MRF

LCV/PICKUP RADIAL TYRES

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.

LCV/PICKUP RADIAL TYRES

STEEL MUSCLE S1M4

AVAILABLE SIZE

LT 9.5 R 17.5 TL

FEATURES & BENEFITS

- Zig-zag tread pattern
- Extended tyre integrity and balanced semi-lug design
- Strong casing
- Optimum traction levels in both steer and drive axles
- Excellent mileage
- Better retreadability

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 9.5 R 17.5 TL	139/137 M	6.75	240	845	15.5	2430/8.4	2300/8.4	-	-	TR 543C

STEEL MASTER M154

AVAILABLE SIZES

LT 145 R 12 | LT 155 R 12 | LT 155 R 13 | LT 155 R 13 TL | LT 165 R 14 | LT 165 R 14 TL | LT 175 R 14 | LT 175 R 14 TL

FEATURES & BENEFITS

- Free rolling tread pattern
- Four-rib design
- Edge treatment on ribs
- Premium tread compound
- Special design with scoops on shoulders
- All-wheel fitment with good manoeuvrability
- Optimum rubber volume with stone ejection capabilities
- Reduces uneven wear
- High mileage with superior traction
- Faster heat dissipation

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 145 R 12	8	4.0	145	543	8.2	530/4.5	500/4.5	261	-	B35 3 57 (TR 13)
LT 155 R 12	8	4.5	158	556	8.6	560/4.5	530/4.5	257	-	B35 3 57 (TR 13)
LT 155 R 13	8	4.50	157	582	8.6	600/4.5	580/4.5	270	-	B35 3 57 (TR 13)
LT 155 R 13 TL	8	4.50	157	582	8.6	600/4.5	580/4.5	270	-	TR 413
LT 165 R 14	8	4.50	167	622	8.6	730/4.5	690/4.5	290	-	B35 3 57 (TR 13)
LT 165 R 14 TL	8	4.50	167	622	8.6	730/4.5	690/4.5	290	-	TR 413
LT 175 R 14	8	5.00	180	640	8.5	775/4.5	750/4.5	296	-	B35 3 57 (TR 13)
LT 175 R 14 TL	8	5.00	180	640	8.5	775/4.5	750/4.5	296	-	TR 413

STEEL MUSCLE

AVAILABLE SIZE

LT 7.00 R 16

FEATURES & BENEFITS

- Flat tread
- Superior compound
- Strong casing
- Even tread wear
- Superior mileage
- Better retreadability

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 7.00 R 16	12	5.50	202	778	12.5	1215/6.6	1060/6.6	362	16 M 16 N	B35 5 57 (TR 15) A C3 5 82 (TR 77A)

STEEL MASTER M160

AVAILABLE SIZES

LT 185 R 14 TL | LT 195 R 15 TL

FEATURES & BENEFITS

- Block design to meet high traction requirements
- Tyre designed to meet overload applications
- Tread compound offers excellent cut and chip resistance even on bad roads

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 185 R 14 TL	102/100 Q	5.50	192	653	10.4	850/4.5	800/4.5	302	-	B35 3 57 (TR 13)
LT 195 R 15 TL	107/105 Q	5.50	196	693	10.2	975/4.5	925/4.5	320	-	B35 3 57 (TR 13)

STEEL MUSCLE S3K4

AVAILABLE SIZES

8.25 R 16 | 215/75 R 17.5 TL | 225/75 R 17.5 TL | 235/75 R 17.5 TL

FEATURES & BENEFITS

- Staggered block design
- Strong casing
- Superior compound
- Even tread wear
- Good traction and braking
- Better retreadability
- High mileage

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
8.25 R 16	129/127 L	6.5	240	852	16	1850/8.1	1750/8.1	396	16 N	AC3 5 82 (TR 77A)
215/75 R 17.5 TL	126/124 M	6.00	212	770	15.5	1700/7.1	1600/7.1	355	-	TR 543C
225/75 R 17.5 TL	129/127 M	6.75	226	788	16.5	1850/7.4	1750/7.4	354	-	TR 543C
235/75 R 17.5 TL	132/130 M	6.75	233	808	16.5	2000/7.9	1900/7.9	370	-	TR 543C

STEEL MASTER M165

AVAILABLE SIZE

LT 195 R 15 TL | LT 225/75 R 16 TL
LT 235/85 R 16 TL

FEATURES & BENEFITS

- Aggressive pattern for use in muddy terrains
- Excellent grip in wet conditions
- Compound designed to provide cut and chip resistance

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 195 R 15 TL	107/105 Q	5.50	195	695	10.5	975/4.5	925/4.5	320	-	TR 413
LT 225/75 R 16 TL	121/120 S	6.00	223	744	10	1450/5.8	1400/5.8	345	-	TR 413
LT 235/85 R 16 TL	120/116 Q	6.50	238	806	11	1400/5.86	1250/5.86	258	-	TR 413

