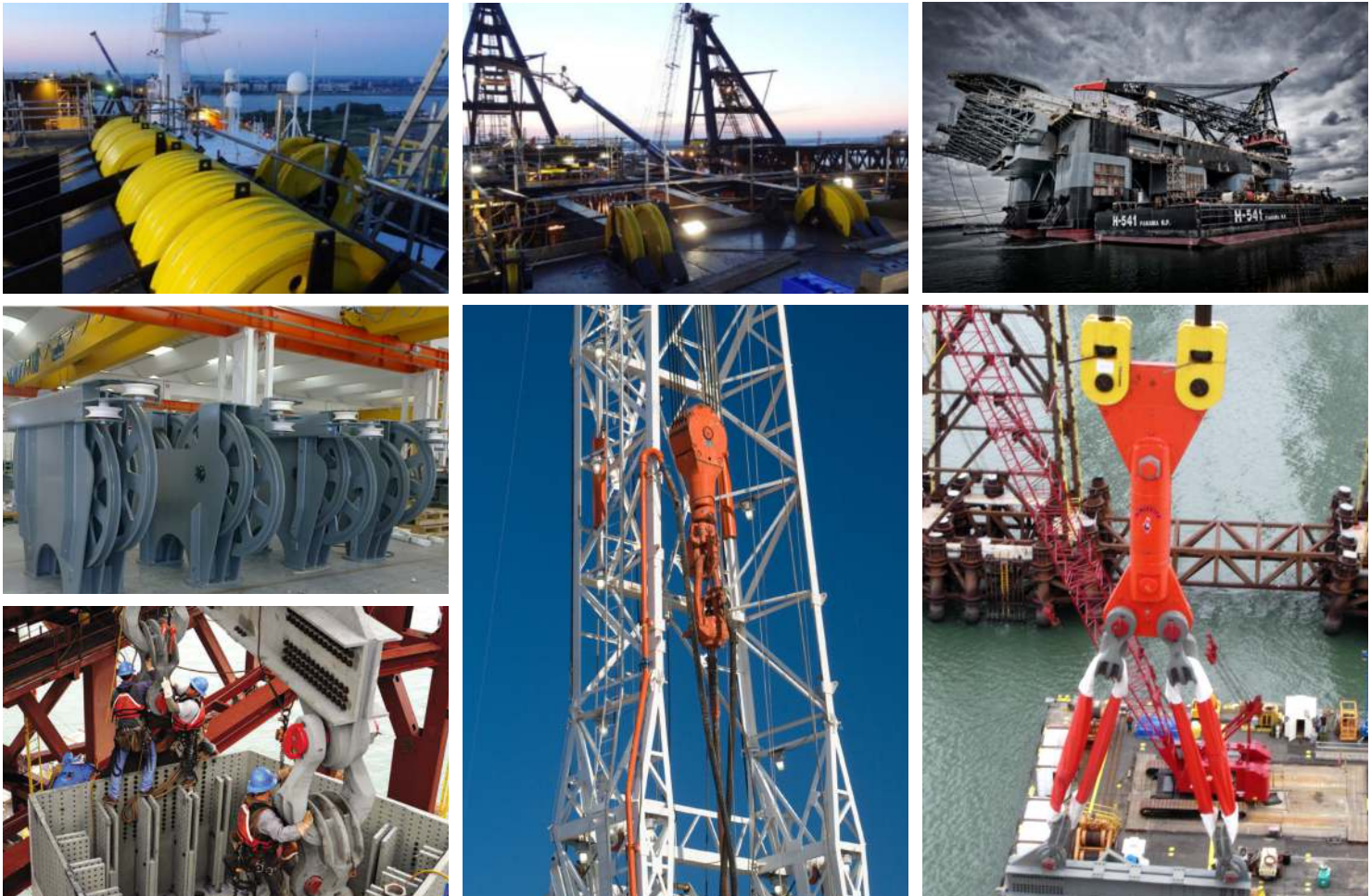


# A NAME THAT ENCOMPASSES YEARS OF **ENGINEERING & MANUFACTURING EXCELLENCE**



Whether you need a variation of a catalog item or a special designed solution for a challenging or unique application, The Crosby Group can help. By combining the experience of our technical support, research and development, engineering, and manufacturing teams, we are capable of designing and fabricating custom products for nearly any special application.



# ENGINEERED SOLUTIONS

## Special Request Forms

To submit a request for a custom product, please complete one of our special request forms online. Our Engineered Solutions group will review your request and follow up to discuss your project and next steps.



# Superior sheaves to meet your most demanding applications

Every McKissick® Roll-Forged™ sheave starts as a single piece of AISI C-1035 carbon steel plate. Utilizing a time-proven proprietary roll forging process that adds extra strength to the critical groove section, the sheave is formed from a precision flame cut blank. The hub is then pressed into place with complete metal-to-metal contact and secured with a deep penetrating weld to ensure proper fit and longer life. Before the McKissick name is added, each sheave is thoroughly inspected to meet applicable industry and Crosby® quality standards.




	McKissick®	Cold-Formed Split-Steel
Smooth radius edge for better fit & less wear on rope	4	
Thicker fleet section for better support & stronger sheave groove	4	
Deep penetrating weld at hub for longer life	4	
Flame-hardened groove - Higher Rockwell C rating	35Rc	14Rc
Roll Forging process provides superior grain flow	4	

## ELEMENTS OF A SUPERIOR SHEAVE


- 1** A smooth radius at the rim provides superior transition from outside diameter to groove, eliminating sharp corners that can damage rope. Cold-formed split-steel sheaves may contain a sharp transition radius at rim of sheave.


- 2** Size for size, McKissick Roll-Forged sheaves have a thicker section under the tread of the wire rope groove, providing more substantial support of the rope. Cold-formed split-steel sheaves are limited to a thinner section thickness under the groove, reducing sheave life in heavy service conditions. Thinner sections produce a sharp corner under the tread, resulting in potential stress risers.


- 3** Thicker web on the sheave provides required stiffness to support a stronger sheave that contains thicker flange sections. The thinner web on cold-formed split-steel sheaves, inherent to the process, does not support thicker flange sections. The sharp, pointed cutter used in forming the groove during the cold-formed split-steel process may produce a concealed crack in the bottom of the groove.


- 4** Heavier flange sections provide a much stronger wire rope groove and maintain proper consistent groove angles, ensuring long term wire rope performance. Cold-formed split-steel sheaves tend to have flange sections that are thinner as well as variations in thickness on the same sheave, resulting in less than desired performance during critical applications. Cold-formed split-steel sheaves are limited to a maximum flange thickness of 50% of web section.


- 5** Minimum 35Rc for higher hardness in the bottom of the groove results in less wear to the sheave, thus extending life of wire rope. Unless requested at time of order, cold-formed split-steel sheaves have a much lower hardness rating (approximately 14Rc). The standard material used in cold-formed split-steel process may not allow higher hardness in groove.


- 6** Precision alignment of hub with blank, then finished with a deep penetrating weld ensuring proper fit, longer life, and confidence during the most extreme of applications.



**Additional important features:** The grain flow associated with the McKissick Roll-Forged sheave process results in excellent performance properties, and each sheave is permanently marked with 'McKissick,' sheave outside diameter, wire rope size, and the Product Identification Code (PIC) to provide complete material traceability.