G78–14 Load Range B

DIAMETER

This number designates the nominal diameter of the center of the tire. Therefore, it is also the diameter of the wheel used with this tire.

LOAD CAPACITY

This letter designates the load that the tire will carry at a given inflation pressure. The following chart compares tires of equivalent load capacity for conventional as compared to wide tread designs.

Conventional	Wide Tread
7.35	E
7.75	F
8.25	G
8.55	H
8.85	J
9.15	L

LOAD RANGE

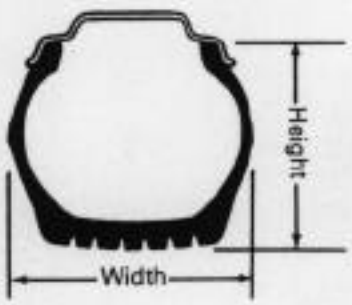
In the past, the range of load capacity for a group of tires has been designated by a "Ply-Rating" system. With the advent of the belted construction tire, however, "Ply-Rating" has become somewhat misleading, since a belted tire has a 2-ply sidewall and a 4-ply tread. Therefore, the load range is now denoted by a letter, rather than a "Ply-Rating."

Old System	New System
2-Ply/4-Ply Rating	Load Range B
4-Ply/8-Ply Rating	Load Range D

Note that Pontiac does not use Load Range A or C tires.

SECTION RATIO

This number denotes the percentage ratio of the tire height to width, as shown.



$$\frac{\text{Height}}{\text{Width}} = \text{Section Ratio}$$

Thus, a G78 tire is 78% as high as it is wide. This compares with a section ratio of about 83% for a conventional tire (7.75, 8.55 etc.). Following are a few examples of the relationship between size designations and section ratio.

Tire Sizes	Section Ratio
7.35, 7.75, 8.25, etc.	83
E78, F78, G78, etc.	78
E70, F70, G70, etc.	70
F60, G60, etc.	60

it was shaved, but it still finished respectably, about in the middle of the pack.

Does that mean tires improve with age? Not exactly—and certainly not indefinitely. At some point of wear, wet performance will drop dramatically. And even half-worn tires won't perform as well as new ones in snow. What it does mean, though, is that drivers generally needn't worry about performance falling off under normal driving conditions for at least the first 20,000 miles or so.

Recommendations

With the possible exception of the *General Ameri-Tech ST*, all the tires we tested provide satisfactory overall performance. The top four brands did even better than that in our safety-oriented tests.

Once again this year, the *Goodyear Aquatred* ($85 average price) topped our Ratings by a small margin. It performed particularly well in our wet-pavement tests, in both hard stops and hard cornering. It also braked and cornered very well on dry pavement, and our testers liked the way it handled through tight turns. The *Aquatred* was noisier than average for this group, but our testers didn't find the noise all that bothersome. The *Aquatred* also has rather high rolling resistance, which means that it might reduce fuel economy slightly.

The *Bridgestone Turanza S* ($75 average) also did well on wet pavement, and it stopped a little shorter than the *Aquatred* on a dry track. Without antilock brakes, however, the *Turanza's* wet-braking ability declined to average.

Two other worthy tires are the *Dunlop Axiom* and the *General Hydro 2000*. The *Axiom* turned in a good, solid overall performance. And at $66, on average, it looks like the bargain of the bunch. The *Hydro* ($78) braked very well both with and without antilock brakes. It also cornered well on dry pavement, though it scored a notch or two below the *Aquatred* in wet cornering.

