

## MAGNA TYRES PREMIUM QUALITY OTR & INDUSTRIAL TYRES

MAGN

24.00R35 E4

#### GET ALL THE BENEFITS OF MAGNA RADIAL TYRE TECHNOLOGY





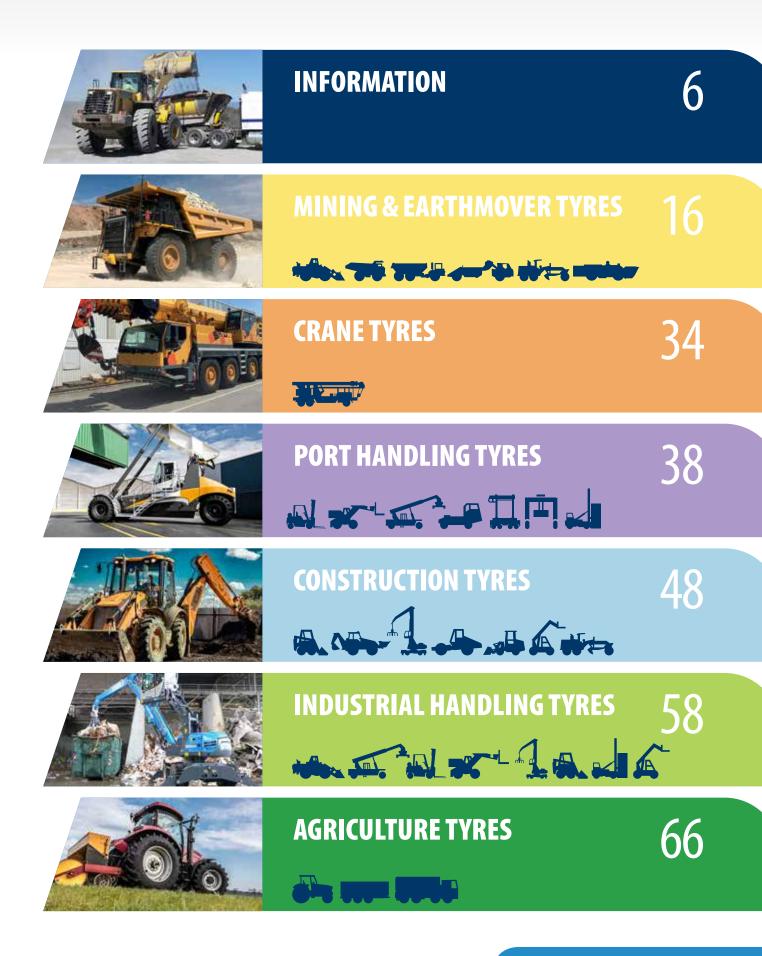
# MAGNA TYRES PREMIUM QUALITY

All over the world, customers of all types of machines have the same ongoing interests:

#### TO INCREASE THEIR PRODUCTIVITY AND TO REDUCE OPERATING COSTS.

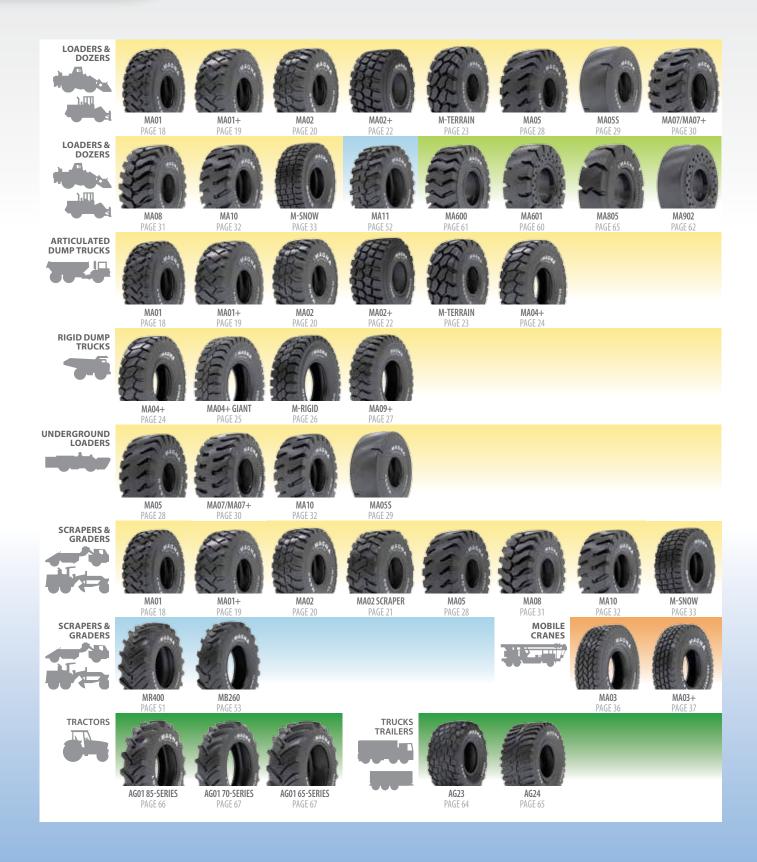
Premium Quality Magna Tyres offer the optimal combination of tyre performance and purchase price, leading to a low cost price per hour/kilometre and a highly efficient operation.

