Pneumatically Operated Umbilical Reeler

The pnuematically operated umbilical reeler is a purpose built umbilical reeler for the deployment, retrieval and storage of an umbilical that routes hydraulic supplies topside to subsea Xmas trees. The reeler uses a protective frame to enclose a pneumatic motor, gearbox chain drive and control panel and bulkhead interface. Protective meshing encloses the moving components from ingress.

The umbilical reeling and spooling mechanism is powered through a pneumatic radial piston motor fed through a reduction gearbox to achieve the correct drum speed. The drum speed and direction is controlled by a failsafe lever control valve. When the lever is released, it returns to the centre and the flow of air blocked from reaching the motor and applies a brake to the rotating drum.

Padeyes complete with sling set and forklift pockets are provided with the reeler. The padeyes are sized to suit 8.5 tonne shackles and are safe to use for lifting the gross weight of the reeler. The forklift pockets can be used with a suitably rated forklift. A locking pin is situated on the side of the frame to prevent the drum rotating during transportation should the brake fail. The locking pin is primarily a safety device.

The umbilical on the reeler is interchangeable and is swapped out for each job as required and each one will be different. Details of the umbilical are job specific.

Technical details: DNV 2.7-1							
Dimensions	2.9 x 2.84 x 3.15 m	Fitting	1" Crows foot connection	Gearbox type	Brevini EC4090 / MNI / 400 / 00 / B3	Motor max pressure	8 bar
Weight	Gross 10,000 kg Tare 6,000 kg	Motor type	Globe RM310 motor	Gearbox ratio	400:1	Motor max flow rate	440 cfm
Lifting options	Slings and forklift pockets	Motor RPM maximum	1,800 rpm	Drive sprocket	12B-1 X33T WP	Operational controls	Mechanical pneumatic
Spooler access	Open from front and rear, caged restriction from sides and above	Power output	7.5 kW at 8 bar	Chain size	3/4" pitch	Unit colour	Proserv yellow / grey
Power supply	Pneumatic	Max torque at 6 bar	43 Nm a 1,800 RPM	Motor operation pressure	6 bar	Lubricant	Kilfrost 400