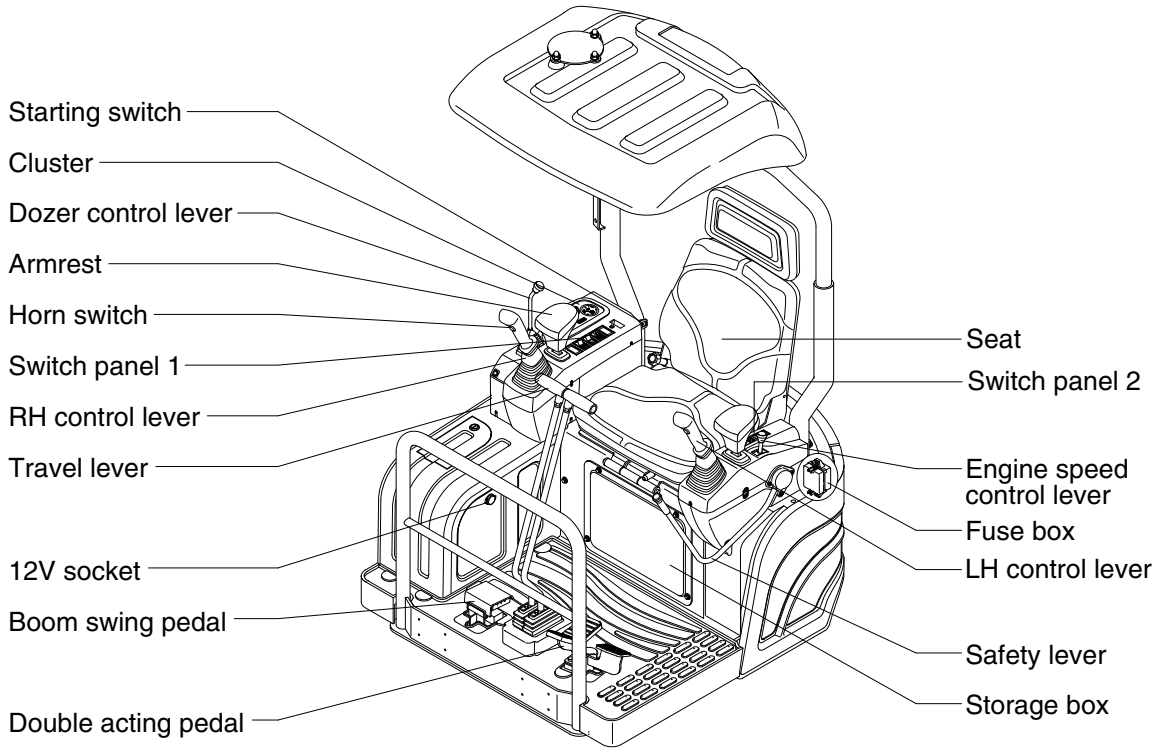
1. CANOPY DEVICES

1) The ergonomically designed console box and suspension type seat provide the operator with comfort.

2) ELECTRONIC MONITOR SYSTEM

(1) The centralized electronic monitor system allows the status and conditions of the machine to be monitored at a glance.

(2) It is equipped with a safety warning system for early detection of machine malfunction.



