

**A2. Report Forms**  
**L-42**  
**VERSION 20020412**

CONDUCTED FOR

*TSTSPON1*

*TSTSPON2*

<i>LABVALID</i>	V = VALID
	I = INVALID
	N = RESULTS CANNOT BE INTERPRETED (Refer To Comment Section)

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

In my opinion this test *OPVALID* been conducted in a valid manner in accordance with the STP 512A ASTM Test Method 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> CMIR or Non-Reference Oil Code  
<sup>B</sup> Standard or Canadian

*SUBLAB*

SUBMITTED BY: \_\_\_\_\_

Testing Laboratory  
*SUBSIGIM*

Signature  
*SUBNAME*

Typed Name  
*SUBTITLE*

Title  
*SUBSECT*

Section

**Fig. A2.1 TEST REPORT COVER**

L-42

FORM 1

TEST RESULT SUMMARY

TEST LAB	LAB
TEST STAND NO.	STAND

TYPE											
TEST DATE STARTED	TEST DATE COMPLETED	END OF TEST TIME	TOTAL TEST MINUTES	STAND RUN NO.	OIL CODE NO.	LABORATORY OIL CODE	COAST SIDE % SCORING			COAST SIDE TORQUE (lbf-ft)	
							EOT PINION	EOT RING	SEQ 2 RING	SEQUENCE 2	SEQUENCE 4
<i>DTSTRT</i>	<i>DTCOMP</i>	<i>EOTTIME</i>	<i>TESTLEN</i>	<i>STRUN</i>	<i>CMIR/OILCODE</i>	<i>LABOCODE</i>	<i>ECSPFNL</i>	<i>ECSRFNL</i>	<i>SCSRFNL</i>	<i>SEQ2CTA</i>	<i>SEQ4CTA</i>
<b>Information Letters Number:</b> <i>INFOLETN</i>											
<b>Formulation / Stand Code:</b> <i>FORM</i>											

STAND REFERENCE OIL TEST HISTORY IN CHRONOLOGICAL ORDER													
	TEST DATE STARTED	TEST DATE COMPLETED	END OF TEST TIME	TOTAL TEST MINUTES	STAND RUN NO.	CMIR NO.	TMC OIL NO.	LABORATORY OIL CODE	COAST SIDE % SCORING			COAST SIDE TORQUE (lbf-ft)	
									EOT PINION	EOT RING	SEQ 2 RING	SEQUENCE 2	SEQUENCE 4
<sup>A</sup> Discrimination	<i>DTSTRTD</i>	<i>DTCOMPD</i>	<i>EOTTIMED</i>	<i>TESTLEND</i>	<i>STRUND</i>	<i>CMIRD</i>	<i>INDD</i>	<i>LABOCODD</i>	<i>ECSPFNLD</i>	<i>ECSRFNLD</i>	<i>SCSRFNLD</i>	<i>SEQ2CTAD</i>	<i>SEQ4CTAD</i>
<sup>B</sup> Calibration Sequence Passing Tests Only	<i>STRTR001</i>	<i>COMPR001</i>	<i>EOTTR001</i>	<i>TOTHR001</i>	<i>STDRR001</i>	<i>CMIRR001</i>	<i>TMCNR001</i>	<i>LBOCR001</i>	<i>ECSPR001</i>	<i>ECSRR001</i>	<i>SCSRR001</i>	<i>SEQ2R001</i>	<i>SEQ4R001</i>
	<i>STRTR002</i>	<i>COMPR002</i>	<i>EOTTR002</i>	<i>TOTHR002</i>	<i>STDRR002</i>	<i>CMIRR002</i>	<i>TMCNR002</i>	<i>LBOCR002</i>	<i>ECSPR002</i>	<i>ECSRR002</i>	<i>SCSRR002</i>	<i>SEQ2R002</i>	<i>SEQ4R002</i>
	<i>STRTR003</i>	<i>COMPR003</i>	<i>EOTTR003</i>	<i>TOTHR003</i>	<i>STDRR003</i>	<i>CMIRR003</i>	<i>TMCNR003</i>	<i>LBOCR003</i>	<i>ECSPR003</i>	<i>ECSRR003</i>	<i>SCSRR003</i>	<i>SEQ2R003</i>	<i>SEQ4R003</i>
<b>AVERAGE FOR PASSING REFERENCE OIL TESTS</b>									<i>ECSPAVG</i>	<i>ECSRAVG</i>	<i>SCSRAVG</i>	<i>SEQ2AVG</i>	<i>SEQ4AVG</i>

<sup>A</sup> Only for non-reference tests.

