EARTH-MOVING RETREADED TYRES

April 2008

MARANGONI™
commercial & industrial tyres

Founded by the Marangoni brothers in the '50s as a tyre retreading company, the Marangoni group today is an industrial Group of Companies organised into 6 different business areas:

- Car, commercial and earth-moving retread production
- Retreading materials production and systems technology
- The manufacture of machines and equipment for new tyre and retread production
- Car & commercial vehicle new tyre production
- New industrial/lift truck tyre production
- Tyre distribution.

Wide-ranging interactions among the group's diverse business areas have generated extensive technological, production and sales know-how that covers the various levels of the tyre value chain.

The group manages all the activities involved in the tyre's entire life cycle: from material production to disposal-based energy recovery plants.

Within the group, **Marangoni Pneumatici** is the company that specialises in the retreading of tyres for cars, 4x4 vehicles, delivery vans, trucks and earth-moving machinery, in one of the industry's largest factory, with its circa 100.000 mq, situated in the north of Italy (Rovereto - Trento), in the heart of the MittelEurope. This company's real core business revolves around the highly specialised industrial vehicle tyre and earth-moving sector, in which customer needs must be satisfied by offering reliable as well as high quality products and services.

Marangoni Pneumatici is an acknowledged industry leader for both quality and safety thanks to its advanced **R&D department's** dedication to processes and products, its casings monitored by computer technology and its state-of-the-art retreading technologies as well as its fast, reliable and complete customer service.

The Earth-Moving business unit is dedicated to the retreading of tyres for all the earth-moving and industrial service application.

Certified quality

The use of quality procedures has become Marangoni's corporate philosophy at all levels. This has been demonstrated by the quality certification UNI EN ISO 9001:2000 and the environmental management system UNI EN ISO 14001:2004.

SINCERT

UNI EN ISO 9001:2000
UNI EN ISO 14001:2004
CERTIQUALITY
SISTEMI DI GESTIONE CERTIFICATI
CERTIQUALITY È MEMBRO DELLA FEDERAZIONE CISQ
IQNet

then, Marangoni will proceed:

- **to retread the tyre,** if deemed possible
  or
- **to credit the remaining value of the tyre,** which is calculated in proportion to the wear of the tread (when casing conditions do not allow retreading).

Marangoni Pneumatici can make this commitment because of high technical standards of production, being internationally recognised and to the usage of high quality materials.

Only Marangoni offers 5 years of total guarantee

TOTAL 5 YEARS GUARANTEE

The total guarantee covers Earth-Moving tyres retreaded by Marangoni, against any fault that may be attributed either to the manufacturing process or to the quality of the materials used.

A tyre which has been claimed defective will be inspected by Marangoni Pneumatici's specialised technicians of the analysis laboratory, and if:

- no more than 5 years have passed since the manufacture date;
- non evidence of flaws is detected due to incorrect usage, impacts, sharp-edges objects;
- the tyre has received regular maintenance,

Tyre disposal

Marangoni pays close attention to market demands including the identification of the critical issues such as tyre collection and disposal. The tyres are disposed in a technologically advanced and environmentally conscious manner. Within Marangoni's specialised plant in Rovereto, the tyres are burned to create electrical power, and therefore recycled in compliance with European Union guidelines.

