



JAURE®

JAURENews

General Industry | Wind | Marine | Metals & Heavy Duty

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Number 4

SUMMARY

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- 02 Largest ever Jaure coupling for wind test bench
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REGAL®

JAURE® DRIVESHAFTS FOR WORLD'S LARGEST CRANE VESSEL



A new DP3 semi-submersible heavy lift crane vessel is being built in Singapore.

The crane vessel is designed for the installation and decommissioning of major offshore facilities worldwide.

With a length of 220 meters, width of 102 meters and displacement of 273,700 MT, the NSCV will be the largest vessel of its type, and the third largest overall, in the world.



Positioning of the vessel will be ensured by eight 5.500 kW underwater mountable thrusters, four of which are also retractable.

Jaure driveshaft equipment was selected as the complete solution between E-motors and thruster input shafts.

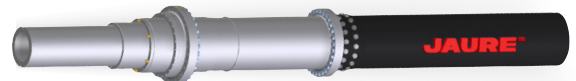
Considering the span between E-motors and thruster shafts (up to 16m), the main challenge was to design a customized solution to ensure minimum number of bearing, retracting capability and light weight.

The new giant semisubmersible crane vessel is due to enter service in early 2019.

JAURE® RETRACTING DRIVESHAFT SOLUTION

Main features:

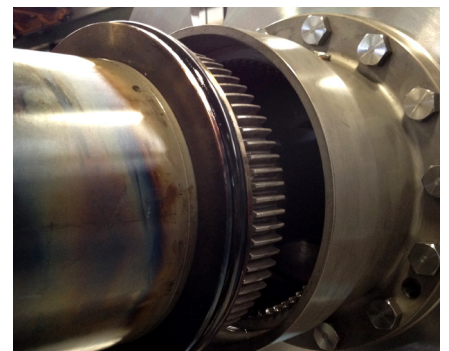
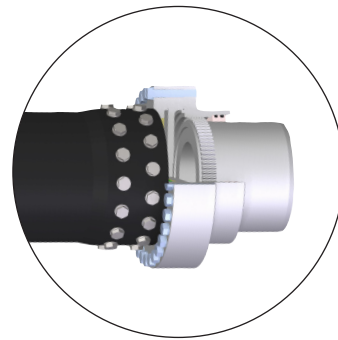
- ▀ Nominal torque T_{nom} : 108 kNm
- ▀ Total length: 16 meters
- ▀ Retracting capability: 6 meters
- ▀ Just 1 off support bearing



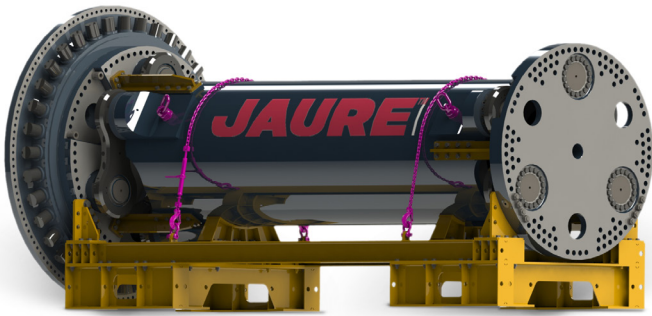
JAURE NON-RETRACTING DRIVESHAFT SOLUTION

Main features:

- ▀ Nominal torque T_{nom} : 108 kNm
- ▀ Total length: up to 8 meters
- ▀ No support bearing needed



LARGEST EVER JAURE® COUPLING FOR WIND TEST BENCH



97Ton - 15MNm (nominal) - 20MNm (overload)

One of the world's largest and most advanced wind turbine test benches is running with the largest ever coupling and torque limiter.

This test bench, an addition to one of the largest indoor facilities for the testing of wind turbines in Europe, is used for Highly Accelerated Life-cycle Testing (HALT) of components for wind turbines up to 10 MW. This enables a faster and better operation of lifecycle testing.

