

106096-MEC-15CMSVY-E-2008
Lead Mechanical Maintenance Engineer

Holds a B. Sc. in Mechanical Power Engineering and has more than 17 years of experience in construction, commissioning and maintenance in Power Generation and industrial sector.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 09/11/1985
Gender : Male
Marital Status : Married
Residence : Giza, Cairo

EDUCATION

: B. Sc. in Mechanical Power Engineering, Cairo University, 2008
: Brombel Secondary School, 2003

LANGUAGES

Arabic : Native Language
English : Very Good

COMPUTER SKILLS

: Windows, MS Office, Internet

TRAINING COURSES AND CERTIFICATIONS

: ICDL, Network and AutoCAD 2D.
: Emergency evacuation & Work at height.
: API 686.
: SAP program
: Lifting and Rigging Competent Person.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Jan. 2021 till now
Employer : Canal Sugar
Project : Beet Sugar Factory at El-Minia (36000 ton beet / day)
Job title : Lead Mechanical Maintenance Engineer
Job Description :

- All workshops work like fabricating shafts and sleeves on lath machine.
- Lead the workshop team to execute all workshop activities as (fabricate

- pipng, tanks, handling equipment's and all welding activity).
- METHOD STATEMENT FOR PUMP MAINTENANCE:
 - Check the problem (hot or high vibration (pump bearing or motor bearing or packing or mechanical seal or mis alignment or bolt losses).
 - Check spare part available in storage area.
 - Open work permit and check all isolation done on site (electrical breaker and suction and discharge valves off, drain pump casing).
 - Remove coupling spacer and measure its distance.
 - Disassembly bolts between volute casing and pump body then remove Impeller with bearing housing from volute casing.
 - Remove hub from pump shaft and impeller.
 - Change bearing and mechanical seal and check wear ring gap.
 - Check any damage in shaft.
 - Repair and assembly again then back it to position then make soft foot and final alignment with motor.
 - Maintenance pumps: Working on maintenance pumps like (SULZER – KSB – BORGES – GARBERINO...) Brands.
 - Pumps centrifugal:
 - Check impeller erosion / corrosion (open – closed – semi closed ...).
 - Check impeller clearance front and end.
 - Check sealing (gland packing sleeve & packing & cooling water nozzles) if mechanical seal check type single or double and change it.
 - Check bearing (oil housing or greasing type).
 - Check coupling (rigid - flexible).
 - Final alignment as manufacture tolerance.
 - Pump operation check flushing mechanical seal.
 - Check antivortex plate.
 - Check pre-liming at starting.
 - Supervision on installation pumps to check leveling and flange parallelism & fixation and final alignment.
 - Maintenance gearbox: Check clearance and teeth damage, Check oil types and level.
 - Maintenance compressors: Check impellers, Check bearing, Check sealant.
 - Sump pump maintenance:
 - Uncoupled motor then remove motor then start to lift the shaft.
 - Check sleeve coupling (carbon or copper or Teflon or stainless steel) on the shaft any damage change with new one.
 - Check impeller wear ring.
 - Supervision lifting and assembly works.
 - Check all material delivered to site as drawing and design standard.
 - Prepare maintenance report weekly, monthly.
 - Quantity survey for needed materials at site.
 - Working on SAP program.
 - Prepare the spare parts list for all equipment.
 - Maintenance valves.
 - Maintenance bucket elevator.
 - Maintenance hydraulic piston.

