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TOYOTA Material Handling Company

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OPERATOR'S MANUAL MANUAL DEL OPERADOR FAHRERS HANDBUCH MANUEL POUR L'OPERATEUR MANUAL DELL'OPERATORE HANDBOEK VOOR DE GEBRUIKER

OPERATOR'S MANUAL INSTRUKTIONSBOG KÄYTTÖOHJEKIRJA MANUAL DO UTILIZADOR DRIFTSHANDBOK ΕΓΧΕΙΡΙΔΙΟ ΧΡΗΣΤΗ **INSTRUKSJONSBOK**

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ENGLISH

FOREWORD

This manual explains the proper operation and maintenance of Toyota industrial vehicles as well as daily lubrication and periodic inspection procedures.

Please read this manual thoroughly even though you may already be familiar with other Toyota industrial vehicles because it contains information which is exclusive to this series of vehicles. This manual is based on a standard vehicle. If you have any questions about other types, please contact your Toyota industrial vehicle dealer (Toyota dealer).

In addition to this manual, please be sure to read the separate publication entitled "Operator's Manual for Safety Operation." Toyota reserves the right to make any changes or modifications of specifications in this manual without giving previous notice and without incurring any obligation.

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BEFORE INITIAL OPERATION

- Please read this manual thoroughly. This will give you a complete understanding of Toyota industrial vehicles and enable you to operate them correctly and safely. Proper handling of new vehicles promotes performance and extends life. Drive with special caution while becoming familiar with a new vehicle. In addition to the standard operating procedures, pay attention to the following safety items.
- Please acquire a thorough knowledge of the Toyota industrial vehicle. Read the operator's manual thoroughly prior to operating the vehicle. Get to know its operation and components. Learn about the safety devices and accessory equipment and their limits and precautions. Be sure to read the caution plate attached to the vehicle.
- Please familiarize yourself with safe driving techniques and safety management. Understand and maintain work area traffic rules. Ask the work area supervisor about any special working precautions.
- Wear neat clothing for operation. Improper clothing for vehicle operation may interfere with smooth operation and cause an accident. Always wear proper clothing for easy operation.
- · Avoid electric power lines. Know the locations of inside and outside power lines and maintain sufficient distance
- · Be sure to perform pre-operation checks and periodic maintenance. This will prevent sudden malfunctions, improve work efficiency, reduce costs, and help ensure safe working conditions.
- Be sure to avoid forward tilt when the loaded fork is raised. In the worst case, this will cause overturning due to poor stability resulting from forward shifting of the center of gravity.
- If you hear any abnormal noises or sense anything unusual, inspect and repair immediately.

- Never attempt traveling with a load on the fork lifted beyond the specified height. Traveling with a load on the fork lifted beyond the specified height may cause overturning due to upward shifting of the center of gravity. Keep the fork at 15-20 cm (5.9 -7.9 in.) above the ground when traveling.
- Avoid overloading or uneven loading. Overloading or uneven loading is dangerous. If the center of gravity is closest to the front side even though the load is below the maximum, limit the loading weight according to the name plate.
- Avoid reckless operation.
- Use only the recommended lubricants. Low-grade lubricants will shorten service life
- Do not overdischarge. Always check the condition of the battery
- Avoid open flames during charging. Combustible gas is produced during charging. Charge away from open flames in a wellventilated place.
- Cold Storage Models. A cold storage model option is not available. Do not perform operations in a cold storage.
- Do not make any alterations to the electrical system. Any attempt to do so may affect the operation of the precision devices built into the battery-operated forklift, causing a malfunction or accident. If any alterations become necessary, contact a Toyota dealer.
- When washing the forklift, be careful not to splash the motor or electrical parts directly with water. If the motor or electrical parts are directly splashed with water, the forklift may malfunction or break down. If it becomes unavoidable to wash the batteryoperated forklift, carefully cover electrical parts with a vinyl sheet or the like to protect them from getting wet.

2 (En-1)

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- Return to neutral mechanism. If the key switch or the seat switch is turned ON with the direction lever set to the forward or reverse position or the accelerator pedal depressed, the vehicle does not travel unless the direction lever and accelerator pedal are returned to the neutral positions.
- For vehicles that are equipped with nonmarked or color tires, be sure to install a static strap.

Cautions for thunder

- If thunder can be heard in the distance, stop charging the battery and disconnect the charging plug.
- · If thunder can be heard close by, do not touch the power supply plug or cord because vou may receive an electric shock if lightning strikes close by.
- · Setup of a lightning rod or a lightning arrester in the electric circuit is strongly recommended in areas where thunder is frequently heard

Caution for using the model with SAS (System of Active Stability)

▲ Caution

Whenever you drive an SAS model, please check the caution plate to discover which functional features the vehicle has. Do not operate the vehicle before making sure that each of the features is operating properly.



