

# Manual

# CAPSTAN C3000

# Hydraulic Unit

Version 1.0

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*Sail Handling by*



Stainless Steel Winches

## CONGRATULATIONS

You have purchased an ANDERSEN high quality Capstan. This product is a result of many years of development and experience in producing winches for pleasure boats. This capstan gives you a high degree of functionality and many years of safe and easy mooring handling.

## TILLYKKE

De har købt et ANDERSEN Capstan af høj kvalitet. Dette produkt er et resultat af mange års udviklingsarbejde samt erfaring indenfor produktion af spil til lystbåde. Med denne Capstan får De funktionalisme på højt plan med henblik på at yde Dem en behagelig samt sikker sejlads.

## Sehr geehrter ANDERSEN kunde,

wir beglückwünschen Sie zu dem kauf einer ANDERSEN Capstan, ein Produkt höchster Qualität, daß ein Resultat jahrelanger Entwicklungsarbeit und Erfahrung in der Produktion von Winden für Segelboote ist. Die funktionalität dieser Capstan ermöglicht Ihnen viele Jahre lang eine handliche und sichere Segelführung.

## FÉLICITATIONS

Vous venez d'acheter un Capstan ANDERSEN de grande qualité. Ce produit est le résultat de longues années d'expérience et de développement dans la production des capstans pour voilier. Ce winch vous apportera de nombreuses années de fonctionnement sécurisant, pour une voile facile.

Annette Andersen Lau  
Managing Director

# GENERAL INFORMATION

*PLEASE READ THIS BEFORE INSTALLING YOUR ANDERSEN HYDRAULIC UNIT*

The hydraulic ANDERSEN unit has several built-in advantages:

- ⇒ Easy to fit on your boat.
- ⇒ Easy to dismantle. Winch and hydraulic unit can be dismantled separately.

## **Installation of the Capstan/unit**

Please follow "Mounting Instructions".

About "Mounting Instructions": Ensure that each hole in the deck is bedded, including the big hole.

Ensure that the sealing ring (o-ring) on top of the gear unit is placed in its groove.

When positioning the base of the winch on the deck make sure that the water will be led through the drain holes in the base.

**IMPORTANT:** Be careful not to put bedding compound in the thread holes in the deck plate.

## **Hydraulic Installation.**

Please follow "Mounting Instructions".

The hydraulic unit should be placed on a dry spot.

Be sure that connection to the Power Pack can be established, using either tubes or hoses.

Use minimum ½ inch, laminated hoses with 2 layers according to DIN 20022-2SN.

When connecting the hydraulic motor to the power pack use only the recommended size of fittings, please refer to the datasheet for the winch unit.

The fittings are to be bounded with Loctite® 577.

**IMPORTANT:** When working with the hydraulic installation be sure that the surroundings are 100 % clean and free from dust. Clean the surroundings before releasing the fittings, and seal all openings with caps.

**ATTENTION:** We recommend that an emergency-stop, which stops the power pack, is mounted nearby the operation place for the hydraulic winches.

## **Function of the hydraulic gear unit.**

### **Single Speed**

The hydraulic mode is controlled by one control button (not included).

## **General Service Instructions.**

The hydraulic drive unit is lubricated for life and sealed and need no further maintenance.

The part *on* deck is a standard capstan, and needs regular service. We recommend dismantling, cleaning and lubrication once every second year. Under extensive use, such as racing, charter or blue water sailing, we recommend to make a further lubrication check during the one year period.

We strongly recommend always using ANDERSEN WINCH GREASE when lubricating your winch. ANDERSEN WINCH GREASE is high quality silicon/Teflon® grease.

Check frequently the drain holes and make sure that they are not blocked by dirt.

