Equipment Maintenance Standard Operating Procedures 2018

Introduction

Systematic maintenance of equipment (Tools, Machines, Trucks and Motorcycles) is an essential element of our transportation operations. Good equipment readiness requires operators and drivers to inspect, repair and maintain all machines and motor vehicles under their control. It makes excellent business sense to have an organized maintenance program in operation. At ***MAG,*** it is our policy to keep all company's production and transportation equipment well maintained and in safe and efficient operating condition at all times.
It is further the policy of ***MAG*** to use the "preventive maintenance" approach with our transport equipment. The specifics of that approach will be detailed in the procedures to follow.

Vehicle/Machine Maintenance Procedures

It is a requirement that vehicle records be kept on each vehicle leased or purchased by ***MAG***. These records include:

- Vehicle/Machine license number
- Make
- Model
- Year
- Maintenance Records
- Driving mileage/Operation time log

If the equipment is not owned by ***MAG***, this record should indicate the name of the owner/supplier of the vehicle. The record must also contain a way to indicate the nature and due date of any inspection and maintenance operations to be performed on the vehicle, and a record of any inspections, repairs and maintenance performed on the vehicle in question, including dates performed and specifics on the nature of the operations.

MAG keeps maintenance records on file for a one year period and for six months after the equipment is out of the fleet.

MAG will maintain a complete record on each vehicle in its fleet as a matter of course. That record will include basic vehicle information, along with a listing of repair orders, procedures performed, dates of maintenance, and driving mileage/ operation time record.

The company will keep each vehicle/machine subject to its control as follows:

1. properly lubricated
2. change oil regularly
3. change filters regularly
4. check breaks and belts regularly
5. check for oil leaks
6. clean regularly

MAG operates an in-house maintenance shop with *Partial* service capabilities. Therefore, routine maintenance jobs including annual reviews will manage at the factory whereas specialized maintenance jobs will be outsourced to a qualified local vendor.

Brake Inspectors

MAG drivers are responsible for inspections, maintenance, repairs, or service to the brakes.

HR/Admin Manager will ensure that a brake inspector employed by us:

- Understands the brake service or inspection task to be performed.
- Knows and has mastered the methods, procedures, tools, and equipment used in inspecting and servicing brakes and has training or experience under one of the following:
    - Has successfully completed a training program or has a certificate from a government or commercial source qualifying the person to perform brake work.
    - Has training or experience totaling 1 year, which may include appropriate training in a manufacturer sponsored or commercial training program, or experience performing brake maintenance or inspection in a vehicle maintenance program, commercial garage, or fleet leasing program

Drivers who have passed the air brake knowledge and skills test for a commercial driver's license (CDL) are considered qualified to inspect air brakes, but not to adjust or repair them without meeting the other qualification requirements listed above.

Documentation of the brake inspector's qualifications must be retained for as long as the employee is responsible for brake related work and for one year thereafter.

Qualified brake inspectors at ***MAG*** are:

Aung Zaw Tun
Mg Kyaw
Naing Zaw Linn

Preventative Maintenance (PM)

Preventive maintenance is an attitude and a commitment by ***MAG*** to get the most out of production and transport equipment by investing in its maintenance on a regular basis, according to a planned schedule. The preventive maintenance philosophy that ***MAG*** has adopted as company policy is widely used in the transportation industry.

Our preventive maintenance policy reflects a very modern attitude of conservation and of wise asset utilization. Without a doubt, it also saves money for a company that is committed to its principles. The preventive maintenance philosophy would say: "if it's scheduled to be replaced, replace it whether or not it has failed."

Maintenance is part of the cost of doing business, and every fleet has a major investment in its equipment. Whether or not that equipment operates efficiently and reliably has a major impact on corporate profitability. Making certain that equipment operates well is where preventive maintenance comes into the picture.

MAG has implemented a preventive maintenance program because of the positive impact it has in the following areas:

- Preventive maintenance is a major factor in promoting highway safety: A well-maintained truck is a safer truck, likewise a well-maintained machine is safe and efficient. PM alerts all personnel to potentially hazardous conditions, e.g., equipment failure. It also facilitates recordkeeping. Safer trucks and machines promote high driver and workers morale, are

involved in fewer accidents, efficiency, create a favorable public image for ***MAG***, have fewer breakdowns and delays, and play a vital role in mission accomplishment.

