

BRIDGESTONE

DATA BOOK

OFF-THE-ROAD TIRES



GENERAL INFORMATION

RADIAL TIRE

BIAS TIRE

REMARKS & SPECIAL OPERATIONS

O-RING, FLAP, RIM, VALVE, CONVERSION TABLES

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Due to the constant advance of tire technology, the contents of this data book are subject to change without notice.

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INTRODUCTION

1. Industry Standard

Bridgestone Corporation has developed a wide range of tire patterns and specifications, so that the proper Off-the-Road tire can be matched to any vehicle, service, or operating conditions.

Bridgestone's Off-the-Road tires are designed and produced to meet the commonly accepted international standards, those set by the TRA (Tire and Rim Association) in the U.S.A., by the ETRTO (European Tire and Rim Technical Organization) in Europe and/or by the JATMA (Japan Automobile Tire Manufacturers' Association) in Japan*.

Load capacities, inflation pressures, dimensions such as overall tire diameter and width, as well as the relative rims and tube valves follow these standards.

If a tire is to be used for a purpose other than that for which it is originally intended, please consult Bridgestone Corporation for advice.

*Where differences exist between the TRA, ETRTO and JATMA standards, Bridgestone selects the most applicable.

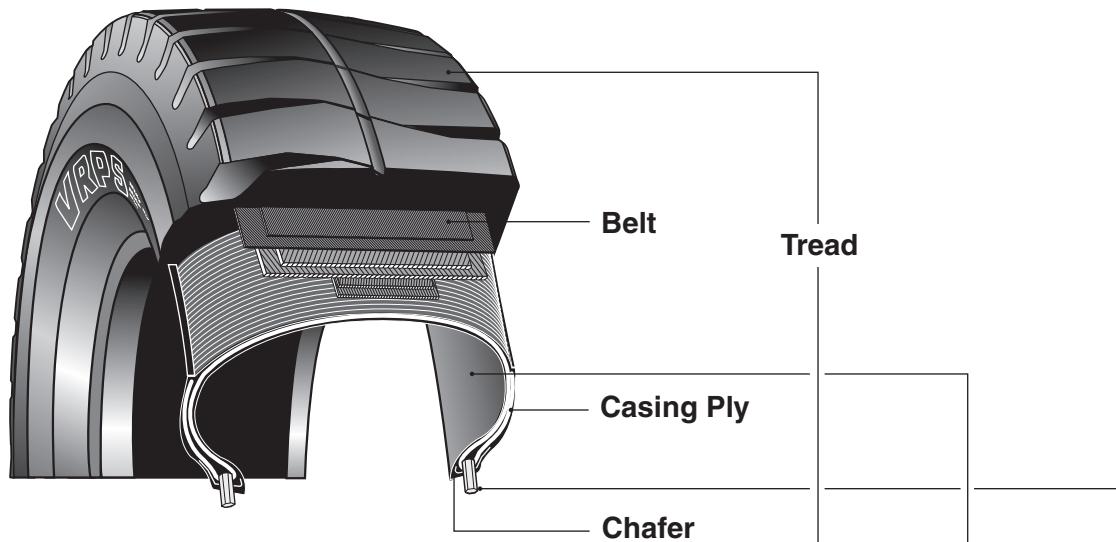
2. Application Vehicle Matching Chart

APPLICATION	VEHICLE
Earthmover Service	Dump Trucks, Motor Scrapers, Articulated Dump Trucks, Coal Haulers, Logging Trucks, Other Mining Trucks, etc.
Grader Service	Motor Graders
Loader & Dozer Service	Front-End Loaders, Back-hoe Loaders, Skid Steer Loaders, Dozers, Underground Trucks, Load-Haul-Dumps, etc.
Mobile Crane Service (High-Speed)	All-Terrain Cranes, High-Speed Vehicles, etc.
Industrial Service	Straddle Carriers, Aircraft Towing Tractors, Container Stackers, Counter-balanced Lift Trucks, Mobile Crushers, Log Stackers, etc.
Logging Service	Log-Skidders
Compactor Service	Compactor, Road Rollers
Sand Service	Sand Service Trucks
Underground Service	Underground Trucks, Load Haul Dumps, Drilling Jumbo

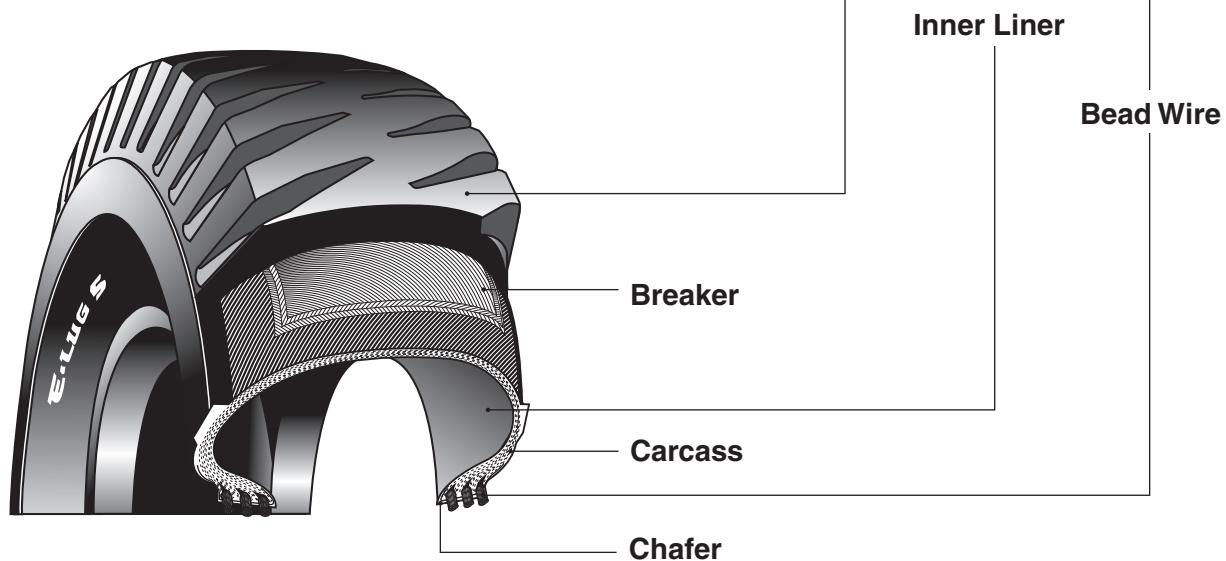
GENERAL INFORMATION

1. Structural Diagram

Off-The-Road Radial Tire (ORR)



Off-The-Road Bias Tire (ORS)



2. Definitions

2.1 Tire Size

The size of each tire is indicated by nominal width and rim diameter in inches and mm.

Radial structure is indicated by the letter "R". For some tire the aspect ratio is indicated by percentage.

Example

Radial Tire ; 40.00R57, 33.25R35, 445/95R25

Bias Tire ; 21.00-35, 45/65-45

2.2 Star Rating, Ply Rating and Load Index

The load capacity of a tire is indicated by the star rating (in case of radial tire) and the ply rating (in case of bias tire).

The load index is applied in countries where the ETRTO standards are used.

2.3 Overall Diameter (OD)

"Overall Diameter" is twice the section height of a new tire, plus the nominal rim diameter, including 24-hour inflation growth.

2.4 Overall Width (OW)

"Overall Width" is the width of a new tire, including 24-hour inflation growth, and including protective side ribs, bars or decorations.

2.5 Section Width (SW)

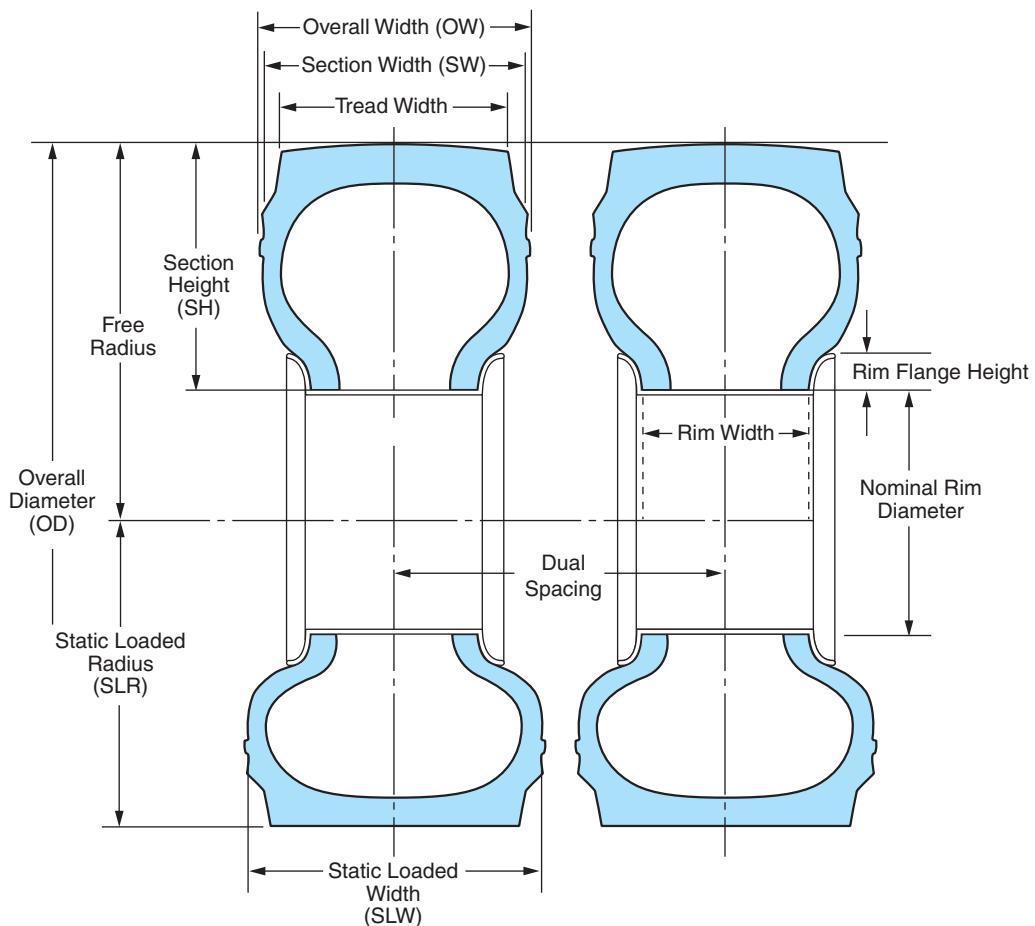
"Section Width" is the width of a new tire, including 24-hour inflation growth and including normal sidewalls, but not including protective side ribs, bars, or decorations.

2.6 Static Loaded Radius and Width (SLR, SLW)

"Static Loaded Radius" is the shortest distance from the axle center to the contact surface of a tire and "Static Loaded Width" is the overall width of a tire, mounted on the approved rim at the specified inflation pressure and placed still and vertically on a flat board, and loaded with the specified load.

2.7 Original Tread Depth (OTD)

"Original Tread Depth" is the tread depth of a new tire measured at the point of tread-indicator where available or one-fourth the width of the tire crown section from the crown center, including 24-hour inflation growth.



3. Classification

3.1 Uses and Characteristics of Off-The-Road Tires

The characteristics that Off-The-Road tires must possess differ according to their function and the type of vehicles they are mounted on.

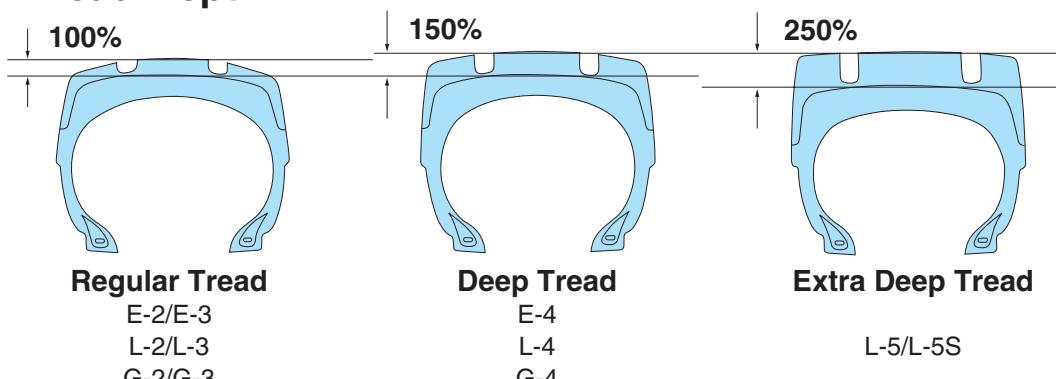
Type/Service	Function	Vehicles	Main tire characteristics required
Earthmover	Transporting	 Rigid dump trucks  Articulated dump trucks  Coal haulers  Scrapers  Off road trucks	Heat-resistance, Cut-resistance, Wear-resistance Shock burst-resistance
Grader	Grading, Leveling	 Graders	Traction, Maneuverability, (directional stability)
Loader and dozer	Loading and dozing	 Loaders, Bulldozers	Cut-resistance, Wear-resistance Stability
Compactor	Compacting	 Tire-rollers	Oil-resistance, Cut-resistance, Wear-resistance
Logging	Log-skidding	 Log-skidders	Traction, Flotation, Cut-resistance
Mobile crane (High-speed)	High-speed Travelling	 All-Terrain Cranes	Heat-resistance, Wear-resistance, Traction
Industrial	Handling & Towing	 Handling & Towing Equipments	Uneven wear, Wear-resistance, Stability
Underground	Underground	 LHDs  Drilling Jumbo  Underground Trucks	Cut-resistance, Wear-resistance

3.2 TRA Classification and Corresponding Bridgestone Off-The-Road Tires

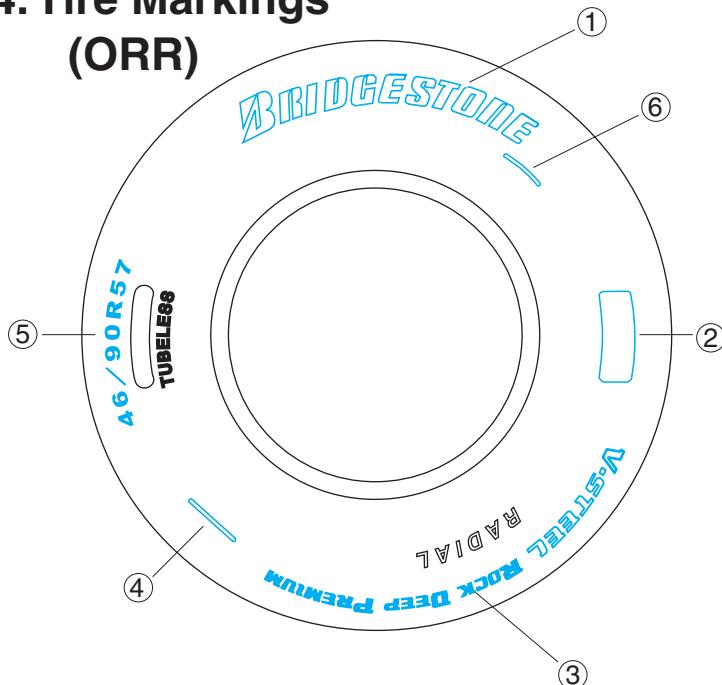
Off-The-Road tires are classified by the TRA as follows, and the names of the tread patterns of the corresponding Bridgestone Off-The-Road tires are described below.

TRA Classification	Tread Type	Bridgestone Tread Pattern Radial	Bridgestone Tread Pattern Bias
E= Earthmover (Haulage Service)			
E-2	Traction	VUT VKT VSB VFT VHS VSW	
E-3	Rock	VLT VMT VTS VRL VRF	WL RL VL2
E-4	Rock Deep	L317 VLTS VSNT VMTS VMTP VZTS VZTP VELS VRLS VREP VRDP VRPS VREV VRQP	
E-7	Flotation	VSJ	
G=Grader			
G-1	Rib	RG	
G-2	Traction	GL FG	
G-3	Rock	RL	
G-4	Rock Deep	VMTS	
L=Loader & Dozer (Slow Speed Service)			
L-2	Traction Regular	VUT VSW	GL FG
L-3	Rock Regular	VLT VJT VTS	RL VL2
L-4	Rock Deep	VLTS VSNT VSNL	RLS
L-5	Rock Extra-Deep	VSDT VSDL VSDR	DL
L-5S	Smooth Extra-Deep	VSMS VSMS2	STMS
C=Compactor Service			
C-1	Smooth	RR	
C-2	Grooved	AL2	
LS=Logging Service			
LS-2	Intermediate	VSB	
Mobile Crane Service (High-Speed)			
Mobile Crane Service		VGT VHB VHS VSW	
Industrial Service			
Industrial Service		VHB VCH VCHD VCHR VCHS VELS VRLS VSDL VSMS	RL RLS ELS2 STMS YS2
Underground Service			
Underground Service		VSNL VSNT VSDL VSDR VSDT VSMS VSMS2	STMS DL

Design Tread-Depth



4. Tire Markings (ORR)



- ① Brand Name
- ② Bridgestone's Specifications Code
- ③ Pattern Name
- ④ Serial Number
- ⑤ Tire Size, Star Rating, Tubeless or Tube Type
- ⑥ DOT Code
DOT code is necessary for USA public road.

4.1 Type of Tire Size Designation

Regular

27.00 R 49 ☆☆

Star Rating
Rim Diameter (inches)
Radial Structure
Section Width (inches)

Wide Base

33.25 R 35 ☆☆

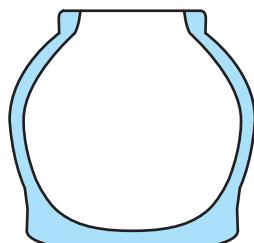
Star Rating
Rim Diameter (inches)
Radial Structure
Section Width (inches)

Super Wide Base

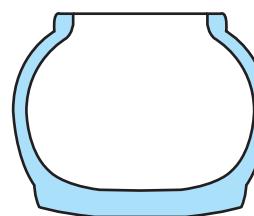
40 / 65 - 39 30PR

Ply Rating
Rim Diameter (inches)
Aspect Ratio 65 Series
Section Width (inches)

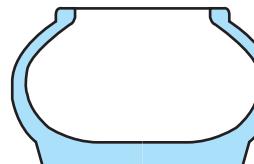
*Tire Aspect Ratio



$$\frac{SH}{SW} = 0.95^*$$



$$\frac{SH}{SW} = 0.80^*$$



$$\frac{SH}{SW} = 0.65^*$$

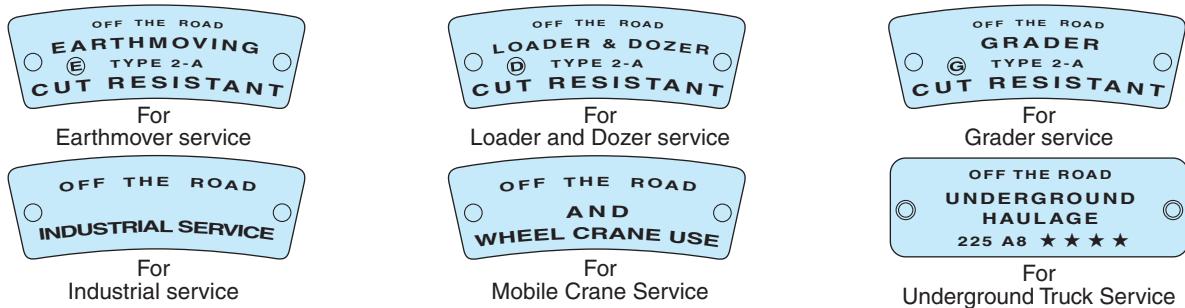
170 E 385 / 95 R 24

Rim Diameter (inches)
Radial Structure
Aspect Ratio 95 Series
Section Width (mm)
Speed Symbol
Load Index

SH, SW : See Page 3

4.2 Type of Tire Structures Classified by Service and Designated by Bridgestone

Each Bridgestone tire has a Bridgestone code number on the tire sidewall according to its specifications.

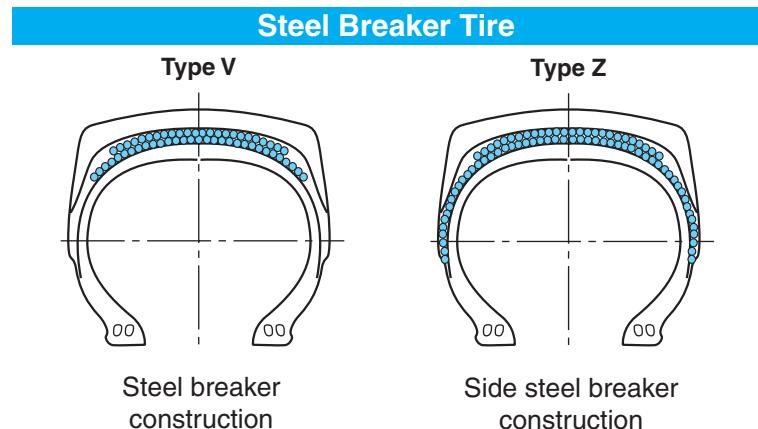
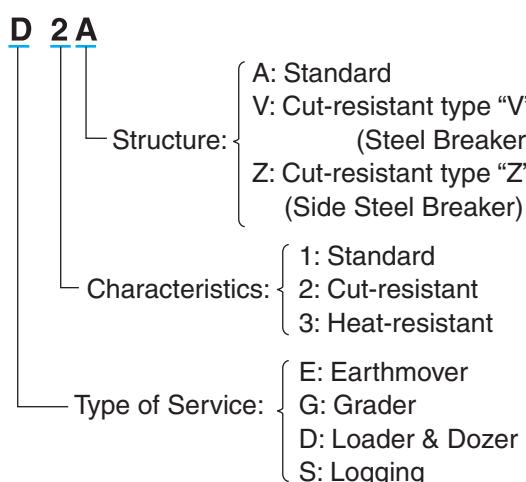


Tire Structures Classified by Type of Service and Bridgestone's Designations

Service	BS Code No.	Structure
Earthmover Service (E)	1A	Standard
	2A	Cut-resistant
	3A	Heat-resistant
Grader Service (G)	1A	Standard
	2A	Cut-resistant
Loader & Dozer Service (D)	2A	Cut-resistant
	2V*	Special cut-resistant (Type "V")
	2Z*	Special cut-resistant (Type "Z")
Logging Service (S)	2V	**Standard

NOTES: *Bias Tire Only

**2V tires are standard for log skidder service since the possibility of the cutting is high in log skidder operations.



Steel Breaker Bias Tire

Steel Breaker Off-the-Road tires feature breaker material which is changed from nylon to steel in order to resist cutting and cut bursting. Bridgestone Steel Breaker Off-the-Road tires are widely used on loaders at mining and quarry sites, loaders and underground trucks in underground mines, and also on log loaders.

Side Steel Breaker Bias Tire

In this tire the steel breaker extends to the sidewall of the tire to protect it against damage. The construction is similar to that described above.

4.3 Load Index

The LOAD INDEX is an international numerical code for the maximum load a tire can carry at the speed indicated by its speed symbol under service conditions specified by Bridgestone.

LI	kg	LI	kg	LI	kg	LI	kg	LI	kg	LI	kg
0	45	50	190	100	800	150	3 350	200	14 000	250	60 000
1	46.2	51	195	101	825	151	3 450	201	14 500	251	61 500
2	47.5	52	200	102	850	152	3 550	202	15 000	252	63 000
3	48.7	53	206	103	875	153	3 650	203	15 500	253	65 000
4	50	54	212	104	900	154	3 750	204	16 000	254	67 000
5	51.5	55	218	105	925	155	3 875	205	16 500	255	69 000
6	53	56	224	106	950	156	4 000	206	17 000	256	71 000
7	54.5	57	230	107	975	157	4 125	207	17 500	257	73 000
8	56	58	236	108	1 000	158	4 250	208	18 000	258	75 000
9	58	59	243	109	1 030	159	4 375	209	18 500	259	77 500
10	60	60	250	110	1 060	160	4 500	210	19 000	260	80 000
11	61.5	61	257	111	1 090	161	4 625	211	19 500	261	82 500
12	63	62	265	112	1 120	162	4 750	212	20 000	262	85 000
13	65	63	272	113	1 150	163	4 875	213	20 600	263	87 500
14	67	64	280	114	1 180	164	5 000	214	21 200	264	90 000
15	69	65	290	115	1 215	165	5 150	215	21 800	265	92 500
16	71	66	300	116	1 250	166	5 300	216	22 400	266	95 000
17	73	67	307	117	1 285	167	5 450	217	23 000	267	97 500
18	75	68	315	118	1 320	168	5 600	218	23 600	268	100 000
19	77.5	69	325	119	1 360	169	5 800	219	24 300	269	103 000
20	80	70	335	120	1 400	170	6 000	220	25 000	270	106 000
21	82.5	71	345	121	1 450	171	6 150	221	25 750	271	109 000
22	85	72	355	122	1 500	172	6 300	222	26 500	272	112 000
23	87.5	73	365	123	1 550	173	6 500	223	27 250	273	115 000
24	90	74	375	124	1 600	174	6 700	224	28 000	274	118 000
25	92.5	75	387	125	1 650	175	6 900	225	29 000	275	121 000
26	95	76	400	126	1 700	176	7 100	226	30 000	276	125 000
27	97	77	412	127	1 750	177	7 300	227	30 750	277	128 000
28	100	78	425	128	1 800	178	7 500	228	31 500	278	132 500
29	103	79	437	129	1 850	179	7 750	229	32 500	279	136 000
30	106	80	450	130	1 900	180	8 000	230	33 500		
31	109	81	462	131	1 950	181	8 250	231	34 500		
32	112	82	475	132	2 000	182	8 500	232	35 500		
33	115	83	487	133	2 060	183	8 750	233	36 500		
34	118	84	500	134	2 120	184	9 000	234	37 500		
35	121	85	515	135	2 180	185	9 250	235	38 750		
36	125	86	530	136	2 240	186	9 500	236	40 000		
37	128	87	545	137	2 300	187	9 750	237	41 250		
38	132	88	560	138	2 360	188	10 000	238	42 500		
39	136	89	580	139	2 430	189	10 300	239	43 750		
40	140	90	600	140	2 500	190	10 600	240	45 000		
41	145	91	615	141	2 575	191	10 900	241	46 250		
42	150	92	630	142	2 650	192	11 200	242	47 500		
43	155	93	650	143	2 725	193	11 500	243	48 750		
44	160	94	670	144	2 800	194	11 800	244	50 000		
45	165	95	690	145	2 900	195	12 150	245	51 500		
46	170	96	710	146	3 000	196	12 500	246	53 000		
47	175	97	730	147	3 075	197	12 850	247	54 500		
48	180	98	750	148	3 150	198	13 200	248	56 000		
49	185	99	775	149	3 250	199	13 600	249	58 000		

4.4 Speed Symbol

The SPEED SYMBOL indicates the speed at which the tire can carry a load corresponding to its load index under service conditions specified by Bridgestone.

