Caliper Escort Render & Recovery Winch

Tugpins B.V.

Tugpins, located in the Port of Rotterdam, is specialized in designing, engineering and manufacturing of various types of deck equipment. Tugpins is driven by innovation which has resulted in new, safer and more sustainable deck equipment. If you care about the environment, safety is one of your key priorities and quality is the least you expect, Tugpins is your partner. All Tugpins' designs are aiming at reducing the operational cost (Opex) by applying smart and safe solutions.

KEY BENEFITS

- Smart modular design
  Low and easy maintenance
  Reduced down time
- Multiple electric motor redundancy
- Multiple caliper brake redundancy
- One footprint
- No gear box
  Reduced mass inertia
  Quick response time
- Reduced total weight
- Reduced power requirements
  Less heat development
  Reduced control box space
- Controlled emergency brake release
- Fixed drumshaft
  Easier alignment
- Compact HPU
  Reduced hydraulics
- High recovery speed

ADDITIONAL INFORMATION

More information can be found at:

www.tugpins.com

Youtube: tugpins

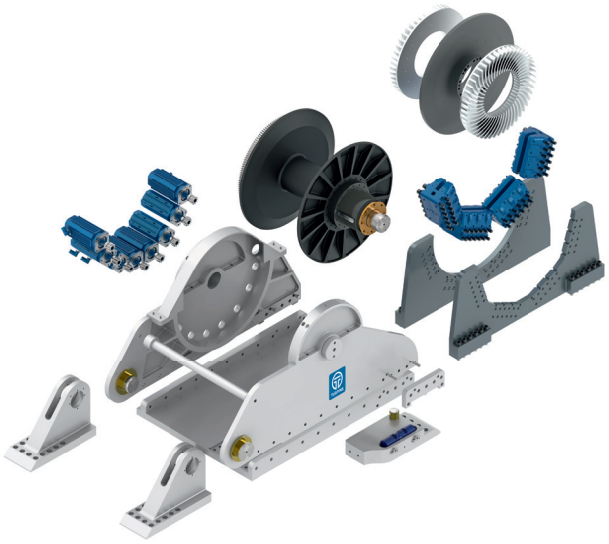
Escort Winch

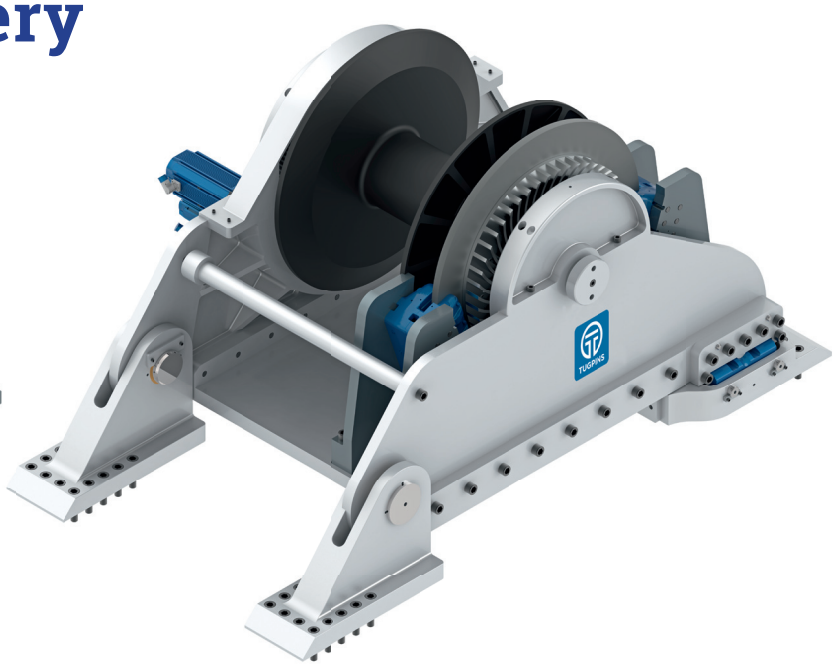
Modern winch systems, such as render and recovery winches, have developed into overly complex pieces of machinery. The net result of this development is a fundamental disconnect between the winch design engineer's construction goals, the end-user's expectations and stakeholder management. Tugpins is pleased to introduce the first modular Caliper Escort Render & Recovery Winch. This winch concept aims to simplify winch design and construction, while emulating advanced render and recovery functions, by using an advanced drive and brake control system. This innovative design will be an improvement for the industry with regard to having only one footprint, reduced power consumption, improved control, easy maintenance, redundancy of key features, lack of gearbox, lower weight and safe emergency quick release option. The modular winch concept breaks down the principal drive and brake systems into multiple redundant sub-systems, including an advanced dynamic control system to emulate high-end winch performance at similar or lower cost level.

Render & Recovery

One of the main causes of failure in the towline configuration are peak loads, caused by waves or human mistakes, exceeding the SWL/MBL of the winch, towline or bollards. To avoid these failures, peak loads need to be flattened and reduced to a safer tonnage. Maximum and minimum towline forces on the TUGPINS winch can be pre-set and are continuously measured by two load cells. The TUGPINS winch is able to react instantly due to its multiple servo motors and low mass inertia (no gear box) when the pre-set values are exceeded. The PLC driven caliper brakes enable a controlled pay out by applying more or less friction in order to stay within the range of the pre-set values preventing overloads or slack in the towline.

Caliper Escort Render & Recovery Winch





Technical specification

Brake holding force (kN)	2150
Synthetic rope diameter (mm)	65
Nominal pull (kN)	150
Line storage capacity (m)	180
Nominal line speed (m/min)	70
Weight (mt)	15
Drum diameter (mm)	400
Flange diameter (mm)	1400
Distance between flanges (mm)	700
Number of electric motors	8
Power per motor (kW)	7,5
Maximum power total (kW)	80
Number of caliper breaks	4

Data as mentioned in this fact sheet may be subject to change.

TUGPINS

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