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TECHNICAL

HERCULES TRAIL DIGGER TEST

A TIRE FOR ALL REASONS


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PHOTOGRAPHY TRENT RIDDLE
AND COURTESY OF THE MANUFACTURER

WHEN HERCULES TIRES introduced the Trail Digger M/T line it was only offered in a few sizes and only as a two-ply tire. We were pleased with the performance of the two-ply tire when we tested it back in 2007 ("Massive Mud Tire Test," Apr. '07) but wanted to see what the new Strong-Guard three-ply technology had to offer.

We had access to two rigs for a few days of testing. One was a Jeep TJ equipped with LT305/70R18 Hercules Trail Digger M/T, Load Range E. The other was a Jeep JK fitted with LT285/70R17, Load Range D. This gave us a chance to test the tires in 33- and 35-inch sizes, in two load ranges, on two trail-ready rigs. Best of all, this was in and around Moab, a place we are very familiar with and where we know the traction characteristics of the many roads and trails.

Not only has Hercules added three-ply tires to the line, but the company has also expanded the size offerings. The Trail Digger M/T is currently offered in 16 sizes. These range in diameter from the LT235/75R15 (29.09 inches) to the LT305/7018 (35.10 inches). In the current lineup you will find four tires in Load Range C, five in D, and eight in E. Six of these 16 sizes are floatation, or old-style standard size. This means 31x10.50R15 style. The rest are LT metric sized tires. Hercules has plans to release three new sizes in Load Range E by the time this article comes out: LT225/75R16 (29.53x8.70 inches), LT245/70R17 (30.70x9.60), and LT275/65R18 (33.32x10.98).

STREET

Unless you have a dedicated trail rig, most of your time with a tire will be on the street. We wish this wasn't so, but modern society means we have paved surfaces to drive on and often no dirt alternatives.

On pavement we found the Trail Digger M/T to be responsive and well mannered. Even when pushing the Jeeps to the limit on the twists and turns of the river road, we were confident in the tires' traction. The Load Range E tires were of course solid with little sidewall flex when cornering at speed. Surprisingly while the D-rated tires did exhibit some sidewall flex, they didn't squirm around like we've seen some C-rated trail tires do. Traction on dry pavement was exceedingly good for an M/T truck tire. In truth, we were pushing the Jeeps harder than many would be comfortable with, and the tires gave no indication of traction loss. Don't get us wrong—you won't be seeing Trail Digger M/Ts on a Porsche anytime soon.

For a truck-size mud tire, the Trail Digger M/Ts are also very quiet on the pavement. We found them to be as quiet as some A/Ts we've tested in the past. No, they are not as quiet as passenger car tires, but then the Jeeps are not as quiet inside as a car even on street tires.

ROCKS

On the rocks, dirt roads, and trails we found the Trail Digger M/T really shined. Of course, at street pressure the tire carcass was quite stiff, and this presented some issues. However, after airing down just 10 psi (to 22) we found both the D- and E-rated tires gained considerable traction. We felt the Es could have lost about 5 psi more, but without a compressor and with a long drive back to town on pavement, we left them at 22 psi, and they performed well. When aired down the tires were able to absorb the bumps and loose talus you typically find on a trail. Lowering the pressure also increased the contact patch and allowed the tires to wrap around rocky corners and grip the edges of ledges, providing smooth forward motion on the trail. On lighter, dedicated trail vehicles we would recommend even lower trail pressures.

