

# A NEW PARADIGM

**MTU's new 2000 Series Common Rail diesels set the standard for clean, efficient marine power.**



Few words in the English language are as overused as revolutionary, but every once in a while a new product comes along that so redefines technological boundaries, it really earns that title. The new MTU 1,500-hp 10V 2000 Common Rail marine diesel that was unveiled at the 2004 Miami International Boat Show is exactly that kind of product.

Virtually everything about the 10V 2000 Common Rail breaks new ground, and that should come as no surprise, as virtually everything about the engine is new. Indeed, it was designed from scratch to be a marine engine, and that alone makes it stand out from its competitors, most of which are marinized truck and industrial engines. In creating the 10V 2000

**The 85 Unleashed, a sport-yacht project from Applied Concepts, will be powered by three 2,400-hp MTU 16V 2000 Common Rail diesels, driving a centerline waterjet and outboard props.**

Common Rail, MTU engineers employed computer-aided design and computational fluid dynamics to come up with a unique, advanced common rail fuel injection system, which in many ways is the heart of this engine. Common rail injection, which has been around in automotive applications for a few years now, differs from conventional diesel fuel injection in that it connects all injectors with a single very high-pressure (26,100 psi) fuel line so that fuel is constantly and instantly available. This not only results in superior performance, but it also creates higher injection pressures that reduce emissions

and improve efficiency. Plus, common rail injection eliminates many bulky components, such as the injection pump, allowing for a more compact design.

But the common rail fuel system used in the 10V 2000 CR is different from other systems—even other common rail systems. In addition to the supply of fuel in the common rail, each electronically controlled unit injector has its own fuel reservoir. This means that regardless of engine speed or load, there is never a delay from the time the throttle is ad-

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