

AUTO SENSE

THE BUMPER PROBLEM

By Williamson



Bumpers protect your car from parking bumps and minor collisions, but a bumper is not heavy enough to afford very much protection in a real crash. When a car weighing 30 miles per hour and strikes a solid object your car is going to suffer, regardless of the bumper. Bear this in mind and do not take chances, with the idea that you are protected. There is one car which leaves the

If you are using a single-bar bumper you can get more protection out of it by clamping vertical strips of steel, about the thickness of the bumper, on the bar in two or three places. Cut the strips long enough to extend about four inches above and below the bar. Drill holes through them and bolt them on, one in front and one behind the bar. There should be a bolt above and below the bar instead

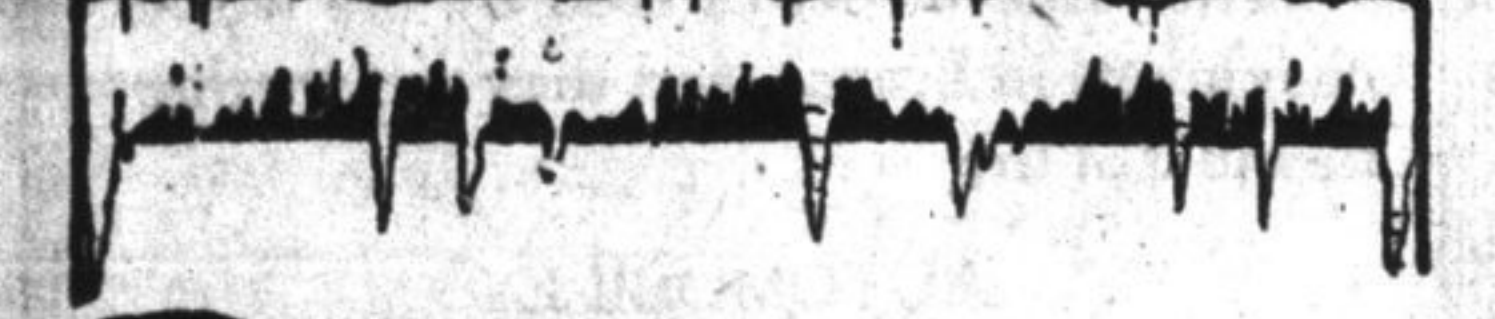
DON'T BE TOO FUSSY ABOUT YOUR MOTOR

Some Drivers Make Mountains Out of Molehills. The old mechanic says: Whenever I look at that fellow's car over there in the corner I think of old Doc Smith and the advice he once gave me when I came to him with the complaint that I was going deaf. Doc says to me, "Maybe it's just a little cold in your ear. Why don't you rest

up for a day and keep a hot water bottle on it when you go to bed?" Sounded like quick advice to me, but I took his advice and it worked. I was just makin' a mountain out of a molehill. A lot of people do that with their car troubles. That car over there's supposed to have a piston slap, but I'll bet all I own that if I was to tear it down I wouldn't find anything of the sort. There's some sort of noise in the valve gear that

sounds like a slap, but I can't seem to convince the owner that it pays to take it easy and wait. He's got his imagination loose and if he doesn't take it easy it'll cost him a lot of money. One day he got a notion that a valve had broken. I happened to be off on a town-in' job and when I got back here was my man takin' the head off the engine on a wild goose chase. All they found was everything in Al order. I imagine a valve stuck for a moment, but the owner wouldn't wait until the trouble remedied itself.

You can save a lot of money on repairs by lettin' things take care of themselves. Of course you've got to know what's what, but a good rule to go by is to take things easy when a repairer fails to get excited after you've told 'im your tale of woe. Remember the old rule that things sometime improve with use. I've cleaned carbon out of many an engine only to have the owner complain, and imagine that I had spoiled it. A few weeks later—if he takes it easy—the chances are that he'll have the finest performance ever.



