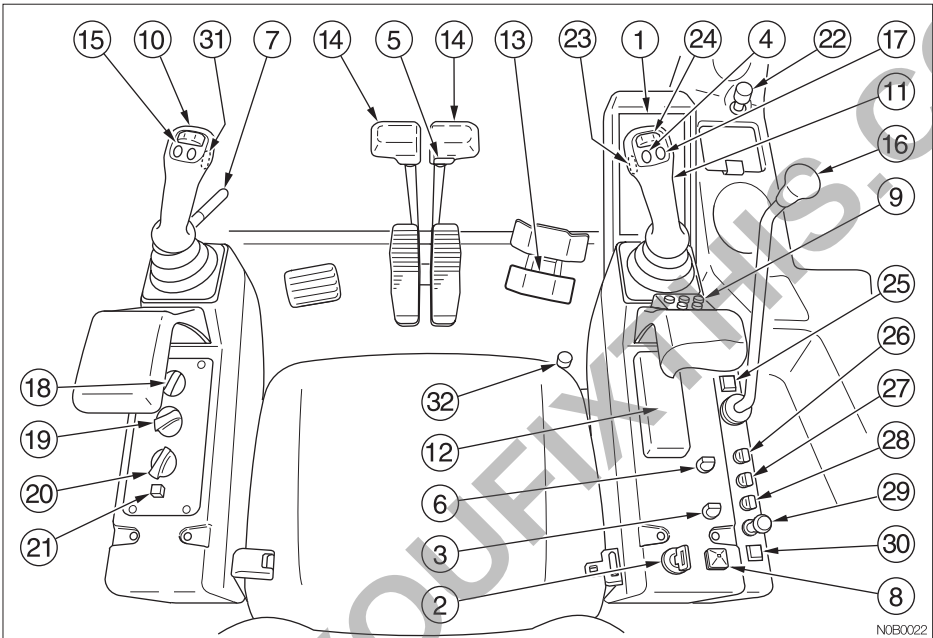




NOB0022

- | | |
|--|---|
| 1. Instrument cluster | 18. Air flow mode control dial |
| 2. Starter switch | 19. Fan switch |
| 3. Light switch | 20. Temperature control dial |
| 4. Horn button | 21. Air conditioner switch |
| 5. Travel speed switch | 22. Cigarette lighter |
| 6. Wiper switch | 23. Selector Button (2nd or 4th Aux.) |
| 7. Safety lock lever | 24. Second / Fourth auxiliary hydraulic switch (option) |
| 8. Automatic decel. switch | 25. Third auxiliary hydraulic warning lamp (option) |
| 9. Power mode buttons | 26. Slewing reversal prevention switch |
| Throttle buttons | 27. Beacon lamp switch |
| 10. Left operating lever | 28. Overload warning switch (option) |
| 11. Right operating lever | 29. Engine emergency stop knob |
| 12. Fuse box | 30. Second auxiliary hydraulic indicator lamp (option) |
| 13. Boom swing pedal | 31. Third auxiliary hydraulic button (option) |
| 14. Travel lever | 32. Third auxiliary hydraulic switch (option) |
| 15. First auxiliary hydraulic switches | |
| 16. Blade lever | |
| 17. Decel. button | |

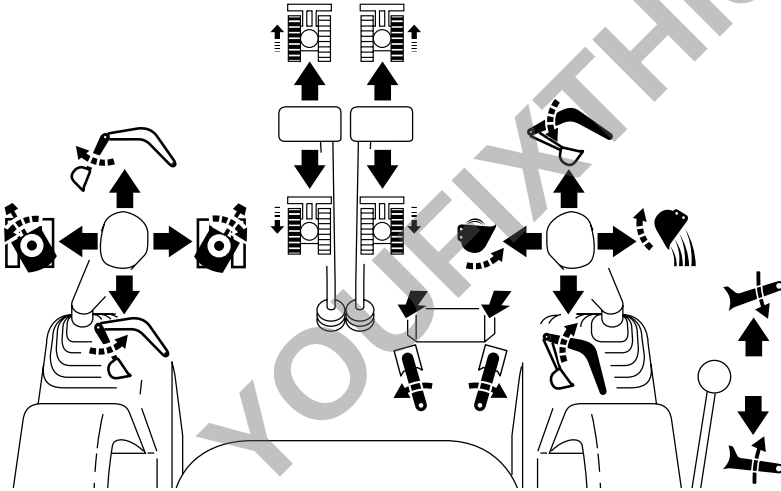


Lever Pattern (ISO Pattern)

