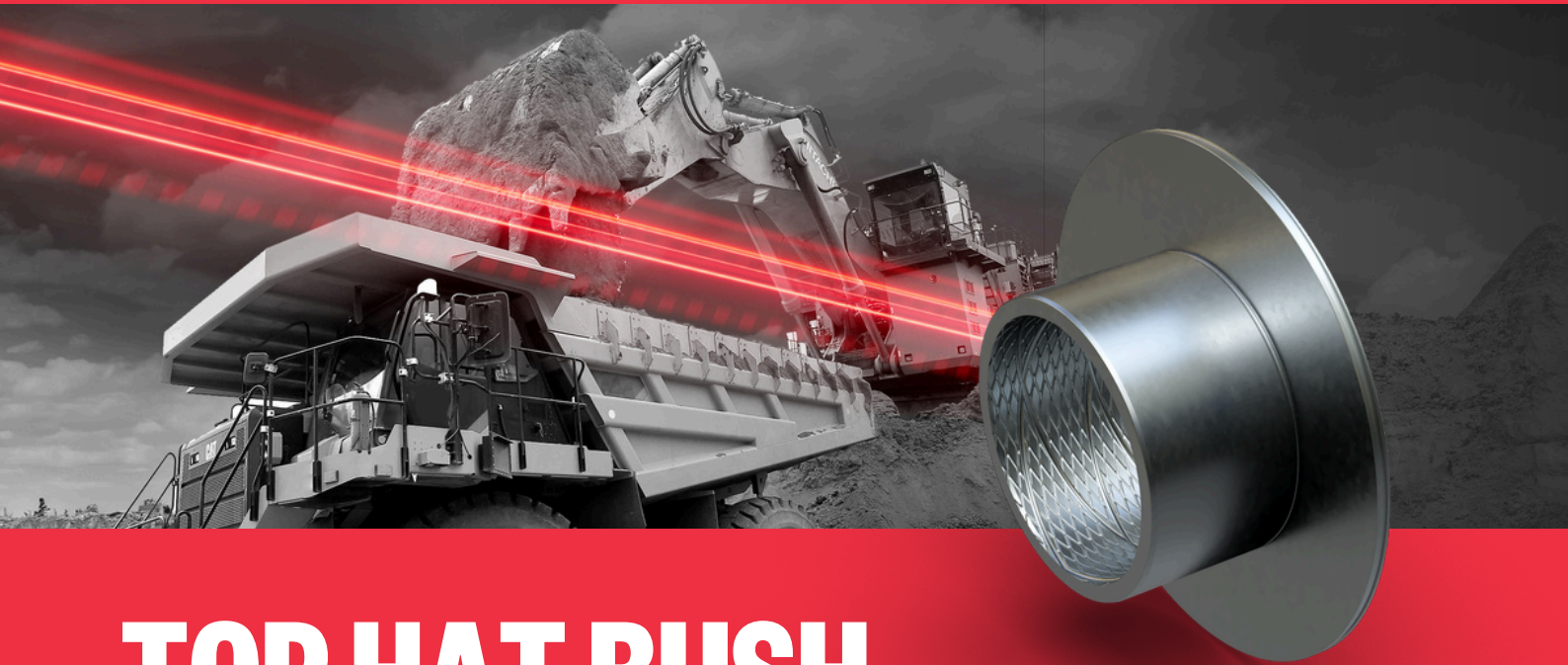


**ENHANCED
PERFORMANCE**



TOP HAT BUSH

To suit Hitachi EX series Excavators

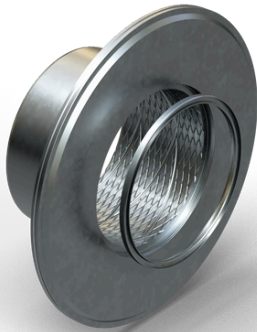
2025 - Revision 4

Reducing Premature Failure of Thrust Plates

The Challenge Behind Premature Wear in Hitachi Excavators

A known issue with the bucket-stick arrangement of Hitachi Excavators is premature failure of the thrust plate. Through metallurgical analysis we discovered that the OEM thrust plates are manufactured out of relatively soft material, resulting in a faster wear rate than the surrounding components. The problem was the bolt heads used to secure the thrust plate became worn, causing dislodgement of the thrust plate and significant damage to bucket-stick mounting faces.