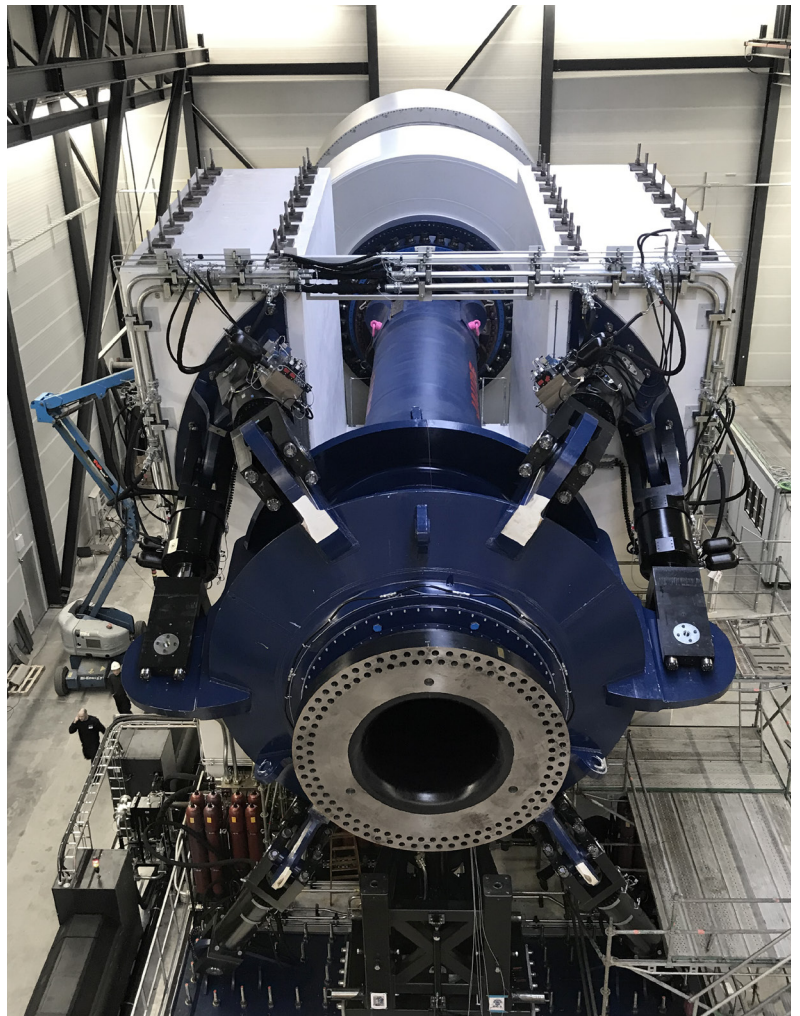
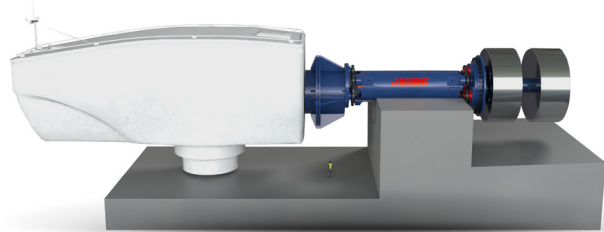
The Jaure MBJ coupling is the most advanced design concept for torque transmission with extreme and variable misalignment condition. It consists of a link coupling composed of a torque tube connected by three connection rods at both connection flanges. This permits the drive train to adapt to the relative movement of the test unit.



Main benefits of the Jaure® MBJ coupling:

- Low reaction forces
- Maintenance free
- High misalignment capability
- Backlash free

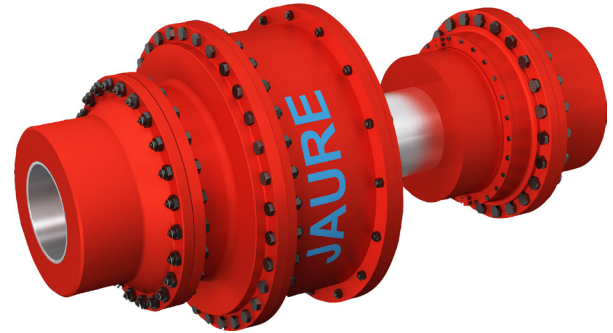
Close cooperation with our customer was key to succeed in this unique project and we were highly pleased to receive their kind words: "Generally we were very impressed with the outcome of the last one-year design and manufacturing work and (Regal) can indeed be proud of this product."



JAURE® HYBRID COUPLING FOR STEEL MILL DRIVE

The sum of Jaure and Kop-Flex® couplings expertise together was rewarded with a large hybrid coupling order from a steel mill in Eastern Europe.

The coupling was installed in the main drive of a heavy section rolling mill that forms large steel structural shapes. It has a length of over 4 m and a total weight of 20 ton.



