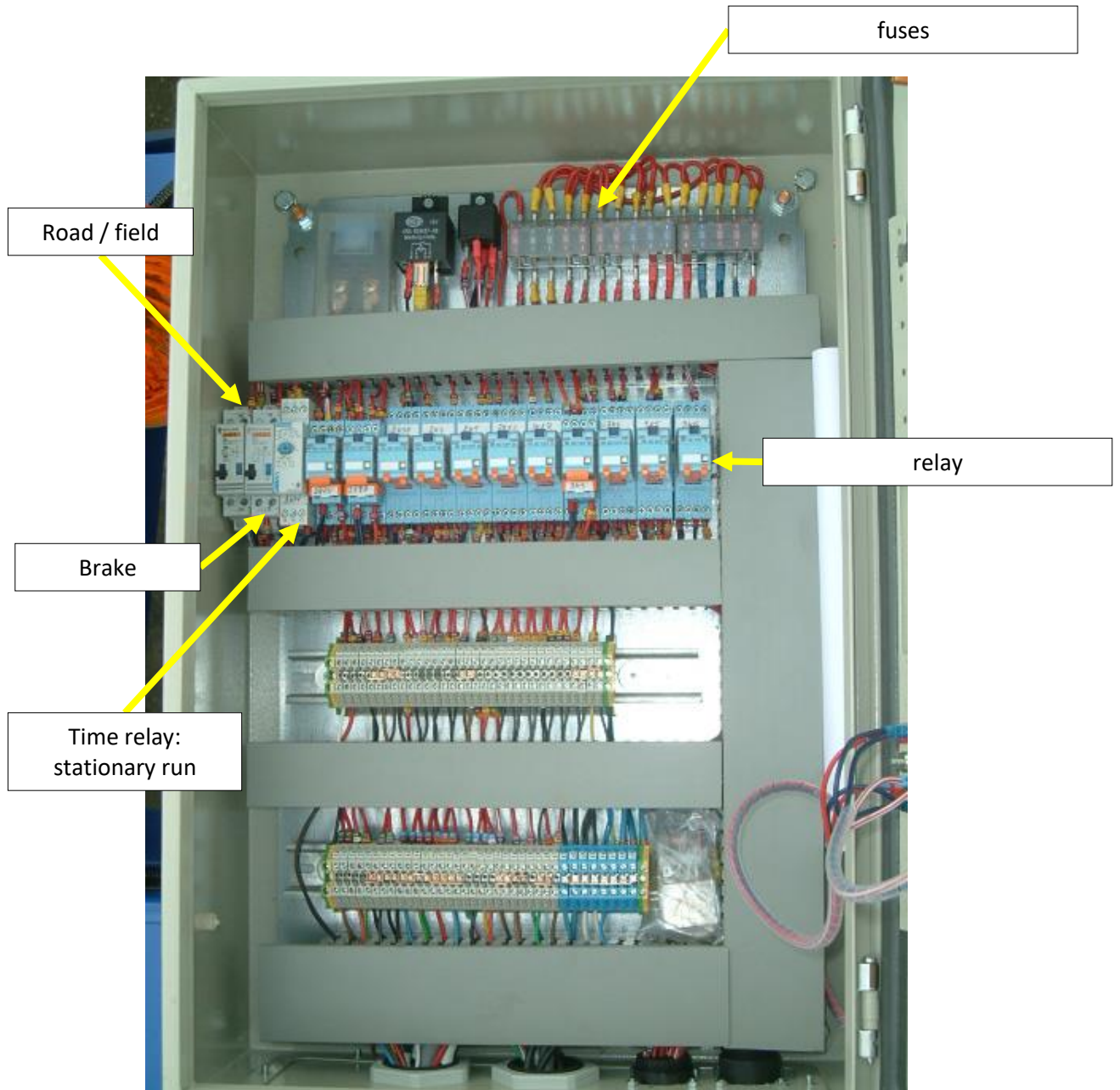
Hydraulic pump

Picture 49



Battery

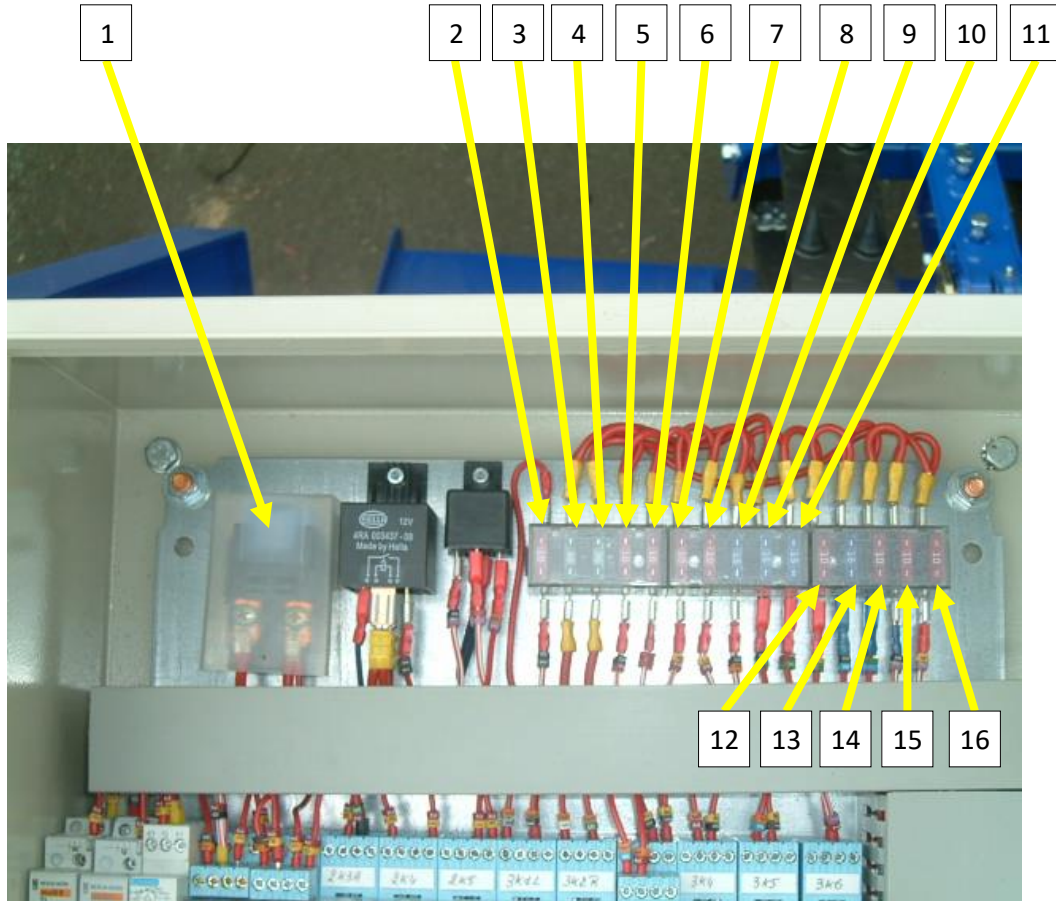
Picture 50



Picture 51



Before every intervention:
DISCONNECT THE GROUND CABLE !



Picture 52

1	1F1	Main fuse	60 A
2	1F2	Starting	10 A
3	1F3	Main fuse	30 A
4	1F4	Main fuse	30 A
5	2F1	Brake + brake lights	10 A
6	2F2	Pump driving forwards / reverse	10 A
7	2F3	work	10 A
8	2F4	Road / field / work	10 A
9	3F1	Lifting / lowering pick-ups	16 A
10	5F1	2 worklights	10 A
11	5F2	Light for driving in reverse	10 A
12	5F3	Turn indicators left + right	10 A
13	6F1	High beam, main beam, side lights	16 A
14	6F2	Hour counter, engine temperature, light charge, oil pressure	10 A
15	7F1	Rotating beacons, horn	10 A
16	7F2	Stop magnet	10 A



