

**A3. Report Forms
Test Method D 5579
(High Temperature Cyclic Durability Test)**

Version HTCT VERSION 19980605
Conducted For:

TSTSPON1
TSTSPON2

| | |
|----------|--|
| LABVALID | V = Valid |
| | I = Invalid |
| | N = Results Cannot be Interpreted. (Refer to Comment Section) |

| Test Number | | | |
|--------------------------------|--------------------------|----------|----------|
| Stand: STAND | Stand Run: STRUN | | |
| EOT Date: DTCOMP | EOT Time: EOTTIME | | |
| Oil Code: CMIR | OILCODE | | |
| Formulation/Stand Code: | FORM | | |
| Alternate Codes: | ALTCODE1 | ALTCODE2 | ALTCODE3 |

| |
|--|
| <p>In my opinion this test OPVALID been conducted in a valid manner in accordance with the Test Method D 5579 and the appropriate amendments through the information letter system. The remarks included in the report describe the anomalies associated with this test.</p> |
|--|

^A CMIR or Non-Reference Oil Code

Submitted By: _____ SUBLAB

Testing Laboratory

_____ SUBSIGIM

Signature

_____ SUBNAME

Typed Name

_____ SUBTITLE

Title

_____ SUBSECT

Section

Fig A3.1 Test Report Cover

Test Method D 5579
(High Temperature Cyclic Durability Test)
Form 1
Test Result

| TYPE | | | |
|---|-------|----------------|------------------|
| Lab | Stand | Date Completed | Total Test Hours |
| LAB | STAND | TESTHARD | TESTLEN |
| | | DTCOMP | STRUN |
| Oil Code: CMIR OILCODE | | | |
| No. of Cycles to Unsynchronized Shifts: EOTCYCU | | | |
| Laboratory Oil Code: LABOCODE | | | |
| Reason for Test Termination: EOTRSN 1 = Client request 2 = Unsynchronized shifts (gear clashing) 3 = Unable to maintain test conditions or other (see comments section) | | | |
| Test stand and laboratory in accordance with information letters through: INFOLETN | | | |
| Formulation / Stand Code: FORM | | | |

| Stand Operationally Valid Reference Oil Test History In Chronological Order | | | | | | | | | |
|---|-----------------------------|---------------------|------------------|---------------|----------|-------------|--|---------------------|---------|
| Reference Oil Performance | Test Hardware Configuration | Test Date Completed | Total Test Hours | Stand Run No. | CMIR No. | TMC Oil No. | No. of Cycles to Unsynchronized Shifts | Laboratory Oil Code | |
| Low | TESTHL | DTCOMPL | TESTLENL | STRUNL | CMIRL | INDL | EOTCYCUL | LABOCODL | |
| High | TESTR001 | COMPR001 | TOTHR001 | STDRR001 | CMIRR001 | TMCNR001 | CYCHR001 | LBOCR001 | |
| High | TESTR002 | COMPR002 | TOTHR002 | STDRR002 | CMIRR002 | TMCNR002 | CYCHR002 | LBOCR002 | |
| High | TESTR003 | COMPR003 | TOTHR003 | STDRR003 | CMIRR003 | TMCNR003 | CYCHR003 | LBOCR003 | |
| High | TESTR004 | COMPR004 | TOTHR004 | STDRR004 | CMIRR004 | TMCNR004 | CYCHR004 | LBOCR004 | |
| High | TESTR005 | COMPR005 | TOTHR005 | STDRR005 | CMIRR005 | TMCNR005 | CYCHR005 | LBOCR005 | |
| Average Cycles For High Reference Oil Tests | | | | | | | | | CYCHAUG |

Fig A3.2 Test Result Summary

**Test Method D 5579
(High Temperature Cyclic Durability Test)
Form 2**

Test Conditions and Measurement Summary

| | |
|-------------------------------|------------------------|
| Lab : LAB | Stand: AND |
| Oil Code: CMIR OILCODE | Stand Ref: TRUN |

| Test Conditions | | | |
|-------------------------|----------|-----------------------|----------|
| Test Length, hours | TESTLEN | Warm-up Time, minutes | WUPTIME |
| Parameter | Minimum | Maximum | Average |
| Tailshaft Speed, r/min | ITAILRPM | XTAILRPM | ATAILRPM |
| Oil Sump Temp., °F | ISUMPTMP | XSUMPTMP | ASUMPTMP |
| Shift Air Pressure, psi | ISHAIRPR | XSHAIRPR | ASHAIRPR |

| Pre-Test Measurements | | | | | | |
|-----------------------------|----------|----------|----------|-----------------|---------|---------|
| Countershaft Number | 1A | 2A | 3A | Spec. | Break | Turn |
| Final Pre-Load, in. | FNLOAD1A | FNLOAD2A | FNLOAD3A | 0.0020 – 0.0060 | TORQBRK | TORQTRN |
| Torque, lbf-in. (low range) | | | | | | |

