

THANNER A/S QA System	Service instruction	QA.Dok.No 2004
	Thanner Hydrostatic Release Unit	Issue. No:13
	DK 84 RN2	23. 11. 2020

Manufacturer: THANNER A/S,

e-mail: admin@thanner.dk

This manual 2004 issue13 is for the US NAVY or other NATO Navies, only!

Release depth: 6 mtrs. +-10%

As manufacturer of HRU DK-84 RN2 we recommend strongly to dispose and replace the old membrane with serial No. 180236 and upwards with revised design 2020 part No. 10-102 6 mtr.

Revised design from serial No: 180494



HRU-84.1M/ DK 84 RN2 welded until serial No. 180235 MUST be covered by HTS-1400 grease at all time

HRU-84.1M/DK RN2 welded and secured with stainless steel rivet from serial No 180236 not to be greased.

Inspection and service of the DK- 84 RN 2 Hydrostatic Release Unit on board

Recommendation:

Every 6 months:

The HRU is inspected for paint, dirt and foreign particles which can disturb the function of the HRU Important is the 3 water entrance holes for the membrane must remain open.

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The welded spot (No. 19 see page 5 of 5) must be covered with HTS 1400 all time. It is very important the welded spot is protected. If not, saltwater will attack the welding and over time the spring leaf will become loose and drop off.

The missing spring leaf cannot be replaced.

The HRU must be replaced and the old returned to the manufacturer for repair.

Recommendation:

Every 12 months:

The HRU DK 84 RN 2 must undergo a release test

Remove the safety split (8) and push down the release button by hand, open the release pawl by hand on top of the HRU.

When the HRU is released, inspect by shaking the HRU the moveable parts as release pawl and reset pawl are loose and moveable.

Reset the HRU by pushing the release pawl back into the position with the reset pawl as the release mechanism is back in stand by position, then turn the index bolt(17)back to position "I" with a allen key size 8. A clear "click" will indicate the release pawl and resetting pawl are in locked position and the HRU is locked and rearmed. Insert the safety split.

IMPORTANT:

When rearmed the index bolt must be in initial "I"

If any malfunction occurs – the HRU must be replaced and send for service.

Recommendation:

Inspection and Service on the authorized service station.

The HRU DK 84 RN 2 shall if possible be serviced and overhauled at intervals **not exceeding 24 months from last installation on board**. The service shall take place at a US approved service station. The procedure is as followed:

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VISUAL INSPECTION:

When the HRU comes in for inspection it must undergo a visual inspection.

Remaining paint, dirt or foreign particles must be removed by cleaning the HRU. Before cleaning the HRU make sure the 3 water inlet holes are clean and open. Now the HRU is cleaned under tap running cold water or a bucket of fresh water.

After cleaning, the HRU is dried carefully with air. After the visual inspection and cleaning the release procedure takes place.

Release test

- a) The HRU is tested for its performance and correct opening pressure in a test tank part no: 10-160.
- b) As manufacturer of the DK 84 RN 2 we require DK 84 RN 2 tested in plain water.
- c) When the test instruction QA 2107 is carefully read and understood the following action shall be taken: The release pressure of the HRU in the test tank is 6 meters +- 10% water gauge or max. 0.6 +- 10% bar.
- d) If the HRU does not release by the prescribed pressure it has to be removed from the test tank and manually released as follows:
- e) Remove the safety split (8) and push down the release button and open the HRU by pulling the release pawl up on the top at the HRU.
- f) Inspect, clean the release and reset pawls and lubricate the reset and release pawls with **HTS-1400 grease (19) (see picture page 5) Reset the HRU by pushing the release and reset pawl in locked position and turn the index bolt (17) back to "I" by means of an allen key size 8. A clear "click" will indicate the pawls are in locked position and the HRU is rearmed. When the index bolt is back in "I" please refit the safety split (8) Place the HRU in the test tank and repeat the testing.**
- g) If the HRU fails again, the HRU is removed from the test tank and the membrane assembly (9) must be disposed and replaced with a new membrane set up revised design 2020 10-102 6 mtrs.
- h) Revised Design 2020 membrane setup 10-102 6 mtr. MUST be disposed and replaced by a new revised set up 10-102 4 mtr. every 5 years

Part No.: 10-102 DK84 RN 2

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NOTICE:

Before starting to remove the screws the DK 84.1 must be secured in a vice bench. The spring force is heavy and uncontrolled disassembling can cause injuries.

- a) Remove the 10 screws (10) from the diaphragm housing; remove the spring (16) and the membrane assembly (9). Inspect the membrane assembly. If necessary replace it.
- b) The existing or replaced membrane assembly (9) is to be placed with the index bolt in position "I", to ensure the correct compression in the membrane housing (15)
- a) Insert the spring (16) and the membrane housing (15) is placed. The membrane housing (15) must be kept to the device with clamping tooling.
- b) Place the screws to the membrane housing (15) and tighten the screw diagonally.
- c) Torque: 5 Nm.

IMPORTANT:

The membrane set up can not be separated and must be replaced after 5 years in service.

- d) Re-test the HRU in the test tank see QA 2107
- e) When the test is successful, the log card (ref. no. 10-055) shall be recorded with the date of testing, serial No. and US Service station

NOTICE:

The remaining part of the DK 84 RN 2 cannot be taken apart. This part contains the release mechanism and if fail function appears, the part must be cleaned and dried.

The section shall be greased with RG-1100 regular Grade (20) (see pictures page 5) on the release curve and the release arm. If the part still does not work satisfactory, the part must be disposed and replaced by an inspected and approved DK 84 RN2 from stock or from the manufacturer.

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CLEANING OF THANNER HRU DK 84 RN 2:

When the DK 84 RN 2 comes back from the ship the surface can be slightly tarnished. The rusty color is not from the stainless steel itself, but from the processing tools which have been used in the production of the parts for the HRU.

If the HRU has to be cleaned for the tarnished surface, we recommend a brass brush.

The brass brush is more flexible and gives easier access to the nooks and corners of the HRU.

DO NOT USE A STEEL BRUSH!

If the brass brush cannot remove the rusty surface – a recommended detergent can remove the rusty color. The steel parts excl. the membrane unit is submerged into the detergent for app. 40 minutes depending of the tarnish of surface of the HRU.

When brushed and cleaned, the stainless steel parts are cleaned with cold tap water and dried.

After cleaning and dried the HRU is assembled as described in the assembling of the HRU.

INFORMATION:

The brass brush and the detergent (Janitol Fective) is available from the manufacturer or from the dealer www.debgroup.com.

Important:

When more than 5 years since last service, the membrane MUST be replaced with revised design 2020, part No. 10-102 DK 84 RN 2.

NOTICE:

From Serial number 180236 the HRU's DK84 RN2 are assembled with rivet on the spring leaf and shall not necessarily be greased.

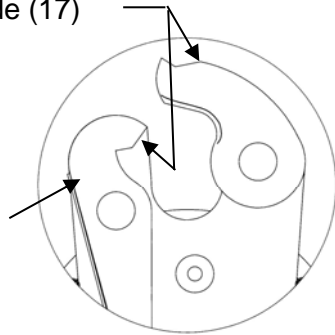
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IMPORTANT:

The welding spot on the tension spring arrangement must be visual inspected, carefully cleaned and protected with HTS-1400 grease (16) to avoid corrosion and failure.

Detergent recommended by the manufacturer is commercial available as follows:

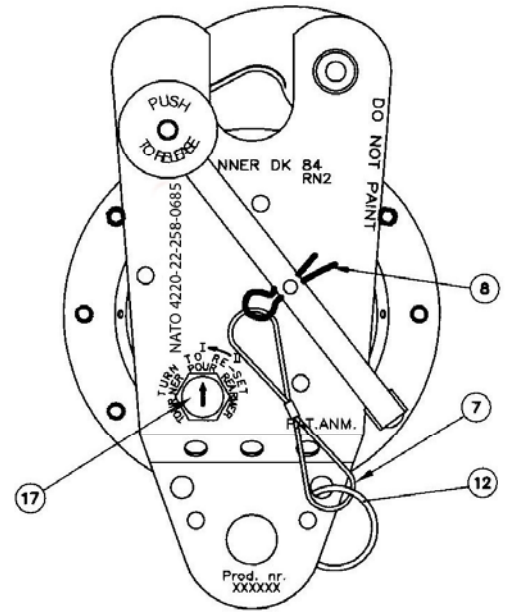
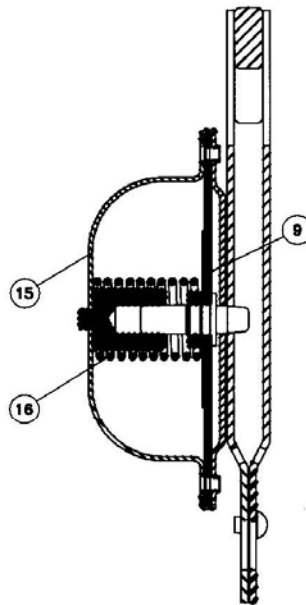
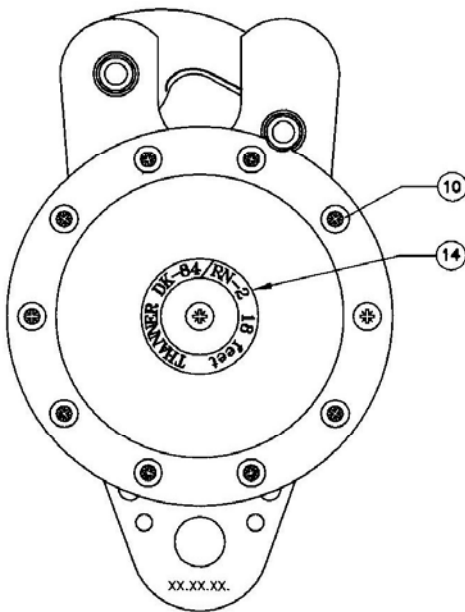
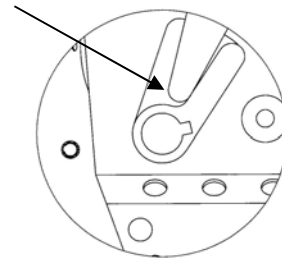
RG-1100 regular grade (17)



HTS-1400 grease (16)

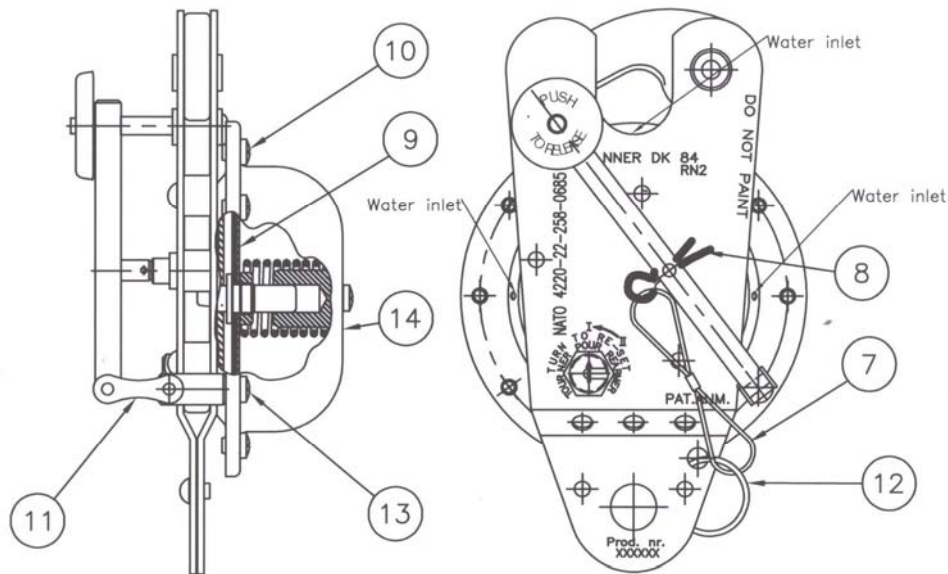
Until serial No 180236

RG-1100 regular grade (17)



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Spare parts list Dwg. No. 13-400



Pos no.	Mgd.	Description	Dwg. No.	
7	1	Attachement wire	13-033	
8	1	2 mm Safety pin		
9	1	Diaphragm Assembly	10-102	From serial no. 166089
10	9	Screw M5x8 DIN 7985	10-024.1	
11	1	Chain link (462-7)		
12	1	Attachment ring	10-029.2	
13	1	Screw M5x16 DIN 7985		
14	1	Label	13-032	
15	1	Log card	10-055	
16		HTS-1400 Grease (Kema)		
17		RG-1100 Regular Grade (Kema)		