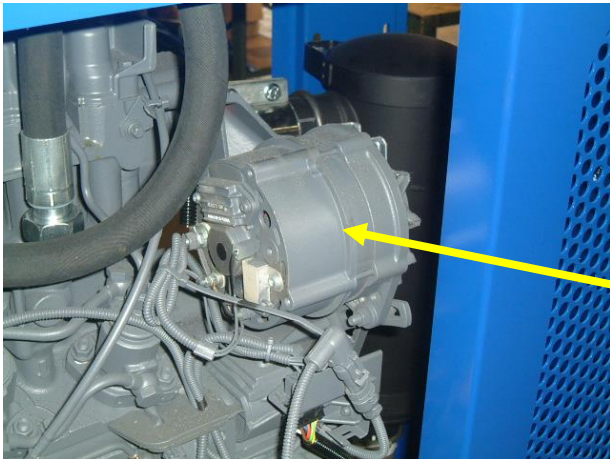
Picture 55

Starter spool
If engine doesn't start, check electric current on spool



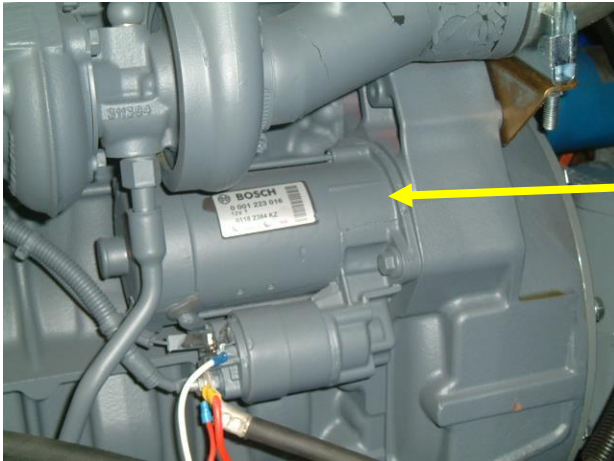
Picture 54

Filter



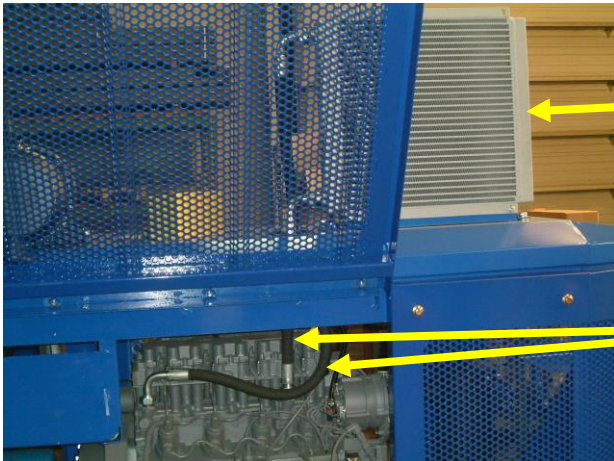
Picture 53

Alternator



Engine starter

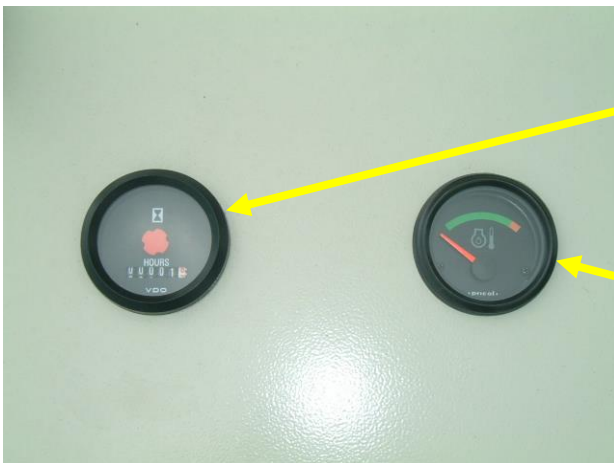
Picture 58



Oil cooler for cooling engine

Oil lines for cooling engine

