





MILITARY / SPECIAL SERVICE TYRES



NDMS



AVAILABLE SIZES

6.00 - 16

7.00 - 16

9.00 - 16

FEATURES & BENEFITS

- Non-directional tread pattern
- Strong casing
- Good traction on soft and sandy terrain
- All-wheel fitment

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load	Infln	Load	Infln	Static Loaded Radius (mm)	Flap Code	Tube Valve Code	Load Index	Speed Index
						Single	Pressure Single	Dual	Pressure					
						(kg)	(kPa)	(kg)	Dual/(kPa)					
6.00 - 16	6	4.5	166	731	12.4	650	310	560	310	357	16K	TR15	93/88	J
7.00 - 16	6	5.5	198	790	13.3	825	275	NA	NA	378	-	TR15	NA	NA
9.00 - 16	12	6	252	915	15.4	1740	515	NA	NA	420	16N	TR274A	NA	NA
9.00 - 16	16	6.5	257	915	15.4	2120	725	NA	NA	420	16N	TR274A	NA	J

NU LUG

AVAILABLE SIZES

12.00 - 20

12.00 - 24



FEATURES & BENEFITS

- Special transverse tread pattern
- Strong casing
- Reduces stone trapping
- Good traction

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load	Infln	Load	Infln	Static Loaded Radius (mm)	Flap Code	Tube Valve Code	Load Index	Speed Index
						Single (kg)	Pressure Single (kPa)	Dual (kg)	Pressure Dual/(kPa)					
12.00 - 20	18	8.5	310	1110	19	3725	795	3265	725	512	20RR	TR78A	153/149	K
12.00 - 24	18	8.5	315	1235	20	4125	795	3650	725	578	24RR	TR78A	157/153	K

SAND MASTER



AVAILABLE SIZES

9.00 - 13
 9.00 - 16 (Sand Master X)
 11.00 - 20
 12.00 - 20
 14.00 - 20

FEATURES & BENEFITS

- Plain rib design
- Wide tread and flexible shoulder and sidewall
- High weather resistant tread compound
- Minimum rolling resistance to aid steering control on soft surface
- High floatation and least soil disturbance
- Withstands extreme conditions from desert sand to thick snow

TECHNICAL DATA

Tyre Sizes	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Infln		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs / sq.cm	Dual kgs@kgs/ sq.cm			
9.00 - 13	6	5.5F	240	785	9	1035 @ 3.85	-	366	-	TR 15
9.00 - 16*	8	6.5H	255	865	9	1210 @ 3.50	-	405	16N	TR 76A
11.00 - 20	12	8	305	1100	8.7	2355 @ 5.25	-	513	20RR	TR 78A
12.00 - 20	14	8.5	320	1140	14.7	2385 @ 5.60	-	532	20RR	TR 78A
14.00 - 20	12	10	390	1260	16	2580 @ 2.80	-	595	20V	TR 179A
14.00 - 20	18	10	390	1260	16	3965 @ 5.75	-	595	20V	TR 179A

*available as Sand Master X with the same pattern

SAND GRIP



AVAILABLE SIZES

7.50 - 16	14.00 - 20
9.00 - 13	20 - 20
9.00 - 16	15.00 - 21
13.00 - 18	1300 x 530 - 533
12.00 - 20	

FEATURES & BENEFITS

- Double chevron block design
- Wide tread width and large ground contact area
- Flexible sidewall and wider cross-section
- Provided with highly weather-resistant tread and sidewall compound
- Excellent traction on surface and tracks
- Reduced ground contact pressure
- High floatation on yielding soil to add traction with minimum soil disturbance
- Withstands extreme conditions from desert sand to thick snow