Speed Symbol	Speed (km/h)
A1	5
A2	10
A3	15
A4	20
A5	25
A6	30
A7	35
A8	40

Speed Symbol	Speed (km/h)
B	50
C	60
D	65
E	70
F	80
G	90

4.5 Conversion Table: Star Rating to Ply Rating

Service	Tire Size	Star Rating	Corresponding Ply Rating
Earthmover	12.00R24	★3	up to 24
	14.00R24	★3	up to 32
	14.00R25	★3	up to 32
	16.00R25	★2	up to 36
	18.00R25	★1	up to 24
		★2	up to 36
	18.00R33	★2	up to 40
	21.00R35	★2	up to 44
	40.00R57	★2	up to 74
	17.5R25	★1	up to 16
	20.5R25	★1	up to 24
		★2	up to 28
	23.5R25	★1	up to 24
		★2	up to 32
	26.5R25	★2	up to 32
	29.5R25	★2	up to 34
	29.5R29	★2	up to 40
	33.25R29	★2	up to 44
	33.25R35	★2	up to 44
	37.25R35	★2	up to 48
	37.5R39	★2	up to 52
	40.5/75R39	★2	up to 54

Service	Tire Size	Star Rating	Corresponding Ply Rating
Grader	14.00R24	★1	up to 16
	16.00R24	★1	up to 16
	17.5R25	★1	up to 16
Loader	15.5R25	★1	up to 16
	17.5R25	★1	up to 16
	20.5R25	★1	up to 24
		★2	up to 28
	23.5R25	★1	up to 24
		★2	up to 32
	26.5R25	★1	up to 24
		★2	up to 36
	29.5R25	★1	up to 28
		★2	up to 34
	29.5R29	★1	up to 34
	35/65R33	★1	up to 36
	45/65R45	★1	up to 50
	50/65R51	★2	up to 54

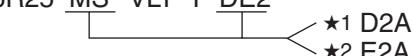
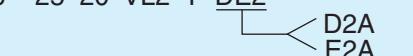
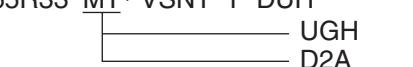
Note: Due to the practice of altering inflation pressure to improve flotation on sand, Bridgestone does not apply a star rating to tire size 21.00R25 VSJ.

4.6 Size Conversion Table

Metric	Inch
385/95R24, 25	14.00R24, 25
445/95R24, 25	16.00R24, 25
445/80R25	17.5R25
505/95R25	18.00R25
525/80R25	20.5R25
750/65R25	30/65R25

4.7 Dual Specification Codes

Some Bridgestone Off-The-Road Tires have dual specification codes which can be used for both services.

Combination	Construction	Size Designation
Loader & Dozer Service + Earthmover Service	Radial	26.5R25 MS* VLT T DE2 
	Bias	26.5 - 25 20 VL2 T DE2 
Loader & Dozer Service + Grader Service	Bias	17.5 - 25 12 FG T DG2 
Earthmover Service + Grader Service	Radial	17.5R25 ★1 VKT T EG2 
Underground Trucks + Loader & Dozer Service	Radial	35/65R33 MT* VSNT T DUH 

* Multiple Star Rating

Bridgestone Radial Tires marked with "LOADER & DOZER ★(one star)" and "EARTHMOVER ★★(two star)" have specified load capacity on each servicing condition.

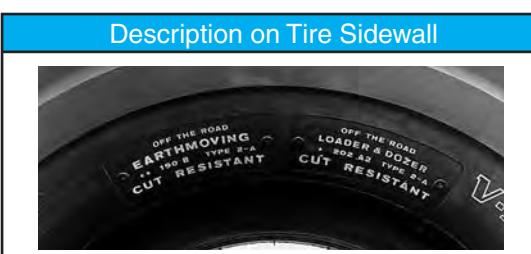
Strength of tire casing is designed to constrain inflation pressure used.

<26.5R25 as an example>

	Type of Service	Star Rating	Inflation Pressure	Load (Load Index)	Speed (Speed Symbol)
MS	Loader	★(one star)	5.00 bar	15,000 kgs (202)	10 km/hour (A2)
	Earthmover	★★(two stars)	5.25 bar	11,500 kgs (193)	50 km/hour (B)

<35/65R33 as an example>

MT	Underground Trucks	★★★★(four stars)	8.00 bar	29,000 kgs (225)	40 km/hour (A8)
	Loader	★★(two stars)	6.50 bar	28,000 kgs (224)	10 km/hour (A2)

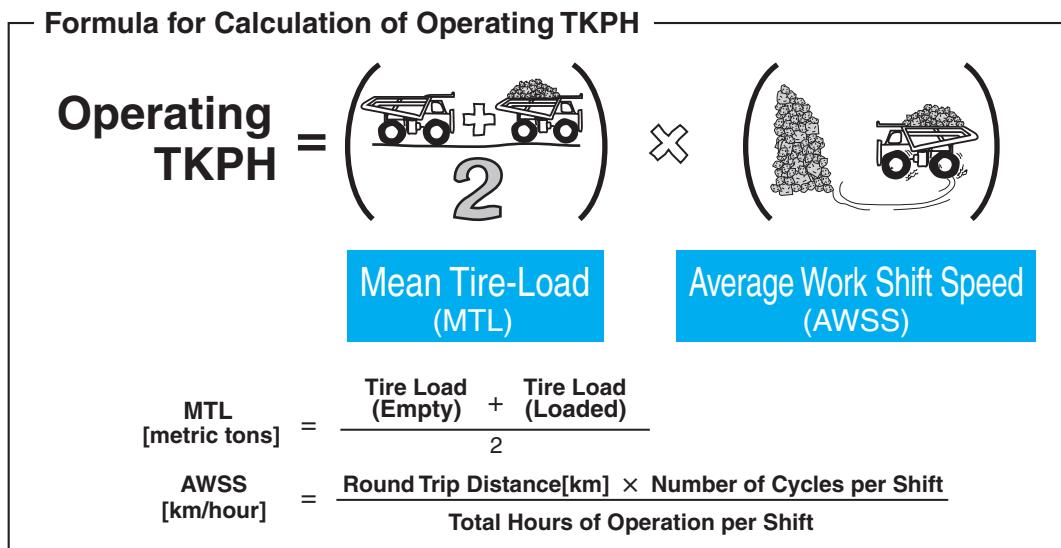


5. Ton-Kilometer-Per-Hour (TKPH)

5.1 Operating TKPH

Earth-moving, mining and logging tires have become increasingly important with the development of large construction vehicles. The primary task of these heavy-duty tires is to haul heavy loads faster, over longer distances. This heavy hauling inevitably causes heat built-up in the tires. As tires have limited resistance to heat, deterioration of the tire may occur at an early stage of operation if used beyond the rated TKPH.

Accordingly, it is necessary when selecting tires, to determine the amount of work which will keep the tire within a safe range to avoid over-heating when the vehicle is operated under given conditions. The amount of work done under the given conditions and within a safe range is shown as "Operating Ton-Kilometer-Per-Hour (Operating TKPH)" which can be determined by the following formula:



5.2 Tire TKPH

Tire TKPH varies depending on the tire's design (size, tread pattern and the type of compound). A High TKPH tire generates less heat than that of lower TKPH tire. However, the lower TKPH tire will have greater cut and wear resistance than the higher TKPH one.

The TKPH method is applicable in the following situations.

(1) One way distance: within 16 km (10 miles)

- a. When haul length exceeds 16 km one way, consult a Bridgestone Representative.
- b. If the round-trip distance is less than 5km (3miles), Tire TKPH figures can be increased by 12%.

(2) Ambient temperature: 38°C (100°F)

For ambient temperatures other than 38°C (100°F), the Tire TKPH rating should be revised based on the following formula.

a. Radial Tire

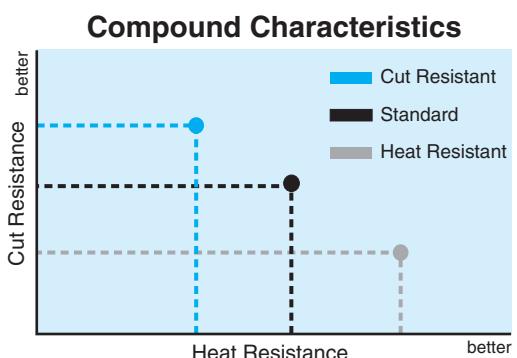
$$\text{Revised TKPH rating} = [1 + \alpha \times (38^\circ\text{C} - \text{Max. Ambient Temperature } ^\circ\text{C})] * \text{Tire TKPH}$$

Below 27.00 (33.5) inches in Section Width: $\alpha = 0.010$
Above 30.00 (37.25) inches in Section Width: $\alpha = 0.009$

b. Bias Tire

$$\text{Revised TKPH rating} = [1 + \alpha \times (38^\circ\text{C} - \text{Max. Ambient Temperature } ^\circ\text{C})] * \text{Tire TKPH}$$

Below 27.00 (33.5) inches in Section Width: $\alpha = 0.006$
Above 30.00 (37.25) inches in Section Width: $\alpha = 0.005$



*Revising coefficient: The value is shown in the following table.

Revising Coefficient

Ambient Temperature °C	°F	Bias Tire		Radial Tire	
		Tire Section 27.00 and below	Tire Section 30.00 and over	Tire Section 27.00 and below	Tire Section 30.00 and over
14	57	1.144	1.120	1.240	1.216
15	59	1.138	1.115	1.230	1.207
16	61	1.132	1.110	1.220	1.198
18	64	1.120	1.100	1.200	1.180
20	68	1.108	1.090	1.180	1.162
22	72	1.096	1.080	1.160	1.144
24	75	1.084	1.070	1.140	1.126
26	79	1.072	1.060	1.120	1.108
28	82	1.060	1.050	1.100	1.090
30	86	1.048	1.040	1.080	1.072
32	90	1.036	1.030	1.060	1.054
34	93	1.024	1.020	1.040	1.036
36	97	1.012	1.010	1.020	1.018
38	100	1.000	1.000	1.000	1.000
40	104	0.988	0.990	0.980	0.982
42	108	0.976	0.980	0.960	0.964
44	111	0.964	0.970	0.940	0.946
46	115	0.952	0.960	0.920	0.928
48	118	0.940	0.950	0.900	0.910
50	122	0.928	0.940	0.880	0.892

For all ambient temperatures below 14°C (57°F), the same TKPH value as calculated at 14°C (57°F) should be used.

(3) Maximum speed

a. Radial Tire

For 65km/h(40mph) maximum speed, the loads must be reduced 12% with no change in inflation pressure.

b. Bias Tire

When the maximum speed exceeds 50 km/h (30 mph) under loaded conditions, the following formula is used:

$$\text{Revised TKPH Rating} = \frac{50 \text{ km/h}}{\text{Max. speed}} \times \text{Tire TKPH}$$

Example:

The TKPH Rating for 21.00-35, 36PR RLS E1A is 226; if the tire is to run at 60 km/h when loaded.

$$\frac{50}{60} \times 226 = 188$$

(4) To obtain the TKPH(TMPH) for type 2A-LS, multiply type 2A rating by 0.8.

(5) The respective types of vehicles are subject to the following speed limitations.

Maximum Speed

Type of Vehicle	Maximum Speed
Dump & Scraper	50 km/h (30 mph)
Grader	40 km/h (25 mph)
Loader & Dozer	10 km/h (5 mph)

5.3 Proper TKPH

The average operating TKPH, calculated after several samples, should not exceed the tire TKPH rating. Exceeding the tire TKPH may result in serious tire damage or failure.

RADIAL TIRE

1. Tread Designs

■ Earthmover Service

E2



V-STEEL
ULTRA TRACTION
(VUT)



V-STEEL
K-TRACTION
(VKT)



V-STEEL
S-BLOCK
(VSB)

E2



V-STEEL
F-TRACTION
(VFT)



V-STEEL
H-SERVICE
(VHS)



V-STEEL
SNOW WEDGE
(VSW)

E3



V-STEEL
L-TRACTION
(VLT)



Wide Base
V-STEEL M-TRACTION
(VMT)



Regular



V-STEEL
TRACTION-STABILITY
(VTS)

E3



Wide Base
V-STEEL R-LUG
(VRL)



Regular



V-STEEL
ROCK FAST
(VRF)

E4



L317



V-STEEL
L-TRACTION S
(VLTS)



V-STEEL
N-TRACTION
(VSNT)



V-STEEL
M-TRACTION S
(VMTS)



V-STEEL
M-TRACTION
PREMIUM (VMTP)

E4



V-STEEL
Z-TRACTION S
(VZTS)



V-STEEL
Z-TRACTION
PREMIUM (VZTP)



18.00R25~
21.00R35



40.00R57

V-STEEL E-LUG S (VELS)

E4



14.00R24~
16.00R25

V-STEEL R-LUG S (VRLS)



21.00R33~
37.00R57



V-STEEL
ROCK E-PREMIUM
(VREP)



V-STEEL
ROCK DEEP
PREMIUM (VRDP)

Sand Service

E4



V-STEEL
ROCK PREMIUM
SERVICE (VRPS)



V-STEEL
ROCK EXTRA
V-OPERATION (VREV)



V-STEEL
ROCK QUARRY
PREMIUM (VRQP)



V-STEEL
JAMAL
(VSJ)

E7

Grader Service

G2



V-STEEL
U-TRACTION
(VUT)

G3



V-STEEL
SNOW WEDGE
(VSW)

G4



V-STEEL
J-TRACTION
(VJT)



V-STEEL
M-TRACTION S
(VMTS)

■ Loader & Dozer Service

L2



V-STEEL
U-TRACTION
(VUT)



V-STEEL
SNOW WEDGE
(VSW)



V-STEEL
L-TRACTION
(VLT)



V-STEEL
J-TRACTION
(VJT)



V-STEEL TRACTION-
STABILITY
(VTS)

L4



V-STEEL
L-TRACTION S
(VLTS)



V-STEEL
N-TRACTION
(VSNT)



V-STEEL
N-LUG
(VSNL)



V-STEEL
SUPER-DEEP
TRACTION (VSDT)

L5

L5S



V-STEEL
D-LUG
(VSDL)



V-STEEL
SUPER DEEP
ROCK (VSDR)



V-STEEL SMOOTH
TREAD-MS
(VSMS)



V-STEEL SMOOTH
TREAD-MS 2
(VSMS2)

■ Mobile Crane Service (High-Speed)



V-STEEL
G-TRACTION
(VGT)



V-STEEL
H-BLOCK
(VHB)



V-STEEL
HIGHWAY SERVICE
(VHS)



V-STEEL
SNOW WEDGE
(VSW)

■ Industrial Service



V-STEEL
H-BLOCK
(VHB)



V-STEEL
CONTAINER
HANDLER
(VCH)



V-STEEL
CONTAINER
HANDLER DEEP
(VCHD)



V-STEEL
CONTAINER
HANDLER RIB
(VCHR)



V-STEEL
CONTAINER
HANDLER STABILITY
AND SAFETY
(VCHS)



V-STEEL
E-LUG S
(VELS)



V-STEEL
R-LUG S
(VRLS)



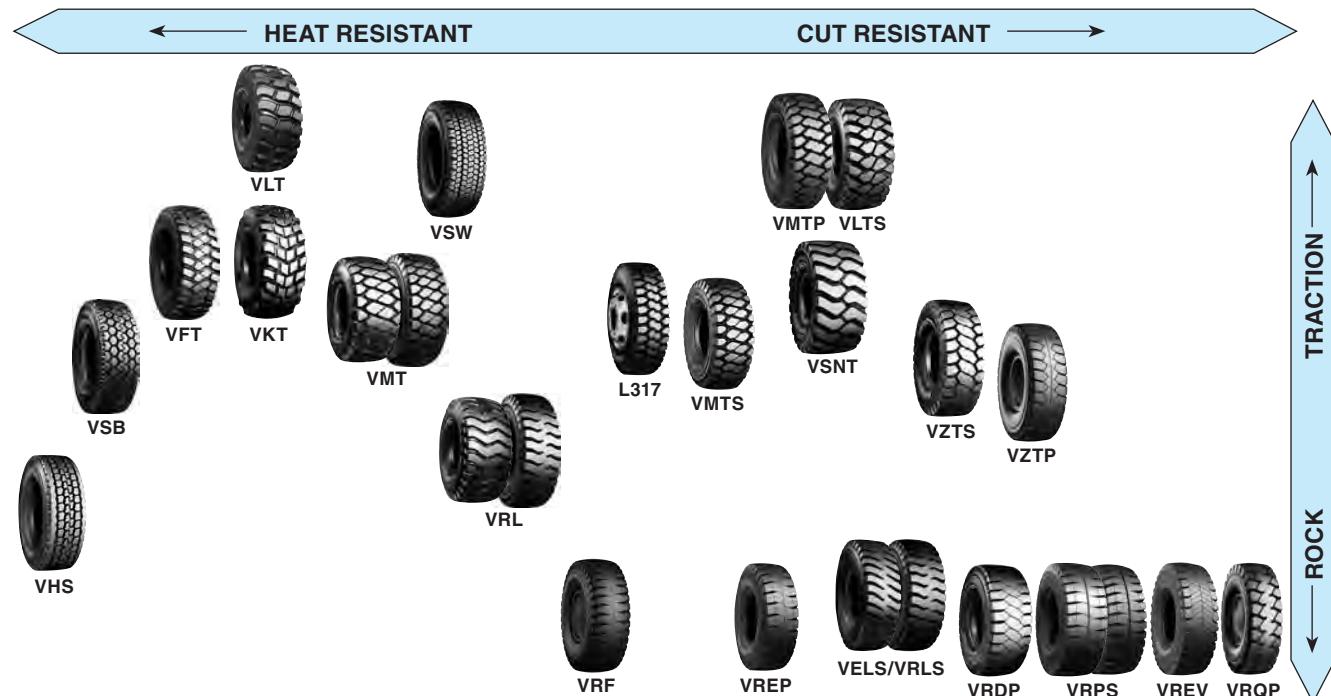
V-STEEL
D-LUG
(VSDL)



V-STEEL
SMOOTH
TREAD-MS
(VSMS)

2. Application

■Earthmover Service



T/T: Tube Type T/L: Tubeless Type

MS: Multiple Star Rating (★1/★2)

MT: Multiple Star Rating (★2/★4)

*VSW is especially designed for snow surface operations.

Size	Type	Star Rating
VMTP(E4)		
12.00 R 24	T/T	★3
18.00 R 33	T/L	★2
21.00 R 33	T/L	★2
21.00 R 35	T/L	★2
24.00 R 35	T/L	★2
27.00 R 49	T/L	★2
33.00 R 51	T/L	★2

Size	Type	Star Rating
VZTS(E4)		
37.00 R 57	T/L	★2
40.00 R 57	T/L	★2

Size	Type	Star Rating
VZTP(E4)		
46/90 R 57	T/L	★2

Size	Type	Star Rating
VELS(E4)		
18.00 R 25	T/L	★2
18.00 R 33	T/L	★2
21.00 R 35	T/L	★2
40.00 R 57	T/L	★2

Size	Type	Star Rating
VRLS(E4)		
14.00 R 24	T/T	★3
14.00 R 25	T/L	★3
16.00 R 25	T/L	★2
21.00 R 33	T/L	★2
	T/T	★2
24.00 R 35	T/L	★2
27.00 R 49	T/L	★2
30.00 R 51	T/L	★2
33.00 R 51	T/L	★2
36.00 R 51	T/L	★2
37.00 R 57	T/L	★2

Size	Type	Star Rating
VREP(E4)		
27.00 R 49	T/L	★2

Size	Type	Star Rating
VRDP(E4)		
27.00 R 49	T/L	★2
33.00 R 51	T/L	★2
42/90 R 57	T/L	★2
40.00 R 57	T/L	★2
46/90 R 57	T/L	★2

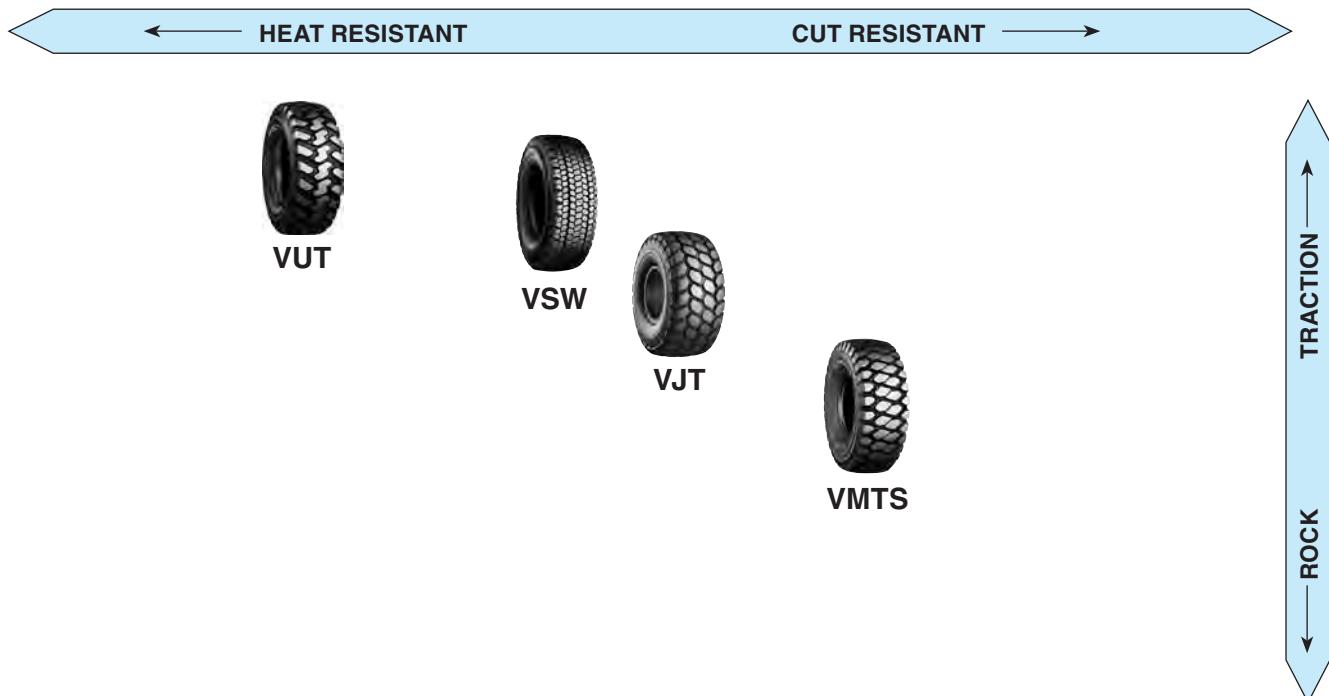
Size	Type	Star Rating
VRPS(E4)		
33.00 R 51	T/L	★2
42/90 R 57	T/L	★2
40.00 R 57	T/L	★2
46/90 R 57	T/L	★2
50/90 R 57	T/L	★2
53/80 R 63	T/L	★2
59/80 R 63	T/L	★2

Size	Type	Star Rating
NEW 27.00 R 49	T/L	★2
46/90 R 57	T/L	★2

Size	Type	Star Rating
18.00 R 33	T/L	★2
24.00 R 35	T/L	★2

T/T: Tube Type
T/L: Tubeless Type

■Grader Service



Size	Type	Star Rating
------	------	-------------

VUT(G2)

13.00 R 24 TG	T/L	★1
14.00 R 24 TG	T/L	★1
15.5 R 25	T/L	★1★2
17.5 R 25	T/L	★1
20.5 R 25	T/L	★1
23.5 R 25	T/L	★1

*VSW(G2)

14.00 R 24 TG	T/L	★1★3
16.00 R 24 TG	T/L	★1
17.5 R 25	T/L	★1

VJT(G3)

20.5 R 25	T/L	★1
23.5 R 25	T/L	★1

VMTS(G4)

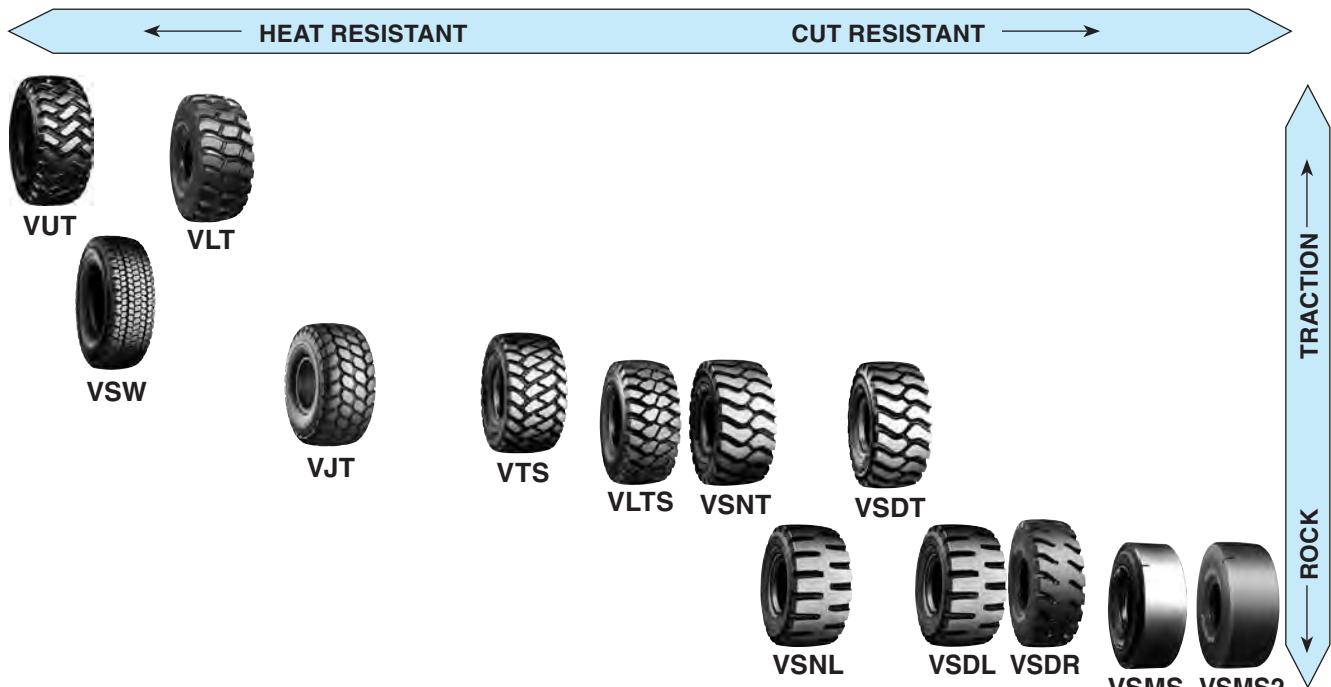
14.00 R 24 TG	T/L	★1
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*VSW is especially designed for snow surface operations.

