WSM

WORKSHOP MANUAL
TRACTOR

BX1830 BX2230

Kubota

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

CONTENTS

1. TRACTOR IDENTIFICATION G-1
2. GENERAL PRECAUTIONS G-2
3. HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING G-3
[1] WIRING G-3
[2] BATTERY G-5
[3] FUSE G-5
[4] CONNECTOR G-5
[5] HANDLING OF CIRCUIT TESTER G-7
4. LUBRICANTS, FUEL AND COOLANT G-8
5. TIGHTENING TORQUES G-9
[1] GENERAL USE SCREWS, BOLT AND NUTS G-9
[2] STUD BOLTS G-9
[3] AMERICAN STANDARD SCREWS, BOLTS AND NUTS WITH UNC OR UNF THREADS G-10
6. MAINTENANCE G-11
7. CHECK AND MAINTENANCE G-14
[1] DAILY CHECK G-14
[2] CHECK POINTS OF INITIAL 50 HOURS G-15
[3] CHECK POINTS OF EVERY 50 HOURS G-17
[4] CHECK POINTS OF EVERY 100 HOURS G-19
[5] CHECK POINTS OF EVERY 200 HOURS G-24
[6] CHECK POINTS OF EVERY 300 HOURS G-26
[7] CHECK POINTS OF EVERY 400 HOURS G-27
[8] CHECK POINTS OF EVERY 500 HOURS G-27
[9] CHECK POINTS OF EVERY 800 HOURS G-28
[10] CHECK POINTS OF EVERY 1500 HOURS G-28
[11] CHECK POINTS OF EVERY 3000 HOURS G-28
[12] CHECK POINTS OF EVERY 1 YEAR G-28
[13] CHECK POINTS OF EVERY 2 YEARS G-28
[14] OTHERS G-31
8. SPECIAL TOOLS G-33
[1] SPECIAL TOOLS FOR ENGINE G-33
[2] SPECIAL TOOLS FOR TRACTOR G-41
9. TIRES G-42
[1] TIRE PRESSURE G-42
[2] TREAD G-43
[3] TIRE LIQUID INJECTION G-44
10. IMPLEMENT LIMITATIONS G-46

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

⚠ SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol" is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully.It is essential that you read the instructions and safety regulations before you attempt to repair or use this unit.

⚠ DANGER
- **Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.**

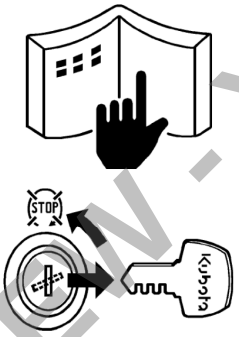
⚠ WARNING
- **Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

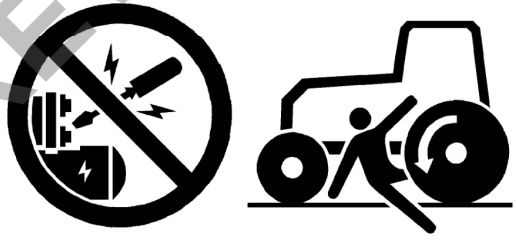
⚠ CAUTION
- **Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.**

■ IMPORTANT
- **Indicates that equipment or property damage could result if instructions are not followed.**

■ NOTE
- **Gives helpful information.**

0000000752E





BEFORE SERVICING AND REPAIRING

- Read all instructions and safety instructions in this manual and on your machine safety decals.
- Clean the work area and machine.
- Park the machine on a firm and level ground, and set the parking brake.
- Lower the implement to the ground.
- Stop the engine, and remove the key
- Disconnect the battery negative cable
- Hang a **"DO NOT OPERATE"** tag in operator station.