 WARNING

- Be careful to check which pattern of lever control arrangement you are operating with before beginning operations.
- The explanations in this manual are for the ISO pattern.

(ISO)



C4D006

	Left Crawler Forward		Right Crawler Forward
	Left Crawler Reverse		Right Crawler Reverse
	Arm Out		Boom Lower
	Arm In		Boom Raise
	Upperstructure Slew Left		Bucket Load
	Upperstructure Slew Right		Bucket Dump
	Boom Swing Left		Dozer Blade Lower
	Boom Swing Right		Dozer Blade Raise

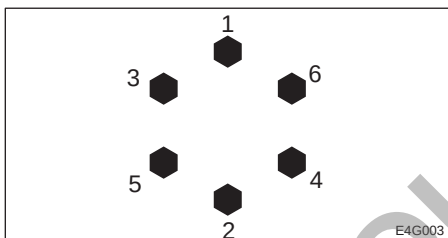
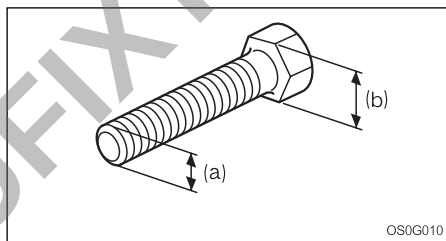


Tightening Torques

Nuts and Bolts (for ISO strength category 10.9)

Tighten nuts and bolts at the torques shown on the table below, unless otherwise specified in the text.

- Tightening torques when mounting plastic covers differ from the values on the table below. Consult a Takeuchi sales or service outlet. Tightening too strongly will break the cover.
- When replacing nuts and bolts, replace them with nuts and bolts of the same size and standards.
- Tighten nuts and bolts alternately (top, bottom, left then right) or in 2 or 3 times so that they are tightened uniformly.



Thread	Head width (b)	Size (a) X Pitch	Torque	
			General Connection Points	
	mm	mm	N·m	ft-lb
Coarse	10	M6 X 1.0	9.8 ± 0.5	7.2 ± 0.4
	12, 13	M8 X 1.25	22.6 ± 1.1	16.6 ± 0.8
	14, 17	M10 X 1.5	47.1 ± 2.4	34.7 ± 1.7
	17, 19	M12 X 1.75	83.4 ± 4.1	61.5 ± 3.0
	19, 22	M14 X 2.0	134.4 ± 6.7	99.1 ± 4.9
	22, 24	M16 X 2.0	207.9 ± 10.4	153.3 ± 7.7
	27, 30	M20 X 2.5	410.9 ± 20.5	303.1 ± 15.1
Fine	12, 13	M8 X 1.0	24.5 ± 1.2	18.1 ± 0.9
	14, 17	M10 X 1.25	50 ± 2.5	36.9 ± 1.8
	17, 19	M12 X 1.5	87.3 ± 4.3	64.4 ± 3.2
	19, 22	M14 X 1.5	135.3 ± 6.8	99.8 ± 5.0
	22, 24	M16 X 1.5	220.6 ± 11	162.7 ± 8.1
	27, 30	M20 X 1.5	452.1 ± 22.6	333.4 ± 16.6



For symptoms not included on the table below or if the problem persists after the proper procedures have been taken, consult a Takeuchi sales or service outlet.

