

## 6S46MC-C reducing cylinder oil consumption with HJ Mechtronic SIP

Navigator Gas has upgraded their vessels M/V Navigator Leo & M/V Navigator Libra with HJ Mechtronic SIP.

By upgrading the existing mechanical lubricators with HJ Mechtronic SIP on the vessels, Navigator Gas has reduced their cylinder lube oil consumption (CLOC) in dollar value of 40.74% and 40% per year per vessel, respectively.

With HJ Mechtronic SIP there are clear potentials to not only reduce CLOC and to extension the cost of running the vessel. It is possible to do so without increasing the wear rates of the piston rings or liners - and in many cases, by upgrading cylinder lubrication system, the wear rates are even lower.

### Reducing feed rate

Navigator Gas has reduced their feed rate from 1.1 g/kWh to one of 0.6 g/kWh on the M/V Navigator Leo, and from 1.2 g/kWh to one of 0.68 g/kWh on the M/V Navigator Libra - Navigator Gas saved 55 and 72 liters of cylinder lube oil per 24 hours for each vessel.

Consumption	
Before installation	After installation
Feed rate: 1.1 g/kWh	Feed rate: 0.6 g/kWh
CLOC: 135 ltr/24 hrs	CLOC: 80 ltr/24 hrs
Savings in CLOC 55 ltr/24 hrs 40.74% in monetary reduction of CLOC	

Savings for Navigator Leo

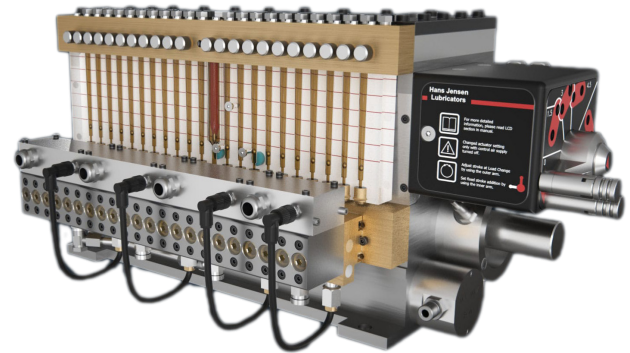
Consumption	
Before installation	After installation
Feed rate: 1.2 g/kWh	Feed rate: 0.68 g/kWh
CLOC: 180 ltr/24 hrs	CLOC: 108 ltr/24 hrs
Savings in CLOC 72 ltr/24 hrs 40% in monetary reduction of CLOC	

Savings for Navigator Libra

### HJ Mechtronic SIP

HJ Mechtronic is an automatic regulation unit, which enables regulation of feed rate in relation to ME load or sulphur content of the fuel oil.

HJ SIP is a revolutionary injection valve that creates a uniform oil film and thus an optimum utilization of the injected cylinder oil. In combination HJ Mechtronic SIP is able to reduce cylinder oil consumption and the risk of cold corrosion. By use of this unique technology with frequent injection of cylinder oil and optimum distribution, the M/V Navigator Libra & M/V Navigator Leo has achieved significant reduction on cylinder oil consumption. This directly reflects on the bottom line for the costs of running the vessels.



The HJ Mechtronic unit

### Realize your potential with HJ Mechtronic SIP

Gain the same potentials as Navigator Gas by upgrading your mechanical lubricators with our electronic regulation unit and our patented injection valve. By utilizing the optimum potential of HJ Mechtronic SIP, shipowners gain a reduced oil consumption between 30-60% as well as reduced piston ring and liner wear.

