ZETOR

PROXIMA PLUS 85 95 105

1/2009

Operator's manual

SAFETY INSTRUCTIONS FOR THE USERS

PRINCIPLES OF FIRE SAFETY

36. Carry out refilling of fuel with engine stopped.
37. In summer season do not refill fuel tank to its full capacity. Wipe immediately spilled fuel.
38. Do not refill fuel in vicinity of open flame and do not smoke.
39. When inspecting level of electrolyte in the battery, do not smoke and do not use open flame. Pay attention to consistent observation of fire safety instructions in environment of increased risk of fire (haylofts, straw stacks, etc.).
40. In case that the tractor is equipped with a fire extinguisher, have it still available.

PROTECTION OF HEALTH AND THE ENVIRONMENT

41. The tractors are not equipped with any special filters of air supplied to the cabin. Therefore the tractors are not designed for work with aerosols and other harmful substances. Kerosene, diesel oil and other oil products that are used for operation and treatment of the tractor may cause skin diseases with direct contact, show irritation effects to mucous membranes, eyes, digestive and upper respiratory tract. Some of them may cause general poisoning when swallowed.
42. The workers that come into contact with oil products are obliged to observe safety and hygienic directives, use suitable protective means and work in well ventilated rooms.

WHEN WORKING WITH OIL PRODUCTS

43. After end of your work of before taking a food it is necessary to wash the hands thoroughly with a non-irritating washing preparation and use a suitable protective hand cream.
44. When connecting and disconnecting quick-couplings of hydraulic circuits remove, using any textile material, excessive hydraulic oil remaining in the socket or plug of the quick-coupling.

DISPOSAL OF WASTE

46. With disposal of the tractor or its parts (including its operational fluids) after termination of their service life it is necessary to follow the applicable laws and executing notices to the laws of the country in which the tractor is used. Based on the act on waste, when selling the tractor, the final dealer of the tractor is liable to inform the consumer about the way of back taking of some used parts of the tractor. These include oils and other operational fluids, batteries and tyres. Back taking of these used products shall be carried out without any demands for any payment from the consumer for this back taking.

DAILY PREVENTIVE MAINTENANCE

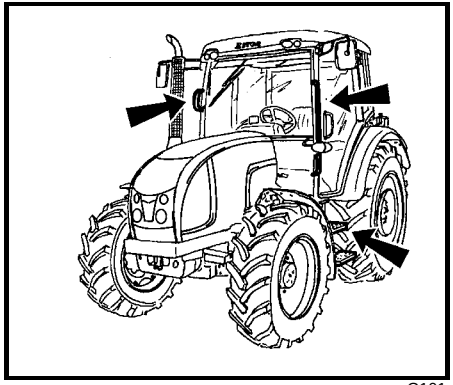
47. Perform this daily or at least every 8-10 working hours of the engine.

SAFETY CABIN

48. In case that the protective frame of the cabin is damaged from corrosion, accident or otherwise, the safety cabin shall be replaced for a new one.

AIR-CONDITIONING

49. In any case do not dismount, change direction or otherwise manipulate with the fitting of the air-conditioning system. This may cause a sudden escape of the cooling medium and fast local cooling. A contact of such component with skin may result in a serious injury.
50. The air-conditioning system is equipped with quick-couplings that allow, if necessary, to separate the cab from the tractor body without any leakage of the cooling medium. Any interventions into the air-conditioning system should be performed by a specialised service shop.



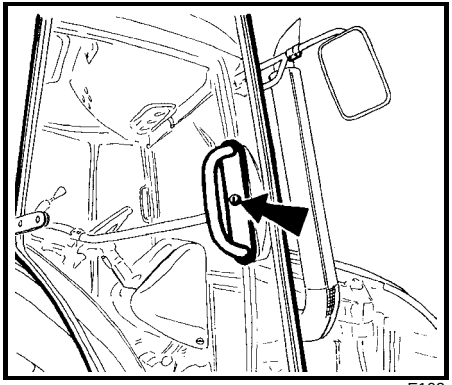
G101

SAFETY CABIN

Use commonly left side of the tractor for getting in and out the cabin.

Use footboards for getting in and out the cabin and hold tight to the grab bars.