Symptom	Main cause	Procedure
Left and right operating levers do not move smoothly	<ul style="list-style-type: none">● Insufficient grease on left and right operating levers	<ul style="list-style-type: none">● Supply grease. Refer to page 158.
Travel levers, boom swing pedal or blade lever do not move smoothly	<ul style="list-style-type: none">● Insufficient grease on travel levers, boom swing pedal or blade lever	<ul style="list-style-type: none">● Supply grease. Refer to page 158.
Working equipment, auxiliary hydraulics, slewing or traveling operation not possible	<ul style="list-style-type: none">● Safety lock lever is raised● Fuse is blown	<ul style="list-style-type: none">● Lower the safety lock lever. Refer to page 60.● Replace the fuse. Refer to page 168.
Digging force is insufficient	<ul style="list-style-type: none">● Insufficient hydraulic oil level● Hydraulic oil is not heated● Air cleaner is clogged● Hydraulic oil is not of suitable type	<ul style="list-style-type: none">● Replenish to the prescribed level. Refer to page 125.● Perform the warm-up procedure. Refer to page 84.● Clean the air cleaner. Refer to page 136.● Replace the hydraulic oil. Refer to page 149.
Traveling is not possible or not smooth	<ul style="list-style-type: none">● Stones or foreign objects are stuck	<ul style="list-style-type: none">● Remove the foreign object.
Machine does not travel straight forward	<ul style="list-style-type: none">● Stones or foreign objects are stuck	<ul style="list-style-type: none">● Remove the foreign object.
Travel speed cannot be changed	<ul style="list-style-type: none">● Fuse is blown	<ul style="list-style-type: none">● Replace the fuse. Refer to page 168.
Slewing is not possible or not smooth	<ul style="list-style-type: none">● Insufficient grease on slew bearing	<ul style="list-style-type: none">● Supply grease. Refer to page 142.
Hydraulic oil temperature is too high	<ul style="list-style-type: none">● Insufficient hydraulic oil	<ul style="list-style-type: none">● Replenish to the prescribed level. Refer to page 125.



TYPE		CAB	
MASS			
Machine mass kg (lb.) (not including operator)	Rubber crawlers		14230 (31370)
	Steel crawlers		14155 (31210)
PERFORMANCE			
Bucket capacity m³ (cu.ft.) (standard bucket)	Heaped		0.45 (15.89)
	Struck		0.34 (12.01)
Slew speed min⁻¹ (rpm)			13.8 (13.8)
Travel speed km/h (mph)	Rubber crawlers	1st	3.0 (1.86)
		2nd	5.3 (3.29)
	Steel crawlers	1st	2.8 (1.76)
		2nd	5.0 (3.08)
Gradeability (degrees)			35
Ground pressure kPa (psi)	Rubber crawlers		44.5 (6.46)
	Steel crawlers		44.6 (6.47)
Noise level dB(A)	Sound-power level		L _{WA} 100 / L _{WA} 102*
	Sound-pressure level		L _{pA} 79
ENGINE			
Manufacturer and model			Isuzu BB-4BG1TRE
Rated output kW / min⁻¹ (hp / rpm)			62.2 / 2050 (83.4 / 2050)
Displacement ml (cu.in.)			4329 (264.2)
Starter V – kW			24 – 4.5
Alternator V – kW			24 – 1.2
Battery V – A·h			12 – 80 x 2

* : Serial No.51400007 to 51400416

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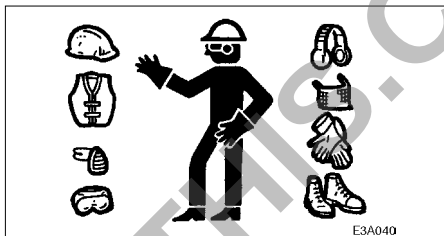
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**Observe all safety rules**

- Operation, inspection and maintenance of this machine must be performed only by a trained and qualified person.
- All rules, regulations, precautions and safety procedures must be understood and followed when performing operation, inspection and maintenance of this machine.
- Do not perform any operation, inspection and maintenance of this machine when under the adverse influence of alcohol, drugs, medication, fatigue, or insufficient sleep.

