

OFF-THE-ROAD RADIAL OTR DATABOOK

2024V1.0

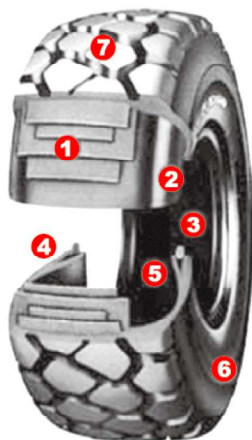


Established in 2007, Techking Tires Limited is dedicated to mining and construction tires, focusing on specific application, integrated product R&D, quality control, and brand operation. Our goal is to become a leading mining and construction tire brand.

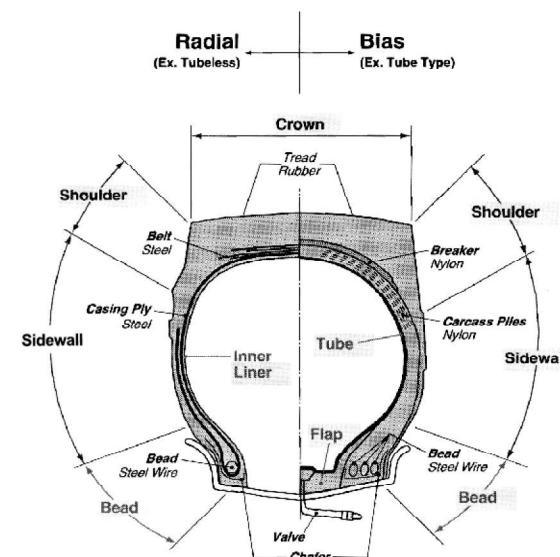
Techking focuses on both domestic and overseas markets throughout development. Currently, it works with mining and construction companies in more than 100 countries and supports world-renowned mining enterprises and equipment manufacturers with quality service. By now, Techking is the only Chinese tire brand to simultaneously render all terrain crane tire services to China's top 3 crane manufacturers XCMG, SANY, and ZOOMLION. In the overseas markets, Techking renders tire services to more than 40 internationally recognized machinery manufacturers such as Liebherr, Tadano Demag, and JCB. It also gains the recognition of global leading mining companies including Rio Tinto, Glencore, BHP, and Vale.

Focusing on customer value, Techking is developing a Three-lever core competitiveness that covers a localized marketing system, an integrated product development system, and a specialized service system. With the continuous support of technical talents and technological innovation, the company will deeply cultivate mining and construction industries, and provide our customers with application-specific products and professional services.

CONSTRUCTION AND COMPONENT PARTS



- ①Belt ②Carcass ③Inner Liner
④Bead Wire ⑤Chafer ⑥Sidewall
⑦Tread



APPLICATION VEHICLE MATCHING CHART

Application	Vehicle
Earthmover Service	Dump Trucks, Motor Scrapers, Articulated Dump Trucks, Coal Haulers, Logging Trucks, Other Mining Trucks, etc
Grader Service	Motor Graders
Loader & Dozer Service	Shovels, Front-End Loaders, Back-hoe Loaders, Skid Steer Loaders, Dozers, Shuttle Trucks, Load-Haul-Dumps, etc
High-Speed Service	All-Terrain Cranes, High-speed Vehicles, etc
Industrial Service	Straddle Carriers, Aircraft Towing Tractors, Container Stackers, Counter-balanced Lift Trucks, Mobile Crushers, Log Stacker, etc
Logging Service	Log-Skidders
Compactor Service	Compactors, Road Rollers
Sand Service	Sand Service Trucks

LOAD INDEX & MAXIMUM LOAD

LI	maximum load	
	kg	lb
120	1400	3090
121	1450	3200
122	1500	3310
123	1550	3420
124	1600	3530
125	1650	3640
126	1700	3750
127	1750	3860
128	1800	3970
129	1850	4080

130	1900	4190
131	1950	4300
132	2000	4410
133	2060	4540
134	2120	4670
135	2180	4810
136	2240	4940
137	2300	5070
138	2360	5200
139	2430	5360

140	2500	5510
141	2575	5680
142	2650	5840
143	2725	6010
144	2800	6170
145	2900	6390
146	3000	6610
147	3075	6780
148	3150	6950
149	3250	7170

150	3350	7390
151	3450	7610
152	3550	7830
153	3650	8050
154	3750	8270
155	3875	8540
156	4000	8820
157	4125	9090
158	4250	9370
159	4375	9650

LI	maximum load	
	kg	lb
160	4500	9920
161	4625	10200
162	4750	10470
163	4875	10750
164	5000	11020
165	5150	11350
166	5300	11690
167	5450	12020
168	5600	12350
169	5800	12790

170	6000	13230
171	6150	13560
172	6300	13890
173	6500	14330
174	6700	14770
175	6900	15210
176	7100	15650
177	7300	16090
178	7500	16530
179	7750	17090

180	8000	17640
181	8250	18190
182	8500	18740
183	8750	19290
184	9000	19840
185	9250	20390
186	9500	20940
187	9750	21500
188	10000	22050
189	10300	22710

190	10600	23370
191	10900	24030
192	11200	24690
193	11500	25360
194	11800	26020
195	12150	26790
196	12500	27560
197	12850	28330
198	13200	29100
199	13600	29990

LI	maximum load	
	kg	lb
200	14000	30870
201	14500	31970
202	15000	33070
203	15500	34180
204	16000	35280
205	16500	36380
206	17000	37480
207	17500	38590
208	18000	39690
209	18500	40790

210	19000	41890
211	19500	43000
212	20000	44100
213	20600	45420
214	21200	46750
215	21800	48070
216	22400	49390
217	23000	50700
218	23600	52040
219	24300	53580

220	25000	55120
221	25750	56780
222	26500	58430
223	27250	60070
224	28000	61740
225	29000	63940
226	30000	66150
227	30750	67790
228	31500	69460
229	32500	71660

230	33500	73870
231	34500	76070
232	35500	78280
233	36500	80480
234	37500	82690
235	38750	85430
236	40000	88200
237	41250	90940
238	42500	93710
239	43750	96470

LI	maximum load	
	kg	lb
240	45000	99210
241	46250	101960
242	47500	104720
243	48750	107470
244	50000	110250
245	51500	113540
246	53000	117950
247	54500	120150
248	56000	123480
249	58000	127890

250	60000	132300
251	61500	135580
252	63000	138890
253	65000	143300
254	67000	147710
255	69000	152120
256	71000	156530
257	73000	160930
258	75000	165340
259	77500	170660

260	80000	176400
261	82500	181880
262	85000	187390
263	87500	192900
264	90000	198450
265	92500	203920
266	95000	209440
267	97500	214950
268	100000	220500
269	103000	227370

SPEED SYMBOLS

Symbol	A2	A6	A8	B	C	D	E	F	G
speed(km/h)	10	30	40	50	60	65	70	80	90
speed(mph)	5	20	25	30	35	40	45	50	55



CONVERSION TABLE: STAR RATING TO PLY RATING

Service	Tire Size	Star Rating	Corresponding Ply Rating
Earthmover	13.00R25	★★★	up to 28
	14.00R24	★★★	up to 32
	14.00R25	★★★	up to 32
	16.00R25	★★★	up to 36
	18.00R25	★★/★★★★	up to 36
	18.00R33	★★/★★★★	up to 40
	21.00R33	★★	up to 36
	21.00R35	★★	up to 44
	24.00R35	★★	up to 48
	27.00R49	★★	up to 54
	30.00R51	★★	up to 58
	33.00R51	★★	up to 64
	36.00R51	★★	up to 66
	40.00R57	★★	up to 74
	15.5R25	★★	up to 20
	17.5R25	★★	up to 20
	20.5R25	★★	up to 28
	23.5R25	★★	up to 32
	26.5R25	★★	up to 32
	29.5R25	★★	up to 34
	29.5R29	★★	up to 40
Grader	13.00R24	★	up to 16
	14.00R24	★★	up to 20
	16.00R24	★★	up to 20
Loader	20.5R25	★★	up to 28
	23.5R25	★★	up to 32
	26.5R25	★★	up to 36
	29.5R25	★★	up to 34
	35/65R33	★★	up to 48
Port	12.00R20	★★	20 PR
	12.00R24	★★	20 PR
	14.00R24	★★★★	28 PR
	16.00R25	★★	32 PR
	16.00R25	★★★★	36 PR
	18.00R25	★★★★	40 PR
	18.00R33	★★★★	40 PR

