

# Douglas



## Motorcycle Connecting Rods

Available for the first time since the early nineteen- thirties, new connecting rods for the Douglas Dirt Track and Speedway 500 and 600cc models. Machined from solid billet premium aircraft grade steel, these connecting rods exceed the originals in all aspects. The result of five years investigation, development, and manufacture. Small design improvements have been incorporated to make a superior rod.

Original connecting rods varied greatly in section from one rod to the next. Many were released with varying degrees of forging flaws. Many more have been reduced further still in section and strength by over zealous and unscientific polishing and 'lightening'. All are a minimum seventy years old, with many hours of fatigue. Due to proximity of the camshaft, the big end eye was never of sufficient size to allow a separate press in bearing race, which would have permitted unlimited rebuilds. The big end can only be safely re-honed a few times before the case hardened surface is compromised. Many original big end eyes are also stretched oval beyond reclamation from excessive RPM.

- Intended for the 82mm 'long stroke' DT and SW model Douglas 500 & 600cc o.h.v. engines. Will also fit earlier 82mm stroke engines using a 5.75" center distance rod.
- Machined from a thirteen pound billet of wrought steel, final weight only 224 grams!
- Premium electric furnace-vacuum degas-aircraft quality Timken™ steel. 3% Nickel-Chromium, 9310 AISI/SAE spec 'Nitalloy'. Superior metallurgic uniformity and purity over originals.
- Roller bearing surface of the big end bore and the adjacent side faces are case-hardened 0.035-0.040" deep with a surface hardness of RHc 62-64. The core as well as the rest of the rod is hardened to RHc 36-38 for excellent shock resistance. Ultimate tensile strength of approximately 170,000 psi, yield of 150,000 psi.
- Cryogenic tempered at -300°F to a full martensitic structure in the case for enhanced wear resistance and release of residual stress in the core. Superior metallurgic refinement over originals.
- Small end honed to  $\text{Ø}0.7500 +0/-0.0002$ ", ready for bronze bush (not included.)

- Larger radius between I-beam and big end eye (1.5" verses original 0.5") for greater strength and less stress. Big end eye has a central stiffening rib as per original. Adjacent portions of big end eye increased to maximum diameter permissible for improved rigidity.
- The big end is available honed up to  $\text{Ø}0.003$ " under standard size, allowing the use of standard  $\text{Ø}1/4$ " rollers on re-lapped crankpins. This avoids the expense and trouble of finding oversize rollers, which are getting difficult to procure in small quantities. Big ends can also be supplied honed to standard ( $\text{Ø}1.6926$ " ) or left bored  $0.005$ " under standard diameter for honing to final size later.
- Shipped treated with industrial corrosion inhibitor.



\$750 US, sold as a matched pair only.  
Packing, postage, and insurance extra.

For availability and queries email:

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