0000000753E

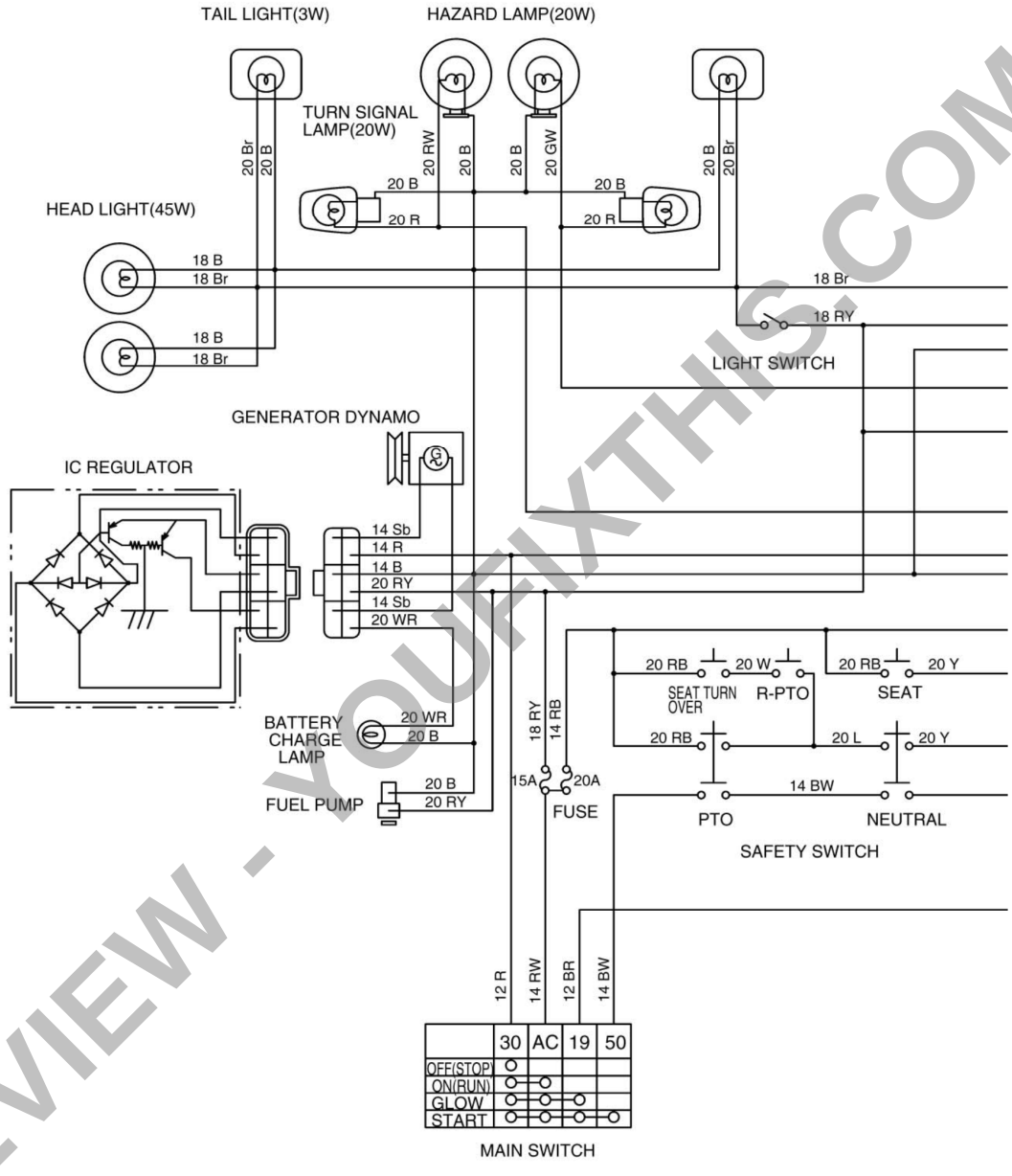
SAFETY STARTING

- Do not start the engine by shorting across starter terminals or bypassing the safety start switch.
- Do not alter or remove any part of machine safety system.
- Before starting the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Never start the engine while standing on ground. Start the engine only from operator's seat.

0000000754E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



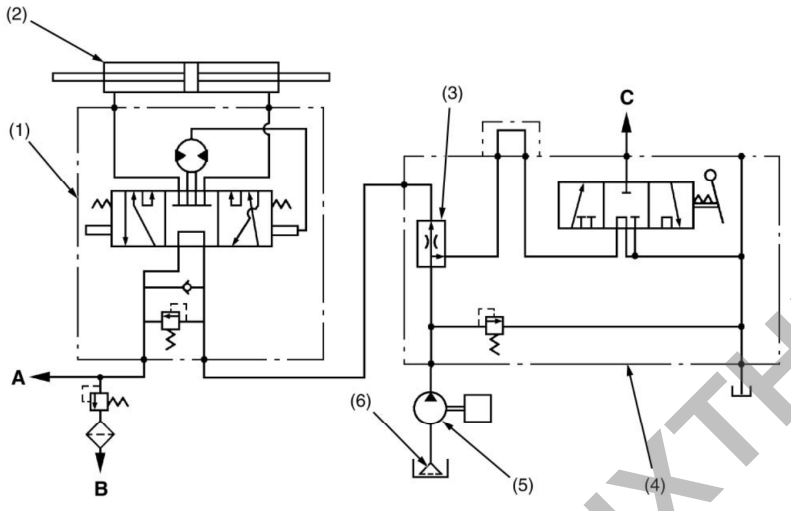
3TAAAAE9P001A

0000004214E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

1. HYDRAULIC CIRCUIT



(1) Steering Controller
(2) Steering Cylinder
(3) Flow Priority Valve
(4) Hydraulic Control Valve Assembly
(5) Hydraulic Pump
(6) Oil Strainer

A: To PTO Clutch Valve
B: To HST
C: To Hydraulic Cylinder

3TAAAAB7P001A

This model is provided with a full hydrostatic power steering.

In the full hydrostatic power steering, the steering controller is connected to the steering cylinder with only the hydraulic piping. Accordingly, it does not have mechanical transmitting parts such as steering gear, pitman arm, drag link, etc.. Therefore, it is simple in construction. This steering system consists of the oil strainer (6), hydraulic pump (5), flow priority valve (3), steering controller (1), steering cylinder (2), etc..

