

Revisions to this document are noted by a stripe in the left-hand margin.

#401A  
Page 1 of 3

SUBJECT: Release Of Polyester Internal Sump Filter

MODELS AFFECTED: MT 643, 643R, 653

AFFECTED SERIAL NUMBERS:	Indianapolis	MT 643, MT 653	S/N 2430627688
	Brazil	MT 643R, MT 643	S/N 2471009034
	Brazil, TranNova (ReTran®)	MT 643, MT 653	S/N 9210001177
	ReTran®	MT 643, MT 653	S/N 9208057222

### **Introduction:**

A new internal sump filter has been released for all hydraulic control MT 600 transmissions. The new internal sump filter is designed for improved filtration and shift quality. This filter is like the old paper filter except the filter media was changed to a polyester material.

### **Interchangeability:**

Two polyester filter conversion kits have been released to replace the former wire mesh screens in affected transmissions depending on which oil pan is used. The new polyester filter may be used in any of the affected transmissions without regard to serial number, provided the external cooling circuit is equipped with a required auxiliary oil filter.

KH/mmw

Allison Transmission  
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Indianapolis, IN 46206-0894

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**Service Parts Information:**

The part numbers for the conversion kits are as follows:

**P/N 29538492**

**Conversion kit for the 4.3 inch deep oil pan**

1	29538474	Polyester Filter
1	6883045	Suction Tube
1	6762127	Sealring
1	29501160	Pan Gasket
1	29538479	Grommet

**P/N 29538491**

**Conversion kit for the 5.1 inch deep oil pan**

1	29538474	Polyester Filter
1	6883046	Suction Tube
1	29538488	Filter Bracket
1	6762127	Sealring
1	29501160	Pan Gasket
1	29500738	Bolt
1	29538479	Grommet

A polyester filter service kit, P/N 29538489, was released for use on affected transmissions and for prior units using the paper filter, current production, and units with conversion kits. The kit consists of the following parts:

**Service released Polyester sump filter kit P/N 29538489**

1	29538474	Polyester Filter
1	29538475	Grommet (AT)
1	29538479	Grommet (MT)
1	6762127	Sealring
1	29501160	Pan Gasket
1	6771005	Sealring

**New Service Procedures:**

The new filter will completely replace the former. When servicing a subject MT, the new filter kit must be used. Anytime you perform an oil change or work on an MT 600 transmission you will need to convert to the polyester filter if the transmission currently has a wire mesh screen. If you have an MT with the 4.3 inch deep oil pan you should order conversion kit P/N 29538492 and if you have an MT with the 5.1 inch deep oil pan you should order conversion kit P/N 29538491.

When converting an MT 600 transmission with the 4.3 or 5.1 inch deep oil pan from a wire mesh filter screen to a polyester sump filter, use the following procedure.

1. Drain the transmission fluid.
2. Remove the oil pan, filter, filter bracket (only on 5.1 inch pan conversions), filter suction tube, and sealring from the main case.
3. Remove the gasket from the oil pan and the flange on the main case.
4. Install the new filter bracket P/N 29538488 (only on the 5.1 inch pan conversions) and torque the two bolts to 8–12 lb ft (11–16 N·m).
5. Insert a new sealring P/N 6762127 onto the oil suction tube, lubricate with oil, and install into the main case.
6. Lubricate the grommet, P/N 29538479, and install it into the grommet opening in the filter, P/N 29538474. Start one side and press down with your hand, it should snap into place.

**NOTE: The filter service kit contains grommets for both AT and MT transmissions. The grommet with the large inside diameter, P/N 29538479, is used with the MT.**

7. Install the polyester filter onto the end of the suction tube and place the bolt hole in the filter over the threaded bolt hole in the filter bracket (only with the 5.1 oil pan). The dimple in filter bracket does not go into the filter dimple (only with the 5.1 oil pan, see Figure 1). When you are making the conversion on a 4.3 oil pan place the bolt hole in the filter over the threaded bolt hole in the valve body.
8. Install bolt P/N 29500738 into the filter bracket (only with the 5.1 inch oil pan) and bolt P/N 29500738 into the valve body on the 4.3 inch oil pan and torque to 10–15 lb ft (14–20 N·m).

