

Rauma Brattvaag™

Low-pressure hydraulic anchoring and mooring systems for merchant vessels

Rauma Brattvaag has manufactured low-pressure mooring and anchoring systems for more than 60 years. The systems are designed and manufactured according to ISO 9001 quality standard, and meet all international rules and regulations presently in force for mooring and anchoring systems.

Hydraulic power packs and drive units are produced in the hydraulic factory of Rolls-Royce Marine and each winch unit is assembled and quality controlled in own factories.



Construction and structural design

The Rauma-Brattvaag low-pressure hydraulic system consists of two basic components: the hydraulic power pack and the winch itself with a hydraulic motor and control valve. The low-pressure hydraulic pump units are of the vane or screw-spindle type, with a maximum working pressure of 64 bar. The prime mover is of the vane type and provides stepless speed control and automatic speed selection. Overload protection is achieved by means of a safety valve. The brake system is of the band brake type. Modular design enables a wide range of sizes and configurations.

Hydraulic system

The Rauma Brattvaag low-pressure hydraulic system is of the constant-flow type, with variable pressure depending on the torque required at the winch. Each pump unit provides hydraulic oil to serve either one or several winches connected in series.

The fixed displacement prime mover provides a constant momentum on the pinion shaft with full starting torque. The drive unit consists of a three-working-chamber, hydraulic prime mover with a control valve. With this vane-type prime mover the light line speed of the mooring rope or the lowering speed of the anchor chain can reach levels up to three times the nominal speed.

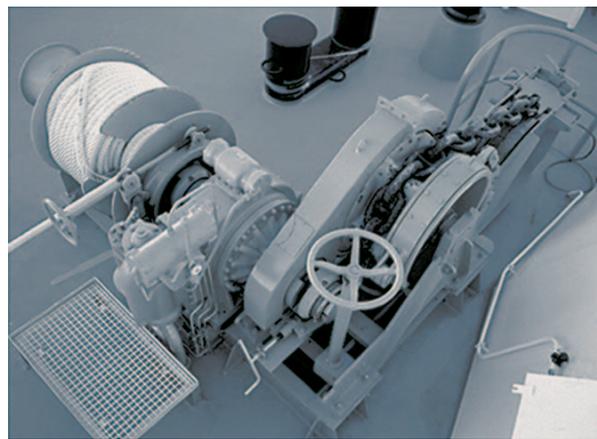
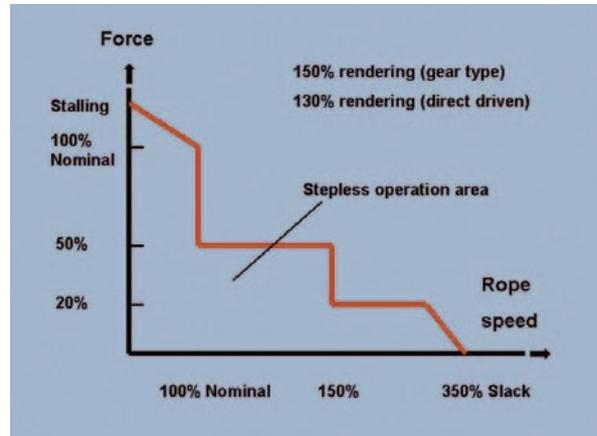
The hydraulic power pack consists of pump units, electric motors, filters, pressure gauges, non-return and safety valves, expansion tank and other features necessary to provide sufficient oil delivery and pressure.

Standard delivery of the system includes local control for each winch.

Fact Sheet

Performance characteristics

The key characteristics of Rauma Brattvaag hydraulic low-pressure systems are high torque, robustness and reliability. Noise level is low because of the high torque hydraulic motor with its low rotation speed. Standard features include automatic change of speed ranges and dynamic braking when dropping the anchor. High torque hydraulic motor enables mooring winches of up to 16 tonnes of pull to be built without a reduction gear.



Options

Mooring winches

- automatic tension regulation
- fail-safe brake
- stainless steel brake drum
- split type bearing

Cable lifters

- fail-safe brake
- emergency release

Chain stoppers

- roller type, manual
- roller type, hydraulically operated/remote controlled

Control system

- servo-hydraulic
- electro-hydraulic



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