STEEL MUSCLE S1R4

AVAILABLE SIZES

9.5 R 17.5 TL | 215/75 R 17.5 TL |
225/75 R 17.5 TL | 235/75 R 17.5 TL

FEATURES & BENEFITS

- Flat tread
- Superior compound
- Strong casing
- Even tread wear
- Superior mileage
- Better retreadability

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
9.5 R 17.5 TL	139/137 M	6.75	240	842	14.2	2430/8.4	2300/8.4	-	-	TR 543C
215/75 R 17.5 TL	126/124 M	6.00	212	767	14.2	1700/7.1	1600/7.1	355	-	TR 543C
225/75 R 17.5 TL	129/127 M	6.75	226	783	14.2	1850/7.4	1750/7.4	354	-	TR 543C
235/75 R 17.5 TL	132/130 M	6.75	233	803	14.2	2000/7.9	1900/7.9	370	-	TR 543C

STEEL MUSCLE S1T4

AVAILABLE SIZE

8.25 R 16

FEATURES & BENEFITS

- Unique tread pattern design
- Strong casing
- Balanced rib tyre design
- Minimizes side sliding on wet roads
- Better retreadability
- Excellent mileage

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
8.25 R 16	129/127 L	6.5	240	848	14	1850/8.1	1750/8.1	396	16 N	AC3 5 82 (TR 77A)

STEEL MASTER M151

AVAILABLE SIZES

7.50 R 16 | LT 185 R 14 |
LT 185 R 14 TL | LT 195 R 14 TL

FEATURES & BENEFITS

- Free rolling tread pattern
- Four-rib design
- Edge treatment on ribs
- Premium tread compound
- Special design with scoops on shoulders
- All-wheel fitment with good manoeuvrability
- Optimum rubber volume with stone ejection capabilities
- Reduces uneven wear
- High mileage with superior traction
- Faster heat dissipation

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
7.50 R 16	120/116 L	6.00	211	809	13	1400/6.7	1250/6.7	374	16 N	A C3 5 8 (TR 77A)
LT 185 R 14	102/100 Q	5.50	188	653	10.2	850/4.5	800/4.5	302	-	B35 3 57 (TR 13)
LT 185 R 14 TL	102/100 Q	5.50	188	653	10.2	850/4.5	800/4.5	302	-	B35 3 57 (TR 13)
LT 195 R 14 TL	106/104 Q	5.50	200	664	9.6	950/4.5	900/4.5	310	-	B35 3 57 (TR 13)

STEEL MASTER M151 PLUS

AVAILABLE SIZE

LT 7.00 R 15

FEATURES & BENEFITS

- Wear-resistance tread compound
- Longitudinal tread pattern
- Strong casing
- Higher mileage
- Good handling response
- Better durability

TECHNICAL DATA

Tyre Size	Load / Speed Index	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 7.00 R 15	110/105 L	5.50	202	752	12.5	1060/5.6	925/5.6	360	15 M	B35 5 57 (TR 13)

STEEL MUSCLE-R

AVAILABLE SIZE

LT 7.00 R 16

FEATURES & BENEFITS

- Zig-zag pattern for traction even on bad roads
- Tread compound with cut and chip resistance
- Pattern provides excellent water channeling
- Stable ribs aid in severe handling conditions

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 7.00 R 16	12	5.50	202	778	12.5	1215/6.6	1060/6.6	362	-	B35 5 57 (TR 15A) C3 5 82 (TR 77A)

MUSCLE MASTER UA1

AVAILABLE SIZE

LT 165 R 14 TL

FEATURES & BENEFITS

- Zig-zag pattern for excellent traction even on bad roads
- Tread compound offers a comfortable ride and less tyre noise
- Pattern provides excellent water channeling
- Stable ribs aid in severe conditions

TECHNICAL DATA

Tyre Size	Ply Rating	Rec - Rim Width (inch)	Section Width (mm)	Overall Diameter (mm)	Non-Skid Depth (mm)	Load / Inflation		Static Loaded Radius (mm)	Flap Code	Tube Valve Code
						Single kgs@kgs/sq.cm	Dual kgs@kgs/sq.cm			
LT 165 R 14 TL	8	4.50	167	622	8.6	730/4.5	690/4.5	290	-	TR 413

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		

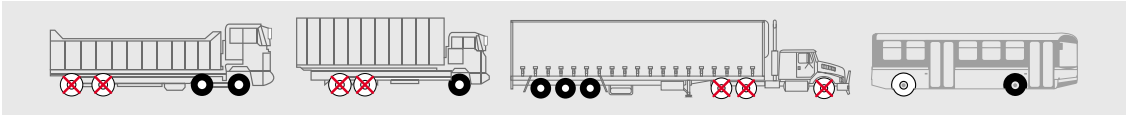
Note: In the case of tyres suitable for speeds higher than 240 km/h the speed category of the tyre must be indicated by the letter 'Z' placed in front of the indication of the structure and indication of the load capacity index may be omitted.

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**	-

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.