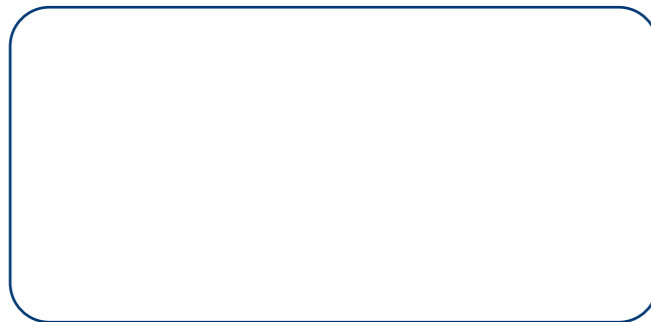


Delivery range

Commercial Vehicle Tyres

Regrooving recommendations

and Specifications



In the year 1998 Barum Continental Ltd. received the certificate TÜV CERT according to ISO 9001, QS-9000 and VDA 6.1 standards. Companies receiving this certificate meet the highest standards required in development and production.



ES
1836/93

In June 1997 Barum Continental Ltd. was awarded a certificate by the German Technical Inspectorate TÜV Rheinland confirming that its environmental policies, platform and management systems were in accordance with the requirements of EU 1836/93 Standard. It was the first company outside the EU to achieve this.



In June 1997 the German Technical Inspectorate TÜV Rheinland awarded Barum Continental Ltd a certificate for its Environmental Management System according to ISO 14 001 Standard.



A good commercial reason.

Continental AG
Büttnerstraße 25
D-30165 Hannover



A good commercial reason.

FRONT

Delivery range

BF 12

For short and long distance service.

The wide ribbed tread pattern provides excellent mileage performance. Low rolling resistance ensures low fuel consumption.

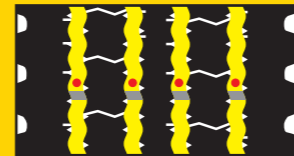
The optimum tread pattern design ensures precise steering response, safer braking and low rolling noise.

The special grooved structure deflects stones and helps to retain the casing value.



11 R 22.5 148/145 L
12 R 22.5 152/148 L (150/148 M)

Regrooving:



Depth (mm) 3.0
Width (mm) 14.0

FRONT

Delivery range

BF 15 Road Front

Front axle tyre for short and long distance haulage.

New, extra wide shoulder – rugged, with precise steering response.

Innovative groove geometry helps eject stones.

Optimised tread compound reduces wear, extending tyre life.



265/70 R 19.5 136/134 M *)
295/80 R 22.5 152/148 M **)
315/80 R 22.5 154/150 M (156/150 L ***)

Regrooving:



Depth (mm) *) 3.0
**) 3.5
Width (mm) 10.0

BF 13

Economical front axle tyre for short haul service.

High mileage and excellent wet weather performance.

Also suitable as an all-round tyre fitment.



11.00 R 20 150/146 K
12.00 R 20 154/149 K

Regrooving:



Depth (mm) 3.0
Width (mm) 5.0;13.0

BF 15 Road Front

Front axle tyre for short and long distance haulage.

New, extra wide shoulder – rugged, with precise steering response.

Innovative groove geometry helps eject stones.

Optimised tread compound reduces wear, extending tyre life.



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

Regrooving:



Depth (mm) 3.0
Width (mm) 10.0

NR 32

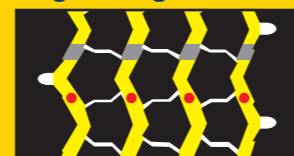
The tread design gives it flexibility in use.

Also suitable as an all-round tyre fitment.



11.00 R 20 149/145 K

Regrooving:



Depth (mm) 3.0
Width (mm) 7.0 - 8.0

DRIVE

Delivery range

BD 21

All-season tyre for the drive axle on vehicles in short and long distance service.

A deep tread pattern combined with a wide tread area ensures outstanding mileage performance.

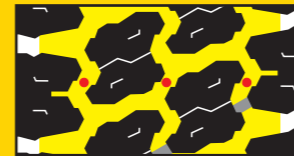
The interaction of lateral edges and sipes produces excellent traction.

