

CLAAS



CELTIS 426
CELTIS 436
CELTIS 446
CELTIS 456

Service Manual
Use and Maintenance manual
Service Booklet
Repair Time Schedule

SERVICE & PARTS

CONTENT

Use and Maintenance

Service Manual (Reparation)

Service Manual (Diagnostics)

Service Booklet

Repair Time Schedule

CLAAS



CELTIS 426
CELTIS 436
CELTIS 446
CELTIS 456

Use and Maintenance

Thank you for choosing a CLAAS tractor.

In this guide you will find the instructions for use and maintenance that you must know to get the best service from your tractor.

This document is not to be considered as contractual. CLAAS has a policy of continuous technical improvement to all their products, and therefore reserve the right to change without notice and at any time the details contained in this booklet.

If you are still unsure about any points, the technicians of the CLAAS network will be pleased to give you any additional information you may require.

The description of the different models contained in this manual was established from technical characteristics known at the time of writing the document. The manual contains all existing equipment (standard or optional) for these models, and their presence in the tractor depends on the version and options chosen and on the country of sale.

Important: See chapter "M". Servicing operations during the guarantee period are mandatory; failure to carry them out will nullify the contractual guarantee.

Failure to observe the instructions for use and maintenance as described in this manual definitively excludes any possibility of recourse to the CLAAS guarantee system.

For your safety

Before using the tractor for the first time, read the user's manual and observe the general safety instructions!



WARNING TRIANGLE

In this user's manual, this sign indicates all the paragraphs concerning safety aspects. Pass on these safety instructions to all other users.

The instruction and warning plates affixed to the tractor give important information about possible risks of use. Respect for these instructions is a guarantee of your safety!

Appropriate use

This tractor has been designed to be used exclusively for normal agricultural work (appropriate use).

Any use other than that defined above will be considered as inappropriate and will release the manufacturer from any liability in the event of damage or injury; the user alone will bear the risks resulting from such misuse.

Appropriate use also supposes the observance of the operating, maintenance and repair regulations laid down by the manufacturer.

The tractor must be used, maintained and repaired only by persons with a thorough knowledge of the vehicle and aware of the possible risks.

Specific accident prevention instructions must be observed as well as general rules concerning technical safety, health and safety regulations and the highway code.

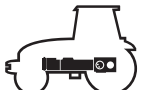
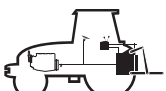
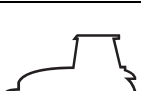
The manufacturer declines all responsibility for any damage resulting from any modification made to the tractor without their approval.





Model		Type	
		30 km/h	40 km/h
CELTIS 426 Roll bar	4 wheel drive	M 3612 AB	M 3612 AA
	2 wheel drive	M 3611 AB	-
CELTIS 426 Cab	4 wheel drive	M 3612 DB	M 3612 DA
	2 wheel drive	M 3611 DB	-
CELTIS 436 Roll bar	4 wheel drive	M 3622 AB	M 3622 AA
	2 wheel drive	M 3621 AB	-
CELTIS 436 Cab	4 wheel drive	M 3622 DB	M 3622 DA
	2 wheel drive	M 3621 DB	-
CELTIS 446 Roll bar	4 wheel drive	M 3632 AB	M 3632 AA
	2 wheel drive	M 3631 AB	-
CELTIS 446 Cab	4 wheel drive	M 3632 DB	M 3632 DA
	2 wheel drive	M 3631 DB	-
CELTIS 456 Roll bar	4 wheel drive	M 3642 AB	M 3642 AA
	2 wheel drive	-	-
CELTIS 456 Cab	4 wheel drive	M 3642 DB	M 3642 DA
	2 wheel drive	-	-

CHAPTER SYMBOLS

REF	CHAPTERS	SYMBOLS
A	IDENTIFICATION - APPROVAL	HOMOLOGATION ACCORDÉE AU TYPE/VERSION [R] ANNÉE [] PAR LE MINISTÈRE DE L'AGRICULTURE SOUS LE NUMÉRO []
	SAFETY	
B	CAB	
C	ELECTRICAL SYSTEM	
D	ENGINE	
E	TRANSMISSION	
F	FRONT AXLE	
G	HYDRAULICS - REAR LINKAGE AND HITCH	
H	FRONT POWER TAKE-OFF - FRONT LIFT AND FRONT TOW LINKAGE	
I	ON BOARD COMPUTER	
J	WHEELS AND TYRES	
K	DIMENSIONS, WEIGHTS, CAPACITIES AND BALLAST	
L	MAINTENANCE	
M	OPERATIONS THAT ARE MANDATORY UNDER THE GUARANTEE	

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A - IDENTIFICATION - CERTIFICATION - SAFETY





CLAAS

TRACTOR IDENTIFICATION

- A - Tractor type.
 B - Tractor identification number.
 C - CEE number.
 D - Maximum allowable gross weight depending on tyre fit (in kg).
 E - Front axle weight.
 F - Rear axle weight.
 G - Maximum unbraked trailer weight (in kg).
 H - Maximum trailer weight - mechanical brake (in kg).
 I - Maximum trailer weight - inertia brake (in kg).
 J - Maximum trailer weight - servo brake (in kg).
 K - EMC (electromagnetic compatibility) acceptance.
 L - EMC (electromagnetic compatibility) acceptance N°.
 M - Smoke absorption coefficient.
 N - CEE structure acceptance.
 O - CEE structure acceptance N°.
 In any correspondence, always state:

Tractor identification number

This number is stamped on plate (A) which is riveted behind the cab. It is also stamped on the right side of the front chassis.

CEE structure acceptance N°

This number is stamped on plate (B) riveted to the right of plate (A).

Engine type and serial number (plate (C))

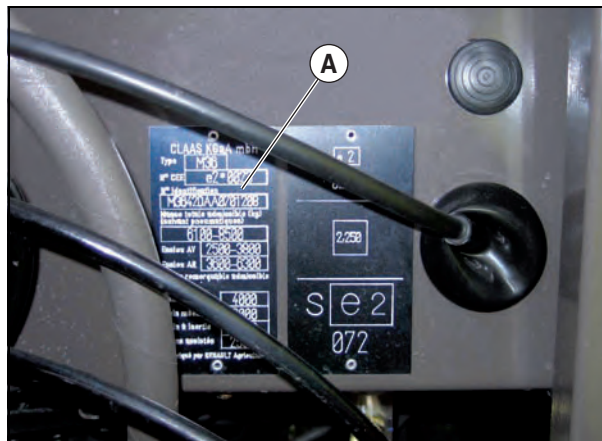
Identification N° and serial n° of the safety structure (plate B):

- Fig. 1: CELTIS cab version.
- Fig. 2: CELTIS roll bar version.

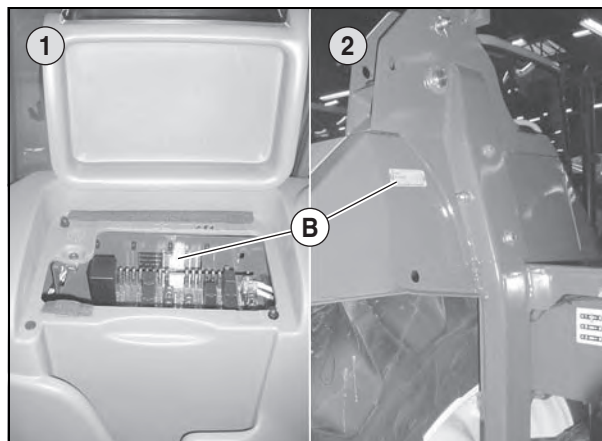
CLAAS KGaA mbH	
Type	A
N° CEE	C
N° identification	B
Masse totale admissible (kg) (suivant pneumatiques)	D
Essieu AV	E
Essieu AR	F
Masse remorquable admissible (kg)	
sans frein	G
frein mécanique	H
frein à inertie	I
freins assistés	J
Fabriqué par RENAULT Agriculture	

e2	K
023003	L
1,28	M
S e2	N
072	O

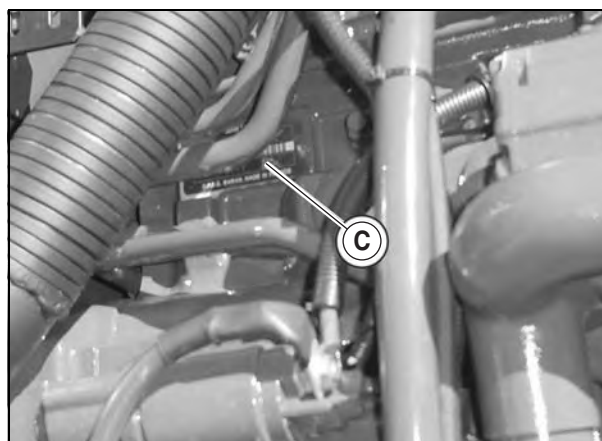
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841bsn02



841bsn03



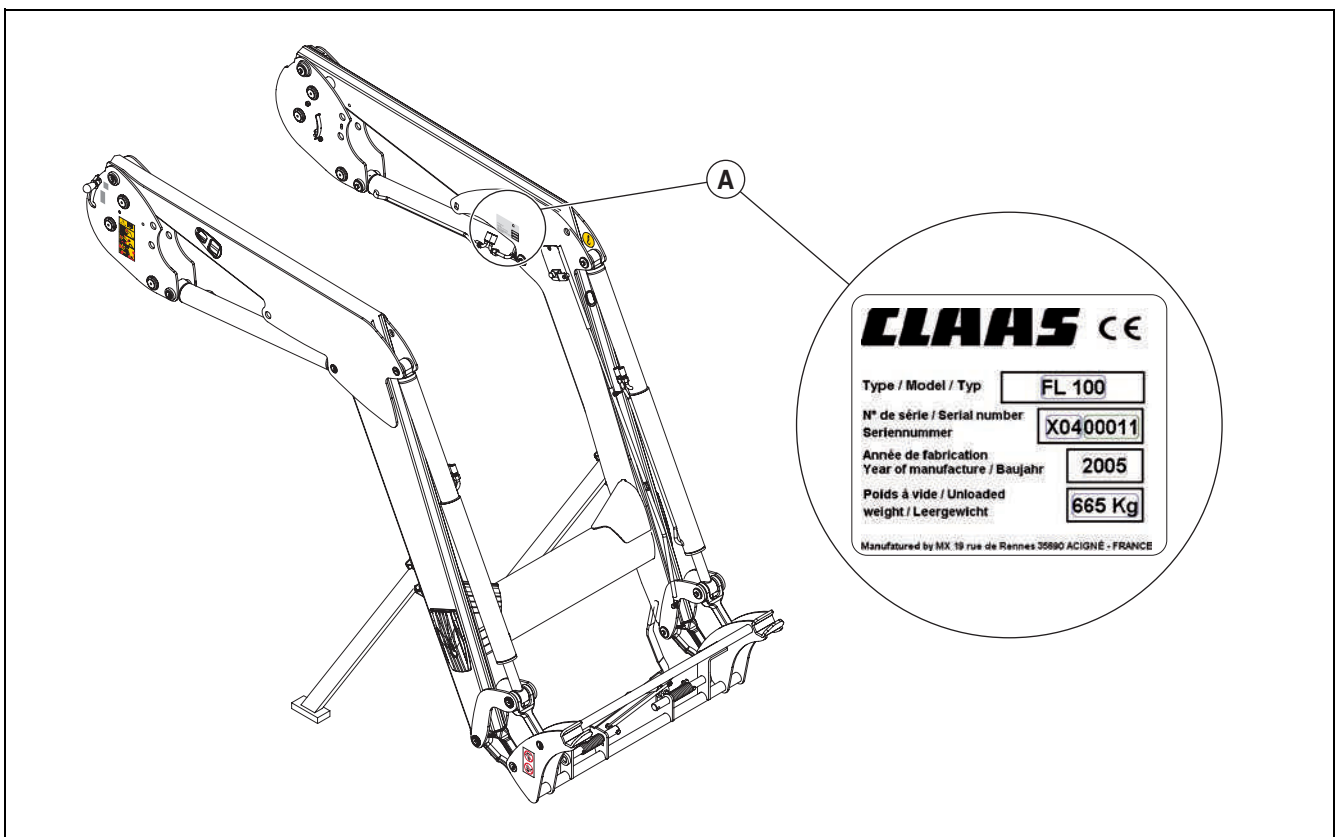
CERTIFICATION

- Certification of CELTIS cab version tractors according to European directives 74/150/CEE.
- Certification of CELTIS roll bar version tractors according to European directives 74/150/CEE (modified 2001/3).
- Certification N° of tractors CELTIS 426-436-446-456: e2*2001/3*0023*01.
- Certification N° of safety structures of CELTIS tractors:
 - 426-436-446-456 cab version: e2 S 072.
 - 426-436-446-456 roll bar version: e2 S 076.

CERTIFICATE OF COMPLIANCE

CELTIS tractors comply with the European regulation 89/336/ relating to electromagnetic compatibility.

