

PACBRAKE[®]

Installation
MANUAL



PACBRAKE FABRICATORS AIR SPRING KIT

HP10130 / HP10086

INSTALLATION MANUAL - FABRICATORS AIR SPRING KIT, L5953

Congratulations and thank you for the purchase of our Pacbrake Fabricators Air Spring Kit. This kit is designed for the customizer/fabricator to install our air springs on applications which have been (or are being) modified, or where a specific air spring kit is not available. The installation will require cutting and welding of thick wall tube, therefore a good saw and welder must be available.

Please ensure your kit contains all the items shown in the photo.

HP10130 (SUGGESTED FOR REAR SUSPENSION)



HP10086 (LRG AIR SPRINGS, SUGGESTED FOR FRONT SUSPENSION)



This kit contains thick wall tube, mounting plates, air springs and mounting accessories to get you started on your custom air spring installation. Pacbrake can supply many variations of additional brackets and fasteners to support you throughout the project. In-cab adjustment kits with dual and single needle pressure gages are also available from your Pacbrake distributor.

BEFORE STARTING THE INSTALLATION

Important points to note when designing and fabricating custom air spring brackets

- 1** Do not use air springs as a replacement to a lift kit. To achieve a higher vehicle ride height using air springs, high air pressure must be applied to the air springs which will cause poor ride quality without weight in the vehicle.
- 2** For an optimum ride, the ride height should remain the same with the air springs inflated to the minimum pressure of 15 PSI. Never exceed the maximum pressure of 100 PSI.
- 3** Driveline angles: Measure the yoke angles prior to the air spring installation and maintain them within an acceptable margin.
- 4** Clearance around the air spring assembly: Ensure surrounding components will not contact the air spring during extended and compressed axle travel.
- 5** Exhaust pipe clearance to the air springs: Provided in the HP10130 kit are two exhaust heat shields and gear clamps. Secure them to the exhaust to protect the air spring from the heat of the exhaust pipes.
- 6** Ball joint travel must not be exceeded. Incorrect installation may cause the ball joint to limit suspension travel. If this occurs ball joint failure will result.
- 7** Ensure the air spring brackets allow enough movement to perform a wheel alignment.
- 8** Cut the thick wall spacer tube on the correct angles to ensure the air spring compresses evenly in all directions once installed.

AIR SPRING CHART

PART #	MINIMUM COMPRESSION	MEAN	MAXIMUM EXTENSION
HP10000 Double Convolute	3.000"	5.750"	8.400"
HP10068 Double Convolute	2.900"	6.250"	9.500"

Using the chart above for minimum and maximum air spring height, ensure you have the correct air spring for your design requirements.

- 1 On a flat level concrete floor, with the vehicle resting on the tires (or jack stands under the axles), measure and record front and rear vehicle ride height.
- 2 Measure the overall distance between the upper and lower air spring mounting locations. Consider the thickness of the upper and lower brackets, mounting and roll plates in this dimension, then subtract the MEAN dimension of the air spring used in your kit to determine the length to cut the thick wall tube.
- 3 Once the thick wall tube is cut to length and the correct compression angles are confirmed, tack weld the assembly together. Then, install the air springs and test fit. Adjust as necessary.
Remove the air spring to prevent damage when performing the final welding of the assembly together.
- 4 Install the air spring to the mounting assembly and torque the $\frac{3}{8}$ " NF capscrews (securing the air spring to the mounting plates) to 20 ft-lbs, 27 N•m.
- 5 Install the 90 degree fittings into the air spring port using thread sealant.
- 6 Install the nylon air lines and secure with the tie-straps provided.
- 7 Provided are two inflation valves to inflate and deflate the air springs. Install them in a location convenient to access.

Contact Pacbrake Customer Service @ 1.800.663.0096 for in-cab adjustment options.

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