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2. SAFETY INSTRUCTIONS

Safety Message

Intended Use

Machines should be operated in accordance with the procedures described in the operator manual.

The products described in the operator manual are designed and manufactured mainly for the following purposes:



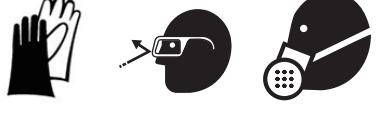




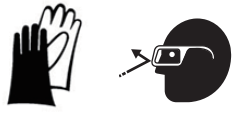
- Excavation work
- Loading work
- Leveling work
- Drainage work
- Lifting work
- Demolition work

Do not operate the machine for any purpose other than those stated above or in areas where potential hazards have been identified. Make sure that you comply strictly with all safety instructions at all times. Please contact HD Hyundai Construction Equipment Co., Ltd. or your local dealer for more information.

HD Hyundai Construction Equipment strictly prohibits the use or operation of the machine in any of the following circumstances:

- Operation by an unskilled worker
- Lifting a worker up
- Transporting flammable or dangerous materials
- Driving down or extracting piles with the bucket
- Towing damaged vehicles

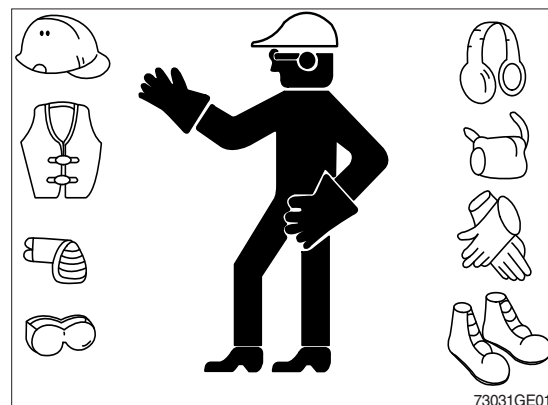
Personal protection gear for various situations

Situation	Symbol
Oil handling	
Battery handling	
Refrigerant handling	
Coolant handling	
Repair by welding	
Working in areas subject to airborne particles and falling objects	
Working in places with a high level of noise	
Handling machines damaged by fire or exposed to excessively high temperature	

WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

- Do not wear loose clothing and accessories. Secure long hair. These items can snag on controls or on other parts of equipment.
- Do not wear oily clothes. They are highly flammable.
- Wear a hard hat, safety shoes, safety goggles, mask, leather gloves, earplugs and other protective equipment, as required.
- While working on machine, never use inadequate tools. They could break or slip, or they may not adequately perform intended.

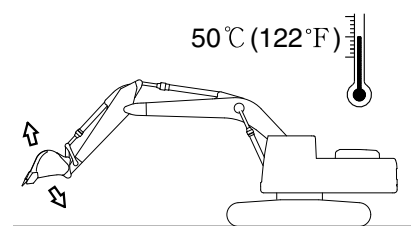


73031GE01

Cautions when operating in specific areas

Operating in extremely cold environments

- Do not attempt to start, stop or turn the machine suddenly as this may cause it to slip. There is potential for the machine to slip.
- Snow-covered or frozen ground may be slippery and dangerous.
- Idle operation of the machine may be required to elevate the engine temperature during startup.
- An impact resulting from a sudden movement of the boom or the attachments at an extremely low temperature may cause serious damage to the machine.
- The working cycle or loading weight might be reduced to lower than those under normal conditions.
- Follow these instructions when operation in cold environments:
 - Warm up the engine for 3~4 seconds when starting up the engine.
 - Always fully charge the battery. A discharged battery will freeze earlier than a fully charged battery.
 - Use engine oil and fuel that are appropriate for the temperature.
 - Keep the fuel tank full.
 - Remove any moisture from the fuel tank, and change the fuel filter regularly.
 - If the fuel filter is frozen, the flow of fuel may be blocked.
 - Pour the proper volume of antifreeze into the coolant.
 - Wait until the various parts of the machine reach the operating temperature after starting the engine.
 - Make sure that every controller and function of the machine operates normally.
 - Remove any dirt, snow and ice from the machine after completing the operation.



Operating in extremely hot environments

- Continuous operation of the machine for a long period of time may cause the machine to overheat. Pay special attention to prevent overheating of parts such as the engine and the hydraulic system. Stop the machine and take a break if necessary.
- Check the following conditions frequently:
- Check the level of the coolant in the radiator.
 - Check the radiator grill for clogging by any debris, and remove them, if any.
 - Check the level of the battery electrolyte.
 - If the battery will not be used for a long period of time, store it in a cool place.
 - Check the hydraulic system for oil leakage.
 - Check the lubrication oil on the respective parts, and lubricate as needed.
 - If the paint coating of any parts has been effaced or damaged, coat the parts with paints or treat them with an anti-rust additive.
 - Do not park the machine under direct light for a long period of time.
 - When parking or storing the machine outdoors, use the proper cover to protect the machine from sunlight and dust.

2. DESCRIPTION

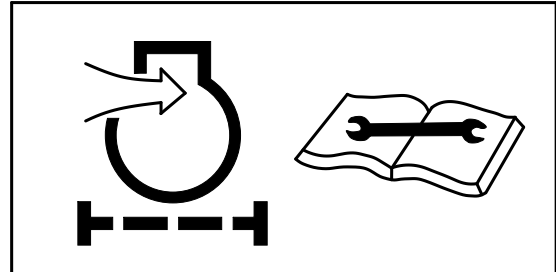
There are labels on this machine. Ensure you are familiar with all labels before operating the machine.

Replace any label that is damaged or missing. If a label is attached to a part that is replaced, install a label on the replacement part.

1) AIR CLEANER FILTER (item 1)

This label is positioned on the left side of the front support.

- ※ **Periodic and proper inspection, cleaning and change of elements prolong engine life and maintains good engine performance.**



21070FW01

2) TURBOCHARGER COVER (item 2)

This label is positioned on the RH exhaust cover and turbocharger cover.

- ⚠ **Do not touch turbocharger or it may cause severe burn, while the engine is running or immediately after the engine is shut down.**

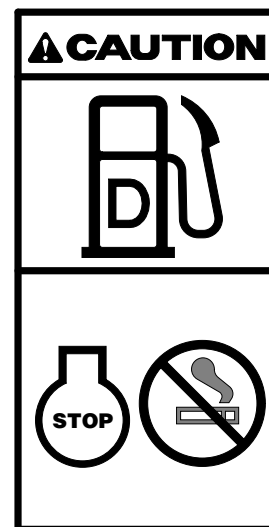


21070FW02

3) FUELING (item 4)

This label is positioned on the right side of fuel filler neck.

- ⚠ **Stop the engine when refueling. Any lights or flames must be kept at a safe distance while refueling.**

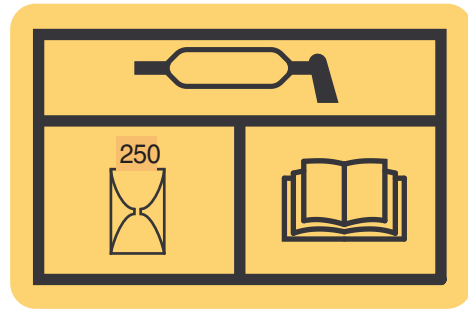


290F0FW02

33) SWING BEARING GREASE (item 47)

This label is positioned on the front side of swing bearing housing.

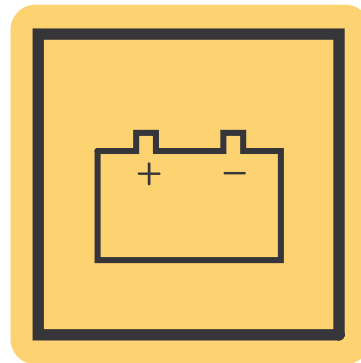
※ See page 4-43 for details.



38090FW02

34) BATTERY POSITION (item 48)

This label is positioned on the side cover of the LH cowl.



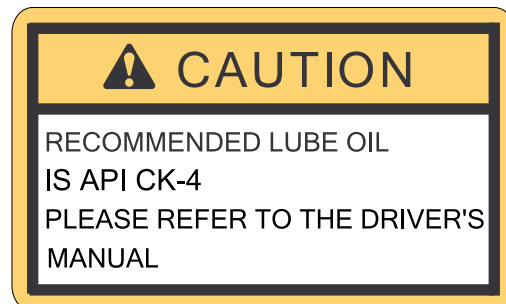
38090FW03

35) LUBRICATION OIL (item 49, old)

This label is positioned on the right side of the hydraulic tank.

※ Recommended lubrication oil is API CK-4.

※ See page 4-9 for details.



