# 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 | 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 x 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.

# QUEST 500/QUEST 500 XT

| VEHICLE MODEL | | | | QUEST 500 | QUEST 500 XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Engine type | | | | BOMBARDIER-ROTAX, 4-stroke, Over Head Camshaft (OHC), liquid cooled | |
| Starting system | | | | Electric with optional recoil | |
| Number of cylinder(s) | | | | 1 | |
| Number of valves | | | | 4 valves with hydraulic lifters (no adjustment) | |
| Decompressor type | | | | Automatic | |
| Bore | | Standard | mm (in) | 100 (3.9) | |
| Stroke | | | mm (in) | 63 (2.5) | |
| Displacement | | | $cm^3$ ($in^3$) | 498 (3.04) | |
| Compression ratio | | | | 10.5:1 | |
| Maximum HP RPM | | | ± 100 RPM | 7000 | |
| Air filter type | | | | 2 stage foam filter | |
| Exhaust system | | Type | | Nelson, stainless steel | |
| | | Spark arrester | | USDA Forest Service approved | |
| Intake valve opening | | | | 10.00° BTDC | |
| Intake valve closing | | | | 55.00° ABDC | |
| Exhaust valve opening | | | | 50.00° BBDC | |
| Exhaust valve closing | | | | 5.00° ATDC | |
| Valve stem diameter | Intake | New minimum | mm (in) | 5.961 (.2347) | |
| | | New maximum | mm (in) | 5.975 (.2352) | |
| | | Wear limit | mm (in) | 5.930 (.2330) | |
| | Exhaust | New minimum | mm (in) | 5.946 (.2341) | |
| | | New maximum | mm (in) | 5.960 (.2346) | |
| | | Wear limit | mm (in) | 5.930 (.2330) | |
| Valve guide diameter | | Wear limit | mm (in) | 6.060 (.2386) | |
| Valve spring free length | | New | mm (in) | 45.45 (1.789) | |
| | | Wear limit | mm (in) | 43.00 (1.693) | |
| Valve seat contact width | Intake | New | mm (in) | 1.10 to 1.30 (.043 to .051) | |
| | | 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 | mm (in) | 99.951 to 99.969 (3.935 to 3.936) | |
| | | Wear limit | mm (in) | 99.80 (3.929) | |
| Piston/cylinder clearance | | New | mm (in) | 0.031 to 0.059 (.001 to .002) | |
| | | Wear limit | mm (in) | 0.090 (.004) | |
| Piston ring type | | | 1st | Upper compression ring | |
| | | | 2nd | Lower compression ring | |
| | | | 3rd | Oil scraper ring | |
| Piston ring end gap | Upper compression ring | New minimum | mm (in) | 0.15 (.006) | |
| | Lower compression ring | | mm (in) | 0.15 (.006) | |
| | Oil scraper ring | | mm (in) | 0.15 (.006) | |
| | Upper compression ring | New maximum | mm (in) | 0.35 (.014) | |
| | Lower compression ring | | mm (in) | 0.35 (.014) | |
| | Oil scraper ring | | mm (in) | 0.30 (.012) | |
| | All | Wear limit | mm (in) | 1.5 (.06) | |

| VEHICLE MODEL | | | | QUEST 500 | QUEST 500 XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Piston/ring groove clearance | Upper compression ring | New minimum | mm (in) | 0.025 (.001) | |
| | Lower compression ring | | mm (in) | 0.015 (.0006) | |
| | Oil scraper ring | | mm (in) | 0.020 (.0008) | |
| | Upper compression ring | New maximum | mm (in) | 0.070 (.0028) | |
| | Lower compression ring | | mm (in) | 0.060 (.0024) | |
| | Oil scraper ring | | mm (in) | 0.055 (.0021) | |
| Rocker arm bore diameter | | New minimum | mm (in) | 20.007 (.7877) | |
| | | New maximum | mm (in) | 20.020 (.7881) | |
| | | Wear limit | mm (in) | 20.035 (.7887) | |
| Rocker arm shaft diameter | | New minimum | mm (in) | 19.980 (.7866) | |
| | | New maximum | mm (in) | 19.993 (.7871) | |
| | | Wear limit | mm (in) | 19.965 (.7860) | |
| Cylinder screw M11 | | Service limit | mm (in) | 216.5 (8.524) | |
| Cylinder bore | | New nominal | mm (in) | 99.993 to 100.007 (73.751 to 73.761) | |
| Cylinder taper | | New maximum | mm (in) | 0.038 (.0015) | |
| | | Wear limit | mm (in) | 0.090 (.004) | |
| Cylinder out of round | | New maximum | mm (in) | 0.01 (.0004) | |
| | | Wear limit | mm (in) | 0.02 (.0008) | |
| Camshaft bearing journal | PTO side | New minimum | mm (in) | 24.967 (.9829) | |
| | | New maximum | mm (in) | 24.980 (.9835) | |
| | | Wear limit | mm (in) | 24.960 (9827) | |
| | Magneto side | New minimum | mm (in) | 39.927 (1.5719) | |
| | | New maximum | mm (in) | 39.935 (1.5722) | |
| | | Wear limit | mm (in) | 39.920 (1.5716) | |
| Camshaft bore | PTO side | New minimum | mm (in) | 25.000 (.9842) | |
| | | New maximum | mm (in) | 25.013 (.9848) | |
| | | Wear limit | mm (in) | 25.020 (.9850) | |
| | Magneto side | New minimum | mm (in) | 40.000 (1.5748) | |
| | | New maximum | mm (in) | 40.016 (1.5754) | |
| | | Wear limit | mm (in) | 40.020 (1.5756) | |
| Cam lobe | Intake | New minimum | mm (in) | 31.369 (1.235) | |
| | | New maximum | mm (in) | 31.569 (1.243) | |
| | | Wear limit | mm (in) | 31.300 (1.232) | |
| | Exhaust | New minimum | mm (in) | 31.147 (1.226) | |
| | | New maximum | mm (in) | 31.347 (1.234) | |
| | | Wear limit | mm (in) | 31.100 (1.224) | |
| Crankshaft axial clearance | | New minimum | mm (in) | 0.2 (.0078) | |
| | | New maximum | mm (in) | 0.5 (.0196) | |
| Crankshaft deflection | MAG side | Service limits | mm (in) | 0.05 (.0020) | |
| | PTO side | | | 0.05 (.0020) | |
| Crankshaft pin diameter | | New minimum | mm (in) | 45.017 (1.7723) | |
| | | New maximum | mm (in) | 45.033 (1.7729) | |
| | | Wear limit | mm (in) | 44.990 (1.7710) | |
| Crankshaft journal diameter | MAG side | New minimum | mm (in) | 54.976 (2.1644) | |
| | | New maximum | mm (in) | 54.995 (2.1651) | |
| | | Wear limit | mm (in) | 54.950 (2.1634) | |
| | PTO side | New minimum | mm (in) | 45.974 (1.8099) | |
| | | New maximum | mm (in) | 45.990 (1.8102) | |
| | | Wear limit | mm (in) | 45.940 (1.8086) | |

| VEHICLE MODEL | | | | QUEST 500 | QUEST 500 XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Crankcase plain bearing | MAG side | Wear limit | mm (in) | 55.020 (2.1661) | |
| | PTO side | Wear limit | mm (in) | 46.010 (1.8114) | |
| Crankshaft radial clearance | MAG side | Service limit | mm (in) | 0.07 (.00276) | |
| | PTO side | Service limit | mm (in) | 0.07 (.00276) | |
| Connecting rod big end diameter | | Service limit | mm (in) | 45.080 (1.774) | |
| Connecting rod big end clearance | | Service limit | mm (in) | 0.09 (.0035) | |
| Connecting rod big end axial play | | New minimum | mm (in) | 0.150 (.06) | |
| | | New maximum | mm (in) | 0.302 (.01) | |
| | | Wear limit | mm (in) | 0.5 (.02) | |
| Connecting rod small end diameter | | New minimum | mm (in) | 23.01 (.9059) | |
| | | New maximum | mm (in) | 23.02 (.9063) | |
| | | Wear limit | mm (in) | 23.07 (.9080) | |
| Piston pin diameter | | New minimum | mm (in) | 22.996 (.9053) | |
| | | New maximum | mm (in) | 23.000 (.9055) | |
| | | Wear limit | mm (in) | 22.990 (.9051) | |
| 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) | 55.002 (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) | 30.002 (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) | 30.002 (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) | 30.002 (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) | |

| VEHICLE MODEL | | | QUEST 500 | QUEST 500 XT |
|---|---|---|---|---|
| **ELECTRICAL** | | | | |
| Magneto/generator | | | 400 W @ 6000 RPM | |
| Ignition system type | | | C.D.I. (Capacity Discharge Ignition) | |
| Ignition timing | | | Not adjustable | |
| Spark plug | Quantity | | 1 | |
| | Make and type | | NGK DCPR8E | |
| | Gap | mm (in) | 0.6 to 0.7 (.024 to .027) | |
| Trigger coil | | Ω | 190 – 300 | |
| Battery charging coil | | Ω | 0.4 ± 01 | |
| Ignition coil | Primary | Ω | 0.34 to 0.46 @ 20°C (68°F) | |
| | Secondary | kΩ | 9.2 to 13.8 @ 20°C (68°F) | |
| Engine RPM limiter | Forward | RPM | 7400 ± 100 | |
| | Reverse | RPM | 7100 ± 100 | |
| Engine speed limiter | Reverse | km/h (MPH) | 14 (9) | |
| Battery | Type | | Electrolyte battery type | |
| | Voltage | | 12 V | |
| | Nominal rating | | 19 Ah | |
| | Power starter output | | 1.2 KW | |
| Headlamp | | | 2 x 30 W | |
| Taillight | | | 8/27 W, 1157 | |
| Pilot lamp cluster | | | LEDS, 0.7 V approximately (each) | |
| Fuses | Location no. 1 (spare 15 A) | | N.A. | |
| | Location no. 2 (spare 15 A) | | N.A. | |
| | Location no. 3 (accessories) | | 15 A (power outlet and auxiliary supply) | |
| | Location no. 4 (fan) | | 15 A | |
| | location no. 5 (main) | | 20 A | |
| | Location no. 6 (charging system) | | 30 A | |
| **CARBURETION** | | | | |
| Carburetor | Type | | Mikuni constant depression type with manual choke and ECS (Enrichner Coasting System) | |
| | Model | | BSR42 | |
| Fuel pump | Type | | Mikuni | |
| | Model | | External (vacuum-operated) | |
| Idle engine speed | | RPM | 1300 ± 100 | |
| Main jet | | | 152.5 | |
| Pilot jet | | | 35 | |
| Needle jet | | | O-6 | |
| Jet needle | | | 6DGY16-53 | |
| Clip position number | | | 3 | |
| Choke plunger position | | | Variable choke | |
| Adjustment | Throttle cable | | 0.5 mm (.02 in) | |
| | Preliminary pilot screw turn | | 2 | |
| | 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% distilled water). Use coolant specifically designed for aluminum engines | |
| Fan | | | Thermostatic | |
| Fan thermostat | Switch ON | | 95°C (203°F) | |
| | Switch OFF | | 90°C (194°F) | |
| Engine thermostat | Opening temperature | | 75°C (167°F) | |
| | Closing temperature | | 85°C (185°F) | |
| Radiator cap opening pressure | | | 110 kPa (16 PSI) | |

| VEHICLE MODEL | | | QUEST 500 | QUEST 500 XT |
|---|---|---|---|---|
| **LUBRICATION** | | | | |
| Lubrication type | | | Wet sump with replaceable oil filter | |
| Oil filter | | | BOMBARDIER-ROTAX | |
| Oil pressure switch operation | | | 16 to 60 kPa (2.3 to 8.7 PSI) | |
| Oil temperature (max.) | | | 140°C (284°F) | |
| Engine oil pressure (min. @ idle RPM in warm condition) | | | 80 kPa (11.6 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/solid axle | |
| Rear axle ratio | | | 3.6:1 | |
| **STEERING** | | | | |
| Turning radius | | | 2.13 m (84 in) | |
| Total toe (vehicle on ground) | | mm (in) | 8 ± 4 (.315 ± .157), each side | |
| Camber angle | | | 0° | |
| Tie-rod maximum length unengaged | | mm (in) | 20 ± 5 (.787 ± 0.197) | |
| **SUSPENSION** | | | | |
| • *FRONT* | | | | |
| Suspension type | | | Independent suspension — double A-arms | |
| Suspension travel | | mm (in) | 178 (7) | |
| Shock absorber | Qty | | 2 | |
| | Type | | Oil | |
| Spring free length | | mm (in) | 270 (11) | |
| Spring color code | | | Orange/Black/Black | |
| Front preload adjustment | | | N.A. | |
| • *REAR* | | | | |
| Suspension type | | | Rigid swing arm | |
| Suspension travel | | mm (in) | 190.5 (7.5) | |
| Shock absorber | Qty | | 2 | |
| | Type | | Oil | |
| Spring free length | | mm (in) | 345 (14) | |
| Spring color code | | | Green/Black/Red | |
| Rear preload adjustment | | | 3 settings | |
| **BRAKES** | | | | |
| Front brake | Qty | | 2 discs | |
| | Type | | Hydraulic | |
| Rear brake | Qty | | 1 disc | |
| | Type | | Mechanical cable/Hydraulic | |
| Parking brake | | | Transmission brake and brake lever lock on LH brake lever | |
| Caliper | | | Floating | |
| Lining material | | | Semi metallic | |
| Minimum pad thickness | | mm (in) | 1 (.04) | |
| Minimum brake disk thickness | | mm (in) | 4.5 (.18) | |
| Maximum brake disk warpage | | mm (in) | 0.2 (.01) | |

| VEHICLE MODEL | | | QUEST 500 | QUEST 500 XT |
|---|---|---|---|---|
| **TIRES AND WHEELS** | | | | |
| • *TIRE* | | | | |
| Pressure | Front | Recommended | 38 kPa (5.5 PSI) | |
| | | Minimum | 35 kPa (5 PSI) | |
| | Rear | Recommended | 31 kPa (4.5 PSI) | |
| | | Minimum | 28 kPa (4 PSI) | |
| Minimum tread pattern depth | | | 4 mm (0.16 in) | |
| Size | Front | | 25 x 8 x 12 Trailwolf | |
| | Rear | | 25 x 11 x 12 Trailwolf | |
| • *WHEELS* | | | | |
| Size | Front | | 12 x 6.5 | |
| | Rear | | 12 x 8 | |
| **DIMENSION** | | | | |
| Overall length | | | 2.07 m (81.5 in) | |
| Overall width | | | 1.19 m (47 in) | |
| Overall height | | | 1.14 m (45 in) | |
| Dry weight | | | 338 kg (745 lb) | |
| Wheel base | | | 1.30 m (51 in) | |
| Wheel track | Front | | 992 mm (39 in) | |
| | Rear | | 940 mm (37 in) | |
| Front and under engine ground clearance | | | 244 mm (9.6 in) | |
| Rear rigid axle ground clearance | | | 188 mm (7.4 in) | |
| **CAPACITIES** | | | | |
| • *LIQUID* | | | | |
| Fuel tank | | | 21.8 L (5.8 U.S. gal) | |
| Fuel tank reserve | | | 4 L (1.1 U.S. gal) | |
| Engine/transmission oil | Capacity | | 3 L (3.17 quarts) | |
| | Recommended | | SAE 10W40, 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 | 610 mL (21 U.S. oz) | |
| | | Rear | 250 mL (8.4 U.S. oz) | |
| | Recommended | | Bombardier differential oil or Synthetic polyester 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 | |
| Front storage tray | | | 10 kg (22 lb) | |
| Rack | Front (including front storage tray) | | 40 kg (90 lb) | |
| | Rear (including tongue weight) | | 80 kg (175 lb) | |
| Total vehicle load allowed (including driver, all other loads and added accessories) | | | 220 kg (485 lb) | |
| Gross vehicle weight rating | | | 545 kg (1200 lb) | |
| Towing | | | 500 kg (1100 lb) | |
| Tongue (included with rear rack weight) | | | 14 kg (30 lb) | |

| VEHICLE MODEL | | QUEST 500 | QUEST 500 XT |
|---|---|---|---|
| **MATERIAL** | | | |
| Frame | Material | Steel | |
| | Color | Black | |
| Wheel | Material | Steel | |
| | Color | Silver | Chrome |
| Front/rear rack | Material | Steel | |
| | Color | Black | |
| Front bumper | Material | Steel | |
| | Color | Silver | |
| Front/rear fender | Material | High density polyethylene | |
| | Color | Camo or Laurentian Green or Red Viper | Camo or Laurentian Green or Red Viper or Yellow |
| Fuel tank protector | Material | High density polyethylene | |
| | Color | Black | |
| Steering cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Storage compartment cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Front facia | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Rear facia | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Engine side panel | Material | High density polyethylene | |
| | Color | Camo or Laurentian Green or Red Viper | Camo or Laurentian Green or Red Viper or Yellow |
| Foot rest | Material | High density polyethylene | |
| | Color | Grey | |
| Console | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Air box cover | Material | Nylon | |
| | Color | Black | |
| Air box | Material | Polypropylene | |
| | Color | Black | |
| Transmission lever locator | Material | Nylon | |
| | Color | Black | |
| A-arm protector | Material | High density polyethylene | |
| | Color | Black | |
| Mudguard | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Seat base | Material | Polypropylene | |
| | Color | Black | |
| Seat cover | Material | Thermoformed vinyl | |
| | Color | Black | |

