

BUILD YOUR FUTURE

CONSTRUCTION TECHNICAL BOOK

We believe that
Farmers who nourish the world,
Construction workers who build for the next generation, and
Material Handling workers who move material to supply our needs,
are **noble**.

SPECIALTY TIRES

We deliver High-Grade Specialty Tires that are built sustainably using pure natural rubber at our advanced production plants in Sri Lanka.



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ABOUT GRI



ABOUT GRI



STATE-OF-THE-ART SPECIALTY TIRE FACTORY

GRI opened its advanced Specialty Tire factory in January 2018. This state-of-the-art factory is the largest in Sri Lanka dedicated to produce Specialty Tires and the first to produce radial Agriculture Tires.

GRI has implemented a strategy of increased automation, utilizing leading edge and modern manufacturing machines. This has increased the degree of precision, efficiency and reduced waste.

GRI TECHNOLOGY & INNOVATION

A dedicated research and development team, an advanced testing laboratory, experienced technicians, quality and performance enhancements and precise monitoring at all stages of production ensure GRI tires exceed the most demanding expectations from customers. GRI relentlessly develops and tests its tires under dynamic as well as static conditions.

We believe that innovation through R&D as well as continuous process improvement, both in business and in production, is a critical factor to attain market success. GRI's values of purposeful action, relentless drive, far-sighted approach coupled with a discovery mind-set are evident in every aspect of this plant.

ENVIRONMENTAL FOCUS

GRI's commitment to sustainability is evident through its 1.2 – Megawatt solar panel power system, biomass boilers and fully recyclable waste and water management systems. This plant is a testament to the pioneering spirit and values embodied by all at GRI.

The GRI factory is certified by ISO 9001:2015, ISO 50001:2011 and ISO 14001:2015

Strategic and tactical decisions of GRI are weighed against their impact on the environment. GRI's policy is to drive sustainability along with developing Premium Specialty Tires. A key goal at GRI is to make a contribution to the world that is sustainable, and by doing so, GRI takes into consideration the well-being of not only the current global community, but also the generations to come. GRI Pneumatic tires are made according to the T&RA :The Tire and Rim Association (T&RA) and ETRTO :The European Tire and Rim Technical Organization (ETRTO) Standards.



GRI strives to deliver exceptional value and assured performance in specialized tires through a relentless focus on technological innovation, engineering strength, and operational excellence.



The journey towards a greener world

Product Carbon Footprint Verification



“

GRI Tires' unwavering commitment to environmental stewardship and its dedication to developing eco-friendly tire solutions was assessed. The utilization of sustainable materials and its implementation of innovative manufacturing processes have culminated in a significant reduction in its carbon footprint, paving the way for a more sustainable future for the tire industry.

”



RUBBER COMPOUNDS GLOSSARY

S

STUBBLE RESISTANT COMPOUND

The GRI Stubble Resistant compound is true stubble resistance that protects your tires from stubble damage and other aggressive surfaces.

X

EXTREME COMPOUND

The standard GRI compound is as close to being stubble resistant as possible without being labeled as stubble resistant. This provides extra protection from tread pitting, field scarring, and weather cracking. Harder than most, but not so hard to create ride discomfort and still promote fuel economy through less rolling resistance.

OZ

OZONE RESISTANT COMPOUND

Special products added to the compound in order to prevent splitting and cracking due to ozone and solar conditions along with flexing.

CW

CUT & WEAR RESISTANT COMPOUND

By increasing the Parts per Hundred Rubber (PHR) and using a special type of silica with finer particles of carbon GRI creates compounds that increase wear resistance and extend tread life.

CC

CUT & CHIP RESISTANT COMPOUND

By increasing the PHR and using a special type of silica with finer particles of carbon GRI creates compounds that standup to rough terrain and sharper impacts better than regular tread compounds. CC compound is resistant to object penetration and accidental damage.





CONSTRUCTION



TELEHANDLER RADIAL

GRIP

XLR

EARTH

CC

TH200 (R-4)



THE FIRST ENVIRONMENT-FRIENDLY RADIAL TIRES BUILT FOR AGRO /INDUSTRIAL- TELEHANDLERS

- Manufactured from 87,3% sustainable materials
- The innovative stepped shape lug design, provides optimized self-cleaning, superior traction, and machine stability
- Wide tread, flexible sidewall and radial construction provides maximum footprint and tire durability
- Enhanced tread compound provides high resistance against heat, wear & cuts
- Reinforced with sturdy impact belts for superior puncture resistance & extended tire longevity. excellent self-cleaning properties further boost traction and fuel efficiency

Tire Size	LI/SS	Type	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Speed	Maximum Load Capacity (kgs.)										Product code
			Rec.	Alt.	S.W.	O.D.	mm	mm	mm											
460/70R24 (17.5LR24)	159 A8/B	TL	DW 15 L	DW 14 L	465	1254	568	3766	bar											PCR6011
									kmp/h											
									50											
									40											
									30											
									25											
									10 Cyc											
									Static	2100	2495	2845	3240	3635	3895	4375				
									2100	2495	2845	3240	3635	3895	4375					
									2250	2675	3050	3470	3890	4170	4685					
									2335	2775	3160	3600	4035	4330	4860					
									2565	3155	3710	4270	4860	5285	5975	6305	6565			
									3930	4835	5690	6545	7450	8105	9160	9665	10065			

TELEHANDLER RADIAL

GRIP

XLR

CC

TH200 (R-4)



RADIAL TIRES BUILT FOR AGRO/INDUSTRIAL- TELEHANDLERS

- The innovative stepped shape lug design, provides optimized self-cleaning, superior traction, and machine stability
- Wide tread, flexible sidewall and radial construction provides maximum footprint and tire durability
- Enhanced tread compound provides high resistance against heat, wear & cuts
- Reinforced with sturdy impact belts for superior puncture resistance & extended tire longevity. excellent self-cleaning properties further boost traction and fuel efficiency

Tire Size	LI/SS	Type	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Speed	Maximum Load Capacity (kgs.)										Product code
			Rec.	Alt.	S.W.	O.D.	mm	mm	mm											
460/70R24 (17.5LR24)	159 A8/B	TL	DW 15 L	DW 14 L	465	1254	568	3766	bar											PCR6011
									kmp/h											
									50											
									40											
									30											
									25											
									10 Cyc											
									Static	2100	2495	2845	3240	3635	3895	4375				
									2100	2495	2845	3240	3635	3895	4375					
									2250	2675	3050	3470	3890	4170	4685					
									2335	2775	3160	3600	4035	4330	4860					
									2565	3155	3710	4270	4860	5285	5975	6305	6565			
									3930	4835	5690	6545	7450	8105	9160	9665	10065			



TELEHANDLER BIAS



BIAS TIRES SPECIALLY BUILT FOR TELEHANDLERS

- Multi-angle tread pattern provides excellent traction
- Wide lugs & tread width provide excellent stability and smooth ride on hard surfaces
- Shoulder inter-lug pads for shoulder base puncture resistance and self-cleaning
- Center tie bar design for better lug stability to eliminate lug base cracks
- Strong casing provides resistance to impacts and shocks in heavy-duty operations
- Enhanced tread compound provides high resistance against wear and cuts

Tire Size	PR	TT/ TL	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Maximum Load Drive Wheel				Maximum Load Free Rolling Wheel				Inflation Pressure	Product code
					S.W.	O.D.			30kmph (20 mph)		40kmph (25 mph)		30kmph (20 mph)		40kmph (25 mph)			
			Rec.	Alt.	mm	mm	mm	mm	Load Index	kgs	Load Index	kgs	Load Index	kgs	Load Index	kgs	bar	
15.5/80-24	16	TL	W12	W13, W14L	392	1270	569	3683	151	3450	147	3075	163	4875	159	4375	4.0	PCB1236
15.5/80-24	20	TL	W12	W13, W14L	392	1270	569	3683	154	3750	150	3350	166	5300	162	4750	5.0	PCB1321
16.5/85-24	16	TL	W13	W14L, W15L	417	1322	576	3837	171	6150	168	5600	158	4250	155	3875	3.8	PCB1286

