



# Nokian mining tyres

The world of mining tyres is rough. Uneven surfaces with sharp edges require tyres that offer extreme durability and high load-bearing capacity. Particularly for mining tyres, we have developed the CCR (cut and crack resistant) rubber compound that enhances demanding transportation and mining tasks. The sturdy and stable tyres for mine loaders, drill rigs and various other mining equipment guarantee a long service life.

## Mining tyres includes:

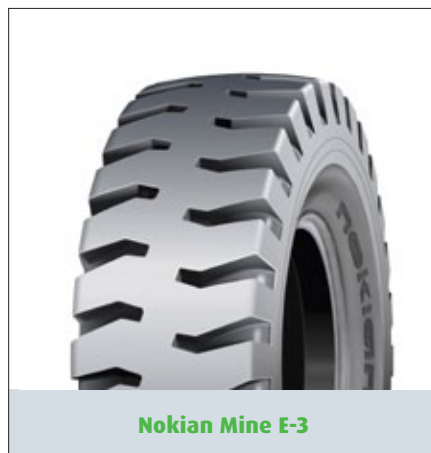
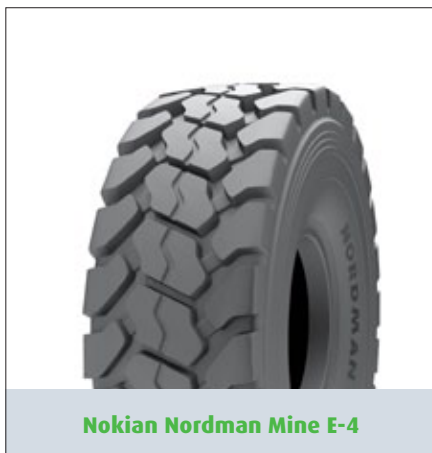
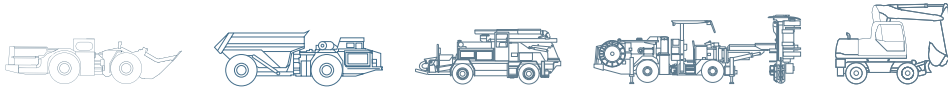
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**Notice!**  
Manual may  
contain technical  
information also  
on omitted  
products



Photos: Sandvik

# Mining tyres



# Zinc mine in Kazakhstan

Ludmilla Fesyanova, Crisis Management Manager and head of the commercial representative office, AO Kazzinc  
Nokian Mine L-5S improves productivity in AO Kazzinc's mines



AO Kazzinc, a metallurgy company striving to be one of the top five zinc producers in the world, has been successfully using Nokian Mine L-5S mining tyres for years.

– We have managed to make tyre deliveries almost automatic, which is quite an achievement, given the geographical distance and language barrier, says **Ludmilla Fesyanova**, Crisis Management Manager and head of Kazzinc's commercial representative office.

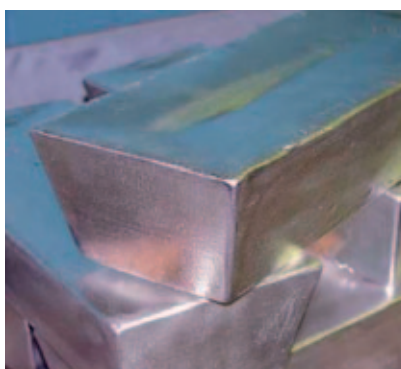
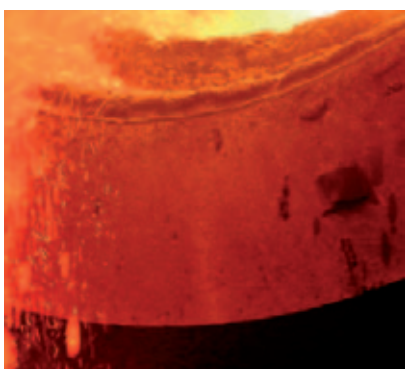
## Reliable tyres which enhance driving comfort