| VEHICLE MODEL | | QUEST 500 | QUEST 500 XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *ENGINE* | | | | |
| Engine support | M8 | 24 N•m (17 lbf•ft) | | None |
| Engine mount | M10 | 48 N•m (35 lbf•ft) | | |
| Spark plug | | 18 N•m (159 lbf•**in**) | | |
| Oil filter screw | | 9 N•m (80 lbf•**in**) | | |
| Dipstick tube screw | | 9 N•m (80 lbf•**in**) | | |
| Magneto cover bolts | | 9 N•m (80 lbf•**in**) | | |
| Starter bolts | | 9 N•m (80 lbf•**in**) | | |
| Vehicle speed sensor | | 9 N•m (80 lbf•**in**) | | |
| Starter RED (+) cable | | 6 N•m (53 lbf•**in**) | | Dielectric grease |
| Rotor nut | | 150 N•m (111 lbf•ft) | | None |
| Stator bolt | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Trigger coil bolt | | 9 N•m (80 lbf•**in**) | | |
| • *COOLING* | | | | |
| Radiator mount screw/nut | | 10 N•m (89 lbf•**in**) | | None |
| Thermostat housing | | 9 N•m (80 lbf•**in**) | | |
| Thermostat bleeding screw | | 9 N•m (80 lbf•**in**) | | |
| Temperature sensor | | 17 N•m (151 lbf•**in**) | | |
| Water pump housing | | 9 N•m (80 lbf•**in**) | | |
| Impeller (left hand thread) | | 3 N•m (27 lbf•**in**) | | |
| Fan mount screw/nut | | 4.5 N•m (40 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 | On exhaust pipe | 13 N•m (115 lbf•**in**) | | |
| | Rear heat shield | 6 N•m (53 lbf•**in**) | | |
| Heat shield support | Engine | 32 N•m (24 lbf•ft) | | |
| | Exhaust pipe | 13 N•m (115 lbf•**in**) | | |
| • *LUBRICATION* | | | | |
| Engine oil drain plug | | 29 N•m (21 lbf•ft) | | None |
| Engine oil strainer cover | | 9 N•m (80 lbf•**in**) | | |
| Oil pump housing | | 9 N•m (80 lbf•**in**) | | |
| Oil pressure regulator plug | | 11 N•m (97 lbf•**in**) | | |
| Oil pressure switch | | 14 N•m (124 lbf•**in**) | | Loctite 243 |
| • *CYLINDER AND HEAD* | | | | |
| Breather | | 4 N•m (35 lbf•**in**) | | Loctite 243 |
| Valve cover | | 9 N•m (80 lbf•**in**) | | None |
| Rocker arm shaft screw | | 20 N•m (15 lbf•ft) + 90° rotation | | |
| Cylinder head screw | M6 | 10 N•m (89 lbf•**in**) | | |
| | M11 | 50 N•m (37 lbf•ft) + 90° rotation | | |
| Intake adaptor | | 21 N•m (16 lbf•ft) | | |
| Camshaft timing gear | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Chain guide | | 9 N•m (80 lbf•**in**) | | |
| Chain tensioner housing | | 7 N•m (62 lbf•**in**) | | |
| Chain tensioner plug | | 5 N•m (44 lbf•**in**) | | None |
| • *CRANKSHAFT* | | | | |
| Crankcase housing screw | | 9 N•m (80 lbf•**in**) | | None |
| Connecting rod | | 45 N•m (33 lbf•ft) + 90° rotation | | |
| Crankshaft locking access screw | | 23 N•m (17 lbf•ft) | | |

| VEHICLE MODEL | | QUEST 500 | QUEST 500 XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *GEARBOX* | | | | |
| Air guide | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Bearing screw | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Bearing cover | | 23 N•m (17 lbf•ft) | | None |
| Bevel gear access screw | | 23 N•m (17 lbf•ft) | | None |
| Index lever | | 9 N•m (80 lbf•**in**) | | None |
| Starter drive pinion cover | | 17 N•m (151 lbf•**in**) | | Loctite 5910 |
| Shifting indicator switch | | 4 N•m (35 lbf•**in**) | | |
| • *CVT* | | | | |
| CVT cover | | 9 N•m (80 lbf•**in**) | | None |
| Centrifugal lever bolt | | 5 N•m (44 lbf•**in**) | | None |
| Drive pulley | | 100 N•m (74 lbf•ft) refer to CVT section for proper procedure | | None |
| Driven pulley | | 60 N•m (44 lbf•ft) | | None |
| • *FUEL* | | | | |
| Carburetor mounting clamp | | 0.6 N•m (5.4 lbf•**in**) | | None |
| • *DRIVE TRAIN* | | | | |
| Front wheel hub nut | | 145 N•m (107 lbf•ft) | | None |
| Rear wheel hub nut | | 145 N•m (107 lbf•ft) | | None |
| Front differential | Front | 67 N•m (49 lbf•ft) | | None |
| | Rear | 67 N•m (49 lbf•ft) | | None |
| Front differential mounting bracket | | 25 N•m (18 lbf•ft) | | None |
| Rear differential socket screws | | 48 N•m (35 lbf•ft) | | None |
| Propeller shaft screw | Engine side | 34 N•m (26 lbf•ft) | | None |
| | Differential side | 42 N•m (31 lbf•ft) | | None |
| Rear differential Torx screw | | 75 N•m (55 lbf•ft) | | None |
| Rear differential protector | Torx screw | 65 N•m (48 lbf•ft) | | None |
| | Hexagonal screw | 25 N•m (18 lbf•ft) | | None |
| Trailer hitch hexagonal screw | | 48 N•m (35 lbf•ft) | | None |
| Differential oil drain plug | Front/rear | 13 N•m (115 lbf•**in**) | | None |
| • *WHEEL* | | | | |
| Wheel nuts | | 75 N•m (55 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) | | None |
| Handlebar screws | | 24 N•m (17 lbf•ft) | | None |
| Steering column half housing bolts | | 24 N•m (17 lbf•ft) | | None |
| Flanged bearing bolts | | 19 N•m (168 lbf•**in**) | | Loctite 243 |
| Handle grip screw | | 4 N•m (35 lbf•**in**) | | None |
| • *SUSPENSION* | | | | |
| Shock absorber bolt | | 48 N•m (35 lbf•ft) | | None |
| Upper/lower A-arm | | 63 N•m (46 lbf•ft) | | None |
| Ball joint end | | 45 N•m (33 lbf•ft) | | None |
| Swing arm | To rear differential | 65 N•m (48 lbf•ft) | | None |
| | To rear axle | 48 N•m (35 lbf•ft) | | None |
| Rear swing arm RH pivot | | 147 N•m (108 lbf•ft) | | None |
| Rear swing arm LH pivot | | 11 N•m (97 lbf•**in**) | | None |
| Rear swing arm LH nut | | 147 N•m (108 lbf•ft) | | None |

| VEHICLE MODEL | | QUEST 500 | QUEST 500 XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *BRAKE* | | | | |
| Caliper brake screws | | 24 N•m (17 lbf•ft) | | None |
| Brake disk screws | | 34 N•m (25 lbf•ft) | | |
| Rear reservoir bolt | | 10 N•m (89 lbf•**in**) | | |
| Rear master cylinder bolts | | 32 N•m (24 lbf•ft) | | |
| BANJO bolts | | 24 N•m (17 lbf•ft) | | |
| Caliper bleeder valve | | 5.5 N•m (49 lbf•**in**) | | |
| Rear master cylinder rod nut | | 5 N•m (44 lbf•**in**) | | |
| Rear cable bracket | | 10 N•m (89 lbf•**in**) | | |
| Hydraulic brake light switch | | 24 N•m (17 lbf•ft) | | Pipe sealant |
| • *BODY/FRAME* | | | | |
| Front bumper | | 24 N•m (17 lbf•ft) | | None |
| Front rack | M6 | 2.5 N•m (22 lbf•**in**) | | |
| | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear rack | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear extension frame | | 48 N•m (35 lbf•ft) | | |
| Front differential support | | 24 N•m (17 lbf•ft) | | |
| Seat pivot bar hook | | 10 N•m (89 lbf•**in**) | | |
| Winch plate support | | 24 N•m (17 lbf•ft) | | |
| Seat latch stud | | 29 N•m (21 lbf•ft) | | |
| Seat latch base | | 4 N•m (35 lbf•**in**) | | |
| Inner fender | | 5 N•m (44 lbf•**in**) | | |
| A-arm protector | | 2.5 N•m (22 lbf•**in**) | | |
| Footrest | | 24 N•m (17 lbf•ft) | | |
| Footpeg | | 6 N•m (53 lbf•**in**) | | |
| Removable brace | | 24 N•m (17 lbf•ft) | | |
| Engine skid plate | M8 | 15 N•m (133 lbf•**in**) | | |
| Headlamp housing | | 0.6 N•m (5.4 lbf•**in**) | | |
| Winch | | N.A. | 16 N•m (12 lbf•ft) | |
| Winch plate | | N.A. | 24 N•m (17 lbf•ft) | |
| Fairlead | | N.A. | 16 N•m (12 lbf•ft) | |
| Hand guard | | N.A. | 6 N•m (53 lbf•**in**) | |
| Hand guard support | | N.A. | 21 N•m (15 lbf•ft) | |

# QUEST 650/QUEST 650 XT

| VEHICLE MODEL | | | | QUEST 650 | QUEST 650 XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Engine type | | | | BOMBARDIER-ROTAX, 4-stroke, Over Head Camshaft (OHC), liquid cooled | |
| Starting system | | | | Electric with optional recoil | |
| Number of cylinder(s) | | | | 1 | |
| Number of valves | | | | 4 valves with hydraulic lifters (no adjustment) | |
| Decompressor type | | | | Automatic | |
| Bore | | Standard | mm (in) | 100 (3.9) | |
| Stroke | | | mm (in) | 82 (3.2) | |
| Displacement | | | $cm^3$ ($in^3$) | 644 (39.3) | |
| Compression ratio | | | | 9.5:1 | |
| Maximum HP RPM | | | ± 100 RPM | 7000 | |
| Air filter type | | | | 2 stage foam filter | |
| Exhaust system | | Type | | Nelson, stainless steel | |
| | | Spark arrester | | USDA Forest Service approved | |
| Intake valve opening | | | | 10.00° BTDC | |
| Intake valve closing | | | | 55.00° ABDC | |
| Exhaust valve opening | | | | 50.00° BBDC | |
| Exhaust valve closing | | | | 5.00° ATDC | |
| Valve stem diameter | Intake | New minimum | mm (in) | 5.961 (.2347) | |
| | | New maximum | mm (in) | 5.975 (.2352) | |
| | | Wear limit | mm (in) | 5.930 (.2330) | |
| | Exhaust | New minimum | mm (in) | 5.946 (.2341) | |
| | | New maximum | mm (in) | 5.960 (.2346) | |
| | | Wear limit | mm (in) | 5.930 (.2330) | |
| Valve guide diameter | | Wear limit | mm (in) | 6.060 (.2386) | |
| Valve spring free length | | New | mm (in) | 45.45 (1.789) | |
| | | Wear limit | mm (in) | 43.00 (1.693) | |
| Valve seat contact width | Intake | New | mm (in) | 1.10 to 1.30 (.043 to .051) | |
| | | 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 | mm (in) | 99.951 to 99.969 (3.935 to 3.936) | |
| | | Wear limit | mm (in) | 99.80 (3.929) | |
| Piston/cylinder clearance | | New | mm (in) | 0.031 to 0.059 (.001 to .002) | |
| | | Wear limit | mm (in) | 0.090 (.004) | |
| Piston ring type | | | 1st | Upper compression ring | |
| | | | 2nd | Lower compression ring | |
| | | | 3rd | Oil scraper ring | |
| Piston ring end gap | Upper compression ring | New minimum | mm (in) | 0.15 (.006) | |
| | Lower compression ring | | mm (in) | 0.15 (.006) | |
| | Oil scraper ring | | mm (in) | 0.15 (.006) | |
| | Upper compression ring | New maximum | mm (in) | 0.35 (.014) | |
| | Lower compression ring | | mm (in) | 0.35 (.014) | |
| | Oil scraper ring | | mm (in) | 0.30 (.012) | |
| | All | Wear limit | mm (in) | 1.5 (.06) | |

| VEHICLE MODEL | | | | QUEST 650 | QUEST 650 XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Piston/ring groove clearance | Upper compression ring | New minimum | mm (in) | 0.025 (.001) | |
| | Lower compression ring | | mm (in) | 0.015 (.0006) | |
| | Oil scraper ring | | mm (in) | 0.020 (.0008) | |
| | Upper compression ring | New maximum | mm (in) | 0.070 (.0028) | |
| | Lower compression ring | | mm (in) | 0.060 (.0024) | |
| | Oil scraper ring | | mm (in) | 0.055 (.0021) | |
| Rocker arm bore diameter | | New minimum | mm (in) | 20.007 (.7877) | |
| | | New maximum | mm (in) | 20.020 (.7881) | |
| | | Wear limit | mm (in) | 20.035 (.7887) | |
| Rocker arm shaft diameter | | New minimum | mm (in) | 19.980 (.7866) | |
| | | New maximum | mm (in) | 19.993 (.7871) | |
| | | Wear limit | mm (in) | 19.965 (.7860) | |
| Cylinder screw M11 | | Service limit | mm (in) | 216.5 (8.524) | |
| Cylinder bore | | New nominal | mm (in) | 99.993 to 100.007 (73.751 to 73.761) | |
| Cylinder taper | | New maximum | mm (in) | 0.038 (.0015) | |
| | | Wear limit | mm (in) | 0.090 (.004) | |
| Cylinder out of round | | New maximum | mm (in) | 0.01 (.0004) | |
| | | Wear limit | mm (in) | 0.02 (.0008) | |
| Camshaft bearing journal | PTO side | New minimum | mm (in) | 24.967 (.9829) | |
| | | New maximum | mm (in) | 24.980 (.9835) | |
| | | Wear limit | mm (in) | 24.960 (9827) | |
| | Magneto side | New minimum | mm (in) | 39.927 (1.5719) | |
| | | New maximum | mm (in) | 39.935 (1.5722) | |
| | | Wear limit | mm (in) | 39.920 (1.5716) | |
| Camshaft bore | PTO side | New minimum | mm (in) | 24.987 (.9837) | |
| | | New maximum | mm (in) | 25.000 (.9842) | |
| | | Wear limit | mm (in) | 25.020 (.9850) | |
| | Magneto side | New minimum | mm (in) | 39.984 (1.5742) | |
| | | New maximum | mm (in) | 40.000 (1.5748) | |
| | | Wear limit | mm (in) | 40.020 (1.5756) | |
| Cam lobe | Intake | New minimum | mm (in) | 31.369 (1.235) | |
| | | New maximum | mm (in) | 31.569 (1.243) | |
| | | Wear limit | mm (in) | 31.300 (1.232) | |
| | Exhaust | New minimum | mm (in) | 31.147 (1.226) | |
| | | New maximum | mm (in) | 31.347 (1.234) | |
| | | Wear limit | mm (in) | 31.100 (1.224) | |
| Crankshaft axial clearance | | New minimum | mm (in) | 0.2 (.0078) | |
| | | New maximum | mm (in) | 0.5 (.0196) | |
| Crankshaft deflection | MAG side | Service limits | mm (in) | 0.05 (.0020) | |
| | PTO side | | | 0.05 (.0020) | |
| Crankshaft pin diameter | | New minimum | mm (in) | 45.017 (1.7723) | |
| | | New maximum | mm (in) | 45.033 (1.7729) | |
| | | Wear limit | mm (in) | 44.990 (1.7710) | |
| Crankshaft journal diameter | MAG side | New minimum | mm (in) | 54.976 (2.1644) | |
| | | New maximum | mm (in) | 54.995 (2.1651) | |
| | | Wear limit | mm (in) | 54.950 (2.1634) | |
| | PTO side | New minimum | mm (in) | 45.974 (1.8099) | |
| | | New maximum | mm (in) | 45.990 (1.8102) | |
| | | Wear limit | mm (in) | 45.940 (1.8086) | |

| VEHICLE MODEL | | | | QUEST 650 | QUEST 650 XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Crankcase plain bearing | MAG side | Wear limit | mm (in) | 55.020 (2.1661) | |
| | PTO side | Wear limit | mm (in) | 46.010 (1.8114) | |
| Crankshaft radial clearance | MAG side | Service limit | mm (in) | 0.07 (.0028) | |
| | PTO side | | | 0.07 (.0028) | |
| Connecting rod big end diameter | | Service limit | mm (in) | 45.080 (1.7740) | |
| Connecting rod big end clearance | | Service limit | mm (in) | 0.09 (.0035) | |
| Connecting rod big end axial play | | New minimum | mm (in) | 0.150 (.06) | |
| | | New maximum | mm (in) | 0.302 (.01) | |
| | | Wear limit | mm (in) | 0.5 (.02) | |
| Connecting rod small end diameter | | New minimum | mm (in) | 23.01 (.9059) | |
| | | New maximum | mm (in) | 23.02 (.9063) | |
| | | Wear limit | mm (in) | 23.07 (.9080) | |
| Piston pin diameter | | New minimum | mm (in) | 22.996 (.9053) | |
| | | New maximum | mm (in) | 23.000 (.9055) | |
| | | Wear limit | mm (in) | 22.990 (.9051) | |
| 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) | 55.002 (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) | 30.002 (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) | 30.002 (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) | 30.002 (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) | |

