Tugger Winch Upgrades

Help avoid accidents in operation when the tugger winch is connected to the hook or load, without Constant Tension active



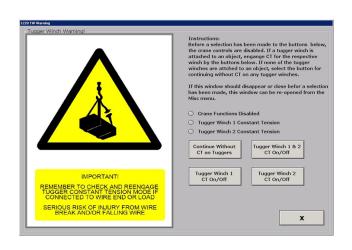
During operation, the tugger winches are often connected to the secondary hook to prevent it to get entangled to the primary wire or for controlling the load, with constant tension mode activated. If the operation has a break and pump is re-started the tugger winches will not automatically enable constant tension. If the crane operation continues without constant tension there is a high risk of equipment failure or personal injuries. The tension can become greater than SWL on winches and slings. A new set of safety functions can be implemented to reduce the risk or prevent this.

Warning and start-up screen

The warning and start-up screen inhibits the operation without an active selection of the correct mode. The first time the controls enable switch is activated after the crane is started, a warning will be displayed for the operator in the centre of the screen.

The tugger winch CT indicators will be added to the top banner on the operator screen. In this way, the status of the tugger winch constant tension will always be visible.

A green signal light is included and can be placed externally, giving a signal when the Constant Tension mode is engaged.



Tugger winch reduced brake capacity

The tugger winch modification prevents a winch or wire break in overload situations.

The tugger winch can be modified with a new brake of a special design. The brake will have a reduced static brake capacity compared to the original brake. In combination with a modification to the hydraulic system that will allow oil to pass by the hydraulic motor in overload situations, this will reduce the maximum tension and prevent an overload.



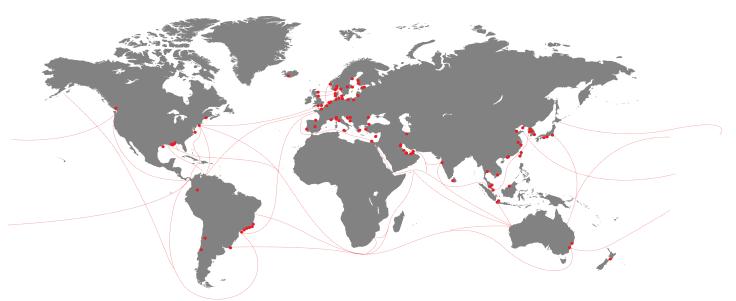


Wherever needed, you can rely on our support. We serve our brands globally:

- Ankerlökken Marine
- Allset
- ASCA
- Becker
- BMH
- Conver-OSR
- Grampian Hydraulics
- Flintstone
- Greer Marine
- Hamworthy
- Hatlapa

- Hydramarine
- Hägglunds
- Interschalt
- KGW
- KYB ASCA
- KYB Kayaba Industries / Navire Cargo Gear
- Luezhoe
- MacGregor
- MacGregor-Conver
- MacGregor-Hägglunds

- MacGregor-Kayaba
- MacGregor-Navire
- Navire Cargo Gear
- Nordströms
- Ozean Service & Reparatur
- Platform Crane Services (PCS)
- Plimsoll
- Pusnes
- Porsgrunn
- Triplex
- Vestnorsk Hydraulikkservice (VNH)



MacGregor shapes the offshore and marine industries by offering world-leading engineering solutions and services with a strong portfolio of MacGregor, Hatlapa, Porsgrunn, Pusnes and Triplex brands. Shipbuilders, owners and operators are able to optimise the lifetime profitability, safety, reliability and environmental sustainability of their operations by working in close cooperation with MacGregor.

MacGregor solutions and services for handling marine cargoes, vessel operations, offshore loads, crude/LNG transfer and offshore mooring are all *designed to perform with the sea*.

MacGregor is part of Cargotec (Nasdaq Helsinki: CGCBV).

Published by MacGregor. Copyright © MacGregor October 2017. All rights reserved. No part of this publication may be reproduced, stored, photocopied, recorded or transmitted without permission of the copyright owner.





www.macgregor.com



