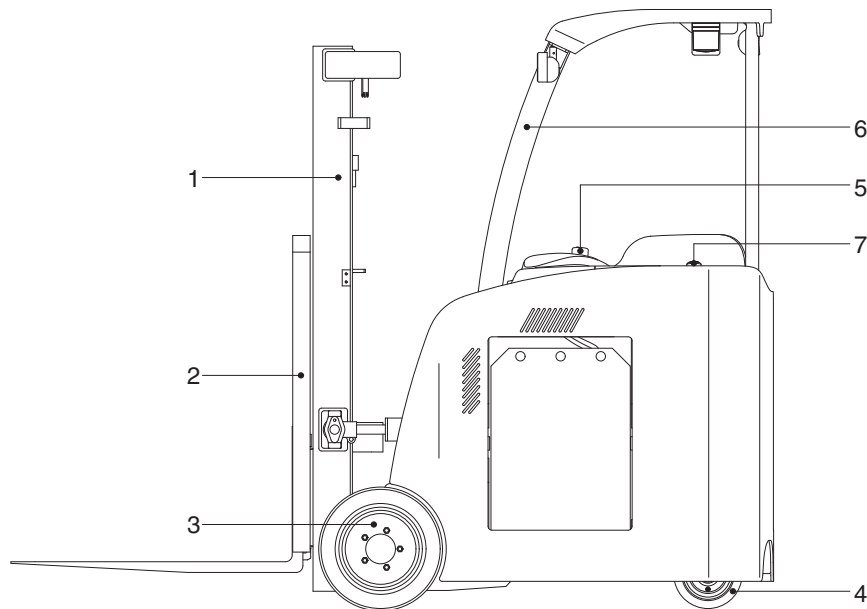


3. KNOW YOUR TRUCK

1. GENERAL LOCATIONS

1) OUTLINE



18BCS90M54

TRUCK TYPE : Electric, 48 Volt.

- | | | | |
|---|------------------------|---|----------------|
| 1 | Mast | 5 | Joystick |
| 2 | Carriage and backrest | 6 | Overhead guard |
| 3 | Drive wheel | 7 | Steering wheel |
| 4 | Steering axle and tire | | |

2. DATA/SAFETY PLATES AND DECALS

1) TRUCK DATA AND CAPACITY PLATE

HYUNDAI GENUINE FROM THE FACTORY THIS TRUCK MEETS ISO 6055
75, Yulgok-ro, Jongno-gu, Seoul 03058, Korea

MODEL: _____ TYPE: _____

PRODUCT IDENTIFICATION NUMBER _____

ATTACHMENTS: _____

MAX LIFTING HEIGHT 'A' _____ mm

LOAD CAPACITY
Vertical _____ kg Forward Tilt _____ kg

Capacities are for centered loads with Listed Attachments and/or forks with mast in the vertical position on a level working surface.

Truck Weight (without battery) _____ kg

Battery DIM.limits (LxWxH) _____ mm

Max Battery _____ kg Min Battery _____ kg

MFG. YEAR _____ Volt _____ V Max Amp Hrs. _____

CAPACITY WITH VERTICAL UPRIGHT EQUIPPED AS SHOWN

CAPACITY _____ kg _____ kg _____ kg

LOAD CENTER 'B' _____ mm _____ mm _____ mm

Made in Korea 91FY-00189

HYUNDAI GENUINE FROM THE FACTORY THIS TRUCK MEETS ANSI B56.1
75, Yulgok-ro, Jongno-gu, Seoul 03058, Korea

MODEL: _____ TYPE: _____

PRODUCT IDENTIFICATION NUMBER _____

ATTACHMENTS: _____

MAX LIFTING HEIGHT 'A' _____ in

LOAD CAPACITY
Vertical _____ lb Forward Tilt _____ lb

Capacities are for centered loads with Listed Attachments and/or forks with mast in the vertical position on a level working surface.

Truck Weight (without battery) _____ lb

Battery DIM.limits (LxWxH) _____ in

Max Battery _____ lb Min Battery _____ lb

MFG. YEAR _____ Volt _____ V Max Amp Hrs. _____

CAPACITY WITH VERTICAL UPRIGHT EQUIPPED AS SHOWN

CAPACITY _____ kg _____ kg _____ kg

LOAD CENTER 'B' _____ mm _____ mm _____ mm

Made in Korea 91FY-00228

(1) Truck model number or registered name

(2) Truck serial number

An identification number assigned to this particular truck and should be used when requesting information or ordering service parts for this truck from your authorized HYUNDAI dealer. The serial number is also stamped on the frame.

(3) Attachment description (If any installed)

The user must see that the truck is marked to identify the attachment(s), including the weight of the truck/attachment combination and truck capacity with the attachment.

(4) Capacity rating, load center, and lifting height data

Shows the maximum load capacity of this truck with relation to load centers and fork heights (See diagram on plate). Personal injury and damage to the truck can occur if these capacities are exceeded.

Do not exceed the maximum capacity specified.

(5) Truck weight

The approximate weight of the truck without a load on the forks. This weight plus the weight of the load must be considered when operating on elevators, elevated floors, etc. to be sure they are safe.

(6) Battery weight and system voltage

▲ Before modifications that affect the stability of safety systems are made written approval from HYUNDAI. Contact your authorized HYUNDAI dealer for a new nameplate showing the revised capacity.