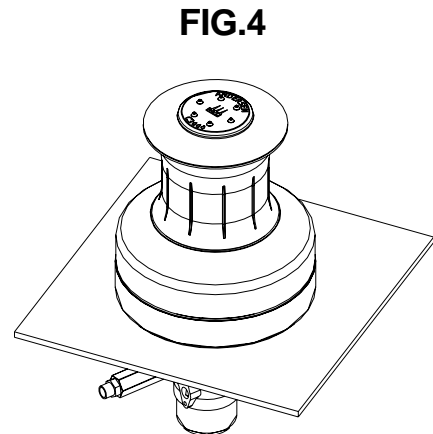
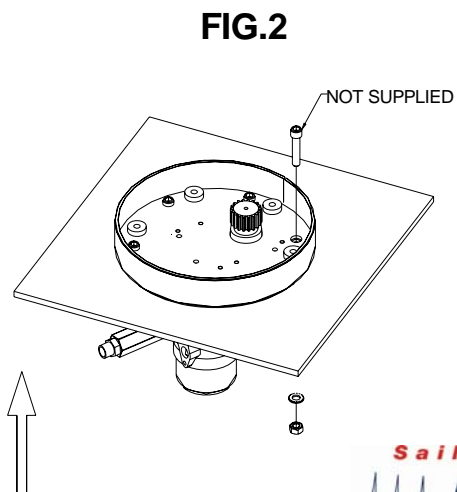
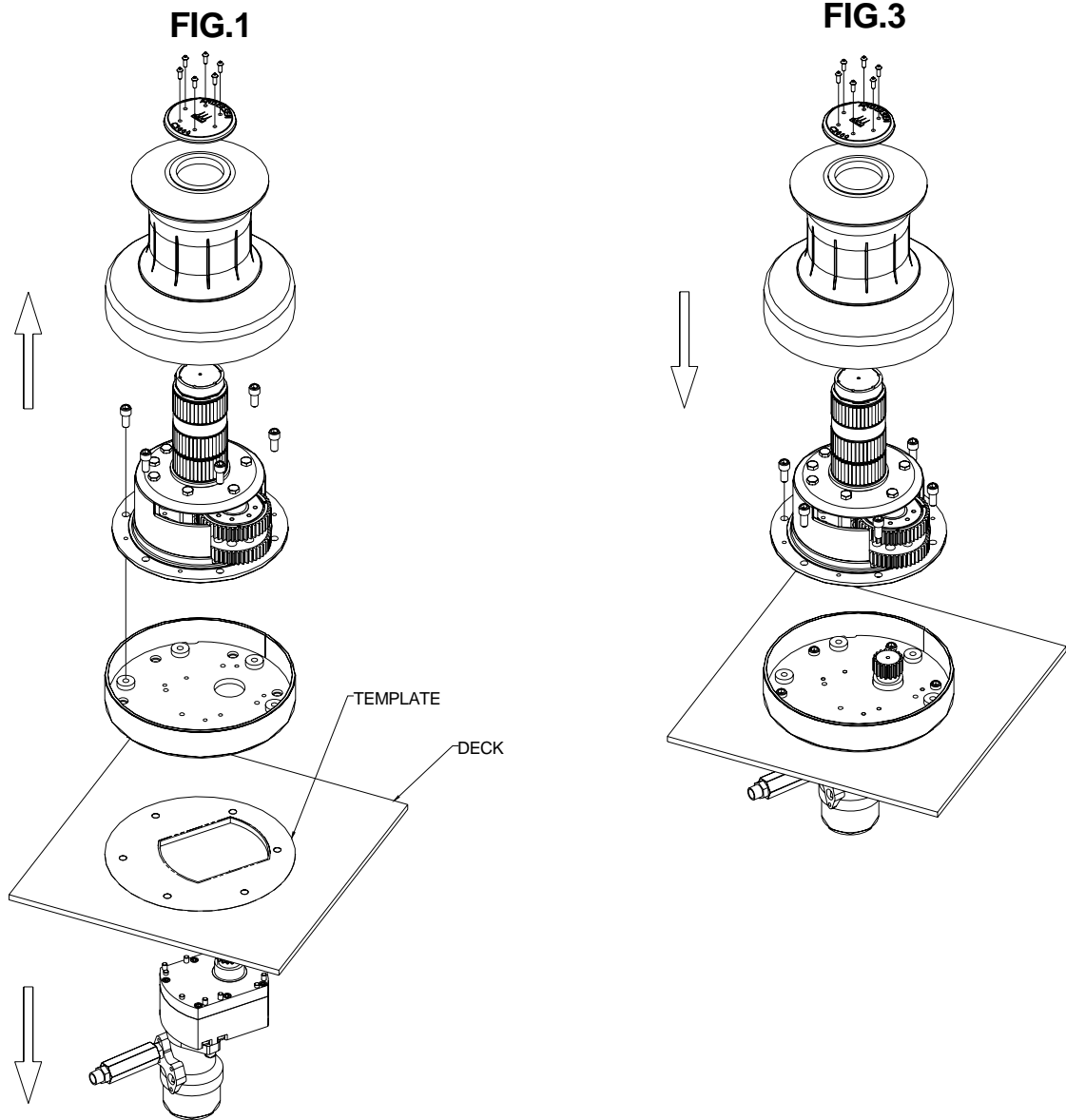
Check once a month the fittings at hoses for leaks and tighten up the fittings if necessary.

