



OVERSPEED SIMULATOR / TESTER (OTM)

True check of engine over speed safety devices!



Easy testing of overspeed safety devices without risk and engine damages at still stand or idle speed

Most of the big bore Marine and power plant engines are equipped with an over speed safety device. This safety device should initiate the shutdown of an engine in case of over speed and other critical parameter's such as low lube oil pressure etc..

Simulation of standard parameters, such as low lube oil pressure or high temperature, can be easily done. Simulating and testing of engine shut down in case of overshooting these parameter therefore are difficult. Over speed can't be simulated as easy as the standard parameters until yet.

Running engines in real over speed or near to over speed condition to test the safety devices is very risky. The risk of possible over speed engine damages are known, but very often the over speed safety devices and the function of the speed pickup's isn't tested in a proper way or isn't tested at all.

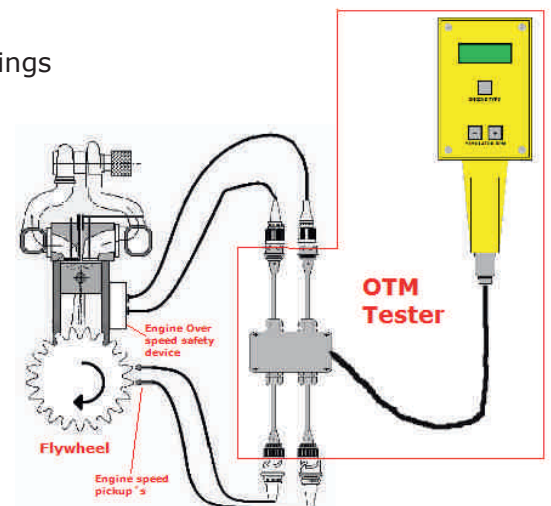
For Marine application the test of over speed safety devices must be done once per year for engines with an power output > 220 KW by, rules of the classification societies.

The damages which could be created by over speed to an engine are enormous:

- ⇒ lost of crankshaft counter weights
- ⇒ permanent elongation of extension bolts of piston/crankshaft bearings
- ⇒ damaged valves and pistons
- ⇒ etc.

Features:

- ⇒ True check of engine over speed safety device
- ⇒ True Check of speed pickups & safety electronic
- ⇒ Fully free programmable
- ⇒ Ready for plug in (incl. customized adapters)
- ⇒ Incl. check of output plausibility
- ⇒ Simulating of over speed on idle incl. concurrent pickup test



Your reliable partner for marine measuring instruments and service



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Technical data

Voltage:	24 VDC +30/-25% V/c-s
Power consumption:	50 mA
Frequency range:	up to 5000 Hz
Resolution:	1 Rpm
Standard cable length:	1,7 mtr. (other length on request)
Distribution box:	for all engine types available (acc. to customer)

How the over speed test of the safety device is done with the OTM?

- shut down the electrical power of the engine
- unplug the speed pickups by loosen the plugs
- connect the OTM by use of the connection box (customized for every engine type) in serial in between the loosen plug and socket from the engine pickups
- make sure that rotating part not touching cables etc.
- choose the adequate engine setup in the OTM (see manual)
- run the engine on idle for example
- read the incoming pulses from the speed pickups on the OTM display
- simulate over speed by use of the +/- buttons on the OTM
- see at which Rpm Simulation the safety system is shutting down the engine and compare it with engine makers instructions
- if necessary adjust the over speed safety device acc. to engine makers instruction and repeat the test

Please note, over speed simulation and test can be done even at still stand of the engine. But at still stand the incoming signal from the speed pickups can't be tested. In addition you can easily test even all other Rpm setups of the engine. For example Starting speed, firing speed, switch Rpm for pumps etc.etc.



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