

# PRODUCT MANUAL

68ST FS (V.3.0.F) 72ST FS (V.2.0.F)

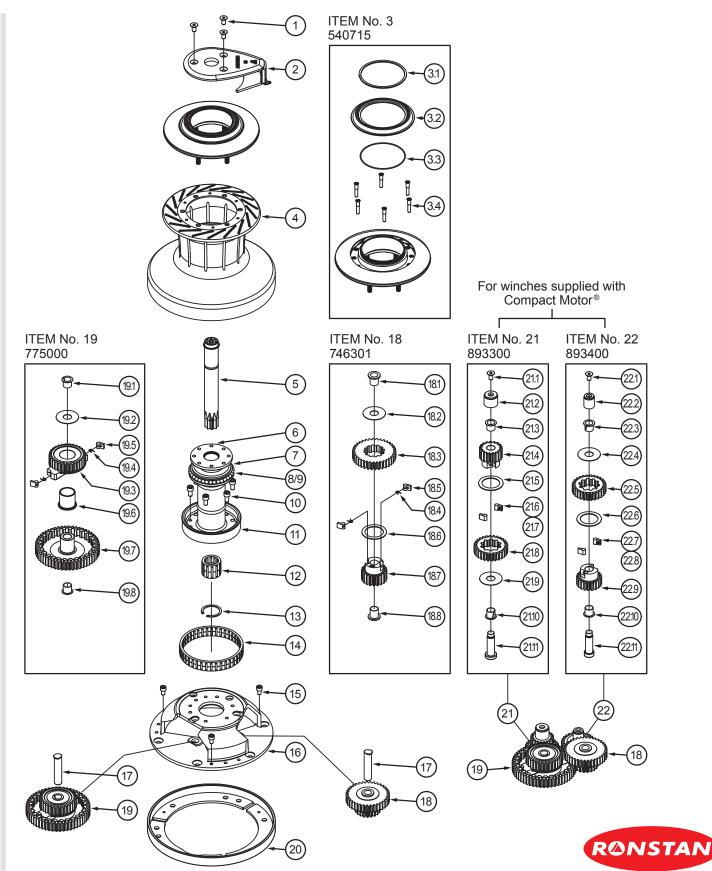






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### I EXPLODED VIEW



## PARTS LIST 68ST FS (V.3.0.F) | 72ST FS (V.2.0.F)

ITEM NO.	QTY.	DESCRIPTION	PART NO.
<u> </u>	<u>3</u>	Screw Self-tailing arm - Model 68ST	543312 746001
2	1	Self-tailing arm - Model 72ST	748801
3	1	Self-tailing top complete - Model ST FS	540715
<u>3.1</u> 3.2	1	Circlip	590100U
<u> </u>	<u>_</u>	Top ring O-RING	521310 RD100433
3.4	6	Screw	585130
4	1	Drum complete	746203
<u>5</u>	1	Drive shaft complete Bushing (not removeable)	529920 716501
7	1	Retaining ring (not removeable)	589700
8	14	Ball, stainless steel	526301
9 10	15 6	Ball, Pom	526302 DIN912-A4-M8x16
11	1	Screw Upper base	745601
12	1	Roller bearing cpl.	724100
13	1	Circlip	724300
14 15	<u>]</u> 7	Roller bearing cpl Screw	588001 DIN912-A4-M6x12
<u> </u>	<u> </u>	Lower base	750101
17	2	Shaft	529801
18	1	Small ratchet gear complete - Model 68ST	746301
<u>18</u> 18.1	2	Small ratchet gear complete - Model 72ST Bushing	746351 529500
18.2	1	Washer	529600
18.3	1	Ratchet gear wheel - Model 68ST	529100
18.3	1	Ratchet gear wheel - Model 72ST	537100
18.4 18.5	2	Arm spring Pawl	713300 713200
<u> 18.6</u>	1	Washer	588100
18.7	1	Gear wheel - Model 68ST	529300
18.7	1	Gear wheel - Model 72ST	537000
<u> 18.8</u> 19	<u> </u>	Bushing Pawl gear complete	RD100657 775000
19.1	1	Bushing	893200
19.2	1	Washer	529600
19.3	<u>1</u> 2	Gear wheel	774900
<u>19.4</u> 19.5	2	Arm spring Pawl	713300 713200
19.6	1	Bushing	786500
19.7	1	Large ratchet gear wheel	774801
19.8 20	1	Bushing Base cover - Model ST FS	RD100657 745820
20	1	Base cover - Model ST FS (Electric models)	745822
21	1	Ratchet gear slow - Compact gear only	893300
<u>21.1</u> 21.2	1	Screw Short part	DIN7991-A4-M8x16 892400
21.3	<u>_</u>	Shaft part Bushing	RD100657
21.4	1	Gear wheel slow	890500
21.5	1	Washer	890300
21.6 21.7	2	Pawl Spring	533400 533500
21.8	1	Ratchet gear wheel	890100
21.9	1	Washer	529600 893200
21.10 21.11	1	Bushing Shaft	893200 891000
22	<u>_</u>	Ratchet gear fast - Compact gear only	893400 893400
22.1	1	Screw	DIN7991-A4-M8x16
22.2	1	Shaft part Shaft part	892500
22.3 22.4	1 1	Bushing Washer	893200 529600
22.5	1	Ratchet gear	890100
22.5 22.6	1	Washer	890300
22.7	2	Pawl	533400
22.8 22.9	2	Spring Gear wheel fast	533500 890600
22.10	1	Bushing	RD100657
22.11	1	Shaft	890900
	1	Product manual	710268
	1	Service kit (not included)	710013

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### MOUNTING INSTRUCTIONS

Installing the winch is easy, if you follow these instructions. The numbers in () refer to the position numbers in the parts list.

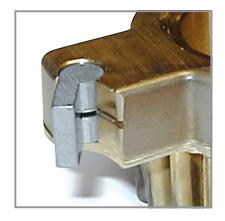
#### Tools required for the installation:

- Allen key (5 mm)
- Ø10.5 mm (13/32") drill
- 6 x M10 (3/8") countersunk head screws and corresponding nuts (length depending on deck thickness)
- Bedding compound
   6 x large washers or backing plate
- 1. Remove screws (1).
- 2. Remove self-tailing arm (2) and drum (4).
- 3. Mark location of bolt holes using the lower base (15) as a template.
- 4. Remove complete winch. Be sure that no dust comes into contact with the winch while drilling.
- 5. Drill bolt holes Ø10,5mm (13/32").
- 6. Apply a light coat of bedding compound, ensuring that each bolt hole is bedded. Keep drain grooves clear.
- 7. Fasten lower base (15) into place using 6 pcs. M10 (3/8") countersunk head screws. Use large washers or a backing plate.
- 8. Assemble in reverse order.
- 9. Check that the winch is functioning correctly:
  - The drum should operate smoothly, when turning the drum clockwise by hand.
  - The drum must not turn when trying to turn the drum anti clockwise by hand.
  - While turning the winch handle clockwise the drum should turn slowly.
  - While turning the winch handle anti clockwise the drum should turn quickly.

### PAWL SPRING MOUNTING



Note the curved spring "arm"





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### SERVICE INSTRUCTIONS

#### Tools required for service:

- Allen key (5 mm)
- Allen key (6 mm)
- Screwdriver (small)
- Winch handle
- ANDERSEN winch grease
- 1. Remove screws (1).
- 2. Remove self-tailing arm (2) and drum (4).
- 3. Remove drive shaft (5).
- 4. Clean the balls (8, 9) with a rag.

  DO NOT remove the balls and the small retaining ring (7) above the balls.
- 5. Remove screws (10).
- 6. Remove upper base (11).
- 7. Remove roller bearing (14).
- 8. Remove shafts (16).
- 9. Remove and dismantle the two gear units (17), (18).
- 10. Clean all parts in white spirits/mineral spirits. Remember to clean the gear teeth and ball track inside the drum (4).
- 11. Assemble in reverse order. During assemble, by the use of a small soft brush lightly grease all gear teeth, drive shaft, roller bearing, shafts, pawls, springs and bushings. Pawls should only be lubricated with a very thin film of ANDERSEN WINCH GREASE. It is very important that pawls can move freely.

**IMPORTANT:** When assembling the winch, check the functioning of each pawl by pushing the pawl against the spring. The pawls should move smoothly and automatically return to their normal position, where the pawls engage with the teeth. If the pawls do not function correctly, clean and lubricate the pawls and gears. Check the function of the pawls again to make sure that it works correctly. If the pawls do not work correctly replace the springs and recheck the functioning.

Malfunctioning pawls may lead to unexpected release of the winch force resulting in fatal injuries to the user and others.

Service Kit No: 13 (part. no. 710013) contains spare parts for this winch.