EXAMPLE OF MARKINGS



35/65R33 L5 TL 229A2

- ① **TECHKING** : BRAND NAME
- ② **35/65R33**:TIRE SIZE
- ③ **L-5**: TRA CODE
- ④ **★★★★**: STAR RATING
- ⑤ **ETDL5**:TREAD PATTERN
- ⑥ **Specifications Code**



L-LOADER AND DOZER (SLOW SPEED SERVICE)

L-2

TREAD TYPE:Traction Regular
SPEED:10KM/H(5mph)
ONE-WAY DISTANCE:76M(250ft)



SNOWKING

ETSNOW

MATE SNOW

MATE SNOW E

ETGRADER

ETGRADER2

L-3

TREAD TYPE:Rock Regular
SPEED:10KM/H(5mph)
ONE-WAY DISTANCE:76M(250ft)



PROADT

ETADT

MATE L3

MATE E3L3

ET6A

MATE-S L3

L-4

TREAD TYPE:Rock Deep Tread
SPEED:10KM/H(5mph)
ONE-WAY DISTANCE:76M(250ft)



ETNT

ETUM

ETST

L-5

TREAD TYPE:Rock Deep Tread
SPEED:10KM/H(5mph)
ONE-WAY DISTANCE:76M(250ft)



ETDL5

ETDL5S

ETD2

ETD2S

MATE D2S

L-5S

TREAD TYPE:Smooth Extra Deep Regular
SPEED:10KM/H(5mph)
ONE-WAY DISTANCE:76M(250ft)



PROLHD

ETSM

G-GRADER

G-2

TREAD TYPE:Traction Regular
SPEED:40KM/H(25mph)
ONE-WAY DISTANCE:76M(250ft)



ETGRADER2

ETGRADER

MATE G2

ETSNOW

IND-INDUSTRIAL

IND-4

TREAD TYPE:Deep Tread



ETPORTM

ETPORTM+

EARTHMOVER SERVICE

Size	Pattern	TRA Code	Star Rating	TT/TL
27.00R49	ET304	E4	★★	TL
	ET355	E4	★★	TL
	SUPER ROCK	E4	★★	TL
	SUPER TRAC	E4	★★	TL
	ETDT	E4	★★	TL
	ET303+	E4	★★	TL
30.00R51	ET405	E4	★★	TL
	ET355	E4	★★	TL
33.00R51	ET304	E4	★★	TL
			★★	TL
	ET355	E4	★★	TL
	SUPER TRAC	E4	★★	TL
36.00R51	ET355	E4	★★	TL
37.00R57	ET304	E4	★★	TL
40.00R57	ET304	E4	★★	TL
			★★	TL
	ET358	E4	★★	TL
46/90R57	ET304	E4	★★	TL
	ET358	E4	★★	TL
	SUPER H	E4	★★	TL
50/80R57	ET304	E4	★★	TL
	ET359	E4	★★	TL

HIGHWAY SERVICE

Size	Pattern	TRA Code	Star Rating	TT/TL
385/95R24 (14.00R24)	ETCRANE	E2	★★★	TT
385/95R25 (14.00R25)	ETCRANE	E2	★★★	TL
	ETCRANE2	E2	★★★	TL
	ETCRANE	E2	★★★	TL
445/95R25 (16.00R25)	CRANE80	E2	★★★	TL
	ETCRANE	E2	★★★	TL
445/80R25 (17.5R25)	ETCRANE *	E2	★★★	TL
505/95R25 (18.00R25)	ETGC	E2	★★★	TL
445/80R25 (17.5R25)	ETCRANE	E2	★★★	TL
525/80R25 (20.5R25)	ETGC	E2	★★★	TL
	ETCRANE L	E	★★★	TL

UNDERGROUND SERVICE

Size	Pattern	TRA Code	Star Rating	TT/TL
10.00R20	ETSM	L4S	★★	TT/TL
12.00R20	ETSM	L5S	★★	TT
12.00R24	PROLHD	L5S	★★	TT
14.00R24	ETST	E4/L4	★★★★	TT
	PROLHD	L5S	★★	TT
16.00R25	ETUM	E4/L4	★★	TT/TL
17.5R25	ETDL5	L5	★★★★	TL
	ETSM	L5S	★★	TT/TL
	PROLHD	L5S	★★	TT/TL
18.00R25	PROLHD	L5S	★★	TL
	ETSM	L5S	★★	TL
	ETST	E4	★★	TL
26.5R25	ETD2S	L5	★★	TL
	ETDL5	L5	★★	TL
	ETSM	L5S	★★	TL
	PROLHD	L5S	★★	TL
	ETNT	E4	★★	TL
29.5R25	ETD2	L5	★★	TL
	ETDL5	L5	★★	TL
	ETSM	L5S	★★	TL
	ETNT	E4	★★	TL
	ETD2	L5	★★	TL
29.5R29	ETDL5	L5	★★	TL
	ETSM	L5S	★★	TL
	PROLHD	L5S	★★	TL
	ETNT	E4	★★	TL
	ETD2	L5	★★	TL
35/65R33	ETNT	E4/L4	★★★★	TL
35/65R33	ETDL5	L5	★★★★	TL
	ETSM	L5S	★★	TL

GRADER SERVICE

Size	Pattern	TRA Code	Star Rating	TT/TL
13.00R24	ETGRADER	G2	★	TL
14.00R24	ETGRADER2	G2/L2	★★	TL
	ETSNOW	G2/L2	★	TL
	MATE G2	G2	★★	TL
16.00R24	ETGRADER	G2	★★	TL
17.5R25	SNOWKING	E2/L2	★★	TL
	MATE L3	G3/L3	★★	TL
20.5R25	SNOWKING	E2/L2	★★	TL
	ETDL5	L5	★★	TL
23.5R25	ETD2S	L5	★★	TL
	SNOWKING	E2/L2	★★	TL
26.5R25	ETSNOW	E2/L2	★★	TL
	ETD2S	L5	★★	TL
29.5R25	ETSNOW	E2/L2	★★	TL
	ETD2	L5	★★	TL
29.5R29	ETD2	L5	★★	TL

MINING TRUCK SERVICE

Size	Pattern	TRA Code	Star Rating	TT/TL
12.00R24	ETOT	/	20	TT
	ETOT	/	24	TT
	ETOT II	/	★★★★	TT
14.00R25	ET618	E3	★★★★	TT/TL
	ETOK	E3	★★★★	TT/TL
	ETOH	E3	★★★★	TT/TL
	ET919	E3	★★★★	TT/TL
	ETRT9	E4	★★★★	TT/TL
16.00R25	ET609	E3	★★★★	TT/TL
	ET919	E3	★★★★	TT/TL
	ET668	E3	★★★★	TT/TL
	SUPER ETOT	E3	★★★★	TT/TL
	ETRTV	E4	★★★★	TT/TL
	ET688	E3	★★★★	TT/TL
	ET919+	E3	★★★★	TT/TL
460/95R25	ETTN	E3	★★★★	TT/TL
	ET688	E3	★★★★	TT/TL
	ET919+	E3	★★★★	TT/TL
	ET668	E3	★★★★	TT/TL
18.00R25	ETOH	E3	★★★★	TT/TL
	ETRT	E4	★★★★	TL
480/95R29	ETOH	E3	★★★★	TT/TL
505/95R29	ETOH	E3	★★★★	TT/TL
18.00R33	ETDT2	E4	★★★★	TL
	ETDT	E4	★★★★	TL

Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																												
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900		
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120	124	127	130		
24"																														
ETSNOW	E/M 70 42	★																										3★		
		kg														4000	4125	4375	4500	4625	4750	5000	5150	5300	5450	5600	5840	6000		
		lbs														8826	9102	9653	9929	10205	10481	11033	11363	11694	12025	12356	12886	13239		
25"																														
ETSNOW	E/M 70 42	★																										3★		
		kg														4000	4125	4375	4500	4625	4750	5000	5150	5300	5450	5600	5840	6000		
ETSNOW	E/M 50 30	★											2★																	
		kg						3650	3875	4000	4250	4375	4500																	
		lbs						8054	8550	8826	9378	9653	9929																	
ETSDT ETSD	E/M 50 30	★																		2★										
		kg											5450	5670	5900	6150	6400	6625	6850	7075	7300									
		lbs											12025	12511	13018	13570	14122	14618	15115	15611	16107									
ETSNOW	E/M 70 42	★																										3★		
		kg																				5450	5670	5900	6150	6400	6625	6850	7075	7300
		lbs																				12025	12511	13018	13570	14122	14618	15115	15611	16107
SNOWKING	E/M 50 30	★						1★						2★																
		kg	3350	3550	3750	4000	4125	4375	4625	4750	5000	5150	5450																	
		lbs	7392	7833	8274	8826	9102	9653	10205	10481	11033	11363	12025																	
ETRT	E/M 50 30	★											1★									2★								
		kg											6700	7100	7300	7500	7750	8000	8250	8500	8750	9000	9250							
		lbs											14784	15666	16107	16549	17100	17652	18204	18755	19307	19859	20410							
SNOWKING	E/M 50 30	★						1★						2★																
		kg	4375	4750	5000	5300	5600	5800	6150	6500	6700	6900	7300																	
		lbs	9653	10481	11033	11694	12356	12798	13570	14342	14784	15225	16107																	
SNOWKING PROADT ETADT	E/M 50 30	★						1★						2★																
		kg	5600	6000	6500	6700	7100	7500	7750	8250	8500	9000	9250																	
		lbs	12356	13239	14342	14784	15666	16549	17100	18204	18755	19859	20410																	
ETADT	E/M 50 30	★											2★																	
		kg						4650	5050	5500	6000	6500	7000	7500																
		lbs						10260	11143	12136	13239	14342	15446	16549																
ETADT	E/M 50 30	★											2★																	
		kg						5150	5550	6000	6500	7000	7500	8000																
		lbs						11363	12246	13239	14342	15446	16549	17652																
ETADT	E/M 50 30	★											2★																	
		kg						7750	8250	8750	9250	9750	10300	10600																
		lbs						17100	18204	19307	20410	21513	22727	23389																



Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																											
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120	124	127	130	
25"																													
ETSNOW ETADT PROADT FORT ADT	E/M 50 30	★						1★						2★															
		kg	7100	7500	8000	8500	9000	9500	9750	10300	10600	11200	11500																
		lbs	15666	16549	17652	18755	19859	20962	21513	22727	23389	24713	25375																
ETSNOW PROADT ETADT SUPER ADT FORT ADT	E/M 50 30	★						1★						2★															
		kg	8500	9250	9750	10300	10900	11500	11800	12500	12850	13600	14000																
		lbs	18755	20410	21513	22727	24051	25375	26037	27581	28354	30008	30891																
29"																													
ETADT	E/M 50 30	★						1★						2★															
		kg	9250	9750	10300	10900	11500	12150	12500	13200	13600	14500	15000																
		lbs	20410	21513	22727	24051	25375	26809	27581	29126	30008	31994	33098																
SUPER ADT	E/M 50 30	★						1★						2★															
		kg	11200	12150	12850	13600	14000	15000	15500	16500	17000	17500	18500																
		lbs	24713	26809	28354	30008	30891	33098	34201	36407	37511	38614	40820																
ETADT	E/M 50 30	★											2★																
		kg	10000	10900	11500	12150	12850	13600	14000	14500	15500																		
		lbs	22065	24051	25375	26809	28354	30008	30891	31994	34201																		
33"																													
ETDT ETDT2 SUPER RDT	E/M 50 30	★																		2★									
		kg											7750	8000	8500	8750	9000	9250	9750	10000	10300	10600	10900						
		lbs											17100	17652	18755	19307	19859	20410	21513	22065	22727	23389	24051						
ETUL+	E/M 50 30	★																		2★									
		kg											10000	10300	10900	11200	11500	11800	12500	12850	13200	13600	14000						
		lbs											22065	22727	24051	24713	25375	26037	27581	28354	29126	30008	30891						
35"																													
ETDT ETDT2 SUPER RDT FORT RDT SUPER TRAC	E/M 50 30	★																		2★									
		kg											13200	13600	14000	14500	15500	16000	16500	17000	17500	18000	18500						
		lbs											29126	30008	30891	31994	34201	35304	36407	37511	38614	39717	40820						



Pattern	Application		Tire Load Limits at Various Cold Inflation Pressure																												
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875				
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120	124	127				
49"																															
ET304 ET355 SUPER ROCK SUPER TRAC ETDT ET303+ ET405	E/M 10 5	★																									2★				
		kg												32500	33500	34500	35500	37500	38750	38750	40000	41250	42500	43750	45000	45000					
		lbs												71500	74000	76000	78500	82500	85500	88000	91000	93500	96500	99000	99000						
	E/M 50 30	★																			2★										
		kg												19500	20000	20600	21800	22400	23000	23600	25000	25750	26500	27250							
		lbs												43000	44100	45400	48100	49400	50700	52000	55100	56800	58400	60000							
51"																															
ET355	E/M 10 5	★																									2★				
		kg												42500	45000	46250	47500	48750	50000	51500	53000	54500	54500	56000							
		lbs												93500	99000	102000	104500	107500	110000	113500	117000	120000	120000	123500							
	E/M 50 30	★																			2★										
		kg												25750	26500	28000	29000	30000	30750	31500	32500	33500									
		lbs												56800	58400	61500	64000	66000	68000	69500	71500	74000									
ET304 ET355 SUPER TRAC ETLB	E/M 10 5	★																									2★				
		kg												46250	48750	50000	51500	53000	54500	56000	58000	60000	60000	63000	63000	65000					
		lbs												102000	107500	110000	113500	117000	120000	123500	128000	132500	132500	139000	139000	143500					
	E/M 50 30	★																			2★										
		kg												27250	29000	30000	30750	32500	33500	34500	35500	36500	37500	38750							
		lbs												60000	64000	66000	68000	71500	74000	76000	78500	80500	82500	85500							
ET355	E/M 10 5	★																									2★				
		kg												56000	58000	60000	63000	65000	67000	69000	71000	73000	75000	75000	77500	80000					
		lbs												123500	128000	132500	139000	143500	147500	152000	156500	161000	165500	165500	171000	176500					
	E/M 50 30	★																			2★										
		kg												33500	35500	36500	37500	38750	40000	41250	42500	43750	45000	46250							
		lbs												74000	78500	80500	82500	85500	88000	91000	93500	96500	99000	102000							
57"																															
ET304	E/M 10 5	★																									2★				
		kg												60000	61500	63000	65000	67000	69000	71000	73000	75000	77500	80000	80000	82500					
		lbs												132500	135500	139000	143500	147500	152000	156500	161000	165500	171000	176500	176500	182000					
	E/M 50 30	★																			2★										
		kg												37500	38750	40000	41250	43750	45000	46250	47500	48750	50000	51500							
		lbs												82500	85500	88000	91000	96500	99000	102000	104500	107500	110000	113500							
ET304 ET358	E/M 10 5	★																									2★				
		kg												73000	75000	77500	80000	82500	85000	87500	90000	92500	95000	97500	100000	100000					
		lbs												161000	165500	171000	176500	182000	187500	193000	198500	204000	209400	215000	220500	220500					
	E/M 50 30	★																			2★										
		kg												42500	45000	46250	48750	50000	51500	53000	54500	56000	58000	60000							
		lbs												93500	99000	102000	107500	110000	113500	117000	120000	123500	128000	132500							

Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																											
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120	124	127	130	
ET304 ET358 SUPER H	E/M 10 5	★																								2★			
		kg											75000	77500	80000	82500	85000	87500	90000	92500	95000	97500	100000	100000	103000				
		lbs											165500	171000	176500	182000	187500	193000	198500	204000	209400	215000	220500	220500	227000				
	E/M 50 30	★																		2★									
		kg										45000	47500	48750	51500	53000	54500	56000	58000	60000	61500	63000							
		lbs										99000	104500	107500	113500	117000	120000	123500	128000	132500	135500	139000							
ET304 (RIM: 32.00-6.0) ET359	E/M 50 30	★																2★											
		kg										54500	56000	58000	60000	63000	65000	67000											
		lbs										120000	123500	128000	132500	139000	143300	139000											
ET304 (RIM: 34.00-6.0) ET359	E/M 50 30	★																2★											
		kg										58000	60000	63000	65000	67000	71000	73000											
		lbs										128000	132500	139000	143300	147710	156500	161000											

