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Z231BR-AU · Z231KH-AU · Z251BR-AU · Z251KH-AU

OPERATOR'S MANUAL

KUBOTA
ZERO TURN MOWER

MODELS **Z231BR-AU**
Z231KH-AU
Z251BR-AU
Z251KH-AU



1WNAM00001A01

READ AND SAVE THIS MANUAL

Kubota

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SAFE OPERATION

Careful operation is your best insurance against an accident.
The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property. Read and understand this manual carefully before operating the machine. All operators, no matter how much experience they may have had, must read and understand this and other related manuals before operating the machine or any implement attached to it. It is the owner's obligation to instruct all operators in safe operation.
If the operator(s) or mechanic(s) cannot understand the contents, it is the owner's responsibility to explain this material to them. This mowing machine is capable of amputating hands, feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

BEFORE OPERATING THE MACHINE

Know your equipment and its limitations. Read all instructions in this manual and machine safety labels before attempting to start and operate the machine.

1. General

- The zero turn mowing machine has different steering characteristics than other machines with a steering wheel and does not have a service brake pedal (but, has a parking brake lever. Normal slowing down and stopping is done with the motion control levers.). Read and understand the operator's manual before operating the machine. Practice operating the machine at low engine speed in an unobstructed area without engaging the mower.
- Pay special attention to the safety labels on the machine itself.
- Do not allow any bystanders around or near the machine during operation.
- Do not allow passengers, children or non-qualified operators on the machine at any time. The operator must remain in the machine seat throughout operation.
- Do not operate the machine or any attachments while under the influence of alcohol, medication, controlled substances or when fatigued.
- Do not wear loose, torn, or bulky clothing around the machine. The clothing may catch on moving parts or controls, leading to the risk of an accident. Wear and use any additional safety items such as a hard hat, safety boots or shoes, eye and hearing protection, gloves and so on, as appropriate or required.
- Do not wear radio or music headphones while operating the machine.
  Do not operate the machine or any attachments while using or texting with a cellphone or any other electronic device.
  Safe operation requires your full attention.
- Carefully check the vicinity before operating machine or any implement attached to it. Clear the work area of objects (such as wires and rocks) that might be picked up and thrown. Check for overhead clearance which may interfere with the grass catcher or ROPS.
- Check parking brakes and other mechanical parts for correct adjustment and wear. Replace worn or damaged parts promptly. Check the tightness of all nuts and bolts regularly.
  (See PERIODIC SERVICE on page 44 and ADJUSTMENT on page 67.)
- Keep all shields and guards in place. Replace any that are damaged or missing.
- Before allowing other people to use your machine, explain how to operate and have them read this manual before operation.
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern and prudence of personnel involved in the operation, transport and maintenance of the equipment.
- Keep the machine and attachments in good operating condition and keep safety devices in place and in proper working condition.
- Do not modify the machine. Unauthorized modification may affect the function of the machine, which may result in personal injury.
- Use only implements approved by KUBOTA. Use proper ballast on the front or rear of the machine to reduce the risk of upsets. Follow the safe operating procedures specified in the manuals of the equipment.
- Keep your machine clean. Accumulations of dirt, grease, and trash can contribute to fires and lead to personal injury.
- The exhaust gas from the muffler is very hot. To prevent fire, do not expose dry grass, mowed grass, oil and any other combustible materials to the exhaust gas. Use a spark arrester where required. Keep the engine and muffler clean all the times.

