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DOCK LEVELLER

WITH HINGED LIP/MODEL: DLHHI



Installation and operation manual



DoorHAN[®]____

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1. MANUFACTURER'S DECLARATION OF CONFORMITY

Directive: Machinery Directive 2006/42/EC Manufacturer: DoorHan

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Declares that the Product(s): Dock Leveller with Hinged Lip

Model DLHH, DLHHI: is in conformity with the essential health and safety requirements of the relevant EC directives and the applicable harmonized standards and is CE-marked

Relevant EC directive: EC Machinery Directive 2006/42/EC

Applied harmonized standards: DIN EN 1398 Dock levellers — Safety requirements EN 349 Safety of machinery — Minimum gaps to avoid crushing of parts of the human body EN 60204-1 Safety of Machinery — Electrical Equipment of Machines. General Requirements EN ISO 12100-2010 Safety of machinery- General principles for design- Risk assessment and risk reduction

This declaration of conformance is not applied if:

- the Product is operated in the extreme climatic conditions, in the magnetic action environment etc, and in case of special requirements, e.g. explosion hazard;
- the Product is operated for loading/unloading of hazardous substances e.g. acids, radiation-emitting materials, molten metal, fragile freights:
- the risk arises caused through transport facilities (e.g. forklift etc).

2. GENERAL INFORMATION

The purpose of this manual is to give information to the operating personnel on correct procedures for installation, operation and maintenance of hinged lip dock leveler. The manual contains rules to observe for safe operation and maintenance of the dock leveller. The manufacturer does not handle the operation, maintenance and placement of the equipment. The operator is responsible for safe operation and maintenance of the equipment. It is the operator's responsibility to study this manual prior to installation. The manufacturer assumes no liability for interpretation of the contents of this manual.

Dock levellers with hinged lip is designed to act as bridge between warehouse and truck body and to enable guick and unimpeded movement of forklift during loading/unloading.

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Only qualified personnel can make installation, operation and maintanace for dock leveller. We reserve the right to make design modifications without preliminary notice.

LIFTING EQUIPMENT

Fork lift: minimum carrying capacity 35 kN, fork length 2000 mm. Crane: minimum carrying capacity 20 kN at the given radius.

EQUIPMENT FOR INSTALLATION

Before installation you should have following equipment: welding machine (5-200 A) or similar; welding electrodes 3,0 mm.

3. SAFETY RULES



The improper use is not allowed.

Provide good lighting and visibility when operating the dock leveler.

When operating the dock leveler, keep the operating zone free from people and obstacles.

Watch closely when handling outsized, unstable or dangerous loads, and when the operating zone is not free from obstacles.

When operating the dock leveler, be sure that the door is fully opened.

Make sure that the truck has stopped in the required position. If there is a risk of truck departure fix it using a wheel block.

Before loading/unloading, make sure that the dock leveller lip lies in the truck body correctly. The lip must overlap the truck bed by at least 85 mm.

The dock leveller control unit must be placed so that the operator has full view of the operating zone and is able always to keep under control the whole process of loading/unloading.

To prevent injury during installation, keep a safe distance from the dock leveller.

Before connecting any wire be sure that the power supply is switched off.

When not in use, the dock leveller should be in the rest position.

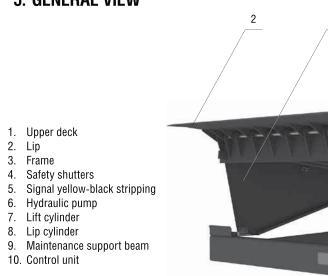
Do not put the lip of dock leveller on the truck's tail lift.

Do not exceed the maximum allowable working angle 12.5% or 7°.

SAFETY FEATURES

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5. GENERAL VIEW



DESIGN

2. Lip 3. Frame

Upper plate of the dock leveller is a 6-8 mm thick steel sheet with lentiform (diamond) riffling with height 0.5-2.4 mm. If loading/unloading is performed using a standard 4-wheel forklift with inflatable tyres, the dock leveller is manufactured with 6 mm thick sheet and riffling height 0.6–1.8 mm. If loading/unloading is performed using equipment with high point load (for example, electric pilers), the dock leveller is manufactured with 8 mm thick steel sheet with riffling height 0.8–2.4 mm. Small deformation of the dock leveller upper sheet is admissible, as it does not effect operation of the product. The lip is made of steel 12 mm thick sheet with diamond riffling height 1.2–3.6 mm. The reinforcement profiles can be made of flanged beams 100/120 mm or L-shaped profile 140×40×4 mm, the frame is made of channel bar 100/120 mm. If the profile length exceeds 3500 mm, the reinforcement profiles and the frame are made of flanged beams 120 mm.

PERFOMANCE

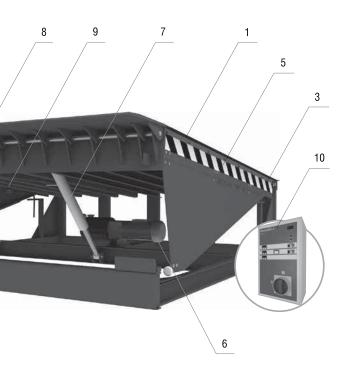
Load capacity	6000 kg (60 kN)
Maximal point load (upper sheet 6 mm)	1.3 N/mm ²
Maximal point load (upper sheet 8 mm)	6.5 N/mm ²
Motor hydraulic unit	1.1 kW
Power supply	380 V, 3 phase
Control voltage	24 V
Control unit protection class	IP54
Working fluid Class of surface cleaning before painting Thickness of painted layer	Mobile VG46 Sa 2 60–90 micron
Operation temperature range	From –30 to +50

WEIGHT OF DOCK LEVELLERS

Length, mm	2000	2500	3000	3500	4000	4500
Weight, kg	713	891	1029	1167	1361	1465

4. SAFETY FEATURES

Minimum distance between lip and front (cross) beam set to 30 mm for finger protection.
Rising/lowering speed less than 0.15 m/s.
Maintenace support beam ensures safe maintenance and connection of wiring.
Burst valve immediately stops upper deck in case of hose rupture.
All hydraulic components designed to resist to a pressure at least double than declared one.
The upper sheet of the dock leveller is made of diamond steel sheet to ensure the best bite of the forklift wheels and dock leveler's deck.
Black/yellow safety marking allows to see that the platform is above the the ramp
Noise level during operation of the dock leveller does not exceed 85 Db within a radius of 1 m.
Protection rating is IP54.



N)/10000 kg (10k N)

50°C

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6. PACKAGE

- 2. Control unit, connection cables*..... 1

* Control unit is to be ordered separately depending on the required functions. For dock levellers with length up to 3 m, a 7 m long connection cable is required (art. DKHL02), for dock levellrs with length exceeding 3 m, a 10.5 m long connection cable is required (art. DKHL02-1).

7. INSTALLATION

UNLOADING

GENERAL: Make the installation in accordance to all local safety regulations! The installation of the dock leveller must be carried out by the service department of DoorHan or by a service department/dealer recognized by DoorHan.

When installing the dock leveler in the pit, fix the lifting belts only in certain points.

Before installation some important point to be checked:

• Is protective pipe for cables made according to draw-

ings?

• Is the pit made according to drawing?

See detailed drawing of the manufacturer.

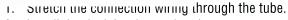
Unloading

Check the possible damages during transportation of dock leveler. Always transport and store the dock leveller in a horizontal position and in any case do not let it fall! At the same time allowed to pick up and unload only one dock leveller!

PIT PREPARATION

Before Installation the dock leveller, prepare the pit in strict accordance with the drawings that have been supplied by the manufacturer. Detailed information on dimensions, types of dock levellers and pits as well as recommendations on pit preparation is given in our engineering solution catalogue.

EMBEDDED MOUNTING WITHOUT TAIL LIFT RECESS



- 2. Install the dock leveler so that the rear corner of the dock leveller tightly adjoined to the rear upper fitting on the pit.
- 3. Longitudinal gaps between the pit and leveler should be 10–15 mm width.

