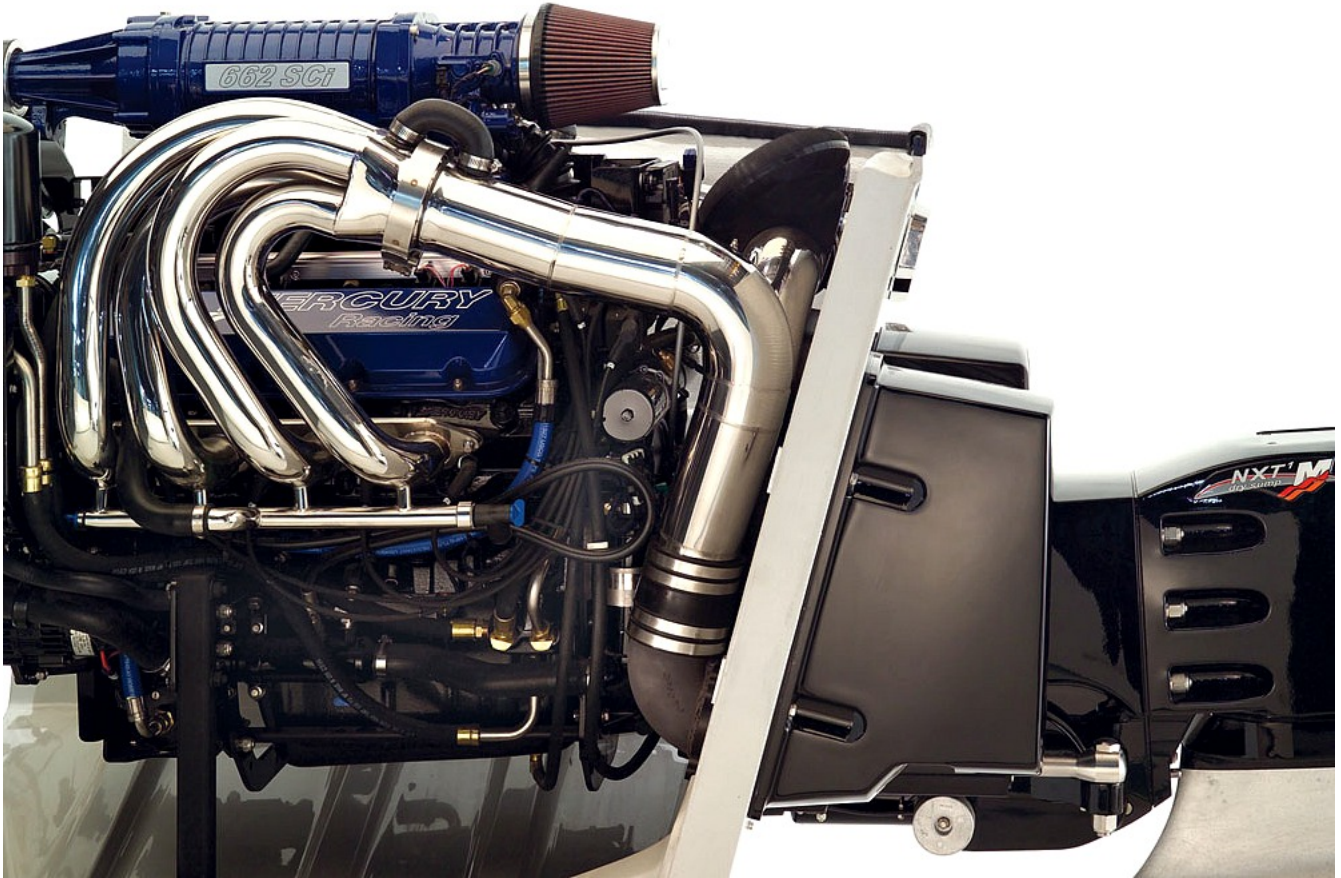


Mercury X-haust Noise Reducer

POA



Description

Mercury Racing is pleased to announce the introduction of X-haust, a fully integrated sterndrive exhaust noise reduction system. X-haust was developed primarily to bring the HP600 SCi and EU662 SCi sterndrive engine packages, already certified by the European Union Recreational Craft Directive (RCD) requirements for exhaust emissions, in compliance with the stringent RCD noise regulations.

The EU RCD consists of strict exhaust emissions and noise regulations for both two-stroke and four-stroke recreational marine engines. Regulations for compression ignition and four-stroke spark ignition engines were initiated on Jan. 1, 2006. OEM (original equipment manufacturers) boat builders must certify that their boats conform to the RCD noise requirements. X-haust just made that much easier for boat builders doing business in the EU. The X-haust Noise Reducer system recently passed the stringent EU RCD noise emission standard in a twin engine 662SCi equipped boat. The standard used for the exhaust noise test is ISO 14509. The test requires the boat to pass by the sound meter at a distance of 25 meters (82 feet). The boat must be traveling at least 70 kilometers per hour (43.5 mph) or maximum speed. To pass the test the average of the two highest results must not exceed 78 dB(A).

As a point of reference - the sound of water lapping the shore is 75-80 dBA.

PATENT-PENDING DESIGN

Mercury Racing employed predictive simulation in the X-haust design. This allowed the engineers to model characteristics of the engine and predict the pressure waves the engine creates through the exhaust system. After adopting a basic design idea, several iterations were applied until the muffler was perfectly sized and the required sound attenuation was achieved.

The patent-pending muffler design flows exhaust through two separate chambers connected by three attenuator tubes before exiting the exhaust outlet at the bottom. The result is a further reduction of sound pressure waves without sacrificing engine power or performance.

THE PROCESS

X-haust features a custom Y-Pipe which combines the two banks of exhaust from each engine into a single exhaust tube. The single tube exhaust outlet per engine provides the transom space needed for the transom mounted X-haust muffler. Back pressure is minimal, resulting in insignificant power loss.

An integrated idle relief tube routes some exhaust through the boat above the waterline, providing a necessary vacuum break and a little rumble when operating off plane.

The transom-mounted muffler is completely submerged when the boat is at rest. The muffler outlet directs engine exhaust down and back toward the



transom further reducing noise.

Mercury Racing's 662 SCi is the only high-performance marine engine to meet both EU RCD exhaust emission and noise emission requirements for gasoline sterndrive engines. The 662 SCi is also the highest horsepower marine engine certified for sale in the EU.

X-haust is available in two configurations. Stage 1, designed to satisfy most noise regulations outside of the EU, eliminates the transom mounted mufflers. The exhaust outlet remains in the same location - underwater when off-plane and near the water surface when operating on-plane. Stage 2 is the complete system, with transom mounted mufflers, capable of compliance with the EU RCD.

X-haust is available for use with the HP600 SCi, fitted with an Integrated Transom System (ITS) Bravo One XR drive model or optional dry-sump NXT¹ drive, EU662 SCi and HP700 SCi sterndrive engine packages fitted with the dry-sump NXT¹ drive. Stage 1 and Stage 2 configurations are available for single or twin engine applications in both side-by-side and staggered installations.

