



**VOLTYRE**  
**PROM**



## ABOUT THE COMPANY

JSC «Voltyre-Prom» is one of the leading and fast growing tire companies in Russia, which produces tires for cars, trucks, agricultural machinery, heavy-duty and industrial machines. Currently, it produces more than 100 types of tires that have high demand both in Russian and in the foreign markets. JSC «Voltyre- Prom» has its own design development base and test station; the company makes investments in the research and testing of tires in various, including extreme conditions.

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## Constructive designations of tires

**Ply Rating** (pr) is the symbol of the strength of the carcass of the tire, specifying a limit of the maximum permissible load.

**Speed symbol** of the tire is the symbol that defines the maximum speed of the tire.

**Load Index** is the code indicating the maximum load on the tire at a speed determined by the speed index of the tire.

**The serial number of the tire** is the symbol specified by the manufacturer, which determines the manufacturer and serial number of the tire

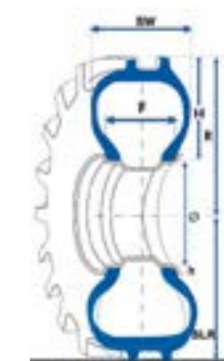
## Speed Symbols and the corresponding rate of speed

Speed Symbols	A1	A2	A3	A4	A5	A6	A7	A8	B	C	D	E	F	G	J
Speed, km/h	5	10	15	20	25	30	35	40	50	60	65	70	80	90	100

## Units of measurement

Length			Weight			Pressure	
1 centimeter	cm	=0,3937 "	1 pound	lb	=0,4536 kg	1 psi	=6,895 кПа
1 inch	in	=25,4 mm	1 kilogram	kg	=2,205 lb	1 kg/cm <sup>2</sup>	=98,066 кПа
1 meter	m	=3,281 ft				1 bar	=100 кПа
1 foot	ft	=0,3048 m	Volume				
1 kilometer	km	=0,6214 ml	1 litre	l	=0,21 imp.gal.		
1 mile	mi	=1609 m =1,609 km	1 gallon	imp.gal.	=4,55 l		

## Marking



**Tire:**  
 R — tire radius  
 SLR — static radius under the load  
 OD — outside diameter  
 SW — section width  
 H — profile height

**Rim:**  
 F — rim width  
 h — height of rim flange  
 Ø — bore diameter of the rim

1. Designation: 14.9R24 (nominal width in inches, the ratio of height to width in% R - radial design, bore diameter of the rim in inches).
2. Model of tire: DR-105.
3. Trademark.
4. Country of tire manufacturer: "Made in Russia".
5. The load index and the speed category «126 A8 / 123».
6. Maximum pressure in the tire when mounting to the rim – 2.5 bar MAX.
7. Date stamp of the manufacturer (first two digits - serial number of the week, the last two digits - year of production).
8. The design of the tire: RADIAL.
9. The normative document according to which the tire was manufactured, «TU 2521-008-50514721.»
10. Direction of rotation of the tire.
11. A decorative element - spikelet.
12. Type of the tire: "TUBELESS"; "TYBE TYPE".
13. Designation of tires for agricultural machines: "IMPLEMENT".
14. Designation of tires for the drive wheels of agricultural tractors: regular tread.
15. Approval mark «E» with the number of approval of tire type on the basis of the UNECE Regulations.

Note:

The sidewall is the same on both sides of the tire, excluding the mark «date of manufacture» p.7 and the approval mark «E» p.15 – they are applied only on one side. The direction of rotation p.10 and spikelet p.11 are applied on both sides.

### Load index and the corresponding load

Load index	Load, kg	Load index	Load, kg	Load index	Load, kg	Load index	Load, kg	Load index	Load, kg	Load index	Load, kg
1	46.2	36	125	71	345	106	950	141	2575	176	7100
2	47.5	37	128	72	355	107	975	142	2650	177	7300
3	48.7	38	132	73	365	108	1000	143	2725	178	7500
4	50	39	136	74	375	109	1030	144	2800	179	7750
5	51.5	40	140	75	387	110	1060	145	2900	180	8000
6	53	41	145	76	400	111	1090	146	3000	181	8250
7	54.5	42	150	77	412	112	1120	147	3075	182	8500
8	56	43	155	78	425	113	1150	148	3150	183	8750
9	58	44	160	79	437	114	1180	149	3250	184	9000
10	60	45	165	80	450	115	1215	150	3350	185	9250
11	61.5	46	170	81	462	116	1250	151	3450	186	9500
12	63	47	175	82	475	117	1285	152	3550	187	9750
13	65	48	180	83	487	118	1320	153	3650	188	10000
14	67	49	185	84	500	119	1360	154	3750	189	10300
15	69	50	190	85	515	120	1400	155	3875	190	10600
16	71	51	195	86	530	121	1450	156	4000	191	10900
17	73	52	200	87	545	122	1500	157	4125	192	11200
18	75	51	206	88	560	123	1550	158	4250	193	11500
19	77.5	54	212	89	580	124	1600	159	4375	194	11800
20	80	55	218	90	600	125	1650	160	4500	195	12150
21	82.5	56	224	91	615	126	1700	161	4625	196	12500
22	85	57	230	92	630	127	1750	162	4750	197	12850
23	87.5	58	236	93	650	128	1800	163	4875	198	13200
24	90	59	243	94	670	129	1850	164	5000	199	13600
25	92.5	60	250	95	690	130	1900	165	5150	200	14000
26	95	61	257	96	710	131	1950	166	5300	201	14500
27	97.5	62	265	97	730	132	2000	167	5450	202	15000
28	100	63	272	98	750	133	2060	168	5600	203	15500
29	103	64	280	99	775	134	2120	169	5800	204	16000
30	106	65	290	100	800	135	2180	170	6000	205	16500
31	109	66	300	101	825	136	2240	171	6150	206	17000
32	112	67	307	102	850	137	2300	172	6300	207	17500
33	115	68	315	103	875	138	2360	173	6500	208	18000
34	118	69	325	104	900	139	2430	174	6700	209	18500
35	121	70	335	105	925	140	2500	175	6900	210	19000

### Load change - speed of steering and drive wheels, speed category D

Load change(%)	
Speed (km/h)	Steering and drive wheels
0	+130
10	+80
15	+73
20	+65
25	+58
30	+51
35	+44
40	+36
45	+29
50	+21
55	+14
60	+7
65	0
70	-9

### Load change – speed of agricultural machines, for steering and drive wheels

Speed, km/h	Load change	
	A6	A8
10	+ 29%	+ 40%
15	+ 21%	+ 33%
20	+ 14%	+ 26%
25	+ 7%	+ 19%
30	0	+ 12%
35	- 5%	+ 5%
40	- 10%	0
45		- 5%
50		- 10%



**AGRICULTURAL TIRES  
VOLTYRE AGRO**

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Tire size	11L-15			7,50L-16		9,00-16	9,5L-15SL	12,00-16	12,5L-15SL	18,4R24					21,3R24		620/75R26		420/85R28		
Model	<b>VOLTYRE AGRO IF-120</b>			<b>VOLTYRE AGRO DR-102</b>		<b>VOLTYRE AGRO IR-107</b>	<b>VOLTYRE AGRO IF-127</b>	<b>VOLTYRE AGRO IR-110</b>	<b>VOLTYRE AGRO IF-127</b>	<b>VOLTYRE AGRO DR-105</b>					<b>VOLTYRE AGRO DR-108</b>		<b>VOLTYRE AGRO DR-111</b>		<b>VOLTYRE AGRO DR-109</b>		
Load index	118	121	126	60/72	86/98	121	112	126	127	139/136	144	147	158	160	140	158	160	148/153/150	166	139/136	
Ply Rating	8	12	14	2	4	10	8	8	12	-	-	-	-	-	-	-	-	-	-	-	
Tire design	Bias			Bias		Bias	Bias	Bias	Bias	Radial					Radial		Radial		Radial		
Recommended rim contour	W18L-15			5,50F-16		6,00F-16	7LB-15/8LB-15	W8-16	10LB-15	DW16-24					DW18		DW20A-26		W15L-28		
Approved rim contour	8LB-15			6J-16		-	-	-	-	DW16L-24, W16L-24, DW15L-24, W15L-24					-		-		DW15L-28, W14L-28, DW14L-28		
Max speed, km/h (Speed symbol)	50 (B)			30 (A6)		40 (A8)	50 (B)	30 (A6)	50 (B)	40 (A8)/50 (B)	40 (A8)					30 (A6)	40 (A8)	40 (A8)/40 (A8)/50 (B)	40 (A8)	40 (A8)/50 (B)	
Tire application	For operation on the carrying wheels of trailing agricultural implements, seeders of John Deere, Great Plains			Tractors Foton FT354; MTZ 320, 321, seeders and other machinery of Russian and foreign manufacture		Tractor trailers 2PTS-4, PSE 12.5 and carrying wheels of other trailers	For operation on the carrying wheels of trailing agricultural implements	Combines NIVA-EFFECT SC-5, ENISEY 1200 950, 954, 983, 984, 985; KSK-100 and other agricultural machinery of Russian and foreign manufacture	For operation on the carrying wheels of trailing agricultural implements	Combines JOHN DEERE 9560; CLAAS MEDION 310, 330, 340, MEGA 204, 218, 350, 360, 370; CASE 2366; SAMPO SR 3065; Tractors MTZ 1221; JOHN DEERE 6220, 4640; NEW HOLLAND 110-90; VALTRA 6300, 635HI, 6550 A75 and the drive wheels for other machinery of Russian and foreign manufacture	Combines JOHN DEERE 9560; CLAAS MEDION 310, 330, 340, MEGA 204, 218, 350, 360, 370; CASE 2366; SAMPO SR 3065; Tractors MTZ 1221; JOHN DEERE 6220, 4640; NEW HOLLAND 110-90; VALTRA 6300, 635HI, 6550 A75 and the drive wheels for other machinery of Russian and foreign manufacture					Combines NIVA-EFFECT SC-5, ENISEY 1200, 950, 954, 983, 984, 985; KSK-100; Tractors XTZ T-150, 16331; OrTZ 150K and drive wheels for other machinery of Russian and foreign manufacture		Combines Don 680; JOHN DEERE 1188, 1177, 1170; FORTSCHRITT E-516, E-517, E-524, E-686, MDW 524; CLAAS DOMINATOR 130 150; NEW HOLLAND TC 56; Tractors HTZ T-150, T-156, 17221, 17222, 17021; OrTZ 150K and drive wheels for other machinery of Russian and foreign manufacture		Tractors JOHN DEERE 4250; CASE 1455; CLAAS AXION 810, 820, 830, 840; VALTRA A94N, T131, T151e; VALMET 6800; TERRION ATM 3180 and drive wheels for other machinery of Russian and foreign manufacture	



Agricultural tires

Tire size	600/65R28	480/70R30	9,5R32	9,5-32	30,5L-32	800/65R32	710/70R38	620/70R42	710/70R42	480/80R46
Model	<b>VOLTYRE AGRO DR-109</b>	<b>VOLTYRE AGRO DF-2</b>	<b>VOLTYRE AGRO DN-104</b>	<b>VOLTYRE AGRO DN-104B</b>	<b>VOLTYRE AGRO DT-118</b>	<b>VOLTYRE AGRO DR-103</b>	<b>VOLTYRE AGRO DR-109</b>	<b>VOLTYRE AGRO DR-117</b>	<b>VOLTYRE AGRO DR-117</b>	<b>VOLTYRE AGRO DR-119</b>
Load index	147/144 152/147 157/154	152	112	117	164	167/164 172	166/163 169/166 173	160A8/B	176A8 176B	158
Ply Rating	-	-	-	8	16	-	-	-	-	-
Tire design	Radial	Radial	Radial	Bias	Bias	Radial	Radial	Radial	Radial	Radial
Recommended rim contour	DW18L-28	W15L-30	W8	W8	DH27	DW27A-32	DW23A-38	DW20	DW25/DW23	W16A-46
Approved rim contour	W18L-28, DW20A-28, W16L-28	W14L-30, W16L-30	W7	W7	DH27B-32, DH27H-32, DH27HB-32	DW25B-32, DH27B-32	-	DW20	-	DD16-46, DW16A-46, DW16L-46, W16A-46, W16L-46
Max speed, km/h (Speed symbol)	40 (A8)/50 (B) 40 (A8)/65 (D) 40 (A8)/65 (D)	40 (A8)	40 (A8)	30 (A6)	40 (A8)	40 (A8)/50 (B) 40 (A8)	40(A8)/50(B) 40(A8)/65(D) 40 (A8)	40 (A8) 50 (B)	40 (A8) 50 (B)	40 (A8) 50 (B)
Tire application	Combines JOHN DEERE 9640, 9780; CASE 2388; Tractors JOHN DEERE 8430, 8420, 6920, 7820, 7800, 7810, 7920, 7710, 8300, 8410, 8200, CLAAS ARES 816, 826, 836 ATLES 936; NEW HOLLAND TG 230; CASE 7240, 7250, 7140, 7210, MX 200, MX 270	For operation on the rear axle of John Deere combines and other agricultural machinery	Tractors HTZ 3510, 2511 and drive wheels of other machinery of Russian and foreign manufacture	For the drive wheels of tractors of Russian and foreign manufacture, self-propelled chassis, seeders	Combines JOHN DEERE 6750, 6710, 6910; Tractors JOHN DEERE Tractors JOHN DEERE 4250, 6800, 4640; CASE 1455, 5140, 5150; CLAAS AXION 810, 820; FENDT 611LSA; VALTRA 8550, T121, T131, T151e; VALMET 6800; TERRION ATM 3180 and the drive wheels for other agricultural machinery.	Radial tubeless tire with textile carcass and belt is designed for use on tractors and other agricultural equipment of Russian and foreign production.	Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production	For operation on the driving wheels of agricultural tractors of drawbar category 3-4 - John Deere 7-8 series, New Holland T7 ***, Case 2 ** 3 **, and others.	Agricultural radial tire with tread R-1W designed for use on the driving wheels of tractors of drawbar category 5, 6 and above - John Deere 8-9 series, New Holland T8 ***, T9 ***, Case Magnum, Steiger, Claas Axion 900, Xerion etc.	For operation on the driving wheels of agricultural tractors of drawbar category 4, 5 (John Deere 8 Series, New Holland T8 ***), Case Magnum, Claas Axion 800, Atles 900, etc.)





Tire size, Model:

**7,50L-16 VOLTYRE AGRO DR-102**

For operation on the drive wheels of tractors and other agricultural machinery of Russian and foreign manufacture.

- high traction both in the field and in the stubble;
- high density of tread in the center increases its cleanability;
- average and maximum pressure on the soil is at the level of the world standards;
- traction complies with the requirements of agricultural machinery;
- high coefficient of adherence at a relatively small depth of the tread pattern.



Tire size, Model:

**9,00-16 VOLTYRE AGRO IR-107**

For operation on the carrying wheels of tractors and other agricultural machinery of Russian and foreign manufacture.

Tread pattern consists of two series of zigzag lugs («short» and «long») with a single pitch to the equatorial line, separated by wide circumferential and transverse grooves:

- good traction properties;
- good roadholding ability;
- sufficient width of the grooves ensures good cleanability.



Tire size, Model:

**9,5L-15SL VOLTYRE AGRO IF-127**

For operation on the carrying wheels of trailing agricultural implements of Russian and foreign manufacture.

Tire has more flexible carcass than conventional bias tires; it gives more even pressure distribution in the contact area and greater size of contact area, as well as more «rectangular» shape, which increases the flotation characteristics of the tire and its life. Wide ribs with deep narrow grooves provide additional strength margin and durability.

**The tread pattern is universal with the longitudinal ribs.**



Tire size, Model:

**9,5R32 VOLTYRE AGRO DN-104**

For the drive wheels of tractors of Russian and foreign production, self-propelled chassis, seeders.

The tire is designed for use in a plowed field, stubble, moving along the country roads and paved roads.

- directional tread pattern provides excellent flotation, good self-cleaning and reliable adherence on a hard surface;
- average and maximum pressure on the ground complies with international standards;
- increased rates of performance and durability for this class of tires.



Tire size, Model:

**9,5-32 VOLTYRE AGRO DN-104B**

For the drive wheels of tractors of Russian and foreign production, self-propelled chassis, seeders.