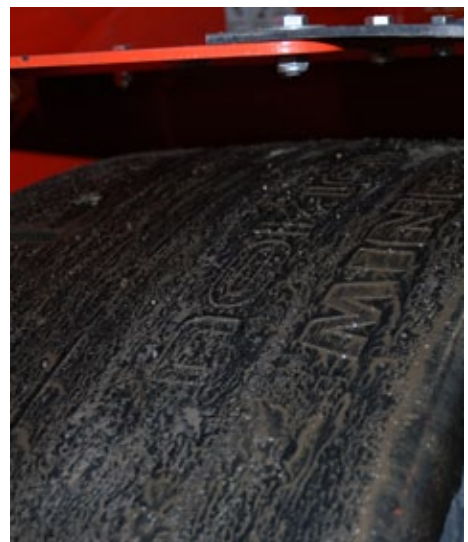
Working conditions in mines and quarries are tough. One vehicle carries dozens of tonnes during one shift. The rocky gravel roads place particular demands on the tyres' grip and wear resistance.

High-quality mining tyres feature excellent steering properties and stability, good mobility and low rolling resistance. A tyre break-up may cause the entire production to stop. That's why tyres must offer full reliability and high performance.

Since Kazzinc and Nokian Heavy Tyres launched their co-operation the productivity of work has increased and no accidents caused by tyre failures have been reported.

– Our machine operators have noted that Nokian tyres give more driving comfort. This has a significant health effect on those who spend 6–8 hours in the vehicle during a work day, Fesyanova explains.





# Nokian Mine L-5S



## POWER AND STABILITY FOR MINING LOADERS

- › Due to its special rubber compound, this durable tyre is an excellent choice for underground mining loaders and other mining machinery
- › Thick sidewalls with abrasion protection
- › Stable working tyre with a long service life

### NOKIAN MINE L-5S

Size	PR	Pattern	TT/TL	Rim	Permitted rims	Width		Diameter		Loaded static radius		Rolling circumference		Maximum inflation pressure		Load capacity kg/lb			Product code		
						New mm/in	Max mm/in	New mm/in	Max mm/in	mm±2.5%/in±2.5%	mm±2.5%/in±2.5%	kPa/p.s.i.	kPa/p.s.i.	0 km/h 0 mph	5 km/h 3 mph	10 km/h 5 mph					
12.00-20	20	Mine L-5S	TT	8.5	9.0	320 12.6	349 13.7	1166 45.9	1203 47.4	543 21.4	214	3428 135.0	135.0	850 123	10300	22705	7300	16095	6440	14200	T487630
17.5-25	20	Mine L-5S	TL	14.00/1.5	13.00/1.4 (DC)	445 17.5	494 19.4	1399 55.1	1460 57.5	645 25.4	25.4	4130 162.6	162.6	575 83	13200	29100	9300	20505	8250	18190	T445326
18.00-25	28	Mine L-5S	TL	13.00/2.5	15.00/2.5	498 19.6	553 21.8	1673 65.9	1758 69.2	772 30.4	30.4	4935 194.3	194.3	650 94	21750	47950	15400	33950	13600	29985	T445325
26.5-25	36	Mine L-5S	TL	22.00/3.0	-	673 26.5	747 29.4	1798 70.8	1891 74.4	829 32.6	32.6	5485 215.9	215.9	625 91	29600	65255	20900	46075	18500	40785	T445324