TECHNICAL DATA

Tyre Sizes	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Infln		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs / sq.cm	Dual kgs@kgs/ sq.cm			
7.50 - 16	8	5.5	222	823	12	1080 @ 4.25	-	390	-	TR 15
9.00 - 13	6	5.5F	240	785	15	1035 @ 3.85	-	366	-	TR 15
9.00 - 16	8	6.5H	255	905	16	1210 @ 3.5	-	425	16N	TR 76A
13.00 - 18	10	9	332	1120	17.1	2240 @ 3.50	-	524	-	-
12.00 - 20	18	8.5	325	1140	17.1	3265 @ 7.40	-	535	20RR	TR 78A
12.00 - 20	20	8.5	325	1140	17.1	3530 @ 8.40	-	535	20RR	TR 78A
14.00 - 20	18	11.25	402	1260	19.5	3965 @ 5.95	-	595	-	TR 179A
14.00 - 20	18	10	390	1260	19.5	3965 @ 5.95	-	595	20V	TR 179A
14.00 - 20	18	10.00V	390	1260	19.5	3695 @ 5.95	-	595	-	Tubeless
14.00 - 20	22	10.00v/10.00W	390	1260	19.5	4730 @ 8.10	-	595	20V	TR 179A
20 - 20	12	14	490	1280	17.5	3000 @ 2.9	-	578	-	-
15.00 - 21	12	11.25	405	1310	18.6	3965 @ 4.60	-	600	-	-
15.00 - 21	16	11.25	405	1310	18.6	4635 @ 5.95	-	600	-	-
1300x530 - 533	12	17	515	1280	17.5	4095 @ 4.35	-	578	-	-

MUSCLEROK

AVAILABLE SIZES

9.00 - 20
10.00 - 20



FEATURES & BENEFITS

- Double chevron non-directional tread design
- Heavy buttressed lugs
- Heat resistant under tread
- Rugged nylon construction
- Excellent pulling power in forward and reverse direction
- Cooler running helps prevent tread separation
- Strong and bruise resistant

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Infln		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs / sq.cm	Dual kgs@kgs/ sq.cm			
9.00 - 20	14	7	267	1045	21.4	2240 @ 6.9	-	488	20N	TR 175A
9.00 - 20	16	7	267	1045	21.4	2300 @ 7.25	-	488	20N	TR 175A
10.00 - 20	16	7.5	275	1075	22.5	3000 @ 7.95	2650 @ 7.25	505	20N	TR 78A

MUSCLEROK-X

AVAILABLE SIZE

14.00 - 20



FEATURES & BENEFITS

- Double chevron non-directional tread design
- Heavy buttressed lugs
- Rugged nylon construction
- Heat resistant under tread
- Excellent pulling power in forward and reverse direction
- Cooler running helps prevent tread separation
- Strong and bruise resistant

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Infln		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs / sq.cm	Dual kgs@kgs/ sq.cm			
14.00 - 20	18	10	390	1260	19.5	4625 @ 6.7	4000 @ 6.0	595	20V	TR 179A
14.00 - 20	22	10	390	1260	19.5	5000 @ 7.8	4375 @ 7.0	595	20V	TR 179A

MUSCLEROK-H

AVAILABLE SIZE

12.00 - 24



FEATURES & BENEFITS

- Superior mileage
- Superior in heavy-duty applications and puncture resistance
- Strong casing for better retreadability
- Excellent traction and stability
- Excellent resistance to damage in harsh conditions

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Infn		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs / sq.cm	Dual kgs@kgs/ sq.cm			
12.00 - 24	18	8.5	315	1245	23.5	4250 @ 8.1	3750 @ 7.4	583	24RR	TR78A
12.00 - 24	20	8.5	315	1245	23.5	4500 @ 8.7	3875 @ 8.1	592	24RR	TR78A

STEEL MUSCLEROK-ML111

AVAILABLE SIZE

12.00 R 24



FEATURES & BENEFITS

- Superior mileage
- Superior in heavy-duty applications and puncture resistance
- Strong casing for better retreadability
- Excellent traction and stability
- Excellent resistance to damage in harsh conditions

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Infln	
						Single kgs@kgs / sq.cm	Dual kgs@kgs/ sq.cm
12.00 R 24	18	8.5	315	1240	30	4250 @ 120	3875 @ 120