- While driving the vehicle, be alert for warning indicators and/or alarm buzzers. Should an error code be indicated by a warning indicator, park the vehicle in a safe location and have it inspected at a Toyota dealer.
- The SAS, which is electronically controlled, must be initialized after maintenance is performed. Do not unnecessarily remove or modify any SAS features. Whenever an inspection is necessary, contact a Toyota dealer
- When washing the vehicle, carefully prevent water from splashing directly over the electronic components (controller, sensors and switches) employed in the SAS.

Description of features available in SAS models

Automatic fork leveling control

- With the vehicle not loaded, press the tilt lever knob button to turn it on and tilt the mast forward. This will cause the fork to stop automatically in a horizontal position (with the mast in the vertical position).
- After pressing the tilt lever knob button and stopping the fork in a horizontal position, you may want to tilt the mast further. To do this, return the tilt lever to the neutral position once. Then, press the tilt lever knob button to turn it off and operate the tilt lever.

When the tilt lever knob button is turned on and the tilt lever is operated from the backward to forward position, the mast will perform as follows:

	Not loaded	Loaded
High lifting height	Stop with forks leveled (mast vertical)	Not tilting forward
Low lifting height Stop with forks leveled (mast vertical)		rtical)

▲ Caution

If you press the tilt lever knob button while the mast tilted forward with a heavy load at high lift, the mast will stop operating. Do not operate the automatic fork leveling control during material handling operation because the vehicle may tip over.

- In case of a vehicle with an attachment, do not allow the fork to be automatically positioned horizontally with a heavy load at a high lift while the motor is running at a high speed. This will lead to a hazardous situation.
- Mounting heavy attachments onto some specialty models may disable automatic fork leveling control. Confirm with a Tovota dealer in advance.

Note:

- The mast will not tilt forward if the tilt lever knob button is turned on while there is a heavy load at high lift (2 m or more).
- When the mast is tilting forward from a vertical position, it will not tilt further forward even if the tilt lever knob button is turned on.
- When the mast is tilting backward, the fork will not stop in a horizontal position even if the tilt lever knob button is turned on.

Active mast forward tilt angle control

According to lifting height and load, the angle at which the mast can be tilted forward is automatically controlled within a range of angles illustrated below.

	Light load (no load)	Intermediate load	Heavy load
High lifting height (approx. 2 m or greater)	No restriction for forward tilt angle	Maximum for- ward tilt angle restricted to 1°	Forward tilt angle restricted to 1°
Low lifting height	g No restriction for forward tilt angle		tilt angle

▲ Caution

- If a load is lifted while the fork is tilted forward at a low lift, the vehicle may tip over when the fork stops at a position having a tilt angle beyond the specified angle range. Never lift the load, therefore, while the mast is tilted.
- With a heavy load at a high lift, never adjust the load position by controlling the mast forward tilt angle, as the vehicle may tin over.

Even with a load positioned within the allowable angle range, never tilt the mast beyond its vertical position, or the vehicle may tip over, losing its stability forward and backward. Never tilt the mast forward when a load is lifted.

- Mounting heavy attachments onto some
 - specialty models may disable active mast forward tilt control. Confirm with a Toyota dealer in advance.

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- After mounting or replacing any attachment have it inspected at a Toyota dealer.
- If you use two or more removable attachments alternately, the heaviest one should be used to carry out matching (SAS setting). Ask a Toyota dealer for help in advance.

Note:

With the fork raised to the maximum height. high pressure (relief pressure) may remain in the lift cylinder. This high pressure causes the vehicle to judge that it has a heavy load even if unloaded. As a result, forward tilting of the mast is disabled. In this case, lower the fork slightly from the top (to release the pressure), and the mast can be tilted forward.

Active mast forward/backward tilt speed control

- At a high lift, the mast forward or backward tilt speed is controlled (slowed down) regardless of load weight. Even if the lifting height changes from high to low while the mast tilts forward or backward, the control speed will remain in effect.
- At a low lift, the mast can be tilted backward at full speed regardless of load weight. If the tilt lever knob button is turned on and the mast tilted backward at a low lift, the backward tilt speed of the mast is controlled (slowed down) as long as the tilt lever knob button is turned on.
- If the fork is raised from a low lift to a high lift while the mast is tilting backward, the control speed will remain in effect as long as the tilt lever knob button is turned on. The mast tilts backward at the maximum speed when the tilt lever knob button is turned off.



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 The forward/backward tilt speed control is controlled by the rpms of the pump motor. Never lift at a high lift or perform simultaneous operation of attachment and tilt.

Key-lift interlock

With the key switch at OFF, the fork will not lower even if the lift lever is so operated.

