

DESMI Sweep System

Standard operation Procedure

For transportation, storage, and handling of DESMI Boom system



Emergency Stop.

The remote control is equipped with an emergency stop



Connect the emergency stop cable from the Power Pack to the remote control.

The power pack does NOT work if the emergency cable is NOT connected the remote control.

Purpose: Standard Operation Procedure for POWERPACK 15 KW

Safety Equipment:



Wear Head Protection



Wear Eye Protection



Wear Hearing Protection



Wear Protective Clothing



Wear Foot Protection



Wear Hand Protection



Read Instruction Manual

Signs:



WARNING



CAUTION



NOTE



NOTE

Set the Control Panel so that the operator has the best overview of the operation

Lifting equipment must be re-certified in accordance with local regulations.

EMERGENCY STOP.

The Power Pack is Equipped with Emergency Stop.
The emergency stop is located on the Remote Control Stand.






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CFCFX

1 Main Units

<p>Description</p> <p>Power pack <u>Dimension:</u> 1.3 x 0.92 x 1.1 m Weight: 500 kg</p> <p>070002261</p>	
<p>Control panel with Emergency Stop <u>Dimensions:</u> 0.80 x 0.70 x 1.15 m Weight: 43 kg</p> <p>078023037</p>	
<p>Hose Reel <u>Dimensions:</u> 0.80 x 0.71 x 1.10 m Weight: 30 kg</p> <p>022900159</p>	

Air Blower

Dimensions:

0.80 x 0.71 x 1.10 m

Weight: 95 kg

070022020



Boom reel 1

2 x 100m + 1 x 50m RO-Boom

Dimension:

2.99 x 2.44 x 2.10m

Dry weight: 1365 kg

Weight Total: 5500 kg

002200101

Boom Reel 2:

2 x 100m + 1 x 50m Ro-Boom

Dimension:

2.99 x 2.44 x 2.10m

Dry weight: 1365 kg

Weight Total: 5500 kg

002200101

Boom Reel 3:

2 x 100m + 1 x 50m Ro-Boom

Dimension:

2.99 x 2.44 x 2.10m

Dry weight: 1365 kg

Weight Total: 5500 kg

002200102



Container

DNV 2.7-1 and ISO 1496.

Dimension: 10 FT

2.99 x 2.44 x 2.59 m

Weight: 6000 kg

003150006



Turn Table.

Dimension:
Weight: 850 kg
093000003



WARNING

Do not lift the Turn Table with the Winder on the Turn Table. Turn Table must be lifted alone.!



Flat Rack.

Dimension:
Weight: 1750 kg
093000003








Hydraulic Hoses to the Turn Table. (Green Marking) (3/8")
C871210



Hydraulic Hoses to the Winder. (White Markings) (1/2")
C035616

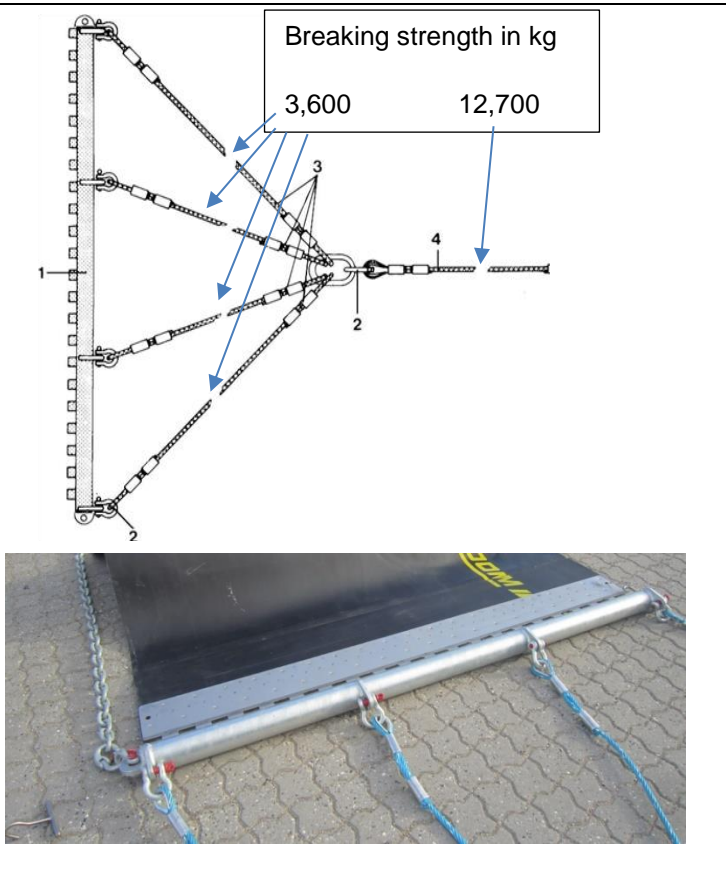


<p>Hydraulic hose to Control Stand (Red Marking) (3/4") C258916</p>		
<p>Hydraulic Hose for Air Blower / Control Stand. (Yellow Marking) (1/2") C359716</p>		
<p>Hydraulic Hose for Air Blower. (Yellow / Black Marking) (1/2") C919716 (Black Marking) (3/8") C919816</p>		
<p>Air Hose: 1 x 20m 4" C695101 1 x 10m 2" C695001</p>		

2 x Tow bars (1)
 2 x bridles (3)
 2 x 25 mm tow ropes of 70 m each (4)
 2 x buoys of 60 litre each
 1 x Shackle (2)
 1 x Wire W/ Chain Hook 10mmX10m
 Shackles, bolts, and nuts for assembling
 the tow set. (2)
 Weight: 181 kg

 Packed dimensions: 226 x 89 x 78 cm.
 Weight: 195 kg

 004200001

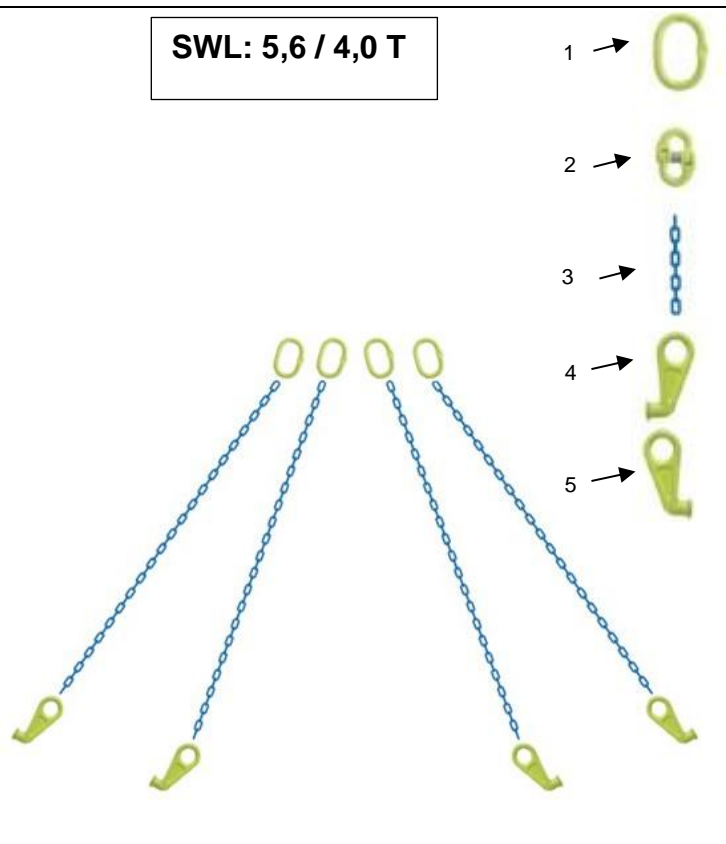


4 x Master Link GrabiQ (1)
 1 x GrabiQ Coupling Link (2)
 4 x 10mm Chain 2m (3)
 2 x ISO Container Hook R (4)
 2 x ISO Container Hook L (5)

 Weight: 75 kg

 CFX1919057
 LIFTING EQUIPMENT TURN TABLE

**See page 44, 45 and 46, Lifting
 equipment.**

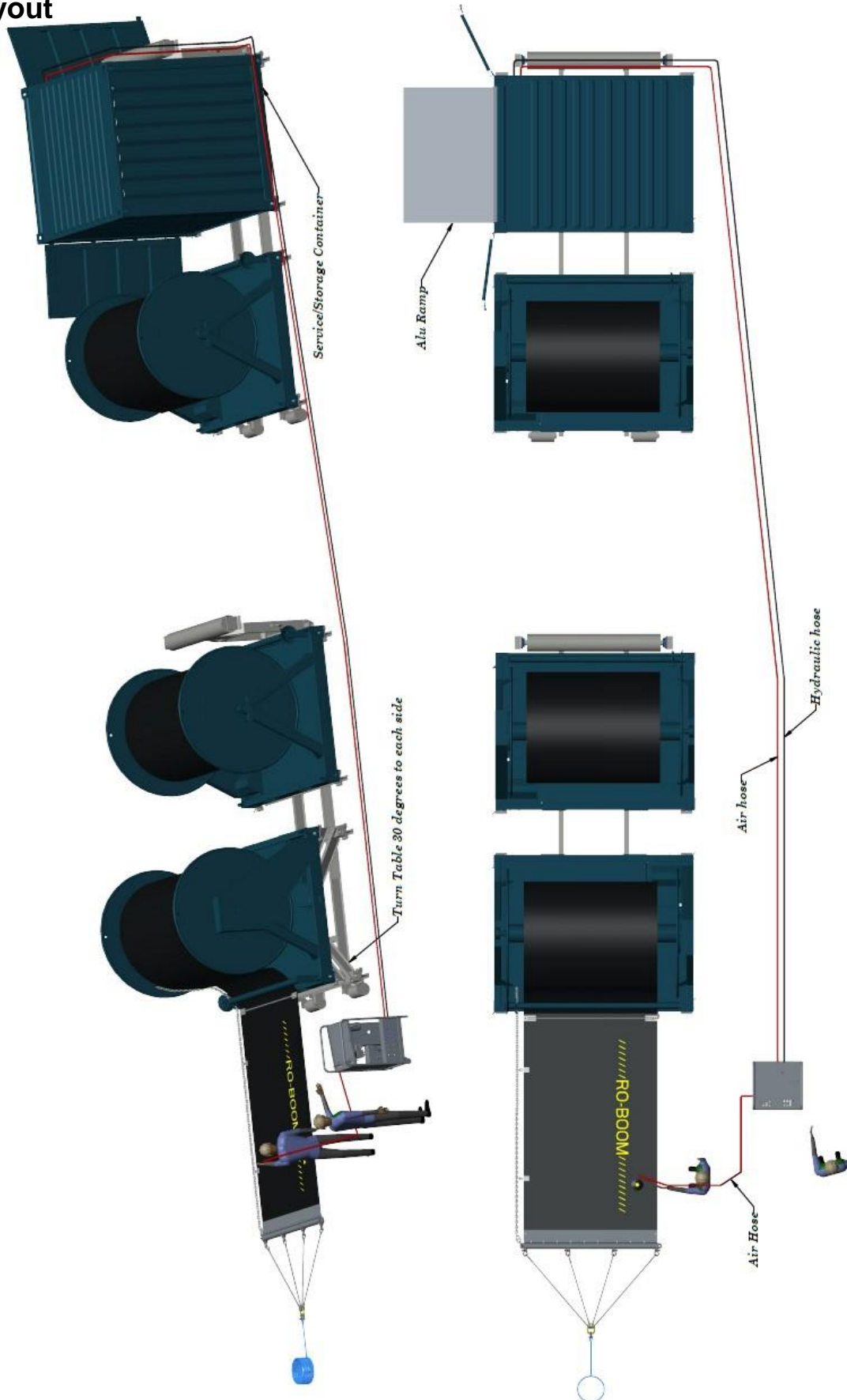


2 Complete System

Item No.	Description	Qty	Unit
1	003150006 10 FT. OFFSHORE DNV CONTAINER	1	Pcs
2	002200101 REEL F/250M RB-2000-CG_10' DNV	2	Pcs
3	002200102 REEL F/250M RB-2000-CG_10' DNV	1	Pcs
4	CFX198085 WEATHER COVER RB 2000 CG-250M	3	Pcs
5	RB20001 RO-BOOM 2000 - STD-4.5M. 100M	6	Pcs
6	RB20001 RO-BOOM 2000 - STD-4.5M. 50M	3	Pcs
7	003150023 HOOK LIFT	2	Pcs
8	093000003 TURN TABLE FOR 10' CONTAINER	1	Pcs
9	004200001 TOW SET RB-2000 HINGE	1	Set
10	070002261 POWER PACK-15KW STAGE V	1	Pcs
11	C054901 – HANDLING HOOKS WITH ALLEN KEY	3	Pcs
12	C695101 AIR HOSE -4"- SUPER ELASTIC 20M	1	Pcs
13	C695001 AIR HOSE -2"-SUPER ELASTIC 10M	1	Pcs
14	C305412 2" FILLER PROBE FOR RO-BOOM	1	Pcs
15	C359716 HYD. HOSE CPL. 1/2" X 20M SS TEMA (Yellow marking)	1	Pcs
16	C258916 HYD. HOSE CPL. 3/4" X 20M SS TEMA (Red marking)	2	Pcs
17	C084816 HYD. HOSE CPL. 3/8" X 20M SS TEMA (No marking. Ship hydr. Air Blower drain)	1	Pcs
18	C871210 HYD. HOSE CPL. 3/8" X 5M SS TEMA (Green marking)	2	Pcs
19	C919716 HYD. HOSE CPL. 1/2" X 1,25M SS TEMA (Yellow / Black marking)	1	Pcs
20	C919816 HYD. HOSE CPL. 3/8" X 1,25M SS TEMA (Black marking)	1	Pcs
21	C035616 HYD. HOSES CPL 1/2" X 10M SS TEMA (White marking)	2	Pcs
22	022900159 HOSE REEL-MAN-ALU-TROLLEY	1	Pcs
23	078023037 REMOTE CONTR.STAND 40/25/5	1	Pcs
24	C033502 WIRE W/CHAIN HOOK – Ø10MMX10M	2	Pcs
25	C851601 BATTERY CHARGER- TWO STEP 12V	1	Pcs
26	CFX194710 GROUND SHEET 3 x 10M	1	Pcs

