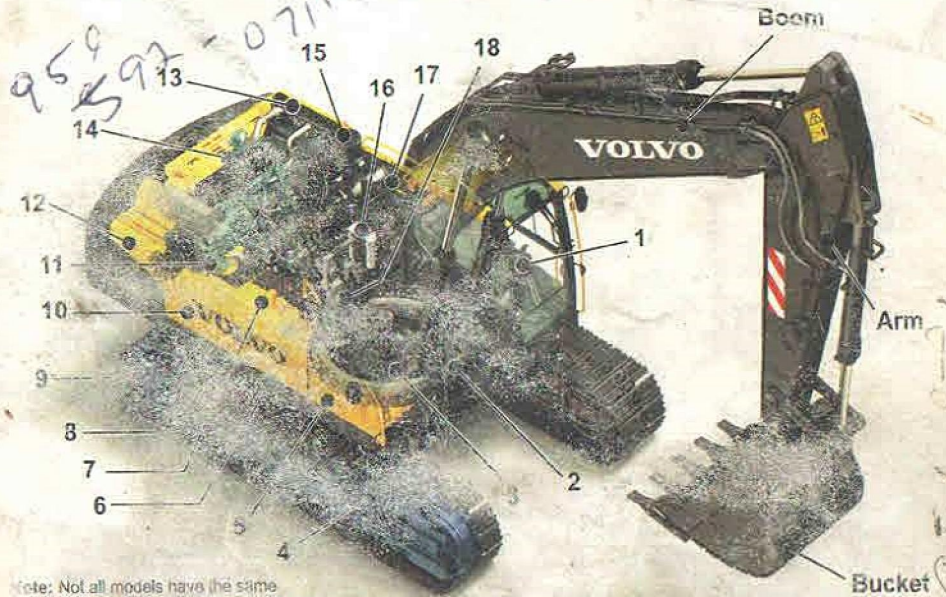


# QUICK REFERENCE GUIDE FOR VOLVO B & C SERIES CRAWLER EXCAVATORS



**IMPORTANT:** Read, understand and follow all safety precautions and procedures found in the operator's manual before attempting any operation, inspection or maintenance of your excavator, attachment or systems operation. Volvo Construction Equipment cannot anticipate every possible circumstance that may involve a potential hazard. **THIS IS ONLY A QUICK REFERENCE GUIDE.** Make sure to keep the operator's manual in good condition and inside the cab.



Note: Not all models have the same layout of components and serviceability

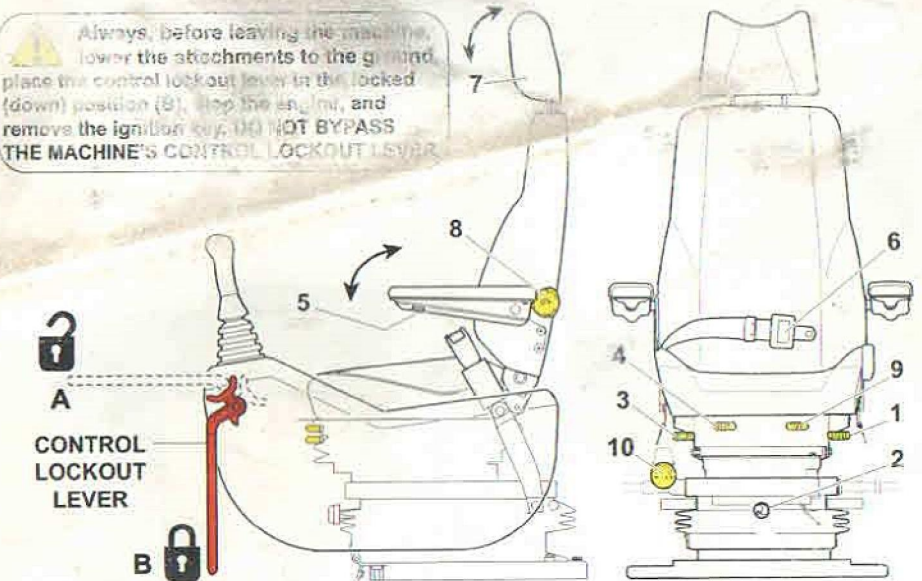
- |                                   |                                                                                                                                                                                             |                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1 Operator seat and control panel | 9 Travel reduction unit                                                                                                                                                                     | 14 Engine (Engine oil filter and fuel filter on EC140B only)                |
| 2 Swing bearing lubrication       | 10 Hydraulic return filter and suction strainer                                                                                                                                             | 15 3-Stage air cleaner: centrifugal pre-cleaner primary & secondary filters |
| 3 Swing grease bath               | 11 Hyd. tank relief valve                                                                                                                                                                   | 16 Hammer return filter                                                     |
| 4 Track tension                   | 12 Pump compartment: Hyd. oil level gauge<br>Hyd. pilot filter<br>Hyd. case drain<br>Engine oil filter<br>EC160C-EC210C                                                                     | 17 Hyd. oil cooler and A/C condenser<br>EC300B-EC460B only                  |
| 5 Batteries, and master switch    | Fuel filter & water separator<br>EC160C-EC210C, EC210B-EC160B                                                                                                                               | 18 Swing motor and reduction unit                                           |
| 6 Fuel drain valve                | 13 Engine cooling compartment: radiator, charge air cooler, hydraulic oil cooler and A/C condenser for EC160C, EC160C-EC210C, EC240B, and EC290B; engine oil filter for EC160C-EC460B only. |                                                                             |
| 7 Fuel tank breather valve filter |                                                                                                                                                                                             |                                                                             |
| 8 Hydraulic tank drain            |                                                                                                                                                                                             |                                                                             |

Note: engine oil filter for EC240B and EC290B is located in the air cleaner compartment

ALL PRODUCTS ARE NOT AVAILABLE IN ALL MARKETS UNDER OUR POLICY OF CONTINUOUS IMPROVEMENT WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS AND DESIGN WITHOUT PRIOR NOTICE. THE ILLUSTRATIONS MAY DIFFER SLIGHTLY TO WHAT IS NECESSARILY SHOW THE STANDARD VERSION OF THE MACHINE.

### OPERATOR'S SEAT AND CONTROL LOCKOUT LEVER

Always, before leaving the machine, lower the attachments to the ground, place the control lockout lever in the locked (down) position (B), stop the engine, and remove the ignition key. **DO NOT BYPASS THE MACHINE'S CONTROL LOCKOUT LEVER.**



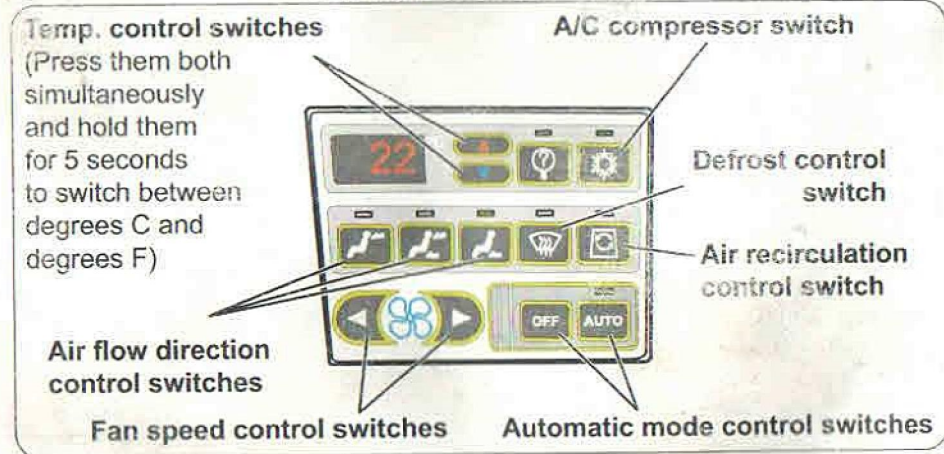
- 1 Inclination/height
- 2 Weight/suspension adjustment
- 3 Backrest adjustment
- 4 Seat slide adjustment
- 5 Arm rest angle adjustment
- 6 Seat belt
- 7 Headrest
- 8 Lumber support adjustment
- 9 Seat/panel side adjustment
- 10 Side panel height adjustment
- A Unlocked (up) position
- B Locked (down) position

