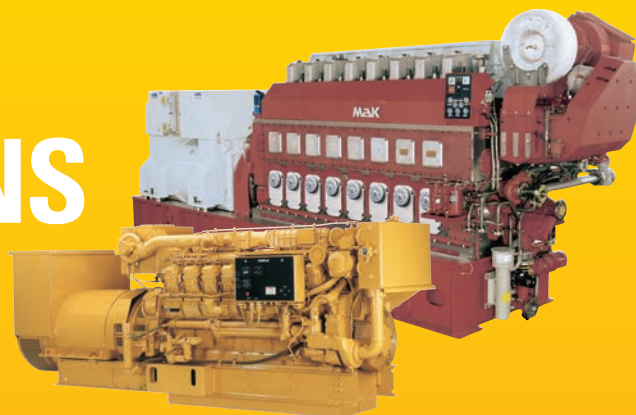




MIXED SPEED POWER SOLUTIONS

Matching Engines to Vessel Operation



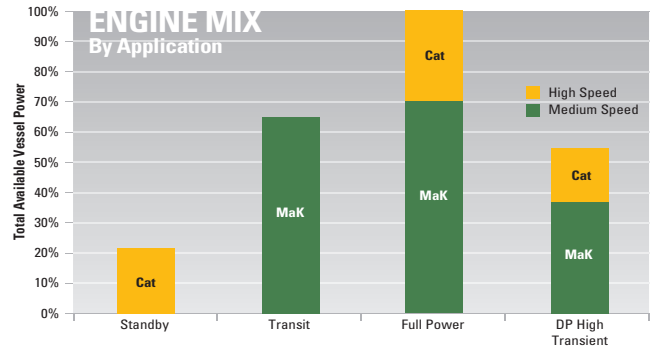
CATERPILLAR®

CATERPILLAR® ENGINE POWER SOLUTIONS

Your vessel has a wide range of operating modes, why not an engine room designed to optimally match your loads? Match medium speed engines with high speed engines and get the advantages of both in one engine room, maximizing fuel efficiency, engine life, and load response.

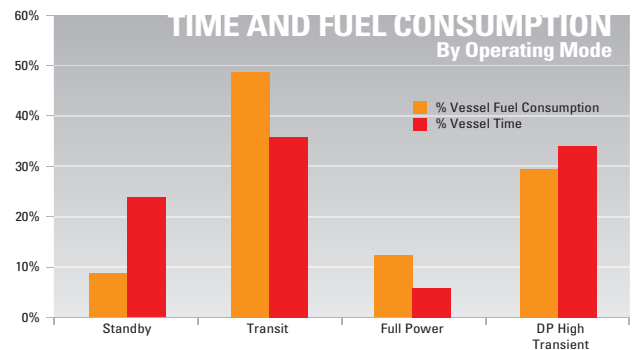
Right Engine Mix

- Combine different engines for superior efficiency
- High speed load response in transient modes
- Optimized mix at all loads



