

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	kilo pascal	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.

OUTLANDER 330

VEHICLE MODEL			OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4
ENGINE				
Engine type			BOMBARDIER-ROTAX, 4-stroke, Over Head Camshaft (OHC), liquid cooled	
Starting system			Electric start and manual rewind starter. Start in any gear (with brakes applied)	
Number of cylinder(s)			1	
Number of valves			4 valves (mechanical adjustment)	
Decompressor type			N.A.	
Bore	Standard	mm (in)	82 (3.23)	
Stroke		mm (in)	61.5 (2.42)	
Displacement		cm ³ (in ³)	325 (19.83)	
Compression ratio			10.3:1	
Lubrication			Wet sump with replaceable oil filter	
Oil filter			BOMBARDIER-ROTAX	
Air filter type			2 stage foam filter	
Exhaust system		Type	Nelson, steel	
		Spark arrester	USDA Forest Service approved	
Intake valve opening			15.00° BTDC	
Intake valve closing			45.00° ABDC	
Exhaust valve opening			50.00° BBDC	
Exhaust valve closing			10.00° ATDC	
Chain tensioner plunger protrusion		Wear limit	mm (in)	20.0 (.7874)
Valve clearance	Intake		mm (in)	0.06 (.0024) to 0.14 (.0055)
	Exhaust		mm (in)	0.11 (.0043) to 0.19 (.0075)
Valve/valve stem clearance	Intake	New minimum	mm (in)	4.966 (.1955)
		New maximum	mm (in)	4.980 (.1960)
		Wear limit	mm (in)	4.930 (.1940)
	Exhaust	New minimum	mm (in)	4.956 (.1951)
		New maximum	mm (in)	4.970 (.1957)
		Wear limit	mm (in)	4.930 (.1940)
Valve guide diameter		New minimum	mm (in)	5.006 (.1971)
		New maximum	mm (in)	5.018 (.1976)
		Wear limit	mm (in)	5.050 (.1988)
Valve spring free length		New nominal	mm (in)	40.81 (1.607)
		Service limit	mm (in)	39.00 (1.535)
Valve seat contact width	Intake	New	mm (in)	1.15 to 1.35 (.045 to .053)
		Wear limit	mm (in)	1.8 (.07)
	Exhaust	New	mm (in)	1.25 to 1.55 (.049 to .061)
		Wear limit	mm (in)	2 (.078)
Piston measurement		New nominal	mm (in)	81.950 to 81.966 (3.226 to 3.227)
Piston/cylinder clearance		New nominal	mm (in)	0.057 to 0.087 (.0022 to .0034)
		Wear limit	mm (in)	0.1 (.004)
Piston ring type		Upper compression ring		Rectangular
		Lower compression ring		Taper-face
		Oil scraper ring		Standard
Piston ring end gap	Upper compression ring	New minimum	mm (in)	0.2 (.008)
	Lower compression ring		mm (in)	0.2 (.008)
	Oil scraper ring		mm (in)	0.2 (.008)
	Upper compression ring	New maximum	mm (in)	0.40 (.016)
	Lower compression ring		mm (in)	0.40 (.016)
	Oil scraper ring		mm (in)	0.70 (.028)
	All	Wear limit	mm (in)	1.5 (.06)

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VEHICLE MODEL				OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4
ENGINE					
Piston/ring groove clearance	Upper compression ring	New minimum	mm (in)	0.030 (.0012)	
	Lower compression ring		mm (in)	0.020 (.0008)	
	Oil scraper ring		mm (in)	0.010 (.0004)	
	Upper compression ring	New maximum	mm (in)	0.070 (.0028)	
	Lower compression ring		mm (in)	0.060 (.0024)	
	Oil scraper ring		mm (in)	0.045 (.0018)	
	All	Wear limit	mm (in)	0.15 (.006)	
Rocker arm bore diameter	New minimum	mm (in)	12.036 (.4739)		
	New maximum	mm (in)	12.050 (.4744)		
	Wear limit	mm (in)	12.060 (.4748)		
Rocker arm shaft diameter	New minimum	mm (in)	12.007 (.4727)		
	New maximum	mm (in)	12.018 (.4732)		
	Wear limit	mm (in)	11.990 (.4720)		
Cylinder bore	New nominal	mm (in)	82.023 to 82.037 (3.229 to 3.230)		
Cylinder taper	New maximum	mm (in)	0.038 (.001)		
	Wear limit	mm (in)	0.090 (.004)		
Cylinder out of round	New maximum	mm (in)	0.015 (.0006)		
	Wear limit	mm (in)	0.02 (.0008)		
Camshaft bearing journal	PTO side	New minimum	mm (in)	21.959 (.8645)	
		New maximum	mm (in)	21.980 (.8654)	
		Wear limit	mm (in)	21.950 (.8642)	
	Magneto side	New minimum	mm (in)	34.959 (1.3763)	
		New maximum	mm (in)	34.975 (1.3770)	
		Wear limit	mm (in)	34.950 (1.3760)	
Camshaft bore	PTO side	New minimum	mm (in)	22.000 (.8661)	
		New maximum	mm (in)	22.021 (.8670)	
		Wear limit	mm (in)	22.040 (.8677)	
	Magneto side	New minimum	mm (in)	35.000 (1.3780)	
		New maximum	mm (in)	35.025 (1.3789)	
		Wear limit	mm (in)	35.040 (1.3795)	
Cam lobe	Intake	New minimum	mm (in)	32.343 (1.2733)	
		New maximum	mm (in)	32.363 (1.2741)	
		Wear limit	mm (in)	32.300 (1.2717)	
	Exhaust	New minimum	mm (in)	32.027 (1.2609)	
		New maximum	mm (in)	32.047 (1.2617)	
		Wear limit	mm (in)	32.000 (1.2598)	
Crankshaft axial clearance	New minimum	mm (in)	0.1 (.0039)		
Crankshaft deflection	MAG side	New nominal	mm (in)	0.05 (.0020)	
	PTO side	New nominal	mm (in)	0.05 (.0020)	
Crankshaft pin diameter	New minimum	mm (in)	40.009 (1.5752)		
	New maximum	mm (in)	40.025 (1.5758)		
	Wear limit	mm (in)	39.980 (1.5740)		
Crankshaft journal diameter	MAG/PTO side	New minimum	mm (in)	42.024 (1.6545)	
		New maximum	mm (in)	42.040 (1.6551)	
		Wear limit	mm (in)	42.000 (1.6535)	
Crankcase plain bearing	MAG side	Wear limit	mm (in)	42.070 (1.6563)	
	PTO side	Wear limit	mm (in)	42.070 (1.6563)	
Crankshaft radial clearance	MAG side	Service limit	mm (in)	0.07 (.0028)	
	PTO side				
Connecting rod big end diameter	New minimum	mm (in)	40.020 (1.5756)		
	New maximum	mm (in)	40.051 (1.5768)		
	Service limit	mm (in)	40.100 (1.5787)		
Connecting rod big end clearance	Service limit	mm (in)	0.09 (.0035)		

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VEHICLE MODEL			OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4
ENGINE				
Connecting rod big end axial play	New minimum	mm (in)	0.100 (.004)	
	New maximum	mm (in)	0.352 (.014)	
	Wear limit	mm (in)	0.5 (.02)	
Connecting rod small end diameter	New minimum	mm (in)	20.01 (.7878)	
	New maximum	mm (in)	20.02 (.7882)	
	Wear limit	mm (in)	20.06 (.7898)	
Piston pin diameter	New minimum	mm (in)	19.996 (.7872)	
	New maximum	mm (in)	20.000 (.7874)	
	Wear limit	mm (in)	19.980 (.7867)	
Piston pin bore clearance	Wear limit	mm (in)	0.080 (.0035)	
Drive belt	New nominal	mm (in)	32.00 (1.260)	
	Service limit	mm (in)	30.00 (1.181)	
Governor cup roller diameter	New minimum	mm (in)	13.70 (.539)	
	New maximum	mm (in)	13.90 (.547)	
	Service limit	mm (in)	13.20 (.519)	
Centrifugal lever pivot bolt diameter	New minimum	mm (in)	6.078 (.239)	
	New maximum	mm (in)	6.100 (.240)	
	Service limit	mm (in)	6.000 (.236)	
Centrifugal lever bore diameter	Service limit	mm (in)	6.200 (.244)	
Centrifugal lever pivot bolt bore diameter	New minimum	mm (in)	6.113 (.241)	
	New maximum	mm (in)	6.171 (.243)	
	Service limit	mm (in)	6.300 (.248)	
Drive pulley sliding half large bushing	New minimum	mm (in)	55.000 (2.165)	
	New maximum	mm (in)	55.020 (2.166)	
	Service limit	mm (in)	55.200 (2.173)	
Drive pulley sliding half small bushing	New minimum	mm (in)	30.000 (1.181)	
	New maximum	mm (in)	30.020 (1.182)	
	Service limit	mm (in)	30.200 (1.189)	
One-way clutch bushing diameter	New minimum	mm (in)	39.990 (1.574)	
	New maximum	mm (in)	40.085 (1.578)	
	Service limit	mm (in)	40.100 (1.579)	
Driven pulley sliding half busing diameter	New minimum	mm (in)	30.000 (1.181)	
	New maximum	mm (in)	30.020 (1.182)	
	Service limit	mm (in)	30.200 (1.189)	
Driven pulley fixed half busing diameter	New minimum	mm (in)	30.000 (1.181)	
	New maximum	mm (in)	30.020 (1.182)	
	Service limit	mm (in)	30.200 (1.189)	
Torque gear on driven pulley	Service limit	mm (in)	7.500 (.295)	
Main shaft	MAG side	mm (in)	17.990 (.708)	
	PTO side	mm (in)	24.950 (.982)	
Bevel gear shaft	PTO side	mm (in)	24.990 (.984)	

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VEHICLE MODEL		OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4
ELECTRICAL			
Magneto/generator		400 W @ 6000 RPM	
Ignition system type		C.D.I. (Capacitive Discharge Ignition)	
Ignition timing		Not adjustable	
Spark plug	Quantity	1	
	Make and type	NGK DCPR8E	
	Gap mm (in)	0.7 to 0.8 (.028 to .032)	
CPS (Crankshaft Position Sensor)	Ω	190 – 300	
Starter coil	Ω	0.4 ± 01 @ 20°C (68°F)	
Ignition coil	Primary Ω	1.0 ± 0.15 @ 20°C (68°F)	
	Secondary kΩ	11.5 ± 2.3 @ 20°C (68°F)	
Engine RPM limiter	Forward RPM	8000	
	Reverse RPM	4000 ± 100	
Battery	Type	Dry battery type	
	Voltage	12 volts	
	Nominal rating	13 A•h	
	Power starter output	1.2 KW	
Headlamp		2 x 30 W, HOBBS 81425	
Taillight		8/27 W, 1157	
Pilot lamp cluster		LEDS, 0.7 V approximately (each)	
Fuses	Accessories	15 A (power outlet and auxiliary supply)	
	Fan	15 A	
	Main	20 A	
	Charging system	30 A	
CARBURETION			
Carburetor	Type	Mikuni constant depression type with manual choke and ECS (Enricher Coasting System)	
	Model	BSR33	
Fuel pump	Type	Mikuni (Pulsation pump)	
	Model	External (vacuum-operated)	
Idle engine speed	RPM	1300 ± 100	
Main jet		133.8	
Pilot jet		32.5	
Needle jet		(826) P-4	
Jet needle		5 FEY 1	
Clip position number		3	
Choke plunger position		Variable choke	
Adjustment	Throttle cable	0.5 mm (.02 in)	
	Preliminary pilot screw turn	2.5	
	Float level	± 0.5 mm	10.0
± 0.020 in		.390	
Fuel	Type	Regular unleaded gasoline	
	Octane no.	87 (Ron + Mon)/2	
COOLING			
Coolant		Ethyl glycol/water mix (50% coolant, 50% water). Use coolant specifically designed for aluminum engines	
Fan		Thermostatic	
Coolant temperature switch	Operating temperature	115°C (239°F)	
	Closing temperature	110°C (230°F)	
Fan thermostat	Switch ON	95°C (203°F)	
	Switch OFF	90°C (194°F)	
Engine thermostat	Opening temperature	65°C (149°F)	
	Closing temperature	75°C (167°F)	
Radiator cap opening pressure		110 kPa (16 PSI)	

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VEHICLE MODEL		OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4
LUBRICATION			
Oil pressure switch operation		30 to 60 kPa (4.35 to 8.70 PSI)	
Engine oil pressure (min.)		350 kPa (51 PSI)	
DRIVE TRAIN			
Transmission	Type	CVT (Continuously Variable Transmission). Dual range (HI-LO) with park, neutral and reverse	
Engagement RPM	± 100 RPM	1450	
Front differential		Shaft driven/single Auto-lock differential (pump driven)	
Front differential ratio		3.6:1	
Rear axle		Shaft driven/single differential	
Rear axle ratio		3.6:1	
STEERING			
Turning radius		1.83 m (6 ft)	
Total toe (vehicle on ground)		mm (in)	0 ± 4 (0 ± .157)
Camber angle		0°	
Tie-rod maximum length unengaged		mm (in)	286.5 ± 5 (11.28 ± 0.197)
SUSPENSION			
• FRONT			
Suspension type		McPherson Strut	
Suspension travel		mm (in)	178 (7)
Shock absorber	Qty	2	
	Type	Oil	
Spring free length		mm (in)	354 (14)
Spring color code		Blue/Red/Blue	
Front preload adjustment		N.A.	
• REAR			
Suspension type		Trailing arms	
Suspension travel		mm (in)	203 (8)
Shock absorber	Qty	2	
	Type	Oil	
Spring free length		mm (in)	371 (14.6)
Spring color code		Blue/Black/Blue	
Rear preload adjustment		5 settings	
BRAKES			
Front brake	Qty	2	
	Type	Hydraulic, discs	
Rear brake	Qty	1	
	Type	Hydraulic, disc	
Parking brake		Hydraulic lock-4 wheels	
Caliper		Floating	
Lining material	Front	Organic	
	Rear	Metallic	
Minimum pad thickness		mm (in)	1 (.04)
Minimum brake disc thickness		mm (in)	3.5 (.138)
		mm (in)	4.3 (.17)
Maximum brake disc warpage		mm (in)	0.2 (.01)

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VEHICLE MODEL		OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4
TIRES AND WHEELS			
• TIRES			
Pressure	Front	Maximum	28 kPa (4 PSI)
		Minimum	24 kPa (3.5 PSI)
	Rear	Maximum	31 kPa (4.5 PSI)
		Minimum	28 kPa (4 PSI)
Minimum tire thread depth		mm (in)	3 (0.118)
Size	Front	25 x 8 x 12	
	Rear	25 x 10 x 12	
• WHEELS			
Size	Front	12 x 6	
	Rear	12 x 7.5	
DIMENSION			
Overall length	mm (in)		2184 (86)
Overall width	mm (in)		1168 (46)
Overall height	mm (in)		1143 (45)
Dry weight	kg (lb)		250 (550) 272 (598)
Wheel base	mm (in)		1244 (49)
Wheel track	Front	mm (in)	965 (38)
	Rear	mm (in)	914 (36)
Front and under engine ground clearance	mm (in)		236 (9.3)
Rear rigid axle ground clearance	mm (in)		236 (9.3)
CAPACITIES			
• LIQUID			
Fuel tank			16 L (4.2 U.S. gal)
Fuel tank reserve			2 L (0.6 U.S. gal)
Engine/transmission oil	Capacity	3 L (3.17 quarts)	
	Recommended	SAE, 4 stroke mineral based oil SG, SH or SJ or Bombardier synthetic oil 5W40. Refer to the oil viscosity chart in the MAINTENANCE section	
Differential oil	Capacity	Front	N.A. 500 mL (17 U.S. oz)
		Rear	300 mL (10 U.S. oz)
	Recommended	Synthetic polyolester oil 75W90 (API GL5)	
CV joint grease			TEXACO, HTBJ grease (M3014), ONLY
Propeller shaft grease			SHELL, Alvania EP-2, ONLY
Hydraulics brakes	Capacity	250 mL (8.5 U.S. oz)	
	Recommended	Brake fluid DOT 4, ONLY	
Cooling system			2.5 L (2.65 quarts)
• BODY AND FRAME			
Weight distribution	Front/rear	%	49/51
Rear storage box (included with rear rack weight)			10 kg (22 lb)
Rack	Front	40 kg (90 lb)	
	Rear (including rear storage box and tongue weight)	80 kg (175 lb)	
Total vehicle load allowed (including driver, all other loads and added accessories)			230 kg (500 lb)
Gross vehicle weight rating			460 kg (1014 lb)
Towing			500 kg (1100 lb)
Tongue (included with rear rack weight)			14 kg (30 lb)

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VEHICLE MODEL		OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4
MATERIAL			
Frame	Material	Steel	
	Color	Black	
Wheel	Material	Steel	
	Color	Moondust pearl	
Front/rear rack	Material	Polypropylene (glass fiber-reinforced)	
	Color	Earth grey	
Front bumper	Material	Aluminum	
	Color	Aluminum	
Front/rear fender	Material	High density polyethylene	
	Color	Yellow/Laurentian green/Viper red	
Fuel tank protector	Material	High density polyethylene	
	Color	Black	
Steering cover	Material	Polypropylene	
	Color	Earth grey	
Storage compartment cover	Material	Polypropylene (glass fiber-reinforced)	
	Color	Earth grey	
Front facia	Material	High density polyethylene	
	Color	Yellow/Laurentian green/Viper red	
Front skid plate	Material	High density polyethylene	
	Color	Earth grey	
Side panel	Material	High density polyethylene	
	Color	Yellow/Laurentian green/Viper red	
Foot rest	Material	High density polyethylene	
	Color	Black	
Console	Material	High density polyethylene	
	Color	Yellow/Laurentian green/Viper red	
Air box cover	Material	Polypropylene (glass fiber-reinforced)	
	Color	Black	
Air box	Material	Polypropylene (glass fiber-reinforced)	
	Color	Black	
Transmission lever locator	Material	Polypropylene (glass fiber-reinforced)	
	Color	Earth grey	
A-arm protector	Material	Polypropylene	
	Color	Black	
Engine cover	Material	High density polyethylene	
	Color	Earth grey	
Seat base	Material	Polypropylene	
	Color	Black	
Seat cover	Material	Thermoformed vinyl	
	Color	Deep earth grey	

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VEHICLE MODEL	OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4	SERVICE PRODUCT	
TORQUE				
• ENGINE				
Lower engine mounting bracket	M8	23 N•m (17 lbf•ft)	None	
Lower engine mounting bolts	M10	48 N•m (35 lbf•ft)		
Upper engine support				
Spark plug		20 N•m (15 lbf•ft)		
Oil filter screw		10 N•m (89 lbf•in)		
Magneto cover bolts	M6	10 N•m (89 lbf•in)		
	M8	25 N•m (18 lbf•ft)		
Starter bolts		10 N•m (89 lbf•in)		
Vehicle speed sensor		10 N•m (89 lbf•in)		
CPS bolt		10 N•m (89 lbf•in)		
Engine cover		5 N•m (44 lbf•in)		
Starter RED (+) cable		6 N•m (53 lbf•in)		Dielectric grease
Rotor nut		180 N•m (133 lbf•ft)		Loctite 243
Stator bolt		10 N•m (89 lbf•in)		
• COOLING				
Radiator mount screw/nut		10 N•m (89 lbf•in)	None	
Thermostat housing		7 N•m (62 lbf•in)		
Thermostat bleeding screw		5 N•m (44 lbf•in)		
Temperature sensor		17 N•m (151 lbf•in)		
Water pump housing		10 N•m (89 lbf•in)		
Fan mount screw/nut		7 N•m (62 lbf•in)		
Temperature sender on radiator		11 N•m (97 lbf•in)		
• EXHAUST				
Exhaust nut		11 N•m (97 lbf•in)	None	
Heat shield screws		13 N•m (115 lbf•in)		
Exhaust support		23 N•m (17 lbf•ft)		
• LUBRICATION				
Engine drain plug		30 N•m (22 lbf•ft)	None	
Engine oil strainer cover		10 N•m (89 lbf•in)		
Oil pump housing		10 N•m (89 lbf•in)		
Oil pressure regulator plug		11 N•m (97 lbf•in)		
Oil pressure switch		12 N•m (106 lbf•in)	Loctite 243	
• CYLINDER AND HEAD				
Valve cover		7 N•m (62 lbf•in)	None	
Cylinder head screw	M6	10 N•m (89 lbf•in)		
	M11	First torque 20 N•m (15 lbf•ft) Final torque 60 N•m (44 lbf•ft)		
Intake adaptor		25 N•m (18 lbf•ft)	Loctite 243	
Camshaft timing gear		25 N•m (18 lbf•ft)		
Chain guide		10 N•m (89 lbf•in)		
Chain tensioner housing		8 N•m (71 lbf•in)	None	
Chain tensioner plug		4.5 N•m (40 lbf•in)		
• CRANKSHAFT				
Crankcase housing screw	M6	10 N•m (89 lbf•in)	None	
	M8	25 N•m (18 lbf•ft)		
Connecting rod		20 N•m (15 lbf•ft) + 70° rotation		
Crankshaft locking access screw		25 N•m (18 lbf•ft)		
• GEARBOX				
Bearing screw		10 N•m (89 lbf•in)	Loctite 243	
Index lever		10 N•m (89 lbf•in)		
Starter drive pinion cover		8 N•m (71 lbf•in)		
Shifting indicator switch		4 N•m (35 lbf•in)		

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VEHICLE MODEL	OUTLANDER™ 330 H.O. 2 X 4		OUTLANDER™ 330 H.O. 4 X 4	SERVICE PRODUCT
TORQUE				
• CVT				
CVT cover			7 N•m (62 lbf•in)	None
Centrifugal lever bolt			5 N•m (44 lbf•in)	
Drive pulley			100 N•m (74 lbf•ft), refer to CVT section for proper procedure	
Driven pulley			60 N•m (44 lbf•ft)	
• FUEL				
Carburetor mounting clamp			2.5 N•m (22 lbf•in)	None
Fuel pump screw			5.5 N•m (49 lbf•in)	
Fuel valve nut			10 N•m (89 lbf•in)	
• DRIVE TRAIN				
Wheel hub nut			145 N•m (107 lbf•ft) (MINIMUM)	None
Front differential mounting bolt	Front		75 N•m (55 lbf•ft)	
Rear differential mounting bolt	Lower		90 N•m (66 lbf•ft)	
	Upper		90 N•m (66 lbf•ft)	
Front propeller shaft screw	Differential side		42 N•m (31 lbf•ft)	
Rear propeller shaft screw	Engine side		34 N•m (25 lbf•ft)	
	Differential side		42 N•m (31 lbf•ft)	
Rear differential protector	Hexagonal screw		2.5 N•m (22 lbf•in)	
Differential oil drain plug	Front/rear		13 N•m (115 lbf•in)	
Differential filler plug	Front/rear		13 N•m (115 lbf•in)	
Differential housing Torx screw	Front/rear		33 N•m (24 lbf•ft)	
Pinion gear nut	Front differential		150 N•m (111 lbf•ft)	
	Rear differential		150 N•m (111 lbf•ft)	
Disconnect unit mounting bolts			24 N•m (18 lbf•ft)	
Disconnect unit actuator mounting bolts			18 N•m (13 lbf•ft)	
2 WD/4 WD selector (4 X 4 models only)			18 N•m (13 lbf•ft)	
• WHEEL				
Wheel nuts			70 N•m (52 lbf•ft)	Anti-seize
• STEERING				
Tie rod ends			75 N•m (55 lbf•ft)	None
Steering arm (castellated nut)			75 N•m (55 lbf•ft)	
Handlebar screws			24 N•m (18 lbf•ft)	
Steering column half housing bolts			24 N•m (18 lbf•ft)	
Handle grip screw			0.5 N•m (4 lbf•in)	
Flanged bearing bolts			10 N•m (89 lbf•in)	Loctite 243
• SUSPENSION				
Trailing arm nut			190 N•m (140 lbf•ft)	Loctite 243
McPershon strut nut			55 N•m (41 lbf•ft)	None
McPershon strut bolt			80 N•m (59 lbf•ft)	
A-arm bolt			48 N•m (35 lbf•ft)	
Ball joint	A-arm		23 N•m (17 lbf•ft)	
	Knuckle		48 N•m (35 lbf•ft)	
A-arm protector			4 N•m (35 lbf•in)	
Rear shock absorber bolt			48 N•m (35 lbf•ft)	
Torsion bar nut			120 N•m (89 lbf•ft) refer to REAR SUSPENSION section for proper procedure	

Section 11 TECHNICAL DATA

Subsection 02 (OUTLANDER 330)

VEHICLE MODEL	OUTLANDER™ 330 H.O. 2 X 4	OUTLANDER™ 330 H.O. 4 X 4	SERVICE PRODUCT
TORQUE			
• BRAKE			
Caliper brake screws	Front	34 N•m (25 lbf•ft)	None
	Rear	24 N•m (18 lbf•ft)	
Brake disc screws	Front	24 N•m (18 lbf•ft)	
	Rear	34 N•m (25 lbf•ft)	
Master cylinder bolts		24 N•m (18 lbf•ft)	
BANJO bolt		24 N•m (18 lbf•ft)	
Caliper bleeder valve		5 N•m (44 lbf•in)	
Master cylinder rod nut		5 N•m (44 lbf•in)	
Hydraulic brake light switch		7 N•m (62 lbf•in)	Pipe sealant
• BODY AND FRAME			
Front skid plate	M6	2.5 N•m (22 lbf•in)	None
	M10	8 N•m (71 lbf•in)	
Front bumper	M8	24 N•m (18 lbf•ft)	
	M10	48 N•m (35 lbf•ft)	
Front/rear racks		4.5 N•m (40 lbf•in)	
Footpeg		4.5 N•m (39 lbf•in)	
Headlamp housing		1 N•m (9 lbf•in)	
Fender support	Front	18 N•m (13 lbf•ft) MINIMUM	
	Rear	21 N•m (15 lbf•ft) MAXIMUM	Loctite 243 (rear only)

OUTLANDER 400

VEHICLE MODEL			OUTLANDER™ 400 H.O.			
			2 X 4	4 X 4	XT	
ENGINE						
Engine type			BOMBARDIER-ROTAX, 4-stroke, Over Head Camshaft (OHC), liquid cooled			
Starting system			Electric start and manual rewind starter. Start in any gear (with brakes applied)			
Number of cylinder(s)			1			
Number of valves			4 valves (mechanical adjustment)			
Decompressor type			Automatic			
Bore	Standard	mm (in)	91 (3.58)			
Stroke		mm (in)	61.5 (2.42)			
Displacement		cm ³ (in ³)	400 (24.41)			
Compression ratio			10.3:1			
Lubrication			Wet sump with replaceable oil filter			
Oil filter			BOMBARDIER-ROTAX			
Air filter type			2 stage foam filter			
Exhaust system		Type	Nelson, steel			
		Spark arrester	USDA Forest Service approved			
Intake valve opening			15.00° BTDC			
Intake valve closing			45.00° ABDC			
Exhaust valve opening			50.00° BBDC			
Exhaust valve closing			10.00° ATDC			
Chain tensioner plunger protrusion		Wear limit	mm (in)	20.0 (.7874)		
Valve clearance	Intake		mm (in)	0.06 (.0024) to 0.14 (.0055)		
	Exhaust		mm (in)	0.11 (.0043) to 0.19 (.0075)		
Valve/valve stem clearance	Intake	New minimum	mm (in)	4.966 (.1955)		
		New maximum	mm (in)	4.980 (.1960)		
		Wear limit	mm (in)	4.930 (.1940)		
	Exhaust	New minimum	mm (in)	4.956 (.1951)		
		New maximum	mm (in)	4.970 (.1957)		
		Wear limit	mm (in)	4.930 (.1940)		
Valve guide diameter		New minimum	mm (in)	5.006 (.1971)		
		New maximum	mm (in)	5.018 (.1976)		
		Wear limit	mm (in)	5.050 (.1988)		
Valve spring free length		New nominal	mm (in)	40.81 (1.607)		
		Service limit	mm (in)	39.00 (1.535)		
Valve seat contact width		Intake	New	mm (in)	1.15 to 1.35 (.045 to .053)	
			Wear limit	mm (in)	1.8 (.07)	
		Exhaust	New	mm (in)	1.25 to 1.55 (.049 to .061)	
			Wear limit	mm (in)	2 (.078)	
Piston measurement		New nominal	mm (in)	90.950 to 90.966 (3.580 to 3.581)		
Piston/cylinder clearance		New nominal	mm (in)	0.027 to 0.057 (.0011 to .0022)		
		Wear limit	mm (in)	0.1 (.004)		
Piston ring type		Upper compression ring		Rectangular		
		Lower compression ring		Taper-face		
		Oil scraper ring		Standard		

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL				OUTLANDER™ 400 H.O.		
				2 X 4	4 X 4	XT
ENGINE						
Piston ring end gap	Upper compression ring	New minimum	mm (in)	0.2 (.008)		
	Lower compression ring		mm (in)	0.2 (.008)		
	Oil scraper ring		mm (in)	0.2 (.008)		
	Upper compression ring	New maximum	mm (in)	0.40 (.016)		
	Lower compression ring		mm (in)	0.40 (.016)		
	Oil scraper ring		mm (in)	0.70 (.028)		
	All	Wear limit	mm (in)	1.5 (.06)		
Piston/ring groove clearance	Upper compression ring	New minimum	mm (in)	0.030 (.0012)		
	Lower compression ring		mm (in)	0.020 (.0008)		
	Oil scraper ring		mm (in)	0.010 (.0004)		
	Upper compression ring	New maximum	mm (in)	0.070 (.0028)		
	Lower compression ring		mm (in)	0.060 (.0024)		
	Oil scraper ring		mm (in)	0.045 (.0018)		
	All	Wear limit	mm (in)	0.15 (.006)		
Rocker arm bore diameter		New minimum	mm (in)	12.036 (.4739)		
		New maximum	mm (in)	12.050 (.4744)		
		Wear limit	mm (in)	12.060 (.4748)		
Rocker arm shaft diameter		New minimum	mm (in)	12.007 (.4727)		
		New maximum	mm (in)	12.018 (.4732)		
		Wear limit	mm (in)	11.990 (.4720)		
Cylinder bore		New nominal	mm (in)	90.993 to 91.007 (3.582 to 3.583)		
Cylinder taper		New maximum	mm (in)	0.038 (.001)		
		Wear limit	mm (in)	0.090 (.004)		
Cylinder out of round		New maximum	mm (in)	0.015 (.0006)		
		Wear limit	mm (in)	0.02 (.0008)		
Camshaft bearing journal	PTO side	New minimum	mm (in)	21.959 (.8645)		
		New maximum	mm (in)	21.980 (.8654)		
		Wear limit	mm (in)	21.950 (.8642)		
	Magneto side	New minimum	mm (in)	34.959 (1.3763)		
		New maximum	mm (in)	34.975 (1.3770)		
		Wear limit	mm (in)	34.950 (1.3760)		
Camshaft bore	PTO side	New minimum	mm (in)	22.000 (.8661)		
		New maximum	mm (in)	22.021 (.8670)		
		Wear limit	mm (in)	22.040 (.8677)		
	Magneto side	New minimum	mm (in)	35.000 (1.3780)		
		New maximum	mm (in)	35.025 (1.3789)		
		Wear limit	mm (in)	35.040 (1.3795)		
Cam lobe	Intake	New minimum	mm (in)	32.343 (1.2733)		
		New maximum	mm (in)	32.363 (1.2741)		
		Wear limit	mm (in)	32.300 (1.2717)		
	Exhaust	New minimum	mm (in)	32.027 (1.2609)		
		New maximum	mm (in)	32.047 (1.2617)		
		Wear limit	mm (in)	32.000 (1.2598)		
Crankshaft axial clearance		New minimum	mm (in)	0.1 (.0039)		
Crankshaft deflection	MAG side	New nominal	mm (in)	0.05 (.0020)		
	PTO side	New nominal	mm (in)	0.05 (.0020)		
Crankshaft pin diameter		New minimum	mm (in)	40.009 (1.5752)		
		New maximum	mm (in)	40.025 (1.5758)		
		Wear limit	mm (in)	39.980 (1.5740)		
Crankshaft journal diameter	MAG/PTO side	New minimum	mm (in)	42.024 (1.6545)		
		New maximum	mm (in)	42.040 (1.6551)		
		Wear limit	mm (in)	42.000 (1.6535)		

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL				OUTLANDER™ 400 H.O.		
				2 X 4	4 X 4	XT
ENGINE						
Crankcase plain bearing	MAG side	Wear limit	mm (in)	42.070 (1.6563)		
	PTO side	Wear limit	mm (in)	42.070 (1.6563)		
Crankshaft radial clearance	MAG/PTO side	Service limit	mm (in)	0.07 (.0028)		
Connecting rod big end diameter		New minimum	mm (in)	40.020 (1.5756)		
		New maximum	mm (in)	40.051 (1.5768)		
		Service limit	mm (in)	40.100 (1.5787)		
Connecting rod big end clearance		Service limit	mm (in)	0.09 (.0035)		
Connecting rod big end axial play		New minimum	mm (in)	0.100 (.004)		
		New maximum	mm (in)	0.352 (.014)		
		Wear limit	mm (in)	0.5 (.02)		
Connecting rod small end diameter		New minimum	mm (in)	20.01 (.7878)		
		New maximum	mm (in)	20.02 (.7882)		
		Wear limit	mm (in)	20.06 (.7898)		
Piston pin diameter		New minimum	mm (in)	19.996 (.7872)		
		New maximum	mm (in)	20.000 (.7874)		
		Wear limit	mm (in)	19.980 (.7867)		
Piston pin bore clearance		Wear limit	mm (in)	0.080 (.0035)		
Drive belt		New nominal	mm (in)	32.00 (1.260)		
		Service limit	mm (in)	30.00 (1.181)		
Governor cup roller diameter		New minimum	mm (in)	13.70 (.539)		
		New maximum	mm (in)	13.90 (.547)		
		Service limit	mm (in)	13.20 (.519)		
Centrifugal lever pivot bolt diameter		New minimum	mm (in)	6.078 (.239)		
		New maximum	mm (in)	6.100 (.240)		
		Service limit	mm (in)	6.000 (.236)		
Centrifugal lever bore diameter		Service limit	mm (in)	6.200 (.244)		
Centrifugal lever pivot bolt bore diameter		New minimum	mm (in)	6.113 (.241)		
		New maximum	mm (in)	6.171 (.243)		
		Service limit	mm (in)	6.300 (.248)		
Drive pulley sliding half large bushing		New minimum	mm (in)	55.000 (2.165)		
		New maximum	mm (in)	55.020 (2.166)		
		Service limit	mm (in)	55.200 (2.173)		
Drive pulley sliding half small bushing		New minimum	mm (in)	30.000 (1.181)		
		New maximum	mm (in)	30.020 (1.182)		
		Service limit	mm (in)	30.200 (1.189)		
One-way clutch bushing diameter		New minimum	mm (in)	39.990 (1.574)		
		New maximum	mm (in)	40.085 (1.578)		
		Service limit	mm (in)	40.100 (1.579)		
Driven pulley sliding half busing diameter		New minimum	mm (in)	30.000 (1.181)		
		New maximum	mm (in)	30.020 (1.182)		
		Service limit	mm (in)	30.200 (1.189)		
Driven pulley fixed half busing diameter		New minimum	mm (in)	30.000 (1.181)		
		New maximum	mm (in)	30.020 (1.182)		
		Service limit	mm (in)	30.200 (1.189)		
Torque gear on driven pulley		Service limit	mm (in)	7.500 (.295)		
Main shaft	MAG side		mm (in)	17.990 (.708)		
	PTO side		mm (in)	24.950 (.982)		
Bevel gear shaft		PTO side	mm (in)	24.990 (.984)		

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL	OUTLANDER™ 400 H.O.			
	2 X 4	4 X 4	XT	
ELECTRICAL				
Magneto/generator	400 W @ 6000 RPM			
Ignition system type	C.D.I. (Capacitive Discharge Ignition)			
Ignition timing	Not adjustable			
Spark plug	Quantity	1		
	Make and type	NGK DCPR8E		
	Gap mm (in)	0.7 to 0.8 (.028 to .032)		
CPS (Crankshaft Position Sensor)	Ω	190 – 300		
Starter coil	Ω	0.4 ± 01 @ 20°C (68°F)		
Ignition coil	Primary	Ω	1.0 ± 0.15 @ 20°C (68°F)	
	Secondary	kΩ	11.5 ± 2.3 @ 20°C (68°F)	
Engine RPM limiter	Forward	RPM	8000	
	Reverse	RPM	4000 ± 100	
Battery	Type	Dry battery type		
	Voltage	12 volts		
	Nominal rating	13 A•h		
	Power starter output	1.2 KW		
Headlight	2 x 30 W, HOBBS 81425			
Taillight	8/27 W, 1157			
Pilot lamp cluster	LEDS, 0.7 V approximately (each)			
Fuses	Accessories	15 A (power outlet and auxiliary supply)		
	Fan	15 A		
	Main	20 A		
	Charging system	30 A		
CARBURETION				
Carburetor	Type	Mikuni constant depression type with manual choke and ECS (Enricher Coasting System)		
	Model	BSR33		
Fuel pump	Type	Mikuni (Pulsation pump)		
	Model	External (vacuum-operated)		
Idle engine speed	RPM	1300 ± 100		
Main jet	133.8			
Pilot jet	32.5			
Needle jet	(826) P-4			
Jet needle	5 FEY 1			
Clip position number	3			
Choke plunger position	Variable choke			
Adjustment	Throttle cable	0.5 mm (.02 in)		
	Preliminary pilot screw turn	2.5		
	Float level	± 0.5 mm	10.0	
		± 0.020 in	.390	
Fuel	Type	Regular unleaded gasoline		
	Octane no.	87 (Ron + Mon)/2		
COOLING				
Coolant	Ethyl glycol/water mix (50% coolant, 50% water). Use coolant specifically designed for aluminum engines			
Fan	Thermostatic			
Coolant temperature switch	Operating temperature	115°C (239°F)		
	Closing temperature	110°C (230°F)		
Fan thermostat	Switch ON	95°C (203°F)		
	Switch OFF	90°C (194°F)		
Engine thermostat	Opening temperature	65°C (149°F)		
	Closing temperature	75°C (167°F)		
Radiator cap opening pressure	110 kPa (16 PSI)			

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL		OUTLANDER™ 400 H.O.		
		2 X 4	4 X 4	XT
LUBRICATION				
Oil pressure switch operation		30 to 60 kPa (4.35 to 8.70 PSI)		
Engine oil pressure (min.)		350 kPa (51 PSI)		
DRIVE TRAIN				
Transmission	Type	CVT (Continuously Variable Transmission). Dual range (HI-LO) with park, neutral and reverse		
Engagement RPM	± 100 RPM	1450		
Front differential		Shaft driven/single Auto-lock differential (pump driven)		
Front differential ratio		3.6:1		
Rear axle		Shaft driven/single differential		
Rear axle ratio		3.6:1		
STEERING				
Turning radius		1.83 m (6 ft)		
Total toe (vehicle on ground)	mm (in)	0 ± 4 (0 ± .157)		
Camber angle		0°		
Tie-rod maximum length unengaged	mm (in)	286.5 ± 5 (11.28 ± 0.197)		
SUSPENSION				
• FRONT				
Suspension type		McPherson Strut		
Suspension travel	mm (in)	178 (7)		
Shock absorber	Qty	2		
	Type	Oil		
Spring free length	mm (in)	354 (14)		
Spring color code		Blue/Red/Blue		
Front preload adjustment		N.A.		
• REAR				
Suspension type		Trailing arms		
Suspension travel	mm (in)	203 (8)		
Shock absorber	Qty	2		
	Type	Oil		
Spring free length	mm (in)	371 (14.6)		
Spring color code		Blue/Black/Blue		
Rear preload adjustment		5 settings		
BRAKES				
Front brake	Qty	2		
	Type	Hydraulic, discs		
Rear brake	Qty	1		
	Type	Hydraulic, disc		
Parking brake		Hydraulic lock-4 wheels		
Caliper		Floating		
Lining material	Front	Organic		
	Rear	Metallic		
Minimum pad thickness	mm (in)	1 (.04)		
Minimum brake disk thickness	mm (in)	3.5 (.138)		
	mm (in)	4.3 (.17)		
Maximum brake disk warpage	mm (in)	0.2 (.01)		

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL		OUTLANDER™ 400 H.O.		
		2 X 4	4 X 4	XT
TIRES AND WHEELS				
• TIRES				
Pressure	Front	Maximum	28 kPa (4 PSI)	
		Minimum	24 kPa (3.5 PSI)	
	Rear	Maximum	31 kPa (4.5 PSI)	
		Minimum	28 kPa (4 PSI)	
Minimum tire thread depth		mm (in)	3 (0.118)	
Size	Front	25 x 8 x 12		
	Rear	25 x 10 x 12		
• WHEELS				
Size	Front	12 x 6		
	Rear	12 x 7.5		
DIMENSIONS				
Overall length		mm (in)	2184 (86)	
Overall width		mm (in)	1168 (46)	
Overall height		mm (in)	1143 (45)	
Dry weight		kg (lb)	250 (550)	269 (592)
Wheel base		mm (in)	1244 (49)	
Wheel track	Front	mm (in)	965 (38)	
	Rear	mm (in)	914 (36)	
Front and under engine ground clearance		mm (in)	236 (9.3)	
Rear rigid axle ground clearance		mm (in)	236 (9.3)	
CAPACITIES				
• LIQUID				
Fuel tank			16 L (4.2 U.S. gal)	
Fuel tank reserve			2 L (0.6 U.S. gal)	
Engine/transmission oil	Capacity		3 L (3.17 quarts)	
	Recommended		SAE, 4 stroke mineral based oil SG, SH or SJ or Bombardier synthetic oil 5W40. Refer to the oil viscosity chart in the MAINTENANCE section	
Differential oil	Capacity	Front	N.A.	500 mL (17 U.S. oz)
		Rear	300 mL (10 U.S. oz)	
	Recommended		Synthetic polyolester oil 75W90 (API GL5)	
CV joint grease			TEXACO, HTBJ grease (M3014), ONLY	
Propeller shaft grease			SHELL, Alvania EP-2, ONLY	
Hydraulics brakes	Capacity		250 mL (8.5 U.S. oz)	
	Recommended		Brake fluid DOT 4, ONLY	
Cooling system			2.5 L (2.65 quarts)	
• BODY AND FRAME				
Weight distribution	Front/rear	%	49/51	
Rear storage box (included with rear rack weight)			10 kg (22 lb)	
Rack	Front		40 kg (90 lb)	
	Rear (including rear storage box and tongue weight)		80 kg (175 lb)	
Total vehicle load allowed (including driver, all other loads and added accessories)			230 kg (500 lb)	
Gross vehicle weight rating			460 kg (1014 lb)	
Towing			500 kg (1100 lb)	
Tongue (included with rear rack weight)			14 kg (30 lb)	

Section 11 TECHNICAL DATA
Subsection 03 (OUTLANDER 400)

VEHICLE MODEL		OUTLANDER™ 400 H.O.		
		2 X 4	4 X 4	XT
MATERIAL				
Frame	Material	Steel		
	Color	Black		
Wheel	Material	Steel		
	Color	Moondust pearl	Chrome/Deep Black	
Front/rear rack	Material	Polypropylene (glass fiber-reinforced)		
	Color	Earth grey		
Front bumper	Material	Aluminum		
	Color	Aluminum		
Front/rear fender	Material	High density polyethylene		
	Color	Yellow/Laurentian Green/Viper Red/Camo	Yellow/Laurentian green/Viper red/Camo/Sandstone	
Fuel tank protector	Material	High density polyethylene		
	Color	Black		
Steering cover	Material	Polypropylene		
	Color	Earth grey		
Storage compartment cover	Material	Polypropylene (glass fiber-reinforced)		
	Color	Earth grey		
Front facia	Material	High density polyethylene		
	Color	Yellow/Laurentian green/Viper red/Camo	Yellow/Laurentian green/Viper red/Sandstone	
Front skid plate	Material	High density polyethylene		
	Color	Earth grey		
Side panel	Material	High density polyethylene		
	Color	Yellow/Laurentian Green/Viper Red/Camo	Yellow/Laurentian green/Viper red/Camo/Sandstone	
Foot rest	Material	High density polyethylene		
	Color	Black		
Console	Material	High density polyethylene		
	Color	Yellow/Laurentian green/Viper red/Camo	Yellow/Laurentian green/Viper red/Camo/Sandstone	
Air box cover	Material	Polypropylene (glass fiber-reinforced)		
	Color	Black		
Air box	Material	Polypropylene (glass fiber-reinforced)		
	Color	Black		
Transmission lever locator	Material	Polypropylene (glass fiber-reinforced)		
	Color	Earth grey		
A-arm protector	Material	Polypropylene		
	Color	Black		
Engine cover	Material	High density polyethylene		
	Color	Earth grey		
Seat base	Material	Polypropylene		
	Color	Black		
Seat cover	Material	Thermoformed vinyl		
	Color	Deep earth grey		

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL	OUTLANDER™ 400 H.O.			SERVICE PRODUCT
	2 X 4	4 X 4	XT	
TORQUE				
• ENGINE				
Lower engine mounting bracket	M8	23 N•m (17 lbf•ft)		None
Lower engine mounting bolts	M10	48 N•m (35 lbf•ft)		
Upper engine support				
Spark plug	20 N•m (15 lbf•ft)			
Oil filter screw	10 N•m (89 lbf•in)			
Magneto cover bolts	M6	10 N•m (89 lbf•in)		
	M8	25 N•m (18 lbf•ft)		
Starter bolts	10 N•m (89 lbf•in)			
Vehicle speed sensor	10 N•m (89 lbf•in)			
Winch solenoid	N.A.		9 N•m (80 lbf•in)	
CPS bolt	10 N•m (89 lbf•in)			
Engine cover	5 N•m (44 lbf•in)			
Starter RED (+) cable	6 N•m (53 lbf•in)		Dielectric grease	
Rotor nut	180 N•m (133 lbf•ft)		Loctite 243	
Stator bolt	10 N•m (89 lbf•in)			
• COOLING				
Radiator mount screw/nut	10 N•m (89 lbf•in)		None	
Thermostat housing	7 N•m (62 lbf•in)			
Thermostat bleeding screw	5 N•m (44 lbf•in)			
Temperature sensor	17 N•m (151 lbf•in)			
Water pump housing	10 N•m (89 lbf•in)			
Fan mount screw/nut	7 N•m (62 lbf•in)			
Temperature sender on radiator	11 N•m (97 lbf•in)			
• EXHAUST				
Exhaust nut	11 N•m (97 lbf•in)		None	
Heat shield screws	13 N•m (115 lbf•in)			
Exhaust support	23 N•m (17 lbf•ft)			
• LUBRICATION				
Engine drain plug	30 N•m (22 lbf•ft)		None	
Engine oil strainer cover	10 N•m (89 lbf•in)			
Oil pump housing	10 N•m (89 lbf•in)			
Oil pressure regulator plug	11 N•m (97 lbf•in)			
Oil pressure switch	12 N•m (106 lbf•in)		Loctite 243	
• CYLINDER AND HEAD				
Valve cover	7 N•m (62 lbf•in)		None	
Cylinder head screw	M6	10 N•m (89 lbf•in)		
	M11	First torque 20 N•m (15 lbf•ft) Final torque 60 N•m (44 lbf•ft)		
Intake adaptor	25 N•m (18 lbf•ft)			
Camshaft timing gear	25 N•m (18 lbf•ft)			
Chain guide	10 N•m (89 lbf•in)		Loctite 243	
Chain tensioner housing	8 N•m (71 lbf•in)			
Chain tensioner plug	4.5 N•m (40 lbf•in)		None	

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL	OUTLANDER™ 400 H.O.			SERVICE PRODUCT
	2 X 4	4 X 4	XT	
TORQUE				
• CRANKSHAFT				
Crankcase housing screw	M6	10 N•m (89 lbf•in)		None
	M8	25 N•m (18 lbf•ft)		
Connecting rod	20 N•m (15 lbf•ft) + 70° rotation			
Crankshaft locking access screw	25 N•m (18 lbf•ft)			
• GEARBOX				
Bearing screw	10 N•m (89 lbf•in)			Loctite 243
Index lever	10 N•m (89 lbf•in)			
Starter drive pinion cover	8 N•m (71 lbf•in)			
Shifting indicator switch	4 N•m (35 lbf•in)			
• CVT				
CVT cover	7 N•m (62 lbf•in)			None
Centrifugal lever bolt	5 N•m (44 lbf•in)			
Drive pulley	100 N•m (74 lbf•ft), refer to CVT section for proper procedure			
Driven pulley	60 N•m (44 lbf•ft)			
• FUEL				
Carburetor mounting clamp	2.5 N•m (22 lbf•in)			None
Fuel pump screw	5.5 N•m (49 lbf•in)			
Fuel valve nut	10 N•m (89 lbf•in)			
• DRIVE TRAIN				
Wheel hub nut	145 N•m (107 lbf•ft) (MINIMUM)			None
Front differential mounting bolt	Front	75 N•m (55 lbf•ft)		
Rear differential mounting bolt	Lower	90 N•m (66 lbf•ft)		
	Upper	90 N•m (66 lbf•ft)		
Front propeller shaft screw	Differential side	42 N•m (31 lbf•ft)		
Rear propeller shaft screw	Engine side	34 N•m (26 lbf•ft)		
	Differential side	42 N•m (31 lbf•ft)		
Rear differential protector	Hexagonal screw	2.5 N•m (22 lbf•in)		
Differential oil drain plug	Front/rear	13 N•m (115 lbf•in)		
Differential filler plug	Front/rear	13 N•m (115 lbf•in)		
Differential housing Torx screw	Front/rear	33 N•m (24 lbf•ft)		
Pinion gear nut	Front differential	150 N•m (111 lbf•ft)		
	Rear differential	150 N•m (111 lbf•ft)		
Disconnect unit mounting bolts	24 N•m (18 lbf•ft)			
Disconnect unit actuator mounting bolts	18 N•m (13 lbf•ft)			
2 WD/4 WD selector (4 X 4 models only)	18 N•m (13 lbf•ft)			
• WHEEL				
Wheel nuts	70 N•m (52 lbf•ft)			Anti-seize
• STEERING				
Tie rod ends	75 N•m (55 lbf•ft)			None
Steering arm (castellated nut)	75 N•m (55 lbf•ft)			
Handlebar screws	24 N•m (18 lbf•ft)			
Steering column half housing bolts	24 N•m (18 lbf•ft)			
Handle grip screw	0.5 N•m (4 lbf•in)			
Flanged bearing bolts	10 N•m (89 lbf•in)			Loctite 243

Section 11 TECHNICAL DATA

Subsection 03 (OUTLANDER 400)

VEHICLE MODEL	OUTLANDER™ 400 H.O.			SERVICE PRODUCT
	2 X 4	4 X 4	XT	
TORQUE				
• <i>SUSPENSION</i>				
Trailing arm nut	190 N•m (140 lbf•ft)			Loctite 243
McPershon strut nut	55 N•m (41 lbf•ft)			
McPershon strut bolt	80 N•m (59 lbf•ft)			
A-arm bolt	48 N•m (35 lbf•ft)			None
Ball joint	A-arm	23 N•m (17 lbf•ft)		
	Knuckle	48 N•m (35 lbf•ft)		
A-arm protector	4 N•m (35 lbf•in)			
Rear shock absorber bolt	48 N•m (35 lbf•ft)			
Torsion bar nut	120 N•m (89 lbf•ft) refer to REAR SUSPENSION section for proper procedure			
• <i>BRAKE</i>				
Caliper brake screws	Front	34 N•m (25 lbf•ft)		None
	Rear	24 N•m (18 lbf•ft)		
Brake disc screws	Front	24 N•m (18 lbf•ft)		
	Rear	34 N•m (25 lbf•ft)		
Master cylinder bolts	24 N•m (18 lbf•ft)			
BANJO bolt	24 N•m (18 lbf•ft)			
Caliper bleeder valve	5 N•m (44 lbf•in)			
Master cylinder rod nut	5 N•m (44 lbf•in)			
Hydraulic brake light switch	7 N•m (62 lbf•in)			Pipe sealant
• <i>BODY AND FRAME</i>				
Front skid plate	M6	2.5 N•m (22 lbf•in)		None
	M10	8 N•m (71 lbf•in)		
Front bumper	M8	24 N•m (18 lbf•ft)		
	M10	48 N•m (35 lbf•ft)		
Front/rear racks	4.5 N•m (40 lbf•in)			
Winch plate support	N.A.		24 N•m (18 lbf•ft)	
Winch bolts	N.A.		15 N•m (133 lbf•in)	
Fairlead	N.A.		15 N•m (133 lbf•in)	
Footpeg	4.5 N•m (39 lbf•in)			
Headlamp housing	1 N•m (9 lbf•in)			
Fender support	Front	18 N•m (13 lbf•ft) MINIMUM		
	Rear	21 N•m (15 lbf•ft) MAXIMUM		Loctite 243 (rear only)

OUTLANDER MAX

VEHICLE MODEL			OUTLANDER™ MAX	OUTLANDER™ MAX XT
ENGINE				
Engine type			BOMBARDIER-ROTAX, 4-stroke, Over Head Camshaft (OHC), liquid cooled	
Starting system			Electric start and manual rewind starter. Start in any gear (with brakes applied)	
Number of cylinder(s)			1	
Number of valves			4 valves (mechanical adjustment)	
Decompressor type			Automatic	
Bore	Standard	mm (in)	91 (3.58)	
Stroke		mm (in)	61.5 (2.42)	
Displacement		cm ³ (in ³)	400 (24.41)	
Compression ratio		± 0.3	10.3:1	
Lubrication			Wet sump with replaceable oil filter	
Oil filter			BOMBARDIER-ROTAX	
Air filter type			2 stage foam filter	
Exhaust system	Type		Nelson, steel	
	Spark arrester		USDA Forest Service approved	
Intake valve opening			15.00° BTDC	
Intake valve closing			45.00° ABDC	
Exhaust valve opening			50.00° BBDC	
Exhaust valve closing			10.00° ATDC	
Chain tensioner plunger protrusion		Wear limit	mm (in)	20.0 (.7874)
Valve clearance	Intake		mm (in)	0.06 (.0024) to 0.14 (.0055)
	Exhaust		mm (in)	0.11 (.0043) to 0.19 (.0075)
Valve/valve stem clearance	Intake	New minimum	mm (in)	4.966 (.1955)
		New maximum	mm (in)	4.980 (.1960)
		Wear limit	mm (in)	4.930 (.1940)
	Exhaust	New minimum	mm (in)	4.956 (.1951)
		New maximum	mm (in)	4.970 (.1957)
		Wear limit	mm (in)	4.930 (.1940)
Valve guide diameter		New minimum	mm (in)	5.006 (.1971)
		New maximum	mm (in)	5.018 (.1976)
		Wear limit	mm (in)	5.050 (.1988)
Valve spring free length		New nominal	mm (in)	40.81 (1.607)
		Service limit	mm (in)	39.00 (1.535)
Valve seat contact width	Intake	New	mm (in)	1.15 to 1.35 (.045 to .053)
		Wear limit	mm (in)	1.8 (.07)
	Exhaust	New	mm (in)	1.25 to 1.55 (.049 to .061)
		Wear limit	mm (in)	2 (.078)
Piston measurement		New nominal	mm (in)	90.950 to 90.966 (3.580 to 3.581)
Piston/cylinder clearance		New nominal	mm (in)	0.027 to 0.057 (.0011 to .0022)
		Wear limit	mm (in)	0.1 (.004)
Piston ring type		Upper compression ring		Rectangular
		Lower compression ring		Taper-face
		Oil scraper ring		Standard
Piston ring end gap	Upper compression ring	New minimum	mm (in)	0.2 (.008)
	Lower compression ring		mm (in)	0.2 (.008)
	Oil scraper ring		mm (in)	0.2 (.008)
	Upper compression ring	New maximum	mm (in)	0.40 (.016)
	Lower compression ring		mm (in)	0.40 (.016)
	Oil scraper ring		mm (in)	0.70 (.028)
	All	Wear limit	mm (in)	1.5 (.06)

Section 11 TECHNICAL DATA

Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL				OUTLANDER™ MAX	OUTLANDER™ MAX XT
ENGINE					
Piston/ring groove clearance	Upper compression ring	New minimum	mm (in)	0.030 (.0012)	
	Lower compression ring		mm (in)	0.020 (.0008)	
	Oil scraper ring		mm (in)	0.010 (.0004)	
	Upper compression ring	New maximum	mm (in)	0.070 (.0028)	
	Lower compression ring		mm (in)	0.060 (.0024)	
	Oil scraper ring		mm (in)	0.045 (.0018)	
	All	Wear limit	mm (in)	0.15 (.006)	
Rocker arm bore diameter		New minimum	mm (in)	12.036 (.4739)	
		New maximum	mm (in)	12.050 (.4744)	
		Wear limit	mm (in)	12.060 (.4748)	
Rocker arm shaft diameter		New minimum	mm (in)	12.007 (.4727)	
		New maximum	mm (in)	12.018 (.4732)	
		Wear limit	mm (in)	11.990 (.4720)	
Cylinder bore		New nominal	mm (in)	90.993 to 91.007 (3.582 to 3.583)	
Cylinder taper		New maximum	mm (in)	0.038 (.001)	
		Wear limit	mm (in)	0.090 (.004)	
Cylinder out of round		New maximum	mm (in)	0.015 (.0006)	
		Wear limit	mm (in)	0.02 (.0008)	
Camshaft bearing journal	PTO side	New minimum	mm (in)	21.959 (.8645)	
		New maximum	mm (in)	21.980 (.8654)	
		Wear limit	mm (in)	21.950 (.8642)	
	Magneto side	New minimum	mm (in)	34.959 (1.3763)	
		New maximum	mm (in)	34.975 (1.3770)	
		Wear limit	mm (in)	34.950 (1.3760)	
Camshaft bore	PTO side	New minimum	mm (in)	22.000 (.8661)	
		New maximum	mm (in)	22.021 (.8670)	
		Wear limit	mm (in)	22.040 (.8677)	
	Magneto side	New minimum	mm (in)	35.000 (1.3780)	
		New maximum	mm (in)	35.025 (1.3789)	
		Wear limit	mm (in)	35.040 (1.3795)	
Cam lobe	Intake	New minimum	mm (in)	32.343 (1.2733)	
		New maximum	mm (in)	32.363 (1.2741)	
		Wear limit	mm (in)	32.300 (1.2717)	
	Exhaust	New minimum	mm (in)	32.027 (1.2609)	
		New maximum	mm (in)	32.047 (1.2617)	
		Wear limit	mm (in)	32.000 (1.2598)	
Crankshaft axial clearance		New minimum	mm (in)	0.1 (.0039)	
Crankshaft deflection	MAG side	New nominal	mm (in)	0.05 (.0020)	
	PTO side	New nominal	mm (in)	0.05 (.0020)	
Crankshaft pin diameter		New minimum	mm (in)	40.009 (1.5752)	
		New maximum	mm (in)	40.025 (1.5758)	
		Wear limit	mm (in)	39.980 (1.5740)	
Crankshaft journal diameter	MAG/PTO side	New minimum	mm (in)	42.024 (1.6545)	
		New maximum	mm (in)	42.040 (1.6551)	
		Wear limit	mm (in)	42.000 (1.6535)	
Crankcase plain bearing	MAG side	Wear limit	mm (in)	42.070 (1.6563)	
	PTO side	Wear limit	mm (in)	42.070 (1.6563)	
Crankshaft radial clearance	MAG side	Service limit	mm (in)	0.07 (.0028)	
	PTO side				
Connecting rod big end diameter		New minimum	mm (in)	40.020 (1.5756)	
		New maximum	mm (in)	40.051 (1.5768)	
		Service limit	mm (in)	40.100 (1.5787)	
Connecting rod big end clearance		Service limit	mm (in)	0.09 (.0035)	

Section 11 TECHNICAL DATA
Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL			OUTLANDER™ MAX	OUTLANDER™ MAX XT
ENGINE				
Connecting rod big end axial play	New minimum	mm (in)	0.100 (.004)	
	New maximum	mm (in)	0.352 (.014)	
	Wear limit	mm (in)	0.5 (.02)	
Connecting rod small end diameter	New minimum	mm (in)	20.01 (.7878)	
	New maximum	mm (in)	20.02 (.7882)	
	Wear limit	mm (in)	20.06 (.7898)	
Piston pin diameter	New minimum	mm (in)	19.996 (.7872)	
	New maximum	mm (in)	20.000 (.7874)	
	Wear limit	mm (in)	19.980 (.7867)	
Piston pin bore clearance	Wear limit	mm (in)	0.080 (.0035)	
Drive belt	New nominal	mm (in)	32.00 (1.260)	
	Service limit	mm (in)	30.00 (1.181)	
Governor cup roller diameter	New minimum	mm (in)	13.70 (.539)	
	New maximum	mm (in)	13.90 (.547)	
	Service limit	mm (in)	13.20 (.519)	
Centrifugal lever pivot bolt diameter	New minimum	mm (in)	6.078 (.239)	
	New maximum	mm (in)	6.100 (.240)	
	Service limit	mm (in)	6.000 (.236)	
Centrifugal lever bore diameter	Service limit	mm (in)	6.200 (.244)	
Centrifugal lever pivot bolt bore diameter	New minimum	mm (in)	6.113 (.241)	
	New maximum	mm (in)	6.171 (.243)	
	Service limit	mm (in)	6.300 (.248)	
Drive pulley sliding half large bushing	New minimum	mm (in)	55.000 (2.165)	
	New maximum	mm (in)	55.020 (2.166)	
	Service limit	mm (in)	55.200 (2.173)	
Drive pulley sliding half small bushing	New minimum	mm (in)	30.000 (1.181)	
	New maximum	mm (in)	30.020 (1.182)	
	Service limit	mm (in)	30.200 (1.189)	
One-way clutch bushing diameter	New minimum	mm (in)	39.990 (1.574)	
	New maximum	mm (in)	40.085 (1.578)	
	Service limit	mm (in)	40.100 (1.579)	
Driven pulley sliding half busing diameter	New minimum	mm (in)	30.000 (1.181)	
	New maximum	mm (in)	30.020 (1.182)	
	Service limit	mm (in)	30.200 (1.189)	
Driven pulley fixed half busing diameter	New minimum	mm (in)	30.000 (1.181)	
	New maximum	mm (in)	30.020 (1.182)	
	Service limit	mm (in)	30.200 (1.189)	
Torque gear on driven pulley	Service limit	mm (in)	7.500 (.295)	
Main shaft	MAG side	mm (in)	17.990 (.708)	
	PTO side	mm (in)	24.950 (.982)	
Bevel gear shaft	PTO side	mm (in)	24.990 (.984)	

Section 11 TECHNICAL DATA

Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL	OUTLANDER™ MAX		OUTLANDER™ MAX XT
ELECTRICAL			
Magneto/generator			400 W @ 6000 RPM
Ignition system type			C.D.I. (Capacitive Discharge Ignition)
Ignition timing			Not adjustable
Spark plug	Quantity	1	
	Make and type	NGK DCPR8E	
	Gap	mm (in)	0.7 to 0.8 (.028 to .032)
CPS (Crankshaft Position Sensor)	Ω	190 – 300	
Starter coil	Ω	0.4 ± 01 @ 20°C (68°F)	
Ignition coil	Primary	Ω	1.0 ± 0.15 @ 20°C (68°F)
	Secondary	kΩ	11.5 ± 2.3 @ 20°C (68°F)
Engine RPM limiter	Forward	RPM	8000
	Reverse	RPM	4000 ± 100
Battery	Type	Dry battery type	
	Voltage	12 volts	
	Nominal rating	13 A•h	
	Power starter output	1.2 KW	
Headlight			2 x 30 W, HOBBS 81425
Taillight			8/27 W, 1157
Pilot lamp cluster			LEDS, 0.7 V approximately (each)
Fuses	Accessories	15 A (power outlet and auxiliary supply)	
	Fan	15 A	
	Main	20 A	
	Charging system	30 A	
CARBURETION			
Carburetor	Type	Mikuni constant depression type with manual choke and ECS (Enricher Coasting System)	
	Model	BSR33	
Fuel pump	Type	Mikuni (Pulsation pump)	
	Model	External (vacuum-operated)	
Idle engine speed	RPM	1300 ± 100	
Main jet			133.8
Pilot jet			32.5
Needle jet			(826) P-4
Jet needle			5 FEY 1
Clip position number			3
Choke plunger position			Variable choke
Adjustment	Throttle cable	0.5 mm (.02 in)	
	Preliminary pilot screw turn	2.5	
	Float level	± 0.5 mm	10.0
± 0.020 in		.390	
Fuel	Type	Regular unleaded gasoline	
	Octane no.	87 (Ron + Mon)/2	
COOLING			
Coolant	Ethyl glycol/water mix (50% coolant, 50% water). Use coolant specifically designed for aluminum engines		
Fan	Thermostatic		
Coolant temperature switch	Operating temperature	115°C (239°F)	
	Closing temperature	110°C (230°F)	
Fan thermostat	Switch ON	95°C (203°F)	
	Switch OFF	90°C (194°F)	
Engine thermostat	Opening temperature	65°C (149°F)	
	Closing temperature	75°C (167°F)	
Radiator cap opening pressure	110 kPa (16 PSI)		

Section 11 TECHNICAL DATA
Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL		OUTLANDER™ MAX	OUTLANDER™ MAX XT
LUBRICATION			
Oil pressure switch operation		30 to 60 kPa (4.35 to 8.70 PSI)	
Engine oil pressure (min.)		350 kPa (51 PSI)	
DRIVE TRAIN			
Transmission	Type	CVT (Continuously Variable Transmission). Dual range (HI-LO) with park, neutral and reverse	
Engagement RPM	± 100 RPM	1450	
Front differential		Shaft driven/single Auto-lock differential (pump driven)	
Front differential ratio		3.6:1	
Rear axle		Shaft driven/single differential	
Rear axle ratio		3.6:1	
STEERING			
Turning radius		1.83 m (6 ft)	
Total toe (vehicle on ground)	mm (in)	0 ± 4 (0 ± .157)	
Camber angle		0°	
Tie-rod maximum length unengaged	mm (in)	286.5 ± 5 (11.28 ± 0.197)	
SUSPENSION			
• FRONT			
Suspension type		McPherson Strut	
Suspension travel	mm (in)	178 (7)	
Shock absorber	Qty	2	
	Type	Oil	
Spring free length	mm (in)	354 (14)	
Spring color code		Blue/Red/Blue	
Front preload adjustment		N.A.	
• REAR			
Suspension type		Trailing arms	
Suspension travel	mm (in)	203 (8)	
Shock absorber	Qty	2	
	Type	Oil	
Spring free length	mm (in)	371 (14.6)	
Spring color code		Blue/Black/Blue	
Rear preload adjustment		5 settings	
BRAKES			
Front brake	Qty	2	
	Type	Hydraulic, discs	
Rear brake	Qty	1	
	Type	Hydraulic, disc	
Parking brake		Hydraulic (lock-4 wheels)	
Caliper		Floating	
Lining material	Front	Organic	
	Rear	Metallic	
Minimum pad thickness	mm (in)	1 (.04)	
Minimum brake disk thickness	mm (in)	3.5 (.138)	
	mm (in)	4.3 (.17)	
Maximum brake disk warp	mm (in)	0.2 (.01)	

Section 11 TECHNICAL DATA

Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL		OUTLANDER™ MAX	OUTLANDER™ MAX XT
TIRES AND WHEELS			
• <i>TIRE</i>			
Pressure	Up to 235 kg (517 lb)	Front	34 kPa (5 PSI) MAXIMUM
		Front	31 kPa (4.5 PSI) MINIMUM
		Rear	34 kPa (5 PSI) MAXIMUM
		Rear	31 kPa (4.5 PSI) MINIMUM
Minimum tire thread depth		mm (in)	3 (0.118)
Size	Front	25 x 8 x 12	
	Rear	25 x 10 x 12	
• <i>WHEELS</i>			
Size	Front	12 x 6	
	Rear	12 x 7.5	
DIMENSION			
Overall length		mm (in)	2387 (94)
Overall width		mm (in)	1168 (46)
Overall height		mm (in)	1143 (45)
Dry weight		kg (lb)	272 (598)
Wheel base		mm (in)	1447 (57)
Wheel track	Front	mm (in)	965 (38)
	Rear	mm (in)	914 (36)
Front and under engine ground clearance		mm (in)	236 (9.3)
Rear rigid axle ground clearance		mm (in)	236 (9.3)
CAPACITIES			
• <i>LIQUID</i>			
Fuel tank			16 L (4.2 U.S. gal)
Fuel tank reserve			2 L (0.6 U.S. gal)
Engine/transmission oil	Capacity		3 L (3.17 quarts)
	Recommended		SAE, 4 stroke mineral based oil SG, SH or SJ or Bombardier synthetic oil 5W40. Refer to the oil viscosity chart in the MAINTENANCE section
Differential oil	Capacity	Front	500 mL (17 U.S. oz)
		Rear	300 mL (10 U.S. oz)
	Recommended		Synthetic polyolester oil 75W90 (API GL5)
CV joint grease			TEXACO, HTBJ grease (M3014), ONLY
Propeller shaft grease			SHELL, Alvania EP-2, ONLY
Hydraulics brakes	Capacity		250 mL (8.5 U.S. oz)
	Recommended		Brake fluid DOT 4, ONLY
Cooling system			2.5 L (2.65 quarts)
• <i>BODY AND FRAME</i>			
Weight distribution	Front/rear	%	46/54
Rear storage box (included with rear rack weight)			10 kg (22 lb)
Rack	Front		40 kg (90 lb)
	Rear (including rear storage box and tongue weight)		80 kg (175 lb)
Total vehicle load allowed (including driver, all other loads and added accessories)			235 kg (517 lb)
Gross vehicle weight rating			460 kg (1014 lb)
Towing			500 kg (1100 lb)
Tongue (included with rear rack weight)			14 kg (30 lb)

Section 11 TECHNICAL DATA
Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL		OUTLANDER™ MAX	OUTLANDER™ MAX XT
MATERIAL			
Frame	Material	Steel	
	Color	Black	
Wheel	Material	Steel	
	Color	Moondust pearl	
Front/rear rack	Material	Polypropylene (glass fiber-reinforced)	
	Color	Earth grey	
Front bumper	Material	Aluminum	
	Color	Aluminum	
Front/rear fender	Material	High density polyethylene	
	Color	Laurentian green/Viper red	
Fuel tank protector	Material	High density polyethylene	
	Color	Black	
Steering cover	Material	Polypropylene	
	Color	Earth grey	
Storage compartment cover	Material	Polypropylene (glass fiber-reinforced)	
	Color	Earth grey	
Front facia	Material	High density polyethylene	
	Color	Laurentian green/Viper red	
Front skid plate	Material	High density polyethylene	
	Color	Earth grey	
Side panel	Material	High density polyethylene	
	Color	Laurentian green/Viper red	
Foot rest	Material	High density polyethylene	
	Color	Black	
Console	Material	High density polyethylene	
	Color	Laurentian green/Viper red	
Air box cover	Material	Polypropylene (glass fiber-reinforced)	
	Color	Black	
Air box	Material	Polypropylene (glass fiber-reinforced)	
	Color	Black	
Transmission lever locator	Material	Polypropylene (glass fiber-reinforced)	
	Color	Earth grey	
A-arm protector	Material	Polypropylene	
	Color	Black	
Engine cover	Material	High density polyethylene	
	Color	Earth grey	
Seat base	Material	Polypropylene	
	Color	Black	
Seat cover	Material	Thermoformed vinyl	
	Color	Deep earth grey	

Section 11 TECHNICAL DATA

Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL		OUTLANDER™ MAX	OUTLANDER™ MAX XT	SERVICE PRODUCT
TORQUE				
• ENGINE				
Lower engine mounting bracket	M8	23 N•m (17 lbf•ft)		None
Lower engine mounting bolts	M10	48 N•m (35 lbf•ft)		
Upper engine support				
Spark plug		20 N•m (15 lbf•ft)		
Oil filter screw		10 N•m (89 lbf•in)		
Magneto cover bolts	M6	10 N•m (89 lbf•in)		
	M8	25 N•m (18 lbf•ft)		
Starter bolts		10 N•m (89 lbf•in)		
Vehicle speed sensor		10 N•m (89 lbf•in)		
Winch solenoid		N.A.	9 N•m (80 lbf•in)	
CPS bolt		10 N•m (89 lbf•in)		
Engine cover		5 N•m (44 lbf•in)		
Starter RED (+) cable		6 N•m (53 lbf•in)		
Rotor nut		180 N•m (133 lbf•ft)		Loctite 243
Stator bolt		10 N•m (89 lbf•in)		
• COOLING				
Radiator mount screw/nut		10 N•m (89 lbf•in)		None
Thermostat housing		7 N•m (62 lbf•in)		
Thermostat bleeding screw		5 N•m (44 lbf•in)		
Temperature sensor		17 N•m (151 lbf•in)		
Water pump housing		10 N•m (89 lbf•in)		
Fan mount screw/nut		7 N•m (62 lbf•in)		
Temperature sender on radiator		11 N•m (97 lbf•in)		
• EXHAUST				
Exhaust nut		11 N•m (97 lbf•in)		None
Heat shield screws		13 N•m (115 lbf•in)		
Exhaust support		23 N•m (17 lbf•ft)		
• LUBRICATION				
Engine drain plug		30 N•m (22 lbf•ft)		None
Engine oil strainer cover		10 N•m (89 lbf•in)		
Oil pump housing		10 N•m (89 lbf•in)		
Oil pressure regulator plug		11 N•m (97 lbf•in)		
Oil pressure switch		12 N•m (106 lbf•in)		
• CYLINDER AND HEAD				
Valve cover		7 N•m (62 lbf•in)		None
Cylinder head screw	M6	10 N•m (89 lbf•in)		
	M11	First torque 20 N•m (15 lbf•ft) Final torque 60 N•m (44 lbf•ft)		
Intake adaptor		25 N•m (18 lbf•ft)		
Camshaft timing gear		25 N•m (18 lbf•ft)		Loctite 243
Chain guide		10 N•m (89 lbf•in)		
Chain tensioner housing		8 N•m (71 lbf•in)		
Chain tensioner plug		4.5 N•m (40 lbf•in)		None
• CRANKSHAFT				
Crankcase housing screw	M6	10 N•m (89 lbf•in)		None
	M8	25 N•m (18 lbf•ft)		
Connecting rod		20 N•m (15 lbf•ft) + 70° rotation		
Crankshaft locking access screw		25 N•m (18 lbf•ft)		

Section 11 TECHNICAL DATA
Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL	OUTLANDER™ MAX		OUTLANDER™ MAX XT	SERVICE PRODUCT
TORQUE				
• GEARBOX				
Bearing screw			10 N•m (89 lbf•in)	Loctite 243
Index lever			10 N•m (89 lbf•in)	
Starter drive pinion cover			8 N•m (71 lbf•in)	
Shifting indicator switch			4 N•m (35 lbf•in)	
• CVT				
CVT cover			7 N•m (62 lbf•in)	None
Centrifugal lever bolt			5 N•m (44 lbf•in)	
Drive pulley			100 N•m (74 lbf•ft), refer to CVT section for proper procedure	
Driven pulley			60 N•m (44 lbf•ft)	
• FUEL				
Carburetor mounting clamp			2.5 N•m (22 lbf•in)	None
Fuel pump screw			5.5 N•m (49 lbf•in)	
Fuel valve nut			10 N•m (89 lbf•in)	
• DRIVE TRAIN				
Wheel hub nut			145 N•m (107 lbf•ft) (MINIMUM)	None
Front differential mounting bolt	Front	75 N•m (55 lbf•ft)		
Rear differential mounting bolt	Lower	90 N•m (66 lbf•ft)		
	Upper			
Front propeller shaft screw	Differential side	42 N•m (31 lbf•ft)		
Rear propeller shaft screw	Engine side	34 N•m (25 lbf•ft)		
	Differential side	42 N•m (31 lbf•ft)		
Rear differential protector	Hexagonal screw	2.5 N•m (22 lbf•in)		
Differential oil drain plug	Front/rear	13 N•m (115 lbf•in)		
Differential filler plug	Front/rear	13 N•m (115 lbf•in)		
Differential housing Torx screw	Front/rear	33 N•m (24 lbf•ft)		
Pinion gear nut	Front differential	150 N•m (111 lbf•ft)		
	Rear differential			
Disconnect unit mounting bolts			24 N•m (18 lbf•ft)	None
Disconnect unit actuator mounting bolts			18 N•m (13 lbf•ft)	
2 WD/4 WD selector			18 N•m (13 lbf•ft)	
• WHEEL				
Wheel nuts			70 N•m (52 lbf•ft)	Anti-seize
• STEERING				
Tie rod ends			75 N•m (55 lbf•ft)	None
Steering arm (castellated nut)			75 N•m (55 lbf•ft)	
Handlebar screws			24 N•m (18 lbf•ft)	
Steering column half housing bolts			24 N•m (18 lbf•ft)	
Handle grip screw			0.5 N•m (4 lbf•in)	
Flanged bearing bolts			10 N•m (89 lbf•in)	Loctite 243

Section 11 TECHNICAL DATA

Subsection 04 (OUTLANDER MAX)

VEHICLE MODEL	OUTLANDER™ MAX		OUTLANDER™ MAX XT	SERVICE PRODUCT
TORQUE				
• SUSPENSION				
Trailing arm nut			190 N•m (140 lbf•ft)	Loctite 243
McPershon strut nut			55 N•m (41 lbf•ft)	
McPershon strut bolt			80 N•m (59 lbf•ft)	None
A-arm bolt			48 N•m (35 lbf•ft)	
Ball joint	A-arm		23 N•m (17 lbf•ft)	
	Knuckle		48 N•m (35 lbf•ft)	
A-arm protector			4 N•m (35 lbf•in)	
Rear shock absorber bolt			48 N•m (35 lbf•ft)	
Torsion bar nut			120 N•m (89 lbf•ft) refer to REAR SUSPENSION section for proper procedure	
• BRAKE				
Caliper brake screws	Front		34 N•m (25 lbf•ft)	None
	Rear		24 N•m (18 lbf•ft)	
Brake disc screws	Front		24 N•m (18 lbf•ft)	
	Rear		34 N•m (25 lbf•ft)	
Master cylinder bolts			24 N•m (18 lbf•ft)	
BANJO bolt			24 N•m (18 lbf•ft)	
Caliper bleeder valve			5 N•m (44 lbf•in)	
Master cylinder rod nut			5 N•m (44 lbf•in)	
Hydraulic brake light switch			7 N•m (62 lbf•in)	Pipe sealant
• BODY AND FRAME				
Front skid plate	M6		2.5 N•m (22 lbf•in)	None
	M10		8 N•m (71 lbf•in)	
Front bumper	M8		24 N•m (18 lbf•ft)	
	M10		48 N•m (35 lbf•ft)	
Front/rear racks			4.5 N•m (40 lbf•in)	
Footpeg			4.5 N•m (39 lbf•in)	
Winch plate support		N.A.	24 N•m (18 lbf•ft)	
Winch bolts		N.A.	15 N•m (133 lbf•in)	
Fairlead		N.A.	15 N•m (133 lbf•in)	
Backrest			24 N•m (18 lbf•ft)	
Grab handle			10 N•m (89 lbf•in)	
Headlamp housing			1 N•m (9 lbf•in)	
Fender support	Front		18 N•m (13 lbf•ft) MINIMUM	Loctite 243 (rear only)
	Rear		21 N•m (15 lbf•ft) MAXIMUM	