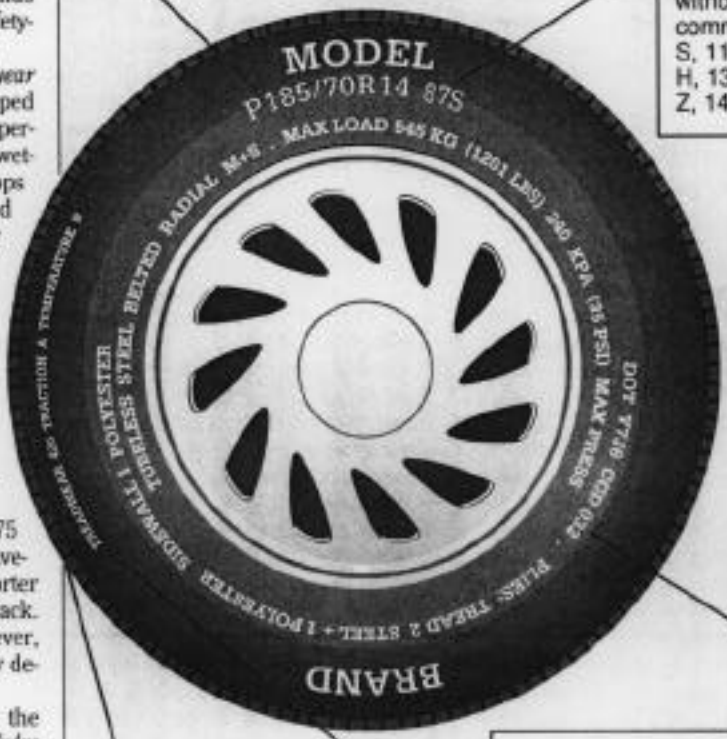
Extrapolating test results from our P185/70R14-size tires to other sizes is risky. However, we've noted in previous tests a certain consistency among tires of the same profile (the "70" in our tires' size designation) and speed rating. Thus, we're reasonably confident that 15-inch, 70-series versions of these tires with a speed rating of S would perform similarly to the 14-inch tires we tested. ■

HOW TO DECODE A TIRE

The U.S. Department of Transportation requires tire manufacturers to provide a wealth of information on the sidewall of every tire. Other useful information, not Government-mandated, may appear there as well. Trouble is, most of the information is in code. Here is a guide to deciphering the most important items.

Tire size. The "P," if present, indicates a passenger tire. The "185" is the nominal **width** of the tire's cross section in millimeters. The "70" is the **aspect ratio**, the ratio of the sidewall's height to the tire's cross-sectional width. This sidewall is 70 percent as high as the tire is wide. The "R" stands for radial—virtually all passenger-car tires use radial-ply construction these days. The "14" is the **diameter**, in inches.

Load index and speed rating. In this example, 87S, the "87" is a code indicating the maximum weight the tire can carry at its maximum rated speed—not very useful information to most people. The "S" is one of several possible speed ratings, or the maximum speed that the tire is supposed to sustain without failure. Some common speed ratings are: S, 112 mph; T, 118 mph; H, 130 mph; V, 149 mph; Z, 149 mph or more.



Manufacturing date. Embossed on every tire is a DOT serial number followed by a letter code indicating which plant made the tire, and finally a rectangular depression with a three-digit date code. The first two numbers are the week of the year. Hence, a date code of 053 would indicate the fifth week of 1993.

Traction and temperature. The Government specifies a test protocol for traction and temperature-handling capabilities on a scale of A to C, with A being the best, C the worst. The **traction** score is an index of straight-line stopping ability on a wet surface. It's an undemanding test; about half the passenger-car tires made are rated A. The **temperature** grade is an index of a tire's ability to withstand the heat that high speeds, heavy loads, and hard driving generate. All the tires tested rated B in temperature.

Tread-wear index. This is a gauge of expected tread life. The Government, through something called the Uniform Tire Quality Grading system, specifies tests where the tread life of each tire is rated against a "reference" tire graded at 100. A tread-wear rating of 420 means that—in theory, at least—the tire should last 4.2 times as long as the reference tire. In our experience with typical tires, a tread-wear index of 180 is quite low; an index of 500, quite high.

Note that actual tread wear is greatly affected by driving style, type and condition of the vehicle, and type of road surface. Many observers within and without the tire industry have criticized these tests on several technical bases and because the tests are run by the tire makers themselves, without independent verification. The criticisms may be apt, but, as of now, the tread-wear index is the only game in town.