

## Rating definition charts | Marine diesel engines – High speed

Rating definitions for the SB, SA and SR engine series for auxiliary generator application are as per the table below:

Rating		Overload operation	Definition	Required condition for warranty <sup>1</sup>				
				Load/operating hours <sup>2</sup>			Overhaul interval after delivery (maximum) <sup>3</sup>	
				Average load factor / 24hrs	Average load factor/year	Operating hrs / year	Top <sup>4</sup>	Major
Prime	Limited running time	+10% (E)	Regular power source of which the operating hours are limited to short period as specified in the required conditions for warranty of this document. This rating shall be used where overload operation with Stand-by is needed. LTP as specified in ISO 8528:2005	100% or lower Overload ( $\leq 110\%$ ) is acceptable for 25hrs per year (for emergency only)	As per ISO 8528:2005 100% or lower	As per ISO 8528:2005 500hrs or lower	4yrs	1000hrs or 8yrs whichever comes earlier
	Unlimited running time		For genset with variable load and unlimited operating hour. PRP (Prime Power) as defined in ISO 8528:2005	80% or lower °Overload ( $\leq 110\%$ ) is acceptable for 25hrs per year (for emergency only) °Over 90% load operation is acceptable for 3hrs per 24hrs	60% or lower	Unlimited	4000hrs or 4yrs whichever comes earlier	8000hrs or 8yrs whichever comes earlier

<sup>1</sup> This condition constitutes a part of required conditions for warranty. Atmospheric condition as per ISO 15550:2002 (JIS B 8003:2005) (barometric pressure: 100kPa, ambient temperature: 298K, relative humidity: 30%).

<sup>2</sup> Average load factor shall be calculated as per the formula in ISO 8528:2005 'Average power output (Ppp)'.  
<sup>3</sup> Refer to Operation and Maintenance Manual for more information regarding inspection and maintenance including items and descriptions.

<sup>4</sup> Electric propulsion ship is excluded from the scope of definition.

Rating definitions for the SA and SR engine series for diesel electric propulsion application are as per the table below:

Symbol		Overload operation (rack set)	Required condition for warranty <sup>1</sup>			Operating hrs / years (recommendation)
			Name of rating	Overhaul interval after delivery (maximum)		
				Top	Major	
P	Electric Propulsion	+10% (E)	<ul style="list-style-type: none"> <li>Range of Load Operation: 80~100% of Rated Power is acceptable for 3hrs per 12hrs.</li> <li>Allowable Over Load: 110% can be used for less than 25hrs per year on emergency.</li> <li>Power Management setting (if in combination with other engines) Change over: 80% or less, Shut down: 30% or less Range of load operation with no restriction: 30~80% of Rated Power</li> <li>Specification for limited engine operation on low load Minimum allowable load for continuous operation: 30% of rated load. Maximum allowable operating time at less than 30% of rated load: 1hr. After a period of 1hr operating at less than 30% of rated load, the engine must be loaded to 50% of rated load or more for a period of 30 minutes or more</li> </ul>	4000hrs or 4yrs whichever comes earlier	8000hrs or 8yrs whichever comes earlier 8000hrs or 8yrs whichever comes earlier	(5000hrs)

<sup>1</sup> This condition constitutes a part of required conditions for warranty. Atmospheric condition as per ISO 15550:2002 (JIS B 8003:2005) (barometric pressure: 100kPa, ambient temperature: 298K, relative humidity: 30%).