fred fredwebberking.com

From: Pederson, Mark [External]
Sent: Monday, October 28, 2024 12:05 PM
To: Webberking, Fredrick; Nicholson, Jamir [External]; Bailey, Lee [External]; Budhdev, Rahul [External]; Ertmer, Derek [External]; Humphrey, Brad [External]
Cc: Bulkley, Dan; Asowata, Nosakhare; Herman, Holli
Subject: Mark Pederson - PandA Conveyor Bearing Failure / 002-MP-FW-JN-LB-BR-DR-MP-DB-NA-HH

Fred, I love the email. I will link up with you in regard to the ultrasonic bearing grease equipment.

Jamir, Please provide the current instructions for MTR 611 for us to review and change as necessary with keeping in mind the effects on other bearings, including BDC.

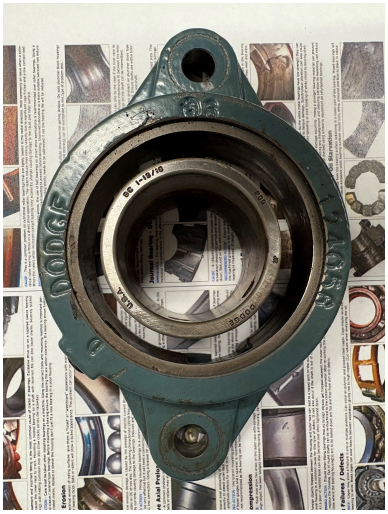
Just a clarification, Greg Kerr worked with Brad to help analyze the bearing failure.

Thank You,
Mark Pederson
Adidas Maintenance/Facilities
(864) 941-0642 Cell

From: Webberking, Fredrick <Fredrick.Webberking@adidas.com>
Sent: Monday, October 28, 2024 11:42 AM
To: Nicholson, Jamir [External] <jamir.nicholson@externals.adidas.com>; Bailey, Lee [External] <lee.bailey@externals.adidas.com>; Budhdev, Rahul [External] <Rahul.Budhdev@externals.adidas.com>; Ertmer, Derek [External] <Derek.Ertmer@externals.adidas.com>; Humphrey, Brad [External] <brad.humphrey@externals.adidas-Group.com>
Cc: Pederson, Mark [External] <Mark.Pederson@externals.adidas.com>; Bulkley, Dan <Dan.Bulkley@adidas.com>; Asowata, Nosakhare <Nosakhare.Asowata@adidas.com>; Herman, Holli <Holli.Herman@adidas.com>
Subject: PanA Conveyor Bearing Failure / 001-FW-JN-LB-BR-DR-MP-DB-NA-HH

Hey Guys,

We had a bearing failure on the PanA seal apply sorter line conveyor (MTR611) what is described as a near catastrophic failure – not quite a catastrophic failure by definition as that means it causes the item in question to be completely inoperable – this was operational but running it any longer passed the earliest opportunity to repair it would result in a catastrophic failure and maybe other damage. You were able to plan a convenient time for changing the bearing out, but nonetheless, it was an unplanned interruption to service. We have to accept that. Point of interest: it well known that 50% of bearings never reach their designed life cycle and 90% of those failures are for none fatigue reasons and while I'm at it 90% of all failures are random in nature, meaning we don't know when the failure is going to happen or where – pretty scary right…



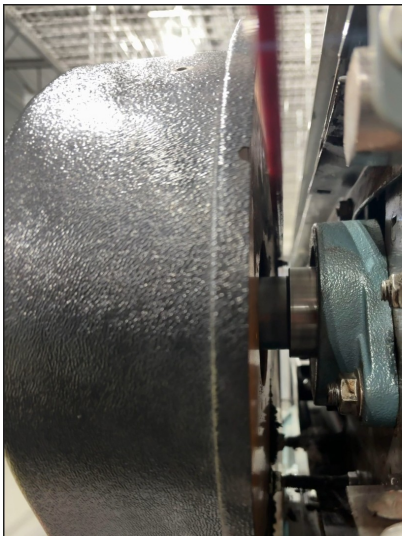
Brad Humphrey, Gregg Walters and two other maintenance technicians took what was left of the bearing separated the outer race from the bearing housing cleaned it up and gave it to myself and Mark for a basic breakdown analysis. To me is it is exhibiting the signs of a combination of fatigue and lack of lubrication.

Moving forward.

As we know any lubrication plan follows the 5 rules in use which are:

1. The right lubricant
2. At the right place
3. At the right time
4. By the right amount
5. By the right method

I understand from Mark that we have an acoustic ultra-sonic instrument that is used when we grease bearings. I would like to get a base line reading RMS (root mean square) or a dB (decibels) whatever that device records – if it has a spectrograph even better – it on that new bearing we replaced so when it is serviced next you have an idea of what the leveling off sound signature it will be when properly filled with the right amount of grease. If we haven't already done so let's install a grease zerk nipple on that two-bolt flange spherical bearing spin it around so the zerk is in a better position for servicing – and every other bearing for that matter on that conveyor – and get it on a preventive maintenance schedule using the computer maintenance management system currently in use TRIRIGA. Mark has informed me that we have to be mindful of the classification in how this entered so that this one bearing service procedure doesn't apply to all bearings serviced in the same way.



Dodge bearing has a calculator using PT Wizard you can use to calculate the lubrication plans for their rolling element bearings. If you don't already have one, I am inserting the link for you register yourself if you want to Home - Dodge PT Wizard. I have attached what it spit out when I entered what I thought was the speed, load etc. let me know if you think that I'm off on any of the values.

Jamir,

For the work instructions please include wiping the grease zerk nipple and the grease gun coupler with a clean rag before installation. I'll like to sit down with you sometime and how you show your work order system and your preventive, predictive maintenance plan. Any concerns, questions, let me know. Thank you all very much.

Regards,

Fred Webberking
Senior Reliability Engineer

adidas
Global HR – WORKPLACES
M: +1 864-652-4863
fredrick.webberking@adidas.com
685 Cedar Crest Rd., Spartanburg, SC 29301.