



KONGSBERG



EEXI ShaPoLi METAPOWER QUAD

SINGLE & TWIN SHAFT

BENEFITS

- Type approved EEXI ShaPoLi
- Torque meter with accuracy verified by DNV
- Tamper proof log-keeping at all times
- EEXI reporting system
- No mechanical wear, no recalibration
- Web based or traditional Modbus data-distribution system
- Serial line output
- Many additional features & options

OPTIONS Metapower Quad EEXI ShaPoLi

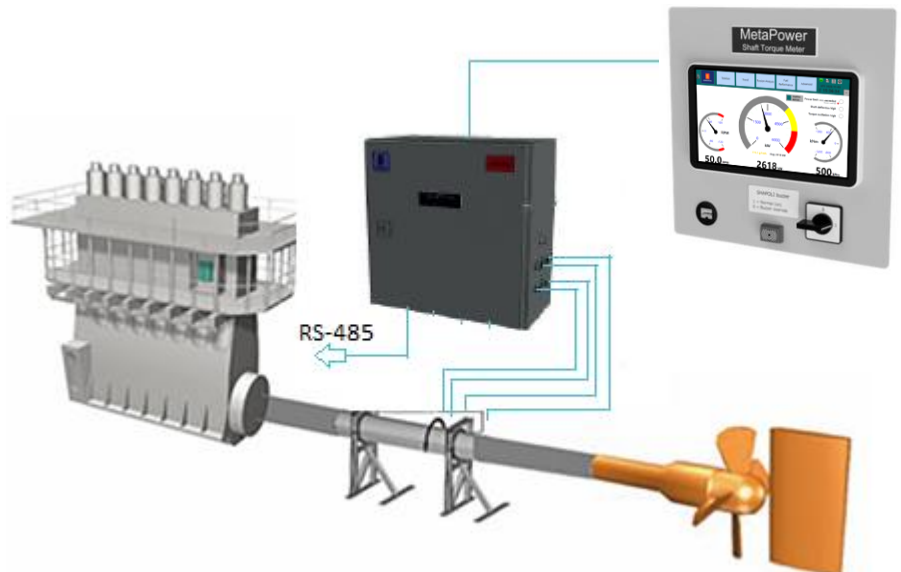
- Clutch slip detection
- Fuel performance
- Shaft stress monitoring
- Crank shaft monitoring
- Customer self-commissioning for repeat-series

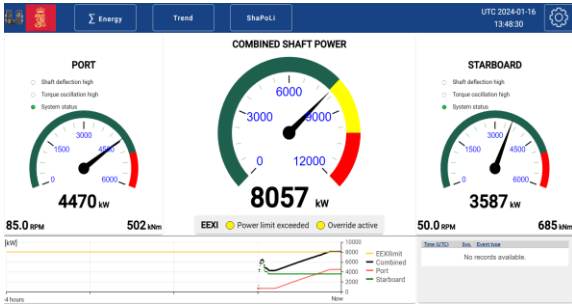
TORQUE & POWER MONITORING INCLUDING SHAFT POWER LIMITATION FEATURE FOR SINGLE AND TWIN SHAFTS

Kongsberg MetaPower® Quad EEXI ShaPoLi feature

General description

KONGSBERG's MetaPower Quad ShaPoLi offers a reliable Shaft power Limitation solution for compliance with EEXI regulations according to IMO **MEPC 335(76)** and **IACS 172**. MetaPower can either provide the propulsion control system with correct power readings for ShaPoLi, or act as a standalone ShaPoLi system where crew manually handle the power limitation by operating the propulsion in accordance with the MetaPower ShaPoLi Bridge panel. It displays torque, rpm, power and the EEXI power limit. At breach of this limit, an alarm will sound. After 15s in alarm state, a breach of power limitation is logged as an event that can later be found in the EEXI compliance report.





Intuitive reading of shaft power and EEXI limitation, for single and twin shaft



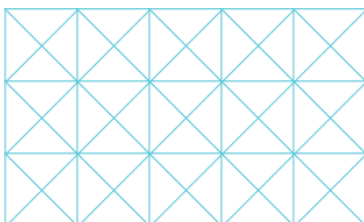
Shaft power data is stored for minimum 10 years in tamperproof database in the processing unit.

