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# Load on electrical/optical armored cable

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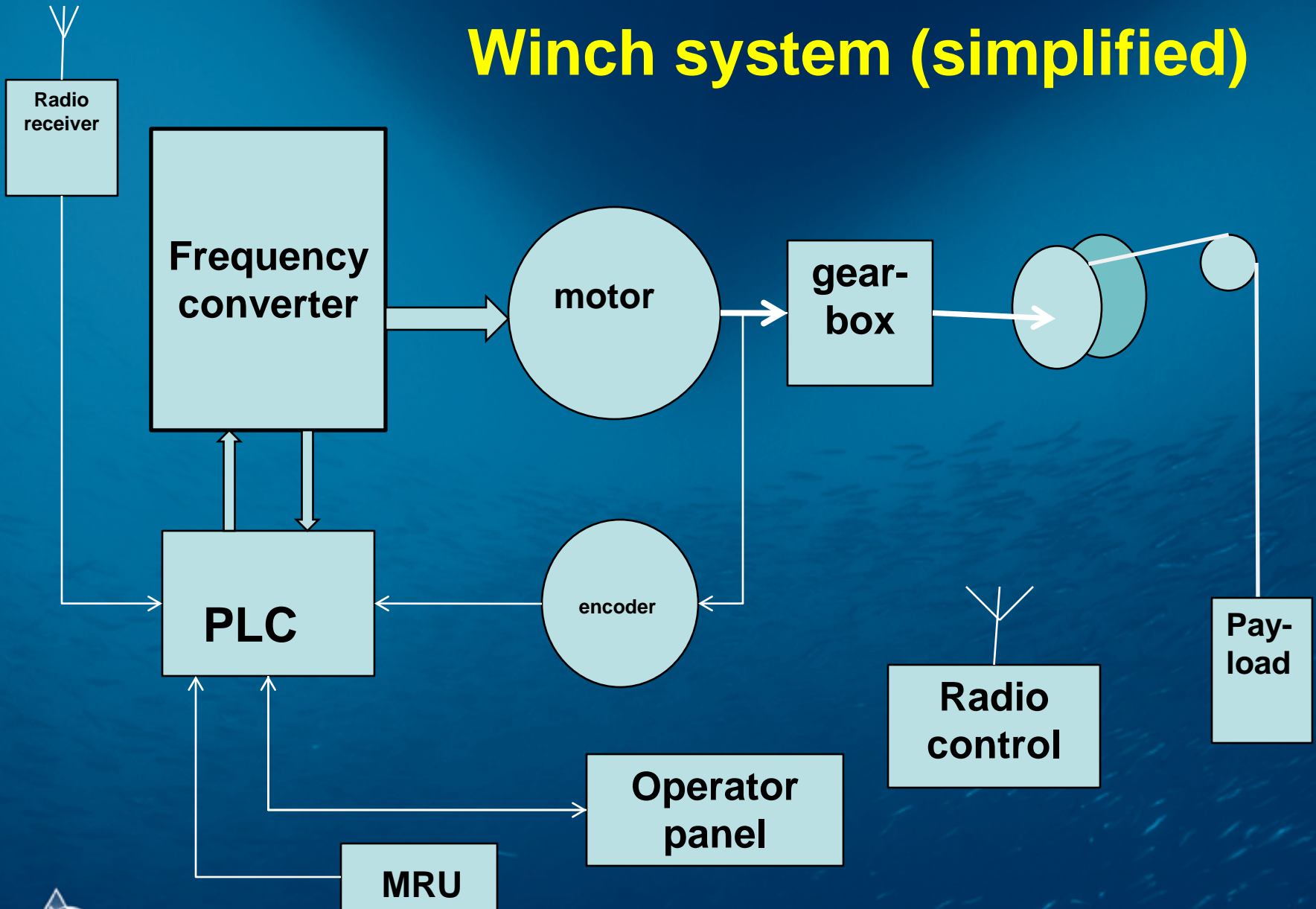