The optimised tread block arrangement ensures minimum cabin noise.



11 R 22.5 148/145 L

Regrooving:



Depth (mm) 3.0 Width (mm) 8.0 - 10.0

TRAILER

Delivery range

NR 52

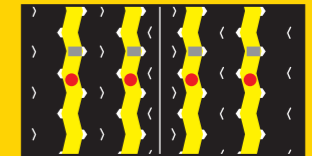
The NR 52 offers optimum durability with maximum load utilisation.

Coupled with a tread pattern designed to reduce stone trapping.



365/80 R 20 160/ - K

Regrooving:



Depth (mm) 3.0 Width (mm) 14.0

BD 22

Genuine „high miler“ offering an impressive mileage in short and long haulage.

High mileage performance through wider tread and optimised compound.

Wide, flat tread contour for even wear.

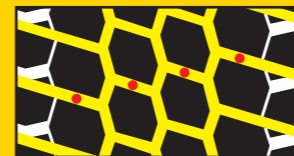
Good traction and outstanding winter suitability through angled tread lugs.

Closed shoulder ensures quiet running.



295/80 R 22.5 152/148 M
315/80 R 22.5 154/150 M (156/150 L)
315/70 R 22.5 152/148 L (154/150 K)
12 R 22.5 152/148 L

Regrooving:



Depth (mm) 4.0 Width (mm) 8.0 - 10.0

BT 43

Developed as an all-round fitment on conventional and articulated trailers in road use.

High tread volume ensures excellent mileage performance.

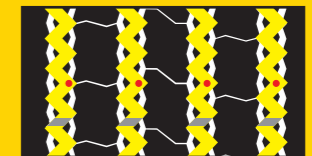
Modern tread pattern design means very good driving stability.

Optimised arrangement of grooves deflects stones, thus maintaining the high value of the casing.



265/70 R 19.5 143/141 J
385/65 R 22.5 160/ - K
425/65 R 22.5 165/ - K

Regrooving:



Depth (mm) 4.0 Width (mm) 10.0

BC 31 Road City Specialist for city buses

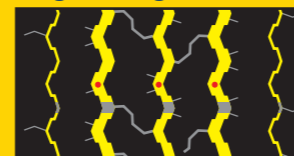
Reinforced to protect from kerbstone damage

Outstanding mileage performance and quiet run



275/70 R 22.5 148/145 J (151/148 E)

Regrooving:



Depth (mm) 3.0 Width (mm) 10.0

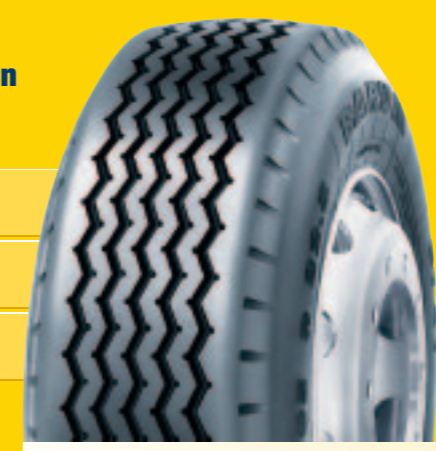
BT 41

Tyre for semi-trailers and trailers in short- and long-distance haulage.

Excellent directional stability.

High durability and low rolling resistance.

Good self-cleaning properties.



445/65 R 22.5 168/ - K

Regrooving:



Depth (mm) 3.0 Width (mm) 16.0

UNIVERSAL

Delivery range

BU 53

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

Optimum tread pattern design deflects stones.

Solid shoulders give the tyre directional stability.



315/80 R 22.5 156/150 K *)
(only on demand)
11 R 22.5 148/145 K **)
12 R 22.5 152/148 K *)

Regrooving:



Depth (mm) Width (mm)
*) 4.0 A:10.0; B: 8.0
**) 3.5 A:10.0; B: 8.0

BU 52

Economical all-round tyre fitment on trucks - suitable for light site supply traffic.

Wide spaces between tread lugs provide good traction and self-cleaning.



13 R 22.5 154/150 K

Regrooving:



Depth (mm) Width (mm)
3.0 14.0

BU 51

The BU 51 is a highly durable and economical performance tyre, suitable for on-/off-road services, with predominantly road applications.