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

Fig. A2.2 TEST RESULT SUMMARY

**L-42  
FORM 2**

**OPERATIONAL SUMMARY**

LAB <i>LAB</i>	STAND NO. <i>STAND</i>				
OIL CODE <i>CMIR/OILCODE</i>	STAND RUN NO. <i>STRUN</i>				
<b>GENERAL OPERATION CONDITIONS</b>					
<b>1. GEAR LOADING DATA</b>					
		SEQUENCE 2		SEQUENCE 4	
		Torques lbf-ft	Cycle Time Second	Torques lbf-ft	Cycle Time Second
<b>Drive Side</b>	Maximum	<i>SEQ2DTX</i>	<i>SEQ2DCX</i>	<i>SEQ4DTX</i>	<i>SEQ4DCX</i>
	Minimum	<i>SEQ2DTI</i>	<i>SEQ2DCI</i>	<i>SEQ4DTI</i>	<i>SEQ4DCI</i>
	Average	<i>SEQ2DTA</i>	<i>SEQ2DCA</i>	<i>SEQ4DTA</i>	<i>SEQ4DCA</i>
<b>Coast Side</b>	Maximum	<i>SEQ2CTX</i>	<i>SEQ2CCX</i>	<i>SEQ4CTX</i>	<i>SEQ4CCX</i>
	Minimum	<i>SEQ2CTI</i>	<i>SEQ2CCI</i>	<i>SEQ4CTI</i>	<i>SEQ4CCI</i>
	Average	<i>SEQ2CTA</i>	<i>SEQ2CCA</i>	<i>SEQ4CTA</i>	<i>SEQ4CCA</i>
<b>2. LUBRICANT TEMPERATURE DATA</b>					
Phase	Specification	Average Value	Minimum Value	Maximum Value	
Sequence 1*	$225 \pm 5$ °F	<i>LATSEQ1</i>	<i>LMTSEQ1</i>	<i>LXTSEQ1</i>	
	Starting		Maximum Value		
	Specification	Value			
Sequence 2	$200 \pm 5$ °F	<i>LSTSEQ2</i>		<i>LXTSEQ2</i>	
Sequence 4	$< 280$ °F	<i>LSTSEQ4</i>		<i>LXTSEQ4</i>	
* Values after reaching 225 °F					
<b>3. TEST AXLE DATA</b>					
a. Backlash		Maximum	Minimum	Average	
Initial (in.)		<i>TABKLINX</i>	<i>TABKLINI</i>	<i>TABKLINA</i>	
Final (in.)		<i>TABKLFNX</i>	<i>TABKLFNI</i>	<i>TABKLFNA</i>	
Increase (in.)				<i>TABKLICA</i>	
b. Initial Pinion Torque (lbf -in)			Break <i>TAIPNTBK</i>	Turn <i>TAIPNTTN</i>	

RATING DATE               *RATEDATE*               RATER INITIALS               *RINIT*          

**Fig. A2.3 OPERATIONAL SUMMARY**

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FORM 3**

**MEASUREMENT SUMMARY**

LAB <i>LAB</i>	STAND NO. <i>STAND</i>
OIL CODE <i>CMIR/OILCODE</i>	STAND RUN NO. <i>STRUN</i>

<b>AXLE CODES</b>			
ASSEMBLY DATE	MATCH NO.	PINION BATCH	RING BATCH
<i>DTASSEM</i>	<i>MATCHNO</i>	<i>PINBAT</i>	<i>RINGBAT</i>

<b>MEASUREMENTS</b>							
DRIVE SIDE CONTACT PATTERN (Length Rating)				COAST SIDE CONTACT PATTERN (Length Rating)			
As Received	<i>DSCPLRAR</i>	As Tested	<i>DSCPLRAT</i>	As Received	<i>CSCPLRAR</i>	As Tested	<i>CSCPLRAT</i>
DRIVE SIDE CONTACT PATTERN (Flank Rating)				COAST SIDE CONTACT PATTERN (Flank Rating)			
As Received	<i>DSCPFRAR</i>	As Tested	<i>DSCPFRAT</i>	As Received	<i>CSCPFRAR</i>	As Tested	<i>CSCPFRAT</i>
OPERATOR INIT		<i>OINIT1</i>		OPERATOR INIT		<i>OINIT2</i>	
INITIAL BACKLASH (in.)		<i>BKLSINI1</i>	<i>BKLSINI2</i>	<i>BKLSINI3</i>	<i>BKLSINI4</i>		
FINAL BACKLASH (in.)		<i>BKLSFNL1</i>	<i>BKLSFNL2</i>	<i>BKLSFNL3</i>	<i>BKLSFNL4</i>		

<b>TEST CONDITIONS</b>					
BREAK-IN PROCEDURES DESIGNATION		<i>BRKINDES</i>			
		Sequence 2	Unit of Measure	Sequence 4	Unit of Measure
Acceleration Rate		<i>ACRT2</i>	<i>ACRT2M</i>	<i>ACRT4</i>	<i>ACRT4M</i>
Deceleration Rate		<i>DCRT2</i>	<i>DCRT2M</i>	<i>DCRT4</i>	<i>DCRT4M</i>

<b>INSPECTIONS</b>				
	RING % SCORE		PINION % SCORE	
	Drive Side	Coast Side	Drive Side	Coast Side
Break-In	<i>BKINDSR</i>	<i>BKINCSR</i>		
1st Noise Check	<i>NSCK1DSR</i>	<i>NSCK1CSR</i>		
2nd Noise Check	<i>NSCK2DSR</i>	<i>NSCK2CSR</i>		
Sequence 3	<i>SQ3DSR</i>	<i>SCSR</i>		
E.O.T.	<i>EOTDSR</i>	<i>ECSR</i>	<i>EOTDSP</i>	<i>ECSP</i>

**Fig. A 2.4 MEASUREMENT SUMMARY**

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FORM 4**

**DOWN TIME AND COMMENTS**

LAB <i>LAB</i>	STAND NO. <i>STAND</i>
OIL CODE <i>CMIR/OILCODE</i>	STAND RUN NO. <i>STRUN</i>

Number of Downtime Occurrences			<i>DWNOCR</i>
Test Hours	Date	Downtime	Reasons
<i>DOWNR001</i>	<i>DDATR001</i>	<i>DTIMR001</i>	<i>DREAR001</i>
		<i>TOTLDOWN</i>	Total Downtime

Other Comments	
Number of Comment Lines	<i>TOTCOM</i>
<i>OCOMR001</i>	

**Fig. A2.5 DOWN TIME AND COMMENTS**