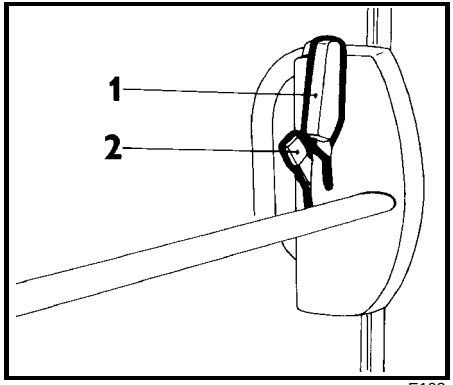
Pay special attention in space of the shifting lever and lever of manual regulation of fuel.



E102

OPENING OF DOORS FROM OUTSIDE

The cabin doors can be locked from the outer side. Doors can be opened after unlocking and pulling the grab bar.



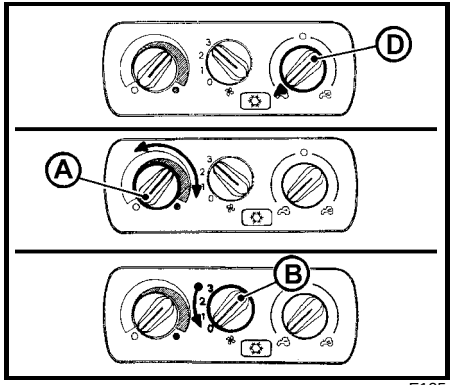
E103

OPENING OF DOORS FROM INSIDE

1. Lever for opening of the door from inside.
2. Lever for opening of the lock from inside.

With full opening the door is held by a gas strut.

It is forbidden driving with open door due to its possible damage.

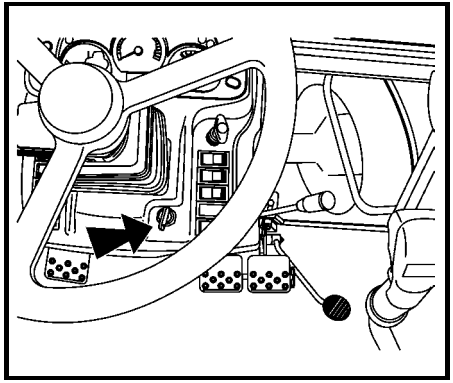


E125

WHEN THE CABIN IS COOLED

When the cabin is cooled to the desired air temperature, we recommend:

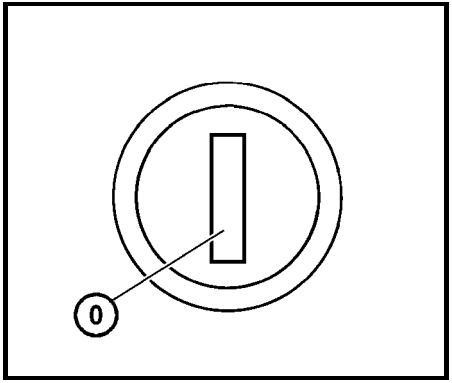
- Set the air circulation control (D) from position ‘b’ (air recirculation) to position ‘a’ (sucking of outdoor air).
- Carry out regulation of air temperature with A/C switched on by partial opening/closing of the heating valve (A). In case of this setting air, coming to the cabin from the air outlets, is not dried so intensively.
- Desired setting of temperature with A/C switched on can also be carried out by reducing speed of the fan by setting the control (B) to position1 or 2.



E140

IGNITION BOX

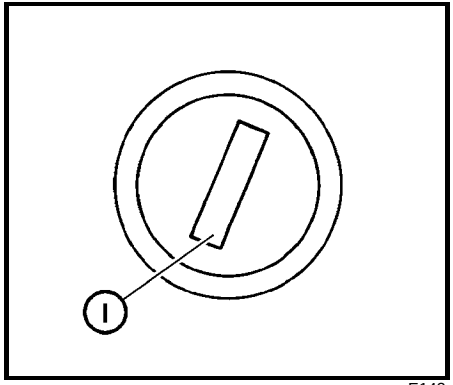
The ignition box is located on the dashboard, see the arrow.



E141

KEY IN POSITION "0"

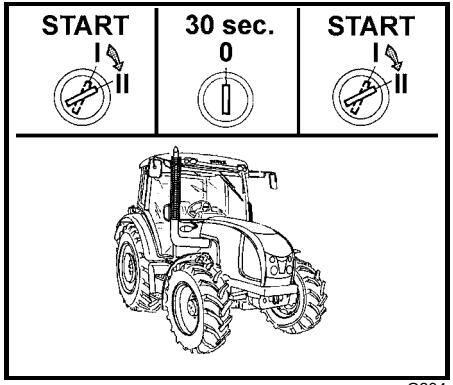
Voltage to all consumers, controlled through the key, is disconnected. The key can be removed.



