



Mack Chassis - Air Suspension - Electronically Controlled (ECS) Suspension Ride Height, Check



> Internal Content

For more information on the Air Suspension - Electronically Controlled (ECS) Suspension Ride Height, Check - click [here](#).



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[k63170514](#)

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1 72823-2 Air suspension ECS ride height, check

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Illustrations may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.



All threaded fasteners that do not have a tightening torque specification in the information are tightened to a standard torque. Standard torques are available in the following specification. ► Standard tightening torques

Impact Meta Data	
Valid From	20.12.2016
Valid To	01.01.2099
PD string	CXU, PAM-LINK, SUSPL-E7/SUSPL-EC



Time

Repair Time for Method	3,305 min/100
ST Factor	1.43
Ungrouped ST	85 h/100
Grouped ST	90 h/100
North American ST	0.8 h

Air suspension ECS ride height, checking



CAUTION

Service Information Advisory. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

- You must read and understand the precautions and guidelines in Service Information, Function Group 7, "General Safety Practices, Frame, Springs, Shocks and Wheels" before performing this procedure.

Vehicle, immobilisation

[25]

1. Place the vehicle on a level surface with the steering wheel in the straight ahead position.

[300]

2. Free and centre all suspension joints by slowly moving the vehicle back and forth twice without using the brake. When vehicle has come to a complete stop, ensure that the brakes (parking and service) are released.

[75]

3. Install the front wheel chocks.



Note

Ask for assistance.

[25]

4. Place the gearbox in neutral.

**Note**

Ensure that the parking brake remains off.

[1,000]

5. Check all tires for proper inflation and adjust as required.

Air suspension ECS (Electronically controlled suspension) ride height, checking

[10]

6. Turn the ignition switch ON.

**Note**

This fills the air suspension.

Make sure the air system is at operating pressure (minimum 130 psi).

[50]

7. Set the ECS switch to the OFF/MANUAL position.



[50]

8. Set the switch to the DOWN position.

**Note**

Toggle the switch until all of the air is exhausted from the rear air springs.



[150]

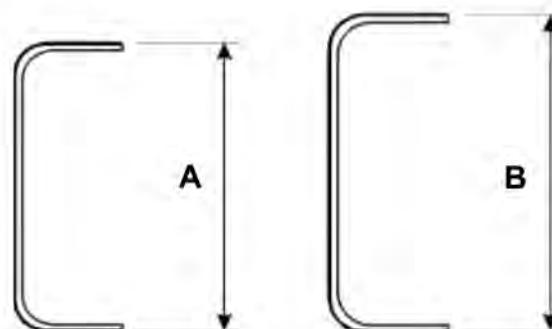
9. Set the ECS switch to the AUTO position.



[50]

10. Determine the frame size.

Tech data	
Frame Height	266 mm (10.47 in)
Frame Height	300 mm (11.81 in)



[100]

11. Measure the distance **(C)** from the floor to the axle centre line.



Note

Use a level to determine the axle centre line.

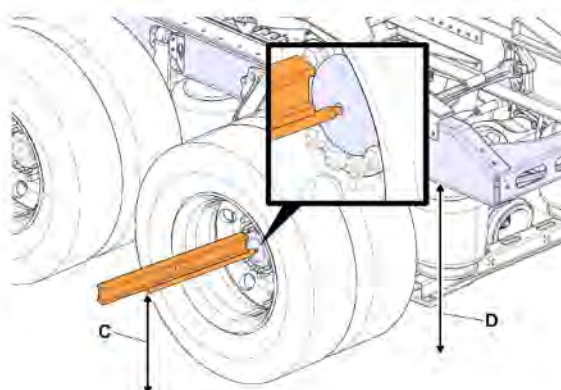
[100]

12. Measure the distance **(D)** from the bottom of the frame to the floor.

[100]

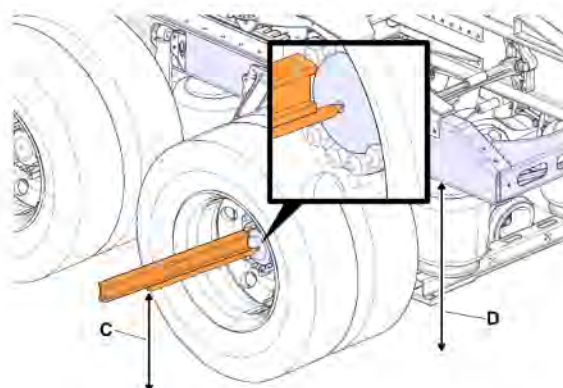
13. Subtract distance **(C)** from distance **(D)** to calculate the ride height.

Tech data	
Ride height specification for the 266 mm frame size	210 ±5 mm (8.27 ±0.2 in)
Ride height specification for the 300 mm frame size	193 ±5 mm (7.6 ±0.2 in)



**Note**

The ride height measurement is dependent on the frame size.



14. If the ride height calculation is within the specified range, there is no need to calibrate the level sensor. If the ride height calculation is outside the specified range, calibrate the level sensor.