INDUSTRIAL TRACTOR RADIAL



RADIAL TIRES BUILT FOR AGRO/INDUSTRIAL- TRACTORS

- Unique tread angle & wider lug design provides excellent traction & stability on lift mode
- Strong casing provides resistance to impacts and shocks in heavy-duty
- Enhanced tread compound provides high resistance against heat, wear & cuts

Tire Size	LI/SS	Type	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	SRI	Speed	Maximum Load Capacity (kgs.)									Product code							
					S.W.	O.D.																					
			Rec.	Alt.	mm	mm	mm	mm	mm																		
19.5LR24	157 A8	TL	DW 16A		495	1320	584	3835	600	bar	1.2	1.6	2.0	2.4	2.8	3.2			PCR1108								
										kmph																	
										50										1900	2300	2500	3000	3350	3750		
										40										2060	2500	2725	3250	3650	4125		
										30										2120	2575	2800	3350	3750	4250		
										25										2240	2725	3000	3550	4000	4500		
Static	4375	5300	5800	6900	7750	8750																					
19.5LR24	168 A8	TL	DW 16A		495	1320	584	3835	600	bar	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	PCR1109								
										kmph																	
										50										1900	2300	2500	2900	3350	3750	4125	4500
										40										2120	2500	2800	3250	3650	4125	4500	5000
										30										2180	2650	2900	3350	3875	4375	4750	5150
										25										2300	2725	3000	3550	4000	4500	4875	5450
Static	4500	5450	6000	6900	7750	8750	9750	10600																			

INDUSTRIAL TRACTOR BIAS



BIAS TIRES BUILT FOR INDUSTRIAL TRACTORS

- Unique tread design with dual angle hook and connected tie bar at center offers better traction ON/OFF road
- Provided higher radial stiffness to reduce deflection to enhance stability
- Three step lug design for exceptional tread life and better self-cleaning
- Nylon-cord casing provides superior impact and puncture resistance
- Enhanced tread compound provides high resistance against wear and cuts.

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load 40 kmph	Inflation Pressure	Product code
					S.W.	O.D.					
			Rec.	Alt.	mm	mm	mm	mm	kgs.	bar	
16.0/70-20	14	TL	13	13(SDC)	407	1076	480	3295	3250	3.5	PCB1287
16.9-24	12	TL	DW15L	DW14L	429	1310	584	3838	3250	2.6	PCB1711
16.9-24	14	TL	DW15L	DW14L	429	1310	584	3838	3550	3.0	PCB1803
17.5L-24	12	TL	DW15L	DW14L	445	1270	570	3683	3150	2.7	PCB1202
19.5L-24	12	TL	DW16L		490	1325	584	3835	3450	2.3	PCB1203
19.5L-24	14	TL	DW16L		490	1325	584	3835	3750	2.6	PCB5211
19.5L-24	16	TL	DW16L		490	1325	584	3835	5000	3.4	PCB1303
21L-24	12	TL	DW18L		533	1377	610	3988	3875	2.2	PCB1298
21L-24	16	TL	DW18L		533	1377	610	3988	4500	2.8	PCB1300
18.4-26	12	TL	DW16L	DW15L	467	1425	635	4191	4000	2.5	PCB1284
18.4-26	14	TL	DW16L	DW15L	467	1425	635	4191	4000	2.8	PCB5201
16.9-28	12	TL	DW15L	DW14L	439	1410	635	4180	3550	2.6	PCB1201
16.9-28	14	TL	DW15L	DW14L	439	1410	635	4180	4000	3.0	PCB1802
16.9-30	12	TL	DW15L	DW14L	439	1470	635	4460	3650	2.7	PCB1801

INDUSTRIAL TRACTOR BIAS



BIAS TIRES BUILT FOR INDUSTRIAL APPLICATION

- Unique multi rib design provide directional stability and best manoeuvrability
- Sturdy nylon casing provides extraordinary impact and shock
- Cut & chip resistant tread compound provides superior tire life

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load @30kmph (20 mph)			Maximum Load @40kmph (25mph)			Inflation Pressure	Product code
					S.W.	O.D.			Speed Symbol	Load Index	kgs	Speed Symbol	Load Index	kgs	bar	
			Rec.	Alt.	mm	mm	mm	mm								
11L-16SL	10	TL	8LB	10LB	279	830	370	2500	A6	116	1250	A8	112	1120	3.5	PCB1299
11L-16SL	12	TL	8LB	10LB	279	830	370	2500	A6	120	1400	A8	116	1250	4.5	PCB1233

LOADER



BIAS TIRES BUILT FOR LOADERS

- Directional tread pattern with wide lug provides optimal traction, stability & power transfer
- Heavy-duty casing ensures strong protection against impacts
- Cut & chip resistant tread compound provides superior tire life
- Three step lug design for exceptional self cleaning & higher stability

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load @40kmph (25 mph)			Inflation Pressure	Product code
					S.W.	O.D.							
			Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs.	bar	
12.5/80-18	12	TL	W9	11	300	958	431	2813	A6	129/142	2700	3.7	PCB1301
12.5/80-18	14	TL	W9	11	292	958	431	2813	A6	135/148	3150	4.3	PCB1306
12.5/80-18	16	TL	W9	11	300	958	431	2813	A6	139/152	3550	4.9	PCB1307

LOADER



BIAS TIRES BUILT FOR BACKHOE AND COMPACT LOADERS

- Unique muscled tread design developed for hard underfoot condition
- Special inter lug design offers unmatched puncture resistance & durability
- Cut & chip resistant tread compound provides superior tire life
- Sturdy nylon casing provides extraordinary impact and shock resistance

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load @40kmph (25 mph)			Inflation Pressure	Product code
					S.W.	O.D.							
			Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs.	bar	
14.9-24	12	TL	DW13	W12	378	1265	570	3800	A8	145	2900	2.9	PCB1285

LOADER



BIAS TIRES BUILT FOR LOADERS

- Directional tread pattern with wide lug provides optimal traction, stability & power transfer
- Optimized number of lugs Ideal for use in construction, site preparation and other soft or muddy environments
- Cut & chip resistant tread compound provides superior tire life

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load @50kmph (30 mph)			Inflation Pressure	Maximum Load @10kmph (5 mph)			Inflation Pressure	Product code
					S.W.	O.D.											
			Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs.	bar	Speed Symbol	Load Index	kgs.	bar	
15.5-25	12	TL	L2	13.00/1.4(DC)	385	1272	569	3823	B	149	3250	2.5	A2	168	5600	4.0	PCB1297
17.5-25	16	TL	R1 IND	14.00/1.3, 13.00/1.4(DC)	445	1348	597	3982	A8	150	3350	2.7	A2	177	7300	4.7	PCB4214
17.5-25	20	TL	L2/G2	14.00/1.3, 13.00/1.4(DC)	445	1348	597	3982	A8	153	3650	3.3	A2	181	8250	5.8	PCB4215
20.5-25	16	TL	L2	17.00/1.7	520	1480	656	4396	B	156	4000	2.3	A2	181	8250	3.5	PCB4213

WINTER



GRIP^{EX} SNOW

SNOW (G-2/L-2)



BIAS TIRES BUILT FOR WINTER APPLICATIONS

- Extra deep & wide tread width for excellent braking & traction on snow & gravel
- Wide centerline tie bar controls movement of the tread blocks
- Ideal gap in lugs & tread block for optimum water channeling out and grip on wet & compacted snow
- Special tread compound for snow and wet conditions environment
- Dual bead supported with strong casing and flexible sidewall

Tire Size	PR	TT/TL	TRA	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Maximum Load @40kmph (25mph)			Inflation Pressure	Maximum Load @10kmph (5 mph)			Inflation Pressure	Product code
						S.W.	O.D.											
				Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs	bar	Speed Symbol	Load Index	kgs	bar	
17.5-25	12.0	TL	G2/-2	14.00/1.5	14.00/1.3, 13.00/1.4(DC)	445	1348	608	4044	A8	145	2900	2.0	A2	171	6150	3.5	PCB1399
20.5-25	16.0	TL	G2/-2	17.00/2.0	17.00/1.1	520	1492	652	4423	A8	156	4000	2.3	A2	181	8250	3.5	PCB1398

GRADER



GRIP^{EX}

CC GT222 (G-2)

