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Continental AG
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D-30165 Hannover

Technical Data Book Commercial Vehicle Tyres



HEAVY SERVICE

LIGHT SERVICE

VANS



Official Partner of
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Technical data manuals for other tyre groups

Tyres for cars:

Technical Data Book Passenger Tyres

Industrial-tyres:

Tyre Service Data Industrial Vehicles

Motorcycle tyres:

Technical Manual

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General hints/safety remarks

The extensive technical data and other information relating to tyres and accessories on the following pages have been compiled to reflect as accurately and completely as possible the current state of development.

If this "Technical Data Book" is to be used as a basis for particularly important decisions, further data covering relevant standards such as **ETRTO**¹⁾, **DIN**²⁾ and **WdK**³⁾ can also be called upon. Special information can, of course, also be obtained from us at the following address:

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Swift Valley Industrial Estate
Rugby
Warwickshire CV21 1GZ

Tel. 0906 302389*

*calls cost 50p per minute

All types are in compliance with **DOT**⁴⁾ regulations and are marked accordingly.

Since 1982 all tyres have been typed in accordance with **ECE**⁵⁾ directive 54 and thus also in accordance with the current **EU**⁶⁾ tyre directives.

The data provided in this guide based on **average operating conditions as normally found in central Europe**.

Please contact us with respect to operating conditions differing from the above, e.g. for applications outside Central Europe.

This service brochure is of informative character. All liability is excluded, whether for damage or for other legal reasons (see also page 2).

The tyre sizes given in this guide are not always identical to the ones available in the size range.

Lower inflation pressure, greater loads or higher speeds than those recommended by the vehicle or tyre manufacturer shorten the service life of the tyre.



These instructions must be followed if vehicle safety - and that of those mounting tyres - is to be guaranteed. This applies above all to instructions regarding tyre pressure.

Failure to comply with these instructions could result in tyre damage that may even lead to tyre blow-outs under certain circumstances. This, in turn, could cause traffic accidents involving damage to property and/or personal injury.

(See also page 9)

Units of measurement and definition (DIN 70020)

As a matter of principle the technical data in the tables always complies with the international standards as specified by ISO and the ETRTO.

Further details such as other tyre sizes or designs, plus the static radius and the rolling circumference comply with DIN/WdK Guidelines.

Lengths

are given in millimetres (mm).

Tyre pressure

tyre inflation pressure is given in Bar based on cold tyre.

Outer diameter New*)

is a nominal size which refers to the tread centre.

Max. outer diameter in service

is the maximum diameter permitted in the tread centre as a result of **permanent** growth during tyre use. Dynamic deformations are **not** included.

Cross-section width New*)

is a nominal size which refers to the smooth tyre wall.

Max. operational width

is the maximum permitted width. This includes scuff ribs, decorative ribs, lettering and **permanent** growth during use. Dynamic deformations are **not** included.

Static radius

is the distance from the tyre centre to the ground level. Measurements are checked on fitted-tyres inflated to the tyre pressure specified in DIN 70020 Part 5.

Rolling circumference

is the distance covered by each revolution of the tyre.

Load capacities

are given in kgs (weight in the sense of mass)

Dual-tyre spacing

Maintaining the minimum spacing distance ensures that the two tyres in a dual fitment arrangement function without any infringing the ETRTO standards providing the tyres are not fitted with chains.

In the course of development, a variety of **designations for tyre dimensions** have been introduced, some of which are used concurrently. The following combination is most frequently used: tyre width in mm, then H : W (height : width) in % and finally the codes for the tyre construction - for example R for "radial" and "-" for "crossply" - and the nominal rim diameter.

When planning vehicle wheel space, automotive designers must proceed on the basis of the **maximum values** for tyre width and outer diameter, taking into account the tyre's static and dynamic deformation. In this way they ensure that all standardly approved tyres will fit in all cases. If this is not possible in exceptional cases, appropriate measures are to be taken to exclude any possible risk to safety.

*) Construction size

¹⁾ ETRTO - The European Tyre and Rim Technical Organisation, Brussels

²⁾ DIN - Deutsches Institut für Normung, Berlin (German Institute for Standardization)

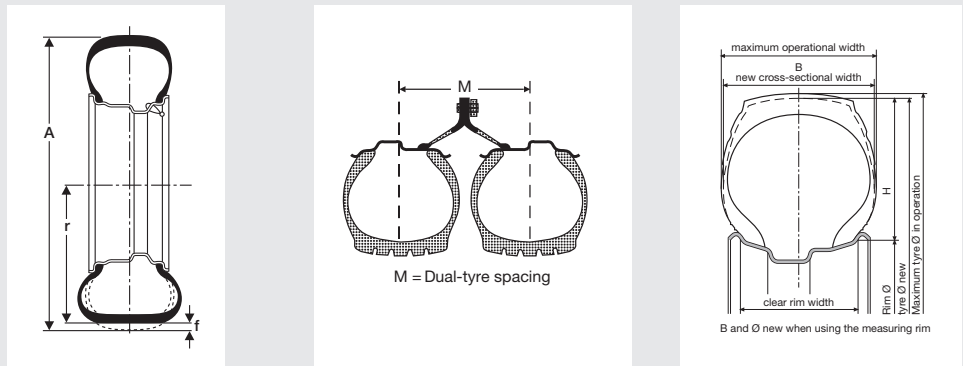
³⁾ WdK - Wirtschaftsverband der deutschen Kautschuk-Industrie, Frankfurt/Main

⁴⁾ DOT - U.S. Department of Transportation

⁵⁾ ECE - Economic Commission for Europe (UN institution in Geneva)

⁶⁾ EU - European Union, previously EEC

Tyre designations



A = Outer diameter on the tyre
r = static radius
f = deflection under load

Vehicle tyre group	Example of designation			Example comprises details of		
	Tyre size ¹⁾	PR ²⁾	Service ³⁾ description	Tyre width W	H:W %	Rim dia d
Light truck	185 R 14 C	8	102/100 N	mm	-	inches
	195/75 R 16 C	-	107/105 N	mm	75	inches
Truck	12 R 22.5	-	152/148 L	inches	-	inches
	315/80 R 22.5	-	156/150 L (154/150 M) ⁴⁾	mm	80	inches
	20-20 Sand-Service	-	164 D	inches	-	inches
Trailer	365/80 R 20	-	160 K	mm	80	inches
	385/65 R 22.5	-	160 K	mm	65	inches
Bus	275/70 R 22.5	-	148/145 J	mm	70	inches
	295/80 R 22.5	-	152/148 M	mm	80	inches

¹⁾ „R” = radial design
„-” = cross-ply design
„C” = light truck (van) tyre with LI for single tyres = 121 and below, see page 9
²⁾ PR rating = load capacity index

³⁾ Service description = load index for single/dual tyres plus speed symbol (see also tables on following pages)
⁴⁾ Supplementary service description

Tyre designations

In the past the **tyre load capacity category** was indicated solely by a PR number.

Now a numerical code - the load index (LI) - is used to exactly indicate the tyre’s load carrying capacity. See also page 6 and 8.

A speed symbol (SI) is used to designate the **speed rating** of the tyre, as shown in the representation below.

The use of the LI and SI was prompted by the introduction of **ECE*) regulation no. 54** and the EU tyre directive for Europe (in force as of January 1, 1993), according to which pneumatic tyres intended for road use at speeds in excess of 80 km/h must carry an operational designation comprising LI (single/dual) and SI. Alongside the nominal operational designation a tyre may also bear an additional operational designation, e.g. with a lower LI and an SI for higher speeds. These specifications have to be encircled.

Example:

315/70 R 22.5 152/148 L 154
150 K

An uncoded **maximum** load-capacity and tyre-pressure data in lbs (1 lbs = 0.454 kg) and psi (pounds per square inch - 1 bar = 14.5 psi) may also be moulded into the tyre. These specifications form part of the designation

*) ECE = ECONOMIC COMMISSION FOR EUROPE. UN institution in Geneva
**) FMVSS = Federal Motor Vehicle Safety Standard

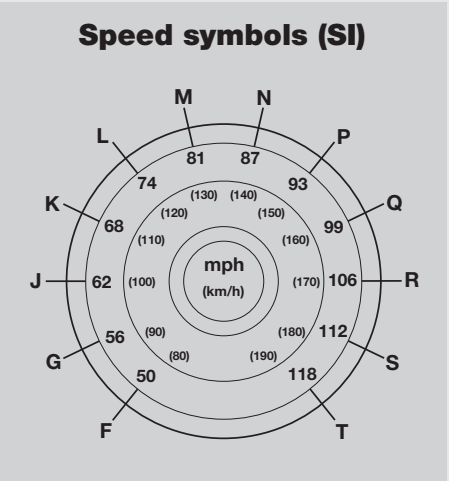
according to **US Safety Regulation FMVSS 119**)**, which covers all new pneumatic tyres for light trucks, trucks, buses and trailers intended for use on public highways as well as motorcycle tyres. Canada and Israel also use this specification.

Date of manufacture
The last 3 digits of the DOT ID no. indicate the week and year of manufacture. For the years 1990 to 1999 a triangle is placed after these three digits (optional supplementary information).

e. g. DOT XXXX XXXX 089 ◀
8th week of 1999

2000 →

e. g. DOT XXXX XXXX 0205 ◀
2nd week of 2005



Tyre designations

Load indices (LI)

LI	kg	LI	kg	LI	kg	LI	kg	LI	kg
19	77.5	50	190	81	462	112	1120	143	2725
20	80	51	195	82	475	113	1150	144	2800
21	82.5	52	200	83	487	114	1180	145	2900
22	85	53	206	84	500	115	1215	146	3000
23	87.5	54	212	85	515	116	1250	147	3075
24	90	55	218	86	530	117	1285	148	3150
25	92.5	56	224	87	545	118	1320	149	3250
26	95	57	230	88	560	119	1360	150	3350
27	97.5	58	236	89	580	120	1400	151	3450
28	100	59	243	90	600	121	1450	152	3550
29	103	60	250	91	615	122	1500	153	3650
30	106	61	257	92	630	123	1550	154	3750
31	109	62	265	93	650	124	1600	155	3875
32	112	63	272	94	670	125	1650	156	4000
33	115	64	280	95	690	126	1700	157	4125
34	118	65	290	96	710	127	1750	158	4250
35	121	66	300	97	730	128	1800	159	4375
36	125	67	307	98	750	129	1850	160	4500
37	128	68	315	99	775	130	1900	161	4625
38	132	69	325	100	800	131	1950	162	4750
39	136	70	335	101	825	132	2000	163	4875
40	140	71	345	102	850	133	2060	164	5000
41	145	72	355	103	875	134	2120	165	5150
42	150	73	365	104	900	135	2180	166	5300
43	155	74	375	105	925	136	2240	167	5450
44	160	75	387	106	950	137	2300	168	5600
45	165	76	400	107	975	138	2360	169	5800
46	170	77	412	108	1000	139	2430	170	6000
47	175	78	425	109	1030	140	2500	171	6150
48	180	79	437	110	1060	141	2575	172	6300
49	185	80	450	111	1090	142	2650	173	6500

Operating instructions (DIN 7804/7805 and ECE-R 54)

Load capacity and speed



When determining the minimum tyre size necessary for the axle of a vehicle, the authorised weight and the maximum

design speed of the vehicle should always be used as a basis.

Trailers first coming into service on or after January 1, 1990 must be equipped with tyres suited for maximum speeds of at least 100 km/h, unless the trailer is clearly marked for a lower speed. The so-called "tolerance catalogue" must also be taken into consideration here. Nominal load capacity = 100% load, as the load index also indicates *).

Reference speed

This is the speed assigned as per nominal load capacity of the tyre.

The load capacity can be exceeded when the vehicle, due to its construction, has a lower maximum speed and vice versa (see the tables on page 12 and 13).

Inflation pressure

The inflation pressures indicated in the tables are minimum values given for reference purposes.

All inflation pressures apply to the "cold" tyre, i.e. the state in which the tyre is in after having stood outdoors for several hours, not exposed to intense sunlight.

M & S tyres

May be mounted on commercial vehicles whose construction allows for a higher maximum speed than approved for the tyre if the tyre's lower approved speed is clearly posted in the vehicle in the driver's field of vision (e.g. sticker on the instrument panel).

Mixed fitment

(radial/crossply) While it is allowed for a vehicle weighing more than 2.8 t to be fitted axles with tyres of different construction, it is recommended that tyres of the same construction be mounted in all wheel positions.

Rims

Only the specified rims may be mounted on new commercial vehicles series. Tapered bead seat rims with a diameter of 16" or less should be equipped with safety shoulders (e.g. round hump) if tubeless radial tyres are fitted on them. The rim sizes printed in bold type in the table from on page 50 are optimal Continental sizes with respect to service life, wear pattern and durability.

Wheels

The load capacity must be adequate in all cases.

*) See table on page 8

Load capacities of tyres in special cases (DIN 7804/7805 and WdK-LL 140)

Case	Type of service	Approved load capacity as % of the nominal load capacity in the tables
1	Special-service vehicles: Fire-brigade vehicles with special superstructures, road flushers, road sweepers, garbage trucks, cherry-pickers, municipal service vehicles of a similar nature and other public utility vehicles.	110
2	Commercial vehicles: With special superstructures (concrete mixers, aircraft refuellers) used in local service with maximum service speeds not in excess of 60 km/h.	
3	Regular-service buses (M 3-Class II): In urban service, with maximum service-related speeds of up to 60 km/h.	
4	Regular-service buses (M 3-Class I): (see also DIN 7805) In urban and suburban service, if average speed does not exceed 40 km/h.	115
5	Tyres on the front axle of trucks with facilities for snow removal (front-end snow plough/rotary snow plough and the like) at service-related speeds of 50 km/h 62 km/h	120 115
6	For internal use on aircraft refuellers at speeds of up to 30 km/h (inflation pressure + 15%, no reduction for dual fitment).	135
7	Caravans and other passenger-car trailers (only for C tyres, see also WdK directive 195, page 3) for speeds of up to 100 km/h.	105

Air pressure multiplier for increased load capacity due to maximum design speed

Maximum speed in km/h (determined by vehicle type)	Air pressure multiplier for reference speed (speed index) of tyre	
	G, J, K, L, M 90 km/h - 130 km/h	N, P, Q, R, S 140 km/h - 180 km/h
140		1
135		1
130	1	1
125	1	1
120	1	1
115	1	1.015
110	1	1.03
105	1	1.045
100	1	1.06
95	1.01	1.075
90	1.02	1.09
85	1.03	1.10
80	1.04	1.11
75	1.06	1.125
70	1.07	1.14
65	1.09	1.155
60	1.11	1.17
55	1.13	1.19
50	1.14	1.21
45	1.16	1.23
40	1.18	1.25
35	1.21	1.265
30	1.23	1.28
25	1.26	1.30
20	1.28	1.32
15	1.31	1.34
10	1.34	1.36
5	1.37	1.38
0	1.40	1.40

The multipliers cited are to be used for an operating pressure of up to 10 bar.
Example: In the case of a K-rated tire (110 km/h) and nominal inflated pressure of 7.5 bar, the inflation pressure can be increased to 8.85 bar if the vehicle's maximum design speed is set at 40 km/h (1.18 x 7.5 bar) to exploit an increased load capacity of 115% of nominal load capacity.

Load capacities for various maximum design speeds

C-tyres with load index 121 (1450 kg) or less as single fitments								
Maximum speed in km/h (determined by vehicle design)	Approved load capacity in % of the nominal load capacity ²⁾ equals the load index for reference speed							
	L 120	M*) 130	N*) 140	P*) 150	Q 160	R 170	S 180	T 190
160	-	-	90	95	100	100	100	100
155	-	-	92.5	97.5	100	100	100	100
150	-	90	95	100	100	100	100	100
140	90	95	100	100	100	100	100	100
138	91	96	100	100	100	100	100	100
136	92	97	100	100	100	100	100	100
134	93	98	100	100	100	100	100	100
132	94	99	100	100	100	100	100	100
130	95	100	100	100	100	100	100	100
128	96	↑	100	100	100	100	100	100
126	97	↑	100	100	100	100	100	100
124	98	↑	100	100	100	100	100	100
122	99	↑	100	100	100	100	100	100
120	100	↑	100	100	100	100	100	100
118	↑	↑	100.5	↑	↑	↑	↑	↑
116	↑	↑	101	↑	↑	↑	↑	↑
114	↑	↑	101.5	↑	↑	↑	↑	↑
112	↑	↑	102	↑	↑	↑	↑	↑
110	↑	↑	102.5	↑	↑	↑	↑	↑
108	↑	↑	103	↑	↑	↑	↑	↑
106	↑	↑	103.5	↑	↑	↑	↑	↑
104	↑	↑	104	↑	↑	↑	↑	↑
102	↑	↑	104.5	↑	↑	↑	↑	↑
100	↑	↑	105	↑	↑	↑	↑	↑
95	↑	↑	106.5	↑	↑	↑	↑	↑
90	↑	↑	107.5	↑	↑	↑	↑	↑
85	↑	↑	108.5	↑	↑	↑	↑	↑
80	↑	↑	110	↑	↑	↑	↑	↑
75	↑	↑	111	↑	↑	↑	↑	↑
70	↑	↑	112.5	↑	↑	↑	↑	↑
65	↑	↑	113.5	↑	↑	↑	↑	↑
60	↑	↑	115	↑	↑	↑	↑	↑
55	↑	↑	117.5	↑	↑	↑	↑	↑
50	↑	↑	120	↑	↑	↑	↑	↑
45	↑	↑	122	↑	↑	↑	↑	↑
40 ¹⁾	↑	↑	125	↑	↑	↑	↑	↑
35 ¹⁾	↑	↑	129	↑	↑	↑	↑	↑
30 ¹⁾	↑	↑	135	↑	↑	↑	↑	↑
25 ¹⁾	↑	↑	142	↑	↑	↑	↑	↑
20 ¹⁾	↑	↑	150	↑	↑	↑	↑	↑
15 ¹⁾	↑	↑	160	↑	↑	↑	↑	↑
Application-restricted speed	↑	↑	↑	↑	↑	↑	↑	↑
10 ¹⁾	↑	↑	175	↑	↑	↑	↑	↑
5 ¹⁾	↑	↑	190	↑	↑	↑	↑	↑
Standstill ¹⁾	↑	↑	210	↑	↑	↑	↑	↑

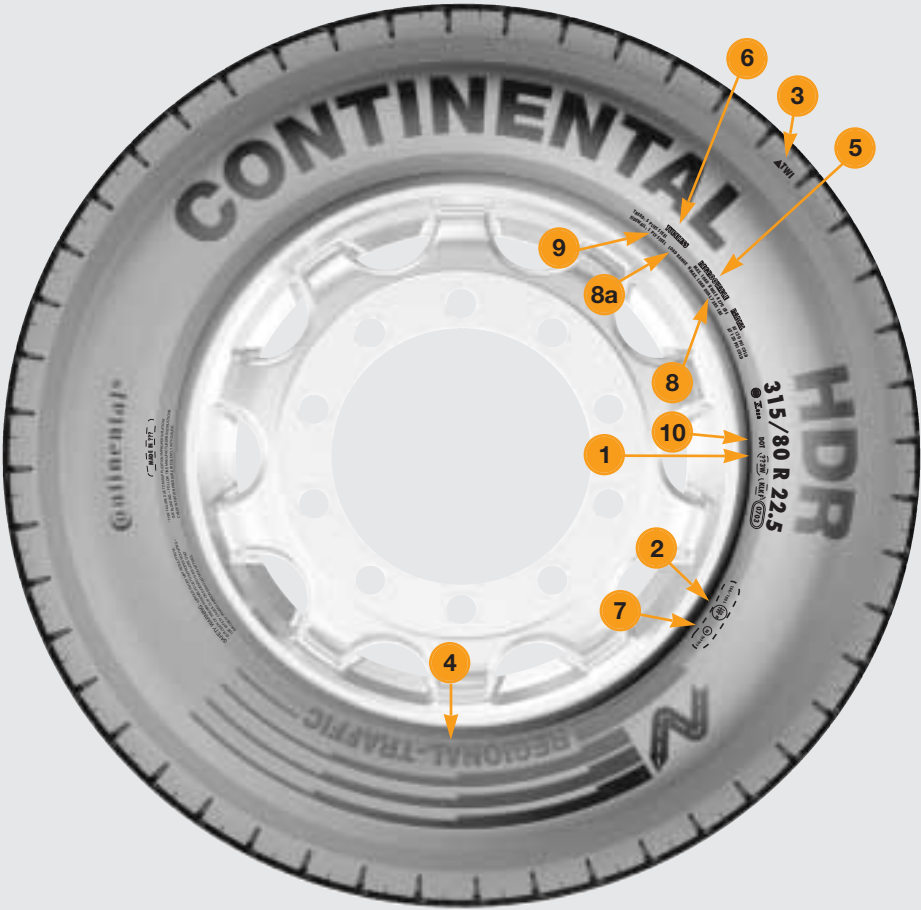
See general notes on page 9. Tyres with SI ratings P and Q under full load at speeds of over 140 km/h should be inflated an extra 0.1 bar for every excess 10 km/h

Load capacities for various maximum design speeds

C-tyres with load index 122 (1500 kg) or more as single fitments							
Maximum speed in km/h (determined by vehicle design)	Approved load capacity in % of the nominal load capacity ²⁾ equals the load index for reference speed						
	D 65	F 80	G 90	J 100	K 110	L 120	M 130
130	-	-	-	-	-	-	100
127.5	-	-	-	-	-	-	100
125	-	-	-	-	-	-	100
122.5	-	-	-	-	-	-	100
120	-	-	-	88	93	100	100
117.5	-	-	-	91	95	↑	100
115	-	-	-	93	97	↑	100
112.5	-	-	-	95	98.5	↑	100
110	-	-	87	96	100	↑	100
107.5	-	-	89.5	97	↑	↑	100
105	-	-	92	98	↑	↑	100
102.5	-	-	93.5	99	↑	↑	100
100	-	85	95	100	↑	↑	100
95	-	90	97.5	↑	↑	↑	101
90	-	94	100	↑	↑	↑	102
85	-	97	↑	↑	↑	↑	103
80	-	100	↑	↑	↑	↑	104
75	-	102.5	↑	↑	↑	↑	105.5
70	-	105	↑	↑	↑	↑	107
65	100	107	↑	↑	↑	↑	108.5
60	100	↑	↑	↑	↑	↑	110
55	-	↑	↑	↑	↑	↑	111
50	102	↑	↑	↑	↑	↑	112
45	-	↑	↑	↑	↑	↑	113
40 ¹⁾	107	↑	↑	↑	↑	↑	115
35 ¹⁾	-	↑	↑	↑	↑	↑	119
30 ¹⁾	116	↑	↑	↑	↑	↑	125
25 ¹⁾	-	↑	↑	↑	↑	↑	135
20 ¹⁾	140	↑	↑	↑	↑	↑	150
15 ¹⁾	150	↑	↑	↑	↑	↑	165
Application-restricted speed	↑	↑	↑	↑	↑	↑	↑
10 ^{1) 3)}	165	↑	↑	↑	↑	↑	180
5 ^{1) 3)}	190	↑	↑	↑	↑	↑	210
Standstill ^{1) 3)}	225	↑	↑	↑	↑	↑	250

1) Dual-tyres = 2 x single load capacity
2) A sign indicating the max speed must be attached to trailers restricted to speeds below 100 km/h (62 mph).
3) Ask the tyre manufacturer about these applications.
*) On M-, N- and P-tyres can be interpolated in steps of 1.25 mph (2 km/h) from 87 mph (140 km/h) upwards.
No excess loads are applicable over 65 km/h for tyres on heavy trailers (with laden weight > 3.5 t).