**Notice!**  
Tread code L-5S  
L - loader and dozen  
5 - extra deep tread  
S - smooth tread pattern

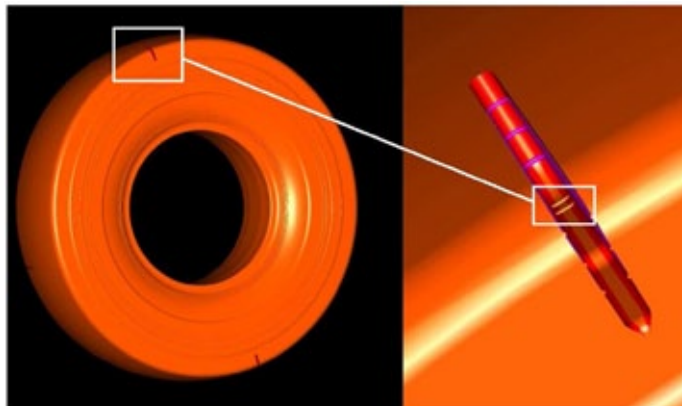
**Notice!**  
Nokian Mine L-5S  
tyres especially for  
underground  
loaders

**TREAD DEPTH**

Size	PR	Pattern	Tread depth	
			mm	32 nds in
12.00-20	20	Mine L-5S	36	45
17.5-25	20	Mine L-5S	63,5	80
18.00-25	28	Mine L-5S	79	100
26.5-25	36	Mine L-5S	90	114



**Point of tread depth measuring**



# Nokian Nordman Mine L-5S



## FOR EFFICIENT AND COMFORTABLE MATERIAL LOADING

- › Durable Bias-Ply structure
- › Cost effective mine tyre – EUR/produced ton
- › Compliant with the EU's REACH regulations
- › Nordman Mine by Nokian Heavy Tyres Ltd

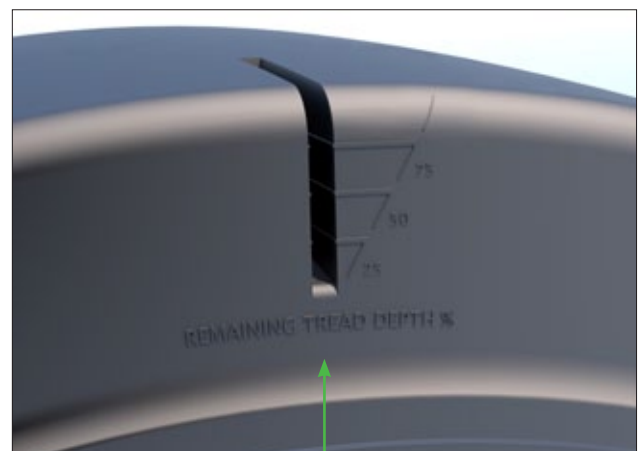
## NOKIAN NORDMAN MINE L-5S

Size	PR	Pattern	TT/TL	Rim	Permitted rims	Width			Diameter			Loaded static radius		Rolling circumference		Maximum inflation pressure		Load capacity kg/lb			Product code						
						New mm/in	Max mm/in		New mm/in	Max mm/in		mm±2.5%/in±2.5%	mm±2.5%/in±2.5%	kPa/p.s.i.		0 km/h 0 mph	5 km/h 3 mph	10 km/h 5 mph									
12.00-20	20	Mine L-5S	TT	8.5	9.0	320	12.6	349	13.7	1166	45.9	1203	47.4	543	21.4	3	531	139.0	850	123	10200	22485	7300	16095	6400	14110	T845494
17.5-25	24	Mine L-5S	TL	14.00/1.5	13.00/1.4(DC)	445	17.5	494	19.4	1399	55.1	1460	57.5	660	26.0	4	291	168.9	675	98	14400	31745	10300	22 705	9000	19840	T845493
18.00-25	32	Mine L-5S	TL	13.00/2.5	15.00/2.5	498	19.6	553	21.8	1673	65.9	1758	69.2	773	30.4	5	083	200.1	750	109	24000	52910	17100	37700	15000	33070	T845492

**NEW**

## TREAD DEPTH

Size	PR	Pattern	Tread depth	
			mm	32 nds in
12.00-20	20	Mine L-5S	40	51
17.5-25	24	Mine L-5S	66	83
18.00-25	32	Mine L-5S	80	101



