

WINCH POWER AND MAXIMUM FORCE

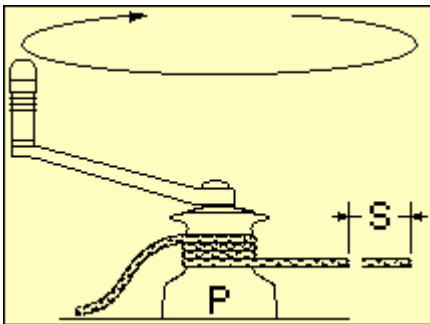
To calculate the maximum force (**F**), first use the tables to find winch power (**P**). Assuming the efficiency is 70% and the maximum force exerted on the handle is 30 kg, the maximum force obtainable will be:

$$F = 20 \times P \text{ (Kg)}$$

i.e. twenty times the winch power.

For example, for a model with a winch power 40, the maximum force would be:

$$F = 20 \times 40 = 800 \text{ Kg}$$

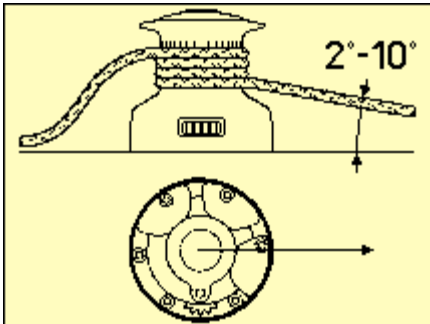


RECOVERY SPEED

The recovery speed (**S**) is the length of line recovered with one turn of the handle. It is the converse of the winch power (**P**), and can be calculated using the formula:

$$S = 1600 / P \text{ (mm)}$$

For example, a model with winch power 40 would have a recovery speed of $S = 1600/40 = 40$ mm for each 360° turn of the handle.



WINCH MOUNTING

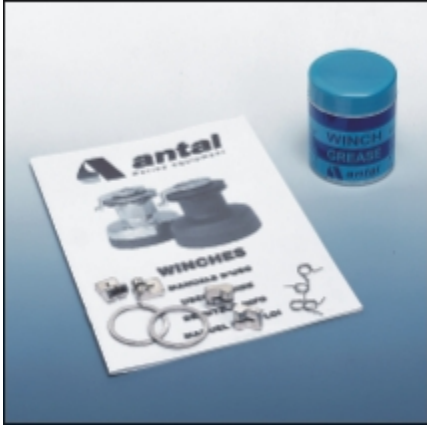
Line drum lead angle: it is correct to provide an angle of between 2 and 10 degrees. It is advisable for the output gear of 2 speed models to be positioned with respect to pull direction, as shown in the figure (90°).



SPRING-LOADED SELF-TAILING

The new self-tailing winches with spring-loaded disks adapts automatically to even the thinnest lines. It is recommended the line being used have at least three wraps around the drum, otherwise excessive load on the self-tailing plates could cause the line to slip.

Supplied by American Riggin Supply, Inc.



MAINTENANCE

Clean the winch by removing any old grease with a solvent (e.g. using diesel fuel). Spread a thin layer of marine grease (e.g. teflon grease) on all moving parts. Grease will protect aluminum from corrosion (where contact with dissimilar metal occurs). It is useful to use some grease especially on stainless steel screws, threads and stainless washers.

For a complete documentation ask for the "Winch User's Guide".

LUBRICATION

For winch and gear lubrication, use Type 400 (green) with Teflon. Antal can supply this grease in 100gr tubes.

SPARE PARTS

Antal can supply you with a universal repair kit suitable for all winch types, including 4 pawls, 4 pawl springs, 1 circlip.