

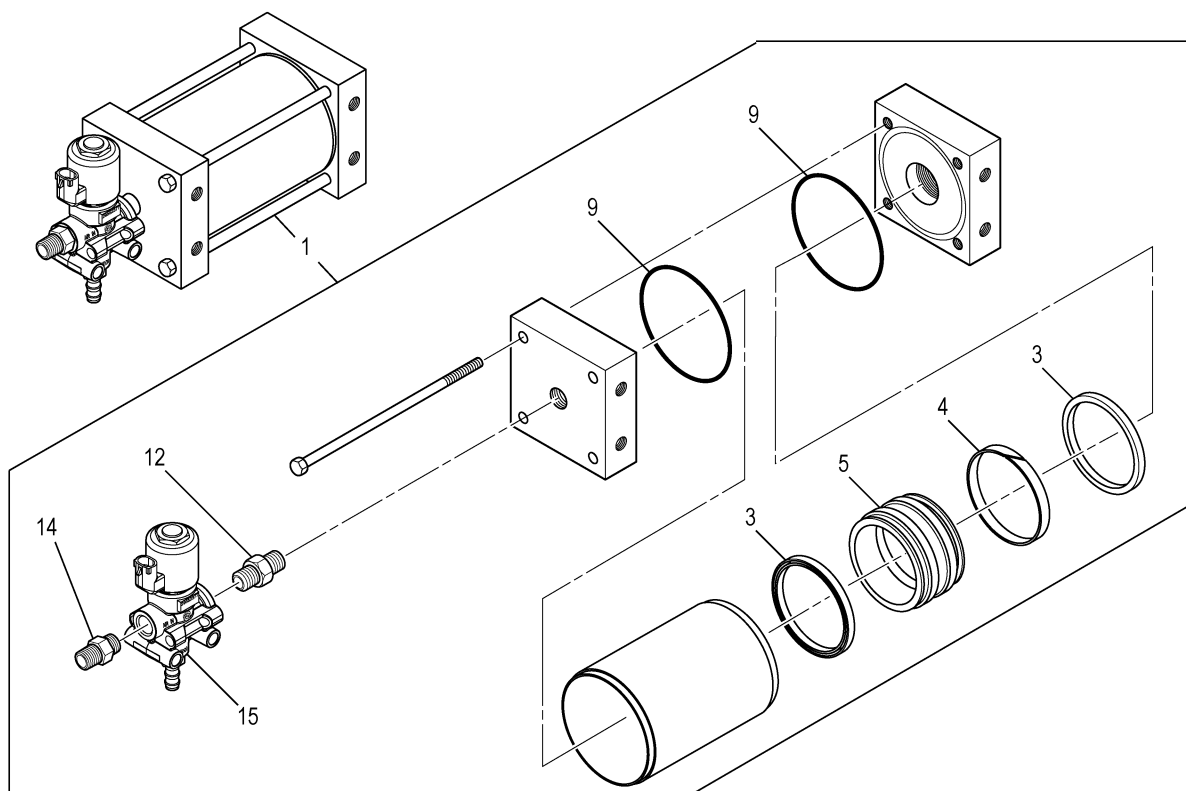
SIL 16-WT-20
December 08, 2020
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SUBJECT: 3000, 4000 Series Retarder Accumulator – Piston and Seal Improvements

MODELS AFFECTED: 3000, 4000, B300, B400, T200, T300, T400, T500 and B500

INTRODUCTION:

As a continuing product improvement, the internal Piston Seals and Piston (items #3 and #5, [Figure 1](#)) of the 3000 and 4000 Series Retarder Accumulator have been redesigned. The Air Solenoid Valve Nipple (item #12, [Figure 1](#)) and Air Solenoid Valve Fitting with orifice (item #14, [Figure 1](#)) have also been improved with the addition of thread sealant.



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Figure 1. Accumulator Assembly Exploded View

MC / SL8744EN

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Table 1.

