JCB VIBROMAX

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W 1105 D / PD

Vibratory Single Drum Roller

Instruction Manual

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Valid from serial no.:

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5.0 BASIC SAFETY NOTES



WARNING NOTES AND SYMBOLS

In the instruction manual, the following designations or signs are used for especially important information:

Note: *Special information relating to economical use of the machine.*

Caution: *Special information or orders or bans for preventing damage.*

Danger: *Information or orders or bans for preventing personal injury or serious damage to property.*

BASICS; USE AS INTENDED

1. The machine is built according the state of the art and in accordance with the recognized safety rules. Nevertheless, its use can cause danger to life and limb of the user or third parties or damage to the machine and other material assets.

2. Use the machine only when it is in technically perfect condition. Use it in the manner for which it was intended. Be aware of safety measures and possible hazards. Always observe the instruction manual. In particular, immediately eliminate faults which could impair safety (or have them eliminated).

3. The machine is intended only for compacting beds of earthy building materials when running over the subgrade in the forward or reverse direction with or without vibration.

   These building materials include soil types ranging from stones to silty sand and having water contents ranging from 40% to 110% of the optimum water content according to the standard Proctor test as given in DIN 18127.

   Fine–grained soils or soils having higher water contents require a qualified trial compaction.

   The machine is intended to be used only on a subgrade gradient up to the permissible gradient.

   Definition of grade ability

   The grade ability of a roller is the gradient angle of a firm, hard and level roadway on which a roller of the basic–equipment version with its longitudinal axis pointing in the incline direction can start in the forward and reverse directions by means of its own propulsion and then travel further for a short period.

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15. If it is necessary to remove safety devices during assembly, maintenance and repair work, the safety devices must be refitted and checked immediately after the maintenance and repair work has been completed.

16. Ensure that operating agents, process materials and replacement parts are disposed of in a safe and environmentally friendly manner.

NOTES ON SPECIAL TYPES OF DANGERS

Electrical energy

1. Use only original fuses with the correct current strength. Immediately switch off the machine in the event of faults in the electric power supply.

2. Keep a sufficient distance from overhead electric cables with the machine. When working in the vicinity of overhead electric cables, the equipment must not come into the vicinity of the lines. Such work can be highly dangerous. Inform yourself about about safety distances which must be kept.

3. After touching lines carrying high–voltage current

   – Do not leave the machine.
   – Drive the machine out of the danger area.
   – Warn bystanders not to come closer or touch the machine.
   – Have the voltage switched off.
   – Leave the machine only when the line touched/damaged has definitely been de–energized.

4. Work on electrical systems or working stock may be performed only by a qualified electrician or under the guidance and supervision of a qualified electrician and in accordance with the electrotechnical rules.