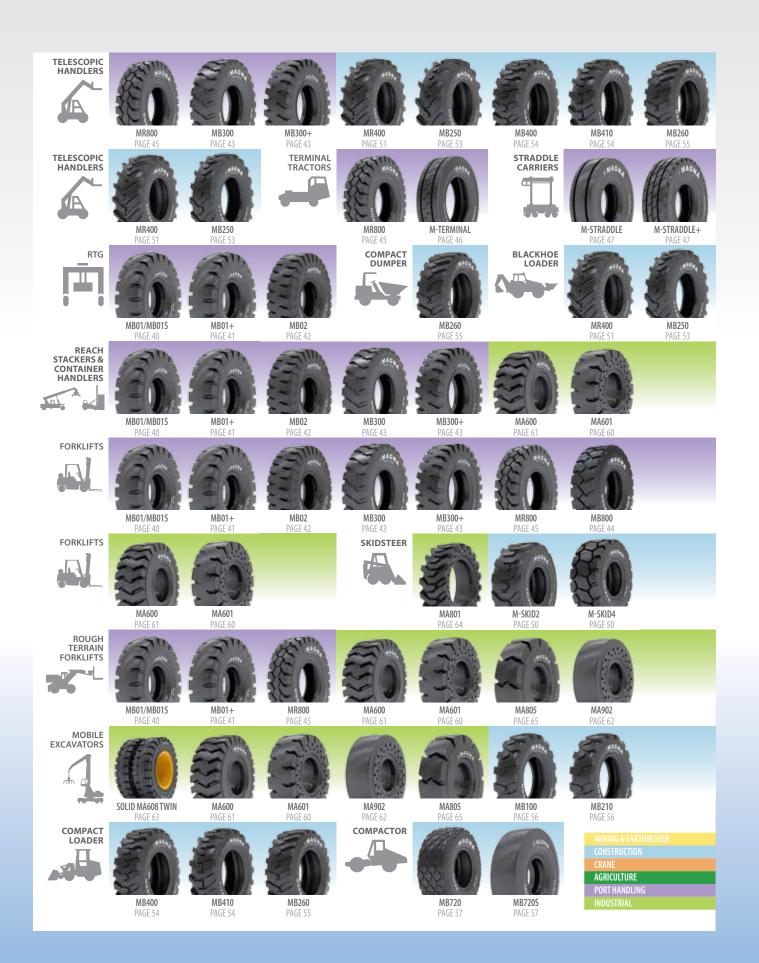
# CONTENTS





# **TYRE RANGE**







In only one decade Magna Tyres Group evolved from a specialist rubber compound producer to a leading tyre manufacturer with 13 sales offices worldwide and tyres running in more than 130 countries across the world.

With the headquarters based in the southern part of the Netherlands, Magna Tyres Group manufactures and distributes an extensive range (E2/L2 up to E4 and L5) of radial, bias and solid tyres for Mining & Earthmover, Industrial, Agricultural, Port Handling and Truck applications.

# VISION

To be a global OTR tyre leader in Mining and Construction, Waste and Recycling, material handling, Port handling and Agriculture.

# MISSION

Our goal is to deliver premium quality products that deliver the lowest total cost of ownership / cost price per hour.



# **OUR SUCCESS**

<text><text><text><text>

# **MAGNA TECHNOLOGY**

# Improved traction through specialized tread design Heavy duty sidewalls guarantee excellent resistance to damage and impacts High-tech casing reduces heat buildup inside the tyre Enhanced Tyre performance due to premium Magna rubber compound



#### GET ALL THE BENEFITS OF MAGNA TYRE TECHNOLOGY

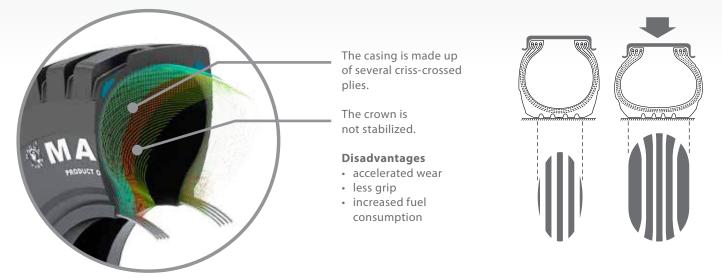


# BIAS VS. RADIAL TYRES

#### **BIAS OR DIAGONAL PLY CONSTRUCTION**

The crown and sidewalls are formed by the same ply structure. The tread is affected by flexing of the sidewalls, resulting in:

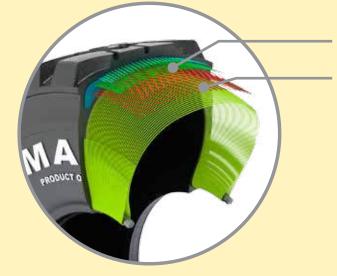
- Deformation of the tyre contact area on the ground
- Movement in the tread contact area
- The casing plies tend to "scissor" in relation to each other



#### **ALL STEEL RADIAL CONSTRUCTION - MULTIFUNCTIONAL**

The sidewall and tread function seperately. The tread is unaffected by the flexing of the sidewalls, so there is:

- less deformation of the tyre contact area on the ground
- less movement in tread contact area
- no movement between casing plies.

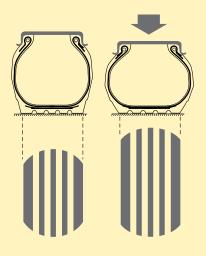


The casing has only one radial ply.

The crown is stabilized by several plies.

#### Advantages

- long tyre life
- better traction on all types of surface
- lower fuel consumption due to lower rolling resistance
- improved comfort
- increased resistance to
- punctures / flatsincreased resistance to heating



## PRODUCT DEVELOPMENT AND R&D

Product development by our R&D department is constantly at the top of our priorities, by:

#### 1) continuously improving our existing tyre range.

#### 2) continuously converting customer demand into new successful tyres.

By using European technology and a premium quality compound our team is always able to come up with the right solutions for our customers demand, and enabled us to become the fastest growing OTR company worldwide.

# **PRODUCT DEVELOPMENT**

Every (1) product improvement or (2) new product starts with an idea on which our R&D department develops an architecture and design. This design is tested and prepared for release management. In this phase everyone who works with Magna products is informed, and is provided with product information, marketing and training. Afterwards the product is released and we start to collect data by testing and requesting feedback from end-users. This is a continuous process as we are continuously improving our tyrerange to guarantee the premium quality Magna customers expect.



### INNOVATION

"Innovation for the benefit of our clients has been the driving force behind our success. It enabled us to become the fastest growing OTR company in the world. Our European technology, premium quality compounds and innovative new tread designs satisfy the needs of our customers. Continual innovation and a flexible approach to achieving the best client-specific solutions satisfy the real needs or our customers and makes us stand out against our competitors, especially in reducing total cost of ownership and cost price per hour."



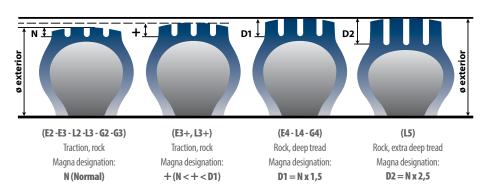
# **TYRE MARKING**



- 1 Manufacturer: Magna Tyres
- Tread pattern: MA02
- **3** Tyre size: 26.5
- (4) Radial construction: R
- 5 Wheel diameter (in inches): 25
- 6 Tra code: E3+

#### DIFFERENT TREAD DEPTHS

There are 4 earthmover tyre families characterized by their different tread depths (or tread height) and which are chosen as a function of their use and the surface conditions.



