

ALFA TECH: ON CHOOSING TIRE AND WHEEL SIZES



It is indisputable that the Alfa Spider is a gem of design, having been conceived on the Giulia platform in the early-1960s. The body was able to remain remarkably fresh until production ceased in April of 1993.

At that point the Spider was the last car in production using the 105 series idea and parts; it was forty years old, and the end of the Spider finished Alfa's familiar DOHC engine, rear-drive differential, transmission, steering and suspension. While a great-looking car still sought after and cherished by many, the design remained largely unchanged from its birth over forty-five years ago. Esthetic concerns run deep in the sports car community and it is tempting to many to improve upon the Spider's great visual appeal. While the remarks concerning a wheel change to 16- and 17-inch applications in an earlier issue of Alfa Giornale were spot-on, there are also reasons not to do so. This chassis was very carefully engineered by the best in the world. It was intended to ride on 15- or 14-inch wheels with tire aspect ratios of 80, 70, or 60 percent. Installing oversize wheels requires

aspect ratios as low as 40 percent in order to achieve clearance inside the wheel openings. A 40-series tire delivers harsh ride quality and is not well matched to the rubber bushings specified by Alfa engineering.

A large wheel becomes a heavier wheel, and heavy wheels adversely affect driveability, as seen in the Quadrifoglio versions which drive not nearly as well as Spiders on 14-inch rims and 70-series tires. The Quad wheel is remarkably heavy, adding unsprung weight and unnecessary inertia concerns along with ride quality consistent with a stiffer 60-percent sidewall.

In our workshop we never recommend 'performance' suspension setups for the road, and have removed many of those kits for the restoration of ride quality. The same advice would apply to clients contemplating a change to oversize wheels.

Racing applications are a different criterion, where reducing suspension deflection meets its limit at the point of manufactured chassis' integrity.

Submitted by an independent Alfa mechanic