E142

KEY IN POSITION "I"

Voltage is connected to all consumers except the starter. The key is in this position when the engine is running. The key cannot be removed.

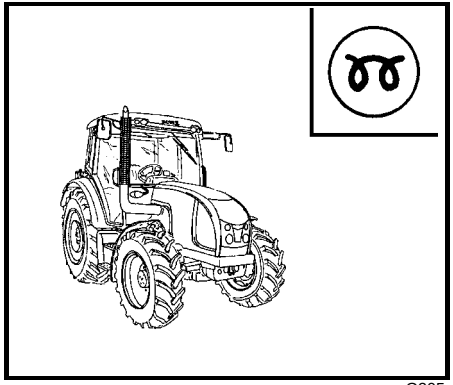


G204

IN CASE THE ENGINE DOES NOT START

Turn the ignition key back to position ”0”, wait for 30 seconds and repeat starting. It is permitted to execute 6 starting cycles (15 sec starting and 30 sec pause). Next starting of the engine is permitted after the starter is cooled down to the ambient temperature.

Never activate the starter if the tractor is stopping. The starter should be exposed to a risk of damage.

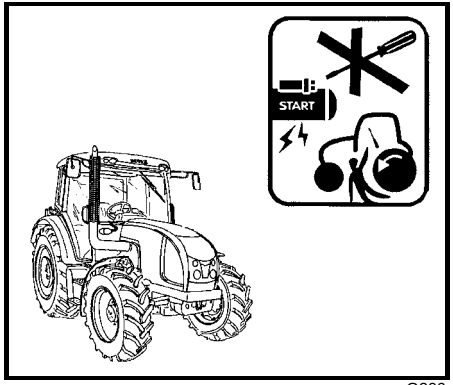


G205

INDICATIONS OF FAULTS IN THE HEATING SYSTEM

A fault of the heating system is indicated by a flashing indicator of heating.

- Flashing of the indicator in second intervals during standstill of the engine indicates heating in an emergency regime as at low temperatures regardless to temperature of the cooling fluid.
- Flashing of the indicator two times per second during standstill of the engine indicates stopped (non-functioning) heating.
- Permanent flashing of the indicator of heating during run of the engine indicates a fault of the regulator of heating, whilst heating continues. The fault shall immediately be eliminated to prevent discharge of the battery.



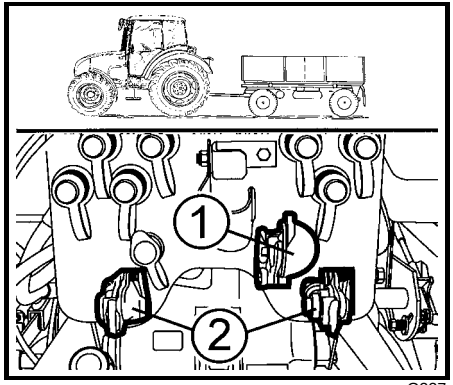
G206

MANIPULATION WITH THE STARTER

It is forbidden to start the engine using short-circuited starter terminals!

The tractor can only be started from the driver’s seat!

With any manipulation of repair of the starter it is necessary to disconnect the minus pole of the battery and move all levers including shifting of the output shaft to neutral position! The starter contacts are protected by caps.

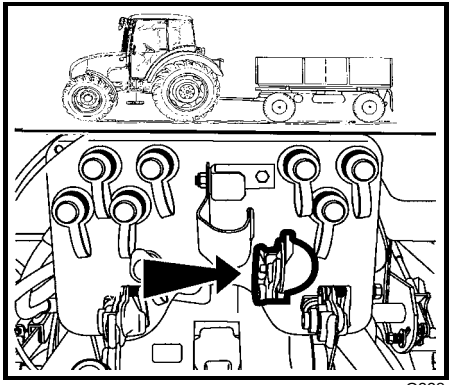


G227

SINGLE-HOSE AND DOUBLE-HOSE BRAKES

1. Coupling head of single-hose brakes.
2. Coupling heads of double-hose brakes.

The coupling heads shall be covered with lids after disconnecting or when a trailer (semi-trailer) is not coupled.