**TO ADJUST SEAT AIR SUSPENSION:**

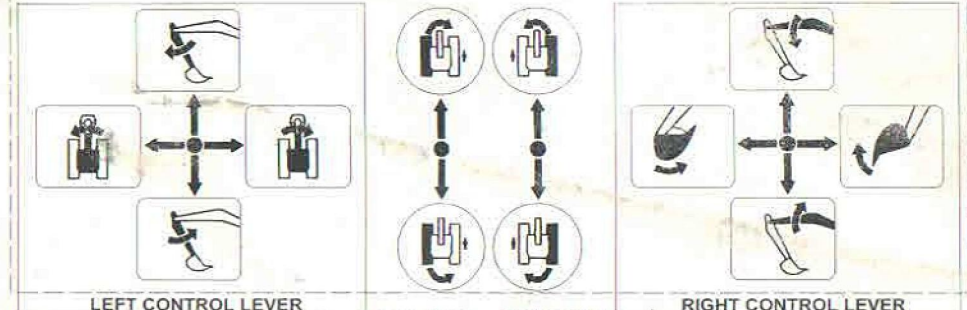
1. Turn ignition key "ON" or start engine.
2. Lift your weight off the seat.
3. Press and hold valve (2) until air bag is completely inflated.
4. Sit and pull on valve (2) to deflate.
5. Stop deflating when seat starts lowering.

Note: Air suspension seat is standard for North America.

### CLIMATE CONTROL UNIT



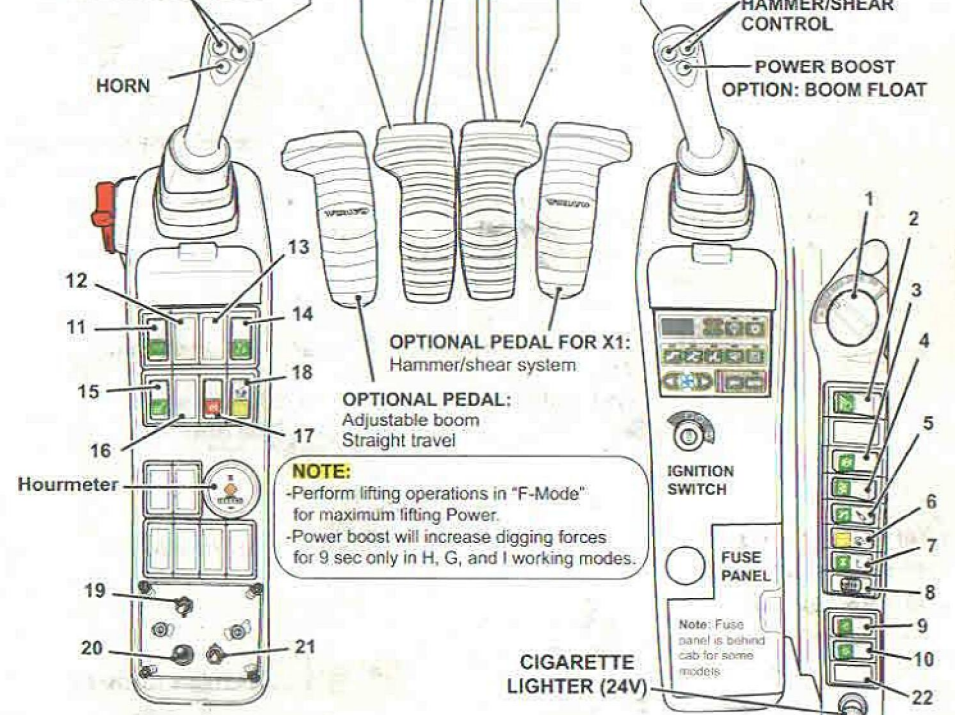
### HYDRAULIC CONTROL LEVERS



**NOTE:** Travel motors position behind operator's cab.

Check and make sure that operation's pattern control matches the decal provided inside the right side window.

### ROTATOR CONTROL

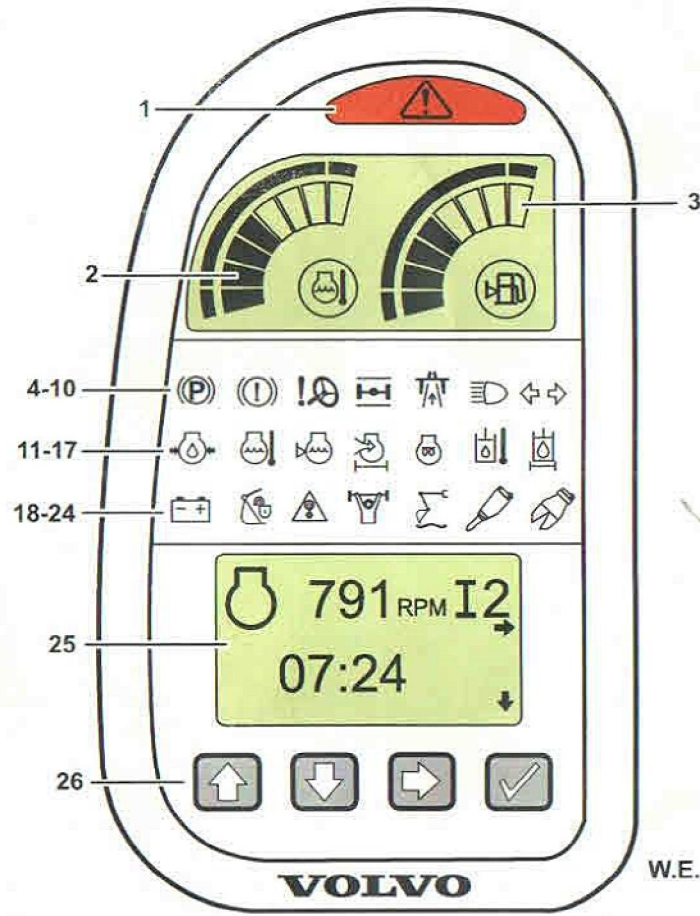


**NOTE:**

- Perform lifting operations in "F-Mode" for maximum lifting Power.
- Power boost will increase digging forces for 9 sec only in H, G, and I working modes.

