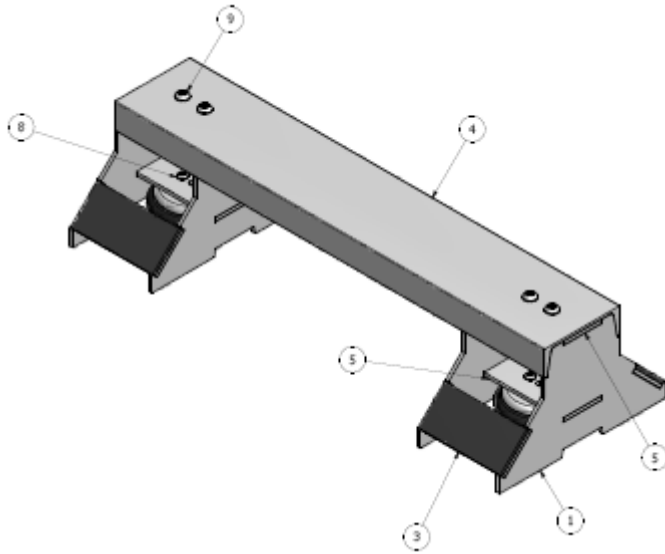


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DYNOCOM INDUSTRIES INC.

DC-1250 AIR LIFT ASSIST INSTALLATION MANUAL



DC-1250 Air Lift Assist Installation Manual



DYNOCOM SERIES CHASSIS DYNAMOMETERS

DC-1250 Air Lift Assist Installation Manual

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Introduction

Congratulations! You have purchased the air lift assist option for the DC-1250 automotive dynamometer. The air lift assist option assists the operator in loading and unloading the vehicle on and off the dynamometer. Furthermore, the air lift assist aids in locking the rollers while driving on and off the dynamometer unit. In order to aid installation, the dynamometers need to be lifted by suitable lifting equipment (i.e. fork lift) to install air bags under the c-channel frame and to route the rubber air lines.

Warning:

Never open the air lift valve and operate the lift while the dynamometer is in operation.

DC-Air Lift Assist COMPONENTS

The following is a list of mechanical components provided with the air-lift-assist option:

- 4 x Air Bags w/mounting hardware
 - 4 x Air Bag Lift Brackets
 - 2 x 34" Air Lift Support Bars w/8 x mounting hardware
 - 3 x Brass T-Fittings
 - 2 x Brass Right Angle Fittings
 - 8 x Hose Clamps
 - Hose Assembly
 - Template
 - Valve Body & Regulator w/mounting brackets & hardware
-

Installation Instruction

- 1) Tape the template between the two rollers on top of the support C-channel bracket and mark the locations using a punch and hammer as shown in Figure 1. Repeat this procedure on both channels.



Figure 1 – Center Punch Holes w/Template

- 2) Using a hand drill, drill eight 9/16” holes on both the left and right side of the C-channel. Continue drilling the four 5/8” holes for the air fittings. Pre-drilling the hole locations with a smaller 1/4” drill bit is suggested to assist in the drilling procedure.

- 3) Mount each air bag to the air bag bracket using the supplied 3/8" hardware. Torque to 15-18 ft lbs. . Make sure the 3 open holes are positioned as in Figure 2.



Figure 2 – Air Bag Installation

- 4) Lift the dynamometer assembly off the ground to allow access to bottom to assist in the installation.
- 5) From the top of the dynamometer, turn each air bag bracket assembly so it can fit between the rolls, and then rotate the assembly 90 degrees so as to align with the holes that were drilled in step #2. Using the appropriate fasteners, bolt each air bag bracket to the C-channel from the underside of the dyno. The bolts will mount beneath the C-channel and screw into the pre-taped air bag locations. Repeat this for all air bag bracket assemblies. Torque the 3/8" supplied hardware to 15-18 ft lbs. See Figures 3, 4 & 5.