5. Machine parts on which service, maintenance and repair work are to be carried out must be de–energized.

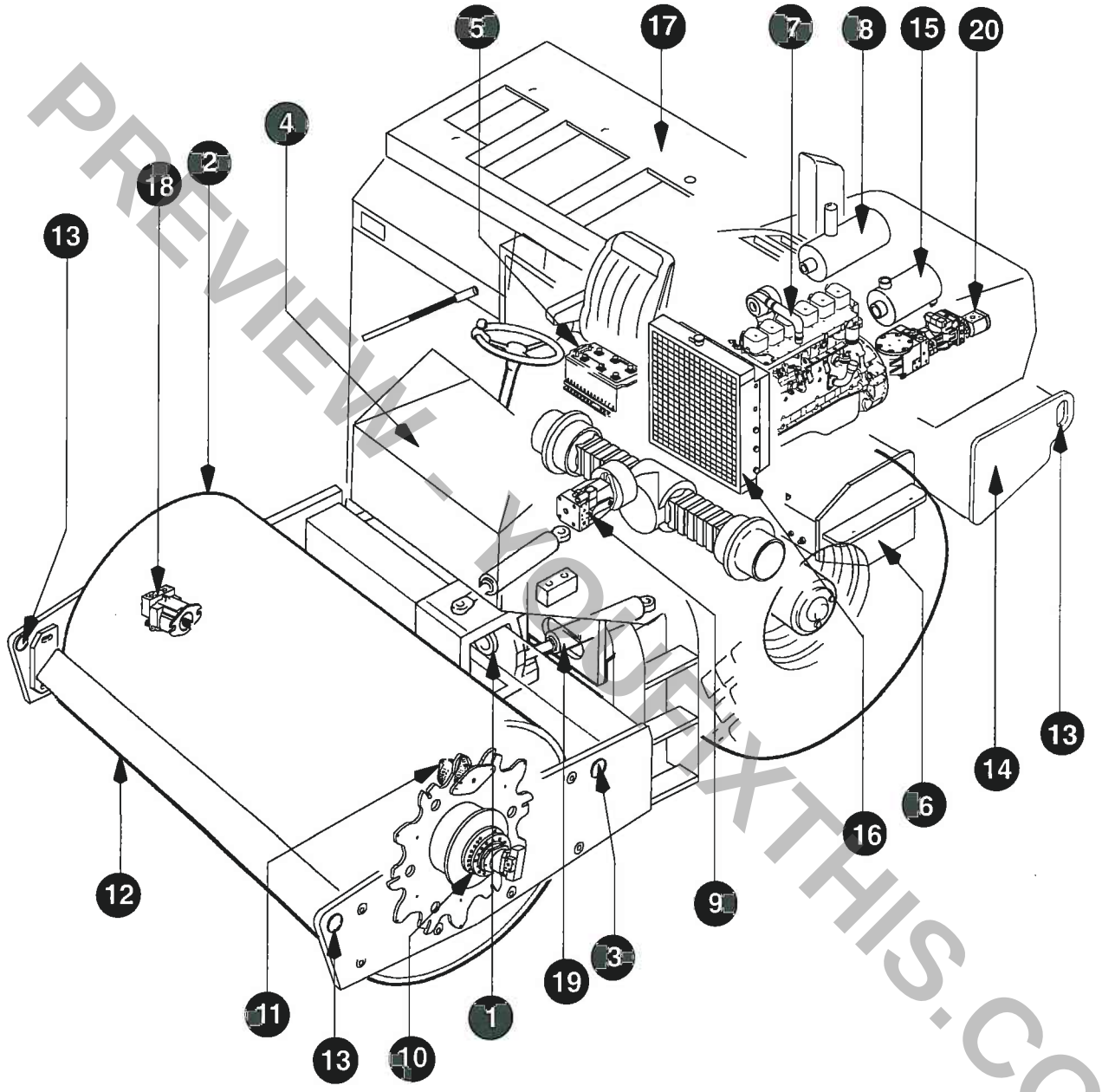
   First check that the disconnected parts are de–energized, then earth and short–circuit them and insulate adjacent energized parts.

6. The electrical equipment of a machine must be inspected/checked regularly. Deficiencies, such as loose connections or scorched cables, must be repaired immediately.

7. If work is necessary on energized parts, enlist the aid of a second person to actuate the emergency off–switch or or the main switch in case of emergency. Close off the work area with a red and white safety chain and a warning sign. Use only user–insulated tools.

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4.0 IDENTIFYING THE MACHINE PARTS



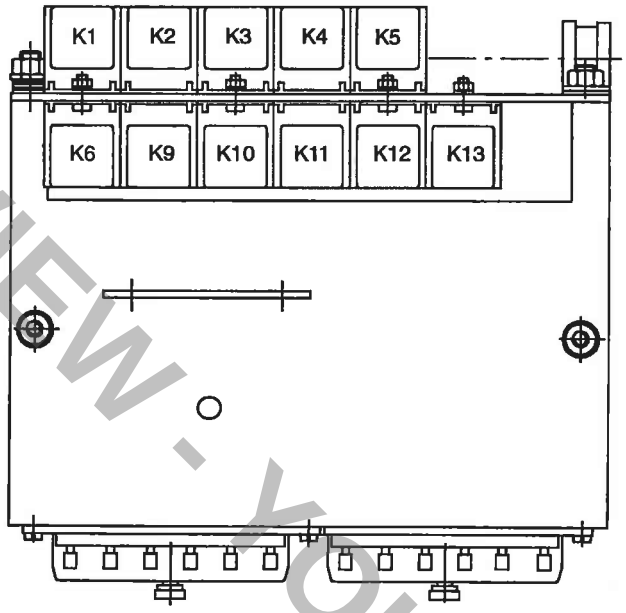
1. Articulation joint
2. Smooth drum
3. Lifting eye
4. Operator's stand
5. Battery
6. Hydraulic oil tank
7. Diesel engine
8. Exhaust
9. Drive motor (axle)
10. Drum drive gear box
11. Buffer pad
12. Scraper
13. Lifting and towing eyes
14. Fuel tank
15. Air filter
16. Hydraulic oil cooler/Water cooler
17. Roll–over protection structure
18. Vibration motor
19. Steering cylinder
20. Hydropump block

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RELAYS

In order to reach the relays, unlock the door below the instrument panel.

Arrangement of the relays



K1 Relay for the starting interlock

K2 Relay for brake monitoring, generator

K3 Relay for brake monitoring, neutral position

K4 Relay for drive lever, zero position

K5 Relay for brake control

K6 Relay Switching on vibration Drive lever

K9 Relay for EMERGENCY OFF switch

K10 Relay for lighting system

K11 Relay for reversing horn

K12 Relay for vibration automatics

K13 Relay for flasher device

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The conterclockwise direction of rotation of the vibration shaft is set to 29 Hz and the clockwise direction to 36 Hz.

Steering

The fixed displacement hydropump for the hydrostatic steering is connected via hose lines to the steering unit and to the steering cylinders and delivers oil via the steering unit to the steering cylinders when the steering wheel is turned.

The steering cylinders for the articulated joint are attached to the rear frame and their piston rods to that part of the articulated joint which is connected to the drum frame.

The steering wheel with the steering unit is located at the operator's area.

The articulated joint at the central point provides for a small turning circle and tracking stability of the drum and wheels during forward and reverse driving. For exact driving, the roller operator needs only to observe the left or right–hand drum edge or wheel edge. The articulated joint also permits a steering angle between the drum part and the wheeled part.

The steering angle is proportional to the rotation of the steering wheel. It is limited by stops in the frame.

Brakes

The brakes differ according to the following criteria:

– Service brake
– Auxiliary and parking brake

The service brake is provided by the hydrostatic propulsion; a separately mounted service brake is not necessary.

The auxiliary and parking brake is a hydrostatically actuated multi–disc brake which is mounted on the axle and on the drum shell drive motor.

The brakes are actuated via a lock–down push button which is located on the console of the machine (red indicator light) and has the position:

– Apply brake: Light comes on. When the machine is driven off, a horn signal sounds.

– Release brake: Light goes out

When the engine is shut down, the brakes are automatically held in the "brake" position by spring force.

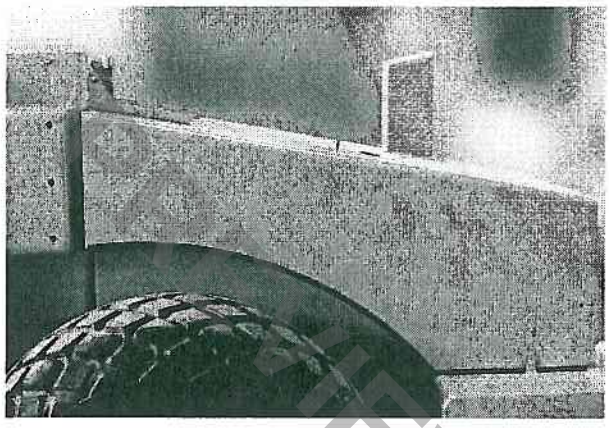
This machine is provided with an EMERGENCY OFF–switch which is located on the control column in the vicinity of the drive lever.

