



LUBRICANTS

AN HF SINCLAIR BRAND

# TECH DATA

## DURADRIVE™ HEAVY DUTY (HD) AUTOMATIC TRANSMISSION FLUIDS

### INTRODUCTION

DuraDrive HD Automatic Transmission Fluids are specially formulated to perform under the demanding severe service operating conditions found in heavy duty transmission systems. They are designed for use in commercial applications where Severe Duty and Extended Drain Interval fluids are specified.

**DuraDrive HD Synthetic 668 ATF** is fully approved for on-highway Allison transmissions. DuraDrive HD Synthetic 668 is the first fluid to complete Allison's rigorous validation program, receive license approval, and be awarded Allison's global factory fill program. DuraDrive HD Synthetic 668 meets and exceeds the TES 668® specification and is backwards compatible for every Allison transmission that currently requires approved TES 295® ATF.

**DuraDrive HD Long Drain ATF** is a full synthetic transmission fluid approved for maximum drain in Voith transmissions. This heavy duty ATF offers excellent wear protection, oxidation control and friction durability demonstrated through extensive rig testing and field trial. The enhanced thermal and oxidative stability together with the improved high and low temperature properties of this fluid translates to excellent performance in a wide range of transmissions.

**DuraDrive HD Synthetic Blend ATF** is fully approved for extended drain application in Voith and ZF commercial transmissions.

DuraDrive HD ATFs are formulated with ultra-pure base oils. The combination of high quality base oils and leading-edge additive systems in DuraDrive HD ATF formulations helps retain their fresh oil properties longer resulting in superior product performance.

### FEATURES AND BENEFITS

#### Outstanding resistance to oxidative and thermal breakdown

- Prevents corrosion and the formation of harmful sludge and deposits. Keeps transmissions clean & properly functional
- Suitable for severe service & extended drain

#### Exceptional low / high temperature fluidity

- Delivers quick lubrication of transmission components in cold weather
- Maintains desired viscosity & oil film strength in high temperature operation
- Earlier drive away and smooth gear shifting during low temperature operation
- Extends clutch life
- Efficient heat removal from clutch surfaces
- Excellent high and low temperature properties

#### Excellent anti-wear protection

- Reduces wear on bearings, bushings and gears
- Suitable for heavy loading & high operating temperature
- Protects clutches from glazing

#### Stable friction properties

- High torque capacity avoids clutch slippage & wear
- Maintains transmission efficiency & fuel economy
- Suitable for stop-start severe service
- Excellent shift quality throughout service life
- Prevents clutch shudder in modulated torque converters
- Clutch plates and bands last longer

#### Compatible with all transmission seal materials

- Helps maintain seal integrity

Petro-Canada Lubricants specialty fluids, lubricants and greases have an advantage in quality and performance. That's because our formulas are created and reviewed by an expert team of Research & Development specialists who ensure our finished products deliver to the specifications we demand and the performance standards our customers need.

## APPLICATION CHART

OEM Specification	DuraDrive™ HD Synthetic 668	DuraDrive HD Long Drain ATF	DuraDrive HD Synthetic Blend ATF
	This ATF is suitable for use in heavy duty fleets for extended oil drain intervals. Refer to the OEM oil drain interval recommendations for your application and service type.	This ATF is suitable for use in heavy duty fleets for extended oil drain intervals. Refer to the OEM oil drain interval recommendations for your application and service type.	This ATF is suitable for use in heavy duty fleets for standard and extended oil drain intervals. Refer to the OEM oil drain interval recommendations for your application and service type.
Allison TES 668®*	Approved (AN668-10012020)	–	–
Allison C-4 (legacy)	–	–	C-4 29493700
Voith H55.6335.xx (standard drain, 60K km) xx- VTI-DIWA Service Bulletins 013 and 118	Approved	–	Approved
Voith H55.6336.xx (extended drain, 120K km)	–	–	Approved
Voith 150.014524.xx (maximum drain, 180K km) xx- VTI-DIWA Service Bulletins 013 and 118	–	Approved**	–
ZF TE-ML 14B, 14C (standard drain - for on-highway use in buses and coaches only)	SFU	–	–
ZF TE-ML 14B (extended drain)	–	–	Approved (ZF004790)
ZF TE-ML 03D, 04D, 17C	–	–	Approved (ZF004790)
ZF TE-ML 16L (obsolete)	–	–	SFU
ZF TE-ML 14C, 20C (extended drain)	–	Approved (ZF004791)	–
ZF TE-ML 04D, 16M, 16S, 25C	–	Approved (ZF004791)	–
MAN 339 Typ V2, Z2	–	–	SFU
MAN 339 Typ Z3, Z12	–	Approved (TUC 1463/19)	–
Mercedes-Benz MB 236.1/ .5/ .6/ .7	–	–	SFU
Mercedes-Benz MB 236.9/ DTFR 13C170	–	Approved	–
Mercedes-Benz MB 236.92/ DTFR 13C190	Approved	–	–
Volvo STD 1273,41 - transmission oil 97341 (AT101)	Approved (#97341-086)	Approved (#97341-079)	SFU
Caterpillar TO-2 (obsolete)	–	–	SFU
Ford MERCON® V	–	–	SFU
GM DEXRON®-III(H), -III(G), -II(E), or -II (obsolete)	SFU	–	SFU

They can also be used as a hydraulic or power steering fluids.  
SFU = Suitable for use

\* DuraDrive HD Synthetic 668 meets and exceeds the TES 668® specification and is backwards compatible for every Allison transmission that currently requires approved TES 295® ATF

\*\* Including DIWA NXT and DIWA Rail NXT transmissions.

TES 295® and TES 668® are trademarks of Allison Transmission, Inc.

DEXRON® is a registered trademark of General Motors LLC. MERCON® is a registered trademark of Ford Motor Company.

## TYPICAL PERFORMANCE DATA

Property	Test Method	DuraDrive™ HD Synthetic 668	DuraDrive HD Long Drain ATF	DuraDrive HD Synthetic Blend ATF
Density, kg/l @ 15°C (60°F)	ASTM D4052	0.846	0.841	0.854
Colour	—	Red	Red	Red
Flash Point, COC, °C (°F)	ASTM D92	217 (423)	243 (469)	189 (372)
Pour Point, °C (°F)	ASTM D5950	-57 (-71)	-45 (-49)	-45 (-49)
Viscosity, cSt @ 40°C (SUS @ 100°F) cSt @ 100°C (SUS @ 210°F)	ASTM D445	34 (173) 7.0 (50)	38 (178) 7.2 (50)	34 (173) 7.8 (52)
Viscosity Index	ASTM D2270	169	154	208
Brookfield Viscosity, cP @ -40°C (-40°F)	ASTM D2983	11,120	14,800	9,700

The values quoted above are typical of normal production. They do not constitute a specification.

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Committed to the disciplined operation of our business.



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