



# Batteries not included

Tohatsu's MFS 30B is the first four-stroke outboard to have self-contained EFI, reports Andrew Norton.

**T**ohatsu Marine Corporation (TMC) has released an EFI four-stroke 30 that can be manually started without an external battery.

The release is part of its range of joint-venture outboards with Mercury Marine, and complies with California Air Resources Board 2008 exhaust emission regulations.

Other EFI four-stroke outboards such as Suzuki's DF range can be manually started only if the battery has sufficient charge to power the electric fuel pump for at least three seconds.

Although the Tohatsu MFS 30B and its re-badged Mariner and Mercury 30 EFI outboards have the same powerhead and lower unit, the Mercury Marine versions differ in cowl and transom bracket design. In electric start versions the manual overhead recoil starter is omitted, necessitating a rope around the flywheel should the battery be flat. The 30B has a seven per cent larger piston displacement than its three-carburettor 30A predecessor, which increases engine torque in line with Honda's current BF30. This engine still has three carburettors, which over time will go out of tune and require careful rebalancing using vacuum gauges.

Similarly, the Suzuki DF30 and Yamaha F30A have three carburettors, so their appeal to freshwater anglers who fish widely in varying altitudes is somewhat limited.

In December, I tested an electric start, power trim/tilt 30B on a four-metre Stacer 400 Bass Elite fitted with a sports side console. The helm seat was just ahead of the aft casting platform and, combined with the 25lt fuel tank and livebait tank aft fitted with the 30B, the hull was well out of trim. Even with one of us sitting well forward, wide open throttle (WOT) was needed to plane us at all times.

Pushing a total of 550kg, including two adults, and spinning a 10-inch pitch Tohatsu alloy prop, the demo 30B trolled us at 3.8km/h on 850rpm using 0.5lt/h, while at 1000rpm we averaged 4.5km/h. At 2000rpm we travelled at 7.6km/h, and at 3000rpm we travelled at 10.2km/h.

A clean plane could be held down to 4000rpm, where we averaged 19.8km/h, but we really needed 5000rpm to allow the 30B to be run with some leg trim-out to reduce hull drag. At these revs we averaged 32.4km/h and, due to the EFI management system sensing a drop-off in engine load, the fuel consumption was only 4.7lt/h – excellent for a four stroke 30.

With the leg trimmed well out the WOT average was 43.8km/h on 6250rpm using 9.1lt/h, comparable to what a four-stroke 25 would normally consume. Through full lock figure of eights at WOT, the revs dropped only 200 and



there was no prop ventilation.

The demo engine started instantly hot or cold and, like an EFI car engine, didn't blow oil smoke at any time and maintained its revs in or out of gear. Power astern was good and no cooling water starvation occurred providing the anti-ventilation plate was kept immersed. The power trim and tilt system worked rapidly to keep the short Bass Elite trimmed correctly and vibration levels across the entire rev range were on par with Suzuki's silky-smooth DF30. But, at or near WOT noise levels were lower due to the absence of carburettor induction roar.

The MFS 30B has the same rev limiter (6500) and low oil pressure reduction of revs to 2800 as the 30A. Access to the engine oil dipstick, primary fuel filter, injectors and water-cooled fuel rail, spark plugs (each has its own ignition coil) and the canister oil filter is very good. Lakeside Marine, the national Tohatsu distributor, recommends servicing the 30B every 50 hours or six months

after the initial 10 hour/one month service, and the water pump impeller should be replaced every 100 hours or once every year.

## SPECIFICATIONS

Electric start longshaft power trim/tilt  
MFS 30B

Engine type: . Crossflow three-cylinder  
SOHC six-valve four-stroke  
Prop hp@rpm: ..... 29.6@5750  
WOT rev range: ..... 5250 - 6250  
Piston displacement (cc): ..... 526  
Bore x stroke (mm): ..... 61 x 60  
Ignition system: .... Electronic engine  
management  
Charging circuit (amps): . . . 20 w/voltage  
regulation  
Break-in period (hrs): ..... 10

Fuel delivery: ..... Multipoint  
sequential EFI  
Fuel type: ..... ULP 91 RON  
Fuel capacity (lt): . . . 25 plastic remote  
tank  
Oil type: . Valvoline API SL SAE 15W40  
Oil capacity (lt): ..... 1.8  
Gear ratio: ..... 1.92:1  
Transom height: ..... .20  
Weight (kg): ..... 82.5  
Recommended retail: ..... \$6519  
Spare alloy prop: ..... \$150

### Servicing prices\*

Year one: ..... \$504  
Year two etc: ..... \$350

\*As per manufacturer's recommended schedule but excluding parts. All prices current December 2005. Demo 30B from Lakeside Marine (02) 4392 6110, prop and servicing prices from Coast-to-Coast Boating (02) 4970 5541.