Mould Retread

MR | MH | MADN | MAD 65

MD | MLD | MHD1 | MDT

Recaflex-System Retread

LISSE | MTS | MLT | MRLS R | MDT R

MSP
M+S

MGC

E58

HRL

MRLS

MRLT2

MKS

MM

MDR

MRT

MINE

MS

MAS

Pattern and size table

Size		Mould Retread Patterns																
		MR	MH Standard	MH Extra deep	MADN	MAD 65	MSP M+S	MGC	E58	HRL	MD	MLD	MHD1	MDT	MRLS	MRLT2	MKS	MM	LISSE D1
20	14.00-20																	•	
24	12.00-24	•																	•
	13.00-24	•																	
	14.00-24 (385/95-24)	•						•											•
	16.00-24 (445/95-24)	•																	
	20-24								•		•								
	555/70-24																		
25	13.00-25	•																	
	14.00-25 (385/95-25)	•						•											•
	15.5-25 (395/80-25)	•		•			•												•
	16.00-25 (445/95-25)	•						•		•			•				•		•
	17.5-25 (445/80-25)	•		•			•												•
	18.00-25 (505/95-25)	•											•				•		•
	550/65-25																		
	555/70-25																		
	20.5-25 (525/80-25)	•	•	•			•												•
	21.00-25																		
	22/65-25																		
	625/70-25					•													
	600/65-25																		
	650/55-25																		
	650/65-25					•													
	23.5-25 (605/80-25)	•		•	•		•					•							•
	25/65-25					•													
	705/70-25					•													
	750/65-25 (30/65-25)					•													
	26.5-25 (685/80-25)	•		•	•							•							•
	29.5-25			•	•							•							•
	850/65-25																		
29	26.5-29																		
	30/65-29																		•
	775/65-29																		•
	800/65-29																		
	875/65-29					•													•
	29.5-29	•																	•
	33.25-29																		
33	18.00-33													•			•		
	21/90-33																		
	21.00-33																		
	35/65-33 (875/65-33)											•							
	33.5-33																		
	37.5-33																		
35	21.00-35																		
	24.00-35													•					
	29.5-35																		
	33.25-35	•																	
	37.25-35																		
39	37.5-39																		
	40/65-39																		
	40.5/75-39																		
	41.25/70-39																		
	45/65-39																		
45	45/65-45 (1150/65-45)																		
49	24.00-49																		
	27.00-49														•	•			
	31/80-49														•	•			
	31/90-49														•	•			
51	30.00-51																		
	33.00-51																		
	36.00-51																		
57	37.00-57*																		
	40.00-57*																		
	50/80-57*																		
	46/90-57*																		
	50/90-57*																		
	55/80-57*																		
	60/80-57*																		

*Becoming available

	Recaflex-System Retread Patterns																		
LISSE D2	DN LISSE	D1 LISSE	D2 LISSE	DN MTS	DN MLT	D1 MLT	D1 MRLS R	D1 MDT R	DN MDR	D1 MDR	D2 MDR	D2 MRT	DN MINE	D1 MINE	D2 MINE	D1 MS	D2 MS	D1 MAS	D2 MAS
•																•	•		
																•			
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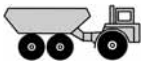
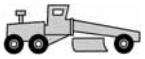
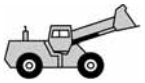
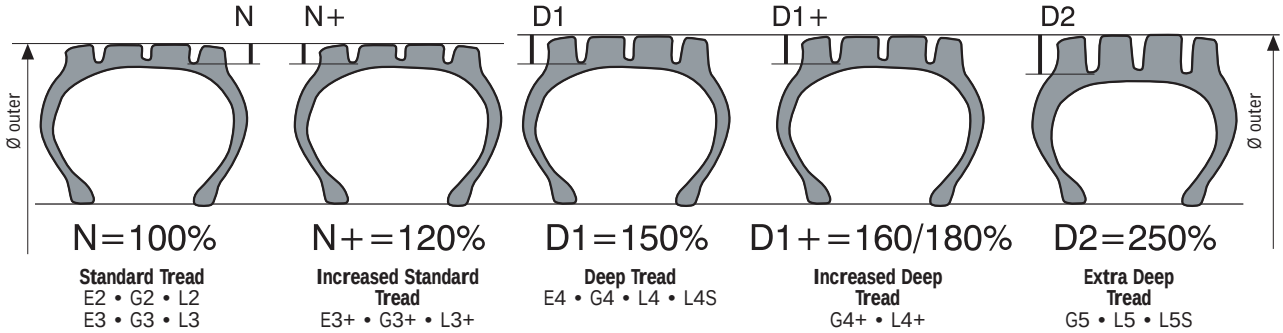
Earth-moving application

