

Toyota I_Site Fleet Management System

User Manual

v0120



I_Site UK Helpdesk: I_Site@uk.toyota-industries.eu

Contents

1	Introduction.....	4
1.1	Web application and machine communication.....	4
1.2	Precautions regarding the machine installed system.....	5
2	Access and navigation.....	5
2.1	Logon.....	5
2.2	First time sign in.....	6
2.3	Expiring password.....	6
2.4	Password recovery.....	6
2.5	Expiring account.....	6
2.6	Account recovery.....	7
2.7	Supported web browsers.....	7
2.8	Settings.....	7
3	Navigating I_Site.....	7
3.1	Top navigation bar.....	7
3.2	The left navigation panel.....	8
3.3	Maintenance notice.....	9
3.4	Help.....	9
3.5	Logout.....	10
3.6	Terms of use.....	10
4	Navigating reports.....	10
4.1	Making a search.....	11
4.1.1	Selecting sites.....	11
4.1.2	Switching sites.....	11
4.1.3	Selecting multiple sites.....	12
4.1.4	Refining search by text criteria.....	13
4.1.5	Refining search by group criteria.....	13
4.1.6	Selecting time intervals.....	13
4.1.7	Including historical data.....	14
4.2	Viewing search results.....	15
4.2.1	Sorting tables.....	15
4.2.2	Expanding view.....	15
4.2.3	Favourites.....	16
4.2.4	Subscriptions.....	17
4.2.5	Exporting to excel.....	18
4.2.6	Charts.....	19
4.2.7	Exporting reports.....	19
5	User and driver administration.....	20
5.1	Creating system user accounts.....	20
5.2	Editing user accounts.....	23
5.3	Site management – Drivers.....	23
5.4	General.....	23
5.4.1	Machine log-on and log-off.....	24
5.4.2	Default log-on codes.....	24
5.4.3	Default Smart Access log-on.....	24
5.5	Machine managed installations.....	25
5.5.1	Assigning machine access (adding drivers).....	25
5.5.2	Editing driver details.....	25
5.5.3	Driving license expiry.....	26
5.6	Server managed installations.....	27
5.6.1	Adding single drivers.....	27
5.6.2	Adding drivers from template.....	28
5.6.3	Editing driver details.....	29
5.6.4	Driver groups.....	33
5.6.5	Assigning machine access.....	34
5.6.6	Synchronizing driver information.....	36
5.6.7	Driver access overview.....	36
5.6.8	Deleting machine access.....	37

5.7	Smart Access	38
5.7.1	Assigning machines by means of Smart Access	38
5.7.2	Log on with Smart Access	41
6	Site management – Machines	41
6.1	General	41
6.2	Configuring machines	41
6.2.2	Battery settings	46
6.2.3	Miscellaneous	47
6.2.4	Pre-Operational Check (POC)	49
6.2.5	Immobilize On/Off	49
6.2.6	Last known state	50
6.2.7	Trigger communication	50
6.3	Machine groups	51
6.3.1	Creating machine groups	51
6.3.2	Editing machine groups	52
6.3.3	Deleting machine groups	52
6.4	Assigning driver machine access	52
6.4.1	Synchronize machine with latest driver list	53
6.4.2	Delete drivers from machine access	53
6.5	Report viewing sites	54
6.5.1	Site summary	54
6.6	Report viewing machines	55
6.6.1	Utilization rates	55
6.7	Activity reports	57
6.8	Charts	58
6.9	Shocks – Drivers	58
6.9.1	Searching shocks drivers	59
6.9.2	Investigating further	60
6.10	Shocks – Machines	60
6.10.1	Shocks summary	60
6.10.2	Shock details	61
6.10.3	Interpreting shock reports	63
6.10.4	Impact tests	64
6.10.5	Resetting shock lock-outs	65
6.11	Battery reports	66
6.11.1	To access Battery Detail:	66
6.11.2	Battery Detail	67
6.11.3	Exporting battery report	67
6.11.4	Changing time period	67
6.11.5	Battery Discharge Indicator graph	68
6.11.6	Lead Acid battery	70
6.11.7	LI-ION batteries general information	71
6.11.8	Li-Ion batteries data colour coding	71
6.12	Report viewing – Drivers	72
6.12.1	Utilization rates	72
6.13	Activity reports	74
6.14	Charts	75
6.15	Shocks - Drivers	75
6.15.1	Shocks summary	75
6.15.2	Shock details	76
7	Service and rental contracts	76
8	Subscriptions and Notifications	77
8.1	Subscriptions	77
8.2	Notifications	79
9	Pre-Operational Check	80
9.1	Introduction	80
9.2	The on-board panel	81
9.3	Machine Configuration settings	82
9.3.1	Enable POC	82
9.3.2	Response time	83
9.3.3	Safety control checks by supervisors	83

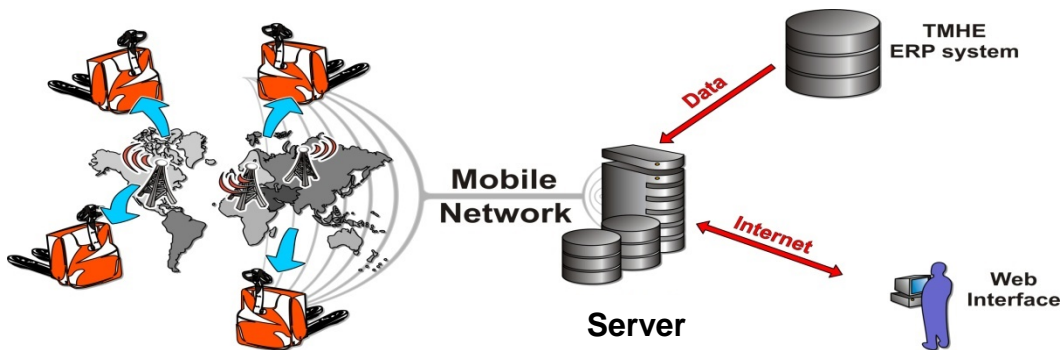
9.3.4	Randomized questions	83
9.3.5	Selecting checklist	84
10	Pre-Operation Checklists.....	84
10.1	Accessing Pre-Op Check	84
10.2	Searching Pre-Op Check machines	85
10.2.1	Investigating further	86
10.3	Accessing Pre-Op Check drivers	87
10.4	Searching Pre-Op Check drivers	87
10.5	Accessing Pre-Op Check-results	88
10.6	Searching Pre-Op Check results	88
10.6.1	Investigating further	89
10.7	Checklists.....	89
10.8	Creating checklists	89
10.8.1	Publishing checklists.....	92
10.8.2	Removing checklists from machines.....	93
10.8.3	Modifying checklists.....	93
10.8.4	Deleting checklists.....	93
10.9	Answering procedure	93
10.10	Resetting POC lock-out.....	94
10.11	POC summary – Drivers	94
10.12	POC summary – Machines	95
10.13	POC Result details.....	96
11	Messaging.....	97
11.1	Introduction	97
11.1.1	Create message	98
11.1.2	Overview.....	100
11.2	Home page / Dashboard	102
11.2.1	Dashboard.....	102
11.3	Creating new tiles.....	102
11.4	Modifying tiles	103
11.5	Moving tiles	104
11.6	Removing tiles.....	105
11.7	Replacing tiles.....	105
11.8	Accessing reports from dashboard.....	105
11.9	General features	106
11.9.1	Machine Configuration.....	106
11.10	Sorting and expanding tables.....	106
11.11	Favourites	107
11.12	Exporting to excel.....	107
12	Andon.....	109
12.1	Setup and configuration of Andon	109
13	Positioning.....	112
13.1	Positioning General information	112
13.2	Positioning feature	113
14	Geofence	113
14.1	Creating Geofence the first time.....	113
15	Shock Positioning	120
15.1	Enabling the shocks positioning.....	120
	Appendix: I_Site shock recordings.....	123

1 Introduction

1.1 Web application and machine communication

I_Site is a web-based enterprise application that offers central administration of machines and driver access as well as provides information on driver performance, when and by whom machines are operated, rate of usage, battery maintenance (machine design dependant), impact registrations as well as follow-up of performed machine health checks. Machine access is achieved by entering a PIN code or by the use of personal id cards (*Smart Access* or *SA*). A supplementary feature, *My Fleet*, surveys carried out preventive and repair machine maintenance. My Fleet is described in a separate manual.

I_Site utilizes GPRS communication between individual machines and a central database server. Equipment on the machines comprise Data Handling Unit (*DHU*), log-on keypad, antenna as well as shock sensor, panel for Pre-Operation Check (POC) and access card reader (*SA*). The system collects data and uploads the information regularly to the central server. A web interface is used to present the information and to perform administration commands.



System overview

1.2 Precautions regarding the machine installed system

The cellular terminal inside the DHU transmits radio signals. According to the guidelines for human exposure, the antenna should be placed at least 20 cm away from human bodies. An information label (as illustrated) must be placed on the machine, easily visible.



Due to risk for interference, a DHU equipped machine must not be driven near medical equipment or explosives. Usage in areas with potentially explosive atmospheres requires that the installation has been appropriately protection modified in accordance with rules and regulations in force.

The DHU is sealed and must not be opened. Breaking the seal will terminate warranties and service support assistance will be discontinued.

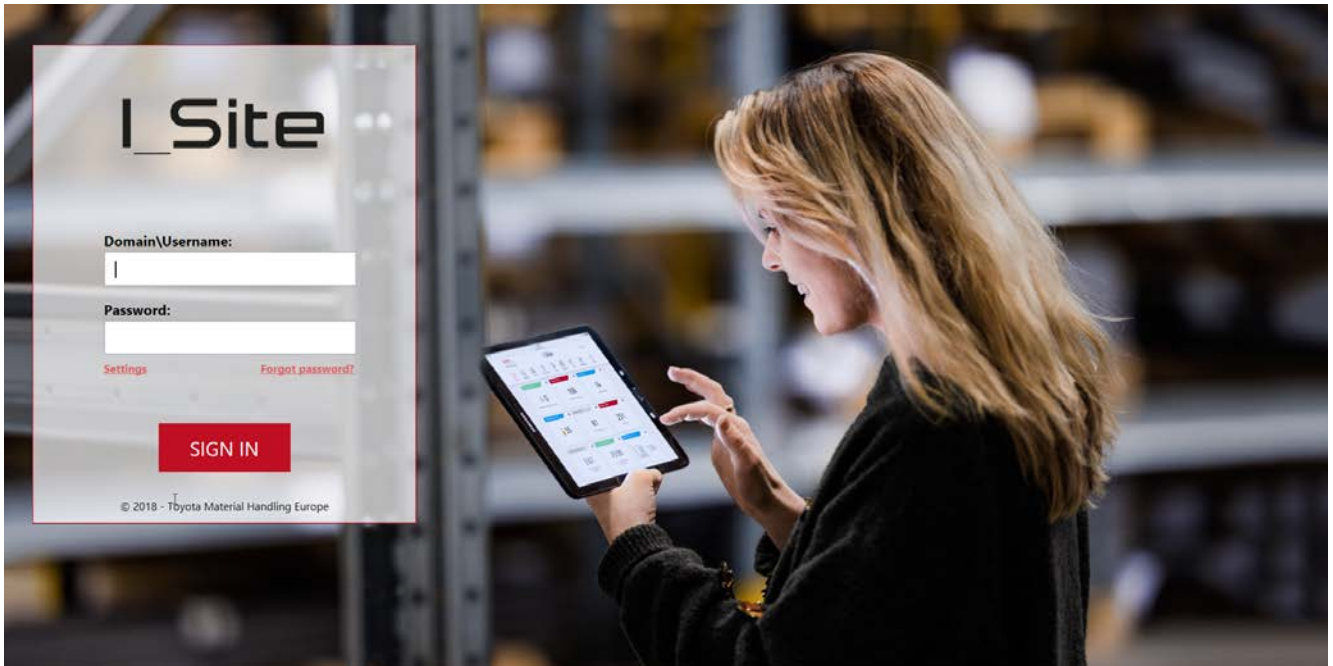
2 Access and navigation

2.1 Logon

Logon to the web portal is done on the I_Site website, which can be found at www.toyota-isite.eu.

To login:

1. Enter **User name**
2. Enter **Password**
3. Click **SIGN IN**



2.2 First time sign in

To access I_Site use the username and temporary password supplied in the invitation e-mail. On successful logon you will be asked to change your password before you can proceed to the home page.

The password is case sensitive.

2.3 Expiring password

A password will expire every 180 days and you will be required to change it prior to its expiration. You will have to enter a new password after logging on, but before you can proceed to the home page. If your password has expired and you cannot log on, you will need to recover your password.

2.4 Password recovery

In case you need to recover your password click on the **Forgot Your Password?** link or go to pwrecovery.toyota-industries.eu. Follow the instructions on the page to receive a temporary password to your email account. An auto-generated password will be e-mailed to you. Upon logon you may change to a personalized password.

If you have not received your new password within one hour contact your contract administrator.

2.5 Expiring account

If you haven't logged on for more than 3 months your account will expire and will be locked. Expired accounts will have all active notifications and subscriptions cancelled. It will not be possible to access I_Site via mobile app either.

To recover your account contact Toyota support line. It might take a few days before your account is re-activated.

2.6 Account recovery

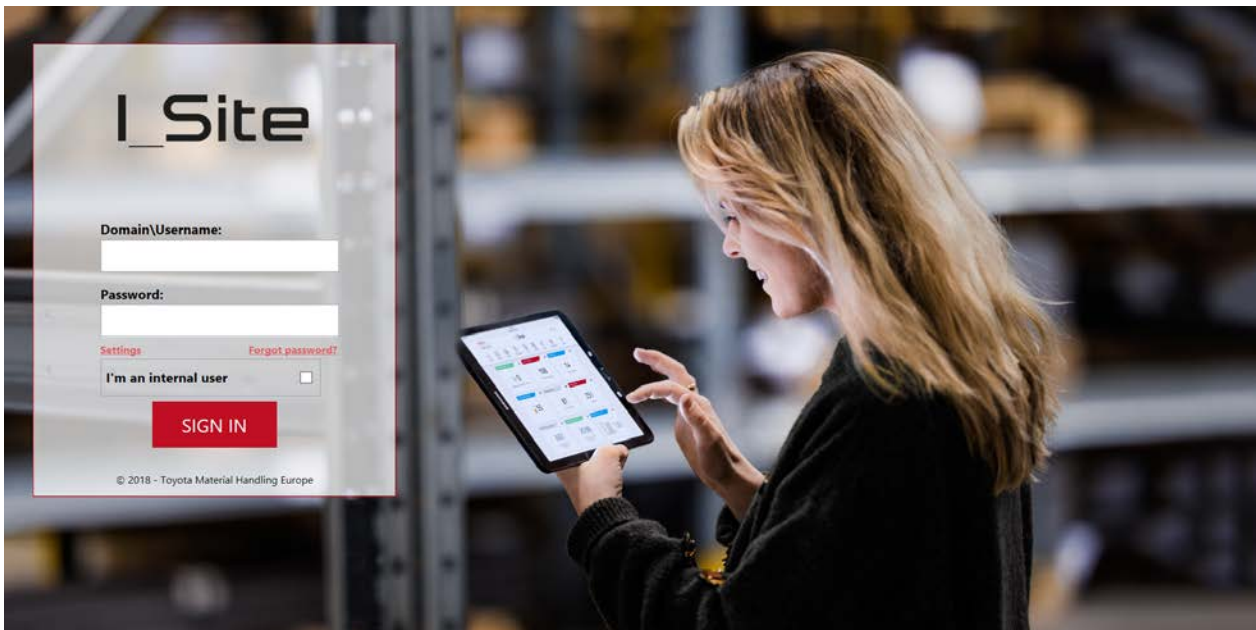
If you have problems accessing your account or don't remember your logon credentials, contact your contract administrator.

2.7 Supported web browsers

I_Site is supported on Internet Explorer 11 or newer and Google Chrome version 68 or newer. It is possible to access I_Site using other browsers, but some behaviour might differ from described in the manual.

2.8 Settings

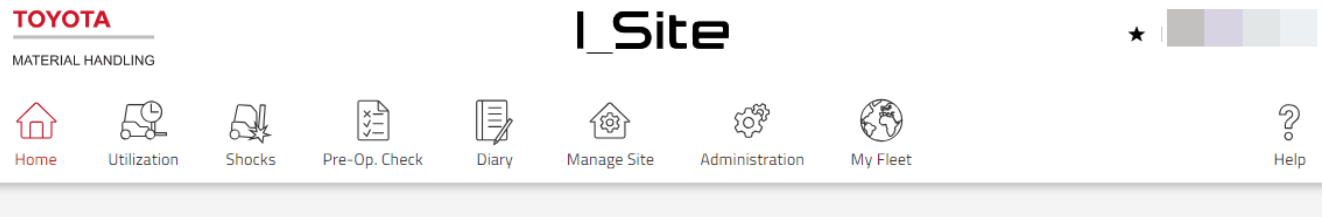
Clicking on settings will display checkbox with **I am an internal user** text next to it. This must be checked for Toyota employees that are working outside company network or are not connecting using VPN connection. Most users don't need to check this box and can safely ignore it.



3 Navigating I_Site

3.1 Top navigation bar

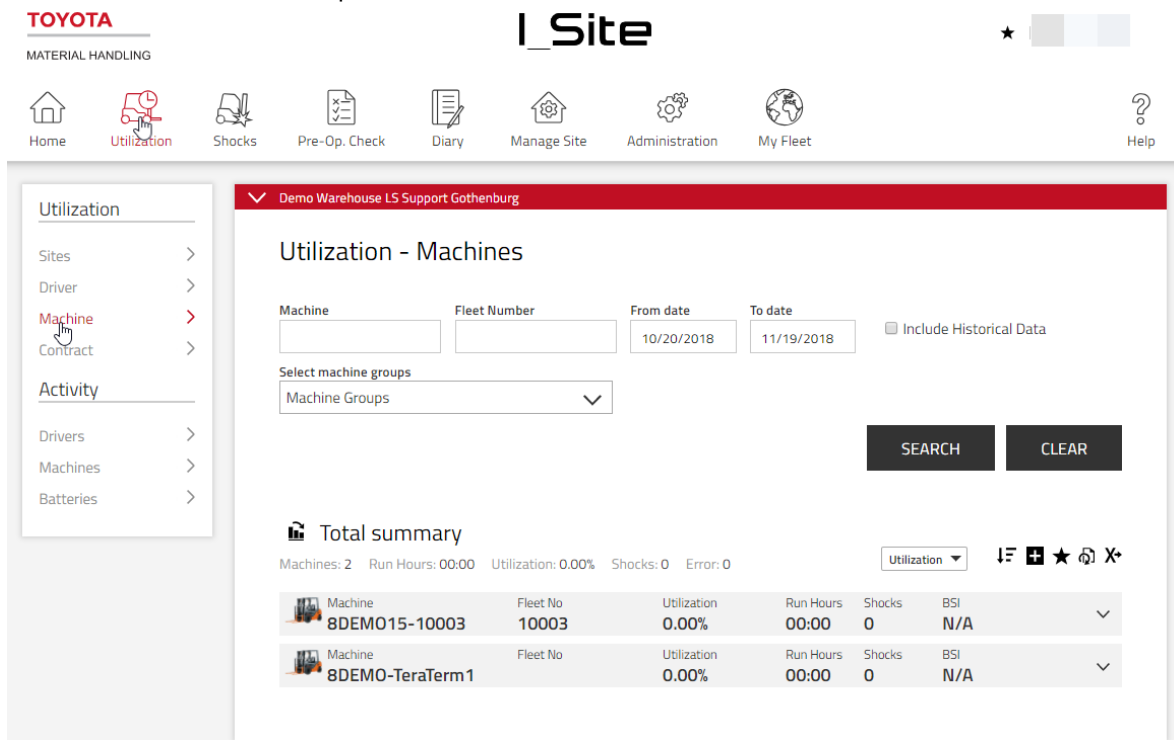
Top navigation bar is the main means of moving around I_Site and accessing various features and reports. The picture below shows the most advanced view with all features and roles enabled. Clicking on the icon will load the default report or function in a given module and load a side bar which shows all reports and features available in the module.



- Home** Dashboard
- Utilization** View site, machine, driver and contract utilization
- Shocks** View shocks on the machine, view shocks associated with drivers, comment shocks
- Pre-Op. Check** Manage pre-op checklists, view pre-operation checklist reports, manage messages, view message reports
- Manage Site** Create driver groups, create machine groups, configure machines, manage drivers
- Administration** Manage user access
- MyFleet** Information about fleet composition, cost and service

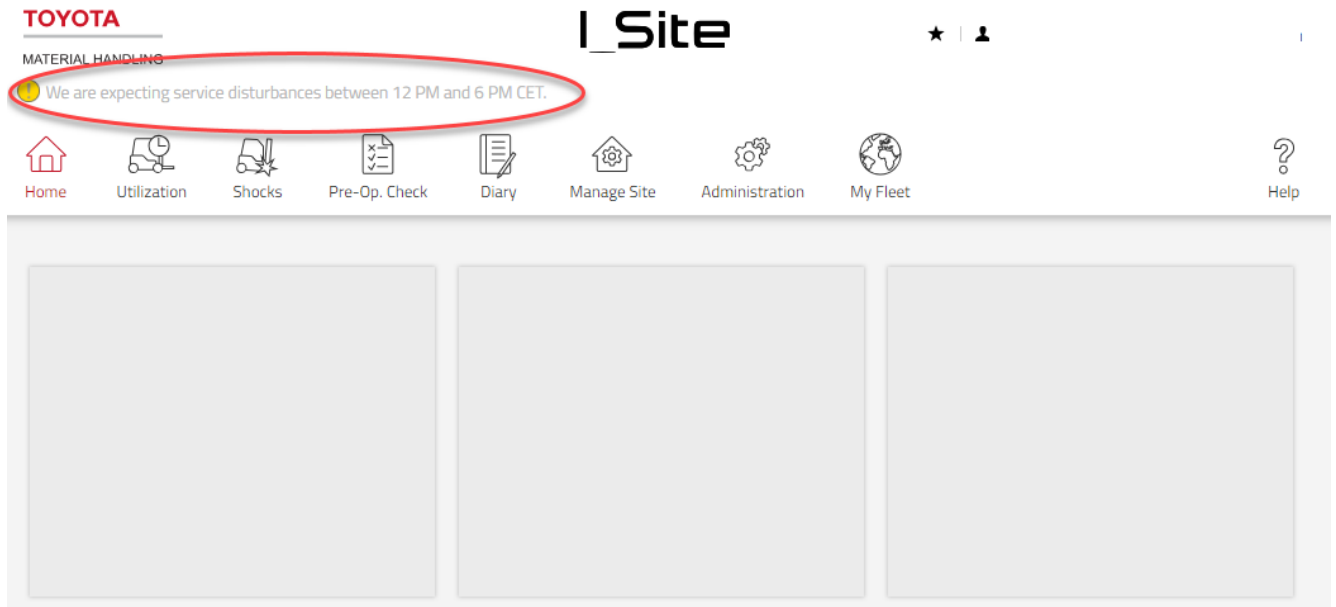
3.2 The left navigation panel

All modules have the left navigation panel with additional reports and functions that can be accessed. These are described in a section corresponding to each module. Clicking on the report / function name in the side bar will load the report / function window.



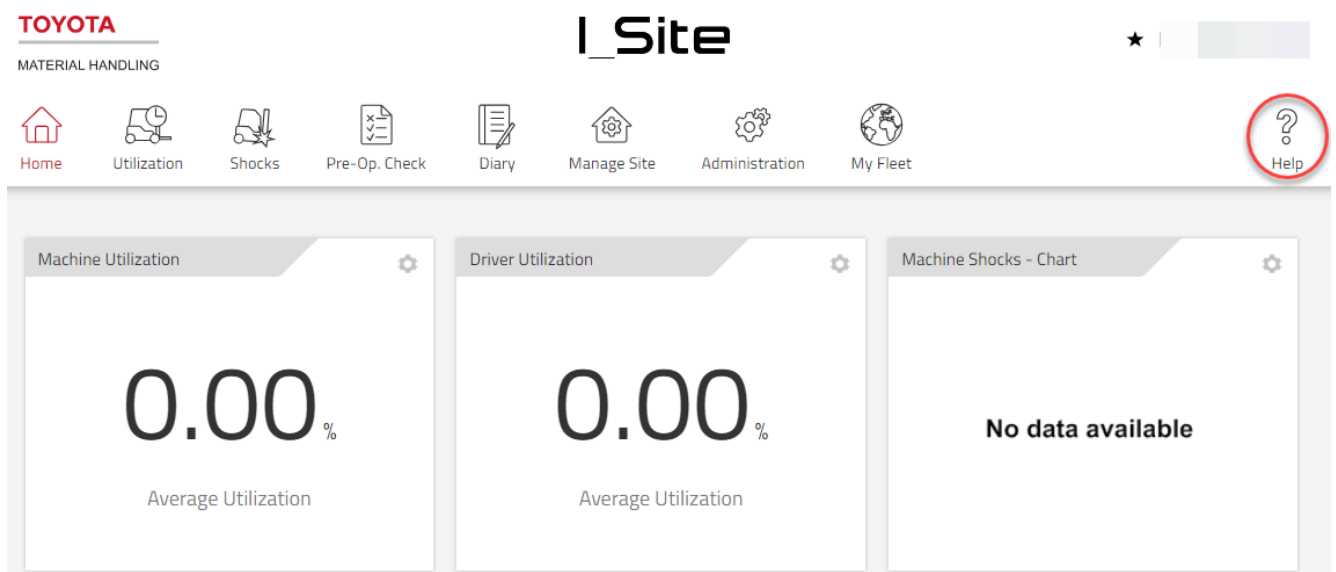
3.3 Maintenance notice

Notifications of planned maintenance and other web service information are posted above the top navigation bar.



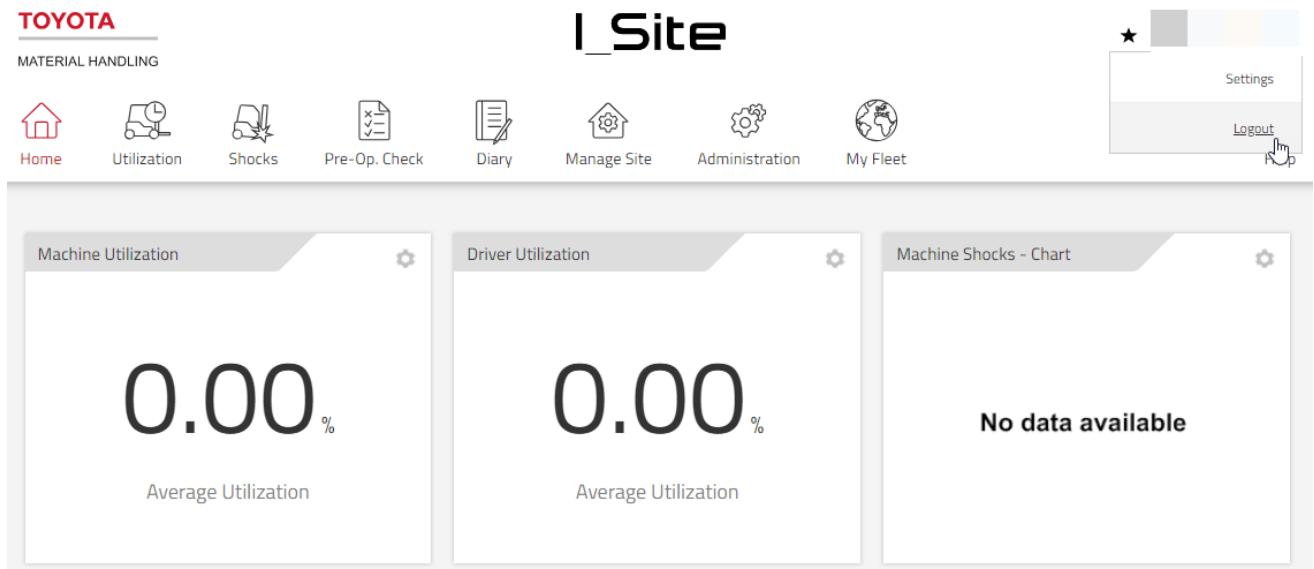
3.4 Help

To access additional support materials, e-learning or to download smart access application and files click on help in the top right corner of the web portal.



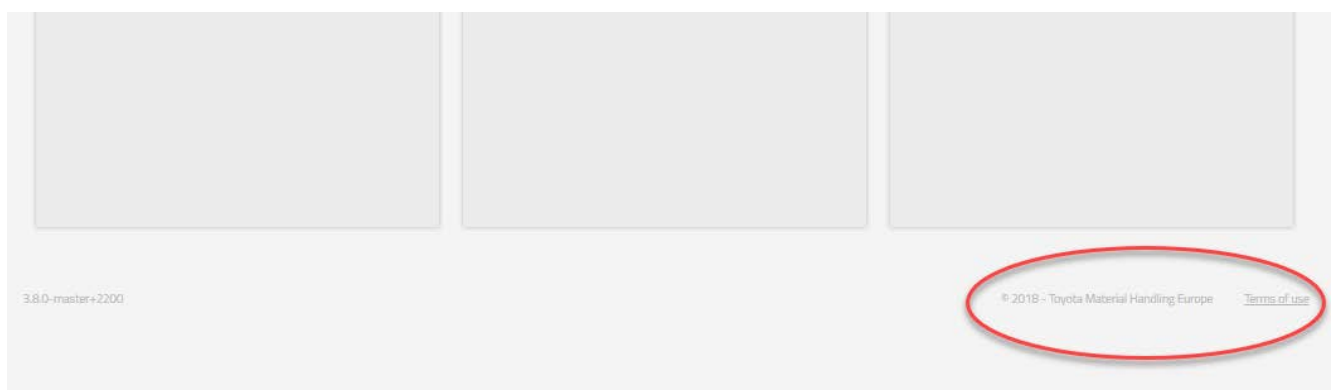
3.5 Logout

To logout click on the user name in the upper right corner of the web portal. It will expand a drop-down menu. Click logout and close the browser window to end session.



3.6 Terms of use

To view the current terms of use, click on the link in the bottom right corner of the web portal.



4 Navigating reports

All reports in I_Site follow the same structure. They consist of the **search field** and **results**. The search field is used to determine the scope of the report that will be created. The results show the data that is matching the search criteria. This part consists of **summary row** and **results row(s)**.

▼ 02 TMHE Roger Mjölby

Utilization - Machines

Machine Fleet Number From date To date Include Historical Data

Select machine groups

Total summary

Machines: 7 Run Hours: 02:55 Utilization: 0.26% Shocks: 0 Error: 0

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI	
RemoteDHUtest1		36.36%	02:55	0	N/A	^

■ Site: 02 TMHE Roger ■ Postal code: 11111 ■ City: Mjölby ■ Owner: Demo ■ Machine Family: REA - Reach Trucks ■ Model: RRB1 ■ Brand: BT
 ■ TMH- Fleet No: ■ Last updated: 08/02/2018 11:18:39 ■ Error: N/A
 ■ Last known state: Locked by supervisor lockout ■ Last known state change: 08/02/2018 11:18:39

4.1 Making a search

4.1.1 Selecting sites

I_Site can display reports both from a single site and aggregated from multiple sites. If you have access to multiple sites, the default site that I_Site will show information from is the first site alphabetically on the site list.

▼ Demo Warehouse LS Support Gothenburg

Utilization - Machines

Machine Fleet Number From date To date Include Historical Data

Select machine groups

4.1.2 Switching sites

If you want to receive report from a different available site:

1. Click on the red field at the top of the report page
2. Move the mouse over the site you want to see and it will be highlighted with a red ribbon

3. Click on the highlighted site
4. Click outside the site selector menu

I_Site will reload and show the data for the site you have selected.

The screenshot shows a site selector interface. At the top, a red ribbon displays '02 TMHE Roger Mjölby'. Below it, a list of sites is shown with checkboxes: '02 TMHE Roger Mjölby' is checked, and '03 TMHE Roger Mjölby' is unchecked. A 'Select All' button is visible. Below the list, there is a search input field containing a period, a 'Select machine groups' dropdown menu, and two buttons labeled 'SEARCH' and 'CLEAR'. The background shows a table with dates '09/01/2018' and '08/02/2018'.

4.1.3 Selecting multiple sites

If you want to see aggregated data for multiple sites:

1. Click on the red field at the top of the report page.
2. Select checkboxes for the sites you want the data for and click Select All to check all the checkboxes
3. Deselect the default site checkbox if you don't want to see the information for that site [optional]
4. Click outside the site selector window

The screenshot shows the site selector interface after selecting multiple sites. The red ribbon now displays 'Multiple sites selected (2)'. In the list, both '02 TMHE Roger Mjölby' and '03 TMHE Roger Mjölby' are checked. The search input field now contains 'TMHE R'. The 'SEARCH' and 'CLEAR' buttons are now disabled (greyed out). The background table with dates '09/01/2018' and '08/02/2018' is still visible.

I_Site will reload and show the data for the site you have selected. Name of the site displayed on the red ribbon will change to show that you can now perform search and see information from multiple sites.

▼
Multiple sites selected (2)

Utilization - Machines

Machine

Fleet Number

From date

To date

Include Historical Data

Select machine groups

Machine Groups
▼

SEARCH

CLEAR

4.1.4 Refining search by text criteria

Search results can be further refined by entering search criteria. Most common search criteria include:

Machine	Searching by machine serial number
Driver	Searching by driver name
Fleet Number	Searching by machines fleet / identification number

Search criteria are individual for each report and will be listed in a given report description. Leaving search criteria blank will result with displaying all available information for a given time.

4.1.5 Refining search by group criteria

Search results can be narrowed down by selecting a particular set of data or a **group**. When selecting a group or groups any text search will be done within that selection.

4.1.6 Selecting time intervals

Data reports can be refined by timespan. Clicking on either the **From date** or **To date** field will expand calendar. Select the dates for which data should be displayed.

Utilization - Machines

Machine: Fleet Number: From date: 10/20/2018 To date: 11/19/2018 Include Historical Data

Select machine groups:

Total summary
Machines: 2 Run Hours: 00:00 Utilization: 0.00%

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI
8DEMO15-10003	10003	0.00%	00:00	0	N/A
8DEMO-TeraTerm1		0.00%	00:00	0	N/A

4.1.7 Including historical data

By default, data for the trucks that have been removed from I_Site is not visible on site. To be able to see that data checkbox **Include Historical Data** must be selected prior to making search. This is only possible when only a single site is selected for search. Search on multiple sites must be done on a single site at the time. Historical trucks will be displayed as greyed out.

Utilization - Machines

Machine: Fleet Number: From date: 10/20/2018 To date: 11/19/2018 Include Historical Data

Select machine groups:

SEARCH CLEAR

Historical data is only available for the following reports, charts and excel exports:

- **Utilization** – Machines
- **Shocks** – Machines

- Pre-Op. Check – Machines

Following elements are excluded from information provided as historical data:

- Fleet Number
- Battery Status Information (BSI)
- Truck Ownership
- Last updated

Include Historical Data option is not selected by default. The user selection is remembered, and it will be pre-selected in the next session in any of the reports with historical data functionality.


4.2 Viewing search results

4.2.1 Sorting tables

Click on the title field to expand sorting options. A list of all table headers will be displayed. Click on the header name that you want to sort by. Sorting order will be applied automatically.

Machines: 16 Run Hours: 80:16 Utilization: 3.15% Shocks: 241 Error: 0


Utilization ↓

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI
 RemoteDHUTest1		37.83%	63:34	6	N/A

Click on the descending (arrow down) or ascending (arrow up) to define sorting order. Default value is descending.

Machines: 7 Run Hours: 02:55 Utilization: 0.26% Shocks: 0 Error: 0

Utilization ↓

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI
 RemoteDHUTest1		36.36%	02:55	0	N/A

■ Site: 02 TMHE Roger ■ Postal code: 11111 ■ City: Mjölby ■ Owner: Demo ■ Machine Family: REA - Reach Trucks ■ Model: RRB1 ■ Brand: BT
■ TMH- Fleet No: ■ Last updated: 08/02/2018 11:18:39 ■ Error: N/A
■ Last known state: Locked by supervisor lockout ■ Last known state change: 08/02/2018 11:18:39

4.2.2 Expanding view

Some non-essential information is hidden in the default view (compact). You can see this information by expanding the view.