# Winch system (simplified)



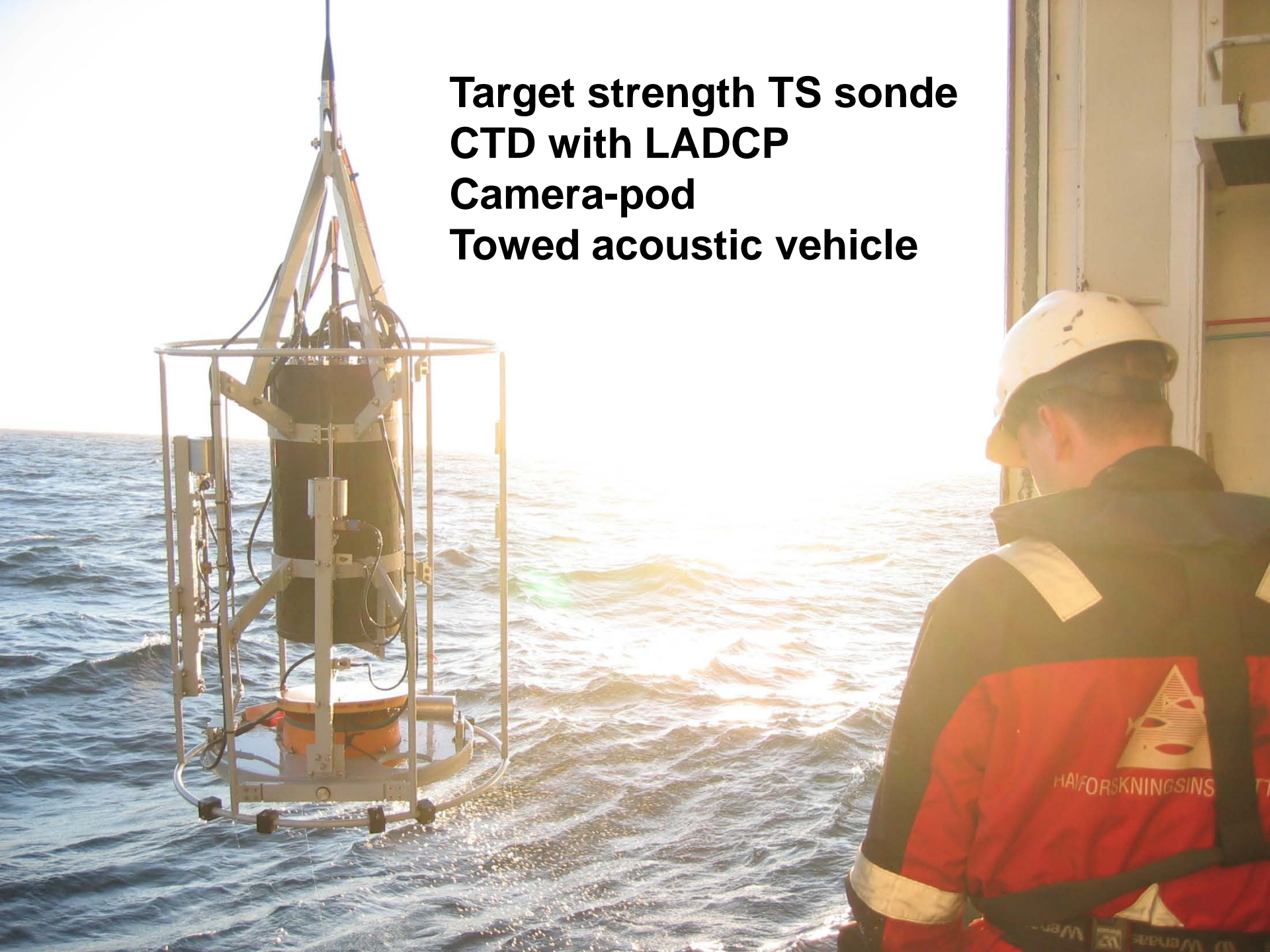




**Payload:  
Target  
strength-  
TS-sonde**



**Target strength TS sonde  
CTD with LADCP  
Camera-pod  
Towed acoustic vehicle**





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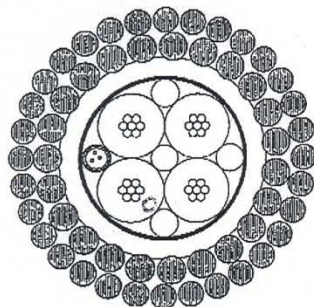
6/10"

3F4-63 Pe-00

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**3F4-63 Pe**

Four conductors and three single mode optical fiber armored cable, designed and specially manufactured for industrial and scientific applications. The armor wires are high tensile, galvanized improved plow steel and preformed.



