

*The CC421 is a member of the CC 42 family of vibration rollers and is a 10 ton tandem roller, featuring articulated steering and vibration and propulsion on both drums.*

*CC421 is the production roller to enhance compaction economy in all types of operation, e.g. base, sub-base, binder courses and bituminous surfaces in road construction. The machine is well suited for compaction to stipulated density of bituminous or cement stabilized materials.*

*CC421 is the basic version described in these instructions. Separate information is available on request concerning accessories or additional equipment.*

## OPERATION

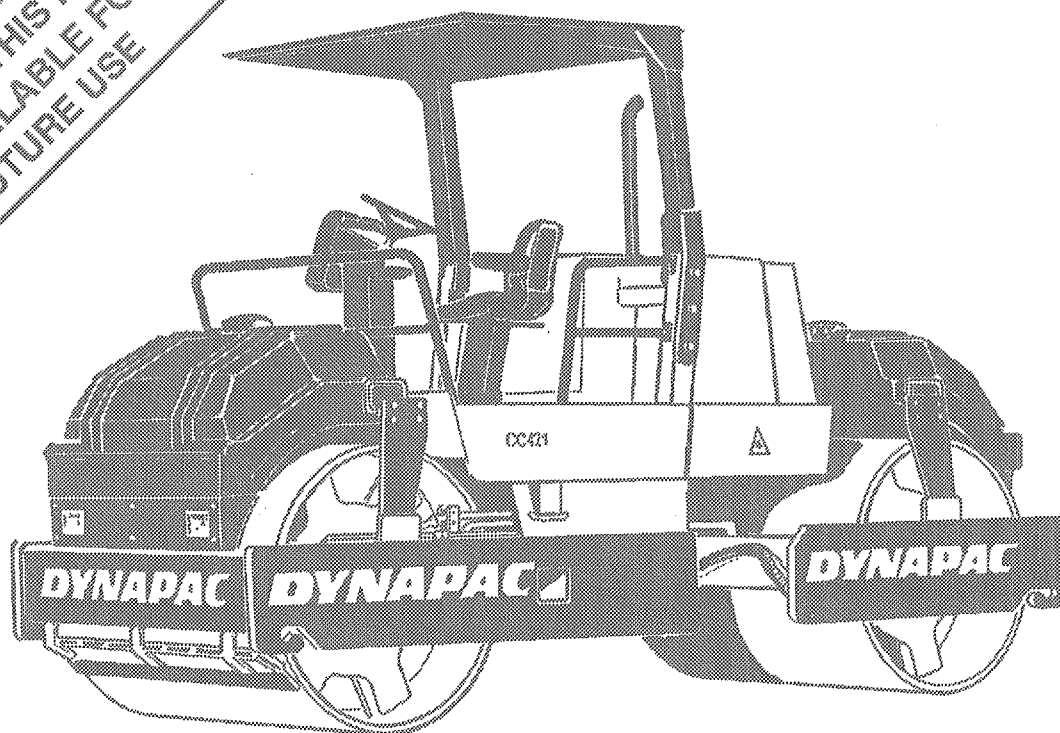
# CC421

## VIBRATION ROLLER

O-232-3EN, 9412

**Diesel Engine:**  
**Deutz F6L912**  
**Cummins 6 BT 5.9**

**These instructions apply from**  
**PIN (S/N) \*58010001\***



**DYNAPAC**  
DYNAPAC HEAVY EQUIPMENT AB

We reserve the right to change

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## WARNING SYMBOLS



**Safety instructions - Personal safety**



**Special caution - Machine or component damage**

## SAFETY MANUAL



**The safety manual that accompanies the machine should be studied by every operator of the roller. Always follow the safety instructions and do not take the manual away from the roller.**

## GENERAL

This manual contains instructions concerning operation and use of the roller. For information regarding care and maintenance, see the manual, "MAINTENANCE CC 421".



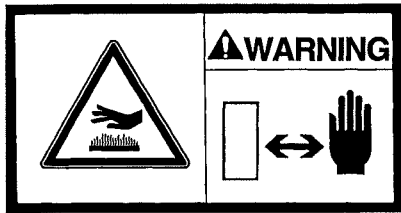
**When starting up and driving a cold machine, which implies cold hydraulic fluid, the braking distance will be longer than normal until the machine reaches normal working temperature.**

## **SAFETY INSTRUCTIONS (Read the Safety Manual also)**



1. Read and clearly understand **OPERATING MANUAL** before starting and operating the machine.
2. Observe and follow all maintenance and service instructions.
3. Do not operate machine unless qualified by training or experience. Do not allow passengers on the roller.
4. Do not operate machine if in need of repair or adjustment.
5. Do not get on or off moving machine. Always use proper steps and hand rails.
6. Roll Over Protective Structures (ROPS) is recommended when stability conditions are questionable. Always use seat belt with ROPS.
7. Drive slowly when turning corners.
8. Avoid sidehill travel. Operate up and down the slope.
9. Ensure that at least two thirds of the drum width rests on already compacted ground when driving close to edges or holes.
10. Be alert to overhead obstacles. Look up as well as down.
11. Use special caution when operating on rough or uneven ground. Always maintain a speed consistent with working conditions.
12. Obey all safety rules and use safety equipment provided for the job.
13. Keep machine clean. Avoid dirt and grease on operator platform. Keep all instructions signs and decals clean and fully legible.
14. Exercise caution when refueling machine:
  - Shut down engine.
  - No smoking allowed.
  - Use no open flames.
  - Ground filler nozzle against tank neck to avoid a spark.
15. Block drums and/or tires and apply steering lock before servicing or repairing machine.
16. If noise levels on machine without cabs are over 85 db(A):
  - Ear protection is recommended.
17. Do not modify the machine in any way which will affect safety. Any modification on this machine requires prior written approval from Dynapac.
18. Do not operate machine until hydraulic oil has reached operating temperature. Braking distance can be extended when oil is cold. See starting instruction in **OPERATING MANUAL**.

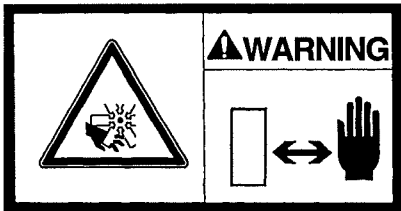
## SAFETY DECALS, LOCATION/DESCRIPTION



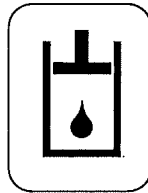
Warning for hot surface. The surface must not be touched.



**DO NOT LEAVE DRIVER'S PLATFORM WHILE THE ENGINE IS RUNNING WITHOUT DEPRESSING THE EMERGENCY STOP SWITCH**



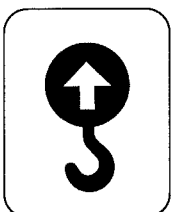
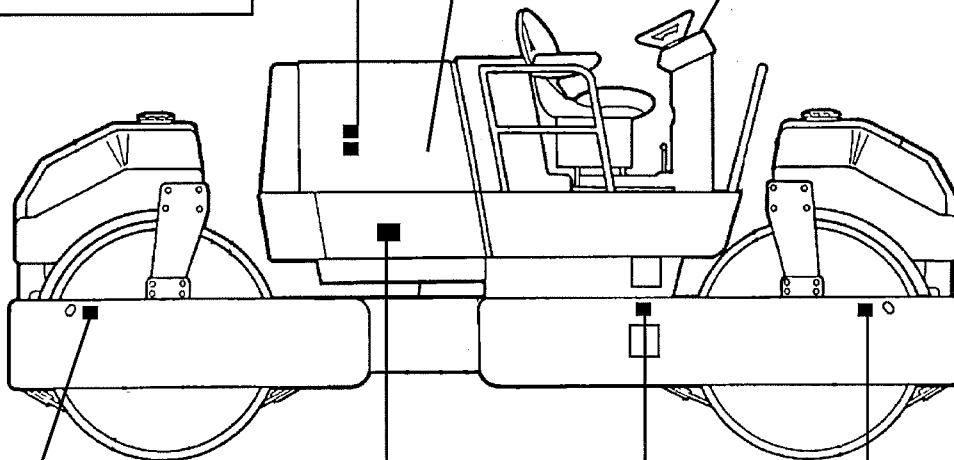
Warning for rotating engine components. Keep your hands at a safe distance from the danger zone.



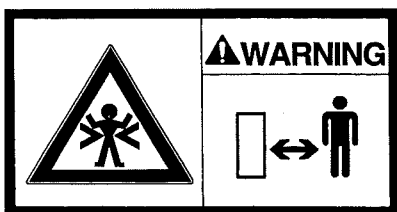
Hydraulic fluid



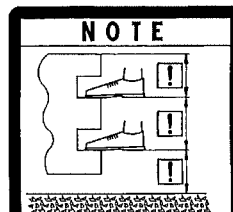
The operator is urgently requested to read the safety manual, and the operation and maintenance instructions before using the machine.



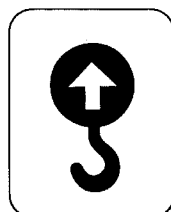
Lifting point



Crush zone, articulated steering. Maintain a safe distance from the crush zone.