| Test Results | | | |
|--|---------|----------|----------|
| Range Fork No. | RFORKNO | Left | Right |
| Pre-Test Pad Hardness, R _c | | PADHARDL | PADHARDR |
| Pre-Test Pad Measurement Thickness, in. | | PADMPREL | PADMPRER |
| Post-Test Pad Measurement Thickness, in. | | PADMOSL | PADMOSR |
| Total Wear, in. | | WEARTOTL | WEARTOTR |
| Average Wear, in. | | WEARAVG | |

| Disc | Rear Friction Disc Thickness, in. | | | |
|-----------|-----------------------------------|----------|----------|----------|
| | 1 | 2 | 3 | 4 |
| Pre-Test | ETHICKR1 | ETHICKR2 | ETHICKR3 | ETHICKR4 |
| Post-Test | OTHICKR1 | OTHICKR2 | OTHICKR3 | OTHICKR4 |
| Wear | WEARR1 | WEARR2 | WEARR3 | WEARR4 |

| Disc | Front Friction Disc Thickness, in. | | | |
|-----------|------------------------------------|----------|----------|----------|
| | 5 | 6 | 7 | 8 |
| Pre-Test | ETHICKF5 | ETHICKF6 | ETHICKF7 | ETHICKF8 |
| Post-Test | OTHICKF5 | OTHICKF6 | OTHICKF7 | OTHICKF8 |
| Wear | WEARF5 | WEARF6 | WEARF7 | WEARF8 |

Fig. A3.3 Test Conditions and Measurement Summary

Test Method D 5579
(High Temperature Cyclic Durability Test)
Downtime and Comments
Form 3

| | |
|-------------------------------|-------------------------|
| Lab: LAB | Stand: STAND |
| Oil Code: CMIR OILCODE | Stand Run: STRUN |

Test Lost Time:

Record: The time shutdown, time off test conditions, early inspections/termination with reasons and minimum oil temperature in degrees Fahrenheit.

| Number of Downtime Occurrences | | DWNOCR | |
|--------------------------------|----------|-----------------------|----------|
| Test Hours | Date | Downtime | Reasons |
| DOWNH | DDATH001 | DTIMH001 | DREAH001 |
| DOWNH | DDATH002 | DTIMH002 | DREAH002 |
| DOWNH | DDATH003 | DTIMH003 | DREAH003 |
| DOWNH | DDATH004 | DTIMH004 | DREAH004 |
| DOWNH | DDATH005 | DTIMH005 | DREAH005 |
| DOWNH | DDATH006 | DTIMH006 | DREAH006 |
| DOWNH | DDATH007 | DTIMH007 | DREAH007 |
| DOWNH | DDATH008 | DTIMH008 | DREAH008 |
| DOWNH | DDATH009 | DTIMH009 | DREAH009 |
| DOWNH | DDATH010 | DTIMH010 | DREAH010 |
| DOWNH | DDATH011 | DTIMH011 | DREAH011 |
| DOWNH | DDATH012 | DTIMH012 | DREAH012 |
| DOWNH | DDATH013 | DTIMH013 | DREAH013 |
| DOWNH | DDATH014 | DTIMH014 | DREAH014 |
| DOWNH | DDATH015 | DTIMH015 | DREAH015 |
| TOTLDOWN | | Total Downtime | |

| Other Comments | |
|------------------------------------|----------|
| Number of Comment Lines | TOTCOM |
| OCOMH001 | |
| OCOMH002 | |
| OCOMH003 | |
| OCOMH004 | |
| OCOMH005 | |
| OCOMH006 | |
| OCOMH007 | |
| OCOMH008 | |
| OCOMH009 | |
| OCOMH010 | |
| OCOMH011 | |
| OCOMH012 | |
| OCOMH013 | |
| OCOMH014 | |
| OCOMH015 | |
| Number of Cycle Shift Plots | TOTPLOTS |

Fig. A3.4 Downtime Comments and Summary

Test Method D 5579
(High Temperature Cyclic Durability Test)
Downtime and Comments
Form 3A

| | |
|------------------------------------|-------------------------|
| Lab: LAB | Stand: STAND |
| Oil Code: CMIR OILCODE | Stand Run: STRUN |

Test Lost Time:

Record: The time shutdown, time off test conditions, early inspections/termination with reasons and minimum oil temperature in degrees Fahrenheit.