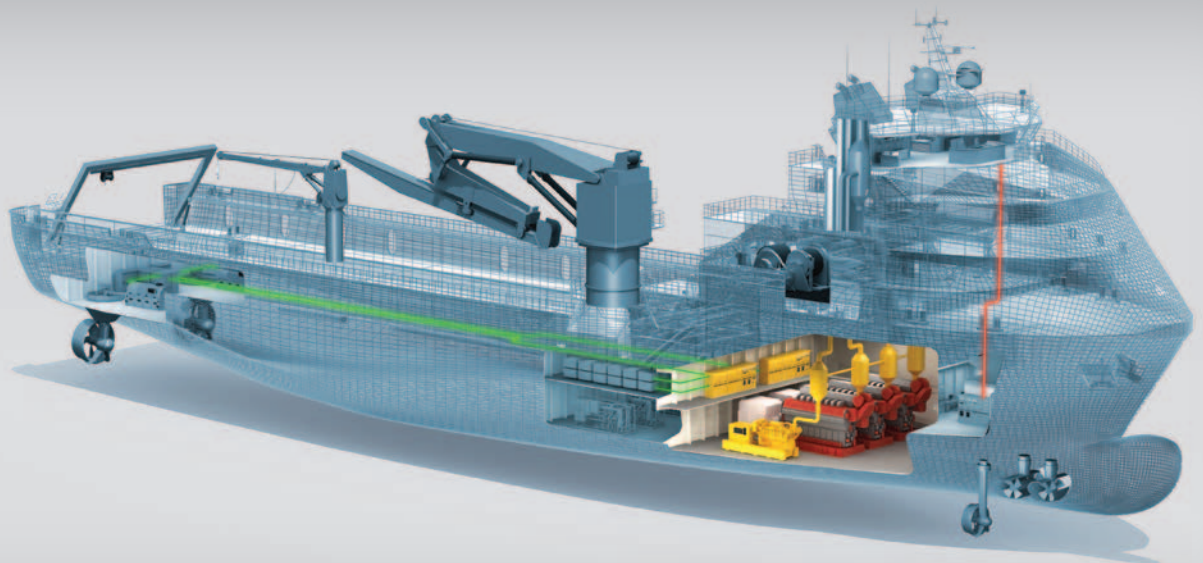
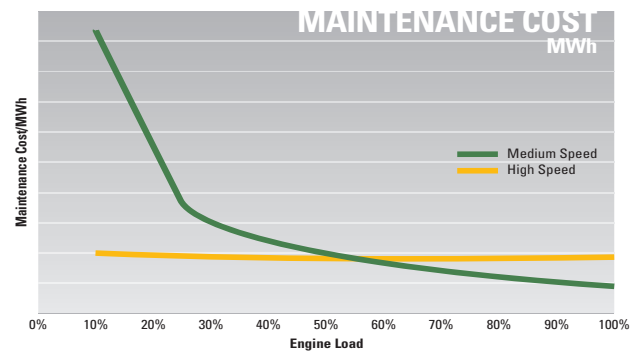
Reduced Overall Fuel Consumption

- Medium speed fuel efficiency at high loads
- Most vessel operation spent at low vessel loads
- High speed fuel efficiency at low vessel loads

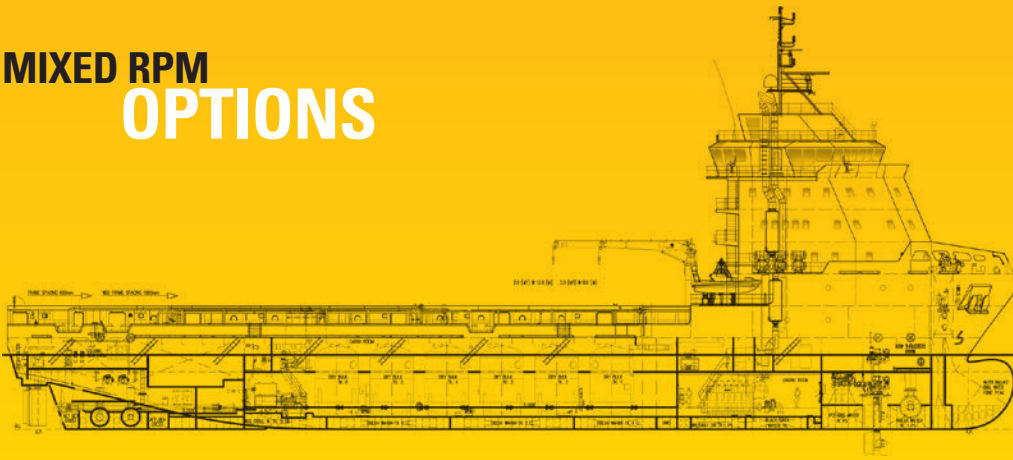


Reduced Maintenance Cost

- Medium speed economy at high vessel loads
- High speed economy at low vessel loads
- Right engines for the right load