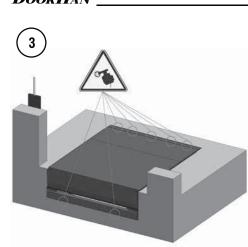
2

4. Weld joints on the platform with the rear and front fittings on the pit as shown in Figure 3, 3a.

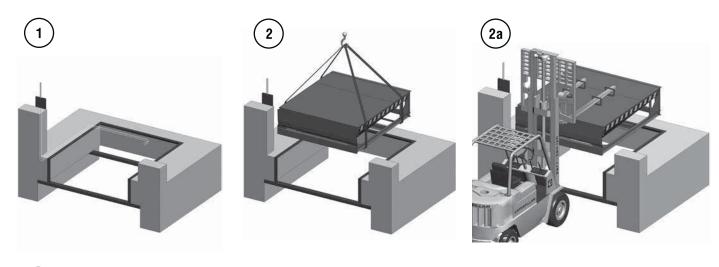
3.	Operating manual	1
4.	Guarantee card	1

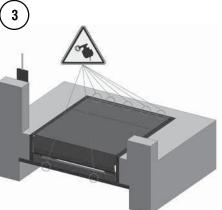


2a



EMBEDDED MOUNTING WITH TAIL LIFT RECESS





1. Stretch the connection wiring through the tube.

- 2. Install the dock leveler so that the rear corner of the dock leveller tightly adjoined to the rear upper fitting on the pit.
- 3. Longitudinal gaps between the pit and leveler should be 10–15 mm width.
- 4. Weld joints on the platform with the rear and front fittings on the pit as shown in Figure 3, 3a.

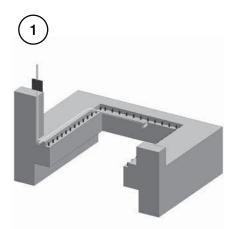
PACKAGE

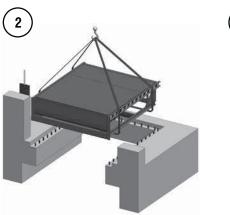


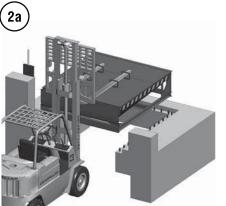
veller tightly adjoined to the rear upper fitting on the pit. 15 mm width. n the pit as shown in Figure 3, 3a. INSTALLATION

(3a) 50 10–15 mm 200 Gap between the pit and the dock leveller 10–15 mm on both sides.

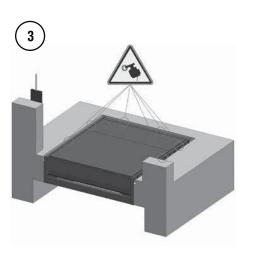
SUSPENDED MOUNTING





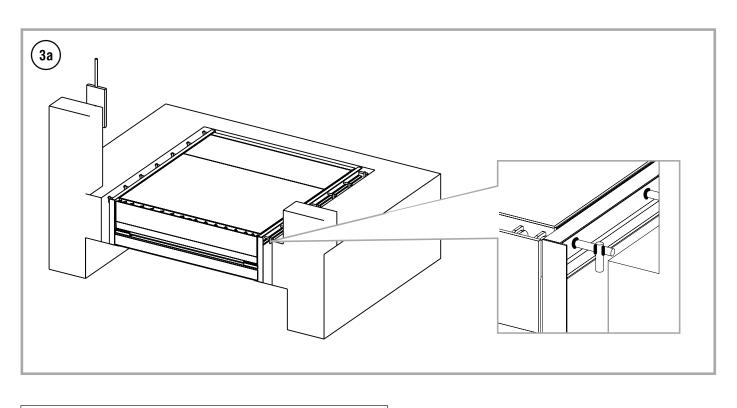


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- 1. Stretch the connection wiring through the tube.
- 2. Install the dock leveler in the required position.

- 5. Underpour concrete.



D



Connect dock leveller steel structure to the grounding of the building!

Connect the dock leveller external frame with fittings of concrete floor by welding. See Fig 3a.
 Longitudinal gaps between the pit and leveler should be 10–15 mm width.

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CONTROL UNIT INSTALLATION



Control unit shall be installed so, that the dock leveller operator is always able to keep under control the operation of the dock leveller.

8. OPERATION

Connect the control unit to the dock leveller following the instructions given in the control unit manual. Complete 4–5 full opening/closing cycles, make sure that the dock works properly. When operating the dock leveller, do observe the following rules:

Never operate the dock leveller when persons, goods are on it or in front of it.

The lip of the dock leveller must be placed in the truck body in full width and has sufficient support at least 85 mm.

Do not exceed declared load capacity. Load capacity agrees with total weight of the forklift with load and the driver.

It is strictly forbidden to operate the dock leveller with the load.

When not operated (after loading/unloading has been completed), the dock leveller should be back in rest position.

When loading/unloading, do not switch off control unit.

Emergency stop function integrated into the main switch. Use this function ONLY in case of emergency. It may not be used during loading/unloading, as the dock leveller is unable to follow the vertical movements of truck which could lead to damage of hydraulic system.

Place the truck with door open correctly in front of dock leveller. Fix the track to avoid it's unwanted departure.

- Set the main switch in position «I». Press button «Up» and keep it pressed until the upper deck has reached the highest position and the lip is completely open. Release the button, upper deck with open lip lowers under gravity until the lip rests on the truck bed.
- Once loading or unloading is completed, return the dock leveller to the parked position at platform level. Keep the «Up» button pressed until the lip has cleared the loading track and the deck is at least 100 mm higher than floor level, then release the button. If the truck drives away without first parking the leveller, there should be no persons, fork lifts e.t.c. on the dock leveller. The deck descends to the lowest position and the lip turns in the vertical position. Press the «Up» button until the deck is approx. 100 mm above the floor level and then release the button. The dock leveller will descend to the rest position.

OPERATION

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9. MAINTENANCE

WARNING NOTICE!



ATTENTION!

Before maintenance, the dock leveller must be fixed in raised position using a maintenance support beam.

Maintenance frequency depends on the particular conditions of the operation.

When servicing the dock leveller, always check:

- 1. Signal yellow-black stripping on right/left side: the possibility of perception.
- 2. Supporting structure: a state of welds, reinforcement profiles, joints, rollers, hinges and corrosion.
- 3. Electrical Equipment:

Control unit: the state, work, smooth running, protection from unauthorized and erroneous command input. Emergency switch: designation, the state, work, smooth running. Wires: damage, mounting, protection from the tension. Limit switches: the state, work (if presented).

- 4. Hydraulic system and hydraulic equipment: tightness, hydraulic fluid, hose connections, mounting, injury, deformity, corrosion.
 - Hoses and hose couplings: fixing, the damage, brittleness. Cylinders: mounting, crack, the state of connections of hoses, the state of the surface of the piston rod.
- 5. Safety devices

Safety shatters work. Door limit switch work (if presented).

Hydraulic fluid changing :

- 1. Remove the main cylinder from upper deck and truss.
- 2. Push lifting cylinder manually, hydraulic fluid back into the tank.
- 3. Remove the hose from lifting cylinder and put it into a suitable vessel.
- 4. Press the «Up» button, so that fluid can flow from the tank to capture vessel.
- 5. Once the fluid begins to splash, release the button and fill fresh fluid into the tank. When filling another type fluid, first rinse tank is a new hydraulic fluid (as described above).
- 6. Mount the hose on the cylinder back.

Venting:

- 1. Put lifting cylinder vertically (hose nipple from above) and push «Up» button, the fluid will flow into the cylinder.
- 2. Push lifting cylinder manually, hydraulic fluid back into the tank.
- 3. Repeat the last 2 operation 2 or more times so that the fluid completely out of air.
- 4. Adjust the throttle valve to have lowering speed not more than 150 mm/s.
- 5. Provide the same operation with lip cylinder.
- 6. Check the dock leveller works properly.

Do not enter under this platform unless it is mechanically locked.

