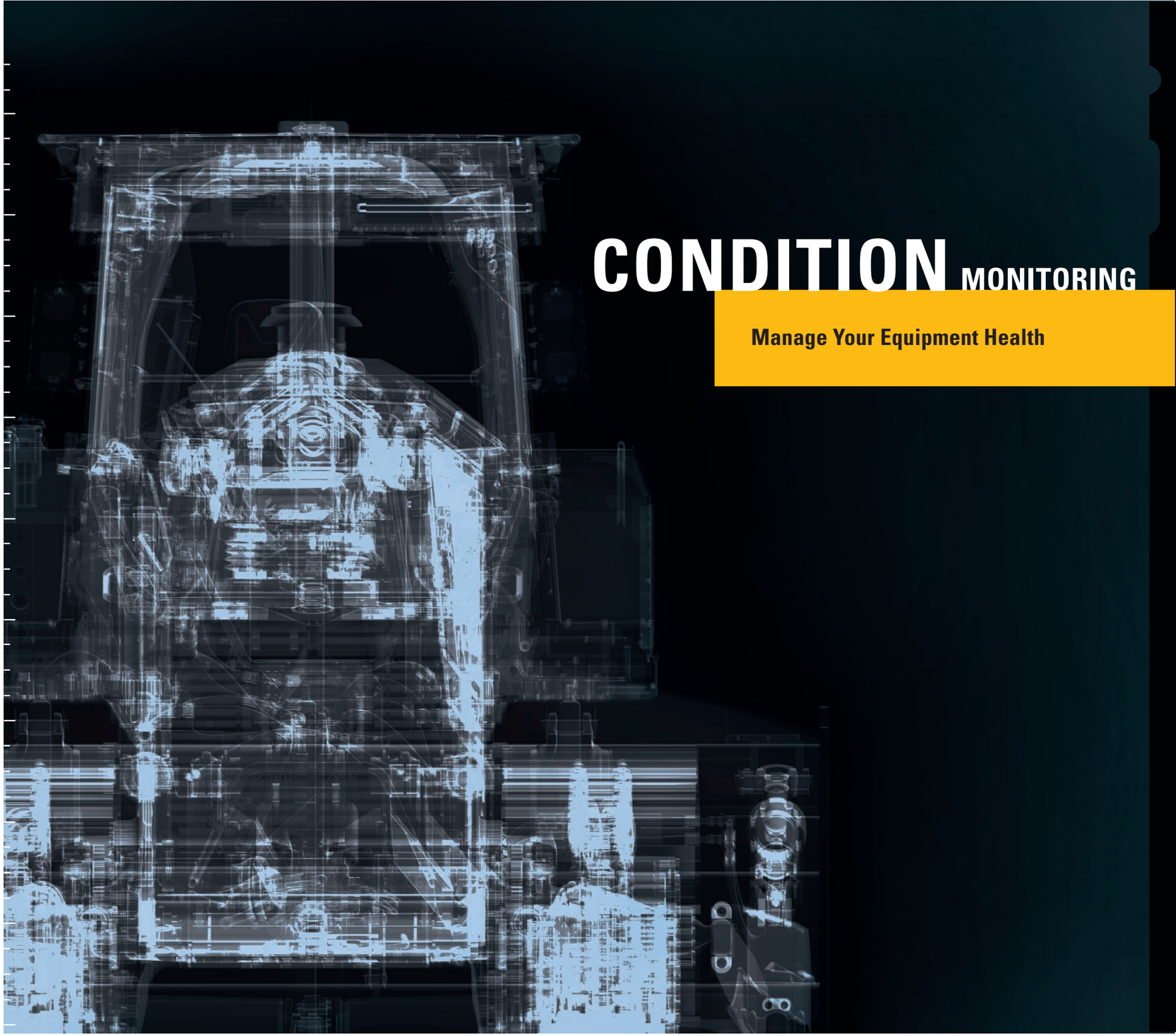


CONDITION MONITORING

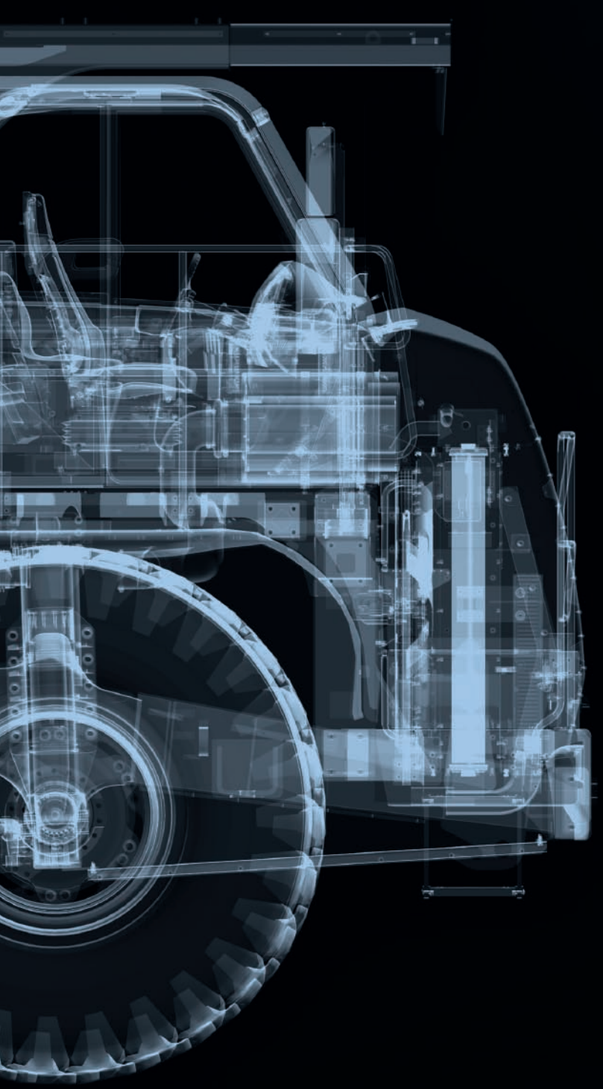
Manage Your Equipment Health

CATERPILLAR®

TODAY'S WORK. TOMORROW'S WORLD.™

PEDJ0092

CATERPILLAR®



YOUR EQUIPMENT HAS SOMETHING TO SAY.

Condition Monitoring helps you “listen” to your equipment, maximize equipment health and reduce total operating costs.

What if your equipment could say exactly when it was time for a new air filter or when a transmission was in imminent need of repair? You’d probably take note and take action, because information like this would do a lot to help keep your equipment up and running as productively as possible.

Condition Monitoring (CM) is an effective way to “listen” more closely to what your equipment can tell you about its own condition. It provides valuable information about what’s happening inside your equipment, which, in turn, helps you set up highly effective, comprehensive health plans for all your equipment assets.

Using a combination of Condition Monitoring “elements” —including electronic data, inspections, fluid analysis, equipment history and site condition analysis—CM helps you accurately track the health and operating condition of your equipment. Combining as many CM elements as possible helps give you a much more accurate assessment and deeper understanding of your equipment’s condition.

Regular Condition Monitoring practices enhance your ability to spot small problems before they develop into larger, more expensive ones—and before they cause a failure that shuts your equipment down. In some cases, CM may also be able to extend fluid and filter change intervals, helping you reduce total lifetime fluid and filter usage and costs.

Boost uptime. Enhance service flexibility.

Condition Monitoring not only helps boost uptime and enhance service flexibility, it also helps your Operations and Maintenance people work more closely together.

Operations wants equipment on the job as much as physically possible to maximize production, while Maintenance needs to take equipment off the job occasionally for timely repairs and routine maintenance.

CM can provide information that helps Operations maximize uptime and avoid unexpected failures. Plus, it can give Maintenance more flexibility in scheduling service procedures so they cause minimal disruption to production timetables.

The ultimate goal of CM is to help you schedule maintenance downtime according to actual equipment condition, rather than on fixed time schedules. Known as “Condition-Based Maintenance,” it can help you achieve maximum production and equipment utilization with the lowest possible service costs—on any job, in any conditions, throughout the entire life cycle of your equipment.

