

materials technology, strength calculations, impact wave theory and production technology have cemented the Rammer's position as the go-to rockbreaker solutions provider for the Australian mining and construction industry.

For over 40 years, Rammer has been considered the most trusted and respected hydraulic rockbreaker manufacturer in the world. Driven by innovation, Rammer has consistently pushed the industry forward by developing innovative technologies and incorporating them into its powerful tools.

Rammer's premium line of hydraulic rockbreakers—the Excellence Line includes the Rammer RD3 remote monitoring device, which, when coupled with MyFleet, is the world's first cloud-based telematics monitoring

The RD3 transmits its

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■he use of advanced hydraulics, system for hydraulic rockbreakers, arriving is used to locate device. on the market just in time to usher in the IoT era. As an added bonus, the RD3 can also be retrofit on any Rammer rockbreaker built after 2009. Many operators won't have to upgrade their toolbelt to take advantage of the cutting-edge technology.

> Rammer is also the first company to offer remote data access on the utilisation, impact, and stresses of hydraulic rockbreaker while

## RD3: How it Works

The RD3 is a self-contained unit that's built to withstand the toughest working conditions. The device features a built-in battery that typically lasts for 3,000 reports at a pace of one report each day.

Every RD3 device is linked to each rockbreaker's serial number. Depending on the installation type, rockbreakers are equipped with either the RD3-FACE (installed on the surface of a device) or the RD3-RECE (installed in a recess of a device).

> data to the cloud through a 2G/3G network. When a der operation, the RD3 gathers data about the position location, motion patterns, tilt, temperature, and utilisation (i.e., hours in operation) and transmits that data back to a central location.

It's also equipped with a three-axis shock sensor that enables it to measure the stresses and forces being applied equipment. to the rockbreaker during each use.

The RD3 uses a GPS signal to transmit location data. If a GPS signal is not available, mobile network triangulation

Being able to keep tabs on a rockbreaker's impact and stress levels in real time is a major development in the industry. With more data on hand, operators are now able to use their rockbreakers more effectively, thereby increasing each tool's lifespan.

Using the MyFleet portal, operators can also look at tool usage trends over time and use that data to adjust operating patterns accordingly. For example, an owner might learn that one device operator's method of hammering causes lower stresses and impacts on the rockbreaker compared to other operators. The team can then learn from the lower-impact operator's techniques and figure out a better way forward.

Over time, the entire fleet will be able to reduce stresses on their devices, leading to more uptime and lower repair costs down

# **Proactive Monitoring**

Correct operation is vital to minimise the chance that rockbreaker fails and causes costly unscheduled downtime. One of the major causes of premature failure in rockbreakers is long cycles where the rockbreaker is un- operator continues to hit the button and the piston keeps striking for an extended period

> By using advanced electronics to sense the impacts and stresses on the rockbreaker, RD3 provides information on how the rockbreaker is being operated. With the RD3 data, customers can provide operator education when needed to avoid maintenance costs due to premature failure.

# MyFleet: A Look Under the Hood

Rammer's MyFleet platform is a cloud-based software suite that integrates with the RD3 monitoring system to give managers more insight and more control over their

Using MyFleet, operators can monitor realtime telematics data that's being transmitted by the RD3 monitoring system. With 24/7 access to data, operators will know exactly how many work hours are being logged with

each rockbreaker, where the rockbreaker is located, and how a rockbreaker is being

If a fleet owner wants to ensure a device is only used in one specific area, or wants to assign multiple devices to specific areas, owners can set a geofence in their MyFleet

A geofence is a virtual boundary that uses GPS technology to define where a device should be located at any time. If a device is removed from this boundary, MyFleet will automatically trigger a notification that alerts the owner of the situation.

## Preventative maintenance

Simply by logging into the MyFleet platform, customers can see all the data on operating hours and required service intervals helping them manage service periods and minimize machinery downtime by scheduling maintenance during times of least impact on production.

With downtime planned at optimal times based on the data of rockbreaker usage, maintenance programmes can be streamlined to improve efficiency and reduce costs.

The hour meter shows MyFleet users the total time the rockbreaker has been engaged in rockbreaking that can ensure a higher re-sale value as the actual work hours are known.