To expand all rows, click on the .

Total summary

Machines: 1 Run Hours: 14:29 Utilization: 0.50% Shocks: 2 Error: 0

Utilization



Machine	Fleet No	Utilization	Run Hours	Shocks	BSI	
RemoteDHUTest1		0.50%	14:29	2	N/A	∨

To fold all reports, click on the minus sign.

Machines: 7 Run Hours: 02:55 Utilization: 0.26% Shocks: 0 Error: 0

Utilization



Machine	Fleet No	Utilization	Run Hours	Shocks	BSI	
RemoteDHUTest1		36.36%	02:55	0	N/A	∧
<p>■ Site: 02 TMHE Roger ■ Postal code: 11111 ■ City: Mjölby ■ Owner: Demo ■ Machine Family: REA - Reach Trucks ■ Model: RRB1 ■ Brand: BT ■ TMH- Fleet No: ■ Last updated: 08/02/2018 11:18:39 ■ Error: N/A ■ Last known state: Locked by supervisor lockout ■ Last known state change: 08/02/2018 11:18:39</p>						

To expand a single row, click on the down arrow on the far right corner of the row.

Total summary

Machines: 16 Run Hours: 80:16 Utilization: 3.15% Shocks: 241 Error: 0

Utilization



Machine	Fleet No	Utilization	Run Hours	Shocks	BSI	
RemoteDHUTest1		37.83%	63:34	6	N/A	∨

To fold a single row, click on the up arrow on the far right corner of the row.

Machines: 7 Run Hours: 02:55 Utilization: 0.26% Shocks: 0 Error: 0

Utilization



Machine	Fleet No	Utilization	Run Hours	Shocks	BSI	
RemoteDHUTest1		36.36%	02:55	0	N/A	∧
<p>■ Site: 02 TMHE Roger ■ Postal code: 11111 ■ City: Mjölby ■ Owner: Demo ■ Machine Family: REA - Reach Trucks ■ Model: RRB1 ■ Brand: BT ■ TMH- Fleet No: ■ Last updated: 08/02/2018 11:18:39 ■ Error: N/A ■ Last known state: Locked by supervisor lockout ■ Last known state change: 08/02/2018 11:18:39</p>						

4.2.3 Favourites

Favourites are means of keeping track of data selection in the reports. By clicking on a favourite, you will be taken to the report with the exact data it was saved with.

To create a **favourite**:

1. Click the star icon to open the **Save favourite** dialogue window
2. Enter a name
3. Save

Utilization - Machines

Machine: Fleet Number: From date: 10/20/2018 To date: 11/19/2018 Include Historical Data

Select machine groups: Machine Groups

Save favourite [X]

Enter the name of your favourite:

SEARCH CLEAR

SAVE FAVOURITE CANCEL

Total summary: Machines: 2 Run Hours: 00:00 Utilization: 0.00% Shocks: 0 Error: 0

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI
8DEMO15-10003	10003	0.00%	00:00	0	N/A
8DEMO-TeraTerm1		0.00%	00:00	0	N/A

To access saved **favourite** report:

1. Click on the star icon next to login name
2. Click on the favourite you want to access

TOYOTA MATERIAL HANDLING

I_Site

Home Utilization Shocks Pre-Op. Check Diary Manage Site Administration My Fleet Help

8DEMO15-10003

To remove a **favourite**:

1. Click on the star icon next to login name
2. Click on the trashcan icon next to the favourite you want to remove

TOYOTA MATERIAL HANDLING

I_Site

Home Utilization Shocks Pre-Op. Check Diary Manage Site Administration My Fleet Help

8DEMO15-10003

4.2.4 Subscriptions

Subscriptions are means of receiving excel exported reports on regular basis without the need to logon to I_Site web portal. Subscriptions will be sent at a regular, selected interval and at specified time to an email

address entered at the user creation process and/or e-mail that is indicated as the recipient of the subscriptions in **my profile**.

To create a subscription:

- 1) Visit the report you want to subscribe to
- 2) Select search criteria that you want the subscription to be based on
- 3) Click on the subscription icon

A pop-up window will appear enabling you to do the following

- 4) Name the subscription
- 5) Select time interval at which the report should be sent
- 6) Specify hour and minute when the report should be sent
- 7) Click Add

Under **Subscriptions** heading in the pop-up window in my profile, you will see all active subscriptions for that report regardless of the search criteria.

The screenshot shows a 'Report Subscriptions' dialog box overlaid on a report page. The dialog box has a red header and contains the following fields:

- Subscription Name:
- Interval type: Weekly, Monthly
- Time of day: :
- Day of week:
- Time zone:

Below the form is a section titled 'Subscriptions' with the text 'No Subscriptions'. At the bottom are 'ADD' and 'CANCEL' buttons.

The background shows a report table with columns for 'Run Hours', 'Shocks', and 'BSI'. The table has three rows of data:

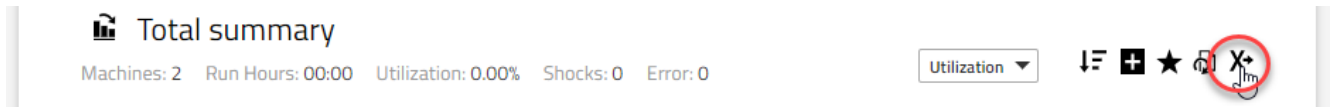
Run Hours	Shocks	BSI
05:11	0	N/A
00:00	0	
00:00	0	

Subscriptions might be disabled for some sites or contracts. If that is the case, please contact your contract administrator to have this feature enabled.

It is strongly advisable to visit the web portal to obtain additional, non-subscriber information like battery reports.

4.2.5 Exporting to excel

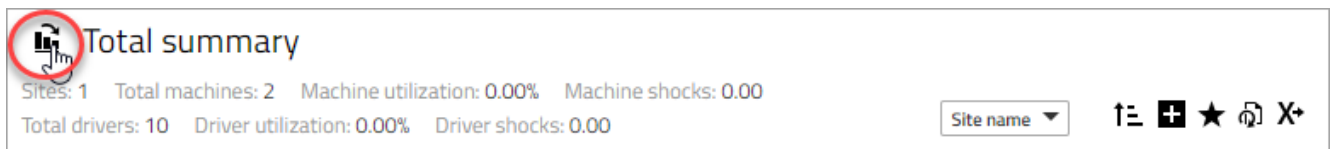
Many reports and lists support **export to excel** function. To do so click on the export to excel icon. Report download should begin automatically. The excel has a ready to print layout and is prepared with pivot tables in mind.



4.2.6 Charts

Charts are a different way to view reports. They show less amount of information but highlight the most important information in the graphical form. To switch between table, view and chart view click on the chart / table view next to the report name.

To switch to chart view.



To switch to table view.

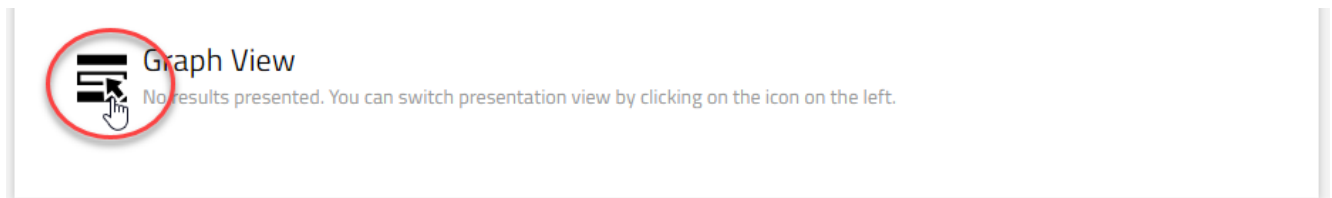


Table view is a default view for all the reports.

4.2.7 Exporting reports

Reports can be saved as PNG files. To save a report:

- 1) Right click on the report
- 2) Click **Save Image As...**
- 3) Enter name
- 4) Save

Reports can also be copied to another document (i.e. excel or word). To copy report:

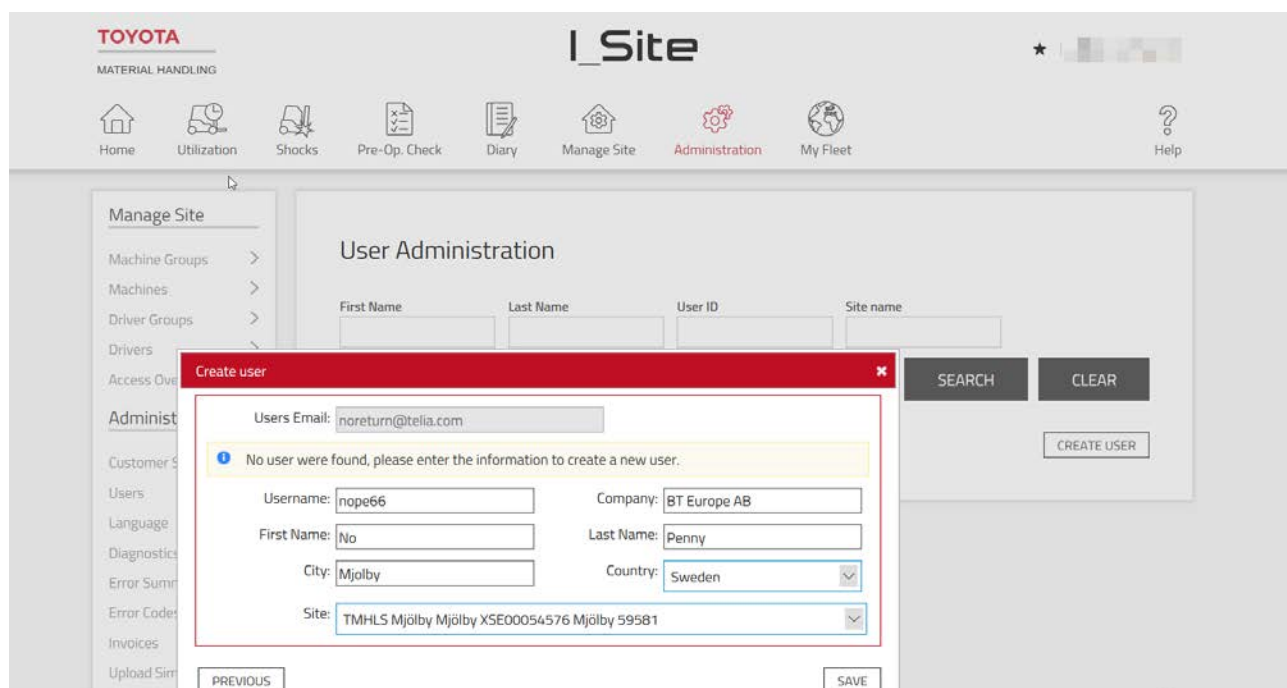
- 1) Right click on the report
- 2) Click Copy Image
- 3) Paste image to another document

5 User and driver administration



(Requires the 'User Administrator' role)

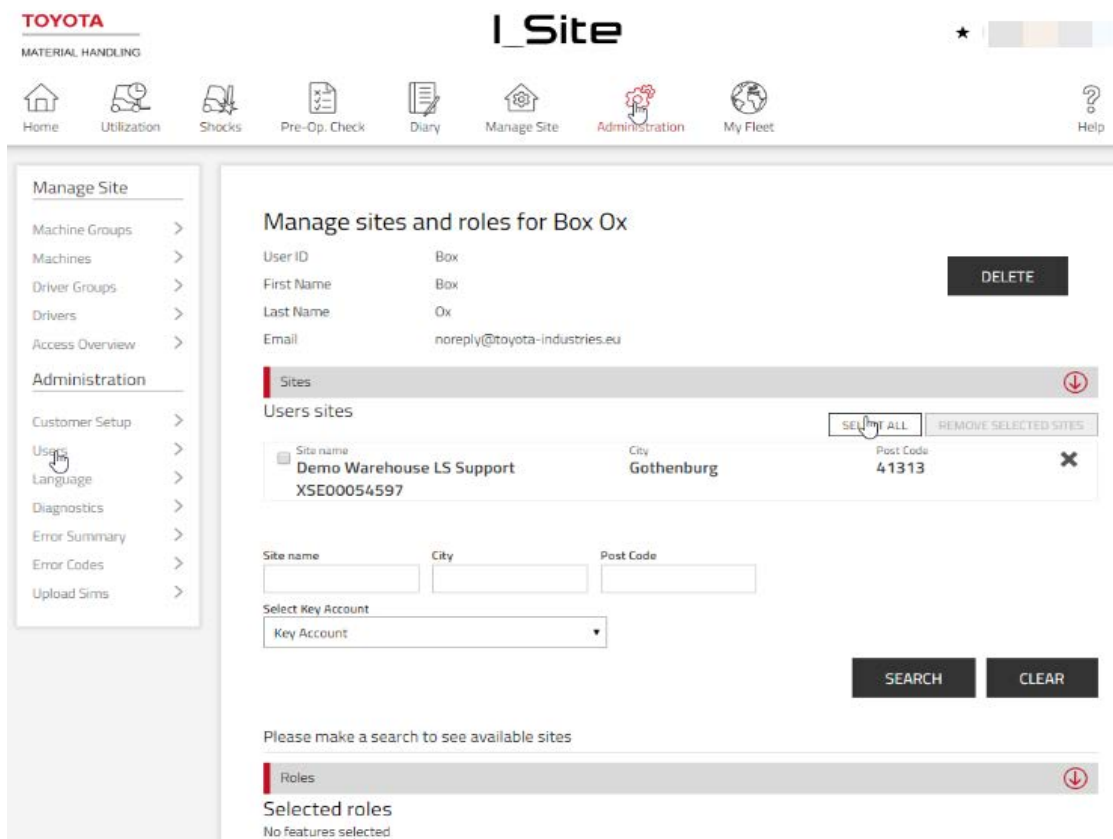
5.1 Creating system user accounts

- 1) Go to the 'Administration' tab and click **Users** on the left navigation panel. Press **Create user** to open the 'Create user' dialogue window. Enter the user e-mail address.
- 2) Press **Next**.
- 3) Press **Save** when confirmed.
- 4) Enter data as required. The **Username (User ID)** can be alphanumeric based on name initials or other significance but must be without spaces. The **Username** cannot be modified at a later stage (requires system maintenance support), however first and last names can be updated (see 'My profile').



- 5) Press **Save** to open the dialogue windows for assigning sites and roles.
 You will be advised by e-mail of the new user you have added, containing 'User ID' and a temporary password. Forward the information to the new user together with any additional instructions that might be useful. Note that it takes the system 15 minutes to configure a new user.
 Refrain from logging in as the user you just created since the password is a "one-time use" only and will have to be changed on first log-in.
- 6) To assign sites, click the **Sites** bar to view **Available sites** Click the **+** icon to add a site to the user's profile. The user must be given access to at least one site.

- To assign several sites, it might be useful to check mark the sites and press **Add selected sites**.
- 7) Assigned sites are saved automatically. Click the bar again to close the expanded view.
 - 8) To assign roles, click the 'Roles' bar to view 'Available roles'. Click the  or the  icon to add the role to the user's profile.
 - 9) Assigned roles are saved automatically. Click the bar again to close the expanded view.



The screenshot shows the 'Administration' section of the I_Site interface. The main heading is 'Manage sites and roles for Box Ox'. Below this, user details are listed: User ID (Box), First Name (Box), Last Name (Ox), and Email (noreply@toyota-industries.eu). A 'DELETE' button is present next to the user information.


The 'Sites' section is expanded, showing a table of 'Users sites'. The table contains one entry: 'Demo Warehouse LS Support' with site name 'XSE00054597', city 'Gothenburg', and post code '41313'. Above the table are buttons for 'SELECT ALL' and 'REMOVE SELECTED SITES'. Below the table are input fields for 'Site name', 'City', and 'Post Code', along with a 'Select Key Account' dropdown menu set to 'Key Account'. 'SEARCH' and 'CLEAR' buttons are located at the bottom of the search section.

The 'Roles' section is collapsed, showing 'Selected roles' with the text 'No features selected'.


Roles ⌵

Selected roles

Driver Administrator ✕

 Manage driver access

Machine Administrator ✕

 Manage machine configuration for the fleet


The range of roles comprises the following (your profile may include a selection only):

Role	Description
Driver Administrator	Add and edit driver profiles and machine access.
Machine Administrator	Add driver machine access and edit machine settings.
Manage Pre-Op Checklists	Create, modify, delete and publish POC lists. The role is not needed to only view results or use the Messaging function
Remote Shock Lockout Reset	Allows for shock lockout reset from the I_Site portal. <i>(Should primarily be reserved for appointed supervisors)</i>
Immobilizer	Allows for immobilizing machines (impairing operation as supported by machine functions) from the I_Site portal including reset. <i>(Should primarily be reserved for appointed supervisors)</i>
User Administrator	Add and edit access to the I_Site portal. <i>(Should be limited to one or at the most two people at each site or group of sites)</i>

My Fleet - Fleet list	Enables access to view Fleet List
My Fleet - Contract cost	Enables access to view Fleet Cost
My Fleet - Service Reports	Enables access to view Service Reports
My Fleet - PM Accuracy	Enables access to view PM Accuracy
My Fleet - Non-Contract Cost	Enables access to view Non-Contract Cost
My Fleet - Service Reports detailed	Enables user to view Vehicles Off the Road (VOR), First-fix and Response Time
Driver Info	Enables access to view driver info

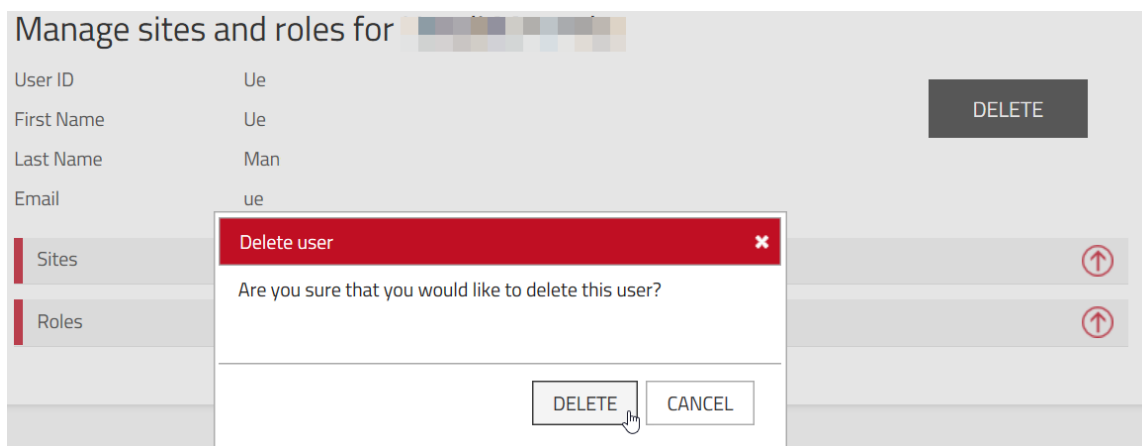
5.2 Editing user accounts

Current users are edited in the 'User Administration' dialogue windows as described above. Click **Search** to get a listing of the users that you've added to the system.

Assigned sites and roles are removed by the delete  icon.

The 'User Administrator' profile allows you to delete sites or roles from your own account, but you cannot add them back. That has to be done by a supervisor.

To delete user accounts, click Delete and confirm in the pop-up window.



5.3 Site management – Drivers

(Requires the 'Driver Administrator' role)

5.4 General

Driver management comprises:

- Adding drivers in the system and assigning machine access by means of PIN codes and, if applicable, set up usage of personal access cards (SA).
- Specifying driver profiles, work shift schedules and machine access time limitations (Driver license validity period).
- Forming driver groups.

PIN codes may be either 'Machine Managed', i.e. stored in the keypads, based on **4** digits or 'Server Managed', i.e. downloaded from the I_Site portal to each DHU, requiring **5** digits. 'Machine Managed' is the default setting. To enable PIN code usage at your site and for switching to 'Server Managed', consult your TMH service representative.

5.4.1 Machine log-on and log-off

To start machines, an assigned PIN code has to be entered on the installed keypad followed by pressing the green key (I). If entered correctly, the green indication light will be lit. A failed entry will be indicated by the red light. Alternatively, with Smart Access (SA), an access card has to be put on the installed reader followed by pressing the green key (I) on the keypad. The SA feature is described in 5.7.

If the machine is equipped with Pre-Operation Check (POC), the driver will have to respond to displayed questions. The feature is described in section 6.2.4.

Working passes are ended by pressing the red key (O), or via inactivity timeout.

Safety: The red key (O) must never be pressed while operating the machine. It may cause the machine to come to an abrupt stop with the risk of personal injuries and/or damages to the goods.

5.4.2 Default log-on codes

Keypads and DHUs are pre-programmed with default codes to be used until driver PIN codes have been stored. The default codes are voided when driver PIN codes have been stored.

To comply with safety regulations, new default access codes have been introduced replacing previous codes, 0001, 0002 and 0003 (may still be applicable to earlier 'Machine managed' installations).

Access codes: 1258, 2258 and 3258

Reset codes: 1111 (Machine managed) or 11111 (Server managed)

In case all driver PIN codes have been erased (emptied) from a keypad or DHU, the default codes are reactivated and will have to be used. Driver PIN codes should however be restored promptly since the default codes do not allocate operating performance to the actual drivers.

5.4.3 Default Smart Access log-on

For Smart Access installations, a generic transit/start-up access card is provided with the machine to be used until driver access cards have been programmed (downloaded) into a DHU. The generic access card is then annulled.

In case the codes for all driver access cards have been erased (emptied) from a DHU, any card can be used to start the machine. Driver access cards should however be restored promptly since operating

performance will not be allocated to the actual drivers and POC questions may not be triggered unless activated for lock-out reset profiles.

5.5 Machine managed installations

5.5.1 Assigning machine access (adding drivers)

Drivers are assigned by programming or activating PIN codes and profiles on the keypads (requires assistance from TMH service technician).

Drivers will be added to the I_Site portal as working passes are uploaded to the server.

5.5.2 Editing driver details.

Before edited, uploaded drivers will be shown as their PIN codes in reports.

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site)
- 2) Click **Drivers** on the left navigation panel.
- 3) Press **Search** to get a listing of uploaded drivers.
- 4) Click the driver name to open the Driver details' dialogue window.
- 5) Enter driver name, shift time, driving license period and additional information as applicable. See 5.1 for descriptions.

Note that 'Machine managed' installations do not offer the possibility to assign drivers to machines from the portal and the driving license period serves as information only (does not cut off machine access). The profile is set on the machine and portal settings have no effect on driver operations.
- 6) Press **Update** and **Save** (Sending SMS has no effect and can be disregarded).

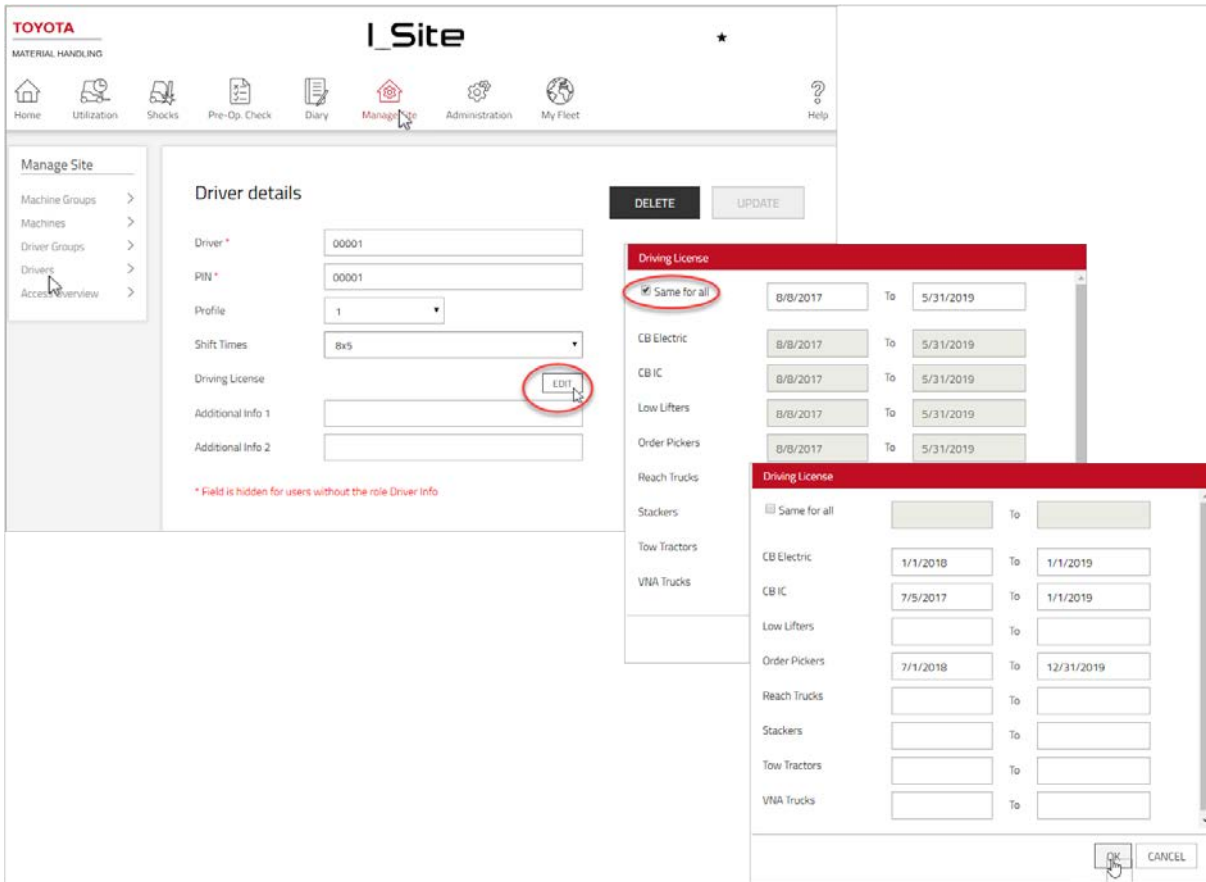
The screenshot displays the I_Site web application interface for managing drivers. The top navigation bar includes icons for Home, Utilization, Shocks, Pre-Op. Check, Diary, Manage Site, Administration, My Fleet, and Help. The main content area is titled 'Demo Warehouse LS Support Gothenburg' and 'Drivers'. It features a form with fields for Driver, PIN Code, Additional Info 1, Additional Info 2, License exp. before, and a dropdown for Select Driver Groups. Below the form are buttons for SEARCH, CLEAR, SELECT ALL, CONFIGURE SELECTED, UPLOAD DRIVERS, and CREATE DRIVER. A 'Total summary' section shows 'Number of selected drivers: 0' and a list of drivers: Driver 01258, Driver 1, Driver 2, and Driver 3. A 'Driver details' modal window is open, showing fields for Driver (01258), PIN (01258), Card ID, Profile (1), Shift Times (8x5), and Driving License (expiry date 11/22/2018). A calendar for November 2018 is visible, with the date 11/22/2018 selected. Buttons for DELETE and UPDATE are present in the modal.

5.5.3 Driving license expiry

Driver license date can be set for each machine family or one driver license date for all machine families. It is possible to set driver license date for one driver or several drivers at the same time.

When sending message with driver licenses the message need to contain driver license expiry time for each machine family (CB IC, CB Electric, Stackers, Order Pickers, VNA Trucks, Reach Trucks, Low Lifters, Tow Tractors). The message is implemented.

- 1) Go to manage Site.
- 2) On the left navigation pane, press **Drivers**.
- 3) Type a name of a driver that you are looking for and press search.
- 4) To edit driver license press **Edit**, after choosing driver license press **Ok**.



Shift time and driving license period may be updated for several drivers at once by marking checkboxes to the left of the names and click **Configure Selected**.

Other items, i.e. 'Driver Groups, 'Access overview' and machine related have little or no significance when operating 'Machine managed'.

5.6 Server managed installations

PIN codes and profiles as well as machine access are configured on I_Site and downloaded to the DHU by means of prompted synchronizations. The following sections describe the procedures.

5.6.1 Adding single drivers

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Drivers** on the left navigation panel.
- 3) Press **Create driver** to open the 'Create driver' dialogue window.
- 4) Enter driver name or designation, PIN code and permitted driving period.
- 5) Press **Create driver** to save the driver and to open the 'Driver details' dialogue window (see following sections).

Mana

Machir

Machir

Driver

Drivers

Access

Create driver

Driver *

DriverName

PIN *

00007

Driving License

To

Site

TMHE Service Market Mjölby ▼

CREATE DRIVER

CLEAR

) OUT OF SYNC

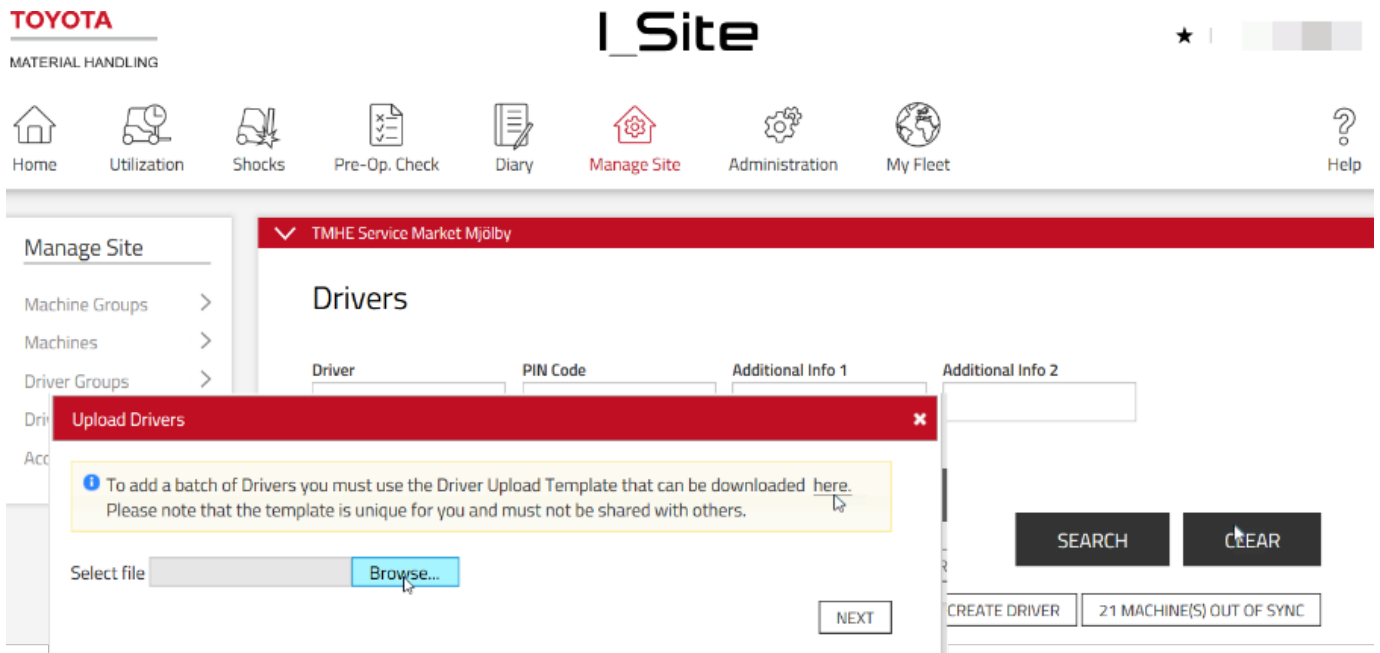
5.6.2 Adding drivers from template

- 1) Go to the **Manage Site** tab, (select site if you have access to more than one site) and click **Drivers** on the left navigation panel.
- 2) Press **Upload Drivers** to open dialogue windows for batch upload.



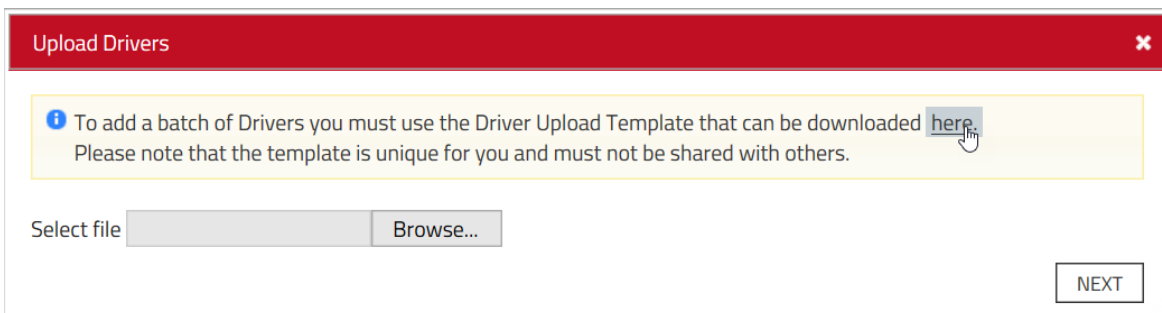
DriverUploadTemplate.xlsx

- 3) Open the Excel template by clicking the hyperlinked 'here':
- 4) Complete the table. Use drop-downs for 'Site', 'Profile' and 'Shift time'. Up to 5000 drivers can be entered.
- 5) Save (name the worksheet) and close.
- 6) Press **Choose File** and navigate to the file.
- 7) Press **Next**. A successful import is confirmed by pop-up note.



If unsuccessful, a message will specify incorrect worksheet entries.

- 8) Download the 'Upload Report' and make the required corrections. Continue per steps 6) – 8) above.



5.6.3 Editing driver details

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Drivers** on the left navigation panel.
- 3) Enter search criteria for 'Driver name', 'Driver group' (see next section), 'Add info' or 'License expires before' or leave blank.
- 4) Press **Search**.
- 5) Mark the checkbox for a driver (or click the driver name) or mark a range of drivers or press **Select All**.
- 6) Press **Configure Selected** to open the 'Driver details' dialogue window.

With several drivers selected, data that differ between the drivers will be shown as 'Multiple values'. Data entered in those fields will apply to all the selected drivers. Individual driver data will not change if left as 'Multiple values'.

Manage Site

- Machine Groups >
- Machines >
- Driver Groups >
- Drivers >**
- Access Overview >

Drivers

Driver: PIN Code: Additional Info 1: Additional Info 2:

License exp. before: Select Driver Groups:

SEARCH CLEAR

SELECT ALL CONFIGURE SELECTED UPLOAD DRIVERS CREATE DRIVER

Total summary

Number of selected drivers: 0

- Driver 01258
- Driver Driver 1
- Driver Driver 2
- Driver Driver 3

Driver details

Driver *

PIN *

Card ID

Profile

Shift Times

Driving License To

Additional Info 1

Additional Info 2

DELETE UPDATE

ADD MACHINES TO DRIVER UPDATE

5.6.3.1 Driver name (*Single driver selected only*).

When changing a driver name, earlier operating data will be referred to the new name.

Driver details

Driver *	<input type="text" value="01258"/>
PIN *	<input type="text" value="01258"/>
Card ID	<input type="text"/>
Profile	<input type="text" value="1"/>
Shift Times	<input type="text" value="8x5"/>
Driving License	<input type="text"/> To <input type="text"/>
Additional Info 1	<input type="text"/>
Additional Info 2	<input type="text"/>

5.6.3.2 PIN code (*Single driver selected only*).

Driver PIN codes may be changed; however, it can affect the accuracy of reports. Alternatively, recreate the driver and remove machine access from the earlier driver account.

5.6.3.3 Card ID

The feature requires that your site is enabled for the Smart Access usage. Please consult your TMH representative. The feature is described in 5.7.2.

5.6.3.4 Profile

Profile settings affect machine performance as activated on the machines. Please consult your TMH service representative.

The 'Lockout Reset' profile allows resetting shock and POC lock-outs (see following sections).

The 'Supervisor Lockout' profile provides possibility to block the usage of a machine. Note: The profile does not include the lock-out reset possibility.

Driver details

Driver * Supervisor Lockout

PIN * 00050

Card ID C74A

Profile Supervisor Lockout ▾

Shift Times 1 ▾

2 ▾

3 ▾

Driving License 4 To ▾

5 ▾

Additional Info 1 6 ▾

7 ▾

Additional Info 2 8 ▾

9 ▾

Lockout Reset

Supervisor Lockout

Shift times

The shift time specifies drivers work schedule and forms the basis for utilization calculations (see following sections).