Pattern	Pressure		Tire Load Limits at Various Speeds							
	kPa		0 km/h	1 km/h	5 km/h	10 km/h	15 km/h	20 km/h	25 km/h	30 km/h
	psi		Static	Creep	3 mph	5 mph	10 mph	12 mph	15 mph	18 mph
20"										
ETPORTM	1000	kg	10650	10150	9350	9250	8700	8050	7100	
	145	lbs	23499	22396	20631	20410	19197	17762	15666	
24"										
ETPORTM	1000	kg	10800	9600	8700	8100	7800	7620	7500	—
	145	lbs	23830	21182	19197	17873	17211	16814	16549	—
ETPORTM +	1000	kg	18000	16000	14500	13500	13000	12700	12500	12400
	145	lbs	39717	35304	31994	29788	28685	28023	27581	27361



Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																																
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825									
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120									
24"																																		
ETGRADER2 ETSNOW	Loader 10 5	★																							1★		2★							
		kg																							6700		6900		7300					
		lbs																							14784		15225		16107					
25"																																		
ETSNOW MATE E3L3	Loader 10 5	★															2★																	
		kg															6150		6300		6500		6700		6900		7100							
		lbs															13570		13901		14342		14784		15225		15666							
SNOWKING ETDL5 MATE L3 MATE-S L3 MATE SNOW MATE SNOW E	Loader 10 5	★															2★																	
		kg															7300		7500		7750		8000		8250		8500							
		lbs															16107		16549		17100		17652		18204		18755							
SNOWKING ETDL5S ETDL6 ETD2S MATE E3L3 MATE SNOW MATE-S L3 MATE SNOW E MATE D2S	Loader 10 5	★											1★								2★													
		kg											8000		8250		8750		9000		9500		9750		10000		10300		10900		11200		11500	
		lbs											17652		18204		19307		19859		20962		21513		22065		22727		24051		24713		25375	
SNOWKING PROADT ETDL5 ETDL5S ETD2S MATE E3L3 MATE SNOW MATE-S L3 MATE SNOW E MATE D2S	Loader 10 5	★											1★								2★													
		kg											10300		10600		11200		11500		12150		12500		12850		13200		13600		14000		14500	
		lbs											22727		23389		24713		25375		26809		27581		28354		29126		30008		30891		31994	
ETADT	Loader 10 5	★											2★																					
		kg											8500		9000		9250		9750															
		lbs											18755		19859		20410		21513															
ETADT	Loader 10 5	★											2★																					
		kg											10000		10600		10900		11500															
		lbs											22065		23389		24051		25375															
ETADT	Loader 10 5	★											2★																					
		kg											13200		13600		14500		15000															
		lbs											29126		30008		31994		33098															

Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																													
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825						
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120						
ETSNOW FORT ADT ETDL5 ETD2S ETDL5S MATE E3L3 MATE D2S MATE-S L3 PROADT	Loader 10 5	★											1★											2★							
		kg							12850	13200	14000	14500	15000	15500	16000	16500	17000	18000	18500												
		lbs							28354	29126	30891	31994	33098	34201	35304	36407	37511	39717	40820												
ETSNOW PROADT SUPER ADT FORT ADT ETDL5 ETDL5S ETD2S MATE D2S ETD2	Loader 10 5	★											1★											2★							
		kg							15500	16000	16500	17000	18000	19000	19500	20000	20600	21200	22400												
		lbs							34201	35304	36407	37511	39717	41924	43027	44130	45454	46778	49426												
29"																															
ET6A ETD2 ETDL5	Loader 10 5	★											1★											2★							
		kg							16500	17000	18000	18500	19500	20000	20600	21200	22400	23000	23600												
		lbs							36407	37511	39717	40820	43027	44130	45454	46778	49426	50750	52073												
ETADT	Loader 10 5	★											2★																		
		kg									18500	19500	20600	21200																	
		lbs									40820	43027	45454	46778																	
33"																															
ETDL5 ETNT	Loader 10 5	★											1★											2★						4★	
		kg							19500	20600	21200	22400	23000	23600	25000	25750	26500	27250	28000	28550	30000	30550	31500	32000	32500						
		lbs							43027	45454	46778	49426	50750	52073	55163	56817	58472	60127	61782	62996	66195	67409	69505	70608	71711						



Pattern	Application		Tire Load Limits at Various Cold Inflation Pressure																													
	Max.dist./hour km km/h mph	kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 116	825 120	950 138						
20"																																
ETSM	Loader 10 5	★																								2★						
		kg																			4940			5890		6890						
		lbs																			10893			12987		15192						
ETSM	Loader 10 5	★																								2★						
		kg													4375	4500	4625	4875	5000	5150	5300	5450	5600	5800	6000	6150						
		lbs													9653	9929	10205	10757	11033	11363	11694	12025	12356	12798	13239	13570						
24"																																
PROLHD	Loader 10 5	★																								2★						
		kg													4875	5150	5300	5450	5600	5800	6000	6150	6300	6500	6700	6900						
		lbs													10757	11363	11694	12025	12356	12798	13239	13570	13901	14342	14784	15225						
ETST	Underground truck 20 12	★																								3★						
		kg													4625	4750	5000	5150	5300	5450	5600	5800	6050	6400	6750	7100						
		lbs													10205	10481	11033	11363	11694	12025	12356	12798	13349	14122	14894	15666						
PROLHD	Loader 10 5	★																								2★						
		kg													6450	6700	6950	7200	7450	7700	7950	8200	8450	8700	8950	9200	9500					
		lbs													14232	14784	15335	15887	16438	16990	17542	18093	18645	19197	19748	20300	20962					
25"																																
ETUM	Underground truck 20 12	★																								2★						
		kg													8000	8250	8500	8750	9000	9250	9500											
		lbs													17652	18204	18755	19307	19859	20410	20962											
	Loader 10 5	★																								2★						
		kg													9250	9750	10000	10300	10600	10900	11200	11500	11800	12150								
lbs													20410	21513	22065	22727	23389	24051	24713	25375	26037	26809										
ETDL5 ETSM PROLHD	Loader 10 5	★													2★																	
		kg													7300	7500	7750	8000	8250	8500												
		lbs													16107	16549	17100	17652	18204	18755												
PROLHD ETSM	Loader 10 5	★													1★														2★			
		kg													11200	11800	12150	12500	12850	13200	13600	14000	14500	15000	15500	16000						
		lbs													24713	26037	26809	27581	28354	29126	30008	30891	31994	33098	34201	35304						
ETST	Underground truck 20 12	★																								2★						
		kg													11020	11400	11770	12150	12500	12890	13270	13600										
		lbs													24316	25154	25971	26809	27581	28442	29280	30008										

Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																												
	Max.dist./hour km	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825					
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120					
ETDL5 ETSM PROLHD	Loader 10 5	★											1★						2★											
		kg											15000	15500	16000	16500	17000	18000	18500											
		lbs											33098	34201	35304	36407	37511	39717	40820											
ETNT ETD2S	Underground truck 20 12	★														2★														
		kg											9500	9750	10300	10600	11200	11500												
		lbs											20962	21513	22727	23389	24713	25375												
ETDL5 ETSM	Loader 10 5	★											1★						2★											
		kg											18000	19000	19500	20000	20600	21200	22400											
		lbs											39717	41924	43027	44130	45454	46778	49426											
ETNT ETD2	Underground truck 50 30	★												2★																
		kg											13600	14000																
		lbs											30008	30891																
29"																														
ETSM PROLHD ETDL5	Loader 10 5	★											1★						2★											
		kg											19500	20000	20600	21200	22400	23000	23600											
		lbs											43027	44130	45454	46778	49426	50750	52073											
ETNT ETD2	Underground truck 50 30	★												2★																
		kg											14500	15000																
		lbs											31994	33098																
33"																														
ETNT	Loader 10 5	Techking-Use (kg-lbs)		Loader load per tire <=28t																										
		★																	2★											
		kg											23000	23600	25000	25750	26500	27250	28000											
		lbs											50750	52073	55163	56817	58472	60127	61782											
		Techking-Use (kg-lbs)		Loader load per tire >28t																										
		★																			3★									
	Underground truck 40 25	kg																	28550	30000	30550	31500	32000	32500						
		lbs																	62996	66195	67409	69505	70608	71711						
		Techking-Use (kg-lbs)		Underground truck																										
		★																	2★									4★		
		kg											20000	20500	21200	21700	23000	23500	24300	24750	25750	26200	27250	27700	29000					
		lbs											44100	45233	46746	47881	50715	51853	53582	54611	56779	57810	60086	61120	63945					
ETDL5 ETSM	Loader 10 5	★																	2★											
		kg											23000	23600	25000	25750	26500	27250	28000											
		lbs											50700	52000	55100	56800	58400	60000	61500											



Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																									
	Max.Speed km/h mph	kPa psi	275 40	300 44	325 47	350 51	375 54	400 58	425 62	450 65	475 69	500 73	525 76	550 80	575 83	600 87	625 91	650 94	675 98	700 102	725 105	750 109	775 112	800 116	825 120		
24"																											
ETGRADER	Grader 40 25	★									1★																
		kg					2360	2500	2650	2800	3000																
		lbs					5207	5516	5847	6178	6620																
ETGRADER2 ETSNOW MATE G2	Grader 40 25	★							1★		2★																
		kg		2800	3000	3250	3350	3650	3750	3875																	
		lbs		6178	6620	7171	7392	8054	8274	8550																	
ETGRADER	Grader 40 25	★									2★																
		kg		3550	3750	4000	4125	4375	4625	4875																	
		lbs		7833	8274	8826	9102	9653	10205	10757																	
25"																											
SNOWKING MATE L3	Grader 40 25	★									2★																
		kg	3350	3550	3750	4000	4125	4375	4625	4750																	
		lbs	7392	7833	8274	8826	9102	9653	10205	10481																	
SNOWKING ETDL5	Grader 40 25	★									2★																
		kg	4375	4750	5000	5300	5600	5800	6150	6500																	
		lbs	9653	10481	11033	11694	12356	12798	13570	14342																	
ETD2S SNOWKING	Grader 40 25	★									2★																
		kg	5600	6000	6500	6700	7100	7500	7750	8250																	
		lbs	12356	13239	14342	14784	15666	16549	17100	18204																	
ETSNOW ETD2S	Grader 40 25	★									2★																
		kg	7100	7500	8000	8500	9000	9500	9750	10300																	
		lbs	15666	16549	17652	18755	19859	20962	21513	22727																	
ETSNOW ETD2S	Grader 40 25	★									2★																
		kg	8500	9250	9750	10300	10900	11500	11800	12500																	
		lbs	18755	20410	21513	22727	24051	25375	26037	27581																	
29"																											
ETD2	Grader 40 25	★									2★																
		kg	9250	9750	10300	10900	11500	12150	12500	13200																	
		lbs	20410	21513	22727	24051	25375	26809	27581	29126																	



Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																																			
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925	950	975	1000					
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120	124	127	130	134	138	141	145					
24"																																					
ETOT	E/M 50 30	PR																										20PR									
		kg																										4500									
		lbs																										9929									
ETOT ETOT II	E/M 50 30	★/PR																										3★24PR									
		kg																										5000									
		lbs																										11033									
25"																																					
ET618	E/M 50 30	★																			3★																
		kg																			4625	4750	5000	5150	5300	5450	5600	5700	5800								
		lbs																			10205	10481	11033	11363	11694	12025	12356	12577	12798								
ETOH	E/M 50 30	★																			3★																
		kg																			4625	4750	5000	5150	5300	5450	5600	5700	5800								
		lbs																			10205	10481	11033	11363	11694	12025	12356	12577	12798								
ET919	E/M 50 30	★																			3★																
		kg																			4625	4750	5000	5150	5300	5450	5600	5700	5800								
		lbs																			10205	10481	11033	11363	11694	12025	12356	12577	12798								
ETRT9	E/M 50 30	★																			3★																
		kg																			4625	4750	5000	5150	5300	5450	5600	5700	5800								
		lbs																			10205	10481	11033	11363	11694	12025	12356	12577	12798								
ET609	E/M 50 30	★																			3★																
		kg																			4625	4750	5000	5150	5300	5450	5600	5700	5800								
		lbs																			10205	10481	11033	11363	11694	12025	12356	12577	12798								
ET919	E/M 50 30	★																			3★																
		kg																			5600	5800	6000	6150	6300	6500	6700	6900	7100	7300	7500	7750	8000				
		lbs																			12356	12798	13239	13570	13901	14342	14784	15225	15666	16107	16549	17100	17652				
ET668	E/M 50 30	★																			3★																
		kg																			5600	5800	6000	6150	6300	6500	6700	6900	7100	7300	7500	7750	8000				
		lbs																			12356	12798	13239	13570	13901	14342	14784	15225	15666	16107	16549	17100	17652				
SUPER ETOT	E/M 50 30	★																			3★																
		kg																			5600	5800	6000	6150	6300	6500	6700	6900	7100	7300	7500	7750	8000				
		lbs																			12356	12798	13239	13570	13901	14342	14784	15225	15666	16107	16549	17100	17652				
ETRTV	E/M 50 30	★																			3★																
		kg																			5600	5800	6000	6150	6300	6500	6700	6900	7100	7300	7500	7750	8000				
		lbs																			12356	12798	13239	13570	13901	14342	14784	15225	15666	16107	16549	17100	17652				
ET688	E/M 50 30	★																			3★																
		kg																			5600	5800	6000	6150	6300	6500	6700	6900	7100	7300	7500	7750	8000				
		lbs																			12356	12798	13239	13570	13901	14342	14784	15225	15666	16107	16549	17100	17652				
ET919+	E/M 50 30	★																			3★																
		kg																			5600	5800	6000	6150	6300	6500	6700	6900	7100	7300	7500	7750	8000				
		lbs																			12356	12798	13239	13570	13901	14342	14784	15225	15666	16107	16549	17100	17652				
ETTN	E/M 50 30	★																			3★																
		kg																			5600	5800	6000	6150	6300	6500	6700	6900	7100	7300	7500	7750	8000				
		lbs																			12356	12798	13239	13570	13901	14342	14784	15225	15666	16107	16549	17100	17652				

Pattern	Application	Tire Load Limits at Various Cold Inflation Pressure																																											
	Max.Speed	kPa	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925	950	975	1000													
	km/h mph	psi	40	44	47	51	54	58	62	65	69	73	76	80	83	87	91	94	98	102	105	109	112	116	120	124	127	130	134	138	141	145													
ET688	E/M	★										0	0	0	0	0	0	0	0	0	0	0	0	3★																					
	50	kg										0	0	0	0	0	0	0	0	0	0	0	0	0																					
	30	lbs										0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
ET919+	E/M	★										0	0	0	0	0	0	0	0	0	0	0	0	3★																					
	50	kg										0	0	0	0	0	0	0	0	0	0	0	0	0																					
	30	lbs										0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
ET668	E/M	★										0	0	0	0	0	0	0	0	0	0	0	0	3★																					
	50	kg										0	0	0	0	0	0	0	0	0	0	0	0	0																					
	30	lbs										0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
ETOH	E/M	★										0	0	0	0	0	0	0	0	0	0	0	0	3★																					
	50	kg										0	0	0	0	0	0	0	0	0	0	0	0	10600																					
	30	lbs										0	0	0	0	0	0	0	0	0	0	0	0	23389																					
ETRT	E/M	★										6700	7100	7300	7500	7750	8000	8250	8500	8750	9000	3★																							
	50	kg										14784	15666	16107	16549	17100	17652	18204	18755	19307	19859	9250																							
	30	lbs										14784	15666	16107	16549	17100	17652	18204	18755	19307	19859	20410																							
29"																																													
ETOH	E/M	★										0	0	0	0	0	0	0	0	0	0	0	0	3★																					
	50	kg										0	0	0	0	0	0	0	0	0	0	0	0	0																					
	30	lbs										0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
ETOH	E/M	★										0	0	0	0	0	0	0	0	0	0	0	0	3★																					
	50	kg										0	0	0	0	0	0	0	0	0	0	0	0	0																					
	30	lbs										0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
33"																																													
ETDT2	E/M	★										7750	8000	8500	8750	9000	9250	9750	10000	10300	10600	3★																							
	50	kg										17100	17652	18755	19307	19859	20410	21513	22065	22727	23389	10900																							
	30	lbs										17100	17652	18755	19307	19859	20410	21513	22065	22727	23389	24051																							
ETDT	E/M	★										7750	8000	8500	8750	9000	9250	9750	10000	10300	10600	3★																							
	50	kg										17100	17652	18755	19307	19859	20410	21513	22065	22727	23389	10900																							
	30	lbs										17100	17652	18755	19307	19859	20410	21513	22065	22727	23389	24051																							