**Notice!**  
Nokian Nordman Mine L-5S tyres especially for underground loaders

Remaining tread depth can be easily checked from the tyre side wall

# Nokian Mine L-3S



## ESPECIALLY DESIGNED FOR USE WITH CHAINS

- › Excellent durability and stability
- › Tyre diameter to allow easier chain mounting
- › Nokian Mine L-3S with protection chains increases productivity and maximizes tyre life

## NOKIAN MINE L-3S

Size	PR	Pattern	TT/TL	Rim	Permitted rims	Width		Diameter		Loaded static radius		Rolling circumference		Max inflation pressure		Load capacity kg/lb			Product code
						New mm/in	Max mm/in	New mm/in	Max mm/in	mm±2,5%/in±2,5%	mm±2,5%/in±2,5%	kPa/p.s.i.	kPa/p.s.i.	0 km/h 0 mph	5 km/h 3 mph	10 km/h 5 mph			
26.5-25	36	Mine L-3S	TL	22.00/3.0	-	650 25.6	722 28.4	1700 66.9	1785 70.3	772 30.4	824 32.4	625 91	29600 65255	20900 46075	18500 40785	T445522			

**NEW**

## TREAD DEPTH

Size	PR	Pattern	Tread depth	
			mm	32 nds in
26.5-25	36	Mine L-3S	42	53

# Nokian Nordman Mine E-4



## DURABILITY FOR ARTICULATED DUMP TRUCKS

- › Durable radial all-steel structure
- › Excellent choice for rough conditions in quarries
- › Compliant with the EU's REACH regulation
- › Cost effective mine tyre - EUR/h

## NOKIAN NORDMAN MINE E-4

Size	PR	Pattern	TT/TL	Rim	Permitted rims	Width		Diameter				Loaded static radius		Rolling circumference		Max inflation pressure		Load capacity kg/lb		Max inflation pressure		Load capacity kg/lb		Product code
						New mm/in	Max mm/in	New mm/in	Max mm/in	mm±2.5%/in±2.5%	mm±2.5%/in±2.5%	kPa/p.s.i.	kPa/p.s.i.	10 km/h 5 mph	50 km/h 30 mph	kPa/p.s.i.	kPa/p.s.i.	50 km/h 30 mph	50 km/h 30 mph					
26.5R25	**	Mine E-4	TL	22.00/3.0	22.00/3.0 IF	673 26.5	747 29.4	1 798 70.7	1 891 74.4	769 30.3	5 353 210.7	575 83	18 500 40 785	450 65	11 500 25 355	T845483								
29.5R25	**	Mine E-4	TL	25.00/3.5	25.00/3.5 IF	750 29.5	833 32.7	1 921 75.6	2 024 79.6	817 32.2	5 749 226.3	575 83	22 400 49 385	450 65	14 000 30 865	T845482								

**NEW**

## TREAD DEPTH

Size	PR	Pattern	Tread depth	
			mm	32 nds in
26.5R25	**	Mine E-4	55	69
29.5R25	**	Mine E-4	60	76

# Nokian Mine E-3



## STURDINESS AND RELIABILITY FOR DRILL RIGS

- › Sturdy special tyre for drill rigs and other mining machines
- › Durable tread ensures long lifespan
- › Stable driving response

## NOKIAN MINE E-3

Size	PR	Pattern	TT/TL	Rim	Permitted rims	Width			Diameter			Loaded static radius		Rolling circumference		Inflation pressure		Load capacity kg/lb			Product code					
						New mm/in	Max mm/in		New mm/in	Max mm/in		mm±2,5%/in±2,5%	mm±2,5%/in±2,5%	kPa/p.s.i.		0 km/h 0 mph	10 km/h 5 mph	25 km/h 15 mph								
14.00-24	28	Mine E-3	TL	10.0VA, 10.00WA	10.0, 10.00W	375	14.8	405	15.9	1368	53.9	1414	55.7	634	25.0	4134	162.8	1000	145	14345	31625	12350	27225	9500	20945	T445456

