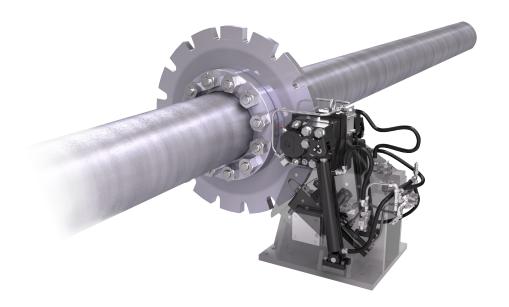


PROPULSION BRAKE SYSTEMS

STOPPING, TURNING & LOCKING SYSTEMS COMPLETE AND TOTAL CONTROL







- Faster Directional changes / Manoeuvrability
- · Less load on Propulsion Systems



TURNING PROPELLER

- Shaft Rotation during Installation / Maintenance functions.
- Hydrodynamic Bearing conditioning, whilst in Port. (Low Power Turning)
- Reduces Shaft Bending, assists in Bearing Settings
- Reduces Marine growth on Shafts, Stern Seals, Propellers and Hubs
- Optimised Propeller Blade positioning, whilst Sailing, (Sail, Twin Screw)



LOCKED PROPELLER

- Reduced Fuel consumption during feathering whilst Sailing, (Sail, Twin Screw)
- Less load on Propulsion Systems
- Lock-Out Maintenance function
- Personally Safety, with Equipment and Environmental protection

MILITARY - SHOCK PROTECTION MERCHANT - DRAFT PROTECTION FERRY - WASH PROTECTION

OFF-SHORE - DIVER PROTECTION FISHING - NET PROTECTION ICE BREAKER - PROPELLER PROTECTION

LUXURY YACHT - DRAG REDUCTION CRUISE - HYDRODYNAMIC BEARING PROTECTION

WATER-JET - IMPELLOR EROSION PROTECTION OIL & GAS - ROV PROTECTION

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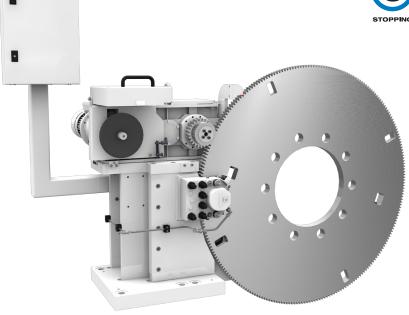
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THE SYSTEM

The STL-system consists of a hydraulic pressure applied, spring released caliper brake, a brake disc (periphery as a gear wheel with cogs), a gear box with pinion on the output shaft as well as a manual locking device.

PRODUCT FEATURES

- A fully modular system where you can choose the function(s) needed, S, T, L
 or combined dual functions in terms of SL, ST, TL or a complete STL where
 the capacity is dependent on space constraints
- Robust and maintenance friendly system
- Different friction materials available for different requirements
- Remote and/or Local Operation, fully automatic "push" button availability customer set automation level
- Lock-Out Maintenance function (personal safety)

ADDITIONAL PRODUCT FEATURES TO STL-SYSTEMS WITH CONTINUOUS TURNING

- Continuous rotation that could be used at alignment measuring
- Electrical powered (low environmental intense)
- Variable speed in both directions
- Quick change in turning direction

EXAMPLE OF DESIGNED SYSTEMS

	Stopping [kNm]	Turning [kNm]	Turning speed [rpm]	Locking [kNm]
System 1 (photo)	90	46	0,4	335
System 2	-	24	0,8	-
System 3 (shown at SMM 2014)	14	24	0,8	82

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