Select the appropriate shift time from the drop-down menu. For best utilization calculations, select the maximum number of days the driver is likely to be working, i.e. 7 days even if working weekends only occasionally. The '0x0' alternative will not add to utilization rates – Suitable for servicing personnel.

Recorded utilization rates will not be recalculated when changing shift schedule settings.

Profile 1-8: Standard driver.

Profile 9: For autopiloted machines.

5.6.3.5 Driving license

The driving license period controls for how long drivers will have machine access. When expired, the driver access is blocked. If left blank, there is no time limit.

5.6.3.6 Additional info

May be used for any driver related information, e.g. driver group or work area.

5.6.3.7 Delete drivers

The delete driver function will erase earlier data. An alternative as a first step is to disable machine access and change to the 0x0 work schedule.

To delete a driver, press **Delete**.

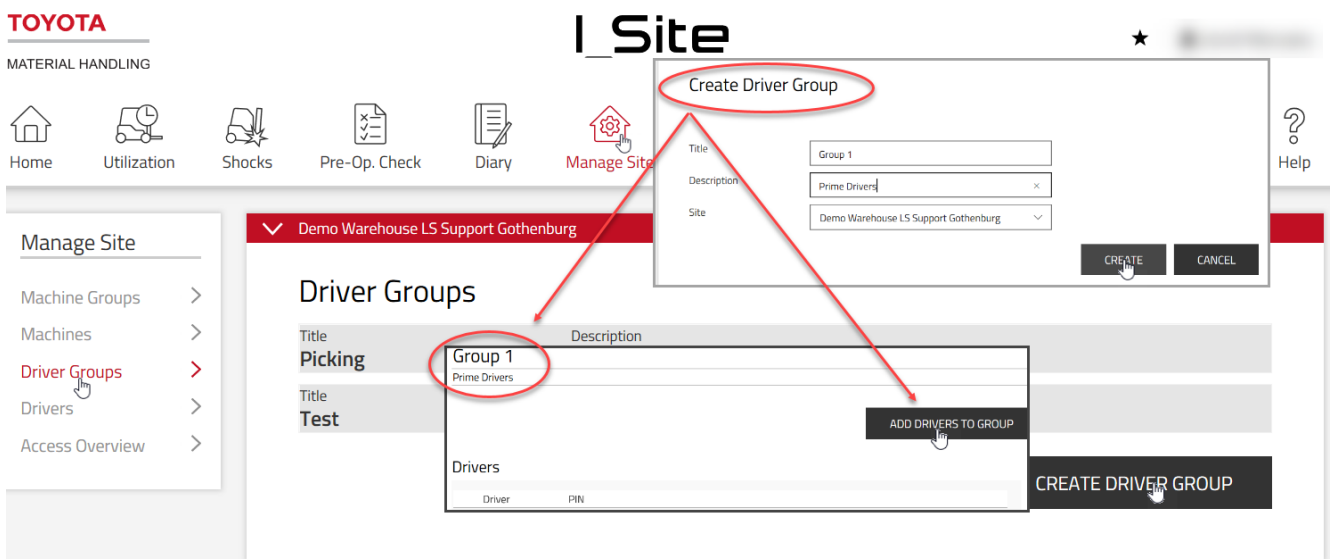
When done, click **Update**. In the pop-up, select **Save** if there are more drivers to be edited. When finished with all drivers, select **Send SMS & Save** for a prompt download. Parameters that are server settings only will not generate the **Save/Send** window.

5.6.4 Driver groups

5.6.4.1 Creating driver groups

For better overview and swifter driver management it might be useful to form driver groups, e.g. departments or work shifts. Drivers can belong to several groups.

- 1) Go to the **Manage Site** tab.
- 2) Click **Driver Groups** on the left navigation panel.
- 3) Press **Create Driver Group** to open the 'Create Driver Group' dialogue window.
- 4) Enter **Title** and **Description** and select **Site**.
- 5) Press **Create**.
- 6) Press **Add drivers to group**.
- 7) Enter search criteria (driver name, add. info) or leave blank for all drivers.
- 8) Press **Search**.
- 9) Add drivers by clicking the **+** (not drag and drop). Added drivers will be listed in the left column.
- 10) Press **Close** when finished.



5.6.4.2 Editing driver groups

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Driver Groups** on the left navigation panel.
- 3) Click the driver group to be edited.
- 4) Add drivers as described above. Delete drivers by clicking the x-sign next to the driver name.
- 5) Press **Close** when finished.

5.6.4.3 Deleting driver groups

Deleting a driver group requires that all drivers in the group have been removed from the group. A garbage can will then appear.

- 1) Remove all the drivers from the driver group.
- 2) Press trash bin icon to delete driver group.

5.6.5 Assigning machine access

Assigning machine access can be done from both the driver and the machine dialogue windows. This section describes the procedures using the driver windows alternative. For assigning access by using the machine dialogue windows, see 6.4

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Drivers** on the left navigation panel.
- 3) Enter search criteria in the fields for 'Driver name', 'Driver group', 'Add info' or 'License expires before' or leave blank.
- 4) Click **Search**.
- 5) Mark the checkbox for a driver (or click the driver name), mark a range of drivers or press **Select all**.
- 6) Press **Configure Selected** to open the 'Driver details' dialogue window.

Demio Warehouse LS Support Gothenburg

Drivers

Driver PIN Code Additional Info 1 Additional Info 2

License exp. before Select Driver Groups

Total summary

Number of selected drivers: 3

- Driver 01258
- Driver Driver 1
- Driver Driver 2

Driver details

Number of selected drivers: 2

Profile

Shift Times

Driving License To

Additional Info 1

Additional Info 2

Assigned machines

Machine	Model
<input checked="" type="checkbox"/> 8DEMO15-10003	8FGF15
<input checked="" type="checkbox"/> 8DEMO-TeraTerm1	8FG15

Machine Brand

Fleet No

Test Group

Machine Model Brand Fleet Num

See 5.6.5 for an illustration of steps 1) –6).

7) Click **Add machines to driver**.

8) Leave search fields blank or limit the search by selecting machine group (see following section) from the drop down or enter criteria for:

- Driver name – Convenient for copying the machine access of a current driver to a new or a range of new drivers as selected. The entire name has to be entered and correctly spelled.
- Machine number –Incomplete machine number can be entered.
- Machine brand – Enter a brand’s two-letter designation.
- Fleet number – Incomplete fleet numbers can be entered.

9) Press **Search**.

Machines, that the selected driver or any of the drivers of the selected range already can access, are displayed in the left column.

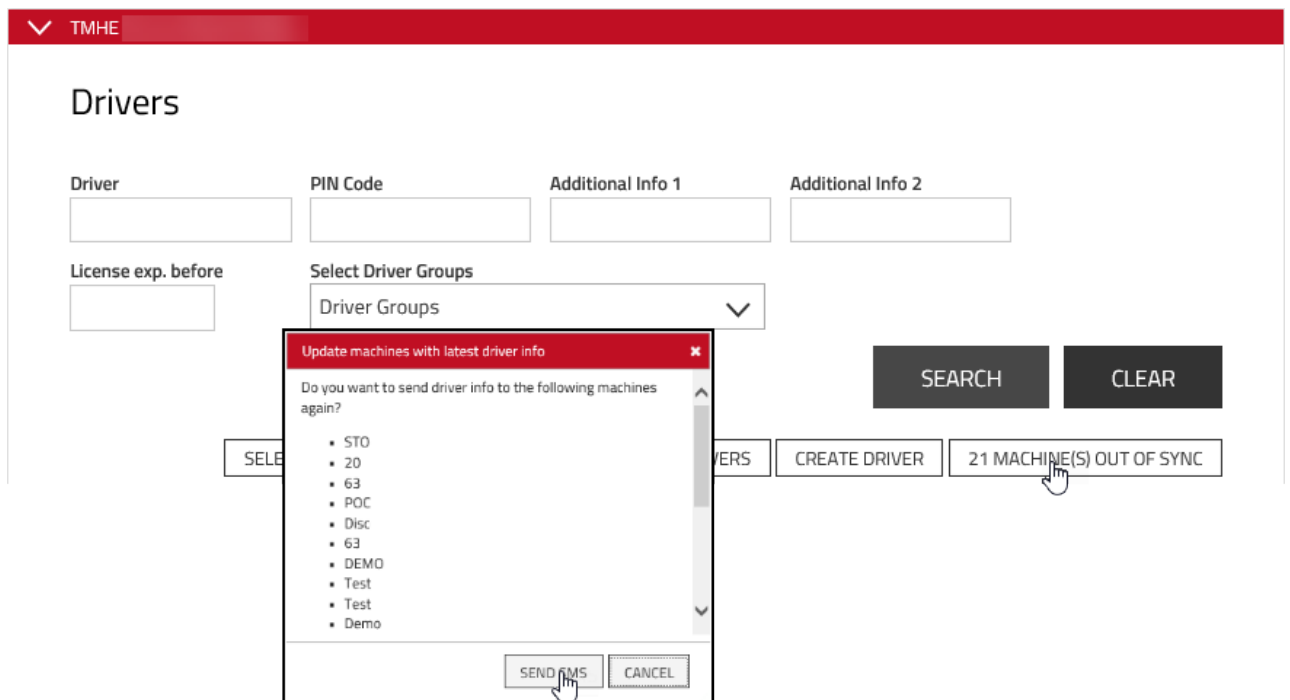
10) Add machine access by clicking on the **+** icon or press **Add all**. The selected drivers will get access to the added machines.

11) Click **Update** when done. In the pop-up, select **Save** if there are more drivers to be assigned machine access. When finished with all drivers, select **Send SMS & Save** for a prompt download.

5.6.6 Synchronizing driver information

Machines that are not updated with the latest driver information are indicated by a 'NN machine(s) out of sync' button. To synchronize:

- 1) Go to the **Manage Site** tab. Several sites may be selected.
- 2) Click **Drivers**.
- 3) Press the **NN machine(s) out of sync** button.
- 4) Press **Send**.



5.6.7 Driver access overview

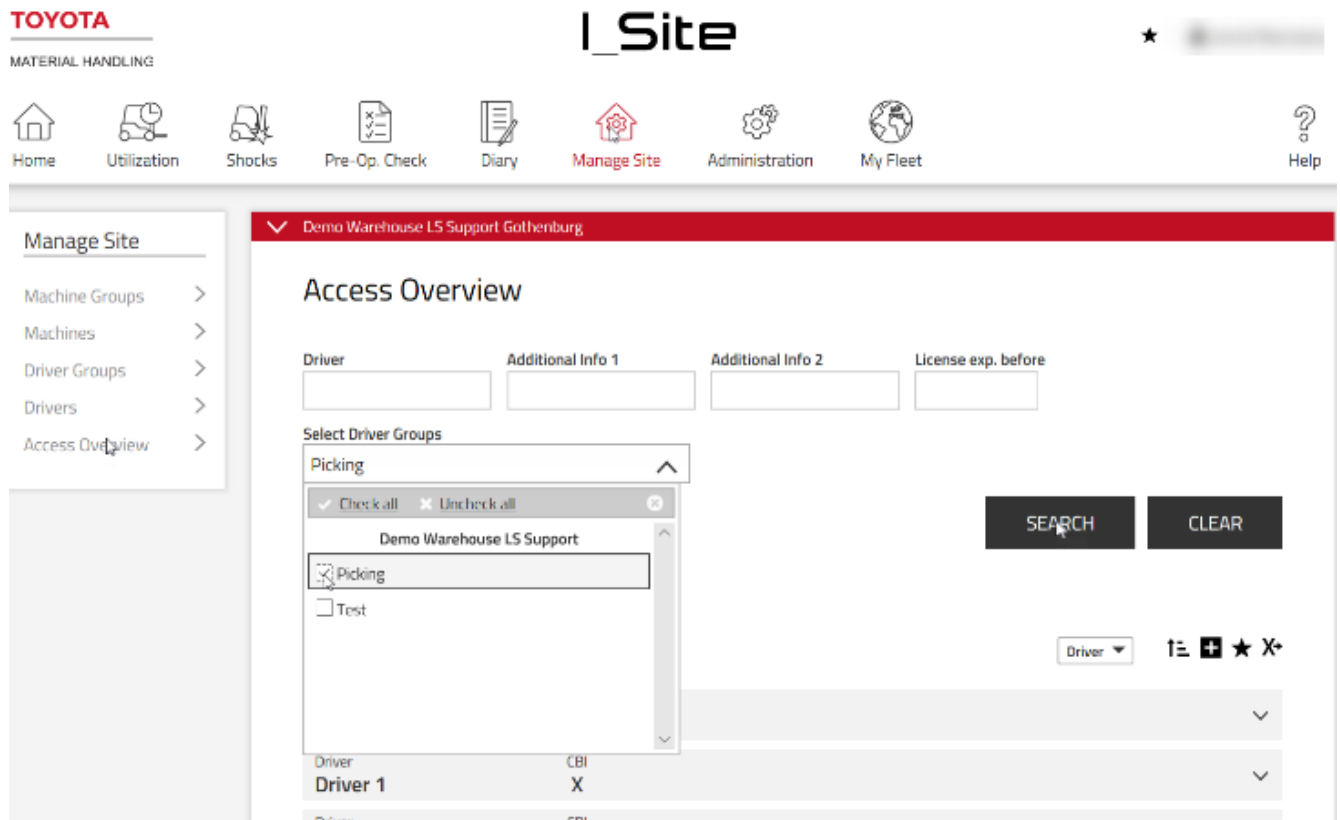
Drivers access to the various machine types is available from the 'Access Overview' chart.

- 1) Go to the Manage Site tab. Several sites may be selected.
- 2) Click **Access Overview** on the left navigation panel.
- 3) Leave search fields blank or limit the search by making a selection.

4) Click **Search**.

Passing the cursor over the machine type acronym will display the full description.

Passing the cursor over the X will display the number of trucks of that type and how many of these the driver may access.




5.6.8 Deleting machine access

Deleting machine access can be done from both the driver and the machine dialogue windows. This section describes the procedures using the driver windows alternative. For deleting access by using the machine dialogue windows, see 6.4.2.

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Drivers**.
- 3) Enter search criteria in the fields for 'Driver name', 'Driver group', 'Add info' or 'License expires before' or leave blank.
- 4) Click **Search**.
- 5) Mark the checkbox for a driver (or click the driver name), mark a range of drivers or press **Select all**.
- 6) Press **Configure Selected** to open the 'Driver details' dialogue window.

See 5.5.2. for an illustration of steps 1) – 6).

- 7) Click the  icon to the left of the machine number to delete access for the driver or range of drivers as selected.
- 8) Press **Update**. In the pop-up select **Send SMS & Save** for a prompt download.

Manage Site

- Machine Groups >
- Machines >
- Driver Groups >
- Drivers >
- Access Overview >

Driver details

DELETE
UPDATE

Driver *

PIN *

Card ID

Profile

Shift Times

Driving License To


Additional Info 1

Additional Info 2

* Field is hidden for users without the role Driver Info

CLOSE
UPDATE

Assigned machines

	Machine	Model
	8DEMO15-10003	8FGF15

Machine Brand

Fleet No

-- Select machine group or family --

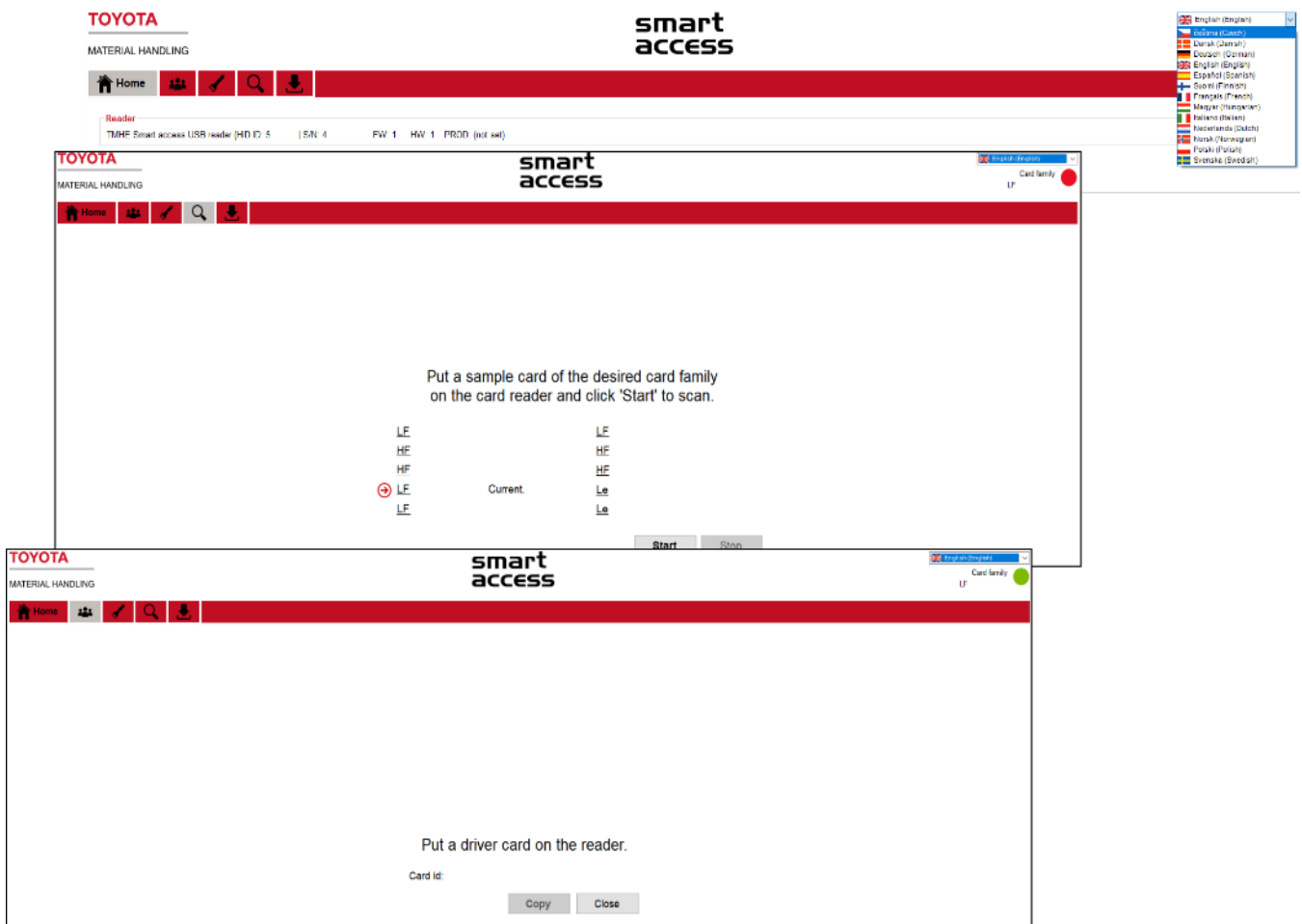
5.7 Smart Access

5.7.1 Assigning machines by means of Smart Access

Available with DHU, generation 2. Please consult with your TMH representative for this add-on feature.

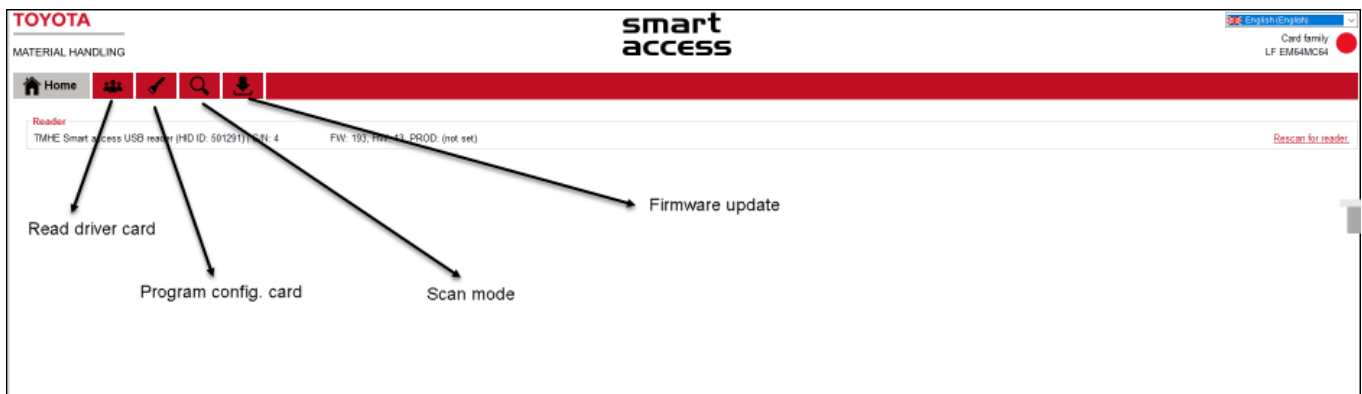
With the Smart Access feature, drivers may access machines by means of personal id cards (requires that DHU, gen.2 is installed on all machines the driver can access). Besides the card reader on the machine, a programmer unit and corresponding software is required.

Smart Access software and installation instructions can be found in the I_Site help menu, which is located in the upper right corner of the I_Site web page.



To **assign drivers** to Smart Access card usage, proceed as follows:

1. Open the Smart Access program. Select language and 'I_Site mode'.
2. In the 'Scan mode' tab: Place the driver access card above the programmer and click **Start**. The card family of your card will be identified by the scanner.
3. In the 'Read driver card' tab: Place the driver access card above the programmer again. The card id should say '(detected)'. Click **Copy**.



4. Open I_Site and go to 'Manage Site' and 'Drivers'.
5. Select the driver that should be assigned to the card and click **Configure Selected**.
6. Paste the copied number in the 'Card ID' field.
7. Click **Update**. In the pop-up, press **Save** if you are assigning several drivers. Select the **Send SMS and Save** alternative when you are finished only.

Driver details

DELETE UPDATE

Driver *	<input type="text" value="01258"/>
PIN *	<input type="text" value="01258"/>
Card ID	<input type="text"/>
Profile	<input type="text" value="1"/>
Shift Times	<input type="text" value="8x5"/>
Driving License	<input type="text"/> To <input type="text"/>
Additional Info 1	<input type="text"/>
Additional Info 2	<input type="text"/>

To program a Configuration card for machine reader, proceed as follows:

1. Open the Smart Access program. Select language and 'I_Site mode'.
2. In the 'Scan mode' tab: Place the driver access card above the programmer and click **Start**. The card family of your card will be identified by the scanner.
3. In the 'Setup Config Card' tab: Place the configuration card on the 'USB' reader to pick up the driver card type.
4. Press 'Write'. The card type will be recorded and confirmed by Config card data written successfully.
5. On truck: Place the configuration card on **each machine reader** to download the driver card type. Download is confirmed by the two indicator lights lighting up in blue for a second.



5.7.2 Log on with Smart Access

To log on to a machine equipped with Smart Access :

- 1) Put the card on the card reader. The green light on the card reader will flash for 5 seconds.
- 2) Press the green button on the keypad while the green light is flashing. A green light on the keypad confirms that you are logged on.
 - A red light on the card reader indicates that you lack access to the machine.
 - Neither Green nor red lit up on the reader indicates that the reader has not been programmed for your type of access card.

6 Site management – Machines

(Requires the 'Machine Administrator' role)

6.1 General

Machine management comprises:

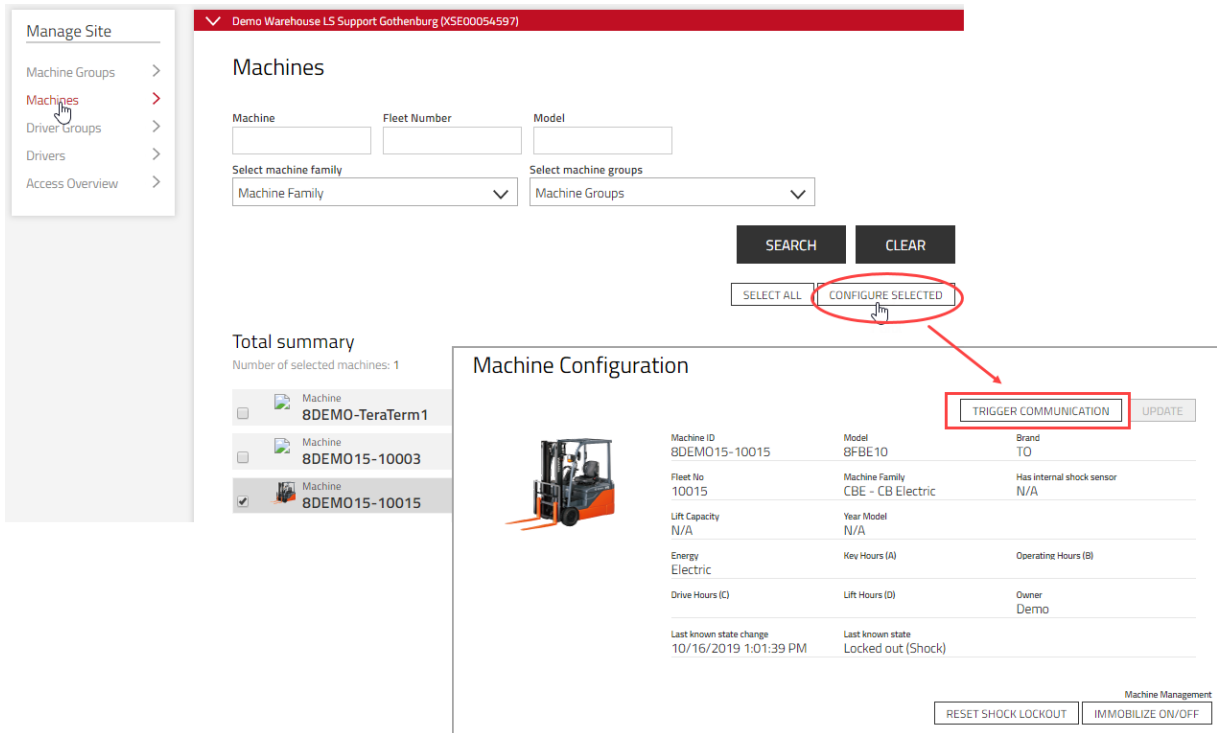
- Configuring machines regarding shock settings, server communication frequency and work shift schedules.
- Forming machine groups.
- Assigning driver access.

6.2 Configuring machines

- 1) Go to the **Manage Site** tab

You may select more than one site if machines at different sites should be configured in the same way. For adding driver access (see 5.3), a single site has to be selected

- 2) Click **Machines** on the left navigation panel.
- 3) Enter search criteria for **Machine, Fleet Number or Model** or make a selection based on **Machine family** or **Machine group** (see following section for grouping machines) or leave blank.
- 4) Press **Search**.



- 5) Mark the checkbox for a machine (or click the machine number), or mark a range of machines or click **Select all**.
- 6) Press **Configure Selected** to open the 'Machine Configuration' dialogue window.
- 7) Click the **Machine Configuration** to expand the configuration table. The table will have default settings filled in. The **Desired configuration** column is for adjusting parameters. The **Current Configuration** column shows actual settings on the machine.
- 8) Enter new settings by clicking the parameter value or the icon to the right. The configuration parameters are described in the drop-down list.

	Recommended	Current Configuration	Desired Configuration
Shocks			
Lockout Enabled		Yes	Yes
X-Threshold	19	19	19
Y-Threshold	19	19	19
Normal Profile Reset		No	No
Normal Profile X Interval		19 -	19 -
Normal Profile Y Interval		19 -	20 -

- 9) Click **Update** when completed. In the confirmation pop-up window, press **Send SMS & Save** for an immediate download. Successfully downloaded and after refreshing the page, the left column should match the right column. Parameters that are server settings only will not generate **Save and Send**.

Shock settings

Shocks are registered in the forward / reverse directions (X axis) and left / right directions (Y axis) and reported on I_Site.

Shock recordings vary with machine types and type of operation. Early shock level settings may therefore have to be adjusted after some time to fit your installation.

Factors that influences shock registrations are discussed in the attached appendix.



6.2.1 Shock levels

Shocks are registered as Low, Medium and High impacts depending on settings (see also 6.10).











- 1) Enter start number for the low level.
- 2) Continue with start numbers for the medium and high levels. The application will set the range ending values.

Changing shock level settings will not adjust earlier recordings.

Machine Configuration		
	Current Configuration	Desired Configuration
Shocks		
Lockout Enabled	No	No
X-Threshold	15	15
Y-Threshold	15	15
Normal Profile Reset	No	No
Reporting Level Low	10 - 14	10 - 14
Reporting Level Medium	15 - 19	15 - 19
Reporting Level High	20 and above	20 and above

6.2.1.1 Shock lock-out

The shock lock-out feature offers an opportunity to closely monitor machine operations. When activated, impacts exceeding threshold levels will trigger the lock-out function. For many machine models, shock lock-outs impair operations, requiring machine reset. On I_Site, shock lock-out incidents are indicated as padlock icons (see section 6.10).

Miscellaneous			
Comm Freq		Weekly, Monday	Weekly, Monday 
			
PIN reporting		Yes	Yes 
Shift Times		8x5	8x5 
Pre-Operational Check			
Enable Pre-Op. Check		Yes, once per 24h, all drivers	Yes, once per 24h, all drivers 
Start time		08:00	08:00 
Time until Timeout		1 minutes	1 minutes 
For Lockout Reset profile		No	No 
Randomized questions		Yes	Yes 
Checklist		Mats test 2	No 

Shock lock-outs may be reset on the machine from I_Site smartphone app or from the portal by means of the **Reset Shock Lockout** button, see 6.10.5.

Depending on which generation of DHU is installed (please consult your service representative), shock lock-out settings vary in that the upgraded version (DHU2) allows drivers to reset at lower shock levels, while supervisor reset is still required for higher levels. Related table rows are added automatically for DHU2 installations.

DHU – Generation 1

- 1) To activate, set **Lockout Enabled** to 'Yes'.
- 2) Set the threshold values for the X and Y directions.
- 3) If drivers are permitted to reset a shock lock-out, enter 'Yes' in the field for **Normal Profile Reset**. Requiring the 'Lockout Reset' profile, leave as 'No'.

Machine Configuration ↓		
	Current Configuration	Desired Configuration
Shocks		
Lockout Enabled	Yes	Yes
X-Threshold	7	7
Y-Threshold	7	7
Normal Profile Reset	No	No
Normal Profile X Interval	7 -	8 -
Normal Profile Y Interval	7 -	8 -
Reporting Level Low	2 - 3	2 - 3
Reporting Level Medium	4 - 5	4 - 5
Reporting Level High	6 and above	6 and above











DHU2– Generation 2

The generation 2 offers the opportunity for operators to reset shock lock-outs at a defined interval. The graph to the right illustrates the scenario that corresponds to the settings below.



- 1) To activate, set **Lockout Enabled** to 'Yes'.
- 2) Set the threshold values for the X and Y directions.
- 3) If drivers are permitted to reset a shock lock-out, enter 'Yes' in the field for **Normal Profile Reset**. Requiring the 'Lockout Reset' profile, leave as 'No'.

- 4) For 'Yes', enter the upper values for the 'Normal Profile' resetting intervals. The example has it set to 29. Impacts stronger than 30 will then require a supervisor reset. The interval starting level is decided by the threshold settings.

Machine Configuration 			
	Recommended	Current Configuration	Desired Configuration
Shocks			
Lockout Enabled		No	No 
X-Threshold	15	15	29 
Y-Threshold	15	15	29 
Normal Profile Reset		No	Yes 
Normal Profile X Interval		15 -	30 - 
Normal Profile Y Interval		15 -	I 
Reporting Level Low	10	10 - 14	20 - 28 
Reporting Level Medium	15	15 - 19	29 - 29 
Reporting Level High	20	20 and above	30 and above 

If the 'Normal Interval' fields are left blank, the 'Normal Profile Reset' applies to all impacts above the threshold levels. To enable the reset function in this case, it is required, however, that at least one supervisor/driver with the 'reset profile' is assigned to the machine.

6.2.2 Battery settings

For machines that offer battery monitoring, parameter values are pre-entered for your installation but may require adjustments. If necessary, consult your TMH service representative for parameter setting assistance.







The **Enable BDI Notification** has to be set to 'Yes' and **When BDI lower than** has to be filled in to enable notification. To activate, see Notifications section 8.2

For battery performance viewing, see descriptions in 6.11.

For Li-ion Battery machine configuration view looks like the example below:

Battery Settings			
Battery size [Ah]		210 Ah	210 Ah 
Enable BDI Notification		No	Yes 
When BDI lower than		20	20 

For electric (Lead) battery type it shows like example below:

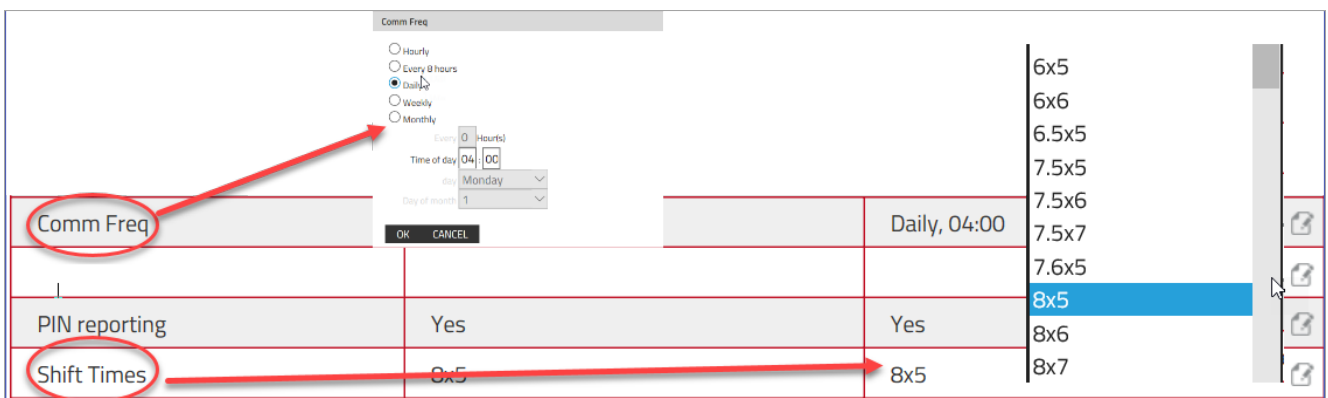
Battery Settings			
Machine always uses the same battery		No	No 
Battery size [Ah]		620 Ah	620 Ah 
Rapid discharge parameter 1		45 minutes	45 minutes 
Rapid discharge parameter 2		30 minutes	30 minutes 
Enable BDI Notification		No	No 
When BDI lower than		20	20 

Note! The battery setting between battery type lead and Li-ion is done automatically based on the data sent by the truck, so if the truck has not sent data, there is a risk that the battery type is not adapted.

6.2.3 Miscellaneous

6.2.3.1 Communication frequency





Operating data collected by the DHU is conveyed to the I_Site portal by means of scheduled communications. Daily communication is quite satisfactory for most installations.



Comm Freq		Daily, 04:00	6x5 6x6 6.5x5 7.5x5 7.5x6 7.5x7 7.6x5 8x5 8x6 8x7
PIN reporting	Yes	Yes	
Shift Times	8x5	8x5	

6.2.3.2 PIN reporting

For driver follow up, PIN reporting has to be activated.















Miscellaneous		
Comm Freq	Hourly, 2	Hourly, 2 
		
PIN reporting	Yes	Yes 
Shift Times	8x5	Yes 
Pre-Operational Check		

6.2.3.3 Shift times

The shift time specifies work schedule and forms the basis for utilization calculations (see following sections).

Select the appropriate shift time from the drop down menu. For best utilization calculations, select the maximum number of days the machine or machines are likely to be operated, i.e. 7 days even if being used weekends only occasionally.

Recorded utilization rates will not be recalculated when changing shift schedule settings.

Miscellaneous		
Comm Freq	Hourly, 2	Hourly, 2 
		
PIN reporting	Yes	Yes 
Shift Times	8x5	8x5 
Pre-Operational Check		
Enable Pre-Op. Check	Yes, once per 24h, all drivers	5x6 
Start time	15:30	5x7 
Time until Timeout	5 minutes	6x5 
For Lockout Reset profile	No	6x6 
Randomized questions	Yes	6.5x5 
Checklist	170904 test	7.5x5 
		7.5x6 
		7.5x7 
		7.6x5 
		8x5 

6.2.4 Pre-Operational Check (POC)

Machine configuration parameter settings as well as creating check lists and results are described in section 6.2. and section 10.8

6.2.5 Immobilize On/Off

The immobilizing feature offers impairing machine operation (Immobilize On) and resetting impaired machines (Immobilize Off) from the portal. Requires the 'Immobilizer' role.

