

> LIGHT-DUTY
RAM 1500

> MEDIUM-DUTY
HINO 195 COE

> HEAVY-DUTY
WESTERN STAR XD OFFROAD

MODERN
Work-Truck
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MARCH
2017

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EDITOR'S NOTE



Rachael Plant
Editor

The 2017 NTEA Work Truck Show has come and gone, but the hubbub hasn't quite died down. Exciting new products and upcoming releases will have you talking for months. Or, that's how it is for me anyway. I still remember Isuzu's unveiling of the 2018 FTR from last year's Work Truck Show. We may all be back to the daily grind, but you don't have to miss a beat. MWS is bringing the information and resources to you. From figuring out "The Price of Fuel vs the Cost of Fueling (pg. 60) to making sure you protect your hearing at a jobsite (pg. 62), we've got you covered. In the March issue, we cover the changes taking

place in the work truck industry (pg. 44), as well as "Blurring the Line Between OEM and Aftermarket Parts" (pg. 32). Plus, MGM Brakes shares the case for electronic brake monitoring in medium to heavy commercial vehicle air brake applications (pg. 52). This month, we're showcasing the light-duty Ram 1500 (pg. 16), the medium-duty Hino 195 COE (pg. 20), and Western Star's XD OFFROAD steps up to handle the heavy stuff (pg. 24). As always, enjoy.



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Blurring the Lines Between OEM and Aftermarket Parts



BRANDED REPLACEMENT PARTS MANUFACTURERS INCREASINGLY OPERATE LIKE OEMs IN APPROACH TO QUALITY CONTROL, UTILIZATION OF SOPHISTICATED MEASUREMENT SYSTEMS, AND ADOPTION OF LEAN MANUFACTURING TECHNIQUES

Over the past 60 years, the acceptance of replacement parts suppliers for engines used in the heavy-duty truck industry has evolved significantly. Today, the quality, availability, coverage, and warranty of products from branded aftermarket suppliers are increasingly rivaling those of their OEM counterparts.

This trend, largely motivated by the goal of producing consistent and high-quality parts, and thus eliminating the one “knock” on aftermarket parts, is the result of the increasingly blurred line between OEM and branded aftermarket suppliers.

In fact, many leading branded aftermarket suppliers are increasingly acting like OEMs, whether adopting advanced manufacturing and quality assurance programs, incorporating lean manufacturing techniques, or offering products individually, as well as in kits and sets, to facilitate engine overhauls.

Decades of manufacturing experience and access to modern production tools have given sophisticated aftermarket suppliers the capability to consistently match exacting OEM tolerances. Precision quality assurance tools are used to ensure tight consistency; in some cases, gaging instruments are installed at various locations right on the product production line.

Like their OEM counterparts, aftermarket suppliers have also increased marketing and customer support services, providing excellent availability, comprehensive warranties, and even parts research capabilities. Once available only from OEMs, these services are of significant value to heavy-duty fleets, parts resellers, and service shops, and are another incentive for them to source replacement parts from aftermarket suppliers.

CONSISTENT QUALITY

Wesley Industrial Machine Shop in Canada sources and distributes engine parts for Caterpillar, Detroit

Diesel, and Cummins engines from an array of trusted aftermarket brands. The company has been serving the diesel engine market with machining services since 1947.

In addition to comprehensive machine shop services, including CNC machining, welding, and line boring, Wesley Machine services include disassembling and overhauling engines that have been removed from heavy-duty equipment used by customers in the mining and construction industries. Located in Winnipeg, Manitoba, the company also resells replacement parts to fleets and repair shops that service diesel engines.

“We normally use parts or overhaul kits from Industrial Parts Depot (IPD),” says Ted Short, owner of Wesley Machine. “We’ve been an IPD distributor for approximately 20 years, and our experience with this supplier has been first-rate.”

IPD, headquartered in Torrance, California, manufactures and

distributes a broad range of replacement parts for Caterpillar, Cummins, Detroit Diesel, Volvo, and Waukesha engines. Products include such popular items as pistons, cylinder liners, valve train parts, engine bearings, and gaskets.

Short says that the advanced manufacturing and quality assurance capabilities of aftermarket suppliers, such as IPD, has made them comparable to OEMs in terms of quality while offering the advantage of highly competitive prices.