Tyre designations



The tyre designation markings satisfy both the US standard (FMVSS 119) and the European standard (ECE-R 54).

Explanation	
DOT	= US Department of Transportation
ETRTO	= The European Tyre and Rim Technical Organisation, Brussels
ECE	= Economic Commission for Europe (UN Institution in Geneva)
FMVSS	= Federal Motor Vehicle Safety Standard

- 1

Size designation
315 = tyre width in mm
80 = aspect ratio (section height to section width) =80%
R = radial construction
22.5 = rim diameter (code)

2

Service description
Consisting of
154 = load index for single fitment
150 = load index for dual fitment
L = code letter for speed rating

3

TWI
Tread Wear Indicator

4

Recommended application
see page 26

5

Regroovable
The manufacturer has designed the tyre for regrooving

6

Tubeless

Tube Type

7

E = tyres complies with value set forth in ECE-R 54

8

US load designation
Of single/dual fitment and indication of max. inflation pressure in psi (1 bar = 14.5 psi)

8a

Load range
In accordance with US standard

9

Data as per US safety standard
on inner construction or number of plies, in this case
Tread: under the tread there are five steel cord plies (including carcass)
Sidewall: viewed from the side there is one steel cord ply (in this case the carcass ply)

10

DOT
= U.S. Department of Transportation (responsible for tyre safety standards)
- How to use this guide

Van tyres from Continental



Vanco

The economical summer tyre for modern vans in construction site, delivery and recreational applications. Vanco lives up to high expectations with regard to economy, safety and comfort

- ▶ very economical due to 20 % more mileage
- ▶ reduced risk of aquaplaning and better grip in the wet
- ▶ kerbing band protects tyre from sidewall damage
- ▶ low noise levels and greater comfort

All facts are in comparison with the previous tyre design



VancoFourSeason

The all-season tyre for economical fleet operations and for high performance efficiency in terms of safety and comfort

- ▶ greater economy due to longer service life
- ▶ safety reserves in slushy snow and at low temperatures
- ▶ improved wet adhesion and reduced risk of aquaplaning
- ▶ kerbing band protects tyre from sidewall damage
- ▶ significant improvement in ride comfort and reduced noise level

All facts are in comparison with the Contrans LS 23

NEW



VancoContact 2

The summer tyre offering passenger car comfort for modern vans and small delivery trucks.

- ▶ outstanding handling plus superb cornering stability
- ▶ highly efficient water expulsion for effective aquaplaning prevention
- ▶ grip you can count on, even in the wet
- ▶ enhanced riding comfort combined with excellent overall performance



VancoContact

A summer tyre made for small vans, yet with passenger-car comfort. Highly versatile – good both in transporting goods and people and for recreational and family use

- ▶ excellent mileage performance
- ▶ wide margin of aquaplaning safety
- ▶ very good braking in the wet
- ▶ extremely comfortable



Contrans LS 21/23

Economical and comfortable summer tyre for all axle positions

- ▶ economical all-round tyre fitment
- ▶ high ride comfort
- ▶ robust construction
- ▶ good traction



Contrans LS 25

Economical and comfortable summer tyre for vans

- ▶ high mileage
- ▶ even wear
- ▶ good road holding in the wet

Van tyres from Continental



VancoWinter

The thoroughbred winter tyre for maximum safety and high economy

- ▶ outstanding traction
- ▶ excellent braking performance on ice and in the snow
- ▶ maximum aquaplaning safety
- ▶ rugged scuff rib for protection from tyre failure



Contrans RT 750

Purpose-designed for winter service on vans

- ▶ excellent winter performance on snow and ice
- ▶ good resistance to aquaplaning
- ▶ very comfortable ride



VancoWinterContact

The winter tyre for small vans offering passenger-car comfort. Ideal all-round tyre for combined goods and passenger transport as well as for recreational and family use

- ▶ a large number of sipes – open at both ends – provide outstanding traction and braking on snow
- ▶ high measure of safety in the wet thanks to grooves that fan outward
- ▶ economical thanks to long service life
- ▶ very good handling characteristics due to modern design



VancoViking

Studdable winter tyre for harsh winter conditions

- ▶ outstanding traction and short braking distances on snow and ice
- ▶ excellent mileage
- ▶ very good driving comfort and steering characteristic



VancoVikingContact

Soft compound van winter tyre for utmost winter conditions in Nordic regions

- ▶ excellent traction and braking performance
- ▶ soft compound technology for improved grip under icy conditions
- ▶ high aquaplaning safety
- ▶ low rolling noise

Tyre				Rim 2)	Tube and valve (TL valve)	Tyre dimensions						Radius stat. +/-2%	Rolling circum- ference -1.5% -2.5%
Size	Tread pattern	PR	Operational code 1)			Max. standard value in operation ³⁾				new			
						Width		Outer-Ø		Width	Outer Ø		
						Stand.	Spec.	Stand.	Spec.				
165 R 13 C	VancoContact 2 → LS 25 # RT 750	6	91/89 R	4 J 4 1/2 J 5 J	43 GS 11.5 (1330, 38 G 11.5)	167 172 177	175 180 185	604	609	162 167 172	596	267	1806
165/70 R 13 C	VancoContact 2 → VancoContact VancoWinterContact	6	88/86 R	4 1/2 J ⁴⁾ 5 J⁴⁾	43 GS 11.5 (1330, 38 G 11.5)	172 177		572	576	165 170	562	258	1703
175 R 14 C	LS 22 LMS 70	8	99/98 P	4 1/2 J 5 J 5 1/2 J	43 GS 11.5 (1440, 38 G 11.5)	178 183 188	187 192 197	642	648	173 178 183	634	289	1920
185 R 14 C	Vanco-6	6	99/97 Q	5 J	43 GS 11.5 (1440, 38 G 11.5)	189 194 199	198 203 208	659	665	183 188 193	650	296	1970
	Vanco-8	8	102/100 Q	5 1/2 J 6 J									
	VancoFourSeason VancoWinter VancoViking*												
195 R 14 C	Vanco-6	6	102/100 Q	5 J	43 GS 11.5 (1460, 38 G 11.5)	199 204 209	209 214 219	675	682	193 198 203	666	302	2018
	Vanco-8	8	106/104 Q	5 1/2 J 6 J									
	VancoWinter VikingStop 2000**												
205 R 14 C	Vanco-8 LMS 70	8	109/107 P	5 1/2 J 6 J 6 1/2 J	43 GS 11.5 (1460, 38 G 11.5)	209 214 219	220 225 230	696	703	203 208 213	686	301	2078
215 R 14 C	Vanco-8 LMS 70	8	112/110 P	5 1/2 J 6 J 6 1/2 J	(43 GS 11.5) -	220 225 230	230 235 240	710	717	213 218 223	700	316	2121
165/75 R 14 C	Vanco-8	8	97/95 R	4 J 4 1/2 J 5 J	43 GS 11.5 (1440, 38 G 11.5)	167 172 177		614	618	160 165 170	604	277	1830
185/75 R 14 C	Vanco-8	8	102/100 Q	5 J 5 1/2 J 6 J		191 196 201	184 189 194						
195/75 R 14 C	Vanco-8	8	106/104 Q	5 J 5 1/2 J 6 J		199 204 209	191 196 201						
165/70 R 14 C	VancoContact VancoFourSeason VancoWinterContact VikingStop 4000**	6	89/87 R	4 1/2 J 5 J	- (1430, 38 G 11.5)	172 177		598	602	165 170	588	271	1782
175/65 R14 C	VancoContact VancoWinterContact VancoViking* VancoVikingoContact	6	90/88 T	5 J 5 1/2 J		186 191	594	598	177 182	584	267	1780	

PR	Load index LI	Wheel position 5)	Load capacity (kg) per axle at tyre pressure (bar) (psi)								Speed Index and reference speed km/h
			3.0 (44)	3.25 (47)	3.5 (51)	3.75 (54)	4.0 (58)	4.25 (62)	4.5 (65)	4.75 (69)	
6	91 89	S D	1030 1940	1095 2070	1165 2195	1230 2320					R 170
6	88 86	S D	935 1775	1000 1890	1060 2005	1120 2120					R 170
8	99 98	S D	1120 2170	1195 2310	1270 2450	1340 2590	1410 2730	1480 2865	1550 3000		P 150
6	99 97	S D	1295 2445	1380 2605	1465 2765	1550 2920					Q 160
8	102 100	S D	1230 2315	1310 2465	1390 2620	1470 2765	1545 2915	1625 3060	1700 3200		Q 160
6	102 100	S D	1420 2675	1515 2855	1605 3030	1700 3200					Q 160
8	106 104	S D	1375 2605	1465 2775	1555 2945	1645 3110	1730 3275	1815 3440	1900 3600		Q 160
8	109 107	S D	1490 2820	1590 3005	1685 3190	1780 3370	1875 3550	1970 3725	2060 3900		P 150
8	112 110	S D	1620 3065	1725 3270	1830 3470	1935 3665	2040 3860	2140 4050	2240 4240		P 150
8	97 95	S D	1010 1910	1080 2035	1145 2160	1210 2285	1270 2405	1335 2525	1400 2645	1460 2760	R 170
8	102 100	S D	1175 2215	1255 2360	1330 2505	1405 2650	1480 2790	1555 2930	1630 3065	1700 3200	Q 160
8	106 104	S D	1315 2495	1405 2655	1490 2820	1575 2980	1655 3140	1740 3295	1820 3450	1900 3600	Q 160
6	89 87	S D	970 1825	1035 1945	1100 2065	1160 2180					R 170
6	90 88	S D	1005 1875	1070 2000	1135 2120	1200 2240					T 190

Tyre				Rim 2)	Tube and valve	Tyre dimensions						Radius	Rolling circum- ference
Size	Tread pattern	PR	Operational code 1)		(TL valve)	Max. standard value in operation ³⁾				new		stat. +/-2%	-1.5% -2.5%
						Width Stand.	Spec.	Outer-Ø Stand.	Spec.	Width	Outer Ø		
185 R 15 C	LS 23 LMS 70	8	103/102 R	5 J 5 1/2 J 6 J	43 GS 11.5 (1540, 38 G 11.5)	189 194 199	198 203 208			183 188 193	674	308	2042
195 R 15 C	Vanco-8 →	8	106/104 R	5 J 5 1/2 J 6 J		199 204 209	209 214 219			193 198 203	690		
195/70 R 15 C	Vanco-6	6	100/98 R (97 T)	5 J 5 1/2 J	- (1540, 38 G 11.5)	199 204 209				191 196 201			
	Vanco-8	8	104/102 R	6 J				665	671	201	655	300	1985
	VancoWinter												
	VancoViking*												
	VancoVikingContact												
	VancoFourSeason		104/102 R (97 T)										
205/70 R 15 C	Vanco-8 VancoWinter VancoViking*	8	106/104 R	5 1/2 J 6 J 6 1/2 J	43 GS 11.5 (1560, 38 G 11.5)	212 217 222		681	687	204 209 214	669	306	2027
215/70 R 15 C	Vanco-8 LMS 70	8	109/107 R	5 1/2 J 6 J 6 1/2 J	43 GS 11.5 (1560, 38 G 11.5)	220 225 230				211 216 221	683	311	2069
225/70 R 15 C	Vanco-8	8	112/110 R (115 N)	6 J 6 1/2 J 7 J	43 GS 11.5 (1560, 38 G 11.5)	232 237 242				223 228 233	697	317	2112
	VancoFourSeason							709	715				
	VancoWinter												
	VancoViking*		112/110 R										
	VancoVikingContact												
205/65 R 15 C	VancoContact 2 →		102/100 T	5 1/2 J 6 J 6 1/2 J	43 GS 11.5	212 217 222				204 209 214	647	297	1960
	Vanco-6							657	663				
	VancoFourSeason												
	VancoWinter												
	VancoViking*		102/100 R										
185/60 R 15 C	VancoContact VancoWinterContact	6	94/92 T	5 1/2 J 6 J		197 202		611	617	189 194	603	279	1827
185/55 R 15 C	VancoWinterContact		90/88 T	5 1/2 J 6 J		197 202		593	598	189 194	585	270	1773
175/75 R 16 C	Vanco-8 VancoWinter	8	101/99 R	4 1/2 J 5 J 5 1/2 J	43 GS 11.5	179 184 189		678	684	172 177 182	668	308	2024
185/75 R 16 C	Vanco-8	8	104/102 R	5 J 5 1/2 J 6 J	43 GS 11.5	191 196 201		696	700	184 189 194	684	314	2073
	VancoWinter												

Only tyres (sizes and tread patterns) in bold are available in the size range.
For service reasons, older tyre sizes and tread patterns still in use are also listed.

1) Load Index single/dual fitment and Speed Index.
2) Dual spacing for dual tyre fitments: See pages 88/89.
3) Standard = on road tread pattern, Special = M+S or off road tread pattern.
4) The respective B- rims are permitted.
5) S = Single / D = Dual fitment

PR	Load index LI	Wheel position 5)	Load capacity (kg) per axle at tyre pressure (bar) (psi)								Speed Index and reference speed km/h
			3.0 (44)	3.25 (47)	3.5 (51)	3.75 (54)	4.0 (58)	4.25 (62)	4.5 (65)	4.75 (69)	
8	103 102	S D	1265 2460	1350 2620	1435 2780	1515 2940	1595 3095	1675 3250	1750 3400		R 170
8	106 104	S D	1375 2605	1465 2775	1555 2945	1645 3110	1730 3275	1815 3440	1900 3600		R 170
6	100 98 97	S D S	1340 2510 1220	1425 2675 1300	1515 2840 1380	1600 3000 1460					R 170 (T 190)
8	104 102	S D	1300 2460	1385 2620	1470 2780	1555 2940	1640 3095	1720 3250	1800 3400		
8	106 104	S D	1375 2605	1465 2775	1555 2945	1640 3110	1730 3275	1815 3440	1900 3600		R 170
8	109 107	S D	1490 2820	1590 3005	1685 3190	1780 3370	1875 3550	1970 3725	2060 3900		R 170
8	112 110 115	S D S	1620 3065 1680	1725 3270 1790	1830 3470 1900	1935 3665 2010	2040 3860 2115	2140 4050 2220	2240 4240 2325	2430	R 170 (N 140)
6	102 100	S D	1420 2675	1515 2855	1605 3030	1700 3200					R 170 T 190
6	94 92	S D	1120 2110	1195 2245	1270 2385	1340 2520					T 190
6	90 88	S D	1005 1875	1070 2000	1135 2120	1200 2240					T 190
8	101 99	S D	1140 2145	1215 2290	1290 2430	1360 2565	1435 2700	1505 2835	1575 2970	1650 3100	R 170
8	104 102	S D	1245 2355	1330 2510	1410 2665	1490 2815	1570 2965	1645 3110	1725 3255	1800 3400	R 170

→ In preparation
being phased out
*) studdable
**) Winter tyre with studs. Not permitted for use in countries with a ban on studded tyres.
Not available in the UK.

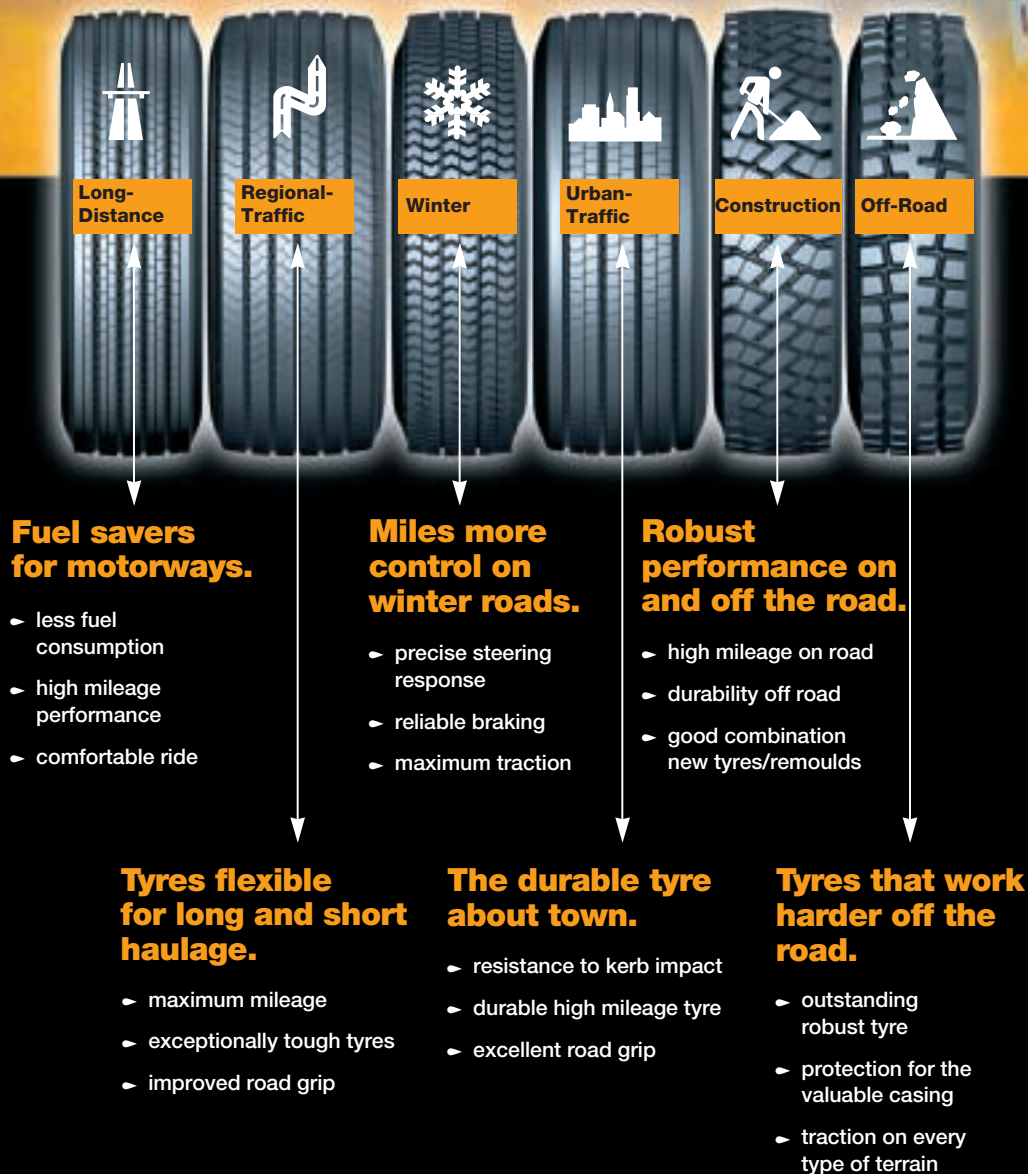
Tyre				Rim 2)	Tube and valve	Tyre dimensions					Radius	Rolling circum- ference
Size	Tread pattern	PR	Operational code 1)		(TL valve)	Max. standard value in operation ³⁾				Outer Ø	stat. +/-2%	-1.5% -2.5%
						Width Stand.	Spec.	Outer-Ø Stand.	Spec.			
195/75 R 16 C	Vanco-8	8	107/105 R	5 J 51/2 J 6 J	43 GS 11.5	199	710	716	191	698	320	2115
	VancoWinter					204		196				
	VancoViking*					209		201				
205/75 R 16 C	Vanco-8	8	110/108 R	51/2 J 6 J 61/2 J	43 GS 11.5	211	726	732	203	714	328	2170
	VancoWinter					216		208				
	VancoFourSeason					221		213				
215/75 R 16 C	Vanco-8	8	113/111 R	51/2 J 6 J 61/2 J	43 GS 11.5	220	740	748	211	728	334	2210
	VancoFourSeason					225		216				
	VancoWinter					230		221				
225/75 R 16 C	VancoViking*	10	116/114 R	6 J 61/2 J 7 J	43 GS 11.5	235	758	764	223	744	338	2254
	VancoFourSeason					237		228				
	LM 90					242		233				
195/65 R 16 C	Vanco-8	6	100/98 T	5 J 51/2 J 6 J	43 GS 11.5	199	670	676	191	660	305	2000
	Vanco-8					204		196				
	VancoViking*					209		201				
205/65 R 16 C	VancoWinter	8	103/101 T (99 H)	51/2 J 6 J 61/2 J	43 GS 11.5	212	682	686	204	672	308	2036
	VancoContact					217		209				
	VancoWinter					222		214				
215/65 R 16 C	VancoFourSeason	6	107/105 T (103 H)	6 J 61/2 J 7 J	43 GS 11.5	225	698	702	216	686	313	2077
	VancoViking*					230		221				
	VancoWinterContact					235		226				
225/65 R 16 C	VancoContact	8	109/107 R (106 R)	6 J 61/2 J 7 J	43 GS 11.5	232	710	716	223	698	318	2115
	VancoViking*					237		228				
	VancoWinter					242		233				
195/60 R 16 C	VancoWinterContact	6	99/97 T	51/2 J 6 J 61/2 J		204	650	654	196	640	297	1939
	VancoContact					209		201				
	VancoWinterContact					214		206				
205/60 R 16 C	VancoContact #	6	100/98 T	6 J 61/2 J 7 J		217	-	666	209	652	300	1980
	VancoWinterContact					222		214				
	VancoFourSeason					227		219				
225/60 R 16 C	VancoFourSeason	6	101/99 H	61/2 J 7 J 7 1/2 J		237	686	-	228	676	***	****
	VancoWinterContact					242		233				
	VancoFourSeason					247		238				
205/55 R 16 C	VancoWinterContact	6	98/96 T	6 J 61/2 J 7 J		217	642	646	209	632	292	1928
	VancoWinterContact					222		214				
	VancoWinterContact					227		219				
185/60 R 17 C	VancoContact	6	96/94 R	51/2 J 6 J 61/2 J		197	662	668	189	654	301	1985
	VancoContact					202		194				
	VancoWinterContact					207		200				
215/60 R 17 C	VancoWinterContact	6	104/102 H	6 J 61/2 J 7 J		225	700	706	216	690	319	2091
	VancoWinterContact					230		221				
	VancoWinterContact					235		226				