## TREAD DEPTH

Size	PR	Pattern	Tread depth	
			mm	32 nds in
14.00-24	28	Mine E-3	29	37

# Nokian Industrial Mine



## DURABILITY AND AGILITY FOR DRILL RIGS

- › Light and agile special tyre for drill rigs and other mining machines
- › Durable rubber compound tailored specifically for mining use
- › Abrasion protection that minimises sidewall damage

## NOKIAN INDUSTRIAL MINE

Size	PR	Pattern	TT/TL	Rim	Permitted rims	Width				Diameter				Loaded static radius		Rolling circumference		Maximum inflation pressure		Load capacity kg/lb			Product code			
						New mm/in	Max mm/in	New mm/in	Max mm/in	mm±2.5%/in±2.5%	mm±2.5%/in±2.5%	kPa/p.s.i.	kPa/p.s.i.	0 km/h 0 mph	10 km/h 5 mph	25 km/h 15 mph										
14.00-24	28	Industrial Mine	TT	10.0	10.00VA, 10.00W	375	14.8	405	15.9	1368	53.9	1414	55.7	627	24.7	4121	162.2	1000	145	14345	31625	12350	27225	9500	20945	T445446

## TREAD DEPTH

Size	PR	Pattern	Tread depth	
			mm	32 nds in
14.00-24	28	Industrial Mine	25	32

# Nokian Armor Gard Mine



## LONG SERVICE LIFE FOR MINING MACHINES

- › Top-class tyre for mining machinery, lift trucks and excavators
- › Record-breaking mileage
- › Tread design with excellent traction
- › Durable construction
- › Precise and stable driving response
- › Groove depth indicator

## NOKIAN ARMOR GARD MINE

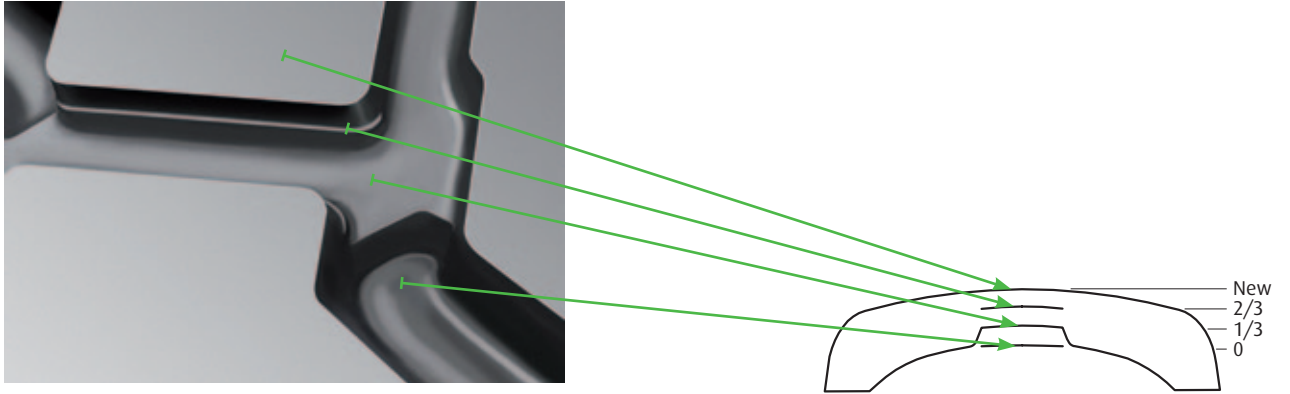
Size	PR	Pattern	TT/TL	Rim	Permitted rims	Width				Diameter				Loaded static radius		Rolling circumference		Maximum inflation pressure		Load capacity kg/lb						Product code
						New mm/in	Max mm/in	New mm/in	Max mm/in	mm±2,5%/in±2,5%	mm±2,5%/in±2,5%	kPa/p.s.i.	0 km/h 0 mph	10 km/h 5 mph	25 km/h 15 mph											
12.00-20	20	Armor Gard Mine	TT	8.5	9.0	325	12.8	351	13.8	1125	44.3	1162	45.7	516	20.3	3393	133.6	1000	145	10420	22970	8970	19775	6900	15210	T445449

## TREAD DEPTH

Size	PR	Pattern	Tread depth	
			mm	32 nds in
12.00-20	20	Armor Gard Mine	25.5	32

### GROOVE DEPTH INDICATOR NOKIAN ARMOR GARD MINE

Regular tyre maintenance is made easier by a groove depth indicator. This indicator helps you monitor tyre wear.



