

USE AND MAINTENANCE MANUAL

SELF-PROPELLED MIXER FEEDER

MAXI



Read this Manual carefully before using the machine.

REV. - 03/02/2017

DECLARATION OF CONFORMITY

The Company.....

With head office in Via.....

City..... Province

Tel.....Fax.....

Declares under its own responsibility that the machine:

SELF-PROPELLED CUTTER-MIXER-FEEDER

model:

serial number:

year of manufacture:

Complies with the following European Directives:

2006/42/CE (Which repeals and includes Directives 89/392/EEC, 91/368EEC, 93/44/EEC and 93/68/EEC)

2004/108/CE (Which repeals Directive 89/336CE on Electromagnetic Compatibility)

For machine models equipped with electrical devices

The following Harmonized Standards were applied for the adaptation of the machine:

EN ISO 4254-1:2015 – EN ISO 4251-1_2005 – EN 60204-1:2006 – EN 703:2004+A1:2009

as well as the technical standards: ISO11684:1995 – ISO 3767:1998



DESCRIPTION OF THE MINIMUM CONTENTS OF THE MANUAL

This manual contains a description of the operations and instructions needed to correctly use and carry out routine and periodic maintenance on the machine.

For ease of consultation, the manual is divided into easily identifiable chapters.

The instructions given in this manual are intended for a professional user, who must have specific knowledge on how to use the machine, and must be suitably trained, instructed and authorized.

We highly recommend you use original replacement parts and accessories be used. The use of non-original parts will not only invalidate the warranty, but could also be dangerous, reducing the life and performance of the machine.

This manual must always accompany the machine in the event it is sold or transferred. If the manual is lost or damaged, a copy must be requested from the manufacturer.

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1. INFORMATION REGARDING THE MANUAL

This manual is to be considered an integral part of the machine and it must accompany the machine if resold and until it is demolished.

If the manual is lost or damaged, ask the manufacturer (SITREX S.P.A Zona Industriale Viale Grecia, 22 - 06018 Trestina (PG) Italy) or dealer for a copy. This manual consists of 64 pages.

There are a number of pictographs on the mixer feeder. It is the responsibility of the operator to make sure they remain perfectly visible and to replace them when they are no longer legible.

.



This symbol indicates that maximum attention must be given to the topic discussed.

1.1 MACHINE IDENTIFICATION

The machine nameplate is located on the front part of the column holding the cutter arm (FIGURE N°1).



FIG.1

1.2 MACHINE INFORMATION

1.2.1 Intended uses

This machine was designed and built exclusively for the cutting of silage and for mixing it with other products for animal feed and distributing it to the animals.



Any use of the machine other than that described above is considered unauthorized and dangerous.

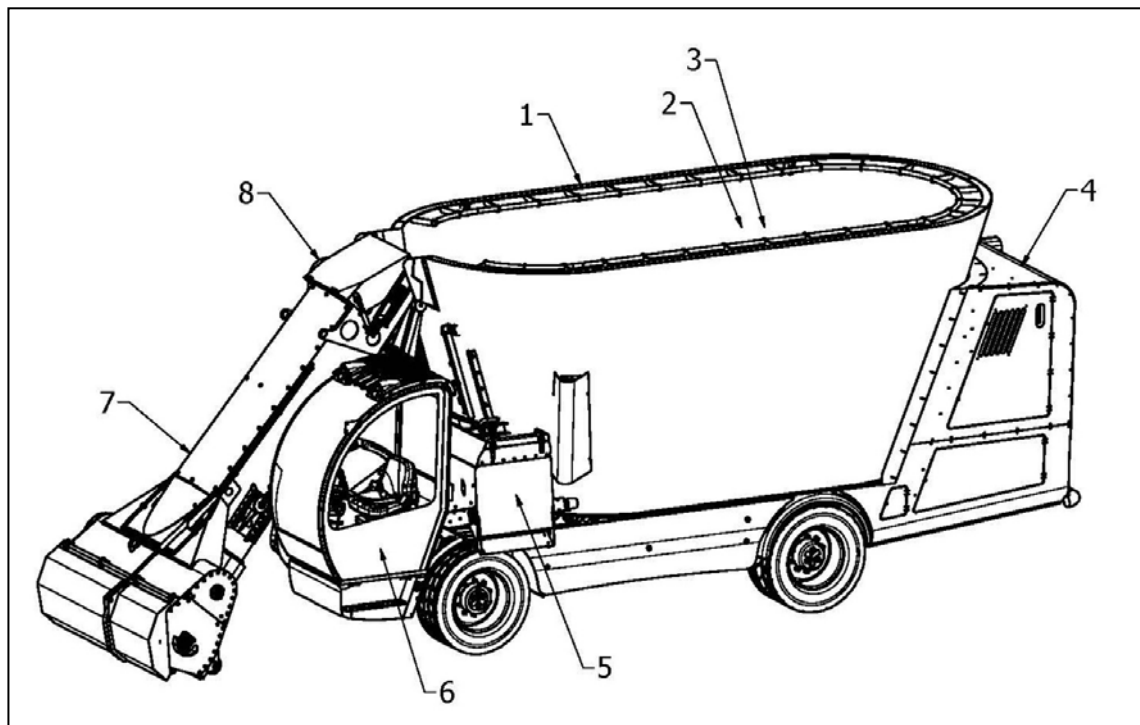


Use of the machine is absolutely prohibited if the guards and protective devices are tampered with, damaged, defective or worn.

1.2.2 Description

The machine consists of:

- a cutter attached to a raisable arm for the cutting of the silage. The cutter is made up of a rotating roller with projecting cutting elements that extract the product from the silage trough.
- a movable arm that brings the cutter into contact with the product to be removed and conveys it into the mixing chamber.
- a mixing tank where the fodder and/or silage is chopped and mixed with other products by means of augers equipped with sharp, pointed knives.
- an unloading device that may consist of a side opening in the mixing chamber, closed by a hydraulically controlled metal gate and a rubber or metal unloading belt, for discharging the processed product and distributing it on the farm.
- a operator's cab which contains all the controls.
- a rear engine compartment.
- an auger for mixing the product.
- saber knives placed along the circumference of the auger for cutting the product.
- a ladder with platform for inspecting the mixing.



1. Mixing tank	5. Unloading belt
2. Auger	6. Cab
3. Cutting knife	7. Cutter
4. Engine compartment	8. Mixing inspection ladder



The machine is designed for agricultural use only.

The machine must be used by just one operator.



Any use other than that specified is considered improper.

The machine must be used exclusively by suitably trained, instructed and authorized personnel.

Do not use the machine if you are tired, ill, or under the effect of alcohol, medicines or drugs.

This machine is normally used during the daytime; if by way of exception it must be used at night or in reduced visibility conditions, the machine's lights must be turned on or, if necessary, an auxiliary lighting system must be used.

Any arbitrary modifications made to this machine shall relieve the SITREX S.p.A. company from any liability for damage or injury to the operators, to third parties or to objects. The correct use of the machine, the strict observance of the instructions given here and the strict application of all precautions for preventing any hazardous situations will make it possible to avoid the danger of accidents or injuries, will make the machine operate better and increase its life, and will reduce breakdowns to a minimum.

The SITREX S.p.A. company disclaims any and all objective and subjective liability when the rules of behavior given in the manual are not applied and followed.

1.2.3 Foreseeable but prohibited uses

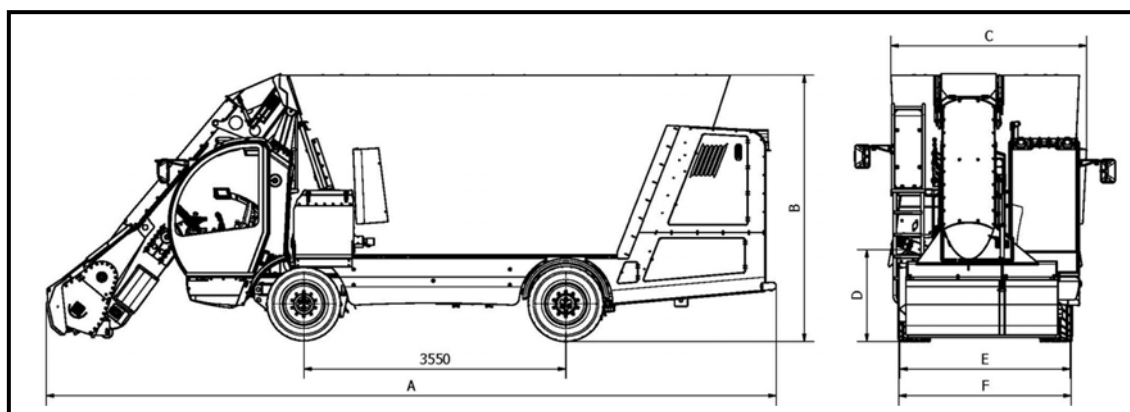
- Staying on the tank inspection platform when the machine is moving.
- Loading from above while standing on the pile of silage or on top of the bales.
- Standing near the cutter while it is being used.



- Trying to free the unloading belt, if it is jammed, by using shovels or pitchforks while the machine is in operation.
- Climbing on the top edge of the mixing tank.
- Lying under the machine to check on malfunctioning when the machine is in operation.
- Using the hydraulic lines as handholds or footholds for climbing on the machine.
- Towing of any vehicle.
- Transportation of materials other than those for which the machine was designed.

1.2.4 Technical specifications and parts identification for MAXI

MODEL	270	240	220	200	170
A	9890	9760	9715	9715	9700
B	3620	3460	3200	3010	2910
C	2650	2650	2655	2655	2655
D	1200	1200	1200	1200	1200
E	2300	2300	2300	2300	2300
F	2335	2335	2335	2335	2335



Minimum turning radius of the front wheels		16000mm
Hydraulic system pressures:		
Drive pump		450 bar
Auger pump		420 bar
Belt pump		190 bar
Cutter pump		420 bar
Accessories pump		140 bar
Diesel engine:	John-Deere	
Type:	6068HFC08	
Cycle:	Diesel 4 stroke	
Cylinders:	6	
Displacement:	6800cc	
Max power:	168Kw - 225Hp	
Starter:	Electric	

Farm speed	1st Gear 8Km/h	2nd Gear 20Km/h
Steering:		
		Hydraulically assisted 150 bar
Front axle:		Shock absorber
Rear axle:		Shock absorber
Parking brake:		
		Negative type acting on the rear axle
Battery:		12V - 200Ah
Alternator:		12v - 200A
Tires:		
Front:	385/55 R22.5	Inflation pressure 9 bar
Rear:	445/50 R22.5	Inflation pressure 9 bar
Wheel nut tightening torque 393 Nm (40kgm)		
Fuel and oil:		
Diesel fuel:		Diesel fuel:
Hydraulic oil:		Hydraulic oil:

1.3 NOISE LEVEL

LpA 85dB - LWA 102dB Directive 86/662/CEE

1.4 STORAGE - GARAGING

If the machine is not used for long periods it must be stored in a sheltered area protected from weather and against damage. Before storage, it is recommended that the machine be thoroughly cleaned and that all mechanical parts be adequately greased to protect them from rust.

Before putting the machine into storage for long periods it is best to do the following:

- Remove any fodder remaining inside the mixing tank;
- Carefully clean the machine inside and outside;
- Do an overall visual inspection of the machine to see if there is any structural damage or deep scratches in the paint, check to see if the original safety pictographs are in the right positions and are whole and legible;
- Grease all the mechanical components, the fastening pins;
- Store the machine, if possible, in a covered room on a flat surface;
- Remove the ignition key;
- Apply the parking brake.



Used oil must be properly collected and must not be released into the environment; according to the laws in force, it is classified as a hazardous waste, and as such it must be brought to a special collection center.

Contact the "Exhausted Oils Mandatory Consortium" for the mandatory collection of exhausted oil

1.5 RECOMMISSIONING THE MACHINE AFTER A LONG PERIOD OF STORAGE

Before using the machine after a long period in storage, the following must be done:

- Check the machine for any damage;
- Check the mechanical components, which must be in good condition and free from rust;
- Check the oil levels in the motor and hydraulic system;
- Check the tires for wear;
- Check the lights and electrical system to make sure they are working properly;

The SITREX S.p.A. company will not be liable for any damages or injuries caused by improper or inappropriate use of the machine.

1.6 SCRAPPING

If the machine is scrapped, it must be disposed of at suitable landfills, in compliance with the laws in force.

Before proceeding with scrapping, it is necessary to separate all plastic and rubber parts, and electrical and electronic materials.

Collect any used oil and fluids and dispose of them at special collection centers.

Parts made solely from plastic, aluminum, and steel may be brought to collection centers for recycling.