Event start	Event stop	Event type	Reason
2023-02-08 13:22:09	2023-02-08 13:24:09	Shaft power above lim.	Not set
2023-02-08 08:59:57	2023-02-08 10:08:57	Shaft power above lim.	Emergency assist
2023-02-08 09:30:57	2023-02-08 10:08:42	Override switch used	Hostile waters
2023-02-08 09:00:42	2023-02-08 09:00:57	Override switch used	Maneuvering
2023-02-08 08:46:08	2023-02-08 08:58:57	Override switch used	Bad weather
2023-02-08 08:24:38	2023-02-08 08:56:53	Shaft power above lim.	Bad weather
2023-02-08 08:32:08	2023-02-08 08:45:38	Override switch used	Bad weather
2023-02-08 08:23:27	2023-02-08 08:30:53	Override switch used	System test

An event in the "SHAPOLI REPORT" is automatically logged after 15s. of power reserve usage. User can select a reason for breach and easily export the report for documentation purposes.

TIME	G_MODULUS	TORQUE_OFFSET	SHAFT_LENGTH	OUTER_DIAMETER
2022-11-09 15:26:03	82000	0	1000	200
2022-11-09 15:07:59	82000	0	1000	200
2022-11-09 09:00:00				
2022-11-09 09:00:00				
2022-11-09 09:00:00				
ID	TIME	EEXI_FLAG	REASON	
1	2022-10-24 08:56:55	0	0	100
2	2022-10-24 08:57:40	1	3	100
3	2022-10-24 08:58:57	0	0	100
4	2022-10-24 09:00:42	1	11	100
5	2022-10-24 09:03:09	0	0	100
6	2022-10-24 09:05:39	1	2	100
7	2022-10-24 09:06:39	0	0	100
8	2022-10-24 13:49:11	1	1	100
9	2022-10-24 13:53:41	0	0	100
10	2022-10-25 12:17:14	1	1	100
11	2022-10-25 12:17:59	0	0	100

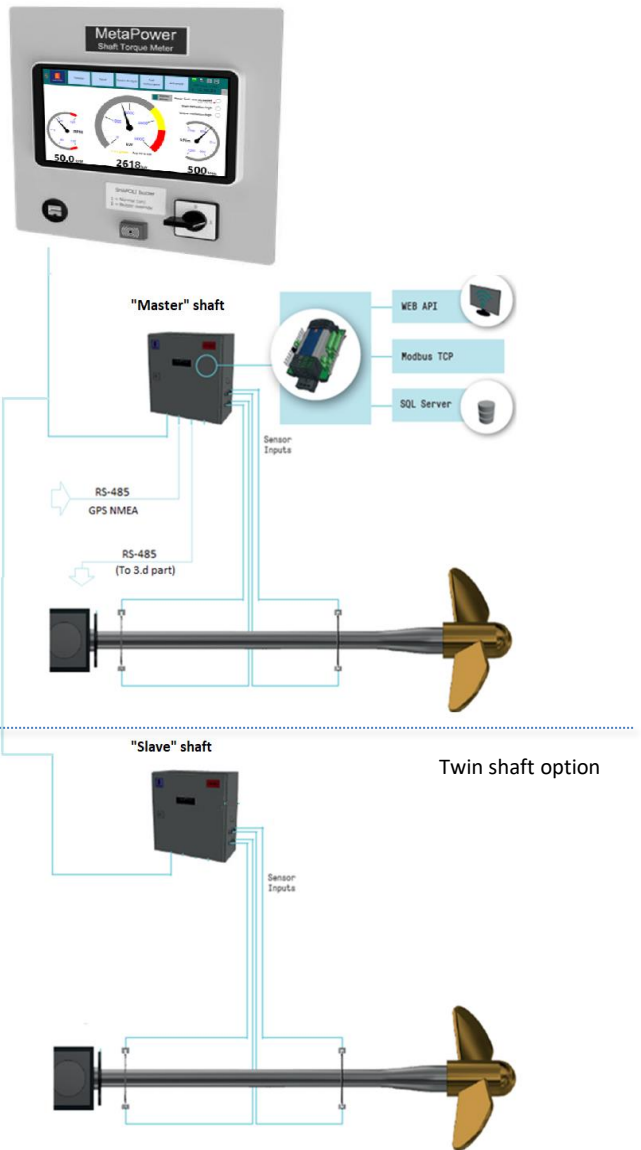
The system keeps track of all config changes, EEXI events, power-off's and user interactions to the data storage so compliance can be verified.



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Enables compliance with EEXI requirements

- Shaft Power Limitation (ShaPoLi) indication and logging
- Dimmable bridge panel with visual + audible alarm and override switch
- Compliance to EEXI by use of torquemeter only, ref. IACS 172
- Outputs engine power to EPL systems if required
- Digital output signal available
- Trending tools, logging capability for min. 10 years
- Automatic report functionality
- Full history stored in tamperproof central processing module
- Can be added to existing Metapower Quad
- Optional GPS input for position and clock sync.
- **Supports twin shaft installations with a single bridge panel**



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