

# V6200

## HD TRUCK WHEEL ALIGNMENT

SPI

### SIMULATED PERMANENT INSTALLATION DEMO PROCEDURE



**AREA SET UP**

- 1.0 EQUIPMENT SET UP USING SIMULATED PERMANENT INSTALLATION (SPI) (EAK0350J61A)**
- 2.0 VEHICLE SET UP**
- 3.0 WHEEL CLAMPS**
- 4.0 MEASURING HEAD**
- 5.0 POSITION REAR SCALES (Manual)**
- 6.0 POSITION FRONT SCALES (Manual)**
- 7.0 BEGIN | SELECTING THE VEHICLE**
- 8.0 POSITION THE SCALES (WITH ELECTRONIC GUIDANCE)**
- 9.0 POSITION THE SCALES (WITH ELECTRONIC GUIDANCE)**
- 10.0 POSITION THE REAR SCALES (WITH ELECTRONIC GUIDANCE)**
- 11.0 POSITION THE FRONT SCALES (WITH ELECTRONIC GUIDANCE)**
- 12.0 TARGET SCALES POSITIONING COMPLETE**
- 13.0 COMPENSATION FIRST POINT**
- 14.0 COMPENSATION | ROLL FORWARD**
- 15.0 COMPENSATION | SECOND POINT**
- 16.0 VIEW MEASUREMENTS**

## AREA SET UP

- Clear alignment area of obstacles
- Ensure sufficient clearance in front and behind the vehicle
- Ensure clear line of site side to side
- Minimum length of alignment area approximately 45 feet
- Minimum width 11 to 16 feet



## 1.0 EQUIPMENT SET UP USING SPI SCALES

- 1.1 Bring the equipment to the alignment area
- 1.2 Connect the console to a wall outlet (110-1120 volts)
- 1.3 Turn the console "ON"
- 1.4 Start the V6200 Software application
- 1.5 Verify that the measuring heads (PODS) are connected and charging
- 1.6 Roll the wheel clamp carts in the alignment area
- 1.7 Position the turn tables on the wheel clamp stands
- 1.8 Assemble the SPI plates to the target poles scales if necessary
- 1.9 Position SPI at all four corners

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### V6200 HD Truck Equipment



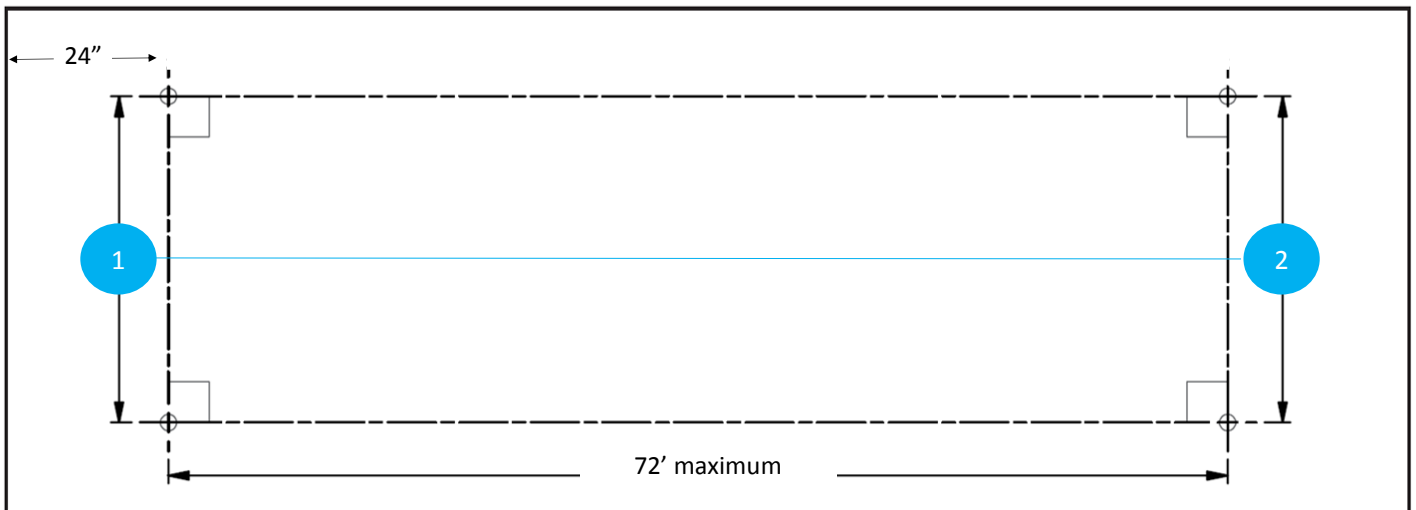
### REQUIRED INSTALLATION TOOLS

- 100 FT Tape measure
- Chalk line
- Chalk
- Level

## 1.0 EQUIPMENT SET UP USING SPI (EAK0350J61A) SCALES

### 1.1 FLOOR MOUNT SPI LOCATION

All four holes should have the same dimension (a) and (b) and form a rectangle.



REFER TO DRAWING JT66010 ON NEXT PAGE FOR RECOMMENDED DIMENSIONS OF THE WORKPLACE.