Flow priority valve (3) which located in the hydraulic control valve assembly (4) divides the oil into two direction. One is the control flow to power steering (constantly 7 L/min., 1.8 U.S.gals./min., 1.5 Imp.gals./min.), and the other is excessive flow to control valve of implement lift control.

By operating the power steering body, the required amount of oil is fed to the steering cylinder (2).

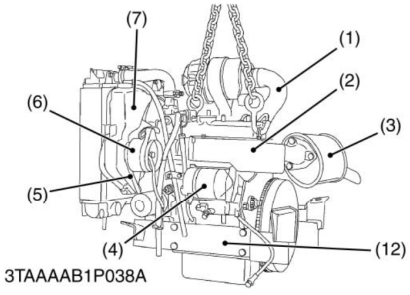
0000001065E

PREVIEW - YOUFIXTHIS.COM

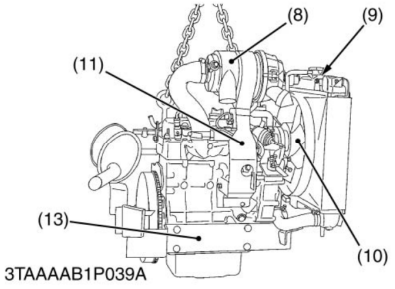
Download full manual at youfixthis.com

[3] DISASSEMBLING AND ASSEMBLING

(1) Cylinder Head and Valves



3TAAAAB1P038A



3TAAAAB1P039A

Dynamo, Fan Belt and Muffler

1. Disconnect the radiator hoses and separate the radiator (9) with recovery tank (7) from engine assembly.
2. Remove the cooling fan (10) and fan pulley.
3. Remove the dynamo (6) and fan belt (5).
4. Remove the muffler cover (2) and muffler (3).
5. Remove the starter (4).
6. Disconnect the inlet pipe (1), air cleaner (8) and air cleaner stay (11).
7. Remove the wire bracket.
8. Remove the engine support LH (12) and RH (13).

(When reassembling)

- Check to see that there are no cracks on the belt surface.

■ IMPORTANT

- **After reassembling the fan belt, be sure to adjust the fan belt tension.**

Tightening torque	Air cleaner stay nut	23.5 to 27.5 N·m 2.4 to 2.8 kgf·m 17.4 to 20.3 ft-lbs
	Engine support screw	48.1 to 55.9 N·m 4.9 to 5.7 kgf·m 35.4 to 41.2 ft-lbs

(1) Inlet Pipe
(2) Muffler Cover
(3) Muffler
(4) Starter
(5) Fan Belt
(6) Dynamo
(7) Recovery Tank
(8) Air Cleaner
(9) Radiator
(10) Cooling Fan
(11) Air Cleaner Stay
(12) Engine Support LH
(13) Engine Support RH

0000004061E

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

5. TIGHTENING TORQUES

[1] GENERAL USE SCREWS, BOLT AND NUTS

Screws, bolt and nuts whose tightening torque are not specified in this Workshop Manual should be tightened according to the table below.

Indication on top of bolt	⬡ ④ No-grade or 4T						⑦ 7T						⑨ 9T		
Material of bolt	SS400, S20C						S43C, S48C						SCr435, SCM435		
Material of opponent part	Ordinariness			Aluminum			Ordinariness			Aluminum			Ordinariness		
Unit / Diameter	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs
M6 (6 mm, 0.24 in.)	7.85 to 9.31	0.80 to 0.95	5.79 to 6.87	7.85 to 8.82	0.80 to 0.90	5.79 to 6.50	9.81 to 11.2	1.00 to 1.15	7.24 to 8.31	7.85 to 8.82	0.80 to 0.90	5.79 to 6.50	12.3 to 14.2	1.25 to 1.45	9.05 to 10.4
M8 (8 mm, 0.31 in.)	17.7 to 20.5	1.8 to 2.1	13.1 to 15.1	16.7 to 19.6	1.7 to 2.0	12.3 to 14.4	23.6 to 27.4	2.4 to 2.8	17.4 to 20.2	17.7 to 20.5	1.8 to 2.1	13.1 to 15.1	29.5 to 34.3	3.0 to 3.5	21.7 to 25.3
M10 (10 mm, 0.39 in.)	39.3 to 45.1	4.0 to 4.6	29.0 to 33.2	31.4 to 34.3	3.2 to 3.5	23.2 to 25.3	48.1 to 55.8	4.9 to 5.7	35.5 to 41.2	39.3 to 44.1	4.0 to 4.5	29.0 to 32.5	60.9 to 70.6	6.2 to 7.2	44.9 to 52.0
M12 (12 mm, 0.47 in.)	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5	-	-	-	77.5 to 90.2	7.9 to 9.2	57.2 to 66.5	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5	103 to 117	10.5 to 12.0	76.0 to 86.7
M14 (14 mm, 0.55 in.)	108 to 125	11.0 to 12.8	79.6 to 92.5	-	-	-	124 to 147	12.6 to 15.0	91.2 to 108	-	-	-	167 to 196	17.0 to 20.0	123 to 144
M16 (16 mm, 0.63 in.)	167 to 191	17.0 to 19.5	123 to 141	-	-	-	197 to 225	20.0 to 23.0	145 to 166	-	-	-	260 to 304	26.5 to 31.0	192 to 224
M18 (18 mm, 0.71 in.)	246 to 284	25.0 to 29.0	181 to 209	-	-	-	275 to 318	28.0 to 32.5	203 to 235	-	-	-	344 to 402	35.0 to 41.0	254 to 296
M20 (20 mm, 0.79 in.)	334 to 392	34.0 to 40.0	246 to 289	-	-	-	368 to 431	37.5 to 44.0	272 to 318	-	-	-	491 to 568	50.0 to 58.0	362 to 419