300A0SL03

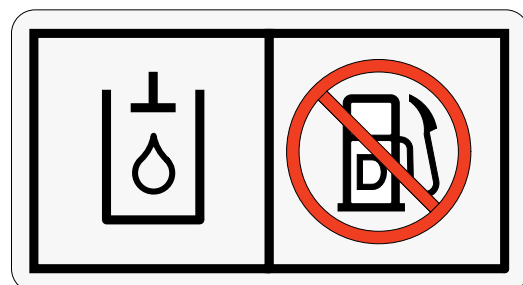
36) FUEL SHUT OFF (item 50)

This label is positioned on the top side of the hydraulic tank.

※ Fill only with hydraulic oil.

※ Do not fill with diesel fuel.

▲ Relieve tank pressure with the engine off by removing the cap slowly to prevent burns from hot oil.

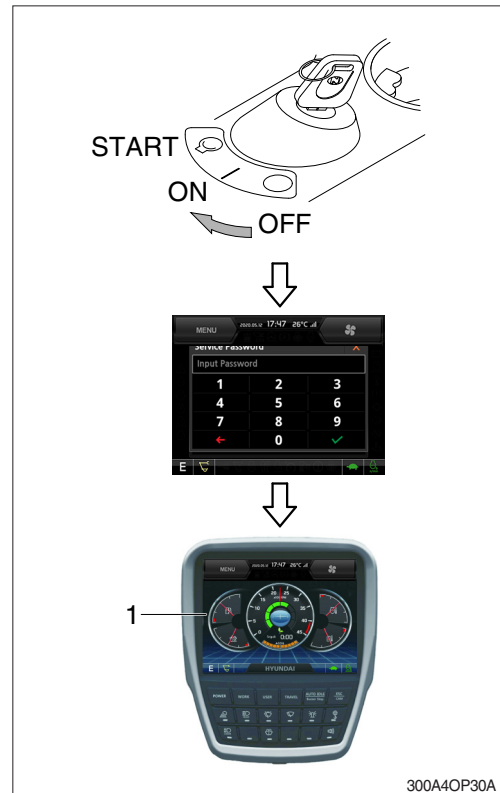


140WH90FW51

3. STARTING AND STOPPING THE ENGINE

1) CHECK INDICATOR LIGHTS

- (1) Confirm all operating levers are in the neutral position.
- (2) Turn the starting switch to the ON position.
Buzzer will sound for 4 seconds with HYUNDAI logo on cluster.
 - ※ If the ESL mode is set to enable mode, enter the password to start engine.
 - ※ If the incorrect password is entered a total of 5 times, you must wait 30 minutes before trying again.
 - ※ Refer to page 3-28 for ESL mode.
- (3) After initialization of cluster, the operating screen is displayed on LCD (1).
Also, self-diagnostic function is carried out.



2) STARTING ENGINE IN NORMAL

- ▲ Check if any obstacles or people are in the working area. Sound the horn to warn anyone in the vicinity that you are starting the engine.
- (1) Turn the multimodal dial to low idle position.
 - (2) Turn the starting switch to START position to start the engine.
 - △ Do not hold the starting switch in the START position for longer than 20 seconds. The start system may be seriously damaged.
 - ※ If the engine does not start, allow the stator to cool for about 2 minutes before re-attempting to start the engine again.
 - (3) Release the starting switch instantly after the engine starts to avoid possible damage to the starting motor.



6. TRAVELING OF THE MACHINE

1) BASIC OPERATION

(1) Traveling position

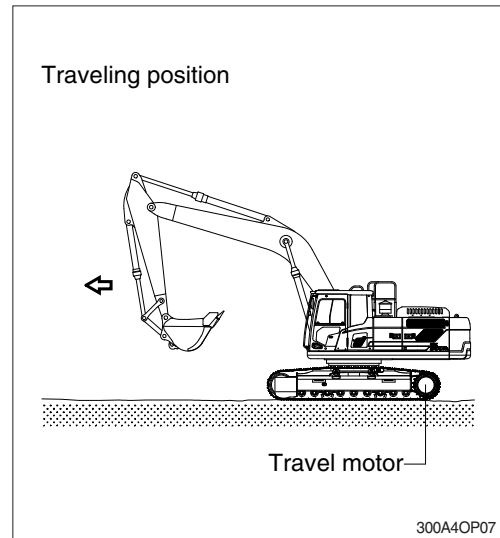
The travel motor is in the rear and the working device is forward.

▲ **Be careful as the traveling direction will be the opposite when the machine is rotated 180°.**

(2) Traveling operation

It is possible to travel by either travel lever or pedal.

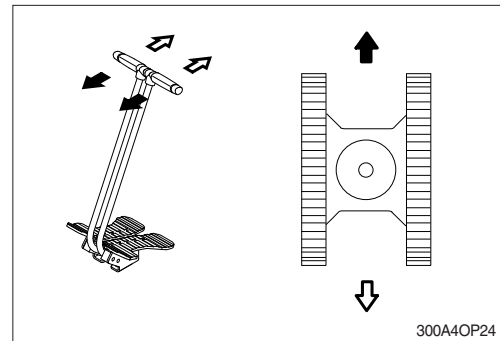
- ※ **Do not travel continuously for a long time.**
- ※ **Reduce the engine speed and travel at a low speed when traveling on uneven ground.**



(3) Forward and backward traveling

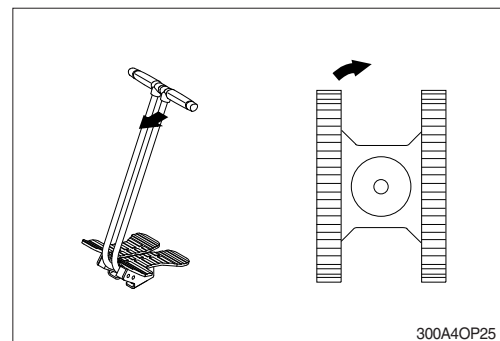
When the left and right travel levers or pedals are pushed at the same time, the machine will travel forward or backward depending on your selection.

- ※ **The speed can be controlled by the operation stroke of lever or pedal and change of direction will be controlled by difference of the left and right stroke.**



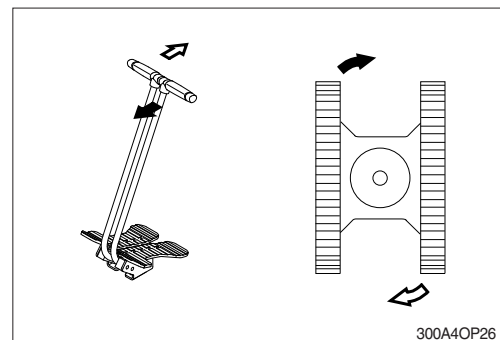
(4) Pivot turning

Operating only one side of lever or pedal makes the change of direction possible by moving only one track.



(5) Counter rotation

It is to rotate the undercarriage (only) while not advancing the machine forward or backward. This is accomplished by moving the travel levers and or pedals in the opposite direction of each other.

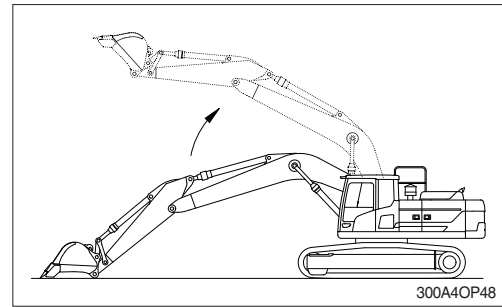


(4) Performance test

- ① Check how much the engine rpm drops during the boom up operation compared to the basic state.
- ② If the rpm drop amount is excessive, adjust the power shift value in the user mode by +1 step, and then recheck amount of rpm drop. Repeat the above steps until amount rpm drop is enough.

- Allowable amount : 300 ± 50 rpm

- ※ **The time it takes to recover the engine rpm should be less than 1 second.**



300A4OP48

2) GAUGE

(1) Operation screen

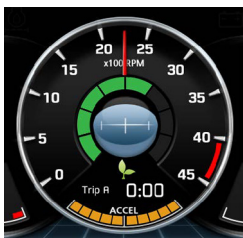
When you first turn starting switch ON, the operation screen will appear.



300A3CD21A

- | | | | |
|---|----------------------------------|---|-------------------------|
| 1 | RPM / Speed gauge | 5 | DEF/AdBlue® level gauge |
| 2 | Engine coolant temperature gauge | 6 | Tripmeter display |
| 3 | Hydraulic oil temperature gauge | 7 | Eco gauge |
| 4 | Fuel level gauge | 8 | Accel dial gauge |

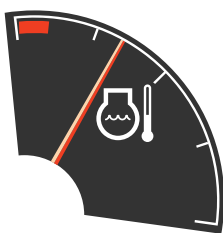
(2) RPM / Speed gauge





300A3CD22

- ① This displays the engine speed.

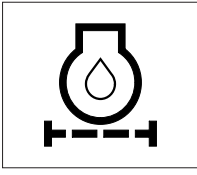
(3) Engine coolant temperature gauge



290F3CD53

- ① This gauge indicates the temperature of coolant.
- White range : 40-107°C (104-225°F)
 - Red range : Above 107°C (225°F)
- ② If the indicator is in the red range or  lamp pops up and the buzzer sounds, turn OFF the engine and check the engine cooling system.
- ※ If the gauge indicates the red range or  lamp blinks in red even though the machine is in the normal condition range, check the electric device as this can be caused by poor connection of sensor.