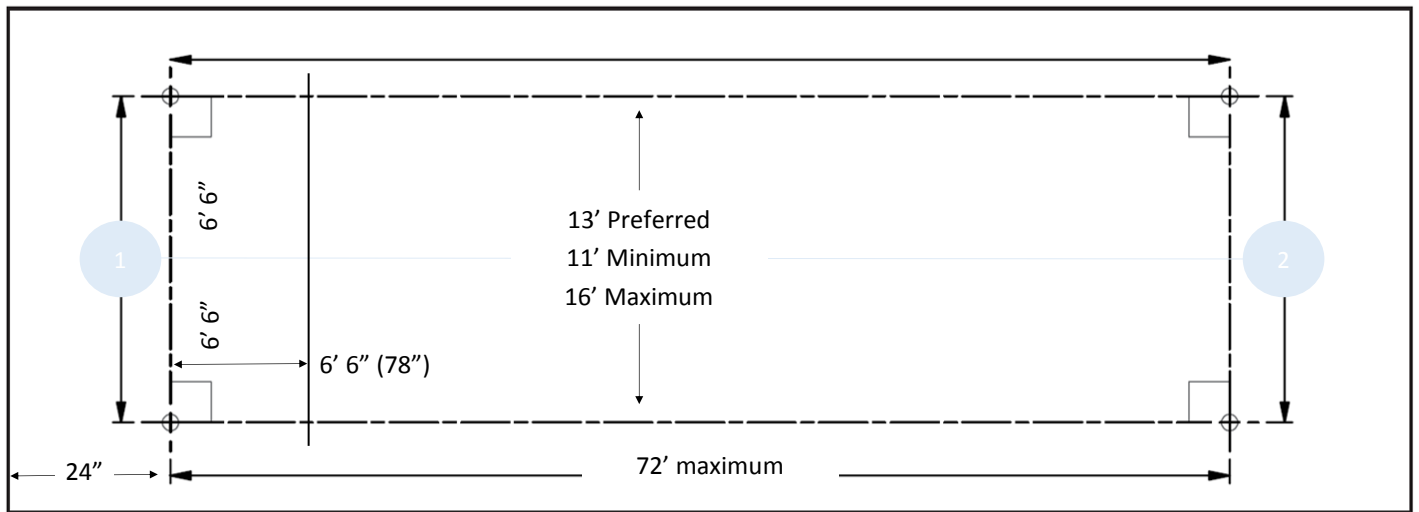
### 1.2 SPI SET UP FIND THE CENTERLINE OF THE AREA

- 1.2.1 Measure center line of bay referencing off the door entrance and snap chalk line extending all the way to the front of bay where front targets will be mounted (Use the 3,4,5 method or mark line at front, off a wall and then snap chalk line). Call this line 'A'
- 1.2.2 Depending on overall space in bay, it may be necessary to set chalk line square to the centre line 'A' and in from door opening, 1-2 feet. Call this line 'B'
- 1.2.3 Snap chalk line to determine the distance where targets will be centered off this line (11 feet minimum, 16 feet maximum. Recommended is 13 feet to allow vehicle to drive through without the need to remove targets each time). Call this line 'B'

# 1.0 EQUIPMENT SET UP USING SPI (EAK0350J61A) SCALES

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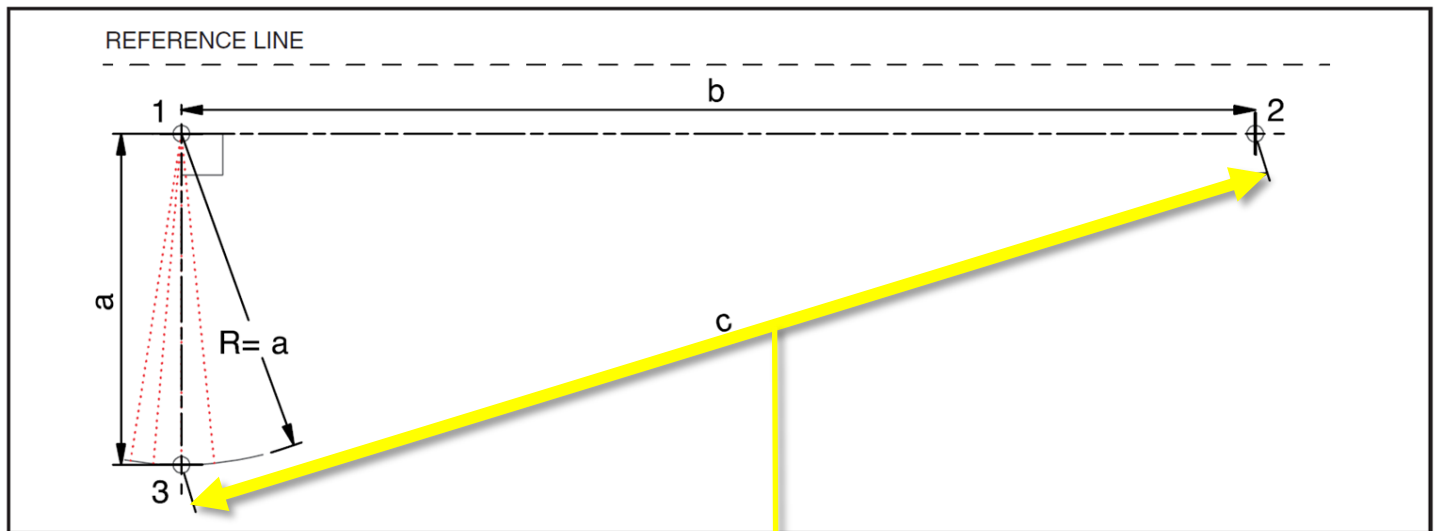
## 1.2 SPI SET UP FIND THE CENTERLINE OF THE AREA