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REGULAR INSPECTION/SERVICE

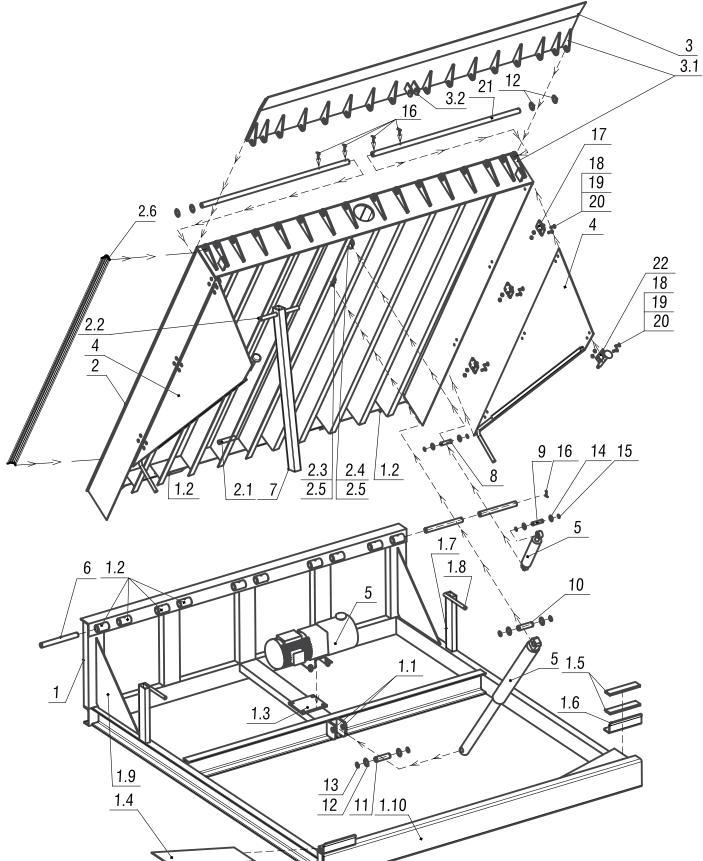
General	 Inspection for visible damage 	Daily
General	— State of the welds	1 time in 6 months
	 State of reinforcement profiles 	More often if necessary
	— Rust	
	— Safety shatters working	
Joints	State of joints and lubrication (Lithol-24)	1 time in 6 months
		More often if necessary
Hydraulic system	— State of hydraulic system	Once a year
	— Leaking	More often if necessary
	— Checking hoses and cylinders damage (cracks, corrosion)	
Electrical Connections	 Inspection of all electrical connections 	1 time in 6 months
		More often if necessary
Working fluid	Level of working fluid	Monthly
-	 Changing of working fluid 1 time in two years 	More often if necessary

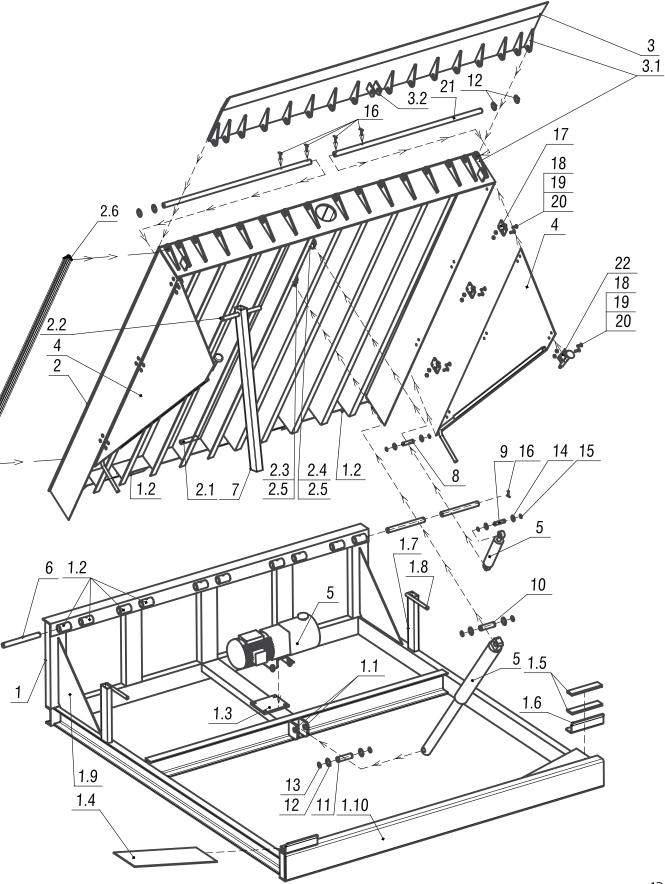
10. TROUBLESHOOTING

Problem	Possible cause	Remedy			
Dock leveller is not raised	No mains supply	Check the electrical cables			
(the motor is not running)	Blown main power fuse	Change fuse in control unit			
	Incorrect phasing of the power pack electric motor	Change any two incoming main power phase in the control unit			
	Safety (limit) switch with door	Check safety (limit) switch			
Dock leveller is not raised (the motor is running)	There is no working fluid in the hydraulic system, or it is not enough	Check working fluid level with the dip-stick, fill it in if necessary			
	There is a load on the dock leveller	Remove the load from dock leveller			
	Cylinder or hose damaged-	Replace damaged components of the hydraulic system			
	Misaligned flow control valve	Check the settings of flow control valve			
	Misaligned relief valve	Check the settings of relief valve			
Rising speed is too slow	Low phase voltage	Check electrical connections and voltage phase			
Front hinges contaminat	Leakinp fluid	Find and fix the leak			
rione ninges containnat	Misaligned relief valve	Check the settings of relief valve			
Dock leveller does not rise to	Low fluid level in power pack tank	Fill the fluid to normal level			
the required height	Unauthorized object or rear hinges without lubrication	Remove unauthorized object, lubricate joints			
	Misaligned relief valve	Check the settings of relief valve			
Lip opens before deck rises	Misaligned sequence valve	Check the operation and settings the sequence valve			
Lip doesn't open	Front hinges contaminated	Clean the hinges, lubricate with LITOL-24			
	Misaligned sequence valve	Check the operation and settings the sequence valve			
	Lip cylinder damaged	Replace cylinder			
Lip drops when deck is in highest position	Burst valve in the main cylinder is blocked	Press the "Up" button briefly Check and ajust burst valve on the lifting cylinder			
	Working fluid viscosity is too high	Change working fluid			
Lip drops when loading/ unloading is completed.	There is air into lip cylinder	Vent lip cylinder. See section 8 «Venting»			
The dock leveler does not lower	The oil backflow valve is damaged	Replace the valve (2).			
	The solenoid coil is damaged	Replace the solenoid coil (5).			
	The flow control valve is misadjusted	Check the flow control valve adjustmen (1).			
	The hose break safety valve is blocked	Check and adjust the valve in the main cylinder			
	Burst valve blocked	Check and ajust burst valve on the lifting cylinder			
Lip does not move to	Front hinges contaminated	Clean the hinges, lubricate with LITOL-24			
rest (vertical) position	Lip cylinder damaged	Replace cylinder			

APPENDIX 1

SPARE PARTS





F

APPENDIXES

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TRUSS

Pos.			Dock leveller length, mm					
			2000	2500	3000	3500	4000	4500
1	Dock leveller	1800	DLHHIE2181	DLHHIE25184	DLHHIE3181	DLHHIE35181	DLHHIE4181	DLHHIE45181
	width, mm	2000	DLHHIE221	DLHHIE2521	DLHHIE3021	DLHHIE3521	DLHHIE4021	DLHHIE4521
		2200	DLHHIE2221	DLHHIE25221	DLHHIE3221	DLHHIE35221	DLHHIE4221	DLHHIE45221

BEVEL, STEEL TUBE

Dee		Dock leveller length, mm						
Pos		2000	2500	3000	3500	4000	4500	
1.4	Bevel		HDLHL02.406-06		HDLHL02.406-02	HDLHL0	2.406-04	
1.7	Steel tube 50×25×2,5 mm	L = 350 mm				L = 36	5 mm	

