

Classifying Marine Engines

Why are some marine engines identified in **OE Link™** while others are included only in **EnginLink™**?

Basically, special purpose marine propulsion engines are listed in **EnginLink™**, while general purpose engines below 5,000 hp that can be adapted or “marinized” for marine use are listed in **OE Link™**.

Several engine manufacturers, including Caterpillar, John Deere, Cummins and MTU Detroit Diesel in North America, produce engines that are designed to be adaptable for a variety of end-user applications.

The basic configuration of these engines is designed so the engines are readily adaptable for applications in different market segments including agricultural, construction, industrial equipment, power generation and marine.

Such “multi-purpose” engines typically are series-produced in volume quantities and generally have power ratings below 5,000 horsepower. Engines from this group that are marketed for marine use will be “marinized” – i.e. configured for marine application – either by the original engine manufacturer or by a third-party OEM.

The “marinizer” company transforms a basic engine by modifying the cooling, air intake and exhaust systems, and installing other marine-specific features to make the engine suitable for marine application. In some cases, the engines may be marinated by the engine manufacturer – Caterpillar is a good example of this – while in others, it may involve an OEM mariner that has no direct relationship to the engine producer beyond that of an engine-buying customer. For example, Volvo Penta marinizes engines supplied by GM Powertrain for its stern-drive propulsion units. Mercury Marine also produces outboard marine engines, using engines of its own manufacture for that application.

By contrast, other engine manufacturers such as Wartsila, MAN B&W, Hyundai Heavy Industries and others produce large, purpose-built marine engines, typically larger than 5,000 horsepower. These engines are designed primarily for use as propulsion units in commercial or naval vessels. These engines are intended

specifically for marine applications and offer design features uniquely suited to operating in a marine environment.

These are truly Special-Purpose Marine engines and there is no subsequent “marinization” process because the engine manufacturer is effectively producing an engine with specific features and equipment required for marine applications.

In some cases, these engines are assembled on-site by shipyards (i.e. Hyundai Heavy Industries) under technology licensing agreements with the company that designed and developed them. The engines themselves are so large and heavy that it becomes impractical to transport them from an engine factory located in Europe, for example, to a shipyard in South Korea or elsewhere. These types of engines are certainly special-purpose marine engines; they are designed and built only as marine engines so they really aren’t “marinized”.

Thus, such engines are not included in **OE Link™**, which is intended to be a tabulation of data related to OEM production and engine utilization.

Conversely, production data for these large, special-purpose marine engines is tabulated in **EnginLink™**, Power Systems Research’s database of global engine production and forecast data.

The basic rule we follow is that when a marine engine is greater than 5,000 horsepower and is not produced for multiple applications as discussed above, it will not be identified as a marinated engine in **OE Link™**.

Production of such engines is accounted for in **EnginLink™**; since the engine builder is manufacturing a special-purpose marine engine with no “marinizer” in the production chain.

There may be exceptions to this rule, but this is how PSR has historically classified data related to production of high horsepower marine propulsion engines. **PSR**