#### STANDARDIZED USAGE (ISO-ETRTO- TRA-JATMA\*)

The four main categories of earthmover tyres are defined by their user. The category to which it belongs is indicated on the sidewall of the tyre. This is an international classification:

**C** Compactor

**G** Grader

- **E** Earthmoving
- L Loader & bulldozer

Within these categories, there are different tread depths and special tread patterns, for very specific uses. These are identified by a number. They must be chosen according to the type of ground and the tyre's condition of use.

The letter "S" indicates a smooth tread; example: L5S.

- 1 Ribbed (normal tread depth)
- **2** Traction (normal tread depth)
- 3 Normal (normal tread depth)
- 4 Deep (deep tread)
- 5 Very deep (very deep tread)7 Flotation (normal tread)
- \* ISO International Standard Organisation ETRTO European Tyre and Rim Technical Organisation TRA Tire and Rim Association
- JATMA Japan Automobile Tyre Manufacturers Association

Code	Tread pattern	Application
C1	SMOOTH	Compactor
E1	RIBBED	
E2	TRACTION	
E3	ROCK	Transport
E4	ROCK (deep tread)	
E7	FLOTATION	
G1	RIBBED	
G2	TRACTION	
G3	ROCK	Grader
G4	ROCK (deep tread)	
G5	ROCK (very-deep tread)	
L2	TRACTION	
L3	ROCK	
L4	ROCK (deep tread)	
L5	ROCK (very-deep tread)	Loader Bulldozer
L3S	SMOOTH	Dundozel
L4S	SMOOTH (deep tread)	
L5S	SMOOTH (very-deep tread)	

# **TECHNICAL INFORMATION**

#### **SPEED SYMBOL**

Symbol	A2	A6	A8	В	C	D	E	F	G		К	L	М
Speed (km/h)	10	30	40	50	60	65	70	80	90	100	110	120	130
Speed (mph)	6	20	25	30	35	40	45	50	55	60	67	73	80

Examples: 23.5R25 MA02 TL 185 B: This tyre is able to carry 9.250kg at a maximum speed of 50km/h (20.390lb at 30mph).

#### LOAD INDEX (LI) AND MAXIMUM LOAD (KG)

u	Maxim	um load	u	Maxim	um load	u	Maxim	um load	u	Maxim	um load	u	Maxim	um load
	kg	lb		kg	lb		kg	lb		kg	lb		kg	lb
115	1.215	2.678	146	3.000	6.610	177	7.300	16.090	208	18.000	39.690	239	43.750	96.470
116	1.250	2.755	147	3.075	6.780	178	7.500	16.530	209	18.500	40.790	240	45.000	99.210
117	1.285	2.832	148	3.150	6.950	179	7.750	17.090	210	19.000	41.890	241	46.250	101.960
118	1.320	2.910	149	3.250	7.170	180	8.000	17.640	211	19.500	43.000	242	47.500	104.720
119	1.360	2.998	150	3.350	7.390	181	8.250	18.1 90	212	20.000	44.100	243	48.750	107.470
120	1.400	3.090	151	3.450	7.610	182	8.500	18.740	213	20.600	45.420	244	50.000	110.250
121	1.450	3.200	152	3.550	7.830	183	8.750	19.290	214	21.200	46.750	245	51.500	113.540
122	1.500	3.310	153	3.650	8.050	184	9.000	19.840	215	21.800	48.070	246	53.000	117.950
123	1.550	3.420	154	3.750	8.270	185	9.250	20.390	216	22.400	49.390	247	54.500	120.150
124	1.600	3.530	155	3.875	8.540	186	9.500	20.940	217	23.000	50.700	248	56.000	123.480
125	1.650	3.640	156	4.000	8.820	187	9.750	21.500	218	23.600	52.040	249	58.000	127.890
126	1.700	3.750	157	4.125	9.090	188	10.000	22.050	219	24.300	53.580	250	60.000	132.300
127	1.750	3.860	158	4.250	9.370	189	10.300	22.710	220	25.000	55.120	251	61.500	135.580
128	1.800	3.970	159	4.375	9.650	190	10.600	23.370	221	25.750	56.780	252	63.000	138.890
129	1.850	4.080	160	4.500	9.920	191	10.900	24.030	222	26.500	58.430	253	65.000	143.300
130	1.900	4.190	161	4.625	10.200	192	11.200	24.690	223	27.250	60.070	254	67.000	147.710
131	1.950	4.300	162	4.750	10.470	193	11.500	25.360	224	28.000	61.740	255	69.000	152.120
132	2.000	4.410	163	4.875	10.750	194	11.800	26.020	225	29.000	63.940	256	71.000	156.530
133	2.060	4.540	164	5.000	11.020	195	12.150	26.790	226	30.000	66.150	257	73.000	160.930
134	2.120	4.670	165	5.150	11.350	196	12.500	27.560	227	30.750	67.790	258	75.000	165.340
135	2.180	4.810	166	5.300	11.690	197	12.850	28.330	228	31.500	69.460	259	77.500	170.660
136	2.240	4.940	167	5.450	12.020	198	13.200	29.100	229	32.500	71.660	260	80.000	176.400
137	2.300	5.070	168	5.600	12.350	199	13.600	29.990	230	33.500	73.870	261	82.500	181.880
138	2.360	5.200	169	5.800	12.790	200	14.000	30.870	231	34.500	76.070	262	85.000	187.390
139	2.430	5.360	170	6.000	13.230	201	14.500	31.970	232	35.500	78.280	263	87.500	192.900
140	2.500	5.510	171	6.150	13.560	202	15.000	33.070	233	36.500	80.480	264	90.000	198.450
141	2.575	5.680	172	6.300	13.890	203	15.500	34.180	234	37.500	82.690	265	92.500	203.920
142	2.650	5.840	173	6.500	14.330	204	16.000	35.280	235	38.750	85.430	266	95.000	209.440
143	2.725	6.010	174	6.700	14.770	205	16.500	36.380	236	40.000	88.200	267	97.500	214.950
144	2.800	6.170	175	6.900	15.210	206	17.000	37.480	237	41.250	90.940	268	100.000	220.500
145	2.900	6.390	176	7.1 00	15.650	207	17.500	38.590	238	42.500	93.710	269	103.000	227.370

## PLY RATINGS

This is a measurement of the strength of the Radial Casing Ply vs. Bias Ply Tyres.