Footnotes see page 22

PR	Load index LI	Wheel position 5)	Load capacity (kg) per axle at tyre pressure (bar) (psi)												Speed Index and reference speed km/h	
			3.0 (44)	3.25 (47)	3.5 (51)	3.75 (54)	4.0 (58)	4.25 (62)	4.5 (65)	4.75 (69)	5.0 (73)	5.25 (76)	5.5 (80)	5.75 (83)		
8 10	107 105 110 108	S D S D	1350 2560 1355 2555	1440 2730 1445 2725	1525 2900 1535 2890	1615 3060 1620 3055	1700 3225 1705 3220	1785 3385 1790 3380	1865 3545 1875 3535	1950 3700 1955 3690		2040 3845 2120 4000				R 170 T 190
	8 10	110 108 113 111	S D S D	1470 2770 1470 2785	1565 2955 1565 2970	1660 3135 1665 3150	1755 3310 1755 3330	1850 3485 1850 3510	1940 3660 1940 3680	2030 3830 2035 3855	2120 4000 2125 4025		2210 4195 2300 4360			R 170
	8 10	113 111 116 114	S D D D	1590 3020 1600 3015	1700 3220 1705 3215	1800 3415 1805 3410	1905 3610 1910 3605	2005 3800 2010 3795	2105 3990 2110 3985	2205 4175 2210 4170	2300 4360 2310 4355		2405 4540 2500 4720			R 170
10	116 114 110 121 120	S D S S D	1730 3270 1605 1725 3330	1845 3485 1710 1835 3550	1960 3695 1815 1950 3765	2070 3905 1920 2060 3980	2180 4115 2020 2170 4190	2285 4320 2120 2275 4395	2395 4520 2120 2275 4605	2500 4720 2490 4805		2595 5010 2695 5205	2800 5405	2900 5600		N 140 R 170 (S 180)
	6 8	100 98 104 102	S D S D	1340 2510 1245 2355	1425 2675 1330 2510	1515 2840 1410 2665	1600 3000 1490 2815	1570 2965	1645 3110	1725 3255	1800 3400					R 170 T 190
	6 8	103 101 99 107 105 103	S D S S D S	1465 2760 1455 1350 2560 1465	1560 2940 1550 1440 2730 1560	1655 3120 1525 1615 2900 1655	1750 3300 1615 3060 1750	1700 3225	1785 3385	1865 3545	1950 3700					R 170 T 190 (H 210)
4 6 8	102 100 106 104 109 107	S D S D S D	1595 3000 1590 3010 1425 2700	1700 3200 1695 3210 1520 2880		1800 3405 1615 1705 3055	1900 3600 1705 3230	1795 3400	1885 3570	1975 3735	2060 3900					R 170 T 190 H 210
	8	112 110	S D	1550 2935	1655 3130	1755 3320	1855 3510	1950 3695	2050 3880	2145 4060	2240 4240					R 170
	6	99 97	S D	1295 2445	1380 2605	1465 2765	1550 2920									T 190 H 210
6	100 98	S D	1240 2510	1425 2675	1515 2840	1600 3000										T 190
6	101 99	S D	1550 2900	1650 3100												H 210
6	98 96	S D	1255 2375	1340 2535	1420 2685	1500 2840										T 190
6	96 94	S D	1190 2240	1265 2390	1345 2535	1420 2680										R 170
	104 102	S D	1505 2845	1605 3030	1705 3215	1800 3400										H 210

First choice

ContiLifeCycle



1 Start with the best choice

Example: HSR1

- Maximum mileage performance
- Even wear
- The quietest tyre in its class

2 Regrooving

Use our tread pattern to the full. That way you reduce your costs per mile - safely.

3 Remoulding

Your second benefit from first choice. With Continental casings from 19.5" upwards, truck tyres can enjoy a second tyre life. For a ride that's as good as new.



4 Casing management

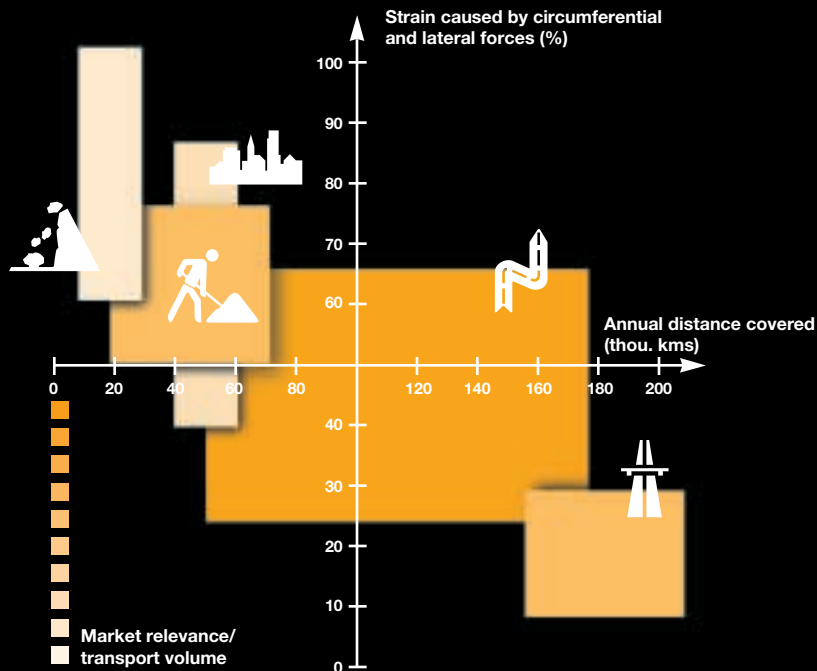
Return your old casings to us and enjoy the financial benefits: We buy your casings at fair market prices.



Your operation counts

CONTINENTAL signals performance with its new generation of truck tyres. Innovative technology, optimum tyre design, full service for every job. Haulage orders are, after all, complex in their variety: Long haulage on best asphalt, regional traffic with numerous cornering maneuvers, local distance transport with a high risk of damage to tyres. Set the task and CONTINENTAL will come up with the most cost-effective solution.

Something you can translate into hard cash.



ContiEuroService









You can't predict tyre failures, but you can reduce their impact! With its network of 5,000 service partners in 22 countries across Europe, the 24 hour breakdown service gets you going again quickly, safely and without any fuss.

The EuroServiceCard

Your personal 'safety measure' in the case of tyre failure, entitling you to tyres and service. Without fuss and without cash. At guaranteed fixed prices.

So you already know today the costs you'll be facing tomorrow!

**THE APPLICATION
DETERMINES
THE NAME**

	 L	 R	 W	 U	 C	 O
	Long-Distance	Regional-Traffic	Winter	Urban-Traffic	Construction	Off-Road
S teer/Steering axle (also suitable for trailing axles on trucks and as all-round fitment where traction is not of paramount importance)	HSL1 ^{NEW}	HSR1 LSR1 ^{NEW}	HSW	HSU1	HSC+ ^{NEW} HSC	HSO
D rive/Driving axle	HDL1 ^{NEW}	HDR+ ^{NEW} HDR LDR1 ^{NEW}	HDW	HDU1 HDU	HDC+ ^{NEW} HDC	HDO
T railer/Trailing axle	HTL	HTR1 HTR	HTW ^{NEW}		HTC	

H Heavy Service Tyres

L Light Service Tyres

Designation for application.

Heavy service (**H**), Light service (**L**),
axle position (**S**, **D**, **T**)
and field of application (**L**, **R**, **W**, **U**, **C**, **O**)
designate the right tyre for your operation.



LONG-DISTANCE

**HSL 1** ECO-PLUS

REGIONAL-TRAFFIC

**HSR 1** Serie 55/65**HSR 1** Serie 60-80**HSR** 9+10 R 22.5**HSR** 11+12 R 22.5**RS 415 N** 13 R 22.5**HSR 1** 19.5"**HSR** 20"/22"/24"**RS 63** 7.50 R 20
8.25 R 20**LSR 1**

WINTER

**HSW** Scandinavia
Serie 65**HSW** Scandinavia

URBAN-TRAFFIC

**HSU 1****HSU**

CONSTRUCTION

**HSC+****HSC****LSC**

OFF-ROAD

**HSO/T9****HSO SAND****HCS****MIL**

STEER/STEERING AXLE

Commercial
Vehicle Tyres



LONG-DISTANCE



REGIONAL-TRAFFIC



WINTER



URBAN-TRAFFIC



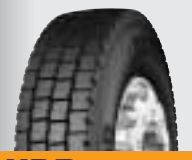
CONSTRUCTION



OFF-ROAD

**HDL 1** ECO-PLUS

NEW

**HDR+** 22.5"**HDR** 19.5"/22.5"**HDR** 20"/22"/24"**LDR1** 17.5"**LDR1** 265/70 R 17.5"**HDW****HDW** Scandinavia**HDU1** Serie 55**HDU****HDC+****HDC****HDO**DRIVE/
DRIVING AXLECommercial
Vehicle Tyres**HTL** ECO-PLUS**HTL** ECO-PLUS 19.5"**HTR1** Serie 55**HTR1** 19.5"**HTR****HTR** EXTRA DUTY**HTW**

NEW

**HTC** 19.5"/22.5"TRAILER/
TRAILING AXLE

Go further on less fuel



HSL1 ECO-PLUS

Even wear pattern and outstanding mileage performance thanks to extremely wide contact patch and circumferential ribs.

Cool running equals low fuel consumption through sipes in shoulders and a compound specially adapted to suit the steered axle.

Tread groove geometry developed specifically to ensure quiet running.



HSL1
ECO-PLUS

HDL1 ECO-PLUS

The interaction of the wide and fine arrow-shaped sipes ensures traction and safety in snow and on wet roads. Excellent self-cleaning characteristics.

The open shoulder provides safety and good traction during braking.

The directionally-orientated tread pattern and the circumferential lugged rib ensure even wear characteristics.

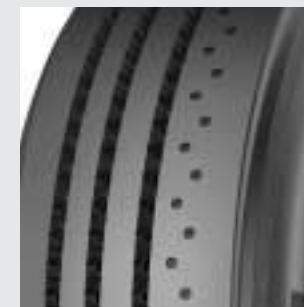


HDL1
ECO-PLUS

HTL ECO-PLUS

Extremely high mileage performance as the belt is wider than the tread area.

Special low energy absorption compounds ensure very cool running temperatures
→ exceptional reduction in fuel consumption



HTL
ECO-PLUS

HTL ECO-PLUS 55

SuperSingle:

The economical alternative to dual tyres

Special compounds ensure low rolling resistance

→ fuel savings



HTL
ECO-PLUS 19.5"

Flexible - long and short haulage



HSR1

With all the stresses to which a truck is subjected in long distance and regional traffic, the **precise steering response** of the HSR1 is impressive.

The even ground pressure distribution means **maximum mileage performance**.



HSR1 19.5"



HSR1 22.5" Serie 55/65



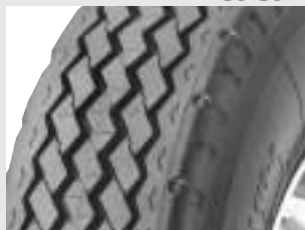
HSR 22.5" Serie 85



HSR 20"/22"/24"



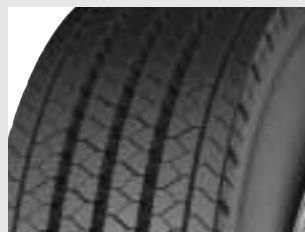
HSR1 22.5" Serie 60-80



HSR/RS 415 N



RS 63



LSR1

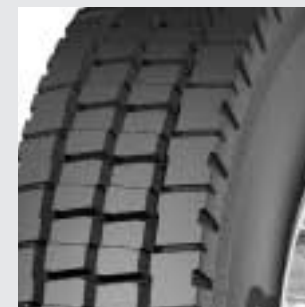
HDR+ HDR

The demands imposed on tyres in medium range and regional service require complete flexibility. Changing load conditions, varying speeds, with tortuous roads - all this requires one thing: **traction**.

And the HDR guarantees this. **Even in wintry conditions**, it is totally reliable in service.



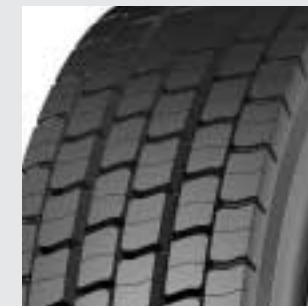
HDR+ 22.5"



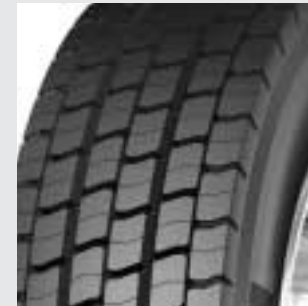
HDR 20"/22"/24"



LDR1



HDR 19.5"/22.5"



LDR1 265/70 R 17.5

HSR1:
The **quietest tyre**
in its class.

Flexible - long and short haulage



HTR

The HTR offers optimum durability with **maximum load utilisation**.

The tread groove design prevents stone trapping, thus protecting the **high-quality casing**.



HTR1 385/55 R 22.5



HTR1 19.5"



HTR 15" - 22.5"



HTR EXTRA DUTY

Miles more control on winter roads



WINTER

HSW

In snow, it is imperative that the vehicle can be driven safely and the risk of skidding is minimised.

The HSW provides good grip and **braking capabilities** due to a special compound and tread pattern.



HSW SCANDINAVIA Serie 65



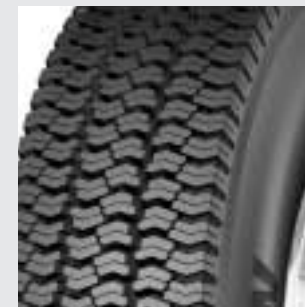
HSW SCANDINAVIA

HDW

The HDW is a cost-effective, **all season tyre** that has undergone extensive development to ensure optimum performance in a variety of winter conditions from ice to deep snow.



HDW



HDW SCANDINAVIA

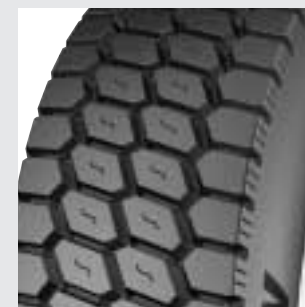
HDW SCANDINAVIA

The drive axle tyre for **extreme winter conditions**.

HTW

Siped tread blocks provide best winter suitability.

Also suitable for site use.



HTW

The durable tyre about town



HSU

The HSU tyre achieves high mileage performance in urban conditions, where it copes with the demands of stop-start driving, **kerbing damage** and high stresses from manoeuvring - a milestone in mileage no matter what the weather.



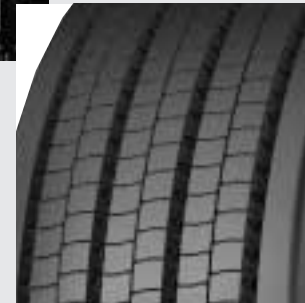
HSU1



HSU

HDU

The HDU drive axle tyre provides **outstanding mileage performance and durability** on municipal vehicles all year round.



HDU1



HDU

Robust performance on and off the road

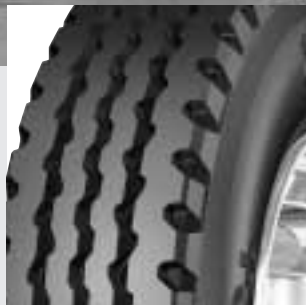


CONSTRUCTION

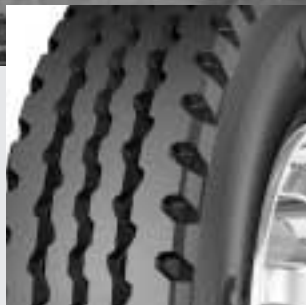
HSC+ HSC

Precise steering and handling on all surfaces from asphalt to rough terrain due to the special ribbed tread pattern.

Maximum damage resistance on construction sites due to a completely new casing concept.



HSC+



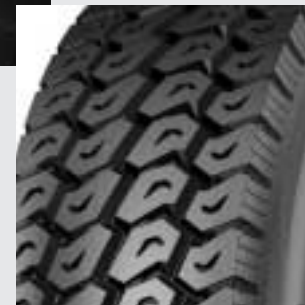
HSC



LSC

HTC

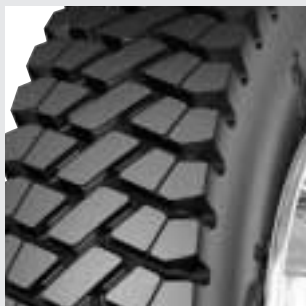
Thanks to its extremely rugged casing design, the HTC takes heavy loads with ease. Outstanding self-cleaning properties ensure a long service life.



HTC 19.5"/22.5"

HDC+ HDC

Both on and off-road, regardless of the load condition, the HDC gives maximum traction. This means safe handling for fast movement between sites.



HDC+



HDC

Tyres that work harder **off the road**



HSO

The rugged coarse-lugged tread pattern on this special tyre has no problems working its way **through soft or sticky ground**, mud, gravel and quarries.

This tyre is the perfect solution where self-cleaning properties and resistance to damage are important.



HCS



HSO SAND



HSO/T 9

HSO SAND

All-round tyre for sand and on-/off-road use.

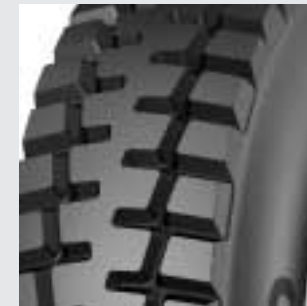


MIL

HDO

For extreme off-road use: in quarries and on sites, where enormous loads have to be moved up and down slopes.

Sharp stones, loose ballast, soft soil, sand and deep mud - the HDO has the power to handle all types of ground; also suitable for any axle position on all-wheel vehicles.