- 1.2.4 Snap chalk line to determine the distance where targets will be centered off this line (11 feet minimum, 16 feet maximum. Recommended is 13 feet to allow vehicle to drive through without the need to remove targets each time). Call this line 'B'
- 1.2.5 From line 'B', measure towards the front of bay, taking in consideration of longest vehicle that will be aligned and having the roll forward compensation measurement along with required **minimum distance of 78 inches from the centre of rear axle to the rear targets** and after the roll forward, **minimum 78 inches from the centre of the front axle to the front targets**
- 1.2.6 Snap chalk line to determine the distance where targets will be centered off this line (11 feet minimum, 16 feet maximum. Recommended is 13 feet to allow vehicle to drive through without the need to remove targets each time). Call this line 'C'
- 1.2.7 Mark the intersecting lines off the centre of line 'A' equal to either side at line 'B' and 'C' (recommended 13 feet but depending on space available. **Example:** 6.5 feet off line 'A' to the left and 6.5 feet to the right of both lines 'B' and 'C' =13 feet). Call these points 1(front left), 2(front right), 3(rear left), and 4(rear right)

# 1.0 EQUIPMENT SET UP USING SPI (EAK0350J61A) SCALES

## 1.1 FLOOR MOUNT SPI (EAK0350J61A) LOCATION

Drill guide hole 1 and 2 with a specific dimension (b). Use a wall or a pit as reference if possible. Place guide pins in these holes. Measure hole 3 to dimension (a) and mark according to figure. Calculate the distance (c) using the equation and use a measuring tape from point 1 to point 3. Drill a hole where the two lines (a) and (c) intersect.



Length is presents the "b" line  
 Width is represented by "a" line  
 Hypotenuse is represented by the "c" line

	LENGTH																											
WIDTH	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
11	73	71.85	70.86	69.87	68.88	67.90	66.91	65.92	64.94	63.95	62.97	61.98	61.00	60.02	59.03	58.05	57.07	56.09	55.11	54.13	53.15	52.17	51.20	50.22	49.24	48.27	47.30	46.32
13	74	73.01	72.04	71.07	70.10	69.13	68.16	67.19	66.23	65.26	64.30	63.33	62.37	61.41	60.45	59.49	58.53	57.58	56.62	55.67	54.72	53.77	52.82	51.87	50.93	49.99	49.05	48.11
16	76	74.75	73.80	72.85	71.90	70.96	70.01	69.07	68.13	67.19	66.26	65.32	64.39	63.46	62.53	61.60	60.68	59.76	58.84	57.92	57.01	56.10	55.19	54.29	53.39	52.49	51.59	50.71

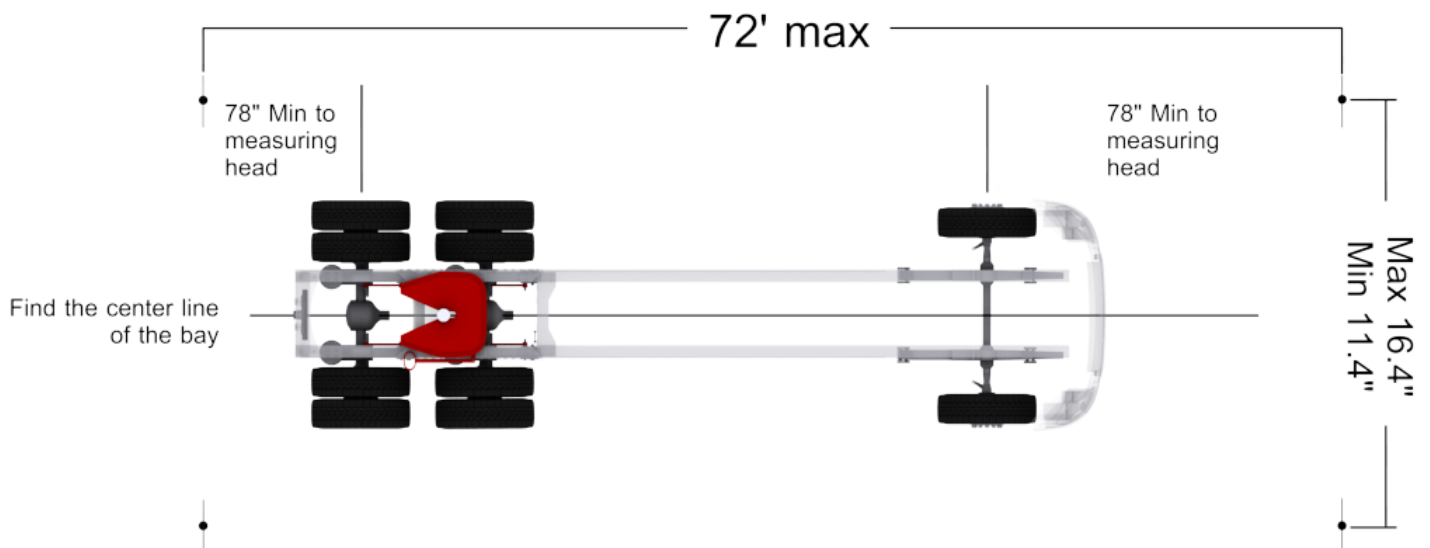
EXAMPLE

13	60	62.37
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Hypotenuse "c"

## 2.0 VEHICLE SET UP

- 2.1 Bring the vehicle to the alignment area
- 2.2 Position the vehicle and allow 6 - 8 feet behind the vehicle
- 2.3 Position the vehicle and allow 6 - 8 feet in front of the vehicle
- 2.4 Proceed with vehicle pre-alignment inspection
- 2.5 Verify, document, and equalize tire pressures
  - 2.5.1 Verify and document tire types and sizes
  - 2.5.2 Observe and record tire wear patterns and tire position
  - 2.5.3 Adjust rear ride height if equipped with air suspension

