

BLASTHOLE DRILLING





www.mammothtech.co.za





Over 20 years of design & manufacturing experience in the mining & drilling industry



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Introduction

Mammoth Technologies is a design & manufacturing corporation within the mining & drilling industry, creating a dynamic presence in the international market The Mammoth Breakout Wrench drew attention to our innovative yet uncomplicated approach to problemsolving within the global market when we first introduced it in 1999. Development and product refinement and improvement is a continuous process in the business. Our product development drive has been shaped and guided by the requirements, needs & frustrations gleaned from our clients in the global market. This has led us to develop a reasonably priced range of durable, cost-effective products in the various sectors of the mining industry. They were designed for: improving safety; simplifying operation; lowering maintenance costs.

Vision Statement

Our vision is to be a well-established brand in the mining & drilling industry, leading the way through safety, quality, service & price, driven by ethical standards and time tested values.

Mission Statement

To produce better products that are affordable, safer to use and easier to work with. Better. Affordable. Safer. Easier

Expertise

Mammoth Technologies takes responsibility for all the phases of the process including conceptualization, market research, design, manufacturing & testing, through to distribution and service. All manufacturing (including process manufacturing) is done in-house.

COMPANY OVERVIEW

Contact Details

Head Office

Mammoth Technologies Pty Ltd 6689 Kotzenberg Street, Rosslyn, Pretoria, 0200, Gauteng

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Product Specialists

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Head of Sales and Marketing

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International Distributors

MOZAMBIQUE

Mammoth International

Sam Maganya Mobile: +258 84 930 4606 Email: sam@mammothinternational.co.mz Web: www.mammothinternational.co.mz

AUSTRALIA Mammoth Drill Tools Australia

Paul Fooks Mobile: +61 427 475546 Email: paul.fooks@mammothdrill.com.au Email: info@mammothdrill.com.au Web: www.mammothtech.co.za

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Mammoth Drill Tools Brazil

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PERU Mammoth Milalion SAC

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HD Drilling Resolution

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Ronnie Van der Nest Mobile: +267 74 889 552 Email: ronnie@mammothtech.co.za www.mammothtech.co.za

Regional Joint Ventures

MOKOPANE REGION

Letona Holdings

Phill Kgaphola

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Mammoth Drill Tools Australia

Paul Fooks

Craig Dube

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Local Distributors

NORTHERN CAPE

Nsimbi Equipment Traders

Mobile: +27 76 491 6951

Tell: +27 11 446 5775

NORTHERN CAPE

Mammoth Drill Tools Northen Cape

Orbed Petrus Mobile: +27 73 202 4055

> Whitey Thomas Mobile: +27 82 577 9677

Distributor/Agent

Email: c.dube@nsimbiequipment.com

Web: www.nsimbiequipment.com

Name: _		
Mobile:		
Email:		

Mammoth Services

Mammoth Technologies offers a wide range of versatility in our field of expertise.

General Services

- R&D
- CAD drawings, 3D/solids, simulations and more
- Innovative solutions to relative problems
- Conceptualization
- Hydraulic Design
- Electrical Design
- Application Specific Hardware Design
- Application Specific Software Design
- Manufacturing
- Process Manufacturing
- Reverse Engineering
- Patent Searches / Patents Processing
- Specific problem solving and research
- Product marketing solutions

Innovative and Consumable Services

- Servicing and repairs of Mammoth innovative products
- Breakout benches for breaking of tight joints, due to tension build up during drilling
- Straightening and repairs of drill rods

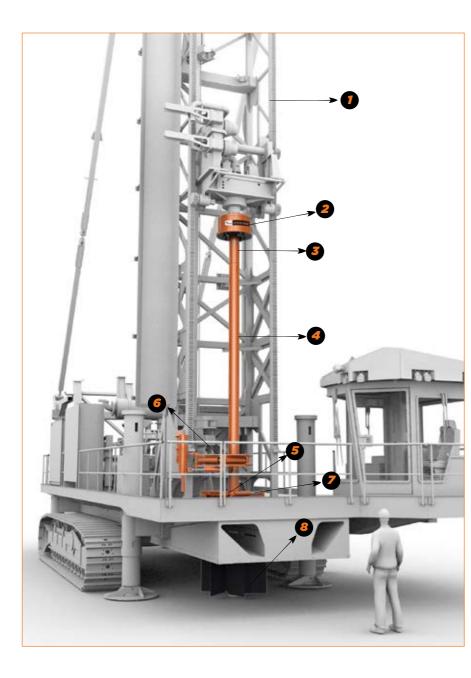


Repairs/Services/Refurbishment repairs@mammothtech.co.za For all general repairs, services, and refurbishments on Mammoth products, including existing products, regardless of manufacturer or origin.

Product Quality

Because of our uncompromising commitment to safety, quality and functionality it is essential that only approved genuine parts and consumables are used on the Mammoth product range.