- Dates** : From Feb. 2017 till Jan. 2021
- Employer** : AC BOILERS (formerly Ansaldo Caldaie S.P.A) (main contractor)
- Project** : 4x650MW Supercritical Power Plant
- Job title** : Lead Mechanical Commissioning & Maintenance Engineer
- Job Description** :
- Trainer at ITALY for owner about all mechanical scope in boiler.
 - Supervision for installing all pumps & tanks & skids & firefighting skid.
 - Method of statement for installation pumps:
 - Centrifugal pumps (Garbarino – KSB – SULZER):
 - ❖ Check mechanical layout and survey the axis (X-Y-Z) on the ground.
 - ❖ Lifting and put the pump in position and mark for drill holes and the frame.
 - ❖ Remove pump and drill again and shipping the marked land.
 - ❖ Make leveling backer plate with grout level.
 - ❖ Put the pump in position (X-Y-Z) again then adjust discharge flange with spirit level and pre-alignment and make soft foot then grouting.
 - ❖ Tighting anchor bolt with torqued value then check alignment before piping connect.
 - ❖ For commissioning check solo run test (vibration and temperature & ampere) and rotation check for driver.
 - ❖ Make flanges parallelism between piping and pump to get free and make final alignment with tightening flanges.
 - ❖ Respect alignment tolerance as vendor manual and drawing.
 - Sump pumps (Circulating Water pump):
 - ❖ Check site mechanical layout and with surveyor (X-Y-Z).
 - ❖ Check the pit dimensions then make a level bucker plate.
 - ❖ Assembly rotor with first part of shaft then lifting to pit.
 - ❖ Assembly shaft pieces with sleeve coupling by special tools then connect to rotor (nearly 3-piece shaft) then install HUB.
 - ❖ Put base plate on backer plate then install elbow for support motor then lifting motor with hub on base plate then start to adjust rotor blade tip clearance inside the pit flange then pre-alignment then grouting.
 - ❖ Solo run test and rotation check then final alignment.
 - Supervision for install forced draft fans (AXIAL FAN - VARIAX Fan type ANT HOWDEN VENDOR) (axis & details of assembly & grouting & alignment coupling 5m length):

Method of statement:

 - Follow mechanical layout and put survey points on the concrete foundation and check all anchor buckets dimensions then shipping all assembly area.
 - Install level bucker plate then lifting intermediate casing in position and adjust and impeller casing and adjusted by special tools.
 - Lifting main bearing casing on intermediate casing and adjusting it shaft with survey point and fixed on casing.
 - Lifting and assembly inlet box and diffuser.
 - Lifting and assembly silencer and inlet whether hood by crane.
 - Assembly D.E AND N.D.E HUBS on bearing shaft.
 - Install blades and adjust tip blade clearance with impeller casing.
 - Lifting and position coupling shaft and motor on position.
 - Pre-alignment and soft foot for motor with rotor then grouting with

- applicable grouting.
- Install lube and hydraulic oil skids and connect piping to fan bearing and motor bearing.
- Check rotation and solo run test 2 hr. for motor free without coupling.
- Final alignment then connects coupling shaft with fan and motor.
- Supervision for install gases recirculation fans (centrifugal fan) (Axis X-Y-Z) & details of assembly & grouting & bearing clearance & alignment):
Method of statement:
 - Check foundation with layout and put all point on foundation by surveyor and check all anchored buckets.
 - Put leveling backer plate then sol plate then casing on it and align it.
 - Install bottom half of bearing D.E and N.D.E (journal bearing-white Metal Sleeve) (HSR14/BVRL 140/SB 140/SZ140).
 - Lifting lower casing then lifting & position rotor with hup on bearing inside Lower casing and adjust it with survey line on the ground.
 - Lifting upper casing and position on lower casing then welding.
 - Install top half of bearing and adjust rotor with inlet cone (gap and lap).
 - Lifting and positioning motor then pre-alignment and check coupling spacer gap with internal micrometer and adjust soft foot.
 - Check grout type as specification then grouting for casing and motor.
 - Install inlet and outlet damper and actuator.
 - Check bearing clearance by lead wire and thrust gap.
 - Final alignment after complete insulation and install all duct.
- Supervision for installing 32 burners with all details and gaps.
- Supervisor for installing soot blowers in boiler.
- Supervision for installing and adjust all dampers.
- How to follow all quality control plans with owner.
- How to bush subcontractor to make progress.
- Following with commissioning team.
- Supervision for install rotating air-gas preheater (HUWDEN VENDOR) 1200 Ton:
Method of statement:
 - Check layout and survey for axis (X-Y-Z) on steel structure.
 - Prepare frame to assemble two girder and support for bottom bearing & bottom sector plate & platform on the ground.
 - Assembly bottom bearing (roller bearing SKF 294/750EF and put-on support.
 - Lifting 80 Ton with crane 650 Ton on steel level 9 m.
 - Assembly bottom duct by bolts then welding.
 - Lifting spider rotor and axial plate& top sector plate.
 - Lifting and install top bearing SKF C3080M/C4.
 - Install drive unit (Siemens).
 - Assembly housing parts with diameter 20m height 4m.
 - Assembly 48 sector and adjust its by survivor.
 - Welding all sectors about 1000m Corton steel.
 - Assembly top duct by bolts then welding.
 - Fill all sectors with elements (intermediate and hot) by crane and cold elements by special tools (car).
 - Alignment for heater by survivor.
 - Install and adjust seals on sectors (rotating) with bottom & top

sector plate (fixed) tolerance (+ 1 mm & - zero).