A drive tyre that is usable as an all round fitment, the BU 51 offers excellent transmission of traction and braking forces.



12.00 R 20 154/149 K

Regrooving:



Depth (mm) Width (mm)
4.0 12.0

BU 49

On-/off road tyre for use on any wheel position

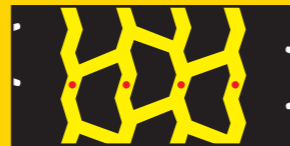
Positive grip both on and off the road thanks to interlocking tread lugs

Specially adapted tread compound ensures high resilience



385/65 R 22.5 160 K (160/ - K)

Regrooving:



Depth (mm) Width (mm)
3.5 13.0

ON/OFF-ROAD

Delivery range

NR 49

Traction tyre for medium-duty use on and off the road.

The NR 49 offers maximum traction both on and off the road regardless of load, enabling safe handling in all driving conditions.



445/65 R 22.5 168/ - J

Regrooving:



Depth (mm) Width (mm)
3.0 15.0 - 20.0

NR 55

Traction tyre for medium-duty use on and off the road.

Angled tread grooves combined with open shoulders ensure reliable traction, even on muddy terrain.

Very durable.



11.00 R 20 150/146 K

Regrooving:



Depth (mm) Width (mm)
3.0 15.0

BS 71

Reliable tyre for all driven axles on difficult terrain.

The closed central rib provides optimum protection from external damage.

The open tread block structure in the tyre shoulder means excellent traction.



12.00 R 20 154/149 K

Regrooving:



Depth (mm) Width (mm)
3.0 17.0

BS 72

Traction tyre for medium-duty use on and off the road.

The tread blocks combined with wide, deep tread grooves provide positive traction, even on difficult terrain.

The closed central tread pattern ensures high mileage performance and good driving characteristics on the road.

The tyre's special tread compound is resistant to external damage.



315/80 R 22.5 156/150 K
12 R 22.5 152/148 K
13 R 22.5 154/150 K

Regrooving:



Depth (mm) Width (mm)
4.0 6.0 - 8.0

Specifications

Specifications

Size	Operating code					Rim		Tyre dimensions						Load capacity (kg) per axle at tyre pressure ²⁾ (bar)																	
														(psi)																	
	LI/SI ¹⁾	PR	Speed Index and ref. speed (km/h)	Pattern	TT/TL	Rim width	Distance between rim centres	Max. standard value in service		Actual value		Stat. radius	Rolling circumference	Load index LI	Tyre fitment	4,5 (65)	5,0 (73)	5,5 (80)	6,0 (87)	6,5 (94)	7,0 (102)	7,5 (109)	8,0 (116)	8,5 (123)	9,0 (131)						
Width	Outer-dia.	Width +1%	Outer-dia. ± 1%	± 1,5%	± 2%																										
6.50 R 20	115/113 L	10	L 120	NR 21 NR 36	TL TL	4.50	200	186	871	180	860	406	2640	115	S	2065	2250	2430													
						5.00	206	192		186			113	D	3915	4260	4600														
265/70 R 19.5	136/134 M		M 130	BF 15	TL	6.75	286	264	881	254	867	401	2645	143	S	3320	3560	3845	4120	4395	4665	4930	5190	5450							
						7.50	295	275		262			140	S	3610		3900	4180	4455	4730	5000										
365/80 R 20	143/141 J		J 100	BT 43	TL	7.50	295	272	881	262	867	396	2645	138	D	6270	6820	7365	7895	8415	8930	9440	9810	10300							
						8.25	304	282		270			141	D																	
11.00 R 20	160/- K	20	K 110	NR 52	TL	10.00	0	379	1116	348	1092	501	3310	160	S	5620	6065	6505	6935	7360	7775	8190	8595	9000							
	150/146 K	16	K 110	BF 13	TT	8.00	330	297	1104	286	1082	498	3295	150	S	4380	4725	5070	5405	5735	6060	6380	6700								
	149/145 K	16	K 110	NR 32	TT										149	146	145	D	4460	4815	5160	5505	5840	6170	6500						
150/146 K	16	K 110	NR 55	TT	146	145	D	7845	8470	9080	9680	10270	10855	11430	12000																
12.00 R 20	154/149 K	18	K 110	BF 13	TT	8.50	351	319	1146	313	1122	515	3420	154	S	4905	5290	5675	6050	6420	6785	7140	7500								
	154/149 K	18	K 110	BU 51	TT										149	D	4905	5290	5675	6050	6420	6785	7140	7500							
	154/149 K	18	K 110	BS 71	TT										149	D	8500	9175	9835	10485	11125	11760	12380	13000							
295/80 R 22.5	152/148 M		M 130	BF 15	TL	8.25	328	302	1062	290	1044	487	3185	152	S	4265	4640	5010	5370	5725	6075	6420	6760	7100							
	152/148 M		M 130	BD 22	TL	9.00	346	310	1062	298	1044	487	3185	148	D	7575	8240	8890	9535	10165	10785	11395	12000	12600							
315/80 R 22.5	156/150 K		K 110	BU 53	TL	9.00	355	318	1096	312	1076	500	3280	156	S	4590	4995	5390	5780	6165	6540	6910	7280	7640	8000						
	154/150 M (156/150 L)		M 130 (L 120)	BF 15	TL										154	S	4505	4905	5290	5675	6050	6420	6785	7140	7500						
	156/150 K	18	K 110	BS 72	TL										150	D	8055	8760	9455	10140	10810	11470	12120	12765	13400						
	154/150 M (156/150 L)		M 130 (L 120)	BD 22	TL																										
275/70 R 22.5	148/145 J (151/148 E)	16	J 100 (E 70)	BC 31	TL	7.50	307	279	974	267	961	447	2920	151	S	3960	4310	4650	4985	5315	5640	5960	6275	6590	6900						
						8.25	316	287		275			148	S	3615	3935	4245	4550	4855	5150	5440	5730	6015	6300							
													148	D	7235	7870	8495	9105	9710	10305	10885	11465	12035	12600							
													145	D	6660	7245	7820	8385	8940	9485	10025	10555	11080	11600							
315/70 R 22.5	152/148 L (154/150 K)		L 120 (K 110)	BF 15	TL	9.00	350	318	1032	312	1014	468	3090	154	S	4305	4685	5055	5420	5780	6130	6480	6825	7160	7500						
															152	S	4265	4640	5010	5370	5725	6075	6420	6760	7100						
															150	D	7695	8370	9035	9685	10325	10955	11580	12195	12800	13400					
154/150 K (154/150 K)		K 110	BD 22	TL	148	D	7575	8240	8890	9535	10165	10785	11395	12000	12600																
385/65 R 22.5	160/- K	20	K 110	BT 43	TL	11.75	0	405	1092	389	1072	495	3250	160	S	5165	5620	6065	6505	6935	7360	7775	8190	8595	9000						
	160/- K		K 110	BU 49	TL	12.25	0	410	1092	394	1072	495	3250	160	S																
425/65 R 22.5	165/- K		K 110	BT 43	TL	13.00	0	447	1146	430	1124	514	3405	165	S	6190	6735	7270	7795	8310	8815	9315	9810	10300							
445/65 R 22.5	168/- K	20	K 110	BT 41	TL	14.00	0	472	1174	454	1150	524	3485	168	S	6430	6995	7550	8095	8630	9160	9675	10190	10695	11200						
	168/- J	20	J 100	NR 49	TL																										
11 R 22.5	148/145 L	16	L 120	BF 12	TL	7.50	305	282	1070	271	1050	489	3200	148	S	3785	4120	4445	4765	5080	5390	5695	6000	6300							
	148/145 L		L 120	BU 53	TL	8.25	314	290	1070	279	1050	489	3200	145	D	6970	7585	8185	8775	9355	9930	10490	11050	11600							
	148/145 L (150/148 M)	16	L 120 (M 130)	BF 12	TL	8.25	329	304	1104	292	1084	504	3306	152	S	4265	4640	5010	5370	5725	6075	6420	6760	7100							
12 R 22.5	152/148 K		K 110	BU 53	TL	9.00	338	312	1104	300	1084	504	3306	148	D	4225	4600	4960	5320	5670	6020	6360	6700	7040							
	152/148 L		L 120	BD 22	TL																										
	152/148 K	18	K 110	BS 72	TL																										
	154/150 K	18	K 110	BU 52	TL	9.00	350	318	1141	312	1124	521	3428	154	S	4505	4905	5290	5675	6050	6420	6785	7140	7500							
13 R 22.5	154/150 K	18	K 110	BS 72	TL	9.75	358	326	1141	320	1124	521	3428	150	D	8055	8760	9455	10140	10810	11470	12120	12765	13400							
	154/150 K	18	K 110	BS 72	TL																										
18 R 22.5	168/- J	20	J 100	NR 15	TL	14.00	0	457	1158	450	1158	528	3532	168	S			8295	8895	9485	10065	10635	11200								
	168/- J	20	J 100	NR 27	TL																										