**NOTE: Turn suction tube until it enters the grommet squarely.**

9. Install a new pan gasket P/N 29501160 onto the oil pan flange. Insert two pan bolts (one on each side), and install the oil pan onto the transmission main case.
10. Now install the remaining 19 oil pan bolts finger tight. Torque to 10–15 lb ft (14–20 N·m) evenly all the way around.
11. Stamp “F” into the nameplate. This identifies that the transmission has been converted to the new polyester filter for future service reference.

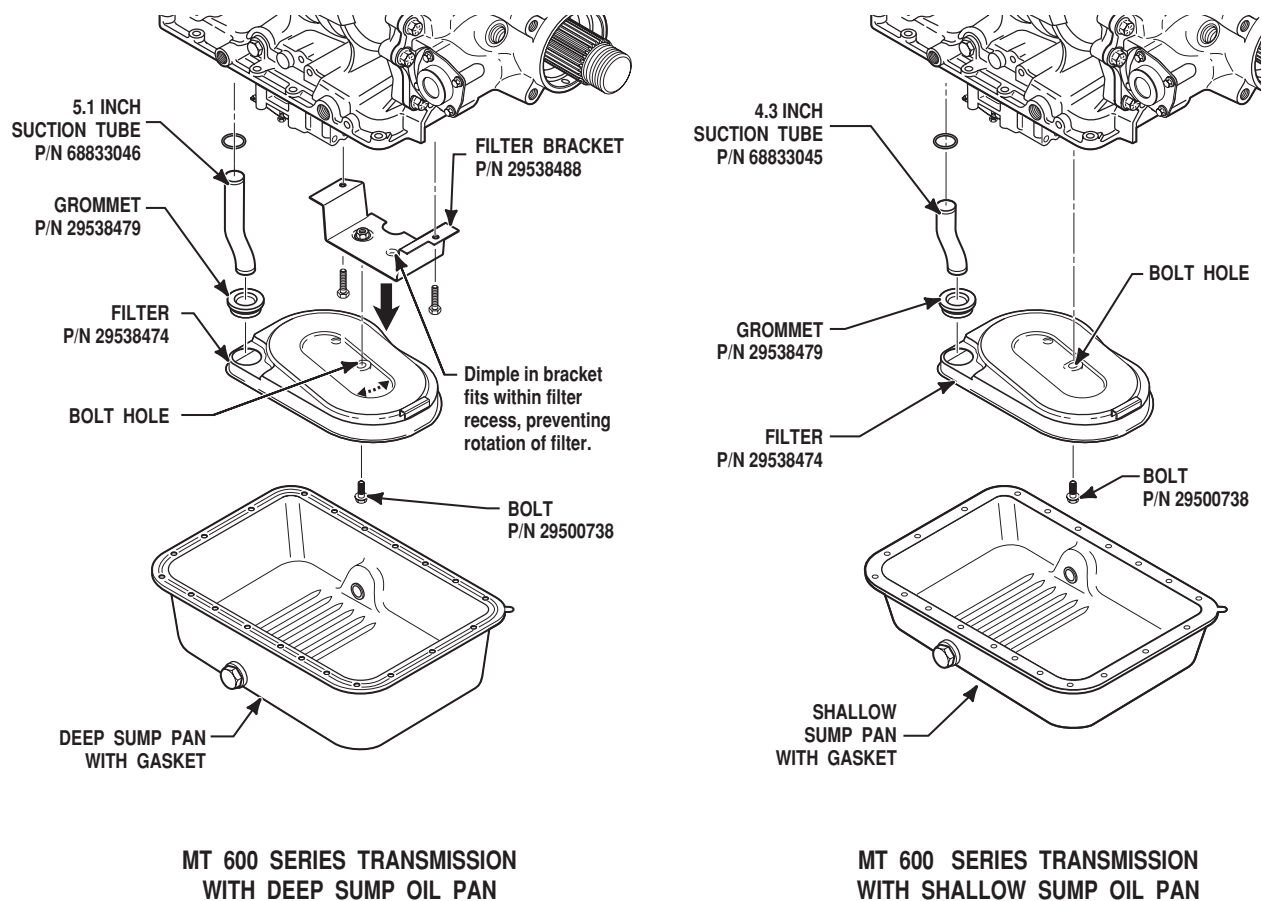


Figure 1.