The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- directional tread pattern provides excellent flotation, good self-cleaning and reliable adherence on a hard surface;
- average and maximum pressure on the ground complies with international standards;
- increased rates of performance and durability for this class of tires.



Tire size, Model:

**30,5L-32 VOLTYRE AGRO DT-118**

Exclusive «long&short» lug design eliminates cross-pitching, provides more uniform pressure distribution in the contact area, reducing spurious oscillation that gives better performance and longer life of such tires.

**Off-the-road tread pattern.**

**Technical data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg	
7,50L-16 VOLTYRE AGRO DR-102	TT	60A6	30	250	80	705	+21	205	340±9	5,50F/ 6J	6,95-16	LK-35- 16,5	-	2	
		72A6		355										4	
		86A6		750	240										
9,00-16 VOLTYRE AGRO IR-107	TT	121A8	40	1450	335	855	+19 -11	234	389±10	6,00F	9,00-16	GK-95, K-105, GK-115	-	10	25,7
9,5L-15SL VOLTYRE AGRO IF-127	TL	112B	50	1120	300	767		250	353	7LB-15	-	-	-	8	25
9,5R32 VOLTYRE AGRO DN-104	TT	112A8	40	1120	160	1245	+17 -18	241	579±15	W8/W7	9,5-32	TK	-	-	52
9,5-32 VOLTYRE AGRO DN-104B	TT	117A6	30	1285	280	1250	+31 -18	241	595±15	W8/W7	9,5-32	TK	-	8	48
30,5L-32 VOLTYRE AGRO DT-118	TL	164A8	40	5000	183	1824		810	825	DH27/ H27B-32, DH27H-32, DH27HB-32	-	-	-	16	320

**Load-bearing capacity**

Tire size, model	Load index and speed symbol	Max speed, km/h	Tire load, kg, at the inflation pressure, kPa																																			
			60	70	80	100	120	135	140	150	160	165	170	180	190	195	200	210	220	230	240	275	280	300	315	325	335											
7,50L-16z VOLTYRE AGRO DR-102	60A6	30	210	230	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	72A6		325	340	355	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	86A6		-	-	-	-	-	-	390	400	410	-	425	440	455	-	470	485	500	515	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	98A6		-	-	-	-	-	-	580	595	610	-	625	650	665	-	680	695	710	730	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9,00-16 VOLTYRE AGRO IR-107	121A8	-	-	-	-	-	-	-	1110	-	-	-	-	1150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1310	-	-	1370	1410	1450	
9,5L-15SL VOLTYRE AGRO IF-127	112B	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	750	-	825	-	-	-	-	925	-	-	-	-	-	-	-	1060	1120	-	-	-	
		40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	795	-	875	-	-	-	-	980	-	-	-	-	-	-	-	1120	1185	-	-	-	
		30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	840	-	925	-	-	-	-	1035	-	-	-	-	-	-	-	1185	1250	-	-	-	
		20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	945	-	1040	-	-	-	-	1165	-	-	-	-	-	-	-	1335	1410	-	-	-	
9,5R32 VOLTYRE AGRO DN-104	112A8	40	730	-	795	860	925	-	1025	-	1120	-	-	-	-	-	750	-	825	-	-	-	-	925	-	-	-	-	-	-	-	1060	1120	-	-	-		
		35	760	-	820	890	960	-	1060	-	1160	-	-	-	-	-	-	795	-	875	-	-	-	-	980	-	-	-	-	-	-	-	1120	1185	-	-	-	
		30	790	-	860	930	990	-	1100	-	1200	-	-	-	-	-	-	840	-	925	-	-	-	-	1035	-	-	-	-	-	-	-	1185	1250	-	-	-	
		25	820	-	890	960	1030	-	1140	-	1250	-	-	-	-	-	-	945	-	1040	-	-	-	-	1165	-	-	-	-	-	-	-	1335	1410	-	-	-	
		20	900	-	980	1060	1140	-	1270	-	1380	-	-	-	-	-	-	1185	-	1300	-	-	-	-	1460	-	-	-	-	-	-	-	1675	1770	-	-	-	
		15	980	-	1070	1160	1240	-	1380	-	1510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9,5-32 VOLTYRE AGRO DN-104B	117A6	10*	1100	-	1200	1290	1390	-	1540	-	1680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		30	-	-	605	690	770	-	840	-	905	-	-	-	-	-	-	1035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1150	-	1285	-	-	-
		25	-	-	650	740	830	-	900	-	970	-	-	-	-	-	-	1110	-	-	-	-	-	-	-	-	-	-	-	-	-	1240	-	1380	-	-	-	
		20	-	-	730	830	930	-	1010	-	1090	-	-	-	-	-	-	1250	-	-	-	-	-	-	-	-	-	-	-	-	-	1380	-	1550	-	-	-	
		15	-	-	790	900	1010	-	1100	-	1180	-	-	-	-	-	-	1350	-	-	-	-	-	-	-	-	-	-	-	-	-	1500	-	1680	-	-	-	
30,5L-32 VOLTYRE AGRO DT-118	164A8	40	-	-	850	970	1080	-	1180	-	1270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		30	-	-	3150	3450	3750	-	4250	-	4500	-	4765	5000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5800*	-	-	-	-	-	
		25	-	-	3500	3830	4160	-	4720	-	4990	-	5300	5550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		15	-	-	3840	4200	4575	-	5185	-	5490	-	5815	6100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		10*	-	-	4200	4590	5000	-	5650	-	5980	-	6330	6650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8500*	-	-	-	-	-

\* Cross section width is shown for the tire on the recommended rim.  
NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

Note: The allowable tolerance values of the internal pressure in the tire are ± 10kPa by the pressure gauge.  
- For the purposes of practical application in a continuous operation at high torque, use the values listed in the line corresponding the speed of 30 km/h.  
\*Change of the load is allowed no more than 10% of shift time.



Tire size, Model:

**11L-15 VOLTYRE AGRO IF-120**

For operation on the carrying wheels of trailing implements, seeders of John Deere, Great Plains.

Reinforced sidewalls with protection against cuts.

A special rubber compound that protects against chemical attack and puncturing.



Tire size, Model:

**12,00-16 VOLTYRE AGRO IR-110**

For operation on harvesters SKD and CKF type and other agricultural machines of Russian and foreign production.

- three central ribs provide excellent durability, enhanced performance in severe agricultural environment;
- longitudinal grooves provide good control and tire balance;
- configuration of the grooves provides a high self-cleaning of the tread pattern;
- one of the special features of the tire is soft riding



Tire size, Model:

**12,5-15SL VOLTYRE AGRO IF-127**

For operation on the carrying wheels of trailed agricultural implements of Russian and foreign manufacture.

Tire has more flexible carcass than conventional bias tires, it gives more even pressure distribution in the contact area and greater size of contact area, as well as more «rectangular» shape, which increases the flotation characteristics of the tire and its life. Wide ribs with deep narrow grooves provide additional strength margin and durability.

**The tread pattern is universal with the longitudinal ribs.**



Tire size, Model:

**14,9R24 VOLTYRE AGRO DR-105**

Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors, combines and other agricultural machinery of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM).

The tire is designed for use in a plowed field, stubble, country roads and paved roads:

- Increased efficiency;
- excellent self-cleaning;
- excellent flotation;
- improved wear resistance when running on hard surfaces;
- reduced maximum pressure on the soil.



Tire size, Model:

**18,4R24 VOLTYRE AGRO DR-105**

Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors, combines and other agricultural machinery of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM).

The tire is designed for use in a plowed field, stubble, country roads and paved roads:

- Increased efficiency;
- excellent self-cleaning;
- excellent flotation;
- improved wear resistance when running on hard surfaces;
- reduced maximum pressure on the soil.





Tire size, Model:

**21,3R24 VOLTYRE AGRO DR-108**

For operation on the drive wheels of tractors, combines and other agricultural equipment of Russian and foreign manufacture.

- directional tread pattern and increased rugosity provide good cleanability and traction;
- average and maximum pressure on the soil is at the level of the world standards;
- agronomic and economic performance at the level of global indicators;
- traction complies with agricultural machinery requirements.



Tire size, Model:

**420/70R24 VOLTYRE AGRO DR-106**

For use on tractors and other agricultural machines of Russian and foreign manufacture (John Deere, Case, New Holland, Claas, Belarus HTZ).

The tire is designed for use in a plowed field, stubble, moving on country dirt roads and paved:

- increased efficiency;
- excellent flotation;
- high durability when working on hard surfaces;
- reduced maximum pressure on the soil at the level of world leaders.



Tire size, Model:

**420/85R28 VOLTYRE AGRO DR-109**

Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- pressure on the soil is at the level of the world standards;
- traction meets the requirements of modern farming.

The tire was designed for John Deere tractors and was approved after the performance tests.



Tire size, Model:

**420/90R30 VOLTYRE AGRO DR-116**

For operation on the driving wheels of tractors of Russian and foreign manufacture.

Exclusive «long&short» lug design eliminates cross-pitching, provides more uniform pressure distribution in the contact area, reducing spurious oscillation that gives better performance and longer life of such tires.

**Off-the-road tread pattern.**



Tire size, Model:

**480/70R30 VOLTYRE AGRO DF-2**

For operation on the wheels of the rear axle of corn and grain harvesters John Deere 9670, Claas Tucano 430, 450, Case, New Holland CXS 7080 and other agricultural machinery. This tire is a wider option of 16,9R30. Due to the increased width of the tread the traction is increased as well and as a result a great performance of combine harvesters and tractors is achieved. Due to the greater width of the tire, the damaging effect on soil is reduced.

**A feature of the tire is that it has a specially redesigned tread pattern.**

The lug geometry was changed in the tread pattern as well as the radius of curvature at the bottom of lugs. These changes improved the reliability of the tire when harvesting corn. Aggressive stubble is no longer blocked by the lugs, and gently folded outward, avoiding premature failure of the tire. The high strength material - anid - is applied in the tire cord, which has higher temperature stability, compared to a basic cord.



Tire size, Model:

**480/80R46 VOLTYRE AGRO DR-119**

For operation on the driving wheels of tractors of Russian and foreign manufacture.

Exclusive «long&short» lug design eliminates cross-pitching, provides more uniform pressure distribution in the contact area, reducing spurious oscillation that gives better performance and longer life of such tires.

**Off-the-road tread pattern.**



Tire size, Model:

**520/85R38 VOLTYRE AGRO DR-109**



Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- The tread has a cap with a directional tread pattern common for off-the-road tires.
- Tread with increased rugosity in the center provides good cleanability and secure traction;
- pressure on the soil is at the level of the world standards;
- traction meets the requirements of modern farming.

The tire was designed for John Deere tractors and was approved after the performance tests.

Tire size, Model:

**520/85R42 VOLTYRE AGRO DR-116**



Agricultural radial tire with tread R-1W designed for use on the driving wheels of tractors of Russian and foreign manufacture. These tires are used for dual wheels as well.

The tire provides high traction (due to the high lugs), effective self-cleaning (due to the smooth surface between the lugs), reduced fuel consumption (due to reduced rolling resistance) and the minimum tread wear. The tread pattern with large overlap at the center provides smooth and comfort ride. In addition, the central part of the tire ribs has exceptional wear resistance. High-strength carcass allows carrying a high load.

**Off-the-road tread pattern.**

Tire size, Model:

**600/65R28 VOLTYRE AGRO DR-109**



Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- The tread has a cap with a directional tread pattern common for off-the-road tires.
- Tread with increased rugosity in the center provides good cleanability and secure traction;
- pressure on the soil is at the level of the world standards;
- traction meets the requirements of modern farming.

The tire was designed for John Deere tractors and was approved after the performance tests

Tire size, Model:

**600/70R30 VOLTYRE AGRO DR-117**



Agricultural radial tire with tread R-1W designed for use on the driving wheels of tractors of Russian and foreign manufacture. These tires are used for dual wheels as well.

The tire provides high traction (due to the high lugs), effective self-cleaning (due to the smooth surface between the lugs), reduced fuel consumption (due to reduced rolling resistance) and the minimum tread wear. The tread pattern with large overlap at the center provides smooth and comfort ride. In addition, the central part of the tire ribs has exceptional wear resistance. High-strength carcass allows carrying a high load.

**Off-the-road tread pattern.**

### Technical data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg										
520/85R38 VOLTRE AGRO DR-109	TL	155A8	40	3875	160	1849±35	536	825±21	DW18L/DW16L	-	-	-	-	208										
		152B	50	3550																				
520/85R42 VOLTRE AGRO DR-116	TL	157A8 157B	40 50	4125	160	1953	541	892	W16L/DW16, DW18	-	-	-	-	250										
600/65R28 VOLTRE AGRO DR-109	TL	147A8 144B	40 50	3075 2800	160	1491±31	591	665±17	DW18L/W18L, DW20A, W16L	-	-	-	-	185										
		152A8 147D	40 65	3550 3075											200	1491±31	591	665±17	DW18L/W18L, DW20A, W16L	-	-	-	-	185
		157A8 154D	40 65	4125 3750											240	1491±31	591	665±17	DW18L/W18L, DW20A, W16L	-	-	-	-	185
600/70R30 VOLTRE AGRO DR-117	TL	155A8 155B	40 50	3875	180	1615	594	721	DW18/DW16	-	-	-	-	200										

\* Cross section width is shown for the tire on the recommended rim.  
NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Load-bearing capacity

Типоразмер, модель	Load index and speed symbol	Max speed, km/h	Tire load, kg, at the inflation pressure, kPa														
			60	80	100	120	140	160	180	200	220	240	260	280	300	320	
520/85R38 VOLTRE AGRO DR-109	152B	50	-	-	2770	3030	3290	3550	-	-	-	-	-	-	-	-	-
	155A8	40	-	2790	3020	3310	3590	3875	-	-	-	-	-	-	-	-	-
		35	-	2880	3120	3410	3700	4000	-	-	-	-	-	-	-	-	-
		30	-	2990	3240	3550	3850	4150	-	-	-	-	-	-	-	-	-
		25	-	3100	3360	3680	3990	4310	-	-	-	-	-	-	-	-	-
		20	-	3440	3720	4080	4420	4770	-	-	-	-	-	-	-	-	-
15		-	3740	4050	4440	4820	5200	-	-	-	-	-	-	-	-	-	
520/85R42 VOLTRE AGRO DR-116	157A8 157B	10	-	4190	4530	4970	5390	5820	-	-	-	-	-	-	-	-	
		40/50	2240	2575	3000	3350	3750	4125	-	-	-	-	-	-	-	-	
		30	2400	2800	3200	3600	4000	4400	-	-	-	-	-	-	-	-	
		25	2500	2900	3300	3700	4200	4600	-	-	-	-	-	-	-	-	
		20	3000	3500	4000	4500	5000	5500	-	-	-	-	-	-	-	-	
		15	3000	3500	4000	4500	5000	5500	-	-	-	-	-	-	-	-	
600/65R28 VOLTRE AGRO DR-109	144 B	40/50	1970	2265	2640	2950	3300	3630	-	-	-	-	-	-	-	-	
		30	2110	2430	2830	3160	3530	3890	-	-	-	-	-	-	-	-	
		25	2190	2520	2930	3280	3670	4030	-	-	-	-	-	-	-	-	
	147A8	15	2640	3040	3540	3960	4430	4870	-	-	-	-	-	-	-	-	
		10	2640	3040	3540	3960	4430	4870	-	-	-	-	-	-	-	-	
		50	1760	1980	2200	2420	2620	2800	-	-	-	-	-	-	-	-	
	147D	40	-	-	2310	2570	2820	3075	-	-	-	-	-	-	-	-	
		30	-	-	2470	2750	3020	3290	-	-	-	-	-	-	-	-	
		20	-	-	2840	3160	3470	3780	-	-	-	-	-	-	-		
	152A8	10	-	-	3465	3855	4230	4610	-	-	-	-	-	-	-		
		65	-	1800	1950	2185	2430	2675	-	3075	-	-	-	-	-		
		40	-	-	2310	2570	2820	3075	-	3550	-	-	-	-			
154D	30	-	-	2470	2750	3020	3290	-	3800	-	-	-	-				
	20	-	-	2840	3160	3470	3780	-	4370	-	-	-	-				
	10	-	-	3465	3855	4230	4610	-	5325	-	-	-	-				
157A8	65	-	1800	2040	2325	2590	2850	-	3260	-	3750	-	-				
	40	-	-	2310	2570	2820	3075	-	3550	-	4125	-	-				
	30	-	-	2470	2750	3020	3290	-	3800	-	4415	-	-				
155A8 155B	20	-	-	2840	3160	3470	3780	-	4370	-	5070	-	-				
	10	-	-	3465	3855	4230	4610	-	5325	-	6190	-	-				
	50	2000	2360	2650	3000	3350	3550	3875	-	-	-	-	-				
600/70R30 VOLTRE AGRO DR-117	155A8 155B	40	2000	2360	2650	3000	3350	3550	3875	-	-	-	-				
		30	2100	2500	2800	3200	3600	3800	4100	-	-	-	-				
		25	2200	2600	2900	3300	3700	3900	4300	-	-	-	-				
		15	2700	3200	3600	4000	4500	4800	5200	-	-	-	-				

Note: The allowable tolerance values of the internal pressure in the tire are ± 10kPa by the pressure gauge.  
- For the purposes of practical application in a continuous operation at high torque, use the values listed in the line corresponding the speed of 30 km/h.  
\*Change of the load is allowed no more than 10% of shift time.





