

Note 38



FIAT racing aero engines

Although FIAT built an unsuccessful experimental 2 x IL6 1.5 L 2-stroke engine in 1925 ([see Note 24](#)) and then a 2 x IL6 1.5 L which won a very short race at Monza in 1927 (66), much of their attention for the 12 years after 1924 was devoted to aero engines for the seaplane Schneider Trophy races and for the World's Air Speed Record (WSR). They powered the Macchi floatplanes which won the former in 1926 (type AS2 60V12 31.3 L) and secured the latter in 1928 (type AS3 60V12 35.2 L).

Tranquillo Zerbi, the engineer who had conceived the 2-stroke (66), produced the final successful WSR engine in 1934. This was type AS6 60V24 50.2 L of 3,000 HP (686). The speed of the Macchi-Castoldi type 72 with this engine was 441 MPH which remains unbeaten as the seaplane record.

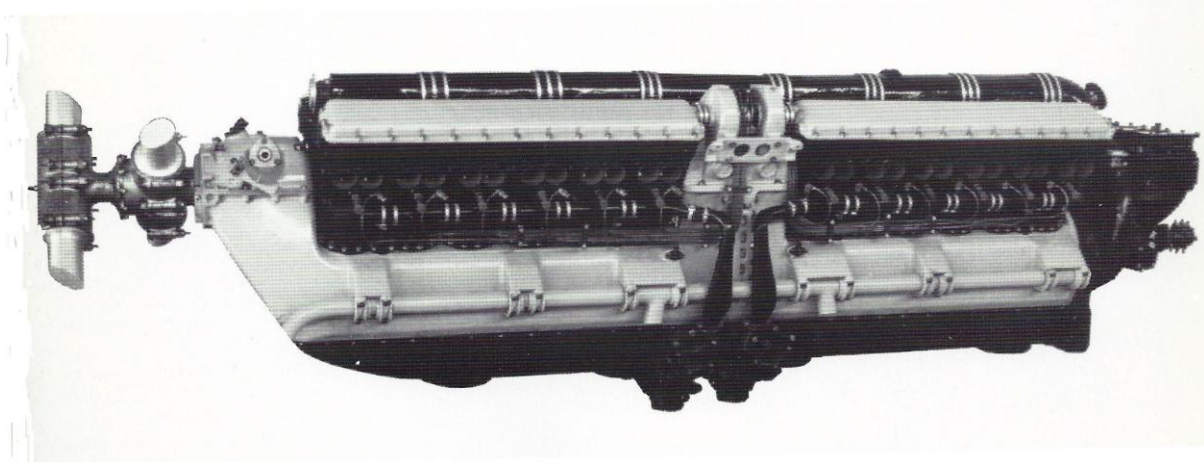
Principal Characteristics of Fiat Race Engines

Type	Power (hp)	Revolutions per Minute (rpm)	Bore and Stroke (mm)	Capacity (liters)	Compres- sion Ratio	Supercharge Pressure (meters of water)	Weight (kg)
AS2	800	2,300	140 x 170	31.34	6.0	—	388
AS3	1,000	2,400	145 x 175	35.16	6.7	—	422
AS5	1,000	3,200	138 x 140	25.10	8.0	—	345
AS6 (Bleriot Cup)	2,500	3,200	138 x 140	50.20	7.0	4.30	930
AS6 (Speed Record)	3,000	3,300	138 x 140	50.20	7.0	8	930

4.3 mH₂O = 42.3 inHg(abs) = +6.25 psi(gauge)

8.0 mH₂O = 53.1 inHg(abs) = +11.50 psi(gauge)

1934 FIAT AS6



Credit for data and picture; *Torque Meter* Fall 2007 article by Jerry Wells