



Maintenance Of Heavy Equipment



Introduction:

Performing routine maintenance on heavy equipment can keep costs down. Heavy equipment is a large investment and proper maintenance can keep the equipment running properly and significantly extend its useful life. Equipment maintenance can also help to prevent breakdowns at a time when you need that equipment in full working order. Heavy equipment is expensive and must have a preventive maintenance program developed in order for it to last as long as possible. Heavy equipment breakdowns cost industries millions of dollars annually. The heavy equipment maintenance personnel must maintain a preventive maintenance checklist on each piece of equipment to comply with Occupational Safety and Health Administration (OSHA) regulations.

Maintenance is the process of keeping equipment in its intended, operational condition. Often, repairs or rebuilds of machinery are carried out as part of maintenance. The cost of repairing equipment becomes more significant when profits are lower. A maintenance program focused on preventing breakdowns and equipment problems can save money on repairs and lost productivity. This program helps prevent possible breakdowns, downtimes and repair costs. This program trains and develops the required skills of the involved staff on the safe and effective maintenance and operation of heavy equipment. Also, the candidates will study the theory of operation and preventive maintenance

and develop the necessary practical skills to become proficient in the use of three of the six available categories of machinery.

Who Should Attend?

Maintenance Personnel and Managers, Reliability and Maintenance Engineers, General Supervisors, Supervisors and Foremen Heavy Equipment, Heavy Transport Personnel, Maintenance Technicians, Vehicle Inspectors, Mechanical Foremen & Supervisors, Mechanical Maintenance Personnel and anyone who is involved in heavy equipment maintenance & operation

Course Objectives:

By the end of this course delegates will be able to:

- Identify various safety precautions that should be considered while performing maintenance
- Learn about truck and transport mechanics maintain, repair and overhaul on-highway vehicles
- Identify the maintenance objectives
- Learn about personal safety and construction site safety standards and regulations
- Learn how to create maintenance plan
- Discuss and explain the basic machine subsystems and maintenance required
- Conduct a vehicle heavy equipment inspection checklist
- Develop a schedule for routine maintenance
- Comply with Occupational Safety and Health Administration (OSHA) regulations
- Be competent in Heavy Equipment Troubleshooting
- Reduce equipment downtime and carry out cost-effective repair plans

Course Outline:

Heavy Equipment Maintenance Objectives

- Improved reliability

- Decreased cost
- Longer replacement intervals
- Fixing problems before they occur

Heavy Equipment Maintenance

- Daily maintenance
- Quarterly maintenance
- End of season/yearly maintenance

Identification of Heavy Equipment

Personal Safety and Construction Site Safety

Equipment Maintenance and Inspection

Transport Trailer Mechanics

Maintain, Repair and Overhaul Commercial Transport Devices Connected to or Moved by a Power Unit

- Flat decks
- Dry freight vans
- Refrigerated vans
- Tankers
- Converter
- Booster
- Pole trailers
- Jeeps
- Steering dollies
- Dump trailers and other commercial pull type devices

Truck and Transport Mechanics Maintain Repair and Overhaul On-Highway Vehicles

- Stationary or mobile internal combustion engines and components
- On-highway vehicles such as trucks and buses
- Towed on-highway and off-highway vehicles (trailers)

Heavy Duty Equipment Mechanics (off-road) Maintain, Repair and Overhaul Heavy Vehicles and Industrial Heavy Equipment

- Stationary and mobile internal combustion engines and components
- Tracked equipment (crawler tractors)
- Ground-engaging equipment and components
- Off-highway motor vehicles (trucks)
- Towed off-highway vehicles (trailers)

Heavy Equipment Technicians Maintain Repair and Overhaul Heavy Vehicles and Industrial Equipment

- On-highway and off-highway motor vehicles (trucks)
- Towed on-highway and off-highway vehicles (trailers)

Heavy Equipment Inspection Checklist

- Safety
- Lubrication, coolant & critical fluids
- Air brakes & Tires
- Air induction and exhaust
- Cooling
- Drive train and power source

Heavy Equipment Troubleshooting

- Interpret work orders and technical manuals
- Keep equipment cleaned, lubricated and maintained
- Diagnose faults or malfunctions
- Adjust equipment and repair or replace defective parts, components or systems
- Test repaired equipment for proper performance and ensure that the work done meets manufacture specifications and legislated regulations
- Write service reports

Hazard Assessment & Safety OSHA Regulations