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#### NEW CLASS 8 SINGLE-SPEED AXLES

E2300S - Three 3.08:1 ratio gear sets with vendor shot peening have successfully completed dynamometer fatigue testing with tests being suspended at 200,000 cycles. Slight concave root line pitting was observed on all pinions at the end of the test. Carriers from these tests will be returned to Henderson for inspection to determine if dynamometer loads caused carrier yielding. Impact testing is required prior to release of the 3.08:1 ratio. Three 3.08:1 ratio gear sets without shot peening failed due to pinion tooth bending fatigue at 32,000, 34,000, and 55,000 cycles.

Effective April 11, 1985, all E2300 axles will utilize shouldered pilot bearings that are staked to the pinion stub.

E2300S Housing Program - Drawings have been changed and checked for modification to the ring gear cutouts and CTD clearance cutouts. Currently check changes are being made, and are expected to be released this month.

E2300 CTD - Design revisions are under way to correct the problem of the sliding curvic clutch becoming completely disengaged from the clutch pack. When this occurs, the clutch and plate splines become misaligned, preventing re-engagement of the controlled traction mode. The interim solution will be to attach a pressure plate to the flanged half differential case with structural adhesive to shim the clutch pack over enough to maintain sliding clutch engagement with one clutch plate. A permanent solution will consist of adding material to the differential case, and using shorter springs to allow moving the clutch pack far enough to allow a minimum of three clutch plates to be engaged with the sliding clutch gear when the controlled traction feature is disengaged.

Vehicle data acquisition testing of the E2300 CTD was conducted at the Proving Ground to evaluate bias torque under various operating conditions.

Rockwell R-170 high pack clutch kits have been received, and will be used to complete the rotary actuator clutch breakaway torque comparison of Eaton and Rockwell biasing differentials.

#### NEW ELECTRIC SHIFT SYSTEM

The third electric shift unit task force meeting was held on April 30, 1985. Key activities to take place prior to the fourth meeting on May 21, 1985 will include:

- Vehicle Data Acquisition
- Redefine Test Plan
- Evaluation of New Components
- Consolidation of FMEA (CORD-MC, CORD-DC, Axle & Brake Division)