# Tubes and valves

## NOKIAN MINE L-5S

Size	PR	Product code	Valve tubeless	Tube product code	Valve tube-type	Flap	Flap product code
12.00-20	20	T487630	-	T52810	V3.02.16	195-20	T229530
17.5-25	20	T445326	TR650	T55867	TRJ1175	-	-
18.00-25	28	T445325	TR650	T55831	TRJ1175	-	-
26.5-25	36	T445324	TR650	-	-	-	-

## NOKIAN MINE L-3S

Size	PR	Product code	Valve tubeless	Tube product code	Valve tube-type	Flap	Flap product code
26.5-25	36	T445522	TR650	-	-		

## NOKIAN NORDMAN MINE E-4

Size	PR	Product code	Valve tubeless	Tube product code	Valve tube-type	Flap	Flap product code
26.5R25	**	T845483	TR650	-	-		
29.5R25	**	T845482	TR650	-	-		

## NOKIAN INDUSTRIAL MINE

Size	PR	Product code	Valve tubeless	Tube product code	Valve tube-type	Flap	Flap product code
14.00-24	28	T445446	-	T55451	TR220	260-24/25	T299531

## NOKIAN MINE E-3

Size	PR	Product code	Valve tubeless	Tube product code	Valve tube-type	Flap	Flap product code
14.00-24	28	T445456	TR650	T55451	TR220A	260-20	T299538

## NOKIAN ARMOR GARD MINE

Size	PR	Product code	Valve tubeless	Tube product code	Valve tube-type	Flap	Flap product code
12.00-20	20	T445449	-	T52810	V3.02.16	195-20	T229530

**Notice!**  
Tube-type mounting, choose right tube, flap, rim combination for best operational hours.

# Liquid and salt ballasting

## LIQUID AND SALT BALLASTING

- › Liquid ballasting is used to increase machine stability.
- › It is recommended to use professional tyre outlets to carry out the filling procedure.
- › Special equipment and water permeable valves are required.
- › In liquid and salt ballasting, use tubes to prevent rims from rusting.

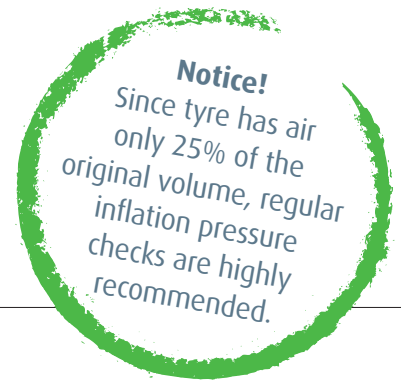
**Note! If a filler other than liquid is used (i.e. polyurethane), tyre warranty does not apply.**

### Water ballasting

75 % of tyre volume is filled. Amounts listed in the table below.

### Water and salt ballasting

The addition of salt will prevent freezing. 75% of tyre volume is filled with the proportions given in the table below. The salt / water solution is calculated at a temperature of -30 °C / -22 °F. Normal commercial salt (CaCl<sub>2</sub>), 77% purity, is used. Any additional salt will not necessarily dissolve in water. The remaining tyre volume is inflated to the recommended inflation pressure.



