

Job Title Metallurgist		Job Code	Date 4/3/06
Reports To (Title of Supervisor) Corporate Materials Engineering Manager		EEO Code	Review Date 4/3/06
Department Materials Science	Location Westland, MI		
General Function Overseas and supports all material selection, analysis, process evaluation/investigation needs of the Valve Train Engineering, Quality and Manufacturing Groups			
Job Responsibilities <ul style="list-style-type: none"> Responsible for the operation of the corporate metallurgy laboratory Dotted line reporting responsibility for test technicians performing metallurgy/materials evaluations at the Product Development Center and engineers/technicians responsible for operation of heat treat facilities (4 locations) Works with Product Development Engineers and Manufacturing Engineers to specify and develop new materials which are optimum for the product, application and manufacturing requirements. Conducts evaluations, tests, experiments and analyses involving materials used in valve train components. Coordinates and oversees outsourced material evaluations and analysis Responsible for generation and maintenance of all material and heat treatment specifications and standards. Supports development of heat treatment process instructions at internal heat treatment facilities. Participates in evaluating and monitoring the performance of outsourced heat treatment operations. Performs and participates in failure analysis investigations and implementation of corrective actions Works with internal and external heat treatment facilities to investigate metallurgical quality issues and implementation of corrective actions. Works with Purchasing Department to evaluate and select raw material suppliers. Produces reports for internal and external distribution Works with Testing and Analysis Group to test material performance using bench tests and engine tests. Continually develops expertise in the materials used in the Valve Train Group's current and potential future products. Participates in industry groups such as SAE and STLE. 			
Working Conditions The noise level in the work environment is usually quiet.			
Physical Component(S) Standing and walking up to 30% of work time.			
Education and Experience Required Bachelor's degree (BS) in Materials Science or Metallurgical Engineering from a college or university. Minimum of 7 years of experience in ferrous metallurgy.			
Skill Specifications Strong background in ferrous metallurgy – Specifically bearing material and low carbon steels Experience with material characterization techniques including optical and electron metallographic and mechanical testing Experience with various heat treatment processes including through-hardening, carburizing and carbonitriding Good verbal and written communication skills Able to effectively use standard computer software (MS Office preferred) Able to work on many projects at one time and to balance priorities based on multiple inputs Knowledgeable and experienced with working in QS-9000 accredited engineering operation			
Prepared By	Date	Supervisor/Manager	Date
Human Resources	Date	Compensation	Date

The statements made in this job description are intended to describe the general nature of the work being performed, and are not intended to be construed as an exhaustive list of all responsibilities.