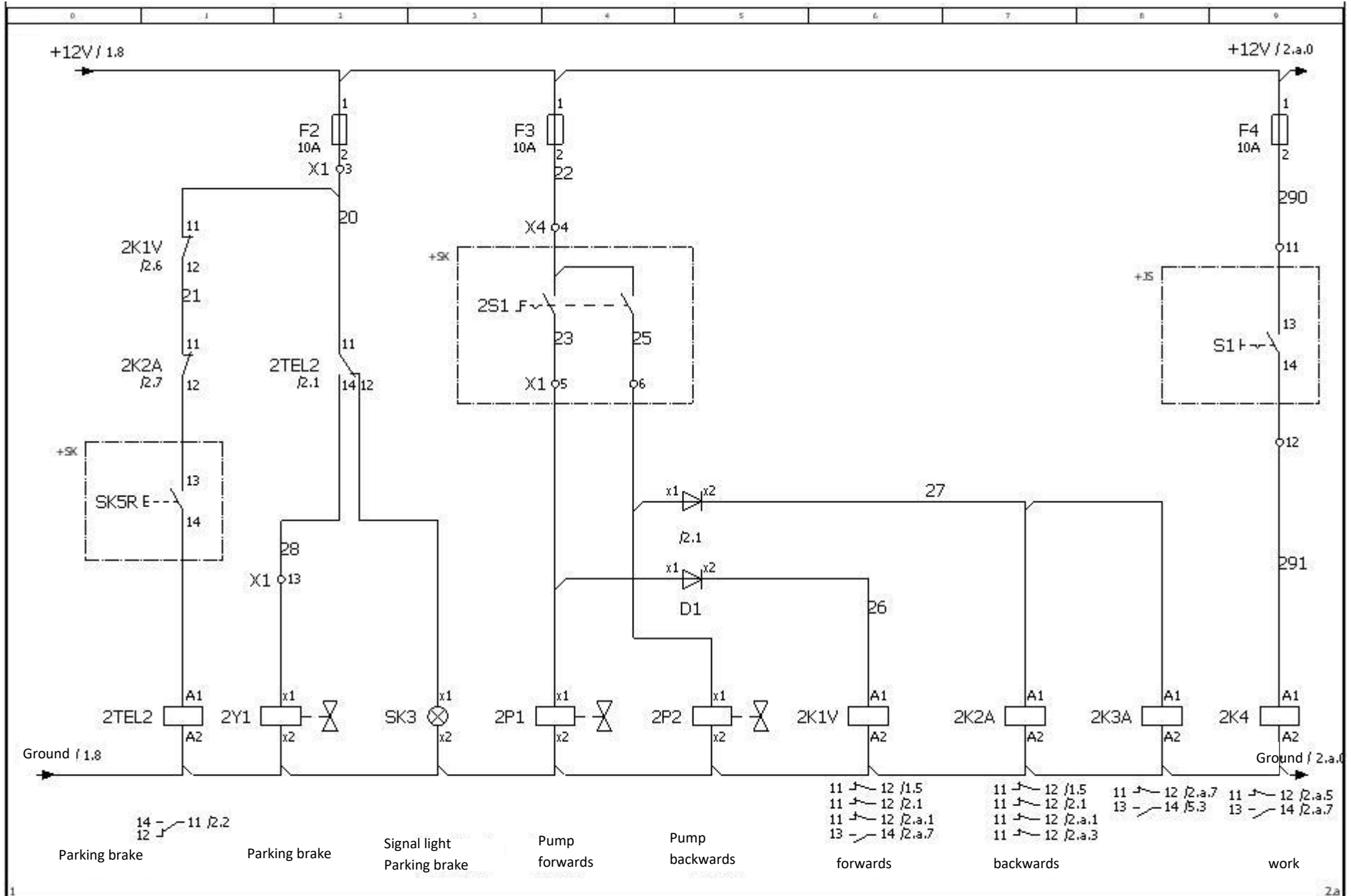
Picture 57



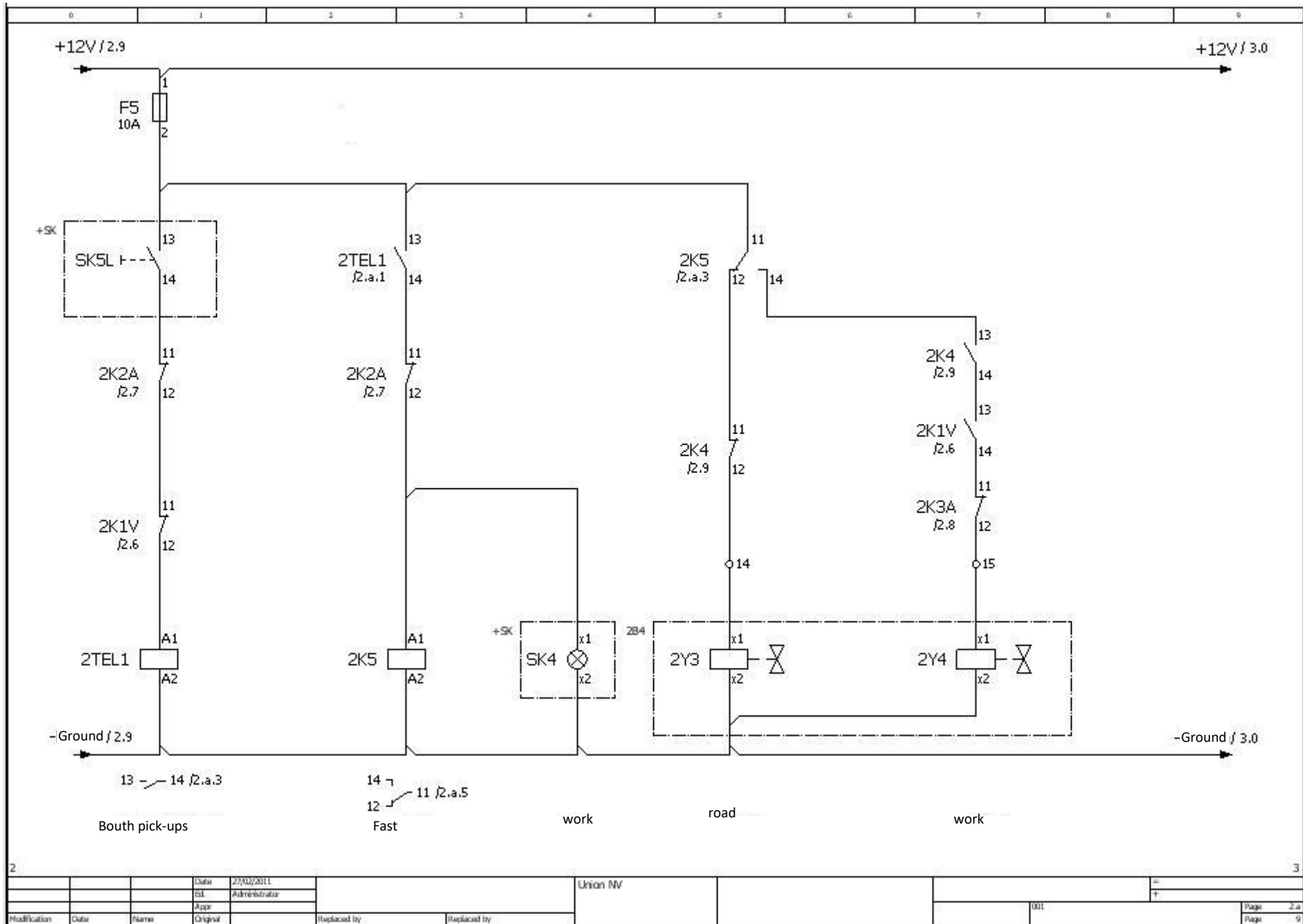
Hour counter

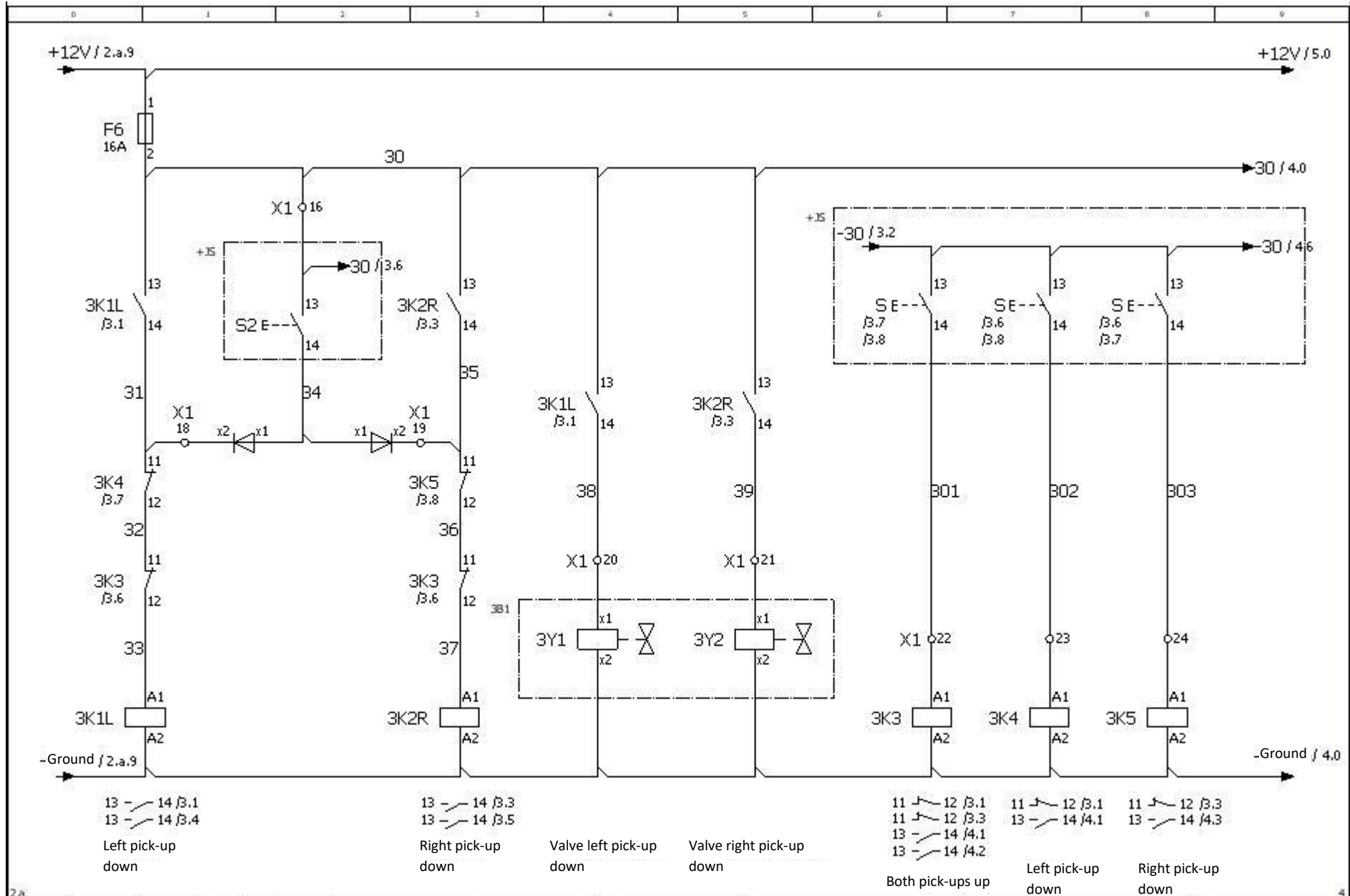
Engine oil temperature

Picture 56

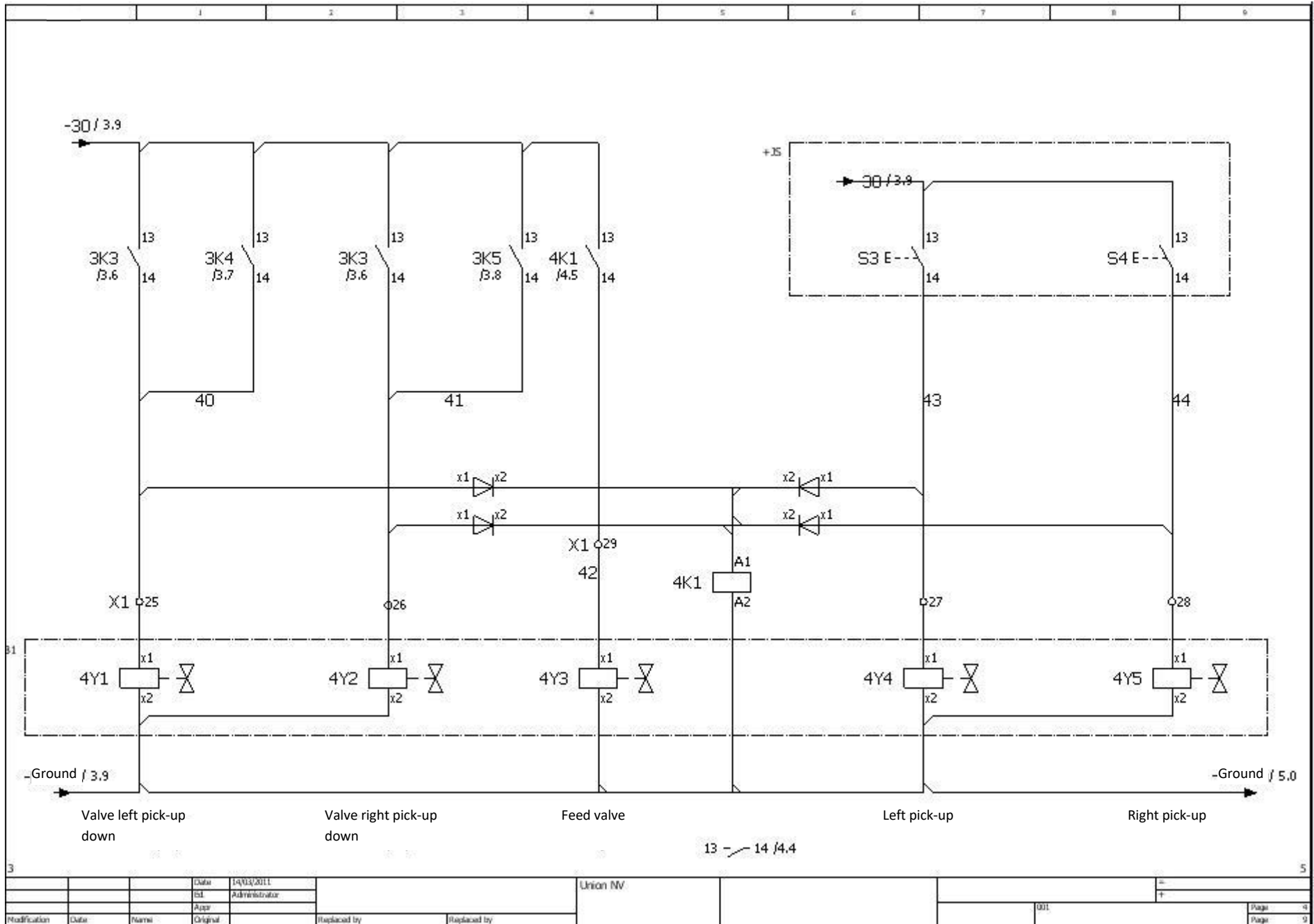


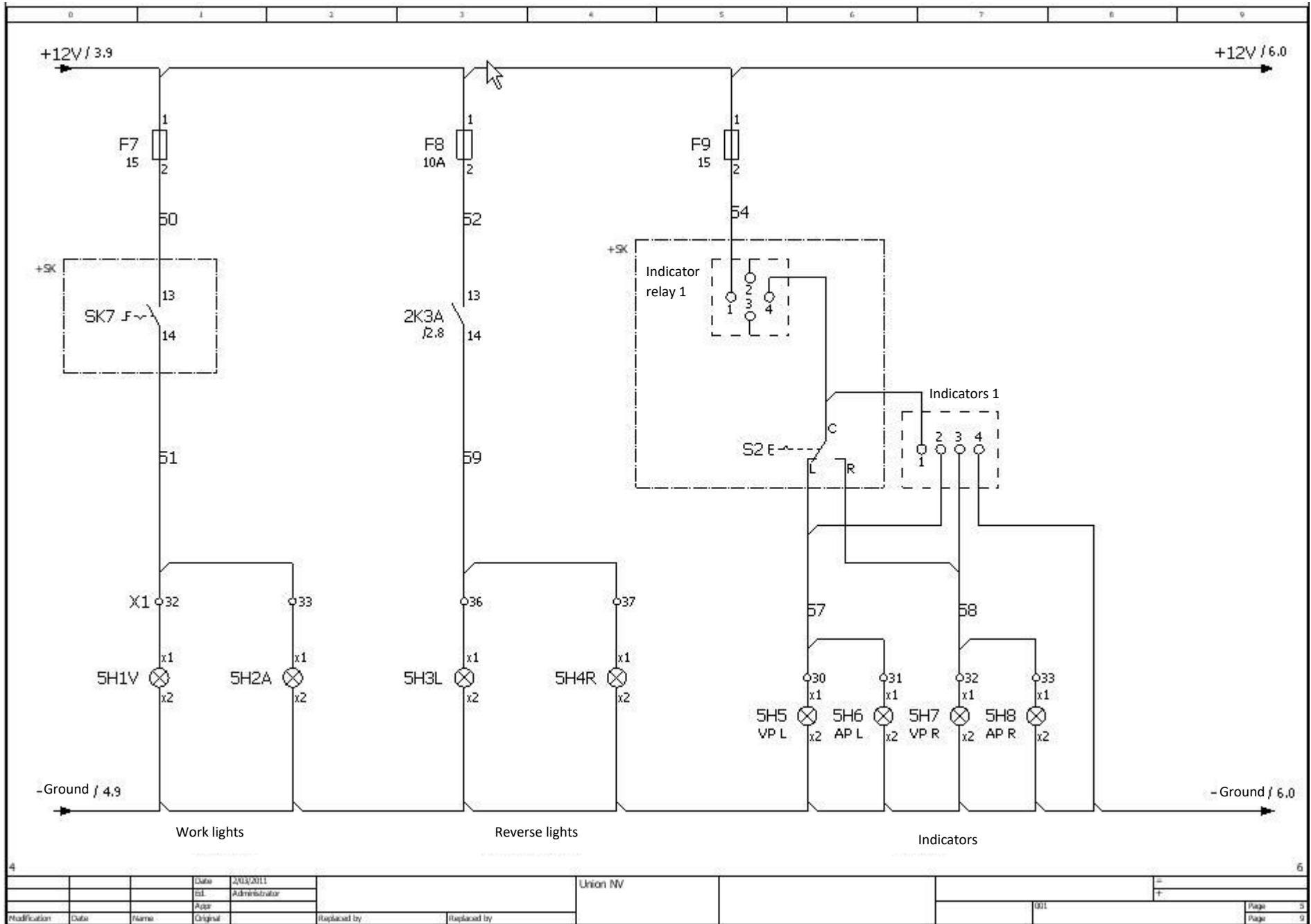
Date	14/03/2011	Ed.	Administrator	Union IV		Page	2
Modificator		Name	Original	Replaced by	Replaced by	Page	9

