

TECHNICAL DATA

SI* METRIC INFORMATION GUIDE

BASE UNITS			
DESCRIPTION	UNIT	SYMBOL	
length	meter	m	
mass	kilogram	kg	
force	newton	N	
liquid	liter	L	
temperature	Celsius	°C	
pressure	kilopascal	kPa	
torque	newton•meter	N•m	
speed	kilometer per hour	km/h	
PREFIXES			
PREFIX	SYMBOL	MEANING	VALUE
kilo	k	one thousand	1 000
centi	c	one hundredth	0.01
milli	m	one thousandth	0.001
micro	μ	one millionth	0.000001
CONVERSION FACTORS			
TO CONVERT	TO †	MULTIPLY BY	
in	mm	25.4	
in	cm	2.54	
in ²	cm ²	6.45	
in ³	cm ³	16.39	
ft	m	0.3	
oz	g	28.35	
lb	kg	0.45	
lbf	N	4.4	
lbf•in	N•m	0.11	
lbf•ft	N•m	1.36	
lbf•ft	lbf•in	12	
PSI (lbf/in ²)	kPa	6.89	
imp. oz	U.S. oz	0.96	
imp. oz	mL	28.41	
imp. gal	U.S. gal	1.2	
imp. gal	L	4.55	
U.S. oz	mL	29.57	
U.S. gal	L	3.79	
MPH	km/h	1.61	
Fahrenheit	Celsius	(°F - 32) ÷ 1.8	
Celsius	Fahrenheit	(°C × 1.8) + 32	






* The international system of units abbreviates SI in all languages.

† To obtain the inverse sequence, divide by the given factor. To convert mm to in, divide by 25.4.

NOTE: Conversion factors are rounded off to 2 decimals for easier use.



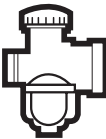


Section 10 TECHNICAL DATA

Subsection 02 (ENGINES)

VEHICLE MODEL		MX Z 500	MX Z 600, GT 600 FORMULA Z 600 FORMULA DLX 600	MX Z 600 (DPM)		
ENGINE TYPE		493	593	593		
	Number of Cylinders	2	2	2		
	Bore	mm (in)	69.50 (2.736)	76.00 (2.992)	76.00 (2.992)	
	Stroke	mm (in)	65.80 (2.591)	65.80 (2.591)	65.80 (2.591)	
	Displacement	cm ³ (in ³)	499.25 (30.47)	597.00 (36.43)	597.00 (36.43)	
	Compression Ratio (corrected)		6.65	6.7	6.7	
	Maximum Power Engine Speed ①	± 100 RPM	8000	8000	8000	
	Piston Ring Type	1 st /2 nd	KS/N.A.	KS/N.A.	KS/N.A.	
	Ring End Gap	New	mm (in)	0.4 (.016)	0.4 (.016)	0.4 (.016)
		Wear Limit	mm (in)	1.0 (.039)	1.0 (.039)	1.0 (.039)
	Ring/Piston Groove Clearance	New	mm (in)	0.04 (.0016)	0.04 (.0016)	0.04 (.0016)
		Wear Limit	mm (in)	0.2 (.0079)	0.2 (.0079)	0.2 (.0079)
	Piston/Cylinder Wall Clearance	New	mm (in)	0.10 (.0039)	0.120 (.0047)	0.120 (.0047)
		Wear Limit	mm (in)	0.20 (.0079)	0.20 (.0079)	0.20 (.0079)
	Connecting Rod Big End Axial Play	New	mm (in)	0.39 (.0154)	0.39 (.0154)	0.39 (.0154)
		Wear Limit	mm (in)	1.2 (.0472)	1.2 (.0472)	1.2 (.0472)
	Maximum Crankshaft End-play ②		mm (in)	0.3 (.012)	0.3 (.012)	0.3 (.012)
	Maximum Crankshaft Deflection at PTO		mm (in)	0.06 (.0024)	0.06 (.0024)	0.06 (.0024)
Rotary Valve Timing and P/N 420 924 XXX	Opening Closing		N.A.	N.A.	N.A.	
	Magneto Generator Output	W	290	290	290	
	Ignition Type		CDI	CDI	CDI	
	Spark Plug Make and Type		NGK BR9ES	NGK BR9ES	NGK BR9ES	
	Spark Plug Gap	mm (in)	0.45 (.018)	0.45 (.018)	0.45 (.018)	
	Ignition Timing BTDC ③	mm (in)	3.00 (.118)	3.00 (.118)	3.00 (.118)	
	Trigger Coil ④	Ω	190 – 300	190 – 300	190 – 300	
	Generating Coil ④	Low Speed	Ω	11.6 – 21.6	11.6 – 21.6	11.6 – 21.6
		High Speed	Ω	N.A.	N.A.	N.A.
	Lighting Coil ④	Ω	0.1 – 0.4	0.1 – 0.4	0.1 – 0.4	
	High Tension Coil ④	Primary	Ω	0.0 - 0.9	0.0 - 0.9	0.0 - 0.9
Secondary		kΩ	9.5 - 16.5	9.5 - 16.5	9.5 - 16.5	
	Carburetor Type	PTO/MAG	VM 38 429/429	VM 40 122/122	VM 40 124/124	
	Main Jet	PTO/MAG	280/280	280/280	280/280	
	Needle Jet		480-P-8	224 Z-9	224 Z-9	
	Pilot Jet		40	37.5	37.5	
	Needle Identification — Clip Position		6DEY10-4	7DFY1-3	7DFY1-3	
	Slide Cut-Away		2.5	2.5	2.5	
	Float Adjustment	± 1 mm (± .040 in)	22.9 (.902)	22.9 (.902)	22.9 (.902)	
	Air Screw Adjustment	± 1/16 Turn	1-1/4	1/2	1/2	
	Idle Speed	± 200 RPM	1700	1600	1600	
	Gas Type/Pump Octane Number		Unleaded/87	Unleaded/87	Unleaded/87	
	Gas/Oil Ratio		Injection	Injection	Injection	
	Type		Liquid	Liquid	Liquid	
	Axial Fan Belt Adjustment	Deflection	mm (in)	N.A.	N.A.	N.A.
		Force	kg (lbf)	N.A.	N.A.	N.A.
	Thermostat Opening Temperature	°C (°F)	42 (108)	42 (108)	42 (108)	
Radiator Cap Opening Pressure	kPa (PSI)	90 (13)	90 (13)	90 (13)		
	ENGINE COLD N·m (lbf·ft)	Drive Pulley Retaining Screw		⑤	⑤	⑤
		Exhaust Manifold Nuts or Bolts		23 (17)	23 (17)	23 (17)
		Magneto Ring Nut		125 (92)	125 (92)	125 (92)
		Crankcase Nuts or Screws	M6	9 (7)	9 (7)	9 (7)
			M8	29 (21)	29 (21)	29 (21)
		Crankcase/Engine Support Nuts or Screws		35 (26)	35 (26)	35 (26)
		Cylinder Head Screws		29 (21)	29 (21)	29 (21)
		Crankcase/Cylinder Nuts or Screws		29 (21)	29 (21)	29 (21)
Axial Fan Shaft Nut		N.A.	N.A.	N.A.		