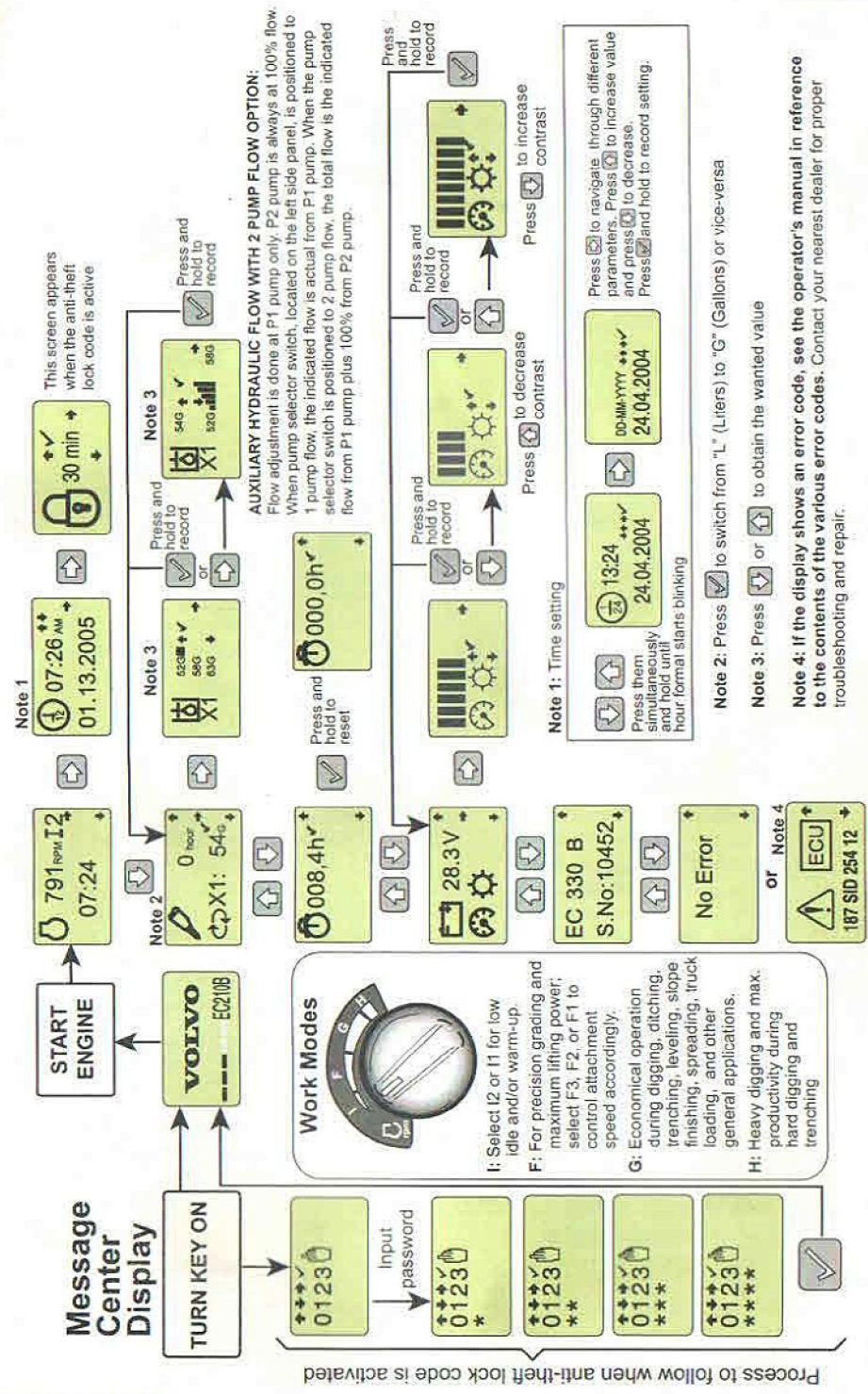
- 1 Throttle and work mode control
- 2 Working light control
- 3 Auto acceleration
- 4 Travel speed selector
- 5 Hammer/shear control
- 6 Quick coupler control
- 7 Quick coupler & alarm lock confirm control
- 8 Cab temperature sensor
- 9 Windshield wiper control
- 10 Windshield washer control
- 11 Cab light control
- 12 Beacon switch (optional)
- 13 Extra work lamp (optional)
- 14 Radio mute control
- 15 Seat temperature control
- 16 Overload warning (optional)
- 17 Travel alarm control
- 18 Quick coupler control
- 19 1 - 2 pump selector switch
- 20 Computer by-pass switch
- 21 Manual RPM control and emergency shut down switch
- 22 Lower wiper control (optional)

MONITOR

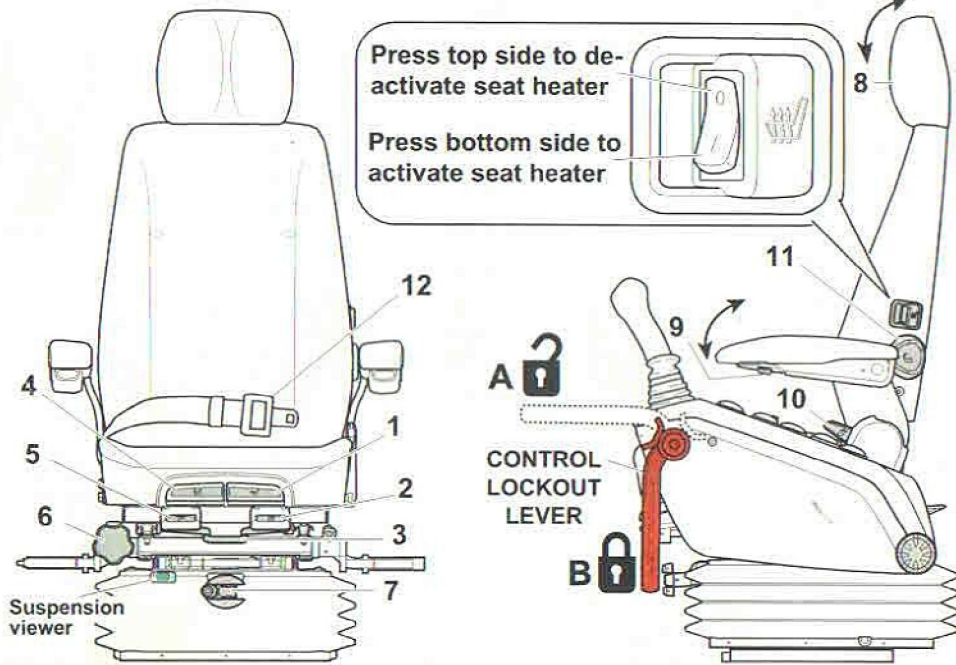


W.E. Wheeled excavator

- |    |                                          |    |                                        |
|----|------------------------------------------|----|----------------------------------------|
| 1  | Central warning lamp (red)               | 14 | Air cleaner clogging (yellow)          |
| 2  | Engine coolant temperature               | 15 | Air preheating (yellow)                |
| 3  | Fuel level                               | 16 | Hydraulic oil temperature (red)        |
| 4  | Parking brake (red) (W.E.)               | 17 | Hydraulic oil filter clogging (yellow) |
| 5  | Brake oil press. (red) (W.E.)            | 18 | Battery charge (red)                   |
| 6  | Low steering pressure (red) (W.E.)       | 19 | Quick coupler disconnect (option/red)  |
| 7  | Axle lock indicator (yellow) (W.E.)      | 20 | Overload warning (option/red)          |
| 8  | Upper structure alignment (green) (W.E.) | 21 | Power boost (green)                    |
| 9  | Working lights (blue)                    | 22 | Float indicator (option/green)         |
| 10 | Left/right turn signals (green) (W.E.)   | 23 | Hammer (green)                         |
| 11 | Engine oil pressure (red)                | 24 | Shear (green)                          |
| 12 | Excessive engine temperature (red)       | 25 | Message center display                 |
| 13 | Coolant level (red)                      | 26 | Scroll/Confirm switches                |



### OPERATOR'S SEAT AND CONTROL LOCKOUT LEVER



Press top side to deactivate seat heater  
Press bottom side to activate seat heater

- 1 Seat cushion forward & backward adjustment
- 2 Seat/panel slide adjustment
- 3 Top seat horizontal adjustment
- 4 Seat cushion tilt adjustment
- 5 Horizontal suspension lock/release
- 6 Side panel height adjustment
- 7 Vertical suspension adjustment

- 8 Headrest adjustment
- 9 Arm rest angle adjustment
- 10 Backrest angle adjustment
- 11 Lumber support adjustment
- 12 Seat belt
- A Unlocked (up) position
- B Locked (down) position

**Always, before leaving the machine, lower the attachments to the ground, place the control lockout lever in the locked (down) position (B), stop the engine, and remove the ignition key. DO NOT BYPASS THE MACHINE'S CONTROL LOCKOUT LEVER.**

**TO ADJUST SEAT MECHANICAL SUSPENSION:**

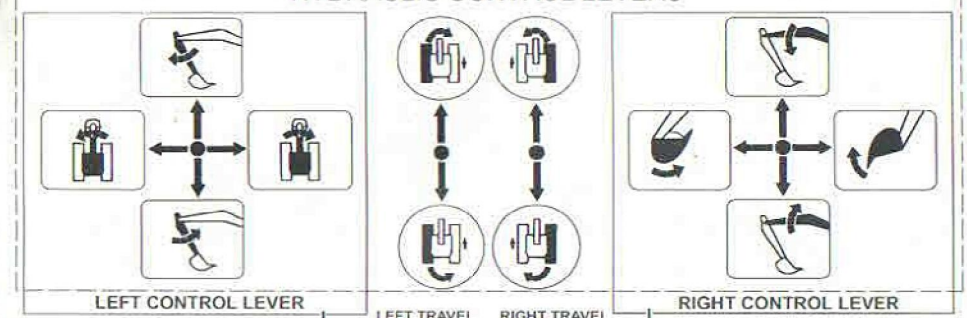
- a. To increase suspension resistance, pull out handle knob (7), turn it clockwise, and release it to lock it in position. Then, push down the handle to increase suspension resistance until the green band shows on the suspension viewer.
- b. To soften the suspension, pull out handle knob (7), turn it counterclockwise and release it to lock it in position. Then, push down the handle to decrease the suspension resistance. **Keep suspension adjustment within the green zone for improved comfort.**

Note: Air suspension seat is standard for North America.