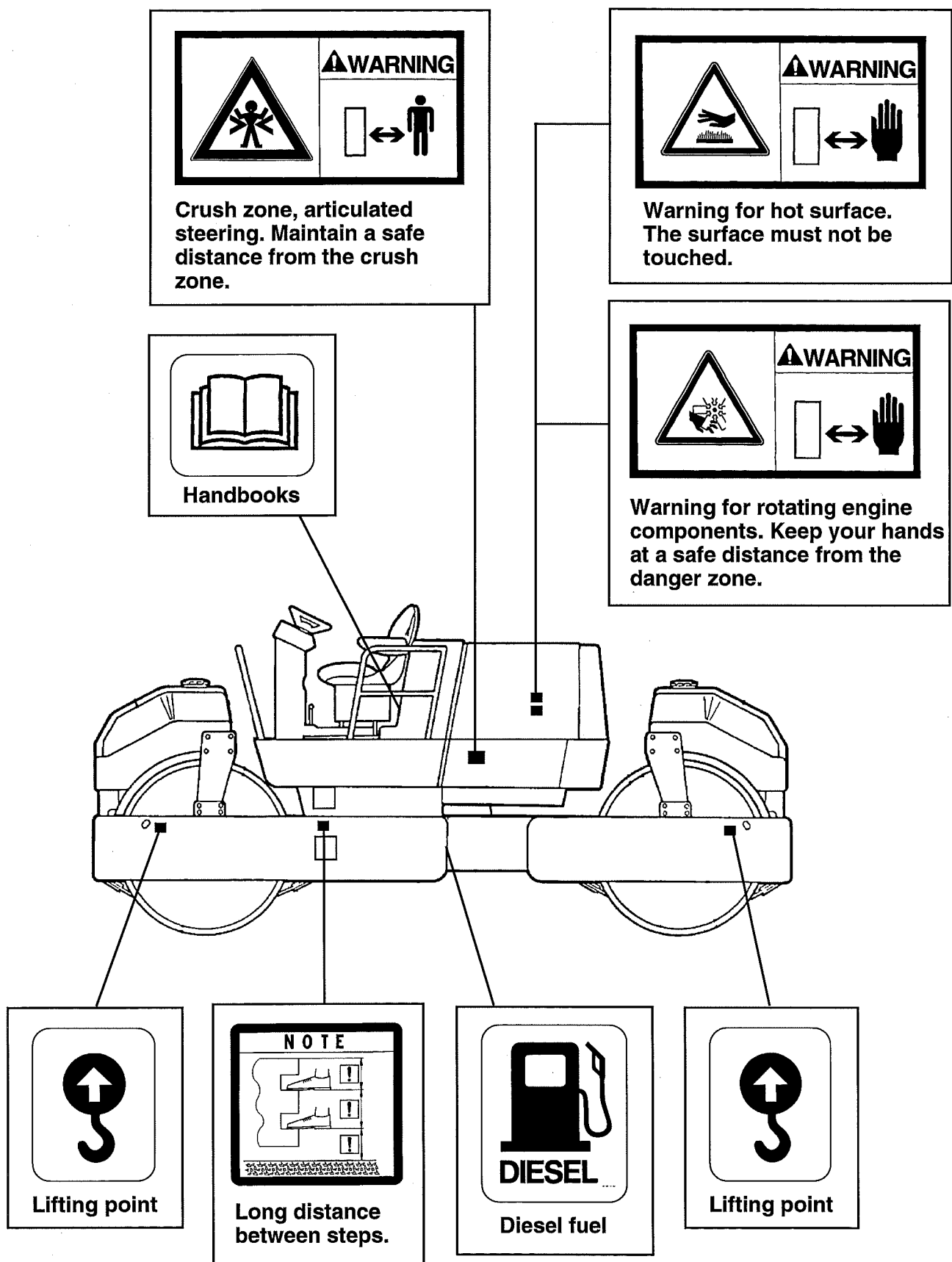


Long distance between steps.

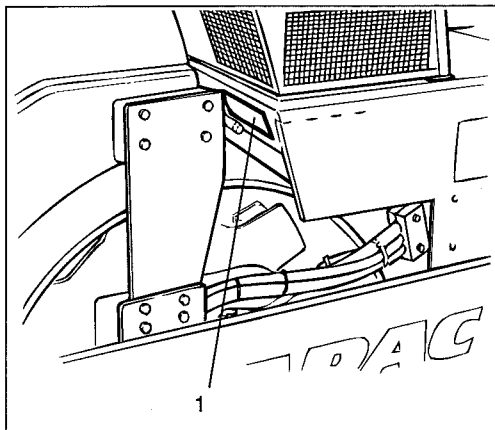


Lifting point

## SAFETY DECALS, LOCATION/DESCRIPTION



### Machine plate

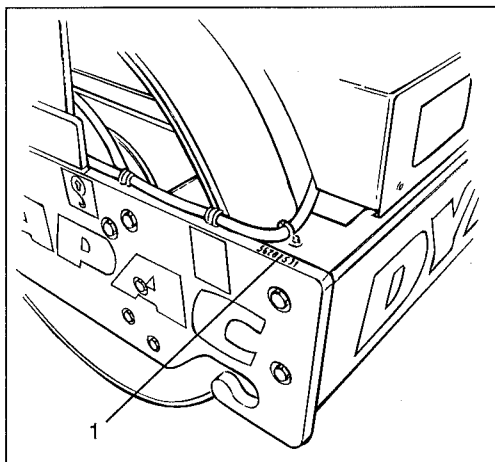


**Fig. 1 Operator's platform**  
1. Machine plate

The machine type plate (1) is affixed on the front edge of the operator's platform. The plate shows the manufacturer's name and address, type of machine, PIN, ie, part identification number, (serial number), weight in working order, engine power and year of manufacture.

Please state the PIN (serial number) of the roller when ordering spares.

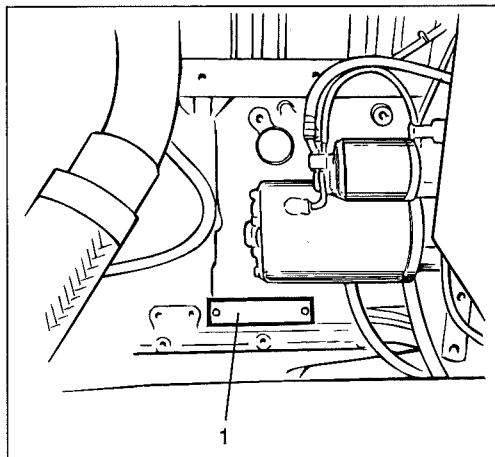
### Serial number on the frame



**Fig. 2 Front frame**  
1. Serial number

The PIN of the frame (serial number) (1) is punched on the right edge of the front frame. This number is the same as the PIN (serial number) on the machine plate.