T/L: Tubeless Type

TG: For Semi-Drop Center Rim

■ Loader & Dozer Service



Size	Type	Star Rating
VUT(L2)		
335/80 R 20	T/L	
365/80 R 20	T/L	
405/70 R 20	T/L	
15.5 R 25	T/L	★1★2
17.5 R 25	T/L	★1
20.5 R 25	T/L	★1
23.5 R 25	T/L	★1

14.00 R 24 TG	T/L	★1
17.5 R 25	T/L	★1
20.5 R 25	T/L	MS
23.5 R 25	T/L	MS
600/65 R 25	T/L	★1

20.5 R 25	T/L	MS
23.5 R 25	T/L	MS
750/65(30/65) R 25	T/L	MS
26.5 R 25	T/L	MS
29.5 R 25	T/L	MS

17.5 R 25	T/L	★1★2
20.5 R 25	T/L	★1
23.5 R 25	T/L	★1★2
26.5 R 25	T/L	★1★2
29.5 R 25	T/L	★1★2

Size	Type	Star Rating
VTS(L3)		
550/65 R 25	T/L	★1
650/65 R 25	T/L	★1
775/65 R 29	T/L	★1
875/65 R 29	T/L	MS

20.5 R 25	T/L	MS
23.5 R 25	T/L	MS
875/65 R 29	T/L	MS

26.5 R 25	T/L	MS ★2
29.5 R 25	T/L	MS ★2
29.5 R 29	T/L	MS ★2
35/65 R 33	T/L	MT MS ★2

14.00 R 20	T/T	★2
35/65 R 33	T/L	★2
45/65 R 45	T/L	★2

23.5 R 25	T/L	★1★2
26.5 R 25	T/L	★1★2
29.5 R 25	T/L	★1★2
29.5 R 29	T/L	★1★2
35/65 R 33	T/L	★1★2

8.25 R 15	T/T	★2
10.00 R 15	T/T	★2
14.5 R 15	T/L	★2
12.00 R 20	T/T	★2

Size	Type	Star Rating
VSDL(L5) (continued)		
15.5 R 25	T/L	★1
17.5 R 25	T/L	★1★2
20.5 R 25	T/L	★1★2
23.5 R 25	T/L	★1★2
26.5 R 25	T/L	★1★2
29.5 R 25	T/L	★1★2
29.5 R 29	T/L	★1★2
35/65 R 33	T/L	★1★2
45/65 R 39	T/L	★1
45/65 R 45	T/L	★1★2
50/65 R 51	T/L	★2
55.5/80 R 57	T/L	
60/80 R 57	T/L	

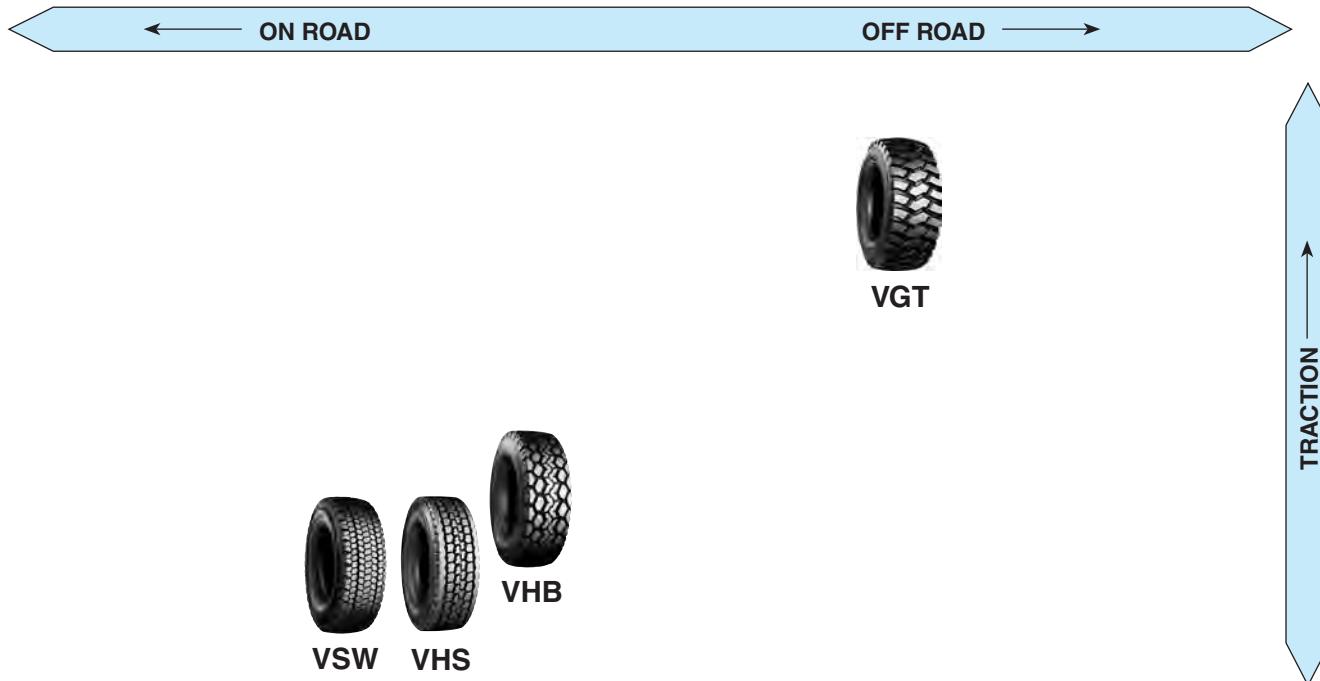
20.5 R 25	T/L	★1★2
VSDR(L5)		
9.00 R 20	T/T	★2
12.00 R 20	T/T	★2
12.00 R 24	T/T	★2
14.00 R 24	T/T	★2
17.5 R 25	T/L	★1★2
18.00 R 25	T/L	★1★2
26.5 R 25	T/L	★1★2
29.5 R 29	T/L	★2

VSMS2(L5S)	NEW	
17.5 R 25	T/L	★2
26.5 R 25	T/L	★2
29.5 R 29	T/L	★2

T/T: Tube Type
T/L: Tubeless Type
MS: Multiple Star Rating (★1/★2)
MT: Multiple Star Rating (★2/★4)
TG: For Semi-Drop Center Rim

*VSW is especially designed for snow surface operations.

■Mobile Crane Service (High-Speed)



Size	Type
VGT	
170E 445/80 R 25	T/L
VHB	
170E 385/95 R 24	T/T
177E 445/95 R 25	T/L
186E 505/95 R 25	T/L

Size	Type
VHS	
170E 385/95 R 24	T/T
170E 385/95 R 25	T/L
170F 385/95 R 25	T/L
177E 445/95 R 25	T/L
174F 445/95 R 25	T/L
186E 505/95 R 25	T/L
179E 525/80 R 25	T/L
176F 525/80 R 25	T/L

Size	Type
*VSW	
170E 385/95 R 25	T/L
177E 445/95 R 25	T/L

***VSW** is especially designed for snow surface operations.

T/T: Tube Type

T/L: Tubeless Type

■Industrial Service



VHB

14.00 R 24	T/T	★3
16.00 R 25	T/L	★2
18.00 R 25	T/L	★3



VELS

18.00 R 33	T/L	★3
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VCH

12.00 R 20	T/T	★3
12.00 R 24	T/T	★2
14.00 R 24	T/T	★3



VRLS

16.00 R 25	T/L	★2
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VCHD

16.00 R 25	T/L	
------------	-----	--



VSDL

23.5 R 25	T/L	★2
35/65 R 33	T/L	★2



VCHS

12.00 R 20	T/T	★3
12.00 R 24	T/T	
14.00 R 24	T/T	★3
14.00 R 24 TG	T/L	★3
18.00 R 25	T/L	★3
18.00 R 33	T/L	★3



VSMS

18.00 R 25	T/L	★2
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VCHR

16.00 R 25	T/L	
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■Sand Service



VSJ(E7)

16.00 R 20	T/L	28
	T/T	28
21.00 R 25	T/L	

T/T: Tube Type

T/L: Tubeless Type

TG: For Semi-Drop Center Rim

3. Technical Data

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
15"														
8.25R15	VSDL		★2	L5	D2A	-	-	880 34.6	248 9.8	405 15.9	285 11.2	48.0	-	6.50T
10.00R15	VSDL		★2	L5	D2A	-	-	905 35.6	287 11.3	416 16.4	330 13.0	48.0	-	7.50V
14.5R15 Tubeless	VSDL		★2	L5	D2A	-	-	899 35.4	359 14.1	413 16.3	412 16.2	48.0	-	11.00/1.5
20"														
9.00R20	VSMS		★2	L5S	D2A	-	-	1054 41.5	260 10.2	474 18.7	303 11.9	51.0	-	7.00T
11.00R20	L317		★3	E4	-	188	129	1107 43.6	290 11.4	512 20.2	325 12.8	25.0	335 13.2	8.00V
12.00R20	L317		★3	E4	-	208	142	1146 45.1	308 12.1	523 20.6	346 13.6	25.0	384 15.1	8.50V
	VSDL		★2	L5	D2A	-	-	1168 46.0	320 12.6	538 21.2	359 14.1	57.0	-	-
	VSMS		★2	L5S	D2A	-	-	1173 46.2	312 12.3	540 21.3	351 13.8	57.0	-	-
	VCH		★3	Industrial Service	IDU	-	-	See characteristics page 48						
	VCHS	176A5	★3	Industrial Service	IDU	-	-							
14.00R20	VSNL		★2	L4	D2A	-	-	1196 47.1	360 14.2	550 21.7	414 16.3	34.0	-	10.00WI
16.00R20 Tubeless	VSJ	28	E7	-	-	-	-	See characteristics page 52						
16.00R20														
335/80R20 Tubeless	VUT	136B 147A2		E2	DE2	-	-	1036 40.8	319 12.6	463 18.2	357 14.1	19.0	-	11x20
365/80R20 Tubeless	VUT	141B 153A2		E2 L2		-	-	1087 42.8	347 13.7	483 19.0	389 15.3	21.0	-	11x20
405/70R20 Tubeless	VUT	143B 155A2		E2 L2	DE2	-	-	1092 43.0	398 15.7	485 19.1	446 17.6	20.0	-	13x20

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																			Size	
15"																						
		kPa psi	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 115	825 120		
VSDL	Loader 10 5	★ kg lbs																			★2 3100 6800	
VSDL		★ kg lbs																			★2 4025 8900	
VSDL		★ kg lbs																			★2 14.5R15	
20"																						
VSMS	Loader 10 5	★ kg lbs																			★2 9.00R20	
L317	E/M 50 30	★ kg lbs																			★3 11.00R20	
L317		★ kg lbs																			★3 11.00R20	
VSDL VSMS	Loader 10 5	★ kg lbs																			★2 12.00R20	
VCH VCHS	IDU		See characteristics page 49																			
VSNL	Loader 10 5	★ kg lbs																			★2 14.00R20	
VSJ	Sand		See characteristics page 53																			
		kPa psi	275 40	300 44	325 47	350 51	375 54															
VUT	E/M 50 30	★ kg lbs																				
VUT	Loader 10 5	★ kg lbs																				335/80R20
VUT	E/M 50 30	★ kg lbs																				365/80R20
VUT	Loader 10 5	★ kg lbs																				365/80R20
VUT	E/M 50 30	★ kg lbs																				405/70R20
VUT	Loader 10 5	★ kg lbs																				405/70R20

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
22.5"														
11R22.5 Tubeless	L317		14	E4	-	TBA	TBA	1078 42.4	270 10.6	TBA	TBA	25.0	TBA TBA	8.25
12R22.5 Tubeless	L317		★3	E4	-	188	129	1109 43.7	292 11.5	517 20.4	327 12.9	25.0	343 13.5	9.00
24"														
12.00R24	L317		★3	E4	-	177	121	1254 49.4	319 12.6	577 22.7	355 14.0	31.5	391 15.4	8.50V
	VMTP		★3	E4	E2A	136	93	1254 49.4	319 12.6	577 22.7	355 14.0	31.5	391 15.4	
	VSMS		★2	L5S	D2A	-	-	1275 50.2	312 12.3	573 22.6	364 14.3	57.0	-	-
	VCH		★2	Industrial Service	IDU	-	-	See characteristics page 48						
	VCHS	178A5		Industrial Service	IDU	-	-							
13.00R24 TG Tubeless	VUT		★1	G2	G2A	-	-	1290 50.8	357 14.1	585 23.0	380 15.0	25.0	-	8.00TG
14.00R24	VSB		★3	E2	E2A	179	123	1365 53.7	390 15.4	628 24.7	433 17.0	21.0	450 17.7	10.00W
				Logging	-	-	-	See characteristics page 50						
	VHB		★3	Industrial Service	-	-	-	See characteristics page 48						
	VRLS		★3	E4	E2A	85	58	1403 55.2	390 15.4	644 25.4	432 17.0	39.0	450 17.7	10.00W
	VSMS		★2	L5S	D2A	-	-	1394 54.8	390 15.4	634 25.0	437 17.2	72.0	-	
	VCH		★3	Industrial Service	IDU	-	-	See characteristics page 48						
	VCHS	196A5	★3	Industrial Service	IDU	-	-							

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																		Size
22.5"																				
L317	11R22.5 14PR TBA																			
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 115	815 118		
L317	E/M 50 30	★ kg lbs	2410 5310	2510 5530	2610 5750	2700 5950	2800 6170	2890 6370	2990 6590	3080 6790	3170 6990	3260 7190	3350 7390	3440 7580	3530 7780	3620 7980	3690 8140	3760 8290		★3
24"																				
L317	E/M VMTP 50 30	★ kg lbs	3050 6720	3180 7010	3300 7280	3430 7560	3550 7830	3670 8090	3790 8360	3900 8600	4020 8860	4140 9130	4250 9370							★3
VSMS	Loader 10 5	★ kg lbs					4875 11000	5150 11400	5300 11700	5450 12000	5600 12300	5800 12800	6000 13200	6150 13600	6300 13900	6500 14300	6500 14300	6700 14700	6900 15200	★2
VCH VCHS	IDU		See characteristics page 49																	
		kPa psi	200 29	225 33	250 36	275 40	300 44	325 47	350 51	375 54										
VUT	Grader 40 25	★ kg lbs	1850 4080	2000 4400	2180 4800	2360 5200	2500 5520	2650 5840	2800 6150	3000 6600										★1
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 115			
VSB VRSL	E/M 50 30	★ kg lbs	4000 8800	4125 9100	4375 9650	4500 9900	4625 10200	4750 10500	5000 11000	5150 11400	5300 11700	5450 12000	5600 12300	5710 12500	5830 12800	5940 13100	6050 13400		★3	
VSB	Logging		See characteristics page 51																	
VSMS	Loader 10 5	★ kg lbs																	★2	
VHB VCH VCHS	IDU		See characteristics page 49																	

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD mm inch	OW mm inch	SLR mm inch	SLW mm inch			
								mm inch	mm inch	mm inch	mm inch			
14.00R24 TG Tubeless	VUT		★1	G2	G2A	-	-	1350 53.1	373 14.7	608 23.9	420 16.5	25.5	-	8.00TG
	VSW		★3	G2	-	-	-	1351 53.2	390 15.4	594 23.4	446 17.6	23.5	-	10.00VA
	153A8	★1		DG2										8.00TG
	175A2			L2					370 14.6		426 16.8			
	VMTS		★1	G4	G2A			1400 55.1	373 14.7	TBA TBA	TBA TBA	38.0	-	
VCHS	196A5	★3	Industrial Service	IDU	-	-		See characteristics page 48						
385/95R24	VHS	170E		Mobile Crane Service	-	-	-	See characteristics page 50						
	VHB	170E		Mobile Crane Service	-	-	-							
16.00R24 TG Tubeless	VSW		★1	G2	-	-	-	1485 58.5	417 16.4	680 26.8	467 18.4	22.5	-	10.00VA
25"														
14.00R25 Tubeless	VSB		★3	E2	E2A	179	123	1365 53.7	390 15.4	628 24.7	433 17.0	21.0	450 17.7	10.00/1.5
				Logging	-	-	-	See characteristics page 50						
	VMTS		★3	E4	E2A - E3A	91 - 136	62 93	1406 55.4	391 15.4	650 25.6	435 17.1	38.0	450 17.7	10.00/1.5
	VRSL		★3	E4	E2A	85	58	1403 55.2	391 15.4	650 25.6	435 17.1	39.0	450 17.7	
385/95R25 Tubeless	VHS	170E 170F		Mobile Crane Service	-	-	-	See characteristics page 50						
15.5R25 Tubeless	VUT		★2 ★1	G2, L2	DG2	-	-	1269 50.0	383 15.1	559 22.0	436 17.2	27.0	-	12.00/1.3
	VSDL		★1	L5	D2A	-	-	1329 52.3	393 15.5	606 23.9	443 17.4	64.0	-	

For the TKPH(TMPH) Ratings, please refer to page 11.

Will be discontinued.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures															Size										
		kPa psi	200 29	225 33	250 36	275 40	300 44	325 47	350 51	375 54				525 76	550 80		14.00R24 TG										
VUT VSW VMTS	Grader 40 25	★ kg lbs	2240 4940	2430 5360	2650 5840	2800 6150	3000 6600	3250 7150	3350 7400	3650 8050	★1 ★3 VSW=Consult a Bridgestone Representative.																
VSW	Loader 10 5	★ kg lbs											6700 14800	6900 15200													
VCHS	IDU	See characteristics page 49																									
VHS VHB	High-Speed	See characteristics page 51															385/95R24										
VSW	Grader 40 25	★ kg lbs	2900 6400	3150 6950	3350 7400	3650 8050	3875 8550	4125 9100	4375 9650	4625 10200	★1																
25"																		16.00R24 TG									
VSB VMTS VRLS	E/M 50 30	★ kg lbs	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 115										
VSB	Logging	See characteristics page 51																14.00R25									
VHS VSW	High-Speed	See characteristics page 51																385/95R25									
VUT VSDL	Loader 10 5	★ kg lbs	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94														
VUT	Grader 40 25	★ kg lbs	125 18	150 22	175 25	200 29	225 33	250 36	275 40	300 44	★1										15.5R25						
			1550 3420	1750 3860	2000 4400	2180 4800	2360 5200	2575 5680	2800 6150	3000 6600	★2																
			For slope and ditching service, inflation pressures should be increased by 100kPa (15psi) with no increase in load rating. For extreme conditions, consult a Bridgestone Representative for additional recommended operating requirements.																								

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height	
								OD mm inch	OW mm inch	SLR mm inch	SLW mm inch				
								mm inch	mm inch	mm inch	mm inch				
16.00R25 Tubeless	VMTS		★2	E4	E2A	123	84	1535 60.4	450 17.7	696 27.4	507 20.0	45.0	513 20.2	11.25/2.0 See characteristics page 48	
	VRLS		★2	E4	E2A E1A	112 146	77 100	1531 60.3	448 17.6	697 27.4	510 20.1	45.0	513 20.2		
	VHB		★2	Industrial Service	IDU	-	-								
	VCHD			Industrial Service	IDU	-	-								
	VCHR	200A5		Industrial Service	IDU	-	-								
	VRLS		★2	Industrial Service	IDU	-	-								
445/95R25 Tubeless	VHB	177E		Mobile Crane Service	-	-	-								
	VHS	177E 174F		Mobile Crane Service	-	-	-								
	VSW	177E		Mobile Crane Service	-	-	-								
17.5R25 Tubeless	VUT		★1	G2, L2	DG2	-	-	1340 52.8	444 17.5	586 23.1	500 19.7	28.0	-	14.00/1.5 See characteristics page 50	
	VSW	153A8 176A2	★1	G2 L2	DG2	-	-	1340 52.8	440 17.3	597 23.5	480 18.9	27.0	-		
	VJT	176A2 182A2	★1 ★2	L3	D2A	-	-	1352 53.2	443 17.4	604 23.8	510 20.1	30.0	-		
	VSDL		★2 ★1	L5	D2A	-	-	1400 55.1	440 17.3	639 25.2	495 19.5	68.0	-		
	VSMS		★2 ★1	L5S	D2A	-	-	1374 54.1	440 17.3	631 24.8	487 19.2	68.5	-		
	New VSMS2		★2	L5S	D2A	-	-	TBA TBA	TBA TBA	TBA TBA	TBA TBA	68.5	-		
	VSMS2														
445/80R25 Tubeless	VGT	170E		Mobile Crane Service	-	-	-								

For the TKPH(TMPH) Ratings, please refer to page 11.

New Will be discontinued.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures													Size		
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102				
VMTS VRSL	E/M 50 30	★ kg lbs			★2											16.00R25	
			5150 11400	5450 12000	5600 12300	5800 12800	6000 13200	6300 13900	6500 14300	6700 14800	6900 15200	7100 15700	7300 16100				
VHB VCHD VCHR VRSL	IDU		See characteristics page 49														
VHB VHS VSW	High-Speed		See characteristics page 51													445/35R25	
VUT VSW VJT VSDL VSMS VSMS2	Loader 10 5	★ kg lbs			★1												17.5R25
			400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94				
			6000 13200	6150 13600	6500 14300	6700 14800	7100 15700	7300 16100	7500 16500	7750 17100	8000 17600	8250 18200	8500 18700				
				★1													
				For slope and ditching service, inflation pressures should be increased by 100kPa (15psi) with no increase in load rating. For extreme conditions, consult a Bridgestone Representative for additional recommended operating requirements.													
VGT	High-Speed		See characteristics page 51													445/80R25	

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height							
								OD mm inch	OW mm inch	SLR mm inch	SLW mm inch										
								mm inch	mm inch	mm inch	mm inch										
18.00R25 Tubeless	VMTS		★2	E4	E2A	169	116	1654 65.1	505 19.9	754 29.7	571 22.5	51.0	587 23.1	13.00/2.5							
	VELS		★2	E4	E2A E1A	144 179	99 123	1642 64.6	515 20.3	744 29.3	580 22.8	50.0	587 23.1								
	VSMS		★2	L5S	D2A	-	-	1675 65.9	512 20.2	733 28.9	592 23.3	84.5	- -								
			★1																		
	VHB		★3	Industrial Service	IDU	-	-	See characteristics page 48													
	VCHS	214A5	★3	Industrial Service	IDU	-	-														
505/95R25 Tubeless	VHB	186E		Mobile Crane Service	-	-	-	See characteristics page 50													
	VHS	186E		Mobile Crane Service	-	-	-														
20.5R25 Tubeless	VSW		MS	E2, L2	DE2	-	-	1470 57.9	530 20.9	640 25.2	603 23.7	29.0	- -	17.00AL/1.7(★1only) 17.00/2.0							
	VUT		★1	G2, L2	DG2	-	-	1473 58.0	533 21.0	643 25.3	608 23.9	30.5	- -								
	VLT	177B 186A2	MS	E3	DE2	149	102	1498 59.0	530 20.9	676 26.6	586 23.1	40.0	- -								
				L3		-	-	See characteristics page 50													
	VJT	186A2	★1	L3	D2A DG2	-	-	1480 58.3	530 20.9	652 25.7	609 24.0	33.0	- -								
	VLTS	177B 186A2	MS	E4 L4	DE2	126	86	1478 58.2	530 20.9	667 26.3	581 22.9	49.0	- -								
						-	-	See characteristics page 50													
525/80R25 Tubeless	VSDL	179E 176F		Mobile Crane Service	D2A	-	-	1552 61.1	531 20.9	702 27.6	600 23.6	78.0	- -								
21.00R25 Tubeless	VSJ			E7	-	-	-	See characteristics page 52													

For the TKPH(TMPH) Ratings, please refer to page 11.

■ Will be discontinued.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																		Size																				
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 115	825 115																						
VMTS VELS	E/M 50 30	★ kg lbs	★2 6700 7100 7300 7500 7750 8000 8250 8500 8750 9000 9250 14800 15700 16100 16500 17100 17600 18200 18700 19300 19800 20400																																					
VSMS	Loader 10 5	★ kg lbs	★1 11200 11800 12150 12500 12850 13200 13600 14000 14500 15000 15000 15500 16000 24700 26000 26800 27600 28300 29100 30000 30900 32000 33100 33100 34200 35300																	18.00R25																				
VSMS VHB VCHS	IDU	See characteristics page 49																			18.00R25																			
VHB VHS	High-Speed	See characteristics page 51																			505/95R25																			
VSW VLT VLTS	E/M 50 30	★ kg lbs	★1 4375 4750 5000 5300 5600 5800 6150 6500 6700 6900 7300 9650 10500 11000 11700 12300 12800 13600 14300 14800 15200 16100																		505/95R25																			
VUT VJT	Grader 40 25	★ kg lbs	★1 125 150 175 200 225 250 275 300 18 22 25 29 33 36 40 44																		20.5R25																			
For slope and ditching service, inflation pressures should be increased by 100kPa (15psi) with no increase in load rating. For extreme conditions, consult a Bridgestone Representative for additional recommended operating requirements.																					20.5R25																			
VUT VSW VLT VJT VLTS VSDL VSDR	Loader 10 5	★ kg lbs	★1 8000 8250 8750 9000 9500 9750 10000 10300 10900 11200 11500 17600 18200 19300 19800 20900 21500 22000 22700 24000 24700 25400																		21.00R25																			
VHS	High-Speed	See characteristics page 51																			21.00R25																			
VSJ	Sand	See characteristics page 53																			21.00R25																			

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
23.5R25 Tubeless	VSW		MS	E2, L2	DE2	-	-	1596 62.8	620 24.4	692 27.2	689 27.1	31.5	-	19.50/2.5
	VUT		★1	G2, L2	DG2	-	-	1599 63.0	620 24.4	702 27.6	688 27.1	33.5	-	
	VLT	185B	MS	E3	E2A	190	130	1623 63.9	616 24.3	734 28.9	680 26.8	42.5	-	
		195A2			DE2	153	105		-	-	-		-	
	VJT	195A2	★1	L3	D2A	-	-	1600 63.0	617 24.3	696 27.4	695 27.4	35.0	-	
		201A2	★2						-	-	-		-	
			★1		G2A				-	-	-		-	
	VLTS	185B	MS	E4	DE2	161	110	1616 63.6	612 24.1	729 28.7	675 26.6	54.0	-	
		195A2		L4		-	-		-	-	-		-	
	VSDT	201A2	★2	L5	D2A	-	-	1660 65.4	621 24.4	745 29.3	680 26.8	79.0	-	
		195A2	★1						-	-	-		-	
	VSDL		★2	L5	D2A	-	-	1672 65.8	613 24.1	755 29.7	677 26.7	87.0	-	
			★1						-	-	-		-	
			★2	Industrial Service	IDU	-	-	See characteristics page 48						
550/65R25 Tubeless	VTS		★1	L3	D2A	-	-	1350 53.1	547 21.5	594 23.4	605 23.8	32.5	-	(14.00/1.5) 17.00/2.0
600/65R25 Tubeless	VSW	187A2	★1	L2	D2A	-	-	1424 56.0	600 23.6	627 24.7	668 26.3	31.5	-	(17.00/1.7, 17.00/2.0) 19.50/2.5
650/65R25 Tubeless	VTS		★1	L3	D2A	-	-	1502 59.1	642 25.3	660 26.0	710 28.0	37.0	-	19.50/2.5
750/65R25 (30/65R25) Tubeless	VLT	190B	MS	E3	DE2	225	154	1625 64.0	765 30.1	718 28.3	831 32.7	43.0	-	(22.00/3.0) 24.00/3.0
		202A2		L3		-	-		-	-	-		-	
	VLTS	190B	★2	E4	E2A	195	134	1623 63.9	765 30.1	713 28.1	832 32.8	55.0	-	
26.5R25 Tubeless	VLT	193B	MS	E3	DE2	190	130	1747 68.8	684 26.9	787 31.0	736 29.0	45.0	-	22.00/3.0
		202A2		L3		-	-		-	-	-		-	

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76					
VSW	E/M 50	★ kg lbs	5600 12300	6000 13200	6500 14300	6700 14800	7100 15700	7500 16500	7750 17100	8250 18200	8500 18700	9000 19800	9250 20400					
VLT	VLTS	30																
		kPa psi	125 18	150 22	175 25	200 29	225 33	250 36	275 40	300 44								
VUT	VJT	Grader 40 25	★ kg lbs	3150 6950	3550 7850	4000 8800	4500 9900	4875 10700	5300 11700	5600 12300	6000 13200							
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94
VUT	VSW	Loader 10 5	★ kg lbs															
VLT	VJT																	
VLTS	VSDL																	
VSDL		IDU																
VTS	VSW	Loader 10 5	★ kg lbs															
VTS	VTS																	
VLT	E/M 50 30	Loader 10 5	★ kg lbs															
VLT	VLT																	
VLT	E/M 50 30																	
VLT	Loader 10 5																	
VLT	E/M 50 30																	
VLT	Loader 10 5																	

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD mm inch	OW mm inch	SLR mm inch	SLW mm inch			
								mm inch	mm inch	mm inch	mm inch			
26.5R25 Tubeless	VJT	202A2	★1	L3	D2A	-	-	1737 68.4	682 26.9	754 29.7	795 31.3	38.0	-	22.00/3.0
		209A2	★2											
	VLTS	193B	★2	E4	E2A	186	127	1736 68.3	678 26.7	784 30.9	743 29.3	59.0	-	
	VSNT		MS	E4	DE2	165	113	1779 70.0	685 27.0	780 30.7	774 30.5	57.5	-	
			★2			L4	-						-	
	VSDT	209A2	★2	L5	D2A	-	-	1775 69.9	697 27.4	790 31.1	778 30.6	88.0	-	
		202A2	★1											
	VSDL		★2	L5	D2A	-	-	1790 70.5	684 26.9	797 31.4	761 30.0	95.5	-	
			★1											
29.5R25 Tubeless	VLT	200B	★2	E3	E3A	304	208	1877 73.9	762 30.0	840 33.1	830 32.7	48.0	-	25.00/3.5
		208A2	MS		DE2	200	137						-	
					L3	-	-						-	
	VJT	216A2	★2	L3	D2A	-	-	1865 73.4	762 30.0	810 31.9	878 34.6	42.0	-	
		208A2	★1											
	VLTS	200B	★2	E4	E2A	225	154	1865 73.4	762 30.0	835 32.9	844 33.2	65.0	-	
	VSNT		MS	E4	DE2	220	151	1905 75.0	768 30.2	849 33.4	835 32.9	60.0	-	
			★2			L4	-						-	
	VSDT	216A2	★2	L5	D2A	-	-	1903 74.9	779 30.7	845 33.3	869 34.2	96.0	-	
		208A2	★1											
	VSDL		★2	L5	D2A	-	-	1925 75.8	766 30.2	855 33.7	846 33.3	104.0	-	
			★1											
29"														
775/65R29 Tubeless	VTS		★1	L3	D2A	-	-	1740 68.5	775 30.5	762 30.0	843 33.2	43.0	-	(24.00/3.5) 25.00/3.5
875/65R29 Tubeless	VTS	203B	MS	E3	DE2	237	162	1865 73.4	850 33.5	792 31.2	963 37.9	47.5	-	27.00/3.5 (28.00/3.5)
		214A2		L3		-	-						-	
	VLTS	203B	MS	E4	DE2	225	154	1868 74.0	858 33.8	827 32.6	938 36.9	60.0	-	
		214A2		L4		-	-						-	
29.5R29 Tubeless	VKT		★2	E2	E2A	330	226	1958 77.1	765 30.1	870 34.3	841 33.1	44.0	-	25.00/3.5
	VSNT		MS	E1A	DE2	401	275							
			★2			232	159	2000 78.7	774 30.5	905 35.6	849 34.6	60.0	-	
				L4		-	-							
				D2A										

For the TKPH(TMMPH) Ratings, please refer to page 11.

