


AVM LUBRICATION PROCEDURE WITH SDT 170 MD

Storing frequent ultrasonic dBuV measurements with an SDT 170MD Data Collector assists lubricators in two ways. First, an increase of at least 8 dBuV over established baselines indicates the bearing requires lubricant. Second, monitoring the dBuV reading during lubrication helps ensure just the right amount of grease is applied, and not more. Using these guidelines while greasing bearings will increase the effectiveness of your greasing program as industry trends away from time-based and toward condition based bearing lubrication.

1. Screw Acoustic Lube Adaptor onto service end of Flexible Hose or Rigid Tube of Grease Gun.
2. Screw SDT Contact Probe (without needle) onto the stud protruding from the Acoustic Lube Adaptor.
3. Attach Acoustic Lube Adaptor and Contact Probe to grease fitting. Connect the cable of Contact Probe to the SDT 170MD sensor input.
4. Assure proper contact is made by listening to the bearing and determine if you hear “smooth rushing sound” or a “popping, crackling Rice Krispies sound”.
5. Adjust sensitivity so that the on screen arrow indicators are “OFF” and the sound level in the headset is comfortable.
6. Establish an initial dBuV reading by Pressing and Holding - Max dB  button for 5 seconds. Store measured value to 170MD data collector
7. Take Temperature reading and record to data collector - press and hold
8. Check for vent plug and remove if required.
9. Apply ½ stroke of grease into bearing.

Note: Record how many strokes overall are used during the entire procedure. Generally, 7 full strokes of the grease gun equal 1 fluid ounce. (Calibrate your grease gun periodically with a shot glass).

10. Wait 15 seconds for grease to fill race and coat bearings. In colder environments wait longer.
11. Re-take the dBuV reading as per step 5 above.
12. If dBuV level goes down, repeat steps 8 – 10.

Note: Lubricating the bearing will reduce frictional ultrasound. It may be necessary to adjust sensitivity of 170MD after initial greasing (see step 4).

13. If dBuV level goes up, wait 15 – 60 seconds; re-take reading (step 5) to see if dBuV level decreases. If it has decreased, repeat steps 8-10.
14. If the dBuV level does not decrease the bearing has been correctly re-lubricated. Retake “New Baseline and Temperature Reading” and store for future reference.

Note: In all cases we are using 1/2 shots of grease to avoid over lubricating. Use the digital dBuV readout of the 170MD as a guide. As the target baseline approaches, adjust your strokes accordingly. If the dBuV levels increase slightly the bearing has enough grease. Caution, as another 1/2 stroke at this point could over lubricate the bearing.

The quality of sound at this time is dependent upon the overall condition of your bearing. Use ultrasonic inspection and data collection to determine condition based lubrication requirements. Then use the same techniques during lubrication to avoid over-greased bearings.