- 1) Press the Immobilize On/Off button to open the dialog window.
- 2) Enter the reason for the activity.
- 3) Press **On** to impair operation (as supported by machine functions).
- 4) Press **Off** to reset the machine (POC lock-out or Immobilize On)

The screenshot displays the 'Machine Configuration' page for a Toyota forklift. The machine details are as follows:

Machine ID	8DEMO15-10015	Model	8FBE10	Brand	TO
Fleet No	10015	Machine Family	CBE - CB Electric	Has internal shock sensor	N/A
Lift Capacity	N/A	Year Model	N/A	Key Hours (A)	Operating Hours (B)
				Lift Hours (D)	Owner
					Demo
				Last known state	Locked out (Shock)

The 'Immobilize On/Off' dialog box is open, showing the reason 'Immobilize ON' entered in the text field. The 'ON' button is highlighted with a mouse cursor. In the background, the 'IMMOBILIZE ON/OFF' button in the 'Machine Management' section is also highlighted with a red circle and a mouse cursor. A red arrow points from this button to the dialog box.

6.2.6 Last known state

The last known state offers information on the latest management action taken on the unit and when it occurred. The following states are shown:

- Locked by supervisor at the machine.
- Locked from Immobilize On.
- Locked out from POC failure or high shocks.
- Active, the machine is operational. Any lock-out was reset.

▼ Demo Warehouse LS Support Gothenburg

Utilization - Machines

Machine

Fleet Number

From date

To date

Include Historical Data

Select machine groups

▼

SEARCH

CLEAR

Total summary

Machines: 2 Run Hours: 00:00 Utilization: 0.00% Shocks: 0 Error: 0

Utilization ▼
⌵
+
★
🔄
✕

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI	^
8DEMO15-10003	10003	0.00%	00:00	0	N/A	^
Site: Demo Warehouse LS Support Postal code: 41313 City: Gothenburg Owner: Demo Machine Family: CBI - CB IC Model: 8FGF15 Brand: TO TMH- Fleet No: 10003 Last updated: 7/27/2018 11:20:51 AM Error: N/A Last known state: Communication ON requested Last known state change: 7/27/2018 1:16:41 PM						
8DEMO-TeraTerm1		0.00%	00:00	0	N/A	^
Site: Demo Warehouse LS Support Postal code: 41313 City: Gothenburg Owner: Demo Machine Family: CBI - CB IC Model: 8FG15 Brand: TO TMH- Fleet No: Last updated: 5/16/2018 9:10:18 AM Error: N/A Last known state: Active Last known state change: 5/16/2018 2:21:24 PM						

6.2.7 Trigger communication

The feature may be used to request data transfer between the server and machine on demand. It will download from the server any machine or driver settings that have not yet been updated on a machine or range of selected machines.

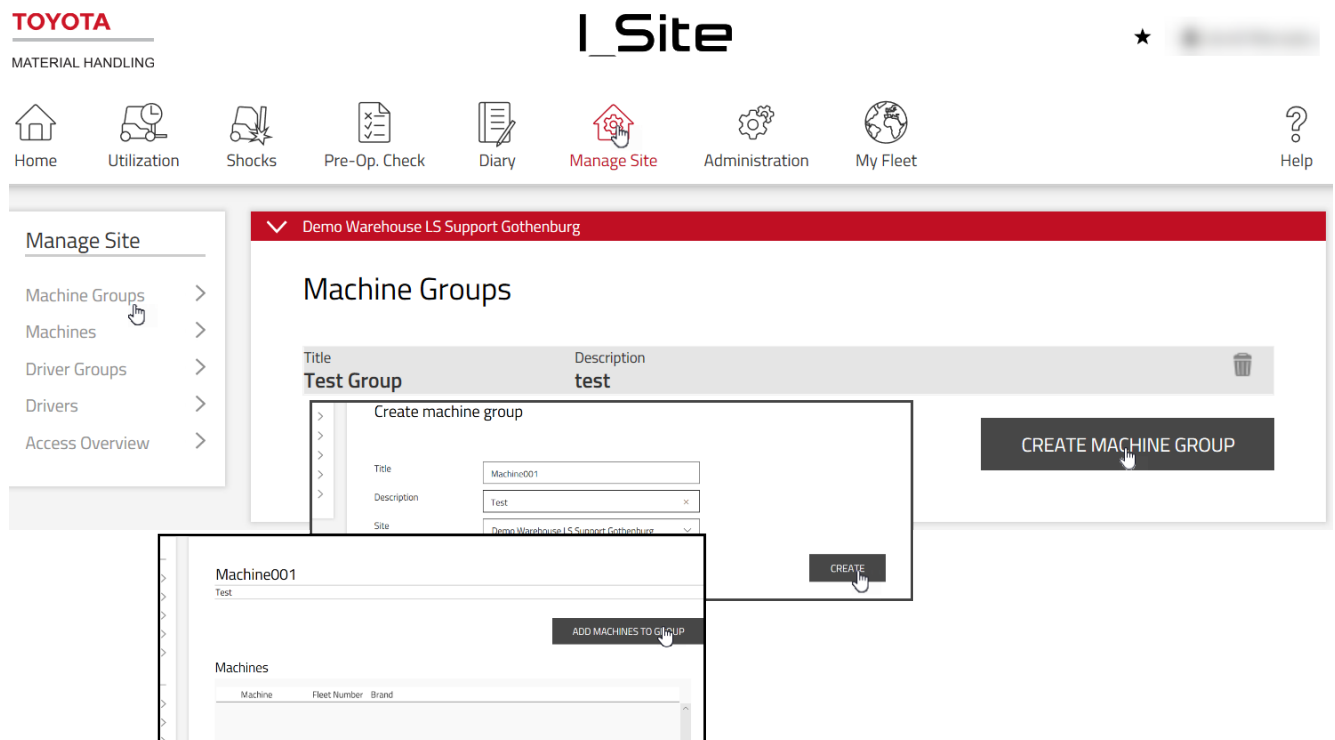
To request, press **Trigger communication** at the top of the page (for illustration, see 6.2).

6.3 Machine groups

For better overview and swifter machine management, it might be useful to group machines, e.g. departments or work shifts. Machines can belong to several groups.

6.3.1 Creating machine groups

- 1) Go to the **Manage Site** tab.
- 2) Click **Machine Groups** on the left navigation panel.
- 3) Press **Create machine group** to open the 'Create machine group' dialogue window.
- 4) Enter **Title** and **Description** and select **Site**.
- 5) Press **Create**.
- 6) Press **Add machines to group**.
- 7) Enter search criteria or select machine family from the drop-down menu or leave blank for all machines on the site.
- 8) Press **Search**.
- 9) Add machines by clicking the **+** (not drag and drop). Added machines will be listed in the left column.
- 10) Press **Close** when finished.



6.3.2 Editing machine groups

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Machine Groups**.
- 3) Click on the machine group to be edited.
- 4) Add machines as described above. Delete machines by clicking the x-sign next to the machine serial number.
- 5) Press **Close** when finished.

6.3.3 Deleting machine groups

Deleting a machine group requires that all machines have been removed from the group. A garbage can will then appear.

6.4 Assigning driver machine access

Assigning driver access from the machine dialogue windows require the 'Server Managed' setting, see 5.4. To assign driver access from the driver dialogue windows, see 5.6.5.

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Machines** on the left navigation panel.
- 3) Enter search criteria for **Machine**, **Fleet Number** or **Model** or make a selection based on **Machine family** or **Machine group** or leave blank.
- 4) Press **Search**.
- 5) Mark the checkbox for a machine (or click the machine number), mark a range of machines or press **Select all**.
- 6) Press **Configure Selected** to open the 'Machine Configuration' dialogue window.

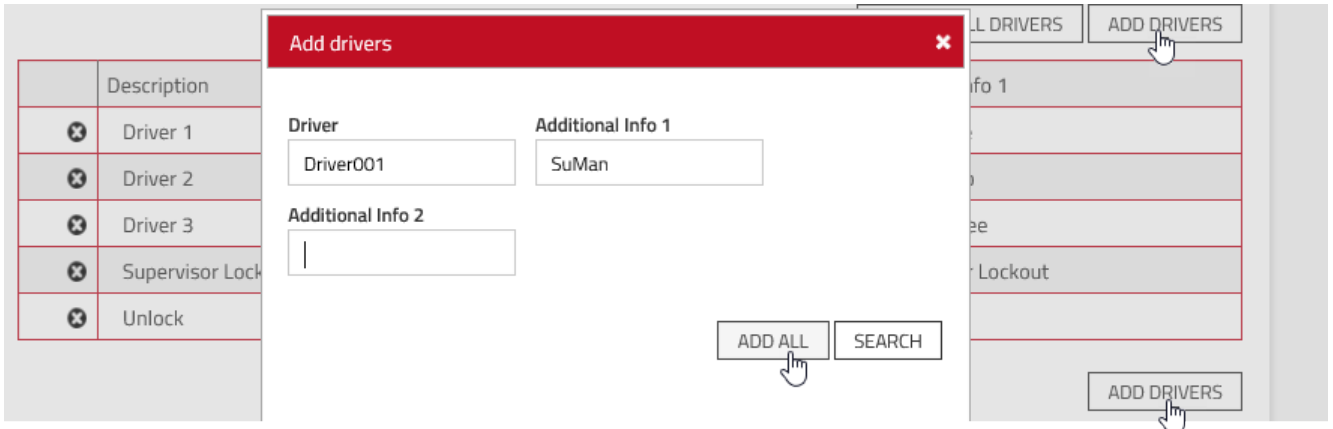
See for an illustration of steps 1) – 6).

- 7) Click the **Driver bar** to expand the driver table.

Drivers that have access to the selected machine already or to any of the machines of the selected range will be displayed

- 8) Press **Add drivers** to open the dialogue window.
- 9) Leave search fields blank or enter criteria for:
 - Driver name – Incomplete driver name can be entered.
 - Additional Info
 - Machine number – Convenient for copying the driver list of a machine already in operation to a new or a range of new machines as selected. The entire machine number has to be entered correctly.
- 10) Press **Search**.
- 11) Add driver access by clicking the ⊕ icon or press **Add all**. Added drivers will get access to the machine or range of machines as selected.

- 12) When done, click **Update**. In the pop-up, select **Save** if there are more drivers to be assigned machine access. When finished with all machines, select **Send SMS & Save** for a prompt download.
- 13) Click the **Driver bar** to minimize the driver table.

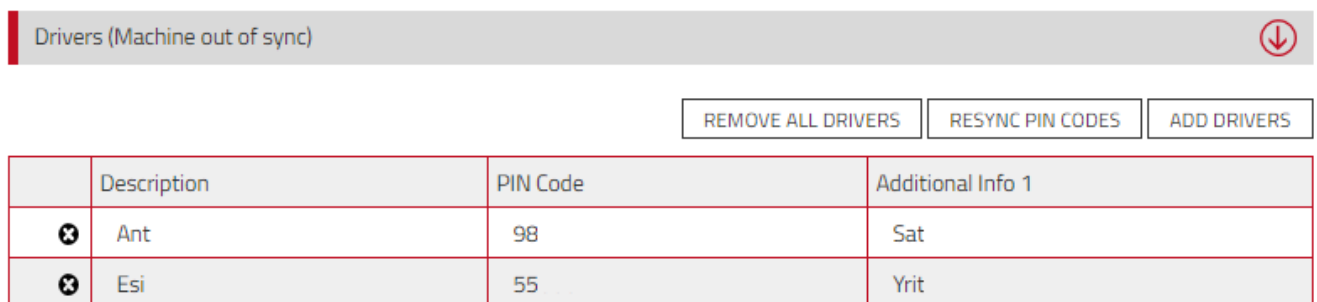


6.4.1 Synchronize machine with latest driver list

A machine that is not updated with the latest driver list will have an indication (*Machine out of sync*) on the 'Drivers' bar. To synchronize:


- 1) Click the **Driver bar** to expand the driver table.
- 2) Press the **Resync PIN codes** button.
- 3) In the pop-up window, press **Send**.

Alternatively, use the **Trigger communication** function, see 6.2.



6.4.2 Delete drivers from machine access

- 1) Go to the **Manage Site** tab (select site if you have access to more than one site).
- 2) Click **Machines** on the left navigation panel.
- 3) Enter search criteria for **Machine**, **Fleet Number** or **Model** or make a selection based on **Machine family** or **Machine group** or leave blank.
- 4) Press **Search**.

- 5) Mark the checkbox for a machine (or click the machine number), or mark a range of machines or click **Select all**.
- 6) Press **Configure Selected** to open the 'Machine Configuration' dialogue window.
See for an illustration of steps 1) –6).
- 7) Click the **Driver bar** to expand the driver table.
- 8) Click the  icon to the left of the driver name to delete access from the machine or range of machines as selected.
- 9) Press **Update**. In the pop-up select **Send SMS & Save** for a prompt download.



6.5 Report viewing sites

6.5.1 Site summary

- 1) Click the Utilization tab to open the site overview window.
- 2) Enter search criteria if you have access to several sites or leave blank. Press **Search**.

A summary of machines and drivers at the site or sites, as selected, will be displayed.

- 3) Click the hyperlinked numbers of machines or drivers to open detailed dialogue windows:
 - 'Quantity' – Number of machines and drivers at the site. May differ from current conditions if the numbers have changed during the period.
 - 'Util. Avg.' – Average utilization rates based on number of machines and drivers during the period.
- 4) 'Shock Avg.' – Average number of shocks

Click the  icon to display location details. Click the  icon to close.

TOYOTA

MATERIAL HANDLING

I_Site

★

Home
Utilization
Shocks
Pre-Op. Check
Diary
Manage Site
Administration
My Fleet

Help

Utilization

Sites >

Driver >

Machine >

Contract >

Activity

Drivers >

Machines >

Batteries >

Utilization - Site

Name

Postal code

City

From date

To date

Select country

▼

Show only active sites

SEARCH

CLEAR

Total summary

Sites: 3 Total machines: 32 Machine utilization: 0.64% Machine shocks: 3.63

Total drivers: 276 Driver utilization: 0.37% Driver shocks: 0.35

Site name ▼

⌵
+
★
🔍
✕

Site name	Machine			Driver		
	Quantity	Util. Avg.	Shock Avg.	Quantity	Util. Avg.	Shock Avg.
Demo Warehouse LS Support	2	0.00%	0.00	9	0.00%	0.00

6.6 Report viewing machines



6.6.1 Utilization rates

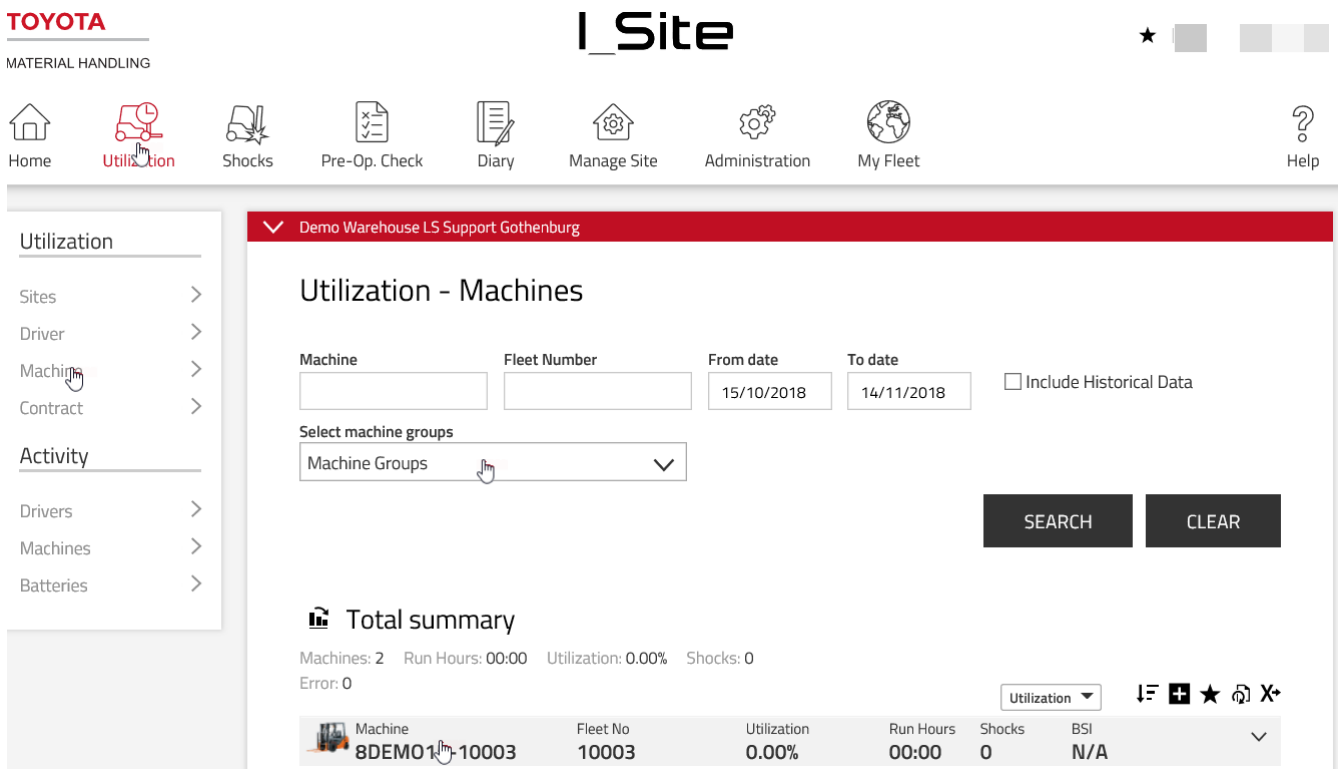
- 1) Click the **Utilization** tab (select site or sites if applicable).
- 2) Go to the **Utilization** heading on the left navigation panel.
- 3) Click **Machines**.
- 4) Enter search criteria or leave blank. The field for machine groups will appear if a group or groups have been created (several groups may be selected).
- 5) Press **Search**.

A summary of site data is given at the top of the listing.

The following data are shown for the selected time period:

- 'Machine' = Machine serial number.
Click the number to open the 'Machine Configuration' page.
- 'Fleet No' = Machine reference number at the site.
- 'Utilization' = Operated [Run] hours in relation to the set work schedule.
- 'Run Hours' = Total time the machine has been operated.
Click the number to open the Activity report, see next section.

- Shocks = Number of impacts.
Click the number to open the Shocks Machines (6.10) wrong index
 - BSI = Battery status indicator.
Click the icon to open the battery graph (6.15.3). wrong index
 - Machine serial number. Click the number to open the 'Machine Configuration' page.
- 6) Click the  icon to expand machine details. Besides site information, type of ownership and machine specifications the following is also shown:
- 'Last updated' is when data was last transferred between the unit and the server.
 - 'Last known state' and '... change', see 6.2.6.
- 7) Click the  icon to close details.



TOYOTA
MATERIAL HANDLING

I_Site

Home Utilization Shocks Pre-Op. Check Diary Manage Site Administration My Fleet Help

Utilization - Machines

Demo Warehouse LS Support Gothenburg


Machine: Fleet Number: From date: 15/10/2018 To date: 14/11/2018 Include Historical Data

Select machine groups:

SEARCH CLEAR

Total summary

Machines: 2 Run Hours: 00:00 Utilization: 0.00% Shocks: 0 Error: 0



Machine	Fleet No	Utilization	Run Hours	Shocks	BSI
 8DEMO1-10003	10003	0.00%	00:00	0	N/A

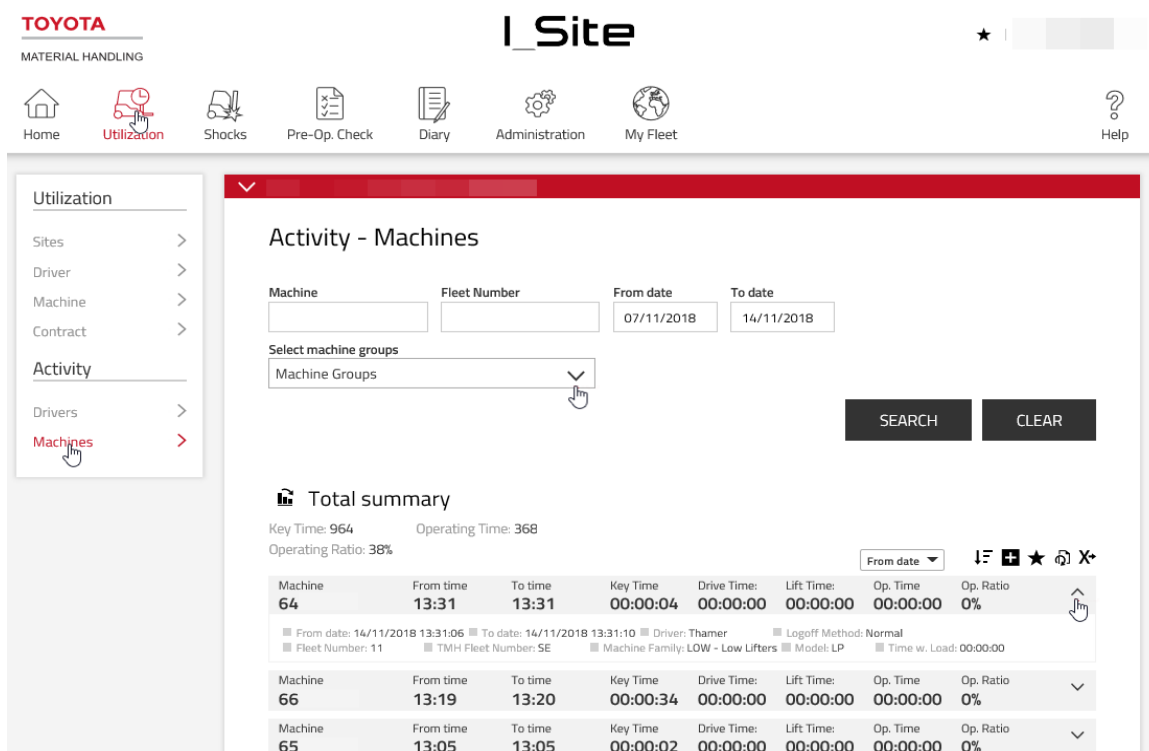
6.7 Activity reports

- 1) Click the **Utilization** tab. Multiple sites may be selected but the listing will not separate machines to the selected sites.
- 2) Go to the **Activity** heading on the left navigation panel
- 3) Click **Machines**.
- 4) Enter search criteria or leave blank. The field for machine groups will appear if a group or groups have been created (several groups may be selected).
- 5) Press **Search**.

A summary of activity data is given at the top of the listing.

Operating data are reported for each working pass per machine and for the selected time period (limited to 1 month), comprising:

- 'Machine' = Machine serial number (For a long number, pass the cursor over it to see it in full).
 - 'From – To time' = Working pass start and finish hour.
 - 'Key time' = Time the machine has been turned on.
 - Drive and lift times add up to the operating time (Op. Time). Simultaneous driving and lifting add as a single movement.
 - Op. Ratio = Operating ratio, i.e. the ratio between operating and key times.
- 6) Click the  icon to expand details including machine and driver information. 'Time with Load' is the operating time that a load is carried on the forks. Please consult your TMH service technician about availability on your machines.
 - 7) Click the  icon to close details.




TOYOTA MATERIAL HANDLING | I_Site

Home Utilization Shocks Pre-Op. Check Diary Administration My Fleet Help

Activity - Machines

Machine: Fleet Number: From date: 07/11/2018 To date: 14/11/2018

Select machine groups: 

SEARCH **CLEAR**

Total summary

Key Time: 964 Operating Time: 368 Operating Ratio: 38%

Machine	From time	To time	Key Time	Drive Time	Lift Time	Op. Time	Op. Ratio
64	13:31	13:31	00:00:04	00:00:00	00:00:00	00:00:00	0%
66	13:19	13:20	00:00:34	00:00:00	00:00:00	00:00:00	0%
65	13:05	13:05	00:00:02	00:00:00	00:00:00	00:00:00	0%

From date: 14/11/2018 13:31:06 To date: 14/11/2018 13:31:10 Driver: Thamer Logoff Method: Normal
Fleet Number: 11 TMH Fleet Number: SE Machine Family: LOW - Low Lifters Model: LP Time w. Load: 00:00:00

6.8 Charts

Reported utilization, activities and shocks information may be viewed as charts.

- 1) Click the chart icon at the left top corner of the table.
- 2) Adjust time settings and resolution as you find useful.
- 3) Click the table icon to get back to the listing.

Shocks - Machines

Machine Fleet Number From date To date Include Historical Data

Select machine groups
Machine Groups

Total
Total Shocks: 2
Run Hours / Shock

SEARCH **CLEAR**

Total summary

Total Shocks: 2782 High: 88 Medium: 909 Low: 1785
Run Hours / Shock: 01:19 Shock lockout: 88

Machine	Fleet Number	Total Shocks	High	Medium	Low	Shock lockout	Run Hours / Shock
64	TG	99	0	43	56	0	00:16
64							00:25

Chart - Shocks vs Run Hours
Switch to list view by clicking on the button to the left.

6.9 Shocks – Drivers

To access Shocks drivers:

1. Click on the **SHOCKS** in the top bar
2. Click on **DRIVERS** in the side bar under Shocks

6.9.1 Searching shocks drivers

Following filters can be used to search drivers that created shocks. Searching without any filters applied will result in showing drivers assigned with data relating to the last 30 days.

Driver	Search by full or partial name of the driver
Additional Info 1	Additional info regarding the driver
Additional Info 2	Additional info regarding the driver
From date	Search from a specific date. Modifies driver related statistics. Default value is date 30 days in the past. Date selection is mandatory
To date	Search by a specific date. Modifies the driver related statistics. Default value is current date. Date selection is mandatory

6.9.2 Investigating further



Driver ID	Name of the selected driver
Total Shocks	Total amount of shocks registered on the selected driver
High	The number of high level shocks created in the selected time span
Medium	The number of medium level shocks created on the selected time span
Low	The number of low level shocks created on the selected time span.
Run Hours/Shocks	The amount of time the driver has worked before creating a shock.
Site	Name of the site where the driver is located
Postal Code	Postal code of the site where the driver is located
City	Name of the city where the drivers site is located
Additional Info 1	Here you can find additional information regarding the driver profile
Additional Info 2	Here you can find additional information regarding the driver profile

6.10 Shocks – Machines

6.10.1 Shocks summary

- 1) Click the **Shocks** tab (select site or sites if applicable).
- 2) Click **Machines** on the left navigation panel.
- 3) Enter search criteria or leave blank. The field for machine groups will appear if a group or groups have been created (several groups may be selected).
- 4) Press **Search**. This will display summaries for machines as selected.

The **Run Hours / Shock** is calculated based on operating time and number of total shocks. In cases of only one or no shocks, the number is equivalent to the operating time for the selected period.

- 5) Click the hyperlinked **Total Shocks** number to open the 'Shock Details' dialogue window, see next section.
- 6) Click the  icon to display site and machine details. Click the  icon to close.

TOYOTA
MATERIAL HANDLING

I_Site

Home Utilization **Shocks** Pre-Op. Check Diary Manage Site Administration My Fleet Help

Demo Warehouse LS Support Gothenburg

Shocks - Machines

Machine: Fleet Number: From date: 15/10/2018 To date: 14/11/2018 Include Historical Data

Select machine groups
Machine Groups

SEARCH **CLEAR**

Total summary

Total Shocks: 0 High: 0 Medium: 0 Low: 0
Run Hours / Shock: 00:00 Shock lockout: 0

Machine	Fleet Number	Total Shocks	High	Medium	Low	Shock lockout	Run Hours / Shock
8DEMO15-100...	10003	0	0	0	0	0	0
8DEMO-TeraT...		0	0	0	0	0	0

6.10.2 Shock details

- 1) Click the **Shocks** tab (select site or sites if applicable).
- 2) Click **Shock Details** on the left navigation panel.
- 3) Enter search criteria (see below regarding 'Comments') or leave blank.
- 4) Mark the **Include Reset Information** checkbox to display who reset a shock lock-out. It shows also if it was reset at the machine (**Machine**) or remotely (**Web/App**), see 6.10.2.
- 5) Press **Search**. This will display machine (and driver) shock information as selected.

Shock Details

Machine: Fleet Number: Driver: Additional Info 1:

Additional Info 2: From Date: To Date:

Select Shock Type(s): Select Category: Select Damage:

Lockouts Missing Comments Include Reset Information

SEARCH **CLEAR**

Total Summary

Total: 5252 High: 549 Medium: 1275 Low: 342B

Date	Driver	Machine	X	Y	Comment
9/29/2020 1:22:42 PM	Emma	67	3	22	+
9/29/2020 1:22:37 PM	Emma	67	7	31	+
9/29/2020 1:21:20 PM	Fredrik	67	8	20	+
9/29/2020 1:17:18 PM	Jörgen	65	17	2	+
9/29/2020 1:16:02 PM	Alexander	67	5	36	+

For a quick overview, shock magnitudes are indicated by symbols:












Low

Medium



High

Impact that exceeds the limit for shock lock-out.

For shock lock-out and shock level settings, see Machine Configuration 6.2. Adjusting shock level settings will affect new shock registrations only. Already recorded shocks will not change.

		Date	Driver	Machine	X	Y	Comment	
		9/29/2020 2:29:02 PM	Andreas	675	22	10		
		9/29/2020 2:26:44 PM	Mikael	664	22	7		
		9/29/2020 2:16:43 PM	Alexander	673	5	21		

The shock details table displays the strongest impacts in the X and Y directions during each working pass on two separate rows. (Working pass = Login – Logout). Shock lock-outs are registered directly on the portal with DHU2 installed on the machine.

The DHU2 registers impacts also while the machine is parked. Driver information is then committed. Click the  icon to view additional information and to enter comments (next). Click the  icon

I_Site shock recordings

By means of a shock sensor, I_Site offers registration of impacts for improved safety and reduced damages to machines, goods and racking. Information includes time, which machine and who was driving plus if the impact was minor or substantial.

6.10.3 Interpreting shock reports

As described above, a I_Site reading of 10 corresponds approximately to a deceleration of one g or 10m/s^2 . For a 6 ton, this gives an impact force of about 60 kN (kilo Newton) or 6 000 kp (kilopond) which is the same gravity force the truck is putting on the floor, however distributed on 4 wheels.

Imagine that the truck is jacked up on a single support column right in the middle underneath. The stress on the floor under that single support will be 4 times that caused earlier by each wheel on the corresponding floor areas. It's the same thing with impacts. If caused by a head on collision against a wall by a vehicle without lifting devices, the damage to the wall will be limited even at relatively high shock readings. On the other hand, if the same shock reading is due to the point of one of the support arms hitting the wall, the resulting damage will be considerable.

As the impact is proportional to the weight of the vehicle, a shock reading of 15 for a reach truck will cause a lot more damage than the same shock reading of 15 caused by a small pedestrian truck. Already, if going at the same speed, a reach truck will cause more damage to a racking column than a pedestrian truck. Still, the shock value will be lower for the reach truck than for the pedestrian truck.

Correlating shock readings to a vehicle design, weight and speed, size of impact surface area or elasticity of the hit object is not realistic. Therefore, as a first approach, the shock levels may be set as suggested in the instructions. After having monitored the shocks over a period of some weeks, reset to acceptable and non-

acceptable levels based on the experienced results. The impact test results below might be of some guidance.

6.10.4 Impact tests

I_Site shock report from a series of shocks using an OSE120P (low level order picking truck) and colliding with obstacles in the driver direction (forks facing backwards)

Shock Type	X-Axis	Y-Axis	Method	Test person response
High	35	1	Driving into a wall at high speed	"substantial"
High	21	2		"milder"
High	11	35	Hitting the right side of the truck	"relatively hard"
Low	6	16		"milder"

More test results can be found online on the I_Site Help page in Shock Tests catalogue



6.10.4.1 Comments

Comments may be added to each shock registration and are especially useful for follow-ups of shock lock-out incidents.

- 1) Click the **Comment** plus icon to open the dialog window (The icon appearance will change when a comment has been added).
- 2) Enter details as relevant. Comments may be edited or amended at a later time if required.
- 3) Select category and damage types from the drop-downs.
- 4) Press **Save**.

Date	Driver	Machine	X	Y	Comment
9/29/2020 2:29:02 PM	Andreas	675	22	10	
<ul style="list-style-type: none"> ■ Site: DAGAB ■ Postal Code: 422 46 ■ City: HISINGS ■ Additional Info 1: TRP JS ■ Additional Info 2: TRP JS, Återställningskort ■ Driving: Yes ■ Lifting: Yes ■ Speed: 3 km/h ■ BDI: 50 ■ Active Errors: 0 ■ Login: 9/29/2020 2:10:28 PM ■ Logout: 9/29/2020 2:29:08 PM ■ Fleet Number: 7012 ■ TMH Fleet Number: SE -7012 ■ Machine Family: STA - Stackers ■ Model: SPE140L 					
No comment					
9/29/2020 2:26:34 PM	Björn	673	9	36	

Comments are included in exports to Excel spread sheets (see 11.12) which facilitates analyses and compiling accident reports.

Comment
✕

Slippery floor from the oil spill

Select category

Category
▼

Select damage

Damage
▼

SAVE

CANCEL

6.10.5 Resetting shock lock-outs

In cases of shock lock-out, start out by checking for personal injuries and damages. If all is still OK and it's verified that the machine is safe to operate, reset the shock lock-out. The reset may be done at the machine or remotely, i.e. from the I_Site portal or by the I_Site app.

6.10.5.1 Resetting at the machine

Driver normal profile:

- 1) Log off.
- 2) Log on with your driver PIN code or access card.

Driver reset profile [supervisor]:

- 1) Log off.
- 2) Log on with a reset [supervisor] PIN code or access card.

For registration of who reset a machine, the person should be logged on for at least 3 seconds, which is the minimum time for working passes to be registered.

- 3) Log off.
- 4) Log on with your driver PIN code or access card.

6.10.5.2 Resetting remotely

The feature is available for I_Site users with the 'Remote Shock Lockout Reset' role.

Reset from the portal:

- 1) Click the machine number in 'Shock Details' or go to 'Manage Site'
- 2) Go to machine configuration, see 6.2.
- 3) Press the **Reset Shock Lockout** button.

Reset from the I_Site app.












- 1) Log into the I_Site app.
- 2) Click **Level Red Shocks**, see 6.10.5.
- 3) Press the **Reset Shock Lockout** button.

6.11 Battery reports

6.11.1 To access Battery Detail:

1. Click on **UTILIZATION** in the top bar
2. Click on **MACHINES** under Utilization in the side bar

Enter by clicking the battery status indicator icon.

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI
 Machine 100.0103		33.96%	1083:59	0	N/A
 Machine 6489363		33.85%	300:38	1290	
 Machine 6264567		31.56%	731:02	251	
 Machine 6111496		3.81%	121:32	106	

6.11.2 Battery Detail

Battery detail is a graphical representation of battery performance on the truck. The report consists of the chart that shows battery charge levels over time, pop up window, which shows working pass details regarding battery performance and machine activity.

Note! Battery reports are only available on machines that supplies the I_Site system with battery data from the truck. This includes most Toyota / BT branded machines.

To facilitate an overview, the battery information is colour coded in level green for ok and yellow and red for warning. The different colours are set by different errors or of incorrect handling. see details below...

6.11.3 Exporting battery report

As with any chart battery report graph can be saved as a graphic file with png extension. Information from the pop-up window is not exportable.