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Subsection 02 (ENGINES)

VEHICLE MODEL		SUMMIT 600	MX Z 700 FORMULA DLX 700	MX Z 700 (DPM) MX Z 700 M.E.
ENGINE TYPE		593	693	693
				
Number of Cylinders		2	2	2
Bore		mm (in)	76.00 (2992)	76.00 (2992)
Stroke		mm (in)	65.80 (2.591)	65.80 (2.591)
Displacement		cm ³ (in ³)	597.00 (36.43)	697.64 (42.57)
Compression Ratio (corrected)			6.7	6.7
Maximum Power Engine Speed ①		± 100 RPM	8000	8000
Piston Ring Type		1 st /2 nd	KS/N.A.	KS/N.A.
Ring End Gap	New	mm (in)	0.4 (.016)	0.4 (.016)
	Wear Limit	mm (in)	1.0 (.039)	1.0 (.039)
Ring/Piston Groove Clearance	New	mm (in)	0.04 (.0016)	0.04 (.0016)
	Wear Limit	mm (in)	0.2 (.0079)	0.2 (.0079)
Piston/Cylinder Wall Clearance	New	mm (in)	0.120 (.0047)	0.118 (.0046)
	Wear Limit	mm (in)	0.20 (.0079)	0.20 (.0079)
Connecting Rod Big End Axial Play	New	mm (in)	0.39 (.0154)	0.39 (.0154)
	Wear limit	mm (in)	1.2 (.0472)	1.2 (.0472)
Maximum Crankshaft End-play ②		mm (in)	0.3 (.012)	0.3 (.012)
Maximum Crankshaft Deflection at PTO		mm (in)	0.06 (.0024)	0.06 (.0024)
Rotary Valve Timing and P/N 420 924 XXX		Opening Closing	N.A.	N.A.
				
