CASE

OPERATOR'S MANUAL

COMPACT CRAWLER EXCAVATOR

CX31B
TIER 4

87722070 NA

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CHAPTER 2

SAFETY, DECALS, AND HAND SIGNALS

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CONTROL DECAL

OPERATING PATTERN

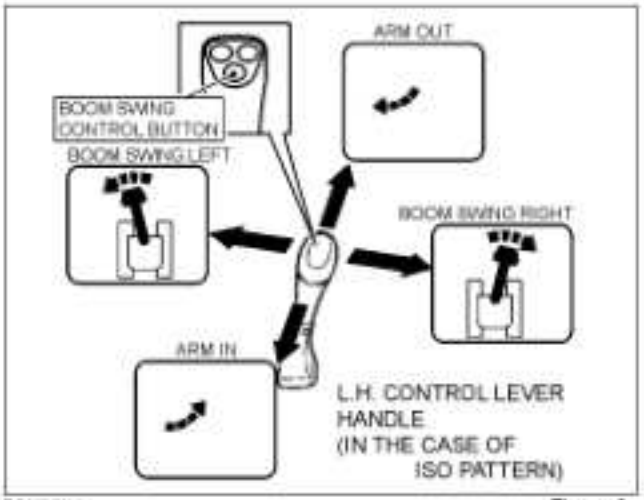
The operating and travel controls of this machine are factory set at ISO/SAE standard operating patterns.

OPERATING PATTERN DECAL

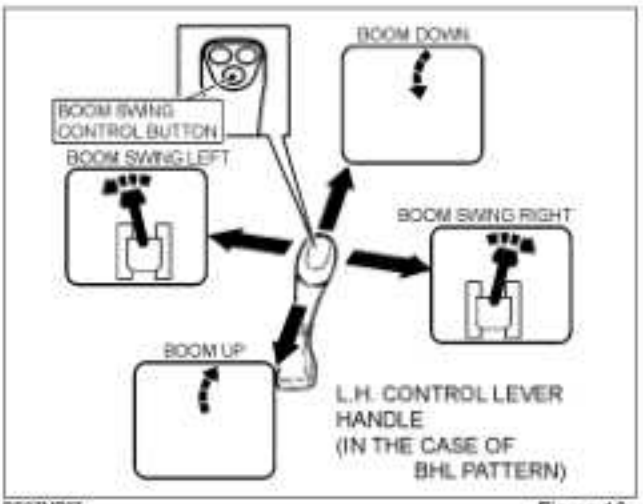
The illustrations are a representation of the CONTROLS decal located inside the right side window of the operator cab. Study this decal and understand the directions each control can be operated and the functions associated with each movement of particular control. Detailed instructions for each control and its functions are explained on the following pages of this chapter. Should this decal become damaged or missing, install a new decal.

WARNING: *Check and make sure that operations pattern control matches the decal provided inside the right side window. Failure to comply could result in injury or death.*

WARNING: *If your machine is set to the operational BHL pattern control, change, make sure to remove the ISO/SAE operation pattern control decal inside the right side window and use the decal supplied for the optional BHL pattern control. This decal should be placed inside the door below the handle. See Pattern Control Change (BHL pattern) for detailed information on how to operate the pattern control changer. Failure to comply could result in injury or death.*



BS07M796 Figure 9

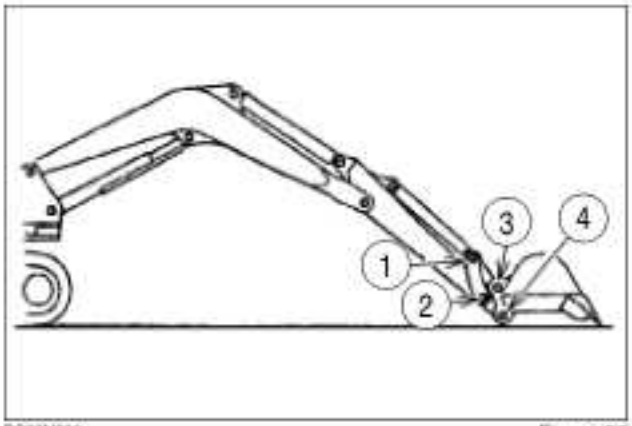


BS07M797 Figure 10

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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)

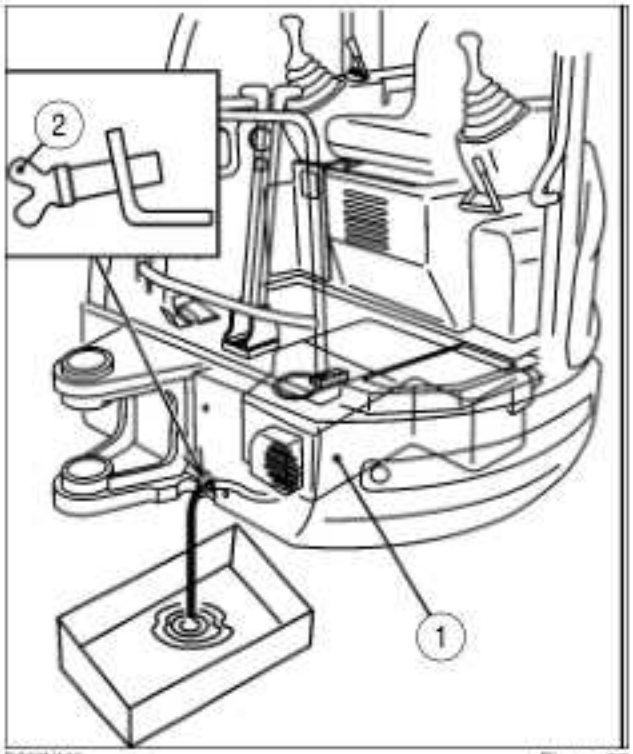
During the first 50 hours of operation, grease attachment every 8 hours. After the initial run-in period, grease every 50 hours.

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.*

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	5 ft (1.5 m) SIDE	7.5 ft (2.3 m) END	7.5 ft (2.3 m) SIDE	10 ft (3.0 m) END	10 ft (3.0 m) SIDE	12.5 ft (3.8 m) END	12.5 ft (3.8 m) 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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