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Who isn't
afraid of a
little hard work?

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Who isn't afraid of a little hard work



If you hail from the north, you've no doubt heard a tall tale or two of a mighty lumberjack and Blue, his faithful ox companion. With impressive strength and determination, Paul Bunyan could conquer any obstacle before him.

While certainly not a fairy tale, Bridgestone's new M775 on/off-highway drive is a hard-worker built for severe service. And if you hail from the north – Canada to be precise – you probably heard a story or two of the tire's rugged feats in the country's logging and oil fields.

Let's take a look at the M775 and see why it's now available across North America.



V-STEEL MIX

M7

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What made M775 so popular with logging and oil field fleets?

Because the tire is built for severe service. Let's start with the aggressive tread pattern. Those thick, knobby tread blocks can chew their way through the toughest jobsites – and the trails leading to them – whether it's in treacherous mud or on sharp gravel.

What makes a tire good in the mud?

Do you have a pair of rugged work boots? If so, take a look at them. The knobby sole uses dozens of edges to dig into the mud for superior traction. That gives you more solid footing. Without those biting edges, you could slip and slide in the mud – as if you were wearing a smooth tread like a worn sneaker.

The M775 drive uses the same concept to claw through the mud so it can reach dryer, more solid ground for better traction. The open shoulder excavates mud from the tread surface – much like the open sole on your work boots.

How does that help, as compared with a closed shoulder?



Solid or closed shoulder designs are used as traditional ribs, adding more tread volume for longer wear in long-distance applications.

They also work to stabilize the blocks beside them to minimize squirm and the irregular wear it can cause. You can find

them on Bridgestone's popular M726 EL and fuel-efficient M720 drive radials.

Open shoulders, on the other hand, are preferred off the highway because the design produces additional edges to bite into mud and soft surfaces, which helps the tire gain solid footing. Also when mud is compressed under the tire, it has to go somewhere. So the open shoulder allows the mud to squeeze or evacuate from the tread surface.



On the highway, the sipes accomplish a similar task with rain – squeezing moisture away from the tread surface. If you look at the tread surface closely, you'll find M775 uses a large sipe on every tread block.

Why aren't the sipes completely straight?

The ends of the sipes are club-shaped to help prevent tearing by small stones and gravel. As you can imagine, any size stone – small or large – can wreak havoc on tires.

To help prevent sharp stones from cutting the block tread, M775 uses an ultra-tough tread compound. It resists cuts, chips, chunks and tears.

And that means fewer flats.

Exactly. If a flat happens out at the work site, it can easily be half a day of downtime waiting for the service truck to come out and replace the tire. M775's ultra-tough compound makes for a more durable tire.

Stone drilling is also a problem with tires that spend time off the highway. M775 uses stone rejector platforms in the center grooves to fight stone drilling.



Severe-service fleets look for an aggressive tread like this for superior traction.



How do they work?
 On the logging trail, in the oil fields and on unimproved roads, sharp stones can be driven into the tread – stone drilling goes with the territory. But if those stones remain there, they could push deeper into the tread groove and pierce the belt layer. That damages the belts and once that happens, the belts are exposed to air and water, which

causes them to rust. The buttons or raised platforms you see between the grooves help prevent the stones from drilling into the belt in the first place.



The slippery slope of the deep “V” means sharp stones can easily slide out of the groove, reducing the possibility for stone drilling.

The shape of the groove walls between the blocks also plays a role in preventing stones from becoming lodged and piercing the belt layer.

What else makes the tire popular in severe service?

We’ve talked about durability, but there’s more to discuss. One feature in particular – the split belt – produces a less rigid, more flexible belt package.

Isn’t something that’s rigid also stronger?

Not necessarily. An oak tree is a common metaphor for illustrating strength. But in a strong wind, its rigid branches break because they can’t yield. On the other hand,



A rigid belt package cannot flex over damaging debris. And, like this refrigerator biscuit package, could tear open, exposing the casing to damaging air and water. M775’s split belt design is flexible and envelops large sharp rocks and other damaging debris.

a willow tree easily bends and flexes with the wind. And like the supple willow tree, the split belt bends and flexes over potentially damaging debris, resisting cuts, punctures and impacts to the belts.

We discussed features that are favorable off the highway. What makes M775 do well on the highway?

The tread depth is over one inch deep for longer mileage. M775 offers three sizes in two different tread depths: the 11R22.5 and 11R24.5 are both $33/32$ ” deep; the 12R22.5 size features a $34/32$ ” tread depth.

Earlier, we discussed the ultra-tough tread compound. That durable compound also resists block cracking, which can be a problem in ultra-deep drives.

In addition to being durable, the tread compound is cool-running so you can use M775 drive tires at highway speeds to 65 mph.

When will M775 be available in the U.S.?

It’s available now. Call your Bridgestone territory manager or ask your dealer to give you more information. If you run both on and off the highway, in fairly severe jobsites, M775 could be just the tire your fleet needs. 