| VEHICLE MODEL | | | QUEST 650 | QUEST 650 XT |
|---|---|---|---|---|
| **ELECTRICAL** | | | | |
| Magneto/generator | | | 400 W @ 6000 RPM | |
| Ignition system type | | | C.D.I. (Capacity Discharge Ignition) | |
| Ignition timing | | | Not adjustable | |
| Spark plug | Quantity | | 1 | |
| | Make and type | | NGK DCPR8E | |
| | Gap | mm (in) | 0.6 to 0.7 (.024 to .027) | |
| Trigger coil | | Ω | 190 – 300 | |
| Battery charging coil | | Ω | 0.4 ± 01 | |
| Ignition coil | Primary | Ω | 0.34 to 0.46 @ 20°C (68°F) | |
| | Secondary | kΩ | 9.2 to 13.8 @ 20°C (68°F) | |
| Engine RPM limiter | Forward | RPM | 7400 ± 100 | |
| | Reverse | RPM | 7100 ± 100 | |
| Engine speed limiter | Reverse | km/h (MPH) | 14 (9) | |
| Battery | Type | | Electrolyte battery type | |
| | Voltage | | 12 V | |
| | Nominal rating | | 19 Ah | |
| | Power starter output | | 1.2 KW | |
| Headlamp | | | 2 x 30 W | |
| Taillight | | | 8/27 W, 1157 | |
| Pilot lamp cluster | | | LEDS, 0.7 V approximately (each) | |
| Fuses | Location no. 1 (spare 15 A) | | N.A. | |
| | Location no. 2 (spare 15 A) | | N.A. | |
| | Location no. 3 (accessories) | | 15 A (power outlet and auxiliary supply) | |
| | Location no. 4 (fan) | | 15 A | |
| | location no. 5 (main) | | 20 A | |
| | Location no. 6 (charging system) | | 30 A | |
| **CARBURETION** | | | | |
| Carburetor | Type | | Mikuni constant depression type with manual choke and ECS (Enrichner Coasting System) | |
| | Model | | BSR42 | |
| Fuel pump | Type | | Mikuni | |
| | Model | | External (vacuum-operated) | |
| Idle engine speed | | RPM | 1100 ± 100 | |
| Main jet | | | 152.5 | |
| Pilot jet | | | 40 | |
| Needle jet | | | O-6 | |
| Jet needle | | | 6DGY17-53 | |
| Clip position number | | | 3 | |
| Choke plunger position | | | Variable choke | |
| Adjustment | Throttle cable | | 0.5 mm (.02 in) | |
| | Preliminary pilot screw turn | | 1.5 | |
| | 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% distilled water). Use coolant specifically designed for aluminum engines | |
| Fan | | | Thermostatic | |
| Fan thermostat | Switch ON | | 95°C (203°F) | |
| | Switch OFF | | 90°C (194°F) | |
| Engine thermostat | Opening temperature | | 75°C (167°F) | |
| | Closing temperature | | 85°C (185°F) | |
| Radiator cap opening pressure | | | 110 kPa (16 PSI) | |

| VEHICLE MODEL | | | QUEST 650 | QUEST 650 XT |
|---|---|---|---|---|
| **LUBRICATION** | | | | |
| Lubrication | | | Wet sump with replaceable oil filter | |
| Oil filter | | | BOMBARDIER-ROTAX | |
| Oil pressure switch operation | | | 16 to 60 kPa (2.3 to 8.7 PSI) | |
| Oil temperature (max.) | | | 140°C (284°F) | |
| Engine oil pressure (min. @ idle RPM in warm condition) | | | 80 kPa (11.6 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/solid axle | |
| Rear axle ratio | | | 3.6:1 | |
| **STEERING** | | | | |
| Turning radius | | | 2.10 m (7 ft) | |
| Total toe (vehicle on ground) | | mm (in) | 8 ± 4 (.315 ± .157), each side | |
| Camber angle | | | 0° | |
| Tie-rod maximum length unengaged | | mm (in) | 20 ± 5 (.787 ± 0.197) | |
| **SUSPENSION** | | | | |
| • *FRONT* | | | | |
| Suspension type | | | Independent suspension — double A-arm | |
| Suspension travel | | mm (in) | 178 (7) | |
| Shock absorber | Qty | | 2 | |
| | Type | | Oil | |
| Spring free length | | mm (in) | 270 (11) | |
| Spring color code | | | Orange/Black/Black | |
| Front preload adjustment | | | N.A. | |
| • *REAR* | | | | |
| Suspension type | | | Rigid swing arm | |
| Suspension travel | | mm (in) | 190.5 (7.5) | |
| Shock absorber | Qty | | 2 | |
| | Type | | Oil | |
| Spring free length | | mm (in) | 345 (14) | |
| Spring color code | | | Green/Black/Red | |
| Rear preload adjustment | | | 3 settings | |
| **BRAKES** | | | | |
| Front brake | Qty | | 2 discs | |
| | Type | | Hydraulic | |
| Rear brake | Qty | | 1 disc | |
| | Type | | Mechanical cable/Hydraulic | |
| Parking brake | | | Transmission brake and brake lever lock on LH brake lever | |
| Caliper | | | Floating | |
| Lining material | | | Semi metallic | |
| Minimum pad thickness | | mm (in) | 1 (.04) | |
| Minimum brake disk thickness | | mm (in) | 4.5 (.18) | |
| Maximum brake disk warpage | | mm (in) | 0.2 (.01) | |

| VEHICLE MODEL | | | QUEST 650 | QUEST 650 XT |
|---|---|---|---|---|
| **TIRES AND WHEELS** | | | | |
| • *TIRE* | | | | |
| Pressure | Front | Recommended | 38 kPa (5.5 PSI) | |
| | | Minimum | 35 kPa (5 PSI) | |
| | Rear | Recommended | 31 kPa (4.5 PSI) | |
| | | Minimum | 28 kPa (4 PSI) | |
| Minimum tread pattern depth | | | 4 mm (0.16 in) | |
| Size | Front | | 25 x 8 x 12 Trailwolf | |
| | Rear | | 25 x 11 x 12 Trailwolf | |
| • *WHEELS* | | | | |
| Size | Front | | 12 x 6.5 | |
| | Rear | | 12 x 8 | |
| **DIMENSION** | | | | |
| Overall length | | | 2.07 m (81.5 in) | 2.12 m (83 in) |
| Overall width | | | 1.19 m (47 in) | |
| Overall height | | | 1.14 m (45 in) | |
| Dry weight | | | 338 kg (745 lb) | 344 kg (760 lb) |
| Wheel base | | | 1.30 m (51 in) | |
| Wheel track | Front | | 992 mm (39 in) | |
| | Rear | | 940 mm (37 in) | |
| Front and under engine ground clearance | | | 244 mm (9.6 in) | |
| Rear rigid axle ground clearance | | | 188 mm (7.4 in) | |
| **CAPACITIES** | | | | |
| • *LIQUID* | | | | |
| Fuel tank | | | 21.8 L (5.8 U.S. gal) | |
| Fuel tank reserve | | | 4 L (1.1 U.S. gal) | |
| Engine/transmission oil | Capacity | | 3 L (3.17 quarts) | |
| | Recommended | | SAE 10W40, 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 | 610 mL (21 U.S. oz) | |
| | | Rear | 250 mL (8.4 U.S. oz) | |
| | Recommended | | Bombardier differential oil or Synthetic polyester 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 | |
| Front storage tray | | | 10 kg (22 lb) | |
| Rack | Front (including front storage tray) | | 40 kg (90 lb) | |
| | Rear (including tongue weight) | | 80 kg (175 lb) | |
| Total vehicle load allowed (including driver, all other loads and added accessories) | | | 220 kg (485 lb) | |
| Gross vehicle weight rating | | | 545 kg (1200 lb) | |
| Towing | | | 500 kg (1100 lb) | |
| Tongue (included with rear rack weight) | | | 14 kg (30 lb) | |

| VEHICLE MODEL | | QUEST 650 | QUEST 650 XT |
|---|---|---|---|
| **MATERIAL** | | | |
| Frame | Material | Steel | |
| | Color | Black | |
| Wheel | Material | Steel | |
| | Color | Silver | Chrome |
| Front/rear rack | Material | Steel | |
| | Color | Black | |
| Front bumper | Material | Steel | |
| | Color | Black | |
| Front/rear fender | Material | High density polyethylene | |
| | Color | Camo or Laurentian Green or Viper Red or Yellow | |
| Fuel tank protector | Material | High density polyethylene | |
| | Color | Black | |
| Steering cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Storage compartment cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Front facia | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Rear facia | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Engine side panel | Material | High density polyethylene | |
| | Color | Camo or Laurentian Green or Viper Red or Yellow | |
| Foot rest | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Console | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Air box cover | Material | Nylon | |
| | Color | Black | |
| Air box | Material | Polypropylene | |
| | Color | Black | |
| Transmission lever locator | Material | Nylon | |
| | Color | Black | |
| A-arm protector | Material | High density polyethylene | |
| | Color | Black | |
| Mudguard | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Seat base | Material | Polypropylene | |
| | Color | Black | |
| Seat cover | Material | Thermoformed vinyl | |
| | Color | Black | |

| VEHICLE MODEL | | QUEST 650 | QUEST 650 XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *ENGINE* | | | | |
| Engine support | M8 | 24 N•m (17 lbf•ft) | | None |
| Engine mount | M10 | 48 N•m (35 lbf•ft) | | |
| Spark plug | | 18 N•m (159 lbf•**in**) | | |
| Oil filter screw | | 9 N•m (80 lbf•**in**) | | |
| Dipstick tube screw | | 9 N•m (80 lbf•**in**) | | |
| Magneto cover bolts | | 9 N•m (80 lbf•**in**) | | |
| Starter bolts | | 9 N•m (80 lbf•**in**) | | |
| Vehicle speed sensor | | 9 N•m (80 lbf•**in**) | | |
| Starter RED (+) cable | | 6 N•m (53 lbf•**in**) | | Dielectric grease |
| Rotor nut | | 150 N•m (111 lbf•ft) | | None |
| Stator bolt | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Trigger coil bolt | | 9 N•m (80 lbf•**in**) | | |
| • *COOLING* | | | | |
| Radiator mount screw/nut | | 10 N•m (89 lbf•**in**) | | None |
| Thermostat housing | | 9 N•m (80 lbf•**in**) | | |
| Thermostat bleeding screw | | 9 N•m (80 lbf•**in**) | | |
| Temperature sensor | | 17 N•m (151 lbf•**in**) | | |
| Water pump housing | | 9 N•m (80 lbf•**in**) | | |
| Impeller (left hand thread) | | 3 N•m (27 lbf•**in**) | | |
| Fan mount screw/nut | | 4.5 N•m (40 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 | On exhaust pipe | 13 N•m (115 lbf•**in**) | | |
| | Rear heat shield | 6 N•m (53 lbf•**in**) | | |
| Heat shield support | Engine | 32 N•m (24 lbf•ft) | | |
| | Exhaust pipe | 13 N•m (115 lbf•**in**) | | |
| • *LUBRICATION* | | | | |
| Engine oil drain plug | | 29 N•m (21 lbf•ft) | | None |
| Engine oil strainer cover | | 9 N•m (80 lbf•**in**) | | |
| Oil pump housing | | 9 N•m (80 lbf•**in**) | | |
| Oil pressure regulator plug | | 11 N•m (97 lbf•**in**) | | |
| Oil pressure switch | | 14 N•m (124 lbf•**in**) | | Loctite 243 |
| • *CYLINDER AND HEAD* | | | | |
| Breather | | 4 N•m (35 lbf•**in**) | | Loctite 243 |
| Valve cover | | 9 N•m (80 lbf•**in**) | | None |
| Rocker arm shaft screw | | 20 N•m (15 lbf•ft) + 90° rotation | | |
| Cylinder head screw | M6 | 10 N•m (89 lbf•**in**) | | |
| | M11 | 50 N•m (37 lbf•ft) + 90° rotation | | |
| Intake adaptor | | 21 N•m (16 lbf•ft) | | |
| Camshaft timing gear | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Chain guide | | 9 N•m (80 lbf•**in**) | | |
| Chain tensioner housing | | 7 N•m (62 lbf•**in**) | | |
| Chain tensioner plug | | 5 N•m (44 lbf•**in**) | | None |
| • *CRANKSHAFT* | | | | |
| Crankcase housing screw | | 9 N•m (80 lbf•**in**) | | None |
| Connecting rod | | 45 N•m (33 lbf•ft) + 90° rotation | | |
| Crankshaft locking access screw | | 21 N•m (16 lbf•ft) | | |

| VEHICLE MODEL | | QUEST 650 | QUEST 650 XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *GEARBOX* | | | | |
| Air guide | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Bearing screw | | 9 N•m (80 lbf•**in**) | | |
| Bearing cover | | 23 N•m (17 lbf•ft) | | |
| Bevel gear access screw | | 23 N•m (17 lbf•ft) | | None |
| Index lever | | 9 N•m (80 lbf•**in**) | | |
| Starter drive pinion cover | | 17 N•m (151 lbf•**in**) | | |
| Shifting indicator switch | | 4 N•m (35 lbf•**in**) | | Loctite 5910 |
| • *CVT* | | | | |
| CVT cover | | 9 N•m (80 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 | | 0.6 N•m (5.4 lbf•**in**) | | None |
| • *DRIVE TRAIN* | | | | |
| Front differential mounting bracket | | 25 N•m (18 lbf•ft) | | None |
| Rear differential socket screws | | 48 N•m (35 lbf•ft) | | |
| Propeller shaft screw | Engine side | 34 N•m (26 lbf•ft) | | |
| | Differential side | 42 N•m (31 lbf•ft) | | |
| Rear differential Torx screw | | 75 N•m (55 lbf•ft) | | |
| Rear differential protector | Torx screw | 65 N•m (48 lbf•ft) | | |
| | Hexagonal screw | 25 N•m (18 lbf•ft) | | |
| Trailer hitch hexagonal screw | | 48 N•m (35 lbf•ft) | | |
| Differential oil drain plug | Front/rear | 13 N•m (115 lbf•**in**) | | |
| Front differential mounting bracket | | 25 N•m (18 lbf•ft) | | |
| Rear differential socket screws | | 48 N•m (35 lbf•ft) | | |
| Propeller shaft screw | Engine side | 34 N•m (26 lbf•ft) | | |
| | Differential side | 42 N•m (31 lbf•ft) | | |
| • *WHEEL* | | | | |
| Wheel nuts | | 75 N•m (55 lbf•ft) | | Anti-seize |
| • *STEERING/CONTROL* | | | | |
| 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 (17 lbf•ft) | | |
| Steering column half housing bolts | | 24 N•m (17 lbf•ft) | | |
| Flanged bearing bolts | | 19 N•m (168 lbf•**in**) | | Loctite 243 |
| Handle grip screw | | 4 N•m (35 lbf•**in**) | | None |
| • *SUSPENSION* | | | | |
| Shock absorber bolt | | 48 N•m (35 lbf•ft) | | None |
| Upper/lower A-arm | | 63 N•m (46 lbf•ft) | | |
| Ball joint end | | 45 N•m (33 lbf•ft) | | |
| Swing arm | To rear differential | 65 N•m (48 lbf•ft) | | |
| | To rear axle | 48 N•m (35 lbf•ft) | | |
| Rear swing arm RH pivot | | 147 N•m (108 lbf•ft) | | |
| Rear swing arm LH pivot | | 11 N•m (97 lbf•**in**) | | |
| Rear swing arm LH nut | | 147 N•m (108 lbf•ft) | | |

| VEHICLE MODEL | | QUEST 650 | QUEST 650 XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *BRAKE* | | | | |
| Caliper brake screws | | 24 N•m (17 lbf•ft) | | None |
| Brake disk screws | | 34 N•m (25 lbf•ft) | | |
| Rear reservoir bolt | | 10 N•m (89 lbf•**in**) | | |
| Rear master cylinder bolts | | 32 N•m (24 lbf•ft) | | |
| BANJO bolts | | 24 N•m (17 lbf•ft) | | |
| Caliper bleeder valve | | 5.5 N•m (49 lbf•**in**) | | |
| Rear master cylinder rod nut | | 5 N•m (44 lbf•**in**) | | |
| Rear cable bracket | | 10 N•m (89 lbf•**in**) | | |
| Hydraulic brake light switch | | 24 N•m (17 lbf•ft) | | Pipe sealant |
| • *BODY/FRAME* | | | | |
| Front bumper | | 24 N•m (17 lbf•ft) | | None |
| Front rack | M6 | 2.5 N•m (22 lbf•**in**) | | |
| | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear rack | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear extension frame | | 48 N•m (35 lbf•ft) | | |
| Front differential support | | 24 N•m (17 lbf•ft) | | |
| Seat pivot bar hook | | 10 N•m (89 lbf•**in**) | | |
| Winch plate support | | 24 N•m (17 lbf•ft) | | |
| Seat latch stud | | 29 N•m (21 lbf•ft) | | |
| Seat latch base | | 4 N•m (35 lbf•**in**) | | |
| Inner fender | | 5 N•m (44 lbf•**in**) | | |
| A-arm protector | | 2.5 N•m (22 lbf•**in**) | | |
| Footrest | | 24 N•m (17 lbf•ft) | | |
| Footpeg | | 6 N•m (53 lbf•**in**) | | |
| Removable brace | | 24 N•m (17 lbf•ft) | | |
| Engine skid plate | M8 | 15 N•m (133 lbf•**in**) | | |
| Headlamp housing | | 0.6 N•m (5.4 lbf•**in**) | | |
| Winch | | N.A. | 16 N•m (12 lbf•ft) | |
| Winch plate | | N.A. | 24 N•m (17 lbf•ft) | |
| Fairlead | | N.A. | 16 N•m (12 lbf•ft) | |
| Hand guard | | N.A. | 6 N•m (53 lbf•**in**) | |
| Hand guard support | | N.A. | 21 N•m (15 lbf•ft) | |