It’s easy to get started.

Getting started with Condition Monitoring is simple. Begin with routine inspections and regular S•O•S℠ Fluid Analysis. These two CM elements alone will provide lots of information and actionable insights on how best to enhance your service and maintenance practices.

Then, you can add other CM elements as needed—for example, you might build on your equipment’s service history or begin regular collection and analysis of site condition information and electronic data.

We can provide software and advice to help you take advantage of the Condition Monitoring elements that make the most sense for your equipment and your business.

Condition Monitoring benefits at a glance.

COST EFFECTIVE
- Helps cut overall service costs and downtime.
- Extends service intervals when job conditions allow.
- Lowers total owning and operating costs.

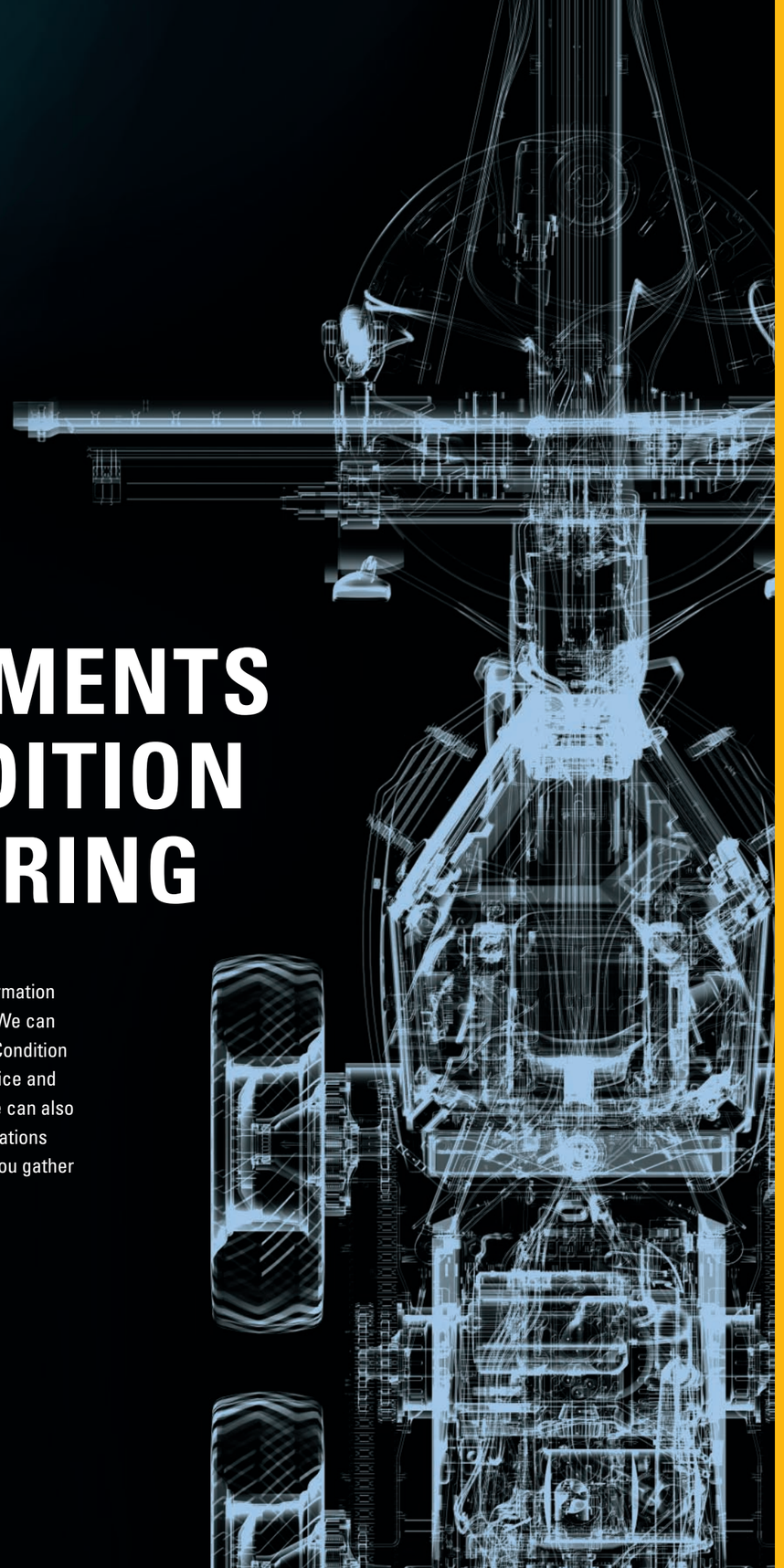
UPTIME
- Helps you schedule service downtime around production demands.
- Helps maximize equipment availability.