Check the mechanical connection between motor and gear unit once a month. Also check the hoses for leaks once a month.

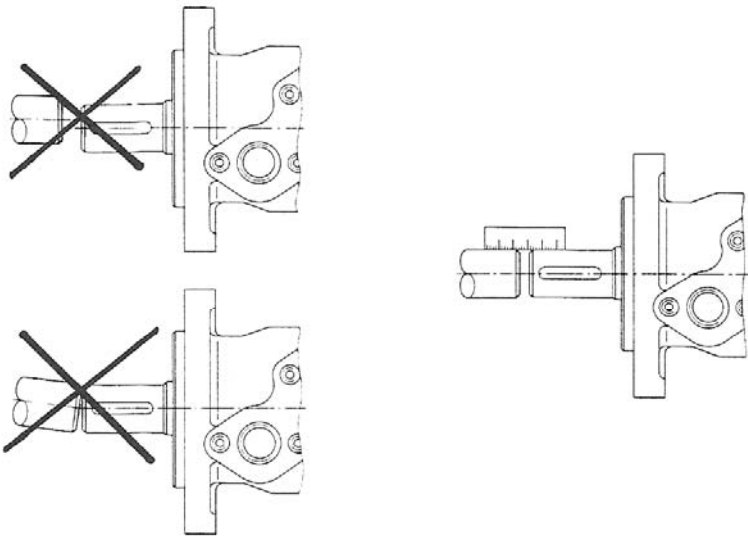
**IMPORTANT:** Damaged hoses must be replaced immediately.

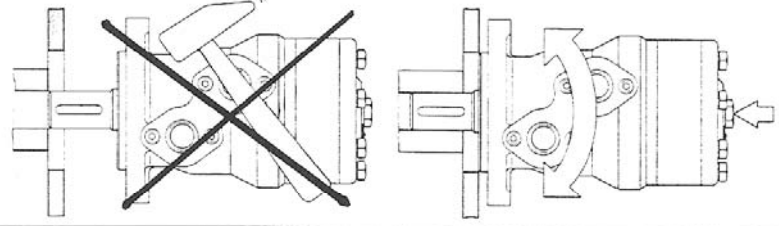
# MOUNTING INSTRUCTION

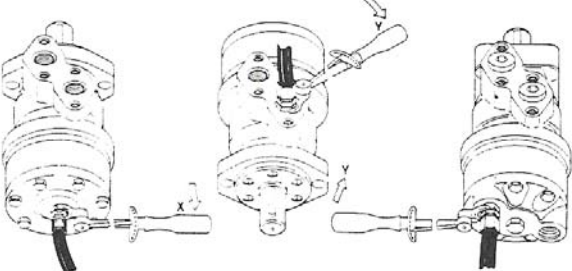
CAPSTAN C3000 Hydraulic Unit

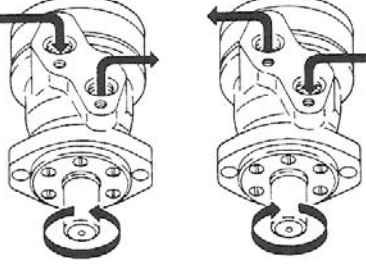


# HYDRAULIC MOTOR INSTRUCTIONS

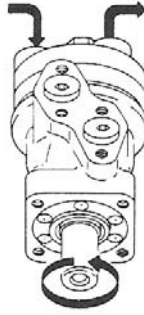
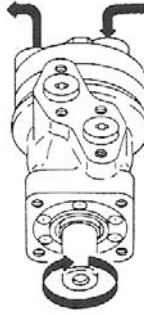






