

creases in load and improvement in fuel economy are contemplated and are under study at the present time.

## DISCUSSION

### T. M. Robie<sup>3</sup>

The dotted line curve of Fig. 2 is interesting because of its rapid variations. Instrumentation to secure these curves could be somewhat difficult. Would the author please tell us in more detail the kind of pressure pickups which were used and the point at which the pressures were taken.

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### Author's Closure

In answer to Mr. T. M. Robie's questions regarding instrumentation used in order to obtain the curves on Fig. 2, it is the author's pleasure to furnish the following information.

The pressure pickup, a 0-100 psi Consolidated Electronics Corporation Type 4-313 was located in the connecting rod one inch below the wrist pin bushing. The pressure signals were fed through a Consolidated Electronics Corporation 1-127 Carrier Amplifier to a Minneapolis-Honeywell 906 Visicorder. An Electro Products Angular-Synchronizer Model 3850 was used to obtain 5 degree crank angle and top dead center.