Tire size, Model:

**620/75R26 VOLTYRE AGRO DR-111**

Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- the tire has off-the-road pattern with closed center consisting of continuous lugs of identical width and located on either side of the axis to the circumferential direction with an offset;
- width and frequency of the lugs are optimized in terms of cross-plowed field and performance on paved roads; design provides excellent self-cleaning;
- the tire has a low maximum contact pressure on the soil;
- fuel consumption complies with the world's best tires



Tire size, Model:

**620/70R42 VOLTYRE AGRO DR-117**

Agricultural radial tire with tread R-1W designed for use on the driving wheels of tractors of Russian and foreign manufacture. These tires are used for dual wheels as well.

The tire provides high traction (due to the high lugs), effective self-cleaning (due to the smooth surface between the lugs), reduced fuel consumption (due to reduced rolling resistance) and the minimum tread wear. The tread pattern with large overlap at the center provides smooth and comfort ride. In addition, the central part of the tire ribs has exceptional wear resistance. High-strength carcass allows carrying a high load.



Tire size, Model:

**650/75R32 VOLTYRE AGRO DF-101**

Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- the tire has off-the-road pattern with closed center consisting of continuous lugs of identical width and located on either side of the axis to the circumferential direction with an offset;
- width and frequency of the lugs are optimized in terms of cross-plowed field and performance on paved roads; design provides excellent self-cleaning;
- the tire has a low maximum contact pressure on the soil;
- fuel consumption complies with the world's best tires.



Tire size, Model:

**650/75R38 VOLTYRE AGRO DR-109**

Radial tubeless tire with textile carcass and belt is designed for use on tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- tread with increased rugosity in the center provides good cleanability and secure traction;
- pressure on the soil is at the level of the world standards;
- traction meets the requirements of modern farming.

The tire was designed for John Deere tractors and was approved after the performance tests.

### Technical data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
620/75R26 VOLTYRE AGRO DR-111	TT	148A8	40	3150	160	1590±37	625	711±18	DW20A	23,1-26	TK	-	-	215
		153A8	40	3650										
		150B	50	3350										
620/70R42 VOLTYRE AGRO DR-117	TL	160A8 160B	40 50	4500	160	1943	625	889	DW20	-	-	-	-	295
650/75R32 VOLTYRE AGRO DF-101	TL	167A8 164B	40	5450	240	1789±39	655	803±20	DW21A-32/ DW20A-32	30,5L-32	TK	-	-	258
	TT		50	5000										260
	TL	172A8 169B	40 50	6300 5800	320	1789±39	655	803±20	DW21A-32/ DW20A-32	-	-	-	-	280
650/75R38 VOLTYRE AGRO DR-109	TL	169A8 166B	40 50	5800 5300	240	1941±29	645	865±22	DW20A/ DW21A DW23A	-	-	-	-	320

\* Cross section width is shown for the tire on the recommended rim.  
NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Load-bearing capacity

Tire size, model	Load index and speed symbol	Max speed, km/h	Tire load, kg, at the inflation pressure, kPa															
			60	80	100	120	140	160	200	240	280	300	320	360	400	420	460	520
620/75R26 VOLTYRE AGRO DR-111	148A8	40	2360	2690	3245	3150	-	-	-	-	-	-	-	-	-	-	-	-
		30	2525	2880	3470	3370	-	-	-	-	-	-	-	-	-	-	-	-
		20	2900	3310	3990	3875	-	-	-	-	-	-	-	-	-	-	-	-
	150B	10	3070	3500	4220	4100	-	-	-	-	-	-	-	-	-	-	-	-
		50	2010	2320	2620	2900	3150	3350	-	-	-	-	-	-	-	-	-	-
		40	2360	2690	2970	3245	3480	3650	-	-	-	-	-	-	-	-	-	-
620/70R42 VOLTYRE AGRO DR-117	153A8	35	2440	2780	3060	3350	3590	3760	-	-	-	-	-	-	-	-	-	
		30	2530	2880	3180	3480	3730	3910	-	-	-	-	-	-	-	-	-	
		25	2620	2990	3300	3610	3870	4060	-	-	-	-	-	-	-	-	-	
	40/50	20	2910	3310	3660	4000	4290	4490	-	-	-	-	-	-	-	-	-	
		15	3170	3610	3980	4350	4670	4900	-	-	-	-	-	-	-	-	-	
		10	3540	4040	4460	4870	5220	5480	-	-	-	-	-	-	-	-	-	
650/75R32 VOLTYRE AGRO DF-101	164 B	40/50	2140	2550	2860	3210	3630	3960	-	-	-	-	-	-	-	-	-	
		30	2290	2730	3060	3440	3890	4240	-	-	-	-	-	-	-	-	-	
		20	2380	2830	3180	3560	4030	4400	-	-	-	-	-	-	-	-	-	
	167 A8	15	2870	3420	3830	4300	4870	5310	-	-	-	-	-	-	-	-	-	
		50	-	-	-	3530	3865	4125	4550	5000	-	-	-	-	-	-	-	
		40	-	-	-	3880	4250	4500	5000	5450	-	-	-	-	-	-		
650/75R38 VOLTYRE AGRO DR-109	169A8	30	2290	2730	3060	3440	3890	4240	-	-	-	-	-	-	-	-		
		20	2380	2830	3180	3560	4030	4400	-	-	-	-	-	-	-	-		
		15	2870	3420	3830	4300	4870	5310	-	-	-	-	-	-	-	-		
	172 A8	50	-	-	-	4150	4550	4810	5350	5830	-	-	-	-	-	-		
		40	-	-	-	4770	5230	5540	6150	6700	-	-	-	-	-	-		
		30	-	-	-	5050	5530	5850	6500	7085	-	-	8175	-	-	-		
166B	10*	-	-	-	5930	6360	6850	7650	8340	-	-	9265	-	-	-			
	10**	-	-	-	5930	6360	6850	7650	8340	-	-	9265	-	-	-			
	50	-	-	-	3530	3865	4125	4550	5000	-	-	5800	-	-	-			
	40	-	-	-	3880	4250	4500	5000	5450	-	-	6300	-	-	-			
	30	-	-	-	4150	4550	4810	5350	5830	-	-	6740	-	-	-			
	20	-	-	-	4770	5230	5540	6150	6700	-	-	7750	-	-	-			
169A8	10*	-	-	-	5050	5530	5850	6500	7085	-	-	8190	8820	9450	-			
	10**	-	-	-	5930	6360	6850	7650	8340	-	-	9470	9990	10710	-			
	50	-	-	-	3730	4100	4350	4850	5300	-	-	-	-	-	-			
	40	-	-	-	4420	4755	5015	5350	5800	-	-	-	-	-	-			
	35	-	-	-	4560	4900	5170	5520	5980	-	-	-	-	-	-			
	30	-	-	-	4730	5090	5370	5730	6210	-	-	-	-	-	-			

Note: The allowable tolerance values of the internal pressure in the tire are ± 10kPa by the pressure gauge.  
- For the purposes of practical application in a continuous operation at high torque, use the values listed in the line corresponding the speed of 30 km/h.



Tire size, Model:

**710/70R38 VOLTYRE AGRO DR-109**

Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- the tread has a cap with a directional tread pattern common for off-the-road tires.
- tread with increased rugosity in the center provides good cleanability and secure traction;
- pressure on the soil is at the level of the world standards;
- traction meets the requirements of modern farming.



Tire size, Model:

**800/65R32 VOLTYRE AGRO DR-103**

Radial tubeless tire with textile carcass and belt is designed for use on the drive wheels of tractors and other agricultural equipment of Russian and foreign production (John Deere, Case, New Holland, Claas, Belarus, HTZ, RSM). The tire is designed for use in a plowed field, stubble, moving along country roads and paved roads.

- the tread has a cap with a directional tread pattern common for off-the-road tires.
- tread with increased rugosity in the center provides good cleanability and secure traction;
- pressure on the soil is at the level of the world standards;
- traction meets the requirements of modern farming.



Tire size, Model:

**710/70R42 VOLTYRE AGRO DR-117**

Agricultural radial tire with tread R-1W designed for use on the driving wheels of tractors of Russian and foreign manufacture. These tires are used for dual wheels as well.

The tire provides high traction (due to the high lugs), effective self-cleaning (due to the smooth surface between the lugs), reduced fuel consumption (due to reduced rolling resistance) and the minimum tread wear. The tread pattern with large overlap at the center provides smooth and comfort ride. In addition, the central part of the tire ribs has exceptional wear resistance. High-strength carcass allows carrying a high load.



Tire size, Model:

**800/65R32 VOLTYRE AGRO DF-1**

For operation on the wheels of the rear axle of corn and grain harvesters John Deere 9670, Claas Tucano 430, 450, Case, New Holland CXS 7080 and other agricultural machinery. A new feature of the tire is a specially designed tread pattern. The lug geometry was changed in the tread pattern as well as the radius of curvature at its base. These changes have improved the reliability of the tires when harvesting corn. Aggressive stubble is not blocked by lugs, and gently folded outward, avoiding premature failure of the tire.

## Technical data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
710/70R38 VOLTRE AGRO DR-109	TL	166A8	40	5300	160	1959±40	716	887±22	DW23A	-	-	-	-	315
		163B	50	4875										
		169A8	40	5800										
173A8	40	6500	300	1959±40	716	887±22	DW23A	-	-	-	-	-	315	
710/70R42 VOLTRE AGRO DR-117	TL	176A8 176B	40 50	7100	280	2042	716	914	DW25/ DW23	-	-	-	-	380
800/65R32 VOLTRE AGRO DR-103	TL	167A8 164B	40	5450	160	1853±42	818	830±21	DW27A-32/ DW25B-32, DH27B-32	30,5L-32	TK	-	-	308
	TT		50	5000										
	TL	172A8	40	6300	240	1853±42	818	830±21	DW27A-32/ DW25B-32, DH27B-32	30,5L-32	TK	-	-	335
	TT		40	6300										
800/65R32 VOLTRE AGRO DF-1	TL	172A8	40	6300	240	1853±42	818	830±21	DW27/ DW25	-	-	-	-	330
	TL	178A8	40	7500	320	1853±42	818	830±21	DW27/ DW25	-	-	-	-	330

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

## Load-bearing capacity

Типоразмер, модель	Load index and speed symbol	Max speed, km/h	Tire load, kg, at the inflation pressure, kPa															
			60	80	100	120	140	160	180	200	220	240	260	280	320	360	400	
			710/70R38 VOLTRE AGRO DR-109	163 B	50	2500	3000	3400	3900	4350	4875	-	-	-	-	-	-	-
710/70R38 VOLTRE AGRO DR-109	166 A8	40	2950	3400	3800	4300	4800	5300	-	-	-	-	-	-	-	-	-	
		30	3160	3640	4070	4600	5135	5670	-	-	-	-	-	-	-	-	-	
		20	3630	4180	4670	5290	5900	6520	-	-	-	-	-	-	-	-	-	
		10	4425	5100	5700	6450	7200	7950	-	-	-	-	-	-	-	-	-	
		65	-	2550	2915	3300	3660	4050	-	-	4650	-	5300	-	-	-	-	
	169 A8	40	-	-	3800	4300	4800	5300	-	-	5500	-	5800	-	-	-	-	
		30	-	-	4070	4600	5135	5670	-	-	5885	-	6200	-	-	-	-	
		20	-	-	4670	5290	5900	6520	-	-	6765	-	7130	-	-	-	-	
		10	-	-	5700	6450	7200	7950	-	-	8250	-	8700	-	-	-	-	
		40	-	-	3800	4300	4800	5300	-	-	5500	-	5800	-	6100	-	-	
173 A8	30	-	-	4070	4600	5135	5670	-	-	5885	-	6200	-	6525	-	-		
	20	-	-	4670	5290	5900	6520	-	-	6765	-	7130	-	7500	-	-		
	10	-	-	5700	6450	7200	7950	-	-	8250	-	8700	-	9150	-	-		
	40/50	3000	3550	4000	4500	5000	5600	5800	6150	-	6500	-	7100	-	-	-		
	30	3200	3800	4300	4800	5400	6000	6200	6600	-	7000	-	7600	-	-	-		
710/70R42 VOLTRE AGRO DR-117	176A8/ 176B	25	3300	3900	4400	5000	5600	6200	6400	6800	-	7200	-	7900	-	-		
		15	4000	4800	5400	6000	6700	7500	7800	8200	-	8700	-	9500	-	-	-	
		40/50	2640	3125	3520	3960	4400	4930	5105	5410	-	5720	-	6250	-	-	-	
		30	2825	3345	3770	4240	4710	5275	5460	5790	-	6120	-	6690	-	-	-	
		25	2930	3470	3910	4395	4885	5475	5670	6005	-	6350	-	6940	-	-	-	
	800/65R32 VOLTRE AGRO DR-103	164 B	15	3540	4190	4720	5310	5900	6610	6840	7250	-	7665	-	8375	-	-	
			50	-	3250	3800	4275	4650	5000	-	-	-	-	-	-	-	-	-
			40	3200	3650	4160	4660	5075	5450	-	-	-	-	-	-	-	-	-
			30	3430	3905	4450	4990	5430	5830	-	-	-	-	-	-	-	-	-
			20	3940	4490	5115	5730	6240	6700	-	-	-	-	-	-	-	-	-
800/65R32 VOLTRE AGRO DR-103	167 A8	10*	4160	4750	5405	6060	6600	7085	7360	7630	-	-	-	-	-	-		
		10**	4900	5585	6365	7130	7765	8340	8600	8880	-	-	-	-	-	-	-	
		40	-	-	4000	4375	4875	5450	5600	5800	6150	6300	-	-	-	-	-	
		30	-	-	4280	4680	5215	5830	6000	6200	6580	6740	-	-	-	-	-	
		20	-	-	4920	5380	6000	6700	6890	7130	7565	7750	-	-	-	-	-	
	172 A8	10*	-	-	5200	5690	6340	7085	7280	7540	8000	8190	-	8820	-	-	-	
		10**	-	-	6120	6690	7460	8340	8570	8870	9410	9640	-	10270	10710	-	-	
		40	-	-	4000	4375	4875	5450	5600	5800	6150	6300	-	6900	7500	-	-	
		30	-	-	4280	4680	5215	5830	6000	6200	6580	6740	-	7380	8025	-	-	
		20	-	-	4920	5380	6000	6700	6890	7130	7565	7750	-	8490	9225	-	-	
800/65R32 VOLTRE AGRO DF-1	172 A8	10*	-	-	5200	5690	6340	7085	7280	7540	8000	8190	-	8820	-	-		
		10**	-	-	6120	6690	7460	8340	8570	8870	9410	9640	-	10270	10710	-	-	
		40	-	-	4000	4375	4875	5450	5600	5800	6150	6300	-	6900	7500	-	-	
		30	-	-	4280	4680	5215	5830	6000	6200	6580	6740	-	7380	8025	-	-	
		20	-	-	4920	5380	6000	6700	6890	7130	7565	7750	-	8490	9225	-	-	
	178A8	10*	-	-	5200	5690	6340	7085	7280	7540	8000	8190	-	8970	9750	10500	-	
		10**	-	-	6120	6690	7460	8340	8570	8870	9410	9640	-	10550	11470	12620	13770	

Note: The allowable tolerance values of the internal pressure in the tire are ± 10kPa by the pressure gauge.

