

HOW TO USE THIS MANUAL

This service manual describes the service procedures for the ARX1200T3, ARX1200T3D and ARX1200N3.

Follow the Maintenance Schedule (Section 4) recommendations to ensure that the personal watercraft is in peak operating condition.

Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Sections 1, 4 and 5 apply to the whole personal watercraft. Section 3 illustrates procedures for removal/installation of components that may be required to perform service described in the following sections.

Section 6 through 19 describe parts of the personal watercraft, grouped according to location.

Find the section you want on this page, then turn to the table of contents on the first page of the section.

Most sections start with an assembly or system illustration, service information and troubleshooting for the section. The subsequent pages give detailed procedures.


If you are not familiar with this personal watercraft, read Technical Features in Section 2.

If you do not know the source of vehicle trouble, go to section 21 Troubleshooting.

Your safety, and the safety of others, is very important. To help you make informed decisions we have provided safety messages and other information throughout this manual. Of course, it is not practical or possible to warn you about all the hazards associated with servicing this vehicle.

You must use your own good judgement.

You will find important safety information in a variety of forms including:

- Safety Labels – on the vehicle
- Safety Messages – preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

DANGER You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

WARNING You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

CAUTION You CAN be HURT if you don't follow instructions.

- Instructions – how to service this vehicle correctly and safely.






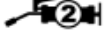







As you read this manual, you will find information that is preceded by a **NOTICE** symbol. The purpose of this message is to help prevent damage to your vehicle, other property, or the environment.

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SYMBOLS

The symbols used throughout this manual show specific service procedures. If supplementary information is required pertaining to these symbols, it would be explained specifically in the text without the use of the symbols.

	<p>Replace the part(s) with new one(s) before assembly.</p>
	<p>Use the recommended engine oil, unless otherwise specified.</p>
	<p>Use molybdenum oil solution (mixture of engine oil and molybdenum grease in a ratio of 1 : 1).</p>
	<p>Use multi-purpose grease (lithium based multi-purpose grease NLGI #2 or equivalent).</p>
	<p>Use water resistant grease #0 (Urea based multi-purpose grease NLGI #0 or equivalent). Example: EXCELITE EP0 manufactured by KYODO YUSHI, Japan</p>
	<p>Use water resistant grease #2 (Urea based multi-purpose grease NLGI #2 or equivalent). Example: EXCELITE EP2 manufactured by KYODO YUSHI, Japan</p>
	<p>Use water resistant molybdenum disulfide grease (containing more than 3% molybdenum disulfide, NLGI #2 or equivalent). Example: UNILITE M No.2 manufactured by KYODO YUSHI, Japan</p>
	<p>Use molybdenum disulfide grease (containing more than 3% molybdenum disulfide, NLGI #2 or equivalent). Example: Molykote® BR-2 plus manufactured by Dow Corning, U.S.A. Multi-purpose M-2 manufactured by Mitsubishi Oil, Japan</p>
	<p>Use molybdenum disulfide paste (containing more than 40% molybdenum disulfide, NLGI #2 or equivalent). Example: Molykote® G-n Paste manufactured by Dow Corning, U.S.A. Honda Moly 60 (U.S.A. only) Rocol ASP manufactured by Rocol Limited, U.K. Rocol Paste manufactured by Sumico Lubricant, Japan</p>
	<p>Use silicone grease.</p>
	<p>Apply a locking agent. Use a medium strength locking agent unless otherwise specified.</p>
	<p>Apply sealant (engine).</p>
	<p>Apply silicone sealant (SHIN-ETSU KE45T or equivalent).</p>

1. GENERAL INFORMATION

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GENERAL INFORMATION

SERVICE RULES

1. Use genuine Honda or Honda-recommended parts and lubricants or their equivalents. Parts that do not meet Honda's design specifications may cause damage to the watercraft.
2. Use the special tools designed for this product to avoid damage and incorrect assembly.
3. Use only metric tools when servicing the watercraft. Metric bolts, nuts and screws are not interchangeable with English fasteners.
4. Install new gaskets, O-rings, cotter pins, and lock plates when reassembling.
5. When tightening bolts or nuts, begin with the larger diameter or inner bolt first. Then tighten to the specified torque diagonally in incremental steps unless a particular sequence is specified.
6. Clean parts in cleaning solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
7. After reassembly, check all parts for proper installation and operation.
8. Route all electrical wires as shown in the Cable and Harness Routing ([page 1-31](#) or [1-52](#)).

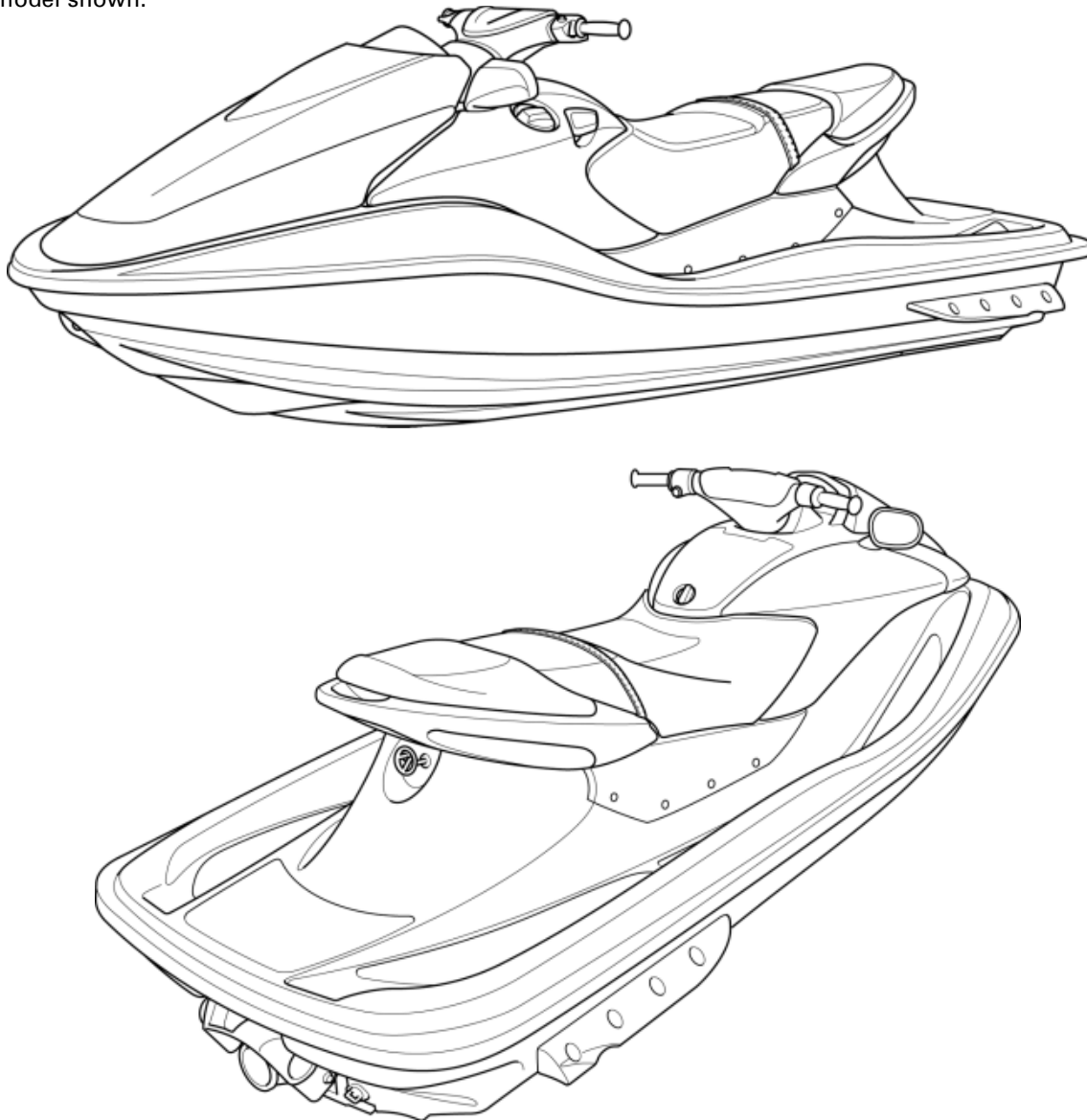
MODEL IDENTIFICATION

This manual covers two types of ARX1200 models:

- T3: Turbocharger model
- T3D: Turbocharger model equipped with GPS receiver and boarding step (After '04)
- N3: Standard (no turbocharger)

Be sure to refer to the procedure that pertains to the appropriate version of the ARX1200.