 Will be discontinued.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																				Size	
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94					
VLTS	E/M 50	★ kg lbs	7100 15700	7500 16500	8000 17600	8500 18700	9000 19800	9500 20900	9750 21500	10300 22700	10600 23400	11200 24700	11500 25400										
VSNT	30																						
VJT	Loader 10	★ kg lbs	★1																				
VSNT		5	★2																				
VSDT																							
VSDL																							
VSMS																							
VSMS2																							
VLT	E/M 50	★ kg lbs	★1																				26.5R25
VLTS		30	8500 18700	9250 20400	9750 21500	10300 22700	10900 24000	11500 25400	11800 26000	12500 27600	12850 28300	13600 30000	14000 30900										
VSNT																							
VLT	Loader 10	★ kg lbs	★1																				29.5R25
VJT		5	15500 34200	16000 35300	17000 37500	17500 38600	18000 39700	19000 41900	19500 43000	20000 44100	20600 45400	21200 46700	22400 49400										
VSNT																							
VSDT																							
VSDL																							
29"																							
VTS	Loader 10	★ kg lbs	★1																				775/65R29
VTS	5		15000 33100	15500 34200	16500 36400	17000 37500																	
VLTS	E/M 50	★ kg lbs	★2																				
VSNT		30	10000 22000	10900 24000	11500 25400	12150 26800	12850 28300	13600 30000	14000 30900	14500 32000	15500 34200												
VTS	Loader 10	★ kg lbs	★1																				875/65R29
VLTS		5	18500 40800	19500 43000	20600 45400	21200 46700																	
VKT	E/M 50	★ kg lbs	★2																				29.5R29
VSNT		30	9250 20400	9750 21500	10300 22700	10900 24000	11500 25400	12150 26800	12500 27600	13200 29100	13600 30000	14500 32000	15000 33100										
VSNT	Loader 10	★ kg lbs	★1																				★2
VSNT	5		16500 36400	17000 37500	18000 39700	18500 40800	19500 43000	20000 44100	20600 45400	21200 46700	22400 49400	23000 50700	23600 52000										

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
29.5R29 Tubeless	VSDT	218A2	★2	L5	D2A	-	-	1989	779	883	872	96.0	-	25.00/3.5
		211A2	★1					78.3	30.7	34.8	34.3		-	
	VSDL		★2	L5	D2A	-	-	2008	776	900	856	104.5	-	
			★1					79.1	30.6	35.4	33.7		-	
	VSMS		★2	L5S	D2A	-	-	2008	773	912	829	104.5	-	
	VSMS2		★2	L5S	D2A	-	-	2008	792	912	829	104.5	-	
33.25R29 Tubeless	VLT		★2	E3	E2A	349	239	2081	853	925	950	54.0	-	27.00/3.5
33"														
18.00R33 Tubeless	VMTP		★2	E4	E2A E1A	185 229	127 157	1870	515	846	575	55.0	587 23.1	13.00/2.5
	VELS		★2	E4	E2A E1A	170 211	116 145	1856	512	856	575	49.0	587 23.1	
			★3	Industrial Service	-	-	-							
	VRQP		★2	E4	E2ALS E2A	122 152	84 104	1890	515	876	575	64.5	587 23.1	
	VCHS	219A5	★3	Industrial Service	IDU	-	-							
See characteristics page 48														
21.00R33 Tubeless	VMTP		★2	E4	E2A E1A	237 293	162 201	1998	578	909	650	61.0	701 27.6	15.00/3.0
	VRLS		★2	E4	E2A	227	155	1978	578	899	650	54.0	701 27.6	
21.00R33														
35/65R33 Tubeless	VSNT	225A8	MT	E4	DUH	250	171	2075 81.7	904	936	976	62.5	-	28.00/3.5
				L4		-	-						-	
			MS	E4	DE2	250	171							
				L4		-	-							
	VSNL		★2	L4	D2A	-	-	2075 81.7	880	936	981	62.5	-	
	VSDT	224A2	★2	L5	D2A	-	-	2075 81.7	890	914	990	96.0	-	
		217A2	★1						35.0	36.0	39.0		-	
	VSDL		★2	L5	D2A	-	-	2075 81.7	880	917	951	95.0	-	
			★1										-	
See characteristics page 48														

For the TKPH(TMMPH) Ratings, please refer to page 11.

Will be discontinued.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																			Size		
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94					
VSDT VSDL VSMS VSMS2	Loader 10 5	★ kg lbs	★1										★2										
			16500 36400										17000 37500										
			18000 39700										18500 40800										
VLT	E/M 50 30	★ kg lbs	19500 43000										20000 44100										
			20600 45400										21200 46700										
			22400 49400										23000 50700										
33"																							
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102										
VMTP VELS VRQP	E/M 50 30	★ kg lbs	★2											7750 17100									
			8000 17600											8500 18700									
			8750 19300											9000 19800									
VCHS VELS	IDU	See characteristics page 49																					
		★ kg lbs	★2											10000 22000									
			10300 22700											10900 24000									
VSNT	UG E/M		See characteristics page 84																				
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94					
VSNT	E/M 50 30	★ kg lbs	★2											11200 23400									
			11500 25400											12150 26800									
			12850 28300											13600 30000									
VSNT VSNL VSDT VSDL	Loader LHD 10 5	★ kg lbs	★1											14000 30900									
			15000 33100											15500 34200									
			16000 35300											17000 37500									
VSNL		See characteristics page 49																					

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
35"														
21.00R35 Tubeless	VMTP		★2	E4	E2A E1A E3A	237 293 342	162	2048 80.6	577 22.7	922 36.3	655 25.8	61.0	701 27.6	15.00/3.0
	VELS		★2	E4	E2A E1A	227 281	155 192	2044 80.5	577 22.7	935 36.8	650 25.6	59.0	701 27.6	
24.00R35 Tubeless	VMTP		★2	E4	E2A E1A E3A	314 388 453	215	2184 86.0	660 26.0	975 38.4	734 28.9	68.0	795 31.3	17.00/3.5
	VRLS		★2	E4	E2A E1A E3A	314 388 453	215 266 310	2175 85.6	660 26.0	980 38.6	734 28.9	59.0	795 31.3	
	VRQP		★2	E4	E2ALS E2A	207 259	142 177	2194 86.4	660 26.0	995 39.2	745 29.3	71.5	795 31.3	
29.5R35 Tubeless	VRL		★2	E3	- E1A	- 380	- 260	2120 83.5	768 30.2	932 36.7	844 33.2	39.5	- -	25.00/3.5
33.25R35 Tubeless	VRL		★2	E3	- E1A	- 472	- 323	2228 87.7	846 33.3	990 39.0	970 38.2	49.0	- -	27.00/3.5
37.25R35 Tubeless	VLT		★2	E3	E2A E1A	417 569	286 390	2388 94.0	954 37.6	1054 41.5	1063 41.9	59.5	- -	31.00/4.0
39"														
37.5R39 Tubeless	VKT		★2	E2	- E1A	- 696	- 477	2524 99.4	982 38.7	1120 44.1	1080 42.5	51.0	- -	32.00/4.5
40.5/75R39 Tubeless	VLT		★2	E3	E2A E1A	500 682	342 467	2609 102.6	1002 39.4	1157 45.6	1127 44.4	58.5	- -	32.00/4.5
45/65R39 Tubeless	VSDL		★1	L5	D2A	-	-	2580 101.6	1074 42.3	1116 43.9	1205 47.4	116.0	- -	32.00/4.5 36.00/4.5

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures														Size
35"																
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102			
VMTP VELS	E/M 50 30	★ kg lbs	10300 22700	10600 23400	11200 24700	11500 25400	11800 26000	12150 26800	12850 28300	13200 29100	13600 30000	14000 30900	14500 32000	★2		21.00R35
VMTP VRLS VRQP		★ kg lbs	13200 29100	13600 30000	14000 30900	14500 32000	15500 34200	16000 35300	16500 36400	17000 37500	17500 38600	18000 39700	18500 40800	★2		24.00R35
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76			
VRL	E/M 50 30	★ kg lbs	10000 22000	10600 23400	11200 24700	11800 26000	12500 27600	13200 29100	13600 30000	14500 32000	15000 33100	15500 34200	16000 35300	★2		29.5R35
VRL		★ kg lbs	12150 26800	12850 28300	14000 30900	14500 32000	15500 34200	16000 35300	17000 37500	17500 38600	18500 40800	19000 41900	20000 44100	★2		33.25R35
VLT		★ kg lbs	14500 32000	15500 34200	16500 36400	17500 38600	18500 40800	19500 43000	20600 45400	21200 46700	22400 46400	23000 49400	23600 50700	★2		37.25R35
39"																
VKT	E/M 50 30	★ kg lbs	16000 35300	17000 37500	18000 39700	19000 41900	20000 44100	21200 46700	21800 48100	23000 50700	23600 52000	25000 55100	25750 56800	★2		37.5R39
VLT		★ kg lbs	18000 39700	19000 41900	20600 45400	21800 48100	22400 49400	23600 52000	25000 55100	25750 56800	27250 60000	28000 61500	29000 64000	★2		40.5/75R39
VSDL	Loader 10 5	★ kg lbs												★1		45/65R39

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
45"														
45/65R45 Tubeless	VSNL		★2	L4	D2A	-	-	2730 107.5	1123 44.2	1190 46.8	1275 50.2	75.0	-	36.00/4.5
	VSDL		★2 ★1	L5	D2A	-	-	2730 107.5	1123 44.2	1188 46.8	1274 50.2	111.5	-	
49"														
27.00R49 Tubeless	VFT		★2	E2	E2A - E3A	557 - 804	382 - 551	2646 104.2	750 29.5	1207 47.5	835 32.9	44.0	892 35.1	19.50/4.0
	VMTS		★2	E4	E2A E1A E3A	486 600 702	333 411 481	2690 105.9	750 29.5	1230 48.4	835 32.9	64.0	892 35.1	
	VMTP		★2	E4	E2A E1A E3A	440 544 636	301 373 436	2700 106.3	750 29.5	1239 48.8	835 32.9	73.0	892 35.1	
	VRLS		★2	E4	E2A E1A E3A	415 513 600	284 351 411	2687 105.8	750 29.5	1228 48.3	835 32.9	66.5	892 35.1	
	VREP		★2	E4	E2A E1A E3A	457 564 660	313 386 452	2690 105.9	750 29.5	1231 48.4	835 32.9	66.5	892 35.1	
	VRDP		★2	E4	E2A E1A E3A	415 513 600	284 351 411	2711 106.7	750 29.5	1240 48.8	835 32.9	76.0	892 35.1	
	VREV		★2	E4	E2A E1A E3A	415 513 600	284 351 411	TBA TBA	TBA TBA	TBA TBA	TBA TBA	83.0	892 35.1	
51"														
30.00R51 Tubeless	VMT		★2	E3	- - E3A	- - 1065	- - 729	2850 112.2	854 33.6	1294 50.9	950 37.4	45.0	993 39.1	22.00/4.5
	VRLS		★2	E4	E2A E1A E3A	496 603 717	340 413 491	2904 114.3	854 33.6	1311 51.6	963 37.9	74.5	993 39.1	
33.00R51 Tubeless	VMT		★2	E3	- E1A E3A	1018 697 1209	- 117.6 828	2988 117.6	932 36.7	1338 52.7	1052 41.4	48.0	1074 42.3	24.00/5.0
	VMTP		★2	E4	E2A E1A E3A	591 700 832	405 479 570	3063 120.6	932 36.7	1376 54.2	1052 41.4	89.5	1074 42.3	
	VRLS		★2	E4	E2A E1A E3A	558 679 807	382 465 553	3035 119.5	932 36.7	1371 54.0	1051 41.4	78.5	1074 42.3	
	VRDP		★2	E4	E2A E1A E3A	558 679 807	382 465 553	3061 120.5	932 36.7	1376 54.2	1051 41.4	87.0	1074 42.3	
	VRPS		★2	E4	E2A E1A E3A	558 679 807	382 465 553	3061 120.5	932 36.7	1376 54.2	1051 41.4	87.0	1074 42.3	
36.00R51 Tubeless	VHS		★2	E2	- - E3A	- - 1485	- - 1017	3108 122.4	1015 40.0	1390 54.7	1163 45.4	44.0	1184 46.6	26.00/5.0
	VRLS		★2	E4	E2A E1A E3A	642 781 927	440 535 635	3204 126.1	1015 40.0	1431 56.3	1153 45.4	86.5	1184 46.6	
50/65R51 Tubeless	VSDL		★2	L5	D2A	-	-	3070 120.9	1278 50.3	1347 53.0	1361 53.6	128.0	-	40.00/4.5

For the TKPH(TMPH) Ratings, please refer to page 11.

Will be discontinued.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures															Size
45"																	
		kPa psi	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102		
VSNL	Loader 10 5	★ kg lbs					★1					★2					45/65R45
VSDL			35500 78500	37500 82500	38750 85500	40000 88000	42500 93500	43750 96500	45000 99000	46250 102000	47500 104500	50000 110000	51500 113500				
49"																	
VFT	E/M 50 30	★ kg lbs											★2				
VMTS			19500 43000	20000 44100	20600 45400	21800 48100	22400 49400	23000 50700	23600 52000	25000 55100	25750 56800	26500 58400	27250 60000				
VMTP																	
VRLS																	
VREP																	
VRDP																	
VREV																	
51"																	
VMT	E/M 50 30	★ kg lbs											★2				
VRLS			23600 52000	25000 55100	25750 56800	26500 58400	28000 61500	29000 64000	30000 66000	30750 68000	31500 69500	32500 71500	33500 74000				
VMT																	
VMTP																	
VRLS																	
VRDP																	
VRPS																	
VHS		★ kg lbs											★2				
VRLS			33500 74000	35500 78500	36500 80500	37500 82500	38750 85500	40000 88000	41250 91000	42500 93500	43750 96500	45000 99000	46250 102000				
VSDL	Loader 10 5	★ kg lbs											★2				
			45000 99000	47500 104500	50000 110000	51500 113500	54500 120000	56000 123000	58000 127500	60000 131500	61500 135500	63000 139000	65000 143500				

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
57"														
37.00R57 Tubeless	VZTS		★2	E4	E2A E1A E3A	694 845 1003	475	3422 134.7	1044 41.1	1541 60.7	1190 46.9	87.5	1217 47.9	27.00/6.0
	VRLS		★2	E4	E2A E1A E3A	694 845 1003	475	3410 134.3	1044 41.1	1535 60.4	1190 46.9	87.5	1217 47.9	
42/90R57 Tubeless	VRDP		★2	E4	E2A E1A E3A	715 870 1033	490	3456 136.1	1060 41.7	1539 60.6	1210 47.7	97.0	1323 52.1	27.00/6.0
	VRPS		★2	E4	E2A E1A E3A	715 870 1033	490	3456 136.1	1060 41.7	1539 60.6	1210 47.7	97.0	1323 52.1	29.00/6.0
40.00R57 Tubeless	VMT		★2	E3	E2A E1A E3A	1204 1463 1739	825	3512 138.3	1108 43.6	1560 61.4	1264 49.8	64.0	1311 51.6	29.00/6.0
	VZTS		★2	E4	E2A E1A E3A	773 940 1117	529	3585 141.1	1140 44.9	1606 63.2	1289 50.7	91.5	1311 51.6	
	VELS		★2	E4	E2A E1A E3A	773 940 1117	529	3562 140.2	1127 44.4	1582 62.3	1291 50.8	91.5	1311 51.6	
	VRDP		★2	E4	E2A E1A E3A	773 940 1117	529	3575 140.7	1108 43.6	1591 62.6	1264 49.8	97.0	1311 51.6	
	VRPS		★2	E4	E2A E1A E3A	773 940 1117	529	3575 140.7	1108 43.6	1591 62.6	1264 49.8	97.0	1311 51.6	
46/90R57 Tubeless	VZTP		★2	E4	E2A E1A E3A	766 927 1103	525	3585 141.1	1145 45.1	1591 62.6	1299 51.1	97.0	1412 55.6	29.00/6.0 (32.00/6.0)
	VRDP		★2	E4	E2A E1A E3A	796 968 1150	545	3572 140.6	1145 45.1	1586 62.4	1299 51.1	97.0	1412 55.6	
	VRPS		★2	E4	E2A E1A E3A	796 968 1150	545	3572 140.6	1145 45.1	1586 62.4	1299 51.1	97.0	1412 55.6	
	VREV		★2	E4	E2A E1A E3A	876 968 (1065)* 1150 (1265)* (866)*	600 663 (729)* 788 (866)*	3572 140.6	1145 45.1	1586 62.4	1299 51.1	97.0	1412 55.6	
55.5/80R57 Tubeless	VSDL			L5	D2A	-	-	3740 147.2	1395 54.9	1634 64.3	1616 63.6	125.5	-	44.00/6.0
50/90R57 Tubeless	VRPS		★2	E4	E2A E1A E3A	884 1092 1278	605	3840 151.2	1283 50.5	1702 67.0	1471 57.9	107.0	1562 61.5	32.00/6.0 34.00/6.0 32.00/6.5 34.00/6.5
60/80R57 Tubeless	VSDL			L5	D2A	-	-	3952 155.6	1491 58.7	1738 68.4	1755 69.1	118.0	-	47.00/6.0

For the TKPH(TMMPH) Ratings, please refer to page 11.

*If you operate with this TKPH(TMMPH), consult your Bridgestone Representative.

Will be discontinued.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																Size
57"																		
		kPa psi	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102			
VZTS	E/M	★														★2		37.00R57
VRSL	50	kg lbs		37500 82500	38750 85500	40000 88000	41250 91000	43750 96500	45000 99000	46250 102000	47500 104500	48750 107500	50000 110000	51500 113500				
VRDP	30	kg lbs		38750 85500	40000 88000	41250 91000	42500 96500	45000 99000	46250 102000	47500 104500	48750 107500	50000 110000	51500 113500	53000 117000				
VRPS		kg lbs																
VMT		★														★2		
VZTS		kg lbs		42500 93500	45000 99000	46250 102000	48750 107500	50000 110000	51500 113500	53000 117000	54500 120000	56000 123500	58000 128000	60000 132500				
VELS		kg lbs																
VRDP		kg lbs																
VRPS		kg lbs																
VZTP	E/M	★														★2		46/90R57
VRDP	50	kg lbs		45000 99000	47500 104500	48750 107500	51500 113500	53000 117000	54500 120000	56000 123500	58000 128000	60000 132500	61500 135500	63000 139000				
VRPS	30	kg lbs																
VREV		kg lbs																
VSDL	Loader	★																
	10	kg lbs																55.50R57
	5	kg lbs		82500 182000	85000 187500	90000 198000	92500 203500	95000 209000	97500 214500	100000 220500	103000 227000	106000 233500						
VRPS	E/M	★														★2		
	50	kg lbs		56000 123500	58000 128000	60000 132500	63000 139000	65000 143500	67000 147500	69000 152000	71000 156500	73000 161000	75000 165500	77500 171000				
	30	kg lbs																
VSDL	Loader	★																
	10	kg lbs		82000 180500	85750 189250	89500 197500	93250 205500	97000 213500	100500 221500	104000 229500	107750 237250	111000 245000	114750 252500	118000 260000				
	5	kg lbs																

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
								OD	OW	SLR	SLW			
								mm inch	mm inch	mm inch	mm inch			
63"														
53/80R63 Tubeless	VRF		★2	E3	- E1A E3A	1330 911 1626 1115	- 147.3	3741 1311 1615 1524	51.6 63.6 60.0	1626 64.0	64.0	36.00/5.0 38.00/5.0		
	VRPS		★2	E4	E2A E1A E3A	974 1150 1408 788 964	667 150.7	3828 1304 1657 1511	51.3 65.2 59.5	110.0 1626 64.0				
59/80R63 Tubeless	VRF		★2	E3	E1A E3A	1784 2050 1404	1222 158.3	4022 1459 1710 1712	57.4 67.3 67.4	71.0 1780 70.0	44.00/5.0			
					E1A E3A	1686 1937 1327					41.00/5.0			
	VRPS		★2	E4	E2A E1A E3A	1228 1515 1773 1038 1214	841 158.1	4017 1467 1710 1712	57.8 67.3 67.4	116.0 1780 70.0	44.00/5.0			
					E2A E1A E3A	1160 1431 1675 980 1147					41.00/5.0			

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures										Size
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87			
VRF VRPS	E/M 50 30	★								★2		53/80R63
		kg	67000	69000	71000	75000	77500	80000	82500			
		lbs	147500	152000	156500	165500	171000	176500	182000			
VRF VRPS		★								★2		53/80R63
		kg	80000	82500	87500	90000	92500	95000	100000		* 44.00/5.0 Rim	
		lbs	176500	182000	193000	198500	204000	209500	220500			
		★								★2		53/80R63
		kg	77000	79000	84000	86000	89000	91000	96000		* 41.00/5.0 Rim	
		lbs	169300	174600	185200	190500	195800	201050	211650			

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Approximate Inflated Dimensions				OTD	Recommended Rim/Flange Height						
					OD mm inch	OW mm inch	SLR mm inch	SLW mm inch								
					mm	inch	mm	inch								
Industrial Service																
20"																
12.00R20	VCH		★3	Industrial Service	1140 44.9	315 12.4	512 20.2	360 14.2	29.5	8.50V						
	VCHS	176A5	★3	Industrial Service	1139 44.8	297 11.7	507 20.0	355 14.0	41.5							
24"																
12.00R24	VCH		★2	Industrial Service	1254 49.4	323 12.7	558 22.0	376 14.8	29.5	8.50V						
	VCHS	178A5		Industrial Service	1263 49.7	310 12.2	580 22.8	351 13.8	42.0							
14.00R24	VHB		★3	Industrial Service	1357 53.4	383 15.1	630 24.8	410 16.1	23.5	10.00W						
	VCH		★3	Industrial Service	1393 54.8	390 15.4	610 24.0	460 18.1	32.0							
	VCHS	196A5	★3	Industrial Service	1412 55.6	383 15.1	626 24.6	445 17.5	63.0							
14.00R24 TG Tubeless	VCHS	196A5	★3	Industrial Service	1412 55.6	383 15.1	626 24.6	445 17.5	63.0	10.00VA						
25"																
16.00R25 Tubeless	VHB		★2	Industrial Service	1484 58.4	440 17.3	690 27.2	475 18.7	22.5	11.25/2.0						
	VCHD	200A5		Industrial Service	1500 59.1	435 17.1	655 25.8	503 19.8	54.0							
	VCHR	200A5		Industrial Service	1504 59.2	435 17.1	674 26.5	500 19.7	50.0							
	VRLS		★2	Industrial Service	1531 60.3	448 17.6	713 28.1	488 17.6	45.0							
18.00R25 Tubeless	VHB		★3	Industrial Service	1610 63.4	515 20.3	733 28.9	565 22.2	26.0	13.00/2.5						
	VCHS	214A5	★3	Industrial Service	1650 65.0	504 19.8	707 27.8	596 23.5	64.0							
	VSMS		★2	Industrial Service	1681 66.2	512 20.2	730 28.7	592 23.3	84.5							
23.5R25 Tubeless	VSDL		★2	Industrial Service	1672 65.8	613 24.1	755 29.7	687 27.0	87.0	19.50/2.5						
33"																
18.00R33 Tubeless	VCHS	219A5	★3	Industrial Service	1856 73.1	494 19.4	803 31.6	585 23.0	70.0	13.00/2.5						
	VELS		★3	Industrial Service	1860 73.2	512 20.2	800 31.5	604 23.8	49.0							
35/65R33 Tubeless	VSDL		★2	Industrial Service	2075 81.7	880 34.6	900 35.4	986 38.8	95.0	28.00/3.5						

Off-the-Road Tires Used for Industrial Vehicle Applications

- 1) Industrial Vehicles comprise vehicles such as counter-balanced lift trucks, container handlers, straddle carriers, aircraft tow tractors, mobile crushers, log stackers etc., used on hard improved surfaces, smooth floors and runways.
- 2) Use Specifications of **Industrial Service** only.
- 3) Consult a Rim Manufacturer when inflation pressure exceeds 800kPa (116psi).