BIAS TIRES BUILT FOR GRADERS

- Aggressive tread pattern for optimum traction on soil, rock and gravel
- Wide diagonal lugs & mud breakers provide stability and self cleaning
- Strong casing for impact, shock and puncture resistance
- Cut & chip resistant tread compound provides superior tire life

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Maximum Load @40kmph (25 mph)			Inflation Pressure	Product code
					S.W.	O.D.							
			Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs.		
10.00-24	12	TL	8.00 TG		277	1130	526	3305	A8	131	1973	3.1	PCB1237
13.00-24	12	TL	8.00 TG SDC	9.00/1.5(DC)	333	1278	582	3785	A 8	143	2725	3.0	PCB1101
13.00-24	16	TL	8.00 TG SDC	9.00/1.5(DC)	333	1278	582	3785	A 8	148	3150	4.0	PCB1102
14.00-24	16	TL	8.00 TG SDC	9.00/1.5(DC)	362	1348	598	3962	A 8	153	3650	3.5	PCB1103
14.00-24	20	TL	8.00 TG SDC	9.00/1.5(DC)	362	1348	598	3962	A 8	161	4625	4.8	PCB1106
16.00-24	16	TL	10.00 VA SDC		405	1435	635	4318	A8	160	4500	3.2	PCB1282

GRADER



GRIP^{EX}

CC GT333 (G-3)

BIAS TIRES BUILT FOR GRADERS

- Unique S type sturdy tread pattern work well in heavy duty application
- Optimum land/sea offers best in class traction in all soil
- Strong casing for impact, shock and puncture resistance
- Cut & chip resistant tread compound provides superior tire life

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Maximum Load 40 kmph	Inflation Pressure	Product code
					S.W.	O.D.					
			Rec.	Alt.	mm	mm	mm	mm			
14.00-24	16	TL	8.00 TG SDC	9.00/1.5(DC)	365	1345	617	4002	3650	3.5	

EXCAVATOR



BIAS TIRES SPECIALLY BUILT FOR EXCAVATORS

- Multi-angle directional tread pattern suitable for excavators and compact loaders
- Wide diagonal lugs and mud breakers offer excellent traction and outstanding self-cleaning
- Strong casing for impact, shock and puncture resistance
- Enhanced tread compound provides high resistance against wear and cuts

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load @50kmph (30 mph)			Inflation Pressure	Maximum Load @10kmph (5 mph)			Inflation Pressure	Product code
					S.W.	O.D.											
			Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs	bar	Speed Symbol	Load Index	kgs	bar	
10.00-20	16	TT	8	7.0,8.0	274	1049	508	3175	B	146	3000	7.5	A2	164	5000	7.5	PCB1001
16.0/70-24	14	TL	13SDC	13 (DC)	410	1190	575	3600	B	152	3550	3.5	A2	169	5800	4.5	PCB1041

MULTI-PURPOSE



BIAS TIRES BUILT FOR MULTI-PURPOSE

- Unique lug-block tread pattern provides excellent traction
- Wider centre lug for comfort & smooth ride
- Dual strip mud breaker at shoulder and base for superior self-cleaning
- Strong casing for impact, shock and puncture resistance
- Enhanced tread compound provides high resistance against wear and cuts

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load						Inflation Pressure	Product code
					S.W.	O.D.										
			Rec.	Alt.	mm	mm	mm	mm	SS	LI	kgs	SI	LI	kgs	bar	
12.5-18	10	TL	11	12 SDC	325	990	450	2940	G	128	1800	A8	133	2070	3.0	PCB3502
12.5-18	10	TT	11	12 SDC	325	990	450	2940	G	128	1800	A8	133	2070	3.0	PMB1252
12.5-18	12	TL	11	12 SDC	325	990	450	2940	G	131	1950	A8	136	2245	3.5	PCB3501
12.5-18	12	TT	11	12 SDC	325	990	450	2940	G	131	1950	A8	136	2240	3.5	PMB1242
18-19.5	16	TL	14		460	1105	497	3277	B	160	4500	A8	162	4750	5.9	PCB1033
18-19.5	18	TL	14		460	1105	497	3277	B	165	5150	A8	167	5450	7.1	PCB1034
12.5-20	12	TL	11	12 SDC	325	1040	475	3090	G	132	2000	A8	137	2300	3.5	PCB3503
12.5-20	12	TT	11	12 SDC	325	1040	475	3090	G	132	2000	A8	137	2300	3.5	PCB1032
16.0/70-20	14	TL	13SDC	13	405	1128	490	3350	G	145	2900	A8	149	3340	3.5	PMB1241
18-22.5	16	TL	14	-	457	1181	525	3502	A8	163	4875	A2	172	6300	4.4	PCB1030
18-22.5	18	TL	14	-	457	1181	525	3502	A8	167	5445	A2	177	7300	7.0	PCB3512

MINING



BIAS TIRES BUILT FOR MINING TRUCKS

- Unique S type sturdy tread pattern work well in heavy duty application
- Non-directional tread pattern with connected tie bar provide optimum traction in hard soil
- Multi layer tread compound works in all climate conditions

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Speed Symbol	Load Index	Maximum Load @90kmph (55 mph)	Inflation Pressure	Speed Symbol	Load Index	Maximum Load @30kmph (20 mph)	Inflation Pressure	Product code
					S.W.	O.D.											
			Rec.	Alt.	mm	mm	mm	mm			kgs.	bar			kgs.	bar	
10.00-20	18	TT	7.5	7.0	285	1075	505	3257	G	144	2800	7.6	A6	149	3250	7.6	PCB6301
11.00-20	18	TT	8.0	7.5	297	1115	529	3368	G	146	3000	7.6	A6	151	3450	7.6	PCB6302

AGRO INDUSTRIAL



BIAS TIRES BUILT FOR AGRO/INDUSTRIAL

- Wider lugs and broader tread width provide excellent stability and smooth ride on hard surfaces
- Center tie bar design for better lug stability to eliminate lug base cracks
- Strong casing provides resistance to impacts and shocks in heavy-duty operations
- Enhanced tread compound provides high resistance against wear and cuts

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load @30kmph (20 mph)			Maximum Load @40kmph (25 mph)			Inflation Pressure	Product code
					S.W.	O.D.										
			Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs	Speed Symbol	Load Index	kgs	bar	
10.0/75-15.3	10	TL	9	-	264	780	356	2286	A6	128	1800	A8	123	1550	3.9	PCB1037
11.5/80-15.3	12	TL	9	-	290	866	381	2540	A6	139	2450	A8	135	2180	4.1	PCB1280
11.5/80-15.3	14	TL	9	-	290	866	381	2540	A6	143	2725	A8	139	2430	4.8	PCB3198
15.0/55-17	10	TL	13	13	381	889	406	2616	A6	141	2575	A8	134	2120	2.6	PCB1281
10.5/80-18	10	TL	W9	W8	274	907	406	2667	A6	138	2360	A8	131	1950	5.0	PCB1283
12.5/80-18	12	TL	W9	11	307	988	432	2896	A6	146	3000	A8	142	2650	3.7	PCB1289

BACKHOE LOADER



BIAS TIRES BUILT FOR BACKHOE FRONT

- Unique Y shaped multi directional tread design performs well in heavy duty service
- Wide diagonal lugs with vertical grooves ensure lateral movement, higher traction and excellent self-cleaning properties
- Wide curb rib design for resistance against sidewall damages
- Strong casing provides impact resistance in heavy-duty operations
- cut and wear tread compound provides high resistance against wear and cuts

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load @50kmph (30 mph)			Inflation Pressure	Maximum Load @10kmph (5 mph)			Inflation Pressure	Product code
					S.W.	O.D.											
			Rec.	Alt.	mm	mm	mm	mm	Speed Symbol	Load Index	kgs	bar	Speed Symbol	Load Index	kgs	bar	
9.00-16	16	TT	6.50H	-	255	925	427	2740	A8	129	1850	7	A6	133	2300	7.25	PCB1234

COMPACTOR



BIAS TIRES BUILT FOR COMPACTORS-PTR

- Designed with larger tread area provides uniform compaction & high ground contact area
- Unique tread compound formula suits for high heat operations
- Strong nylon-cord casing provides excellent stability

