



**Manual**

**for**

**OMMELIFT Type**

**2900 E**  
**2900 EB**  
**2900 EBP**  
**2900 EBD**  
**2900 EP**  
**2900 ED**

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# EU-Conformity Certificate

Name of manufacturer or appointed attorney in the community:

**OMME LIFT A/S**

Address of the manufacturer:

**Lægårdsvej 4  
DK-7260 Sønder Omme**

We declare, that the product,

Description of the machine:

<b>Type of product</b>	Hoist
<b>Description of machine</b>	Aerial lift with telescopic function mounted on trailer chassis
<b>Type of machine</b>	2900 E (Sales designation 2900 E/B/P/D)
<b>Serial number</b> xxxx V	<b>Construction year</b> 2xxx

which we have put on the market, with regard to conception and construction, corresponds to the essential requirements concerning safety and health in the EU-direction/s mentioned below:

EU-Machine Directive 2006/42/EC  
EMC Directive 2004/108/EC

Documented from Danish Technological Institute  
Notified Body ID no.: 0396

**EC type-examination no.: TI-10-MD-0343**

For this the EU-standards mentioned below were used:  
DS / EN 280:2013 / EN 60204

**Signature**

Sdr.Omme  
**Place**

Director  
**Designation of occupation**

xx.xx.2xxx  
**Date**

**Remarks:**

This certificate complies with the manufacturer certificate as prescribed in the EU-machine directive 2006/42/EC.  
If there are any changes on the product, mentioned above, this certificate is invalid.

**OMME LIFT A/S**  
**Lægårdsvej 4**  
**DK 7260 Sdr. Omme**

**EC-type-examination certificate, according to directive 2006/42/EC Machinery**

Cert.no.: <b>TI-10-MD-0343</b>	Revision: 01	File no.: 365750
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**Equipment information**

Description: Aerial lift with telescopic function mounted on trailer chassis.

Type: OMMELIFT 2900 E  
Basket maximum working load 200 kg.

Reissued date: 12<sup>th</sup> September 2016

Date: 8 June 2010

Date:

Expiry date: 12<sup>th</sup> September 2021

Expiry date: 8 June 2015

*Renewal of the certificate according to annex IX, point 9.3 of the Machine Directive 2006/42/EC and Order No. 693 of 10 June 2013 issued by The Danish Working Environment Authority.*

It is hereby certified that OMMELIFT 2900 E has been tested on 12 June 2009 in Sdr. Omme and found to meet the requirements stipulated in Machinery Directive 2006/42/EC as well as in Order No. 612 of 25 June 2008 on Design of Technical Equipment issued by The Danish Working Environment Authority. The basis of this certificate is further the type examination certificate from TÜV reg.no. 08/205/A16-01251 2203 27 of 07.09.1999.

The technical file will be kept at Danish Technological Institute for 15 years from today's date.

**Description of equipment:**

The type testing has been carried out according to DS/EN 280+ A2: 2009

Type 2900 E covers the models 2900 E-p, 2900 E-d, 2900 EB-p, 2900 EB-d, 2900 EBD, 2900 EBP, 2900 ED, 2900 EP, as well as type 2900 V and the models 2900 EZ, 2900 EBZ, 2900 EBDZ, 2900 EB(P)Z, 2900 BBZ, 2900 EDZ, 2900 BDZ, 2900 EPZ, 2900 EBBZ, 2900 EBZ-P, 2900 EBPZ, 2900 EIBZ

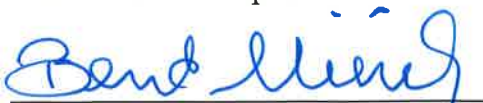
*Renewal according to EN280:2013*

**Future production:**

According to the Danish Working Environment Authority's Order No. 693 of 10 June 2013, Annex IX, Danish Technological Institute shall be informed of any modifications to the machinery covered by this type-examination certificate to decide whether the type certificate is still valid.

Detailed examination and test results appear from the inspection report marked as above certificate no.

Danish Technological Institute  
Certification & Inspection



Bent Mieritz



**TEKNOLOGISK INSTITUT**  
**CERTIFICERING & INSPEKTION**  
**ID NR. 0396**

Date: 12<sup>th</sup> September 2016

## **P R E F A C E**

We are pleased that you have chosen an OMME LIFT, and we are convinced that you will be pleased with it, too.

We have prepared this manual in order that you can make full use of all functions of the lift, and in order that you can use these with the highest degree of safety for both yourself and others. Consequently you should read this manual carefully before you start your lift.

The lift is designed corresponding to recognized standards.

It is important to follow our instructions for use and maintenance of the lift, moreover, you must make yourself familiar with the national regulations concerning the use of lifts, which also must be followed.

**Alterations and conversions which have not been carried out by OMME LIFT A/S, just as non-professional adjustments of valves, shall exempt us from any liability for any consequential damage.**

If you have any questions concerning your OMME LIFT you will always be welcome to contact us.

OMME LIFT A/S



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### **TROUBLE-SHOOTING**

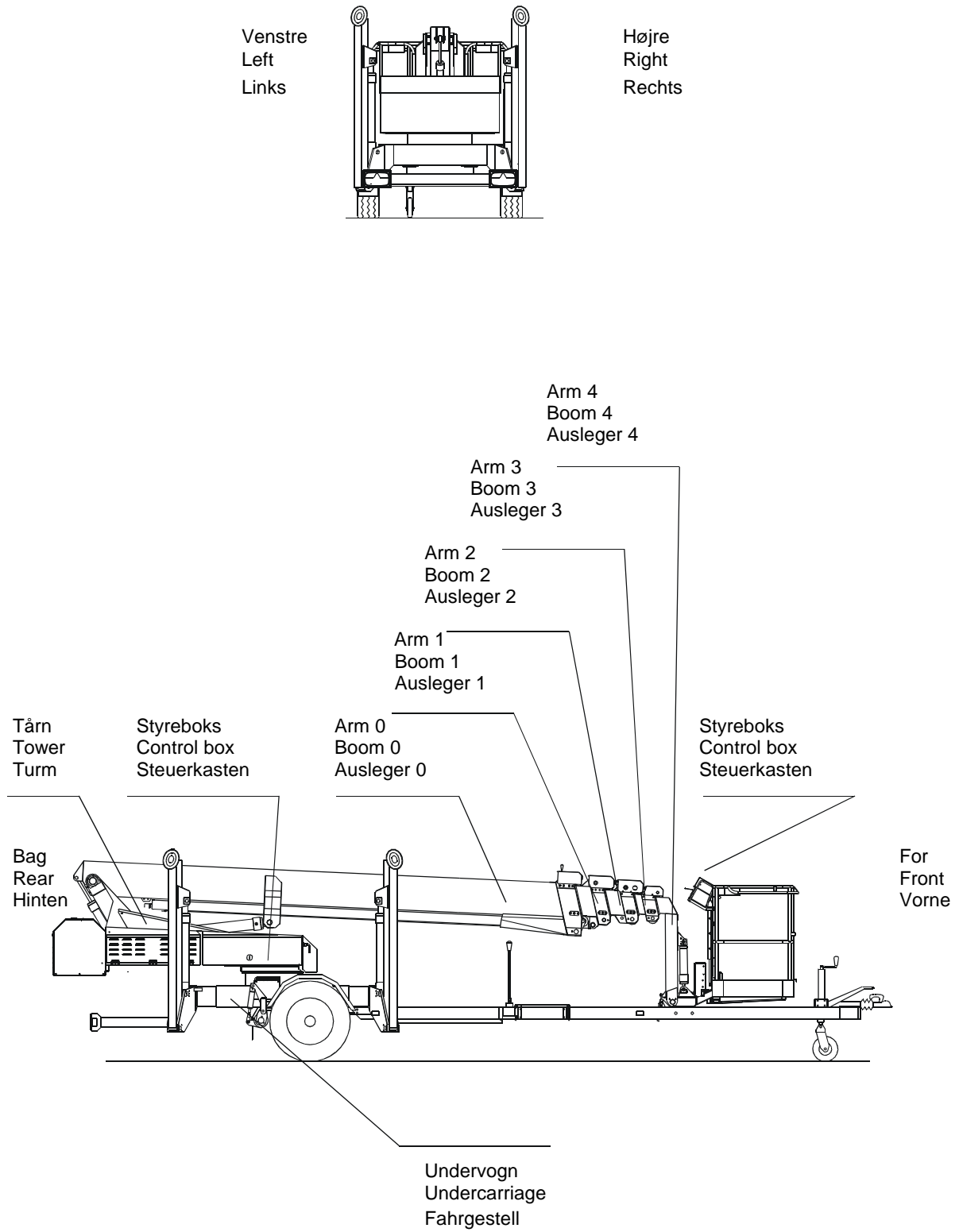
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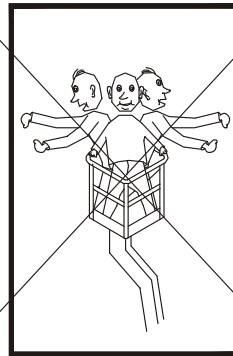
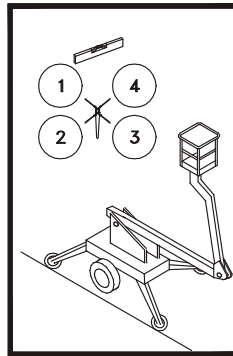
## Definition of the lift



## Safety regulations

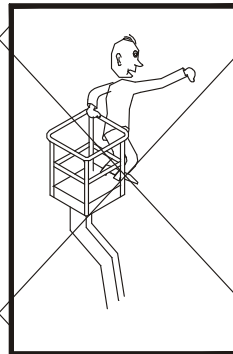
### WHEN OPERATING THE LIFT, PLEASE NOTE!

Always place the lift correctly and on firm ground. Check spirit level.



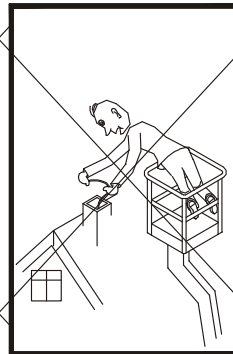
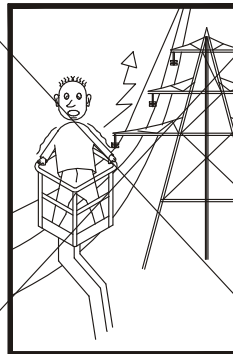
DO NOT use the lift with overload in basket.

DO NOT use the lift at high wind force.



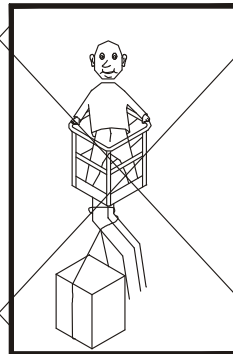
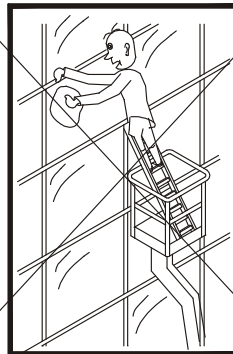
DO NOT leave the basket, before the lift is in transport position.

Always keep the safety regulations, when working near high-voltage lines.



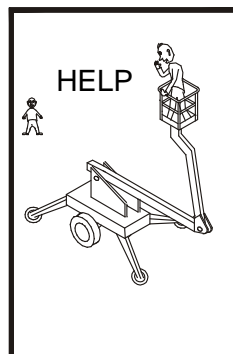
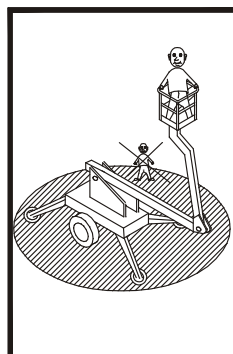
DO NOT lean out over top edge of basket.

DO NOT use a ladder from basket.



DO NOT use the lift as a crane.

Squeeze danger when staying within the working area of the lift.



DO NOT use the lift single-handed. Always make sure, to have a colleague near by in case of operation stop (EMERGENCY LOWERING).

### **Description and field of application**

The OMMELIFT may be used indoors as well as in the open.