17Z9A3CD01

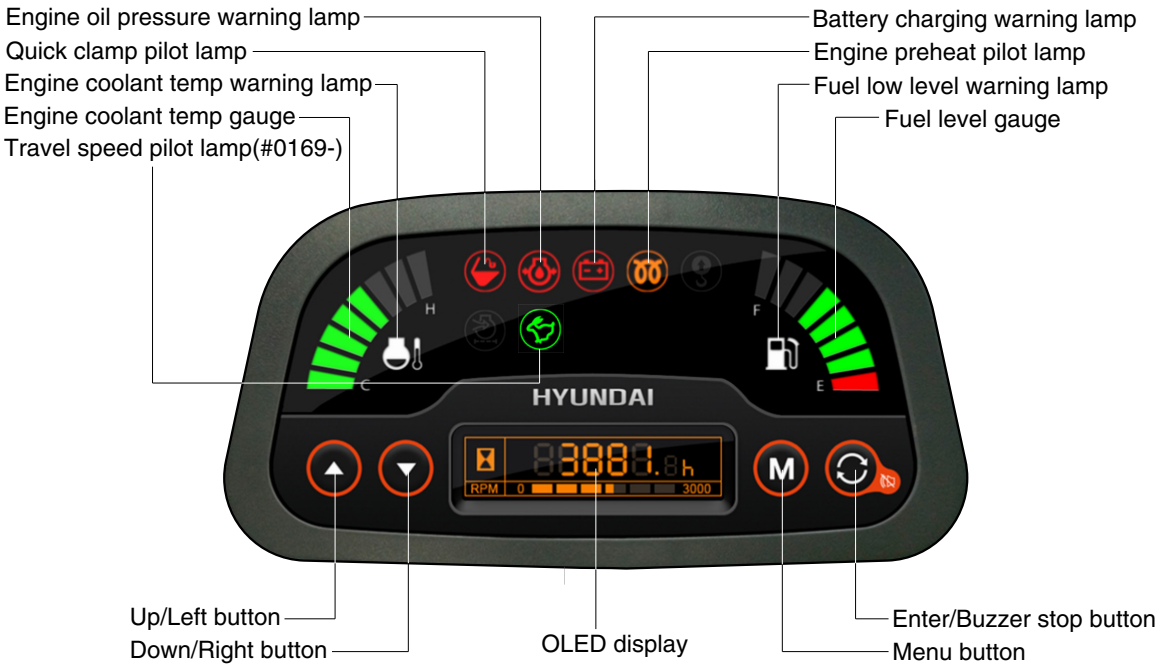
2. CLUSTER

The cluster consists of gauges and lamps as shown below, to warn the operator in case of abnormal machine operation or conditions for the appropriate operation and inspection.

- Gauges : Indicate operating status of the machine.
- Warning lamp : Indicate abnormality of the machine (red).
- Pilot lamp : Indicate operating status of the machine.

※ **The cluster installed on this machine does not entirely guarantee the condition of the machine. Daily inspection should be performed according to chapter 6, Maintenance.**

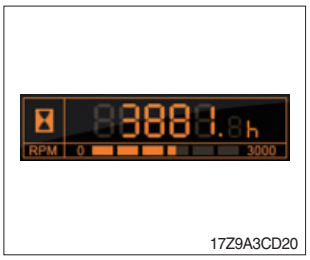
※ **When the cluster provides a warning, immediately check the problem and perform the required action.**



17Z9A3CD03A

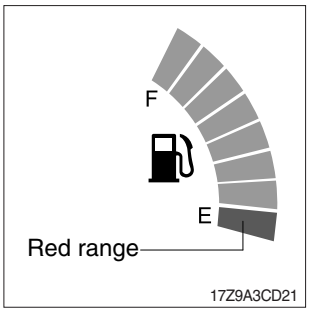
1) GAUGES AND DISPLAYS

(1) Service meter



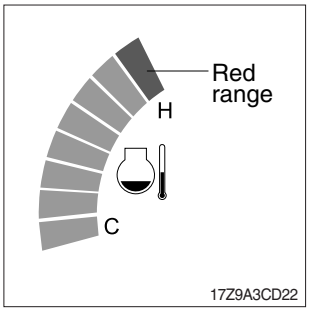
① This meter shows the total operation hours of the machine.
② Always ensure the operating condition of the meter during the machine operation.
Inspect and service the machine based on hours as indicated in chapter 6, maintenance.

(2) Fuel gauge



① This gauge indicates the amount of fuel in the fuel tank.
② Fill the fuel when the red range or warning lamp ON.
※ **If the gauge illuminates the red range or warning lamp ON even though the machine is on the normal condition, check the electric device as that can be caused by the poor connection of electricity or sensor.**

(3) Engine coolant temperature gauge



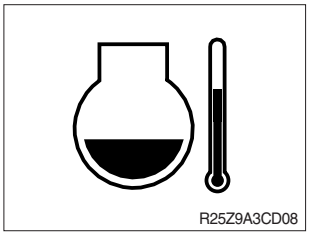
① This indicates the temperature of coolant.
· Red range : Above 115°C (239°F)
② When the red range pointed or warning lamp ON, engine do not abruptly stop but run it at medium speed to allow it to cool gradually, then stop it.
Check the radiator and engine.
※ **If the engine is stopped without cooled down running, the temperature of engine parts will rise suddenly, this could cause severe engine trouble.**

2) WARNING AND PILOT LAMPS

(1) Fuel low level warning lamp

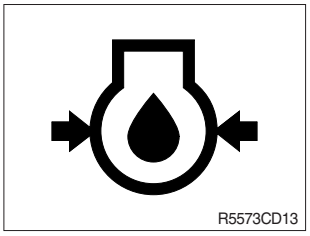
① This lamp blinks and buzzer sounds when the level of fuel is below 5.0 ℓ (1.3 U.S. gal).
② Fill the fuel immediately when the lamp blinks.

(2) Engine coolant temperature warning lamp



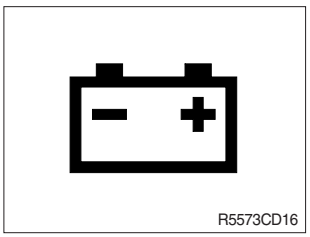
① This lamp blinks and buzzer sounds when the temperature of coolant is over the normal temperature 115°C (239°F) .
② Check the cooling system when the lamp blinks.