Failure to observe safety regulations and precautions could cause accidents during operation, maintenance and repair of the machine.

The SITREX company will not be liable for any damages or injuries caused by improper or inappropriate use of the machine.

1.7 SAFETY AND ACCIDENT PREVENTION REGULATIONS



Carefully check the machine each time before putting into operation.

The SITREX S.p.A. company cannot foresee every reasonably unpredictable improper use capable of posing a potential hazard.

- The signs and labels applied to the machine provide important instructions: follow these instructions for your own safety.
- Make sure that all the pictographs are legible. Clean them and replace with new labels if necessary.
- Before using the machine make sure that all safety devices are correctly installed and in good condition. If there are any failures in or damage to the protective devices, replace them immediately.
- Before getting out of the machine and before any maintenance operations, apply the parking brake, turn off the engine and remove the ignition key from the dashboard.
- The manual must always be at hand so that it can be consulted to check the operating cycle. If it is lost or damaged a new copy must be requested from SITREX S.P.A..
- The machine is designed to be used by a single operator.
- Never work with this machine if you are tired, ill, or under the effect of alcohol, drugs or medicines.
- The operator of the machine should not wear clothing that can get caught or entangled.

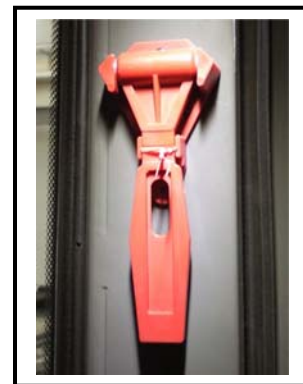


- During use, the machine can cause the emission of dusts when working with dry products (hay, straw, etc...). It is recommended that the filters on the cab's ventilation system be checked periodically or that operators wear suitable protective equipment for the respiratory passages, such as dust masks or respirators.
- During use the operator must have sufficient visibility in the work areas considered dangerous, therefore the machine's rearview mirrors must be kept clean and in excellent condition.
- The machine must not be left unattended when the motor is running.
- Keep the machine clean from foreign material (debris, tools, various objects) that could impair its functioning or cause harm to the operator.
- When the machine must be stopped on sloping ground, use the wheel chocks supplied with the machine (FIG.1).
- Avoid working on muddy, sandy or soft ground.
- Check the wear condition of the hydraulic hoses and/or pipes. If they are deteriorated, replace them immediately.
- Do not use the controls or flexible hoses as handholds or footholds; these components are movable and do not provide stable support.
- Any modifications to the machine could cause safety problems. In this case the user will be solely liable for any accidents.
- SITREX mixer feeders are not approved for road traffic. Use them only within the farm.
- Check the tire pressure regularly and always keep inflated to the proper pressure depending on tire type and the nature of the soil.

FIG.1



FIG.2

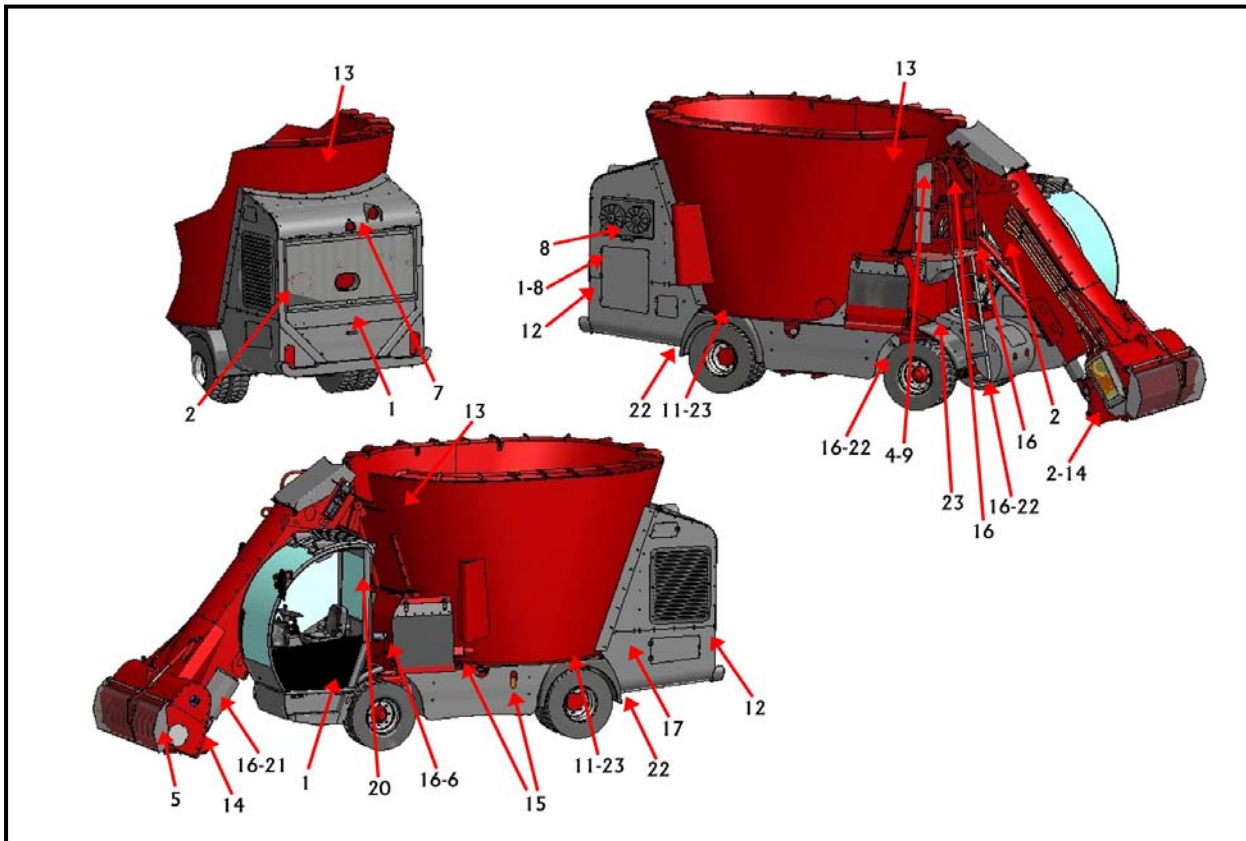


- In the event of rollover and entrapment inside the cab, use the emergency hammer located on the rear upright of the cab to break the glass and exit. (FIG.2).



1.8 SAFETY, INFORMATION AND MAINTENANCE SIGNS


Make sure that the safety pictographs are legible. Clean them with soap and water and a clean cloth.












1.8.1 Location of the safety, information and maintenance signs


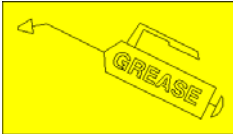



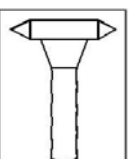
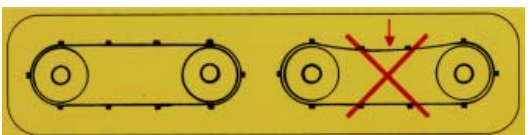




1.8.2 Description of the safety, information and maintenance signs

	<p>1. WARNING – Adjustment and maintenance operations must be done after having read the use & maintenance manual, with the machine stopped and the key removed.</p>
	<p>2. WARNING - DANGER of fluids under pressure. Read the manual before doing work, and in case of injury consult a doctor.</p>

	<p>3. WARNING - DANGER This machine must be used by a single operator.</p>
	<p>4. WARNING – It is prohibited to climb on or be transported by the machine.</p>
	<p>5. WARNING - Danger of shearing of hands.</p>
	<p>6. WARNING - DANGER of catching and dragging of upper limbs. Do not go near the auger or cardan driveshaft or unloading belt during machine operation.</p>
	<p>7. WARNING - DANGER of burns. Keep a safe distance away.</p>
	<p>8. WARNING - DANGER of catching and dragging. Keep hands away from the driveshaft in motion.</p>

 	<p>9. WARNING - DANGER of electrocution. Be extremely careful of overhead power lines when using the cutter</p>
 	<p>10. EXTINGUISHER Indicates where the fire extinguisher is located</p>
 	<p>11. WARNING - DANGER Chock wheels when the machine is stopped.</p>
 	<p>12. WARNING - DANGER Do not stand within the machine's operating range.</p>
 	<p>13. WARNING - DANGER of falling and injury. Do not work on the pile of silage while loading.</p>
 	<p>14. WARNING - DANGER of crushing and injury. Do not stand under the cutter during operation.</p>

	<p>15. Oil tank.</p>
	<p>16. Greasing points.</p>
	<p>17. Use the required personal protective equipment.</p>
	<p>18. Projecting parts warning stripes</p>
	<p>19. WARNING - DANGER. Magnetic field Keep away:</p> <ul style="list-style-type: none"> • persons with pacemakers or stimulators • persons with prostheses • with metal objects • with watches, calculators, etc.
<p> USCITA D'EMERGENZA ROMPERE IL VETRO CON IL MARTELLO EMERGENCY EXIT CRASH THE GLASS BY HAMMER </p> 	<p>20. Break the cab window in case of emergency.</p>
	<p>21. Tension of the cutter loading belt.</p>
	<p>22. Anchor points.</p>
	<p>23. Tire inflation pressure.</p>

2. HANDLING AND TRANSPORTING

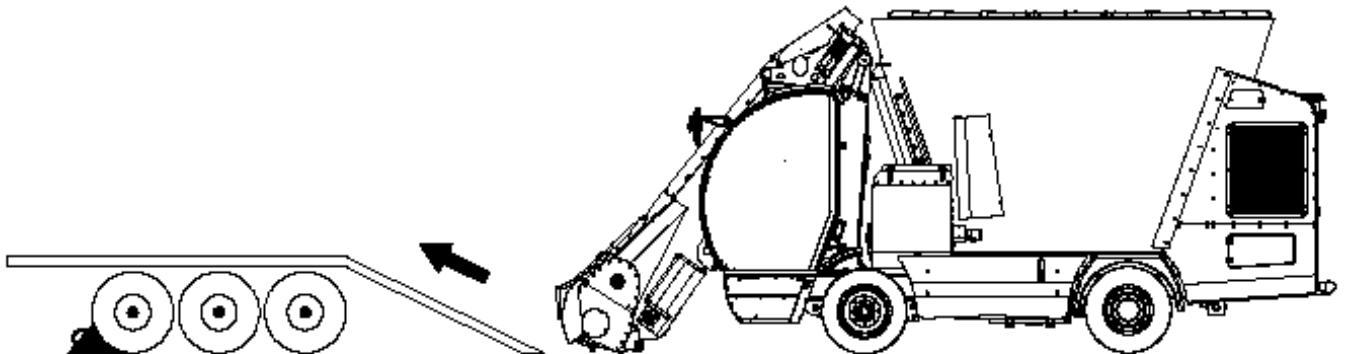
Pay maximum attention to safety during loading and unloading operations, which must be done by qualified personnel (slingers, lift truck operators, etc....).

To anchor the machine, the eyes indicated by the pictographs must be used (FIG.1).

FIG.1



Procedure for loading on to a transport vehicle



The machine must be loaded using special ramps. Once loaded the vehicle must be secured in place with anchor cables and the wheels must be blocked with the chocks provided with the machine (FIG.2)

FIG.2



3. INSTRUCTIONS FOR USE

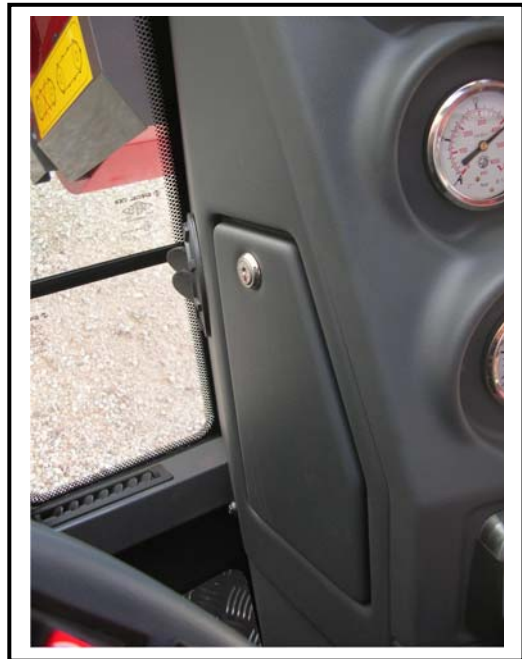


The machine must be controlled exclusively from the driver's seat, making sure that there are no persons or loose animals in the work area.
In case of danger, apply the emergency brake.

