

## 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 EMEAR area	Overload operation	Required condition for warranty					Recommend operating hours per year	Typical application <sup>6</sup> (reference)
		Load/operating hours			Overhaul interval after delivery (maximum)			
		Allowable average load factor	Allowable average speed <sup>5</sup>	Allowable continuous operation with over 90% load	Top <sup>4</sup>	Major		
Heavy Duty (HD)	Not possible	100% or lower	100% or lower	Unlimited	Every 12000hrs	Every 24000hrs	8000hrs	Inland cargo vessel, fishing boat, coaster
Medium Duty (MD)	Not possible	83% or lower	94% or lower	Up to 4hrs per 12hrs	Every 12000hrs	Every 24000hrs	3000hrs	Tug boats, fishing boat
Light Duty (MD)	Not possible	75% or lower	90% or lower	Up to 1hr per 6hrs	Every 12000hrs	Every 24000hrs	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	Every 12000hrs	Every 24000hrs	6000hrs	(Harbour) tug boats

NOTE: 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%).