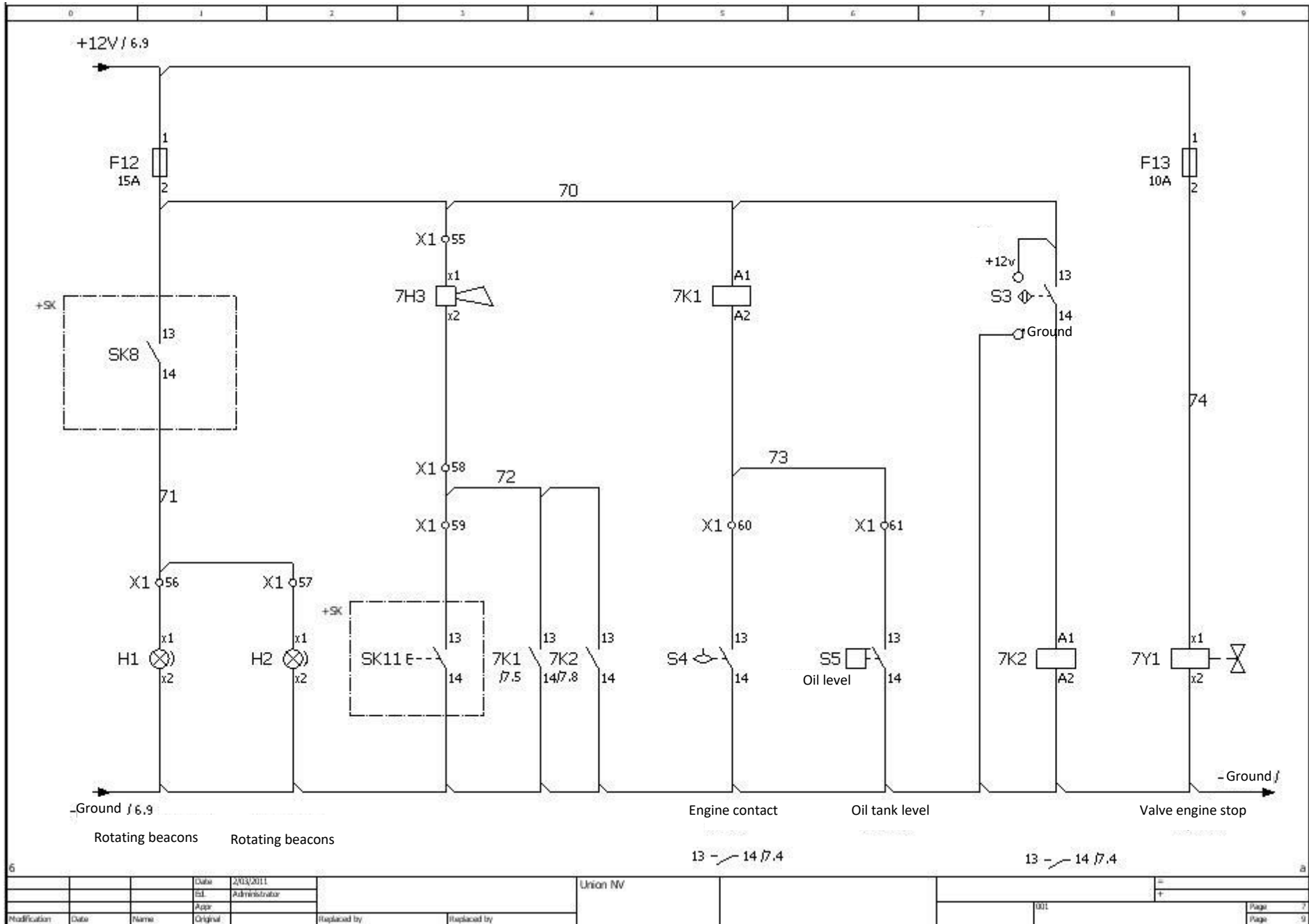




2.a		Date	14/03/2011	Union NV			
		Ed.	Administrator				
		Page					
Modification	Date	Name	Original	Replaced by	Replaced by	Page	3
						Page	9





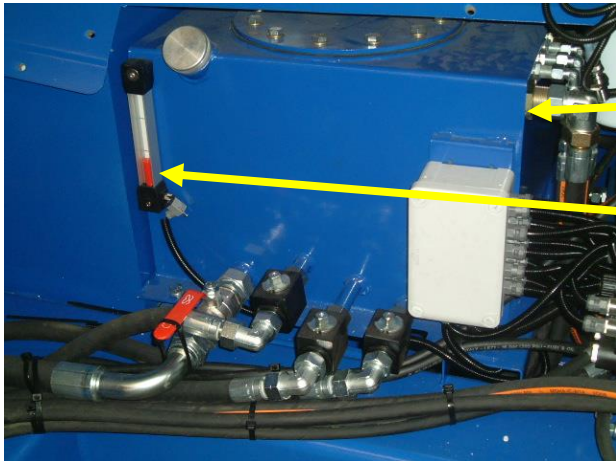


4. Hydraulic scheme

Check if all hydraulic couplings for tightness. Before removing a hydraulic hose, check if the oil isn't under hydraulic pressure.