304 stainless steel tube with 3 Single Mode Fiber			
Diameter	0.052"		1.32 mm
17 AWG	7/	0.018"	7/ 0.45 mm
HDPE insulation diameter	0.134"		3.40 mm

Non conductive filler compound and binder tape			
HDPE jacket			
Compressed diameter	0.410"		10.41 mm

Inner armor	23/	0.058"	23/ 1.47 mm
Outer armor	32/	0.052"	32/ 1.32 mm
Nominal diameter		0.630"	16.00 mm

**Nominal Properties**

**ELECTRICAL**

Maximum D.C. resistance at 68°F or 20°C	17 AWG cond.	5.4 Ω/Kft	17.6 Ω/Km
	Armor	0.8 Ω/Kft	2.6 Ω/Km
Minimum insulation resistance at 500 Vdc	17 AWG cond./ armor	32810 MΩ.Kft	10000 MΩ.Km
Voltage rating	17 AWG cond.	1000 Vrms	1000 Vrms

**OPTICAL (3 Single mode fibers 9/125/245)**

Attenuation	at 1300 nm	< 0.44 dB/Km
	at 1550 nm	< 0.33 dB/Km
Proof test		200 kpsi

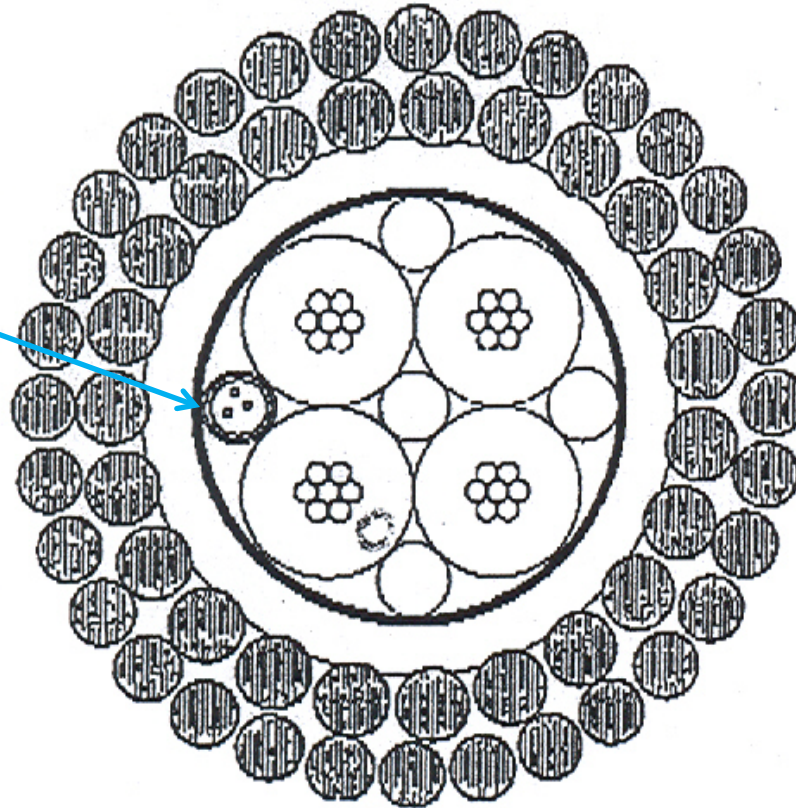
**MECHANICAL**

Calculated weight	in air	597 Lbs/Kft	887 Kg/Km
	in water (sg=1.026)	473 Lbs/Kft	704 Kg/Km
Temperature rating	min.	5 °F	-15 °C
	max.	176 °F	80 °C
Minimum Breaking Strength	Ends fixed	27900 Lbs	12660 daN
	Ends free	25580 Lbs	11600 daN
Diameter tolerances		±0.014 "	±0.35 mm
Recommended minimum static diameter	on reel	18.9 "	480 mm
Recommended minimum dynamic diameter	on sheave	31.5 "	800 mm
Nominal estimated torque			0.38 m.daNt