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2.5\%$	Maximum Load 40 kmph	Inflation Pressure	Product code
					S.W.	O.D.					
			Rec.	Alt.	mm	mm	mm	mm	kgs.	bar	
11.00-20	18	TT	8.0	7.5, 8.5	291	1070	494	3310	5450	8.2	PCB1296



SKID STEER



XPT
XPT (R-4)

BIAS TIRES BUILT FOR SKID STEERS

- Value for money for skid steer application
- Cut & chip resistant compound contributes towards the assurance of chunking, chipping and tear resistance
- Thick sidewall reduces stress cracking

Tire Size	PR	TT/TL	Rim	Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2\%$	Maximum Load 10 kmph			Maximum Load 15 kmph			Inflation Pressure	Product code
				S.W.	O.D.			Speed Symbol	Load Index	Max. Load	Speed Symbol	Load Index	Max. Load		
			Rec. inch	mm	mm	mm	mm			kgs.			kgs.	bar	
10-16.5	10	TL	8.25	278	780	356	2286	A2	134	2120	A3	126	1700	5.3	PCB1402
12-16.5	12	TL	9.75	314	825	381	2434	A2	145	2900	A3	137	2300	5.6	PCB1401

SKID STEER



XPT +
XPT+ (R-4)

BIAS TIRES BUILT FOR SKID STEERS

- Stepped lugs provide exceptional self-cleaning and higher stability for better fuel economy
- Higher NSD for superior traction in all terrains ensured extensive tire life
- Higher tread width and section width for better stability and roadability provide easy handling
- Higher land sea ratio for better traction
- Better cut and chip resistant ensures higher strength and run time

Tire Size	PR	TT/TL	Rim		Unloaded Inflated Dimension ± 2%		SLR	RC ± 2%	Maximum Load 10 kmph			Maximum Load 15 kmph			Inflation Pressure	Product code
					S.W.	O.D.			Speed Symbol	Load Index	kgs.	Speed Symbol	Load Index	kgs.		
			mm	mm	mm	mm	bar									
			Rec. inch	Alt. inch												
10-16.5	10	TL	8.25	-	259	790	351	2337	A2	134	2120	A3	125	1675	5.2	PCB1405
12-16.5	12	TL	9.75	-	307	826	366	2438	A2	145	2900	A3	136	2291	4.5	PCB1404
31x15.5-15	10	TL	13LB		400	790	368	2430	A2	122	1500	A3	131	1950	4.2	PCB1408

SKID STEER



XPT SS
XPT SS (R-4)

BIAS TIRES BUILT FOR SKID STEERS

- Three step lug design provides higher lug stability, strength & traction
- Unique tread pattern for better traction & rapid movements
- Self-cleaning terrace keeps the tire clean & the machine energy efficient
- Reinforced sidewall with high-ply construction for improved side impact protection
- Abrasion, cut & chip resistant compound

Tire Size	PR	TT/TL	Rim	Unloaded Inflated Dimension $\pm 2\%$		SLR	RC $\pm 2\%$	Maximum Load @10kmph			Maximum Load 15 kmph			Inflation Pressure	Product code
				S.W.	O.D.			Speed Symbol	Load Index	Max. Load	Speed Symbol	Load Index	Max. Load		
			Rec. inch	mm	mm	mm	mm			kgs.			kgs.	bar	
10-16.5	8	TL	8.25	278	780	356	2286	A 2	129	1850	A3	121	1450	4.2	PCB1601
10-16.5	10	TL	8.25	278	780	356	2286	A 2	134	2120	A3	126	1700	5.25	PCB1602
10-16.5	12	TL	8.25	278	780	356	2286	A 2	138	2360	A3	130	1900	6.2	PCB1804
12-16.5	10	TL	9.75	314	860	381	2434	A 2	141	2575	A3	133	2060	4.5	PCB1611
12-16.5	12	TL	9.75	314	860	381	2434	A 2	145	2900	A3	137	2300	5.6	PCB1603
12-16.5	14	TL	9.75	314	860	381	2434	A 2	147	3075	A3	139	2430	6.2	PCB1806
14-17.5	14	TL	10.5	370	930	420	2743	A2	155	3875	A3	147	3075	5.6	PCB1604

SKID STEER



BIAS TIRES BUILT FOR SKID STEERS

- Non-directional tread design provides efficiency on hard surfaces
- Enhanced sidewall for improved side impact protection
- Horizontal block design with optimum wet/dry ratio for high performance on rough surfaces with a higher load capacity
- Abrasion, cut & chip resistant compound

Tire Size	PR	TT/TL	Rim	Unloaded Inflated Dimension ± 2%		SLR	RC ± 2%	Maximum Load 10 kmph			Maximum Load 15 kmph			Inflation Pressure	Product code
				S.W.	O.D.			Speed Symbol	Load Index	Max. Load	Speed Symbol	Load Index	Max. Load		
			Rec. inch	mm	mm	mm	mm			kgs.			kgs.	bar	
10-16.5	10	TL	8.25	278	780	356	2286	A2	134	2120	A3	126	1700	5.25	PCB1501
12-16.5	10	TL	9.75	314	825	381	2434	A2	140	2500	A3	132	2000	4.5	PCB1502
12-16.5	12	TL	9.75	314	825	381	2434	A2	140	2500	A3	132	2000	4.5	PCB1503

SKID STEER



BIAS TIRES BUILT FOR SKID STEERS

- Tread design with high solid to void ratio provides large footprint
- Cut & chip resistant rubber compound for tread & sidewall
- Reinforced casing and reinforced sidewall for better stability
- Extra deep tread with substantial tie bar provide excellent mileage

Tire Size	PR	TT/TL	Rim	Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Maximum Load 10 kmph			Maximum Load 15 kmph			Inflation Pressure	Product code
				S.W.	O.D.			Speed Symbol	Load Index	Max. Load	Speed Symbol	Load Index	Max. Load		
			Rec. inch	mm	mm	mm	mm			kgs.			kgs.	bar	
10-16.5	12	TL	8.25	259	805	351	2337	A2	138	2375	A3	130	1900	6.2	PCB1606
12-16.5	14	TL	9.75	307	838	366	2438	A2	147	3075	A3	139	2430	6.2	PCB1605

SKID STEER



BIAS TIRES BUILT FOR SKID STEERS

- With the Non-Marking compound, this is more suitable for indoor use
- Three step lug design provides higher lug stability, strength & traction
- Unique tread pattern for better traction & rapid movements
- Self-cleaning terrace keeps the tire clean & the machine energy efficient
- Reinforced sidewall with high-ply construction for improved side impact protection

Tire Size	PR	TT/TL	Rim	Unloaded Inflated Dimension ± 2%		SLR	RC ± 2.5%	Maximum Load 10 kmph			Maximum Load 15 kmph			Inflation Pressure	Product code
				S.W.	O.D.			Speed Symbol	Load Index	Max. Load	Speed Symbol	Load Index	Max. Load		
			Rec. inch	mm	mm	mm	mm			kgs.			kgs.	bar	
10-16.5	10	TL	8.25	278	780	356	2286	A2	134	2120	A3	126	1700	5.25	5.25
12-16.5	12	TL	9.75	314	860	381	2434	A2	145	2900	A3	137	2300	5.6	5.6
14-17.5	14	TL	10.5	370	930	420	2743	A2	155	3875	A3	147	3075	5.6	5.6

SKID STEER



XPT ND GREY

CC  **XPT ND GREY (R-3)**

BIAS TIRES BUILT FOR SKID STEERS

- With the Non-Marking compound, this is more suitable for indoor use
- Non-directional tread design provides efficiency on hard surfaces
- Abrasion, cut & chip resistant compound
- Enhanced sidewall for improved side impact protection
- Horizontal block design with optimum wet/dry ratio for high performance on rough surfaces with a higher load capacity

Tire Size	PR	TT/TL	Rim	Unloaded Inflated Dimension ± 2%		SLR	RC ± 2%	Maximum Load 10 kmph			Maximum Load 15 kmph			Inflation Pressure	Product code
				S.W.	O.D.			Speed Symbol	Load Index	Max. Load	Speed Symbol	Load Index	Max. Load		
			Rec. inch	mm	mm	mm	mm			kgs.			kgs.	bar	
			10-16.5	10	TL	8.25	278	780	356	2286	A2	134	2120	A3	
12-16.5	12	TL	9.75	314	825	381	2434	A2	140	2500	A3	132	2000	4.5	PCB1811





