HINTS FOR THE MOTORIST

by ALBERT L. CLOUGH

Editor Motor Service Bureau Review of Reviews

Evils Of Unequalized Brakes

One-Sided Braking Is The Commonest Cause Of Skidding

BRAKES WHICH ACT more powerfully on one side of a car than on the other, are not only potentially dangerous, but are uneconomical.

Reduction Of Total Stopping Ability

The utmost retarding effect from a pair of brakes is obtained when they are both applied as forcibly as possible, but just short of locking their wheels. If a wheel locks and slides on the road, its retarding power is reduced and, on the other hand, a brake which cannot be applied forcibly enough to bring its wheel up to the locking point, is not giving maximum results. Clearly then, the two brakes must take hold equally or the utmost total stopping power will not be obtained.

Tires Overloaded By Excessive Braking Duty

With unequalized brakes, when a sudden stop has to be made, one of the wheels is always certain to lock before the other does and usually before the desired retarding effect is realized. This wheel will slip and in so doing its tire-tread will rapidly be worn down, with the result that the fabric will be laid bare in spots, where it will deteriorate and finally blow out. The extra stresses on the particular tire, which is doing a disproportionate share of the braking, also tend to bring about its premature failure.

Effect On Band Linings

If one brake is doing the "lion's share" of the retardation, its band lining wears out at an excessive rate, adjustment will be required at unduly frequent intervals, and renewal will be necessary all too soon. The most reliable and economical service from brake linings is secured when they wear out equally and both have to be replaced at the same time.

Danger Of Side Slip

But the really vital objection to unequal action of a pair of brakes is the skidding danger involved. The effect of one brake setting powerfully and the other hardly at all is like that which would be produced by forcibly pulling back on the former side of the car. It tends to turn the car around and if the road is slippery, it does so, often with most disastrous results.

HEADLIGHT BULBS BURN OUT

G. F. writes: I am having trouble with the burning out of headlight bulbs on my ——— car, both of them giving out at the same time. The generator is charging at about 8 to 10 amperes. I have examined the wiring for short-circuits, but can find none. What do you think is wrong?

Answer: Too high generator voltage, probably caused by abnormally high resistance somewhere in the charging circuit, is the most likely occasion for this trouble. You better make sure that there is sufficient liquid in each of the cells that both battery-cable clamps are tight and that their contact surfaces are perfectly clean and that the connections at the ammeter and elsewhere between the generator and battery are not loose or dirty. The recommended charging current for this car is 15 amperes at a 35 m. p. h. speed and the fact that your generator is passing but 10 amperes, rather indicates that there is too much resistance in the charging circuit. Short-circuited wiring does not cause bulbs to burn out.

HILL CLIMBING SUGGESTIONS

J. E. S., Jr., asks: What is the best procedure to follow when attempting to take a hill on high gear?

Answer: Unless a car has a surplus of power or unless the road surface is too rough to warrant it, the car should be speeded up just before the hill is reached and kept at a good rate of speed by gradually opening the throttle. If ignition is not automatically timed, it may be necessary to retard the spark somewhat, as engine speed falls under the effect of the grade. With a car having a superabundance of power, it is not necessary to "rush" hills, unless they are exceptionally steep. If one is not skillful in shifting gears or if the brakes are weak, it is not wise to try to take very steep hills "on high," especially if only moderate engine power is available. It is better to change to second speed before the hill is reached. In case car speed falls much below 10 m. p. h. on high gear, with wide open throttle, in hill climbing, a change to second speed is usually found desirable.

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

A hot running auto engine should use heavy oil for the best results. All oil thins when it is heated. An engine runs hot or cool according to the kind of work it does and the way it is designed.

Too Involatile Non-Freezants

Their Use Involves Danger Of Overheating

ONE DISADVANTAGE OF ALCOHOL as a non-freezant is that it boils and is lost as vapor at a temperature lower than that at which gasoline engine cylinders can be operated most efficiently. A corresponding advantage of glycerine mixtures, calcium chloride solutions and even of kerosene and other oils is that they do not boil and vaporize even at temperatures high enough to insure excellent engine efficiency. An engine with alcohol mixture in its jackets necessarily has to be run cooler and less economically than as if water were in use, while if glycerine mixture is the liquid employed, it can be run hotter and somewhat more efficiently than it could be with water in its cooling system. However, there is danger of pushing this advantage too far. If an anti-freezant is used, which boils at too high a temperature, there is danger of decomposed lubricating oil, scored cylinders, burned bearings and pre-ignition of fuel charges, as well as a possibility of melted radiator solder. For example, if one were to use straight glycerine, which boils at about 500 f., the above mentioned difficulties would develop and similar, but worse consequences are possible in the use of kerosene and other oils, if the temperature is not carefully watched. Another fact of significance is that water rises in temperature the least of all liquids, upon the application of a given amount of heat, or in other words all other liquids "heat up" faster than water does.

MAIN BEARING ADJUSTMENT

C. B. C. asks: Should the main bearings of the engine of a ——— car need taking up after only 7,000 miles of service? My mechanic says that one of the main bearings of my engine is loose, although he cannot tell which one and I think that I can detect a slight bearing knock, myself, but it is my impression that an engine which has been as carefully run as mine should go much more than 7,000 miles without requiring adjustments of this kind.