Pattern	Application	Star Rating	Inflation Pressure	Tire Load Limits at Various Speeds													Size													
Industrial Service																														
20"																														
				kPa psi	km/h mph	0 Static	Creep	5 3	10 5	15 9	20 12	25 15	30 19	35 22																
VCH VCHS	Industrial	★3	Load Wheel	1000 145	kg <i>lbs</i>	9230 20350	9230 20350	9230 20350	9230 20350	9230 20350	9230 20350	9230 19570	8875 19570	8875 19570																
			Steering Wheel	1000 145	kg <i>lbs</i>	7100 15620	7100 15620	7100 15620	7100 15620	7100 15620	7100 15620	7100 15620	6570 14480	6570 14480																
24"																														
VCH	Industrial	★2	Load Wheel	960 139	kg <i>lbs</i>	12420 27385	11040 24345	10005 22060	9315 20540	8970 19780	8765 19320	8625 19020						12.00R24												
			Steering Wheel	960 139	kg <i>lbs</i>	9935 21910	8830 19475	8005 17650	7450 16430	7175 15825	7010 15455	6900 15215																		
VCHS	Industrial		Load Wheel	1000 145	kg <i>lbs</i>	9750 21500	9750 21500	9750 21500	9750 21500	9750 21500	9750 21500	9750 21500	9375 20670	9375 20670	*Compliant with the ETRTO standard of industrial tires			12.00R24												
			Steering Wheel	1000 145	kg <i>lbs</i>	7500 16500	7500 16500	7500 16500	7500 16500	7500 16500	7500 16500	7500 16500	6935 15200	6935 15200																
VHB VCH VCHS	Industrial	★3	Load Wheel	1000 145	kg <i>lbs</i>	18000 39690	16000 35280	14500 31970	13500 29765	13000 28665	12700 28005	12500 27560	12400 27340						14.00R24											
			Steering Wheel	1000 145	kg <i>lbs</i>	14400 31750	12800 28225	11600 25580	10800 23815	10400 22930	10160 22400	10000 22050	9920 21875																	
VCHS	Industrial	★3	Load Wheel	1000 145	kg <i>lbs</i>	18000 39690	16000 35280	14500 31970	13500 29765	13000 28665	12700 28005	12500 27560	12400 27340						14.00R24 TG											
			Steering Wheel	1000 145	kg <i>lbs</i>	14400 31750	12800 28225	11600 25580	10800 23815	10400 22930	10160 22400	10000 22050	9920 21875																	
25"																														
VHB VRSL	Industrial	★2	Load Wheel	960 139	kg <i>lbs</i>	21870 48225	19440 42865	17615 38845	16400 36165	15795 34825	15430 34025	15185 33490	15065 33220						16.00R25											
			Steering Wheel	960 139	kg <i>lbs</i>	17495 38580	15550 34290	14095 31075	13120 28935	12635 27860	12345 27220	12150 26790	12050 26575																	
VCHD VCHR	Industrial			1000 145	kg <i>lbs</i>	18200 40140	18200 40140	18200 40140	18200 40140	14000 30900	14000 30900	14000 30900	*Compliant with the ETRTO standard of industrial tires (For straddle carrier use only)																	
VHB VCHS	Industrial	★3	Load Wheel	1000 145	kg <i>lbs</i>	30600 67475	27200 59975	24650 54355	22950 50605	22100 48730	21590 47605	21250 46855	21080 46480						18.00R25											
			Steering Wheel	1000 145	kg <i>lbs</i>	24480 53980	21760 47980	19720 43480	18360 40485	17680 38985	17270 38085	17000 37485	16865 37185																	
VSMS	Industrial	★2	Load Wheel	960 139	kg <i>lbs</i>	28800 63505	25600 56450	23200 51155	21600 47630	20800 45865	20320 44805	20000 44100	19840 43745						23.5R25											
			Steering Wheel	960 139	kg <i>lbs</i>	23040 50805	20480 45160	18560 40925	17280 37090	16640 34530	16255 33250	16000 32485	15870 31970																	
VSDL	Industrial	★2	Load Wheel	690 100	kg <i>lbs</i>	26100 57550	23200 51155	21025 46360	19575 43160	18850 41565	18415 40605	18125 39965	17980 39645						35/65R33											
			Steering Wheel	690 100	kg <i>lbs</i>	20880 46040	18560 40925	16820 37090	15660 34530	15080 33250	14730 32485	14500 31970	14385 31715																	
33"																														
VCHS VELS	Industrial	★3	Load Wheel	1000 145	kg <i>lbs</i>	35100 77395	31200 68795	28275 62345	26325 58045	25350 55895	24765 54605	24375 53745	24180 53315						18.00R33											
			Steering Wheel	1000 145	kg <i>lbs</i>	28080 61915	24960 55035	22620 49875	21060 46435	20280 44715	19810 43685	19500 42995	19345 42655																	
VSDL	Industrial	★2	Load Wheel	780 113	kg <i>lbs</i>	50400 111130	44800 98785	40600 89525	37800 83350	36400 80260	35560 78410	35000 77175						35/65R33												
			Steering Wheel	780 113	kg <i>lbs</i>	40320 88905	35840 79025	32480 71620	30240 66680	29120 64210	28450 62725	28000 61740																		

4) For Speeds exceeding 30km/h (18mph), consult a Bridgestone Representative.

5) For tire sizes and star ratings other than listed above, consult a Bridgestone Representative.

6) For Minimum Dual Spacing information, please consult a Bridgestone Representative.

Tire Size	Pattern	LI/SS	TRA Code or Application	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height						
				OD	OW	SLR	SLW									
				mm inch	mm inch	mm inch	mm inch									
Mobile Crane Service (High-Speed)																
24"																
385/95R24	VHS	170E	Mobile Crane Service	1356 53.4	384 15.1	626 24.6	422 16.6	23.0	450 17.7	10.00W						
	VHB	170E	Mobile Crane Service	1357 53.4	383 15.1	630 24.8	410 16.1	23.5	450 17.7							
25"																
385/95R25 Tubeless	VHS	170E	Mobile Crane Service	1356 53.4	384 15.1	626 24.6	422 16.6	23.0	450 17.7	10.00/1.5						
		170F														
445/95R25 Tubeless	VSW	170E	Mobile Crane Service	1355 53.3	394 15.5	631 24.8	427 16.8	23.5	450 17.7							
	VHB	177E	Mobile Crane Service	1484 58.4	440 17.3	690 27.2	475 18.7	22.5	513 20.2	11.25/2.0						
		177E	Mobile Crane Service	1484 58.4	435 17.1	684 26.9	480 18.9	25.5	513 20.2							
	VSW	177E	Mobile Crane Service	1484 58.4	435 17.1	695 27.4	476 18.7	23.0	513 20.2							
445/80R25 Tubeless	VGT	170E	Mobile Crane Service	1339 52.7	440 17.3	610 24.0	485 19.1	24.0	- -	14.00/1.5						
505/95R25 Tubeless	VHB	186E	Mobile Crane Service	1590 62.6	510 20.1	778 30.6	565 22.2	26.0	587 23.1	13.00/2.5						
	VHS	186E	Mobile Crane Service	1590 62.6	505 19.9	727 28.6	565 22.2	25.5	587 23.1							
525/80R25 Tubeless	VHS	179E	Mobile Crane Service	1480 58.3	537 21.1	677 26.7	578 22.8	31.0	- -	17.00/2.0						
		176F														

Tire Size	Pattern	LI/SS	TRA Code or Application	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height						
				OD	OW	SLR	SLW									
				mm inch	mm inch	mm inch	mm inch									
Logging Service																
24"																
14.00R24*	VSB		Truck, Trailers	1365 53.7	387 15.2	628 24.7	433 17.0	21.0	450 17.7	10.00W						
25"																
14.00R25* Tubeless	VSB		Truck, Trailers	1365 53.7	387 15.2	628 24.7	433 17.0	21.0	450 17.7	10.00						

* USA use only

Will be discontinued.

Pattern	Application	Inflation Pressure	Tire Load Limits at Various Speeds																		Size																		
Mobile Crane Service (High-Speed)		*Consult a Rim Manufacturer when inflation pressure exceeds 800kPa (116psi).																																					
24"																																							
			kPa psi	km/h mph	0 Static	Creep	5 3	10 5	15 9	20 12	30 19	40 25	50 31	60 37	70 43	80 50	90 56	100 62																					
VHS VHB (170E)	High-Speed		900 131	kg lbs	17700 39000	14400 31700	12700 28100	11000 24300	9850 21700	8900 19600	7800 17200	7450 16400	7100 15600	6700 14800	6000 13200	4925 10800	4200 9250	3600 7950		385/95R24																			
25"																																							
VHS VSW (170E)	High-Speed		900 131	kg lbs	17700 39000	14400 31700	12700 28100	11000 24300	9850 21700	8900 19600	7800 17200	7450 16400	7100 15600	6700 14800	6000 13200	4925 10800	4200 9250	3600 7950		385/95R25																			
VHS (170F)	High-Speed		900 131	kg lbs	17700 39000	14400 31700	12700 28000	11000 24200	9900 21800	9000 19800	7500 16500	6900 15200	6700 14800	6600 14500	6300 13900	6000 13200	5640 12400	5100 11200		385/95R25																			
VHB VHS VSW (177E)	High-Speed		900 131	kg lbs	21500 47500	17500 38500	15500 34200	13400 29600	12000 26400	10800 23800	9500 20900	9050 20000	8600 19000	8100 18000	7300 16100	6000 13200	5100 11300	4375 9650		385/95R25																			
VHS (174F)	High-Speed		900 131	kg lbs	21500 47400	17600 38800	15500 34100	13500 29700	11100 24400	10000 22200	8400 18500	7700 17000	7500 16500	7400 16200	7050 15500	6700 14800	6300 13900	5700 12600		445/95R25																			
VGT	High-Speed		700 102	kg lbs	17700 39000	14400 31700	12700 28100	11000 24300	9850 21700	8900 19600	7800 17200	7450 16400	7100 15600	6700 14800	6000 13200	4925 10800	4200 9250	3600 7950		445/90R25																			
VHB VHS	High-Speed		900 131	kg lbs	28000 61800	22700 50200	20200 44500	17500 38500	15600 34300	14100 31000	12300 27200	11800 26000	11200 24700	10600 23400	9500 20900	7800 17200	6650 14700	5700 12600		505/95R25																			
VHS (179E)	High-Speed		700 102	kg lbs	22900 50400	18600 40900	16500 36300	14300 31400	12700 28000	11500 25300	10100 22200	9600 21200	9150 20200	8700 19100	7750 17100	6350 14000	5400 12000	4650 10200		505/90R25																			
VHS (176F)	High-Speed		700 102	kg lbs	21500 47200	17600 38700	15500 34100	13500 29600	11700 25800	10600 23500	8900 19600	8200 18000	7950 17500	7800 17200	7450 16400	7100 15600	6700 14700	6050 13300		525/80R25																			

Pattern	Application Max.Speed	Inflation Pressure	Tire Load Limits at Various Cold Inflation Pressures																		Size																		
Logging Service																																							
24"																																							
			kPa psi	450 65	480 70	520 75	550 80	590 85	620 90	660 95	690 100	720 105	760 110	790 115																									
VSB*	Truck, Trailers	Load Range																																					
	90 55	kg lbs	Dual	3610 7960	3780 8340	3950 8710	4110 9070	4270 9410	4420 9750	4580 10090	4750 10500	4880 10800	5010 11100	5150 11400							14.00R24																		
			Single	3700 8150	3910 8620	4110 9070	4310 9500	4500 9930	4690 10340	4870 10730	5150 11400	5300 11700	5450 12000	5600 12300																									
25"																																							
VSB*	Truck, Trailers	kg lbs	Dual	3610 7960	3780 8340	3950 8710	4110 9070	4270 9410	4420 9750	4580 10090	4750 10500	4880 10800	5010 11100	5150 11400							14.00R25																		
	90 55	kg lbs	Single	3700 8150	3910 8620	4110 9070	4310 9500	4500 9930	4690 10340	4870 10730	5150 11400	5300 11700	5450 12000	5600 12300																									

* USA use only

Tire Size	Pattern	LI/SS	Star Rating	TRA Code or Application	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height								
					OD	OW	SLR	SLW											
					mm inch	mm inch	mm inch	mm inch											
Sand Service																			
20"																			
16.00R20 Tubeless *1	VSJ		28	E7	1315 51.8	414 16.3	590 23.2	475 18.7	18.5	520 20.5	10.00V								
16.00R20											10.00W								
25"																			
21.00R25 Tubeless	VSJ			E7	1728 68.0	589 23.2	784 30.9	649 25.6	22.5	685 27.0	15.00/3.0								

*1 When you mount 16.00R20 VSJ tubeless tire on flat base rim (10.00V), installation of "sealing ring" is recommended.
For further information, please consult a Bridgestone representative.

Pattern	Application	Ply Rating	Max. Speed	Tire Cold Inflation Pressures at Various Load Limits													Size			
Sand Service				*It is Recommended that 90% of the below indicated loads per tire is to be applied when used on a dual axle.																
20"																				
				kg	4250	4500	4750	5000	5250	5500	6000	7000	8000	8500	9000	9500				
				lbs	9370	9920	10470	11020	11570	12130	13230	15430	17640	18740	19840	20940				
VSJ	Sand	28PR	65km/h	kPa	490	540	580	630	680	720							16.00R20			
			40mph	<i>psi</i>	71	78	84	91	98	105										
			50km/h	kPa	390	420	450	490												
VSJ	Sand	-	16km/h	kPa	280	300	320	350									21.00R25			
			10mph	<i>psi</i>	41	44	47	51												
			65km/h	kPa					330	410	490	540	590	630						
25"								<i>48</i>	<i>60</i>	<i>71</i>	<i>78</i>	<i>85</i>	<i>92</i>							
				50km/h	kPa				260	320	390	420								
				30mph	<i>psi</i>				<i>38</i>	<i>47</i>	<i>57</i>	<i>61</i>								
				16km/h	kPa				200	230	280	300								
				10mph	<i>psi</i>				<i>28</i>	<i>34</i>	<i>41</i>	<i>44</i>								

BIAS TIRE

1. Tread Designs

■ Earthmover Service

E3



W-LUG
(WL)



R-LUG
(RL)



V-LUG2
(VL2)

■ Grader Service

G1

G2

G3



RIB GRADER
(RG)



G-LUG
(GL)



FAST GRIP
(FG)



R-LUG
(RL)

■ Loader & Dozer Service

L2

L3



G-LUG
(GL)



FAST GRIP
(FG)



R-LUG
(RL)



V-LUG2
(VL2)

L4



R-LUG S
(RLS)

L5



D-LUG
(DL)

L5S



SMOOTH TREAD-MS
(STMS)

■ Compactor Service

C1



ROAD ROLLER
(RR)

C2



ALLIGATOR2
(AL2)

■ Industrial Service



R-LUG
(RL)



R-LUG S
(RLS)



E-LUG S2
(ELS2)



SMOOTH TREAD-MS
(STMS)



YARD SERVICE-2
(YS2)

2. Application

■Earthmover Service



Size	Type	Ply Rating
------	------	------------

WL(E3)

9.00-20	T/T	14
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RL(E3)

10.00-20	T/T	14
11.00-20	T/T	14
12.00-20	T/T	18
12.00-24	T/T	20
14.00-24	T/T	24 28
16.00-25	T/L	28
18.00-25	T/L	32
37.25-35	T/L	36

VL2(E3)

20.5-25	T/L	16 20
23.5-25	T/L	16 20 24
	T/T	16 20 24
26.5-25	T/L	20 24 26
29.5-25	T/L	22 28

T/T: Tube Type
T/L: Tubeless Type

■Grader Service



Size	Type	Ply Rating
------	------	------------

RG(G1)

9.00-20	T/T	10
---------	-----	----

GL(G2)

9.00-20	T/T	14
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FG(G2)

13.00-24 TG	T/L	12
	T/T	10
14.00-24 TG	T/L	12 14
	T/T	12 16
16.00-24 TG	T/T	16
17.5-25	T/L	12
20.5-25	T/L	12

RL(G3)

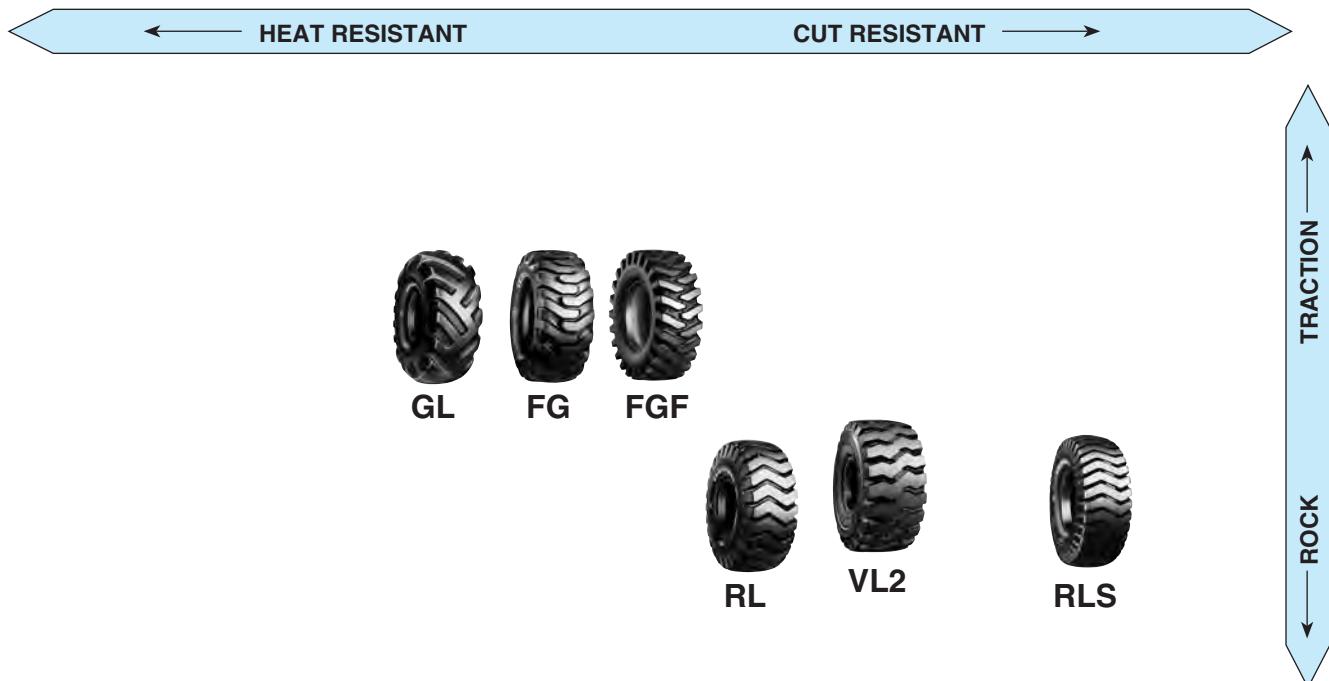
16.00-24 TG	T/T	16
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T/T: Tube Type

T/L: Tubeless Type

TG: For Semi-Drop Center Rim

■ Loader & Dozer Service



Size	Type	Ply Rating
------	------	------------

GL(L2)

9.00-20	T/T	14
---------	-----	----

FG(L2)

27x8.50-15	T/T	4
33x12.5-15	T/T	8
12.5/70-16	T/L	6 8
10-16.5	T/L	6 8
12-16.5	T/L	8 10
	T/T	8
15.5/60-18	T/L	8
15.5/70-18	T/L	8
10.00-20	T/T	14
11.00-20	T/T	10 16
42x17-20	T/T	10
17.5/65-20	T/L	10
13.00-24 TG	T/L	12
14.00-24 TG	T/L	12
	T/T	12
16.9-24	T/T	10
18.4-24	T/T	10
17.5-25	T/L	12
20.5-25	T/L	12

Size	Type	Ply Rating
------	------	------------

FGF(L2)

10.00-20	T/T	16
----------	-----	----

RL(L3)

12.00-24	T/T	20
14.00-24 TG	T/L	12
16.00-24 TG	T/T	16

T/T: Tube Type

T/L: Tubeless Type

TG: For Semi-Drop Center Rim



Size	Type	Ply Rating
VL2(L3)		
15.5-25	T/L	12
17.5-25	T/L	16
	T/T	16
20.5-25	T/L	16 20
	T/T	16 20
23.5-25	T/L	16 20 24
	T/T	16 20 24
26.5-25	T/L	16 20 24 26
	T/T	24
29.5-25	T/L	22 28

Size	Type	Ply Rating
DL(L5)		
17.5-25	T/L	16
20.5-25	T/L	16
23.5-25	T/L	20
26.5-25	T/L	20 26
29.5-25	T/L	28
35/65-33	T/L	42
40/65-39	T/L	56
45/65-45	T/L	58
50/65-51	T/L	62
65/65-57	T/L	62

Size	Type	Ply Rating
STMS(L5S)		
12.00-24	T/T	16 20
14.00-24	T/T	20
17.5-25	T/L	20
18.00-25	T/L	24 28 32
26.5-25	T/L	32 36
29.5-29	T/L	34

Size	Type	Ply Rating
RLS(L4)		
14.00-24	T/T	20
26.5-25	T/L	26
29.5-25	T/L	28

T/T: Tube Type

T/L: Tubeless Type

■Compactor Service



RR



AL2

Size	Type	Ply Rating
------	------	------------

RR(C1)

7.50-15	T/T	12
9.5/65-15	T/T	6
7.50-16	T/L	6
	T/T	6
10.5/80-16	T/L	6
9.00-20	T/T	10
14/70-20	T/T	12

AL2(C2)

23.1-26	T/L	8
	T/T	8

T/T: Tube Type
T/L: Tubeless Type

■Industrial Service



RL

Size	Type	Ply Rating
------	------	------------

RL

12.00-20	T/T	20
14.00-24	T/T	24 28
14.00-24 TG	T/L	24
16.00-25	T/L	28 32
18.00-25	T/L	40
21.00-25	T/L	40
21.00-35	T/L	40



RLS

RLS

16.00-25	T/L	28 32
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ELS2

ELS2

18.00-25	T/L	40
18.00-33	T/L	36
21.00-35	T/L	40



STMS

STMS

12.00-24	T/T	20
18.00-25	T/L	40



YS2

YS2

16.00-25	T/L	32
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T/T: Tube Type

T/L: Tubeless Type

TG: For Semi-Drop Center Rim

3. Technical Data

Tire Size	Pattern	Ply Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
							OD	OW	SLR	SLW			
							mm inch	mm inch	mm inch	mm inch			
15"													
7.50-15	RR	12	C1	-	-	-	775 30.5	209 8.2	360 14.2	225 8.9	-	250 9.8	6.00GS
27x8.50-15	FG	4	L2	-	-	-	686 27.0	208 8.2	317 12.5	218 8.6	16.5	-	7JA
9.5/65-15	RR	6	C1	-	-	-	671 26.4	238 9.4	312 12.3	242 9.5	-	-	7JA
33x12.5-15	FG	8	L2	-	-	-	851 33.5	318 12.5	TBA TBA	TBA TBA	22.5	-	10.00F
16"													
7.50-16 Tubeless	RR	6	C1	-	-	-	814 32.0	225 8.9	379 14.9	243 9.6	-	250 9.8	6.00GS 6LB
7.50-16							776 30.6	214 8.4	361 14.2	224 8.8			
10.5/80-16 Tubeless	RR	6	C1	-	-	-	812 32.0	272 10.7	376 14.8	282 11.1	-	-	8LB
12.5/70-16 Tubeless	FG	6	L2	-	-	-	860 33.9	319 12.6	389 15.3	336 13.2	21.0	-	10LB
16.5"													
10-16.5 Tubeless	FG	6	L2	-	-	-	771 30.4	268 10.6	353 13.9	278 10.9	19.5	-	8.25
12-16.5 Tubeless	FG	8 10	L2	-	-	-	831 32.7	315 12.4	376 14.8	325 12.8	20.0	-	9.75
12-16.5													
18"													
15.5/60-18 Tubeless	FG	8	L2	-	-	-	932 36.7	391 15.4	416 16.4	404 15.9	21.5	-	W10
15.5/70-18 Tubeless	FG	8	L2	-	-	-	1035 40.7	405 15.9	459 18.1	424 16.7	20.5	-	W13

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																		Size	
15"																					
		kPa psi	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 84	600 87	625 91	650 94	675 98	700 102	725 105	750 109		
RR	Compactor 10 5	PR kg lbs	1700 3740	1750 3860	1850 4080	1900 4180	1950 4300	2060 4540	2120 4680	2180 4800	2240 4940	2300 5080	2300 5080	2360 5200	2430 5360	2500 5520	2575 5680	2575 5680	2650 5840	12	7.50-15
		kPa psi	180 26	200 29	220 32	240 35	260 38	280 41	300 44	325 47											
FG	Loader 10 5	PR kg lbs	695 1530	740 1630	780 1720	820 1805	860 1895													27x8.50-15	
RR	Compactor 10 5	PR kg lbs			1100 2430	1155 2550	1205 2560	1255 2770	1315 2900											9.5/65-15	
		kPa psi	120 17	140 20	160 23	180 26	200 29	220 32	240 35	260 38	280 41	300 44	325 47	350 51	375 54	400 58	425 62	450 65			
FG	Loader 10 5	PR kg lbs				1510 3330	1605 3540	1695 3735	1785 3935	1870 4125	1950 4300	2035 4485	2130 4695								33x12.5-15
16"																					
RR	Compactor 10 5	PR kg lbs						1405 3100	1470 3240	1535 3380	1600 3530	1675 3690	1750 3860	1820 4010	1890 4170					7.50-16	
RR		PR kg lbs																		10.5/80-16	
FG	Loader 10 5	PR kg lbs				1050 2315	1145 2525	1240 2735	1330 2930	1410 3110	1495 3295	1570 3460	1645 3625								12.5/70-16
16.5"																					
FG	Loader 10 5	PR kg lbs													6	8				10-16.5	
FG		PR kg lbs													1645 3630	1725 3800	1800 3970	1875 4130			12-16.5
18"																					
FG	Loader 10 5	PR kg lbs													6	8				15.5/60-18	
FG		PR kg lbs													8	10				15.5/70-18	

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	Ply Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height	
							OD mm inch	OW mm inch	SLR mm inch	SLW mm inch				
							mm inch	mm inch	mm inch	mm inch				
20"														
9.00-20	RG	10	G1	-	-	-	1023 40.3	267 10.5	473 18.6	291 11.5	15.0	-	-	7.00T
	RR	10	C1	-	-	-	1005 39.6	265 10.4	458 18.0	297 11.7	-	310	12.2	
	GL	14	G2, L2	-	-	-	1023 40.3	255 10.0	478 18.8	276 10.9	21.0	-	-	
	WL	14	E3	SCR	-	-	1027 40.4	257 10.1	466 18.3	280 11.0	19.5	310	12.2	
10.00-20	FG	14	L2	-	-	-	1064 41.9	281 11.1	479 18.9	307 12.1	24.0	-	-	7.50V
	FGF	16	L2	-	-	-	1057 41.6	276 10.9	478 18.8	302 11.9	18.0	334	13.1	
	RL	14	E3	CRT	42	29	1067 42.0	285 11.2	489 19.3	304 12.0	22.5	-	-	
11.00-20	FG	10	L2	-	-	-	1100 43.3	299 11.8	510 20.0	323 12.7	24.5	352	13.9	8.00V
		16												
12.00-20	RL	18	E3	SCR	52	36	1138 44.8	316 12.4	513 20.2	331 13.0	25.5	382	15.0	8.50V
		20	Industrial Service	IDU	-	-	See characteristics page 76							
14/70-20	RR	12	C1	-	-	-	975 38.4	382 15.0	448 17.6	392 15.4	-	-	-	11.00TG

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																			Size
20"																					
		kPa psi	140 20	160 23	180 26	200 29	220 32	240 35	260 38	280 41	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73		
RG GL	Grader 40 25	PR kg lbs	955 2110	1035 2280	1110 2450	1180 2600	1245 2740	1310 2890	1375 3040	1435 3160	1495 3300	1565 3460	1635 3600	1705 3760	1780 3920	1850 4060	1910 4210	1965 4340	2025 4480		
		kPa psi	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102				
RR	Compactor 10 5	PR kg lbs	2900 6400	3000 6600	3150 6950	3250 7150	3350 7400	3450 7600	3550 7850	3650 8050											
GL	Loader 10 5	PR kg lbs							3150 6950	3250 7150	3350 7400	3450 7600	3450 7600	3550 7850	3630 8000	3710 8190	3790 8360	3875 8550			
		kPa psi	200 29	220 32	240 35	260 38	280 41	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80			
WL	E/M 50 30	PR kg lbs	1280 2820	1350 2980	1420 3130	1490 3280	1555 3430	1620 3570	1695 3740	1770 3900	1845 4070	1915 4220	1985 4380	2055 4530	2120 4670	2185 4820	2245 4950	2310 5090			
		kPa psi	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109							
FG FGF	Loader 10 5	PR kg lbs	3550 7850	3650 8050	3750 8250	3875 8550	4000 8800	4125 9100	4125 9100	4250 9350	4345 9580	4440 9790	4530 9990	4620 10180							
		kPa psi	200 29	220 32	240 35	260 38	280 41	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73					
RL	E/M 50 30	PR kg lbs	1445 3190	1530 3370	1610 3550	1685 3710	1760 3880	1830 4030	1920 4230	2005 4420	2085 4600	2170 4780	2245 4950	2320 5110	2395 5280	2470 5450					
		kPa psi	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102								
FG	Loader 10 5	PR kg lbs	3750 8300	3875 8550	4000 8800	4125 9100	4250 9350	4250 9350	4375 9650	4500 9900	4675 10300	4780 10540	4880 10740								
		kPa psi	200 29	220 32	240 35	260 38	280 41	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69						
RL	E/M 50 30	PR kg lbs	1570 3460	1660 3660	1750 3860	1830 4030	1910 4210	1990 4390	2085 4600	2180 4810	2270 5000	2355 5190	2440 5380	2525 5570	2605 5740						
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73									
RL	E/M 50 30	PR kg lbs	2180 4800	2300 5080	2430 5360	2500 5520	2650 5840	2725 6000	2800 6150	2900 6400	3000 6600	3075 6800									
RL	IDU		See characteristics page 77																		
		kPa psi	240 35	260 38	280 41	300 44	325 47	350 51	375 54	400 58	425 62	450 65									
RR	Compactor 10 5	PR kg lbs	2775 6100	2905 6400	3035 6700	3160 6950	3310 7300	3460 7650	3600 7950	3740 8250	3875 8550	4005 8850									

