WSM

WORKSHOP MANUAL

ZD326RP,ZD331RP (SUPPLEMENT)

Kubota

PREVIEW YOUFIXTHIS.COM

Download full manual at youfixthis.com

KiSC issued 10, 2009 A

INFORMATION

CONTENTS

1. SAFETY FIRST RI-1
2. SAFETY DECALS RI-4
3. SPECIFICATIONS RI-5
4. DIMENSIONS RI-7

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

1. SAFETY FIRST

⚠ 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.**

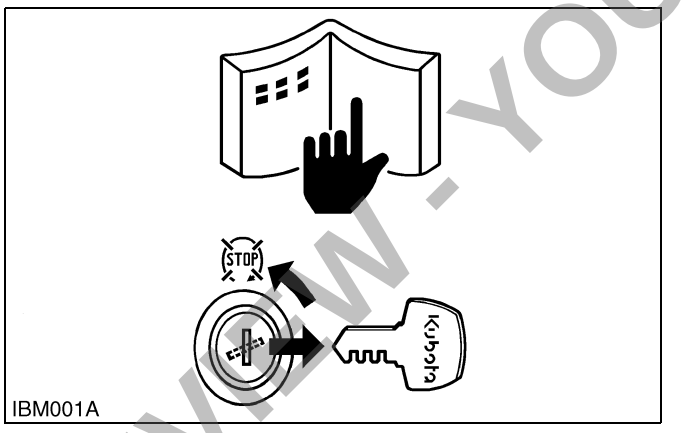
⚠ WARNING
- **Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

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

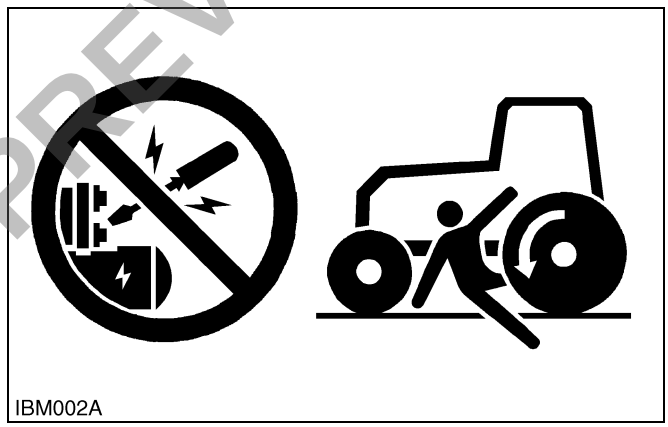
■ IMPORTANT
- **Indicates that equipment or property damage could result if instructions are not followed.**

■ NOTE
- **Gives helpful information.**

WSM000001INI0001US1



IBM001A


IBM002A

BEFORE YOU START SERVICE

- 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 stable and level ground, and set the parking brake.
- Lower the implement to the ground.
- Stop the engine, then remove the key.
- Disconnect the battery negative cable.
- Hang a **"DO NOT OPERATE"** tag in the operator station.

WSM000001INI0010US1

START SAFELY

- Do not do the procedures below when you start the engine.
  - short across starter terminals
  - bypass the safety start switch
- Do not alter or remove any part of machine safety system.
- Before you start the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Do not start the engine when you stay on the ground. Start the engine only from operator's seat.

