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## Heavy Hauling

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# The Wild West



Oldcastle Materials' Northwest Division finds Western Star haulers cost-effective, reliable.

BY BRIAN RICHESSON

**T**he Northwest Division of Oldcastle Materials has been undergoing a transformation in its fleet of material haulers.

In 2006, seeking substantial savings from a new type of truck, the company purchased two Western Star 6900XD 40-ton off-road haulers. Satisfied with its purchases and the results that followed, Oldcastle added two more 6900s in 2007 and two in 2008. In the coming years, Oldcastle hopes to replace 22 ridged-frame trucks with the Western Star 6900s.

"We found [the Western Star haulers] to be very reliable," said Mike Delaney, vice president of equipment for the Northwest Division of Oldcastle Materials. "We have six of the 6900s running in our operation right now, and basically we haven't had to do anything to them, other than general maintenance."

Oldcastle had run smaller trucks, around the 25- and 30-ton range, but suspected a 40-ton model could improve its cost efficiency – not only on the job site but getting there, as well. The company's suspicions were confirmed and its operations improved.

"The ridged-frame trucks are more expensive to haul and require more permitting," Delaney said. "The 6900XD trucks we have designed can be hauled on a lowboy trailer without over-height restrictions and permitting."

### Model of versatility

Oldcastle's Northwest Division encompasses three states – Idaho, Oregon and Washington – and 16 operations specializing in aggregate, asphalt, ready-mixed concrete, sand and gravel, and pre-stress materials. The trucks are used at in-pit locations and portable aggregate plants, hauling materials to stockpiles. They also are used occasionally for hauling overburden when stripping pits. There are short hauls, long hauls, steep grades and varying terrains.

Despite all of these challenges they face on a daily basis, the 6900XDs haven't disappointed.

"A quarry truck supplies the region for building materials, so it has to be nimble," said Chuck Whitehead, vocations sales manager for Western Star. "It has to be roadable, with permits, to go to temporary sites for different jobs. Its powertrain is based on fuel-efficient highway truck engineering, which is everything paramount to the trucking business, yet rugged and heavy duty enough to cross over to the heavy equipment world. It's just a perfect fit for a quarry."

Oldcastle can see why. Its cycle times are faster as trucks exceed 40 mph in some areas, leaving downtime behind with its speed and stability. The 61,000-lb. trucks, which contain a heaped load capacity of 30 cu. yd., are built for the long haul.

"At most of our plants we have added bins

### Take note

The trucks are used at in-pit locations and portable aggregate plants, hauling materials to stockpiles. They also are used occasionally for hauling overburden when stripping pits.

or timed bunkers where they'll drop a 40-ton load in a couple of seconds. Our loadout times are 45 seconds for 40 tons of material on the timed bunkers," Delaney said. "We found in some locations we're able to run two of these, where we had to supplement with a third truck before, because they're faster and can get back to the bins quicker."

### Making the difference

Delaney pointed to improvements in capital, saying the 6900XD is one-third less expensive to buy up front compared to similar models. Oldcastle paid about \$300,000 each for its most recent 40-ton 6900XDs, with the dumps installed.

There are also cost benefits in overall operation (\$25 savings per hour), fuel efficiency (up to 35 percent more) and replacement tires (40 percent less). In addition, Delaney estimated the company is hauling at least 15 percent more material with the 6900XD,



With the Western Star 6900XD 40-ton off-road haulers, Oldcastle Materials has improved cycle times, leaving downtime behind with speed and stability.

depending on the site.

"Three big chops right off the block" support Oldcastle's decision to purchase the 6900s, Whitehead said, as the company benefits from its return on investment (especially with a reduced capital expenditure for the initial purchase) and improvements in fuel efficiency and

overall efficiency. He also stressed the trucks' reliability, mobility and driver-comfort features.

Improvements in fuel efficiency are gained through several factors, Whitehead added, starting with the Detroit Diesel Series 60, Tier 3-compliant engine, which provides gross

power of 500 hp.

Other notable characteristics include:

- High-pressure tires (140 psi) have almost no rolling resistance versus bigger, low-pressure tires on a 4x2 configuration.
- Allison 4500 RDS transmission locks up into direct drive almost immediately after the truck is rolling, so there is little torque converter loss.
- Direct drive engine cooling fan turns on and off only when needed, avoiding the parasitic loss caused by a hydraulic motor.
- No constantly driven hydraulic pump to run brakes and steering. Trucks employ dry drum brakes instead of multiple wet disc brakes, which have frictional losses when not in use.
- Lower planetary ratio in the wheel ends reduces mechanical losses by spinning the gears less.
- The 6900XD comes installed with a

Class 8 cab, rather than an operating station found in competitive trucks, Western Star said. Operators appreciate the extra room.

“We have removed the parasitic losses normally associated with ‘yellow iron’ and applied on-highway, fuel-efficient engineering,” Whitehead said.

### Driver approval

Because Oldcastle’s trucks are gray or red and not the yellow typically seen in heavy equipment, its drivers were skeptical at first, but they have grown accustomed to operating the 6900XDs.

“After they realized the trucks don’t break down and they’re comfortable to operate, guys really like them now. We just don’t get complaints,” Delaney says. “It’s been a pretty smooth transition.”

Larry Parrott of Freedom Truck Centers in Spokane, Wash., built 20- to 25-ton payload haulers for Delaney years ago. Now Parrott is spec’ing Oldcastle’s

new 40-ton haulers and recalls an experience with a driver trying the 6900XD for the first time.

“The driver came out of another vehicle and got into this truck,” Parrott said. “Within an hour, he was running that truck like he had been running it all his life. He came out of the truck with a great big grin on his face and said, ‘This truck is all right.’”

Western Star’s 6900 was first manufactured in 1990, but the 40-ton spec wasn’t actually released until recently.

“A lot of people are now seeing the light that it’s cheaper to buy, faster and cheaper to run in a mining/quarry application when compared to the yellow-iron manufacturers,” Whitehead said. “The model of 6900XD is not just a 40-ton dump. It’s also an oil-field, logging and heavy-haul truck. It’s for anything you decide to do, for hundreds of applications.” ☒

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