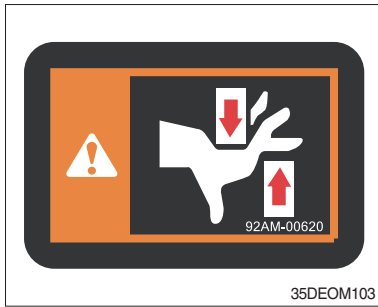
2) OPERATING SAFETY WARNING DECAL



91FH-01661

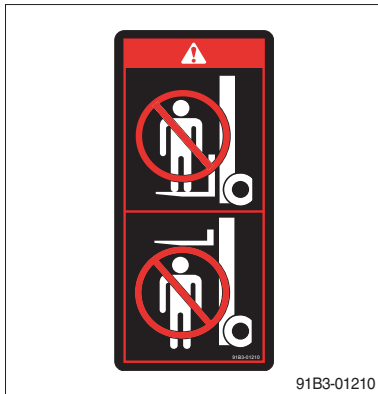


91B4-00080



⚠ Mast warning decal

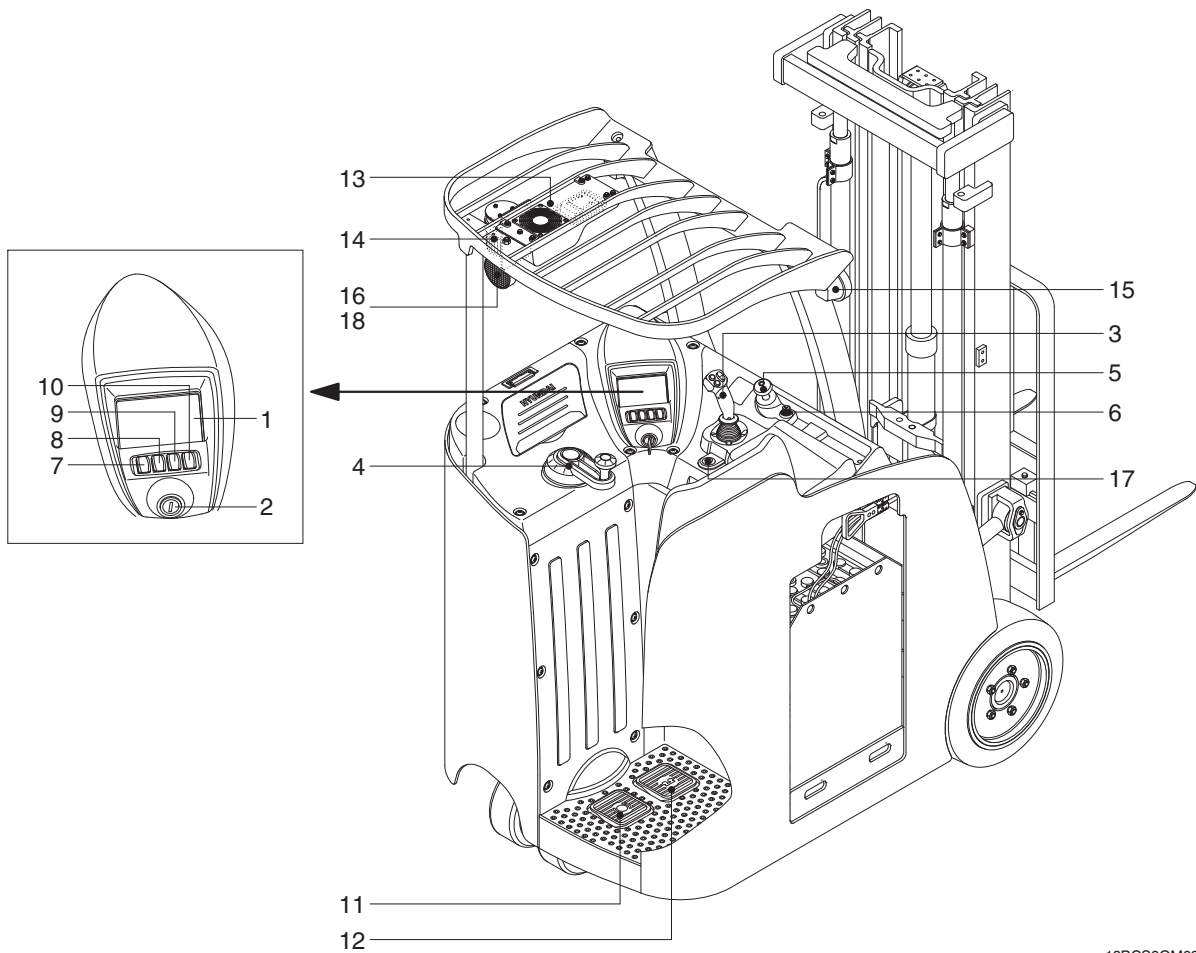
This safety decal is placed on the mast to warn of the danger of injury from movement between rails, chains, sheaves, fork carriage, and other parts of the mast assembly. Do not climb on or reach into the mast. Personal injury will result if any part of your body is put between moving parts of the mast.



⚠ Keep away from forks decal

This safety decal is placed on the mast to warn of the danger of injury from forks when they are in the raised position. Do not ride on or stand under forks or attachments. The forks can fall and cause injury or death. Always make sure that the forks are in the fully lowered position when they are not handling a load.