27	C 921401 CHAIN FOR HOOK LIFT	2	Pcs
28	CFX1919057 LIFTING EQUIPMENT TURN TABLE	1	Pcs
29	070022020 AIR BLOWER HYDRAULIC DRIVEN SD6-1	1	Pcs
30	C893301 MANUALS - SWEDISH	1	Set

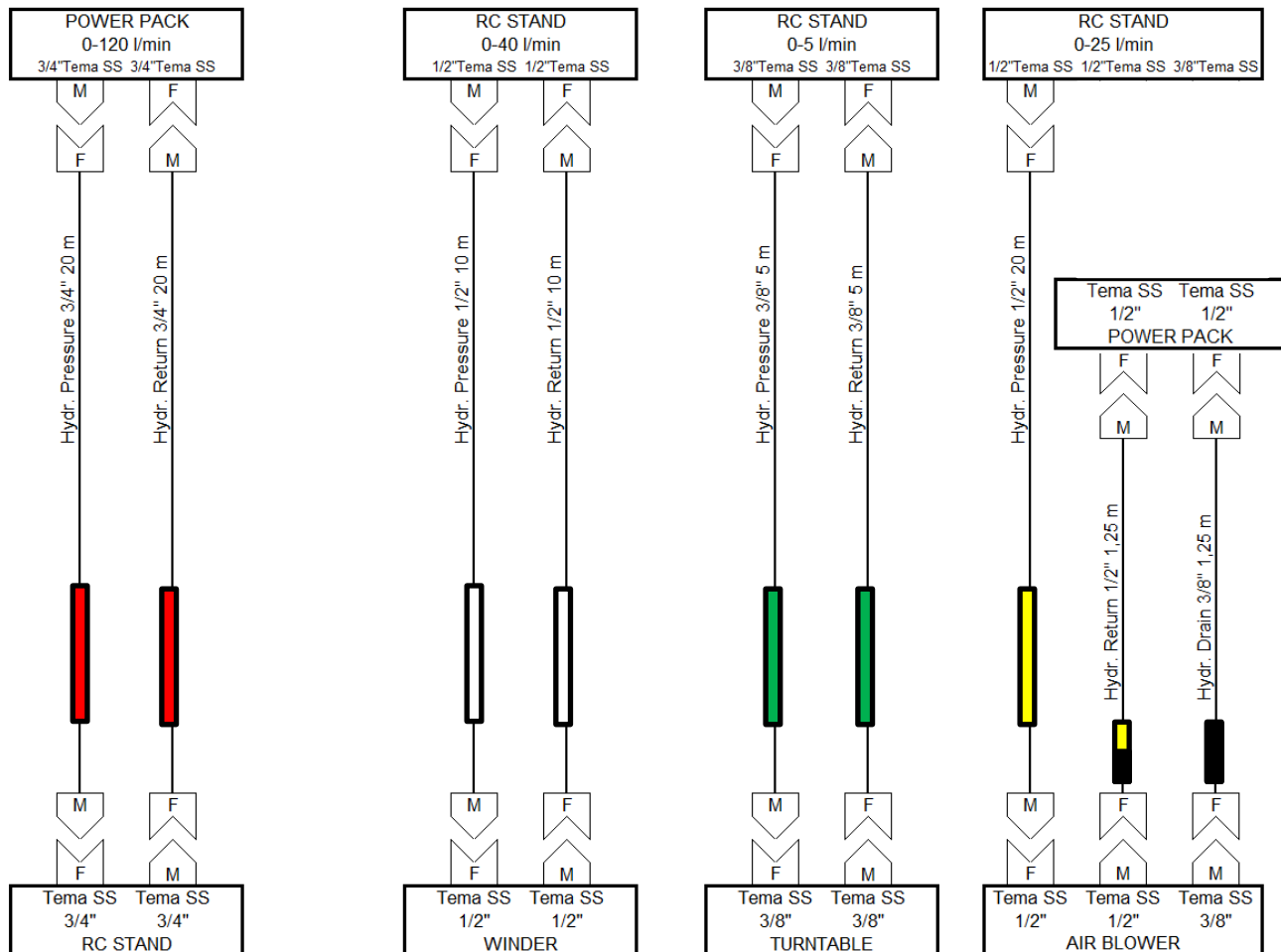
3 Layout



4. Connections illustrated and hydraulic schema

Hydraulic coupling diagram I

The hydraulic is delivered by DESMI Powerpack and the DESMI Air-blower is inside the container.



Hose set:
2 x 20m Hydr 3/4" Tema SS

POWER PACK Couplings:
Pressure : 3/4" Tema SS M
Return : 3/4" Tema SS F

RC STAND Couplings:
Pressure : 3/4" Tema SS F
Return : 3/4" Tema SS M

Hose set:
2 x 10m Hydr 1/2" Tema SS

RC STAND Couplings:
Pressure : 1/2" Tema SS M
Return : 1/2" Tema SS F

WINDER Couplings:
Pressure : 1/2" Tema SS F
Return : 1/2" Tema SS M

Hose set:
2 x 5m Hydr 3/8" Tema SS

RC STAND Couplings:
Pressure : 3/8" Tema SS M
Return : 3/8" Tema SS F

TURNTABLE Couplings:
Pressure : 3/8" Tema SS F
Return : 3/8" Tema SS M

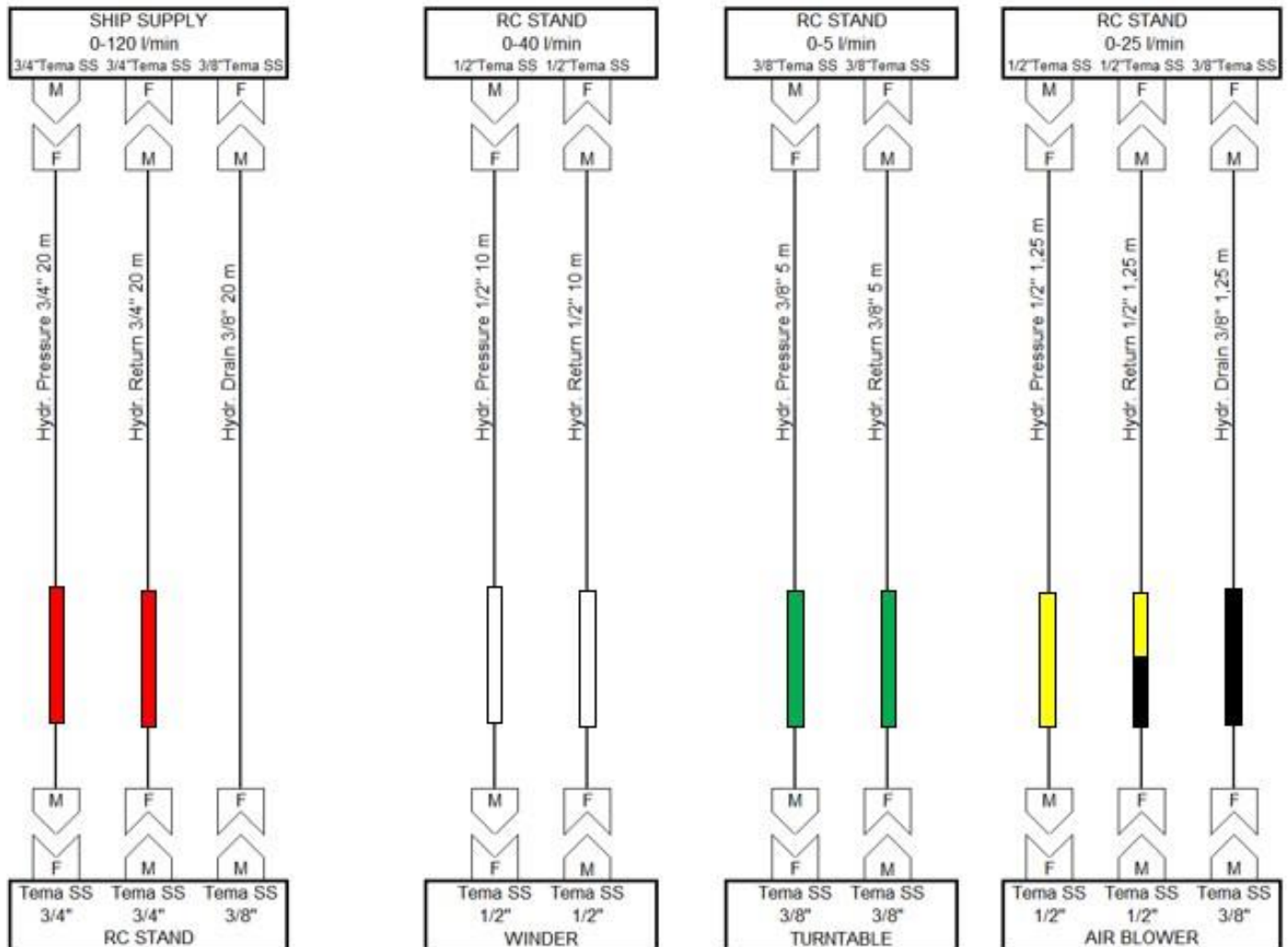
Hose set:
1 x 20m Hydr 1/2" Tema SS
1 x 1,25m Hydr 1/2" Tema SS
1 x 1,25m Hydr 3/8" Tema SS

RC STAND Couplings:
Pressure : 1/2" Tema SS M
Return : 1/2" Tema SS F
Drain : 3/8" Tema SS F

AIR BLOWER Couplings:
Pressure : 1/2" Tema SS F
Return : 1/2" Tema SS M
Drain : 3/8" Tema SS M

Hydraulic coupling diagram II

The hydraulic is delivered by ship and the DESMI Air blower is connected to the RC-stand.