3.1 CONTROLS, INSTRUMENTS AND WARNING LIGHTS



Located in the inner front corner of the cab are, in order from top to bottom, the pressure gauges for the drive pump, for the auger, and for the accessories pump. In addition there is the diagnostic tool for the John Deere engine (see the engine manual for use instructions).



There is a small locked door on the side of the dashboard for maintenance and check operations. Always switch off the engine before you carry out these operations.

3.1.1 MULTI-FUNCTIONAL JOYSTICK



The joystick for the cutter is located behind the hand throttle.



Remember that all operations carried out with the joystick must be done with the “hold to run” button held down for some operations.

Description of the buttons:

Button	Function
1 + 13	Cutter reverse
2 + 13	Cutter loading – three modes that can be increased by pressing button 2
3 + 13	Open cutter protection grille
4 + 13	Close cutter protection grille
5 + 13	Open unloading door
6 + 13	Close unloading door
7 + 13	Turn on mixing auger / one click increase auger RPM
8 + 13	Double click turn off mixing auger / one click decrease auger RPM
9 + 13	Move unloading belt to the right
10 + 13	Move unloading belt to the left
11 + 13	Optional
12 + 13	Optional



A 12V socket is located under the driver's seat for connecting accessories (cellular telephone, etc...).

3.1.2 CONTROL PANEL



- 9. Diesel engine water temperature.
- 10. Diesel engine oil pressure.
- 11. Diesel engine RPM.
- 12. Multi-functional (time) if there is no alarm.
- 13. Parking brake engaged if lit.
- 14. Power consumption in %.
- 15. Fuel level.
- 16. Hydraulic oil temperature
- 17. Low gear engaged (snail) or high gear engaged (hare).
- 18. Auger RPM – auger on (red) auger off (grey).
- 19. TOP-CUT manual or automatic - on or off.
- 20. Rear work lights.

- To make the side icons appear press any button from 1 to 8.





















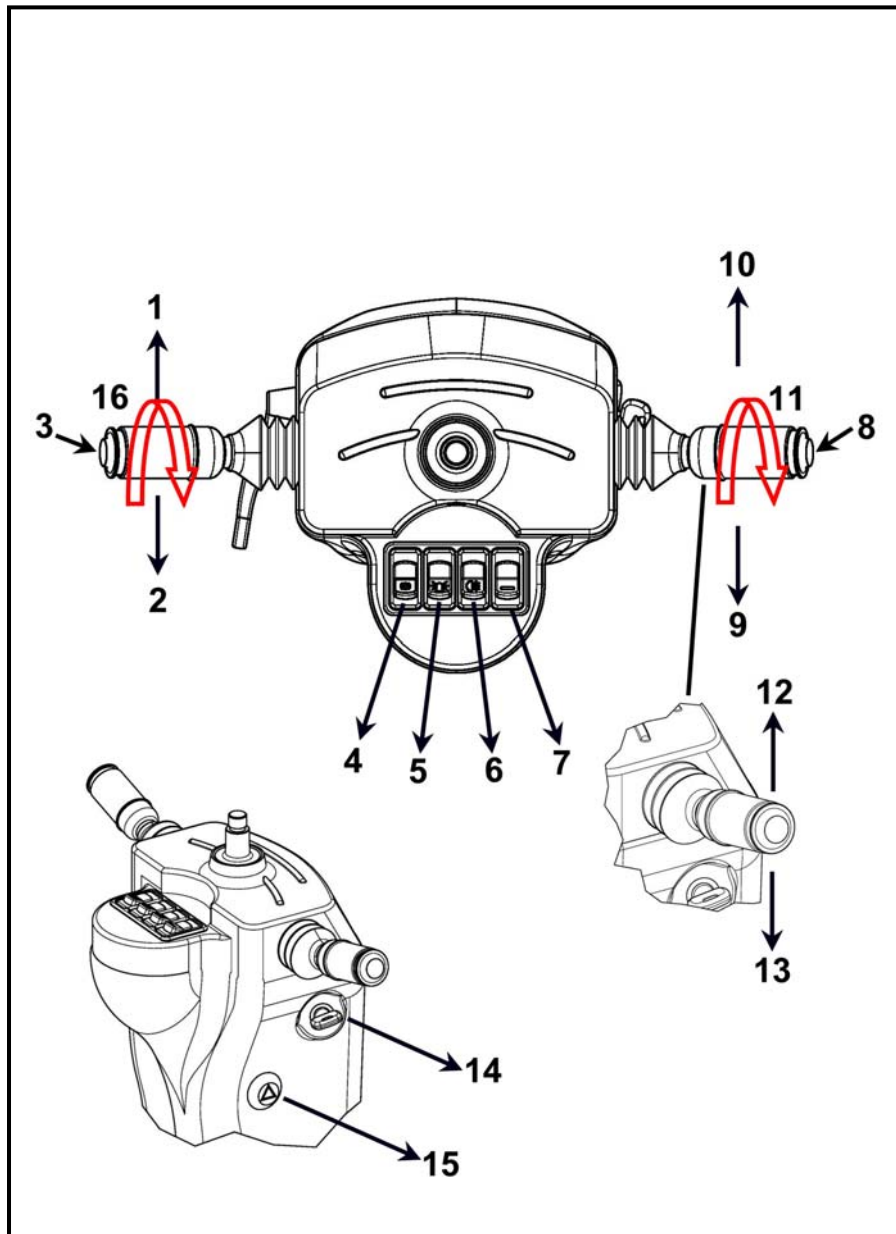
1. Turn on rear work lights.
2. Turn on automatic or manual TOP-CUT .
3. Turn on mixing auger.
4. Set diesel engine RPMs in LOAD mode.
5. Turn on cameras.
6. Diesel engine, hours of machine operation and hydraulic oil temperature data.



1. Lock joystick functions (if approved for road use).
2. Turn on cutter belt forward and backward independently.
3. Diagnostics, errors and errors reset.

3.1.3 WARNING LIGHTS

	Motor oil pressure low.		Air filter clogged.
	Motor oil level low.		Fuel level low (reserve)
	Engine over-revving		Battery voltage fault.
	Generator not charging.		Hydraulic oil temperature too high.
	Engine coolant overheating.		CAN network communication error
	Person in the seat.		Solenoid error.
	Hydraulic oil level low.		Sensor error.
	Hydraulic oil filter clogged.		Weighing system transmitter fault.
	Speed restriction – traction system fault -		Machine stop - traction system fault -



1 – Forward lever	9 – Right turn signal
2 – Reverse lever	10 – Left turn signal
3 - Horn	11 – Parking – low beam lights
4 – Parking brake	12 – Flash high beam lights
5 – Flashing lights (if present)	13 – High beam lights
6 – Rear fog light	14 – Ignition key
7 - Optional	15 – Emergency flashers
8 - Horn	16 – 1 st or 2 nd speed gear



In case of emergency or danger operate the kill switch (emergency button) located on the right side console



3.2 SETTING THE TIME

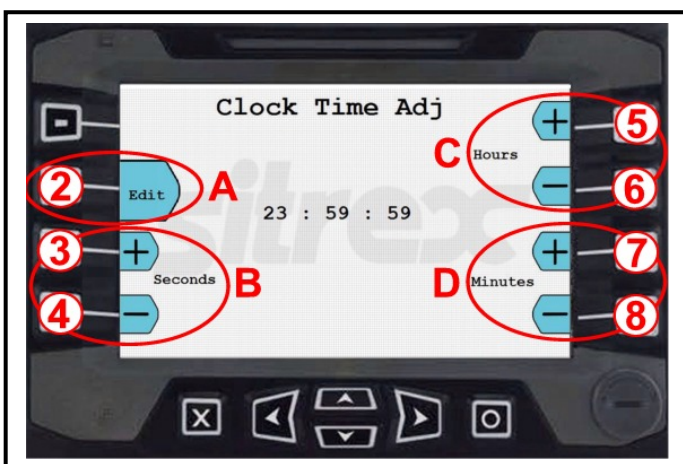
To set the time, carry out the following operations:



Press button n° 5 “setting”



Select “configuration” and then “clock adj” and press “ENTER”



Press button 2 (A) and then set the seconds, minutes and hours with buttons 3-4 (B), 7-8 (D), and 5-6 (C) respectively and then press button 2 again to save the settings. To exit from settings press the “X” button.

3.3 INSTRUMENTS INSIDE THE CAB



The forward pedal is located at the bottom right. The service brake and forward/reverse pedal is on the left.



The main cabin controls, ventilation controls, stereo and courtesy light are located on the ceiling of the cab.



A - Cab temperature control
B - Front work lights
C - Front wipers
D - Mirror heaters
E - Right window wiper
F - Work lights on unloading belts and right front
G - Fuses

3.4 DRIVING THE MIXER FEEDER

Before starting the engine, check to make sure that:



- the machine does not have any loose parts.
- the cutter arm is about 500mm from the ground and with the protective guard lowered.
- the gear shift is in neutral.
- the parking brake is engaged.

Driving the MAXI mixer feeder is very much like driving a car!

The left lever on the steering wheel has two positions:

- CENTRAL IS IN “NEUTRAL”
- FORWARD 1st GEAR
- FORWARD 2nd GEAR
- REVERSE 1st GEAR
- REVERSE 2nd GEAR

3.4.1 FARM MODE

When the diesel motor is started and warmed up, release the parking brake, and select the forward or reverse gear with the gear lever. To start moving, press the forward pedal, which will automatically regulate the engine RPMs and the machine speed (20Km/h). When releasing the pedal the hydrostatic transmission acts as a brake. If emergency braking is necessary, press the brake pedal which is located on the opposite side of the forward pedal. The number of RPMs of the MAXI mixer feeder’s diesel engine can be regulated either with the forward pedal (automotive mode) or with the hand lever located on the cab side console. Naturally, the priority command is given by the lever, i.e. if the lever is regulated for the maximum number of RPMs, when pushing on the pedal there will be no change in the diesel engine RPMs.

For small and repetitive movements, especially during cutting, it is possible to use an additional foot button (Fig.1) located on the left side of the cab that reverses the direction of travel even if the gear lever on the steering column is in the forward position. When the foot button is released, the machine will return to the gear selected on the steering column. Regardless of the gear it is in, when the predetermined weight threshold is reached, the machine will be limited to a speed of 8 km/h. During unloading, as soon as the weight goes under this threshold, the machine will of course return to a speed of 20 km/h with the forward pedal fully depressed.



FIG.1

- **Adjusting the driver's seat**

The driver's seat is adjusted according to the driver's weight so that they are in the proper driving position.

ADJUSTMENTS:

Figure n° 1: Detail "A": Air suspension adjustment.

Figure n° 1: Detail "B": Seat forward/back adjustment.

Figure n° 2: Adjustment of seat back tilt.

Figure n° 3: Adjustment of seat headrest.

FIG.1



FIG.2




FIG.3



3.5 REAR VIEW AND MIXING TANK CAMERA

The MAXI mixer feeder has a video camera installed at the rear of the machine for backing up and an optional video camera on the top edge of the mixing tank. When reversing with the reverse gear lever the rear view camera automatically appears on the control panel and shows any obstacles behind the machine, while the (optional) camera on the mixing tank can be selected from the control panel with button 6, where then by means

of the “ENTER”  button it is possible using buttons 6 and 7 (FIG.1 -A-) to select the camera you want to turn on when pressing button 6 (either the mixing tank (auger) camera or the rear view camera).



3.6 DIESEL ENGINE



Never leave the diesel motor running in closed and unventilated areas!
Wait until the engine has cooled before doing any type of maintenance work!

The MAXI mixer feeder diesel engine is located in the rear engine compartment. For optimal maintenance read the engine manual enclosed and pay attention to the rules to be followed while the machine is in the breaking-in period! For the best cooling of the motor the combined water/air radiator must constantly be kept clean and the level of the liquid must be checked in the expansion tank located above the radiator.

BE CAREFUL OF ANY RELEASING OF STEAM UNDER PRESSURE!

Before starting the engine, make sure the daily checks on the machine have been carried out.

Starting procedure:

- Make sure that the gear lever is in the neutral position and the auger is not in gear.
- Turn the key on the steering column to turn on the starter.
- After starting let the diesel motor heat up for a few minutes, depending on the outside temperature.
- If the diesel motor does not start, do not keep the starter on. Wait two or three minutes and try again. If the motor still does not start, see the “Troubleshooting” chapter and the motor manual.

Stopping procedure:

- When work is done, let the diesel motor idle for a few minutes for the cooling and correct lubrication of the turbo. Turn the key and remove it. Never leave the key in the on position because it causes damage to the battery and the warning lights.

All data, errors or warnings concerning the diesel engine will be shown on the John Deere display (FIG.1).



FIG.1

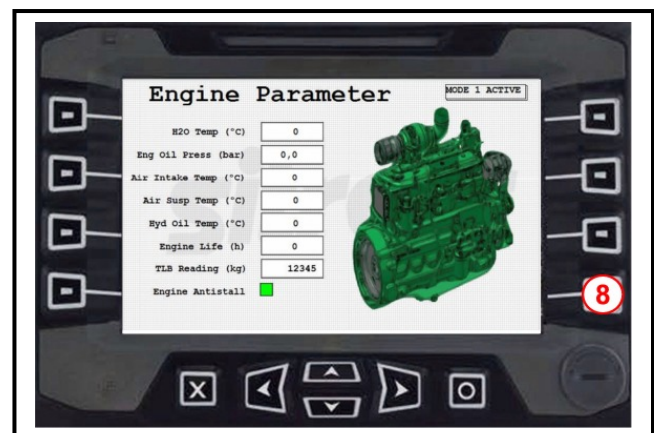


FIG.2

In addition, by pressing button 8 (FIG.2) on the control panel and then “ENTER”



you can see data regarding the:

- Diesel engine water temperature.
- Intercooler air temperature.
- Diesel engine oil pressure.
- Hydraulic oil temperature.
- Total machine working hours.

3.7 WEIGHING SYSTEM

The weighing system control unit is located inside the driver's cab.



For operating procedures and for all other information, see the weighing system use and maintenance manual supplied along with this manual. Remember to set the programming before starting the work cycle.

3.8 CUTTER

The cutter arm makes it possible first to cut the product with the knives on the front rotor of the arm and then to load the product into the mixing tank.

The cutter arm is controlled by means of a joystick located inside the cab.

Check periodically the wear of the knives and of the rubber loading belt.



WARNING: THIS COMPONENT IS EXTREMELY HAZARDOUS!
Open the protective guard (FIG. 1) of the cutter rotor when starting the loading operation and close it again as soon as the operation is complete.

For maintenance operations make sure that the battery disconnect switch key is in the disconnect position.

FIG.1



3.9 LOADING



Before starting loading operations with the cutter, the operator must make sure there are no persons, animals or objects near the machine that may be struck by materials thrown accidentally by the machine.

Below is the list of the recommended sequence in which the products should be loaded:

- Fibrous products such as straw, hay.
- Silage products
- Meal products, pellets or cereals.
- Any liquid products.


It is also possible to load entire cylindrical or rectangular bales, first eliminating of course the baling wire or twine, unloading slowly into the center of the tank to avoid any possible damage to the auger.



If the bales are being loaded from the top of the tank, there should be no one inside the cab or near the machine

To begin the loading of the MAXI mixer feeder with the cutter, proceed as follows:


- Set the weighing control unit inside the cab.
- Start the machine and let the diesel motor warm up for a few minutes.
- Bring the machine near the product to be loaded.
- Press buttons n° 7+13 (pg. 19) to start the mixing auger at low speed (10/15 RPM).
- Raise the cutter to the height required, adjusting the height with the joystick.
- Open the cutter rotor protective guard using buttons n° 3+13 (pg.19).
- Start the cutter rotation pressing buttons n° 2+13 (pg.19) (the button can be released after being pressed, but keep the “hold to run” button held down) on the joystick and regulate the lowering of the cutter with the angle of the joystick.
- Depending on the product, three cutting modes can be set, setting for each one the number of RPMs of the diesel engine.
- Press button n° 5 on the control panel and enter the page for setting the “load

mode” and press the “ENTER”  button.

- When you have entered the page (FIG.1) set the three RPM parameters using buttons 3 and 4 to increase or decrease the RPMs (FIG.1 -A-) and the up and down arrows to move to the next mode (FIG.1 -B-) of the diesel engine that you will then choose (depending on the product to be cut) by means of the joystick, where pressing once button n° 2+13 (pg.19) you will have the first calibration of the diesel, twice the second and three times the third.
- For example:
 - 1.- 900 RPM – meal, pellets, etc.
 - 2.-1800 RPM – hay, straw or fibrous products.
 - 3.-2400 RPM – silage products.

FIG.1



- When you have completed the setting, press the "SAVE"  key to save the settings.
- To decrease the speed of the cutter, for example if you are in mode three and you want to return to mode two, press button n° 1 while keeping the "hold to run" button (n° 13) pressed (pg.19).
- If the cutter rotor gets overloaded and jams, hold down button 5 for more than two seconds; in this manner, the cutter will turn in the opposite direction for cleaning, and when releasing the button it will return to the number of RPMs set before getting jammed, ready to continue the loading operation.
- Close the cutter rotor protective guard using button n° 4+13 (pg.19).

3.10 UNLOADING AND DISTRIBUTION

After the product is done being mixed, it can be distributed directly into the trough using the controls on the joystick.

- Draw near to the trough keeping the auger in motion.
- If a discharge extension is present, press button n°11 (pg.19) to lower it.
- Open the unloading door with button n°5+13 (pg.19) at a suitable height according to the product type.
- Start the unloading belt on the desired side with button n° 10+13 (pg.19) for the left side and button n° 9+13 (pg.19) for the right side.
- Increase the auger RPMs with button n° 7+13 (pg.19) so as to make the material flow from the tank.
- Start unloading, regulating the quantity of product desired in the trough.
- When the unloading belt shuts off, the auger also shuts off automatically, and vice versa.
- When unloading is finished, stop the auger, close the door with button n° 6+13 (pg.19) and stop the unloading belt with button n° 10+13 (pg.19) or button n° 9+13 (pg.19) for the right belt.



IT IS RECOMMENDED THAT PROCESSED PRODUCT NOT BE LEFT INSIDE THE TANK.

3.11 CUTTING AND MIXING TANK



BE EXTREMELY CAREFUL when approaching the edge of the mixing tank with the mixing augers in motion! DANGER OF DEATH!

The operator can see inside the cutting and mixing tank by climbing up to the platform on the right side, with the machine stopped and on level ground.

The cutting-mixing auger in the MAXI is driven by pressing twice button n° 7+13 (pg.19) at 5 RPM. To increase the number of revolutions, press button n° 7+13 (pg.19) (maximum 42 RPM). To decrease the RPMs, press button n° 8+13 (pg.19).

The auger RPMs are automatically restricted to 30g/min as soon as the system detects a preset load value. During loading, as soon as the load falls below the threshold, the auger will once more be able to reach 42g/min.

The auger knives are subject to wear, thus it is recommended that they be checked periodically: if they are damaged or worn, contact qualified personnel for replacement with original parts, or contact SITREX.

3.12 TOP-CUT COUNTER-KNIVES

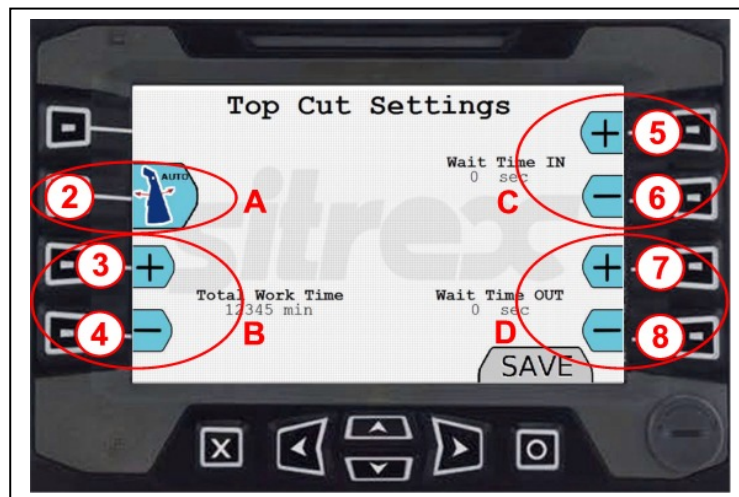
The TOP-CUT system consists of a hydraulically-operated steel counter blade attached at the perimeter of the mixing tank.

This system allows excellent cutting of fibrous products combined with the rotating action of the auger.

Activating the TOP-CUT knives is controlled with button n° 2 on the control panel (FIG.1) and they can be used in timed automatic or manual mode (A). In automatic mode, the maximum cycle can be regulated with buttons n° 3 and 4 (B) (from 1 min. to 60 min.), the IN time with buttons n° 5 and 6 (C) and the OUT time with buttons n° 7 and 8 (D). At the

end of the operation, press the “SAVE”  button to save the settings

FIG.1



The selecting of these times depends on the type of fiber to be mixed.



Never start the auger with product inside the tank and with the TOP-CUT knives inserted. There could be dangerous overloading of the auger motor.

3.13 TANK INSPECTION LADDER



There is a ladder with platform located on the front right part of the machine for checking the mixing inside the tank.



DO NOT STAND ON THE PLATFORM WHILE THE MACHINE IS IN OPERATION

3.14 OVERFLOW RING

The overflow ring is used for fodder loads, to avoid having the hay or straw pushed out of the tank by the rotation of the vertical auger, especially with a load of bales.



DANGER: Do not try to climb on the overflow ring because there is the danger of falling into the mixing tank where the auger and knives are found.

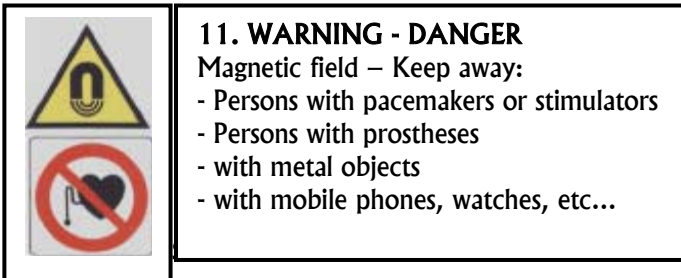
3.15 WATER SUPPLY PIPE

The pipe for supplying water (optional) is for those who need to wet dry products to avoid creating dust during mixing, or simply for the convenience of being able to connect a pump that draws water from a well, for example, to the lower edge of the tank, without having to climb a ladder with a loose water hose.

3.16 MAGNET FOR IRON & STEEL OBJECTS

The magnet for recovering iron and steel objects (optional) is useful for avoiding injury to animals, as bales of fodder may contain metal fragments such as pieces of knives, mower blades, rake teeth, bolts, etc...

Be careful, however, not to allow people with pacemakers or prostheses to get near the magnet, as it could be lethal.



The plate magnet is installed at the end of the unloading belt and according to the unloading

In this way the material passes above the magnet before dropping into the feeding trough.

3.17 HOPPER FOR LOADING MEAL PRODUCTS

The hopper for loading meal products (optional) is located on the left side of the machine looking forward, and is controlled by a hydraulic distributor. It is usually used for loading small quantities of supplements, minerals, etc..

- Open the upper hatch of the hopper.
- Engage the distributor to start the auger for moving the material inside the mixing tank.
- Pour inside the desired material, being careful not to overload the auger.
- Wait until the hopper is completely unloaded, and turn off the distributor.
- Close the hatch.

3.18 TOWING

The machine is equipped with permanent hydrostatic drive and a negative brake with hydraulic cylinder on the rear axle, and it can be towed only after putting the rear drive wheels in neutral.

3.18.1 Disengaging the parking brakes

- Place the wheel chocks supplied with the machine or connect to a suitable tractor with a rigid bar.
- Use an Allen wrench to work on the rear differential axle to disengage the parking brakes:
- Remove the set screws on both sides of the central axle housing (1).
- Tighten in sequence (A,B,C) the brake release screws (3) 1/2 turn at a time until the load torque decreases sharply (4-5 turns) (FIG.1).
- When the parking brake is disengaged, loosen by three turns the two valves of the drive pump (the second starting from the diesel engine) (A) to allow the bypass and make it possible for the machine to be moved without the pump and the drive motor rotating (FIG. 2).

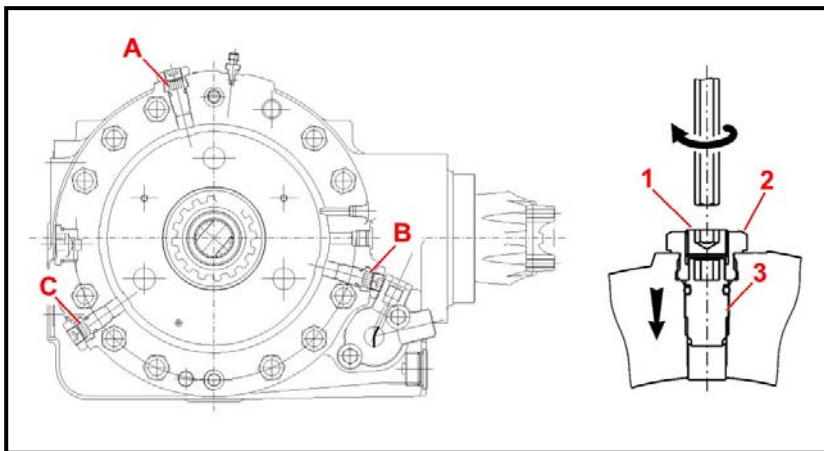
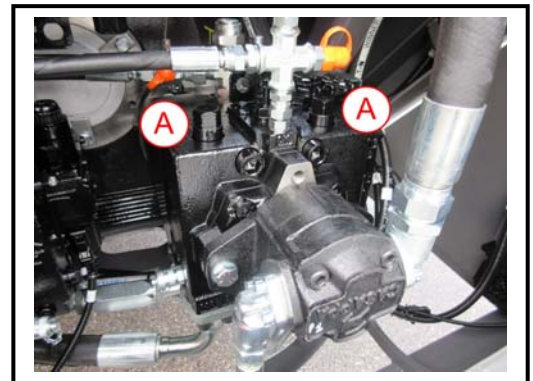


FIG.2

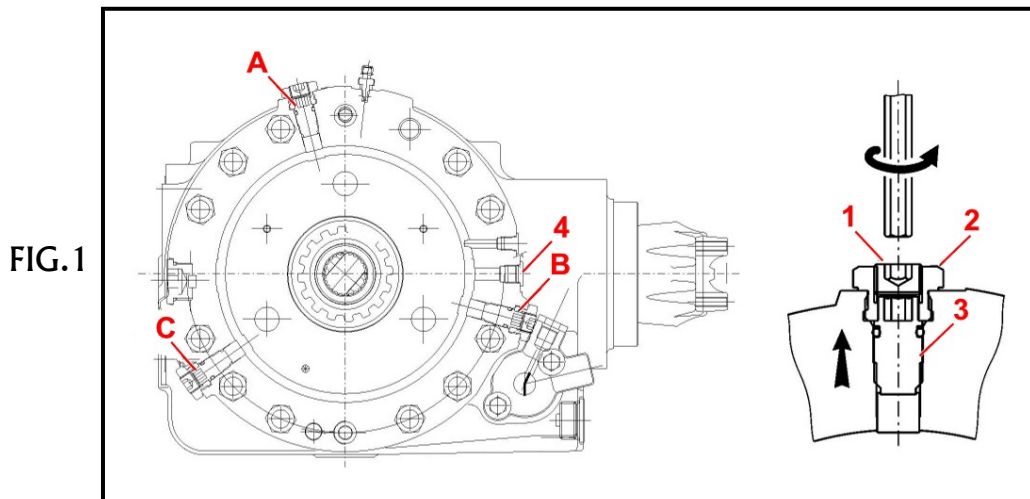
FIG.1



DANGER! In this stage it is absolutely necessary to avoid excessive speed (max. 3-4 km/h) and excessive loads on the vehicle. The drive engine can be damaged.

3.18.2 Engaging the parking brakes

- Apply a pressure of 13 bar to the supply port of the parking brake (4) (FIG.1).
- Remove the set screws (1) and unscrew up to the stop all the brake release screws (3) from both sides.
- Be careful not to move the special screws (2).
- Remove the pressure on the brake port (4).
- Assemble the set screws (1) to the screws (2).
- While holding the screws (2) tighten the set screws (1) on both sides.
- Screw the two drive pump valves (A) (FIG.2 pg.34) back to their original position
- At this point the parking brakes are engaged again and the wheels are locked. Clear the area around the machine of all personnel and check the efficiency of the parking brake before removing the wheel chocks.



Remember that the machine must be towed only for the time strictly necessary as an emergency stopgap.

4. MAINTENANCE

4.1 GENERAL MAINTENANCE PRINCIPLES

Proper maintenance keeps the machine always in efficient working order, significantly reducing breakdowns resulting in repairs and machine downtime.

Always use original SITREX spare parts, and for extraordinary maintenance and repairs contact authorized SITREX shops directly.

Carefully follow the maintenance schedule given in this manual. Take into account that the intervals given on pg. 44 refer to normal use of the machine, and if used in heavier working conditions the time intervals should be reduced.



Remember that all maintenance operations must be carried out with the engine off and with machine on level ground. Remove the key from the ignition, lock the cab and keep possession of the keys. Remove the protective guards only after the machine has been turned off! Wear appropriate clothing and protective equipment (overalls, suitable gloves and goggles).

The oils and liquids used for lubrication and operation of the machine may be harmful to the body through inhalation, ingestion or contact. Wash hands thoroughly before touching your eyes or mouth!

IN CASE OF PROBLEMS CONSULT A DOCTOR!

The oils used are harmful to the environment. Therefore, during replacement operations, they must be collected in suitable containers and disposed of, along with their filters, at authorized centers (DPR 691/82 et seq.).

In case of spillage on to the ground, absorb the oil with sawdust and dispose of it all together with the oils.

4.2 PERIODIC CHECKS AND MAINTENANCE

MAINTENANCE INTERVAL PART	EVERY DAY	50 HOURS	250 HOURS	500 HOURS or 1 YEAR	1000 HOURS	1500 HOURS or 1 YEAR	2 YEARS	FIRST 100 HOURS
Engine oil *				S				S
Engine oil filter *				S				S
Air filter cartridge		P	S					
Air filter safety cartridge			C	S				
Diesel fuel filter *		C	P	S				S
Diesel fuel tank cleaning					P			
Clean unloading chain and loading belt	P							
Cutter rubber belt tension		C	T					
Unloading chain tension		C	T					
Tire pressure and wheel nut tightness		C						
Tighten pins, joints		C						
Battery electrolyte		C						
Lubrication at points indicated on pg.29		I						
Hydraulic oil *		C			S	S		

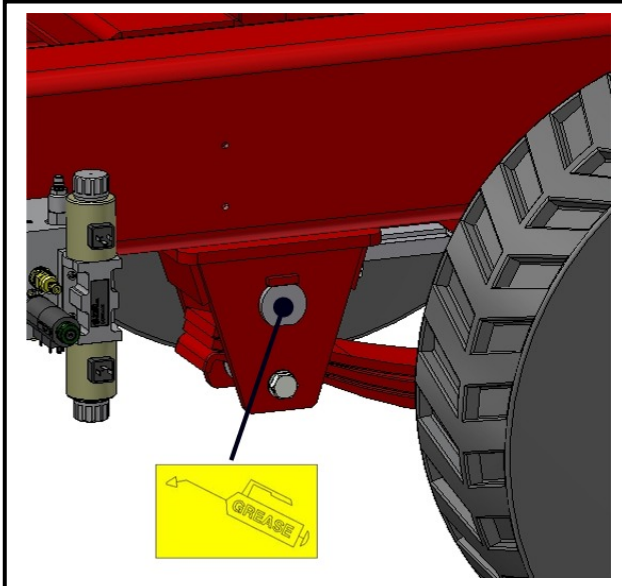
N°3 filters inside fuel tank *					S	S		
HYDAC hydraulic oil filter *				S	S			S
Clean water radiators for diesel motor and hydraulic oil	P							
Coolant *		C					S	
Cab air filter		P	S					
Visual check & tightness of hydraulic lines and various nuts and bolts			C					C
Check presence of and emptying of water in diesel fuel pre-filter		C						
Clean alternator (with compressed air)	P							
Clean machine (with water under pressure)		P						
Replace auger knives				S				
Replace cutter knives				S				
Replace differential axle fluid *					S			S
Replace pump/diesel engine coupler oil*					S			S
Replace cutter reduction gear oil					S			

C: Check
P: Clean
R: Replace
L: Lubricate



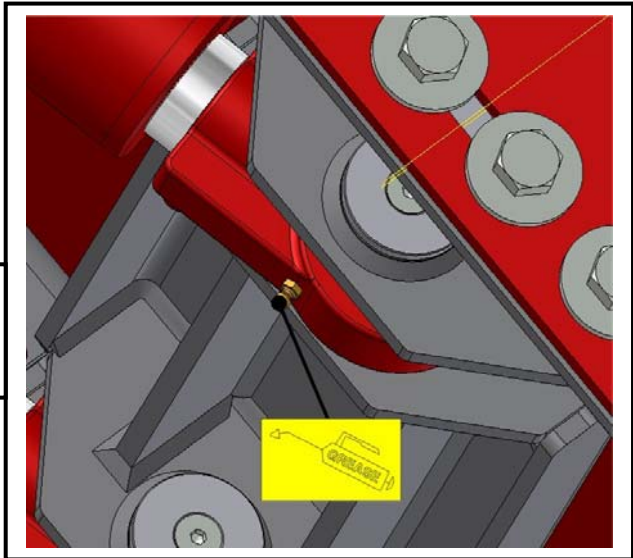
**USED OILS AND THEIR FILTERS MUST BE COLLECTED AND DISPOSED OF
IN COMPLIANCE WITH THE LAW (DPR 691/82 et seq.).**

4.2.1 Lubrication points

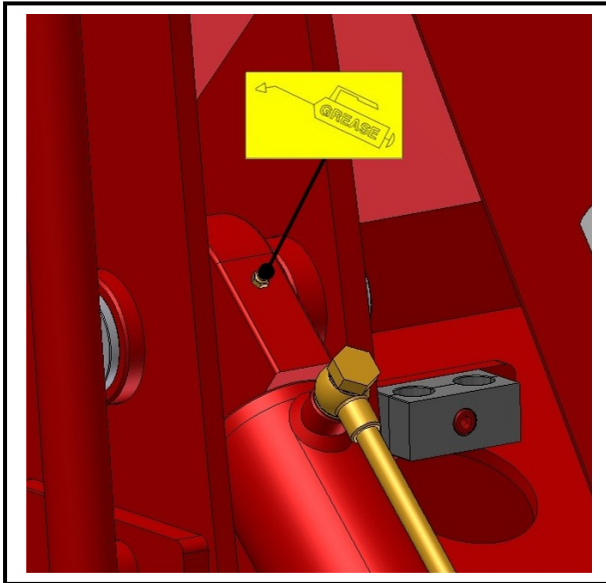


- Slide and leaf spring fulcrum pins

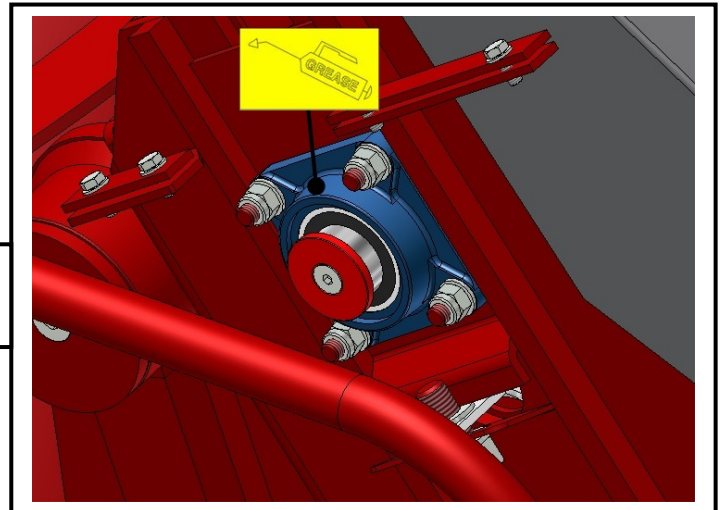
- Lifting cylinder joints on cutter arm.



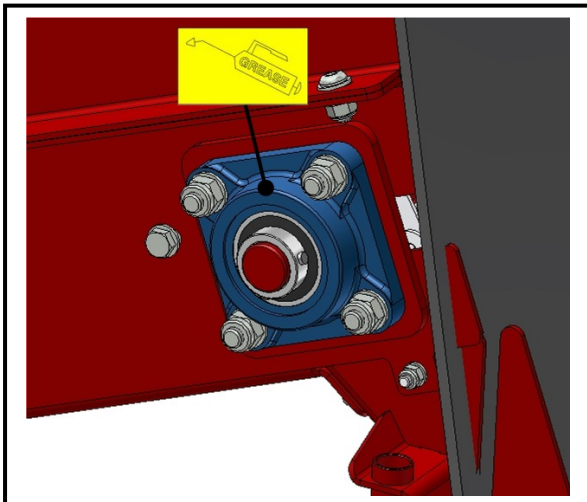
- Belt roller, cutter rotor and conveyor bearings.



- Lifting cylinder joints on cutter support column.



- Cutter upper roller bearings.



