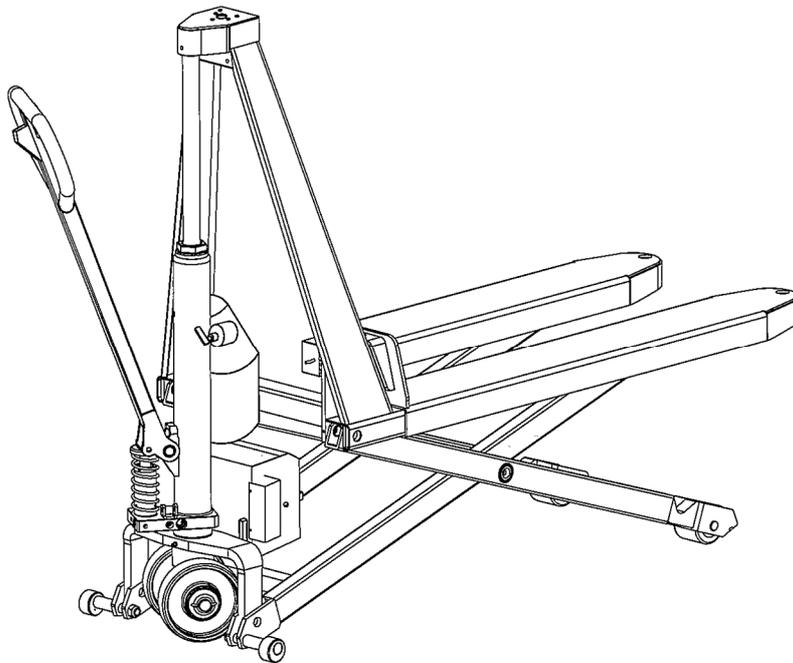


ORIGINAL INSTRUCTIONS TRANSLATED TO ENGLISH EDITION,
VERSION 02, applicable FROM 1 January 2018

HIGH LIFTER PREPARED FOR SCALE ELECTRIC PAINTED

OPERATING INSTRUCTIONS
MAINTENANCE MANUAL
PARTS CATALOGUE
DECLARATIONS OF CONFORMITY



HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

BASIC INFORMATION

Manufacturer: Ole Almeborg a/s, Svalhøjvej 15, DK-3790 Hasle, Denmark, tel. +45 5693 3600
Designation: High Lifter prepared for scale, electric, painted, type RAV-HLE400
Lifting capacity: 1,000 kg
Net weight: 166 kg

RECEIVING THE PRODUCT

On receipt of the product, it is important to inspect it immediately for any signs of damage that may have occurred in transit. If any damage is discovered, contact the distributor or supplier and do not use the high lifter until the distributor or supplier has been notified about the damage and the extent of it.

MALFUNCTION AND DAMAGE

In the event of any malfunction or damage to the high lifter, contact the supplier or the distributor.

NOTE:

For safety reasons, all service and maintenance must be performed by a technician certified to do so.

BEFORE USING THE PRODUCT

The manual must be read and understood by the operator before he/she starts to use the high lifter, as it is crucial for the operator to be familiar with the high lifter's function, capacity and loading methods.



WARNING!

If the precautions specified are not followed, there is a risk of accidents which may entail severe bodily injury and could possibly be fatal.

TRANSPORTING THE HIGH LIFTER

To lift the high lifter, attach authorized lifting equipment to the front crossbar or upper section. The lifting must be balanced by attaching straps to the fork tips. Note that, when lifting the high lifter, the plunger shaft can be extended to its maximum length. This will not damage the high lifter. For transporting the High Lifter on a lorry, it is recommended that the truck be attached to an EUR-pallet.

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SAFETY EQUIPMENT

Safety footwear must always be worn when using the high lifter. For service and repair, safety goggles/glasses must also be worn.

The operator must not wear loose objects such as necklaces, finger rings, a scarf, etc., as these can get caught in the High Lifter, thereby exposing the operator to danger.
The high lifter may be used for transporting pallets in an ordinary production environment.

PRODUCT DESCRIPTION

The high lifter is described as a high lifter designed for transporting EUR-pallets.

The high lifter is designed for use in an ordinary production environment. The floor must be hard and level, e.g. concrete or asphalt.

The user must make sure that the floor can support the high lifter, including with its total maximum load.

USING THE PRODUCT

Permitted utilization:

The high lifter may be used for transporting pallets in an ordinary production environment.

Unacceptable utilization:

The high lifter may not be used as a scooter or for transporting people.

The high lifter is stable on a level surface, but may not be used on angled surfaces where there is a risk that it could slide or tip over. In addition, the high lifter may not be used in very cold areas or in areas exposed to high temperatures as this could cause the pump to malfunction, thus exposing the operator or other people to danger.

HANDLING AND START-UP

Before using the high lifter, it is important for the operator to read and understand the user instructions.



OPERATOR'S POSITION

The operator must always position himself/herself in front of the towbar both during transport and when operating the pump.

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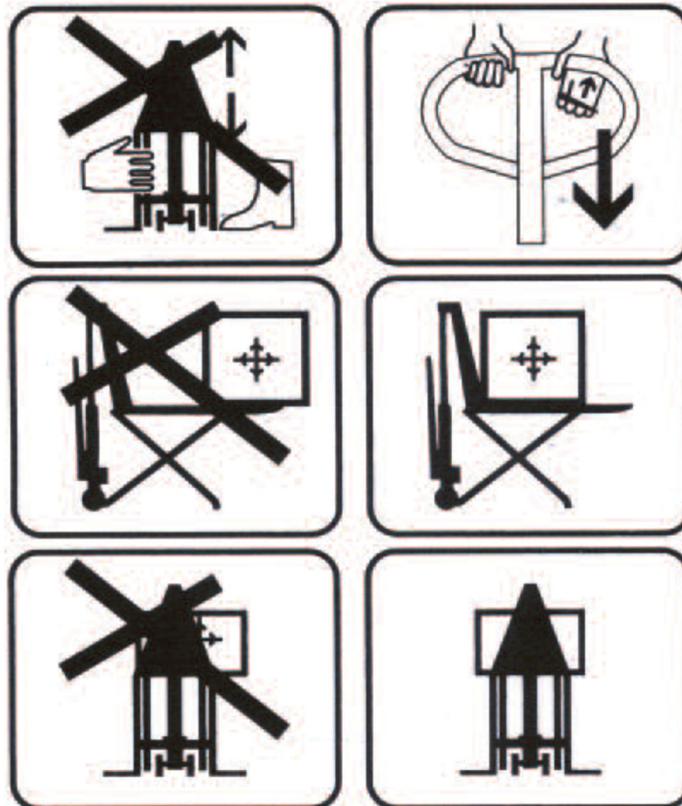


WARNING DURING OPERATION

Check to see whether anyone is in the area where you are planning to use the high lifter.

THE LOAD

- Know and be aware of the weight of the load and how it is positioned, to ensure that the maximum load limit is not exceeded.
- Make sure the load is stable and correctly positioned on the forks.
- The high lifter may only be operated with a load if the load is stable and secured, so that any loose objects cannot fall off.
- Do not convey tall loads on the high lifter.
- Be aware of the condition of the floor surface, i.e. whether it is even and smooth, whether there is an incline or a decline, as failing to observe this could cause a dangerous situation.
- Do not operate the high lifter on catwalks or other unstable surfaces.
- Avoid high speeds when turning.



