

References

1. Crew/ Cargo Vessel "PACIFIC KESTREL"

Prime Mover

4 x MTU 16V4000M73L
2,800kW each at 2,050 rpm

Reduction Gear Unit

4 x ZF 9050NR2H, 2.4:1

Bow Thruster

2 x ZF AT 2011 RT-FP
retractable azimuth thrusters
150 kW each at 1,500 rpm

Shipyard

Austal, Philippines

Owner

Swire Pacific Offshore, Singapore

3. Crew Boat "FAST SERVER"

Prime Mover

4 x Caterpillar 3512C-HD
1,678 kW each at 1,800 rpm

Reduction Gear Unit

4 x ZF 7600, 2.5:1

Propeller

4 x dia. 56" x pitch 58", 4 blades

Control

ZF Premium ClearCommand

Owner

Edison Chouest Offshore, USA

5. Crew Boats "BAYCORP ALAI / KELANG / SUBANG"

Bow Thruster

1 x ZF TT 1001 ALU-FP
tunnel thruster, electric driven
60 kW at 1,800 rpm

Shipyard

NGV Tech, Malaysia

Owner

Gagasan Offshore Fleet, Malaysia

2. Crew Boat "RAPIDO GEE"

Engine

3 x Yanmar 12AYM-WET
1,140 kW each at 1,840 rpm

Reduction Gear Unit

3 x ZF 5000, 2.963:1

Control

ZF ClearCommand Controls

Shipyard

Strategic Marine, Vietnam

Owner

Rashied Maritime Services, Egypt

4. Crew Boats "GHAGHA-1 / YASAT"

Prime Mover

4 x Cummins QSK 60-M
1,864 kW each at 1,900 rpm

Reduction Gear Unit

4 x ZF 7600 NR2H

Shipyard

Austal, Philippines

Owner

Abu Dhabi National Oil Company
(ADNOC), UAE

6. Crew Boat

Prime Mover

4 x Cummins KTA38-M2
1,007 kW each at 1,900 rpm

Reduction Gear Unit

4 x ZF 3055, 2.952:1

Supplied to

Zhanxiang Marine (Dalian), China



ZF Asia Pacific Pte. Ltd.
20 Harbour Drive
#06-02 PSA Vista
117612 Singapore

Phone +65 6773 7551
Fax +65 6773 7537
info.zfmarine.sg@zf.com

www.zf.com/marine
www.zf.com/ap



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Crew Boat Applications

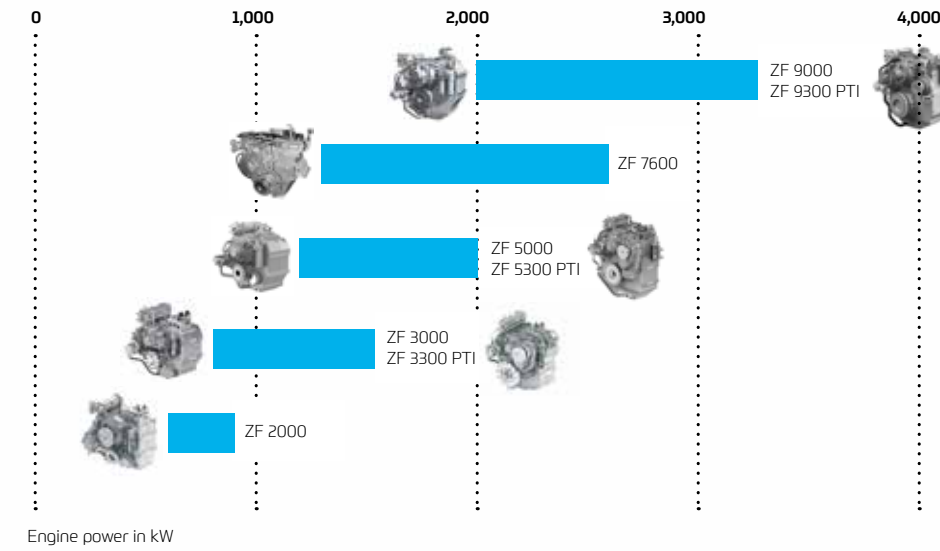
Marine Propulsion Systems



Transmissions

Designed for crew boats and vessels with high performance demands, backed by ZF Group's 100 years of expertise in transmission products, ZF Transmission highlights include:

- ZF SUPERSHIFT 2 – smooth, fast, reliable and efficient shifting system
- ZF AUTOTROLL® system for low speed and smooth operations
- Dynamic positioning compatible
- Lightweight and sea-water resistant aluminum housing
- Precision ground and case-hardened gears for smooth, efficient running
- Compact and space-saving design
- Highest torque-to-weight ratio in fast craft segment
- Flexible configurations: vertical offset, diagonal offset, down-angle, and V-Drive versions.
- Selected models available in horizontal offset option
- Low maintenance – low oil quantity and high oil change intervals, excellent time between overhaul intervals
- PTOs and hybrid-ready PTO / PTI solutions
- Approved by class societies



CruiseCommand/ Premium ClearCommand

Designed specifically for vessels with electronic engines and transmissions and supporting up to four control stations, CruiseCommand is ZF's most popular control system for crew boats. Standard features include: warm-up mode, station transfer, single lever operation and engine synchronization. Advanced features like Dynamic Positioning and joystick interface, multi-function display etc, are available with Premium ClearCommand.

ZF Control Systems are type approved by major classification societies and can be delivered with individual classification societies' approval certificates.

Fixed Pitch Propellers

ZF Fixed Pitch Propellers provide the highest performance and quality with our custom design, allowing 15% operation fuel saving and 10% faster vessel speed compared to conventional propellers, up to 40 knots. The most in-demand models for crew boat applications are our CrewMaster, WorkMaster and SpeedMaster series with specific section profile.

Together with our well established partners, ZF delivers a customized and complete shafting package. Our expertise from transmission to propeller includes and extends beyond design, selection and manufacturing, providing you a worry-free one-stop solution.



ZF Propellers

Tunnel Thrusters / Retractable Azimuth Thrusters

ZF 1000 and 2000 series Fixed Pitch Tunnel Thrusters are available in aluminum gearbox and tunnel for crew boat requirements, up to 200 kW, hydraulic ready and available in both L-Drive and Z-Drive. Option of removable arrangements by means of an elastic tunnel support is available, thus isolating the tunnel from the hull and reducing the structure borne noise significantly.

ZF Retractable Azimuth Thrusters are an alternative solution for enhancing the station-keeping capability in larger crew boats and fast intervention support vessels.

Fixed Pitch Tunnel Thrusters

Model	Max. power*		Typical propeller dia.		Tunnel outer dia.		Tunnel wall thickness stand.		Tunnel length stand.	
	kW	hp	mm	inch	mm	inch	mm	inch	mm	inch
ZF TT 1000 FP	100	134	600	24	660	26	15	0.6	1000	39
ZF TT 2000 FP	200	268	700	28	760	30	15	0.6	1000	39

* Rating subject to classification and application