

SPECIFICATIONS

Description	Models of Automobiles YA3							
	3741, 37419,	3962, 39629,	3909, 39099	2206, 22069	3303, 33039	33036	39094	39095
1	2	3	4	5	6	7	8	9
	GENERAL DATA							
	(Overall dimensions of automobiles are given in Fig. 1 - 8)							
Automobile type	two-axle all-wheel drive cross-country vehicle (4x4 wheel arrangement)							
Max. load capacity (driver and passengers included), kg	1000	- ¹⁾	1000	925	1000	1300	1150	1170
Cargo weight in cargo compartment, kg, not more	-	-	475	-	-	-	-	-
Cargo weight on platform, kg, not more	-	-	-	-	-	-	700	950
Seating capacity (driver included)	2	9	7	11-8 ²⁾	2 or 6 ³⁾	2 or 6 ³⁾	9 ³⁾	6 ³⁾
Permissible total tow weight, kg	2720	2500	2820	2780	2650	3050	3050	3050

16

¹⁾ YA3-39625 and YA3-396259 - 9 persons driver included or 2 persons driver included and 850 kg cargo.

²⁾ Depending upon the version.

³⁾ Depending upon the complete equipment, the platform could be equipped with a removable tarpaulin provided with the frame and two double seats installed along the front side. It is not permitted to transport persons on the platform equipped with seats, if the frame of the tarpaulin is removed (except for platforms with the side height of 614 mm).

	1	2	3	4	5	6	7	8	9
Vehicle total weight distribution, kg:									
front axle		1290	1235	1380	1330	1220	1420	1420	1420
rear axle		1430	1265	1440	1450	1430	1630	1630	1630
Gross weight, kg:		1720	1825	1820	1855	1650	1750	1900	1880
Gross weight distribution, kg:									
front axle		1000	1035	1060	1025	1000	1090	1130	1180
rear axle		720	790	760	830	650	660	770	700
Total tow weight, kg, not more:									
with brakes					1500 ¹⁾				
without brakes					750 ¹⁾				
17 Minimum turning radius by track of front outer wheel (relative to centre of turn), m, not more				6.3				7.0	
Outer turning radius by point of front bumper max. removed from centre of turn, m, not more				6.8				7.5	
Maximum upgrade, deg.						30			
Maximum depth of ford, m						0.5			

¹⁾ To tow a trailer at all times and on rugged ground is allowed only when the automobile is equipped with a towing gear of the ball type.

Description	Models of Automobiles YA3				
	3741, 3962, 3909, 2206	37419, 39629, 39099, 22069	3303	33039	33036, 39094, 39095
Maximum speed, km/h	110	117 ¹⁾	100	110	105

Description	Models of Automobiles YA3	
	3741, 3962, 3909, 2206, 3303	37419, 39629, 39099, 22069, 33039, 33036 39094, 39095
1	2	3

18

	ENGINE	
Model	4178	4218
Cylinder number	4-stroke, carburettor-type	
Cylinder order	four	
Firing order	in-line, vertical	
Cylinder bore, mm	92	100
Piston stroke, mm	92	92
Displacement, l	2.445	2.89
Compression ratio	7.0	7.0
Nominal power at crankshaft speed of 66 s ⁻¹ (4000 min ⁻¹) kW (hp): to DIN 70020	57.4 (78)	63.2 (86)

¹⁾ When the tyres Я-245-1 are installed, in service the maximum speed should be not more than 110 km/h.

	1	2	3
	gross to SAEj 816b	68.4 (93)	73.5 (100)
	net to GOCT 14846	55.9 (76)	61.8 (84)
	Maximum torque at 36-42 s ⁻¹ (2200-2500 min ⁻¹), N · m (kgf · m):		
	to DIN 70020	164.8 (16.8)	193 (19.7)
	gross to SAEj 816b	174.6 (17.8)	201 (20.5)
	net to GOCT 14846	159.8 (16.3)	189 (19.3)
	Minimum low idle speed of crankshaft, s ⁻¹ , (min ⁻¹)	11.6-12.5 (700-750)	
	Lubrication system	Combination: forced and splash	
	Crankcase ventilation	Closed	
	Fuel system	With forced fuel feed and fuel-air mixture heating	
	Fuel	Gasoline with octane number 76	
	Cooling system	Liquid, closed, forced circulation	
		TRANSMISSION	
	Clutch:	Dry, single-disk	
	Type of clutch	Hydraulic	
	Type of drive	Four-speed	
	Gearbox		
	gear ratios	1st speed 3.78	3rd speed 1.55
		2nd speed 2.60	4th speed 1.00
		Reverse 4.12	
	Optional version of gearbox:		
	gear ratios	1st speed 4.124	3rd speed 1.58
		2nd speed 2.641	4th speed 1.00
		Reverse 5.22	
	Transfer box	Two-range	