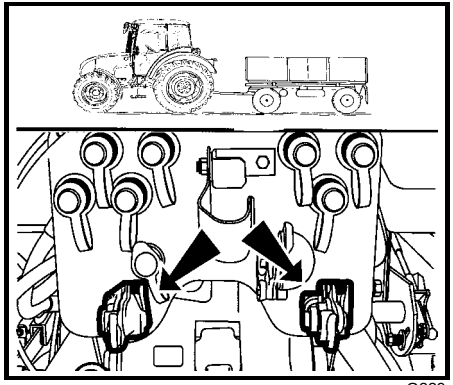

G228

SINGLE-HOSE BRAKES

The lid is marked by black colour.

*When a trailer (semi-trailer) with maximum permitted weight approved for the given type of tractor is coupled, the maximum permitted speed of the vehicle train is **30km.h^{-1}**!*

The maximum permitted speed of the vehicle train is given by the maximum permitted speed of the slower vehicle of the train.

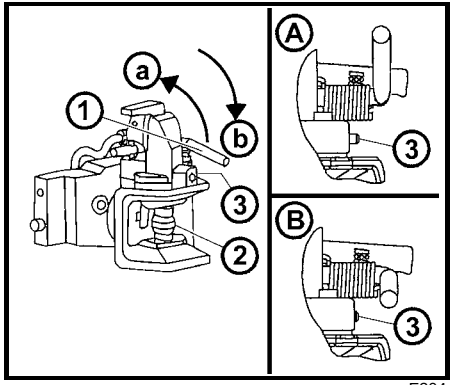

G229

DOUBLE-HOSE BRAKES

The lid of the left head is marked by yellow colour (braking branch), the lid of the right head is marked by red colour (filling branch).

*When a trailer (semi-trailer) with maximum permitted weight approved for the given type of tractor is coupled, the maximum permitted speed of the vehicle train is **40km.h^{-1}**!*

The maximum permitted speed of the vehicle train is given by the maximum permitted speed of the slower vehicle of the train.



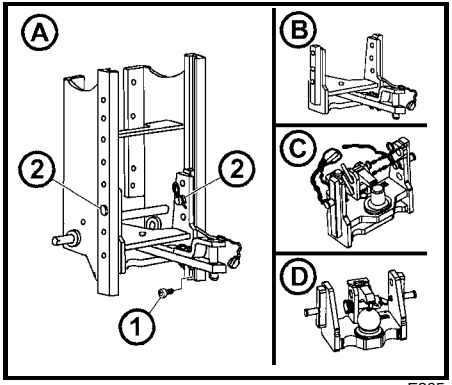
E304

AUTOMATIC HITCH OF THE MULTI-LEVEL HITCH DEVICE CBM

Moving of the lever (1) in direction of the arrow (a) slides the pin (2) into the upper position that is indicated by the extracted warning indicator (3), see fig. (A).

After sliding the hitch onto the pole eye the pin slides automatically into the trailer pole eye. The hitch pin (2) can be engaged manually by sliding the lever (1) in direction of the arrow (b). Engagement of the pin is indicated by the retracted warning indicator (3), see fig. (B).

After connecting the trailer it is always necessary to check whether the warning indicator (3) is retracted as shown on fig. (B).



E305

MODULAR SYSTEM OF HITCHES FOR TRAILERS AND SEMI-TRAILERS

Types of modules:

Fig. (B) – Pivoted pull bar bracket.

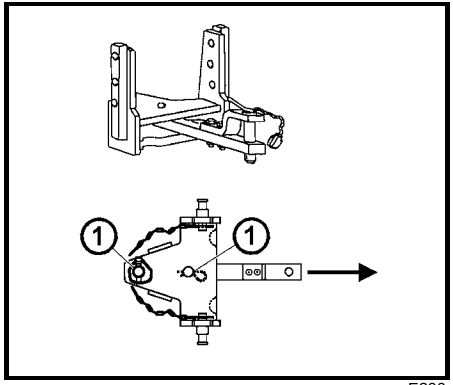
Fig. (C) – Pivoted pull bar bracket with fixed pin.

Fig. (D) – Bracket with ball ø 80.

Dismounting – fig. (A):

1. Dismount the locking screw (1).
2. Secure the module against fall, unlock and dismount the pins (2).
3. Slide out the module from the bracket downward.

