MAN EcoCam
Low-load optimisation through flexible exhaust-valve timing

MAN EcoCam
The MAN EcoCam is a new solution for the low-load optimisation of mechanical engines (MC/MC-C). The EcoCam makes it possible to adjust the closing time of exhaust valves according to engine load.

Benefits
- Cost-efficient, part-load optimisation for engines with a single turbocharger
- Easy to install
- Easy to operate (automatic)
- Effective between 10 to 60% load
- Short pay-back time
- No exchange of exhaust cam required.

MAN EcoCam function
The MAN EcoCam introduces a flexible cam profile, a virtual cam. The profile is controlled hydraulically by adjusting the amount of actuator oil in the hydraulic pushrod.

Low-load tuning has an impact on torsional vibration and $\text{NO}_x$. When a low-load tuning method is installed on an engine, the torsional vibrations’ impact and the $\text{NO}_x$ level have to be taken into account to ensure that the vibrations’ impact is not harming the engine and that the $\text{NO}_x$ level is in compliance with IMO regulations.

The new torsional vibration calculation and $\text{NO}_x$ amendment are included when buying the MAN EcoCam.
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**Fuel Savings and Payback**

Depending on an engine’s load profile, the MAN EcoCam typically generates savings in the range of 2 to 4 g/kWh. This results in a payback period of as little as 1½ years for a 6S50MC-C engine with 6,000 annual running hours.

![MAN EcoCam Fuel Savings Chart](chart.jpg)

*Reduced fuel oil consumption as a function of engine load*

**Scope of supply**

- Newly designed MAN EcoCam actuator housing for exhaust valves
- Control system including automatic engage and disengage functionality
- Operating panel in the engine control room
- Torsional vibration check
- NOx certificates.

**Currently covered engines**

- S50MC-C Mark 7/8 engines, Tier II
- On the back of current developments, more engine types will eventually be covered.

**System verifications**

The MAN EcoCam’s effect on fuel reduction has been verified by two independent test-bed installations and aboard a test vessel in service, providing significant fuel savings.

**Ask your local PrimeServ hub for more information.**