(19) Engine oil filter warning lamp

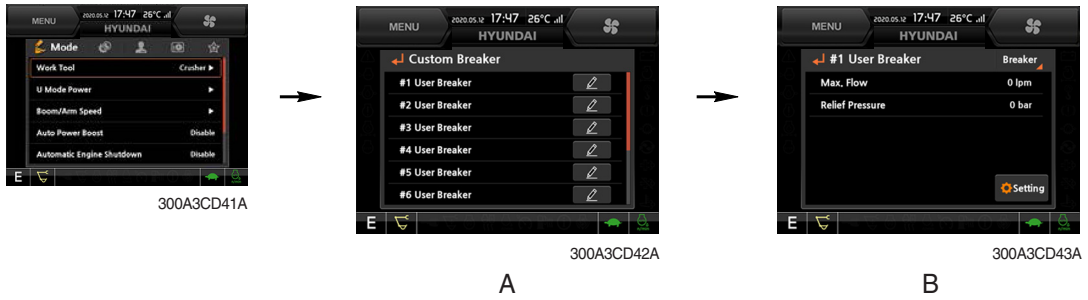


300A3CD306

- ① This warning lamp pops up and the buzzer sounds when the engine oil filter is clogged.
- ② Check, clean or replace filter.

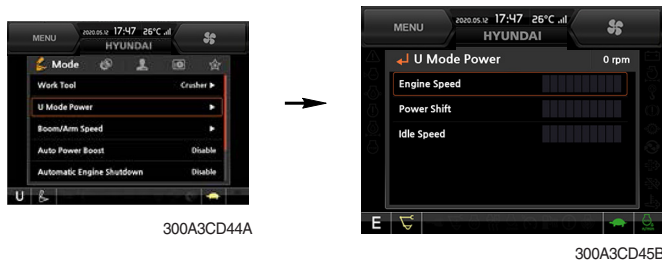
(2) Mode setup

① Work tool



- Select installed optional attachment.
- A : It can set the user's attachment.
It is available in setting #1~#10.
- B : Max flow - Set the maximum flow for the attachment.
Relief pressure - Set the relief pressure.

② U mode power

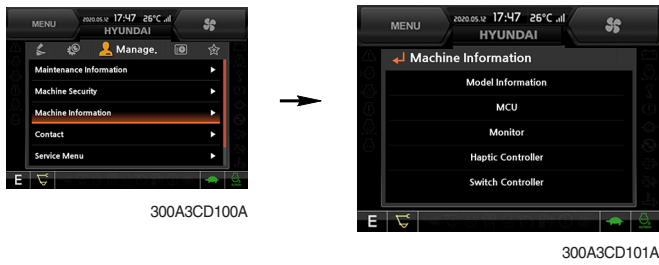


- Engine high idle rpm, auto idle rpm and pump torque (power shift) can be modulated and memorized separately in U-mode.
- U-mode can be activated by user mode switch.

Step (■)	Engine speed (rpm)	Idle speed (rpm)	Power shift (bar)
1	1300	800	0
2	1400	900	3
3	1500	950	6
4	1600	1000	9
5	1700	1050	12
6	1800	1100 (auto decel)	16
7	1850	1150	20
8	1900	1200	26
9	1950	1250	32
10	2000	1300	38

※ One touch decel & low idle : 1000 rpm

⑤ Machine Information



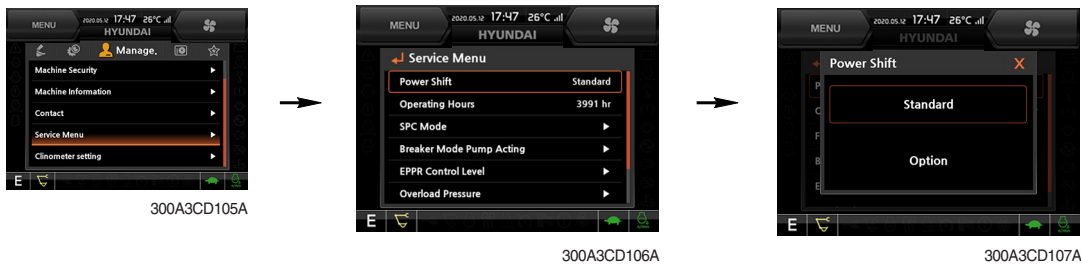
- This can confirm the identification of the model information (ECU), MCU, monitor, jog dial module, switch controller, RMCU, relay driver unit, FATC (air conditioner controller), AAVM (opt).

⑥ Contact (A/S phone number)



Enter the new A/S phone number

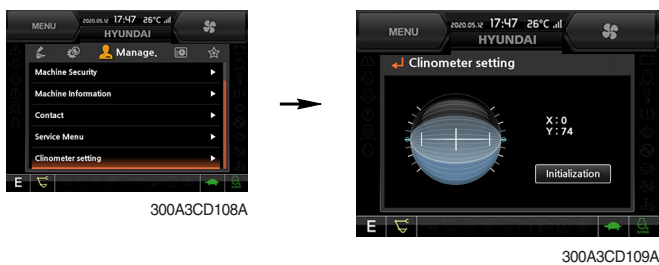
⑦ Service menu



※ This menu can be used only HCE service man and can not be accessible by the owner and the operator.

- Power shift (standard / option) : Power shift pressure can be set by option menu.
- Operating hours : Operating hours since the machine line out can be checked by this menu.
- Breaker mode pump acting (1 pump / 2 pump)
- EPPR current level (attach flow EPPR 1 & 2, boom priority EPPR, attach relief pressure EPPR 1& 2)
- Overload pressure : 100 ~ 350 bar
- Optional piping pressure removal (Disable / Enable)
It is removing the residual pressure remaining in the option line when the quick coupler is operated.
- Fine swing (Disable / Enable)

⑧ Clinometer



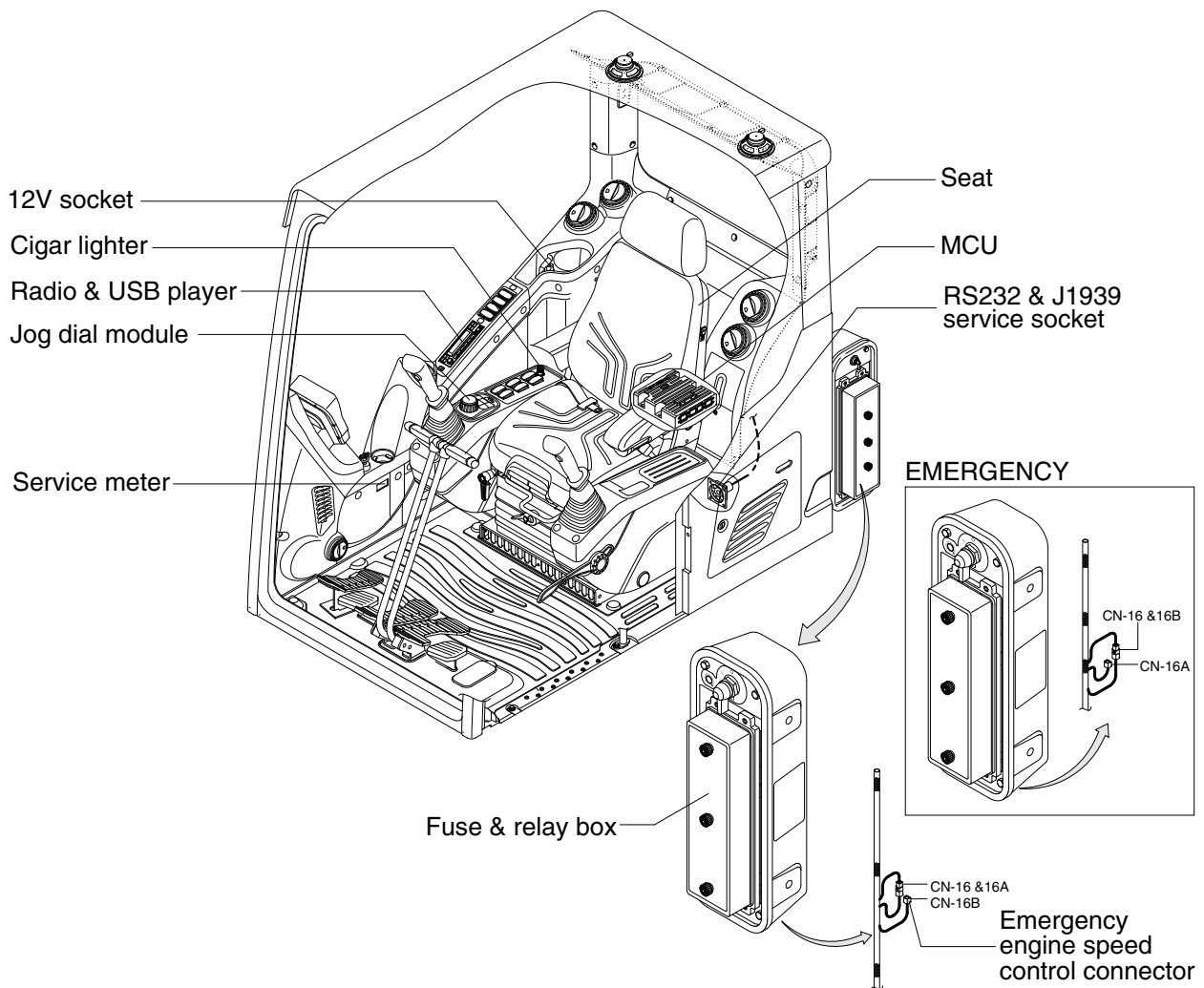
- When the machine is on the flatland, if you touch "initialization" on cluster, the values of X, Y will reset to "0".
- You can confirm tilt of machine in cluster's operating screen.