- For the purposes of practical application in a continuous operation at high torque, use the values listed in the line corresponding the speed of 30 km/h.

\*Change of the load is allowed no more than 10% of shift time

\*\* For combine harvesters during operation with periodic load (except harvesters working on slopes of more than 11° - (22%))



## AGRICULTURAL TIRES VOLTYRE

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Tire size, Model:

**4,00-10 VOLTYRE K-96A**

For operation on carrying wheels of trailing trucks and trailers for tillers.

High stability on the road.



Tire size, Model:

**5,00-10 VOLTYRE V-19AM**

For operation on universal small-sized tractors and other agricultural machines with the appropriate speed and load characteristics.

The tire has good performance on the road and in the field



Tire size, Model:

**4,00-10 VOLTYRE S-91**

For small tractors, single-axle (tillers) and agricultural machinery.

Provides maximum traction performance for its class.



Tire size, Model:

**6,00-16 VOLTYRE VL-36**

For the steering wheels of tractors and carrying wheels of trailed machines.

**Universal tread pattern (longitudinal ribs) provides smooth steering.**

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
4,00-10 VOLTYRE K-96A	TT	69A8	40	325	340	465 +15 -8	114	216±5	2,35-10	4,00-10	LK-35-11,7	-	4	5,0
4,00-10 VOLTYRE S-91	TT	49A6	30	185	220	485 +16 -10	112	230±5	2,35-10	4,00-10	LK-35-11,7	-	4	6,9

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
5,00-10 VOLTYRE V-19AM	TT	70A6	30	330	300	530 +19 -11	130	241±5	4,00E/ 3,50D, 4J	5,00-10	LK-35-11,7	-	4	5,8
6,00-16 VOLTYRE VL-36	TT	88A6	30	560	330	735 +23 -14	165	352±8,8	4,50E	6,00-16 (6,95-16 – agreed with the customer)	LK-35-16,5	-	6	17

Note: When using on the trailers for passenger cars and motorcycles the maximum permissible speed is 80 km/h and the maximum allowable load is 200 kgf at the inflation pressure of 0.2 MPa.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**6,00-16 VOLTYRE L-225**

For the steering wheels of tractors and agricultural machinery.



Tire size, Model:

**6,50-16 VOLTYRE Ya-387-1**

For carrying wheels of agricultural machinery working seasonally, and steering wheels of tractors of 0.6, 0.9 class.



Tire size, Model:

**6,50-16 VOLTYRE VL-35**

For operation on the steering wheels of tractors and agricultural machinery.



Tire size, Model:

**7,50-16 VOLTYRE YaF-399**

For the guide wheels of tractors of 0.6-0.9 class for agricultural works.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
6,00-16 VOLTYRE L-225	TT	88A6	30	560*	330	750 <sup>+24</sup> <sub>-14</sub>	165	355±9	4,50E	6,00-16 (6,95-16 – agreed with the customer)	LK-35-16,5	-	6	17
6,50-16 VOLTYRE VL-35	TT	91A6	30	615	310	760±11	175	362±9	4,50E	6,00-16	LK-35-16,5	-	6	21

\* In the case of use on agricultural machines in the carrier mode the permitted load is 690 kg at a pressure of 280 kPa.  
 NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
6,50-16 VOLTYRE Ya-387-1	TT	91A6	30	615	310	760 <sup>+25</sup> <sub>-14</sub>	175	360±9	4,50E	6,00-16 (6,5-16)	LK-35-16,5	-	6	18,5
7,50-16 VOLTYRE YaF-399	TT	98A6	30	750	280	805±12	205	370±9	5,50F/4,50E	6,00-16	LK-35-16,5	-	6	24

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**7,50-20 VOLTYRE VL-49**

For operation on the steering wheels of tractors and agricultural machinery.

Tread pattern (longitudinal ribs) provides smooth ride.



Tire size, Model:

**8,3-20 VOLTYRE V-105A**

For the drive wheels of tractors T-40A, MTZ-52.

Off-the-road tread pattern provides excellent traction performance.



Tire size, Model:

**7,50-20 VOLTYRE V-103**

For operation on the steering wheels of tractors and agricultural machinery.

Tread pattern provides a comfort ride on the road and in the field.



Tire size, Model:

**260/90-16 (9,00-16) VOLTYRE Ya-324A**

For carrying wheels of tractor trailers 2PTS-4 PSE-12.5 and trailing implements designed to perform agricultural work.

The tire is resistant to high loads.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
7,50-20 VOLTYRE VL-49	TT	103A8	40	875	275	915±14	205	425±11	5,50F	8,3-20 and allowed 8,3-20A	LK-35-16,5	-	6	25
7,50-20 VOLTYRE V-103	TT	103A6	30	875	280	915 +28 -17	205	427±11	5,50F/ 5,00F	8,3-20 and allowed 8,3-20A	LK-35-16,5	-	6	28

\* Cross section width is shown for the tire on the recommended rim.  
NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
8,3-20 VOLTYRE V-105A	TT	102A6	30	850	250	912 +28 -16	211	446±11	W7	8,3-20	TK, GK-50	-	8	38
9,00-16 VOLTYRE Ya-324A	TT	123A7	35	1550	350	855 +31 -18	234	414±10	6,00F	9,00-16	GK-95, GK-105, GK-115	9,00-16	10	33

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.





Tire size, Model:

**9,00-20 VOLTYRE VL-45**

For the steering wheels of tractors, carrying wheels of agricultural machines and other Russian and imported agricultural equipment and machines for forestry works and municipal services. The tire has high load characteristics.



Tire size, Model:

**10,0/75-15,3 VOLTYRE TVL-2**

For operation on the carrying wheels of trailing implements.



Tire size, Model:

**9,5-42 VOLTYRE Ya-183**

For the drive wheels of tractors designated for intertillage.



Tire size, Model:

**10,0/75-15,3 VOLTYRE VL-30**

For the drive wheels of tractors and tillers. The advantage is the excellent cleanability.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
9,00-20 VOLTYRE VL-45	TT	111A8	40	1100	240	930 +30 -17	234	430±11	W7/ 5,50F	11,2-20, 7,50-20 for consumers	GK-50	-	6	29,5
9,5-42 VOLTYRE Ya-183	TT	116A6	30	1250	210	1505 +31 -18	241	725±18	W8, DW8	9,5-42	TK	-	6	62

\* Cross section width is shown for the tire on the recommended rim.  
NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
10,0/ 75-15,3 VOLTYRE TVL-2	TT	118A6	30	1330	310	760 +26 -15	264	350±9	9,00-15,3	10,0/75-15,3	LK-35-16,5	-	8	25
		123A6		1525	390								10	27
		126A6		1695	470								12	30
		130A6		1900	550								14	32
10,0/ 75-15,3 VOLTYRE VL-30	TT	118A6	30	1330	310	780 +27 -16	264	360±9	9,00-15,3	10,0/75-15,3	LK-35-16,5	-	8	34
		123A6		1525	390								10	36
		126A6		1695	470								12	38

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**11,2-20 VOLTYRE VL-40**

For the front drive wheels of tractors of 1.4 class, drive rear wheels of small tractors of 0.2-0.4 class and their modifications used for field work.

Excellent cleanability of the tread.



Tire size, Model:

**12,4R28 VOLTYRE YaF-394**

For the drive wheels of self-propelled chassis T-16MG and promising class of tractors 0.6, T30A-80, VTZ-2032A and other machines designed to perform the various works in agriculture.

Low fuel consumption.



Tire size, Model:

**11,2-20 VOLTYRE F-35**

For the steering wheels of tractors and other Russian and foreign equipment.

High working endurance.



Tire size, Model:

**13,0/75-16 VOLTYRE VL-38**

For steering and carrying wheels of combines, harvesters, trailers, and other Russian and foreign machinery to perform work in industry and agriculture, including transportation operations.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
11,2-20 VOLTYRE VL-40	TT	120A8	40	1400	240	1005 <sup>+35</sup> <sub>-20</sub>	284	453±11	W10/W9, W7	11,2-20	TK, GK-50	-	8	35
11,2-20 VOLTYRE F-35	TT	114A6	30	1180	210	985±1,5%	284	460±2,5%	W10/W9, W7	11,2-20	TK, GK-50	-	8	48

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
12,4R28 VOLTYRE YaF-394	TT	122A6	30	1500	230	1250±22	315	578±14	W11/W9, W10	12,4-28	TK	-	8	66
13,0/75-16 VOLTYRE VL-38	TT	130A6	30	1900	240	900 <sup>+34</sup> <sub>-20</sub>	336	402±10	W11/W8	12-16	GK-115	-	8	38
		141A6		2575									370	14

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**13,6-38 VOLTYRE Ya-166**

For drive wheels of tractors T-40, T-40A, T-28x4 MC-1 T-28x4 MAC-1 designated to perform work in agriculture.

Low soil damage at high torques.



Tire size, Model:

**13,6R38 VOLTYRE YaF-318**

For tractors of 0.9 class (tractors T-40M, T-40AM) intended for use in agricultural production.

Larger contact area, increased traction.



Tire size, Model:

**15,5/65-18 VOLTYRE KF-105A/KF-105AB**

For operation on tractor trailers, dump trucks of Russian and foreign production.

Model KF-105A: High load characteristics.

Model KF-105AB: Low soil pressure is provided by the large contact area.



Tire size, Model:

**16,5/70-18 VOLTYRE KF-97**

Tube type and tubeless bias tires intended for tractor towed dumpers.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
13,6-38 VOLTYRE Ya-166	TT	125A6	30	1650	160	1565 <sup>+42</sup> <sub>-24</sub>	345	738±2,5%	DW12, W12/ DW11, W11	13,6-38	TK	-	6	97
13,6R38 VOLTYRE YaF-318	TT	128A6	30	1800	160	1550 <sup>+23</sup> <sub>-24</sub>	345	717±18	W12, DW12/ W11, DW11	13,6-38	TK	-	6	87

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
15,5/65-18 VOLTYRE KF-105A	TT	137A6	30	2300	350	980 <sup>+25</sup> <sub>-32</sub>	395	450±11	330-462	15,5-18	GK-115	-	10	75
15,5/65-18 VOLTYRE KF-105AB	TL									-	-	-	10	75
16,5/70-18 VOLTYRE KF-97	TT	149A6	30	3250	370	1065	425	484	330-462	16,5-18	GK-115	-	10	72
		153A6		3650	410								14	74
	TL	149A6		3250	370								10	68
		153A6		3650	410								14	70

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**15,5-38 VOLTYRE F-2AD**

For drive wheels of tractors «Belarus» 1.4class, MTZ -50, MT-52, designated to perform work in agriculture.

The most popular tire in Russia.



Tire size, Model:

**15,5R38 VOLTYRE F-2A**

For drive wheels of tractors «Belarus», traction class 1,4-MTZ-80, MTZ-82, KIZ-6A, MTZ-50.

Excellent traction, minimum slippage.



Tire size, Model:

**16,9R30 VOLTYRE VL-29**

For drive wheels of tractors 1.4-3.0 class, MTZ-80/82, UMZ-6L, MTZ-100/102, trailers and other Russian and foreign equipment designated for industrial, agricultural and transportation works.

Excellent performance on wet soil.



Tire size, Model:

**16,9R34 VOLTYRE VL-26**

For drive wheels of tractors 1,4-2,0t class and their modifications.

Excellent self-cleaning.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
15,5-38 VOLTYRE F-2AD	TT	133A6	30	2060	180	1570 <sup>+42</sup> <sub>-24</sub>	394	738±18	DW14L, W14L/ DW11	13,6-38	TK	-	8	103
		137A6		2320	230								10	105
15,5R38 VOLTYRE F-2A	TT	134A8	40	2120	160	1565±24	394	730±2,5%	W14L/ DW14L	13,6-38	TK	-	8	110

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
16,9R30 VOLTYRE VL-29	TT	137A8	40	2300	160	1475±29	429	680±17	W15L/ DW14	16,9-30	TK	-	8	130
		155A8		3875	360								14	137
16,9R34 VOLTYRE VL-26	TT	139A8	40	2430	160	1575±28	429	727±18	W15L/ W14L, DW14L	16,9-34	TK	-	-	140

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**16,9R38 VOLTYRE VL-28**

For drive wheels of tractors 1,4-2,0t class and their modifications.  
Great performance at transportation and field works.



Tire size, Model:

**18,4R30 VOLTYRE FVL-234**

For drive wheels of tractors, trailers and other Russian and imported equipment designated for industrial, agricultural and transportation works.  
Low pressure on the soil.



Tire size, Model:

**18,4/78-30 VOLTYRE Ya-319**

For drive wheels of tractors, trailers and other Russian and imported equipment designated for industrial, agricultural and transportation works.  
Improved traction performance.



Tire size, Model:

**18,4R34 VOLTYRE VL-31**

For drive wheels of tractors, trailers and other Russian and imported equipment designated for industrial, agricultural and transportation works.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
16,9R38 VOLTYRE VL-28	TT	141A8	40	2575	160	1675±28	429	780±20	DW16/ DW15	16,9-38	TK	-	8	150
		144A8		2800	180								10	
18,4R30 VOLTYRE FVL-234	TT	142A8	40	2650	160	1545±31	467	698±17	DW16/ DW14	18,4-30	TK	-	8	140
		146A8		3000	200								10	
		149A8		3250	240								12	
		155A8		3880	320								14	

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
18,4/78-30 VOLTYRE Ya-319	TT	139A6	30	2430	140	1525 +17 -63	490	693±17	DW16/ DW14	18,4-30	TK	-	8	123
		145A6		2900	180								10	123
		149A6		3250	230								12	125
18,4R34 VOLTYRE VL-31	TT	144A8	40	2800	160	1645±31	467	760±19	DW16/ DW15	18,4-34 (16,9-34 "u")	TK	-	8	155
		148A8		3150	200								10	155
		157A8		4125	300								14	170

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**18,4R38 VOLTYRE VL-32**

For drive wheels of tractors, trailers and other Russian and imported equipment designated for industrial, agricultural and transportation works.

A large contact area provides excellent flotation and protection of soil.



Tire size, Model:

**28,1R26 VOLTYRE VL-41**

For the drive wheels of tractors «Kirovets» 5.0-6.0 class for field work.

The tire is designed for cyclic loads.



Tire size, Model:

**23,1-26 VOLTYRE Ya-242 AB**

For drive wheels of tractors and combines designated to perform agricultural works.

The tire with high-life designed for cyclic loads.



Tire size, Model:

**28,1R26 VOLTYRE FD-12M**

For the drive wheels of tractors of agricultural and industrial purpose designated for field, cargo handling and transport operations.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
18,4R38 VOLTYRE VL-32	TT	146A8	40	3000	160	1750±31	467	790±20	W16L/ DW16, W15L	16,9-38 "u"	TK	-	8	155
		152A8		3550	200								10	162
		165A8		5150	310								16	168
23,1-26 VOLTYRE Ya-242AB	TT	153A6	30	3650	180	1605 <sup>+66</sup> -38	587	735	DW20	23,1-26	TK	-	12	217
		158A6	30	4250	230		587	735	DW20	23,1-26	TK	-	14	
		169A	30	5800	280		587	735	DW20	23,1-26	TK	-	16	

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
28,1R26 VOLTYRE VL-41	TT	158A8	40	4250	160	1722±42	728	770±19	DW25/ DW24	28,1-26	TK	-	12	235
28,1R26 VOLTYRE FD-12M	TT	158A8	40	4250	160	1735±40	728	785±20	DW25/ DW24	28,1-26	TK	-	12	275
		173A8		6500	260								-	

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**230/90-15 (8,25-15) VOLTYRE Ya-372**

For trailed sprayers OPV-1200 OPH-15-01, slurry spreaders ZZhV-1.8 and other agricultural machines, engaged in the performance of seasonal agricultural work.

High strength under cyclic loading.



Tire size, Model:

**360/70R24 VOLTYRE VL-44**

For the drive wheels of tractors, self-propelled chassis and other Russian and imported equipment to perform work in industry, agriculture and forestry, including transport operations.

The improved formula of the rubber compound enables to increase the wear resistance of the tread by reducing the formation of microcracks and aging.