Type of Vehicle	T.R.A. Code	Type of Tread	Tread Depth	Marangoni Pattern Name	
				Radial Ply	Diagonal Ply
Rigid Dumper 	E2	Traction	Standard Tread	MGC, MSP M+S	MSP M+S
Articulated Dumper 	E3	Rock	Standard Tread	MR, MHStandard, MHExtraDeep (E3+), MADN, MAD 65, DN MDR, DN MLT, DN MTS	MR, HRL, MHStandard, MHExtraDeep (E3+), MADN, DN MLT, DN MTS
Scraper 	E4	Rock	Deep Tread	MHD1, MKS, MDT, MRLT2, MRLS, D1 MDR, D1 MRLS R, D1 MDT R, D1 MLT	MHD1, MKS, MDT, D1 MDT R
Motor Grader 	G2	Traction	Standard Tread	MSP M+S	MSP M+S
	G3	Rock	Standard Tread	MR, MHStandard, MHExtraDeep (G3+), DN MDR	MR, MHStandard, MHExtraDeep (G3+)
	G4	Rock	Deep Tread	D1 MDR, MLD (G4+)	D1 MDR, MLD (G4+)
	G5	Rock	Extra Deep Tread	D2 MDR, D2 MRT	D2 MDR, D2 MRT
Wheel Loader 	L2	Traction	Standard Tread	MSP M+S	MSP M+S
	L3	Rock	Standard Tread	MR, MHStandard, MHExtraDeep (L3+), MD, DN MDR, DN MINE, MAD 65	MR, HRL, MHStandard, MHExtraDeep (L3+), E58, DN MINE
Wheel Dozer 	L4	Rock	Deep Tread	MLD (L4+), D1MDR, D1 MINE, D1 MS, D1 MAS	MLD (L4+), D1MDR, D1 MINE, D1 MS, D1 MAS
Underground Mining Vehicles 	L5	Rock	Extra Deep Tread	D2 MDR, D2 MINE, D2 MRT, D2 MS, D2 MAS	D2 MDR, D2 MINE, D2 MRT, D2 MS, D2 MAS
	L3S	Smooth	Standard Tread	DN LISSE	DN LISSE
	L4S	Smooth	Deep Tread	D1 LISSE	D1 LISSE
	L5S	Smooth	Extra Deep Tread	D2 LISSE	D2 LISSE
All-Terrain Crane 	E2	Traction	Standard Tread	MGC, MSP M+S	MR, HRL
Wheel Crane 	E3	Rock	Standard Tread	MR	

T.R.A. (Tyre and Rim Association) Code

	Application		Tread Depth
E	Earthmover	2	Standard Tread (Traction)
G	Grader	3	Standard Tread (Rock)
L	Loader and Dozer	4	Deep Tread
		5	Extra Deep Tread

Tread Depth



Industrial service application and container handling

Type of Vehicle	Tread Depth	Marangoni Pattern Name	
		Radial Ply	Diagonal Ply
Reach Stacker 	Standard Tread	MR, MGC	MR, HRL
Straddle Carrier 			
Forklift 	Deep Tread	MKS, D1 MINE, D1 MS, D1 MAS	MKS, D1 MINE, D1 MS, D1 MAS
Transfer Crane 	Smooth	D1 LISSE	D1 LISSE
Towing Tractor 			

Other application

Marangoni Pattern Name	
Radial Ply	Diagonal Ply
MM	MM

Important

- Tyres retreaded with suggested patterns must be used matching the load index and the speed symbol of the original casing, except if otherwise specified.
- All Marangoni retreaded tyres will keep the same technical features of the original casing, in terms of load capacity, speed and overall comfort when casings are retreaded using patterns equivalent to the original in terms of tread depth and application.
- Tyres retreaded on L5 type must be manufactured only on L5 casing.

Conversion table: star rating to ply rating

Service	Size	Star Rating	Corresponding Ply Rating
Grader	13.00R24	*	Up to 14
	14.00R24	*	Up to 16
	16.00R24	*	Up to 16
	17.5R25	*	Up to 16
	20.5R25	*	Up to 20
	23.5R25	*	Up to 24
Earthmover	12.00R24	***	Up to 24
	13.00R25	***	Up to 28
	14.00R24	***	Up to 32
	14.00R25	***	Up to 32
	16.00R24	**	Up to 36
	16.00R25	**	Up to 36
	18.00R25	*	Up to 24
		**	Up to 36
	18.00R33	**	Up to 40
	21.00R25	**	Up to 40
	21.00R33	**	Up to 36
	21.00R35	**	Up to 44
	24.00R35	**	Up to 48
	24.00R49	**	Up to 48
	27.00R49	**	Up to 54
	30.00R51	**	Up to 58
	33.00R51	**	Up to 64
	36.00R51	**	Up to 66
	37.00R57	**	Up to 78
	40.00R57	**	Up to 80
	17.5R25	*	Up to 16
		**	Up to 24
	20.5R25	*	Up to 24
		**	Up to 28
	25/65R25	**	Up to 32
	23.5R25	*	Up to 24
		**	Up to 32
	26.5R25	**	Up to 32
	26.5R29	**	Up to 34
	29.5R25	**	Up to 34
	29.5R29	**	Up to 40
	29.5R35	**	Up to 40
	33.25R29	**	Up to 44
	33.5R33	**	Up to 44
	37.5R33	**	Up to 48
	33.25R35	**	Up to 44
	37.25R35	**	Up to 48
	37.5R39	**	Up to 52
	40.5/75R39	**	Up to 54