1 **We were able to test the Trail Digger M/T tires on the trails and pavement around Moab for a few days. Overall we found them to be a great tire for the trail and very well mannered on the pavement too. Traction on slickrock was great, and with the antisway bars connected the tires were doing most of the work.**

2 **Any tire needs to be lowered from street pressure to obtain maximum trail traction. The Trail Digger M/Ts were dropped to 22 psi for our testing. Even aired down a little, the Load Range D tires offered good sidewall flex. The sidewalls were able to wrap around edges, providing improved traction over street pressure.**

3 **The Load Range E tires required lower air pressure than the D tires to get the same wrap effect while working a rock corner. The E-rated tires could have benefited from a little less air pressure but worked well at 20-22 psi on the trail. Mind you, this shot is on the high side and this tire is not loaded that much and still shows some sidewall flex.**

4 **When the antisway bars are still connected, traction comes down to drive throttle control and the tire's "stiction" (traction) capability. The Trail Digger M/Ts did great on the traction front.**

SPECIFICATIONS

MAKE & MODEL	Hercules Trail Digger M/T (3-Ply)	
SIDEWALL DESIGNATION	LT285/70R17	LT305/70R18
LOAD RANGE	D	E
TREAD DEPTH (IN)	19/32	21/32
SIDEWALL PLIES	3	3
TREAD PLIES	N/A	N/A
TIRE WEIGHT (LB)	58	72
MEASURED DIAM. (IN)	33.00	35.10
MEASURED TREAD WIDTH (IN)	11.50	12.24

NOTE: Hercules Trail Digger M/T tires have the capacity to be studded for operation in snow and ice.


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5 In sand the Trail Digger M/Ts offered great traction and flotation. The only limitation we had was the Jeep lacked the horsepower to really enjoy the tires in the dunes. While you might not think of using mud tires in the sand, the truth is you only run one tire at a time. The Trail Digger M/Ts are made for the mud but are at home in the sand too. They offer surprising sand performance for a tire this aggressive.


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6 While we didn't get to test the tires on wet pavement, we did find that they had great traction in water crossings and climbing out of the water onto the banks and boulders on wet exit.


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7 The mud we encountered was not the sticky clay common in the South and Midwest. Our lighter mud was still sticky, but the Trail Digger M/Ts tackled it with ease. As you would expect of tires meant for mud, they would dig their way through the muck, making as much traction as the surface and bottom would allow. The Trail Diggers quickly unload the tread segments of the sticky stuff.

TRAIL RUNNING

At speed on the open trails and graded access roads, the tires were very friendly when aired down. They were predictable in the turns, and we didn't feel any push or loss of traction, even at the higher speed. The steering reaction was crisp, and we could hear a slight hum that we have come to equate with a tire making traction on a less than smooth and solid surface. Take into consideration that the Jeeps we were testing the Trail Diggers on were open in the front and had the antisway bars connected the whole time. This means that the tires had to do most of the work maintaining traction.

SLICKROCK

Sticky is the word that comes to mind when talking about the Trail Digger M/Ts on slickrock. Driving up and down sandstone fins, we didn't hear one chirp or bark, no matter how steep the ascent. Not only didn't we notice it, but the novice four-wheelers we were with on Hell's Revenge drove the trail for the first time on Trail Digger M/Ts and not one of them expressed dissatisfaction with the traction or fear that they would slip at the wrong moment. We were actually surprised by this, as many novice drivers have some throttle control trouble on their first trip or two running the steep stuff.

MUD

The Trail Digger M/T is first and foremost a mud tire, and as expected it performed flawlessly in the mud. We actually overheated the transmission in our test JK trying to break the tires loose in the mud. We couldn't get the M/Ts to spin enough to fling some mud for our photos, so we applied a little brake and added power. The Trail Digger M/Ts just dug in and fought to move the Jeep forward against the brakes. The instant we let go, the Jeep leapt forward and the mud cleared out of the tread. Mind you, this was the slightly sandy mud found in and around Moab. Deep sticky clay performance has yet to be determined, but indications are that the Trail Digger M/T will perform well in thick and sticky stuff too.