25/101



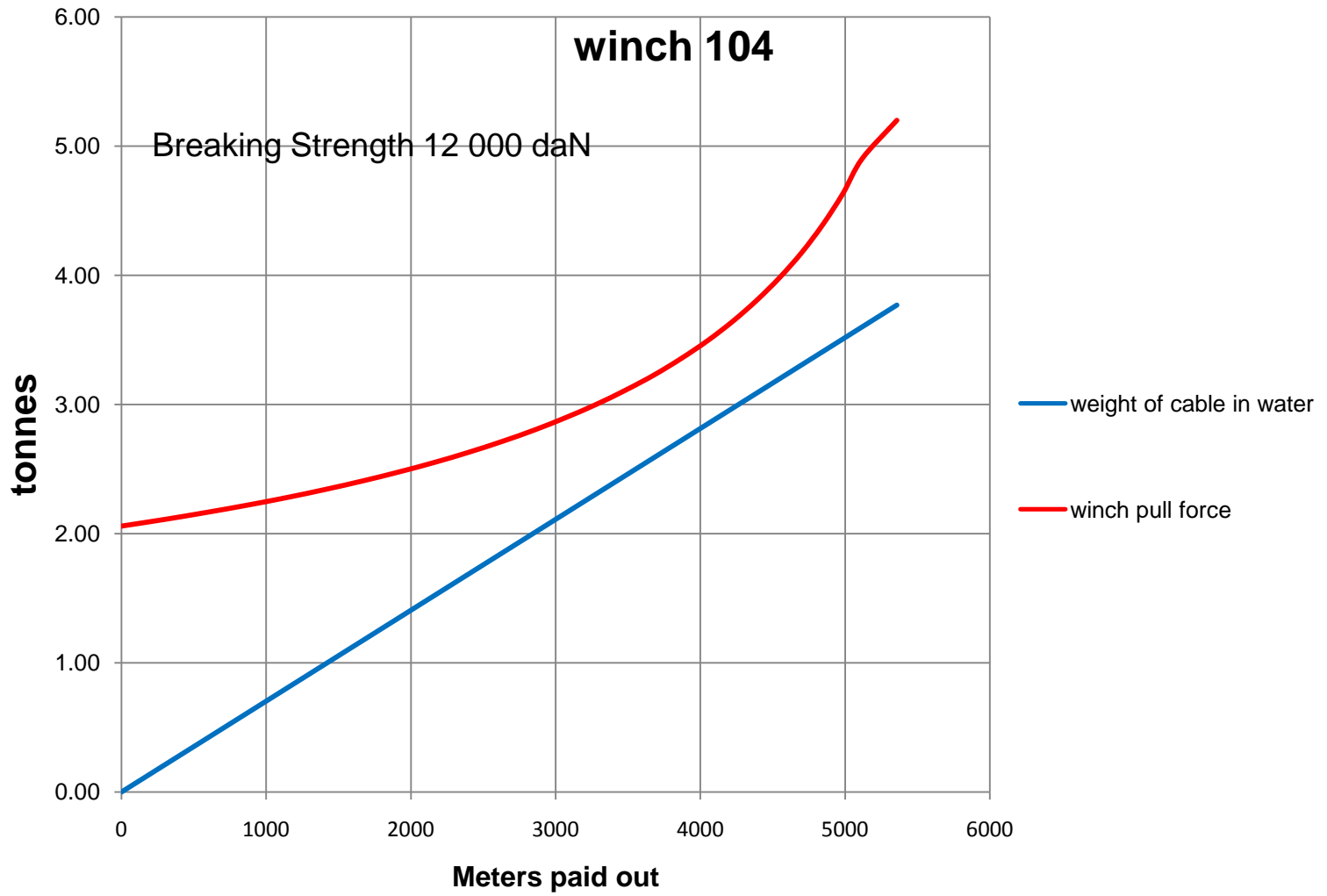
3 fibres in  
stainless steel  
