

AUTOMOBILE SECTION

Auto Quiz

ANSWERS TO LAST WEEK'S QUESTIONS.

1. One cause of squeaking in a wire wheel is looseness in the fitting of the wheel over its false hub. The wheel is locked in position on the hub by means of a lock nut, which when not drawn up tightly will cause play and wear in the fittings, resulting in a squeak.

2. The United States produces roughly about six out of every seven automobiles made in the world.
3. One way of saving on tire bills is by common sense use of the brakes. In going down hill utilize your motor as a brake by retarding the spark and closing the throttle. On a steep hill shift into second or low gear. In coming to a stop on a level road the motor can be used to the same good advantage until the car has slowed down sufficiently so that a gentle pressure on the brake pedal will bring it to a stop. Harsh and sudden braking wears out many tires.
4. The Victoria body was named from the original coach built for Queen Victoria of England. It is an open car with a collapsible top, which covers the rear seat only.

5. It is not good practice to run a new gear in contact with one that is worn, because noise will result, due to imperfect mesh of the new and old gear teeth. Also efficient service from these parts will not be obtained.
6. A car will vibrate when gaining

speed if the gears were changed when the car was going too slow. A remedy is to open the throttle more and engage the clutch gradually.
7. A motor cannot operate without springs attached to the valves. The purpose of the spring is to close the valve and hold it closed until it is again forced open by its cam.
8. The speed of a cam shaft is one-half that of a crank shaft.
9. A spark plug replaced in a hot cylinder should not be made very tight. If it is made too tight it will be almost impossible to remove it after the motor cools and the metal contracts.
10. The air pressure in cord tires should be ten per cent less than that in fabric tires.

NEW QUESTIONS.

1. What is the cause of a disc clutch taking hold suddenly?
2. What is the best way to remove dust from the polished surface of a car?
3. What causes leaking at the outlet or inlet connections of a water pump, and how is it remedied?
4. What is the purpose of a shock absorber?
5. What is "back lash" in the steering gear?
6. What is the cause of a squeak in a cylinder?
7. Which carry the more passengers, the automobiles or the railroads?
8. Will a ball bearing be injured if run with one ball missing?
9. To drive a car backward, is its motor made to revolve in the opposite direction?
10. How hot can a water cooled cylinder become before injury is caused to working parts?

1. One of the causes of a disc clutch taking hold suddenly is because of insufficient lubricant in which the clutch turns or because the oil is too thin.
2. The best way to remove dust from the polished surface of a car is first to use a soft dust brush. When all the loose dust is off, wash the car. Never wipe off the car with a rag, as this will cause the dust particles to scratch the paint surface.
3. Leaking at the outlet or inlet connections of a water pump is commonly caused by loose packing at those connections. Draw up or tighten the packing nut and then if leaking continues, replace the packing of graphited asbestos.
4. The purpose of a shock absorber is to keep the spring from working too fast either in deflection or in the rebound after deflection. In other words,

it retards too rapid and violent action of the springs in going over bumps.

5. "Back lash" in the steering gear is lost motion in moving parts at their connections. It means that the front wheels tend to turn to left or right independent of control from the steering wheel. Adjust and remove excessive play in all steering gear connections and examine for any sprung members.

6. The cause of a squeak in a cylinder is lack of lubricant. Excessive friction between the heat expanded piston rings and the cylinder wall will quickly wear the bore and burn the rings unless sufficient oil is soon provided.

7. Automobiles carry more passengers than the railroads in this country.
8. A ball bearing will be injured if run with one ball missing because the strain which the missing member should carry is placed upon the remaining balls, which quickly wears the ball race and frequently causes the breaking of the balls.

9. In driving a car backward or forward the motor always revolves in the same direction. Ratios of speed are controlled by engaging different sized transmission gears arranged on a transmission or driving shaft and a counter shaft, among which are gears which when meshed will turn the driving shaft in the reverse direction, moving the car backwards when the clutch is engaged.

10. A water cooled cylinder should not be heated above 212 degrees, the boiling point of water. In fact, it should be kept below the boiling point of water. In fact it should be kept below the boiling point always. At 212 or above, evaporation will occur in the water in the cooling system and if this evaporation is allowed to continue the temperature of the cylinders will rise and the working parts will very likely be injured and warped.

THIS WEEK'S QUESTIONS.

1. Name seven possible causes for a motor overheating.
2. What is the harm in running a car with the starter motor?
3. How much spring overhauling does a well taken care of car need?
4. Under what conditions of light and temperature should tires be stored?
5. Should the facing of a clutch be oiled?
6. What parts of the electric system need oil?
7. Of what is a chassis composed?
8. What is an automobile accessories?
9. What parts of a motor are the hardest to lubricate?
10. What is meant by dual or two-point ignition?

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