(3) Engine oil pressure warning lamp



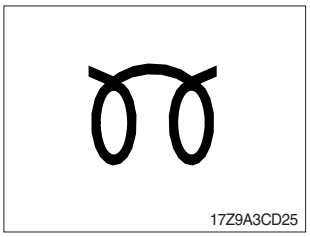
① This lamp blinks and buzzer sounds after starting the engine because of the low oil pressure.
② If the lamp blinks during engine operation, shut OFF engine immediately. Check oil level.

(4) Battery charging warning lamp



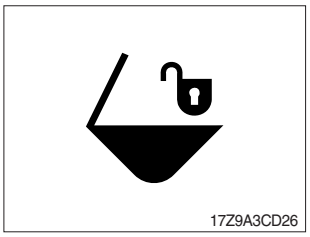
① This lamp blinks and buzzer sounds when the starting switch is ON, it is turned OFF after starting the engine.
② Check the battery charging circuit when this lamp blinks during engine operation.

(5) Engine preheat pilot lamp



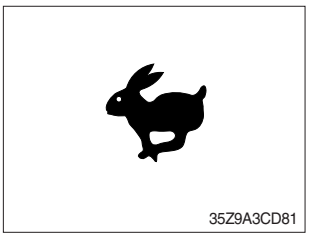
① When the start switch turn to HEAT position, pilot lamp comes ON.
② Refer to the page 4-4 for details.

(6) Quick coupler lock pilot lamp



① When the quick coupler switch turned ON, this lamp turn ON and the buzzer sounds.
② This lamp turned OFF and the buzzer stop when the quick coupler switch turned OFF.

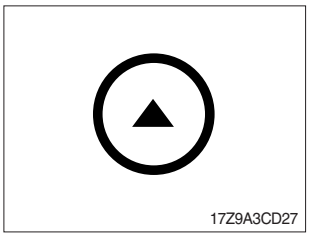
(7) Travel speed pilot lamp



① When this lamp turned ON, the machine travel high speed.
② Refer to the travel speed control switch in page 3-9 for details.

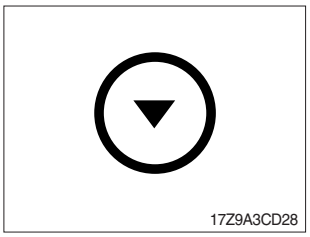
3) BUTTONS

(1) Up/left button



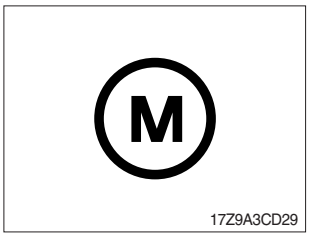
① Move in menu (up, left)
② Increase input value.

(2) Down/right button



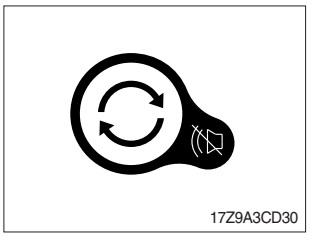
① Move in menu (down, right)
② Decrease input value.

(3) Menu button



① Current display to next display.

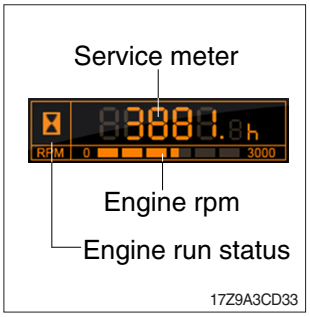
(4) Enter and buzzer stop button



① Select menu (enter).
② Stop buzzer sound when sound is ON.

4) OLED display

(1) Main display



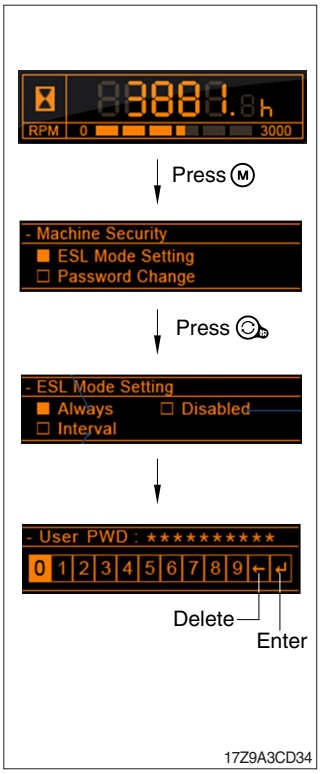
① **Service meter** : This meter shows the total operation hours of the machine.

※ **Always ensure the operating condition of the service meter during the machine operation.**

② **Engine rpm** : This displays the engine speed.

③ **Engine run status :** This displays the engine run ststus.

