

**ARI / McKENNA TRUCK CENTER -
CUSTOMER GROUP**

**Welcome to Volume 8 Issue 1 January 2008
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DEALER REP.**

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HAPPY NEW YEAR

It is our intent to provide YOU, our customers and prospects, with information regarding ARI, McKenna Truck Center, Volvo Trucks and Industry Knowledge that improve the value of your trucking experience and profitability.

In addition, we will be featuring different customers and their trucks. This month, we will be talking to Lee and Grace Tracy. In fact, Lee and Grace were the first customers with an ARI Sleeper and McKenna Truck Center Volvo truck.

1/2/2008



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The Tracys' purchased their truck in November 2005. They operate under their own authority with a company name of "Glory Auto Transport, pulling a 53' enclosed car carrier. Lee and Grace say they love their 144" ARI/Volvo. Lee says, "these trucks make you money, they do not cost you money". They enjoy healthier food by eating most of their meals in the truck, they appreciate the benefit of being able to stay over night close to where they are working instead of having to make their way to a Truck Stop and they like the fact they can stay in a quieter more relaxing location.

Their Volvo truck is uniquely equipped with a 500 Cummins ISX engine, Meritor Freedomline Transmission and a Volvo Electronic-Controlled-Tag-Axle. The tag axle reduces weight and improves fuel mileage and the electronic control makes sure traction is not sacrificed. They appreciate the ride, maneuverability, visibility and fuel economy of their Volvo truck.

Thank you Lee and Grace for your business and support of ARI and McKenna Truck Center.

ADVICE FROM BRIDGESTONE

Specing the Right Drive Tires for the Right Application

In the October 2007 issue of *Up to Speed* we passed along information supplied by Volvo's standard truck tire supplier, Bridgestone, on how to spec the right 'front' tires for specific applications.

As for drive tires, like steer tires, they are designed for specific applications. There is no one size/type fits all solution. The two types of tires designed for drive axle positions are 'on-highway' and 'on/off-highway', and here's what Bridgestone advises regarding each.

On-Highway Drive Tires

On-highway drive tires are usually lug-type designs and may incorporate shoulder lugs (open shoulder) or a rib-type (closed shoulder) design. Both designs deliver similar traction on paved surfaces, but open shoulder designs are best for soft surfaces, for use in high scrub, or in P & D applications where tires tend to wear out faster. The Bridgestone M711 and M725 are examples of open shoulder drive tires.

Closed shoulder tires run best in long haul, slow-wearing applications. The Bridgestone M720 and M726 EL are examples of closed shoulder drive tires.

M725

Ideal for:
Local P&D
Long Haul
Regional
Haul

Compares to:
Goodyear G328;
Michelin XD-4



Closed shoulder tires are also the most fuel efficient and come in two different

tread depths. The fuel efficient M720, with a tread depth of 26/32nds, incorporates a unique, low-rolling resistance casing design combined with special low-rolling resistant tread and sidewall compounds.

The ultra-deep (30/32nds tread depth) closed shoulder M726 EL features a distinctive long-haul casing and long-wearing tread compounds. While the shallower tread of the M720 meets the needs of fleets whose focus is fuel economy, the M726 EL provides long mileage and slower wear for fleets that are more focused on replacement mileage.

M726 EL

Ideal for:
Ex. Long Haul
Local P&D
Long Haul

Compares to:
Goodyear G3372, G362;
Michelin XDA3, XDA-HT



On/Off-Highway Drive Tires

Drive tires designed for on/off-highway use are usually aggressive, open shoulder, extra-deep lug designs. They employ unique casings with softer, more flexible

L320

Ideal for:
On/Off Highway

Compares to:
Goodyear G244MSD
Michelin XDY2, XDY3,
XDE-A/T



belt packages to better envelope obstacles. They also feature special cut and chip resistant rubber in the tread and sidewalls. Examples are the Bridgestone L315, the L320 and the M775.

Because of the unique design features of these tires, they deliver superior traction, although rate of wear may be faster than with on-highway designs.

M775

Ideal for:
On/Off Highway



The next time you're specing tires for a customer, remember to explain the differences each type of tire offers, and help them choose the right Bridgestone tire for their specific application. You'll find the information you need in the Bridgestone Medium and Light Truck Tire Data Book (every Volvo dealership should have a copy). It's also on TM2, or on the Bridgestone website at:

www.bridgestonetrucktires.com

You may also contact your local Bridgestone representative, your district service manager, or Volvo OE account executive Clark Johnson at 615-585-2332.

email: johnsonclark@bfusa.com

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ASK THE TECH WIZARD

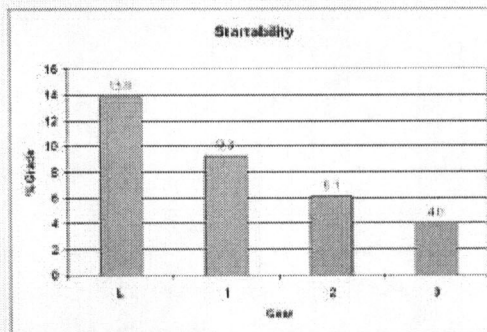
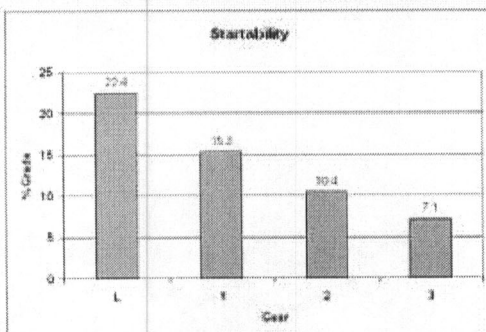
QUESTION: What's the difference between 'Startability' and 'Gradeability'?

