# All-in-One hoists Service manual





## **General about the Hoist**

**Note:** Prior to maintenance of the Ropox All-in-One Hoist read this manual carefully.

This manual is your guide advising how to perform a service inspection and failure finding on the All-in-One Hoist. Inside there is procedures and checkforms.

#### Index

1. Introduction	3
2. Procedure for maintenance	3
3. Maintenance report for mechanical parts	4
Maintenance report for electrical parts	5
5. Lifetime of actuator/liftingmotor	6
6. Operational failures	7
7. Claims deadline and CE	8

When ordering spare parts and submitting inquiries regarding maintenance, please state the information below.

Custumer:	
Hoist model:	
Serial number:	
Year and month:	
Max. load:	

<u>Producer</u> <u>Dealer</u>

Ropox A/S Ringstedgade 221 4700 Næstved

Telefon: +45 55 75 05 00 Fax: +45 55 75 05 50

Info@ropox.dk www.ropox.dk

## 1. Introduction

According to EN 10535 a periodic inspection of the All-in-One Hoist must be undertaken at least once a year. The work must only be performed by qualified personnel. For each inspection a report of inspections and replacements should be prepared and the attached maintenance schedule should be completed and a copy sent to Ropox.

Worn or defective parts must be replaced by new, original spare parts from Ropox. We recommend to keep a logbook for every lift in order to record all maintenance work. This logbook can be used as documentation for any warranty claim that may occur. The warranty for this product shall not apply, if you do not carry out at least one service check per year according to the maintenance report shown on the following page.

**Note:** Ropox A/S cannot be held responsible for errors or accidents resulting from the maintenance of All-in-One by non-qualified personnel. Nor can Ropox A/S be held responsible for errors or accidents resulting from incorrect use.

**Note:** Ropox A/S disclaims all responsibility for errors or accidents resulting from the use of unoriginal spare parts or maintenance work not carried out by qualified and trained personnel.

## 2. Procedure for maintenance

#### - Forms to service report

Take a copy off the forms on page 4 and 5 and use them when filling out the service report. We recommend to scale them up in A4 size

#### - Visual inspection

Inspect hoist frame and weldings for wear, skews or any other damage

#### - Testina

Check all functions with and without load Check emergency stop Check battery and charger

#### - Mechanical inspection, se also section 3

Inspect that all parts is moving freely and without any abnormal noise

**OBS!** Bolt M6x50 holding Spreader bar should be dismounted and inspected visually

**OBS!** Axle holding lifting arm should be dismounted and inspected visually

Inspect that bolts are tight

#### - Electric inspection, also see also section 4 and 5

Check actuator for damage, noise and the fixtures Check the battery voltage with and without load Replace defective battery, if any Check wires for damage Check all plugs and sockets

# 3. Maintenance report mechanical parts

Invoice address: Deliver		Delivery	address:			
_	I					
Repair	Mounting		Service		Warranty	
Lift type:			Serial N			_
Inspection carried o	ut		ОК	defective	repaired	replaced
Lubrication of wheels						
Lubrication of load be hooks	earing shafts a	and				
Welds						
Bolts / bushings						
Mast and arm connec	ction					
Arm and lifting ascess	sories					
Test of the leg-spread	ding function					
Switches and safety f	unctions					
Test of batteries and	recharging fu	nction				
Test of the seams of the Domino slings						
All bolts						
Lifting motor and leg-spreading motor.						
See separat pages regarding motors Other						
Functional test of the lift						
Consumption of spare parts						
Spare part No: Products:						
Comments:						
Milage: Time consump			ion:			
Date: Performed by:						

# 4. Maintenance report actuator/liftingmotor

Invoice address:		Delivery address:						
Repair	Mounti	na	Servic	e		Warranty		
Lift type:			Serial No.					
	1 4							
Inspection carried			OK	Not UK	Remark	(S 		
Powercomsumptio	n withou	ut load						
Powercomsumptio	n with n	nax. load						
Noise								
Plastic								
Wires and cords								
Straightness and of the actuator is cor								
Looseness								
Fixing points								
Marks and dents								
Other								
Consumption of sp	:S							
Spare part No:	Pro	Products:						
Comments:								
Milage: Time con			sumpti	on:				
Date: Performe			ed by:					

# 5. Lifetime of actuator/liftingmotor

A service technician fill out the below points from the user information

How often is the lift used pr. day:

Actuators production date:

Expected changing of actuator:

#### Table to determine an actuators lifetime

Note!! The lifting actuator should be changed when it is max. 6 years or after 10.000 strokes.

