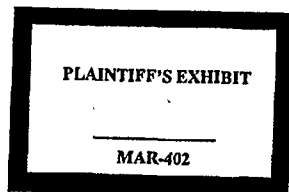




Call. Sign - ...  
date.



May 12, 1982

Mr. E. M. Steffan, P.E.  
Product Engineer  
Sears Laboratories  
925 S. Homan Avenue  
Chicago, Illinois 60624

RE: Additional Semi-Metallic Disc Pad Testing

Dear Mr. Steffan:

Additional testing of Nuturn's Semi-Metallic Disc Pad 3401N8 has been completed per your letter of April 15, and our telephone conversation of April 26, 1982. Specifically, the following additional tests were requested to show the durability of 3401N8:

1. Escort (front wheel drive) tests per the complete Ford Durability Procedure P3-37M (including the eight high energy stops per cycle). One test at double the standard cycle length (standard cycle is 3,043 miles) and one at the standard cycle miles.
2. Field durability data on fleet and customer vehicle. The attached chart shows the results of the additional data requested.

The Escort brake was used to provide loadings typical of a current front wheel drive vehicle. One test was run for the standard 3,043 miles and a second was run for 10,000 miles. Both tests included the additional eight high energy stops per cycle (60 MPH, 15 feet per second). The 3,043 mile test included 656 of these stops and the 10,000 mile test included 2,160 high energy stops. Wear projections were 20,000 miles for the 3,043 mile test and 24,930 miles for the 10,000 mile test.

Fleet and customer vehicle data is shown for a total of five 3401N8 builds plus two baseline Bendix 7161A builds (O.E. material).

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EVERYTHING LOOKS GOOD

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DID WE EXHAUST S/P ROTATIONS - WITH A.

WEIGHT ANTICIPATE ANTICIPATIONS

WEA TON:435 TON:435

Airport Lane

Smithville, Tennessee 37166

615/597-6700

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E. M. Steffan

May 12, 1982

Page Two

Additional Semi-Metallic Disc Pad Testing

The range of test time for all vehicles was 1.6 to 5.5 months (test miles ranged from 1,691 to 7,771). Projections of pad life for 3401N8 ranged from a low of 31,706 miles to a high of 166,223 miles. For the Bendix, the projections were 94,733 miles and 155,420 miles.

No noise has been reported on any fleet or customer vehicles with 3401N8.

This additional testing should provide the data requested so that the 3401N8 semi-metallic disc pad material can be approved for production.

Sincerely,

*ERM 5-12-82*

E. R. Koss

Director-Technical Services

jk

Attachment

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May 12, 1982

NUTURN 3401N8 TESTING.

3401N8 FLEET DURABILITY

| <u>VEHICLE*</u> | <u>TEST MILES</u> | <u>MAXIMUM<br/>POINT PAD WEAR</u> | <u>ROTOR WEAR</u> |              | <u>PROJECTED<br/>PAD MILES</u> |
|-----------------|-------------------|-----------------------------------|-------------------|--------------|--------------------------------|
|                 |                   |                                   | <u>LEFT</u>       | <u>RIGHT</u> |                                |
| #30             | 4,799             | .015"                             | .0007"            | .0004"       | 95,980 Miles                   |
| #39             | 3,634             | .022"                             | .0001"            | .0002"       | 49,555 Miles                   |
| #5              | 1,691             | .016"                             | .0015"            | .0004"       | 31,706 Miles                   |
| K1              | 7,203             | .013"                             | .0000"            | .0009"       | 166,223 Miles                  |
| S1              | 5,228             | .025"                             | .0004"            | .0008"       | 62,736 Miles                   |

BENDIX 7161A FLEET DURABILITY (Baseline)

| <u>VEHICLE*</u> | <u>TEST MILES</u> | <u>MAXIMUM<br/>POINT PAD WEAR</u> | <u>ROTOR WEAR</u> |              | <u>PROJECTED<br/>PAD MILES</u> |
|-----------------|-------------------|-----------------------------------|-------------------|--------------|--------------------------------|
|                 |                   |                                   | <u>LEFT</u>       | <u>RIGHT</u> |                                |
| #36             | 5,684             | .018"                             | .0003"            | .0004"       | 94,733 Miles                   |
| K1              | 7,771             | .015"                             | .0018"            | .0025"       | 155,420 Miles                  |

DYNAMOMETER DURABILITY

| <u>MATERIAL</u> | <u>TEST MILES</u> | <u>MAXIMUM<br/>POINT PAD WEAR</u> | <u>ROTOR WEAR</u> |              | <u>PROJECTED<br/>PAD MILES</u> |
|-----------------|-------------------|-----------------------------------|-------------------|--------------|--------------------------------|
|                 |                   |                                   | <u>LEFT</u>       | <u>RIGHT</u> |                                |
| 3401N8          | 10,000            | .1580"                            | .0055"            |              | 24,930 Miles                   |
| 3401N8          | 3,043             | .0585"                            | .0016"            |              | 20,000 Miles                   |

\*NUMBERED VEHICLES ARE DEKALB TELEPHONE COMPANY VEHICLES. OTHERS ARE CUSTOMER VEHICLES.

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