

2024 TRUCK TIRE

# TRUCK & BUS TIRE CATALOG



# TBR







Truck and Bus Radial Tire

NOTES

- T/L: Tubeless Type
- M+S : Mud & Snow
- UMS : Ultra Mileage & Safety
- 3PMSF : Three Peak Mountain Snowflake



# 2024 TRUCK TIRE TBR PRODUCT

		Long Haul	Regional	City	Off Road
General Commercial Vehicle		Smart LINE			
		Smart FLEX			
			Smart WORK		
			Smart City		
Coach		Smart TOURING			
Special Purpose		Smart CONTROL			
		· Optimized for fuel efficiency and top speed for long distance driving. · Optimized for long tread life and durability at all types of driving in all-weather. · Optimized for toughness, traction with high load on aggressive road surface.		· Optimized for even wear and smooth traction during frequent stop & go driving. · Optimized for a comfortable and safe journey while driving passengers. · Optimized for traction and safety in winter driving.	

# THAI RUBBER TIRE RANGE

Optimized for fuel efficiency, endurance at long distance driving.  
the best performance in line haul applications.

STEER	e <sup>3</sup> MAX AL21			
DRIVE	e <sup>3</sup> MAX DL21	DL11	Smart Flex DL12	Smart Flex DL15(+)
TRAILER	e <sup>3</sup> MAX TL21			

Optimized for a comfortable and safe journey while driving passengers.  
the best performance in bus application.

STEER	AL22			
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Optimized for even wear and smooth traction in frequent stop & go driving.  
the best performance in pickup and delivery driving.

STEER	AU04(+)			
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Optimized for long tread life and toughness at all types of driving  
the best performance in regional applications.

STEER		AH32	AH37
DRIVE	DH35	DH07	
	DH37	DH06	
TRAILER			

Optimized for toughness, traction on aggressive road surface.  
the best performance in On/Off applications.

STEER	AM15(+)	AM09	
DRIVE	DM09	DM04	

# e³ MAXAL21

Long-Haul "Smartec" Series/Steer Position **Approved for SmartWay & CARB**

e³ MAX AL21 has a stabilized footprint which provides longer mileage by decreasing uneven wear. Optimized lateral siping provides better traction and a round-edge sipe that prevents tearing and cracking. (Unlimited Retreads / 7 years)



Sizes & Specifications (Pattern Code: AL21)

S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					S	D	S	D								
3003108	11R22.5	14	T/L	8.25	105	105	6,175	5,840	41.4	11.1	8.1	19	500	19.3	75	125
3003109	11R22.5	16	T/L	8.25	120	120	6,610	6,005	41.4	11.1	8.1	19	498	19.4	75	125
3003110	11R24.5	14	T/L	8.25	105	105	6,610	6,005	43.5	11.3	8.1	19	477	20.3	75	131
3002431	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.2	11.7	8.5	19	514	18.7	75	114
3002488	295/75R22.5	16	T/L	8.25	120	120	7,160	6,610	40.2	11.7	8.5	19	514	18.6	75	114
3003112	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	41.5	10.9	8.1	19	499	19.4	75	124

- Use inflation pressure specifications on vehicle tire placard.
- Tire construction and material specifications subject to change without notice or obligation.

OE Manufacturer Partner



Recommended Vehicle Types & Position



# e³ MAXDL21



Premium Long Haul/Drive Position

Engineered to maximize traction and tread life, the DL21 uses our heel and toe stopper technology to strengthen the tread blocks over time. Its three-dimensional siping design reinforces interlocking between tread blocks to ensure that the tire performs up to its highest ability while also staying reliable. (Unlimited Retreads / 7 years)



Sizes & Specifications (Pattern Code: DL21)

S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					S	D	S	D								
3003179	11R22.5	14	T/L	8.25	105	105	6,175	5,840	42.2	11.3	9.1	30	494	19.7	75	140
3003180	11R22.5	16	T/L	8.25	120	120	6,610	6,005	42.2	11.3	9.1	30	493	19.7	75	140
3003181	11R24.5	14	T/L	8.25	105	105	6,610	6,005	44.3	11.3	9.1	30	472	20.6	75	146
3003182	11R24.5	16	T/L	8.25	120	120	7,160	6,610	44.3	11.3	9.1	30	469	20.6	75	146
3002432	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.7	11.7	9.3	30	510	19.0	75	130
3003183	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	42.2	11.0	9.3	30	492	19.8	75	138

- Use inflation pressure specifications on vehicle tire placard.
- Tire construction and material specifications subject to change without notice or obligation.

Recommended Vehicle Types & Position



# Smart FLEXDL15 (+)



Long & Regional Haul/Drive Position

Utilizing Hankook's three-dimensional deep cut siping and Smartec Technology, the DL15 is designed to maximize fuel efficiency and traction performance for long and regional haul applications. Its tread design is sure to deliver a long lasting and reliable experience.

Sizes & Specifications (Pattern Code: DL15)

S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					S	D	S	D								
* 3003141	11R22.5	14	T/L	8.25	105	105	6,175	5,840	41.8	11.3	9.6	26	501	19.5	75	132
* 3003142	11R22.5	16	T/L	8.25	120	120	6,610	6,005	41.8	11.3	9.6	26	499	19.6	75	132
* 3003143	11R24.5	14	T/L	8.25	105	105	6,610	6,005	44.0	11.3	9.6	26	479	20.5	75	141
* 3003144	11R24.5	16	T/L	8.25	120	120	7,160	6,610	44.0	11.3	9.6	26	477	20.5	75	141
* 3002908	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.7	11.9	9.6	26	515	19.0	75	126
* 3003145	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	41.9	11.0	9.6	26	499	19.7	75	132

Sizes & Specifications (Pattern Code: DL15+)

S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					S	D	S	D								
<b>New</b> ** 3003870	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.6	11.6	9.6	25	513	19.0	75	124

- Use inflation pressure specifications on vehicle tire placard.
- Tire construction and material specifications subject to change without notice or obligation.

\* DL15 is discontinued Q2 2022    \*\* DL15(+)new in Q2 2022

Recommended Vehicle Types & Position



# Smart FLEXDL12



Long & Regional Haul/Drive Position

The DL12 incorporates 3D siping, providing excellent traction and long original tread life. Wide tread design and combined structure of rib and block pattern provides stability, longer mileage, and better handling performance in all weather conditions.

Sizes & Specifications (Pattern Code: DL12)

S-Code	Size															
3002142	11R22.5															
3002143	11R22.5	16	T/L	8.25	120	120	6,610	6,005	42.0	11.3	9.6	28	496	19.7	75	134
3002144	11R24.5	14	T/L	8.25	105	105	6,610	6,005	44.0	11.3	9.6	28	475	20.6	75	144
3002145	11R24.5	16	T/L	8.25	120	120	7,160	6,610	44.0	11.3	9.6	28	474	20.6	75	144
3001874	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.7	11.6	9.6	28	511	19.0	75	129
3002140	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	42.0	11.3	9.6	28	495	19.7	75	137

- Use inflation pressure specifications on vehicle tire placard.
- Tire construction and material specifications subject to change without notice or obligation.

Recommended Vehicle Types & Position



# DL11

## Long Haul / Drive Position

Large blocks with 3D-siping ensure traction capabilities in all weather conditions and improves overall mileage. New tread compound enhances dispersion and fuel efficiency.  
(Unlimited Retreads / 7 years)



Sizes & Specifications (Pattern Code: DL11)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
3001706	11R22.5	14	T/L	8.25	105	105	6,175	5,840	41.9	11.1	8.5	26	498	19.5	75	128
3001705	11R22.5	16	T/L	8.25	120	120	6,610	6,005	41.9	11.1	8.5	26	496	19.6	75	128
3001708	11R24.5	14	T/L	8.25	105	105	6,610	6,005	43.9	11.1	8.5	26	475	20.5	75	135
3001707	11R24.5	16	T/L	8.25	120	120	7,160	6,610	43.9	11.1	8.5	26	474	20.5	75	136
3001592	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.7	11.6	8.5	26	510	19.0	75	121
3001704	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	41.9	11.3	8.5	26	494	19.4	75	128

- Use inflation pressure specifications on vehicle tire placard.
- Tire construction and material specifications subject to change without notice or obligation.

### Recommended Vehicle Types & Position



# e<sup>3</sup>MAXTL21

## Long Haul / Trailer Position

The TL21 contains a formulated tread compound designed to run longer while keeping a lower temperature, ultimately resulting in excellent tread wear. Its tapered grooves also allow for improved fuel efficiency.



Sizes & Specifications (Pattern Code: TL21)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
3002769	11R22.5	14	T/L	8.25	105	105	6,175	5,840	41.1	11.0	8.0	12	504	19.1	75	106
3002828	11R24.5	14	T/L	8.25	105	105	6,610	6,005	43.1	11.1	8.0	12	480	20.0	75	112
3002383	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	39.7	11.6	8.3	12	518	18.5	75	102
3002849	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	41.1	10.8	8.3	12	504	19.2	75	108

- Use inflation pressure specifications on vehicle tire placard.
- Tire construction and material specifications subject to change without notice or obligation.

### Recommended Vehicle Types & Position



## HighwayCoach/AllPosition

The AL22 delivers excellent braking performance while providing a comfortable and quiet ride. Its three-dimensional siping technology gives the tire excellent braking ability, and the tread design contains a main center rib for longer mileage.

Sizes & Specifications (Pattern Code: AL22)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
3003129	315/80R22.5	20	T/L	9.00	130	130	9,090	8,270	42.4	12.4	9.5	18	487	19.6	75	143

- Use inflation pressure specifications on vehicle tire placard.
- Tire construction and material specifications subject to change without notice or obligation.

### Recommended Vehicle Types & Position



# AH24

## Premium Regional Haul / All Position

Superior performance for local and regional applications focused on resistance to high scrub situations where endurance, durability, and high mileage are vital to intense driving conditions. Solid wide ribs provide gratifying ride control while the improved siping design displaces water for outstanding road grip in adverse weather conditions. An enhanced sidewall fights against damaging abrasions and cuts to extend casing durability and tire life cycle performance.

Sizes & Specifications (Pattern Code: AH24)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
3001472	11R22.5	14	T/L	8.25	105	105	6,175	5,840	41.7	11.0	8.8	22	496	19.5	75	127
3001786	11R22.5	16	T/L	8.25	120	120	6,610	6,005	41.7	11.0	8.8	22	495	19.5	75	127
3001787	11R24.5	14	T/L	8.25	105	105	6,610	6,005	43.7	11.3	8.8	22	474	20.3	75	130
3001788	11R24.5	16	T/L	8.25	120	120	7,160	6,610	43.7	11.3	8.8	22	473	20.3	75	130
3001630	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.4	11.3	8.8	22	510	18.9	75	118
3001628	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	41.6	11.3	8.8	22	495	19.6	75	119
Use inflation pressure specifications on vehicle tire placard. Tire construction and material specifications subject to change without notice or obligation.										OE Manufacturer Partner						

### Recommended Vehicle Types & Position



## Regional Haul / All Position

The AH37 is a multipurpose performance tire structurally designed for longer tread life, fuel efficiency, and durability in intense driving conditions. The optimized footprint offers improved traction and mileage performance for a smoother ride and better handling. An enhanced siping design displaces water for outstanding road grip in adverse weather conditions.

Sizes & Specifications (Pattern Code: AH37)																
3002448	10R22.5	14	T/L	7.50	115	115	5,675	5,355	40.0	10.0	7.6	16	516	18.8	75	99
3002162	11R22.5	14	T/L	8.25	105	105	6,175	5,840	41.5	11.1	8.3	20	499	19.4	75	122
3002163	11R22.5	16	T/L	8.25	120	120	6,610	6,005	41.5	11.1	8.3	20	498	19.4	75	122
3002444	11R24.5	14	T/L	8.25	105	105	6,610	6,005	43.5	11.1	8.3	20	478	20.3	75	129
3002445	11R24.5	16	T/L	8.25	120	120	7,160	6,610	43.5	11.1	8.3	20	476	20.4	75	129
3002449	12R22.5	16	T/L	9.00	120	120	7,390	6,780	42.7	12.0	8.5	19	484	19.9	75	138
* 3002450	255/70R22.5	16	T/L	7.50	120	120	5,510	5,070	36.7	9.9	7.8	18	560	17.2	75	94
3002452	275/70R22.5	18	T/L	8.25	131	131	6,940	6,395	37.9	11.0	8.9	19	545	17.6	75	109
3002446	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.3	11.7	8.3	20	513	18.8	75	116
3002512	295/75R22.5	16	T/L	8.25	120	120	6,610	6,005	40.3	11.7	8.3	20	512	18.8	75	116
3002447	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	41.5	11.3	8.3	20	498	19.4	75	123
• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation. * 3002450 is the only size M+S rated.										• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.						