0000000766E

[2] STUD BOLTS

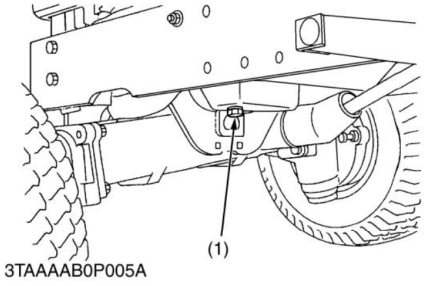
Material of opponet part	Ordinariness			Aluminum		
Unit / Diameter	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs
M8 (8 mm, 0.31 in.)	11.8 to 15.6	1.2 to 1.6	8.68 to 11.5	8.82 to 11.8	0.90 to 1.2	6.51 to 8.67
M10 (10 mm, 0.39 in.)	24.6 to 31.3	2.5 to 3.2	18.1 to 23.1	19.7 to 25.4	2.0 to 2.6	14.5 to 18.8
M12 (12 mm, 0.47 in.)	29.5 to 49.0	3.0 to 5.0	21.7 to 36.1	31.4	3.2	23.1

0000000767E

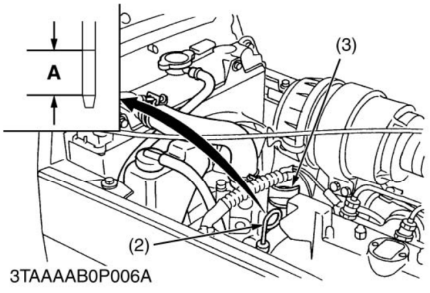
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[2] CHECK POINTS OF INITIAL 50 HOURS



3TAAAAB0P005A



3TAAAAB0P006A

Changing Engine Oil

CAUTION

- **Be sure to stop the engine before changing engine oil.**

1. Start and warm up the engine for approx. 5 minutes.
2. Place an oil pan underneath the engine.
3. To drain the used oil, remove the drain plug (1) at the bottom of the engine and drain the oil completely.
4. Screw in the both drain plug (1).
5. Fill new oil up to upper line on the dipstick (2).

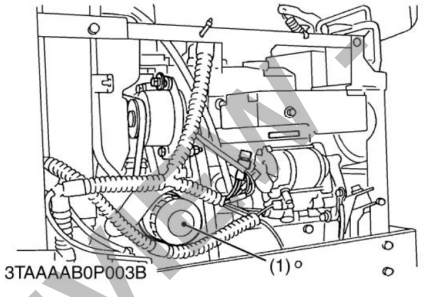
■ IMPORTANT

- **When using an oil of different manufacture or viscosity from the previous one, remove all of the old oil.**
- **Never mix two different types of oil.**
- **Use the proper SAE Engine Oil according to ambient temperatures.**
- **Refer to "LUBRICANTS, FUEL AND COOLANT". (See page G-8.)**

Engine oil capacity	BX1830	1.9 L 2.01 U.S.qts. 1.67 Imp.qts
	BX2230	2.8 L 2.96 U.S.qts. 2.46 Imp.qts

(1) Drain Plug
(2) Dipstick
(3) Oil Inlet
(A) Oil level is acceptable within this range

0000004222E



3TAAAAB0P003B

Replacing Engine Oil Filter Cartridge

CAUTION

- **Be sure to stop the engine before changing oil filter cartridge.**

1. Remove the oil filter cartridge with the filter wrench.
2. Apply a slight coat of oil onto the new cartridge gasket.
3. To install the new cartridge, screw it in by hand. Over tightening may cause deformation of rubber gasket.
4. After the new cartridge has been replaced, the engine oil normally decrease a little. Thus see that the engine oil does not leak through the seal and be sure to read the oil level on the dipstick. Then, replenish the engine oil up to the specified level.

