



JASOPELS FEEDING MACHINES 700 - 950 - 1500 - 2000

ITEM NO. 40100004 - 40100007 - 40100012 - 40100013



Our Quality - Your choice Jasopels

1. DECLARATION OF UNIFORMITY

ORIGINAL EU DECLARATION OF CONFORMITY

Type description: Jasopels Feeding Machine 700/950/1500/2000

Manufacturer:

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Address: Fabriksvej 19
Zip/City: 7441 Bording
Phone: 98 42 05 66

JASOPELS PRODUCTION A/S DECLARES THAT THIS PRODUCT IS IN COMPLIANCE WITH THE FOLLOWING EU DIRECTIVES:

2006/42 /EC
2006/95 /EC
2006/108 /EC

THE COMPANY ALSO DECLARES THAT THE FOLLOWING HARMONIZED STANDARDS HAVE BEEN INCORPORATED, IN WHOLE OR IN PART:

- DS / EN 60204-1
- DS / EN 12100: 2005
- DS/EN 14121-1
- DS/EN 14121-2
- DS/EN 13857 : 2008

STATEMENT ISSUED BY:

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Date: June 1, 2013

Adm. Director, Poul A. Bach, Fabriksvej 19, 7441 Bording, is authorized to disclose technical information.

Updated on 07-02-2017

TABLE OF CONTENTS

1. Declaration of uniformity	3
2. Copyrights	7
3. Preface	7
5. Explanation of symbols	8
6. Introduction to the machine	9
6.1 Intended use	9
7. Safety information	9
7.1 Safety	10
7.1.1 General safety information	10
7.1.2 Personal protection	11
7.1.3 Dangerous situations	11
8. Operating instructions	12
8.1 Instrument guide:	12
8.2 Operating instructions for instruments	13
8.2.1 Regulation of engine rotations	13
8.2.2 Function switch	14
8.2.3 Drive foot pedal	14
8.2.4 Steering	14
8.2.5 Water dosage regulation	14
8.2.6 Control panel	14
8.2.7 Engine temperature	15
8.2.8 Fuel meter	15
8.2.9 Timer	15
8.2.10 Ignition	16
8.2.11 Foot pedal for fodder dosage	16
8.2.12 Fodder Dosage Adjustment	16
8.2.13 Two pin 12V plug	16
8.3 Control during operation	17
8.3.1 Control and using the cooling system during operation	17
8.3.2 Control and using the oil indicator during operation	17
8.3.3 Checking for leaks	17
9. Fodder and water tank	19
9.1 Fodder tanks	19
9.2 Water tanks	20
10. Maintenance	21
Maintenance of the engine	22
Checking the engine oil level	22
Checking the hydraulic oil level	22
Checking the coolant level	23
Cleaning the air filter	23
Lubrication of the moving parts	24
Cleaning the cooling ribs	26
Cleaning the oil cooler	27
Service intervals	
Chain for mixer - Maintenance	50
Replacing the engine oil and oil filter	29
Checking and adjusting fan belt	29
Change of diesel filters	30
Change of hydraulic filters	31
Adjusting the chain to mixer	32
10.1 Safety overview	34

11. Technical data / specifications	35
12.1 Technical data	35
12.2 Noise level	36
12. Troubleshooting	36
12.1 Towing	36
12.2 Troubleshooting guide	37
13. Technical tables:	71
13.1. Table - Engine oil quality	40
13.2. Table - Antifreeze	40
13.3. Table - Belt	40
14. Electrical diagram	41
15. Hydraulic pipe diagram.	42
15. Notes	45

2. COPYRIGHTS

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Jasopels A/S will therefore publish information on the company's website concerning important changes in the user manual or other documents.

3. PREFACE

CONGRATULATIONS ON YOUR NEW JASOPELS FEEDING MACHINE.

This User Manual regards Jasopels 700, 950, 1500 and 2000 Feeding machines. This user manual is an important part of your new feeding machine. Read it thoroughly before you start using the machine. If you have any queries regarding the use of the machine, you are always welcome to call Jasopels A/S service for more information. However, we would like to note that this user manual should be used as a reference handbook for troubleshooting, list of spare parts and operating instructions. The manual contains important information about the safety and use of this machine. Keep this manual together with the machine. It is important that this user manual is forwarded when the machine is resold or hired.

The person responsible for conducting work is to ensure that operator, service personnel and others who have access to the machine have been instructed as to the correct operation and handling of the machine. The owner/ user of the machine bears responsibility for informing the person responsible for conducting work of that fact. Please remember that Jasopels emphasizes safety of the machine user and recommends work in shifts.

If you have any queries regarding the machine and its use, you are always welcome to call Jasopels A/S service for more information. However, you may also refer to this user manual for further information on the use of the machine and troubleshooting.

5. EXPLANATION OF SYMBOLS

Symbols used in this manual user emphasize important instructions. Please read and follow the instructions before using the machine. . The symbols below express the following information.



NOTE !!

A triangle containing an exclamation mark is a warning symbol that warns of important instructions or information concerning this machine.



IMPORTANT NOTE!!

Reminder that the section contains particularly important information for the operator.



DANGER!!

Triangle containing a warning about the risk of personal injury and risk of clamping regarding this machine.



EAR PROTECTION!

Ear protection required! operators and other persons present within the machine operation area, must wear ear protection.



RISK OF SCALDING!!

A triangle containing an overheating thermometer with with warning on risk of scalding.



SAFETY FOOTWEAR!

Jasopels recommends that all individuals present within machine's working area to wear safety footwear.



DANGER OF EXPLOSION!!

Triangle containing a warning about a risk of explosion.



GLOVES!

Jasopels recommends that all operators wear gloves.



ELECTRIC SHOCK!!

Triangle containing a warning about the risk of electric shock



SAFETY GLASSES!

Jasopels recommends that service technicians wear safety glasses when servicing the machine.



RISK OF BURNS!!

Square with a warning on the risk of burns

6. INTRODUCTION TO THE MACHINE

6.1 Intended use

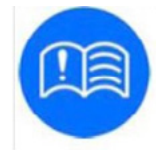
Feeding machine is designed to bring liquid fodder to fur farms.

- **The feeding machine may not be used for a different purpose than for which it has been constructed.**

When we designed the machine, our primary concern was the safety of the operator and his surroundings, as regards its construction, correct positioning of the machine and its maintenance.

NOTE!

- The person responsible for conducting work is to ensure that operator, service personnel and others who have access to the machine have been instructed as to the correct operation and handling of the machine. Check this user's manual for additional information.
- Read the entire user manual before using the machine.
- The machine may only be used for the purpose for which it is designed. If the machine is used for any other purpose, the statutory liability, i.e. the CE declaration becomes void.
- Under no circumstances, may faults in the machine or its operation, no matter what they are, be corrected before the machine has been properly switched off, unless a minor correction can be made through the machine control buttons.
- The user manual must always be available for the operator.
- If the machine is operated by young persons of 16 years of age, the driving license for tractors is not required according to Labour Inspection Regulation No 239, Annex 2 (2) (C).



7. SAFETY INFORMATION

To avoid accidents when using the machine, read this manual user thoroughly. Jasopels recommends reading the manual irrespective of the operator's experience.

The user's manual should be always read before using the machine.

This will help the operator gain all the information about the use and on how to secure the machine in order to avoid accidents.

NOTE!

- The statutory duty of the person responsible for conducting work is to instruct all users as regards the security measures.



7.1.1 GENERAL SAFETY INFORMATION

The person responsible for conducting work, the operator, personnel and owner must observe the following safety precautions before using the machine.

- Get to know your machine and its limitations. Please read this user manual thoroughly, before starting and using the machine.
- Before other people are allowed to use the feeding machine, you should explain in detail how it has to be used and let the person concerned read this user manual thoroughly.
- For safety reasons inexperienced personnel should conduct a trial run of the machine in an open and level area, at low rotation speed of the engine in order to get used to the machine propulsion system.
- The engine exhaust fumes can be very dangerous, if they accumulate. The machine must be placed in a well-ventilated area, where there are no people or animals nearby.
- Take good care of the environment and ecology.
- Before you tap the fluids from the machine, make sure to dispose of it correctly. Observe the relevant rules for environmental protection before you dispose of oil, fuel, coolant, filters and batteries.
- Never remove the radiator cap while the engine is running or after it has stopped and the engine is still warm. Otherwise, you can risk that boiling hot water sprays out and scalds people who are close by. Remove the radiator cap first, when the engine has cooled down for at least 10-20 minutes depending on the climate.
- Always use spare parts and auxiliary equipment of high quality when replacement is necessary.
- Release all pressure in the oil and cooling system before cables, mountings or the like are removed or disconnected. Never check a possible leakage with your hands, since the high oil, water or fuel pressure can cause personal injuries.
- Make always sure that the drain taps for the coolant and oil are closed, the radiator cap is closed securely and the strap is fastened before start. If any of these parts are either removed or loose, the engine must not be started, as this may result in serious personal injuries.
- Do not mix gasoline or spirits with diesel oil, since this may cause an explosion.
- Never use the machine in an environment, where there may be a danger from inflammable materials or vapour.
- Always stop the engine during daily or periodical maintenance, refuelling, check-ups or cleaning.
- The machine can be operated by persons at the age of 16 years and over according to Labour Inspection Regulation No 239, Annex 2 (2) (C).
The owner must be registered in either agriculture or gardening association to be eligible for the above-mentioned regulation. If this condition is not fulfilled, persons under 18 years of age must not operate the machine.
- Operators and other persons staying within the machine's working area must wear ear protection when machine's noise level is over 80 dBs.
- The fodder container is provided with an emergency stop - the safety wire around the edge of the container which, if pulled, stops operation of the machine immediately.

7.1.2 PERSONAL PROTECTION

Jasopels priority is safety the company recommends using personal safety means. See Fig. 7.1.2.1

Ear protection is required when using the machine.

Jasopels recommends the use of safety footwear and gloves.

As regards repair and maintenance of the machine, Jasopels also recommends wearing safety glasses.



**Ear
protection
required**



**Safety footwear
recommended for all**



**Gloves
recommended
for all**



**Safety glasses
recommended for the
service technicians**

Fig. 7.1.2.1

7.1.3 DANGEROUS SITUATIONS

NOTE!

- Avoid sudden shifts between forward and backward movements, since the machine may rear.



DANGER!

- Staying in the fodder tank or maintenance of the fodder pump, repair, cleaning and other services on the machine may not be done before the engine has stopped.



8. OPERATING INSTRUCTIONS

Feeding machine is equipped with an instrument panel used to operate and control the machine before starting and while operating.

For a correct use and control of the machine before starting and while operating, read this section first.

8.1 Instrument guide:

Fig. 8.1.1 shows a standard Jasopels feeding machine. The control panels on different models have the same features.