- Fill oil skid by oil type VG680/250L.
- General cleaning for elements and ducts.
- Install all gauges and electric cables and instrument and firefighting system and fire detector props.
- Start-up and commissioning by check all oils type and oil levels and seal air piping connections then check rotation.

- Dates** : From Mar. 2016 till Feb. 2017
- Employer** : Electric Power System Company (PSP) consortium with SIEMENS (main contractor)
- Project** : Beni Suef Combined Cycle Power Plant 4800MW (4 Modules, each module 1200MW) (Fast Track Project)
- Job title** : Lead Mechanical Commissioning & Maintenance Engineer
- Job Description** :
- Supervision to install GAS turbine 8x400MW (assembly details & lube oil skids & jacking oil skids & alignment & insulation with cladding) (SGT5-8000H/SGEN5-2000D):
Method of statement:
 - Check site layout then checks foundation buckets and leveling then put all points on the foundation by surveyor then shipping area.
 - Make level backer plate and jacking plate then lifting compressor and gas turbine to position and adjusting its on survey points.
 - Lifting segment of diffuser to position and welding it.
 - Lifting sole plate for generator and adjusting it then lifting generator to position.
 - Adjust and pre-align gas turbine with generator.
 - Grouting the foundation with applicable grout.
 - Assembly lube oil and jacking oil piping to gas turbine and assembly air intake.
 - Final alignment for gas turbine with generator.
 - Torque generator fixation bolts.
 - Supervision to install 8 Generators with all accessories and excitation room assembly.
 - Supervision to install pumps & skids.
 - Supervision to install AIR INTAK with assembly details.
 - Supervision to install enclosure with cladding of gas turbine building.
 - Supervision to Installation HRSG (NEM Energy BV Company):
Method of statement:
 - Lifting and align verticality for steel column for Heat Recovery Steam Generator (HRSG) then lifting horizontally.
 - Modules by jacking system.
 - Lifting drums to position.
 - Close all internal plates.
 - Install pumps.
- Dates** : From Apr. 2015 till Feb. 2016
- Employer** : MEGA
- Project** : SAMALOT TM 2500 GAS TURBINE POWER PLANT (Fast Track Project)
- Job title** : Site Manager with Subcontractor
- Job Description** :
- Achieve owner requirements and service.
 - Follow cash in and cash out for my company.

- How to improve efficiency the work and push the worker.
- How to deliver the turbine to client and main contractor.
- Following work steps on site.
- Method of statement:
 - How to finish mobilization as GE requirements.
 - How to organize all staff as groups to work.
 - Order and prepare all tools needed to work.
 - Do All daily report and weekly reports.
 - Follow GE procedure for assembly.
 - Plan all activity to achieve the best to minimize the time to finish the work.
 - Follow cash in & cash out for my company.
 - Downloading and install GAS turbine & tanks & transformer.
 - Follow complete mechanical and electrical activities on site.
- Final Alignment of GAS turbine and Synchronization on network.
- Lifting and position gas turbine then assembly air intake then assembly stack (steel pipe).
- Lifting and position for 6 oil fuel tanks then fixation by chemical anchor bolts and grouting.
- Lifting and positioning main and auxiliary transformer and control room (PEEC) then pull all cables power and control cables.
- Install lube oil skid and connect piping to gas turbine.

Dates : From Aug. 2013 till Mar. 2015

Employer : MEGA

Project : KFW Project 200MW G8X WIND TURBINE at Gabal El Zayet wind farm, Egypt

Job title : SITE Manager with Subcontractor Company

Job Description :

- Work plan for all groups and follow progress curve.
- Working with GAMESA procedure details to assembly wind turbine.
- Achieve owner requirements and service
- Follow cash in and cash out for my company.
- How to improve efficiency of the work and push the worker.
- How to deliver the turbine to client and main contractor.
- Following work steps on site.
- Method of statement:
 - Check civil foundation then start to download material on the foundation by cranes.
 - Prepare platform then lifting first section tower and second section and third section tower and nacelle.
 - Tighting and torque all flange bolts then lifting hub and blades.
 - Lifting power and control cables.
 - Install control cabinet and hub wiring connections.
 - Make tension for studs of blades.
 - Final alignment for generator with low-speed shaft.
 - General cleaning and check by Q.C.