'04 model shown:

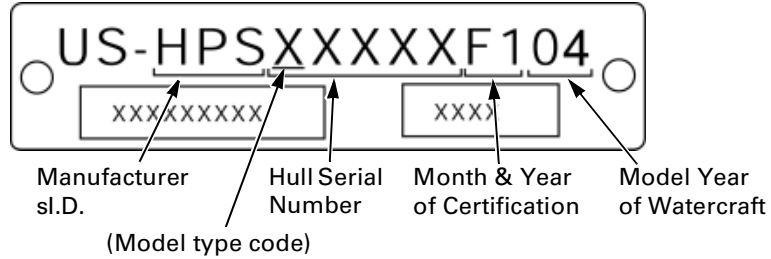


GENERAL INFORMATION

The engine serial number and hull identification number are used to register the watercraft. They are unique numbers that distinguish each watercraft from other similar models.

If the watercraft is ever stolen these numbers will help identify it. The owner should keep a record of these numbers in a place other than the watercraft.

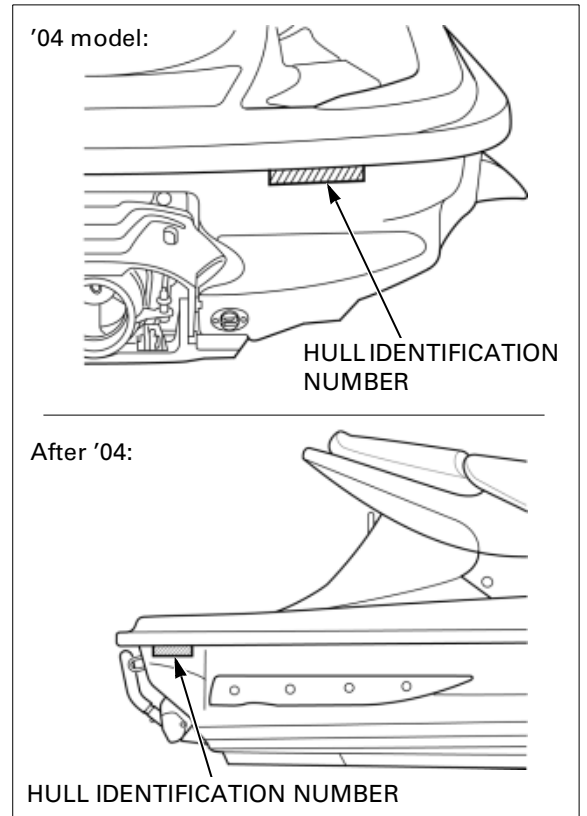
HULL NUMBER IDENTIFICATION



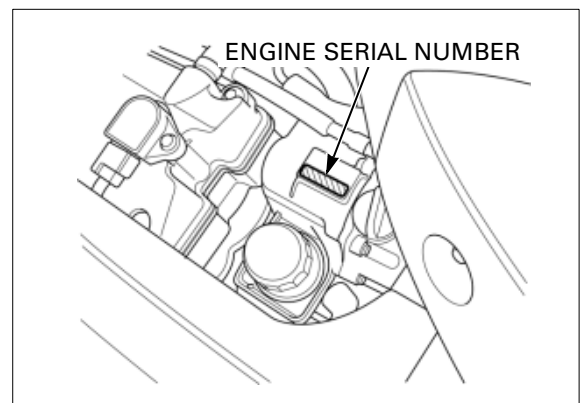
Month code: A = January, B = February.....L = December

Year of certification: 04 = 2004, 05= 2005; etc.

The hull identification numbers are located on the rear of the hull.

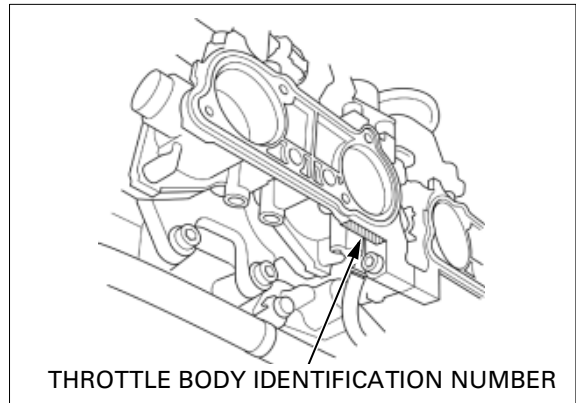


The engine serial number is located on the upper side of the oil tank.

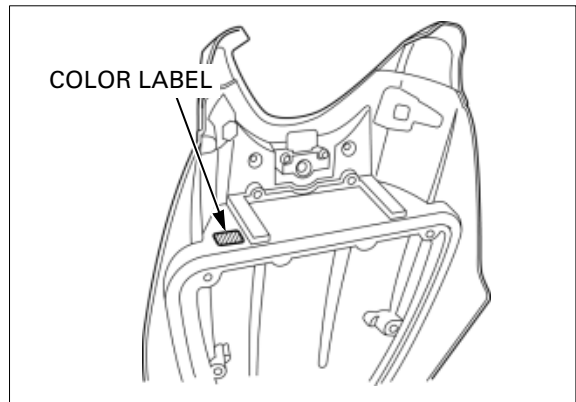


GENERAL INFORMATION

The throttle body identification number is stamped on the lower side of the throttle body.



The color label is attached on the inside of the front hood. When ordering color-coded parts, always specify the designated color code.



LUBRICATION SYSTEM SPECIFICATIONS

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Engine oil capacity	ARX1200T3/T3D	After draining	4.2 liters (4.4 US qt, 3.7 Imp qt)
		After draining/filter change	4.3 liters (4.5 US qt, 3.8 Imp qt)
		After disassembly	5.3 liters (5.6 US qt, 4.7 Imp qt)
	ARX1200N3	After draining	4.0 liters (4.2 US qt, 3.5 Imp qt)
		After draining/filter change	4.1 liters (4.3 US qt, 3.6 Imp qt)
		After disassembly	5.0 liters (5.3 US qt, 4.4 Imp qt)
Recommended engine oil		Pro Honda GN4, HP4 (without molybdenum additives) or HP4M (with molybdenum additives) 4-stroke oil or equivalent motor oil API service classification: SG or Higher JASO T 903 standard: MA or MB Viscosity: SAE 10W-40	-
Oil pressure	At low oil pressure switch	294 kPa (3.0 kgf/cm ² , 43 psi) at 3,000 rpm/(80°C/176°F)	-
Oil pump rotor	Tip clearance	0.15 (0.006)	0.20 (0.008)
	Body clearance	0.15 – 0.22 (0.006 – 0.009)	0.35 (0.014)
	Side clearance	0.04 – 0.09 (0.002 – 0.004)	0.12 (0.005)

FUEL SYSTEM (Programmed Fuel Injection) SPECIFICATIONS

ITEM	SPECIFICATIONS
Throttle body identification number	ARX1200T3/T3D GQ9AA
	ARX1200N3 GQ99A
Idle speed	1,200 ± 100 rpm
Throttle lever free play	2 – 6 mm (1/16 – 1/4 in)
Intake air temperature sensor resistance (at 20°C/68°F)	1 – 4 kΩ
Engine oil temperature sensor resistance (at 20°C/68°F)	2.3 – 2.8 kΩ
Engine coolant temperature sensor resistance (at 20°C/68°F)	2.3 – 2.8 kΩ
Fuel injector resistance (at 20°C/68°F)	11.1 – 12.3 Ω
Camshaft position sensor peak voltage (at 20°C/68°F)	0.7 V minimum
Ignition pulse generator peak voltage (at 20°C/68°F)	0.7 V minimum
Manifold absolute pressure at idle	ARX1200T3/T3D 20 – 27 kPa (150 – 200 mmHg)
	ARX1200N3 27 – 33 kPa (200 – 250 mmHg)
Fuel pressure at idle	294 kPa (3.0 kgf/cm ² , 43 psi)
Fuel pump flow (at 12V)	260 cm ³ (8.8 US oz, 9.2 Imp oz) minimum/10 seconds