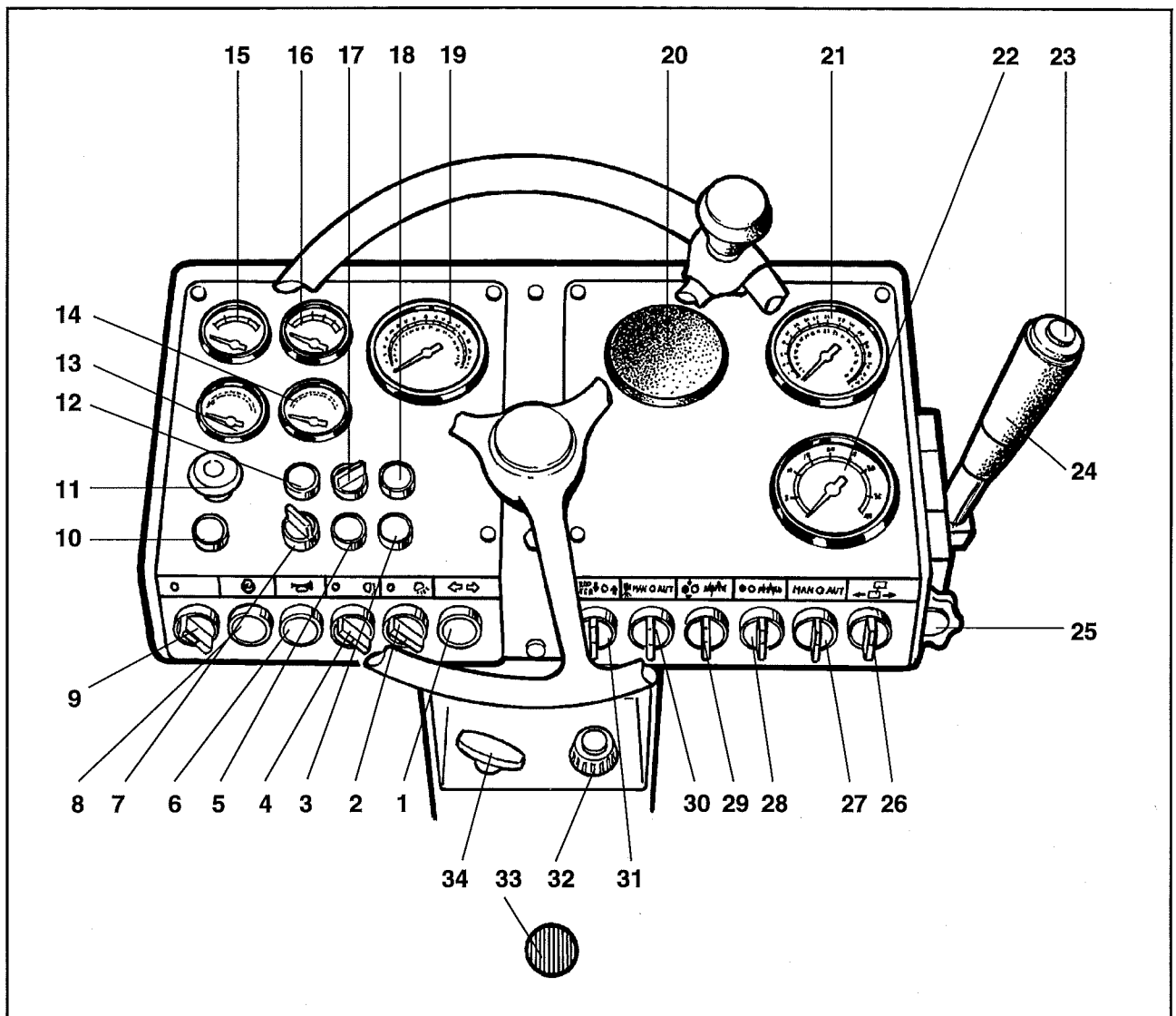
### Engine plate



**Fig. 3 Engine**  
1. Type plates

The engine type plate (1) is located on the crankcase below the starter motor (Deutz). The plate shows the type of engine, serial number and engine data. Please state the engine serial number when ordering spares. See also the engine manual.

## INSTRUMENTS AND CONTROLS

















**Fig. 4**

- |                               |                                    |  |
|-------------------------------|------------------------------------|--|
| 1. Direction indicator*       | 13. Voltmeter                      | 25. Speed regulator                          |
| 2. Working light, rear        | 14. Fuel gauge                     | 26. Plugged                                  |
| 3. Hazard beacon*             | 15. Temperature gauge (hydraulics) | 27. Vibration selector                       |
| 4. Working light, front       | 16. Temperature gauge (engine)     | 28. Amplitude selector                       |
| 5. Hazard flashers*           | 17. Dipped/main beam (switch)*     | 29. Sequence selector<br>(front - rear drum) |
| 6. Horn                       | 18. Warning lamp (air cleaner)     | 30. Sprinkler system (Man/Auto)              |
| 7. Plugged                    | 19. Tachometer/Hour meter          | 31. Frequency meter ON/OFF                   |
| 8. Starter button             | 20. Compaction meter*              | 32. Revs control                             |
| 9. Power switch               | 21. Speedometer                    | 33. Seat rotation locking-lever              |
| 10. Brake warning lamp        | 22. Frequency meter                | 34. Stop control (Deutz)                     |
| 11. Emergency stop            | 23. Vibration ON/OFF               |  |
| 12. Oil pressure warning lamp | 24. Forward/Reverse control        |  |

\* Optional equipment

# INSTRUMENTS AND CONTROLS, FUNCTIONAL DESCRIPTION

Item in fig. 4	Designation	Symbol	Function
1	Direction indicator switch (Optional)		Turn left to operate the left direction indicator. In the middle position the direction indicators are switched off.
2	Working light rear, switch		Turn right to operate the rear working light.
3	Hazard beacon switch (Optional)		Turn right to operate the hazard beacon.
4	Working light, front, switch		Turn right to operate the parking and front working lights.
5	Hazard flashers switch (Optional)		Turn right to operate the hazard flashers.
6	Horn (Push button)		Press to sound the horn.
7	Dummy plug		Optional equipment
8	Starter button		Energizes starter motor while pressed.
9	Main switch		Electric circuit broken in the O mode. All electric instruments and controls are powered in the I mode. DEUTZ: The electric circuit must not be switched off while the engine is running.
10	Brake warning lamp		Brakes are applied when the light is ON.
11	EMERGENCY STOP (Red button)		OFF (Pulled out) is normal setting when driving. ON (Pushed in) applies the brakes and stops the machine.
12	Oil pressure warning lamp		Stop the engine immediately if warning lamp lights. Locate the cause.
13	Voltmeter		Indicates voltage of the system. Normal range 12 to 15 V.
14	Fuel gauge		Indicates content of fuel tank.
15	Temperature gauge, hydraulic fluid		Indicates temperature of hydraulic fluid. Normally 65°C to 80°C. Stop the engine if gauge shows temperature above 85°C. Locate the cause.



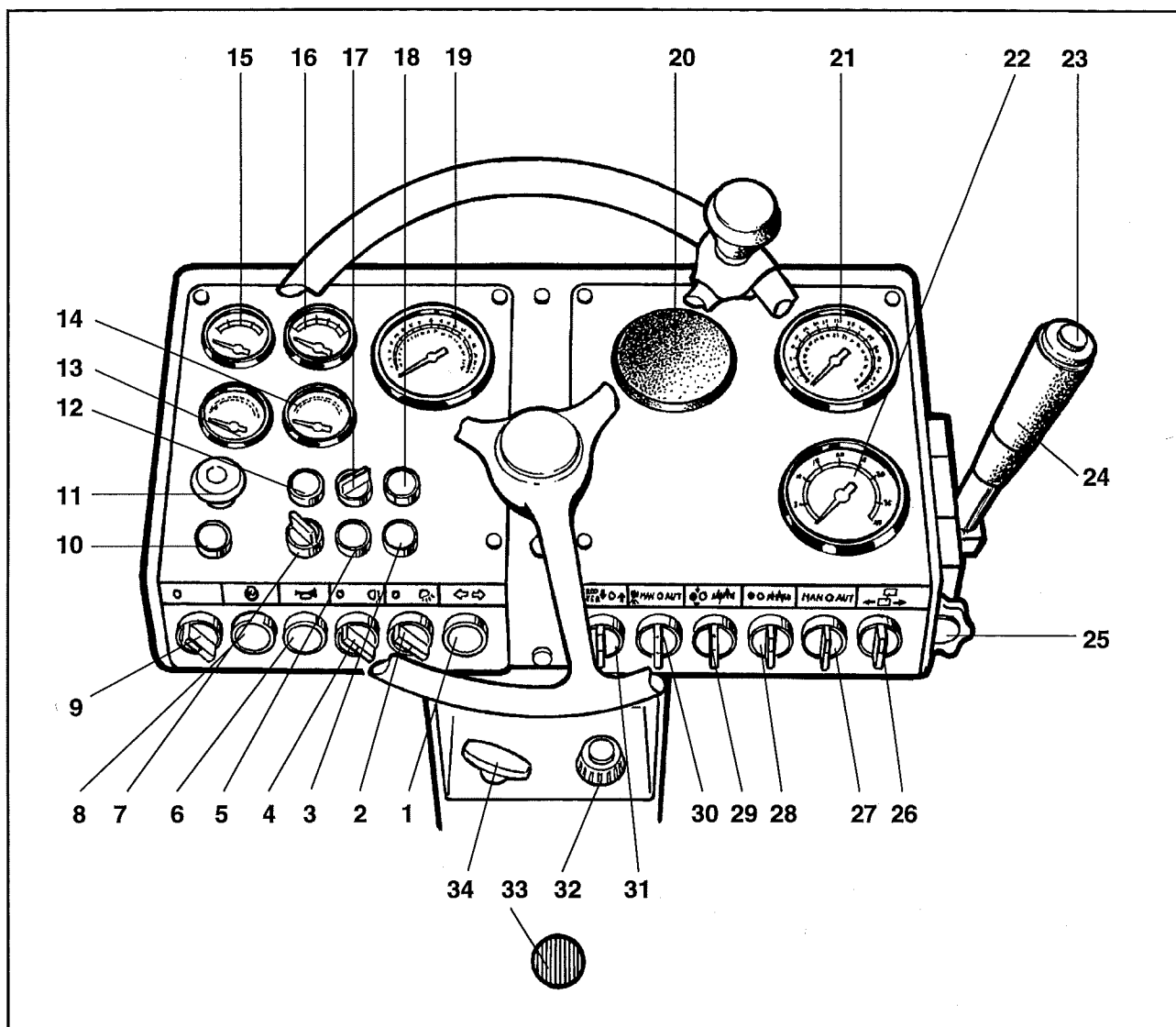







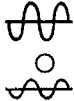




Fig. 4

Item in fig. 4	Designation	Symbol	Function
16	Temperature gauge John Deere: Coolant		Indicates working temperature of engine, normally 82°C to 93°C (180°F to 200°F). See engine manual.
	Deutz: Engine oil		Indicates temperature of engine oil. See engine manual.
17	Dipped/main beam, switch and warning lamp (Optional)		Main beam: Turn clockwise, knob lights. Dipped beam: Turn anticlockwise, knob light out.
18	Warning lamp - air cleaner		Air filter needs cleaning or changing if lamp lights while engine is running on full speed.

