



TOP HAT BUSH

To suit Caterpillar 6020B Excavator

2024 - Revision 2

Reducing Premature Wear in CAT Pivots from Carbody to Bucket

The Challenge of Continual Failures

Two prominent Western Australian miners approached Geographe with the challenge observed in the OEM standard setup for excavator bushings, where they were created from bronze with a smaller diameter flanged thrust face.

In certain environments, this can be insufficient for the loading conditions resulting in accelerated wear on the thrust faces, posing concerns for durability and longevity.

The OEM offered a solution by adding a thrust ring to the bush flange's outer diameter. The attempted fix did not yield the desired results, leaving the mining companies grappling with ongoing wear and maintenance issues. Additionally, the lack of seals in the standard arrangement exposes the bushings to contaminants and abrasive materials, exacerbating the wear rate and decreasing the longevity of the components.

Geographe understood the challenge and immediately started looking into enhancing the specifications to create a longer-lasting alternative, creating the Top Hat Bush.



There is increased ease of fitment, reducing time and associated labour costs.



No hot work is required, reducing high-risk work and machine downtime.



Manufactured from one piece of material meaning it is not prone to movement under dynamic load conditions.

The Geographe Solution

Utilising the success behind creating the Top Hat Bush for the Hitachi Excavator, Geographe upgraded the standard bronze bushes to case-hardened steel, incorporating a larger thrust face for improved contact surface area.

The Geographe Top Hat Bush is also sealed with a split seal at the thrust face which can be changed without disassembly - allowing for optimal bush performance.

Enhanced Performance Top Hat Bush

Geographe Top Hat Bushes offers a stronger solution to standard Caterpillar Top Hat Bush, decreasing premature wear, and decreasing movement under dynamic load conditions.





Top Hat Bush Kits



Geographe provides Customised Kits that can reduce costs by offering the flexibility to tailor kits to meet the specific needs of each customer's unique mining site.



Frame to Boom Kit - 11542666

OEM Ref	Geo Ref	Description	Qty
4365397EPMOD	11542284	BUSH; FRAME: BOOM: STICK: TOP HAT MOD EP	4
	11542576	SEAL; THB: BUCKET TO STICK: 6020: PW250	4
4487595	11540119	O-RING; SPLIT: CLAMPED	2

Boom to Stick Kit - 11542667

OEM Ref	Geo Ref	Description	Qty
4365397EPMOD	11542284	BUSH; FRAME: BOOM: STICK: TOP HAT MOD EP	4
	11542576	SEAL; THB: BUCKET TO STICK: 6020: PW250	4
4487595	11540119	O-RING; SPLIT: CLAMPED	2
4365397THBSHIMKIT	11542419	KIT; SHIM: TOP HAT BUSH: 11542284	1

Stick to Bucket Kit - 11542668

	Geo Ref	Description	Qty
4365393EPMOD	11542295	BUSH; STICK TO BUCKET: TOP HAT MOD: EP	2
4365365EPMOD	11542418	BUSH; BUCKET TO STICK: TOP HAT MOD: EP	2
	11542577	SEAL; THB: BUCKET TO STICK: 6020: PW190	4
	11542533	O-RING: SPLIT	2





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



Adapt existing designs for specific conditions



Correct known deficiencies in OEM parts



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.

National Customer Service Centre

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geographe™

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