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	Ply Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
							OD	OW	SLR	SLW			
							mm inch	mm inch	mm inch	mm inch			
42x17-20	FG	10	L2	-	-	-	1077 42.4	431 17.0	480 18.9	452 17.8	25.5	- -	14.00TG
17.5/65-20 Tubeless	FG	10	L2	-	-	-	1107 43.6	450 17.7	494 19.4	477 18.8	25.0	- -	W14L
24"													
12.00-24	RL	20	E3	DE2	66	45	1238 48.7	326 12.8	576 22.7	341 13.4	24.5	- -	8.5 8.50V
			L3		-	-							
	STMS	16 20	L5S	D2A	-	-	1275 50.2	321 12.6	606 23.9	339 13.3	55.0	- -	8.5 8.50V
			Industrial Service		IDU	-	-	See characteristics page 76					
13.00-24 TG Tubeless	FG	12	G2	G2A	-	-	1286 50.6	340 13.4	588 23.1	374 14.7	28.0	-	8.00TG (10.00VA)
13.00-24 TG			G2, L2	DG2									
14.00-24	RL	28	E3	E2A	109	75	1366 53.8	387 15.2	627 24.7	400 15.7	28.0	450 17.7	10.00W
		24	Industrial Service	IDU	-	-	See characteristics page 76						
		28											
	RLS	20	L4	D2A	-	-	1407 55.4	390 15.4	646 25.4	440 17.3	48.0	450 17.7	10.00W
	STMS	20	L5S	D2A	-	-	1373 54.1	367 14.4	646 25.4	391 15.4	78.0	- -	

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures														Size			
		kPa psi	120 17	140 20	160 23	180 26	200 29	220 32	240 35	260 38	280 41	300 44	10						
FG	Loader 10 5	PR kg lbs	10														42x17-20		
				2740 6040	2915 6425	3080 6790	3240 7140	3395 7485	3545 7815	3690 8135									
FG		PR kg lbs	10														17.5/65-20		
			2130 4695	2330 5135	2520 5555	2700 5950	2875 6340	3040 6700	3195 7045										
24"																			
		kPa psi	475 69	500 73	525 76	550 80													
RL	E/M 50 30	PR kg lbs	20														12.00-24		
			3350 7400	3450 7600	3550 7850	3650 8050													
		kPa psi	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 115	825 120		
RL	Loader 10 5	PR kg lbs	16														12.00-24		
			5000 11000	5150 11400	5300 11700	5450 12000	5600 12300	5600 12300	5800 12800	6000 13200	6150 13600	6270 13790	6410 14100	6540 14390	6660 14700	6780 14900	6900 15200		
STMS	IDU	See characteristics page 77																	
		kPa psi	125 18	150 22	175 25	200 29	225 33	250 36	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65			
FG	Grader 40 25	PR kg lbs	10														13.00-24 TG		
			1700 3740	1900 4180	2060 4540	2240 4940	2360 5200	2500 5520	2650 5840	2725 6000									
FG	Loader 10 5	PR kg lbs	12														13.00-24 TG		
											4500 9900	4750 10500	5000 11000	5150 11400	5300 11700	5600 12300			
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	
RL	E/M 50 30	PR kg lbs	24														14.00-24		
			3350 7400	3550 7850	3750 8250	3875 8550	4000 8800	4250 9350	4375 9650	4500 9900	4625 10200	4750 10500	4875 10700	5000 11000	5150 11400	5300 11700	5450 12000	5600 12300	
		kPa psi	575 83	600 87	625 91	650 94	675 98	700 102											
RLS	Loader 10 5	PR kg lbs	20														14.00-24		
			7500 16500	7750 17100	8000 17600	8250 18200	8250 18200	8500 18700											
RL	IDU	See characteristics page 77																	

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	Ply Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
							OD mm inch	OW mm inch	SLR mm inch	SLW mm inch			
							mm inch	mm inch	mm inch	mm inch			
14.00-24 TG Tubeless	FG	14	G2	G2A	-	-	1336 52.6	365 14.4	597 23.5	406 16.0	31.0	-	8.00TG (10.00VA)
		12	G2, L2	DG2	-	-	1336 52.6	365 14.4	610 24.0	392 15.4			8.00TG 10.00VA
	RL	12	L3	D2A	-	-	1366 53.8	387 15.2	614 24.2	410 16.1	28.0	450	10.00VA (8.00TG)
		24	Industrial Service	IDU	-	-	See characteristics page 76						
14.00-24 TG	FG	12	G2	G2A	-	-	1336 52.6	365 14.4	610 24.0	392 15.4	31.0	-	8.00TG (10.00VA)
		16						390 15.4		417 16.4			10.00VA (8.00TG)
		12	L2	D2A			1330 52.3	390 15.4	610 24.0	417 16.4			
16.00-24 TG	FG	16	G2	G2A	-	-	1453 57.2	438 17.2	638 25.1	500 19.7	32.5	-	10.00VA
	RL	16	G3, L3	DG2	-	-	1478 58.2	419 16.5	671 26.4	446 17.6	33.5	513 20.2	
16.9-24	FG	10	L2		-	-	1320 52.0	447 17.6	591 23.3	462 18.2	30.5	-	W15L
18.4-24	FG	10	L2		-	-	1385 54.5	483 19.0	612 24.1	516 20.3	32.5	-	W16L
25"													
15.5-25 Tubeless	VL2	12	L3	D2A	-	-	1284 50.6	410 15.6	568 22.4	448 17.6	27.0	-	12.00/1.3
16.00-25 Tubeless	RL	28	E3	E2A	139	95	1478 58.2	432 17.0	671 26.4	459 18.1	33.5	513 20.2	11.25/2.0
		28	Industrial Service	IDU	-	-	See characteristics page 76						
		32											
	RLS	28	Industrial Service	IDU	-	-							
		32											
	YS2	32	Industrial Service	IDU	-	-	See characteristics page 76						

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures															Size	
		kPa psi	125 18	150 22	175 25	200 29	225 33	250 36	275 40	300 44	325 47	350 51	375 54	400 58	425 62			
FG 40 25	Grader PR kg lbs	12	12		14		16										14.00-24 TG	
			2060 4540	2300 5080	2500 5520	2650 5840	2800 6150	3075 6800	3250 7150	3450 7600	3550 7850	3650 8050						
FG RL 10 5	Loader PR kg lbs	12									6300						14.00-24 TG	
RL	IDU	See characteristics page 77															14.00-24 TG	
FG RL 40 25	Grader PR kg lbs	16															14.00-24 TG	
			2650 5840	3000 6600	3250 7150	3450 7600	3650 8050	4000 8800	4250 9350	4500 9900								
RL 10 5	Loader PR kg lbs	16							7100		7300		7750		8000		16.00-24 TG	
									15700	16100	17100	17600	18200					
		kPa psi	120 17	140 20	160 23	180 26	200 29	220 32	240 35									16.00-24 TG
FG 10 5	Loader PR kg lbs	10																
			2300 5070	2520 5555	2725 6005	2920 6435	3105 6845	3280 7230	3455 7615									
FG		10															16.00-24 TG	
			2765 6095	3025 6670	3270 7210	3505 7725	3725 8210	3940 8685										
25"		kPa psi	225 33	250 36	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	15.5-25
VL2 10 5	Loader PR kg lbs	12															15.5-25	
			4000 8800	4250 9350	4500 9900	4750 10500	4875 10700	5150 11400	5300 11700	5600 12300								
RL 50 30	E/M PR kg lbs	28															16.00-25	
				4375 9650	4625 10200	4875 10700	5000 11000	5300 11700	5450 12000	5600 12300	5800 12800	6000 13200	6300 13900	6500 14300	6500 14300	6700 14800		
RLS YS2	IDU	See characteristics page 77															16.00-25	

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	Ply Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
							OD mm inch	OW mm inch	SLR mm inch	SLW mm inch			
							mm inch	mm inch	mm inch	mm inch			
17.5-25 Tubeless	FG	12	G2, L2	DG2	-	-	1345 53.0	450 17.7	588 23.1	480 18.9	27.5	-	14.00/1.5
	VL2	16	L3	D2A	-	-	1348 53.1	444 17.5	597 23.5	470 18.5	30.5	-	
	DL	16	L5	D2A	-	-	1410 55.5	445 17.5	656 25.8	470 18.5	69.5	-	
	STMS	20	L5S	D2A	-	-	1385 54.5	450 17.7	645 25.4	462 18.2	69.0	-	
17.5-25				D2Z								-	
18.00-25 Tubeless	RL	32	E3	E2A	173	118	1607 63.3	508 20.0	727 28.6	572 22.5	37.5	587 23.1	13.00/2.5
		40	Industrial Service	IDU	-	-							
	ELS2	40	Industrial Service	IDU	-	-							
	STMS	24	L5S	D2A	-	-	1675 65.9	520 20.5	762 30.0	550 21.7	84.0	-	13.00/2.5
		28										-	
		32											
	40	Industrial Service	IDU	-	-								
20.5-25 Tubeless	FG	12	G2, L2	DG2	-	-	1493 58.8	534 21.0	652 25.7	551 21.7	29.5	-	17.00/1.7 (12,16PR) 17.00/2.0
	VL2	16	E3	DE2	80	55	1494 58.8	542 21.3	641 25.2	587 23.1	33.0	-	
		20			-	-						-	
	DL	16	L5	D2A	-	-	1558 61.3	548 21.6	714 28.1	570 22.4	79.5	-	
20.5-25	VL2	16	L3	D2A	-	-	1494 58.8	542 21.3	641 25.2	587 23.1	33.0	-	
		20										-	
21.00-25 Tubeless	RL	40	Industrial Service	IDU	-	-							

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																		Size																
		kPa psi	125 18	150 22	175 25	200 29																														
FG	Grader 40 25	PR kg lbs	12																																	
			2120 4680	2360 5200	2575 5680	2900 6400																														
			For slope and ditching service, inflation pressures should be increased by 100kPa (15psi) with no increase in load rating. For extreme conditions, consult a Bridgestone Representative for additional recommended operating requirements.																																	
		kPa psi	225 33	250 36	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83																			
FG VL2 DL STMS	Loader 10 5	PR kg lbs	12																																	
			4750 10500	5000 11000	5300 11700	5600 12300	5800 12800	6150 13600	6300 13900	6700 14800	6900 15200	7100 15700	7300 16100	7500 16500	7750 17100	8000 17600	8250 18200	8250 18200																		
RL	E/M 50 30	PR kg lbs	32																																	
			5600 12300																																	
			6000 13200																																	
STMS	Loader 10 5	PR kg lbs	425 62																																	
			450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109																					
			14500 32000																																	
RL ELS2 STMS	IDU	See characteristics page 77																																		
		kPa psi	125 18	150 22	175 25	200 29	225 33	250 36	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65																				
VL2	E/M 50 30	PR kg lbs	16																																	
			4125 9100																																	
			4500 9900	4875 10700	5150 11400	5450 12000	5800 12800	6000 13200																												
FG	Grader 40 25	PR kg lbs	12																																	
			2800 6150	3150 6950	3550 7850																															
			For slope and ditching service, inflation pressures should be increased by 100kPa (15psi) with no increase in load rating. For extreme conditions, consult a Bridgestone Representative for additional recommended operating requirements.																																	
FG VL2 DL	Loader 10 5	PR kg lbs	12																																	
			6300 13900																																	
			6700 14800	7100 15700	7500 16500	7750 17100	8250 18200	8500 18700	8750 19300	9250 20400	9500 20900																									
RL	IDU	See characteristics page 77																																		

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	Ply Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
							OD	OW	SLR	SLW			
							mm inch	mm inch	mm inch	mm inch			
23.5-25 Tubeless	VL2	16	E3	DE2	107	73	1607	618	682	688	43.0	-	19.50/2.5
		20			-	-	63.3	24.3	26.9	27.1		-	
		24										-	
		20	L5	D2A	-	-	1673	616	779	646	88.0	-	
	DL	20					65.9	24.3	30.7	25.4		-	
		20	E3, L3	DE2	-	-	1607	618	682	688	43.0	-	
		24					63.3	24.3	26.9	27.1		-	
26.5-25 Tubeless	VL2	20	E3	DE2	132	90	1738	683	745	734	44.0	-	22.00/3.0
		24			-	-	68.4	26.9	29.3	28.9		-	
		26										-	
		16										-	
	RLS	26	L4	D2A	-	-	1785	700	800	736	67.0	-	
		20					70.3	27.6	31.5	29.0		-	
		26										-	
	DL	32	L5S	D2A	-	-	1798	694	820	726	97.0	-	
		36					70.8	27.3	32.3	28.6		-	
	STMS	32					1798	680	827	719	95.0	-	
	36						70.8	26.8	32.6	28.3		-	
26.5-25	VL2	24	L3	D2A	-	-	1738	683	745	734	44.0	-	
29.5-25 Tubeless	VL2	22	E3	DE2	150	103	1850	770	792	833	49.0	-	25.00/3.5
		28			-	-	72.8	30.3	31.2	32.8		-	
	RLS	28	L4	D2A	-	-	1912	784	813	805	74.0	-	
	DL	28	L5	D2A	-	-	74.8	30.2	34.4	31.7	105.5	-	
26"													
23.1-26 Tubeless	AL2	8	C2	-	-	-	1490	595	654	618	19.0	-	DW20A DW20B
23.1-26	AL2	8	C2	-	-	-	1490	595	654	618	19.0	-	
29"													
29.5-29 Tubeless	STMS	34	L5S	D2A D2Z	-	-	2009	749	931	792	103.0	-	25.00/3.5
							79.1	29.5	36.7	31.2		-	
33"													
18.00-33 Tubeless	ELS2	36	Industrial Service	IDU	-	-	See characteristics page 76						
35/65-33 Tubeless	DL	42	L5	D2V	-	-	2075	896	979	945	97.0	-	28.00/3.5
							81.7	35.3	38.5	37.2	97.0	-	

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																		Size								
		kPa psi	175 25	200 29	225 33	250 36	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	630 92									
		PR kg lbs	16 20 24																									
VL2	Loader 10 5	PR kg lbs	8000 8500 9000 9500 10000 10600 10900 11200 11800 12150 12500 17600 18700 19800 20900 22000 23400 24000 24700 26000 26800 26700																									
VL2	E/M 50 30	PR kg lbs	5300 5800 6150 6500 6900 7300 7750 8000 11700 12800 13600 14300 15200 16100 17100 17600																									
VL2		PR kg lbs	6700 7300 7750 8250 8750 9250 9500 14800 16100 17100 18200 19300 20400 20900																									
VL2	Loader 10 5	PR kg lbs	11500 12150 12500 13200 13600 14000 14500 15000 15500 16000 16500 17000 17500 25400 26800 27600 29100 30000 30900 32000 33100 34200 35300 36480 37500 41000																									
VL2	E/M 50 30	PR kg lbs	8000 8750 9250 10000 10600 10900 11500 17600 19300 20400 22000 23400 24000 25400																									
VL2	Loader 10 5	PR kg lbs	12150 12850 13600 14500 15000 16000 16500 17000 17500 26800 28300 30000 32000 33100 35300 36480 37500 38600																									
26"																												
		kPa psi	110 16																									
AL2	Compactor 10 5	PR kg lbs	8 2850 6285																		23.1-26							
29"																												
		kPa psi	225 33	250 36	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76						29.5-29							
STMS	Loader 10 5	PR kg lbs	34 12850 14000 14500 15500 16000 17000 17500 18000 19000 19500 20000 20600 21200 28300 30900 32000 34200 35300 37500 38600 39700 41900 43000 44100 45400 46700																									
33"																												
ELS2	IDU	See characteristics page 77																			18.00-33							
		kPa psi	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91															
DL	Loader 10 5	PR kg lbs	42 19500 20000 21200 21800 22400 23000 23600 24300 25000 25750 26500 43000 44100 46700 48100 49400 50700 52000 53600 55100 56800 58400																		25/65-33							

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	Ply Rating	TRA Code or Application	Spec	TKPH	TMPH	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height	
							OD mm inch	OW mm inch	SLR mm inch	SLW mm inch				
35"														
21.00-35 Tubeless	RL	40	Industrial Service	IDU	-	-	See characteristics page 78							
	ELS2	40	Industrial Service	IDU	-	-								
37.25-35 Tubeless	RL	36	E3	E1A	358	245	2330 91.7	955 37.6	1060 41.7	1000 39.4	51.5	-	31.00/4.0	
39"														
40/65-39 Tubeless	DL	56	L5	D2V	-	-	2420 95.3	1020 40.2	1112 43.8	1070 42.1	106.5	-	32.00/4.0	
45"														
45/65-45 Tubeless	DL	58	L5	D2V	-	-	2730 107.5	1146 45.1	1261 49.6	1185 46.6	116.0	-	36.00/4.5	
51"														
50/65-51 Tubeless	DL	62	L5	D2A	-	-	3070 120.9	1260 49.6	1412 55.6	1300 51.2	127.5	-	40.00/4.5	
				D2V								-		
57"														
65/65-57 Tubeless	DL	62	L5	D2V	-	-	3735 147.0	1640 64.6	1672 65.8	1706 67.2	142.5	-	52.00/6.0	

For the TKPH(TMPH) Ratings, please refer to page 11.

Pattern	Application Max.Speed km/h mph	Tire Load Limits at Various Cold Inflation Pressures																		Size
35"																				
RL ELS2	IDU	See characteristics page 79																		21.00-35
		kPa psi	175 25	200 29	225 33	250 36	275 40	300 44	325 47											
RL	E/M 50 30	PR kg lbs	36																	
39"																				
		kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102
DL	Loader 10 5	PR kg lbs	56																	
45"																				
DL	Loader 10 5	PR kg lbs	58																	
51"																				
DL	Loader 10 5	PR kg lbs	62																	
57"																				
DL	Loader 10 5	PR kg lbs	62																	

1) Figures under the star rating denote the maximum load and inflation pressures.

2) For Loader & Dozer Service, Tire Load Limits will depend on a type of the operation. Please refer to page 82.

Tire Size	Pattern	Ply Rating	TRA Code or Application	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height						
				OD	OW	SLR	SLW									
				mm inch	mm inch	mm inch	mm inch									
Industrial Service																
20"																
12.00-20	RL	20	Industrial Service	1138 44.8	316 12.4	507 20.0	348 13.7	24.0	378 14.9	8.50V						
24"																
12.00-24	STMS	20	Industrial Service	1275 50.2	321 12.6	606 23.9	339 13.3	55.0	391 15.4	8.50V						
14.00-24	RL	24 28	Industrial Service	1366 53.8	387 15.2	627 24.7	400 15.7	28.0	450 17.7	10.00W						
14.00-24 TG Tubeless	RL	24	Industrial Service	1360 53.5	395 15.6	614 24.2	410 16.1	28.0	450 17.7	10.00VA						
25"																
16.00-25 Tubeless	RL	28 32	Industrial Service	1495 58.9	445 17.5	671 26.4	459 18.1	33.5	513 20.2	11.25/2.0						
	RLS	28 32	Industrial Service	1548 60.9	438 17.2	722 28.4	460 18.1	57.0	513 20.2							
	YS2	32	Industrial Service	1465 57.7	430 16.9	658 25.9	472 18.6	49.2	513 20.2							
18.00-25 Tubeless	RL	40	Industrial Service	1608 63.3	508 20.0	727 28.6	572 22.5	36.0	587 23.1	13.00/2.5						
	ELS2	40	Industrial Service	1685 66.3	515 20.3	796 31.3	530 20.9	66.5	587 23.1							
	STMS	40	Industrial Service	1675 65.9	520 20.5	762 30.0	550 21.7	84.0	587 23.1							
21.00-25	RL	40	Industrial Service	1750 68.9	570 22.4	775 30.5	620 24.4	41.0	668 26.3	15.00/3.0						
33"																
18.00-33 Tubeless	ELS2	36	Industrial Service	1878 73.9	515 20.3	887 34.9	533 21.0	66.5	587 23.1	13.00/2.5						

Pattern	Appli.	Ply Rating	Inflation Pressure	Tire Load Limits at Various Speeds										Size										
Industrial Service																								
20"																								
				kPa psi	km/h mph	0 Static	Creep Creep	5 3	10 5	15 9	20 12	25 15	30 19	12.00-20										
RL	IDU	20	Load Wheel	1000 145	kg lbs	11880 26200	10560 23290	9570 21100	8910 19650	8580 18920	8380 18480	8250 18190	8185 18050											
			Steering Wheel	1000 145	kg lbs	9505 20960	8450 18630	7655 16880	7130 15720	6865 15135	6705 14785	6600 14550	6550 14440											
24"																								
STMS	IDU	20	Load Wheel	1000 145	kg lbs	12420 27385	11040 24345	10005 22060	9315 20540	8970 19780	8765 19320	8625 19020	8555 18865	12.00-24										
			Steering Wheel	1000 145	kg lbs	9935 21910	8830 19475	8005 17650	7450 16430	7175 15825	7010 15455	6900 15215	6845 15090											
RL	IDU	24	Load Wheel	1000 145	kg lbs	17100 37705	15200 33515	13775 30375	12825 28280	12350 27230	12065 26605	11875 26185	11780 25975	14.00-24										
			Steering Wheel	1000 145	kg lbs	13680 30165	12160 26810	11020 24300	10260 22625	9880 21785	9650 21280	9500 20945	9425 20780											
		28	Load Wheel	1000 145	kg lbs	18000 39690	16000 35280	14500 31970	13500 29765	13000 28665	12700 28005	12500 27560	12400 27340											
			Steering Wheel	1000 145	kg lbs	14400 31750	12800 28225	11600 25580	10800 23815	10400 22930	10160 22400	10000 22050	9920 21875											
25"																								
RL RLS YS2	IDU	28	Load Wheel	900 131	kg lbs	20700 45645	18400 40570	16675 36770	15525 34230	14950 32965	14605 32205	14375 31695	14260 31445	16.00-25										
			Steering Wheel	900 131	kg lbs	16560 36515	14720 32455	13340 29415	12420 27385	11960 26370	11685 25765	11500 25355	11410 25155											
		32	Load Wheel	1000 145	kg lbs	22500 49610	20000 44100	18125 39965	16875 37210	16250 35830	15875 35005	15625 34455	15500 34175											
			Steering Wheel	1000 145	kg lbs	18000 39690	16000 35280	14500 31970	13500 29765	13000 28665	12700 28005	12500 27560	12400 27340											
RL ELS2 STMS	IDU	40	Load Wheel	1000 145	kg lbs	30600 67475	27200 59975	24650 54355	22950 50605	22100 48730	21590 47605	21250 46855	21080 46480	18.00-25										
			Steering Wheel	1000 145	kg lbs	24480 53980	21760 47980	19720 43480	18360 40485	17680 38985	17270 38085	17000 37485	16865 37185											
RL	IDU	40	Load Wheel	1000 145	kg lbs	36385 80230	32345 71320	29310 64630	27290 60170	26280 57950	25670 56610	25270 55720	25065 55270	21.00-25										
			Steering Wheel	1000 145	kg lbs	29110 64185	25875 57055	23450 51705	21830 48135	21025 46360	20535 45290	20215 44575	20050 44215											
33"																								
ELS2	IDU	36	Load Wheel	1000 145	kg lbs	33300 73425	29600 65270	26825 59150	24975 55070	24050 53030	23495 51805	23125 50990	22940 50580	18.00-33										
			Steering Wheel	1000 145	kg lbs	26640 58740	23680 52215	21460 47320	19980 44055	19240 42425	18795 41445	18500 40790	18350 40465											

Tire Size	Pattern	Ply Rating	TRA Code or Application	Approximate Inflated Dimensions				OTD	Minimum Dual Spacing	Recommended Rim/Flange Height
				OD mm inch	OW mm inch	SLR mm inch	SLW mm inch			
								mm	mm inch	inch
35"										
21.00-35 Tubeless	RL	40	Industrial Service	2008 79.1	570 22.4	937 36.9	648 25.5	41.0	701 27.6	15.00/3.0
	ELS2	40	Industrial Service	2040 80.3	592 23.3	955 37.6	617 24.3	67.0	701 27.6	

Pattern	Appli.	Ply Rating	Inflation Pressure	Tire Load Limits at Various Speeds										Size
35"														
				kPa psi	km/h mph	0 Static	Creep Creep	5 3	10 5	15 9	20 12	25 15	30 19	
RL ELS2	IDU	40	Load Wheel	1000 145	kg <i>lbs</i>	43740 96445	38880 85730	35235 77695	32805 72335	31590 69655	30860 68050	30375 66975	30130 66440	
			Steering Wheel	1000 145	kg <i>lbs</i>	34990 77155	31105 68585	28190 62155	26245 57870	25270 55725	24690 54440	24300 53580	24105 53150	21.00-35

Off-the-Road Tires Used for Industrial Vehicle Applications

- 1) Industrial Vehicles comprise vehicles such as counter-balanced lift trucks, container handlers, straddle carriers, aircraft tow tractors, mobile crushers, log stackers etc., used on hard improved surfaces, smooth floors and runways.
- 2) Use Specifications of **Industrial Service only**.
- 3) Consult a Rim Manufacturer when inflation pressure exceeds 800kPa (116psi).
- 4) For Speeds exceeding 30km/h (18mph), consult a Bridgestone Representative.
- 5) For tire sizes and star ratings other than listed above, consult a Bridgestone Representative.
- 6) For RTG (Rubber Tired Gantry Crane) operation, consult a Bridgestone Representative.

REMARKS & SPECIAL OPERATIONS

1. Remarks

Both rules of 1.1 and 1.2 can't be applied at the same time.

1.1 Excess Load

Due to the specialized nature of Off-The-Road vehicle usage, loads in excess of those in the appropriate above-listed load tables are often encountered.

These excess loads result from items such as actual vehicle weight exceeding the design weight, varying density of materials, field modifications to the equipment, load transfer, etc.

Only under these conditions, the actual tire load in service may exceed the above load ratings for the tire(*) by an amount not greater than shown in the following table:

For Radial Tires

	E2, E3, E4*	L**
Maximum Excess Load	7%	7%
Maximum Excess Pressure	14%	14%
	800kPa	825kPa
Maximum Pressure	<i>116psi</i>	<i>120psi</i>

(except for underground vehicles)

When excess loads are encountered, cold inflation pressures must be increased to compensate for higher loads. For each 1% increase in load, the inflation pressure must be increased by 2%.

*except following sizes on the list

11.00R20	335/80R20	405/70R20	12.00R24
12.00R20	365/80R20	12R22.5	

About 63" tires, consult a Bridgestone representative.

**except 55.5/80R57 and 60/80R57

The maximum excess loads will result in reduced tire performance.

For Bias Tires

	E2, E3, E4*	L**	
		L5/L5S***	
Maximum Excess Load	15%	15%	0%
Maximum Excess Pressure	30%	30%	+100kPa
Maximum Pressure	825kPa <i>120psi</i>	825kPa <i>120psi</i>	

(except for underground vehicles)

When excess loads are encountered, cold inflation pressures must be increased to compensate for higher loads. For each 1% increase in load, the inflation pressure must be increased by 2%.

*except following sizes on the list

9.00-20	10.00-20	11.00-20
---------	----------	----------

**except following sizes on the list

27x8.50-15	10-16.5	15.5/70-18	16.9-24
33x12.5-15	12-16.5	42x17-20	18.4-24
12.5/70-16	15.5/60-18	17.5/65-20	

***For L5/L5S tires following sizes on the list, on front tires for front end loaders, it is permissible to increase inflation pressure up to 100kPa (15psi) above, with no increase in load.

(Maximum inflation pressure should not exceed 825 kPa (120psi).)

17.5-25	26.5-25	35/65-33	50/65-51
20.5-25	29.5-25	40/65-39	65/65-57
23.5-25	29.5-29	45/65-45	

The maximum excess loads will result in reduced tire performance.