The OMMELIFT is a telescopic lift with hydraulic telescopic extension and a turntable, which makes it possible to place the work basket in the desired working position.

Lift operation is effected by a 24 V DC-motor on the 2900 EB and/or by an internal combustion engine - petrol or diesel. On the type 2900 E lift operation is effected by an AC-motor (230 V/16 A). On the battery operated type motor voltage is supplied by batteries, which can be recharged by means of the built-in charger. The type 2900 E (230 V) is connected to the mains.

The motor drives a hydraulic pump, pumping oil into the cylinders in order to raise or lower the work platform according to the position of the operation valves. The hydraulic cylinders conform with current DIN-standards.

For rotary movement the hydraulic oil is led through the operation valves to a hydraulic motor, which turns the rim gear of the turntable via a "reduction gear". The drive of the "reduction gear" grasps the rotating parts of the turntable, so that the boom is turned into the desired position.

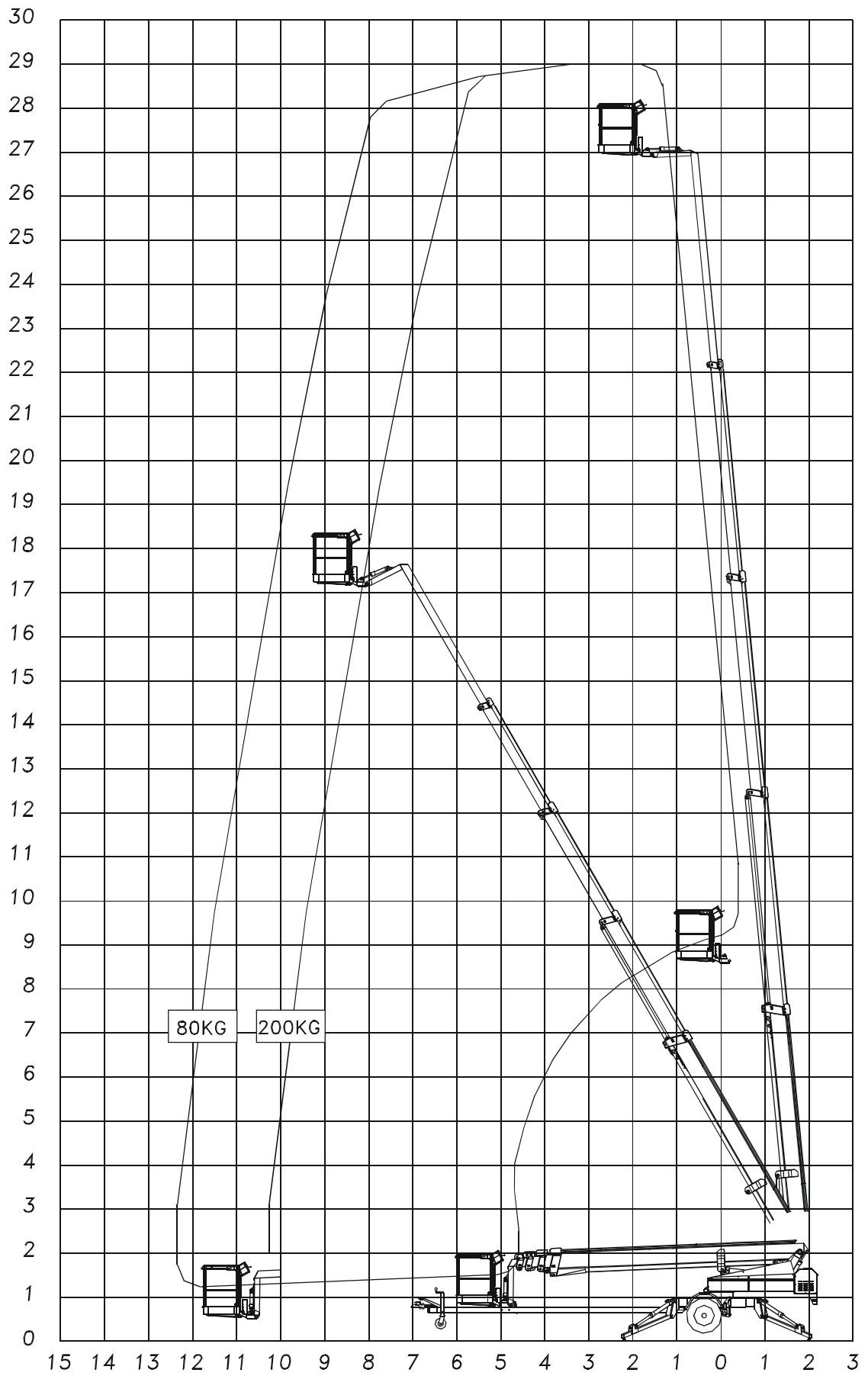
The OMMELIFT is mounted on an undercarriage, conforming with the provisions of the traffic code. The undercarriage is fitted with an overrun brake.

The OMMELIFT has sturdy control handles.

The OMMELIFT movements are performed with continuously variable speed. It is thus possible to reach the desired working position in a fast and accurate way.

The work basket - which is of aluminium tube - has a grip edge all the way round. The grip edge is placed on the inside in order to avoid hand injuries. The work basket provides safe footing in all positions.

The sound pressure of the machine is lower than 75 dB (A) at the control boxes.





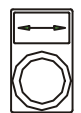




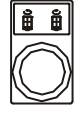



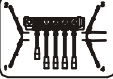
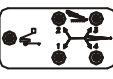
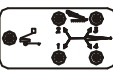









## **TECHNICAL DATA**

<b>Lift type</b>	<b>2900 E</b>	<b>2900 EB</b>	<b>2900 EBD</b>
	<b>Telescope</b>		
Max. working height, m	29.00 m		
Max. outreach, m	12.30 m		
Max. basket load, kg	200 kg		
Rotation	± 400°		
Basket size, m	1.25x0.8x1.1 m		
Turnable basket	± 41° electrical		
Power supply	230V/16A	Battery	Battery/Diesel
Battery		24V/200Ah/5h	24V/200Ah/5h
Charger		24V/30A	24V/30A
Diesel engine			14kW/18.8hp
Generator			24V/22A
Transport length	9.21 m		
Transport height	2.10 m		
Transport width	1.70 m		
Operational width	4.25 m		
Total weight	3400 kg	3400 kg	3500 kg
Controls	Proportional		
Hydraulic propulsion	+		
230 V outlet in basket, max. 10 A	+		

+ Standard



## Survey of symbols

	6	Operation of boom up and down
	5	Operation of telescopic boom out and in
	4	Operation of rotary movement left/right
	2b	
	2a	
	2c	Key reverser for propulsion/stabilizer or lift operation from tower/basket
	2d	
	8	Operation of basket rotation left/right
	1	Emergency stop
	3	Speed control
	B(S0)	Main switch
	C	Operation handle for engagement of propulsion/stabilizer operation
	7a	
	7b	Placing control
	C	
	7b	Operation handle and placing control for stabilizers
	7a	Lift operation OK
	18	Indicator for moment
	9	Check indicator for charging generator
	10	Operation of internal combustion engine
	11	Operation button for control panel elevator "DOWN - AUTO - UP"
	12	High - low speed for propulsion and stabilizers
	13	Engagement and disengagement of propulsion





## **OPERATION OF HONDA-MOTOR**

Read the enclosed instruction manual for the motor.

### **1. Starting motor**

Activate the main switch. Place the key reverser either in stabilizer position, tower operation or in basket operation.

1. Open the fuel tap.
2. Close the choke.

NB: Do not use the choke, if the motor is hot or if the temperature is high.

3. Push the throttling all to the right to idling.
4. Start the motor. Turn the ignition key to position "start" and hold it in this position, until the motor starts.

NB: Do not let the starting motor run for more than 5 seconds. If the motor does not start, then let go of the ignition key and wait for at least 10 seconds, before you try again.

5. As the motor warms up, the choke is pushed into open position.
6. Set the throttling to full speed "HARE".
7. The motor can also be started and stopped from the basket, when the key reverser is placed in position "basket operation".
8. When the Honda-motor is stopped, the electric motor will be coupled automatically.
9. Note! The motor should only be started from the basket, when the motor is ready to operate.



### **Operation of the internal combustion engine**

**Always** check the motor oil level before the internal combustion engine is started. Activate the main switch (B). Place the key reverser (2) into position tower (2c).

#### **Start of internal-combustion engine:**

Hold the knob in position "START". The engine will not start, until the preheating has ended. Lasts about 4 sec.

A knob is also placed in the basket. To use this function, it is necessary that the key reverser in tower is turned into "basket operation" and that the lift is placed correctly.

When the internal-combustion engine is stopped or if the engine misfires, the electric motor is activated automatically.

**Note!** Do not activate the starter continuously for more than 10 seconds. After that a cooling brake of 60 seconds is necessary. If these guidelines are not being observed the starting motor may "burn out".

**Important!** Always make sure that the batteries are fully charged, and that the fuel tank is full before starting to work.

Maintenance of the engine: Please see in the enclosed manual for the applied engine.



## **STARTING OMME LIFT**

### **1. Instructions**

- 1.1 The lift may only be placed on firm ground and must be detached from any vehicle before setup. The wind velocity must not exceed 12.5 m/sec.
- 1.2 Only persons, who meet the national demands to persons operating the lift, may operate it.
- 1.3 On the working site there must always be persons present, who in any emergency situation can bring down the operator of the lift.
- 1.4 When working on public roads, warnings and barriers must be mounted in accordance with the national traffic code.
- 1.5 **IMPORTANT!** When the lift is in operation, the user must always take care, that no persons are within the working area of the tower - **squeeze danger**.
- 1.6 Release the lift arm by means of the lock fittings (A) under the basket by pressing the pawl. Lift up in the handle and free the eye from the hook.
- 1.7 Activate the main switch (B) (only battery types).
- 1.8 Connect the cable with 230 V (only necessary on type 2900 E) and turn key reverser (2) to "stabilizer operation" (2a). The 4 red indicators for stabilizer control (7b) will now come on.
  - a. Lower the stabilizers by means of the 4 control handles (C).
  - b. The stabilizers in front must always be lowered first (the handle in front). When the stabilizers are raised again, the stabilizers at the back must always be raised first.
  - c. Lower the stabilizers, until the wheels are free from the ground, and the lift position is horizontal. Check by means of the spirit level (D). If the placing is correct, the 4 indicators (7b) must now be switched off (pressure on all 4 stabilizers). Place key reverser (2) in position lift operation (2c). Now the green indicator (7a) for lift operation must come on. The lift is now ready for use.

- 1.9 Turn key reverser (2) to position "operation from basket" (2d) for operation from control box in basket. To avoid unintended activation of the stabilizers during operation, always bring the key with you in the basket, when using basket operation. (Lifts with internal combustion engine; see page 7).
- 1.10 Remember, that because of the construction elasticity, a movement does not stop immediately, when releasing the corresponding handle. Avoid bumping into immovable parts, such as walls, masts or trees. Thus start and stop all movements by means of the adjusting knob (3) for low speed.
- 1.11 As an extra safety the lift is equipped with a warning device, which is activated, if the placing is changed during work from basket. If the sound continues, then bring the basket into transport position as soon as possible, and check if the placing of the lift is correct, see point 1.1 and point 1.8.c.
- 1.12 If the lift reaches its highest outreach, the red indicator in control box of basket will come on. All outwards and downwards movements are automatically interrupted. Only the movements upwards, inwards and rotation are possible.
- 1.13 If the basket is not completely horizontal, the lift will level automatically. However, this only happens, when the handles for boom "up" or "down" are activated.
- 1.14 If the basket is more than 10° oblique, all functions are interrupted. Levelling is made manually by means of an assistant. Please see point B in "emergency lowering".
- 1.15 The lift is equipped with manually operated emergency stops (1), which interrupt the lift, when activated.
- 1.16 The lift is equipped with a rotation stop, which only permits one rotation to each side. If the rotation stop is activated, rotate one turn backwards.
- 1.17 At too low voltage on the batteries, the lift movements are interrupted. To bring the work basket to the ground, you can make the lift operate for yet another short while: Push the emergency stop (1) and release it again. Hereafter the work basket must be lowered immediately, so that you can leave the basket. If possible, bring the lift into transport position. Before using the lift again, the batteries are to be charged.
- 1.18 If the lift stops during work due to other operation errors, than mentioned in point 1.17, it is possible to bring down the basket by emergency lowering. Please see emergency lowering.