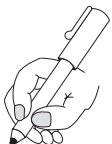
LOADER IDENTIFICATION



431bsn00

In any correspondence, always state:

The model, type and serial number (plate A).



Type/model:

Serial N°:

CERTIFICATE OF COMPLIANCE

CLAAS frontal loaders are in conformity with the essential requirements in the machine directive.

In conformity with the standard EN 12525, the commands to activate the frontal loader and the tools must be in "maintained action" mode with the exception of the floating position which may be maintained in its position by notching.



CLAAS

SAFETY

FOREWORD

CLAAS Tractors are designed and built to give you optimum service over many years. They are designed to provide the most comfortable and safe working conditions.

A frontal loader must never be fitted on the rollbar tractor if the tractor does not have a protective system against falling objects.

However, accidents can easily happen in agricultural work. It is important to know the dangers and how to avoid them.

We respectively draw your attention to certain aspects that merit constant attention (non exhaustive list).

PRECAUTIONS BEFORE STARTING

Caution is the best guarantee against any risk of accident.

The driver must be fully familiar with the tractor and must understand all the controls, their position and their purpose. This manual must be read carefully.

If the tractor is used by anybody other than the owner, he must be given all explanations required to allow him to work safely.

The driving position must be clean (instrument panel, steering wheel, floor and pedals).

Footsteps must be clean (no mud) to avoid slipping when climbing or descending.

Use the steps and handles provided when getting into or out of the tractor.

Before starting the engine, make sure that all controls are in the neutral position, particularly the power take-off lever.

Only run the engine in well ventilated areas.

Make sure there is nobody nearby before starting the tractor.

Fully release the handbrake before starting.

Do not start work if the tractor is not working properly.

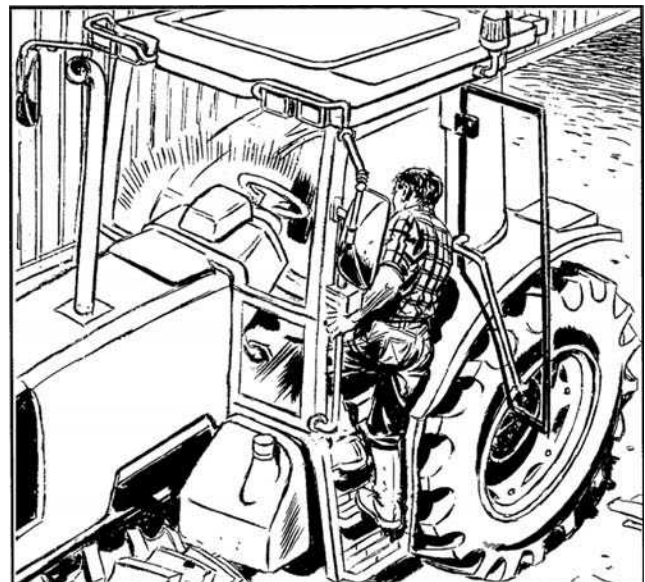
FAILURE TO COMPLY WITH RULES FOR SAFETY AND USE

Any violation of the safety seals will invalidate any claims for liability against CLAAS for the entire delivery.

Any assembly of the CLAAS frontal loader over and above the recommendations of the CLAAS rate in force at the date of purchase shall result in the annulment of the CLAAS guarantee for the entire delivery.



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Any modification of a part of the CLAAS delivery, or use of a tool or element installed on the frontal loader not originating from CLAAS, shall result in the annulment of the CLAAS guarantee for the entire delivery.

Use only spare parts and accessories that are in conformity with CLAAS recommendations.

Do not modify your frontal loader or subject it to modification by a third party without obtaining prior written permission from CLAAS. Failure to comply with these rules may make your frontal loader dangerous. In the event of damage or injury, CLAAS's liability may not be invoked.

The guarantee ceases immediately if the standards, the instructions or the maintenance of the frontal loader given in this assembly notice document and instructions for use are not respected.



CONDITION OF THE TRACTOR

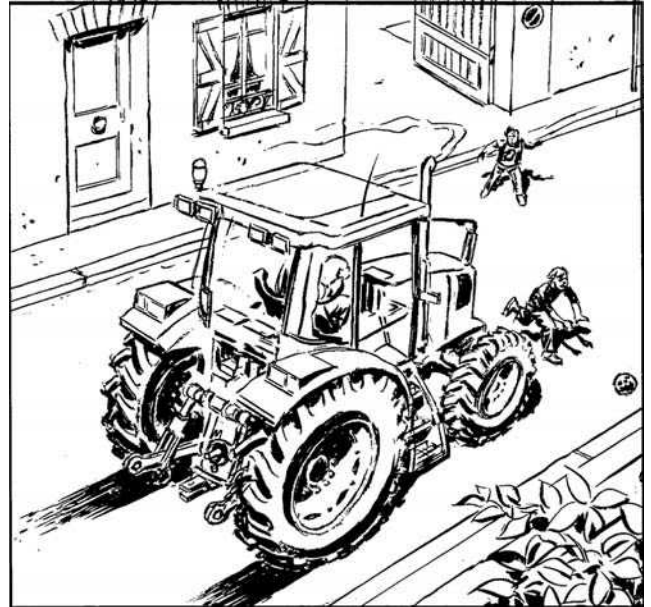
Maintaining the tractor in the best possible condition, by carrying out all routine maintenance (oil changes, level checks, overhauls, adjustments and thorough cleaning) will allow it to be used in the safest and most profitable way.

Check the following items first:

- **High temperature components:** Check that airborne particles such as straw, grass, wood chips etc., do not accumulate in high temperature areas. Clear debris from around the engine and the exhaust system. For tools attached to the front or the side of the tractor, inspect and clean the areas around the attachments for the various supports.
- **Brakes:** Check that the brakes work properly. Check the operation of the hand brake and foot brake.
- **Steering:** Check the operation of the hydrostatic steering.
- **Transmission:** Check the transmission fluid level (especially if external services are used).
- **Hydraulic system:** Check the condition of the system (unions, pipes, hoses), particularly the hoses to the steering actuators.
- **Electrical system:** Check the condition of the electrical system (batteries, wiring, headlights, indicator lights, hazard lights, rotating beacons, windscreen wipers, etc.).
- **Lighting - indicators:** All lighting and indicating equipment must not only be in working order, but must be fully visible; clean them. Carry a spare set of bulbs. Replace any defective element.

Check periodically for the presence of the safety pins and bolts; do not replace them with any other object.

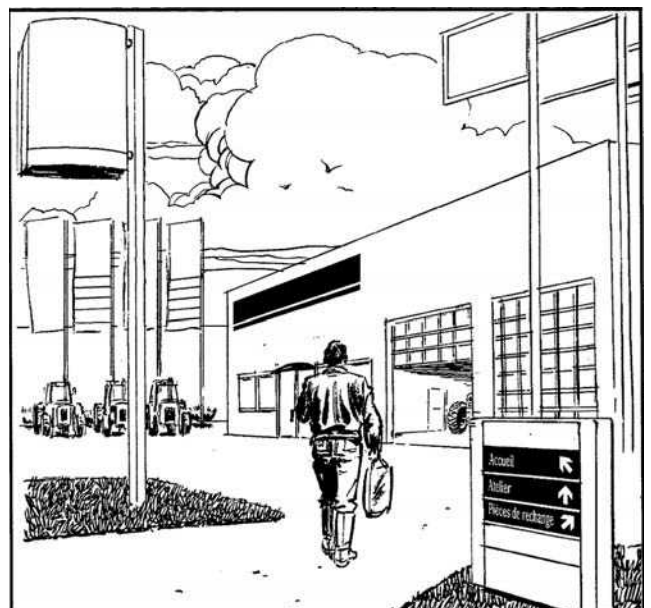
Only fit genuine CLAAS parts. The CLAAS network is at your disposal for any parts or products required to keep your tractor in perfect working order.



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001hsn06



001hsn07



ADJUSTMENT OR MAINTENANCE - REPAIRS

Only carry out operations well within your capabilities. A number of simple adjustments are described in the manual (clutch and brake free travel, etc.). Never attempt to work on your tractor unless you have perfectly understood the procedure and have all the basic equipment required.

Special equipment is required to remove or install major components (the cab, engine, transmission, front axle); this equipment represents the only guarantee of safe working conditions and successful repair.

The CLAAS network is at your disposal for all this work. It has the approved special tooling, the skills required and genuine CLAAS parts. If you have any doubts at all, call in your CLAAS agent.



001hsn08



AXLE STANDS

If the tractor is to be placed on axle stands, always work on a flat, horizontal, hard surface.

Check the axle stands are suitable for the load. For this operation, check the tractor's front and rear weights in chapter "K".

4-wheel-drive tractor:

If the rear axle is on stands, do not start the engine.

Risk of the tractor moving if the brakes are activated (foot brake or hand brake).

If the engine has to be started, the front axle must also be supported on axle stands.

HYDRAULIC SYSTEMS

Transmission oil: Transmission oil is used as hydraulic fluid for the linkage and external services.

The hydraulic circuit of the frontal loader is designed to bear a maximum service pressure of 200 bar. Never modify the connection of hydraulic hoses.

Oil escaping from a pipe under pressure can have sufficient force to penetrate the skin.

Should an injury be caused by oil under pressure, see a doctor immediately. Serious infection can occur if the wound is not treated immediately.

Consequently, always use a piece of wood or cardboard to find a leak on a pipe under pressure: never use your hand!

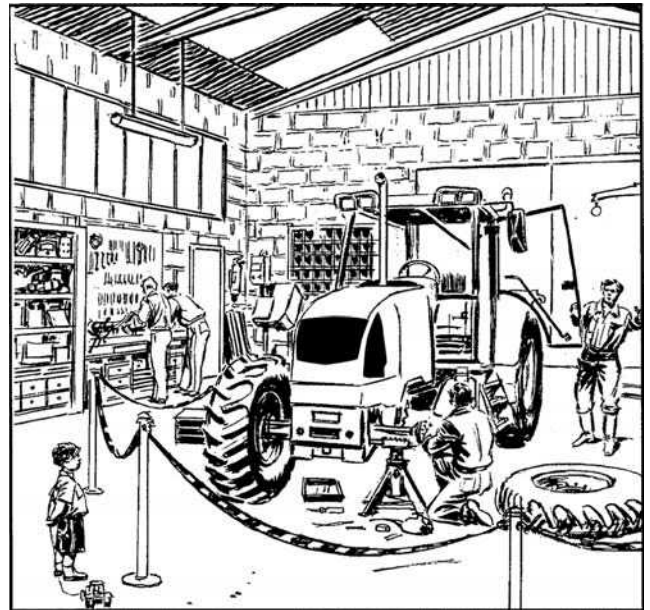
As a general rule: Make sure the unions are tight and the pipes in good condition before putting the system under pressure.

Never loosen a union when the circuit is under pressure.

For any repairs to the hydraulic system, stop the engine and lower the implement to the ground.

Let the oil cool down before working on the system, to prevent any risk of getting burnt when the oil flows.

Maintenance - greasing: Always stop the engine.



001hsn09



ELECTRICAL SYSTEM

Knowledge and skill are required to work on the electrical system. If the need arises (installation of miscellaneous accessories, radio etc.) contact your approved CLAAS repair agent.

In addition:

- Always disconnect the battery negative terminal before working on the electrical system.
- Never weld on the tractor or on a towed implement.
- Never "patch-up" electric circuits.
- **Never replace a blown fuse with a larger calibre fuse; you could cause a fire.**
- **Never carry out work on components such as the alternator or the fan motor when the engine is running.**
- **If you need to handle the battery, ensure that acid does not contact the skin; protect your eyes from splashes.**



001hsn10

FUEL

RE-FUELLING

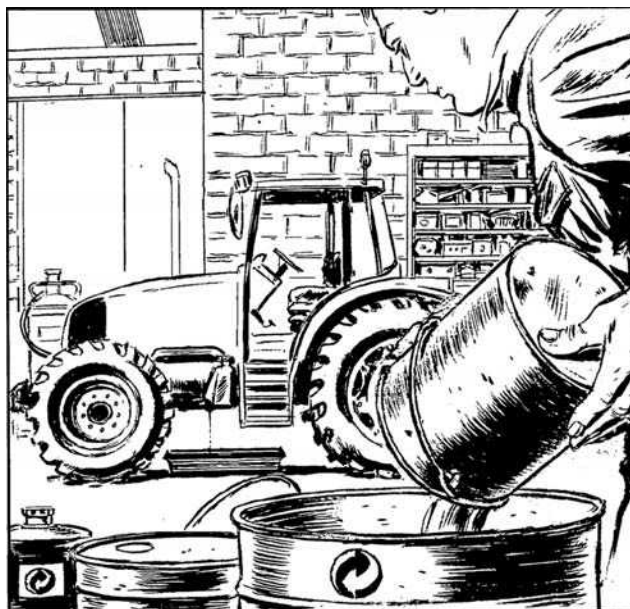
Before filling the tank, always carefully clean around the fuel cap to remove any pieces of straw, twigs, etc. which could help start and then propagate a fire.