1.2 The Variation in Load Carrying Capacity with Operating Speed

For Radial Tires

Maximum Speed (km/h)	G	L*
Static		+60%
Creep		+30%
5		+14%
10	-	0
15		-13%
20		-
25		-20%
30		-
35		-26%
40	0	-30%
45	-	-
50		-9%
55		-
60		-18%
65		-27%
70		-
75		-
80		-
80<		-

(except for underground vehicles)

■ Reference speed for calculating load variance

* About the size of 55.5/80R57 and 60/80R57, consult a Bridgestone representative.

This table doesn't secure to prevent the risk derived from heat buildup.

For Bias Tires

Maximum Speed (km/h)	G	L*
Static		+60%
Creep		+30%
5		+14%
10	-	0
15		-13%
20		-
25		-20%
30		-
35		-26%
40	0	-30%
45	-	-
50		-9%
55		-
60		-18%
65		-27%
70		-
75		-
80		-
80<		-

(except for underground vehicles)

■ Reference speed for calculating load variance

*except following sizes on the list

27x8.50-15	10-16.5	15.5/70-18	16.9-24
33x12.5-15	12-16.5	42x17-20	18.4-24
12.5/70-16	15.5/60-18	17.5/65-20	

This table doesn't secure to prevent the risk derived from heat buildup.

2. Special Operations

Please check your operation to make sure of the Tire Load Limit.

Type/Service	Type of Operations	Reference No.
Earthmover	Standard	-
	Underground Truck Service	2.1.3
	When the vehicle is driven over the highway for delivery, or moved by an operator to a new job site - Drive-Away	2.2.1
Loader & Dozer	Distance of picking up and relocating material Less than 76m (one way) - Standard	-
	Distance of picking up and relocating material More than 76m (one way) - Load-and-Carry Operations	2.1.1
	Underground Load Haul Dump Service	2.1.2
	Underground Truck Service	2.1.3
	When the vehicle is driven over the highway for delivery, or moved by an operator to a new job site - Drive-Away	2.2.2

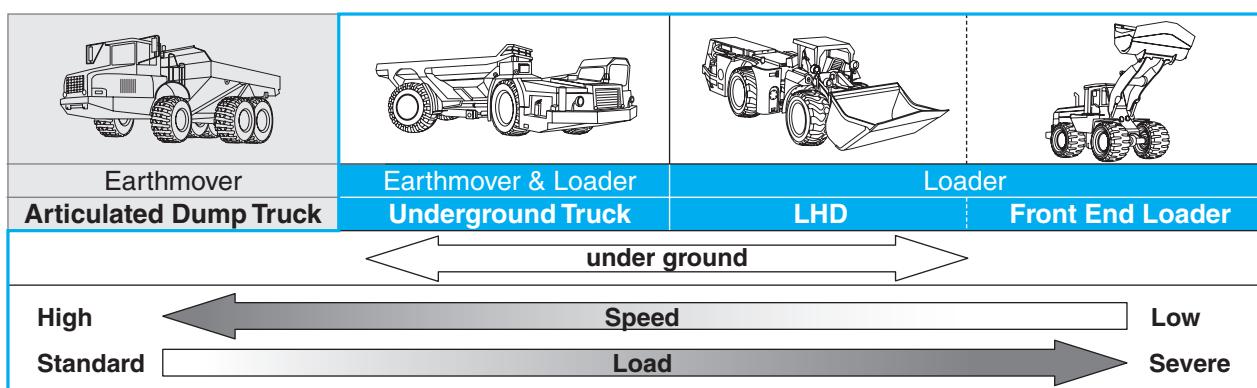
2.1 For Load-and-Carry Operations

Service conditions of a loader is defined as “picking up material and relocating a short distance away, a maximum of 76m (250 feet), one way, with a maximum speed of 10km/h (5 mph)”. However, a loader can pick up a load and transport such load to another location and return unloaded for a longer distance. This type of service is called as **Load-and-Carry** operations. Transportation usually occurs at low speeds, up to 25km/h (15 mph), and distances are limited.

The tires when used in Load-and-Carry operations may encounter heat problems especially on the front axle tires. To avoid such problems, Bridgestone recommends the following operating conditions.

For tires over 33" inch rim diameter tires, careful study is required to maximize tire life while considering Ton-Kilometer-Per-Hour limits. Please consult a Bridgestone representative for more information.

If you need to use the tire beyond this recommendation, please consult a Bridgestone representative.





2.1.1 For Front End Loader Service

For Radial Tires

Tread Class	Inflation Pressure						Load Capacity* 10km/h (5mph)	Maximum Cycle Distance (m)	Allowable Average Work-shift Speed (km/h)			
	Rim Diameter											
	29" and below		33" and above									
	Conventional size (95 series)	Wide base size (80, 65 series)	Wide base size (65 series)	★1	★2	★1	★2					
L2, L3												
L4	550kpa (80psi)	825kpa (120psi)	500kpa (73psi)	650kpa (94psi)	600kpa (87psi)	750kpa (109psi)	100% of STD. load	1800	16			
L5								1500 (VSDT)	10			
L5S								1200 (VSDL, VSDR)	6			
								1200	5			

*STD.load: Maximum permissible load at standard inflation pressure for respective tire size and star rating.

Please refer to the load - inflation pressure table for loader and dozer service "10km/h (5mph) service".

For Bias Tires

Tread Class	Inflation Pressure for Front Tires	Load Capacity* 10km/h (5mph)		Maximum Cycle Distance (m)	Allowable Average Work-shift Speed (km/h)		
		Rim Diameter					
		29" and below	33" and above				
L2, L3	Standard inflation pressure + 100kpa (15psi)	90% of STD. load	**	1200	10		
L4				500			
L5				300	3		
L5S							

* STD.load: Maximum permissible load at standard inflation pressure for respective tire size and star rating.

Please refer to the load - inflation pressure table for loader and dozer service "10km/h (5mph) service".

** Not permissible

The inflation pressure should not exceed 825kPa (120psi).

2.1.2 For Load Haul Dump Service

Since a load haul dump (LHD) unit has a similar structure and operational characteristics as load and carry service on a front end loader, the following operating parameters are recommended.



For Radial Tires

Tread Class	Inflation Pressure		Load Capacity* 10km/h (5mph)	Maximum Cycle Distance (m)	Allowable Average Work-shift Speed (km/h)
	Conventional size (95 series)	Wide base size (80, 65 series)			
	★2 D2A				
L2, L3			**		
L4			1800	14	
L5	825kpa (120psi)	650kpa (94psi)	100% of STD. load	1500 (VSDT) 1200 (VSDL, VSDR)	10 6
L5S				1200	5

*See note in Table 2.1.1.

**Not permissible

For Bias Tires

Tread Class	Inflation Pressure for Front Tires	Load Capacity* 10km/h (5mph)		Maximum Cycle Distance (m)	Allowable Average Work-shift Speed (km/h)		
		Rim Diameter					
		29" and below	33" and above				
L2, L3		**					
L4				500			
L5				300	3		
L5S	Standard inflation pressure + 100kpa (15psi)	90% of STD. load	**				
			85% of STD. load				

*See note in Table 2.1.1.

**Not permissible

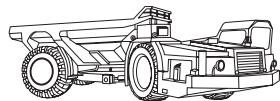
The inflation pressure must meet 1.1 for maximum excess load.

2.1.3 For Underground Truck Service

Underground truck service is defined as small and low vehicle height dump truck used in underground mines. However, the application is considered to be similar to load and carry operation which has relatively slower speed and shorter distance with more load than normal dump truck use.

Consequently, the severity to the tire is estimated using the load and carry concept.

Bridgestone defines the recommendation in this section.



For Radial Tires

	Tread Class & Pattern			Inflation Pressure	Load Capacity*	Speed	
						Maximum Speed (km/h)	Allowable Average Work-shift Speed (km/h)
35/65R33	L4	VSNT	MT DUH	700 kpa	**	25	10
				800 kpa		40	10
Wide base size (80, 65 series) 15" – 33"	L4	VSNT	★2 D2A	650 kpa	100% of STD. load	25	14
	L5	VSDT					10
		VSDL					6
		L5S					5
Conventional size (95 series) 15" – 33"	E4	VELS		700 kpa	115% of STD. load	30	14
		VMTP					
		VRLS					

*See note in 2.1.1.

**Underground Truck Load and Inflation Table

kPa						
km/h	500	550	600	650	700	750
25	23000	25000	26500	28000	30000	
40	20000	21800	23000	24300	25750	27250

For over Maximum Speed, consult a Bridgestone Representative.

For Bias Tires

Not recommendable.

2.2 Drive-Away Tires on Vehicles

2.2.1 Off-the-Road Tires for Earthmover

(1) Recommendations for Off-the-Road Tires

Because of the special extra-heavy construction of Off-the-Road tires, special precautions must be observed to protect these expensive tires when the vehicle is driven over the highway for delivery, or moved by an operator to a new job site.

If the precautions are not observed, excessive tire heat is built up and the tires most likely will fail prematurely. These precautions are as follows and apply to tires on all vehicles in transit—driven or towed. Consult a Bridgestone Representative for specific information before starting out on a drive-away trip.

(2) Load and Pressure

- [1] Vehicles must be empty during transportation.
- [2] Inflation pressure is to be checked before starting, each break and adjusted to the pressure recommended for over-the-highway transit by Bridgestone.
- [3] Inflation pressures are not to be reduced by “bleeding” tires during transportation.
- [4] Periodical inflation pressure checks during transportation (i.e. every 2 hours) is recommended. Although operational pressure build-up in tires is normal during transportation, when it increases 20% or more than the cold pressure reading, it indicates over heating, and the vehicle should be stopped and a Bridgestone Representative should be consulted.

(3)Speed

[1] Regular tread tires (E-3):

(Note: For deep tread tires (E-4), always consult a Bridgestone Representative.)

a. Maximum highway speed:

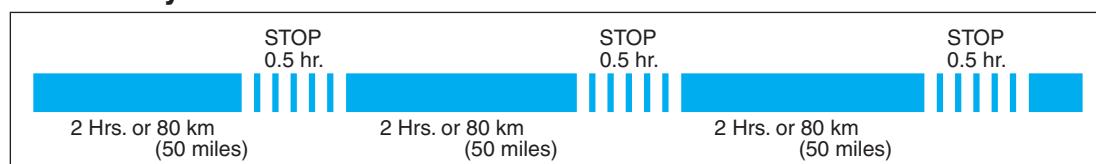
Maximum Speed (Drive-Away)

		Maximum Speed	
Radial / Bias		Regular	50 km/h 30 mph
		Wide Base	32 km/h 20 mph

b. Stop for a 30-minute cooling period after each 80 km (50 miles) of driving or before 2 hours of continual operation, whichever comes first. (shown in the following figure)

c. One-hour minimum midday lunch stop should be observed during full day operations. (shown in the following figure)

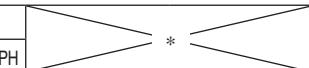
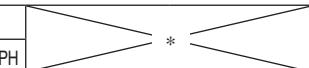
Drive-Away



[2] Vehicles in transit should be accompanied by responsible personnel in a pilot car to enforce these precautions and maintain a check on equipment. This is good insurance for a valuable investment.

2.2.2 Off-the-Road Tires for Loader & Dozer

During or after the operation, please wait for the following hours prior to start Drive-Away.

Size & Pattern	Load per tire [ton]		Maximum Travel Distance (One way)				
			5 km or 3.1 Mil	10 km or 6.2 Mil	20 km or 12.4 Mil	50 km or 31 Mil	60 km or 37 Mil
35/65R33 VSDL	16.6	Rest time prior to traveling (Hour)	2	4	5	7	9
		Maximum speed on traveling			10 km/h or 6.2 MPH		
45/65R45 VSDL	30.3	Rest time prior to traveling (Hour)	2	3	5	10	11
		Maximum speed on traveling			10 km/h or 6.2 MPH		
50/65R51 VSDL	40.3	Rest time prior to traveling (Hour)	3	5	9	20	23
		Maximum speed on traveling		20 km/h or 12.4 MPH		10 km/h or 6.2 MPH	
555/80R57 VSDL	64.8	Rest time prior to traveling (Hour)	1.5	3.5	7	10	14
		Maximum speed on traveling		20 km/h or 12.4 MPH		10 km/h or 6.2 MPH	
60/80R57 VSDL	69.5	Rest time prior to traveling (Hour)	1	2	4	9	11
		Maximum speed on traveling			10 km/h or 6.2 MPH		
65/65-57 DL	64.8	Rest time prior to traveling (Hour)	3	6.5	10	* 	
		Maximum speed on traveling	20 km/h or 12.4 MPH	10 km/h or 6.2 MPH		* 	

*Please consult a Bridgestone representative.

Remarks:

- Time for cooling temperature of the tire (Parked up the loader) should be applied prior to start to travel on the road.
- Ambient temperature of 38°C or 100°F is assumed.
- Maximum load on tire should be less than the Load per tire in the above table.
- Air pressure for "Drive-Away" should be the same as our recommended figures, and need to confirm whether it would not be higher figures that we experienced prior to travel.
- We recommend that it would be best way for Giant loaders to use tow hauler for long way traveling. The drive away distance should be shorter than 60km (37 miles) within 20 km/h as the maximum speed to minimize the risk of tire heat damage.
- If you have a plan of Drive-Away, please consult a Bridgestone representative.

OTHER SPECIFICATION

1. O-Ring Specifications

Code No.	Applicable Size		Diameter		Inner Circumference	
	Radial	Bias	mm	inch	mm	inch
P-24A	13.00R24 TG 14.00R24 TG 16.00R24 TG	13.00-24 TG 14.00-24 TG -	6.6	0.26	1768	69.61
P-25AX	14.00R25* 15.5R25 17.5R25 20.5R25 29.5R25 385/95R25 445/80R25 445/95R25	- 15.5-25 17.5-25 20.5-25 - - - -	6.8	0.27	1779	70.04
P-25B	14.00R25** 16.00R25 17.5R25 18.00R25 20.5R25 21.00R25 23.5R25 26.5R25 29.5R25 30/65R25(750/65R25) 385/95R25 445/80R25 445/95R25 505/95R25 525/80R25 550/65R25 600/65R25 650/65R25 750/65R25	- 16.00-25 17.5-25 18.00-25 20.5-25 21.00-25 23.5-25 26.5-25 29.5-25 - - - - - - - - -	9.8	0.39	1779	70.04
P-29B	29.5R29 33.25R29 775/65R29 875/65R29	29.5-29 - - -	9.8	0.39	2127	83.74

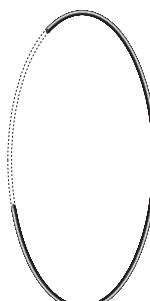
Code No.	Applicable Size		Diameter		Inner Circumference	
	Radial	Bias	mm	inch	mm	inch
P-33B	18.00R33 21.00R33 35/65R33	18.00-33 - 35/65-33	9.8	0.39	2382	93.78
P-35B	21.00R35 24.00R35 29.5R35 33.25R35 37.25R35	21.00-35 - - - 37.25-35	9.8	0.39	2572	101.26
P-39B	37.5R39 - 40.5/75R39 45/65R39	- 40/65-39 - -	9.8	0.39	2900	114.17
P-45B	45/65R45	45/65-45	9.8	0.39	3326	130.94
P-49B	27.00R49	-	9.8	0.39	3611	142.17
P-51C	30.00R51 33.00R51 36.00R51 50/65R51	- - - 50/65-51	12.7	0.5	3694	145.43
P-57C	37.00R57 40.00R57 42/90R57 46/90R57 50/90R57 55.5/80R57 60/80R57 - 65/65-57	- - - - - - - - 65/65-57	12.7	0.5	4129	162.56
P-63C	53/80R63 59/80R63	- -	12.7	0.5	4580	180.31

* For Rim Size 10.00-25

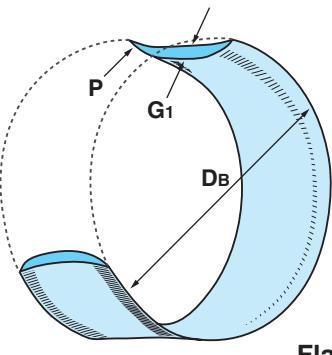
** For Rim Size 11.25-25

2. Flap Specifications

Flap	πD_B		G ₁		P	
	mm	inch	mm	inch	mm	inch
550/600-15	1175	46.3	4.0	0.16	129	5.1
650/700/750-15	1177	46.3	4.5	0.18	169	6.7
12/65B-15	1196	47.1	7.0	0.28	270	10.6
750/825AR15	1201	47.3	6.0	0.24	184	7.2
750/825-R16	1255	49.4	5.0	0.20	174	6.9
200D1000-R15	1201	47.3	6.5	0.26	205	8.1
700A825-R20	1255	49.4	5.0	0.20	180	7.1
900A111-R20	1201	47.3	6.0	0.24	205	8.1
1100B13/80-R20	1594	62.8	6.5	0.26	218	8.6
1400/14/80R20	1594	62.8	8.5	0.33	240	9.4
1300A1600-20	1618	63.7	8.0	0.31	246	9.7
42x17-20	1576	62.1	9.0	0.35	390	15.4
14/70-20	1587	62.5	9.0	0.35	331	13.0
1300-24	1916	75.4	9.0	0.35	229	9.0
1200A1400-24,25	1942	76.5	9.0	0.35	232	9.1
1100B1300-R24	1922	75.7	7.5	0.30	220	8.7
1300/1400-24,25	1942	76.5	9.0	0.35	232	9.1
1400/1600R24,25	1942	76.5	9.0	0.35	260	10.2
1600-24,25	1916	75.4	9.0	0.35	293	11.5
155A1800-24,25	1926	75.8	6.0	0.24	340	13.4
235-25	1934	76.1	9.0	0.35	560	22.1
265-25	2010	79.1	12.0	0.47	570	22.4
2100R33	2553	100.5	9.0	0.35	413	16.3

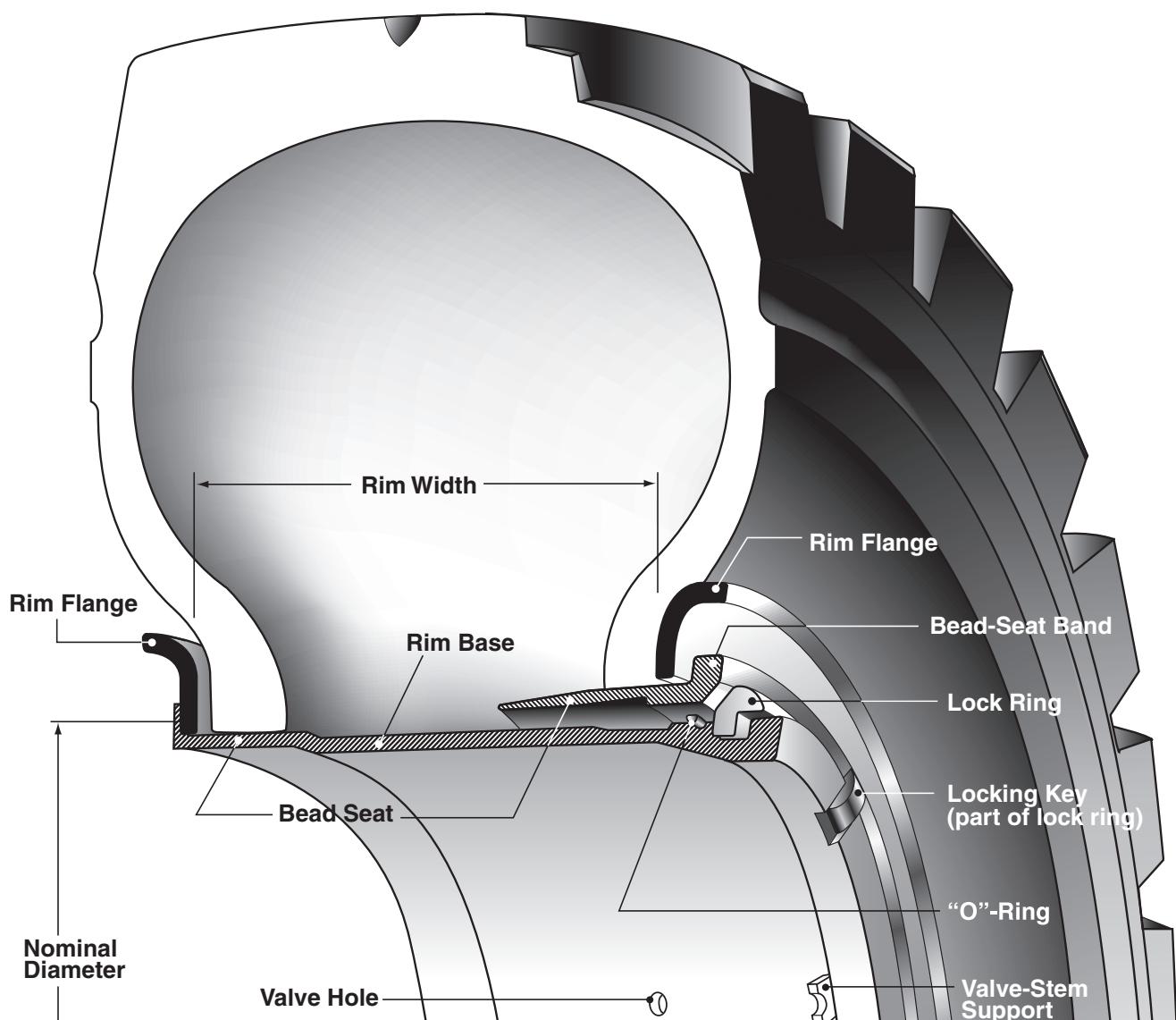


O-Ring



Flap

3. Rim and Valve



Five-piece fully-tapered bead-seat rim
with air-sealing "O"-ring gasket for earthmover

8.50V × 24

Nominal Diameter of Rim (inches)

Flange Type

Rim Width (inches)

3.1 Rim Designation

Full Tapered Bead Seat Rims (5 pieces)		
Recommended Rim/ Flange Height	Tire Size	
	Radial	Bias
11.00/1.5	14.5R15	-
11.25/2.0	16.00R25	16.00-25
	445/95R25	-
13.00/2.5	18.00R25	18.00-25
	505/95R25	-
	18.00R33	18.00-33
15.00/3.0	21.00R25	21.00-25
	21.00R33	-
	21.00R35	21.00-35
17.00/2.0	550/65R25	-
	600/65R25	-
17.00/3.5	24.00R35	24.00-35
19.50/2.5	23.5R25	23.5-25
	600/65R25	-
	650/65R25	-
19.50/4.0	27.00R49	-
22.00/3.0	750/65R25(30/65R25)	-
	26.5R25	26.5-25
22.00/4.5	30.00R51	-
24.00/3.0	750/65R25(30/65R25)	-
24.00/3.5	775/65R29	-
24.00/5.0	33.00R51	-
25.00/3.5	29.5R25	29.5-25
	775/65R29	-
	29.5R29	29.5-29
	29.5R35	-
26.00/5.0	36.00R51	-
27.00/3.5	875/65R29	-
	33.25R29	-
	33.25R35	-
27.00/6.0	37.00R57	-
	42/90R57	-
28.00/3.5	875/65R29	-
	35/65R33	35/65-33
29.00/6.0	40.00R57	-
	42/90R57	-
	46/90R57	-
31.00/4.0	37.25R35	37.25-35
32.00/4.0	-	40/65-39
32.00/4.5	37.5R39	-
	40.5/75R39	-
	45/65R39	-
32.00/6.0	46/90R57	-
	50/90R57	-
32.00/6.5	50/90R57	-
34.00/6.0	50/90R57	-
34.00/6.5	50/90R57	-
36.00/4.5	45/65R39	-
	45/65R45	45/65-45
36.00/5.0	53/80R63	-
38.00/5.0	53/80R63	-
40.00/4.5	50/65R51	50/65-51
41.00/5.0	59/80R63	-
44.00/5.0	59/80R63	-
44.00/6.0	55.5/80R57	-
47.00/6.0	60/80R57	-
52.00/6.0	-	65/65-57

Full Tapered Bead Seat Rims (3 pieces)		
Recommended Rim/ Flange Height	Tire Size	
	Radial	Bias
10.00/1.5	14.00R25	14.00-25
	385/95R25	-
12.00/1.3	15.5R25	15.5-25
14.00/1.5	17.5R25	17.5-25
	445/80R25	-
	550/65R25	-
17.00AL/1.7(★1only)	20.5R25	-
17.00/1.7	-	20.5-25
	600/65R25	-
17.00/2.0	20.5R25	20.5-25
	525/80R25	-
	550/65R25	-

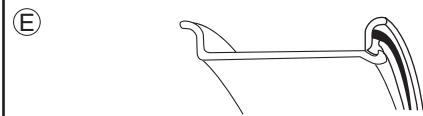
Drop Center Rims (DC, W, DW)		
Recommended Rim/ Flange Height	Tire Size	
	Radial	Bias
7JA	-	27x8.50-15
	-	9.5/65-15
11LB	-	14.0/65-15
6LB	-	7.50-16
8LB	-	10.5/80-16
10LB	-	12.5/70-16
8.25	-	10-16.5
	11R22.5	-
9.75	-	12-16.5
W10	-	15.5/60-18
W13	-	15.5/70-18
W14L	-	17.5/65-20
W15L	-	16.9-24
W16L	-	18.4-24
DW20A	-	23.1-26
DW20B	-	23.1-26

Semi Drop Center Rims (SDC)



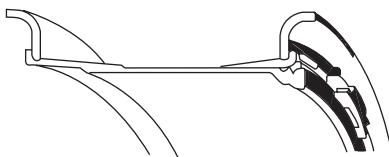
Recommended Rim/ Flange Height	Tire Size	
	Radial	Bias
6.00GS	-	7.50-15
	-	7.50-16
8.00TG	13.00R24 TG	13.00-24 TG
	14.00R24 TG	14.00-24 TG
10.00F	-	33x12.5-15
10.00VA	-	13.00-24 TG
	14.00R24 TG	14.00-24 TG
	16.00R24 TG	16.00-24 TG
11x20	335/80R20	-
	365/80R20	-
11.00TG	-	14/70-20
13x20	405/70R20	-
14.00TG	-	42x17-20

Flat Base Rims

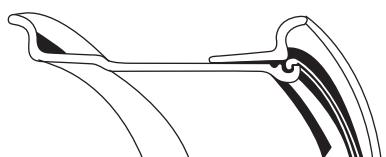


Recommended Rim/ Flange Height	Tire Size	
	Radial	Bias
6.50T	8.25R15	-
7.00T	9.00R20	9.00-20
7.50V	10.00R15	-
-	10.00-20	10.00-20
8.00V	11.00R20	11.00-20
8.5	-	12.00-24
8.50V	12.00R20	12.00-20
	12.00R24	12.00-24
9.00	12R22.5	-
10.00V	16.00R20	-
10.00WI	14.00R20	-
10.00W	16.00R20	-
	14.00R24	14.00-24

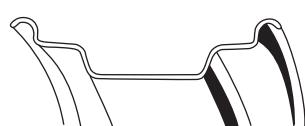
(A)



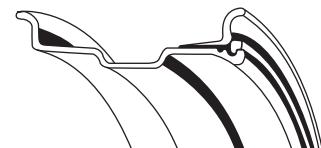
(B)



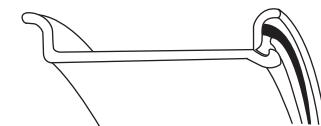
(C)



(D)

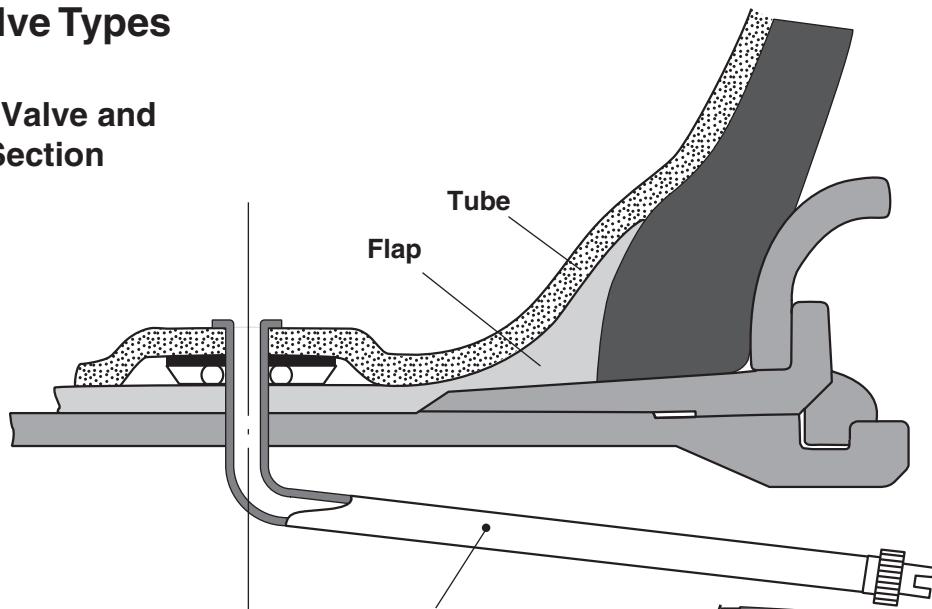


(E)

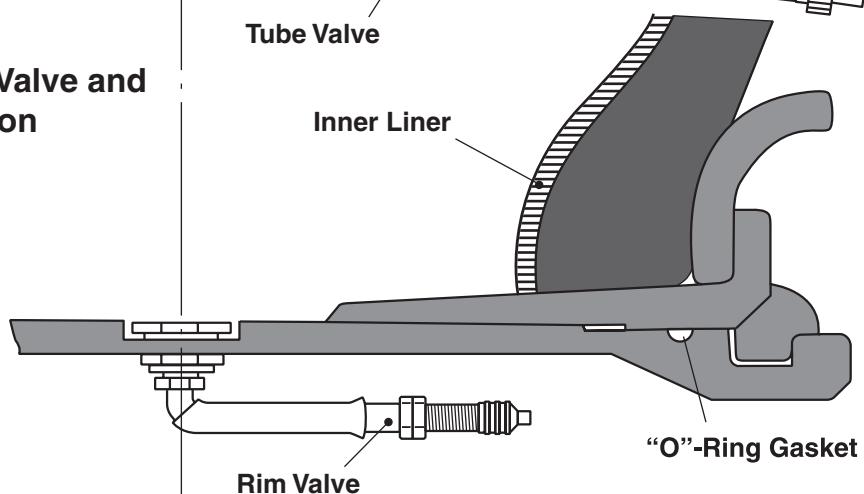


3.2 Valve Types

Tube Valve and Rim Section



Tubeless Valve and Rim Section



Tube Valve

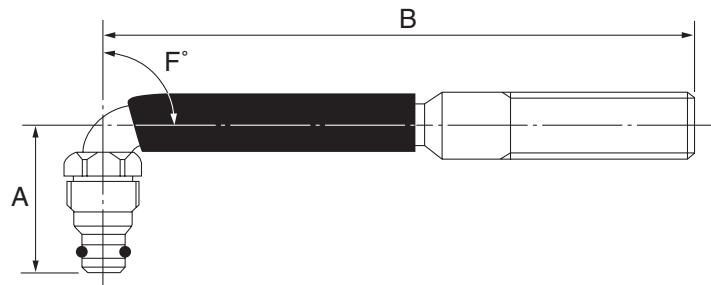


Tubeless Valve



Interchangeable Swivel Valves For Tubeless Or Tube Type Tires

TRJ4000-4 1/2



Valve No.	Large Bore Valves		
	A	B	F°
TRJ650	27.5	79.5	80°
TRJ4000-4 1/2	31	114.0	90°
TRJ4000-8	31	203.0	90°
TRJ4000-7 1/2	31	190.5	90°

This type of VALVE consists of a combination of the rubber base SP-4000 or SP-2.

