

SERVICE BULLETIN



SERVICE DEPARTMENT
DODGE

DIVISION OF CHRYSLER CORPORATION

TO ALL DIRECT DEALERS AND DEALERS:

Many of the difficulties encountered in engines of trucks, such as premature wear, valves burning, breakages, etc. may be due to excessive engine speed.

Our recommendations for a safe top engine speed (revolutions per minute) is 2600 R.P.M. for the Diesel, 2800 R.P.M. for the 3 ton gasoline truck and 3000 R.P.M. for all smaller engines. The corresponding road speed (speedometer reading) varies with the different combinations of rear axle ratio and tire size, but by referring to your Truck Data Book you can determine what the corresponding road speed should be.

When such difficulties are called to your attention, it is always advisable to try to determine whether excessive engine speed is a factor and if so to suitably advise the owner so that future troubles may be forestalled. When investigating such cases, it is not enough to simply consult the driver regarding the speed in high gear as excessive engine speed may be occurring when driving in the lower transmission gears. For instance, if a $1\frac{1}{2}$ -ton truck with 5.625 to 1 rear axle ratio and 6.50-20 rear tires is driven at 40 miles per hour in high gear the engine speed would be 2332 R.P.M. which would be well within the limit of 3000 R.P.M. However, if the driver should shift into third speed and maintain the same road speed the engine speed would be 3941 R.P.M. which is considerably higher than the safe maximum.

Many of the trucks are, of course, equipped with governors which, if they are in operation and are set properly, will act as a safeguard as they limit the engine speed regardless of which transmission gears are used.

The most accurate way of checking the governor setting is by the use of a tachometer, but as they are not always available, the attached tables are given, which show the maximum recommended speedometer reading, when the truck is driven in the particular transmission gears shown above the table, for each particular combination of tire size and rear axle ratio. The tables show the maximum speed obtainable when the truck is driven in one of the lower transmission gears rather than high so that the test can be made in the city and still conform to city speed regulations.

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As an illustration in the use of the tables, assume that you are checking a WF truck with 5.625 rear axle ratio and 7.50-20 (8 ply) rear tires. Find the line showing this tire size and follow across until you find the figure 18 under the column for the axle ratio of 5.625. Then test the truck in 2nd gear and the maximum speed should not be more than 18 miles per hour. If a higher speed is obtained, the governor should, of course, be reset. In case the truck has a two speed axle use the high or fastest axle ratio.

MISCELLANEOUS

Enter this bulletin number and subject in your Dodge Truck Shop Manual under Group - MISCELLANEOUS.

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ENGINE SPEED
AND GOVERNOR
SETTING

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DODGE DIVISION.

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TRUCKS WITH
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