Level sensor, calibrate

[25]

15. Set the ECS switch to Manual mode.



16. Start the engine and allow the air pressure to build to the correct air pressure.

Tech data

Suspension Operating Pressure	130 psi (8.96 bar)
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[25]

17. Using the switch, raise the chassis above calibration height.



[100]

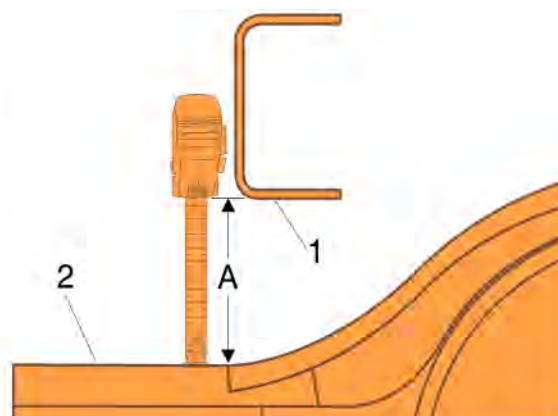
18. Use a tape measure to verify the chassis is above calibration height.

Tech data	
Height specification for the calibration procedure	124 ±2 mm (4.88 ±0.08 in)



Note

The calibration height measurement will be the vertical distance **(A)** from the bottom of the frame rail **(1)** to the top of the axle housing **(2)**. Measure at the centre line of the axle housing.



[50]

19. Connect the vehicle to tech tool.



[100]

20. Under the Calibration tab, selection operation **7281-07-03-01 Level Sensor**.

[100]

21. Begin the calibration and continue to the **conditions** step.

[200]

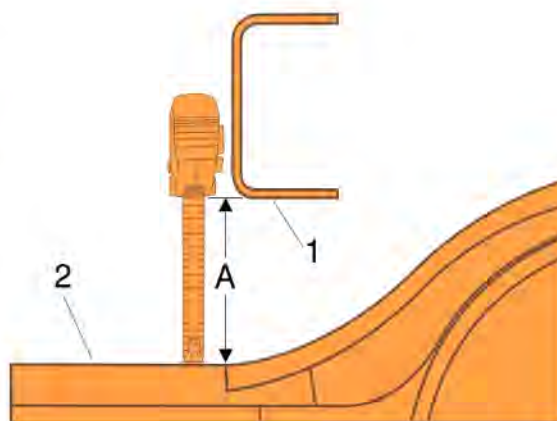
22. Using the buttons in Tech Tool, lower the chassis down until you have reached the correct calibration height.



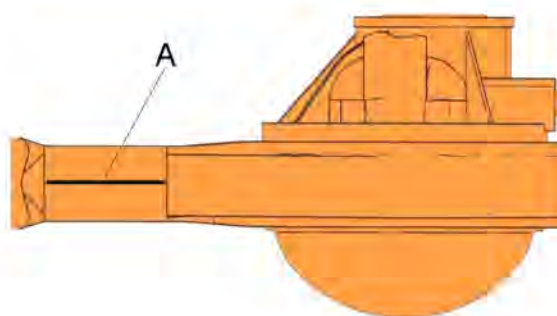
23. Using a tape measure, measure the calibration height **(A)** from the bottom of the frame rail **(1)** to the top of the axle housing **(2)** .

Tech data

Height specification for the calibration procedure	124 ±2 mm (4.88 ±0.08 in)
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24. Be sure the measurement is taken from the centre line **(A)** of the axle.



[100]

25. Complete the calibration in Tech Tool.

[25]

26. Switch the ECS switch into Auto mode.



[25]

27. Set the ECS switch to Manual mode.



[25]

28. Using the switch, lower the chassis to below calibration height.



[25]

29. Set the ECS switch to Auto mode and allow the chassis to return to drive height.



[100]

30. Measure the distance **(C)** from the floor to the axle centre line.

**Note**

Use a level to determine the axle centre line.

[100]

31. Measure the distance **(D)** from the bottom of the frame to the floor.

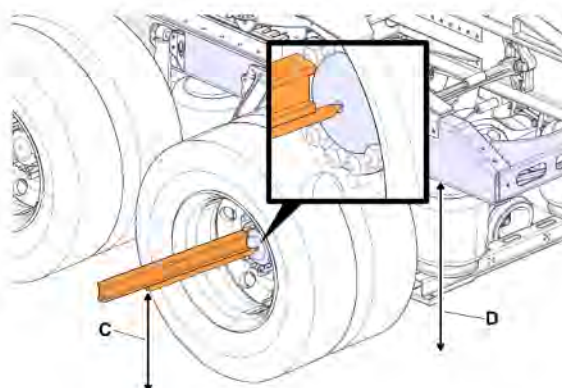
[100]

32. Subtract distance **(C)** from distance **(D)** to calculate the ride height. Validate that it is correct.

Tech data	
Ride height specification for the 266 mm frame size	210 ±5 mm (8.27 ±0.2 in)
Ride height specification for the 300 mm frame size	193 ±5 mm (7.6 ±0.2 in)

**Note**

The ride height measurement is dependent on the frame size.

**Parking brake, application**

[50]

33. Apply the parking brake.

Wheel chocks, removal

[120]

34. Remove the wheel chocks.