CROSS BEAM

Pos.			LIP 400 mm	
1.10	Cross beam for dock leveller lengths, mm: 2000, 2500, 3000, 3500	HDLHM020110-1	HDLHM020110-2	HDLHM020110-3
	Cross beam for dock leveller lengths, mm: 4000, 4500	HDLHL09.101-3	HDLHL09.101-4	HDLHL09.101-5
3	Aeticle of Lip	HDLHL0103	HDLHL0203	HDLHL1103
		LIP 500 mm		
1.10	Cross beam for dock leveller lengths, mm: 2000, 2500, 3000, 3500	METT169 L = 1800	METT169 L = 2000	METT169 L = 2200
	Cross beam for dock leveller lengths, mm : 4000, 4500	HDLHM020110-1	HDLHM020110-2	HDLHM020110-3

UPPER DECK

Dee			Dock leveller length, mm						
Pos.			2000	2500	3000	3500	4000	4500	
2	Dock leveller width, mm	1800	DLHHIE2183	DLHHIE25183	DLHHIE3183	DLHHIE35183	DLHHIE4183	DLHHIE45183	
		2000	DLHHIE223	DLHHIE2523	DLHHIE3023	DLHHIE3523	DLHHIE4023	DLHHIE4523	
		2200	DLHHIE2223	DLHHIE25223	DLHHIE3223	DLHHIE35223	DLHHIE4223	DLHHIE45223	

LIP

Dee			LIP 400 mm	
Pos.		1800	2000	2200
3	Lip	HDLHL0103	HDLHL0203	HDLHL1103
			LIP 500 mm	
		HDLHL0205	HDLHL0206	HDLHL0207

Pos.	Name	Article
1	Truss	See table 1
1.1	Loop	HDLHM01.112
1.2	Bushing 27×40×69 mm	HDLH02.102
1.3	Mount	HDLHL02.104
1.4	Bevel	See table 1.1
1.5	Lip installation mount	HDLHL02.112
1.6	Catcher	HDLHM 02.105
1.7	Steel tube 50×25×2,5 mm	See table 1.1
1.8	Shutter stop	HDLHL02.404
1.9	Gusset	HDLHL02.103
1.10	Cross beam	See table 1.2
2	Upper deck	See table 2
2.1	Hook	HDLHL02.210
2.2	Bar	HDLHL02.209
2.3	Loop	HDLHLM02.210
2.4	Loop	HDLHLM02.209
2.5	Loop base	HDLHLM25.22211
2.6	Side seal	See table 6
3	Lip	See table 3
3.1	Hinge	HDLHL02.205-1
3.2	Loop	HDLHLM01.302
4	Right/left shutter in assembly with roller	See table 4
5	Hydraulic drive in assembly	See «Hydraulic components DLHHI serie»
6	Clevation axis	HDLHLD01
7	Maintenance support beam	HDLHLM107
8	Axis 16×55 mm	HDLHLM02.03
9	Axis 16×68 mm	HDLHLM02.04
10	Axis 25×68 mm	HDLHLM02.02
11	Axis 25×91 mm	HDLHLM02.01
12	Washer 26×47 mm	HDLHLD05
13	Closing ring Φ25 external	DHM0320
14	Washer 16×30 mm	DHM0310
15	Closing ring Φ16 external	DHM0337
16	Cotter pin 4×40 mm	DHM0401
17	Internal hinge	25233
18	Screw M6×20 DIN965	DHM0624
19	«Stainless Nylon Insert Lock Nut M6 DIN985»	DHM0230
20	Lip axis	See table 5
21	Roller in assembly right/left	HDLHL-2.820/HDLHL-2.920

Table 1

Table 1.1

Table 1.2

Table 2

Table 3

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RIGHT/LEFT SHUTTER IN ASSEMBLY WITH ROLLER

Dee				Dock leveller	length in mm		
Pos.		2000	2500	3000	3500	4000	4500
4	Right/left shutter in assembly with roller	DLHHIE222-1/ DLHHIE222-2	DLHHIE2522-1/ DLHHIE2522-2	DLHHIE322-1/ DLHHIE322-2	DLHHIE3522-1/ DLHHIE3522-2	DLHHIE422-1/ DLHHIE422-2	DLHHIE4522-1/ DLHHIE4522-2

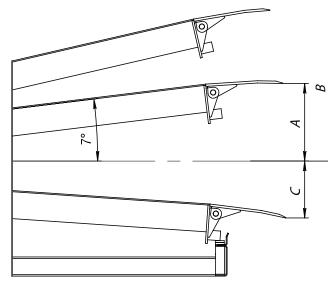
LIP AXIS

Pos.		1800	2000	2200
21	Lip axis	HDLHL_B18D02-R	HDLHL_B20D02-R	HDLHL_B22D02-R

SIDE SEAL

Dock leveller length, mm	2000	2500	3000	3500	4000	4500
Code	0E.DL03-1	0E.DL03-2	0E.DL03-3	0E.DL03-4	0E.DL03-5	0E.DL03-6

OPERATING RANGE

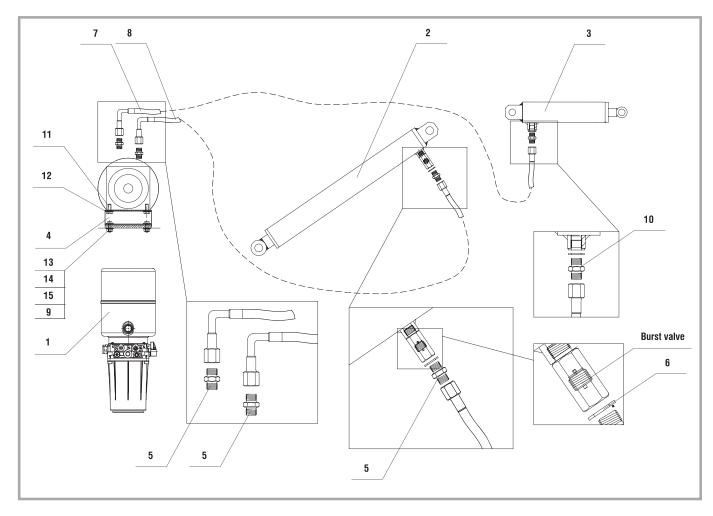


	LHHI			L, r	nm		
U	LUUI	2000	2500	3000	3500	4000	4500
7	A,mm	225	285	345	405	465	525
Above	B,mm	625	675	730	785	855	915
Below	C,mm	315	305	300	295	380	380

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APPENDIX 2

HYDRAULIC DRIVE FOR DOCK LEVELER WITH ONE LIFTING CYLINDER



Complete set article: DKHL010102-2

Nº	Description	Article
1	Hydraulic pump	MK1-PF/7
2	Lift cylinder	XE52380HM
3	Lip cylinder	XE52370HM
4	Hydraulic station bracket	HDLHLD06
5	Fitting	RV301.0604
6	Copper washer 19×13×1.5 1/4»	GAR1300000
7	Hydraulic hose L = 1500 mm	V0014-1500
8	Hydraulic hose L = 2000 mm	V0014-2000
9	Washer 8×16	DHM0301
10	Fitting	RV301.0604
11	Bolt M10×25	DHM0104
12	Spring washer 10	DHM0308
13	Spring washer 8	DHM0305
14	Nut M8	DHM0210
15	Bolt M8×25	DHM0131
	Hydraulic drive assembly	DKHL010102-2

APPENDIXES

Table 4

Table 5

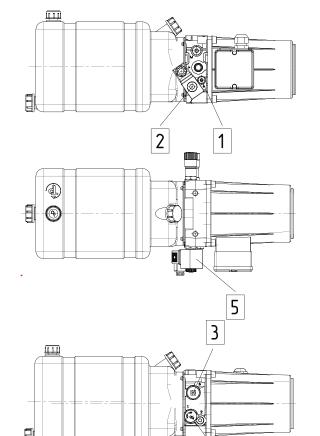
Table 6

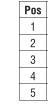
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APPENDIX