Mounting is performed in reverse order.



E306

BRACKET MODULE OF PIVOTED PULL BAR

The bracket module of the pivoted pull bar is located in the multi-level hitch bracket.

PIVOTED PULL BAR

Dismounting:

1. Unlock and dismount the pins (1).
2. Pull out the pivoted pull bar in direction of the arrow.

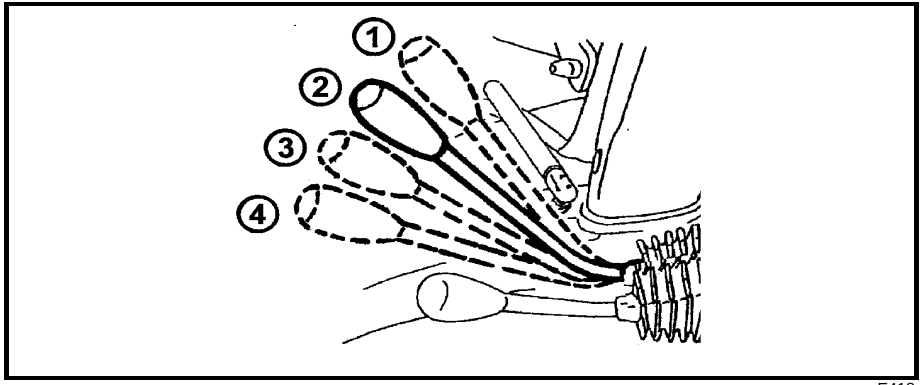
Mounting is performed in reverse order.

DRIVE OF FARMING MACHINES

DRIVE OF MACHINES WITH GREATER INERTIAL MASSES

(CRUSHERS, ROTARY HARROW, REAPERS, ETC.)

The propeller shaft for drive of such machines shall be equipped with a so-called free engine clutch that provides disconnection of the transfer of torques with backward effects from the machine to the tractor.



E418

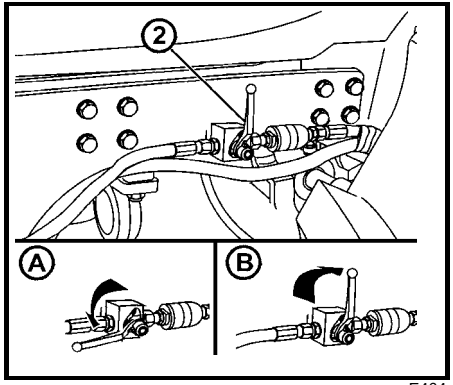
ADDITIONL DISTRIBUTOR CONTROL

Each control lever has four positions:

	Position of the lever	***Function***
1	***Rear (upper) position***	Pressure oil flows to quick-couplings "**4**"and "**6**" Quick-couplings, connected to the drain: "**3**" and "**5**"
2	***Central position***	Neutral
3	***Front (lower) position***	Pressure oil flows to quick-couplings "**3**" and "**5**" Quick-couplings, connected to the drain: "**4**" and "**6**"
4	***Front marginal position***	Increased force is necessary to move the control lever from position (3) further forward to position (4), so-called floating (free) position, where the levers are arrested. Both quick-couplings of each section are connected to the drain in this position.

Note: The lever returns from positions (1) and (3) to neutral position automatically.

*Connect always the single-acting cylinder to quick-couplings "**4**"and "**6**"!*



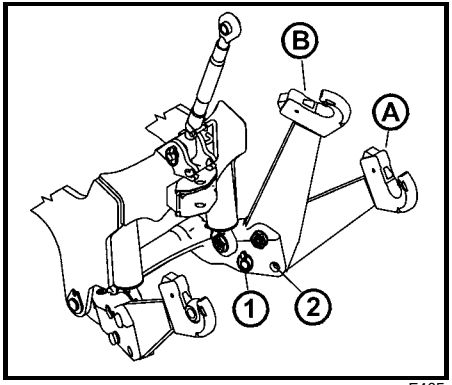
E464

HYDRAULIC LOCKING OF THE FRONT THREE-POINT HITCH

Hydraulic locking of the front three-point hitch can be carried out in any position of the hydraulic cylinders using valves installed in the front part of the tractor (2).

