



The Differences Between Accumulators



A periodic service is extremely essential in ensuring a long life for your car and does go a long way in keeping your vehicle reliable and niggles-free.

Rockbreakers are the same, but the technology inside of the rockbreaker determines if more than just regular servicing is needed.

If your rockbreakers come with high-pressure membrane accumulators, like the Rammer Excellence Line of Rockbreakers, there is no need for continuous re-gassing between regular servicing.

Rammer's sealed high pressure membrane accumulator system makes the rockbreaker gas leakage proof, meaning it does not require re-fill, or any special sealing system outside of regular service intervals.

This simply means that the nitrogen gas inside the rockbreaker lasts for extended periods of time, similar to the air in car tyres which may only need testing with regular servicing.

There are many rockbreakers on the market which feature the original piston head gas design and also have nitrogen piston accumulators and a second pressure-

dampening membrane type accumulator.

These style of rockbreakers have the nitrogen gas pressure in the back head set at around 16 bar by the manufacturer and due to dynamic nature of the gas sealing system the gas pressure slowly decreases over time because the gas behind the piston slowly leaks through the seals.

As a rockbreaker's impact energy is directly proportional this gas pressure, gas leakage means a loss of impact energy and rockbreaker starts losing its breaking power and will require re-gassing.

"I have customers contacting me and seeking for advice as their rockbreaker that otherwise is working fine does not seem to be breaking as well as it used to. This is often due to gas gradually leaking out and resulting in loss of performance," explains Mike Coghlan, Sales Manager of Walkers Hammers in Melbourne.

"Gas leakage cannot be avoided but this slow loss isn't easy for operators to identify. It becomes an issue once the gas pressure has dropped to under 13 bar or loss of performance has finally become evident," Mike said.

"Loss of production can be quite large overtime and I advise customers who have rockbreakers with the gas piston accumulators to be prepared to re-gas their breaker when required. The customer can either rent a nitrogen gas bottle and perform refilling onsite, contact our site service team or bring their breaker to our workshop."

Recharging enables the breaker to regain maximum breaking power but it often means additional downtime and extra costs.

Membrane type of accumulator eliminates oil pressure peaks inside the rockbreaker and hydraulic circuit of the carrier ensuring maximum piston acceleration and removing the need for time consuming re-gassing.

"With my Rammer Excellence Line 4099E I can keep output consistent whereas the previous piston head gas design rockbreaker's impact energy was directly proportional to the gas pressure – when it started leaking gas it started lose its power and eventually it took ten blows to break a rock instead of five" explains Marc Vecchia, Director of Southern Traxcavator.

With the Rammer 4099 every impact – from first to last – is at maximum power enabling Southern Traxcavator maximise productivity

and complete the job without unnecessary interruptions.

Rockbreakers with membrane type of accumulators are gas leakage proof which means less maintenance, lower operating costs and best of all, they maintain constant and high breaking power at all times making them a reliable and productive partner for your carrier, particularly in remote locations.

Rockbreakers with the high-pressure membrane accumulator technology also feature tolerance for complete rebuilds providing customers with longevity of the product whereas piston head gas design breakers do not feature the same tolerance and may need to be replaced.

Rammer Excellence Line

The Rammer Excellence line is Rammer's flagship product line of rockbreakers, a set of state-of-the-art hydraulic rockbreakers feature the latest cutting-edge technology for more efficient operations, reduced downtime and maintenance.

The line has continued to build on Rammer's 40-years of industry experience, delivering world-class rockbreakers designed to improve profitability, safety and performance.

Fitted with the RD3 technology and monitored through MyFleet, customers can remotely monitor rockbreaker usage and provide operator education when needed to avoid maintenance costs due to premature failure.

One of the major causes of premature failure in rockbreakers is long cycles where the operator continues to hit the button and the piston keeps striking for an extended period of time.

Correct operation minimizes the chance that rockbreaker fails and causes costly unscheduled downtime.

The Adjust Idle Blow Protection (IBP) feature ensures that the rockbreaker cannot be operated until pressure is placed on the tool.

This also protects the tool from failures and tie rod stress which ultimately reduces oil overheating and protects against premature failures.

The lower tool bushing is simple and easy to replace with Rammer's innovative design – it is as simple as removing the two lower pins and can be done on site.

This decreases maintenance costs while reducing the cost of ownership and operation.

Rammer has also added separate greasing channels from the valve body into the lower and upper tooling bushing.

This enables optimum greasing for both bushings which increases the lifetime of the tool and tool bushings.

Whether it is decreasing the cost of maintenance, ownership or increasing the service life of rockbreakers, all of Rammer's innovative maintenance and service features are designed to save customers money by improving the efficiency and quality

of their products.

The Rammer Excellence Line is a set of state-of-the-art hydraulic hammers for all your rock breaking needs. All Excellence Line hammers now have integrated smart technology for easier fleet management and more efficient processes.

The Excellence Line continues Rammer's 40-year tradition of delivering innovative hammers designed to improve profitability, safety and performance. With these new customer-focused features, the line perfectly represents Rammer's developing outlook on assisting your businesses to enhance your performance.

In Australia, customers are supported by an independent network of highly experienced Rammer dealers that provide expert advice and solutions that meet the specific needs of customers and ensure the maximum return on capital investments.

GroundTec in NSW:
www.groundtec.com.au

QLD Rockbreakers in QLD and NT:
www.rdw.com.au/qld-rock-breakers

Walkers Hammers in VIC and SA:
www.walkershammers.com.au

Total Rockbreaking Solutions in WA:
www.totalrockbreaking.com.au

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Rammer Excellence Line rockbreakers are fitted with membrane-type accumulators to assist with power strokes, whilst providing protection against hydraulic spikes, and they have field replaceable lower tool bushing and a low maintenance design which ensures optimum rockbreaker uptime, higher availability levels and a reduced owning and operating cost.

Factory fitted remote monitoring hardware, RD3 as standard

Advantages of innovative technology:

- real-time data on operation
- reduced breaking times
- lower cost per tonne of material broken
- protection against premature failure
- longer tool life
- simplified maintenance
- reduced downtime

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SMART ROCKBREAKER TECHNOLOGY

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