## NOKIAN MINE L-5S

Size	PR	Tyre volume 100%		Water filling (75%)		Water / salt filling (75% / -30°C / -22°F)					
		l	gal (US)	l	gal (US)	Water		Salt (CaCl <sub>2</sub> )		Total weight increase	
						l	gal (US)	kg	lb	kg	lb
12.00-20	20	135	35	100	25	83	22	42	95	125	275
17.5-25	20	260	70	195	50	160	42	82	180	242	535
18.00-25	28	505	135	380	100	311	82	158	350	469	1035
26.5-25	36	745	195	560	150	458	121	234	515	692	1525

## NOKIAN MINE L-3S

Size	PR	Tyre volume 100%		Water filling (75%)		Water / salt filling (75% / -30°C / -22°F)					
		l	gal (US)	l	gal (US)	Water		Salt (CaCl <sub>2</sub> )		Total weight increase	
						l	gal (US)	kg	lb	kg	lb
26.5-25	36	765	200	575	150	471	124	240	530	711	1565

## NOKIAN NORDMAN MINE E-4

Size	PR	Tyre volume 100%		Water filling (75%)		Water / salt filling (75% / -30°C / -22°F)					
		l	gal (US)	l	gal (US)	Water		Salt (CaCl <sub>2</sub> )		Total weight increase	
						l	gal (US)	kg	lb	kg	lb
26.5R25	**	896	235	670	175	551	146	281	620	832	1835
29.5R25	**	1196	315	895	235	736	194	375	825	1111	2450

**NOKIAN INDUSTRIAL MINE**

Size	PR	Tyre volume 100%		Water filling (75%)		Water / salt filling (75% / -30°C / -22°F)					
		l	gal (US)	l	gal (US)	Water		Salt (CaCl <sub>2</sub> )		Total weight increase	
						l	gal (US)	kg	lb	kg	lb
14.00-24	28	230	60	175	45	142	37	72	160	214	470

**NOKIAN MINE E-3**

Size	PR	Tyre volume 100%		Water filling (75%)		Water / salt filling (75% / -30°C / -22°F)					
		l	gal (US)	l	gal (US)	Water		Salt (CaCl <sub>2</sub> )		Total weight increase	
						l	gal (US)	kg	lb	kg	lb
14.00-24	28	230	60	175	45	142	37	72	160	214	470

**NOKIAN ARMOR GARD MINE**

Size	PR	Tyre volume 100%		Water filling (75%)		Water / salt filling (75% / -30°C / -22°F)					
		l	gal (US)	l	gal (US)	Water		Salt (CaCl <sub>2</sub> )		Total weight increase	
						l	gal (US)	kg	lb	kg	lb
12.00-20	20	145	40	110	30	89	24	45	100	135	295

# Mine tyre maintenance

To utilise the full capacity of a mining tyre, it is recommended to check the inflation pressure at least once a week. Keeping the pressure at a sufficient level prevents tyre break-up caused by high heat generation. Pressure maintenance reduces cuts and cracks on tyre sidewalls by keeping the tyre contour in design width.

It is also recommended to keep a tyre check diary. This makes it easier to determine the interval and the need for maintenance. A diary helps maintenance when machines are operated in several shifts and by different operators. Regular check-ups help in starting repair procedures early enough to save in tyre costs.

When checking the inflation pressure, please observe also the tyre temperature. A rise of 10 degrees centigrade / 50 Fahrenheit will increase the inflation pressure approximately 0,1 bar / 1,0 p.s.i. Use only reliable and calibrated pressure gauges. A regular gauge re-calibration should also be performed.

A cut on a tyre sidewall, caused in example by sharp stones, should always be repaired before it proceeds to let moisture reach into the tyre reinforcing cords.

Narrow mine tunnels often wear tread more from the outer side of a tyre. It is recommended to swap tyres from one side to the other to gain more tyre hours.

The Nokian Mine L-55 features a tread wear indicator. Besides this it is also recommended to mark the actual tread wear (mm / in) into the tyre check diary.

In handling a TL (tubeless) tyre make sure that the rim is not damaged. Even a small abrasion on a tyre by a damaged or a faulty rim can lead to excessive air leak. A defective rim is always a serious safety hazard. With a TL tyre always use a tubeless rim.



Tread wear indicator

**Notice!**  
Regular inflation  
pressure  
maintenance ensures  
long service life.