Item in fig. 4	Designation	Symbol	Function
19	Tachometer/Hour meter		Indicates speed of engine. Multiply gauge reading by 100. Driving time shown in digits.
20	Compaction meter (Optional)		
21	Speedometer		Indicates the speed in km/h.
22	Vibration/Frequency meter (Optional)		Indicates the vibration frequency in Hz.
23	Vibration ON/OFF		Press to switch on vibrator. Press again to switch off. Applies when (27) is in MAN mode.
24	Forward/reverse control		Move the control in desired direction of travel. Driving speed is proportional to movement of the lever. In neutral the machine is automatically braked. Observe also that the engine can only be started with the lever in neutral position.
25	Speed regulator		Limits movement of the forward/reverse control and thus the speed of the machine. The regulator can be disengaged.
26	Dummy plug		Optional equipment
27	Vibration selector	<b>MAN</b> <b>O</b> <b>AUTO</b> 	In the MAN mode, switch vibration ON/OFF with (23). Vibration is switched OFF at setting O. The AUT mode gives automatic switching of vibration ON/OFF when driving forward and reverse, at set speed.
28	Amplitude selector		Turn right to set high amplitude. Middle position vibration switched off. Turn left to set low amplitude.
29	Sequence selector		Switch over (when changing from forward or reverse) to give vibration on front or rear roller to suit direction of travel.
30	Watering (Control switch)	<b>MAN</b> <b>O</b> <b>AUTO</b> 	Controls flow of water to both the front and rear drum.  MAN mode provides continuous watering. Watering is switched off in O mode.  AUT mode provides automatic switching ON/OFF via the forward/reverse control.

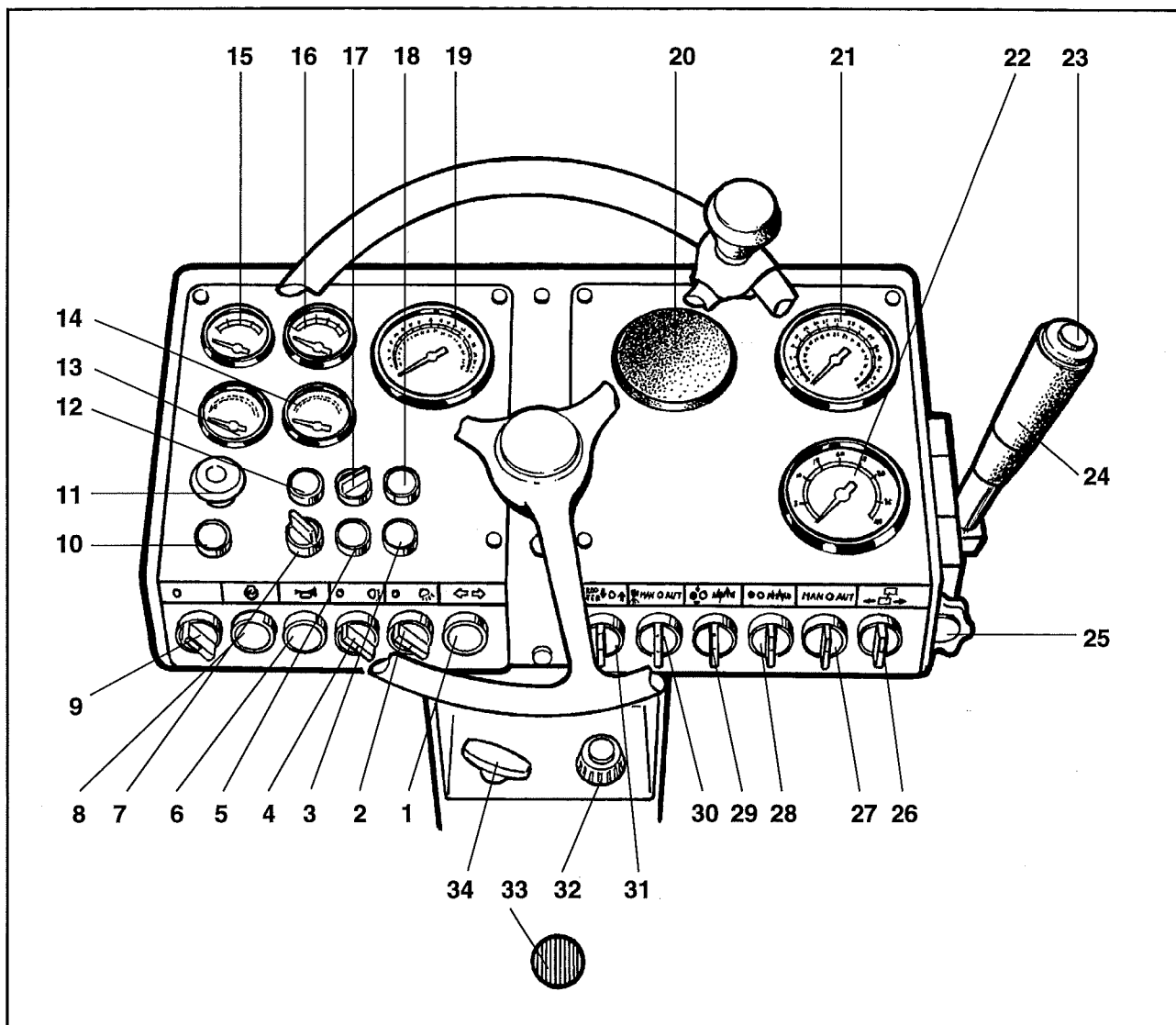
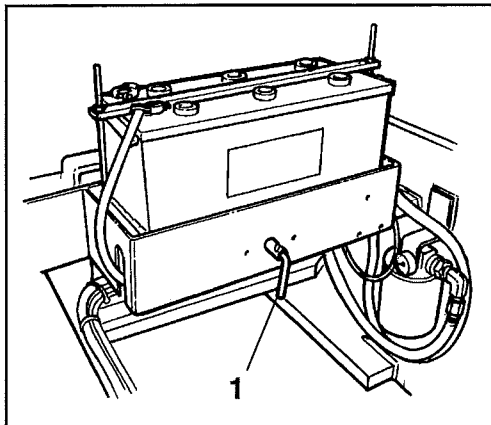


Fig. 4

Item in fig. 4	Designation	Symbol	Function
31	Frequency meter switch (Optional)	FREQ METER ↓ ⊙ ↑	Turn right to obtain metering on front drum. Middle position metering switched off. Turn left to obtain metering on rear drum.
32	Revs control (Diesel)		Release/lock with centre button. Pull out to increase engine revs. Push in to decrease. Turn/screw the knob for fine adjustment. Anticlockwise = Increase. Clockwise = Decrease.
33	Locking lever (seat rotation)		Release to allow control unit to be turned.
34	Stop control (Deutz diesel engine)	STOP	Pull out to stop the engine

## BEFORE STARTING

### Battery disconnecter



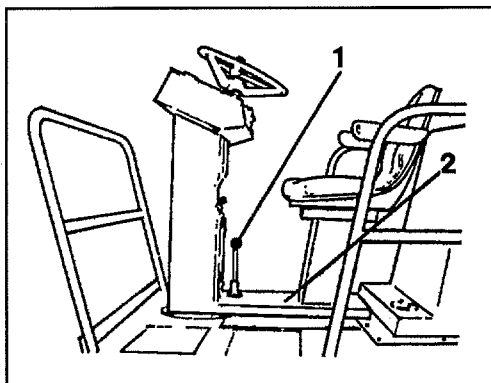
**Fig. 5 Battery Compartment**  
1. Battery disconnecter

1. Ensure that the daily service has been carried out, see MAINTENANCE manual.
2. Open the left engine-hood and switch on the battery disconnecter (1).



Make sure the water tanks are full for operation on asphalt.

### Operator's control pedistal



**Fig. 6 Operator's platform**  
1. Locking lever  
2. Swivel

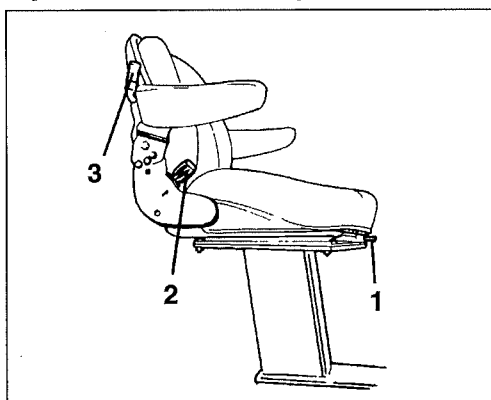
To set the swing arm (2), lift the locking lever (1) upwards and turn the whole control unit to the desired direction. The arm can be set at various fixed positions, ie, centre, outer right, outer left. The locking lever is spring loaded and automatically secures the control unit in one of the positions when the lever is released.



**The control unit must not be set in any other position than those described above. The main reasons for this are as follows:**

- The safety zone under the Rops frame will otherwise be exceeded.
- The seat can otherwise swing out inadvertently when the roller is being driven on a sloping surface.