SPEED RATING

Correlation between speed symbol and speed category

Speed Symbol	Speed Category km/h	Speed Symbol	Speed Category km/h	Speed Symbol	Speed Category km/h
A1	5	D	65	Q	160
A2	10	E	70	R	170
A3	15	F	80	S	180
A4	20	G	90	T	190
A5	25	J	100	U	200
A6	30	K	110	H	210
A7	35	L	120	V	240
A8	40	M	130	W	270
B	50	N	140	Y	300
C	60	P	150		

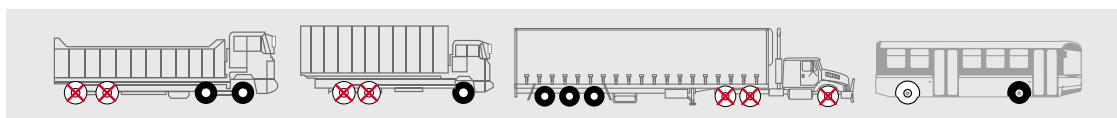
Note: In the case of tyres suitable for speeds higher than 240 km/h the speed category of the tyre must be indicated by the letter 'Z' placed in front of the indication of the structure and indication of the load capacity index may be omitted.

LOAD INDEX

Correlation between load index and tyre load-carrying capacity (TLCC)

Load Index (LI)	TLCC kg	Load Index (LI)	TLCC kg	Load Index (LI)	TLCC kg	Load Index (LI)	TLCC kg	Load Index (LI)	TLCC kg
0	45	40	140	80	450	120	1400	160	4500
1	46.2	41	145	81	462	121	1450	161	4625
2	47.5	42	150	82	475	122	1500	162	4750
3	48.7	43	155	83	487	123	1550	163	4875
4	50	44	160	84	500	124	1600	164	5000
5	51.5	45	165	85	515	125	1650	165	5150
6	53	46	170	86	530	126	1700	166	5300
7	54.5	47	175	87	545	127	1750	167	5450
8	56	48	180	88	560	128	1800	168	5600
9	58	49	185	89	580	129	1850	169	5800
10	60	50	190	90	600	130	1900	170	6000
11	61.5	51	195	91	615	131	1950		
12	63	52	200	92	630	132	2000		
13	65	53	206	93	650	133	2060		
14	67	54	212	94	670	134	2120		
15	69	55	218	95	690	135	2180		
16	71	56	224	96	710	136	2240		
17	73	57	230	97	730	137	2300		
18	75	58	236	98	750	138	2360		
19	77.5	59	243	99	775	139	2430		
20	80	60	250	100	800	140	2500		
21	82.5	61	257	101	825	141	2575		
22	85	62	265	102	850	142	2650		
23	87.5	63	272	103	875	143	2725		
24	90	64	280	104	900	144	2800		
25	92.5	65	290	105	925	145	2900		
26	95	66	300	106	950	146	3000		
27	97.5	67	307	107	975	147	3075		
28	100	68	315	108	1000	148	3150		
29	103	69	325	109	1030	149	3250		
30	106	70	335	110	1060	150	3350		
31	109	71	345	111	1090	151	3450		
32	112	72	355	112	1120	152	3550		
33	115	73	365	113	1150	153	3650		
34	118	74	375	114	1180	154	3750		
35	121	75	387	115	1215	155	3875		
36	125	76	400	116	1250	156	4000		
37	128	77	412	117	1285	157	4125		
38	132	78	425	118	1320	158	4250		
39	136	79	437	119	1360	159	4375		

TYRE USAGE DETAILS



Recommended usage



Optional usage



Do not use

PRESSURE UNIT: CONVERSION TABLE

kPa	psi	kPa	psi	kPa	psi
6.895	1	44.795	21	282.695	41
13.790	2	151.690	22	289.590	42
20.685	3	158.585	23	296.485	43
27.580	4	165.480	24	303.380	44
34.475	5	172.375	25	310.275	45
41.370	6	179.270	26	344.750	50
48.265	7	186.165	27	413.700	60
55.160	8	193.060	28	482.650	70
62.055	9	199.955	29	551.600	80
68.950	10	206.850	30	620.550	90
75.845	11	213.745	31	689.500	100
82.740	12	220.640	32	723.975	105
89.635	13	227.535	33	758.450	110
96.530	14	234.430	34	792.925	115
103.425	15	241.325	35	827.400	120
110.320	16	248.220	36	861.875	125
117.215	17	255.115	37	896.350	130
124.110	18	262.010	38	930.825	135
131.005	19	268.905	39	965.300	140
137.900	20	275.800	40	999.775	145