### **Tool Lubrication and Correct Greasing** Practice

Rockbreaker tool is subject to extreme wear that requires proper lubrication and care to achieve a long, trouble-free life. Tool lubricant must have properties to withstand high temperature and extreme pressure.

As part of Rammer's aim to help support more sustainable rockbreaking operations, Rammer has developed Rammer BIO Tool Grease, a high-performance biodegradable grease for hydraulic rockbreakers in collaboration with key customers in mining, construction and demolition industries to help them actively reduce impact of their operations on the environment.

BIO Tool Grease is specially formulated to be biodegradable and environmentally friendly, making it safe for use in areas with strict building codes like urban and city sites, in underwater applications, and in environmentally sensitive locations like

The greasing practice depends on application and operating method. Tool grease consumption is higher in applications where the tool is penetrating and movements are longer than in impact breaking applications where the tool is steadily against thrust ring. Greasing should be increased in dusty applications.

The proper procedure is reached when wet grease is visible about the length equal to tool diameter on the tool just beneath the housing bottom plate.

correct greasing practices in the model specific operator's manual, although the operator should adjust suitable practice for the application on a daily basis.

#### **About Rammer**

Rammer, the most respected brand for Authorised Rammer dealers supply genuine hydraulic attachments, is a part of Sandvik Rock Processing Solutions business area that operates within Sandvik Group, the global engineering giant in mining and rock excavation, metal-cutting and materials

Rammer has brought several innovations to the hydraulic rockbreaker market, including constant blow energy, idle blow protection, attachment-mounted dust suppression, automatic lubrication and with integrated smart technology and customer-focused product features, Rammer has created great experiences for its customers.

With powerful and durable rockbreakers equipped with the revolutionary RD3 remote monitoring device, 28 boom system options and specialty demolition attachments, there is a Rammer solution for virtually

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any demanding breaking application that requires a boom-mounted percussive tool.

Being one of the world's most trusted brands is not about technology and innovation only, it is about listening to what the customers say, what their application specific needs are and helping them reduce breaking times and avoid unnecessary downtime.

Rammer was the first brand to offer large and heavy duty hydraulic rockbreakers for tough conditions and the first on the market to add remote monitoring system for hydraulic rockbreakers.

#### Right Tool is a key to productivity

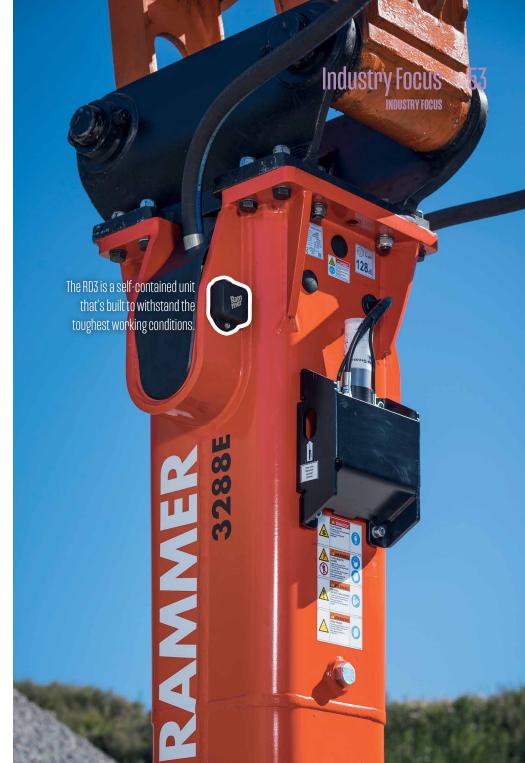
Correctly matching the right tool to the job application is critical to achieving the highest level of production with lowest possible

Rammer customers find instructions for First, it is vital to determine if the job is an "impact" or "penetrative" breaking application. Rammer has several tool models designed with "job specific" work requirements, providing excellent value, long life and maximum performance.

> tools and will help you select the correct tools and parts for your attachment and

Rammer products are supported by a dedicated global dealer network with ready access to genuine Rammer parts and a wealth of operational knowledge and experience to ensure that Rammer product continues to contribute to customers' profitability for its entire working life.

With authorised Rammer dealership in every state, territory and also in PNG, Rammer offers factory-approved maintenance and warranty services to keep rockbreakers doing what they do best – turning big rocks into little rocks. . AMR





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