TIDA, TIDB					Part Number	
3000	4000	Ref No.	Part Name	Qty per Assembly	Former	Current
✓		1	Accumulator and Solenoid Valve Assembly		29553476	29563813
	✓	1	Accumulator and Solenoid Valve Assembly		29553478	29563815
✓	✓	3	Seal (Piston)	2	29527008	29563171
✓	✓	5	Piston	1	29527007	29564913
✓	✓	12	Air Solenoid Valve Nipple	1	443981	29563216
	✓	14	Air Solenoid Valve Nipple 4K only, Painted green	1	29514765	29566363

SERVICEABILITY:

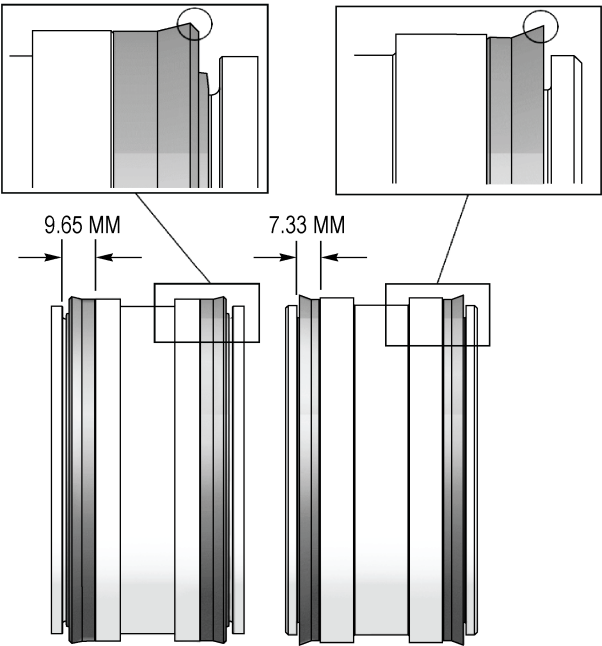
The new Piston, Piston Seal, and Nipple fittings are backward compatible with former 3000 and 4000 Series accumulator assemblies. See [Table 1](#). The new Piston and new Piston Seal must be used together and not intermixed with former Piston or Piston Seal designs. The former Piston, Piston Seal, and Nipple fittings without sealant will be completely cancelled.

Two new service kits have been introduced to upgrade former and service current assemblies. See [Table 2](#). Kit P/N 29563811 is to be used to maintain current accumulator assemblies (P/N 29553476 and P/N 29553478). Conversion kit (P/N 29565564) is to be used with former accumulator designs to upgrade them to current design.

IDENTIFICATION:

The current Piston Seal is slightly narrower in cross section and the Piston Seal Grooves are slightly narrower to correspond. The lip of the current seal is no longer beveled. See [Figure 2](#).

The new Piston contains an “A” marking on the concave surface for identification purposes. See [Figure 3](#).



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Figure 2. Former (Left) Current (Right)



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Figure 3. Piston "A" Marking

Table 2.

Seal Kits						
3000	4000	Ref No.	Part Name (indent indicates content)	Qty	P/N	Status
✓	✓	N/A	Seal & Gasket Kit		29535973	Cancelled
		3	Seal, Piston Lip	2	29527008	Cancelled
		4	Sealring (Slide Ring)	1	29527009	Maintained in kits below
		9	O-Ring, End Cap (Steel)	2	29527010	Released
		9	End Cap O-Ring (Aluminum)	2	29534489	Maintained in kits below
✓	✓	N/A	Seal Kit (for use with current Accumulators)		29563811	Released
		3	Piston Lip Seal	2	29563171	Released
		4	Sealring (Slide Ring)	1	29527009	Released
		9	End Cap O-Ring (for use with Aluminum endcaps)	2	29534489	Released
✓	✓	N/A	Seal, Piston, Nipple Conversion Kit (for use with former Accumulators)		29565564	Released
		N/A	Instruction Sheet #367	1	29565591	Released
		3	Sealring (Slide Ring)	1	29527009	Released
		4	Piston Lip Seal	2	29563171	Released
		5	Piston	1	29564913	Released
		9	End Cap O-Ring (for use with Aluminum endcaps)	2	29534489	Released
		9	End Cap O-Ring (for use with Steel endcaps)	2	29527010	Released
		12	Nipple With Sealant	1	29563216	Released



NOTE: "Released" in Status column indicates the part is also serviceable by its own part number.

ASSEMBLY:

For assembly instructions, see Instruction Sheet #367 on the Allison Hub.

TID 1, 2 and 3 MODEL ACCUMULATORS:

The newly released Piston Seal and Piston found in conversion kit (P/N 29565564) are backwards compatible with TID 1, 2, 3 Accumulator Assemblies.