■ IMPORTANT

- **To prevent serious damage to the engine, replacement element must be highly efficient. Use only a KUBOTA genuine filter or its equivalent.**

(1) Engine Oil Filter Cartridge

0000000771E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

1. TROUBLESHOOTING

Symptom	Probable Cause	Solution	Reference Page
Engine Does Not Start	● No fuel	Replenish fuel	G-8
	● Air in the fuel system	Bleed	G-31
	● Water in the fuel system	Change fuel and repair or replace fuel system	G-21
	● Fuel pipe clogged	Clean	G-21
	● Fuel filter clogged	Change	G-21
	● Excessively high viscosity of fuel or engine oil at low temperature	Use specified fuel or engine oil	G-8
	● Fuel with low cetane number	Use specified fuel	G-8
	● Fuel leak due to loose injection pipe retaining nut	Tighten retaining nut	1-S31
	● Incorrect injection timing	Adjust	1-S22
	● Fuel camshaft worn	Replace	—
	● Injection nozzle clogged	Repair or replace	1-S50
	● Injection pump malfunctioning	Replace	—
	● Seizure of crankshaft, camshaft, piston, cylinder or bearing	Repair or replace	—
	● Compression leak from cylinder	Replace head gasket, tighten cylinder head screw, glow plug and nozzle holder	1-S16
	● Improper valve timing	Correct or replace timing gear	1-S37, S43
	● Piston ring and cylinder worn	Replace	1-S62
	● Excessive valve clearance	Adjust	1-S18
(Starter Does Not Run)	● Battery discharged	Charge	G-20
	● Starter malfunctioning	Repair or replace	6-S11
	● Main switch malfunctioning	Repair or replace	6-S9
	● Safety switches malfunctioning	Adjust or replace	6-S13
	● Wiring disconnected	Connect	—

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SPECIFICATIONS

Model			BX1830	BX2230
PTO power			10.2 kW (13.7 HP)*	12.4 kW (16.7 HP)*
Engine	Maker		KUBOTA	
	Model		D722-E-BX	D902-E-BX
	Type		Indirect injection. Vertical, water-cooled, 4-cycle diesel	
	Number of cylinders		3	
	Bore and stroke		67 x 68 mm (2.64 x 2.68 in.)	72 x 73.6 mm (2.83 x 2.90 in.)
	Total displacement		719 cm^3 (43.9 cu.in.)	898 cm^3 (54.8 cu.in.)
	Engine gross power (DIN)		13.4 kW (18.0 HP)	16.4 kW (22.0 HP)
	Rated revolution		53.3 r/s [3200 min^{-1} (rpm)]	
	Maximum torque		41.5 N·m (4.23 kgf·m, 30.6 ft-lbs) / 36.7 to 43.3 r/s [2200 to 2600 min^{-1} (rpm)]	54.9 N·m (5.6 kgf·m, 40.5 ft-lbs) / 36.7 to 43.3 r/s [2200 to 2600 min^{-1} (rpm)]
	Battery		12 V, CCA : 435 A, RC : 62 min.	12 V, CCA : 535 A, RC : 80 min.
	Starting system		Electric starting with cell starter, 12 V, 1.4 kW	
	Lubrication system		Forced lubrication by trochoidal pump	
	Cooling system		Pressurized radiator, forced circulation with water pump	
	Fuel		Diesel fuel No.2-D [above -10 ℃(14 ℉)], Diesel fuel No.1 [below -10 ℃ (14 ℉)	
Capacities	Fuel tank		21 L (5.5 U.S.gals, 4.6 lmp.gals)	
	Engine crankcase (with filter)		1.9 L (2.01 U.S.qts., 1.67 lmp.qts.)	2.8 L (2.96 U.S.qts., 2.46 lmp.qts.)
	Engine coolant (with recovery tank)		2.9 L (3.06 U.S.qts., 2.55 lmp.qts.)	3.1 L (3.27 U.S.qts., 2.73 lmp.qts.)
	Transmission case		10.1 L (2.7 U.S.gals., 2.2 lmp.gals.)	
	Front axle case		4.7 L (4.97 U.S.qts., 4.14 lmp.qts.)	
Dimensions	Overall length (without 3P)		2025 mm (79.7 in.)	
	Overall width		1145 mm (45.1 in.)	
	Overall height (with ROPS)		1800 mm (70.9 in.)	
	Overall height (top of seat)		1240 mm (48.8 in.)	
	Wheel base		1400 mm (55.1 in.)	
	Minimum ground clearance (bottom of hitch bracket)		170 mm (6.7 in.)	
	Tread	Front	910 mm (35.8 in.)	
		Rear	820 mm (32.2 in.)	
Weight (with ROPS)			570 kg (1257 lbs)	585 kg (1290 lbs)
Traveling system	Tires	Front	18 x 8.50 - 8 (Turf)	
		Rear	26 x 12.00 - 12 (Turf)	
	Steering		Hydrostatic power steering	
	Transmission		Main-hydrostatic transmission, Range gear shift (2 forward and 2 reverse)	
	Brake		Wet disc type	
	Min. turning radius (without brake)		2.3 m (7.5 feet)	
	Differential		Bevel gear	