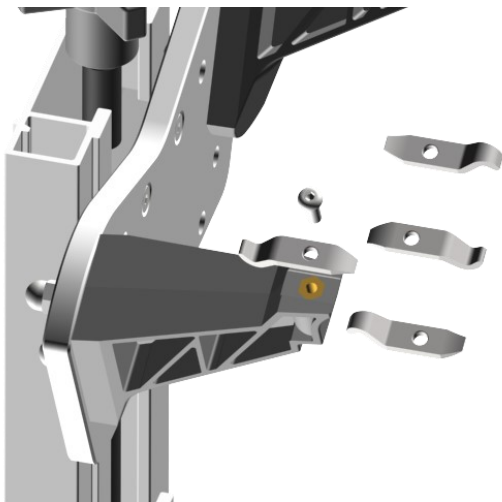


- 2.6 Maximum distance between the front and rear target scales is 72'
- 2.7 When using the portable scales, a minimum of 6—8 feet is required at the back and the front

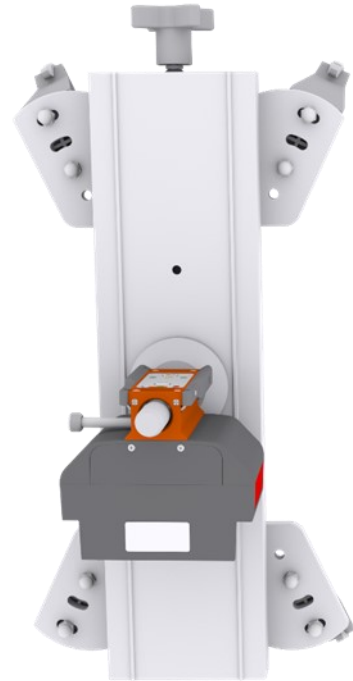


### 3.0 WHEEL CLAMPS

- 3.1 Mount all necessary wheel clamps
- 3.2 Secure the clamps snugly onto the wheels
  - 3.2.1 A 2 axle vehicle will require mounting 2 sets of clamps
  - 3.2.2 A 3 axle vehicle will require mounting 3 sets of clamps
  - 3.2.3 A 4 axle vehicle will require mounting 4 sets of clamps



Clamping jaws can be rotated to better fit the wheel type. Verify that they are all the same, on all the clamps



System supports up to 10 sets of clamps

- The EEWA620B comes with 3 sets of clamps
- Additional sets of clamps can be added, up to 10 sets total (Part number EAK0350J47A)
- See the HD truck configuration guide for more details

**V6200 CONFIGURATION GUIDE**

**STANDARD UNIT FOR UP TO THREE AXLES**

**EXTRA SET OF CLAMPS (EAK0350J47A)**

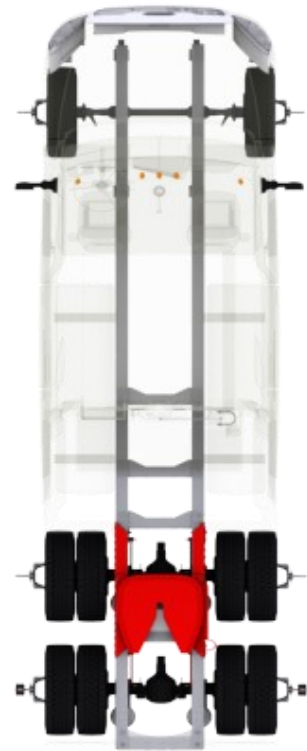
Configuration	Diagram	Description
STANDARD UNIT PLUS A CLAMP SET FOR EACH AXLE OVER THREE	[Diagram showing 4 axles]	For each axle over three, the extra clamp set will be needed for each axle over three.
STANDARD UNIT PLUS A TRAILER BAR FOR TRUCK/TRAILER UNIT	[Diagram showing truck/trailer unit]	For each trailer unit, the trailer bar will be needed for the truck/trailer unit.

**JohnBean**

## 4.0 MEASURING HEAD

- 4.1 Mount the measuring heads (PODS) on the rear most axle
- 4.2 Slide the PODS on the clamp shaft until the PODS engages in the shaft groove
- 4.3 PODS can be mounted on either side of the vehicle

Alignment measurement start point



## 5.0 POSITION REAR PORTABLE SCALES (Manual)

5.1 Position the rear target scale approximately 6 feet behind the vehicle

5.2 Center



Rear target scales approximately 6 feet  
behind the vehicle

6'

## 6.0 POSITION FRONT PORTABLE SCALES (Manual)

Front target scales touching the front bumper  
and approximately centered

6.1 Position the FRONT scale up against the front

bumper

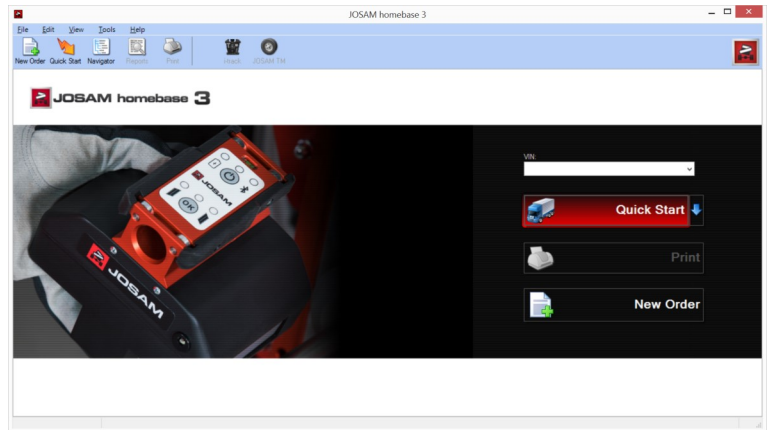
6.2 Center



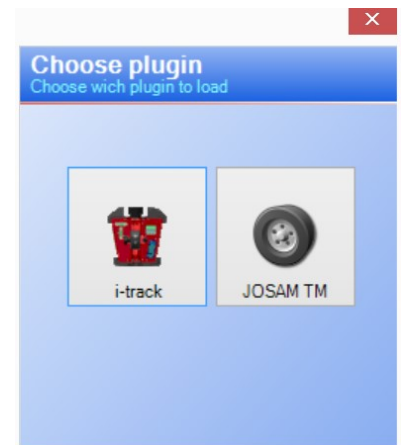
At this point the alignment box is now created and you are ready to begin the alignment