1) Load index single/dual wheel fitment and speed symbol

2) For tyre pressure of 8,0 bar (116 psi) and over use valve slit cover plate

Specifications

Specifications

Tyre designations

Tyre designations

Valves, tubes and flaps

Size	Type	Rim	Tube	Valve	Flap
11.00 R 20	TT	8.00	11.00 - 20	127 D-Z	200-20
12.00 R 20	TT	8.50	12.00 - 20	127 D-Z	200-20
365/80 R 20	TL	10.00V		120MSF	
11 R 22.5	TL	7.50		MS	
	TL	8.25		MS	
12 R 22.5	TL	8.25		MS	
	TL	9.00		MS	
13 R 22.5	TL	9.00		MS	
	TL	9.75		MS	
16.5 R 22.5	TL	13.00		MS	
	TL	14.00		MS	
18 R 22.5	TL	14.00		MS	
275/70 R 22.5	TL	7.50		MS	
	TL	8.25		MS	
295/80 R 22.5	TL	8.25		MS	
	TL	9.00		MS	
315/80 R 22.5	TL	9.00		MS	
385/65 R 22.5	TL	11.75		MS	
	TL	12.25		MS	
425/65 R 22.5	TL	13.00		MS	
445/65 R 22.5	TL	14.00		MS	



- 1 - Barum - Manufacturer
- 2 - **BD 22 ROAD DRIVE** - Tread pattern reference
- 3 - **295/80 R 22.5** - Size designation
295 - tyre width in mm
/80 - aspect ratio (section height to section width) =80%
22.5 - rim diameter (code)
- 4 - **REGROOVABLE** - The manufacturer has designed the tyre for regrooving
- 5 - **152/148 M** - load index for single/dual fitment, code letter for speed rating
- 6 - Tubeless
- 7 - **MAX. LOAD** - load designation of single/dual fitment and indication of max. inflation pressure in kPa (1 bar = 100 kPa)
- 8 - **Data as per US safety standard**
on inner construction or number of plies, in this case
Sidewall: viewed from the side there is one steel cord ply
Tread: under the tread there are five steel cord plies
- 9 - **ECE-designation** with country code for the country in which the approval number was issued
- 10 - **DOT** - Department of Transportation
Manufacturer code - Tyre factory, Tyre size, Tyre model
0503 - Date of manufacture (Production week/year) 5th week 2003
- 11 - **TWI** - TREAD WEAR INDICATORS

Tyre designations

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

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

Lengths

are given in millimetres (mm).

Tyre pressure

Tyre inflation pressure is given in bar based on cold tyre.

Outer diameter New*)

is a nominal size which refers to the tread centre.

Max. outer diameter in service

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

Cross-section width New*)

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

Max. operational width

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

Static radius

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

Rolling circumference

is the distance covered by each revolution of the tyre.