In addition:

- **Never fill the tanks when the engine is running or near a naked flame.**
- **Do not smoke when filling with fuel.**

COOLANT

Do not work on the cooling system when the engine is hot (risk of burns).



001hsn11



ROAD USE - USE FOR TRANSPORT

Always comply with THE LEGISLATION on the use of agricultural tractors on the road. Never exceed the maximum transportation speed of the machine.

If in doubt, consult the police or insurance companies.

Whenever possible, avoid using busy roads.

When transporting equipment on a public road, use the warning device required by the highway code.

All indicators must be clean and in working order.

The working lights must not be lit.

Brake pedals must be coupled together.

Do not use the differential lock on the road or in bends.

Certification aspects of the wearing of seat belts are laid down in the construction and use regulations. Comply with the law in your country.

If carrying an additional passenger, the tractor must be fitted with a passenger seat.

Do not carry passengers except on the seat provided for the purpose.

Reduce speed on rough roads or tracks.

Towing: If the trailer has an independent brake system, connect the brake pipe to the brake valve coupling and not to the auxiliary spool valve.

If it is necessary to stop on the road in a position that causes a traffic hazard (insufficient visibility), it is mandatory to switch the hazard warning lights on.

When transporting mounted equipment, set the linkage to the raised position. If the tool has transport wheels, use them.

Slow down before changing direction.

When travelling downhill, always remain in gear: never declutch. The gear selected should be the same as would be used to climb an equivalent gradient.

Transporting or lifting persons using the frontal loader is strictly forbidden.

Limit any movement with a raised load. The tractor may become unbalanced.

Never leave the tractor with a raised load.



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001hsn13



USING THE TRACTOR

GENERAL RULE

As a general rule, always use equipment in good condition, suitable for the size of the tractor and the type of work.

WHEEL TRACK

Always use the maximum track compatible with the work in hand, to reduce the risks of overturning.

ATTACHING IMPLEMENTS

To hitch or unhitch an implement, place the gear lever in neutral and apply the hand brake. Use a low gear for all tractor manoeuvres.

Sufficient front-end ballast must be used if the implement is heavy, to prevent the tractor rearing-up.

Drawbar: This is not intended as a trailer towing hitch and is not designed to carry vertical loads.

Use the safety equipment provided to hitch implements (towing jaw, towing stub, retaining pins, etc.).

During hitching operations or when using the external linkage control, the operator must remain outside the hitch frame.

The eye bolt on the front ballast weights must only be used for towing the tractor in conjunction with a towbar and over firm ground. Under no circumstances is it to be used for towing a tool or a bogged down tractor.

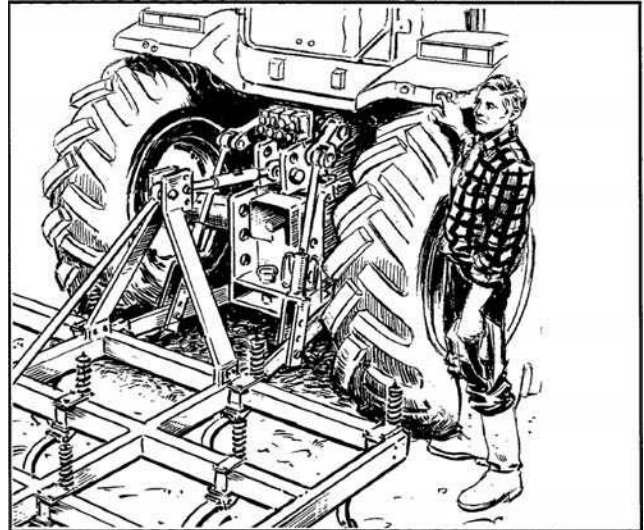
DRIVING

Do not enter or leave the tractor when it is in motion.

Avoid risk of overturning:

Do not turn sharply when working on slopes. Maximum slope allowed while working: See chapter K.

During a break in work, even if only brief, stop the engine and apply the handbrake. If the ground slopes, engage a gear. Lower the implement to the ground.



001hsn14



STATIONARY WORK

If the tractor has to work in a fixed position (use of static implements), chock the tractor wheels, apply the hand brake and keep a constant watch on it.

USE OF TOOLS DRIVEN BY THE PTO

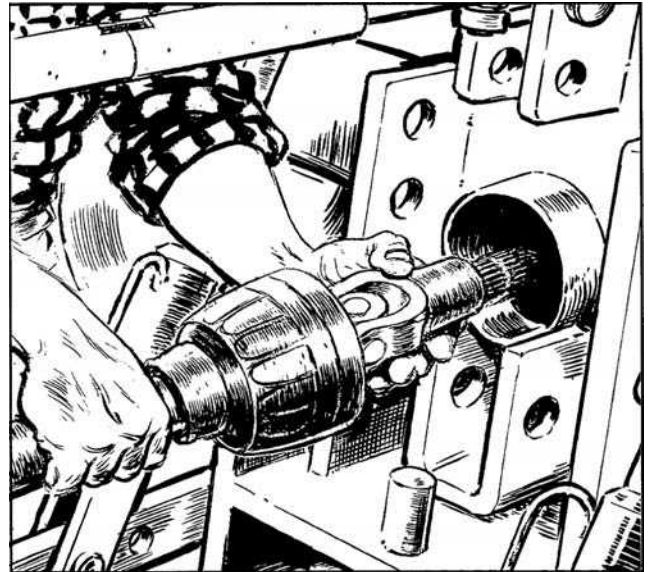
Do not wear loose fitting clothing that might get caught in moving parts.

The engine must be stopped before coupling or uncoupling the attachment's universal joint shaft.

All guards must be fitted when working.

When repairing, adjusting or lubricating an attachment in the field, always set the PTO lever to neutral and stop the engine.

When the PTO is not in use, set the lever to neutral (shaft stationary) and fit the protection cover.



001hsn15

USING THE LOADER

Important:

- *Use the CLAAS frontal loader without the additional weights of the tractor (they may interfere with the movement).*
- *Position the front linkage arms in the "Road" position.*

Important: Each tool has been designed for a specific use and has its own resistance limits.

Important: Land clearing and stump removal are forbidden. They are not within the scope of the CLAAS frontal loader.

GENERAL RULE

As a general rule, only use tools that are in a good condition and that are adapted to the frontal loaders and to the work to be undertaken.

AXLE LOAD

The load permitted on the axle must not exceed the load specified by the manufacturer of the tractor.

Consult your CLAAS approved repairer.

DRIVING

The use of controls that set the frontal loader in motion when the driver is not controlling the lever is forbidden and will place the equipment outside standard limits.

Important: Use the motivity of the tractor to penetrate into the material rather than momentum which subjects the frontal loader and the tractor to substantial constraints.

Important: Do not stress the hydraulic elements when the load is too substantial and when the jacks are at the end of their stroke.

N.B.: Work with flexibility and wisely.

Control the frontal loader from the driver's seat only.

Do not leave the seat without having first ensured that no movement of the controls will occur.



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431bsn04

Remove any person from the frontal loader's area of operation.

Pay attention to electrical and overhead power lines when manoeuvring the frontal loader in raised position.

After using the frontal loader, park the tractor with the frontal loader lowered to the ground.



TOXIC PRODUCTS

A tractor uses a number of fluids: Diesel, Diester, transmission oil, brakes and linkage fluid, engine oil, liquid for tyre ballast etc. In the event of an accidental leak of one of these liquids causing pollution to foodstuffs (for human or animal consumption), such as vegetables, silage, hay, pellets etc., destroy the contaminated products, because it is dangerous to ingest them.

Certain products used to treat crops are particularly dangerous.

Always read the instructions for the use of these products carefully and follow them scrupulously.

In certain cases, the user must protect himself against any contact with the product.

The cab air filter is only a dust filter. It gives no protection against treatment product gases or mist.

The cab air filters are designed to remove dust from the air but not chemical vapours. Even when shut, the cab does not protect its occupants from poisonous pesticides, that are injurious to health and may be fatal..

Protection equipment that is appropriate or recommended for the relevant pesticide must be used and worn during filter use, inspection, cleaning or replacement..

If the tractor is to be used for the application of agricultural chemicals, the following must be done:

- Fit a checmical air filter for the presticides (consult an authorised CLAAS agent). After each application, replace the chemical filter with a normal filter.
- Observe the precautions laid down by the manufacturer of the agricultural chemical.
- Keep the the cab clean by removing protective equipment and eliminating any traces of contaminated soil or other matter from shoes or boots before entering the cab.

IMPORTANT

- ***Do not blow through the filters.***
- ***Check that the filters are not damaged. Confirm that the seals are in good condition. Replace the filters if holed or damaged.***
- ***When disposing of used filters, comply with the regulations relating to the disposal of pesticide containers.***



001hsn16



AIR CONDITIONING

The air conditioning system contains a gas which can be dangerous under certain conditions.

RECOMMENDATIONS:

Never work on the air conditioning.

If a leak occurs, prevent any concentration of the gas (in a closed building, in the cab, etc.). Avoid any contact between the gas and hot articles. Do not smoke.

IMPORTANT

It is recommended to keep a fire extinguisher and a first-aid kit ready to hand.

SAFETY CABS

Our safety cabs have successfully undergone the official E.E.C. and O.E.C.D. tests. As a result of these tests they have been officially approved. They fully satisfy these tests.

Consequently, CLAAS disclaims responsibility for any accident (impact or overturning) which applies loads greater than those required by the tests to the structure.

Any safety structure which has been damaged (distorted) in an accident must be replaced, not repaired.

If you want to add equipment or functions not provided as standard or available as after-sales options, always contact your CLAAS agent. It is important to obtain his advice since it is forbidden to drill, weld or cut any of the safety structure components since this would change the cab characteristics and it would then no longer have official approval.

ENVIRONMENTAL SAFETY

Precautions must be taken with waste in order to protect the environment. Some liquids or parts such as oil, fuel, cooling and brake fluids, filters and batteries pollute the surroundings. Recover these liquids in sealed packaging so as to dispose of them in compliance with the local requirements applicable and the regulations in force in the country.



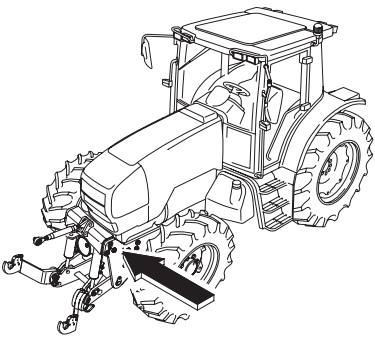
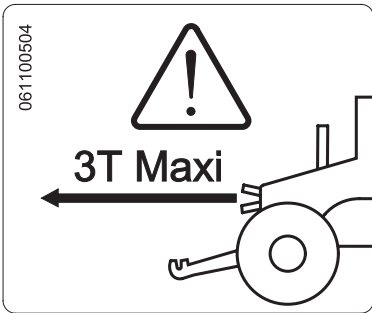
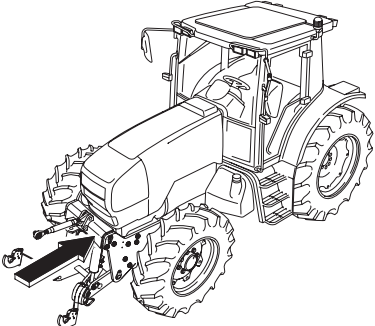
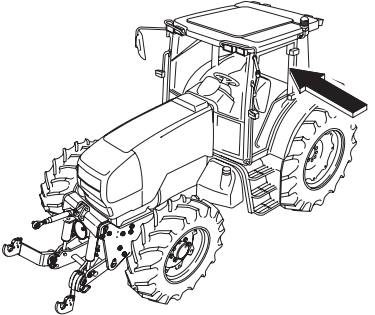
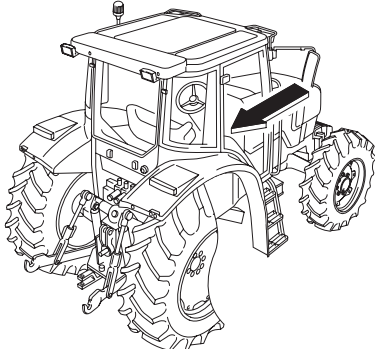
001hsn16