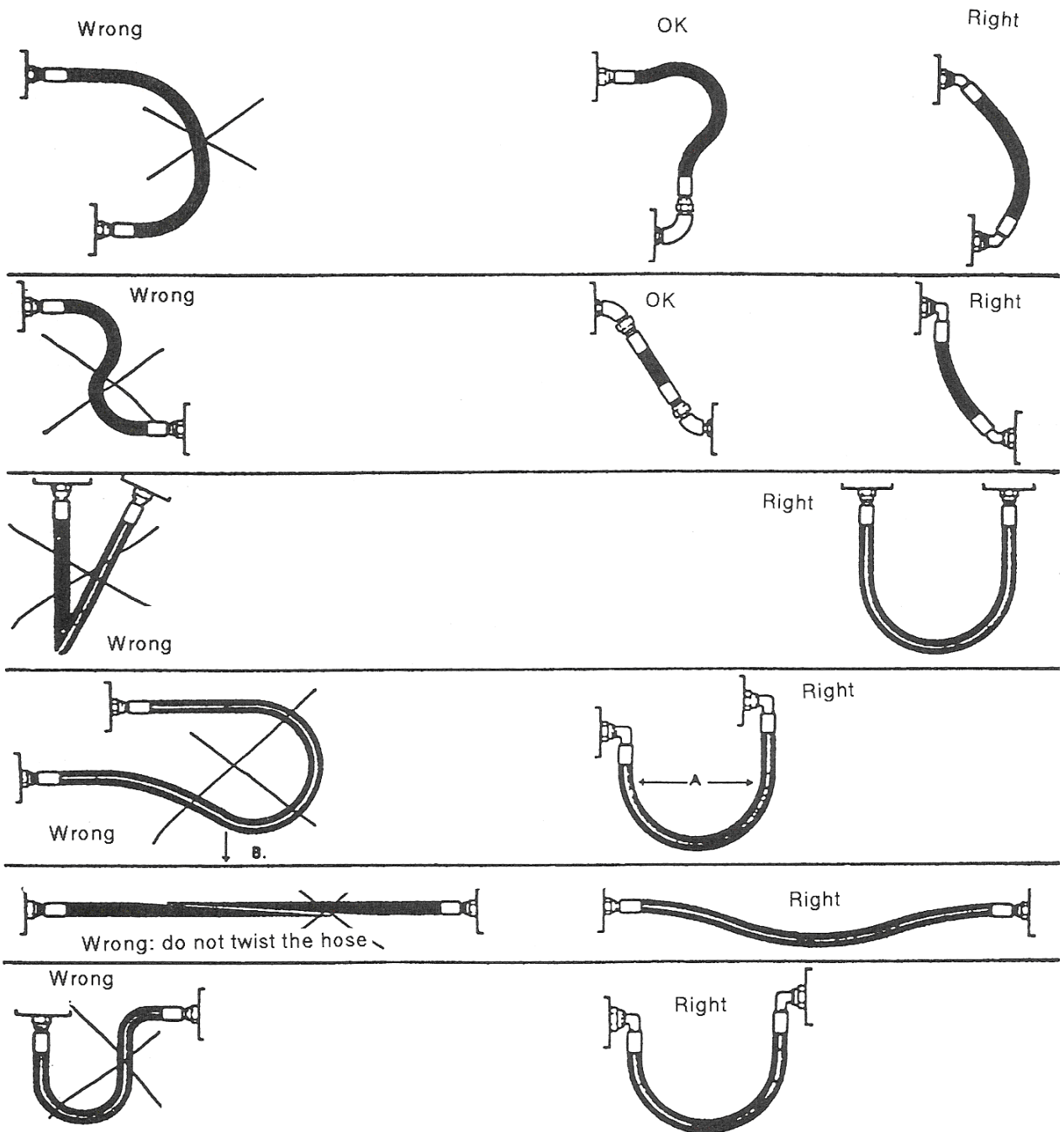


	Max. tilspændingsmoment Max. tightening torque Max. Anzugsmoment Couple de serrage maxi			
	X		Y	
Forskruing Screwed connection Verschraubung Raccord	1/4" RG 1/4" BSP.F R 1/2" G 1/2"	7/16"-20 UNF	1/2" RG 1/2" BSP.F R 3/4" G 3/4"	7/8"-14 UNF
med stålskive with steel washer mit Stahlscheibe avec rondelle en acier	4 daNm (350 lbf in)		13 daNm (1150 lbf in)	
med aluminiumsskive with aluminium washer mit Aluminiumscheibe avec rondelle en aluminium	3 daNm (270 lbf in)		7 daNm (620 lbf in)	
med skærekant with cutting edge mit Dichtkante tranchant	4 daNm (350 lbf in)		13 daNm (1150 lbf in)	
med o-ring with o-ring mit O-Ring avec joint torique		2 daNm (180 lbf in) (180 in-lbs)		9 daNm (795 lbf in) (795 in-lbs)

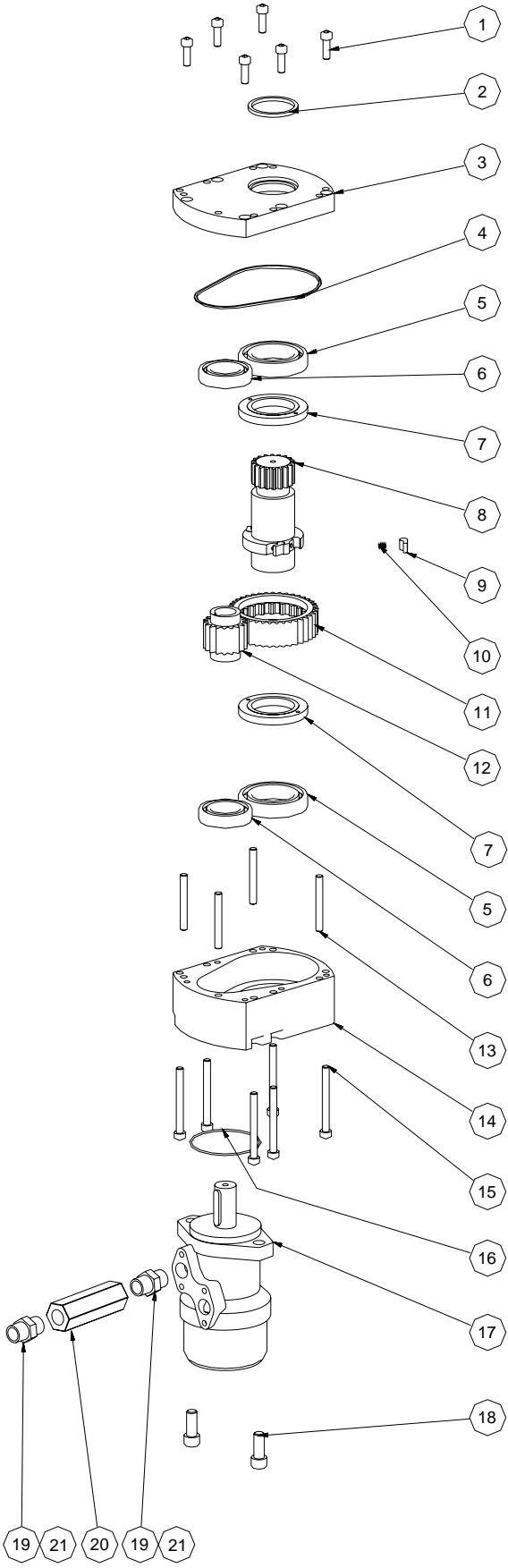
# HOSES

## MOUNTING INSTRUCTIONS



# EXPLODED VIEW

## CAPSTAN C3000 Hydraulic Unit





# PARTS LIST

## CAPSTAN C3000 Hydraulic Unit

POS.	QTY.	DESCRIPTION	ART. NO.
1	6	SCREW	DIN912-A4-M8x25
2	1	SEALING	RD100293
3	1	COVER FOR GEARBOX	744200
4	1	O-RING	RD100295
5	2	BEARING	RD100070
6	2	BEARING	RD100294
7	2	DISC	530500
8	1	GEARWHEEL	739810
9	4	PAWL	712400
10	4	SPRING	533500
11	1	RATCHET GEAR WHEEL	522800
12	1	GEAR WHEEL	522900
13	4	PIN	534910
14	1	GEARBOX HOUSING	744100
15	6	SCREW	DIN912-A4-M8x80
16	1	O-RING	RD100296
17	1	HYDRAULIC MOTOR	RD100156
18	2	SCREW	DIN912-A4-M12x30
19	2	NIPPLE	RD100291
20	1	NON-RETURN VALVE	RD100290
21	1	BONDED SEAL	RD100292
	1	MANUAL	710480

## Data for CAPSTAN C3000 Hydraulic Unit

Capstan type	C3000
Hydraulic unit type	1 Speed hydraulic
Hydraulic motor type:	M+S: EPRM 160 CD
Max pressure:	140 [bar]
Max oil flow:	60 [l/min] continues, 75 [l/min] intermittent
Flow pr. meter rope:	2,9 [l/m]
Min. size of fittings between motor and pump:	½"
Type of gear oil for hydraulic unit:	75W/90
Volume of gear oil:	0,1 [l]

NOTE: If you remove the motor from the gear, the gear oil will leak slowly from the gearbox!



# LIMITED WARRANTY

- 1.1 ANDERSEN issue a three-year warranty on all their products covering manufacturing and material defects on condition that the products are used in normal fashion. The warranty shall apply for three years from the moment ANDERSEN sell the product concerned (to the first buyer).
- 1.2 Within the period of the warranty, and in accordance with the terms of the warranty ANDERSEN undertake to replace or repair all defective components which have been used in normal fashion.
- 1.3 However, the warranty is subject to the limitations and exceptions outlined below.

## 2. CONDITIONS AND LIMITATIONS

- 2.1 ANDERSEN's liability shall be limited to repair or replacement of components which are defective owing to manufacturing or material defects.