SOLID



AIR RYDE

Conquer Any Terrain with This Solid Skid Steer Tire

- AIR RYDE is a cost-effective, two-stage solid tire specifically designed for skid steers. It tackles the most demanding jobs with confidence, offering exceptional performance in various terrains and challenging conditions.
- Three Angled stepped lugs design provides superior self-cleaning properties, preventing mud and debris build-up to have optimum traction
- Aperture sidewall design feature enhances the flexibility and delivers a soft cushion ride on rough surfaces
- Higher lug depth provides better stability on rough, muddy and harsh terrains and to boost the operator confidence

Tire Size	Rim Size	Profile	Tire Dimensions		Tire Dimensions		Load capacity			
							6 Miles/h (Lbs)		10 Km/h (Kg)	
			Max width ±1% (mm)	OD ± 2% (mm)	Max width ±1% (inch)	OD ± 2% (Inch)	Load wheel	Steer wheel	Load wheel	Steer wheel
31x10-20	7.50-20	RD	236	777	9.3	30.6	8886	6853	4030	3100
33x12-20	7.50-20	RD	287	828	11.3	32.6	11466	8820	5200	4000



New Tire Development List - In progress

Model Name	Size	Type	LI/SS/PR	Segment	Type	TRA
GRIP XLR TH210	460/70R24	Telehandler - Block Design	161 A8/B	Construction Radial	Telehandler - Block Design	R4
XPT+	18x8.5-10	Skid Steer	6 PR	Construction Bias	Skid Steer	R4
XPT+	18x8.5-10	Skid Steer	8 PR	Construction Bias	Skid Steer	R4
XPT+	23x8.50-14	Skid Steer	6 PR	Construction Bias	Skid Steer	R4
XPT+	23x8.50-14	Skid Steer	8 PR	Construction Bias	Skid Steer	R4
XPT+	25x8.5-14	Skid Steer	6 PR	Construction Bias	Skid Steer	R4
XPT+	25x8.5-14	Skid Steer	8 PR	Construction Bias	Skid Steer	R4
TBD	400/75-28	Telehandler	16 PR	Material Handling	Telehandler	L3
TBD	370/75-28	Telehandler	14 PR	Material Handling	Telehandler	L3
XPT HD	14-17.5	Skid Steer	14 PR	Construction Bias	Skid Steer	R4





TIRES: CARE & SAFETY



TIRE CONSTRUCTION & COMPONENTS

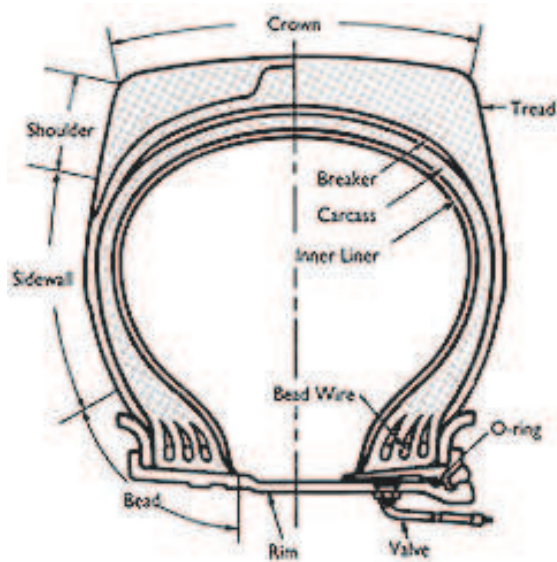


FIGURE 1

TREAD

Tread is the outermost covering of the tire and is the only part that normally comes in contact with the road surface.

CARCASS / CASING

The carcass of tires consists of a number of rubber-coated layers of fabric/steel called "plies". The carcass forms a semi rigid frame for the compressed air in a tire but is flexible enough to absorb some shocks and jolts from the road surface.

BEAD

Bead fixes the tire to the rim to support the load.

BREAKER / BELTS / RE-ENFORCING PLYS

Are the rubber coated layers of fabric/steel cord between the tread and the carcass, binding the two together. The breaker prevents cuts in the tread from reaching the carcass and helps absorb shocks.

SIDEWALL

The sidewall is composed of a flexible, crack-resistant rubber, and protects the carcass from damage.

INNER LINER

The inner liner in tubeless tire is made of an air-impermeable rubber compound and is comparable to tubes in tube type tires.

TIRE DEFINITIONS

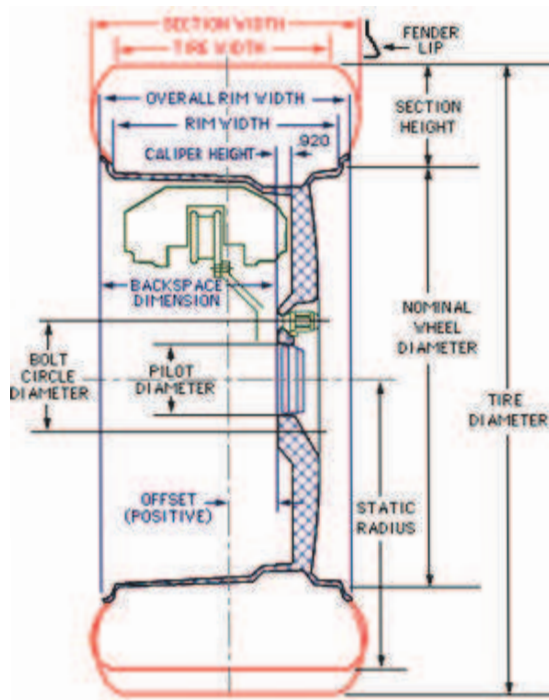


FIGURE 2

OVERALL DIAMETER (OD)

Inflated diameter of the tire under reference tire pressure, but with no vehicle load.

OVERALL WIDTH (OW)

Inflated width of the tire under reference tire pressure on the sidewalls.

SECTION WIDTH (SW)

Inflated width of the tire under reference tire pressure excluding any bars, letter, or design embossed on the sidewalls.

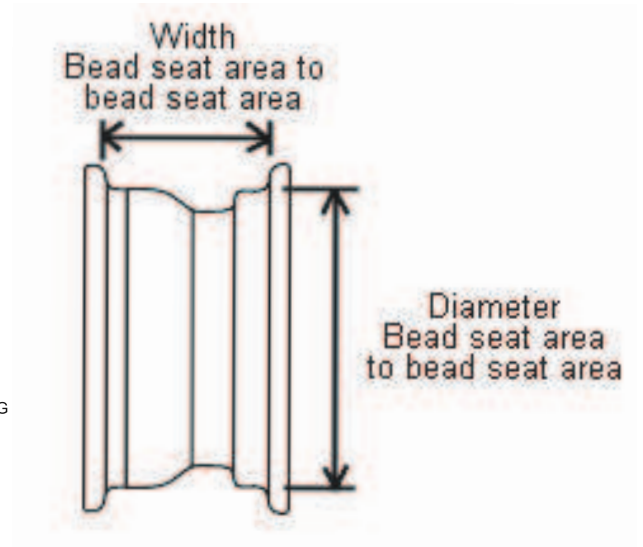
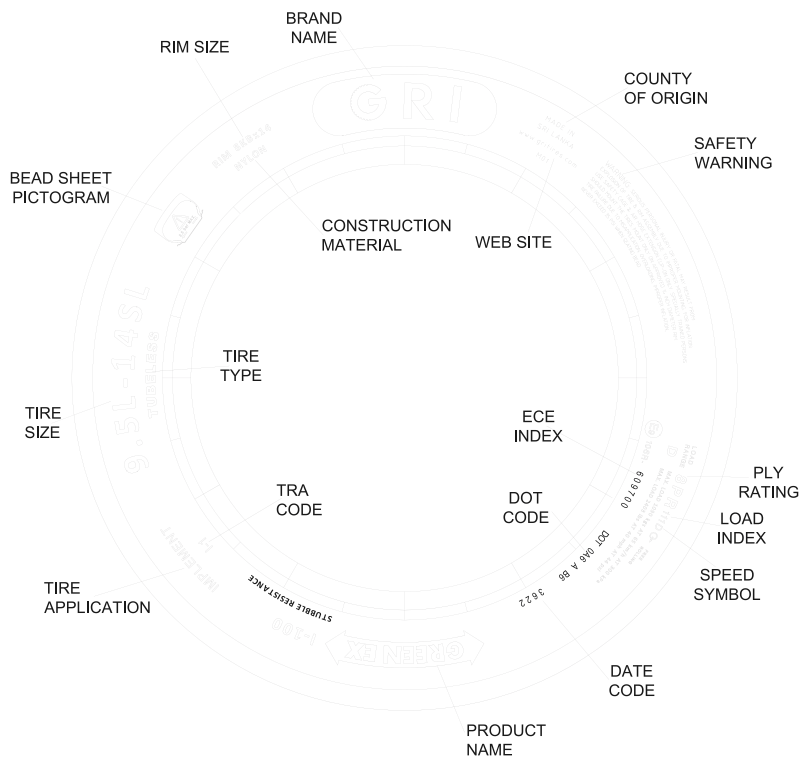
SECTION HEIGHT (SH)

The distance from the bead to the tread face.

