

REFER TO THIS LETTER BY NUMBER

# PACKARD MOTOR CAR COMPANY

## DETROIT MICHIGAN

March 17, 1930

To PACKARD DISTRIBUTERS AND DEALERS

Subject BOILING GASOLINE

TO BE NOTED AND INITIALED BY

Gentlemen:

During the past year the gasoline refiners in general have changed the quality of their gasoline. In an endeavor to obtain easier cold weather starting the initial boiling point of the fuel has been lowered so that it will vaporize more readily in starting a cold motor.

During the same period automobile manufacturers, realizing the necessity of maintaining reasonably high operating temperatures, have provided more complete protection for the motors, with the result that even in cold weather motors in the better cars have operated at temperatures approaching the summer condition.

The combination of high operating temperature together with blended fuels including very volatile fractions has in some cases caused trouble through the boiling of the fuel in the vacuum tank, the carburetor and the line connecting these two units. In our own case the difficulty has been confined almost entirely to the 740 and 745.

The first step to take is to determine the gasoline in your own locality which is most satisfactory. The variation in the gasoline in different sections of the country is so great that it is impossible for us to advise you intelligently on this subject, but in general it is well to avoid the use of so called high test fuels and fuels marketed by small and little known companies.

After making sure that you are using the best available gasoline you should next see that the under bonnet temperature in the car in question is not unduly high, because of closed louvre doors, a sticking winterfront or a lagging thermostat. If the under bonnet temperature is low there is very little chance of boiling the fuel, and the higher the temperature the more care is required in selecting a fuel which will remain in a liquid condition until it passes through the carburetor.

After the symptoms of trouble have once been experienced, they can easily be detected. The motor will usually operate satisfactorily as long as the car is moving at a reasonable speed, because the air circulation is sufficient to keep the under bonnet temperature from rising excessively high, but if the car is driven slowly with a hot motor the temperature inside the bonnet will rise, and if it passes the vaporizing temperature of the fuel the motor will miss badly due to the so called "vapor lock" and will



continue to do so until the car speed is increased enough to cool the air in the vicinity of the carburetor and vacuum tank.

Obviously the first step to take is to open the louvre doors and to make sure that the radiator shutter mechanism is functioning properly. This will reduce the temperature of the vacuum tank and carburetor and will improve the situation correspondingly. In some cases no further steps need be taken.

In order to take care of the more serious cases a change has been made in the lower end of the carburetor aspirating tube consisting of the addition of a fine gauze screen so that even although bubbles may form in the gasoline, the screen will prevent these bubbles from entering the aspirating tube and upsetting the fuel mixture. The new aspirating tube may be installed in cars already in service, and when this is done it is advisable that the gascolator be removed at the same time, because some cases of trouble have been due to the fact that the gas bubbles have moved backward through the line and have caused a gas lock in the gascolator itself.

You may order for any 740 or 745 car:

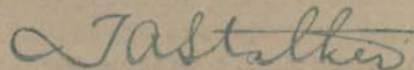
1 - 0180199 Carburetor Aspirating Tube Change-Over Equipment

This equipment includes the new screened aspirating tube together with a new metering pin which is necessary because of the change in the tube, and it also includes the new fittings which are required when the gascolator is removed. These parts will be charged to your account and an offsetting credit will be allowed when the old parts are returned.

If you find any cases in which the boiling gas condition is so serious that it cannot be corrected by the measures outlined above, we suggest that you communicate with us, because you are undoubtedly facing some severe local condition which will require special treatment.

Yours very truly,

PACKARD MOTOR CAR COMPANY.



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Manager Technical Department.

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