Oil under pressure may cause serious injuries.

If a hydraulic hose is disconnected, the hose must be completely cleaned so the hydraulic circuit doesn't get polluted!



Oil tank

Oil level indicator

Picture 59



Oil pump translation

Valve driving forward / reverse

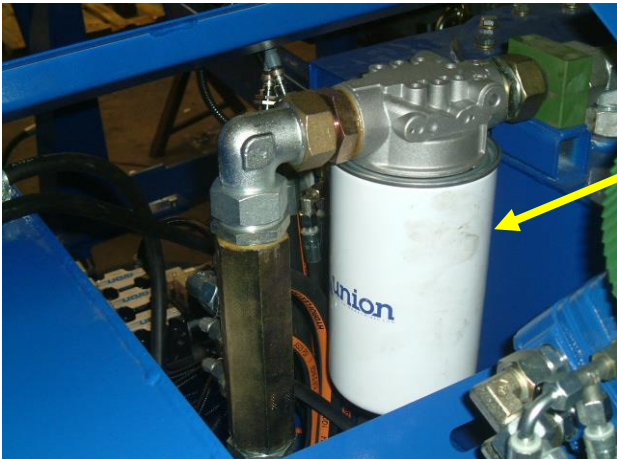
Oil pump oil coolers

Picture 60



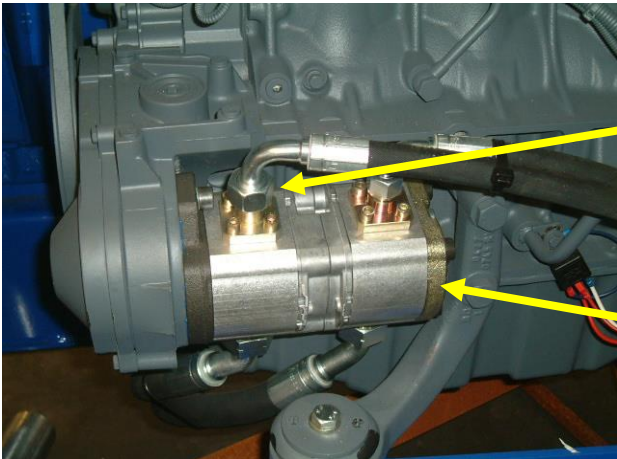
Aspiration filter on oil tank

Picture 61



filter

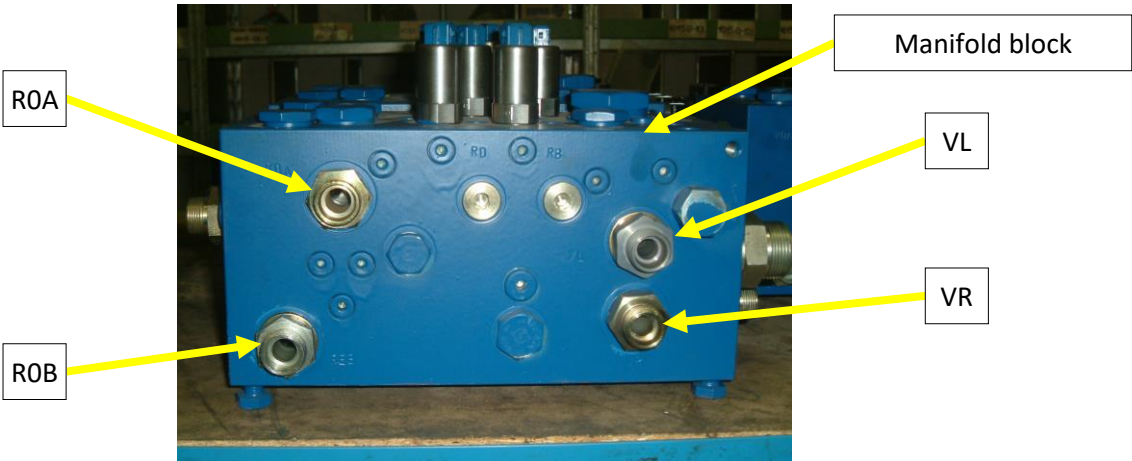
Picture 62



Hydraulic pump 17 cc