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OPERATING INSTRUCTIONS, MANUAL

The pallet truck's towbar is also used as a pumping/lifting bar. A built-in valve enables the towbar to be placed in the desired position simply by slowly moving this.

If the operator wishes to lift the load, the towbar must be moved quickly. If the operator wishes to lower the load, pull carefully on the towbar's release lever, which activates this function. The adjustment of the lowering function is continuously variable. The upper section has been added to the drawing shown here, to indicate the above functions.

OPERATING INSTRUCTION, ELECTRIC

Raising the forks:

To raise the forks, use the pushbutton located under the protective bar on top of the towbar. Press and hold the button until the desired lifting height is reached.



Lowering the forks:

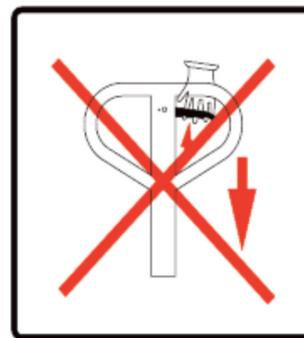
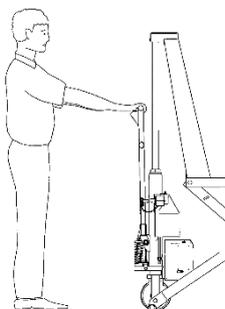
To lower the forks, carefully move the release lever upwards, which will activate this function.

NOTE

The adjustment of this function is continuously variable for slow or rapid lowering.

WARNING FOR OPERATING THE RAISING/LOWERING FUNCTION

There is a risk of being crushed under forks and pallets. Make sure that no one else is nearby when lowering the truck. Always position your hands on the top of the handle when operating the truck and always use both hands to operate the truck.



Always park the pallet truck with the forks in the lowest position. Always park the truck on an even, level surface to prevent it from unintentionally rolling into areas where it could endanger other people.

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BATTERY

The high lifter is equipped with a maintenance-free gel battery (VRLA). The battery is charged from the factory, but it is recommended that the battery be recharged before starting to use the truck.

CHARGING THE BATTERY

The high lifter is equipped with a built-in charger located on the left-hand side of the battery case. The charger is equipped with an alarm (red diode) which flashes when the battery needs to be recharged.

CONNECTING THE CHARGER

Attach the charging cable to the high lifter, and then plug in the cable to a 230V outlet. Start the charging process by turning on the switch, and the red diode will stop flashing.

- A yellow diode indicates that the charger is turned on.
- A green diode indicates that the battery is charged.



WARNING

Prolonged use of the high lifter after the red diode has started flashing could permanently damage the battery.

WHEN THE TRUCK IS NOT IN USE

Always park the pallet truck with the forks in the lowest position. Always park the truck on an even, level surface to prevent it from unintentionally rolling into areas where it could endanger other people.

Safety switch

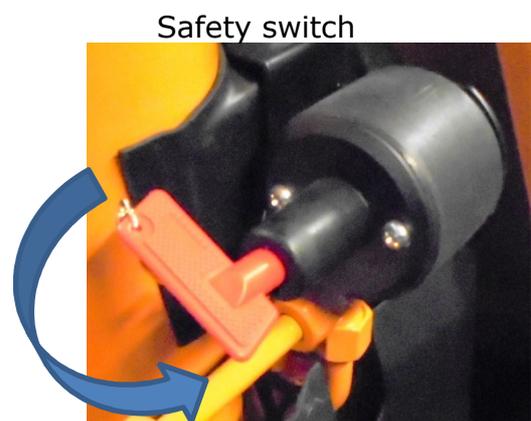
The high lifter contains a safety switch/emerging stop.

The switch is positioned on the side of the oil tank near the motor cap. The switch can cut off the main current from the battery. For safety reasons we recommend that the switch regularly be tested.

Safety switch shown in on position.

By turning the red key in the direction of the arrow the current will be cut off.

By turning the red key opposite way the current again will be connected.



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INSPECTION AND MAINTENANCE



WARNING!

During service and maintenance, there is a risk of being crushed by movable parts of the high lifter. Be sure to correctly chock the high lifter in a stable location while servicing it, to prevent sudden movements of the high lifter.

DAILY INSPECTION

For safety reasons, the operator should inspect the high lifter on a daily basis for wear and damage. Special attention is drawn to the following components:

- Loose axles caused by damaged bolts, nuts or tubular pins
- Ruptures or cracks in the chassis
- Ruptures or cracks in the towbar
- Bent compression bars
- Wheels and auxiliary rollers must be intact and must be able to rotate freely
- Make sure no cloths, strip waste or other items are wound around the hub of the wheel or auxiliary rollers

WEEKLY INSPECTION

For continuous operation, all movable parts should be inspected and lubricated with SAE 30 motor oil at least once a week. Ordinary bearing grease should be injected into the lubrication points equipped with a grease nipple.

MONTHLY INSPECTION

Check the level of oil in the hydraulic system once a month. If the pump lacks oil, this is usually discovered from oil residue on the high lifter or when the high lifter cannot be pumped up to the top position.

OIL

The hydraulic system contains 1.5 liters of oil. Replenish with oil at the top of the pump housing. At temperatures between -35°C and $+40^{\circ}\text{C}$, use oil certified to ISO 32 with a viscosity index of at least 150.

LUBRICATING THE TOWBAR

On the towbar, lubricate the release chain, the pin on the release lever and the pin at the lowering valve lever.

INSPECTION AND MAINTENANCE PLAN

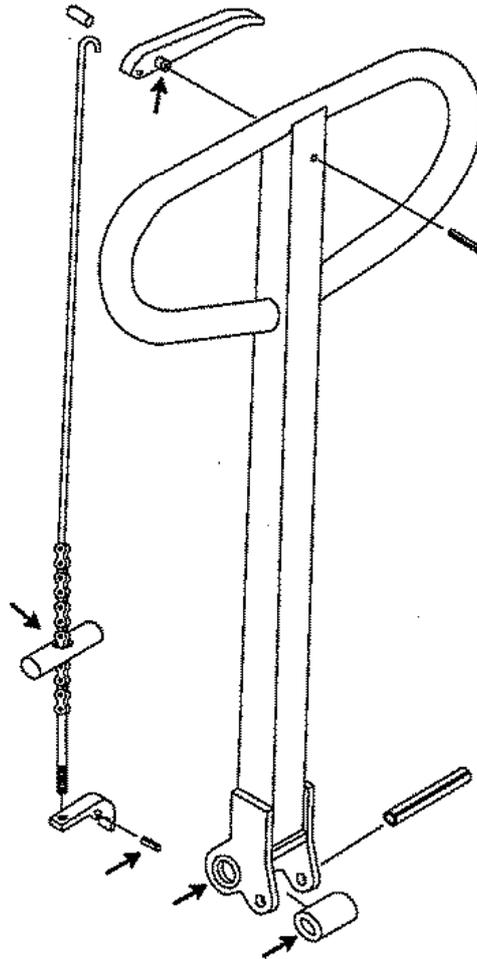
	Daily	Weekly	Monthly
Cleaning	•		
Inspect for damage and ruptures	•		
Lubrication		•	
Oil level, pump			•

LUBRICATING THE PUMP TOWBAR

NOTE:

To achieve correct lifting and lowering, the chain drive in the towbar must be preset so there is 0.4 mm (± 0.1 mm) between the release pin and the lowering-valve lever, regardless of where the towbar is positioned.