Figure 8.1.1: Controls in the feeding machine:

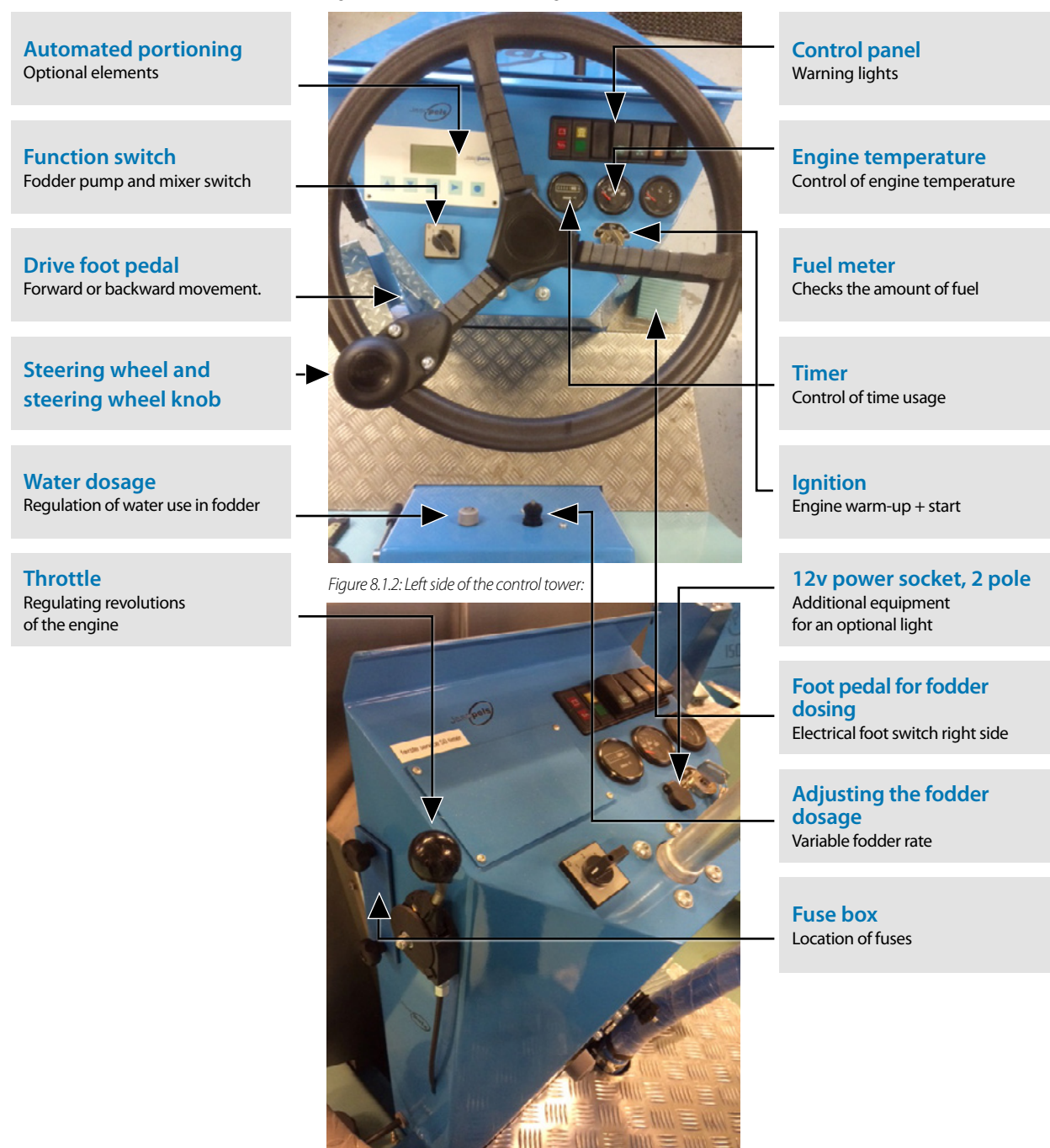


Fig. 8.1.3 - Illustration

Warm-up indicator light

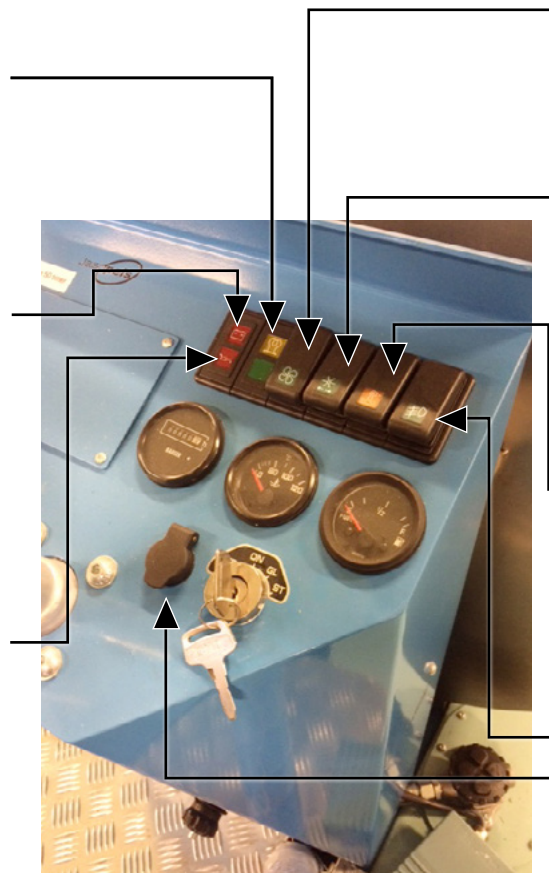
Symbol lights up when the engine is warming up. When the light goes out, the engine is ready to start. When the symbol does not light up, it is a warning that there might be something wrong. STOP!

Accumulator / charge lamp

Symbol lights up in red during ignition, for function control. The symbol must be off while driving. If this symbol is lit up while driving, it is a warning sign. STOP!

Oil indicator lamp

Symbol lights up in red during ignition, for function control. The symbol must be off while driving. If this symbol is lit up while driving, it is a warning sign. STOP!



Fodder stirrer / mixer - switch and indicator light

Symbol lights up during operation. If the safety stop is active, activate the switch again to begin mixing.

Fodder pump active - switch and indicator light

The symbol lights up in green (continuous light) when the fodder pump is connected. In case of automatic portioning the symbol lights up when the foot pedal is activated.

Water dosing active - switch and indicator light

The symbol lights up in yellow (continuous light) when water is dosed. In case of automatic portioning the symbol lights up when the foot pedal is activated.

Working light - switch to the 12V socket

The symbol lights up in green (continuous light) when the light is connected to 12V socket.

8.2 Operating instructions for instruments:

To offer proper guidance and instructions for the machine, each of the subgroups of instrument is described below, starting from Fig. 8.1.1.

8.2.1 REGULATION OF ENGINE ROTATIONS

No.6. Fig. 8.1.2:

The machine has a throttle on the left side of the casing of control panel tower.

Pushing it in the driving direction of increases the revolutions of the engine. This means greater speed of driving as well as mixing in the fodder tank.

By pulling the throttle back, you may reduce the revolutions the engine.

The throttle is controlled mechanically and not by a spring, i.e., it does not go back into neutral position without the operator's activation.

NOTE!

- The throttle is controlled mechanically and does not go back into neutral position without the operator's activation.



NOTE!

- Avoid sudden shifts between forward and backward movements, since the machine may rear.



8.2.2 FUNCTION SWITCH

No. 2. Fig. 8.1.1:

The machine is equipped with a function switch for moving fodder,

See Fig. 8.1.1. No. 2.

The function switch has effect on the flow direction in the pump.



FEATURES OF THE FUNCTION SWITCH:

0. The fodder pump is switched off
1. Forward movement of the fodder. Feeding pump is activated in the forward direction when the pedal is affected.
2. Backward movement of the fodder. Feeding pump is activated in the backward direction when the foot pedal is affected.
3. Automatic fodder dispensing when the foot pedal is activated, Fig. 8.1.1 No. 1.

8.2.3 DRIVE FOOT PEDAL

No. 3. Fig. 8.1.1:

Feeding machine can drive backwards and forwards. Pressing the foot pedal activates driving.

For forward drive, press the front part of the operating pedal with left foot.

For backward drive, press the back part of the operating pedal with left foot.

The operating pedal is a part of the machine's hydraulic system. The speed is determined by engine rotation speed. The driving direction depends on pressing the front or rear part of the pedal.

NOTE!

- Avoid sudden shifts between forward and backward movements, since the machine may rear. 3.



8.2.5 WATER DOSAGE REGULATION

No. 5. Fig. 8.1.1:

Feeding machines are equipped with a water tank. The purpose of the tank is to supply water to the fodder. The amount of water supplied to the fodder can be regulated by means of the water dosage switch.

8.2.6 CONTROL PANEL 14

No. 7. Fig. 8.1.1.:

The instrument panel is equipped with a control panel. The control panel shows the operator a control light at start-up, as well as alarm light during the operation of the machine. See pages 12-13.

8.2.7 ENGINE TEMPERATURE

No. 8 Fig. 8.1.1:

NOTE!

- If the control panel shows a warning, stop the machine immediately.
- The machine must be brought to its normal operating condition again before it is used again.



The instrument panel is equipped with an engine temperature indicator. The indicator informs the operator about the temperature of the engine in operation.

NOTE!

- When the working temperature is over 95° C, stop the engine immediately.
- If you continue working with too high temperature, the engine may be damaged.



8.2.8 FUEL METER

No.9. Fig. 8.1.1:

The instrument panel is equipped with a fuel meter, which indicates the fuel level in the tank. The fuel meter lights up when the machine is started. Never drive the machine until the moment when the fuel tank is completely empty, since this may block the filters and hoses.

8.2.9 TIMER

No.10. Fig. 8.1.1:

The instrument panel is equipped with an hour meter, which indicates in hours the total working time of the feeding machine. The hour meter is activated at ignition and is illuminated in the instrument panel.

NOTE!

- The hour meter does not warn of service intervals. The operator must observe the working time usage and service intervals.

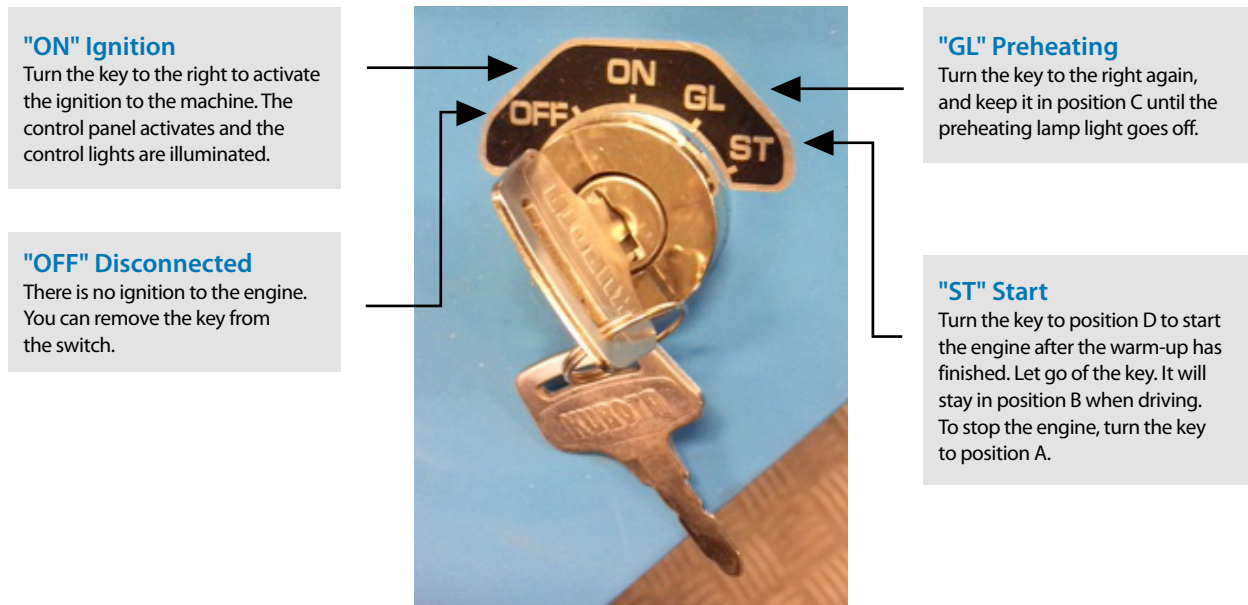


8.2.10 IGNITION

No. 11 Fig. 8.1.1:

The instrument panel is equipped with an ignition switch for activating the engine. The ignition switch has four functions. See Fig. 8.2.10.