GENERAL INFORMATION

CYLINDER HEAD/VALVE SPECIFICATIONS: '04 model

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT		
Cylinder compression		ARX1200T3	1,177 kPa (12.0 kgf/cm ² , 171 psi) at 350 rpm	–		
		ARX1200N3	1,275 kPa (13.0 kgf/cm ² , 185 psi) at 350 rpm	–		
Valve clearance			IN	0.16 ± 0.03 (0.006 ± 0.001)		
			EX	0.26 ± 0.03 (0.010 ± 0.001)		
Camshaft	Cam lobe height	ARX1200T3	IN	37.68 – 37.84 (1.483 – 1.490)	37.38 (1.472)	
			EX	37.78 – 37.94 (1.487 – 1.494)	37.48 (1.476)	
		ARX1200N3	IN	38.58 – 38.74 (1.519 – 1.525)	38.28 (1.507)	
			EX	38.38 – 38.54 (1.511 – 1.517)	38.08 (1.499)	
	Runout		–		0.05 (0.002)	
	Oil clearance		0.020 – 0.062 (0.0008 – 0.0024)		0.09 (0.004)	
Valve lifter		Valve lifter O.D.		25.978 – 25.993 (1.0228 – 1.0233)	25.97 (1.022)	
		Valve lifter bore I.D.		26.010 – 26.026 (1.0240 – 1.0246)	26.04 (1.025)	
Valve, valve guide		Valve stem O.D.	IN	4.975 – 4.990 (0.1959 – 0.1965)	4.965 (0.1955)	
			EX	4.960 – 4.975 (0.1953 – 0.1959)	4.950 (0.1949)	
		Valve guide I.D.		IN/EX	5.000 – 5.012 (0.1969 – 0.1973)	5.040 (0.1984)
		Stem-to-guide clearance		IN	0.010 – 0.037 (0.0004 – 0.0015)	–
				EX	0.025 – 0.052 (0.0010 – 0.0020)	–
		Valve guide projection above cylinder head		IN/EX	16.3 – 16.5 (0.64 – 0.65)	–
Valve seat width		IN/EX	0.90 – 1.10 (0.035 – 0.043)	1.5 (0.06)		
Valve spring free length		ARX1200T3	IN/EX	43.5 (1.71)	41.5 (1.63)	
		ARX1200N3	IN/EX	40.6 (1.60)	38.6 (1.52)	
Cylinder head warpage			–	0.10 (0.004)		

CYLINDER HEAD/VALVE SPECIFICATIONS: After '04

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT		
Cylinder compression		ARX1200T3/T3D	1,177 kPa (12.0 kgf/cm ² , 171 psi) at 350 rpm	–		
		ARX1200N3	1,275 kPa (13.0 kgf/cm ² , 185 psi) at 350 rpm	–		
Valve clearance			IN	0.16 ± 0.03 (0.006 ± 0.001)		
			EX	0.26 ± 0.03 (0.010 ± 0.001)		
Camshaft	Cam lobe height	ARX1200T3/T3D	IN	37.68 – 37.84 (1.483 – 1.490)	37.38 (1.472)	
			EX	37.78 – 37.94 (1.487 – 1.494)	37.48 (1.476)	
		ARX1200N3	IN	38.58 – 38.74 (1.519 – 1.525)	38.28 (1.507)	
			EX	38.38 – 38.54 (1.511 – 1.517)	38.08 (1.499)	
	Runout		–		0.05 (0.002)	
	Oil clearance		0.020 – 0.062 (0.0008 – 0.0024)		0.09 (0.004)	
Valve lifter		Valve lifter O.D.		25.978 – 25.993 (1.0228 – 1.0233)	25.97 (1.022)	
		Valve lifter bore I.D.		26.010 – 26.026 (1.0240 – 1.0246)	26.04 (1.025)	
Valve, valve guide		Valve stem O.D.	IN	4.975 – 4.990 (0.1959 – 0.1965)	4.965 (0.1955)	
			EX	4.960 – 4.975 (0.1953 – 0.1959)	4.950 (0.1949)	
		Valve guide I.D.		IN/EX	5.000 – 5.012 (0.1969 – 0.1973)	5.040 (0.1984)
		Stem-to-guide clearance		IN	0.010 – 0.037 (0.0004 – 0.0015)	–
				EX	0.025 – 0.052 (0.0010 – 0.0020)	–
		Valve guide projection above cylinder head		IN/EX	16.3 – 16.5 (0.64 – 0.65)	–
Valve seat width		IN/EX	0.90 – 1.10 (0.035 – 0.043)	1.5 (0.06)		
Valve spring free length		ARX1200T3/T3D	IN/EX	43.5 (1.71)	41.5 (1.63)	
		ARX1200N3	Outer	IN/EX	40.6 (1.60)	38.6 (1.52)
			Inner	IN/EX	37.4 (1.47)	35.4 (1.39)
Cylinder head warpage			–	0.10 (0.004)		

ALTERNATOR/STARTER CLUTCH SPECIFICATIONS

Unit: mm (in)

ITEM	STANDARD	SERVICE LIMIT
Starter driven gear boss O.D.	51.699 – 51.718 (2.0354 – 2.0361)	51.684 (2.0348)

CRANKSHAFT/BALANCER (ARX1200T3/T3D)/PISTON SPECIFICATIONS

ARX1200T3/T3D:

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT	
Crankshaft	Connecting rod side clearance	0.05 – 0.20 (0.002 – 0.008)	0.30 (0.012)	
	Crankpin bearing oil clearance	0.026 – 0.050 (0.0010 – 0.0020)	0.06 (0.002)	
	Main journal oil clearance	0.018 – 0.036 (0.0007 – 0.0014)	0.045 (0.0018)	
	Balancer oil clearance	0.011 – 0.053 (0.0004 – 0.0020)	0.065 (0.0026)	
	Runout	–	0.3 (0.01)	
Piston, piston rings	Piston O.D. at 4 (0.2) from bottom	78.970 – 78.990 (3.1090 – 3.1098)	78.90 (3.106)	
	Piston pin hole I.D.	22.002 – 22.008 (0.8662 – 0.8665)	22.03 (0.867)	
	Piston pin O.D.	21.994 – 22.000 (0.8659 – 0.8661)	21.984 (0.8655)	
	Piston-to-piston pin clearance	0.002 – 0.014 (0.0001 – 0.0006)	–	
	Piston ring end gap	Top	0.175 – 0.325 (0.0069 – 0.0128)	0.48 (0.019)
		Second	0.40 – 0.55 (0.016 – 0.022)	0.7 (0.03)
		Oil (side rail)	0.2 – 0.8 (0.01 – 0.03)	1.0 (0.04)
Piston ring-to-ring groove clearance	Top	0.030 – 0.070 (0.0012 – 0.0028)	0.08 (0.003)	
	Second	0.015 – 0.045 (0.0006 – 0.0018)	0.06 (0.002)	
Cylinder	I.D.	79.000 – 79.015 (3.1102 – 3.1108)	79.10 (3.114)	
	Out-of-round	–	0.10 (0.004)	
	Taper	–	0.10 (0.004)	
	Warpage	–	0.05 (0.002)	
Cylinder-to-piston clearance		0.010 – 0.045 (0.0004 – 0.0018)	–	
Connecting rod small end I.D.		22.030 – 22.051 (0.8673 – 0.8681)	22.061 (0.8685)	
Connecting rod-to-piston pin clearance		0.030 – 0.057 (0.0012 – 0.0022)	–	

