

VibrAlign Laser Alignment Tips

How to Interpret the Shaft Hog Alignment Results

Once you have taken your initial set of readings the Shaft Hog is live all the time. This means that if the heads are positioned at 12 o'clock you are reading vertical values and if the heads are rotated to 3 o'clock you are reading side to side values. In either case, you are adjusting the feet values towards zero until the angularity and offset tolerances are satisfied.

Heads are at 12 o'clock



When the heads are at 12 o'clock the values on the screen represent vertical values.

The top number represents the angularity in mils/inch. This is the slope relationship of the moveable machine to the stationary and is one of the alignment quality indicators. In this case it is .2 mils/inch angularity. The icon normally shows which way the moveable is sloping, but in this instance, since it is below .5 mils/inch angularity the icons go neutral.

Shaft Hog Screen Reads:



The second number represents the offset in mils at the center of the coupling. This is also an alignment quality indicator. In this case the motor is 19 mils low at the center of the coupling. The icon to the right is low indicating the moveable is low at that point.

F1 is the value at the front feet of the moveable. In this case it is negative 20.9 mils. This means the front foot is 20.9 mils low so the alignment correction is to add as close to 20.9 mils of shim as you can. (20 mil shims under each front foot)

F2 is the value at the rear feet of the moveable machine. In this case it is negative 23.5 mils. The alignment correction is to add as close to 23.5 mils of shim as is realistic. (either a 20 and a 3 under each rear foot, or a 25 under each rear foot).

Make all of the corrections together. Put the appropriate amount under both front feet (F1) and the appropriate amount under both rear feet (F2). Check the updated results. If satisfied roll the heads to 3 o'clock and do the horizontal adjustment. If not add or subtract shims as necessary.



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Heads are rotated over to 3 o'clock



When the Shaft Hog detectors have been rotated to 3 o'clock the numbers update to read the alignment in the side to side direction.

Shaft Hog Screen Reads:



The top number represents the angularity in mils/inch. This is the slope relationship of the moveable machine to the stationary and is one of the alignment quality indicators. In this case it is .4 mils/inch angularity. The icon shows which way the moveable is sloping, but in this instance, since it is below .5 mils/inch the icons go neutral.

The second number represents the offset in mils at the center of the coupling. This is also an alignment quality indicator. In this case, if the motor is to your right the motor is 6.9 mils away from you at the center of the coupling. The icon to the right is away (high) indicating the moveable is away from you at that point.

F1 is the value at the front feet of the moveable machine. In this case it is positive 10.9 mils. This means, if the moveable machine is to your right, the front foot is 10.9 mils away so the alignment correction is to move the front foot of the moveable towards you by 10.9 mils. The unit is live so start making your adjustments while watching the feet values go toward zero.

F2 is the value at the rear feet of the moveable machine. In this case it is positive 16.3 mils. The alignment correction is to move the rear feet toward you by 16.3 mils. The unit is live so start making your adjustments while watching the feet values go toward zero.

Make the corrections while watching the feet values change. Work on whichever foot has the greatest value first but also watch the other foot value to see how it changes. Don't make the mistake of just focusing on the foot you are working on. Switch over to the other foot if it becomes greater.