Active steering synchronizer

If the steering wheel knob is not aligned with the tires, the offset will be corrected automatically while the steering wheel is turned. Thus, the knob is kept at a constant position relative to the tires.

If the SAS feature should fail:

An SAS model is controlled with a controller, sensors and various actuators. If any of them is found not to be operating normally, the following may occur:

- Steering wheel knob offset may not be corrected.
- Such features as automatic fork leveling control, active mast forward tilt angle control and active mast forward/backward tilt speed control may be disabled.

If any of the phenomena referred to above should take place,

- · Diagnosis operation indicator will come on.
- · An error code will be displayed.
- A buzzer will sound.

Thus, the operator will be informed. In such an event, move the vehicle to a safe location and have it repaired at a Toyota dealer.

OPS SYSTEM

The OPS (Operator Presence Sensing) system prevents traveling and load handling operations when the operator is not seated in the operator's seat. If the operator leaves the seat while the vehicle is in operation, the OPS indicator will be displayed on the screen and a buzzer will sound for 0.5 seconds to inform the operator that the system is going to be activated. If the operator remains away from the seat for 2 seconds, the system will be activated and stop the current operation. However, if the operator returns to the seat within 2 seconds, the system will not be activated and operation can be continued normally.

If an error occurs within the OPS system, an error code will be displayed on the screen to inform the operator of the error. This indicates that the OPS system may be faulty. Have the vehicle inspected by your Toyota dealer.

A CAUTION

 This truck has a system to indicate "!TO OPERATING POSITION" on display and restrict mast operations when operator is not in the normal operating position.
 In any of following cases, stop operation and

 ask TOYOTA dealer for inspection:
 "ITO OPERATING POSITION!" is not indicated when operator is off operating position.

"!TO OPERATING POSITION!" is indicated when operator is on operating position.
 • Mark is indicated on display, and it is not turned off when operator returns to

operating position after leaving it once. (英文) 57724-13130-71

This vehicle is equipped with the OPS system. Confirm the functions of the OPS system before operation.

Travel OPS Functions

If the operator leaves the seat while the vehicle is traveling, the OPS indicator will be displayed on the screen and motion will be stopped after 2 seconds. However, the system will not forcibly apply the brake to stop traveling. (The operator can continue moving the vehicle if the operator returns to the seat within 2 seconds.)

If the OPS system is activated while traveling up an incline, the traveling power will be interrupted and the vehicle will slide down the incline. Be sure to stay seated while traveling.

To release the motion stop, release the accelerator pedal, return the direction lever to its neutral position and sit in the seat.

If the OPS system is activated, do not operate the tilt lever. Depending on the mast position, backward tilting operation by the tilt lever could cause the mast to tilt backward under its own weight. Also, do not operate the attachment lever if the OPS system is activated. Operating the attachment lever could cause the attachment to move under its own weight.

Load Handling OPS Functions

Standard lever vehicle

If the operator leaves the seat while conducting load handling operations, the OPS indicator will be displayed on the screen and load handling operations will be stopped after 2 seconds. (The operator can continue load handling operations if the operator returns to the seat within 2 seconds.) If the operator leaves the seat while operating the lift and tilt levers, load handling operations will be continued for 2 to 4 seconds before being stopped.

To release the load handling stop, return the lift and tilt levers to their neutral positions and sit in the seat. After 1 second, the OPS system will be released and load handling operations can be resumed. (Be careful when returning to the seat while operating the lift and tilt levers. Load handling operations will resume after 1 second.)

Mini-lever or joystick vehicle

If the operator leaves the seat while conducting load handling operations, the OPS indicator is displayed on the screen and load handling operations will be stopped after 2 seconds. (The operator can continue load handling operations if the operator returns to the seat within 2 seconds.)

To release the load handling stop, return the lift and tilt levers to their neutral positions, and sit in the seat.

OPS Operation Alarm Functions

If the operator leaves the seat, a buzzer will sound for approx. 0.5 seconds and the OPS indicator will be displayed on the screen to inform the operator that the OPS system is engaged. The OPS indicator remains displayed on the screen until the OPS system is released, in order to inform the operator that the OPS system is engaged.

Return to Neutral Warning

When traveling motion is stopped by the OPS system, sitting in the seat and depressing the accelerator pedal without returning the direction lever to its neutral position will sound a buzzer to indicate that the motion stop has not been released. Sitting in the seat with the accelerator pedal depressed will also activate this alarm.

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OPS Controller Abnormality Warning

If an error occurs within the OPS system, an error code is displayed on the screen to inform the operator of the error.

This indicates that the OPS system may be faulty. Park the vehicle in a safe location and have it inspected by your Toyota dealer.

Also, in any of the following cases, stop operation and have the vehicle inspected by your Toyota dealer.