ARX1200N3:

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT	
Crankshaft	Connecting rod side clearance	0.05 – 0.20 (0.002 – 0.008)	0.30 (0.012)	
	Crankpin bearing oil clearance	0.026 – 0.050 (0.0010 – 0.0020)	0.06 (0.002)	
	Main journal oil clearance	0.018 – 0.036 (0.0007 – 0.0014)	0.045 (0.0018)	
	Runout	–	0.3 (0.01)	
Piston, piston rings	Piston O.D. at 4 (0.2) from bottom	78.970 – 78.990 (3.1090 – 3.1098)	78.90 (3.106)	
	Piston pin hole I.D.	19.002 – 19.008 (0.7481 – 0.7483)	19.03 (0.749)	
	Piston pin O.D.	18.994 – 19.000 (0.7478 – 0.7480)	18.984 (0.7474)	
	Piston-to-piston pin clearance	0.002 – 0.014 (0.0001 – 0.0006)	–	
	Piston ring end gap	Top	0.20 – 0.35 (0.008 – 0.014)	0.5 (0.02)
		Second	0.40 – 0.55 (0.016 – 0.022)	0.7 (0.03)
		Oil (side rail)	0.2 – 0.8 (0.01 – 0.03)	1.0 (0.04)
Piston ring-to-ring groove clearance	Top	0.030 – 0.065 (0.0012 – 0.0026)	0.08 (0.003)	
	Second	0.015 – 0.045 (0.0006 – 0.0018)	0.06 (0.002)	
Cylinder	I.D.	79.000 – 79.015 (3.1102 – 3.1108)	79.10 (3.114)	
	Out-of-round	–	0.10 (0.004)	
	Taper	–	0.10 (0.004)	
	Warpage	–	0.05 (0.002)	
Cylinder-to-piston clearance		0.010 – 0.045 (0.0004 – 0.0018)	–	
Connecting rod small end I.D.		19.030 – 19.051 (0.7492 – 0.7500)	19.061 (0.7504)	
Connecting rod-to-piston pin clearance		0.030 – 0.057 (0.0012 – 0.0022)	–	

GENERAL INFORMATION

PROPULSION SYSTEM SPECIFICATIONS: '04 model

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Impeller	Material	Stainless steel	-
	Number of blades	3	-
	O.D.	154.6 (6.09)	-
Water jet stator I.D. (impeller housing area)		155.4 (6.12)	-
Impeller clearance		0.3 – 0.5 (0.01 – 0.02)	0.9 (0.04)
Drive shaft runout		-	0.2 (0.01)

PROPULSION SYSTEM SPECIFICATIONS: After '04

ARX1200T3/T3D:

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Impeller	Material	Stainless steel	-
	Number of blades	3	-
	O.D.	154.6 (6.09)	-
Water jet stator I.D. (impeller housing area)		155.4 (6.12)	-
Impeller clearance		0.3 – 0.5 (0.01 – 0.02)	0.9 (0.04)
Drive shaft runout		-	0.2 (0.01)

ARX1200N3:

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Impeller	Material	Stainless steel	-
	Number of blades	3	-
	O.D.	146.7 (5.78)	-
Impeller housing I.D.		147 (5.8)	-
Impeller clearance		0.3 – 0.5 (0.01 – 0.02)	0.9 (0.04)
Drive shaft runout		-	0.2 (0.01)

BATTERY/CHARGING SYSTEM SPECIFICATIONS

ITEM		SPECIFICATIONS	
Battery	Capacity	12 V – 18 Ah	
	Current leakage	2 mA max.	
	Voltage (20°C/68°F)	Fully charged	13.0 – 13.2 V
		Needs charging	Below 12.3 V
	Charging current	Normal	1.8 A/5 – 10 h
Quick		9.0 A/1.0 h	
Alternator	Capacity	308 W/5,000 rpm	
	Charging coil resistance (20°C/68°F)	0.1 – 1.0 Ω	

IGNITION SYSTEM SPECIFICATIONS: '04 model

ITEM		SPECIFICATIONS
Spark plug (Iridium)		IMR9D-9H (NGK)
Spark plug gap		0.80 – 0.90 mm (0.031 – 0.035 in)
Ignition coil signal peak voltage		0.7 V minimum
Ignition pulse generator peak voltage		0.7 V minimum
Ignition timing ("F" mark)	ARX1200T3	9° BTDC at idle
	ARX1200N3	12° BTDC at idle

IGNITION SYSTEM SPECIFICATIONS: After '04

ITEM		SPECIFICATIONS
Spark plug (Iridium)		IMR9D-9H (NGK)
Spark plug gap		0.80 – 0.90 mm (0.031 – 0.035 in)
Ignition coil signal peak voltage		0.7 V minimum
Ignition pulse generator peak voltage		0.7 V minimum
Ignition timing ("F" mark)	ARX1200T3/ T3D	9° BTDC at idle
	ARX1200N3	10° BTDC at idle

ELECTRIC STARTER SPECIFICATIONS

Unit: mm (in)

ITEM	STANDARD	SERVICE LIMIT
Starter motor brush length	12.0 – 13.0 (0.47 – 0.51)	6.5 (0.26)

METER/SWITCHES SPECIFICATIONS

ITEM		SPECIFICATIONS
Bulb	Warning indicator	LED
Fuse	Main fuse	30 A
	Sub fuse	7.5 A X 3, 5 A X 2
Tachometer peak voltage		10.5 V minimum

GENERAL INFORMATION

STANDARD TORQUE VALUES

FASTENER TYPE	TORQUE FASTENER TYPE	N·m (kgf·m, lbf·ft)	TORQUE N·m (kgf·m, lbf·ft)
5 mm hex bolt and nut	4.9 (0.5, 3.6)	5 mm screw	3.9 (0.4, 2.9)
6 mm hex bolt and nut	9.8 (1.0, 7)	6 mm screw	8.8 (0.9, 6.5)
8 mm hex bolt and nut	22 (2.2, 16)	6 mm flange bolt (8 mm head, small flange)	9.8 (1.0, 7)
10 mm hex bolt and nut	34 (3.5, 25)	6 mm flange bolt (8 mm head, large flange)	12 (1.2, 9)
12 mm hex bolt and nut	54 (5.5, 40)	6 mm flange bolt (10 mm head) and nut	12 (1.2, 9)
		8 mm flange bolt and nut	26 (2.7, 20)
		10 mm flange bolt and nut	39 (4.0, 29)

- Torque specifications listed below are for main fasteners.
- Other fasteners should be tightened to standard torque values listed above.

ENGINE & BODY TORQUE VALUES: '04 model

NOTE:

1. Apply locking agent to the threads.
2. Apply engine oil to the threads and seating surface.
3. Apply molybdenum oil solution to the threads and seating surface.
4. Apply molybdenum disulfide grease to the threads.
5. Apply multi-purpose grease to the threads.
6. Apply sealant to the threads.
7. Left-hand threads.
8. Self-lock nut.
9. Stake.
10. ALOC bolt: replace with a new one.
11. Apply silicone sealant to the threads.