Pattern	Recommended Inflation Pressure		Tire Load Limits at Various Speeds											
	kPa	psi	km/h mph	0 Static	5 3	10 5	20 12	30 19	40 25	50 31	60 37	70 43	80 50	90 56
ETCRANE	900	131	kg lbs	17700 39021	12700 27998	11000 24250	9000 19841	7500 16534	6900 15211	6720 14815	6600 14550	6300 13889	6000 13227	/
ETCRANE ETCRANE2 (170F)	1000	145	kg lbs	17700 39021	12700 27998	11000 24250	9000 19841	7500 16534	6900 15211	6720 14815	6600 14550	6300 13889	6000 13227	/
ETCRANE CRAN80 (170G)	1000	145	kg lbs	17700 39021	12700 27998	11000 24250	9000 19841	7500 16534	6900 15211	6720 14815	6600 14550	6420 14153	6240 13756	6000 13227
ETCRANE	900	131	kg lbs	21500 47399	15500 34171	13500 29762	10050 22156	8400 18518	7700 16975	7500 16534	7350 16203	7050 15542	6700 14770	/
ETGC	900	131	kg lbs	28000 61729	20000 44092	18500 40785	13900 30644	12400 27337	11800 26014	11200 24691	10600 23369	9500 20943	/	/
ETCRANE	700	102	kg lbs	17700 39021	12700 27998	11000 24250	9000 19841	7500 16534	6900 15211	6720 14815	6600 14550	6300 13889	6000 13227	/
ETGC ETCRANE L	700	102	kg lbs	21500 47399	15500 34171	13500 29762	10950 24140	9100 20062	8400 18518	8200 18077	8100 17857	7700 16975	7300 16093	/



TKPH/TMPH DEFINITIONS

1. TIRE TKPH OR TIRE TMPH

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

TKPH is a function of load and the number of kilometers (miles) covered per hour at an ambient temperature of 38°C or 100 °F.

The formula to convert a TKPH rating to a TMPH rating is: $TMPH = TKPH \times 0.685$

TMPH calculation is based on the "short ton" which corresponds to 2000 lbs or 907 kg

2. BASIC SITE TKPH OR TMPH

This value reflects the specific requirements of a site and can be obtained by using the following formula:

Basic site TKPH (basic site TMPH) = $Q_m \times V_m$ where Q_m = average load per tire

V_m = average cycle speed, in km (or miles) per hour

a) Average load per tire (Q_m)

Average load per tire (Q_m): $Q_m = (Q_c + Q_v) / 2$

where Q_c = the load per tire in ton (TKPH), or in short ton (TMPH), on a laden vehicle.

Q_v = the load per tire in ton (TKPH), or in short ton (TMPH), on an unladen vehicle.

The Q_m calculation should theoretically be made for each tire. However, in practice, specific tire loads are not normally available and therefore this leads to the assumption that each tire on the same axle carries an equal load. When calculating the average load per tire on the front and the rear axles, the greatest value of Q_m shall be used in TKPH (TMPH) calculation.

In most cases, on two-axle dump trucks, the distribution of the total load of the loaded vehicle (unladen weight + payload) corresponds to 33.3% on the front axle (single tires) and 66.7% on the rear axle (twin tires).

When unladen, the front axle is almost always the heaviest.

Thus, the maximum Q_m , will nearly always be on the front axle.

Caution: ensure that load distribution Front/Rear is even.

Of course, the analysis of the site (or at least, the collected information), weighings and machine characteristics, will provide the information to define and check the load per tire.

b) The number of km (or number of miles) covered on the reference cycle:

This is obtained by using the relationship: $V_m = L / H$

where L = the cycle length in kilometers (TKPH), or in miles (TMPH).

The reference cycle must be the one with the highest average speed.

H = the duration of cycle in hour.

3. REAL SITE TKPH OR REAL SITE TMPH

The $Q_m \times V_m$ formula is used to calculate the basic site TKPH (or TMPH).

To obtain the real site TKPH (or TMPH), two more factors must be taken into account:

- the length of cycles exceeding 5 kilometers (or 3 miles)
- the ambient temperature.

a) Cycle length – K1 coefficient

For cycle lengths exceeding 5 kilometers (or 3 miles) apply to the basic site TKPH (or basic site TMPH) the K1 coefficient, the values of which are given on page 110.

b) Site ambient temperature (TA) – K2 coefficient

The standard ambient temperature is 38 °C (100°F). For a given speed, a site temperature higher than 38°C increases the real site TKPH (or TMPH). Conversely, a temperature lower than 38 °C decreases the real site TKPH (or TMPH).

The K2 coefficient to apply to the basic site TKPH (basic site TMPH) comes from:

$K2 = \{V_m + [0.25 \times (TA - TR)]\} / V_m$ where V_m is the reference cycle average speed

TA is the ambient temperature

TR is the reference temperature (38 °C or 100°F)

(*: use 0.086 instead of 0.25 when calculating basic site TMPH)

The ambient temperature of the site (TA) to be taken into account is "the maximum temperature in the shade" during the hottest period.

For temperature TA greater than 15 °C (59°F), use the K2 coefficient shown on page 32.

For temperature TA lower than 15 °C (59°F), use the K2 coefficient shown in the shaded area of the table on page 32.

To sum up, for the real site TKPH (TMPH) calculation, proceed as follows:

- calculate the basic site TKPH (TMPH).
- calculate the correct for cycle length exceeding 5 kilometers (3 miles) by applying the K1 coefficient.
- calculate the correct for ambient temperatures not equal to 38 °C (100 °F) by applying the K2 coefficient.

Real site TKPH (or TMPH) = Basic site TKPH (or basic site TMPH) $\times$ K1 $\times$ K2.



TKPH (TON-KM-PER-HOUR) RATING TABLE AT 38°C AMBIENT TEMPERATURE

Tires for Earthmover Service (Max. speed limited to 50 km/h)

Size	Pattern	TRA Code	Compound	Max dis/hr (km)	TKPH
14.00R24	ETRT	E4	CS	/	120
	ETOT	E3	CS	/	130
14.00R25	ETRT	E4	CS	/	120
			H2	/	130
	ET919	E3	CS	/	210
	ETOH	E3	CS	/	190
			C1	/	175
	ET618	E3	C1	/	175
	ET609	E3	C1	/	180
	ETRT9	E4	C1	/	120
16.00R25	ETSD	E3	CS	/	128
			H2	/	153
	ETUM	E4	CS	/	92
	ET919	E3	CS	/	210
			C1	/	185
	ET668	E3	CS	/	180
			C1	/	160
	SUPER ETOT	E3	C1	/	140
	ETRTV	E3	C1	/	140
	ET688	E3	CS	/	175
			C1	/	155
	ET919+	E3	CS	/	205
			C1	/	180
			H2	29	253
			C1	23	200
	ETDT	E4	CS	31	266
			C1	18	157
	SUPER RDT	E4	CS	22	192
			CS	19	216
			H2	24	268
21.00R33	ETUL+	E4			

Size	Pattern	TRA Code	Compound	Max dis/hr (km)	TKPH
21.00R35	ETDT2	E4	CS	24	284
			H2	29	332
	ETDT	E4	C1	18	213
			CS	23	264
24.00R35	ETDT2	E4	CS	22	326
			H2	25	370
	ETDT	E4	C1	17	252
			CS	19	281
			H2	22	326
			C1	17	246
	SUPER TRAC	E4	CS	20	289
			H2	23	336
			C1	15	222
			CS	17	252
	SUPER RDT	E4	H2	20	292
			C1	16	237
			CS	18	266
385/95R25 (14.00R25)	ETCRANE	E2	H1	/	220
	ETCRANE2	E2	H1	/	210
385/95R24 (14.00R24)	ETCRANE	E2	H1	/	220
445/95R25 (16.00R25)	ETCRANE	E2	H1	/	280
505/95R25 (18.00R25)	ETGC	E2	H1	/	346
445/80R25 (17.5R25)					280
525/80R25 (20.5R25)					306

Size	Pattern	TRA Code	Compound	Max dis/hr (km)	TKPH
23.5R25	PROADT	E3	CS	28	256
			C1	22	195
	ETADT	E4	CS	22	195
26.5R25	ETADT	E4	CS	22	252
	PROADT	E3	C1	16	215
			CS	28	295
	ETNT	E4	C1	14	165
29.5R25	PROADT	E3	CS	28	315
	ETNT	E4	C1	14	220
	ETADT	E4	C1	20	253
			CS	24	312
	SUPER ADT	E4	C1	16	190
			CS	20	266
	ETADT	E4	CS	14	232
			H2	22	306
29.5R29	ETADT	E4			
33.25R29	SUPER ADT	E4	C2	/	230
			CS	/	285
36/65R33	ETNT	E4	C1	14	240



LOAD & CARRY OPERATIONS FOR LOADERS

Service condition of a loader is defined as “picking up material and relocating a short distance away, a maximum of 76m(250 feet), one way, with a maximum speed of 10km/h(5mph)”. However, a loader can pick up a load and transport such load to another location and return unloaded for a longer distance. This type of service is called Load-and-Carry operations. Transportation usually occurs at low speeds, up to 25km/h(15mph) with limited distance.

