

June 23, 1961

TO ALL ROOTES GROUP DEALERS

TRANSMISSION KNOCK

Since the introduction of the hypoid differential unit, complaints have been recorded from time to time of a clonk, knock or click which apparently emanates from the differential during the change over from drive to overrun or vice versa.

As a result of a detailed investigation of typical examples, the cause would appear to be due to either of the following two features:

a) Excessive Crown Wheel and Pinion Backlash.

In most cases backlash figures on the examples examined exceeded the maximum of .009" which is specified, and by reducing the backlash figure to within .004"/.009", a cure has been effected.

b) Undersize Bevel Pinion Splines

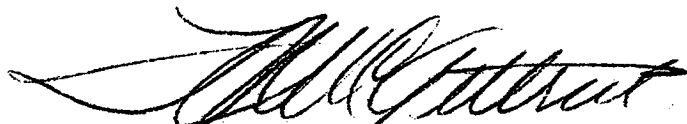
Approximately 25% of bevel pinions examined were found to be up to .0005" undersize on spline width. The specified tolerance for spline width is .1535"/.1555".

As a result of this investigation, the necessary action has been taken in Production to eliminate both sources of trouble and this information will doubtless be of value to you when dealing with cases in service.

With regard to the undersize bevel pinion splines, the most practical service cure in extreme cases would be to replace the pinion.

Kindly bring the above to the attention of all concerned.

ROOTES MOTORS INCORPORATED



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