

TYPICAL WIRE ROPES FOR OFFSHORE OPERATIONS

Offshore rigs and cranes need wire ropes that rely on a different set of performance characteristics. Maintaining a stable platform in deep water, subject to constant battering by wind and waves, requires a system of powerful anchoring lines and tensioner cables with excellent bendability, fatigue and abrasion resistance.

On deck, wire ropes are needed to operate cranes, moving heavy loads to and from the rig with a minimum of maintenance and downtime. A variety of wire ropes are available for offshore cranes. The chart at the right describes some of the typical ropes, their usages and traits.

WireCo WorldGroup manufactures a full line of crane ropes and also fabricates custom boom pendants. A more detailed look at cranes and crane ropes is covered in **Union's Crane User's Guide**. The guide, and technical support, can be requested by contacting us at: **816.270.4700** or **info@wirecoworldgroup.com**.

WIRE ROPES FOR OFFSHORE APPLICATIONS

APPLICATION	RECOMMENDED WIRE ROPE	COMMENTS
Anchor line	6 x 19 class RRL bright or galvanized IWRC	Choice depends upon rope size required, drum geometry and other operating characteristics. The 6 x 19 ropes have larger outside wires for more abrasion resistance.
	6 x 36 class RRL bright or galvanized IWRC	The 6 x 36 ropes have a greater number of outside wires for extra bendability and fatigue resistance.
Buoy pendant	6 x 36 class RRL bright or galvanized IWRC	Offers good fatigue resistance.
Riser tensioner line	6 x 36 class RLL IWRC	A lang lay construction is recommended because both ends of the rope are fixed and it is more resistant to fatigue than regular lay.
	8 x 36 class RLL IWRC	
Guide line tensioner line	Flex-X® 6 or Flex-X® 8	Flex-X ropes increase strength and resistance to wear, fatigue and crushing
	6 x 26WS RRL IWRC	The 6 x 26 ropes provide a good balance between abrasion resistance and fatigue resistance.

WIRE ROPES FOR OFFSHORE CRANE APPLICATIONS

APPLICATION	RECOMMENDED WIRE ROPE	COMMENTS
Hoist	Flex-X® 19 PS	Flex-X 19 PS provides a great combination of rotation resistant properties and improved stability and resistance to crushing. Provides even greater rotation resistance, more lifting capacity and fatigue resistance. Lower strength and less wear resistance than Flex-X 19 PS, but does provide rotation resistance. May be used if block rotation is not a problem.
	Flex-X® 35	
	19 x 7	
	6 x 26WS	
Boom hoist	Flex-X® 9	Flex-X 9 is designed to provide the resistance to drum crushing that is critical in many boom hoist applications. Flex-X 6 provides resistance to bending fatigue, as well as stability. Crane manufacturers specify a number of boom hoist ropes, but these are the most common. Check your owner's manual to assure ropes meet strength requirements.
	Flex-X® 6	
	6 x 26WS RRL IWRC	
Boom pendant	Rope or strand	Custom-fabricated to your requirements.