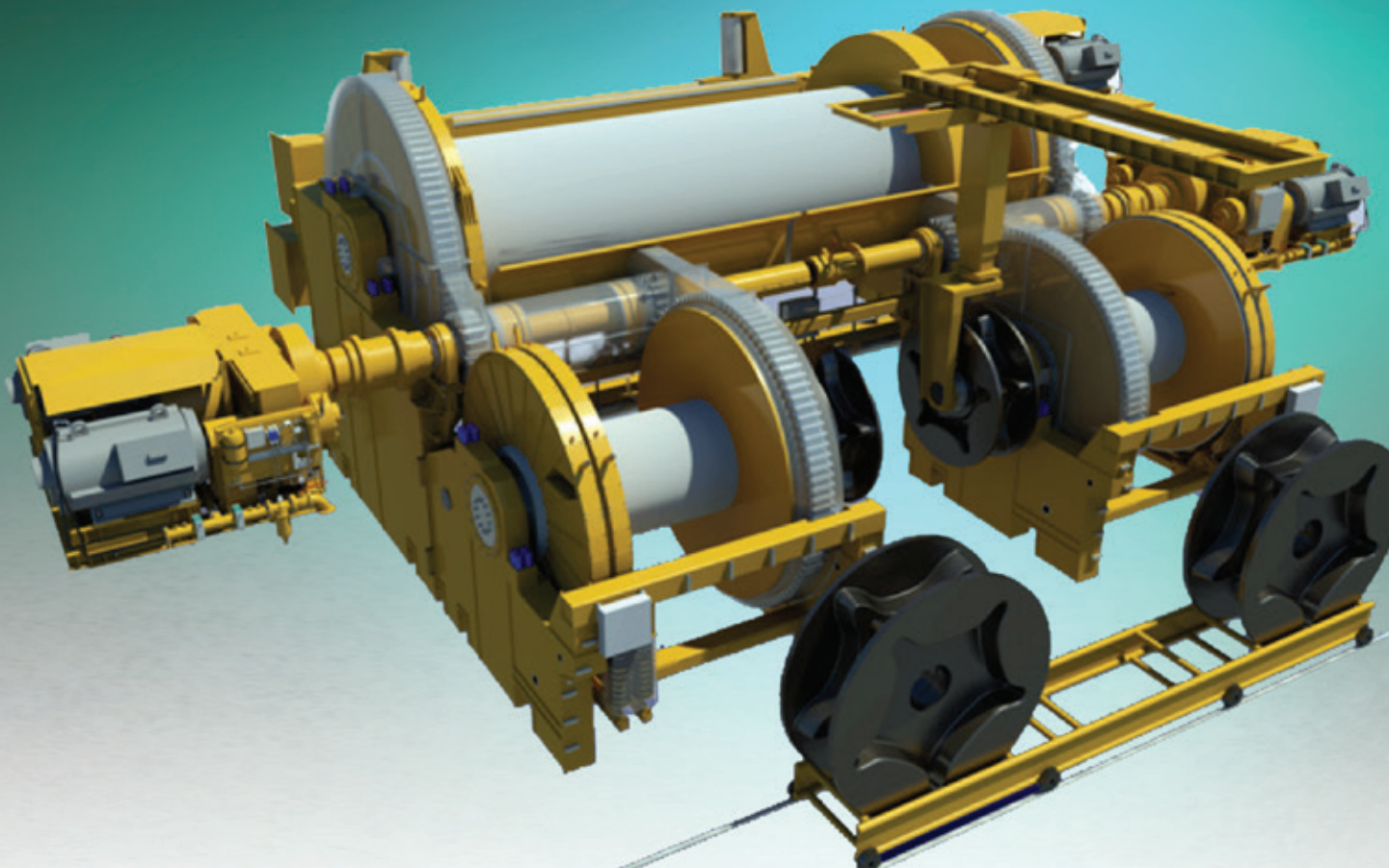


Chain Wheel Replacement Tool



Your partner for a Lifetime of Lifting

Major oil companies are now enforcing the requirement for an intelligent storage and manipulator system to replace wildcats (chain wheels) at sea when the vessel is rolling. To accommodate this it requires planning when the vessel is being designed, but a retrofit is also possible if space is available.

NOV™ has developed a set of tools, frame structures, and manipulators that will solve most challenges.

Chain Wheel Replacement Tool (CWRT)	Capacity and Performance	Chain Wheel Size	Weight
Extraction/Installation stroke	750 mm	100 mm	4200 kg
Horizontal frame stroke horizontal	3800 mm	114 mm	4600 kg
Vertical frame stroke	400 mm	127 mm	6300 kg
(1) Rotation and handling arm	From -90 to +90°	133 mm	7100 kg
(1) Maximum vertical load on handling arm	16 ton	152 mm	11000 kg
		165 mm	14000 kg

Chain Wheel Replacement Tool (CWRT-16T)

The Chain Wheel Storage Rack

The chain wheel replacement system is built up by three different function units:

- (1) Wildcat storage rack
- (2) Wildcat extraction system
- (3) Wildcat transport frame

The storage system will provide room for four to eight chain wheels, or more. Racks are made to position and pick up the selected size wildcat. Several rack storage systems are available.

Chain Wheel Extraction System

A high pressure extraction/installation hydraulic cylinder is built into the main winch shaft.

An adapter flange is used to connect the chain wheel with the cylinder piston on one side, and the handling arm on the other side, before wheel extraction. The cylinder piston rod is designed to hold the weight of the chain wheels.

The chain wheels often get stuck on the winch shaft and create trouble for the crew. This problem is now solved because the extraction cylinder will do the job.

Horizontal Transport Frame

Several standard transport frame configurations and sizes are available.

The system is powered by a hydraulic motor that drives a planetary gear, that in turn drives a screw mounted along the frame. A matching nut is mounted on the moving frame. This carries the handling arm and its rotation drive.