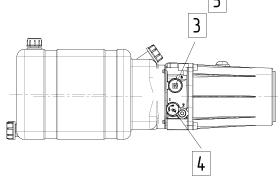
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HYDRAULIC POWER PACK

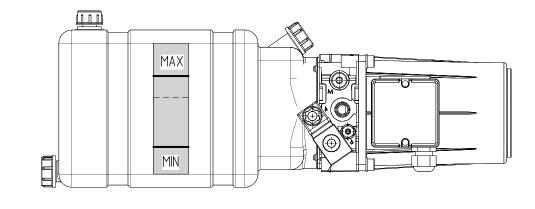






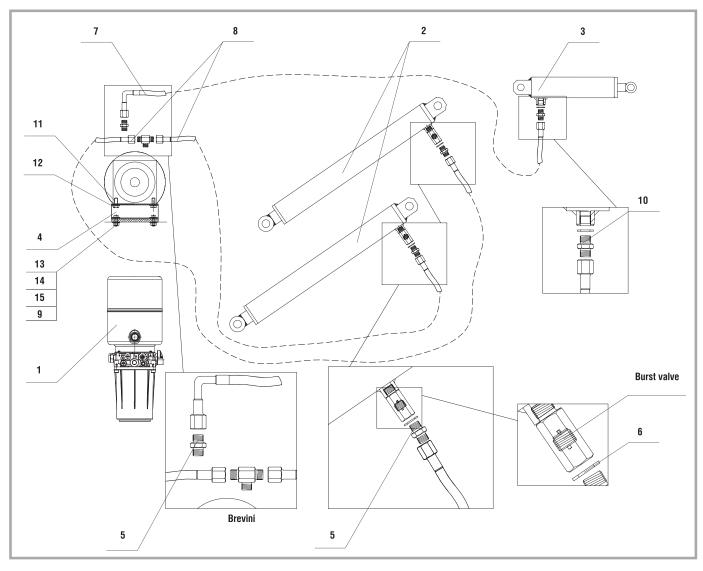


HYDRAULIC FLUID LEVEL



 Working fluid:	Mobil Univis HVI 26 or analogue	
V = 4.0 Lt		
		_

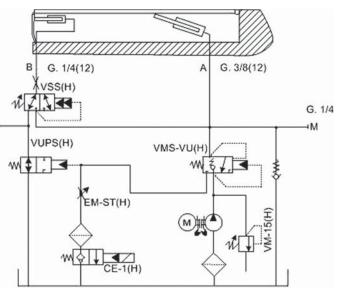
DOCK LEVELER WITH TWO LIFTING CYLINDERS



Complete set article: DKHL010102-8

Nº	Description	Article
1	Hydraulic pump	MK1-PF/7
2	Lift cylinder	XE523000090HFR1
3	Lip cylinder	XE52370HM
4	Hydraulic station bracket	HDLHLD06
5	Fitting	RV301.0604
6	Copper washer 19×13×1.5 1/4»	GAR1300000
7	Hydraulic hose L = 1500 mm	V0014-1500
8	Hydraulic hose L = 2000 mm	V0014-2000
9	Washer 8×16	DHM0301
10	Fitting	RV301.0604
11	Bolt M10×25	DHM0104
12	Spring washer 10	DHM0308
13	Spring washer 8	DHM0305
14	Nut M8	DHM0210
15	Bolt M8×25	DHM0131
	Hydraulic drive assembly	DKHL010102-8

Article	Item
27000032.000	Flow control valve
20024800	Catrige solenoid valve
27000019.000	Catrige solenoid valve 3/2
27000020.000	Relief valve
M14000009	Coil 21,6 VDC.