Section Height = $(\text{Overall Tire Diameter} - \text{Nominal Rim Diameter}) / 2$.

STATIC LOADED RADIUS (SLR)

It is the minimum radius acquired by the tire under reference load and pressure at static condition. This is the distance from the vehicle hub centerline to the ground when the tire is inflated and when the tire supports the vehicle load.



TREAD WIDTH

This is the distance measured from tread edge to edge.

ASPECT RATIO (AR)

This refers to the tire's section height in relation to its section width, as a percentage. For example, a 60 series tire features a sidewall that's 60 percent as tall as the tire's section width. Aspect Ratio = (Nominal section height / Section width) x 100.

NOMINAL RIM DIAMETER

Outer diameter of bead seat area of rim flange.

AGRICULTURAL AND INDUSTRIAL TIRE SIZE

The size of each tire is indicated by nominal section width and bead diameter in inches. Bias or cross ply construction is indicated by "-" and Radial construction is indicated by the letter "R".

Example:

Bias construction: 12-4, 28 ; 550/60-22.5; 10.00 20 etc.

Radial construction: 360/70R24; 710/40R22.5 etc.

TIRE TYPE SYMBOLS & DEFINITIONS

SYMBOL	DESCRIPTION	TIRE TYPE SYMBOL/DEFINITION	APPLICATION
F1	Single rib tread		Single rib front tractor 2WD
F2	Three rib tread		Three rib front tractor 2WD
F2 M	Mul rib tread		Mul rib front tractor 2WD
F3	Four rib tread		Four rib front tractor 2WD
I1	Rib tread		Conventional implement, free rolling
I2	Moderate tread		Flotation implement
I3	Traction tread		Traction implement, drive position
R1	Drive position, regular tread		General farming, dry soil
R1W	Drive position, deeper tread		General farming, moist soil
R2	Drive position, rice/cane, deeper tread		General farming, wet or flooded fields
R3	Drive position, shallow tread		Turf, minimal disturbance
R4	Drive position, industrial tread		Industrial, hard surface
HF1	Shallow tread		High flotation implement, heavy loads
HF2	Regular lug tread		High flotation traction, heavy loads
HF3	Deep lug tread		High flotation, high traction, heavy loads
HF4	Extra deep tread		High flotation, high traction, heavy loads, wet conditions
E2	Traction regular tread		Earthmovers (scrapers, articulated dump trucks) soft surface conditions
E3	Rock regular tread		Earthmovers (scrapers, articulated dump trucks) more tread than void for rock resistance
E4	Rock deep tread		Earthmovers (scrapers, articulated dump trucks) more tread than void for rock resistance
E7	Flotation tread		Earthmover, sand rib, pavers and rollers, high flotation
L2	Traction regular tread		Loader, soft surface conditions
L3	Rock regular tread		Loader, hard surface conditions
L4	Rock deep tread		Loader, hard surface conditions, higher traction
L5	Rock extra deep tread		Loader, severe service, mining, higher traction
L6	Rock extra deep tread		Loader, severe service, mining, higher traction
L4S	Smooth deep tread		Loader, smooth tread for cut and impact protection
L5S	Smooth extra deep tread		Loader, smooth tread for cut and impact protection
L6S	Smooth extra deep tread		Loader, smooth tread for cut and impact protection
G2	Traction regular tread		Grader, common conditions
G3	Rock regular tread		Grader, severe conditions
C1	Smooth tread		Compactor

SPEED SYMBOL

Speed Rating	MPH	Speed Rating	MPH	Speed Rating	MPH
A1	3	D	40	Q	100
A2	6	E	43	R	106
A3	9	F	50	S	112
A4	12	G	55	T	118
A5	16	J	62	U	124
A6	19	K	68	H	130
A7	22	L	75	V	149
A8	25	M	81	W	168
B	30	N	87	Y	186
C	35	P	94	(Y)	186+

The Speed Symbol indicates the maximum speed at which the tire can carry a load corresponding to its load index, under specified conditions. The common designations for farm tires are A8: 25 mph, B : 30 mph, and D: 40 mph

RCI INDEX & RCI CHART

RCI is a group value system used to find tires of similar rolling circumference with different widths for varied applications. Rolling circumference is measured by the distance a tire travels while completing one full revolution. With the proliferation of mechanical front wheel drive tractors (MFWD) in use it is important to understand the effect of rolling circumference on proper tractor set up. Since both axles are drive axles and typically the front tires require more revolutions to travel the same distance, the tractor has a gear ratio set to drive each axle at comparable speeds. Matching front to rear tires rolling circumferences to the gear ratio is the only way to stay away from lead/lag situations. Lead/lag problems occur when tires do not correspond with the gear ratio which creates hopping as the tires push or pull against each other and the gears.

Most tractor manufacturers provide gear ratio information along with the other specifications of the tractor set up. Typical gear ratios for MFWD tractors range from 1.2 to 1.5 and allow for a front tire lead of approximately 5%. Check with the dealer or owners manual for specific gear ratios and the increased speed the front tires should turn at. The RCI chart aids in selecting a front to rear tire combination that provides the proper match to the gear ration. On MFWD tractors, if the front tires are too small or the rear tires too large, the rear tires will turn too fast for the fronts and push them. That is called "lag". If the front tires are too big or the rears are too small, the front tires will pull the rears. That is called "lead".

The RCI column in the chart shows the RCI Group number. Tires with the same group number will have very similar outside diameters and rolling circumferences as shown in the second and third columns. Larger tires have higher group numbers than smaller tires.

Across the top of the chart, tires are grouped by the width of row the tire needs to fit in. Below those, columns are labeled by the tire widths by millimeters with the corresponding width by inches just below. RCI groups from the left can be aligned with widths from the top in order to see the recommended tires to fit both gear ratio and row width.

In order to properly transition a tractor set up of a MFWD in order to run the tractor in narrow rows or to expand the width in order to raise the load carrying capacity, you must have the below information to find the recommended tire sizes.