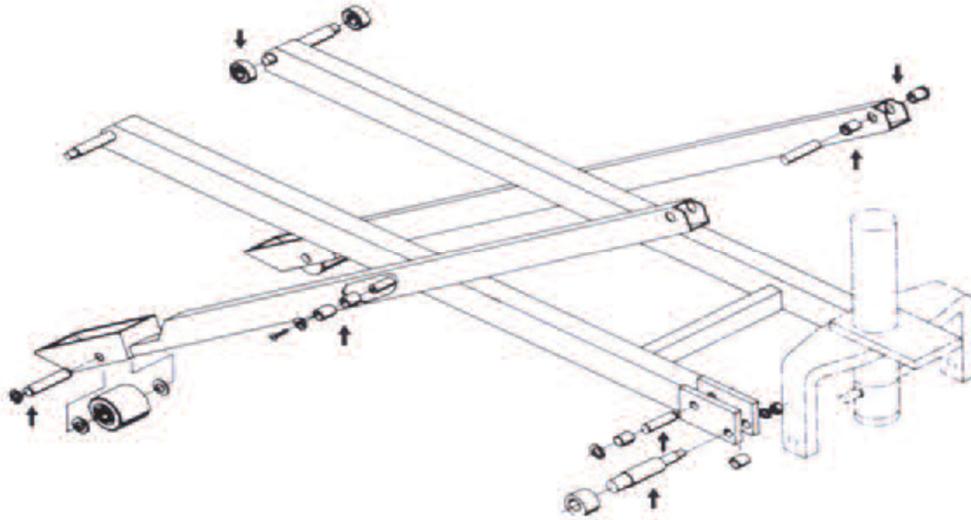
Oil lubrication →



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LUBRICATING THE SCISSOR-LIFT ASSEMBLY

Oil lubrication→
Grease lubrication→



CLEANING

The environment in which the high lifter is used determines the cleaning frequency. It is recommended to assess the need for cleaning based on the current rules in the company. The high lifter can be cleaned with warm water and automobile detergent or similar. After cleaning, wipe down the truck and lubricate the movable parts (see the section concerning maintenance and lubrication).

DISPOSING OF THE HIGH LIFTER

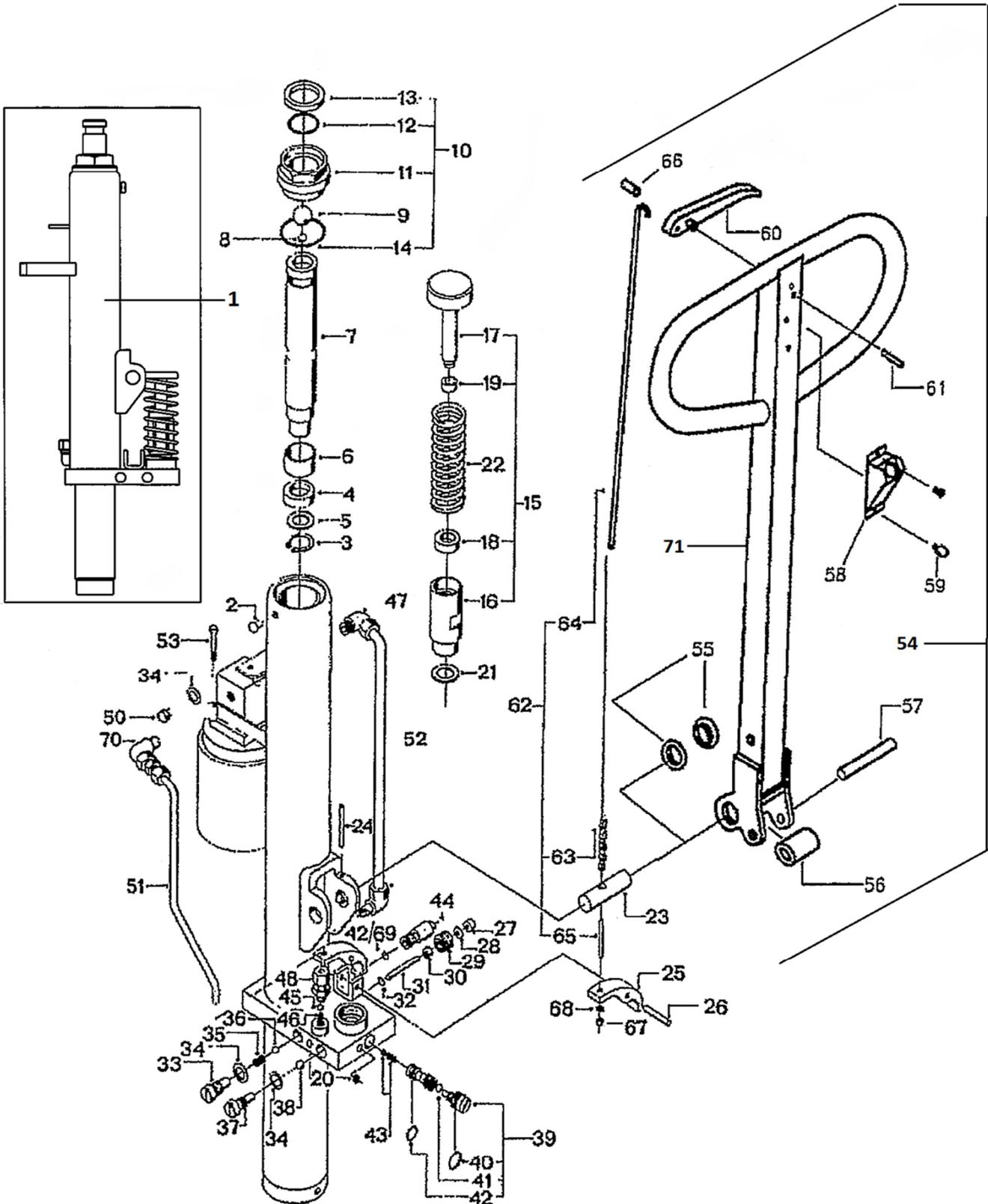
The high lifter must be disposed in accordance with applicable rules at the time of disposal. Contact your local environmental station for further details, if necessary.

THE HIGH LIFTER CONTAINS THE FOLLOWING MATERIALS

- Chassis: painted steel
- Towbar: painted steel
- Scissors: painted steel
- Wheels: nylon, polyurethane or rubber
- Bearings: chrome steel
- Bushings: polyacetal, nylon, brass
- Pump housing: painted steel, hydraulic oil, polyacetal, nylon, copper, steel containing chromium, stainless steel, polyurethane and nitrile rubber.

HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, ELECTRIC, PAINTED MODEL: PUMP ASSEMBLY



HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, ELECTRIC, PAINTED MODEL: PUMP ASSEMBLY

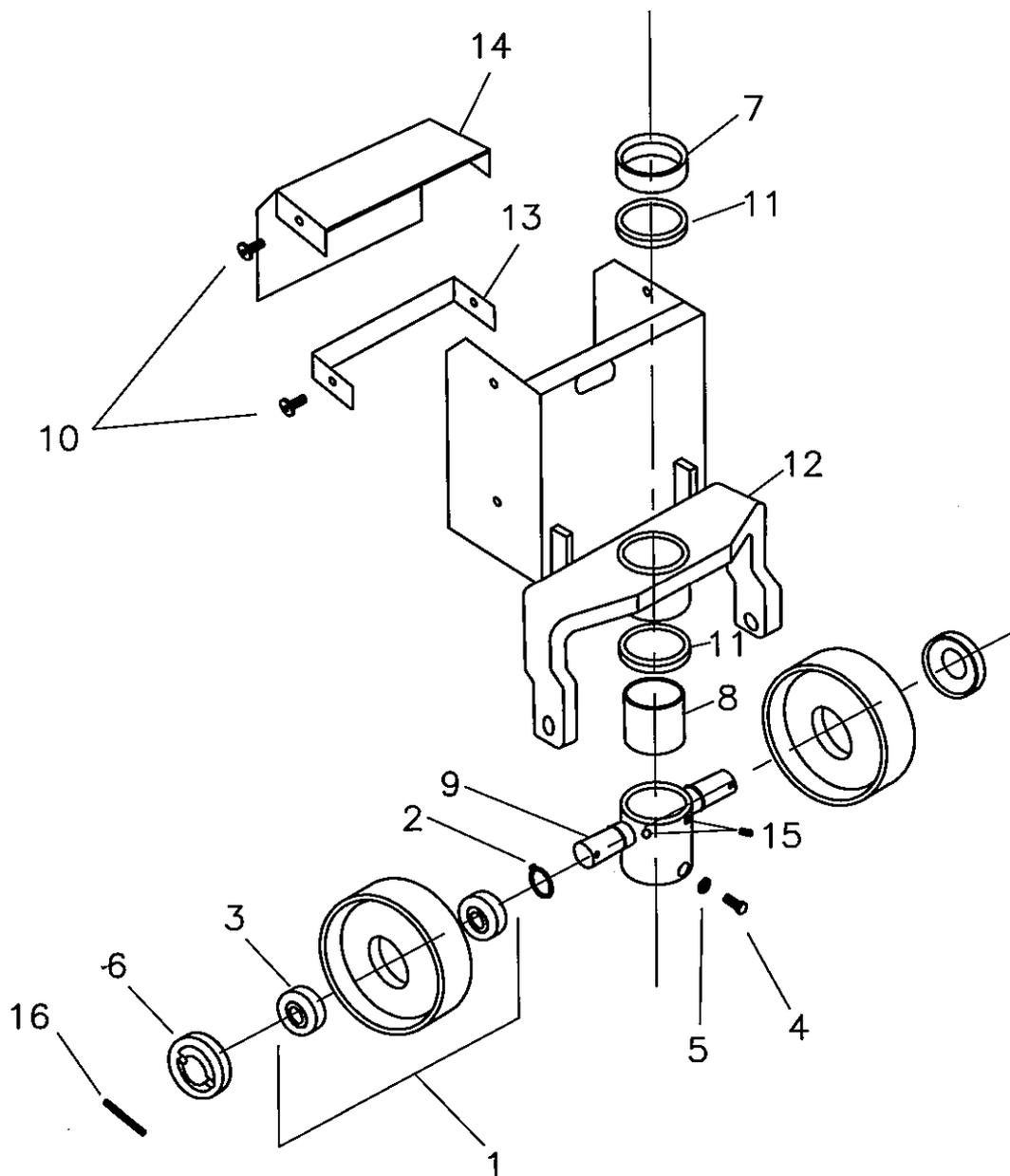
Item	Item no.	Qty	Designation
1	11.15-50.480	1	Pump assembly With valves & pistons
2	452.050	1	Oil plug
3	402.104	2	Lock ring
4	11.15-50.101	1	Packing
5	11.15-50.102	1	Support ring
6	456.008	1	Bushing
7	11.15-50.005	1	Piston
8	451.051	1	Ball, Ø 12 mm
9	451.047	1	Ball, Ø 1"
10	622.130	1	Union nut, complete
11	NNS	1	Union nut
12	452.045	1	O-ring
13	20066	1	Oil scraper ring
14	452.065		O-ring
15	621.012	1	Pump cylinder, completet
16	601.123	1	Pump cylinder with sealing Pos 16, 18, 21
17	601.068	1	Pump piston with sealing Pos 17 & 19
18	452.056	1	Screw
19	452.095	1	Ball, Ø 6 mm
20	452.101	1	Ball, Ø 4 mm
21	452.049	1	Cupper ring
22	403.060	1	Spring
23	412.124	1	Axle
24	402.147	1	Locking pin
25	502.194	1	Valve arm
26	402.151	1	Locking pin
27	452.051	1	Rubber bush
28	401.124	1	Flat washer
29	400.063	1	Valve screw
30	452.042	1	U-sleeve
31	410.059	1	Release pin
32	452.076	1	Cloverleaf ring
33	400.061	1	Collar screw
34	452.047	1	Rring
35	403.039	1	Valve spring
36	451.046	1	ball, Ø 8 mm
37	400.204	1	Collar screw
38	451.044	1	Ball, Ø 9 mm
39	622.149	1	Neutral position valve
40	11.15-50.017	1	O-ring
41	NSS	1	Ball, Ø 7 mm
* 42	452.097	1	O-ring
43	622.155	1	Chamber and spring

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Item	Item no.	Qty	Designation
44	11.15-50.282	2	Overpressure valve
45	451.050	1	Ball, Ø 6 mm
46	11.15-50.015	1	Valve spring
47	11.15-50.109	1	Fitting
48	11.15-50.139	1	Fitting
50	11.15-50.468	1	Reducing section
51	11.15-50.463	1	Pipe
52	11.15-50.148	2	Pipe
53	11.15-50.123	1	Bolt
54	04.03-50.218	1	Towbar
55	457.032	2	Bushing
56	436.020	1	Roller
57	402.049	1	Pin
58	04.03-50.094	1	Box for start switch
59	04.03-50.008	1	Screw
60	405.017	1	Release lever
61	20105	1	Pin
62	622.332	1	Chain, completet
63	402.217	1	Chain
64	64153	1	Valvebar, long
65	413.057	1	Threaded rod, short
66	54140	1	Tube
67	400.234	1	Nut
68	401.139	1	Flat washer
69	11.15-50.266	2	O-ring
70	11.15-50.467	1	fitting
71	04.03-50.219	1	Tovbar welded machined
	11.15-50.230	1	Washer set
*			NSS = Not sold separately

HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, ELECTRIC, PREPARED FOR SCALE PAINTED: STEERING COLUMN



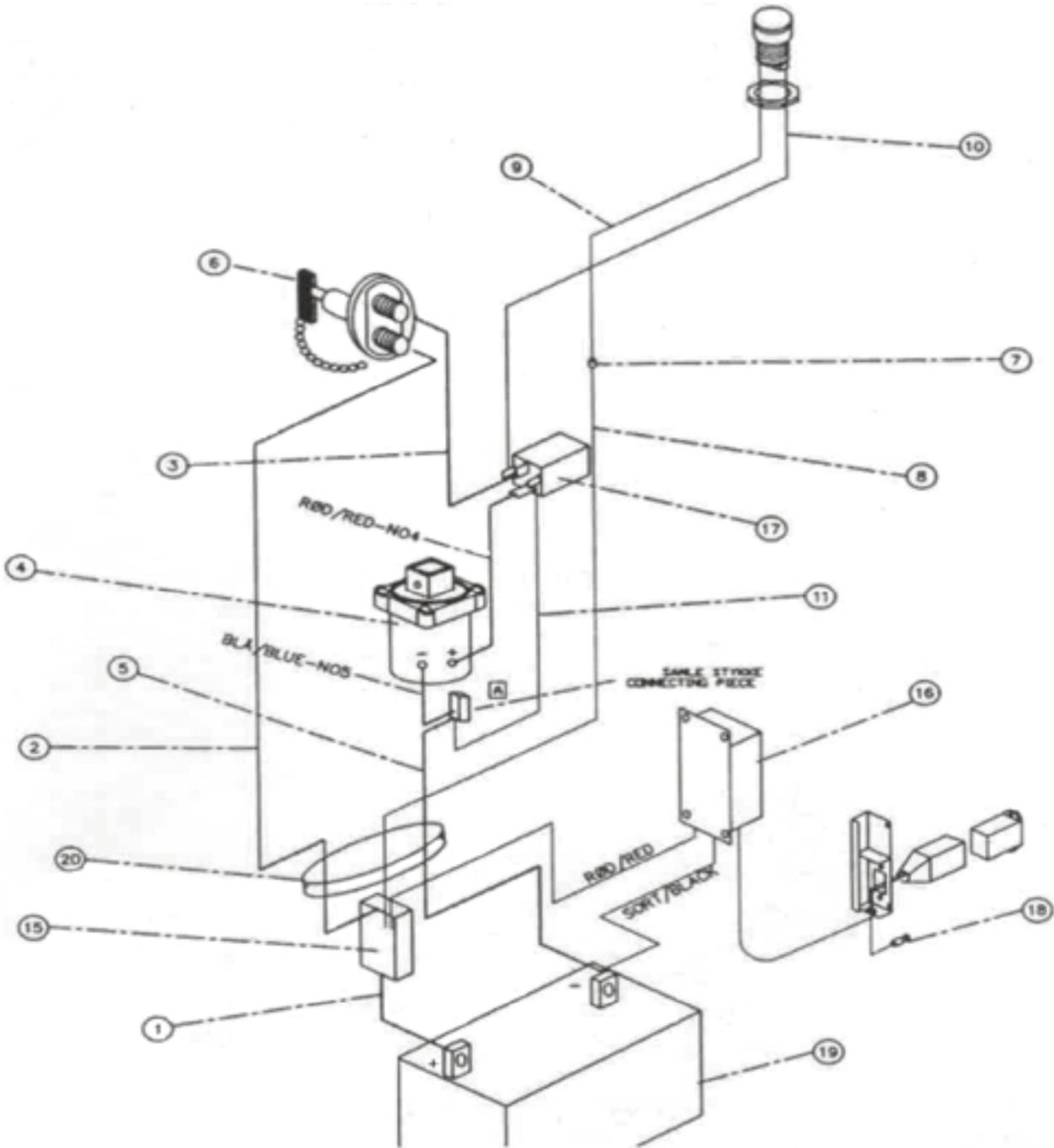
HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, ELECTRIC, PREPARED FOR SCALE PAINTED: STEERING COLUMN

Item	Item no.	Qty	Designation
1	315.017	2	Poly wheel, bearings included ø180
2	402.104	2	Locking ring
3	451.059	4	Bearing
4	04.02-50.018	2	Bolt
5	04.02-50.020	2	Washer
6	440.710	2	Cap
7	04.02-50.001	1	Spacer ring
8	04.02-50.004	1	Spacer ring
9	04.02-50.017	1	Steering column
10	09.01-50.220	4	Bolt
11	04.02-50.019	2	Ball bearing
12	04.02-50.183	1	Chassis
13	09.01-50.298	2	Battery bracket
14	09.01-50.294	2	Battery lid
15	04.02-50.070	3	Pinol Bolt
16	402.148	2	Locking pinn

HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, ELECTRIC, PAINTED MODEL: ELECTRICAL SYSTEM 1



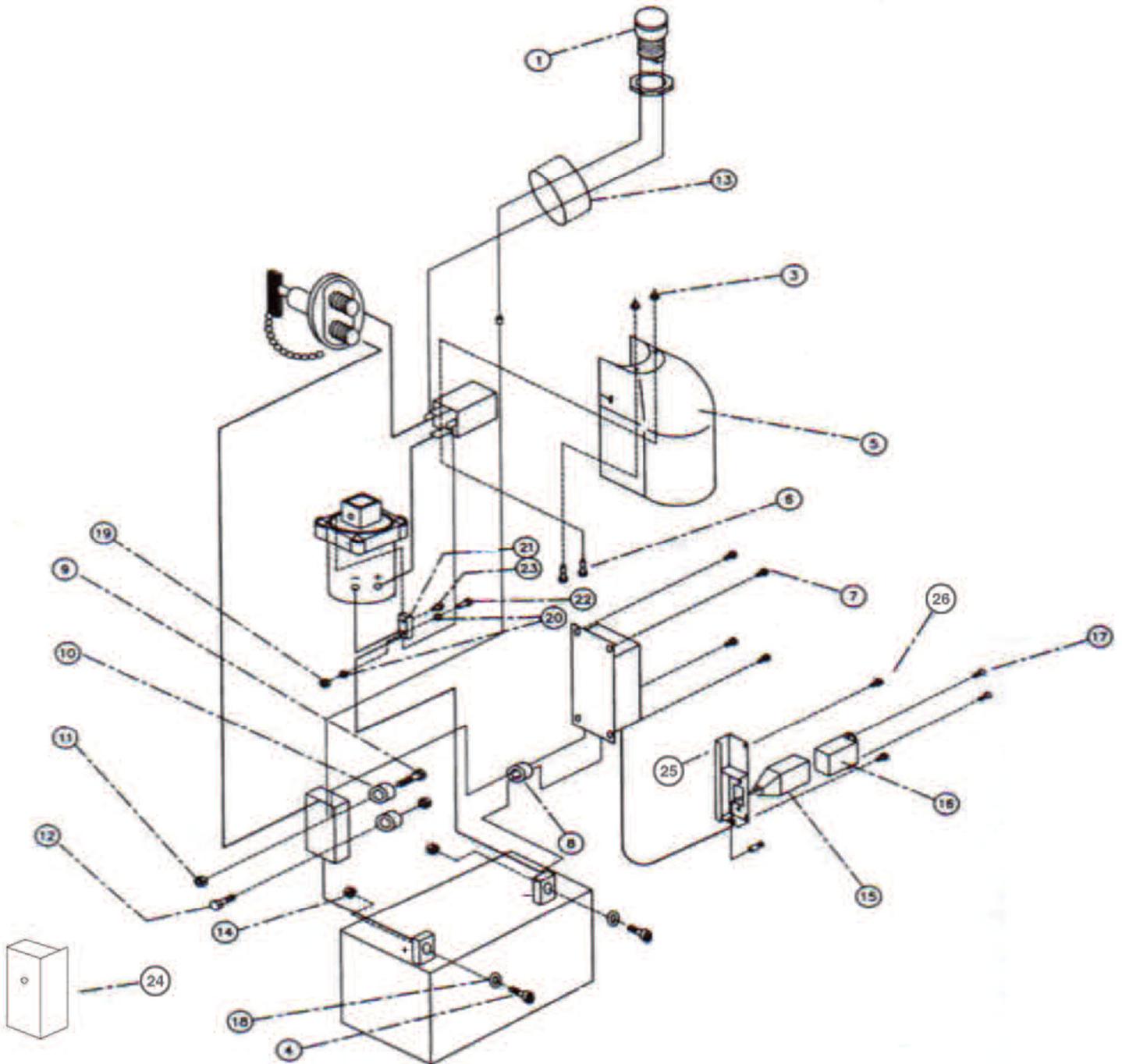
HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, ELECTRIC, PAINTED MODEL: ELECTRICAL SYSTEM 1