3. INSTRUMENTS AND CONTROLS



18BCS9OM62

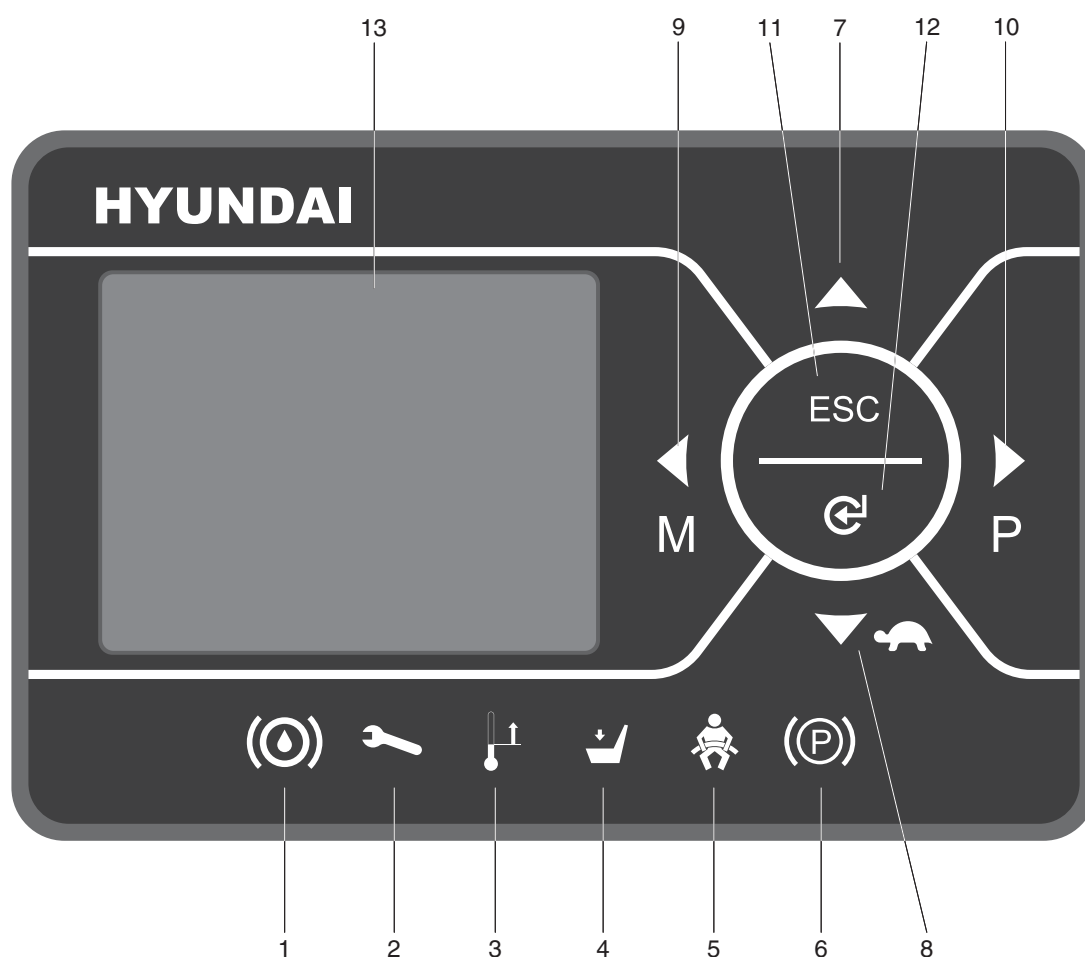
- | | |
|-------------------------------|----------------------------|
| 1 Monitor panel | 10 Fan switch (opt) |
| 2 Start switch | 11 Brake switch |
| 3 Joystick | 12 Dead man switch |
| 4 Steering wheel | 13 Room lamp and fan (opt) |
| 5 Emergency switch | 14 Beacon lamp (opt) |
| 6 12V socket | 15 Head lamp |
| 7 Head lamp switch | 16 Rear work lamp (opt) |
| 8 Rear work lamp switch (opt) | 17 Release button |
| 9 Beacon lamp switch (opt) | 18 LED blue spot (opt) |

※ Familiarize yourself with the controls and follow safe operating procedures.

4. INSTRUMENT PANEL

1) STRUCTURE

The instrument panel (display) has six built-in red LED, which provide the operator with an easy information about the status of some truck devices.



22BH90M65

- | | |
|------------------------------|-----------------------------|
| 1 Oil level warning lamp | 8 Down/turtle button |
| 2 Wrench warning lamp | 9 Left/menu button |
| 3 Thermometer warning lamp | 10 Right/performance button |
| 4 Seat warning lamp | 11 ESC button |
| 5 Seat belt warning lamp | 12 Enter button |
| 6 Parking brake warning lamp | 13 LCD function |
| 7 Up button | |

2) WARNING LAMP

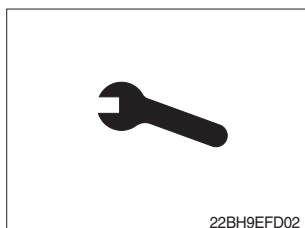
(1) Brake oil level warning lamp



This LED lights when measured level of brake oil stored in reservoir tank is below the minimum acceptable mark.