Service	Size	Star Rating	Corresponding Ply Rating
Loader	12.00R24	***	Up to 24
	13.00R24	*	Up to 14
	14.00R24	*	Up to 16
		***	Up to 28
	16.00R24	*	Up to 16
	18.00R25	*	Up to 24
	20R24	*	Up to 16
	15.5R25	*	Up to 16
	17.5R25	*	Up to 16
		**	Up to 20
	20.5R25	*	Up to 24
		**	Up to 28
	23.5R25	*	Up to 24
		**	Up to 32
	26.5R25	*	Up to 24
		**	Up to 36
	29.5R25	*	Up to 28
		**	Up to 34
	29.5R29	*	Up to 34
	30/65R29	*	Up to 28
	35/65R33	*	Up to 36
		**	Up to 42
	40/65R39	*	Up to 42
	45/65R45	*	Up to 50
		**	Up to 58

No corresponding Ply Rating in these sizes which are exclusively manufactured in radial construction.

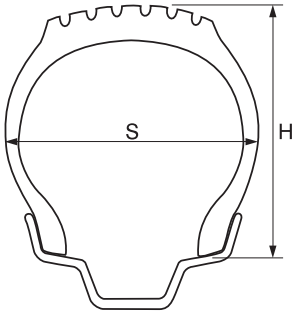
Size
555/70R24*
550/65R25*
555/70R25*
600/65R25*
650/65R25*/** 180B
625/70R25*
750/65R25 (30/65R25)*/** 190B
705/70R25*
755/70R25*
850/65R25** 196B
775/65R29*/** 195B
800/65R29*
875/65R29*/** 201B
45/65R39*

Pressure Unit Conversion Table

kPa	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Bar	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5	10,0	10,5
p.s.i.	15	22	29	36	44	51	58	65	73	80	87	94	102	109	116	123	131	138	145	152

Markings and size designations

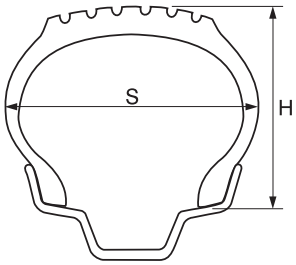
Earth-Moving tyres are classified upon the Aspect Ratio of the tyre size:



Standard

The Height is ca. 100% of the Section (H/S=100 – H/S=0,95): the Section width in inches is a whole number.

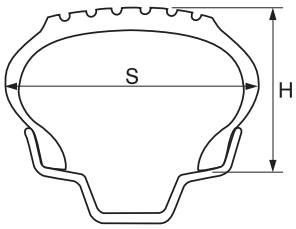
Example: 16.00-25	**16.00** section width (inches)	X	**25** rim diameter (inches)	



Wide base

The Height is ca. 80% of the Section (H/S = 0,80): the Section width in inches is a whole number followed by a fraction.

Example: 26.5-25	**26.5** section width (inches)	X	**25** rim diameter (inches)	
Example: 33.25-35	**33.25** section width (inches)	X	**35** rim diameter (inches)	



Low Profile

The Height is ca. 65% / 75% of the Section (H/S = 0,65 – H/S = 0,70): the Section width in inches or mm. is a whole number followed by the number 65/70.

Example: 35/65-33	**35** section width (inches)	**/65** aspect ratio	X	**33** rim diameter (inches)	
Example: 875/65-33	**875** section width (mm)	**/65** aspect ratio	X	**33** rim diameter (inches)	
Example: 555/70-24	**555** section width (mm)	**/70** aspect ratio	X	**24** rim diameter (inches)	

METRIC	Example: 505/95-25	**505** section width (mm)	**/95** aspect ratio	X	**25** rim diameter (inches)

Size Conversion Table

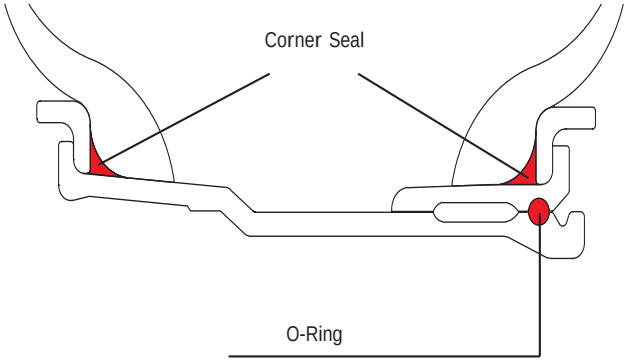
Metric	Inch
385/95R24	14.00R24
385/95R25	14.00R25
445/95R24	16.00R24
445/95R25	16.00R25

