

PLEASE SEE THAT THIS LETTER REACHES YOUR SERVICE MANAGER OR HEAD MECHANIC IMMEDIATELY

HUDSON MOTOR CAR COMPANY

DETROIT, MICH., U.S.A.

February 2, 1927

CABLE ADDRESS
HUDSON CAR

TO HUDSON DISTRIBUTORS AND DEALERS:

Attention General Manager

We are attaching to this letter detailed mechanical inspections on the new Hudson Super Six. Please see that this information is given to your Service Manager and the party who prepares your demonstrators.

It is of utmost importance that a proper procedure be followed in breaking in the car, so that it will deliver maximum performance and power. This as you know cannot be accomplished through driving a car at 25 or 30 miles per hour for an extended period of time,

Select your most competent driver, and after the car has been thoroughly inspected (good clean motor oil installed, and all mechanical adjustments checked) instruct him to proceed as follows:

After the motor has assumed a normal operating temperature, the driver should increase the speed at which the car is driven gradually, but holding the increased speed only for short periods of time. This procedure should be repeated at intervals, increasing the speed two or three miles at a time, but holding it only for a short period, then removing the foot from the accelerator and permitting the car to coast down.

A careful driver can in this manner so break the motor in that it will be possible to indulge in maximum speeds for short periods at the expiration of 1000 miles of driving. It is understood, of course, that the car should not be forced at any time, nor should higher speeds be indulged in except for very short intervals.

During the breaking in process the oil should be changed regularly at 200 mile intervals, and the operator warned, of course not to drive at high speed at any time unless the motor is thoroughly warmed up.

Yours very truly,

HUDSON MOTOR CAR COMPANY

J. E. McLARTY

Service Manager.

MECHANICAL INSPECTION

NEW HUDSON SUPER SIX

Motor

- TAPPET SETTING - Exhaust valves, minimum clearance when warm .006.
Intake " " " " " .004.
NOTE - Intake tappet clearance is measured at rocker arm.
- PISTONS - Pistons are accurately fitted at the factory with minimum clearance when cold of .0045". This clearance must positively be maintained to obtain standard performance and power. Do not under any circumstances fit pistons in the new Hudson Super Six motor at any closer clearance.
- All pistons in the new Hudson Super six motor are fitted with oil control rings in the lower ring groove.
- OIL PUMP SETING - The minimum stroke of the oil pump plunger with the motor running at idling speed is to be 5/32" to 3/16".
- SPARK PLUGS - Spark plug gap must be accurately set at .028 for best results.
- IGNITION DIS-
TRIBUTOR POINTS - Maximum opening .020",
- SPARK TIMING - Spark timing is set at the factory with the Ignition contact points just opening when the motor is on dead center and the hand spark control lever on the steering wheel set at maximum advance. After a few miles of operation, however, an initial stretching takes place in the chain, etcetera, which throws the timing late. We advocate, therefore, timing the motor at approximately 3/4" on the flywheel, ahead of dead center, and retarding on hills or when necessary with the hand lever on the steering wheel.

BRAKES

The 4-wheel brakes have been accurately adjusted at the factory, and the adjustment should not be disturbed. Under no consideration should the brake operating linkage, bell cranks, or lever, be tampered with. The only adjustments the shop need ever perform are the two adjustments pointed out in the large Bendix Brake Chart which has already been mailed you.

In the event you have to make any brake adjustments, as for Instance, a brake drum running slightly warm or something of that nature, proceed as follows: Jack up the car, front or rear as the case may be, by placing jacks under the axle. Do not use chain falls attached to frame members, as this will throw the wheels out of ordinary position and thus upset the operating linkage.

(Brakes, continue)

With the wheels Jacked up as explained above, the bell nut on the end of the brake pull rod effecting the pedal brake on which you are working, should be in the case of a tight brake loosened 1/2 turn at a time until the wheel is free. To tighten the brake, turn the ball nut to the right 1/2 turn at a time, making sure that you do not tighten to the point where the wheel will even bind slightly.

Prospects and owners who are not familiar with 4-Wheel brakes should be cautioned to always apply the brakes gradually - not hastily. While it is possible to stop the car in a very short distance, by heavy foot pressure. this should never be resorted to except In an emergency.

TIRES

It Is very important that the proper tire pressure be maintained. Tire pressures, both front and rear, should be as follows

Minimum, 35 lbs.

Maximum 38 lbs.

On demonstrating cars these pressures should be checked daily to insure against loss of air through a leaking valve stem, or something of that nature.

FRONT WHEEL ALIGNMENT

The front wheels should be trammed straight ahead or parallel or with a maximum toe-in of 1/8". Wheel adjustments on the new ball joint type of tie rod are accomplished by shifting shims from one side of the ball to the other. There are plenty of shims installed In the ball joint for this purpose, The above trammng instructions must be carefully adhered to.

LUBRICATION

MOTOR - In the motor use good quality medium heavy oil with sufficiently low cold test to insure free running at the temperature you are encountering. Capacity of the reservoir sump 7 qts., U, S. standard measure.

CLUTCH - Use clutch oil composed of light cylinder or motor oil and kerosene mixed in equal proportions. The maximum contents of the clutch housing should be 1/4 pt. or 4 oz., liquid measure. Too much clutch oil in the housing may have a tendency to cause the clutch to slip.

TRANS-

MISSION - Use very light grade transmission oil. Oil should be introduced through test plug In right hand side of transmission case and level should carried no higher than this.

OVERHEAD VALVE ROCKER ARMS

Fill the oil cups supplying oil to the rocker arms on your demonstrator daily. The surplus oil will supply plenty of lubrication to the overhead valve Itself, in addition to lubricating the rocker arm bearing.

LUBRICATION OF ALL OTHER UNITS IS THE SAME AS BEFORE.

Mechanical inspection

STARTING THE MOTOR

The heat control lever on the right hand side of the instrument board should be set so that the word "Hot" will appear through the little window. The throttle should be opened approximately 1/4 of the full opening and the choker pulled out the full travel. Crank the motor, and as soon as it fires immediately return the choker part way; at the same time slowing the throttle part way. As soon as possible return the choker to normal position. This can be done in a few moments, as with the heat control in the "hot" position, the motor rapidly warms up. Once the motor has assumed a normal operating temperature, the heat control lever should be set so that the word "Warm" will register in the window, for city driving, or driving in congested traffic. When driving cross country at higher rates of speed than is possible in the city, the heat control lever should be set to "Medium" position and left and left there, as soon as the motor is running at normal operating temperature.

Please note that the overchoking or flooding of the motor with gasoline is not desirable. When starting a motor that is already warm use the choker very lightly and return it to normal position immediately.

CARBURETOR

The carburetor has been carefully calibrated and the flow of fuel measured by special instruments designed for the purpose. The carburetor setting, therefore should not be disturbed as you will find that the functioning of the carburetor can be controlled largely by proper use of the heat control feature outlined above.

HUDSON MOTOR CAR COMPANY

Service Department.