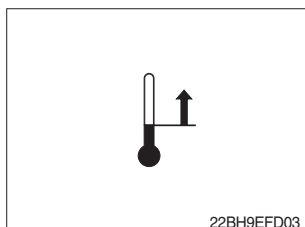
※ BCS-9 truck does not have any mechanical brake which requires brake oil, so that re-fill of brake oil is not required.

(2) Wrench warning lamp



This LED lights when an electric device (controller, motor, cable, etc.) is in abnormal condition.

(3) Thermometer warning lamp



This LED lights when the controller or motor temperature is high.

(4) Seat warning lamp



This LED lights when the operator is not on the dead man switch.

(5) Seat belt warning lamp



When operator starts the truck, LED blinks for 5 seconds, which means initial diagnosis is on going, and buttons on display will work properly just after the diagnosis is completed.

(6) Parking brake warning lamp

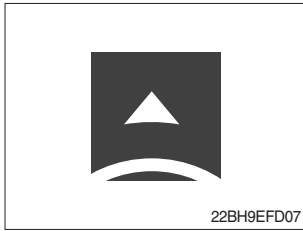


This LED lights when the parking brake is activated.

3) BUTTON

These buttons are used to select or change the menu and input value of the LCD function and display menu.

(1) Up button



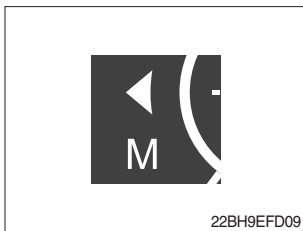
Press to select upward move.

(2) DOWN/TURTLE button



Press to select downward move.
TURTLE MODE ON/OFF

(3) LEFT/MENU button



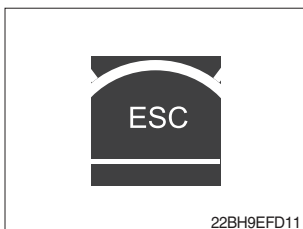
Press to select leftward move.
Go into the menu.

(4) RIGHT/PERFORMANCE button



Press to select rightward move.
POWER MODE H/N/E

(5) Cancel (ESC) button



Press to select cancel.
Keep pressing this button shows PASSWORD entry field.

(6) ENTER button



Press to select Enter.

4) LCD FUNCTION




22BH9EFD13

- | | | | |
|---|---------------------|----|--------------------------------------|
| 1 | Current time | 6 | Hour meter |
| 2 | Turtle mode | 7 | Wheel position and running direction |
| 3 | Truck speed pointer | 8 | Power mode |
| 4 | Speed level | 9 | BDI (Battery Discharge Indicator) |
| 5 | Truck speed | 10 | Load weight (option) |

(1) Current time

The number shows the current time according to the setting, which can be changed by display setting at page 3-11.

(2) Turtle mode

The turtle symbol is normally off. When this symbol appears, the turtle mode is activated regardless of the power mode of the truck to reduce the maximum speed to the set-point. This mode can be activated by pressing the  button.

(3) Truck speed pointer

The speed of the truck is indicated with a pointer.

(4) Speed level

It indicates the speed level by 2 km.

(5) Truck speed

The truck speed is shown in number. The unit can be km/h or mph according to the display setting (see 3-11 page).

(6) Hour meter


The number shows the hours worked. The letter present beside the hour meter number shows which hour meter is displayed.

- hK : the Key Hour shows the truck Key ON time;
- hT : the Traction Hour shows the Gate ON (driven) time of the traction motor.
- hP : the Pump Hour shows the Gate ON (driven) time of the pump motor.

(7) Wheel position and running direction

The arrow point is up when the truck is forward running and points down when the truck is reverse running. The arrow points the direction of the steering angle.

(8) Power mode

The letter H, N, or E, shows the power mode which is being used in the controller. The mode can be scrolled by pressing the  button sequentially. When a mode is selected, the related information will be sent via CAN-BUS to traction and pump controllers that will manage this data.

H (High) – corresponds to the highest performance

N (Normal) – corresponds to normal performance

E (Economic) – corresponds to economic performance

(9) BDI (Battery Discharge Indicator)