**TO ADJUST SEAT AIR SUSPENSION:**

- a. Turn ignition key "ON" or start engine.
  - b. Lift your weight off the seat.
  - c. Pull back the valve control handle (7) and hold it until the air bag is completely inflated.
  - d. Sit, and while watching the suspension viewer, press down the valve (7) to deflate.
  - e. Stop deflating when the suspension viewer shows the green zone.
- Keep suspension adjustment within the green zone for improved comfort.**

### HYDRAULIC CONTROL LEVERS



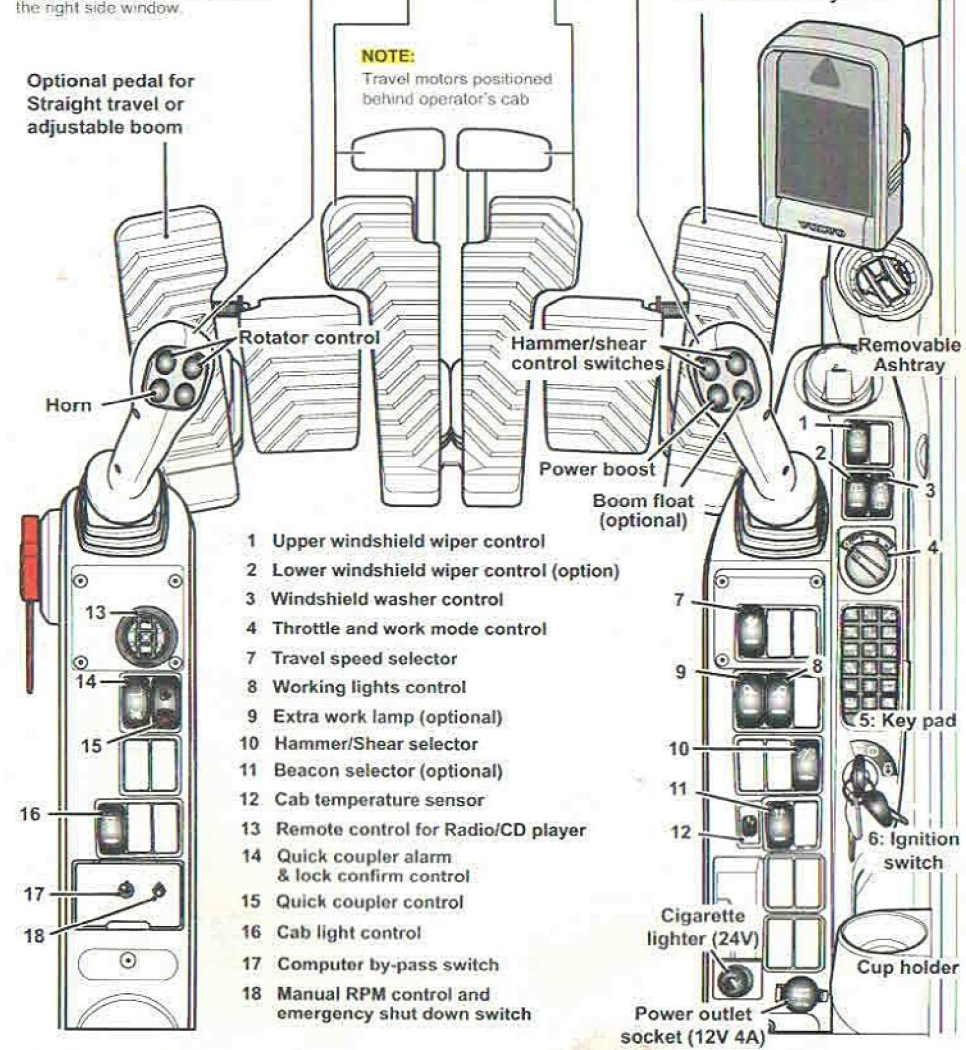
Check and make sure that operation's pattern control matches the decal provided inside the right side window.

LEFT TRAVEL LEVER AND PEDAL      RIGHT TRAVEL LEVER AND PEDAL

Optional pedal for Straight travel or adjustable boom

**NOTE:** Travel motors positioned behind operator's cab

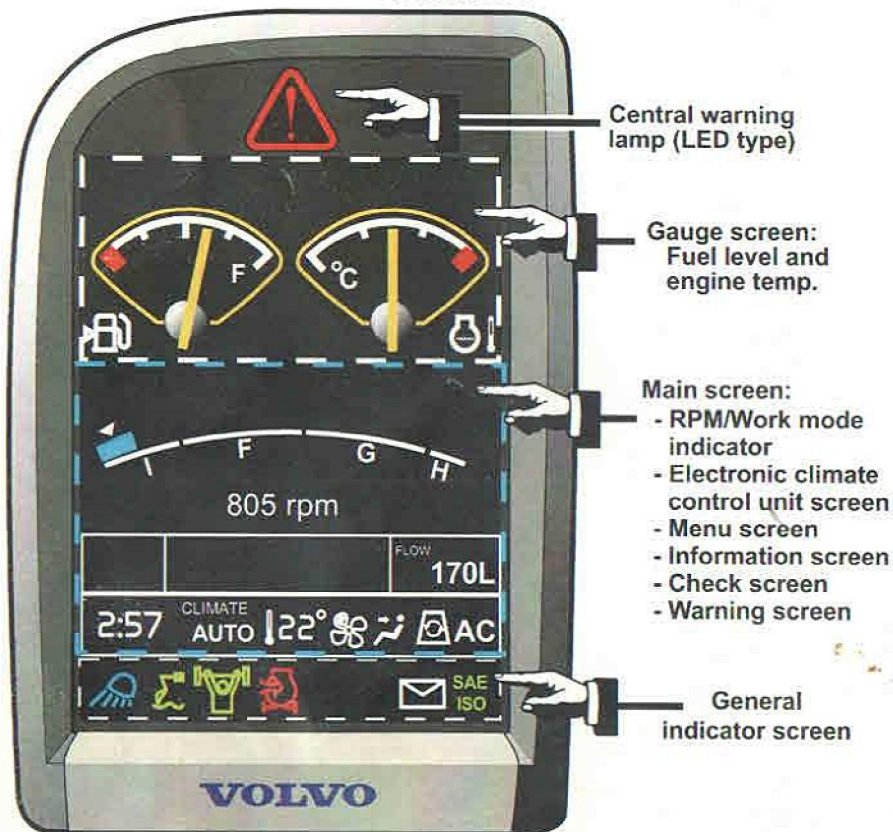
Optional pedal for X1: Hammer/shear system



- 1 Upper windshield wiper control
- 2 Lower windshield wiper control (option)
- 3 Windshield washer control
- 4 Throttle and work mode control
- 7 Travel speed selector
- 8 Working lights control
- 9 Extra work lamp (optional)
- 10 Hammer/Shear selector
- 11 Beacon selector (optional)
- 12 Cab temperature sensor
- 13 Remote control for Radio/CD player
- 14 Quick coupler alarm & lock confirm control
- 15 Quick coupler control
- 16 Cab light control
- 17 Computer by-pass switch
- 18 Manual RPM control and emergency shut down switch