Wear appropriate clothing and personal protective equipment

- Do not wear loose clothing or any accessory that can catch on controls or in moving parts.
- Do not wear oily or fuel stained clothing that can catch fire.
- Wear a hard hat, safety shoes, safety glasses, filter mask, heavy gloves, ear protection and other protective equipment as required by job conditions. Wear required appropriate equipment such as safety glasses and filter mask when using grinders, hammers or compressed air, as metal fragments or other objects can fly and cause serious injury.
- Use hearing protection when operating the machine. Loud prolonged noise can cause hearing impairments, even the total loss of hearing.

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INTRODUCTION

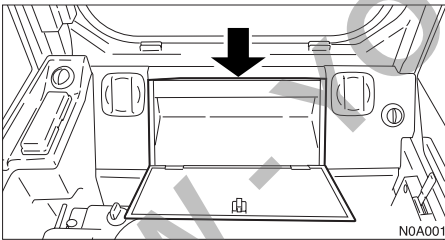
Foreword

This manual describes operation, inspection and maintenance of the machine, as well as safety instructions to be heeded during these operations.

If you have any questions about the machine, please contact a Takeuchi sales or service outlet.

■ Manual storage compartment

A compartment for storing this manual is provided at the position shown on the diagram below.

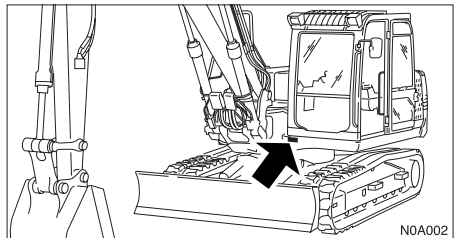


1. Open the cover behind the seat.
2. After using the manual, place it in the plastic pouch and store it back in the manual storage compartment.

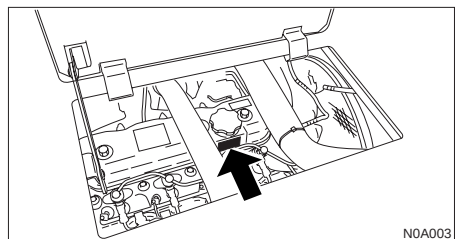
■ Serial numbers

Check the serial numbers of the machine and the engine and write them in the spaces provided below.

Machine number :

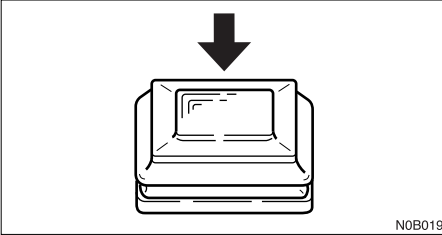


Engine number :



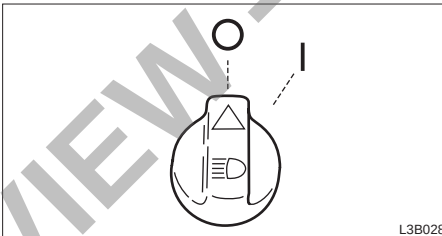


Automatic Decel. Switch



Pressing this switch to the ON position will cause the lamp to light and will activate the deceleration function. Use of the deceleration button will not be possible at this time. After about 4 seconds with the control levers set to neutral, the engine speed will automatically drop to L mode to reduce fuel consumption. Moving the control levers will cause the speed to return to the original engine speed.

Light Switch



When this switch is turned while the starter switch is at ON, the lights turn on as follows:

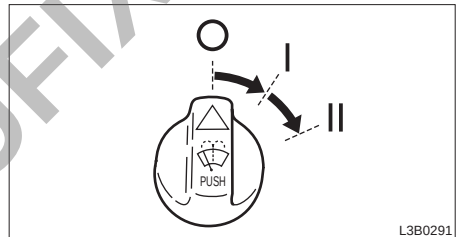
- O Off
- I Meter light, front light, work light, side lights, tail lights and boom light turn on.

Wiper Switch

IMPORTANT: If no washer fluid is discharged, do not operate the washer. Doing so may damage the pump.

IMPORTANT: Operating the wiper with no moisture on the windshield will scratch the glass. Apply water or washer fluid when operating the wiper.

IMPORTANT: In cold seasons, the wiper blade may freeze to the glass. Operating the wiper forcibly may damage the wiper motor.



- O Off
- I Wiper INT
- II Wiper
- PUSH Washer

**Fuel**

Reservoir	Fluid	Type	Capacity Lit. (US. gal.)
Fuel tank	Diesel fuel	Use a clean, Quality fuel for good performance and optimum engine life. <ul style="list-style-type: none">● To prevent fuel flow problems in cold weather, use diesel fuel with a pour point of at least -12°C (10°F) below the lowest expected ambient temperature.● Minimum cetane number is 45. Low temperature or high altitude operation may require the use of fuel with a higher cetane number.	233 (61.5)

Replace the hydraulic oil regularly!

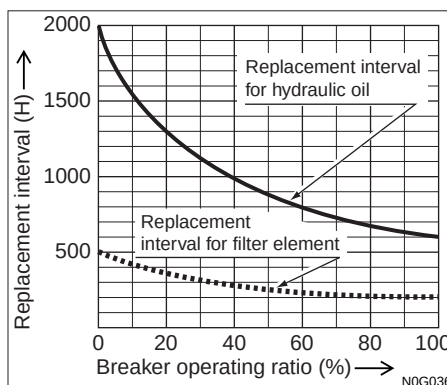
When using a hydraulic breaker, the oil deteriorates quicker than during normal digging. Be sure to replace the hydraulic oil and return filter element.

- Failure to replace these in time can lead to damage to the machine and breaker's hydraulic systems. In order to improve the service life of the hydraulic systems, be sure to replace the hydraulic oil and return filter element according to the following chart of the replacement interval.
- Clean the suction strainer when changing the return filter element.

Replacement Interval (Hours)

Item	Hydraulic Oil	Filter Element
1st time	—	25
2nd time	—	100
Periodically	600	200

When the breaker operating ratio is 100%
Refer to page 202 "Hydraulic Breaker".





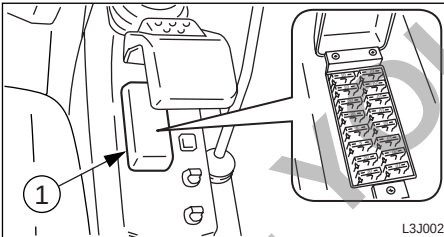
If a light does not turn on or the electric system does not operate, a fuse may be blown. Inspect the fuses.

Inspecting and Replacing the Fuse

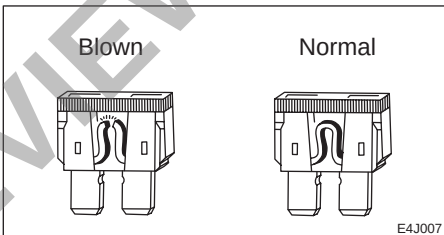
WARNING

If the fuse blows as soon as it is replaced, there is a problem with the electric system. Continued use may lead to fire. Consult a Takeuchi sales or service outlet.

1. Turn the starter key to the OFF position and stop the engine.



2. Open the fuse box cover (1).
3. Inspect for any blown fuses.



4. If a fuse is blown, replace it with a spare fuse of the same capacity.

Fuse Layout and Circuits Protected

Capacity	Protected circuit	Capacity	Protected circuit
15A	Horn, Interior light	3A	Throttle controller (B)
10A	Reserve	1A	Instrument cluster, Throttle controller(ACC)
20A	Lights	10A	Feed pump
20A	Wiper	10A	Lever lock, Proportional control solenoid
5A	Radio	10A	External power socket, Cigarette lighter
5A	Automatic deceleration, Lift alarm (option)	10A	Automatic glow
30A	Air conditioner	20A	Instrument cluster
20A	Reserve	20A	Slewing reversal prevention valve

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