The tires when in Load-and-Carry operations may encounter heat problems especially on the front axle tires. To avoid such problems, Techking recommends the following operating conditions.

For tires over 33” inch rim diameter careful study is required to maximize tire life while considering TKPH. Please consult a Techking representative for more information.

If you need to use the tire beyond this recommendation, please consult a Techking representative.

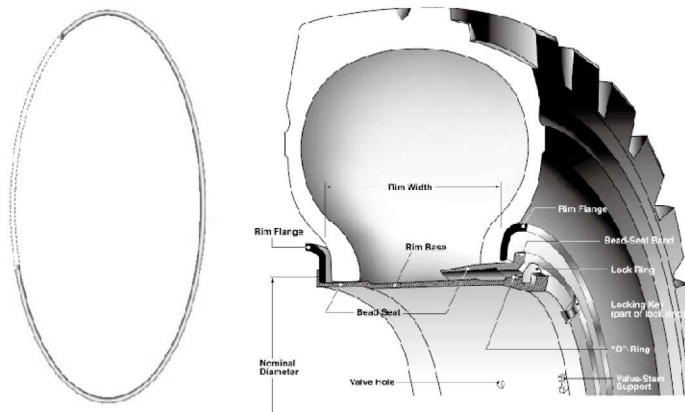
TRA Code	Inflation pressure			Maximum round Distance(m)	Allowed average speed(km/h)
	Rim Diameter				
	29 inch and below		33 inch and below		
	Conventional Size (95 series)	Wide base size (80,65 series)	Wide base size (65 series)		
L2,L3	★ ★★ 550kpa 825kpa (80psi) (120psi)	★ ★★ 500kpa 625kpa (73psi) (94psi)	★ ★★ 600kpa 750kpa (87psi) (109psi)	1800	16
L4				14	
L5				6	
L5S				5	



Shovels, Loaders, Bulldozers

O-RING DEFINITION & SPECIFICATIONS

O-Ring: An O-shaped rubber ring used in earthmover tubeless tire mountings to seal air between the loose taper seat and the rim base.

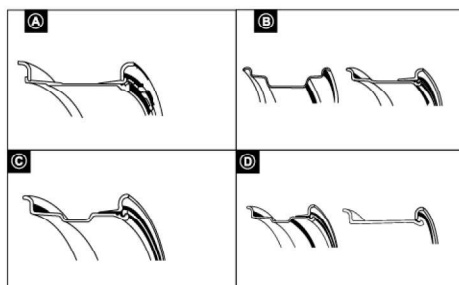


RIM AND VALVE

Full Tapered Bead Seat Rims (5 pieces)			Full Tapered Bead Seat Rims (5 pieces)			Drop Center Rims Full Tapered Bead Seat Rims (DC)			Semi Drop Center Rims (SDC)		Semi Drop Center Rims 5 Flat Base Rims (SDC) Flat Base Rims			
														
Tire size Designation	Rim Contours	Flange Height	Tire size Designation	Rim Contours	Flange Height	Tire size Designation	Rim Contours	Flange Height	Tire size Designation	Rim Contours	Tire size Designation	Rim Contours		
16.00X 25 445/95R25	11.25	2.0	33.25X 29 33.25X 35	27.00	3.5	14.00X 25 385/95R25	10.00	2.0	335/80R20 365/80R20 405/70R20	11 X 20 11 X 20 13 X 20	8.25X 20NHS	6.5, 6.50T 7.0, 7.00T		
18.00X 25 505/95R25 18.00X 33	13.00	2.5	33.5X 33 33.5X 39 37.25X 35	28.00 31.00	4.0 4.0	15.5X 25	12.00 12.00DC (12PR max one-star max) 13.00DC (12PR max one-star max)	1.3 1.41	13.00-24TG	8.00TG (14PR Max) 9.00DC (12PR Max) 10.00VA		9.00X 20NHS	7.0, 7.00T 7.5, 7.50V	
21.00X 25 21.00X 33 21.00X 35			15.00	3.0	37.5X 33 37.5X 39 25/65X 25		32.00 20.00		4.5 2.0	17.5X 25			14.00 14.00DC (12PR max one-star max) 13.00DC (12PR max one-star max)	1.5 1.41
24.00X 25 24.00X 35 24.00X 49	17.00	3.5			650/65R25 30/65X 25 750/65R25	19.50 24.00	2.5 3.0	445/80R25	14.00 17.00		2.0	16.00-24TG	10.00VA	
27.00X 49 31/90R49 30.00X 51			19.50 19.50 22.00	4.0 4.0 4.5	775/65R29 875/65R29	25.00 (24.00) 27.00 (28.00)	3.5 3.5		20.5X 25	17.00 17.00AL (16PR max one-star max)		1.7	13.00X 24TG	8.00TG 9.00DC (one-star max) 10.00VA
33.00X 51 36.00X 51 37.00X 57	24.00 26.00 27.00	5.0 5.0 6.0	35/65X 33 40/65X 39	28.00 32.00	3.5 4.0	525/80R25	17.00	2.0		14.00X 24TG	9.00DC (one-star max) 10.00VA		12.00X 24NHS	8.5, 8.50V 9.00V
40.00X 57 46/90R57 50/90R57	29.00 29.00 34.00	6.0 6.0 6.5	40.5/75 X 39 41.25/70 X 39	32.00 32.00	4.5 4.5		16.00 X 24TG		10.00VA 9.00DC (one-star max)					13.00X 24NHS
53/80R63 55/80R63 59/80R63	36.00 41.00 44.00	5.0 5.0 5.0	45/65R39 45/65X 45 50/65X 51	32.00 36.00 40.00	4.5 4.5 4.5									
23.5X 25 26.5X 25 26.5X 29	19.50 22.00	2.5 3.0	67.5/60 X 51 65/65-57 55.5/80 X 57	46.00 52.00 44.00	5.5 6.0 6.0									
29.5X 25 29.5X 29 29.5X 35	25.00	3.5												

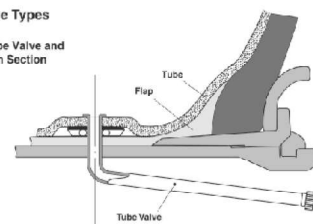
(): option size

Note: Tire size designation (X) includes "R" (Radial Ply) or "-" (Bias Ply).



Valve Types

Tube Valve and Rim Section



Tube Valve



CONVERSION TABLES: UNIT

INFLATION PRESSURE

kg/cm ²	lb/in ²	kpa	bar	kg/cm ²	lb/in ²	kpa	bar
0.1	1	10	0.1	2.6	37	250	2.5
0.2	3	20	0.2	2.7	38	260	2.6
0.3	4	30	0.3	2.8	40	270	2.7
0.4	6	40	0.4	2.9	41	280	2.8
0.5	7	50	0.5	3.0	43	290	2.9
0.6	9	60	0.6	3.1	44	300	3.0
0.7	10	70	0.7	3.2	45	310	3.1
0.8	11	80	0.8	3.3	47	320	3.2
0.9	13	90	0.9	3.4	48	330	3.3
1.0	14	100	1.0	3.5	50	340	3.4
1.1	16	110	1.1	3.6	51	350	3.5
1.2	17	120	1.2	3.7	53	360	3.6
1.3	18	130	1.3	3.8	54	370	3.7
1.4	20	140	1.4	3.9	55	380	3.8
1.5	21	150	1.5	4.0	57	390	3.9
1.6	23	160	1.6	4.1	58	400	4.0
1.7	24	170	1.7	4.2	60	410	4.1
1.8	26	180	1.8	4.3	61	420	4.2
1.9	27	190	1.9	4.4	62	430	4.3
2.0	28	200	2.0	4.5	64	440	4.4
2.1	30	210	2.1	4.6	65	450	4.5
2.2	31	220	2.2	4.7	67	460	4.6
2.3	33	230	2.3	4.8	68	470	4.7
2.4	34	240	2.4	4.9	70	480	4.8
2.5	36	250	2.5	5.0	71	490	4.9