Hose set:
2 x 20m Hydr 3/4" Tema SS
1 x 20m Hydr 3/8" Tema SS

POWER PACK Couplings:
Pressure : 3/4" Tema SS M
Return : 3/4" Tema SS F
Drain : 3/8" Tema SS F

RC STAND Couplings:
Pressure : 3/4" Tema SS F
Return : 3/4" Tema SS M
Drain : 3/8" Tema SS M

Hose set:
2 x 10m Hydr 1/2" Tema SS

RC STAND Couplings:
Pressure : 1/2" Tema SS M
Return : 1/2" Tema SS F

WINDER Couplings:
Pressure : 1/2" Tema SS F
Return : 1/2" Tema SS M

Hose set:
2 x 5m Hydr 3/8" Tema SS

RC STAND Couplings:
Pressure : 3/8" Tema SS M
Return : 3/8" Tema SS F

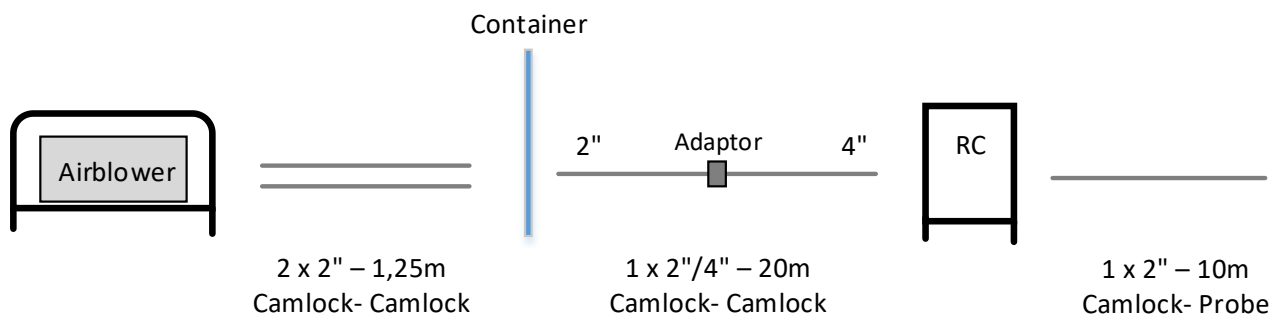
TURNTABLE Couplings:
Pressure : 3/8" Tema SS F
Return : 3/8" Tema SS M

Hose set:
1 x 1,25m Hydr 1/2" Tema SS
1 x 1,25m Hydr 1/2" Tema SS
1 x 1,25m Hydr 3/8" Tema SS

RC STAND Couplings:
Pressure : 1/2" Tema SS M
Return : 1/2" Tema SS F
Drain : 3/8" Tema SS F

AIR BLOWER Couplings:
Pressure : 1/2" Tema SS F
Return : 1/2" Tema SS M
Drain : 3/8" Tema SS M

Air-hose diagram



5. Operational set up

5.1 Preparation for start.

The flat rack must be fixed to a rigid base before operation.

Secure lift hooks with the chain so that hook lift cannot slide or move during the operation.



Open the container and take out the Control panel.

Set the Control Panel so that the operator has BEST overview of the operation



Ensure fresh air to the power pack during the operation by opening small door in the top, left side of the container.

After the control panel has been positioned:

Connect the emergency stop cable between the Power Pack and control panel.

Make sure the emergency stop is NOT activated.



The power pack does NOT work if the emergency cable is NOT connected the remote control.

EMERGENCY STOP

A. Push the **Emergency button** down to activate in case of **Emergency**.



B. To deactivate the **EMERGENCY STOP**, turn the emergency button clockwise.



Take out hose reel.



Unroll all hydraulic hoses from the hose reel and connect them according illustration.

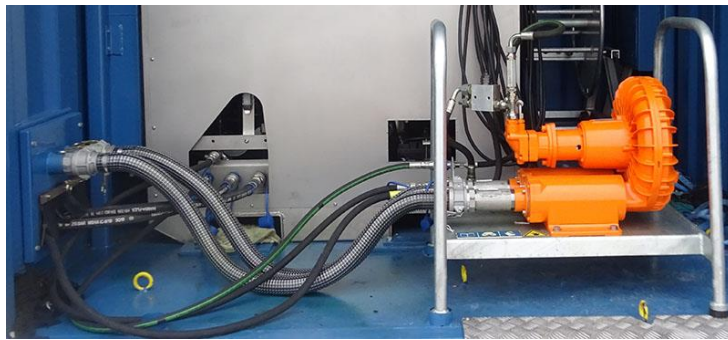
All hydraulic hoses have a colour code.

The colour code responds to the different equipment.

Move the air blower to the right to create space for connecting of the hydraulic hoses and air hoses.



NOTE



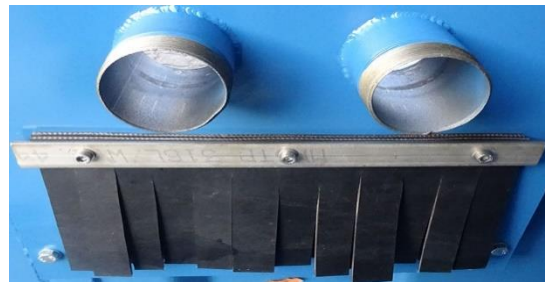
Check all Hydraulic hoses and couplings for leaks before connection.

Check Air Hoses for defects.

Guideway through container for hydraulic hoses



Unlock the door from the outside.



Put the Hydraulic Hoses through the trapdoor.



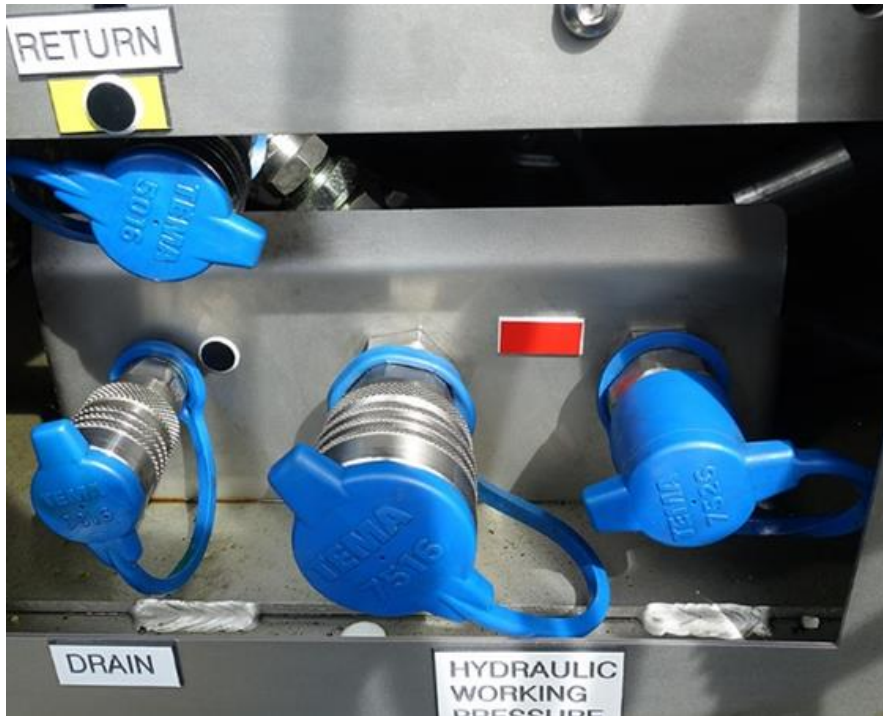
5.2 Connections Hydraulic

Power Pack Outlet.

RED: Working pressure to Control Stand

Black: Drain to Air Blower

Yellow / Black: Return to air Blower



Control Stand Inlet

RED: Working pressure from Power Pack



Control Stand Outlet.

Green: Turntable

Yellow: Pressure Air Blower

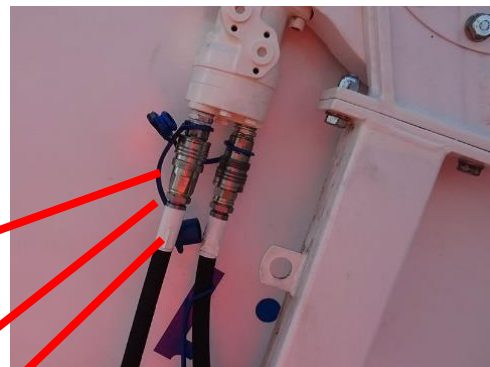
White: Ro-Boom Winder



Air Blower



Turntable and Winder



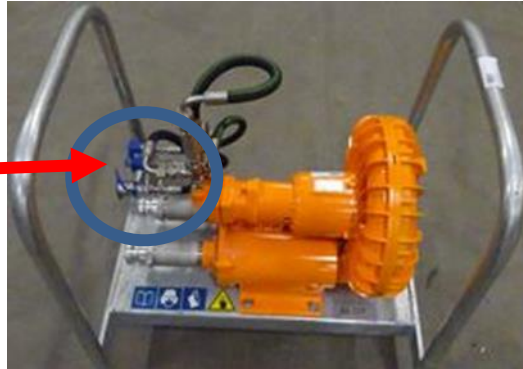
Ro-Boom Winder



Turntable

Air Blower.

- Black: Drain to Air Blower
- Yellow / Black: Return to air Blower
- Yellow: Pressure Air Blower



Connect both Air hoses from the Air Blower to the Container bulkhead.

Deployment procedure.

Remove BOTH air hose connection covers.



Connect the 4" Air Hose to the pressure side
On the Container Bulkhead.



Connect the 4" Air Hose to the Control Stand



Connect the 2" Air Hose to the Control Stand.

Retrieving procedure



**Change the 4" Air Hose when going to retrieving procedure.
Move the Air Connection from Air Pressure to Air Suction on the
outside of the container.**

The Air Blower shall be placed inside the container during the operation. If the air blower shall be used on a vessel, it can be moved out of container and placed where it is most appropriate.

For vessel operation, read hydraulic diagram, page 14.

5.3 POWER PACK Starting Procedure and EMERGENCY STOP

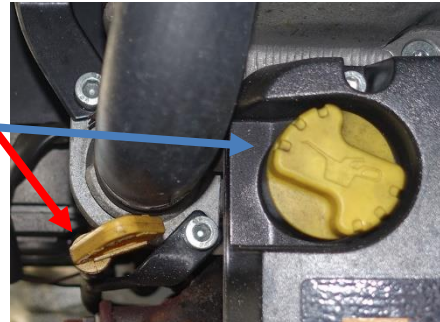


CAUTION: Always use ear protectors when operating the power pack.

Before start.

- A. Check the Power Pack Diesel Engine Oil.**

Refill if necessary.



- B. Check the Power Pack Diesel.**

Refill the tank if necessary.
(Be aware of overfilling)



- C. Check the Power Pack Hydraulic Fluid level.**

Refill the tank to the black line if necessary.



- D. Check the coolant Fluid level.**

Refill the tank if necessary.



Start the Engine

To start the engine:

- A. Pull out the Protective Cap & locate the key.**
Turn the engine speed control lever to, $\frac{1}{2}$ **OF MAX** speed



- B. Turn the ignition key to START (1).**
Red & yellow light will appear.
Wait until the temp. (Yellow) light goes out.
Turn the key once more and the engine will start.
Green light ON.
If the engine fails to start within 10 seconds,
stop turning the key.
Turn the ignition key to **OFF** position.
Recommence start procedure from **B.**



- C. Set the engine speed control lever to the desired position.**
Allow the engine to warm up for a short time without load.



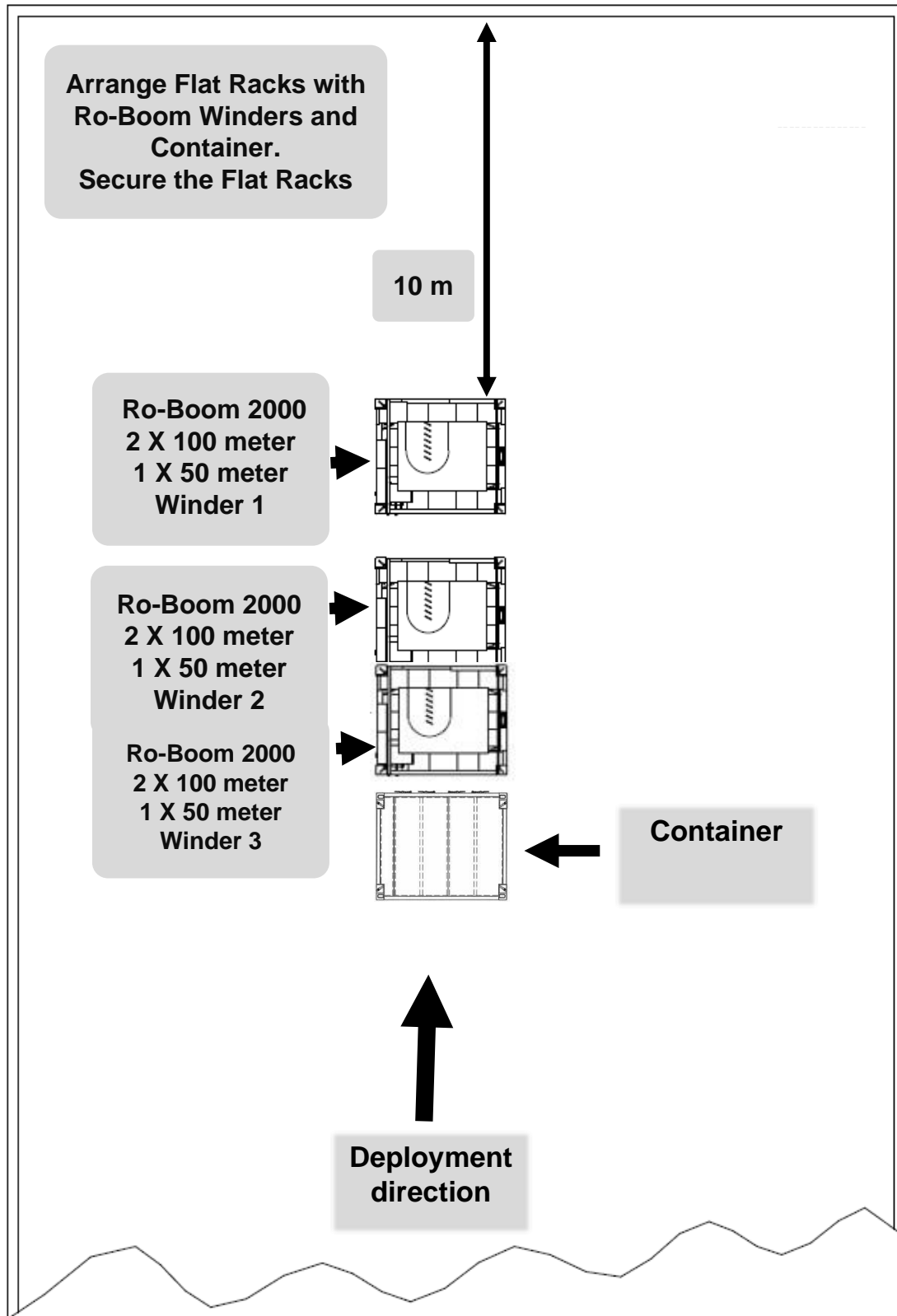
Stop the engine

- A. Check that the hydraulic flow control levers (Control stand) are in center position**
- B. Place the engine speed control lever to IDLE position.** Let the engine run for a short while without load, to cool down.
- C. Turn the ignition switch to OFF position.**