Tire size, Model:

**360/70R20 VOLTYRE VL-44**

For the drive wheels of tractors, self-propelled chassis and other Russian and imported equipment to perform work in industry, agriculture and forestry, including transportation operations.

The increased resistance to cuts and punctures.



Tire size, Model:

**380/70R24 VOLTYRE VL-44**

For the drive wheels of tractors, self-propelled chassis and other Russian and imported equipment to perform work in industry, agriculture and forestry, including transport operations.

The tire with highly flexible sidewall.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
230/90-15 (8,25-15) VOLTYRE Ya-372	TT	119A6	30	1360	350	235 +32 -18	237	368±9,0	6,00F	230-15	GK-105, GK-115	230-15	8	28
360/70R20 VOLTYRE VL-44	TT	120A8 117B	40 50	1400 1285	160	1042±21	357	475±12	W11/ W10, W12	360-20	TK	-	-	61

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

### Technical Data

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
360/70R24 VOLTYRE VL-44	TT	122A8 119B	40 50	1500 1360	160	1152±22	357	528±13	W11/ W10, W12	360-24	TK	-	-	67
380/70R24 VOLTYRE VL-44	TT	125A8 122B	40 50	1650 1500	160	1190±18	380	540±13,5	W13, DW13/ W11, DW11, W13L, DW13L, W12, DW12	380-24	TK	-	-	74

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**420/70R28 VOLTYRE Ya-428**

For the drive wheels of tractors of 0.6 class and other agricultural machinery designated to perform various works in agriculture.

High flotation and good self-cleaning tread pattern.



Tire size, Model:

**480/70R34 VOLTYRE VL-44**

For drive wheels of tractors, trailers and other Russian and imported equipment designated for agricultural works.

The increased contact area provides excellent flotation and, thus, protects the soil.

Improved traction.



Tire size, Model:

**480/70R30 VOLTYRE VL-44**

For drive wheels of tractors, trailers and other Russian and imported equipment designated for agricultural works.

The increased contact area provides excellent flotation and, thus, protects the soil.

Improved traction.



Tire size, Model:

**480/70R38 VOLTYRE VL-44**

For drive wheels of tractors, trailers and other Russian and imported equipment designated for agricultural works.

The tire has a low level of maximum contact pressures on the soil.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
420/70R28 VOLTYRE Ya-428	TT	130A6	30	1900	160	1349±26	418	610±15	W13/ W12, W14L, W9, W11	14,9-28	TK	-	-	88
480/70R30 VOLTYRE VL-44	TT	141A8 138B	40 50	2575 2360	160	1478±28	479	666±17	W15L/ W14L, W16L, DW14L, DW16L	16.9-30 "u"	TK	-	-	125

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
480/70R34 VOLTYRE VL-44	TT	143A8 140B	40 50	2725 2500	160	1580±24	480	716±18	W15L/ W14L, W16L, DW14L, DW16L	16.9-30 "u"	TK	-	-	134
480/70R38 VOLTYRE VL-44	TT	145A8 142B	40 50	2900 2650	160	1681±29	479	766±19	W15L/ DW14L	16.9-38 "u"	TK	-	-	147

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.





## FORESTRY TIRES VOLTYRE WOODCRAFT

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Tire size, Model:

**600/55-26.5 VOLTRE WOODCRAFT DT-112**

For use on forestry and agricultural vehicles when performing the logging and forestry operations on soft soils; felling with the presence of stumps, fallen trees; logging slash and fallen trees at snow cover deeper than 80 cm, on the ground and other roads.

Forestry tires combine very contradictory properties: they have large contact area that provides excellent traction on slippery and uneven road. But at the same the tires for forestry machines maintain the stability of the vehicle and do not drown in the swampy soil. In addition, it is important to ensure maximum protection of the tire cap from accidental cuts and punctures on the sidewalls. The tread compound for forest tires is chosen with great care that provides increased flexibility while maintaining high tire wear resistance.

Designed for specialized logging equipment (harvesters - forestry tractors, forwarders – logging tractors); the tire provides stability and first-class traction properties.

Main advantages:

- large contact area with the surface provides excellent flotation and, thus, protects the soil;
- sidewall has a protective layer from punctures;
- low rolling resistance reduces fuel consumption;
- excellent traction even without caterpillars



Tire size, Model:

**700/50-26.5 VOLTRE WOODCRAFT DT-113**

For use on forestry and agricultural vehicles when performing the logging and forestry operations on soft soils; felling with the presence of stumps, fallen trees; logging slash and fallen trees at snow cover deeper than 80 cm, on the ground and other roads.

Forestry tires combine very contradictory properties: they have large contact area that provides excellent traction on slippery and uneven road. But at the same the tires for forestry machines maintain the stability of the vehicle and do not drown in the swampy soil. In addition, it is important to ensure maximum protection of the tire cap from accidental cuts and punctures on the sidewalls. The tread compound for forest tires is chosen with great care that provides increased flexibility while maintaining high tire wear resistance.

Designed for specialized logging equipment (harvesters - forestry tractors, forwarders – logging tractors), the tire provides stability and first-class traction properties.

Main advantages:

- wide ribs provide high flotation and good comfort of driving;
- large contact area provides excellent flotation and, and at the same time protects the soil;
- due to a special inclination of ribs the excellent directional stability is achieved;
- excellent traction even without caterpillars.

**Technical Data**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
600/55-26.5 VOLTRE Woodcraft DT-112	TT	170A6	30	6000	260	1333 +47 -26	600	590±15	20,00x26,5	600-26,5	TK	-	16	180
700/50-26.5 VOLTRE Woodcraft DT-113	TT	163A8	40	4875	400	1373 +49 -28	700	615±15	AG 24,00-26,5	600-26,5	TK	-	16	200

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

**Load-bearing capacity**

Tire size, model	Load index and speed symbol	Max speed, km/h	Tire load, kg, at the inflation pressure, kPa																
			140	150	160	170	180	190	200	210	220	230	240	250	260	300	350	400	
600/55-26.5 VOLTRE Woodcraft DT-112	170A6	40	2380	2540	2580	2680	2785	2885	2990	3090	3200	3300	3400	3500	3600	-	-	-	
		30	3960	4230	4300	4470	4640	4810	4980	5150	5320	5490	5660	5830	6000	-	-	-	
		20	4360	4650	4730	4915	5105	5290	5480	5665	5850	6040	6225	6410	6600	-	-	-	
		15	4550	4820	4900	5100	5290	5480	5680	5870	6065	6260	6450	6645	6840	-	-	-	
700/50-26.5 VOLTRE Woodcraft DT-113	163A8	40	-	2910	-	-	-	-	3460	-	-	-	-	3900	-	4330	4620	4875	
		30	-	3115	-	-	-	-	3700	-	-	-	-	4175	-	4630	4940	5215	
		20	-	3580	-	-	-	-	4260	-	-	-	-	4800	-	5325	5680	6000	
		10*	-	3580	-	-	-	-	4260	-	-	-	-	4800	-	5325	5680	6000	
		10**	-	2910	-	-	-	-	3460	-	-	-	-	3900	-	4330	4620	4875	

Note: The allowable tolerance values of the internal pressure in the tire are ± 10kPa by the pressure gauge.

- For the purposes of practical application in a continuous operation at high torque, use the values listed in the line corresponding the speed of 30 km/h.



**INDUSTRIAL TIRES  
VOLTYRE & VOLTYRE HEAVY**

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Tire size, Model:

### 6,50-10 VOLTYRE HEAVY DT-123



For operation on diesel forklifts with lifting capacity of 1.5-1.85t (front axle) and 3-4t (rear axle).

Designed for extremely harsh industrial conditions. The tire shows the best performance and durability in continuous operation on the long haul. The unique massive tread blocks provide bigger contact area for better braking, handling, and load balancing.

**Universal tread pattern.**

Tire size, Model:

### 10-16,5 VOLTYRE HEAVY DT-122



For operation on mini-loaders BOBCAT with skid steering (S 220, S250, S300), CATERPILLAR (236, 242, 246, 248, 252, 262), KOMATSU (SK 1020), LOCUST (L903), NEW HOLLAND (Ls170), SAMSUNG (MX3W) and others.

The model has a unique HD high-strength sidewalls design to resist punctures, cuts and abrasion. Superior double V-typed lugs provide resistance to wear and long life.

**Off-the-road tread pattern.**

Tire size, Model:

### 10,00-20 VOLTYRE HEAVY DT-114



For use on excavators of Russian and foreign production designated for work in off-road conditions and soft terrain.

Off-the-road tread pattern provides good traction and self-cleaning on the soft soil and off-road in different climate zones at an ambient temperature from -45°C to + 55°C.

**Off-the-road tread pattern provides good traction and self-cleaning on the soft soil and off-road in different climate zones at an ambient temperature from -45°C to + 55°C.**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
6,50-10 VOLTYRE HEAVY DT-123	TT	130A3	15	1900	790	594	188	264	5,00F	6,50-10	LK-35-16,5; GK-95	-	10	16
10-16,5 VOLTYRE HEAVY DT-122	TL	130A2	10	1900	410	777	262	363	8,25-16,5	-	-	-	8	25
		134A2		2120									500	
10,00-20 VOLTYRE HEAVY DT-114	TT	146A8	40	3000	750	1075±16	278	498±13	7,50-20/7,0-20/8,0-20	11,00-20	GK-145	6,7-20	16	57

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

Tire size, Model:

### 12,5/80-18 VOLTYRE HEAVY DT-115



For operation on loaders CASE, CATERPILLAR, JCB to perform work in rough terrain, paved roads and soft ground.

**Increased performance.**

Tire size, Model:

### 12-16,5 VOLTYRE HEAVY DT-122



For operation on mini-loaders with skid steering.

The model has a unique HD high-strength sidewalls design to resist punctures, cuts and abrasion. Superior double V-typed lugs provide resistance to wear and long life.

**Off-the-road tread pattern.**

Tire size, Model:

### 28x9-15 VOLTYRE HEAVY DT-121



Pneumatic tubeless tire is designed for use on the front axle of diesel forklifts with load capacity 3-4t.

Non-directional tread pattern is suitable for both the driving axle and for steering axle. It has additionally reinforced sidewall. The design provides high performance both in the polished concrete, and in the conditions of the mountain section.

**Off-the-road tread pattern.**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
12,5/80-18 VOLTYRE HEAVY DT-115	TL	138A8	40	2360	370	987±15	328	465±8	11x18/9x18	-	-	-	12	50
		125A8		3000									490	
12-16,5 VOLTYRE HEAVY DT-122	TL	140A2	10	2500	458	831	325	389	9,75-16,5	-	-	-	10	35
		145A2		2900									560	
28x9-15 NHS VOLTYRE HEAVY DT-122	TL	148A3	15	3120	830	693	224	318	7,00/7,00BD	-	-	-	12	28
				3150										

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**405/70-20 (16.0/70-20) VOLTYRE HEAVY DT-126**

Tubeless tire for use on the loaders FORTSCHRITT, GRIMME, JOHN DEERE, MASSEY FERGUSON, HIDROMEK, TEREX, VOLVO and others.

**Off-the-road tread pattern.**



Tire size, Model:

**16,9-24 VOLTYRE HEAVY DT-124**

Large tubeless tires are designed for the drive wheels of the backhoe loaders of Russian and foreign manufacture and suitable for work in cross-country conditions and soft terrain.

The tire has extra wide lugs with a long overlap on the center; it was designed to prevent deflection, tears and cracks. Excellent tread wear resistance and flotation, as well as uniform wear are the result of a special lug design.

**Off-the-road tread pattern.**



Tire size, Model:

**21,3R24 VOLTYRE HEAVY DR-108**

Tube type tire is designed for use on the single-bucket front-end loaders of Russian and foreign manufacture, for mechanization of loading operations with bulk and crushed materials, excavating operations, as well as for road and construction works.



Tire size, Model:

**17,5-25 VOLTYRE HEAVY DT-125**

For operation on front-end loaders. Thick tread pattern with lugs reinforced in the center provides excellent traction and resistance to external mechanical damages. The tire has reinforced carcass design resistant to punctures and cuts.

**Off-the-road tread pattern.**



Tire size, Model:

**23,5-25 VOLTYRE HEAVY DT-125**

For operation on front-end loaders. The lug design provides excellent traction even in the direction along of the lugs.

\* The tire has special lugs protected from deformation, cracking and chipping&chunking.

**Off-the-road tread pattern.**



Tire size, Model:

**16,9-28 VOLTYRE HEAVY DT-124**

Large tubeless tires are designed for the drive wheels of the backhoe loaders of Russian and foreign manufacture and suitable for work in cross-country conditions and soft terrain.

The tire has extra wide lugs with a long overlap on the center; it was designed to prevent deflection, tears and cracks. Excellent tread wear resistance and flotation, as well as uniform wear are the result of a special lug design.

**Off-the-road tread pattern.**

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
405/70-20 (16.0/70-20) VOLTYRE HEAVY DT-126	TL	150A8/150B	40/50	3350	350	1076	407	504	DW13x20	-	-	-	14	71
16,9-24 VOLTYRE HEAVY DT-124	TL	149A8	40	3250	255	1285	442	584	W15L/W14L	-	-	-	12	110
21,3R24 VOLTYRE HEAVY DR-108	TT	160A8	40	4500	330	1400±32	567	620±16	DW18	21,3-24	TK, GK-105	-	-	150

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
17,5-25 VOLTYRE HEAVY DT-125	TL	177A2	10	7300	470	1348	472	610	14,00/1,5x25	-	-	-	16	160
23,5-25 VOLTYRE HEAVY DT-125	TL	191A2	10	10900	471	1613	599	724	19,5/2,5x25	-	-	-	20	280
16,9-28 VOLTYRE HEAVY DT-124	TL	151A8	40	3450	260	1387	472	635	W15L/W14L	-	-	-	12	115

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.



Tire size, Model:

**6,00-13 VOLTYRE VL-24**

For electric cars «Elkar» and loaders of Bulgarian production with the load-bearing capacity of 2 tons. Road tread pattern provides good traction. High directional stability.



Tire size, Model:

**7,00-12 VOLTYRE VL-7**

For forklifts with the load-bearing capacity up to 2 tons. The tread pattern with longitudinal ribs. Longitudinal grooves provide good steering and tire resistance. The improved tread compound provides the high durability of the tire.



Tire size, Model:

**8,15/65-15 VOLTYRE VL-13**

For forklift trucks «Rekord» with the load-bearing capacity up to 3 tons.



Tire size, Model:

**8,25-15 VOLTYRE LF-268**

For forklift trucks with the load-bearing capacity of 5 tons and low loader trailers (semi-trailers) - heavy trucks.



Tire size, Model:

**10,0/75-15,3 VOLTYRE F-201**

For construction, materials handling and multipurpose machines, trailers and agricultural equipment of Russian and foreign production.



Tire size, Model:

**11,00-20 VOLTYRE F-213A**

For self-propelled rollers designated for compaction of road bases and asphalt mixtures with a temperature of 150°C. No tread pattern.

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
6,00-13 VOLTYRE VL-24	TT	107A4	20	970	590	609±9	155	285±4	5,0	UK-13M-U	GK-95	6,0-6,45-13	6	14
		120A4		1400				690						
7,00-12 VOLTYRE VL-7	TT	131A5	25	1950	830	668±15	192	310±5	5,0	7,00-12	GK-95	7,00-12	12	22
8,15/65-15 VOLTYRE VL-13	TT	156A5	25	3950	880	683±15	217	310±7	7,0-15	6,95-16 «U»	GK-95	8,25-15	14	28

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg	
8,25-15 VOLTYRE LF-268	TT	146A5	25	3000	700	636±12	234±7	384±6	6,5/5,00S	8,25-15	GK-115 GK-105	8,25-15	12	41	
		143B	50	2725									800	14	44
10,0/75-15,3 VOLTYRE F-201	TT	112A6	30	1120	230	785±12	267	355±8	9,00-15,3	10,0/75-15,3 F-201	LK-35-16,5	9,5-15,3	6	30	
		118A6		1330									310	8	30
		123A6		1525									390	10	30
		126A6		1695									470	12	30
		130A6		1900									550	14	40
11,00-20 VOLTYRE F-213A	TT	155A3	16	3865	300-600	1080±16	304	500±8	8,0	11,00-20	GK-145	7,7-20	12	82	

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

Tire size, Model:

**12,00-20 VOLTYRE YaF-406**

For single-bucket excavators EO 3323 type and its modifications, intended for use in off-road and on soft soil conditions in areas with mild climate.



