

**Report Forms  
L-42-1**

**Version:** L421 VERSION 20050712 BETA

Conducted For:  
TSTSPON1  
TSTSPON2

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

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

<b>Test Number</b>			
Test Stand:	STAND	Stand Run Number:	STRUN
Date Completed:	DTCOMP	EOT Time:	EOTTIME
Oil Code:	OILCODE		
Formulation/Stand Code:	FORM		
Alternate Codes:	ALTCODE1	ALTCODE2	ALTCODE3
Test Version <sup>A</sup> :	TVERSION		

In my opinion this test  been conducted in a valid manner in accordance with the ASTM RR:  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> Standard or Canadian

Submitted By:

SUBLAB
Testing Laboratory
SUBSIGIM
Signature
SUBNAME
Typed Name
SUBTITLE
Title
SUBSECT
Section

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

Lab: LAB	Stand No.: STAND	Stand Run No.: STRUN	
Oil Code: OILCODE	Lab Oil Code: LABOCODE		

TYPE																	
Test Date Started	Test Date Completed	End Of Test Time	Total Test Minutes	Drive Side Scoring (%)			Coast Side Scoring (%)			Coast Side Torque (lbf-ft)							
				EOT Pinion	EOT Ring	EOTDSR	EOT Pinion	EOT Ring	EOTDSR	Shock Series 1 (Average)	Shock Series 2 (Average)	Shock Series 1 (Average)	Shock Series 2 (Average)				
DTSTRT	DTCOMP	EOTTIME	TESTLEN	EOTDSP	EOTDSR	EOTDSR	EOT Pinion	EOT Ring	EOTDSR	EOT Pinion	EOT Ring	SS1RFNL	SS1RFNL	SS1CSTA	SS1CSTA	SS2CSTA	SS2CSTA
Ring Batch: RINGBAT				Pinion Batch: PINBAT			Latest Information Letter Run Against: INFOLETN										

Stand Reference Oil Test History In Chronological Order																								
Discrimination <sup>A</sup>	Test Date Started	Test Date Completed	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	EOTDSR	EOT Pinion	EOT Ring	EOTDSR	Shock Series 1 Ring	Shock Series 1 (Average)	Shock Series 2 (Average)	Shock Series 1 (Average)	Shock Series 2 (Average)							
	DTSTRD	DTCOMPD	DTCOMPD	STRUND	CMIRD	INDD	EDSPFNLE	EDSRFNLE	EDSPFNLE	EDSRFNLE	EDSRFNLE	SS1RFNL	SS1RFNL	SS1CSTA	SS1CSTA	SS2CSTAD	SS2CSTAD							
Calibration Sequence Passing Tests Only <sup>B</sup>	STRTR001	COMPR001	COMPR001	STDRR001	CMIRR001	CMCNR001	EDSPR001	EDSRR001	EDSPR001	EDSRR001	EDSPR001	SS1RR001	SS1RR001	SS1TR001	SS1TR001	SS2TR001	SS2TR001							
	STRTR002	COMPR002	COMPR002	STDRR002	CMIRR002	CMCNR002	EDSPR002	EDSRR002	EDSPR002	EDSRR002	EDSPR002	SS1RR002	SS1RR002	SS1TR002	SS1TR002	SS2TR002	SS2TR002							
	STRTR003	COMPR003	COMPR003	STDRR003	CMIRR003	CMCNR003	EDSPR003	EDSRR003	EDSPR003	EDSRR003	EDSPR003	SS1RR003	SS1RR003	SS1TR003	SS1TR003	SS2TR003	SS2TR003							
<b>Passing Reference Oil Test Average</b>													SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG	SS1SRAVG

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

**L-42-1  
Form 2  
Conditioning Phase Operational Data Summary**

Lab: LAB	Stand No.: STAND	Stand Run No.: STRUN
Oil Code: OILCODE		

<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)
<b>Average</b>	C1WSPA	C1TORQA	C3WSPA	C3TORQA

<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	C2DSWSX	C2DSTX	C4DSWSX	C4DSTX
	Minimum	C2DSWSI	C2DSTI	C4DSWSI	C4DSTI
	Average	C2DSWSA	C2DSTA	C4DSWSA	C4DSTA
<b>Coast Side</b>	Maximum	C2CSWSX	C2CSTX	C4CSWSX	C4CSTX
	Minimum	C2CSWSI	C2CSTI	C4CSWSI	C4CSTI
	Average	C2CSWSA	C2CSTA	C4CSWSA	C4CSTA

<b>Lubricant Temperature Data</b>				
<b>Phase</b>	<b>Specification</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Gear Conditioning (After reaching 225 °F)</b>	225 ± 5 °F	GCOILTA	GCOILTI	GCOILTX

**L-42-1  
Form 3  
Shock Series Operational Summary**

Lab: LAB	Stand No.: STAND	Stand Run No: STRUN
Oilcode: OILCODE		

Stand Set-up				
	Shock Series 1		Shock Series 2	
Parameter	Acceleration	Deceleration	Acceleration	Deceleration
Potentiometer Setting	POTACSS1	POTDESS1	POTACSS2	POTDESS2
Stand Set-up Version	SSUV			