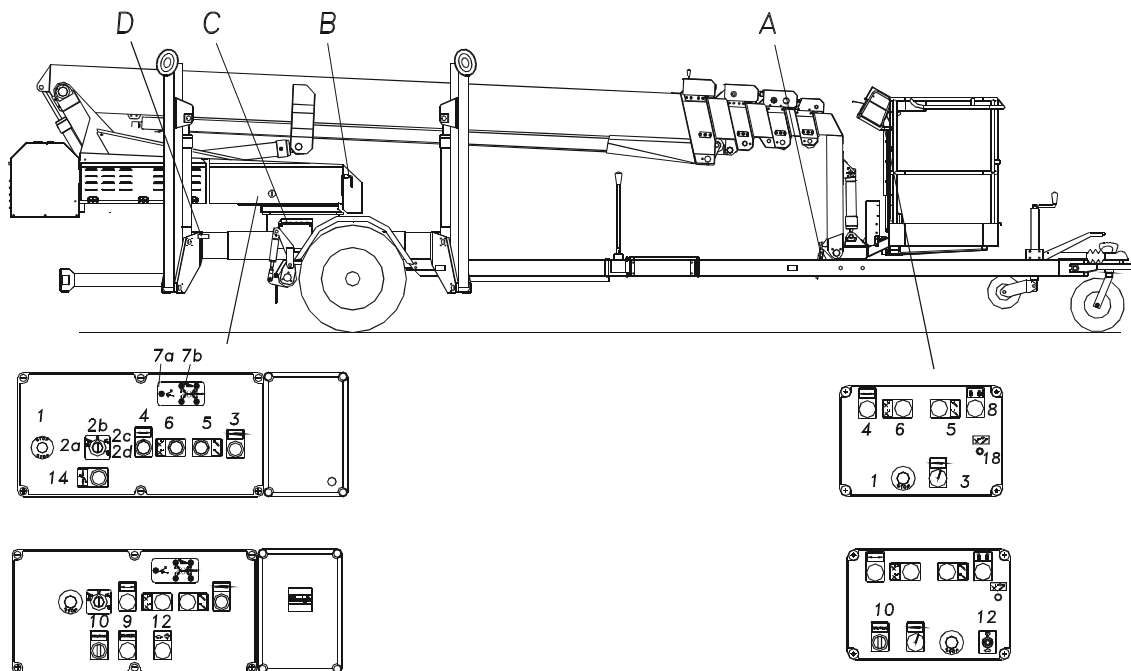
- 1.19 After having used the lift, place it in transport position. The main switch (B) and the key reverser (2) are interrupted (2b). On 2900 E lifts: Switch off the key reverser (2) and roll up the cable. When leaving the lift, secure it against being used by unauthorized persons. Bring the key with you.
- 1.20 When using power supply for charging or for work in the basket, be careful that the cable is not damaged during propulsion or rotation.
- 1.21 On lifts with propulsion, this is connected by turning the key reverser (2) into stabilizer operation (2a) and by the handle to the left on the block with the stabilizers (C). Connecting is downwards and declutching is upwards.
- IMPORTANT!** When the self-propulsion is disconnected, the hand brake must be pulled.

**REMEMBER:** When parking the lift on a slope, the hand brake MUST always be pulled.

**IMPORTANT** Remember to charge the batteries each night. When it is possible, the charger can also be used, when the lift is in operation (only battery types).

During all work with the lift, it is important to be aware, that the safety installations are intact, and that damages are repaired at once.

The safety of the user is dependent on the condition of the lift.



## 2. **Emergency lowering**

- 2.1 If the lift stops during work, and it is not possible to locate the fault, an emergency lowering has to be made. If the fault is due to basket inclination over 10° - please see paragraph B.

During manual emergency lowering all safety limit switches are out of operation. Therefore emergency lowering must be made very carefully and according to the descriptions below. Manual emergency lowering requires assistance from a helper on the ground.

- 2.2 **Before emergency lowering, pump in the telescopic boom.** If there are any obstacles to the boom being lowered to alighting height, use the barring gear.

The tools required for emergency lowering are the red handle for the hand pump and the red emergency lowering fittings. The handles are placed on top of the tower, and the fittings are placed at the valve block. The valves are placed in the box behind the control box. (Please see the sketch with placing of valves).

**IMPORTANT!** When emergency lowering, **always** remember to drive the telescopic boom in first.

Follow the below instructions: Activate emergency stop in basket or tower.

### Manual inwards telescoping of telescopic boom

1. Close the valve on the hand pump.
2. Place the red extension handle on the hand pump.
3. Activate magnet valve MV41 mechanically by means of the red bow (please see sketch on page 13). Squeeze the bow over the valve in order that the small bolt activates the slide valve through the opening of the magnet coil on the valve and opens the valve. Also activate MV59 with the other fittings (E/EBP/EBD).
4. Pump in the telescopic boom.
5. Open the valve on the hand pump.
6. Remove the fittings for the valve.



### Manual operation of the barring gear

1. Close the valve on the hand pump.
  2. Place the red extension handle on the hand pump.
  3. Activate magnet valve MV03 = left or MV01 = right by means of the red fittings. Place the fittings over the magnet valve in order that the bolt end will activate the actual magnet. Also activate MV59 by means of the other fittings (E/EBP/EBD).
  4. Turn the lift by means of the hand pump.
  5. Open the valve on the hand pump.
  6. Remove the fitting for the valve.
- 2.3 Lowering of the boom cannot take place, before the telescope is in. Pull out the red button on the valve block of the lifting cylinder. **Take care**, not to get caught, when the boom is lowered.
- 2.4 Having emergency lowered the lift, check the lift for errors and damages. Check that all emergency lowering valves are closed. Repair errors and damages, if any, before using the lift again.

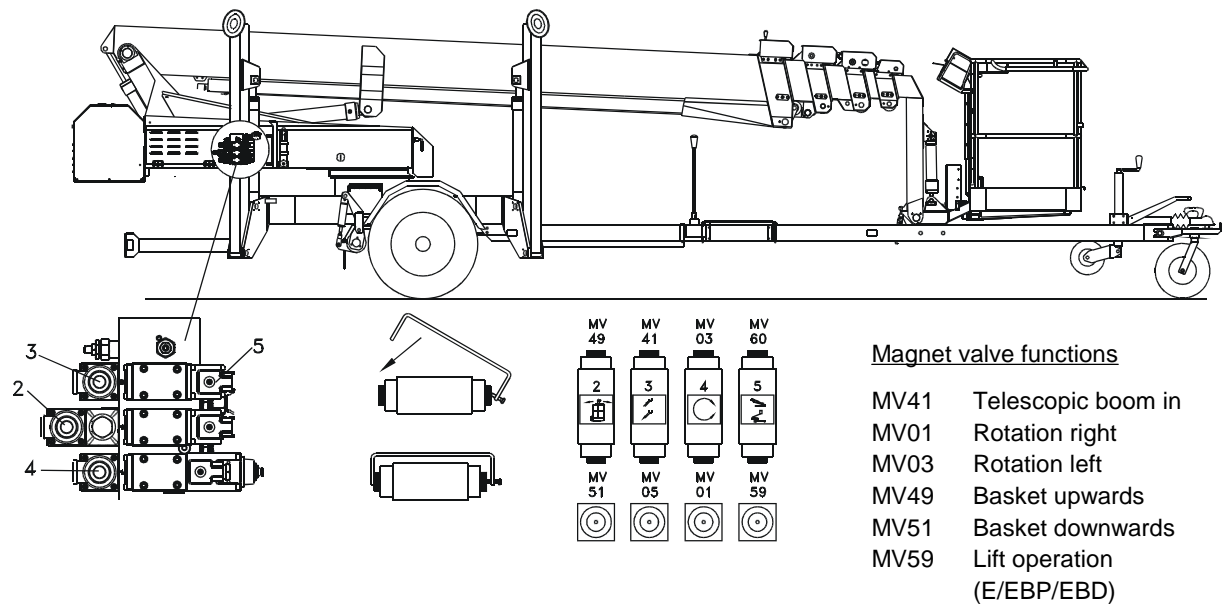
### **B - Basket inclination of more than 10°**

If the basket is more than 10° oblique, and the lift functions therefore do not take place, then bring the basket back in the following way:

1. Close the valve on the hand pump.
2. Place the red extension handle on the hand pump.
3. Activate magnet valve MV49 = basket upwards or MV51 = basket downwards by means of the red fittings. Place the fittings over the magnet valve in order that the bolt end will activate the actual magnet. Also activate MV59 by means of the other fittings (E/EBP/EBD).
4. Bring the basket into horizontal position by means of the hand pump.

5. Open the valve on the hand pump.
6. Remove the fittings for the valve.

Faults and damages, if any, are to be repaired, before further use of the lift.

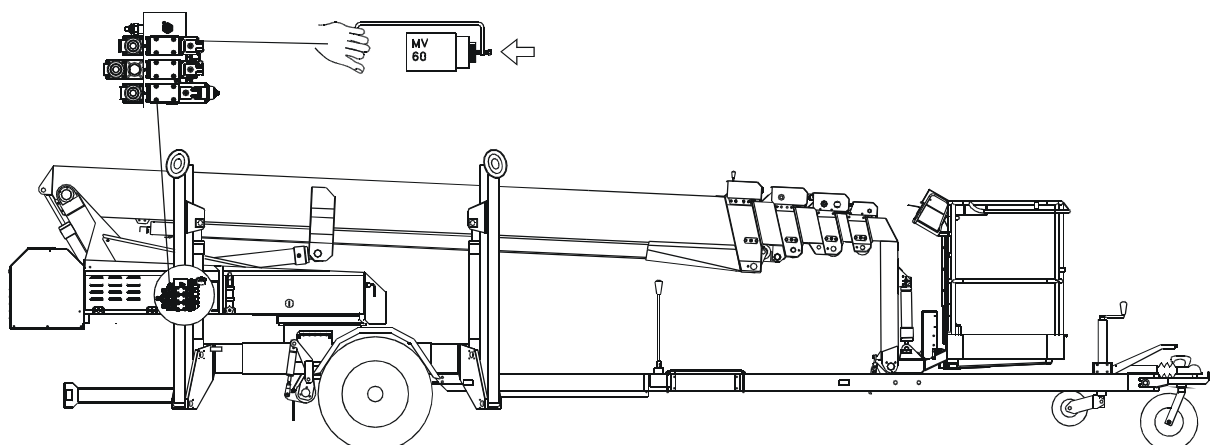


### 3. **Manual control of stabilizers**

Only raise the stabilizers manually, when the boom has been attached to the transport fittings.

1. Close the valve on the hand pump.
2. Place the red extension handle on the hand pump.
3. Activate the magnet valve MV60 mechanically by means of the red fittings (see instruction), which is placed over the magnet valve in order that the bolt end activates the actual magnet. The assistant keeps the fittings in while the hand pump is activated.
4. Raise the stabilizers one by one by means of the hand pump by activating the handle for the stabilizer in question. The assistant takes care of the valve- and pump function.
5. Remove the valve fittings.
6. When all stabilizers are raised, open the cock on the hand pump.

Faults and damages, if any, are to be repaired, before further use of the lift.



## **HANDLING AND CONDUCT DURING OPERATION**

### **1. Requirements to persons operating the lift**

Anybody operating the lift must be informed about the national safety regulations regarding work platforms.

The lift may only be operated by persons at least 18 years old who have had instruction in using the lift, and who have proved their proficiency to the person responsible.

### **2. Permissible load/lateral force**

The permissible load (200 kg / 2000 N in the basket) and the permissible lateral force (40 kp / 400 N) must not be exceeded.