tube



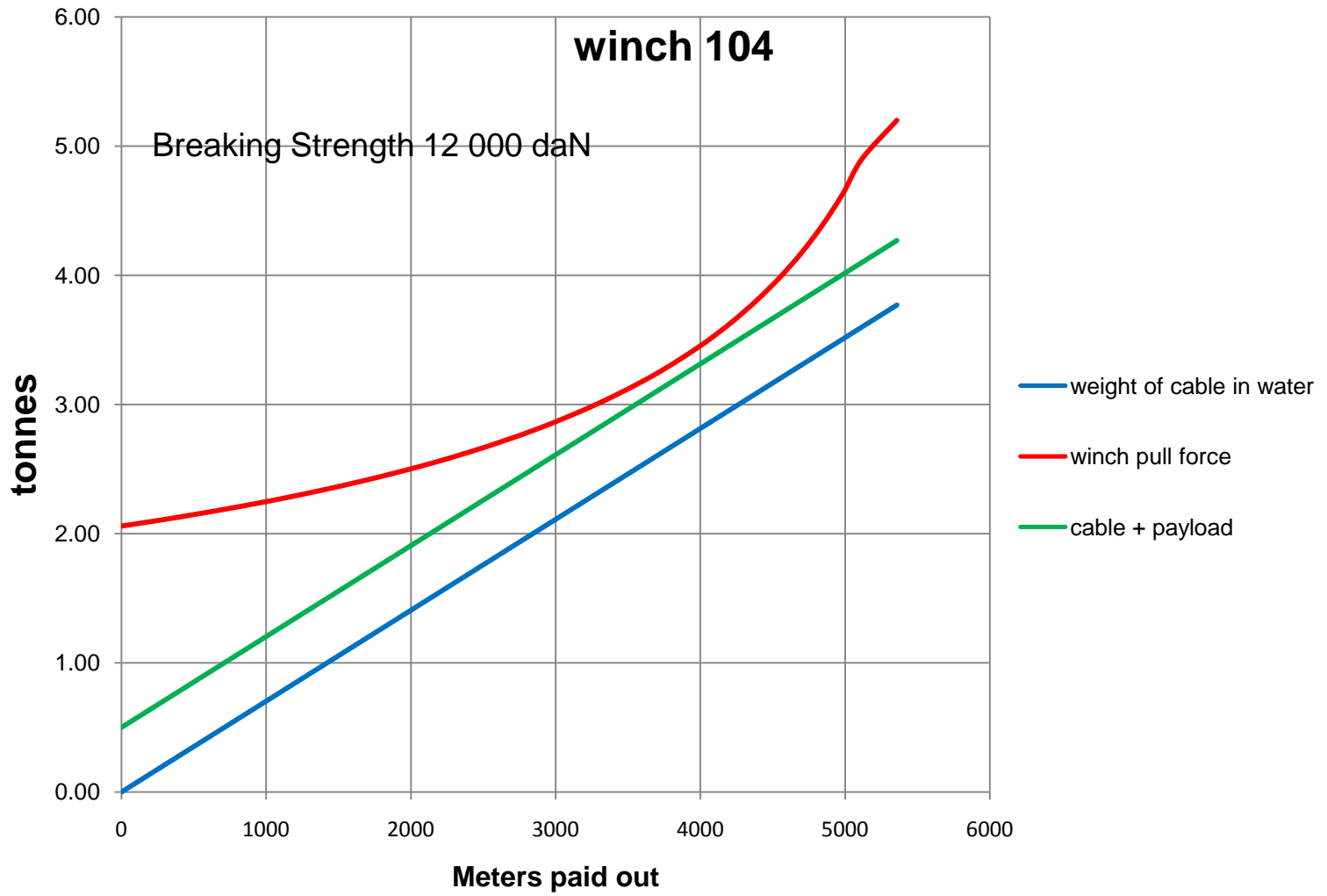
Diameter 16 mm

