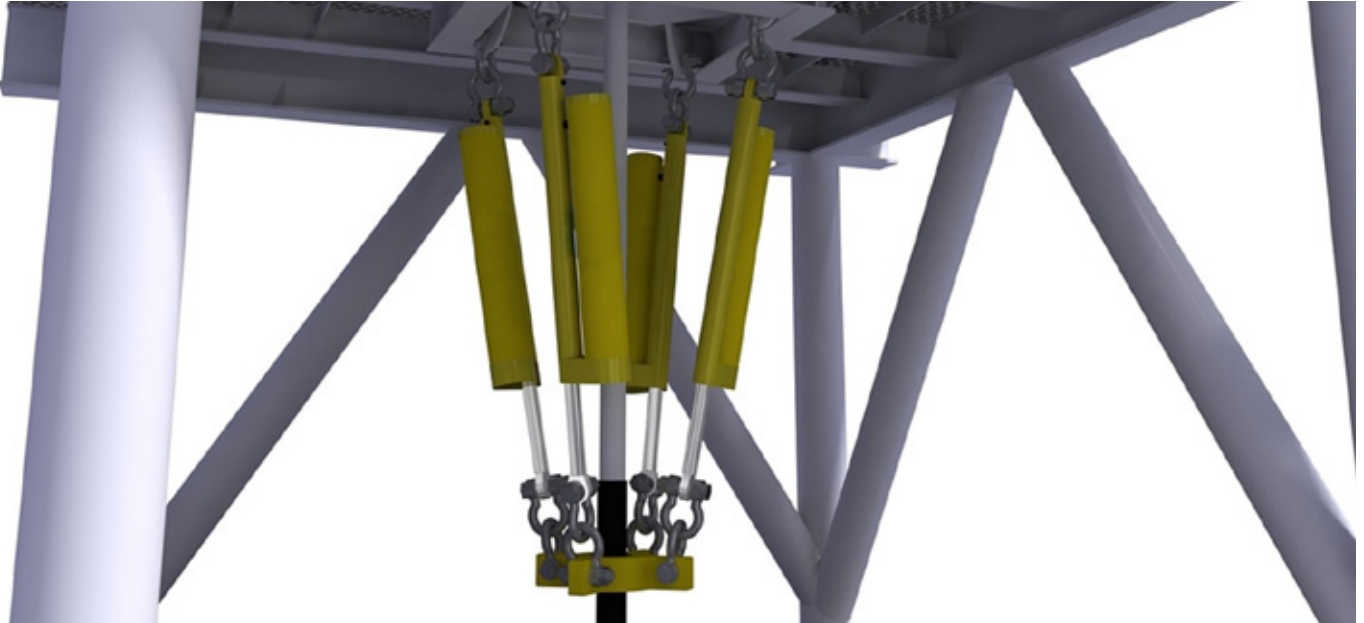


Production Riser Tensioner

PRT125



Overview

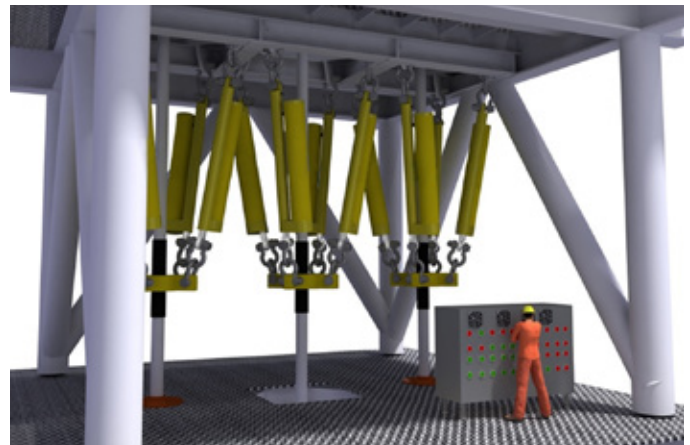
Cameron's production riser tensioner unit is designed to maintain the production riser system in tension to prevent buckling under compressive loading from self weight and to compensate for ocean currents, waves and relative movements between the platform and the riser.

In the design and engineering of the system, Cameron has focused on using well-proven technology, such as the hydropneumatic principle and robust and reliable components.

Cameron's production riser tensioner system includes the production riser tensioner units and the production riser tensioner control panel. The PRT125 model has a maximum rated tension capacity of 125 tonnes (275 kips) and is designed to accommodate the most common production riser outer diameters. The production riser tensioner control panel features a panel for monitoring the operation of each of the production riser tensioner units.

Features and Benefits

- Adjustable tension
- Low-maintenance requirements
- Remote system monitoring of the tension and fluid level



- Relief valves protect the accumulators and tensioner cylinders from over-pressure situations
- System provides full tension capacity, even if one cylinder/accumulator unit is out of service
- Piston rod made of carbon steel and coated with a nonporous layer with corrosion resistance
- Easy and reliable shackle suspension at both ends of the cylinder
- Monitoring signals are easily available for readout for the driller in the driller's control room
- Each cylinder is equipped with a cushioning device at the rod end (extended) to protect the cylinder should unintentional movement occur

Technical Specifications	SI	Imperial (US)
Production riser tensioner units		
Tension capacity	125 tonnes	275 kips
Number of cylinder/accumulator units	4	
Maximum vertical riser movement	2134 mm	7 ft
Riser stroke range – upstroke/downstroke	366 mm/1768 mm	1.2 ft/5.8 ft
Cylinder stroke length	2500 mm	8.2 ft
Piston diameter	200 mm	7.87"
Rod diameter	90 mm	3.54"
Cylinder pressure at zero position and maximum tension	132 bar	1910 psi
Cylinder pressure at zero position and maximum tension with 3 PRTUs	175 bar	2540 psi
Design pressure rod side	207 bar	3000 psi
Design pressure piston side	6 bar	90 psi
Accumulator volume	220 l	58 gal
Angle between cylinder and vertical riser at zero position	13 deg	
Hydraulic fluid type	Glycol/water-based	
Ambient operating temperature	-20° C to 40° C	-4° F to 104° F
Area classification	Zone 1 hazardous area	

Technical Specifications	SI	Imperial (US)
Production riser tensioner control panel		
Design pressure	207 bar	3000 psi
Hydraulic fluid type	Glycol/water-based	
Design temperature	-20° C to 40° C	-4° F to 104° F
Area classification	Zone 1 hazardous area	

Scope of Supply	Options
Four production riser tensioner units, each mainly consisting of a cylinder, an accumulator, valves, lifting lugs, pressure transmitters and shackles in both cylinder ends	Fluid filling unit
One production riser tensioner control panel which comprises valves, digital pressure displays, digital tension displays and alarm indication lamps	Riser guiding and centralizer system
Set of documentation	A structural mounting frame for the cylinder/accumulator assemblies

4601 Westway Park Blvd.
Houston, TX 77041
USA
Tel 1 713 939 2211

Andøyfaret 3
N-4623 Kristiansand S.
Norway
Tel 47 380 00 570