Figure 8.2.10: Ignition Switch



8.2.11 FOOT PEDAL FOR FODDER DOSAGE

No. 13. Fig. 8.1.1:

The machine is equipped with an electrical foot pedal for fodder dosage on the right side of the machine. This foot pedal is connected with the function switch. (No. 2 Fig. 8.1.1.) When the foot pedal for fodder is activated by pressing the foot switch, the feeding pump will activate. The direction of circulation depends on the function switch position.

8.2.12 FODDER DOSAGE ADJUSTMENT

No. 14. Fig. 8.1.1:

The machine is equipped with a regulator of fodder dosage, which regulates its amount. By turning the regulator to the right or left the circulation speed of the fodder supply in the feeding pump is adjusted.

IMPORTANT

It is important that the engine always operates at the same speed during feeding, since different engine rotations will give different amounts of fodder.

8.2.13 TWO PIN 12V PLUG

No. 6. Fig. 8.1.3:

The machine is equipped with a to-pin plug to be used with a standard socket DIN ISO 4165.

The plug is activated via the control panel working light switch.

The plug may for example be used to connect working light to the feeding machine. This is additional equipment.

NOTE!

- If the oil control lamp does not immediately go out after starting the engine (Fig. 8.1.3 section. 2.), the engine must be stopped immediately.
- Engine must be brought to normal operating mode before another activation / start-up.
- When there is no control light below the ignition (point. 8.1.3), the machine must not be activated / started.
- The control panel must be brought to normal operating mode before another activation / start-up.
- If the engine does not start after 10 - 20 sec. after activation, you should wait approximately 30 sec. before activating it again.
- Then, follow the above instructions again.
- Before starting / activation of the machine, a start-by must be made - see instructions in table 8.3.1.1



8.3 Controlling the machine in drive

It is the operator's responsibility that the machine is used under proper operating conditions, which means continuous monitoring of the feeding machine during its operation.

Therefore, you should constantly keep an eye on the machine's visual indicators, control panel, the warning lights and engine service interval. See section 11.5 - Service and maintenance.

8.3.1 CONTROL AND USING THE COOLING SYSTEM DURING OPERATION:

While the machine is running, it is important that you check the working temperature on the temperature indicator in the control panel (see 8.2.7. and 8, Fig 8.1.1.). If the machine exceeds its normal working temperature of max. 95°, stop the engine immediately.

If the machine / coolant starts boiling, steaming or the water pours out of the overflow hose, stop the engine immediately.

DANGER!!

To avoid personal injury.

- Never remove the radiator cap while the engine is running or, after it has stopped and the engine is still hot. If you do, there is a risk that boiling water sprays out and scalds people who are nearby. Do not remove the radiator cap before the engine has stopped and is cold.
- **Do not remove the radiator cap before the engine has stopped and is cold.**



NOTE!!

- If there is a fault in the machine cooling system, **stop the machine immediately.**
- Engine must be brought to normal operating mode before another activation / start-up.
- Driving with a defect in the cooling system may damage the engine.



8.3.2 CONTROL AND USING THE OIL INDICATOR DURING OPERATION

While the machine is running, it is important that you check the oil indicator in the control panel (see point 8.2.7 and Fig. 8.1.3, point 2). If the oil indicator lights up on the panel, **stop the engine immediately**. If the engine oil pressure is lower than specified by the manufacturer, the oil indicator light turns on. If the oil indicator light turns on from time to time while the machine is running, stop the engine immediately.

NOTE!!

- If the control light of the oil indicator switches on, **stop the engine immediately**.
- The engine must be brought to normal operating mode before another activation / start-up.
- Driving with a defect in the lubrication system or lacking oil will damage the machine engine.



NOTE!!

- Do not use other fuel quality than this prescribed by the engine manufacturer:
 - *Diesel Fuel No. 2-D (ASTM D975).*
 - *The person responsible for conducting work is responsible for using the correct fuel.*



8.3.3 CHECKING FOR LEAKS

Before each start, the machine must be inspected visually for leaks. Check the:

- Fuel system
- Hydraulic system
- Cooling system
- Water tank

Tanks, visible pipes and hoses must be inspected for oozing or dripping liquid. Also the place where the machine is parked must be inspected for fluids.

If leaks are observed, the machine must be evaluated by a qualified person before another use. If necessary, Jasopels service department.

9. FODDER AND WATER TANK

The fodder tank is designed in such a way that it can be tilted forward or to the side, which makes cleaning easier.

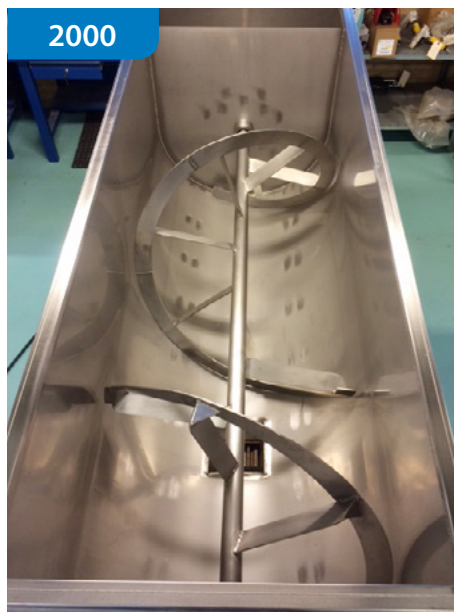
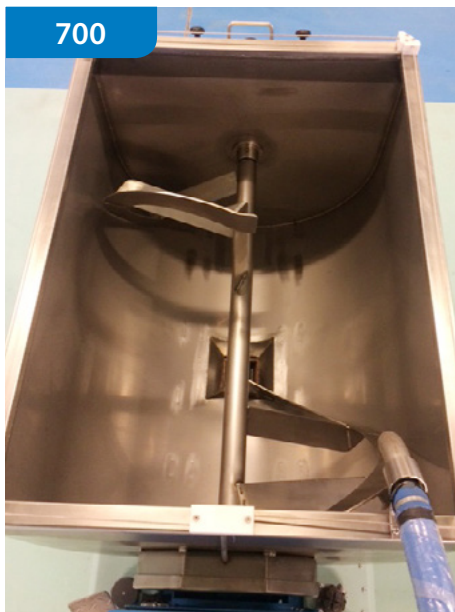
- Never tip up the feeding tank to clean it while the machine is running.
There is a high risk of crushing fingers and hands.



9.1 FODDER TANKS

Fodder tanks are equipped with a mixer, which blends and transports the fodder to the fodder pump. Fodder tanks with mixer are equipped with safety wire, which automatically stops the mixer when it comes into contact with the fodder tank.

Fodder Tank Models:



9.2 WATER TANK

The tank is equipped with a water pump, which is activated from the control panel.

The amount of water added to the fodder mixture may be reduced by the water dosage switch.

- Clean water must be used in water tanks.
- It is **important** that there is always water in the water pump to avoid dry running which may destroy the pump.

Water tanks:



Danger!!

To avoid personal injury.

- Stop the engine when cleaning the tipped feeding tank.
- Stop the engine when repairing the feeding pump.
- Never stand in front of the feeding tank, while the tank is being turned over
- When you bring the feeding tank back to the normal position, mind your fingers and hands, as there is a risk of crushing.
- If the mixer does not stop when a safety wire touches the feeding tank, stop the machine immediately.
 - Repair any faults before activating/ starting the machine.



10. MAINTENANCE

To ensure flawless performance of the machine, various maintenance activities at certain intervals are necessary. Read about service intervals for the machine in section 11.10.

- In the event of lacking maintenance, reparations of the machine operational parts or parts damaged during normal operation, all forms of machine warranty become invalid.

Maintenance of machine parts is important to ensure the machine operation, its lifetime and safe working conditions for the operator. Damaged parts or machine defects which are not corrected or repaired immediately may cause faults or damages on other parts of the machine. This may consequently lead to personal injuries.

DANGER!!

- Maintenance work, service or repairs of damages need to be performed immediately to ensure safe conditions for the operator and safe machine use.
 - Repair any faults before activating / starting the machine.
- Always stop the engine before you start any maintenance, cleaning or performing any other service works.



DAILY SERVICE ACTIVITIES

Checking the engine oil level	22
Checking the oil lamp	13
Checking the charging light	13
Checking the hydraulic oil level	22
Checking the coolant level	23
Control of leaks	18

WEEKLY SERVICE ACTIVITIES

Cleaning the air filter	23*
Lubricating of the moving parts	24
Cleaning the cooling ribs	26*
Cleaning the oil cooler	27*

** In periods when there is a lot of dust or impurities in the air, it must be performed more often.*

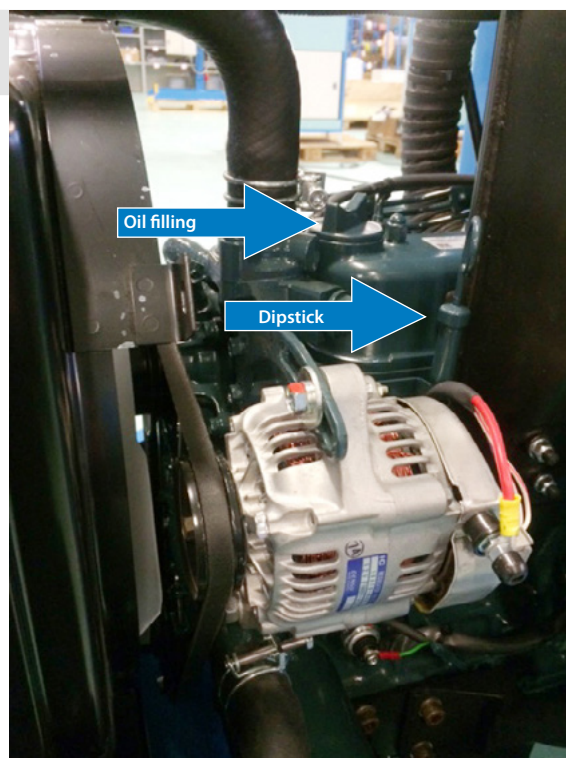
NOTE !!

- Always stop the engine before maintenance, cleaning or any other kind of service on the machine.
- In case of leakage, oil level should be checked daily before use.
 - If there is not enough oil, the engine must be brought to normal operating mode before its activation.
- Driving with defective or incorrect type of oil will cause damage to the machine's internal engine parts.
- Use only the manufacturer's designated engine oil quality.



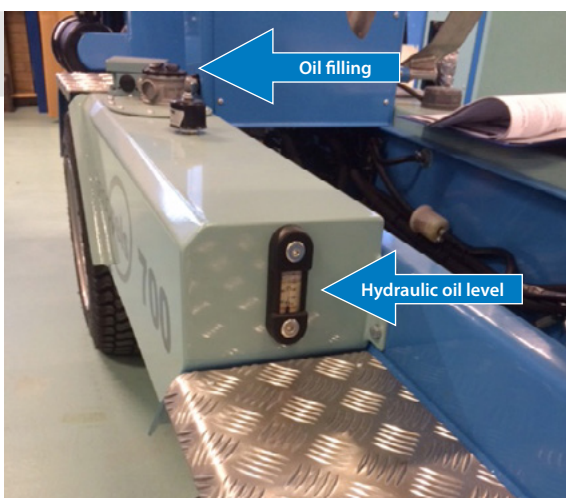
Checking the engine oil level:

Check the engine oil level daily before starting the machine. The machine must stand on level ground when you check the oil the level. Pull out the oil dipstick and dry it. Put it back in, pull it up and read the value. The oil level must be between min and max mark and must be refilled if needed.