A Free position
The valve levers are in horizontal position
- The hitch can be controlled from the cabin

B Locked position
The valve levers are in vertical position
- The hitch is locked



F465

WORKING AND TRANSPORT POSITIONS OF THE FRONT THREE-POINT HITCH

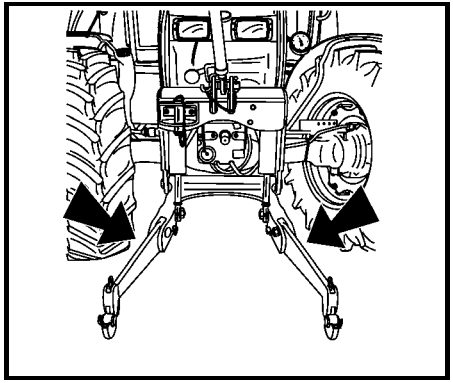
A Working position of the front three-point hitch

B Transport position of the front three-point hitch

Change of position of the pull bars of the front three-point hitch:

1. Unlock and remove the pin (1) from the hole.
2. Lift the arm from position (A) to position (B).
3. Lock the arm by inserting the pin to the hole (2) and then lock the pin.

Insert only pin to the hole; never check its clearness by fingers!

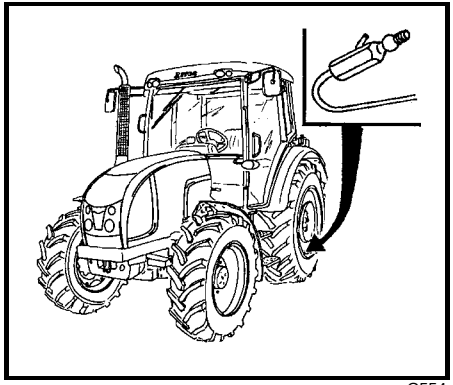


DRIVE WITH FARMING MECHANISMS ATTACHED TO THE FRONT THREE-POINT HITCH

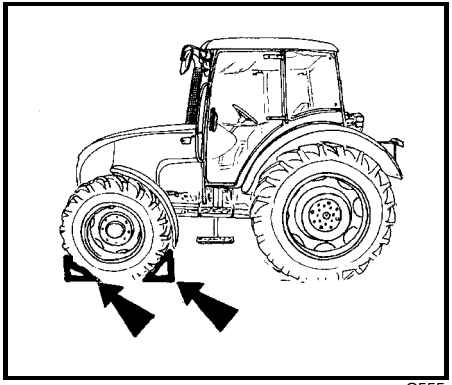
When driving a tractor farming mechanisms attached to the front three-point hitch, the maximum permitted speed is 15 km.h^{-1}.

In case that there is not coupled any mechanism or weight to the front three-point hitch, it is recommended to lift the lower lifting pull bars to their transport position.

ADDITIONAL WEIGHTS



G554



G555

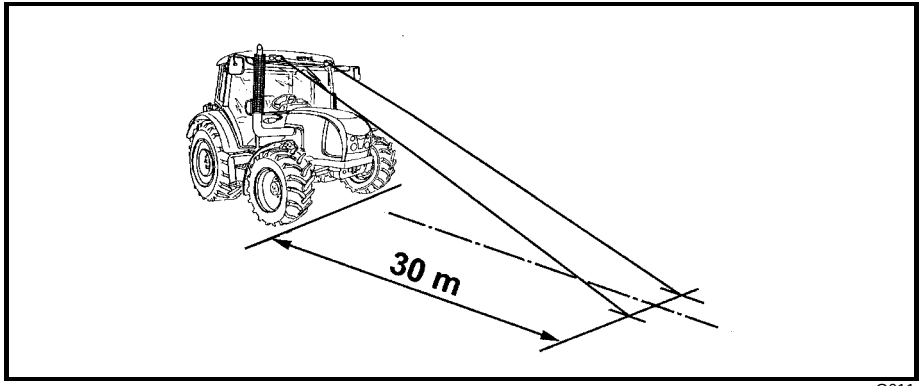
VALVE FOR FILLING OF TYRES WITH A FLUID

All inner tubes of rear wheels are provided with valves that allow their filling with a fluid if an extension is used.

Tubeless tyres cannot be filled with any fluid! Only radial tubeless tyres can be filled with water for purpose of additional loading. Filling of tubes of the front wheel tyres and rear double wheels with a fluid is not permitted!

