



WINCHES

FITTING & ADJUSTING

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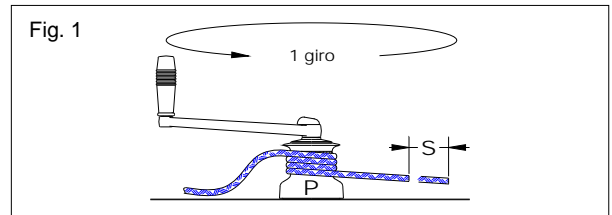
POWER

Winches are usually marked with their power ratio (1:P). This is the ratio between the force on the winch handle and the resulting force on the line. Unfortunately this value doesn't take in the factor of friction.

RECOVERY SPEED (Fig. 1)

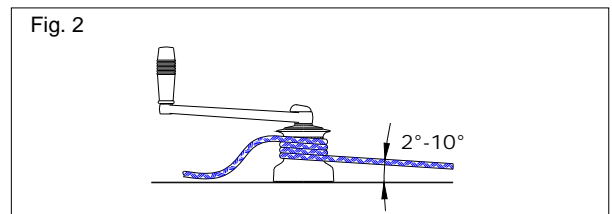
The recovery speed (S) is the length of the line recovered with one 360-degree turn of the winch handle.

On 2-speed winches, there are 2 power values, and consequently 2 recovery speeds.



WINCH POSITION (Fig. 2)

The drum lead angle is the line angle measurement in degrees from the horizontal. The correct angle is between 2 and 10 degrees to obtain correct winding of the line around the winch drum.



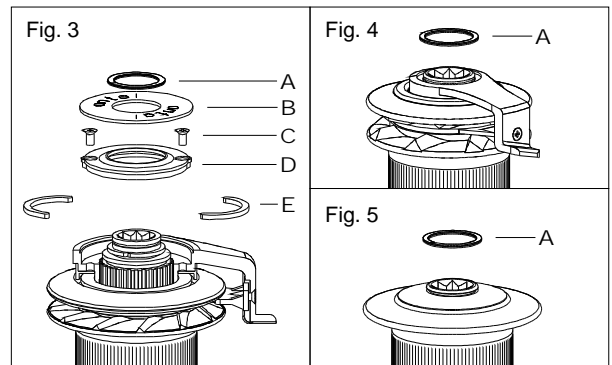
INSTALLATION

1. DISMANTLING

To access the fixing holes on the base of the winch, it is necessary to take off the drum.

SELF-TAILING MODELS W40-44-48-52-60-65-70 (Fig. 3)

Take off the circlip (A), (Note which way up it is removed) and the stainless steel cap (B), then unscrew the two screws (C) and take off the plastic cap (D). Pull out the 2 large bronze half-rings (E), and take off the drum with the ST disks and ST drum.



SELF-TAILING MODELS W16 & W30 (Fig. 4)

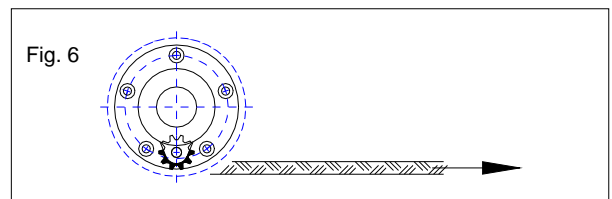
Take off the circlip (A) to remove the drum and ST arm.

NON SELF-TAILING MODELS (Fig. 5)

Take off the circlip (A) to remove the drum.

2. BASE INSTALLATION

On two speed models the output gear has to be positioned to the load pull direction as shown on fig. 6, then mark the position of the holes on the deck, take off the winch-base and drill the holes.



3. BASE FASTENING

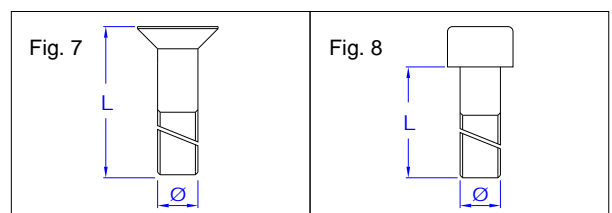
Put sealant on the screw holes between the deck and the winch-base to avoid the water ingress.

Sealant should not obstruct the drain holes on the bottom of the winch base.

Winch tightening bolts, use countersunk head screws (Fig. 7).

Only for mod. W70 use socket cap screws (Fig. 8).

The size and the number of bolt is written in the table.

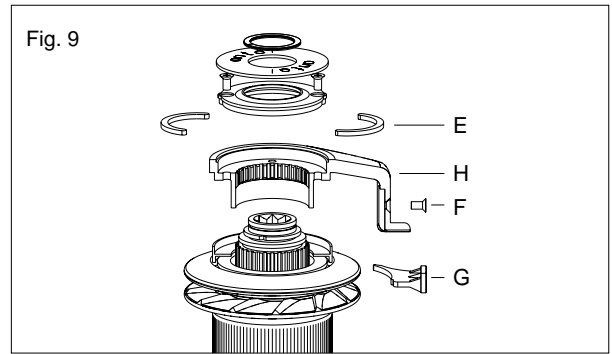


4. REFIT THE DRUM

Reverse the "Dismantling" process.

5. ALIGNING THE SELF-TAILING ARM (Fig. 9)

After removing the 2 bronze half rings (E), unscrew the screw (F) from the stripper (G) and take off the ST arm, which can be repositioned in many different positions to obtain the proper line exit



SPRING-LOADED SELF-TAILING

The new self-tailing winches with spring-loaded disks adapt automatically to even the thinnest lines. This system is used on all Antal winches.

For each winch model, it is necessary to spec line sizes from the table.