ANSWER: One calculates low speed performance and the other calculates high speed performance.

Startability determines the steepness of a hill that a truck may start forward on, while gradeability is used to measure hill conquering ability – how steep can a truck ascend a certain grade in top gear, for example.

The performance tool 'Predictor', like most truck performance tools, prints out graphs demonstrating both of these terms and contain a great deal of information.

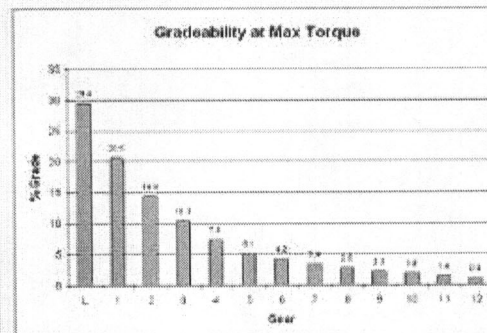
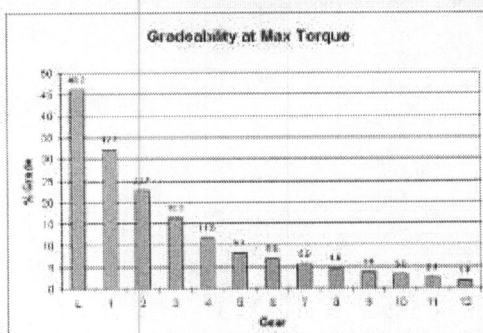
For example, the left-hand chart is the startability that Predictor generates for a typical 80,000-pound tractor-trailer with a Volvo D13-485 engine and a 13-speed transmission with a 3.42 rear axle ratio. Only the first four gears are normally shown. 'First' is the normal starting gear on a 13-speed, but you can see the extra startability that 'L' can provide when needed. The recommendation for minimum on-highway startability is 16% and this spec easily meets that requirement.



The graph on the right is that same truck at 125,000 pounds. Startability in 'L' has fallen to 13.8%. This truck could easily get into a situation where it might not be able to start up the grade. Spec changes to an 18-speed transmission with deeper first gear and a 3.58 rear axle ratio would improve performance to the desired startability at this weight.

In Predictor, startability calculations are performed using the actual road surface type that you provide. On soft surfaces, startability is degraded, and Predictor accurately shows this to help make the right spec decision.

Gradeability is a performance calculation at higher speeds. Of particular interest is the gradeability in the highest gear. Predictor allows you to choose a "Performance Level" for your customer's spec to guide recommendations for their particular operation. For the 'typical' D13-485 truck shown on the left, the Performance Level might be best defined as "PL4-Performance". Predictor shows that the purchaser of a truck with this kind of power would expect a minimum performance of 1.7% gradeability in the highest gear. Our calculation shows it easily generates that kind of performance.



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Loading the 80,000-pound truck to 125,000 GCW once again (chart on right), and you see that the unit fails the high-speed gradeability, even with the Performance Level adjusted to "PL1-Heavy Haul". It simply doesn't have the torque to meet the minimum suggested performance of 1.1% gradeability in the highest gear. Performance complaints would result. Again, adjust the rear axle ratio to 3.58, which might also be more appropriate for the slower cruise speeds normally encountered with the higher GCW, and the performance requirements will be met.

One more thing that the gradeability chart tells you is the gear needed for a particular grade. Assume you know the steepest grade on a particular haul is 9%. Simply follow the chart bar values down until you see more than 9%. For the 80,000-pound truck, this shows climbing a 9% grade would require the use of 4th gear. On a 13-speed, this means the driver would have to downshift through the gear range from 5th gear to 4th, the highest gear in low range, to ascend a 9% grade. The 125,000 GCW truck would require yet another downshift to 3rd. The gear split chart (not shown) could be used to determine speed.

Note that all gradeability calculations are performed using 'excellent concrete' as the road surface to neutralize that variable. ■

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SPECIAL OF THE MONTH

THIS MONTH McKENNA TRUCK CENTER IS FEATURING THE WOOD GRAIN DASH KIT: PRICE INCLUDES INSTALLATION IN OUR BODY SHOP.

SPECIAL PRICE \$594. RETAIL PRICE \$810.

THIS IS A NICE ADDITION TO THE INTERIOR OF THE CAB. YOU MAY ORDER YOURS BY CALLING BRANT RAGAN AT 515-263-3600 ext 303.



McKenna Truck Center's Collision & Customization Center is available to perform repairs or to customize your truck. Fenders, Fairings, Lighting, Stainless, Satellite TV & Gas Grills are some of our specialties.