Item	Item no.	Qty	Designation
1	09.03-50.564	1	Cable no. 1
2	09.03-50.565	1	Cable no. 2
3	09.03-50.566	1	Cable no. 3
4	11.15-50.441	1	Motor, including cable
5	09.03-50.668	1	Cable no. 5
6	09.03-50.510	1	Switch, key included
	09.03-50.511	1	Key for switch
7	09.03-50.112	1	Sleeve
8	09.03-50.145	1	Cable no. 8
9	09.03-50.179	1	Cable no. 9
10	09.03-50.179	-	Cable no. 10
11	09.03-50.700	1	Wire no. 11
12	192.101	1	Wire marker no. 1
13	192.110	1	Wire marker no. 0
14	192.109	1	Wire marker no. 9
15	09.03-50.181	1	Fuse holder
16	09.03-50.206-BV2	1	Charger
17	09.03-50.400	1	Circuit breaker, 12V-70a
18	09.03-50.570	1	Earthing cable
19	09.03-50.512	1	Battery
20	09.03-50.671	1	Cable protektion.
			NSS = Not sold separately

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PARTS LIST FOR HIGH LIFTER, ELECTRIC, PAINTED MODEL: ELECTRICAL SYSTEM 2



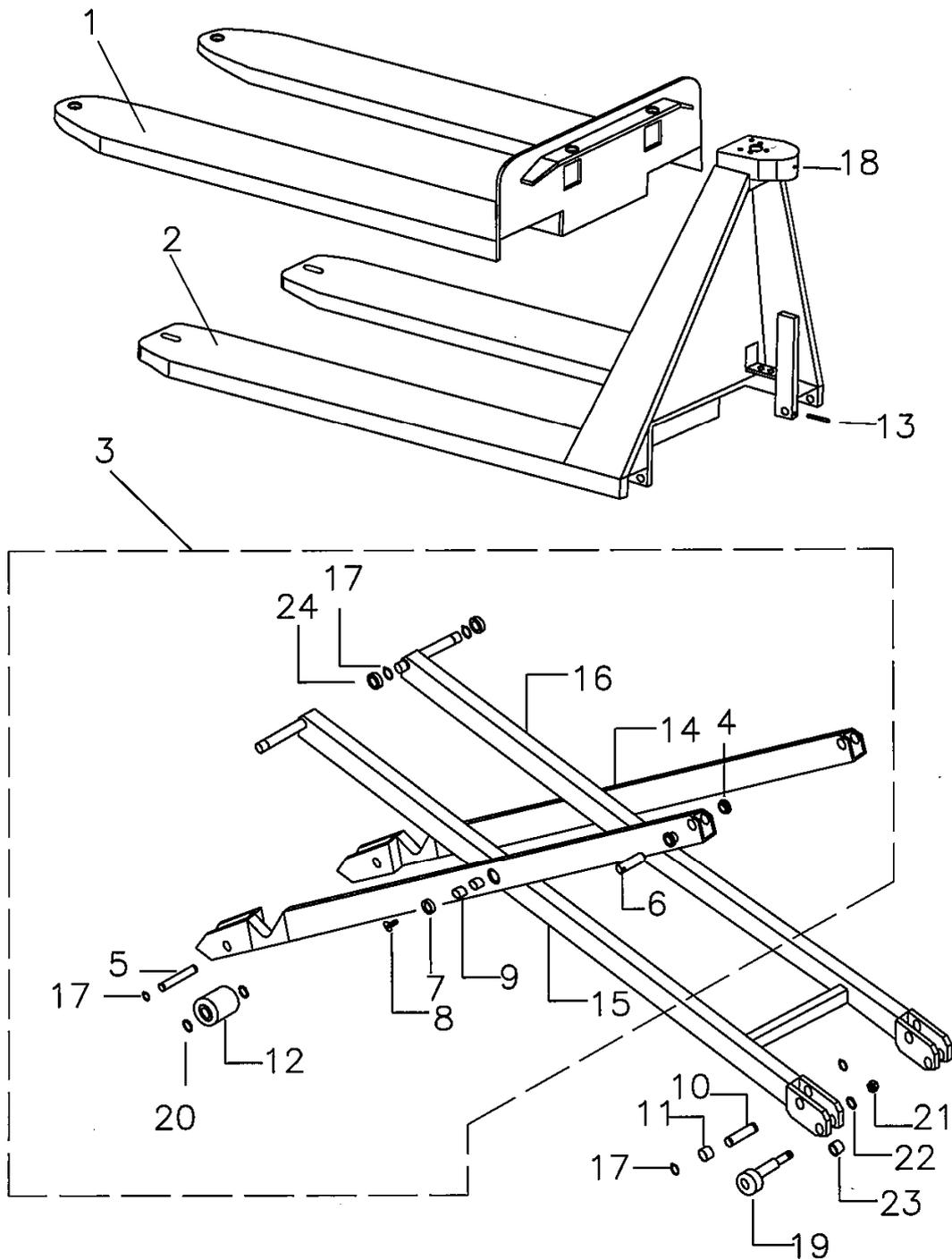
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PARTS LIST FOR HIGH LIFTER, ELECTRIC, PAINTED MODEL: ELECTRICAL SYSTEM 2

Item	Item no.	Qty	Designation
1	09.03-50.001	1	Start switch
2	09.03-50.015	6	Cable tie
3	09.03-50.047	2	Cap nut, M6
4	400.474	2	Hexagonal socket screw, M6 x 16
5	09.03-50.596	1	Motor housing
6	09.03-50.135	2	Setbolt, M6 x 16
7	04.03-50.008-6	4	Taptite screw, M4 x 6
8	04.03-50.007	1	Cable bushing
9	400.470	1	Steel bolt, M5 x 45
10	09.03-50.259	2	Spacer, fuse holder, length: 11 mm
11	09.03-50.100	2	Nut, M5
12	09.03-50.350	1	Steel bolt, M5 x 25
13	09.03-50.520	1	Cable conduit duct
14	400.245	2	Nut, M6
15	09.03-50.516	1	Housing for outlet
16	09.03-50.515	1	Intake point, earthed
17	400.460	2	Us screw, M3 x 8
18	401.139	2	Bevel-edged washer, Ø 6
19	09.03-50.182	1	Nut, M5, self-clinching
20	401.124	2	Flat washer, Ø 5
21	09.01-50.438	1	Connecting piece
22	09.03-50.099	1	Us screw, M3 x 8
23	09.01-50.220	1	Flange screw
24	09.01-50.314	1	Lid for fuse
25	09.01-50.286	1	Cable box
26	04.03-50.008-8	2	Taptite screw, M4 x 8
			NSS = Not sold separately

HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, PREPARED FOR SCALE, PAINTED MODEL: SCISSOR LIFT AND STABILISER



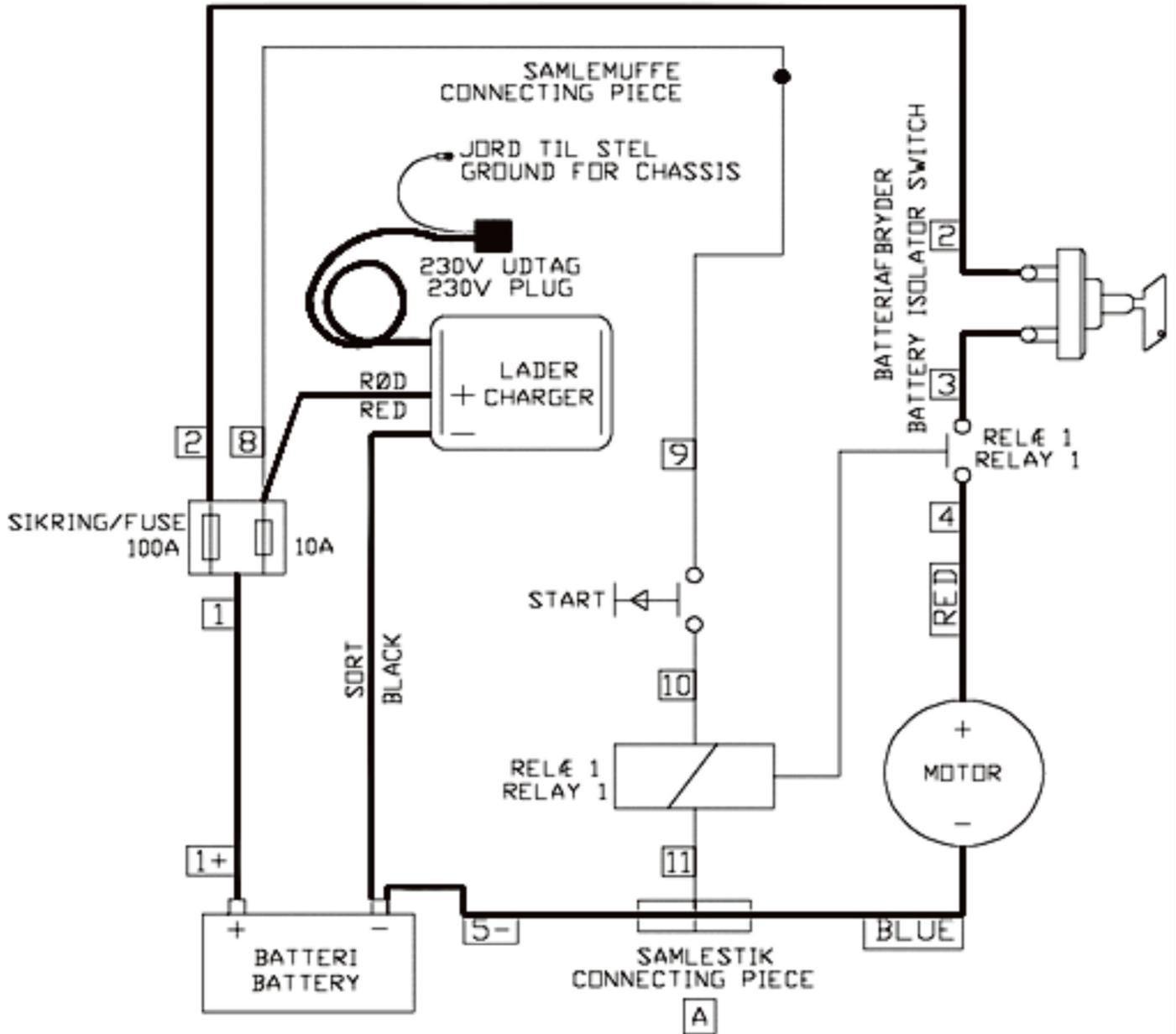
HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

PARTS LIST FOR HIGH LIFTER, PREPARED FOR SCALE, PAINTED MODEL: SCISSOR LIFT AND STABILISER

Item	Item no.	Qty	Designation
1	14.08-50.530	1	Forkshoe 557x1200
2	14.08-50.508	1	Chassis
3	14.05-50.450	1	Scissor assembly
4	456.014	4	Bushing
5	14.05-50.063	2	Axle
6	14.05-50.005	2	Axle
7	14.05-50.011	2	Spec washer
8	14.05-50.012	2	Screw
9	14.05-50.013	4	Bushing
10	14.05-50.015	2	Axle
11	14.05-50.016	2	Bushing
12	365.005	2	Nylon roller $\varnothing 70$
13	14.05-50.020	2	Pin
14	14.05-50.451	1	Scissor lift section, right
15	14.05-50.452	1	Scissor lift section, left
16	14.05-50.272	1	Scissor lift, welded
17	402.100	12	Locking ring
18	400.066	1	Bolt
19	201.01-50.016	2	Eccentric
20	401.046	4	Washer
21	201.01-50.018	2	Nut
22	201.01-50.019	2	Washer
23	201.01-50.020	2	Bushing
24	451.021	4	Bearing