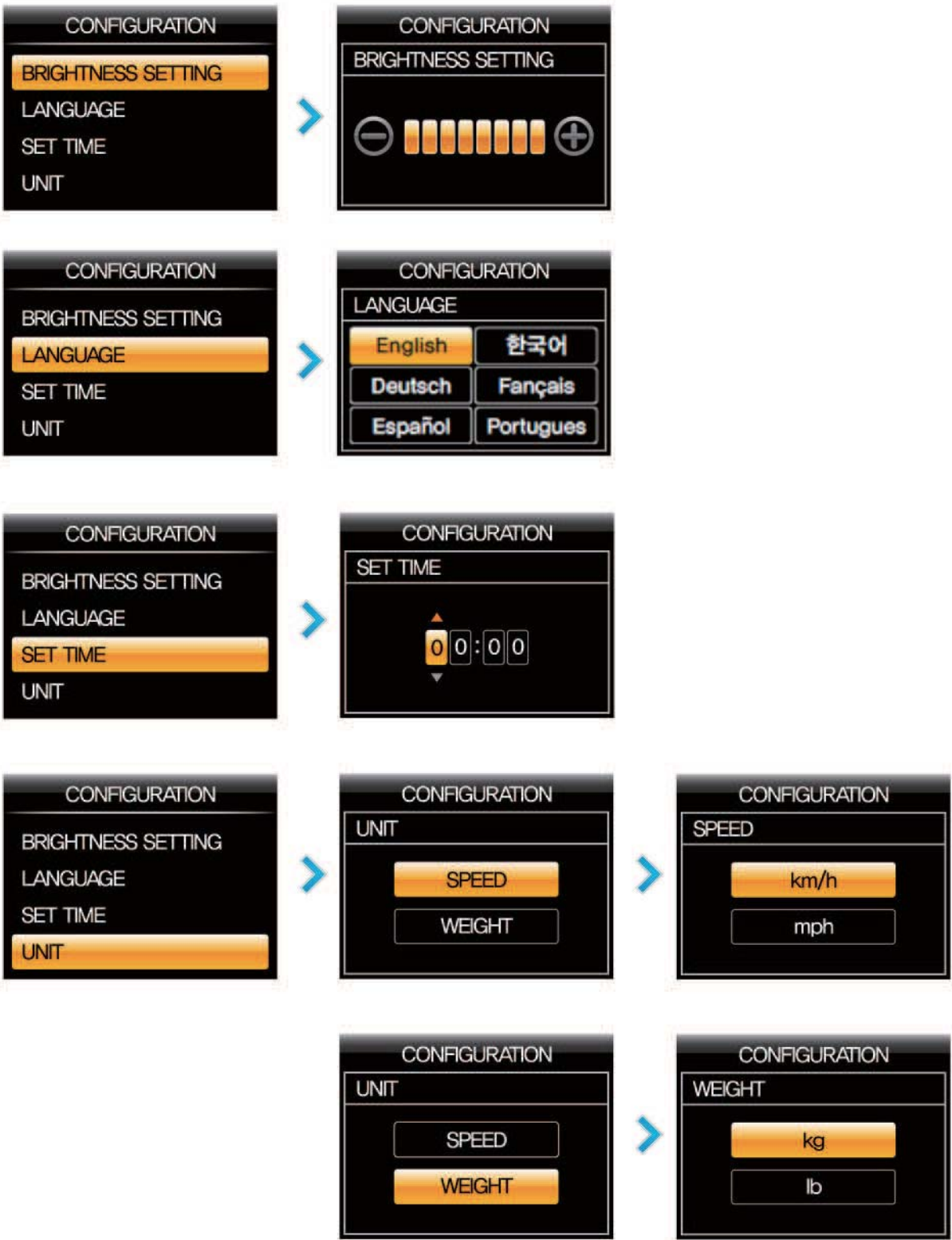
The battery discharge indicator is shown by ten bars. Each bar represents the 10% of the battery charge. As the battery becomes discharged, the bars turn off progressively, one after another, in proportion to the value of the residual battery charge. When the residual battery charge is 20% or under, the bars displayed become red.

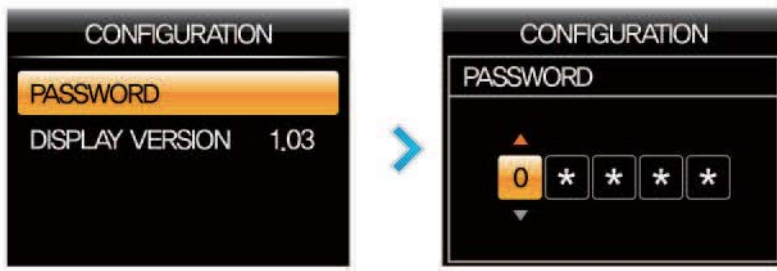
(10) Load weight (option)

The indicator shows the weight the truck carrying at load.

- Indicator range : 0~6375 kg

5) HOW TO SET THE DISPLAY MENU

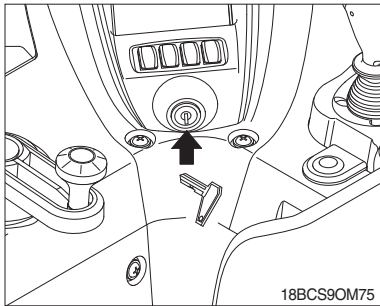




22BH9EFD15

5. OPERATING SWITCHES AND WHEEL

1) KEY SWITCH



(1) Power is supplied to the control circuit through this switch, which is placed on OFF → ON clockwise.

- ① OFF : The key can be removed or inserted and power is turned off.
- ② ON : Both control circuits for hydraulics and running can be activated.

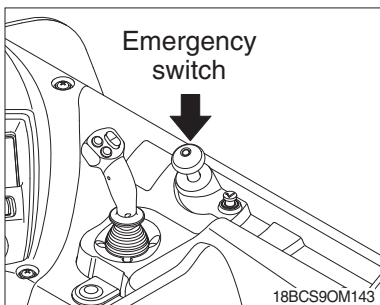
※ Automatic centering

Automatic centering (AUTC) turns the steered wheel straight ahead to keep the steer aligned meanwhile traveling.

When autocentering is ON, the AUTC at key-on is always performed.

The AUTC at key-on is used to initialize the encoder counting. When it is not performed, the truck travels slow speed only, until the driver moves the steering wheel and an edge is detected on the straight ahead sensor getting possible the initialization of the encoder counting.