| Number of Downtime Occurrences | | DWNOCR | |
|--------------------------------|----------|-----------------------|----------|
| Test Hours | Date | Downtime | Reasons |
| DTIMH01 | DDATH016 | DOWNH016 | DREAH016 |
| DTIMH01 | DDATH017 | DOWNH017 | DREAH017 |
| DTIMH01 | DDATH018 | DOWNH018 | DREAH018 |
| DTIMH01 | DDATH019 | DOWNH019 | DREAH019 |
| DTIMH02 | DDATH020 | DOWNH020 | DREAH020 |
| DTIMH02 | DDATH021 | DOWNH021 | DREAH021 |
| DTIMH02 | DDATH022 | DOWNH022 | DREAH022 |
| DTIMH02 | DDATH023 | DOWNH023 | DREAH023 |
| DTIMH02 | DDATH024 | DOWNH024 | DREAH024 |
| DTIMH02 | DDATH025 | DOWNH025 | DREAH025 |
| DTIMH02 | DDATH026 | DOWNH026 | DREAH026 |
| DTIMH02 | DDATH027 | DOWNH027 | DREAH027 |
| DTIMH02 | DDATH028 | DOWNH028 | DREAH028 |
| DTIMH02 | DDATH029 | DOWNH029 | DREAH029 |
| DTIMH03 | DDATH030 | DOWNH030 | DREAH030 |
| TOTLDOWN | | Total Downtime | |

| Other Comments | |
|------------------------------------|----------|
| Number of Comment Lines | TOTCOM |
| OCOMH016 | |
| OCOMH018 | |
| OCOMH017 | |
| OCOMH019 | |
| OCOMH020 | |
| OCOMH021 | |
| OCOMH022 | |
| OCOMH023 | |
| OCOMH024 | |
| OCOMH025 | |
| OCOMH026 | |
| OCOMH027 | |
| OCOMH028 | |
| OCOMH029 | |
| OCOMH030 | |
| Number of Cycle Shift Plots | TOTPLOTS |

Fig. A3.4 Downtime Comments and Summary

**Test Method D 5579
(High Temperature Cyclic Durability Test)
Downtime and Comments
Form 3B**

| | |
|-------------------------------|-------------------------|
| Lab: LAB | Stand: STAND |
| Oil Code: CMIR OILCODE | Stand Run: STRUN |

Test Lost Time:

Record: The time shutdown, time off test conditions, early inspections/termination with reasons and minimum oil temperature in degrees Fahrenheit.

| Number of Downtime Occurrences | | DWNOCR | |
|--------------------------------|----------|-----------------------|----------|
| Test Hours | Date | Downtime | Reasons |
| DOWNH | DDATH031 | DTIMH031 | DREAH031 |
| DOWNH | DDATH032 | DTIMH032 | DREAH032 |
| DOWNH | DDATH033 | DTIMH033 | DREAH033 |
| DOWNH | DDATH034 | DTIMH034 | DREAH034 |
| DOWNH | DDATH035 | DTIMH035 | DREAH035 |
| DOWNH | DDATH036 | DTIMH036 | DREAH036 |
| DOWNH | DDATH037 | DTIMH037 | DREAH037 |
| DOWNH | DDATH038 | DTIMH038 | DREAH038 |
| DOWNH | DDATH039 | DTIMH039 | DREAH039 |
| DOWNH | DDATH040 | DTIMH040 | DREAH040 |
| DOWNH | DDATH041 | DTIMH041 | DREAH041 |
| DOWNH | DDATH042 | DTIMH042 | DREAH042 |
| DOWNH | DDATH043 | DTIMH043 | DREAH043 |
| DOWNH | DDATH044 | DTIMH044 | DREAH044 |
| DOWNH | DDATH045 | DTIMH045 | DREAH045 |
| TOTLDOWN | | Total Downtime | |

| Other Comments | | |
|------------------------------------|----------|--|
| Number of Comment Lines | TOTCOM | |
| OCOMH031 | | |
| OCOMH032 | | |
| OCOMH033 | | |
| OCOMH034 | | |
| OCOMH035 | | |
| OCOMH036 | | |
| OCOMH037 | | |
| OCOMH038 | | |
| OCOMH039 | | |
| OCOMH040 | | |
| OCOMH041 | | |
| OCOMH042 | | |
| OCOMH043 | | |
| OCOMH044 | | |
| OCOMH045 | | |
| Number of Cycle Shift Plots | TOTPLOTS | |

Fig. A3.4 Downtime Comments and Summary

Test Method D 5579
(High Temperature Cyclic Durability Test)
Form 4
Shift Graphs

| | | |
|-----------------------|---------|-------------------------|
| Lab: LAB | | Stand: STAND |
| Oil Code: CMIR | OILCODE | Stand Run: STRUN |

CYIMR001

Fig A3.5 Shift Graphs

Test Method D 5579
(High Temperature Cyclic Durability Test)
Form 5
Shift Time Graphs

| | |
|-------------------------------|-------------------------|
| Lab: LAB | Stand: STAND |
| Oil Code: CMIR OILCODE | Stand Run: STRUN |

CYIMR002

Fig A3.6 Shift Time Graphs