



BIAS OFF-THE-ROAD TIRES

Earthmover Tires – Three Basic Constructions

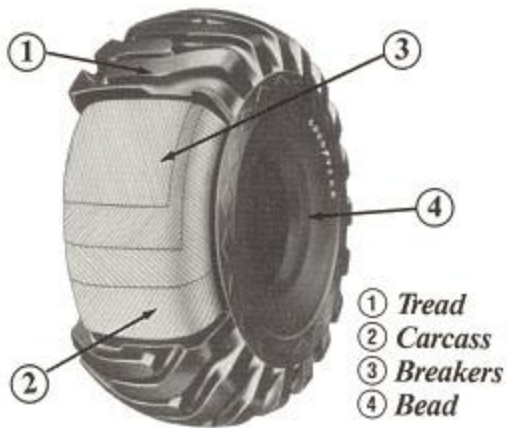


Fig. 1 Bias Tire

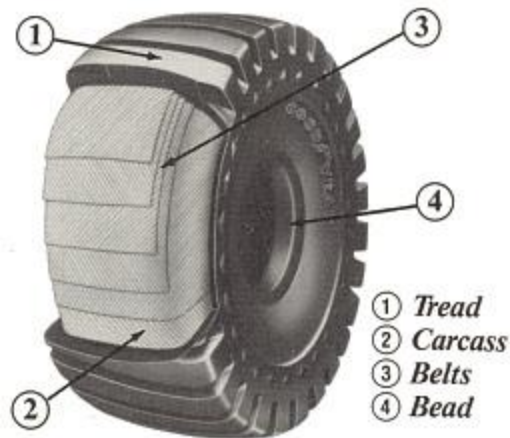


Fig. 1B Bias/Belted Tire

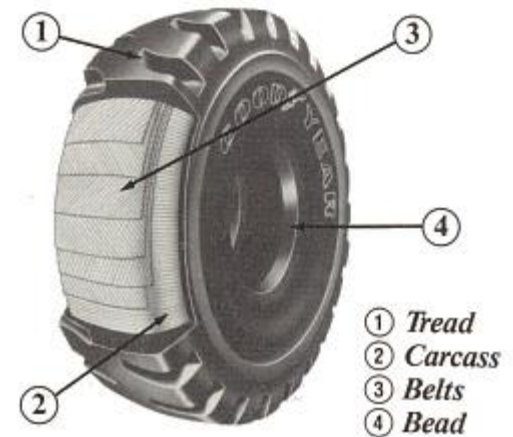


Fig. 1C Radial Tire



OTR Size Nomenclature (Examples)

18.00	R	25 (Narrow Base)	23.5	R	25 (Wide Base)		
Section width in inches	R-radial	Rim diameter in inches	Section width in inches	R-radial	Rim diameter in inches		
750	/65	R	25	18.00	-	25	/30
Section width in mm	Aspect ratio	R-radial	Rim diameter in inches	Section width in inches	Bias	Rim diameter in inches	Ply rating
35	/65	-	33	/42 (Super Wide Base)			
Section width in inches	Aspect ratio	Bias	Rim diameter in inches	Ply rating			