Metric	Inch
505/95R25	18.00R25
395/80R25	15.5R25
445/80R25	17.5R25
525/80R25	20.5R25

Metric	Inch
605/80R25	23.5R25
685/80R25	26.5R25
750/65R25	30/65R25
875/65R33	35/65R33

Metric	Inch
1150/65R45	45/65R45

Seals



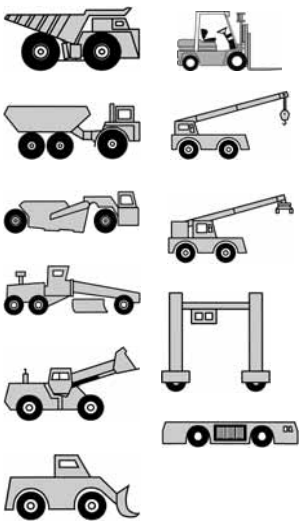
Storage of tyres

- Keep the tyres clean away from heat, light, ozone or hydrocarbon sources
- Avoid prolonged exposure of the tyres to direct sunlight
- Avoid any contact whit grease, petrol, volatile solvents or other substances that may deteriorate the rubber
- Avoid horizontal storage
- Reduce inflation pressure when tyres are stored fitted on rims
- Ensure there is no water or moisture inside the tyre
- Never store tyres directly in contact with the ground for long period
- If tyres must be stored outside it's important to cover them

Mould retread

MR

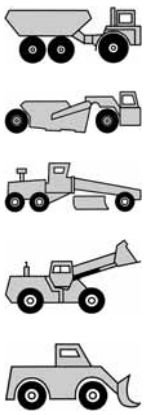
Directional EM tyre with excellent traction. The considerable tread depth guarantees good traction together with satisfactory speed. The tread compound is characterised by low heat development, thus ensuring high average speeds together with optimum hourly performance.



	E3, G3, L3
Size	Tread depth (mm)
12.00-24	21
13.00-24	22
14.00-24 (385/95R24)	22
16.00-24 (445/95R24)	26
13.00-25	22
14.00-25 (385/95R25)	22
15.5-25 (395/80R25)	23
16.00-25 (445/95R25)	26
17.5-25 (445/80R25)	25
18.00-25 (505/95R25)	28
20.5-25 (525/80R25)	26
23.5-25 (605/80R25)	31
26.5-25 (685/80R25)	34
29.5-29	37
33.25-35	40

MH

Non-directional tread pattern, 120% tread depth for longer lifetime on extra deep thickness. The flat profile gives the tyre excellent grip. It features specially protected shoulders and sidewalls.

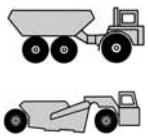


	E3, G3, L3	
Size	Tread depth (mm)	Pattern
20.5-25	31	Standard

	E3+, G3+, L3+	
15.5-25	30	Extra Deep
17.5-25	32	Extra Deep
20.5-25	36	Extra Deep
23.5-25	39	Extra Deep
26.5-25	43	Extra Deep
29.5-25	46	Extra Deep

MADN

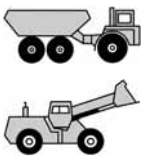
Developed mainly for articulated dump trucks. The pattern provides excellent traction and higher resistance to cuts and chipping. Exceptional stability for rough terrain and soft soil.



	E3
Size	Tread depth (mm)
23.5-25	38
26.5-25	41
29.5-25	44

MAD 65

Wide base tyre profile designed for articulated dump trucks and medium sized loaders with great tractions, extra stability and life.

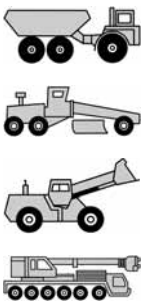


	E3, L3
Size	Tread depth (mm)
650/65-25	40
625/70-25	40
25/65-25	40
750/65-25 (30/65R25)	43
705/70-25	43
875/65-29*	51

*Becoming available

MSP M+S

Four-season pattern with sipes on blocks and excellent traction on snow and ice; reducing the need for snow chains, recommended for wheel crane and special high speed machine.