- 2.2 ANDERSEN assume no other liability than this, not even liability for indirect losses caused by the defect concerned, including operating losses, loss of profits, or damage caused to real property or moveable property occurring while the product concerned is the possession of the Buyer.
- 2.3 The Buyer alone shall bear the responsibility and risk involved as to whether the products are suitable for the application intended. ANDERSEN assume no liability in this connection.
- 2.4 ANDERSEN assume no liability for defects which occur due to use of their products for purposes for which they are not intended, or for defects which occur owing to incorrect installation, corrosion, ultraviolet degradation, lack of maintenance, or any alteration or repair of the product carried out incorrectly by the Buyer. Finally, ANDERSEN assume no liability for normal wear and tear, or for depreciation of value
- 2.5 Nor do ANDERSEN assume any liability for service carried out by anyone other than authorised representatives of ANDERSEN, unless such service is carried out pursuant to guidelines laid down by ANDERSEN and in accordance with good craftsmanship.
- 2.6 The Buyer shall inform ANDERSEN in writing of any defects with no undue delay once defects have been registered. Products being dealt with under the warranty shall be returned to ANDERSEN for repair unless any other agreement has been reached in writing
- 2.7 ANDERSEN shall not cover costs incurred by the Buyer in connection with the transport or wages involved in a warranty case. Such costs shall be met by the Buyer in full.

## 3. EXCEPTIONS

- 3.1 The warranty is only valid for one year in respect of components bought for the products concerned, such as electric motors, electric equipment, hydraulic pumps, motors and valves
- 3.2 ANDERSEN assume no liability for consequential damage of ships, equipment, property or people by defects in ANDERSEN's products.
- 3.3 The company's products are subject to continuous development, and consequently ANDERSEN reserve the right to change designs and specifications without prior notice.

# WORLDWIDE DISTRIBUTION

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