001hsn17



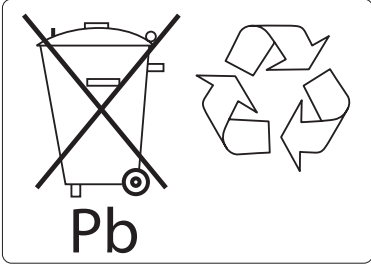
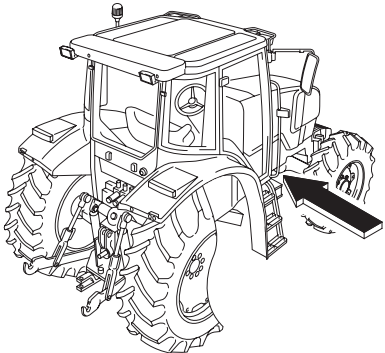
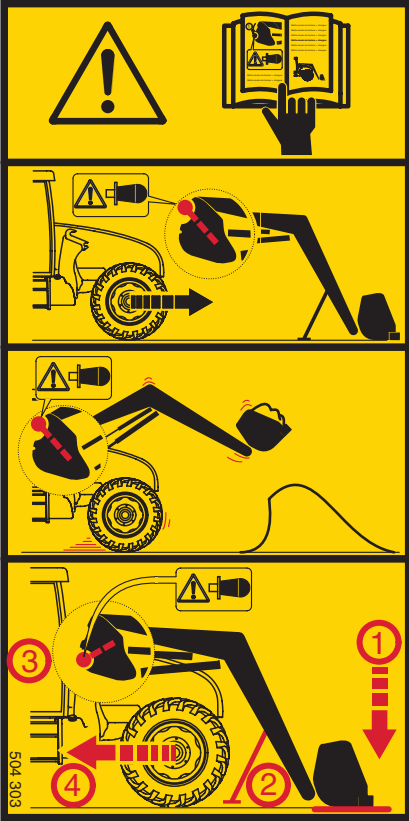
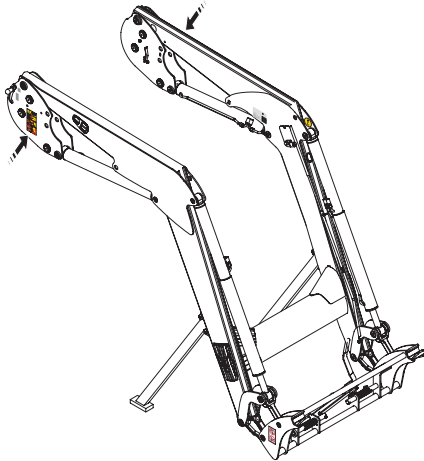
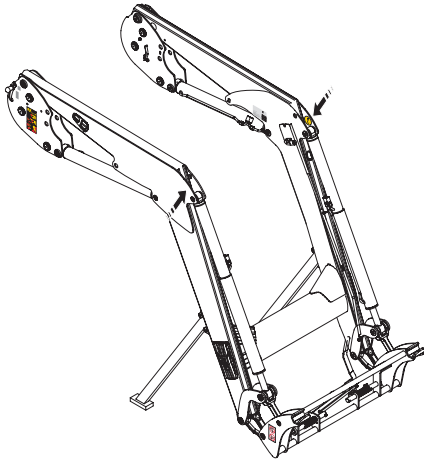
SAFETY STICKERS WITH WARNING PICTOGRAMS

Cautions	Pictogram	Location
Before using or working on the machine read the safety rules in the user's manual.	 781msn16	 781msn23
Do not exert a traction greater than 3 metric tons on the front hitch hook.	 781msn08	 781msn24
Warning: - Read the user's manual carefully before using the tractor. - Take account of the instructions and safety rules, and always use the tractor with great care	 WARNING Carefully read operator's manual before using tractor. Observe instructions and safety rules and always operate the tractor safely.	 781msn25
Warning: This tractor must not be operated at a speed greater than 30 km/h on public roads. Warning: It is forbidden to transport a child under 13 years of age on farm machinery.	WARNING This tractor MUST NOT be driven at speeds in excess of 30km/Hr on the public highway. WARNING It is prohibited for children under 13 years of age to ride on agricultural machines.	 781msn27

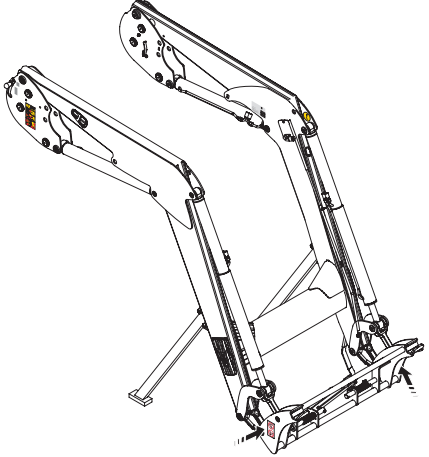


Cautions	Pictogram	Location
Warning: The power take-off must not be used at 1 000 rpm unless the implement is designed to run at this speed (see the user's manual).	WARNING 1000 REV/MIN P.T.O. MUST NOT BE USED UNLESS IMPLEMENT IS DESIGNED TO BE AT THIS SPEED (SEE OPERATOR HANDBOOK) 781msn12	781msn27
Warning: To prevent accidents, disconnect hydraulic hoses (of the grab hook) from the tractor distributors immediately after locking on the implement.	WARNING TO PREVENT ACCIDENTS, DISCONNECT HYDRAULIC RELEASE HOSE PIPE (ON PICKUP HITCH) FROM TRACTOR'S HYDRAULIC SYSTEM, IMMEDIATELY AFTER LATCHING THE IMPLEMENT. 781msn13	781msn36
Warning: Keep clear of the working zone of the linkage and the power take-off when using external controls.	WARNING KEEP CLEAR OF LINKAGE WHEN OPERATING EXTERNAL CONTROL 781msn14	781msn29
Do not place the starter terminals in contact with a tool that conducts electricity (danger of sparks).	▲ DANGER ▲ GEFAHR ▲ PERICOLO ▲ PELIGRO ▲ FARA 781msn17	781msn31

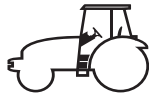


Cautions	Pictogram	Location
Do not discard a worn battery but take it to a recycling collection point.	 781msn18	 781msn31
– Before using or repairing the frontal loader, familiarise yourself with the safety rules in the instructions. – Check the condition and positioning of the latches during the hitching/unhitching of the frontal loader.	 431bsn05	 431bsn06
– Respect the anchorage points for handling of the frontal loader.	 431bsn08	 431bsn07



Cautions	Pictogram	Location
– No handling above persons. – It is forbidden to use the frontal loader and its tools for purposes other than the handling of materials for which they were designed.	 431bsn10	 431bsn09

[illegible]

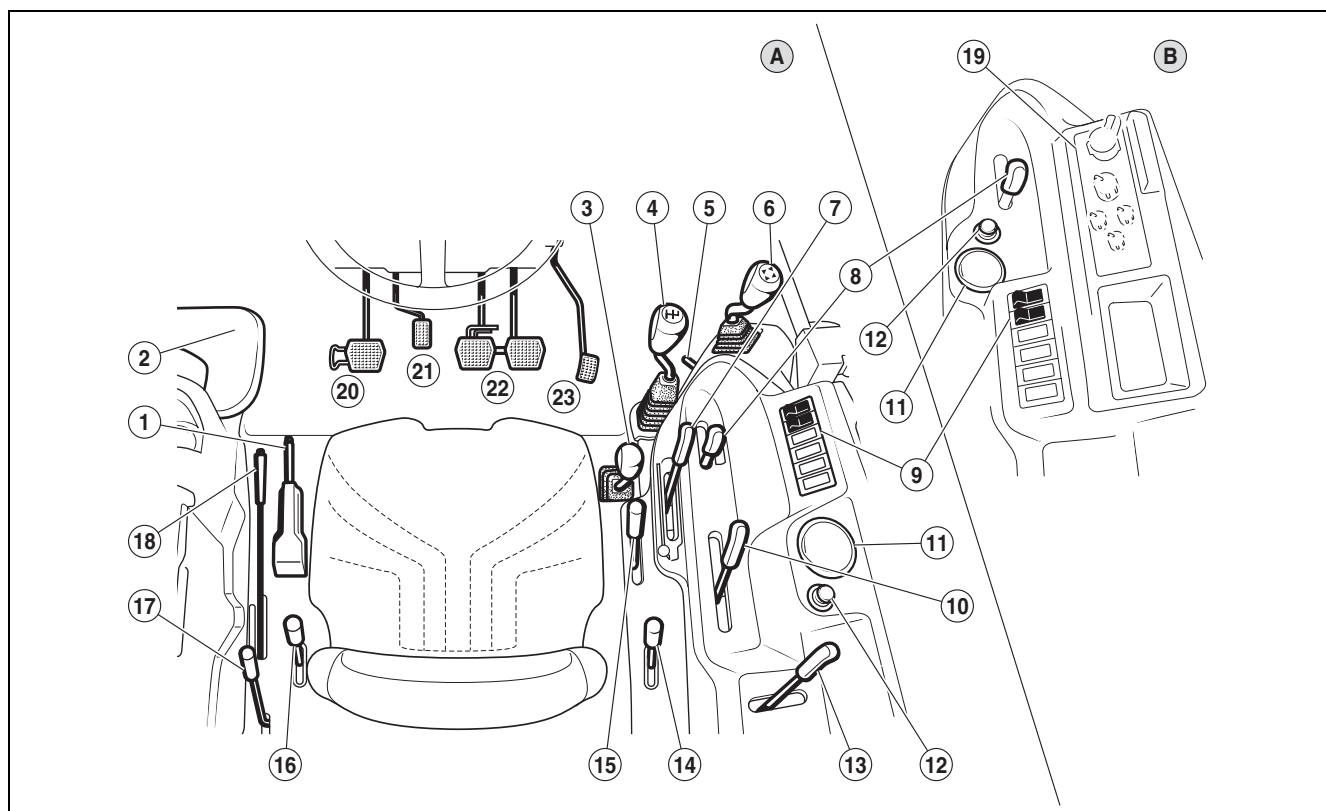


B - CAB





CONTROLS AND DRIVING POSITION



761bsn01

Installation A - With "Tracto Control" hydraulic lift.

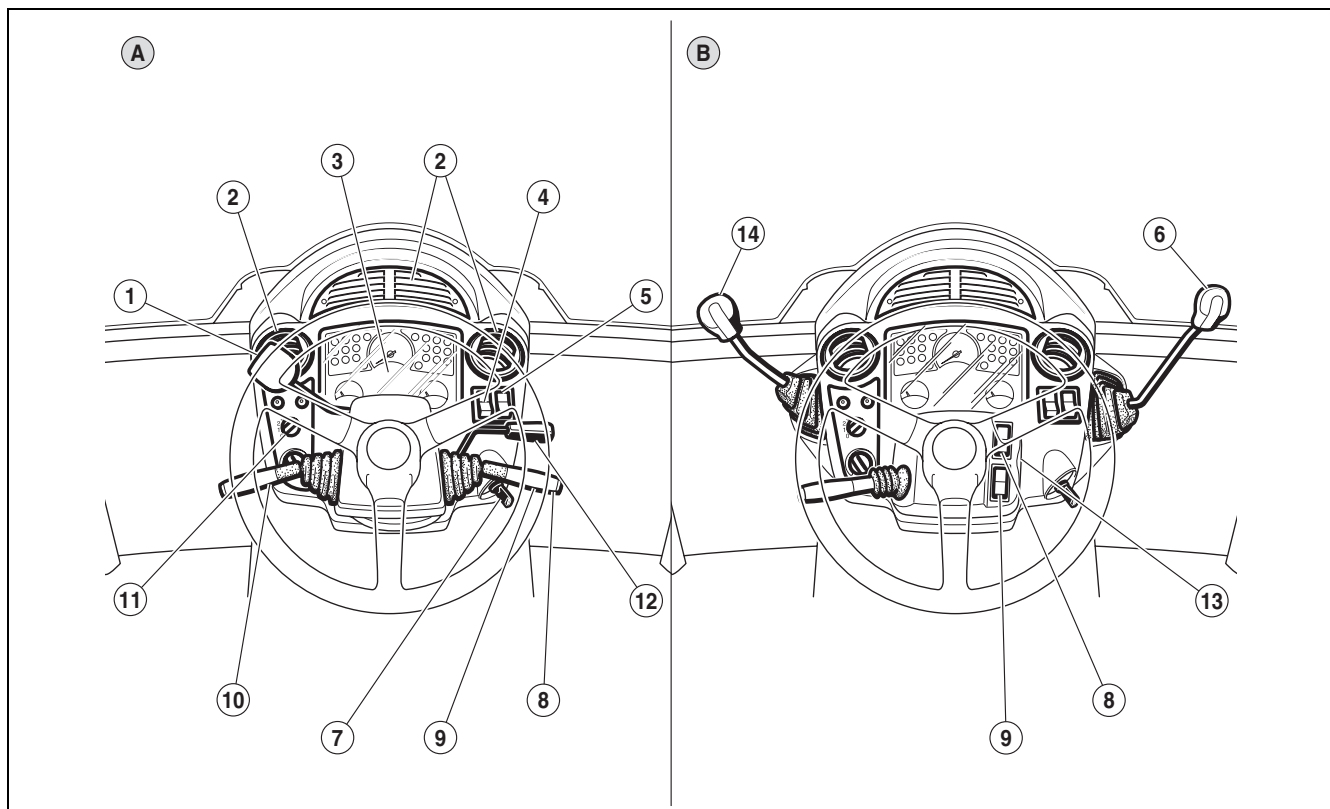
Installation B - With "TCE 9" electrohydraulic lift.

