



Cause of Failure – 200 HP Weg

Prepared for _____

Dreisilker Electric Motors, Inc.

352 Roosevelt Road

Glen Ellyn, IL 60137

Motor Nameplate Information



Motor Findings

- Shaft had runout of 0.004 inches
- Terminal connection had two terminal posts in swapped configuration
- One lead wires lug was crushed and split on the bolt hole
- Drive End bearing and bearing cap had two different types of greases

Motor Failure Pictures

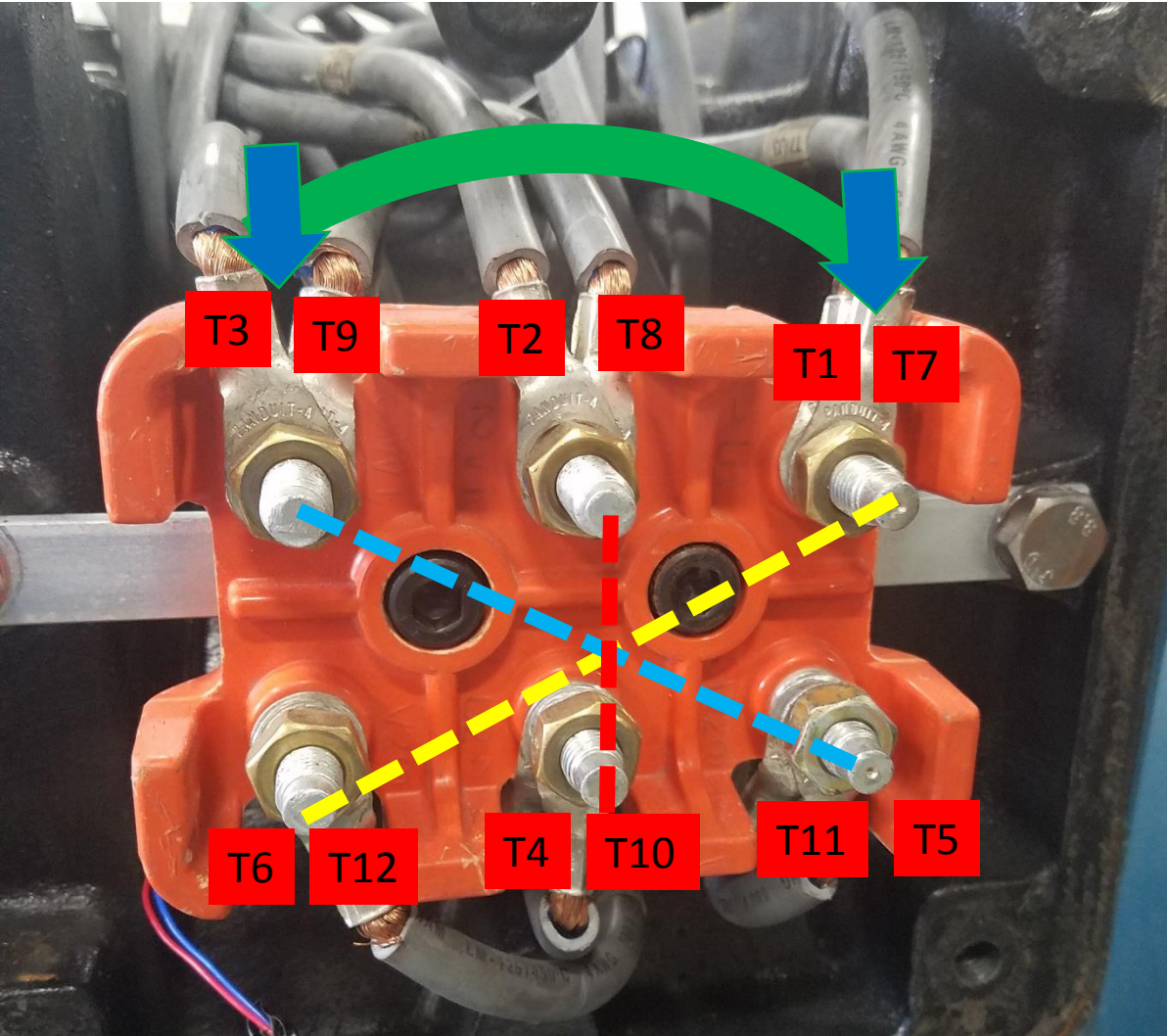
Two different greases in DE bearing and bearing cap



Crushed and split lug



Motor Failure Pictures



- (T3 & T9) and (T1 and T7) lugs were in wrong position [Designated by green/blue arrows]
- Dotted lines designate proper RUN connection per nameplate (page 2 of this report)

Dreisilker Electric Motors, Cause of Failure 200 HP Weg

Cause/Causes of Failure

- Shaft runout was 0.004 inches and higher than NEMA's tolerance
- Two terminal posts were swapped, which could have caused an electrical issue if connected wrong
- One lug wire was damaged from overtightening

Methods for Prevention of Failure

- NEMA MG-1 2016, 4.9.7 specifies:

“For over 1.625- to 6.500-inch diameter shafts, inclusive—0.003-in. indicator reading”

Verify new or repaired motors exceed this standard. Dreisilker Electric Motors straightens to 0.002 inches or less for this size.

- Make sure lugs are not overtightened
- Verify that the motor connection is correct with the nameplate connection diagram
- We do not know what types of grease were in the DE bearing, verify the greases are correct or compatible to customer standards