HDO

Size	Operating code					Rim		Tyre dimensions					
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/ TL	Rim-width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius ± 1,5%	Rolling circum- ference ± 2%
								Width	Outer- Ø	Width +1%	Outer- Ø ± 1%		
7.50 R 15	135/133 G (134/132 J)	16	G 90 (J 100)	HTR	TT	6.00	246	218	784	212	772	357	2355
						6.50	252	223		217			
8.25 R 15	143/141 G (141/140 J)	18	G 90 (J 100)	HTR	TT	6.50	277	241	850	234	836	384	2550
						7.00	283	246		239			
205/70 R 15	124/122 J		J 100	HTR	TT	5.50	246	213	681	203	669	313	2040
						6.00	252	219		209			
						6.50	258	225		214			
7.00 R 16	117/116 L	12	L 120	LSR	TT	6.00	233	209	795	203	784	364	2390
				LDR	TT	6.00	233	209	795	203	784	364	2390
7.50 R 16	121/120 L	12	L 120	LSR	TT	6.00	242	216	814	210	802	371	2445
				LDR	TT	6.00	242	216	814	210	802	371	2445

6.00 R 16 C	103/101 N	10	N 140	LSR	TL	4.50	196	175	738	170	728	340	2220
						5.00	201	180		175			
						5.50	207	185		180			
	103/101 L	10	L 120	LDR	TL	4.50	196	175	738	170	728	340	2220
						5.00	201	180		175			
						5.50	207	185		180			
6.50 R 16 C	108/107 N	10	N 140	LSR	TL	4.50	202	181	752	176	742	346	2260
						5.00	208	186		181			
						5.50	214	191		187			
	108/107 L	10	L 120	LDR	TL	4.50	202	181	752	176	742	346	2260
						5.00	208	186		181			
						5.50	214	191		187			
7.50 R 16 C	112/110 N	8	N 140	HSO SAND	TT	6.00	242	216	814	210	802	371	2445
225/75 R 16 C	116/114 N (110/ - S)		N 140 (S 180)	LM 90	TL	6 J	256	234	758	223	744	338	2225
						6 1/2 J	262	239		228			
						7 J	268	244		233			

Load capacity (kg) per axle at tyre pressure ²⁾ (bar)												(psi)	
Load index LI	Tyre fitment	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0		
		(65)	(73)	(80)	(87)	(94)	(102)	(109)	(116)	(123)	(131)		
135	S		2850	3075	3295	3515	3730	3940	4150	4360			
134	S		2770	2990	3205	3420	3630	3835	4035	4240			
133	D		5385	5815	6235	6645	7050	7450	7845	8240			
132	D		5230	5645	6050	6450	6845	7235	7620	8000			
143	S		3560	3845	4120	4395	4665	4930	5190	5450			
141	S		3365	3635	3895	4155	4405	4655	4905	5150			
141	D		6735	7270	7795	8310	8815	9315	9810	10300			
140	D		6540	7055	7565	8065	8560	9045	9525	10000			
124	S		2090	2255	2420	2580	2735	2895	3045	3200			
122	D		3920	4235	4540	4840	5135	5425	5715	6000			
117	S		2220	2395	2570								
116	D		4320	4660	5000								
121	S		2215	2390	2560	2730	2900						
120	D		4275	4615	4950	5275	5600						

		3.25	3.5	3.75	4.0	4.25	4.5	4.75	5.0	5.25	5.5	5.75	6.0
		(47)	(51)	(54)	(58)	(62)	(65)	(69)	(73)	(76)	(80)	(83)	(87)
103 101	S	1235	1315	1390	1460	1535	1605	1675	1750				
	D	2335	2480	2620	2760	2895	3030	3165	3300				
108 107	S	1415	1500	1585	1670	1755	1835	1915	2000				
	D	2760	2930	3095	3260	3420	3580	3740	3900				
112	S	1725	1830	1935	2035	2135	2240						
110	D	3265	3465	3660	3855	4050	4240						
116	S	1845	1955	2065	2175	2285	2390	2500					
110	S	1710	1815	1915	2015	2120							
114	D	3480	3695	3905	4110	4315	4520	4720					

Footnotes see page 52

Size	Operating code					Rim		Tyre dimensions					
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/ TL	Rim-width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius ± 1,5%	Rolling circumference ± 2%
								Width	Outer-Ø	Width +1%	Outer-Ø ± 1%		
7.50 R 20	128/127 K	12	K 110	RS 63	TT	6.00	244	216	941	210	928	433	2830
8.25 R 20	133/131 K	14	K 110	RS 63	TT	6.50	269	237	976	230	962	447	2930
9.00 R 20	140/137 K	14	K 110	HSR	TT	7.00	299	266	1033	258	1018	471	3100
	140/137 K	14	K 110	HDR	TT	7.00	299	266	1033	258	1018	471	3100
10.00 R 20	146/143 K	16	K 110	HSR	TT	7.50	316	283	1068	275	1052	485	3205
	146/143 K	16	K 110	HDR	TT	7.50	316	283	1068	275	1052	485	3205
11.00 R 20	150/146 K	16	K 110	HSR	TT	8.00	330	295	1099	286	1082	498	3295
				HSC	TT								
12.00 R 20	150/146 K	16	K 110	HDR	TT	8.00	330	295	1099	286	1082	498	3295
	154/150 K	18	K 110	HSR	TT	8.50	351	322	1140	313	1122	515	3420
				HSC	TT								
				HSC	TL								
	154/149 J	18	J 100	HSO SAND	TT								
14.00 R 20	154/150 K	18	K 110	HDR	TT	8.50	351	322	1140	313	1122	515	3420
				HDC	TL								
				HDC	TT								
	164/160 J	22	J 100	HCS	TL	10.00	431	400	1274	370	1238	565	3780
365/80 R 20	160/157 G	18	G 90	HSO SAND	TT								
				HSO SAND	TT								
11.00 R 22	160/ - K	20	K 110	HTR	TL	10.00	0	382	1116	348	1092	501	3310
	150/146 K	16	K 110	HSR	TT	8.00	332	295	1149	286	1132	549	3445
12.00 R 24				HSC	TT								
	160/156 K	20	K 110	HSR	TT	8.50	342	322	1244	313	1226	566	3740
				HSC	TT								
	160/156 K	20	K 110	HDC	TT	8.50	342	322	1244	313	1226	566	3740

Load capacity (kg) per axle at tyre pressure ²⁾ (bar)												
Load index LI	Tyre fitment	(psi)										
		4.5 (65)	5.0 (73)	5.5 (80)	6.0 (87)	6.5 (94)	7.0 (102)	7.5 (109)	8.0 (116)	8.5 (123)	9.0 (131)	
128	S		2750	2965	3180	3390	3600					
127	D		5345	5770	6185	6595	7000					
133	S		3145	3395	3640	3880	4120					
131	D		5955	6430	6895	7350	7800					
140	S		3610	3900	4180	4455	4730	5000				
137	D		6650	7175	7695	8200	8705	9200				
146	S		4115	4445	4765	5080	5390	5695	6000			
143	D		7480	8075	8655	9230	9795	10350	10900			
150	S		4380	4725	5070	5405	5735	6060	6380	6700		
146	D		7845	8470	9080	9680	10270	10855	11430	12000		
154	S		4905	5290	5675	6050	6420	6785	7140	7500		
150	D		8760	9455	10140	10810	11470	12120	12765	13400		
149	D		8500	9175	9835	10485	11125	11760	12380	13000		
164	S		6865	7405	7940	8465	8985	9495	10000			
160	S		6875	7420	7955	8480	9000					
160	D		12355	13335	14295	15245	16175	17090	18000			
157	D		12605	13600	14585	15550	16500					
160	S		5620	6065	6505	6935	7360	7775	8190	8595	9000	
150	S		4380	4725	5070	5405	5735	6060	6380	6700		
146	D		7845	8470	9080	9680	10270	10855	11430	12000		
160	S		5885	6350	6810	7260	7705	8140	8570	9000		
156	D		10465	11290	12105	12905	13695	14475	15240	16000		

data acc. to DIN 7805/4, WdK Guidelines 134/2, 142/2, 143/14, 143/25
¹⁾ Load index single/dual wheel fitment and speed symbol
²⁾ For tyre pressure of 8.0 bar (116 psi) and over use valve slit cover plate

^{*)} in preparation
^{*)} being phased out

Size	Operating code					Rim		Tyre dimensions					
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/TL	Rim-width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius ± 1,5%	Rolling circumference ± 2%
								Width	Outer-Ø	Width +1%	Outer-Ø ± 1%		
205/65 R 17.5	127/125 J (127/127 F)		J 100 (F 80)	HTR	TL	6.00 6.75	230 239	214 222	722	204 212	711	332	2155
245/70 R 17.5	136/134 M		M 130	LSR1	TL	6.75 7.50	276 285	252 258	803	240 248	789	360	2390
	136/134 M		M 130	LDR1	TL	6.75 7.50	276 285	252 258	803	240 248	789	360	2390
	143/141 J		J 100	HTR	TL	6.75 7.50	276 285	252 258	803	240 248	789	360	2390
265/70 R 17.5	139/136 M		M 130	LSR1	TL	7.50	289	272	831	262	817	376	2492
	139/136 M		M 130	LDR1	TL	7.50	289	272	831	262	817	376	2492
205/75 R 17.5	124/122 M		M 130	LSR1	TL	5.25 6.00 6.75	222 230 238	205 214 223		197 204 212	753	353	2295
	124/122 M		M 130	LDR1	TL	5.25 6.00 6.75	222 230 238	205 214 223		197 204 212	753	353	2295
215/75 R 17.5	126/124 M		M 130	LSR1	TL	6.00 6.75	243 251	222 230	779	211 219	767	359	2340
	126/124 M		M 130	LDR1	TL	6.00 6.75	243 251	222 230	779	211 219	767	359	2340
	135/133 J		J 100	HTR	TL	6.00 6.75	243 251	222 230	779	211 219	767	359	2340
225/75 R 17.5	129/127 M		M 130	LSR1	TL	6.00 6.75	249 258	229 237		218 226	783	366	2390
	129/127 M		M 130	LDR1	TL	6.00 6.75	249 258	229 237		218 226	783	366	2390
235/75 R 17.5	132/130 M		M 130	LSR1	TL	6.75 7.50	268 277	245 253	811	233 241	797	373	2430
	132/130 M		M 130	LDR1	TL	6.75 7.50	268 277	245 253	811	233 241	797	373	2430
	143/141 J		J 100	HTR	TL	6.75 7.50	268 277	245 253	811	233 241	797	373	2430
245/75 R 17.5	134/132 M (136/134 L)		M 130 (L 120)	LSR ^{#)}	TL	6.75 7.50	270 279	252 260	828	240 248	813	379	2480
	134/132 M (136/134 L)		M 130 (L 120)	LDR ^{#)}	TL	6.75 7.50	270 279	252 260	828	240 248	813	379	2480

Load capacity (kg) per axle at tyre pressure ²⁾ (bar) (psi)												
Load index LI	Tyre fitment	4.5 (65)	5.0 (73)	5.5 (80)	6.0 (87)	6.5 (94)	7.0 (102)	7.5 (109)	8.0 (116)	8.5 (123)	9.0 (131)	
127	S		2185	2360	2530	2695	2860	3020	3185	3340	3500	
127	D		4370	4720	5060	5395	5725	6045	6370	6685	7000	
125	D		4120	4450	4770	5085	5395	5700	6005	6300	6600	
143	S		3405	3675	3940	4200	4455	4710	4955	5205	5450	
136	S	2690	2930	3160	3390	3610	3835	4050	4265	4480		
141	D		6435	6945	7445	7935	8420	8900	9370	9835	10300	
134	D	5095	5545	5985	6415	6840	7260	7670	8075	8480		
139	S	3065	3335	3600	3860	4115	4365	4615	4860			
136	D	5650	6150	6635	7115	7585	8050	8505	8960			
124	S	2125	2310	2495	2675	2850	3025	3200				
122	D	3985	4335	4680	5015	5350	5675	6000				
135	S		2850	3075	3295	3515	3730	3940	4150	4360		
126	S	2385	2595	2800	3005	3200	3400					
133	D		5385	5815	6235	6645	7050	7450	7845	8240		
124	D	4490	4885	5275	5655	6030	6400					
129	S	2455	2675	2885	3095	3295	3500	3700				
127	D	4650	5060	5460	5855	6240	6620	7000				
143	S		3405	3675	3940	4200	4455	4710	4955	5205	5450	
132	S	2520	2745	2960	3175	3385	3590	3795	4000			
141	D		6435	6945	7445	7935	8420	8900	9370	9835	10300	
130	D	4795	5215	5630	6035	6435	6825	7215	7600			
136	S	2690	2930	3160	3390	3610	3835	4050	4265	4480		
134	S	2675	2910	3140	3365	3590	3810	4025	4240			
134	D	5095	5545	5985	6415	6840	7260	7670	8075	8480		
132	D	5045	5490	5925	6355	6775	7185	7595	8000			

Footnotes see page 52

Size	Operating code					Rim		Tyre dimensions					
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/TL	Rim-width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius ± 1,5%	Rolling circumference ± 2%
								Width	Outer-Ø	Width +1%	Outer-Ø ± 1%		
8.5 R 17.5	121/120 L		L 120	LSR	TL	5.25 6.00 6.75	233 242 251	213 221 229	813	207 215 223	802	374	2445
	121/120 L		L 120	LDR	TL	5.25 6.00 6.75	233 242 251	213 221 229	813	207 215 223	802	374	2445
9.5 R 17.5	129/127 L		L 120	LSR	TL	6.00 6.75	261 270	239 247	854	232 240	842	391	2565
	129/127 L		L 120	LDR	TL	6.00 6.75	261 270	239 247	854	232 240	842	391	2565
10 R 17.5	134/132 L		L 120	LSR	TL	6.75 7.50	277 286	253 262	870	246 254	858	398	2615
	134/132 L		L 120	LDR	TL	6.75 7.50	277 286	253 262	870	246 254	858	398	2615
8 R 17.5 C	117/116 L		L 120	LSR	TL	5.25 6.00 6.75	225 234 243	206 214 222	794	200 208 216	784	367	2390
	113/112 M		M 130	LDR	TL	5.25 6.00 6.75	225 234 243	206 214 222	794	200 208 216	784	367	2390
385/55 R 19.5	156/ - J		J 100	HTL ECO-PLUS	TL	11.75	0	400	936	381	919	422	2785
385/65 R 19.5	160/ - K		K 110	HTR	TL	11.75	0	408	1015	389	995	454	3015
245/70 R 19.5	136/134 M		M 130	HSR1	TL	6.75 7.50	270 279	252 260	853	240 248	839	389	2560
	136/134 M		M 130	HDR	TL	6.75 7.50	270 279	252 260	853	240 248	839	389	2560
	141/140 J		J 100	HTR1	TL	7.50	279	260	853	248	839	384	2560
265/70 R 19.5	140/138 M		M 130	HDR	TL	6.75 7.50 8.25	286 295 304	267 275 282	881	254 262 270	867	401	2645
	143/141 J		J 100	HTR1	TL	7.50 8.25	295 304	275 282	881	262 270	867	396	2645
	143/141 J		J 100	HTC HTW	TL	8.25	304	282					
285/70 R 19.5	145/143 M		M 130	HSR1	TL	7.50 8.25	309 318	290 297	911	275 283	895	413	2730
	145/143 M		M 130	HDR	TL	7.50 8.25	309 318	290 297	911	275 283	895	413	2730
	150/147 J		J 100	HTR1	TL	8.25 9.00	318 327	297 306	911	283 291	895	408	2730
305/70 R 19.5	148/145 M		M 130	HSR1	TL	8.25 9.00	335 343	312 320	941	297 305	923	424	2815
	148/145 M		M 130	HDR	TL	8.25 9.00	335 343	312 320	941	297 305	923	424	2815

Load capacity (kg) per axle at tyre pressure ²⁾ (bar) (psi)											
Load index LI	Tyre fitment	4.5 (65)	5.0 (73)	5.5 (80)	6.0 (87)	6.5 (94)	7.0 (102)	7.5 (109)	8.0 (116)	8.5 (123)	9.0 (131)
121 120	S D	2160 4170	2350 4535	2535 4895	2720 5250	2900 5600					
129 127	S D	2455 4650	2675 5060	2885 5460	3095 5855	3295 6240	3500 6620	3700 7000			
134 132	S D	2675 5045	2910 5490	3140 5925	3365 6355	3590 6775	3810 7185	4025 7595	4240 8000		
117 113 116 112	S S D D	2040 1955 3970 3815	2220 2130 4320 4150	2395 2300 4660 4480	2570 5000						
156	S					6165	6540	6910	7280	7640	8000
160	S	5165	5620	6065	6505	6935	7360	7775	8190	8595	9000
141	S	3095	3365	3635	3895	4155	4405	4655	4905	5150	
136	S	2690	2930	3160	3390	3610	3835	4050	4265	4480	
140	D	6010	6540	7055	7565	8065	8560	9045	9525	10000	
134	D	5095	5545	5985	6415	6840	7260	7670	8075	8480	
143	S		3560	3845	4120	4395	4665	4930	5190	5450	
140	S	3155	3430	3700	3970	4230	4490	4745	5000		
141	D		6735	7270	7795	8310	8815	9315	9810	10300	
138	D	5955	6480	6995	7495	7995	8480	8960	9440		
150	S		4185	4515	4840	5160	5475	5790	6095	6400	6700
145	S	3485	3790	4090	4385	4675	4965	5245	5525	5800	
147	D		7685	8290	8890	9480	10055	10630	11190	11750	12300
143	D	6550	7125	7690	8245	8790	9330	9860	10380	10900	
148	S	3785	4120	4445	4765	5080	5390	5695	6000	6300	
145	D	6970	7585	8185	8775	9355	9930	10490	11050	11600	

Footnotes see page 52

Size	Operating code					Rim		Tyre dimensions					
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/TL	Rim-width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius ± 1,5%	Rolling circumference ± 2%
								Width	Outer-Ø	Width +1%	Outer-Ø ± 1%		
385/55 R 22.5	158/ - L (160/ - K)		L 120 (K 110)	HSR1 HSW SCAN ^{*)}	TL TL	11.75	0	400	1012	381	996	461	3020
	160/ - J		J 100	HDU1	TL	11.75	0	400	1012	381	996	461	3020
	160/ - K (158/ - L)		K 110 (L 120)	HTR1	TL	11.75	0	400	1012	381	996	461	3020
295/60 R 22.5	150/147 L		L 120	HSR1	TL	9.00	328	305	940	292	914	427	2870
	150/147 K		K 110	HDR ^{*)} HDR+ ^{*)}	TL TL	9.00	328	305	940	292	914	427	2770
305/60 R 22.5	150/147 L		L 120	HSR1	TL	9.00 9.75	327 336	313 321	953	298 306	938	437	2840
	150/147 K		K 110	HDR ^{*)} HDR+ ^{*)}	TL TL	9.00 9.75	327 336	313 321	953	298 306	938	437	2840
315/60 R 22.5	152/148 L		L 120	HSR1	TL	9.00 9.75	343 352	321 329	965	305 313	950	442	2880
	152/148 K		K 110	HDR ^{*)} HDR+ ^{*)}	TL TL	9.00 9.75	343 352	321 329	965	305 313	950	442	2880
385/65 R 22.5	158/ - L (160/ - J)		L 120 (J 100)	HSW SCAN	TL	11.75 12.25	0 0	408 414	1092	389 395	1072	495	3250
	158/ - L (160/ - K)		L 120 (K 110)	HSR1	TL								
	160/ - K (158/ - L)		K 110 (L 120)	HTR	TL	11.75 12.25	0 0	408 414	1092	389 395	1072	495	3250
	160/ - K		K 110	HTL ECO-PLUS HTR EXTRA DUTY HTC	TL TL TL								
425/65 R 22.5	165/ - K		K 110	HTR HTC	TL TL	13.00	0	452	1146	430	1124	514	3405
445/65 R 22.5	168/ - K		K 110	HTR HTC	TL TL	14.00	0	477	1174	454	1150	524	3485
255/70 R 22.5	140/137 M (142/140 L)		M 130 (L 120)	HSR1	TL	6.75 7.50	278 287	260 268	944	247 255	930	434	2835
	140/137 M (142/140 L)		M 130 (L 120)	HDR	TL	6.75 7.50	278 287	260 268	944	247 255	930	434	2835
275/70 R 22.5	148/145 M		M 130	HSR1	TL	7.50	307	279	973	267	961	447	2920
	148/145 L		L 120	HSW SCAN	TL	8.25	316	287		275			
	148/145 J (152/148 E)		J 100 (E 70)	HSU1	TL								
	148/145 L 16		L 120	HDR HDW SCAN	TL TL	7.50 8.25	307 316	279 287	973	267 275	961	447	2920
	148/145 J (151/148 E)		J 100 (E 70)	HDU	TL								
	148/145 J		J 100	HTC	TL	7.50 8.25	307 316	279 287	973	267 275	961	447	2920
305/70 R 22.5	152/148 L (150/148 M)		L 120 (M 130)	HSR1	TL	8.25 9.00	335 343	312 320	1018	297 305	1000	463	3050
	150/148 J (154/150 E)		J 100 (E 70)	HSU1	TL								
	150/148 M 16		M 130	HDR	TL	8.25 9.00	335 343	312 320	1018	297 305	1000	463	3050