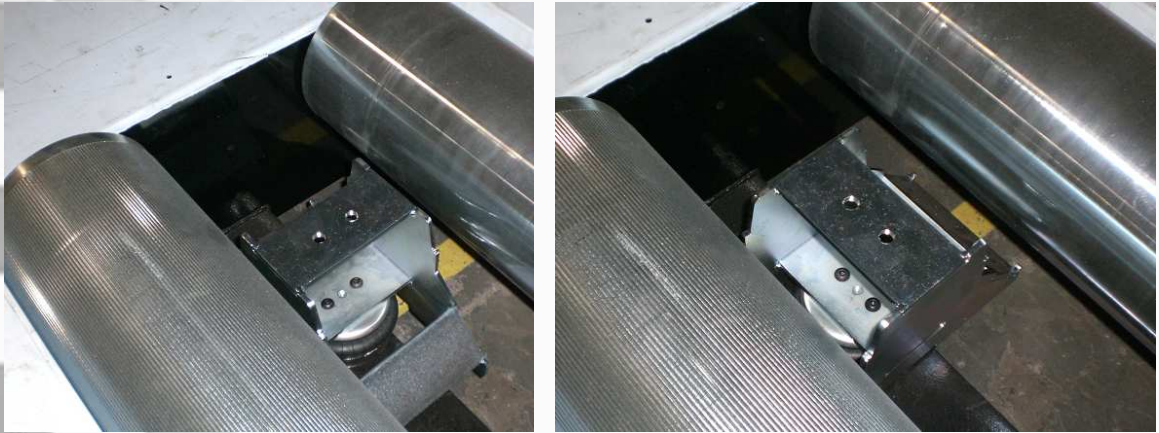


Figure 3 & 4 – Air Bracket Assembly Positioning



Figure 5 – Air Bag Bracket Assembly Mounting to C-Channel

- 6) Using Teflon tape, screw the 1/4" NPT Male to Female brass fittings into the bottom of the air bag thru the C-channel. From the Eddy-Brake end of the dyno, thread a 1/4" NPT to barb right angle fitting into the one air bag/bracket assembly. Thread, the remaining 3 1/4" female T-fittings into the other air bag/bracket assemblies.

- 7) Using Teflon tape, thread the brass barb fittings into all the fittings so the entire assembly can be connected with rubber air line.
- 8) Using the supplied hose clamps and hose, connect all the air bags in series.
- 9) Mount the air valve lever to an appropriate location. A suggested location is the side plate of the dynamometer near the electronic junction box – however, it may be desirable to mount to a wall and route air hose to all the air/bag assemblies.
- 10) Locate and install the two air lift support bars. Each bar will be supported by two air bags and require 4 socket cap screws. See Figure 6.