# QUEST MAX/QUEST MAX XT

| VEHICLE MODEL | | | | QUEST MAX | QUEST MAX XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Engine type | | | | BOMBARDIER-ROTAX, 4-stroke, Over Head Camshaft (OHC), liquid cooled | |
| Starting system | | | | Electric with optional recoil | |
| Number of cylinder(s) | | | | 1 | |
| Number of valves | | | | 4 valves with hydraulic lifters (no adjustment) | |
| Decompressor type | | | | Automatic | |
| Bore | | Standard | mm (in) | 100 (3.9) | |
| Stroke | | | mm (in) | 82 (3.2) | |
| Displacement | | | $cm^3$ ($in^3$) | 644 (39.3) | |
| Compression ratio | | | | 9.5:1 | |
| Maximum HP RPM | | | ± 100 RPM | 7000 | |
| Air filter type | | | | 2 stage foam filter | |
| Exhaust system | | Type | | Nelson, stainless steel | |
| | | Spark arrester | | USDA Forest Service approved | |
| Intake valve opening | | | | 10.00° BTDC | |
| Intake valve closing | | | | 55.00° ABDC | |
| Exhaust valve opening | | | | 50.00° BBDC | |
| Exhaust valve closing | | | | 5.00° ATDC | |
| Valve stem diameter | Intake | New minimum | mm (in) | 5.961 (.2347) | |
| | | New maximum | mm (in) | 5.975 (.2352) | |
| | | Wear limit | mm (in) | 5.930 (.2330) | |
| | Exhaust | New minimum | mm (in) | 5.946 (.2341) | |
| | | New maximum | mm (in) | 5.960 (.2346) | |
| | | Wear limit | mm (in) | 5.930 (.2330) | |
| Valve guide diameter | | Wear limit | mm (in) | 6.060 (.2386) | |
| Valve spring free length | | New | mm (in) | 45.45 (1.789) | |
| | | Wear limit | mm (in) | 43.00 (1.693) | |
| Valve seat contact width | Intake | New | mm (in) | 1.10 to 1.30 (.043 to .051) | |
| | | 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 | mm (in) | 99.951 to 99.969 (3.935 to 3.936) | |
| | | Wear limit | mm (in) | 99.80 (3.929) | |
| Piston/cylinder clearance | | New | mm (in) | 0.031 to 0.059 (.001 to .002) | |
| | | Wear limit | mm (in) | 0.090 (.004) | |
| Piston ring type | | | 1st | Upper compression ring | |
| | | | 2nd | Lower compression ring | |
| | | | 3rd | Oil scraper ring | |
| Piston ring end gap | Upper compression ring | New minimum | mm (in) | 0.15 (.006) | |
| | Lower compression ring | | mm (in) | 0.15 (.006) | |
| | Oil scraper ring | | mm (in) | 0.15 (.006) | |
| | Upper compression ring | New maximum | mm (in) | 0.35 (.014) | |
| | Lower compression ring | | mm (in) | 0.35 (.014) | |
| | Oil scraper ring | | mm (in) | 0.30 (.012) | |
| | All | Wear limit | mm (in) | 1.5 (.06) | |

| VEHICLE MODEL | | | | QUEST MAX | QUEST MAX XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Piston/ring groove clearance | Upper compression ring | New minimum | mm (in) | 0.025 (.001) | |
| | Lower compression ring | | mm (in) | 0.015 (.0006) | |
| | Oil scraper ring | | mm (in) | 0.020 (.0008) | |
| | Upper compression ring | New maximum | mm (in) | 0.070 (.0028) | |
| | Taper-face | | mm (in) | 0.060 (.0024) | |
| | Lower compression ring | | mm (in) | 0.055 (.0021) | |
| Rocker arm bore diameter | | New minimum | mm (in) | 20.007 (.7877) | |
| | | New maximum | mm (in) | 20.020 (.7881) | |
| | | Wear limit | mm (in) | 20.035 (.7887) | |
| Rocker arm shaft diameter | | New minimum | mm (in) | 19.980 (.7866) | |
| | | New maximum | mm (in) | 19.993 (.7871) | |
| | | Wear limit | mm (in) | 19.965 (.7860) | |
| Cylinder screw M11 | | Service limit | mm (in) | 216.5 (8.524) | |
| Cylinder bore | | New nominal | mm (in) | 99.993 to 100.007 (73.751 to 73.761) | |
| Cylinder taper | | New maximum | mm (in) | 0.038 (.0015) | |
| | | Wear limit | mm (in) | 0.090 (.004) | |
| Cylinder out of round | | New maximum | mm (in) | 0.01 (.0004) | |
| | | Wear limit | mm (in) | 0.02 (.0008) | |
| Camshaft bearing journal | PTO side | New minimum | mm (in) | 24.967 (.9829) | |
| | | New maximum | mm (in) | 24.980 (.9835) | |
| | | Wear limit | mm (in) | 24.960 (9827) | |
| | Magneto side | New minimum | mm (in) | 39.927 (1.5719) | |
| | | New maximum | mm (in) | 39.935 (1.5722) | |
| | | Wear limit | mm (in) | 39.920 (1.5716) | |
| Camshaft bore | PTO side | New minimum | mm (in) | 24.987 (.9837) | |
| | | New maximum | mm (in) | 25.000 (.9842) | |
| | | Wear limit | mm (in) | 25.020 (.9850) | |
| | Magneto side | New minimum | mm (in) | 39.984 (1.5742) | |
| | | New maximum | mm (in) | 40.000 (1.5748) | |
| | | Wear limit | mm (in) | 40.020 (1.5756) | |
| Cam lobe | Intake | New minimum | mm (in) | 31.369 (1.235) | |
| | | New maximum | mm (in) | 31.569 (1.243) | |
| | | Wear limit | mm (in) | 31.300 (1.232) | |
| | Exhaust | New minimum | mm (in) | 31.147 (1.226) | |
| | | New maximum | mm (in) | 31.347 (1.234) | |
| | | Wear limit | mm (in) | 31.100 (1.224) | |
| Crankshaft axial clearance | | New minimum | mm (in) | 0.2 (.0078) | |
| | | New maximum | mm (in) | 0.5 (.0196) | |
| Crankshaft deflection | MAG side | Service limits | mm (in) | 0.05 (.0020) | |
| | PTO side | | | 0.05 (.0020) | |
| Crankshaft pin diameter | | New minimum | mm (in) | 45.017 (1.7723) | |
| | | New maximum | mm (in) | 45.033 (1.7729) | |
| | | Wear limit | mm (in) | 44.990 (1.7710) | |
| Crankshaft journal diameter | MAG side | New minimum | mm (in) | 54.976 (2.1644) | |
| | | New maximum | mm (in) | 54.995 (2.1651) | |
| | | Wear limit | mm (in) | 54.950 (2.1634) | |
| | PTO side | New minimum | mm (in) | 45.974 (1.8099) | |
| | | New maximum | mm (in) | 45.990 (1.8102) | |
| | | Wear limit | mm (in) | 45.940 (1.8086) | |

| VEHICLE MODEL | | | | QUEST MAX | QUEST MAX XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Crankcase plain bearing | MAG side | Wear limit | mm (in) | 55.020 (2.1661) | |
| | PTO side | Wear limit | mm (in) | 46.010 (1.8114) | |
| Crankshaft radial clearance | MAG side | Service limit | mm (in) | 0.07 (.0028) | |
| | PTO side | | | 0.07 (.0028) | |
| Connecting rod big end diameter | | Service limit | mm (in) | 45.080 (1.7740) | |
| Connecting rod big end clearance | | Service limit | mm (in) | 0.09 (.0035) | |
| Connecting rod big end axial play | | New minimum | mm (in) | 0.150 (.06) | |
| | | New maximum | mm (in) | 0.302 (.01) | |
| | | Wear limit | mm (in) | 0.5 (.02) | |
| Connecting rod small end diameter | | New minimum | mm (in) | 23.01 (.9059) | |
| | | New maximum | mm (in) | 23.02 (.9063) | |
| | | Wear limit | mm (in) | 23.07 (.9080) | |
| Piston pin diameter | | New minimum | mm (in) | 22.996 (.9053) | |
| | | New maximum | mm (in) | 23.000 (.9055) | |
| | | Wear limit | mm (in) | 22.990 (.9051) | |
| 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) | 55.002 (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) | 30.002 (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) | 30.002 (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) | 30.002 (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) | |

| VEHICLE MODEL | | | QUEST MAX | QUEST MAX XT |
|---|---|---|---|---|
| **ELECTRICAL** | | | | |
| Magneto/generator | | | 400 W @ 6000 RPM | |
| Ignition system type | | | C.D.I. (Capacity Discharge Ignition) | |
| Ignition timing | | | Not adjustable | |
| Spark plug | Quantity | | 1 | |
| | Make and type | | NGK DCPR8E | |
| | Gap | mm (in) | 0.6 to 0.7 (.024 to .027) | |
| Trigger coil | | Ω | 190 – 300 | |
| Battery charging coil | | Ω | 0.4 ± 01 | |
| Ignition coil | Primary | Ω | 0.34 to 0.46 @ 20°C (68°F) | |
| | Secondary | kΩ | 9.2 to 13.8 @ 20°C (68°F) | |
| Engine RPM limiter | Forward | RPM | 7400 ± 100 | |
| | Reverse | RPM | 7100 ± 100 | |
| Engine speed limiter | Reverse | km/h (MPH) | 14 (9) | |
| Battery | Type | | Electrolyte battery type | |
| | Voltage | | 12 V | |
| | Nominal rating | | 19 Ah | |
| | Power starter output | | 1.2 KW | |
| Headlamp | | | 2 x 30 W | |
| Taillight | | | 8/27 W, 1157 | |
| Pilot lamp cluster | | | LEDS, 0.7 V approximately (each) | |
| Fuses | Location no. 1 (spare 15 A) | | N.A. | |
| | Location no. 2 (spare 15 A) | | N.A. | |
| | Location no. 3 (accessories) | | 15 A (power outlet and auxiliary supply) | |
| | Location no. 4 (fan) | | 15 A | |
| | location no. 5 (main) | | 20 A | |
| | Location no. 6 (charging system) | | 30 A | |
| **CARBURETION** | | | | |
| Carburetor | Type | | Mikuni constant depression type with manual choke and ECS (Enrichner Coasting System) | |
| | Model | | BSR42 | |
| Fuel pump | Type | | Mikuni | |
| | Model | | External (vacuum-operated) | |
| Idle engine speed | | RPM | 1100 ± 100 | |
| Main jet | | | 152.5 | |
| Pilot jet | | | 40 | |
| Needle jet | | | O-6 | |
| Jet needle | | | 6DGY17-53 | |
| Clip position number | | | 3 | |
| Choke plunger position | | | Variable choke | |
| Adjustment | Throttle cable | | 0.5 mm (.02 in) | |
| | Preliminary pilot screw turn | | 1.5 | |
| | 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% distilled water). Use coolant specifically designed for aluminum engines | |
| Fan | | | Thermostatic | |
| Fan thermostat | Switch ON | | 95°C (203°F) | |
| | Switch OFF | | 90°C (194°F) | |
| Engine thermostat | Opening temperature | | 75°C (167°F) | |
| | Closing temperature | | 85°C (185°F) | |
| Radiator cap opening pressure | | | 110 kPa (16 PSI) | |

| VEHICLE MODEL | | | QUEST MAX | QUEST MAX XT |
|---|---|---|---|---|
| **LUBRICATION** | | | | |
| Lubrication | | | Wet sump with replaceable oil filter | |
| Oil filter | | | BOMBARDIER-ROTAX | |
| Oil pressure switch operation | | | 16 to 60 kPa (2.3 to 8.7 PSI) | |
| Oil temperature (max.) | | | 140°C (284°F) | |
| Engine oil pressure (min. @ idle RPM in warm condition) | | | 80 kPa (11.6 PSI) | |
| **DRIVE TRAIN** | | | | |
| Transmission | Type | | CVT (Continuously Variable Transmission).<br>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/solid axle | |
| Rear axle ratio | | | 3.6:1 | |
| **STEERING** | | | | |
| Turning radius | | | 2.10 m (7 ft) | |
| Total toe (vehicle on ground) | | mm (in) | 8 ± 4 (.315 ± .157), each side | |
| Camber angle | | | 0° | |
| Tie-rod maximum length unengaged | | mm (in) | 20 ± 5 (.787 ± 0.197) | |
| **SUSPENSION** | | | | |
| • *FRONT* | | | | |
| Suspension type | | | Independent suspension — double A-arm | |
| Suspension travel | | mm (in) | 178 (7) | |
| Shock absorber | Qty | | 2 | |
| | Type | | Oil | |
| Spring free length | | mm (in) | 290 (11.42) | |
| Spring color code | | | Silver/Red/Black | |
| Front preload adjustment | | | N.A. | |
| • *REAR* | | | | |
| Suspension type | | | Rigid swing arm | |
| Suspension travel | | mm (in) | 190.5 (7.5) | |
| Shock absorber | Qty | | 2 | |
| | Type | | Oil | |
| Spring free length | | mm (in) | 401.9 (15.82) | |
| Spring color code | | | Black/Black/Red | |
| Rear preload adjustment | | | 3 settings | |
| **BRAKES** | | | | |
| Front brake | Qty | | 2 discs | |
| | Type | | Hydraulic | |
| Rear brake | Qty | | 1 disc | |
| | Type | | Mechanical cable/Hydraulic | |
| Parking brake | | | Transmission brake and brake lever lock on LH brake lever | |
| Caliper | | | Floating | |
| Lining material | | | Semi metallic | |
| Minimum pad thickness | | mm (in) | 1 (.04) | |
| Minimum brake disk thickness | | mm (in) | 4.5 (.18) | |
| Maximum brake disk warpage | | mm (in) | 0.2 (.01) | |

| VEHICLE MODEL | | | QUEST MAX | QUEST MAX XT |
|---|---|---|---|---|
| **TIRES AND WHEELS** | | | | |
| • *TIRE* | | | | |
| Pressure | Front | Recommended | 38 kPa (5.5 PSI) | |
| | | Minimum | 35 kPa (5 PSI) | |
| | Rear | Recommended | 31 kPa (4.5 PSI) | |
| | | Minimum | 28 kPa (4 PSI) | |
| Minimum tread pattern depth | | | 4 mm (.16 in) | |
| Size | Front | | 25 x 8 x 12 Trailwolf | |
| | Rear | | 25 x 11 x 12 Trailwolf | |
| • *WHEELS* | | | | |
| Size | Front | | 12 x 6.5 | |
| | Rear | | 12 x 8 | |
| **DIMENSION** | | | | |
| Overall length | | | 2.33 m (92 in) | 2.37 m (93 in) |
| Overall width | | | 1.19 m (47 in) | |
| Overall height | | | 1.33 m (52 in) | |
| Dry weight | | | 363 kg (798 lb) | |
| Wheel base | | | 1.55 m (61 in) | |
| Wheel track | Front | | 992 mm (39 in) | |
| | Rear | | 940 mm (37 in) | |
| Front and under engine ground clearance | | | 244 mm (9.6 in) | |
| Rear rigid axle ground clearance | | | 188 mm (7.4 in) | |
| **CAPACITIES** | | | | |
| • *LIQUID* | | | | |
| Fuel tank | | | 21.8 L (5.8 U.S. gal) | |
| Fuel tank reserve | | | 4 L (1.1 U.S. gal) | |
| Engine/transmission oil | Capacity | | 3 L (3.17 quarts) | |
| | Recommended | | SAE 10W40, 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 | 610 mL (21 U.S. oz) | |
| | | Rear | 250 mL (8.4 U.S. oz) | |
| | Recommended | | Bombardier differential oil or Synthetic polyester 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 | |
| Front storage tray | | | 10 kg (22 lb) | |
| Rack | Front (including front storage tray) | | 40 kg (90 lb) | |
| | Rear (including tongue weight) | | 80 kg (175 lb) | |
| Total vehicle load allowed (including driver, all other loads and added accessories) | | | 272 kg (600 lb) | |
| Gross vehicle weight rating | | | 646 kg (1421 lb) | |
| Towing | | | 500 kg (1100 lb) | |
| Tongue (included with rear rack weight) | | | 14 kg (30 lb) | |