6 Deploying procedure

STEP 1



STEP 2

Preparing rope- & tow bar for launching

Towing vessel
Only do clutch speed when pulling the boom out.

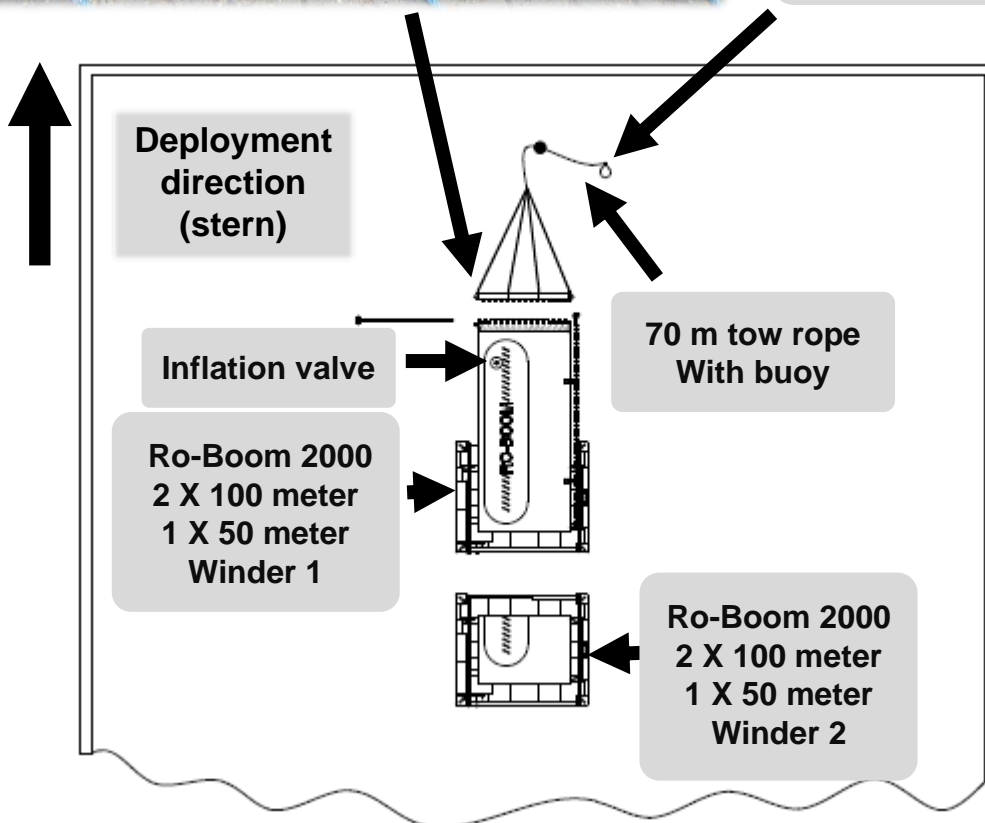


Ballast chain to be secured in the tow bar.

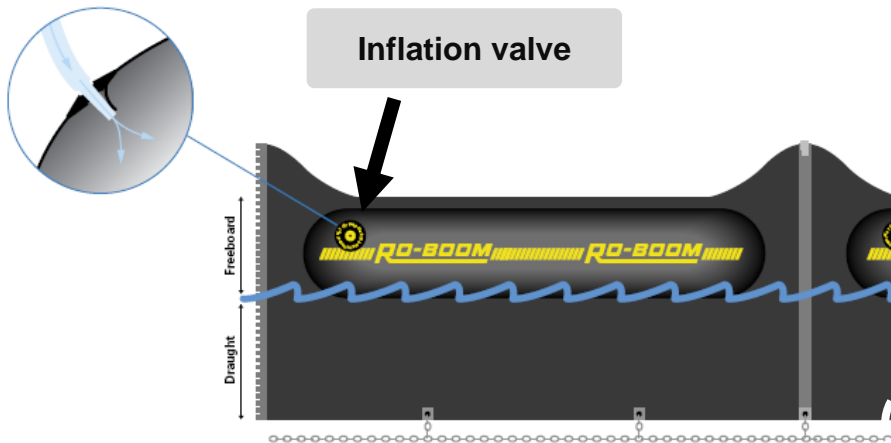
Tow bridle fitted the tow bar



Towing vessel will pick it up when all of the Ro-Booms are deployed > STEP 8



STEP 3



Filling can now begin by moving the probe into the air vent and turning the probe clockwise



When the air chamber is fully formed and slightly hard, remove the probe from the valve and fasten the valve cap.

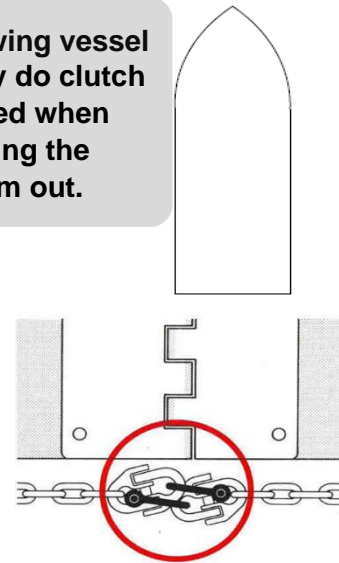
STEP 4

Assembling Boom Sections



Towing vessel
Only do clutch
speed when
pulling the
boom out.

Deployment
direction



Chain assembling

Ro-Boom 2000
2 X 100 meter
1 X 50 meter
Deployed
(Winder 1)

