

Tech Notes

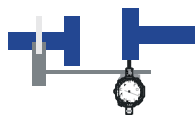
Rim Dial Indicator Readings and Offset Misalignment



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Tech Notes: Rim Dial Indicator Readings and Offset Misalignment



The *rim* dial indicator is mounted perpendicular to the shafts with the plunger making radial contact on a coupling hub. The rim indicator is used to measure offset misalignment. To determine vertical offset misalignment, the rim indicator is set to zero at a vertical position (12:00 or 6:00) and rotated 180 degrees. To determine horizontal offset misalignment, the rim indicator is set to zero at a horizontal position (9:00 or 3:00) and rotated 180 degrees. This process **does not** give results that are actual shaft offsets. The measurement determines the vertical or horizontal *Total Indicator Reading (TIR)*. Divide TIR by two to determine the actual offset.

Two other factors are important in determining the offset misalignment:

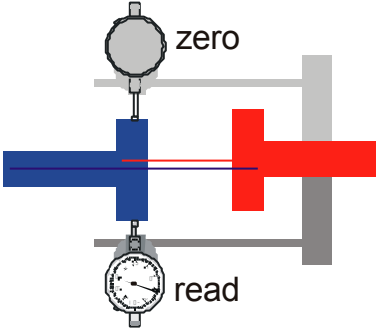
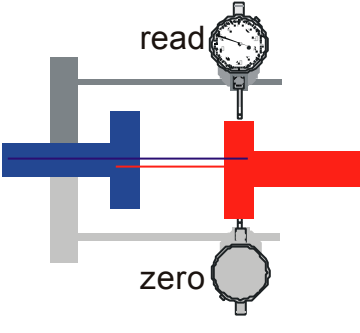
1. If the two shafts are not parallel, the offset will be different at the two hubs.
2. The direction of dial indicator travel (+/-) does not necessarily indicate the actual movable shaft position. The signs will be a function of which hub the rim indicator plunger is contacting and at which clock position the rim indicator is set to zero.

To determine offset misalignment, divide the TIR by two and determine whether the movable shaft is high (+) or low (-), away (+) or near (-).

Examples:		
<p>zero</p> <p>read</p>	<p>read</p> <p>zero</p>	<ul style="list-style-type: none">• The dial indicator value is two times the actual shaft offset misalignment.• The sign of the indicator reading will change depending on where the indicator is set to zero.• Offset misalignment is considered positive if the movable shaft is high or away.• Offset misalignment is considered negative if the movable shaft is low or near.
Negative reading / positive position. The movable shaft is high or away	Positive reading / positive position. The movable shaft is high or away	

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 <p>Positive reading / positive position. The movable shaft is high or away</p>	 <p>Negative reading / positive position. The movable shaft is high or away</p>	<ul style="list-style-type: none">• The dial indicator value is two times the actual shaft offset misalignment.• The sign of the indicator reading will change depending on where the indicator is set to zero.• Offset misalignment is considered positive if the movable shaft is high or away.• Offset misalignment is considered negative if the movable shaft is low or near.
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