

**Report Forms  
Test Method D 7038**

**L-33-1**

**Version**      L331 VERSION 20021202

**Conducted For**

TSTSPON1

TSTSPON2

LABVALID	<b>V = Valid</b>
	<b>I = Invalid</b>
	<b>N = Results Cannot Be Interpreted (See Comment Section)</b>

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

<b>Test Number</b>			
<b>Motoring Stand:</b>	MSTAND	<b>Storage Box :</b>	SBOXNUM
<b>Date Completed:</b>	DTCOMP	<b>Storage Box Run :</b>	SBOXRUN
		<b>EOT Time:</b>	EOTTIME
<b>Oil Code:</b> OILCODE			
<b>Formulation/Stand Code:</b> FORM			
<b>Alternate Codes:</b>	ALTCODE1	ALTCODE2	ALTCODE3

In my opinion this test **OPVALID**                      been conducted in a valid manner in accordance with ASTM Test Method D 7038 and the appropriate amendments through the information letter system. The remarks included in this report describe the anomalies associated with this test.

**Submitted By:**

SUBLAB

**Testing Laboratory**

SUBSIGIM

**Signature**

SUBNAME

**Typed Name**

SUBTITLE

**Title**

SUBSECT

**Section**

**Test Method D 7038  
L-33-1  
Form 1  
Test Result Summary**

Oil Test			
<b>Lab</b>	<b>Motoring Stand</b>	<b>Storage Box</b>	<b>Storage Box Run</b>
LAB	MSTAND	SBOXNUM	SBOXRUN
<b>Start Date</b>	<b>Date Completed</b>	<b>End of Test Time</b>	<b>Test Length</b>
DTSTRT	DTCOMP	EOTIME	TESTLEN
<b>TMC Oil Code</b>	<b>Laboratory Oil Code</b>		<b>Viscosity Grade</b>
IND	LABOCODE		SAEISC
<b>Oil Code:</b> OILCODE			
<b>Formulation Stand Code:</b> FORM			
<b>Latest Information Letter Test Was Run Under:</b> INFOLETN			
<b>Gear Version:</b> GEARVER			
<b>Pinion Batch:</b> PINBAT		<b>Ring Batch:</b> RINGBAT	

Last Reference Oil Calibrating Stand Information - Fill Out For Non-reference Oil Tests Only			
<b>Motoring Stand:</b> LRMSTAND	<b>Storage Box :</b> LRSBOXNM	<b>Storage Box Run:</b> LRSBXRU	
<b>Date Completed:</b> LRDTCOMP		<b>TMC Oil Code:</b> LRIND	
<b>Gear Version:</b> LRGERVER	<b>Pinion Batch:</b> LRPINBAT	<b>Ring Batch:</b> LRRNGBAT	

Rust/Corrosion Pass/Fail Parameters			
	Final	Area 4	Lowest of Areas 1-3, 5-10
<b>Original Merit Results</b>	RUST	AREA4	LOWMERIT
<b>Correction Factor <sup>A</sup></b>	RUSTCF		
<b>Severity Adjustments</b>	RUSTSA		
<b>Final Merit Results</b>	RUSTFNL	AREA4FNL	LOWMFNL

<sup>A</sup> At the present time there are no industry correction factors. enter 0.00 .

**Test Method D 7038**  
**L-33-1**  
**Form 2**  
**Rating Summary**

<b>Lab:</b> LAB	<b>Motoring Stand:</b> MSTAND
<b>Storage Box:</b> SBOXNUM	<b>Storage Box Run:</b> SBOXRUN
<b>Oil Code:</b> OILCODE	

<b>Rater's Initials (After Test)</b> RINIT1	
<b>Rust/Corrosion</b>	
<b>Location</b>	
<b>DIFFERENTIAL CASE:</b>	<b>RUST <sup>A</sup></b>
	<b>WEIGHTING FACTOR</b>
	<b>WEIGHTED RUST</b>
<b>1. At Pinion Contact</b>	RCDCPINC
<b>2. Diff. Gear Contact</b>	RCDCDFGC
<b>3. Diff. Gears (Side)</b>	RCDCDFGS
<b>4. Axle Hsg. Cover</b>	RCDCAXHC
<b>5. Drive Gear (Ring)</b>	RCDCDGR
<b>6. Drive Pinion</b>	RCDCDPIN
<b>Bearing:</b>	
<b>7. Drive Pinion Roller</b>	RCBDPNR
<b>8. Drive Pinion Cups</b>	RCBDPNC
<b>9. Diff. Case Roller</b>	RCBDFCR
<b>10. Diff. Case Cups</b>	RCBDFCC
<b>Final Rust/Corrosion Merit Rating</b>	RUST
<sup>A</sup> Rust Level (Enter 10, 9, 8, 5 or 0): None = 10 Trace = 9 = not more than six spots, each less than 1mm in diameter Light = 8 = seven(7) or more spots less than 1mm in diameter or, one(1) or more spots greater or equal to 1mm in diameter with a combined area of all the spots no greater than 1% of the total rated component surface. Moderate = 5 = in excess of above and up to 5% of considered surface Heavy = 0 = covering more than 5% of considered surface	

**Remarks:** Note presence, location and amount of additional deposit-stain, sludge, etc.

REMK1

REMK2

REMK3

REMK4

REMK5

REMK6

**Test Method D7038  
L-33-1  
Form 3  
Operational Validity Summary**

<b>Lab:</b> LAB	<b>Motoring Stand :</b> M STAND
<b>Storage Box :</b> SBOXNUM	<b>Storage Box Run :</b> SBOXRUN
<b>Oil Code :</b> OILCODE	

<b>Operator's Initials</b> OINIT
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<b>TURNING TORQUES:</b>			
<b>Pinion, lbf-in.</b>	<b>Break</b>	TTPINBRK	<b>Turn</b>
			TTPINTRN
<b>Full Assembly, lbf-in.</b>	<b>Break</b>	TTASSBRK	<b>Turn</b>
			TTASSTRN

<b>Warm-Up:</b>			
<b>Time (h)</b>	<b>Start</b>	WUTIMEST	<b>Finish</b>
			WUTIMEFN
<b>Oil Temperature °F</b>	<b>Start</b>	WUTEMPST	<b>Finish</b>
			WUTEMPFN

<b>MOTORING PHASE:</b>			
<b>Time (h)</b>	<b>Start</b>	MPTIMEST	<b>Finish</b>
			MPTIMEFN
<b>Pinion Speed, r/min</b>	<b>Avg.</b>	MPPSAVG	<b>Max.</b>
			MPPSMAX
			<b>Min.</b>
			MPPSMIN
<b>Oil Temperature, °F</b>	<b>Avg.</b>	MPOTEMPA	<b>Max.</b>
			MPOTEMPX
			<b>Min.</b>
			MPOTEMPI

<b>STORAGE PHASE:</b>			
<b>Time (h)</b>	<b>Start</b>	SPTIMEST	<b>Finish</b>
			SPTIMEFN
<b>Oil Temperature, °F</b>	<b>Avg.</b>	SPOTEMPA	<b>Max.</b>
			SPOTEMPX
			<b>Min.</b>
			SPOTEMPI

<b>Percent Deviation</b>						
<b>Controlled Parameter</b>	<b>Motoring Phase</b>			<b>Storage Phase</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>
<b>Oil Temperature</b>	<b>5</b>	TEMPBPOT	ATOBTEMP	<b>4</b>	TEMPOUT	ATOTEMP

**Test Method D 7038**  
**L-33-1**  
**Form 4**  
**Pre Test Rating <sup>A</sup>**

<b>Lab:</b> LAB	<b>Motoring Stand:</b> MSTAND
<b>Storage Box :</b> SBOXNUM	<b>Storage Box Run:</b> SBOXRUN
<b>Oil Code:</b> OILCODE	

**Match No.:**       MATCHNO            **Date:**       DATEDATE            **Rated By:**       RINIT2      

**Differential Case**

**Area 1. At Pinion Contact:**       RDCPINC1        
      RDCPINC2      

**Area 2. At Differential Gear Contact:**       RDCDFGC1        
      RDCDFGC2        
      RDCDFGC3        
      RDCDFGC4      

**Area 3. Differential Gears (Side Gears):**       RDCDFGS1        
      RDCDFGS2      

**Area 4. Axle Housing Cover:**       RDCAXHC1        
      RDCAXHC2      

**Area 5. Drive Gears (Ring):**       RDCDGR1        
      RDCDGR2      

**Area 6. Drive Pinion:**       RDCDPIN1        
      RDCDPIN2      

**Area 7. Drive Pinion Rollers:**       RBDPNR1        
      RBDPNR2      

**Area 8. Drive Pinion Cups:**       RBDPNC1        
      RBDPNC2      

**Area 9. Differential Case Rollers:**       RBDFCR1        
      RBDFCR2      

**Area 10. Differential Case Cups:**       RBDFCC1        
      RBDFCC2      

<sup>A</sup> After Abrasive Blasting

**Test Method D 7038**  
**L-33-1**  
**Form 5**  
**Lost Time and Comments**

<b>Lab:</b> LAB	<b>Motoring Stand :</b> MSTAND
<b>Storage Box:</b> SBOXNUM	<b>Storage Box Run:</b> SBOXRUN
<b>Oil Code:</b> OILCODE	

