Anuraj.joshii@gmail.com +91-8147595780

Anuraj Joshi

SUMMARY:

- 3.4 years of experience in handling durability requirement of automobile (exhaust assembly) using HyperMesh, Abaqus and ANSA tools.
- Currently working on exhaust systems. Performing linear and non- linear static structural analyses on various components and assemblies.
- Have good knowledge on performing G load, modal and component static Analysis on component and assembly level.
- Performed Frequency response Analysis with Abaqus heat transfer for durability.
- Able to give design solutions and modification to meet customer targets.
- Experienced in HyperMesh/Ansa – FE-modeling, connections and plastic trim parts like Door panel, BIW, exhaust assembly components are meshed as per customer requirement without compromising quality criteria.
- Model preparation including connections, contacts, material and section properties assignment.
- Deck preparation, model check run & error debugging for Abaqus.

WORK EXPERIENCE:

Trainee Engineer- ASM Technologies Limited, Bangalore (Previously SEMCON) DEC 2017-Aug 2018

Job profile: Worked as a Graduate trainee engineer to optimize the natural frequency of an exhaust hanger.

CAE Engineer- ASM Technologies Limited, Bangalore (Previously SEMCON) Oct 2018- till date.

Job profile: Worked as a CAE engineer handling various project for various clients in automotive domain.

- ***Deputed to Faurecia Emission control system Pvt. Ltd, Bangalore Oct 2018- till date***
  Job profile: Worked as a FEA analyst in handling Exhaust system for various clients in automotive domain involving Static, Dynamic, Heat transfer & Thermo mechanical fatigue analysis using Abaqus and HyperMesh

EDUCATION:

B. Tech. in Mechanical Engineering from New Horizon college of Engineering, Bangalore (VTU).

- **Academic Project:** Done a working project on "Lever operated wheelchair". Objective of the project is to provide a low-cost wheelchair with higher speed and minimum effort.

Tool Skill Set:

CAE Software	:	HyperMesh, Hyperview, Abaqus, Abaqus viewer, Ansa.
Operating systems	:	Linux & WINDOWS XP/7/10
Others	:	MS OFFICE, MS Excel, Power Point

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PROJECTS*:*

1. **Title** : **Exhaust System static and modal analysis**
Software **:** HyperMesh + Abaqus
Domain **:** Automotive
Keywords : Static analysis, modal, Heat transfer, component static, Hanger static.
Description **:** The assembly constitutes of an Exhaust system are Manifold, Catalytic converter, Tunning pipes, Front muffler, Rear muffler, mounting brackets, Hangers, Welds etc.

- FE modelling of assembly is carried out using 2D shell elements and 3D hexa/penta elements.
- Static analysis to tackle deformation issues at critical working temperatures.
- To determine the natural frequency of the system to avoid resonance with the engine excitation frequency.
- Design improvements in line with design constraints.

2. **Title** : **Exhaust System G Load analysis.**
Software **:** HyperMesh + Abaqus
Domain **:** Automotive
Keywords : 1G static, 5G, RF, CTF
Description : G-load analysis are performed to evaluate the structural integrity of assembly. Stresses were investigated at each welded joint location and post processed as per customer requirement. Modifying design and coming up with new concept to make the system structurally stable.

- To determine the stresses at various locations using GRAV card in axial lateral and vertical directions.
- To determine Hanger reaction force CTF as per requirement.
- Design improvements based on weather system stability.

3. **Title** : **Exhaust System Frequency response analysis**
Software **:** HyperMesh + Abaqus
Domain **:** Automotive
Keywords : Design modification, stress, safety factor, Excitation point, Frequency.
Description : To test the durability of exhaust system by frequency excitation. Exhaust modelling was done in Hypermesh for both Hot and cold end. Abaqus heat transfer was done. The set up was made as per requirement of customer.

- Design solution is delivered as per targets.

DECLARATION

I do hereby declare that all the above information is true to the best of my knowledge.

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Current location: Bangalore
Notice Period: 30-60 Days