### Operator's seat, adjustment



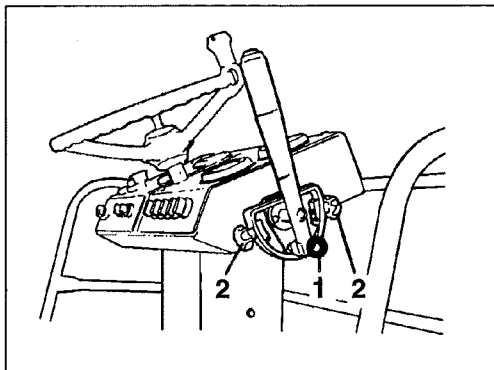
**Fig. 7 Operator's seat**  
1. Lever - lengthwise  
2. Knob - Back slope  
3. Lever - cushioning

Adjust the operator seat so that all controls can be easily reached. The seat can be adjusted as follows:

1. Lengthwise
2. Back slope
3. Cushioning to suit weight of operator

## BEFORE STARTING

### Speed limiter, adjustment

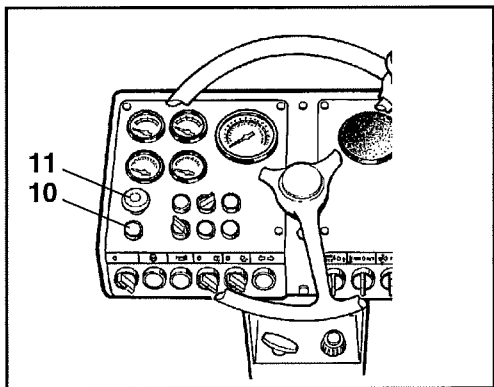


**Fig. 8 Control panel**  
1. Release knob  
2. Limits

The machine is fitted with an adjustable speed governor which can be disengaged for transport driving.

1. Loosen the knobs (2) and move them to a position that gives the desired driving speed, ie, by limiting movement of the forward/reverse lever.
2. Tighten the knobs (2) after setting the desired speed.

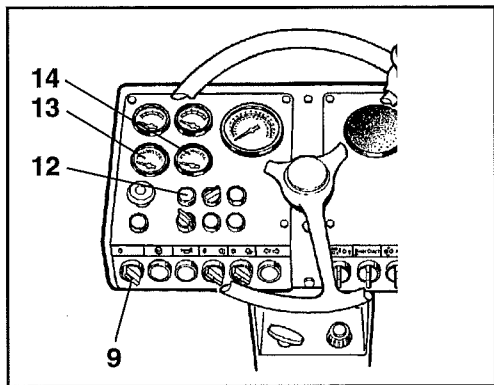
### Emergency stop, Checking



**Fig. 9 Left instrument panel**  
10. Brake warning lamp  
11. Emergency stop button

Ensure that the emergency stop knob (11) is pulled out, and that the brake warning lamp (10) is out.

### Instruments and lamps Checking

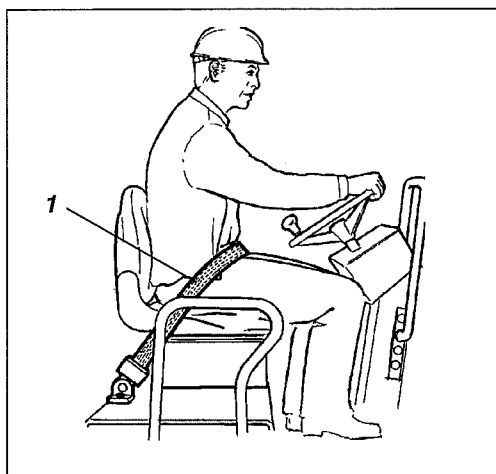


**Fig. 10 Instrument panel**  
9. Starter switch  
12. Oil pressure lamp  
13. Voltmeter  
14. Fuel gauge

Before starting, turn the switch (9) to I and check that the voltmeter (13) indicates at least 12 volt.

Check also that the fuel gauge (14) indicates a reading and that the oil pressure lamp (12) lights.

## Seat belt



**Fig. 11 Operator's seat**  
1. Seat belt

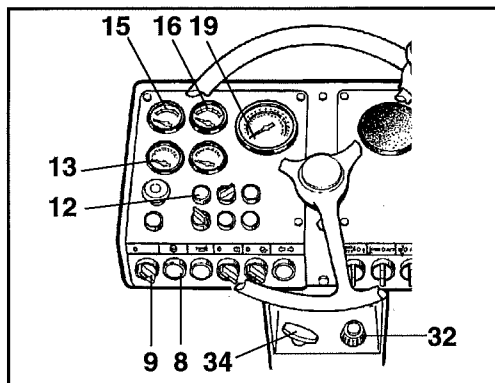
If ROPS or a cab is fitted on the roller, use your seat belt (1).



**Always replace the seat belt with a new one if it is worn or has been subjected to excessive force.**

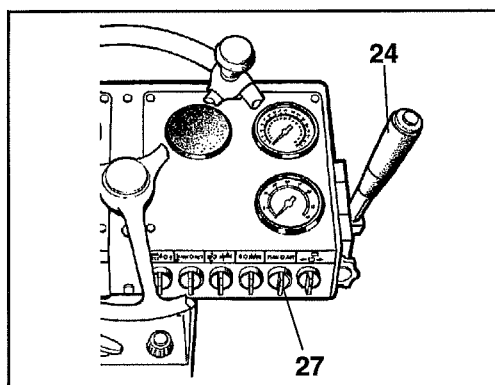
## STARTING

### Starting the diesel engine



**Fig. 12a Instrument panel**

- 8. Starter button
- 9. Main switch
- 12. Warning lamp, oil pressure
- 13. Voltmeter
- 15. Temperature gauge, hydraulics
- 16. Temperature gauge, engine
- 19. Tachometer/hour meter
- 32. Revs control
- 34. Stop control (Deutz)



**Fig. 12b Instrument panel**

- 24. Forward/reverse control
- 27. Vibration selector

1. Set the forward/reverse control (24) in neutral. The engine can only be started with the control in neutral.
2. Set the vibration selector (27) to O. Check that the emergency stop (34) is pushed in (applies to the Deutz engine only).
3. Press the revs control button (32) and rev up to 1/4 throttle. Make sure the starter switch (9) is in the I mode.
4. Press the starter button (8) and release immediately the engine starts.
5. Run the engine warm at about 1000 r/min for 5 to 10 minutes depending on ambient temperature. Check that the tachometer/hour meter (19) indicates a reading.
6. Check while warming up that the voltmeter (13) shows 13 to 15 V and that the oil pressure warning lamp (12) is out. Check that the engine temperature gauge (16) is working at end of warming up period.



Wait a few seconds before trying again if the engine does not start immediately.



The starter switch (9) must not be turned to the O mode while the engine is running. (Applies to rollers fitted with a Deutz engine).

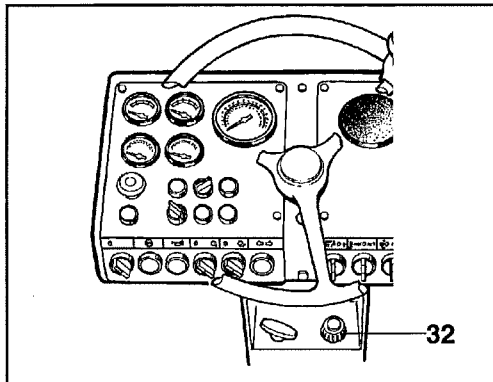


**When starting up and driving a cold roller (cold hydraulic fluid), the braking distance will be longer than when the hydraulic fluid is at normal working temperature.**

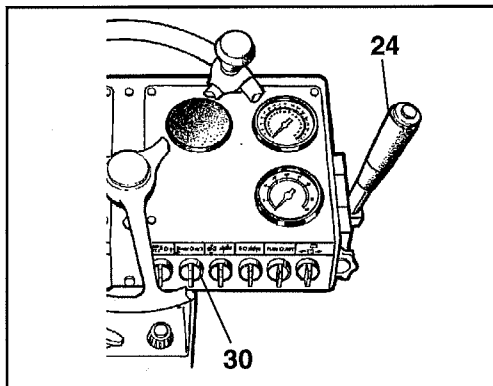


**Ensure that ventilation (evacuation) is adequate if the engine is run indoors. (Risk of carbon monoxide poisoning.)**

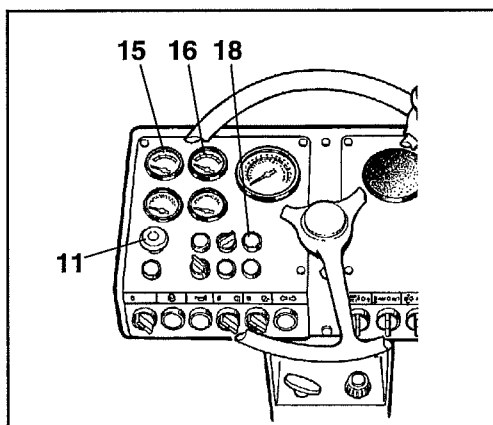
## Driving the roller



**Fig. 13 Instrument panel**  
32. Revs control



**Fig. 14 Right instrument panel**  
24. Forward/reverse control  
30. Sprinkler system



**Fig. 15 Left instrument panel**  
11. Emergency stop button  
15. Hydraulic fluid temperature  
16. Engine temperature  
18. Air filter warning lamp

1. Set the engine revs control (32) to give 2400 r/min. Adjust finely by turning the control: Anticlockwise = increase. Clockwise = decrease.
2. Ensure that the steering is working properly by turning the steering wheel once to the right and once to the left while the machine is standing still.
3. Turn on the watering (30) when operating on asphalt.