ENGINE

MAINTENANCE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Spark plug	4	10	12 (1.2, 9)	
Engine oil filter cartridge	1	20	26 (2.7, 20)	NOTE 2
Anode (turbocharger: ARX1200T3)	1	8	1.0 (0.1, 0.7)	NOTE 1
Anode cap (turbocharger: ARX1200T3)	1	18	49 (5.0, 36)	
Anode cap (oil tank cover)	1	36	18 (1.8, 13)	NOTE 5

LUBRICATION SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Oil pump driven joint bolt	1	6	12 (1.2, 9)	NOTE 1
Oil pump/front crankcase cover (7 mm bolt)	1	7	18 (1.8, 13)	
Front crankcase cover bolt (6 x 45 mm)	5	6	18 (1.8, 13)	
Oil cooler bolt	4	6	12 (1.2, 9)	
Oil tank cover (7 mm bolt)	3	7	18 (1.8, 13)	
Low oil pressure switch	1	PT 1/8	12 (1.2, 9)	NOTE 6
High oil pressure switch	1	12	22 (2.2, 16)	
Oil filter boss (oil tank side)	1	20	18 (1.8, 13)	NOTE 1
Water hose joint bolt (front crankcase cover)	2	6	12 (1.2, 9)	NOTE 1
18 mm sealing bolt (front crankcase cover)	1	18	29 (3.0, 22)	NOTE 1

FUEL SYSTEM (Programmed Fuel Injection)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Engine coolant temperature (ECT) sensor	1	12	18 (1.8, 13)	
Engine oil temperature sensor	1	12	18 (1.8, 13)	
Knock sensor	1	12	31 (3.2, 23)	NOTE 6
Intake air temperature (IAT) sensor (ARX1200T3)	1	12	22 (2.2, 16)	

GENERAL INFORMATION

CYLINDER HEAD/VALVE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Cylinder head bolt	10	10	69 (7.0, 51)	NOTE 3
Cam chain tensioner cap nut	1	6	12 (1.2, 9)	
Cam chain tensioner lifter socket bolt	2	6	9.8 (1.0, 7)	
Cam sprocket bolt	4	7	20 (2.0, 14)	NOTE 1
Camshaft holder bolt	20	6	12 (1.2, 9)	NOTE 2
Head cover breather plate bolt	6	6	12 (1.2, 9)	NOTE 1
Cylinder head cover bolt	6	6	9.8 (1.0, 7)	

ALTERNATOR/STARTER CLUTCH

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Alternator stator socket bolt	4	6	12 (1.2, 9)	
Alternator wire clamp socket bolt	1	6	9.8 (1.0, 7)	
Starter clutch torx bolt	6	6	16 (1.6, 12)	NOTE 1
Flywheel bolt	1	12	137 (14.0, 76)	NOTE 2, 7, 10
Balancer driven gear bolt (ARX1200T3 only)	2	8	27 (2.8, 20)	NOTE 1

CRANKSHAFT/BALANCER (ARX1200T3)/PISTON

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Connecting rod bearing cap nut	8	8	41 (4.2, 30)	NOTE 2
Drive coupler bolt	1	10	69 (7.0, 51)	NOTE 2
Drive coupler boss	1	24	29 (3.0, 22)	
Crankcase bolt	14	9	37 (3.8, 27)	NOTE 2
	10	8	25 (2.5, 18)	
Oil pan oil strainer bolt	10	6	13 (1.3, 9)	NOTE 1
Turbocharger oil feed pipe oil filter bolt (lower crankcase: ARX1200T3 only)	1	12	32 (3.3, 24)	
Turbocharger oil feed pipe setting bolt (upper crankcase: ARX1200T3 only)	1	6	14 (1.4, 10)	
Turbocharger oil return pipe joint bolt (oil pan and lower crankcase: ARX1200T3 only)	2	6	14 (1.4, 10)	
Engine oil temperature sensor adaptor	1	12	22 (2.2, 16)	
Intercooler stay bolt (ARX1200T3 only)	2	8	25 (2.6, 19)	
Turbocharger oil feed pipe joint (lower crankcase: ARX1200T3)	1	20	49 (5.0, 36)	NOTE 1
20 mm sealing bolt (lower crankcase: ARX1200N3)	1	20	49 (5.0, 36)	NOTE 1
45 mm sealing cap (upper crankcase)	1	45	18 (1.8, 13)	NOTE 5

EXHAUST SYSTEM/TURBOCHARGER (ARX1200T3)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Oil return pipe oil bolt (rear of turbocharger: ARX1200T3 only)	1	12	27 (2.8, 20)	
Oil feed pipe oil orifice bolt (upper of turbocharger: ARX1200T3 only)	1	10	20 (2.0, 14)	
Water hose joint bolt (turbocharger: ARX1200T3 only)	4	6	12 (1.2, 9)	NOTE 1
Turbocharger stud bolt (ARX1200T3 only)	4	8	-	See page 13-9

ELECTRIC STARTER

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Intercooler stay bolt (ARX1200T3 only)	2	8	25 (2.6, 19)	

GENERAL INFORMATION

BODY

HULL/HOOD/BODY PANELS

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Sponson bolt	8	6	16 (1.6, 12)	NOTE 1
Side cover bolt	9	5	3.9 (0.4, 2.9)	
Front hood bolt	4	6	9.8 (1.0, 7)	
Hood liner bolt	2	6	9.8 (1.0, 7)	
Hood hinge mounting nut	3	6	9.8 (1.0, 7)	NOTE 1
Hood catch nut	2	6	9.8 (1.0, 7)	NOTE 8
Post cover bolt	9	6	9.8 (1.0, 7)	
Hood catch stud nut	1	10	39 (4.0, 29)	NOTE 8
Side panel socket bolt	10	6	6.9 (0.7, 5.1)	
Passenger grab rail socket bolt	8	6	6.9 (0.7, 5.1)	
Coupler cover bolt	1	6	9.8 (1.0, 7)	
Seat catch stud nut (front and rear)	2	10	39 (4.0, 29)	NOTE 8
Seat catch bolt (front and rear)	4	6	5.9 (0.6, 4.3)	
Rearview mirror nut	4	8	9.8 (1.0, 7)	NOTE 1
Bow eye nut	2	3/8-16UNC	22 (2.2, 16)	NOTE 1
Tow hook nut	2	3/8-16UNC	22 (2.2, 16)	NOTE 1
Pilot water nozzle	1	12	2.0 (0.2, 1.4)	NOTE 11

FUEL SYSTEM (Programmed Fuel Injection)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Fuel pump lock nut	1	–	93 (9.5, 69)	
Fuel tank breather port	1	12	2.0 (0.2, 1.4)	
Fuel feed/return hose clip bolt (oil tank)	1	6	6.9 (0.7, 5.1)	NOTE 1
Throttle cable setting nut	1	8	8.8 (0.9, 6.5)	
Wastegate solenoid valve bolt (ARX1200T3 only)	1	5	3.9 (0.4, 2.9)	
Airbox mounting bolt	1	6	7.8 (0.8, 5.8)	
Crankcase breather hose joint bolt (ARX1200T3 only)	1	6	7.8 (0.8, 5.8)	
Airbox connecting tube band screw (duct side: ARX1200T3 only)	1	–	6.9 (0.7, 5.1)	
Air funnel screw (ARX1200N3 only)	7	5	3.9 (0.4, 2.9)	
Airbox cover screw (ARX1200N3 only)	9	5	3.9 (0.4, 2.9)	
MAP sensor screw (ARX1200N3)	1	4	2.9 (0.3, 2.2)	

ENGINE MOUNTING

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Engine mounting bolt (with rubber mount)	8	8	22 (2.2, 16)	
Engine mounting bolt	4	12	50 (5.1, 37)	NOTE 2

EXHAUST SYSTEM/TURBOCHARGER (ARX1200T3)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Exhaust water chamber bolt	4	6	16 (1.6, 12)	NOTE 1

GENERAL INFORMATION

PROPULSION SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Grease nipple joint	1	10	9.8 (1.0, 7)	
Grease nipple	1	6	3.9 (0.4, 2.9)	
Bearing housing mounting nut	3	8	22 (2.2, 16)	
Driven coupler bolt	1	10	49 (5.0, 36)	NOTE 2
Thrust plate bolt	4	10	39 (4.0, 29)	NOTE 1
Cooling water cap	1	42	44 (4.5, 33)	NOTE 1, 9
Impeller	1	16	127 (13.0, 94)	NOTE 4
Stator cap socket bolt	3	5	3.9 (0.4, 2.9)	NOTE 1
Jet pump mounting bolt	4	8	22 (2.2, 16)	NOTE 1
Water jet nozzle bolt	4	8	22 (2.2, 16)	NOTE 1
Intake grate bolt	4	8	25 (2.6, 19)	NOTE 1
Ride plate bolt	4	8	25 (2.6, 19)	NOTE 1