Sizes and marking	Work machines	Transport machines	Sizes and marking	Work machines	Transport machines	Sizes and marking	Work machines	Transport machines
7.50 R 15	12		17.5 R 25 *	16		33.25 R 29 **		44
8.25 R 15	12		17.5 R 25 **	20	24	18.00 R 33 **		40
18 R 19.5 *	16		18.00 R 25 *	24		33.5 R 33 **		44
10.00 R 20	16		18.00 R 25 **		36	35/65 R 33 *	36	
C20 Pil (11/80 R 20)	16		20.5 R 25 *	24		37.5 R 33 **		48
E20 (13./80 R 20)			20.5 R 25 **		28	21.00 R 35 **		44
15 R 22.5 *	16		21.00 R 25 **		40	24.00 R 35 **		48
18 R 22.5 *	16		23.5 R 25 *	28		29.5 R 35 **		40
12.00 R 24 ***	24	24	23.5 R 25 **		32	33.25 R 35 **		44
13.00 R 24 TG *	14		25/65 R 25 **		32	37.25 R 35 **		48
14.00 R 24 TG *	16		26.5 R 25 *	32		37.5 R 39 **		52
14.00 R 24	24		26.5 R 25 **		32	40/65 R 39 *	42	
14.00 R 24 ***	28	32	29.5 R 25 *	34		40.5/75 R 39 **		54
15.00 R 24 (17/80 R 24)	28		29.5 R 25 **		34	45/65 R 39 * (1)		
16.00 R 24 TG *	16	16	555/70 R 25 * L2F	16		45/65 R 45 *	50	
16.00 R 24 **		36	555/70 R 25 * L3T or L4T	24		24.00 R 49 **		48
555/70 R 24 TG *	16		625/70 R 25 *	28		27.00 R 49 **		54
20 R 24 TG *	16		705/70 R 25 *	32		30.00 R 51 **		64
13.00 R 25 ***		28	750/65 R 25 *	34		33.00 R 51 **		68
14.00 R 25 ***		32	26.5 R 29 **		34	36.00 R 51 **		74
15.5 R 25 *	16		29.5 R 29 *	34		37.00 R 57 ** (1)		
15.5 R 25 **	20		29.5 R 29 **		40	40.00 R 57 **		78
16.00 R 25 **		36	30/65 R 29 *	28		55/80 R 57 * (1)	80	

#### **CLASSIFICATION ACCORDING TO ASPECT RATIO**

The wide diversity of earthmover machines and their uses requires the development of numerous ranges of tyres. Earthmover tyres differ from those mounted on cars or commercial vehicles by:

- Their size and weight
- Their tread depths are proportionally greater
- · More reinforcements to deal with the harsher conditions of use

There are several families of earthmover tyres, characterized by their aspect ratio H/S (ratio between the height of the sidewall H and the section width of the tyre S).

Tyres for large loaders,

90 series 80 series 65 series 100 series 70 series (standard) (standard) (standard) (standard) (standard) The H/S ratio is approximately 1 approximately 0.90 approximately 0.80 approximately 0.70 approximately 0.65 H 5 : 100 H :9 H :80 н expressed as a whole pressed as a whole number expressed as a whole expressed in: expressed as a whole of inches followed by the number of inches. number of inches or a number of inches or a Examples: 8.25R15, 20.5R25 Examples: 5.00R8, 18.00R33 • Whole number of inches, Example: 50/90 R57 followed by the number 80 by the number 70. by the number 65. Tyres for rigid trucks Examples: 59/80 R63 Example: 420/70R28 trucks, handling equipment, etc. Tyres for rigid trucks,

articulated dumpers, loaders,

handling equipment, etc.

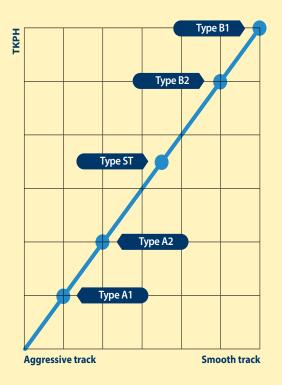
**TECHNICAL INFORMATION** 

## COMPOUND & TKPH

TYPE A1	Particularly resistant to cuts, tread tearing and abrasion on very rough surfaces.	TKPH minimum
TYPE A2	Particularly resistant to cuts, tread tearing and abrasion at average speeds which are higher than those for A+ (above).	low TKPH
TYPE ST	Compromise solution between abrasion resistance and average speed on rough surfaces.	average TKPH
TYPE B2	Adapted to running on long cycles at high speeds on well-maintained roads.	high TKPH
TYPE B1	Very high resistance to high average speeds on long cycles run on well-maintained roads.	very high TKPH

#### **EXAMPLE**

				Max.	Load/	Single					Tyre			TKPH		
Tyre size	Pattern	Load symbol	Tra code	speed (km/h)	speed index	max. load/ pressure	Rim	OD (mm)	SW (mm)	TD (mm)	weight (kg)	A1	A2	ST	B2	B1
27.00R49	MA04+	**	E4	50	223B	27250 kg / 6.5 bar	19.50/4.0	2690	740	82	1600	392	465	500	535	625



# **TYRES TKPH**

The TKPH (Ton Kilometre Per Hour) or TMPH (Ton Mile Per Hour) is an essential expression of the working capacity of a tyre, depending of a maximum operating temperature allowable.

A tyre's TKPH (TMPH) depends on its design and varies according to size and type.

TKPH (TMPH) values are given along with other Magna tyre characteristics. It is a function of load of each tyre and the number of kilometres (miles) covered per hour by each type of tyre, and are given at an ambient temperature of 38° C (100° F).

For the same size and same pattern, there may be several types of tread compound, each associated with a different TKPH.



## **LEADING CAUSES OF TYRE DAMAGE**

Tyre damage is often caused by simple, easily avoidable user errors. Maintaining the **right inflation pressure (1)**, with the appropriate **heat build-up (2)** within the tyre is the most important step to a prolonged tyre life. Of course regular **vehicle maintenance (3)** and selecting the right tyre for the **appropriate application (4)** is also necessary to ensure low costs per kilometer.

