

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

**VERSION**

**CONDUCTED FOR:**

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

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

<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 Dxxxx**  
**L-37-1**  
**Form 1**  
**Test Result Summary Sheet**

<b>Oil Test</b>			
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:		

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

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

	<b>Pinion Gear Results</b>				
	<b>Wear</b>	<b>Rippling</b>	<b>Ridging</b>	<b>Pitting/Spalling</b>	<b>Scoring</b>
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 Dxxxx**

L-37-1

## **Form 2**

## Gear Tooth Surface Condition

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

Hardware Identification		
Test Hardware:	Pinion Batch:	Ring Batch:
Match Number:	Serial Number:	
Assemble Date:		Builder's Initials:
Pattern Contact Length Rating:		Pattern Contact Flank Rating:

## **Gear Test Phase – After Completion of Pinion and Ring Gear Drive Side Inspection**

Rater's Initials:

Gear Condition	Original Ring Rating	Original Pinion Rating
	Original Ring Rating	Original Pinion Rating
Burnish		
Discoloration		
Corrosion		
Deposits		
	Original Ring Rating	Original Pinion Rating
	Original Ring Rating	Original Pinion Rating
Wear		
Rippling		
Ridging		
Pitting/Spalling		
Scoring		

	Original Individual Tooth Ratings						
	1	2	3	4	5	6	7
Pitting/Spalling							

## **Test Method Defined Rating Exclusion Comments (See Annex A12)**

### Total Lines of Test Method Exclusions:

**TEST METHOD Dxxxx****L-37-1****Form 3****Operational Summary Sheet**

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

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

Backlash Measurements							
	Laboratory's Position Measurements						
	1	2	3	4	Minimum	Maximum	Average
Before Test (in.)							
After Test (in.)							
Difference (in.)							

  

Manufacturer's Measurements						
Manufacturer's Specification	Manufacturer's Measurements					
0.004 – 0.012 (in.)						

General Operating Conditions				
Gear Conditioning Phase:	Start	Finish	Average	Total
1. Time (hh:mm)				
Time (mmmmmm)				
	Maximum	Minimum	Average	
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)				
Gear Testing Phase:				
1. Time (hh:mm)				
Time (mmmmmm)				
	Maximum	Minimum	Average	
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 Dxxxx  
L-37-1  
Form 4**

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

## **Test Lost Time:**

Record the time shutdown, time off test conditions, early inspections/termination with reason and minimum oil temperature in °F.

Other Comments	
Number of Comment Lines	

**TEST METHOD Dxxxx**  
**L-37-1**  
**Form 4A**

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

## Test Lost Time:

Record the time shutdown, time off test conditions, early inspections/termination with reason and minimum oil temperature in °F.

Other Comments	
Number of Comment Lines	

**TEST METHOD Dxxxx**  
**L-37-1**  
**Form 4B**

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

## Test Lost Time:

Record the time shutdown, time off test conditions, early inspections/termination with reason and minimum oil temperature in °F.

Other Comments	
Number of Comment Lines	

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

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

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