Report Forms Test Method D 7038 L-33-1 Version Conducted For

| | V = Valid | | | | | | | |
|---|---|--------------------------|------------------|--|--|--|--|--|
| | I = Invalid | | | | | | | |
| | N = Results Cannot Be Interpreted (See Comment Section) | | | | | | | |
| | | | | | | | | |
| | | = Non-Reference Test Oil | | | | | | |
| | RO = | = Reference Oil Result | | | | | | |
| | n | Fest Number | | | | | | |
| Motoring Stand: | | Storage Box : | Storage Box Run: | | | | | |
| Date Completed: | | EOT Time: | | | | | | |
| Oil Code: | | | | | | | | |
| Formulation/Stand Code | e: | | | | | | | |
| Alternate Codes: | | | | | | | | |
| In my opinion this test 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: | Test | ing Laboratory | | | | | |
| | | 1030 | ing Eurorium | | | | | |
| | | | Signature | | | | | |
| | | Т | yped Name | | | | | |
| | | | Title | | | | | |

Section

Test Method D 7038 L-33-1 Form 1 – Test Results

| Lab: | Motoring Stand: | | Storage Box: | | Storage Box Run: | | |
|---|-----------------|--|--------------|--|------------------|-----|------------------|
| Start Date: | Date: EOT Date: | | EOT Time: | | Test Length: | | |
| Oil Code: | | | | | | | |
| TMC Oil Code: Lab Oil Code: | | | | | | | Viscosity Grade: |
| Latest Information Letter Test Was Run Under: | | | | | Gear Version: | | |
| Pinion Batch: | | | | | Ring Bat | ch: | |

| Rater's I | nitials (| After | Test | t) · | | | | | |
|---|-------------|------------|------|---|---|---|-------------------|--|--|
| Rater's Initials (After Test) : Rust/Corrosion | | | | | | | | | |
| | Loc | ation | | | | WEIGHTING | WEIGHTED | | |
| Differen | tial Ca | se: | | | RUST A | FACTOR | RUST | | |
| 1. At P | inion C | Contact | - | | | * .087 | | | |
| 2. Diff | Gear (| Contac | t | | | * .193 | | | |
| 3. Diff | . Gears | (Side) | 1 | | | * .094 | | | |
| 4. Axle | e Hsg. (| Cover | | | | * .169 | | | |
| | e Gear | |) | | | * .079 | | | |
| 6. Drive Pinion * .079 | | | | | | | | | |
| Bearing | : | | | • | | | | | |
| | e Pinio | n Roll | er | | | * .051 | | | |
| 8. Drive Pinion Cups | | | | | | * .083 | | | |
| 9. Diff. Case Roller | | | | * .071 | | | | | |
| 10. Diff | Case (| Cups | | | | * .094 | | | |
| | | | | | | Original Rust, Merit | | | |
| | | | | | | Correction Factor, Merit | | | |
| _ | | | | | | Severity Adjustment, Merit | | | |
| | | | | | | Final Rust, Merit | | | |
| A Rust Leve | el (Enter 1 | 0, 9, 8, 5 | or 0 |): | | | | | |
| None | = | 10 | | | | | | | |
| Trace | = | 9 | = | not more than six spots, each less than 1mm in diameter | | | | | |
| Light | = | 8 | = | | | in diameter or, one(1) or more spots greater or | | | |
| | | | | | | ne spots no greater than 1% of the total rated co | omponent surface. | | |
| Moderate | = | 5 | = | in excess of above and up to 5% of considered surface | | | | | |
| Heavy | = | 0 | = | covering more th | covering more than 5% of considered surface | | | | |

 $\pmb{Remarks} \hbox{: Note presence, location and amount of additional deposit-stain, sludge, etc.} \\$

Test Method D7038 L-33-1

Form 2

| Last Reference | Information | & Operational | Validity | Summary |
|-----------------------|-------------|---------------|----------|---------|
| | | | | |

