



## Castrol Outboard 2T

High Quality Engine Oil for Outboards

### Description

Castrol Outboard 2T is an ashless, self-mixing 2-stroke engine lubricant, specially formulated for use in water cooled two stroke marine outboard engines. Castrol Outboard 2T is certified NMMA TC-W3®.

The trend towards decreased oil/fuel ratios, increased power output and the adoption of unleaded petrol has resulted in a requirement for improved lubricant performance for outboard engines. The product is formulated with a Sulfated Ash level of less than 0.005%.

### Application

Castrol Outboard 2T is recommended for all water cooled outboard engines including Force, Mariner, Johnson, Evinrude, Mercury, Chrysler, Suzuki, Tohatsu and Yamaha.

Castrol Outboard 2T may be used fuel to oil ratios of up to 100:1 (as specified by the engine manufacturer).

It is preferable to NOT mix Castrol Outboard 2T with any other oils, as this may not only compromise performance but it may cause serious damage to the outboard engine.

Do NOT use in 4-stroke engines. Always ensure that the correct 2-stroke engine oil (as specified by the engine manufacturer) is used by referring to the operator's handbook or the Castrol Lubrication Reference Guide.

### Advantages

- The combination of specially selected base oils with the latest technology additives results in a superior product that is readily miscible with fuel
- Superb anti-wear properties to ensure excellent engine protection
- Exceptional overall engine cleanliness and reduced spark plug fouling
- Excellent corrosion and storage protection

### Typical Characteristics

Name	Method	Units	Outboard 2T
Density @ 15C, Relative	ASTM D4052	g/ml	0.870
Viscosity, Kinematic 100C	ASTM D445	mm <sup>2</sup> /s	8.5
Flash Point, PMCC	ASTM D93	°C	75
Ash, Sulphated	ASTM D874	% wt	<0.005
Viscosity, Kinematic 40C	ASTM D445	mm <sup>2</sup> /s	52
Viscosity Index	ASTM D2270	None	140

## Product Performance Claims

NMMA TC-W3

### Recommended Concentrations Oil / Fuel Mixing Guide

	Fuel Volume (litres)					
Fuel to Oil Ratio (volume of oil to add)	1L	5L	10L	20L	50L	100L
20:1	50mL	250mL	500mL	1.0L	2.5L	5.0L
25:1	40mL	200mL	400mL	800mL	2.0L	4.0L
30:1	30mL	160mL	330mL	660mL	1.7L	3.3L
40:1	25mL	125mL	250mL	500mL	1.25L	2.5L
50:1	20mL	100mL	200mL	400mL	1.0L	2.0L
75:1	15mL	70mL	140mL	270mL	670mL	1.35L
100:1	10mL	50mL	100mL	200mL	500mL	1.0L

### Additional Information

Castrol Outboard 2T exceeds the severe certification tests for TC-W3® as defined by the National Maritime Manufacturers' Association (NMMA) of the USA. The NMMA is the foremost globally recognised organisation for qualifying lubricants for marine outboard applications. TC-W3® Registration No. **RL-29067P**

The TC-W3® specification was introduced to overcome performance problems which occurred in some applications when using lubricants designed to the former TC-WII® standard. These problems related to fuel lubricity and carbon build-up on pistons and rings. The TC-W3® specification has set significantly increased performance standards, resulting in improved lubricity, reduced ring sticking, lower piston deposits and varnish and improved corrosion resistance.

The improved lubricant performance levels assist in longer engine life, better power output over time and greater engine reliability. Castrol Outboard 2T exceeds all requirements of TC-W3® and is qualified for use in water cooled 2-stroke outboard engines operating under all conditions. Castrol Outboard 2T may also be recommended where previous specifications TC-2, TC-W and TC-WII® are nominated.

### Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

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28 Nov 2021  
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Castrol New Zealand Limited  
Technical Advice Line 0800 10 40 60 Customer Service 0800 CASTROL (227 876)  
www.castrol.co.nz www.msds.castrol.co.nz