Magneto Generator Output		W	290	290
Ignition Type			CDI	CDI
Spark Plug Make and Type			NGK BR9ES	NGK BR9ES
Spark Plug Gap		mm (in)	0.45 (.018)	0.45 (.018)
Ignition Timing BTDC ③		mm (in)	3.00 (.118)	3.36 (.132)
Trigger Coil ④		Ω	190 – 300	190 – 300
Generating Coil ④	Low Speed	Ω	11.6 – 21.6	11.6 – 21.6
	High Speed	Ω	N.A.	N.A.
Lighting Coil ④		Ω	0.1 – 0.4	0.1 – 0.4
High Tension Coil ④	Primary	Ω	0.0 - 0.9	0.0 - 0.9
	Secondary	kΩ	9.5 - 16.5	9.5 - 16.5
				
Carburetor Type		PTO/CTR/MAG	VM 40 126/126	VM 40 128/128
Main Jet		PTO/CTR/MAG	280/280	280/280
Needle Jet			224 Z-9	224 Z-7
Pilot Jet			37.5	45
Needle Identification — Clip Position			7DFY1-3	7DHY6-3
Slide Cut-away			2.5	2.5
Float Adjustment		± 1 mm (± .040 in)	22.9 (.902)	22.9 (.902)
Air Screw Adjustment		± 1/16 Turn	1/2	1
Idle Speed		± 200 RPM	1600	1600
Gas Type/Pump Octane Number			Unleaded/87	Unleaded/87
Gas/Oil Ratio			Injection	Injection
				
Type			Liquid	Liquid
Axial Fan Belt Adjustment	Deflection	mm (in)	N.A.	N.A.
	Force	kg (lbf)	N.A.	N.A.
Thermostat Opening Temperature		°C (°F)	42 (108)	42 (108)
Radiator Cap Opening Pressure		kPa (PSI)	90 (13)	90 (13)
				
ENGINE COLD N·m (lbf·ft)	Drive Pulley Retaining Screw		⑤	⑤
	Exhaust Manifold Nuts or Bolts		23 (17)	23 (17)
	Magneto Ring Nut		125 (92)	125 (92)
	Crankcase Nuts or Screws		M6 9 (7) M8 29 (21)	9 (7) 29 (21)
	Crankcase/Engine Support Nuts or Screws		35 (26)	35 (26)
	Cylinder Head Nuts		29 (21)	29 (21)
	Crankcase/Cylinder Nuts or Screws		29 (21)	29 (21)
	Axial Fan Shaft Nut		N.A.	N.A.





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Subsection 02 (ENGINES)

