

# THE TRUTH BEHIND EVINRUDE E-TEC AND 4-STROKE OUTBOARD ENGINES

**Myth 1** “The 2005 EPA & 2006 EU legislations make 2-strokes illegal.”

## Fact 1: Evinrude is worldwide emissions compliant



With a fully stratified combustion system for an exceptionally cleaner boating environment, Evinrude E-TEC outboard engines comply with all EPA, CARB and EU standards, now and well in to the future.

As reported by the EPA\*, Evinrude E-TEC outboard engines are cleaner than 4-strokes and much cleaner than any competitive 2-stroke DI models. In fact, Evinrude is the only DI engine approved for use on Lake Constance\*\* – the lake with the strictest environmental regulations in Europe.



\*Legislation enacted by the U.S. Environmental Protection Agency (EPA), Californian Air Resource Board (CARB) and EU Recreational Craft Directive REGULATE EMISSIONS NOT TECHNOLOGIES. NO OUTBOARD BRAND OR TECHNOLOGY WILL BE OUTLAWED.

\*\*By certifying that Evinrude emission levels fall below the EU four-stroke limits, nautical officials agreed to approve the first two-stroke on the lake since 1976. Based on this approval, the nautical authorities are now able to register the Evinrude E-TEC 40, 50, 60, 75 and 90 hp models for operation on the Bodensee.

**Myth 2** “4-stroke engines are cleaner because 2-stroke outboards expel oil directly into the environment.”

## Fact 2: Evinrude engines are one of the cleanest outboard technologies available

Evinrude E-TEC engines were the first, and remain the only outboard technology to be honoured with the EPA's first Clean Air Excellence Award.

Evinrude E-TEC engines already show lower total reportable emissions than any other competitive engine, since oil in an E-TEC direct injection outboard is combusted in the cylinder. In fact, in reality, 4-stroke emissions need to be increased to account for the waste sump oil that is disposed of at the time of each service.



**Myth 3** “4-strokes achieve the best fuel economy.”

## Fact 3: Evinrude gives you superior fuel efficiency

Evinrude E-TEC provides economy without compromising power. The Engine Management Module (EMM) makes up to eight million calculations per second, delivering precisely the right amount of fuel needed directly into the combustion chamber and resulting in incredibly smooth, fast response and low fuel consumption. And the E-Start™ system ensures easy starts every time.

**Myth 4** “4-stroke outboards require less maintenance than 2-strokes.”

## Fact 4: Evinrude outboards require the lowest maintenance

Belts have always been the weak point of many competitive 4-stroke engines. The Evinrude E-TEC system gets rid of belts altogether, which means more time on the water and lower maintenance costs.



Typical 4-stroke components



Evinrude E-TEC engine components

## 3 YEARS NO DEALER-SCHEDULED MAINTENANCE

Evinrude E-TEC outboard engines require **no scheduled maintenance for the first three years or 300 hours**, and not again for three years after that. That's no oil changes and no belts to replace.

In fact, on average, the cost of servicing a 4-stroke outboard engine is three times more expensive than the cost of servicing an Evinrude E-TEC engine over this period.

Evinrude also gives you automatic winterisation and no spring tune-up. Compare that to 4-stroke engines which require an annual service, winterisation and de-winterisation.

**Myth 5** “4-stroke outboard engines offer more torque than other outboard technologies.”

## Fact 5: Evinrude engines offer one of the best power to weight ratios in the industry

Evinrude offers one of the best power-to-weight ratios in the industry, delivering better throttle response for quicker direction change and better torque and acceleration thanks to its lighter design. When it comes to torque, Evinrude E-TEC leaves 4-stroke rivals dead in the water. Whilst 4-strokes make a power stroke every other revolution of the crankshaft, Evinrude E-TEC makes a power stroke every revolution.

**Myth 6** “4-stroke outboards are quieter than new DI 2-stroke engines.”

## Fact 6: No other outboard engine gives you a quieter boating experience than Evinrude

Evinrude E-TEC's exclusive idle air bypass circuit, acoustically tuned intakes, exhaust silencers and 3-dimensional foam lining, all result in major sound reduction; so your outboard engine sounds like nothing else on the water.



# EVINRUDE



## What the Experts Say...

**Sports Boat & RIB Magazine (May 2008)**

**by Tony Jones**

On the Evinrude E-TEC 300hp; "The E-TEC is undisputed king of the hill in the PWR stakes, which is likely to make it the performance boater's first choice. Evinrude may not have the tabloid status of the big boys but it could well be the choice of discerning boaters..."

**Motor Boat & Yachting (January 2008)**

**by Greg Copp**

On the Evinrude E-TEC 225hp; "When it was first started up on the trailer I was amazed by the complete absence of smoke from the exhaust. With precision-honed boron-nitride bores and its own special two-stroke oil, an E-TEC needs less lubrication than a conventional two-stroke. The super-efficient direct fuel injection takes care of the rest, ensuring a very clean-burning engine!"

**Motor Boats Monthly (August 2007)**

On the Evinrude E-TEC 40hp; "It starts first time, there are no smoky exhaust fumes even on cold mornings, and it is quiet enough not to disturb our neighbours late at night."

**RIB International (June 2007)**

**by Bob Greenwood**

On 'The Future - DI 2-Stroke Outboards'; "Being two-strokes they're mechanically simpler than four if only by virtue of the fact that there are no valves and accompanying cams, belts and springs needed to enable them to breathe - which means they can be lighter, more compact and simpler to maintain. Also because there's no lube oil that needs to be changed, Evinrude E-TECs don't need to be winterised like four strokes, or need servicing as often."

## Experience Evinrude E-TEC for Yourself...

To find out more, contact your authorised Evinrude dealer

**Alternatively, please contact:**

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Fuel economy claims are based on laboratory tests utilising ISO 8178-4 and boat tests performed at BRP US Inc. facilities. Actual fuel usage will vary depending on the boat, payload, operating conditions, propeller and driving habits. Three year Evinrude warranties apply to new engines sold by authorised dealers for recreational use only (under conditions described in the operator's guide). See limited warranty statement and conditions for full details.

## THE WORLD IS OUR PLAYGROUND

Nothing is more valuable than your playtime. That is why BRP is dedicated to continuously finding new and better ways to help you enjoy your favourite power-sports. From snow to water to both on and off-road fun, our passion for adventure fuels the innovations that result in the ultimate powersports experience for our



customers. We value the land and water we play on, and are committed to protecting it. Our desire to thrill is paired with an emphasis on rider responsibility, placing personal safety above all else. So that each outing can be the most enjoyable, memorable and thrilling experience possible. Because your free time should always be your best time.

[www.brp.com](http://www.brp.com)



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DEALER STAMP

## E-TEC®

### THE WORLD'S MOST ADVANCED OUTBOARD TECHNOLOGY



### E-TEC VS. 4-STROKE - THE MYTHS EXPOSED...

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