**Make sure that the area in front of and behind the roller is clear.**

4. Carefully move the forward/reverse control (24) to the desired direction of travel. Speed increases the further the control is moved from neutral.



Speed must always be regulated with the forward/reverse control and not by changing speed of the engine.

Test operation of the emergency brake by pressing EMERGENCY STOP (11) while the roller is moving **slowly** forward.

5. Check while driving that gauges show normal readings and that warning lamps do not light.

Maximum permissible temperature (15) of hydraulic fluid ca 85°C (185°F).

Maximum temperature (16) of coolant ca 100°C (210°F) (applies to John Deere engine).

Maximum permissible temperature (16 in figure 11) of engine oil is indicated when the pointer reaches the red zone (applies to Deutz engine).



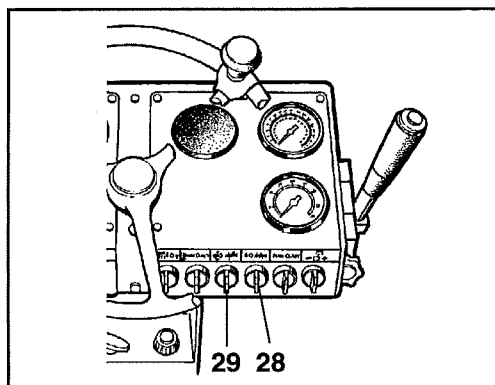
If the horn sounds, this may be an indication that the fan belt has broken. Stop the engine immediately, check and correct the fault. (Applies to Deutz engines only).



The main filter must be cleaned or changed if the air filter warning lamp (18) lights while driving or at maximum revs of the engine, see Maintenance Instructions.



## High/Low amplitude, Setting



**Fig. 16 Right instrument panel**  
 28. Amplitude selector  
 29. Sequence selector

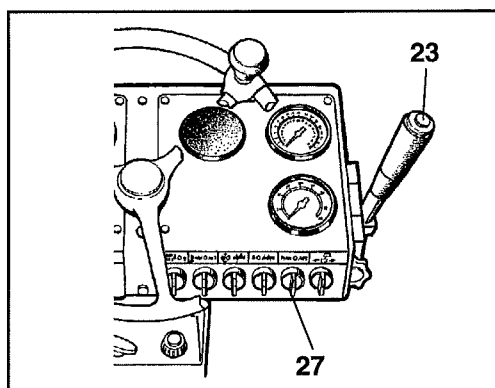
1. Vibrating is not permitted while the machine is standing still.
2. Set the desired amplitude, high or low, on the drums with switch (28).



Amplitude must not be reset while the vibrator motor is running. Wait until vibration stops before changing the setting.

3. Switch off vibration on one or the other drum, if required, with sequence switch (29). On changing direction of travel, switch over (29) if desired.

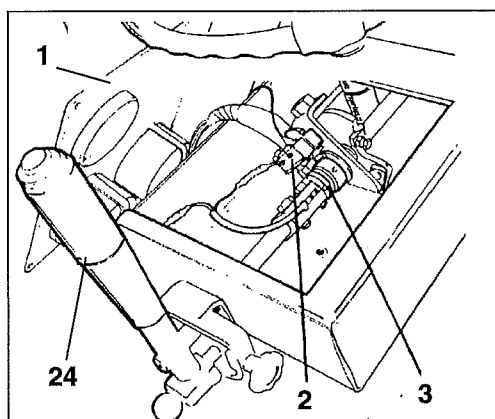
## Manual vibration



**Fig. 17 Right instrument panel**  
 23. Vibration ON/OFF  
 27. Vibration selector

With the vibration selector (27) in the MAN mode, vibration is switched ON/OFF simultaneously on the front and rear drum with push button (23) on the forward/reverse control.

## Automatic vibration



**Fig. 18 Right instrument panel**  
 1. Right panel removed  
 2. Microswitch  
 3. Adjusting rings  
 24. Forward/reverse lever

1. The roller is also equipped with automatic vibration control. With the vibration selector (27) set in the AUT mode, vibration is switched ON/OFF automatically via the forward/reverse control on changing the direction of travel as the lever (24) passes the neutral mode.
2. Turn the adjusting rings, (36) behind the right instrument panel, to switch vibration on at the desired speed of the roller.

### Driving near edge

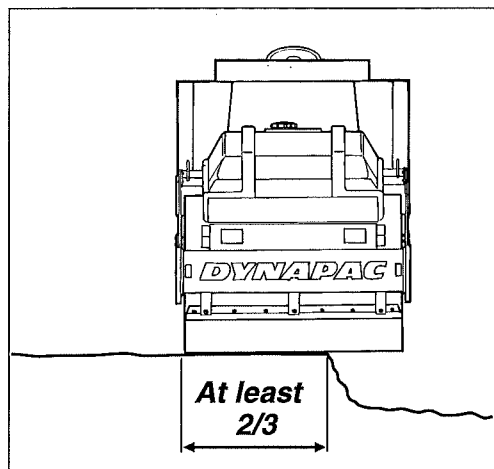


Fig. 19 Position of drum when driving close to an edge

At least two-thirds of the drum width must be on very firm ground when driving close to an edge.



Remember that the centre of gravity of the machine is displaced outwards when steering to one side, eg, it moves to the right when steering to the left.

### Slopes

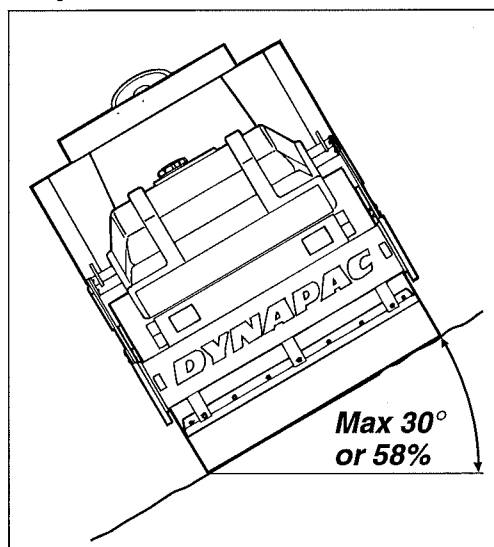


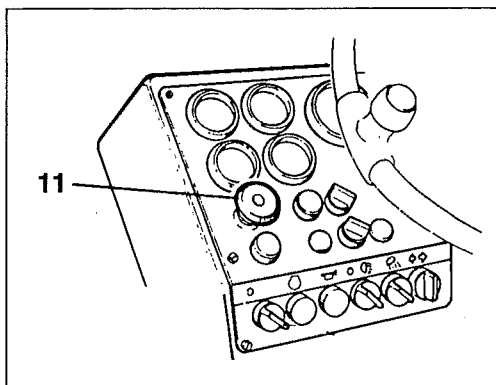
Fig. 20 Tipping angle on side slopes



The tipping angle stated here is measured on a flat and hard supporting surface with the machine stationary. Steering angle is zero, vibration is switched off and the water tanks are full. Remember that a loose surface, applied steering of the machine, vibration switched on, driving speed and a higher level of the centre of gravity (eg, appliances fitted) can result in tipping on a smaller slope than that shown here. Where possible, avoid all driving transversely across a slope. Instead, drive straight up and down when working on sloping ground. The roller will topple over on side slopes greater than 30° or 58% to the right or left.

## BRAKING

### EMERGENCY BRAKING



**Fig. 21 Left instrument panel**  
11. Emergency stop

Braking is normally made with the forward/reverse control. The roller is braked to a standstill by the hydrostatic transmission when the control is moved to neutral.

In addition, a multi-disc brake on each torque hub is applied when the EMERGENCY STOP (11) is pressed.

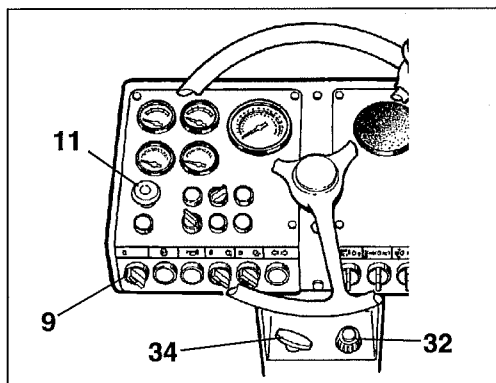


**Press the emergency stop (11) in the event of an emergency. Hold the steering wheel firmly as the machine brakes.**

After emergency braking: Reset the forward/reverse lever to neutral. Pull out the emergency stop knob (11).