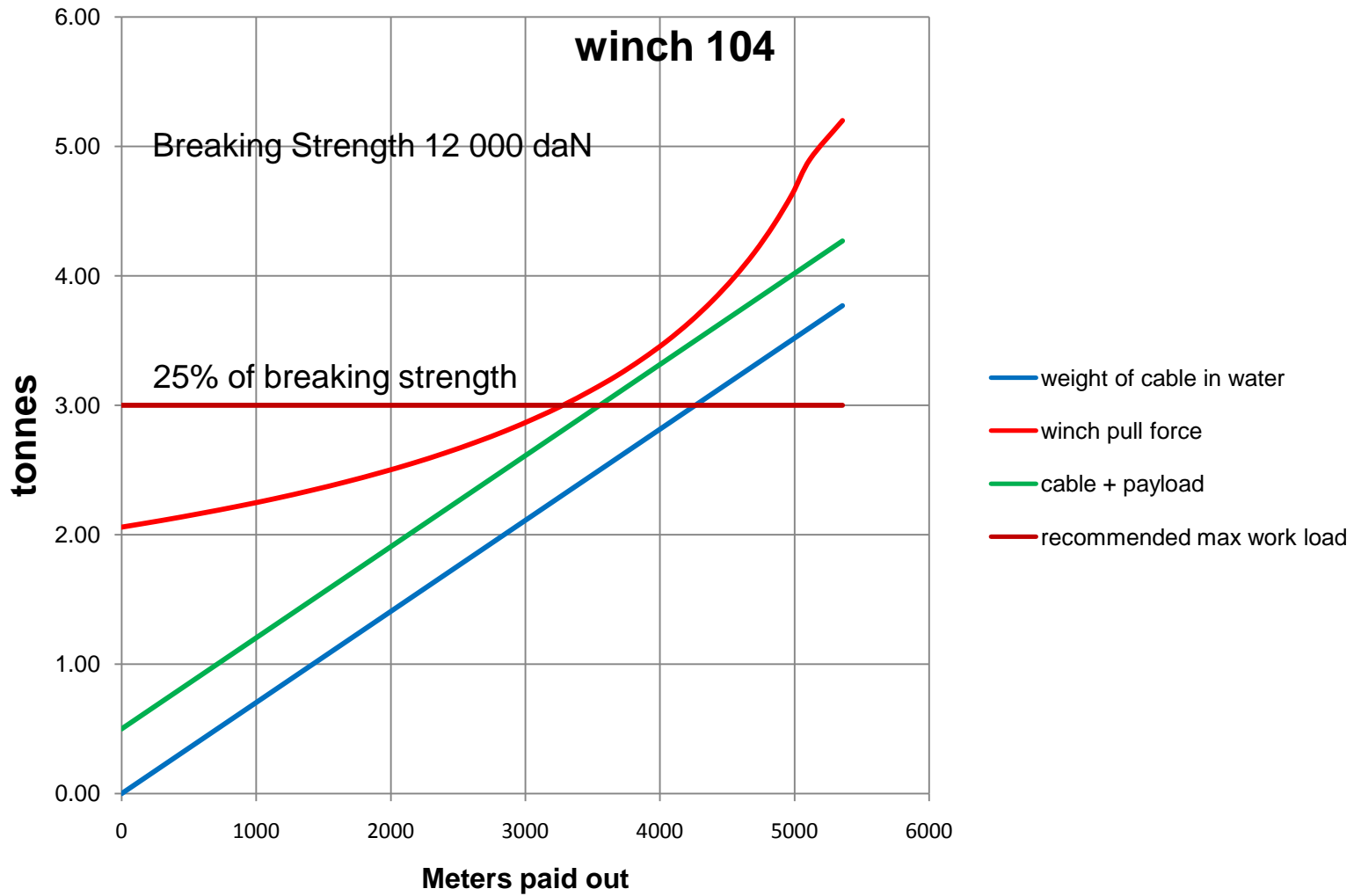
Breaking strength: 12 000 daN



