

## Rating definition chart | Marine diesel engines – Medium speed

Rating definitions for the SU engine series for propulsion application are as per the table below:

Rating	Overload operation	Allowable average load factor <sup>1</sup>	Allowable average speed <sup>1, 2</sup>	Allowable continuous operation with over 90% load <sup>1</sup>	Recommend operating hours per year <sup>1</sup>	Typical application <sup>3</sup> (reference)
Heavy Duty (HD)	Not possible	100% or lower	100% or lower	Unlimited	8000hrs	Inland cargo vessel, fishing boat, coaster
Medium Duty (MD)	Not possible	83% or lower	94% or lower	Up to 4hrs per 12hrs	3000hrs	Tug boats, fishing boat
Light Duty (MD)	Not possible	75% or lower	90% or lower	Up to 1hr per 6hrs	1000hrs	Fast vessel with low load
Heavy Duty Tugboat (HD-T)	Not possible	60 – 80% (average load factor of rated power)	100%	Up to 8hrs per 24hrs	6000hrs	(Harbour) tug boats

<sup>1</sup> Atmospheric condition as per ISO 15550:2002 (JIS B 8003:2005) (barometric pressure: 100kPa, ambient temperature: 298K, relative humidity: 30%).

Average load factor shall be calculated as per the formula in ISO 8528:2005 'Average power output (P<sub>pp</sub>)'.

<sup>2</sup> This applies to FPP (Fixed Pitch Propellers).

<sup>3</sup> 'Typical application' is only for reference.