Assembling
Boom sections
from
second reel

Assemble
rod

Chain hook
secure boom

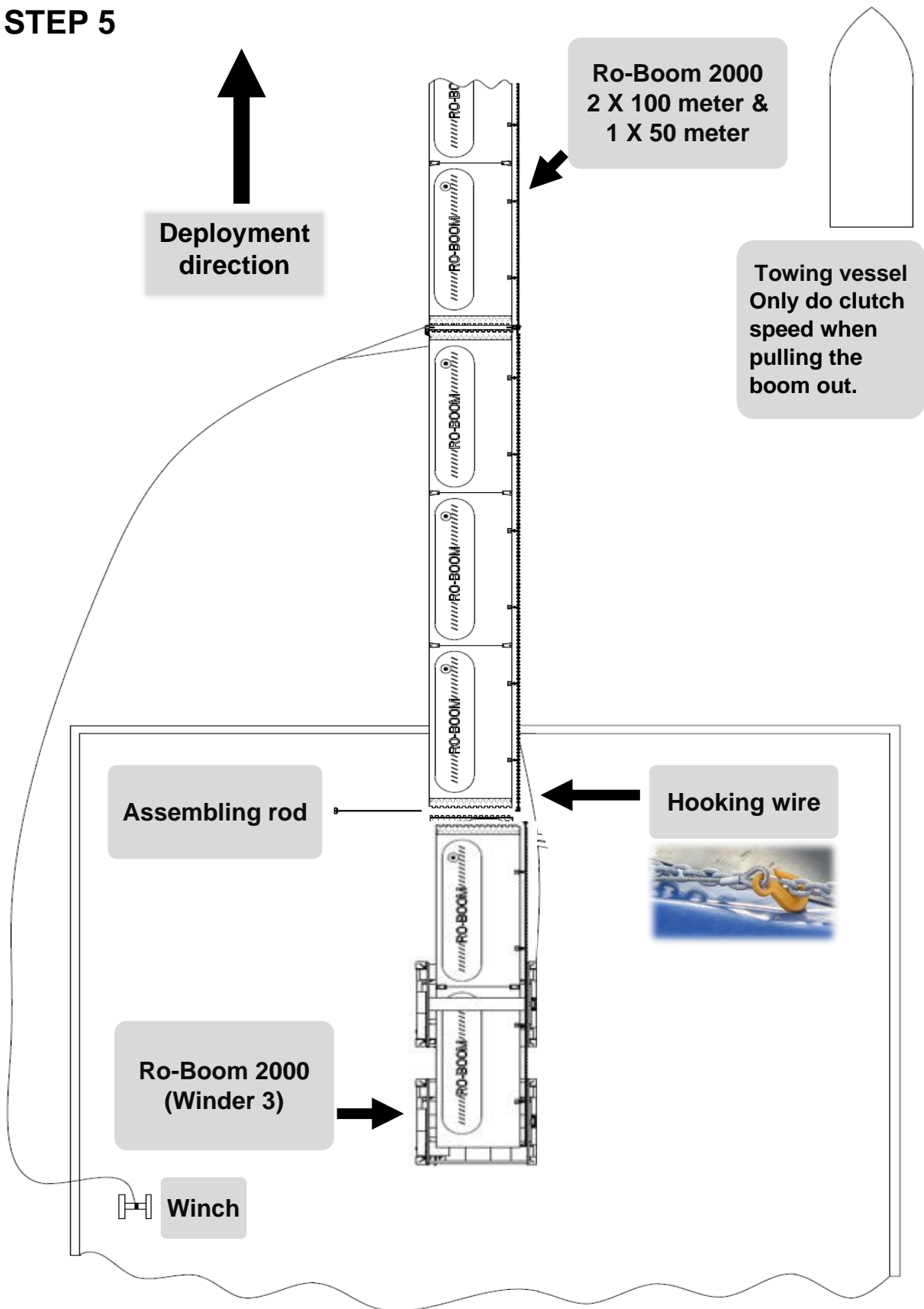
Chain assembling

Fasten wire

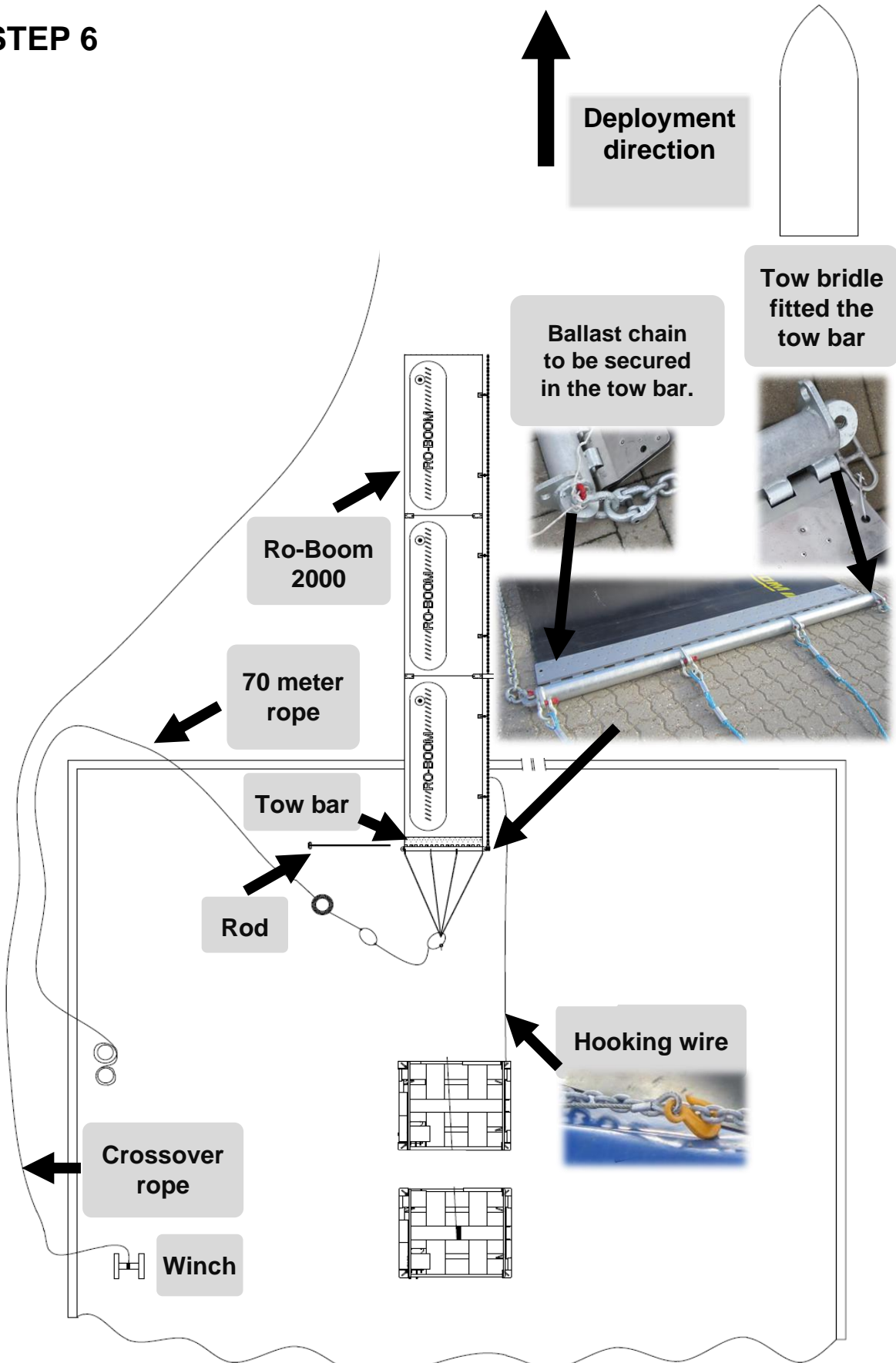


Ro-Boom 2000
2 X 100 meter
1 X 50 meter
Winder 2

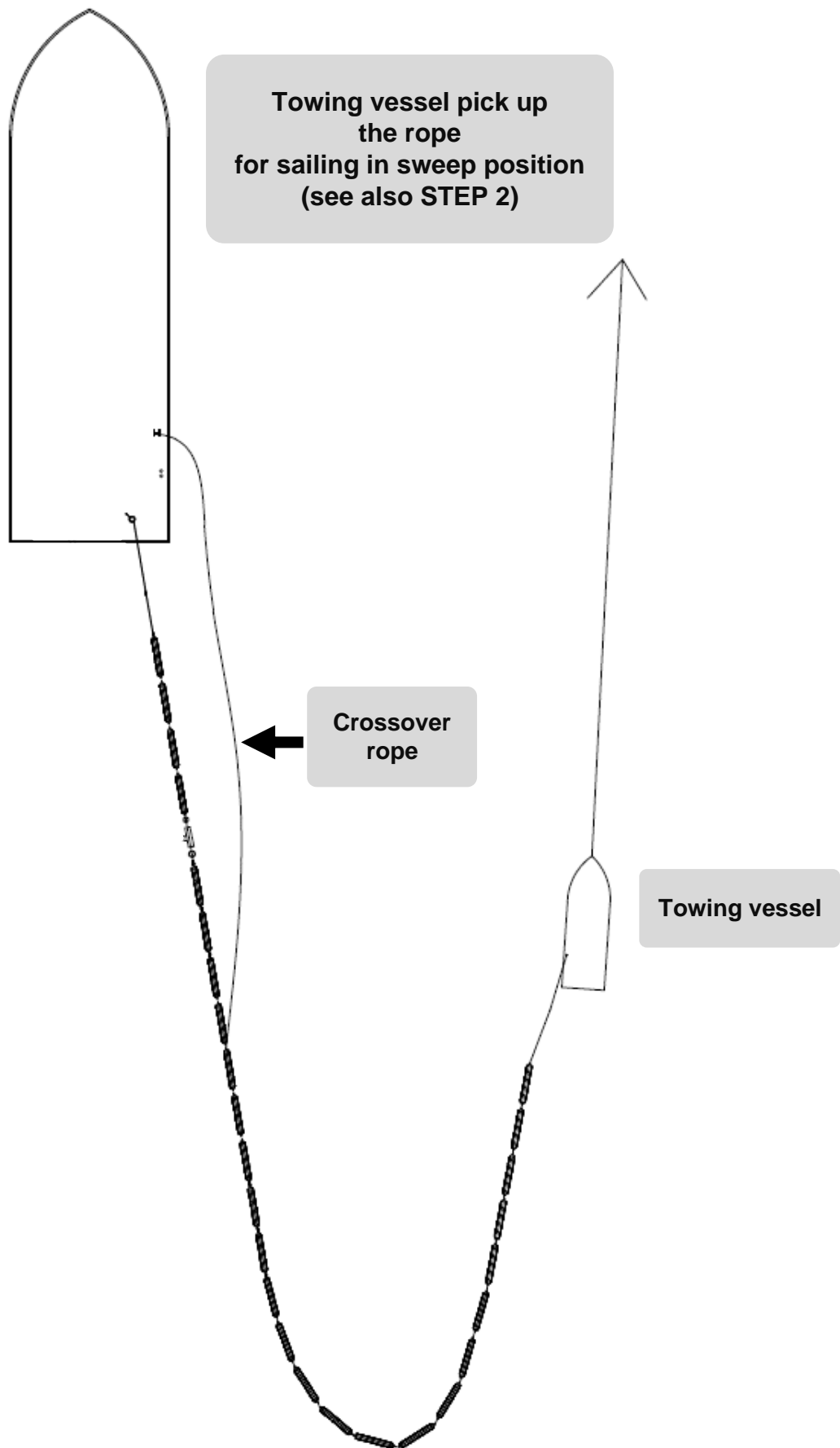
STEP 5



STEP 6

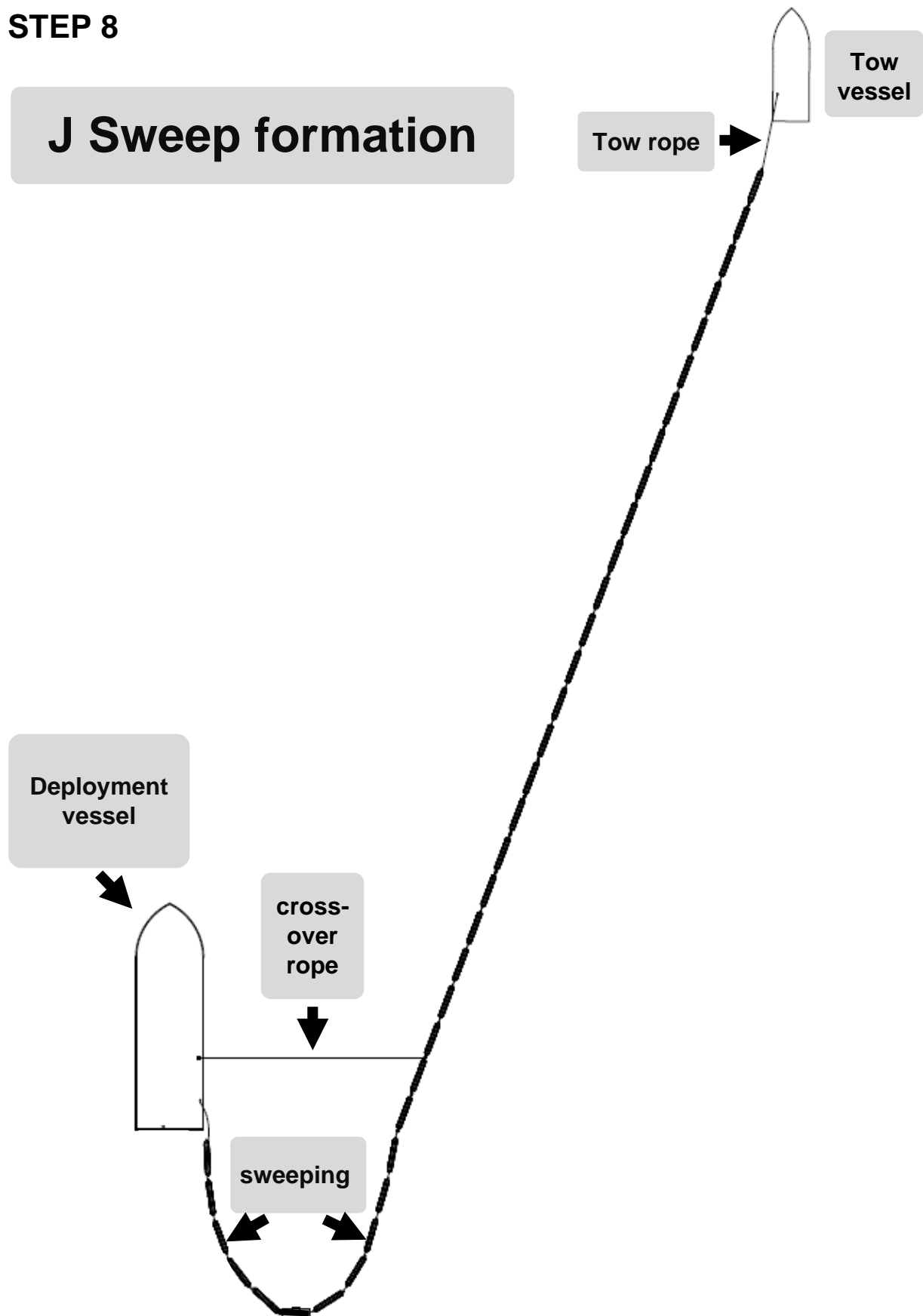


STEP 7



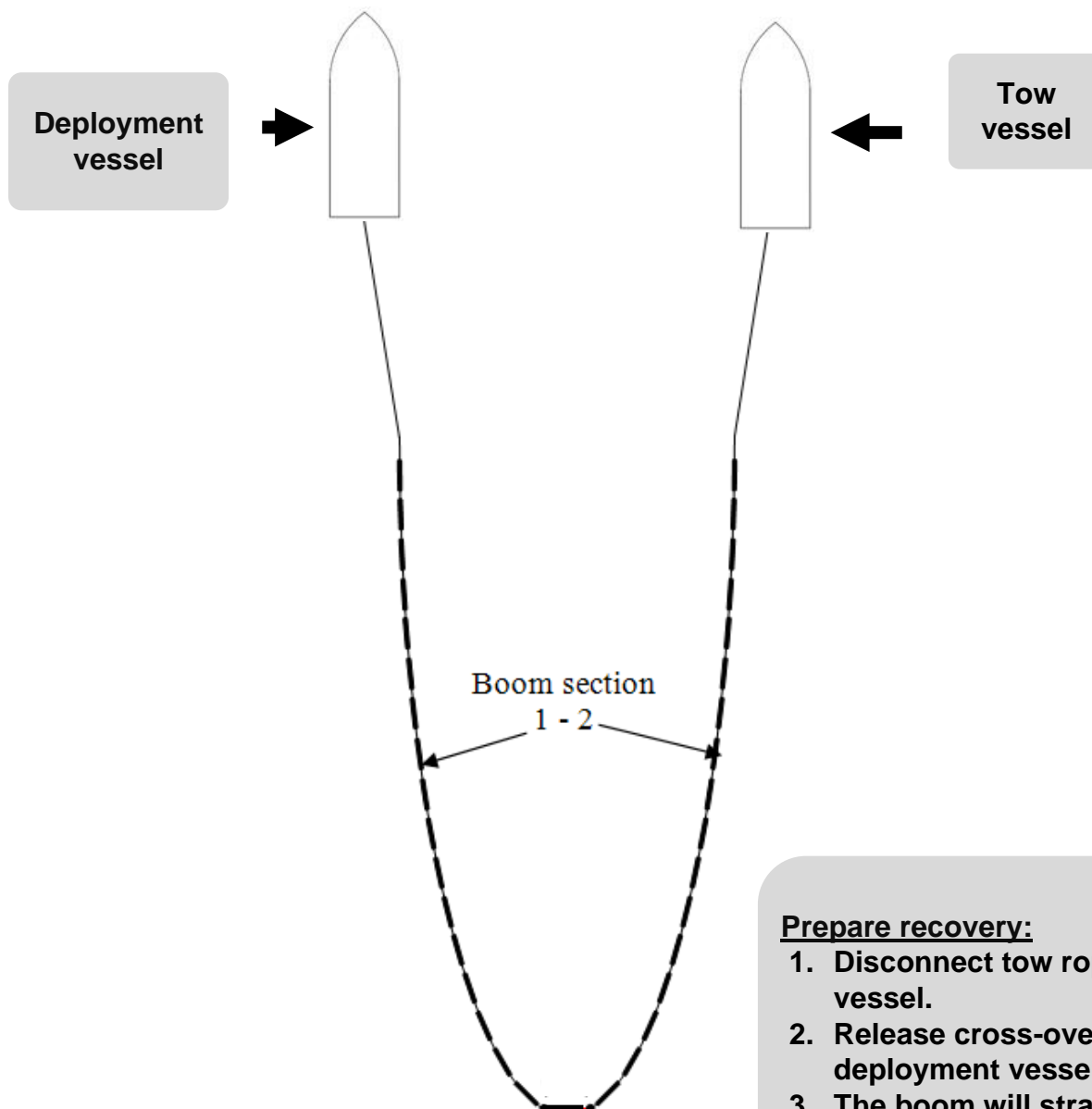
STEP 8

J Sweep formation



STEP 9

U Sweep formation



Prepare recovery:

1. Disconnect tow rope at tow vessel.
2. Release cross-over rope at deployment vessel.
3. The boom will straighten out on a line.