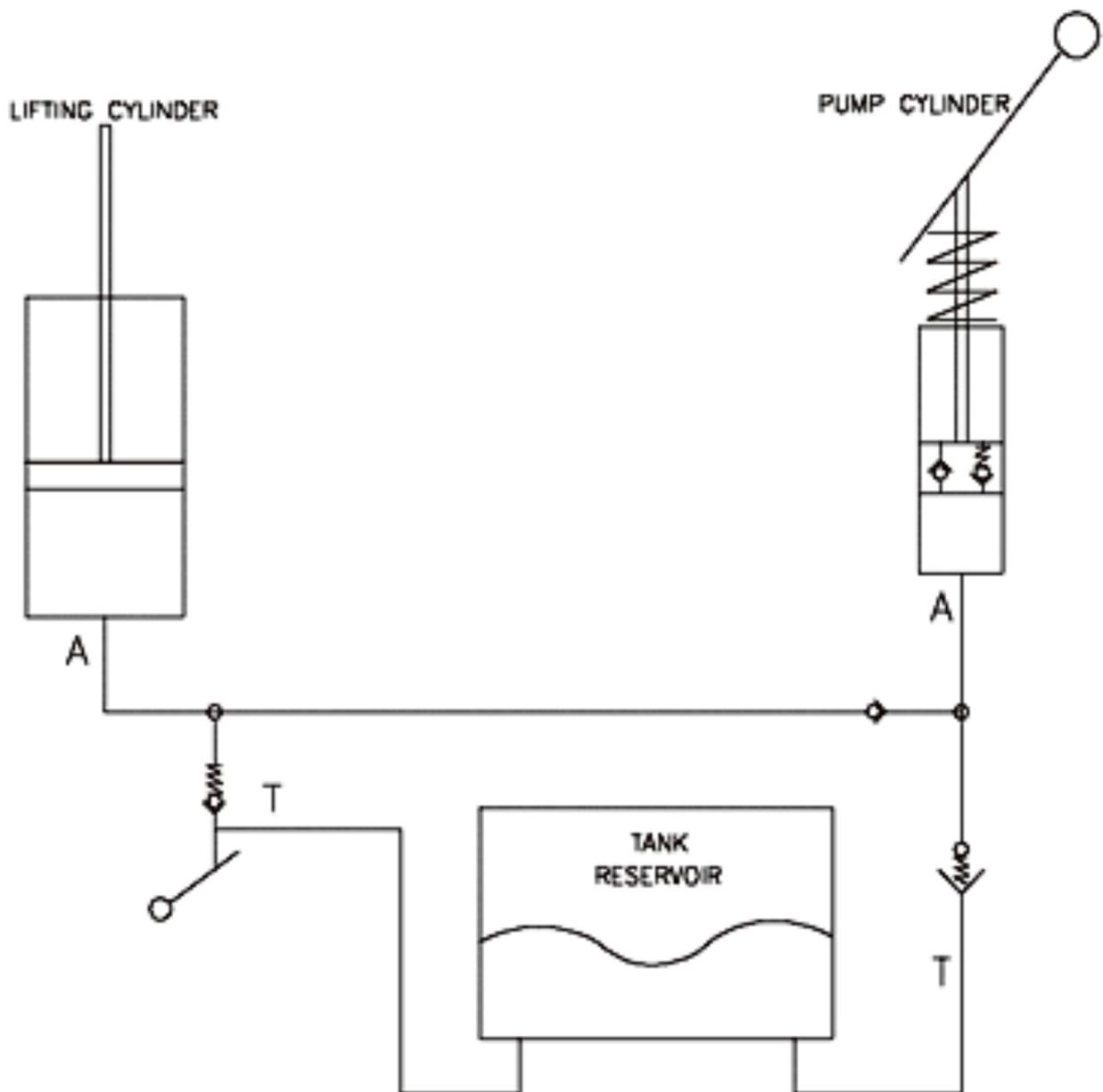
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CIRCUIT DIAGRAM



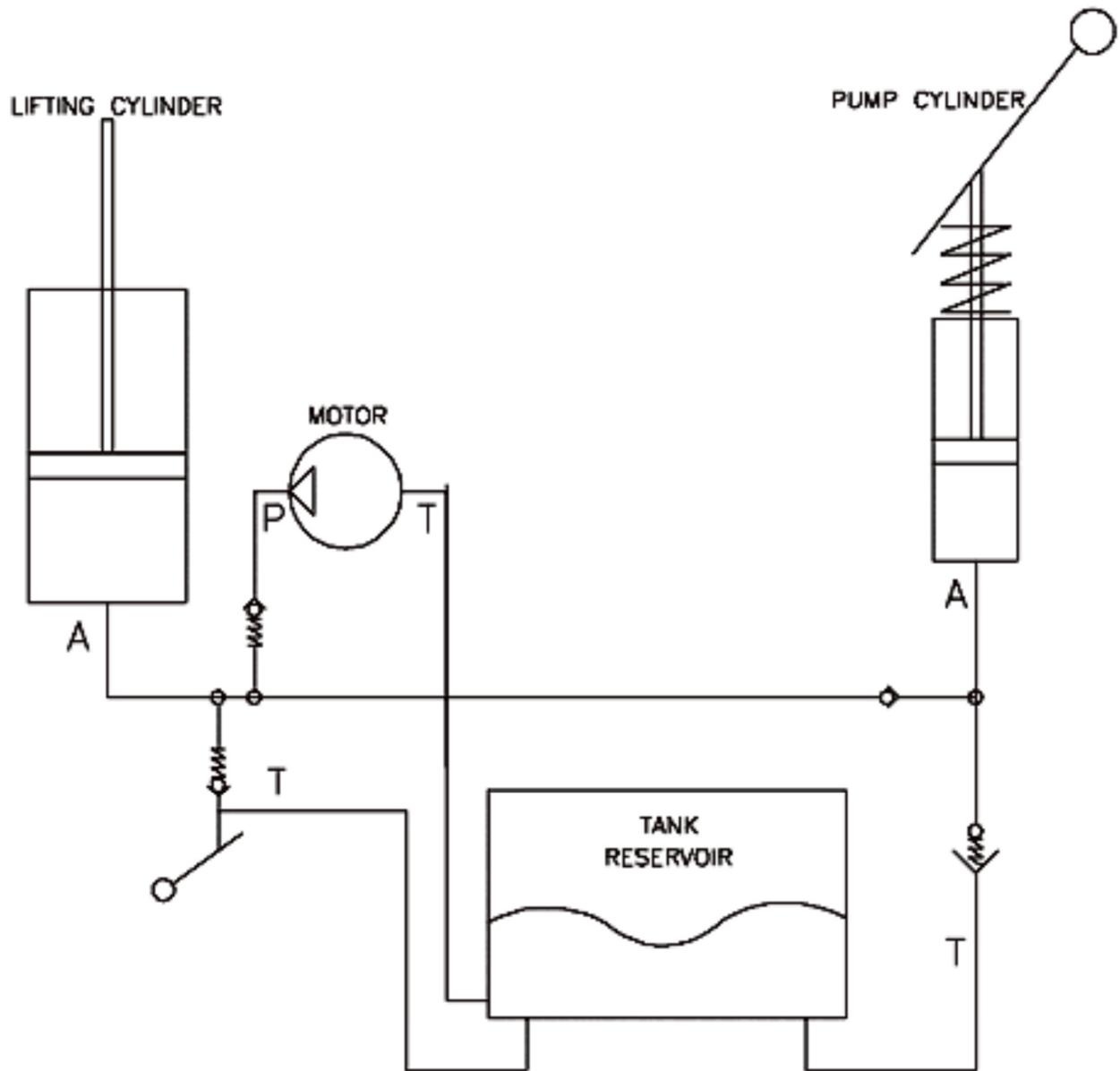
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HYDRAULIC DIAGRAM, MANUAL



HIGH LIFTER – PREPARED FOR SCALE ELECTRIC PAINTED

HYDRAULIC DIAGRAM, ELECTRICAL



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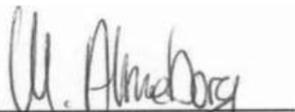
COMPLIANCE STATEMENT:

EU DECLARATION OF CONFORMITY, ENGLISH VERSION (UK)

The undersigned – Ole Almeborg a/s, Svalhøjvej 15, DK-3790 Hasle, Denmark, tel. (+45) 5693 3600, www.almeborg.com – hereby declares that this machine has been manufactured in conformity with the relevant provisions of the Machinery Directive, 2006/42/ec, of 17. May 2006.

Product name: High Lifter prepared for scale
Model: Electric, painted,
ID no.: RAV-HLE-400

Surname: Almeborg
First name: Michael
Position: Director
Hasle, Bornholm, DK / 1. January 2018



Michael Almeborg
Adm. direktør