## 7.0 BEGIN | SELECTING THE VEHICLE

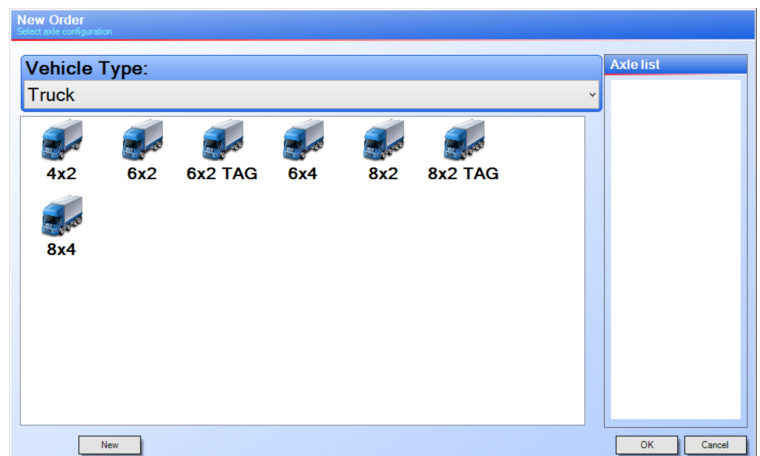
7.1 Click on QUICK START



7.2 Click on ITrack



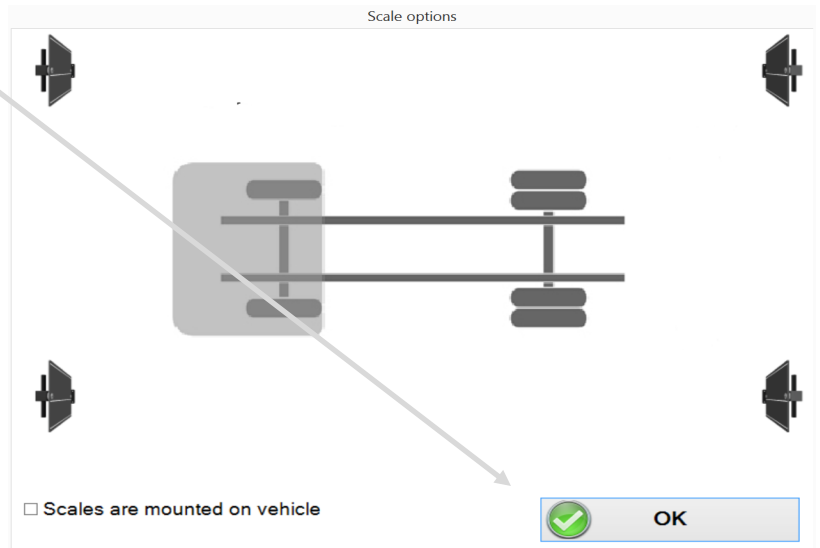
7.3 Select the vehicle type



## 7.0 BEGIN | SELECTING THE VEHICLE

7.4 Click OK on the SCALES OPTION

DO NOT CHECK THIS BOX

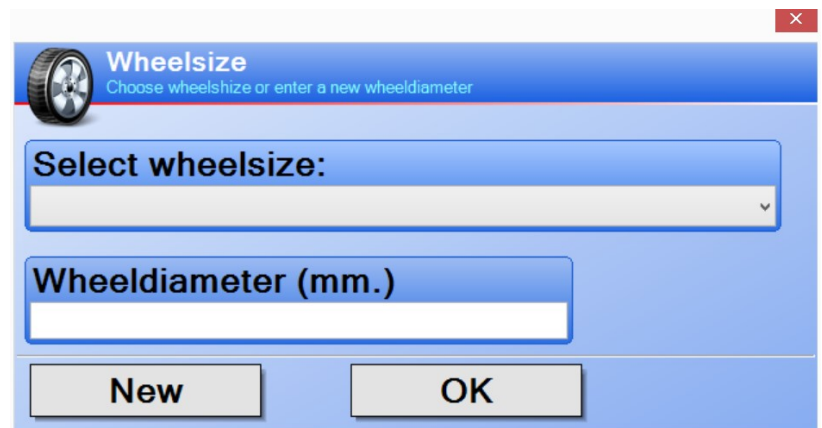


7.5 Select the WHEEL Size

Use the ARROW to open the drop down menu and expose the available wheel sizes

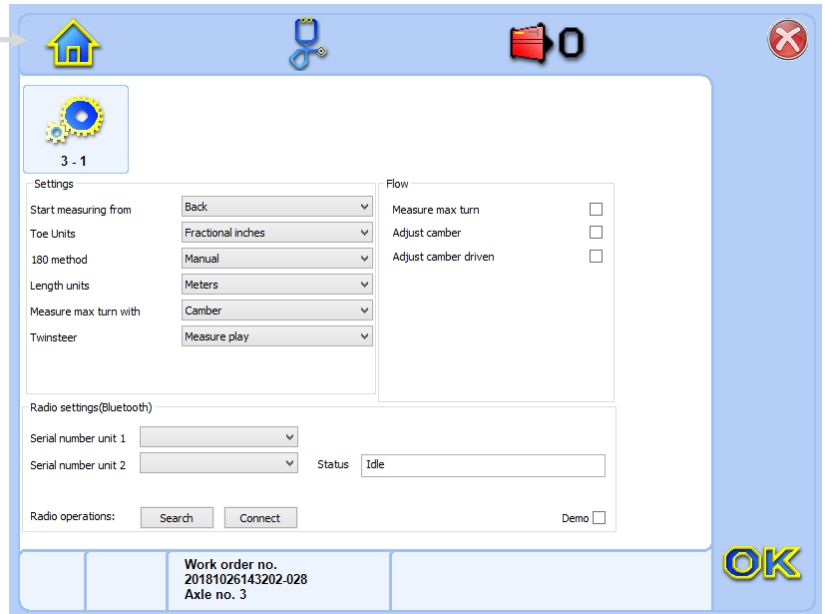
Click on NEW to enter and save a new WHEEL SIZE