Tire size, Model:

**14,00-20 VOLTYRE Ya-307**

For operation on motor graders, cranes on the chassis of automobile type, wheel type cranes, load-haul-dump machines of PD type.



Tire size, Model:

**15,00-20 VOLTYRE Ya-190**

For MAZ, KrAZ and trailers ChMZaP-5247.



Tire size, Model:

**16,00-24 VOLTYRE Ya-140/ Ya-140A**

Model Ya-140:

For Graders of 250 Class designated for work on soils of 1.2, 3 categories, forklifts TC-18, cranes KC-4372.

Model Ya-140A:

For diesel - electric cranes of K and KC series.



Tire size, Model:

**18,00-25 VOLTYRE VL-15 i203/ i200**

Model VL-15 i203:

For operation on load-haul-mine (mine) machines of Russian and foreign production.

Model VL-15 i200:

For load-haul-dump machines PD-8, long haul truck of MoAZ type.



Tire size, Model:

**18,00-25 VOLTYRE VF-76B**

For BelAZ-7540.

Mining tread pattern (E-3).



Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
12,00-20 VOLTYRE YAF-406	TT	151B	50	3500	640±25	1133±18	315±12	532±10	8,5	12,00-20	GK-145	7,7-20	20	85
14,00-20 VOLTYRE YA-307	TT	158B	50	4250	500±25	1220±18	375±12	555±9	10,00/ 8,50	14,00-20	GK-170 ER-161	14,00-20	18	113
15,00-20 VOLTYRE YA-190	TT	153B	50	3600	380	1297±20	410	598±10	11,00	15,00-20	GK-135	15,00-20	18	158
		164B		5000									550	20

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
16,00-24 VOLTYRE YA-140	TT	157B	50	4125	250±25	1483±23	446	662±12	11,25	16,00-24	ER-161	16,00-24	12	152
16,00-24 VOLTYRE YA-140A	TT	171B	50	6150	500±25	1483±23	446	680±12	11,50	16,00-24	special valve	16,00-24	24	197
18,00-25 VOLTYRE VL-15 i203**	TT	203A2	10	15500	800	1640±25	515	762±13	13,0-25/2,5	18,00-25	D-13-260	18,00-25	34	445
18,00-25 VOLTYRE Bn-15 i200**	TT	200A2	8	13880	660	1640±25	515	755±13	13,0-25/2,5	18,00-25	D-13-260	18,00-25	28	425
18,00-25 VOLTYRE VF-76B	TT	183B	50	8750	575±25	1615±25	498±15	745±13	13,0	18,00-25	ER-161	18,00-25	32	350

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

\*\* It is permitted to operate the tire on the load-haul-dump machines such as PD-8 with a load of 12000 kg, at the inflation pressure (500 + 25) kPa and a maximum speed of 8 km/h and on the long haul trucks MoAZ-7405 with a load of 10500 kg, at the inflation pressure (390 + 250) kPa and a maximum speed of 12 km/h



**LIGHT TRUCK TIRES  
VOLTYRE**

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Tire size, Model:

**185/75R16C VOLTYRE VS-22**

For «Gazelle» cars and their analogues with tires of the same dimension, considering restrictions for speed and load characteristics.



Tire size, Model:

**185/75R16C VOLTYRE VL-54**

For «Gazelle», «Sobol» cars and their modifications as well as other cars of the same class with the appropriate speed and load characteristics.



Tire size, Model:

**185/75R16C VOLTYRE S-156**

For «Gazelle», «Sobol» cars and import analogues considering the restrictions for speed and load characteristics.



Tire size, Model:

**7,50-16C VOLTYRE BRI-317**

Ply rating 12 is for use on light trucks and buses of small capacity considering the restrictions for the speed and load characteristics. Ply rating 10 is for use on vans: van AVIA-A21F, AVIA-A20L.

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
185/75R16C VOLTYRE VS-22	TT	104N* 102N**	140	900* 850**	470	684±7	184	316±3	5Jx16/ 5½Jx16, 6Jx16	UK-16-1 (6,95-16- permitted)	LK-35- 11,7	-	-	13,5
185/75R16C VOLTYRE VL-54	TT	104Q* 102Q**	160	900* 850**	470	684±7	184	316±3	5Jx16/ 5½Jx16, 6Jx16	UK-16-1	LK-35- 11,7	-	-	13,0

\*The load and load index are indicated for single wheels.

\*\* The load and load index are indicated for dual wheels.

\*\*\*Cross section width is indicated for the rim 5 1/2Jx16

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
185/75R16C VOLTYRE S-156	TT	104Q* 102Q**	160	900* 850**	470	684±7	184	316±3	5Jx16/ 5½Jx16, 6Jx16	UK-16-1	LK-35- 11,7	-	-	12,8
7,50-16C VOLTYRE BRI-317	TT	116L	120	1250	466	806±12	220	380±6	6J/ 6L	6,00-16	LK-35- 16,5	-	10	24
		120L* 116L**		1405* 1240**		620		810±12	382±6				6,00/ 6J	12

\*The load and load index are indicated for single wheels.

\*\* The load and load index are indicated for dual wheels.

\*\*\* Cross section width is indicated for the rim 5 1/2Jx16.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed..



**PASSENGER TIRES  
VOLTYRE**

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Tire size, Model:

**175/80-16 VOLTYRE VLI-5**

For cars VAZ-2121.



Tire size, Model:

**215/90-15C VOLTYRE Ya-245**

For cars UAZ M1, N1 designated for use on the roads of various categories.



Tire size, Model:

**205/70R14 VOLTYRE VS-1**

For passenger cars GAZ-3102, 31029, 2410 and their modifications.

All-season tread pattern.



Tire size, Model:

**235/75R15 VOLTYRE VS-5**

For the vehicles with maximum values of speed and load characteristics corresponding to 105 load capacity index of the tire and the index of speed «Q».

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
175/80-16 VOLTYRE VLI-5**	TT	85P	150	515	210	692±7	178	326±3	5J	6,95-16 (UK-16-1-permitted)	LK-35-16,5	-	6	12,6
205/70R14 VOLTYRE VS-1	TL	95S	180	690	250	652±10	206	295±3	5½Jx14/6Jx14, 6½Jx14	-	LB	-	-	11,7

\* Cross section width is shown for the tire on the recommended rim.

\*\* The most efficient load for optimum performance of the tire is 425 kg at the inflation pressure 170 kPa corresponding to this load.

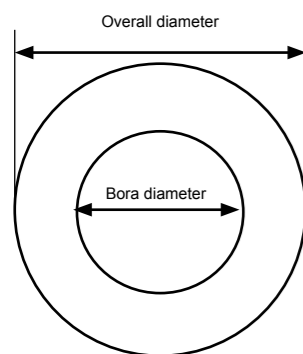
NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

Tire size, model	TL/TT	Load index and speed symbol	Max speed, km/h	Max load, kg	Inflation pressure, kPa	Overall diameter, mm	Section width*, not more, mm	Static loaded radius, mm	Rim contour designation (recommended/ approved)	Tube designation	Valve designation	Flap designation	Ply Rating	Weight, not more, kg
215/90-15C VOLTYRE YA-245	TT	99K	110	775	260	777±12	218	364±6	6L/6J	8,40-15	LK-35-16,5	-	6	22
235/75R15 VOLTYRE VS-5	TL	105Q	160	925	250	733±7	235	328±3	6½Jx15/6Jx15, 7Jx15, 7½Jx15, 8Jx15, 6Lx15	-	LB	-	-	16,5
	TT									8,40-15				18,5

\* Cross section width is shown for the tire on the recommended rim.

NOTE: The inflation pressure in the tire is always determined by the load on the tire, speed and type of work performed.

## Tubes



№	Tube designation	Valve offset from the center, mm	Valve type
1	14,00-20 Ya-307	center	ER-161
2	12,00-20	center	GK-145
3	11,00-20	center	GK-145
4	10,00-20	center	GK-145
5	9,00-20	center	GK-145
6	8,25-20	center	GK-145
7	7,50-20	center	GK-145
8	600-26,5	133	TK
9	4,00-10	13	LK-35-11.7
10	420-24	93	TK simplified design
11	6,00-16	25	LK-35-16.5
12	230-15	center	GK-115
13	8,3-20	40	TK
14	8,3-20A	40	LK-35-16.5
15	9,00-16	26	GK-95
16	9,5-32	50	TK
17	9,5-42	59	TK
18	10,0/75-15,3	50	LK-35-16.5
19	11,2-20	48	GK-50
20	13,6-38	92	TK
21	360-24	70	TK
22	360-20	70	TK
23	380-24	93	TK
24	380-24U	93	TK
25	16,9-38	118	TK
26	16,9-38U	118	TK
27	16,9-34	118	TK
28	16,9-34U	118	TK
29	16,9-30	118	TK
30	16,9-30U	118	TK
31	18,4-24	115	TK
32	18,4-30	108	TK
33	23,1-26	165	TK
34	21,3-24	115	TK
35	21,3-24 GK-105	120	GK-105
36	28,1-26	185	TK
37	30,5L-32	190	TK
38	12-16	25	GK-115
39	15,5-18	60	GK-115
40	5,00-10	20	LK-35-11.7
41	18,00-25	center	ER-161
42	18,00-25 D-13-260	center	D13-260
43	16,00-24 A	center	Special customized under the drawing IZh-5586
44	16,00-24 Ya-140	center	ER-161
45	15,00-20	center	GK-135
46	8,25-15	center	GK-115 LK-35-11.7
47	10,0/75-15,3 F-201	45	LK-35-16.5
48	7,00-12	center	GK-95
49	8,40-15	25	LK-35-16.5
50	UK-16-1	26	LK-35-11.7
51	UK-13M	25	LK-35-11.7
52	6,95-16	25	LK-35-16.5
53	6,95-16U	25	GK-95
54	UK-14-02	25	LK-35-11.7
55	UK-15C	30	LK-35-11.7
56	6,50-20	center	GK-115
57	1300x530-533	95	GK-95
58	14,9-28	90	TK
59	12,4-28	71	TK
60	UK-13M-U	25	GK-95

## Warranty policy of JSC «Voltyre-Prom»

**Warranty tire life** is 5 years from date of manufacture. The possibility of further operation of the tire is determined by the customer in accordance with its technical condition. The manufacturer guarantees within the warranty period of the tire:

- Compliance of tire with the requirements of this specification if the customer follows transportation, storage and operation rules;
- Lack of production defects and performance ability of the tire to the limit of wear of the tread pattern (residual height of the tread is 7 mm)

	Tire wear-out %*						
	From 0 to 10	From 11 to 25	From 26 to 50	From 51 to 60	From 61 to 70	From 71 to 80	From 81 to 100
Tire operation**	The percentage of reimbursement to the consumer						
1 year and less	100	100	50	40	30	20	0
From 1 year to 2 years	75	75	50	40	30	20	0
From 2 year to 3 years	50	50	50	40	30	20	0
From 3 year to 4 years	40	40	40	40	30	20	0
From 4 year to 5 years	30	30	30	30	30	20	0

\* For passenger, light truck, truck tires it is determined according to the height of the tread wear indicator

For industrial, agricultural tires it is determined in accordance with the residual tread depth

\*\* If there is confirmation of the date of purchase or installation. In the absence of such information the manufacturer's data will be used - date of manufacture of the tire

## Operational recommendations for tractors and agricultural machinery

### Transportation and storage

1. Usable condition of tubes, flaps and tires mostly depends on the proper care, transportation and storage. For these products the following is harmful: effects of oxygen, ozone, light, heat, organic solvents, mineral oils, lubricants, fuels, acids; long contact with copper or corrosive objects and long one-sided loads, bends, piling up products at each other, supporting the products by the sharp surface irregularities.

2. To ensure the safety of the tires, it is very important to follow the rules of loading and unloading. Tires weighing 30 kg or more must be loaded and unloaded using jib-crane, telfers, motor and electric loaders etc. At the same time, to prevent damage and deformation of the beads, it is forbidden to raise the tire using the hooks over the beads; in this case the special grips should be used.

Lift-and-carry and storage of tires (especially the tubeless and large tires) should be carried out with the help of aids (e.g., canvas or rubber-cord belts), which provide distribution of tires weight on a certain area of the tire bead and eliminate side damage. When using forklift, the tires should be lifted from the bottom so that the tread cap recline against the forklift.

When loading (unloading) the tires with the help of auto- and electric forklifters, the work tools must be covered with special semi round shoes. Particular caution should be taken when loading and unloading the tires in winter at low temperatures, when the rubber becomes crack-sensitive, and hits, shocks and deformation of tires leads to their damage and failure.

3. Tires must be transported without packaging, in upright position. When transporting tires with tubes, the tubes powdered with talc should be put into the tires; the tubes must be inflated to the normal size to avoid twisting, loss and folding.

4. When transporting tires in the open trucks and platforms for more than five days, it is necessary to protect them from direct sunlight and moisture.

It is forbidden to transport the tires with oils, acids, alkalis and other substances that damage the rubber. Tires transported at temperatures below -45 ° C must be protected from mechanical impact.

5. Tubeless tires are transported with spacers between the beads. Spacers must be made of wood, cardboard or other material. Their sizes must match the width of the profile of the rim set for the particular tire; the spacers must be made in the way to provide a secure grip between the tire beads. There must be at least 4 spacers. Tubeless tires can be transported without spacers if the sidewalls of the tires are protected (e.g. in containers, pallets, etc.)

6. During long transportation of tractors and agricultural machines by rail or by water, to avoid bedsores and fracture of carcass, the inflation pressure must be increased to 29-69 kPa (0.3-0.7 kgf/cm<sup>2</sup>) over the maximum allowed pressure; when the tire is put into operation the pressure must be decreased. Tires for steering and carrying wheels must be transported at the maximum allowable pressure.

7. The tires should be stored in closed warehouses, which must be clean, shaded, and meet the requirements of fire safety.

If there are any windows in the warehouse, the glass should be painted in red or orange, the heating devices should be shielded.

8. To slow the aging process of rubber, the air temperature in the warehouse should be from - 30 to + 35 ° C at a relative humidity of 50-80%.

9. All the tires should be stored in upright position on the racks.

10. It is allowed to store the tires on pallets.

11. It is allowed to store the tires in stacks (wells) of 2 m high for a period not exceeding one month.

12. During the long-term storage in order to avoid deformation the tires should be rotated by changing the support zone every three months.

13. It is allowed to store the tires with rims during the short period of time. The tire must be placed in a horizontal position; the sidewalls should not touch the supporting surface and of the inflation pressure should not exceed the pressure corresponding to the maximum permissible load.

14. Shelves with tires must be place at least 1m from heaters.

Tires can be stored outdoors for not more than one month. In this case the tires should be placed under a shed or covered with the dense material to protect them from environment (sun, water, dirt). It is strictly forbidden to store the tires with fuel and lubricants, acids, alkalis, solvents, paints etc.

### Mounting and operation of tires on agricultural machinery

1. It is forbidden to mount tires of different models on one tractor/machine axle. In the case of doubling the wheels to reduce pressure on the soil and improve the flotation the tires should be mounted with a corresponding adjustment of the inflation pressure.

2. In case of mounting tires that were in operation on the tractors and agricultural machinery, the tread wear-out should be the same.

3. Each new tire should have a record card. The wear-out of the tread pattern is determined by the difference between the original and the remaining height of the tread pattern. Measurement of the tread pattern height should be taken in two diametrically opposite areas of the tire by the depth gauge with accuracy to ± 0.5 mm.

4. Proper installation of the wheels on tractors and agricultural machines is of great importance for ensuring the uniformity of wear and reducing its intensity, as well as for the duration of maintenance of the undercarriage and driving safety.

When making the balance of wheels on the semi-axes of the tractor, the weight on the left and right axles should be distributed equally between the wheels. This can be achieved provided that the central plane of running wheels of the tractor is spaced from the vertical plane at the same distance, passing through the center of its gravity.

The easiest way to control the accuracy of alignment of the drive wheels is to check the distance between the disc hubs and the outer side faces of the body of the tractor along its semi-axes. It is checked by means of special patterns or conventional metal ruler. It is permitted that the distance between the left wheel and the body of the tractor, the gravity center of which is shifted to the right, is not more than 15-20 mm less than the corresponding distance to the right wheel. The location of the wheels of the tractor is adjusted along the moving forward.