INFLATION PRESSURE

kg/cm ²	lb/in ²	kpa	bar	kg/cm ²	lb/in ²	kpa	bar
5.1	72	490	4.9	7.6	108	740	7.4
5.2	74	500	5.0	7.7	109	750	7.5
5.3	75	510	5.1	7.8	111	760	7.6
5.4	77	520	5.2	7.9	112	770	7.7
5.5	78	530	5.3	8.0	114	780	7.8
5.6	80	540	5.4	8.1	115	790	7.9
5.7	81	550	5.5	8.2	116	800	8.0
5.8	82	560	5.6	8.3	118	810	8.1
5.9	84	570	5.7	8.4	119	820	8.2
6.0	85	580	5.8	8.5	121	830	8.3
6.1	87	590	5.9	8.6	122	840	8.4
6.2	88	600	6.0	8.7	124	850	8.5
6.3	89	610	6.1	8.8	125	860	8.6
6.4	91	620	6.2	8.9	126	870	8.7
6.5	92	630	6.3	9.0	128	880	8.8
6.6	94	640	6.4	9.1	129	890	8.9
6.7	95	650	6.5	9.2	131	900	9.0
6.8	97	660	6.6	9.3	132	910	9.1
6.9	98	670	6.7	9.4	133	920	9.2
7.0	99	680	6.8	9.5	135	930	9.3
7.1	101	690	6.9	9.6	136	940	9.4
7.2	102	700	7.0	9.7	138	950	9.5
7.3	104	710	7.1	9.8	139	960	9.6
7.4	105	720	7.2	9.9	141	970	9.7
7.5	107	730	7.3	10.0	142	980	9.8

WEIGHT

(FROM POUND TO KILOGRAM)

lb	kg	lb	kg	lb	kg	lb	kg
1	0.5	260	117.9	1200	544.3	5000	2268.0
10	4.5	280	120.0	1300	589.7	5200	2358.7
20	9.1	300	136.1	1400	635.0	5400	2449.4
30	13.6	320	145.2	1500	680.4	5600	2540.2
40	18.1	340	154.2	1600	725.8	5800	2630.9
50	22.7	360	163.3	1700	771.1	6000	2721.6
60	27.2	380	172.4	1800	816.5	7000	3175.2
70	31.8	400	181.4	1900	861.8	8000	3628.8
80	36.3	420	190.5	2000	907.2	9000	4082.4
90	40.8	440	199.6	2200	997.9	10000	4536.0
100	45.4	460	208.7	2400	1088.6	11000	4989.6
110	49.9	480	217.7	2600	1179.4	12000	5443.2
120	54.4	500	226.8	2800	1270.1	13000	5896.8
130	59.0	520	235.9	3000	1360.8	14000	6350.4
140	63.5	540	244.9	3200	1451.5	15000	6804.0
150	68.0	560	254.0	3400	1542.2	16000	7257.6
160	72.6	580	263.1	3600	1633.0	17000	7711.2
170	77.1	600	272.2	3800	1723.7	18000	8164.8
180	81.6	700	317.5	4000	1814.4	19000	8618.4
190	86.2	800	362.9	4200	1905.1	20000	9072.0
200	90.7	900	408.2	4400	1995.8		
220	99.8	1000	453.6	4600	2086.6		
240	108.9	1100	499.0	4800	2177.3		

WEIGHT

(FROM KILOGRAM TO POUND)

lb	kg	lb	kg	lb	kg	lb	kg
1	2.2	130	286.6	600	1322.8	2500	5511.5
5	11.0	140	308.6	650	1433.0	2600	5732.0
10	22.0	150	330.7	700	1543.2	2700	5952.4
15	33.1	160	352.7	750	1653.5	2800	6173.0
20	44.1	170	374.8	800	1763.7	2900	6393.3
25	55.1	180	396.8	850	1873.9	3000	6613.8
30	66.1	190	418.9	900	1984.1	3500	7716.1
35	77.2	200	440.9	950	2094.4	4000	8818.4
40	88.2	210	463.0	1000	2204.6	4500	9920.7
45	99.2	220	485.0	1100	2425.1	5000	11023.0
50	110.2	230	507.1	1200	2645.5	5500	12125.3
55	121.3	240	529.1	1300	2866.0	6000	13227.6
60	132.3	250	551.2	1400	3086.4	6500	14329.9
65	143.3	260	573.2	1500	3306.9	7000	15432.2
70	154.3	270	595.2	1600	3527.4	7500	16534.5
75	165.3	280	617.3	1700	3747.8	8000	17636.8
80	176.4	290	639.3	1800	3968.3	8500	18739.1
85	187.4	300	661.4	1900	4188.7	9000	19841.4
90	198.4	350	771.6	2000	4409.2	9500	20943.7
95	209.4	400	881.8	2100	4629.7	10000	22046.0
100	220.5	450	992.1	2200	4850.1		
110	242.5	500	1102.3	2300	5070.6		
120	264.6	550	1212.5	2400	5291.0		

CONVERSION TABLES: UNIT

LENGTH		m.meter	c.meter	meter	k.meter	inch	foot	yard	mile
	m.meter	1	0.1000	0.00100	-	0.03937	0.00328	0.00109	-
	c.meter	10.0000	1	0.01000	0.00001	0.39371	0.03281	0.01094	-
	meter	1000.00	100.00	1	0.00100	39.3707	3.28089	1.09363	0.00062
	K.meter	-	100000	1000.00	1	39370.7	3280.89	1093.63	0.62138
	inch	25.3995	2.53995	0.02540	0.00003	1	0.08333	0.02778	0.00002
	foot	304.794	30.4794	0.30479	0.0030	12.0000	1	0.33333	0.00019
	yard	914.383	91.4383	0.91438	0.00091	36.0000	3.00000	1	0.00057
	mile	-	160931	1609.31	1.60931	63360.0	5280.00	1760.00	1

AREA		Meter ²	are	hectare	k.meter ²	foot ²	yard ²	acre	mile ²
	meter ²	1	0.010000	0.000100	0.000001	10.7639	1.19600	0.000247	0.000000
	are	100.000	1	0.010000	0.000100	1076.39	119.600	0.024710	0.000039
	hectare	10000.0	100.000	1	0.10000	107639.0	11960.0	2.47105	0.003861
	K.meter ²	-	10000.0	100.000	1	-	-	247.105	0.386098
	foot ²	0.092903	0.000929	0.000009	0.000000	1	0.111111	0.000023	0.000000
	yard ²	0.836130	0.008361	0.000094	0.000000	9.00000	1	0.000207	0.00000
	acre	4046.87	40.4687	0.404687	0.004047	43560.2	4840.00	1	0.001562
	mile ²	-	25900.2	259.002	2.59002	-	-	640.000	-

WEIGHT		gram	k.gram	ton	s.ton	l.ton	ounce	pound
	gram	1	0.00100	-	-	-	0.03527	0.00220
	k.gram	1000.00	1	0.00100	0.00110	0.00098	35.2739	2.20462
	ton	-	10000.00	1	1.10230	0.98421	35273.9	2204.62
	s.ton	907185	907.185	0.90719	1	0.89286	32000.0	2000.00
	l.ton	-	1016.04	1.01604	1012000	1	35840.0	2240.00
	ounce	28.3495	0.02835	0.00003	0.00003	0.00003	1	0.06250
	pound	453.592	0.45359	0.00045	0.00050	0.00045	16.0000	1

CAPACITY		cub.meter	liter	cub.inch	cub.foot	cub.yard	U.S.gallon	U.K.gallon
	cub.meter	1	1000.00	61027.1	35.3147	1.30802	264.186	220.216
	liter	0.00100	1	61.0271	0.03532	0.00131	0.26419	0.22022
	cub.inch	0.00002	0.01639	1	0.00058	0.00002	0.00433	0.00361
	cub.foot	0.02832	28.3167	1728.00	1	0.03704	7.48051	6.23549
	cub.yard	0.76455	764.554	46656.0	27.0000	1	201.974	168.358
	U.S.gallon	0.00379	3.78543	231.000	0.13368	0.00495	1	0.83270
	U.K.gallon	0.00455	4.54596	277.413	0.16037	0.00594	1.20091	1

TORQUE

kilogram meter kgmx9.81=Nm (Newton meter)

POWER(horse power)

powerHPx0.7457=kW (kilowatt)