Load capacities

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

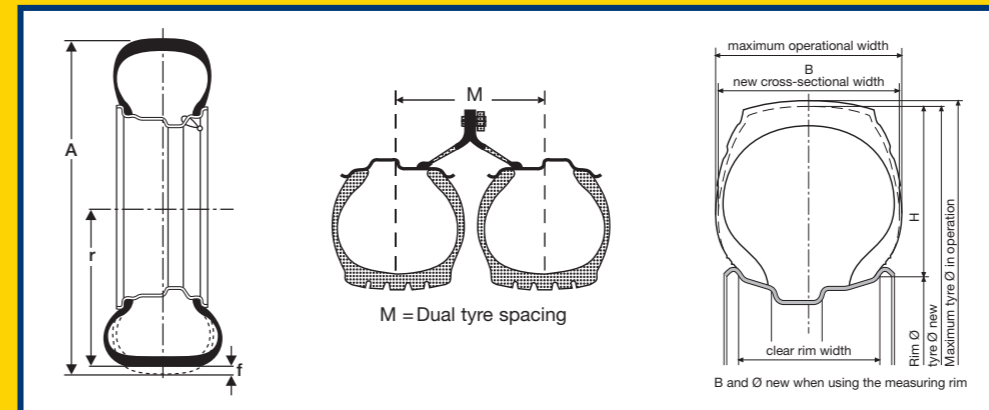
Dual tyre spacing

Maintaining the minimum space ensures that the two tyres in a dual tyre fitment function without any infringement of ETRTO standards, providing the tyres are not fitted with chains.

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

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

*) Construction size



A = Outer diameter on the tyre

r = static radius

f = deflection under load

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

¹⁾ „R” = radial design

„-” = cross-ply design

„C” = light truck (van) tyre with LI for single tyres
= 121 and below,

²⁾ PR rating = load capacity index

³⁾ Service description = load index for single/dual tyres plus speed symbol

⁴⁾ Supplementary service description

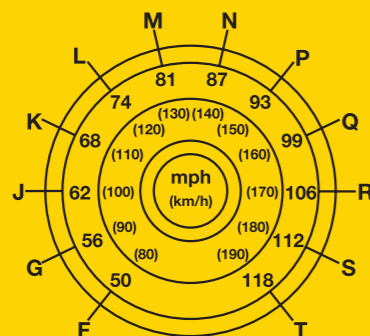
Tyre designations

Tyre designations

Load Indices (LI)

LI	kg	LI	kg	LI	kg	LI	kg	LI	kg	LI	kg
19	77,5	50	190	81	462	112	1120	143	2725	174	6700
20	80	51	195	82	475	113	1150	144	2800	175	6900
21	82,5	52	200	83	487	114	1180	145	2900	176	7100
22	85	53	206	84	500	115	1215	146	3000	177	7300
23	87,5	54	212	85	515	116	1250	147	3075	178	7500
24	90	55	218	86	530	117	1285	148	3150	179	7750
25	92,5	56	224	87	545	118	1320	149	3250	180	8000
26	95	57	230	88	560	119	1360	150	3350	181	8250
27	97,5	58	236	89	580	120	1400	151	3450	182	8500
28	100	59	243	90	600	121	1450	152	3550	183	8750
29	103	60	250	91	615	122	1500	153	3650	184	9000
30	106	61	257	92	630	123	1550	154	3750	185	9250
31	109	62	265	93	650	124	1600	155	3875	186	9500
32	112	63	272	94	670	125	1650	156	4000	187	9750
33	115	64	280	95	690	126	1700	157	4125	188	10000
34	118	65	290	96	710	127	1750	158	4250	189	10300
35	121	66	300	97	730	128	1800	159	4375	190	10600
36	125	67	307	98	750	129	1850	160	4500	191	10900
37	128	68	315	99	775	130	1900	161	4625	192	11200
38	132	69	325	100	800	131	1950	162	4750	193	11500
39	136	70	335	101	825	132	2000	163	4875	194	11800
40	140	71	345	102	850	133	2060	164	5000	195	12150
41	145	72	355	103	875	134	2120	165	5150	196	12500
42	150	73	365	104	900	135	2180	166	5300	197	12850
43	155	74	375	105	925	136	2240	167	5450	198	13200
44	160	75	387	106	950	137	2300	168	5600	199	13600
45	165	76	400	107	975	138	2360	169	5800	200	14000
46	170	77	412	108	1000	139	2430	170	6000	201	14500
47	175	78	425	109	1030	140	2500	171	6150	202	15000
48	180	79	437	110	1060	141	2575	172	6300	203	15500
49	185	80	450	111	1090	142	2650	173	6500	204	16000

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