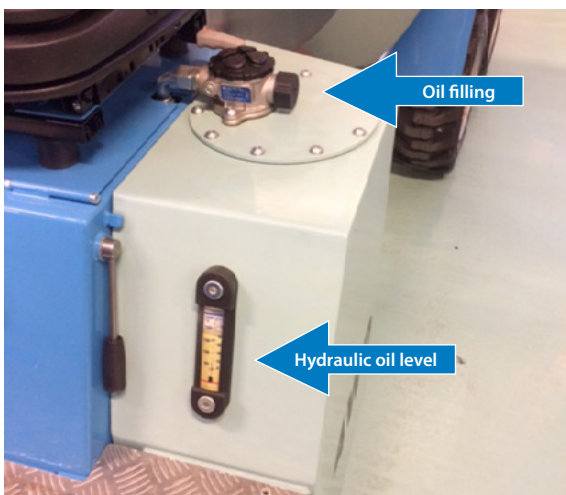


Checking hydraulic oil level

You can check the oil level in the hydraulic system through the sight glass.
In Jasopels 700 the glass is located on the right side of the front wheel.



In Jasopels 950-1500-2000 the sight glass is located on the left side of the footboard.



Checking the coolant level:

Remove the radiator cap after the engine has cooled down. Check if the coolant level reaches the filler neck. Refill if necessary.

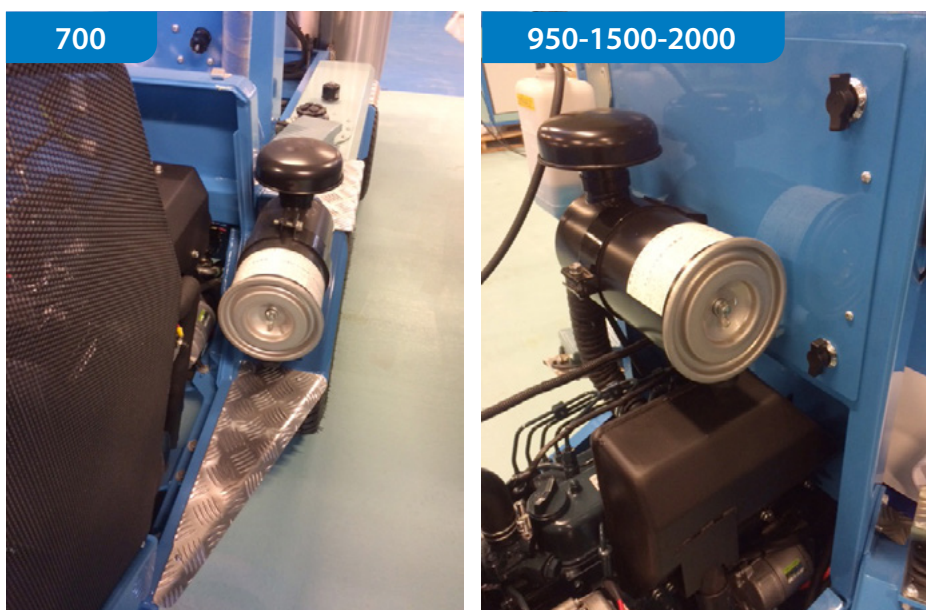
Jasopels 950-1500-2000 is equipped with a container with a "low" and "full" marking. Here, the coolant level should be visible between the two.



Cleaning the air filter:

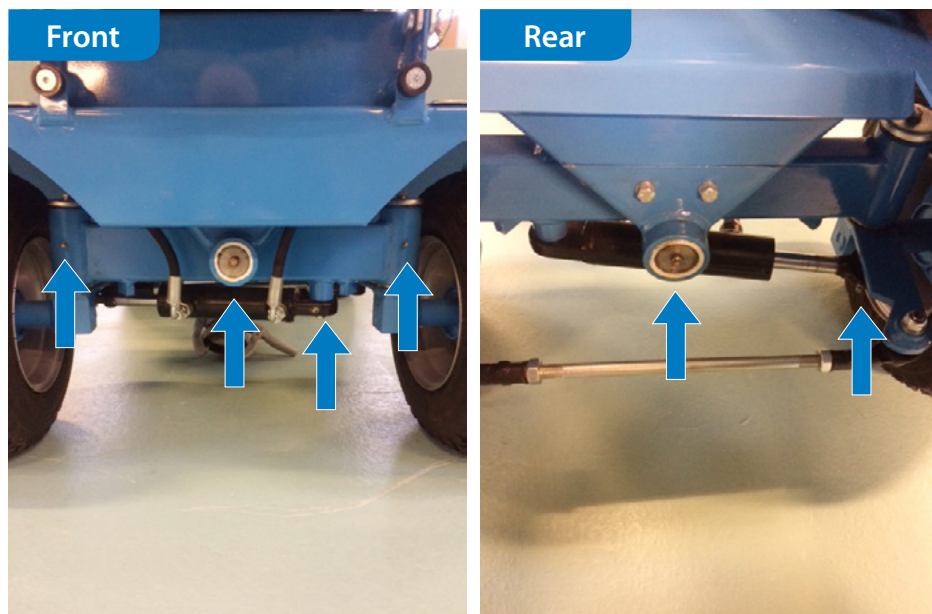
Clean the air filter with compressed air from the inside. If there is damage to the filter, it should be changed. In Jasopels 700 the air filter is located on the right rear screen.

In Jasopels 950-1500-2000 the air filter is located under the bonnet.

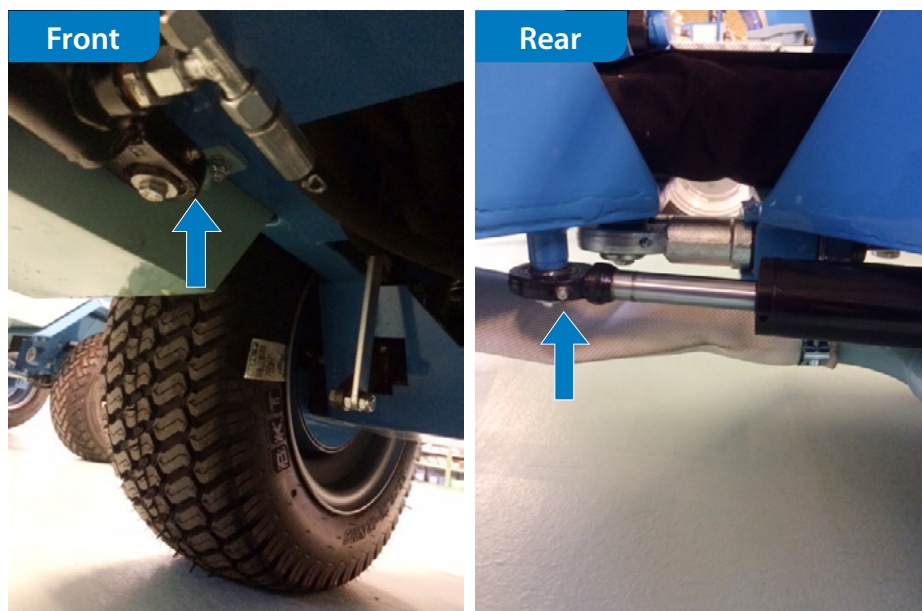


Lubrication of the moving parts:

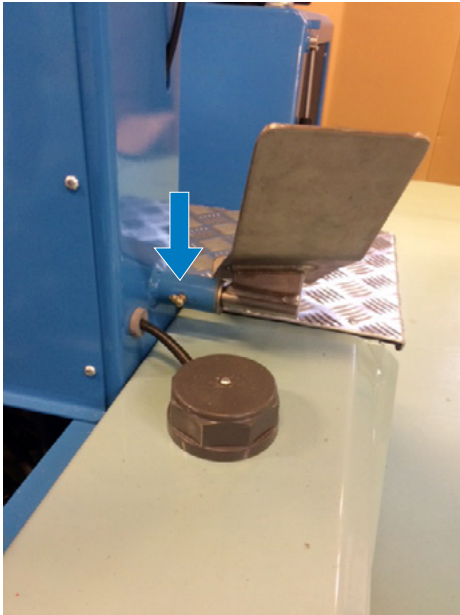
In Jasopels 700 there are 6 points on the front axle to be lubricated.



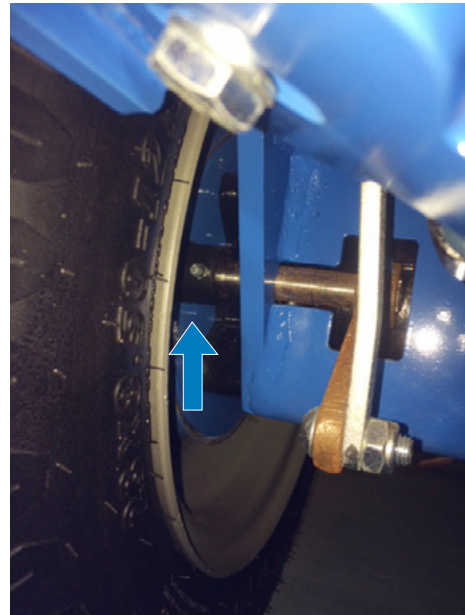
Jasopels 950-1500-2000 has 4 points controlling the cylinders to be lubricated.



In Jasopels 700 and 950 there is a point at the propelling pedal to be lubricated.

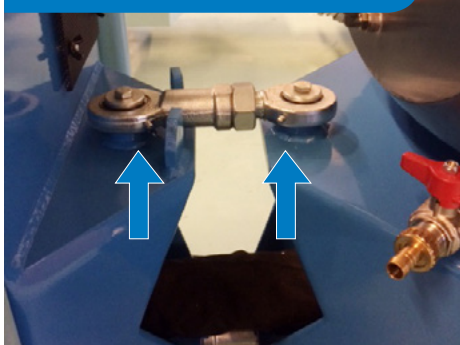


All models have a point at the brake shaft to be lubricated - this is easiest when the left wheel is removed.

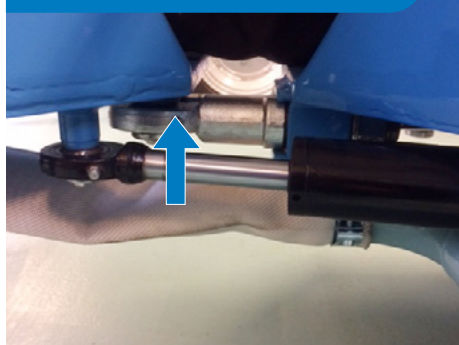


Jasopels 950-1500-2000 have 3 points at the articulated joint that must be lubricated.