(10) Self Diagnosis Function

- ① Diagnostic methods : Diagnostic information window, select
- ② Diagnostic indication (Displays fault)

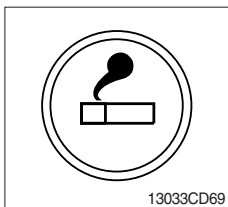
Fault code	Description	Fail safe function
F01	Ambient temperature sensor open	20°C alternate value control
F02	Ambient temperature sensor short	
F03	Cab inside temperature sensor open	25°C alternate value control
F04	Cab inside temperature sensor short	
F05	Evaporate temperature sensor open	0°C alternate value control
F06	Evaporate temperature sensor short	
F07	Null	-
F08	Null	-
F09	Mode 1 actuator open/short	The alternate value is face
F10	Mode 1 actuator drive circuit malfunction	If not, the alternate value is Def/Foot
F11	Intake actuator open/short	The alternate value is air recirculation
F12	Intake actuator drive circuit malfunction	The alternate fresh air
F13	Temperature actuator open/short	If opening amount is 0 %, the alternate value is 0 %
F14	Temperature actuator drive circuit malfunction	If not, the alternate value is 100 %
F15	Null	-
F16	Null	-

5. OTHERS



300A3CD05

1) CIGAR LIGHTER



- (1) This can be used when the engine starting switch is ON.
- (2) The lighter can be used when it springs out in a short while after being pressed down.

※ **Service socket**

Use cigar lighter socket when you need emergency power.

Do not use the lighter exceeding 24 V, 100 W.

■AUX OPERATION

It is possible to connect your portable media player to the audio system for playback of the audio tracks via the cab speakers.

To get the best results when connecting the portable media to the audio system, follow these steps :

- Use a 3.5 mm stereo plug cable to connect the media player headphone socket at each end as follows.
 - Adjust the portable media player to approximately 3/4 volume and start playback.
 - Press the MODE button (3) on the audio unit to change into AUX mode.
 - The volume and tone can now be adjusted on the audio unit to the desired level.
- ※ The audio quality of your media player and the audio tracks on it may not be of the same sound quality as the audio system is CD Player.
- ※ If the sound of the media player is too low compared with the radio or CD, increase the volume of the player.
- ※ If the sound of the media player is too loud and/or distorted, decrease the volume of the player.
- ※ When in AUX mode, only the Volume, Bass, Treble, EQ and Mode functions of the audio unit can be used.

④ Slide choice menu



300A3CD163A

- You can increase or decrease the slide choice bar.

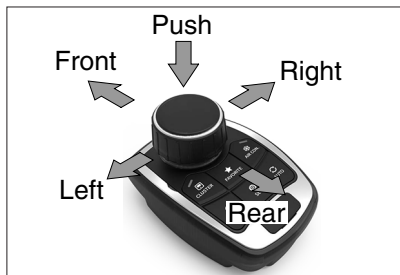
⑤ Level choice menu



300A3CD164A

- You can increase or decrease the level choice bar.

⑥ Push button



300A3CD165

- **Push** : Select the current menu or the pop-up warning lamp moves to the original position when warning lamp occurs.
- **Left** : ESC
- **Right** : CAM
- **Front** : Cluster main menu
- **Rear** : Return to acceleration mode

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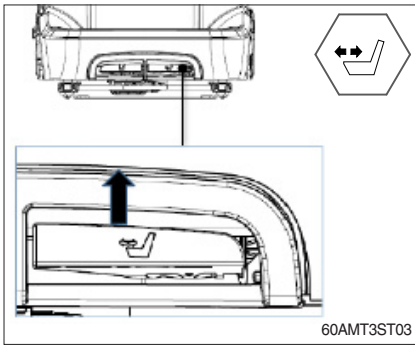
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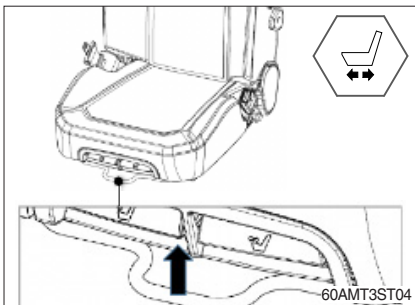
(2) Cushion extension



① The seat cushion can be extended as desired, until required seating position is reached. This optimises comfort for users of different heights.

- Pull and lift the handle upwards and pull seat cushion out to extend.
- Pull and lift handle upwards and push seat cushion back to reduce cushion depth.

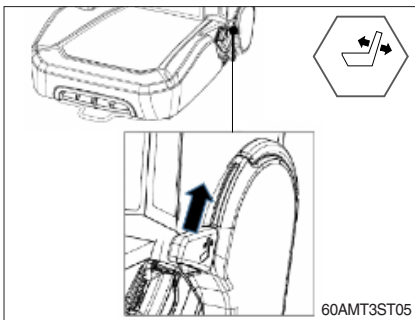
(3) Fore/after adjustment



① The seat upper can be forward / backward as desired, until required seating position is reached. This optimises comfort for users of different positions.

- Pull and lift the handle upwards and move seat forward / backward as desired.

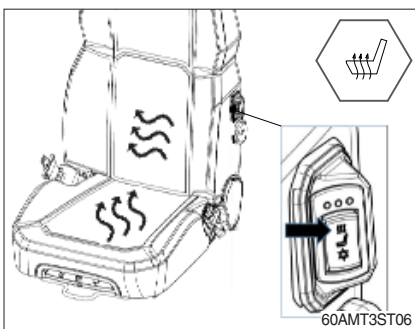
(4) Backrest recliner



① To recline the seat, pull backrest recline lever upwards, whilst applying pressure on the backrest until desired angle is reached.

② Before releasing lever to lock position, take care that the seat offers sufficient clearance to the controls for operation.

(5) Heater



① Operating the heater is important for maintaining driver comfort and alertness. 3 heat settings are available.

- To turn on, press button once. This is the full power setting.
- To reduce heat, button can be pushed again for mid-lever heat and again for lowest heat setting. Press again to turn off.

2) BENCHMARK SETTING

(1) Reference position utilization

Set the benchmark as below procedures.

- ① Set the reference position that knowing the height by the measuring.
In the site, use the measured reference position that marked by stake.
- ② Move the machine to a location that the attachment reach to the reference position.
- ③ Put the bucket tip on the reference position and press the benchmark button of the cluster or RCV lever. (Please refer to the benchmark setting or unsetting)
- ④ Make sure not to move the reference position height when placing the bucket on the reference position.
- ⑤ The benchmark setting is completed when the benchmark button is changed right figure.



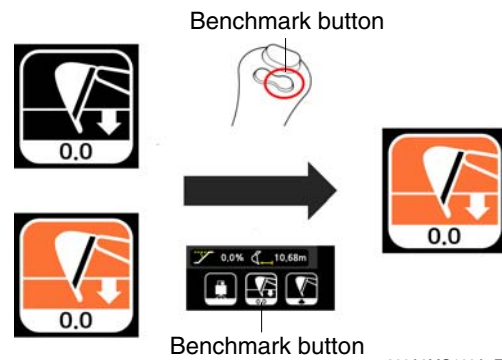
300A3MG09_E



300A3MG10A

※ Benchmark setting

Press the benchmark button of cluster or the right button on the LH RCV lever shortly. Pop the lower left figure up and set is completed (lower right figure).



300A3MG160A_E



300A3MG161_E



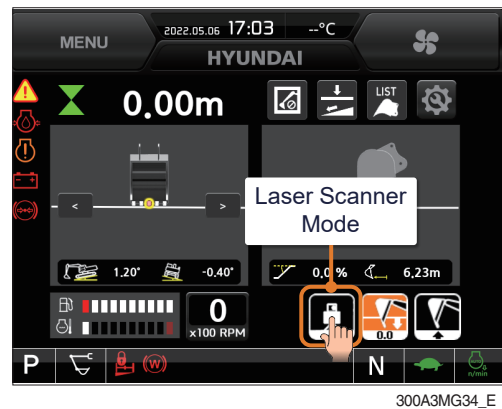
300A3MG10A

(3) Laser transmitter utilization

- ① Before moving the machine, check the location of the laser transmitter and swing the upper structure of the machine appropriately to catch signal with the laser transmitter.
- ※ Before using the laser transmitter, be sure to check the is on and not inclined.