7.6 Click OK



## 8.0 POSITION THE SCALES (WITH ELECTRONIC GUIDANCE)

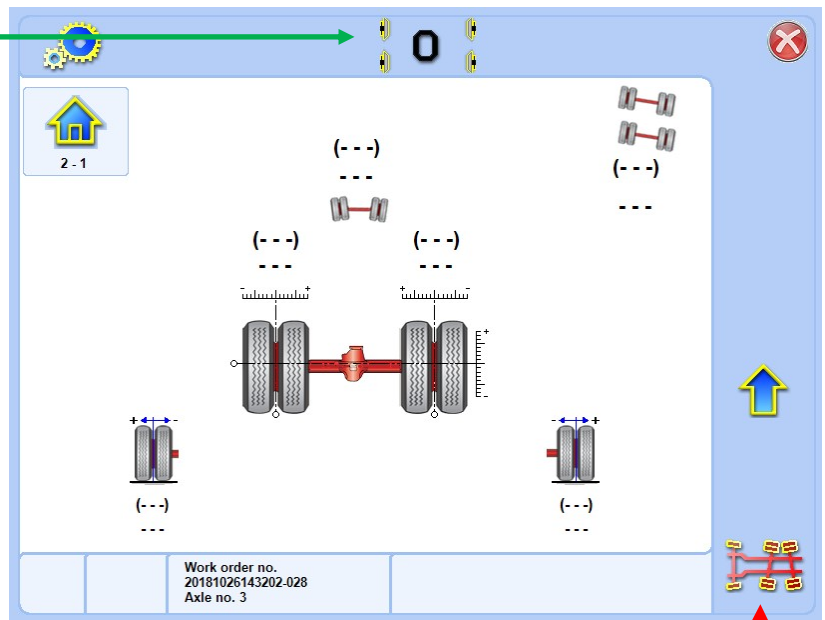
If this screen is visible, click on the HOUSE to change to the target scale set up screen



8.1 Click on the PORTABLE SCALES ICON

This selection will guide you the correct placement of the target scales

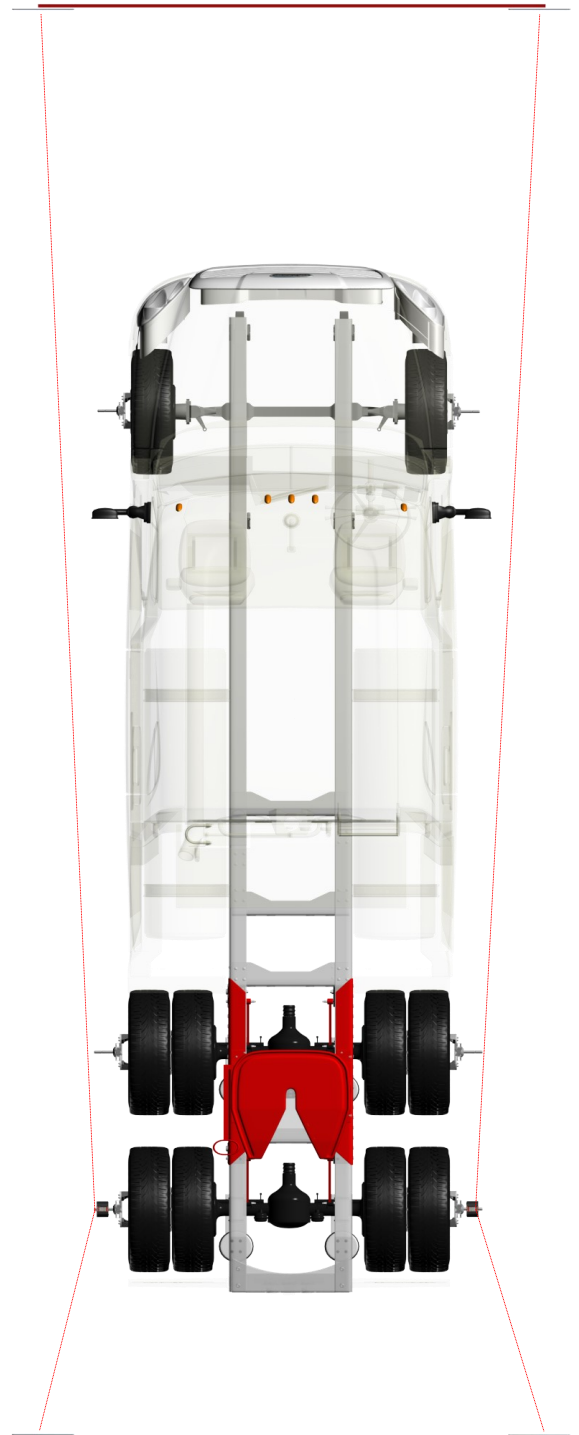
- Do not click on the RED X unless you are ready to RE-START from the beginning
- Do not click on the BLUE arrow at this time
- Do not click on the RED FRAME button at this time



