Electric Capstans

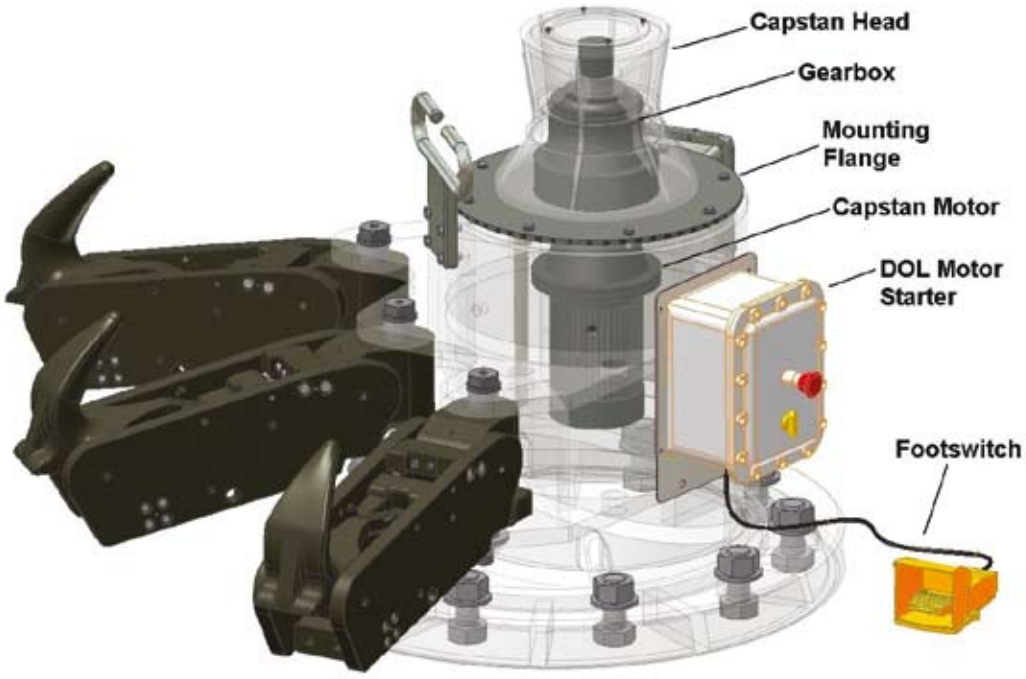
Capstans

Description

The Trelleborg Marine Systems electric capstan motor is housed within a protective structure. The capstan motor is factory run-in and mated with a gearbox, which is oil-filled for life. The capstan motor Direct On Line (DOL) motor starter allows the operator to control motor operation through a footswitch, Emergency Stop Switch (E-Stop) and direction selector switch. Ribbed capstan head and rope guide are fitted as standard. Hazardous and safe area models are available.

> Trelleborg Free - standing capstans provide a field proven, safe and reliable method of hauling in the mooring line.

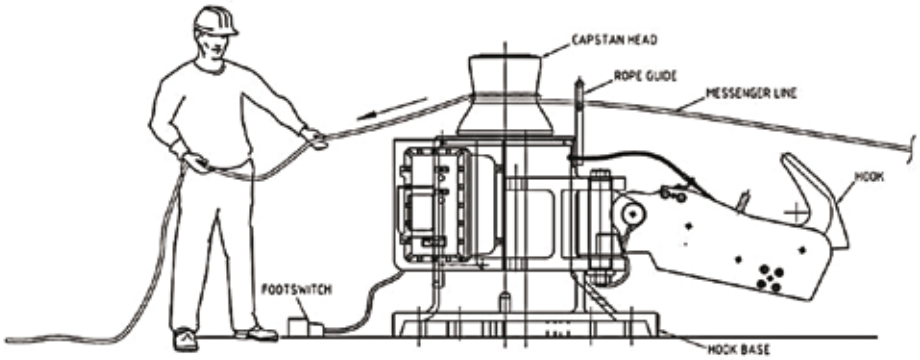
ELECTRIC CAPSTAN



Note: Model shown within Quick Release Hook Unit. Free standing capstan utilises support base only.