### Recommended Vehicle Types & Position



### Recommended Vehicle Types & Position



# DH06

## Premium Deep - Open Shoulder / Drive Position

Developed for exceptional grip and control while maximizing casing life cycle mileage. Improved and deeper tread block design allows outstanding performance in rain, mud, and snow conditions.

Sizes & Specifications (Pattern Code: DH06)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
3000844	11R22.5	14	T/L	8.25	105	105	6,175	5,840	42.1	11.1	8.7	28	496	19.7	75	129
3001546	11R22.5	16	T/L	8.25	120	120	6,610	6,005	42.1	11.1	8.7	28	494	19.7	75	129
3001489	11R24.5	14	T/L	8.25	105	105	6,610	6,005	44.1	11.1	8.7	28	474	20.6	75	138
3001488	11R24.5	16	T/L	8.25	120	120	7,160	6,610	44.1	11.1	8.7	28	473	20.6	75	138
3001635	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.8	11.3	9.1	28	509	19.1	75	124
3000993	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	42.0	11.2	9.0	28	494	19.7	75	133
• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.																

### Recommended Vehicle Types & Position



## Super Traction / Drive Position

The DH37 is designed for extreme mileage and excellent traction in all road conditions. The large footprint and aggressive tread design allows outstanding performance in rain, mud and snow conditions.

Sizes & Specifications (Pattern Code: DH37)																
3003276	10R22.5	14	T/L	7.50	115	115	5,675	5,355	40.4	9.9	7.5	22	514	19.0	75	106
3002164	11R22.5	14	T/L	8.25	105	105	6,175	5,840	41.9	11.3	8.7	26	497	19.6	75	130
3002165	11R22.5	16	T/L	8.25	120	120	6,610	6,005	41.9	11.3	8.7	26	496	19.6	75	130
3002490	11R24.5	14	T/L	8.25	105	105	6,610	6,005	44.0	11.1	8.7	26	473	20.5	75	138
3002491	11R24.5	16	T/L	8.25	120	120	7,160	6,610	44.0	11.1	8.7	26	472	20.6	75	138
3003184	255/70R22.5	16	T/L	7.50	120	120	5,510	5,070	36.9	9.9	8.2	23	558	17.3	75	97
3002493	295/75R22.5	14	T/L	8.25	110	110	6,175	5,675	40.7	11.6	8.7	26	509	19.0	75	124
3002494	285/75R24.5	14	T/L	8.25	110	110	6,175	5,675	41.9	11.3	8.7	26	494	19.7	75	132




# SMART FLEX TH31



## Low Profile / Trailer Position

The TH31 is designed with a low rolling resistance coefficient in order to provide the customer with exceptional fuel performance. The TH31 also incorporates a slanted groove design which helps prevent tire chunking over time. The TH31 has a special **CHIP AND CUT COMPOUND** for outstanding durability.



Sizes & Specifications (Pattern Code: TH31)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
3003744	215/75R17.5	16	T/L	6.00	123	123	4,805	4,540	30.5	8.4	7.3	15	672	14.2	65	64
3003745	235/75R17.5	18	T/L	6.75	127	127	6,005	5,675	31.5	9.4	8.6	16	653	14.5	65	72
3003746	245/70R17.5	18	T/L	7.50	127	127	6,005	5,675	31.5	9.8	8.6	16	651	14.5	65	72
* 3003528	255/70R22.5	16	T/L	7.50	120	120	5,510	5,070	36.6	9.8	8.0	17	562	17.1	75	93

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.  
\* 4 Grooves: 255/70R22.5 only, not 3PMSF

## Recommended Vehicle Types & Position



# SMART FLEX AH35



## Optimized Design for Regional Haul Pick-up & Delivery / All Position

Unique groove design for multi performance provides outstanding traction and drainage performance on long and regional haul multi-applications. The combination of multi 3 dimensional siping provides excellent traction leading to an enhanced driving performance.



Sizes & Specifications (Pattern Code: AH35)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weigh (lbs)
					S	D	S	D								
3003086	215/75R17.5	14	T/L	6.00	102	102	3,750	3,530	30.5	8.5	7.4	16	679	14.1	75	63
* 3002583	235/75R17.5	14	T/L	6.75	110	110	4,410	4,190	31.4	9.4	8.4	15	660	14.6	75	68
3003268	235/75R17.5	16	T/L	6.75	110	110	4,410	4,190	31.4	9.4	8.4	15	660	14.6	75	66
3002622	225/70R19.5	14	T/L	6.75	110	110	3,970	3,750	32.2	8.9	7.4	17	640	15.0	87	67
3002624	245/70R19.5	16	T/L	7.50	120	120	5,070	4,850	33.3	9.8	8.0	17	619	15.5	81	77
3002635	265/70R19.5	14	T/L	7.50	110	110	5,510	5,205	34.3	10.1	8.7	17	604	15.8	81	87
3002660	8R19.5	12	T/L	6.00	110	110	3,525	3,305	33.6	8.0	5.4	16	613	15.8	75	62
• Use inflation pressure specifications on vehicle tire placard.																
• Tire construction and material specifications subject to change without notice or obligation.																

## Recommended Vehicle Types & Position



# SMART FLEX DH35



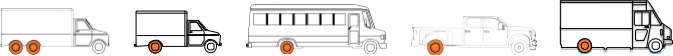
## All Weather Pick-Up & Delivery / Drive Position

The DH35 is designed with fuel efficiency, high mileage and powerful traction in mind. Thanks to its three dimensional siping technology and its wave shaped grooves, the tire is equipped with the M+S (Mud & Snow) and snowflake symbol providing excellent winter weather performance without neglecting summer conditions.



Sizes & Specifications (Pattern Code: DH35)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					S	D	S	D								
3003611	225/70R19.5	14	T/L	6.75	110	110	3,970	3,750	32.2	8.8	7.2	17	641	15.1	87	66
3003716	245/70R19.5	16	T/L	7.50	120	120	5,070	4,850	33.2	9.9	8.8	17	622	15.5	81	77
3002700	265/70R19.5	14	T/L	7.50	110	110	5,070	4,675	34.3	10.2	9.3	16	607	15.8	81	89
• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.										OE Manufacturer Partner						

## Recommended Vehicle Types & Position



Pickup & Delivery



Pick-up & Delivery / Drive Position

A Drive axle position tire for medium and long haul service. Structurally designed for improved durability, ride, and handling performance.

Sizes & Specifications (Pattern Code: DH07)

3001929	225/70R19.5	14	T/L	6.75	110	110	3,970	3,750	32.4	8.9	7.2	18	642	15.1	87	68
3002314	245/70R19.5	16	T/L	7.50	120	120	4,805	4,540	33.4	9.4	8.1	19	620	15.5	81	76
3002313	265/70R19.5	14	T/L	7.50	110	110	5,070	4,675	34.5	10.2	8.7	20	602	16.0	81	88

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

Recommended Vehicle Types & Position



Smart City AU04



City Bus / All Position

The AU04 is designed to be utilized in a urban city bus application. The tire utilizes its three-dimensional siping technology in order to increase tread block stiffness while also allowing for excellent handling and traction performance. This feature also helps prevent heel and toe wear, which is an essential feature in an environment that requires stop and go driving habits.



Sizes & Specifications (Pattern Code: AU04)

S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI) S	Max. Air (PSI) D	Max. Load (LBS) S	Max. Load (LBS) D	Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
* 3002707	305/70R22.5	20	T/L	9.00	130	130	8,050	7,390	39.5	12.0	9.8	22	521	18.3	68	134

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

Discontinued Q2 2022

AU04 not for use on RV

Recommended Vehicle Types & Position



Mixed Service

Smart Work AM15(+)



Wide Base / All Position

The AM15(+) is built for strength, traction and long life. Special **CHIP AND CUT COMPOUND** to enhance durability for severe conditions. The wider, deeper grooves with enhanced stone ejector platforms will prevent stone drilling and maximize removal mileage. Enhanced tread compounding and four-belt structure yield outstanding durability. Applied tie bars prevent irregular wear and reduce noise.



Sizes & Specifications (Pattern Code: AM15)

S-Code	Size	Ply Rating	Type	Measuring Rim	Tire Single		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					Max. Air (PSI)	Max. Load (LBS)								
3001934	425/65R22.5	20	T/L	13.00	120	11,400	44.7	16.5	12.8	23	462	20.6	65	205
3002160	445/65R22.5	20	T/L	14.00	130	12,800	45.9	17.5	13.9	24	449	21.2	68	220

Sizes & Specifications (Pattern Code: AM15+)

S-Code	Size	Ply Rating	Type	Measuring Rim	Tire Single		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					Max. Air (PSI)	Max. Load (LBS)								
3002813	385/65R22.5	18	T/L	11.75	120	9,370	42.5	14.9	12.0	23	485	19.6	75	179

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

Recommended Vehicle Types & Position



AH32

Wide Base Rib / All Position

The AH32 includes features best suited for regional mixed service and waste haul applications. The tire includes Hankook's innovative compound to allow for better durability and longer lasting tread life. It also includes asymmetrical grooves which help prevent stone drilling over the course of the tire's life.



Sizes & Specifications (Pattern Code: AH32)

S-Code	Size	Ply Rating	Type	Measuring Rim	Tire Single		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					Max. Air (PSI)	Max. Load (LBS)								
3003169	385/65R22.5	18	T/L	11.75	120	9,370	42.6	15.0	12.1	21	481	19.8	75	177
3003520	425/65R22.5	20	T/L	12.25	120	11,400	44.5	16.3	12.3	20	463	20.4	75	188

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

Recommended Vehicle Types & Position



SmartWorkDM09



On & Off Road/Drive Position

The DM09 is designed with an interlocking tread pattern which delivers great traction and performance in wet and muddy conditions. Its directional design also provides excellent handling.

Sizes & Specifications (Pattern Code: DM09)																
S-Code	Size	Ply Rating	Tvp	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
* 3002891	11R22.5	16	T/L	8.25	120	120	6,610	6,005	42.2	11.2	9.6	30	493	19.8	68	142
3003591	11R24.5	16	T/L	8.25	120	120	7,160	6,610	44.0	11.3	9.6	29	471	20.7	65	150
3002801	315/80R22.5	20	T/L	9.00	130	130	9,090	8,270	43.0	12.4	10.7	27	482	19.9	68	168

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.  
\* 3002891 not 3PMSF

Recommended Vehicle Types & Position



DM04



Off Road/Drive Position

Engineered primarily for off road conditions, the DM04 is a drive axle traction radial with deep, wide treads for high mobility. Powerful construction ensures durability and long life. An open shoulder offers maneuvering while large tread blocks and special compound resist cuts and penetrations. A rugged, four steel belt structure allows maximum loads and high mileage.

Sizes & Specifications (Pattern Code: DM04)																
S-Code	Size	Ply Rating	Tvp	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
		S			D	S	D									
3000140	11R22.5	16	T/L	8.25	120	120	6,610	6,005	42.3	11.1	8.7	31	490	19.8	65	136
3000920	11R24.5	16	T/L	8.25	120	120	7,160	6,610	44.1	11.1	8.5	29	471	20.6	65	140

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

Recommended Vehicle Types & Position



SmartWorkAM09(+)

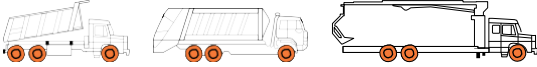


On & Off Road/All Position

Designed for on and off road applications, the SmartWork AM09(+) is built with polygonal blocks and an aggressive groove design for toughness on-site and stability on the road. The **CHIP AND CUT COMPOUND** is engineered to withstand rugged driving conditions. A wide tread provides stability and uniformity, delivering outstanding handling performance and improved tread life. The enhanced design contributes to expulsion of stones and debris.