Product Map





MAMMOTH BREAKOUT WRENCH



10

Mammoth Breakout Wrench

The Mammoth Breakout Wrench was developed to meet the requirements of a handsfree breakout wrench for all conditions and any OEM Drill Rig.

Mammoth Breakout Wrench is designed to address:

- Locked joints found in the drill stem
- Wrench-slip when loosening drill rods, hammers and bits
- The lack of compatible Cross-Platform Breakout Wrenches
- Unsafe breakout procedures

Benefits of the Mammoth Breakout Wrench

- SAFETY: Fully automated, hands-free operation
- SAFETY: Compliance with Mine SAFETY requirements for operators
- Versatile enough to adapt & fit the requirements of an OEM Drill Rig
- Electrical controls & hydraulics integrated into the drill rig system
- The clamp action is slip-proof & fits any specific OD requirement
- Clamp action is unaffected by rod wear within the design parameters
- Mammoth's patented moveable bracket allows the wrench to be set at any operating height
- Mountable on conveniently placed stand or directly on the mast.
- It can be adapted to suit the specific requirements of angle drilling
- Deck Bush wear does not affect the breakout action
- The torque can be increased for extreme conditions and requirements
- Can be bolt mounted on either side of the column mast
- Wrenches have been designed to handle drill rod ranges from 3" to 15"
- Fully repairable



Wrench Configuration Options

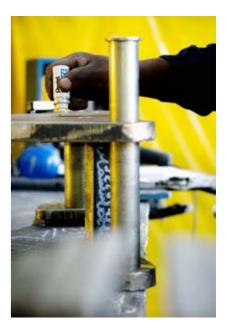
Complete Mammoth Breakout Wrench

- Complete, Fully Automated Mammoth Breakout Wrench
- Automated or Manually Bolt Adjustable Mounting Bracket
- Stand-Alone Bracket, Right Mast Mounted & Left Mast Mounted is hydraulically adjustable & manually bolt adjustable
- Full Hydraulic System
- Full Electrical System
- Jaws/Bits
- Installation Manual

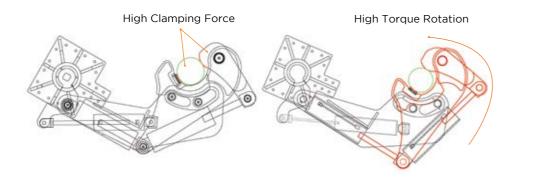
Basic Mammoth Breakout Wrench (Optional)

- Complete, Fully Automated Mammoth Breakout Wrench
- Manually Bolt Adjustable Mounting Bracket
- Stand-Alone Bracket, Right Mast Mounted & Left Mast Mounted is manually bolt
 adjustable
- No Hydraulic System
- No Electrical System
- Jaws/Bits
- Installation Manual

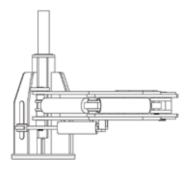




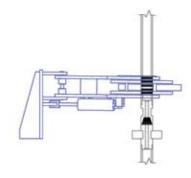
Product Benefits & Comparisons



Product Benefits & Comparisons



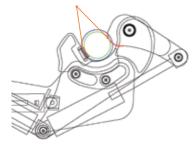
Mammoth Breakout Wrench made from high tensile steel to minimise bending & increase durability.

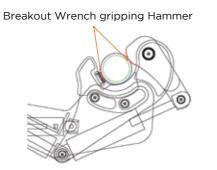


Conventional Breakout Wrench static position Restricted to one height only. Lacks versatility

Up to 2" Wear Factor

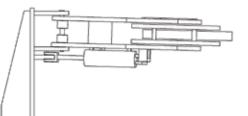
Breakout Wrench gripping Drill Rod





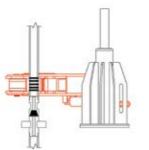
Conventional Breakout Wrench

Mild Steel: Bends under strain

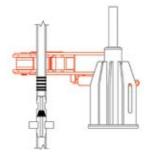


Mammoth Breakout Wrench

Adjustable mounting bracket to grip the drill string above the flats and hard facing



Grip on Hard Facing Not recommended Reduces lifespan of Jaws/Bits Breakout Action Not Reliable



Grip on Hard Facing Not recommended Reduces lifespan of Jaws/Bits Breakout Action Not Reliable

Mammoth Breakout Wrench manufactured to fit:

EPIROC				
DM25	DM45E	DMG	DMH	PV235
DM25SP	DM45-EMD6	DML	DMH100	PV270
DM30	DM45HP	DML-60	DMH-D	PV270SP
DM35	DM45SP	DML-HP	DMM3	PV271
DM40	DM50K	DML-LP	DM70	PV271SP
DM40SP	DM50	DML-SP	DM70E	PV275
DM45	DM50E	DML-XL	DMM	PV351
DM45/HP	DM50XL	T4BH	DMM2	PV351E
C14	DM60	DM30-2	DMM25SPH	