Media Distribution Distribution <thdistribution< th=""> Distribution</thdistribution<>	APPENDIX 3 Pits for dock levellers						
Article of dock leveller 6in Dock leveller 5in Dock 2in	3	-	Dock lev	eller dimensions			
DLHH12018-(06)E / DLHH12018-(10)E 2000X1800 20 DLHH12518-(06)E / DLHH13018-(10)E 3000X1800 30 DLHH13518-(06)E / DLHH13018-(10)E 3000X1800 30 DLHH13518-(06)E / DLHH13018-(10)E 3500X1800 36 DLHH13518-(06)E / DLHH1202-(10)E 3500X1800 46 DLHH131520-(06)E / DLHH12020-(10)E 2000X2000 26 DLHH13220-(06)E / DLHH13020-(10)E 2000X2000 36 DLHH13220-(06)E / DLHH13020-(10)E 3000X2000 36 DLHH13220-(06)E / DLHH13020-(10)E 3000X2000 36 DLHH13222-(06)E / DLHH13022-(10)E 3500X2000 36 DLHH13222-(06)E / DLHH13022-(10)E 3500X2200 36 DLHH14522-(06)E / DLHH13022-(10)E 3500X2200 36 DLHH13222-(06)E / DLHH13022-(10)E 3500X2200 36 DLH113222-(06)E / DLH113022-(10)E 3500X2200 36 DLH113222-(06)E D			Article of dock leveller 6tn / Article of dock leveller 10tn	Dock leveller size (length x width), mm x mm	m mu	у́Е Д	д, н
DLHHI2518-(06)E / DLHHI2518-(10)E 2500x1800 251 DLHH13018-(06)E / DLHH13018-(10)E 3000x1800 361 DLHH1318-(06)E / DLHH13018-(10)E 3500x1800 461 DLHH1418-18-(06)E / DLHH12020-(10)E 4500x1800 461 DLHH12520-(06)E / DLHH12020-(10)E 2000x2000 261 DLHH13220-(06)E / DLHH13020-(10)E 2500x2000 261 DLHH13220-(06)E / DLHH13020-(10)E 3000x2000 261 DLHH13220-(06)E / DLHH13020-(10)E 3500x2000 261 DLHH14220-(06)E / DLHH13020-(10)E 3500x2000 261 DLHH13220-(06)E / DLHH13020-(10)E 3500x2200 261 DLHH14220-(06)E / DLHH13020-(10)E 3500x2200 261 DLHH14220-(06)E / DLHH13022-(10)E 3000x2200 261 DLHH13222-(06)E / DLHH13022-(10)E 3000x2200 261 DLHH13222-(06)E / DLHH13022-(10)E 3000x2200 261 DLHH13222-(06)E / DLHH13022-(10)E 3000x2200 261 DLH113222-(06)E / DLH113022-(10)E 2500x2200 261 DLH113222-(06)E / DLH113022-(10)E 2500x2200 261 DLH113222-(06)E			DLHHI2018-(06)E / DLHHI2018-(10)E	2000×1800	2000	1800	600
DLHHI3018-(06)E Z000x1800 30 DLHHI3518-(06)E Z500x1800 40 DLHH1418-18-(06)E A000x1800 40 DLHH12520-(10)E Z500x2000 20 DLHH12520-(16)E DLHH12020-(10)E Z500x2000 20 DLHH12020-(10)E Z000x2000 20 20 20 DLHH12020-(16)E DLHH12020-(10)E Z500x2000 20 DLHH12020-(16)E DLHH13020-(10)E Z500x2000 20 DLHH12020-(16)E DLHH13020-(10)E Z500x2000 20 DLHH12020-(16)E DLHH13020-(10)E Z500x2000 20 DLHH12020-(16)E DLHH13020-(10)E Z500x2000 20 DLHH12020-(16)E DLHH12020-(10)E Z500x2000 20 DLHH12020-(10)E Z000x2000 20 20 20 DLHH12020-(10)E Z000x2000 20 20 20 20 DLHH12020-(10)E Z000x2000 20 20 20 20 20 DLHH12020-(10)E Z000x2200 Z0 Z0 <td></td> <th></th> <td>DLHHI2518-(06)E / DLHHI2518-(10)E</td> <td>2500×1800</td> <td>2500</td> <td>1800</td> <td>600</td>			DLHHI2518-(06)E / DLHHI2518-(10)E	2500×1800	2500	1800	600
DLHHI3518-(06)E 3500x1800 35 DLHH14018-(06)E 4500x1800 45 DLHH14518-(06)E 4500x2000 20 DLHH12020-(06)E 2000x2000 20 DLHH12020-(06)E 25500x2000 26 DLHH12020-(06)E 35500x2000 36 DLHH12020-(06)E 10)E 2500x2000 36 DLHH12020-(10)E 3000x2000 36 DLHH12020-(10)E 3000x2000 36 DLHH12020-(10)E 3000x2000 36 DLHH12020-(10)E 3000x2000 36 DLHH13020-(10)E 3000x2000 36 DLHH13020-(10)E 3000x2200 36 DLHH13022-(10)E 3000x2200 46 DLHH13022-(10)E 3000x2200 46 DLH113022-(10)E 3000x2200 46 DLH113022-(10)E 3000x2200 46 DLH113022-(10)E </td <td></td> <th></th> <td></td> <td>3000×1800</td> <td>3000</td> <td>1800</td> <td>600</td>				3000×1800	3000	1800	600
A DLHHI4018-(06)E 4000x1800 40 A DLHHI4518-(06)E A 4500x1800 40 DLHH12520-(06)E DLHH12020-(10)E 2000x2000 20 DLHH13520-(06)E DLHH13020-(10)E 3000x2000 30 DLHH13520-(06)E DLHH13020-(10)E 3000x2000 30 DLHH13520-(06)E DLHH13020-(10)E 3000x2000 40 DLHH13520-(06)E DLHH13020-(10)E 3000x22000 40 DLHH13520-(06)E DLHH12022-(10)E 3000x22000 40 DLHH13022-(06)E DLHH12022-(10)E 3000x22000 40 DLHH13022-(06)E DLHH12022-(10)E 3000x22000 40 DLHH13022-(06)E DLHH13022-(10)E 3000x22000 40 DLHH13022-(06)E DLHH13022-(10)E 3000x22000 40 DLHH13022-(06)E DLHH13022-(10)E 3000x22000 40 DLH113022-(06)E DLHH13022-(10)E 3000x22000 40 DLHH14522-(06)E DLHH13022-(10)E 3000x22000 40 DLHH14522-(06)E DLHH13022-(10)E 3000x2200 40 DCHH14522-(06)E DLH113022-(10)E 3000x2200 40 DCHH14522-(06)E DLH113022-(10)E 3000x2200 40 DCHH14522-(06)E </td <td></td> <th></th> <td>DLHHI3518-(06)E</td> <td>3500×1800</td> <td>3500</td> <td>1800</td> <td>600</td>			DLHHI3518-(06)E	3500×1800	3500	1800	600
4.1 DLHHI2020-(06)E / DLHHI2020-(10)E 7300x2000 200 DLHHI2020-(06)E / DLHHI2020-(10)E 2000x2000 200 DLHHI2020-(06)E DLHHI2020-(10)E 3000x2000 360 DLHH12020-(06)E DLHH12022-(10)E 3000x2000 400 DLHH12022-(06)E DLHH12022-(10)E 2000x2200 200 DLHH12022-(06)E DLHH12022-(10)E 2000x2200 360 DLHH13022-(06)E DLHH13022-(10)E 3000x2200 360 DLHH13522-(06)E DLHH13022-(10)E 3000x2200 360 DLHH14522-(06)E DLHH13022-(10)E 3000x2200 360 DLHH14522-(06)E DLHH13022-(10)E 3000x2200 360 DLH14522-(06)E DLH14622-(06)E 400000000 400 DLH14522-(06)E DLH14622-(06)E 4000000000 400 DLH			DLHH14018-(06)E	4000×1800	4000	1800	700
BLHHI2520-(06)E / DLHHI2520-(10)E 2500x2000 350 DLHHI3220-(06)E / DLHHI2020-(10)E 3500x2000 350 DLHH13220-(06)E 4000x2000 450 DLHH13220-(06)E 4000x2000 450 DLHH13220-(06)E 2000x2000 450 DLHH13220-(06)E 4000x2000 450 DLHH13222-(06)E 2000x2200 260 DLHH13022-(06)E 2000x2200 360 DLHH13022-(06)E 2500x2200 360 DLHH13022-(06)E 3000x2200 460 DLHH13022-(06)E 3000x2200 460 DLHH13022-(06)E 3500x2200 450 DLHH13022-(06)E 3500x2200 450 DLHH13022-(06)E 3500x2200 450 DLHH13022-(06)E 4000x2200 450 DLHH13022-(06)E 2100x2200 450 DLHH13022-(06)E 2100x2200 450 DLHH13022-(06)E 2100x22200 450 DLH14522-(06)E 2100x22200 450 DLH14522-(06)E 2100x22200 450 DLH14522-(06)E 21000x2200 400 DLH1			DLHHI2020-(06)E	2000×2000	2000	2000	/ 00