Sizes & Specifications (Pattern Code: AM09)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
3002703	11R22.5	16	T/L	8.25	120	120	6,610	6,005	41.7	11.3	8.8	24	494	19.5	65	127
* 3002557	11R24.5	16	T/L	8.25	120	120	7,160	6,610	43.7	11.3	8.8	24	472	20.2	65	138
3002698	12R22.5	16	T/L	9.00	120	120	7,390	6,780	42.9	12.0	9.2	24	483	20.0	65	149
* 3003804	255/70R22.5	16	T/L	7.50	120	120	5,510	5,070	36.7	9.9	8.3	19	559	16.9	75	94
Sizes & Specifications (Pattern Code: AM09+)																
S-Code	Size	Ply Rating	Type	Measuring Rim	Max. Air (PSI)		Max. Load (LBS)		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
* 3002789	315/80R22.5	20	T/L	9.00	130	130	10,000	9,090	42.6	12.5	10.4	22	485	19.6	65	157
* 4 Grooves: 315/80R22.5 AM09+ only • Use inflation pressure specifications on vehicle tire placard.																
• Tire construction and material specifications subject to change without notice or obligation.																

Recommended Vehicle Types & Position



# e³ WIDE DL21

## Ultra Wide Base / Drive Position

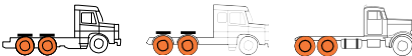
The e3 WiDE DL21 delivers a smooth and comfortable ride. The tire utilizes it's 3-dimensional siping design along with the closed shoulder design in order to increase fuel efficiency and tread wear.



Sizes & Specifications (Pattern Code: e³ WiDE DL21)														
S-Code	Size	Ply Rating	Type	Measuring Rim	Tire Single		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					Max. Air (PSI)	Max. Load (LBS)								
3003449	445/50R22.5	20	T/L	14.00	120	10,200	40.3	17.4	15.7	24	511	18.6	75	194

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

## Recommended Vehicle Types & Position



# e³ WIDE DL12

## Long & Regional Haul/ Drive Position

The e3 WiDE DL12 is engineered to provide excellent traction capabilities throughout the entire life of the tire utilizing its 3-dimensional siping technology as well as its semi open shoulder design. The tire also delivers less rolling resistance in order to allow for increased mileage and better fuel efficiency.



Sizes & Specifications (Pattern Code: e³ WiDE DL12)														
S-Code	Size	Ply Rating	Type	Measuring Rim	Tire Single		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					Max. Air (PSI)	Max. Load (LBS)								
3002277	445/50R22.5	20	T/L	14.00	120	10,200	40.5	17.4	15.7	27	510	18.6	75	199

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

## Recommended Vehicle Types & Position



# e³ WIDE TL21

## Ultra Wide Base / Trailer Position

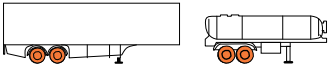
The e3 WiDE TL21 is a tire that can go the distance while increasing fuel efficiency. It uses three-dimensional siping technology to improve traction while also reducing tire wear. Hankook's Spiral-Coil Technology provides a stabilized footprint and strengthened casing durability throughout the life of the tire.



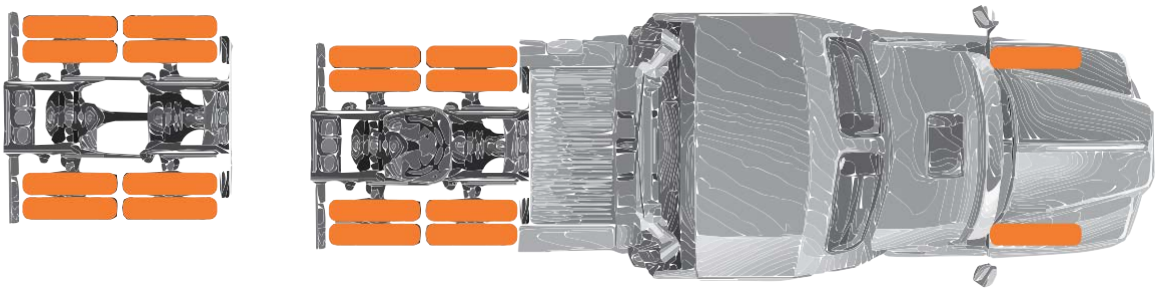
Sizes & Specifications (Pattern Code: e³ WiDE TL21)														
S-Code	Size	Ply Rating	Type	Measuring Rim	Tire Single		Overall Diameter	Section Width	Tread Width	Tread Depth	Revs/ Mile	SLR (Inch)	Max Speed	Weight (lbs)
					Max. Air (PSI)	Max. Load (LBS)								
3003411	445/50R22.5	20	T/L	14.00	120	10,200	39.7	17.4	15.7	16	516	18.3	75	177

• Use inflation pressure specifications on vehicle tire placard. • Tire construction and material specifications subject to change without notice or obligation.

## Recommended Vehicle Types & Position



TBR Product Positioning Map



Trailer	Drive	All/Steer	
 E³ MAX TL21	 E³ MAX DL21  DL11  SMART LEX DL12  SMART LEX DL15 (+) ***	 E³ MAX AL21  SMART LEX AL22 **	
 SMART LEX TH31	 DH06  DH37	 AH24  AH37	
	 DH07  SMART LEX DH35	 SMART City * AU04  SMART LEX AH35	
	 DM04 (Off Road)  SMART WORK DM09	 SMART WORK AM15 (+)  SMART WORK AM09 (+)  AH32	
 E³ WIDE TL21	 E³ WIDE DL21  E³ WIDE DL12		

\* Discontinued  
\*\* Recommend Coach Bus Use Only  
\*\*\* DL15 is discontinued Q2 2022, DL15+ is new in Q2 2024

\* Discontinued  
\*\* Recommend Coach Bus Use Only  
\*\*\* DL15 is discontinued Q2 2022, DL15+ is new in Q2 2024

TBR Tire Reference Chart

	Long Haul						Regional Haul						
SIZE	AL21	AL22***	DL11	DL12	DL15*	DL15+**	DL21	TL21	AH24	AH37	DH06	DH37	TH31
8,R19.5													
10R22.5										16 (G)		22 (G)	
11R22.5	19 (G, H)		26 (G,H)	28 (G,H)	26 (G,H)		30 (G,H)	12 (G)	22 (G,H)	20 (G,H)	28 (G,H)	26 (G, H)	
12R22.5										19 (H)			
11R24.5	19 (G)		26 (G,H)	28 (G,H)	26 (G,H)		30 (G,H)	12 (G)	22 (G,H)	20 (G,H)	28 (G,H)	26 (G, H)	
215/75R17.5													15 (H)
235/75R17.5													16 (J)
245/70R17.5													16 (J)
225/70R19.5													
245/70R19.5													
265/70R19.5													
255/70R22.5										18 (H)		23 (H)	17 (H)
275/70R22.5										19 (J)			
295/75R22.5	19 (G,H)		26 (G)	28 (G)	26 (G)	25(G)	30 (G)	12 (G)	22 (G)	20 (G,H)	28 (G)	26 (G)	
305/70R22.5													
315/80R22.5		18 (L)											
285/75R24.5	19 (G)		26 (G)	28 (G)	26 (G)		30 (G)	12 (G)	22 (G)	20 (G)	28 (G)	26 (G)	
385/65R22.5													
425/65R22.5													
445/65R22.5													
445/50R22.5													

Tread Depth in 32nds and Load Range are Available

\* discontinued in Q2 2022    \*\* new in Q2 2024

\*\*\* AL22 - Recommend Coach Bus Use Only

	Urban/Pickup			Mixed On/Off					USS			
SIZE	AU04*	AH35	DH07	DH35	AM09(+)	AH32	AM15(+)	DM04	DM09	e WIDE DL12	e WIDE DL21	e WIDE TL21
8,R19.5		16 (F)										
10R22.5												
11R22.5					24 (H)			31 (H)	30 (H)			
12R22.5					24 (H)							
11R24.5					24 (H)			30 (H)	29 (H)			
215/75R17.5		16 (G)										
235/75R17.5		15 (G,H)*										
245/70R17.5												
225/70R19.5		17 (G)	18 (G)	17 (G)								
245/70R19.5		17 (H)	19 (H)	17 (H)								
265/70R19.5		17 (G)	20 (G)	16 (G)								
255/70R22.5					19 (H)							
275/70R22.5												
295/75R22.5												
305/70R22.5	22 (L)											
315/80R22.5					22 (L)			27 (L)				
285/75R24.5												
385/65R22.5						21 (J)	23 (J)					
425/65R22.5						20 (L)	23 (L)					
445/65R22.5							24 (L)					
445/50R22.5										27 (L)	24 (L)	16 (L)

Tread Depth in 32nds and Load Range are Available

\* discontinued in Q2 2024

## Basic Tire Knowledge

## Basic Tire Knowledge Definitions

<b>Overall Diameter</b>	Diameter of the tire from tread surface to tread surface while inflated but unladen.
<b>Tread Width</b>	The width of the tread surface, designed for contact with the road.
<b>Static Loaded Radius</b>	Distance from the center of the axle to the ground at the rated load and inflation pressure.
<b>Revs/Mile</b>	Revolutions per mile
<b>Rim Width</b>	Distance between the inside of the rim flanges.
<b>Section Height</b>	Distance from the bead seat to the outer tread surface of the inflated tire.
<b>Section Width</b>	Distance between the outer sidewalls of an inflated tire.
$\text{Aspect Ratio (Series)} = \frac{\text{Section Height}}{\text{Section Width}} \times 100$	

## TBR Low Profile Conversion Chart

Size	Tube Type	Tubeless Type
255/80R22.5	9.00R20	10R22.5
265/75R22.5		
275/80R22.5	10.00R20	11R22.5
295/75R22.5		
275/80R24.5	10.00R22	11R24.5
285/75R24.5		
295/80R22.5	11.00R20	12R22.5
315/80R22.5	12.00R20	13R22.5

## Load Range Chart

Load Range (LR)	Ply Rating (PR)
A	2
B	4
C	6
D	8
E	10
F	12
G	14
H	16
J	18
L	20
M	22
N	24

## Speed Symbol Chart

Speed Symbol	Max Speed Rating	
	MPH	km/h
B	31	50
C	37	60
D	40	65
E	43	70
F	50	80
G	56	90
J	62	100
L	75	120
M	81	130
N	87	140

## Notes

For your safety and protection against serious injury or death, the following safety precaution and maintenance instruction must be observed at all times.

# PREFACE

This information is provided to help our Tire Truck & Bus customers achieve safe, economical use of our products and maximize tire life.

The purchase of truck and bus tires should be looked at as an investment to be protected by the thorough maintenance and care in order to produce the best return on your investment and fleet operating efficiency.

Information covered in this manual covers how to perform regular tire inspections, tire servicing and repairs as well as how to safely mount and demount tires.

Careful attention on a regular basis can provide you with added safety and economy.

We hope the information is helpful to all the tire servicemen and fleet operators.

## DETERMINING TIRE SIZE

There is a lot of useful information molded into the sidewall of every tire, included are the manufacturer and tire name, section width, aspect ratio, construction, rim diameter, speed rating, load range, treadwear, temperature and traction labeling and other required designations.

## CORRESPONDING SIZES FOR TUBE-TYPE AND TUBELESS

To achieve the closest match of load carrying capacity, overall diameter and section width see the following chart.