TYRE CARE AND MAINTENANCE

TIPS ON TYRE MAINTENANCE

Any tyre, no matter how well constructed, may fail in use as a result of punctures, impact damage, improper inflation, overloading, excessive wear or other use conditions.

A tyre is wear-sensitive and all tyres eventually wear out. A worn or damaged tyre can present a safety hazard, and a tyre failure can lead to an accident that may result in property damage, injuries or death.

To reduce the risk of tyre failure and to get the best performance from your tyres, follow these simple procedures.

CHECK TYRE PRESSURE

1. Check the pressure of tyres once a week.
2. Check the pressure in all tyres including the spare tyre(s) as well.
3. Tyre pressure should be checked against the vehicle manufacturer's recommended pressure for the axle loads (or the tyre manufacturer's recommended operating pressures).
4. Check the pressure when tyres are cold or when the vehicle has travelled less than two miles.
5. Use a reliable and accurate pressure gauge.
6. Ensure that valve extensions are fitted and working for inner twins.
7. If you are unsure on any aspect of tyre pressure or tyre condition take your vehicle to an approved fitting centre and speak to the experts.



CHECK TREAD DEPTH

It is recommended that drivers consider changing their tyres before the legal limit of 1mm. Tyre tread depth should be checked at least once a month or at every fleet inspection, using an accurate tread depth gauge.



CHECK CONDITION OF TYRES

1. Clean the dirt from the valves and make sure that valve caps are fitted to each wheel.
2. Remove any stones and other objects embedded in the tread. Look out for any bulges, lumps or cuts to the tread and sidewalls.
3. Steering alignment should be corrected if front tyres show signs of excessive or uneven wear.
4. Rotation, Balancing and Wheel Alignment will help tyres wear out uniformly and extend tyre life.

RIM PROFILE DETAILS

TRUCK BUS & LIGHT TRUCK TYRES

RIM

Code Designated Truck and Bus Tyres in Normal Highway Service (Diagonal & Radial)

Nominal Tyre Section Width	Diameter Code	Approved Rim Contours
7.50	20	5.5, 6.0 , 6.5
8.25	20	6.0, 6.5 , 7.0
9.00	20	6.5, 7.0 , 7.5
10.00	20	7.0, 7.5 , 8.0
	22.5	6.75, 7.50 , 8.25
11.00	20, 22, 24	7.5, 8.0 , 8.5
	22.5, 24.5	7.50, 8.25
12.00	20	8.0, 8.5 , 9.0
	24	8.0, 8.5 , 9.0
	22.5	8.25, 9.00

Metric Truck and Bus Tyres in Normal / Special Service (Radial)

Nominal Tyre Section Width	Diameter Code	Approved Rim Contours
215	17.5	6.00 , 6.75
225	17.5	6.00, 6.75
235	17.5	6.75 , 7.50
245	17.5, 19.5	6.75, 7.50
265/70	19.5	6.75, 7.50
285	19.5	7.50, 8.25 , 9.00
255	22.5	6.75, 7.50 , 8.25
275	22.5	7.50, 8.25
295	22.5	8.25, 9.00
315	22.5	9.00 , 9.75
325	24	9 SDC

Mining and Logging Tyres

Nominal Tyre Section Width	Diameter Code	Approved Rim Contours
8.25	20	6.5 , 7.0
9.00	20	7.0 , 7.5
10.00	20	7.5 , 8.0
11.00	20	8.0 , 8.5
12.00	24	8.5 , 9.0
14.00	20	10.00W

Free Rolling Sizes

Nominal Tyre Section Width	Diameter Code	Approved Rim Contours
7.50	15	6.0 , 6.5, B6.5
8.25	15	6.0, 6.5 , B6.5 , 6.50T , 7.0