DLHHI3020-(06)E JDLHHI3020-(10)E 3000x2000 30 DLHHI3520-(06)E JEROX2000 44 DLHHI4520-(06)E A000x2000 45 DLHHI2022-(06)E LLHHI2022-(10)E 2000x2200 26 DLHHI2022-(06)E DLHHI2022-(10)E 2000x2200 36 DLHHI3022-(06)E DLHHI2022-(10)E 3000x2200 36 DLHHI3022-(06)E DLHHI3022-(10)E 3000x2200 36 DLHHI3022-(06)E DLHHI3022-(10)E 3000x2200 36 DLHH13022-(06)E DLHH13022-(06)E 4000x2200 40 DLHH13022-(06)E DLHH13022-(10)E 3500x2200 40 DLHH13022-(06)E DLHH13022-(06)E 4000x2200 40 DLHH14522-(06)E DLHH13022-(06)E 4000x2200 40 DLHH14522-(06)E DLHH14522-(06)E 4000x2200 40 DLHH14522-(06)E DLH14522-(06)E 4000x2200 40 O00 DLH14522-(06)E DLH14522-(06)E 40000x2200 40 O00 DLH14522-(06)E DLH14522-(06)E 40000x2200 40 O00 DLH14522-(06)E DLH14522	/		DLHHI2520-(06)E / DLHHI2520-(10)E	2500×2000	2500	2000	600
DLHHI3520-(06)E 3500x2000 351 DLHH14020-(06)E 4000x2000 451 DLHH14520-(06)E 4500x2200 250 DLHH12522-(06)E 2000x2200 251 DLHH12522-(06)E 2500x2200 361 DLHH13022-(06)E 7 3000x2200 361 DLHH13022-(06)E 7 3000x2200 361 DLHH13022-(06)E 7 3000x2200 361 DLHH13022-(06)E 7 3000x2200 361 DLHH13022-(06)E 7 4000x2200 461 DLHH13022-(06)E 7 4000x2200 461 DLHH13022-(06)E 7 4500x2200 451 DLHH14022-(06)E 7 4500x2200 451 DLHH14522-(06)E 7 4500x2200 451 DLHH14522-(06)E 7 4500x2200 451 DLHH14522-(06)E 7 4500x2200 451 DLHH14522-(06)E 7 4500x2200 451 O000 7 7 4500x2200 461 O000 7 7 7 7 4500x220			DLHHI3020-(06)E / DLHHI3020-(10)E	3000×2000	3000	2000	600
DLHHI4020-(06)E 4000x2000 40 DLHHI4520-(06)E 4500x2000 45 DLHHI2022-(06)E / DLHHI2022-(10)E 2000x2200 20 DLHHI2022-(06)E / DLHHI2022-(10)E 2500x2200 30 DLHHI3022-(06)E 0LHHI3022-(10)E 3500x2200 30 DLHHI3022-(06)E 0LHHI3022-(10)E 3500x2200 30 DLHHI3022-(06)E 0LHHI3022-(10)E 3500x2200 40 DLHHI3022-(06)E 0LHHI3022-(06)E 4000x2200 40 DLHHI3022-(06)E 0LHHI3022-(06)E 4500x2200 40 DLHHI4522-(06)E 0LHHI3022-(06)E 4500x2200 40 O00 mm, height 600 mm 0LHHI4522-(06)E 4500x2200 40 PLHHI4522-(06)E 0LHHI4522-(06)E 4500x2200 40 O00 mm, height 600 mm 0 4500x2200 45 PLHI14522-(06)E 0 4500x2200 46 O00 mm 0 0 45 45 O00 mm 0 0 46 45 O 0 0 0 46 O 0 0 46 <td></td> <th></th> <td>DLHHI3520-(06)E</td> <td>3500x2000</td> <td>3500</td> <td>2000</td> <td>600</td>			DLHHI3520-(06)E	3500x2000	3500	2000	600
DLHHI4520-(06)E 4500x2000 4500x2200 2000x2200 2000x200			DLHHI4020-(06)E	4000x2000	4000	2000	700
DLHHI2022-(06)E / DLHHI2022-(10)E 2000x2200 20 DLHHI2522-(06)E / DLHHI3022-(10)E 3000x2200 30 DLHHI3522-(06)E 3000x2200 35 DLHH13522-(06)E 3000x2200 35 DLHH13522-(06)E 4000x2200 35 DLHH13522-(06)E 4000x2200 40 DLHH14022-(06)E 4000x2200 40 DLHH14522-(06)E 4000x2200 40 DLH14522-(06)E 7 4500x2200 40 D000 8 40000x2200 40 Prove 8 40000x2200 40 Prove 8 40000x4 40			DLHHI4520-(06)E	4500x2000	4500	2000	700
DLHHI2522-(06)E / DLHHI2522-(10)E 2500x2200 2500x2200 2500x2200 3000x2200 4000x2200 4000x200 4000x200 4000x200 4000x200 4000x200 4000x200 4000x200 4000x200 40000x200 4000x200			DLHHI2022-(06)E / DLHHI2022-(10)E	2000x2200	2000	2000	600
DLHHI3022-(06)E / DLHHI3022-(10)E 3000x2200 30 DLHHI3522-(06)E 3500x2200 40 DLHH14522-(06)E 4000x2200 40 DLHH14522-(06)E 4500x2200 45 DLHH14522-(06)E 4500x2200 46 DLH14522-(06)E 4500x2200 46 DLH14522-(06)E 46 46 DLH14522-(06)E 46 46 DLH145 46 46 DLH145 46 46 DLH145 46 46 DLH145 46 46 DLH15 46 46 DLH16 47 46 DLH16 47 46 DLH16 47 46 DLH16 </td <td></td> <th></th> <td>DLHHI2522-(06)E / DLHHI2522-(10)E</td> <td>2500x2200</td> <td>2500</td> <td>2200</td> <td>600</td>			DLHHI2522-(06)E / DLHHI2522-(10)E	2500x2200	2500	2200	600
DLHHI3522-(06)E 3500x2200 35 DLHH14022-(06)E 4000x2200 40 DLHH14522-(06)E 4500x2200 45 DLHH14522-(06)E 4500x2200 45 O00 mm, height 600 mm 60 45 For more detailed information, please contact DoorHated i			DLHHI3022-(06)E / DLHHI3022-(10)E	3000x2200	3000	2200	600
DLHHI4022-(06)E 4000x2200 40 ad lip of DLHHI4522-(06)E 4500x2200 45 ad lip of 000 mm, height 600 mm 4500x2200 45 For more detailed information, please contact DoorHa PLHHIE MODEl dock 40 For more detailed information, please contact DoorHa PLHHIE MODEl dock 40 For more detailed information, please contact DoorHa For more detailed information, please contact DoorHa 40 For more detailed information, please contact DoorHa For more detailed information, please contact DoorHa 40			DLHHI3522-(06)E	3500x2200	3500	2200	600
ad lip of 000 mm, height 600 mm 4500x2200 45 For more detailed information, please contact DoorHa ADLHHIE MOdel do ADL ADLHHIE Model do ADL ADLHHIE Model do ADL ADLHHIE Model lip ADL ADLHHIE Model do ADL ADLHHIE Model lip ADL ADLHHIE Model lip ADL ADLHHIE Model lip ADL ADLHIE Model lip ADL ADL			DLHHI4022-(06)E	4000×2200	4000	2200	700
ed lip of 000 mm, height 600 mm For more detailed information, please contact DoorHa PLHHIE Model do Electrohydraulic dock ieveller with hinged lip of embedded type Eur line Eur line			DLHHI4522-(06)E	4500x2200	4500	2200	700
DLHHIE Model dock leveller Description Description <th>i of electrohydraulic doo type with width 20 112020-(06)E)</th> <th>ck leveller with hinged lip of 00 mm, length 2000 mm, heigh</th> <th></th> <th>nlease contact Doo</th> <th>o ue Han</th> <th></th> <th>2</th>	i of electrohydraulic doo type with width 20 112020-(06)E)	ck leveller with hinged lip of 00 mm, length 2000 mm, heigh		nlease contact Doo	o ue Han		2
ŏ H H				picase contract poo			
					dock	c leve	iller
				lectrohydraulic dock veller with hinged lir			
				of embedded type			:
				Eur line	Door	Han-Dock	cing syste