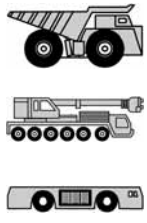


	E2, G2, L2
Size	Tread depth (mm)
15.5-25 (395/80R25)	26
17.5-25 (445/80R25)	28
20.5-25 (525/80R25)	32
23.5-25 (605/80R25)	35

Note: *If the tyre sent to us for retreading is for a wheel crane or a special high speed machine (like fire engines), it must be indicated so to allow us to point it out to our production.*
Indeed, for this kind of application we have to use a compound different from the standard one that we normally use for this type of retreading.

MGC

Multipurpose tread pattern. Suitable for road transport, even for vehicle with high average speeds. The special tread compound ensures reduced heat development. Particularly suitable for wheel cranes. With a block pattern design, it is extremely effective in reducing noise and uneven wear.



	E2
Size	Tread depth (mm)
14.00-24 (385/95R24)	22
14.00-25 (385/95R25)	22
16.00-25 (445/95R25)	25

Note: *This pattern for wheel cranes is recommended only for a local use and NOT for long-haul roads and motorways.*

E58

Good traction due to V-shaped bars. Good self-cleaning capabilities due to directional pattern design.

	L3
Size	Tread depth (mm)
20-24	33

HRL

Non-directional tread pattern designed for heavy-duty off-the-road and industrial applications. Ensures maximum stability and traction. The special tread compound combines good resistance to cuts, impacts and tearing with good hourly performance.

	E3, L3
Size	Tread depth (mm)
16.00-25	27

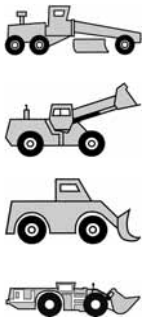
MD

Directional tread pattern suitable for any type of terrain, but particularly recommended for rocky ground. The special tread compound ensures maximum resistance to cuts, impacts and tearing.

	L3
Size	Tread depth (mm)
20-24	33

MLD

Directional tread pattern suitable for any type of terrain, but particularly recommended for rocky ground. The tread special compound ensures maximum resistance to cuts, impacts and tearing.



	G4+, L4+
Size	Tread depth (mm)
23.5-25	50
26.5-25	58
29.5-25	65
35/65-33 (875/65R33)	78

MHD1

The specially protected sidewalls make it suitable tread for heavy-duty applications. Excellent self-cleaning features. Its tread compound is characterised by low heat development, thus ensuring high average speeds together with optimum hourly performance.

	E4
Size	Tread depth (mm)
16.00-25	43
18.00-25	47

MDT

Bi-directional tread design and enlarged base. Particularly suitable for use on dumpers. Excellent self-cleaning features. Ideal for heavy-duty applications, it ensures at the same time high average speeds. Its tread compound is characterised by low heat development, thus ensuring optimum hourly performance.

	E4
Size	Tread depth (mm)
18.00-33	52
24.00-35	64

MRLS

Non-directional profile featuring a deep and solid pattern, for use on materials transport vehicles working in open-cut mines/quarries.

	E4
Size	Tread depth (mm)
27.00-49	70
31/80-49	70
31/90-49	70

MRLT2

Deep non-directional tread pattern with widened base. Especially suitable for use on dumpers. Excellent self-cleaning properties. Combines exceptional characteristics in heavy-duty applications with medium-high speeds. The special tread compound with low heat generation guarantees excellent hourly performance.

	E4
Size	Tread depth (mm)
27.00-49 •	70
31/80-49 •	70
31/90-49 •	70

• Remoulded using MRLS mould and successively regrooved in the middle of the tread.

MKS

Non-directional tyre for transport and industrial applications. Tough tread design with deep tread for a long tyre life. Reinforced tyre side-walls to protect from accidental damages.

	E4, L4
Size	Tread depth (mm)
16.00-25	32
18.00-25	38
18.00-33	55

MM

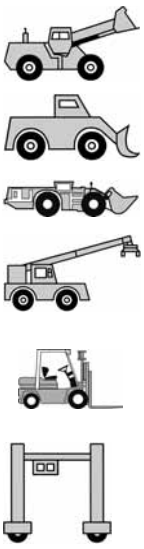
Tyre suitable for sandy ground.

Size	Tread depth (mm)
14.00-20	18

LISSE

Smooth profile that ensures total contact with the ground for maximum loading capacity. Special compound for industrial applications characterised by low heat development, high hourly performance and resistance to the heaviest loads. Excellent pattern with good protection from damages due to its smooth tread and reinforced sidewalls. For mining application and container handling.