- 1 Removable Ashtray
- 2
- 3
- 4
- 5: Key pad
- 6: Ignition switch
- Cigarette lighter (24V)
- Cup holder
- Power outlet socket (12V 4A)

MONITOR



Function and warning indicators:

**Function indicators:**

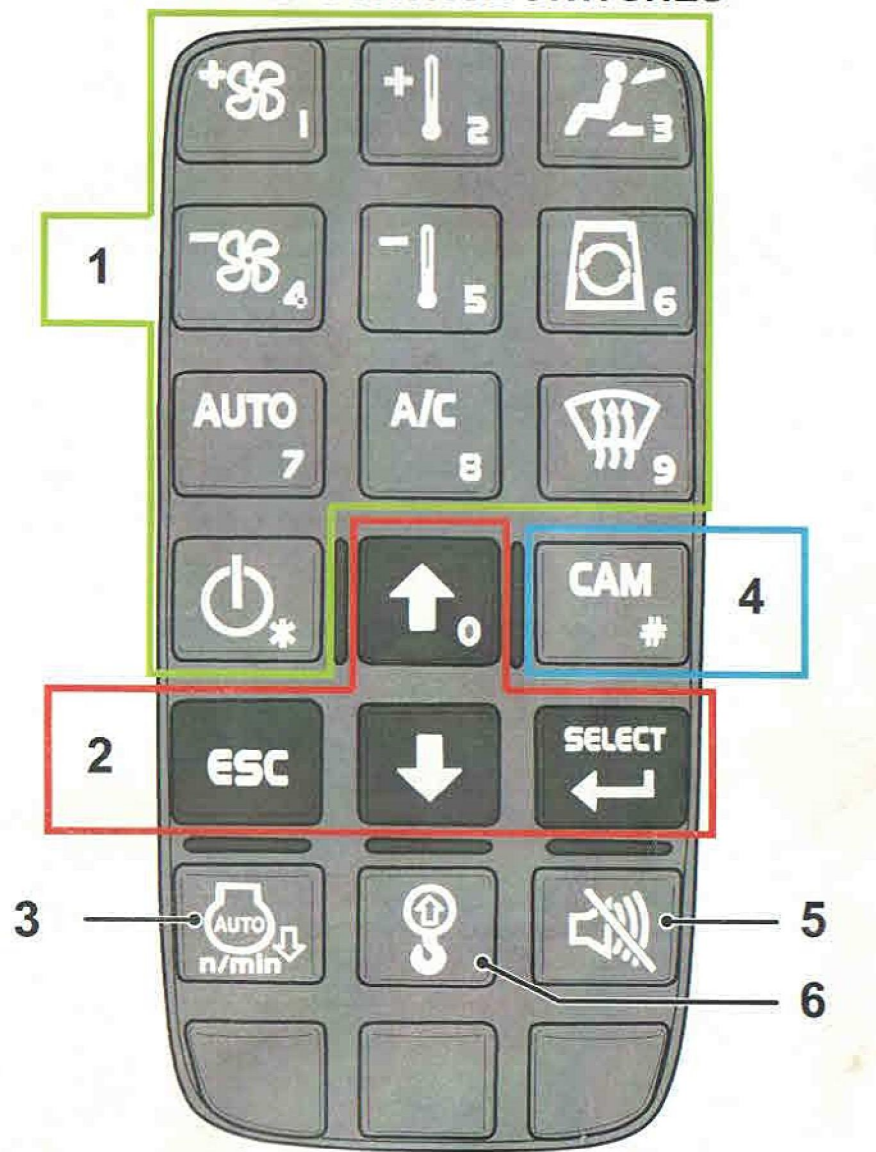
		<b>Note:</b> - Perform lifting operations in "F-Mode" for max. lifting power. - Power boost will increase digging forces for 9 seconds only in H, G, and I working modes.	
Air preheating	Power boost		Hammer
Shear	Float indicator	Working lights	Service mode
*Message indicator	SAE ISO	BHL	Pattern changer status

**Warning indicators:**

Low engine oil pressure	Low coolant level	Overload indicator	Low engine oil level	Quick coupler unlocked	Low battery charge
High engine temperature	Pattern changer	Clogged eng air filter	Auto lub system	Low fuel level	High hydraulic oil temperature

\* Check the Vehicle message menu when the message indicator appears on the general indicator screen and correct problems before starting operation.

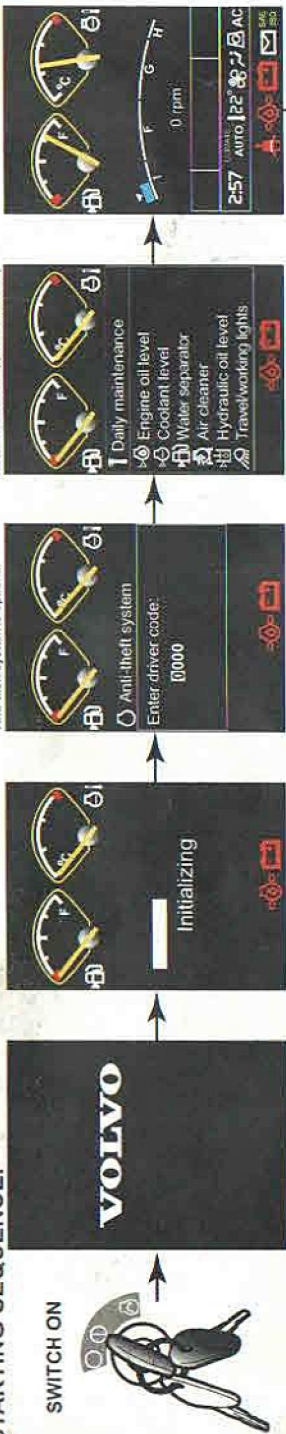
KEY PAD CONTROL SWITCHES



- |                                                      |                                                                                         |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. Electronic climate control unit switches          | 4. Optional rear view camera (480 x 640 Liquid Cristal Display) control switch (ON/OFF) |
| 2. Switches to navigate through the main screen menu | 5. Travel alarm cancel switch                                                           |
| 3. Auto idle control switch                          | 6. Overload warning switch                                                              |

STARTING SEQUENCE:

SWITCH ON



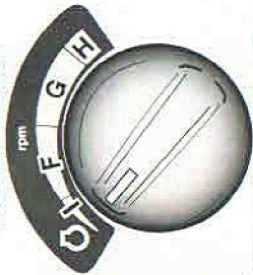
Note: This screen appears once a day

Anti-theft system is optional

START ENGINE

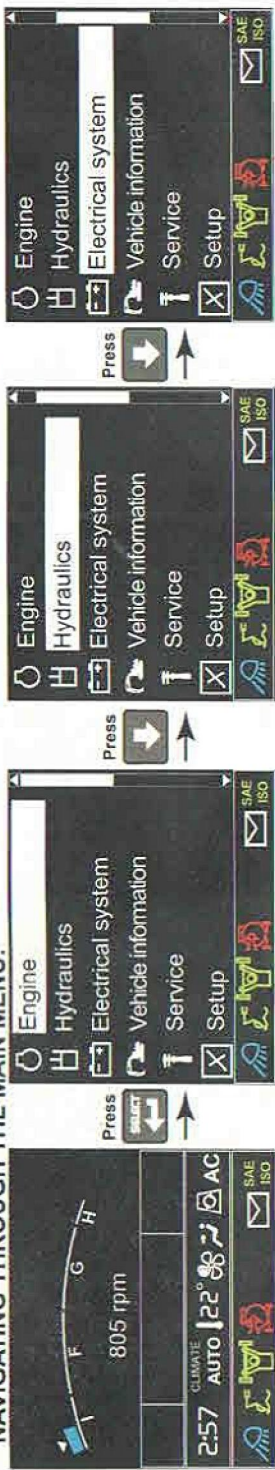


WORK MODES:

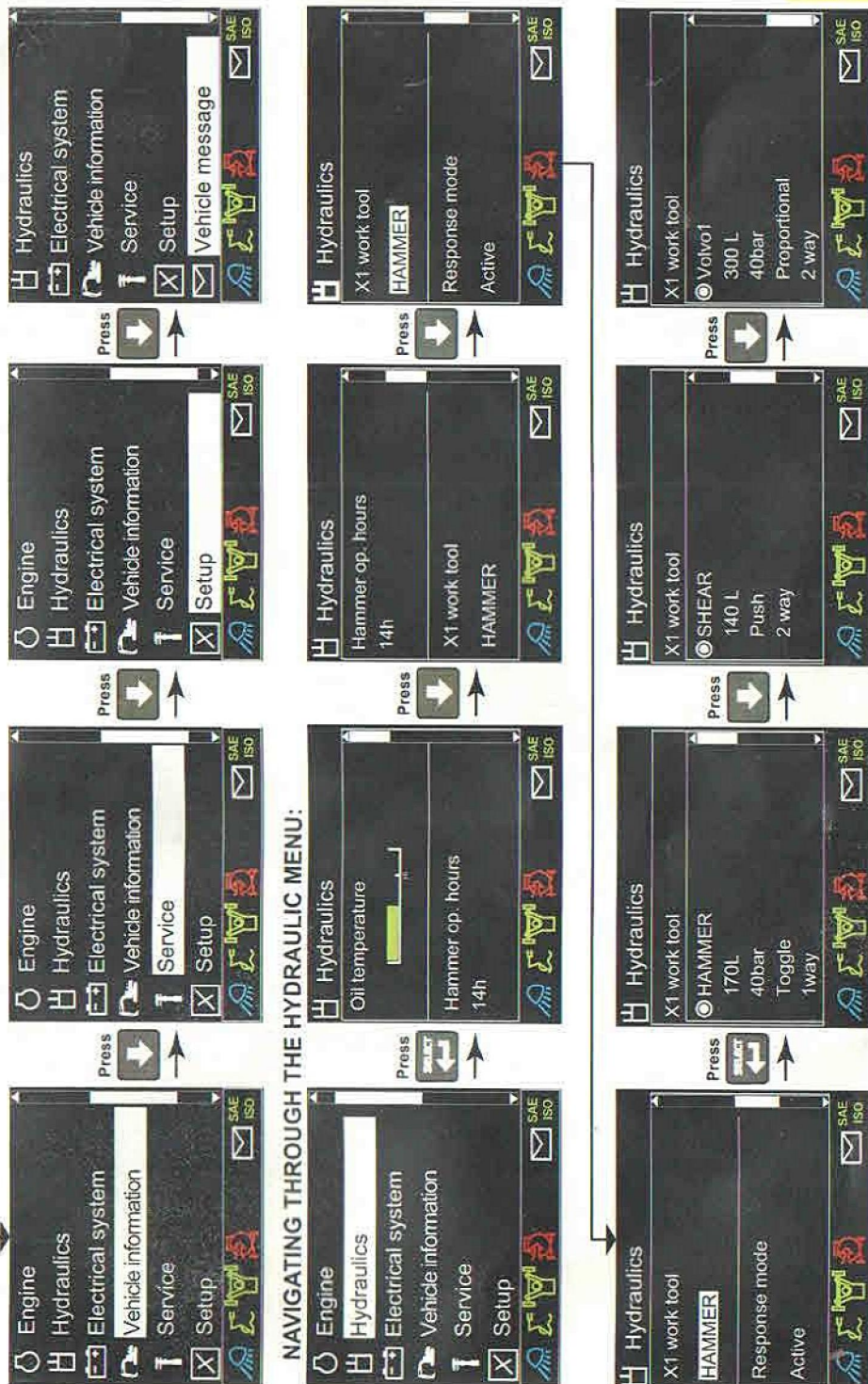


- I mode:** Select I2 or I1 for low idle and/or warm-up.
- F mode:** For precision grading and maximum lifting power; select F3, F2, or F1 to control attachment speed accordingly.
- G mode:** General purpose and **maximum fuel savings**.
  - G1:** For light digging and trenching, truck loading from soft pile, and other applications.
  - G2 & G3:** For ditching, leveling, slope finishing, spreading, and other general applications where moderate speed is needed.
- H mode:** Maximum speed for very hard digging and trenching, and truck loading from very deep trenches.

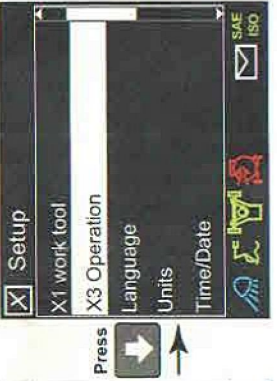
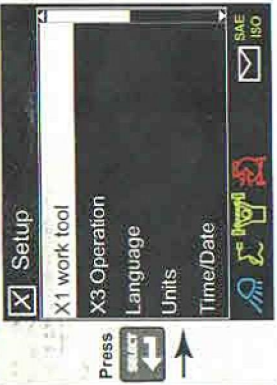
NAVIGATING THROUGH THE MAIN MENU:



NAVIGATING THROUGH THE HYDRAULIC MENU:

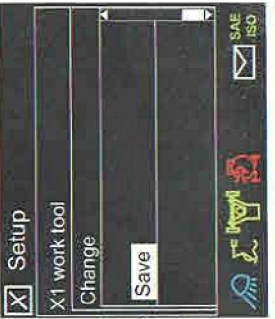
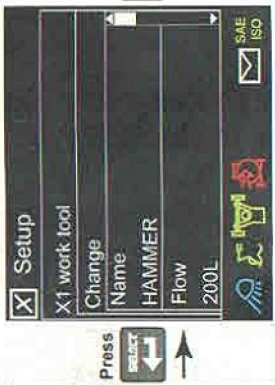
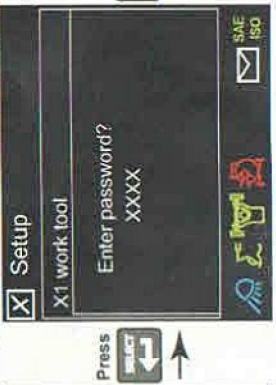


NAVIGATING THROUGH THE SETUP MENU:



Continue scrolling down by pressing and select any item as needed.

NAVIGATING THROUGH THE SETUP\X1 WORK TOOL MENU:



FLUID CAPACITIES AND PERIODICAL MAINTENANCE

COMPONENT (Location)	CAPACITIES							INSPECTION INTERVAL	FIRST MAINTEN.	NORMAL MAINTENANCE INTERVAL	
	EC140B	EC160C	EC210C	EC240B	EC390B	EC390B	EC460B				
Hydraulic tank	100 L (26.4 Gal)	123 L (32 Gal)	160 L (42.3 Gal)	190 L (50 Gal)	220 L (58 Gal)	270 L (71 Gal)	360 L (92.5 Gal)			2000 hr	
Hydraulic system	205 L (54.2 Gal)	265 L (70 Gal)	265 L (78 Gal)	320 L (85 Gal)	400 L (106 Gal)	500 L (132 Gal)	655 L (173 Gal)				
Engine oil (including filter)	15.5 L (4.1 Gal)	25 L (7 Gal)	32 L (8.45 Gal)	32 L (8.45 Gal)	32 L (8.45 Gal)	42 L (11.12 Gal)	53 L (14 Gal)			*500 hr B Series: 10 hr C Series: 50 hr or at warning signal	
Upper rollers	50 cc x 2 (3.1 in <sup>3</sup> ) X 2	90 cc (5.49 in <sup>3</sup> ) X 4	65 cc x 4 (3.97 in <sup>3</sup> ) X 4	75 cc x 4 (4.6 in <sup>3</sup> ) X 4	350 cc (21.4 in <sup>3</sup> ) X 4	250 cc (15.2 in <sup>3</sup> ) X 6 { X 6 for retractable undercarriage }					
Lower rollers	300 cc x 14 (18.3 in <sup>3</sup> ) X 14	260 cc x 14 (15.9 in <sup>3</sup> ) X 14	260 cc x 18 (15.2 in <sup>3</sup> ) X 18	360 cc x 18 (22 in <sup>3</sup> ) X 18	440 cc x 16 (26.9 in <sup>3</sup> ) X 16	500 cc x 18 (30.5 in <sup>3</sup> ) X 18	1000 cc (61.0 in <sup>3</sup> ) X 16			2000 hr	
Idlers	260 cc x 2 (15.9 in <sup>3</sup> ) X 2	365 cc (22.3 in <sup>3</sup> ) X 2	510 cc x 2 (31.1 in <sup>3</sup> ) X 2	510 cc x 2 (31.1 in <sup>3</sup> ) X 2	510 cc (31.1 in <sup>3</sup> ) X 2	420 cc x 2 (25.6 in <sup>3</sup> ) X 2	0.65 Kg (1.43 Lb)			2000 hr	
Swing reduction unit	3.8 L (1.0 Gal)	2.6 L (0.7 Gal)	6.0 L (1.6 Gal)	12.0 L (3.17 Gal)	6.0 L (1.6 Gal)	6.0 L x 2 (1.6 Gal) X 2	6.0 L x 2 (1.6 Gal) X 2			1000 hr	
Travel reduction unit	3.5 L x 2 (0.9 Gal X 2)	5.8 L x 2 (1.5 Gal X 2)	5.2 L x 2 (1.37 Gal X 2)	5.0 L x 2 (1.3 Gal X 2)	5.5 L x 2 (1.45 Gal X 2)	5.5 L x 2 (1.45 Gal X 2)	20.0 L x 2 (5.28 Gal) X 2			2000 hr B Series: 250 hr C Series: 1000 hr	
Operating lever joint	As required in each joint.										500 Hr
Attachment pins	25 Pieces										500 Hr Std bush: 50 hr Long last bush: 500 hr
Swing bearing	3 grease fillings										250 hr
Track tension adjustment	2 pieces										100 hr
Steering ring grease bath	15 L (3.96 Gal)	11 L (2.9 Gal)	20 L (5.3 Gal)	36 L (9.5 Gal)	45 L (11.8 Gal)	52 L (13.7 Gal)	52 L (13.7 Gal)			2000 hr B Series: 500 hr C Series: 1000 hr	
Cooling system total volume	20.3 L (5.4 Gal)	24 L (6.0 Gal)	32 L (8.0 Gal)	44 L (11.6 Gal)	60 L (15.9 Gal)	80 L (21.2 Gal)	65.4 L (17.2 Gal)			2000 hr B Series: 10 hr C Series: 50 hr or at warning signal	
Fuel tank	260 L (68.6 Gal)	250 L (66.0 Gal)	350 L (92.4 Gal)	380 L (100.4 Gal)	624 L (165 Gal)	685 L (180.3 Gal)	840 L (221.9 Gal)			500 hr B Series: 100 hr C Series: as required upon fuel quality	

\* For Tier 2 engines, use API CH-4 class engine oil. For 500 hr interval, sulphur content in fuel must be less than 0.3%; otherwise reduce interval to every 250 hr. If greater than 0.5%, service every 125 hr. In Tier 3 engines, for 500 hr interval, sulphur content in fuel must be less than 0.3%, and oil spec has to meet requirement as indicated on Fluid Type and Lubricant table (see last page); reduce interval to 250 hr if one (or more items) does not fulfill requirements; reduce interval to 125 hr if oil grade is lower than ACEA-E3 or API CE; maximum of 6 months between oil changes; oils that meet only API CF-4 must not be used.

\*\* For TIER 3 engines, use Volvo Coolant Specification "VCS"; when using VCS coolant, eliminate any filter from system and service every 6000 hr or 4 years; VCS coolant can not be used for some old B-Series machines; if in doubt, contact your Volvo Dealer's service department.

FILTER PART NUMBERS AND PERIODICAL MAINTENANCE

	EC140B	EC160C	EC210C	EC240B	EC290B	EC330B	EC380B	EC460B	EC700B	Inspection interval	First maintenance	Normal maintenance
Hydraulic system return filter	Element (1): VOE 14509379 O-ring (1): SA9511-22190	VOE 14385476	VOE 14538482	Element (1): VOE 14509379 O-ring (1): SA9511-22190	Element (1): VOE 14509379 O-ring (1): SA9511-22190	Element (1): VOE 14509017 O-ring (1): SA 9511-22230	VOE 14509887	Element (2): VOE 14509379 O-ring (2): SA9511-22190	Element (2): VOE 14509379 O-ring (2): SA9511-22190	-	B: 250 hr C: 500 hr	B: 1000 hr C: 2000 hr
External return filter (hammerhead filter)		VOE 14510898						(2) VOE 14510898		-	-	200 hr
Hyd. strainer (Washable)	Strainer (1): SA1141-00070 O-ring (1): SA9511-22230	VOE 14385526	VOE 14518656	Strainer (1): SA1141-00070 O-ring (1): SA9511-22230	Strainer (1): SA1141-00070 O-ring (1): SA9511-22230	Strainer (1): SA 1041-00670 O-ring (1): SA 9511-22230	SA 8230-02830	VOE 14512125	VOE 14523914	-	-	Clean every 2000 hr
Hydraulic tank breather valve filter		VOE 14500233							VOE 14530993	-	-	2000 hr
Pilot system filter	Element (1): SA 1030-61460 O-ring (1): VOE 14511215	VOE 14532686		Element (1): SA 1030-61460 O-ring (1): VOE 14511215						B: 250 hr C: 500 hr	B: 1000 hr	1000 hr
Case drain filter (hydraulic power train)	Cartridge: VOE 14524170	VOE 14532687		Cartridge: VOE 14524170					Cartridge: VOE 14524170	-	B: 250 hr C: 500 hr	B: 500 hr C: 1000 hr
Engine oil filter	Element (1): VOE 11708550 (includes seal)		VOE 381233					(2) VOE 478736 (includes seal) VOE 477556 (B-pass, includes seal)		-	-	*500 hr
Engine fuel filter	VOE 11583882	VOE 20665349		VOE 1171074		VOE 8193841 (SN: 10235) VOE 20430751 (SN: 10236-)	VOE 8193841 (SN: 102828) VOE 20430751 (SN: 10629-)	VOE 8193841 (SN: 10787) VOE 20430751 (SN: 10788-4p)	VOE 20430751	-	-	500 hr
Fuel/Water separator	VOE 14514238 (SN: 10005-10811) VOE 1110668 (SN: 10672-4p)	VOE 11106683		VOE 14514238 (SN: 10005-10830) VOE 1110668 (SN: 10726-4p)	VOE 14514238 (SN: 10005-10830) VOE 1110668 (SN: 10831-4p)	VOE 14514238 (SN: 10000-10498) VOE 1110668 (SN: 10499-4p)	VOE 14514238 (SN: 10000-10339) VOE 1110668 (SN: 10340-4p)	VOE 14514238 (SN: 1033966) VOE 1110633	VOE 11106683	B Series: every 10 hr C Series: At warning signal	-	500 hr
Air cleaner outer element	VOE 1110283	VOE 3110175		VOE 1111022		VOE 11033966			VOE 1110532	-	-	B: 1000 hr C: See note below with **
Air cleaner safety filter	VOE 1110284	VOE 1110176		VOE 1110223		VOE 11033967			VOE 1110533	-	-	Replace every 2000 hr
AC fresh air filter	VOE 145032692	VOE 11703979				VOE 14503269				250 hr	-	Replace every 2000 hr
AC recirculate air filter										500 hr	-	Replace every 2000 hr
Fuel tank air breather filter	VOE 11172907 (Korea SN: 15501-4p Germany SN: 2091-4p)	VOE 11172907		VOE 11172907 (Korea SN: 14270-4p China SN: 30781-4p Germany SN: 2091-4p)	VOE 11172907 (Korea SN: 12571-4p China SN: 30781-4p Germany SN: 2091-4p)	VOE 11172907 (SN: 10430-4p)	VOE 11172907 (SN: 11250-4p)	VOE 11172907 (SN: 10940-4p)	VOE 11172907	-	-	2000 hr

\* For Tier 2 engines, use API CH-4 class engine oil. For 500 hr interval, sulphur content in fuel must be less than 0.3%; otherwise reduce interval to every 250 hr. If greater than 0.5%, service every 125 hr. In Tier 3 engines, for 500 hr interval, sulphur content in fuel must be less than 0.3% and oil spec has to meet requirement as indicated on Fluid Type and Lubricant table (see last page); reduce interval to 250 hr if one (or more items) does not fulfill requirements; reduce interval to 125 hr if oil grade is lower than ACEA-E3 or API CE; maximum of 6 months between oil change; oils that meet only API CF-4 must not be used.  
\*\* Replace outer element after cleaning 5 times or max 1 year. Never clean air cleaner safety element, replace it after 3 outer elements or max 2 years.

RECOMMENDED FLUIDS AND LUBRICANTS SPECIFICATIONS

COMPONENT	FLUID TYPE and LUBRICANT				
Hydraulic system	<b>HYDRAULIC OIL (Anti-wear, antioxidant and non-foaming)</b> *Machines are shipped from factory with high viscosity index ≥ 160				
	FRIGID -20°C ~ 15°C (-4°F ~ 59°F) ISOVG32	FRIGID TO WARM -10°C ~ 30°C (14°F ~ 86°F) ISOVG46 *	WARM TO HOT 0°C ~ 40°C (32°F ~ 104°F) ISOVG68		
	ENGINE OIL: For TIER 2 engines use A.P.I. CH4; For TIER 3 engines use: VDS-3, or ACEA-E5 plus VDS-2, or ACEA-E7 plus VDS-2, or API CI-4 plus VDS-2, or EO-N Premium plus VDS-2, or Volvo P/N: 11708320 (20 L), P/N: 11708321 (208 L). * All engines are shipped from factory with SAE 15W40 oil				
Engine oil	FRIGID -30°C ~ 10°C (-22°F ~ 14°F) SAE 10W	COLD -20°C ~ 20°C (-4°F ~ 68°F) SAE 10W30	COLD TO WARM -15°C ~ 40°C (5°F ~ 104°F) SAE 15W40*	WARM 0°C ~ 50°C (32°F ~ 122°F) SAE 30	HOT 25°C ~ 50°C (77°F ~ 122°F) SAE 40
	Idlers <b>ENGINE OIL (A.P.I. classification for "Service CD")</b> These components are shipped from factory with SAE 10W30 oil				
Upper rollers	ISO VG220 EP OIL				
Lower rollers					
Swing reduction unit	USE EXTREME PRESSURE GEAR OIL SAE #90 OR #140 AND API GL4 OR GL5				
Travel reduction unit	These components are shipped from factory with SAE #90 and API GL4 or GL5 oil				
Operating lever joint	EP GREASE NLGI 2 (Extreme pressure multipurpose N.L.G.I. No. 2 EP type grease)				
Attachment pins					
Swing bearing					
Track tension adjustment	ANTIFREEZE -34°C (-29.2°F) Mixture ratio should protect to 5°C (9°F) lower than the coldest temperature the machine will experience. Take into consideration wind chill factors. Follow antifreeze manufacturer instructions to obtain proper mixture. For TIER 3 engines: use Volvo Coolant Specification "VCS"; when using VCS coolant, eliminate any filter from system and service every 6000 hrs or 4 years; VCS coolant can not be used for some old B-Series machines; if in doubt, contact your Volvo dealer's service department.				
Slewing ring grease bath					
Cooling system					
Fuel tank	FRIGID -15°C ~ -25°C (5°F ~ -13°F) Winterized DIESEL ASTM D975 N° 1	DIESEL FUEL WARM -1°C ~ -15°C (5°F ~ -23°F) DIESEL ASTM D975 N° 2		VERY HOT 51°C (23°F) and above DIESEL ASTM D975 N° 2	



TECHNICAL SPECIFICATIONS

Machine model	EC140BLC	EC160BLC	EC200BLC	EC230BLC	EC330BLC	EC367BLC	EC460BLC	EC700BLC	
Engine model	D4D EAE2	EAE EBL2A	EAE EBL3	D7E EBE3	D7E EAE3	D12D EBE3	D12D EAE3	D10E EAE3	
Gross Power (kW (hp))	73 (99)	98 (134)	123 (165)	130 (180)	153 (205)	198 (265)	245 (329)	346 (464)	
Net Power (kW (hp))	68 (93)	87 (116)	110 (147)	125 (168)	143 (192)	184 (247)	235 (316)	345 (464)	
Maximum Torque (N-m (Ft-lbs))	190 (269) at 1500 rpm	272 (371) at 1350 rpm	339 (461) at 1350 rpm	376 (513) at 1000 rpm	440 (597) at 1400 rpm	547 (742) at 1275 rpm	670 (910) at 1275 rpm	940 (1280) at 1275 rpm	
Max. flow (l/min (gpm))	2 X 118 (31)	2 X 145 (38)	2 X 200 (53)	2 X 230 (61)	2 X 250 (66)	2 X 280 (74)	2 X 330 (87)	2 X 430 (115)	
Bucket breakout force (kN (Lbs))	87.3 (19620)	105.2 (23650)	130.4 (29330)	156.9 (35260)	172.6 (38810)	209 (47190) ME: 228 (51380)	240 (54000) ME: 267 (60000)	304 (68398) ME: 325 (73034)	
Arm (forward) force (kN (Lbs))	60.7 (14770)	80 (17985)	103 (23160)	118.7 (26680)	134.9 (30310)	172.0 (38810)	209 (46870)	279 (62630)	
Arm size (m (ft))	2.5 (8.2)	2.6 (8.5)	2.9 (9.6)	2.97 (9.9)	3.05 (10.0)	3.20 (10.6)	3.35 (11.0)	3.58 (11.9)	
Max. digging reach (m (ft))	8.330 (27.4)	8.770 (28.8)	9.940 (32.7)	10.260 (33.8)	10.690 (35.1)	11.180 (36.8)	12.000 (39.4)	13.170 (43.5)	
Max. digging reach on ground (m (ft))	6.50 (21.3)	6.90 (22.6)	7.95 (26.1)	8.20 (27.0)	8.60 (28.2)	9.00 (29.5)	9.60 (31.5)	10.50 (34.5)	
Max. digging depth (m (ft))	6.50 (21.3)	6.90 (22.6)	7.95 (26.1)	8.20 (27.0)	8.60 (28.2)	9.00 (29.5)	9.60 (31.5)	10.50 (34.5)	
Max. digging depth on ground (m (ft))	4.00 (13.1)	4.20 (13.8)	4.70 (15.4)	4.80 (15.8)	5.00 (16.4)	5.30 (17.4)	5.70 (18.7)	6.10 (20.0)	
Max. digging depth on ground (m (ft))	4.00 (13.1)	4.20 (13.8)	4.70 (15.4)	4.80 (15.8)	5.00 (16.4)	5.30 (17.4)	5.70 (18.7)	6.10 (20.0)	
Overall width (mm (inches))	2500 (81)	2500 (81)	2500 (81)	3190 (104)	3390 (111)	3390 (111)	3340 (110)	3266 (104)	
Std. machine operating weight (kg (Lbs))	1430 (3150) low: 1415 (3120) high: 1445 (3185)	1630 (3590) low: 1615 (3555) high: 1645 (3625)	1830 (4030) low: 1815 (3995) high: 1845 (4065)	2030 (4480) low: 2015 (4455) high: 2045 (4515)	2230 (4910) low: 2215 (4885) high: 2245 (4945)	2430 (5350) low: 2415 (5315) high: 2445 (5375)	2630 (5790) low: 2615 (5755) high: 2645 (5815)	2830 (6230) low: 2815 (6195) high: 2845 (6255)	3030 (6670) low: 3015 (6635) high: 3045 (6695)

nozzle (Lbs)