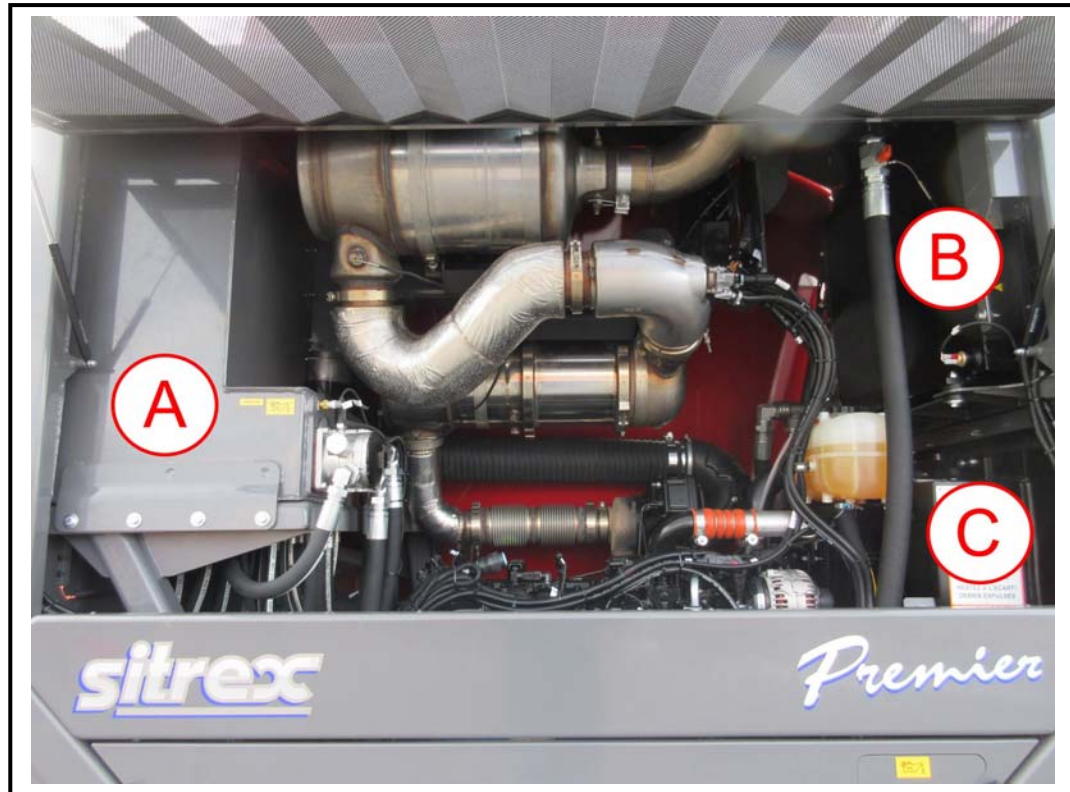
- Unloading belt bearings

ALONG WITH THE POINTS INDICATED IN THE FIGURE, GREASE THE FOLLOWING LUBRICATION POINTS IN THE FOLLOWING COMPONENTS:
FRONT AXLE

ATTENTION: USE GREASE RECOMMENDED BY SITREX S.p.A

4.3 DIESEL ENGINE COMPARTMENT

4.3.1 Identification of components



A – Hydraulic oil tank
B – Hydraulic oil radiator
C – Water radiator/intercooler

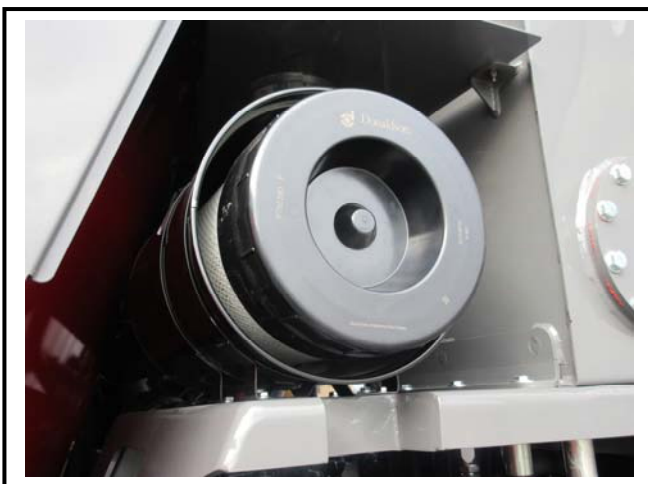
4.3.2 Cleaning and replacement of the air filter



The engine air filter is located back left in the engine compartment. Open the small door in order to clean.



Open the front cover of the filter body.



Remove the main cartridge, shake it gently and clean with compressed air (max. 2 bar).

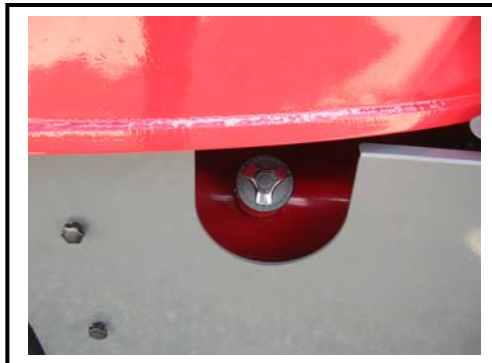


Remove the safety cartridge, replace if necessary. Carefully clean the walls of the filter, put cleaned or new cartridges back in place and reattach cover in the correct position.

4.3.3 Cleaning and refilling of diesel fuel tank

The diesel fuel tank is located on the right side of the machine and has a cap with a key lock. The tank capacity is 200 liters.

To clean inside or empty the tank, there is a drain trap underneath.



4.3.4 Cleaning and refilling of AdBlue tank

The AdBlue tank is located on the rear left side of the machine. The tank capacity is 21l. The gauge can be seen on the display dedicated to the diesel engine (FIG.1 p.30).

To clean inside or empty the tank, there is a drain trap underneath.



4.3.5 Diesel fuel filter

See the diesel engine manual.

It is located at the rear of the machine inside the engine compartment.



4.3.6 Diesel engine oil level dipstick

Open the door of the rear hood (FIG.1).

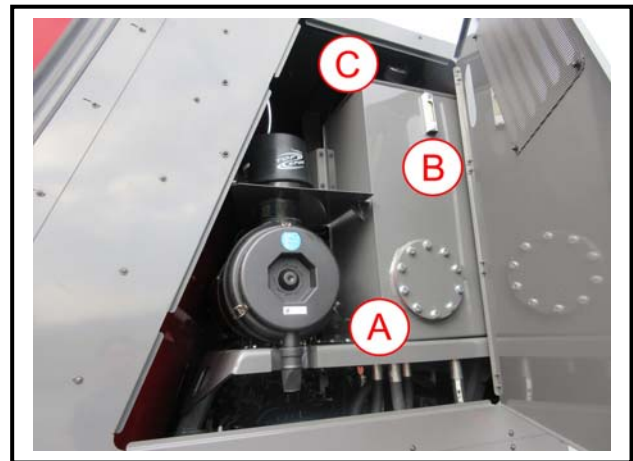
It is located at the lower right.



FIG.1

4.3.7 Replacement of hydraulic oil and tank filters

- Turn off the engine, open the rear left door and remove the filler cap ("C").
- Place a container with a capacity of at least 180 liters underneath the drain plug ("E").
- Unscrew the plug and let all the contents drain out ("E").
- Remove the inspection flange (A"), unscrew the three immersed filters inside the tank. If you note impurities inside the tank, clean the bottom and walls with some diesel fuel. **DO NOT USE SOLVENTS!**
- Clean the plug ("E") and screw back in place.
- Put the three filters back in place, screwing them in by hand, replace the flange o-ring seal, fastening the screws firmly.
- Unscrew the filter cap ("D") and remove the cartridge. Clean hands thoroughly and cut the two ends of the bag of the new cartridge.
- Insert the cartridge inside the filter body at the same time removing the bag.
- Replace the filter cover.

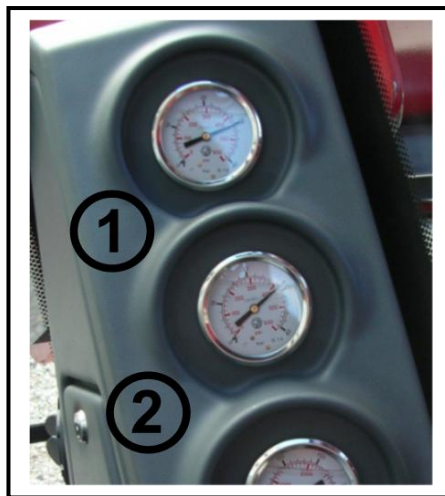


BEFORE REFILLING THE TANK
MAKE SURE THAT ALL
OPENINGS ARE SECURELY
FASTENED IN THE
APPROPRIATE MANNER.
BEFORE YOU BEGIN
REPLACING, ALLOW THE
MACHINE TO COOL TO
AVOID SCALDS AND BURNS.

- Refill (approx. 170l) until the optical level gauge and thermometer (“B”) is completely full.
- Replace the cap (“C”).

After any maintenance work is done on the hydraulic system, before starting the engine normally the pressure of pressure gauges 1 and 2 must be brought to 30 bar. To do this, start the diesel engine at idling speed and stop it after no more than five seconds with the emergency kill switch.

Repeat this operation at brief intervals until the pressure of the two pressure gauges stabilizes at approximately 28bar (1) and 24bar (2).



DO NOT INSIST ON ROTATING THE MOTOR. IF THIS OPERATION IS DONE INCORRECTLY, IT WILL CAUSE IRREPARABLE DAMAGE TO THE HYDRAULIC PUMPS!

4.3.8 Cleaning of the diesel engine water radiator and oil radiator



FIG.1

To clean the diesel engine water radiator, remove the protective grille (FIG. 1) and blow with compressed air or wash with a low pressure nozzle from the inside (FIG. 2) toward the outside.

To empty the latter, use the valve shown in Figure 2.



FIG.2

To clean the hydraulic oil radiator, use compressed air, blowing from the inside toward the outside. After cleaning open the conveyor and let any impurities drain out.



FIG.3



MAKE SURE TO CLOSE THE CONVEYOR TO ENGAGE THE SENSOR TO OPERATE THE FAN (FIG.3).

4.3.9 Topping up the diesel engine water radiator

To access the radiator expansion tank, open the door at the rear left of the machine above the radiator grille. Unscrew the cap and refill.



4.3.10 Checking the diesel engine timing belt

To check or do maintenance on the diesel engine timing belts, open the rear door of the engine hood.



DO THESE OPERATIONS WITH THE ENGINE OFF AND THE BATTERY DISCONNECT KEY IN THE DISCONNECT POSITION!

4.3.11 Battery

To access the battery, open the door at the rear right.

The electronic battery disconnect key is located in the cab behind the joystick.



DISCONNECT THE KEY EVERY TIME MAINTENANCE IS DONE ON THE VEHICLE

4.3.12 Windshield washer fluid reservoir

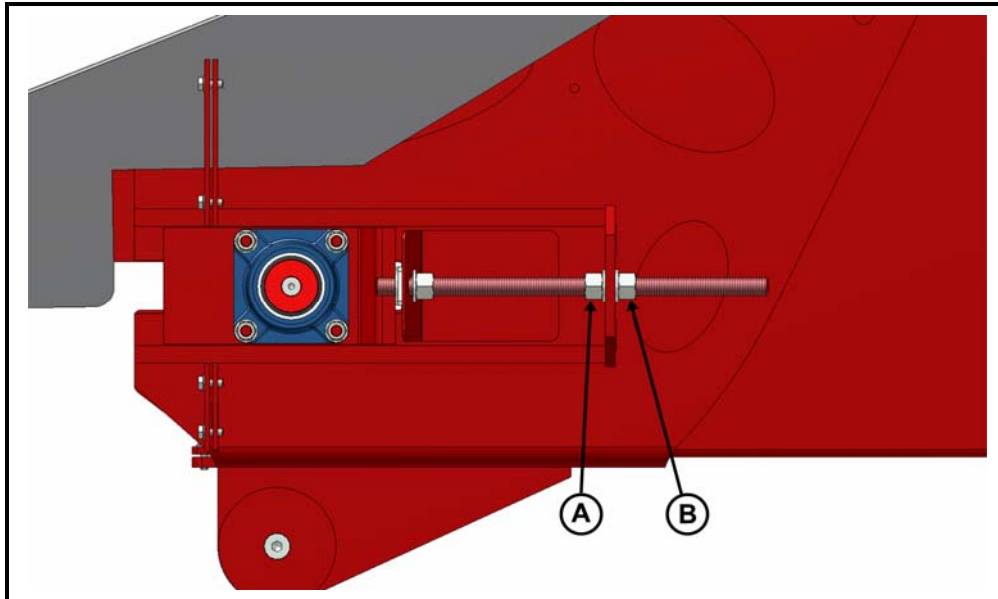
This is located at the rear of the cab.