The tyres can be retreaded in moulds or in autoclave; please make reference to the sizes listed below.



Mould Retread	L4S	L5S
Size	Tread depth (mm)	
	D1	D2
12.00-24	33	57
14.00-24	38	
14.00-25	38	
15.5-25	37	60
16.00-25	43	71
17.5-25	38	62
18.00-25	45	80
20.5-25	43	71
23.5-25	49	80
26.5-25	53	80
29.5-25	58	90
30/65-29	53	88
775/65-29	53	
875/65-29	51	
29.5-29	58	90

Autoclave	L3S	L4S	L5S
Size	Tread depth (mm)		
	DN	D1	D2
555/70-24	28		
550/65-25	32	41	
555/70-25	32	41	
21.00-25	32	57	
22/65-25	25		
600/65-25	34	44	
650/55-25	37		
850/65-25		47	
26.5-29	40		
800/65-29		53	
33.25-29	45		
18.00-33		52	
21/90-33		52	
21.00-33		52	
35/65-33	44	61	90
33.5-33	47		
37.5-33	47		
21.00-35		52	
24.00-35		64	
29.5-35	45		
33.25-35		65	85
37.25-35	47	53	90
37.5-39	50		90
40/65-39			85
40.5/75-39	49		
41.25/70-39			85
45/65-39			90
45/65-45			90
24.00-49		60	
30.00-51		70	
33.00-51		75	
36.00-51		75	
55/80-57			*
60/80-57			*

*Becoming available

Recaflex-System Retread

Mould retreading or in Autoclave with smooth tread successively regrooved.

Remark to retread in Recaflex-System
The indicated tread depth can vary some millimetres according to the dimension of the casing.

= Groove depth ± 5%

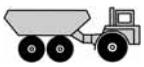
MTS

Tread pattern designed to provide maximum traction. The special tread compound helps ensure high performance on all types of ground, even the most demanding surfaces. Excellent resistance to perforation.

	E3
Size	Tread depth (mm)
	DN
33.25-29	45
37.25-35	47

MLT

Non-directional tread pattern with excellent traction and self-cleaning properties even in extreme conditions, plus exceptional stability.



	E3	E4
Size	Tread depth (mm)	
	DN	D1
850/65-25		47
775/65-29 •		48
800/65-29		48
875/65-29 •		51
33.5-33	47	
37.5-33	47	
29.5-35	45	
37.5-39	50	
40.5/75-39	49	

• Mould Retreading with smooth tread successively regrooved.

MRLS R

Non-directional profile featuring a deep and solid pattern, for use on materials transport vehicles working in open-cut mines/quarries.

Size	E4 Tread depth (mm)
	D1
24.00-49	55
37.00-57	*
40.00-57	*
50/80-57	*
46/90-57	*
50/90-57	*

*Becoming available

MDT R

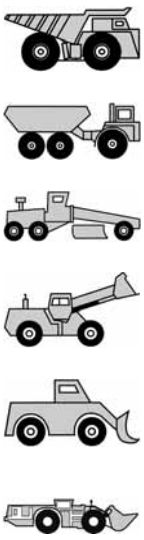
Bi-directional tread design and enlarged base. Particularly suitable for use on dumpers. Excellent self-cleaning features. Ideal for heavy-duty applications, it ensures at the same time high average speeds. Its tread compound is characterised by low heat development, thus ensuring optimum hourly performance.

Size	E4 Tread depth (mm)
	D1
21/90-33	52
21.00-33	52
21.00-35	52
24.00-49	60
30.00-51	70
33.00-51	75
36.00-51	75
37.00-57	*
40.00-57	*
50/80-57	*
46/90-57	*
50/90-57	*

*Becoming available

MDR

Directional tread pattern suitable for any type of terrain, but particularly recommended for rocky ground. The special tread compound ensures maximum resistance to cuts, impacts and tearing

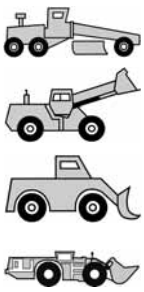


Size	E3, G3, L3	E4, G4, L4	G5, L5
	Tread depth (mm)		
	DN	D1	D2
555/70-24	28		
17.5-25 •		38	62
550/65-25	32	41	
555/70-25	32	41	
20.5-25 •		43	71
21.00-25	32		
22/65-25	25		
600/65-25	34		
650/55-25	37		
23.5-25 •		49	80
26.5-25 •			80
29.5-25 •			90
30/65-29 •		53	88
775/65-29 •		53	
800/65-29		53	
875/65-29 •		51	
29.5-29 •		58	90
35/65-33			95

• *Mould Retreading with smooth tread successively regrooved.*

MRT

Directional tread design with deep and solid pattern and well-protected sidewalls. Especially suitable for heavy-duty uses with particular traction and stability requirements. The special tread compound ensures maximum resistance to cuts, impacts and tears.