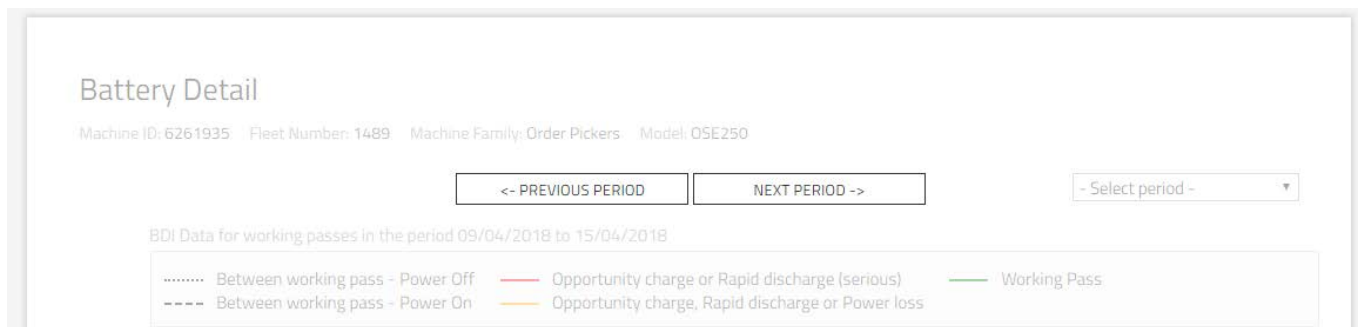
The BDI graph (BDI = Battery Discharge Indicator) shows battery discharge levels, power capacity, usage and recharging in weekly intervals for the selected machine.

6.11.4 Changing time period

Battery chart shows one week from Monday to Sunday. To switch to a different week:

Method 1

1. Click on the **Previous Period** button to see previous week, or
2. Click on the **Next Period** button to see next week

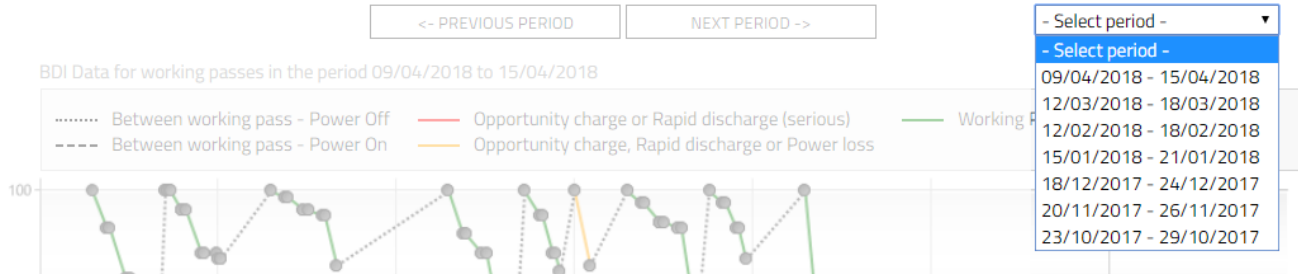


Method 2

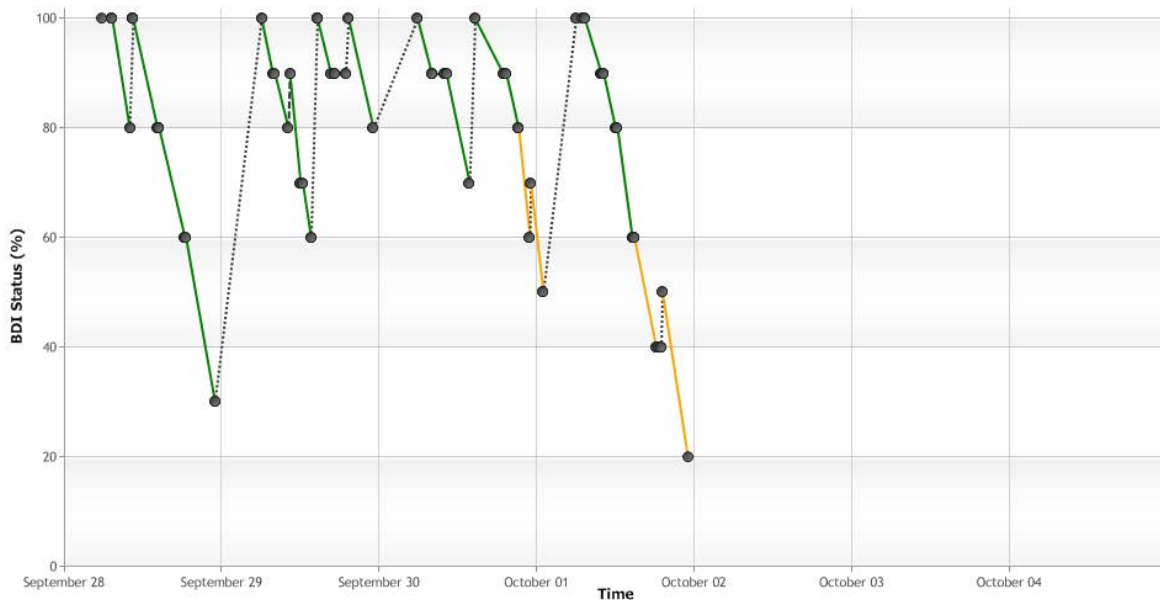
1. Click on the **Select period** drop down menu
2. Select one of the available weeks

Battery Detail

Machine ID: 6112466 Fleet Number: 1338 Machine Family: Reach Trucks Model: RRE160C



6.11.5 Battery Discharge Indicator graph

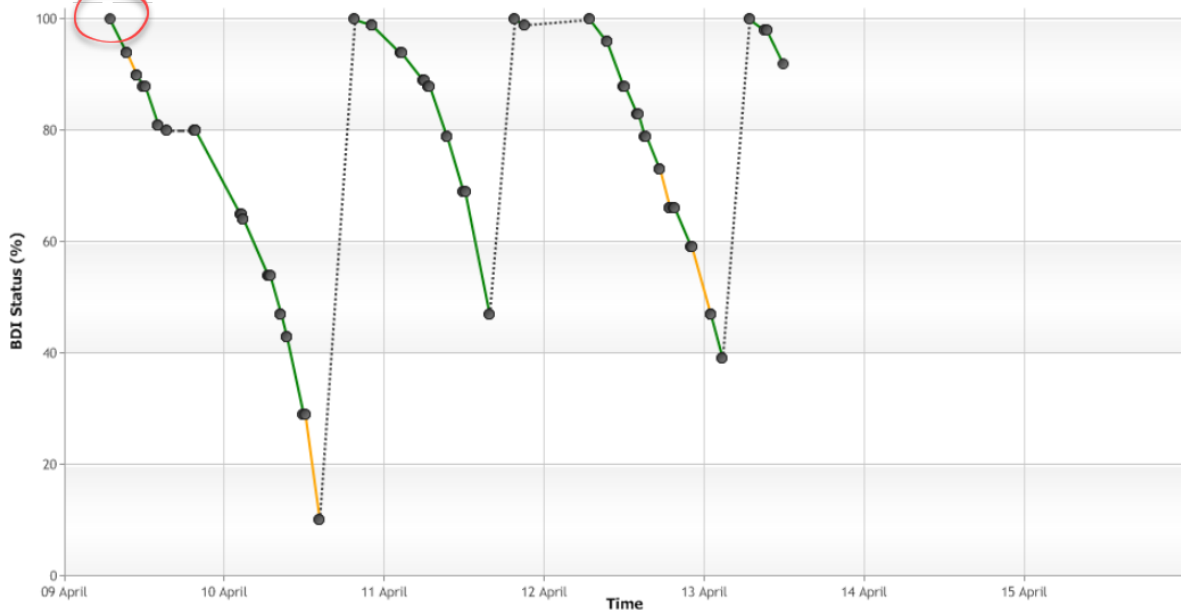


Battery Discharge Indicator (BDI) graph shows battery charge levels over the course of seven days (from Monday to Sunday).

- Colors indicate battery discharge health and are different between Lead and Li-Ion batteries (for details see below).
- Black dots (nodes) on the line indicate beginning and ending of a working pass.
- Dashed lines show non-work time.

Below the graph, is a table of the working passes for the shown interval. For each working pass, the table lists log-on and log-off time stamps, driver id/name, battery status at beginning and end plus log-off method.

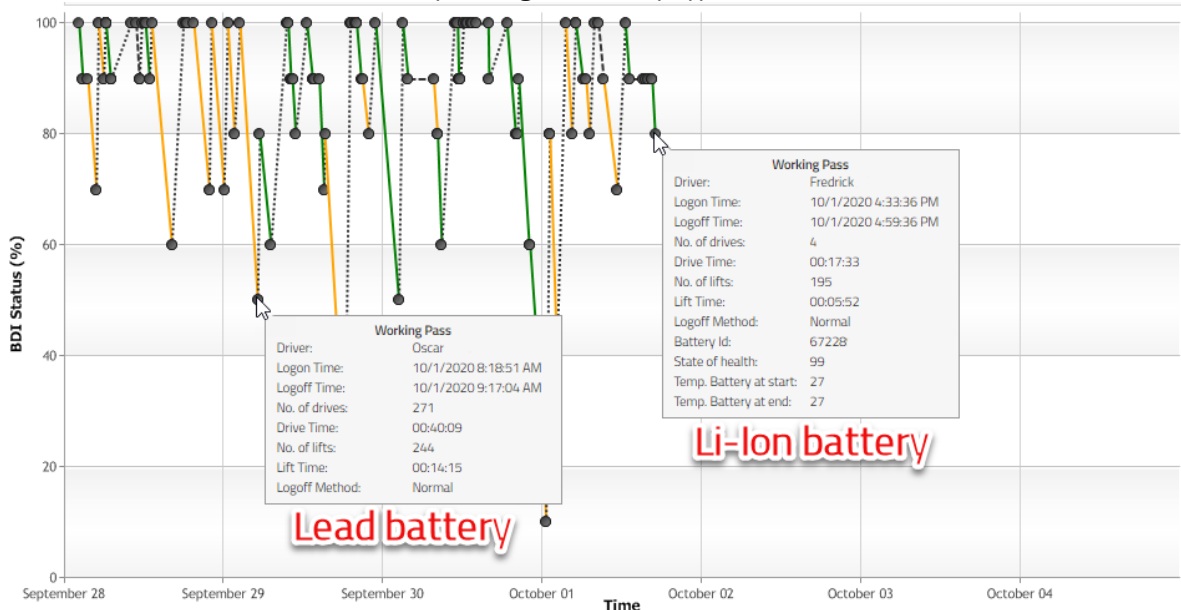
By clicking on the working pass in the graph, you will get to working pass in the table and vice versa.



Working Passes ⌵

Start	End	Driver ID	BDI Level Start	BDI Level End	Logoff Method
09/04/2018 06:46:44	09/04/2018 09:17:21	N/A	100	94	Inactivity Timeout

Moving a mouse over the node will display a **pop-up window** with details on the working pass. The window contains different amount of data depending on battery type.



6.11.6 Lead Acid battery

BSI icons colour coding

	[Green]	OK
	[Yellow]	See table below.
	[Red]	See table below.
	[Grey]	Function not activated.

“N/A” Battery monitoring is not available for this machine.

The rules for the BSI colour coding:

Power loss	Short time recharging		Rapid discharge	
	Yellow	Red	Yellow	Red
Power is lost during ongoing working pass	<ul style="list-style-type: none"> Battery change: NO Power off: < 30 minutes BDI, working pass end ≤ 20% BDI, next working pass start: 100% 		BDI going from 60 to 30 % (usually takes several working passes) and the calculated drive + lift time (minutes) per 100 Ah is less than:	
			Parameter 1	Parameter 2
2 out of 10 working passes	3 out of 10 working passes	5 out of 10 working passes	2 out of 5 times (10 if battery change)	2 out of 3 times (6 if battery change)

Graph lines:

BDI Data for working passes in the period 9/28/2020 to 10/4/2020

..... Between working pass - Power Off	— Opportunity charge or Rapid discharge (serious)	— Working Pass
----- Between working pass - Power On	— Opportunity charge, Rapid discharge or Power loss	









Line Type	Description	Meaning
Solid Green	Working Pass	No undesired events detected during working pass
Solid Yellow	Opportunity charge, Rapid discharge or Power loss	Battery has been disconnected or truck was shut down with an emergency switch, or Battery discharge measured when crossing either 60% or 30% mark was faster than expected, but above critical levels.
Solid Red	Opportunity charge or Rapid discharge (serious)	Opportunistic charge occurred, or Battery discharge measured when crossing either 60% or 30% mark was

		faster than expected and equal to or below critical levels.
Dashed	Between working pass - Power On	No work activity was registered and the battery was connected to the machine
Dotted	Between working pass - Power Off	No work activity was registered and battery was not connected to the machine.

6.11.7 LI-ION batteries general information

Li-Ion batteries have capability to send additional information over the CAN network as report health status and identification number. This information will be displayed in the pop-up window of the Battery Status Indicator graph.

Note! All trucks with Li-Ion batteries are not sending BMS data. This includes most Toyota / BT branded machines but not all.

	Machine 6517619	Fleet No 9	Utilization 77.43%	Run Hours 37:10	Shocks 2	BSI 
	Machine 6517112	Fleet No 16	Utilization 70.19%	Run Hours 33:41	Shocks 3	BSI 
	Machine 6514414	Fleet No 8	Utilization 61.13%	Run Hours 29:21	Shocks 4	BSI 
	Machine 6512390	Fleet No 1	Utilization 60.04%	Run Hours 28:49	Shocks 4	BSI 

6.11.8 Li-Ion batteries data colour coding



[Li-Ion Green] OK



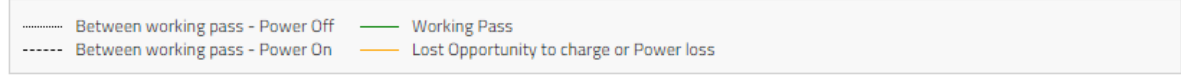
[Li-Ion Green] see table below

"N/A" Battery monitoring is not available for this machine.

State Of Health	Lost Opportunity to charge	Power loss
Yellow	Yellow	Yellow
IF State of Health is lower than 90	A Lost Opportunity to charge is indicated if a battery hasn't been charged even though standing idle for at least 15 minutes.	Battery disconnected
	Occurred more than 2 times during the last 24h.	2 times or more during the last 10 working passes

Graph lines:

BDI Data for working passes in the period 9/28/2020 to 10/4/2020



Line Type	Description	Meaning
Solid Green	Working Pass	No undesired events detected during working pass
Solid Yellow	State of health	IF State of Health status is lower than 90
Solid Yellow	A Lost Opportunity to charge	A Lost Opportunity to charge is indicated if a battery hasn't been charged even though standing idle for at least 15 minutes.
Solid Yellow	Power loss	Battery has been disconnected or truck was shut down with an emergency switch.
Dashed	Between working pass - Power On	No work activity was registered and the battery was connected to the machine
Dotted	Between working pass - Power Off	No work activity was registered and battery was not connected to the machine.

6.12 Report viewing – Drivers

6.12.1 Utilization rates

- 1) Click the **Utilization** tab (select site or sites if applicable).
- 2) Go to the **Utilization** heading on the left navigation panel.
- 3) Click **Drivers**.
- 4) Enter search criteria or leave blank. The field for driver groups will appear if a group or groups have been created (several groups may be selected).
- 5) Press **Search**.

Utilization - Drivers

Driver: Additional Info 1: Additional Info 2: From date: 07/11/2018 To date: 14/11/2018

Select Driver Groups:



SEARCH **CLEAR**

Total summary
 Drivers: 9 Utilization: 0.00% Run Hours: 00:00 Shocks: 0

Driver ID	Expected Hours	Run Hours	Utilization	Shocks
01258	48.00	00:00	0.00%	0
Driver 1	48.00	00:00	0.00%	0
Driver 2	48.00	00:00	0.00%	0
Supervisor Lockout	48.00	00:00	0.00%	0

A summary of site data is given at the top of the listing.

The following data is shown for the selected time period:

- 'Driver ID' = Driver name.
Click the name to open the 'Driver details' page.
 - 'Expected Hours' = Expected working time based on set work schedule [Shift time].
 - 'Run Hours' = Total actual working time during the selected period.
Click the number to open the Activity report, see next section.
 - 'Utilization' = Worked [Run] hours in relation to the set work schedule.
 - Shocks = Number of impacts.
Click the number to open the Shocks report see (6.10.1).
- 6) Click the  icon to expand site and driver details.
 - 7) Click the  icon to close details.



6.13 Activity reports

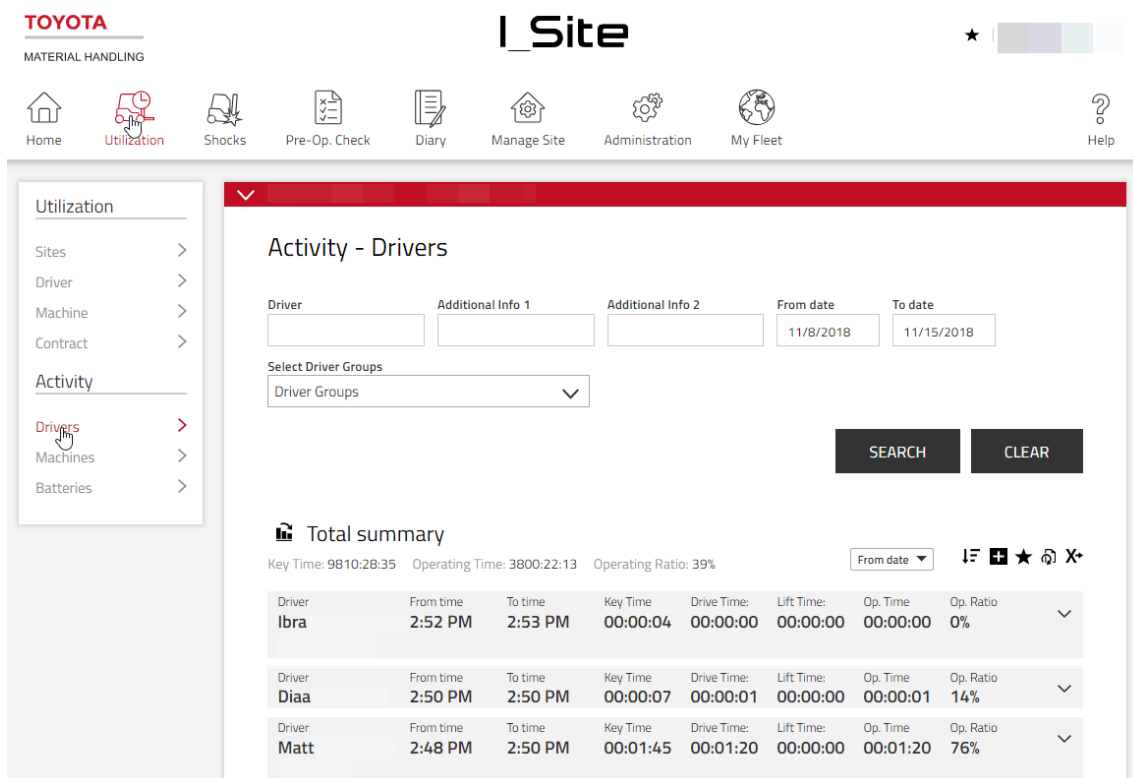
- 1) Click the **Utilization** tab. Multiple sites may be selected but the listing will not separate drivers to the selected sites.
- 2) Go to the **Activity** heading on the left navigation panel.
- 3) Click **Drivers**.
- 4) Enter search criteria or leave blank. The field for driver groups will appear if a group or groups have been created (several groups may be selected).
- 5) Press **Search**.

A summary of activity data is given at the top of the listing.

Operating data are reported for each working pass per driver and for the selected time period (limited to 1 month), comprising:

- 'Driver' = Driver Id or Driver name.
- 'From – To time' = Working pass start and finish hour.
- 'Key time' = Time the machine has been turned on.
- 'Drive and lift times add up to the operating time (Op. Time). Simultaneous driving and lifting add as a single movement.
- Op. Ratio = Operating ratio, i.e. the ratio between operating and key times.

- 6) Click the  icon to expand details including machine and driver information.
- 7) Click the  icon to close details.



Utilization

- Sites >
- Driver >
- Machine >
- Contract >

Activity

- Drivers >
- Machines >
- Batteries >

Activity - Drivers

Driver: Additional Info 1: Additional Info 2: From date: 11/8/2018 To date: 11/15/2018

Select Driver Groups:

SEARCH **CLEAR**

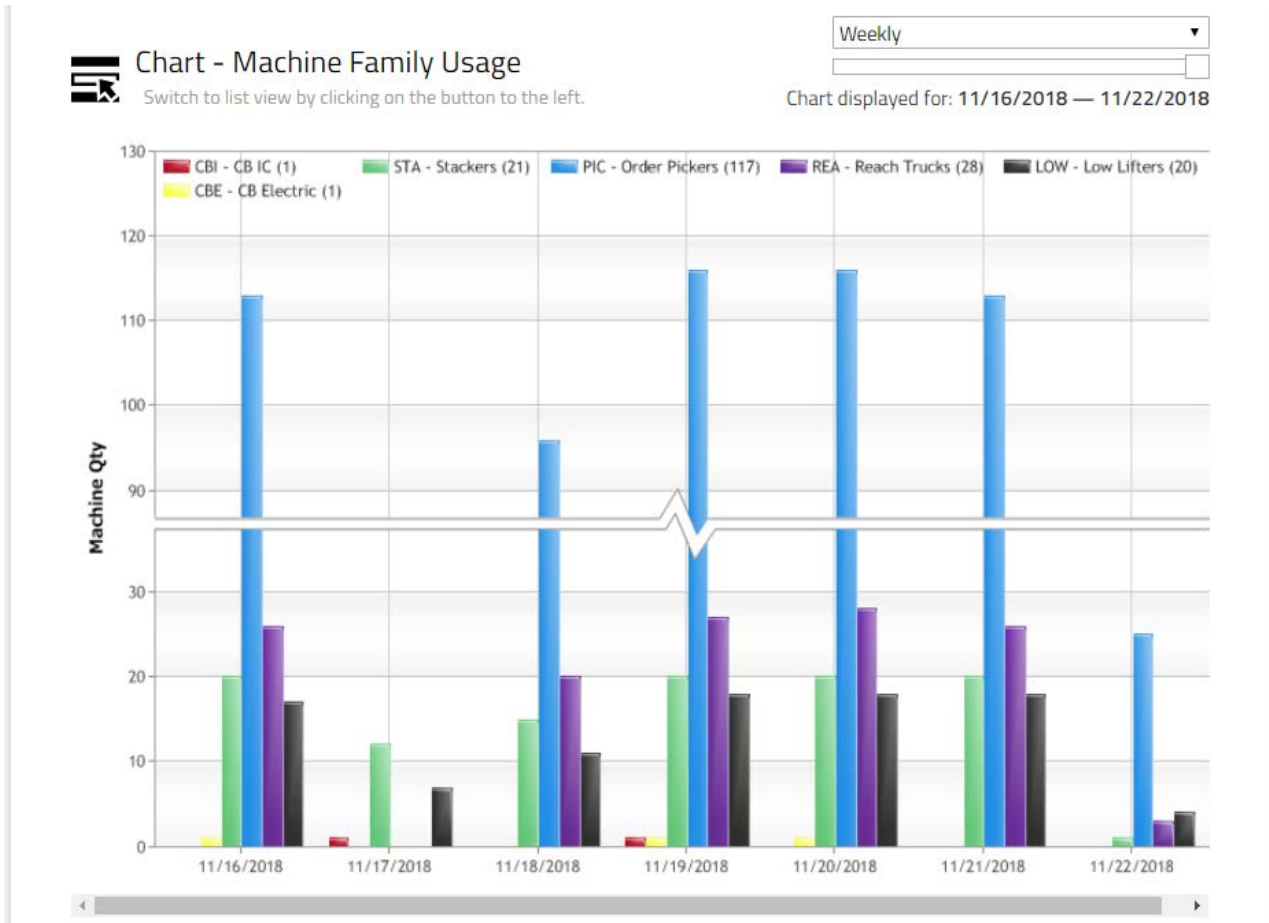
Total summary

Key Time: 9810:28:35 Operating Time: 3800:22:13 Operating Ratio: 39%

Driver	From time	To time	Key Time	Drive Time:	Lift Time:	Op. Time	Op. Ratio
Ibra	2:52 PM	2:53 PM	00:00:04	00:00:00	00:00:00	00:00:00	0%
Diaa	2:50 PM	2:50 PM	00:00:07	00:00:01	00:00:00	00:00:01	14%
Matt	2:48 PM	2:50 PM	00:01:45	00:01:20	00:00:00	00:01:20	76%

6.14 Charts

Reported utilization, activities and shocks information may be viewed as charts, see 4.2.6





6.15 Shocks - Drivers

6.15.1 Shocks summary

- 1) Click the **Shocks** tab (select site or sites if applicable).
- 2) Click **Drivers** on the left navigation panel.
- 3) Enter search criteria or leave blank. The field for driver groups will appear if a group or groups have been created (several groups may be selected).
- 4) Press **Search**. This will display summaries for drivers as selected.

The **Run Hours / Shock** is calculated based on operating time and number of total shocks. In cases of only one or no shocks, the number is equivalent to the operating time for the selected period.

- 5) Click the hyperlinked **Total Shocks** number to open the 'Shock Details' dialogue window, see next section.
- 6) Click the  icon to display site and driver details. Click the  icon to close.

▼ Demo Warehouse LS Support Gothenburg

Shocks - Drivers

Driver

Additional Info 1

Additional Info 2

From date

To date

Select Driver Groups

Driver Groups
▼

SEARCH

CLEAR

📊 Total summary

Total Shocks: 0 High: 0 Medium: 0 Low: 0
Run Hours / Shock: 00:00

Driver ID	Total Shocks	High	Medium	Low	Run Hours / Shock	
01258	0	0	0	0	00:00	▼
Driver 1	0	0	0	0	00:00	▼
Driver 2	0	0	0	0	00:00	▼

6.15.2 Shock details

The shock details dialogue window is the same for machines and drivers. Please see section 6.10.2.

7 Service and rental contracts

The overview is a useful tool to follow contracts.

- 1) Click the **Utilization** tab (select site or sites if applicable).
- 2) Go to the **Utilization** heading on the left navigation panel.
- 3) Click **Contract**.
- 4) Enter search criteria or leave blank. The field for machine groups will appear if a group or groups have been created (several groups may be selected).
- 5) Press **Search**.



The listing specifies contract data for each machine.

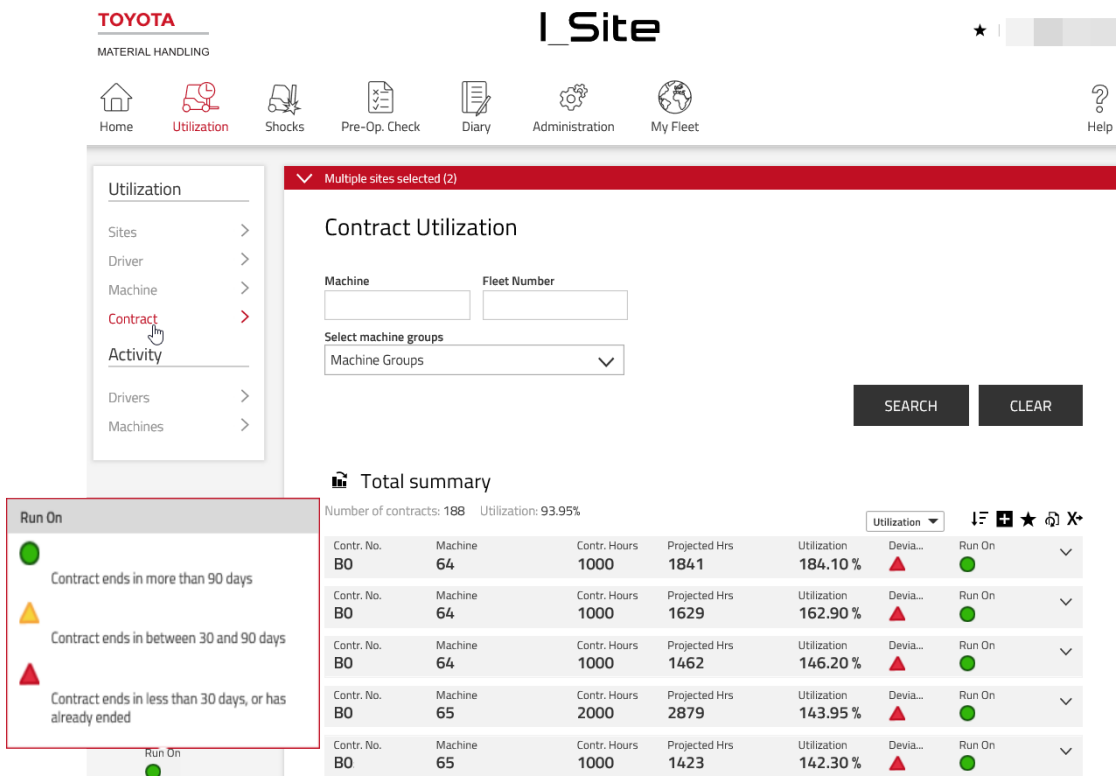
MAT12 Projected Hours is the predicted machine usage for the current 12 months contract period based on machine usage to date.

Icons are shown for:

MAT12 Status, Projected Hours.

Run On Time left to contract expiration date.




- 6) Click the icons to show symbol definitions.
- 7) Click the  icon to display contract period and machine details. Click the  icon to close.



The screenshot shows the I_Site web application interface. The top navigation bar includes 'Home', 'Utilization', 'Shocks', 'Pre-Op. Check', 'Diary', 'Administration', and 'My Fleet'. The main content area is titled 'Contract Utilization' and features a search bar with 'SEARCH' and 'CLEAR' buttons. Below the search bar is a 'Total summary' section showing 'Number of contracts: 188' and 'Utilization: 93.95%'. A table lists contract details for multiple machines.

Contr. No.	Machine	Contr. Hours	Projected Hrs	Utilization	Devia...	Run On
BO	64	1000	1841	184.10 %	▲	●
BO	64	1000	1629	162.90 %	▲	●
BO	64	1000	1462	146.20 %	▲	●
BO	65	2000	2879	143.95 %	▲	●
BO	65	1000	1423	142.30 %	▲	●

The 'Run On' pop-up window in the bottom left corner contains the following information:

-  Contract ends in more than 90 days
-  Contract ends in between 30 and 90 days
-  Contract ends in less than 30 days, or has already ended

8 Subscriptions and Notifications

8.1 Subscriptions

Please consult your TMH representative for this add-on feature.

The subscription feature offers you regular reports on areas that you like to follow more closely.

- 1) Go to the report you like to follow.
- 2) Click the **Subscription** icon.
- 3) In the pop-up dialogue window, name the subscription and specify frequency and time. You may adjust the time zone in case the selected site is at a different time zone.

The time extension in the report will correspond to the setting in the dialogue window.

- 4) Click **Add**. Report mailing will commence at the next occurrence as specified.

To review your subscriptions, go to 'My Settings' by clicking your user name at top right corner.

The subscription may be renewed for another year by clicking the renewal icon or terminated by clicking the garbage can icon.

The screenshot shows the I_Site user interface. At the top, there is a navigation bar with the TOYOTA logo and the text 'I_Site'. Below this is a secondary navigation bar with icons for Home, Utilization, Shocks, Pre-Op. Check, Diary, Manage Site, Administration, My Fleet, and Help. The main content area is titled 'Profile for [user]' and contains a 'Subscriptions for [user]' section with the text 'No Subscriptions'. A sidebar menu on the left lists 'My Settings', 'Profile', 'Subscriptions', 'Mobile Settings', and 'Notifications'. A red circle highlights the 'Settings' button in the top right corner, and another red circle highlights a user profile icon in the top right corner.

mary

JRS: 00:00

10003

raTerm1

The 'Report Subscriptions' dialog box is shown. It has a red title bar and contains the following fields and options:

- Subscription Name: [Text input field]
- Interval type: Weekly, Monthly
- Time of day: [Time input field]
- Day of week: [Dropdown menu showing Monday]
- Time zone: [Dropdown menu showing (GMT) Coordinated Universal Time]
- Subscriptions: No Subscriptions
- Buttons: [Apply], [Cancel]

The screenshot shows a table with columns: Run Hours, Shocks, BSI, and a checkmark column. The table has two rows of data. A red circle highlights a button in the top right corner of the table area, and a red arrow points from this circle to the 'Report Subscriptions' dialog box.

Run Hours	Shocks	BSI	
00:00	0	N/A	✓
00:00	0	N/A	✓

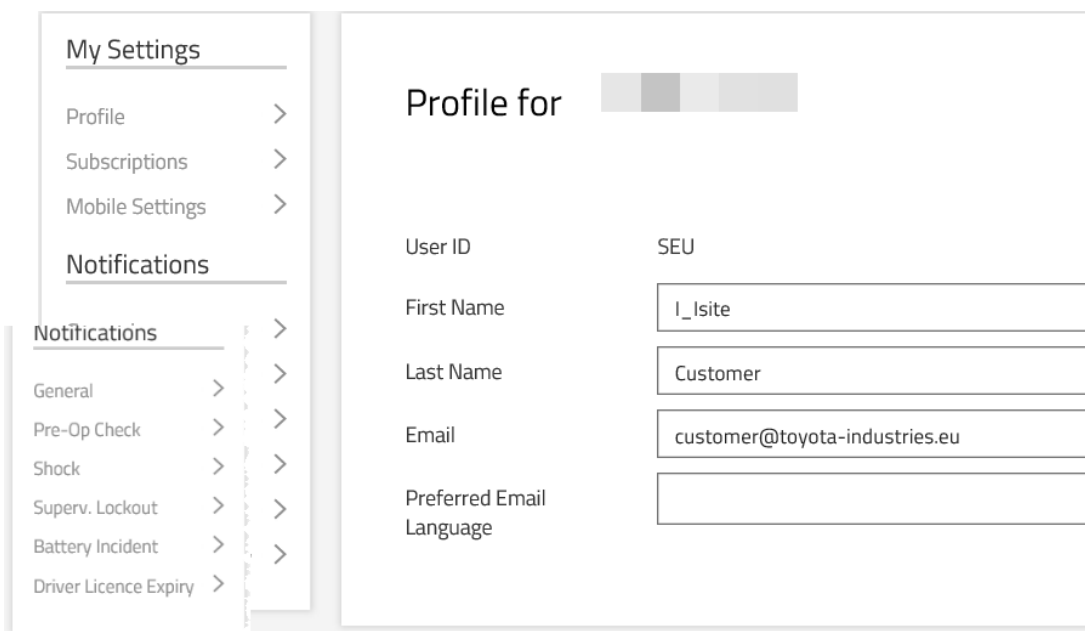
8.2 Notifications

The full feature range requires the Machine Administrator role.

The Notification feature offers instant alert information on machine incidents and activities.

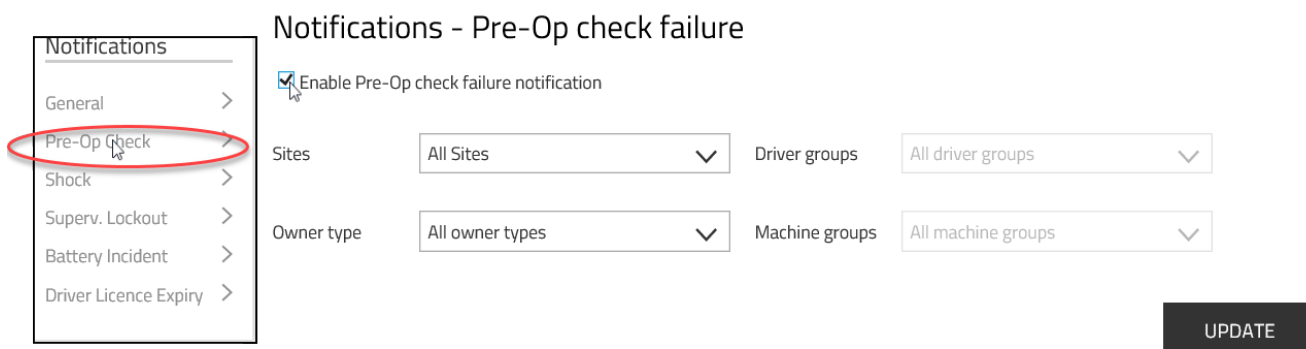
- 1) Go to 'Notifications' by clicking your user name at the top right corner, see. 8.1. The left navigation panel lists the range of notifications.

General: This allows you to direct notification e-mails to someone else or a group mail. By default your e-mail address is filled in.