Be careful in the winter to use an adequate antifreeze to prevent breakage of windshield wiper system.



4.3.13 Cutter loading belt check and tension adjustment

FIG.1

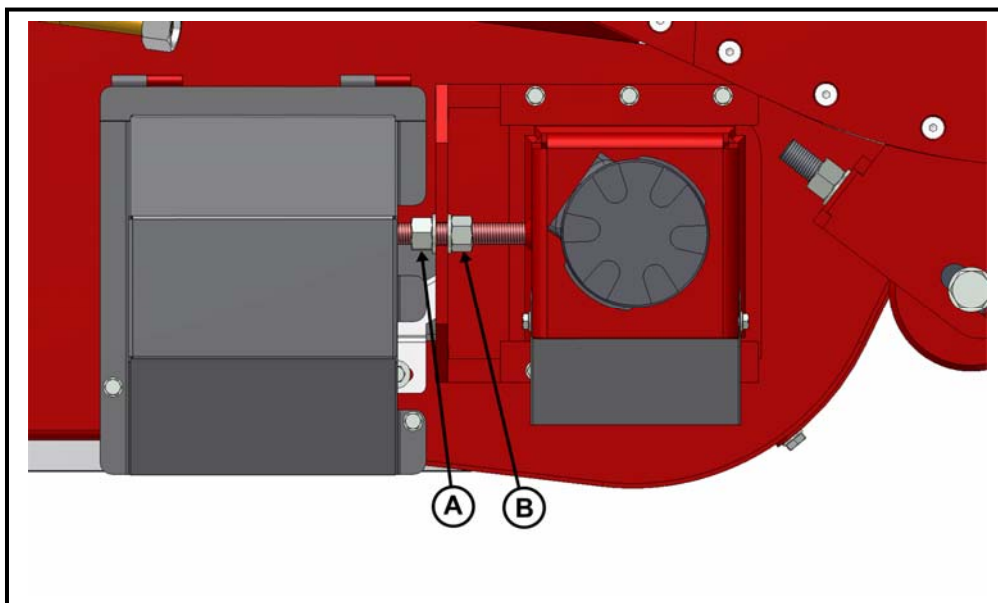


TENSION ADJUSTMENT -FIG.1-

The belt tensioners are located on the belt discharge shaft supports, near the cutter arm upper mounts.

- Lower the cutter arm and turn off the engine.
- Loosen the locknuts "A" on both tensioners.
- Tighten the nuts "B" of the two regulators WITH THE SAME NUMBER OF TURNS until the belt is tensioned.
- Tighten the locknuts "A".

FIG.2

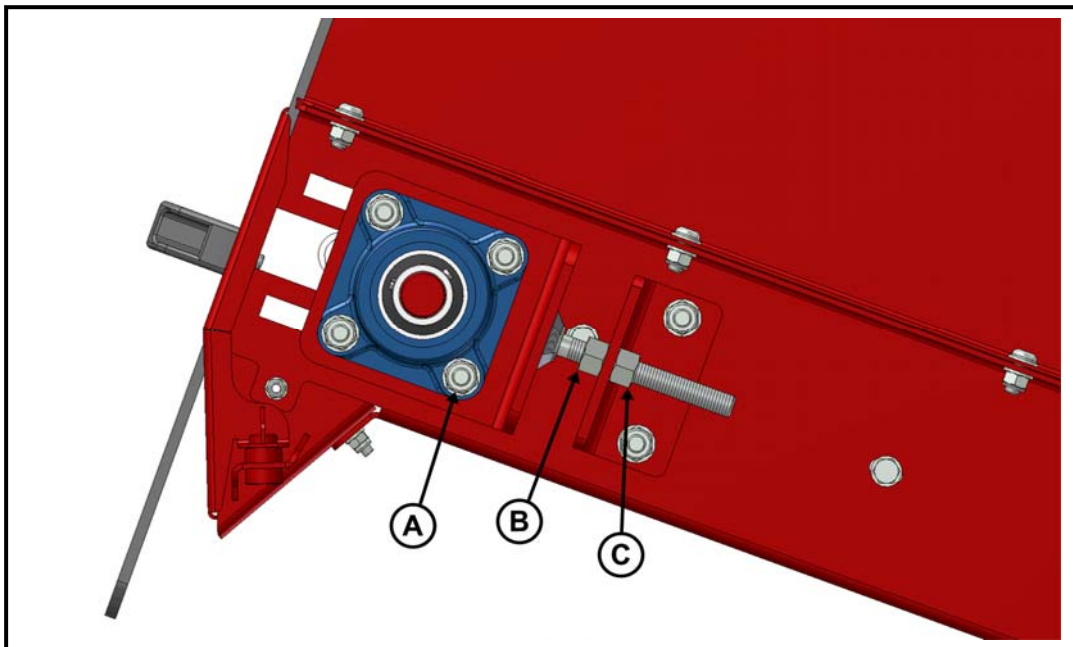


CENTERING ADJUSTMENT -FIG.2-

If you notice that the belt moves to one side, it can be re-centered by means of the regulator screw on the belt motor mount located next to the cutter on the right side.

- Lower the cutter arm and turn off the motor.
- Loosen locknut "B".
- If you notice that the belt shifts toward the left, tighten nut "A"; if it shifts toward the right, loosen it.
- Tighten locknut "B"

4.3.14 Unloading chain check and tension adjustment



When the unloading belt or chain are loose, in which case the chain makes excessive noise or the rubber belt slips, it is necessary to put them under the proper tension to avoid damaging them.

Adjust the nuts of the bearings and the tensioners:

- Loosen the nuts (A) of the two bearings just enough to allow the two regulators to slide slightly.
- Loosen the nuts (B) of the two regulators.
- Tighten the nuts (C) of the two regulators WITH THE SAME NUMBER OF TURNS until the chain or belt is tensioned.

BE CAREFUL to move the two regulators equally to avoid having the shaft work crookedly.

- Tighten the nuts (B) of the two regulators.
- Tighten the nuts (A) of the two bearings.



START THE MACHINE AND HAVE THE CHAIN TURN A FEW TIMES AT VERY LOW SPEED.

Turn off the machine and remove the key from the dashboard, and recheck the tension of the chain or belt, to make sure that they are not under too much tension; if so, readjust it so as not to cause damage.

4.3.15 Check and cleaning of anti-pollen filter, air conditioning and heating

The filter is located in the rear part of the cab. Unscrew the two plastic grille knobs, remove the filter and clean with compressed air, or replace if necessary.



If the machine has air-conditioning, there is a radiator for the air conditioner underneath the mixing tank inspection ladder.

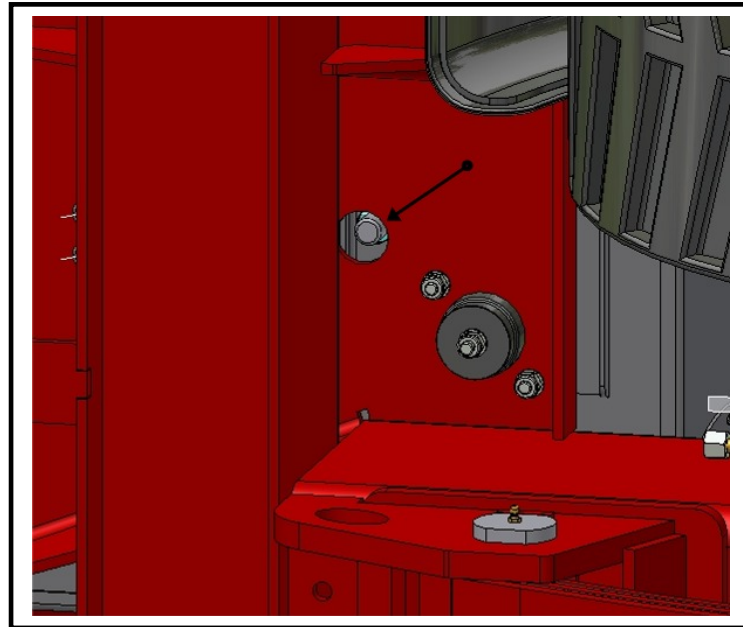
Open the protective grille and clean with compressed air.



Periodically check and blow out with compressed air the location of the air conditioning - heating unit under the driver's seat. Unscrew the knobs at the back of the seat and lift with the handle the cover where the seat is attached.



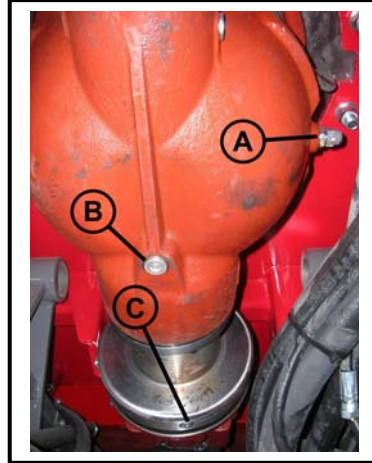
Check and clean the condensate breather (if there is air-conditioning) of the unit located underneath the cab.



4.3.16 Replacement auger gearbox oil



FIG.1



On the right side of the machine, positioned above the discharge conveyor, there are two tanks of screw gears. Periodically check the oil level when the machine is cold. If the level is below the indicator, top up with suitable oil up to but not higher than the optical level gauge.

Changing the gearbox oil:

- Place a receptacle with a capacity of at least 25-30 liters underneath the gearbox.
- Unscrew the drain plug located underneath the gearbox "B".
- Open the tank caps (FIG.1).
- Unscrew the tube inserted laterally in the gearbox "A" and open the tank caps (FIG.1).
- Let the oil drain out, clean and screw in the drain plug.
- Unscrew the hose "A" and connect on a pipe nipple with 3/8 "female coupling connected to a hand pump.
- Disconnect the junction of the pipe which comes from the upper part of the reducer to drain the air during the load.
- Slowly pump the oil until it starts to run out from the junction you had loosened previously.
- Remove the pump from the gearbox and screw the pipe to quickly do leak a high amount of oil and reconnect the hose connection that comes from the top of the gearbox.
- Add oil in tanks until it appears in the appropriate indicator lights.
- Close the caps of gearbox tanks. (FIG.1)



CHECK THE LEVEL RIGHT AWAY AFTER THE FIRST FEW HOURS OF WORK. IF IT IS LOW, TOP UP FROM THE TANK CAP (FIG.1) OF TANK. DO NOT OPEN THE PLUG "C" TO MAKE THE OIL CHANGE GEAR.

4.4 LUBRICANTS

BRAND TYPE	RECOMMENDED Api-IP
HYDRAULIC OIL	HYDRUS OIL HI 46
GREASE	APIGREASE CR- S 2
MOTOR OIL	JOHN-DEERE PLUS 50
RADIATOR FLUID	JOHN-DEERE COOL GARD
PREMIER MAXI REDUCTION GEARBOX OIL	SAE 90 EP (corresponds to ISO VG.320)
DIFFERENTIAL AXLE OIL	GEO PONTIAX TG
HYDRAULIC OIL	PAKELO HYDROSINT HV46
PREMIER MAXI REDUCTION GEARBOX OIL	IP TELESIA 220

OIL FOR LOW TEMPERATURES



Never add oils or lubricants with different characteristics other than those already in the machine. Completely change the oil if necessary.

4.5 TIRE REPLACEMENT

To replace a tire, proceed as follows:

- Take the machine to a level surface and switch off the engine.
- Use a suitable wrench to loosen all the wheel lug nuts one half turn.
- Insert a suitable jack (with a load bearing capacity of at least 4,000 kg) under the chassis near the tire to be replaced.
- Raise the machine until the tire is no longer touching the ground.
- Remove the lug nuts and the conical washers and check that the conical washers are undamaged. If not, replace them to avoid damage to the wheel studs on the hub. Put the nuts back on the studs without fully tightening them.
- Lower the machine.
- Tighten the nuts in an alternating pattern to 393 Nm torque (40Kgm).



The tire should be replaced when the machine is unloaded, if possible.

4.6 WELDING

Before doing any type of welding, use the special handle on the rear right-hand side of the machine to disconnect the battery in order to avoid serious damage to the electrical system and to all the electronic components (pg. 44).

4.7 REPLACEMENT OF CUTTER KNIVES

If you need to replace one knife, we recommend that you replace the entire set. Using non-original replacement parts can cause machine vibrations and problems. As this is a dangerous operation, replacement of the knives must be carried out only by specialized personnel.

