

Managing Planned Maintenance Contracts with Telematics Systems

By Brad Stemper, solutions marketing manager, CASE Construction Equipment

One of the best ways to ensure overall health, productivity and reliability of a machine—either new or used—throughout the course of its lifetime is through investing in a planned maintenance contract. These contracts allow an equipment owner to opt for agreed-to servicing with manufacturer-approved parts, fluids and components, at agreed-to intervals. A planned maintenance contract also provides peace of mind for the owner and/or fleet manager—it's simply one less thing to worry about.

Equipment owners want to protect their investments, minimize total cost of ownership and make sure that they are getting all they can out of a machine. Proper servicing at regular intervals—particularly when a machine is brand new—improves its life expectancy, and ensures that a machine is going to perform reliably throughout the course of its lifetime.

Planned maintenance contracts also improve the resale value of a machine. Knowing that a machine has been properly serviced provides better assurance to a second owner that the machine will run reliably, and increases the likelihood of resale.

In addition to regular service and repairs, a planned maintenance contract also ensures that a machine is being thoroughly inspected more often. A qualified technician will visit a machine with a critical eye, looking for wear, rust, oil where it shouldn't be, etc. They will also regularly examine cutting edges, bucket teeth, undercarriage components, lights, windshield wipers and all other wear items — this extra attention often helps to diagnose other issues and prevent further unscheduled downtime.

Telematics and planned maintenance

Contractors can improve production, effectively manage planned maintenance and protect their equipment investments through the utilization of telematics. These advanced monitoring systems offer unprecedented data on how machines are being utilized in the field—idle time, fuel consumption, operating conditions, maintenance milestone alerts—can all be monitored in real-time, ensuring that a machine is being utilized to its maximum earning potential.

One of the simplest ways that telematics can be used right out of the gate is to help manage maintenance intervals and scheduling. Eliminating the need for outdated whiteboards and logbooks, telematics data can show contractors and fleet managers where machines are in their maintenance schedule and how many hours are on the engine with up-to-the-minute accuracy. It also allows fleet managers to organize maintenance items around the machine's operating schedule to eliminate unnecessary downtime.

Alerts, warnings and detailed history

Telematics systems are capable of sending alerts when a machine approaches a maintenance milestone, or is operating outside of an acceptable parameter. It can also provide fleet managers and service personnel with a detailed history of faults, alarms, warnings, engine rpms and operating conditions, which help diagnose issues before they cause equipment failure and unplanned downtime. As an example, if a machine is equipped with a DPF system and a report shows a high amount of idle time, a technician will know to take a closer look at certain components, as the excessive heat from manual regen can cause hidden damage to the engine.

By knowing exactly when a machine needs to be serviced, it can also prevent fleet managers from unnecessarily pulling a machine from a busy jobsite, potentially offsetting the value of maintenance by what is lost in valuable production time. It also allows for service personnel to better plan for maintenance activities and ensures that all of the proper parts, filters and components are in stock because they know right when that machine will need to be serviced.

Maintenance notifications

Setting up maintenance notifications through telematics is simple—fleet managers are able to designate maintenance milestones, set up thresholds and reminders (50 hours, 100 hours before service, etc.), and to whom the notifications are sent. Some choose to have the notifications sent to both the owner/fleet manager as well as the service manager, so that both parties can then coordinate service times.

The ability to designate notification thresholds is important, because a machine in a high-production environment may need more advanced notice in order to effectively schedule downtime for maintenance.

Equipment owners can also set up regular utilization reports that cover engine hours, fuel consumption, engine rpms, etc. – these regular reports allow fleet managers and service personnel to analyze trends which can offer additional insight in regards to maintenance procedures.

Defining the roles of the manufacturer, dealer, owner and operator

While a planned maintenance contract provides value to an equipment owner by driving maintenance responsibilities onto the dealer, the truth is that everyone involved has a responsibility to the contract. Here is an outline of the responsibilities of the manufacturer, the dealer, the owner and operator.

Manufacturer

The manufacturer is responsible for providing product support to their dealers, providing support for any necessary repairs, providing service information and training, as well as identifying product deficiencies and taking corrective action in the form of recalls, product improvement programs, etc. They should also provide an accurate detail of systems, components, variances, etc. required for specific

applications (cold weather fluid recommendations, etc.). These maintenance variances can make a significant difference to operations with specific needs.

Dealer

The dealer is the direct route between the customer and the manufacturer, so they are responsible for making sure that the purchaser understands their planned maintenance contract. They are also responsible for providing product support and service for any planned maintenance items and repairs on behalf of the manufacturer, as well as having a strong knowledge of the manufacturer's policies and procedures. Additionally, the dealership will have a large amount of product experience to apply to the machine and its application – understanding key maintenance needs specific to a product or application that deserves extra attention.

The dealer also needs to understand that the machine is in a production setting, and needs to be prepared with the correct parts, components and a knowledge of the history of the machine, in order to complete maintenance in a timely manner. The dealer should also be able to provide additional insights to the owner, and have a strong knowledge of the maintenance contract and service intervals.

Owner

The owner is ultimately responsible for making sure that all maintenance procedures are completed at the required intervals, as well as following manufacturer recommendations in regards to all fluids, oils and filters.

It is also the responsibility of the owner to report any issues with the machine in a timely manner to the dealer, as waiting to report an issue may have negative consequences for both the machine and the maintenance contract. Above all, the owner must be willing to make the machine available for service.

Operator

Beyond regular service intervals, inspections and telematics reports, the operator is the most in-tune with a machine's performance on a jobsite. Operators should understand that regular maintenance is required to make sure that a machine is able to perform as effectively as possible over its lifetime, and can support maintenance efforts by reporting symptoms and other issues they encounter during the daily operation of a machine—sticking tracks, worn bucket teeth, etc.—to the fleet manager and/or service personnel.

The operator is responsible for the day-to-day maintenance and activities of the machine, so in order for equipment owners to make sure that they are getting the most out of their planned maintenance contract, they should ensure that operators have the right training, are well acquainted with the operator's manual, and that they are properly informed about telematics notifications and planned maintenance intervals, as well as the capabilities and limitations of the equipment.

Ultimately, managing planned maintenance through telematics is one of the best

ways to ensure the overall productivity of a machine over its lifetime, and monitoring the complete status of a fleet with telematics and using that information for proper maintenance and efficient fleet deployment can have a real impact on a contractor's profitability.