Number of Downtime Occurrences			DWNOCR	
Test Hours	Date	Downtime	Reasons	
DOWNR001	DDATR001	DTIMR001	DREAR001	
DOWNR002	DDATR002	DTIMR002	DREAR002	
DOWNR003	DDATR003	DTIMR003	DREAR003	
DOWNR004	DDATR004	DTIMR004	DREAR004	
DOWNR005	DDATR005	DTIMR005	DREAR005	
DOWNR006	DDATR006	DTIMR006	DREAR006	
DOWNR007	DDATR007	DTIMR007	DREAR007	
DOWNR008	DDATR008	DTIMR008	DREAR008	
DOWNR009	DDATR009	DTIMR009	DREAR009	
DOWNR010	DDATR010	DTIMR010	DREAR010	
DOWNR011	DDATR011	DTIMR011	DREAR011	
DOWNR012	DDATR012	DTIMR012	DREAR012	
DOWNR013	DDATR013	DTIMR013	DREAR013	
DOWNR014	DDATR014	DTIMR014	DREAR014	
DOWNR015	DDATR015	DTIMR015	DREAR015	
TOTLDOWN			<b>Total Downtime (hours)</b>	

Other Comments		TOTCOM	
Number of Comment Lines			
OCOMR001			
OCOMR002			
OCOMR003			
OCOMR004			
OCOMR005			
OCOMR006			
OCOMR007			
OCOMR008			
OCOMR009			
OCOMR010			
OCOMR011			
OCOMR012			
OCOMR013			
OCOMR014			
OCOMR015			

**Test Method D 7038  
L-33-1  
Form 5A  
Lost Time and Comments**

<b>Lab:</b> LAB	<b>Motoring Stand :</b> M STAND
<b>Storage Box:</b> SBOXNUM	<b>Storage Box Run:</b> SBOXRUN
<b>Oil Code:</b> OILCODE	

Number of Downtime Occurrences			DWNOCR
Test Hours	Date	Downtime	Reasons
DOWNR016	DDATR016	DTIMR016	DREAR016
DOWNR017	DDATR017	DTIMR017	DREAR017
DOWNR018	DDATR018	DTIMR018	DREAR018
DOWNR019	DDATR019	DTIMR019	DREAR019
DOWNR020	DDATR020	DTIMR020	DREAR020
DOWNR021	DDATR021	DTIMR021	DREAR021
DOWNR022	DDATR022	DTIMR022	DREAR022
DOWNR023	DDATR023	DTIMR023	DREAR023
DOWNR024	DDATR024	DTIMR024	DREAR024
DOWNR025	DDATR025	DTIMR025	DREAR025
DOWNR026	DDATR026	DTIMR026	DREAR026
DOWNR027	DDATR027	DTIMR027	DREAR027
DOWNR028	DDATR028	DTIMR028	DREAR028
DOWNR029	DDATR029	DTIMR029	DREAR029
DOWNR030	DDATR030	DTIMR030	DREAR030
TOTLDOWN			<b>Total Downtime (hours)</b>

Other Comments	
Number of Comment Lines	TOTCOM
OCOMR016	
OCOMR017	
OCOMR018	
OCOMR019	
OCOMR020	
OCOMR021	
OCOMR022	
OCOMR023	
OCOMR024	
OCOMR025	
OCOMR026	
OCOMR027	
OCOMR028	
OCOMR029	
OCOMR030	

**Test Method D 7038  
L-33-1  
Form 5B  
Lost Time and Comments**

<b>Lab:</b> LAB	<b>Motoring Stand :</b> M STAND
<b>Storage Box:</b> SBOXNUM	<b>Storage Box Run:</b> SBOXRUN
<b>Oil Code:</b> OILCODE	

Number of Downtime Occurrences			DWNOCR	
Test Hours	Date	Downtime	Reasons	
DOWNR031	DDATR031	DTIMR031	DREAR031	
DOWNR032	DDATR032	DTIMR032	DREAR032	
DOWNR033	DDATR033	DTIMR033	DREAR033	
DOWNR034	DDATR034	DTIMR034	DREAR034	
DOWNR035	DDATR035	DTIMR035	DREAR035	
DOWNR036	DDATR036	DTIMR036	DREAR036	
DOWNR037	DDATR037	DTIMR037	DREAR037	
DOWNR038	DDATR038	DTIMR038	DREAR038	
DOWNR039	DDATR039	DTIMR039	DREAR039	
DOWNR040	DDATR040	DTIMR040	DREAR040	
DOWNR041	DDATR041	DTIMR041	DREAR041	
DOWNR042	DDATR042	DTIMR042	DREAR042	
DOWNR043	DDATR043	DTIMR043	DREAR043	
DOWNR044	DDATR044	DTIMR044	DREAR044	
DOWNR045	DDATR045	DTIMR045	DREAR045	
TOTLDOWN			<b>Total Downtime (hours)</b>	

Other Comments		
Number of Comment Lines	TOTCOM	
OCOMR031		
OCOMR032		
OCOMR033		
OCOMR034		
OCOMR035		
OCOMR036		
OCOMR037		
OCOMR038		
OCOMR039		
OCOMR040		
OCOMR041		
OCOMR042		
OCOMR043		
OCOMR044		
OCOMR045		