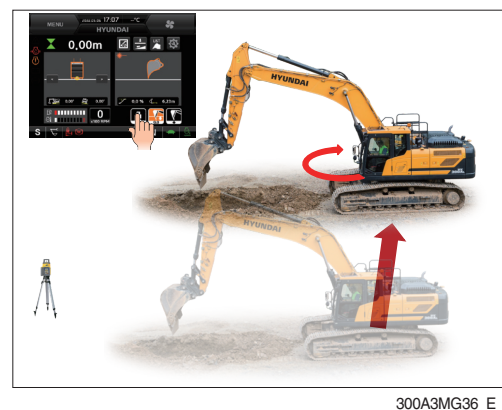
- ② Before moving the area, catch the laser signal. Press the laser scanning button and go into the laser scanning mode.



- ③ After adjusting boom and arm appropriately while checking the laser signal indicator to catch the laser signal and complete the scanning laser signal by pressing the benchmark button.
- ※ Move the boom up and down until the signal is detected when the 'no signal' is displayed.



- ④ After moving the machine to the next working area, the laser catcher face toward the laser transmitter by swinging the machine upper structure to catch the laser signal. After the machine pose is set appropriately, go into the laser scanning mode by pressing the laser scanning button.



(4) Bucket dimension input

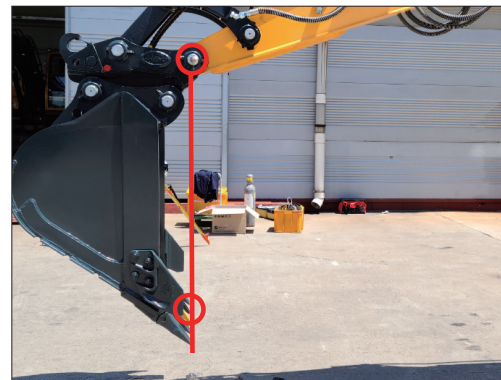
To ensure the measurement accuracy, please follow the correct dimension input procedure.

- ① Replace your bucket to measure dimensions.



300A3MG54

- ② Adjust the position of the bucket pin and bucket tip to vertical with ground by using a plumb-bob etc.



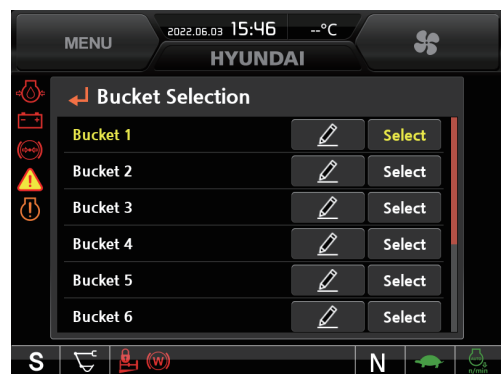
300A3MG55

- ③ Refer to the next page, measure the required dimension to input data.



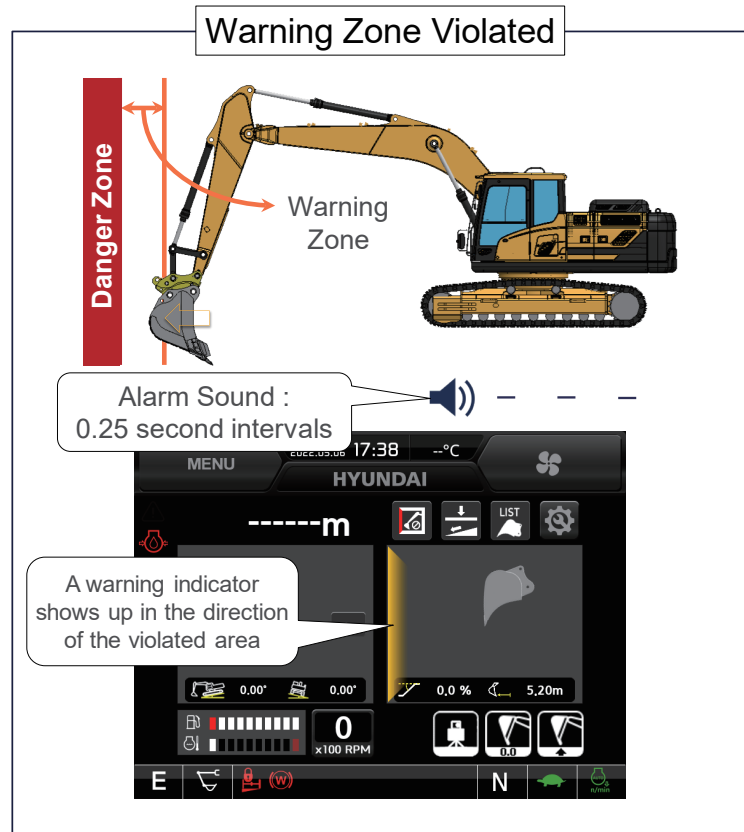
300A3MG56

- ④ Go into the 'bucket selection' menu.

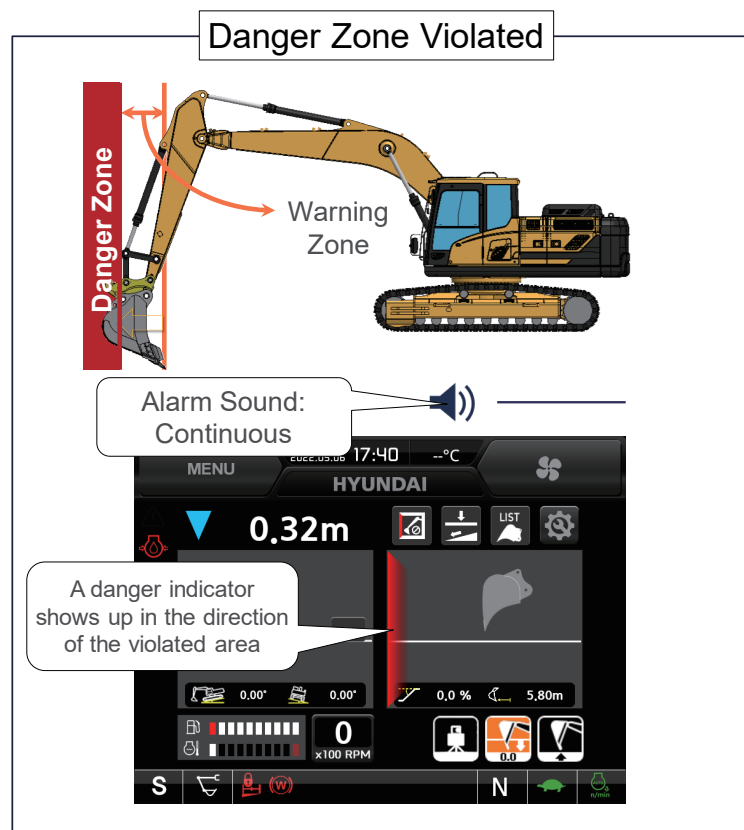


300A3MG51_E

- ③ Alarm will ring when the attachment approaches the danger zone or violates the danger zone.



300A3MG87_E



300A3MG88_E


⑤ Working zone setting-touch input example

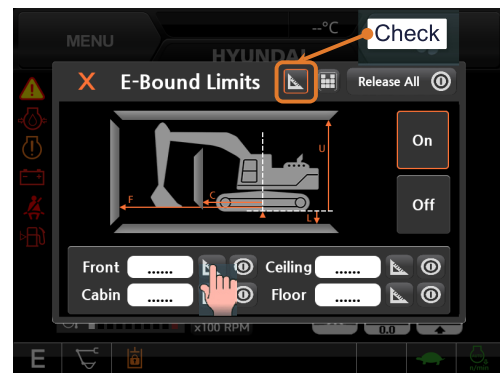
a. Front side working zone input

- Adjust the attachment location near the front side working zone to set



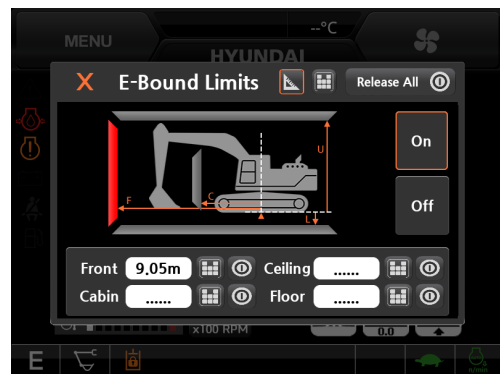
300A3MG118_E

- Press the keypad button () of the item F in the 'E-bound limits' setting menu.