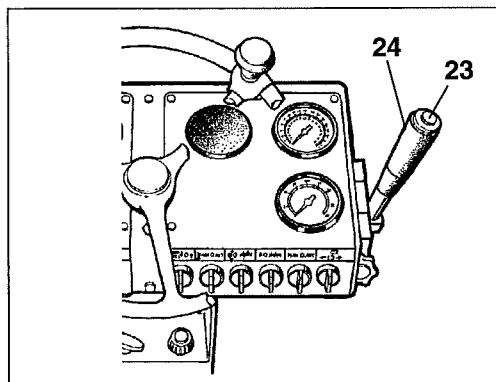
## STOPPING

### Normal braking



**Fig. 21b Instrument panel**  
9. Starter switch  
11. Emergency stop button  
32. Revs control  
34. Stop control

1. Switch off vibration by pressing (23).
2. Stop the roller by moving the forward/reverse control (24) to neutral.
3. Press the engine speed control (32) until the engine idles at 800 to 1000 r/min and allow the engine to run a few minutes.
4. Press the emergency stop button (11).
5. Pull out the stop control (34) (Deutz only).
6. Turn the starter knob (9) to position 0.
7. Place the protective cover over the control panel. Lock if required.



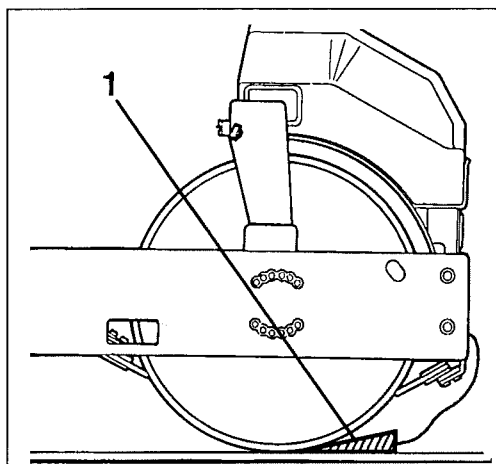
**Fig. 22b Instrument panel**  
23. Vibration ON/OFF  
24. Forward/reverse control



**When starting up and driving a cold roller (cold hydraulic fluid), the braking distance will be longer than when the hydraulic fluid is at normal working temperature.**

## PARKING

### Chocking the drum



**Fig. 23 Drum**  
1. Brake chock



Never leave the machine with the engine running unless the emergency stop knob is pressed in.

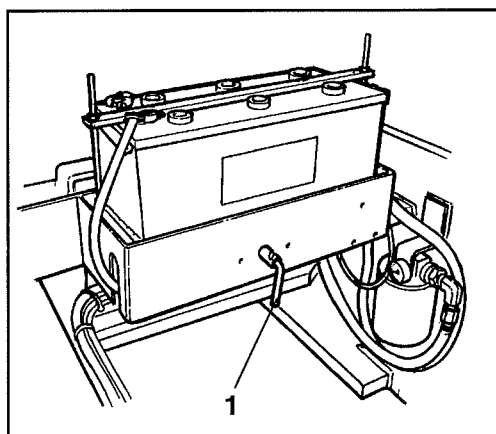


Make sure the roller is parked safely and is not a traffic hazard. Chock the drum and wheels when parking on a slope.



Beware of the risk of freezing during the winter season. Drain the water tank, pump and pipes.

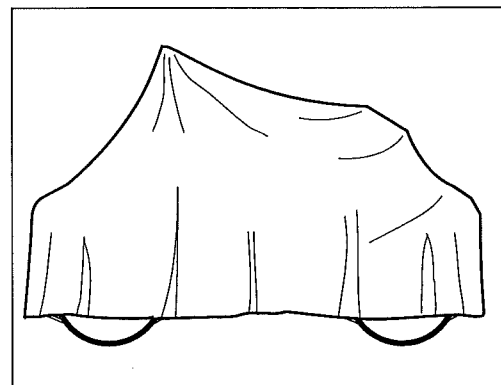
### Battery disconnecter



**Fig. 24 Battery Compartment**  
1. Battery disconnecter

Turn the battery disconnecter (1) OFF, and remove the handle before leaving the roller.

### Long-term parking

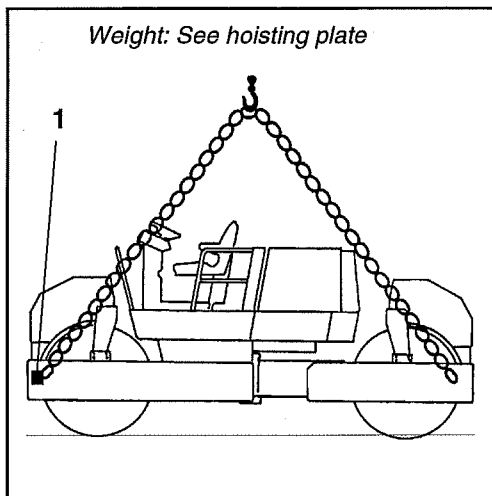


**Fig. 25 Weather-protected roller**



For parking periods longer than one month, see the Engine Manual, and the Maintenance Manual of the roller and study the chapters dealing with preservation of the engine and long-term parking respectively.

A good alternative to preservation of the engine is to start the engine every month and run the machine for about half an hour, using all the hydraulic functions. Lubricate all nipples afterwards and refuel. Remember to drain the water tank and the sprinkler system.



**Fig. 26 Hoisting**  
1. Hoisting plate



Before hoisting the roller, the articulation must be locked to prevent turning, see figure 27. Turn the steering wheel so that the machine is set for driving straight forward, move the interlocking arm (1) out and insert the locking pin (2) through the machine frame and the interlocking arm.

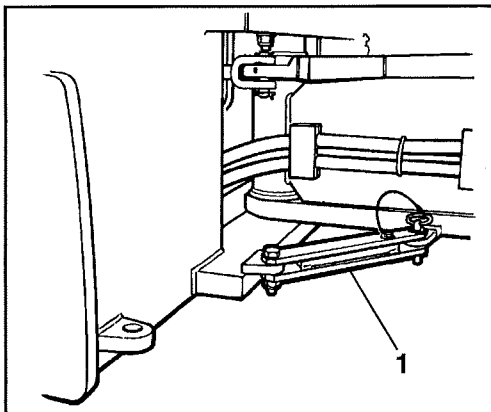


Ensure that the lifting hooks are firmly in position. Keep well clear of the hoisted load.



Check the weight of the machine punched on the hoisting plate (1).

## Locking the articulated joint

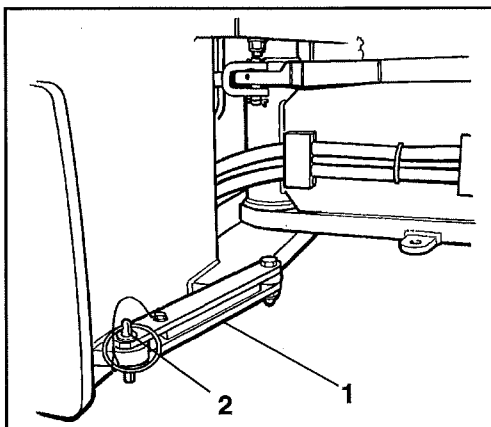


**Fig. 27 Left side of steering mechanism**  
1. Interlock engaged  
2. Locking pin



Connect the lifting chains, making sure that no parts can be damaged while hoisting. Steel wires, chains, etc., must comply with current regulations.

## Releasing the articulated joint



**Fig. 28 Left side of steering mechanism**  
1. Interlock disengaged  
2. Locking pin



Remember to reset the articulation lock to its open mode before driving. Retract the interlocking arm (1) and fit the locking pin (2) into the articulation arm together with the interlocking arm.

## Alt. 1

### Towing short distances with the engine working

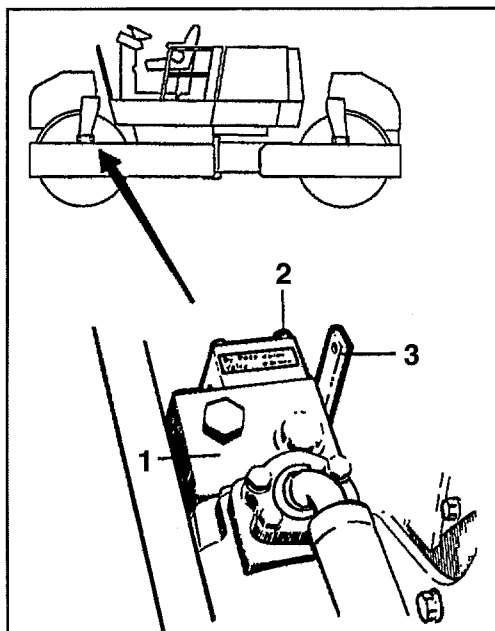


Fig. 29

- 1 Valve assembly
- 2 Locking screw
- 3 Release lever for towing

## Alt. 2

### Towing short distance with the diesel engine out of action. This alternative may only be used for rollers fitted with a towing valve, which is an optional feature

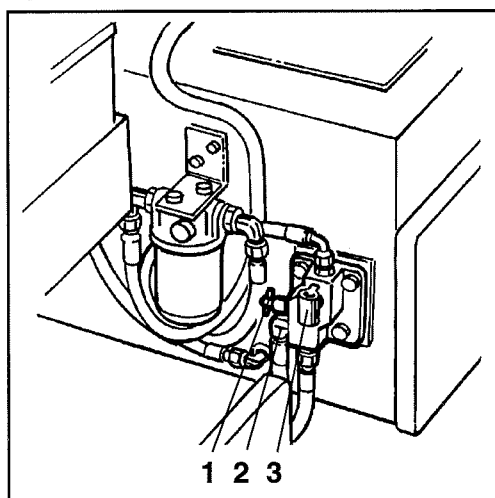



Fig. 31 Towing valve

- 1 Valve
- 2 Towing pump
- 3 Lever



**Chock teh drums. The roller may otherwise start to move when the lever (3) fig. 29 is operated.**

The roller may be moved up to 300 metres in the following way.

1. Allow the engine to idle. The brakes will thus be automatically released.
2. Remove the screw (2) on the valve assembly (1) and pull the lever (3) upwards.
3.  Remember to reset the lever (3) of the valve assembly fig. 29 to its original setting on completion of the towing operation.

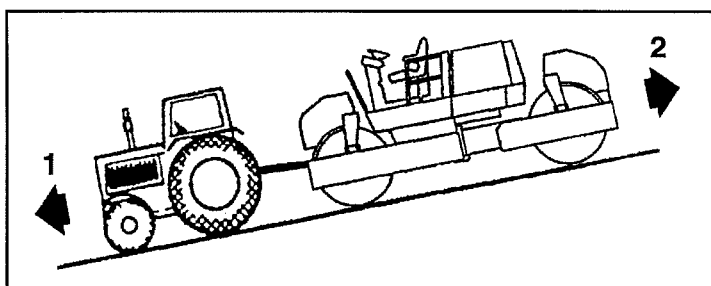


Fig. 30 Towing


- 1 Direction of travel
- 2 Counter braking



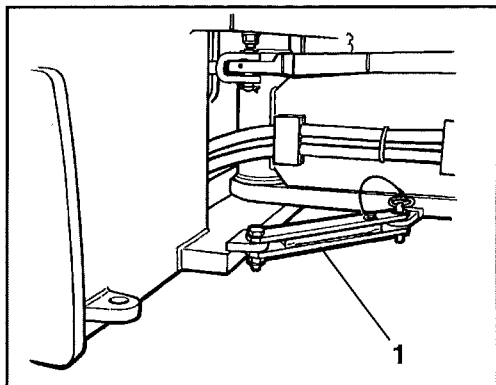
**The roller must be counter-braked when towing downhill. In this mode the brakes are out of action.**



**Chock the drums. The roller may otherwise start to move when the lever (3) fig. 29, 31 is operated.**

1. Remove the screw (2) on the valve assembly (1) and pull the lever (3) upwards, in accordance with figure 29.
2. Pump the lever (3) until the brakes are disengaged. Make sure the valve (1) is pressed in.
3.  Remember to reset the lever (3) of the valve assembly fig. 29 to its original setting on completion of the towing operation. Keep the valve (1) figure 31 pulled out for a few seconds on completion of the towing operation.

### Locking the articulation



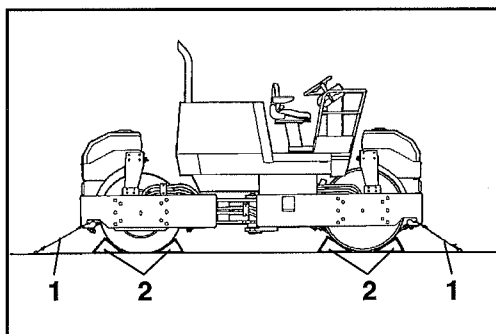
**Fig. 32** Left side of the steering joint  
1 Steering lock in the locked mode



**Lock the articulation prior to transportation.**

1. Lock the articulation in accordance with figure 32.

### Roller prepared for transportation

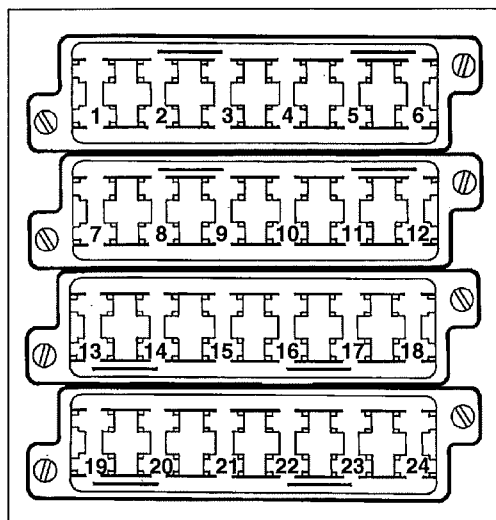


**Fig. 33** Transportation of roller  
1 Lashing wire  
2 Chocks

2. Chock the drums securely.
3. Support the drum frame firmly to prevent overloading of the rubber suspension of the drum.
4. Anchor the roller securely with lashing wire at all four corners.

## ELECTRICAL SYSTEM, FUSES

### Fuses



**Fig. 34 Fuse boxes**

- |      |   |
|------|---|
| 5A   | 1. Vibration relay                                      |
| 5A   | 2. Brake valve  |
| 7,5A | 3. Horn/V-belt monitor (Deutz)                          |
| 7,5A | 4. Vibration pump                                       |
| 5A   | 5. Transverse setting of drums                          |
| 10A  | 6. Hazard beacon  |
| 7,5A | 7. Water pump, rear                                     |
| 7,5A | 8. Water pump, front                                    |
| 5A   | 9. Stop solenoid (Cummins)                              |
| 7,5A | 10. Instruments   |
| 10A  | 11. Horn/O position relay                               |
| 7,5A | 12. Multimeter  |
| 10A  | 13. Working lights, rear                                |
| 5A   | 14. Parking lights, left<br>(number plate illumination) |
| 5A   | 15. Parking lights, right                               |
| 7,5A | 16. Direction indicator, left                           |
| 7,5A | 17. Dipped headlight, left                              |
| 7,5A | 18. Dipped headlight, right                             |
| 7,5A | 19. Direction indicator, right                          |
| 7,5A | 20. Headlight, left                                     |
| 7,5A | 21. Headlight, right                                    |
| 5A   | 22. Braking light, right                                |
| 5A   | 23. Braking light, left                                 |
| 7,5A | 24. -   |

The machine is equipped with a 12 V power supply and alternator.



**Connect the battery with the correct polarity (negative to earth). The cable between the battery and alternator must not be removed while the engine is running.**



**Before starting any electric welding on the machine. Disconnect the battery earthing cable and then other connections to the alternator.**

The electrical regulating and control system is fitted with fuses located in the fuse box.

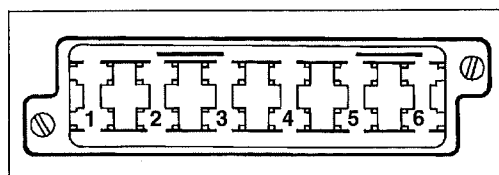
Fig. 34 indicates the size and function of each fuse.

Fuse boxes are located on the front of the steering column.



The system of fuses shown here applies for machines from S/N \*58010211\*.

### Fuses in cabin



**Fig. 35 Fuse box, cab roof**

- |     |                             |
|-----|-----------------------------|
| 3A  | 1. Cab lighting/Screen wash |
| 15A | 2. Fan                      |
| 10A | 3. Rear lights              |
| 10A | 4. Front lights             |
| 15A | 5. Front and rear wiper     |
| 25A | 6. Heater                   |

The electrical system in the cabin has its own fuse box, which is located on the left side of the cabin ceiling.



## OPERATING INSTRUCTIONS - SUMMARY



1. Follow the SAFETY INSTRUCTIONS in the Safety Manual.
2. Ensure that all instructions in the MAINTENANCE MANUAL are followed.
3. Turn the battery disconnecter switch to ON.
4. Check that the EMERGENCY STOP knob is in the OFF mode (pulled out).
5. Move the forward/reverse lever to NEUTRAL.
6. Set the amplitude selector to the NEUTRAL mode.
7. Set the stop control to the OFF mode (pressed in).
8. Start the engine and run it warm.



9. Test the brakes.  
Remember that the braking distance will be longer if the roller is cold.



10. Drive the roller. Operate the forward/reverse controls with care.
11. Use the vibration only when the roller is in motion.
12. Check that the drums are watered sufficiently as required.



13. In an EMERGENCY:
  - Press the EMERGENCY BRAKE knob.
  - Hold the steering wheel firmly.
  - Prepare yourself for a dead stop.
14. When parking: - Stop the engine and chock the drums.
15. Towing: - See the OPERATION MANUAL.
16. Hoisting: - See the OPERATION MANUAL.