| Lab: | | Motoring | Stand | • | |
|----------------------------|---------------------|-----------------|---------|----------------------|---------|
| Storage Box : | | Storage I | Box Rur | 1: | |
| Oil Code : | | | | | |
| | | | | | |
| | | | | | |
| Last Reference Oil Calibra | ating Stand Informa | tion - Fill Out | For N | on-reference Oil Tes | ts Only |
| Motoring Stand: | Storage Box : | | | orage Box Run: | |
| Date Completed: | | TMC Oil Co | de: | | |
| Gear Version: | Pinion Batch: | | Ri | ng Batch: | |
| | | | | | |
| | | | | | |
| | Operator's Initials | <u> </u> | | | |
| <u> </u> | | | | | |
| Turning Torques | | | | | |
| Pinion, lbf-in. | Break: | | Turn: | | |
| Full Assembly, lbf-in. | Break: | | Turn: | | |
| | | | | | |
| Warm-Up | | | | | |
| Time (h) | Start: | | F | Finish: | |
| Oil Temperature °F | Start: | | Finish: | | |
| | | | | | |
| Motoring Phase | | | | | |
| Time (h) | Start: |] | Finish: | | |
| Pinion Speed, r/min | Average: Max | | | Minimum: | |
| Oil Temperature, °F | Average: | Maximum: | | Minimum: | |
| - | - | - | | • | |
| Storage Phase | | | | | |
| Time (h) | Start : | | F | inish: | |
| Oil Temperature, °F | Average: | Maximum: | | Minimum: | |

| Percent Deviation | | | | | | |
|-------------------------|--------------------|----------------------|-----------------------------|--------------------|--------------------|-----------------------------|
| | N | Notoring Phas | e | Storage Phase | | |
| Controlled Parameter | Allowable % Out | This Test % Out | Actual Time Out min:s | Allowable % Out | This Test % Out | Actual Time Out min:s |
| Oil Temperature | 5 | | | 4 | | |

Test Method D 7038 L-33-1 Form 3 Pre Test Rating ^A

| Storage Box : Storage Box Run: Oil Code: Match No.: Date: Rated By: |
|--|
| Oil Code: |
| |
| Match No.: Date: Rated By: |
| Match No.: Date: Rated By: |
| |
| |
| Differential Case |
| |
| Area 1. At Pinion Contact: |
| Area 1. At Pinion Contact: |
| |
| Area 2. At Differential Gear Contact: |
| Area 2. At Differential Gear Contact: |
| |
| |
| |
| Area 3 Differential Gears (Side Gears): |
| Area 3. Differential Gears (Side Gears): |
| |
| Area 4. Axle Housing Cover: |
| Titeu 4. Titale Housing Cover. |
| |
| Area 5 Drive Gears (Ring): |
| Area 5. Drive Gears (Ring): |
| |
| Area 6. Drive Pinion: |
| Area 6. Drive Pinion: |
| |
| Area 7. Drive Pinion Rollers: |
| Alea /. Drive Pillion Rollers. |
| |
| Anna O Duiva Dinian Coma |
| Area 8. Drive Pinion Cups: |
| |
| Area O. Differential Case Bellers: |
| Area 9. Differential Case Rollers: |
| |
| Area 10 Differential Case Cons. |
| Area 10. Differential Case Cups: |

^A After Abrasive Blasting

Test Method D 7038 L-33-1 Form 4 Lost Time and Comments

| Lab: | | | Motoring Stand : | | | |
|-------------------------|--------------|-------------|------------------------|--|--|--|
| Storage B | ox: | | Storage Box Run: | | | |
| Storage Bo Oil Code: | | | | | | |
| | | | | | | |
| | | | | | | |
| Number of | f Downtime C | Occurrences | | | | |
| Test Hours | Date | Downtime | Reasons | | | |
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| | | | | | | |
| | | | Total Downtime (hours) | | | |
| | | | Total Downtime (notis) | | | |
| | er Comments | | | | | |
| Number | of Comment | Lines | | | | |
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Test Method D 7038 L-33-1 Form 4A Lost Time and Comments

| Lab: | | | Motoring Stand : | | | | |
|---------------|----------------|------------|-------------------------|--|--|--|--|
| Storage Box: | | | Storage Box Run: | | | | |
| Oil Code: | | | · | | | | |
| | | | | | | | |
| Number of l | Downtime Oc | ccurrences | | | | | |
| Test Hours | Date | Downtime | Reasons | | | | |
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| | | | Total Downtime (hours) | | | | |
| | | | Total Downtime (notils) | | | | |
| Other | Other Comments | | | | | | |
| Number of | Comment Lii | nes | | | | | |
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Test Method D 7038 L-33-1 Form 4B Lost Time and Comments

| Lab: | | | Motoring Stand : |
|---------------------------|-------------|------------|------------------------|
| Storage Box: Oil Code: | | | Storage Box Run: |
| Oil Code: | | | |
| on co u c. | | | |
| | | | |
| Number of I | Downtime Oc | ccurrences | |
| Test | | | |
| Hours | Date | Downtime | Reasons |
| 110 0115 | | | |
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| | | | Total Downtime (hours) |
| | | | Total Downtime (notis) |
| Other | Comments | | |
| | Comment L | ines | |
| 1 various of | Comment L | mes | |
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