WSM000001INI0015US0

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

3. SPECIFICATIONS

Model			ZD326RP	ZD331RP
Engine	Model		D1005-E3-ZD-2	D1305-E3-ZD
	Max. engine power (Gross)		19.4 kW (26 HP)*1	23.1 kW (31 HP)*1
	Type		Liquid-cooled	
	Number of cylinders		3	
	Bore and stroke		76.0 × 73.6 mm (2.99 × 2.90 in.)	78.0 × 88.0 mm 3.07 × 3.46 in.)
	Total displacement		1001 cm^3 (61.1 cu.in.)	1261 cm^3 (77.0 cu.in.)
	Rated revolution		3200 min^{-1} (rpm)	3000 min^{-1} (rpm)
	Low idling revolution		1250 to 1350 min^{-1} (rpm)	
	Fuel		Diesel fuel No. 1 [below −10°C (14°F)] Diesel fuel No. 2 [above −10°C (14°F)]	
	Starter		Electric starter with battery, glow plug, 12 V, 1.1kW	
	Lubrication		Forced lubrication by gear pump	
	Cooling		Liquid with pressurized radiator	
	Battery		51 R (12 V, RC : 70 min, CCA : 450 A)	
Capacities	Fuel tank		49 L (13 U.S.gals, 11 Imp.gals)	
	Engine crankcase (with filter)		3.9 L (4.1 U.S.qts, 3.4 Imp.qts)	5.7 L (6.0 U.S.qts, 5.0 Imp.qts)
	Engine coolant		3.5 L (3.7 U.S.qts, 3.1 Imp.qts)	
	Recovery tank		0.25 L (0.26 U.S.qts, 0.22 Imp.qts)	
	Transmission case including rear axle gear case		12.1 L (12.8 U.S.qts, 10.6 Imp.qts)*3	
Dimensions	Overall length		2220 mm (87.4 in.)	
	Overall width without mower deck		1460 mm (57.5 in.)	
	Overall height	With ROPS upright	1915 mm (75.4 in.)	
		With ROPS folded	1555 mm (61.2 in.)	
	Wheel base		1410 mm (55.5 in.)	
	Minimum ground clearance		130 mm (5.12 in.)	130 mm (5.12 in.)
	Tread	Front	975 mm (38.4 in.)	
		Rear	1150 mm (45.3 in.)	
Weight (without fuel, with mower deck)			756 kg (1667 lbs)	763 kg (1683 lbs)
Traveling system	Tires	Front	15 × 6.0 - 6 (Semi-pneumatic Non Flat Tire) Rib	
		Rear	26 × 12.0 - 12 (4PR) Turf	
	Traveling speeds	Forward	0 to 10.6 mph (0 to 17.0 km/h)*2	
		Reverse	0 to 5.3 mph (0 to 8.5 km/h)*2	
	Steering		2 - Hand levers	
	Transmission		2 - HST with Gear	
	Parking brake		Wet multi disk / Foot applied, released	
	Min. turning radius		0 mm (0 in.)	
PTO	Revolution		1 speed (2530 min^{-1} (rpm) at 3200 engine min^{-1} (rpm))	1 speed (2538 min^{-1} (rpm) at 3000 engine min^{-1} (rpm))
	Drive system		Shaft drive, KUBOTA 10 tooth involute spline	
	Clutch type		Wet multi disks	
	PTO brake		Wet single disk	

(Specifications and design are subject to change without notice)

■ **NOTE**

- ***1 : Manufacturer's estimate**
- ***2 : At 3200 engine min^{-1} (rpm) [ZD326], At 3000 engine min^{-1} (rpm) [ZD331]**
- ***3 : Oil amount when the oil level is at the upper level.**

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

1. TROUBLESHOOTING

Symptom	Probable Cause	Solution	Reference Page
Discharge Chute Plugged	Grass too wet	Wait for grass to dry	–
	Grass too long	Raise cutting height and cut grass twice	–
	Cutting too low	Raise cutting height	–
	Engine rpm too low	Mow at full throttle	–
	Ground speed too fast	Slow down	–
Blade Does Not Turn	PTO system malfunctioning	Check transmission	2-S1
	Broken mower belt	Replace mower belt	R6-S9
Blade Speed Is Slow	Loosen mower belt	Replace mower belt or tension spring	R6-S8 R6-S9
	Clogged grass	Remove grass	–
	Flattened out or worn cup washer	Replace cup washer	R6-S8
	Engine rpm too low	Mow at full throttle, check and reset engine rpm	–
Blades Scalping Grass	Cutting height too low	Raise cutting height	–
	Turning speed too fast	Reduce speed on turns	–
	Ridges in terrain	Change mowing pattern	–
	Rough or uneven terrain	Adjust wheels pressure and anti scalp rollers	R6-S5
	Anti-scalp rollers not adjusted correctly	Adjust wheels pressure and anti scalp rollers	R6-S5
	Bent blade(s)	Replace blade(s)	R6-S8
Cutting Is Poor	Worn or bent mower blade	Sharpen or replace mower blade	R6-S8
	Loosen mower blade screw	Retighten mower blade screw	R6-S8
	Cutting height improper	Adjust cutting height	–
	Ground speed too fast	Slow-down	–
	Low wheel inflation	Add air to correct	R6-S5
	Anti-scalp rollers not adjusted correctly	Adjust anti-scalp rollers	R6-S5
Streaking of Grass Uncut	Ground speed too fast	Slow down	–
	Engine rpm too low	Mow at full throttle, check and reset engine rpm	–
	Grass too long	Cut grass twice	–
	Blades dull or damaged	Sharpen or replace mower blade	R6-S8
	Debris in mower deck	Clean mower deck	–

