Measuring the Pitch Angle Across the Engine Mount



Method 1

Method 2

SIDE VIEW

Both methods are acceptable and give the same results as long as the bracket is flat and straight. If the bracket is not flat and straight, use Method 2.

- 1. With a 300 mm (12") ruler or straightedge located as shown, measure dimensions A and B. Measure at the ends of the ruler.
- 2. Each degree of angle = 5 mm (.21") of difference between A and B:

 $Misalignment angle = \frac{(Difference between A and B)}{5 mm} \text{ or } \frac{(Difference between A and B)}{.21 inch}$

3. The misalignment angle should not exceed 4° (20.5 mm or .84" difference between A and B). If it does, realign the engine brackets or use wedges under the mount to get the angle below 4°.

Measuring the Yaw Angle Across the Engine Mount



- 1. The stringer edge can be used as a reference due fore-aft in the hull. If it does not, find another reference that does run due fore-aft and use that to make these measurements and align the mounts.
- 2. With a 300 mm (12") ruler or straightedge located as shown, measure dimensions A and B. Measure at the ends of the ruler.
- 3. Each degree of angle = $5 \text{ mm} (.21^{"})$ of difference between A and B:

 $Misalignment angle = \frac{(Difference between A and B)}{5 mm} \text{ or } \frac{(Difference between A and B)}{.21 inch}$

4. The misalignment angle should not exceed 2° (10 mm or .42" difference between A and B).

Measuring the Roll Angle Across the Engine Mount



- 1. With a short ruler or straightedge as shown, measure dimensions A and B at the edges of the mount's cast housing.
- 2. Each degree of angle = $1.5 \text{ mm} (.06^{\circ})$ of difference between A and B:

Misalignment angle = (Difference between A and B, mm) 1.5 mm or (Difference between A and B, inches) .06 inch

3. The misalignment angle should not exceed 2° (3 mm or .12" difference between A and B).

Engine Mount Hole Patterns

The bolt holes must be drilled accurately to avoid building in stresses across the mounts.

If the holes are drilled after the engine is dropped, the mounts can be used as hole marking templates.

If the holes are drilled before the engine is installed, the hole pattern must be accurate to within 1.5 mm (.06 inch) on all the dimensions shown:



Dimensions L and D per engine manufacturer drawings.

Dimension X must be the same within 1.5 mm (.06 inch) measured both ways.