

696, 696M Crankshaft Distortion Dial/Strain Gage

2-3/8-18" / 61-458mm

Ideal gage for checking bearing alignment or shaft deflection without dismantling the engine. Also useful as a strain gage on engine frames. This inside measuring gage checks the distortion of crankshaft webs and bears a direct relation to existing misalignment or excessive bearing wear. Used on all diesel engine shafts and center crankshafts on any type of engine or compressor, the gage can also be applied as a strain gage on engine frames while the engine is operating. A comparison of readings taken at top and bottom positions indicates any misalignment of cylinder and frame which results in local over-stress and eventual cracking of the frame neck.

With a special spring tension in the dial indicator, the gage is self-sustaining in any position without sacrificing necessary rigidity, leaving the operator's hands free. Hardened and ground to a sharp point, conical contact points have an approximate 60° included angle, and will stay in place on 45° surfaces.

696B Balancing Attachment is furnished with the gage. For certain applications, like turning the crank under test with the gage in place, the attachment can be adjusted to maintain the face of the indicator upward or in desired position. To install on a strain gage in use, remove the knurled clamping nut, then the doweled plate or end strap at either end by the screw. The unit is then positioned over the hubs on two sides of the indicator head. A spring plunger provides the friction that holds the balance in proper relation to position. The parts are nickel plated.

The dial indicator movement is approximately 5/32" (4mm) and with rods and extension, provides a range from 2 3/8-18" or 61-458mm. There are 10 rods and one extension furnished. Rods are marked to designate the approximate overall length of the gage. Indicator has a movable bezel to adjust the dial in relation to the hand and a non-breakable crystal.



696B Balancing Attachment

Designed in collaboration with Hartford Steam Boiler Inspection and Insurance Company. It was known as the Hartford Steam Boiler Engine Strain Gage and is used by their inspectors to check the distortion of engine shafts and frames.

696 & 696M Crankshaft Distortion Dial/Strain Gages

Range	Dial Indicator		Range One Rev.	Description	Catalog No.	EDP
	Graduation	Dial Reading				
2-3/8-18"	.001"	0-20-0	.040"	Strain Gage with Balancing Attachment	696Z	52901
61-458mm	0.02mm	0-50-0	1mm	Millimeter Strain Gage with Balancing Attachment	696MZ	52902
Balancing Attachment Only					696B	52903

Gage furnished with 10 rods, sharp points and balancing attachment in attractive, protective case.

FIG. 1

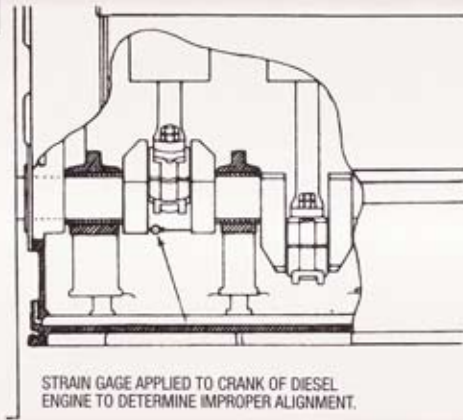


FIG. 2

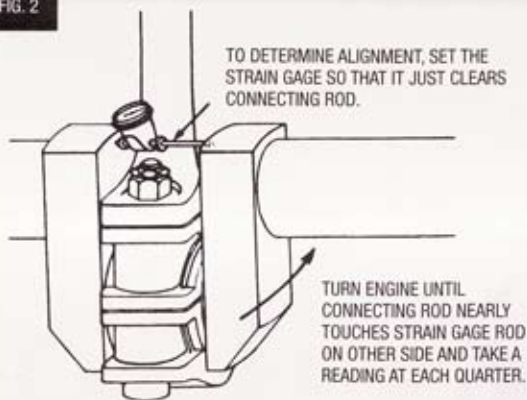
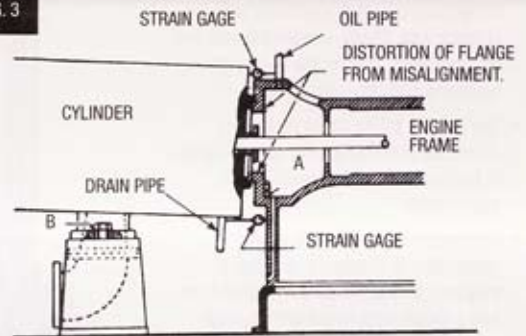
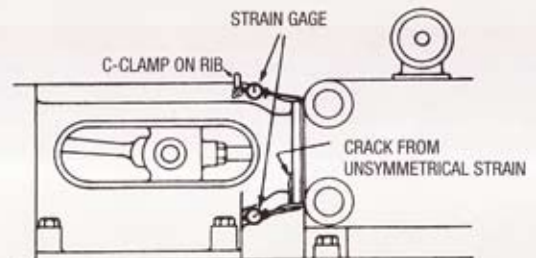


FIG. 3



MISALIGNMENT OF CYLINDER AND ENGINE FRAME (SHOWN EXAGGERATED FOR PURPOSES OF ILLUSTRATION).

FIG. 4



STRAIN GAGE APPLIED TO ENGINE FRAME (WHILE OPERATING), DIFFERENCE BETWEEN TOP AND BOTTOM READINGS OF THE STRAIN GAGE INDICATES IMPROPER ALIGNMENT, CAUSING CRACKS.