1	2	3
gear ratios: high range low range	1.00 1.94	
Front and rear driving axles	Final drive - spiral bevel gearing; gear ratio 4.625	
front axle steering knuckle joints	Constant-velocity universal joints of ball type	
Description	Models of Automobiles YA3	
	3741, 37419, 3962, 39629, 3909, 39099, 2206, 22069, 3303, 33039	33036, 39094 39095
1	2	3
	CHASSIS	
Suspension: type	four longitudinal semielliptic springs operating in conjunction with four hydraulic telescopic shock absorbers	
Wheels and tyres: wheels	Steel, with deep-well one-piece rim, size 6L×15 or 6J×16 depending on tyres in use	
tyres	215/90-15C (Я-245-1), 215/90R15C 99N (ЯИ-357A), 225R16C (K-151 or K-152), 225/75R16 108Q (K-153), 225/75R16 (Я-435A)	Tubed 225/75R16 108Q (K-153), 225/75R16 (Я-435A)
Tube size	8.40-15 or 225-16 depending on tyres in use	225-16

1	2	3
	CONTROL SYSTEMS	
Steering arrangement:		
type of steering mechanism	Hourglass worm with double roller	
mean gear ratio		20.3
Brakes:		
service	Shoe, with two separate circuits actuated from two-chamber master cylinder on front and rear wheels	
parking	Drum with inner shoes acting on transmission, with mechanical drive	
	ELECTRICAL EQUIPMENT	
Wiring	Single-wire, with ground returned minus	
Rated voltage, V		12
Overload breakers:		
fuse	Unit, provided with three fuses 10A each in horn, instrument, heater motor and windshield wiper circuits	
thermal cut-out	Button - in lighting circuit	
	ADJUSTMENT DATA	
Valve-to-rocker clearance on cold engine (at 15-20 °C), mm:		
for exhaust valves of No.1 and No. 4 cylinders		0.30-0.35
for the rest of valves		0.35-0.40
Deflection of fan belt when force of 4 kgf is applied, mm		8-14

1	2		3			
Cooling fluid density at 20 °C, g/cm ³ :						
ОЖ-40 "Лена"			1.075-1.085			
ОЖ-65 "Лена"			1.085-1.100			
Spark plug gap, mm			0.85 ^{+0.15}			
Cooling fluid temperature in cooling system, °C			80-90			
Free travel of clutch pedal, mm			35-55			
Free travel of brake pedal, mm			5-14			
Front wheel toe-in, mm			1.5-3.0			
Maximum turning angle of front inner wheel, deg			26-27			
Steering wheel play, deg, not more			10			
	Models of Automobiles YA3					
Tyre Inflation Pressure, kPa (kgf/cm ²)	3741, 37419	3962, 39629	3909, 39099	2206, 22069	3303, 33039	33036, 39094 39095
front wheels:						
Я-245-1	0.19(1.9)	0.19(1.9)	0.22(2.2)	0.20(2.0)	0.19(1.9)	-
ЯИ-357А, К-151, К-152	0.23(2.3)	0.22(2.2)	0.24(2.4)	0.23(2.3)	0.22(2.2)	-
К-153, Я-435А	0.23(2.3)	0.22(2.2)	0.24(2.4)	0.23(2.3)	0.22(2.2)	0.25(2.5)
rear wheels:						
Я-245-1	0.23(2.3)	0.19(1.9)	0.23(2.3)	0.24(2.4)	0.23(2.3)	-
ЯИ-357А, К-151, К-152	0.25(2.5)	0.22(2.2)	0.25(2.5)	0.25(2.5)	0.25(2.5)	-
К-153, Я-435А	0.25(2.5)	0.22(2.2)	0.25(2.5)	0.25(2.5)	0.25(2.5)	0.28(2.8)

FILLING CAPACITIES, l

Description	Models of Automobiles YA3		
	3741, 37419, 39094	3303, 33039, 33036, 39095	3962, 39629, 3909, 39099, 2206, 22069
Fuel tanks:			
main	56	56	56
auxiliary	30 ¹⁾	56 ¹⁾	30
Engine cooling system (heater including)	13.2-13.4	13.2-13.4	14.4-14.6
Engine lubrication system (without oil radiator reservoir)		5.8	
Gearbox		1.0	
Transfer box		0.7	
Front and rear axle housing(each)		0.85	
Steering gear case		0.25	
Shock absorbers (each)		0.320	
Clutch hydraulic system		0.18	
Hydraulic actuated brake system	0.52 (0.55 - on automobiles YA3-33036, YA3-39094, YA3-39095)		
Windshield washer reservoir		2	

23

¹⁾ On automobiles YA3-39094, YA3-3303, YA3-33039, only main fuel tank could be installed