CHOCKING OF FRONT WHEELS

Before lifting of rear wheel do not forget to secure the tractor against any movement by chocking of front wheels!



G611

CHECK OF ADJUSTMENT OF LIGHTS ON THE ROOF OF THE CABIN

In vertical direction any point of the illuminated area within plane of the road to the left from the longitudinal vertical plane passing through the headlight centre shall not be more than 30m from the front outline of the tractor.

In horizontal direction the headlight beams shall be parallel with the longitudinal axis of symmetry of the tractor.

Carry out checks of adjustment of the headlamps at unladen weight of the tractor. The front roof headlights may be used during traffic on ground roads only if there is a front-carried mechanism is coupled to the tractor or an equipment covering the main headlights (in the mask of the tractor).

FLUIDS FOR TRACTOR HYDRAULIC BRAKES	
Type	**Classification**
Synthol 205	PND 31-656-80, ISO 4925, SAE - J 1703
Fuchs Stopred	SAE - J 1703
Brake Fluid DOT 4	ISO 4925, SAE - J 1703
Shell Donax YB	SAE J 1703, ISO 4925
	NOTE! 1. *The fluid is not determined for arctic conditions!* 2. *The brake fluid should be replaced once every two years regardless of hours of work!* 3. *The fluids of the same classification may be mixed.*

FLUID FOR TRACTOR COOLING SYSTEM

FRIDEX - STABIL, FRIDIOL 91 or FRICOFIN S and demineralised water in proportion 1:1.5 (refilling should be carried out in the above-mentioned proportion).
Anti-freeze for refilling abroad should contain anti-corrosive additives protecting any materials (including rubber and head sealing) of the engine cooling system.

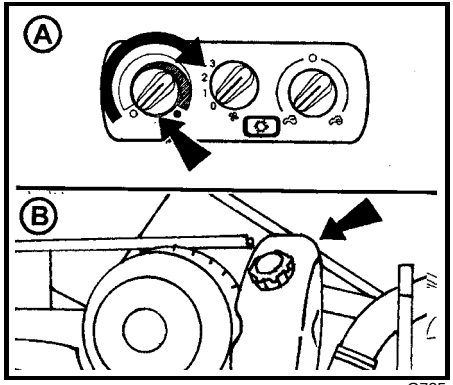
NOTE!

1. *It is forbidden to charge the tractor cooling system with water without antifreeze!*
2. *The coolant should be changed after two years of operation. Fluids FRIDEX - STABIL and FRIDIOL 91 may be mixed.*
3. *Possibility to mix with fluids of other producers hasn't been tested!*

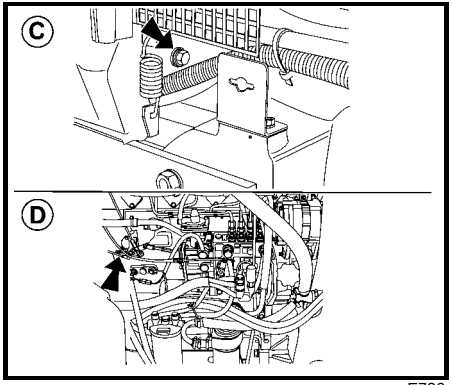
MAINTENANCE INSTRUCTIONS

Most of operations of planned maintenance may be carried out by the driver or other user of the tractor. In case you do not have sufficient technical equipment, let the difficult operations carried out by a specialised repair shop.

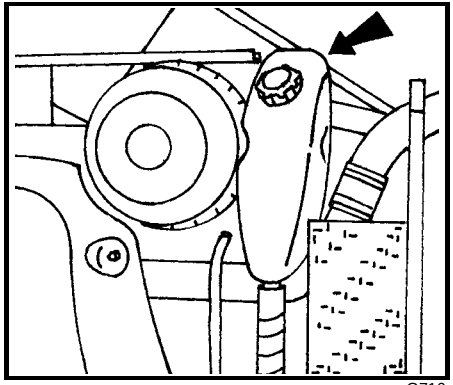
All works, connected with cleaning, lubrication and adjustments of the tractor or coupled mechanisms may only be carried out after stopping of the engine and other movable components except checks of brakes, recharging and hydraulic system.