Tnom 6.270 KNm - OD 2m - 20 Ton



The engineered-to-order hybrid coupling is a combination of:

- Kop-Flex resilient Max-C® coupling
- Jaure heavy duty MTG gear coupling

In order to assure highest reliability and lowest cost performance, our teams in the United States and Europe visited the customer together to better understand the application in operation.

Customer support of the Jaure and Kop-Flex coupling was provided by the supply of the tooling and onsite technical assistance for installation.



NEW PRODUCT DEVELOPMENT

NEW

BARFLEX® TCBR BARREL COUPLINGS

We recently launched our NEW BARFLEX TCBR barrel couplings replacing our TCB and TCB-HD series.

The Barflex TCBR coupling is an upgraded version of our previous barrel coupling. It is 100% interchangeable with the TCB and TCB-HD series and provides the following benefits:



- ▶ **10% HIGHER TORQUE CAPACITY.**
allows a more favorable size selection and thus an important cost saving.



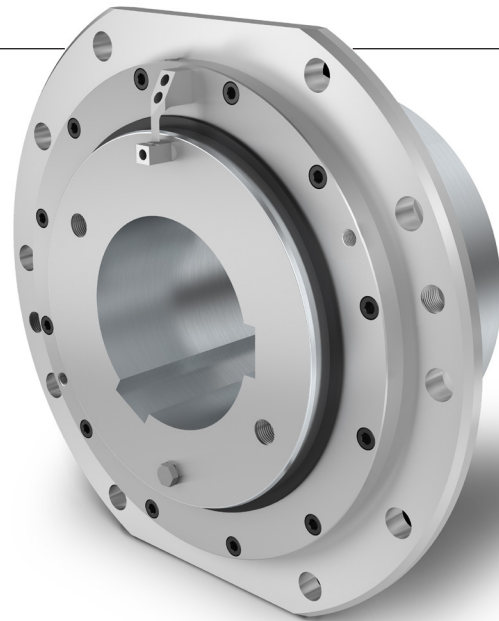
- ▶ **ASSEMBLY TIME REDUCTION.**



- ▶ **IMPROVED VISUAL WEAR INDICATOR.**
Easier to read the wear.



- ▶ **INCREASED AXIAL MISALIGNMENT.**



Our Barflex® TCBR coupling catalogue is available at:



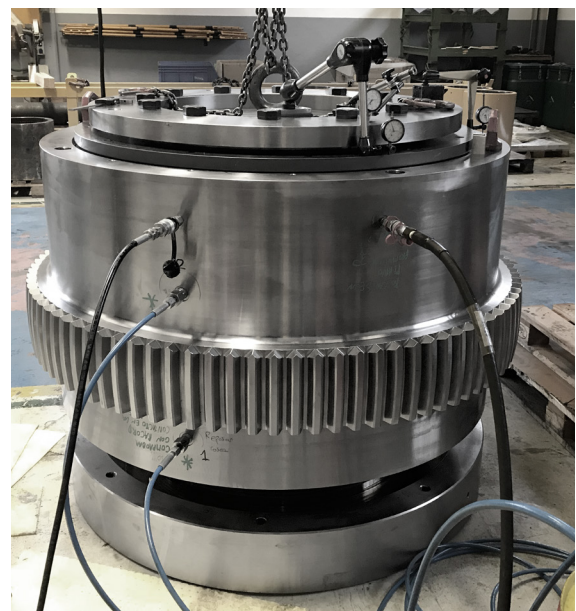
NEW

JHC-HF HIGH FRICTION HYDRAULIC SHRINK COUPLINGS

The new JHC-HF is a rigid coupling which allows the connection of shafts to shafts or shafts to flange easily by friction. Its principle is a shrink ring that is assembled by hydraulic means. The HIGH FRICTION (HF) Version uses the latest technology in surface treatment for increasing the coefficient of friction on torque carrying surfaces, and allows the following:

- ▶ Reduces the size of the coupling for the same torque range, and consequently the weight.
- ▶ Reduces the stresses introduced to the shafts.
This advantage is very helpful on those applications where hollow shafts are used.

As a result of this development, Regal has reached an optimum compromise of high torque transmission capacity and reliable assembly/disassembly maneuvers that allows an easy operation of the coupling for service/maintenance crews.



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JAURE™

KOP-FLEX®

marathon®
Special Products

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MILWAUKEE
GEAR™

Morse

ROLLWAY®

SEALMASTER®

SYSTEM
PLAST®

Velvet Drive®
TRANSMISSIONS

APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and/or its affiliates ("Regal") with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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