5. When mounting the front steering wheels, pay attention to the toe-in and toe-out, longitudinal and lateral inclination of the pivot axle.

Toe-in is defined by the sliding rulers or optical wheel alignment control tools.

The angles of the wheels can be checked by portable hand-held mechanical devices of liquid or optical type, and using the stationary diagnostic stands of different designs.

Toe-in of the guide wheels of tractors and trailers is checked and, if necessary, adjusted every 900 hours. Toe-in of the self-propelled combines, corn harvesters is checked once a year during their removal from storage.

6. Differences in the load on individual wheels, caused by the position of the wheels on the machine, working conditions (traction, type of the road, kind of work performed, load distribution in the body of the machine etc.), as well as the technical condition of the undercarriage, can lead to uneven wear-out of the tread pattern of the tires. This uneven wear-out of the tread pattern is typical mainly for tractors, trailers, self-propelled chassis and sometimes for harvesters.

The amount and unevenness of the wear-out is checked after 960 hours of operation of the machine.

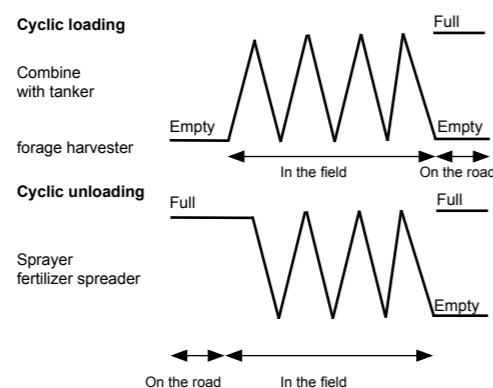
In order to reduce the unevenness of the wear-out on tires, it is recommended to interchange the wheels according to the schemes in manuals (instructions) for the use of machines. The frequency of interchanging of wheels is also necessary in the case of significant one-sided tread wear after eliminating the causes of such wear-out. For some vehicles such as trailers with bearing capacity of 12-13t the time period is 480-600 hours.

### Harvesters

Loads on the tire are shown in Table 1, and allowed for traction wheels of vehicles operated with cyclic loads (at a maximum speed of 10 km/h), minimum torque and wide variation in weight (e.g. combine grain tank, which has been repeatedly filled and emptied). Vehicles must be unloaded before their transportation beyond the crop fields. For loaded and unloaded conditions, the load on the tire shall conform to Table of load/speed. Cyclic loading means that the cycles of loading the tires are between the maximum load and the transportation load; it depends on the maximum speed of the vehicle (see the corresponding rates in the table). For example, at a speed of 40 km/h it is 100% of the maximum permissible load; and at 20 km/h it is 123% of the maximum permissible load. The vehicle must be unloaded before moving on the road (moving with filled tanker is prohibited). It is forbidden to carry a maximum load of more than 1.5 km before unloading. The maximum load on the tire includes all possible field and transport operations. For works on a slope of more than 11» (20%) of inclination only basic load is permitted (not cyclic); when working on a slope up to 11» (20%) under cyclic loading it is necessary to increase the inflation pressure to 25% of the maximum. Changes in the load/speed (table 1) are applied when the tire is not subjected to high torques during the long period of time, including the transport operations.

Tab.1 Change of load - speed for the rive wheels

Speed, km/h	Speed symbol			
	A6	A8		D
		For tractors	For implements	
0	+ 130%	+ 130%	+ 130%	+ 130%
10	+ 40%	+ 50%	+ 70%	+ 70%
10 cyclic	+ 70%	+ 70%	-	+ 70%
15	+ 30%	+ 34%	+ 34%	+ 34%
15 cyclic	+ 55%	+ 55%	-	+ 55%
20	+ 20%	+ 23%	+ 23%	+ 23%
25	+ 7%	+ 11%	+ 20%	+ 18,5%
30	0	+ 7%	+ 20%	+ 15%
35	- 5%	+ 3%	+ 20%	+ 12%
40	- 10%	0	+ 20%	+ 9,5%
45	-	- 4%	+ 15 %	+ 7%
50	-	- 9%	+ 9%	+ 5%
55				+ 3%
60				+ 1,5%
65				0
70				- 9%
Use in the field at high and constant torque	0	+ 7%		+ 15%



Pic. 1. Cyclic variation of tire operation in the field, on the roads during transportation

When the vehicle is equipped with tires used for transportation at various high cyclic loads, except transportation over long distances, i.e. vehicles used for the circular motion (for example, from the field to the farm, when the vehicle drives empty (unloaded) in one direction and back (loaded)).

### Wheels and wheel rims for agricultural tires

1. When mounting the tires, use wheel with rims that have the correct form without any mechanical damage, wrinkled edges and burrs. The rims should not have loose studs and holes for bolts.

2. Do not use corroded parts of the wheels; they can lead to their destruction during the movement. Furthermore, the use of unpainted parts of rims complicates not only mounting but also the subsequent demounting of the tire, as the tires stick stronger to the unpainted surfaces than to the colored ones.

Before mounting the wheel must be inspected, cleaned of rust, degreased, primed and painted.

3. When installing the wheel on the hub, the nuts must be tightened gradually and alternately to the specified target. Do not operate the machine if at least one fastening nut is absent. Do not allow to operate the wheel having wheel runout, as this would lead to increased wear of the tires. Radial runout of the bead seat and front runout of the inner rim contour surfaces at the reference axle corresponding to the rotation axle of the wheel should not be higher than the values presented below.

Indicator	Rim diameter, mm (inches)				
	406 (16")	More than 406 (16") to 508 (20")	More than 508 (20") to 711 (28")	More than 711 (28") to 965 (38")	More than 965 (38") to 1067 (42")
Runout, mm	2,0	3,0	4,0	5,0	6,5

### Mounting and demounting operations

1. Mounting and demounting should be done according to the instructions on the mounting and demounting of the wheels of the specific type supplied with the machine.
2. Before mounting, check the completeness of the tire and wheel parts and assemble the wheel with the tire of the specified size.
3. Do not use the rims and other parts of wheels with defects.
4. Mounting and demounting should be done only with serviceable assembly tools. Do not use the mounting tools with sharp edges, burrs, dirt and rust.
5. When inflating the tire on the wheel in the garage conditions, use the mounting cage to protect the staff from the impact in the event of spontaneous demounting or tire burst. Outside the garage, put the wheel so that it would not injure the staff in case of the spontaneous demounting.
6. In the case of an incomplete seating the bead on the rim flange, deflate and demount the tire from the wheel and remove the causes that led to a partial seating. Then re-mount a tire on a wheel (rim).
7. It is not allowed to use heavy tools during mounting and demounting (sledgehammer etc.), which can deform the parts of the wheel and cause damage to the tires.
8. Tires must be clean and dry. Tubes stored at a temperature below - 10 ° C must be warmed at about 15 ° C before mounting. Put the talcum powder over the entire surface of the tire (inside), tubes and flaps and remove excess talc before mounting.
9. When mounting the tire on the rim with a directional tread pattern (off-the-road), pay attention to the direction of the tread pattern and the place of the installation of the wheels on tractors and agricultural machines. Match the pointers of the direction of tire rotation (the arrow on the sidewall of the tire) with the direction of rotation of the wheels when moving the tractor forward.
10. Mounting and demounting of tires should be made by means of mount spoon.

Mount spoon 1 is lever; one lever end of it is designed as a fork and serves to remove the tire bead from the rim flange, and the other lever end is a sleek curved profile for mounting and demounting.



Pic. 2 Mount spoon 1

Mount spoon 1 is a lever, which has a flat straight end for removing the tire beads from the rim flanges paired with fork end of the mount spoon 1, and the other end is a curved profile with a special tip, which serves to secure the grip over the rim flange during mounting and demounting of tires



Pic. 2 Mount spoon 2

### Maintenance of tires during operation

11. To increase the trailing weight of the tractor it is permitted to fill the tire with the liquid. The volume of filled liquid must be specified in the specifications of the tractor. The tubes must be filled with clean water in summer time, and with a solution of calcium chloride (CaCl<sub>2</sub>) obtained by dissolving 0.240 kg CaCl<sub>2</sub> in 1 liter of water in the winter time (at - 25 ° C).

Before filling liquid into the tractor the wheel is lifted by means of a jack and the tire is placed vertically so that the tube valve is at the top of the rim, the air must be released.

Next step: tube valve is connected to the hose supplying liquid through a special device for venting. There are three ways of filling tires with liquid:

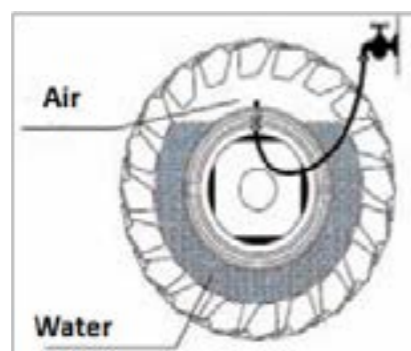
- By gravity from the vessel at a height of not less than 2 m above the wheel axle;
- Pumping through a manual or mechanical pump;
- Through the hose connected to the water supply with water pressure of 30-50 kPa (0.25-0.5 bar). In this case, pre-added the required amount of calcium chloride to the tire.

Increase the inflation pressure in the tire by pumping the air.

The inflation pressure of a tire, filled with a liquid, is measured at the top position of the valve.

To discharge the liquid from the tube and the tire, lift the wheel, set the valve to its lowest position, remove the spool and drain most of the liquid.

To remove the remaining liquid, pump the air is into the tire to 100-150 kPa (1.0-1.5 kgf/cm<sup>2</sup>), remove the spool from the valve and quickly insert the rubber tubing with the seal into from the valve to prevent the escape of air from the tire. The rubber tubing with the diameter of 5 mm must be inserted inside the tire up to the tube. Liquid is removed by the inflation pressure in the tire.



### Installation Guidelines for agricultural tires

- Prior to installation, make sure that the surfaces contacting with each other, i.e. the tire bead and the rim, are clean and undamaged.
- Lubricant must be applied not only to the tire bead during installation, but also on the edge of the rim in the front and back. The lubricant must be of the same type.
- When the tire has been mounted, pump it up to the maximum - 2.5 bar (250 kPa) to make sure that the tire is properly seated on the rim.
- Set the pressure of 2.5 bar (250 kPa).
- Check the fitment line at all sides. If a correct seating has not been achieved on the first try, deflate the tire, remove the bead and re-apply the lubricant again, re-mount the tire. Repeat this sequence until you get the proper seating line of tire to rim.
- When the fitment line is considered satisfactory, inflate the tire to 2.5 bar (250 kPa) and leave it in this state for 24 hours. Then, check the tire for signs of premature loss of pressure.
- If there is evidence of loss of pressure, set to the recommended tire pressure - 1.9 bar (190 kPa) and recheck the fitment line of tire to rim.
- If the above actions have been performed successfully, the tire is ready for operation

1. Locations of parking, maintenance and repair of tractors and agricultural machinery should be clean, not contaminated with oil products and other substances.

Parking of tractors and agricultural machinery on tires with too low inflation is prohibited. Avoid long-time, more than 8-10 hours, parking of loaded trailers, fertilizer spreaders and other agricultural machines with the filled tank. If unable to promptly unload these machines, put them on the stand, providing unloading to the wheels. Never leave the tractor with mounting implement and semi-mounted implement, raised in the transportation position. Avoid long-time (over 10 days) stand of idle tractors and agricultural machinery with tires. At long parking or conservation, put the tractors, combines, seeders and other seasonal work machines on the stand, then remove the wheels with tires and store them in a warehouse. The mounted tires may be stored on machines on the stand with inflation pressure reduced to 70-80% of normal. In addition, for protection from sunlight and precipitation the tires should be covered with light dense fabric or covered with special protective solutions (lime wash, aluminum paint, etc.). Do not replace spools with caps and other devices, making it impossible to measure the inflation pressure of the tire.

2. Every five days, before leaving the tractor or agricultural machine for work in the field, when the temperature of the tires equals the ambient temperature, check the inflation pressure in the tires and, if necessary, bring the pressure back to normal each time when the tractor switches from one work to another or when changing the implement. The inflation pressure of the tire must correspond to the standards specified in the specifications and standards of operating conditions and must be accurate to ± 10 kPa (0.1 kgf/cm<sup>2</sup>).

Never work on tractors and agricultural machines with tires, the inflation pressure of which does not meet the established standards. Check the inflation pressure with hand pressure gauges graduated in 10 kPa (0.1 kgf/cm<sup>2</sup>). Correctness of reading of the pressure gauge is periodically checked by the test-pressure gage. The results of measurements of the inflation pressure of the tire are recorded in a special log:

#### Log of measurements of the inflation pressure in the tires

The type and brand of tractor or agricultural machine \_\_\_\_\_  
Inv.number \_\_\_\_\_

No	Date of measurement	The serial number of the tires	Position	Inflation pressure, kPa (kgf/cm <sup>2</sup> )	Note	Signature

Note: In case of over or under pressure, when bringing it to the operational standards in the numerator, put the inflation pressure in the tire at the time of measurement, and the denominator - after bringing it up to the standard.

3. Every day before start of works inspect the tires, remove stuck in the tread foreign items, check the serviceability of valves and the presence of caps on them, as well as tire pressure.

The inflation tire pressure affects on: the level of deformation, stiffness properties and slipping resistance. These key specifications of tires define the basic properties of the vehicle: safety, stability and handling.

The dependence of the service life of the tires on the inflation pressure:

when the tire pressure deviates from the normal by 20%, tire life is reduced by 30%;

when tire pressure deviates from the norm by 35%, the tire life is reduced by 50%;

when tire pressure deviates from the norm by 50% the tire life is reduced by 65% of the potential.

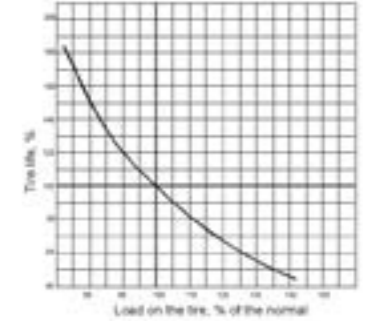
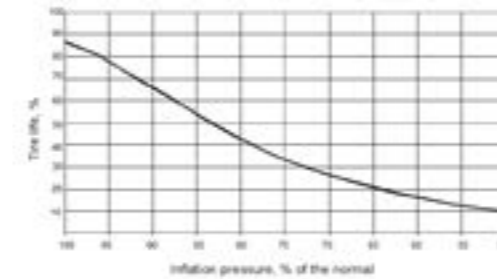
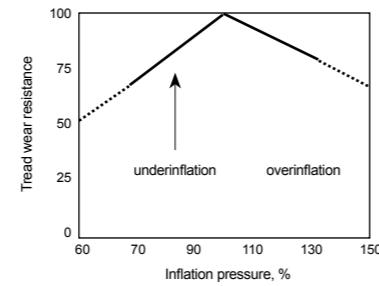
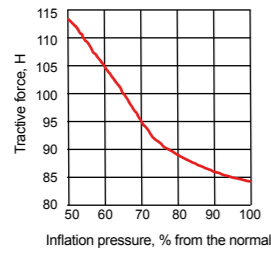
Operation of the tire with an inflation pressure lower than normal, even by 0.2 kgf/cm (20kPa) leads to:

- rupture of the bead area, cracking and peeling of the middle sidewall, innerliner cracking, i.e. occurrence of defects due to excessive deformation (bending) of the sidewall;
- tread wear on the edges of the tread cap;
- destruction of the rubber-cord carcass and belt for the radial tire, which is associated with a decrease in strength due to the subsequent ply separation due to increased heat generation and excess stress in the tire rubber.

The dependence of the tire life (durability) on its inflation pressure is due to the influence of inflation pressure on a number of important operating characteristics of the tires. When decreasing the inflation pressure in tire, the rolling resistance of tires increases, which associated primarily with increasing the contact area of the tire tread and, accordingly, the vehicle driving force (Pic. 4). Operation of the tire on the pressure decreased by 20% from the standard can lead to an increase in fuel consumption by 10%.

Tread wear.

Low inflation pressure leads to an increased tread wear on its shoulder area; high inflation pressure leads to intensive wear of the central tread area (Pic 5). When operating the tire at pressure decreased by 25% the service, the life of the tread is reduced by approximately 25%.