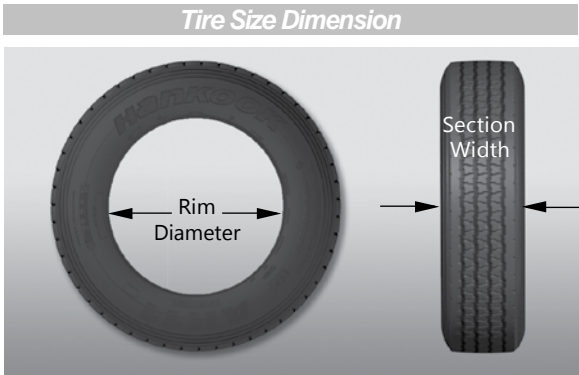
Tube-Type	Tubeless
Low profile tires are marked according to ISO standard	8 R 12-15
8.25 R 15	9 R 17.5
8.25 R 20	9 R 22.5
9.00 R 20	10 R 22.5
10.00 R 20	11 R 22.5
10.00 R 22	11 R 24.5
11.00 R 20	12 R 22.5
12.00 R 20	12 R 22.5

Section widths and rim diameters will vary slightly between tubeless and tube-type assemblies. While the measurements seem close, users should be careful not to confuse them.

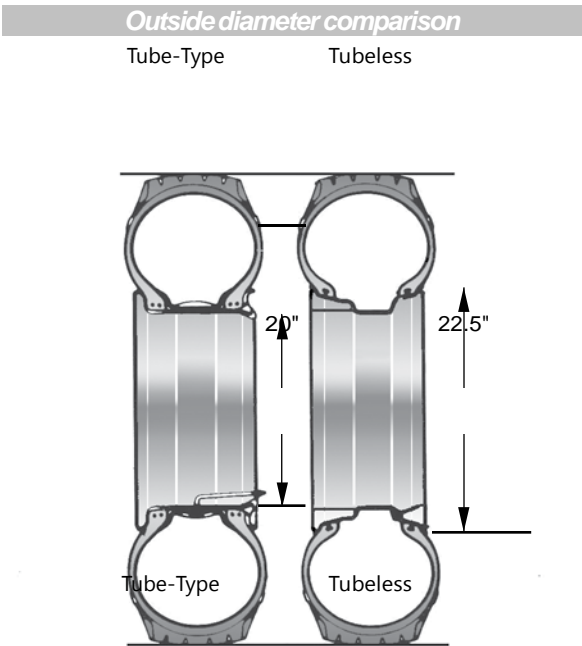
additional symbols for load range and maximum speed.

Low profile tires provide additional benefits such as:

- Fuel savings
- Increased load carrying capacity
- Improved retreadability
- Improved cornering ability
- Braking improvement



295/75 R22.5	Size Description
295	Tire section width (mm)
75	Aspect ratio (Section Height/Section width)
R	Radial structure
22.5	Rim diameter (inch)
14	Ply rating
L	Tire Max. driving speed symbol



Disregarding any of the safety precautions and instructions contained in this information sheet may result in tire failure or explosion causing serious personal injury or death.

## TRUCK TIRE MARKINGS

All truck tires are marked representing their structure, construction type, dimensions and manufacturer/brand.

	Tire Size
	Test pressure
	Load Index & Speed Symbol
	Load & Inflation pressure
	Load range
Safety Warning	
Material	
Province	

## SAFETY WARNING

Serious injury may result from:

- Tire failure due to under inflation or overloading – Follow the tire placard instruction on the vehicle and check inflation pressures frequently.
- Due to improper mounting – Only specifically trained persons should mount tires. Follow all safety procedures and inflate using a safety cage and a remote clip-on extension hose.

## LOAD RANGE, INFLATION & SPEED ADJUSTMENTS

Load limits are fundamentally the same for tires manufactured according to American TRA, Korean KS European ETRTO and Japanese JIS standards. Load limits are affected by driving speed, the type of construction of the tire, and the position of the tire (whether it is used in single wheel or dual wheel application).

REPLACEMENT TIRES

If mounting tires different from the size originally on the vehicle, consider the following:

LOAD CAPACITY

Tires must always have equal or greater load carrying capacity than the Original Equipment (OE) tires

TRANSMISSION RATIO

Tires with a different circumference than OE tires will affect the transmission of power.

- Smaller tires will improve acceleration but reduce top speed
- Bigger tires will reduce acceleration but increase top speed

RIM DIAMETER

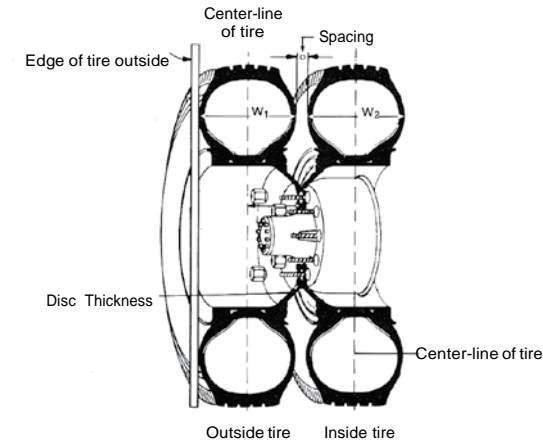
When selecting smaller diameter wheels or rims, check to ensure proper brake drum clearance and sufficient ride height or ground clearance.

RIM WIDTH

The rim width must always fit in the range specified for the section width of the tire. Usually only small increases or decreases in the tire section width is permissible before requiring a change of rim widths to accommodate any change in tire section width.

DUAL-WHEEL SPACING

There is a required minimum spacing required between any dual-wheel assembly.



TIRE SPACING

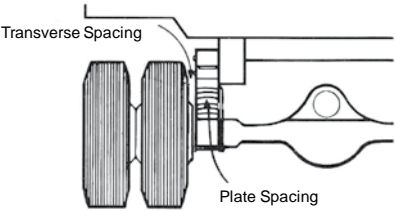
Spacing between the tire(s) should be checked to ensure adequate clearances.

- To avoid coming in contact with any stationary parts of the vehicle such as chassis, body or undercarriage.
- To avoid hitting or contacting movable suspension parts of the vehicle such as springs or shocks.
- Generally acceptable levels of minimum clearance are 15 mm for fixed parts and 25 mm for movable parts.

NOTE: Minimum clearances may change according to vehicle classification.

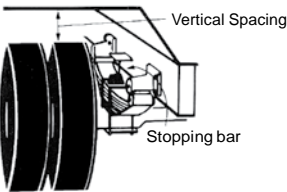
TRANSVERSE SPACING

1. Transverse Clearance



The section width of any replacement tire must also allow sufficient minimum clearance from springs.

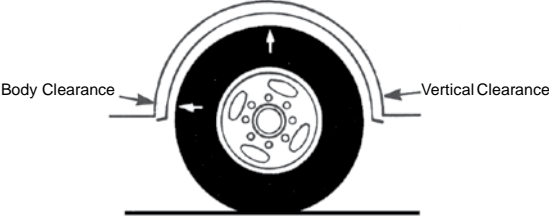
2. Vertical Clearance



The clearance between the tire and the body and chassis must be checked to ensure sufficient clearance to avoid the tire hitting or scraping against any parts either when the suspension is loaded or unloaded.

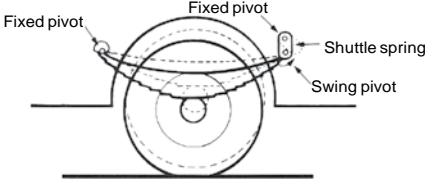
The shock absorber and spring ratings stiffness will also affect these clearances. Clearances must be sufficient so that even under maximum suspension travel or deflection, the tires do not contact either the body panels or vehicle undercarriage.

3. Suspension Clearance

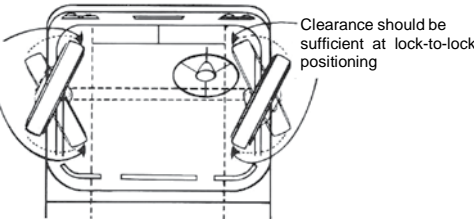


In the case of leaf springs with a swing pivot to allow wheel movement forward and backward, it is important to leave sufficient clearance to allow movement approximately one third that of the distance allowed by the swing action travel.

4. Front-Wheel Clearance



Front-wheel clearance should be checked to ensure sufficient clearance even at lock-to-lock steering positions as well as at the mid-point.



CLEARANCE CHECKS

Always check to ensure that mounted wheels allow clearance from brake drums/discs, suspension parts or steering assembly, body and other parts. Nothing should be touching either the tire or the valve and there should be a clearance margin of between 20 and 25 mm.

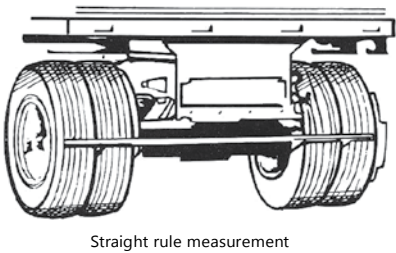
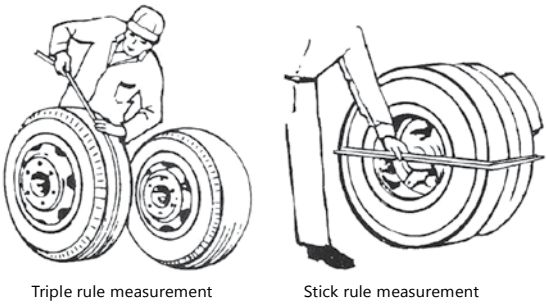
MATCHING DUAL-WHEEL TIRES

For vehicles using dual wheels it is important that tire circumferences be the same. This is sometimes not the case if tires are not new, of the same tread pattern or have been retreaded. Therefore use a tape measure to match the mounted and inflated tires by circumference prior to installing them on the vehicle.

- Tires must be mounted and inflated to recommended pressures before measuring circumference with a tape measure.
- In situations where they are already mounted as dual-wheels use a square rule to ensure they match in size.
- Ensure uniform sizing on a given dual-wheeled axle by using a long straight rule across the tread of the four tires

TIRE INFLATION

Measuring Circumference, diameter of dual-wheel tires



A most important aspect of maintaining tires is proper inflation. Sufficient inflation is needed to carry the load and avoid damage. Driving with proper inflation (particularly grossly under inflated or over inflated tires is dangerous and can cause critical damage or sudden failure of the tire(s).

Proper inflation should be maintained and checked on at least a weekly basis and before long distance drives. Pressures should be checked and adjusted if necessary while the tires are cold (before they have been driven on any significant distance). Driving even a moderate distance on tires

increases their temperature and the pressure inside, therefore do not decrease the pressure of a "hot" or driven tire as this may result in dangerously inadequate pressure once cooled.

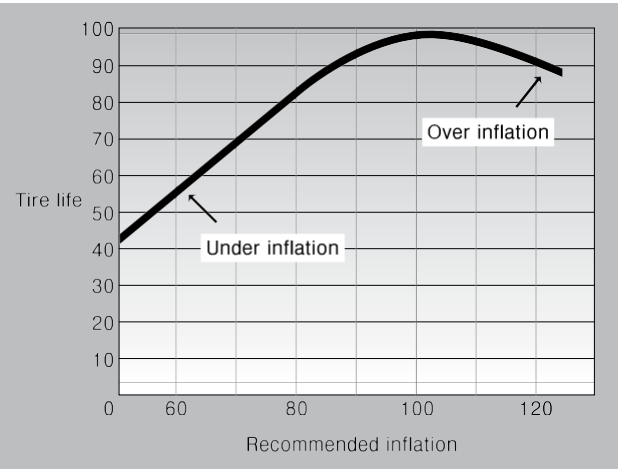
For maximum efficiency it is best to maintain the tires at the recommended inflation and that inflation pressures for both sides should be equal.

It is also advisable to take into account axle load and driving conditions when setting inflations pressures. Compensation for heavier loads can be made by increasing inflation pressures, but do not exceed maximum inflation for the tire or maximum axle load.

Front steering tires may require more inflation when the vehicle is loaded in order to facilitate steering, cornering and wet traction. It is not uncommon that is 20 psi be added in the case of a 11R22.5 14PR tire on the front axle as per the following.