“I believe that some aftermarket suppliers have achieved the same quality as OEMs,” Short explains. “We use CNC equipment in our machine shop, so we’re fully aware of the capabilities of those machines in meeting precise tolerances. We know that IPD uses the latest technologies in manufacturing, inspection, and other quality assurance procedures, which result in engine parts that consistently meet the tolerances and

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quality equal to that of the OEMs, in my opinion.”

Short adds that the comprehensive warranty provided by the branded aftermarket supplier is another indication of their advanced manufacturing and quality assurance capabilities.

AVAILABILITY AND SERVICES

Unplanned downtime is a productivity killer in the work truck industry, making ready availability of replacement parts a high priority. Availability of expert technical support can also be of critical importance. Trans American Truck Parts places a high value on both.

Located in Elizabeth, New Jersey, Trans American has been providing services that cover a broad range of heavy-duty truck repair needs for the past 45 years. The company is a licensed Cummins dealer that services a wide range of heavy-duty diesel engines and stocks a wide variety of new and remanufactured parts.

“Quality and a two-year warranty are primary reasons why we carry this line, but availability and affordable pricing are also very important to us and our customers,” says Jason Betancourt, Trans American parts manager.

“The availability of parts is quite good, even compared with OEM dealers,” Betancourt says. “We generally keep most overhaul parts on hand, but if there is an emergency order for some parts we don’t have in stock, I can order those parts from the IPD regional warehouse in Ohio and normally receive delivery in 24 hours. On occasion, if the warehouse doesn’t have a particular part on hand, we can also get fast turnaround from the factory in California.”

Betancourt adds that having such strong availability and turnaround is beneficial to Trans American because it also simplifies the company’s inventory requirements.

He says that IPD has created some innovative concepts that further reduce stocking requirements.

“For example, their overhaul gasket kits include extra gaskets in order to cover a range of engines, instead of having to carry a different set for every engine model,” Betancourt explains. “That means we only have to stock about 20 percent as many part numbers as we would if we sourced the kits from the OEM. That saves me both time and inventory costs.”

He says the supplier also provides valuable technical services, such as answering questions about issues on parts interchangeability. Parts information and applications data is also available via an online database, and failure analysis assistance information through technical bulletins and service videos.

ADVANCING METHODS

Some aftermarket suppliers achieve brand name acceptance through quality that results from incorporating innovative methods on the production line. At IPD, for example, the company has completely redesigned its steel piston and cylinder liner production processes, incorporating lean manufacturing concepts and new production methods that ensure consistent quality, speed production throughput, and cost savings.

“All of this is aimed at providing end users with highly reliable products at a very competitive price,” says Airton Martins, IPD’s vice president of operations. IPD’s production line uses state-of-the-art equipment, such as four-axis CNC machines/tools and advanced quality assurance instrumentation, and also employs unique production methods that provide vital product attributes,

such as consistent concentricity among other functional features.

For example, many suppliers manufacture pistons using multiple machining operations that can result in concentricity and balance problems. To avoid such issues, IPD’s proprietary and innovative steel piston production process uses specialized clamping fixtures that are designed and fabricated in-house to allow machining of all critical dimensions in one operation. This results in consistency and quality that is very difficult to obtain using separate machine operations.

IPD also incorporates in-process quality control with custom-designed gaging at each operation to ensure all pistons are checked 100 percent of the time without affecting productivity. Martins adds, “IPD gaging processes measure many critical dimensions, such as concentricity, ring grooves, and weight. Also, IPD confirms the accuracy of the gaging processes by finished product inspections at specified intervals in their in-house quality assurance laboratory using advanced measuring instruments.

“All of this is part of our lean manufacturing program. This program optimizes production, reduces waste, minimizes work-in-progress and labor, and provides a tremendous overall quality improvement.” Martins also notes that IPD shares production process improvement concepts with suppliers, helping them improve and maintain consistent quality and control costs.

This trend of branded aftermarket suppliers pushing the boundaries to ensure they have comparable product is sure to continue. ●

FOR MORE INFORMATION

Find out more, contact IPD by phone at 310.530.1900, email sales@ipdparts.com, or visit www.ipdparts.com.