- Preventive maintenance prolongs useful life of equipment: Narrow profit margins mean that companies need equipment that continues to run economically and well as it ages. Component replacement in older vehicles is more difficult to schedule, so PM and its careful monitoring of vehicles is a big help.
- Preventive maintenance reduces unscheduled downtime: A broken truck is not making any money for ***MAG***. Anything that minimizes unscheduled downtime in a fleet makes the equipment more productive. Drivers do not have to wait for vehicles to get out of the shop, and operations run more smoothly. Vehicle and personnel utilization are both improved when companies are able to balance workloads.
- Preventive maintenance reduces unscheduled repairs and the higher cost related to them: In an in-house shop, parts inventory can be kept lower if component replacement is planned as part of an overall PM schedule. The fewer times vehicles have to be repaired on the road, the better the bottom line for ***MAG***.

In summary, a good preventive maintenance program lowers repair frequency and lowers overall maintenance cost.

The service portion of preventive maintenance is actually scheduled maintenance. ***MAG*** vehicles will be given preventive maintenance according to Appendix 1, Scheduled Maintenance Schedule, using the following guidelines:

- Leased vehicles will follow the scheduled maintenance schedule of Supplier Company.
- 1.5 ton and smaller vehicles will be serviced every 3 months.
- 3 ton or above vehicles will be serviced every 2 months.
- Motorcycles will be serviced every 2 months.

At ***MAG***, compliance with the preventive maintenance program is the responsibility of **HR/Admin Manager and all Drivers and Machine Operators**.

Operators and Drivers receive training on machine/vehicle inspection procedures including how to prepare and submit a driver vehicle inspection report (DVIR) and machine inspection report (MIR). ***MAG*** views its operators and drivers as the first line of defense in preventing serious maintenance problems. We expect operators and drivers to spot developing problem situations before they get to the "breakdown" point. This on the road expertise of operators and drivers should work together with the in-shop expertise of the maintenance department.

Operators and Drivers are responsible for knowing the mechanical condition of their vehicles at all times, and for operating those vehicles correctly and efficiently. The Admin Department is responsible for providing safe and drivable vehicles to ***MAG*** drivers.

Communication is the key between operators, drivers and the HR/Admin department. Some basic guidelines should help drivers contribute the most information possible to the ***MAG*** preventive maintenance program.

Drivers and Operators are expected to do complete and careful pre-trip and post-trip inspections/ pre-start and post-start inspections of their vehicles/machines. Drivers and operators are expected to treat company vehicles/machines as their own. Observable vehicle abuse will not be tolerated. Discovery of unauthorized modifications or tampering with any company vehicle will be reported to **Executive Management Team**. Drivers are expected to report any problems they find accurately and in detail. Problems should be reported promptly. ***MAG***'s procedures include the driver turning in the vehicle key each night to **HR/Admin Manager or Operations Manager**. The next morning, the keys are handed out by **HR/Admin Manager** or **Operations Manager.**

MAG is not responsible for loss or damage to personal effects left in vehicles prior to maintenance work being performed.

On the road, drivers are expected to spot and report potential maintenance problems:

- **LISTEN** for unusual or abnormal equipment sounds. Thumps, rattles, squeaks, bumps, squeals, and hisses all can signal the beginning of trouble. If things don't sound right, they should be reported to maintenance.
- **SMELL** for unusual odors that may signal trouble. Burning rubber, insulation, wood, scorched fabric, hot oil or other fluids can all mean problems. Diagnosis can be made early with a good sense of smell.
- **FEEL** changes in the vehicle's response. Steering, braking, shifting, and other handling operations all have unique "feels" in a particular vehicle. If the vehicle doesn't seem to behave the way it should, it should be reported promptly. Little problems cost much less to fix and cause less downtime.
- **OBSERVE** the equipment carefully when you make your required routine inspections. Defects in wiring, lights, cables, tires, splash guards, locks, air lines, coupling devices, fifth wheels, tarps and fasteners, landing gear, brakes and various accessories should all be carefully noted and reported to the maintenance department.

If ***MAG*** driver has an unexpected breakdown while on the road, he should stay calm and use common sense. Report the problem and follow instructions from **HR/Admin Manager or Operations Manager.**

If ***MAG*** equipment is put out of service during a roadside inspection, the driver must notify **HR/Admin Manager or Operations Manager** as soon as possible to receive instructions. ***MAG*** strictly forbids the operation of an out-of-service equipment until the required repairs are completed. A driver who violates this policy will be subject to disciplinary action.