Pre-Op Check	Report on failed checks, see 10.13.
Shocks	Shock that exceeds shock lock-out threshold settings (<i>DHU2 installed</i>).
Superv. Lockout	Machine been locked for usage by supervisor at the machine (PIN code or access card).
Battery Incident	Battery BDI level below the low limit as set in the Machine configuration table. Requires <i>Enable BDI Notification</i> set to 'Yes', see 6.2.
Driving License	Driving license is available to set for each machine family a specified time and it is possible to choose it "same for all"

2) Mark the checkbox for the wanted notification.

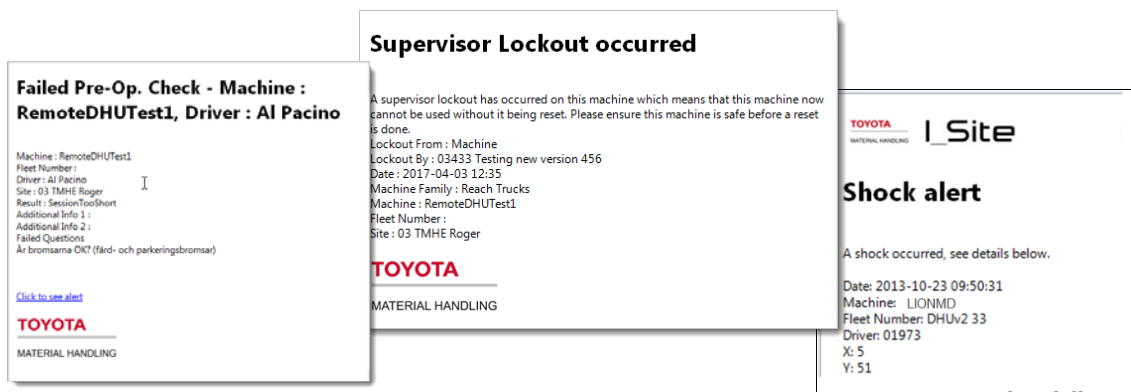


3) Reduce the scope of notifications by means of the filtering options.

4) Press **Update** to activate each notification.

5) To unsubscribe: Clear check boxes.

Notification e-mails vary slightly in appearance but contain site and machine information.



9 Pre-Operational Check

(Requires that the Pre-Op Check feature is included in your I_Site package. Please consult your TMH I_Site representative).

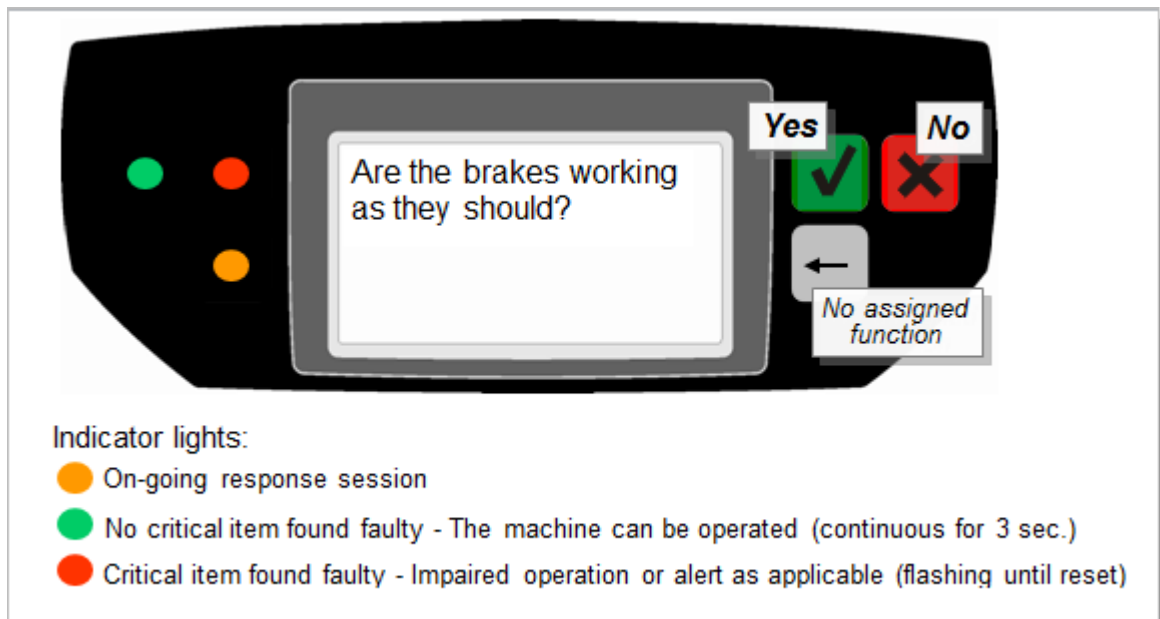
9.1 Introduction

The Pre-Operational Check (Pre-Op Check or POC) feature is based on checklists for control of the machine condition. The lists are created by means of the I_Site web interface and transmitted to an on-board panel. The checklist has to be completed in connection with machine log-on. The completed checklist is

communicated back to the web site for follow-up. If a control response indicates hazardous operation, i.e. Pre-Op check failure, the machine operation will be impaired or an alert triggered as applicable. For further description of machine performance, please consult your TMH service representative.

To activate, the POC feature must be enabled in the 'Machine Configuration' settings as described in the following.

9.2 The on-board panel



- The items or functions to be checked are shown in the display window as control questions. Up to 20 questions can be stored (see following sections for downloading questions from web site).
- Each question is responded to by pressing either the green Yes-button or the red No-button. Note that questions like "Are the brakes faulty?" a "No" answer is correct for well-functioning brakes.

Questions may be either non-critical or critical.

- Non-critical: Concerns machine defects that do not pose a risk of immediate hazard.
- Critical: Concerns machine defects that make operation hazardous. The problem should be fixed before further usage.

Creating questions is described in detail in the following.

- When responded, the next question is shown in the display window.
- While responding, the amber light is flashing at 0.5 Hz.
- On completion, the responses are analysed by the on-board system and the result is indicated by colour coded lights to the left of the display window:

- Green** Controlled items or functions are all in good condition or **non-critical** items only were found faulty. *Continuous for 3 sec.*
- Red** One or more **critical** items or functions have been found faulty or the check-up was not completed properly (critical question included). Machine operation may be impaired (POC lock-out) or an alarm signal can be activated. *Flashing until reset.*
- Amber** The check-up was not completed properly (critical questions not included). Machine operation will not be impaired and no alarm signal will be activated. *Continuous for 3 sec.*

Response results or information on incomplete response sessions are transmitted to the web site with scheduled or triggered communication. Pre-Op check failures (a red indication light) are registered directly on the portal.






9.3 Machine Configuration settings

Activating POC and specifying features are done in the 'Machine Configuration' dialogue window, see 6.2.








9.3.1 Enable POC

By default, POC is not activated. To enable, select mode of checking machine safety:

- **Yes, once per 12h per driver:** Each driver has to perform the safety check. A renewed check is required 12 hours from when the earlier check was done.







Enable Pre-Op. Check	Yes, once per 24h, all drivers	Yes, once per 24h, all drivers	
Start time	15:30	No	
Time until Timeout	5 minutes	Yes, once per 12h, per driver	
For Lockout Reset profile	No	Yes, every new driver	
Randomized questions	Yes	Yes, once per 24h, all drivers	
Checklist	170904 test	170904 test	

- **Yes, every new driver:** Every time a new driver logs on to the machine, the safety check has to be performed. A driver has to repeat the control check if someone else has used the machine in between, or if 12 hours has elapsed.
- **Yes, once per 24h, all drivers:** The first driver who logs on to the machine after the specified daily **Start time** has to perform the safety control check. A **Start time** has to be entered.

Yes, once per 24h, all drivers		
15:30		
5 minutes		
No		
Yes		
170904 test		







9.3.2 Response time

The allowed responding time between questions can be set in the field for **Time until Timeout**.

Pre-Operational Check		
Enable Pre-Op. Check	Yes, once per 24h, all drivers	Yes, once per 24h, all drivers 
Start time	15:30	15:30 
Time until Timeout	5 minutes	5 minutes 
For Lockout Reset profile	No	No 
Randomized questions	Yes	Yes 
Checklist	170904 test	170904 test 

9.3.3 Safety control checks by supervisors

If considered valuable to have a record of supervisors' control of the machine, the **For Lockout Reset profile** should be set to 'Yes'.

Pre-Operational Check		
Enable Pre-Op. Check	Yes, once per 24h, all drivers	Yes, once per 24h, all drivers 
Start time	15:30	15:30 
Time until Timeout	5 minutes	5 minutes 
For Lockout Reset profile	No	Yes 
Randomized questions	Yes	Yes 
Checklist	170904 test	170904 test 

9.3.4 Randomized questions

To avoid drivers memorizing the response sequence, it might be useful to scramble the order questions are shown from one time to the next. To enable, set **Randomized questions** to 'Yes',

Pre-Operational Check			
Enable Pre-Op. Check	Yes, once per 24h, all drivers	Yes, once per 24h, all drivers	
Start time	15:30	15:30	
Time until Timeout	5 minutes	5 minutes	
For Lockout Reset profile	No	No	
Randomized questions	Yes	Yes	
Checklist	170904 test	170904 test	

9.3.5 Selecting checklist

The checklist to be used for an individual machine can be selected from published checklists drop-down.

Pre-Operational Check			
Enable Pre-Op. Check	Yes, once per 24h, all drivers	Yes, once per 24h, all drivers	
Start time	15:30	15:30	
Time until Timeout	5 minutes	5 minutes	
For Lockout Reset profile	No	No	
Randomized questions	Yes	Yes	
Checklist	170904 test	170904 test	

10 Pre-Operation Checklists

Pre-Op checklists gives information regarding checklists, drivers, machines and results.

10.1 Accessing Pre-Op Check

To access Pre-Op Check Machines:

- Click on the PRE-OP CHECK in the top bar
- Click on MACHINES in the side bar

Pre-Operational Check - Machines

Machine: Fleet No: From date: 01/01/2018 To date: 31/05/2018 Include Historical Data

Select Status: Passed, Warning, Failed Select Result: Completed

SEARCH CLEAR

Total summary

Performed: 16 Failed: 1 Warning: 4 Passed: 11

Machine	Fleet Number	Performed	Failed	Warning	Passed
8DEMO15-10003	10003	16	1	4	11

Failed - Completed: 1 Failed - Session Too Short: 0 Failed - Time Out: 0
 Warning - Completed: 4 Warning - Session Too Short: 0 Warning - Time Out: 0
 Site: Demo Warehouse LS Support Postal code: 41313 City: Gothenburg Machine Family: CBI - CB IC Model: 8FGF15 Brand: TO

10.2 Searching Pre-Op Check machines

Following filters can be used to search the machine. Searching without any filters applied will result in showing machines assigned with data relating to the last 30 days.


Machine	Search by full or partial name of the machine
Fleet No	Limit results by typing the fleet number
From date	Search from a specific date. Modifies machine related statistics. Default value is date 30 days in the past. Date selection is mandatory
To date	Search by a specific date. Modifies the machine related statistics. Default value is current date. Date selection is mandatory
Select Status	Select in the drop down if you want to see passed, warning or failed POC.
Select Result	Select on the drop down if you want to see completed or time out POC.

Total summary

Performed: 16 Failed: 1 Warning: 4 Passed: 11

Failed ▾

⌵ + ★ 📄 ✕

Machine	Fleet Number	Performed	Failed	Warning	Passed
 8DEMO15-10003	10003	16	1	4	11

■ Failed - Completed: 1 ■ Failed - Session Too Short: 0 ■ Failed - Time Out: 0
 ■ Warning - Completed: 4 ■ Warning - Session Too Short: 0 ■ Warning - Time Out: 0
 ■ Site: Demo Warehouse LS Support ■ Postal code: 41313 ■ City: Gothenburg ■ Machine Family: CBI - CB IC ■ Model: 8FGF15 ■ Brand: TO

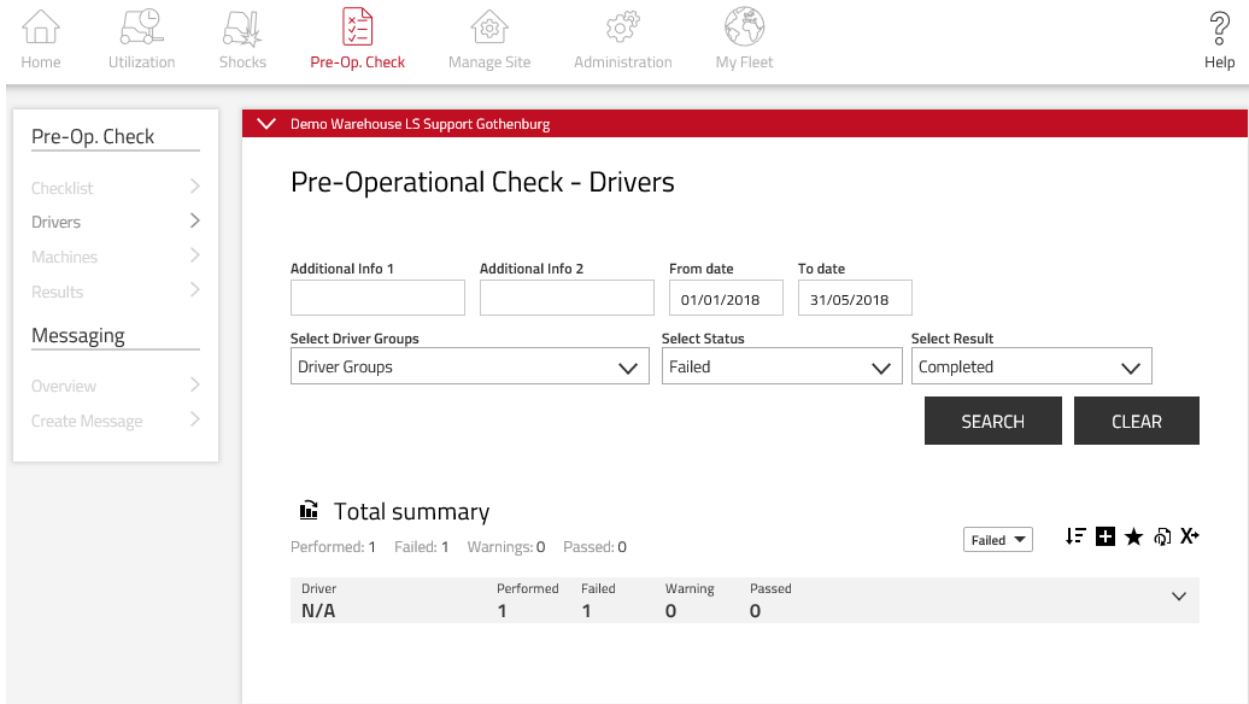
10.2.1 Investigating further

Machine	Name of the selected machine
Fleet Number	Number of the fleet the machine is part of
Performed	The number of times that a POC has been performed on this machine during the selected period of time
Failed	The number of times that POC has failed on this machine during the selected period of time
Warning	The number of times a non-critical question has been answered incorrectly on this machine during the selected period of time
Passed	The number of times the POC was passed correctly on this machine during the selected period of time
Failed-Completed	The number of times the POC was completed incorrectly
Failed-Session Too Short	The number of times the POC was completed too quickly
Failed-Time Out	The number of times the POC was completed too slowly
Warning-Completed	Completed POC session with a non-critical question answered incorrectly
Warning-Session Too Short	Completed POC session with a non-critical question answered too quickly
Warning-Time Out	Completed POC session with a non-critical question answered too slowly
Site	Name of the site the machines is located
Postal Code	Postal code of the site the machine is located
City	Name of the city the machines is located
Machine Family	The name of machine family
Model	The model of the selected machine
Brand	The brand of the selected machine

10.3 Accessing Pre-Op Check drivers

To access Pre-Op Check Machines:

3. Click on the **PRE-OP CHECK** in the top bar
4. Click on Drivers in the side bar



10.4 Searching Pre-Op Check drivers

Following filters can be used to search the Drivers that performed POC. Searching without any filters applied will result in showing Drivers assigned with data relating to the last 30 days.

Additional info 1	Here you can find additional information regarding the driver profile.
Additional info 2	Here you can find additional information regarding the driver profile.
From date	Search from a specific date. Modifies driver related statistics. Default value is date 30 days in the past. Date selection is mandatory.
To date	Search by a specific date. Modifies driver related statistics. Default value is current date. Date selection is mandatory.
Select Driver Groups	Select on the drop down the driver group.
Select Status	Select on the drop down if you want to see passed, warning or failed POC.
Select Result	Select on the drop down if you want to see completed or time out POC.

10.5 Accessing Pre-Op Check-results

1. Click on the **PRE-OP CHECK** in the top bar
2. Click on **RESULTS** in the side bar

10.6 Searching Pre-Op Check results

Following filters can be used to search the results. Searching without any filters applied will result in showing results assigned with data relating to the last 30 days.

Machine	Search by full or partial name of the machine
Fleet No	Limit the results by typing the fleet number
From date	Search from a specific date. Modifies result related statistics. Default value is date 30 days in the past. Date selection is mandatory
To date	Search by a specific date. Modifies result related statistics. Default value is current date. Date selection is mandatory
Select Status	Select in the drop down if you want to see passed, warning or failed POC.
Select Result	Select on the drop down if you want to see completed or time out POC.

Click on the box Include Reset Information if you want to include in the search the resets that have been done by a supervisor

Total summary

Performed: 16 Failed: 1 Warnings: 4 Passed: 11 Technical errors: 0

Registered ▾



 Title	Machine	Registered	Fleet Number	
170904 test	8DEMO15-10003	31/05/2018 10:06:05	10003	^
■ Site: Demo Warehouse LS Support ■ Postal code: 41313 ■ City: Gothenburg ■ Result: Completed ■ Duration: 99s ■ Driver: N/A				
 Title	Machine	Registered	Fleet Number	
170904 test	8DEMO15-10003	17/05/2018 13:59:14	10003	^
■ Site: Demo Warehouse LS Support ■ Postal code: 41313 ■ City: Gothenburg ■ Result: Completed ■ Duration: 156s ■ Driver: N/A				
Failed Questions				
→ Afval / Déchets / Waste ?				
→ Geschreven / Ecris / Written ?				
→ Schade / Dégâts / Damage ?				

10.6.1 Investigating further

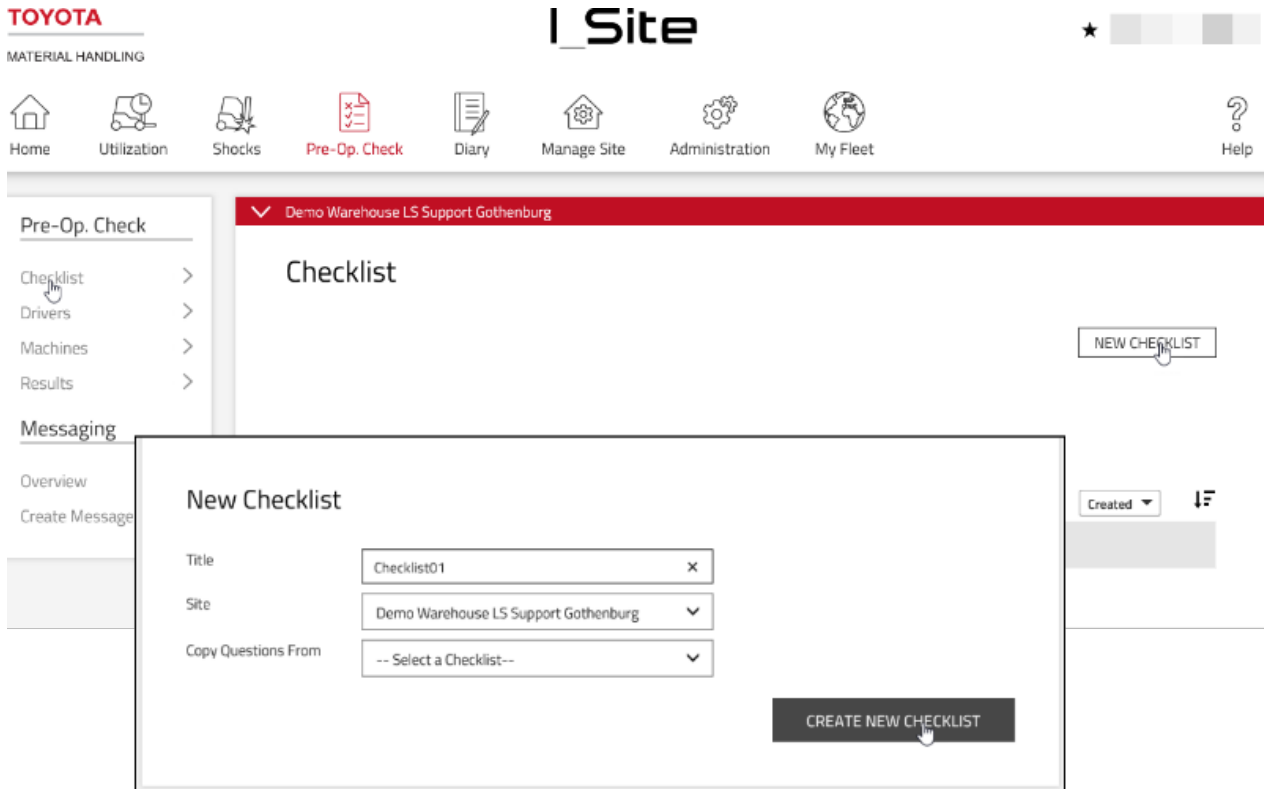
Title	Title of the checklist
Machine	Name of the selected machine
Registered	Date and Time the checklist was performed
Fleet Number	Number of the fleet the machine is part of
Site	The name of site the machine is located
Postal code	The postal code of the site
City	The city of the site that the machine is located.
Result	The result of the POC
Duration	The duration of the time it took to complete the POC
Driver	The driver that made the POC
Failed Questions	Below you get listed failed questions




10.7 Checklists

(Requires the 'Manage Pre-Op Checklists' role)

10.8 Creating checklists

- 1) Click the **Pre-Op Check** icon in top bar
- 2) Click **Checklist** in the left navigation panel. Current checklists will be shown.
- 3) Press **New Checklist** to open the dialogue window.
- 4) Name the checklist in **Title** field.
- 5) Select site or if applicable.



- 6) Leave the field blank for 'Copy Questions From' or find an earlier check list from the drop-down menu. A check list must be in status Published (described in the following) to appear in the listing.
- 7) Press **Create New Checklist** to open the dialogue window for entering safety control questions.
- 8) Enter safety control questions in the open text field. Similarly worded questions will be shown as you type. The drop down allows you to search among earlier questions.
Up to 20 questions can be added per checklist. There is an upper limit of 80 characters per question
- 9) Press **Add** for each new question.
A question may be deleted by clicking the  icon.
The order of the questions can be changed by drag and drop, however, see also 'Randomized questions' in the following.
- 10) Click the green icon  to change the expected answer from 'Yes' to 'No' for a well working function or for a component in good condition. Click the red icon  to change back.

Expected Answer

Delete

Test 01

#1 Is the general condition of the truck OK ?

#2 Are the forks in good condition ?

#3 Is the steering working correctly ?

#4 Are the battery cables damaged?

Select existing or write new question

ADD

Minimum Duration (1 - 250 seconds) 30

-- Select machine group or family --

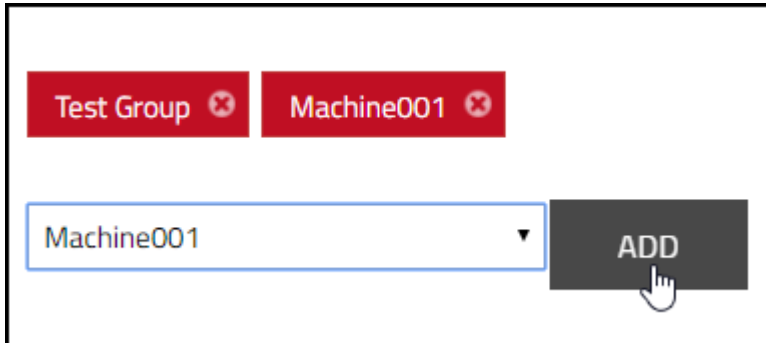
ADD

PUBLISH

Critical/Non-critical question

- 11) Mark 'critical' questions by clicking the icon. The colour will change to red . Click the red icon to change back.
- 12) Set the time for the minimum time required to answer the questions. The default setting is 30 seconds.
- 13) Select machine group or groups from the drop-down list.
- 14) Press **Add** for each selection. Individual machines are shown if the checklist is assigned to a machine from the 'Machine Configuration' dialogue window, see 6.2. Remove by clicking an added machine.

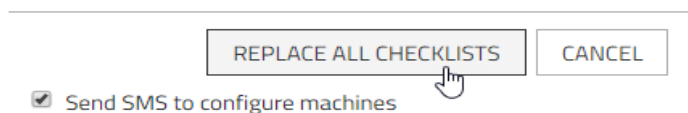
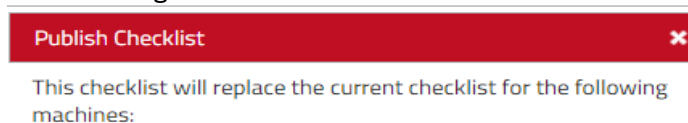
15) When completed, press **Publish** to open the publishing dialogue window. (Next section).



10.8.1 Publishing checklists

- 1) Mark the checkbox for **Send SMS to configure machines** for a prompt download. If left unmarked, the checklist will be downloaded at the next scheduled communication.
- 2) Press **Replace all checklists** to publish the checklist.

When published, the checklist is locked for modifications. Modifying or deleting checklist is described in the following.



Adding machines to a published checklist.

If a new machine group or family is introduced or new machines have been added to a group or family, the checklist has to be republished in order to have the checklist assigned to those machines.

- 1) Click **Checklist** in the left navigation panel.
- 2) Select the **checklist** to be downloaded to the new machines.
- 3) If applicable, add the new machine group or family.
- 4) Click **Republish**.
- 5) Add single machines from the 'Machine Configuration' dialogue window, see 11.9.

10.8.2 Removing checklists from machines

- 1) Navigate to checklists and select the checklist to be removed.
- 2) Click **Unpublish**.

The checklist will be removed from all the assigned machines and the status will change to 'Not Published'.

- 3) Should some machines still use this list, add those machines and publish again. The status will then change back to 'Published'.

An alternative is to delete machines from the list, see step 14) of 'Creating checklist'.

10.8.3 Modifying checklists

A. Checklists *that have never been published*:

- 1) Navigate to checklists and select the checklist to be modified.
- 2) Proceed per steps 8) – 15) in 'Creating checklists'.
- 3) Publish when ready.






B. *Published (and unpublished) checklists*:

- 1) To modify, a new checklist has to be created as described for 'Creating checklist', steps 1) – 15). If reusing the same name, it's advisable to give it a revision number.
- 2) Add machines to the modified list.
- 3) Publish when ready.

Machines that have been assigned the modified list are no longer shown as using the unmodified list. Machines that have not been added will still use the unmodified list.

10.8.4 Deleting checklists

A checklist in status 'Not Published' can be deleted by clicking the garbage can icon.

	Created	Published	
 Title Check list	11/15/2018	Not Published	
 Title Test	11/14/2018	Not Published	
 Title 170904 test	4/13/2018	4/13/2018	

10.9 Answering procedure

- 1) Enter PIN code or put access card on the reader per normal log-on procedures to activate the POC function. The first control question will appear on the panel display in 2 – 3 seconds.

The questions may reappear at the next log-on depending on 'Machine Configuration' settings. The questions will reappear if the previous session generated a red light or a new checklist was downloaded after the previous session.

The red light is triggered when:

- A function or component that is defined by a critical question has been found faulty.
- The response session containing a critical question was not completed within the set time limits.

2) Respond to the safety control questions as they show up on the panel display. The machine can be operated during the response session.

When completed, a green light will allow continued machine operation. The red light may impair operation and/or an alarm (light or sound) signal might be activated.

- 3) At the end of the working pass, log-off per normal procedures.
- 4) In case of a red light (POC lock-out) the machine should be inspected and repaired as required.
- 5) Reset when confirmed safe to operate (Next section).

10.10 Resetting POC lock-out

The reset may be done at the machine or from the I_Site portal.

Resetting at the machine

- 1) Log off.
- 2) Log on with reset [supervisor] PIN code or access card.
For registration of who reset a machine, the person should be logged on for at least 3 seconds, which is the minimum time for working passes to be registered.
- 3) Respond to control questions if activated for the lock-out reset profile.
- 4) Log off.
- 5) Log on with a driver PIN code or access card.

Resetting from the I_Site portal

To reset from the portal, the Immobilize On/Off' feature may be used, see 'Machine Configuration' section 6.11.6. The 'Remote Shock Lockout Reset' role' is required.



10.11 POC summary – Drivers

- 1) Click the **Pre-Op Check** tab (select site or sites if applicable).
- 2) Click **Drivers** on the left navigation panel.
- 3) Enter search criteria or leave blank.

The field for driver groups will appear if a group or groups have been created (several groups may be selected).

The search may be filtered further by the **Select Status** and **Result** drop-down menus.

- 4) Press **Search**. This will display summaries for drivers as selected.
- 5) Click any of the hyperlinked numbers for **Failed/Warning/Passed** to open 'Result details', see following section.
- 6) Click the **∨** icon to display site and machine details. Click the **∧** icon to close.

Pre-Operational Check - Drivers

Driver: Additional Info 1: Additional Info 2: From date: 01/11/2018 To date: 14/11/2018

Select Driver Groups: Select Status: Select Result:

SEARCH **CLEAR**

Total summary

Performed: 3101 Failed: 70 Warnings: 316 Passed: 2715

Driver	Performed	Failed	Warning	Passed	Technical Error
111	62	7	0	55	0
Erde	18	2	1	15	0
Este	3	2	1	0	0

10.12 POC summary – Machines

- 1) Click the **Pre-Op Check** tab (select site or sites if applicable).
- 2) Click **Machines** on the left navigation panel.
- 3) Enter search criteria or leave blank.

The field for machine groups will appear if a group or groups have been created (several groups may be selected).

The search may be filtered further by the **Select Status** and **Result** drop-down menus.
- 4) Press **Search**. This will display summaries for machines as selected.
- 5) Click any of the hyperlinked numbers for **Failed/Warning/Passed** to open 'Result details', see following section.
- 6) Click the **∨** icon to display site and machine details. Click the **∧** icon to close.

Pre-Operational Check - Machines

Machine: Fleet No: From date: 01/11/2018 To date: 14/11/2018 Include Historical Data

Select machine groups: Machine Groups Select Status: Passed, Warning, Failed Select Result: Completed

Total summary
 Performed: 3101 Failed: 70 Warning: 316 Passed: 2715
 Technical Error: 0

Machine	Fleet Number	Performed	Failed	Warning	Passed	Technical Error
64	61	13	3	0	10	0

Failed - Completed: 3 Failed - Session Too Short: 0 Failed - Time Out: 0
 Warning - Completed: 0 Warning - Session Too Short: 0 Warning - Time Out: 0
 Site: D Postal code: 1 City: JORDBRO TMH Fleet Number: SE Machine Family: ST
 Model: SP Brand: TO

10.13 POC Result details

- 1) Click the **Pre-Op Check** tab (select site or sites if applicable).
- 2) Click Results on the left navigation panel.
- 3) Enter search criteria or leave blank.

The field for machine and/or driver groups will appear if a group or groups have been created (several groups may be selected).

The search may be filtered further by the **Select Status** and **Result** drop-down menus.

- 4) Mark the checkbox for 'Include Reset Information' to display who reset a POC lock-out. It shows also if it was reset at the machine (Machine) or remotely (Web/App).
- 5) Press **Search**. This will display machine (and driver) POC results as selected.

Pre-Operational Check - Result

Machine: Driver: Fleet No: From date: To date:

Select Driver Groups: Select machine groups:

Select Status: Select Result:

Include Reset Information

SEARCH **CLEAR**

Total summary
 Performed: 9914 Failed: 284 Warnings: 0 Passed: 9630
 Technical errors: 0

Title	Machine	Registered	Fleet Number
STÅ - Ståstaplare	64	14/11/20	12
STÅ - Ståstaplare	64	14/11/20	12
PIC - Plocktruck 1.2	65	14/11/20	01
REA - Skjutstativ	65	14/11/20	12
REA - Skjutstativ	65	14/11/20	12
PIC - Plocktruck 1.2	65	14/11/20	50
REA - Skjutstativ	65	14/11/20	12
REA - Skjutstativ	65	14/11/20	12

11 Messaging

(Requires the Pre-Op Check feature)

11.1 Introduction

This feature allows you to send ad-hoc messages from the I_Site web application directly to the driver(s) / machine(s), which is convenient in remote or noisy sites where communication can be difficult.

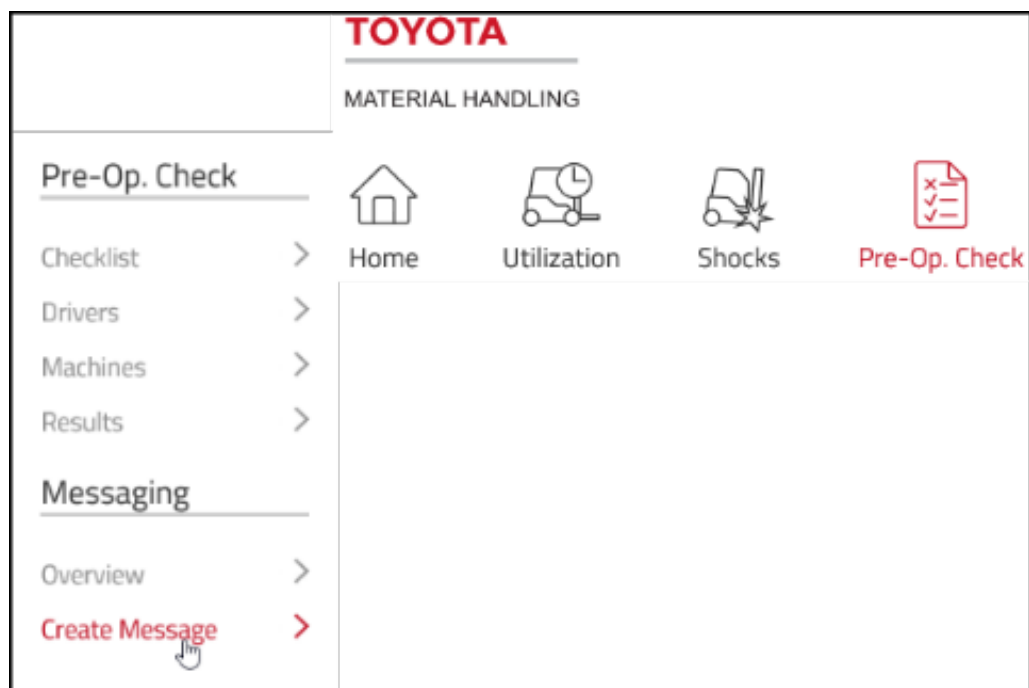
Examples:

- Safety messages to all drivers
- Fleet manager allocating a job to a specific machine for the driver to accept and act on next time the machine is started
- Call all drivers to information meeting, allowing each driver to accept or reject the invite

The messaging function is available to all I_Site users who have access to the pre-operational check and it is accessible via the pre-op check icon in the menu bar. The pre-op check display is required.