DoorHan[®]_

DoorHAN[®]____ н Н Н 600 600 600 600 700 700 600 2000 1800 2500 1800 3500 1800 3500 1800 4500 1800 4500 1800 2500 2000 × ₩ ₩ г, mm 2000x1800 2500x1800 3500x1800 3500x1800 4500x1800 4500x1800 2000x2000 2500x2000 3500x2000 3500x2000 4000x2000 Dock leveller size (length x width), mm x mm Dock leveller dimensions
 Article of dock leveller 10tn

 DLHHI2018-(06)S
 / DLHHI2018-(10)S

 DLHHI2518-(06)S
 / DLHHI2518-(10)S

 DLHHI3518-(06)S
 / DLHHI3018-(10)S

 DLHH13518-(06)S
 / DLHH13018-(10)S

 DLHH13518-(06)S
 / DLHH13018-(10)S

 DLHH14018-(06)S
 / DLHH12020-(10)S

 DLHH12520-(06)S
 / DLHH12020-(10)S

 DLHH12520-(06)S
 / DLHH13020-(10)S

 DLHH13520-(06)S
 / DLHH13020-(10)S

 DLHH13520-(06)S
 / DLHH13020-(10)S

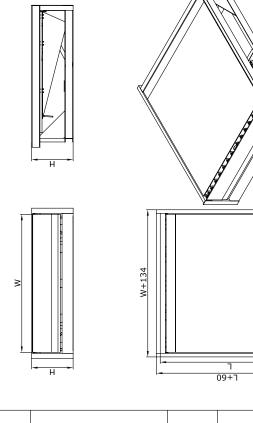
 DLHH13520-(06)S
 / DLHH13020-(10)S

 DLHH13520-(06)S
 / DLHH13020-(10)S
 Article of dock leveller 6tn

600 600

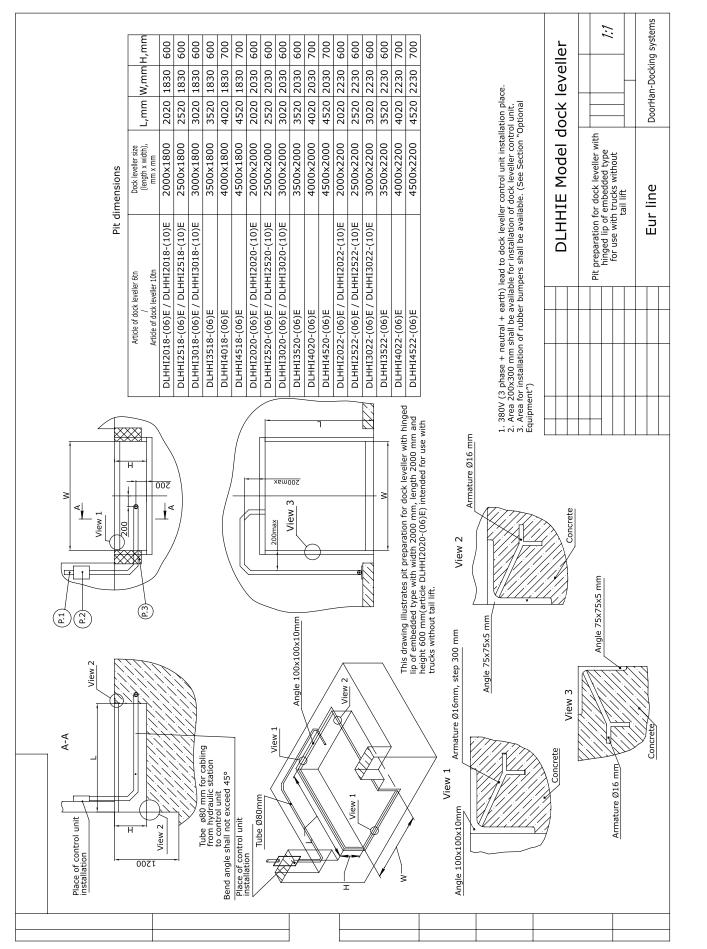
2000

3000



20

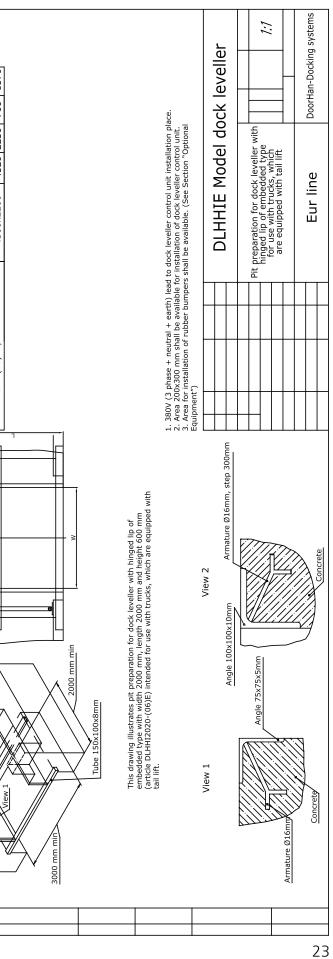
DLHH13520-(06)S DLHH14020-(06)S DLHH14020-(06)S DLHH14020-(06)S DLHH14020-(06)S DLHH12022-(06)S	6)S 6)S	3500×2000 4000×2000	3500	2000	600
	6)S	4000×2000			-
DLHH14520-(1 DLHH12022-(4000	2000	700
	6)S	4500x2000	4500	2000	700
	DLHHI2022-(06)S / DLHHI2022-(10)S	2000×1800	2000	2200	600
DLHHI2522-(DLHHI2522-(06)S / DLHHI2522-(10)S	2500x2200	2500	2200	600
7	DLHHI3022-(06)S / DLHHI3022-(10)S	3000x2200	3000	2200	600
DLHHI3522-(06)S	6)S	3500x2200	3500	2200	600
DLHHI4022-(06)S	6)S	4000x2200	4000	2200	700
DLHHI4522-(06)S	6)S	4500x2200	4500	2200	700
This drawing of electrohydraulic dock leveller with hinged lip of suspended type with width 2000 mm, length 2000 mm, height 600 mm (article DLHHI2020-(06)S).		DLHHIS Model dock leveller Electrohydraulic dock leveller with hinged lip of suspended type Eur line DoorHan-Docking system:		OCK leveller	:veller

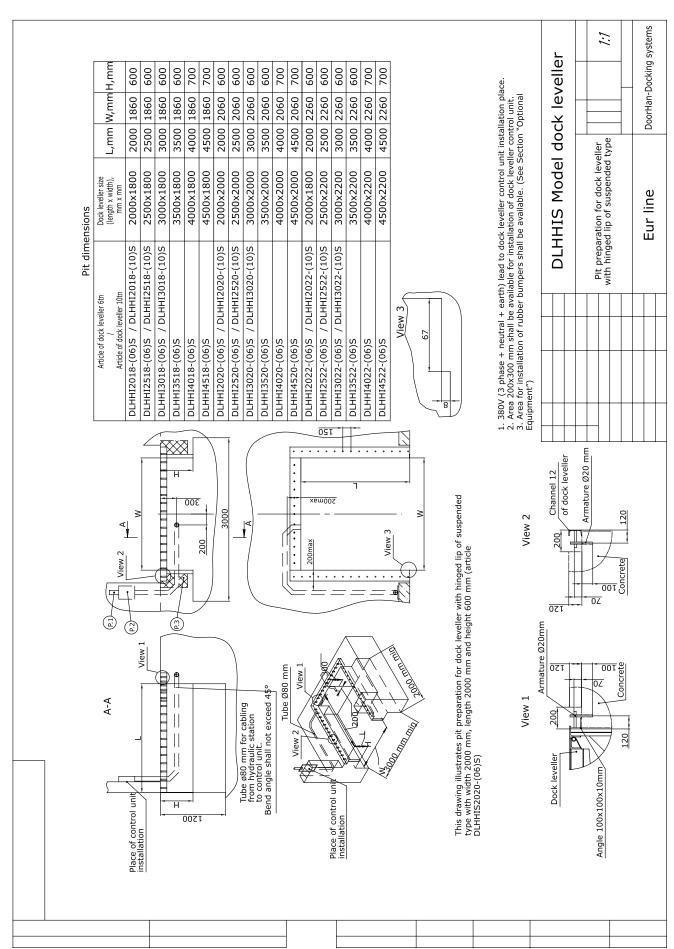


DoorHan[°]

APPENDIXES

	,mm	670	670	1370	1370	1370	1370	670	670	1370	1370	1370	1370	670	670	1370	1370	1370	1370
	H,mm[600	600	600	600	700	700	600	600	600	600	700	700	600	600	600	600	700	700 1370
	L,mm W,mm H,mm D,mm	1830	1830	3020 1830	1830	_	1830	2030	2030	2030	2030	2030	2030	2230	2230	2230	2230	2230	4520 2230
	L,mm	2020	2520	3020	3520	4020 1830	4520 1830	2020 2030	2520 2030	3020 2030	3520 2030	4020 2030	4520 2030	2020 2230	2520 2230	3020 2230	3520 2230	4020 2230	4520
Pit dimensions	Dock leveller size (length x width), mm x mm	2000×1800	2500×1800	3000×1800	3500×1800	4000×1800	4500×1800	2000×2000	2500×2000	3000×2000	3500×2000	4000×2000	4500×2000	2000×1800	2500x2200	3000x2200	3500x2200	4000×2200	4500×2200
Pit	Article of dock leveller 6tn d Article of dock leveller 10tn Article of dock leveller 10tn	DLHHI2018-(06)E / DLHHI2018-(10)E	DLHHI2518-(06)E / DLHHI2518-(10)E	DLHHI3018-(06)E / DLHHI3018-(10)E	DLHHI3518-(06)E / -	DLHHI4018-(06)E / -	DLHHI4518-(06)E / -	DLHHI2020-(06)E / DLHHI2020-(10)E	DLHHI2520-(06)E / DLHHI2520-(10)E	DLHHI3020-(06)E / DLHHI3020-(10)E	DLHHI3520-(06)E / -	DLHHI4020-(06)E / -	DLHHI4520-(06)E / -	DLHHI2022-(06)Е / DLHHI2022-(10)E	DLHHI2522-(06)E / DLHHI2522-(10)E	DLHHI3022-(06)E / DLHHI3022-(10)E	DLHHI3522-(06)E / -	DLHHI4022-(06)E / -	DLHHI4522-(06)E / -
(i)	Place of control unit installation View 2 View 2 View 1 View 1						V/////////////////////////////////////	Tithe #80 mm for rability	from hydraulic station	Bend angle shall not exceed 45°		Place of control unit		Angle 100x100x10mm					





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APPENDIXES

DoorHAN[®]_____

APPENDIXES

DoorHan [°]	APPENDIXES	DoorH AN [°]	APPENDIXES



Suzhou Doorhan Modern Metals & Materials Co., Ltd.

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