(2) Machine security



① ESL (Engine Starting Limit) mode setting

- ESL mode is designed to be a theft deterrent or will prevent the unauthorized operation of the machine.
- If the ESL mode was selected Always, the password will be required when the start switch is turned ON.
- Disable : Not used ESL function.

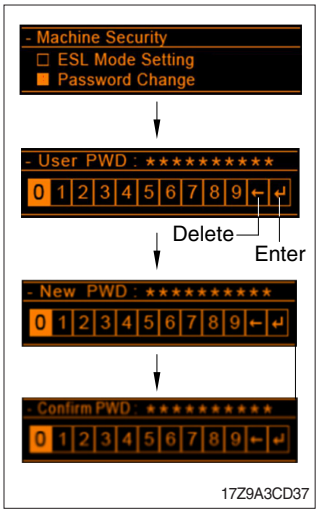
Always: The password is required whenever the operator start engine.

Interval : The password is required when the operator start engine first. But the operator can restart the engine within the interval time without inputting the password.
The interval time can be set maximum 2 days.

· **Interval time**

- If set interval time to 5 minutes, ESL system is activated after 5 minutes. Therefore, the password does not need to restart engine within 5 minutes.

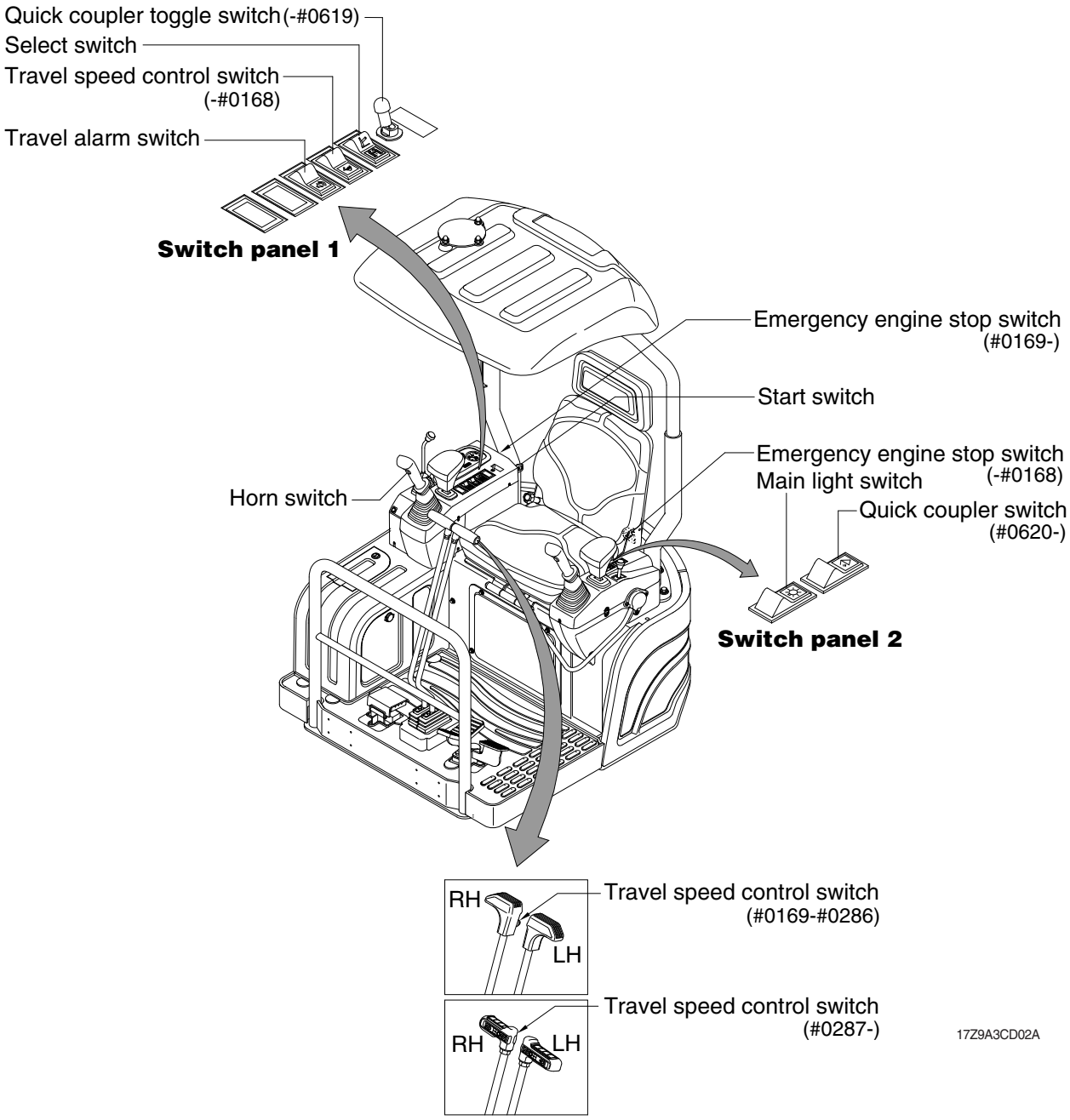
※ **Default password : 00000**



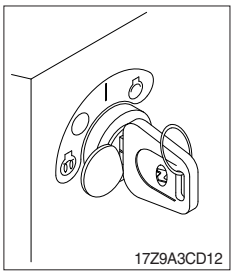
② Password change

- Input 5 to 10 digits and press Enter.