VEHICLE MODEL		FORMULA Z 700	SUMMIT 700 (CDN)	SUMMIT 700 (U.S.) SUMMIT 700 M.E. SUMMIT 700 H.M.		
ENGINE TYPE		693	693	693		
	Number of Cylinders	2	2	2		
	Bore	mm (in)	76.00 (2992)	76.00 (2992)	76.00 (2992)	
	Stroke	mm (in)	65.80 (2.591)	65.80 (2.591)	65.80 (2.591)	
	Displacement	cm ³ (in ³)	697.64 (42.57)	697.64 (42.57)	697.64 (42.57)	
	Compression Ratio (corrected)		6.7	6.7	6.7	
	Maximum Power Engine Speed ①	± 100 RPM	8000	8000	8000	
	Piston Ring Type	1 st /2 nd	KS/N.A.	KS/N.A.	KS/N.A.	
	Ring End Gap	New	mm (in)	0.4 (.016)	0.4 (.016)	0.4 (.016)
		Wear Limit	mm (in)	1.0 (.039)	1.0 (.039)	1.0 (.039)
	Ring/Piston Groove Clearance	New	mm (in)	0.04 (.0016)	0.04 (.0016)	0.04 (.0016)
		Wear Limit	mm (in)	0.2 (.0079)	0.2 (.0079)	0.2 (.0079)
	Piston/Cylinder Wall Clearance	New	± 0.013 mm (± .0005 in)	0.13 (.0051)	0.13 (.0051)	0.118 (.0046)
		Wear Limit	mm (in)	0.20 (.0079)	0.20 (.0079)	0.20 (.0079)
	Connecting Rod Big End Axial Play	New	mm (in)	0.39 (.0154)	0.39 (.0154)	0.39 (.0154)
		Wear limit	mm (in)	1.2 (.0472)	1.2 (.0472)	1.2 (.0472)
Maximum Crankshaft End-play ②		mm (in)	0.3 (.012)	0.3 (.012)	0.3 (.012)	
Maximum Crankshaft Deflection at PTO		mm (in)	0.06 (.0024)	0.06 (.0024)	0.06 (.0024)	
Rotary Valve Timing and P/N 420 924 XXX		Opening Closing	N.A.	N.A.	N.A.	
	Magneto Generator Output	W	290	290	290	
	Ignition Type		CDI	CDI	CDI	
	Spark Plug Make and Type		NGK BR9ES	NGK BR9ES	NGK BR9ES	
	Spark Plug Gap	mm (in)	0.45 (.018)	0.45 (.018)	0.45 (.018)	
	Ignition Timing BTDC ③	mm (in)	3.36 (.132)	3.36 (.132)	3.36 (.132)	
	Trigger Coil ④	Ω	190 – 300	190 – 300	190 – 300	
	Generating Coil ④	Low Speed	Ω	11.6 – 21.6	11.6 – 21.6	11.6 – 21.6
		High Speed	Ω	N.A.	N.A.	N.A.
	Lighting Coil ④	Ω	0.1 – 0.4	0.1 – 0.4	0.1 – 0.4	
	High Tension Coil ④	Primary	Ω	0.0 - 0.9	0.0 - 0.9	0.0 - 0.9
Secondary		kΩ	9.5 - 16.5	9.5 - 16.5	9.5 - 16.5	
	Carburetor Type	PTO/CTR/MAG	VM 40 134/134	VM 40 133/133	VM 40 132/132	
	Main Jet	PTO/CTR/MAG	300/300	300/300	280/280	
	Needle Jet		224 Z-7	224 Z-7	224 Z-7	
	Pilot Jet		40	45	45	
	Needle Identification — Clip Position		7DHY6-3	7DHY6-3	7DHY6-3	
	Slide Cut-away		2.5	2.5	2.5	
	Float Adjustment	± 1 mm (± .040 in)	22.9 (.902)	22.9 (.902)	22.9 (.902)	
	Air Screw Adjustment	± 1/16 Turn	1	1	1	
	Idle Speed	± 200 RPM	1600	1600	1600	
	Gas Type/Pump Octane Number		Unleaded/87	Unleaded/87	Unleaded/87	
Gas/Oil Ratio		Injection	Injection	Injection		
	Type		Liquid	Liquid	Liquid	
	Axial Fan Belt Adjustment	Deflection	mm (in)	N.A.	N.A.	N.A.
		Force	kg (lbf)	N.A.	N.A.	N.A.
	Thermostat Opening Temperature	°C (°F)	42 (108)	42 (108)	42 (108)	
Radiator Cap Opening Pressure	kPa (PSI)	90 (13)	90 (13)	90 (13)		
	ENGINE COLD N·m (lbf·ft)	Drive Pulley Retaining Screw		⑤	⑤	
		Exhaust Manifold Nuts or Bolts		23 (17)	23 (17)	23 (17)
		Magneto Ring Nut		125 (92)	125 (92)	125 (92)
		Crankcase Nuts or Screws	M6	9 (7)	9 (7)	9 (7)
			M8	29 (21)	29 (21)	29 (21)
		Crankcase/Engine Support Nuts or Screws		35 (26)	35 (26)	35 (26)
		Cylinder Head Nuts		29 (21)	29 (21)	29 (21)
		Crankcase/Cylinder Nuts or Screws		29 (21)	29 (21)	29 (21)
Axial Fan Shaft Nut		N.A.	N.A.	N.A.		




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Subsection 03 (VEHICLES)