STEERING/REVERSE SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Handlebar holder bolt	4	8	22 (2.2, 16)	
Left handlebar switch housing screw	2	5	2.0 (0.2, 1.4)	
Throttle lever pivot bolt	1	5	3.9 (0.4, 2.9)	NOTE 1
Throttle lever holder screw	2	6	2.9 (0.3, 2.2)	
Steering shaft holder nut	4	8	26 (2.7, 20)	NOTE 8
Steering limit switch bracket bolt	2	6	4.9 (0.5, 3.6)	NOTE 1
Steering shaft retainer nut	3	6	6.9 (0.7, 5.1)	NOTE 1
Steering shaft cable arm nut	2	6	6.9 (0.7, 5.1)	NOTE 1, 8
Steering cable holder bolt	2	6	9.8 (1.0, 7)	NOTE 1
Steering cable setting nut (thrust plate)	1	24	13 (1.3, 9)	
Steering nozzle pivot bolt	2	8	22 (2.2, 16)	NOTE 1
Steering cable joint bolt (cable arm and steering nozzle)	2	6	9.8 (1.0, 7)	
Steering cable joint nut (cable arm and steering nozzle)	2	6	9.8 (1.0, 7)	NOTE 8
Steering cable joint lock nut (cable ends)	2	5	3.9 (0.4, 2.9)	
Reverse lever pivot nut	1	6	9.8 (1.0, 7)	NOTE 1
Reverse lever guide bolt	1	6	9.8 (1.0, 7)	NOTE 1
Reverse lever plate nut	5	6	9.8 (1.0, 7)	NOTE 1
Reverse cable setting cap screw (deck)	2	5	3.9 (0.4, 2.9)	
Reverse cable setting nut (thrust plate)	1	24	13 (1.3, 9)	
Reverse cable joint lock nut (cable ends)	2	5	3.9 (0.4, 2.9)	
Reverse bucket arm pivot bolt	1	8	22 (2.2, 16)	NOTE 1
Reverse bucket catch bolt (bucket arm)	1	6	9.8 (1.0, 7)	NOTE 1
Reverse cable joint stud (bucket arm)	1	6	9.8 (1.0, 7)	NOTE 1
Reverse bucket pivot bolt	2	8	22 (2.2, 16)	NOTE 1
Reverse bucket guide nut	1	6	9.8 (1.0, 7)	NOTE 8

ELECTRIC STARTER

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Starter relay switch box cover	6	5	1.0 (0.1, 0.7)	

METER/SWITCHES

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Off-throttle steering limit switch nut	1	20	2.9 (0.3, 2.2)	
Speed sensor wire setting nut	1	3/8-18 NPT	4.9 (0.5, 3.6)	

OTHERS

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Starter relay switch box mounting screw	2	4	1.0 (0.1, 0.7)	
Engine control module (ECM) stay bolts	4	6	9.8 (1.0, 7)	NOTE 1

GENERAL INFORMATION

ENGINE & BODY TORQUE VALUES: After '04

NOTE:

1. Apply locking agent to the threads.
2. Apply engine oil to the threads and seating surface.
3. Apply molybdenum oil solution to the threads and seating surface.
4. Apply molybdenum disulfide grease to the threads.
5. Apply multi-purpose grease to the threads.
6. Apply sealant to the threads.
7. Left-hand threads.
8. Self-lock nut.
9. Stake.
10. ALOC bolt: replace with a new one.
11. Apply silicone sealant to the threads.
12. Apply water resistant molybdenum disulfide grease to the threads.

ENGINE

MAINTENANCE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Spark plug	4	10	12 (1.2, 9)	
Engine oil filter cartridge	1	20	26 (2.7, 20)	NOTE 2
Anode (turbocharger: ARX1200T3/T3D)	1	8	1.0 (0.1, 0.7)	NOTE 1
Anode cap (turbocharger: ARX1200T3/T3D)	1	18	49 (5.0, 36)	
Anode cap (oil tank cover)	1	36	18 (1.8, 13)	NOTE 5

LUBRICATION SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Oil pump driven joint bolt	1	6	12 (1.2, 9)	NOTE 1
Oil pump/front crankcase cover (7 mm bolt)	1	7	18 (1.8, 13)	
Front crankcase cover bolt (6 x 45 mm)	5	6	18 (1.8, 13)	
Oil cooler bolt	4	6	12 (1.2, 9)	
Oil tank cover (7 mm bolt)	3	7	18 (1.8, 13)	
Low oil pressure switch	1	PT 1/8	12 (1.2, 9)	NOTE 6
High oil pressure switch	1	12	22 (2.2, 16)	
Oil filter boss (oil tank side)	1	20	18 (1.8, 13)	NOTE 1
Water hose joint bolt (front crankcase cover)	2	6	12 (1.2, 9)	NOTE 1
18 mm sealing bolt (front crankcase cover)	1	18	29 (3.0, 22)	NOTE 1

FUEL SYSTEM (Programmed Fuel Injection)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Engine coolant temperature (ECT) sensor	1	12	18 (1.8, 13)	
Engine oil temperature sensor	1	12	18 (1.8, 13)	
Knock sensor	1	12	31 (3.2, 23)	NOTE 6
Intake air temperature (IAT) sensor (ARX1200T3/T3D)	1	12	22 (2.2, 16)	

CYLINDER HEAD/VALVE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Cylinder head bolt	10	10	69 (7.0, 51)	NOTE 3
Cam chain tensioner cap nut	1	6	12 (1.2, 9)	
Cam chain tensioner lifter socket bolt	2	6	9.8 (1.0, 7)	
Cam sprocket bolt	4	7	20 (2.0, 14)	NOTE 1
Camshaft holder bolt	20	6	12 (1.2, 9)	NOTE 2
Head cover breather plate bolt	6	6	12 (1.2, 9)	NOTE 1
Cylinder head cover bolt	6	6	9.8 (1.0, 7)	

GENERAL INFORMATION

ALTERNATOR/STARTER CLUTCH

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Alternator stator socket bolt	4	6	12 (1.2, 9)	
Alternator wire clamp socket bolt	1	6	9.8 (1.0, 7)	
Starter clutch torx bolt	6	6	16 (1.6, 12)	NOTE 1
Flywheel bolt	1	12	137 (14.0, 76)	NOTE 2, 7, 10
Balancer driven gear bolt (ARX1200T3/T3D only)	2	8	27 (2.8, 20)	NOTE 1

CRANKSHAFT/BALANCER (ARX1200T3/T3D)/PISTON

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Connecting rod bearing cap nut	8	8	41 (4.2, 30)	NOTE 2
Drive coupler bolt	1	10	69 (7.0, 51)	NOTE 2
Drive coupler boss	1	24	29 (3.0, 22)	
Crankcase bolt	14	9	37 (3.8, 27)	NOTE 2
	10	8	25 (2.5, 18)	
Oil pan oil strainer bolt	10	6	13 (1.3, 9)	NOTE 1
Turbocharger oil feed pipe oil filter bolt (lower crankcase: ARX1200T3/T3D only)	1	12	32 (3.3, 24)	
Turbocharger oil feed pipe setting bolt (upper crankcase: ARX1200T3/T3D only)	1	6	14 (1.4, 10)	
Turbocharger oil return pipe joint bolt (oil pan and lower crankcase: ARX1200T3/T3D only)	2	6	14 (1.4, 10)	
Engine oil temperature sensor adaptor	1	12	22 (2.2, 16)	
Intercooler stay bolt (ARX1200T3/T3D only)	2	8	25 (2.6, 19)	
Turbocharger oil feed pipe joint (lower crankcase: ARX1200T3/T3D)	1	20	49 (5.0, 36)	NOTE 1
20 mm sealing bolt (lower crankcase: ARX1200N3)	1	20	49 (5.0, 36)	NOTE 1
45 mm sealing cap (upper crankcase)	1	45	18 (1.8, 13)	NOTE 5