### **3. Transport**

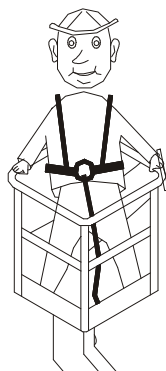
When changing place of operation, the basket must not be used. The basket must be in transport position and the stabilizers must be all up. When the lift is towed behind a vehicle, the boom must be locked to the drawing rod.

### **4. High-voltage lines**

Working near high-voltage lines is prohibited. When working near un-insulated low-voltage lines, do not go closer than 15 m to the live lines.

In general, the national safety standards for work platforms apply.

### **5. Safety belt**



The lift is prepared for use of safety belt.  
When using a safety belt, fasten this to the basket.

## 6. **Faults**

If faults occur in the control system, the lift may be switched off by means of the emergency stops. On erroneous activation of the emergency switch it is possible to switch it off by turning the switch.

## 7. **Further precautions**

A daily functional test must be made on the lift. (cf. page 18, Maintenance).

The user should acquaint himself thoroughly with all functions and familiarize himself with:

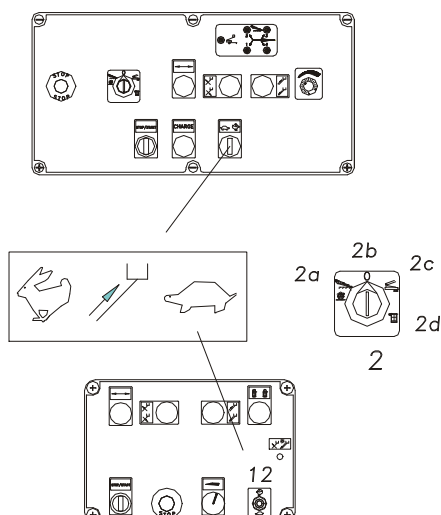
- emergency stop
- emergency lowering valves
- manual operation of turntable, telescopic boom and basket levelling
- rotation stop
- lowering at too low voltage

The user should also react to suddenly arisen noise. If there is reason to believe that there is initial defects, then contact a service workshop.

## 8. **After use**

When lift operation is finished, the lift must be secured against being used by unauthorized persons. The key reverser (2) is switched off and the keys are removed.

## 9. **Lifts with extra pump capacity**

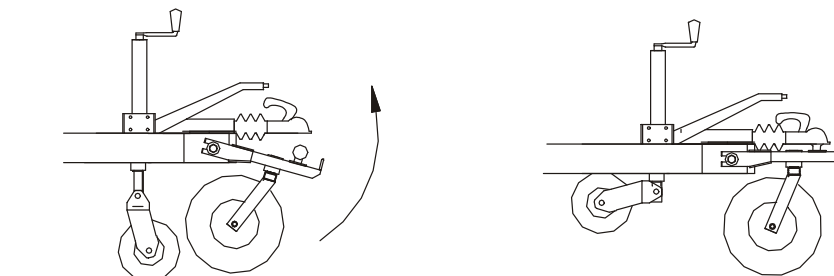


When key reverser (2) is placed in position (2a), it is possible to switch between low/high speed at stabilizer operation or propulsion.

When key reverser (2) is either placed in position (2c) or in position (2d), it is possible to switch between low/high speed on telescope out by means of the adjusting knob (12).

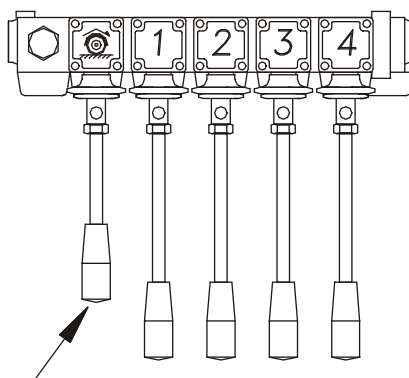
## 10. Lifts with propulsion (extra-equipment)

It is important always to mount the delivered nose wheel, when self-propulsion is used.



Coupling and uncoupling of the self-propulsion is made by means of the handle, as shown below. Remember to place the key reverser (2) in position "stabilizer control" (2a). At coupling of the self-propulsion, always make sure that the piston rods in the feed cylinders are completely driven into outer position.

**NOTICE!** The hand brake must always be activated, when the self-propulsion is uncoupled.



## **MAINTENANCE**

### **1. General**

Always carry out check and repair when needed. Make complete overhaul after 500 working hours - however, always at least once a year and always after having had an accident. Every time you have to write down what has been made, please see service check report in the back of this manual. Either OMME LIFT A/S, a company approved by OMME LIFT A/S or a company which is competent must make the complete overhaul. In case of more comprehensive repairs, contact your importer/dealer to have the lift thoroughly tested.

Warranty: OMME LIFT A/S provides a 1-year warranty - however max. 500 working hours.

#### **1.1 Airless cleaning**

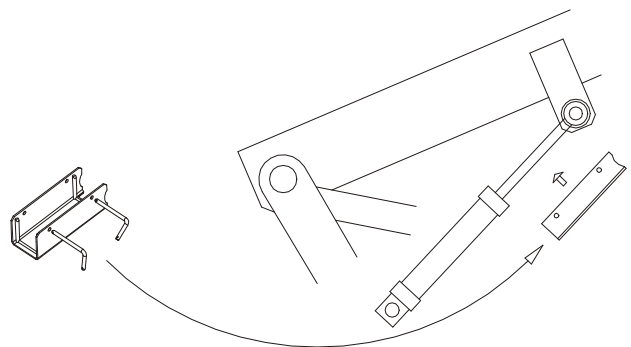
Any use of a high-pressure cleaner must be carried out with consideration.

Electrical control boxes and electrical components do not stand cleaning with a direct jet. Cover the charger to avoid water penetration. Then lubricate the lift thoroughly.

#### **1.2 Safety during repair and maintenance**

If it is necessary to operate with a lifted telescopic boom during repair or maintenance, the mounted cylinder stop must be used, see sketch.

The lock shafts and the security splits must be mounted during operation.



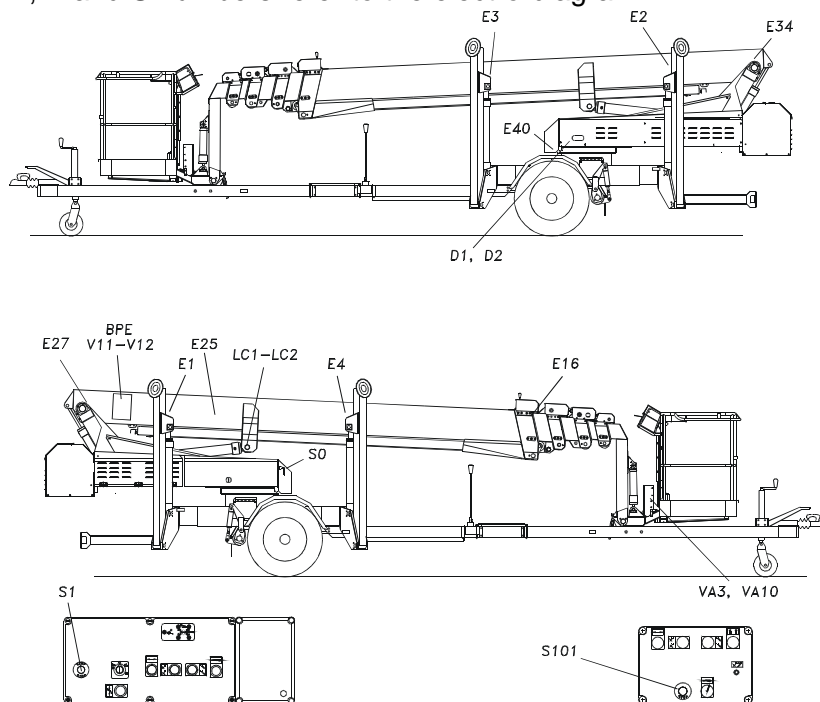
## 2. Maintenance and test

### 2.1 Daily

#### 2.1.1 Test of safety devices

**Take care!** At defective switches unintended movements may occur, which cause squeeze danger.

All D, E and S numbers refer to the electro-diagram.



Test limit switch E16. When E16 is activated, it must not be possible to operate the lift.

Test limit switch D1. When D1 is activated, rotation to the right must not be possible.

Test limit switch D2. When D2 is activated, rotation to the left must not be possible.

Test limit switches E1, E2, E3 and E4. If the stabilizers are not completely lowered, all movements must be interrupted.

Activate emergency stop in the basket (S101). All movements must now be interrupted.  
De-activate emergency stop in the basket, then activate emergency stop at grand controls (S1). All movements must now be interrupted.



Test the limit switches E25 and E34. If E25 is loaded, E34 is out of operation and the lifting speed will be normal. If E25 is unloaded, the lifting speed must be reduced, when the lift boom is more than 60°, and E34 is unloaded. **Note!** E25 will be unloaded, when the working height is 21.6 m; 19.6 m to the bottom of the basket.

Test limit switch E27. When E27 is activated, operation of the stabilizers must not be possible.

Test limit switch E40 (at turntable). When E40 is activated, operation of the stabilizers must not be possible.

#### 2.1.2 Control of battery (type 2900 EB/EBD/EBP)

Check the batteries according to the instructions for "Maintenance of battery" on page 32.

Check battery liquid level. Refill, if necessary, with distilled water.

Battery charge condition must be checked at the beginning of each working day.

The charger is connected to (110)/230 V mains with the delivered extension cable.

Read on the charger how much the battery charger has been charged (see page 32).

Nightly battery charge is recommended. The battery charger is fully automatic, so it switches to additional charging, when charging has been completed. Furthermore, it is possible to charge the battery during operation.

#### 2.1.3 Check of oil level

Check oil level. If necessary replenish with hydraulic oil - only fill up to the upper mark.

Standard oil, type: **Fuchs Plantolube Polar 22 S-bio**.

The lift can be supplied with a special oil type. Always check the label on tank before replenishment.

Always use the replenished oil type or an equivalent one.

In case of doubt, contact your dealer.

**Warning!** If bio-hydraulic oil is used, this is not directly miscible with all other bio-hydraulic oil types.

**NOTE!** When checking and refilling hydraulic oil the lift must be in transport position, (see sketch on page 31).

#### 2.1.4 Lubrication

See lubrication points on page 31.

#### 2.1.5 Check electric cables/wires

Check all accessible electric cables and- wires for eventual damages.

#### 2.2 Weekly

2.2.1 Check tyre air pressure.

2.2.2 Check all hydraulic screw-joints optically.

#### 2.3 Monthly (first time after 30 working hours)

2.3.1 Check tightening of the wheel.

Correct torque:

Wheel :        325 Nm

#### 2.4 Every six months (first time after 30 working hours)

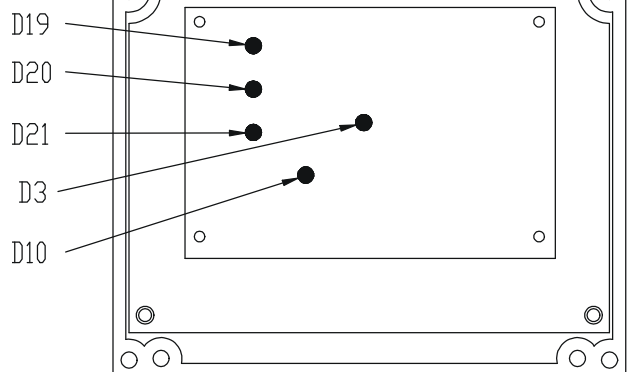
##### 2.4.1 Check load moment control (inspection every six months)

- Turn the lift boom 90° in proportion to the undercarriage. Bring the boom into horizontal position ( $\pm 1^\circ$ ).
- The ambient temperature must be 15-20°.
- Place 80 kg in the basket.

Open the electric box for load moment system, placed at the side of boom 0.