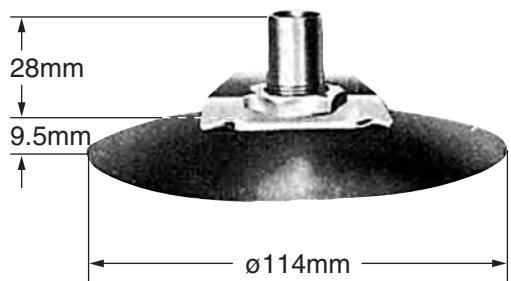
Tubeless Type Spud

SP2



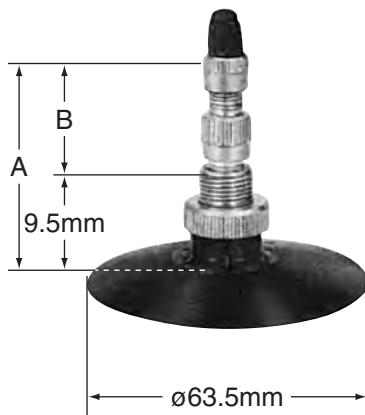
Tube Type Spud

SP4000



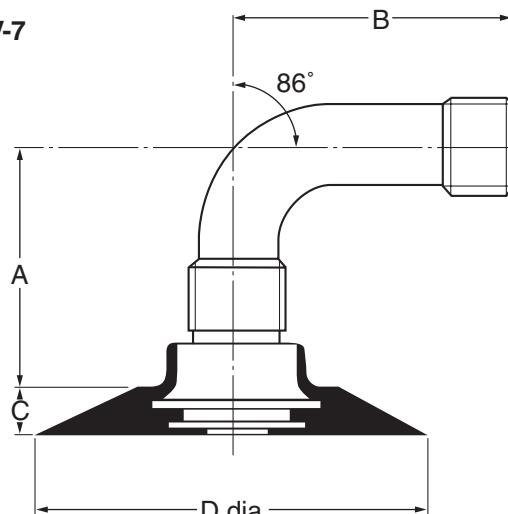
Tube Type Rubber Base Valves

TR218

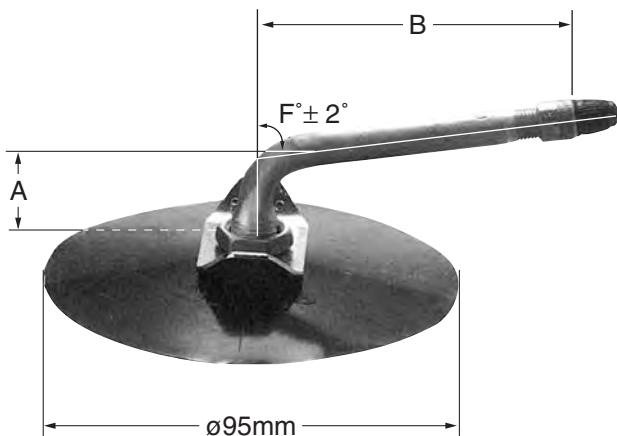


Valve No.	Dimensions (mm)	
	A	B
TR218A	20.6	11.1
TR220A	30.2	20.7

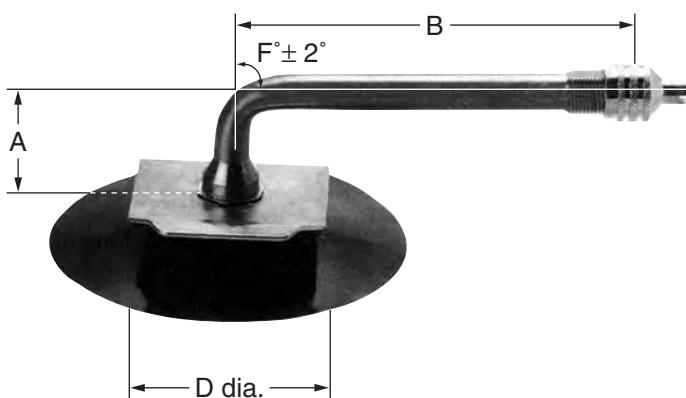
PV-7



Valve No.	Dimensions (mm)			
	A	B	C	D dia.
PV-7	73	100	7	90

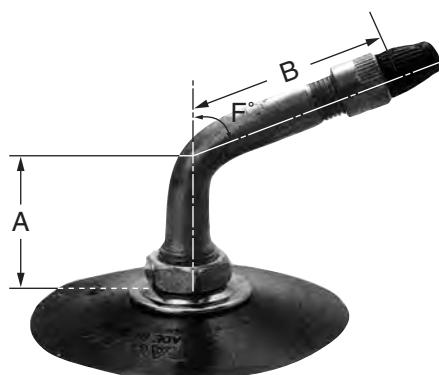
JS75

Valve No.	Dimensions (mm)		
	A	B	F°
JS75	24	70	82°
TR76A	24	86	86°
TR77A	24	105	86°
TR77E	35	94	86°
TR78A	24	127	86°
TR175A	24	115	86°
TR177A	24	95	86°
JS177B	28	91	86°
JS179	36	133	86°
JS179A	29	137	86°
TR179A	24	141	86°
PV38	24	136	80°
PV89	42.8	123	86°
V3-02-3	35.8	44.5	85°
V3-02-15	23.3	145.5	86°

JSJ1175

Large Bore Valves

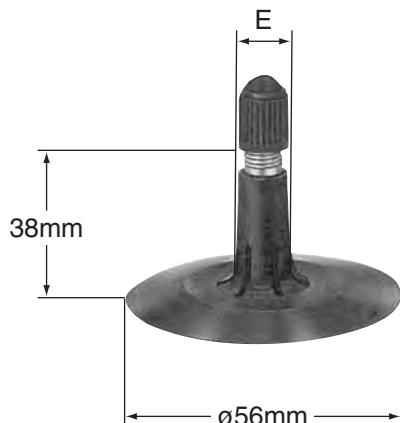
Valve No.	Dimensions (mm)			
	A	B	Ddia.	F°
JSJ1078S	30	121	32	84°
JSJ1175	35	105	32	88°
JSJ1175B	35	105	32	80°
JSJ1175C	35	102	32	60°

JS2

Valve No.	Dimensions (mm)		
	A	B	F°
JS2	26	33	70°

Tube Type Rubber Covered Valves

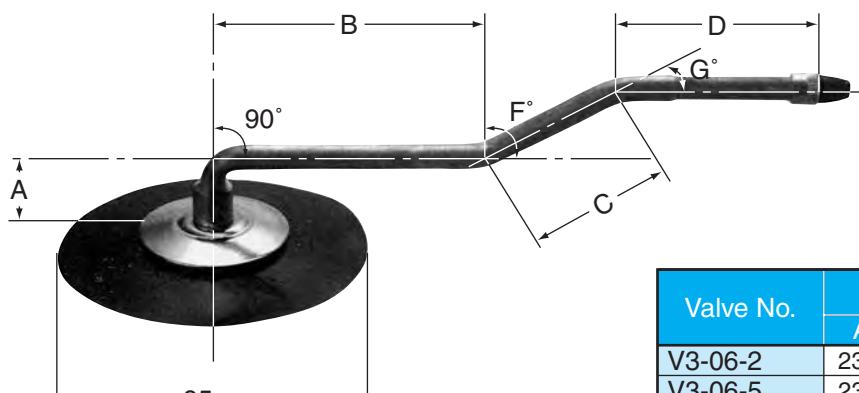
TR13



Valve No.	Dimensions (mm)
	E
TR13	11.5
TR15	16.5

Tube Type Screw-on Valves

PV88



Valve No.	Dimensions (mm)					
	A	B	C	D	F°	G°
V3-06-2	23.3	44.5	20.8	37.5	55°	55°
V3-06-5	23.3	62.5	25.9	49.0	41°	41°
PV88	26.3	80.5	47.0	54.5	30°	30°
PV118	35.4	130.0	84.0	—	10°	—

TR150CW



Valves, TR150 and TR150CW, are also called Hand Bendable Valves, that is, their stems are made of very flexible material permitting manual bending in all directions and to any angle.

OTHER INFORMATION

1. Unit Conversion Tables

INFLATION PRESSURE

kg/cm ²	psi	kPa	bar	kg/cm ²	psi	kPa	bar	kg/cm ²	psi	kPa	bar	kg/cm ²	psi	kPa	bar
0.1	1	10	0.1	2.6	37	250	2.5	5.1	72	490	4.9	7.6	108	740	7.4
0.2	3	20	0.2	2.7	38	260	2.6	5.2	74	500	5.0	7.7	109	750	7.5
0.3	4	30	0.3	2.8	40	270	2.7	5.3	75	510	5.1	7.8	111	760	7.6
0.4	6	40	0.4	2.9	41	280	2.8	5.4	77	520	5.2	7.9	112	770	7.7
0.5	7	50	0.5	3.0	43	290	2.9	5.5	78	530	5.3	8.0	114	780	7.8
0.6	9	60	0.6	3.1	44	300	3.0	5.6	80	540	5.4	8.1	115	790	7.9
0.7	10	70	0.7	3.2	45	310	3.1	5.7	81	550	5.5	8.2	116	800	8.0
0.8	11	80	0.8	3.3	47	320	3.2	5.8	82	560	5.6	8.3	118	810	8.1
0.9	13	90	0.9	3.4	48	330	3.3	5.9	84	570	5.7	8.4	119	820	8.2
1.0	14	100	1.0	3.5	50	340	3.4	6.0	85	580	5.8	8.5	121	830	8.3
1.1	16	110	1.1	3.6	51	350	3.5	6.1	87	590	5.9	8.6	122	840	8.4
1.2	17	120	1.2	3.7	53	360	3.6	6.2	88	600	6.0	8.7	124	850	8.5
1.3	18	130	1.3	3.8	54	370	3.7	6.3	89	610	6.1	8.8	125	860	8.6
1.4	20	140	1.4	3.9	55	380	3.8	6.4	91	620	6.2	8.9	126	870	8.7
1.5	21	150	1.5	4.0	57	390	3.9	6.5	92	630	6.3	9.0	128	880	8.8
1.6	23	160	1.6	4.1	58	400	4.0	6.6	94	640	6.4	9.1	129	890	8.9
1.7	24	170	1.7	4.2	60	410	4.1	6.7	95	650	6.5	9.2	131	900	9.0
1.8	26	180	1.8	4.3	61	420	4.2	6.8	97	660	6.6	9.3	132	910	9.1
1.9	27	190	1.9	4.4	62	430	4.3	6.9	98	670	6.7	9.4	133	920	9.2
2.0	28	200	2.0	4.5	64	440	4.4	7.0	99	680	6.8	9.5	135	930	9.3
2.1	30	210	2.1	4.6	65	450	4.5	7.1	101	690	6.9	9.6	136	940	9.4
2.2	31	220	2.2	4.7	67	460	4.6	7.2	102	700	7.0	9.7	138	950	9.5
2.3	33	230	2.3	4.8	68	470	4.7	7.3	104	710	7.1	9.8	139	960	9.6
2.4	34	240	2.4	4.9	70	480	4.8	7.4	105	720	7.2	9.9	141	970	9.7
2.5	36	250	2.5	5.0	71	490	4.9	7.5	107	730	7.3	10.0	142	980	9.8

WEIGHT

FROM POUND TO KILOGRAM

lb	kg	lb	kg	lb	kg	lb	kg
1	0.5	260	117.9	1200	544.3	5000	2268.0
10	4.5	280	120.0	1300	589.7	5200	2358.7
20	9.1	300	136.1	1400	635.0	5400	2449.4
30	13.6	320	145.2	1500	680.4	5600	2540.2
40	18.1	340	154.2	1600	725.8	5800	2630.9
50	22.7	360	163.3	1700	771.1	6000	2721.6
60	27.2	380	172.4	1800	816.5	7000	3175.2
70	31.8	400	181.4	1900	861.8	8000	3628.8
80	36.3	420	190.5	2000	907.2	9000	4082.4
90	40.8	440	199.6	2200	997.9	10000	4536.0
100	45.4	460	208.7	2400	1088.6	11000	4989.6
110	49.9	480	217.7	2600	1179.4	12000	5443.2
120	54.4	500	226.8	2800	1270.1	13000	5896.8
130	59.0	520	235.9	3000	1360.8	14000	6350.4
140	63.5	540	244.9	3200	1451.5	15000	6804.0
150	68.0	560	254.0	3400	1542.2	16000	7257.6
160	72.6	580	263.1	3600	1633.0	17000	7711.2
170	77.1	600	272.2	3800	1723.7	18000	8164.8
180	81.6	700	317.5	4000	1814.4	19000	8618.4
190	86.2	800	362.9	4200	1905.1	20000	9072.0
200	90.7	900	408.2	4400	1995.8		
220	99.8	1000	453.6	4600	2086.6		
240	108.9	1100	499.0	4800	2177.3		

FROM KILOGRAM TO POUND

kg	lb	kg	lb	kg	lb	kg	lb
1	2.2	130	286.6	600	1322.8	2500	5511.5
5	11.0	140	308.6	650	1433.0	2600	5732.0
10	22.0	150	330.7	700	1543.2	2700	5952.4
15	33.1	160	352.7	750	1653.5	2800	6173.0
20	44.1	170	374.8	800	1763.7	2900	6393.3
25	55.1	180	396.8	850	1873.9	3000	6613.8
30	66.1	190	418.9	900	1984.1	3500	7716.1
35	77.2	200	440.9	950	2094.4	4000	8818.4
40	88.2	210	463.0	1000	2204.6	4500	9920.7
45	99.2	220	485.0	1100	2425.1	5000	11023.0
50	110.2	230	507.1	1200	2645.5	5500	12125.3
55	121.3	240	529.1	1300	2866.0	6000	13227.6
60	132.3	250	551.2	1400	3086.4	6500	14329.9
65	143.3	260	573.2	1500	3306.9	7000	15432.2
70	154.3	270	595.2	1600	3527.4	7500	16534.5
75	165.3	280	617.3	1700	3747.8	8000	17636.8
80	176.4	290	639.3	1800	3968.3	8500	18739.1
85	187.4	300	661.4	1900	4188.7	9000	19841.4
90	198.4	350	771.6	2000	4409.2	9500	20943.7
95	209.4	400	881.8	2100	4629.7	10000	22046.0
100	220.5	450	992.1	2200	4850.1		
110	242.5	500	1102.3	2300	5070.6		
120	264.6	550	1212.5	2400	5291.0		

TEMPERATURE

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
-19	-2.2	11	51.8	41	105.8	71	159.8	101	213.8	131	267.8
-18	-0.4	12	53.6	42	107.6	72	161.6	102	215.6	132	269.6
-17	1.4	13	55.4	43	109.4	73	163.4	103	217.4	133	271.4
-16	3.2	14	57.2	44	111.2	74	165.2	104	219.2	134	273.2
-15	5.0	15	59.0	45	113.0	75	167.0	105	221.0	135	275.0
-14	6.8	16	60.8	46	114.8	76	168.8	106	222.8	136	276.8
-13	8.6	17	62.6	47	116.6	77	170.6	107	224.6	137	278.6
-12	10.4	18	64.4	48	118.4	78	172.4	108	226.4	138	280.4
-11	12.2	19	66.2	49	120.2	79	174.2	109	228.2	139	282.2
-10	14.0	20	68.0	50	122.0	80	176.0	110	230.0	140	284.0
-9	15.8	21	69.8	51	123.8	81	177.8	111	231.8	141	285.8
-8	17.6	22	71.6	52	125.6	82	179.6	112	233.6	142	287.6
-7	19.4	23	73.4	53	127.4	83	181.4	113	235.4	143	289.4
-6	21.2	24	75.2	54	129.2	84	183.2	114	237.2	144	291.2
-5	23.0	25	77.0	55	131.0	85	185.0	115	239.0	145	293.0
-4	24.8	26	78.8	56	132.8	86	186.8	116	240.8	146	294.8
-3	26.6	27	80.6	57	134.6	87	188.6	117	242.6	147	296.6
-2	28.4	28	82.4	58	136.4	88	190.4	118	244.4	148	298.4
-1	30.2	29	84.2	59	138.2	89	192.2	119	246.2	149	300.2
0	32.0	30	86.0	60	140.0	90	194.0	120	248.0	150	302.0
1	33.8	31	87.8	61	141.8	91	195.8	121	249.8	160	320.0
2	35.6	32	89.6	62	143.6	92	197.6	122	251.6	170	338.0
3	37.4	33	91.4	63	145.4	93	199.4	123	253.4	180	356.0
4	39.2	34	93.2	64	147.2	94	201.2	124	255.2	190	374.0
5	41.0	35	95.0	65	149.0	95	203.0	125	257.0	200	392.0
6	42.8	36	96.8	66	150.8	96	204.8	126	258.8		
7	44.6	37	98.6	67	152.6	97	206.6	127	260.6		
8	46.4	38	100.4	68	154.4	98	208.4	128	262.4		
9	48.2	39	102.2	69	156.2	99	210.2	129	264.2		
10	50.0	40	104.0	70	158.0	100	212.0	130	266.0		

TREAD DEPTH CONVERSION TABLE FROM INCH TO MILLIMETER

inch/32	mm	inch/32	mm	inch/32	mm	inch/32	mm
1	0.8	21	16.7	41	32.5	105	83.3
2	1.6	22	17.5	42	33.3	110	87.3
3	2.4	23	18.3	43	34.1	115	91.3
4	3.2	24	19.1	44	34.9	120	95.3
5	4.0	25	19.8	45	35.7	125	99.2
6	4.8	26	20.6	46	36.5	130	103.2
7	5.6	27	21.4	47	37.3	135	107.2
8	6.4	28	22.2	48	38.1	140	111.1
9	7.1	29	23.0	49	38.9	145	115.1
10	8.0	30	23.8	50	39.7	150	119.1
11	8.7	31	24.6	55	43.7	155	123.0
12	9.5	32	25.4	60	47.6	160	127.0
13	10.3	33	26.2	65	51.6	165	131.0
14	11.1	34	27.0	70	55.6	170	134.9
15	11.9	35	27.8	75	59.5	175	138.9
16	12.7	36	28.6	80	63.5	180	142.9
17	13.5	37	29.4	85	67.5	185	146.9
18	14.3	38	30.2	90	71.4	190	150.8
19	15.1	39	31.0	95	75.4	195	154.8
20	15.9	40	31.8	100	79.4	200	158.8

FROM MILLIMETER TO INCH

mm	inch/32	mm	inch/32	mm	inch/32	mm	inch/32
1	1.3	19	23.9	37	46.6	75	95.5
2	2.5	20	25.2	38	47.9	80	100.8
3	3.8	21	26.5	39	49.1	85	107.1
4	5.0	22	27.7	40	50.4	90	113.4
5	6.3	23	29.0	41	51.7	95	119.7
6	7.6	24	30.2	42	52.1	100	126.0
7	8.8	25	31.5	43	54.2	105	132.3
8	10.1	26	32.8	44	55.4	110	138.6
9	11.3	27	34.0	45	56.7	115	144.9
10	12.6	28	35.3	46	58.0	120	151.2
11	13.9	29	36.5	47	59.2	125	157.5
12	15.1	30	37.8	48	60.5	130	163.8
13	16.4	31	39.1	49	61.7	135	170.1
14	17.6	32	40.3	50	63.0	140	176.4
15	18.9	33	41.6	55	69.3	145	182.7
16	20.2	34	42.8	60	75.6	150	189.0
17	21.4	35	44.1	65	81.9		
18	22.7	36	45.4	70	88.2		

PRESSURE

	kg/cm ²	kPa	bar	psi
kg/cm ²	1	98.07	0.9807	14.22
kPa	0.0102	1	0.01	0.1450
bar	1.020	100	1	14.503
psi	0.0703	6.895	0.06895	1

LENGTH

	m.meter	c.meter	meter	k.meter	inch	foot	yard	mile
m.meter	1	0.10000	0.00100	-	0.03937	0.00328	0.00109	-
c.meter	10.0000	1	0.01000	0.00001	0.39371	0.03281	0.01094	-
meter	1000.00	100.00	1	0.00100	39.3707	3.28089	1.09363	0.00062
k.meter	-	100000	1000.00	1	39370.7	3280.89	1093.63	0.62138
inch	25.3995	2.53995	0.02540	0.00003	1	0.08333	0.02778	0.00002
foot	304.794	30.4794	0.30479	0.00030	12.0000	1	0.33333	0.00019
yard	914.383	91.4383	0.91438	0.00091	36.0000	3.00000	1	0.00057
mile	-	160931	1609.31	1.60931	63360.0	5280.00	1760.00	1

AREA

	meter ²	are	hectare	k.meter ²	foot ²	yard ²	acre	mile ²
meter ²	1	0.010000	0.000100	0.000001	10.7639	1.19600	0.000247	0.000000
are	100.000	1	0.010000	0.000100	1076.39	119.600	0.024710	0.000039
hectare	10000.0	100.000	1	0.010000	107639.0	11960.0	2.47105	0.003861
k.meter ²	-	10000.0	100.000	1	-	-	247.105	0.386098
foot ²	0.092903	0.000929	0.000009	0.000000	1	0.111111	0.000023	0.000000
yard ²	0.836130	0.008361	0.000084	0.000000	9.00000	1	0.000207	0.000000
acre	4046.87	40.4687	0.404687	0.004047	43560.2	4840.00	1	0.001562
mile ²	-	25900.2	259.002	2.59002	-	-	640.000	1

WEIGHT

	gram	k.gram	ton	s.ton	l.ton	ounce	pound
gram	1	0.00100	-	-	-	0.03527	0.00220
k.gram	1000.00	1	0.00100	0.00110	0.00098	35.2739	2.20462
ton	-	1000.00	1	1.10230	0.98421	35273.9	2204.62
s.ton	907185	907.185	0.90719	1	0.89286	32000.0	2000.00
l.ton	-	1016.04	1.01604	1.12000	1	35840.0	2240.00
ounce	28.3495	0.02835	0.00003	0.00003	0.00003	1	0.06250
pound	453.592	0.45359	0.00045	0.00050	0.00045	16.0000	1

CAPACITY

	cub.meter	liter	cub.inch	cub.foot	cub.yard	U.S.gallon	U.K.gallon
cub.meter	1	1000.00	61027.1	35.3147	1.30802	264.186	220.216
liter	0.00100	1	61.0271	0.03532	0.00131	0.26419	0.22022
cub.inch	0.00002	0.01639	1	0.00058	0.00002	0.00433	0.00361
cub.foot	0.02832	28.3167	1728.00	1	0.03704	7.48051	6.23549
cub.yard	0.76455	764.554	46656.0	27.0000	1	201.974	168.358
U.S.gallon	0.00379	3.78543	231.000	0.13368	0.00495	1	0.83270
U.K.gallon	0.00455	4.54596	277.413	0.16037	0.00594	1.20091	1

FORCE

$$1 \text{ kgf} = 9.81 \text{ N}$$

POWER (horse power)

$$1 \text{ hp} = 550 \text{ ft} \cdot \text{lbf/s} = 745.7 \text{ W}$$

$$1 \text{ PS} = 75 \text{ m} \cdot \text{kgf/s} = 735.5 \text{ W}$$

2. Specific Weight (Approximately)

Material	Pounds/cu.yd	Metric Tons/m ³	Material	Pounds/cu.yd	Metric Tons/m ³
Anthracite	2000	1.2	Iron ore: Magnetite	4700	2.8
Basalt	3400	2.0	Limestone	2500	1.5
Bauxite	2400	1.4	Pyrites	4400	2.6
Clay: dry	2500	1.5	Over-Burden		
wet	2900	1.7	75%rock-25%earth	3400	2.0
Coal	1200	0.7	50%rock-50%earth	2900	1.7
Copper ore	2700	1.6	25%rock-75%earth	2700	1.6
Crushed gypsum	2700	1.6	Sand: dry	2400	1.4
Earth: dry	2500	1.5	wet	3000	1.8
wet	2700	1.6	Sandstone	2500	1.5
Granite	2900	1.7	Snow: dry	170	0.1
Gravel: dry	2900	1.7	wet	840	0.5
wet	3400	2.0	Uranium	2700	1.6

Note: Weight of materials varies with moisture content, grain size, degree of compaction, etc. Test must be made to know exact weight.

MEMO

DATA BOOK



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