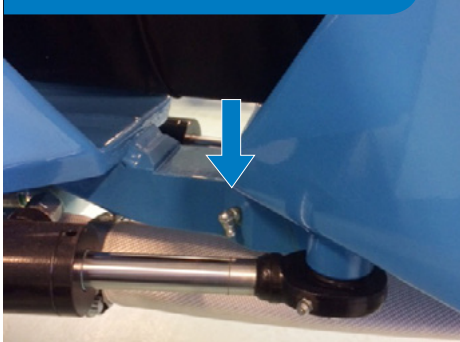
Two upper points
in Jasopels 950-1500-2000



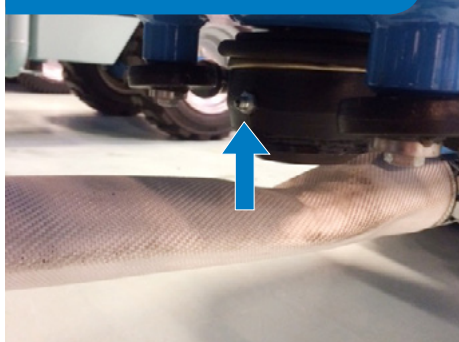
The lower point
in Jasopels 950



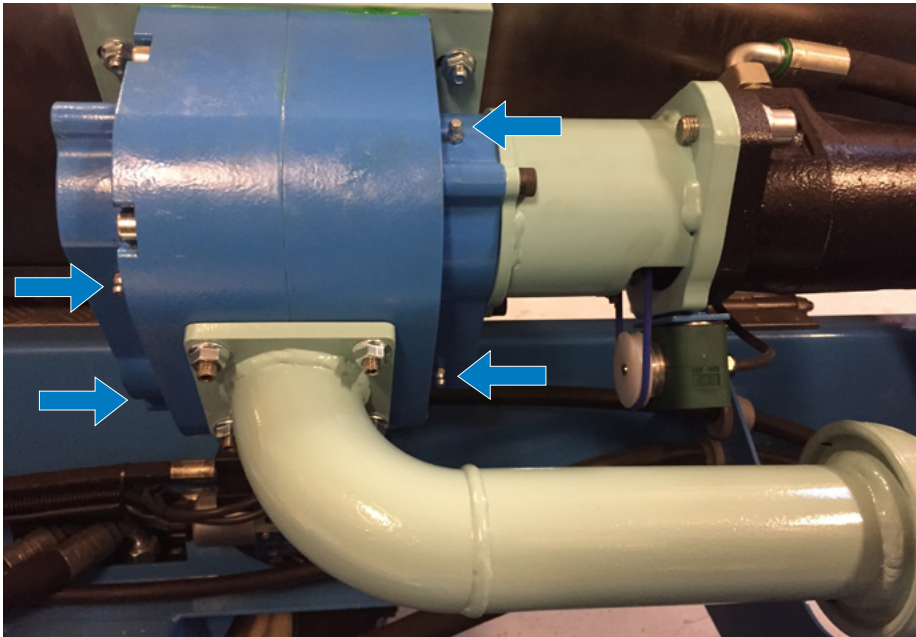
The lower point
in Jasopels 1500



The lower point
in Jasopels 2000



The fodder pump has 4 points to be lubricated, but be careful not to put too much grease on them, as they could push the glands in and then fodder pump will not last long.



Cleaning the cooling fins 26

The exterior cooling grille on the bonnet can be easily cleaned from impurities or dirt by hand or compressed air.



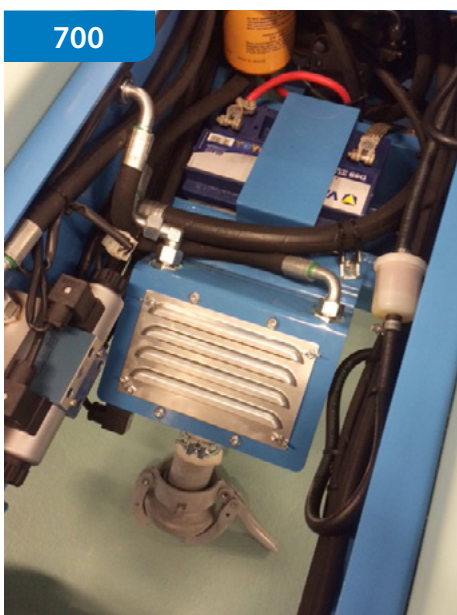
The cooling fins on the radiator may be cleaned either by hand or compressed air. Be careful when using compressed air - it should be blown in a way which is perpendicular to the radiator, so that the thin fins are not damaged and do not block the air flow.



Cleaning the oil cooler

Oil cooler grille can be removed by screwing off 4 nuts, and both the grille and radiator can be blown clean with compressed air. In Jasopels 700, the oil cooler is located below the fodder tank, i.e., the fodder tank has to be tilted to clean the oil cooler.

In Jasopels 950-1500-2000 the oil cooler is located under the seat and is easily cleaned from the outside.



Service intervals

After the first 50 hours

Change the engine oil	29
Change the engine oil filter	29
Clean the air filter	23
Control and adjust fan belt	29
Change diesel filter	30
Change diesel hose filter	30
Change hydraulic suction filter	31
Change hydraulic pressure filter	31
Change hydraulic return filter	31
Refill hydraulic oil	32
Control and adjust the chain to the mixer	32

Every 250 hours

Change the engine oil	29
Change the engine oil filter	29
Clean the air filter	23
Control and adjust fan belt	29
Change diesel hose filter	30
Change diesel hose filter	30
Refill hydraulic oil	32
Control and adjust the chain to the mixer	32

Every 500 hours or once a year

Change hydraulic suction filter	31
Change hydraulic pressure filter	31
Change hydraulic return filter	31
Refill hydraulic oil	32
Change the air filter	23

Every 1000 hours

Change fan belt	29
Change hydraulic oil	32

Every second year

Change coolant	33
----------------------	----

Replacing the engine oil and oil filter

It is recommended that Jasopels performs this service.

ENGINE OIL

Loosen the oil drain plug and the old oil from the engine will pour out into the collecting tray.

The engine holds approximately 4.5 litre of oil.

When all engine oil has drained, screw the drain plug firmly.

700/950 - 3 cylinders machines use 4.5 litres of oil.

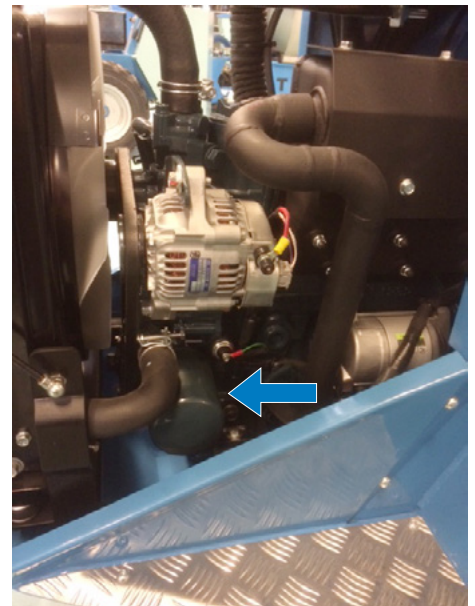
1500/2000 - 4 cylinders machines use 5 litres of oil.



ENGINE OIL FILTER

Clean around the filter and unscrew it. Screw on the new filter. And remember to lubricate the o-ring before. Pour new oil until it reaches the top mark on the dipstick. Start the engine and check if the oil light goes out, stop the engine after about 10 seconds, wait about 30 seconds and check the oil level and refill again so that it reaches the top mark on the dipstick.

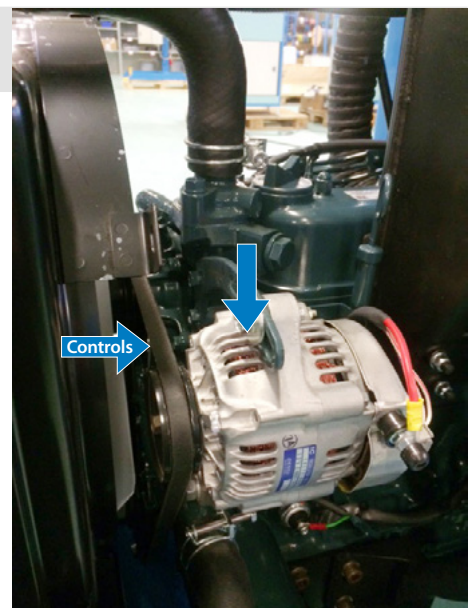
Engine oil must meet API CD classification or higher.



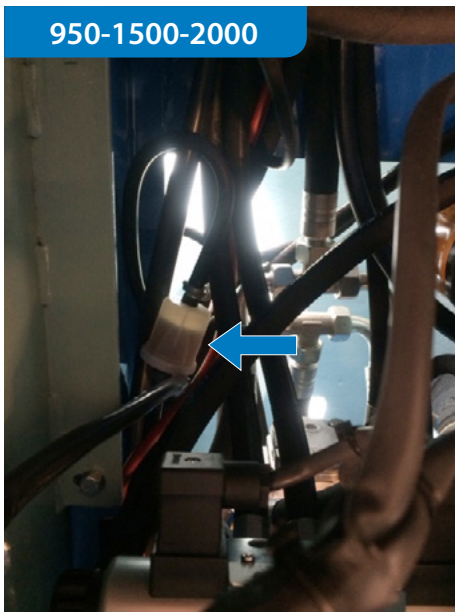
Checking and adjusting fan belt

Fan belt should be checked at the pressure of 10kg in the middle of the belt - it should give way of max 7-9mm. The belt is adjusted by loosening the upper bolt and tilting the alternator outward and then tightening the bolt again.

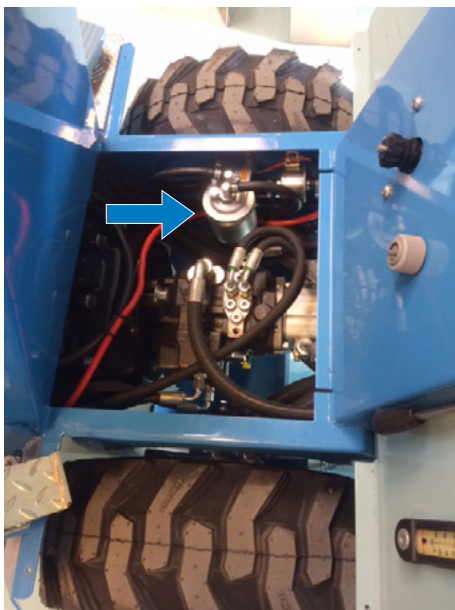
Visually check the fan belt for cracks or visible wear. Fan belt should be replaced when necessary or after 1000 hours of work. See Fig. page 38



Change of diesel filters



In Jasopels 950-1500-2000 machines, Diesel hose filter is located under the seat. In Jasopels 700, diesel hose filter is located under the fodder tank along the left side beam. To replace the filter, loosen two clamps on the hoses and pull the hoses out of the filter, then install the new filter in reverse order.

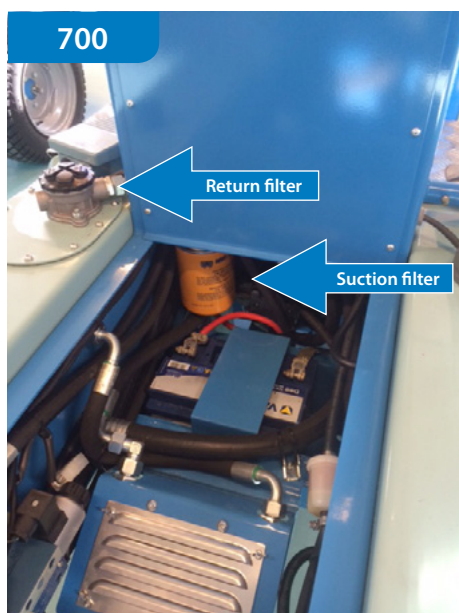


Diesel filter is located under the footboard which is easily removed with 4 screws at the corners. Diesel filter should be unscrewed and the new one screwed on again. The o-ring on the filter must not be dry when the new filter is screwed on.