- The OPS indicator is not displayed on the screen when the operator leaves the seat.
- The OPS indicator does not turn off when the operator sits in the seat.

CAUTION PLATE

A caution plate is attached to the vehicle. Thoroughly familiarize yourself with its contents before operating the vehicle. (The sample shows the English version.)





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DRIVING CONTROLS AND INSTRUMENT PANEL



6. Turn signal switch (OPT) 7.

1. Direction lever

3. Steering wheel

2. Horn button

5. Key switch

4. Display

- Parking brake lever
- 8. Rear work light switch (OPT) 9. Tilt steering lock release lever
- 10. Tilt steering adjust lever
- 11. Brake pedal
- 12. Accelerator pedal
- 13. Lift lever
- 14. Tilt lever knob button
- 15. Tilt lever
- 16. Attachment lever



6 (En-5)



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Display

8.

- 1. Parking brake indicator
- 2. Travel 2nd speed setting indicator
- 3. Diagnostic mode indicator
- 4. Overheat warning indicator
- 5. Multiple screen display area
- 6. Battery capacity indicator
- 7. Power select indicator
 - Travel 2nd speed control set switch
- Hour meter select switch
 Power select switch



Travel 2nd speed control setting indicator

When the maximum speed is restricted, a turtle symbol will appear. Each time the operator presses the travel 2nd speed control set switch, the indicator comes on or goes out. When the indicator goes out, the maximum speed restriction has been released.



Diagnostic mode indicator

If the key switch is turned to ON while any abnormality is occurring or if any abnormality occurs while the vehicle is in use, this indicator blinks and the warning buzzer sounds. At this time, a diagnosis error code is displayed in the multi-screen display area. The error code varies with each error location and error level.

\land Caution

If the diagnosis mode indicator is displayed, have the vehicle inspected at a Toyota dealer.



Parking brake indicator

While the parking brake is in operation, the indicator on the display blinks. Before traveling, check that the parking brake indicator has gone out.

⚠ Caution

If the indicator does not go out when the parking brake is released, stop operating the vehicle and have it inspected at a Toyota dealer.



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Overheat warning indicator

..... Main controller

DCR..... Drive motor driver

PCR..... Pump motor driver DM..... Drive motor PM Pump motor

(20 to 30 minutes).

OPS indicator

the seat.

A Caution

ota dealer:

≜ Caution

C/R..

If the temperature of the controller or the drive/ pump motor rises abnormally, this indicator will blink and a warning buzzer will sound. The section with the abnormal temperature will be shown in the multiple screen display area (at lower left) and vehicle operation will be controlled.

After the warning indicator is displayed, leave

the vehicle with the key switch on for a while

If the warning indicator does not go out after 20 to 30 minutes, have it inspected

The OPS indicator is displayed on the screen

when the operator leaves the seat to inform the

operator that the OPS system is going to be

activated. This indicator is kept on while the

operator leaves the vehicle to indicate the OPS operation state. For resetting, return the direction, left and tilt levers to their neutral positions, release the accelerator pedal, and sit in

In any of the following cases, stop operation

and have the vehicle inspected by your Toy-

• The OPS indicator is not displayed on

the screen when the operator leaves the

immediately at a Toyota dealer.



Low temperature warning indicator

If the temperature of the drive/pump motor driver drops abnormally, this indicator will blink and a warning buzzer will sound for 5 seconds. The section with the abnormal temperature will be shown in the multiple screen display area (at lower left) and vehicle operation will be controlled.

COLD DCR Drive motor driver

COLD PCR Pump motor driver

Note:

When the low temperature warning indicator of the pump motor driver blinks, material handling speed becomes slow, but it is not an abnormality.

Battery capacity indicator

This indicator indicates the battery electrical charge in 10 levels.

When the battery capacity reaches the set warning level of remaining charge (default: second level):

- (1) The battery capacity blinks.
- (2) After the key switch is turned to ON, a warning ("beep! beep!") sounds for 5 seconds.

▲ Caution

- If the battery capacity indicator blinks, stop operation early and charge the battery.
- To change the set level, consult with a Toyota dealer.



seat. • The OPS indicator does not turn off when the operator returns to the seat.

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Battery overdischarge warning

When the remaining battery charge drops below the set level and the operator continues traveling and/or material handling operation, all LEDs in the charge indicator will blink and a warning ("beep! beep!") will sound to warn the operator of overdischarged status. In such a case, stop operation immediately and charge the battery.

Note:

If the battery becomes overdischarged, material handling will be disabled. It is possible to perform material handling for 30 additional seconds only once by turning the key switch from OFF to ON.

Power select indicator

Three modes of traveling/material handling performance are displayed. H...... H mode

- The most active mode.
- P..... P mode
- The high efficiency mode.
- S...... S mode The longest operation mode.