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

5. MAINTENANCE CHECK LIST

No.	Item			Service Interval												Reference page	
				50	100	150	200	250	300	350	400	450	500	550	600	After since	
1	Engine oil		Change	★			☆				☆				☆	every 200 Hr	G-17	
2	Engine oil filter		Replace	★			☆				☆				☆	every 200 Hr	G-17	
3	Transmission oil filter [HST]		Replace	★			☆				☆				☆	every 200 Hr	G-18	
4	Front axle pivot		Adjust		★		☆				☆				☆	every 200 Hr	G-19	
5	Safety device		Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr	G-21	
6	King pin, Center pin etc.		Greasing	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr	G-23	
	Throttle cable		Oil	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr	G-24	
7	Mower gear box oil		Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr	RG-10	
			Change			☆			☆			☆			☆	every 150 Hr	RG-10	
8	Air cleaner	Primary element	Clean		☆		☆		☆		☆		☆		☆	every 100 Hr	G-24	*1
			Replace													every 1 years	G-31	
		Secondary element	Replace													every 1 years	G-31	
9	Battery condition		Check		☆		☆		☆		☆		☆		☆	every 100 Hr	G-25	
10	Fuel line		Check		☆		☆		☆		☆		☆		☆	every 100 Hr	G-27	
			Replace													every 2 years	G-34	
11	Fuel filter element		Check		☆		☆		☆		☆		☆		☆	every 100 Hr	G-27	
			Replace								☆					every 400 Hr	G-31	
12	Fan belt		Adjust		☆		☆		☆		☆		☆		☆	every 100 Hr	G-27	
13	Parking brake		Adjust		☆		☆		☆		☆		☆		☆	every 100 Hr	G-28	
14	Radiator hose and clamp		Check				☆				☆				☆	every 200 Hr	G-29	
			Replace													every 2 years	G-34	
15	Hydraulic hose		Check				☆				☆				☆	every 200 Hr	G-30	
			Replace													every 2 years	G-34	
16	Motion control lever pivot		Adjust				☆				☆				☆	every 200 Hr	G-30	
17	Intake air line		Check				☆				☆				☆	every 200 Hr	G-30	
			Replace													every 2 years	G-34	*2
18	Transmission fluid and rear axle gear case (RH & LH) fluid		Change								☆					every 400 Hr	G-20	
19	Hydraulic oil filter		Replace								☆					every 400 Hr	G-18	
20	Fuel injection nozzle injection pressure		Check													every 1500Hr	–	
21	Injection pump		Check													every 3000Hr	–	