5 light emitting diodes are placed on the circuit board:

<b>Green</b>	Calibration and transducer fault
<b>Red</b>	Calibration and state of alert
<b>Yellow</b>	Calibration and category fault
<b>Green</b>	Main power supply
<b>Green</b>	Transducer power supply



- Switch off lift operation and switch it on again. The two green LEDs (D3 and D10) must immediately come on and after approx. 0.5 second the red LED (D20) comes on. The LED (D20) must switch off after approx. 5 seconds. In the period, until the LED (D20) switches off, the system carries out self-control and it is not possible to operate the lift. When the red LED (D20) is on, the lift is in a state of alert and the moment has been exceeded (or the system is being calibrated).
- Retract the boom in full. From this position the telescopic boom is driven to the outer position, until the load moment control interrupts the movement and the red LED (D20) comes on. At maximum the distance must be 11.6 m with 80 kg in the basket, measured from the centre of the turntable to the centre of the basket.
- Normally the green and yellow LEDs (D19 and D21) do not come on. Eventual fault codes can be read by counting number of flashes of the green LED (D19) and the yellow LED (D21) . For example: 7 flashes - pause - 7 flashes - pause - 7 flashes .....

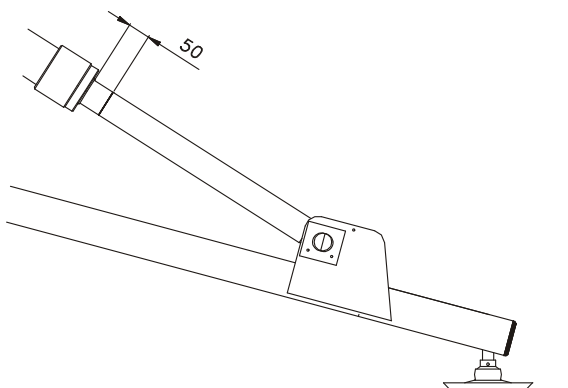
#### 2.4.2 Adjusting

- If the system does not function, then contact OMME LIFT A/S.

### 2.4.3 Control of hydraulic stabilizers

Lower the stabilizers, in order that the wheels are clear of ground.

Each of the piston rods of the stabilizer cylinders is marked with a thin marker in an exact measured distance from the stripper (e.g. 50 mm). Then the lift must stay untouched for at least 30 min. Has the distance to the mark been smaller, do make contact to your supplier.

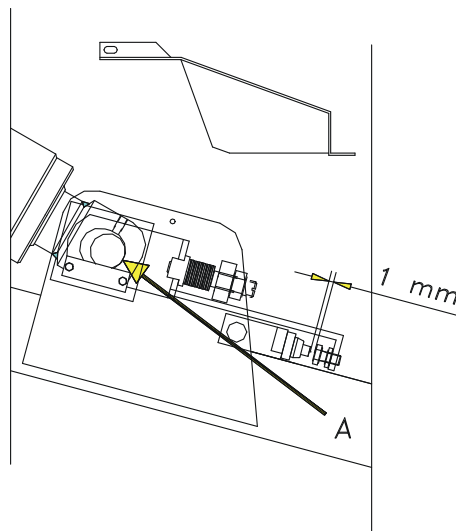


### 2.4.4 Check and lubrication of stabilizer interlocks:

Lower the stabilizers. Stop just before they touch the ground. Now raise the stabilizers manually - you must recognize stabilizer gap. The stabilizers turn slightly around the axle at undercarriage. If this is not the case, it must be repaired, as the result may be that the stabilizer interlocks does not work satisfactory. Place the lift on the stabilizers, demount guards and check the arrangement visually. The springs must be tightened and the axle A must be placed against lock edge. Check distance at switch and screw. If everything seems OK, then lubricate spring with oil. **REMEMBER TO REMOUNT GUARDS.** Rusty springs must be replaced by a new spring bundle. We recommend that the spring packets are exchanged every fifth year and that the springs are lubricated every six months.

#### Adjusting of stabilizer interlocks:

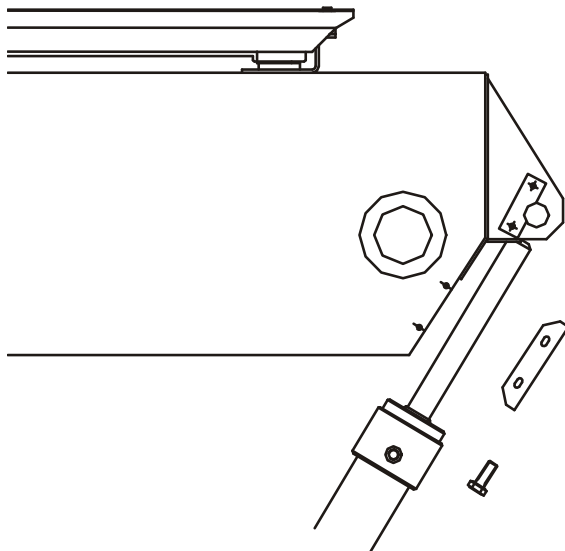
The lift is placed on stabilizers, wheels are free of ground - axle A is placed against lock edge. Tighten spring by means of Allen key, until the springs are totally squeezed together, however not so much, that axle A does not touch the lock edge. Adjust at switch - there must be approx. 1 to 1.5 mm space.



#### 2.4.5 Check of boom system

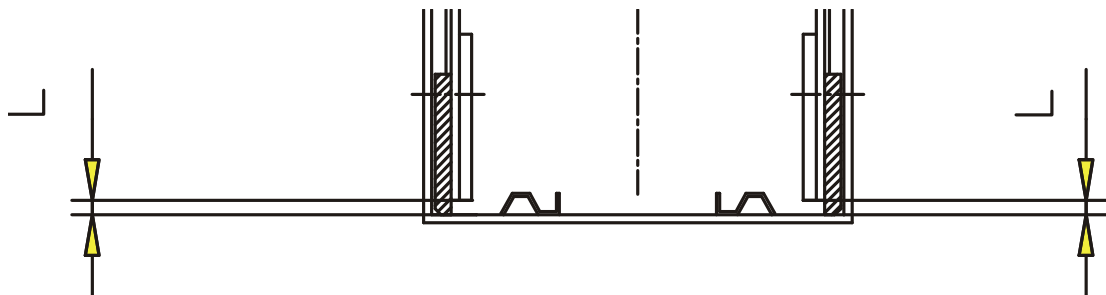
The boom system is constructed to tolerate hundreds of working hours, however intensive use and working with abrasive particles may increase wear.

We therefore recommend the below half-yearly check of boom wear.



Telescopic boom(s) must be fully retracted - transport position.

Demount rear cover plate on boom.



Measure distance from bottom of boom to under side of side plate of the rear side of boom (see sketch). For the measuring it is of advantage to use search sheets.

The distance must never be smaller than mentioned below:

**4 mm (7 mm at new wear plate)**

If you move below the distance, it is necessary to exchange wear plates and to check booms.

#### 2.4.6 Guidelines for disassembling booms

If one of the following points is noted, it is advisable to disassemble the booms completely or partly.

- a. If the booms contain larger quantities of splints or other particles.
- b. If the booms and the telescopic connections make too much noise and this cannot be removed at lubrication.
- c. If defects on the booms or the telescopic connections are optically observed.
- d. If oil or cable routings are defective and it is not possible to draw new ones through the laying.
- e. If the wearing blocks in the rear end of boom 1 are worn to below the permissible. Half-yearly inspection is recommended. See point 2.4.5.
- f. If the chains in the telescopic connection have been prolonged more than permissible. See point 2.4.7.
- g. If it is suspected that there is a defect in the booms or in the telescopic routing, which cannot be controlled, without having to disassemble the booms completely or partly.
- h. We recommend that the booms are thoroughly inspected after 5 years or 2500 working hours.

When disassembling the booms, OMME LIFT A/S recommends that the turning rolls in the cable routing are exchanged with new rolls from OMME LIFT A/S.

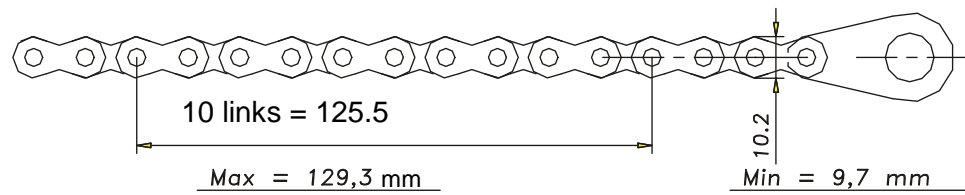
#### 2.4.7 Checking chains

Chains are checked at annual inspection. Chains must be exchanged, if the prolonging exceeds a 3% prolonging. The chain must also be exchanged, if rusting leads to the link not being able to move in proportion to each other. The chain lengths, mentioned below, are inclusive manufacturing tolerances for new chains.

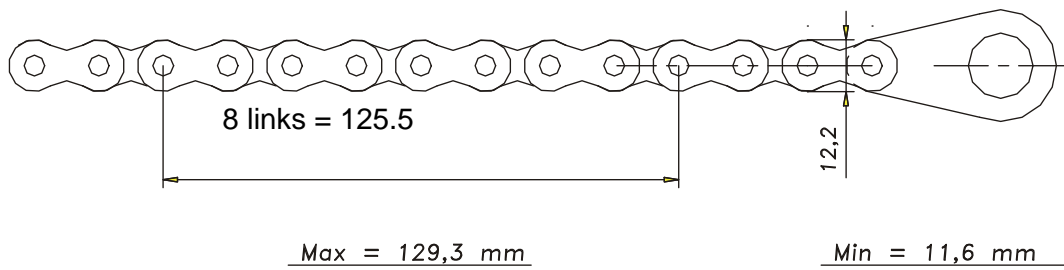
Check: once a year

1/2" – 2x2

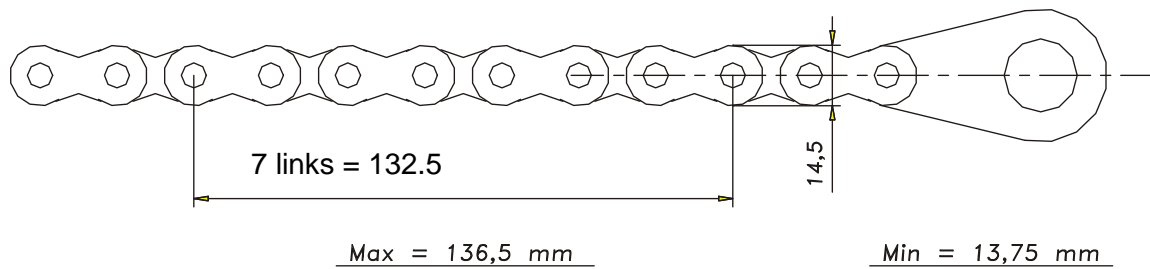
1/2" – 4x4



5/8" – 6x6



3/4" – 8x8



Max. permissible wear on chain length = 3%

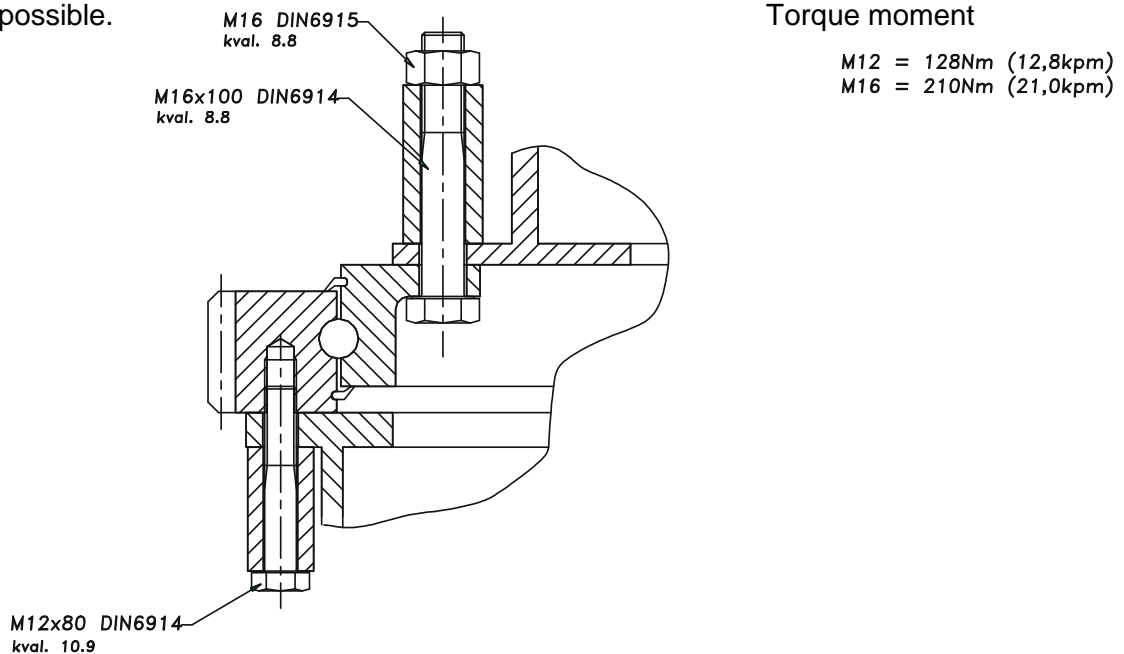
Max. permissible wear on chain link width = 5%

## 2.5 Yearly (first time after 30 working hours).

### 2.5.1 Control of turntable

Your lift is mounted with a precision turntable, which makes it possible to transfer big forces to all directions from the pivot point of the lift.