VEHICLE MODEL		MX Z 500	MX Z 600 MX Z 600 (DPM) FORMULA Z 600	GRAND TOURING 600			
ENGINE TYPE		493	593	593			
	Chain Drive Ratio		22/43	24/43	23/44		
	Chain	Pitch in	3/8	3/8	3/8		
		Type/Links Qty/Plates Qty	Silent 74/11	Silent 74/13	Silent 74/13		
	Drive Pulley	Type of Drive Pulley		TRA	TRA	TRA	
		Ramp Identification and Roller Pin Type		281 ⑤	281 ⑤	281 ⑤	
		Calibration Screw Position or Calibration Disc Quantity		3	3	3	
		Spring Color		Green/Blue	Violet/Yellow	Blue/Yellow	
		Spring Length	± 1.5 mm (± .060 in)	147.4 (5.80)	157.9 (6.22)	115.1 (4.53)	
		Clutch Engagement	± 200 RPM	4100	3800	3600	
	Driven Pulley	Type		Formula	Formula	Formula	
		Spring Preload	± 0.7 kg (± 1.5 lb)	7.0 (15.4)	7.0 (15.4)	7.0 (15.4)	
		Cam Angle	Degree	44	50	47	
	Pulley Distance	Z	± 0.5 mm (± .020 in)	16.5 (.650)	16.5 (.650)	16.5 (.650)	
	Offset	X	± 0.5 mm (± .020 in)	35.5 (1.398)	35.5 (1.398)	35.5 (1.398)	
		Y - X	MIN. - MAX. mm (in)	1.0 - 2.0 (.039 - .079)	1.0 - 2.0 (.039 - .079)	1.0 - 2.0 (.039 - .079)	
	Drive Belt Part Number (P/N)		414 860 700	414 860 700	414 860 700		
	Drive Belt Width (new) ①		mm (in)	35.3 (1.390)	35.3 (1.390)	35.3 (1.390)	
	Drive Belt Adjustment	Deflection	± 5 mm (± .197 in)	32 (1.260)	32 (1.260)	32 (1.260)	
		Force ②	kg (lbf)	11.3 (25)	11.3 (25)	11.3 (25)	
	Track	Width	cm (in)	38.1 (15.0)	38.1 (15.0)	38.1 (15.0)	
		Length	cm (in)	307.4 (121)	307.4 (121)	345.5 (136)	
		Profile Height	mm (in)	22.3 (.880)	22.3 (.880)	22.3 (.880)	
		Adjustment	Deflection	mm (in)	30 - 35 (1-3/16 - 1-3/8)	30 - 35 (1-3/16 - 1-3/8)	30 - 35 (1-3/16 - 1-3/8)
			Force ③	kg (lbf)	7.3 (16)	7.3 (16)	7.3 (16)
	Suspension Type	Track		SC-10 II	SC-10 II	SC-10 II	
		Ski		ADSA	ADSA	ADSA	
		Length	cm (in)	272.5 (107.3)	272.5 (107.3)	297.8 (117.2)	
		Width	cm (in)	121.3 (47.7)	121.3 (47.7)	121.3 (47.7)	
Height		cm (in)	113.0 (44.5)	113.0 (44.5)	123.2 (48.5)		
Ski Stance		cm (in)	108 (42.5)	108 (42.5)	108 (42.5)		
Mass (dry)		kg (lb)	210 (463)	213 (469)	252 (555)		
Ground Contact Area		cm² (in²)	6670.9 (1034)	6670.9 (1034)	7356.7 (1140)		
Ground Contact Pressure		kPa (PSI)	3.09 (.448)	3.13 (.469)	3.36 (.487)		
Frame Material			Aluminum	Aluminum	Aluminum		
Bottom Pan Material			Impact Copolymer	Impact Copolymer	Impact Copolymer		
Hood Material			RRIM Polyurethane	RRIM Polyurethane	RRIM Polyurethane		
	Battery	V/A•h	N.A.	N.A.	12/13		
	Headlight	W	H4 60/55	H4 60/55	H4 60/55		
	Taillight and Stoplight	W	8/27	8/27	8/27		
	Tachometer and Speedometer Bulbs	W	3	3	3		
	Fuel and Temperature Gauge Bulbs	W	N.A.	N.A.	3		
	Fuse	Starter Solenoid	A	N.A.	N.A.	30	
		Fuel Level Sensor	A	N.A.	N.A.	0.25	
	Fuel Tank	L (U.S. gal)	37.3 (9.9)	37.3 (9.9)	37.3 (9.9)		
	Chaincase/Gearbox	mL (U.S. oz)	250 (8.5)	250 (8.5)	250 (8.5)		
	Cooling System ④	L (U.S. oz)	3.8 (128.5)	3.8 (128.5)	4.0 (135.3)		
	Injection Oil Reservoir	L (U.S. oz)	3.5 (118.4)	3.5 (118.4)	3.5 (118.4)		





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Subsection 03 (VEHICLES)