4.8 REPLACEMENT OF AUGER KNIVES



As this is a dangerous operation, you are advised to contact your dealer to ask for qualified personnel to carry out the operation.

A WARNING: WEAR CUT-RESISTANT OVERALLS AND GLOVES
DANGER: extremely sharp knives, which also need special protective covering on the blades to avoid causing serious injury.

4.9 CLOGGING AND JAMMING

Should the auger or unloading belt become clogged or jammed due to the particular characteristics of the materials, or should there be any problems of faults in the power train components, for safety reasons the machine must be removed from its work position, the engine switched off and the ignition key removed from the dashboard before doing any repair work.

IMPORTANT: do not attempt to operate the machine under very difficult conditions as this could cause serious damage to the machine itself.



To unblock the auger, wear personal protection gloves, shoes and full overalls in sturdy, cut-resistant fabric, and use sharp tools such as knives, a hatchet etc. to cut the material that has become twisted, clogged or jammed.

4.10 EXTRAORDINARY MAINTENANCE AND SPARE PARTS

Extraordinary maintenance refers to the replacement of major parts, such as the auger, reduction gear, gearbox, etc. or repairs such as structural welding in general.

To replace the parts of the mixer feeder, the customer must use only original spare parts ordered from their own authorized dealer.

When making the order, always specify the information given on the machine nameplate, in particular:

- MODEL
- SERIAL NUMBER
- YEAR OF MANUFACTURE

After having read the spare parts booklet, indicate the:

- PLATE NUMBER
- ITEM NUMBER OR CODE
- QUANTITY

4.11 WARRANTY

The use of parts not approved by the manufacturer will invalidate the warranty, and may also put at risk the safety of the user and shorten the machine life. Therefore the manufacturer will not accept any liability for damage to people or objects resulting from the use of unauthorized spare parts.

5. TROUBLESHOOTING

This section describes the most likely problems that may be solved without the need for specialized personnel.

If you have any doubts or uncertainties, contact SITREX customer service.

5.1 IF A WARNING LIGHT SWITCHES ON

A warning light turning on may indicate:

- FAULTY OPERATION (RED LIGHT)
- A CONTROL OR, DEVICE HAS BEEN SWITCHED ON OR THERE IS A WARNING

The following table describes various hazard situations. If a warning light switches on, turn off the engine, look to find the fault and eliminate it if possible.

If necessary, contact the customer service.

WARNING LIGHT	SUGGESTIONS	SEE PAGE
AIR FILTER	TURN OFF ENGINE, check filter cartridges.	
ENGINE OIL	TURN OFF ENGINE, check oil level.	
WATER TEMPERATURE	TURN OFF ENGINE, allow to cool down, check water level	
BATTERY CHARGE	TURN OFF ENGINE, check alternator and battery.	
HYDRAULIC OIL LEVEL	TURN OFF ENGINE, check oil level in the reservoir, look to find any leakage and top up oil.	

5.2 RESET ALARM SENSORS

Tra With the control panel it is possible to reset any errors in the sensors and solenoid valves with the following sequence:



- Press button n° 5 “setting”
- Enter password 12345677 to be able to access the buttons indicated in FIG.1 and



press "ENTER" (it is also possible to enter without the password but only for consultation, without being able to reset the errors).

- Move with the “up and down” arrows and select “ERROR RESET” (FIG.2).
- Reset any alarms with button n° 2 if the error is in the sensors, or button n° 3 if the error is in the solenoid valves (FIG.3).



FIG.1



FIG.2

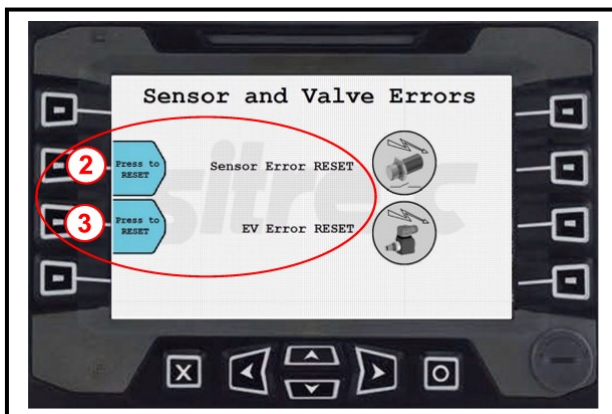


FIG.2



Before resetting any errors find out what is causing the system alarm.

5.3 DIESEL ENGINE

PROBLEM	PROBABLE CAUSE	SOLUTION
STARTER DOES NOT WORK	<p>Low battery</p> <p>Faulty electric connections</p> <p>Defective battery switch</p> <p>Starter brushes worn</p>	<p>Charge or replace battery.</p> <p>Check connections and switch.</p> <p>Replace – if the problem persists, look for the fault (*).</p> <p>Replace brushes: if the problem persists, contact the workshop (*).</p>
DIESEL ENGINE DOES NOT START	<p>No fuel</p> <p>Engine stop solenoid valve not working</p> <p>Air in supply line</p> <p>Defective injectors</p>	<p>Check diesel fuel level.</p> <p>Check fuse of diesel fuel solenoid valve</p> <p>Bleed the supply line</p> <p>Consult engine manual</p>
BATTERY CHARGE WARNING LIGHT TURNS ON	<p>Alternator belt loose</p> <p>Alternator brushes worn</p>	<p>Check alternator belt tension and connections.</p> <p>Replace brushes - if the problem persists, have the alternator checked (*)</p>
LOW OIL PRESSURE WARNING LIGHT TURNS ON	<p>Oil level too low</p> <p>Pressure switch failure</p> <p>Fault in the electrical circuit</p> <p>Oil pump failure or fault in the engine</p>	<p>Check oil level and top up</p> <p>Check pressure switch (*)</p> <p>Check the circuit</p> <p>Contact a specialized workshop</p>
WATER TEMPERATURE WARNING LIGHT TURNS ON	<p>Water level too low</p> <p>Radiator clogged</p> <p>Defective thermostat</p> <p>Pump failure</p>	<p>Check water level and refill</p> <p>Clean radiator</p> <p>Check the thermostat (*)</p> <p>Contact a specialized workshop (*)</p>



We recommend you always consult the engine manual provided.

5.4 HYDRAULIC SYSTEM

PROBLEM	PROBABLE CAUSE	SOLUTION
EXCESSIVELY NOISY PUMPS AND MOTORS	Air in circuit. Components worn.	Check oil level, check tightness of suction fittings. Repair or replace.
IRREGULAR STEERING	Air in circuit. Pressure relief valve out of calibration.	Bleed Recalibrate to correct value (*). Check pump (*).
OIL TEMPERATURE TOO HIGH	Oil level too low. Radiator clogged. Radiator fan not working. Pressure relief valve out of calibration. Wrong oil viscosity or degraded oil.	Top up oil level. Clean. Check electric motor and thermostat. Recalibrate to correct value (*). Replace oil with correct type or replace oil.
FOAM IN TANK	Oil level too low. Air in circuit.	Top up oil level. Find and eliminate the infiltration.
IMPURITIES IN OIL	Filters defective or dirty.	Replace filters, and if necessary replace oil, too, after having cleaned the tank.
LOW OIL PRESSURE – MOVEMENTS TOO SLOW	Pressure relief valve out of calibration. Pressure relief valve stuck. Pressure relief valve failure. Pump failure.	Recalibrate to correct value (*). Release and recalibrate to correct value (*). Repair or replace (*). Repair or replace (*).
EXCESSIVE OIL PRESSURE – MOVEMENTS TOO FAST	Pressure relief valve out of calibration. Pressure relief valve failure.	Recalibrate to correct value (*). Repair or replace (*).
INSUFFICIENT OIL FLOW	Irregular pump suction. Pump failure.	Check suction. Repair or replace (*).
NO OIL FLOW	Faulty pump-to-engine connection. Pump failure.	Repair (*). Repair or replace (*).

5.5 HYDRAULIC CYLINDERS

PROBLEM	PROBABLE CAUSE	SOLUTION
EXTERNAL OIL LEAKAGE	Gaskets damaged.	Replace gaskets (*).
NOT ENOUGH POWER	Insufficient oil pressure. Internal oil leakage.	See section 4.3. Replace gaskets (*).

5.6 CONVEYOR BELTS

PROBLEM	PROBABLE CAUSE	SOLUTION
LATERALLY OFF-CENTER	Center the belt.	See section 4.3.9
TOO NOISY	Reset correct belt tension.	See section 4.3.10

5.7 ELECTRICAL SYSTEM

PROBLEM	PROBABLE CAUSE	SOLUTION
LAMP DOES NOT WORK	Lamp broken. Fuse blown.	Replace. Replace – If the problem persists, look for the fault (*).
CIRCUIT DOES NOT WORK	Fuse blown. Electrical failure.	Replace – If the problem persists, look for the fault (*). Repair (*).

5.8 FUSES



To avoid serious damage to the electrical system, replace fuses using new fuses with the same specifications.

There is a box located at the back of the driver's cab that contains the fuses for the various machine components (FIG.1).

FUSE BOX: X313 (FIG.1)

FUSE BOX: X314 (FIG.1)

MINI RELAY: X310 (FIG.1)

MICRO RELAY: X311 (FIG.1)

MINI RELAY: X312 (FIG.1)

ENGINE COMPARTMENT FUSES: LOCATED INSIDE THE ENGINE COMPARTMENT AS YOU OPEN THE COVER ON THE LEFT (FIG.2)



FIG.1



FIG.2

FUSE BOX X313 & X314

F12		F13						F15		F16	

FUSE BOX		X313	
F1	WEIGHT	10	A
F2	4 TURN SIGNALS	10	A
F3	STARTER PANEL	10	A
F4	REAR WORK LIGHT	5	A
F5	FRONT WORK LIGHT	15	A
F6	FRONT WORK LIGHT	15	A
F7	HEATED MIRRORS	10	A
F8	SIDE LIGHTS	10	A
F9	LOW BEAM HEADLIGHTS	10	A
F10	KILL SWITCH POWER	15	A
F11	REAR FOG LIGHT	7.5	A
F12	OPTIONAL	10	A
F13	BACKUP BEEPER	7.5	A
F14	HIGH BEAMS	10	A
F15	J.D. DIAGNOST. TOOL	3	A
F16	+ 30 STARTING	30	A

FUSE BOX		X314	
F1	SEAT MICROSWITCH	15	A
F2	FUEL LEVEL	3	A
F3	SENSORS	5	A
F4	JOYSTICK	5	A
F5	DISPLAY	10	A
F6	CONTROL UNIT C2	25	A
F7	CONTROL UNIT C1	25	A
F8	DANFOSS DIAGN. OUTL.	1	A
F9	WEIGHT	10	A
F10	TLB	10	A
F11	BRAKE LIGHTS	5	A
F12	PNEUM. SEAT	5	A
F13	ROTATING BEACON	15	A
F14	WARNING HORN	7.5	A
F15	REAR R+L PARK. LIGHTS	3	A
F16	FRONT R+L PARK. LIGHT	20	A

MINI RELAY X310

	R1	R2	R3	R4
RELAY			X310	
R1	ROTATING BEACON			
R2	RH WORK LIGHT			
R3				
R4	REAR RH WORK HOLE			

MICRO RELAY X311

R1	R2	R3	R4	R5	R6	R7
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RELAY		X311
R1	REVERSE	
R2	BRAKE LIGHT	
R3	BACKUP BEEPER	
R4	INTERMITTENCE	
R5	LOW BEAM HEADLIGHTS L R	
R6	HIGH BEAM HEADLIGHTS L R	
R7	HORN	

MINI RELAY: X312

R1	R2	R3	R4
----	----	----	----

RELAY		X312
R1	REAR RH WORK LIGHT	
R2	TURN ON FANS FROM D+	
R3	START GEAR ENGAGED	
R4	START KILL SWITCH	

ENGINE COMPARTMENT FUSES

HOOD FUSES & RELAY	
X156	FAN 1 OIL RADIATOR RELAY
X157	OPT POWER RELAY
X158	FAN 2 OIL RADIATOR RELAY
X159	FAN 1 OIL RADIATOR FUSE
X161	OPT POWER FUSE
X162	FAN 2 OIL RADIATOR FUSE

X 303 CAB MAXI FUSE 30A

X559 + 15 ACCESSORIES LITTLE FUSE 15A

Driver's cab – ceiling - (FIG.1):



FIG.1

- Rearview mirror defrosting (7.5 Amp fuse)
- Three-speed solenoid for ventilation (20 Amp fuse)
- Courtesy light and car radio (15 Amp fuse)
- Front and rear work lights (15 Amp fuse)
- Front and side wipers (15 Amp fuse)