#### **1. INFLATION PRESSURE**

The weight of the load is carried by the air within the tyre, not the tyre itself. Maintaining the correct inflation pressure is absolutely necessary to guarantee the tyre's performance. Pressure should always be set to, and maintained at the maximum load- / -pressure specification.

#### **COMMON MISTAKES**

- Under inflation causes excessive deflection in the tyre, increasing the heat level and leading to premature tyre failure.
- Over inflation restricts the natural deflection of the tyre, leading to premature tyre failure.

#### **SOLUTIONS**

- Check the appropriate maximum load- / -pressure ratio of a tyre and then calculate the best combination for your use. A lower inflation pressure limits load capacity.
- Pressure should be checked at regular intervals.
- Underinflation and over inflation should be avoided.



#### 2. HEAT BUILD UP

Heat is the tyre's worst enemy and is caused by several factors. As a tyre rotates under the weight of a vehicle and its load, it repeatedly deforms and recovers, which generates lots of energy. When this energy is released, heat builds up, making it more susceptible to wear, cuts and structural fatigue, which results in reduced tyre lifetime. The amount of heat build-up is determined by several factors including:

- Under-inflation
- Overloading
- High speeds
- Harsh breaking
- **COMMON MISTAKES (HEAT BUILD UP)**
- Under-inflation and Over --inflation
- Exceeding the load capacity of a tyreDriving at a higher speed than the
- designated load / speed capacity
- Non-professional driving style, with harsh

#### **SOLUTION (HEAT BUILD UP)**

- Underinflation and over-inflation should be avoided
- Ensure the vehicle carries no more than the appropriate load capacity and drives at the corresponding speed
- Gradients in the road shouldn't exceed 5%-6% and should be maintained regularly
- Maintain a professional driving style to ensure a prolonged tyre life

breaking and aggressive cornering

• Poorly designed or badly maintained roads

Aggressive cornering

Seasonal influences

• Working outside tyre specs

- Neglected road maintenance or poor road design
- Not taking into consideration seasonal effects

#### **3. VEHICLE MAINTENANCE** Finally, vehicle maintenance is another important factor for an efficient use. The machine's performance can cause sever

an efficient use. The machine's performance can cause severe damage to its tyres. Neglecting regular vehicle maintenance can severely reduce tyre life and increase its running cost.

#### **COMMON MISTAKES**

- Misalignment causing tread separation, increased and- / -or irregular tread wear, tyre vibration
- Broken suspension, increased and- / -or irregular tread wear
- Fuel and oil leaks damage to the rubber compound which shortens tyre life

#### **SOLUTIONS**

Always ensure regular vehicle
maintenance



#### 4. SELECTING THE RIGHT TYRE

Selecting the right tread pattern will extend the tyre life significantly. Your Magna Tyres representative can assist you by making this selection.

**TREAD PATTERN** – The tread pattern is designed to produce varying degrees of traction, cut, flotation, wear and heat resistance.

**TYRE CONSTRUCTION** – Radial – Bias – Solid construction offer various advantages and disadvantages according you specific applications.

**COMPOUND & TKPH** – Compound and TKPH determines tyre life can affect the lifespan of a tyre.

LOAD- SPEED INDEX - operate at the proper loading capacity.





## QUALITY MANAGEMENT AND CONTROL

Quality Management and control processes are extensively documented in order to continuously improve our products.

# **QUALITY MANAGEMENT**

To achieve the desired premium quality we maintain a 6-step quality management approach.

- 1. First we identify the requirements.
- 2. We design and develop a tyre which meets the requirements as defined in step 1.
- 3. The design gets validated by product development, R&D department and directors and we start working towards product launch.
- 4. Production starts.
- 5. The Tyre performance is constantly monitored by on site tests and collection of customer feedback.
- 6. This cycle is constantly repeated since we continuously want to improve.



# **CONTINUOUS IMPROVEMENT**

In order to continuously improve our tyre range we implemented a Quality Control process.

- 1. First a quality improvement should be created, this can be done by either the sales department, R&D department or one of the directors. Customers are able to provide their input through their personal contactperson.
- 2. A Quality "order" is created containing all the information required to evaluate the performance
- 3. Our existing performance database is consulted
- 4. Non-conformances are quickly detected
- 5. Correlation of the non-conformance and improvement are investigated
- 6. If the improvement is accepted in the previous step, it gets documented and transferred to the stakeholders
- 7. Correction Handling is being carried out





# MINING & EARTHMOVER TYRES

premium quality tyres especially designed for the most severe applications.



## MAGNA MINING & EARTHMOVER TYRES



## **MINING & EARTHMOVER TYRE RANGE**

,HAG	JAG,	ALE NACH	AGA HAGA
MA01 E3/L3	MA01+ G3/E3/L3	MA02 E3+/L3+	MA02 SCRAPER E3
17.5R25 20.5R25 23.5R25 PAGE 18	17.5R25     26.5R25       20.5R25     29.5R25       23.5R25     PAGE 19	23.5R25 26.5R25 29.5R25 PAGE 20	29.5R29 33.25R29 37.25R35 PAGE 21
AT ALL	For share	EF Magn	TE WADN.
MA02+E3+/L3+	M-TERRAIN E4/L4	MA04+E4	MA04+ GIANT E4
750/65R25 875/65R29 PAGE 22	23.5R25 750/65R25 26.5R25 875/65R29 29.5R25 800/80R29 PAGE 23	14.00R25 21.00R33 18.00R25 24.00R35 18.00R33	27.00R49 50/80R57 33.00R51 46/90R57 37.00R57 59/80R63 40.00R57 PAGE 25
STATION AND	S		
M-RIGID E4	MA09+ E4	MA05 LS	MA05SL5S
27.00R49 33.00R51 40.00R57 PAGE 26	30.00R51 36.00R51 PAGE 27	17.5R25 26.5R25 29.5R25 PAGE 28	17.5R25 29.5R25 18.00R25 29.5R29 26.5R25 PAGE 29
	5	UAD.	HE WAG
MA07/MA07+L4/L5	MA08 L4/L5	MA10 L5	M-SNOW G2/L2
35/65R33 35/65R33 26.5R25	20.5R25 29.5R25 23.5R25 35/65R33 26.5R25 35/65R33 PAGE 31	20.5R25 23.5R25 PAGE 32	17.5R25 20.5R25 23.5R25 PAGE 33



#### MAGNA MAO1 E3/L3

The Magna MA01 is designed for use on wheel loaders, dozers, scrapers, graders and articulated dump trucks.