| VEHICLE MODEL | | QUEST MAX | QUEST MAX XT |
|---|---|---|---|
| **MATERIAL** | | | |
| Frame | Material | Steel | |
| | Color | Black | |
| Wheel | Material | Steel | |
| | Color | Silver | Chrome |
| Front/rear rack | Material | Steel | |
| | Color | Black | |
| Front bumper | Material | Steel | |
| | Color | Black | Silver |
| Front/rear fender | Material | High density polyethylene | |
| | Color | Camo or Laurentian Green or Viper Red or Yellow | |
| Fuel tank protector | Material | High density polyethylene | |
| | Color | Black | |
| Steering cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Storage compartment cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Front facia | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Rear facia | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Engine side panel | Material | High density polyethylene | |
| | Color | Camo or Laurentian Green or Viper Red or Yellow | |
| Foot rest | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Console | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Air box cover | Material | Nylon | |
| | Color | Black | |
| Air box | Material | Polypropylene | |
| | Color | Black | |
| Transmission lever locator | Material | Nylon | |
| | Color | Black | |
| A-arm protector | Material | High density polyethylene | |
| | Color | Black | |
| Mudguard | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Seat base | Material | Polypropylene | |
| | Color | Black | |
| Seat cover | Material | Thermoformed vinyl | |
| | Color | Black | |

| VEHICLE MODEL | | QUEST MAX | QUEST MAX XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *ENGINE* | | | | |
| Engine support | M8 | 24 N•m (17 lbf•ft) | | None |
| Engine mount | M10 | 48 N•m (35 lbf•ft) | | |
| Spark plug | | 18 N•m (159 lbf•**in**) | | |
| Oil filter screw | | 9 N•m (80 lbf•**in**) | | |
| Dipstick tube screw | | 9 N•m (80 lbf•**in**) | | |
| Magneto cover bolts | | 9 N•m (80 lbf•**in**) | | |
| Starter bolts | | 9 N•m (80 lbf•**in**) | | |
| Vehicle speed sensor | | 9 N•m (80 lbf•**in**) | | |
| Starter RED (+) cable | | 6 N•m (53 lbf•**in**) | | Dielectric grease |
| Rotor nut | | 150 N•m (111 lbf•ft) | | None |
| Stator bolt | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Trigger coil bolt | | 9 N•m (80 lbf•**in**) | | |
| • *COOLING* | | | | |
| Radiator mount screw/nut | | 10 N•m (89 lbf•**in**) | | None |
| Thermostat housing | | 9 N•m (80 lbf•**in**) | | |
| Thermostat bleeding screw | | 9 N•m (80 lbf•**in**) | | |
| Temperature sensor | | 17 N•m (151 lbf•**in**) | | |
| Water pump housing | | 9 N•m (80 lbf•**in**) | | |
| Impeller (left hand thread) | | 3 N•m (27 lbf•**in**) | | |
| Fan mount screw/nut | | 4.5 N•m (40 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 | On exhaust pipe | 13 N•m (115 lbf•**in**) | | |
| | Rear heat shield | 6 N•m (53 lbf•**in**) | | |
| Heat shield support | Engine | 32 N•m (24 lbf•ft) | | |
| | Exhaust pipe | 13 N•m (115 lbf•**in**) | | |
| • *LUBRICATION* | | | | |
| Engine oil drain plug | | 29 N•m (21 lbf•ft) | | None |
| Engine oil strainer cover | | 9 N•m (80 lbf•**in**) | | |
| Oil pump housing | | 9 N•m (80 lbf•**in**) | | |
| Oil pressure regulator plug | | 11 N•m (97 lbf•**in**) | | |
| Oil pressure switch | | 14 N•m (124 lbf•**in**) | | Loctite 243 |
| • *CYLINDER AND HEAD* | | | | |
| Breather | | 4 N•m (35 lbf•**in**) | | Loctite 243 |
| Valve cover | | 9 N•m (80 lbf•**in**) | | None |
| Rocker arm shaft screw | | 20 N•m (15 lbf•ft) + 90° rotation | | |
| Cylinder head screw | M6 | 10 N•m (89 lbf•**in**) | | |
| | M11 | 50 N•m (37 lbf•ft) + 90° rotation | | |
| Intake adaptor | | 21 N•m (16 lbf•ft) | | |
| Camshaft timing gear | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Chain guide | | 9 N•m (80 lbf•**in**) | | |
| Chain tensioner housing | | 7 N•m (62 lbf•**in**) | | |
| Chain tensioner plug | | 5 N•m (44 lbf•**in**) | | None |
| • *CRANKSHAFT* | | | | |
| Crankcase housing screw | | 9 N•m (80 lbf•**in**) | | None |
| Connecting rod | | 45 N•m (33 lbf•ft) + 90° rotation | | |
| Crankshaft locking access screw | | 21 N•m (16 lbf•ft) | | |

| VEHICLE MODEL | | QUEST MAX | QUEST MAX XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *GEARBOX* | | | | |
| Air guide | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Bearing screw | | 9 N•m (80 lbf•**in**) | | |
| Bearing cover | | 23 N•m (17 lbf•ft) | | |
| Bevel gear access screw | | 23 N•m (17 lbf•ft) | | None |
| Index lever | | 9 N•m (80 lbf•**in**) | | |
| Starter drive pinion cover | | 17 N•m (151 lbf•**in**) | | |
| Shifting indicator switch | | 4 N•m (35 lbf•**in**) | | Loctite 5910 |
| • *CVT* | | | | |
| CVT cover | | 9 N•m (80 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 | | 0.6 N•m (5.4 lbf•**in**) | | None |
| • *DRIVE TRAIN* | | | | |
| Front differential mounting bracket | | 25 N•m (18 lbf•ft) | | None |
| Rear differential socket screws | | 48 N•m (35 lbf•ft) | | |
| Propeller shaft screw | Engine side | 34 N•m (26 lbf•ft) | | |
| | Differential side | 42 N•m (31 lbf•ft) | | |
| Rear differential Torx screw | | 75 N•m (55 lbf•ft) | | |
| Rear differential protector | Torx screw | 65 N•m (48 lbf•ft) | | |
| | Hexagonal screw | 25 N•m (18 lbf•ft) | | |
| Trailer hitch hexagonal screw | | 48 N•m (35 lbf•ft) | | |
| Differential oil drain plug | Front/rear | 13 N•m (115 lbf•**in**) | | |
| Front differential mounting bracket | | 25 N•m (18 lbf•ft) | | |
| Rear differential socket screws | | 48 N•m (35 lbf•ft) | | |
| Propeller shaft screw | Engine side | 34 N•m (26 lbf•ft) | | |
| | Differential side | 42 N•m (31 lbf•ft) | | |
| • *WHEEL* | | | | |
| Wheel nuts | | 75 N•m (55 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 (17 lbf•ft) | | |
| Steering column half housing bolts | | 24 N•m (17 lbf•ft) | | |
| Flanged bearing bolts | | 19 N•m (168 lbf•**in**) | | Loctite 243 |
| Handle grip screw | | 4 N•m (35 lbf•**in**) | | None |
| • *SUSPENSION* | | | | |
| Shock absorber bolt | | 48 N•m (35 lbf•ft) | | None |
| Upper/lower A-arm | | 63 N•m (46 lbf•ft) | | |
| Ball joint end | | 45 N•m (33 lbf•ft) | | |
| Swing arm | To rear differential | 65 N•m (48 lbf•ft) | | |
| | To rear axle | 48 N•m (35 lbf•ft) | | |
| Rear swing arm RH pivot | | 147 N•m (108 lbf•ft) | | |
| Rear swing arm LH pivot | | 11 N•m (97 lbf•**in**) | | |
| Rear swing arm LH nut | | 147 N•m (108 lbf•ft) | | |

| VEHICLE MODEL | | QUEST MAX | QUEST MAX XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *BRAKE* | | | | |
| Caliper brake screws | | 24 N•m (17 lbf•ft) | | None |
| Brake disk screws | | 34 N•m (25 lbf•ft) | | |
| Rear reservoir bolt | | 10 N•m (89 lbf•**in**) | | |
| Rear master cylinder bolts | | 32 N•m (24 lbf•ft) | | |
| BANJO bolts | | 24 N•m (17 lbf•ft) | | |
| Caliper bleeder valve | | 5.5 N•m (49 lbf•**in**) | | |
| Rear master cylinder rod nut | | 5 N•m (44 lbf•**in**) | | |
| Rear cable bracket | | 10 N•m (89 lbf•**in**) | | |
| Hydraulic brake light switch | | 24 N•m (17 lbf•ft) | | Pipe sealant |
| • *BODY/FRAME* | | | | |
| Front bumper | | 24 N•m (17 lbf•ft) | | None |
| Front rack | M6 | 2.5 N•m (22 lbf•**in**) | | |
| | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear rack | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear extension frame | | 48 N•m (35 lbf•ft) | | |
| Front differential support | | 24 N•m (17 lbf•ft) | | |
| Seat pivot bar hook | | 10 N•m (89 lbf•**in**) | | |
| Winch plate support | | 24 N•m (17 lbf•ft) | | |
| Seat latch stud | | 29 N•m (21 lbf•ft) | | |
| Seat latch base | | 4 N•m (35 lbf•**in**) | | |
| Inner fender | | 5 N•m (44 lbf•**in**) | | |
| A-arm protector | | 2.5 N•m (22 lbf•**in**) | | |
| Footrest | | 24 N•m (17 lbf•ft) | | |
| Footpeg | | 6 N•m (53 lbf•**in**) | | |
| Removable brace | | 24 N•m (17 lbf•ft) | | |
| Engine skid plate | M8 | 15 N•m (133 lbf•**in**) | | |
| Headlamp housing | | 0.6 N•m (5.4 lbf•**in**) | | |
| Winch | | N.A. | 16 N•m (12 lbf•ft) | |
| Fearlead | | N.A. | 16 N•m (12 lbf•ft) | |
| Winch plate | | N.A. | 24 N•m (17 lbf•ft) | |
| Hand guard | | N.A. | 6 N•m (53 lbf•**in**) | |
| Hand guard support | | N.A. | 21 N•m (15 lbf•ft) | |

# TRAXTER AUTO/XL/XT

| VEHICLE MODEL | | | | TRAXTER | TRAXTER XT | TRAXTER XL |
|---|---|---|---|---|---|---|
| **ENGINE** | | | | | | |
| Engine type | | | | BOMBARDIER-ROTAX, 4-stroke. Longitudinal mount, liquid cooled, OHV. | | |
| Starting system | | | | Electric with auxiliary recoil | | |
| Number of cylinder(s) | | | | 1 | | |
| Number of valves | | | | 2 valves with hydraulic lifters (no adjustment) | | |
| Decompressor type | | | | Automatic | | |
| Bore | | Standard | mm (in) | 89 (3.5) | | |
| Stroke | | | mm (in) | 80 (3.15) | | |
| Displacement | | | $cm^3$ ($in^3$) | 498 (30.4) | | |
| Compression ratio | | | ± 0.4 | 9.75:1 | | |
| Maximum HP RPM | | | ± 100 RPM | 6000 | | |
| Lubrication | | | | Wet sump with replaceable oil filter | | |
| Oil filter | | | | BOMBARDIER-ROTAX | | |
| Normal oil operating pressure of engine | | Minimum | | 101 kPa (14.7 PSI) | | |
| | | Maximum | | 608 kPa (88 PSI) | | |
| Air filter type | | | | 2 stage foam filter | | |
| Exhaust system | | Type | | Nelson, stainless steel | | |
| | | Spark arrester | | USDA Forest Service approved | | |
| Intake valve opening | | | | 21.5° BTDC | | |
| Intake valve closing | | | | 53.7° ABDC | | |
| Exhaust valve opening | | | | 40.0° BBDC | | |
| Exhaust valve closing | | | | 25.2° ATDC | | |
| Valve stem diameter | Intake | Wear limit | mm (in) | 6.95 (.274) | | |
| | Exhaust | | | 6.95 (.274) | | |
| Valve spring free length | | Wear limit | mm (in) | 39.00 (1.54) | | |
| Valve spring squareness | | | mm (in) | 1.1 (.043) | | |
| Valve seat contact width | Intake | Wear limit | mm (in) | 1.8 (.071) | | |
| | Exhaust | | mm (in) | 2 (.079) | | |
| Piston measurement | | Wear limit | mm (in) | 88.9 (3.5) | | |
| Piston/cylinder clearance | | New | mm (in) | 0.016 to 0.044 (.001 to .002) | | |
| | | Wear limit | mm (in) | 0.090 (.004) | | |
| Piston ring type | | | 1st | Upper compression ring | | |
| | | | 2nd | Lower compression ring | | |
| | | | 3rd | Oil scraper ring | | |
| Piston ring end gap | Upper compression ring | New minimum | mm (in) | 0.15 (.006) | | |
| | Lower compression ring | | | 0.15 (.006) | | |
| | Oil scraper ring | | | 0.15 (.006) | | |
| | Upper compression ring | New maximum | mm (in) | 0.35 (.014) | | |
| | Lower compression ring | | mm (in) | 0.4 (.016) | | |
| | Oil scraper ring | | mm (in) | 0.35 (.014) | | |
| | All | Wear limit | mm (in) | 1.5 (.06) | | |
| Piston groove/ring clearance | Upper compression ring | New minimum | mm (in) | 0.030 (.0012) | | |
| | Lower compression ring | | mm (in) | 0.030 (.0012) | | |
| | Oil scraper ring | | mm (in) | 0.020 (.0008) | | |
| | Upper compression ring | New maximum | mm (in) | 0.062 (.0024) | | |
| | Lower compression ring | | mm (in) | 0.062 (.0024) | | |
| | Oil scraper ring | | mm (in) | 0.055 (.0021) | | |
| | All | Wear limit | mm (in) | 0.015 (.0006) | | |
| Ring height | | Wear limit | mm (in) 1st | 1.2 (.047) | | |
| | | | mm (in) 2nd | 1.2 (.047) | | |
| | | | mm (in) 3rd | 2.45 (.0967) | | |

| VEHICLE MODEL | | | | TRAXTER | TRAXTER XT | TRAXTER XL |
|---|---|---|---|---|---|---|
| **ENGINE** | | | | | | |
| Rocker arm bore diameter | | New minimum | mm (in) | 13.715 (.5399) | | |
| | | New maximum | mm (in) | 13.740 (.5409) | | |
| | | Wear limit | mm (in) | 13.765 (.5417) | | |
| Rocker arm shaft diameter | | New minimum | mm (in) | 13.694 (.5391) | | |
| | | New maximum | mm (in) | 13.683 (.5387) | | |
| | | Wear limit | mm (in) | 13.672 (.5383) | | |
| Push rod bend | | Wear limit | mm (in) | 0.2 (.008) | | |
| Cylinder bore | | New nominal | mm (in) | 88.989 to 89.00 (3.5035 to 3.5039) | | |
| | | Wear limit | mm (in) | 89.03 (3.5051) | | |
| Cylinder taper | | New maximum | mm (in) | 0.035 (.0014) | | |
| | | Wear limit | mm (in) | 0.09 (.004) | | |
| Cylinder out of round | | New maximum | mm (in) | 0.005 (.0001) | | |
| | | Wear limit | mm (in) | 0.015 (.0006) | | |
| Camshaft axial clearance | | New minimum | mm (in) | 0.072 (.0028) | | |
| | | New maximum | mm (in) | 0.628 (.0247) | | |
| Camshaft ends | PTO side | New minimum | mm (in) | 31.980 (1.2590) | | |
| | | New maximum | mm (in) | 31.964 (1.2586) | | |
| | | Wear limit | mm (in) | 31.948 (1.2577) | | |
| | Magneto side | New minimum | mm (in) | 17.975 (.7077) | | |
| | | New maximum | mm (in) | 17.988 (.7082) | | |
| | | Wear limit | mm (in) | 17.962 (.7071) | | |
| Camshaft bore | PTO side | New minimum | mm (in) | 32.000 (1.2598) | | |
| | | New maximum | mm (in) | 32.016 (1.2605) | | |
| | | Wear limit | mm (in) | 32.032 (1.2611) | | |
| | Magneto side | New minimum | mm (in) | 18.000 (.7087) | | |
| | | New maximum | mm (in) | 18.018 (.7094) | | |
| | | Wear limit | mm (in) | 18.036 (.7101) | | |
| Cam lobe | Intake | New minimum | mm (in) | 32.509 (1.2799) | | |
| | | New maximum | mm (in) | 32.709 (1.2878) | | |
| | | Wear limit | mm (in) | 32.418 (1.2763) | | |
| | Exhaust | New minimum | mm (in) | 32.341 (1.2733) | | |
| | | New maximum | mm (in) | 32.541(1.2811) | | |
| | | Wear limit | mm (in) | 32.250 (1.2697) | | |
| Crankshaft axial clearance | | New minimum | mm (in) | 0.10 (.0039) | | |
| | | New maximum | mm (in) | 0.40 (.0157) | | |
| Crankshaft deflection | PTO side | Wear limit | mm (in) | 0.08 (.003) | | |
| | Magneto side | | | 0.05 (.002) | | |
| Crankshaft ends | MAG side | New minimum | mm (in) | 34.995 (1.3778) | | |
| | | New maximum | mm (in) | 34.985 (1.3774) | | |
| | | Wear limit | | 34.985 (1.3774) | | |
| | PTO side | New minimum | mm (in) | 34.991 (1.3776) | | |
| | | New maximum | mm (in) | 34.975 (1.3769) | | |
| | | Wear limit | | 34.975 (1.3769) | | |
| Connecting rod big end axial play | | New minimum | mm (in) | 0.556 (.0219) | | |
| | | New maximum | mm (in) | 0.977 (.0385) | | |
| | | Wear limit | mm (in) | 1.3 (.0511) | | |
| Connecting rod small end diameter | | Wear limit | mm (in) | 22.05 (.868) | | |
| Piston pin diameter | | Wear limit | mm (in) | 21.990 (.866) | | |
| Piston pin bore clearance | | Wear limit | mm (in) | 0.080 (.003) | | |
| Clutch drum (inside diameter) | | Wear limit | mm (in) | 140.4 (5.53) | | |
| Weight lining thickness | | Wear limit | mm (in) | 2 (.078) | | |
| Weight spring length | | Wear limit | mm (in) | 21.6 (.85) | | |
| Friction drive plate | | Wear limit | mm (in) | 2.7 (.11) | | |
| Steel driven plate | | Maximum warpage | mm (in) | 0.25 (.01) | | |
| Clutch spring free length | | Wear limit | mm (in) | 38 (1.5) | | |