- | | |
|--|---|
| 1 - Hand brake lever. | 14 - Power take-off clutch release lever (hydraulic engagement version). |
| 2 - Passenger seat. | 15 - Auxiliary distributor control lever. |
| 3 - Range lever. | 16 - Power take-off rate selection lever. |
| 4 - Gear lever/impulse contactor "hydraulic doubler"*. | 17 - Crawler range selection lever. |
| 5 - Cross control lever locking control. | 18 - Power take-off clutch release lever (mechanical engagement version). |
| 6 - Auxiliary distributor cross control. | 19 - TCE 9 Electronic tracto-control lift. |
| 7 - Lift control lever (position control). | 20 - Clutch pedal. |
| 8 - Accelerator lever. | 21 - Rear live axle differential claw pedal. |
| 9 - Contactor plate (4 driving wheels, front power take-off...). | 22 - Brake pedals. |
| 10 - Lift control lever (force control). | 23 - Accelerator pedal. |
| 11 - Ashtray. | |
| 12 - Cigarette lighter. | |
| 13 - Hitch hook release lever. | |

* **Concerns the gearbox with "TWINSHIFT" hydraulic doubler.



INSTRUMENTS AND CONTROLS (PANEL)



761bsn02

Installation A - With "REVERSHIFT" electrohydraulic drive inverter.

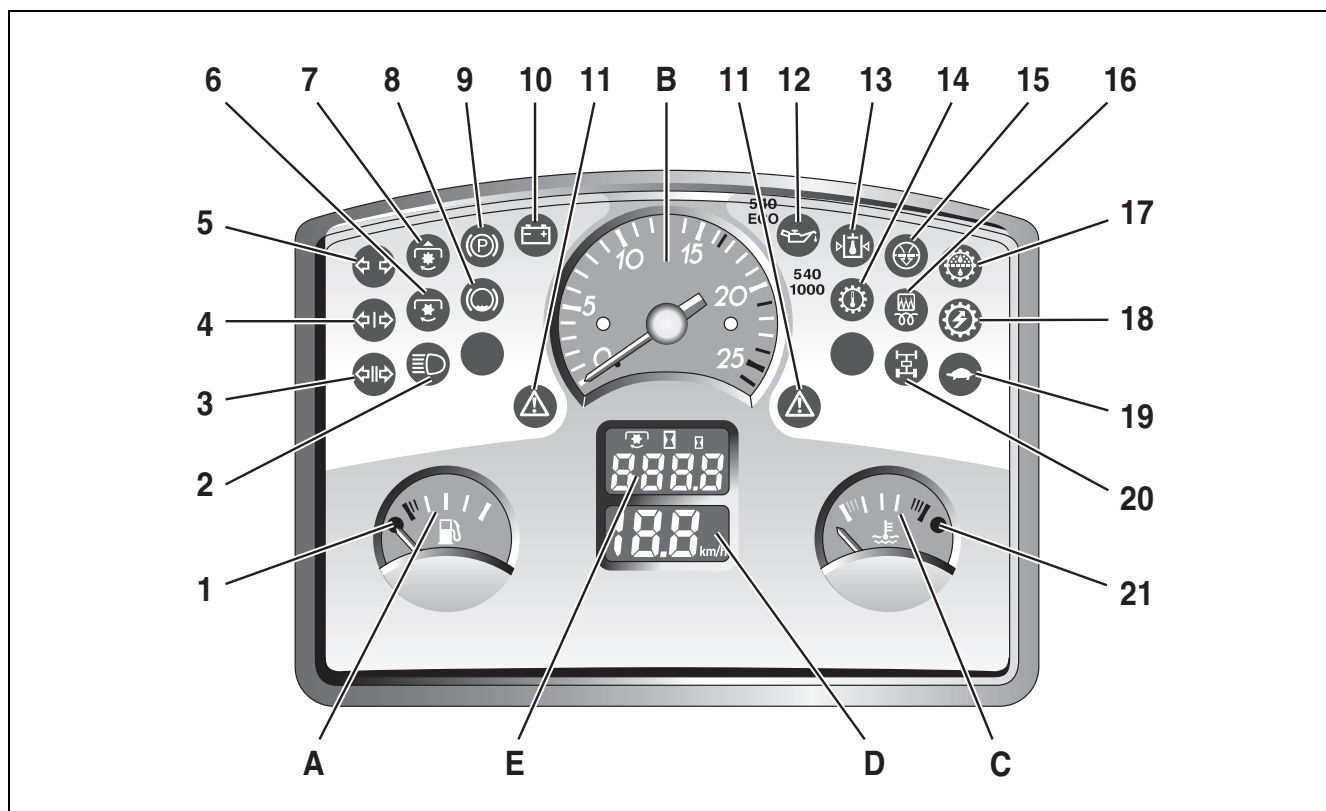
Installation B - With mechanical drive inverter.

- 1 - Hydroelectric forward/reverse lever (REVERSHIFT) .
- 2 - Air vents.
- 3 - Instrument cluster.
- 4 - Rotating light control button.
- 5 - Emergency alarm button.
- 6 - Mechanical range doubler lever.
- 7 - Main switch (key operated).

- 8 - Windscreen wipers.
- 9 - Windscreen washers.
- 10 - Direction indicators, lighting and warning lights.
- 11 - ventilation /air conditioning control panel.
- 12 - Steering wheel height/angle adjustment control.
- 13 - Digital clock adjustment knob (assembly B).
- 14 - Mechanical drive reverser lever.



INDICATOR AND CONTROL LIGHTS



761bsn03

- | | |
|--|---|
| 1 - Fuel low level warning light. | 20 - Front axle engagement indicator light. |
| 2 - Main beam indicator. | 21 - Engine coolant temperature warning light. |
| 3 - 2nd trailer direction indicators repeater. | A - Fuel gauge. |
| 4 - 1st trailer direction indicators repeater. | B - Engine tachometer. |
| 5 - Tractor direction indicators repeater. | C - Engine coolant temperature gauge. |
| 6 - Rear power take-off indicator. | D - Theoretical forward speed indicator in km/h or mph. |
| 7 - Front power take-off indicator. | E - Display: |
| 8 - Not used. | - Trip hour meter. |
| 9 - Hand brake warning light. | - Total hour meter. |
| 10 - Battery charge warning light. | - Rear power take-off speed. |
| 11 - Emergency stop light. | - Engine speed in rpm. |
| 12 - Engine oil pressure warning light. | - Digital clock. |
| 13 - "Hydraulic doubler" oil pressure warning light. | |
| 14 - Transmission oil temperature warning light. | |
| 15 - Blocked dry type air filter warning light. | |
| 16 - Automatic preheating / engine computer defect warning light (only on Celtis 456). | |
| 17 - Not used. | |
| 18 - Transmission computer defect warning. | |
| 19 - Hydraulic doubler warning (reduced speed). | |



ALARMS

RED "PRIMARY ALARM" LIGHTS

Emergency stop light

This goes out as soon as the engine is running. It comes on along with one of the following lights:



Or when the forward speed is greater than 45 km/h.

Battery charge warning light

This goes out as soon as the engine is running.

If it comes on, check the condition and tension of the alternator belt. If these are normal, the alternator or regulator may be defective. Have these components checked by an authorised CLAAS agent.



Engine oil pressure warning light*

This goes out as soon as the engine is running.

If it comes on, stop the engine immediately and check the engine oil level.

- If the level is too low, below the minimum marker, top up with oil.
- If the light remains on or if the oil level drops again, consult an authorised CLAAS agent.



Engine coolant temperature warning light

If the coolant temperature warning light comes on, stop the engine immediately. This means that it is overheating; in this case, carry out the following operations:



- 1 - Clean the radiator and radiator cover grills.
- 2 - Check that the water pump belt is not stretched or broken.
- 3 - Check the coolant level.

To carry out these operations, refer to chapter L "Maintenance".

Hydraulic circuit (doubler) oil pressure warning light*

When this light comes on during use, it indicates that there is insufficient oil pressure in the hydraulic system. With the front axle engaged, select the low range on the hydraulic doubler; If the light goes out, you may return to the garage in these conditions to have the hydraulic system checked.

If the light stays on, stop the engine immediately and call in an approved CLAAS agent.



Transmission oil temperature warning light*

When this light comes on during use, it means that the (hydraulic) transmission oil temperature is too high.

- Stop the engine immediately.



- Check for obstruction of the oil cooler at the front of the tractor and clean if necessary.

Restart the engine. If the light comes on again (cooler clean) stop the engine immediately and consult an approved CLAAS repairer.

Hand brake warning light*

This warning light indicates that the hand brake is engaged (applied). Engaging a gear, when the engine is on and the hand brake applied, activates the buzzer and the emergency stop light. Release the hand brake and the audio warning will stop.



* Audio warning and emergency stop light associated with this function.

**ORANGE "CAUTION" LIGHTS****Automatic preheating / engine computer defect warning light****PREHEAT INDICATOR**

With the ignition key in position (I), this must illuminate. It indicates that the pre-heating plugs are operating. The light goes out when pre-heating is complete and the engine can be started.

ENGINE CALCULATOR DEFECT WARNING LIGHT (ONLY ON CELTIS 456)

If this is on permanently, stop the engine immediately and consult an authorised CLAAS agent.

If it is blinking, it means an electrical or electronic failure. Consult an authorised CLAAS agent without delay.

BLOCKED DRY TYPE AIR FILTER WARNING LIGHT

When this warning light comes on, it is time to change the main filter (the largest one).

FUEL LOW LEVEL WARNING LIGHT

When this light is on, this indicates that the fuel level is down to less than 11 l.

**TRANSMISSION COMPUTER DEFECT LIGHT**

While working, in the event of a defect, this light comes on, on the instrument panel, and in some cases the buzzer sounds.

If one of the defects described below occurs while the tractor is in use, consult an authorised CLAAS agent.

SLOW BLINKING OF THE DIAGNOSIS LIGHT

When the fault occurs, the tractor jolts during forward or reverse operations, or when the clutch pedal is used: work is still possible. This fault may also make it impossible to engage reverse or forward gears.

FAST BLINKING OF THE DIAGNOSIS LIGHT + BUZZER

In this situation, do not place the reverse gear lever in neutral (II), or change gear using lever (1) or release the clutch using contactor (2), because you risk immobilizing the tractor. If you have to move the tractor, take all necessary steps, remembering that changing the operating direction is no longer possible.

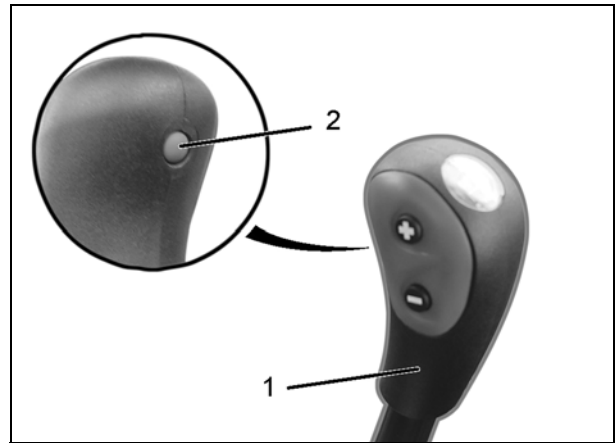


With this type of defect, you can only travel in one direction, the one that was engaged when the defect appeared. If you have to move the tractor, take all necessary steps, remembering that changing the operating direction is no longer possible.

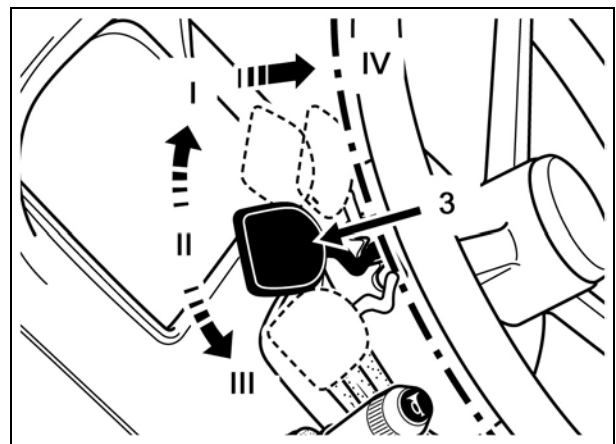
DIAGNOSIS LIGHT ON + BUZZER

In this situation, the tractor is immobilized. This state corresponds to making the transmission safe.

Contact an authorised CLAAS agent.



601bsn01



601bsn02



DIGITAL DISPLAYS

The unit on the instrument panel is equipped with 2 digital displays (D) and (E) which enable accurate readings of the following information.

