

## Travel Along Line

The travel along line function automatically steers the machine to follow the steering target. It does this when you move the forward/reverse track control, which is assigned to the wheel on the work equipment lever.

### WARNING

- This function automates the steering operation of the track control. Before you use this function, be sure to read and understand the warnings and precautions in the Basic Operation, “Track Control”.
- Make sure that the direction of the track frame is set correctly before you operate the travel control. If the track frame is pointed to the rear side (the sprocket is at the front), the machine moves in the opposite direction (forward/reverse) to the direction operated by the work equipment control lever wheel for travel control.  
You can see the direction of the track frame with the bird's eye view icon on the machine monitor. For details, see Basic Operation, “Travel Heading Indicator”.
- If the machine operates unexpectedly while the operator uses this function, use this function in situations where an emergency stop can be done with sufficient margin.  
In addition, keep persons away from around the machine.
- Do not use this function during the lifting operation.
- Make sure that the travel alarm operates normally during the travel.
- The machine can show unexpected behavior because of incorrect operation. When you operate the machine, make sure of the safety around the machine visually or with camera images.
- When you operate the machine, do not look only at your hands. Make sure to look around the machine.
- When you make travel operations for dangerous works such as loading or unloading on a trailer, use the travel levers and travel pedals to reduce operation errors (which includes counter-rotation turn operations). For details, see Basic Operation, “Load onto and Unload from a Trailer”.

### CAUTION

- Before you start the work, examine which wheel of the work equipment control lever the track control is allocated.
- If you operate a travel lever or make a track control operation while you use this function, the auto control is canceled.
- If the GNSS reception is not available, this function cannot be used. If the reception is degraded during the construction, the control is not applied. Operate the machine carefully in case the reception is not available.
- If you use this function on a slope, rough ground, or muddy ground, the machine slips and does not move as intended in some cases.
- It cannot follow sharp curves or near inflection points in some cases.

## Preparation Before You Use Travel Along Line

### 1. Allocate lever switches.

Before you use this function, allocate the functions that follow to the lever switch and wheel on “Lever Switch Assignment” screen.

- Auto/manual
- No.4 of “Left Lever Setting”: “Track Control Steering”
- No.4 of “Right Lever Setting”: “Track Control Forward/Reverse”

### 2. See the travel speed.

Make sure that it is set to the low speed travel (Lo) before you use it. For details, see Basic Operation and Maintenance Manual, “How to Change Travel Speed”. This can be used even when the machine travels at high speed (Hi) or medium speed (Mi), but the machine cannot follow the travel path in some cases.

### 3. Changes the control mode.

Activate “Travel along line” function. For details, see “How to Set Swing to line / Travel along line Control Mode (5-275)”.

### 4. Select the steering target.

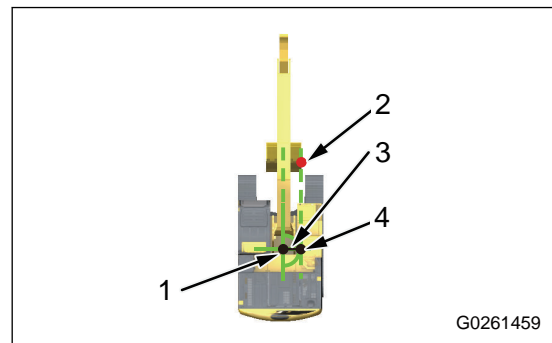
You must select a steering target to use this function. For details, see “Steering Target (5-152)”.

### 5. Select the control/guidance point for the steering.

Select the attachment bucket edge position to be used as a reference when you do the machine control for the steering target. For details, see “Control/Guidance Point (5-190)”.

The figure shows the right blade edge (2).

The control point is the point (4) that puts in mind the offset (3) between the swing center (1) and the right blade edge (2). This control operates the machine's travel to let the point (4) agree with the steering target.



## Travel Along Line Setting

The travel along line function has the items that follow.

For details, see “Travel Tab (5-276)”.

- “Approach Angle”: “Slow”, Middle, “Sharp”
- “Steering Control Effective Range”

### Display Travel Along Line Function on Screen

When you activate the Travel Along Line or Swing to Line function, the display on the screen changes to the specified presets for steering control. When you tap the preset selector icon (1) while the special preset is shown, the travel along line function and swing to line function are disabled. And the preset goes back to the original preset.

**REMARK**

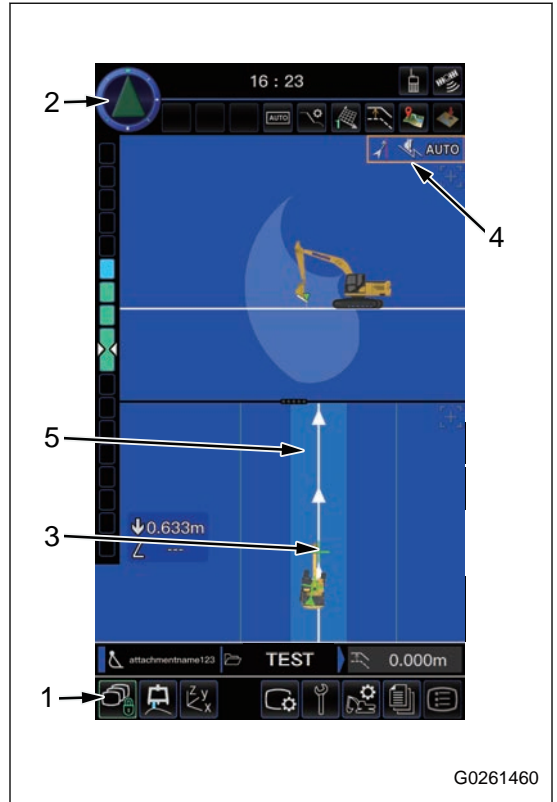
You can see that the display is changed to the specified display for steering control by the key mark on the preset selector icon (1).

The steering control dedicated preset has a screen layout to help you use the steering function effectively. It includes the following:

- To use the steering function effectively, the main screen when this function is used is fixed to “Plan View”, and the sub-1 screen is fixed to “Profile (Machine)”. If you want to use the sub-2 screen, set the main screen to “Plan View”, the sub-1 screen to “Profile (Machine)”, and the sub-2 screen to the desired display before you activate the function. After that, activate the function.
- The facing angle compass is not shown on the screen. However, you can place the facing angle compass (2) in the circular indicator.
- The settings other than the display settings of the facing angle compass, main, sub-1, and sub-2 on the work screen are carried over to the settings of the original preset. The changes made when the specified presets for steering control is shown are also applied to the standard presets.
- A cross hair (3) is shown. For details, see “Cross Hair (5-367)”.

The contents shown below appear when you use travel along line.

- The travel control icon (4) changes between waiting and controlling, as shown in the figure.
  - (A): Waiting
  - (B): Under control
 “Ready” is shown in the effective range of steering control.
- The effective range of the steering control (5) is shown semi-transparently. On the outside of the range, the control does not operate.



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### Travel Along Line Control

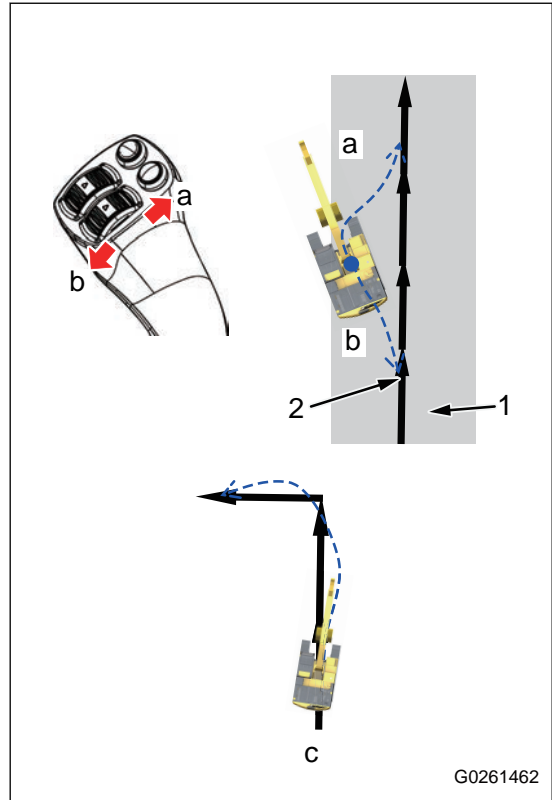
When the center of the machine is in the effective range (1) of the steering control, this function operates when the wheel for track control forward/reverse is operated. When it is in the neutral position, it stops.

The figure shows an example where the track frame is pointed forward (sprockets at the rear).

- When the wheel for track control forward/reverse is operated in the direction of (a), the machine moves along the steering target (2) like path (a).
- When the wheel for track control forward/reverse is operated in the direction of (b), the machine moves along the steering target (2) like path (b).

#### NOTICE

- If the track frame is pointed to the rear side (sprockets are in front of the operator), the machine moves in the opposite direction (forward/reverse) to the direction operated by the track control.
- If you make a swing operation during travel control, the precision of the travel control can deteriorate. If precision is necessary, start the travel operation after the swing is completed.
- This control cannot be used when the machine inclination is large.
- In some cases, it cannot follow sharp curves or near inflection points, such as (c) shown in the figure. This occurs especially when the approach angle is "Slow".
- When you use it in combination with the 3D boundary function, this function is disabled while the machine is in "Proximity" or "Contact" state.



### How to Temporarily Disable Travel Along Line Control

When you do the operations that follow, travel along line is temporarily disabled. The machine operates as operated by the operator. Secure the safety around the machine when you operate it.

- Temporary control cancel switch
- Travel pedal/lever operation
- Track control steering operation

## How to Use Travel Along Line

1. Do the preparation before you use the travel along line.  
For details, see "Preparation Before You Use Travel Along Line (6-46)".
2. Move the machine to the effective range of steering control.
3. Push the auto/manual selector switch to change the mode to the semi-auto mode waiting state.
4. Make sure that the area around the machine is safe. Operate the wheel for track control forward/reverse.  
The control starts, and the travel operation is done automatically.
5. When the wheel operation for track control forward/reverse is set back to the neutral position, the control is terminated.

### REMARK

- When you adjust the dial of the lever wheel, you can adjust the travel speed.
- At low temperature, if the machine travel speed is not normal, do the warm-up operation fully.
- If the undercarriage is packed with mud and the machine travel speed is not normal, remove the soil and mud from the undercarriage.

## Messages Shown During Use of Travel Along Line Function

For an abnormality, see "Abnormality with Message Shown on ICT Monitor (2-10)".

Message	Description and remedy
"Steering: Out of Design Area"	This is shown when the machine is out of the effective range of steering control.
"Steering Control Disabled: Invalid Waypoints - Key Off Required"	It is shown when a problem is sensed in the information held. Turn the starting switch to the OFF position, and then turn it to the ON position.
"Steering Control Disabled: Slope Limit Exceeded"	It is shown when the function cannot be used because of the inclination of the machine body. Use it on a level area.
"Steering Control Paused (Manual Operation)"	This is shown when a manual operation is made while the function is in use.
"Track control" Wheel: Not assigned"	This is shown when you start to use this function while the track control is not set.