It is important that the turntable is frequently checked visually and at least once a year (first time after three months) the pre-stressed bolts of the turntable must be controlled with a torque wrench. Tension M12 = 128 Nm, M16 = 210 Nm. Check the turntable connections both from the side of the tower as well as from the bottom part of the undercarriage, where it is necessary to turn the tower in order that control of all bolts is possible.



- Initial tension must be crosswise and with intervals of 180° (progressive).
- Final tension must be 128 Nm for M12 and 210 Nm for M16 bolts.
- Flat washers with a tension higher than 700 N/mm<sup>2</sup> must be used.
- Lock washers must not be used at the bolts of the turntable.

**NB!** Mechanical work in the turntable connections must be made by an OMME LIFT A/S service shop or a shop recommended by OMME LIFT A/S.

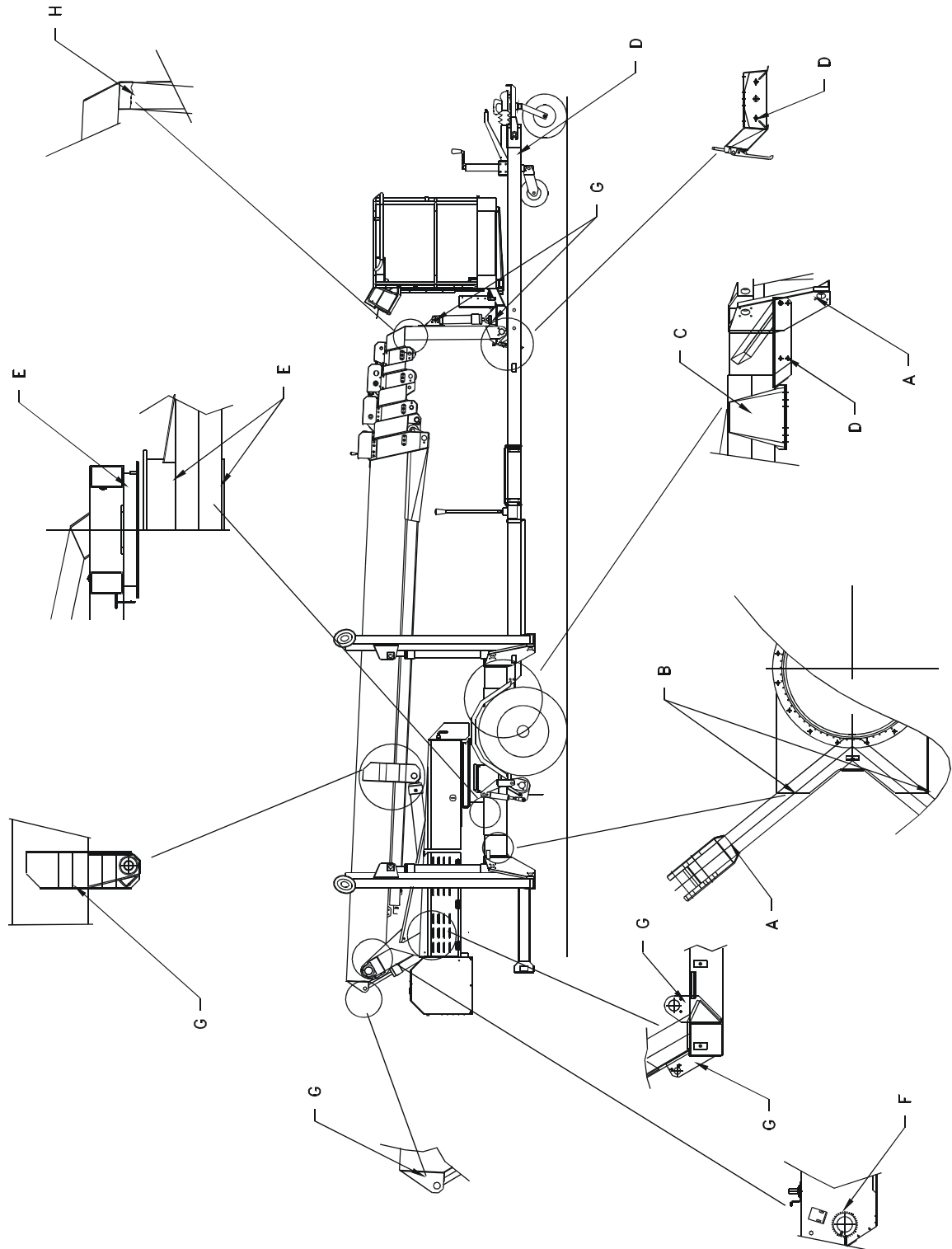
### 2.5.2 Hydraulic screw joints

Adjust all hydraulic screw-joints, bolts and screws.





**Check points**



### 2.5.3 Check rotating and moving parts, bolted joints and welds for formation cracks

#### **Undercarriage**

- Towing bars.  
Adjust all bolted joints - especially bolts at cross profile (D).
- Stabilizer brackets.  
(Construction from stabilizers to square profile)  
Check welds for formation cracks (A).
- Attachment of square profiles to undercarriage profile.  
Check welds for formation cracks (B).
- Turntable-/pivot connection to undercarriage.  
Check welds for formation cracks (E).
- Attachment of wheel brackets to undercarriage profile.  
Check welds for formation cracks (C).

#### **Cylinders**

- Cylinder attachments.  
Check welds for formation cracks (G).

#### **Tower**

- Turntable-/pivot connection.  
Check welds for formation cracks (E).

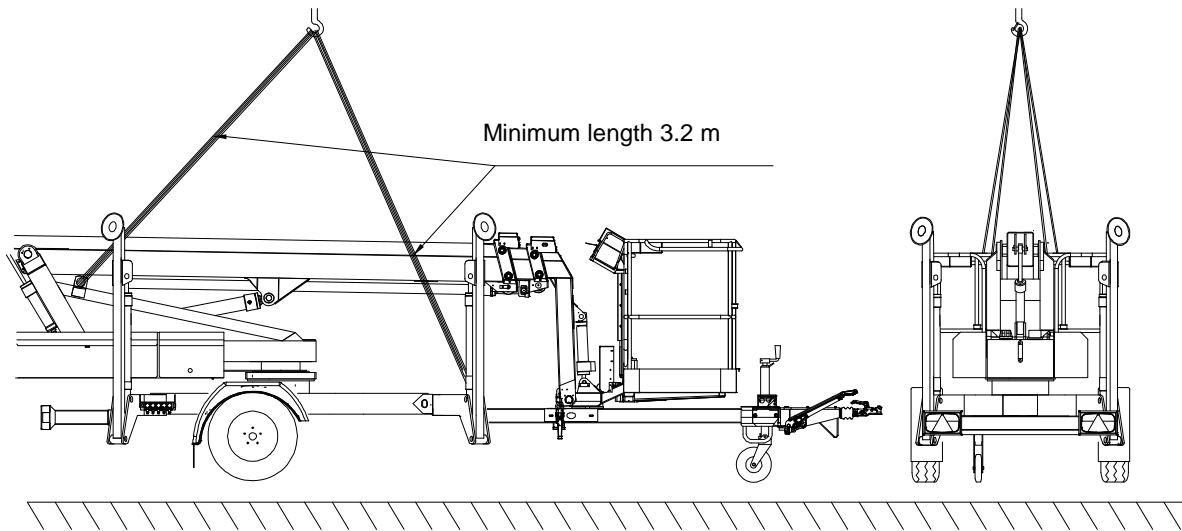
#### **Boom system**

- Centre of rotation of booms.  
Check welds for formation cracks (F).
- Knee point on smallest boom.  
Check welds for formation cracks and for folding in profile (collision) (H).

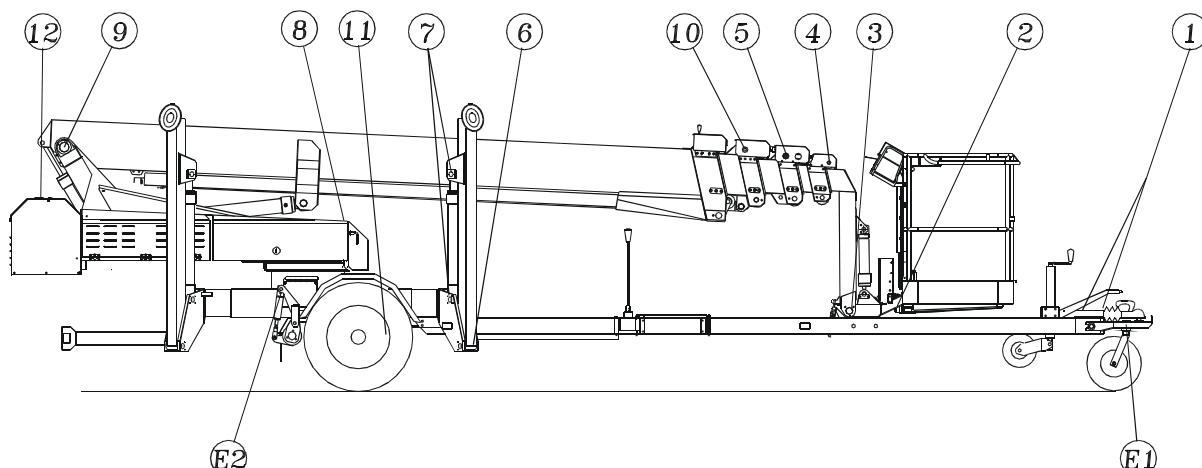
#### 2.5.4 Lifting procedure

REMEMBER! Always use 4 straps.

The length of each strap must be at least 3.2 meter. Never use wire or chain.



### 3. Lubrication points



Pos.	Lubrication points	Number of lub. points	Lubricants	M
1	Overrun brake	2	Grease	x
2	Turntable, basket	1	Grease	x
3	Lever arm	1	Grease	x
4	Chain axle, boom 3	2	Grease	x
5	Chain axle, boom 2	2	Grease	x
6	Stabilizer	4	Grease	x
7	Stabilizer cylinder	8	Grease	x
8	#) Turntable	2	Grease	x
9	Axle, tower/boom	1	Grease	x
10	Chain axle, boom 1	2	Grease	x
11	Wheel axle	4	Grease	x
12	*) Oil filter (exchange)	Number 1	Type MF1002P10NB	
On lifts with propulsion (Extra-equipment)				
E1	Fork for nose wheel	1	Grease	x
E2	Feed cylinder	2	Grease	x

*M = Monthly*

#) Lubrication of turntable: Place the lift on the stabilizers. Lubricate the two lubrication points. Now rotate the lift one round. Lubricate the two lubrication points again. Now rotate the lift back to starting point.

The mentioned lubrication intervals are based on normal operation. For intensive operation the lubrication intervals must be shortened.

In case of a longer period of standstill the detached piston rods (e.g. levelling rods) should be greased.

\*) Change oil and oil filter after 500 working hours, however always at least once a year.

Oil type: See point 2.1.3 or label on tank.