2) EMERGENCY SWITCH

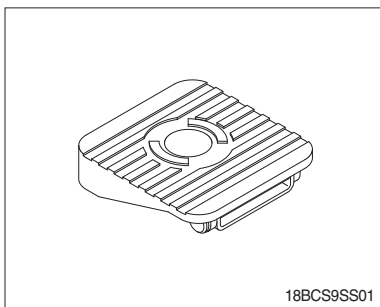


(1) When pressign the emergency switch downward, the electric circuit is broken, all electrical function switch is off and the vehicle brakes are automatically applied.

(2) If problem is detected in the EPS system, a notice appears on the operator display.

(3) During traveling the vehicle, if a problem occurs EPS system that could endanger the safety of the operator, the vehicle automatically comes to a controlled stop as well as EPS operation.

3) BRAKE SWITCH



(1) The brake switch always keeps the operator's foot in place during driving the truck.

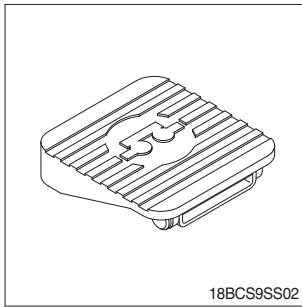
(2) If the brake switch is not pressed, the service brake is operated to stop the truck.

▲ **Special care should be required for the operation of the brake at loading.**

▲ **This vehicle has no parking brake system.**

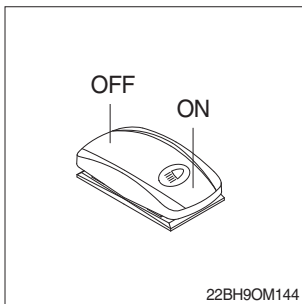
But once the pedal released, service brake is always applied to the truck.

4) DEAD MAN SWITCH



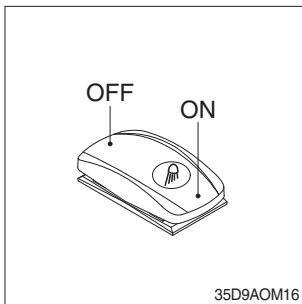
- (1) The dead man switch always keeps the operator's foot in place during driving the truck or hydraulic operation.
- (2) If the dead man switch is not pressed, all the electrical functions are taken out of operation with exception of the steering, the display and the horn.

5) HEAD LAMP SWITCH



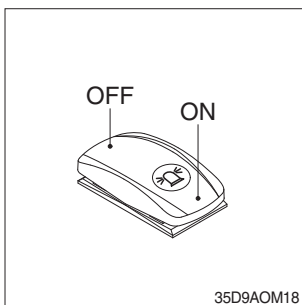
- (1) This switch is used to operate head lamps.
Press this switch to turn on head lamps.

6) WORK LAMP SWITCH (OPTION)



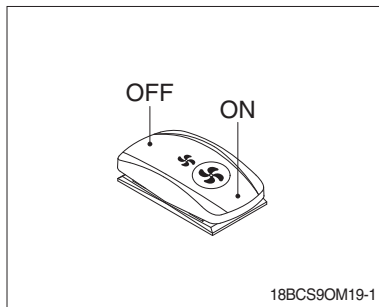
- (1) This switch is used to operate work lamps.
Press this switch to turn on work lamps.

7) BEACON SWITCH (OPTION)



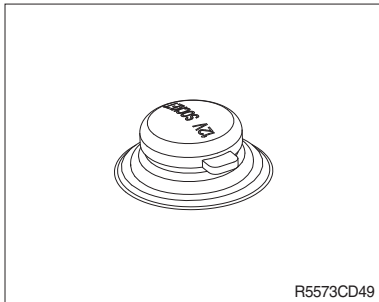
- (1) This switch turns ON the rotary light on the cab.
- (2) The below indicator lamp is turned ON when operation this switch.

8) FAN SWITCH (OPTION)



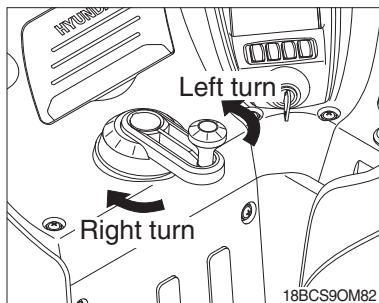
- (1) This switch is used to operate the fan.
- (2) When you push this switch, the air come out through the blowing fan.

9) 12V SOCKET



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

10) STEERING WHEEL



- (1) The steering wheel of the vehicle is provided with the knob to allow steering with one hand.
 - (2) Perform the loading operation with the right hand and operate the steering wheel with the left hand.
- ⚠ Particular care should be taken for the rapid operation of the steering wheel.**

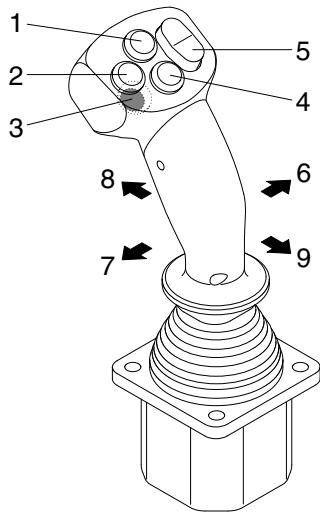
11) JOYSTICK (ISO TYPE)

The joystick allows on-handed operation for the following functions :

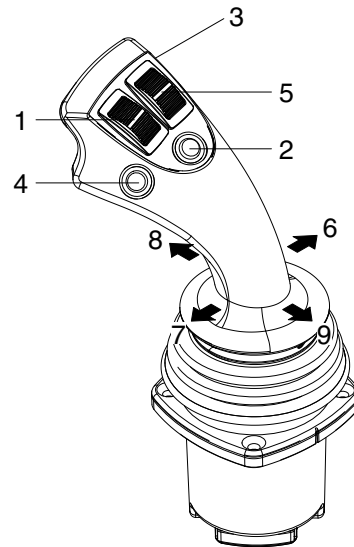
- Forward or backward driving
- Lifting or lowering the fork (lift)
- Tilting to forward or backward the fork (tilt)
- Moving the side shift to the left or right (side shift)
- Horn operation

(1) Description

Machine serial No.
15BCS-9 : -#0038
18BCS-9 : -#0150
20BCS-9 : -#0176



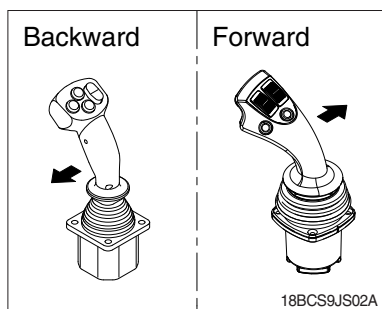
Machine serial No.
15BCS-9 : #0039-
18BCS-9 : #0151-
20BCS-9 : #0177-



18BCS9JS01A

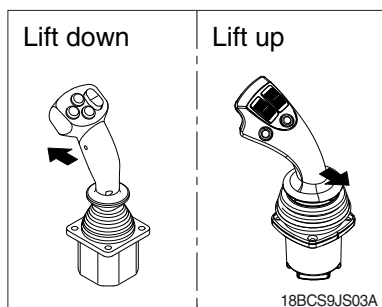
- | | | |
|-----------------------------|-----------------------|--------------------|
| 1 Side shift button | 4 Option button (AUX) | 7 Backward driving |
| 2 Auto tilt button (option) | 5 Tilt button | 8 Lift down |
| 3 Horn button | 6 Forward driving | 9 Lift up |

(2) Operation



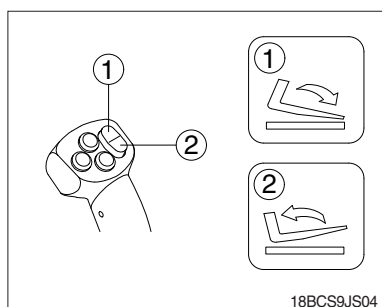
① Driving

- Move the joystick in the direction of the arrow to drive forward or backward.
- The electrical brake will be applied by shifting the joystick to the opposite position of running direction.



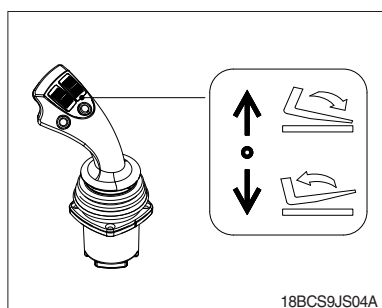
② Lifting and lowering

- Move the joystick in the direction of the arrow to lift or lower of the fork.
- Lifting and lowering speeds can be adjusted by varying the movement of the joystick.

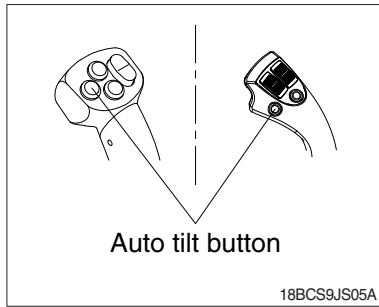


③ Tilting

- This button controls the forward and backward tilt of the forks.
- For the forward tilt, push the forward position (①).
- For the backward tilt, push the backward position (②).

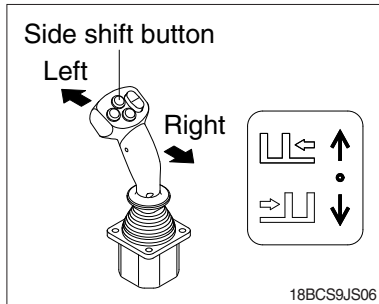


- For the forward tilt, push up the right roller switch.
- For the backward tilt, push down the right roller switch.



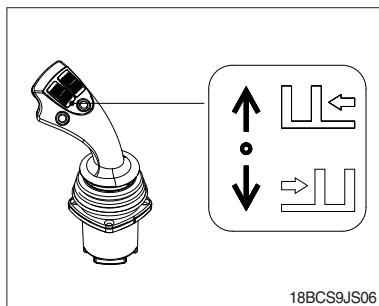
④ Auto tilt level (option)

This button is used to return mast to upright vertical position.



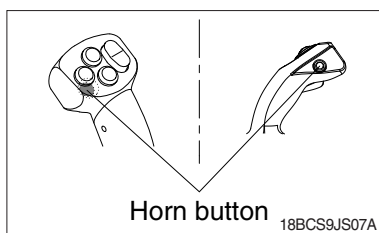
⑤ Side shift movement

- Move the joystick in the direction of the arrow while pressing the side shift button.



- For moving the side shift to the left, push up the left roller switch.

- For moving the side shift to the right, push down the left roller switch.



⑥ Horn sounding

The horn sounds when this button is pressed.

