

### **WORKSCOPE FOR CT FAN MOTOR BASE FRAME REPLACEMENT JOB:**

1. Party has to remove the motor to de-couple from its motor and gearbox end.
2. Remove the motor from its position. Shift the motor to electrical workshop & after overhauling shift the new/repaired motor to its base for replacement purpose.
3. Take all the current level of the motor base frame and transfer it to the suitable location. All the positions are mark by a paint for proper understanding and demarcation.
4. Start the complete breakage of the motor base frame and remove its base frame from its position.
5. Dig the base frame position so that the base frame can be position as per the level mark.
6. All the civil job is under party scope for complete breakage, removal and additional digging for placing the base frame.
7. Cut the 35 mm packer plate and blue match with the base frame with 80% and insert it just below the frame for grouting job.
8. Party has to level and position the motor base frame to its previously demarcated position.
9. Party has to Shuttering the complete base frame and insert the cement and GP#2 as per the specification or as direction by the concern engineer.
10. All the civil structural material like concrete, cement, GP#2 etc. for the completion job is under party scope.
11. Party has to use good grade of civil material as per the test certification issue by the concern agency.
12. All the necessary manpower, tools & tackles, civil materials is under party scope.
13. Wait for proper time for curing of structure as per the recommendation for further job.
14. Blue match the motor to is base frame and make it as 80% in contact pattern.
15. Align the drive shaft to its motor & gearbox .

### **WORKSCOPE FOR CT FAN GEARBOX BASE FRAME REPLACEMENT JOB:**

1. Party has to de-couple the shaft from its motor and gearbox end.
2. Remove the Gearbox from its position original position by removing all the fan blade and hub assembly.
3. Shift the gearbox outside of the CT shell.
4. Damaged gearbox to be shifted from Cooling tower deck area to IEL store & new gearbox to be shifted from IEL store to its base position. All the lifting shifting job will be carried out by vendor only.
5. As here at Kalinganagar there is no lifting beam installed, hence all the lifting activity will be carried out by after preparing proper scaffolding inside the CT shell. All scaffolding will be certified by IEL safety officer only ,then after job will be started.
6. Take all the current level of the gearbox base frame and transfer it to the suitable location. All the positions are mark by a paint for proper understanding and demarcation.
7. If required any Minor damaged of the base frame to be repaired by vendor only.
8. Start the complete breakage of the gearbox base frame and remove its base frame from its position.
9. Dig the base frame position so that the base frame can be position as per the level mark.

10. All the civil job is under party scope for complete breakage, removal and additional digging for placing the base frame.
11. Cut the 35 mm packer plate and blue match with the base frame with 80% and insert it just below the frame for grouting job.
12. Party has to level and position the motor base frame to its previously demarcated position.
13. Party has to Shuttering the complete base frame and insert the cement and GP#2 as per the specification or as direction by the concern engineer.
14. All the civil structural material like concrete, cement, GP#2 etc. for the completion job is under party scope.
15. Party has to use good grade of civil material as per the test certification issue by the concern agency.
16. All the necessary manpower, tools & tackles, civil materials is under party scope.
17. Wait for proper time for curing of structure as per the recommendation for further job.
18. Blue match the motor to its base frame and make it as 80% in contact pattern.
19. Align the drive shaft to its motor & gearbox .
20. Check the gearbox backlash and adjust as per the direction of concern engineer.
21. Job will be carried out only during day time .

#### **IEL SCOPE:-**

1. NEW BASE FRAME, SS-304 make M24 x 350 mm with 160 mm top thread grouting bolt with nut & all required not & bolts will be provided during job execution.
2. Electricity supply will be provided to that area.
3. All scaffolding material to be used for this job will be under IEL scope.
4. If additional grating required to place around the gearbox area, it will be provided to vendor also .
5. All tools tackses, lifting items, life line, safety PPES, Welding/grinding, buffing, electrical extension board etc will be certified by IEL safety/Electrical team before use.

#### **SOP of Gate Pass Process for Shutdown Work**

Five days Gate pass (CWF) for safety induction considering

Day -1

- Preparatory document for medical test, other sample for gate pass preparation.(HR representative /site in charge will come in visitor pass).
- Document required – PF, ESIC, Aadhar, Vaccination, police verification/Indemnity bond, 4 nos color Passport photograph.
- Gate pass to be printed by the vendor in the shared sample by Security team.

Day -2

- Medical test (on form 31A) at Plot-2 TSK and report before 10am, collect report before 5pm on the same day.

\* In case they found unfit he will appear the next in a span of 2-7days depend upon the condition.

#### Day -3

- The respective representative will come to plant in visitor pass with following document and take signature from PO manger▶  HR ▶  Safety ▶  Security for five days gate pass preparation for safety induction collect the valid gate pass.

#### Day -4

- All the valid gate pass holder will report to Safety team for TPSDI training(L1 training-3 days,L2 traing-2 days), maximum 30 numbers of worker will attend TPSDI training based on the availability.
- \* During this period he should not neither enter to operation area nor engaged any kind of job.
- After completion of L1 & L2 training ,workmen will be allowed for job execution.
- As it is a very high risk job, hence one additional safety supervisors is required in addition to site supervisor.