SAND

In Sand the Trail Digger M/Ts offered great floatation. In truth, the Jeep JK lacked the horsepower to really enjoy these tires in the dunes. Considering the horsepower limitations, the Trail Diggers were fun to drive in the sand. They made good traction going up and down the dune faces, as well as across them. There was plenty of flotation, and after stopping nose-up on the face of a slope, they provided smooth forward traction to get started again. With enough horsepower these tires can sling some sand when you want them to and provide traction and floatation when you need it too.

FINAL NOTES

After about 50 miles of driving on all types of surfaces, the Trail Digger M/Ts were still in great shape. The tread exhibited no signs of chipping or chunking, or of spinning scrapes. Also, we had no sidewall damage. The tires looked virtually brand-new after two days of testing in Moab, in all conditions, some of which was extreme-duty, by experts and novices alike. This initial rough treatment can be considered an indication of how well the tires will wear over time. We estimate that these tires will provide miles of great performance on street and trail for any user.

SOURCE

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Trail Digger M/T

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Herc Item #	Tire Size			Meas. Rim Width (in)	Max PSI	Dual Max Load (lbs)	Single Max Load (lbs)	Overall Diam. (in)	Section Width (in)	Tread Depth 32nds	Ship Weight (lbs.)
TRAIL DIGGER M/T BW sizes											
01200	**LT235/85R16/10**	E	120/116N	6.5	80	2778	3042	31.80	9.30	18.0	44.0
01241	**LT245/75R16/10**	E	120/116N	7.0	80	2778	3042	30.70	9.45	17.0	43.0
*01260	**LT245/70R17/10**	E	119/116Q	7.0	80	2755	3000	30.70	9.60	18.0	47.0
*01203	**LT275/70R18/10**	E	125/122Q	8.0	80	3305	3640	33.35	11.00	20.5	62.0
*01205	**35x12.50R20LT/10**	E	121Q	10.0	65		3195	34.66	12.50	20.5	71.0
TRAIL DIGGER M/T OWL sizes											
01238	**LT235/75R15/6**	C	104/101Q	6.5	50	1820	1985	29.09	9.00	18.0	32.0
01204	**30X9.50R15LT/6**	C	104Q	7.5	50		1985	29.30	10.01	19.5	37.0
01206	**33X12.50R15LT/6**	C	108Q	10.0	50		2225	32.50	12.80	20.5	52.0
01202	**31X10.50R15LT/6**	C	109Q	8.5	50		2270	30.50	10.50	20.0	41.0
*01263	**LT225/75R16/10**	E	115/112Q	6.0	80	2470	2680	29.53	8.70	17.5	43.0
01208	**LT265/75R16/10**	E	123/120N	7.5	80	3085	3415	32.00	10.10	18.5	49.0
01210	**LT285/75R16/8**	D	122/119N	8.0	65	3000	3305	33.10	11.30	18.5	53.0
01201	**LT315/75R16/8**	D	121N	8.5	50		3195	34.75	12.47	20.0	63.0
01230	**LT265/70R17/10**	E	121/118Q	8.0	80	2910	3195	31.65	11.03	18.5	50.0
*01209	**LT285/70R17/8**	D	121/118Q	8.5	65	2910	3195	33.00	11.50	18.5	58.0
*01265	**LT285/70R17/10**	E	121/118Q	8.5	80	2910	3195	33.00	11.50	18.5	59.0
01228	**33x12.5R17LT/8**	D	114Q	10.0	50		2600	32.50	12.80	20.5	57.0
01226	**35X12.5R17LT/8**	D	119Q	10.0	50		3000	34.85	12.67	20.5	62.0
*01264	**LT275/65R18/10**	E	123/120Q	8.0	80	3415	3085	32.32	10.98	18.0	57.0
*01207	**LT305/70R18/10**	E	126/123Q	9.0	65	3415	3750	35.10	12.24	20.5	72.0

* strong-guard 3-ply technology

herculestire.com

- absolute traction -

- with its huge, staggered tread blocks and aggressively notched shoulder lugs, the Trail Digger M/T was designed to deliver maximum traction under the most treacherous conditions.

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