

Instruction book. Great Smith cars

Section 2, Pages 31 - 36

This is an instruction book for Great Smith cars produced by the Smith Automobile Company, Topeka, Kansas. The booklet describes in detail the features of the car and the suggested maintenance procedures.

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straight up and down, thus shutting off the electricity.

To reverse the car, release the clutch with the pedal, pull the gear lever clear back, then engage the clutch gently.

**Reversing
the Car**

It sometimes happens that it is impossible to move the gear lever when the car is standing still, owing to the gears in the transmission coming end to end. To overcome this it is necessary to move the car very slightly; a quarter of an inch will do. This may be done either by putting the lever in any speed and engaging the clutch so as to move the car a very little either forward or backward, or by letting the brake off and allowing the car to coast a little as on a hill. It is always a good plan in stopping the car to bring the gear lever back from the high speed to the neutral notch while the car is moving the last six inches, as this will generally avoid the trouble just mentioned.

**Difficulty
in Meshing
the Gears**

The clutch should be released unhesitatingly any time you are unable to run the car slowly enough by simply throttling down the engine, and unless the car has been allowed to slow down a great deal it may be picked up again simply by letting the pedal back, allowing the clutch to engage. However, if the car is slowed down too much it is generally best to start over in the low speed, as this might sometimes save stalling the engine, which is very easy to do in running the car very slowly on high gear. Should the engine ever be stalled this way, always make sure the brake is set, the speed lever is in neutral, and the spark lever is set at "0" before cranking the engine again.

**Running
Slowly on
High Gear**

The control of the spark and throttle levers

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Control of Throttle and Spark

must be learned largely by experience. If the spark is advanced too far the motor will be inclined to thump, which has a very bad effect upon the bearings. Never advance the spark lever suddenly as this is very hard on the engine.

Often in pulling steep hills it is necessary to retard the spark lever, sometimes nearly back as far as zero, but when running on the level again it should be advanced. Always make it a practice, before ascending a hill, to take as good a run for it as possible, as it is very much easier on the car than to pick up speed on the hill itself. Always before descending a grade get the car well under control, as this is much easier done on the level than on the down grade.

Mud Chains

In muddy weather it is often necessary to put chains on the rear wheels, in order to get traction; but sometimes one comes upon small patches of mud where it is not desirable to take time to put these chain grips on. It is best to approach these places at a pretty good speed as the momentum of the car will carry one through without having to apply much power to the rear wheels while in the mud, and thereby cause their slipping. The same is often true of sand patches.

Taking Hills on High Gear

What might be termed a bad habit is commonly indulged in by those who are otherwise good drivers, namely, the driving of cars on high speed regardless of the grade or conditions of the road. Good judgment should be used in order that this practice may not be carried beyond the point where the motor is working easily; otherwise there is needless strain on the motor, and it is bad for the car. It is much better to watch the motor closely on long hills or bad roads and shift to a

lower gear instantly when the engine begins to labor.

MISCELLANEOUS

Don't start the motor without seeing that the spark is set on "0", and that the speed lever is in neutral.

Don't try to start the motor with the coil switch turned off or the plug out.

A good anti-freeze mixture for the cooling system in winter is $\frac{1}{2}$ gallon Denatured Alcohol, $\frac{1}{2}$ gallon commercial Glycerine, 2 gallons water. Mix thoroughly before putting in the car.

Never start out without seeing that you have oil, water, and gasoline.

Any strange noise about the car should be investigated at once.

A bent steering knuckle, lever or front axle should be corrected at once, as it throws the wheels out of alignment and causes the tires to wear unduly.

Never run the motor fast when the automobile is standing still; there is nothing harder on the engine.

No motor car should be loaded beyond its regular seating capacity; they are universally calculated for this load and no more, and it is hard on tires, springs, and the whole vehicle to overload it.

In winter time the oil gets so cold that it makes the engine hard to start in the mornings, if it is kept in a cold place. Also, low temperatures chill the oil and make the entire car run harder, owing to the friction which the oil itself causes. This of course gets better as the car is run and the bearings get warmed up, but it must be taken into account when one is trying to get the full efficiency of the car.