DIGITAL DISPLAY D

When the key is turned, display D comes on and indicates the theoretical speed in km/h or mph.

DIGITAL DISPLAY E

When the key is turned, display E comes on and shows the total number of hours run.

By pressing button (1) repeatedly, the following information is displayed in sequence:

- Trip hour meter.



- Total hour meter.



- Rear power take-off speed



- Digital clock



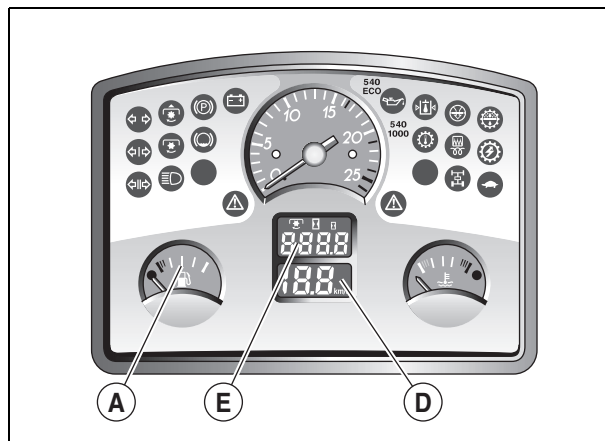
ZEROING THE TRIP HOUR METER

Select the "trip hour meter" mode.

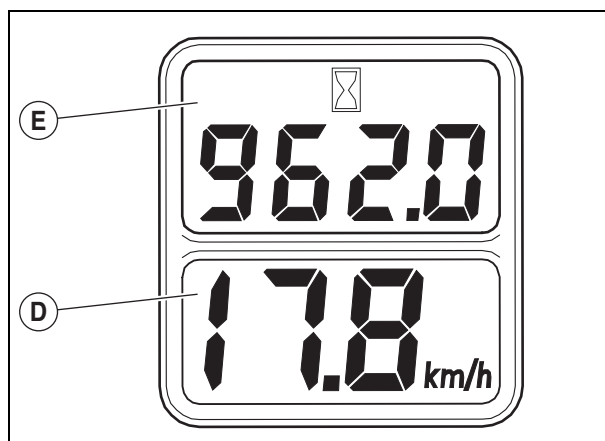
Hold down button (1) for 4 seconds.

SETTING THE DIGITAL CLOCK

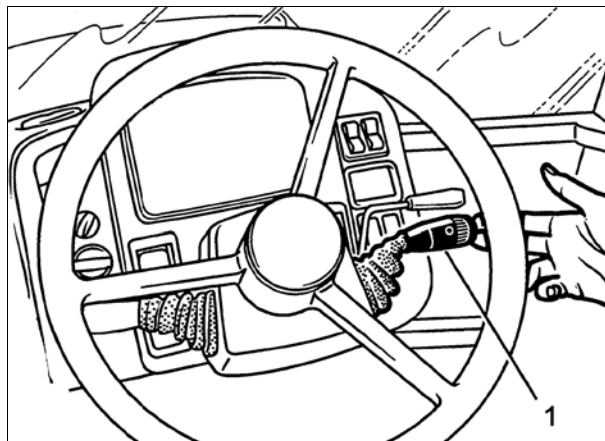
- Select the digital clock display.
- Hold down button (1) for 2 seconds (the hour display blinks).
- Set the hours by short taps on button (1).
- Validate the hours by holding button(1) down for 2 seconds (the minutes start to blink).
- Set the minutes by short taps on button (1).
- Validate the minute setting by holding button (1) down for 2 seconds.



761bsn04



601bsn03



601bsn04



601bsn05

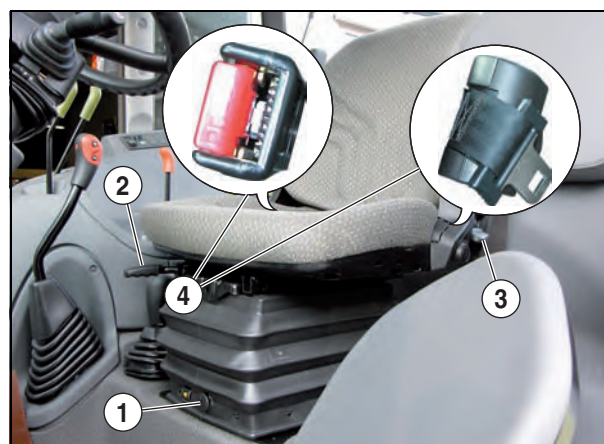


DRIVER'S SEAT

PNEUMATIC SEAT (FIG. A)

Functions and adjustments:

- 1 - Vertical suspension (stiffness adjustment).
- 2 - Longitudinal positions.
- 3 - Backrest angle adjustment.
- 4 - Seat harness.



791bsn00

COMFORT SEAT (FIG. B)

- 5 - To adjust the suspension height, turn the knob with the crank handle.
- 6 - Longitudinal adjustment.
- 7 - Backrest angle adjustment.



791bsn11

PASSENGER SEAT (FIG. C-D)

The seat fitted to the left of the driver must be used when carrying a passenger.

To unfold the passenger seat (Fig.C-D):

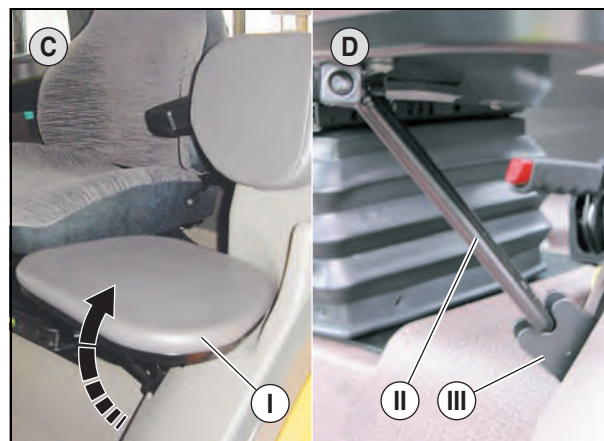
- Lift the seat (I).
- Position supporting rod (II) on base (III) provided for the purpose.



When carrying a passenger the doors must be closed and latched.



Never leave a child (or animal) in your vehicle with the key in the ignition. They could inadvertently start the engine or operate electrical or hydraulic equipment.



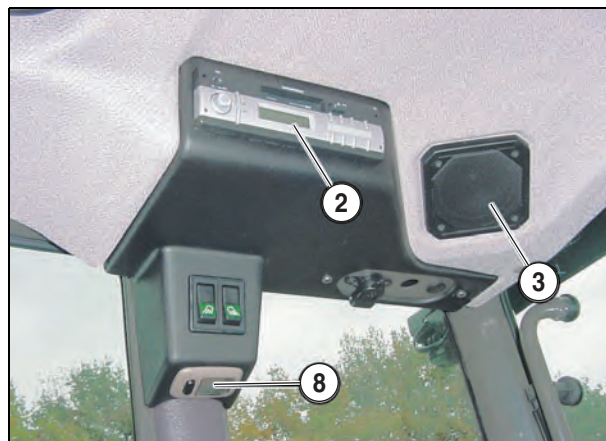
791bsn10



CONTROLS AND ACCESSORIES IN THE CAB ROOF

RIGHT-HAND SIDE

- 1 - On board computer (see chapter I "On board computer").
- 2 - Radio.
- 3 - Loudspeaker.
- 4 - Front working lights switch.
- 5 - Rear working lights switch.
- 6 - ISO tool electrical connection, 25 amps.
- 7 - Event counter connection for the on-board computer.
- 8 - Overhead light.



841bsn04

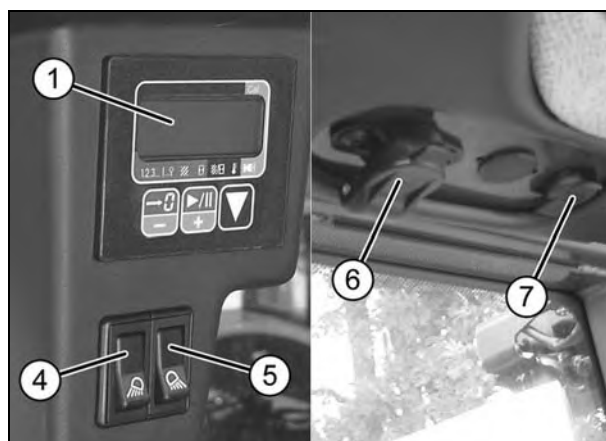
RADIO

The radio (2) and loudspeakers (3) are fitted in the cab roof.

EQUIPMENT PROVISION

These models have provision for installing a radio (loudspeaker wire, aerial wire and connection, power to the radio and roof aerial).

Note: for the installation of a radio, consult an authorised CLAAS agent.



841bsn05

CONTROLS AND ACCESSORIES

NATURAL VENTILATION

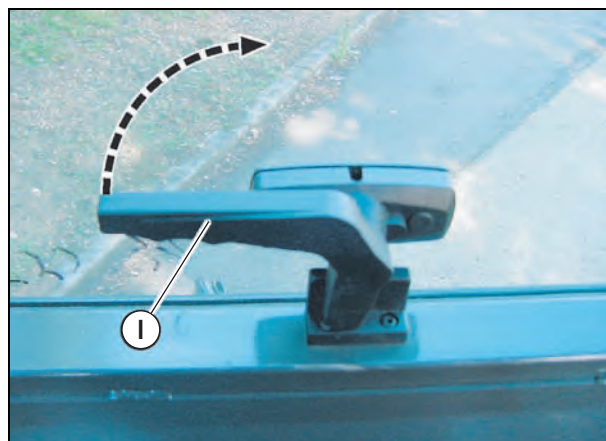
REAR OPENING WINDOW (A)

Opening

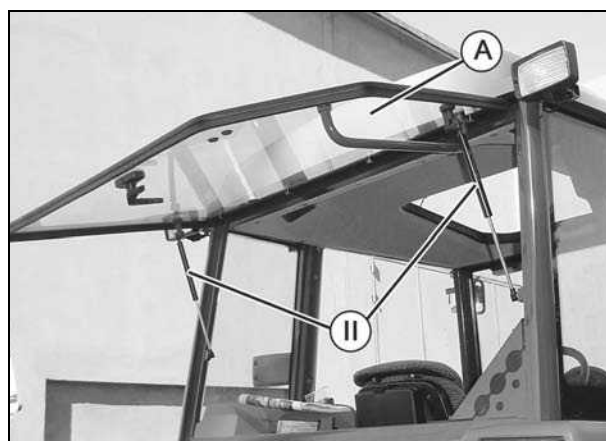
- Turn handle (I) 90° in the direction of the arrow to unlock it.
- Push the rear panel until it opens. The window is held in the open position by the stabilisers (II).

Closure

Pull the rear panel down against the cab frame, and lock the handle (I).



841bsn06



841bsn07



OPENING WINDSCREEN (A)

Opening

- Turn handles (1) 90° in the direction of the arrows to unlock them.
- Push the windscreen until it opens. The windscreen is held in the open position by the stabilisers (2).

Closure

Pull the windscreen down against the cab frame, and lock the handles (1).

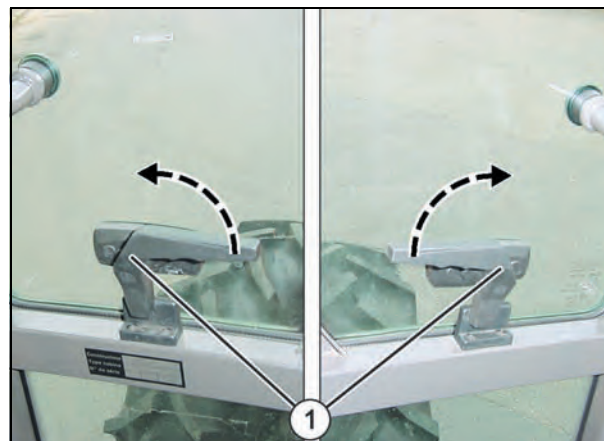
DOORS

Locking

Open the door until it is locked open by bolt (I).

To unlock

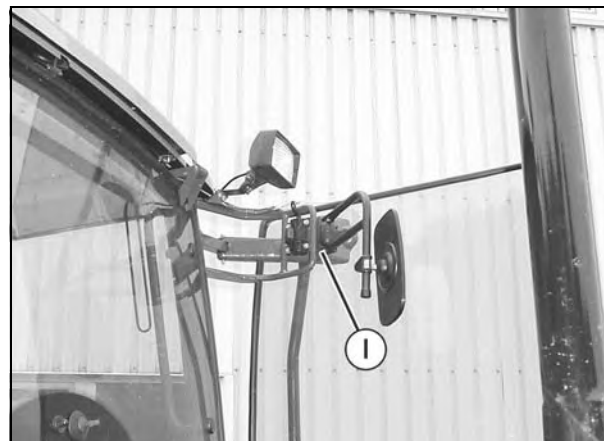
Pull the handle (II) in the direction of the arrow.



