

**TEST METHOD D6121  
L-37-1 Load Evaluation**

**VERSION**

**CONDUCTED FOR:**

	<b>V</b> = Valid
	<b>I</b> = Invalid
	<b>N</b> = Results cannot be interpreted(Refer to comment section)

	<b>NR</b> = Non-Reference Test Oil
	<b>RO</b> = Reference Oil Result

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

In my opinion this test \_\_\_\_\_ been conducted in a valid manner in accordance with Test Method D6121 and the appropriate amendments through the information letter system. The remarks included in this report describe the anomalies associated with this test.

<sup>A</sup> Nonlubrited or Lubrited

<sup>B</sup> Standard or Canadian

Submitted By: \_\_\_\_\_

\_\_\_\_\_ Testing Laboratory

\_\_\_\_\_ Signature

\_\_\_\_\_ Typed Name

\_\_\_\_\_ Title

\_\_\_\_\_ Section

**TEST METHOD D6121**  
**L-37-1**  
**Form 1**  
**Test Result Summary Sheet**

Oil Test			
Lab:	Stand:	Stand Run :	
Start Date:	Date Completed:	EOT Time:	Test Length:
TMC Oil Code:	Laboratory Oil Code:	Viscosity Grade:	
Oil Code:			
Formulation Stand Code:			
Latest Information Letter Test Was Run Under:			
Test Hardware:		Test Version:	
Pinion Batch:		Ring Batch:	

Last Reference Oil Calibrating Stand Information - Fill Out For Non-reference Oil Tests Only			
Stand:	Stand Run:	TMC Oil Code:	Date Completed:
Pinion Batch:		Ring Batch:	
Test Hardware:		Test Version:	

	Ring Gear Results				
	Wear	Rippling	Ridging	Pitting/Spalling	Scoring
Original Merit Results <sup>C</sup>					
Transformed Results					
Correction Factor					
Corrected Transformed Results					
Severity Adjustment <sup>A</sup>					
Final Transformed Results					
Final Merit Results					

	Pinion Gear Results				
	Wear	Rippling	Ridging	Pitting/Spalling	Scoring
Original Merit Results <sup>B,C</sup>					
Transformed Results					
Correction Factor					
Corrected Transformed Results					
Severity Adjustment <sup>A</sup>					
Final Transformed Results					
Final Merit Results					

<sup>A</sup> AT THE PRESENT TIME THERE ARE NO SEVERITY ADJUSTMENTS

<sup>B</sup> WITH ANY APPLICABLE EXCLUSIONS APPLIED

<sup>C</sup> IF TOOTH BREAKAGE OCCURS, LEAVE RESULTS BLANK AND REPORT IN COMMENT SECTION



**TEST METHOD D6121**

**L-37-1**

**Form 3**

**Operational Summary Sheet**

Lab:	Stand :	Stand Run:
Oil Code:	Test Version:	

<b>Pinion Torque Checks – Full Axle Assembly</b>		
	<b>Break</b>	<b>Turn</b>
Before Test (lbf-in.)		
After Test - hot (lbf-in.)		
After Test - cool (lbf-in.)		

<b>Backlash Measurements</b>							
<b>Laboratory's Position Measurements</b>							
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
Before Test (in.)							
After Test (in.)							
Difference (in.)							
<b>Manufacturer's Measurements</b>							
<b>Manufacturer's Specification</b>				<b>Manufacturer's Measurements</b>			
0.004 – 0.012 (in.)							

<b>General Operating Conditions</b>				
<b>Gear Conditioning Phase:</b>	<b>Start</b>	<b>Finish</b>	<b>Average</b>	<b>Total</b>
1. Time (hh:mm)				
Time (mmmm)				
	<b>Maximum</b>	<b>Minimum</b>	<b>Average</b>	
2. Gear-lubricant Temperature (°F)				
3. Dyno Torque 1 (lbf-ft)				
Dyno Torque 2 (lbf-ft)				
4. Dyno Speed 1 (r/min)				
Dyno Speed 2 (r/min)				
<b>Gear Testing Phase:</b>				
1. Time (hh:mm)				
Time (mmmm)				
	<b>Maximum</b>	<b>Minimum</b>	<b>Average</b>	
2. Gear-lubricant Temperature (°F)				
3. Dyno Torque 1 (lbf-ft)				
Dyno Torque 2 (lbf-ft)				
4. Dyno Speed 1 (r/min)				
Dyno Speed 2 (r/min)				







**TEST METHOD D6121**  
**L-37-1**  
**Form 5**  
**Operational Validity Summary**

Lab:	Stand:	Stand Run:
Oil Code:		
Test Hardware:		Test Version:

<b>Controlled Parameter</b>	<b>Gear Conditioning</b>			<b>Gear Testing</b>		
	<b>Allowable % Out</b>	<b>This Test % Out</b>	<b>Actual Time Out min:s</b>	<b>Allowable % Out</b>	<b>This Test % Out</b>	<b>Actual Time Out min:s</b>
Gear Oil Temperature	5			5		
Wheel Speed	5			5		
Wheel Speed 2	5			5		
Dyno Load	5			5		
Dyno Load 2	5			5		