The tread compound provides excellent protection against cutting and abrasion.



Aggressive E3/L3 non-directional tread pattern provides superior traction in soft underfoot.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.







Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
17 5005	MA01	**	E3	50	167B	5450 kg/5.25 bar	14.00/1.5	1246	457	27	157
17.5R25	MAUT		L3	10	182A2	8500 kg/6.5 bar	- 14.00/1.5	1346	457	27	157
	MA01	**	E3	50	177B	7300 kg/5.25 bar	17.00/2.0	1472	522	21	221
20.5R25	MA01		L3	10	193A2	11500 kg/6.5 bar	- 17.00/2.0	1473	533	31	231
22 5025	144.01	**	E3	50	185B	9250 kg/5.25 bar	10 50/2 5	1(25	(00	26	227
23.5K25	3.5R25 MA01 **		IA01 ** L3		201A2	14500 kg/6.5 bar	- 19.50/2.5	9.50/2.5 1625	609	36	336



#### ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL

## MINING & EARTHMOVER

#### MAGNA MA01+ E3/L3

The Magna MA01+ is designed for use on wheel loaders, dozers, scrapers, graders and articulated dump trucks.

The tread compound provides excellent protection against cutting and abrasion.



Aggressive E3/L3 non-directional tread pattern provides superior traction in soft underfoot.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.







Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
17.5R25	MA01+	**	E3	50	167B	5450 kg/5.25 bar	- 14.00/1.5	1350	445	27	tba
17.31\Z3	MAUT		L3	10	182A2	8500 kg/6.5 bar	14.00/ 1.3	1330	44J	27	lua
20.5R25	MA01+	**	E3	50	177B	7300 kg/5.25 bar	17.00/2.0	1490	520	33	235
20.3623	IMAU I+		L3	10	193A2	11500 kg/6.5 bar	17.00/2.0	1490	520	22	200
23.5R25	MA01+	**	E3	50	185B	9250 kg/5.25 bar	- 19.50/2.5	1615	595	36	316
25.5625	IMAU I+		L3	10	201A2	14500 kg/6.5 bar	19.30/2.3	CI 01	292	20	210
26.5R25	MA01+	**	E3	50	193B	11500 kg/5.25 bar	22.00/2.0	1750	(75	37	420
20.3K23	MAU I+		L3	10	209A2	18500 kg/6.5 bar	22.00/3.0	1750	675	57	439
29.5R25	MA01+	**	E3	50	200B	14000 kg/5.25 bar	- 25.00/3.5	1875	750	43	599
29.3K23	IVIA01+		L3	10	216A2	22400 kg/6.5 bar	25.00/3.5	10/0	/50	45	222



#### MAGNA MAO2 E3+/L3+

The Magna MA02 is designed for use on wheel loaders, articulated dump trucks, scrapers and dozers.

Sidewall protection and flotation are enhanced by the wide shoulder design.



Improved traction and performance through nondirectional E3+/L3+ tread.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.







Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
	MA02	**	E3+	50	185B	9250 kg/5.0 bar	10 50/2 5	1()(	(10	41	250
23.5R25	MA02		L3+	10	201A2	14500 kg/6.5 bar	- 19.50/2.5	1626	610	41	350
26.5R25	MA02	**	E3+	50	193B	11500 kg/5.0 bar	- 22.00/3.0	1754	695	41	440
20.3K23	MAUZ		L3+	10	209A2	18450 kg/6.5 bar	- ZZ.00/5.0	1/04	090	41	449
20 5025	MA02	** .	E3+	50	200B	13950 kg/5.0 bar		10.00	740	4.4	507
29.5R25	5R25 MA02 **		L3+	10	216A2	22350 kg/6.5 bar	- 25.00/3.5	1868	748	44	597



#### MAGNA MAO2 SCRAPER E3+

ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL

The Magna MA02 Scraper tyre is designed for use on scrapers.

The special rock design and reinforced sidewall offers excellent protection against cutting and abrasion on all-terrain.



Improved traction and performance through non-directional E3 tread pattern

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max.load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	ТКРН	Tyre weight (kg)
29.5R29	MA02 Scraper	**	E3+	50	202B	15000 kg/5.25 bar	25.00	1990	770	50	348	758
33.25R29	MA02 Scraper	**	E3+	50	209B	18500 kg/5.25 bar	27.00	2060	920	45	429	872
37.25R35	MA02 Scraper	**	E3+	50	218B	23600 kg/5.25 bar	31.00	2360	945	47	545	1213



#### MAGNA MAO2+ E3+/L3+

Magna MA02+ is designed for use on loaders and articulated dump trucks.

The special compound and reinforced sidewall ensures excellent protection against cutting, puncture and wear abrasion.



The E3+/L3+, self-cleaning tread design provides excellent traction and stability on the most demanding surfaces.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max.load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
750/65R25	MA02+	**	E3+	50	190B	10600 kg/4.25 bar	24.00	1585	740	40	672
/50/05KZ5	MAU2+		L3+	10	202A2	15000 kg/4.75 bar	24.00	1202	/40	40	0/2
075/65020	MA02 -	**	E3+	50	203B	15500 kg/4.75 bar	27.00	1050	950	40	700
875/65R29	5R29 MA02+ **	MA02+ ** -		10	214A2	21200 kg/4.75 bar	- 27.00	1850	850	48	792



#### ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL

## MINING & EARTHMOVER

#### MAGNA M-TERRAIN E4/L4

The Magna M-Terrain is designed for articulated dump trucks in challenging offroad conditions.

Sidewall protection and flotation are enhanced by the wide shoulder design.