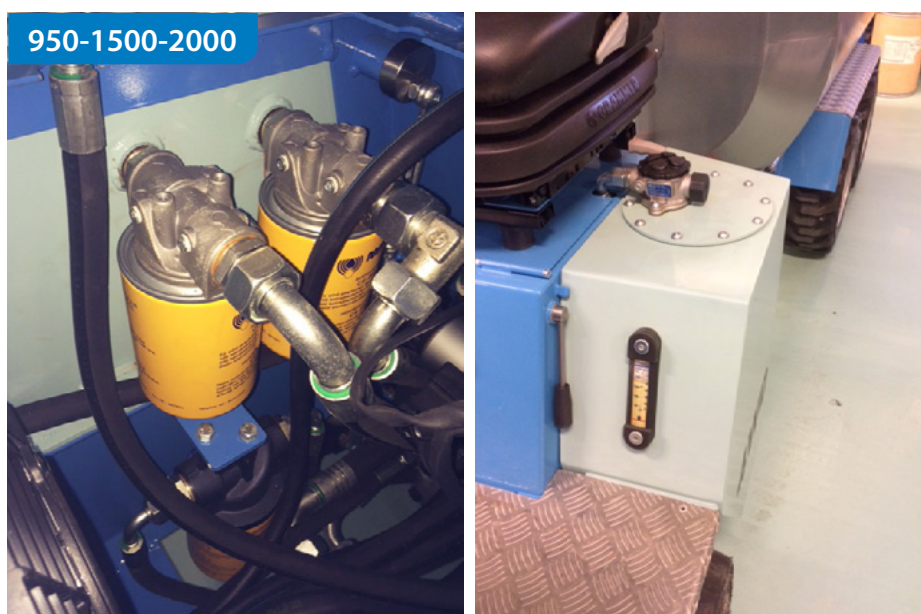
To get rid of the air in the system, put the ignition on, so that the electric fodder pump moves the fuel through the system. To remove the air filter loosen the bolt at the top of filter console (with a 14mm key), until no more air and only diesel comes out.

Changing hydraulic filters

Jasopels 700 has a suction filter and a return filter. The suction filter is located behind the fodder tank, so it should be tilted up. Unscrew the old filter and insert the new one, remembering to lubricate the o-ring. Return filter is a filter insert, which is located in the filling of the tank. Unscrew the black lid and remove the old filter, fit the new one and screw the lid back on.



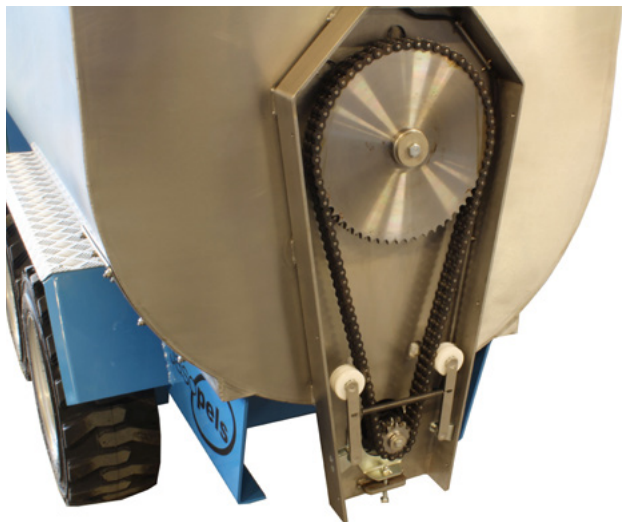
In Jasopels 950-1500-2000 machines there are two suction filters, a pressure filter and return filter. The suction filters and pressure filter are located under the seat. The two suction filters are located at the top. Unscrew them and install the new ones. Be sure to lubricate the o-rings. At the bottom there is a pressure filter. Unscrew it and install the new one. Be sure to lubricate the o-ring. Note that the filter goes a little tighter for approximately the last two rounds - make sure that it is screwed on properly. Return filter is a filter insert, which is located in the filling of the tank. Unscrew the black lid and remove the old filter, fit the new one and screw the lid back on.



After hydraulic filters are changed start the machine up briefly and stop it again. Now check hydraulic oil level in the sight glass and refill.

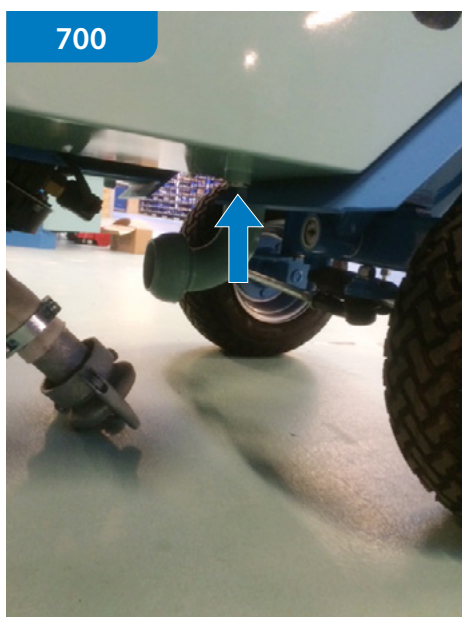
Adjusting the chain to mixer

The chain is a self-adjusting one during daily work, but must be adjusted at each servicing. Remove the shield over the chain, lightly loosen the two engine bolts and tighten the bolt at the bottom until the chain is nearly in a straight line between the sprockets and re-tighten the two engine bolts. Lubricate the chain with chain oil before mounting the screen again.



Replacing hydraulic oil

IT IS RECOMMENDED THAT JASOPELS PERFORMS THIS SERVICE.



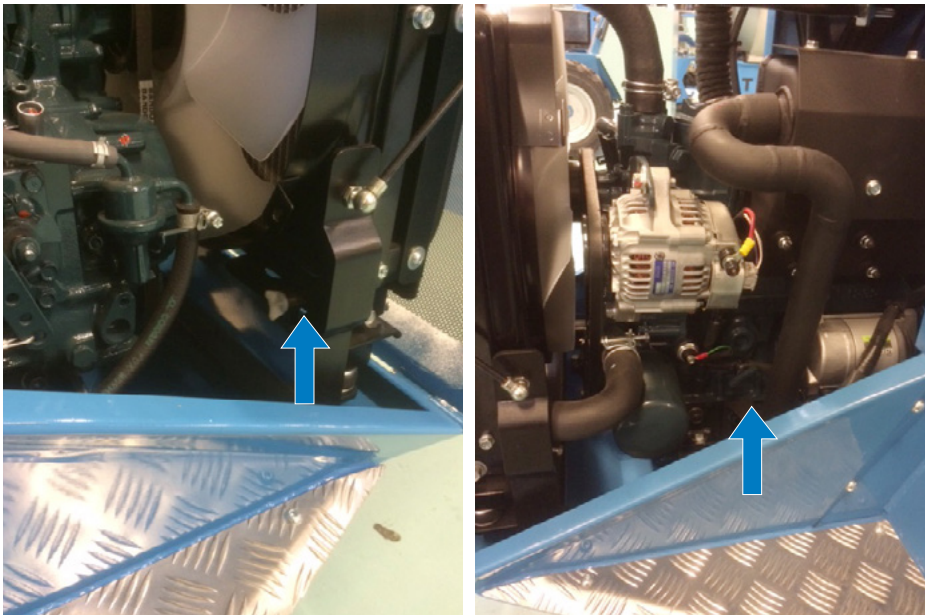
Unscrew the drain plug loose and drain the oil into a suitable container. The hydraulic tank holds between 40-55 litres of hydraulic oil depending on the model.

When hydraulic oil is drained off, screw the drain plug firmly. Pour the new hydraulic oil until it is at the top of the sight glass. Start the engine briefly up and stop it again. Now check the hydraulic oil level in the sight glass and refill.

You should use type 46 hydraulic oil.

Replacing the coolant

IT IS RECOMMENDED THAT JASOPELS PERFORMS THIS SERVICE.



Unscrew the two taps loose and drain the coolant into a suitable container. One tap is located in the bottom of the radiator and one on the left side of the engine. When the coolant is drained, screw the two taps on again.

Pour a mixture of water and coolant in a mixing ratio of about 50/50% until the radiator is completely full. Remember to check the level after the engine reaches operating temperature, let the engine cool again - check the level and top up if necessary.

The Coolant must be of SAE J 1034 or SAE J 1814c type.

DANGER!!

To avoid injury:

- The machine should be switched off during repair of the fodder pump or its elements. During rotation of the fodder pump there is a risk that fingers or hands may be clamped.



10.1 JASOPELS 700 - FUSES

Fuses in Jasopels 700			
Main fuse	Alt (large flat fuse under connector strips)	50	amp
F1	Preheat relay / timer	10	amp
F2	Generator, instruments, fuel pump, oil cooler	15	amp
F3	Ignition, engine supply	10	amp
F4	12v outlet for light	10	amp
F5	Feeding pump, water, computer, mixer	10	amp
F6	Air seat, additional 12v outlet in the rear (optional)	10	amp
Fuse in connector strips	Constant current for Farm manager	10	amp

Fuses in Jasopels 950-1500-2000			
Main fuse	Alt (left side of the electrical cabinet)	50	amp
A	Fodder pump, water, computer	10	amp
B	Mixer	10	amp
C	Diesel pumps, instruments, generator, stop pole	5	amp
D	Ignition lamp, glow plugs	5	amp
E	Ignition timer	5	amp
F	air seat, heated seat	10	amp
G	12v outlet for optional light	10	amp
Fuse in connector strips	Constant current for Farm manager	10	amp

NOTE !!

- If there are errors on the machine's electrical system **stop the engine immediately**.
 - The engine must be brought to normal operating mode before another activation / start-up.
- Driving with defective wiring, short circuit or wrong connection will damage the machine's electrical components.
- **Failure in wiring can cause a fire.**
- When repairing the wiring, the battery should be disconnected.
- All electrical work must be performed by authorized staff.



11. TECHNICAL DATA / SPECIFICATIONS

11.1 TECHNICAL DATA

Jasopels feeding machine model data				
data:	700	950	1500	2000
Engine				
Engine	Kubota D1105	Kubota D1105	Kubota V1505	Kubota V1505-T
Cyl.	3	3	4	4
Effect	26 hk	26 hk	35 hk	44 hk
Capacity	1123ccm	1123ccm	1498ccm	1498ccm
Drilling x hose length ***	78 x 78.4 mm	78 x 78.4 mm	74 x 78.4 mm	74 x 78.4 mm
Size				
Width	87 cm	92 cm	92 cm	92 cm
length	255 cm	325 cm	380 cm	435 cm
Height (Tank)	147 cm	155 cm	155/169 cm	169 cm
Weight	462 kg	722 kg	807 / 858 kg	1073 kg
Liquids				
Engine oil	API CD	API CD	API CD	API CD
Hydraulic oil	Type 46	Type 46	Type 46	Type 46
Coolant	SAE J 1034 or SAE J 1814c	SAE J 1034 or SAE J 1814c	SAE J 1034 or SAE J 1814c	SAE J 1034 or SAE J 1814c
Fuel	diesel	diesel	diesel	diesel
Tank dimensions				
Fodder tank	700 litres	950 litres	1320 / 1520 litres	2000 litres
Water tank	50 litres	50 litres	50 litres	50 litres
Diesel tank	40 litres	40 litres	55 litres	55 litres
Hydraulic tank	40 litres	40 litres	55 litres	55 litres

11.2 NOISE LEVELS

Machine noise levels are above the permissible value for general working noise of 80 dBs Therefore the operator must use ear protection when operating the machine.

Persons who work near the machine should also use ear protection.

Machine is factory-equipped with an original silencer to reduce airborne noise emission.

The machine's noise level is listed below in manufacturer's technical information.

Soffie Feeding Machine model:				
Engine / Engine Model	700 - 950		13.3.	
	D1105		V1505 - V1505T Engine	
Engine revs / engine speed.	Loaded dB (A)	Unloaded dB (A)	Loaded dB (A)	Unloaded dB (A)
1500 r / min	80.0	78.6	81.5	80.0
1800 r / min	82.5	81.0	84.0	82.5
2000 r / min	84.2	82.6	85.8	83.0
2500 r / min	87.8	86.4	89.5	84.2
3000 r / min	91.2	89.5	92.8	91.2
3600 r / min	-	-	-	-

12. TROUBLESHOOTING

Jasopels has developed a troubleshooting scheme in case of failures while operating the machine.