VEHICLE MODEL		FORMULA DLX 600	SUMMIT 600	MX Z 700		
ENGINE TYPE		593	593	693		
Chain Drive Ratio		24/44	21/43	25/43		
Chain	Pitch	in 3/8	3/8	3/8		
	Type/Links Qty/Plates Qty	Silent 74/13	Silent 74/13	Silent 76/13		
Drive Pulley	Type of Drive Pulley	TRA	TRA	TRA		
	Ramp Identification and Roller Pin Type	281 ⑤	294 ⑥	298 ⑤		
	Calibration Screw Position or Calibration Disc Quantity	3	5	3		
	Spring Color	Violet/Yellow	Green/Blue	Green/Violet		
	Spring Length	± 1.5 mm (± .060 in)	157.9 (6.22)	147.4 (5.80)	133.7 (5.26)	
	Clutch Engagement	± 200 RPM	3800	4200	3800	
Driven Pulley	Type	Formula	Formula	Formula		
	Driven Pulley Spring Preload	± 0.7 kg (± 1.5 lb)	7.0 (15.4)	7.0 (15.4)	7.0 (15.4)	
	Cam Angle	Degree 50	47	47		
Pulley Distance	Z	± 0.5 mm (± .020 in)	16.5 (.650)	16.5 (.650)	16.5 (.650)	
	X	± 0.4 mm (± 1/64 in)	35.5 (1.398)	35.5 (1.398)	35.5 (1.398)	
Offset	Y - X	MIN. - MAX.	1.0 - 2.0 (.039 - .079)	1.0 - 2.0 (.039 - .079)	1.0 - 2.0 (.039 - .079)	
	Drive Belt Part Number (P/N)		414 860 700	414 860 700	417 300 067	
Drive Belt Width (new) ①		mm (in)	35.3 (1.390)	35.3 (1.390)	35.56 (1.400)	
Drive Belt Adjustment	Deflection	± 5 mm (± 13/64 in)	32 (1.260)	32 (1.260)	32 (1.260)	
	Force ②	kg (lbf)	11.3 (25)	11.3 (25)	11.3 (25)	
Track	Width	cm (in)	38.1 (15.0)	38.1 (15.0)	38.1 (15.0)	
	Length	cm (in)	307.4 (121)	345.5 (136)	307.4 (121)	
	Profile Height	mm (in)	22.3 (.880)	44.5 (1.752)	22.3 (.880)	
	Adjustment	Deflection	mm (in)	30 - 35 (1-3/16 - 1-3/8)	30 - 35 (1-3/16 - 1-3/8)	30 - 35 (1-3/16 - 1-3/8)
		Force ③	kg (lbf)	7.3 (16)	7.3 (16)	7.3 (16)
Suspension Type	Track	SC-10 II	SC-10 Mountain	SC-10 II		
	Ski	ADSA	ADSA	ADSA		
	Length	cm (in)	272.5 (107.3)	293.9 (115.7)	272.5 (107.3)	
	Width	cm (in)	121.3 (47.7)	107.3 (42.2)	121.3 (47.7)	
	Height	cm (in)	113.0 (44.5)	113.0 (44.5)	113.0 (44.5)	
	Ski Stance	cm (in)	108 (42.5)	94.0 (37.0)	108 (42.5)	
	Mass (dry)	kg (lb)	226 (498)	220 (485)	215 (472)	
	Ground Contact Area	cm² (in²)	6670.9 (1034)	7356.7 (1140)	6670.9 (1034)	
	Ground Contact Pressure	kPa (PSI)	3.32 (.481)	2.93 (.425)	3.16 (.458)	
	Frame Material		Aluminum	Aluminum	Aluminum	
	Bottom Pan Material		Impact Copolymer	Impact Copolymer	Impact Copolymer	
	Hood Material		RRIM Polyurethane	RRIM Polyurethane	RRIM Polyurethane	
	Battery	V/A•h	12/13	N.A.	N.A.	
	Headlight	W	H4 60/55	H4 60/55	H4 60/55	
	Taillight and Stoplight	W	8/27	8/27	8/27	
	Tachometer and Speedometer Bulbs	W	3	3	3	
	Fuel and Temperature Gauge Bulbs	W	3	N.A.	N.A.	
	Fuse	Starter Solenoid	A	30	N.A.	N.A.
Fuel Level Sensor		A	0.25	N.A.	N.A.	
	Fuel Tank	L (U.S. gal)	37.3 (9.9)	37.3 (9.9)	37.3 (9.9)	
	Chaincase/Gearbox	mL (U.S. oz)	250 (8.5)	250 (8.5)	250 (8.5)	
	Cooling System ④	L (U.S. oz)	3.8 (128.5)	4.0 (135.3)	3.8 (128.5)	
	Injection Oil Reservoir	L (U.S. oz)	3.5 (118.4)	3.5 (118.4)	3.5 (118.4)	





Section 10 TECHNICAL DATA

Subsection 03 (VEHICLES)