Gear Loading Data							
Gear Side		Shock Series 1			Shock Series 2		
		Wheel Speed (r/min)	Torques (lbf-ft)	Cycle Time (Seconds)	Wheel Speed (r/min)	Torques (lbf-ft)	Cycle Time (Seconds)
Drive	Maximum	SS1DSWSX	SS1DSTX	SS1DSCTX	SS2DSWSX	SS2DSTX	SS2DSCTX
	Minimum	SS1DSWSI	SS1DSTI	SS1DSCTI	SS2DSWSI	SS2DSTI	SS2DSCTI
	Average	SS1DSWSA	SS1DSTA	SS1DSCTA	SS2DSWSA	SS2DSTA	SS2DSCTA
Coast	Maximum	SS1CSWSX	SS1CSTX	SS1CSCTX	SS2CSWSX	SS2CSTX	SS2CSCTX
	Minimum	SS1CSWSI	SS1CSTI	SS1CSCTI	SS2CSWSI	SS2CSTI	SS2CSCTI
	Average	SS1CSWSA	SS1CSTA	SS1CSCTA	SS2CSWSA	SS2CSTA	SS2CSCTA

Phase	Specification	Start Value	Maximum
Shock Series 1	200 ± 5 °F	SS1OILTS	SS1OILTX
Shock Series 2	< 280 °F	SS2OILTS	SS2OILTX

**L-42-1  
Form 4  
Measurement Summary**

Lab: LAB	Stand No.: STAND	Stand Run No.: STRUN
Oil Code: OILCODE		

<b>Axle Codes</b>			
Assembly Date	Match No.	Pinion Batch	Ring Batch
DTASSEM	MATCHNO	PINBAT	RINGBAT

<b>Contact Pattern Measurements</b>			
		Drive Side	Coast -Side
Length Rating	As Received	DSCPLRAR	CSCPLRAR
	As Tested	DSCPLRAT	CSCPLRAT
Flank Rating	As Received	DSCPFRAR	CSCPFRAR
	As Tested	DSCPFRAT	CSCPFRAT
Contact Pattern Rater Initials		CPRATER	

<b>Test Axle Build Data</b>								
Backlash (in.)	Specification	Average	Position Measurements				Minimum	Maximum
			1	2	3	4		
Initial	.004 -.009 in.	TABKLINA	BKLSINI1	BKLSINI2	BKLSINI3	BKLSINI4	TABKLINI	TABKLINX
Final		TABKLFNA	BKLSFNL1	BKLSFNL2	BKLSFNL3	BKLSFNL4	TABKLFNI	TABKLFNX
Increase		TABKLICA	<b>Break</b>			<b>Turn</b>		
Initial Pinion Torque (lbf -in)			TAIPNTBK			TAIPNTTN		

Inspection	Ring% Scoring		Pinion % Scoring	
	Drive Side	Coast Side	Drive Side	Coast Side
Inspection 1	INS1DSRS	INS1CSRS		
Inspection 2	INS2DSRS	INS2CSRS		
EOT	EOTDSR	ECSR	EOTDSP	ECSP
<b>EOT Rating Date</b>			<b>EOT Rater Initials</b>	
RATEDATE			RINIT	

**L-42-1  
Form 5  
Downtime and Comments**

Lab: LAB	Stand No.: STAND	Stand Run No.: STRUN
Oil Code: 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	
Number of Comment Lines	TOTCOM
	OCOMR001
	OCOMR002
	OCOMR003
	OCOMR004
	OCOMR005
	OCOMR006
	OCOMR007
	OCOMR008
	OCOMR009
	OCOMR010
	OCOMR011
	OCOMR012
	OCOMR013
	OCOMR014
	OCOMR015

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Form 5A**

**Downtime and Comments**

Lab: LAB	Stand No.: STAND	Stand Run No.: STRUN
Oilcode: 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

**L-42-1  
Form 6**

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

Lab: LAB	Stand No.: STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE		

WSVSTC12



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Form 7**

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

Lab:	LAB	Stand No.:	STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE				

WSVSTC34

**L-42-1  
Form 8**

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

Lab:	LAB	Stand No.:	STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE				

WSVSTSS1

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Form 9**

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

Lab: LAB	Stand No.: STAND	Stand Run No.:	STRUN
Oilcode: OILCODE			

WSVSTSS2

**L-42-1  
Form 10**

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

Lab: LAB	Stand No.:	STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE			

PTVSTC12

**L-42-1  
Form 11**

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

Lab: LAB	Stand No.: STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE		

PTVSTC34

**L-42-1  
Form 12**

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

Lab:	LAB	Stand No.:	STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE				

PTVSTC2

**L-42-1  
Form 13**

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

Lab:	LAB	Stand No.:	STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE				

PTVSTC4

**L-42-1  
Form 14**

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

Lab:	LAB	Stand No.:	STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE				

PTVSTSS1



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Form 15

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

Lab:	LAB	Stand No.:	STAND	Stand Run No.:	STRUN
Oilcode:	OILCODE				

PTVSTSS2