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SPECIFICATIONS

SPECIFICATION TABLE

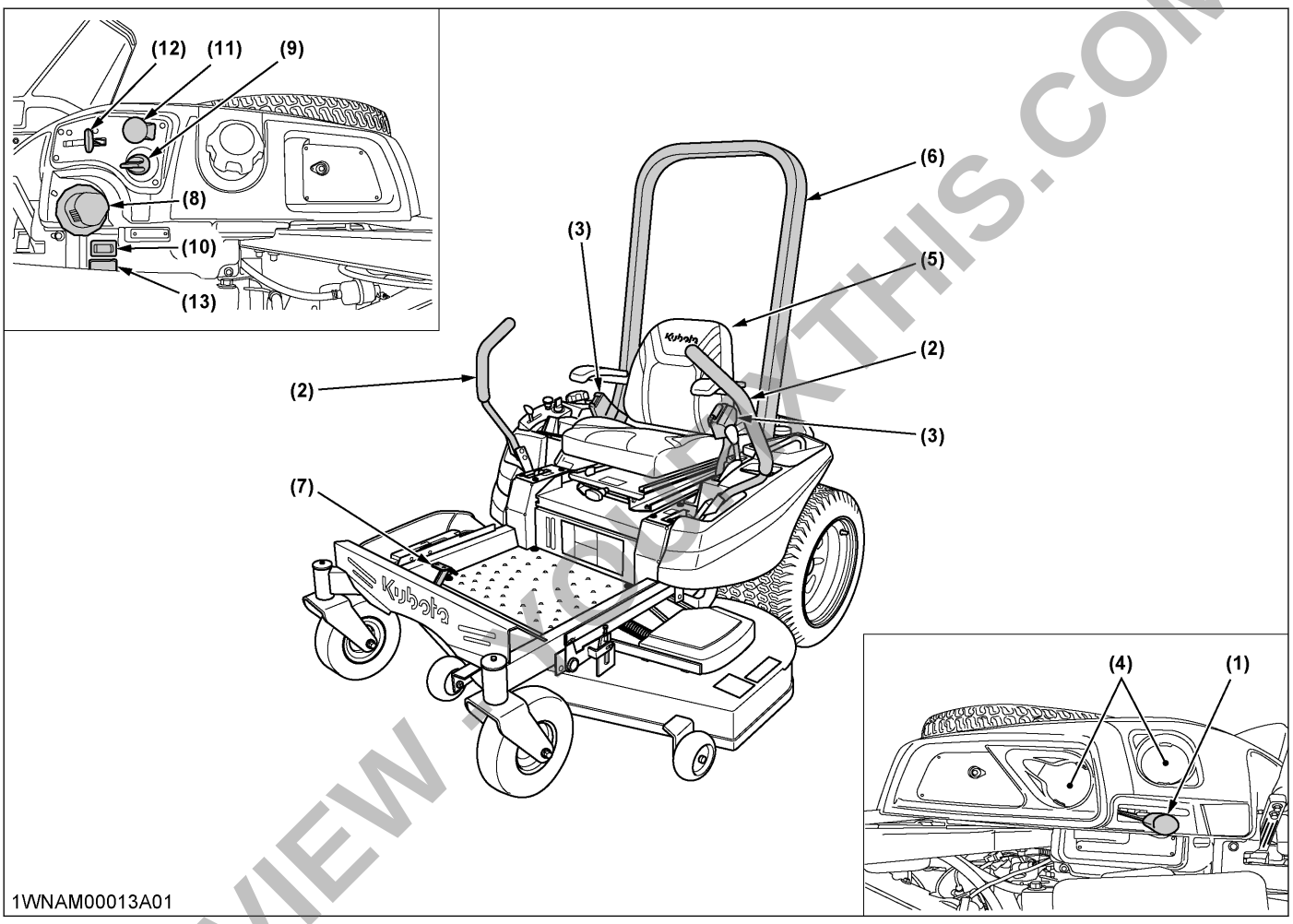
Model				Z231BR-AU	Z231KH-AU	Z251BR-AU	Z251KH-AU
Engine	Model name			**GH731V-1**	**GH736V**	**GH733V-1**	**GH750V**
	Max. engine power (gross)		kW (HP)	16.4 (22) *1*2	15.7 (21) *1*3	18.6 (25) *1*3	18.6 (25) *1*3
	Type			Air-cooled gasoline engine			
	Number of cylinders			2 (V-Twin)			
	Bore and stroke		mm (in.)	79 × 73 (3.11 × 2.87)	83 × 67 (3.27 × 2.64)	79 × 73 (3.11 × 2.87)	83 × 69 (3.27 × 2.72)
	Total displacement		cm^3 (cu. in.)	724 (44)	725 (44)	724 (44)	747 (46)
	Rated revolution		rpm	3600			
	Fuel			Unleaded gasoline			
	Starter			Electric			
	Lubrication			Full pressure lubrication			
	Cooling			Air-cooled			
	Battery			U1 (12 V, RC: 45 min, CCA: 300, CA: 410)			
Capacities	Fuel tank		L (U.S.gals.)	16.3 (4.3)			
	Engine crankcase (with filter)		L (U.S.qts.)	1.8 (1.9)			
	Transmission case including rear axle gear case		L (U.S.qts.)	4.8 (5.1) *4			
Dimensions	Overall length		mm (in.)	1940 (76.4)			
	Overall width without mower deck		mm (in.)	1207 (47.5)			
	Overall height (with ROPS)		mm (in.)	1652 (65.0)			
	Wheelbase		mm (in.)	1155 (45.5)			
	Min. ground clearance		mm (in.)	123 (4.84) with 48"		123 (4.84) with 54"	
	Tread	Front	mm (in.)	796 (31.3)			
		Rear	mm (in.)	954 (37.6)			
Weight (without fuel, with mower deck)			kg (lbs.)	330 (728) with 48"	340 (750) with 48"	340 (750) with 54"	350 (772) with 54"
Traveling system	Tires	Front		11 × 4 - 5 (4PR) smooth			
		Rear		22 × 10 - 14 (4PR) turf			
	Traveling speeds	Forward	mph (km/h)	0 to 8.0 (0 to 12.9)			
		Reverse	mph (km/h)	0 to 4.0 (0 to 6.4)			
	Steering			2 - hand levers			
	Transmission			2 - HST with gear			
	Parking brake			Hand lever applied, released			
	Min. turning radius		mm (in.)	0 (0)			
PTO	Drive system			Belt			
	Clutch type			Electric			