Travel 2nd speed control set switch

This switch selects the travel 2nd speed control. It also changes the set level (for down) and the set mode from NO to YES.

Clock setup selection screen



Hour meter select switch

This switch selects the multi-hour meter function display screen. It also changes the set level (for up) and the set mode from YES to NO.

Power select switch

This switch changes the traveling/material handling performance mode. Each time the switch is pressed, the selected mode will shift to the right in sequence.

When the switch is pressed for at least 2 seconds, a setting screen will appear and a beep will sound. On the setting screen, this switch is used to move the setting mode to the next screen.

Note:

When the power select switch is set to "YES," S, P, and H will all light up after each comes on in sequence to indicate that the power select switch is set individually.







- Continuous operation in H mode increases the work done per hour but reduces the operating time.
- When the power select switch is set to "YES" S, P, and H will all light up after each comes on in sequence to indicate that the power select switch is set individually.







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(1) In straight traveling state
 (2) During left turn
 (3) During right turn

10 (En-9)

Wheel indicator (OPT)

The indicator indicates traveling direction of the vehicle by "I". The directions shown by the indicator are straight and three levels each to right and left.

Note:

- If wheel indicator display is selected, speedometer is not displayed.
- While traveling, use the wheel indicator as a reference of vehicle traveling direction.

DISPLAY SCREEN TABLE



Normal screen







()

📥 \ 🖪

SPH



<Initial screen>

<Normal screen>



^{30/9} ^{AM} <u>11:00</u>

□ **IIIII**DDD = **I**IP H

Normal screen

When the key switch is turned ON, the initial screen is displayed for approximately 2 seconds.

meter>

<Travel/material handling motor service hour



<Actual work hour/distance meter>

►\ 8 SPH DIDDDDDDD II SPH

Travel/material handling motor service hour meter

(All-round model only) Displays the accumulated service hours spent in traveling and material handling.

• : Total traveling service hours

En

_: Total material handling service hours Press switch (2) to go to the next screen (actual work hour/distance meter). Press switch (3) to return to the normal screen.

Actual work hour/distance meter

(All-round model only) Displays the total service hours spent in traveling and material handling.

⊙ · J : Travel or material handling operation hours

ODO: Total distance traveled

Press switch (2) to go to the next screen (laptime meter). Press switch (3) to return to the normal screen.

<Speed display>



KEY ON



DININDDD SPH

0.01

SPH

Hour meter

Press switch (2) to select the hour meter dis-play. Up to 99999.9h total key switch ON hours are displayed in units of 0.1 hours. While the hour meter is in operation, the hour-glass symbol on the display blinks. On the all-round model (OPT), press switch (2) to display the next screen (traveling/material handling hour meter). Press switch (3) to return to the normal screen.

Note:

Use the hour meter to judge the timing for periodic maintenance and record the operating hours



Lap-time meter

(All-round model only) Displays the accumulated hours upon key switch ON.

Lap time meter resetting

Press switch (1) for 2 seconds or more to reset the meter to 0.0 h.

Press switch (2) to go to the next screen (trip meter). Press switch (3) to return to the normal screen.





When the vehicle is traveling.

When the vehicle is stopped.



<Lap-time meter>

(�)







Trip meter

(All-round model only) Total travel distance is displayed.

Trip meter resetting

Press switch (1) for at least 2 seconds to reset the trip meter to 0.0 km. Press switch (2) or switch (3) to return to the normal screen.

Travel 2nd speed control

The maximum speed of the vehicle can be restricted in eight speed levels. This function can restrict the maximum speed only when the turtle symbol is lit on the display.

(Setting the maximum speed)

- 1. Press switch (3) on the normal screen for at least 2 seconds. The turtle symbol will blink and the travel speed level will be displayed.
- 2. Press switch (1) or (2) to select a maximum speed level. To lower the setting level

To raise the setting level

<Travel 2nd speed control level setting screen>



Setting level	Maximum speed (km/h)
1	5±1
2	6±1
3	7±1
4	8±1
5	9±1
6	10±1
7	11±1
8	12±1

≜ Caution Be sure to operate switches with your fingers.

3. Press switch (3) to go to the next screen. On standard models, the next screen is the power control selection screen. On all-round models, it is the overspeed alarm setting screen.

<Overspeed alarm setting screen>



3

Overspeed alarm setting

(All-round model only)

When the set speed is exceeded, a warning beep will sound to warn the operator.

(Setting the overspeed alarm)

1. Press switch (1) or (2) to select a set speed.

To increase the set speed

Press switch (2).

To decrease the set speed

. Press switch (1).

▲ Caution

- Even if the set speed is exceeded, speed will not be restricted.
- Be sure to operate switches with your fingers.
- Press switch (3) to go to the next screen 2. (power control selection).