11.1.1 Create message

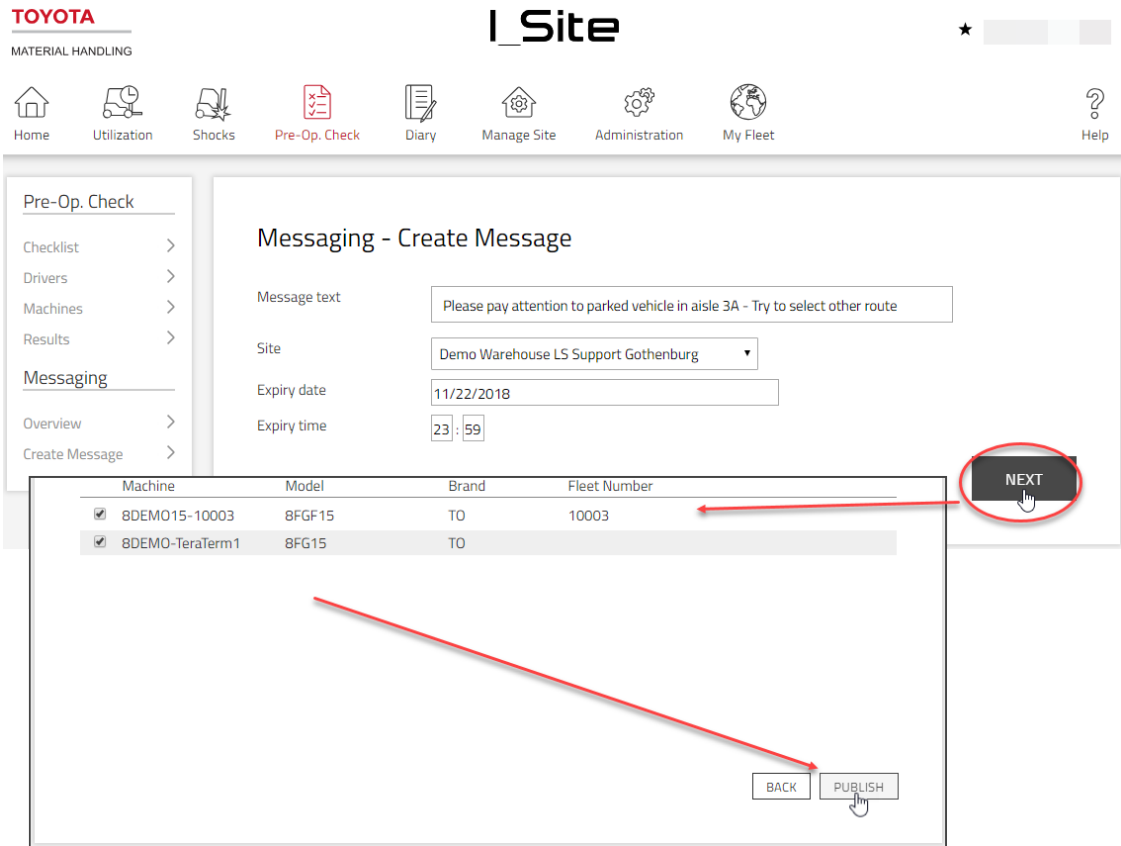
By selecting **Create Message** on the left-hand side navigation, a new message text may be entered with maximum 80 characters:



Expiry date & Expiry time has to be entered to indicate until when the message is to be displayed on the drivers' screens.

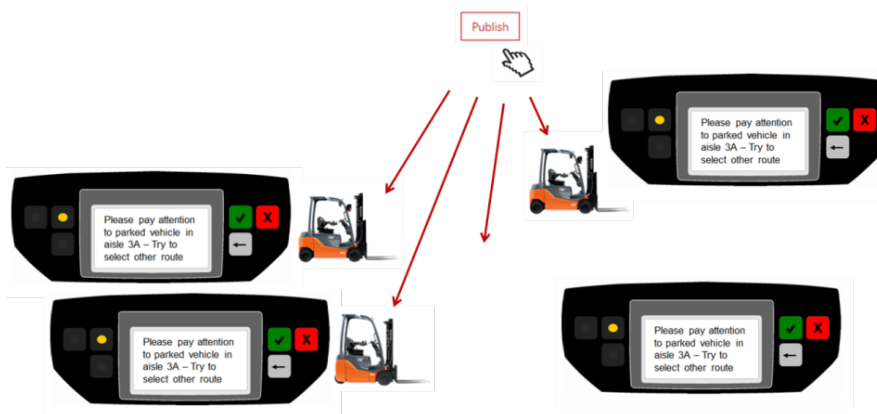
Default values: Expiry date = current day, Expiry time = 23:59 (i.e. valid until the end of the day)

The new message may be sent to all machines in the fleet or to a selection of machines:



- If a driver is logged on (and a pre-op check is not ongoing) the message shall be shown immediately.
- The message is accepted by the driver by pressing the green button.
- The message is rejected by the driver by pressing the red button.
- If not expired, the message shall be shown at each log on of a new driver (but not to drivers who have already accepted or rejected the message).
- If a pre-op check session is ongoing, the message shall be shown on the display 10 seconds after the pre-op check session has been completed.
- If the message is shown and the driver logs out without having accepted or rejected, the message is shown again at next log on (if not expired), even if it is the same driver.
- If timeout is reached without the driver having accepted or rejected the message, it shall be shown again at next log on (if not expired).
- Driver ID and timestamp for acceptance/rejection is reported to the web server at next communication.

A list of all messages displays their validity timestamps, with a possibility to delete inactive messages. Only messages which have not yet been published may be deleted.



11.1.2 Overview

The message overview shows a summary of all messages that have been sent at the selected site(s) for a specified time period.

The summary specifies (for each message)

- Message text
- Number of machines that the message has been sent to
- Number of replies received (may be multiple replies from same machine)
- Date when message was published
- Date and time when message expires
- Detailed reply information regarding Machine, Fleet Number, Driver and Time of reply
- Information regarding the status of the answer (Accepted/Rejected)

If pressing the 'trash can' icon, the message will be deleted. If the message has not passed its time of expiry when deleted, it will be considered as expired after deletion.

Machine/Reply indicates the number of machines to which the message has been sent (**Machine**) and from how many of those machines we have received a reply (**Reply**).

The **Reply** quantity is independent of the number of drivers who may have logged on to the machines. It indicates whether the message has been replied to by **someone** (even though in reality several drivers may have received the same message on the same machine).

The purpose is to know whether the message has reached all machines or not. In other words, the **Reply** quantity cannot be greater than the **Machine** quantity.

Replies (i.e. accept or reject by means of green or red button) is not communicated immediately but at the next scheduled communication.

All detailed replies – per machine and driver – are displayed in the table underneath each message.

The Accepted/Rejected status is updated as the drivers accept or reject the message. The example below shows how one message which was sent to one machine was replied to by several different drivers logging on to that machine during the same day:

Messaging - Overview

Message Text:
 From date: To date:

Total summary

Message text	Machine/Reply	Published	Expiry date	
Hello all drivers of Demo	1 / 1	01/11/2018	01/11/2018 23:59	
<input type="checkbox"/> Site: TMHE Service Market <input type="checkbox"/> Postal code: 5 <input type="checkbox"/> City: Mjölby				
Filter: <input type="text"/>				
Machine	Fleet Number	Driver	Date	Accepted/Rejected
Search provided no results				
Message text	Machine/Reply	Published	Expiry date	
Hej	1 / 1	23/10/2018	23/10/2018 23:59	
Message text	Machine/Reply	Published	Expiry date	
Have a nice day!	7 / 1	18/09/2018	18/09/2018 23:59	

Message text	Machine/Reply	Published	Expiry date	
Warning! Virus outbreak on the whole...	1 / 1	17/09/2015	17/09/2015 23:59	
<input type="checkbox"/> Site: <input type="checkbox"/> Postal code: <input type="checkbox"/> City: Mjölby				
Filter: <input type="text"/>				
Machine	Fleet Number	Driver	Date	Accepted/Rejected
1234567	2	44444	17/09/2015 10:10	
1234567	2	55555	17/09/2015 10:47	
1234567	2	00002	17/09/2015 15:23	
1234567	2	00003	17/09/2015 21:04	

11.2 Home page / Dashboard

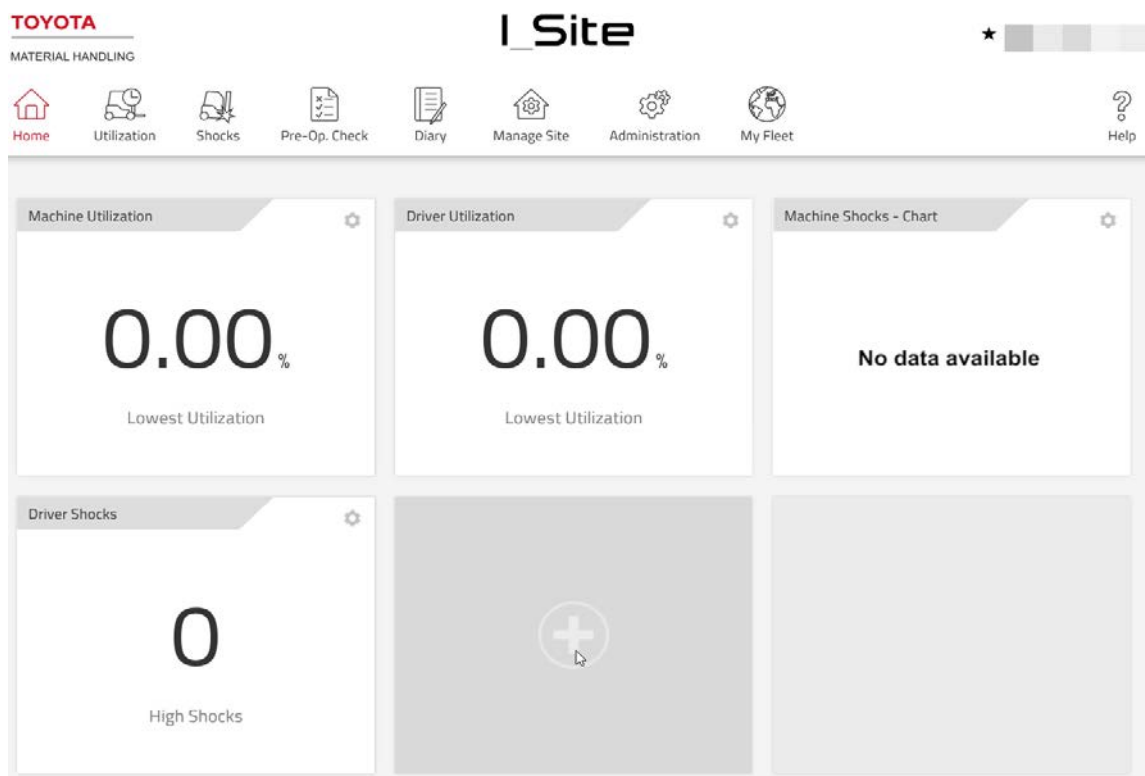
11.2.1 Dashboard

The dashboard is the first window displayed after login. It is comprised of a set of up to nine tiles, which show summary information from a chosen site(s). For users with access to less than 5 sites the dashboard will have five tiles pre-configured with the most frequently looked up information. More tiles can be added and existing tiles can be modified according to preference.

11.3 Creating new tiles

To create a new tile:

1. Click on the empty, grey tile space. Valid tile space is indicated by **+** icon
2. A list of all possible reports will appear on the left
3. Select a report by clicking on the row with the report name
4. A new tile will be created automatically with default data selection. The tile can be modified



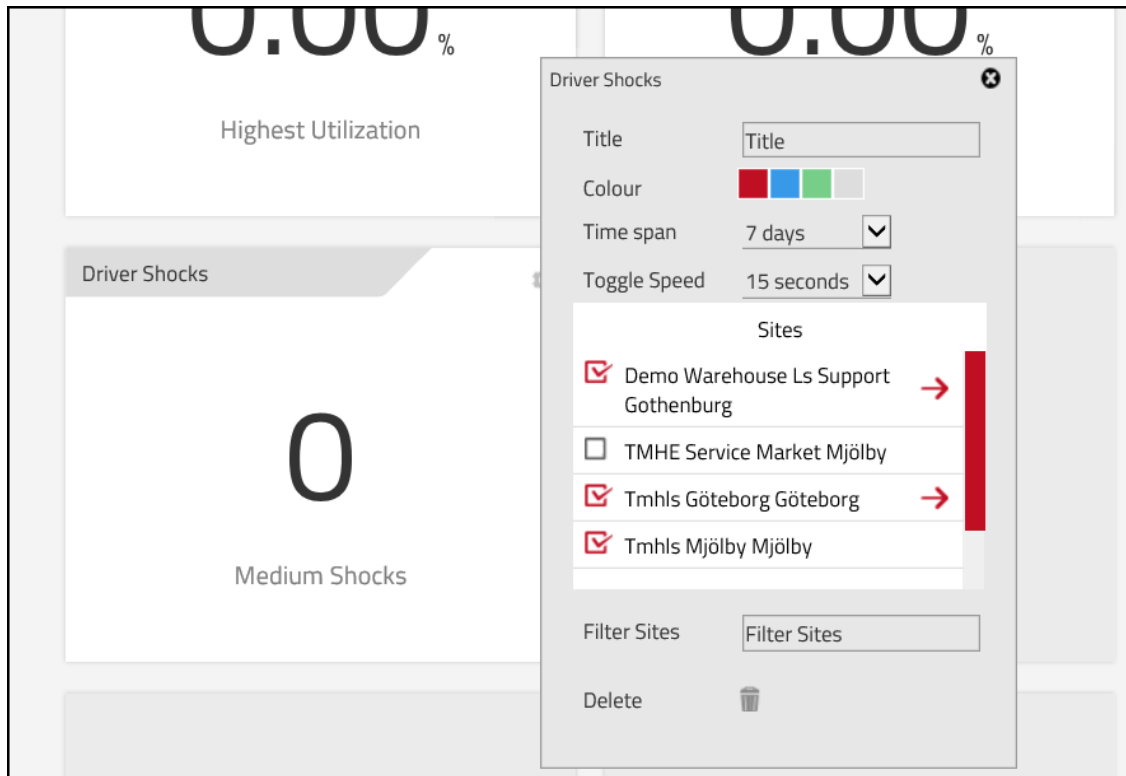
11.4 Modifying tiles

All tile can be modified to suit user preferences regarding data selection, time span and refresh rate. To modify the tile:

1. click on the cogwheel icon in top right corner of a tile
2. a tile control panel will pop-up
3. apply required changes
4. click on the black x dot in the top right corner of the control panel window to save the changes and exit the configuration window

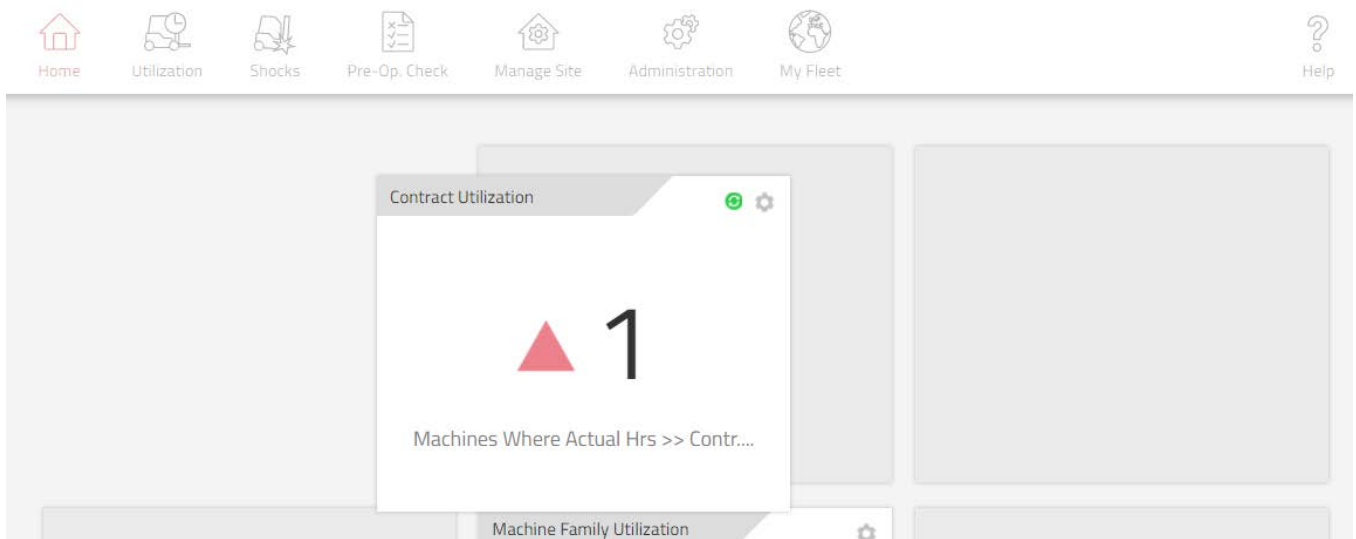
Tile configuration structure can differ depending on the report, to which tile corresponds. The list below lists all possible fields that may appear in the tile control panel:

Title	Rename tile. Tile names are created automatically when a tile is created. Default name of a tile is the report name
Colour	Select one of the four tile header colours to distinguish tile or a set of tiles from others
Toggle Speed	Change the speed at which the tile rotates between different values in the report
Sites	Users with more than one site assigned to their account can chose from, which site they want to display value. A user can select up to 20 sites at the same time. When a new tile is created all sites are included by default. At least one site has to be selected for a tile to show information. Information from all selected sites will be aggregated and displayed as a total value for all selected sites. A red arrow next to the site indicates that the site contains relevant machine / driver group(s).
Red Arrow	Red arrow next to the site name indicates that site contains machine / driver groups. Clicking on the red arrow will take the user to the group list for that site. There user can select any or all groups from that site.
Filter sites	This field can be used to search for relevant sites in the list above
Delete	Clicking on the trash can icon will remove the tile



11.5 Moving tiles

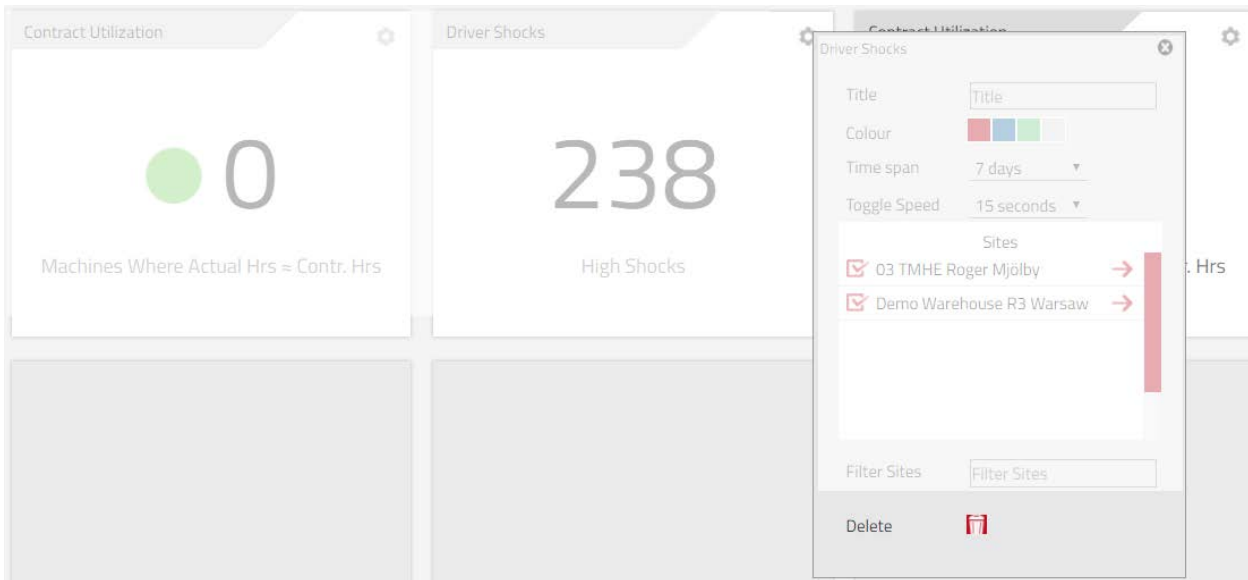
To move a tile, drag and drop it to one of the other eight spaces. If that space is already occupied tiles will be swapped.



11.6 Removing tiles

To remove a tile:

5. Open a tile configuration menu
6. Click on the **trashcan** icon next to **delete** field to remove an existing tile



11.7 Replacing tiles

If all nine tile spaces have been taken up and there is a need to have new report tile one of the old tiles needs to be removed first. To replace a tile:

7. Open a tile configuration menu
8. Click on the **trashcan** icon next to **delete** field to remove an existing tile
9. Click on the empty space to create new tile

11.8 Accessing reports from dashboard


Clicking on the dashboard tile will open a report view with data selection (time span, groups and site(s)) reflecting that of the displayed tile.

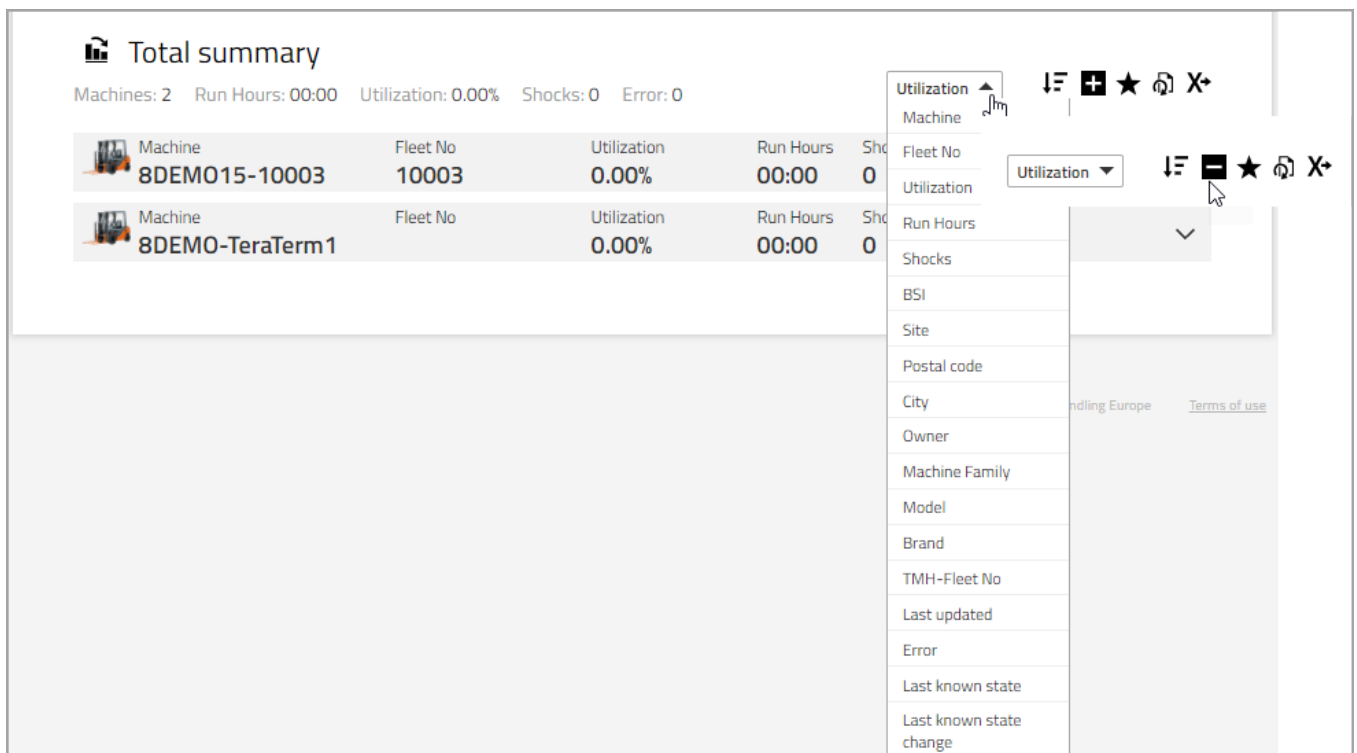
11.9 General features

11.9.1 Machine Configuration



Clicking a 'Machine' hyperlinked serial number in any dialogue window will get you back to the 'Machine Configuration' overview window (section 6.2.).

11.10 Sorting and expanding tables

1. Tables may be sorted on any of the parameters in a listing.
2. Tables may be sorted ascending or descending for the selected parameter.
3. Click the  to expand all rows.



Total summary
 Machines: 2 Run Hours: 00:00 Utilization: 0.00% Shocks: 0 Error: 0

Machine	Fleet No	Utilization	Run Hours	Shocks
 8DEMO15-10003	10003	0.00%	00:00	0
 8DEMO-TeraTerm1		0.00%	00:00	0

Dropdown menu options: Utilization, Machine, Fleet No, Utilization, Run Hours, Shocks, BSI, Site, Postal code, City, Owner, Machine Family, Model, Brand, TMH-Fleet No, Last updated, Error, Last known state, Last known state change.

11.11 Favourites

- Click the star icon to open the **Save favourite** dialogue window.
- Enter a name and save.
- Access favourites by means of the 'file' icon at the top right corner.

The screenshot shows a 'Save favourite' dialog box with a red header and a close button. It prompts the user to 'Enter the name of you favourite' with an input field. Below the input field are 'SAVE FAVOURITE' and 'CANCEL' buttons. In the background, a 'Total summary' section shows 'Machines: 2', 'Run Hours: 00:00', 'Utilization: 0.00%', 'Shocks: 0', and 'Error: 0'. Below this is a table with two rows of machine data. A star icon in the top right corner of the table area is being clicked, which triggers the dialog box.

Machine	Fleet No	Utilization	Run Hours	Shocks	BSI
8DEMO15-10003	10003	0.00%	00:00	0	N/A
8DEMO-TeraTerm1		0.00%	00:00	0	N/A

11.12 Exporting to excel

Many dialog windows offer the feature of exporting to Excel.

The screenshot shows a 'Total summary' dialog box with a red header and a close button. It displays 'Drivers: 10', 'Utilization: 0.00%', 'Run Hours: 00:00', and 'Shocks: 0'. Below this is a table with five rows of driver data. A red circle highlights the 'Utilization' dropdown menu in the top right corner of the table area, which is used for exporting data to Excel.

Driver ID	Expected Hours	Run Hours	Utilization	Shocks
01258	48.00	00:00	0.00%	0
Driver 1	48.00	00:00	0.00%	0
Driver 2	48.00	00:00	0.00%	0
Supervisor Lockout	48.00	00:00	0.00%	0
Unlock	48.00	00:00	0.00%	0

The screenshot shows an Excel spreadsheet with a PivotTable and the PivotTable Field List task pane. The PivotTable is set up to show the sum of operating time for different machine models and pin codes. The PivotTable Field List task pane is open, showing the fields available for the report.

Drop Report Filter Fields Here			
Fleet no.	Model	Pin Code	Total
EDWL5300	OME100	04007	94280
		04010	122
		04070	176
		04141	103037
		08321	669
		(blank)	561
	OME100H Total		198845
EDWL53000 Total			198845
Grand Total			198845

PivotTable Field List

Choose fields to add to report:

- Machine
- Fleet no.**
- Machine Family
- Model**
- Brand
- Site
- Start TS
- End TS
- Driver
- Pin Code**
- Key Time Sec
- Operating Time Sec**
- Driving Time Sec
- Lift Time Sec
- Operating Ratio

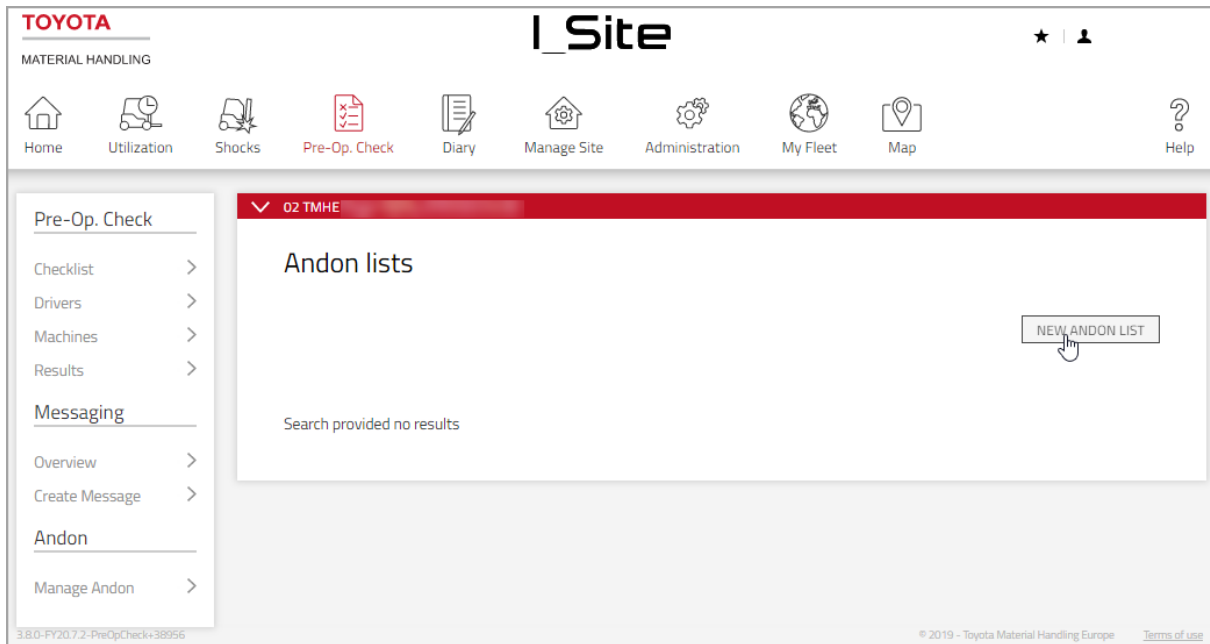
Drag fields between areas below:

The format has a ready to print lay-out. It's also set up for pivot table analyses, see illustration.

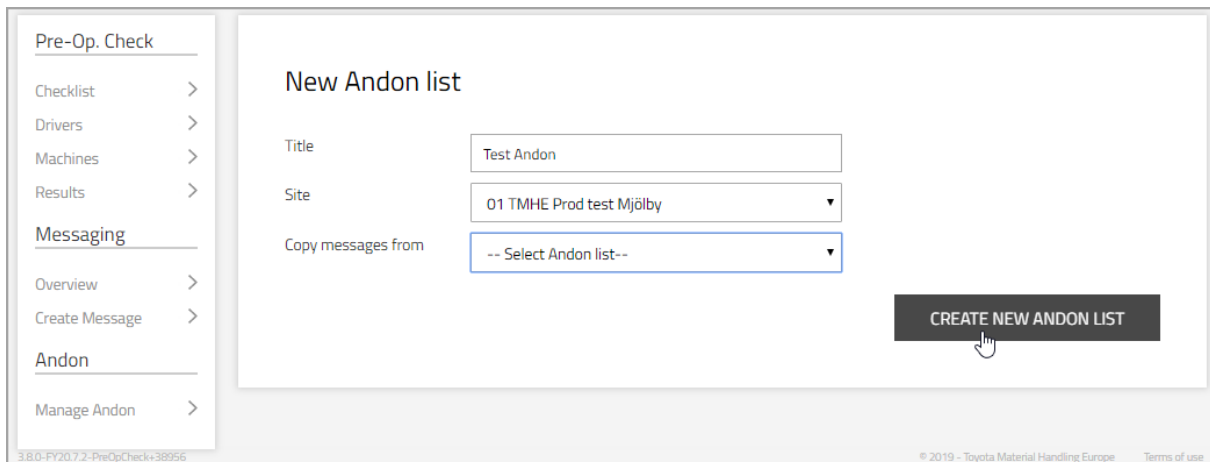
12 Andon

12.1 Setup and configuration of Andon

- To setup **Andon** first enter **Pre-Op. Check** on the navigation Tab.
In the **Pre-Op. Check** panel furthest down select **Manage Andon** and press **New Andon List**.



- Fill in the title of the **Andon** list, select which site the **Andon** list is going to affect. It's also possible to copy messages from previously made **Andon** list.
Press **Create New Andon List**.



- It is also possible to copy messages from an existing **Andon** list. Fill out **Title**, **Site** and choose which list the **Andon** messages will be copied from by pressing **Copy messages from**. It is possible to remove and add more messages from the list that was copied.

The screenshot shows the 'New Andon list' form. On the left is a navigation menu with categories: Pre-Op. Check, Messaging, and Andon. The main form has three input fields: 'Title' with the value 'Test Andon', 'Site' with a dropdown menu showing '01 TMHE Prod test Mjölby', and 'Copy messages from' with a dropdown menu showing 'Ny Andonlista - Regression Site'. A 'CREATE NEW ANDON LIST' button is located at the bottom right of the form. The footer contains the version number '3.8.0-FY20.7.2-PreOpCheck+38956' and copyright information '© 2019 - Toyota Material Handling Europe'.

- After creating the **Andon** list the user needs to create the messages that is going to be displayed. Type the messages in the box and press **ADD**, then press **Publish** to publish the **Andon** list.

The screenshot shows the 'I_Site' application interface. The top navigation bar includes the Toyota logo, 'MATERIAL HANDLING', and the 'I_Site' title. Below the navigation bar are icons for Home, Utilization, Shocks, Pre-Op. Check, Diary, Manage Site, Administration, My Fleet, Map, and Help. The main content area is titled 'Test for Andon 1'. It features a list of items, with the first item being '#1 Test for Andon 1'. Below the list is a text input field containing 'POC Andon'. To the right of the input field is a dropdown menu and an 'ADD' button, which is circled in red. A red arrow points from the 'ADD' button to a 'PUBLISH' button located further down the page. The footer contains the version number '3.8.0-FY20.7.2-PreOpCheck+38956' and copyright information '© 2019 - Toyota Material Handling Europe'.

5. After publishing the messages, the user needs to assign machines to the **Andon** messages. Search for the machines with **Machine**, **Brand** or **Model** and press the **plus** icon to add them to the assigned list. After selecting and adding to the list press **Update**.
When the trucks has been selected press **Publish** to publish the **Andon** list.

Pre-Op. Check

- Checklist >
- Drivers >
- Machines >
- Results >

Messaging

- Overview >
- Create Message >

Andon

- Manage Andon >

Test Andon 1

#1 Test for Andon 1

#2 POC Andon

CLOSE UPDATE

Assigned machines

Machine

- ✘ GORAN4
- ✘ GORAN2
- ✘ GORAN1

Machine Brand Fleet No.

-- Select machine group -- -- Select machine family --

SEARCH CLEAR ADD ALL

Machine	Model	Brand	Fleet Number
✘ GORAN5	8FBMT16	Toyota	5
⊕ TEST_R3_009	8FBMT16	Toyota	R3_009
⊕ TEST_R3_010	8FBMT16	Toyota	R3_010
⊕ TEST_R3_011	8FBMT16	Toyota	R3_011
⊕ TEST_R3_012	8FBMT16	Toyota	R3_012
⊕ TEST_R3_013	8FBMT20	Toyota	R3_013
⊕ TEST_R3_014	8FBMT20	Toyota	R3_014

UNPUBLISH

- The final step is to check if **Andon** is enabled in the **Machine Configuration** menu. Scroll down to **Andon** and check if **Andon** is enabled and choose a published list where all the **Andon** messages will be fetched from.

The screenshot shows the 'Machine Configuration' page for a Toyota forklift. It includes a sidebar with navigation options like 'Manage Site', 'Machine Groups', 'Machines', 'Driver Groups', 'Drivers', and 'Access Overview'. The main content area displays machine details such as Machine ID (GORAN1), Model (BFBRK13), and Brand (BT). Below this, there are sections for 'Machine Management' and 'DHU Management' with various control buttons. At the bottom, there is a table for configuration options.

Machine Configuration	Recommended	Current Configuration	Desired Configuration
Pre-Operational Check			
Enable Pre-Op. Check		Yes, once per 12h, per driver	Yes, once per 12h, per driver
Checklist		Test 1.4.3	Test 1.4.3
Andon			
Enable Andon		No	Yes
Andon List			Yes

13 Positioning

13.1 Positioning General information

The features positioning, geofence and shock positioning are all based on the telematics unit having a position that can be delivered. The conditions for being able to deliver position depends on the surrounding environment. When I_Site requests the truck's position, the last stored position is sent. Due to different conditions, it may be such that the position sent is not completely correct.

In Machine Configuration the truck must have Firmware version 2.5.4 and a supporting telematics unit (DHU2+) and it must be set to enable GNSS.

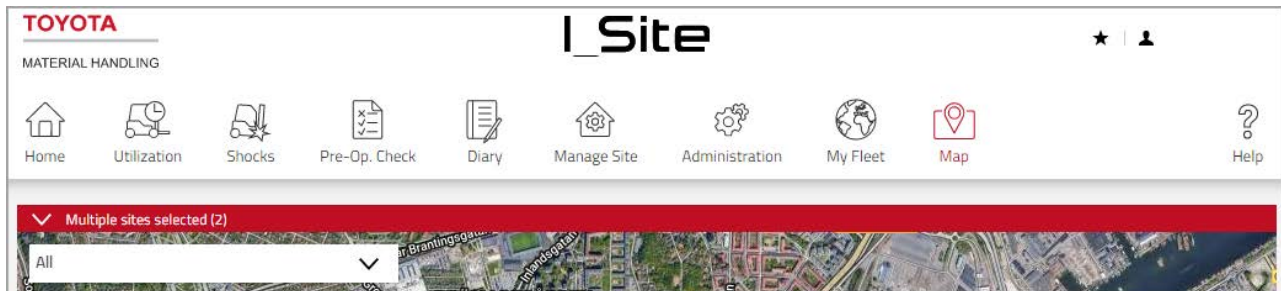
This screenshot shows the 'Positioning (GNSS)' configuration section. It features a table with the following data:

Positioning (GNSS)	Recommended	Current Configuration	Desired Configuration
Enable GNSS		Yes	Yes

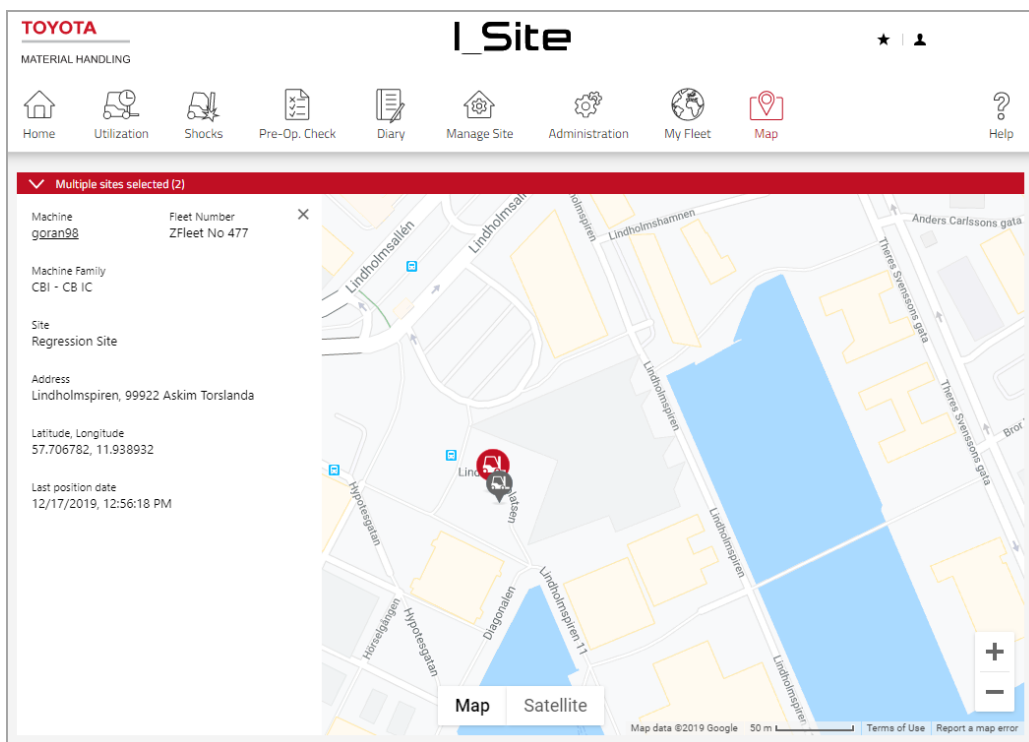
Below the table, there is a 'Drivers' section with a dropdown menu currently open, showing 'Yes' and 'No' options. A red arrow icon is visible in the bottom right corner of the configuration area.

13.2 Positioning feature

1. To use **Positioning**, press **Map** in the top navigation panel.
Select the sites in the red bar and the trucks will appear on the displayed map.



2. Zoom in on the map and click on truck on the map to get the information such as **Machine**, **Site**, **Position** and **Date/Time**.



14 Geofence

14.1 Create Geofence.

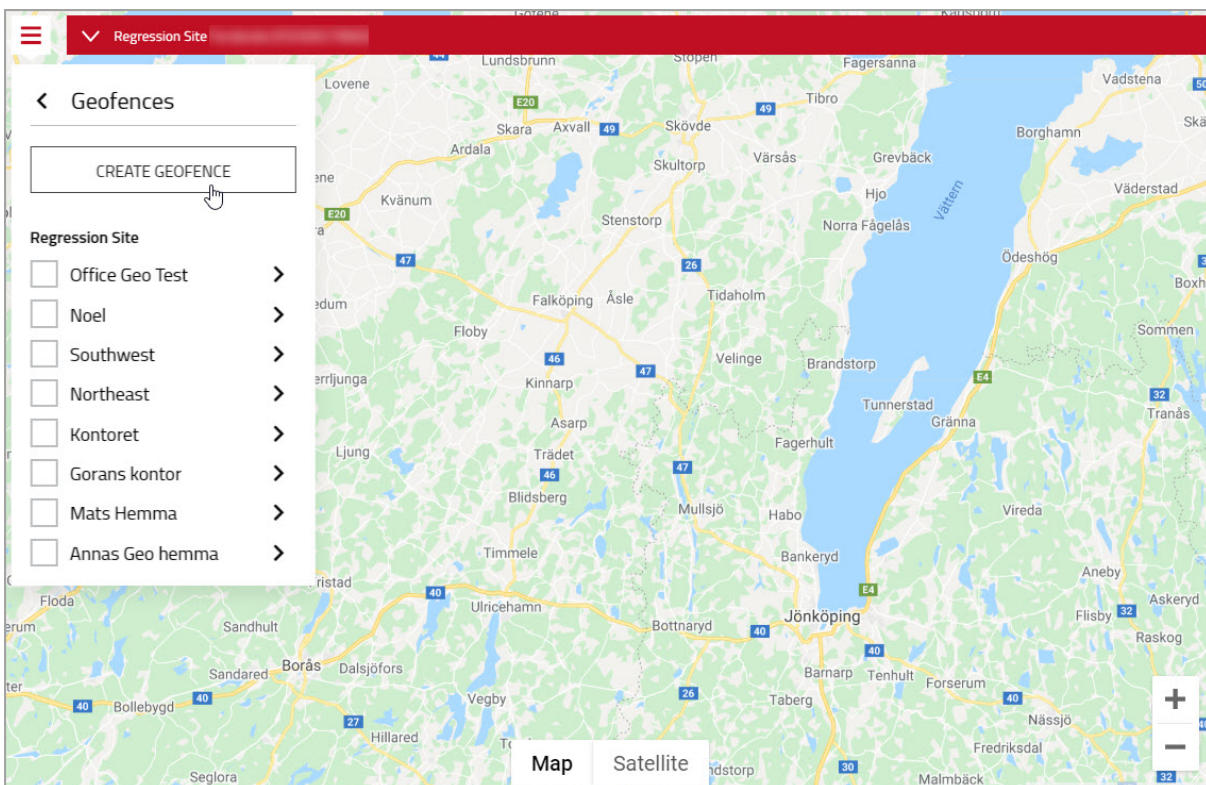
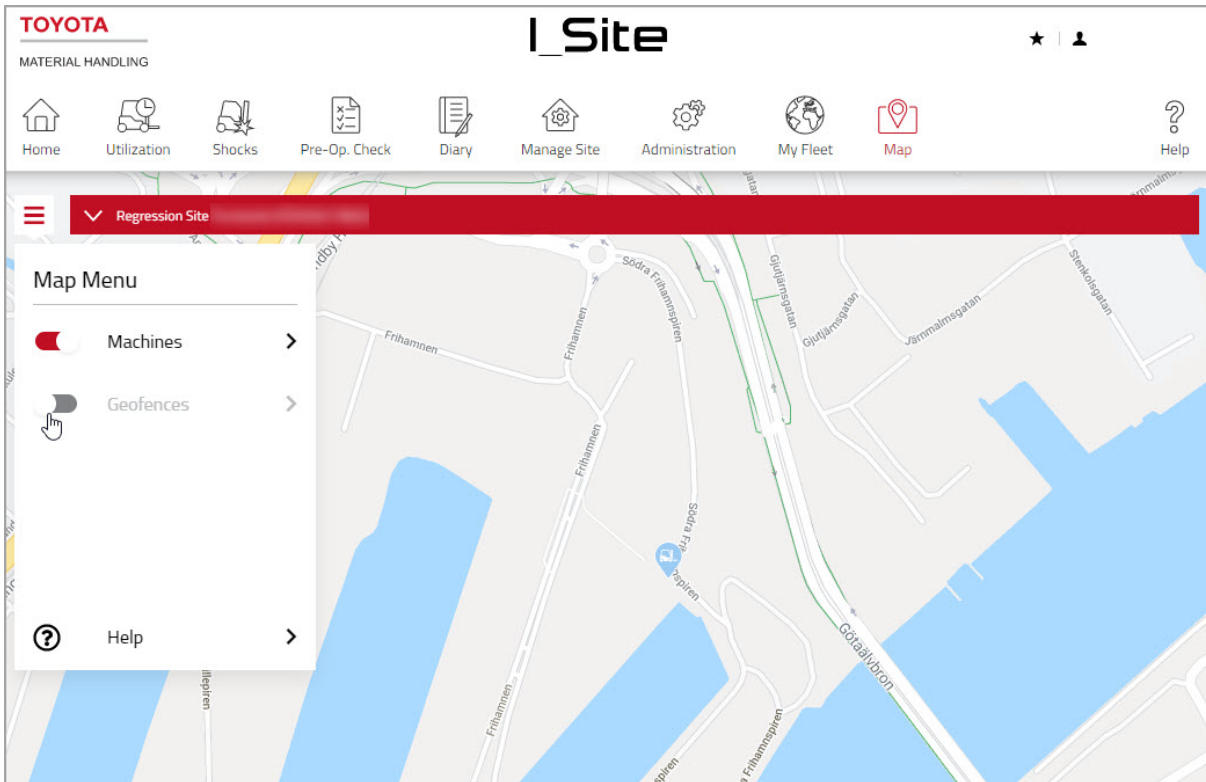
Note: In order to show Geofence notifications on machines, Positioning GNSS must be enabled.

In positioning the location is not always entirely 100% correct. The Position of the shock filters based on data signal that are received. See 13.1 Positioning General information

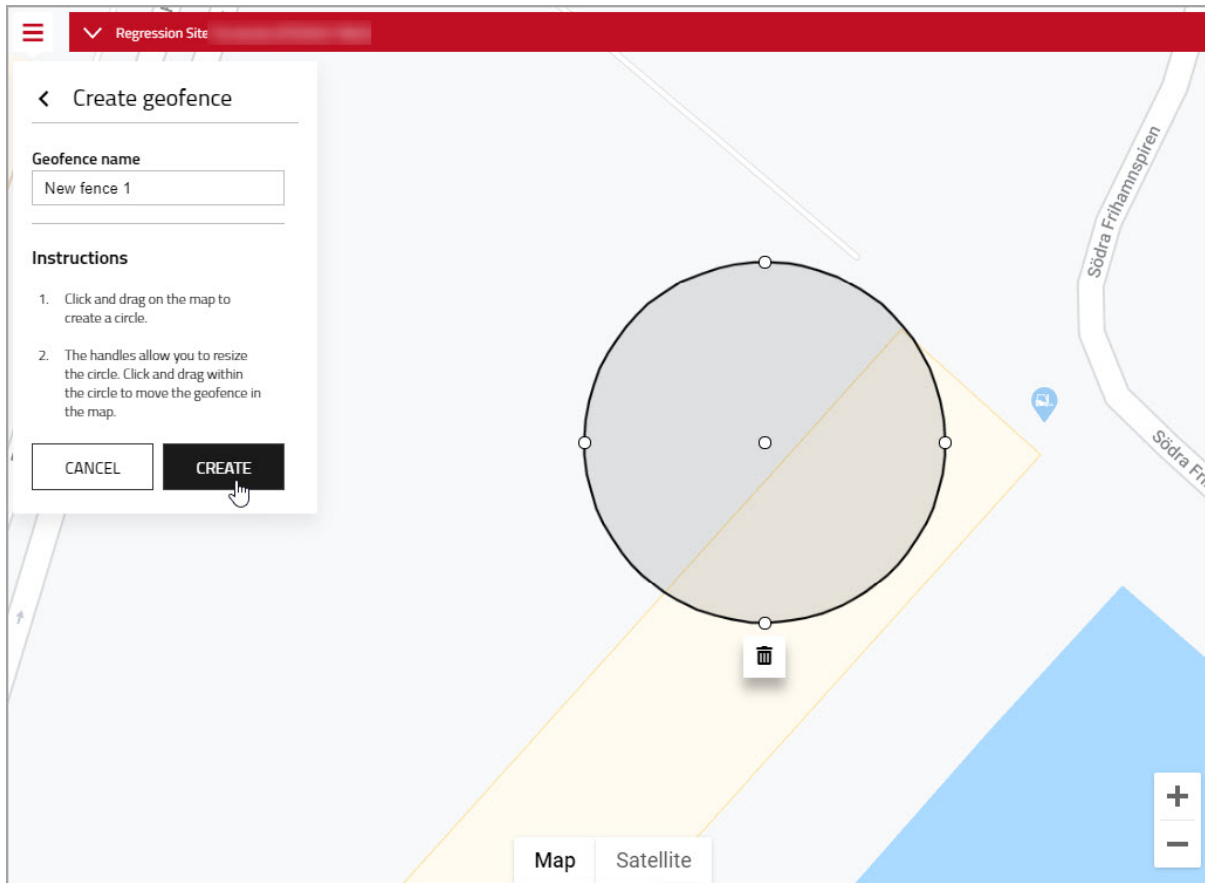
At the Maps menu, turn Geofences 'ON'

Click on 'Create Geofence'.

Set a name on the Geofence and at the desired location drag a circle over on the maps.



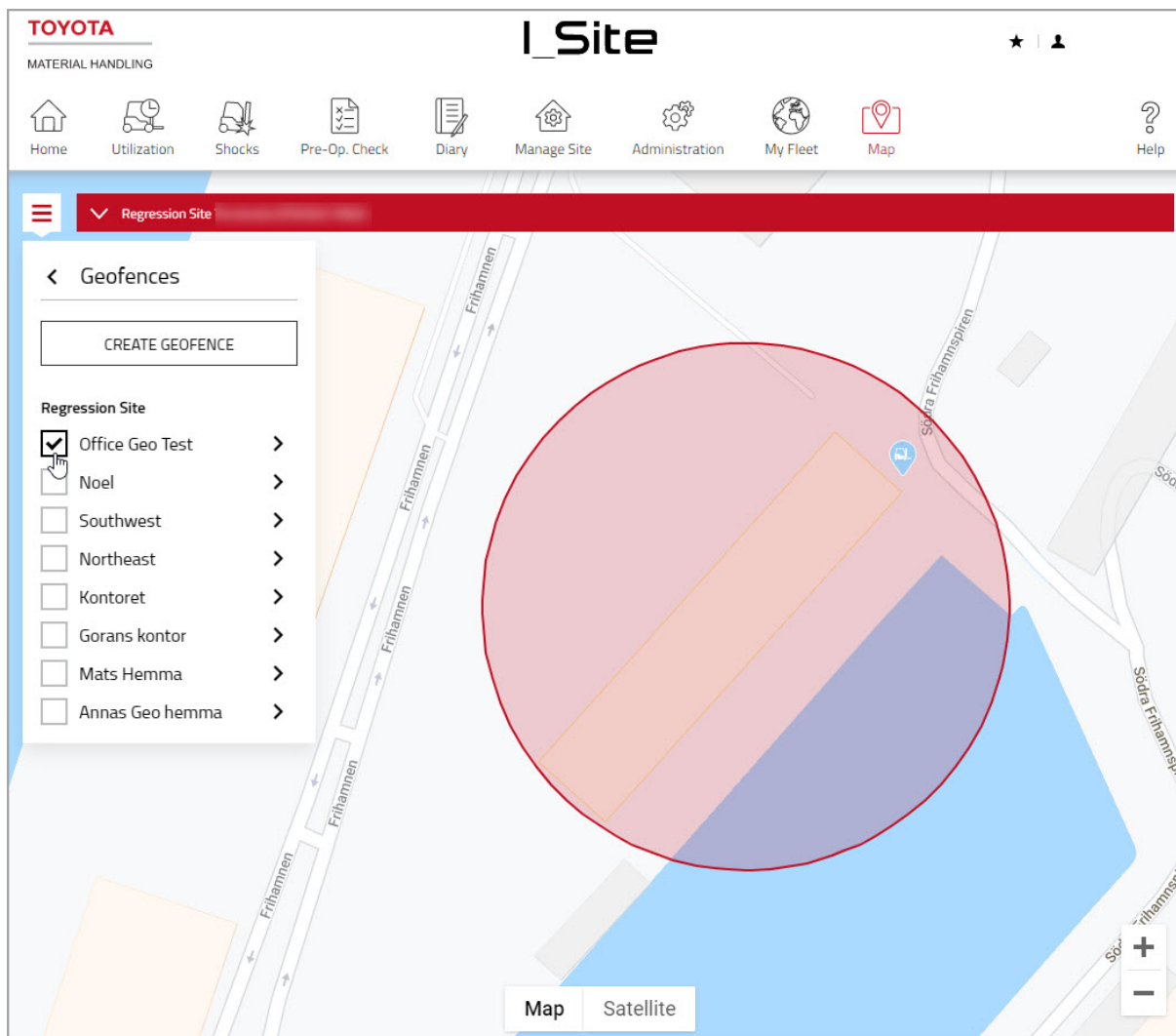
After you have finished with geofence edit, press 'Create'.



When there are more than one Geofences, it is possible to edit and update the existing Geofences under the specified sites.

To edit a geofence first click on the desired area and press 'Edit'.

It is possible to choose more than one Geofence area and edit them one by one on the map by selecting on the sites name.



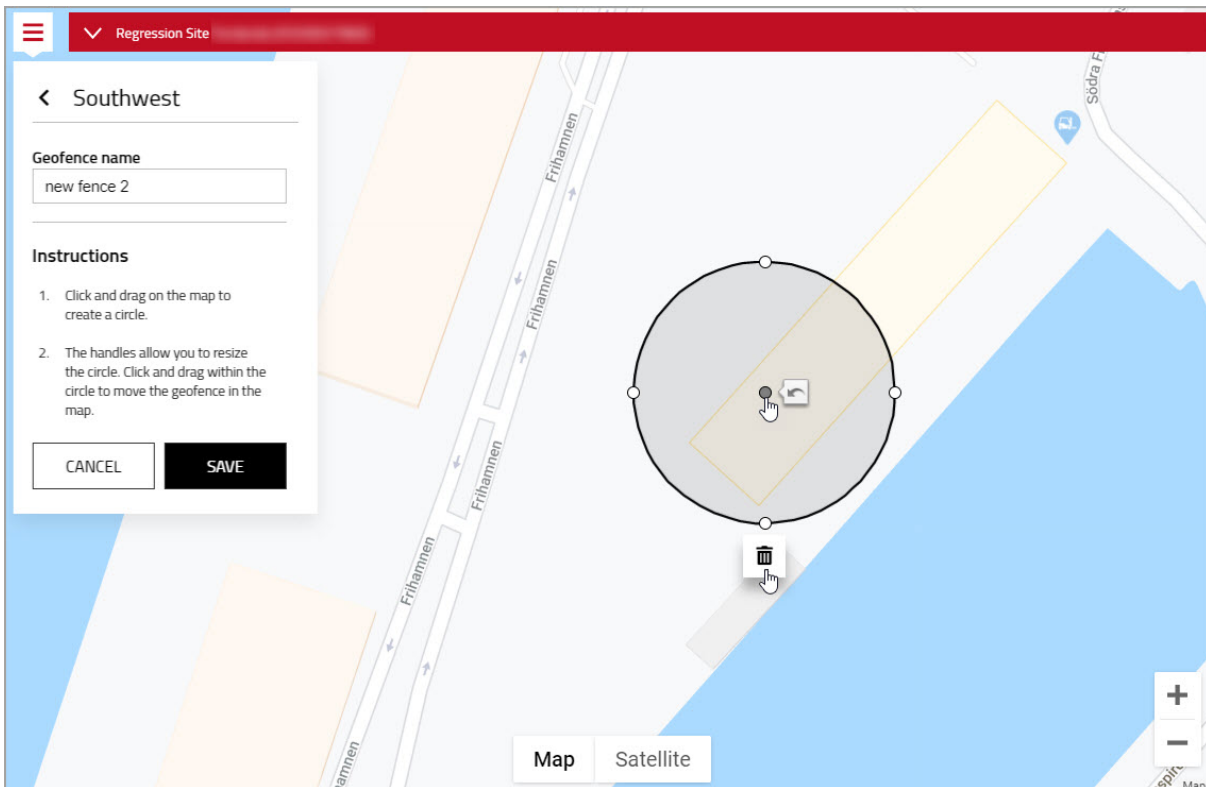
After that you will have the opportunity to *reshape*, *move* and *delete* the fence area.

The screenshot displays the I_Site application interface. At the top, the Toyota logo is on the left, and the title "I_Site" is centered. Below the title, there is a navigation bar with icons for Home, Utilization, Shocks, Pre-Op. Check, Diary, Manage Site, Administration, My Fleet, Map, and Help. A red header bar below the navigation bar contains a hamburger menu icon and the text "Regression Site 1".

On the left side, a sidebar menu titled "Geofences" is open. It features a "CREATE GEOFENCE" button and a list of geofences for "Regression Site":

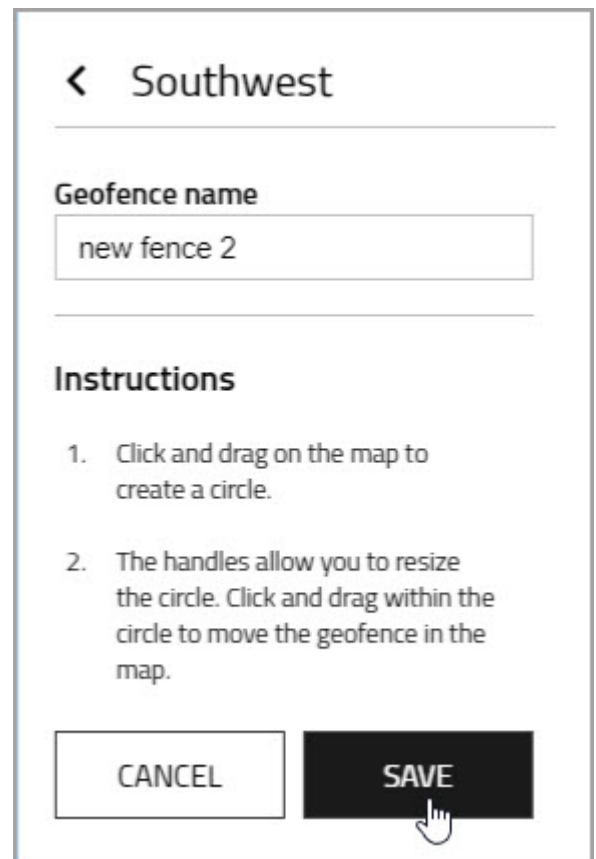
- Office Geo Test >
- Noel >
- Southwest >
- Northeast >
- Kontoret >
- Gorans kontor >
- Mats Hemma >
- Annas Geo hemma >

The main area shows a map of a site with several red circular geofences overlaid on buildings. The map includes labels for streets like "Frihamnen" and "Södra Frihamnspiren". At the bottom of the map, there are "Map" and "Satellite" buttons, and a zoom control with "+" and "-" signs.



Press 'Save' when changes have been done.

To receive notifications from Geofence, you must go the profile and enable it.
Set the Site, filter the machine group or the owner type and press 'Update'.



TOYOTA
MATERIAL HANDLING

I_Site

★ | 👤

Home Utilization Shocks Pre-Op. Check Diary Manage Site Administration My Fleet Map Help

My Settings

- Profile >
- Subscriptions >
- Mobile Settings >

Notifications

- General >
- Geofence >**
- Pre-Op Check >
- Andon >
- Shock >
- Superv. Lockout >
- Battery Incident >
- Driver Licence Expiry >

Profile for [redacted]

UPDATE

ID SEUEMAN1

First Name [input field]

Last Name [input field]

Email [input field]

Preferred Email Language [dropdown menu]

3.8.3-release-3.9.0+49482 © 2020 - Toyota Material Handling Europe [Terms of use](#)

TOYOTA
MATERIAL HANDLING

I_Site

★ | 👤

Home Utilization Shocks Pre-Op. Check Diary Manage Site Administration My Fleet Map Help

My Settings

- Profile >
- Subscriptions >
- Mobile Settings >

Notifications

- General >
- Geofence >**
- Pre-Op Check >
- Andon >
- Shock >
- Superv. Lockout >
- Battery Incident >
- Driver Licence Expiry >

Notifications - Geofence

Enable Geofence notification

Sites 1 selected Machine groups All machine groups

Owner type All owner types

- Check all
- Uncheck all
- Demo
- LTR
- Others
- Owned
- STR

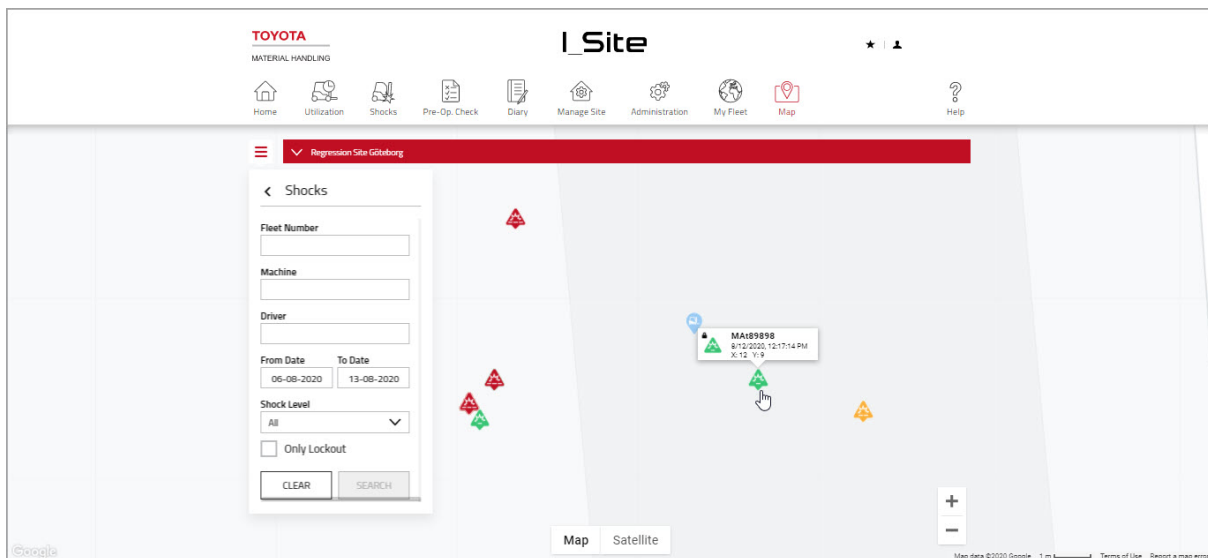
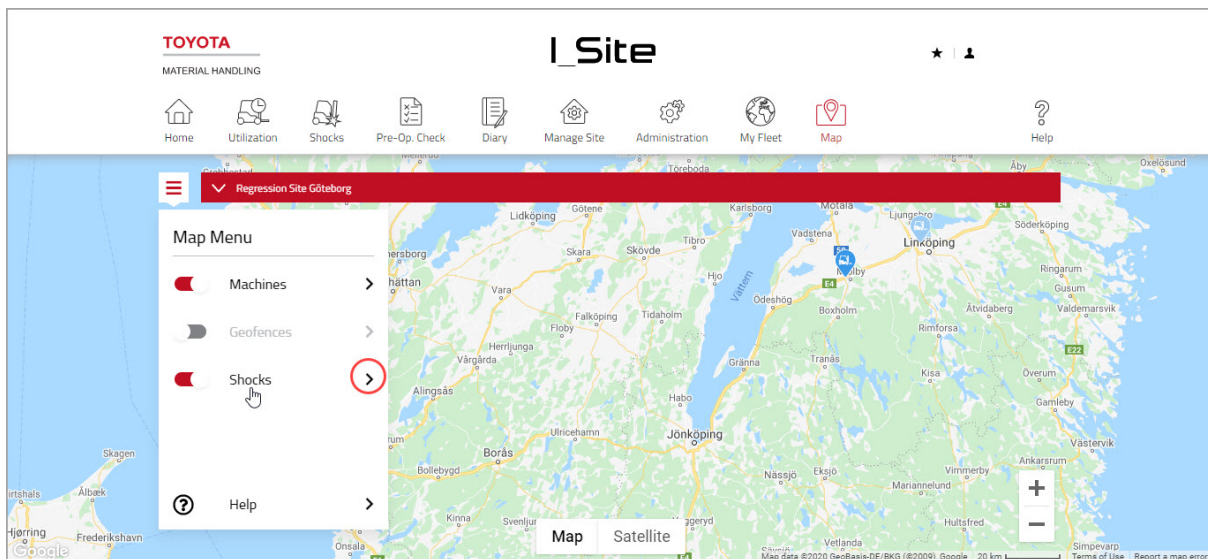
UPDATE

3.8.3-release-3.9.0+49482 © 2020 - Toyota Material Handling Europe [Terms of use](#)

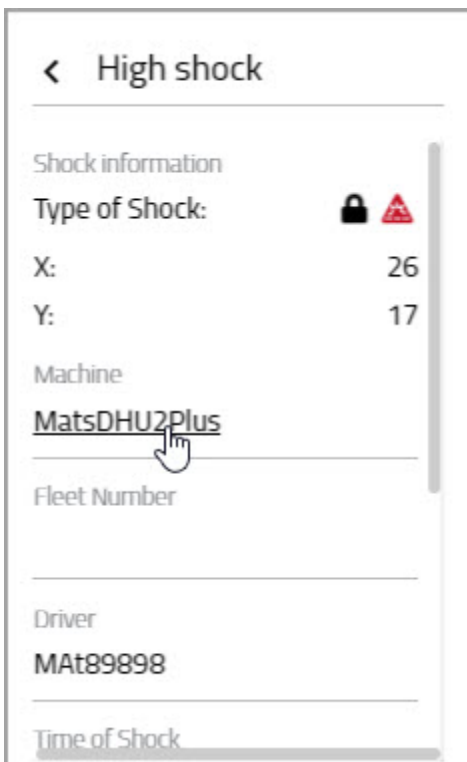
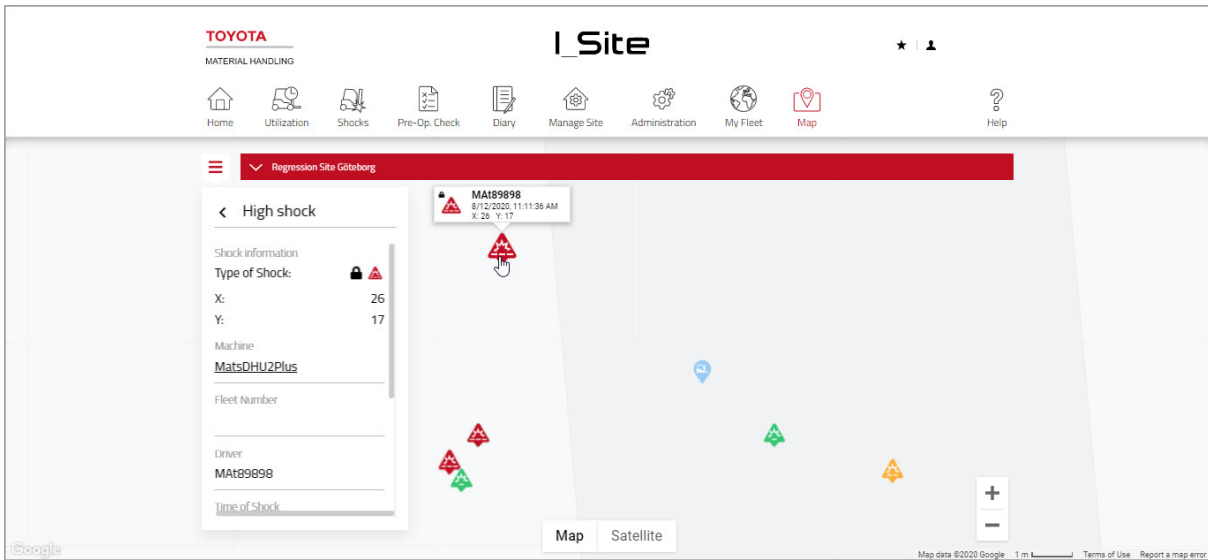
15 Shock Positioning

15.1 Enabling the shocks positioning

- 1) Go to the "MAP" tab on the top right corner of the I_Site menu and select on the "MAP MENU" SHOCKS. Press on the dot to enable it.
- 2) After enabling SHOCKS the arrow next to it will be available and will lead to the shock locations on the map with its functions. The user has the possibility to select through a range of settings on the SHOCKS menu, like "Fleet Number, Machine, Driver also Time and Date and Shock Levels"
- 3) Once the wanted machine has been selected, hover over the machine number on the map and by selecting it, this will show info of the recorded shock and its level also time and driver information.
- 4) It is possible to click on the selected Machine ID and this will redirect to the "Utilization Shock" menu on I_Site



- 5) Only shocks exceeding the threshold levels are shown on the map
- 6) I_Site will use the latest position just before the shock.



From the position of the shock, also map can be accessed via the link from Shock Details.

The screenshot displays the 'Shock Details' page in the Toyota Material Handling software. The page is titled 'Regression Site Göteborg' and contains a search form for shock events. The search form includes fields for Machine, Fleet Number, Driver, and Additional Info 1. Below these are fields for Additional Info 2, From Date (7/22/2020), and To Date (8/21/2020). There are also dropdown menus for Shock Level, Category, and Damage, and checkboxes for Lockouts, Missing Comments, and Include Reset Information. Search and Clear buttons are located at the bottom right of the form.

Below the search form is a 'Total Summary' section. It shows a total of 164 shocks, with 123 High, 16 Medium, and 25 Low. A table lists the following shock events:

Date	Driver	Machine	X	Y	Comment
8/20/2020 12:29:55 PM	Jojje Granit	Testrigg001	18	11	
8/20/2020 11:47:07 AM	Driver Reset77777	goran98	10	4	
8/20/2020 9:58:16 AM	Jojje Granit	Testrigg001	18	10	
8/20/2020 9:58:15 AM	Jojje Granit	Testrigg001	14	11	
8/20/2020 9:25:31 AM	Jojje Granit	Testrigg001	20	20	
8/20/2020 9:25:26 AM	Jojje Granit	Testrigg001	26	11	

Appendix: I_Site shock recordings





Measuring principle

The shock sensor measures deceleration in X and Y directions with the resolution of 0.1 g. However, rather than presenting a 'g' figure, I_Site gives the impact magnitude as a 0-100 range (no unit). A deceleration of 2 g is thus presented as 20. The reason for a 'non-g' presentation is that the deceleration varies very much with high peaks in both positive and negative direction due to vibrations. The measurement is therefore done in a moving time window of approximately 40 ms, where several samples are taken. The absolute values of the samples are averaged over the time window, thus giving a filtered value proportional to the impact.

The value presented on I_Site is the highest filtered value in X and Y directions during a working pass.

Impact tests

I_Site shock report from a series of shocks using an OSE120P (no forks).

	Date YYYYMMDD	Shock Time	X	Y	Login	Logout	Driver ID	Machine ID	Fleet No.	Machine Family	Model
	20080829	11:12	35	1	11:10	11:13	00001	912394	7527-002	Order picking trucks, low levels	OSE120P
	20080829	11:13	23	2	11:13	11:14	00001	912394	7527-002	Order picking trucks, low levels	OSE120P
	20080829	11:14	11	35	11:14	11:15	00001	912394	7527-002	Order picking trucks, low levels	OSE120P
	20080829	11:18	6	16	11:15	11:18	00001	912394	7527-002	Order picking trucks, low levels	OSE120P

Time	Method	Test person response
11:12	Driving into a wall at high speed	"substantial"
11:13	Driving into a wall at low speed	"milder"
11:14	Hitting the right side of the truck	"relatively hard"
11:18		"milder"