Recovery:

Recover boom onto the reels by follow deployment guide above in reverse order.

7 Retrieving procedure. STEP 1

Follow the steps below to make an easy recovery of the system:

1. Bring the towing vessel to lowest possible speed (clutch speed) and at the same time maneuver the vessel so that towline (Blue line) is coming alongside the pier. Recover the towline.
2. Deflation and dismantling in opposite order of assembly.
3. Shackle pins, bolts, and nuts should be inspected for being pre-tensioned sufficiently (fixated securely).

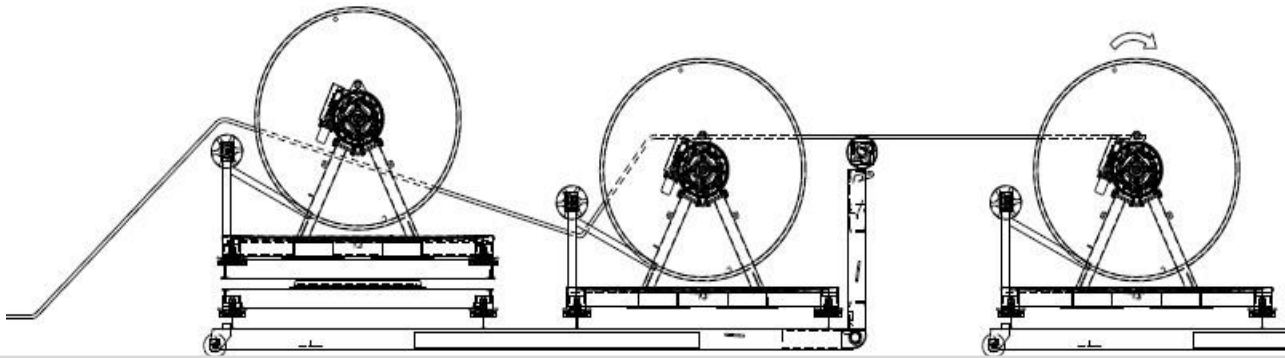


Recovering the boom (out of sea and right up to the winder) **must be done** with the Boom wires. Attach the wires.

Wire close to the ballast chain, wire 1 attaches to ballast chain. Wire 2, attaches to the bottom of the boom, wire 3 attaches to the top of the boom. Insert connection rod.

Starting to rool the wire onto the winder, move the wire 40 cm away from the endplate and move towards the endplate of the winder when coiling the wire onto the winder. This is to position the ballast chain correct from the start.

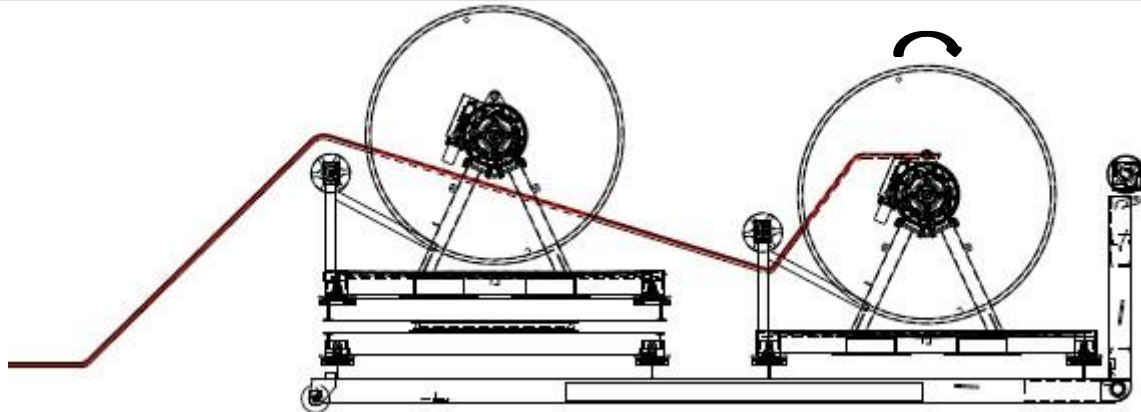




If 3 Ro-Boom winders are placed behind each other.

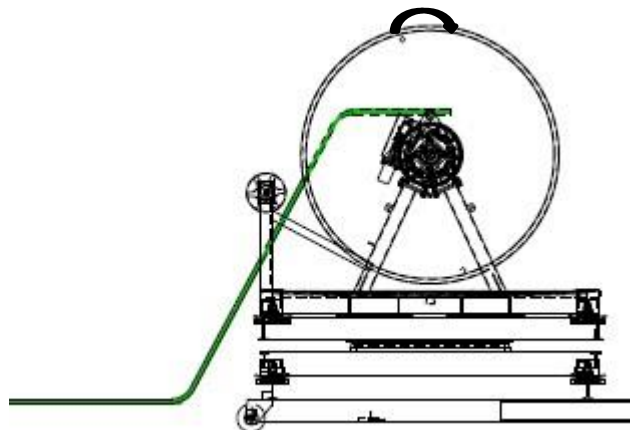
Go over the first fairlead, under the first reel and under number two fairlead and over number two reel and on to number three.

Always use the hooking wire when changing boom reel.



If 2 Ro-Boom winders are placed behind each other.

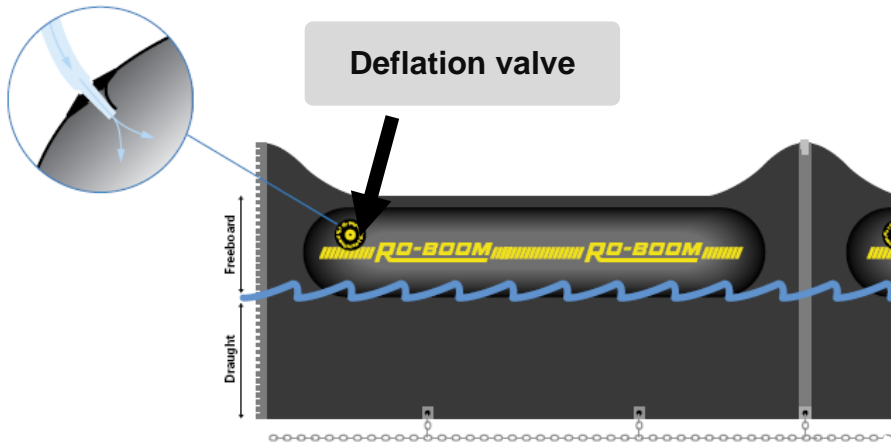
Go over the first fairlead, under the first reel and under number two fairlead and up on reel.



If only 1 Ro-Boom winder is used.

Go under the first fairlead, and up the first reel.

STEP 2



Remove the loose rubber seal on the air probe.
 Remove the valve cap.
 Insert the air probe so that the probe will push in the return valve on the valve during emptying.



Remove the air probe from the valve when the air chamber is completely empty.

8 After operation

- A. Check that there is no water in the hydraulic fluid. If the fluid contains water, you will notice a different colour in the lower section of the sight glass for hydr. fluid tank compared to the center section. In such cases you must remove all hydraulic fluid from the system, including the hoses to the skimmer, and refill with new fluid to max. level.
- B. Check hydraulic fluid level and refill the tank if necessary, to max. level.

CAUTION!

When filling the hydraulic tank, use a pump with a 10-micron filter.

- C. Check all hydraulic hoses for damage and leakage after operation.
- D. Check all quick couplings and protect them by using anti-corrosion oil and fit the protection plugs on all couplings.
- E. Lubricate the engine speed control lever.
- F. Check the end stop valves on the **Turn Table**. The end stop valves must be **well** greased.
- G. Check the diesel engine in accordance with the separately supplied engine manual.
- H. Check the battery terminals and lead connections for signs of corrosion. Also check the electrolyte level. If necessary, the electrolyte should always be topped up with distilled water to restore the correct level. I.e. the battery plates should always be covered with electrolyte to a depth of 6 mm.
Keep the top surface of the battery clean and dry.
- I. Clean the instrument panels with a soft cloth.

9 Maintenance of equipment for Oil Spill Response

Maintenance and inspection before and after operation

The frequency of the maintenance is depending on the use of the equipment. If the equipment is in contingency and not are in service every week/ day it is recommended to make a check of the gear every second/third month to make sure the gear is ready at all time. Experience with the equipment will as well show how often the maintenance and overhauling should take place.

For boom systems each item has an individual user and maintenance

manual. This maintenance manual is an extract from the individual manuals.

Maintenance is the precondition for reliability and a long lifetime of Oil Spill Equipment so the directions in this section must be followed closely.



NOTE

Power Pack, Air blower unit and Control units:

For maintenance of diesel engine, Air Blower and engine refer to the operator's manual for the equipment in question.

A. Check that there is no water in the hydraulic fluid. If the fluid contains water, you will notice a different color in the lower section of the sight glass for hydraulic fluid tank, compared to the center section. In such cases remove all hydraulic fluid from the system, including the hydraulic hoses, and refill with new fluid to max. level.

B. Check hydraulic fluid level and refill the tank if necessary, to max. level



CAUTION

When filling the hydraulic tank, use a pump with a 10-micron filter.

C. Check all hydraulic hoses for damage and leakage after operation.

D. Check all hydraulic quick couplings and protect them by using anti-corrosion oil and fit the protection plugs on all couplings.

E. Lubricate the engine speed control lever and cable with motor oil.

F. Lubricate hydraulic control levers, Winder bearings and hinges with lithium grease.

G. Tighten all hydraulic connections and couplings as well as screws and nuts after the first 5 hours of running. After that you must retighten for every 150 hours of operation. Check the O-rings in the **couplings**.

H. Replace the hydraulic fluid filters after the first 50 hours of operation and again after every 500 hours of operation.

I. Check the diesel engine in accordance with the engine manual (supplied separately).

J. Check the end stop valves on the **Turn Table**. The end stop valves must be well greased.

K. Clean the instrument panel with a soft cloth.

Storage



NOTE

This preservation should last for 6 to 12 months if the power pack is stored in a dry place.

- A.** Clean all external parts of the power pack with detergent and wipe it dry with a soft cloth. Clean the diesel engine, the hydraulic pump and the valves with diesel oil or detergent.
- B.** Clean the instrument panel with a soft cloth.
- C.** Preserve the diesel engine in accordance with the engine instruction manual. Clean and protect all quick couplings by use of anti-corrosion oil. Fit the protective plugs on the couplings and clean all hoses thoroughly with detergent.
- D.** If you intend to have the unit prepared for immediate use, do not preserve but start the diesel engine for about 10-15 min. every four week.

Boom reel and Hose reel:

Check all internal hydraulic hoses and air hoses for damage and leakage after operation.

- A.** Check all hydraulics and Air hose couplings and protect them by using anti-corrosion oil. Fit the protection plugs on all couplings.
- B.** Tighten all hydraulic connections and couplings as well as screws and nuts after the first 5 hours of running. After that you must retighten for every 150 hours of operation. Check the O-rings in the couplings.
- C.** Check the paint for scatches and repair with paint to prevent rust.
- D.** Check the ball bearing of the winder is well greased with ball bearing grease after rinsing.
- F.** Lifting sling and shackles must be checked for damage.
- G.** Check air fittings, air hose connections and hoses. Damages hoses must be replaced instantly
- H.** Long time storage protect the boom against sunlight with tarpaulin.