Area Classification	Line Pull (tonnes)	Starting Pull (tonnes)	Motor Size (kW)
Hazardous*	**1**	**2**	**5.5**
Safe			
Hazardous*	**1.5**	**3**	**7.5**
Safe			
Hazardous*	**2**	**4**	**11**
Safe			
Hazardous*	**3**	**6**	**15**
Safe			

** for Hazardous Area definitions refer to Trelleborg Hazardous Area statement*

1 CAPSTAN GENERAL SPECIFICATIONS - STANDARD MODELS **(For variances to standard product refer to Options and Upgrades)**			
1.1	Capstan Capacity		
		As stated in Capstan Models table Note1: Starting pull is defined as 2 x running pull “static overhung load capacity” Note1: Customised capstan capacities (speed and pull) available upon request Note3: Refer to the specific general arrangement drawing for overall dimensions, layout, bolt patterns and foundation details.	
1.2	Capstan Type	Reversible, with brake	
1.3	Line Speed	Nominal 30 metres/minute	
1.4	Environmental Protection (minimum)	Capstan motor and motor starter: IP56 minimum Footswitch: IP68 *Note: Motor contains tropic-proofed windings*	
1.5	Brake Details	Automatic, spring applied brake when de-energised Holding torque = 150% of motor torque.	
1.6	Mounting Requirements	See Trelleborg Marine Systems	
1.7	Fasteners	Where possible all fasteners used in the assembly of the Quick Release Hook are 316 stainless steel. Non stainless steel fasteners are high strength Property Class 8.8 alloy steel, treated with a solid film coating of Molybdenum Disulphide for long-term corrosion protection and to provide anti-seizing properties.	
2 CAPSTAN MOTOR ELECTRCAL SPECIFICATIONS - ALL MODELS			
2.1	Motor Control	Direct On Line (DOL) motor starter	
2.2	Motor Starter Housing	**Hazardous Area Model** Marine grade aluminium, painted ** for Hazardous Area definitions frefer to Trelleborg Hazardous Area state-ment.*	**Non Hazardous Area Model** Stainless steel
2.3	Capstan Electrical Controls	Selector Switch: Counter clockwise / OFF / clockwise Emergency Stop: Push to set, twist to reset Footswitch: Depress to operate	

2 CAPSTAN MOTOR ELECTRCAL SPECIFICATIONS - ALL MODELS		
2.4	Footswitch	IP68 industrial footswitch with foot guard Construction: Marine grade aluminium (Hazardous Area model intrinsically safe)
2.5	Space Heater	Single-phase
2.6	Motor Protection	Electronic overload (thermal trip and phase failure protection) (automatic reset)
2.7	Motor Type/ Insulation	Four-pole Insulation Class F Tropic-proof windings
2.8	Motor Electrical Parameters	3Ø (with or without neutral): 380 to 480 VAC(+/-10%) @ 50 Hz or 60 Hz (+/-5%) *Note: voltages outside these ranges available upon request*
2.9	Incoming 3 Ø Power Connections	Metric: 32 mm entry Maximum cable termination size=25 mm^2 (stranded) or 16 mm^2 (solid) *Note: If conductor sizes are larger than the specified cables, then a separate junction box is to be provided (by others).* *Note: imperial entries available upon request.*
2.10	Surface Treatment	Surface Preparation –Class 2.5 Blast(1) 1st Coat: nominal 75 µm DFT epoxy zinc-rich primer 2nd Coat: nominal 125 µm DFT two-part epoxy, containing MIO 3rd Coat: nominal 75 µm re-coatable two-part polyurethane. Colour: gloss black *(1) AS1627.4 , USA, National Association Corrosion Engineers, NACE or Society for Protective Coatings, SSPC-SP10 Sweden, Sa 2-1/2)*
3 OPTIONS		
3.1	Electrical Insulation (EI)	Option available upon request Isolates each hook from jetty structure (material: nylon)

Trelleborg Marine Systems' commitment to continuous product improvement means that we reserve the right to upgrade and modify equipment and systems without notice as technological and operational parameters demand.

For Further information, please contact:
Trelleborg Marine Systems Melbourne Pty Ltd
Virginia Park, 9 South Drive, 236-262 East Boundary Road
East Bentleigh, Victoria 3165
Australia
Tel: +61 (0) 3 9575 9999, Fax: +61 (0) 3 9575 9900
Email: mooring@trelleborg.com