



Connecting Rod Rebuilding Cautions

The AERA Technical Committee offers the following information regarding connecting rod rebuilding cautions. This information pertains mostly to heavy duty diesel engines but really applies to any “Full Floating” connecting rod using a bushing on the rod small end. This information should be considered anytime the small end bushings are being considered for replacement.

Keep in mind all replacement pin bushings supplied come with a semi- finished inside diameter and require “fitting” to the piston pin after bushing installation. The amount of bearing material to remove varies greatly depending on the engine application and rod bushing supplier. As an example, some John Deere bushings may require several different attempts to find adequate bearing material to remove from the inside diameter.

It’s also been reported the bushing thickness may not been evenly distributed around the circumference of the bushing. An extreme caution is expressed here as that may adversely affect the rod center-to-center length if that bushing is hone fit. The rod may become either too short or too long affecting the resulting piston protrusion.

Another caution expressed by manufacturers for cracked rods while they’re removed from an engine relates to careful handling and storage:

- The two pieces of the connecting rod cannot be rubbed together. This will damage the unique mating surfaces.
- Do not drop either piece of the connecting rod. Fracture split connecting rods must only be handled if the two pieces of the connecting rod are tightened to the correct specification, or are completely separated.
- The fracture joint may produce debris at each separation.
- Use solvent and nylon bristle, brush to clean the contact surface between the connecting rod and the connecting rod cap. Dry the contact surface with compressed air and assemble the lower cap portion to the connecting and tighten the bolts.