Towing gear and ropes

- A.** Clean and check the tow bars & shackles for damage. Check that all thread holes of shackles, etc. are well greased with ball bearing grease.
- B.** Clean and check the tow bridles & tow ropes for damage
- C.** Long time storage protect the tow rope against sunlight with tarpaulin

Hose sets and hydraulic couplings and parts on engine

- A.** Check hydraulic and air hoses. Clean the quick couplings and protect them against corrosion using corrosion protection oil. Fit the protection plugs on all couplings.
- B.** Damaged hoses must be replaced instantly
- C.** Long time storage protect the hoses against sunlight with tarpaulin

Long time storage indoor and outdoor

A. Long time storage protect all equipment against sunlight

B. Preservation of steel components and couplings/connectors in general

After cleaning of parts, spray all non-stainless-steel components and quick couplings, hydraulic connections, and hose nipples with anti-corrosion spray.

(High humidity will occur outside as well inside.)

C. At low temperature below minus 5°C it is advisable to connect the battery charger to the power pack's battery.

Preparing equipment during storage

A. It is advisable to survey all equipment and unpack the gear every 2-3 month. Check the battery, starts the diesel engine and let it run approx. 15 min for verifying any leakages. Boom Winder system is connected for verifying the condition of the gear.

B. Turntable is connected to verifying the condition of the gear. The end stop valves must be well greased.

10 Transportation

Before lifting the Flat Rack with Oil Spill equipment placed on the flat rack, following procedure must be followed,

1. Ensure that all Equipment, in the container, is properly secured.
2. Check and be sure that all twist locks are properly twisted and firmly tightened.
3. Secure the turntable with transport straps so it cannot move under transport.
(on both side of the turntable)

Lifting the Flat Rack



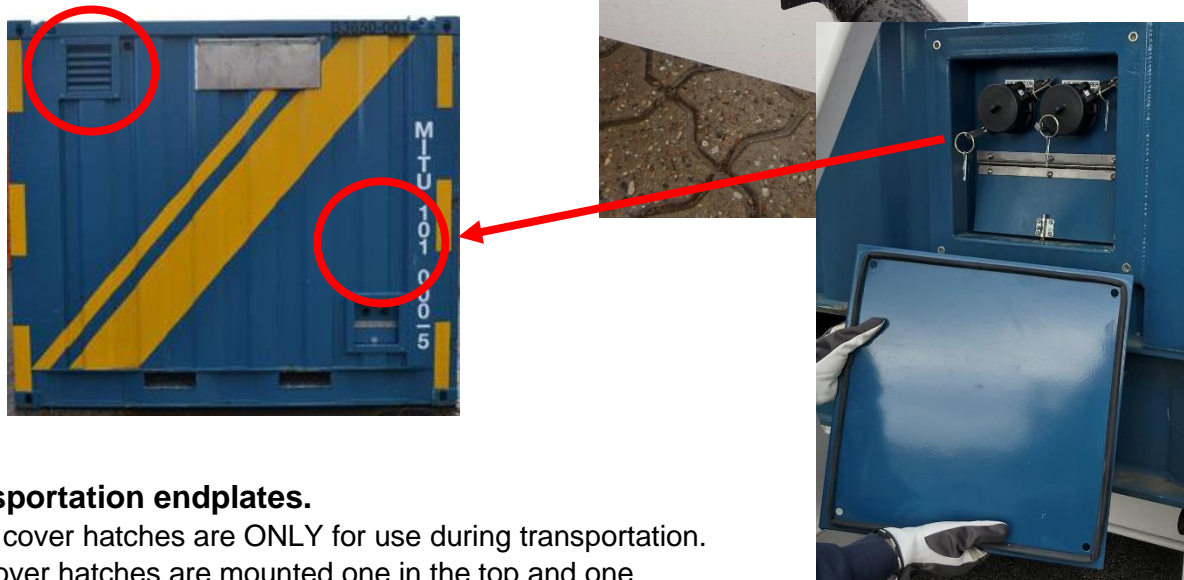
Flat Rack Running lights.

The flat rack is equipped with **24 V** electric Red tail and white front light.



Due to safety reasons the lights on the Flat Rack must be, connected to 24 Volt, from the truck under transport.

7 pole connector



Transportation endplates.

The 4 cover hatches are **ONLY** for use during transportation.

The cover hatches are mounted one in the top and one down, left, and right side of the double door.

The black gasket must be between the cover hatches and container.

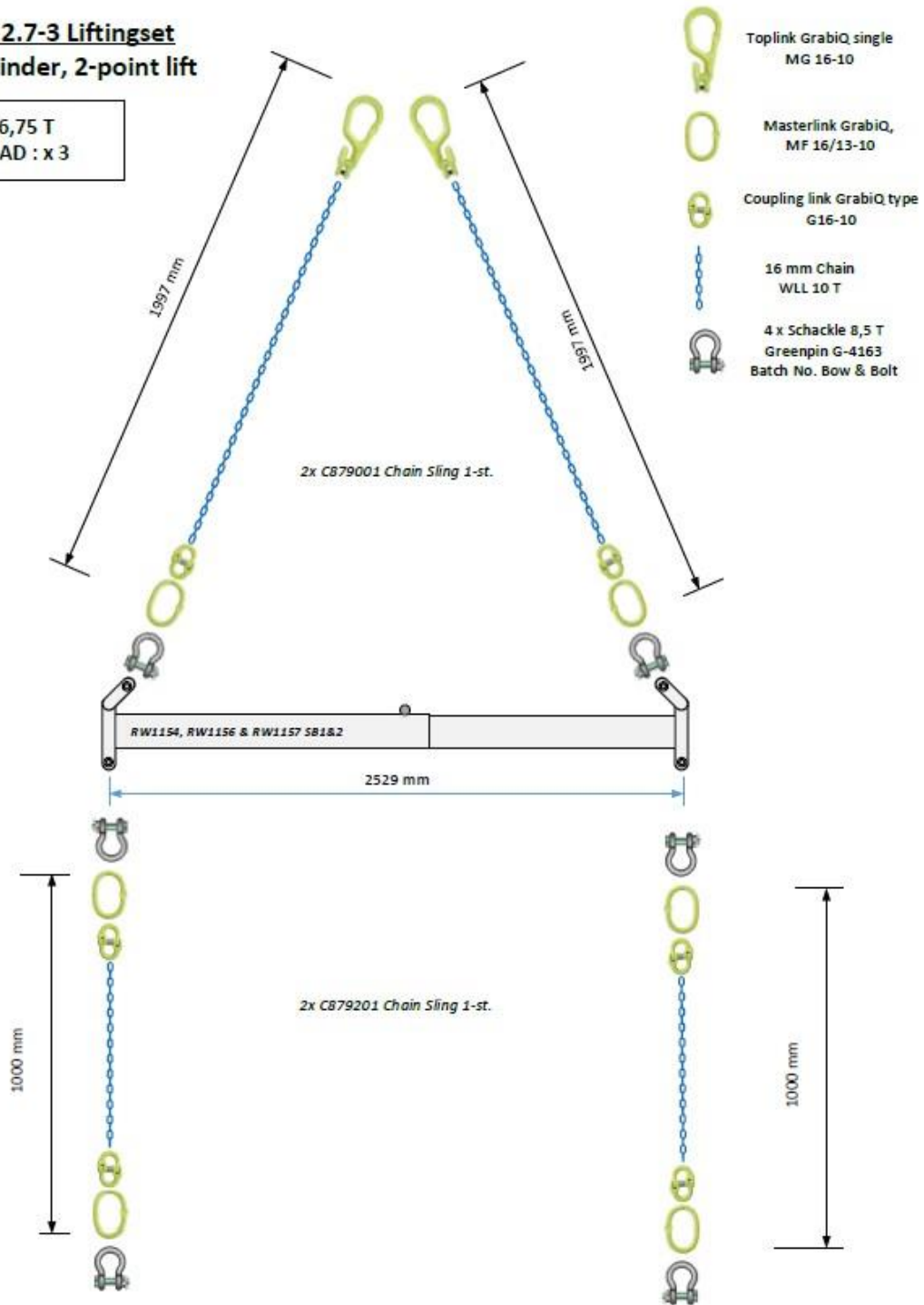
There are 4 bolts for each cover hatch.

If the cover hatches are left **ON** under storage there will be **NO** Circulation inside the container.

11 Lifting gear

DESMI DNV 2.7-3 Liftingset Wormgear Winder, 2-point lift

SWL : 6,75 T
TEST LOAD : x 3



- | | | | |
|---|-------------------------------------|---|--|
|  | Masterlink GrabiQ,
MF 16/13-10 |  | 2 x Schackle 8,5T
Greenpin G-4163
Batch No. Bow & Bolt |
|  | Coupling link GrabiQ type
G16-10 |  | 16 mm Chain
WLL 10 T |

DESMI DNV 2.7-3 Liftingset Turn table, 4-point lift

SWL : 5,6 / 4,0 T
TEST LOAD : x 3



Masterlink GrabiQ,
MF 16/13-10



Coupling link GrabiQ
type G16-10

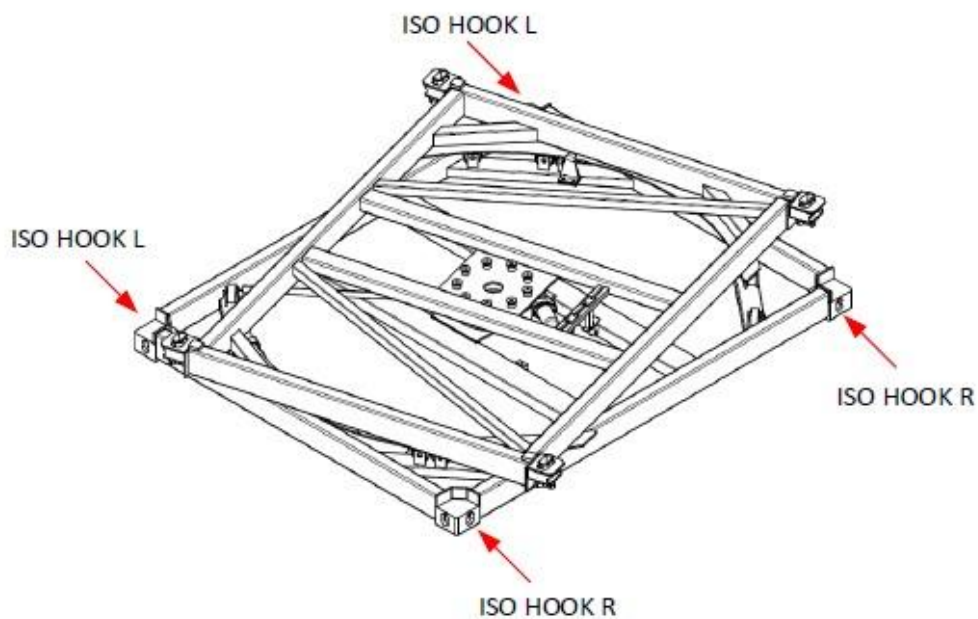
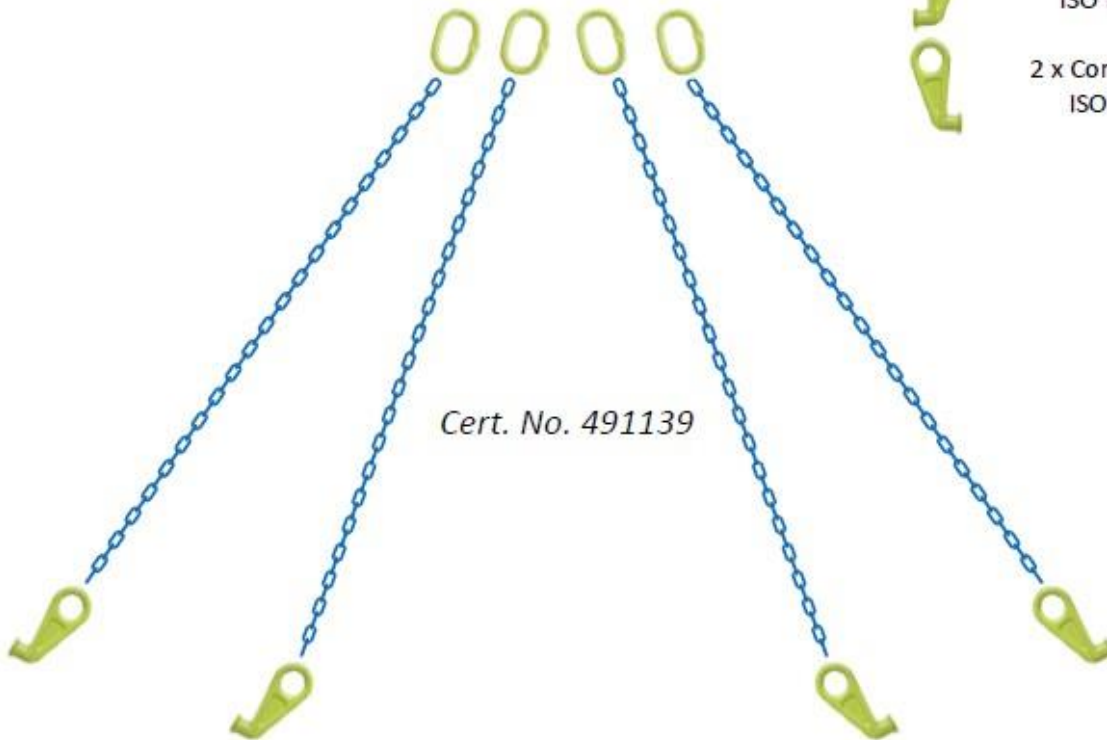