- » Current tire sizes and RC
- » Tractor gear ratio
- » Recommended front lead percentage
- » Row width

With those four pieces of information you should be able to find the correct sizes for front and rear tires recommended for the change over. You can use this formula to calculate the lead lag of the set up of a MFWD tractor.

$$\frac{(\text{Front Tire RC} \times \text{Gear Ratio}) - (\text{Rear Tire RC})}{\text{Rear Tire RC}} \times 100$$

RCI CHART

Row Width Inches Section Width MM			20				30		38		Flotation/Wide	
			290 & smaller	320	340	380	420	480	520	580	600	700
RCI	RC inch apprx	O.D. inch apprx	11.2	12.4	13.6	14.9	16.9	18.4	20.8		24.5	28.0
48	243	81						480/80R50	520/85R46 (20.8R46)		650/85R38	710/70R42
47	230	77						480/80R46	520/85R42 (20.8R42)		650/65R42 620/70R42	710/70R38
46	219	73			340/85R48 (13.6R48)	380/90R46 (14.9R46)		480/80R42	520/85R38 (20.8R38)	580/70R38	650/65R38	
45	207	69	270/95R46 (12.4R46)	300/95R46 (12.4R46)				480/80R38 460/85R38 (18.4R38)	520/70R38		600/65R38	
44	197	66	230/95R48 (9.5R48)				420/85R38 (16.9R38)	480/70R38	520/70R34 540/65R38		600/65R34	
43	187	63				380/80R38	420/85R34 (16.9R34)	480/70R34 460/85R34 (18.4R34)	540/65R34		600/70R30	
42	177	59			340/85R38 (13.6R38)	380/85R34 (14.9R34)	420/85R30 (16.9R30)	480/80R30 460/85R30 (18.4R30)	540/65R30		600/65R28	
41	168	56				380/85R30 (14.9R30)	420/70R30 420/85R28 (16.9R28)	480/70R28 480/70R30	540/65R28			
40	159	53	270/95R32 (11.2R32)			380/85R28 (14.9R28)	420/70R28	480/65R28				
39	153	51	280/85R28 (11.2R28)		340/85R28 (13.6R28)	380/70R28	440/65R28 420/85R24 (16.9R24)	480/70R24	540/65R24			
38	145	48		320/85R24 (12.4R24)		380/70R24 380/85R24 (14.9R24)	420/70R24	480/65R24				
37	136	46		320/85R24 (12.4R24)	360/70R24 340/85R24 (13.6R24) 360/70R28		440/65R24					
36	127	43	280/85R24 (11.2R24)									

Most tractors are set up as five step tractors on this chart. This means that having rear tires with an RCI of 47 will lead you to front tires that have an RCI of 42, five steps below the rears. If the change in sizing is to change for narrow rows, find the corresponding rear tire under the narrow row column in the same RCI group as the current rear tires. (Example: 520/85R46 is in the 48 RCI group and 38" row width group. The 480/80R50 is also in the 48 RCI group but can run in the 30" row width. Five steps down from the 480/80R50 shows that the 480/70R38 would be a corresponding front tire size).

LOAD INDEX

Load Index	lbs.	Load Index	lbs.	Load Index	lbs.	Load Index	lbs.
70	740	111	2400	152	7850	193	25400
71	760	112	2470	153	8050	194	26000
72	785	113	2540	154	8250	195	26800
73	805	114	2600	155	8550	196	27600
74	825	115	2680	156	8800	197	28300
75	855	116	2760	157	9100	198	29100
76	880	117	2830	158	9350	199	30000
77	910	118	2910	159	9650	200	30900
78	935	119	3000	160	9900	201	32000
79	965	120	3080	161	10200	202	33100
80	990	121	3200	162	10500	203	34200
81	1020	122	3300	163	10700	204	35300
82	1050	123	3420	164	11000	205	36400
83	1070	124	3520	165	11400	206	37500
84	1100	125	3640	166	11700	207	38600
85	1140	126	3740	167	12000	208	39700
86	1170	127	3860	168	12300	209	40800
87	1200	128	3960	169	12800	210	41900
88	1230	129	4080	170	13200	211	43000
89	1280	130	4180	171	13600	212	44100
90	1320	131	4300	172	13900	213	45400
91	1360	132	4400	173	14300	214	46700
92	1390	133	4540	174	14800	215	48100
93	1430	134	4680	175	15200	216	49400
94	1480	135	4800	176	15700	217	50700
95	1520	136	4940	177	16100	218	52000
96	1570	137	5080	178	16500	219	53600
97	1610	138	5200	179	17100	220	55100
98	1650	139	5360	180	17600	221	56800
99	1710	140	5520	181	18200	222	58400
100	1760	141	5680	182	18700	223	60000
101	1820	142	5840	183	19300	224	61500
102	1870	143	6000	184	19800	225	64000
103	1930	144	6150	185	20400	226	66000
104	1980	145	6400	186	20900	227	68000
105	2040	146	6600	187	21500	228	69500
106	2090	147	6800	188	22000	229	71500
107	2150	148	6950	189	22700	230	74000
108	2200	149	7150	190	23400	231	76000
109	2270	150	7400	191	24000	232	78500
110	2340	151	7600	192	24700	233	80500

CONVERSION TABLE

EQUIVALENT SIZE CHART			
Conventional Size	Comparable Metric Size	Conventional Size	Comparable Metric Size
11.2-20	280/85R20	18.4-30	480/80R30 460/85R30
12.4-20	320/85R20	14.9-34	380/85R34
9.5-24	250/85R24	16.9-34	420/85R34
11.2-24	280/85R24	18.4-34	460/85R34
12.4-24	320/85R24	12.4-36	320/85R36
13.6-24	340/85R24	13.6-36	340/85R36
14.9-24	380/85R24	13.6-38	340/85R38
16.9-24	420/85R24	14.9-38	380/85R38
16.9R26	420/85R26	16.9-38	420/85R38
18.4-26	480/80R26	18.4-38	460/85R38
11.2-28	280/85R28	20.8-38	520/85R38
12.4-28	320/85R28	18.4-42	480/80R42
13.6-28	340/85R28	20.8-42	520/85R42
14.9-28	380/85R28	14.9-46	380/90R46
16.9-28	420/85R28	16.9-46	420/80R46
14.9-30	380/85R30	18.4-46	480/80R46
16.9-30	420/85R30 420/90R30	20.8-46	520/85R46
		18.4-50	480/80R50

TIRE MOUNTING & REMOVAL

GENERAL INSTRUCTIONS

Tire fitting and removal can be dangerous. Only specially trained operators using proper tools and procedures should perform mounting & dismounting of tires. If not done by a qualified personnel or correct procedures, these operations may cause visible or invisible damage to the tire and rim, which may result in breakdown during subsequent use and also create a serious risk for operator's safety.

In exceptional cases where these operations cannot be carried out by an expert, tire mounting and removal must be performed by carefully following the instructions specially provided.

- » The tire to be fitted must be the correct type and size for the vehicle concerned and the intended application.
- » Particular attention must be paid to the compatibility of the rim and tire centering.
- » For high powered tractors, check that the rims for the drive wheels feature a knurling in the bead seat, which can reduce tires slippage on the rim during moments of high traction, thus eliminating the risk of shearing of the valve stem if a tube is required.
- » Painting on the bead seats of rims for drive wheels with epoxy resin paints should be avoided. In the case of rims with a special finish, carefully rasp and renew the protection with a normal anti-rust treatment.
- » New tires should also have all other parts (inner tube, flap, valve sealing ring) replaced.
- » For dual fitments, use only tires of the same size & dimensions, structure and groove depth, and comply with the dual spacing specified for the size used.
- » For mechanical front wheel drive fitments, refer to the RCI chart and gear ratio stated by the tractor manufacturer.
- » Used tires should be checked from both external and internal side for water, moisture, foreign bodies, or any sign of rust. If damage is found and assessed to be irreplaceable, the tire should be scrapped.
- » The rim must be clean and in good condition, especially if it has already been used.

TIRE CLEANING & MAINTENANCE

- » Rims and rim components with rust, deformed, damaged or re-welded should be discarded.
- » Special care should be taken to not damage any parts of the tire or tube during fitting and removal.
- » Always use the proper specialized equipment and tools and the approved type of lubricant (never use silicone or petroleum-base lubricants).
- » Tire bead area and the contact area between the rim and the tire should be cleaned.
- » Tire, tube, and flap compatibility should be as per standards.
- » For correct fitting of tube type tires, it is advisable to lightly powder and partially inflate the tube before placing it inside the tires in order to avoid creasing.
- » It should be ensured that the tire is centered on the rim.

LUBRICANT PROCEDURE

- » The rim bead seat, rim flange, and tire bead should be lubricated with a high-quality, quick drying, fitting lubricant made for agricultural tires or in case of emergency, soap and water.
- » The fitting lubricant with these characteristics reduces also the risk of tire slippage on the rim. Use of improper lubricant or no lubricant can cause, bead damage, a fracture could occur during fitting and/or rim slippage during normal operation, which may cause premature tire failure.
- » For application of lubricants, a soft-bristled brush is to be used.
- » Silicone & other solvent-based substances should be avoided.

TIRE MOUNTING PROCEDURE

Note: Mount and remove tires on DW type rims on the flange nearer the lower well (irrespective of valve position).