12) JOYSTICK (PUSH-PULL TYPE)

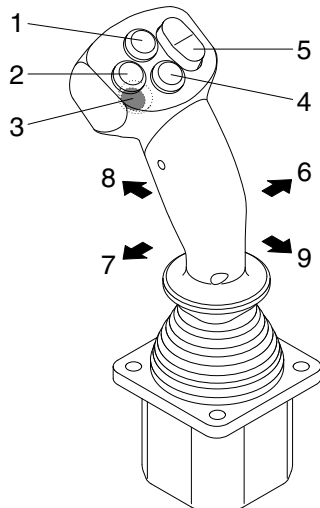
The push-pull type joystick change the driving and lifting control lever direction through the push-pull setting. If the push-pull setting value is ON, the driving function is controlled forward or backward and the lifting function is controlled left or right.

Except the driving and the lifting function, the others are the same as the ISO type joystick.

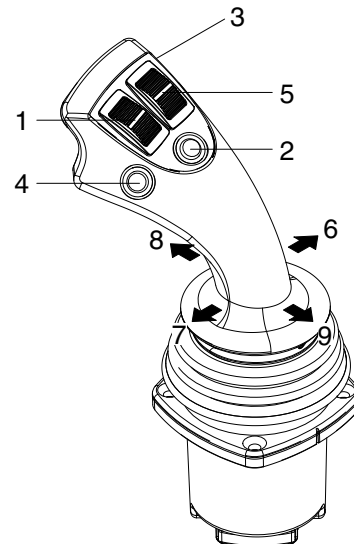
- Forward or backward driving
- Lifting or lowering the fork (lift)
- Tilting to forward or backward the fork (tilt)
- Moving the side shift to the left or right (side shift)
- Horn operation

(1) Description

Machine serial No.
15BCS-9 : -#0038
18BCS-9 : -#0150
20BCS-9 : -#0176



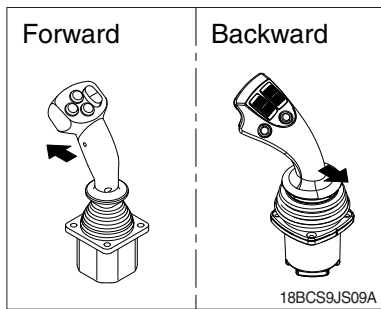
Machine serial No.
15BCS-9 : #0039-
18BCS-9 : #0151-
20BCS-9 : #0177-



18BCS9JS01A

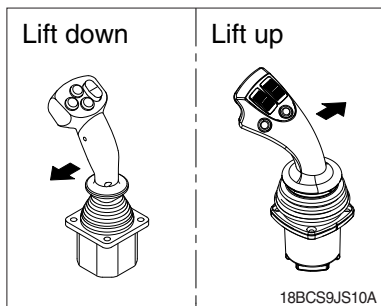
- | | | |
|-----------------------------|-----------------------|--------------------|
| 1 Side shift button | 4 Option button (AUX) | 7 Lift down |
| 2 Auto tilt button (option) | 5 Tilt button | 8 Forward driving |
| 3 Horn button | 6 Lift up | 9 Backward driving |

(2) Operation



① Driving

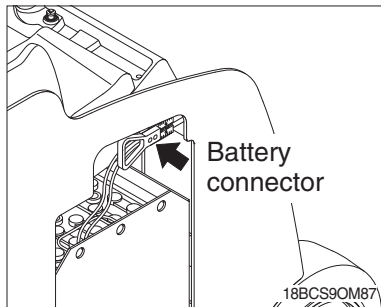
- Move the joystick in the direction of the arrow to drive forward or backward.
- The electrical brake will be applied by shifting the joystick to the opposite position of running direction.



② Lifting and lowering

- Move the joystick in the direction of the arrow to lift or lower of the fork.
- Lifting and lowering speeds can be adjusted by varying the movement of the joystick.

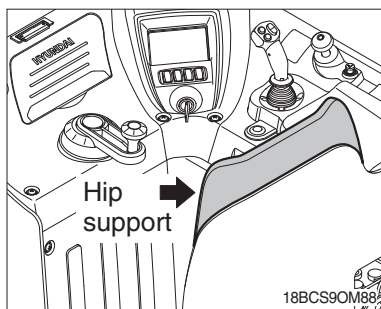
6. BATTERY CONNECTOR



Be sure to connect the connector for the battery and body.

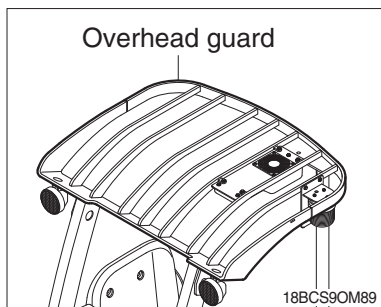
7. SUPPORT AND SAFETY PARTS

1) HIP SUPPORT



To reduce fatigue of an operator, the pads are provided at the places to where waist touch.

2) OVERHEAD GUARD



The overhead guard is of rugged construction that serves to ensure the safety of the operator.

8. ADJUSTABLE ARMREST

The adjustable armrest is providing convenience to various operator.

- 1) Push the release button and armrest will automatically rises.
- 2) In the state of pushing the release button, press the armrest with elbow for sliding down.
- 3) When stop pressing the release button, you can hold hold an armrest in any height.
- 4) Sliding stroke is 75 mm (3 inch).