10 mm Chain
WLL 10 T



2 x Containerkrog,
ISO HOOK R

2 x Containerkrog,
ISO HOOK L



DNV Container B3650-001
Lifting Sling ID. No. 508423/1
WWL : 10 T
Ø24MM-3.8M



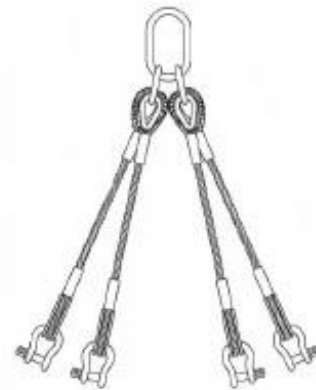
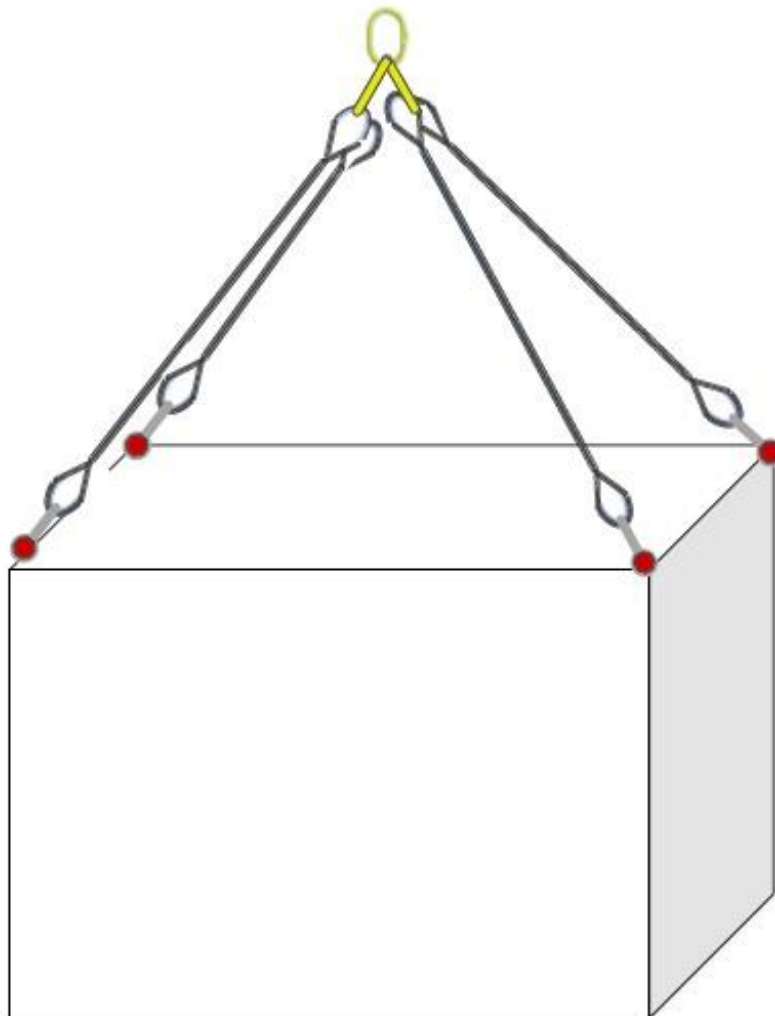
Masterlink Assembly,
Crosby 1VK/1VP



Ø24mm Wire Rope
R13552



4 x Schackle 8,5 T
6UI/1UI



Lifting equipment must be re-certified in accordance with local regulations.

NOTE

MARINE & OFFSHORE

INDUSTRY

OIL SPILL RESPONSE

DEFENCE & FUEL

UTILITY

Locate the Spreader bar inside the container on the top shelf. Locate the lifting sling in the orange box, behind the Power Pack.



Connect the lifting sling to the winder.



When lifting the Winder, the twist locks must be unlocked. Press the Twist lock up and turn it too unlock it. Must Be done on all 4 corners.



WARNING

**Do not lift the Turn Table with the Winder on the Turn Table.
Turn Table must be lifted alone.!**

12 Cleaning the System

Clean the system in fresh water if used for test / instruction.

If the boom has been used in connection with oil pollution, all equipment which is smeared in oil should either be cleaned with suitable cleaning equipment or transported to a special washing place with an oil separator. The equipment can be washed down by means of a high-pressure cleaner with possible use of oil solvents. However, do take care that these solvents do not prevent the oil separator from functioning.

For cleaning the boom with chemicals, the following guidelines can be given:

- The oil boom is made from a material that normally makes it resistant to detergents on petrol chemical basis.
- Detergents with low contents of aromatics will be the most lenient for intensive treatment.
- Detergents based on N-paraffin's are recommended due to their environmental properties.

The following type of detergent is recommended	
Chemex products A/S Tel.: +45 7462 9192	Exxsol® D80

Detergents containing methylene chloride, trichloroethylene, ketones, aldehydes, or esters must not be used. The boom itself repels many types of oil, but in case of heavy oil adherence, non-metallic scrapers can be used and/or high-pressure cleaning.

Handling of the boom is easier if an empty winder is available at the washing place so that the boom can be wound up as the cleaning is progressing. However, it is also possible to fold the boom manually and then wind it back on the winder.

13 Repair instructions.

Read the Ro-Boom Repair manual, deliver as separate manual.

14 Materials and Protection

Standard surface treatment: Paint specification. Corrosion Class C4 ISO12944

All frames are made from squared steel profiles.

Winders drums are made in steel.

All equipment is washed down, steel blasted and washed down again before it's painted.

Winders, Flat Rack and Turntable are painted with Selemix coating and Hempel Topcoat 250.

Container is painted with Jotun Penguard Express coating and Jotun Hardtop XP.

Find safety data sheets on paints, in the enclosed folder, Safety data sheet.

15 End of lifecycle.

Please contact DESMI Ro-Clean.

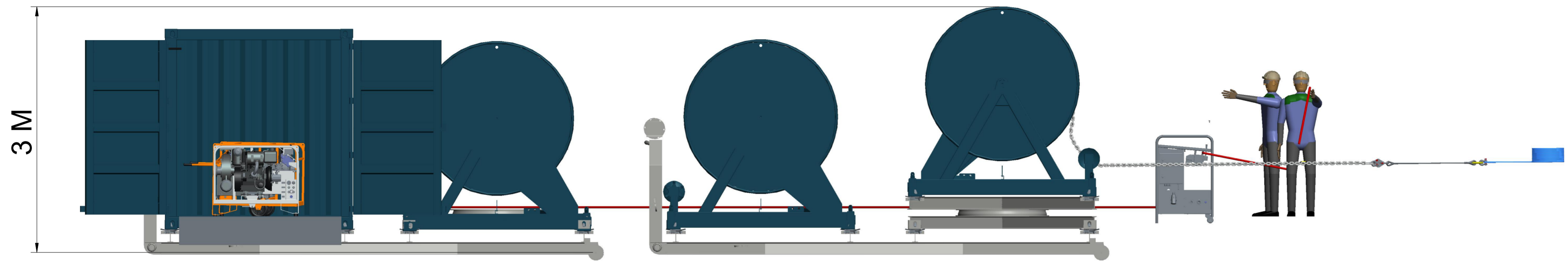
DESMI Ro-Clean will provide the solution for disposal of your equipment.

16 TROUBLE SHOOTING

Problem	Probable cause	Action
Power Pack not starting	Battery	Connect battery
	No Diesel	Check and refill
	Emergency stop	Check the Emergency stop cable is connected. Check the Emergency Stop is activated. Deactivate if activated.
No hydraulic pressure	Check hydraulic oil tank	Check and refill.
	Hydraulic hoses	Check hoses and replace if necessary Check hydraulic couplings are correct connected
No Air pressure/suction	Check Air Blower	Check air hoses are connected
		Check hoses and replace if necessary
		Check Hydraulic hoses are connected Check hydraulic couplings are correct connected

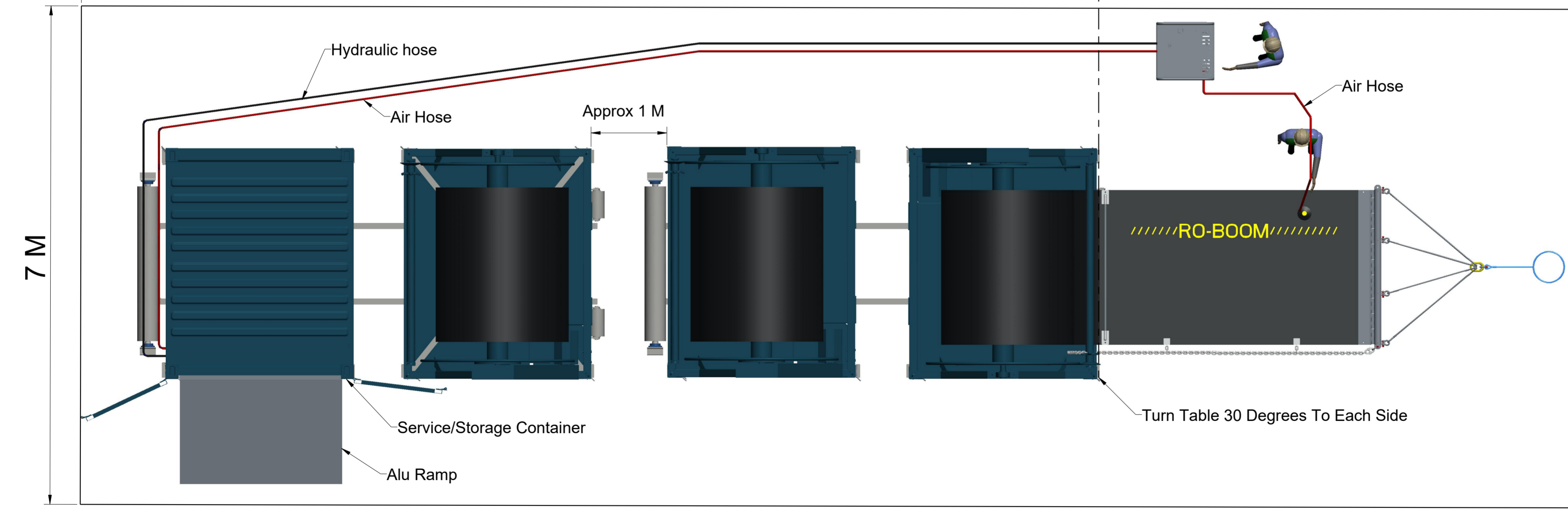
1 2 3 4 5 6 7 8 9 10 11 12

A B C D E F G H



20 M

15 M



All dimensions are in mm unless otherwise specified.		Drawn	MIPE		Scale	1:40
Remove burrs. Break sharp edges. Non-stated tolerances acc. to: EN 22768-mK (machined parts), EN ISO 13920-BF (welded parts), ISO 8062-CT10 (casted parts) max. mismatch 1 mm and acc. to quality instruction QI314.		Checked	PEKR	cont_space_arr_for_kustbevagt.drw		
		Process				
		Approved	PEKR	Revision	Description of Revision	
		Date	14/01/21			
		State		Drawing No. CONT_SPACE_ARR_FOR_KUSTBEVAGT		

Hist.Rev.	Description of Revision	Released date
1		
2		
3		