Power control selection

The acceleration power (travel power control) of the vehicle can be set at six levels and the lift speed (material handling power control) can be set at four levels.

Press switch (1) to cause Power Control 1. Selection "YES" to blink.

Note:

When "YES" is selected, S, P, and H will all light up to indicate that the acceleration power and the lift speed have been set individually.

- 2. Press switch (3) to display the travel power control screen.
- 3. On the power control selection screen, press switch (2) and while "NO" is flashing, press switch (3) to go to the next screen (clock setting function screen).



. Press switch (1).

. Press switch (2).

<Power control selection screen>



3



<Travel power control level setting screen>

 (\oplus)



(Travel power control level setting)

1. Press switch (1) or (2) to select a set level. To raise the setting level

.Press switch (2). To lower the setting level

.. Press switch (1).

≜ Caution Be sure to operate switches with your fin-

gers.

2. Press switch (3) to go to the next screen (material handling power control level setting).



<Setting the clock>



SPH

<Clock display selection screen>



Clock display selection

The display of year, month, day, day of the week, 12/24-hour display, hour, and minute can be set.

(Setting the clock)

- En 1. Press switch (1) to cause Clock Set "YES" to blink.
- 2. Press switch (3) to display the clock set screen.

To increase the number

. Press switch (2). To reduce the number

. Press switch (1).

3. Press the switch (3) to set the blinking number and the next selection item num-ber will blink. The setting procedure is the same as in 2.

Note:

For 12/24-hour system selection, press switch (1) or (2).

- 4. After the minutes are set, press switch (3) to go to the next screen (normal screen).
- 5. Press switch (2) on the clock setting function selection screen and then press switch (3) while "NO" is blinking to go to the next screen (normal screen).

▲ Caution

Be sure to operate switches with your fingers.





To lower the setting level

.. Press switch (1).

▲ Caution

Be sure to operate switches with your fingers.

2. Press switch (3) to go to the next screen (clock setting function selection).







<Material handling power control level setting

screen>



- Press switch (2).

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Warning alarm

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When an operation is performed in error, a warning alarm sounds to inform the operator of the error.

The warning alarm sounds in the following cases:

(1) Return to neutral warning

When the operator turns the key switch to ON to start the vehicle while depressing the accelerator pedal or while the direction switch is on.

When traveling motion is stopped by the OPS system, sitting in the seat and depressing the accelerator pedal without returning the direction lever to its neutral position will sound a buzzer to indicate that the motion stop has not been released. Sitting in the seat with the accelerator pedal depressed will also activate this alarm.

- (2) Material handling lock warning (OPT) If the operator leaves the seat while the material handling lever is being operated, a warning sounds and material handling operation is disabled.
- (3) Parking brake ON warning When the operator attempts to start the vehicle with the parking brake engaged.
- (4) Parking brake OFF warning When the operator leaves the seat without engaging the parking brake.

Note:

Even when the key switch is OFF if the operator leaves the seat without engaging the parking brake, the parking brake OFF warning will sound

Turning the display off

In the following case, the display is automatically turned off and returns to the same status as the key OFF status, even if the key switch is set at the ON position.

(1) The vehicle is left with the key switch at ON for a long time.

To use the vehicle in this status, turn the key switch to OFF, then turn it to ON again.

▲ Caution

If the display is not turned on by turning the key switch on once again, do not perform any operation with the vehicle and have it inspected at a Toyota dealer.

SWITCHES AND LEVERS

0FF

ON

Key switch

Insert the key with the teeth facing upward.

◎ OFF......The key can be inserted and pulled out in this position.

ON......Turn the key in a clockwise direction from the OFF position. The vehicle is ready to start when the key is in this position.

▲ Caution

- Be sure to sit in the seat before turning the key switch to ON. If the OPS indicator is displayed on the screen, release the accelerator pedal and return all levers to their neutral positions. Make sure that the OPS indicator goes off.
- Do not turn the key switch to ON while depressing the accelerator pedal.
- Remove the key switch when the vehicle is not in use.
- When the key switch is turned off, the fork will not lower even if the lift lever is shifted downward.

Direction lever

This lever selects forward or backward travel.

...Push the lever forward Forward ...

Backward.. .Pull the lever

Push the lever in the direction opposite to the traveling direction, and depress the accelerator pedal to activate the electric brake for smooth braking.

▲ Caution

- Operate the electric brake carefully when the fork is loaded.
- If the OPS indicator is displayed on the screen, sit in the seat again, release the accelerator pedal, and return the direction, lift and tilt levers to their neutral positions. Make sure that the OPS indicator goes off.



(1) Forward (2) Backward



-0-



(1) Left turn (2) Right turn

Turn signal switch (OPT)

Light control switch (OPT)

This is two-stage turning switch. The lights indicated by "O" in the table below light up at each turning position.