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

3. LUBRICANT, FUEL AND COOLANT

Place	Capacities		Grade	
	ZD326RP	ZD331RP		
Fuel	49 L 13 U.S.gals 11 Imp.gals		• No. 2-D diesel fuel • No. 1-D diesel fuel if temperature is below –10 °C (14 °F)	
Coolant	3.5 L 3.7 U.S.qts 3.1 Imp.qts		Fresh clean water (soft water) with anti-freeze	
Recovery tank	0.25 L 0.26 U.S.qts 0.22 Imp.qts			
Engine crankcase	3.9 L* 4.1 U.S.qts 3.4 Imp.qts		Engine oil : API Service Classification CF or better • Below 0 °C (32 °F) SAE10, SAE10W-30 or 15W-40 • 0 to 25 °C (32 to 77 °F) SAE20, SAE10W-30 or 15W-40 • Above 25 °C (77 °F) SAE30W, SAE10W-30 or 15W-40	
Transmission case with filter and hose and rear axle gear case (RH and LH)	12.1 L 12.8 U.S.qts 10.6 Imp.qts		KUBOTA UDT or SUPER UDT fluid*1	
Mower gear box	0.4 L 0.4 U.S.qts 0.4 Imp.qts		SAE 90 gear oil (API service classification : more than GL-3)	
Greasing	**No. of greasing points**		**Capacity**	**Type of grease**
Motion control lever pivot bushing, and contact position	6		Until grease overflows	Multipurpose EP2 Grease (NLGI Grade No. 2)
King pin	2			
Center pin	1			
Front wheel	2			
Front lift arm	2			
Universal joint	3			
Seat adjuster	2			
Cable (throttle)	2		Moderate amount	Oil

■ **NOTE**
- *** Oil amount when the oil level is the upper of the oil level gauge.**
- *** 1 : KUBOTA original transmission hydraulic fluid.**

■ **IMPORTANT**
- **To prevent serious damage to hydraulic system, use only KUBOTA genuine fluid or its equivalent.**

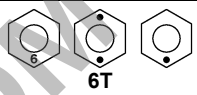
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4. TIGHTENING TORQUES

[1] GENERAL USE SCREWS, BOLTS AND NUTS

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

Indication on top of bolt	 No-grade or 4T						 7T						 9T		
Indication on top of nut	 No-grade or 4T												 6T		
Material of opponent part	Ordinariness			Aluminum			Ordinariness			Aluminum			Ordinariness		
Unit	N·m	kgf·m	lbf·ft	N·m	kgf·m	lbf·ft	N·m	kgf·m	lbf·ft	N·m	kgf·m	lbf·ft	N·m	kgf·m	lbf·ft
M6	7.9 to 9.3	0.80 to 0.95	5.8 to 6.8	7.9 to 8.8	0.80 to 0.90	5.8 to 6.5	9.81 to 11.2	1.00 to 1.15	7.24 to 8.31	7.9 to 8.8	0.80 to 0.90	5.8 to 6.5	12.3 to 14.2	1.25 to 1.45	9.05 to 10.4
M8	18 to 20	1.8 to 2.1	13 to 15	17 to 19	1.7 to 2.0	13 to 14	24 to 27	2.4 to 2.8	18 to 20	18 to 20	1.8 to 2.1	13 to 15	30 to 34	3.0 to 3.5	22 to 25
M10	40 to 45	4.0 to 4.6	29 to 33	32 to 34	3.2 to 3.5	24 to 25	48 to 55	4.9 to 5.7	36 to 41	40 to 44	4.0 to 4.5	29 to 32	61 to 70	6.2 to 7.2	45 to 52
M12	63 to 72	6.4 to 7.4	47 to 53	–	–	–	78 to 90	7.9 to 9.2	58 to 66	63 to 72	6.4 to 7.4	47 to 53	103 to 117	10.5 to 12.0	76.0 to 86.7
M14	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	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	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	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

WSM000001GEG0001US1

[2] STUD BOLTS

Material of opponent part	Ordinariness			Aluminum		
Unit	N·m	kgf·m	lbf·ft	N·m	kgf·m	lbf·ft
M8	12 to 15	1.2 to 1.6	8.7 to 11	8.9 to 11	0.90 to 1.2	6.5 to 8.6
M10	25 to 31	2.5 to 3.2	18 to 23	20 to 25	2.0 to 2.6	15 to 18
M12	30 to 49	3.0 to 5.0	22 to 36	31	3.2	23
M14	62 to 73	6.3 to 7.5	46 to 54	–	–	–
M16	98.1 to 112	10.0 to 11.5	72.4 to 83.1	–	–	–
M18	172 to 201	17.5 to 20.5	127 to 148	–	–	–

WSM000001GEG0002US1

PREVIEW YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 8 of 42 pages

The full manual includes:

- All 42 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Kubota ZD326RP, ZD331RP Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual