UDAYAKUMAR BANGALE

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Automotive professional with over 14 years mixed in Chassis wheel & tire for passenger car, truck & bus radial tire, worked majorly on entire life cycle of wheel & tire design & development, have good interpersonal skills & experience in managing various domestic & global customers with High repute & associated with an objective to accept a challenging position in the field of engineering and Technology share my knowledge to the benefit of the organization.

**CAREER PROFILE:**

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| --- | --- | --- | --- | --- |
|  | Organization | Duration | | Designation |
| A | TATA TECHNOLOGIES PUNE | Apr 2019  To  Till Date | 3Yrs. On going | Team Lead  Chassis Wheel & Tire. |
| B | MAGNA STEYR INDIA PVT LIMITED, PUNE | May 2016  To  Mar 2019 | 2Yrs 11 Months | Sr. Product Engineer  Chassis Wheel &Tire |
| C | RENAULT NISSAN TECHNOLOGY & BUSINESS CENTER INDIA PVT LTD. CHENNAI.  (Nissan Technical Center Japan - 6 Months) | Nov 2011 To  Apr 2016 | 4Yrs. 6 Months | Sr. Product Engineer  Chassis-Tire |
| D | JK TYRE AND INDUSTRIES LIMITED. | July 2008 To  Nov 2011 | 3Yrs.4 Months | Sr. Technical Process Engineer  Sr. Engineer Product Evaluation |
| **Total Experience** | | **14 Year** | |  |

**EXPERIENCE SUMMARY:**

**TATA TECHNOLOGIES**

**R&R: McLaren, JLR Client: Wheel & PMS Design & Development (APR2019 – Nov 2021)**

* Lead Engineering responsibility for Wheel & PMS(Jack/Foam) design & development
* Experienced with detail FEA analysis for wheel to confirm performance characteristics like stiffness, max stress & modal frequency
* Experiences with Design Verification Plan & Report (DVP&R) for wheel.
* Good Understanding of SAP, Team center and PLM System for BOM structuring & release.

**R&R: Vinfast Client:**

* Wheel & Tire commodity detail DFMEA File creation.

**R&R: Lotus Client:**

* Lead Engineering responsibility for project task monitor chassis team
* Brakes, Wheel & Tire commodity Team center (TCe) release Activity support through Lotus Way (PCR, TCR, ECR Process).

**MAGNA STEYR INDIA PVT LIMITED**

**R&R: Deputed to FCA Jeep Compass – 1.5 years for Tire, Wheel& Assembly Module New Set up Industrialization**.

* Development of Jeep CompassTIRE, WHEEL&TW-Module.
* Experienced with Design Verification Plan & Report (DVP&R)
* Good Understanding of Team Center and Codep/EBOM.
  + BOM Scrubbing Support for All VP & PS Built from Tire & Wheel Commodity & Ensuring Egrip Correction as per FCA Requirement, 8 tires (3 sizes), 17 wheels, and complexity.
* Tire & Wheel Assembly Unit industrialization with ASV Supplier for Jeep Compass.
  + Full Machine Technical Parameter input in Machine &PVPR Completion.
  + Prepared Imbalance Database Format (Tracking Sheet), whichcaptures the Specific Module Details like Tire & Wheel against Specific Vehicle & Build Sequence File.
  + Process Improvement - Secondary balancing for meeting residual imbalance on Scheck Machine at ASV.
* Lead engineering activities in localization, value engineering/cost reduction activities**.**
* C-Type Balance Weight Localization with BBW.

**R&R: Three-Wheeler Gear Box - Proto Part Development - Supplier Follow-up**

* 3-Wheeler Gear Box - Proto Part Development Support for Child Parts (Gear Shaft, Gear& Relative Parts) @ Different Supplier in Bangalore.
* Cross Verification of Actual Proto Parts against Drawing for DimensionParameter.

**RENAULT NISSANTECHNOLOGY & BUSINESS CENTERINDIA PVT LTD - CHENNAI**

**R&R: Product Development Chassis – Tire (NISSAN TECHNICAL CENTER–JAPAN).**

* On Job Training at Nissan Tech Center for 6 Months for Design & Development of Tires for SUV Passenger Cars.
* Worked for Nissan New Project for China destination from Souring stage to 1st Loop Testing.
  + Selection of Particular Tire for Vehicle based on Vehicle Application, considering Vehicle Load, Tire application & Homologation & Country requirement.
* Bench Mark Activity for USA, EUROPE, JAPAN Market Vehicle Snow Chain Application.
* Vehicle Level Evaluation for New Development Tire at Nissan Tochigi Proving Ground.
* Nissan Certified “Space Vision “Trainer for RNTBCI India.

**R&R: Product Development Chassis – Tire (RNTBCI Chennai).**

* **Design & Development Activity of Passenger Car Tire.**
  + Developed Tire for Micra active tire 155/80 R13 79S Tire with JK Tire India from Nomination stage to Final SOP.
    - Vehicle Level Evaluation for different Spec Tires, Validating the Tire based on Ride Handling, Ride comfort NVH & Break Test Results.
    - Confirming the Bench level Tire Performance Test Reports Like – Basic dimension, Vertical & Lateral Stiffness, Cf, SAT, CT, RRC, RCF, Dry & Wet Mu, Uniformity, Durability, Flat Spot.

**Achievement during Project Development**:

* + - Ensured all tire development Milestones to meet Project Milestone.
    - Resolved 2 quality issues like body vibration & Vehicle Pull causing from Tire, during Tire development stage with in Time Line (without any delay in Project time line).
    - Body Vibration Root Cause identified as More Cord Body Ply over Lap.
    - Vehicle Pull Due to Maintaining differential air Pressure in right & Left Tire in Testing Vehicle.
* **Quality issue analysis for Manufacturing**, Field service issue involving 3 MIS, 12 MIS, and IQS, C Speed, concerns.

**Achievement**: Resolved Quality Issue Raised from the Market with Root cause confirmed with Duplication Test.

* + - Heel & Toe Defect in Tire. Root Cause identified as Vehicle Suspension toe angle Spec is more & alignment changes offenly due to Loosen tightening Torque in Suspension Parts.
    - Two Tread Chip Issue in the Market Concern by identifying exact root case for different cases, by confirming all the parameter with FTA analysis, due to manufacturing tester line mesh, this was causing tread chip off & due to logistic Vehicle sharp projection in trailer.
* **Lead engineering activities in localization, value engineering/cost reduction activities.**

**Achievement**:

* Temp Tire Localization for EUR Micra Vehicle from Thailand Supplier to Local India Supplier, following all Development process. Cost Savings ~ 200 INR per part. 2 MINR /Year
* Sunny Vehicle JK Tire Manufacturing Plant Change from Banmore to Chennai, by confirming all Tire Validation Testing. Cost Saving ~ 50.00 INR per part. Per Year Saving 1 MINR/Year.
* Developed Tire for EUR /GOM Tire Localization from Falcon Thailand to BS India Tire.
* Cost Saving ~250 INR Per /Part.
* Experience in Application like G2B (Group Global BOM), D-Net, - Creating Different Type of D/Note and analyzing their applications.
* Thorough knowledge of ISO /TS, PPAP, APQP, FMEA, SPC, 7QC Tools, CAPA, Control plan, Process flow.
* Maintain competitive benchmarking information for Tire & Wheel Assembly.
* Have good knowledge of NVH and performance requirement of tire and wheel system.
* Lead design changes to address manufacturing, Quality Team.
* Identifying supplier specific quality issues and developing & implementing solutions to improve the technical conformity of the products & processes
* Liaise with overseas program PD teams and provide India lessons learnt information and buy off design.

**JK TYRE AND INDUSTRIES LIMITED.**

**R&R: Product Evaluation Engineer for Whole Maharashtra and Goa territory based at Pune**.

* On field JK and competitor tire product evaluation.
* Providing technical knowledge to customer and providing good service to customer.
* Claim tire inspection.
* Customer and dealer meet on regular basis.
* Retread follow up in retread factory as per specification.
* Conducting Customer interaction program / Driver training program.

**R&R: Technical Process Engineer @ Truck & Bus Radial Plant - MYSORE.** Job responsibility includes Process Changes & Verification and Improvement& Standardization of process and reduction of scrap through proper planning.

* Having good Knowledge in Process of Tire Component Preparatory area, Building, Curing.
* Exposure in the latest tire building machines (SAV) and their maintenance which includes troubleshooting of tire profile, and recipe management.
* Good Understanding in thermo couple study and cure cycle calculation.
* Knowledge in tread pattern design for various conditions and their applicability.
* Check Tire making and Cut section analysis for Process Improvement.
* In Process tire and rubber handling & solve Process problems.
* Rubber testing of in-process materials.
* Implementing of Cure Cycle reduction in curing area.
* Finished Product testing and Analysis, testing knowledge and trouble shooting of process problems.
* Ensuring Tire uniformity & balancing improvement.
* Tire Scrap, Defect Reduction and Trouble shooting.
* Root cause analysis in respect with technical specification.

**Achievement**

* Reduced the NOBI scrap level from 4.39% to 0.69%.
* Reduced the HB/NB/PB scrap level from the 12.32% to 3% and proceeding to 2%.
* Cycle time of the tire building was decreased by eliminating the manual process.
* Participating with our team in APQP and FEMA analysis.
* Identifying and correcting the abnormalities and knowledge in 5S activities.
* Decision making in small group activities.

**EDUCATION, PROFESSIONAL AFFILIATIONS:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course / Degree** | **University/Board** | **Year of Passing** | **Class obtained** | **Percentage** |
| **PGD-IRI**  Rubber Technology | **IIT -Kharagpur**  Part Time Course @ Mysore IRI Branch | 2009 | First Class | 67.25 % |
| **BE**  Polymer Science & Technology | **VTU -**Sri Jayachamarajendra College of Engineering | 2008 | First Class | 60.50 % |

**COMPUTER PROFICIENCY:**

Windows office (power point, MS word, MS excel.), G2B (Group Global BOM) , Idea Nx, Auto Cad , Nissan Space Vision , Team center (Tce) , SAP & other PLM Software .

**ACADEMIC PROJECTS:**

BE Project with JK Tire & Industries Ltd, Mysore on “Cured Tire FTQ (First Time Quality)”.

**OTHER INTERESTS AND ACTIVITIES**

* Was an active technical volunteer in “MACRO” – 2005, & 2008 3rd & 4th National conference on Polymer’s held in S.J.C.E Mysore?
* Active member of “PESA” (Polymer Engineer Students Association) &Class Representative (CR) in 3rd Year.
* Industrial visits: JK Tires Mysore, TVS Hosur, Kurlon Industries Bangalore, Printotex Rubber Rollers Industry Bangalore, Prem Industries Bangalore.

**BASIC PERSONAL INFORMATION**

**PERMANENT ADDRESS:** S/0, GOPALA KRISHNA RAO Bangale, Gopal Sofa and Seat Maker, Near Bala Theater, Hampi Road, Hospet. (Bellary Dist.) Karnataka, India.

**DATE OF BIRTH**: 08-Nov-1987

**LANGUAGES KNOWN :** Marathi, Telugu, Hindi, Kannada and English

**DECLARATION:**

The information above given is true to the best of my knowledge.

Yours faithfully,

**(UDAYAKUMAR. BANGALE)**