# Haines Signature 702L

# Yamaha 225 4-stroke

**At 274 kg for 225 4-stroke horsepower, this awesome new engine from Yamaha is destined to start a revolution that will ultimately re-shape the way Australian recreational boats are designed.**

**Few other outboard engines have ever been awaited with such interest and curiosity as the "big"' Yamaha 225 hp 4-stroke outboard. Like the Honda 225, the Yamaha has been coming for so long, it was probably the worst kept 'secret' in the boating industry.**

The reason it has created more than the usual degree of new-engine interest is largely because Yamaha dominates the commercial outboard world in this class of engine. Honda has certainly made inroads in the 90-130 hp class, but in the top end of town, Yamaha has the lion's share of the lucrative 200-225 hp V-6 market.

For some time now, the silky smooth and very reliable V-6 Yamaha (carby) engine has been the 'standard' engine for water taxis, light ferries, dive boats, and hundreds of fishing boats. The only drawback to the V-6 carby 175, 200 and 225 hp Yamahas has been the fuel consumption of the different models. No better or worse than their opposition, the fact remains that all 2-stroke, big block V-6 engines working hard are going to use a lot of fuel.

Not surprisingly then, when the word spread that Yamaha had a 200 series 4-stroke engine in development, most operators held off - especially as Yamahas 'normal' fuel injected V-6 2-stroke engine had reliability problems initially, and the more recent HPDI 2-stroke series, whilst ultra reliable, was considerably more expensive than the regular carby model. So most commercial and semi-commercial operators decided to 'sit on their hands' until the 4-stroke came through the system.

The wait was justified. This a an exceptional outboard engine.

Unusually, in this day and age of car engine cross-overs, the Yamaha 225 is reported to be a unique marine engine. Because Yamaha had so much of this engine already developed (most of the lower unit - the gearbox housings, leg, shafts, splined gears, c mounting plate, trim systems, etc is common to other existing models) they could afford to focus their financial and engineering resources on the new bit that mattered - the four stroke engine itself.

**On The Water** The result is exceptionally good. It is so quiet and smooth it is quite disarming. Not once, but twice the writer started the engine whilst it was running. From the helm position on the test Haines Signature 702 L, engine noise and vibration is virtually non-existent. At trolling speeds, 6-11 knots, there is just a smooth hum. Conversation right beside the engine can be conducted at normal levels. Again, if it wasn't for the motion of the boat, you could be forgiven for thinking the engine wasn't running.

Pushing the throttle down to the limit produced that typical, flat, 4-stroke torque curve,as the engine accelerated into action.

It took less than 7.5 seconds to lift this 2 tonne GRP trailer boat (fully fitted for the Haines' family's private use) out of the water and up to cruising speeds. Once there, the engine was throttled back to sit quietly on 3,500 r/min, the Haines Signature just loping along at 20 knots for a fuel burn of 23-24 litres per hour. Impressive stuff.

The 702 L though, was most impressive with the Yamaha 225 cruising along at 4,000 r/min, delivering 24-25 knot performance.

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**F&B's unique fuel bottle system is still the only fuel measuring system in the marine industry capable of 100% repeatable accuracy. Certified by the NSL, in 25 years of use, its accuracy has never been challenged, although there have been plenty of tense outboard company executives who'd love to have seen the fragile, hand blown glass bottles have an accident!**

**The system is wonderfully simple. It does not use electrics, pumps, vacuums - anything. The appropriate bottle is connected to the engine to supply the fuel - and a stop watch is used to time the engine's consumption or fuel 'suck' over 60 or 120 seconds at a given amount of engine revs.**

**For really precise data (like this 225 report) we run the trials with and against the tide or current, and average the two figures. The system is accurate to the millilitre, and will easily reflect (for example) the 'load' of different trim tab settings on the engine, let alone the difference in travel with or against the current.**

**Note the Garmin GPS 12 portable GPS unit on the floor - the K-Band radar system we used for so many years has now been officially "retired" as the Garmin has proved to be even more accurate - especially in small craft at low speeds.**

**F&B**