Answer: We agree with you that, so far as normal wear is concerned, any good engine should give a much longer service than this, without requiring adjustment of the main bearings. However, if abnormal wear occurs, readjustment may be required at a much less mileage than this. Any failure of the oil supply or the use of very much thinned or extremely dirty oil are examples of causes of abnormal wear and if this engine has ever been run without oil or with the oil pipe broken, excessive bearing wear would be expected. It is possible that the knock which you hear is from some other cause than loose main bearings and we suggest that you have a most careful examination made before assuming that this defect is present. Ordinarily main bearing knocks are most pronounced when the engine is pulling its hardest at low speed, as in hard hill climbing.

NEEDS A COLD-RESISTING OIL

O. T. B. writes: The engine of my Ford turns over so stiffly, when it is to be started from a cold condition, that I have to resort to jacking up a rear wheel and effecting starting in this way. The clutch is in correct adjustment and I am using light oil. When cold, it seems as if the moving parts were frozen or glued together, but after it has been run for a time, the starting crank turns easily. How can this trouble be overcome?

Answer: Your difficulty can probably be much reduced by shifting, to some other brand of oil, which will withstand low temperature with less stiffening. We suggest that you obtain samples of various reputable makes of light oil, which are claimed to pour readily at temperatures not far above zero. Expose these samples along with a sample of your present oil to the cold, see which stiffens the least and try using that particular brand. You can probably find a lubricant that will ordinarily remain thin enough, so that clutch discs will not drag and piston friction will remain reasonable, even in pretty cold weather.

BRITTLE CELLULOID

O. F. B. asks: How can transparent celluloid, in side curtains, be made more pliable, so that it will not break so easily?

Answer: There is no way of accomplishing this, so far as we know.

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DO NOT BURN OUT BRAKES DOWN HILL

On a long decline fast driving with the brakes engaged will quickly burn up and wear out the best brakes. Drive in second gear on long grades and add thousands of miles to the life of brakes, and have the car under better control. When stopping, instead of clamming the brakes on with the car under full speed, disengage the clutch and let the car slow up preceptibly before applying the brakes. This will save brakes, tires and rear axle assembly from the strain of abrupt brake application. When driving through heavy rain-storms or splashing puddles, test foot brakes frequently to see that they stay dry. When wet, they may fail in an emergency. On the grade, alternate between foot and emergency brakes, rather than leaving the foot brakes on long enough to overheat. Use brakes only when necessary and do not permit overheating.

Kingston Markets

Friday, Sept. 17.

Butter, creamery, lb	40-42
Butter, dairy, lb	35
Cheese, new, lb	25
Cheese, old, lb	35
Eggs, new laid, doz	38-42
Fish.	
Cod, lb	15
Fillets, lb	25
Finnan Haddie, lb	20
White Fish	25
Haddock, fresh, lb	15
Halibut, frozen, lb	35
Kippers, pair	20
Pike, lb	15
Sagueney, salon, fresh lb	50
Trout, salmon, lb	25
White fillets	25
Mackerel	15
Pickerel	25
Fruit.	
Bananas, doz	40-60
Oranges, doz	40-75
Lemons, doz	30
Prunes, Cal., lb	15-25
Peaches, Evap., lb	20
Hay, Grains, Seeds.	
Barley	$1.00
Bran, ton	$30
Buckwheat, bus	$1.00
Corn, imported	$1.00
Cream of the West	$4.50
Hay, baled, ton	$14
Hay, loose, ton	$10
Household	$4.50
Oats, local, bus	60
Middlings, ton	$40
Straw	$5.00-$6.00
Shorts, ton	$32
Wheat, local	$1.50
Timothy, bus	$5.00
Red Clover, No. 1 bus	$16
Red Clover, No. 2, bus	$14
Alsike, bus	$13-$14
Alfalfa, Can. 2	$12
Sweet Clover	$5.00
Hides, etc.	
Deacon skins, each	65-75
Horse hides	up to $2.50
Beef hides, lb	6 to 8
Bulls, over 60 lb	4
Veal, skins, lb	10
Veal, kips, lb	7
Fresh lambs	75
Tallow, rendered in cakes, lb	6½
Ginseng, wild, lb	$11
Bees wax, clear, lb	28
Wool, unwashed, lb	20-22
Wool, washed, lb	26-27
Meats and Poultry.	
Steak, porterhouse, lb	35
Steak, round, lb	25
Boiling cut, lb	12-15
Stewing cuts, lb	10-12½
Beef, western	14
Beef, local, lb	8-10
Loin, roasts, lb	25-30
Shoulders, roasts	25
Hogs, live weight, cwt	12
Chops, lb	30-35
Front	22-23
Hinds	26-27
Hogs, dressed, cwt	20-21
Bacon, breakfast, sliced	45-50
Bacon, cuts	40-42
Mutton:	
Hinds, lb	20
Mutton, chops, lb	20-25
Mutton, carcass	15
Chickens, lb	28-30
Fowl, lb	25
Turkey, lb	40-45
Veal:	
Carcass, lb	10-15
Hinds	15-20
Fronts	8-10
Cutlets	25
Spring Lamb:	
Spring lamb, fronts lb	25-30
Spring lamb, carcass lb	23-25
Spring lamb, hinds, lb	35-40
Vegetables.	
New potatoes, bus	1.25-1.40
Cabbage, head	7-10
Carrots, bunch	5c

The astronomical day begins at noon, the civil day at midnight.