TRA Industry Codes

Grader Service

G-1 Rib

G-2 Traction

G-3 Rock

G-4 Rock Deep Tread

Earthmover Service

Tread

E-1 Rib

E-2 Traction

E-3 Rock

E-4 Rock Deep Tread

E-7 Flotation

Loader & Dozer Service

L-2 Traction

L-3 Rock

L-4 Rock Deep Tread

L-5 Rock Extra Deep Tread

L-3S Smooth

L-4S Smooth Deep Tread

L-5S Smooth Extra Deep



TRA Industry Codes

Compactor Service

C-1 Smooth

C-2 Grooved

Industrial – Handling & Towing

IND-4 Deep Tread

IND-3 Standard Tread



OTR Load Capacity

Ply Rating

- **Based on strength of cotton cord**

Load Index System

- **Industry wide system, load index chart**

Star Symbol

- ***, **, *** based on inflation**



Load Index Table

Load Index	Load (lbs.)	Load Index	Load (lbs.)	Load Index	Load (lbs.)	Load Index	Load (lbs.)	Load Index	Load (lbs.)
1	99	31	240	61	567	91	1356	121	3297
2	102	32	247	62	584	92	1389	122	3307
3	105	33	254	63	600	93	1433	123	3417
4	107	34	260	64	617	94	1477	124	3527
5	110	35	267	65	639	95	1521	125	3638
6	114	36	276	66	639	96	1565	126	3748
7	117	37	282	67	667	97	1609	127	3858
8	120	38	291	68	694	98	1653	128	3968
9	123	39	300	69	719	99	1709	129	4079
10	128	40	309	70	739	100	1764	130	4189
11	132	41	320	71	761	101	1819	131	4299
12	136	42	331	72	783	102	1874	132	4409
13	139	43	342	73	805	103	1929	133	4541
14	143	44	353	74	827	104	1984	134	4674
15	148	45	364	75	852	105	2039	135	4806
16	152	46	375	76	882	106	2094	136	4938
17	157	47	386	77	908	107	2149	137	5071
18	161	48	397	78	937	108	2205	138	5201
19	165	49	408	79	963	109	2271	139	5357
20	171	50	419	80	992	110	2337	140	5512
21	176	51	430	81	1019	111	2403	141	5677
22	182	52	441	82	1047	112	2469	142	5842
23	187	53	454	83	1074	113	2535	143	6008
24	193	54	467	84	1102	114	2601	144	6173
25	204	55	481	85	1135	115	2649	145	6393
26	209	56	494	86	1168	116	2756	146	6614
27	215	57	507	87	1201	117	2833	147	6779
28	220	58	520	88	1235	118	2910	148	6844
29	227	59	536	89	1279	119	2998	149	7165
30	234	60	551	90	1323	120	3086	150	7385



Speed Symbols

SPEED RATING	(KM/H)	(MPH)	SPEED RATING	(KM/H)	(MPH)	SPEED RATING	(KM/H)	(MPH)
A1	5	3	D	65	40	Q	160	100
A2	10	6	E	70	43	R	170	106
A3	15	9	F	80	50	S	180	112
A4	20	12	G	90	56	T	190	118
A5	25	16	J	100	62	U	200	124
A6	30	19	K	110	68	H	210	130
A7	35	22	L	120	75	V	240	149
A8	40	25	M	130	81	W	270	168
B	50	31	N	140	87	Y	300	186
C	60	37	P	150	94	(Y)	300+	186+



Star Rating – Radial Earthmover Tires

	Symbol	30 mph PSI	5 mph PSI
Narrow Base Sizes	*	69	80
(.95 aspect ratio)	**	102	120
	***	116	131
Wide Base Sizes	*	54	73
(.83 aspect ratio)	**	76	94
	***		145



Equipment Type

Dump Trucks – E-1, E-2, E-3, E-4, E-7 – Heavy loads at high speeds, long distances, high heat and wear resistance, high resistance to cuts

Scrapers – E-2, E-3, E-4, E-7 - High heat and wear resistance, high resistance to cuts, traction

Font-End Loaders – L-2, L-3, L-4, L-4S, L5S – Cut and wear resistance, stability, traction, underground mines

Tire Dozers – L-2, L-3, L-4, L-5, L-4S, L-5S – Leveling, pushing, better traction



Equipment Type

Motor Graders – G-1, G-2, G-3 – Road leveling, clearing, snow removal, high traction, stability

Tire Rollers / Compactors – C-1 – Uniformly distribute weight, compacting road surfaces

Straddle Carriers – IND-3 – Carry & move freight containers, wear and heat resistance

Towing Tractors – IND-3 – Move aircraft, extra traction



Bias OTR

Rock Crusher

L-3 / E-3



Earthmover

E-4



Loader

L-5





Bias OTR

Rock Crusher Loader

Road Grader

Smooth Mining

Solid OTR

G-2 / L-2

G-2

L-4S / L-5S / L-6S





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