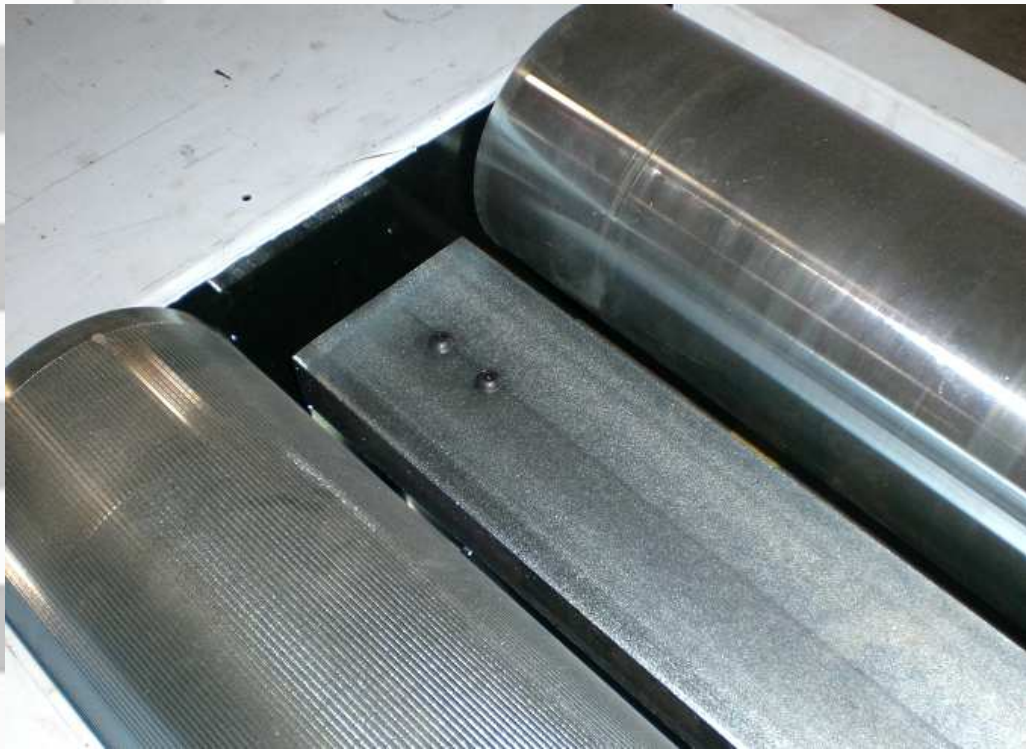


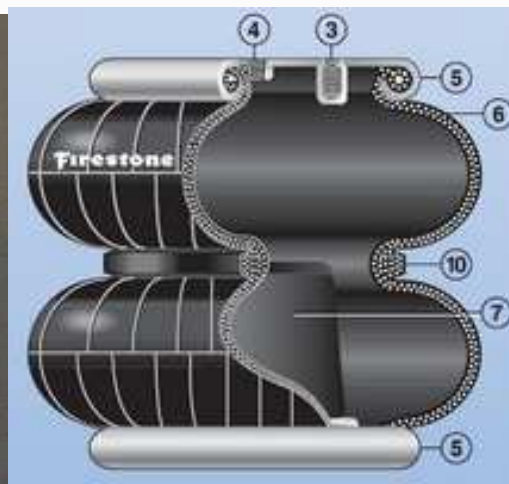
Figure 6 – Air Lift Support Bar Installation

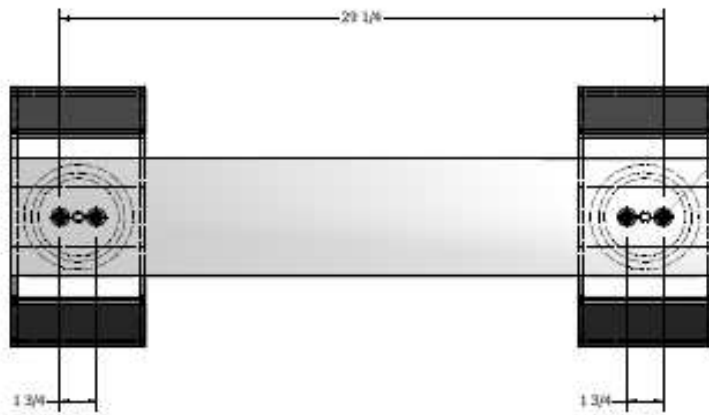
- 11) Connect the open air valve to an air supply capable of supplying 100 PSI. Adjust the regulator to between 50-75 PSI.
- 12) Open the air valve and inspect the system for air leaks. Re-check all fasteners. Your air lift assist is now ready to use.

Air Lift Assist Specifications

Maximum Air Pressure: 100 PSI
Operating Air Pressure: 50-75 PSI
Maximum Lift Capability: 8000 lbs @ 100 PSI / 4000 lbs @ 50 PSI
Minimum Tire Diameter: 18.0" (Min Clearance Diameter)

Air Bag Replacement Part: Firestone Industrial Products
W01-358-7001





-OPEN TOP BRACE (ITEM 4) FOR CLEARANCE HOLE TO 3/16-4X.
TAP WELDED SUB-ASSY'S TOP HOLE 1/2-20-4X