3. SWITCHES



1) STARTING SWITCH : Machine serial No. -#1429

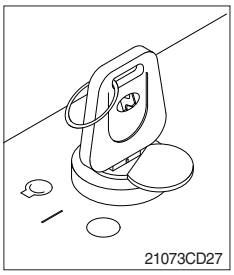


(1) There are four positions, HEAT, OFF, ON and START.

- (HEAT) : Preheating electrical circuit activates.
- (OFF) : None of electrical circuits activate.
- (ON) : All the systems of machine operate.
- (START) : Use when starting the engine. Release key immediately after starting.

※ Key must be in the ON position with engine running to maintain electrical and hydraulic function and prevent serious machine damage.

STARTING SWITCH : Machine serial No. #1430-



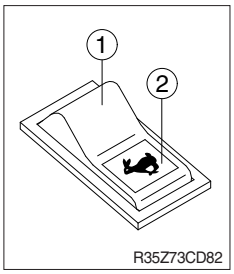
(1) There are three positions, OFF, ON and START.
- ◯(OFF) : None of electrical circuits activate.
- | (ON) : All the systems of machine operate.
- ◯(START) : Use when starting the engine. Release key immediately after starting.

※ Key must be in the ON position with engine running to maintain electrical and hydraulic function and prevent serious machine damage.

2) MAIN LIGHT SWITCH

(1) This switch use to operates the head light and work light by two step.
- First step : Main light switch illumination lamp comes ON.
- Second step : Work light comes ON.

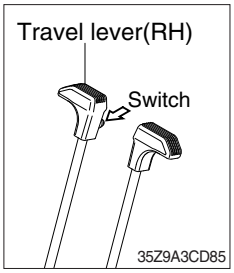
3) TRAVEL SPEED CONTROL SWITCH : Machine serial No. -#0168



(1) This switch is used to control the travel speed.
① : Low speed
② : High speed

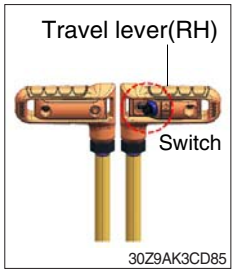
TRAVEL SPEED CONTROL SWITCH : Machine serial No. #0169-

S/NO.: #0169~#0286

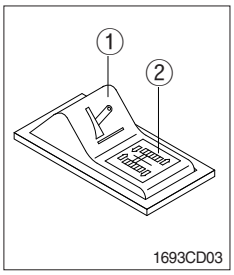


(1) This switch is to control the travel speed which is changed to high speed by pressing the switch and low speed by pressing it again.
(2) When the machine travel high speed, the travel speed pilot lamp lights ON.

S/NO.: #0278~



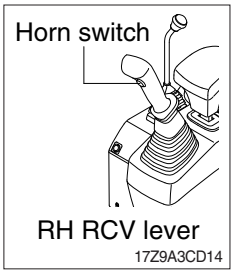
4) SELECT SWITCH



(1) This switch is used to select the dozer blade or track operation.
① : Dozer blade up or down
② : Track extend or retract

※ **Refer to the page for 3-12 details.**

5) HORN SWITCH



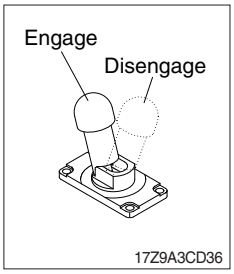
(1) This switch is at the front side of control lever.
On pressing, the horn sounds.

6) TRAVEL ALARM SWITCH (option)

(1) This switch is the signal to alarm surroundings when the machine travels to forward and backward.

(2) On pressing this switch, the alarm operates only when the machine is traveling.

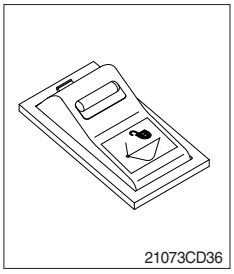
7) QUICK COUPLER TOGGLE SWITCH (option) : Machine serial No. -#0619



(1) This switch is used to engage or disengage the moving hook on quick coupler.