Improved traction and performance through non-directional E4 tread.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
23.5R25	M-Terrain	**	E4	50	185B	9250 kg/5.25 bar	- 19.50/2.5	1675	595	53	317
23.3K23	M-lerrain		L4	10	195A2	12150 kg/5.25 bar	- 19.50/2.5	10/5	265	23	51/
26.5R25	M-Terrain	**	E4	50	193B	11500 kg/5.25 bar	- 22.00/3.0	1800	675	56	507
20.3KZ3	W-Terrain		L4	10	202A2	15000 kg/5.25 bar	22.00/3.0	1000	0/0	20	507
29.5R25	M-Terrain	**	E4	50	200B	14000 kg/5.25 bar	- 25.00/3.5	1875	750	59	652
29.3KZ3	M-lendin		L4	10	208A2	16500 kg/5.25 bar	- 23.00/3.3	10/0	/50	29	052
750/65R25	M-Terrain	**	E4	50	190B	10600 kg/5.25 bar	- 24.00/3.0	1610	754	53	360
/30/03KZ3	W-Terrain		L4	10	209A2	18500 kg/5.25 bar	24.00/3.0	1010	/34	22	200
875/65R29	M-Terrain	**	E4	50	203B	15500 kg/5.25 bar	- 28.00/3.5	1922	879	59	725
0/J/03KZ9	WI-Terrain		L4	10	214A2	21200 kg/5.25 bar	20.00/3.3	1922	0/9	29	125
000/00000	M-Terrain	**	E4	50	206B	17000 kg/5.25 bar	- 27.00/3.5	2000	792	69	TBA
800/80R29	IVI-IELLQIU		L4	10	217A2	23000 kg/5.25 bar	27.00/3.5	2000	192	09	IDA



#### MAGNA MA04+ E4

The Magna MA04+ is designed for rigid dump trucks operating in severe off-road conditions.

It provides excellent resistance to damage due to improved shoulder and sidewall protection and is also available in various compounds.



The deep aggressive E4 pattern provides traction and long tread life.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.







				Max.	Load/	Single		Overall	Section	Tread	Tyre		TKPH	
Tyre size	Pattern	Load symbol	Tra code	speed (km/h)	speed index	max.load/ pressure	Rim	diameter (mm)	width (mm)	depth (mm)	weight (kg)	А	ST	В
14.00R25	MA04+	***	E4	50	169B	5800 kg/7.0 bar	10.00/1.5	1420	375	38	192	115	138	N/A
18.00R25	MA04+	**	E4	50	185B	9250 kg/7.0 bar	13.00/2.5	1675	500	51	385	180	224	256
18.00R33	MA04+	**	E4	50	191B	10900 kg/7.0 bar	13.00/2.5	1875	500	54	460	196	240	280
21.00R33	MA04+	**	E4	50	200B	14000 kg/7.0 bar	15.00/3.0	2005	570	54	567	245	290	N/A
24.00R35	MA04+	**	E4	50	209B	18500 kg/7.0 bar	17.00/3.5	2175	655	65	767	324	373	396



#### ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL

## MINING & EARTHMOVER

#### MAGNA MAO4+ GIANT E4

The Magna MA04+ GIANT is designed for rigid dump trucks operating in severe off-road conditions.

It provides excellent resistance to damage due to improved shoulder and sidewall protection and is also available in various compounds.



The deep aggressive E4 pattern provides traction and long tread life.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





				Max.	Load/	Single					Tyre			ТКРН		
Tyre size	Pattern	Load symbol	Tra code	speed (km/h)	speed index	max.load/ pressure	Rim	OD (mm)	SW (mm)	TD (mm)	weight (kg)	A1	A2	ST	B2	B1
27.00R49	MA04+	**	E4	50	223B	27250 kg / 6.5 bar	19.50/4.0	2690	740	82	1600	392	465	500	535	625
27.00R49	MA04+A	**	E4	50	223B	27250 kg / 6.5 bar	19.50/4.0	2690	740	82	1600	353	420	450	480	562
33.00R51	MA04+	**	E4	50	235B	38750 kg / 6.5 bar	24.00/5.0	3030	920	95	2341	431	496	565	634	724
37.00R57	MA04+	**	E4	50	246B	53000 kg / 7.25 bar	27.00/6.0	3440	1050	99	3350	682	800	880	960	1111
40.00R57	MA04+	**	E4	50	250B	60000 kg / 7.25 bar	29.00/6.0	3560	1130	99	3830	631	750	805	860	1006
40.00R57	MA04+C	**	E4	50	250B	60000 kg / 7.25 bar	29.00/6.0	3560	1130	93	4020	733	875	930	993	1161
46/90R57	MA04+	**	E4	50	252B	63000 kg / 7.0 bar	29.00/6.0	3560	1180	98	4020	696	816	898	980	1134
50/80R57	MA04+	**	E4	50	257B	73000 kg / 6.0 bar	34.00/5.0	3620	1266	95	4200	715	780	980	1180	1305
59/80R63	MA04+	**	E4	50	268B	100000 kg / 6.0 bar	44.00/5.0	4026	1480	88	5960	1093	1216	1476	1736	1940



#### MAGNA M-RIGID E4

The Magna M-RIGID is an E4 tyre specially designed for Rigid Dump Trucks operating in the most demanding off-roadconditions.

The innovative & brand new tread design has a reduced tread wear rate and achieves an exceptional tyre lifespan.



The deep non-directional E4 tread pattern provides excellent traction & protection against cuts and damages.



All steel radial construction with an optimized load performance and operator comfort.





				Max.	Load/	Single					Tyre			ТКРН		
Tyre size	Pattern	Load symbol	Tra code	speed (km/h)	speed index	max.load/ pressure	Rim	OD (mm)	SW (mm)	TD (mm)	weight (kg)	A1	A2	ST	B2	B1
27.00R49	M-RIGID	**	E4	50	223B	27250 kg / 6.5 bar	19.50/4.0	2690	740	82	1600	392	465	500	535	625
33.00R51	M-RIGID	**	E4	50	235B	38750 kg / 6.5 bar	24.00/5.0	3030	920	95	2341	431	496	565	634	724
40.00R57	M-RIGID	**	E4	50	250B	60000 kg / 7.25 bar	29.00/6.0	3560	1130	99	3830	631	750	805	860	1006



#### MAGNA MA09+ E4

The Magna MA09+ is designed for use on large dump trucks operating in the most severe mining and quarry applications. The reinforced sidewall and massive tread blocks provides maximum protection against cuts and damages.

ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL



Deep E4 Tread pattern provides resistance to cutting, chipping and shock damage and enhances tyre life.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





_			_	Max.	Load/	Single		Overall		Tread	Tyre			ТКРН		
Tyre size	Pattern	Load symbol	Tra code	speed (km/h)	speed index	max.load/ pressure	Rim	diameter (mm)	width (mm)	depth (mm)	weight (kg)	A1	A2	ST	B2	B1
30.00R51	MA09+	**	E4	50	230B	33500 kg/6.5 bar	22.00/4.5	2878	845	75	1840	456	536	588	643	744
36.00R51	MA09+	**	E4	50	241B	46250 kg/6.5 bar	26.00/5.0	3194	990	83	2640	631	740	814	888	1028



# MAGNA MAO5

The Magna MA05 is designed for extreme loader applications in surface mines, quarries, scrap yards and for underground mine transport.

The crown and sidewall are reinforced to prevent damage and to extend tyre life in severe operating conditions.



The extra deep L5 rock tread and reinforced shoulders and sidewalls prevent damage in severe operating conditions.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
17.5R25	MA05	**	L5	6	182A2	8500 kg/6.5 bar	14.00/1.5	1397	470	65	251
26.5R25	MA05	**	L5	10	209A2	18500 kg/6.5 bar	22.00/3.0	1797	690	91	660
29.5R25	MA05	**	L5	10	216A2	22400 kg/6.5 bar	25.00/3.5	1905	775	100	838



#### ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL

## MINING & EARTHMOVER

# MAGNA MAO5S

The Magna MA05S is designed for use in surface mines, quarries, scrap yards and for underground mine transport where durability is more important than traction.

Special cut-resistant compounds and a deep tread are used to further increase tyre life.



Smooth pattern to exclude trapping of rocks or tear chunks.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
17.5R25	MA05S	**	L5S	10	182A2	8500 kg/6.5 bar	14.00/1.5	1400	445	66	302
18.00R25	MA05S	***	L5S	10	206A2	17000 kg/ 8.25 bar	13.00/2.5	1675	500	82	478
26.5R25	MA05S	**	L5S	10	209A2	18500 kg/ 6.5 bar	22.00/3.0	1800	675	94	801
29.5R25	MA05S	**	L5S	10	216A2	22400 kg/ 6.5 bar	25.00/3.5	1921	750	100	961
29.5R29	MA05S	**	L5S	10	218A2	23600 kg/ 6.5 bar	25.00/3.5	2023	750	100	1007



#### MAGNA MAO7/MAO7+ L4/L5

The Magna MA07/MA07+ is designed for use on wheel loaders, dozers and underground transport.

Medium lug, cut resistant compound and reinforced crown and sidewall.



The L4/L5 tread pattern protects against tears, wear and cuts while providing stability, comfort and traction.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
26.5R25	MA07	**	L4	10	209A2	18500 kg/6.5 bar	22.00/3.0	1800	690	52	490
35/65R33	MA07	**	L5	10	223A2	27250 kg/6.5 bar	28.00/3.5	2056	934	98	1040
35/65R33	MA07+	***	L5	10	229A2	32500 kg/6.5 bar	28.00/3.5	2080	890	97	1093



#### ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL

## MINING & EARTHMOVER

#### MAGNA MAO8 L4/L5

The Magna MA08 is designed for use on wheel loaders, dozers and graders requiring maximum traction.

The optimized square-shouldered design provides stability and protection from cuts.



The aggressive L5 open tread pattern provides grip and traction.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max.load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
20.5R25	MA08	**	L5	10	193A2	11500 kg/6.5 bar	17.00/2.0	1548	521	72	365
23.5R25	MA08	**	L5	10	201A2	14500 kg/6.5 bar	19.50/2.5	1673	597	78	475
26.5R25	MA08	**	L5	10	209A2	18500 kg/6.5 bar	22.00/3.0	1800	673	87	632
29.5R25	MA08	**	L5	10	216A2	22400 kg/6.5 bar	25.00/3.5	1921	750	95	866
29.5R29	MA08	**	L5	10	218A2	23600 kg/6.5 bar	25.00/3.5	2023	750	95	889
35/65R33	MA08	**	L4	10	224A2	28000 kg/6.5 bar	28.00/3.5	2075	880	63	919
35/65R33	MA08	**	L5	10	224A2	28000 kg/6.5 bar	28.00/3.5	2075	880	97	1079



# MAGNA MA10

The Magna MA10 is designed for extreme loader applications in surface mines, quarries, scrap yards and underground mines.

Optimal stability and operating comfort are enhanced by the wide footprint and center rib.



Extra deep L5 tread pattern for excellent traction in the most severe circumstances.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load/ speed index	Single max. load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)	Tyre weight (kg)
20.5R25	MA10	**	L5	10	193A2	11500 kg/6.5 bar	17.00/2.0	1549	533	72	354
23.5R25	MA10	**	L5	10	201A2	14500 kg/6.5 bar	19.50/2.5	1676	609	78	451



#### ALL STEEL RADIAL CONSTRUCTION MULTIFUNCTIONAL

# MINING & EARTHMOVER

#### MAGNA M-SNOW G2/L2

The Magna M-Snow is designed for use on loaders and graders running on slippery surfaces such as mud and snow, where optimized traction is required.

Improved tread pattern for increased traction and performance for various applications and wheel positions.



Open and self cleaning tread pattern with separate tread blocks and multiple sipes for excellent traction.

All steel radial construction. Improved protector plies optimize load performance and operator comfort.





Tyre size	Pattern	Load symbol	Tra code	Max. speed (km/h)	Load speed/ index	Single max load/ pressure	Rim	Overall diameter (mm)	Section width (mm)	Tread depth (mm)
17 50 25	M SNOW	**	G2	40 km/h	162A8	4750 kg/4.5 bar	14.00/1.5	1350	445	28
17.5K25	17.5R25 M-SNOW		L2	10 km/h	182A2	8500 kg/6.5 bar	14.00/ 1.3	1220	440	20
20 5025	20.5R25 M-SNOW	**	G2	40 km/h	170A8	6000 kg/4.5 bar	17.00/2.0	1490	520	31
20.3h23			L2	10 km/h	193A2	11500 kg/6.5 bar	17.00/2.0	1490	520	10
23.5R25	5R25 M-SNOW	**	G2	40 km/h	179A8	7750 kg/4.5 bar	19.50/4.0	1615	595	34
20.0KZ0	WU9121WUW		L2	10 km/h	201A2	14500 kg/6.5 bar	19.50/4.0	CLOI	265	54