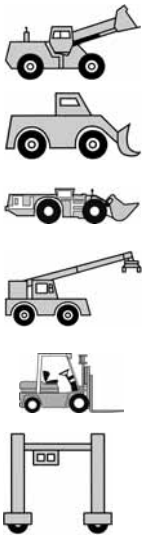


Size	G5, L5
	Tread depth (mm)
	D2
23.5-25 •	80
26.5-25 •	80
29.5-25 •	90
29.5-29 •	90

• *Mould Retreading with smooth tread successively regrooved.*

MINE

Non-directional and specially protected tread pattern. Built with a special compound in order to obtain the highest resistance to cuts and impacts, and an optimum hourly performance. The smooth central part guarantees a very wide contact area with the ground. The buttresses on the shoulder area ensure excellent traction.

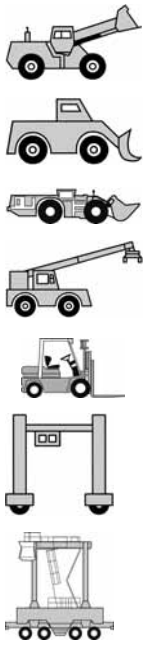


	L3	L4	L5
Size	Tread depth (mm)		
	DN	D1	D2
15.5-25 •		37	60
16.00-25 •		43	71
17.5-25 •		38	62
18.00-25 •		45	80
20.5-25 •		43	71
21.00-25		57	
600/65-25		44	
23.5-25 •		49	80
26.5-25 •		43	80
29.5-25 •		58	90
26.5-29	40		
30/65-29 •		53	88
775/65-29 •		53	
800/65-29		53	
29.5-29 •		58	90
35/65-33		61	90
21.00-35		52	
33.25-35		65	
40/65-39			85
41.25/70-39			85
45/65-39			90
45/65-45		65	90
55/80-57			*
60/80-57			*

*Becoming available

MS

Symmetric tread design, particularly suitable for use on rocky ground and for heavy-duty applications. The special tread compound combines good resistance to cuts, impacts and tearing with optimal hourly performance. Excellent for applications in which the use of chains is necessary.

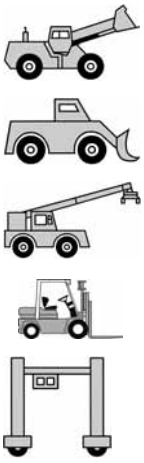


	L4	L5
Size	Tread depth (mm)	
	D1	D2
12.00-24 •	33	57
14.00-24 •	38	
15.5-25 •	37	60
16.00-25 •	43	
17.5-25 •	38	62
18.00-25 •	45	
20.5-25 •	43	71
23.5-25 •	49	80
26.5-25 •	53	80
29.5-25 •	58	90
30/65-29 •	53	88
29.5-29 •	58	90
35/65-33	61	90
21.00-35	52	
33.25-35		85
37/25-35	53	90
37.5-39		90
40/65-39		85
41.25/70-39		85
45/65-39		90
45/65-45	65	90

• *Mould Retreading with smooth tread successively regrooved.*

MAS

Asymmetric tread pattern particularly suitable for use on rocky ground and for heavy-duty applications. The special tread compound combines good resistance to cuts, impacts and tearing with an optimum hourly performance.



	L4	L5
Size	Tread depth (mm)	
	D1	D2
15.5-25 •	37	60
16.00-25 •	43	
17.5-25 •	38	62
18.00-25 •	45	
20.5-25 •	43	71
23.5-25 •	49	80
26.5-25 •	53	80
29.5-25 •	58	90
30/65-29 •	53	88
29.5-29 •	58	90
35/65-33	61	90
21.00-35	52	
40/65-39		85
41.25/70-39		85
45/65-39		90
45/65-45	65	90

• Mould Retreading with smooth tread successively regrooved.

Notes

Notes

MARANGONI™

commercial & industrial tyres