※ **Refer to the page 8-6 for details.**

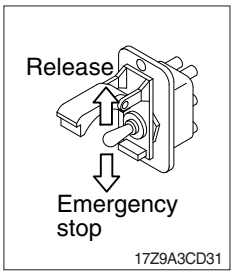
QUICK COUPLER SWITCH (option) : Machine serial No. #0620-



(1) This switch is used to engage or disengage the moving hook on quick coupler.

※ **Refer to the page 8-6 for details.**

8) EMERGENCY ENGINE STOP SWITCH



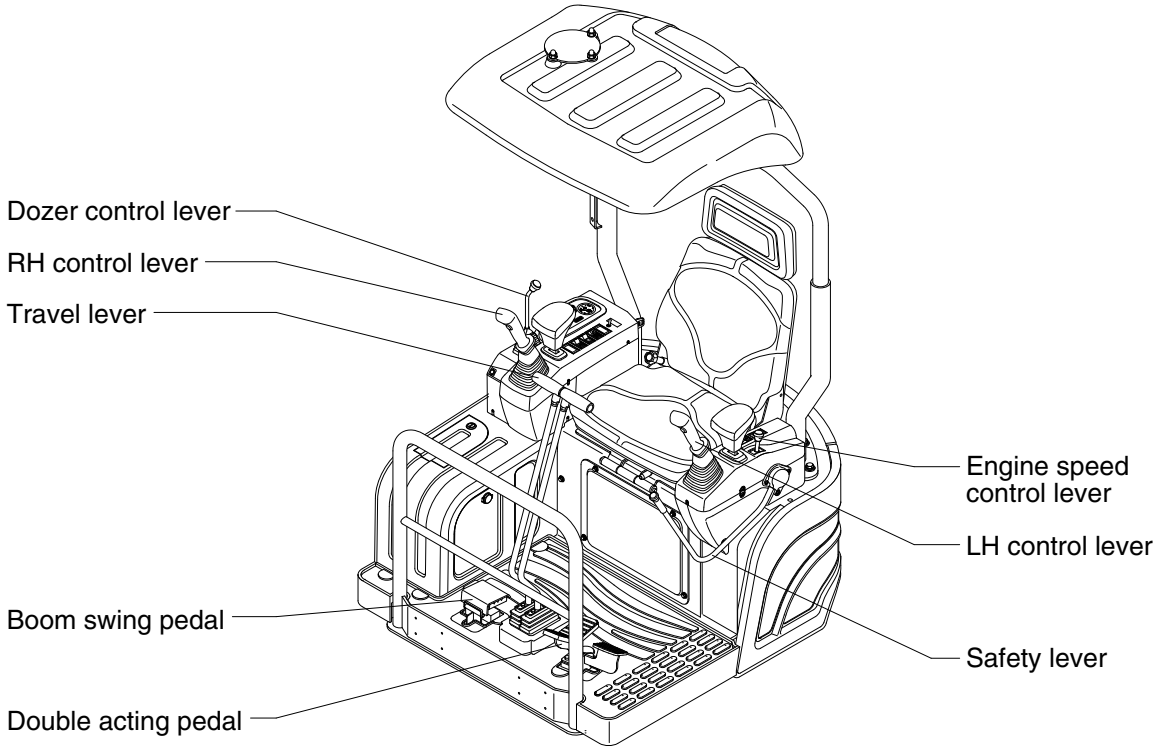
(1) This switch is used to emergency stop the engine.

(2) When the users control the emergency switch, the switch should not be maintained on "EMERGENCY STOP" position more than 10 seconds in order to avoid its failure.

(3) The users remind that it should be turned back to original "RELEASE" position within 10 seconds.

※ **Be sure to keep the emergency switch on the release position when restart the engine.**

4. LEVERS AND PEDALS



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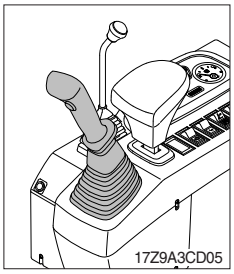
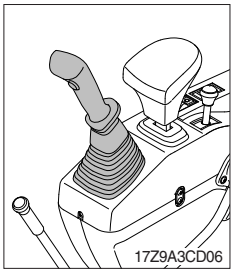
1) LH CONTROL LEVER



(1) This joystick is used to control the swing and the arm.

(2) Refer to operation of working device in chapter 4 for details.

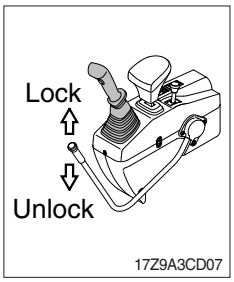
2) RH CONTROL LEVER



(1) This joystick is used to control the boom and the bucket.

(2) Refer to operation of working device in chapter 4 for details.

