OPERATOR'S MANUAL

EH215
CRAWLER EXCAVATORS



YM91ZU0006F1-01NA

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SAFETY, DECALS, AND HAND SIGNALS

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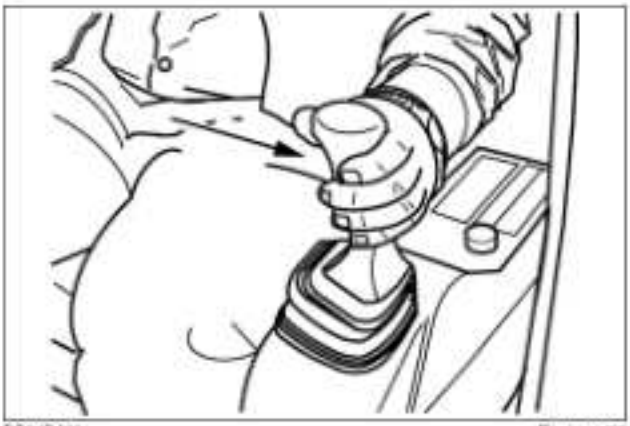
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4. Swing Operation

Swing operation is performed by moving the Left Control Lever to the right and left. Swing speed is determined by the amount the lever is moved.

> **WARNING:** *Make certain area is clear of obstacles and persons before beginning swing operation of the machine. Sound horn before beginning swing operation.*

NOTE: *Use swing flashers during swing operations.*



DC040491 Figure 35

a. Moving the left control lever to the LEFT swing machine to the left.



DC040492 Figure 36

b. Moving the left control lever to the RIGHT swings the machine to the right.

c. Returning control to the Neutral (center) position stops swing.

USING POWER BOOST

The power boost switch is located on top of the right operator control. It is a momentary switch which is activated by depressing with the thumb. This system is designed for use during bucket digging operations when extra "Break-Out" power is required to allow the bucket to break through a dig.



DC040493 Figure 37

1. POWER BOOST SWITCH

Operate the bucket in digging control. While bucket is digging, depress the power boost switch with right thumb. This will increase bucket digging power by approximately 10%.

NOTE: *If the power boost switch is left depressed while performing other hydraulic operations, the operator will experience slower operation of the hydraulic functions. While power boost switch is depressed, the power boost icon will be displayed on the gauge cluster Display.*

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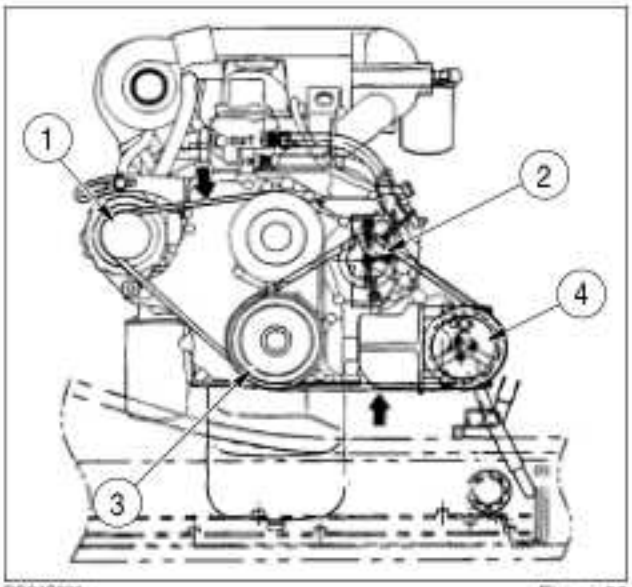
250 HOUR (3-MONTH) INSPECTION & MAINTENANCE PROCEDURES

NOTE: *Perform all pre-start (every 8 Hour and 50 Hour) inspection & maintenance procedures along with the 120 Hour inspection & maintenance procedures.*

FAN AND A/C BELT WEAR AND TENSION

Inspect belts and tensioner assembly on a new machine after the first 50 hours of engine operation. Then, every 250 hours.

Measure belt tension on longest span of belt. Apply a 10 Kgf (22 lbf) on the belts and measure the belt deflection and compare to the Belt Deflection table.



DC04C328 Figure 99

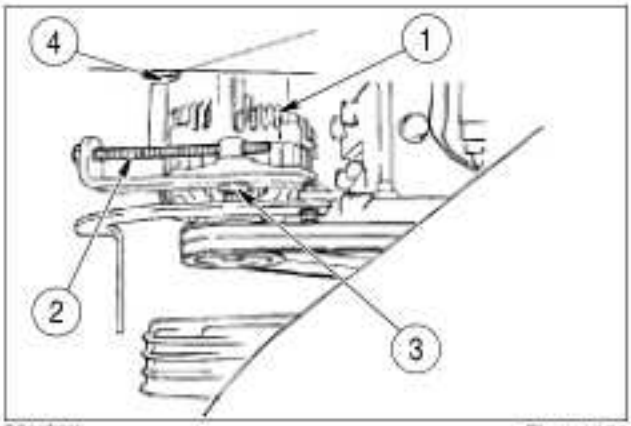
1. ALTERNATOR
2. IDLER PULLEY
3. CRANK PULLEY
4. A/C COMPRESSOR

Measure belt tension on longest span of belt. Apply a 10 Kgf (22 lbf) on the belts and measure the belt deflection and compare to the Belt Deflection table.

BELT	DEFLECTION
FAN BELT	10 mm – 15 mm (0.4"–0.6")
AIR CONDITIONER	7 mm – 10 mm (0.3"–0.4")

1. Fan Belts

Check fan belts for excessive wear and cracks and replace them if needed. **When replacing a twin type V-belt, replace them both.** If only one belt is replaced, it may fail due to the excessive loading. To adjust the fan belts, proceed as follows:



DC04C365 Figure 100

1. ALTERNATOR
2. ADJUSTING BOLT
3. ADJUSTING NUT
4. MOUNTING CAP SCREW

a. Loosen mounting cap screw and adjusting nut on the alternator.

b. Loosen or tighten adjusting bolt to adjust fan belt to the specified tension, and tighten mounting nut and adjusting nut properly.

TIGHTENING TORQUES

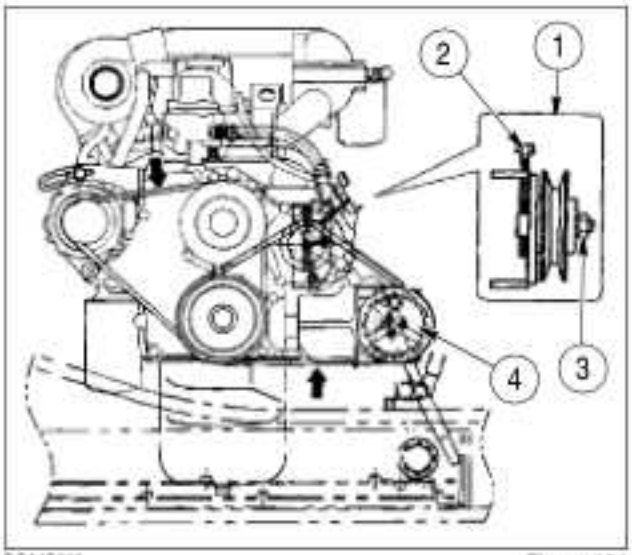
Mounting Cap Screw: 8.4±1.0 Kgf-m (61±7 ft-lbs)

Adjusting Nut: 7.7±1.5 Kgf-m (56±11 ft-lbs)

c. After adjustment, start engine and run it at low idle for 5 minutes. Then recheck belt tension.

2. Air Conditioning Compressor Belt

Check belt for excessive wear and cracks and replace as needed. To adjust the AC compressor belt, proceed as follows:



DC04C385 Figure 101

1. IDLER PULLEY
2. ADJUSTING BOLT
3. IDLER PULLEY NUT
4. A/C COMPRESSOR

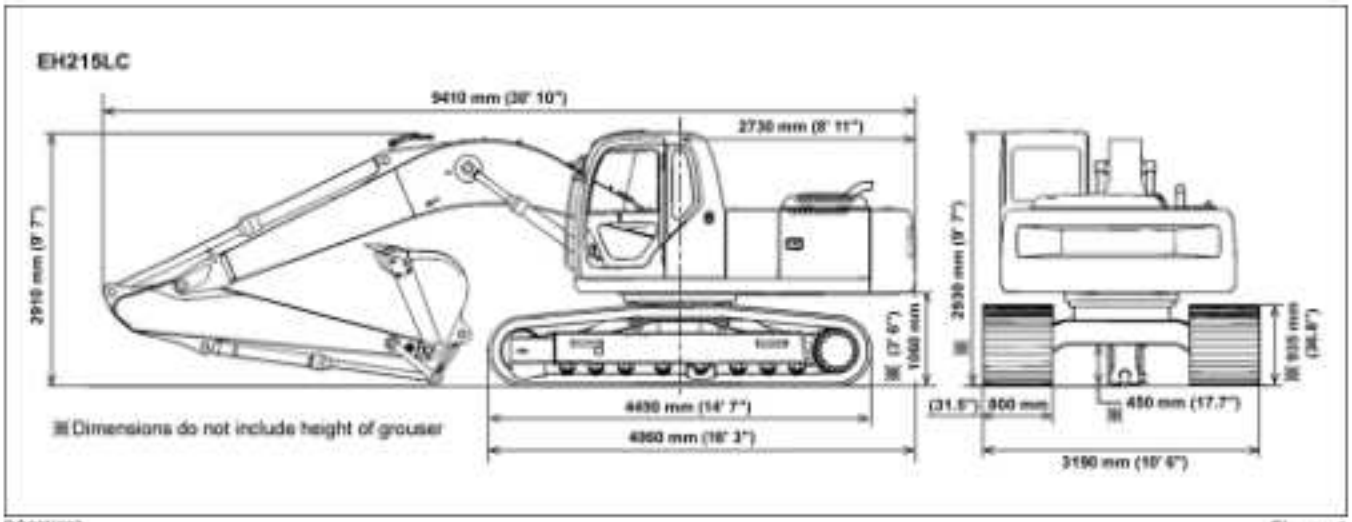
a. Loosen the idler pulley nut.

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EH215LC GENERAL SPECIFICATIONS

The specifications found in this section are given on the Standard EH215LC Hydraulic Excavator as manufactured by New Holland Construction: **Boom 5.65 m (18' 6"), Arm 2.94 m (9' 8"), and 0.81 m^3 (1.06 yrd^3) SAE Bucket.** No modification or options are taken into consideration in regard to these specifications.

MACHINE DIMENSIONS



DC03N007

Figure 1

WORKING WEIGHT

	TRIPLE GROUSER SHOES			
Track Shoe Width - mm (in)	600 (23.6)	700 (27.6)	800 (31.5)	900 (35.4)
Overall Width - m (ft - in)	2.99 (9 - 10)	3.09 (10 - 2)	3.19 (10 - 6)	3.29 (10 - 10)
Ground Pressure - Kg/cm^2 (psi)	0.42 (5.51)	0.37 (5.40)	0.33 (4.83)	0.30 (4.27)
Working Weight - Kg (lbs)	20,400 (45,000)	20,900 (46,100)	21,200 (46,700)	21,400 (47.200)
Bucket Weight: 650 Kg (1,430 lbs)				

DIGGING FORCES

	ARM LENGTH		
	2.40 m (7' 10")	**2.94 m (9' 8")**	**3.5 m (11' 6")**
Bucket Digging Force	*14,379 Kgf (31,700 lbs)	*14.379 Kgf (31,700 lbs)	13,063 Kgf (28,800 lbs))
Arm Crowding Force	*12,474 Kgf (27,500 lbs)	*10,523 Kgf (23,200 lbs)	8,754 Kgf (19,300 lbs)
			*** Power boost engaged.**

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SYSTEM	MAINTENANCE TO PERFORM	LOCATION	INTERVAL (WORKING HOURS)							
			8	50	120	250	500	1000	2000	PAGE
FUEL SYSTEM	Check fuel level	Gauge Cluster	X							6-15
	Drain water and deposits from fuel tank	Fuel tank bottom		X						6-25
	Drain water separator	Hyd. pump compartment		O X						6-25
	Check and clean water separator, fuel tank cap & strainer	Hyd. pump & fuel tank					X			6-25
HYDRAULIC SYSTEM	Hydraulic oil level	RH side of hyd. tank	X							6-16
	Check hydraulic functions	Operator's control	X							6-17
	Check for oil leaks	Hoses and components	X							6-18
	Check hoses and lines	Complete machine	X							6-62
	Clean suction screen	Hydraulic tank							X	6-49
	Change return filter	Hydraulic tank		O			X			6-29
	Clean pilot system filter	Pilot valve on side of hydraulic tank		O			X			6-30
	Hydraulic oil change	Hydraulic tank							X	6-49
	Clean hydraulic oil tank	Hydraulic tank							X	6-49
	Change hydraulic tank breather	Hydraulic tank							X	6-53
UPPER FRAME	Check swing reduction unit oil level	Swing reduction unit	X	O						6-35
	Change swing reduction oil	Swing motor reduction unit					O		X	6-42
	Lubricate swing bearing	Swing bearing housing		O			X			6-33
	Check swing bearing seal	Swing bearing seal		O			X			6-33
	Check torque on Swing ring bolts	Swing ring		O			X			6-34
	Check swing ring pinion, gear, and grease bath	Inspection plate next to boom foot area		O			X			6-33
	Drain water from swing ring grease bath	Lower frame cavity drain port		O			X			6-33
	Change grease in swing ring bath	Remove upper body							X	6-54
	Check swivel joint seal	Swivel valve in front of swing motor		O			X			6-34
	Check counterweight bolts	Counterweight		O		X				6-35
	Inspect and clean steps and handrails	Steps and handrails	X							6-18
	Check bolts/torque	Upper frame		O		X				Sec.8
OPERATOR'S CONTROL	Check hydraulic functions and switches	Operator's control & control panel	X							6-17
	Check travel alarm	Operator's control panel	X							Sec.3
	Check lights	Boom, front & back	X							Sec.3
	Check monitor alarm (buzzed)	Operator's control panel	X							Sec.3
	Check gauge cluster and indicators	Cluster gauge	X							Sec.3
	Check horn	LH side control	X							Sec.3
	Lubricate control lever joints	Control Levers			X					6-36

O - Break-in (after first 50 Hrs) Inspection & Maintenance Required.
X - Regular Inspection & Maintenace Required.

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EH215LC PERFORMANCE SPECIFICATIONS

The following performance specifications are based on the standard machine with standard attachment.

TRAVEL SPEED, SWING SPEED & GRADEABILITY

	EH215LC
Travel Speed	6.0 Km/hr (3.7 mph) in high speed 43.6 Km/hr (2.2 mph) in low speed
Swing Speed	11 RPM in **M**-Mode/High Idle
Gradeability	70% (35°) Limited by engine lubrication
Drawbar Force	199 KN (44,700 Lbf)

ENGINE

Engine Make	Mitsubishi
Model	6D34 - TLED
Type	Diesel - 4 cycle, water cooled, direct injection with intercooler & turbocharger
No. of Cylinder - Bore x Stroke	6 cyl. - 104 mm x 115 mm (4.09" x 4.53")
Displacement	5.861 Liters (258 cu. in)
Compression Ratio	18.2:1
Output Rating	110 KW (148 HP) @ 2,000 rpm
Maximum Torque	580 N-m (428 Lb-ft) @ 1,500 rpm
Firing Order	1 - 5 - 3 - 6 - 2 - 4 (CCW) Viewed from flywheel
Injection Timing	14° Before Top Dead Center
Valve Adjustment (Cold)	0.4 mm (0.0157") for Intake and Exhaust
Cooling System	Pressurized water circulated by a centrifugal pump.
Lubrication System	Pressurized oil fed by a gear pump through full flow spin-on filter
Air Cleaner	Dry type with safety element
Electric System	24 V DC
Starting Motor	24 V - 5.0 KW
Alternator	24 V - 35 Amps
Batteries	2 x 12V - (136 AmpHr)
Pre-Ignition	Electric Type
Engine Dry Weight	480 Kg (1,056 lbs)
Thermostat	Begin opening at 76.5°C (170°F), Fully open at 90°C (194°F)
Cooling Fan Drive Method	Suction type - 6 blades 600 mm Dia. (24" dia). Drive pulley ratio: 1.0

ENGINE SPEED

ENGINE SPEED	
Low Idle	1,050 RPM
High Idle	2,000 RPM

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