Footnotes see page 52

Load capacity (kg) per axle at tyre pressure ²⁾ (bar)												(psi)	
Load index LI	Tyre fitment	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0		
		(65)	(73)	(80)	(87)	(94)	(102)	(109)	(116)	(123)	(131)		
160	S	5165	5620	6065	6505	6935	7360	7775	8190	8595	9000		
158	S	5110	5555	6000	6430	6855	7275	7690	8095	8500			
150	S	3845	4185	4515	4840	5160	5475	5790	6095	6400	6700		
147	D	7060	7685	8290	8890	9480	10055	10630	11190	11750	12300		
150	S	3845	4185	4515	4840	5160	5475	5790	6095	6400	6700		
147	D	7060	7685	8290	8890	9480	10055	10630	11190	11750	12300		
152	S	4075	4435	4785	5130	5470	5805	6135	6460	6780	7100		
148	D	7235	7870	8495	9105	9710	10305	10885	11465	12035	12600		
160	S	5165	5620	6065	6505	6935	7360	7775	8190	8595	9000		
158	S	5110	5555	6000	6430	6855	7275	7690	8095	8500			
165	S	6190	6735	7270	7795	8310	8815	9315	9810	10300			
168	S	6430	6995	7550	8095	8630	9160	9675	10190	10695	11200		
142	S	3185	3465	3740	4010	4275	4535	4795	5045	5300			
140	S	3155	3430	3700	3970	4230	4490	4745	5000				
140	D	6010	6540	7055	7565	8065	8560	9045	9525	10000			
137	D	5805	6315	6815	7305	7790	8265	8735	9200				
152	S	4075	4435	4785	5130	5470	5805	6135	6460	6780	7100		
151	S	3960	4310	4650	4985	5315	5640	5960	6275	6590	6900		
148	S	3615	3935	4245	4550	4855	5150	5440	5730	6015	6300		
148	D	7235	7870	8495	9105	9710	10305	10885	11465	12035	12600		
145	D	6660	7245	7820	8385	8940	9485	10025	10555	11080	11600		
154	S	4305	4685	5055	5420	5780	6130	6480	6825	7160	7500		
152	S	4075	4435	4785	5130	5470	5805	6135	6460	6780	7100		
150	S	4025	4380	4725	5070	5405	5735	6060	6380	6700			
150	D	7695	8370	9035	9685	10325	10955	11580	12195	12800	13400		
148	D	7575	8240	8890	9535	10165	10785	11395	12000	12600			

Size	Operating code					Rim		Tyre dimensions					
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/ TL	Rim- width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius	Rolling circum- ference
								Width	Outer- Ø	Width	Outer- Ø		
315/70 R 22.5	154/150 L (152/148 M)		L 120 (M 130)	HSL1 ECO-PLUS HSR1 HSW SCAN	TL TL TL	9.00	350	328	1032	312	1014	468	3090
	152/148 M (154/150 L)		M 130 (L 120)	HSL ECO-PLUS ^{#)}	TL								
	154/150 L (152/148 M)		L 120 (M 130)	HDL1 ECO-PLUS	TL								
	152/148 M (154/150 L)		M 130 (L 120)	HDL ECO-PLUS ^{#)} HDR+ ^{*)} HDR ^{#)}	TL TL TL								
	152/148 L (154/150 K)		L 120 (K 110)	HDW SCAN	TL								
295/80 R 22.5	152/148 M		M 130	HSL1 ECO-PLUS HSL ECO-PLUS ^{#)} HSR1 HSW SCAN	TL TL TL TL	8.25 9.00	338 346	305 313	1062	290 298	1044	487	3185
	152/148 K		K 110	HSC	TL								
	152/148 J		J 100	HSU	TL								
	152/148 M		M 130	HDL1 ECO-PLUS HDL ECO-PLUS ^{#)} HDR+ ^{*)} HDR ^{#)} HDW HDW SCAN	TL TL TL TL TL								
	152/148 K		K 110	HDC	TL								
315/80 R 22.5	156/150 L (154/150 M)		L 120 (M 130)	HSL1 ECO-PLUS HSR1	TL TL	9.00	355	328	1096	312	1076	500	3280
	156/150 K		K 110	HSC+	TL								
	154/150 M (156/150 L)		M 130 (L 120)	HSL ECO-PLUS ^{#)} HMS 45 HSW SCAN	TL TL TL								
	156/150 L (154/150 M)		L 120 (M 130)	HDL1 ECO-PLUS HDR+ ^{*)}	TL TL								
	156/150 K		K 110	HDC+	TL								
	156/150 G		G 90	HDO	TL								
	154/150 M (156/150 L)		M 130 (L 120)	HDL ECO-PLUS ^{#)} HDW HDW SCAN	TL TL TL								
	154/150 M		M 130	HDR ^{*)}	TL								
	156/150 K		K 110	HTR	TL								

Load capacity (kg) per axle at tyre pressure ²⁾ (bar) (psi)											
Load index LI	Tyre fitment	4.5 (65)	5.0 (73)	5.5 (80)	6.0 (87)	6.5 (94)	7.0 (102)	7.5 (109)	8.0 (116)	8.5 (123)	9.0 (131)
154	S	4305	4685	5055	5420	5780	6130	6480	6825	7160	7500
152	S	4265	4640	5010	5370	5725	6075	6420	6760	7100	
150	D	7695	8370	9035	9685	10325	10955	11580	12195	12800	13400
148	D	7575	8240	8890	9535	10165	10785	11395	12000	12600	
152	S	4265	4640	5010	5370	5725	6075	6420	6760	7100	
148	D	7575	8240	8890	9535	10165	10785	11395	12000	12600	
156	S	4590	4995	5390	5780	6165	6540	6910	7280	7640	8000
154	S	4505	4905	5290	5675	6050	6420	6785	7140	7500	
150	D	8055	8760	9455	10140	10810	11470	12120	12765	13400	

Size	Operating code					Rim		Tyre dimensions					
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/ TL	Rim-width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius ± 1,5%	Rolling circumference ± 2%
								Width	Outer-Ø	Width +1%	Outer-Ø ± 1%		
9 R 22.5	133/131 L	14	L 120	HSR	TL	6.00 6.75	250 259	229 237	982	222 230	970	455	2960
			L 120	HSR	TL	6.75	277	253	1033	246	1020	476	3110
10 R 22.5	140/138 L	14	L 120	HSR	TL	7.50	286	262		254			
	140/138 K	14	K 110	T9	TL	6.75	277	253	1033	246	1020	476	3110
11 R 22.5	140/138 L	14	L 120	RMS	TL	7.50	286	262		254			
	148/145 L	16	L 120	HSR	TL	7.50	305	279	1064	271	1050	489	3200
	148/145 K		K 110	HSC	TL	8.25	314	287		279			
	148/145 J		J 100	HSU1	TL								
	148/145 L	16	L 120	HDR HDW	TL	7.50 8.25	305 314	279 287	1064	271 279	1050	489	3200
	148/145 L		L 120	HTR	TL	7.50 8.25	305 314	279 287	1064	271 279	1050	489	3200
12 R 22.5	152/148 L		L 120	HSR	TL	8.25	329	301	1099	292	1084	504	3306
	(150/148 M)		(M 130)			9.00	338	309		300			
	152/148 K		K 110	HSC	TL								
	152/148 L	16	L 120	HDR HDW	TL	8.25	329	301	1099	292	1084	504	3306
13 R 22.5	152/148 K		K 110	HDC	TL	9.00	338	309		300			
	154/150 L		L 120	RS 415 N	TL	9.00	350	321	1141	312	1124	521	3428
	(156/150 K)		(K 110)			9.75	358	329		320			
	154/150 K		K 110	HSC+	TL								
	(156/150 G)		(G 90)										
	149/146 J		J 100	HSO MIL	TL								
	154/150 K		K 110	HDC+	TL	9.00	350	321	1141	312	1124	521	3428
	(156/150 G)		(G 90)			9.75	358	329		320			
	154/150 K		K 110	HDW	TL								
	154/150 G		G 90	HDO	TL								

Load capacity (kg) per axle at tyre pressure ²⁾ (bar)												(psi)	
Load index LI	Tyre fitment	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0		
		(65)	(73)	(80)	(87)	(94)	(102)	(109)	(116)	(123)	(131)		
133	S	2890	3145	3395	3640	3880	4120						
131	D	5475	5955	6430	6895	7350	7800						
140	S	3320	3610	3900	4180	4455	4730	5000					
138	D	6270	6820	7365	7895	8415	8930	9440					
148	S	3785	4120	4445	4765	5080	5390	5695	6000	6300			
145	D	6970	7585	8185	8775	9355	9930	10490	11050	11600			
152	S	4265	4640	5010	5370	5725	6075	6420	6760	7100			
150	S	4225	4600	4960	5320	5670	6020	6360	6700				
148	D	7575	8240	8890	9535	10165	10785	11395	12000	12600			
156	S	4590	4995	5390	5780	6165	6540	6910	7280	7640	8000		
154	S	4505	4905	5290	5675	6050	6420	6785	7140	7500			
149	S	4315	4695	5070	5435	5795	6150	6500					
150	D	8055	8760	9455	10140	10810	11470	12120	12765	13400			
146	D	7970	8675	9360	10035	10700	11355	12000					

Footnotes see page 52

Truck chassis with crane superstructure (mobile crane)

Tyre size	PR	Single/ dual fit- ment	Load capacity (kg) per axle and speed (km/h)								Tyre pres- sure 2) bar (psi)
			Station- ary ¹⁾	10	20	50	65	70	75	80	
10.00 R 20	16	S	16500	12000	10000	7700	7200	7000	6800	6700	9,0 (131)
11 R 22.5		D	33000	24000	20000	14000	13000	12800	12400	12000	
11.00 R 20	16	S	17900	13000	10800	8300	7800	7600	7400	7200	10,0 (145)
12 R 22.5		D	35800	26000	21600	14800	14000	13600	13200	12800	
12.00 R 20	18	S	20500	14750	12300	9200	8700	8550	8400	8250	10,0 (145)
13 R 22.5		D	41000	29500	24600	16600	15700	15400	15200	14800	
14.00 R 20	18	S	22500	16200	13500	10080	9675	9450	9225	9000	8,0 (116)
		D	45000	32400	27000	18100	17400	17000	16600	16500	
12.00 R 24	20	S	25000	18000	15000	11450	10675	10450	10280	10000	10,0 (145)
		D	48700	35000	29200	20000	18700	18300	18000	17500	

1) When boom is swung out in unfavourable position
2) For tyre pressure of 8.0 bar (116 psi) and over use valve slit cover plate

Buses

Recommended tyre pressures for tyres on town and country buses
for various axle loads

Tyre- size	Operating code	Load index	Sin- gle- dual- fit- ment	Max. permitted axle weight (kg) for tyre pressure (bar/psi) including +10% extra as per German Transport Association +15% extra as per German Transport Association (DIN 78 05)									
				4.5/65	5.0/73	5.5/80	6.0/87	6.5/94	7.0/102	7.5/109	8.0/116	8.5/123	9.0/131
10.00 R 20	146/143	146	S	3960	4310	4650	4985	5315	5640	5960	6275	6590	6900
		143	D	7195	7830	8450	9060	9660	10250	10830	11405	11970	12535
385/55 R 22.5	160/ -	160	S	5940	6465	6975	7480	7975	8460	8945	9415	9885	10350
275/70 R 22.5	148/145	148	S	4160	4525	4885	5235	5580	5925	6260	6590	6920	7245
		145	D	7660	8335	8995	9640	10280	10910	11525	12140	12740	13340
305/70 R 22.5	150/148	150	S	4425	4810	5195	5570	5935	6300	6655	7010	7360	7705
		148	D	8320	9050	9770	10475	11165	11850	12520	13185	13840	14490
295/80 R 22.5	152/148	152	S	4685	5100	5505	5900	6290	6675	7055	7430	7800	8165
		148	D	8320	9050	9770	10475	11165	11850	12520	13185	13840	14490
11 R 22.5	148/145	148	S	4160	4525	4885	5235	5580	5925	6260	6590	6920	7245
		145	D	7660	8335	8995	9640	10280	10910	11525	12140	12740	13340

Regrooving of truck tyres

All Continental tyres on which regrooving is permitted have on both sidewalls, in accordance with ECE regulation 54, the word

REGROOVABLE

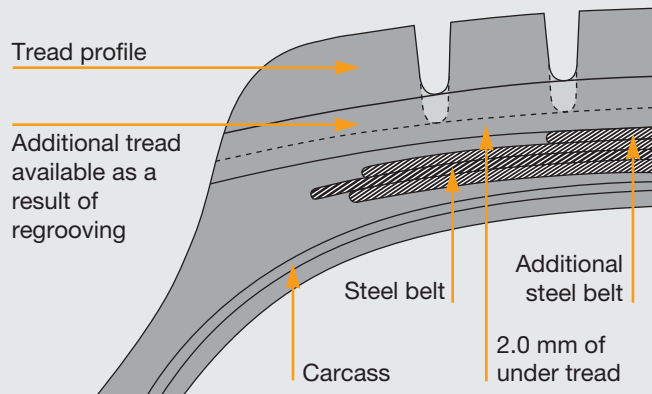
The additional tread depth of up to 4 mm gained by regrooving means a significant increase in performance.

Example:

Tyre size
315/80 R 22.5 HDR

Original depth
20.0 mm

Additional tread as a result of regrooving
4.0 mm



As part of their design all-steel truck tyres have a so-called tread stock between the upper edge of the belt and the tread grooves. This tread stock is intended to prevent stones etc. penetrating into the steel belt and the casing.

In order to further increase the service life, all-steel truck tyres can be regrooved. Undereath the additional tread depth gained by regrooving a tread stock of 2 mm must remain.

Although tyres can be remoulded after reaching the legal wear limit, regrooving is not advisable in every case. The tread stock thickness is reduced and stones etc. can more easily penetrate and damage the steel belts, leading to rust formation. This has decidedly negative effect on the tyre's suitability for remoulding.

The best time for remoulding is when the tread is worn down to about 3 mm. The tyre must then be checked to make sure the wear is even all round. Attention should be paid to local or uneven wear patches.

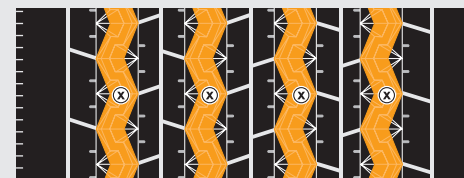
Regrooving should be carried out by an expert, in order to avoid premature failure as well as any reduction in the tyre's suitability for remoulding.

Regrooved tyres must not be used on driving axles of coaches with extended speed limit of 100 km/h.

All Continental tyres on which regrooving is permitted are marked „regroovable“.

HSL

HSL1 ECO-PLUS



Size	Depth (mm)	Width (mm)
315/70 R 22.5	3.5	12
295/80 R 22.5	3.5	12
315/80 R 22.5	3.5	12

HSL ECO-PLUS



Size	Depth (mm)	Width (mm)
315/70 R 22.5	3.5	8-10
295/80 R 22.5	3.5	8-10
315/80 R 22.5	3.5	8-10

HDL

HDL1 ECO-PLUS



Size	Depth (mm)	Width (mm)
315/70 R 22.5	3.5	A: 10/B: 5-6
295/80 R 22.5	3.5	A: 10/B: 5-6
315/80 R 22.5	3.5	A: 10/B: 5-6

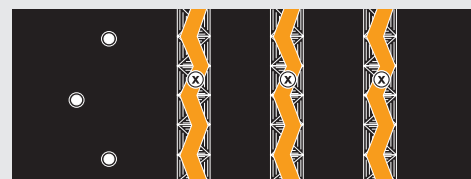
HDL ECO-PLUS



Size	Depth (mm)	Width (mm)
315/70 R 22.5	3.5	A: 12-14/B: 7-8
295/80 R 22.5	3.5	A: 12-14/B: 7-8
315/80 R 22.5	3.5	A: 12-14/B: 7-8

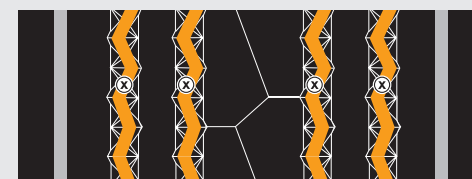
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HTL ECO-PLUS



Size	Depth (mm)	Width (mm)
385/65 R 22.5	3.0	12-14

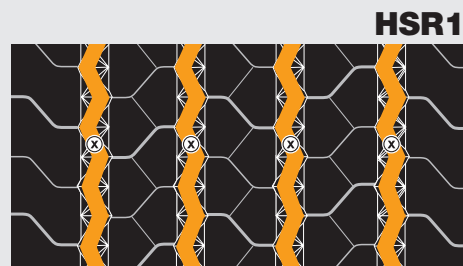
HTL ECO-PLUS



Size	Depth (mm)	Width (mm)
385/55 R 19.5	2.5	8-10

⊗ Tread measuring points

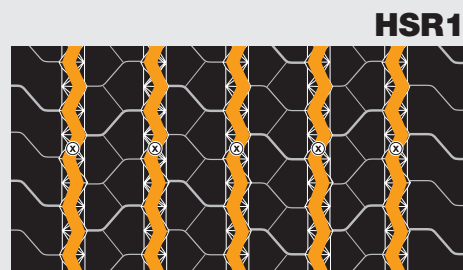
HSR



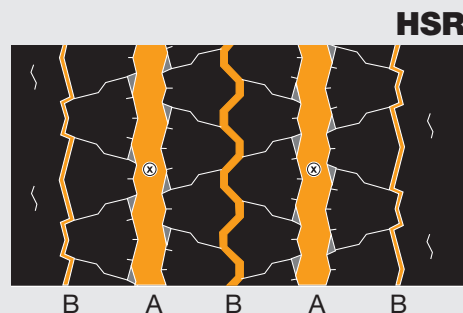
HSR1

Size	Depth (mm)	Width (mm)
245/70 R 19.5	3.0	9-11
265/70 R 19.5	3.0	9-11
285/70 R 19.5	3.0	10-12
305/70 R 19.5	3.0	10-12
295/60 R 22.5	3.0	10-12
305/60 R 22.5	3.0	10-12
315/60 R 22.5	3.0	10-12
275/70 R 22.5	3.5	10-12
305/70 R 22.5	3.5	10-12
315/70 R 22.5	3.5	10-12
295/80 R 22.5	3.5	10-12
315/80 R 22.5	3.5	10-12

Size	Depth (mm)	Width (mm)
385/55 R 22.5	2.5	10-12
385/65 R 22.5	3.5	10-12



HSR1

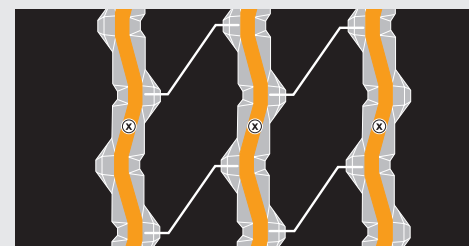


HSR

Size	Depth (mm)	Width (mm)
11 R 22.5	3.5	A: 10-12/B: 4-5
12 R 22.5	3.5	A: 10-12/B: 4-5

⊗ Tread measuring points

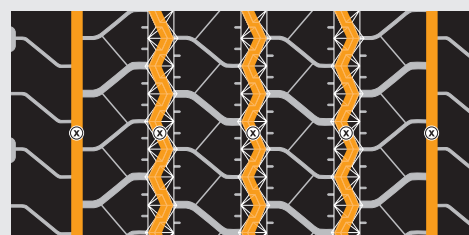
HSR



Size	Depth (mm)	Width (mm)
9.00 R 20	4.0	7-8
10.00 R 20	4.0	7-8
11.00 R 20	4.0	7-8
12.00 R 20	4.0	7-8
11.00 R 22	4.0	7-8
12.00 R 24	4.0	7-8

LSR

LSR1



Size	Depth (mm)	Width (mm)
245/70 R 17.5	3.0	A: 9-11/B: 6-8
265/70 R 17.5	3.0	A: 9-11/B: 6-8
205/75 R 17.5	3.0	A: 8-10/B: 6-8
215/75 R 17.5	3.0	A: 8-10/B: 6-8
225/75 R 17.5	3.0	A: 8-10/B: 6-8
235/75 R 17.5	3.0	A: 9-11/B: 6-8

HS 41



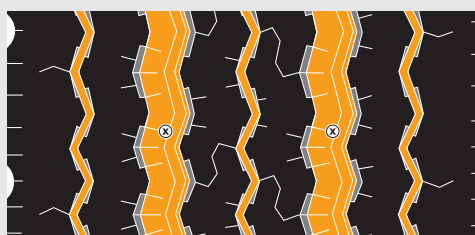
Size	Depth (mm)	Width (mm)
255/70 R 22.5	3.0	A: 4-5/B: 7-8

HSR*/RS 415 N**



Size	Depth (mm)	Width (mm)
9 R 22.5 ^{*)}	3.5	7-8
10 R 22.5 ^{*)}	3.5	7-8
13 R 22.5 ^{**)}	3.5	7-8

