CASE CONSTRUCTION

OPERATOR'S MANUAL

COMPACT CRAWLER EXCAVATOR

CX31B
TIER 4

PW14-45964-
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CHAPTER 2

SAFETY, DECALS, AND HAND SIGNALS

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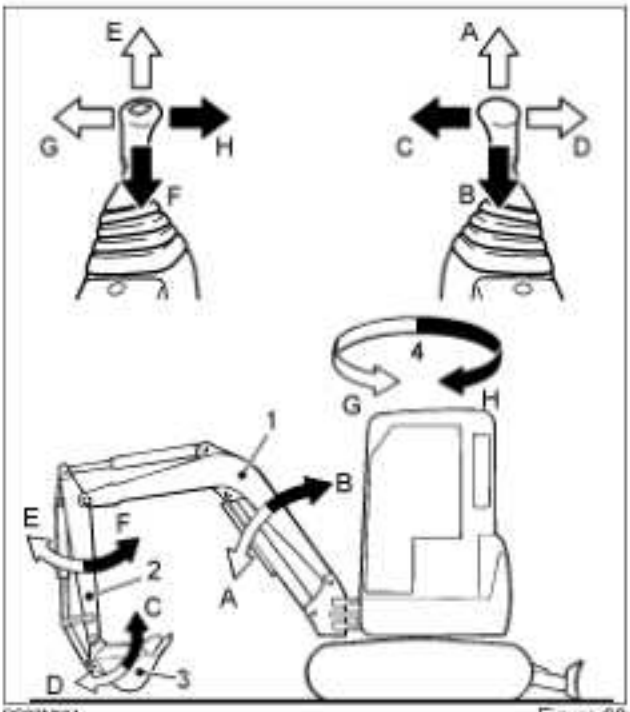
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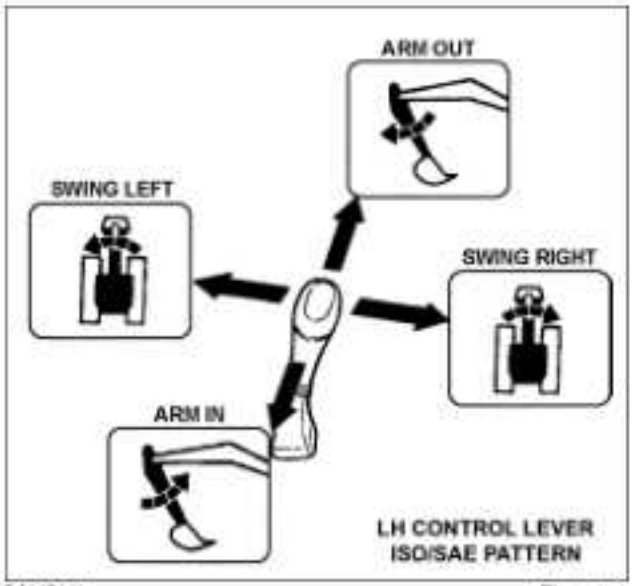
OPERATING CONTROL LEVERS



BS07N061 Figure 38

LH CONTROL LEVER			RH CONTROL LEVER		
2	E	Arm Out	1	A	Boom Down
	F	Arm In		B	Boom Up
4	G	Swing Left	3	C	Bucket In
	H	Swing Right		D	Bucket Out

Left Hand Operator Control Lever (ISO/SAE Pattern)



DC040562 Figure 39

WARNING: *Hydraulic controls are designed for and set to an ISO operating pattern. Changing the control pattern will effect the operation of the machine controls. Make certain patterns match machine movement. Failure to comply could result in injury or death.*

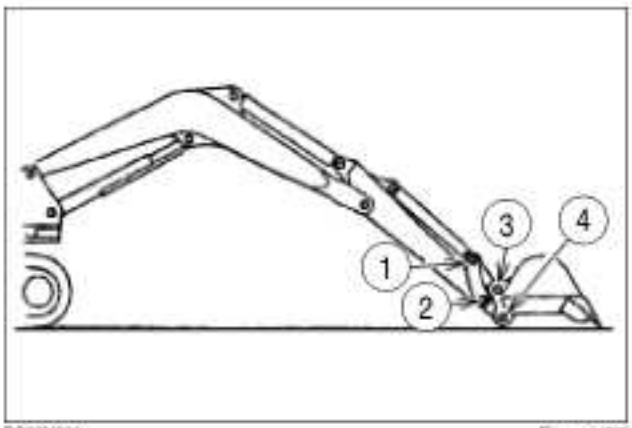
The Left Hand Operator Control Lever is located at the top front of the left hand operator console. Its purpose is to allow the operator to control operations of the swing and arm. Operating speed of function is variable from stop to full stroke depending on how far lever is operated. The left hand operator control lever has the following basic operational functions.

- **FORWARD** - Variable speed ARM out.
- **BACKWARD** - Variable speed ARM in.
- **LEFT** - Variable speed left SWING.
- **RIGHT** - Variable speed right SWING.
- **CENTER** - Neutral position.

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50 HOUR MAINTENANCE:

ATTACHMENT LUBRICATION



B507N028 Figure 26

1. BUCKET CYLINDER ROD PIN (1)
2. IDLER LINK/ARM CONNECTING PIN (1)
3. BUCKET LINK PIN (1)
4. ARM/BUCKET CONNECTING PIN (1)

During the first 50 hours of operation, grease attachment every 8 hours. After the initial run-in period, grease every 50 hours.

1. Park the machine on a firm, level surface with both attachments resting on the ground. Turn the engine off. Place the cancellation lever in the locked position. Keep all unauthorized personnel clear of the area.
2. Clean the grease fitting before greasing. Replace any damaged grease fitting.
3. Lubricate with a grease gun through the grease fittings shown. Wipe off any grease that leaks out of the pin connection.

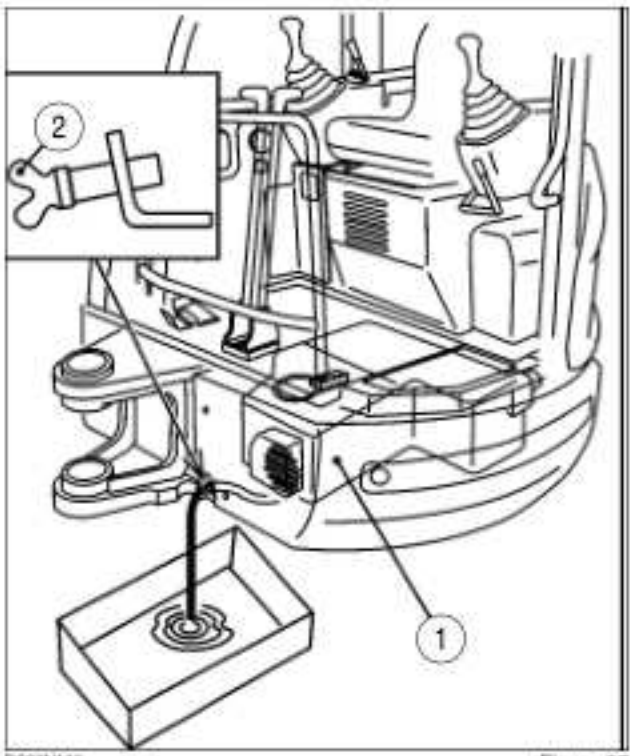
IMPORTANT: *Dispose of all waste in accordance with environmental regulations.*

WARNING: *The machine and attachment should not be moved when greasing. Personal injury may result. Move attachment to a different position, stop the engine and lubricate the attachment again. Repeat this procedure until the front attachment is completely lubricated.*

ANGLE BLADE DOZER LUBRICATION

The angle blade dozer (optional) should be lubricated every 50 hours. See Optional Equipment in Chapter 4 of this manual for angle blade information and specifications regarding lubrication.

DRAIN FUEL TANK SEDIMENT



B507N126 Figure 27

1. FUEL TANK
2. DRAIN PLUG

WARNING: *Do not smoke or allow any open flame near by when draining fuel. Stop engine. Thoroughly clean up any spilled fuel. Failure to comply could result in injury or death.*

Draining water and sediment is most effectively performed in the morning. Turn the upper structure of the machine so the drain plug (2) is midway between the crawler belts.

1. Park the machine on a firm, level surface with both attachments resting on the ground. Turn the engine off. Place the cancellation lever in the locked position. Keep all unauthorized personnel clear of the area.
2. Place a suitable container under the drain plug (2) to catch the discharged fuel.
3. Slowly loosen the drain plug (2) to drain water and sediment. When clean fuel begins to flow, tighten the drain plug.
4. Check for fuel leakage after tightening drain plug. If fuel is leaking, stop the engine, and consult your authorized dealer for repair.

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LIFT CAPACITIES CAB MODEL

3 ft. 11 in (1.2 m) Arm

Lift capacities calculated using 11.8 in (300 mm) shoes (179 lb (81 kg) bucket, blade down, 551 lb (175 kg) additional counterweight

Load (Lift Point) Height	5 ft (1.5 m) END - SIDE		7.5 ft (2.3 m) END - SIDE		10 ft (3.0 m) END - SIDE		12.5 ft (3.8 m) END - SIDE	
+7.5 ft (2.3 m)							1410 lb 640 kg	960 lb 430 kg
+5 ft (1.52 m)			2720 lb 1230 kg	2080 lb 940 kg	1880 lb 850 kg	1330 lb 600 kg	1580 lb 710 kg	930 lb 420 kg
+2.5 ft (0.8 m)			3810 lb 1730 kg	1910 lb 860 kg	2340 lb 1060 kg	1250 lb 570 kg	1780 lb 810 kg	890 lb 400 kg
Ground Level	2540 lb 1150 kg	2540 lb 1150 kg	4150 lb 1880 kg	1850 lb 840 kg	2610 lb 1180 kg	1210 lb 540 kg	1910 lb 860 kg	870 lb 390 kg
-2.5 ft (-0.8 m)	4170 lb 1890 kg	3740 lb 1690 kg	3960 lb 1790 kg	1850 lb 840 kg	2590 lb 1170 kg	1200 lb 540 kg		
-5.0 ft (-1.52 m)	5820 lb 2640 kg	3820 lb 1730 kg	3290 lb 1490 kg	1900 lb 860 kg	2130 lb 960 kg	1230 lb 550 kg		

* Rated loads are hydraulic limits rather than tipping load limits

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