G725



E726


G716

REPLACEMENT OF COOLING FLUID

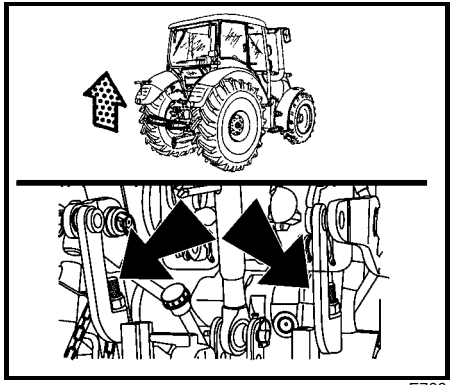
Follow this procedure:

1. Open the heating circuit cock (A) and release the overpressure lid on the expansion tank (B)
2. Drain cooling fluid from the tank (C). The drain screw is accessible after removal of the left part of the bonnet.
3. Drain cooling fluid from the block of the engine (D). The drain cock is accessible after removal of the right part of the bonnet.
4. After drainage of cooling fluid close the screw and cock (let the heating circuit cock open).
5. Fill the cooling system with an anti-freezing mixture.
6. Start the engine and let it running for approx. 1 minute.
7. Refill anti-freezing mixture in the expansion tank up to the upper gauge mark MAX.
8. Close the expansion tank by the overpressure lid.

Replace anti-freezing mixture after two years at the latest.

ADJUSTMENTS

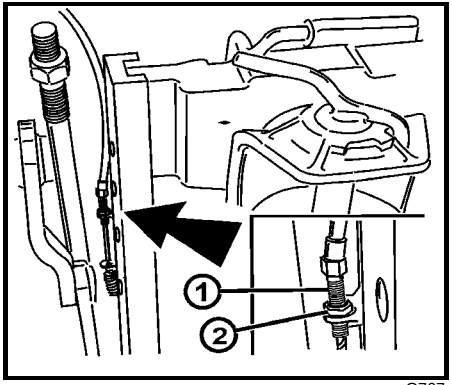
Most of the following works requires certain experience and particular diagnostic equipment. Therefore we recommend to-let the works executed by a specialised or authorised repair shops.



E766

ADJUSTMENT OF HITCH FOR SINGLE-AXLE TRAILERS

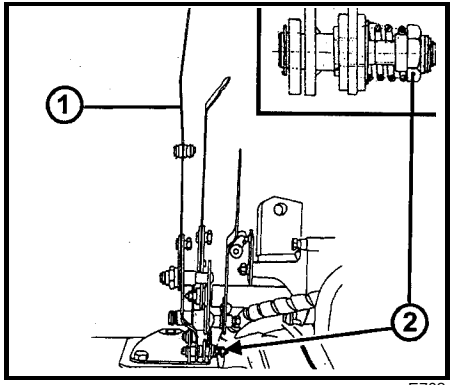
1. Lift the hydraulic arms to their upper (transport) position with selected position regulation (**P**)
2. Screw the nuts on the adjustable pull rods to the guide tube without any play.
3. Further tighten the nuts by 3.5 turns.
4. Check free tilting of the supporting hooks.
5. By repeated lowering and lifting of the hydraulic arms to their transport position verify free run of the engine at idle speed; the safety valve of the hydraulic pump shall not be activated.
6. Then lower slightly the arms.



G767

ADJUSTMENT OF BOWDEN CABLE

The hitch is in transport position. The Bowden cable shall be stretched so that there is no play on the control lever in the cabin. In case that it is stretched insufficiently, adjust it using the set screw (1). After completion of the adjustment lock the set screw by the lock nut (2).



E768

ADJUSTMENT OF CONTROL FORCE OF INNER HYDRAULIC CIRCUIT LEVER

Adjust friction force of the inner hydraulic circuit lever (1) by tightening of the nut (2) so that any spontaneous drop of this lever does not occur in any its position then the system of power regulation is selected.

ESSENTIAL TECHNICAL PARAMETERS

PERMITTED COMBINATIONS OF WHEELS FOR TRACTORS			
Front wheels		**Rear wheels**	
Tyre size	equivalent	Tyre size	equivalent
11,2-24	11,2R24	13,6-36	
		16,9-30	16,9R30 480/70R30
12,4-24	12,4R24 360/70R24	18,4 -30	18,4 R30 520/70R30
		16,9-34	16,9R34 480/70R34
		13,6-36	
13,6-24	13,6R24 380/70R24	16,9-34	16,9R34 480/70R34
		18,4-34	18,4R34 520/70R34 600/65R34