#### Maintenance instructions for PVD coated stainless steel surfaces.

PVD-coated surfaces should be rinsed regularly in fresh water to remove any salt residue, dirt or other contaminants and dried gently with a soft cloth. To remove grease or other marks, a mild abrasive free cleaning agent such as spray-on glass cleaning solution may be used. No caustic detergents or other aggressive or abrasive cleaning agents should ever be used, as they may damage the surface.

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### GENERAL INFORMATION

Due to the best choice of materials and high precision in manufacturing, we recommend, for normal use, only to dismantle, clean and lubricate the winch once every second year. Under extensive use, such as racing, charter or blue water sailing, we recommend to lubricate the winch once every year.

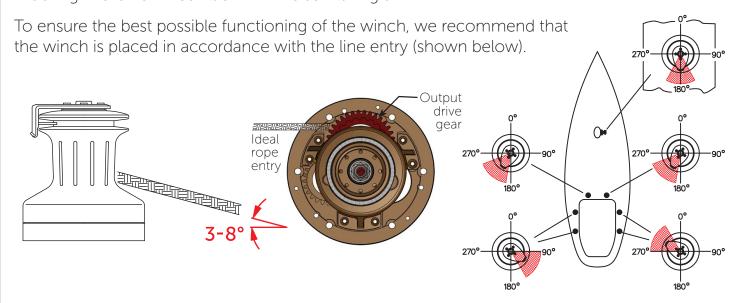
We strongly recommend always to use ANDERSEN WINCH GREASE, when lubricating your winch. ANDERSEN WINCH GREASE is a high quality silicone/Teflon grease product.

Most other types of grease, including "marine grease" are not suitable for lubrication of winches. Non-suitable grease products can cause malfunction, which could result in fatal injuries for the user and others.

Pawl arm springs should be replaced every second year. Spare arm springs and other parts that may be required are included in the ANDERSEN Service Kit. Please refer to the service instruction for the Service Kit suitable for the specific winch.

When the winch handle is not in use but the winch is under load, we recommend, from a safety point of view, to remove the winch handle from the winch.

To ensure correct function of the self-tailing unit, only use recommended line sizes. When using the winch with mooring lines DO NOT use the self-tailing function and be sure that the mooring line is not in contact with the self-tailing arm.



Be also aware that the self-tailing arm is positioned correctly. We recommend to have the self-tailing arm positioned within the shaded area (shown above). On this model the self-tailing arm can be placed in several different positions after having installed the winch.

To identify the Output Drive Gear, insert a winch handle into the winch and rotate in both directions, the drive gear will only rotate clockwise in a fast and slow speed.



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### I SAFETY NOTICES

### **ALL WINCHES**



### Read All Safety Notices and Product Manuals

Do not install or operate this winch before reading and fully understanding the contents of this Product Manual.



#### Stay Alert When Operating

Andersen winches are very powerful and have the potential to cause significant damage and/or serious injury if used improperly or without due caution and vigilance.



#### **Operators Must be Trained**

Help prevent significant damage and/or serious injury by ensuring any person operating a winch has a thorough understanding of its proper operation and is aware of the potential hazards involved. As a minimum, all winch operators must read and understand this Safety Notice Sheet and the Product Manual.

Particular attention is drawn to the following points:

- Children and others not qualified to operate an electric winch must be kept at a safe distance from the winch and any rigging or fittings that are under load.
- Long hair and/or loose clothing must be tied back to avoid being caught in the winch.
- In the event of a rope override or other fault, stop the winch and turn off power before attempting to resolve the problem.



### **Avoid Accidental Operation**

Remove winch handles and turn off power to the winch when not in use to help avoid unsupervised or unintentional operation. Failure to do so could result in significant damage and/or serious injury.



#### Maintenance

Turn off power to the winch before performing any maintenance or service tasks. Failure to do so could result in significant damage and/or serious injury.



### **Lifting Operations**

The winch must not be operated with the rope in the self tailer when used in any kind of lifting operation.

Any lifting operations should be conducted by two persons in order to maintain constant visual contact with the object being lifted.

Furthermore the self tailer must not be used as a cleat for a rope used to lift or suspend any object. The rope must be secured properly by tying off, or leading to a suitable fitting such as a cleat or bollard.

Failure to observe these precautions could result in serious injury or death.

### I DO NOT DISCARD





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### I WORLDWIDE DISTRIBUTION & SERVICE

Visit www.andersenwinches.com

### WARRANTY

I Visit www.ronstan.com/warranty

#### Manufactured by Ronstan Denmark ApS.

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