

**Test Method D7452  
Report Forms  
L-42**

Version:  
Conducted For:

	V = Valid
	I = Invalid
	N = Results Cannot Be Interpreted (See Comment Section)

	NR = Non-Reference Test Oil
	RO = Reference Oil Result

<b>Test Number</b>			
Test Stand:	Stand Run Number:		
Date Completed:	EOT Time:		
Oil Code:			
Formulation/Stand Code:			
Alternate Codes:			
Test Version <sup>A</sup> :			

In my opinion this test _____ been conducted in a valid manner in accordance with Test Method D7452 and the appropriate amendments through the information letter system. The remarks included in this report describe the anomalies associated with this test.
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<sup>A</sup> Standard or Canadian

Submitted By:

Testing Laboratory
Signature
Typed Name
Title
Section

**Test Method D7452  
L-42  
Form 1  
Test Result Summary**

Lab:	Stand No.:	Stand Run No.:	TMC Oil Code (reference only):
Oil Code:			Lab Oil Code:

Test Date Started	Test Date Completed	Drive Side Scoring (%)		Coast Side Scoring (%)			Coast Side Torque (lbf-ft)	
		EOT Pinion	EOT Ring	EOT Pinion	EOT Ring	Shock Series 1 Ring	Shock Series 1 (Average)	Shock Series 2 (Average)
Conditioning 2 Test Time:		Conditioning 4 Test Time:			End of Test Time:		Total Test Minutes:	
Ring Batch:		Pinion Batch:			Latest Information Letter Run Against:			

Stand Reference Oil Test History In Chronological Order												
	Test Date Started	Test Date Completed	Stand Run No.	CMIR No.	TMC Oil No.	Drive Side Scoring (%)		Coast Side Scoring (%)			Coast Side Torque (lbf-ft)	
						EOT Pinion	EOT Ring	EOT Pinion	EOT Ring	Shock Series 1 Ring	Shock Series 1 (Average)	Shock Series 2 (Average)
Discrimination <sup>A</sup>												
Calibration Sequence Passing Tests Only <sup>B</sup>												
<b>Passing Reference Oil Test Average</b>												

<sup>A</sup>Only for non-reference tests.

<sup>B</sup>For non-reference and discrimination tests only.

**Test Method D7452**  
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**Form 2**  
**Conditioning Phase Operational Data Summary**

Lab:	Stand No.:	Stand Run No.:
Oil Code:		

<b>Operational Data</b>				
	<b>Conditioning 1</b>		<b>Conditioning 3</b>	
	Wheel Speed (r/min)	Torques (lbf-ft)	Wheel Speed (r/min)	Torques (lbf-ft)
Maximum				
Minimum				
Average				

<b>Operational Data</b>					
		<b>Conditioning 2</b>		<b>Conditioning 4</b>	
		Wheel Speed (r/min)	Torques (lbf-ft)	Wheel Speed (r/min)	Torques (lbf-ft)
<b>Drive Side</b>	Maximum				
	Minimum				
	Average				
<b>Coast Side</b>	Maximum				
	Minimum				
	Average				

<b>Lubricant Temperature Data</b>				
Phase	Specification	Average	Minimum	Maximum
Gear Conditioning (After reaching 215 °F)	225 ± 10 °F			

<b>Percent Deviation</b>						
	Entire Conditioning Phase		Conditioning Phase 1		Conditioning Phase 3	
Parameter	Limits	% Out	Limits	% Out	Limits	% Out
Axle Oil Temp.	5.0%					
Axle r/min			5.0%		5.0%	
Pinion Torque			5.0%		5.0%	

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Form 3  
Shock Series Operational Summary**

Lab:	Stand No.:	Stand Run No:
Oilcode:		

<b>Stand Set-up</b>				
	<b>Shock Series 1</b>		<b>Shock Series 2</b>	
Parameter	Acceleration	Deceleration	Acceleration	Deceleration
Potentiometer Setting				
Stand Set-up Version				

<b>Gear Loading Data</b>							
<b>Gear Side</b>		<b>Shock Series 1</b>			<b>Shock Series 2</b>		
		Wheel Speed (r/min)	Torques (lbf-ft)	Cycle Time (Seconds)	Wheel Speed (r/min)	Torques (lbf-ft)	Cycle Time (Seconds)
Drive	Maximum						
	Minimum						
	Average						
Coast	Maximum						
	Minimum						
	Average						

<b>Lubricant Temperature Data</b>			
Phase	Specification	Start Value	Maximum
Shock Series 1			
Shock Series 2			

**Test Method D7452  
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Form 4  
Measurement Summary**

Lab:	Stand No.:	Stand Run No.:
Oil Code:		

Axle Codes				
Assembly Date	Match No.	Serial Number	Pinion Batch	Ring Batch

Contact Pattern Measurements			
		Drive Side	Coast -Side
Length Rating	As Received		
	As Tested		
Flank Rating	As Received		
	As Tested		
Contact Pattern Rater Initials			

Test Axle Build Data									
Backlash (in.)	Mfg. Specification	Mfg. Measurement	Laboratory's Position Measurements						
			1	2	3	4	Min	Max	Avg.
Initial	.004 -.012 in.								
Final									
Increase									
Initial Pinion Torque (lbf -in)			Break						
			Turn						

Inspection	Ring% Scoring		Pinion % Scoring	
	Drive Side	Coast Side	Drive Side	Coast Side
Inspection 1				
Inspection 2				
EOT				
EOT Rating Date			EOT Rater Initials	





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**Form 6**

**Conditioning Phase 1 & 2 – Wheel Speed vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		



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**Form 7**

**Conditioning Phase 3 & 4 – Wheel Speed vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 8**

**Shock Series 1 – Wheel Speed vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 9**

**Shock Series 2 – Wheel Speed vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 10**

**Conditioning Phase 1 & 2 – Pinion Torque vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 11**

**Conditioning Phase 3 & 4 – Pinion Torque vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 12**

**Conditioning Phase 2 – Pinion Torque vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 13**

**Conditioning Phase 4 – Pinion Torque vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 14**

**Shock Series 1 – Pinion Torque vs. Time (5 shocks)**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		



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**Form 15**

**Shock Series 2 – Pinion Torque vs. Time (10 shocks)**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 16**

**Axle Oil Temperature vs. Time**

Lab:	Stand No.:	Stand Run No.:
Oilcode:		

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**Form 17**

**Test Result Worksheet**

Lab:	Stand:	Stand Run :
Start Date:	Date Completed:	EOT Time:
TMC Oil Code:	Laboratory Oil Code:	
Oil Code:		

	<b>Coast Side Scoring</b>	
	<b>Pinion</b>	<b>Ring</b>
Original Results (%)		
Correction Factor		
Final Result (%)		