SUSTAINABLE
- Reduces lifetime parts, fluids and labor needs.

SCALABLE
- Start small and add CM elements as you go.

FLEXIBLE
- Begin with a routine inspection and S•O•S℠ Fluid Analysis, then add other elements as needed.

EASY
- We can help you apply CM elements to your business, or we can handle all your service and maintenance needs for you through a Customer Support Agreement.



THE ELEMENTS OF CONDITION MONITORING

With Condition Monitoring, the more information you can collect and process, the better. We can provide tools and advice to help you put Condition Monitoring elements to work in your service and maintenance routines. In some cases, we can also supply analysis services and recommendations that help you make the most of the data you gather from your equipment.

S•O•S℠ FLUID ANALYSIS

Regular fluid sampling and analysis through S•O•S℠ Services gives you detailed information about not only oil and coolant condition, but also component wear and more. Cat® S•O•S fluid analysts know Cat equipment inside and out, making us your best, most knowledgeable source for sophisticated fluid analysis.

INSPECTIONS

Inspections are the most basic form of CM. They're easy to do and surprisingly effective at helping you spot equipment health issues. We can provide forms for regular inspections and help train your people on what to look for. Or we can perform inspections for you as part of a Customer Support Agreement.

ELECTRONIC EQUIPMENT INFORMATION

Cat equipment generates useful information, which can be collected from many different sources. To capture this data, remote monitoring and "smart machine" technologies are used, such as the wirelessly transmitted Product Link and manually downloaded VIMS data. This information can be analyzed with a variety of Cat tools, including Equipment Manager and VIMS PC. Service technicians can also download diagnostic and performance information directly from Cat Electronic Control Modules using Cat Electronic Technician tools and software.

Electronic equipment data provides up-to-the-minute information. It helps give you advanced warning about potential issues and allows you to act quickly when problems come up.