841bsn08



841bsn09



841bsn10



841bsn11



When driving on the public road the doors must be closed and latched.



SUN ROOF

There are 2 types of sun roof:

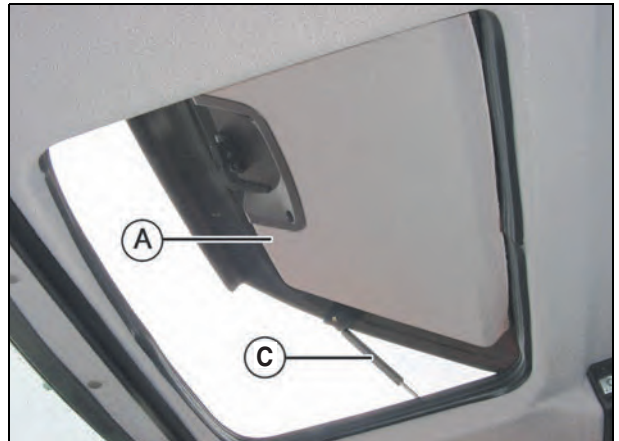
- Sun roof (A)
- Glass sun roof (B)

Unlatched from inside the cab using the handle. It is held in the open position by 2 stabilisers (C).

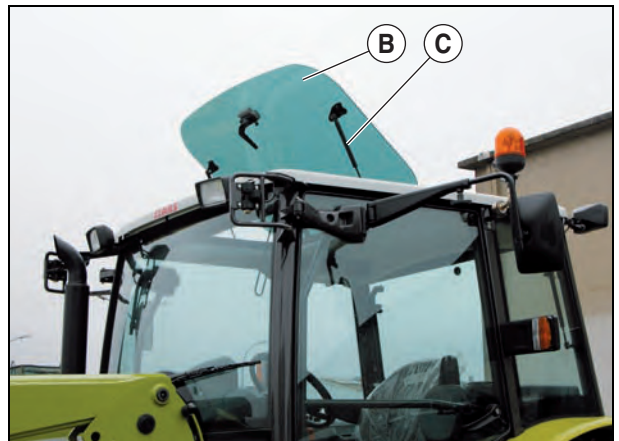
ADJUSTABLE STEERING COLUMN

The height and rake of the steering wheel are adjusted using lever (I).

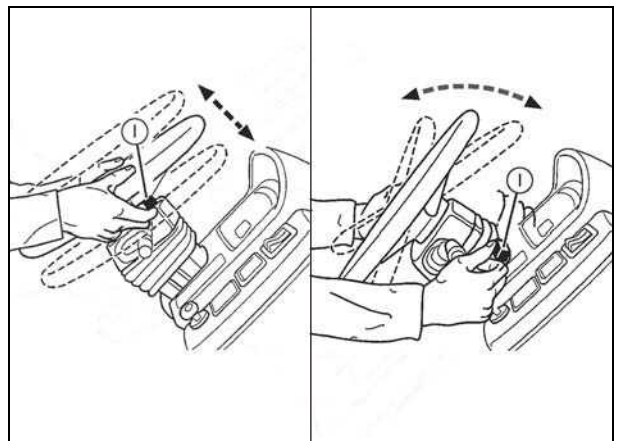
- To change the steering wheel angle, lower the lever, and place the wheel in the desired position, then release the lever.
- To change the height of the wheel, lift the lever, and bring the wheel to the desired height then release the lever.



841bsn27



841bsn26



841bsn14



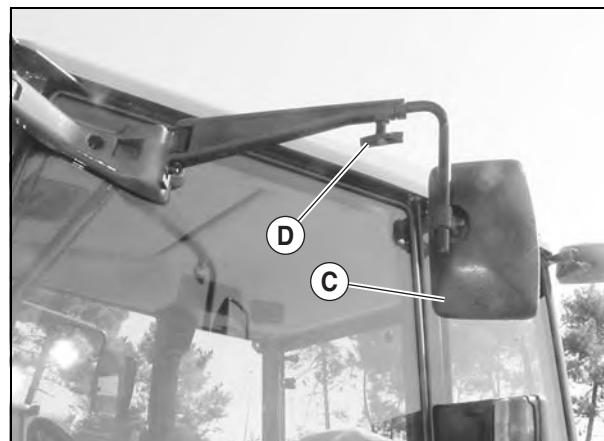
TELESCOPIC REAR-VIEW MIRRORS

Adjustment

To extend the telescopic arm of the rear-view mirror (C), unscrew knob (D).



Before driving the tractor on the road, check that the rear-view mirrors are clean and correctly adjusted. For safety reasons, make this adjustment when the tractor is stationary.

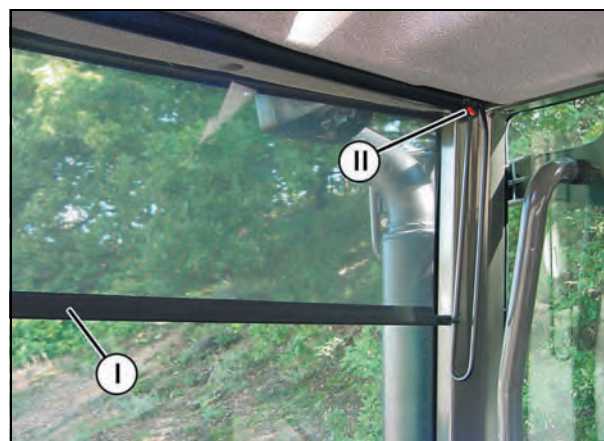


841bsn15

SUN BLIND

Operation

- Pull down on the rod (I) in the centre of the blind to position it at the desired height.
- To retract the blind, press lever (II).



841bsn16

TOOLBOX

The transportable tool box (A) is located in front of the left running board.



841bsn17



HEATING - VENTILATION - COOLING SYSTEM

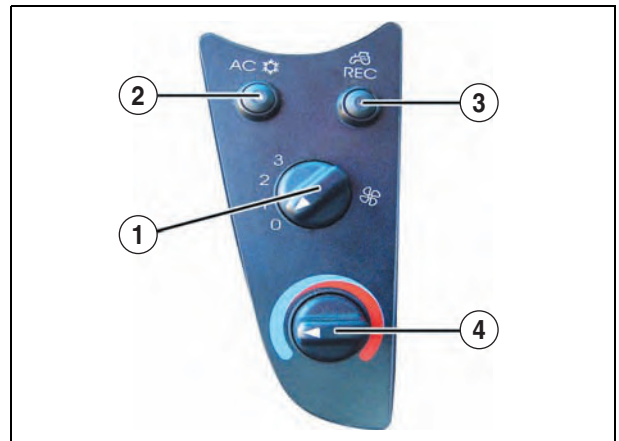


The cab air filter is only a dust filter. It provides no protection against gas or droplets released by treatment products.

Isolation of the cab (recirculation) offers no protection against gas or droplets released by treatment products.

CONTROL

- 1 - Adjusting forced ventilation.
- 2 - Turning on the air conditioning.
- 3 - Cab isolation (recycled air).
- 4 - Adjusting the air temperature.



841bsn18

ADJUSTING FORCED VENTILATION

Move control (1) from 0 to 3. Position "3" gives maximum fan speed and air flow.

ADJUSTING THE AIR TEMPERATURE

Move control (4):

- To the right (red): Maximum possible temperature.
- To the left (blue): Minimum possible temperature.

CAB ISOLATION

Air recirculation enables you to be isolated from the outside air.

To select Recirculation mode, press button "REC" (3); the button light will illuminate.

AIR CONDITIONING

The air conditioning reduces:

- Cab internal temperature, especially in hot weather, in traffic, or when the vehicle has been parked in the sun.
- The humidity of the air drawn into the cab (eliminates condensation).

The use of the air conditioning increases fuel consumption (turn off when not required).

To turn on air conditioning, press the "AC" button (2); the operating light in the button illuminates.



Do not open the system; refrigerant fluid is hazardous to the eyes and skin.



PROVISION FOR THE INSTALLATION OF A CONTROL CASING IN THE CAB

ATTACHMENT OF THE CASING SUPPORT

To make it easier to install casing supports in the cab, threaded holes exist on the cab side and right stay, under the caps (I).

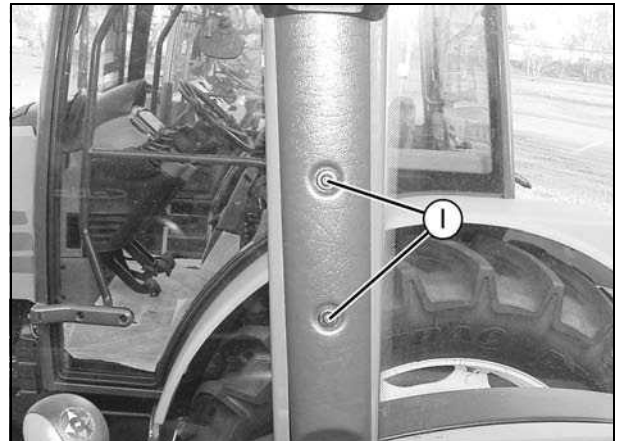
- Distance apart: 120 mm
- Screw diameter: M10

CABLE ROUTING

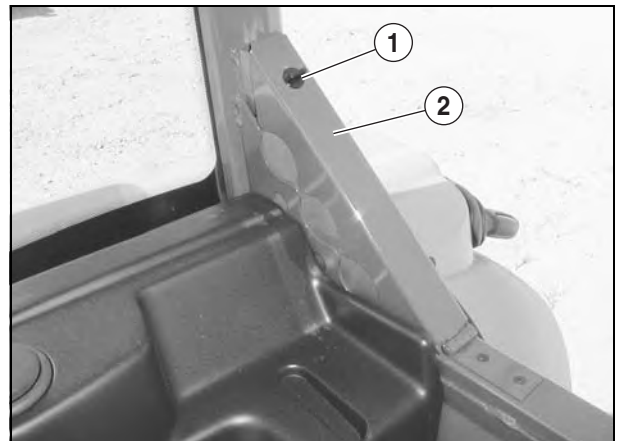
A trap door (B) is provided in the right lower part of the window to run the cables.

OPERATION:

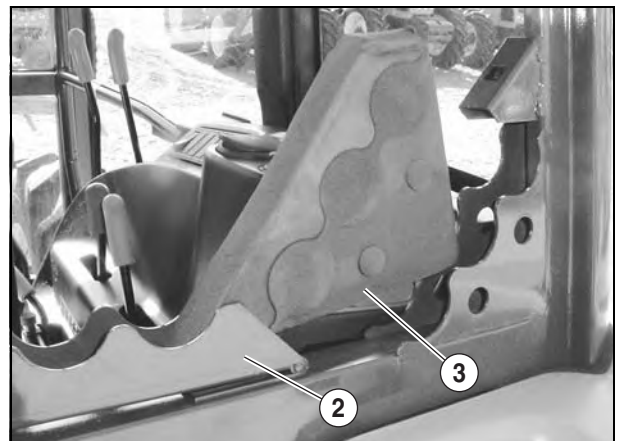
- Turn the quick-release fastener (1) through 1/4.
- Twist the crosspiece (2), then remove the block of foam (3).
- Position the wires of the control box and replace parts (1) and (2). If the wiring does not take up much space, replace the foam (3).
- Replace the crosspiece (2).
- Close the rear window.



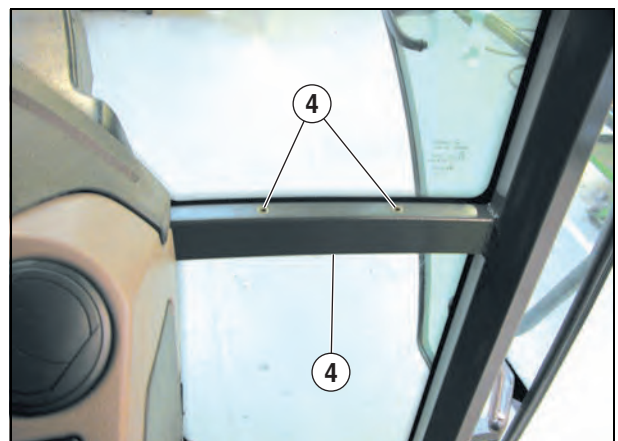
841bsn19



841bsn20



841bsn21



842bsn00

RECOMMENDATION

CLEANING

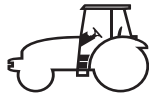
The cab needs very little upkeep. However, depending on the use you make of your tractor, you should clean it regularly to ensure the cab remains in good condition.

- To clean the outside, use water containing detergent and a jet of water to rinse it, in the same way as you would for a car.
- For the inside, sweep up all traces of earth and clean with a sponge and water to which detergent has been added.