3) SAFETY LEVER



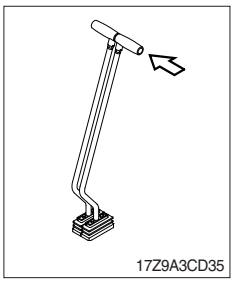
(1) All control levers are disabled from operation by locating the lever to lock position as shown.

※ **Be sure to raise the lever to LOCK position when leaving from operator's seat.**

(2) By pushing lever to UNLOCK position, machine is operational.

※ **Do not use the safety lever for handle when getting on or off the machine.**

4) TRAVEL LEVER

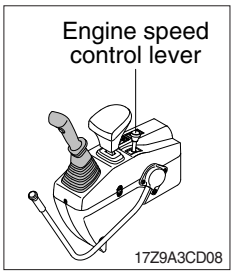


(1) This lever is used to move the machine forward or backward.

(2) If left side lever is pushed or pulled, left track will move.
If right side lever is pushed or pulled, right track will move.

(3) Refer to traveling of machine in chapter 4 for details.

5) ENGINE SPEED CONTROL LEVER

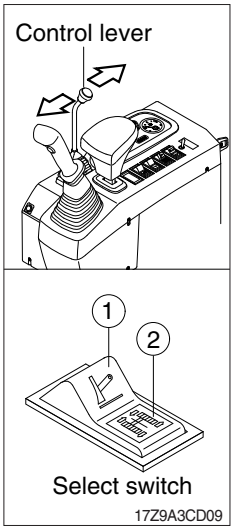


(1) This lever is used to increase or decrease the rotation speed of engine.

(2) Move the lever backward to increase engine RPM. Move the lever forward to decrease engine RPM.

(3) When stopping the engine, move the engine speed control lever forward completely and turn key OFF.

6) DOZER OR CRAWLER CONTROL LEVER



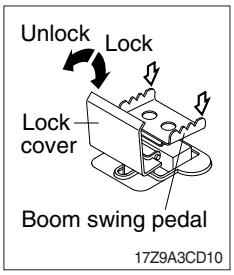
(1) This lever is used to operate the dozer blade or crawler.

(2) Select switch : Position ①
The lever is pushed forward, the dozer blade will be going down.
The lever is pulled back, the dozer blade will be going up.

(3) Select switch : Position ②
The lever is pushed forward, the track extend out the maximum length.
The lever is pulled back, the track retract to the minimum one.

※ **Refer to the page 3-9 for the select switch.**

7) BOOM SWING PEDAL

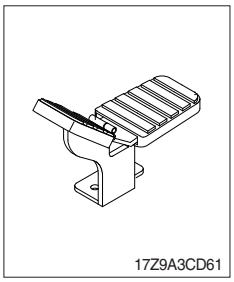


(1) This pedal is used to swing the boom to the right or left direction.

(2) Move the lock cover to unlock position by foot.

(3) The pedal is pressed to left side, boom will swing to the left direction. The pedal is pressed to right side, boom will swing to the right direction.

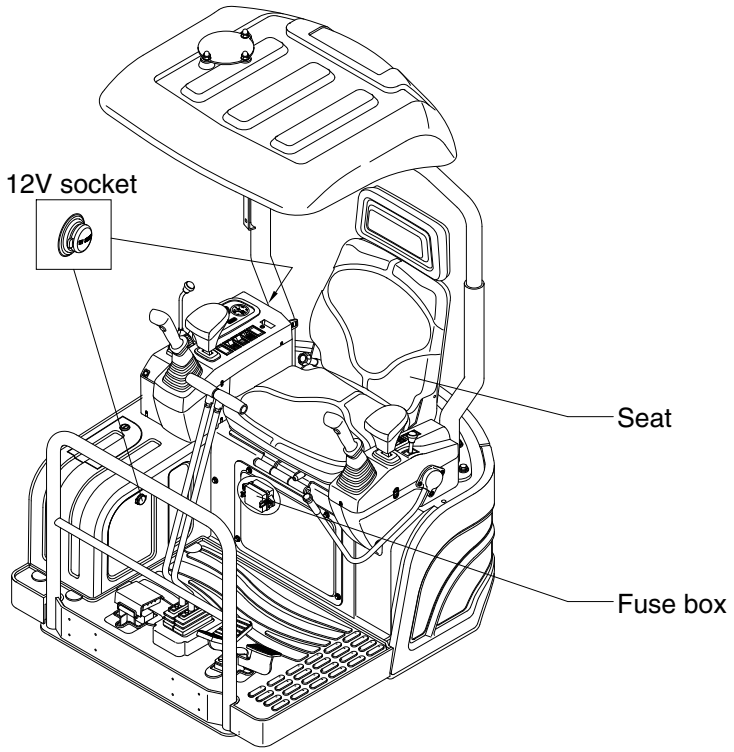
8) DOUBLE ACTING PEDAL (option)



(1) This pedal is used to operate the breaker or clamshell if equipped.