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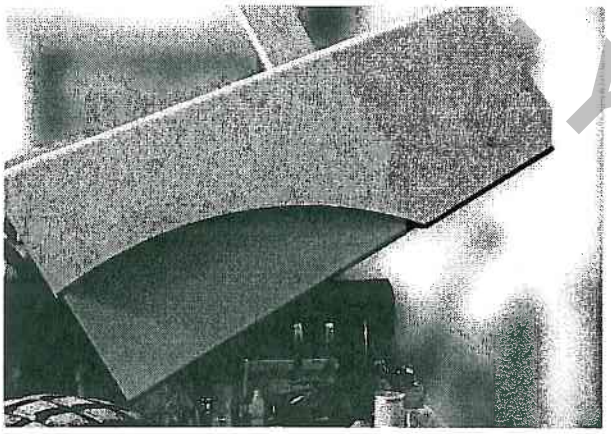
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ACCESS

Engine compartment



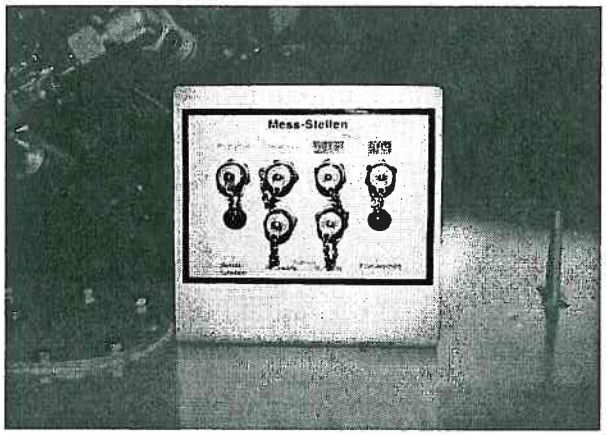
Motor hood, closed



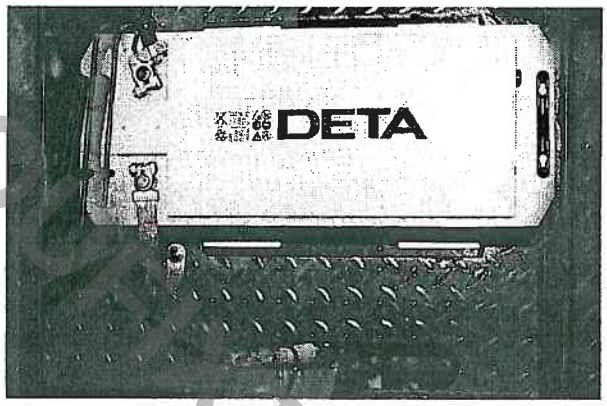
Motor hood, open

After opening the motor hood it is possible to reach the engine compartment from three sides.
All necessary tasks for service and maintenace are possible at the engine, hydraulic system as well as refueling and filling hdraulic system.

With opened motor hood you can reach the mesurement points to check the hydraulic pressure.



Mesurement points of hydraulic circuits



Seatbox

After lifting the seatbox cover together with the seat the battery maintenace ist approachable.

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12.0 OPERATOR'S STAND AND CAB

The operator's stand is equipped with an operator's seat on a seat box cover which can be tilted upwards.
The battery and the connector for the electric system are located in the seat box.

Keys

The following keys belong to the machine:

1. As special accessories, keys for padlocks on the cover plate for the instrument panel when the operator's area is open – as option.

2. Keys for the door lock for when a cab is mounted.

3. Switching key for the switching lock.

4. Key for the motor hood.

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Competent persons are persons who due to their specialist training and experience, have sufficient knowledge in the field of rollers and are acquainted with the relevant national health and safety regulations, accident prevention regulations, guidelines and the generally recognized technical rules to such an extent that they can assess whether rollers are in a state safe for operation.

A record must be made of the inspection and must be kept until the next inspection.

BEFORE STARTING THE ENGINE

The following points must be checked daily before the engine is started:

1. Check the machine for leaks.
2. Check the tyres for wear or damage.
3. Check the drums for wear or damage.
4. Check the machine for damaged, missing or loose parts.
5. Clean dirt from the machine.
6. Clean or replace all illegible note stickers or safety decals.
7. Clean steps, railings and the operator's stand.
8. Carry out the work described in "Every 10 operating hours or daily", in accordance with the maintenance schedule on page 57 and 58.

