Information Document

10 kN SWL HYDRAULIC MAN RIDING WINCH

Model H-65-82-24-9327-13-MR

Torque Engineering manufactures a hydraulically driven winch which is suitable for incorporation into a **Man Riding** winching system. The winch has been designed in accordance with the appropriate sections of the rules and recommendations detailed in the following documents.

- Lloyds Register – Code for Lifting Appliances in a Marine Environment 2003
- ABS – Underwater Vehicles, Systems and Hyperbaric Facilities 2002
- DNV – Rules for certification of Lifting Appliances
- IMCA – D023 – Diver Launch & Recovery

MAIN FEATURES

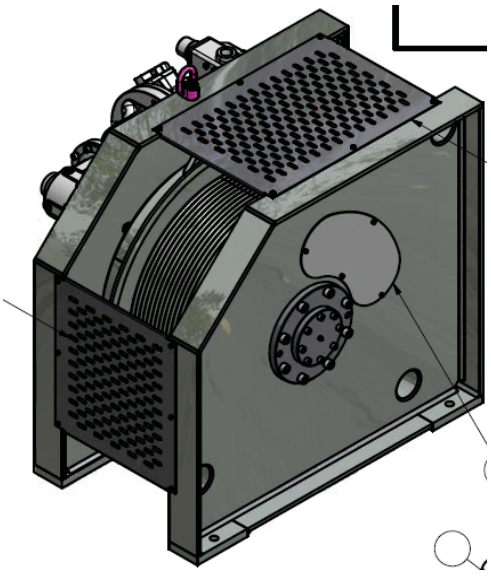
- Parallel grooved drum
- Drum hot dip galvanised
- 2 independent automatic fail safe braking systems
- Narrow drum to assist spooling & increase wire life
- Crosby wedge socket wire rope termination inside drum
- Stainless steel hydraulic piping
- Large drum diameter to minimise rope layers
- Means of lowering load in total hydraulic power failure
- Counter Balance Valve incorporated into the hydraulic motor
- Interlock on guards
- Frame hot dip galvanized

OPTIONAL FEATURES

- Emergency stop on the winch
- Over hoist cut out limit switch
- Controls on winch frame
- Electric or Pneumatic Drive

HYDRAULIC INPUT

- 130 bar
- 60 liters / minute



APPLICATIONS

- Air Diver Launch & Recovery
- Hard Suit Operations
- FRB & Workboat LARS
- Suspended Work Platforms
- Drill rig maintenance & operations

Mass

Mass with 180m of Ø13 mm wire rope ≈ **900 kg**

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PERFORMANCE DETAILS

Mass to be lifted	**1,000**	kg	Design Factor	**2.45**	
Design Load	**2,450**	kg			
Rope Ø	**13**	mm	Power (normal ops)	**7.2**	kW
Hydr Press.	**130**	Bar			
Hyd Flow / Motor	**70**	l/min	Drum Torque	**9.3**	kNm
Number of Drives	**1**		Drum Speed	**13**	rpm
Drum Diameter	**649**	mm	Rope Clearance	**3**	Diameters
Drum Width	**238**	mm			
Min distance to sheave	**3**	m for fleet angle <2 degrees			

WINCH PERFORMANCE

Layer #	Pull Force (kN)	Speed m/min	Speed m/sec	Layer Length (m)	Cumulative Length (m)	Time to Heave (min)
1	28.2	27.3	0.46	34.2	34	1.3
2	27.3	28.2	0.47	35.3	70	2.5
3	26.4	29.1	0.49	36.5	106	3.8
4	25.6	30.0	0.50	37.6	144	5.0
5	24.9	30.9	0.52	38.7	182	6.3