For Tubeless:

- » Fasten the valve core housing in the valve hole.
- » Fit the tire on the rim, placing the inner bead over the flange at the top. Be sure the bead is not "hung up" on the bead seat flange. It should move into the rim well.

For Tube Type:

- » Pull the tire towards the outside of the rim as far as possible in order to make room for the tube.
- » Before inserting the tube in the tire, ensure that the valve is positioned at the bottom of the wheel. Align the stem with the valve hole and place the tube in the tire, starting at the bottom. Place the valve in the valve hole and screw the rim nut in place. Be sure that the tube is well inside the rim.

For Both Tube Type & Tubeless:

- » Starting at the top, use the fitting tools to lift the outer bead up and over the rim flange, then down into the rim well. After positioning the first section of the outer bead in the rim well, place one hand against the section to hold it in place and then use the other hand to pry the remainder of the bead over the flange with the fitting tools.
- » Center the tire on the rim. This is extremely important in order to prevent broken beads and assist in the correct positioning of the bead on the rim bead seat during inflation.

PROCEDURE DURING TIRE INFLATION

- » Keep a safe distance, always use a safety cage, if possible anchored to the wall and/or the floor, or with retaining chains if no cage is available, the fitter must ensure that no part of his body is in the possible trajectory of the valve mechanism or the caps during inflation. (See the red dotted area shown in figures 1, 2, 3, which shows the risk region for personnel during these operations).



FIGURE 01



FIGURE 02



FIGURE 03

- » Do not leave equipment on the sidewall of the tire laid flat.
- » Correct and tested air pressure gauges designed for accurate low pressure measurements should be used. Quality digital gauges are advised.

STEPS FOR TIRE INFLATION

STEP 1

MAX INFLATION PRESSURE

- » 22 psi for tires with a tire diameter of 15" or less.
- » 15 psi for all other tires.
- » For wheels with BLS (tire lock) separate instructions must be followed. Ensure that the beads are correctly positioned on the bead seat. If not, deflate the tire and center it on the rim.

STEP 2

- » Do not exceed the recommended maximum fitting pressure during inflation. In case of doubt or any difficulty, contact a specialist.
- » Inflation up to max bead seating pressure with a safety device (blast cage or distance filling) to be done.

STEP 3

- » After inflating up to max. bead seating pressure, the pressure must be adjusted to appropriate shipment or service pressure before removal from the safety device. Adjustment to service pressure with a safety device (safety cage or distance filling).

In cases in which service pressure is higher than:

- » 58 psi for a tire with 73 psi bead seating pressure.
- » 44 psi for a tire with 51 psi bead seating pressure.
- » 29 psi for a tire with 36 psi bead seating pressure.

The tire must firstly be inflated to a pressure 20 % higher than the service air pressure and then adjusted to service pressure.

- » 73 psi for tires mounted on 15-degree rims
- » 51 psi for Radial tractor tires
- » 36 psi for all other Agricultural tires fitted on 5-degree rims

FINAL CHECKING AFTER MOUNTING

- » Tire beads to be checked whether properly positioned on the rim seats or not.
- » It is important to inflate the tire to the max. bead seating pressure. This is to ensure the proper fit of the tire against the rim.
- » If the beads are not correctly seated, it is necessary to deflate, lubricate, and inflate again. Repeat these operations until the beads are correctly seated.

REMOVAL PROCEDURE

- » Tire should be deflated by removing the valve core. After deflating, remove the rim nut and push the valve through the valve hole (for tube type tires).
- » After the complete deflation of tire, hydraulic "bead unseating" can be accomplished by placing a hydraulic or other purposely designed tool between the tire bead and rim flange and bead to be removed off from the bead seat.
- » Lubricate the tire bead and the rim flange area with specific lubricants.
- » Bead to be pushed off at the bottom of the wheel into the well with sufficient force. Insert tire lever under the bead at the top of the wheel and carefully slide the bead over the rim flange.
- » Bead section to be held now over the flange with a tire lever and use another tire lever to slide the next section over the flange.
- » Carefully pry the rest of the inside bead over the rim flange, ensuring that the bead area at the top of the tire is down in the well of the rim & remove the tire completely from the rim.



TIRE TRANSPORTATION

Improper methods of transporting a tire can cause serious damage. Proper care should be taken to ensure that the bead & inner part of the tire is not getting damaged. Small bead damages can cause a serious issue of air leakage resulting under inflation and possible separation of the tire components.

It is highly advised to observe the below recommendations during tire transportation or handling, in order to reduce the risk of damages or problems:

- » Tire should not be lifted with a crane hook by leverage on the bead.
- » Steel slings, chains, or ropes should not be used for lifting & carrying the tires.
- » Large fibered straps, rubber slings, or specified belts can be used.
- » Forklift is recommended for transport of tires, where tire is to be lifted under tread and not on the bead.

TIRE STORAGE

Special care should be taken during the storage of tires in order to prevent the tires from possible damages by deformation, abrasion, & chemical reactions.

- » Storage area should be dry & cool.
- » Tires should not be exposed for prolonged duration to direct sunlight.
- » Tires should be kept away from heat and ozone sources (electric motors, transformers, arc welding stations etc.), fuel, volatile solvents, or other substances that may deteriorate the rubber and cause changes in chemical properties.
- » Avoid horizontal storage for tires (whether radial or cross-ply). It should always be stored vertically side by side.
- » Small tires, if stored flat, need to be positioned with lug against lug.
- » Tires should not be stored directly on ground for longer durations.
- » Inflation pressure should be reduced when tires are stored after being mounted on rims.
- » It is advisable to protect tires from ultra-violet rays and weather effects with a waterproof tarpaulin.
- » During storage, steps should be taken to prevent water or moisture from being inside the tire.
- » Inner tubes, O-rings, and Flaps should never be hung up or suspended, but should always be stored on shelves.

TIRE LIFE & FAILURE

Regular inspection and maintenance of the tires increases service life. During the daily visual inspection of the tires, it is important to note any damage, such as splinters and large gashes or pin hole damage that causes moisture to penetrate the tire shell. Any such damage should be repaired without causing a separation (external rubber releasing from the tire shell). Check the tension of the anti-slide devices, and make sure that they do not have any loose links or sharp parts that can damage the tires. Remove any branches or wood splinters that have gotten trapped between the tire and rim.

- » During tire service, you have to consider the correlation between speed, inflation pressure, and load capacity.
- » Overloading results in premature tire failure. Use the technical documentation and inflation tables which show the load and pressure figures for different operating speeds, loads, and air pressures.
- » Under inflation results not only in incorrect tread wear, but also in ply separation and eventually leads to failure of tire.
- » Over inflation makes the tire stiff, increases soil compaction, and decreases its resistance against hits, leading to ply tear.



GRI tires are rigorously tested to assure performance to give you peace of mind, and time to focus on the other things that matter most.

Whatever your goal, GRI will get you there.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a full page of blank white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page, providing a guide for writing. There are no margins, text, or other markings on the paper.



GRI is a leading manufacturer of High-Grade Specialty Tires, delivering advanced tire solutions globally. With a focus on innovation and sustainability, GRI is committed to meeting the evolving needs of the Agriculture, Construction, and Material Handling segments. GRI concentrates on pushing the boundaries of Specialty Tire technology to meet the dynamic needs of its customers around the world. GRI is devoted to sustainability, environmental responsibility and minimizing its carbon footprint. GRI has operations in 13 countries, sales in over 70 countries worldwide and has been advancing in the expansion of its operations in key countries as well as its tire production and mixing plants in Sri Lanka.



The GREEN X CIRCLE is a global farmer ecosystem connecting natural rubber farmers with crop farmers worldwide focusing on sustainable farming practices to increase productivity that will benefit farming communities and inspire greatness for generations to come. We source pure natural rubber from Sri Lankan rubber farmers to build GRI's high-grade agriculture tires, that are eventually fitted on machinery of farmers across the world. GRI is committed to sustainably increasing Sri Lanka's natural rubber harvest while also enhancing opportunities for the rubber farmers in the island. Sri Lanka's unique geographical location, ideal climate and rich soil, and deep agricultural heritage is ideally suited to produce high-quality natural rubber. GREEN X CIRCLE creates awareness among farming communities on sustainable and productive use of resources, knowing the climate challenges that future generations will face.



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