Note: *In a new machine or a machine having a replacement engine, observe the maintenance schedule for the running–in period.*

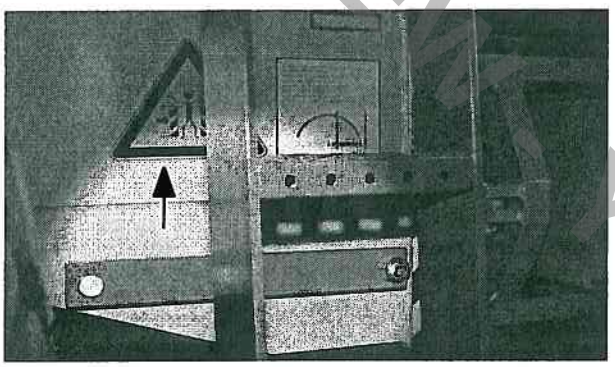
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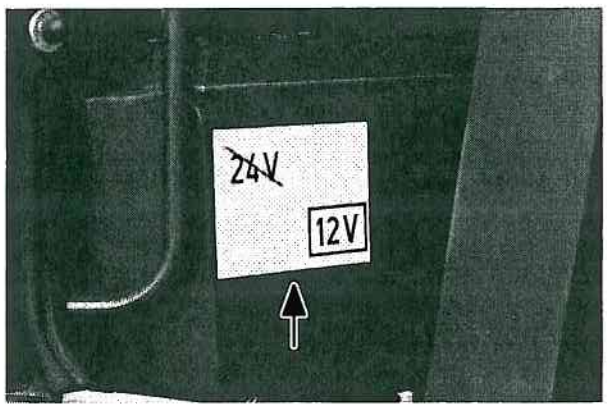
7.0 DECALS

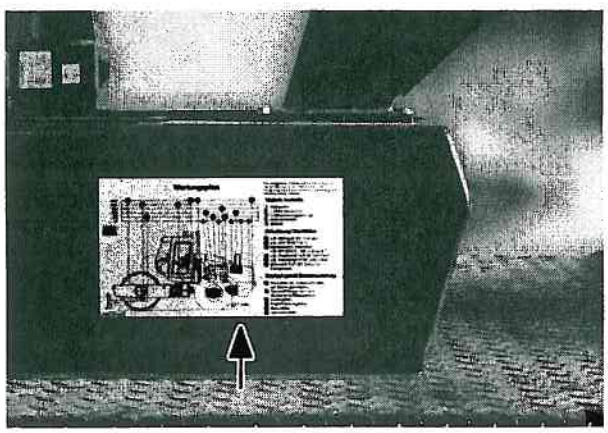
Damaged, missing or dirty safety decals can cause the operator to behave incorrectly and can lead to incorrect operation and maintenance thus resulting in injury or death. Replace all damaged or missing safety decals and keep all safety decals clean. The safety decals are available from your VIBROMAX dealer.

Inspect all note decals and safety decals "Every 10 operating hours or daily, whichever is sooner".

Clean illegible decals with water, soap and a cloth. Do not use solvents, petrol etc.



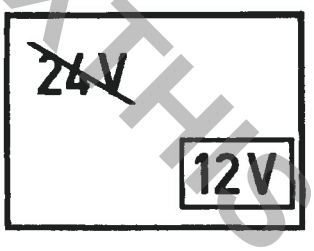


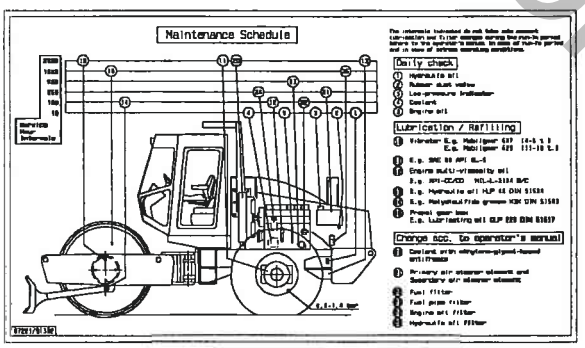


Damaged, missing or illegible decals must be replaced.
If a decals is located on a part which is to be replaced, you must ensure that a new decals is attached to the replacement part.

All decals are available from your VIBROMAX dealer.







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