Dates : From Jul. 2009 till Aug. 2013

Employer : UPPER EGYPT ELECTRICITY PRODUCTION COMPANY (UEEPC)

Project : EI-Kureimat Power Station 2x627MW

- Job title** : Senior Mechanical Maintenance Engineer
- Job Description** :
- Carrying overall maintenance for (pumps – fans – valves – dampers – air – gas preheater – steam coil air heater – burners – fuel oil flow meters – filters).
 - Remove insulation and cladding then re install again after maintenance
 - Review all spare parts list in storage area and request new if not found.
 - Read just and modify some systems.
 - Daily and weekly report.
 - Attend life assessment for boiler 627MW.
 - Vibration analysis on rotating equipment's with p&k and ADREE devices on site or Bentley Nevada.
 - Method of statement for pump maintenance:
 - Check the problem (hot or high vibration (pump bearing or motor bearing or packing or mechanical seal or mis alignment or bolt losses).
 - Check spar part available in storage area.
 - Open work permit and check all isolation done on site (electrical breaker and suction and discharge valves off, drain pump casing).
 - Remove coupling spacer and measure it distance.
 - Disassembly bolts between volute casing and pump body then remove Impeller with bearing housing from volute casing.
 - Remove hub from pump shaft and impeller.
 - Change bearing and mechanical seal and check wear ring gap.
 - Check any damage in shaft.
 - Repair and assembly again then back it to position then make soft foot and final alignment with motor.
 - If sump pump:
 - ❖ Uncoupled motor then remove motor then start to lift the shaft.
 - ❖ Check sleeve coupling (carbon or copper or Teflon or stainless steel) on the shaft any damage change with new one.
 - ❖ Check impeller wear ring.
- Dates** : From Apr. 2009 till Jul. 2009
- Employer** : Project Service Company (PSC)
- Project** : El-Kureimat Solar Energy Power Plant
- Job title** : Mechanical Site Engineer
- Job Description** :
- Daily and weekly report.
 - Unloading gas turbine and gearbox & generator on foundation.
 - Adjust and assembly accessories of gas turbine (lube oil skid – diffuser – stack - natural gas hoses - jacking skid - PEEC room - battery room - CO2 skid and firefighting system.
 - Pre-alignment of gas turbine.
 - Check all materials with packing list and follow drawing assembly.
 - Order groups for work and order drawings.
- Dates** : From Aug. 2008 till Mar. 2009
- Employer** : DSD FERROMETALCO
- Project** : Zafarana JBIC & DANIDA G5X (wind farm field)
- Job title** : Mechanical Site Engineer
- Job Description** :
- Daily and weekly report.

- Unloading 3 section of the tower & blades & nacelle.
- Install and lifting the tower (3 section & nacelle & blades).
- Install the platform and ladder for the tower.
- Connect the cables in the tower with control room.
- Re-torque the bolts for all flanges.
- Complete check for the turbine to receive to GAMESA.

Dates : From Jun. 2007 till Sep. 2007
Employer : Kahromika
Project : New Kureimat Combined Power Plant
Job title : Mechanical Site Engineer
Job Description :

- Install and adjust skids (X-Y-Z).
- Pre-alignment and grouting pumps.
- Check soft foot for motor.
- Final alignment after check parallelism flanges.

Dates : From Jun. 2006 till Sep. 2006
Employer : DSD Feromatalico
Project : EL-KUREIMAT (2) 1x750MW CCPP
Job title : Site Engineer with Subcontractor Co.
Job Description :

Scope: INSTALL GAS turbine 9FA and all skids, air intake, generator.

Field of experience :

- Capable of developing the work and performing it at its planned quality schedules and safety.
- Following the company system and safety roles, as a part of the team and team leader too.
- With a track record of significantly for project completion with very tight schedule (fast track project) like Beni Suef CCGT Power Plant 4800MW and Samalot Power Plant 225MW TM 2500 G.E GAS turbine.
- Travelled to ITALY as a trainer for explain O&M for rotating equipment.