

SKF Reliability Systems



SKF on board the world's largest pipeline laying ship

Specialist design and application competencies enabled SKF Reliability Systems to win this prestigious order.

A new pipe-laying vessel from Technip -Coflexip the 'CSO Deep Blue', is the world's largest deep water pipeline laying ship.

CSO Deep Blue is unique in its capacity to lay pre-welded rigid steel pipelines from a pair of enormous reels, at the hub of which are four huge spherical roller bearings and cast steel housings specially designed and supplied by SKF Reliability Systems.

The bearings support two, 770 tonne reels, each carrying 2,500 tonnes of rigid steel pipe up to 400 metres in diameter, wound around a hub that is 20 metres in diameter. The design of each reel enables pipe to be welded onshore and then continuously laid at sea, in lengths from 12.5km of 400mm diameter pipe, up to 333km of 60mm pipe. The bearings and housings have been designed to allow the rotation of the reels in sea conditions up to four metres significant wave height.

The bearing housings consist of one pair weighing 34 tonnes each and another pair weighing 26 tonnes each. The housings were designed by SKF in the UK and were manufactured by Forgemasters in the UK.

The bearings, with outside diameters of 2.06 metres and 1.85 metres, were designed by SKF Large Size Bearing (LSB) design team in Gothenburg, Sweden, and manufactured at LSB facilities in both Gothenberg and Schweinfurt, Germany. The lubricant for the bearings requires a staggering 1,440kg of SKF grease LGEM2!

The ship has been designed to operate in the deep waters off Brazil, the Gulf of Mexico and West Africa, as well as the harsher conditions of the North Sea, and has already been proposed for Elf's Canyon Express pipeline project in the Gulf of Mexico.

This prestigious order was won by SKF due to its ability to meet the stringent engineering and service requirements in this demanding application.

Engineering solutions

Proactive Reliability Maintenance (PRM)

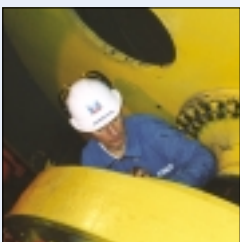
Integrated Maintenance Solutions (IMS)

Condition monitoring services

Maintenance services

Refurbishment services

Training courses



■ Proactive Reliability Maintenance (PRM)

- Proactive Reliability Maintenance™
- Fan reliability programme

■ Integrated Maintenance Solutions (IMS)

- Integrated Maintenance Solution™
- Integrated Maintenance Solutions for the paper industry

■ Condition monitoring services

- On-site condition monitoring services
- CoMo-Link remote diagnostics
- Lubrication analysis service
- Keeping the power flowing

■ Maintenance services

- Precision mechanical services
- Bearing installation
- Bearing failure analysis

■ Refurbishment services

- Bearing refurbishment service
- Bearing refurbishment for railway taper bearing units
- The vital link in clip chain refurbishment

■ Engineering solutions

- Getting bearings on the London Eye
- SKF on board the world's largest pipeline laying ship
- Where there's a wheel there's a way
- An open and shut case for SKF
- Customised housings solution
- SKF bearings can stand the heat
- SKF bearing solution gets many fans
- Where there is muck, there is brass
- Design and project engineering
- Technical consultancy

■ Training courses

- Industrial bearing maintenance and service
- Balancing with Microlog™
- Machinery Analysis I
- Machinery Analysis II
- Fundamentals of machine condition
- Intro to PRISM⁴ for Windows™
- Intro to Microlog™ system
- Intro to PRISM⁴ on-line systems
- Intro to Machine Analyst™
- Intro to the MARLIN® system

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