**Note!** After high-pressure cleaning always lubricate the lift to remove penetrated water, if any.


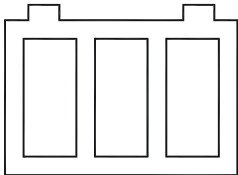

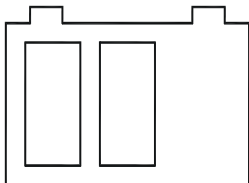

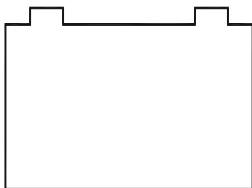

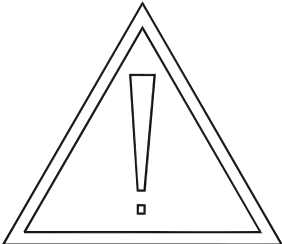
#### 4. Maintenance of battery

##### A. **Charging the battery**

- Connect 230 V mains voltage.

##### B. **Control panel**


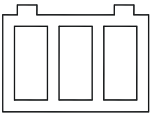

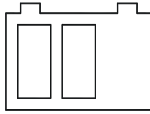



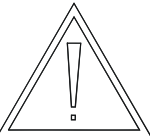
An external indicator is mounted on the control box in tower. The indicator works in the following way:

Green  	<b>Flashing</b>  <b>Steady</b>	230 V mains voltage connected. Battery is not connected.  Battery is completely charged.
Yellow  	<b>Flashing</b>	Battery is charging
Yellow  	<b>Flashing</b>	Battery is charging
Red  	<b>Flashing</b>	Battery error

*The symbols are shown on the battery charger, too.*


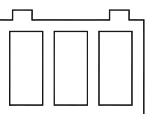

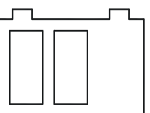

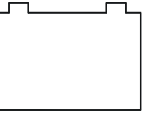

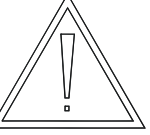
### C. Paragraph from product information

#### INDICATOR - NOT CHARGING

Green	 	<b>Short flash/second</b> $\frac{1}{2}$ sec on, $\frac{1}{2}$ sec off	Mains connected, no battery connected.  Battery connected, mains disconnected. *)
Yellow	 		
Yellow	 		
Red	 	<b>Fast flashing</b>	Battery error

\*) On some types of chargers the green LED is switched off, when 230 V is not connected.

#### INDICATOR - CHARGING

Green	 	<b>Steady</b>	Battery fully charged, charger in battery maintenance mode.
Yellow	 	<b>Slow flashing</b>	Absorption charging. Constant voltage while current is reduced.
Yellow	 	<b>Slow flashing</b>	Bulk charging. Constant current charging. Voltage is rising.
Red	 	<b>Fast flashing</b>	Battery error

Fundamentally the charger works parallel to the built-in 4-LED indicator. However, the short green flashing is shown alternately in the internal and the external indicator.

The charger is set from the factory in order to fit the relevant lift.



### Tending of the battery

#### **Keep terminals and terminal connections clean.**

Dirty and loose terminal connections prevent optimum charging and reduce battery output.

#### **Plates must be covered with acid**

Check acid level and note that if the plates are not completely covered with acid, they will be destroyed. Too much acid in the cells will cause the acid to boil over, when charging. Make sure that only absolutely clean, distilled or de-mineralized water is used as refill. (Never refill with acid or utility water.)

#### **NOTE! NOTE!**

**During charging oxyhydrogen gas is generated, so open fire, sparks and embers must NOT be near the battery when charging.**

### Checks and maintenance

1. Check acid level and refill with electrolyte if necessary.
2. Check specific gravity with an acidometer, it must be 1.26 to 1.28, when the battery is charged. If the specific gravity is less than 1.26 to 1.28, the battery must be recharged.
3. If the battery has been soiled, it is cleaned in ample hot water in order to remove the dirt and avoid sneak current. A battery which is kept clean and charged lasts the longest.
4. Batteries which are not in use must be charged regularly, and they must be stored in a dry place.

#### **NOTE! NOTE!**

**If the battery is discharged to specific gravities less than 1.14 to 1.16, its life is reduced considerably.**

5. During charging electrolyte temperature must not exceed 40 degree C, as that would have a destructive effect on the accumulator.

## 5. Maintenance of internal combustion engine KUBOTA D722-E

To achieve greater efficiency, a more economic operation and a longer life time we recommend that you read the enclosed **KUBOTA-MANUAL** thoroughly and make sure, that the engine is operated and maintained correctly. If the engine is operated and maintained as prescribed, you will learn that you have made a good investment in the long run.

As the engine can be operated from the basket, we have made some changes regarding operation compared with the **KUBOTA-MANUAL** prescriptions.

1. Preheating of the engine is carried out automatically. Having pushed down the START-button, the engine preheats for about 4 sec., before the engine starts.
2. Check of oil pressure: There is no oil indicator, which will come on, if pressure is no longer established. Having no pressure, the engine stops automatically.
3. Check of water temperature: There is no thermometer or indicator, which indicates if the engine is superheated. The engine will stop automatically, if the water temperature becomes too high. **Note!** The water temperature in the engine always rises, just after the engine has stopped. This is the reason why the engine may not start, shortly after it has stopped, e.g. if the air temperature is very high.

### Regular maintenance of KUBOTA D722-E

1. Check oil, water and fuel quantity - daily.
2. Check air filter and fuel filter frequently for impurities. Clean as prescribed in the **KUBOTA-MANUAL**.
3. Change oil and oil filter according to the intervals prescribed in the **KUBOTA-MANUAL** - however, the first time after 50 working hours. Always use an oil, which corresponds to the quality prescribed by **KUBOTA**. The viscosity must correspond to the season. This engine has an oil pan depth of 121 mm, which is influencing the oil quantity and the frequency of the change of oil filter.
4. Check anti-freeze mixture before winter time - and during the whole winter period, if water is frequently poured on the radiator.

### **WARNING!**

#### **To avoid damage on persons:**

NEVER remove the radiator cover, when the engine is running, or after it has stopped, and the engine is still hot. Otherwise you may risk, that the boiling water will bubble up and scald persons standing near by. Do not remove the radiator cover until after at least 10 minutes, that is when the engine is cooled.

## **TROUBLE-SHOOTING**

### **1. General**

- a. Is main switch (B) (S0) activated?
- b. Are the emergency stops (S1, S101) active?
- c. Is there power on the battery? (Battery types).
- d. Is the main connection ok (type 2900 E)?
- e. Is the basket load higher than permitted?
- f. Are the fuses ok? (100 A main fuse and 10 A control fuse).
- g. Is the oil level in tank ok?

### **2. Stabilizers cannot be lowered**

- a. Is the position of the key reverser (2) correct?

### **3. The boom cannot be raised**

- a. Has the lock been loosened?
- b. Is the position of the key reverser (2) correct?
- c. If necessary, adjust the potentiometer (3) to a higher level.
- d. Check voltage, if necessary, press in and release emergency stop.
- e. Is the lift placed correctly ? Check the indicators for placing control.  
The 4 red indicators (7b) must now be switched off. The green indicator (7a) must come on.

### **4. The boom cannot be lowered**

- a. Has the lift reached its max. outreach, so that the load moment control valve has been interrupted?
- b. Is the position of the key reverser (2) correct?
- c. Check voltage, if necessary, press in and release emergency stop.

**5. The boom cannot be telescoped outwards**

- a. Are there any hindrances for the lift?
- b. Has the lift reached its max. outreach, so that the load moment control valve has been interrupted?
- c. Is the position of the key reverser (2) correct?
- d. Check voltage, if necessary, press in and release emergency stop.
- e. Has chain rupture switch E16 been activated?

**6. The boom cannot be telescoped inwards**

- a. Are there any hindrances for the lift?
- b. Is the position of the key reverser (2) correct?
- c. Check voltage, if necessary, press in and release emergency stop.
- d. Has chain rupture switch E16 been activated?

**7. The lift cannot turn to the right or to the left**

- a. Are there any hindrances for the lift?
- b. Are D1 and D2 active ?  
Is right ok, but left not. Turn at least 90° to the right and then try to the left again  
(The lift had reached its outer position).

**8. Too short operating time on the battery (Type 2900 EB/EBD/EBP)**

Check the battery according to "Maintenance of battery", page 32.

**9. No charge indicator deflection (Type 2900 EB/EBD/EBP)**

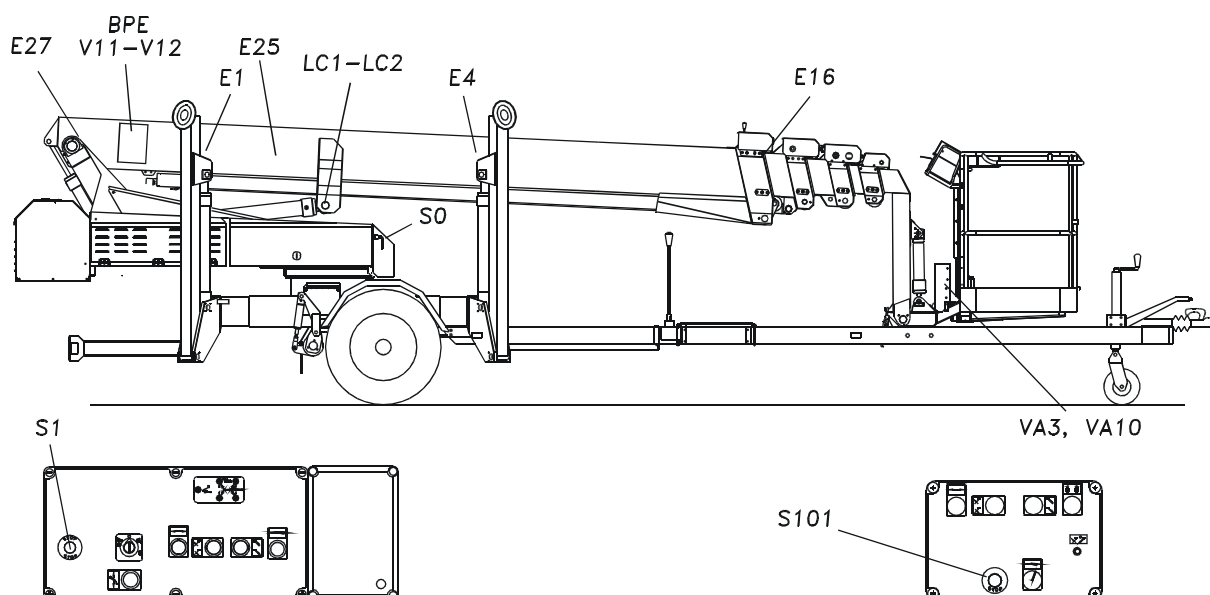
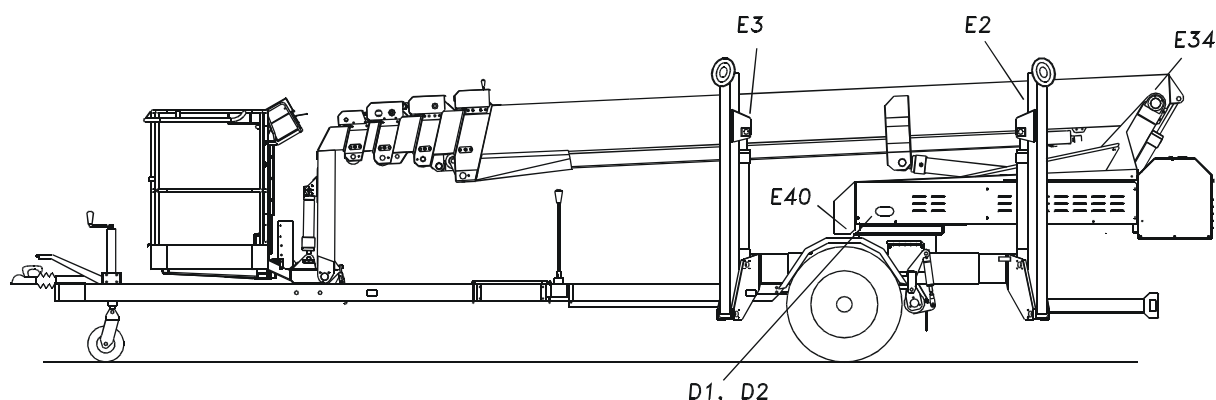
Check the following:

- a. Is the charger connected to 230 V?
- b. Is the connection to the battery ok?

