

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS B-6812
		Former Designation: TMS-6812
Lubricant, Transmission		CURRENT REV No.: 1608
		DATE: Aug. 2016
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<i>This specification may involve hazardous materials, equipment, and procedures. This specification does not purport to address all of the safety issues associated with its use. The user is responsible to consult appropriate safety and health practices and to determine the applicability of regulatory limits prior to use.</i>		

1.0 APPLICATION

This specification covers automatic transmission fluid intended for use in Allison automatic transmissions requiring mineral oil based TES 389TM fluid (NAVISTAR Bulk P/N 2645309R1), or synthetic oil based TranSyndTM/TES 295 fluid (NAVISTAR Bulk P/N 3560640C1 or 3829522C1), or for use in Ford automatic transmissions requiring semi-synthetic oil based ATF (NAVISTAR P/N 2645005R1).

2.0 SCOPE

This specification covers the physical and chemical properties for automatic transmission fluid meeting current Ford, TranSyndTM/TES 295 or TES 389TM requirements, quality plan, source approval, quality control, and shipping and identification requirements.

2.1 Restricted Chemical Substance

Effective January 1, 2007, all product supplied to the requirements of this specification must comply with the requirements of the MPAPS B-50 specification.

3.0 REFERENCE DOCUMENTS

Unless otherwise specified, the latest issue of all referenced standards shall apply. The following Specifications, Standards, and Regulations are referenced in this specification.

Quality System Standard ISO 9001 or TS-16949	ASTM D92	ASTM D2983
CFR Title 29, Part 1910	ASTM D97	ASTM D4927
NAVISTAR Supplier Packing and Shipping Std. D-13	ASTM D445	ASTM D4951
NAVISTAR Engineering Design Std A-16	ASTM D892	ASTM D6304
NAVISTAR MPAPS B-50	ASTM D2270	

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4.0 REQUIREMENTS

4.1 Physical and Chemical Properties

4.1.1 Viscosity

ASTM D445; At 100° C (212°F) cSt (mm²/s) 7.0 minimum for mineral oil based products.

ASTM D445; At 100° C (212°F) cSt (mm²/s) 7.0 minimum for synthetic oil based products.

ASTM D445; At 100° C (212°F) cSt (mm²/s) 5.4 minimum for semi-synthetic oil based products.

ASTM D2983; At -40° C (-40°F) centipoise 20,000 maximum for mineral oil based products.

ASTM D2983; At -40° C (-40°F) centipoise 8700 maximum for synthetic oil based products.

ASTM D2983; At -40° C (-40°F) centipoise 9500 maximum for semi-synthetic oil based products.

4.2 Viscosity Index (ASTM D2270)

Shall be 165 minimum for mineral oil based products.

Shall be 155 minimum for synthetic oil based products.

Shall be 135 minimum for semi-synthetic oil based products.

4.3 Pour Point (ASTM D97)

Shall be -42°C (-44°F) maximum.

4.4 Flash Point (ASTM D92)

Shall be 177°C (350°F) minimum.

4.5 Foaming (ASTM D892)

When tested at the following temperatures, foaming tendency and foam stability shall be as follows:

Sequence	Foam Tendency, ml	Foam Stability, ml
I	30 maximum	0
II	100 maximum	0
III	30 maximum	0

4.6 Water Content (ASTM D6304)

4.7 Color - Shall be red.

4.8 Phosphorus Content (ASTM D4927 or D4951)

Shall be ± 10% of qualification value.

5.0 QUALITY

All product supplied shall be suitable for the intended application clean and free from foreign materials and dirt, and suitably packaged and identified.

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