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

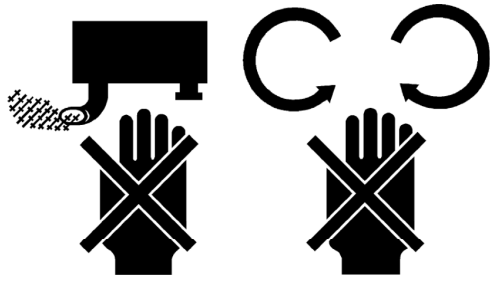
6. MAINTENANCE

No.	Item \ Period		Indication on hour meter										Important		Reference page
			50	100	150	200	250	300	350	400	450	500			
1	Engine oil	Change	★	☆		☆		☆		☆		☆			G-15
2	Engine oil filter	Replace	★			☆				☆					G-15
3	Transmission oil filter	Replace	★					☆							G-16
4	Transmission fluid	Change	★					☆							G-16
5	Transmission strainer	Clean						☆							G-26
6	Front axle case oil	Change						☆							G-26
7	Front axle pivot	Adjust								☆					G-27
8	Engine start system	Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆			G-17
9	Greasing	-	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆			G-17
10	Wheel bolt torque	Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆			G-18
11	Battery condition	Check		☆		☆		☆		☆		☆	*4		G-19
12	Air cleaner element	Clean		☆		☆		☆		☆		☆	*1	@	G-21
		Replace											*2		G-28
13	Fuel filter element	Check		☆		☆		☆		☆		☆		@	G-21
		Replace										☆			G-27
14	Fan belt	Adjust		☆		☆		☆		☆		☆			G-22
15	HST neutral spring	Adjust		☆		☆		☆		☆		☆			G-22
16	Brake	Adjust		☆		☆		☆		☆		☆			G-23
17	Radiator hose and clamp	Check				☆				☆					G-24
		Replace													G-28
18	Power steering oil line	Check				☆				☆					G-24
		Replace													G-28
19	Fuel line	Check		☆		☆		☆		☆		☆		@	G-21
		Replace													G-28
20	Intake air line	Check				☆				☆				@	G-25
		Replace											*3		G-28
21	Toe-in	Adjust				☆				☆					G-25
22	Engine valve clearance	Adjust													G-28
23	Fuel injection nozzle injection pressure	Check												@	G-28
24	Injection pump	Check												@	G-28
25	Cooling system	Flush													G-29
26	Coolant	Change													G-29
27	Fuel system	Bleed													G-31
28	Fuse	Replace													G-31
29	Light bulb	Replace													G-32

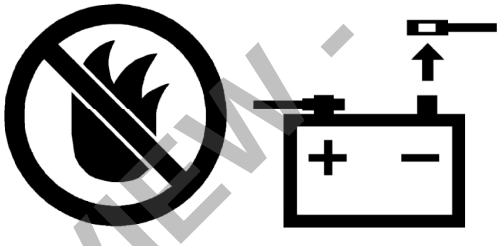
0000004220E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com







SAFETY WORKING

- Do not work on the machine while under the influence of alcohol, medication, or other substances or while fatigued.
- Wear close fitting clothing and safety equipment appropriate to the job.
- Use tools appropriate to the work. Makeshift tools, parts, and procedures are not recommended.
- When servicing is performed together by two or more persons, take care to perform all work safely.
- Do not work under the machine that is supported solely by a jack. Always support the machine by safety stands.
- Do not touch the rotating or hot parts while the engine is running.
- Never remove the radiator cap while the engine is running, or immediately after stopping. Otherwise, hot water will spout out from radiator. Only remove radiator cap when cool enough to touch with bare hands. Slowly loosen the cap to first stop to relieve pressure before removing completely.
- Escaping fluid (fuel or hydraulic oil) under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or fuel lines. Tighten all connections before applying pressure.

0000000755E

AVOID FIRES

- Fuel is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.
- To avoid sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- Battery gas can explode. Keep sparks and open flame away from the top of battery, especially when charging the battery.
- Make sure that no fuel has been spilled on the engine.

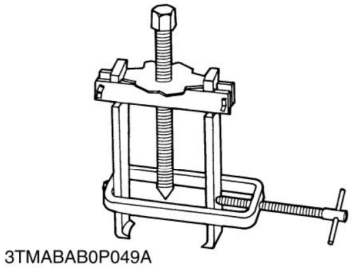
0000000756E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

8. SPECIAL TOOLS

[1] SPECIAL TOOLS FOR ENGINE



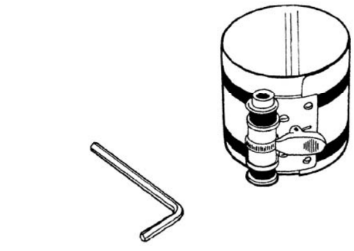
3TMABAB0P049A

Special Use Puller Set

Code No : 07916-09032

Application : Use exclusively for pulling out bearing, gears and other parts with ease.

0000000677E



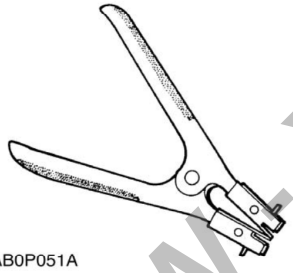
3TMABAB0P050A

Piston Ring Compressor

Code No : 07909-32111

Application : Use exclusively for pushing in the piston with piston rings into the cylinder.

0000000678E



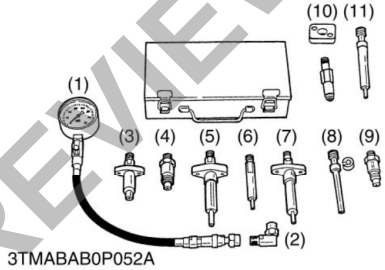
3TMABAB0P051A

Piston Ring Tool

Code No : 07909-32121

Application : Use exclusively for removing or installing the piston ring with ease.

0000000679E



3TMABAB0P052A

Diesel Engine Compression Tester (for Injection Nozzle)

Code No : 07909-30208 (Assembly) 07909-31251 (G)
07909-30934 (A to F) 07909-31271 (I)
07909-31211 (E and F) 07909-31281 (J)
07909-31231 (H)

Application : Use to measure diesel engine compression and diagnostics of need for major overhaul.

(1) Gauge
(2) L Joint
(3) Adaptor **A**
(4) Adaptor **B**
(5) Adaptor **C**
(6) Adaptor **E**
(7) Adaptor **F**
(8) Adaptor **G**
(9) Adaptor **H**
(10) Adaptor **I**
(11) Adaptor **J**

0000001399E

PREVIEW: YOUFIXTHIS.COM

Download full manual at youfixthis.com



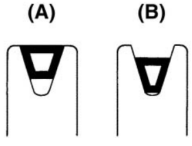
3EEABAB1P019A

Fan Belt Damage and Wear

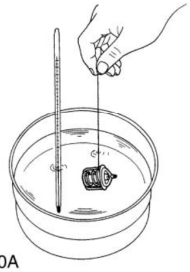
1. Check the fan belt for damage.
2. If the fan belt is damaged, replace it.
3. Check if the fan belt is worn and sunk in the pulley groove.
4. If the fan belt is nearly worn out and deeply sunk in the pulley groove, replace it.

(A) Good **(B) Bad**

0000000920E



3EEABAB1P018A



3EEABAB1P160A

Thermostat Valve Opening Temperature

1. Suspend the thermostat in the water by a string with its end inserted between the valve and seat.
2. Heating the water gradually, read the temperature when the valve opens and leaves the string.
3. Continue heating and read the temperature when the valve opens approx. 6 mm (0.236 in.) (D722), 8 mm (0.315 in.) (D902).
4. If the measurement is not within the factory specifications, replace the thermostat.

[D722]

Thermostat's valve opening temperature	Factory spec.	80.5 to 83.5 ℃ 176.9 to 182.3 ℉
Thermostat's at which thermostat completely opens	Factory spec.	95 ℃ 203 ℉

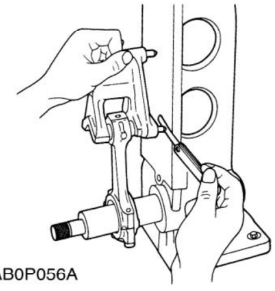
[D902]

Thermostat's valve opening temperature	Factory spec.	69.5 to 72.5 ℃ 157.1 to 162.5 ℉
Thermostat's at which thermostat completely opens	Factory spec.	85 ℃ 185 ℉

0000004052E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



3TMABAB0P056A

Connecting Rod Alignment

1. Remove the crankpin bearing, and install the connecting rod cap.
2. Install the piston pin in the connecting rod.
3. Install the connecting rod on the connecting rod alignment tool (Code No. 07909-31661).
4. Put a gauge over the piston pin, and move it against the face plate.
5. If the gauge does not fit squarely against the face plate, measure the space between the pin of the gauge and the face plate.
6. If the measurement exceeds the allowable limit, replace the connecting rod.

Space between gauge pin face plate	Allowable limit	0.05 mm 0.0020 in.

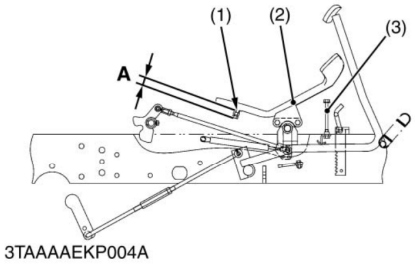
0000000902E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4. CHECKING, DISASSEMBLING AND SERVICING

[1] CHECKING AND ADJUSTING



3TAAAAEKP004A

Adjusting Maximum Speed

■ **Forward**

1. Depress the speed control pedal (2) all the way and lengthen the stopper bolt (3) until it touches the bottom surface of the speed control pedal (2).
2. Release the speed control pedal (2) to the neutral, lengthen the stopper bolt (3) half turn and lock it.

