

Note 39



Bugatti T51 Overspeed Capability:- Varzi v. Nuvolari at Monaco, 1933

In the famous race-long duel between Achille Varzi (in a Bugatti T51) and Tazio Nuvolari (Alfa Romeo 8C 2.6 L modified Monza) at Monaco in 1933, it is reported that the former over-revved to 7,000 RPM in 3rd gear up the hill to the Casino on the 100th and last lap to beat his rival Italian (887), i.e. 1,500 beyond peak power. The Alfa was also grossly over-revved at the same time and suffered a broken oil pipe – probably from a resonance – (which caused a brief under-bonnet fire). This was followed by a plain main bearing failure when oil pressure dropped (these conclusions are deduced from 3 reports (923,924,925) consolidated logically – another report, considered to be less likely, mentions a broken piston (887) – pity the technical analyst!). Nuvolari stopped, started to push but a mechanic helped and by the rules the driver was then disqualified.

With $R = 6$ and only 14° of overlap the T51 obviously did not suffer immediately-fatal off-cam valve strikes against the pistons or each other, despite the abuse which it suffered. Conversely, had the Alfa been fitted with roller bearings it might have survived oil starvation long enough to finish.

Fig.N39A
Varzi leading Nuvolari at the Station Hairpin
DASO 887