**Example 1** If the load on the front axles is 2,245 kgs then 80 psi would be the normal recommended pressure.

However users frequently apply an added 15 to 20 psi which inflates the tires to 95 to 100 psi to assist steering, load carrying and traction while remaining within specific maximum capacity of



2,920 kgs at max inflation 105psi.

**Example 2** If the front axle load is 2,740 kg, 105psi is recommended. A reduction in speed may be necessary along with slight over inflation (not more than 10%) to compensate for max load conditions. A Hankook Tire serviceman can provide details.

NOTE: It is important not to exceed the maximum capacities established by the wheel manufacturers. Wheel product specification should be used in determining any recommendations.

OVER INFLATED – UNDER INFLATED

Maintaining proper air pressure is the single most important thing drivers can do for their tires. In the span of just one month, a tire can lose 10 pounds of air pressure. It is important to check your air pressure regularly, to make sure your tires are neither under-nor over-inflated.

Under-inflation is the worst enemy your tire can have. It causes increased treadwear on the outside edges (or shoulders) of the tire. It also generates excessive heat, which reduces tire durability. Finally, it reduces your fuel economy by increasing rolling resistance-soft tires make your vehicle work harder.

Over-inflation is also detrimental to the tire. Too much air pressure causes the center of the tread to bear the majority of the car’s weight, which leads to faster deterioration and uneven wear. Any kind of uneven wear will shorten the life span of your tires. To find the proper air pressure for your tires, [look in the vehicles owner’s manual, on the driver’s side door jamb or in the glove box] and if you buy new tires, be sure to learn the correct pressure from your dealer. Check your pressure at least once a month using a good quality air gauge

CHECKING TIRE PRESSURE

It is important to check your vehicle’s tire pressure at least once a month for the following reasons:

- Most tires may naturally lose air over time.
- Tires can lose air suddenly if you drive over a pothole, an object, or if you strike the curb while parking.
- With radial tires, it is usually not possible to determine under-inflation by visual inspection

For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets. The recommended tire inflation pressure that (vehicle manufacturers provide reflects the proper psi when a tire is cold) The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure in warm tires.

TIRE INSPECTION

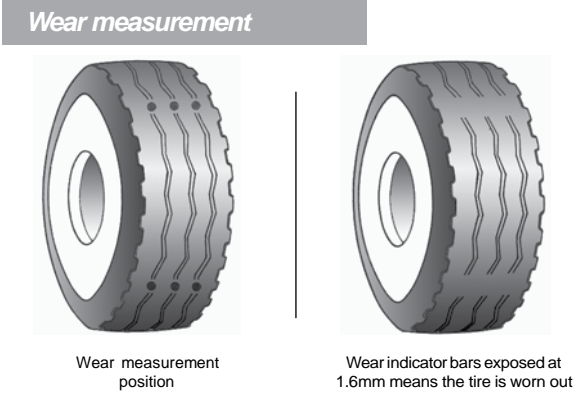
It is wise to inspect the condition of the tire whenever you check inflation. Look for any problems with the tire swells, cracks, irregularities, damage or penetration of any kind.

SAFETY

Damage and rapid wear are frequently caused by driving conditions such as over loading, rapid stops and starting, uneven road surfaces or road debris (rocks, stones, obstacles). Slow careful driving on rough uneven roads will help prevent some of this type of damage. In addition, alignment irregularities may result from the above mentioned conditions and these should be corrected prior to any high speed or long distance driving.

TREAD DEPTH MEASUREMENT

Wear measurements should be taken at 90 degree intervals around the circumference of the tire. If two or more of the places read less than 2/32<sup>nds</sup> tread deep wear the tire should be replaced. If the wear indicator bars are exposed, the tire should be replaced. It is dangerous to drive with tires that exhibit wear conditions less than the minimum. Some regions and countries have restrictions based on local conditions that require more tread (ie. a 4/32<sup>nds</sup> minimum). Consult local authorities if you are in doubt.



MAXIMUM LOAD

Do not overload. The loads for truck and bus tires are proportioned to inflation, speed and driving conditions. For safety, follow proper loading, inflation and moderate speeds to suit road conditions.

PROPER SPEED

Tire imprints the maximum recommended speed

on the sidewall of radial tires in keeping with the industry standards and practices. If a tire is driven more than the max speed specified, it can create high heat within the tire that can result in tire damage or failure. Therefore it is recommended that drivers stay below the tire’s recommended max speed and that they do not exceed posted speed limits. It is important that proper tire inflation is maintained at all times, but particularly in the case of highway driving where higher speeds may result in more rapid heat build up in the tire. Also, impacts with road debris and obstacles hitting the tire are more severe and damaging. Reduce speeds to avoid such hazards and to allow time to maneuver around such obstacles.

TIRE ROTATION

Tires should only be rotated when necessary or when irregular wear is experienced. Vehicle manufacture rotation pattern recommendations should be followed. There is no restriction on cross rotation. Rotating tires to spin in the opposite direction of original position can be beneficial to combat irregularly worn tires. Directional tires should be mounted in the direction of rotation.

STORAGE

Tires should be stored in a dry, well-ventilated place away from heat, direct sunlight or exposure to fuels, oils, greases or natural gas or electric charges. It is most important to avoid moisture either outside or inside the tire that can cause deterioration of the tire’s casing plies which could result in sudden and dangerous failure of the tire.

Cuts or damage to the tire’s surface may allow moisture and pollutants access to the tire’s casing plies and belts therefore these should be dried, repaired or retreaded prior to storage.

CHAIN USAGE

Many regions, areas, states or provinces have specific regulations governing the use or restriction of tire chains. In addition you should pay particular attention to the following in situations where use of chains is permitted.

- Chains must be used only when required by weather conditions. In some cases it is required to install a chain when a warning is issued or an area is posted. Speed must be reduced when using chains. High speed and long distance driving with chains on must be avoided because it can cause serious damage to the tires or failure of the chains.
- Proper size chains should be used according to the tire size.
- Proper clearance between the chained wheels and the vehicle are required.
- The chain manufacturer’s information should be followed.

TRUCK MAINTENANCE

The two major things that affect tire wear are:

- Inflation Pressure
- Vehicle Alignment

COMPONENTS OF ALIGNMENT

- Toe
- Camber
- Caster
- Ackermann
- Axle Parallelism
  - Thrust Angle
  - Scrub Angle

TOTAL VEHICLE ALIGNMENT

Definition

- The process whereby the vehicle and all the tires are traveling in the same direction .
- Steering axle alone is not sufficient.

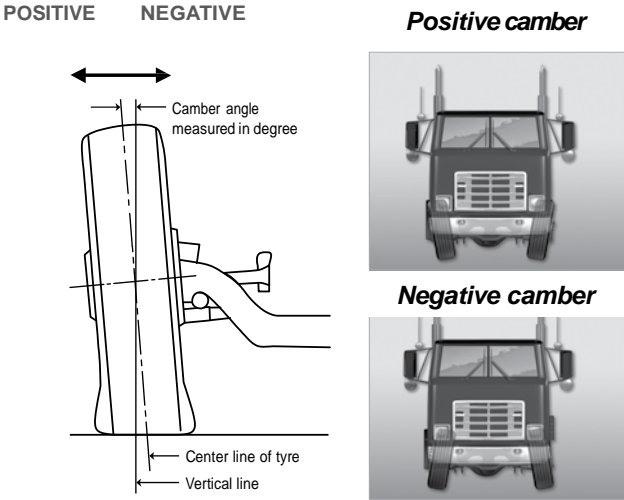
CAMBER

The angle that the center line of the wheel is inclined from the vertical center line perpendicular to a flat road is called camber angle. If the top of the wheel leans out from the perpendicular than it is positive camber. If the top of the wheel leans in from the perpendicular than it is negative camber.

Camber is meant to compensate for the downward forces of the added load. Correct camber settings help the tire maintain firm even tread contact with the tread while the vehicle is traveling under loaded conditions. Often wear at the outside or inside edge of the tire may indicate incorrect camber setting.

- Camber is the inward or outward tilt of the steering axle tires when viewed from the front.
- Positive camber is at the top of the tie tilted out.
- Camber becomes more negative as the load increases.

TOE



Toe refers to the inclination of the wheels of the vehicle so that the pair of front wheels (viewing from the front as per the illustration below) is close together at the front than at the rear of the wheels.

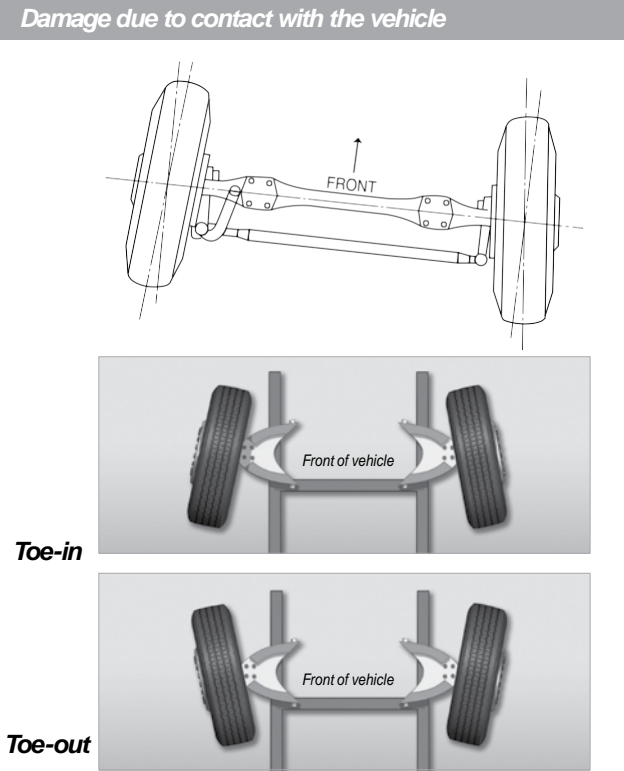
The opposite is considered to be toe-out.

The purpose of tie-in is to relieve or counteract some of the force which pulls wheel outward as they roll along the road. Proper toe-in will ensure that the rotation direction of travel are as similar as possible at driving speed.

Insufficient toe-in settings will result in steering instability.

If toe-in or toe-out is insufficient or excessive the tear wear will be effect and appear as feathering at the edges of tread.

- Toe is the inward and outward pointing of the wheels when viewed from the top of the vehicle.
- The goal is to have zero tow when the vehicle is loaded to its normal operating condition.



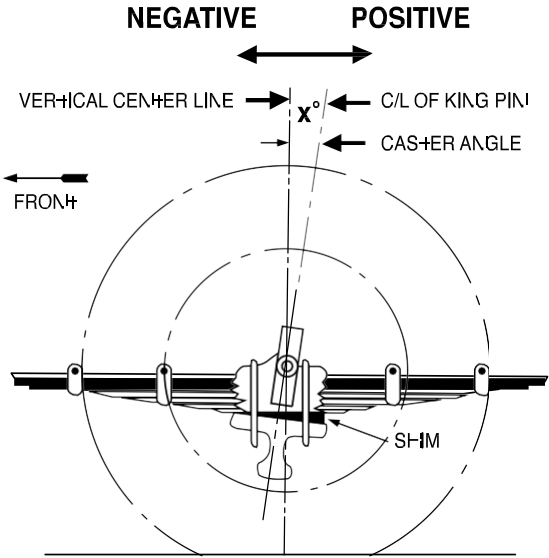
CASTER

Caster is the condition where the king pin is inclined with the top of the pin angled rearward similar to front forks of a bicycle. Caster angled is meant to compensate for resistance which the tire(s) encounters as a result of drag forces against the road.

Caster angle should be the same for both wheels on a given axle or the result will be vibration and abnormal wear. Too much caster will more than compensate for the amount of drag, but will create more difficult steering. Too little caster and steering becomes light, but unstable and wonders.