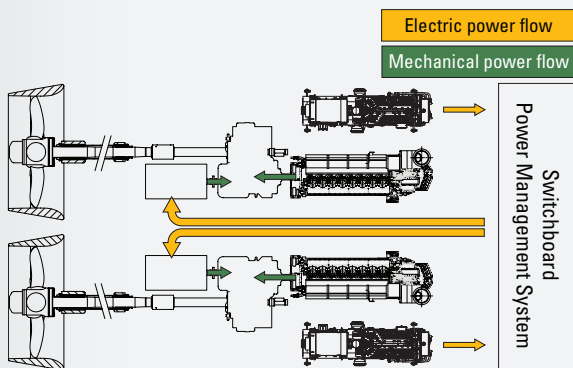
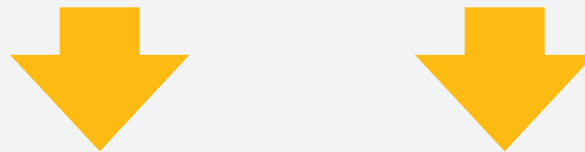
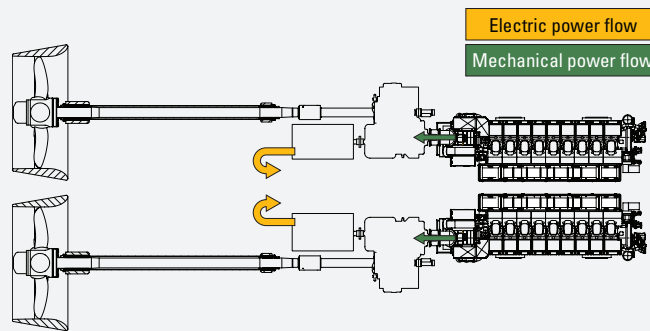
MIXED RPM OPTIONS



- Mechanical/ electric hybrid
- Full diesel electric

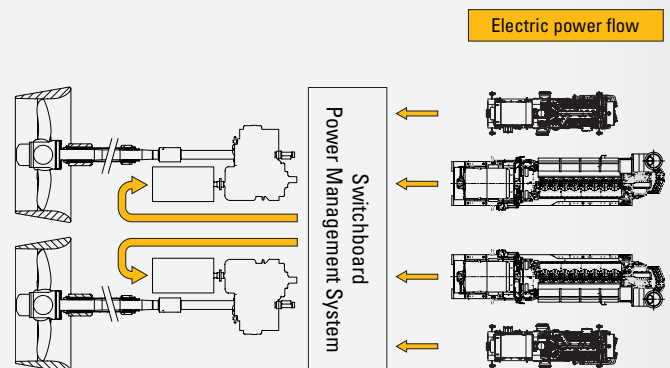
Standard Mechanical Drive Configuration

- Direct mechanical drive
- Engines sized to meet full load requirements
- Low average engine load



Mixed rpm Mechanical/Electric

- Smaller direct drive medium speed engines
- Boosted by high speed generator sets during bollard pull
- 100% high speed generator sets during low load
- Eliminates need for 2-in-1 out gear box



Mixed rpm Full Electric Propulsion

- Medium speed consumes high base loads
- High speed engines manage low and transient loads
- Efficient weight and space layout

15 MW Vessel – CHANGE THE SOLUTION



4 x Medium Speed



2 x Medium Speed
+ High Speed Generator Sets

10 MW Vessel – CHANGE THE BORE



2 x Larger Medium Speed



2 x Smaller Medium Speed
+ High Speed Generator Sets

5 MW Vessel – INCREASE THE BOLLARD PULL



2 x Medium Speed



2 x Medium Speed
+ High Speed Generator Set Boost

Engines matched to your operation

You need reliable power in all sea states. The Caterpillar mixed-speed power solution gives you performance the way you need it, when you need it. And with single-source support from the global Cat dealer network, you always know who to call.

For more information about the Caterpillar mixed-speed power solution, call your local dealer or visit MARINE.CAT.COM today.

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