

MASTER CYLINDER (Air Actuated)



Service Instructions

TABLE 1

Model Number	Air Chamber Replacement Kit Number	Inch ² Chamber Size	Model Number	Air Chamber Replacement Kit Number	Inch ² Chamber Size	Model Number	Air Chamber Replacement Kit Number	Inch ² Chamber Size
02-460-501	02-001-304	24	02-460-519	02-001-306	36	03-460-148	02-001-313	36
02-460-502	02-001-304	24	02-460-520	02-001-306	36	03-460-338	02-001-303	20
02-460-503	02-001-304	24	02-460-521	02-001-304	24	03-460-436	02-001-301	12
02-460-504	02-001-306	36	02-460-523	02-001-310	24	03-460-437	02-001-309	20
02-460-505	02-001-305	30	02-460-527	02-001-306	36	12-460-017	* 02-001-308	12
02-460-506	02-001-305	30	02-460-580	02-001-312	36	12-460-025	* 02-001-308	12
02-460-507	02-001-306	36	02-461-502	02-001-304	24	12-460-031	02-001-311	24
02-460-514	02-001-306	36	02-461-505	02-001-305	30	12-460-032	02-001-311	24
02-460-515	02-001-305	30	02-461-506	02-001-305	30	12-460-197	02-001-320	16
02-460-516	02-001-304	24	02-461-521	02-001-304	24			
02-460-517	02-001-305	30	02-461-580	02-001-312	36			
02-460-518	02-001-306	36	03-460-147	02-001-313	36			

* New air chamber in kit number 02-001-308 requires the re-use of internal spring from the air chamber being replaced.
NOTE: If your product number is not listed, contact ZF Off-Highway Solutions Minnesota Inc. for information.

NOTE
 This literature services various models in this air actuated master cylinder series. The components shown in Figure 1 may appear different than what is found in your actuator.

REMOVING MASTER CYLINDER FROM MACHINE AND SEPARATING SECTIONS

(Refer to Figure 1)

1. Remove air actuated master cylinder from machine by disconnecting necessary air and fluid lines and removing mounting bolts. Drain fluid from assembly.
2. Separate air chamber section and mounting bracket from master cylinder section by removing two nuts and two lock washers or two spacers.

CONNECTING SECTIONS AND MOUNTING MASTER CYLINDER ON MACHINE

(Refer to Figures 1)

1. Lubricate push rod with moly impregnated grease.
2. Attach rubber boot to master cylinder while assembling air chamber, bracket, and master cylinder. Note that some designs will require the re-use of guide, o-ring, and boot. See Figure 1a. Install lock washers or spacers and nuts and tighten according to the Torque Specifications.

NOTE: If the assembly does not use lock washers, apply Loctite 242 or equivalent to the threads before installing the nuts.

3. Install unit on the machine. Connect air and fluid lines. Bleed fluid system of air. Tighten fittings if leaks occur. Make several applications to be sure the master cylinder is working properly. **NOTE: All fittings must be inspected for leaks and tightened if leaks occur.**

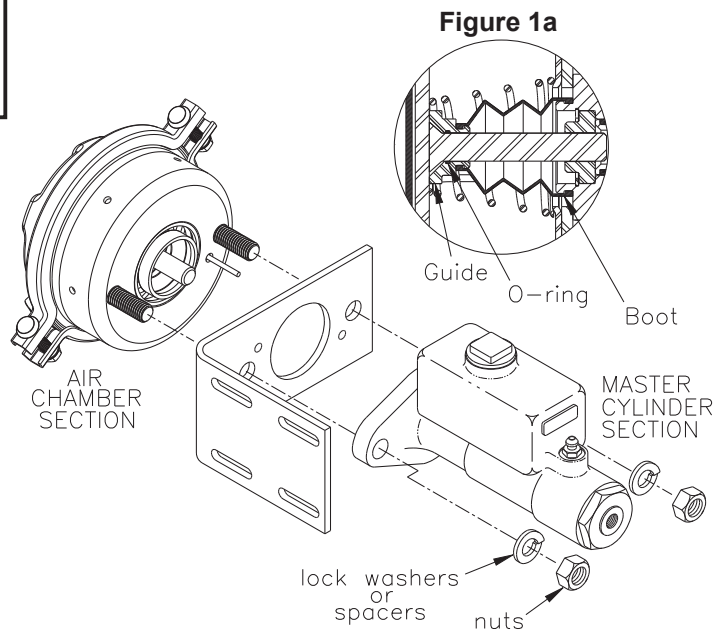


FIGURE 1

Torque Specifications

Thread Size	Torque
7/16-14UNC	32.5 N·m (24 lb-ft)
7/16-20UNF	36.6 N·m (27 lb-ft)
5/8-11UNC	101.7 N·m (75 lb-ft)

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