This troubleshooting scheme is intended for the operator to fix a failure quickly. Therefore, content of the table is less extensive. Serious mechanical defects, which require specialized technical knowledge, should be repaired by the authorized mechanic.

If the failure extent is larger than described here, you are always welcome to call Jasopels A/S service for assistance.

- Always remember to check fuses when there is a failure, before starting to repair the feeding machine.

12.1 TOWING

If there is a need to tow the feeding machine to a given service centre without its own power, it is necessary to loosen the by-pass screw of the transmission pump, since this blocks the system.

- Feeding machine should not be pushed or towed by another vehicle before the by-pass screw on transmission pump is loosened. See Fig. 33

INSTRUCTIONS FOR PROPER TOWING:

- Before removing or servicing the machine's transmission system, the engine must be stopped and cold.
 - Repair of the transmission system during engine operation will cause damage to the transmission pump and the wheel motors.
 - Towing the feeding machine before the by-pass screw is loosened will cause damage to the transmission pump and wheel motors.
- The deck plate between the control tower and the operator's seat must be loosened and removed.
- By-pass screw on the transmission pump must be loosened. See Fig. 33
 - Feeding machine can be easily moved then.

NOTE !!

- If there are errors on the machine's electrical system **stop the engine immediately.**
- The engine must be brought to normal operating mode before another activation / start-up.
- Driving with defective wiring, short circuit or wrong connections will damage the machine's electrical components.
- **Failure in wiring can cause a fire.**
- When repairing the wiring, the battery should be disconnected.
- All electrical work must be performed by authorized staff.

**12.2 TROUBLESHOOTING GUIDE**

Troubleshooting			
Symptom:	Cause	Solution	Page no.
Engine does not start.	No fuel (diesel)	Replenish fuel	46
	Air in the fuel system	Repair damage and vent air out of the fuel system	46
	Fuel pipe clogged	Clean or replace fuel pipes	46
	Fuel filter clogged	Replace fuel filter	46
	Water in fuel system	Change fuel and clean fuel system	46
	Oil is too thick	Replace engine oil for correct type	34
	Compression leak from cylinder	Engine repair	
Symptom:	Cause	Solution	Page no.
Ignition does not run.	Missing power from battery	Charge and replace battery	45
	There is power supply to ignition, but does not function	Replace or repair ignition	
	The ignition key switch is not working	Replace key switch	
	Wiring disconnected	Connect wiring	

Symptom:	Problem / Cause	Solution	Page no.
Engine does not run smoothly.	Fuel filter clogged	Replace fuel filter	46
	Air filter clogged	Replace air filter	42
	Fuel leak	Repair fuel leak	46
	Injection pump or nozzle failure	Repair or replace	46
Symptom:	Problem / Cause	Solution	Page no.
White or blue exhaust gas.	Excessive engine oil	Reduce oil quantity to specified level	34
	Piston or piston ring worn	Repair or replace	
	Incorrect injection time	Adjust	
Symptom:	Problem / Cause	Solution	Page no.
Black or dark exhaust gas.	Engine overloaded	Lessen the load, change work environment	
	Low grade fuel used	Change fuel and clean fuel system	46
	Fuel pipe clogged	Clean or replace fuel pipes	46
	Fuel filter clogged	Replace fuel filter	46
	Air filter clogged	Replace air filter	42
	Deficient nozzle injection	Repair or replace nozzle	
Symptom:	Problem / Cause	Solution	Page no.
Oil pressure is too high.	Wrong type of engine oil used	Change engine oil to correct type	34
	Oil indicator defect	Change indicator	24
Symptom:	Problem / Cause	Solution	Page no.
Oil pressure is too low.	Engine oil insufficient	Add engine oil to specified level	33
	Oil strainer clogged	Clean oil strainer	
	Wrong type of engine oil used	Change oil to correct type	34
	Oil pump defect	Change oil pump	
	Oil passage clogged	Clean	

Symptom:	Problem / Cause	Solution	Page no.
Water mixed into engine oil.	Head gasket defect	Replace with a new gasket	
	Engine block or cylinder head defect	Engine repair	
Symptom:	Problem / Cause	Solution	Page no.
Engine overheats.	Engine oil insufficient	Add engine oil to specified level	
	Fan belt broken or elongated	Change	41
	Coolant/water level insufficient	Add coolant	37
	Radiator fins clogged	Clean radiator fins	37
	Radiator defect inside	Change radiator	
	Water pump defect	Change water pump	
	Radiator cap defective	Change radiator cap	
	Engine overloaded	Lessen the load, change working conditions	
	Head gasket defect	Replace with a new gasket	
Symptom:	Problem / Cause	Solution	Page no.
Battery quickly discharged.	Battery defect or flat	Change and charge battery	
	Fan belt defect	Adjust looseness, change	41
	Loose cables	Control, fasten cables	
	Alternator defect	Change alternator	

13. TECHNICAL TABLES

Technical tables attached to the manual.

The tables contain data obtained from the engine manufacturer Kubota and are copied from their workshop manual 9Y011-027.

TABLE 13.1. OIL QUALITY.

Ambient temperature	Engine oil quality
Over 25 °C	SAE30 or SAE10W-30 40-SAE10W
0-25 °C	SAE20 or SAE10W-30 40-SAE10W
Below 0 °C	SAE10 or SAE10W-30 40-SAE10W

TABLE 13 2. ANTIFREEZE:

Antifreeze Vol.%	FREEZING POINT		Boiling point - 0 °C. *	
	0 °C.	0 °F.	0 °C.	0 °F.
40	-24	-11.2	106	222.8
50	-37	-34.6	108	226.4

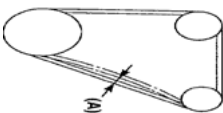
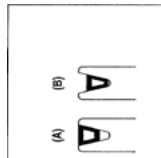
* At 760 mm mercury column (mmHg). To get a higher boiling point, use the radiator cap, which allows pressure in the cooling system.

For this type of engine use following antifreeze: permanent type PT, SAE J1034 or SAE J1814c.

Always mix antifreeze with water before filling up the radiator.

When mixing antifreeze with water, the antifreeze may not exceed 50 % of the solution.

TABLE 13.3. V-BELT:

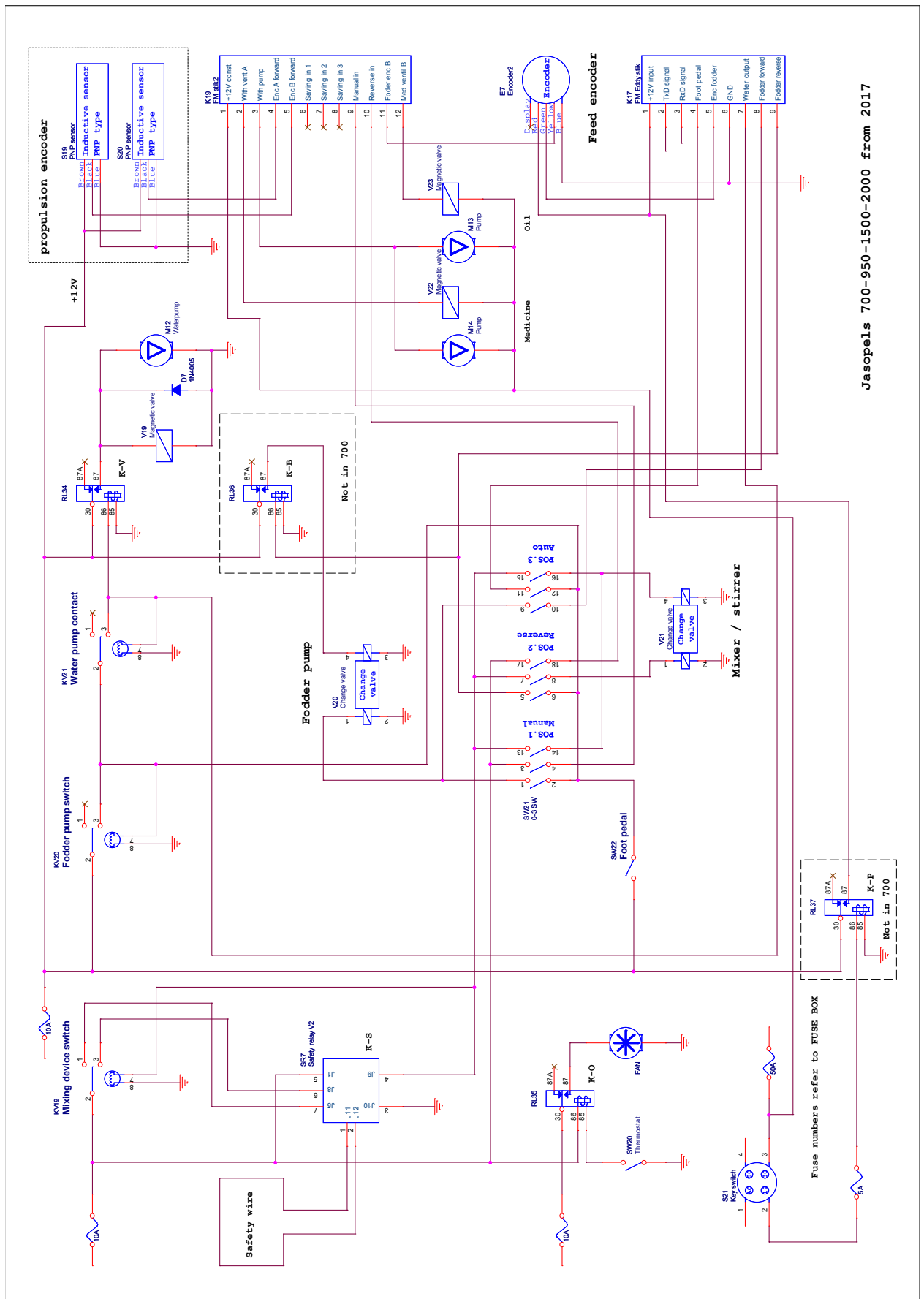
	Max. Slack A.	Control tension.
	7.0 – 9.0 mm. 0.28 – 0.35 in.	98 N 10 kgf. 22 lbf
	Correct	**Belt worn out.
	A	B

V-belt must not have any cracks; change the V-belt if it has.

