

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

VERSION L37 VERSION 20010927

CONDUCTED FOR:

TSTSPON1

TSTSPON2

LABVALID	V = Valid
	I = Invalid
	N = Results cannot be interpreted(Refer to comment section)

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

Test Number			
Test Stand: STAND		Stand Run Number: STRUN	
Date Completed: DTCOMP		Time Completed: EOTIME	
Oil Code: OILCODE			
Formulation/Stand Code: FORM			
Alternate Codes:	ALTCODE1	ALTCODE2	ALTCODE3
Test Hardware ^A : TESTHARD		Test Version ^B : TVERSION	

In my opinion this test OPVALID 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.

^A Nonlubrited or Lubrited

^B Standard or Canadian

Submitted By: _____ SUBLAB
 Testing Laboratory
 _____ SUBSIGIM
 Signature
 _____ SUBNAME
 Typed Name
 _____ SUBTITLE
 Title
 _____ SUBJECT
 Section

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

Oil Test			
Lab: LAB	Stand: STAND	Stand Run : STRUN	
Start Date: DTSTRT	Date Completed: DTCOMP	EOT Time: EOTTIME	Test Length: TESTLEN
TMC Oil Code: IND	Laboratory Oil Code:	LABOCODE	Viscosity Grade: SAEVISC
Oil Code: OILCODE			
Formulation Stand Code: FORM			
Latest Information Letter Test Was Run Under: INFOLETN			
Test Hardware: TESTHARD		Test Version: TVERSION	
Pinion Batch: PINBAT		Ring Batch: RINGBAT	

Last Reference Oil Calibrating Stand Information - Fill Out For Non-reference Oil Tests Only			
Stand: STAND	Stand Run: LRSTRUN	TMC Oil Code: LRIND	Date Completed: LRDTCOMP
Pinion Batch: LRPINBAT		Ring Batch: LRRNGBAT	
Test Hardware: LRHARD		Test Version: LRTVER	

	Ring Gear Results				
	Wear	Rippling	Ridging	Pitting/Spalling	Scoring
Original Merit Results ^C	WEARR	RIPPR	RIDGR	SPITR	SCORR
Transformed Results	TWEARR	TRIPPR	TRIDGR	TSPITR	TSCORR
Correction Factor	WEARRCF	RIPPRCF	RIDGRCF	SPITRCF	SCORRCF
Corrected Transformed Results	TWEARRCR	TRIPPRCR	TRIDGRCR	TSPITRCR	TSCORRCR
Severity Adjustment ^A	WEARRSA	RIPPRSA	RIDGRSA	SPITRSA	SCORRSA
Final Transformed Results	TWEARRFN	TRIPPRFN	TRIDGRFN	TSPITRFN	TSCORRFN
Final Merit Results	WEARRFNL	RIPPRFNL	RIDGRFNL	SPITRFNL	SCORRFNL

	Pinion Gear Results				
	Wear	Rippling	Ridging	Pitting/Spalling	Scoring
Original Merit Results ^{B,C}	WEAR	RIPP	RIDG	SPIT	SCOR
Transformed Results	TWEAR	TRIPP	TRIDG	TSPIT	TSCOR
Correction Factor	WEARCF	RIPPCF	RIDGCF	SPITCF	SCORCF
Corrected Transformed Results	TWEARCR	TRIPPCR	TRIDGCR	TSPITCR	TSCORCR
Severity Adjustment ^A	WEARSA	RIPPSA	RIDGSA	SPITSA	SCORSA
Final Transformed Results	TWEARFN	TRIPPFN	TRIDGFN	TSPITFN	TSCORFN
Final Merit Results	WEARFNL	RIPPFNL	RIDGFNL	SPITFNL	SCORFNL

^A AT THE PRESENT TIME THERE ARE NO SEVERITY ADJUSTMENTS

^B WITH ANY APPLICABLE EXCLUSIONS APPLIED

^C IF TOOTH BREAKAGE OCCURS, LEAVE RESULTS BLANK AND REPORT IN COMMENT SECTION

TEST METHOD D6121

L-37

Form 2

Gear Tooth Surface Condition

Lab: LAB	Stand: STAND	Stand Run: STRUN
Oil Code: OILCODE	Test Version: TVERSION	

Gear Batch Identification		
Test Hardware: TESTHARD	Pinion Batch: PINBAT	Ring Batch: RINGBAT
Match Number: MATCHNO	Assembly Date: ASMBDT	
Pattern Contact Length Rating: LPCRAT	Pattern Contact Flank Rating: FPCRAT	

Gear Test Phase – After Completion of Pinion and Ring Gear Drive Side Inspection			
Rater's Initials: RINIT			
Gear Condition	Original Ring Rating		Original Pinion Rating
Burnish	RGBURN		PGBURN
Discoloration	RDISCOL		PDISCOL
Corrosion	RCORRSN		PCORRSN
Deposits	RDEPOST		PDEPOST
	Original Ring Rating	Original Pinion Rating	Pinion Rating With Exclusion Applied If Applicable
Wear	WEARR	WEARPIN	WEAR
Rippling	RIPPR	RIPPIN	RIPP
Ridging	RIDGR	RIDGPIN	RIDG
Pitting/Spalling	SPITR	SPITPIN	SPIT
Scoring	SCORR	SCORPIN	SCOR