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HINTS FOR THE MOTORIST THE ALBERT L. CLOUGH

How Transmissions Wear Out Bratol Handling Hastens The Process

IF ALWAYS KEPT WELL LUBRICATED and handled considerately the transmission should give very little trouble and prove one of the longest lived parts of a car. But carelessness in meshing gears will sooner or later seriously damage their teeth. The clashing that occurs upon attempting to engage low, without fully throwing out the clutch, especially if the engine is running fast and that which takes place when reverse gears are jammed together with the car moving forward being almost certain to break chips off the teeth, if the gears are of very hard steel or to round off and deform them if they are not properly heat treated. If this destructive action goes far enough, the effective width of the teeth is reduced, noisy operation results, and there is a tendency unattended toward demeshing and increased liability of stripping. Habitual heavy clashing is very likely to make premature replacement necessary.

Second And High Speeds The great proportion of shifts being between these two speeds, their engaging members usually suffer most rapid deterioration, particularly as so few operators can change down from third to second without severe clashing or are careful about throwing from second to high; the result often being that second speed early becomes very noisy.

Worn Bearings And Noise Accuracy of fit of transmission shafts in their bearings is essential to keep the teeth of gears meshing to exactly the correct depth and if bearings become worn and loose teeth no longer engage properly and become noisy and inefficient. The pinion teeth usually being located near the bottom of the housing, its bearings are rather more copiously oiled from the splash than are the others, but the bearing of that shaft from the clutch and that of the final drive shaft that transmits to the universal joint may be inadequately lubricated if the lubricant is low or so viscous as not to splash.

The Pilot Bearing But the bearing within the rear end of the clutch shaft, upon which the front end of the final drive shaft rotates when "high" is not in use—known as the pilot bearing—is usually the first one to show wear, especially because it is not so likely as others to receive splash lubrication when over viscous or scanty lubricant is in use. This bearing is so close to the second speed sliding gear, that when it gets loose, the mesh of this gear is seriously disturbed and second speed becomes very noisy.



TIRE INFLATION AND SKIDDING H. C. W. asks: Will the brakes of a car apply quicker and harder, making an increased skidding tendency, when pumped to 45 pounds pressure than when pumped to 45 pounds? Answer: We cannot answer the question with accuracy, but the belief is becoming quite general that a large area of contact between the tire and the road depends on its "holding power" and that increased maximum braking effect and resistance to side slip, this being one of the arguments in favor of balloon tires, which have very large contact area. The same questions of general interest to the motorist will be answered by Mr. Clough in this column, space permitting. If an immediate answer is desired, enclose self-addressed, stamped envelope.

Weight Distribution H. C. W. asks: Is the weight of an automobile equally distributed on all four wheels? Answer: No, the intent is to load the rear wheels considerably heavier than the front ones, approximately 60 per cent. of the load being on the rear and 40 per cent. on the front wheels, when the car is fully loaded. The object of the excess weight on the rear wheels is to give them sufficient adhesion to the road, so that they can transmit driving and braking forces adequately. Too much load cannot be taken from the front axle, however, without the sacrifice of steering power and fore-and-aft stability when full power is applied very suddenly on a very steep up grade.

it was back at the garage. It figured that he has "picked up air," whereas it is simply increased air pressure as a result of squeezing the tire by making it support more weight. A low speed engine can be made to wear out just as quickly as a high speed one. It depends upon the use to which the driver puts his car. If a lower speed motor is made to deliver a car speed of forty miles an hour too frequently there is every reason why it should wear out as quickly as a high speed motor that is called upon to deliver only thirty miles per hour as a steady diet.

Pure Water. Even a novice knows that radiators, piping, jackets, etc., are injured and made inefficient through incrustations resulting from mineral substances inherent in all of nature's aqua pura products, save, perhaps, rain water. The only safe thing to use, therefore, is distilled water. This is not always obtainable, but few indeed are places nowadays where artificial ice cannot be found. That's the answer; melt the ice and you have the purest water.

Kingston Markets

Table with market prices for various goods like Bananas, Potatoes, Sugar, etc. Columns include item name and price per unit.

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