**Inflation pressure in the carcass.**

The air trapped inside the tire, penetrates through the innerliner to the carcass (belt) and further through the sidewall zone to the tread and bead and then comes out, which leads to loss of tire pressure. Moreover, the air moves 200 times faster lengthwise the cords yarns, than in a rubber.

The air leakage through the tire (rubber) has serious side effects. Tread rubber, sidewall and bead slow down the diffusion of air within the tire. Accumulating inside the tire carcass, the air creates a pressure in the yarns of the cord or the so-called inflation pressure in the carcass. This causes worse performance of the tire, especially in the edges of the belt (in the case of radial tires), because the stress of rubber-cord increases. The pressure in the carcass leads to micro ply separation that causes the destruction of the edges of the belt, followed by separation of the belt or tread, and tear of the sidewall.

- Ensure good technical serviceability of the components and machine parts (brakes, suspension parts, springs, steering parts, etc.), as their condition affects the wear –out of tires;
- when using the anti-slip protection at wet ground and snowy, icy roads, remove it when going on the road with a hard surface;
- ensure that during the winter tires were not in the water and not frozen to the ground, since starting off the tractor or agricultural machine the frozen tire can immediately fail.
- operate the 4WD tractors on the paved roads for not more than 30% of the total operating time to avoid premature wear of tires.

**USING NITROGEN TO MAINTAIN PRESSURE IN THE TIRES.**

The benefits of inflation with nitrogen:

- Ensuring a stable pressure in the tires. The diffusion rate of air through the tire is 30-40% higher than diffusion rate of nitrogen;
- Lower heat buildup in the rolling tire, longer tread life, minimal oxidation of the metal parts of tires, which increases the durability of tire carcass;
- Environmentally friendly

4. To save the tires and the maximum use of their life in the operation is necessary to:

- start moving the tractors and other self-propelled machines smoothly to avoid wheel slip and, therefore, intensive tread wear, as well as a possible turning tires on the rim;
- check whether the pressure if the machine withdraws aside, and eliminate the cause;
- check the normal tire pressure; it prohibited to reduce it if the pressure has risen due to heat, especially in hot weather. Particular attention should be paid to compliance with the rules of the inflation pressure in the 4WD tractors. Violation of tire pressure rules in 4WD tractors leads to a kinematic mismatch and circulation of power between the wheels, resulting in premature uneven wear-out of 1-2 tractor tires;
- avoid riding on the tires with reduced inflation pressure, even over short distances, as it leads to a reduction of their lifetime and failure of tires (Pic. 6);
- avoid overloading of tires. Operation of tires with excessive load leads to a significant reduction in their service life (Pic. 7);
- avoid excessive slipping and sliding of wheels;
- steer around the hollow spots and bumps, sharp objects, stumps, stones, scattered parts of agricultural implements etc.;
- lower the speed of the vehicles on turns, on roads that are in a poor condition, at crossings;
- avoid driving up close to the curb and the edge of the sidewalk, in order not to damage the tire sidewall;
- avoid sudden braking as it leads to uneven and spotted tire wear. When using tractors with trailers and other implements, used for transporting of cargo, they must be equipped with pneumatic or air-over-pneumatic brakes to ensure traffic safety;

5. To reduce the specific pressure on the soil in agricultural work on wet soils, use the dual wheels.

Additional wheels must be installed according to the manual of the tractor.

Tractors with dual tires on paved roads can be used only in exceptional cases.

When working in the field, the speed should correspond to the type of work and working conditions.

Pass the obstacles at a minimum speed as the load is unevenly distributed on the wheels.

Do not recline the tractor with the dual tires by only the outer wheels on the ground, when the tractor is moving or parked in order to protect the wheel gears from overload.

**Recording of the tire performance**

1. Recording of the tire performance is necessary to maintain each tire individually (including the spare tires) for each tractor and agricultural machine.

2. Tire performance is determined by the quantity of kilometers, hours worked and standard hectares for all types of transport and farm work, taking into account the transportation from site to site.

Mileage tire in kilometers is determined by the speedometer and odometer.

Each tire should have a log (card), which is the main document describing the work of the tire in case of claims, overhaul, write-downs to the scrap and other cases.

**Procedure for submitting the claims**

1. The committee submits the claim on the tires that failed under the manufacturing reasons before the end of the warranty period, indicating the full serial number, operating time, the reasons of failure and the date of manufacture. The Act can be filled in any form.

2. Claims are sent to the manufacturer of tires and reviewed only in case of full compliance with the rules of operation of tires; presence of registration cards (logs) on tires and tires themselves or tubes.

3. In case of admission of claim, the manufacturer reimburses the cost of the rest tire life (mileage) to the customer.



## Recommendations on the use of tires for heavy, road building and industrial machines

### Acceptance and transportation of tires (tires and tubes)

1. Tires, tubes and flaps are transported unpackaged. Supply of tires, tubes and flaps separately is allowed.
2. When transporting the tires with the tubes, put some talc or other substance similar to talc that does not affect the mounting on the tube. Put the tube into the tire and inflate to the inflation diameter of the tires.
3. The tubes without tires are transported individually in the rolled-up form (valve inside), tied in two places.
4. The flaps are transported individually or in bundles of no more than 10 pcs., tied in three places.
5. The tires which are transported at temperatures below - 45 °C must be protected from hits.
6. It is forbidden to transport the tires together with oil, acids, alkalis and other substances that damage the rubber.

### Storage of tires

1. Tires (tires with tubes) must be stored in an upright position.
2. When storing tires with tubes, inflate the tubes to the internal diameter of tire.
3. When storing tire with rims, the air pressure should not exceed 0.5-1 kgf/cm<sup>2</sup>.
4. During the long-term storage, in order to avoid deformation, it is necessary to turn the tire, changing the points of support every 2-3 months.
5. Do not store tires in tire stacks.
6. Tires, tubes and flaps should not be closer than 1m to the heating devices.
7. It is not allowed to store the tires, together with fuel, lubricants, and chemicals (acids, alkalis, etc.).

### Mounting of tires to the heavy vehicles, road building and industrial machines

1. Mounting of tires of different structures (cross-ply tires and R-type tires), as well as different types of tread patterns on axles of heavy vehicles, road building and industrial machines is prohibited.
2. Additional fitting of tires with the previously mounted tires on heavy vehicles, road building and industrial machines to replace the tires of the front and middle axle or rear axle twin tires is permitted. In this case the size of dual tires should not exceed the values below :

Profile width	Permitted variations, mm	
	Overall diameter, not more	Circumference, not more
8.25.....	6	19
9.00-14.00.....	13	41
16.00-18.00.....	22	69
21.00.....	24	75

3. Do not fit the tire with local repairs or re-treaded tires on the front axle of heavy trucks in order to ensure the road safety.

### Mounting and demounting of tires

1. Use only good inner tubes, flaps, rims, bead rings, fitting rings, spacing and lock rings to fit on the tires of the corresponding size. The new tires should be mounted with the new tubes and flaps. The same is recommended for retreaded tires.
2. Tires, tubes and flaps must be clean and dry.
3. Before mounting apply the thin layer of talcum powder over the entire surface the tire (inside), tubes and flaps, and remove the excess talc.

4. Tires stored at temperatures below 0 ° C, before mounting on the rim should be warmed up to a temperature above zero.
5. When mounting the tire on the rim it is necessary to check the correct position of the tube valve, avoiding its misalignment.
6. Rims, bead rings, fitting rings, spacing and lock rings must have the correct shape, no deformation or damages, cleaned of rust and painted. Holes for mounting disks should not be loose.
7. When mounting the tire on the rim with a directional tread pattern, check the direction of tread pattern and location of the wheels on the vehicle to ensure coincidence of pointers of tire rotation direction (the arrow on the tire sidewalls) with the direction of rotation of the wheels, when the vehicle is moving forward.
8. When inflating the tires, use special protections for safety. In order to achieve the fitting of the tire bead on the rim seat, to avoid folds and kinks of the flap and tube, inflate the tire as follows:
  - Inflate the tire to the pressure corresponding to the standard;
  - Blow the air out of the tires to the atmospheric pressure;
  - Inflate the tire to the pressure of not more than 1 kgf/cm<sup>2</sup>, bringing it back to normal after mounting the tires on the vehicle and fixing it on the hub.
9. When inflating the tires, it is not recommended to unscrew the spools. The hose supplying the compressed air by mechanical pumping shall be equipped with a special tip, providing the press to a valve needle for free flow of air into the tube, and the safety valve, adjusted to the maximum allowable pressure in the tire.
10. To protect the spool from dirt and damage use metal, rubber or other reliable caps on all valves. Do not replace spool caps, stoppers and other devices, which do not allow measuring the air pressure in the tires.
11. Twin wheels should be mounted so that the «windows» of rims have been combined and the valve inserted through the «window». This will facilitate the access to the valve when measuring the air pressure in the tires. Do not install and remove one of the dual wheels of large-sized tires without a full release of air from both tires.
12. When mounting the outer tires, the serial numbers must be on the outer side (for non-directional tread pattern), and for inner tires - in the direction of the drive shaft.

### Maintenance of the machine

1. Designated parking of heavy vehicles, road building and industrial machines must be clean, not contaminated with oil products and other substances that destroy the rubber. Parking the vehicles closer than 1m to heating devices is prohibited.
2. It is forbidden to park heavy vehicles, road building and industrial machines with incorrect pressure in the tires, as well as parking at full load for more than two days. If unloading is impossible change the point of contact of the tire to the supporting surface at least 1 time in two days.
3. Every day, after the end of work of heavy vehicles, road building and industrial machines, inspect the tires and wheel rims. Remove the trapped foreign items (stones, nails, glass and others.) from the tread, sidewalls and between dual tires.
4. In case of any intense or uneven wear of tire tread, identify its causes and take immediate actions to eliminate it, regardless of the timing of maintenance.
5. Measurement of the inflation pressure must be done in cold tires (cooled). Full tire cooling occurs after 8-12 hours of parking the vehicle.
6. In order to prevent premature failure of the tire and ensure the safety, the roads in mines and entrances for excavators and dumps should always be cleaned of pieces of rock, ore, quartzite and other solid components. Spread the crushed gravel or gravel on the damaged road sections. Size should be no more than 20-50 mm.
7. It is forbidden to operate the vehicles if the tires have:
  - a) local unrepaired damages (punctures, cuts and non-through punctures);
  - b) stones, nails, glass, etc stuck in the tread, sidewalls, and between dual tires;
  - c) the tread wear limit, when the residual depth is equal to 0 at the area limited by half the width and 1/6 of the circumference of the tread cap, or to the same total area.

The remaining tread depth is measured at the tread cap grooves nearest to center, but not in the locations of half-bridges or ledges at the base of the tread pattern elements; for tires with a solid rib on the center of tread cap, take the measurement at the edges of the rib; if there are wear indicators (a few rows of protrusions on the bottom of the tread grooves having a height equal to the limit of wear of the tread) tread pattern wear limit is determined by the appearance of one indicator (in case of even wear of the tread cap) in case of uneven wear - indicator may appears at 2 opposite tire points (two indicators at each point);

- d) faulty valves and spool valves as well as uncapped or plugged valves
- e) the inflation pressure, which does not meet the standards.

Increase the tire pressure at 10-12% of normal during the intensive use of the vehicle (more than one shift); make sure that the pressure in a hot tire during operation does not exceed the recommended norm for cold tire for more than 1.2 kgf/cm<sup>2</sup>, taking into account all the adjustments.

8. When transporting of heavy vehicles to the operation at the new facilities follow the requirements below: the vehicle must be empty; every day, before the start of work, check and adjust the inflation pressure according to the standard; increase the inflation pressure by 12-14% relative to the rated working pressure; observe the speed on highways - not more than 50 km/h; every 80 kilometers or 2 hours of continuous drive, cool the tires by stopping the vehicle for 30 min; after every 4 h of transit, cool the tires by stopping the vehicle for 1 h.

9. Operating conditions for the heavy tires must comply with the following requirements:

Round trip, km, at		The maximum permissible load (%) on the tire for vehicles running at an average speed (km / h)					
Up to +25 °C	From +26 to +40 °C	50	40	32	24	16	8
Up to 8	Up to 5	100	101,5	103	107	112	150
From 8 to 15	From 5 to 10	86	92	100	101,5	103	-
From 15 to 20	From 10 to 15	82	86	92	96	100	-

### Duties of the driver

1. The driver shall:

- a) start the heavy trucks, construction, road or lifting machines smoothly, as otherwise the wheels will slip, which leads to accelerated wear of the tread pattern; when pulling to one side, stop immediately, and check the tire pressures. Operation of tires on the reduced inflation pressure in the tires, since it leads to destruction of the tire, is forbidden;
- b) closely monitor the condition of the road; in areas that are in poor condition, reduce the speed of movement to ensure the safety of tires; avoid collisions with sharp objects that may damage the tires;
- c) avoid sharp braking at the entrance to the place of stop; the stop should be simultaneous on all wheels; improper adjustment of the brakes leads to increased wear of the tread;
- d) avoid a long towing of wheels;
- d) avoid overloading the machine, follow the uniform distribution of the load in the back.

2. When working in the Far North and equated districts at a temperature below - 45 ° C, it is recommended the following:

- a) a serviceable machine should not be unnecessarily kept in a warm garage for less than 4 hours, as this is not enough time to dry out the moisture on the tires; do not go into the cold with wet tires, as freezing moisture in cracks and damages accelerates the tire destruction;
- b) after the parking for more than 3 hours in the open air at a temperature below - 45 ° C, it is necessary to move at a speed not exceeding 10 km/h for 15-20 minutes, and then gradually increase the speed;
- c) after long stops (more than 3 hours), verify and bring back the changed inflation pressure in the tires to the standard during the trip from the area with mild temperatures (- 20-25 °C) to the Far North with lower temperatures (- 45-60 ° C) or vice versa.

### Influence of modes and operating conditions on the performance of OTR tires

Operability of mining tires depends on its operating temperature. Increasing the vertical load on the tire by more than 8%, compared with the nominal, increases the maximum temperature of the tire (20-25) °C and lowers the tire life by 1.5-2 times. Life of tires, mounted on the front axle of the dump trucks, is 1.5-2 times lower, than the life of tires on the rear axle; the level of tire life of the front tires is determined by the number of tires that fail as a result of heat damage on a small mileage.

Differences in the tire diameters may significantly influence on the overload of the dual tires. The most frequent type of damage of OTR tires is ply separation, caused by the lateral forces, which occur on small radius turns, and bumps, caused by irregularities in the road surface.

During acceleration and braking actions of dump trucks, the tire life is inversely reduced proportional to the speed. Given the dynamic forces in the material of tire and its temperature, the tire performance decreases as the square of the speed. A serious problem is the warm-up of the bead area of the rear tires, emitted by the brake drum.

During the dump truck transportation over long distances with frequent ascents and descents, the temperature of the brake drum reaches 300-400 °C, the rim - 200 °C, which leads to the destruction of the inner part of the tire bead area. The table shows the values of the correction factors that take into account the features of the tire in a particular place of work.

Factors	Coefficient
Max speed (A), km/h:	
16	1,0
32	0,8
48	0,6
Road surface (B):	
sand or soft soil without stones	1,0
soft soil with stones	0,9
grit in good condition	0,8
grit in poor condition	0,7
rough road with sharp stones	0,6
Position of tire (C):	
wheel of the trailer	1,0
front wheel	0,9
drive wheel:	0,8
Back damper	0,7
Front damper	0,6
Motor scraper	
Load on the tire (D):	
standard	1,0
overload 10%	0,9
overload 20%	0,8
overload 40%	0,5
Road turn (E):	
straight road with slight turns	1,0
with turns	0,9
with sharp turns	0,8
The slopes of the road (for the drive wheels) (F):	
horizontal	1,0
6% max	0,9
15% max	0,7
other wheels except the drive wheels	1,0
Braking action (L):	
rare	1,0
mid-frequen	0,9
frequent	0,8
Tire servicing (H):	
good	1,0
satisfactory	0,9
bad	0,8

### Recommended schedule of the vehicle operation to increase the tire life

The duration of work of the vehicle (h)	Break time (h)
2	0,5
2	1,0
2	0,5
2	1,0



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