■ **Reverse**

1. Adjust the stopper bolt (1) length **"A"** to 30 mm (1.18 in.) and lock it securely.

(Reference)

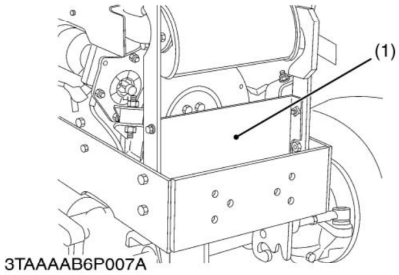
Maximum Speed	Reference	Forward	13.0 to 14.0 km/h 8.1 to 8.8 mph
		Reverse	10.0 to 11.0 km/h 6.3 to 6.9 mph

(1) Stopper Bolt (Reverse)
(2) Speed Control Pedal
(3) Stopper Bolt (Forward)

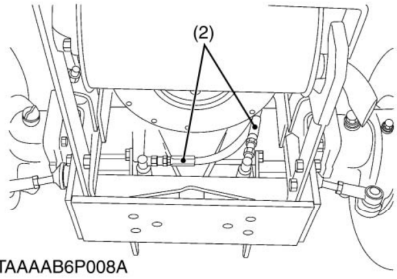
0000004159E

PREVIEW - YOUFIXTHIS.COM

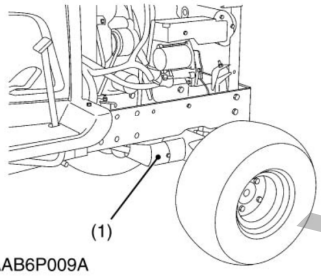
Download full manual at youfixthis.com



3TAAAAB6P007A



3TAAAAB6P008A



3TAAAAB6P009A

Flywheel Cover and Power Steering Hose

1. Remove the flywheel cover (1).
2. Disconnect the power steering cylinder hoses (2).

(When reassembling)

Tightening torque	Power steering cylinder hose	28.4 to 30.0 N·m 2.9 to 3.1 kgf·m 20.9 to 22.1 ft-lbs

(1) Flywheel Cover (2) Power Steering Cylinder Hose

0000004101E

Front Wheel and Propeller Shaft Cover

1. Lift up the front side of tractor and place the disassembling stand under the front axle frame.
2. Remove the front wheels.
3. Remove the propeller shaft cover mounting bolt and slide the propeller shaft cover (1).

(When reassembling)

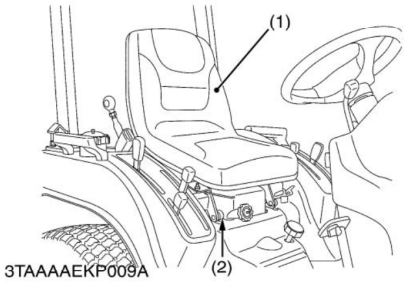
Tightening torque	Front wheel mounting screw	122 to 146 N·m 12.4 to 14.9 kgf·m 90 to 108 ft-lbs

(1) Propeller Shaft Cover

0000004102E

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

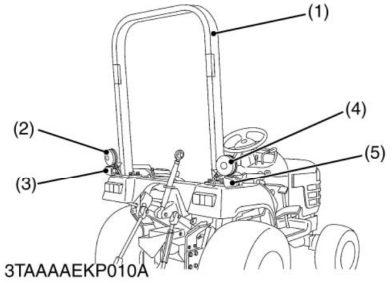


Seat

1. Remove the snap pin (2) to remove the seat (1).

(1) Seat (2) Snap Pin

0000000973E



Roll-Over Protective Structures (ROPS)

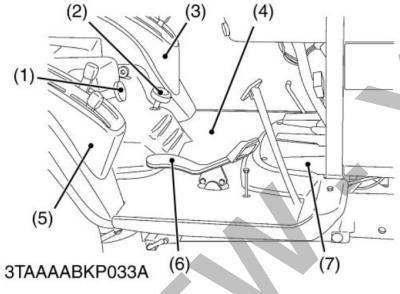
1. Disconnect the lead wires from the hazard lights (2), (4) and turn signal lights (3), (5).
2. Remove the ROPS mounting bolt and nuts, and remove the ROPS (1).

(When reassembling)

Tightening torque	ROPS mounting nut	124 to 147 N·m 12.6 to 15.0 kgf·m 91.2 to 108 ft-lbs

(1) ROPS (4) Hazard Light RH
(2) Hazard Light LH (5) Turn Signal Light RH
(3) Turn Signal Light LH

0000004134E

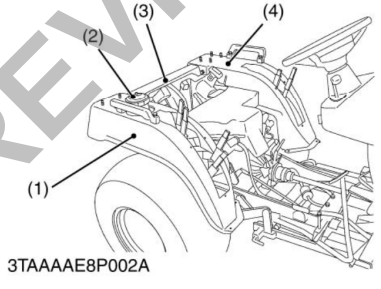


Speed Control Pedal, Lever Guides and Step

1. Remove the lowering speed adjusting knob (1) and cutting height adjusting dial knob (2).
2. Remove the step plate (7), speed control pedal (6) and lever guides (3), (5).
3. Remove the step (4).

(1) Lowering Speed Adjusting Knob
(2) Cutting Height Adjusting Dial Knob
(3) Lever Guide LH
(4) Step
(5) Lever Guide RH
(6) Speed Control Pedal
(7) Step Plate

0000004135E



Fenders

1. Disconnect the lead wires from the tail lights.
2. Remove the fuel cap (2), then remove the fenders (1), (3) and (4) as a unit.
3. Replace the fuel cap (2).

(1) Fender RH (3) Rear Fender
(2) Fuel Cap (4) Fender LH

0000004136E

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 18 of 304 pages

The full manual includes:

- All 304 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Kubota BX1830, BX2230 Workshop Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual