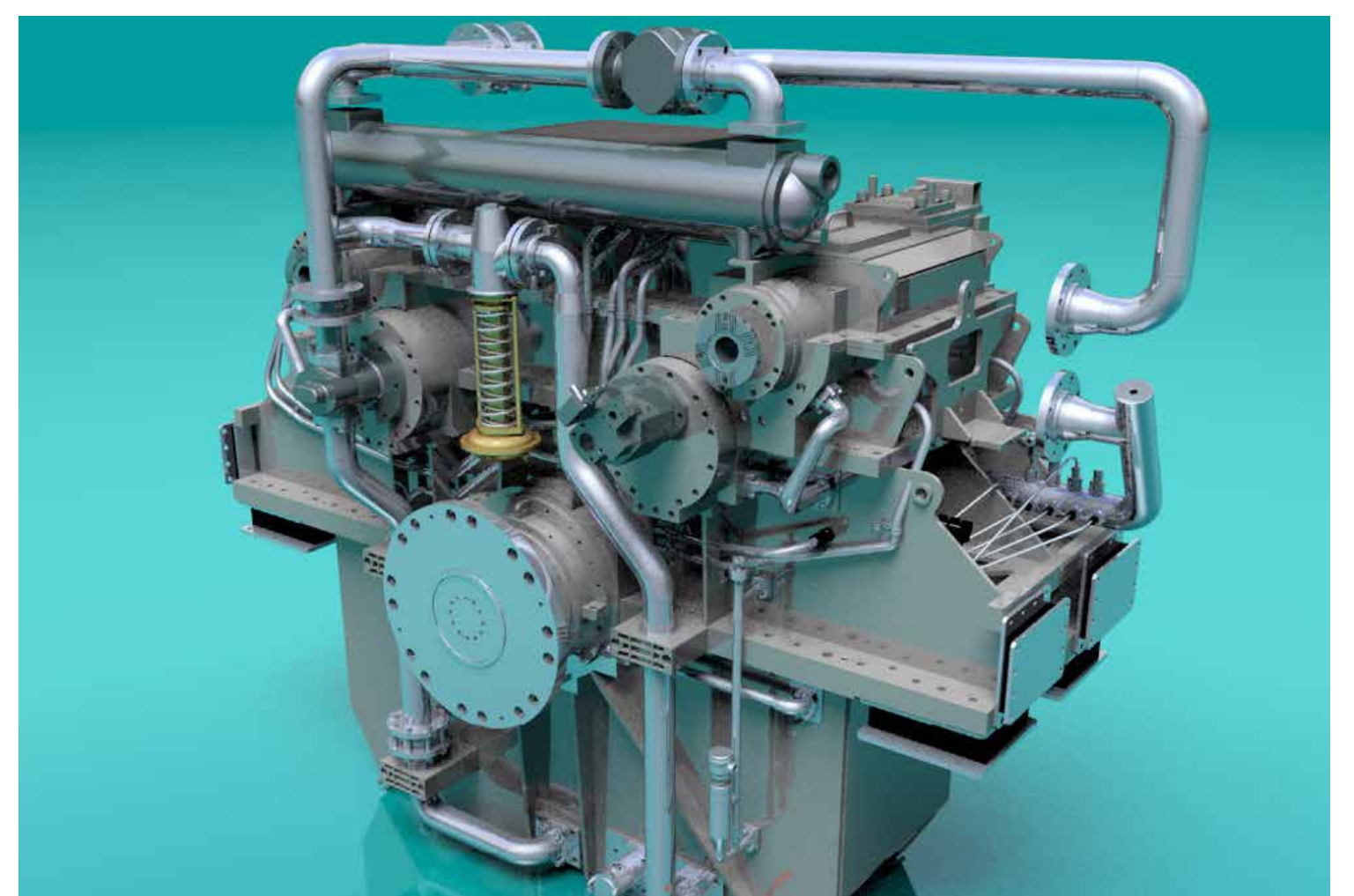


# Marine gears

High-performance Allen Gears and Lufkin Gears technologies for unmatched reliability and efficiency

- Low mass and power density solutions for reduced engine room size
- Ultra-low noise and vibration characteristics
- Hybrid gears and special consideration to integration of complex shaft-line and control
- Integrated propulsion thrust bearings, clutches, brakes, turning gear and shaft locks, oil systems, and control units
- Through-hardened, nitrided, or carburised, ground gears with high degrees of accuracy and ultra-light weight construction
- Heavy-duty or light-weight designs to provide a solution that will last the life of your vessel
- Providing transmission from a full range of prime movers to a variety of propulsion solutions
- Input speeds from 500 to 17,000 rpm, reductions from 2:1 to 15:1, transmission from 1 to 40 MW
- Military and commercial: fast patrol, corvette, hovercraft, destroyer, tug, dredging, fishing, cargo, cruise, and ferry



**Ask us for a better solution**

[allengears.com](http://allengears.com)

[lufkingears.com](http://lufkingears.com)

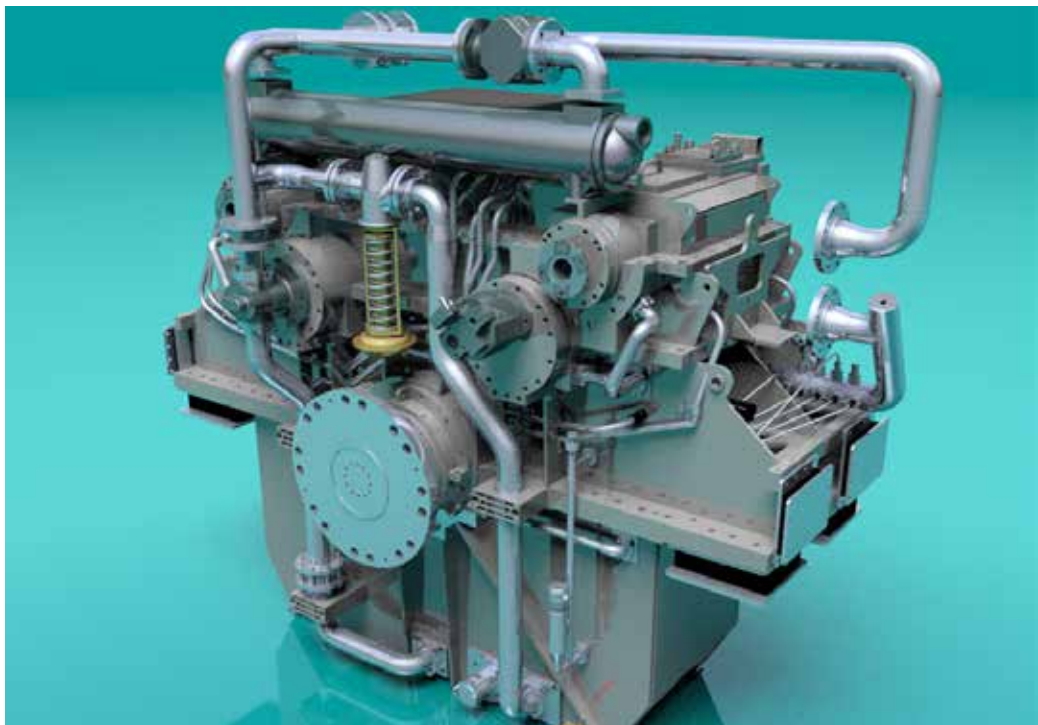




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Luxury yacht	Naval	Patrol	Combatants
Very light weight	Low structural borne noise	Very light weight	Light weight
Low resulting air-borne cabin noise	High level of functionality	Moderate shock (fatigue and ultimate strength)	High shock survivability (ultimate strength)
Mild cyclic shock loading (fatigue)	Space envelope restrictions	Flexibly mounted systems	

### Design services

- 3D contact stress analysis
- Optimized tooth profile
- Integrated housing-mesh alignment assessment
- Variable loading conditions evaluation
- Finite element analysis
- Linear and non-linear evaluation
- Structural dynamic and fatigue analysis
- Lateral and torsional rotor dynamic analysis
- Damped and response analysis
- Verified rotor response test bed measurements

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