Hydraulic pump 8 cc

Picture 64



ROA

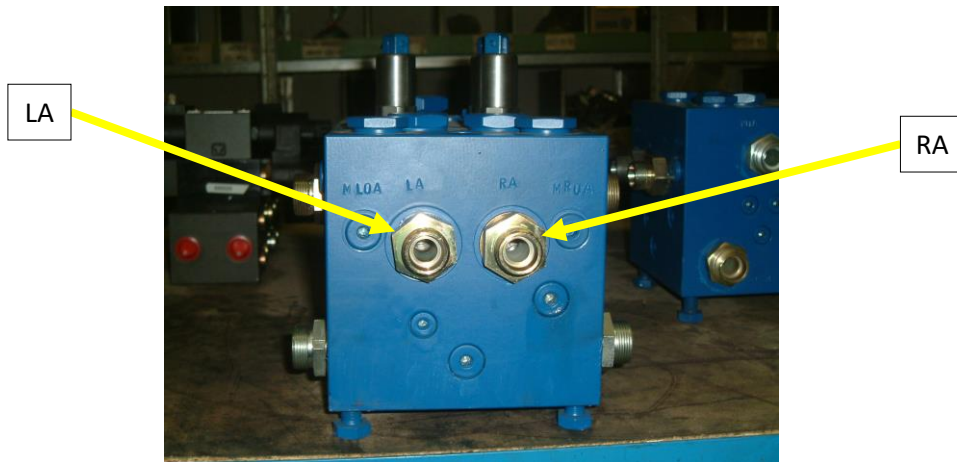
ROB

Manifold block

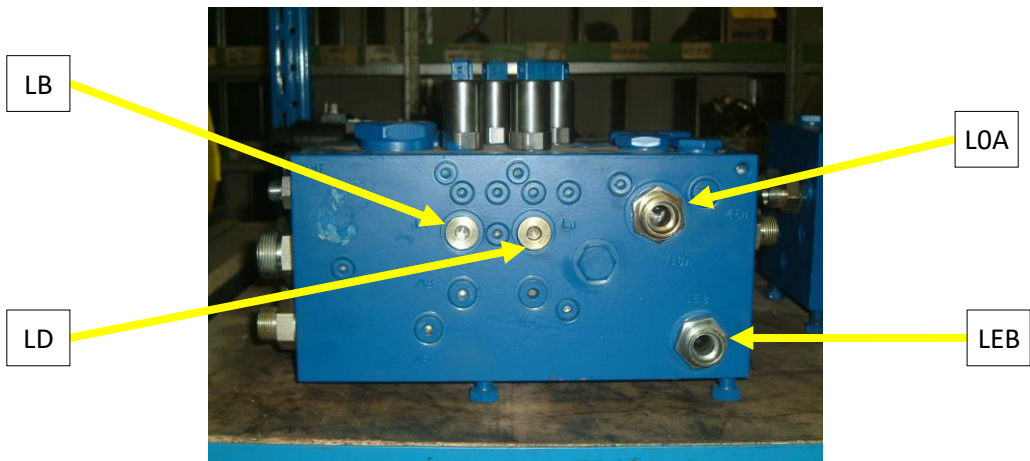
VL

VR

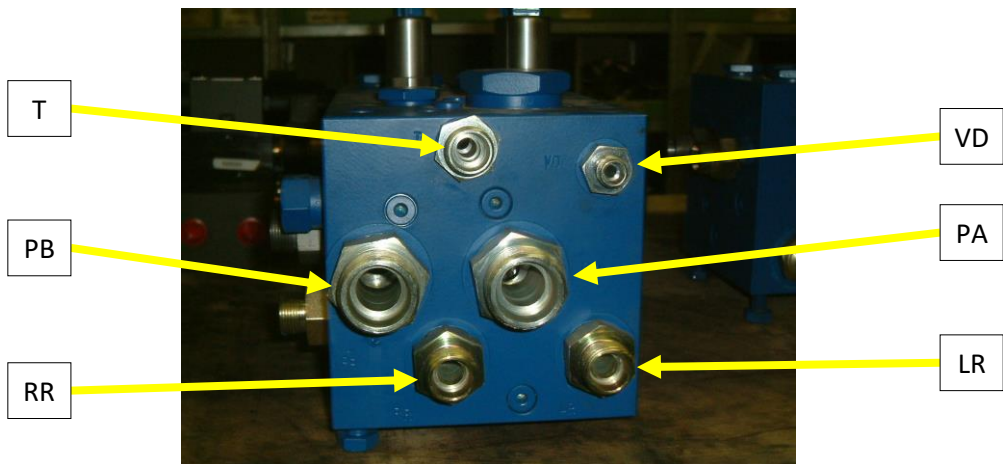
Picture 63



Picture 65



Picture 67

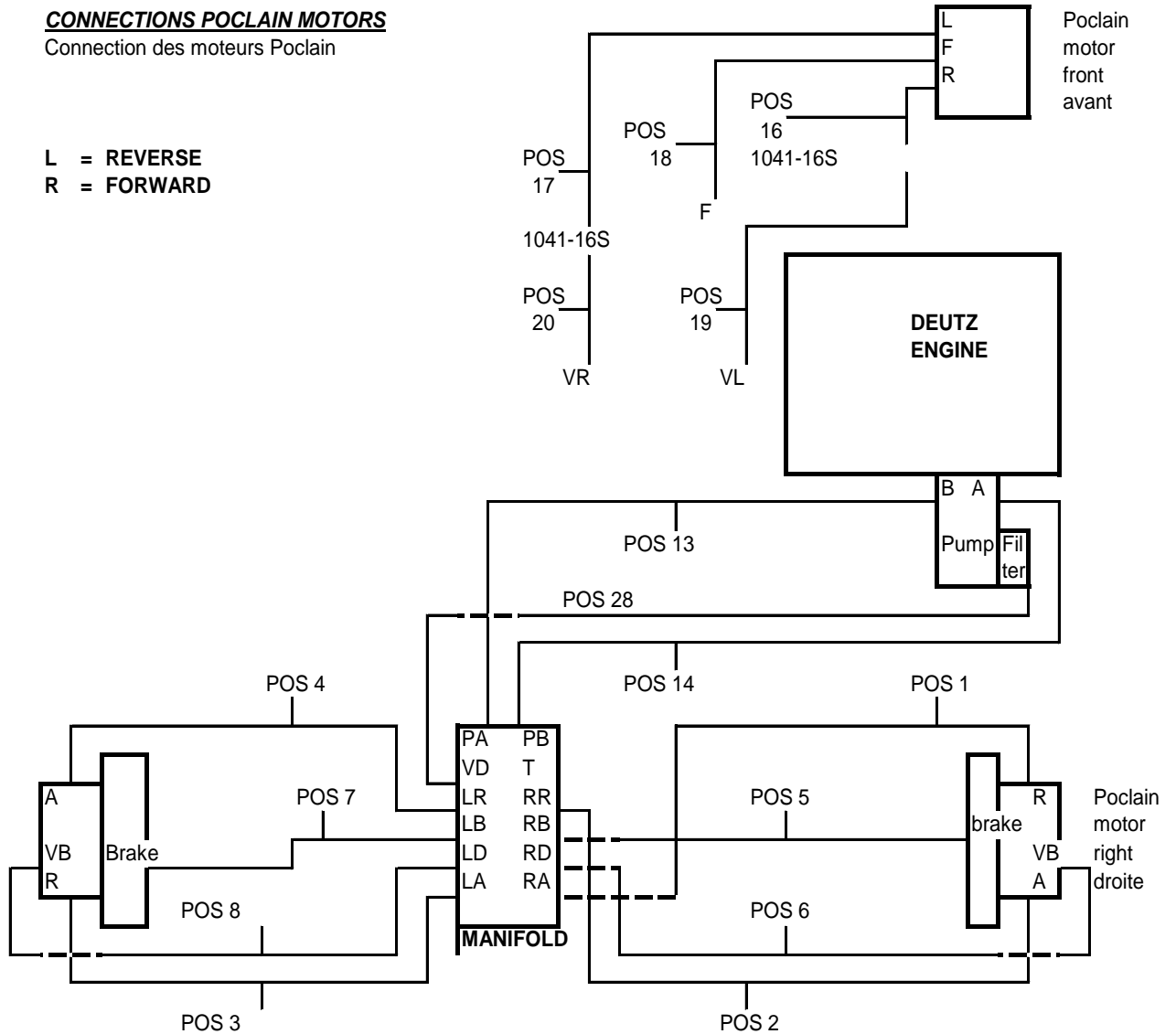


Picture 66

CONNECTIONS POCLAIN MOTORS

Connection des moteurs Poclain

L = REVERSE
R = FORWARD

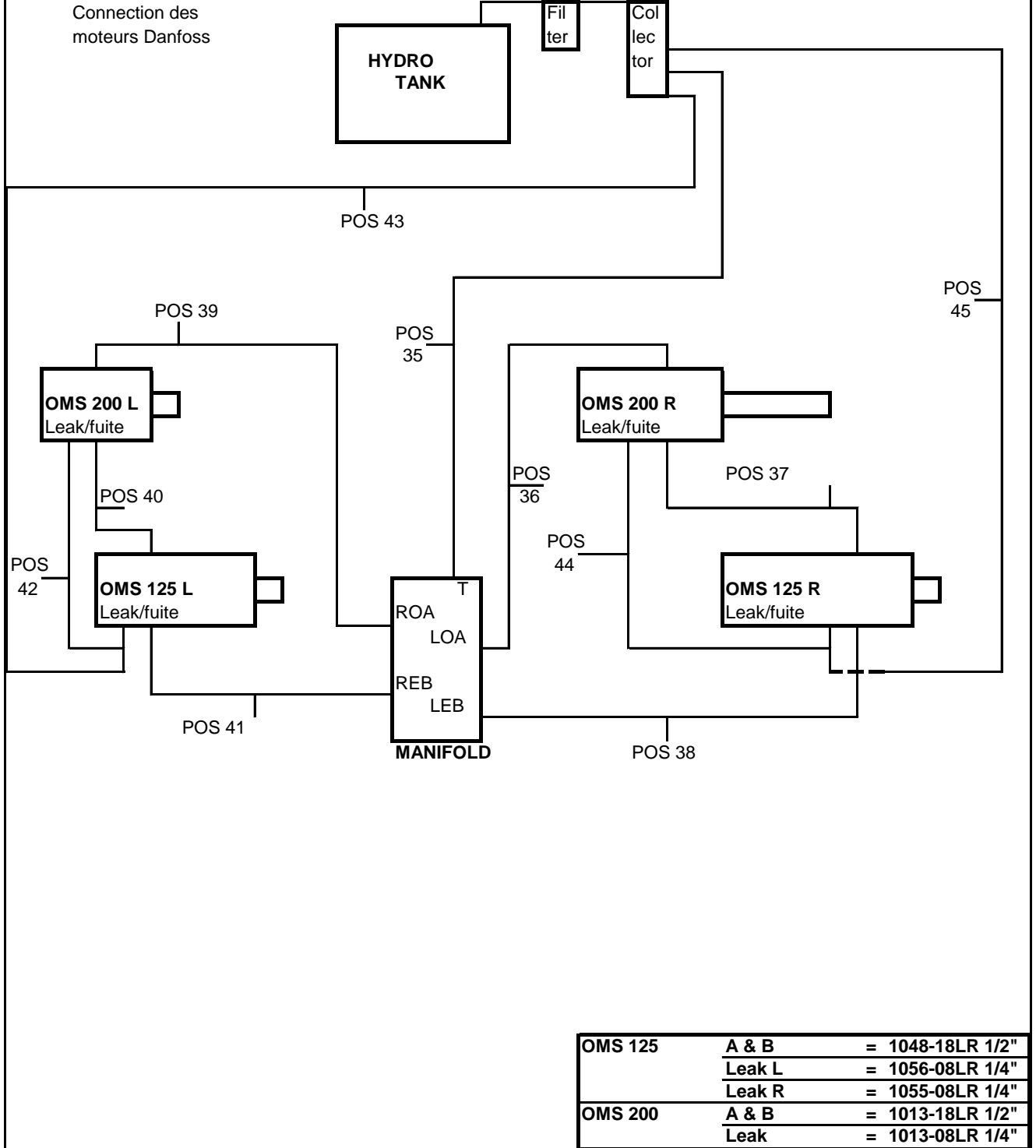


Bolts		
Poclain front	M16x50	10 pieces
Poclain rear	M16x65	20
Manifold block	M12x20	4