Further investigation discovered that site maintenance crews would often weld the thrust plates into position to reduce the risk of dislodgement. Unfortunately, welding directly to the machine has the potential to compromise frame integrity and requires additional hot work during the fitment and removal procedure.



Safer work environment for maintenance teams by reducing the need for hot works.



Increase fleet uptime with efficient ease of fitment, reducing time and associated labour costs.



Cross Hatch grease groove for improved grease disbursement and phosphating aids first start-up lubrication and shelf storage protection.



Significantly stronger due to being manufactured from one piece of material meaning it is not prone to movement under dynamic load conditions.

The Geographe Solution

Geographe designed and manufactured the Top Hat Bush, a solution to eliminate premature failure of the thrust plate within Hitachi Excavators.

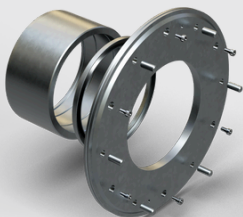
Geographe incorporated the standard bush and thrust plate into a single component, constructed from a single piece of material, and sharing the same improved material and gas carburisation heat treatment processes as the standalone bush.

This gives the entire component a 2mm case depth at 58-63HRC, resulting in the stick-to-bucket tolerance remaining at OEM specification for longer.

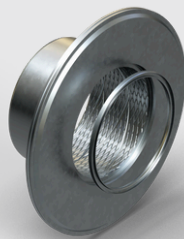
Top Hat Bush Location

Geographe Bucket Top Hat Bushes offers a stronger solution to standard Hitachi Bush and thrust plate arrangements, decreasing premature wear, and decreasing movement under dynamic load conditions.

Geographe Top Hat Bush Kits and Stick to Bucket Top Hat Bush Kits are available for the following Hitachi Excavator models: **EX1200, EX1900, EX2500, EX2600, EX3500, EX3600, EX5500, EX5600, and EX8000**, as well as Top Hat Bush Kits available for Caterpillar **6020B** Excavators.



Standard OEM Bush and Thrust Plate to suit HIT EX5500



Enhanced Performance integrated Top Hat Bush Assembly to suit Hitachi EX5500





ENHANCED PERFORMANCE

With over 1,000 Enhanced Performance (EP™) components now catalogued to suit OEM brands such as Caterpillar, Komatsu, Hitachi, and Liebherr, Geographe creates and manufactures products to outperform any wear parts in the market.



Extend the
Operational Life
of parts



Correct known
deficiencies in
OEM parts



Adapt existing
designs for specific
conditions



Cut maintenance
costs and increase
uptime

How we add value to your operation

At Geographe, our products are designed to deliver beyond expectations. We provide engineered solutions to achieve higher equipment utilisation and performance rates.

We collaborate with our customers to solve mine site challenges, helping to significantly reduce maintenance time, improve safety, and decrease up-front and whole-of-life operating costs.

Through innovative thinking and a pioneering approach, our dedicated team of skilled engineers, metallurgists, analysts, and developers design and engineer high-performance parts to support optimal performance and minimal interruptions to operating equipment in mine sites around the world.

Let us know how
we can help.

Customer Service Centre

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Kewdale, Western
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All manufacturers names, numbers, symbols and descriptions are used for reference purposes only.

It is not implied that any part listed is the product of the OEM.

Geographe™ and its  symbol are a registered trademark in Australia and Canada of Geographe Enterprises Pty Ltd.

Geographe® and its  symbol are registered in the U.S. Patent and Trademark Office by Geographe Enterprises Pty Ltd.

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