

Note 88B



90° shift of major axis on connecting rods

A shift of con rod section from I to H (considered with the crank axis horizontal) had been made in the Wright R3350 radial 18-cylinder 55L aero engine developed for the Boeing B29 Super-Fortress in 1942. It was considered that gas loads off-centre along the gudgeon-pin axis needed a stiffer section to better resist tilting. Previously it had been taken for granted that the rod section priority was to resist centrifugal fling. Clearly the relative level of BMEP against N^2 would affect this issue, and the R3350 was highly supercharged.

In 1963 Fred Carrillo founded a firm in California to supply H-section rods to the tuners of US engines. Subsequently they have been, and still are, used in many types of racing engine, eg the TC types Cosworth DFX, Renault and BMW (Eg 64) but later NA engines have I-section rods, eg Ilmor 2175A (see Eg 82) and Ferrari 049 (Eg 85).

Fig. N88B(A)
Cosworth DFV
I-section con.-rod.
DASO 858 Motor 6 May 1967

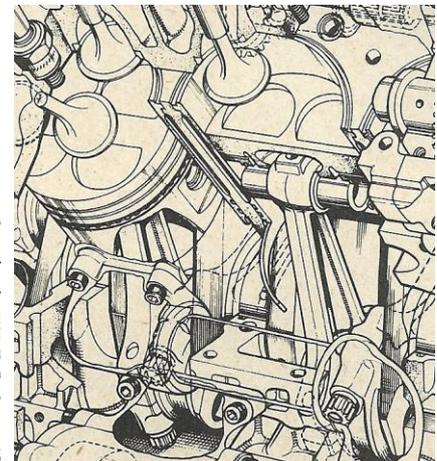


Fig. N88B(B)
Cosworth DFX
H-section con.-rod.
DASO 59