Poclain motor front	R	=	1013-16SR 3/4"
	L	=	1013-16SR 3/4"
	F	=	1013-12LR 3/4"
Poclain motors rear	Brake	=	1048-12LM 14x1,5
	VB	=	1048-12LM 14x1,5
	Y	=	1048-12LM 16x1,5
	R	=	1013-20SR 27x2
	A	=	1013-20SR 27x2
Pump	A	=	9783-10-16-16
	B	=	9783-10-16-16
	Filter	=	202702-6-4

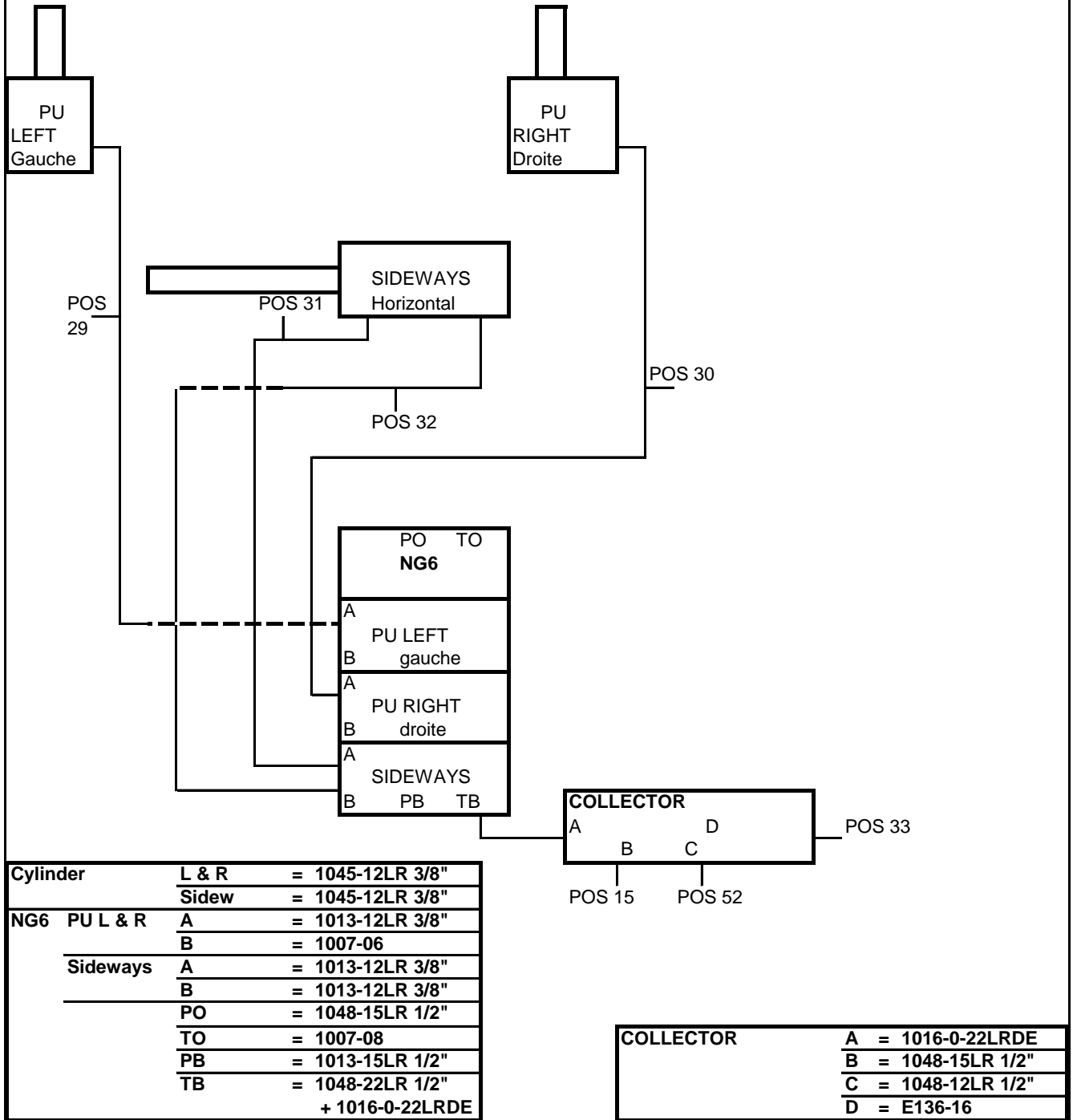
CONNECTIONS DANFOSS MOTORS

Connection des
moteurs Danfoss



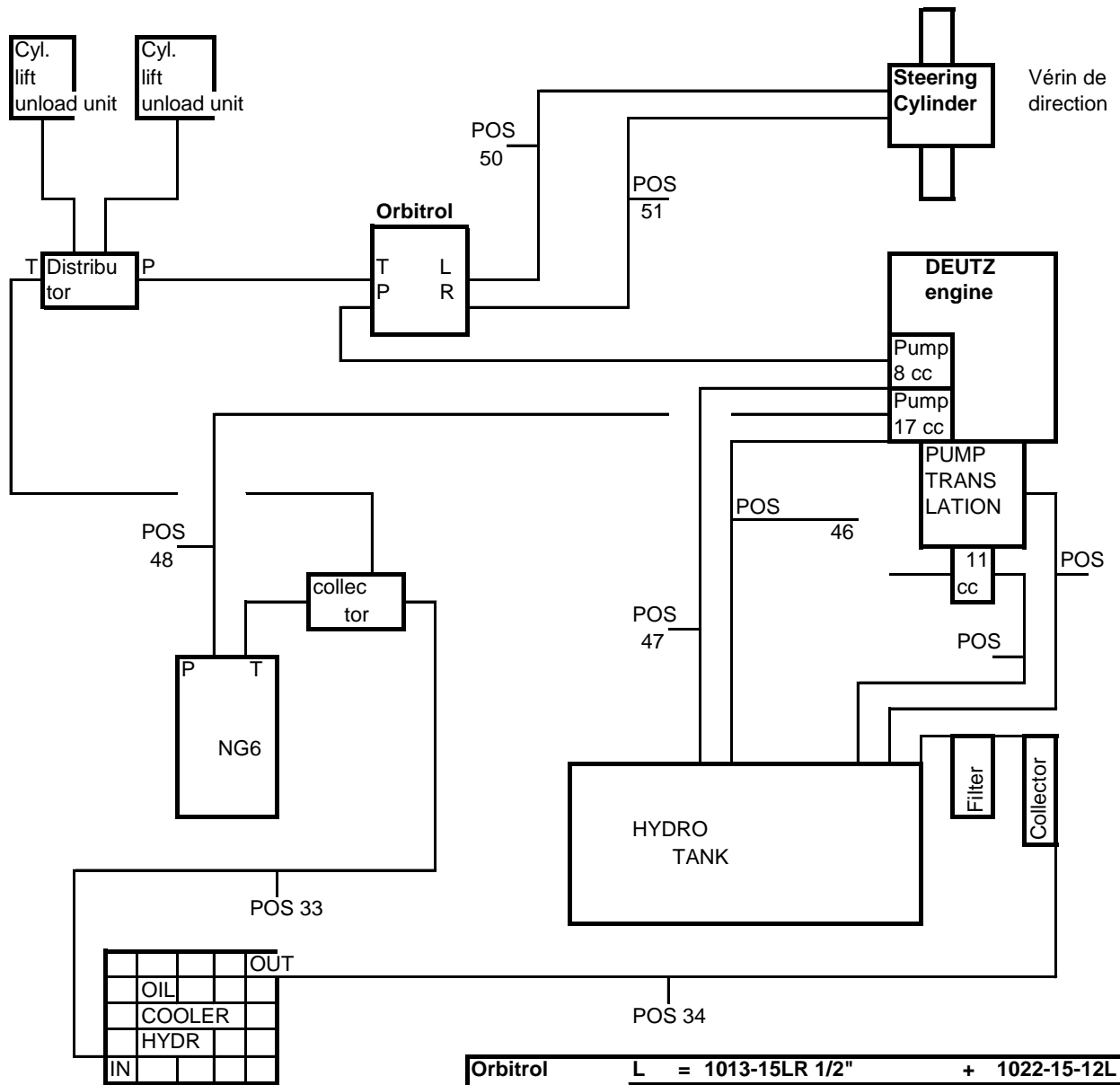
CONNECTIONS CYLINDERS

Connection vérin



CONNECTIONS ORBITROL

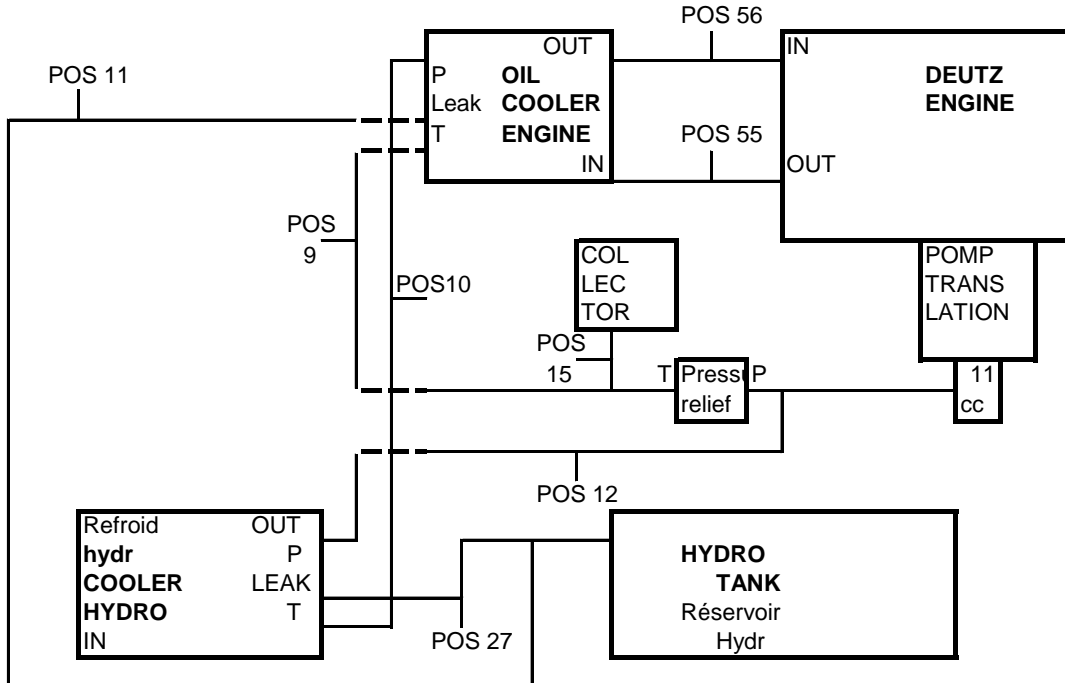
Connection orbitrol



Orbitrol	L	= 1013-15LR 1/2"	+ 1022-15-12L
	R	= 1013-15LR 1/2"	+ 1022-15-12L
	P	= 1013-12LR 1/2"	
	T	= 1013-12LR 1/2"	
Steering cyl	= 1013-12LR 3/8"	2 pieces	
Pump 8 cc	= straight size 12 pressure side		
	= straight size 22 suction side		
Pump 17 cc	= straight size 15 pressure side		
	= straight size 22 suction side		

CONNECTIONS COOLERS

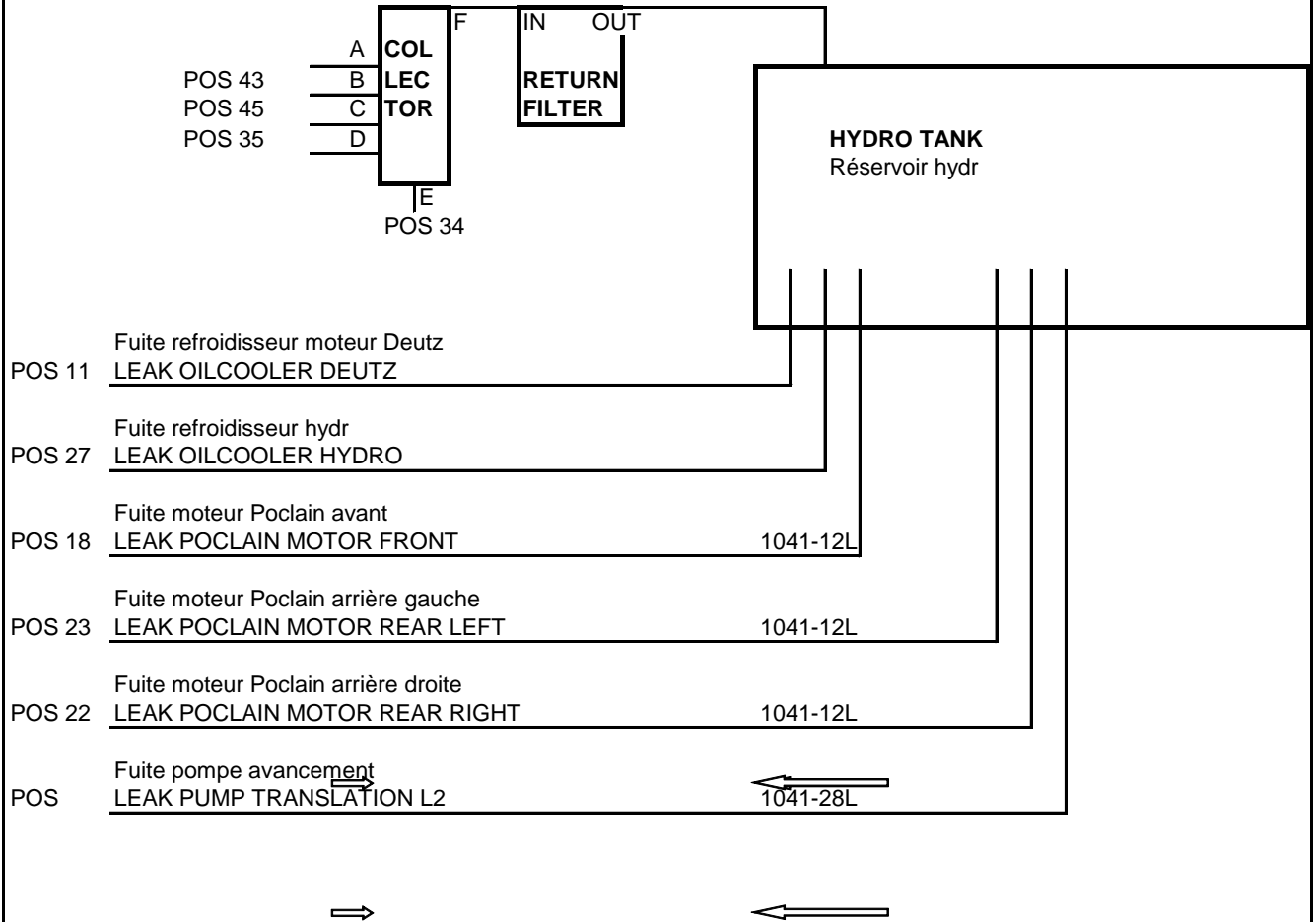
Connection refroidisseurs