IN USE

It is recommended that the line being used should have at least three turns around the drum, otherwise excessive load on the self-tailing plates could cause the line to slip.

On the self-tailing models place at least 3 turns of rope on to the drum then to the ST arm and between the spring loaded ST disks.

To operate the winch put the handle into the main shaft and turn clockwise or counterclockwise according to the different models.

W6 - W7 - W8 - W9

Clockwise: 1 speed - Counterclockwise: neutral

W16 - W30 - W42 - W47

Clockwise: high speed - Counterclockwise: low speed

W44 - W48 - W52 - W60

Clockwise: low speed - Counterclockwise: high speed

SELF TAILING : W16 - W30

Clockwise: neutral - Counterclockwise: 1 speed

SELF TAILING : W16.2 - W30.2

Clockwise: high speed - Counterclockwise: low speed

SELF TAILING : W40 - W44 - W48 - W52 - W60 - W65 - W70

Clockwise: low speed - Counterclockwise: high speed

MAINTENANCE

OLD GREASE REMOVING

After taking the winch apart, remove of the old grease using a solvent like diesel fuel. Use of a brush and dry cloth is recommended.

LUBRICATION (Fig. 10)

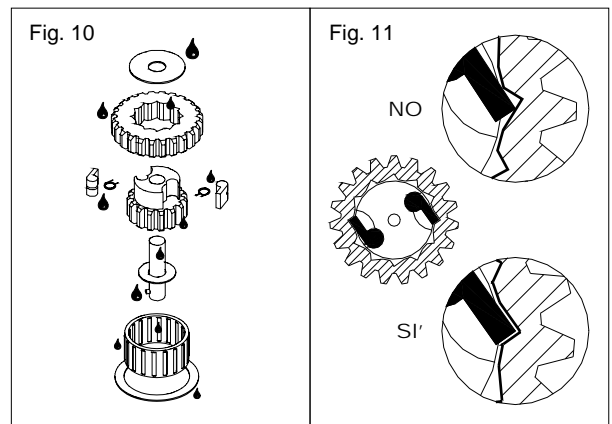
When greasing a winch, apply using a brush on all moving parts including pawls, gears, spindles, shaft bearing washers, etc.

Regular cleaning of the winch will improve it's performance and longevity.

For winch and gear lubrication, use Type 400 (green) with Teflon.

PAWLS - GEAR MOUNTING (Fig. 11)

When reassembling the gears, check the correct coupling with the pawls.



PROTECTION

Grease will protect aluminum from corrosion (where contact with dissimilar metals occurs). It is useful to use some grease especially on stainless steel screws, threads, and stainless washers.

Vaseline oil can be used to protect the drum. Put the oil on the drum, outside and inside. Wait 24 to 48 hours, then clean and dry with a soft cloth.

FREQUENCY

Under normal use, it will be sufficient to break down the winches twice a year, once in the beginning and once at the end of the season.

MODEL	POWER		S. (mm)		LINE Ø mm	WEIGHT (kg)		D mm	d mm	H mm	SCREWS DRILLING			
	1°	2°	1°	2°		AL	BR				N°	Ø mm	a	Ø

STANDARD - ONE SPEED (1 DIR.)

W6	6,7		188			0,4		94	60	87	5	6	72°	66
W7	6,7		188			0,7		96	60	95	5	6	72°	79
W8	7,3		220			1,5	2,1	110	70	103	5	6	72°	83
W9	6,8		235			2,0	3,5	127	75	120	5	6	72°	93

STANDARD - TWO SPEED (1 DIR. + 1 RED.)

W16	14,5	7,3	110	220		2,0	2,9	110	70	105	5	6	72°	83
W30	27,1	6,8	60	235		2,8	3,8	128	75	125	5	6	*	92
W42	42,5	6,4	37	250		4,0	6,0	144	80	145	5	6	72°	110
W47	46,8	5,7	35	283		5,7	8,0	170	90	165	5	6	72°	140

* 60° + 60° + 60° + 60° + 120°

STANDARD - TWO SPEED (2 RED.)

W44	42,1	19,8	38	81		7,0	9,2	172	93	162	6	8	60°	147
W48	44,9	24,6	36	65		8,0	10,0	181	95	174	6	8	60°	156
W52	51,3	20,0	31	80		10,9	14,1	204	103	185	6	8	60°	174
W60	60,0	27,6	26	58		11,7	15,2	221	105	200	6	10	60°	190

SELF TAILING - ONE SPEED (1 RED.)

W16ST	14,5		110		8/12	2,8	3,6	110	70	130	5	6	72°	82
W30ST	27,1		60		8/12	4,5	4,2	128	75	147	5	6	72°	92

SELF TAILING - TWO SPEED (1 DIR. + 1 RED.)

W16.2ST	14,5	7,3	110	220	8/12	3,3		110	70	130	5	6	72°	82
W30.2ST	27,1	6,8	60	235	8/12	4,5		128	75	147	5	6	72°	92

SELF TAILING - TWO SPEED (2 RED.)

W40ST	40,0	12,8	40	125	6/14	5,0	6,2	151	80	160	5	8	72°	142
W44ST	42,1	20,0	38	80	8/16	6,7	9,8	173	93	195	6	8	60°	147
W48ST	44,9	24,6	35	65	8/16	7,8	11,0	181	95	205	6	8	60°	156
W52ST	51,3	20,0	30	80	10/18	9,1	13,0	205	103	215	6	8	60°	174
W60ST	60,0	27,6	26	58	10/18	11,0	14,4	220	105	232	6	10	60°	190
W65ST	65,2	26,3	24	61	10/20	14,5	18,9	248	120	250	6	10	60°	208
W70ST	68,4	27,6	23	58	12/22	20,0	24,5	286	144	295	6	10	60°	228