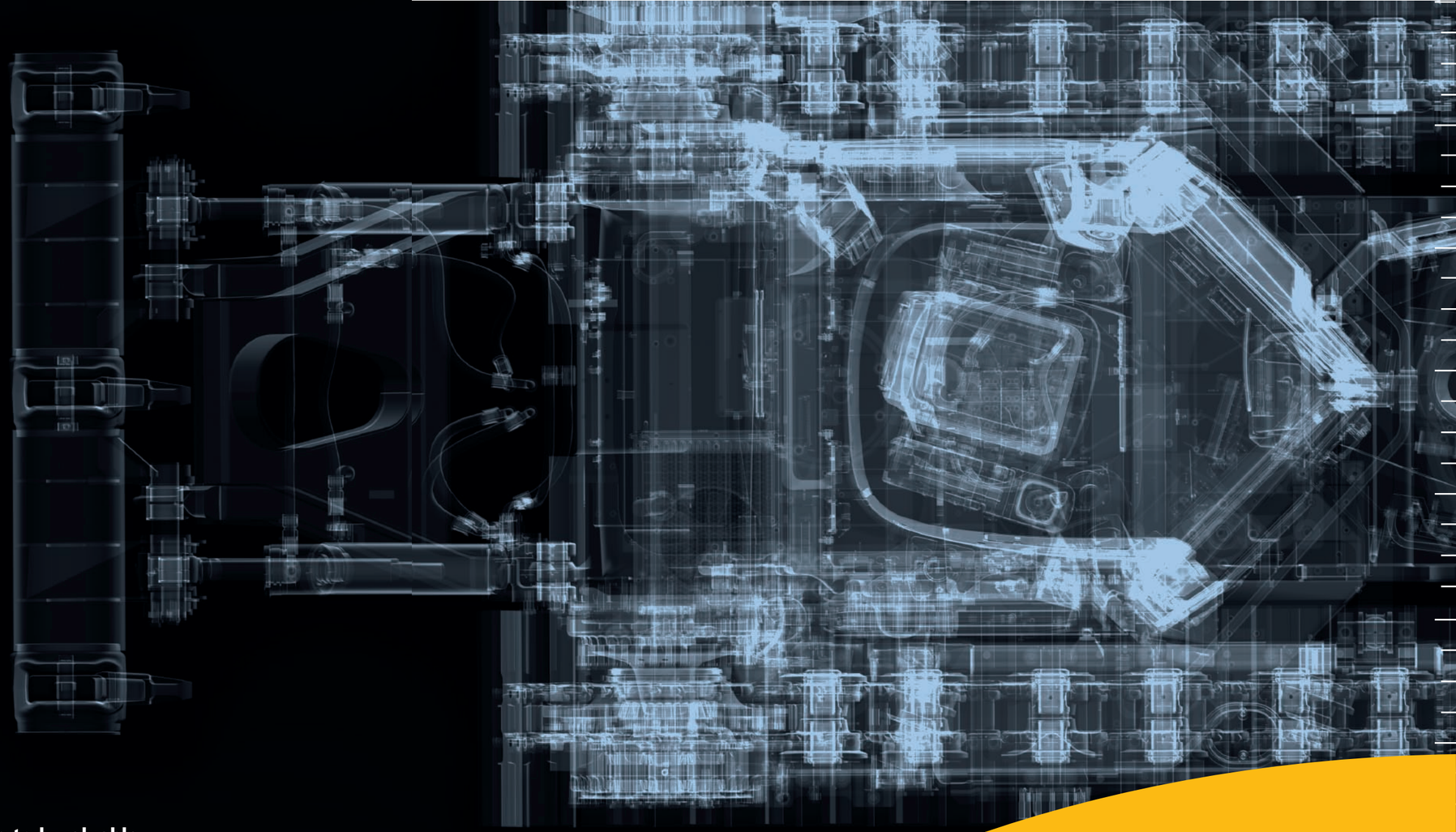
EQUIPMENT HISTORY

Equipment history includes all the service reports and recommendations for maintenance, inspections and repairs. Gathering and analyzing this information helps you spot long-term equipment performance trends and helps identify opportunities to enhance service and maintenance practices.

SITE CONDITIONS

A site assessment helps evaluate a number of factors that could affect your long-term equipment health—including operation and maintenance practices, local site conditions and overall climate and seasonal conditions. To gather and analyze this data, we use a tool called Site Operations and Maintenance Advisor (SOMA). This information can help you improve operating and maintenance practices and is helpful in estimating component or equipment life in various job situations.

TURNING INFORMATION INTO ACTION



Committed, knowledgeable people make Condition Monitoring truly valuable.

It's important to remember that Condition Monitoring is about something much more than just data. It's about turning data into useful information, then turning that information into timely, actionable recommendations.

We can help you process your equipment data and generate service, maintenance and operational recommendations that help you increase efficiency, lower costs and improve equipment availability.

Customer Support Agreements (CSAs)

A Customer Support Agreement is an arrangement negotiated between you and our Dealership. Each CSA is carefully tailored to your needs and your business and can cover a single piece of equipment, a specific group of equipment or your entire fleet.

A complete service and maintenance CSA that includes CM elements allows you to focus on your business while we monitor equipment health for you and work to keep your equipment in top shape.

Condition Monitoring Services

We offer a range of Condition Monitoring services especially suited to your business and your equipment. Please contact us if you have any questions about CM or for more information about how we can help you put together a smart equipment health plan.