PRESSURE RELIEF	P	= 1055-15EL + 1016-15LR 1/2"
		+ pressure relief valve + 1056-15LR 1/2"
OILCOOLER HYDRO	P	= 1013-15LR 1/2"
	T	= 1013-15LR 1/2"
	Leak	= 1048-08LR 1/4"
	IN	= E135-16-20
	OUT	= E135-16-20
OILCOOLER ENGINE	P	= 1013-15LR 1/2"
	T	= 1013-15LR 1/2"
	Leak	= 1048-08LR 1/4"
	IN	= 1048-22LR 1"
	OUT	= 1048-22LR 1"
Pump 11 cc		= elbow 15 on pressure side = straight 22 on suction

CONNECTIONS HYDRO TANK

Connection réservoir hydr



COLLECTOR	A	=	1007-08	
	B	=	1048-08LR 1/2"	
	C	=	1048-08LR 1/2"	
	D	=	1048-15LR 1/2"	
	E	=	E135-16-20	
	F	=	1048-35LR 1 1/4"	
RETURNFILTER	IN	=	1016-35LR 1 1/4"	+ COLLECTOR
	OUT	=	1013-35LR 1 1/4"	+ 1040-35L

EXPLANATION MANIFOLDBLOCK

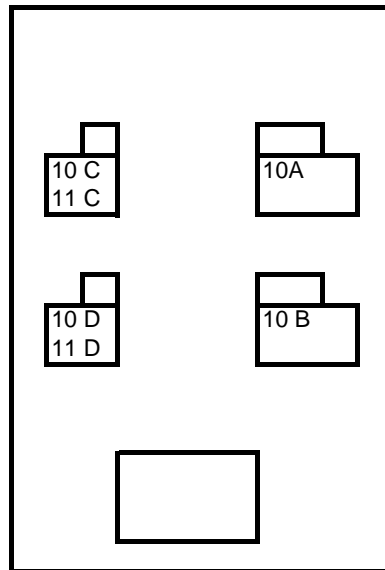
Bloc forêt

FRONT MACHINE

Face avant machine

ELECTRO-VALVE
BRAKES
Electrovane Frein

ELECTRO-VALVE
ROAD/FIELD SPEED
Electrovane
Champs/route



ELECTRO-VALVE
TURN ON THE SPOT
Electrovane tourner
sur place

ELECTRO-VALVE
TURN BELTS
Electrovane
tourner courroies