



DD 10-1001

Technical Bulletin

NEW 7-LAYER HEAD GASKET SEALS REBUILT ENGINES BETTER.

Sealing the most demanding area in a commercial engine – it takes today’s most advanced gasket design.

FP Diesel® has introduced a highly advanced multi-layer-core head gasket technology that will bring significantly enhanced combustion and fluid sealing capabilities and temperature resistance to a broad range of high-output commercial diesel and gasoline engines: The ML7™ head gasket.

As commercial engine rebuilders look for the latest and best engine sealing solutions, FP Diesel’s ML7 gasket provides a new generation of head gaskets for even the most powerful and demanding diesel- and gasoline-fired commercial engines.

BODY CONSTRUCTION

The ML7 head gasket’s 7-layer construction features an advanced graphite material over a thicker, perforated stainless steel core for significantly increased rigidity. The key to determining the thickness of the gasket body, armor and wire is achieving optimal load balance among the components and materials. The result is a much more solid and durable part.

LOW-CARBON STEEL WIRE

Analysis of a variety of wire ring materials shows stainless steel to be too hard and unforgiving a wire material. Replacing it in the ML7 head gasket is copper flash-coated low-carbon steel (LCS) wire, which offers the ability to absorb stress without causing cracks or other problems.

EXPANDED GRAPHITE FACING

The ML7’s resilient, conformable graphite facing provides excellent fluid sealability and low creep relaxation, and stands up to temperature extremes and corrosive chemicals.

MOLY COATING WITH SILICONE TOP COAT

Federal-Mogul engineers developed a special moly coating specifically for the aftermarket service environment. This coating helps seal imperfections in the head and block mating surfaces and allows the gasket to adapt to controlled lateral and vertical casting motion caused by combustion pressures and extreme operating temperatures. The special silicone top coat provides no-stick release for future engine work.

FULLY ENCAPSULATED GROMMETS

OE and some aftermarket designs feature a rubber material simply laid over the top of the grommets; the grommets are then either staked or welded into place. But being fixed in place, they lack the flexibility to seat properly, leading to unwanted sealing issues. By contrast, the ML7 gasket’s silicone rubber grommets are eyeleted into the metal carrier. These “floating” grommets are one of this gasket’s most significant enhancements, allowing for dramatically improved seating over competing designs.



FLEETS RETHINK REPLACEMENT

More and more fleets are rethinking their engine and equipment replacement cycles as new engines become increasingly expensive. In a challenging business environment, rebuilding a commercial engine is a smart choice – if you have the right replacement technologies.

The FP Diesel approach isn’t just to return the engine to service, but to increase power and performance.

When it comes to sealing, our ML7 gaskets fill that need exceptionally well.

Required for newer engines, ML7 gaskets are also a performance upgrade for older engines. Their materials and construction give you what you need to ensure a lasting, trouble-free seal on the imperfect mounting surfaces found in older engines.

They’re the perfect choice for rebuilding Detroit Diesel Series 60 engines.

This gasket’s capabilities should come as no surprise. FP Diesel is respected as a world leader in heavy duty engine sealing, backed by the exclusive research and development resources of Federal-Mogul’s Sealing Systems Group.





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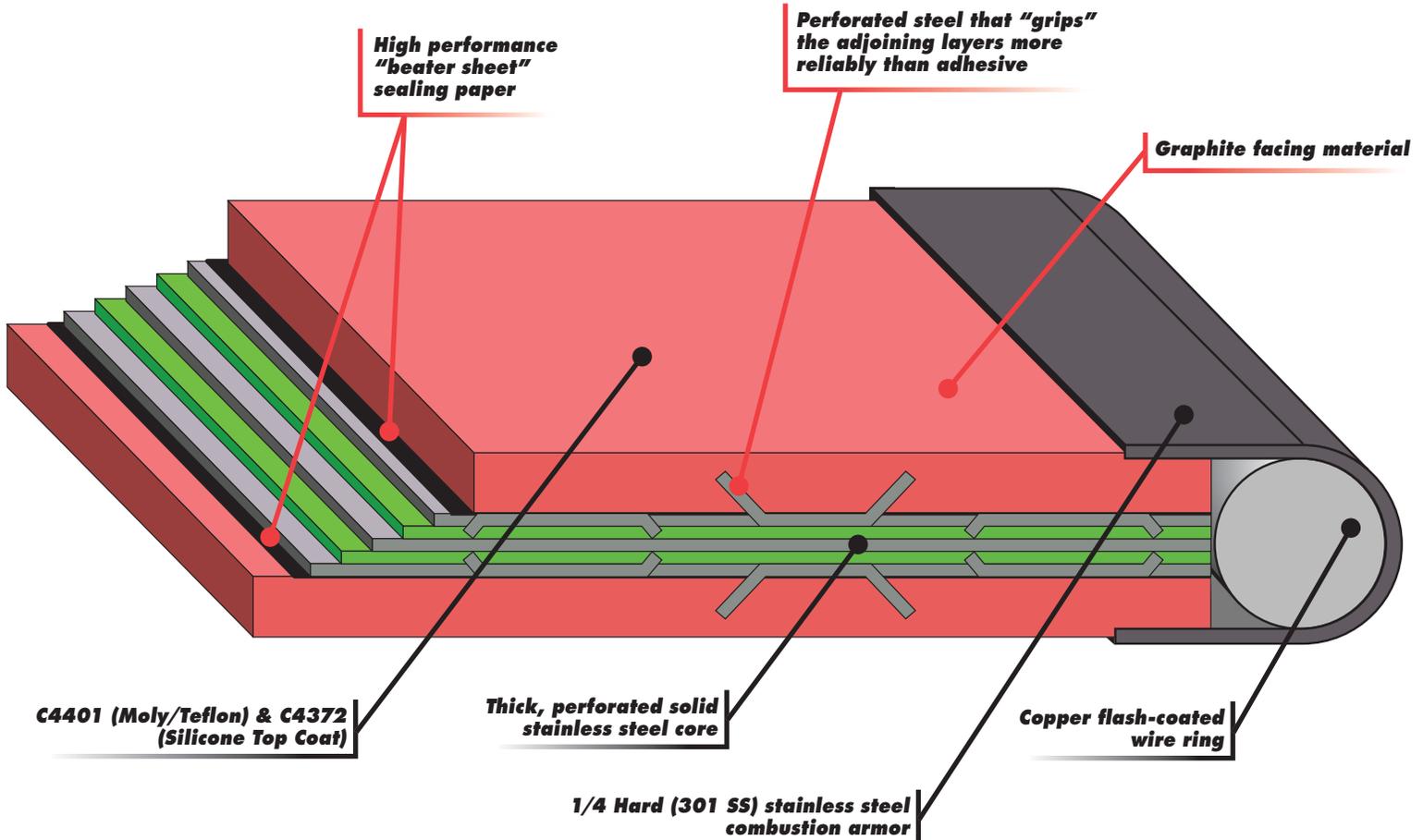
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LAYERS OF INNOVATION DELIVER COMPLETE PERFORMANCE.

The ML7 gasket's seven performance-tested layers are proven to provide a critical combustion seal – and to withstand the punishing forces between the head and engine block.

This innovative design enables the gasket to withstand significantly higher combustion pressures and temperatures, as well as increased vertical and lateral motion between the engine block and cylinder head. Each gasket's steel core reinforcement helps ensure optimal compressed thickness within each engine application for superior sealing performance and durability.

ML7 gaskets feature a solid steel core sandwiched between dual layers



Further enhancements include



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