Planned Maintenance in the Yard is Always Better than Unplanned Breakdowns in the Field

A preventive maintenance and repair program (i.e. pro-active service to a maintenance schedule) provides better customer service and lower costs than a "break-fix" strategy (i.e. equipment is serviced when it breaks). When equipment breaks in the field:

- **Disrupted Customer Service, More Management Stress**. Work must be rescheduled, and management must deal with disappointed customers, which can be very stressful.
- **Higher Labour Costs.** Field crews are less productive, or even unable to do the work. Once they're on the job, crews are paid whether they're working or not.
- **Lost Profit, maybe a Lost Customer.** In a seasonal business when crews and equipment are fully utilised, a disrupted job may need to be done at overtime rates to meet customers' deadlines, which means less profit. If you can't meet the deadline, your customer might do it themselves or call your competitor, which means no profit and a lost customer.
- **Higher Repair Costs, More Downtime.**
    - Either repair equipment must go to the broken equipment for service, or the broken equipment must go to the repair facility. Field repairs with portable equipment may be less efficient and more expensive than repairs in the shop.
    - Critical parts may not be available. If not, they must be located, purchased and urgently shipped at higher cost. There is no time to negotiate a better price.
    - Expertise needed to fix the problem may not be available.
    - Service on short-notice often incurs a premium, e.g. over-time.
- **Small, Inexpensive Problems become Big, Expensive Problems ("Cascading Failures").** A part that breaks in the field can break other parts, damage the worksite, or harm others, e.g. if the brakes fail, the truck may crash. A part may injure staff when it fails or injure them because it failed, e.g. staff may hurt themselves manually performing a task that should be performed by the equipment. Equipment failure can damage the worksite (e.g. hydraulic oil), and company reputation. A vehicle breakdown that blocks a congested thoroughfare in rush hour provides "advertising" that no company wants.

Maintaining Equipment as Specified helps it Perform as Designed

Equipment will not perform or be as reliable as claimed by the manufacturer unless it's maintained according to the maintenance schedule set by the manufacturer, and equipment is fixed when it breaks.

- **Same Revenue, Lower Capital Expenditures (CapEx), Lower Operating Expenditures (OpEx).** Properly maintained equipment is more productive and more reliable than poorly maintained equipment. A small, well-maintained fleet can do the same amount of work as a larger, poorly maintained fleet. Achieve the same top line revenue with lower capital expenditures (e.g. fewer vehicles, less auxiliary equipment), and lower operating expenditures (e.g. vehicle insurance).

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- **Manufacturer Maintenance Schedules are Cost-Effective.** Manufacturers design maintenance schedules to maximise performance and reliability while minimising long-term cost of ownership. Their reputations depend on it.
- **Prevent Problems.** Periodic and systematic inspection of equipment can identify worn parts for replacement before they fail. Small expenses don't become big expenses.
- **Minimise Service Impacts, and Lower Repair Costs.** Repairs and maintenance can be scheduled in off-peak times to (e.g. night, weekend, off-season) to minimise impacts on customer service. Parts and expertise can be coordinated so they are available. Repair and maintenance items can be coordinated to reduce costs. If equipment is idle, service it. If staff are idle, put them to work. When staff participate in equipment maintenance, they respect the equipment and treat it with greater care.
- **Less Downtime.** Repairs and maintenance are coordinated so there are fewer trips to the shop for service. Equipment is "fixed right," and doesn't need to be "fixed again."
- **Greater Job Satisfaction, Fewer Human Resource Problems.** Staff morale is higher, and turnover is lower. Job satisfaction is a key factor in recruitment and retention. Good staff want to do a good job. Reliable and productive equipment helps staff do a good job. Good companies want to recruit and retain good staff. Management spends less time hiring staff, and more time delivering service and making profit.
- **Better Reputation with Enforcement.** Commercial vehicle enforcement has some discretion as to which vehicles are pulled over for road-side inspection. They're less likely to pull over a vehicle operated by company with a reputation for well-maintained vehicles. When the vehicle is inspected, enforcement will find fewer problems, and the inspection will take less time.
- **Better for the Environment.** A properly maintained asset operates efficiently with fewer emissions, and doesn't prematurely wind up in the waste stream. Accidents are bad for the environment, too. Maintenance to the manufacturer's schedule ensures that parts and fluids are replaced at the end of their useful lives, not before.

Make Better Decisions with Better Information

Fleet management telematics applications (e.g. Fleet Complete™, Verizon Connect™) can simplify and track repair and maintenance information to help management make better, evidence-based decisions. These applications are typically purchased to improve operations by providing a real-time display of vehicle location and status. Each vehicle is tracked with a GPS unit that provides position, direction and speed information over a cellular network to a central application accessible to management over the internet anytime and from anywhere.

- **Multiple Maintenance Schedules for Many Assets all in One Application.** A capital asset is typically comprised of several components, each with its own maintenance schedule. For example, the three main components of a blower-truck (e.g. Express Blower™) are the truck chassis, truck engine, and blower system. Without a preventive maintenance application, it's difficult to track the maintenance items for each component. This is important because the asset is only as reliable as its weakest link.

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Having all maintenance schedules in one system ensures that all components are serviced properly when the asset is in for service.

- **Automatic Notification of Maintenance Items.** The application automatically triggers maintenance items based on maintenance schedules, distance driven, time since last maintenance, or time of year.
- **Repair and Upgrade Tracking.** Repair items identified by drivers and upgrades suggested by staff are tracked in the system.
- **Simplified, Fleet-wide Management of Repairs, Maintenance and Upgrades.** One application with all repair and maintenance items for each asset puts management in control of repairs and maintenance. With repair, maintenance and upgrade items for all assets in one place, they can be easily reviewed, approved and scheduled. For a vehicle fleet:
    - Management and service staff periodically review all repairs, maintenance items and upgrades for each vehicle,
    - Maintenance is scheduled based on priority of repair and maintenance items, availability of parts and service personnel, and impact on customer service, and
    - When maintenance is complete, repair and upgrade items are closed, and maintenance items are reset,

  The vehicle returns to work with all items complete. Nothing is missed.
- **Support Warranty Claims, Demonstrate Due Diligence.** Maintenance records are very helpful in discussions with manufacturers when equipment breaks, or with insurers when accidents occur.
- **Analyse Data to Improve Reliability and Lower Costs.** Analysis of repair data can identify
    - Design weaknesses that could be strengthened or redesigned.
    - Improper operation requiring follow-up with field crews, e.g. training.
    - Incomplete or improper service requiring follow-up with staff or service providers.
- **Make Better Capital Asset Purchase Decisions.** Analysis of fleet-wide repair and maintenance data sorts out which components (e.g. truck chassis, engine, blower system) are most reliable with lowest cost and down-time so you can purchase the most cost-effective equipment, not the cheapest. One of the simplest ways to improve reliability is to purchase reliable equipment.

Next Steps

If you'd like to discuss how to better manage repairs and maintenance in your company, drop me an email at greg@seahawkbi.com to arrange a call. I have expertise in blower-truck operations, fleet asset management systems, project management, and change management.

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