

Engineered Sheaves & Blocks

Crosby®



Tough working environments require solutions you can trust

Kito Crosby is a global leader in delivering high-performance blocks, sheaves, and engineered lifting solutions for the world's toughest lifting challenges. Our team develops customized, class-compliant components and systems that push the boundaries of safety, efficiency, and longevity.

Engineering & System Design

Our engineering teams collaborate closely with clients and class societies to deliver custom-designed sheaves, blocks, and lifting assemblies — fully compliant with international standards. With in-depth experience in API, DNV, ABS, and ISO requirements, we provide:

- Load and fatigue analysis
- Material and design optimization
- Regulation and class compliance support
- Integration into full lifting systems

Precision Manufacturing with Full Process Control

Production is supported by step-by-step quality control throughout the entire manufacturing process, from raw material handling to final machining and assembly. Each operation is verified against tight quality benchmarks, ensuring consistency, structural integrity, and traceability. Utilizing advanced casting techniques and CNC machining, we achieve:

- Tight tolerances and accurate groove geometry
- Smooth finishes for rope compatibility
- Custom configurations in size, bore, and interface details

This commitment to quality enables us to deliver certified lifting solutions you can trust — even in the most demanding applications.

Testing & Certification

All solutions can be engineered and certified to international standards including API 8C, ASME, DNV, ABS, Lloyd's Register, CCS, BV, and ISO 16625. Whether as stand-alone components or complete systems, our products meet or exceed global class and operational requirements.

To request a custom lifting solution, contact us at:
specialsemea@kitocrosby.com



Ductile Cast Iron Sheave Technology

At the core of our offering is our proprietary ductile cast iron (DCI) sheave material, developed by Kito Crosby using unique alloy compositions and proprietary heat treatment. This material is field-proven, backed by extensive mechanical and fracture toughness testing, and approved by DNV, ABS, Lloyd's Register, CCS, and BV for use in classed lifting applications.

Unlike traditional manufacturing constraints, our casting process provides full geometric freedom, allowing us to engineer sheaves and blocks that are optimized for real-world stress distribution.

This enables:

- Stress-optimized groove and hub geometries
- Even load transfer to bearings and shafts, extending bearing life
- Lower component weight with increased strength
- Higher safety factors than comparable market alternatives

All sheaves are induction hardened to a certified groove depth of minimum 3.5 mm, ensuring exceptional wear resistance and long-term performance.

We also integrate inspection ports directly in the groove, allowing safe, in-operation inspection of rope contact surfaces — significantly reducing risk and supporting predictive maintenance.

Product Range

With capacities exceeding 3000 tonnes SWL and sheave diameters up to 12 meters, Kito Crosby delivers engineered products and systems for the most demanding lifting operations worldwide.

Our engineered portfolio includes:

- High-performance custom sheaves in ductile cast iron and roll-forged steel
- Fully assembled lifting blocks tailored to load, geometry, and rope diameter
- Complete lifting systems including bearing housings, axles, and frames
- Class-ready designs to meet DNV, ABS, API, Lloyd's, CCS, and BV
- Engineering services such as load analysis, fatigue studies, and class documentation
- Specialized inspection features such as groove access ports and RFID tracking

Typical Industries Served

We supply custom blocks, sheaves, and complete lifting solutions across a wide range of industries, including:

- Offshore & Onshore Cranes
- Drilling Operations & Riser Tensioning
- Cargo Handling & Multiplier Blocks
- Mooring Systems
- Wind Energy Installations
- Subsea Lifting & Handling
- Infrastructure & Heavy Construction



