

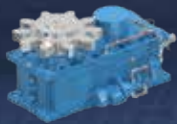
# Cable- and Pipe-Laying Tensioners and Azimuth Thrusters

## Cable and Pipe Layer and Tensioner

Cable- and pipe-laying ships are designed for offshore applications. Cable-laying ships lay cable for electric power transmission and telecommunications. Pipe-laying ships are used in the construction of subsea infrastructure for the oil and gas industry. A grapple system (tensioner) assures that the cable or pipe is laid properly. It can also retrieve damaged or misplaced cable/pipe from the ocean floor.

## Azimuth Thrusters

A propulsion system with a rudder steering function, an azimuth thruster delivers precise accuracy and maneuverability combined with efficient speed control. These advantages make the thruster a perfect propulsion solution for cruise ships, mega yachts, ferries, and other offshore vessels. The thruster is one of the most important systems for safe and reliable navigation. Consequently, all components must comply with stringent IACS requirements.



### Brevini® Helical and Bevel Helical Gearboxes

- Carousel drives
- Supports torque range up to 2200 kNm
- Extensive ratio range
- Special output shaft and bearing
- Forced lubrication system with double motor pump and bypass
- Integrated electromagnetic brake



### Brevini® Industrial Planetary Gearboxes – S Series

- Tensioner drive with integrated output support
- Nominal torques up to 2,170 kNm
- Multiple output shaft options
- Inline and right angle configurations available
- Suitable for both hydraulic and electric motors
- Negative multidisc brake



### Brevini® Winch Drives

- Winch drive for auxiliary hoist system
- Ratio range up to 6.000:1
- Maximum torque up to 850 kNm
- Inline and right angle configuration versions available
- Electric motor connection available
- ATEX certification
- Integrated hydraulic failsafe negative brake and electromagnetic brake available
- Safety devices available as back stop, torque limiter, and sensors



### Brevini® Industrial Planetary Gearboxes

- Pipe handling drives
- Nominal torques up to 26,000 Nm
- Inline and right angle configurations available
- Suitable for both hydraulic and electric motors
- Integrated motor adaptor
- Negative multidisc brake



### Brevini® Industrial Planetary Gearboxes – S Series

- Ratio range up to 5.000:1
- Modular design
- Input flange for hydraulic or electric prime motor
- Compact, light solutions for a perfect fit on machine frames



### Brevini® Axial Piston Motor

- Main hoist drive motor
- Fixed and variable displacement up to 216 cc/rev
- Seven or nine piston options
- Wide control valve range
- ATEX certification
- Environmentally Acceptable Lubricants (EAL fluids)
- Suitable for working in harsh and aggressive environments



### Brevini® Evolution™ Series Winches

- Winches for auxiliary hoist system
- Line pull up to 30 tons
- Wide range of safety controls
- Equipped with Brevini® high speed axial piston motor
- Man-lifting capabilities

## Pipe Tensioner

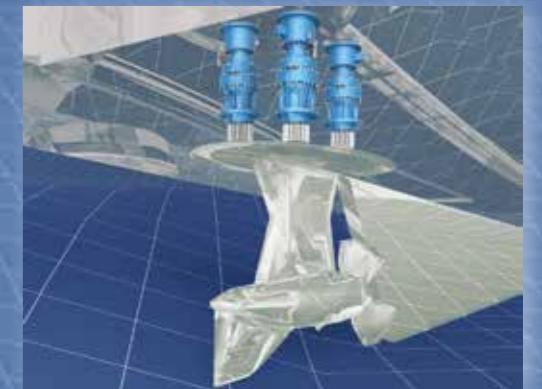


## Horizontal Carousel



### Brevini® Planetary Gearboxes – Slewing Drives

- Steering drive with integrated output pinion; high quality and special toothing profile
- Output support with eccentricity for a very accurate teeth backlash adjustment
- Integrated safety device options (torque limiter, switches, sensors)
- Environmentally Acceptable Lubricants (EAL fluids)
- Pollution free regulations



Dana offers customized solutions to meet a range of customer needs, including modular designs and add-on accessories, **marine painting** cycle and **full third party marine certification**.