Do not click on the compensation button yet

## 12.0 TARGET SCALES POSITIONING COMPLETE

- 12.1 The vehicle coordinate box is now complete.
- 12.2 Proceed with compensation
- 12.3 The portable target scale perimeter box set up will have to be done for every alignment



## 13.0 COMPENSATION

### STARTING AT THE LEFT REAR | FIRST POINT COMPENSATION

13.1 With the POD mounted on the LEFT REAR axle wheel clamps, start with LEFT REAR POD and PRESS OK

13.1.1 The GREEN lights will illuminate and flash then turn off, the measurement is done



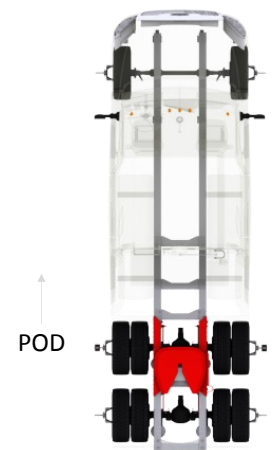
13.2 Shuttle the POD to the second LEFT REAR drive axle

13.2.1 Slide the POD on the shaft

13.2.2 Engage the POD in the groove on the shaft

13.2.3 PRESS OK

13.2.4 The GREEN lights will illuminate, flash then turn off, the measurement is done



13.3 Shuttle the POD to the LEFT FRONT axle

13.3.1 Slide the POD on the shaft

13.3.2 Engage the POD in the groove on the shaft

13.3.3 PRESS OK

13.2.4 The GREEN lights will illuminate, flash then turn off, the measurement is done





## 13.0 COMPENSATION

### CONTINUE WITH RIGHT REAR | FIRST POINT COMPENSATION

13.4 With the POD mounted on the RIGHT REAR axle wheel clamps, CONTINUE with RIGHT REAR POD and PRESS OK

13.4.1 The GREEN lights will illuminate and flash then turn off, the measurement is done



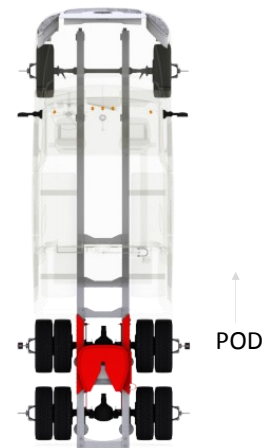
13.5 Shuttle the POD to the second RIGHT REAR drive axle

13.5.1 Slide the POD on the shaft

13.5.2 Engage the POD in the groove on the shaft

13.5.3 PRESS OK

13.5.4 The GREEN lights will illuminate, flash then turn off, the measurement is done



13.6 Shuttle the POD to the RIGHT FRONT axle

13.6.1 Slide the POD on the shaft

13.6.2 Engage the POD in the groove on the shaft

13.6.3 PRESS OK

13.6.4 The GREEN lights will illuminate, flash then turn off, the measurement is done

13.6.5 First point compensation completed



# 14.0 COMPENSATION | ROLL FORWARD

## FOLLOW THE INSTRUCTIONS ON THE SCREEN

- 14.1 Start the vehicle
- 14.2 Air up the air brake system
- 14.3 Release the brakes

14.4 This icon means DRIVE FORWARD until the clamp has rotated 180degrees

 **Rotate the wheels 180°**



14.5 Drive forward in the direction indicted by the large GREEN arrow

14.5.1 The numbers on the left indicate the distance left to roll forward



- 14.6 Stop when the STOP sign appears
- 14.7 Turn the vehicle OFF
- 14.8 Engage parking brake
- 14.9 Exit the vehicle
- 14.10 Click on OK on screen not the PODS

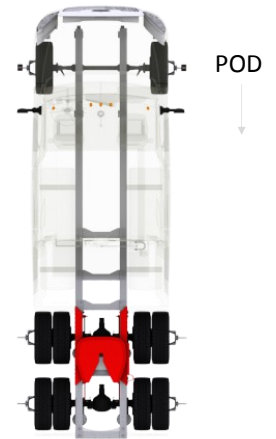


## 15.0 COMPENSATION | SECOND POINT

### STARTING FROM THE RIGHT FRONT

15.1 With the PODS mounted on the FRONT axle wheel clamps, start with RIGH FRONT POD and PRESS OK

15.1.1 The GREEN lights will illuminate and flash then turn off, the measurement is done



15.2 Shuttle the POD to the second (INBOARD) RIGHT REAR drive axle

15.2.1 Slide the POD on the shaft

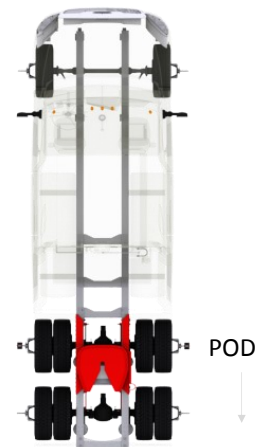
15.2.2 Engage the POD in the groove on the shaft