# **10. Indication lights for placing do not function appropriately**

- a. The red indicators (7b) do not come on.  
Is key reverser (2) placed in position stabilizers (2a)?  
Is emergency stop (S1) or (S101) active?
- b. The red indicators (7b) continue to come on.  
Are E1, E2, E3 and E4 active?
- c. The green indicator (7a) does not come on?  
Is E16 activated?  
Is the basket more than  $\pm 10^\circ$  oblique?  
Is emergency stop (S1) or (S101) active?  
Is the power on the battery ok (Battery types)?

11. If you have not found the error going through the above instructions, please contact you dealer/importer to make eventual arrangement for a service visit.





**ORDER NUMBERS**

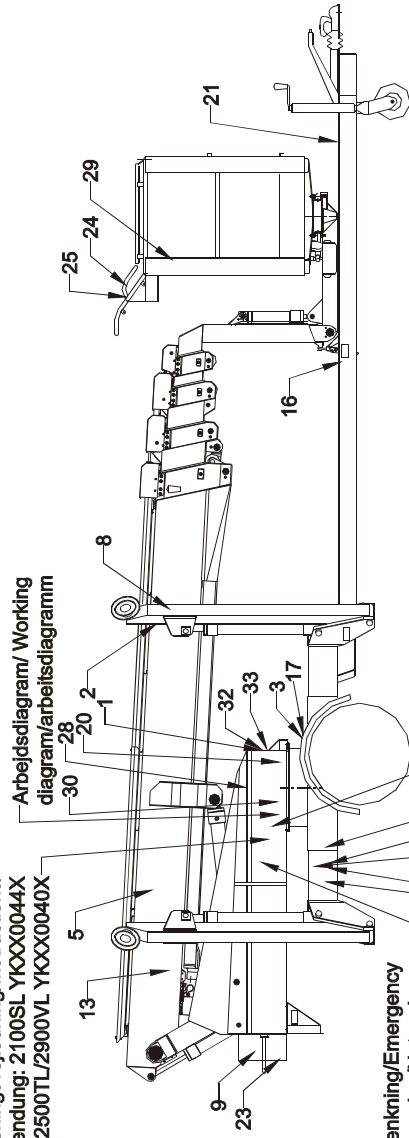
**FOR**

**DECALS**

**OMME 2900**

*Always state lift serial No. and requested language!*

Betjeningsvejledning/Instructions/  
Notsendung: 2100SL YKXX0044X  
2500TL/2900VL YKXX0040X

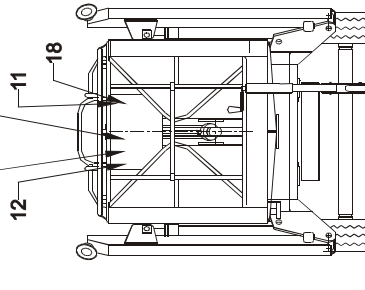
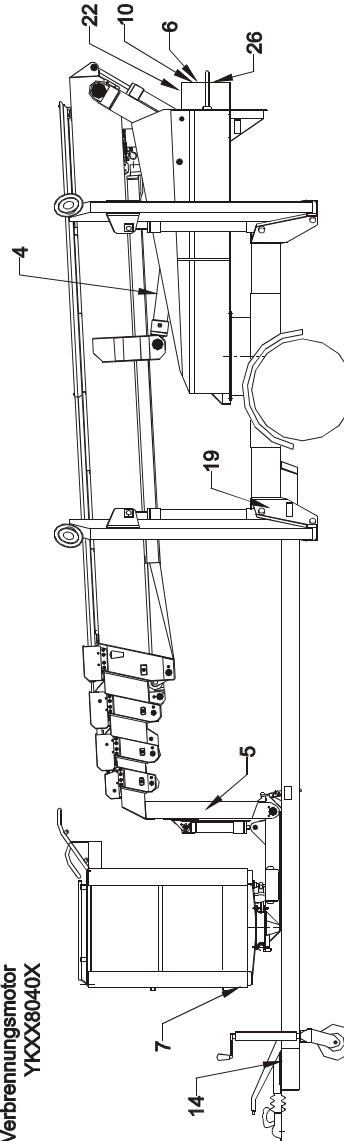


Nødsænkning/Emergency  
lowering/Notsenkung  
2100SL YKXX1044X  
2500TL/2900VL YKXX1040X

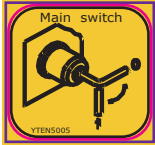


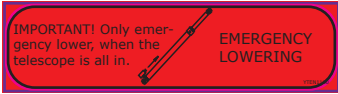






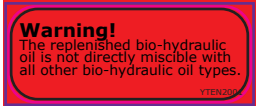





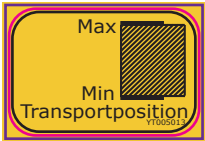


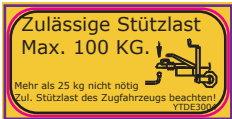


Lift m. forbrændingsmotor/  
Lift with internal combustion engine/  
Hebebühne mit Verbrennungsmotor  
YKXX8040X

Betjeningsvejledning/Instructions/  
Kurzbedienungsanleitung  
2100SL YKXX7044X  
2500TL/2900VL YKXX7040X

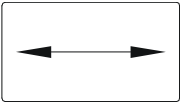
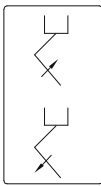
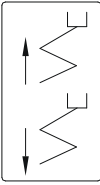
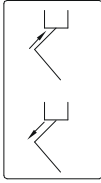
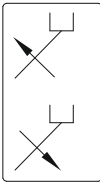
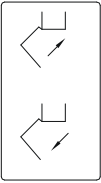
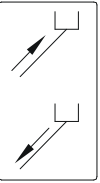
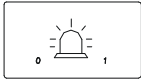
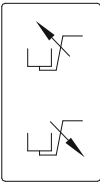
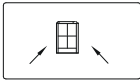
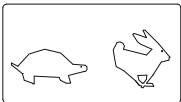
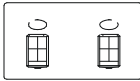







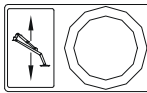

Nødsænkning/Emergency  
lowering/Notsenkung  
2100SL YKXX6044X  
2500TL/2900VL YKXX6040X





1		YTXX5005	12		YTXX5006
2		YTFI0004	13		YTXX1100
3		YT005046	14		YTXX4101
4		YTXX1102	15		YTXX4100
5		09650257	16		YT000008
6		YTXX2001	17		YTXX5004
7		09650435	18		YT005005
8		YTXX6002	19		YT005045
9		YT005013	20		YTXX6001a
10		YT006027	21		YTDE3004 FOR GERMANY ONLY
11		YTXX5003	22		YT005008

23		YT000012
24		YTXX5015
25		YTXX5014
26		YTXX5028
27		YT004003
28		YT006014
29		YT006016
30		YTXX5208
31		YT004005
32		YT000023
33		YT000024

1		57000430 Drejning, højre/venstre Drehung, rechts/links Rotation, right/left	12		57000435 Underarm, op/ned Unterer Ausleger, auf/ab Lower boom, up/down
2		57000485 Saksearm, op/ned Scherenarm, auf/ab Scissor boom, up/down	13		57000400 (Knæk lifte) Teleskoparm, ud/ind Teleskopausl., aus/ein Telescopic boom, out/in
3		57000445 Arm, op/ned Ausleger, auf/ab Boom, up/down	14		57000450 3. arm, op/ned 3. ausleger, auf/ab 3rd boom, up/down
4		57000410 (Teleskop lifte) Teleskoparm, ud/ind Teleskopausl. aus/ein Telescopic boom, out/in	15		57000425 "Rotorblink" "Rotor leuchte" "Rotary light"
5		57000452 Jib arm, op/ned Beweglicher Korbarm, auf/ab Jib boom, up/down	16		57000420 Opretning af kurv Aufrichtung Korb Alignment of basket
6		57000465 Hastighed, høj/lav Geschw. hoch/niedrig Speed, high/low	17		57000405 Drejbar kurv Drehbarer Korb Turnable basket
7		57000470	18		57000415
8		57000455	19		57000475
9		57000460	20		57000530 Moment OK
10		57000462	21		57000490
11		57000480 Potentiometer			



# Service check report Omme lift A/S

Order no.:	Serial no.:	Customer reference no.:
Phone no.:	Year:	Product:
Company:	Type:	
Address:	Hour meter:	
Postal code:	Town:	

## CHECK LIST FOR MOBILE PERSONAL ACCESS PLATFORM

A=OK B=repair on occasion C=not OK			A	B	C	A=OK B=repair on occasion C=not OK			A	B	C	A=OK B=repair on occasion C=not OK			A	B	C
<b>1. Special safety equipment</b>						3.3 Adjustment and sealing						<b>7. Chassis, undercarriage &amp; stabilizers</b>					
1.1 Type sign						3.4 Guard						7.1 Construction (deformation, rust, cracks and breakages)					
1.2 Warning-, instruction decals and operation symbols						3.5 Hydraulic tank						7.2 Bolts, bolted joints					
1.3 Safety switches / sensors						3.6 Pump						7.3 Bearings, axles and moving links					
1.4 Light indicators						3.7 Motor						7.4 Lock pins and locking devices					
1.5 Emergency stop						3.8 Oil						7.5 Stabilizers and baseplates					
1.6 Lockable reverser						3.9 Filter						7.6 Function controls of stabilizer levelling system up and down					
1.7 Main switch						3.10 Leakages, untightnesses						7.7 Lift fittings and ball hitch					
1.8 Safety harness						3.11 Function controls, especially extreme positions						<b>8. Work stand</b>					
1.9 Emergency lowering function						3.12 Pipes, hose rupture and load over centre valves						8.1 Construction (deformation, rust, cracks/breakages)					
1.10 Spirit levels						3.13 Hydraulic safety valves						8.2 Bolts, bolted joints etc.					
1.11 Level adjustment and slope alerts						<b>4. Motor and fuel system</b>						8.3 Fastening of work stand					
1.12 Warning light indicator / flashing beacon						4.1 Fuel system, tank and filters						8.4 Gate function, movable rail					
1.13 Overload fuse/Torque						4.2 Motor and transmission						8.5 Rail, hand-, knee-, and wall bases					
1.14 Guards						<b>5. Electro- and charging system</b>						8.6 Flooring and cable routing					
1.15 Transport position automatics						5.1 Battery, battery box, battery weight & battery connections						8.7 Telescoping platforms etc.					
<b>2. Brakes, steering gear, tyres, indicators and operator controls</b>						5.2 Electro-system, wires and plugs						8.8 Anchor point for safety harness					
2.1 Brakes						<b>6. Lifting device (boom, articulated boom, scissors, chains etc.)</b>						8.9 Instructions in basket					
2.2 Wheel and wheel suspension						6.1 Construction (deformation, rust, cracks, breakages)						8.10 Labels - load (persons, load)					
2.3 Tyre wear and – pressure						6.2 Bolts and bolted joints etc.						<b>9. Other important check points</b>					
2.4 Indicators, lamps and reflexes						6.3 Bearings, axles and moving links						9.1 Load test: KG					
2.5 Signalling device, horn						6.4 Slide shoe, -block, -lists etc.						9.2 Report and journal/label					
2.6 Operating devices – symbols						6.5 Limit switches						9.3 Manual					
						6.6 Transport fittings						9.4 Maintenance instructions					
<b>3. Hydraulics</b>						6.7 Rotary system, among others turntable and functions						9.5 CE-marking 1. January 97					
3.1 Pipes, hoses and screw-joints						6.8 Chains						9.6 EC- conformity certificate					
3.2 Control valves						6.9 Speed for movements						9.7 EC-type approval					
						6.10 Function controls											

Remarks (at first fill in the number in request, e.g. 1.5):

Accepted: ☐ Not accepted: ☐

Date and signature:

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