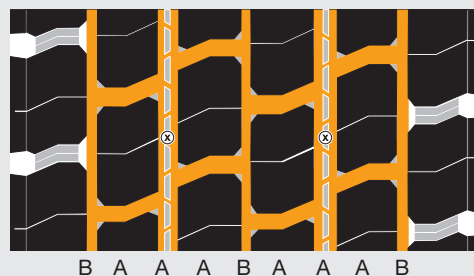
LSR



Size	Depth (mm)	Width (mm)
205/75 R 17.5	3.0	A: 7-8/B: 3-4
215/75 R 17.5	3.0	A: 7-8/B: 3-4
225/75 R 17.5	3.0	A: 7-8/B: 3-4
235/75 R 17.5	3.0	A: 7-8/B: 3-4
245/75 R 17.5	3.0	A: 7-8/B: 3-4

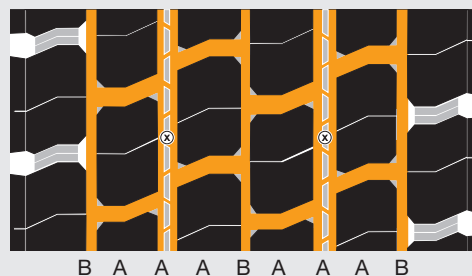
HDR

HDR+



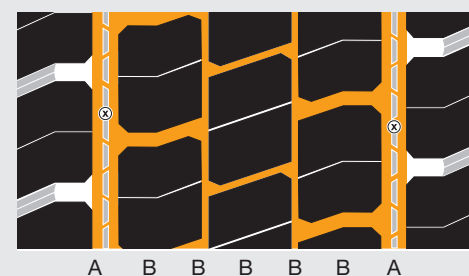
Size	Depth (mm)	Width (mm)
295/60 R 22.5	2.5	A: 7-9/B: 3-5
305/60 R 22.5	2.5	A: 7-9/B: 3-5
315/60 R 22.5	2.5	A: 7-9/B: 3-5
315/70 R 22.5	4.0	A: 7-9/B: 3-5
295/80 R 22.5	4.0	A: 7-9/B: 3-5
315/80 R 22.5	4.0	A: 7-9/B: 3-5

HDR



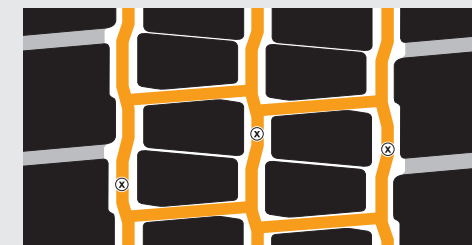
Size	Depth (mm)	Width (mm)
245/70 R 19.5	3.0	A: 7-9/B: 3-5
265/70 R 19.5	3.0	A: 7-9/B: 3-5
285/70 R 19.5	3.0	A: 7-9/B: 3-5
305/70 R 19.5	3.0	A: 7-9/B: 3-5
295/60 R 22.5	2.5	A: 7-9/B: 3-5
305/60 R 22.5	2.5	A: 7-9/B: 3-5
315/60 R 22.5	2.5	A: 7-9/B: 3-5
275/70 R 22.5	3.5	A: 7-9/B: 3-5
305/70 R 22.5	4.0	A: 7-9/B: 3-5
315/70 R 22.5	4.0	A: 7-9/B: 3-5
295/80 R 22.5	4.0	A: 7-9/B: 3-5
315/80 R 22.5	4.0	A: 7-9/B: 3-5

HDR



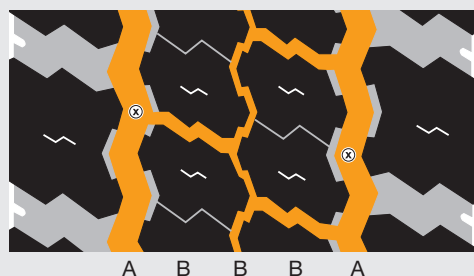
Size	Depth (mm)	Width (mm)
11 R 22.5	4.0	A: 10-12/B: 5-7
12 R 22.5	4.0	A: 10-12/B: 5-7

HDR



Size	Depth (mm)	Width (mm)
9.00 R 20	4.0	6-7
10.00 R 20	4.0	6-7
11.00 R 20	4.0	6-7
12.00 R 20	4.0	6-7
11.00 R 22	4.0	6-7
12.00 R 24	4.0	6-7

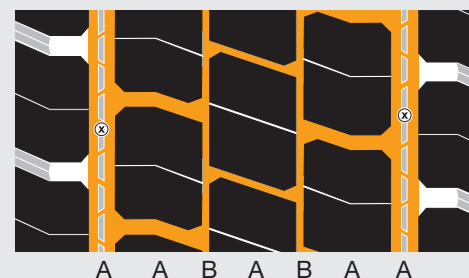
HD 70



Size	Depth (mm)	Width (mm)
255/70 R 22.5	3.0	A: 8-10/B: 4-6

LDR

LDR1



Size	Depth (mm)	Width (mm)
245/70 R 17.5	3.0	A: 9-11/B: 5-7
265/70 R 17.5 *)	3.0	A: 7-9/B: 3-5
205/75 R 17.5	3.0	A: 8-10/B: 4-6
215/75 R 17.5	3.0	A: 8-10/B: 4-6
225/75 R 17.5	3.0	A: 8-10/B: 4-6
235/75 R 17.5	3.0	A: 9-11/B: 5-7

LDR



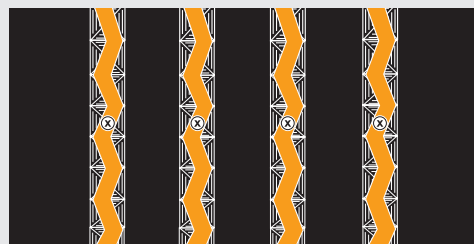
Size	Depth (mm)	Width (mm)
205/75 R 17.5	3.0	7-8
215/75 R 17.5	3.0	7-8
225/75 R 17.5	3.0	7-8
235/75 R 17.5	3.0	7-8
245/75 R 17.5	3.0	7-8

⊗ Tread measuring points

*) Tread pattern same as for HDR 19.5"

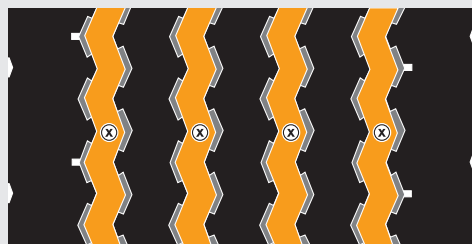
HTR

HTR/HT 63



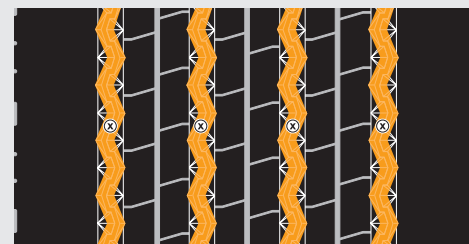
Size	Depth (mm)	Width (mm)
205/65 R 17.5	3.0	7-8
245/70 R 17.5	3.0	7-8
215/75 R 17.5	3.0	7-8
235/75 R 17.5	3.0	7-8

HTR/HT 63/HS 62



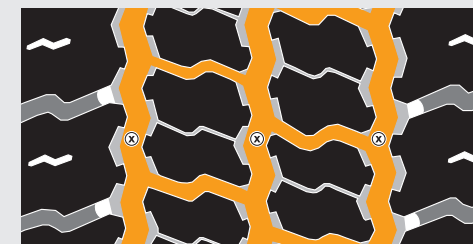
Size	Depth (mm)	Width (mm)
385/65 R 19.5	4.0	7-8
245/70 R 19.5	3.0	7-8
265/70 R 19.5	3.0	7-8
285/70 R 19.5	3.0	7-8
385/65 R 22.5	4.0	7-8
365/80 R 20	3.5	7-8

HTR1



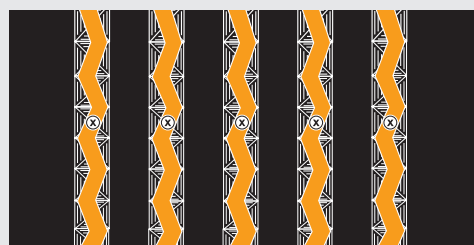
Size	Depth (mm)	Width (mm)
245/70 R 19.5	3.0	8-10
265/70 R 19.5	3.0	8-10
285/70 R 19.5	3.0	8-10

HTR EXTRA DUTY/HS 65



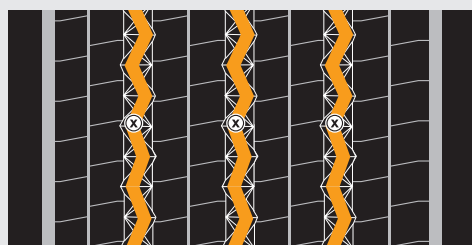
Size	Depth (mm)	Width (mm)
385/65 R 22.5	4.0	A: 8-10/B: 7-8

HTR/HT 63



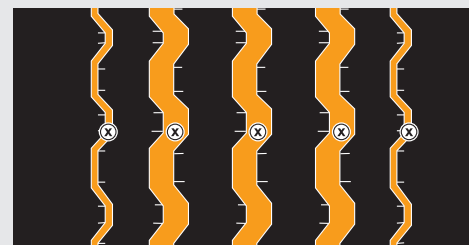
Size	Depth (mm)	Width (mm)
425/65 R 22.5	4.0	10-12
445/65 R 22.5	4.0	10-12

HTR1



Size	Depth (mm)	Width (mm)
385/55 R 22.5	2.5	10-12

HTR/HT 41



Size	Depth (mm)	Width (mm)
315/80 R 22.5	3.5	A: 7-8/B: 4-5
11 R 22.5	3.5	A: 7-8/B: 4-5

⊗ Tread measuring points

HSW

HSW SCANDINAVIA



Size	Depth (mm)	Width (mm)
385/55 R 22.5 *)	2.5	10-12
385/65 R 22.5 *)	4.0	10-12
275/70 R 22.5	3.5	10-12
315/70 R 22.5	4.0	10-12
295/80 R 22.5	4.0	10-12
315/80 R 22.5	4.0	10-12

*) pattern type differ according to size

HDW

HDW



Size	Depth (mm)	Width (mm)
295/80 R 22.5	4.0	8-10
315/80 R 22.5	4.0	8-10
11 R 22.5	4.0	8-10
12 R 22.5	4.0	8-10
13 R 22.5	4.0	8-10

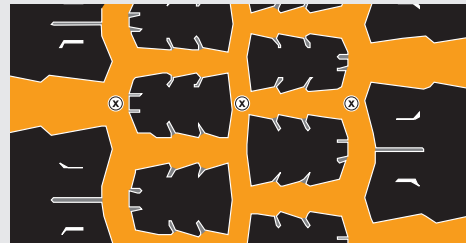
HDW SCANDINAVIA



Size	Depth (mm)	Width (mm)
275/70 R 22.5	3.5	8-10
295/80 R 22.5	4.0	8-10
315/80 R 22.5	4.0	8-10

LDW

LDW/LMS 90



Size	Depth (mm)	Width (mm)
205/75 R 17.5	2.0	10-12
215/75 R 17.5	2.0	10-12
225/75 R 17.5	2.0	10-12
235/75 R 17.5	2.0	10-12

HTW

HTW

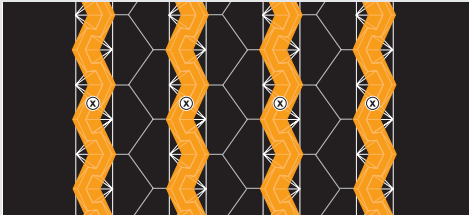


Size	Depth (mm)	Width (mm)
265/70 R 19.5	3.0	A: 10-12/B: 10

⊗ Tread measuring points

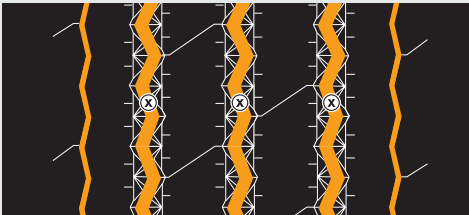
HSU

HSU1



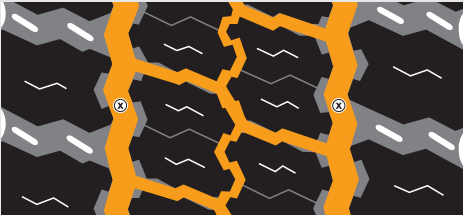
Size	Depth (mm)	Width (mm)
275/70 R 22.5	4.0	10-12
305/70 R 22.5	4.0	10-12
11 R 22.5	4.0	10-12

HSU



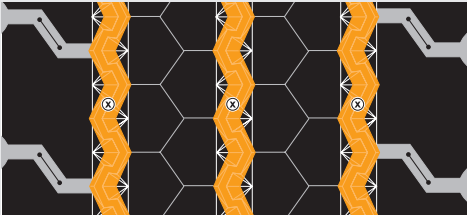
Size	Depth (mm)	Width (mm)
295/80 R 22.5	4.0	A: 8-10/B: 3-4

HMS 45



Size	Depth (mm)	Width (mm)
295/80 R 22.5	4.0	A: 8-10/B: 4-6
315/80 R 22.5	4.0	A: 8-10/B: 4-6

HSU1



Size	Depth (mm)	Width (mm)
10.00 R 20	4.0	10-12

HSU



Size	Depth (mm)	Width (mm)
305/70 R 22.5	4.0	8-10

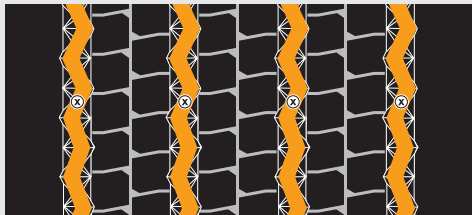
HDU

HDU



Size	Depth (mm)	Width (mm)
275/70 R 22.5	4.0	A: 8-10/B: 4-6

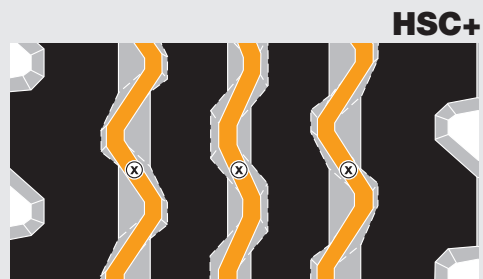
HDU1



Size	Depth (mm)	Width (mm)
385/55 R 22.5	2.5	10-12

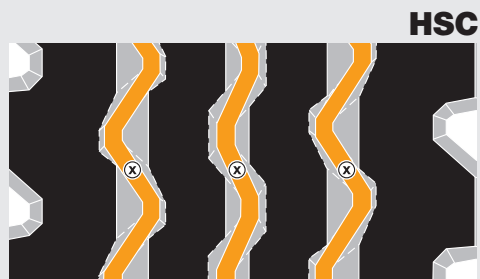
⊗ Tread measuring points

HSC



HSC+

Size	Depth (mm)	Width (mm)
315/80 R 22.5	4.0	10-12
13 R 22.5	4.0	10-12



HSC

Size	Depth (mm)	Width (mm)
9.5 R 17.5 *)	2.5	10
295/80 R 22.5	4.0	10-12
315/80 R 22.5	4.0	10-12
11 R 22.5	4.0	10-12
12 R 22.5	4.0	10-12
13 R 22.5	4.0	10-12
9.00 R 20	4.0	10-12
10.00 R 20	4.0	10-12
11.00 R 20	4.0	10-12
12.00 R 20	4.0	10-12
11.00 R 22	4.0	10-12
12.00 R 24	4.0	10-12

*) LSC

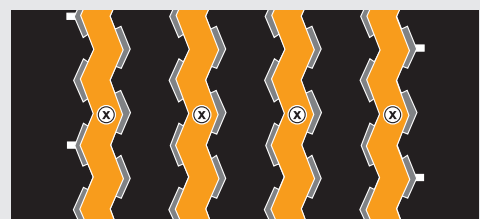
HTC



HTC

Size	Depth (mm)	Width (mm)
265/70 R 19.5	3.0	6-8
385/65 R 22.5	4.0	10-12
425/65 R 22.5	4.0	10-12
445/65 R 22.5	4.0	10-12
275/70 R 22.5	4.0	10-12

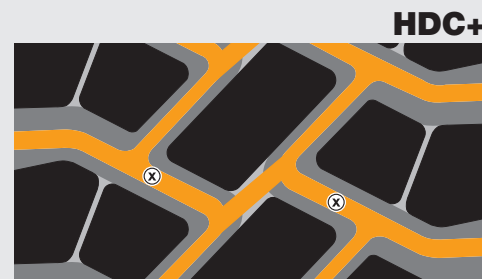
HTC/HC 62



Size	Depth (mm)	Width (mm)
365/80 R 20	3.5	7-8

⊗ Tread measuring points

HDC



HDC+

Size	Depth (mm)	Width (mm)
315/80 R 22.5	4.0	10-12
13 R 22.5	4.0	10-12



HDC

Size	Depth (mm)	Width (mm)
295/80 R 22.5	4.0	10-12
315/80 R 22.5	4.0	10-12
12 R 22.5	4.0	10-12
13 R 22.5	4.0	10-12
12.00 R 20	4.0	10-12
12.00 R 24	4.0	10-12

HSO



Size	Depth (mm)	Width (mm)
10 R 22.5	3.5	8

HDO



Size	Depth (mm)	Width (mm)
315/80 R 22.5	4.0	10-12
13 R 22.5	4.0	10-12
12.00 R 20	4.0	10-12

Instructions for use of rims 82

Tube type rims according to DIN 7820 for
commercial vehicles and industrial trucks 83

Semi drop centre rims (SDC) according to
DIN 7826 for commercial and all-purpose
vehicles, and earth-moving equipment 84

Rims acc. to DIN 7848
for earth-moving equipment 85

Well-base rims according to DIN 7818 for
light commercial and agricultural vehicles 86

Well-base rims according to
DIN 7817 for light commercial vehicles 87

Well-base rims according to DIN 7827
for Implement, MPT and Sand Tyres 88

Tubeless rims according to DIN 78022
for commercial vehicles 89

Recommended minimum dual spacing for dual tyres 60 / 91

Valve accessories according to DIN 7757 92

Angled metal valves for inner tubes 93

Rubber valves for tubeless fitting and inner tubes 94

Metal valves for tubeless fitting 95

Angled screw-on valves with turning plate,
according to DIN 7775/2 96

Straight valves for water filling 97

The rim is the part of the wheel which supports the tyre.

1. Important elements of the rim

- Rim**
- **flange** = lateral support for the tyre bead
 - **flange distance** = rim width
 - **bead seat** = base on which the tyre bead is seated
 - **well** = inner side of the rim
 - **diameter** = specified rim diameter flange/bead seat
 - **hump** = continuous raised section of the rim bead seat which enables a better fitting of tubeless tyre beads at low pressure

2. Main types of rim

Well-base rim = one-piece; deeper well for easier tyre fitting (5° tapered bead seat) ("x" in wheel size designation)

Semi drop centre rim = split; the base is slightly deeper (5° tapered bead seat) (SDC designation of the wheel = Semi Drop Centre)

Tube type rim = split; flat base (usually 5° tapered bead seat) ("- in the wheel size designation)

Tubeless rim = one-piece; deeper well for easier fitting (15° tapered bead seat) ("x" in the wheel size designation)

Flat base rim = split; flat base (bead seat approx. 0°) (Reference letter for flange shape in designation)

3. Wheel disc

The wheel disc is the linking element between the rim and the axle hub. Of

all the measurements for wheel linking elements - centre bore, bore diameter, bolt holes and rim well depth (or offset) - the latter is an important size for the free movement of the tyre in any wheel position. (Rim offset = 0, when of the wheel disc are in line).

On dual tyre fitments the distance between the rim centres would be twice the rim well depth plus twice the thickness of the wheel disc.

4. Wheel strength

For special cases the adequate wheel strength must be confirmed by the wheel manufacturer.

5. Lateral and true running of the wheels (without tyres)

Both on fast vehicles and on large heavy wheels it is particularly important that the wheels are well-centred.

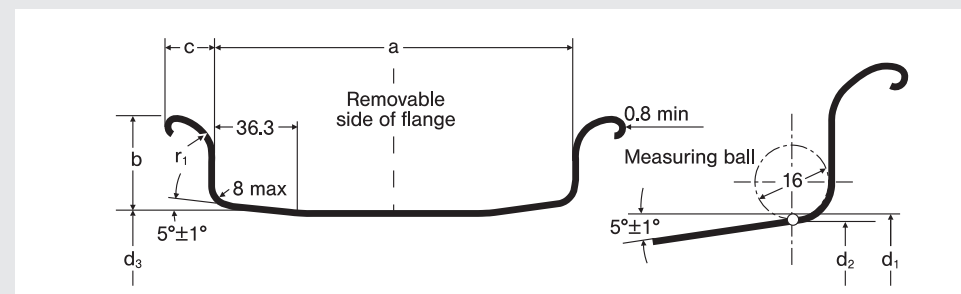
Especially on faster vehicles there should be as little radial and lateral run-out as possible on both bead seat/flange sides of the rim, in order to achieve good quiet running.

For fast commercial vehicles, both light and heavy, particularly low radial values for example may be necessary and these could be considerably below the specified standard maximum values.

6. Testing ring diameter d₂ and size U

Values for calibration by ball measuring tape.

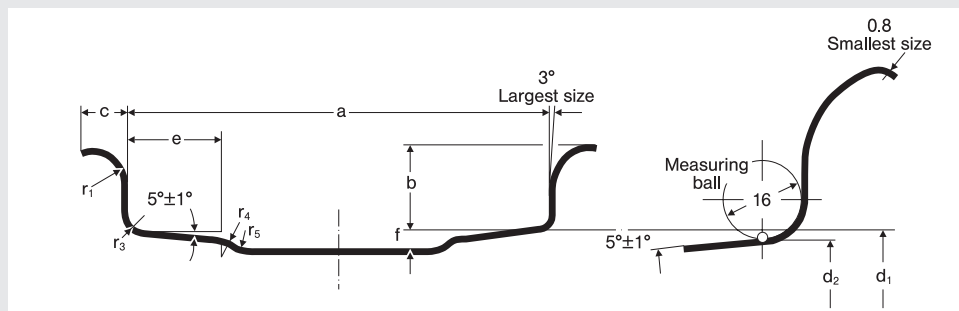
Tapered base rims to DIN 7820 requirements for commercial vehicles and industrial trucks



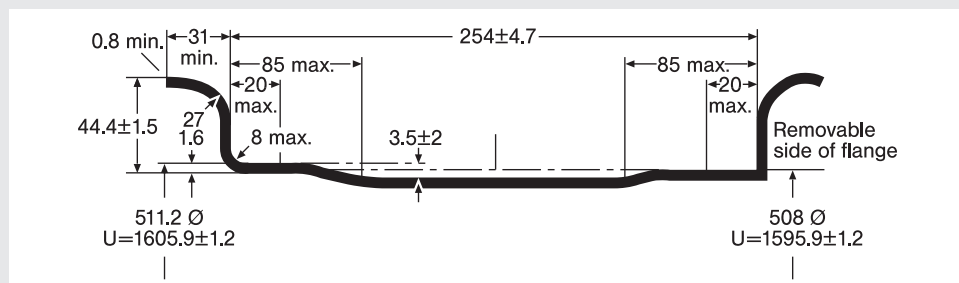
Rim		Testing ring		Rim								
Size	d ₁ Ø	d ₂ Ø	U Pi-d ₂ ±1.2	d ₃ Ø	Nominal value	a perm. dev.	Usual version			Special version		
							b ±1.2	c min	r ₁ ±2.5	b ±1	c min	r ₁ ±2.5
5.0-20	514.4	513.01	1611.7	508	127.0	±2.5	27.9	16.5	14.0			
5.5-15	387.4	386.01	1212.7	381	139.7		30.5	17.8	15.2			
6.0-15	387.4	386.01	1212.7	381	152.4		33.0	19.1	16.5			
6.0-20	514.4	513.01	1611.7	508								
6.5-15	387.4	386.01	1212.7	381	165.1		35.6	20.4	17.8			
6.5-20	514.4	513.01	1611.7	508						36.8	21.0	18.4
7.0-15	387.4	386.01	1212.7	381	177.8		38.1	21.6	19.0			
7.0-20	514.4	513.01	1611.7	508						36.8	21.0	18.4
7.5-15	387.4	386.01	1212.7	381		190.5	40.6	22.9	20.3			
7.5-20	514.4	513.01	1611.7	508						42.0	23.5	21.0
8.0-15	387.4	386.01	1212.7	381	203.2		43.2	24.2	21.6			
8.0-20	514.4	513.01	1611.7	508						42.0	23.5	21.0
8.5-20	514.4	513.01	1611.7	508	215.9	±3.5	45.7	25.4	22.9			
8.5-24	616.0	614.61	1930.8	609.6								
9.0-20	514.4	513.01	1611.7	508	228.6	±5.0	48.3	26.7	24.1	45.7	25.4	22.9
10.0-20	514.4	513.01	1611.7	508								
10.0-22	565.2	563.81	1771.3	558.8	254.0		50.8	28.0	25.4			
10.0-24	616.0	614.61	1930.8	609.6								
14.0-20	514.4	513.01	1611.7	508	355.6			45.7	25.4	22.9		

For CSE press-on bands d₃ = diameter of the cylindrical element of the basic rim.

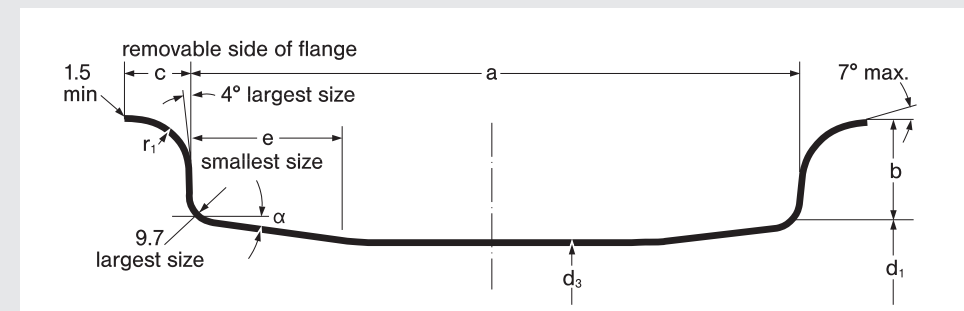
Semi drop center rims acc. to DIN 7826 and WdK-Guideline 28 for Commercial, All-purpose and Earthmoving vehicles



Rim		Testing ring			Rim									
Size	d ₁ Ø	d ₂ Ø	U ±1.2	a Nominal value	e Permitted deviation	f min.	r ₃ max.	r ₄ approx.	r ₅ approx.	b ±1.2	c min.	r ₁ ±2.5		
6.00 G–16 SDC	405.6	404.27	1270.0	152.4	±3.2	31.8	7.1	9.5	9.5	12.9	16	14		
6.50 H-16 SDC				165.1		36.3		5.5	8	6.5	33.7	18.3	18.3	
11–20 SDC	512.8	511.42	1606.7	279.4	±5	50	10	8.0	13	10	25.4	13	11	
12–20 SDC				304.8	±6									330.2
13–20 SDC														15
8.00 TC-24 SDC	614.4	613.02	1925.9	203.2	±3.2	47	6.7	13		35.7	16.5	16.7		
10.00 VA–24 SDC				254.0	±5	59	11		9.5	43.2	24.5	22.9		
16.00 T–24 SDC				406.4	±12.7	50	12.7		–	–	35.7	22	22.7	
10.00 V–20	see illustration below													



Rims acc. to DIN 7848 for earth-moving equipment

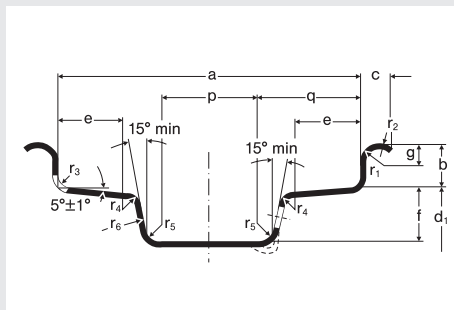


Size	d ₁	U $\pi \cdot d_1 + 1.2 - 2.4$	d ₃ + 0.4 - 12.7	a ± 12.7	b ± 1.6	c min.	e min.	Nominal- value	r ₁ Perm. dev.	α ± 1°
11.25-25/2.0				285.8	50.8	31.5	101	31.8	±1.5	
12.00-25/1.3				304.8 ±6.4	33.0	24.5	60	22.9	±1.3	
13.00-25/2.0				330.2	50.8	31.5	101	31.8	±1.5	
13.00-25/2.5				330.2	63.5	46.5	101	38.1	±1.5	
14.00-25/1.5				355.6 ±6.4	38.1	27.0	60	25.4	±1.3	
15.00-25/2.5				381.8	63.5	41.5	101	38.1	±1.5	
17.00-25/1.7				431.8	43.2	24.5	60	22.9	±1.3	
17.00-25/2.0				431.8	50.8	24.5	101	31.8	±1.5	
19.50-25/2.5				495.3	63.5	44.5	101	38.1	±1.5	

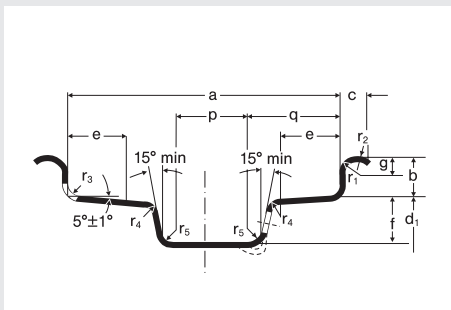
*) Rims 12.00 and 14.00 nominal mandrel circumference = 1989.7 mm with 20 mm ball.

Well-base rims according to DIN 7818 for light commercial and agricultural vehicles

Symmetrical well-base rim
3.00 D to 5.50 F

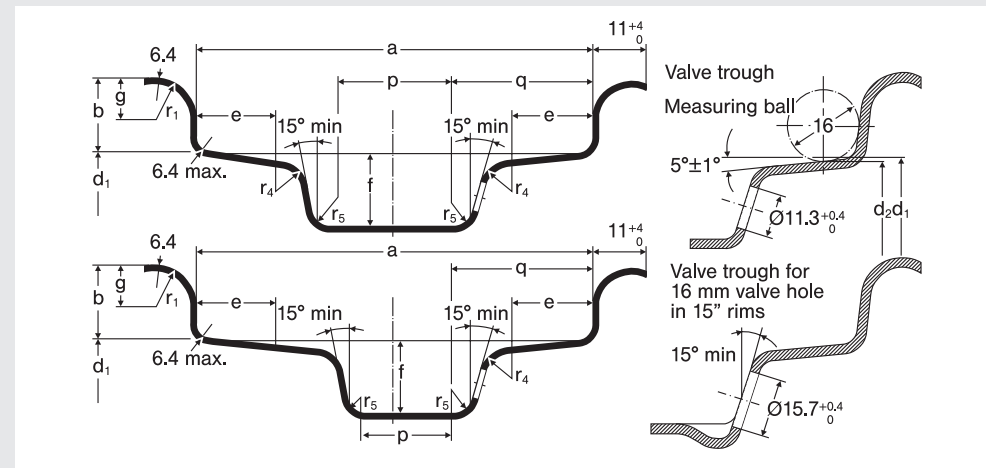


Asymmetrical well-base rim
5.50 F to 6.00 F



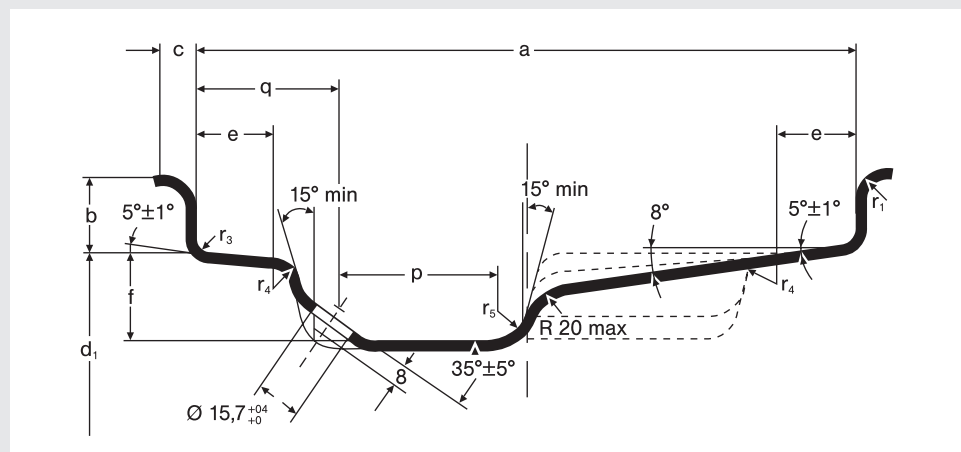
Rim size	d ₁	d ₂	U ±1.2	a ±1.5	b +1.2 -0.4	c Nominal value	e min.	f min.	g	p min.	q max.	r ₁	r ₂	r ₃ max.	r ₄ min.	r ₅ max.	r ₆ min.
3.00 D x 14	354.8	353.47	1110.5														
3.00 D x 15	380.2	378.87	1190.2	76.2	17.5	12.2	+3.3 0	14.2	18.0	12.4	17.8	28.7	13.0	8.1			31.8
3.00 D x 16				88.9				15.7			34.0						34.9
3.50 D x 16	405.6	404.27	1280.0														
4.00 E x 16				101.6				19.9			35.0						38
4.50 E x 16				114.3				23.4		22.0	39.7						-
4.00 E x 18	462.0	460.62	1447.1														
4.00 E x 19	487.4	486.02	1526.9	101.6	19.8	12.4	+4.1 0	18.0	19.0	13.6	19.0	35.0	14.2	8.6	6.4	6	10
4.50 E x 19				114.3													
4.50 E x 20	512.8	511.42	1606.7					23.4		22.0	39.7						
5.00 F x 16	405.6	404.27	1270.0														
5.00 F x 18	462.0	460.62	1447.1	127													
5.00 F x 19	487.4	486.02	1526.9														
5.00 F x 20	512.8	511.42	1606.7														
5.50 F x 15	380.2	378.97	1190.2		22.2	12.9	+2.3 0	23.9	27.6	14.5	25.4	54.0	15.6	9.7			
5.50 F x 16	405.6	404.27	1270.0	139.7													
5.50 F x 18	462.0	460.62	1447.1														
5.50 F x 20	512.8	511.42	1606.7														
6.00 F x 16	405.6	404.27	1270.0	152.4				28.6									

Well-base rims according to DIN 7817 for light commercial vehicles Symmetrical and asymmetrical versions



Size	a ±1.5	b ±1.2 -0.4	e min. *)	f min.	Rim g	p min.	q max.	r ₁	r ₄ min.	r ₅ ±3	Rim Code- dia.	d ₁ dia.	Testing rim d ₂ dia.	U ±1.2 -0.9
4 1/2 J	114.3										13	329.4	328.07	1030.7
5 J	127.0										14	354.8	353.47	1110.5
5 1/2 J	139.7	17.3		17.8	9.7			9.7	8		15	380.2	378.87	1190.2
6 J	152.4										16	405.6	404.27	1270.0
6 1/2 J	165.1		22			22	45			7	17	436.6	435.22	1367.3
4 1/2 K	114.3										*) on hump rims the measurement "e" is the hump distance with + 1.0 tolerance.			
5 1/2 K	139.7	19.6		20.3	10.3			10.7	9.5					
6 1/2 K	165.1													

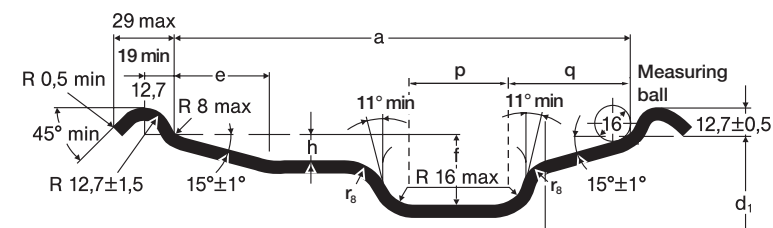
Drop centre rims according to DIN 7827 for Implement-, MPT- and Sand tyres



Rim size	d ₁	d ₂	U ±2.4	a ±2.4	b Nominal value	c Per- mitted devia- tion	e Nominal value	f Per- mitted devia- tion	e	f	p	q	r ₁	r ₃	r ₄	r ₅	
9 x 18	462.0	460.82	1447.1	228.6	25.4	+1.2 -0.4	12	+4 0	27	min.	55	60	11	6.4	19	10	
9 x 20	512.8	511.42	1606.7	279.4								31.8					61
11x 16	405.6	404.27	1270.0														
11 x 18	462.0	460.82	1447.1	279.4					31.8		61						
11 x 20	512.8	511.42	1606.7														
13.00x17	436.6	435.22	1367.3	330.2	19.0	±1.0	+5.5 0	30	31	65	12	8	20				
16.00x17				406.4 ±4.7										330.2			
13 x 20	512.8	511.42	1606.7	355.6	25.4	+1.2 -0.4	+5.5 0	31.8		90				12	8	20	
14 x 20				431.8 ±4.5													
17 x 20																	

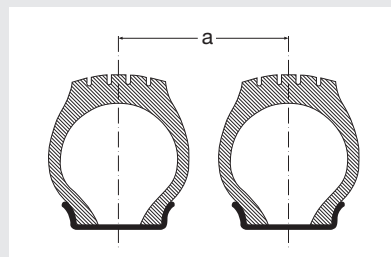
Measured with 16 mm ball.

Tubeless rims according to DIN 78022 for commercial vehicles



Rim Size		Width							
		a		e	p	q	f	h	
Width	Diameter		approved	min.	min.	max.	min.	min.	
5.25	17.5	133.4	± 3.2	25	4	55	24	7.0	
	19.5					56	27		
	22.5				57	30			
6.00	17.5	152.4		30	11	60	24	8.5	
	19.5					62	27		
	22.5					63	30		
6.75	17.5	171.5		25	14	62	24	9.0	
	19.5			30		64	27		
	22.5			32		66	30		
7.50	17.5	190.5		25	21	65	24	9.5	
	19.5			30		67	27		
	22.5			34		68	30		10.0
8.25	19.5	209.6		30	28	67	27	9.5	
	22.5			36		70	10.0		
9.00	19.5	228.6		30		28	68	30	9.5
	22.5			36			70	10.0	
11.75	19.5	298.5	± 4.7	34	30	68	30	11.0	
	22.5					70			
13.00	19.5	330.2				68			
	22.5					70			
14.00	19.5	355.6				68			
	22.5					70			
16.00	22.5	406.4							

Recommended minimum dual spacing for dual tyres



- 1) On forklifts and other vehicles for max. speeds 16 mph (25 km/h).
2) On other vehicles for speeds in excess 16 mph (25 km/h).

Tyre size		Correct rim	Min. centre clearance a	
Radial	Crossply/CSE		1)	2)
5.00 R 8	3.00-4	2.10 -4	98	94
	4.00-4	2.50 C-4	128	124
	4.00-8	3.00 D-8	134	130
	5.00-8	3.00 D-8	158	152
6.00 R 9	6.00-9	4.00 E-9	192	184
6.50 R 10	6.50-10	5.00 F-10	212	204
7.00 R 12	5.50 F-10	5.50 F-10	218	210
	7. 50-10	5.50 F-10	248	238
	7. 00-12	5.00 S-12	230	222
	21x4	3.11 F-13	146	140
7.00 R 15	22x4 1/2	3.11 F-13	158	152
	23x5	3.75 P-13	166	160
	25x6	3.75 P-13	186	178
	7.00-15	3.75 P-13	204	196
7.50 R 15	7.50-15	5.5 -15	236	228
8.25 R 15	6.0 -15	6.0 -15	254	244
	6.5 -15	6.5 -15	260	250
	8.25-15	6.5 -15	280	270
125/75 R 8	10.00-15	7.5 -15	330	316
	15x4 1/2 -8 (125/75-8)	3.00 D-8	138	
	16x6-8 (150/75-8)	3 1/4 I-8	141	
	18x7-8 (180/70-8)	4.33 R-8	175	
225/75 R 10	21x8-9 (200/75-9)	4.33 R-8	199	
250/75 R 12	23x9-10 (225/75-10)	6.00 E-9	230	
225/75 R 15	27x10-12 (250/75-12)	6.50 F-10	259	
	200-15 (250/70-15)	8.00 G-12	294	
250/70 R 15	28x9-15 (225/75-15)	6.5 -15	236	
315/70 R 15	250-15 (250/70-15)	7.0 -15	248	
	300-15 (315/70-15)	7.0 -15	282	
	355/65-15	7.5 -15	288	
		8.0 -15	345	
		9.75 -15	407	

Recommended minimum dual spacing for dual tyres

Tyre size (Radial/Crossply/CSE)	Correct rim	Min. centre clearance a	
		1)	2)
8.25-20	6.5 -20	282	269
9.00-20	7.0 -20	307	297
10.00-20	7.5 -20	330	316
10.00 R 20	7.5 -20	333	319
11.00-20	8.0 -20	348	335
12.00-20	8.0 -20	368	352
12.00 R 20	8.5 -20	376	360
	8.0 -20	371	355
	8.5 -20	379	363
12.00-20/10.0 SOLID	10.0 -20	347	
12.00-24	8.5 -24	376	360
14.00-24	10.0 -24	450	
315/55 R 16 MPT	10x16	368	353
	11x16	380	364
7.5-18 MPT	5.5 Fx18	250	240
10.5-18 MPT	9x18	321	308
12.5-18 MPT	11x18	384	368
10.5-20 MPT			
10.5 R 20 MPT	9x20	318	304
275/80 R 20 MPT			
12.5-20 MPT	11x20		
12.5 R 20 MPT	11-20 SDC	384	368
335/80 R 20 MPT			
14.5-20 MPT	11x20	422	405
14.5 R 20 MPT	11-20 SDC		
365/80 R 20 MPT	11x20	456	437
	11-20 SDC		
405/70-20 MPT	11x20	483	463
405/70 R 20 MPT	13x20	510	488

- 1) On forklifts and other vehicles for max. speeds of 16 mph (25 km/h).
2) On other vehicles at speeds in excess of 16 mph (25 km/h).

Valve accessories
according to DIN 7757

An absolutely airtight fit of the valve insert is guaranteed only when a high pressure **valve cap** is screwed on firmly.

Dust caps other than high pressure types only provide minimal protection against pressure loss.

Dust caps are very important as they prevent dirt from entering the valve.

If the valve is inaccessible it is essential that a valve extension is fitted. This enables the

pressure to be measured and for the tyre to be inflated as necessary.

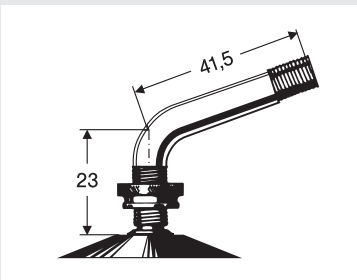
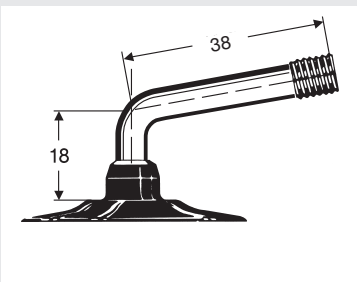
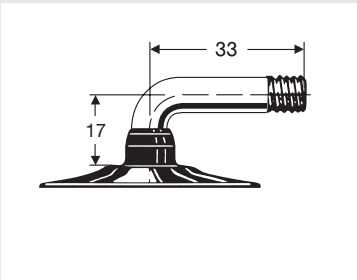
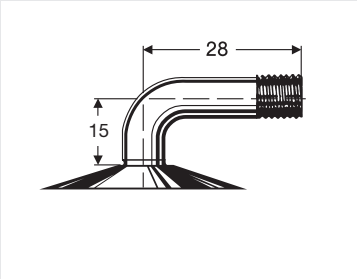
In many cases a **valve extension** is essential in order to be able to check the tyre pressure during use without having to specially examine the wheels or clean them off and without the need of special extensions for using the tyre pressure measuring and inflating equipment.

Ask your valve manufacturer about valve extensions.



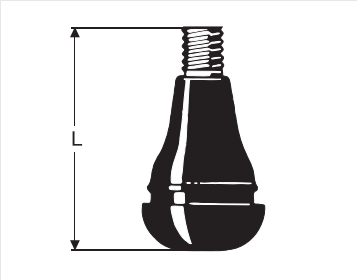
Valve insert 20:
For valves with normal bore

Angled metal valves for inner tube



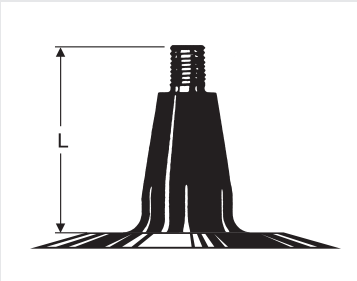
	Valve description		
	DIN	ETRTO	TRA
DIN 7777	28 G-90	V1-08-3	-
DIN 7785	33 G-90	V1-08-1	TR 87
DIN 7787	40.5 G-80	V1-08-2	-
DIN 7778	41.5 G-70	V6-02-1	-

Rubber valves for tubeless fitting and inner tubes



	Valve description			Valve hole ø	L
	DIN	ETRTO	TRA		
DIN 7780	-	V 2-03-9	-	8.8	59.0
	43 GS 11.5	V 2-03-1	TR 413	11.3	42.5
	49 GS 11.5	V 2-03-2	TR 414	11.3	48.5
	43 GS 16	V 2-03-3	TR 415	15.7	42.5

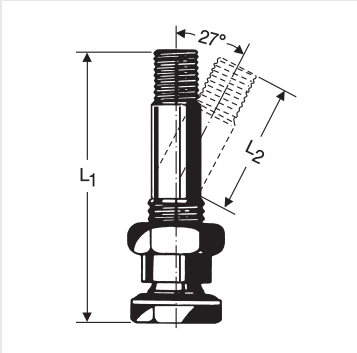
for tubeless fitting



	Valve description			Valve hole ø	L
	DIN	ETRTO	TRA		
DIN 7774	38 G 11.5	V 2-01-1	TR 13	11.3	35
	38 G 16	V 2-01-2	TR 15	15.7	35

for inner tubes

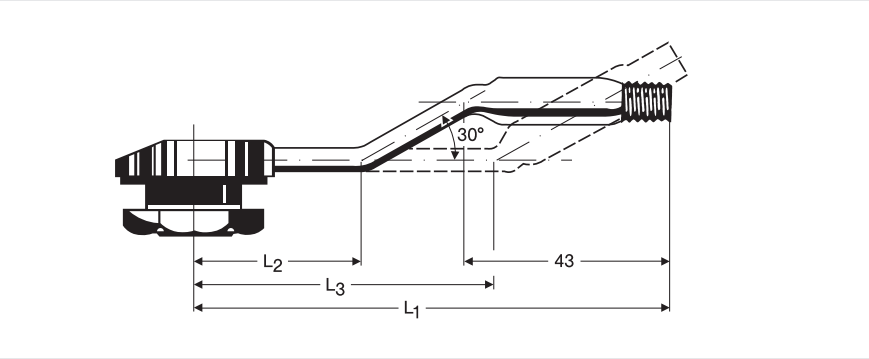
Metal valves for tubeless fitting



DIN 78027

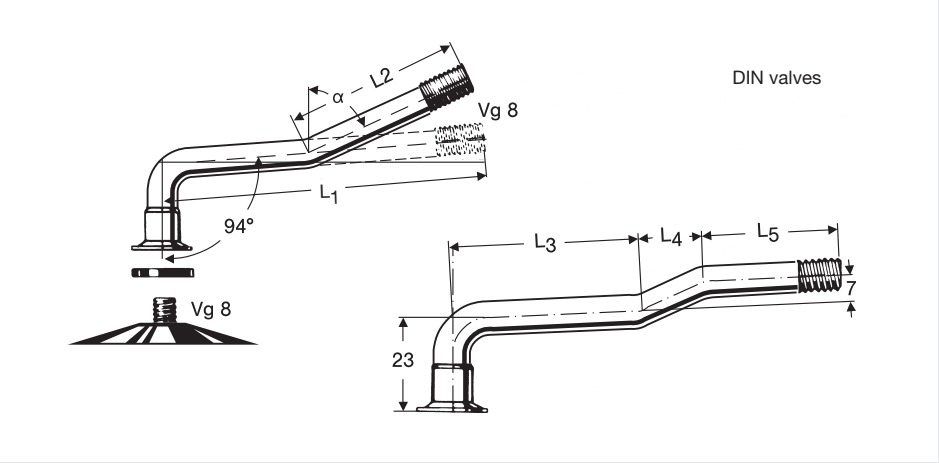
Valve description			Shaft length		
DIN	ETRTO	TRA	L ₁	L ₂	L ₃
for 15° tubeless rims Valve hole diameter 9.7					
41 MS 27	V 3-20-1	-	41	-	-
70 MS 27	V 3-20-5	-	70	40	-
90 MS 27	V 3-20-4	-	90	60	-

for 5° tapered bead seat rims
Valve hole diameter 20.5



Triple angled	100 MSF	-	-	-	100	34	-
	110 MSF	-	-	-	110	44	-
	120 MSF	-	-	-	120	54	-
double angled	120 MSF	-	-	-	120	-	80

Angled screw-on valves with turning plate, according to DIN 7775/2

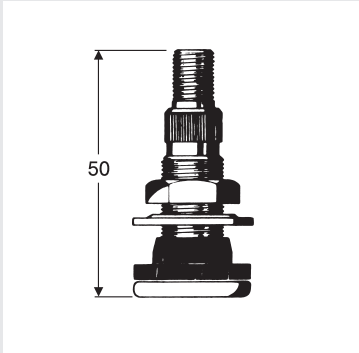


DIN	Valve description	Shaft length						Alpha in degrees
	similar to ETRTO*)	L ₁ ±3	L ₂	L ₃	L ₄	L ₅		
simple angled								
50 D	V 3-02-2	43						120
(50 D) **)	V 3-02-5	50						90
60 D	V 3-02-19	60						94
75 D	V 3-02-27	75						
(85 D)	V 3-02-8	85						
95 D	V 3-02-9	95	-	-	-	-	-	-
105 D	V 3-02-25	105						
115 D	V 3-02-10	115						
127 D	V 3-02-29	127						
140 D	V 3-02-14	140						
double angled								
75 D-74	V 3-04-22	75	47					74
80 D-63	V 3-04-2	80	41.5					63
95 D-74	V 3-04-23	95	47					74
105 D-74	V 3-04-24	105	47	-	-	-	-	74
115 D-74	V 3-04-20	115	47					74
127 D-74	V 3-04-25	127	47					74
140 D-64	V 3-04-21	140	57					64
triple angled								
95 D-Z	V 3-06-2	95		40	13	40		
105 D-Z	V 3-06-14	105		50	13	40		
114 D-Z	V 3-06-3	114		46	20.5	47.5		
115 D-Z	V 3-06-16	115	-	60	13	40		-
116 D-Z	V 3-06-12	116		71.5	19.5	25.5		
127 D-Z	V 3-06-16	127		62	13	50		
131 D-Z	V 3-06-5	131		62.5	19.5	49		
140 D-Z	V 3-06-17	140		75	13	50		

*) see ETRTO Standards Manual

**) based on DIN = ()

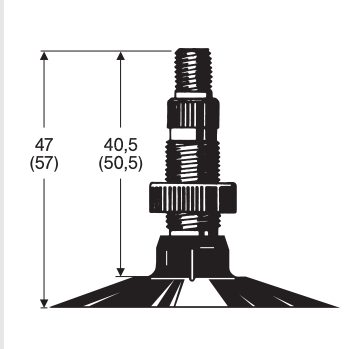
Straight valves for water filling



DIN 78026

Valve description			Shaft length
DIN	ETRTO	TRA	
for tubeless fitting			
	V 4-02-1 insert for water filling		
50 MSW	V 5-01-1 Valve base	TR 618 A	50

Valve hole diameter 15.7 mm



DIN 7773

Valve description			Shaft- length
DIN	ETRTO	TRA	
for inner tubes			
	V 4-02-1 insert for water filling		
47 GW	V 4-01-1	TR 218 A	40.5
57 GW	V 4-01-2	TR 220 A	50.5
	Valve base		

Valve hole diameter 15.7 mm

Maintenance and care

The pre-condition for successful maintenance and care is the correct choice of tyre, following the recommendations of the tyre manufacturer. See also previous sections on this subject.

Storage

Unused tyres should be stored in cool, dry, dark and lightly ventilated rooms. Tyres which are not fitted on rims should be stored standing up. Avoid contact with fuel, lubricants, solvents and chemicals. Should tyres, tubes and bead flaps need to be stored temporarily, they may age more quickly and develop cracks if they are exposed to intense sunlight or extreme heat. Effective air circulation accelerates this process.

Inner tubes may be particularly affected if their packaging is damaged.

Fitting the tyre

Before demounting a tyre, unscrew and remove the valve insert; then wait until all the air has been allowed to escape. If a tube-type tyre is fitted with an angled valve to DIN 7786-80 GD 80, unscrew the valve stem and wait until the escaping air ceases to make a noise before removing the tyre.

Particular care should be taken when fitting the tyre. Only rust-free rims of the right size should be used. These should not be damaged or show any signs of wear and tear. The loose flange side should be examined with great care.

Always use new rubber tubeless valves or new inner tubes and flaps on new tyres or new seals for tubeless metal valves.

Take special care after tyre repairs: inner tubes stretch in use and may form dangerous folds when re-fitted. If in doubt, always fit new inner tubes in order to avoid tube failure.

It is particularly important with large tyres that these should already fit on the rim flange with as little tyre pressure as possible. See also WdK-Guideline 104, where detailed fitting recommendations are given. As a guide:

When fitting, do not exceed 150% of the maximum standard tyre pressure. Under no circumstances must 10 bar be exceeded. Use only recommended fitting tools and equipment.

Should the tyre bead be jammed on the rim and the pressure be high, the bead may get damaged or even destroyed.

With tube type tyres, check that valves still move freely after the filler nozzle has been removed. This is important for later tyre pressure checks under difficult conditions.

Fast-running wheels should be balanced statically and dynamically to ensure smooth running.

Fitting the wheel on to the vehicle



Vehicle axle data such as toe-in, king pin inclination and castor as well as axle alignment must be checked and if necessary adjusted to within tolerances.

Only then should the wheel be fitted.

When fitting make sure that the axle hub is perfectly centred. Extra care is necessary with large, heavy tyres which do not have special centering.

If necessary re-balance the wheel when it is fitted on the vehicle.

Always remember to check that the valves move freely and are easily accessible. Valve extensions are necessary for dual tyres.

The free movement and easy access of the valves, even when they have become dirty in operation are necessary for checking the tyre pressures

Valve caps, preferably high pressure type, must be fitted.

On rolling road testers where the vehicle performance is examined, restrictive testing regulations must be observed: depending on the roller diameter only short tests may be carried out and these always below maximum speed.

If a vehicle has the same type of tyres on all round e.g. radial tyres, this will guarantee optimum driving characteristics and maximum driving stability.

The use of different tyre designs on each axle should be a rare exception.

Where vehicles are being used on the highway, minimum tread depths as specified in the latest national regulations must be observed.

For motor vehicles, trailers or semi-trailers it is essential that tyres of the same construction are fitted to the same axle.

Tyre Minimum Tread Depth

The legal minimum tread depth is 1.0 mm and must cover the complete width and circumference of the tread. The depth should be measured in the tread groove with the tread wear indicator (the area with the indicator should not be taken).

Vehicle in operation

The tyre pressure must be correct.

Otherwise poor vehicle handling and pronounced, irregular tread wear are inevitable.

If pressure is insufficient, the rolling resistance will increase and with it the fuel consumption. Hidden defects in the tyre may also occur which later lead to tyre failure.



Tyre inflation pressures specified by vehicle and tyre manufacturers are contained in the vehicle manual and, for instance,

on the vehicle mud guard. These may vary with different loads and service conditions, and must be adjusted before commencing a journey. Specified tyre pressures always apply to cold tyres. It is quite normal for the pressure to increase as the tyres warm up during driving. Do not reduce pressure when the tyres are hot.

Never use different tyre pressures for the same axle.

The tyre pressures recommended for a vehicle by the manufacturer may differ depending on different load and service conditions.

Pressure checks must be made when the tyres are cold. An increase in tyre pressures during running is normal and must never be re-adjusted. Continental can supply mudguard tyre pressure stickers on request.

The spare wheel should be inflated to at least the maximum inflation pressure given in the vehicle manual. Remember to always include the spare wheel when checking tyre pressures.

A balanced, even style of driving reduces the strain on the tyres. Every hasty reaction on the accelerator, brakes or steering shortens the life of the tyres.

The same also applies of course to all other forms of peak strain such as severe scuffing of the tyre along the kerb or driving over obstacles that may be in the

road. These can all result in damage to the tyre's construction.

Strain on the tyre should be avoided. This has the same effect as insufficient pressure.

Do not exceed the tyre's permitted maximum speed, otherwise tyre damage is inevitable.

Maintenance and care of the vehicle's tyres

The high standard of quality of the tyres and vehicle, which is achieved by the measures and recommendations stated above, can only be ensured by **regular checking of all factors.**

For example, pressure checks and external inspections of the tyres (including the sidewalls to the inside of the vehicle and between dual tyres).

Pressure checking devices and small replacement parts such as valve inserts, caps and extensions should always be close at hand

Tyres age as a result of physical and chemical processes and this may impair their performance.

Tyres, which are fitted to mainly stationary vehicles or those which are not used regularly, are particularly prone to premature ageing.



Unfavourable weather conditions also accelerate the ageing process as well as the storage conditions that were covered in the

previous section.

An expert should always be called in to make a qualified judgment on the tyres.

Regrooving of the tread pattern - usually when there are 2 or 3 millimetres of tread depth left - should be carried out only by qualified experts when the word "REGROOVABLE" is displayed on the tyre sidewall.

Tyre repairs

Tyre damage may initially be just a question of damage to the outer rubber: however, this apparently superficial damage can eventually extend down to, or into, the tyre's reinforcing materials (casing/belt). Therefore no time should be lost in taking the tyre to a specialist for assessment as soon as any external damage is detected.

Damage to the reinforcing materials, for instance due to a nail puncture or a deep cut, is particularly dangerous because dirt and moisture may penetrate during the time between when the damage occurred and when it was detected. This may even result in more serious damage to the reinforcing materials. Damage to the inside of a tyre can also cause a slow puncture.

The tyre is then driven underinflated and consequently subjected to excessive strain. All these factors can make a tyre non-repairable by the time the damage is finally discovered. If the tyre is repaired regardless, even if it is repaired by a reputable tyre specialist, it is possible that tyre failure can still occur as a result of an overstrained area, other than that originally damaged.

This is why each tyre must be carefully inspected by a tyre expert before it is repaired. For only a specially trained person can decide whether it is possible to repair the tyre and whether the tyre will be capable of delivering safe performance after the repair. Repairs must be carried out by an authorized workshop, which is then responsible for inspecting the tyre and for doing the job properly.

Repairs to the wheels are forbidden.

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USA	Continental General Tire Inc.	1800 Continental Boulevard Charlotte, NC 28273	Telephone 001-704-583-8924 Telefax 001-704-583-3981

TL tires 16" - 19.5"

Size	Rim	Valve
225/75 R 16 C	6 1/2 J 6 J 7 J	43 GS 11.5 43 GS 11.5 43 GS 11.5
6.00 R 16 C	4 1/2 J,K 4.50 E 4.50 E SDC 5 1/2 J,K 5 K 5.00 E SDC	43 GS 16 43 GS 16 43 GS 16 43 GS 16 43 GS 16 43 GS 16
6.50 R 16 C	4 1/2 J,K 4.50 E SDC 4.50 F 5 1/2 K 5 K 5.00 E SDC 5.50 F SDC	43 GS 16 43 GS 16 43 GS 16 43 GS 16 43 GS 16 43 GS 16 43 GS 16
10 R 17.5	6.75 7.50	MS MS
205/65 R 17.5	6.00 6.75	MS MS
205/75 R 17.5	5.25 6.00 6.75	MS MS MS
215/75 R 17.5	6.00 6.75	MS MS
225/75 R 17.5	6.00 6.75	MS MS
235/75 R 17.5	6.75 7.50	MS MS
245/70 R 17.5	6.75 7.50	MS MS
245/75 R 17.5	6.75 7.50	MS MS
265/70 R 17.5	7.50 8.25	MS MS
8.5 R 17.5	5.25 6.00 6.75	MS MS MS
9.5 R 17.5	6.00 6.75	MS MS
8 R 17.5 C	5.25 6.00 6.75	MS MS MS
245/70 R 19.5	6.75 7.50	MS MS
265/70 R 19.5	6.75 7.50 8.25	MS MS MS
285/70 R 19.5	7.50 8.25 9.00	MS MS MS
305/70 R 19.5	8.25 9.00	MS MS
385/55 R 19.5	11.75	MS
385/65 R 19.5	11.75	MS

TL tires 20" - 22.5"

Size	Rim	Valve
14.00 R 20	10.0 10.00V	120MSF 120MSF
365/80 R 20	10.00V	120MSF
10 R 22.5	6.75 7.50	MS MS
11 R 22.5	7.50 8.25	MS MS
12 R 22.5	8.25 9.00	MS MS
13 R 22.5	9.00 9.75	MS MS
255/70 R 22.5	6.75 7.50	MS MS
275/70 R 22.5	7.50 8.25	MS MS
295/60 R 22.5	9.00	MS
295/80 R 22.5	8.25 9.00	MS MS
305/60 R 22.5	9.00 9.75	MS MS
305/70 R 22.5	8.25 9.00	MS MS
315/60 R 22.5	9.00 9.75	MS MS
315/70 R 22.5	9.00	MS
315/80 R 22.5	9.00	MS
385/55 R 22.5	11.75	MS
385/65 R 22.5	11.75 12.25	MS MS
425/65 R 22.5	13.00	MS
445/65 R 22.5	14.00	MS
9 R 22.5	6.00 6.75	MS MS

TT tires

Size	Rim	Tube	Valve	Flap
205/70 R 15	5.5 6 6.5	205/70-15 205/70-15 205/70-15	75D-74 75D-74 75D-74	170-15 170-15 170-15
7.50 R 15	6.0 6.5	7.50-15 7.50-15	75 D-74 75 D-74	170-15 170-15
8.25 R 15	6.5 7.0	8.25-15 8.25-15	75D-74 75D-74	170-15 170-15
7.00 R 16	6.00 G SDC	7.00/7.50-16	105 D-Z	160-16
7.50 R 16	6.00 G SDC	7.00/7.50-16	105 D-Z	160-16
7.50 R 16 C	6.00 G SDC	7.00/7.50-16	105 D-Z	160-16
10.00 R 20	7.50	10.00-20	127 D-Z	200-20
11.00 R 20	8.00	11.00-20	127 D-Z	200-20
12.00 R 20	8.50	12.00-20	127 D-Z	200-20
14.00 R 20	10.0 10.00V	14.00-20 14.00-20	140 D-Z 140 D-Z	280-20 280-20
7.50 R 20	6.00	7.50-20	95 D-74	180-20
8.25 R 20	6.50	8.25-20	105 D-Z	180-20
9.00 R 20	7.00	9.00-20	115 D-Z	180-20
11.00 R 22	8.00	11.00-22	127 D-74	U 240-22
12.00 R 24	8.50	12.00-24	127 D-74	220-24