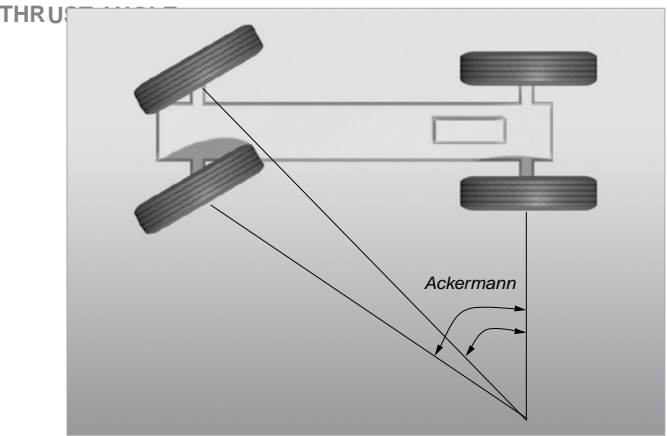
Caster angle should be checked as it can be distorted by impacts on the tire or by driving in rough conditions.

- Caster is the forward or rearward tilt of the king pin of the steering axle when viewed from the side.
- Caster is generally not considered to have a great effect on tire wear.



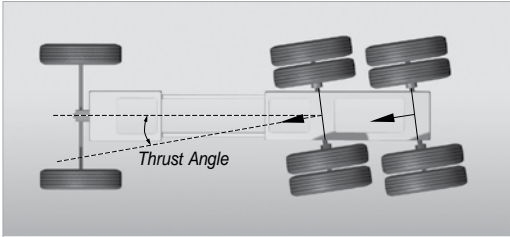
ACKERMANN

- The Ackerman Principle shows that in any turn the inside tire needs a sharper angle than the outside tire.
- The difference in turn angles between the tires is determined by the actual turn angle at the vehicle wheel base.
- Improper Ackermann causes side force, excessive scuffing, and fast or irregular wear.



- Thrust angle is the difference between the line perpendicular to the axle and the vehicle centerline.
- Each drive axle has its own thrust angle.
- The target is to have zero thrust angle.

TANDEM SCRUB

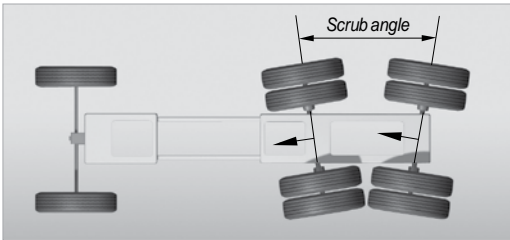


- Tandem scrub is the difference in the thrust angles of the drive axles.
- The target is zero.
- Tandem scrub errors cause constant side force on the steer tires. This leads to irregular wear.

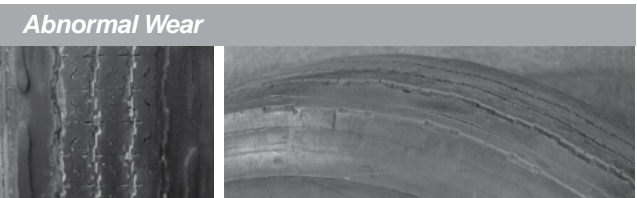
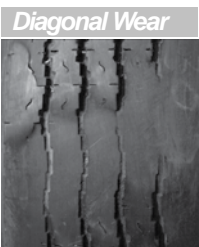
ABNORMAL TREAD WEAR

Under inflation and over inflation of tires is the prime cause of tread wear. However there are other conditions that influence tread wear and produce irregular patterns of wear.

- Imbalance of tire or tire and wheel assembly.



- Improper wheel alignment.
- Braking system problems that may cause wheel lock up or flat spotting.
- Bent round rims.
- Worn or damaged bearings.
- Broken or worn shock absorbers, springs or steering components.

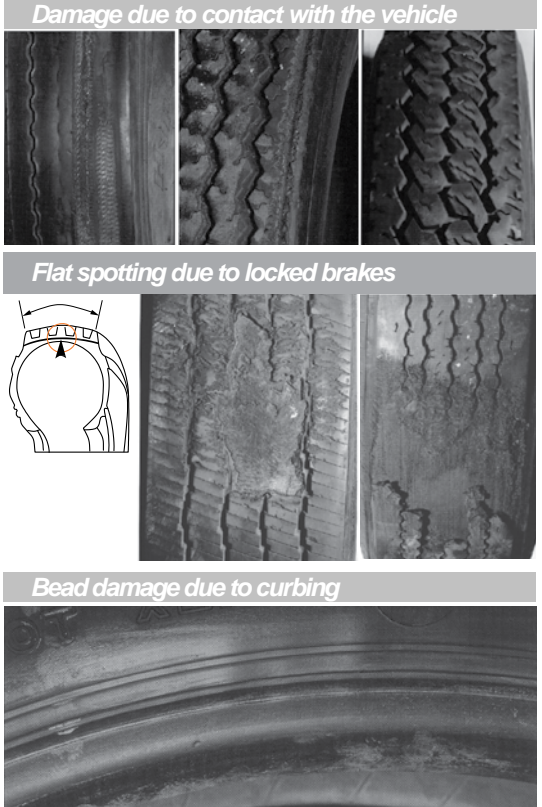
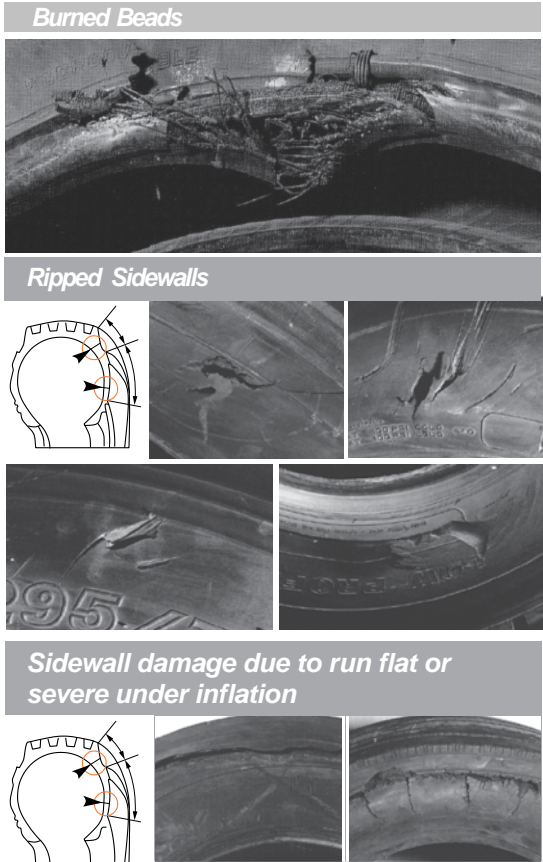


TIRE DAMAGE

With tubeless tires, it is often possible even with a slow air leak to use the tire carefully enough to get to a service center. Small punctures in the tread area, if detected early enough, can usually be repaired so as to avoid air loss and further problems. However, sufficient loss of air can cause rapid and damaging heat build up within the tire which may result in the failure or separations between the tread and carcass plies. Care should be taken to avoid getting road debris, dirt or moisture penetrating any puncture or trapped inside the tire or between the wheel rim and tire. Damaged tires should always be repaired or replaced at the nearest possible convenience to avoid further tire damage, possible tire failure, vehicle or personal injury.

Check for and correct any of the following conditions:

- Improper tire inflation
- Overloading
- Improper vehicle maintenance
- Brake system abnormalities
- Differences of tires sizes or circumferences on the same axle
- Improper mounting of tire or wheel
- Improper, worn or damaged valve
- Improper use of tube or flap



HEAT CAN DAMAGE TIRES

Under inflation, overloading, or excessive speed can cause damage because of heat build up. Tire parts such as cord, the bonding between carcass, belts, and treads can be easily damaged by excessive heat. Most tire cords lose strength at temperatures above 120° C making the tire more vulnerable to failure. Excessive heat can weaken or damage cords or rubber compounds or cause separation between the plies.

MOISTURE DAMAGE

Moisture inside the tire or penetrating through to the steel belts of a radial tire can cause rust damage to the steel cord or the rim.

Therefore always:

1. Store tires indoors in a dry place.
2. Ensure wheels, flaps, tubes, valves, and the inner tire surface are clean and dry before and during mounting.
3. Use the recommended mounting lubricant on the rim and tire bead during the mounting process.
4. Maintain inflation and keep the valve stem capped or protected so as not to allow moisture to enter the tire.

PREVENTING TIRE DAMAGE

- Proceed with caution if you have to go over a pothole or other object in the road.
- Do not run over curbs or other foreign objects in the roadway and try not to strike the curb when parking.

TIRE SAFETY CHECKLIST

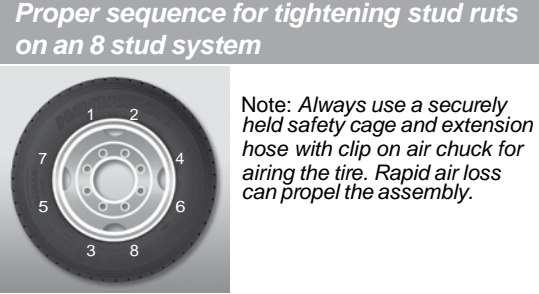
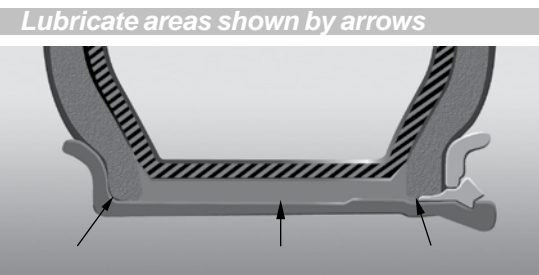
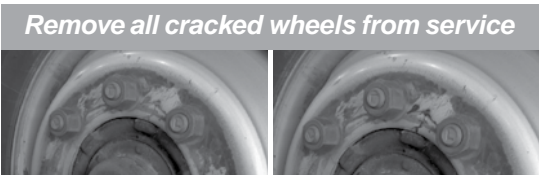
Check the tire pressure regularly (at least once a month), including the spare.

- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.
- Remove bits of glass and other foreign objects wedged in the tread.
- Make sure your tire valves have valves caps.
- Check tire pressure before going on a road trip.
- Do not overload your vehicle. Check the tire information placard or owner’s manual for the maximum recommended load for the vehicle. If you are towing a trailer, remember that some of the weight of the loaded trailer is transferred to the towing vehicle.

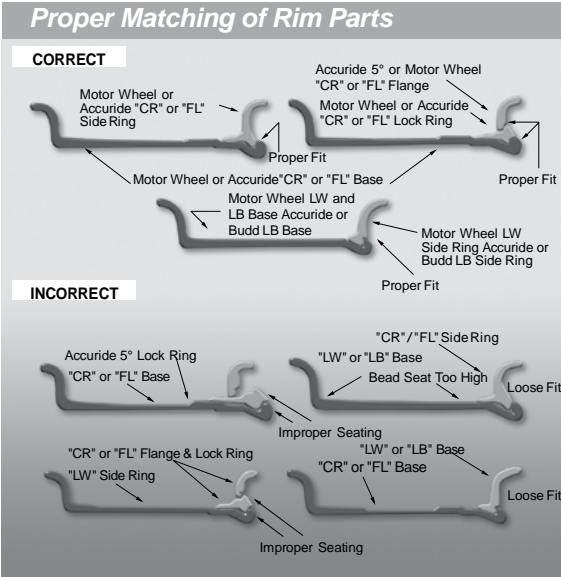
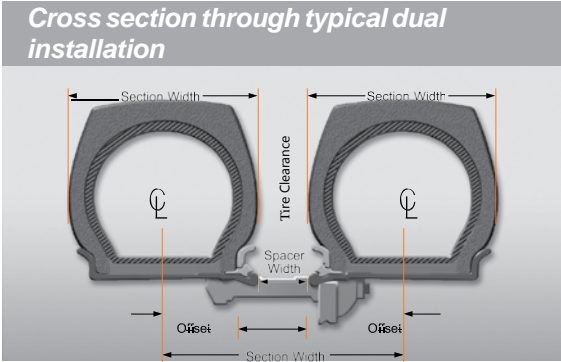
MOUNTING & DEMOUNTING

SAFETY INSTRUCTIONS

Do not mount or demount tires without proper training. Wall charts containing mounting and demounting instructions for all highway rims should be available through your normal rim supplier.



Note: Always use a securely held safety cage and extension hose with clip on air chuck for airing the tire. Rapid air loss can propel the assembly.



TUBE-TYPE TIRE MOUNTING

All parts should be clean and free of water or foreign matter. A new tube should be used, because reused or old tubes stretch or increase in size which can lead to problems with the tube folding, cracking or wearing too rapidly. Proper sized radial tubes should be used in radial tires. Radial tubes are designed to handle the radial profiles and flexing requirements.

WHEEL PREPARATION

For safety reasons check the following in regards to mounting and demounting tires and wheels.

- Rim diameter, rim width and flange design must be that recommended for the tire
- Rim profile must be appropriate to the type of tire (tube-type or tubeless) that is being used.
- The angle and position of the tire bead must seat properly to the rim.

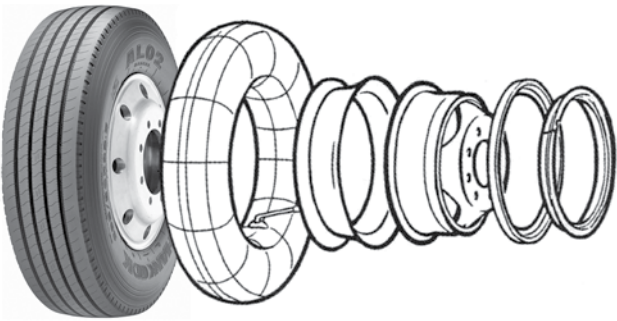
Before mounting, the wheel should be inspected for any cracks, breaks, damage, misplaced parts or deformities or irregularities at the locking ring rim flange, surfaces or valve hole. Any signs of weak welds, dents, rough surfaces or dust should be corrected or a new of more suitable wheel should be used. If corroded, clean the rim with a wire brush, sand it smooth and paint it with anti-rust paint. Any dents and rough surfaces must be smoothed.

Note: Be careful to demount the tire prior to attempting any wheel repair such as hammering, heating or welding of wheels.

PROPER MOUNTING AND DEMOUNTING

Follow all mounting and demounting procedures and equipment safety cautions. Always keep tools and work areas clean and free of oil and grease.

Note: Tire mounting lubricant is necessary for mounting and demounting tires.



Note: Use of any improper design, size or type of tube may cause tube breakage or damage to your radial tire.

Confirm that the tube is the proper type and size with the correct valve stem type suitably fit the wheel hub and clearances for brake sand wheel parts. The valve stem should screw into the tube with a rubber bushing or washer. This should be a secure, clean attachment to the tube.



VALVE STEM ATTACHMENT

Do not screw the valve stem in the wrong direct or beyond the recommended tightness.

The step by-step mounting procedure should be followed: Insert the new tube in the dry clean tire and inflate it slightly, just until the tire becomes round. The proper sized new flap should be used. Definitely do not use used flaps that are brittle, cracked, broken or stretched.

TUBE-TYPE TIRE MOUNTING

Mount the flap inside the tire being careful not to buckle the flap edges over and under. Center the flap and position it so that the valve hole lines up. Inflate little more so that flap is held close between tire and tube. It will not conform perfectly in shape until later.

- After lubricating the rim flange, tire bead and flap where it will touch the rim.
- Slide the tire/tube/flap assembly onto the rim
- Combining the side ring and lightly rap the locking ring into proper position. Do not use excessive hammering and avoid hitting the tire.

SAFETY CAUTION

Use an accurate air gauge and an air line and a remote operating nozzle long enough to allow you a distance of personal safety from the tire assembly for the remainder of the inflation process.

Note: Do not stand in front of any wheel while inflating the tire.

- Inflate slightly and recheck to ensure the assembled parts are in proper position. Inflate slightly more and check to ensure tire bead has seated (slide over to make complete contact with the rim flange). If not, deflate, lubricate and re-try assembly.
- Release any air trapped between the tube, flap and tire by deflating and then reinflate to get proper conforming fit of the flap.

SETTING FINAL INFLATION PRESSURE

Install a new valve core each tire a new tire is mounted. Use a tire safety cage and a remote operating air nozzle. Re-check that the assembly is going together properly at every stage of the process.

Inflate in stages, re-checking that the assembly is going together properly at every stage until the recommended inflating pressure is reached. Then add a valve cap after adjusting to the final recommended pressure.



SAFETY CAGE

Note:

- Use the safety devices at all times. Do not stand in front of the tire or the valve during inflation.
- Before final inflation, check the assembly condition carefully.
- Check if there is any leakage.
- Use only the correct, clean mounting and demounting levers, paying attention that they are not oily or greasy which could cause them to slip.
- Use only the recommended equipment and do not apply excessive force or hammering.

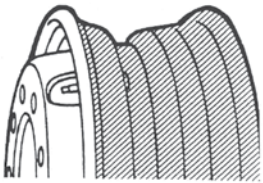
Tire should be deflated before dismounting the wheel assembly from the vehicle. Clear away any foreign matter from the valve stem and area, prior to releasing the valve stem to let the air escape.

DEMOUNTING THREE-PIECE WHEEL ASSEMBLIES

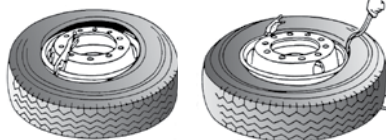
Place the wheel assembly on firm clean ground or floor with the lock-ring side facing upward. Then use the tire demounting lever with a spoon-type tip to pry between the rim flange and the tire bead. Work around the tire operating the lever between the bead and the rim flange. Avoid operating on the same place several times. After the bead and rim separate, put the lever in the groove at the base, separate the lock-ring and remove the side ring.

Base Part of Tubeless Rim

The Tubeless tire rim Parts marked "///" are to be cleaned and lubricated.



Outside bead assembly



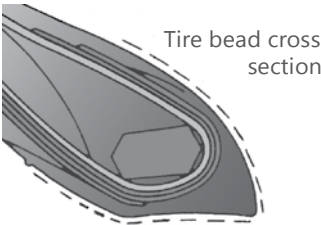
TUBELESS TIRE MOUNTING

RIM PREPARATION

- Rim must not be broken or damaged.
- Remove the rubber bushing from the valve stem hole. Inspect the valve stem for any signs of damage or wear.
- Remove rust, dirt and any foreign materials from the rim. Clean and sand smooth the area marked "///" in the above picture. If rusted, clean and repaint the rim surface to protect it from rusting.
- If required, replace any worn or damaged valve stem.
- Lubricate the inner parts of the rim surface where the tire mounts (marked "///")

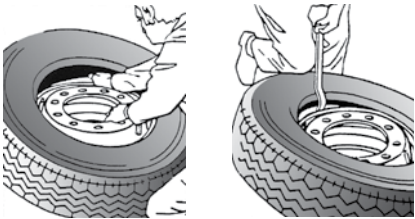
TIRE PREPARATION

In the case of new tires, wipe the bead clean with a dry cloth and verify that it is not damaged, kinked, or broken. Apply the recommended lubricant to the tire bead as per the following illustration.



INSIDE BEAD ASSEMBLY

Lay the wheel on a clean flat surface with the valve facing upward. Work the bead over the rim flange, using your hands and knees as in the illustration below. If it is difficult to fit over the flange, use the proper tire mounting lever as per the illustration.



OUTSIDE BEAD ASSEMBLY

Start the outside bead placement over the outside rim flange by hand. Begin at the point where the valve stem is located. Once hand placement become difficult, use the proper tubeless tire bead mounting lever to complete the job as per the following illustrations. When mounting tires, do not use excessive force and avoid heavy tools or impacts such as hammering on the rim.

TUBELESS TIRE INFLATION

Use an inflation gauge, suitable remote air hose nozzle, and a safety cage when inflating the new mounting tire. The lubricated bead should seat firmly to the rim flange at about 10 PSI inflation. Do not stand near or in front of tire while inflating. Use the safety cage and a safe distance for your protection. If the bead fails to seat first try, then rotate the tire a few degrees around the rim, ensure the rim and bead flange is lubricated and try again. If for any reason the bead does not appear snugly and evenly seated, do not attempt to inflate further. Repeat the entire assembly process with perhaps more lubricant on the bead and rim areas.

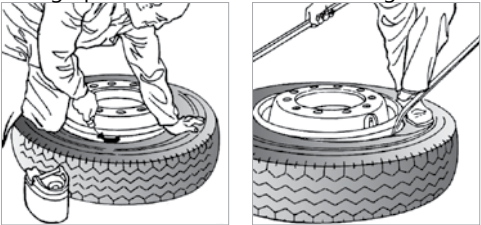
Once the bead seats the bead and rim flange are a snug even fit all the way around. Then inflate the tire to the recommended inflation pressure to the axle load. Check that the tire or valves are not leaking and tighten on a valve cap.

TUBELESS TIRE DEMOUNTING

The tire should be completely deflated before demounting. This is done by loosening and removing the valve stem core, being careful that there is no foreign matter left in the valve and that the valve stem is not cracked or damaged. Do not stand near the valve stem during the deflation process.

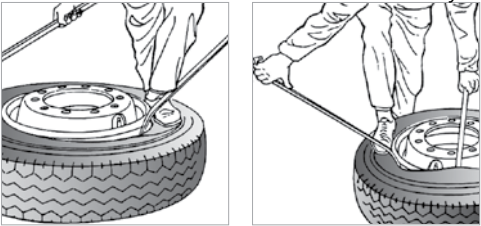
BEAD DEMOUNTING

Place the tire assembly on a clean flat surface with the valve facing upward. Use a tire demounting lever



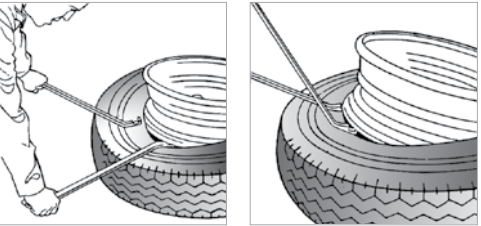
OUTSIDE BEAD DEMOUNTING

Use the tire demounting lever to pry the bead over the rim flange directly in line with the valve stem as per the following illustrations. A second lever is used about 30cm around the rim from the first to pry the bead over the flange. Repeat the process around the tire until the outside bead is fully demounted.



INSIDE BEAD DEMOUNTING

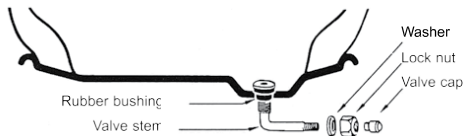
Turn the tire assembly over. Lubricate between the bead and the rim then insert the tip of the tire lever between the tire and rim and apply pressure. Use the second lever about 15 cm around the edge of the rim. Repeat the order until the bead is completely demounted.



TUBELESS RIM VALVE MOUNTING

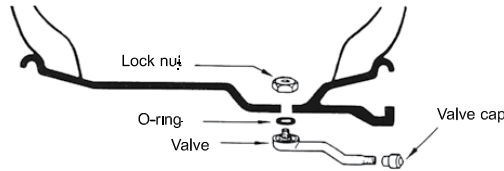
A-TYPE RIM VALVE

The valve hole in the rim must be clean, smooth and not damaged. Apply a recommended lubricant to the rubber bushing of the valve. Insert the valve stem through the rim hole, assembling the washer and lock-nut on the inside and tighten the lock-nut with a wrench so that the valve stem is secured to the rim.



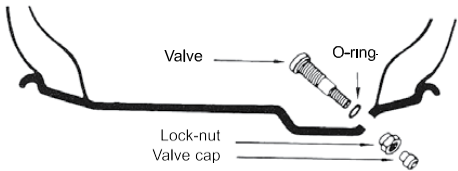
B-TYPE RIM VALVE

The valve hole in the rim must be clean and not damaged. As per the illustration below place a lubricated O-ring on the valve stem, insert the stem into the valve stem hole in the rim so that the valve stem faces perpendicular to the rim. Then tighten the lock nut with a wrench from the opposite side of the rim until the valve stem is secure.



C-TYPE RIM VALVE

The valve hole in the rim must be clean, smooth and not damaged. As per the illustration below, lubricate the O-ring and insert a new valve stem through the O-ring and then through the valve stem hole in the rim from the inside. From the other side, securely hand tighten on the lock nut.



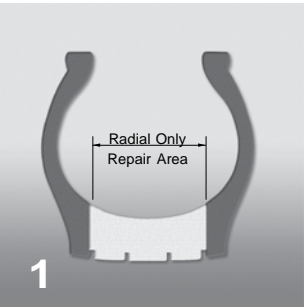
TIRE REPAIRS

Tire repairs normally made by fleet operators and tire service centers are limited to simple punctures such as nail holes. Anything more extensive, such as spot, reinforcement, or section repairs should be referred to an authorized retreading and repair facility. Significant cuts and cracks in the sidewall area should be spot repaired as soon as possible to prevent the need for a major section repair.

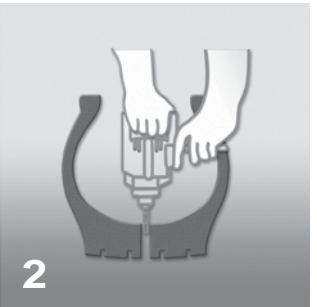
Frequent tire inspection in service is recommended. This section gives information concerning tire damage, extent, and location, to help determine whether or not section repairs are feasible.

NAIL HOLE REPAIR PROCEDURES

Radial nail hole repairs up to 3/8-inch diameter (9.5 MM) may be in the tread face as long as the nail hole is at least one-inch inside the shoulder. All injuries outside this point should be treated as a section repair.



Any number of repairs in the crown area only (use outer grooves as a guide). Refer larger injuries to a full service repair shop. Do not overlap patches.



Beads in relaxed position. Using a tapered drill bit/carbide cutter, drill a hole from the inside. Using a proper reamer, lubricate the hole with chemical cement.



Brush chemical cure cement on nozzle and insert into the hole while turning clockwise.



Cut excess plug 1/16" high on inside. Do not stretch plug.



Apply brush type Nylonbond cement to the buffed surface only and allow to dry thoroughly when using "versacure" patches with heat applied. When heat is not applied, use chemical vulcanizing solution, applied to the buffed liner surface only.



Beads in relaxed position. Remove backing from specified "versacure" patch. Center the patch over the plug and stitch the patch from the center out. Arrows on the patch must point toward the tire bead.

SECTION REPAIR LIMITS IN SIDEWALL & SHOULDER AREA

Most sidewall injuries will be split-type, caused by snags and punctures. Maximum injury sizes for sidewall and shoulder repairs are shown below.

The number of these section repairs should be limited to 2 per tire for line haul service and 3 for city service, no closer than 1/4 of tire circumference apart.

Spot repairs may be made without limit proving that the body plies are not exposed or damaged. Existing repairs must be reworked if loose or questionable.

## Limited Warranty

Disregarding any of the safety precautions and instructions contained in this information sheet may result in tire failure or explosion causing serious personal injury or death.



Load Inflation Pressure Tables

Wide Base, Tubeless											
Tire Size Tire Designation		The Load Limits (lbs.) at Various Cold Inflation Pressures (psi) (The pressure is minimum for the load)									
Tire size Tire Designation		The Load Limits (lbs.) at Various Cold Inflation Pressures (psi) (The pressure is minimum for the load)									
		80	85	90	95	100	105	110	115	120	130
385/65R22.5	S	6940	7350	7650	8050	8230	8510	8820	9050	9370(J)	
425/65R22.5	S	8270	8740	9100	9370	9790	10100	10500(J)	10700	11400(L)	
445/65R22.5	S	9090	9480	9870	10200(H)	10600	11000	11400	11700	12300(L)	12800
445/50R22.5	S	7310	7680	8030	8390	8740	9090	9370(J)	9780	10200(L)	

Tube Type												
Tire Size Tire Designation		The Load Limits (lbs.) at Various Cold Inflation Pressures (psi) (The pressure is minimum for the load)										
Tire size Tire Designation		The Load Limits (lbs.) at Various Cold Inflation Pressures (psi) (The pressure is minimum for the load)										
		80	85	90	95	100	105	110	115	120	125	130
9.00R20	A	16920	17640(E)	18340	19040	19760(F)	20320	20880	21420(G)	22060	22700(H)	
	D	8460	8820(E)	9170	9520	9880(F)	10160	10440	10710(G)	11030	11350(H)	
	S	4480	4675(E)	4850	5025	5205(F)	5360	5515	5675(G)	5840	6005(H)	
10.00R20	A	19040	19800	20820(F)	21660	22500	23360(G)	23580	23800	24020(H)		
	D	9520	9900	10410(F)	10830	11250	11680(G)	11790	11900	12010(H)		
	S	4990	5220	5510(F)	5730	5950	6175(G)	6320	6465	6610(H)		
11.00R20	A	20760	21560	22700(F)	23140	23580	24020(G)	25060	26100	27120(H)		
	D	10380	10780	11350(F)	11570	11790	12010(G)	12530	13050	13560(H)		
	S	5450	5690	6005(F)	6205	6405	6610(G)	6870	7130	7390(H)		
12.00R20	A	23640	24560	25440	26440(G)	27160	27880	28640(H)	29560	30440(J)		
	D	11820	12280	12720	13220(G)	13580	13940	14320(H)	14780	15220(J)		
	S	6200	6480	6740	7160(G)	7380	7600	7830(H)	8050	8270(J)		
12.00R24	A	26600	27640	28640	29560(G)	30440	31320	32200(H)	33200	34160(J)		
	D	13300	13820	14320	14780(G)	15220	15660	16100(H)	16600	17080(J)		
	S	6980	7280	7580	8050(G)	8310	8570	8820(H)	9100	9370(J)		

Tubeless												
Tire Size Tire Designation		The Load Limits (lbs.) at Various Cold Inflation Pressures (psi) (The pressure is minimum for the load)										
		80	85	90	95	100	105	110	115	120	125	130
8R19.5	A	10720(D)	11140	11560	12000(E)	12400	12800	13220(F)				
	D	5360(D)	5570	5780	6000(E)	6200	6400	6610(F)				
	S	2835(D)	2955	3075	3195(E)	3305	3415	3525(F)				
215/75R17.5 (14PR)	A	11620	12200	12760	13320	13880						
	D	5810	6100	6380	6660	6940						
	S	3085	3240	3390	3540	3690						
215/75R17.5 (16PR)	A	12700	13320	13960	14580	15180	15780	16380	16980	17560	18160	
	D	6350	6660	6980	7290	7590	7890	8190	8490	8780	9080	
	S	3360	3525	3690	3855	4015	4175	4335	4490	4650	4805	
235/75R17.5 (14PR)	A	12980	13620	14260	14900	15520	16140	16760				
	D	6490	6810	7130	7450	7760	8070	8380				
	S	3415	3585	3755	3920	4085	4245	4410				
235/75R17.5 (16PR)	A	15680	16460	17220	17980	18740	19480	20220	20960	21680	22400	
	D	7840	8230	8610	8990	9370	9740	10110	10480	10840	11200	
	S	4145	4355	4555	4760	4955	5155	5350	5545	5735	5925	
245/70R17.5 (18PR)	A	15680	16460	17220	17980	18740	19480	20220	20960	21680	22400	
	D	7840	8230	8610	8990	9370	9740	10110	10480	10840	11200	
	S	4145	4355	4555	4760	4955	5155	5350	5545	5735	5925	
10R22.5	A	16920	17640(E)	18340	19040	19760(F)	20300	20840	21420(G)			
	D	8460	8820(E)	9170	9520	9880(F)	10150	10420	10710(G)			
	S	4480	4675(E)	4850	5025	5205(F)	5360	5515	5675(G)			
11R22.5	A	19040	19800	20820(F)	21660	22500	23360(G)	23580	23800	24020(H)		
	D	9520	9900	10410(F)	10830	11250	11680(G)	11790	11900	12010(H)		
	S	4990	5220	5510(F)	5730	5950	6175(G)	6320	6465	6610(H)		
11R24.5	A	20280	21040	22040(F)	22700	23360	24020(G)	24820	25620	26440(H)		
	D	10140	10520	11020(F)	11350	11680	12010(G)	12410	12810	13220(H)		
	S	5310	5550	5840(F)	6095	6350	6610(G)	6790	6970	7160(H)		
12R22.5	A	20760	21560	22700(F)	23140	23580	24020(G)	25060	26100	27120(H)		
	D	10380	10780	11350(F)	11570	11790	12010(G)	12530	13050	13560(H)		
	S	5450	5690	6005(F)	6205	6405	6610(G)	6870	7130	7390(H)		
225/70R19.5	A	12000(E)	12460	12980	13660(F)	13960	14460	15000(G)	15420	15880(H)		
	D	6000(E)	6230	6490	6830(F)	6980	7230	7500(G)	7710	7940(H)		
	S	3195(E)	3315	3450	3640(F)	3715	3845	3970(G)	4100	4190(H)		
245/70R19.5	A	13660	14060	14620	15440(F)	15760	16300	17200(G)	17380	18160(H)		
	D	6830	7030	7310	7720(F)	7880	8150	8600(G)	8690	9080(H)		
	S	3640	3740	3890	4080(F)	4190	4335	4540(G)	4620	4805(H)		
265/70R19.5	A	15000	15720	16380	17200	17620	17660	18700(G)				
	D	7500	7860	8190	8600	8810	8830	9350(G)				
	S	3970	4180	4355	4540	4685	4850	5070(G)				
245/75R22.5	A	14100	14460	15060	15880	16220	16780	17200(G)				
	D	7050	7230	7530	7940	8110	8390	8600(G)				
	S	3860	3975	4140	4300	4455	4610	4675(G)				
255/70R22.5	A	15880	16440	17100	17640	17820	18440	18700(G)	19660	20280(H)		
	D	7940	8220	8550	8820	8910	9220	9350(G)	9830	10140(H)		
	S	4190	4370	4550	4675	4895	5065	5205(G)	5400	5510(H)		
275/80R22.5 (16PR)	A	18500	19420	20320	21220	22100	22980	23860	24720	25580	26440	
	D	9250	9710	10160	10610	11050	11490	11930	12360	12790	13220	
	S	5010	5260	5505	5750	5990	6230	6465	6700	6930	7165	
275/70R22.5 (18PR)	A	17240	18080	18940	19780	20600	21420	22240	23040	23840	24620	25420
	D	8620	9040	9470	9890	10300	10710	11120	11520	11920	12310	12710
	S	4675	4905	5135	5365	5590	5810	6030	6250	6465	6680	6895
295/75R22.5	A	18160	18760	19540	20280(F)	21040	21760	22700(G)	23180	24020(H)		
	D	9080	9380	9770	10140(F)	10520	10880	11350(G)	11590	12010(H)		
	S	4940	5155	5370	5510(F)	5780	5980	6175(G)	6370	6610(H)		
315/80R22.5 (20PR)	A	22700	23360	24280	25580	26180	27080	27760	28840	30440	31640	33080
	D	11350	11680	12140	12790	13090	13540	13880	14420	15220	15820	16540
	S	6175	6415	6670	6940	7190	7440	7610	7920	8270	8690	9090
315/80R22.5 (20PR) (AM06, AM09+)	A	24640	25880	27080	28280	29460	30640	31800	32960	34100	35220	36360
	D	12320	12940	13540	14140	14730	15320	15900	16480	17050	17610	18180
	S	6780	7115	7450	7780	8105	8425	8745	9065	9375	9690	10000
305/70R22.5 (20PR)	A		21070	21930	23060	23870	24710	25790	26600	27680	28480	29560
	D		10535	10965	11530	11935	12355	12895	13300	13840	14240	14780
	S		5740	5970	6280	6500	6735	7030	7250	7535	7760	8050
285/75R24.5	A	18160	18960	19720	20820(F)	21240	21980	22700(G)	23440	24700(H)		
	D	9080	9480	9860	10410(F)	10620	10990	11350(G)	11720	12350(H)		
	S	4940	5210	5450	5675(F)	5835	6040	6175(G)	6440	6780(H)		