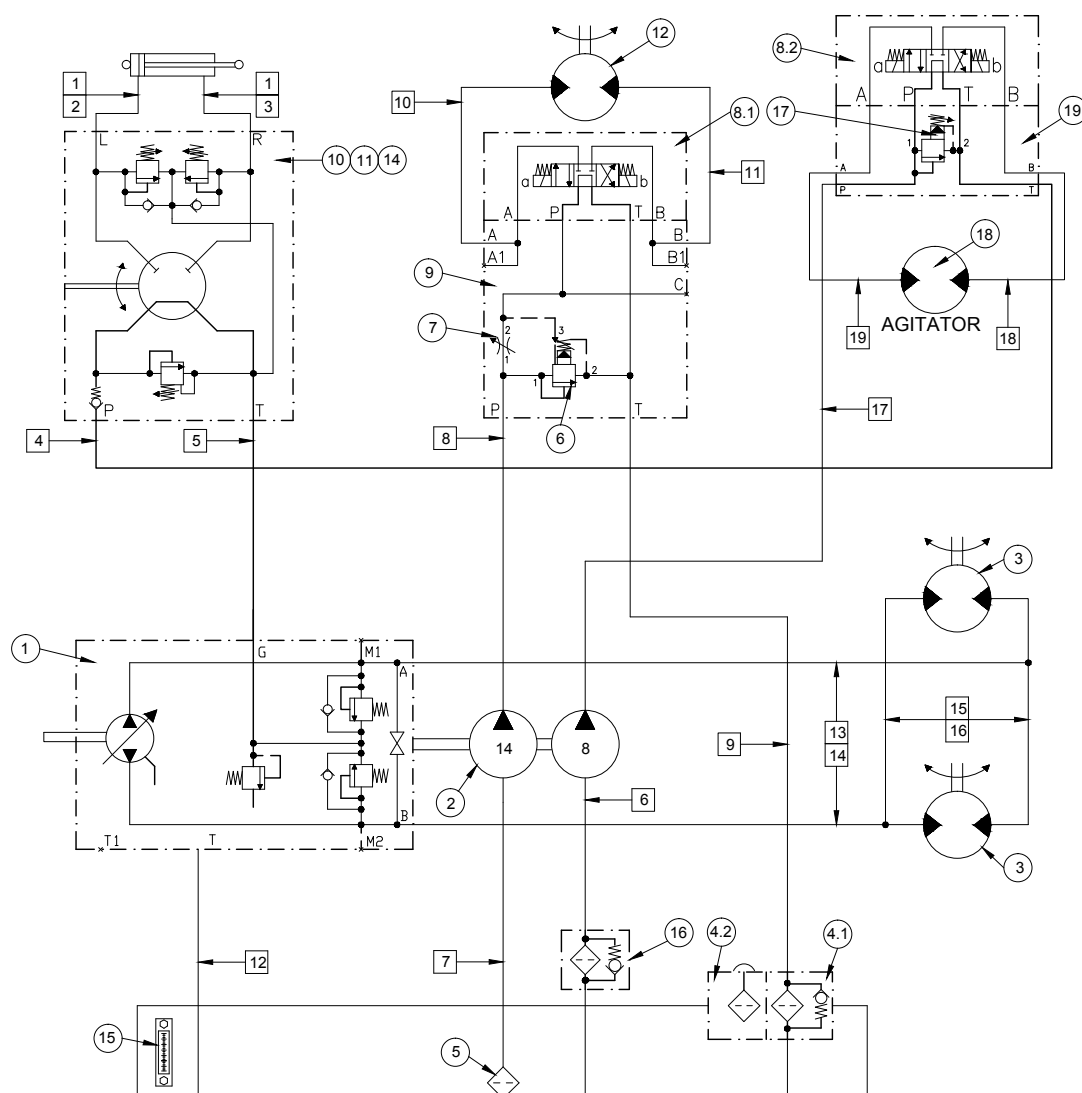
** If there are any cracks / wear and tear, there is a risk of belt bursting.

Faulty V-belt will cause damages to radiator and engine.


14. ELECTRICAL DIAGRAM



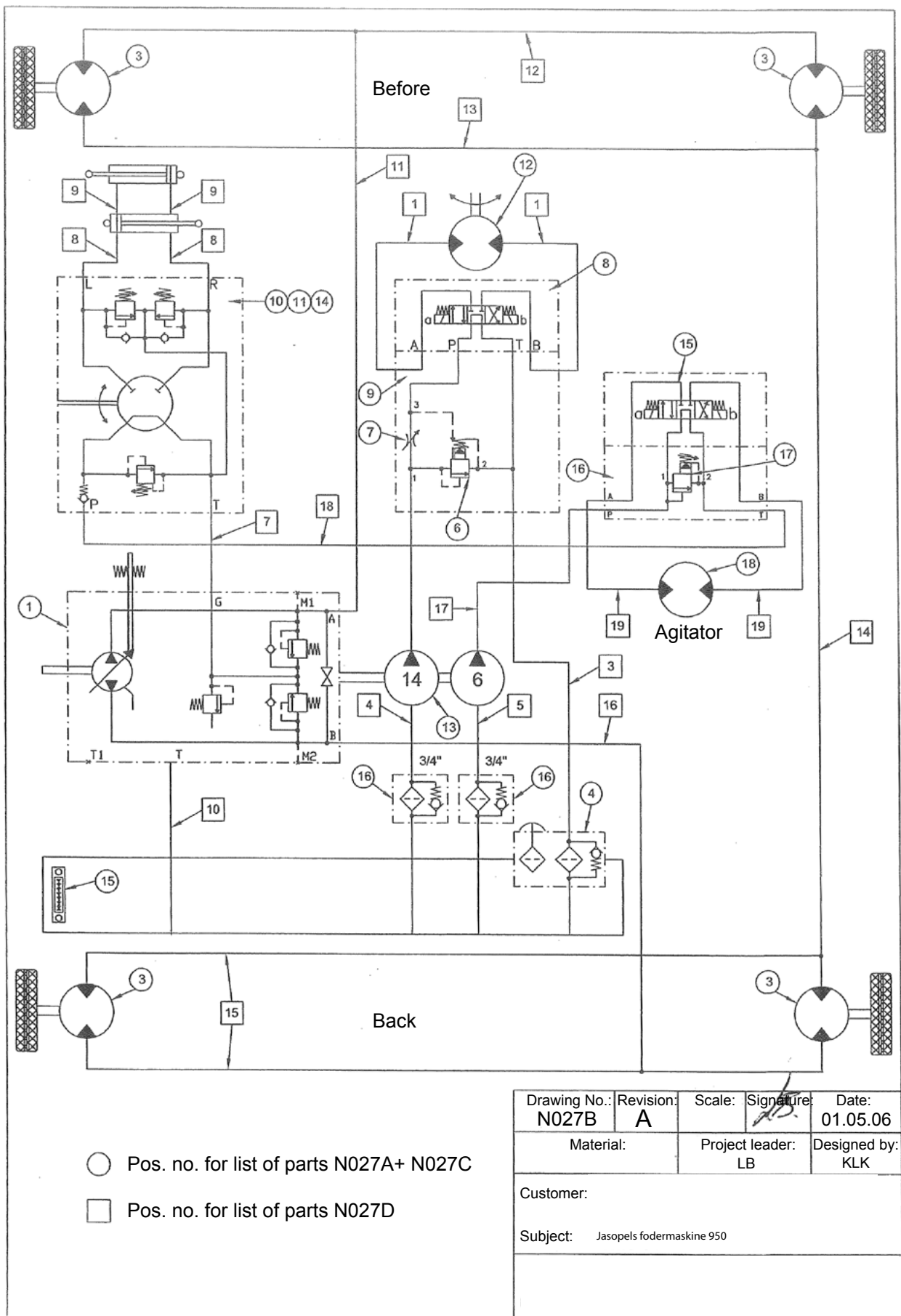
15. HYDRAULIC PIPE DIAGRAM

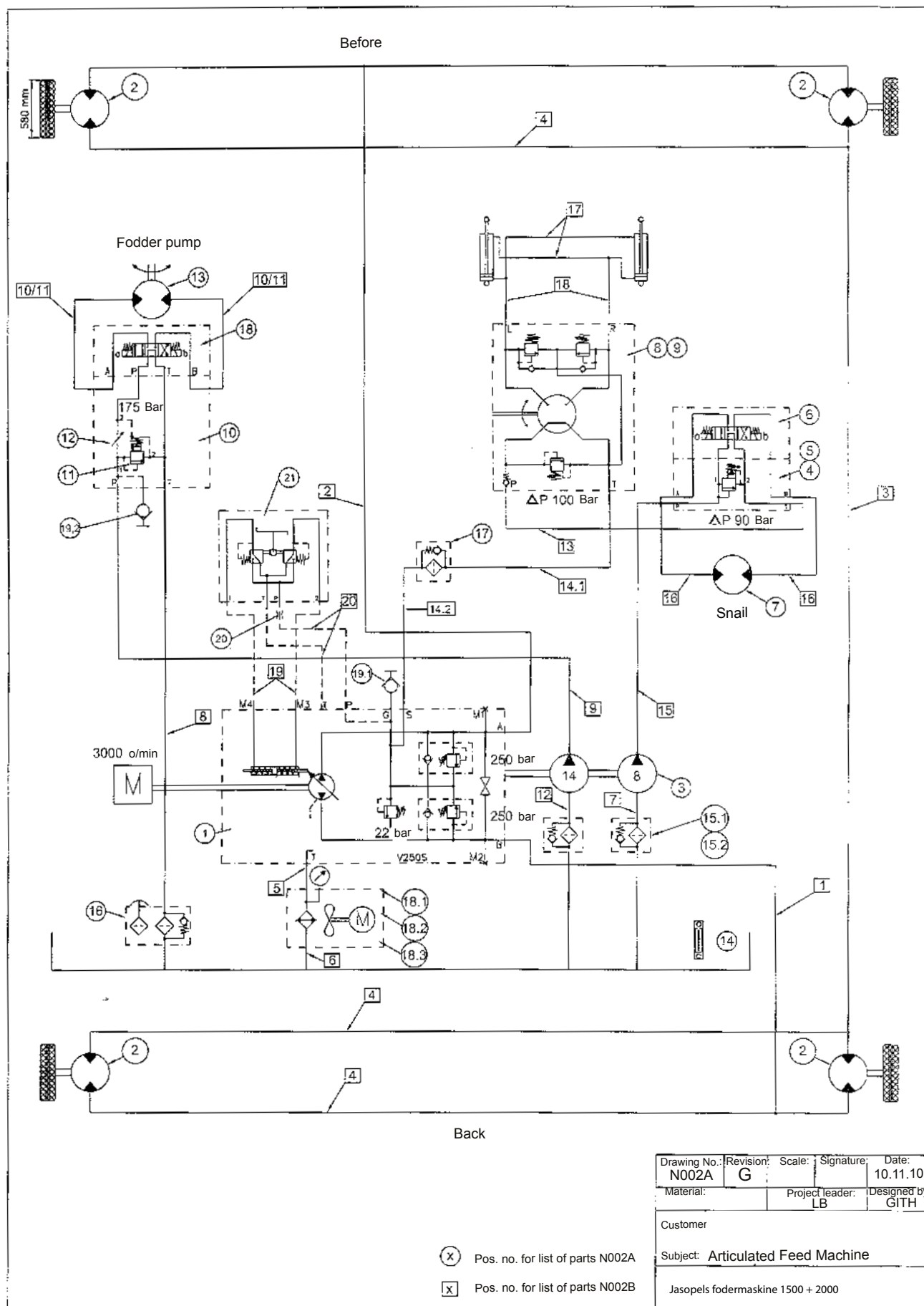


- ⊗ Pos. no. for list of parts N001C
 ⊠ Pos. no. for list of parts N001D

Material -		Drawn by GITH		<div></div>	
Dimension / Mod. No.		Drawn date 07.09.2012			
General note gemt i gammel system	Weight	-	Approved by LBRO		
	Scale	-	Approved date		
Reference		Released by			
Replace	Replaced by		Released date		
Title Jasopels fodermaskine 700		Withdrawn by	Drawing No. N001B	Revision A	
		Withdrawn date			
This drawing is confidential. It is not to be copied or communicated to any other person, without the written consent of PMC Group TM					

This drawing is confidential. It is not to be copied or communicated to any other person, without the written consent of PMC Group TM





Service book - visit 1



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 2



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 3



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/:
Comments

Signature:

Date:

Customer

Service person

Service book - visit 4



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/:
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 5



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 6



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 7



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/:
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 8



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/:
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 9



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 10



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 11



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 12



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 13



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 14



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 15



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/:
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 16



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/:
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 17



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

Service book - visit 18



Service type: _____

Machine number: _____

Number of hours: _____

Service Description/
Comments

Signature:

Date: _____

Customer

Service person

[illegible]



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