15.2.3 PRESS OK

15.2.4 The GREEN lights will illuminate, flash then turn off, the measurement is done

15.2.5. PRESS OK

15.2.6 The GREEN lights will illuminate, flash then turn off, the measurement is



15.3 Shuttle the POD to the REARMOST DRIVE axle

15.3.1 Slide the POD on the shaft

15.3.2 Engage the POD in the groove on the shaft

15.3.3 Second point compensation completed



## 15.0 COMPENSATION | SECOND POINT

### STARTING FROM THE LEFT FRONT

15.4 With the LEFT POD mounted on the LEFT FRONT axle wheel clamps, CONTINUE with LEFT FRONT POD and PRESS OK

15.4.1 The GREEN lights will illuminate and flash then turn off, the measurement is done

15.5 Shuttle the POD to the second (INBOARD) LEFT REAR drive axle

15.5.1 Slide the POD on the shaft

15.5.2 Engage the POD in the groove on the shaft

15.5.3 PRESS OK

15.5.4 The GREEN lights will illuminate, flash then turn off, the measurement is done

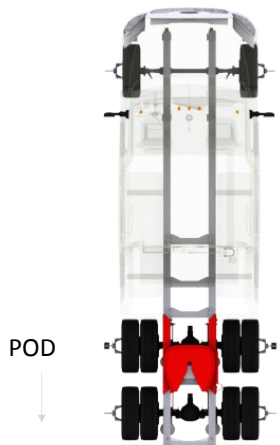
15.5.5 The GREEN lights will illuminate, flash then turn off, the measurement is

15.6 Shuttle the POD to the REARMOST LEFT REAR drive axle

15.6.1 Slide the POD on the shaft

15.6.2 Engage the POD in the groove on the shaft

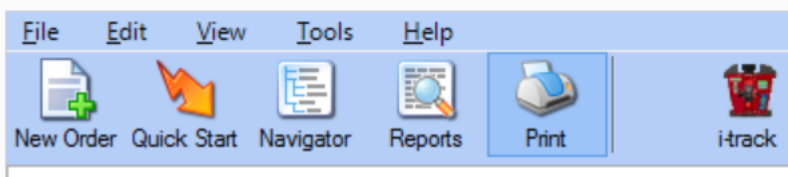
15.6.3 PRESS OK



## 16.0 VIEW MEASUREMENTS

### ACCESS REPORTS

16.1 On the upper tool bar, click on REPORTS



#### Alignment Report

Date 10/2/2012  
 Work order no. 20121002153027-022  
 1(1)

Registration no. TRUCK308      Manufacturer  
 Milage 0      Model  
 Owner      Model Year  
 Performed by      Used specification LTruck8x2  
 All values are in mm/m if not differently stated. Values in parenthesis are before measurements

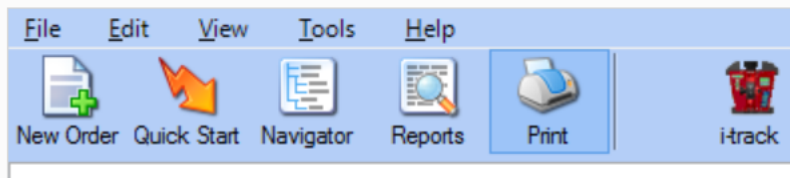
Axle no. 1	Min	Left side	Max	Min	CenterPoint	Max	Min	Right side	Max
Toe	--	(-1.1) +0.0	--	+3.0	(-1.1) -1.1	+4.0	--	(+1.0) +1.2	--
Camber	+0°20'	(+0°23') +0°12'	+0°30'	Total toe			+4°0'	(+0°12') +0°23'	+6°0'
Caster	+0°12'	(+0°23') +0°23'	+0°23'	+1.0	(-0.1) +1.2	+3.0	+1°2'	(+0°45') +0°12'	+1°4'
KPI	+0°12'	(+0°12') +0°12'	+0°23'				+10°0'	(+0°23') +0°32'	+20°0'
Max turn	1°	(2°) 1°	3°				2°	(2°) 3°	5°
Toe out on turn	1°	(2°) 1°	3°				1°	(1°) 2°	3°

Axle no. 2	Min	Left side	Max	Min	Max	Min	Right side	Max
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# 17.0 VIEW MEASUREMENTS

## ACCESS REPORTS

17.1 On the upper tool bar, click on REPORTS



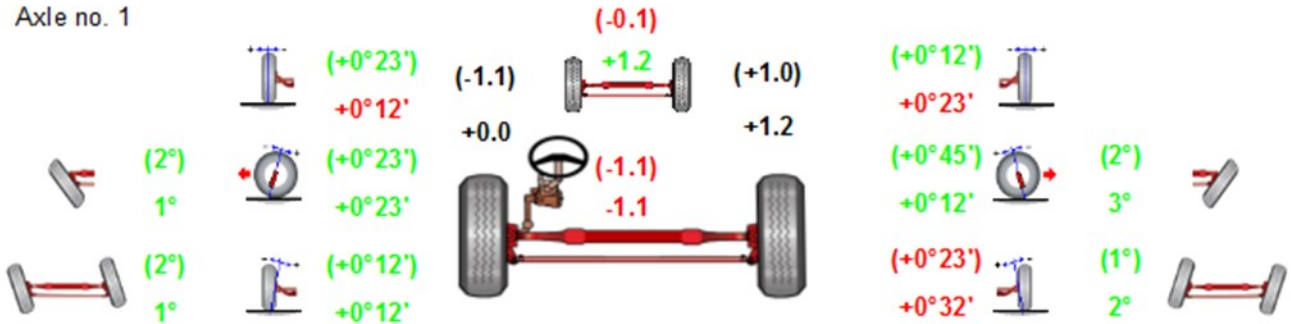
### Alignment Report

Date: 10/2/2012  
 Work order no.: 20121002153027-022  
 1(1)

Registration no.	TRUCK308	Manufacturer	
Milage	0	Model	
Owner		Model Year	
Performed by		Used specification	LTruck&2

All values are in mm/m if not differently stated

Axle no. 1



Axle no. 2