300A3MG119A_E

- Confirm the indicator for front side is activated and the value for the distance to the front side on the E-Bound Limits window.



300A3MG120A_E

6) PERIODIC REPLACEMENT OF PARTS

- (1) Perform periodic maintenance of the machine to prolong its useful life. This will assure and allow you to use the machine safely for a long time.
It is recommended to replace any parts related to safety (as needed), not only for safety but in order to maintain performance as well.
- (2) These parts can shorten the life of the machine. The life span of such parts cannot be viewed visually and judged by the operator.
- (3) Repair or replace if any abnormality of these parts is found even before the recommended replacement interval.

Periodic replacement of parts			Interval
Engine		Fuel hose (tank-engine)	Every 2 years
		Heater hose (heater-engine)	
Hydraulic system	Main circuit	Pump suction hose	Every 2 years
		Pump delivery hose	
		Swing hose	
	Working device	Boom cylinder line hose	Every 2 years
		Arm cylinder line hose	
		Bucket cylinder line hose	

※ **Replace O-ring and gasket at the same time when replacing the hose.**

Replace clamp at the same time if the hose clamp is cracked when checking and replacing the hose.

11) EVERY 4500 HOURS SERVICE

Check items	Service	Page
DEF/AdBlue® supply module filter★	Replace	4-33

★ When working in dusty environments, inspection per 1500 hours is highly recommended.

12) EVERY 5000 HOURS SERVICE

Check items	Service	Page
Overhead set (shop inspection)	Adjust	4-36, 37, 38
Hydraulic oil* ⁵	Change	4-41

*⁵ HD Hyundai Construction Equipment genuine long life

*⁵ Change hydraulic oil every 1000 hours of continuous hydraulic breaker operation.

13) EVERY 6000 HOURS SERVICE

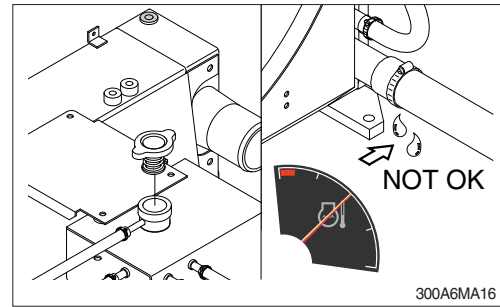
Check items	Service	Page
Coolant, cooling system and antifreeze* ⁵	Change, Flush	4-22, 23, 24, 25

*⁵ HD Hyundai Construction Equipment genuine long life

- ③ Install the pressure cap. Operate the engine until it reaches a temperature 80°C (176°F), and check for coolant leaks.

Check the coolant level again to make sure the system is full of coolant after allow engine to cool.

- ※ If the gasket of the surge tank cap is damaged, discard the old filler cap and install a new cap.



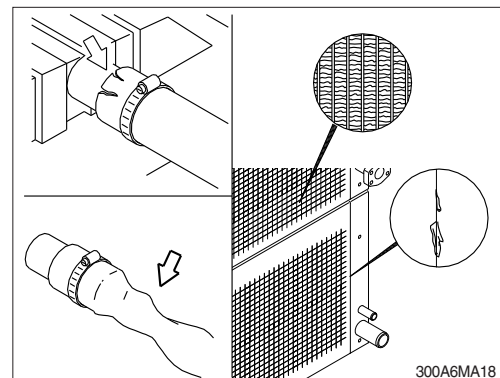
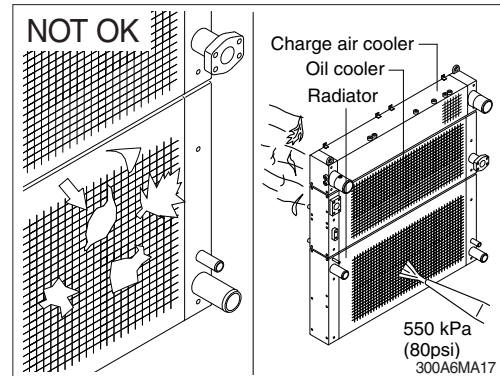
5) CLEAN RADIATOR AND OIL COOLER

Check, and if necessary, clean and dry outside of radiator and oil cooler. After working in a dusty place, clean radiator more frequently.

- (1) Visually inspect the radiator for clogged radiator fins.
- (2) Use 550 kPa (80 psi) air pressure to blow the dirt and debris from the fins.
- (3) Visually inspect the radiator for bent or broken fins.

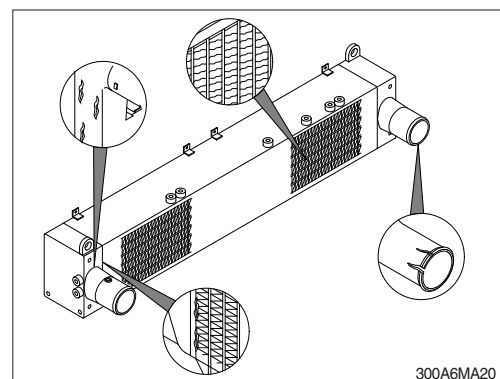
- ※ If the radiator must be replaced due to bent or broken fins which can cause the engine to overheat, refer to the manufacturer's replacement procedures.

- (4) Visually inspect the radiator for core leaks.



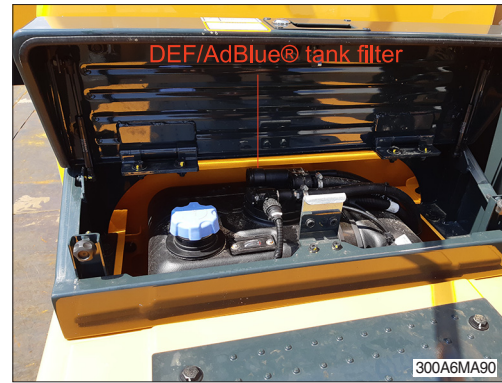
6) CHECK CHARGE AIR COOLER

Inspect the charge air cooler for dirt and debris blocking the fins. Check for cracks, holes, or other damage. If damage is found, please contact your local HD Hyundai Construction Equipment dealer.



17) DEF/AdBlue® TANK FILTER

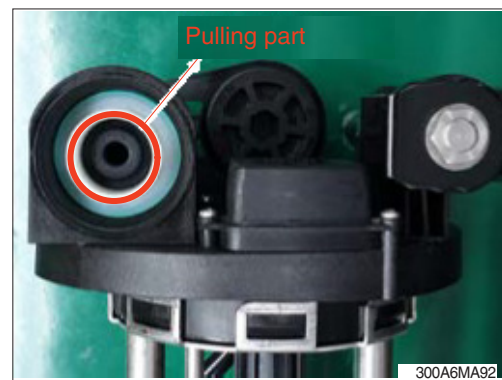
- (1) The filter is located on the top side of the tank cover.



- (2) Insert a hex wrench into the filter cover, rotate it anti-clockwise and remove the filter cover.



- (3) Pull out the filter by using a long nose pliers.



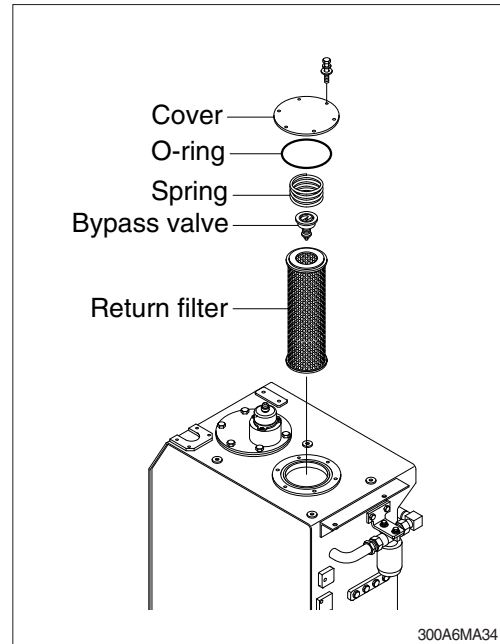
- (4) Replace with a new filter.



28) REPLACEMENT OF RETURN FILTER

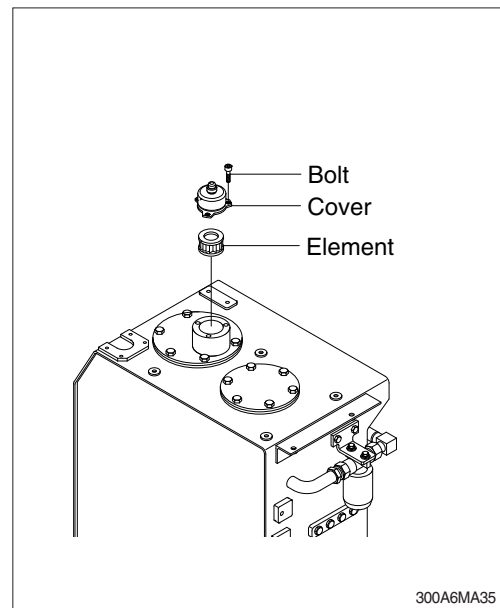
Replace return filter as follows.

- (1) Remove the cover.
- (2) Remove the spring, by-pass valve and return filter in the tank.
- (3) Replace the return filter with a new one.
- (4) Reassemble by reverse order of disassembly.
 - Tightening torque : $6.9 \pm 1.4 \text{ kgf} \cdot \text{m}$
($50 \pm 10 \text{ lbf} \cdot \text{ft}$)



29) REPLACEMENT OF ELEMENT IN HYDRAULIC TANK AIR BREATHER

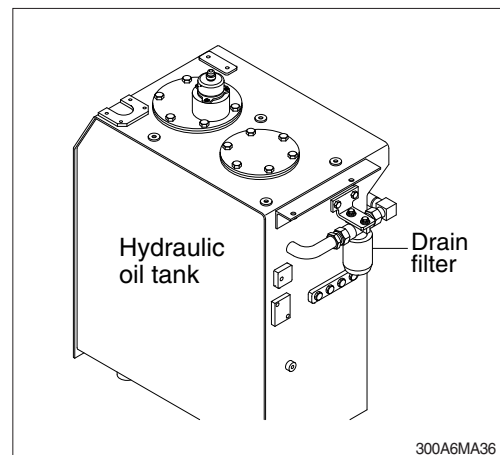
- (1) Relieve the pressure in the tank by pushing the top of the air breather.
- (2) Loosen the bolt and remove the cover.
- (3) Pull out the air breather element.
- (4) Replace the air breather element with a new one.
- (5) Reassemble by reverse order of disassembly.
 - Tightening torque : $4.05 \pm 0.8 \text{ kgf} \cdot \text{m}$
($29.3 \pm 5.8 \text{ lbf} \cdot \text{ft}$)



30) REPLACEMENT OF DRAIN FILTER

Clean the dust around the drain filter and replace with a new one after removing the drain filter.

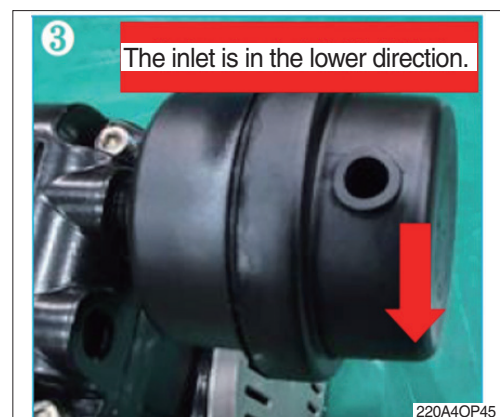
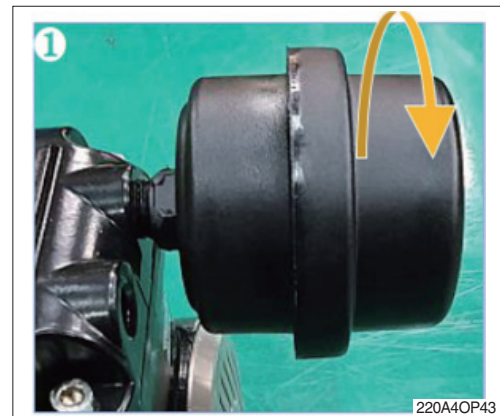
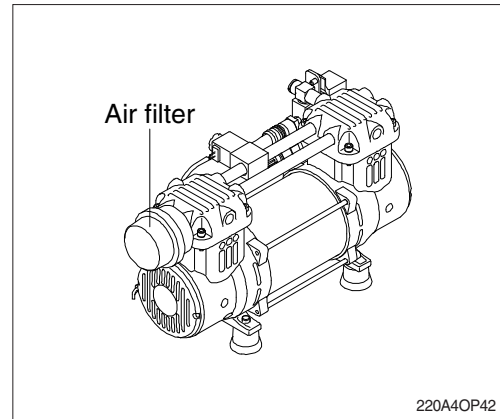
- ※ Tighten about 2/3 turn more after the gasket of the drain filter contacts seal side of filter head.
- ※ Change the drain filter after initial 250 hours of operation. Thereafter, change the drain filter every 1000 hours.



44) REPLACEMENT OF THE AIR COMPRESSOR'S AIR FILTER

- (1) Loosen the air filter cap counterclockwise.
- (2) Use pressurized air from the inside to the outside when cleaning the air filter.
- (3) Reassemble by reverse order of disassembly.
- ※ **Please install the air inlet in the lower direction.**
- (4) If the air filter is damaged or badly contaminated, use a new filter.

△ If you are using the air compressor on the equipment when cleaning the air filter, the use for a long time can cause internal damage to a piston ring or a liner. Because dust or a contaminant may be inhaled through the air inlet. Please use for a short time at a clean place.

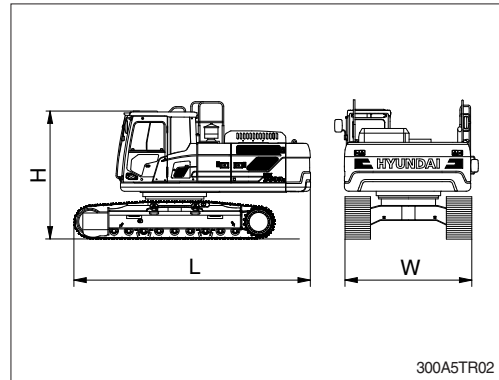


2) HX300A NL

(1) Base machine

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	5740 (18' 10")
H	Height	mm (ft-in)	3030 (9' 11")
W	Width	mm (ft-in)	2990 (9' 10")
Wt	Weight	kg (lb)	26500 (58420)

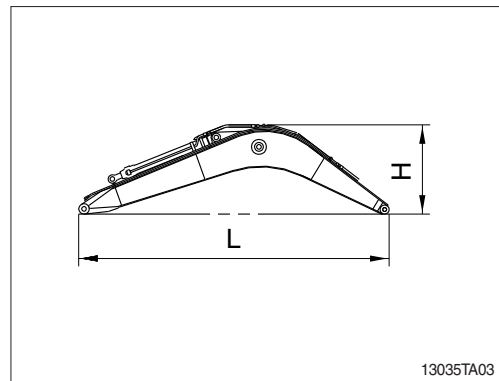
※ With 600 mm (24") triple grouser shoes and 5100 kg (11250 lb) counterweight.



(2) Boom assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	6470 (21' 3")
H	Height	mm (ft-in)	1730 (5' 8")
W	Width	mm (ft-in)	790 (2' 7")
Wt	Weight	kg (lb)	2670 (5890)

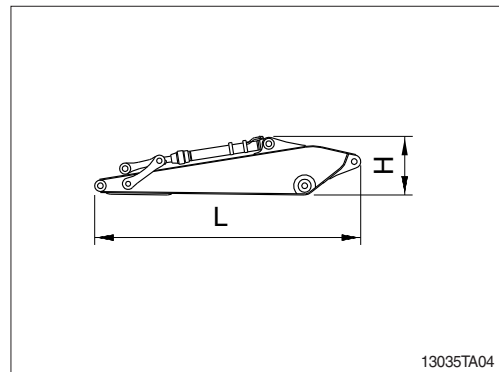
※ 6.25 m (20' 6") boom with arm cylinder (including piping and pins).



(3) Arm assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	4190 (13' 9")
H	Height	mm (ft-in)	950 (3' 1")
W	Width	mm (ft-in)	360 (1' 2")
Wt	Weight	kg (lb)	1880 (4140)

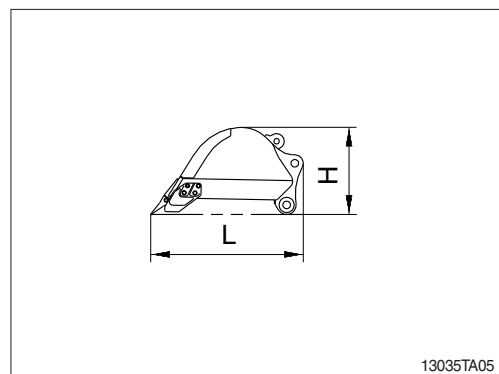
※ 3.05 m (10' 0") arm with bucket cylinder (including linkage and pins).



(4) Bucket assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	1780 (5' 10")
H	Height	mm (ft-in)	1070 (3' 6")
W	Width	mm (ft-in)	1410 (4' 8")
Wt	Weight	kg (lb)	1100 (2430)

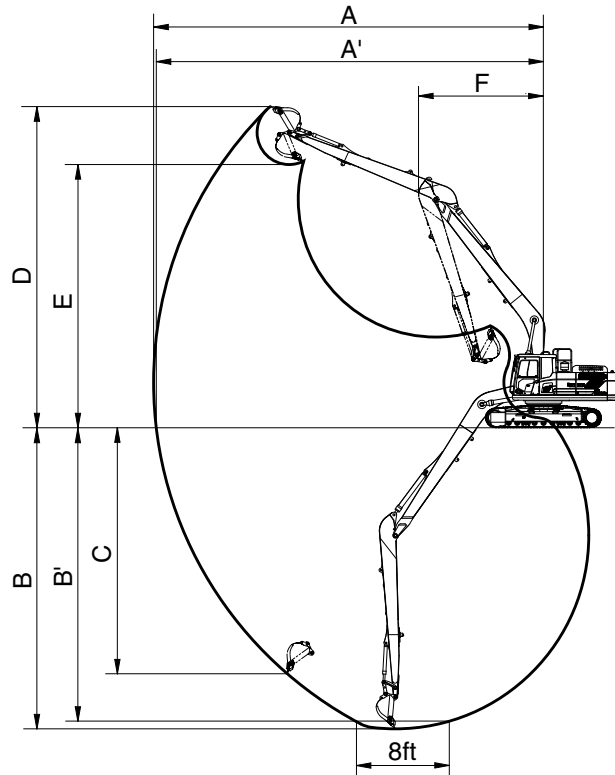
※ 1.27 m³ (1.66 yd³) SAE heaped bucket (including tooth and side cutters).



3. OTHERS

Trouble	Service	Remark
Track slips out of place. Excessive wear of the sprocket.	<ul style="list-style-type: none">· Adjust tension of track.	
Bucket either rises slowly or not at all.	<ul style="list-style-type: none">· Add oil to specified level.	
Slow speed of travel, swing, boom, arm and bucket.	<ul style="list-style-type: none">· Add oil to specified level.	
Unusual noise emitted from pump.	<ul style="list-style-type: none">· Clean the hydraulic tank strainer.	
Excessive oil temperature rise of hydraulic oil.	<ul style="list-style-type: none">· Clean and check the oil cooler.· Adjust fan belt tension.· Add oil to specified level.	

3) HX300A LR



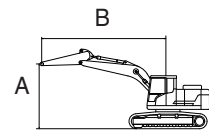
300A2SP12













Description	m (ft-in)	Boom	10.2 (33' 6")
		Arm	7.85 (25' 9")
Max digging reach	mm (ft-in)	A	18530 (60' 10")
Max digging reach on ground		A'	18410 (60' 5")
Max digging depth		B	14740 (48' 4")
Max digging depth (8 ft level)		B'	14660 (48' 1")
Max vertical wall digging depth		C	13700 (44' 11")
Max digging height		D	14590 (47' 10")
Max dumping height		E	12270 (40' 3")
Min swing radius		F	6270 (20' 7")
Bucket digging force	kN	SAE	70.6
	kgf		7200
	lbf		15870
	kN	ISO	82.4
	kgf		8400
	lbf		18520
Arm digging force	kN	SAE	47.1
	kgf		4800
	lbf		10580
	kN	ISO	48.1
	kgf		4900
	lbf		10800

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
		Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
HX300A L	2-PIECE BOOM	6255	3100	7500	600	-	-	-	-	-

·  : Rating over-front

·  : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														kg
10.5 m (34.4 ft)	kg											*7560	*7560	3.77
	lb											*16670	*16670	(12.4)
9.0 m (29.5 ft)	kg					*6420	*6420					*5630	*5630	6.18
	lb					*14150	*14150					*12410	*12410	(20.3)
7.5 m (24.6 ft)	kg					*7910	*7910	*5390	*5390			*4990	*4990	7.56
	lb					*17440	*17440	*11880	*11880			*11000	*11000	(24.8)
6.0 m (19.7 ft)	kg			*8240	*8240	*8650	*8650	*7740	6960			*4740	*4740	8.46
	lb			*18170	*18170	*19070	*19070	*17060	15340			*10450	*10450	(27.8)
4.5 m (14.8 ft)	kg			*12370	*12370	*9730	9520	*8070	6780	*4800	*4800	*4680	*4680	9.01
	lb			*27270	*27270	*21450	20990	*17790	14950	*10580	*10580	*10320	*10320	(29.6)
3.0 m (9.8 ft)	kg			*14600	13710	*10740	9040	*8640	6540	*6840	4970	*4780	*4780	9.29
	lb			*32190	30230	*23680	19930	*19050	14420	*15080	10960	*10540	10430	(30.5)
1.5 m (4.9 ft)	kg			*15820	12910	*11460	8610	*9060	6320	*7050	4870	*5040	4630	9.32
	lb			*34880	28460	*25260	18980	*19970	13930	*15540	10740	*11110	10210	(30.6)
0.0 m (0.0 ft)	kg			*15590	12580	*11570	8350	*9040	6160	*6640	4810	*5510	4750	9.09
	lb			*34370	27730	*25510	18410	*19930	13580	*14640	10600	*12150	10470	(29.8)
-1.5 m (-4.9 ft)	kg	*9290	*9290	*14280	12540	*10920	8260	*8450	6100			*6330	5120	8.60
	lb	*20480	*20480	*31480	27650	*24070	18210	*18630	13450			*13960	11290	(28.2)
-3.0 m (-9.8 ft)	kg			*11940	*11940	*9310	8330	*6770	6190			*6110	5920	7.79
	lb			*26320	*26320	*20530	18360	*14930	13650			*13470	13050	(25.5)

Note 1. Lifting capacity are based on ISO 10567.

2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.

3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

Lifting capacities will vary with different work tools, ground conditions and attachments.

The difference between the weight of a work tool attachment must be subtracted.

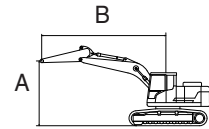
Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.















▲ Failure to comply to the rated load can cause serious injury, death, or property damage. Make adjustments to the rated load as necessary for non-standard configurations.

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX300A HW	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		6245	3100	6500	700	-	-	-	-	-

•  : Rating over-front

•  : Rating over-side or 360 degree



Lift-point height (A)	Lift-point radius (B)												At max. reach			
	1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach	
															m (ft)	
9.0 m (29.5 ft)	kg													*5480	*5480	6.35
	lb													*12080	*12080	(20.8)
7.5 m (24.6 ft)	kg							*5690	*5690					*5040	*5040	7.64
	lb							*12540	*12540					*11110	*11110	(25.1)
6.0 m (19.7 ft)	kg					*9860	*9860	*6670	*6670	*6420	*6420			*4900	*4900	8.46
	lb					*21740	*21740	*14700	*14700	*14150	*14150			*10800	*10800	(27.8)
4.5 m (14.8 ft)	kg					*9860	*9860	*7900	*7900	*7000	*7000			*4950	*4950	8.96
	lb					*21740	*21740	*17420	*17420	*15430	*15430			*10910	*10910	(29.4)
3.0 m (9.8 ft)	kg					*12910	*12910	*9380	*9380	*7780	7480	*6540	5710	*5180	*5180	9.18
	lb					*28460	*28460	*20680	*20680	*17150	16490	*14420	12590	*11420	*11420	(30.1)
1.5 m (4.9 ft)	kg					*15090	*15090	*10680	9930	*8530	7260	*6980	5610	*5600	5480	9.15
	lb					*33270	*33270	*23550	21890	*18810	16010	*15390	12370	*12350	12080	(30.0)
0.0 m (0.0 ft)	kg			*6210	*6210	*15970	14820	*11500	9700	*9060	7120			*6320	5670	8.87
	lb			*13690	*13690	*35210	32670	*25350	21380	*19970	15700			*13930	12500	(29.1)
-1.5 m (-4.9 ft)	kg	*8220	*8220	*11710	*11710	*15900	14790	*11710	9620	*9170	7070			*7580	6190	8.30
	lb	*18120	*18120	*25820	*25820	*35050	32610	*25820	21210	*20220	15590			*16710	13650	(27.2)
-3.0 m (-9.8 ft)	kg	*13460	*13460	*18580	*18580	*14930	14930	*11160	9690					*8620	7330	7.38
	lb	*29670	*29670	*40960	*40960	*32910	32910	*24600	21360					*19000	16160	(24.2)
-4.5 m (-14.8 ft)	kg			*17550	*17550	*12590	*12590							*9120	*9120	5.94
	lb			*38690	*38690	*27760	*27760							*20110	*20110	(19.5)

Note 1. Lifting capacity are based on ISO 10567.

2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.

3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

Lifting capacities will vary with different work tools, ground conditions and attachments.

The difference between the weight of a work tool attachment must be subtracted.

Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.

▲ Failure to comply to the rated load can cause serious injury, death, or property damage. Make adjustments to the rated load as necessary for non-standard configurations.

HYDRAULIC BREAKER AND QUICK COUPLER

1. SELECTING HYDRAULIC BREAKER

※ Read safety hints in this manual and breaker & quick coupler manuals in website (Dealer Portal) before using breaker and quick coupler.

- 1) Become familiar with the manual and select breakers suitable to machine specifications.
- 2) Make careful selection in consideration of oil quantity, pressure and striking force, to enable satisfied performance.
- 3) When apply a breaker to the machine, consult your local dealer of HD Hyundai Construction Equipment for further explanation.

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