Test Method Defined Rating Exclusion Comments (See Annex A12)	
Total Lines of Test Method Exclusions: TOTEXL	
EXCLR001	
EXCLR002	
EXCLR003	
EXCLR004	
EXCLR005	
EXCLR006	
EXCLR007	
EXCLR008	
EXCLR009	
EXCLR010	
EXCLR011	
EXCLR012	
EXCLR013	
EXCLR014	
EXCLR015	

TEST METHOD D6121

L-37

Form 3

Operational Summary Sheet

Lab: LAB	Stand : STAND	Stand Run: STRUN
Oil Code: OILCODE	Test Version: TVERSION	

Pinion Torque Checks – Full Axle Assembly		
	Break	Turn
Before Test (lbf-in.)	SBTFAXBK	SBTFAXTN
After Test - hot (lbf-in.)	SATFXHBK	SATFXHTN
After Test - cool (lbf-in.)	SATFXCBK	SATFXCTN

Back Lash Measurements			
	Maximum	Minimum	Average
Before Test (in.)	BBKLSSTR	BBKLSFIN	BBKLSAVG
After Test (in.)	ABKLSSTR	ABKLSFIN	ABKLSAVG
Difference (in.)			DBKLSAVG

General Operating Conditions				
Gear Conditioning Phase:	Start	Finish	Average	Total
1. Time (hh:mm)	HSLTTIMS	HSLTTIMF		HSLTTIMT
Time (mmmmmm)				HSLTTIMM
	Maximum	Minimum	Average	
2. Gear-lubricant Temperature (°F)	GCLUBTPX	GCLUBTPI	GCLUBTPA	
3. Dyno Torque 1 (lbf-ft)	CDYTOR1X	CDYTOR1I	CDYTOR1A	
Dyno Torque 2 (lbf-ft)	CDYTOR2X	CDYTOR2I	CDYTOR2A	
4. Dyno Speed 1 (r/min)	CDYSPD1X	CDYSPD1I	CDYSPD1A	
Dyno Speed 2 (r/min)	CDYSPD2X	CDYSPD2I	CDYSPD2A	
Gear Testing Phase:				
1. Time (hh:mm)	LSHTTIMS	LSHTTIMF		LSHTTIMT
Time (mmmmmm)				LSHTTIMM
	Maximum	Minimum	Average	
2. Gear-lubricant Temperature (°F)	GTLUBTPX	GTLUBTPI	GTLUBTPA	
3. Dyno Torque 1 (lbf-ft)	TDYTOR1X	TDYTOR1I	TDYTOR1A	
Dyno Torque 2 (lbf-ft)	TDYTOR2X	TDYTOR2I	TDYTOR2A	
4. Dyno Speed 1 (r/min)	TDYSPD1X	TDYSPD1I	TDYSPD1A	
Dyno Speed 2 (r/min)	TDYSPD2X	TDYSPD2I	TDYSPD2A	

TEST METHOD D6121
L-37
Form 4
Lost Time and Comments Sheet

Lab: LAB	Stand: STAND	Stand Run: STRUN
Oil Code:		OILCODE
Test Hardware: TESTHARD	Test Version: TVERSION	

Test Lost Time:

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

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			Total Downtime (hours)

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

TEST METHOD D6121

L-37

Form 4A

Lost Time and Comments Sheet

Lab: LAB	Stand: STAND	Stand Run: STRUN
Oil Code:	OILCODE	
Test Hardware: TESTHARD	Test Version: TVERSION	

Test Lost Time:

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

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			Total Downtime (hours)

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

TEST METHOD D6121

L-37

Form 4B

Lost Time and Comments Sheet

Lab: LAB	Stand: STAND	Stand Run: STRUN
Oil Code: OILCODE		
Test Hardware: TESTHARD	Test Version: TVERSION	

Test Lost Time:

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

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			Total Downtime (hours)

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

TEST METHOD D6121
L-37
Form 5
Operational Validity Summary

Lab: LAB	Stand: STAND	Stand Run: STRUN
Oil Code: OILCODE		
Test Hardware: TESTHARD		Test Version: TVERSION

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	5	COILTOUT	CATOTOT	5	OILTPOUT	ATOTOT
Wheel Speed	5	WHLSP1W	WHLSP1W1	5	WHLSP1OT	WHLSP1AT
Wheel Speed 2	5	WHLSP2W	WHLSP2W1	5	WHLSP2OT	WHLSP2AT
Dyno Load	5	WHLOD1W	WHLOD1W	5	WHLOD1O	WHLOD1A1
Dyno Load 2	5	WHLOD2W	WHLOD2W	5	WHLOD2O	WHLOD2A1