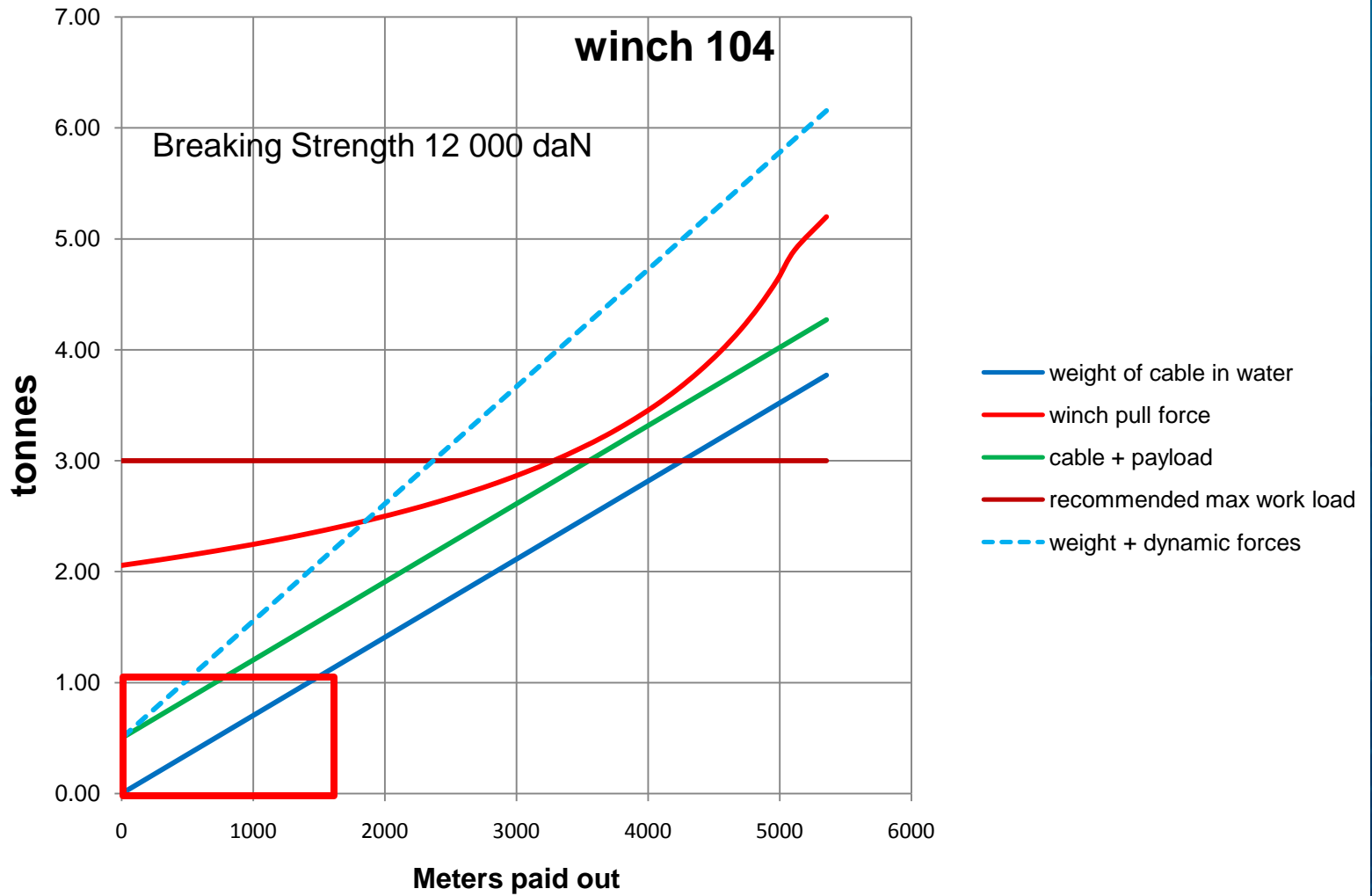












Questions?  
Suggestions?