VEHICLE MODEL		FORMULA Z 700	FORMULA DLX 700		
ENGINE TYPE		693	693		
	Chain Drive Ratio	25/43	25/44		
	Chain	Pitch in	3/8	3/8	
		Type/Links Qty/Plates Qty	Silent 76/13	Silent 76/13	
	Drive Pulley	Type of Drive Pulley	TRA	TRA	
		Ramp Identification and Roller Pin Type	297 ⑤	298 ⑤	
		Calibration Screw Position or Calibration Disc Quantity	3	3	
		Spring Color	Violet/Yellow	Violet/Violet	
		Spring Length ± 1.5 mm (± .060 in)	157.9 (6.22)	107 (4.21)	
		Clutch Engagement ± 200 RPM	3800	3800	
	Driven Pulley	Type	Formula	Formula	
		Driven Pulley Spring Preload ± 0.7 kg (± 1.5 lb)	7.0 (15.4)	7.0 (15.4)	
		Cam Angle Degree	47	47	
	Pulley Distance	Z ± 0.5 mm (± .020 in)	16.5 (.650)	16.5 (.650)	
		Offset	X ± 0.4 mm (± 1/64 in)	35.5 (1.398)	35.5 (1.398)
			Y – X MIN. – MAX. mm (in)	1.0 – 2.0 (.039 – .079)	1.0 – 2.0 (.039 – .079)
	Drive Belt Part Number (P/N)		417 300 067	417 300 067	
	Drive Belt Width (new) ① mm (in)		35.56 (1.400)	35.56 (1.400)	
	Drive Belt Adjustment	Deflection ± 5 mm (± 13/64 in)	32 (1.260)	32 (1.260)	
		Force ② kg (lbf)	11.3 (25)	11.3 (25)	
	Track	Width cm (in)	38.1 (15.0)	38.1 (15.0)	
		Length cm (in)	307.4 (121)	307.4 (121)	
		Profile Height mm (in)	22.3 (.880)	22.3 (.880)	
		Adjustment	Deflection mm (in)	30 – 35 (1-3/16 – 1-3/8)	30 – 35 (1-3/16 – 1-3/8)
			Force ③ kg (lbf)	7.3 (16)	7.3 (16)
	Suspension Type	Track	SC-10 II	SC-10 II	
		Ski	ADSA	ADSA	
		Length cm (in)	272.5 (107.3)	272.5 (107.3)	
		Width cm (in)	121.3 (47.7)	121.3 (47.7)	
Height cm (in)		113.0 (44.5)	113.0 (44.5)		
Ski Stance cm (in)		108 (42.5)	108 (42.5)		
Mass (dry) kg (lb)		216 (475)	228 (501)		
Ground Contact Area cm² (in²)		6670.9 (1034)	6670.9 (1034)		
Ground Contact Pressure kPa (PSI)		3.18 (.461)	3.35 (.486)		
Frame Material		Aluminum	Aluminum		
Bottom Pan Material		Impact Copolymer	Impact Copolymer		
Hood Material		RRIM Polyurethane	RRIM Polyurethane		
Battery V/A•h		N.A.	12/13		
	Headlight W	H4 60/55	H4 60/55		
	Taillight and Stoplight W	8/27	8/27		
	Tachometer and Speedometer Bulbs W	3	3		
	Fuel and Temperature Gauge Bulbs W	N.A.	N.A.		
	Fuse	Starter Solenoid A	N.A.	N.A.	
		Fuel Level Sensor A	N.A.	N.A.	
		Fuel Tank L (U.S. gal)	37.3 (9.9)	37.3 (9.9)	
Chaincase/Gearbox mL (U.S. oz)		250 (8.5)	250 (8.5)		
Cooling System ④ L (U.S. oz)		3.8 (128.5)	3.8 (128.5)		
Injection Oil Reservoir L (U.S. oz)		3.5 (118.4)	3.5 (118.4)		

Section 10 TECHNICAL DATA

Subsection 03 (VEHICLES)