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INSTRUMENT PANEL AND CONTROLS

INSTRUMENT PANEL, SWITCHES AND HAND CONTROLS



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MOWER MOUNTING

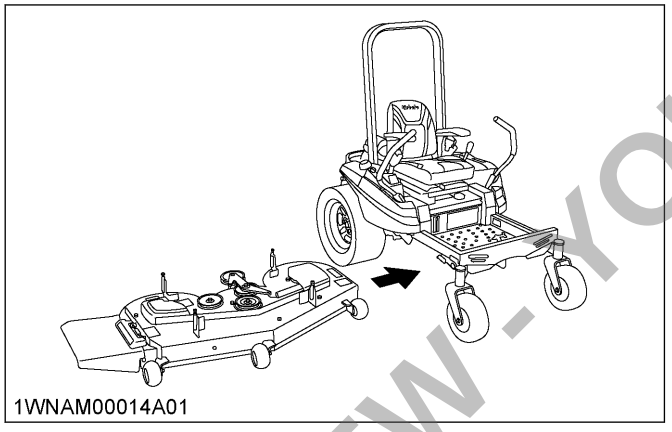
MOUNTING THE MOWER DECK

⚠ WARNING

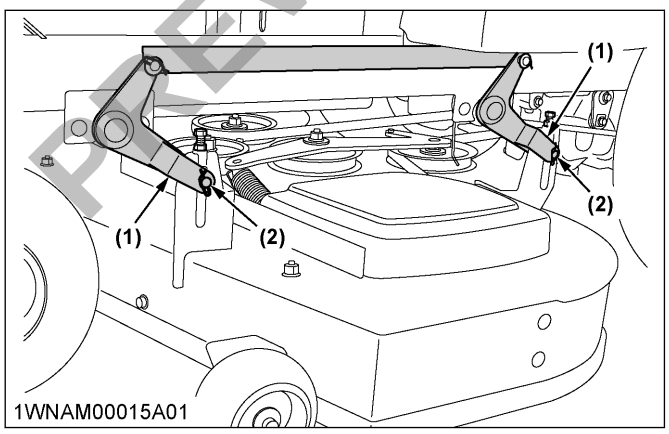
To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Apply the parking brake.**
- **Stop the engine and remove the key.**

1. Before mounting the mower deck, raise the lift links to the full up position.
2. Adjust the cutting height control dial to 1.5 in. position.
3. Change the direction of the front tires as shown in the figure.
4. Place the mower deck at the right side of the machine.