EXHAUST SYSTEM/TURBOCHARGER (ARX1200T3/3D)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Oil return pipe oil bolt (rear of turbocharger: ARX1200T3/T3D only)	1	12	27 (2.8, 20)	
Oil feed pipe oil orifice bolt (upper of turbocharger: ARX1200T3/T3D only)	1	10	20 (2.0, 14)	
Water hose joint bolt (turbocharger: ARX1200T3/T3D only)	4	6	12 (1.2, 9)	NOTE 1
Turbocharger stud bolt (ARX1200T3/T3D only)	4	8	–	See page 13-9

ELECTRIC STARTER

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Intercooler stay bolt (ARX1200T3/T3D only)	2	8	25 (2.6, 19)	

GENERAL INFORMATION

BODY

HULL/HOOD/BODY PANELS

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Sponson bolt	8	6	16 (1.6, 12)	NOTE 1
Side cover bolt	9	5	3.9 (0.4, 2.9)	
Front hood bolt	4	6	9.8 (1.0, 7)	
Hood liner bolt	2	6	9.8 (1.0, 7)	
Hood hinge mounting nut	3	6	9.8 (1.0, 7)	NOTE 1
Hood catch nut	2	6	9.8 (1.0, 7)	NOTE 8
Post cover bolt	9	6	9.8 (1.0, 7)	
Hood catch stud nut	1	10	39 (4.0, 29)	NOTE 8
Side panel socket bolt	10	6	6.9 (0.7, 5.1)	
Passenger grab rail socket bolt	8	6	6.9 (0.7, 5.1)	
Coupler cover bolt	1	6	9.8 (1.0, 7)	
Seat catch stud nut (front and rear)	2	10	39 (4.0, 29)	NOTE 8
Seat catch bolt (front and rear)	4	6	5.9 (0.6, 4.3)	
Rearview mirror nut	4	8	9.8 (1.0, 7)	NOTE 1
Bow eye nut	2	3/8-16UNC	22 (2.2, 16)	NOTE 1
Tow hook nut	2	3/8-16UNC	22 (2.2, 16)	NOTE 1
Stern eyelet nut	4	8	12 (1.2, 9)	NOTE 1
Pilot water nozzle	1	12	2.0 (0.2, 1.4)	NOTE 11
Boarding step pipe nut (ARX1200T3D only)	2	1/4-20UNC	9 (0.9, 6.6)	NOTE 1
Boarding step bracket bolt (ARX1200T3D only)	4	8	25 (2.6, 19)	NOTE 10

FUEL SYSTEM (Programmed Fuel Injection)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Fuel pump lock nut	1	–	93 (9.5, 69)	
Fuel tank breather port	1	12	2.0 (0.2, 1.4)	
Fuel feed/return hose clip bolt (oil tank)	1	6	6.9 (0.7, 5.1)	NOTE 1
Throttle cable setting nut	1	8	8.8 (0.9, 6.5)	
Wastegate solenoid valve bolt (ARX1200T3/T3D only)	1	5	3.9 (0.4, 2.9)	
Airbox mounting bolt	1	6	7.8 (0.8, 5.8)	
Crankcase breather hose joint bolt (ARX1200T3/ T3D only)	1	6	7.8 (0.8, 5.8)	
Airbox connecting tube band screw (duct side: ARX1200T3/T3D only)	1	–	6.9 (0.7, 5.1)	
Air funnel screw (ARX1200N3 only)	7	5	3.9 (0.4, 2.9)	
Airbox cover screw (ARX1200N3 only)	9	5	3.9 (0.4, 2.9)	
MAP sensor screw (ARX1200N3)	1	4	2.9 (0.3, 2.2)	

ENGINE MOUNTING

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Engine mounting bolt (with rubber mount)	8	8	22 (2.2, 16)	
Engine mounting bolt	4	12	50 (5.1, 37)	NOTE 2

EXHAUST SYSTEM/TURBOCHARGER (ARX1200T3/T3D)

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Exhaust water chamber bolt	4	6	16 (1.6, 12)	NOTE 1

GENERAL INFORMATION

PROPULSION SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Grease nipple joint	1	10	9.8 (1.0, 7)	
Grease nipple	1	6	3.9 (0.4, 2.9)	
Bearing housing mounting nut	3	8	22 (2.2, 16)	
Driven coupler bolt	1	10	49 (5.0, 36)	NOTE 2
Thrust plate bolt	4	10	39 (4.0, 29)	NOTE 1
Cooling water cap	1	42	44 (4.5, 33)	NOTE 1, 9
Impeller	1	16	127 (13.0, 94)	NOTE 12
Impeller housing bolt (ARX1200N3 only)	2	5	3.9 (0.4, 2.9)	NOTE 1
Stator cap socket bolt (ARX1200T3/T3D)	3	5	3.9 (0.4, 2.9)	NOTE 1
Stator cap socket bolt (ARX1200N3)	4	5	3.9 (0.4, 2.9)	NOTE 1
Jet pump mounting bolt	4	8	22 (2.2, 16)	NOTE 1
Water jet nozzle bolt	4	8	22 (2.2, 16)	NOTE 1
Intake grate bolt	4	8	25 (2.6, 19)	NOTE 1
Ride plate bolt	4	8	25 (2.6, 19)	NOTE 1

STEERING/REVERSE SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Handlebar holder bolt	4	8	22 (2.2, 16)	
Left handlebar switch housing screw	2	5	2.0 (0.2, 1.4)	
Throttle lever pivot bolt	1	5	3.9 (0.4, 2.9)	NOTE 1
Throttle lever holder screw	2	6	2.9 (0.3, 2.2)	
Steering shaft holder nut	4	8	26 (2.7, 20)	NOTE 8
Steering limit switch bracket bolt	2	6	4.9 (0.5, 3.6)	NOTE 1
Steering shaft retainer nut	3	6	6.9 (0.7, 5.1)	NOTE 1
Steering shaft cable arm nut	2	6	6.9 (0.7, 5.1)	NOTE 1, 8
Steering cable holder bolt	2	6	9.8 (1.0, 7)	NOTE 1
Steering cable setting nut (thrust plate)	1	24	13 (1.3, 9)	
Steering nozzle pivot bolt	2	8	22 (2.2, 16)	NOTE 1
Steering cable joint bolt (cable arm and steering nozzle)	2	6	9.8 (1.0, 7)	
Steering cable joint nut (cable arm and steering nozzle)	2	6	9.8 (1.0, 7)	NOTE 8
Steering cable joint lock nut (cable ends)	2	5	3.9 (0.4, 2.9)	
Reverse lever pivot nut	1	6	9.8 (1.0, 7)	NOTE 1
Reverse lever guide bolt	1	6	9.8 (1.0, 7)	NOTE 1
Reverse lever plate nut	5	6	9.8 (1.0, 7)	NOTE 1
Reverse cable setting cap screw (deck)	2	5	3.9 (0.4, 2.9)	
Reverse cable setting nut (thrust plate)	1	24	13 (1.3, 9)	
Reverse cable joint lock nut (cable ends)	2	5	3.9 (0.4, 2.9)	
Reverse bucket arm pivot bolt	1	8	22 (2.2, 16)	NOTE 1
Reverse bucket catch bolt (bucket arm)	1	6	9.8 (1.0, 7)	NOTE 1
Reverse cable joint stud (bucket arm)	1	6	9.8 (1.0, 7)	NOTE 1
Reverse bucket pivot bolt	2	8	22 (2.2, 16)	NOTE 1
Reverse bucket guide nut	1	6	9.8 (1.0, 7)	NOTE 8

ELECTRIC STARTER

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Starter relay switch box cover	6	5	1.0 (0.1, 0.7)	

METER/SWITCHES

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Off-throttle steering limit switch nut	1	20	2.9 (0.3, 2.2)	
Speed sensor wire setting nut	1	3/8-18 NPT	4.9 (0.5, 3.6)	

GENERAL INFORMATION

OTHERS

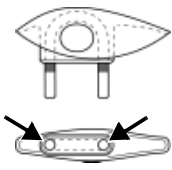
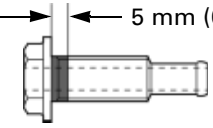
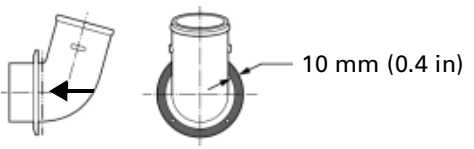
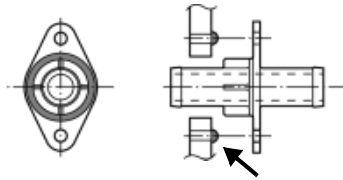
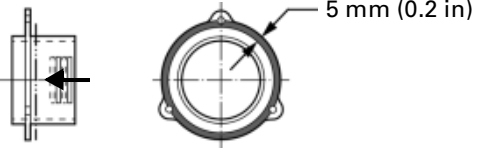
ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Starter relay switch box mounting screw	2	4	1.0 (0.1, 0.7)	
Engine control module (ECM) stay bolts	4	6	9.8 (1.0, 7)	NOTE 1

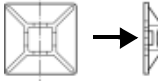

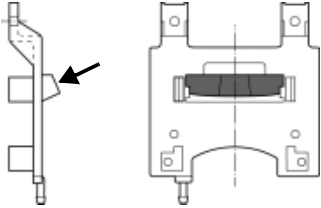
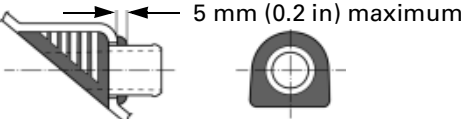
LUBRICATION & SEAL POINTS: '04 model**ENGINE**

LOCATION	MATERIAL	REMARKS
Crankcase mating surface Oil pan mating surface Low oil pressure switch threads Knock sensor threads	Sealant	See page 12-24 See page 6-6
Crankcase mating surface (front crankcase cover side) Cylinder head semi-circular area edges Front crankcase cover wire grommet seating areas	Silicone sealant	See page 6-14 See page 10-28 See page 6-14
Valve stem sliding surface Valve lifter outer surface Cylinder head bolt threads and seating surface Camshaft cam lobes, journals and thrust surfaces Starter reduction gear shaft outer surface Piston pin outer surface Crankshaft main journal bearing sliding surface Balancer journal bearing sliding surface (ARX1200T3 only) Crankpin bearing sliding surface	Molybdenum disulfide oil (a mixture of engine oil and molybdenum disulfide grease in a ratio of 1:1)	
Oil filter cartridge threads Drive coupler bolt threads and seating surface Piston and piston ring sliding surface Connecting rod bearing cap nut threads and seating surface Camshaft holder bolt threads and seating surface Starter sprag clutch contacting surfaces Flywheel bolt threads and seating surface Crankcase 9 mm bolt threads and seating surface Each gear tooth and rotating surface Each bearing rotating area Each O-ring Other rotating and sliding areas	Engine oil	
Anode cap threads (oil tank) 45 mm sealing cap threads (upper crankcase) Each oil seal lip	Multi-purpose grease	
18 mm sealing bolt threads (front crankcase cover) 20 mm sealing bolt (lower crankcase: ARX1200N3) Turbocharger oil feed pipe joint threads (lower crankcase: ARX1200T3) Manifold surface temperature (MST) switch retainer bolt threads Engine oil temperature sensor adaptor threads Oil pump driven joint bolt threads Balancer driven gear bolt threads (ARX1200T3 only) Oil pan oil strainer bolt threads Cylinder head cover breather plate bolt threads Anode threads (turbocharger: ARX1200T3 only) Anode tightening screw threads Water hose joint bolt threads (front crankcase cover and turbocharger) Cam sprocket bolt threads Starter clutch socket bolt threads Oil filter boss threads (oil tank side)	Locking agent	Coat 6.5 mm from tip Coat 6.5 mm from tip Coat 6.5 mm from tip Coat 6.5 mm from tip Coat 6.5 mm from tip Coat 6.5 mm from tip Coat 6.5 mm from tip Coat 6.5 mm from tip Coat 6.5 mm from tip
Manifold surface temperature (MST) switch outer surface	SHIN-ETSU KS613 grease	1.4 cm ³ (page 8-114)

GENERAL INFORMATION

BODY

LOCATION	MATERIAL	REMARKS
<p>Bow eye stud bolt seating areas</p> 	<p>Silicone sealant</p>	
<p>Pilot water nozzle threads and seating surface</p> 		<p>Apply 2 g (0.1 oz)</p>
<p>Exhaust outlet seating surface</p> 		<p>Apply 18 g (0.6 oz)</p>
<p>Water outlet joint seating surface and screw holes</p> 		<p>Apply 4 g (0.1 oz)</p>
<p>Air vent adaptor seating surface (deck)</p> 		<p>Apply 9 g (0.3 oz)</p>
<p>Front hood hinge mounting area Drain plug base screw holes Intake grate rear side fitting area Ride plate front end fitting area Thrust plate seating surface Steering shaft holder seating surface</p>		<p>See page 3-10 See page 3-12 See page 14-31 See page 14-31 See page 14-34 See page 15-8</p>

LOCATION	MATERIAL	REMARKS
<p>Cable retaining base seating surface</p>   <p>Starter relay switch box base bottom</p>  <p>Drive shaft guide seating surface</p>  <p>Intake lip fitting area Thrust plate bolt washer seating surface Fuel tank mounting rubber and stopper rubber seating surface</p>	<p>Equal mixture of two component urethane based adhesives (LOAD 7542 or equivalent)</p>	<p>Apply 0.5 g (0.02 oz)</p> <p>Apply 5 g (0.2 oz)</p> <p>Does not overflow to end surface.</p> <p>See page 14-33 See page 14-33 See page 8-84</p>
<p>Sponson bolt threads Hood hinge mounting nut threads Rearview mirror nut threads Bow eye nut threads Tow hook nut threads Fuel feed/return hose clip bolt threads (oil tank) Throttle lever pivot bolt threads Steering cable holder bolt threads Steering nozzle pivot bolt threads Reverse lever pivot nut threads Reverse lever guide bolt threads Reverse lever plate nut threads Reverse bucket arm pivot bolt Reverse bucket catch bolt threads (bucket arm) Reverse cable joint stud threads (bucket arm) Reverse bucket pivot bolt threads Reverse bucket guide bolt threads Exhaust water chamber bolt threads Thrust plate bolt threads Cooling water cap threads Stator cap socket bolt threads Jet pump mounting bolt threads Water jet nozzle bolt threads Intake grate bolt threads Ride plate bolt threads</p>	<p>Locking agent</p>	
<p>Driven coupler bolt threads and seating surface</p>	<p>Engine oil</p>	
<p>Impeller shaft collar O-ring (A) Impeller shaft threads Impeller splines Impeller seal lips Driven coupler splines</p>	<p>Molybdenum disulfide grease</p>	<p>Fill up 2 g (0.1 oz)</p>

GENERAL INFORMATION

LOCATION	MATERIAL	REMARKS
Impeller shaft bearing rotating area Impeller shaft water seal lips Water jet stator inside (between bearings) Impeller shaft O-ring (B) Stator cap O-ring Stator cap inside	Water resistant grease #0	Fill up 60 g (2.1 oz) Fill up 60 g (2.1 oz)
Drive shaft bearing housing oil seal lips Drive shaft bearing rotating area Drive shaft bearing housing (between bearings) Drive shaft bearing housing grease nipple	Water resistant grease #2	See page 4-20
Front hood hinge pivot Off-throttle steering limit switch lever sliding area and pivot Throttle cable (throttle drum rolling area) Steering shaft sliding surfaces Steering shaft retainer sliding area Steering cable joint pivot (each end) Steering nozzle pivots Reverse lever pivot and guide groove Reverse cable joint pivot (each end) Reverse bucket arm pivot and bushings Reverse bucket pivots	Water resistant molybdenum disulfide grease	Apply 0.5 g (0.02 oz) See page 15-14
Steering cable Reverse cable Throttle cable (throttle lever side)	Silicone grease	



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