RIM PROFILE DETAILS

Code Designated Light Tyres in Normal Highway Service (Diagonal & Radial)

Nominal Tyre Section Width	Diameter Code	Drop Centre Rim	Semi Drop Centre Rim
4.50	10	3.00B, 3.50B	-
6.40	15	4.50E	-
6.70	15	5K , 5.50F	-
7.00	15	5K, 5.50F	5.50F
6.00	16	4.50E	4.50E
6.50	16	4.50E , 5K	4.50E
7.00	16	5.50F	5.50F , 6.00G
7.50	16	5.50F	5.50F, 6.00G
8.25	16	-	6.50H , 6.00G
9.00	16	-	6.50H , 6.00G

Alpha Numeric Light Truck Tyres

F78	15	5.50F	-
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Metric Light Truck Tyres (Diagonal & Radial)

Nominal Tyre Section Width	Diameter Code	Approved Rim Contours
145, 145/80	12	3.50B, 4.00B , 3½J, 4J
155, 155/80	12, 13	4.00B, 4J, 4.50B, 4½J , 5.00B, 5J
165, 165/80	12, 13, 14	4J, 4½J , 5J
175	13, 14	4½J, 5J , 5½J
175/65	14	5J , 5½J
185	14	5J, 5½J , 6J
185/85	16	4½J, 5J , 5½J, 6J, 6K
195, 195/80	14, 15	5J, 5½J , 6J
195/65	14, 16	5½J, 6J
205, 205/80, 205/75	16	5½J , 6J, 6½J
205/65	16	5½J, 6J , 6½J
215, 215/80, 215/75	14, 15, 16	5½J, 6J , 6½J, 7J

Metric Light Truck Tyres (Diagonal & Radial)

Nominal Tyre Section Width	Diameter Code	Approved Rim Contours
215/70	15	5½J, 6J, 6½J , 7J
215/65	16	6J, 6½J , 7J
225/75	15	6J , 6½J, 7J
235/85	16	6J, 6½J , 7J, 7½J
235/75	15	6J, 6½J , 7J
255/70	15	7J, 7½J , BJ

Ultra-Light Truck Tyres

Nominal Tyre Section Width	Diameter Code	Approved Rim Contours
4.50	12	3½J , 4J
5.00	12	3.00B, 3.50B , 4.00B

NOTES:

- (1) Recommended rim shown in bold.
- (2) The load and inflation pressure on a rim or wheel must not exceed the rim manufacturer's recommendations, particularly for Drop Centre rims, whenever fitment for Light Truck tyres of higher ply rating is intended. Consult rim manufacturer to ensure that the rim - wheel is of sufficient strength for the load, inflation and service intended.
- (3) The load and inflation pressure imposed on a rim or wheel must not exceed the rim - wheel manufacturer's recommendations even though the tyre of a size and ply rating designated to assure proper mounting and fit on the rim may be approved for a higher load and inflation. Consult rim manufacturer to ensure that the rim wheel is of sufficient strength for the load and service intended.

MRF - INDIA'S LARGEST TYRE MANUFACTURER

MRF - India's largest tyre manufacturer has a rich and varied history. A company that started with the manufacture of toy balloons is today a USD 2.5 billion organisation with products for every segment of the tyre market from scooter tyre to tyres for giant earth movers. MRF is also the only Indian tyre company to manufacture aviation tyres for the Indian Air Force.



CUTTING-EDGE R&D

MRF has laid great emphasis on R&D. The Corporate Technical Centre in Chennai, India is responsible for materials development, process and product design and product testing. This centre uses the latest technology for designing, simulation and testing to develop tyres that are best-in-class for Indian and international markets, in all aspects of customer expectation - safety, comfort and durability.

GLOBAL RECOGNITION

MRF is the only Indian tyre company to have won the J.D. Power Asia Pacific Original Equipment Tyre Customer Satisfaction Award a record **12 times in the last 17 years** - a testament to the trust reposed in brand MRF by our customers.