Continiue normal use

Consider changing

Actuator should be changed

Lifts						Ago in	voore				
pr. da	v	1	2	3	4	Age in	years 6	7	8	9	10
pr. ua	· .	365	730	1095	1460	1825	2190	2555	2920	3285	3650
-	1										
	2	730	1460	2190	2920	3650	4380	5110	5840 8760	6570 9855	7300
-	3	1095	2190	3285	4380	5475	6570	7665			10950
-	4	1460	2920	4380	5840	7300	8760	10220	11680	13140	14600
-	5	1825	3650	5475	7300	9125	10950	12775	14600	16425	18250
	6	2190	4380	6570	8760	10950	13140	15330	17520	19710	21900
	7	2555	5110	7665	10220	12775	15330	17885	20440	22995	25550
_	8	2920	5840	8760	11680	14600	17520	20440	23360	26280	29200
	9	3285	6570	9855	13140	16425	19710	22995	26280	29565	32850
-	10	3650	7300	10950	14600	18250	21900	25550	29200	32850	36500
	11	4015	8030	12045	16060	20075	24090	28105	32120	36135	40150
	12	4380	8760	13140	17520	21900	26280	30660	35040	39420	43800
-	13	4745	9490	14235	18980	23725	28470	33215	37960	42705	47450
-	14	5110	10220	15330	20440	25550	30660	35770	40880	45990	51100
-	15	5475	10950	16425	21900	27375	32850	38325	43800	49275	54750
-	16	5840	11680	17520	23360	29200	35040	40880	46720	52560	58400
-	17	6205	12410	18615	24820	31025	37230	43435	49640	55845	62050
-	18	6570	13140	19710	26280	32850	39420	45990	52560	59130	65700
-	19	6935	13870	20805	27740	34675	41610	48545	55480	62415	69350
-	20	7300	14600	21900	29200	36500	43800	51100	58400	65700	73000
·-	21	7665	15330	22995	30660	38325	45990	53655	61320	68985	76650
-	22	8030	16060	24090	32120	40150	48180	56210	64240	72270	80300
·-	23	8395	16790	25185	33580	41975	50370	58765	67160	75555	83950
-	24	8760	17520	26280	35040	43800	52560	61320	70080	78840	87600
-	25	9125	18250	27375	36500	45625	54750	63875	73000	82125	91250
-	26	9490	18980	28470	37960	47450	56940	66430	75920	85410	94900
-	27	9855	19710	29565	39420	49275	59130	68985	78840	88695	98550
-	28	10220	20440	30660	40880	51100	61320	71540	81760	91980	102200
-	29	10585	21170	31755	42340	52925	63510	74095	84680	95265	105850
<u> </u>		I	I								

## 6. Operational failures

If the mobile hoist stops working the following should be checked before notifying your authorised dealer.

- 1. Battery power.
- 2. Emergency stop released.
- 3. All plugs correctly fitted.
- 4. Hand control unit.
- 5. Try another hand control unit / charger, if necessary.
- 6. If the lifting arm does not come down when the hand control unit is activated, use emergency lowering, either electrical or manual and the lifting arm will come down.

**Important:** Before using the hoist, see that the red emergency button has not been depressed. See that the hand control unit has been correctly connected.

<u>Symptom</u>	Possible cause	<u>Action</u>
Power indicator does not light up during	No connection	Establish connection
recharging	Control box defective	Send for repairman
The motor does not work. A click is heard from the relay of the control box	The wire from the motor is not properly connected to control box	Connect the wire properly
the control box	Motor defective	Replace the motor
	Control box defective	Replace the control box
The motor does not work. You do NOT	Control box defective	Send for repairman
hear a click from the relay of the control box	Hand control defective	Send for repairman
Control box completely dead. You do NOT hear a click from	The battery is empty	Recharge the battery
the relay	Battery defective	Replace the battery
The control box is OK except for one direction	Hand control defective	Send for repairman
in one channel	Control box defective	Send for repairman

If these points have been checked and the mobile lift still does not work, contact your authorised dealer.

## 7. Claims deadline and CE

#### Claims deadline

See General Terms of Sale and Delivery on www.ropox.dk

#### **CE-certification**



The All-in-One hoists and slings has CE-marking and thus meets the functional and safety requirements of the Directives for Medical Devices, Low Voltage and EMC. The product is in risk group 1.

Declaration of Conformity can be delivered on request.

They has been tested by the Danish Centre for Assistive Technology according to the rules of Standard DS / EN ISO 10535, "Hoists for the transfer of disabled persons – requirements and test methods". All electrical components meet current electrical standards.