Important: The 3 uts (4) are not provided to attach anything other than a brake gauge cover



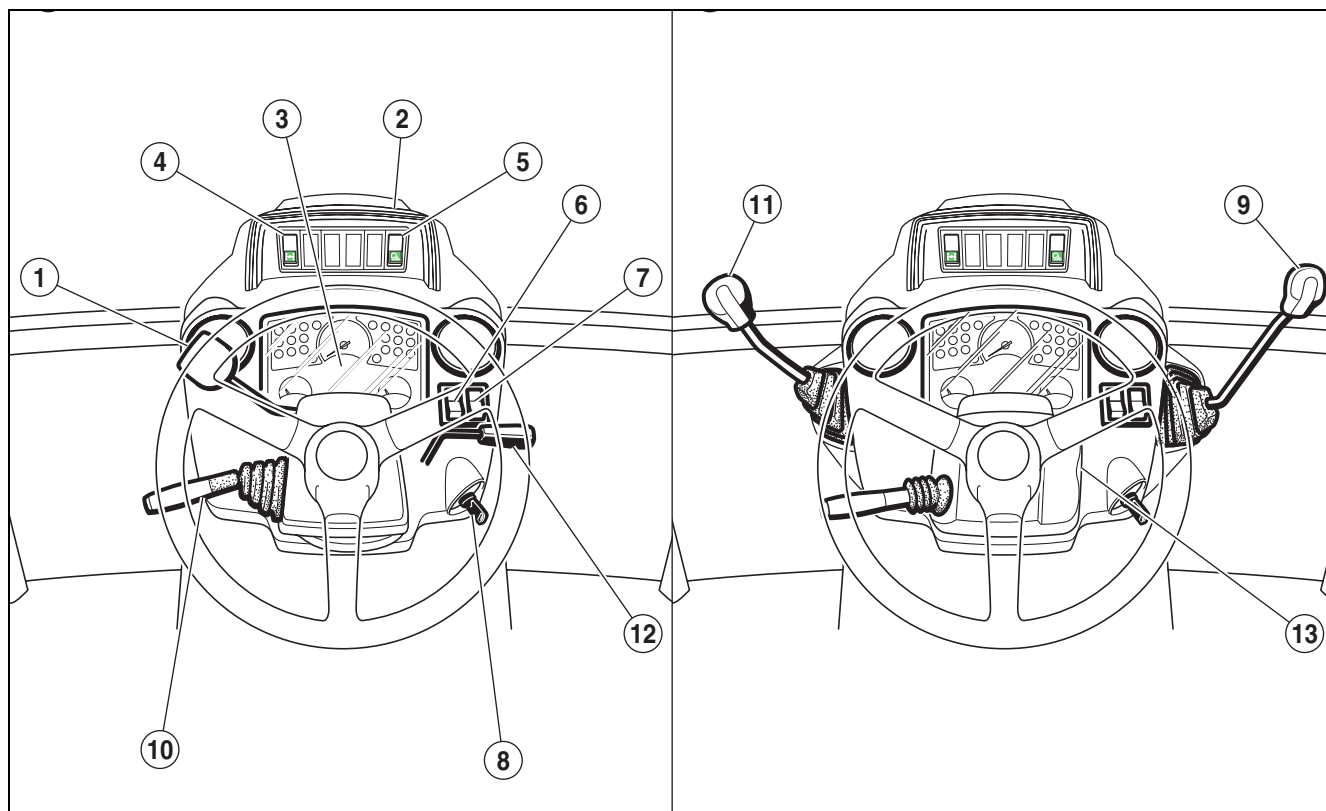
The cab should be kept impeccably clean, particularly the windows and mirrors, to obtain maximum visibility both when working and when travelling.



B - ROLL BAR



INSTRUMENTS AND CONTROLS (PANEL)



761bsn08

1 - Hydroelectric forward/reverse lever (REVERSHIFT).

2 - The fuse plate box casing.

3 - Instrument cluster.

4 - Front axle control button.

5 - Rear working lights switch.

6 - Rotating light control button.

7 - Emergency alarm button.

8 - Key operated ignition.

9 - Mechanical range doubler lever.

10 - Direction indicators, lighting and warning lights.

11 - Mechanical drive reverser lever.

12 - Steering wheel height/angle adjustment control.

13 - Button:

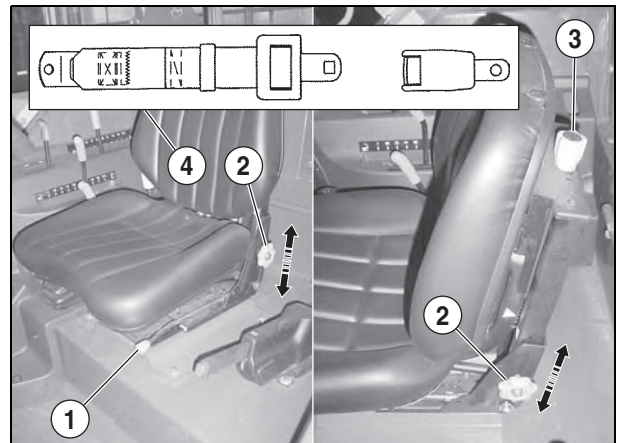
- Setting the digital clock.
- Data scrolling on digital instrument panel display.



DRIVER'S SEAT

WATERPROOF SEAT

- 1 - Adjusting the suspension height.
- 2 - To adjust the suspension height, turn the knob with the crank handle.
- 3 - Longitudinal adjustment.
- 4 - Seat harness.



791bsn12

[illegible]



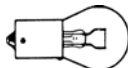
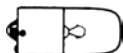
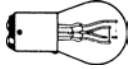
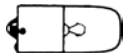
C - ELECTRICAL SYSTEM (CAB)





CHARACTERISTICS

BULBS

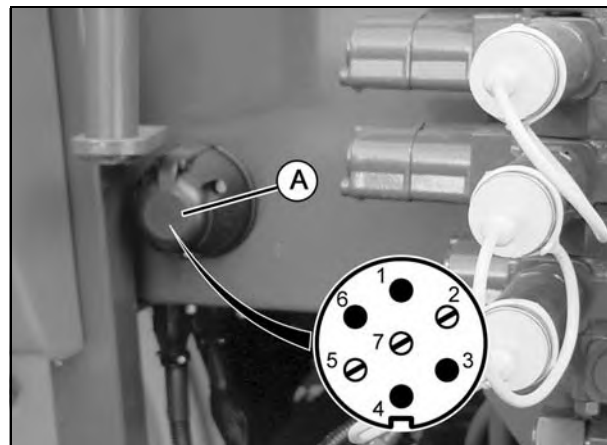
Designation	Power	Type
Dipped/ road lights	55 W	 H7
Direction indicators	21 W	
Front sidelights	5 W	
Brake lights Rear lights	5/21 W	
Number plate light	10 W	
Working lights	55 W	 H3
Rotating beacon	55 W	 H1

TOWING SOCKET

TRAILER/IMPLEMENT LIGHT SOCKET (A)

- 1 - Left direction indicators.
- 2 - Available.
- 3 - Earth.
- 4 - Right direction indicators.
- 5 - Right side lights + number plate light.
- 6 - Brake light.
- 7 - Left side lights.

Note: When using the rear power socket, make sure that the lights on the implement are in good condition.



601bsn06

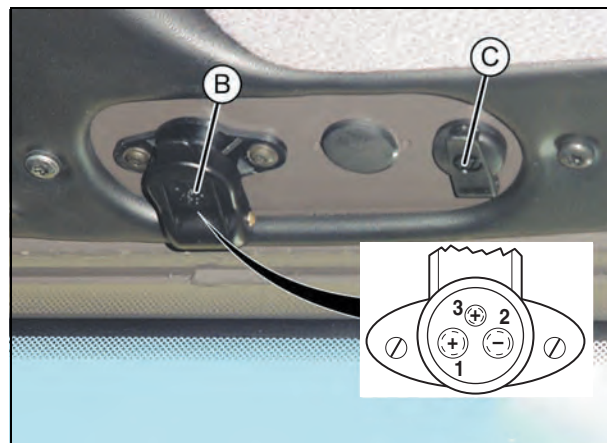
ELECTRIC CABINET POWER SOCKET (B)

E.g. sprayers, drills, etc.

- Voltage: 12 volts.
- Maximum current terminal 1: 25 amps.
- Maximum current terminal 3: 5 amps.
- Terminal 2: Earth.

EVENT COUNTER CONNECTOR (C) FOR THE ON-BOARD COMPUTER

See use of the on-board computer in chapter I "On-board computer" of this manual.



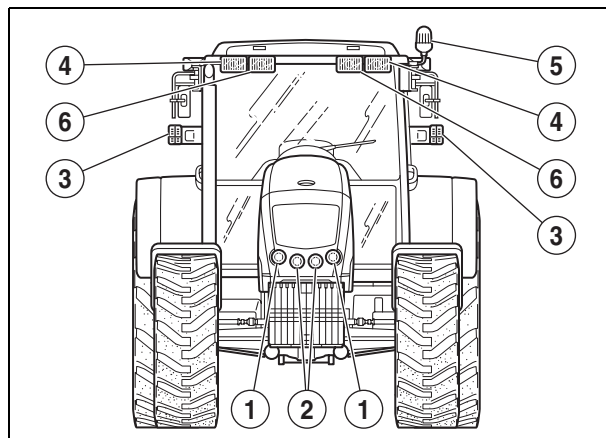
601bsn07



LIGHTING - INDICATORS

AT THE FRONT

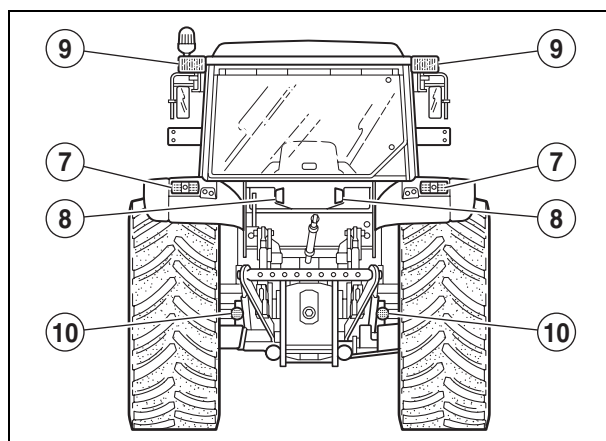
- 1 - Main beam lights.
- 2 - Dipped headlights.
- 3 - Side indicator repeaters.
 - Direction indicators and hazard warning lights.
 - Side lights.
- 4 - Working lights.
- 5 - Rotating beacon.
- 6 - Dipped headlights (depending on equipment fitted and destination).



601bsn63

AT THE REAR

- 7 - Side indicator repeaters:
 - Direction indicators and hazard warning lights.
 - Brake lights and rear lights.
 - Reflector.
- 8 - Plate lighting.
- 9 - Working lights.
- 10 - Reflector.



601bsn65

CONTROLS

Direction indicators

- Right side (I).
- Left side (II).

Horn (III)

Press the lever.

Headlights

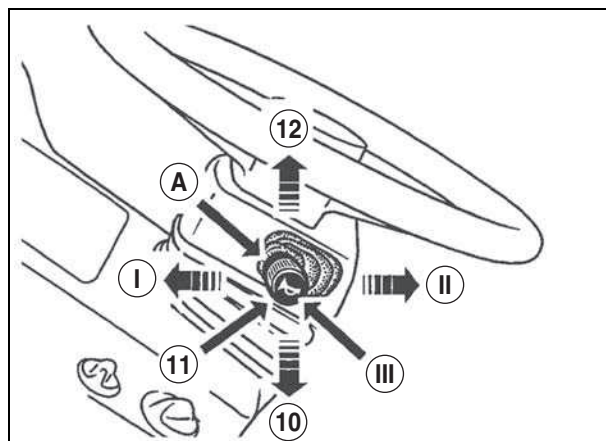
Turn the end of the lever (A) anti-clockwise.

Position:

○ = lights off

☀ = side lights

☾ = dipped beam/main beam headlights.



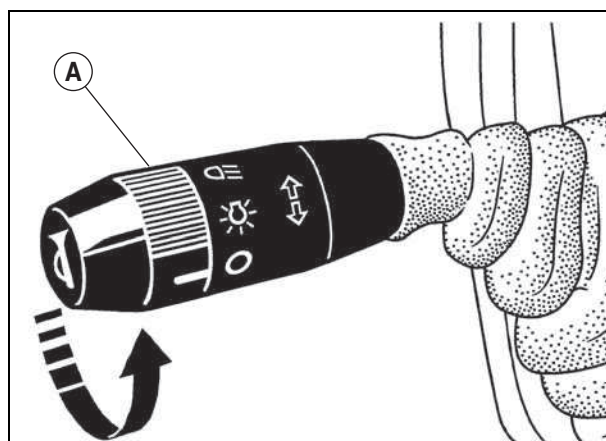
601bsn10

To change from dipped to full beam, press the lever to position (10).

Return the lever to position (11) to change back to dipped headlights.

To flash headlights

Pull the lever towards the steering wheel (12).



601bsn11

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