VEHICLE MODEL		SUMMIT 700	SUMMIT 700 H.M.			
ENGINE TYPE		693	693			
	Chain Drive Ratio		22/43	25/43		
	Chain	Pitch in	3/8	3/8		
		Type/Links Qty/Plates Qty	Silent 74/13	Silent 76/13		
	Drive Pulley	Type of Drive Pulley		TRA	TRA	
		Ramp Identification and Roller Pin Type		293X ⑥	298 ⑤	
		Calibration Screw Position or Calibration Disc Quantity		4	3	
		Spring Color		Violet/Yellow	Green/Violet	
		Spring Length	± 1.5 mm (± .060 in)	157.9 (6.22)	133.7 (5.26)	
	Driven Pulley	Clutch Engagement		± 200 RPM	4100	3800
		Type		Formula	Formula	
		Driven Pulley Spring Preload	± 0.7 kg (± 1.5 lb)	8.0 (17.6)	7.0 (15.4)	
	Pulley Distance	Cam Angle Degree		50/47	47	
		Z	± 0.5 mm (± .020 in)	16.5 (.650)	16.5 (.650)	
	Offset	X		± 0.4 mm (± 1/64 in)	35.5 (1.398)	35.5 (1.398)
		Y - X	MIN. - MAX.	mm (in)	1.0 - 2.0 (.039 - .079)	1.0 - 2.0 (.039 - .079)
	Drive Belt Part Number (P/N)		417 300 127	417 300 127		
	Drive Belt Width (new) ①		mm (in)	36.35 (1.431)	36.35 (1.431)	
	Drive Belt Adjustment	Deflection		± 5 mm (± 13/64 in)	32 (1.260)	32 (1.260)
		Force ②		kg (lbf)	11.3 (25)	11.3 (25)
	Track	Width		cm (in)	38.1 (15.0)	38.1 (15.0)
Length		cm (in)	345.5 (136)	383.6 (151)		
Profile Height		mm (in)	50.8 (2.0)	50.8 (2.0)		
Adjustment		Deflection		mm (in)	30 - 35 (1-3/16 - 1-3/8)	30 - 35 (1-3/16 - 1-3/8)
		Force ③		kg (lbf)	7.3 (16)	7.3 (16)
Suspension Type		Track	SC-10 II	SC-10 II		
		Ski	ADSA	ADSA		
	Length		cm (in)	293.9 (115.7)	315.3 (124.1)	
	Width		cm (in)	107.3 (42.2)	121.3 (47.7)	
	Height		cm (in)	113.0 (44.5)	100.0 (39.37)	
	Ski Stance		cm (in)	94.0 (37)	108 (42.5)	
	Mass (dry)		kg (lb)	221 (487)	228 (502)	
	Ground Contact Area		cm² (in²)	7356.7 (1140.3)	8271.1 (1282)	
	Ground Contact Pressure		kPa (PSI)	2.95 (.428)	2.70 (.392)	
	Frame Material			Aluminum	Aluminum	
	Bottom Pan Material			Impact Copolymer	Impact Copolymer	
	Hood Material			RRIM Polyurethane	RRIM Polyurethane	
	Battery		V/A•h	N.A.	N.A.	
	Headlight		W	H4 60/55	H4 60/55	
	Taillight and Stoplight		W	8/27	8/27	
	Tachometer and Speedometer Bulbs		W	3	3	
	Fuel and Temperature Gauge Bulbs		W	N.A.	N.A.	
	Fuse	Starter Solenoid		A	N.A.	N.A.
		Fuel Level Sensor		A	N.A.	N.A.
	Fuel Tank		L (U.S. gal)	37.3 (9.9)	37.3 (9.9)	
	Chaincase/Gearbox		mL (U.S. oz)	250 (8.5)	250 (8.5)	
	Cooling System ④		L (U.S. oz)	4.0 (135.3)	3.8 (128.5)	
	Injection Oil Reservoir		L (U.S. oz)	3.5 (118.4)	3.5 (118.4)	

ENGINE LEGEND

BTDC: Before Top Dead Center

CDI: Capacitor Discharge Ignition

CTR: Center

K: Kilo ($\times 1000$)

KS: Keystone

MAG: Magneto Side

N.A.: Not Applicable

PTO: Power Take Off Side

R: Rectangular

- ① The maximum horsepower RPM applicable on the vehicle. It may be different under certain circumstances and BOMBARDIER INC. reserves the right to modify it without obligation.
- ② Crankshaft end-play is not adjustable on these models. Specification is given for verification purposes only.
- ③ At 3500 RPM with headlamp turned on.
- ④ All resistance measurements must be performed with parts at room temperature (approx. 20°C (68°F)). Temperature greatly affects resistance measurements.
- ⑤ Drive pulley retaining screw: torque to 90 to 100 N•m (66 to 74 lbf•ft), install drive belt, accelerate the vehicle at low speed (maximum 30 km/h (20 MPH)) and apply the brake; repeat 5 times. Recheck the torque of 90 to 100 N•m (66 to 74 lbf•ft).

VEHICLE LEGEND

ADSA: Advanced Direct Shock Action

RRIM: Reinforced Reaction Injection Molding

TRA: Total Range Adjustable

N.A.: Not Applicable

- ① Minimum allowable width may not be less than 3.0 mm (1/8 in) of new drive belt.
- ② Force applied midway between pulleys to obtain specified tension deflection.
- ③ Force or downward pull applied to track to obtain specified tension deflection.
- ④ Coolant mixture: 60% antifreeze/40% water.
- ⑤ Lever with roller pin (P/N 417 004 308) (solid).
- ⑥ Lever with roller pin (P/N 417 004 309) (hollow).