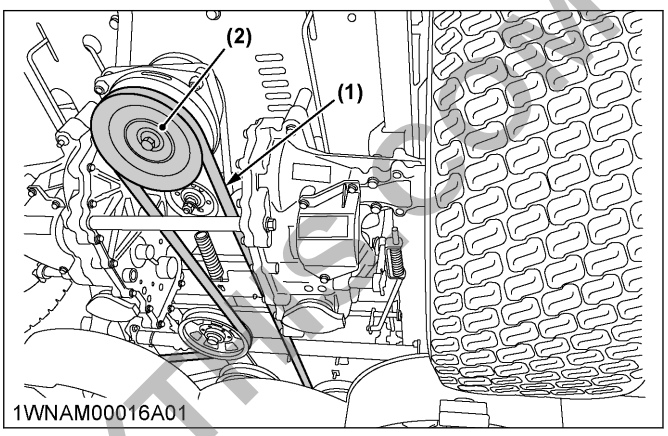


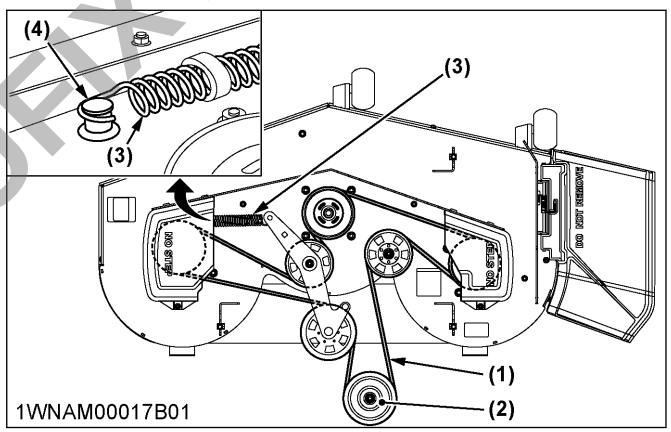
5. Slide the mower deck under the machine, then lower mower lift links.
6. Attach the lift links to the mower deck with attaching hardware.



(1) Lift link
(2) Clevis pin, snap pin

7. Attach the mower belt to the engine pulley. Refer the belt routing.





(1) Mower belt
(2) Engine pulley
(3) Mower spring
(4) Boss

8. Attach the mower spring to the boss on the mower deck.
9. After mounting the mower, check the mower level. If necessary, adjust the mower level and anti-scalp rollers.

ADJUSTING THE MOWER

(See OPERATING THE MOWER on page 35 and ADJUSTMENT on page 67.)

DISMOUNTING THE MOWER DECK

For dismounting the mower deck, reverse the above procedures.

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OPERATING THE MACHINE

OPERATING A NEW MACHINE

How a new machine is operated and maintained will determine the operating life of the machine.
A new machine just off the factory production line has been tested, but the various parts are not accustomed to each other, so care should be taken to operate the machine for the first 50 hours at a slower speed and avoid excessive work or operation until the various parts become *"broken-in"*. The manner in which the machine is handled during the *"breaking-in"* period greatly affects the life of your machine. Therefore, to obtain the maximum performance and the longest operating life of the machine, it is very important to properly break-in your machine. In handling a new machine, the following precautions should be observed.

1. Changing lubricating oil for new machine

The lubricating oil is especially important in the case of a new machine. The various parts are not *"broken-in"* and are not accustomed to each other. Small metal grit may develop during the operation of the machine and this may wear out or damage the parts. Therefore, care should be taken to change the lubricating oil a little earlier than it would ordinarily be required.
Details regarding normal service intervals can be found in a different section.
(See SERVICE INTERVALS on page 40.)

2. Engine break-in

Z231BR-AU, **Z251BR-AU**
After the first 5 hours of operation, change the engine oil.
Z231KH-AU, **Z251KH-AU**
No engine oil change.
(See SERVICE INTERVALS on page 40.)

Machine break-in
After the first 100 hours of operation, change the transaxle fluid and oil filter.
(See EVERY 100 HOURS on page 53.)

DANGER
To avoid serious injury or death:
- **Do not operate the mower without the discharge deflector in the down position.**