※ **Refer to page 4-23.**

5. OTHERS



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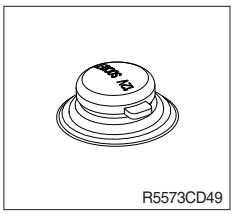
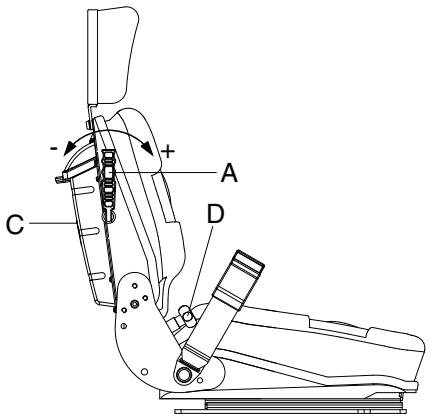
1) 12V SOCKET (option)



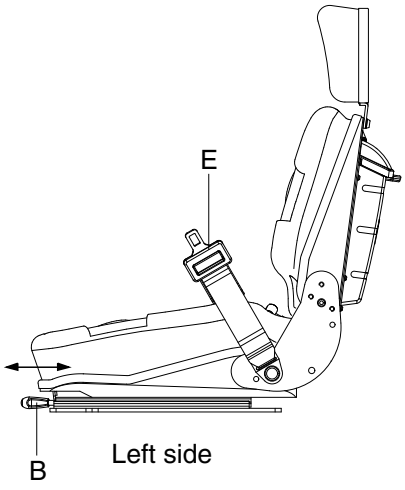
(1) Utilize the power of 12V as your need and do not exceed power of 12V, 120W.

2) SEAT

The seat is adjustable to fit the contours of the operator's body. It will reduce operator fatigue due to long work hours and enhance work efficiency.



Right side



Left side

17Z9A3CD70

(1) Weight adjustment (A)

※ Make the adjustment while the operator is seated, so that the seat is loaded.

Mechanical suspension incorporated in the seatback

Turn the lever situated on the right side of the seatback. Correct adjustment is reached when the seat height is taken to half the travel stroke of the suspension.

(2) Longitudinal adjustment (B)

Move the adjustment lever on the left guide of the seat to unlock the guides.

When adjustment is completed, ensure that the lever "clicks" and locks the guides. Check that the seat does not move longitudinally.

(3) Document holder pocket (C)

Rigid pocket with upper cover open the pocket by lifting the cover upwards.

(4) Inclination of the seatback (D)

For tilting back seats, press the lever on the lower right near the seat to free the seatback. With your back resting against the seatback, move the seatback to the desired position, release the lever and accompany it up to the first perceptible click. Then check that the seatback is locked.

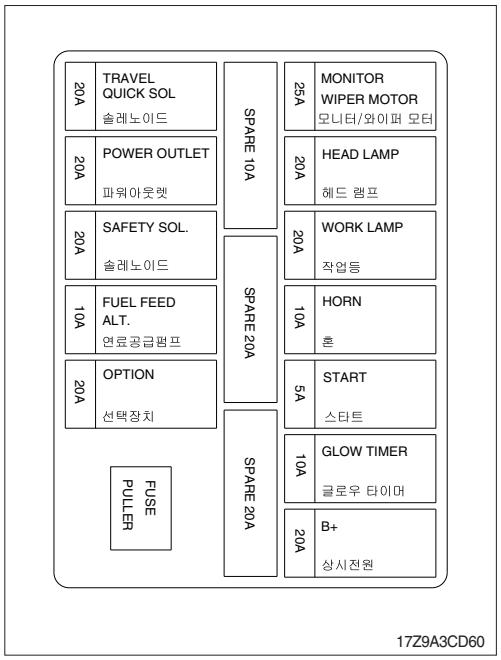
(5) Safety belt (E)

Static safety belt adjust the length based on the operator's abdominal size while he is resting against the seatback and keeping the safety belt adherent to the lower part of the abdomen on the thigh side. While keeping the tang perpendicular to the belt, shorten if by pulling part (free end) and lengthen if by pulling part.

⚠ Always check the condition of the seat belt and mounting hardware before operating the machine.

⚠ Fail to wear a seat belt during the machine operation may result in serious injury or death in the event of an accident or machine overturn.

3) FUSE BOX



(1) The fuses protect the electrical parts and wiring from burning out.

(2) The fuse box cover indicates the capacity of each fuse and circuit it protects.

※ **Replace a fuse with another of the same capacity.**

⚠ **Before replacing a fuse, be sure to turn OFF the starting switch.**