Step 1

_

0

Step 2

0

0

This switch causes the turn signal switch to blink.

Left turnPush the lever forward

Right turn Pull the lever The turn signals will operate even when the key switch is off. The turn signal switch returns automatically to the original position after a direction change.



(1) Raising (2) Lowering

Lift lever

Raises and lowers the fork.

RaisePull the lever

...Push the lever forward Lower

Raising and lowering speed are controlled by the angle of this lever.

Note:

On an SAS model, the fork cannot be lowered even if the lift lever is so operated if the key switch is off. (Key-lift interlock)

▲ Caution

the accelerator pedal and the lift and tilt levers to their neutral positions and sit in the seat so that load handling operations can be resumed. (Sitting in the seat without returning the lift and tilt levers to their neu-tral positions will cause sudden movement of the forks and the mast.)

Key-lift interlock

When the key switch is off, the fork cannot be lowered even if the lift lever is so operated.

Note:

- Before operating the lift lever, seat in the seat and turn the key switch ON.
- When the fork has been lowered by using the lift lock release bolt, be sure to retighten the bolt to its original position.





(1) Push



Horn button

Light name

Headlights (OPT)

Side clearance lights and tail lights (OPT)

Press the button in the center of the steering wheel to sound the horn.



(1) Lift lock release bolt

After activation of the OPS system, return



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(1) Forward(2) Backward



(1) Tilt lever knob button

Tilt lever

This lever tilts the mast forward and backward. ForwardPush the lever forward Backward.....Pull the lever

Forward and backward tilting speed are controlled by the angle of this lever.

\land Caution

- After activation of the OPS system, return the accelerator pedal and the lift and tilt levers to their neutral positions and sit in the seat so that load handling operations can be resumed. (Sitting in the seat without returning the lift and tilt levers to their neutral positions will cause sudden movement of the forks and the mast.)
- If the OPS system is activated, do not operate the tilt lever. Depending on the mast position, backward tilting operation by the tilt lever could cause the mast to tilt backward under its own weight.

Tilt lever knob button

When the tilt lever knob button is ON, operate from a backward tilt to a forward tilt to stop the fork automatically in a horizontal position. It is also possible to slow down the backward tilt speed at a low lift.

Automatic fork leveling control

Turn the tilt lever knob button ON and operate the mast from a backward tilt to a forward tilt using the tilt lever. The mast will automatically stop with the fork in a horizontal position. This feature is convenient when loading and detaching the fork.



(1) Attachment lever



	Not loaded	Loaded
High lifting height	Fork stopped in hori- zontal position (mast vertical) Not tilting forward	Not tilting forward
Low lifting height	Fork stopped in the horizontal position (with mast in the vertical position)	

Active mast backward tilt speed control

As long as the tilt lever knob button is ON, backward tilt speed will be slow. However, even when the switch is not ON, backward tilt speed will become slower at a high lift.

Attachment lever

This lever operates an attachment. Attachment speed is controlled by the angle of this lever.

▲ Caution

After activation of the OPS system, return the accelerator pedal and the attachment levers to their neutral positions and sit in the seat so that load handling operations can be resumed. (Sitting in the seat without returning the attachment levers to their neutral positions will cause sudden movement of the forks and the mast.)

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Mini-lever (OPT)

Note:

When the seat is not occupied and the switch is not on, material handling is disabled.

Control lever

This lever selects forward or backward travel. The neutral position is between the forward and backward positions.

Forward Backward.....

Note:

Lift lever

Raise

Lower ..

Raises and lowers the fork.

Raising and lowering speed are controlled by the angle of this lever.

If the OPS indicator is displayed on the screen, release the accelerator pedal, return all levers to their neutral positions and return to the seat. Make sure that the OPS indicator is off.



(1) Lift lock release bolt



(1) Forward

(2) Backward





(1) Raising (2) Lowering

(1) Forward

(2) Backward

..... Push the lever forward. .Pull the lever.

. Pull the lever

. Push the lever forward

▲ Caution Stop the vehicle before shifting to forward or reverse.

...Pull the lever Backward...

.Push the lever forward

This lever tilts the mast forward and backward.

• On a mini-lever model as well as standard

• If the OPS indicator is displayed on the

• When the fork cannot be lowered due to

• When the fork has been lowered by using

retighten the bolt to its original position.

screen, release the accelerator pedal, return all levers to their neutral positions and

return to the seat. Make sure that the OPS

operation failure, loosen the lift lock

the lift lock release bolt, be sure to

is off. (Key-lift interlock)

indicator is off.

release bolt.

Tilt lever

Forward.

model, the fork cannot be lowered even if the lift lever is so operated if the key switch

Forward and backward tilting speed are controlled by the angle of this lever.

Note:

Note:

- If the OPS indicator is displayed on the screen, release the accelerator pedal, return all levers to their neutral positions and return to the seat. Make sure that the OPS
- If the OPS system is activated, do not operate the tilt lever. Depending on the mast position, backward tilting operation by the tilt lever could cause the mast to tilt backward under its own weight.





(1)Fork automatic leveling switch

Fork automatic leveling switch

If changing mast tilting from backward to forward while pressing this switch, the mast will be stopped automatically when the fork is level. This switch can be also used to slow down the backward tilt speed at a low lift.

Automatic fork leveling control

When the fork is tilted backward, use the tilt lever to tilt the mast forward while pressing the fork automatic leveling switch to stop the mast automatically when the fork is level. This feature is convenient when inserting and withdrawing the fork while stacking.

Fork motion when changing mast tilting from backward to forward while pressing the fork automatic leveling switch.

	Not loaded	Loaded
High lifting height	Fork stopped in hori- zontal position (mast vertical) Not tilting forward	Not tilting forward
Low lifting height	Fork stopped in the horizontal position (with mast in the vertical position)	
Lift to the maximum height	Not tilting forward	

Active mast backward tilt speed control

The backward tilt speed can be slowed down by pressing the fork automatic leveling switch. However, backward tilt speed will automatically be slowed at a high lift whether or not the switch is pressed.

Note:

Turn the fork automatic leveling switch OFF when not using the fork automatic leveling function.

Attachment lever

This lever operates an attachment. Attachment speed is controlled by the angle of this lever.

Note:

If the OPS indicator is displayed on the screen, release the accelerator pedal, return all levers to their neutral positions and return to the seat. Make sure that the OPS indicator is off.



(1) Forward
 (2) Backward

(1) Raising

(2)Lowering(3)Forward tilting

(4)Backward tilting

Joystick (Option)

Control lever

This lever selects forward or backward travel. The neutral position is between the forward and backward positions.

ForwardPush the lever forward. BackwardPull the lever

Note:

If the OPS indicator is displayed on the screen, release the accelerator pedal, return all levers to their neutral positions and return to the seat. Make sure that the OPS indicator is off.

▲ Caution Stop the vehicle when shifting to forward or reverse.

Load handling joystick

Lateral and push-pull operations correspond to lifting up/down and tilting, respectively. **Raise** Operate the joystick rightward. **Lower** Operate the joystick leftward. **Forward tilting**Push the joystick. **Backward tilting**Pull the joystick. Operating in an oblique direction is possible for simultaneous lifting and tilting.



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(1) Lift lock release bolt

Note:

- On a mini-lever model as well as standard model, the fork cannot be lowered even if the lift lever is so operated if the key switch is off. (Key-lift interlock)
- If the OPS indicator is displayed on the screen, release the accelerator pedal, return all levers to their neutral positions and return to the seat. Make sure that the OPS indicator is off.
- If the OPS system is activated, do not operate the tilt lever. Depending on the mast position, backward tilting operation by the tilt lever could cause the mast to tilt backward under its own weight.
- When the fork cannot be lowered due to operation failure, loosen the lift lock release bolt.
- When the fork has been lowered by using the lift lock release bolt, be sure to retighten the bolt to its original position.



(1) Fork automatic leveling switch

Fork automatic leveling switch

If changing mast tilting from backward to forward while pressing this switch, the mast will be stopped automatically when the fork is level, this switch can be also used to slow down the backward tilt speed at a low lift.

Automatic fork leveling control

When the fork is tilted backward, use the tilt lever to tilt the mast forward while pressing the fork automatic leveling switch to stop the mast automatically when the fork is level. This feature is convenient when inserting and withdrawing the fork while stacking.

Fork motion when changing mast tilting from backward to forward while pressing the fork automatic leveling switch.

	Not loaded	Loaded	
High lifting height	Fork stopped in hori- zontal position (mast vertical) Not tilting forward	Not tilting forward	
Low lifting height	Fork stopped in the horizontal position (with mast in the vertical position)		
Lift to the maximum height	Not tilting forward		

Active mast backward tilt speed control

The backward tilt speed can be slowed down by pressing the fork automatic leveling switch. However, backward tilt speed will automatically be slowed at a high lift whether or not the switch is pressed.

Note:

Turn the fork automatic leveling switch OFF when not using the fork automatic leveling function.



(1) Attachment operating joystick

Attachment operating joystick

Lateral and push-pull operations correspond to the third and fourth mini-lever operations, respectively.

Oblique operation, however, is not possible.

Note:

If the OPS indicator is displayed on the screen, release the accelerator pedal, return all levers to their neutral positions and return to the seat. Make sure that the OPS indicator is off.



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