WARNING
To avoid serious injury or death:
- **The machine relies upon the engine driven transmission for speed, direction, and motion control. If the engine is not running, the machine cannot be driven or controlled.**
  If the engine stops when operating on a slope, apply the parking brake immediately to prevent a machine runaway.
- **Do not allow anyone other than the driver to ride on the machine.**
- **Do not drive the machine close to the edges of ditches or banks which may collapse under the weight of the machine, especially when the ground is loose or wet.**
- **When making a turn, be sure to reduce the travel speed and operate the motion control levers carefully.**
- **To avoid tip-over accidents, operate across slopes, not up and down. Avoid sudden starts and stops on slopes. Slow down and use extra caution when changing direction on a slope.**
  Park the machine on a firm and level surface.
- **Watch where you are going at all times. Watch for and avoid obstacles. Be alert at curbs, near trees, and other obstructions and hidden hazards.**
- **Do not mow near drop-offs, ditches or embankments. The mower could turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.**
- **Do not drive the machine on streets or highways. Watch for traffic when you cross roads or operate near roads.**
- **Look to the rear before and when backing. Make sure the area immediately behind you is clear of obstructions or holes, and small children. Use extra caution when the machine is equipped with a grass catcher.**
- **Keep bystanders, especially children, and animals away from the mowing area.**
- **Clear the work area of objects which might be picked up and thrown by the blades.**
- **Do not direct the opening of the discharge deflector at bystanders or animals. Ejected objects may cause injury. Plan your mowing carefully before starting operation.**
- **Be sure to disengage the PTO and sit on the operator's seat before starting the engine.**

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NOTE :
- **The motion control levers are adjustable. (If adjustment is required, see ADJUSTMENT on page 67.) We recommend that you contact your local KUBOTA Dealer.**

STOPPING THE MACHINE

WARNING
To avoid serious injury or death:
- **Park the machine on level ground. If necessary to park on an incline, stop the machine, apply the parking brake, and then stop the engine.**
- **If you stop the engine on an incline without applying the parking brake, the machine could move and run away.**

IMPORTANT :
- **The parking brake lever is for parking use only. If the parking brake is applied when the motion control levers are not in the *"NEUTRAL LOCK"* position, the engine will stop. This feature is to prevent brake and transmission damage during operation.**
- **If on a slope and the engine quits, use the parking brake as the emergency brake and immediately stop the unit.**

1. Move both motion control levers to the *"NEUTRAL"* position to stop the machine.
2. Move both motion control levers to the *"NEUTRAL LOCK"* position.
3. Apply the parking brake.
4. Move the throttle lever to the half speed position and push the PTO switch to the *"DISENGAGE"* (OFF) position.
5. Lower all implements to the ground.
6. Turn off the engine and remove the key.

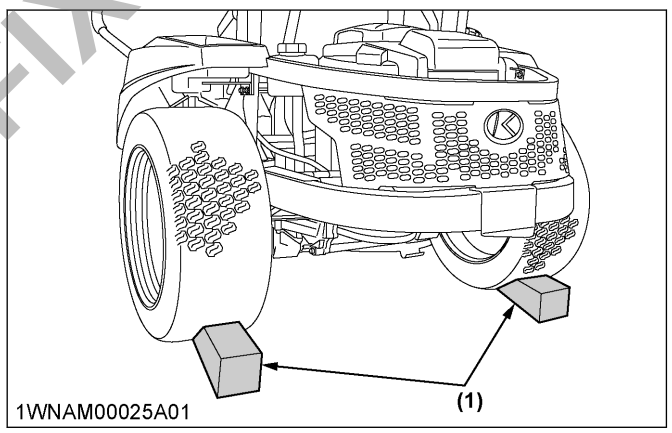
IMPORTANT :
- **Do not stop the engine when the machine is on an incline for a long time. The engine oil may go into the carburetor and the muffler through the valve system.**
- **Before stopping the engine, place the throttle control lever in the half speed position to help prevent the engine from backfiring.**

PARKING THE MACHINE

WARNING
To avoid serious injury or death:
Before leaving the operator's position:
- **Apply the parking brake.**
- **Lower all implements to the ground.**
- **Shut off the engine.**
- **Remove the key.**
- **Place the motion control levers in the *"NEUTRAL LOCK"* position.**

To apply:
Place the parking brake lever in the *"ENGAGED"* position.

To release:
Place the parking brake lever in the *"DISENGAGED"* position.
If necessary to park on an incline, be sure to chock the wheels on the downhill side to prevent accidental rolling of the machine.



(1) Chock

TRANSPORTING THE MACHINE

IMPORTANT :
- **To transport the machine on a trailer:**
  - **Turn the carburetor fuel valve to the *"OFF"* position.**
  - **Fasten the machine to the trailer.**
- **Do not attempt to tow this machine, or damage to the transmission may result.**
- **When transporting the machine over a long distance:**
  - **Make sure to lift the mower by the mower lift pedal.**

1. Hydrostatic transaxle bypass rods

WARNING
To avoid serious injury or death:

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