| VEHICLE MODEL | | | TRAXTER | TRAXTER XT | TRAXTER XL |
|---|---|---|---|---|---|
| **ELECTRICAL** | | | | | |
| Magneto/generator | | | 400 W @ 6000 RPM | | |
| Ignition system type | | | I.D.I. (Inductive Discharge Ignition) | | |
| Ignition timing | | | Not adjustable | | |
| Spark plug | Quantity | | 2 | | |
| | Make and type | | NGK DR8EA | | |
| | Gap | mm (in) | 0.6 to 0.7 (.024 to .027) | | |
| Trigger coil | | Ω | 190 – 300 | | |
| Battery charging coil | | Ω | 0.4 ± 01 | | |
| Ignition coil | Primary | Ω | 0.4 to 0.9 @ 20°C (68°F) | | |
| | Secondary | kΩ | Not measurable | | |
| Engine RPM limiter | | | 7700 | | |
| Battery | Type | | Electrolyte battery type | | |
| | Voltage | | 12 V | | |
| | Nominal rating | | 19 Ah | | |
| | Power starter output | | 0.7 KW | | |
| Headlamp | | | 2 x 55 W, H4703 | | |
| Taillight | | | 8/27 W, 1157 | | |
| Pilot lamp cluster | | | LEDS, 0.7 V approximately (each) | | |
| Fuses | Location no. 1 (ignition) | | 15 A | | |
| | Location no. 2 (accessories) | | 15 A (power outlet and auxiliary supply) | | |
| | Location no. 3 (solenoids) | | 15 A | | |
| | Location no. 4 (fan) | | 15 A | | |
| | location no. 5 (MPEM) | | 20 A | | |
| | Location no. 6 (charging system) | | 30 A | | |
| **CARBURETION** | | | | | |
| Carburetor | Type | | Mikuni constant depression type with manual choke and ECS (Enrichner Coasting System) | | |
| | Model | | BSR33 | | |
| Fuel pump | Type | | Mikuni | | |
| | Model | | External (vacuum-operated) | | |
| Idle engine speed | | ± 100 RPM | 1100 | | |
| Main jet | | | 140 | | |
| Pilot jet | | | 35 | | |
| Needle jet | | | O -8 | | |
| Jet needle | | | 5FIY3-52 | | |
| Clip position number | | | 3 | | |
| Choke plunger position | | | Variable choke | | |
| Adjustment | Throttle cable | mm (in) | 0.5 (.02) | | |
| | Preliminary pilot screw turn | | 2 | | |
| | 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% distilled water). Use coolant specifically designed for aluminum engines | | |
| Fan | | | Thermostatic | | |
| Fan thermostat | Switch ON | | 102°C (216°F) | | |
| | Switch OFF | | 96°C (205°F) | | |
| Engine thermostat | Opening temperature | | 75°C (167°F) | | |
| | Closing temperature | | 85°C (185°F) | | |
| Radiator cap opening pressure | | | 110 kPa (16 PSI) | | |

| VEHICLE MODEL | | | TRAXTER | TRAXTER XT | TRAXTER XL |
|---|---|---|---|---|---|
| **DRIVE TRAIN** | | | | | |
| Transmission | Type | | Dual range (HI-LO) with park, neutral and reverse | | |
| | Speeds | | 5 | | |
| | Model | | Electronically controlled hydraulic shift | | |
| Engagement RPM | | ± 100 RPM | 1300 | | |
| Operating pressure for shifting and clutching | | kPa (PSI) | 810 (118) | | |
| Clutch type | | | 1 centrifugal and 1 multi-disk hydraulically controlled | | |
| Front differential | | | Shaft driven/single Auto-Lock differential (pump driven), progressive locking | | |
| Front differential ratio | | | 3.6:1 | | |
| Rear axle | | | Shaft driven/solid axle | | |
| Rear axle ratio | | | 3.6:1 | | |
| **STEERING** | | | | | |
| Turning radius | | m (in) | 2.14 (84) | 2.14 (84) | 2.52 (99) |
| Total toe (vehicle on ground) | | mm (in) | 8 ± 4 (.315 ± .157) each side | | |
| Camber angle | | | 0° | | |
| Tie-rod maximum length unengaged | | mm (in) | 20 ± 5 (.787 ± 0.197) | | |
| **SUSPENSION** | | | | | |
| • *FRONT* | | | | | |
| Suspension type | | | Independent suspension — double A-arm | | |
| Suspension travel | | mm (in) | 178 (7) | | |
| Shock absorber | Qty | | 2 | | |
| | Type | | oil | | |
| Spring free length | | mm (in) | 270 (11) | | |
| Spring color code | | | Orange/black/black | | |
| Front preload adjustment | | | N.A. | | |
| • *REAR* | | | | | |
| Suspension type | | | Rigid swing arm | | |
| Suspension travel | | mm (in) | 190.5 (7.5) | 190.5 (7.5) | 102 (4) |
| Shock absorber | Qty | | 2 | | |
| | Type | | Oil | | |
| Spring free length | | mm (in) | 355 (13.9) | 355 (13.9) | 361 (14.2) |
| Spring color code | | | Green/white/black | Green/white/black | Black/silver/black |
| Rear preload adjustment | | | 3 settings | 3 settings | 5 settings |
| **BRAKES** | | | | | |
| Front brake | Qty | | 2 discs | | |
| | Type | | Hydraulic | | |
| Rear brake | Qty | | 1 disc | | |
| | Type | | Mechanical cable/hydraulic | | |
| Parking brake | | | Transmission brake and brake lever lock on LH brake lever | | |
| Caliper | | | Floating | | |
| Lining material | | | Metallic | | |
| Minimum pad thickness | | mm (in) | 1 (.04) | | |
| Minimum brake disk thickness | | mm (in) | 4.5 (.18) | | |
| Maximum brake disk warpage | | mm (in) | 0.2 (.01) | | |

| VEHICLE MODEL | | | | TRAXTER | TRAXTER XT | TRAXTER XL |
|---|---|---|---|---|---|---|
| **TIRES AND WHEELS** | | | | | | |
| • *TIRE* | | | | | | |
| Pressure | Front | | Recommended | 38 kPa (5.5 PSI) | 38 kPa (5.5 PSI) | 48 kPa (7 PSI) |
| | | | Minimum | 35 kPa (5 PSI) | 35 kPa (5 PSI) | 41 kPa (6 PSI) |
| | Rear | | Recommended | 35 kPa (5 PSI) | 35 kPa (5 PSI) | 48 kPa (7 PSI) |
| | | | Minimum | 31 kPa (4.5 PSI) | 31 kPa (4.5 PSI) | 41 kPa (6 PSI) |
| Minimum tread pattern depth | | | | 4 mm (0.16 in) | | |
| Size | Front | | mm (in) | 25 x 8 – 12 Trailwolf | | |
| | Rear | | mm (in) | 26 x 10 – 12 Trailwolf | | |
| • *WHEELS* | | | | | | |
| Size | Front | | mm (in) | 12 x 6.5 | | |
| | Rear | | mm (in) | 12 x 8 | | |
| **DIMENSION** | | | | | | |
| Dry weight | | | kg (lb) | 340 (755) | 340 (755) | 386 (849) |
| Overall length | | | m (in) | 2.07 (82) | 2.12 (83) | 2.50 (98) |
| Overall width | | | m (in) | 1.19 (47) | | |
| Overall height | | | m (in) | 1.14 (45) | | |
| Handlebar overall width | | | mm (in) | 800 (31) | | |
| Seat height | | | mm (in) | 945 (37) | | |
| Wheel base | | | m (in) | 1.30 (51) | 1.30 (51) | 1.55 (61) |
| Wheel track | Front | | mm (in) | 992 (39) | | |
| | Rear | | mm (in) | 940 (37) | | |
| Front and under engine ground clearance | | | mm (in) | 244 (9.6) | | |
| Rear rigid axle ground clearance | | | mm (in) | 188 (7.4) | | |
| **CAPACITIES** | | | | | | |
| • *LIQUID* | | | | | | |
| Fuel tank | | | | 20 L (5.3 U.S. gal) | | |
| Fuel tank reserve | | | | 6 L (1.6 U.S. gal) | | |
| Engine/transmission oil | Capacity | | | 3 L (3.17 quarts) | | |
| | Recommended | | | SAE 10W40, 4-stroke mineral based engine oil API classification SG, SH or SJ or Bombardier synthetic oil 5W40. **Do not use other synthetic oil, synthetic blend oil or special oil additives.** Refer to the oil viscosity chart in the MAINTENANCE section | | |
| Differential oil | Capacity | | Front | 610 mL (21 U.S. oz) | | |
| | | | Rear | 250 mL (8.4 U.S. oz) | | |
| | Recommended | | | Bombardier differetial oil or Synthetic polyester 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 | | | | 3 L (3.17 quarts) | | |
| • *BODY AND FRAME* | | | | | | |
| Weight distribution | Front/rear | | % | 49/51 | | |
| Front storage tray | | | kg (lb) | 10 (22) | | |
| Rack | Front (including front storage tray) | | kg (lb) | 40 (90) | | |
| | Rear (including tongue weight) | | kg (lb) | 80 (175) | 80 (175) | N.A. |
| Rear cargo box | | | kg (lb) | N.A. | N.A. | 273 (601) |
| Side boxes | | | kg (lb) | N.A. | N.A. | 14 (30) each |
| Total vehicle load allowed (including driver, all other loads and added accessories) | | | kg (lb) | 220 (485) | 220 (485) | 364 (802) |
| Gross vehicle weight rating | | | kg (lb) | 545 (1200) | 545 (1200) | 750 (1650) |
| Towing | | | kg (lb) | 500 (1100) | | |
| Tongue (included with rear rack weight) | | | kg (lb) | 14 (30) | | |

| VEHICLE MODEL | | TRAXTER | TRAXTER XT | TRAXTER XL |
|---|---|---|---|---|
| **MATERIAL** | | | | |
| Frame | Material | Steel | | |
| | Color | Black | | |
| Wheel | Material | Steel | | |
| | Color | Silver | Chrome | Silver |
| Front/rear rack | Material | Steel | | |
| | Color | Black | | |
| Front bumper | Material | Steel | | |
| | Color | Black | | |
| Front/rear fender | Material | High density polyethylene | | |
| | Color | Laurentian Green or Viper Red | Laurentian Green or Viper Red or Yellow | Green |
| Fuel tank protector | Material | High density polyethylene | | |
| | Color | Slate Grey | | |
| Steering cover | Material | High density polyethylene | | |
| | Color | Slate Grey | | |
| Storage compartment cover | Material | High density polyethylene | | |
| | Color | Slate Grey | | |
| Front facia | Material | High density polyethylene | | |
| | Color | Slate Grey | | |
| Rear facia | Material | Low density polyethylene | Low density polyethylene | N.A. |
| | Color | Slate Grey | Slate Grey | N.A. |
| Foot rest | Material | High density polyethylene | | |
| | Color | Slate Grey | | |
| Air box cover | Material | Nylon | | |
| | Color | Black | | |
| Air box | Material | Polypropylene | | |
| | Color | Black | | |
| A-arm protector | Material | High density polyethylene | | |
| | Color | Black | | |
| Mudguard | Material | Low density polyethylene | | |
| | Color | Slate Grey | | |
| Seat base | Material | Polypropylene | | |
| | Color | Slate Grey | | |
| Seat cover | Material | Thermoformed vinyl | | |
| | Color | Black | | |
| Rear cargo box | Material | N.A. | N.A. | Low density polyethylene |
| | Color | N.A. | N.A. | Black |

| VEHICLE MODEL | | TRAXTER | TRAXTER XT | TRAXTER XL | *SERVICE PRODUCT* |
|---|---|---|---|---|---|
| **TORQUE** | | | | | |
| • *ENGINE* | | | | | |
| Engine support | M8 | 24 N•m (17 lbf•ft) | | | |
| Engine mount | M10 | 48 N•m (35 lbf•ft) | | | |
| Spark plug | | 18 N•m (159 lbf•**in**) | | | None |
| Magneto cover bolts | | 9 N•m (80 lbf•**in**) | | | |
| Vehicle speed sensor | | 9 N•m (80 lbf•**in**) | | | |
| Starter RED (+) cable | | 6 N•m (53 lbf•**in**) | | | Dielectric grease |
| Solenoid | Starter | 7 N•m (62 lbf•**in**) | | | None |
| | Winch | 9 N•m (80 lbf•**in**) | | | |
| Rotor nut | | 150 N•m (111 lbf•ft) | | | Loctite 243 |
| Sprag clutch screw | | 30 N•m (22 lbf•ft) | | | Loctite 648 |
| STPS (Sub-Transmission Position Sensor) | | 2 N•m (18 lbf•**in**) | | | |
| GBPS (Gear Box Position Sensor) | | 2 N•m (18 lbf•**in**) | | | |
| Rewind starter housing | | 4.5 N•m (40 lbf•**in**) | | | |
| Starting pulley | | 22 N•m (16 lbf•ft) | | | |
| Solenoid valve | Upshift/downshift | 5 N•m (44 lbf•**in**) | | | Loctite 243 |
| | Modulator | 9 N•m (80 lbf•**in**) | | | |
| | Clutching | 9 N•m (80 lbf•**in**) | | | |
| Hydraulic piston cover | | 9 N•m (80 lbf•**in**) | | | |
| Stator bolt | | 9 N•m (80 lbf•**in**) | | | |
| Trigger coil bolt | | 9 N•m (80 lbf•**in**) | | | |
| • *COOLING* | | | | | |
| Radiator mount screw/nut | | 10 N•m (89 lbf•**in**) | | | |
| Thermostat housing | | 9 N•m (80 lbf•**in**) | | | |
| Thermostat bleeding screw | | 4.5 N•m (40 lbf•**in**) | | | |
| Water pump housing | | 9 N•m (80 lbf•**in**) | | | None |
| Temperature sensor | | 17 N•m (151 lbf•**in**) | | | |
| Temperature sender on radiator | | 11 N•m (97 lbf•**in**) | | | |
| Cooling drain plug | | 7 N•m (62 lbf•**in**) | | | |
| Fan mount screw/nut | | 4.5 N•m (40 lbf•**in**) | | | |
| • *EXHAUST* | | | | | |
| Exhaust nut | | 11 N•m (97 lbf•**in**) | | | None |
| Heat shield screws | | 6 N•m (53 lbf•**in**) | 6 N•m (53 lbf•**in**) | 10 N•m (89 lbf•**in**) | |
| • *LUBRICATION* | | | | | |
| Engine drain plug | | 29 N•m (21 lbf•ft) | | | None |
| Engine oil strainer cover | | 9 N•m (80 lbf•**in**) | | | Loctite 243 |
| Oil pump housing | | 9 N•m (80 lbf•**in**) | | | None |
| Oil pressure regulator plug | | 22 N•m (16 lbf•ft) | | | |
| Oil pressure switch | | 17 N•m (151 lbf•**in**) | | | |
| • *CYLINDER AND HEAD* | | | | | |
| Valve cover screw | | 9 N•m (80 lbf•**in**) | | | None |
| Rocker arm shaft holding plate | | 10 N•m (89 lbf•**in**) | | | |
| Cylinder screw | | 10 N•m (89 lbf•**in**) | | | |
| Cylinder head nut | | 48 N•m (35 lbf•ft) | | | |
| Cylinder head screw | | 21 N•m (16 lbf•ft) | | | Loctite 243 |
| Decompressor bolt | | 21 N•m (16 lbf•ft) | | | |
| • *CRANKSHAFT* | | | | | |
| Crankcase housing screw | | 9 N•m (80 lbf•**in**) | | | None |
| Crankshaft gear nut | | 230 N•m (170 lbf•ft) | | | Loctite 243 |
| Balancing shaft gear nut | | 150 N•m (111 lbf•ft) | | | |

| VEHICLE MODEL | | TRAXTER | TRAXTER XT | TRAXTER XL | *SERVICE PRODUCT* |
|---|---|---|---|---|---|
| **TORQUE** | | | | | |
| • *GEARBOX* | | | | | |
| Index lever | | 9 N•m (80 lbf•**in**) | | | None |
| Index gear | | 9 N•m (80 lbf•**in**) | | | |
| Gear shift lever | | 9 N•m (80 lbf•**in**) | | | |
| • *CLUTCH* | | | | | |
| Clutch drum nut | | 270 N•m (199 lbf•ft) | | | Loctite 243 |
| Clutch nut | | 150 N•m (111 lbf•ft) | | | |
| Retaining plate screw | | 7 N•m (62 lbf•**in**) | | | None |
| • *FUEL* | | | | | |
| Carburetor mounting clamp | | 0.6 N•m (5.4 lbf•**in**) | | | None |
| Fuel pump mounting screws | | 10 N•m (89 lbf•**in**) | | | |
| • *DRIVE TRAIN* | | | | | |
| Front wheel hub nut | | 145 N•m (107 lbf•ft) | | | None |
| Rear wheel hub nut | | 145 N•m (107 lbf•ft) | | | |
| Front differential | Front | 67 N•m (49 lbf•ft) | | | |
| | Rear | 75 N•m (55 lbf•ft) | | | |
| Front differential mounting bracket | | 23 N•m (17 lbf•ft) | | | |
| Rear differential socket screws | | 48 N•m (35 lbf•ft) | | | |
| Propeller shaft screw | Engine side | 34 N•m (26 lbf•ft) | | | |
| | Differential side | 42 N•m (31 lbf•ft) | | | |
| Rear differential Torx screw | | 75 N•m (55 lbf•ft) | | | |
| Rear differential protector | Torx screw | 65 N•m (48 lbf•ft) | | | |
| | Hexagonal screw | 25 N•m (18 lbf•ft) | | | |
| Trailer hitch hexagonal screw | | 48 N•m (35 lbf•ft) | | | |
| Differential oil plug | Front/rear | 13 N•m (115 lbf•**in**) | | | |
| • *WHEEL* | | | | | |
| Wheel nuts | | 75 N•m (55 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 (17 lbf•ft) | | | |
| Steering column half housing bolts | | 24 N•m (17 lbf•ft) | | | |
| Steering column support screws | | 24 N•m (17 lbf•ft) | | | |
| Flanged bearing bolts | | 19 N•m (168 lbf•**in**) | | | Loctite 243 |
| Handle grip screw | | 0.4 N•m (3.5 lbf•**in**) | | | None |
| • *SUSPENSION* | | | | | |
| Upper/lower A-arm | | 63 N•m (46 lbf•ft) | | | None |
| Ball joint end | | 45 N•m (33 lbf•ft) | | | |
| Shock absorber bolt | | 48 N•m (35 lbf•ft) | | | |
| Swing arm | To rear diffferential | 65 N•m (48 lbf•ft) | | | |
| | To rear axle | 48 N•m (35 lbf•ft) | | | |
| Rear swing arm LH nut | | 147 N•m (108 lbf•ft) | | | |
| Rear swing arm RH pivot | | 147 N•m (108 lbf•ft) | | | |
| Rear swing arm LH pivot | | 11 N•m (97 lbf•**in**) | | | |
| Hydraulic brake light switch | | 24 N•m (17 lbf•ft) | | | Pipe sealant |

| VEHICLE MODEL | | TRAXTER | TRAXTER XT | TRAXTER XL | *SERVICE PRODUCT* |
|---|---|---|---|---|---|
| **TORQUE** | | | | | |
| • *BRAKE* | | | | | |
| Caliper brake screws | | 24 N•m (17 lbf•ft) | | | |
| Brake disk screws | | 34 N•m (25 lbf•ft) | | | |
| Rear master cylinder bolts | | 32 N•m (24 lbf•ft) | | | |
| Rear master cylinder reservoir bolt | | 10 N•m (89 lbf•**in**) | | | None |
| BANJO bolt | | 24 N•m (17 lbf•ft) | | | |
| Caliper bleeder valve | | 14 N•m (124 lbf•**in**) | | | |
| Rear master cylinder rod nut | | 5 N•m (44 lbf•**in**) | | | |
| • *BODY/FRAME* | | | | | |
| Front bumper | | 24 N•m (17 lbf•ft) | | | |
| Front rack | M6 | 2.5 N•m (22 lbf•**in**) | | | |
| | M8 | 15 N•m (133 lbf•**in**) | | | |
| Rear rack | M8 | 15 N•m (133 lbf•**in**) | | | |
| Rear extension frame | | 48 N•m (35 lbf•ft) | | | |
| Front differential support | | 24 N•m (17 lbf•ft) | | | |
| Seat pivot bar | | 24 N•m (17 lbf•ft) | | | |
| Winch plate support | | 24 N•m (17 lbf•ft) | | | |
| Winch bolts | | N.A. | 15 N•m (133 lbf•**in**) | N.A. | |
| Fairlead | | N.A. | 15 N•m (133 lbf•**in**) | N.A. | |
| Hand guard | | N.A. | 6 N•m (53 lbf•**in**) | N.A. | |
| Hand guard support | | N.A. | 21 N•m (15 lbf•ft) | N.A. | |
| Rear cargo box pivot bolt | | N.A. | N.A. | 16 N•m (142 lbf•**in**) | None |
| Rear cargo box shock | | N.A. | N.A. | 4 N•m (35 lbf•**in**) | |
| Rear cargo box latch base | | N.A. | N.A. | 7 N•m (62 lbf•**in**) | |
| Rear cargo box6 | | N.A. | N.A. | 3 N•m (27 lbf•**in**) | |
| Seat latch stud | | 29 N•m (21 lbf•ft) | | | |
| Seat latch base | | 4 N•m (35 lbf•**in**) | | | |
| Inner fender | | 5 N•m (44 lbf•**in**) | | | |
| A-arm protector | | 2.5 N•m (22 lbf•**in**) | | | |
| Footrest | | 24 N•m (17 lbf•ft) | | | |
| Footpeg | | 6 N•m (53 lbf•**in**) | | | |
| Removable brace | | 24 N•m (17 lbf•ft) | | | |
| Engine skid plate | M8 | 15 N•m (133 lbf•**in**) | | | |
| Headlamp housing | | 0.6 N•m (5.4 lbf•**in**) | | | |

# TRAXTER MAX/TRAXTER MAX XT

| VEHICLE MODEL | | | | TRAXTER MAX | TRAXTER MAX XT |
|---|---|---|---|---|---|
| **ENGINE** | | | | | |
| Engine type | | | | BOMBARDIER-ROTAX, 4-stroke. Longitudinal mount, liquid cooled, OHV. | |
| Starting system | | | | Electric with auxiliary recoil | |
| Number of cylinder(s) | | | | 1 | |
| Number of valves | | | | 2 valves with hydraulic lifters (no adjustment) | |
| Decompressor type | | | | Automatic | |
| Bore | | Standard | mm (in) | 89 (3.5) | |
| Stroke | | | mm (in) | 80 (3.15) | |
| Displacement | | | $cm^3$ ($in^3$) | 498 (30.4) | |
| Compression ratio | | | ± 0.4 | 9.75:1 | |
| Maximum HP RPM | | | ± 100 RPM | 6000 | |
| Lubrication | | | | Wet sump with replaceable oil filter | |
| Oil filter | | | | BOMBARDIER-ROTAX | |
| Normal oil operating pressure of engine | | Minimum | | 101 kPa (14.7 PSI) | |
| | | Maximum | | 608 kPa (88 PSI) | |
| Air filter type | | | | 2 stage foam filter | |
| Exhaust system | | Type | | Nelson, stainless steel | |
| | | Spark arrester | | USDA Forest Service approved | |
| Intake valve opening | | | | 21.5° BTDC | |
| Intake valve closing | | | | 53.7° ABDC | |
| Exhaust valve opening | | | | 40.0° BBDC | |
| Exhaust valve closing | | | | 25.2° ATDC | |
| Valve stem diameter | Intake | Wear limit | mm (in) | 6.95 (.274) | |
| | Exhaust | | | 6.95 (.274) | |
| Valve spring free length | | Wear limit | mm (in) | 39.00 (1.54) | |
| Valve spring squareness | | | mm (in) | 1.1 (.043) | |
| Valve seat contact width | Intake | Wear limit | mm (in) | 1.8 (.071) | |
| | Exhaust | | mm (in) | 2 (.079) | |
| Piston measurement | | Wear limit | mm (in) | 88.9 (3.5) | |
| Piston/cylinder clearance | | New | mm (in) | 0.016 to 0.044 (.001 to .002) | |
| | | Wear limit | mm (in) | 0.090 (.004) | |
| Piston ring type | | | 1st | Upper compression ring | |
| | | | 2nd | Lower compression ring | |
| | | | 3rd | Oil scraper ring | |
| Piston ring end gap | Upper compression ring | New minimum | mm (in) | 0.15 (.006) | |
| | Lower compression ring | | mm (in) | 0.15 (.006) | |
| | Oil scraper ring | | mm (in) | 0.15 (.006) | |
| | Upper compression ring | New maximum | mm (in) | 0.35 (.014) | |
| | Lower compression ring | | mm (in) | 0.4 (.016) | |
| | Oil scraper ring | | mm (in) | 0.35 (.014) | |
| | All | Wear limit | mm (in) | 1.5 (.06) | |
| Piston groove/ring clearance | Upper compression ring | New minimum | mm (in) | 0.030 (.0012) | |
| | Lower compression ring | | mm (in) | 0.030 (.0012) | |
| | Oil scraper ring | | mm (in) | 0.020 (.0008) | |
| | Upper compression ring | New maximum | mm (in) | 0.062 (.0024) | |
| | Lower compression ring | | mm (in) | 0.062 (.0024) | |
| | Oil scraper ring | | mm (in) | 0.055 (.0021) | |
| | All | Wear limit | mm (in) | 0.015 (.0006) | |
| Ring height | | Wear limit | mm (in) 1st | 1.2 (.047) | |
| | | | mm (in) 2nd | 1.2 (.047) | |
| | | | mm (in) 3rd | 2.45 (.0967) | |

| VEHICLE MODEL | | | | | TRAXTER MAX | TRAXTER MAX XT |
|---|---|---|---|---|---|---|
| **ENGINE** | | | | | | |
| Rocker arm bore diameter | | New minimum | | mm (in) | 13.715 (.5399) | |
| | | New maximum | | mm (in) | 13.740 (.5409) | |
| | | Wear limit | | mm (in) | 13.765 (.5417) | |
| Rocker arm shaft diameter | | New minimum | | mm (in) | 13.694 (.5391) | |
| | | New maximum | | mm (in) | 13.683 (.5387) | |
| | | Wear limit | | mm (in) | 13.672 (.5383) | |
| Push rod bend | | Wear limit | | mm (in) | 0.2 (.008) | |
| Cylinder bore | | New nominal | | mm (in) | 88.989 to 89.00 (3.5035 to 3.5039) | |
| | | Wear limit | | mm (in) | 89.03 (3.5051) | |
| Cylinder taper | | New maximum | | mm (in) | 0.035 (.0014) | |
| | | Wear limit | | mm (in) | 0.09 (.004) | |
| Cylinder out of round | | New maximum | | mm (in) | 0.005 (.0001) | |
| | | Wear limit | | mm (in) | 0.015 (.0006) | |
| Camshaft axial clearance | | New minimum | | mm (in) | 0.072 (.0028) | |
| | | New maximum | | mm (in) | 0.628 (.0247) | |
| Camshaft ends | PTO side | New minimum | | mm (in) | 31.980 (1.2590) | |
| | | New maximum | | mm (in) | 31.964 (1.2586) | |
| | | Wear limit | | mm (in) | 31.948 (1.2577) | |
| | Magneto side | New minimum | | mm (in) | 17.975 (.7077) | |
| | | New maximum | | mm (in) | 17.988 (.7082) | |
| | | Wear limit | | mm (in) | 17.962 (.7071) | |
| Camshaft bore | PTO side | New minimum | | mm (in) | 32.000 (1.2598) | |
| | | New maximum | | mm (in) | 32.016 (1.2605) | |
| | | Wear limit | | mm (in) | 32.032 (1.2611) | |
| | Magneto side | New minimum | | mm (in) | 18.000 (.7087) | |
| | | New maximum | | mm (in) | 18.018 (.7094) | |
| | | Wear limit | | mm (in) | 18.036 (.7101) | |
| Cam lobe | Intake | New minimum | | mm (in) | 32.509 (1.2799) | |
| | | New maximum | | mm (in) | 32.709 (1.2878) | |
| | | Wear limit | | mm (in) | 32.418 (1.2763) | |
| | Exhaust | New minimum | | mm (in) | 32.341 (1.2733) | |
| | | New maximum | | mm (in) | 32.541(1.2811) | |
| | | Wear limit | | mm (in) | 32.250 (1.2697) | |
| Crankshaft axial clearance | | New minimum | | mm (in) | 0.10 (.0039) | |
| | | New maximum | | mm (in) | 0.40 (.0157) | |
| Crankshaft deflection | PTO side | Wear limit | | mm (in) | 0.08 (.003) | |
| | Magneto side | | | mm (in) | 0.05 (.002) | |
| Crankshaft ends | MAG side | New minimum | | mm (in) | 34.995 (1.3778) | |
| | | New maximum | | mm (in) | 34.985 (1.3774) | |
| | | Wear limit | | mm (in) | 34.985 (1.3774) | |
| | PTO side | New minimum | | mm (in) | 34.991 (1.3776) | |
| | | New maximum | | mm (in) | 34.975 (1.3769) | |
| | | Wear limit | | mm (in) | 34.975 (1.3769) | |
| Connecting rod big end axial play | | New minimum | | mm (in) | 0.556 (.0219) | |
| | | New maximum | | mm (in) | 0.977 (.0385) | |
| | | Wear limit | | mm (in) | 1.3 (.0511) | |
| Connecting rod small end diameter | | Wear limit | | mm (in) | 22.05 (.868) | |
| Piston pin diameter | | Wear limit | | mm (in) | 21.990 (.866) | |
| Piston pin bore clearance | | Wear limit | | mm (in) | 0.080 (.003) | |
| Clutch drum (inside diameter) | | Wear limit | | mm (in) | 140.4 (5.53) | |
| Weight lining thickness | | Wear limit | | mm (in) | 2 (.078) | |
| Weight spring length | | Wear limit | | mm (in) | 21.6 (.85) | |
| Friction drive plate | | Wear limit | | mm (in) | 2.7 (.11) | |
| Steel driven plate | | Maximum warpage | | mm (in) | 0.25 (.01) | |
| Clutch spring free length | | Wear limit | | mm (in) | 38 (1.5) | |

| VEHICLE MODEL | | | TRAXTER MAX | TRAXTER MAX XT |
|---|---|---|---|---|
| **ELECTRICAL** | | | | |
| Magneto/generator | | | 400 W @ 6000 RPM | |
| Ignition system type | | | I.D.I. (Inductive Discharge Ignition) | |
| Ignition timing | | | Not adjustable | |
| Spark plug | Quantity | | 2 | |
| | Make and type | | NGK DR8EA | |
| | Gap | mm (in) | 0.6 to 0.7 (.024 to .027) | |
| Trigger coil | | Ω | 190 – 300 | |
| Battery charging coil | | Ω | 0.4 ± 01 | |
| Ignition coil | Primary | Ω | 0.4 to 0.9 @ 20°C (68°F) | |
| | Secondary | kΩ | Not measurable | |
| Engine RPM limiter | | | 7700 | |
| Battery | Type | | Electrolyte battery type | |
| | Voltage | | 12 V | |
| | Nominal rating | | 19 Ah | |
| | Power starter output | | 0.7 KW | |
| Headlamp | | | 2 x 55 W, H4703 | |
| Taillight | | | 8/27 W, 1157 | |
| Pilot lamp cluster | | | LEDS, 0.7 V approximately (each) | |
| Fuses | Location no. 1 (ignition) | | 15 A | |
| | Location no. 2 (accessories) | | 15 A (power outlet and auxiliary supply) | |
| | Location no. 3 (solenoids) | | 15 A | |
| | Location no. 4 (fan) | | 15 A | |
| | location no. 5 (MPEM) | | 20 A | |
| | Location no. 6 (charging system) | | 30 A | |
| **CARBURETION** | | | | |
| Carburetor | Type | | Mikuni constant depression type with manual choke and ECS (Enrichner Coasting System) | |
| | Model | | BSR33 | |
| Fuel pump | Type | | Mikuni | |
| | Model | | External (vacuum-operated) | |
| Idle engine speed | | ± 100 RPM | 1100 | |
| Main jet | | | 140 | |
| Pilot jet | | | 35 | |
| Needle jet | | | O -8 | |
| Jet needle | | | 5FIY3-52 | |
| Clip position number | | | 3 | |
| Choke plunger position | | | Variable choke | |
| Adjustment | Throttle cable | mm (in) | 0.5 (.02) | |
| | Preliminary pilot screw turn | | 2 | |
| | 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% distilled water). Use coolant specifically designed for aluminum engines | |
| Fan | | | Thermostatic | |
| Fan thermostat | Switch ON | | 102°C (216°F) | |
| | Switch OFF | | 96°C (205°F) | |
| Engine thermostat | Opening temperature | | 75°C (167°F) | |
| | Closing temperature | | 85°C (185°F) | |
| Radiator cap opening pressure | | | 110 kPa (16 PSI) | |

| VEHICLE MODEL | | | TRAXTER MAX | TRAXTER MAX XT |
|---|---|---|---|---|
| **DRIVE TRAIN** | | | | |
| Transmission | Type | | Dual range (HI-LO) with park, neutral and reverse | |
| | Speeds | | 5 | |
| | Model | | Electronically controlled hydraulic shift | |
| Engagement RPM | | ± 100 RPM | 1300 | |
| Operating pressure for shifting and clutching | | kPa (PSI) | 810 (118) | |
| Clutch type | | | 1 centrifugal and 1 multi-disk hydraulically controlled | |
| Front differential | | | Shaft driven/single Auto-Lock differential (pump driven), progressive locking | |
| Front differential ratio | | | 3.6:1 | |
| Rear axle | | | Shaft driven/solid axle | |
| Rear axle ratio | | | 3.6:1 | |
| **STEERING** | | | | |
| Turning radius | | m (in) | 2.36 (93) | |
| Total toe (vehicle on ground) | | mm (in) | 8 ± 4 (.315 ± .157) each side | |
| Camber angle | | | 0° | |
| Tie-rod maximum length unengaged | | mm (in) | 20 ± 5 (.787 ± 0.197) | |
| **SUSPENSION** | | | | |
| • *FRONT* | | | | |
| Suspension type | | | Independent suspension — double A-arm | |
| Suspension travel | | mm (in) | 178 (7) | |
| Shock absorber | Qty | | 2 | |
| | Type | | oil | |
| Spring free length | | mm (in) | 290 (11.5) | |
| Spring color code | | | Silver/Red/Black | |
| Front preload adjustment | | | N.A. | |
| • *REAR* | | | | |
| Suspension type | | | Rigid swing arm | |
| Suspension travel | | mm (in) | 190.5 (7.5) | |
| Shock absorber | Qty | | 2 | |
| | Type | | Oil | |
| Spring free length | | mm (in) | 395 (15.5) | |
| Spring color code | | | Silver/Black/Black | |
| Rear preload adjustment | | | 3 settings | |
| **BRAKES** | | | | |
| Front brake | Qty | | 2 discs | |
| | Type | | Hydraulic | |
| Rear brake | Qty | | 1 disc | |
| | Type | | Mechanical cable/hydraulic | |
| Parking brake | | | Transmission brake and brake lever lock on LH brake lever | |
| Caliper | | | Floating | |
| Lining material | | | Metallic | |
| Minimum pad thickness | | mm (in) | 1 (.04) | |
| Minimum brake disk thickness | | mm (in) | 4.5 (.18) | |
| Maximum brake disk warpage | | mm (in) | 0.2 (.01) | |

| VEHICLE MODEL | | | | TRAXTER MAX | TRAXTER MAX XT |
|---|---|---|---|---|---|
| **TIRES AND WHEELS** | | | | | |
| • *TIRE* | | | | | |
| Pressure | Front | | Recommended | 48 kPa (7 PSI) | |
| | | | Minimum | 35 kPa (5 PSI) | |
| | Rear | | Recommended | 48 kPa (7 PSI) | |
| | | | Minimum | 35 kPa (5 PSI) | |
| Minimum tread pattern depth | | | | 4 mm (0.16 in) | |
| Size | Front | | mm (in) | 25 x 8 – 12 Trailwolf | |
| | Rear | | mm (in) | 26 x 10 – 12 Trailwolf | |
| • *WHEELS* | | | | | |
| Size | Front | | mm (in) | 12 x 6.5 | |
| | Rear | | mm (in) | 12 x 8 | |
| **DIMENSION** | | | | | |
| Dry weight | | | kg (lb) | 362 (795) | |
| Overall length | | | m (in) | 2.32 (91.5) | |
| Overall width | | | m (in) | 1.19 (47) | |
| Overall height | | | m (in) | 1.33 (52) | |
| Seat height | | | mm (in) | 945 (37) | |
| Wheel base | | | m (in) | 1.55 (61) | |
| Wheel track | Front | | mm (in) | 992 (39) | |
| | Rear | | mm (in) | 940 (37) | |
| Front and under engine ground clearance | | | mm (in) | 244 (9.6) | |
| Rear rigid axle ground clearance | | | mm (in) | 188 (7.4) | |
| **CAPACITIES** | | | | | |
| • *LIQUID* | | | | | |
| Fuel tank | | | | 20 L (5.3 U.S. gal) | |
| Fuel tank reserve | | | | 6 L (1.6 U.S. gal) | |
| Engine/transmission oil | Capacity | | | 3 L (3.17 quarts) | |
| | Recommended | | | SAE 10W40, 4-stroke mineral based engine oil API classification SG, SH or SJ or Bombardier synthetic oil 5W40. **Do not use other synthetic oil, synthetic blend oil or special oil additives.** Refer to the oil viscosity chart in the MAINTENANCE section | |
| Differential oil | Capacity | Front | | 610 mL (21 U.S. oz) | |
| | | Rear | | 250 mL (8.4 U.S. oz) | |
| | Recommended | | | Bombardier differential oil or Synthetic polyester 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 | | | | 3 L (3.17 quarts) | |
| • *BODY AND FRAME* | | | | | |
| Weight distribution | Front/rear | | % | 47/53 | |
| Front storage tray | | | kg (lb) | 10 (22) | |
| Rack | Front (including front storage tray) | | kg (lb) | 40 (90) | |
| | Rear (including tongue weight) | | kg (lb) | 80 (175) | |
| Total vehicle load allowed (including driver, passenger, all other loads and added accessories) | | | kg (lb) | 290 (640) | |
| Gross vehicle weight rating | | | kg (lb) | 682 (1500) | |
| Towing | | | kg (lb) | 500 (1100) | |
| Tongue (included with rear rack weight) | | | kg (lb) | 14 (30) | |

| VEHICLE MODEL | | TRAXTER MAX | TRAXTER MAX XT |
|---|---|---|---|
| **MATERIAL** | | | |
| Frame | Material | Steel | |
| | Color | Black | |
| Wheel | Material | Steel | |
| | Color | Silver | Chrome |
| Front/rear rack | Material | Steel | |
| | Color | Black | |
| Front bumper | Material | Steel | |
| | Color | Black | |
| Front/rear fender | Material | High density polyethylene | |
| | Color | Laurentian Green or Viper Red | Laurentian Green or Viper Red or Yellow |
| Fuel tank protector | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Steering cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Storage compartment cover | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Front facia | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Rear facia | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Foot rest | Material | High density polyethylene | |
| | Color | Slate Grey | |
| Air box cover | Material | Nylon | |
| | Color | Black | |
| Air box | Material | Polypropylene | |
| | Color | Black | |
| A-arm protector | Material | High density polyethylene | |
| | Color | Black | |
| Mudguard | Material | Low density polyethylene | |
| | Color | Slate Grey | |
| Seat base | Material | Polypropylene | |
| | Color | Slate Grey | |
| Seat cover | Material | Thermoformed vinyl | |
| | Color | Black | |

| VEHICLE MODEL | | TRAXTER MAX | TRAXTER MAX XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *ENGINE* | | | | |
| Engine support M8 | | 24 N•m (17 lbf•ft) | | |
| Engine mount M10 | | 48 N•m (35 lbf•ft) | | |
| Spark plug | | 18 N•m (159 lbf•**in**) | | None |
| Magneto cover bolts | | 9 N•m (80 lbf•**in**) | | |
| Vehicle speed sensor | | 9 N•m (80 lbf•**in**) | | |
| Starter RED (+) cable | | 6 N•m (53 lbf•**in**) | | Dielectric grease |
| Solenoid | Starter | 7 N•m (62 lbf•**in**) | | None |
| | Winch | 9 N•m (80 lbf•**in**) | | |
| Rotor nut | | 150 N•m (111 lbf•ft) | | Loctite 243 |
| Sprag clutch screw | | 30 N•m (22 lbf•ft) | | Loctite 648 |
| STPS (Sub-Transmission Position Sensor) | | 2 N•m (18 lbf•**in**) | | |
| GBPS (Gear Box Position Sensor) | | 2 N•m (18 lbf•**in**) | | |
| Rewind starter housing | | 4.5 N•m (40 lbf•**in**) | | |
| Starting pulley | | 22 N•m (16 lbf•ft) | | |
| Solenoid valve | Upshift/downshift | 5 N•m (44 lbf•**in**) | | Loctite 243 |
| | Modulator | 9 N•m (80 lbf•**in**) | | |
| | Clutching | 9 N•m (80 lbf•**in**) | | |
| Hydraulic piston cover | | 9 N•m (80 lbf•**in**) | | |
| Stator bolt | | 9 N•m (80 lbf•**in**) | | |
| Trigger coil bolt | | 9 N•m (80 lbf•**in**) | | |
| • *COOLING* | | | | |
| Radiator mount screw/nut | | 10 N•m (89 lbf•**in**) | | None |
| Thermostat housing | | 9 N•m (80 lbf•**in**) | | |
| Thermostat bleeding screw | | 4.5 N•m (40 lbf•**in**) | | |
| Water pump housing | | 9 N•m (80 lbf•**in**) | | |
| Temperature sensor | | 17 N•m (151 lbf•**in**) | | |
| Temperature sender on radiator | | 11 N•m (97 lbf•**in**) | | |
| Cooling drain plug | | 7 N•m (62 lbf•**in**) | | |
| Fan mount screw/nut | | 4.5 N•m (40 lbf•**in**) | | |
| • *EXHAUST* | | | | |
| Exhaust nut | | 11 N•m (97 lbf•**in**) | | None |
| Heat shield screws | | 6 N•m (53 lbf•**in**) | | |
| • *LUBRICATION* | | | | |
| Engine drain plug | | 29 N•m (21 lbf•ft) | | None |
| Engine oil strainer cover | | 9 N•m (80 lbf•**in**) | | Loctite 243 |
| Oil pump housing | | 9 N•m (80 lbf•**in**) | | None |
| Oil pressure regulator plug | | 22 N•m (16 lbf•ft) | | |
| Oil pressure switch | | 17 N•m (151 lbf•**in**) | | |
| • *CYLINDER AND HEAD* | | | | |
| Valve cover screw | | 9 N•m (80 lbf•**in**) | | None |
| Rocker arm shaft holding plate | | 10 N•m (89 lbf•**in**) | | |
| Cylinder screw | | 10 N•m (89 lbf•**in**) | | |
| Cylinder head nut | | 48 N•m (35 lbf•ft) | | |
| Cylinder head screw | | 21 N•m (16 lbf•ft) | | Loctite 243 |
| Decompressor bolt | | 21 N•m (16 lbf•ft) | | |
| • *CRANKSHAFT* | | | | |
| Crankcase housing screw | | 9 N•m (80 lbf•**in**) | | None |
| Crankshaft gear nut | | 230 N•m (170 lbf•ft) | | Loctite 243 |
| Balancing shaft gear nut | | 150 N•m (111 lbf•ft) | | |

| VEHICLE MODEL | | TRAXTER MAX | TRAXTER MAX XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *GEARBOX* | | | | |
| Index lever | | 9 N•m (80 lbf•**in**) | | None |
| Index gear | | 9 N•m (80 lbf•**in**) | | |
| Gear shift lever | | 9 N•m (80 lbf•**in**) | | |
| • *CLUTCH* | | | | |
| Clutch drum nut | | 270 N•m (199 lbf•ft) | | Loctite 243 |
| Clutch nut | | 150 N•m (111 lbf•ft) | | |
| Retaining plate screw | | 7 N•m (62 lbf•**in**) | | None |
| • *FUEL* | | | | |
| Carburetor mounting clamp | | 0.6 N•m (5.4 lbf•**in**) | | None |
| Fuel pump mounting screws | | 10 N•m (89 lbf•**in**) | | |
| • *DRIVE TRAIN* | | | | |
| Front wheel hub nut | | 145 N•m (107 lbf•ft) | | None |
| Rear wheel hub nut | | 145 N•m (107 lbf•ft) | | |
| Front differential | Front | 67 N•m (49 lbf•ft) | | |
| | Rear | 75 N•m (55 lbf•ft) | | |
| Front differential mounting bracket | | 23 N•m (17 lbf•ft) | | |
| Rear differential socket screws | | 48 N•m (35 lbf•ft) | | |
| Propeller shaft screw | Engine side | 34 N•m (26 lbf•ft) | | |
| | Differential side | 42 N•m (31 lbf•ft) | | |
| Rear differential Torx screw | | 75 N•m (55 lbf•ft) | | |
| Rear differential protector | Torx screw | 65 N•m (48 lbf•ft) | | |
| | Hexagonal screw | 25 N•m (18 lbf•ft) | | |
| Trailer hitch hexagonal screw | | 48 N•m (35 lbf•ft) | | |
| Differential oil plug | Front/rear | 13 N•m (115 lbf•**in**) | | |
| • *WHEEL* | | | | |
| Wheel nuts | | 75 N•m (55 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 (17 lbf•ft) | | |
| Steering column half housing bolts | | 24 N•m (17 lbf•ft) | | |
| Steering column support screws | | 24 N•m (17 lbf•ft) | | |
| Flanged bearing bolts | | 19 N•m (168 lbf•**in**) | | Loctite 243 |
| Handle grip screw | | 0.4 N•m (3.5 lbf•**in**) | | None |
| • *SUSPENSION* | | | | |
| Upper/lower A-arm | | 63 N•m (46 lbf•ft) | | None |
| Ball joint end | | 45 N•m (33 lbf•ft) | | |
| Shock absorber bolt | | 48 N•m (35 lbf•ft) | | |
| Swing arm | To rear differential | 65 N•m (48 lbf•ft) | | |
| | To rear axle | 48 N•m (35 lbf•ft) | | |
| Rear swing arm LH nut | | 147 N•m (108 lbf•ft) | | |
| Rear swing arm RH pivot | | 147 N•m (108 lbf•ft) | | |
| Rear swing arm LH pivot | | 11 N•m (97 lbf•**in**) | | |
| • *BRAKE* | | | | |
| Caliper brake screws | | 24 N•m (17 lbf•ft) | | None |
| Brake disk screws | | 34 N•m (25 lbf•ft) | | |
| Rear master cylinder bolts | | 32 N•m (24 lbf•ft) | | |
| Rear master cylinder reservoir bolt | | 10 N•m (89 lbf•**in**) | | |
| BANJO bolt | | 24 N•m (17 lbf•ft) | | |
| Caliper bleeder valve | | 14 N•m (124 lbf•**in**) | | |
| Rear master cylinder rod nut | | 5 N•m (44 lbf•**in**) | | |
| Hydraulic brake light switch | | 24 N•m (17 lbf•ft) | | Pipe sealant |

| VEHICLE MODEL | | TRAXTER MAX | TRAXTER MAX XT | *SERVICE PRODUCT* |
|---|---|---|---|---|
| **TORQUE** | | | | |
| • *BODY/FRAME* | | | | |
| Front bumper | | 24 N•m (17 lbf•ft) | | |
| Front rack | M6 | 2.5 N•m (22 lbf•**in**) | | |
| | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear rack | M8 | 15 N•m (133 lbf•**in**) | | |
| Rear extension frame | | 48 N•m (35 lbf•ft) | | |
| Front differential support | | 24 N•m (17 lbf•ft) | | |
| Seat pivot bar | | 24 N•m (17 lbf•ft) | | |
| Winch plate support | | 24 N•m (17 lbf•ft) | | |
| Winch bolts | | N.A. | 15 N•m (133 lbf•**in**) | |
| Fairlead | | N.A. | 15 N•m (133 lbf•**in**) | |
| Hand guard | | N.A. | 6 N•m (53 lbf•**in**) | |
| Hand guard support | | N.A. | 21 N•m (15 lbf•ft) | None |
| Backrest | | 24 N•m (17 lbf•ft) | | |
| Grab handle | | 10 N•m (89 lbf•**in**) | | |
| Seat latch stud | | 29 N•m (21 lbf•ft) | | |
| Seat latch base | | 4 N•m (35 lbf•**in**) | | |
| Inner fender | | 5 N•m (44 lbf•**in**) | | |
| A-arm protector | | 2.5 N•m (22 lbf•**in**) | | |
| Footrest | | 24 N•m (17 lbf•ft) | | |
| Footpeg | | 6 N•m (53 lbf•**in**) | | |
| Removable brace | | 24 N•m (17 lbf•ft) | | |
| Engine skid plate | M8 | 15 N•m (133 lbf•**in**) | | |
| Headlamp housing | | 0.6 N•m (5.4 lbf•**in**) | | |