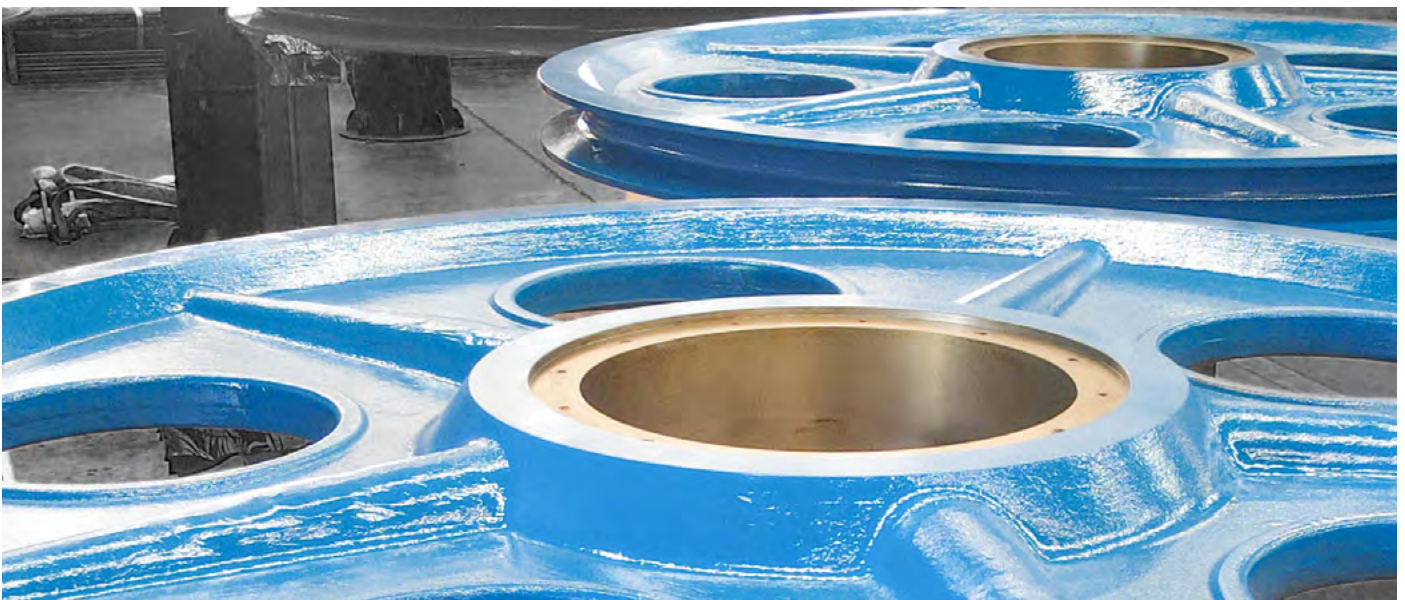
**CUSTOM SHEAVES**

500 kg up to 5,000 kg load capacity

Sheave Solutions – Standard & Engineered

Kito Crosby delivers a full range of standard and custom-engineered sheaves for lifting, rigging, and hoisting applications worldwide. With engineering and manufacturing sites in North America, Europe, and Asia, we combine local support with global resources to serve customers in offshore, marine, construction, and industrial sectors.

Our portfolio includes roll-forged steel sheaves from our Tulsa facility and ductile cast iron sheaves (EN-GJS-400-15) from our trusted foundry network – giving us the flexibility to match the right technology to each application. With advanced engineering tools and decades of experience, we optimize groove geometry, stress distribution, and material selection for maximum service life.





CUSTOM SHEAVES

Compliant with all class requirements

Roll-forged sheaves are ideal for API-certified, high-strength, and low-volume requirements, while ductile cast iron sheaves excel in large diameters, high-volume production, and weight-optimized designs. All sheaves can be delivered in compliance with DNV, ABS, LR, BV, API, CCS and other class requirements, supported by full Inspection and Test Plans.

By combining global reach, two proven manufacturing methods, and independent material selection, Kito Crosby ensures every customer receives the most efficient, compliant, and cost-effective sheave solution.

Typical industries served:

- Offshore cranes
- Marine lifting equipment
- Oil & gas drilling units
- Heavy lift vessels
- Port cranes
- Construction hoists
- Mining machinery
- Industrial winches
- Specialized lifting systems



**BLOCKS****All capacities**

Block Solutions – Standard & Engineered

Kito Crosby offers one of the industry's most comprehensive ranges of lifting blocks, from standard snatch blocks and hook blocks to fully engineered multi-sheave assemblies designed for the most demanding offshore, marine, and construction lifting applications.

With engineering, manufacturing, and service capabilities in North America, Europe, and Asia, we provide global reach with local expertise.

Our block and sheave range, as well as our engineered solutions, covers a full spectrum of lifting capacities, configurations, and connection types, supporting applications from general industrial use to high-capacity lifting. All standard blocks are manufactured to the highest quality standards, ensuring reliability and ease of maintenance in the field. All blocks can be delivered in compliance with DNV, ABS, LR, BV, API, CCS and other class requirements, supported by full Inspection and Test Plans.

Engineered block solutions are developed in close collaboration with OEMs, crane operators and EPC contractors to meet specific operational, environmental, and certification requirements.

With deep experience in material selection, stress analysis, and fatigue design, our engineering teams utilize advanced FEA simulations to optimize weight, strength, and service life. We offer blocks in a variety of materials, including high-strength steel and ductile cast iron sheaves, combined with forged hooks, swivels, and specialized bearing systems.

A large white offshore crane is shown on the deck of a ship, lifting a heavy load. The load is suspended by a red hook and a complex system of yellow slings. The background shows a busy port with other ships and cranes.

Typical engineered solutions include:

- **OFFSHORE CRANE**

Blocks designed for heavy-duty, continuous operation in corrosive marine environments.

- **CONSTRUCTION LIFT**

Blocks optimized for tower cranes, crawler cranes, and gantry systems.

- **SPECIAL LIFTING SYSTEM**

Blocks tailored for subsea, heavy lift vessels and custom winch systems.



Kito Crosby is the global leader of the lifting and securement industry it pioneered, and for which it continues to set the quality standard. With global engineering, manufacturing, distribution, and operations, the company provides a broad range of products and solutions for the most demanding applications. Kito Crosby's people, products, solutions, and services have innovated the lifting and securement industry for more than 260 years.

Together we lift and secure the world today, for a safer, stronger, and more productive tomorrow. Our iconic brands include Kito, Crosby, Harrington, Gunnebo Industries, and Peerless.

kitocrosby.com