	SANDVIK				
C40K	D45K	D25KS	D90KS	1190E	
С60К	D45KS	D245KS	D90K-SP	1190DSP	
C75K	D50K	D75K	D90KS-SP	DKII	
C55SP	D50KS	D75KS	D55SP	DR460	
D40K	D60K	D80K	D55SPH	D60KL	
D40KS	D60KS	D90K	D75KL	т60к	
D75EX	T60KS				

JOY GLOBAL (P&H)				
70HA	100B	250XP-DL	250XPC	120A
100A	100XP	250XP-ST	320XPC	

GARDNER DENVER				
GD45	GD60	GD80	GD120	
GD100	GD70H	GD70	GD130	

Mammoth Breakout Wrench manufactured to fit:

CATERPI	CATERPILLAR (Bucyrus, Reedrill, Marion, Terex)				
33HR	49HR	MII	SK25	SK60II	SKS
33HR-SP	49R	M2	SK30I	SK70	SKS-12
35HR	49RH	M3	SK35	SK70E	SKS-15
35R	49RII	M3B	SK40	SK75	SKS-16
35RII	49RIII	M4	SK40/50	SKF	SKS-W
37HR	50R	M5	SK45I	SKF-11	SKSS
39HR	55R	MD6240	SK50	SKF-11.5	SKSS-12
39R	59HR	MD6290	SK50I	SKF-12	SKSS-13
40R	59R	MD6420	SK50T	SKF-15	SKSS-15
45R	60R	MD6540	SK60	67R	SKSS-16
47R	60RII	MD6640	SK60E	SKT	SKTT
61R	60RIV	MD6750	SK60I		SKTT

Product Configurations - Wrench types available in:

	Unit Sizes			
4"	4 1/2"	5"		
5 ¼"	5 ½"	6"		
6 ¾"	6 ½"	7"		
7 1⁄2"	7 5⁄8"	8"		
8 1⁄2"	8 5⁄8"	9"		
9 ¼"	9 1⁄2"	10"		
10 ½"	10 ¾"	11"		
11 1 ⁄2"	11 3⁄4"	12 1⁄4"		
12 ½"	12 ³ ⁄4"	13 %"		

Product Configurations



Product Configurations -Mounting Brackets



Mast Mounted Adjustable Bracket

- Automated Hydraulic ٠ Adjustable Bracket •
- **Right Mounted**



Mast Mounted Adjustable Bracket

Automated Hydraulic • Adjustable Bracket **Right Mounted**





Mast Mounted Adjustable Bracket

- Automated Hydraulic Adjustable Bracket
- **Right Mounted** ٠







Product Configurations -Mounting Brackets



Stand Alone Adjustable Bracket

- Manually Bolted Hydraulic ٠ Adjustable Bracket
- Left Mounted •



Stand Alone Adjustable Bracket

- Automated Hydraulic • Adjustable Bracket
- Left Mounted •



Stand Alone Adjustable Bracket

- Automated Hydraulic • Adjustable Bracket
- Left Mounted ٠



Stand Alone Adjustable Bracket

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- Automated Hydraulic Adjustable Bracket
- **Right Mounted**

Product Configurations -Mounting Brackets



Mast Mounted Adjustable Bracket

- Automated Hydraulic ٠ Adjustable Bracket ٠
- Left Mounted



Mast Mounted Adjustable Bracket

٠ Automated Hydraulic Adjustable Bracket Left Mounted ٠



Mast Mounted Fixed Bracket

- Manually Bolted Adjustable Bracket ٠
- Left Mounted •

Mammoth Breakout Wrench Series



The Mammoth Breakout Wrench fitted to a DM30II/ CDM30 Rig

The Mammoth Breakout Wrench fitted to a DMM2 /

CDM 75 Rig

The Mammoth Breakout Wrench Series



The Mammoth Breakout Wrench fitted to a PV351 Rig



The Mammoth Breakout Wrench fitted to a BE49R Rig

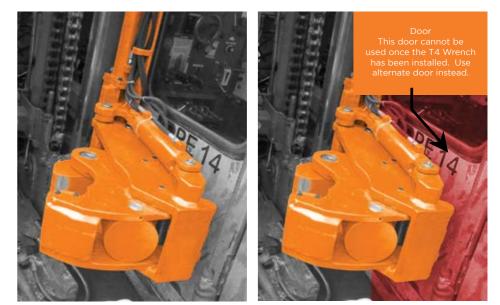


Mammoth Breakout Wrench fitted to a PV271 / PV275

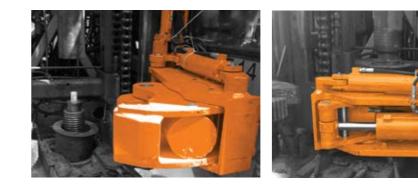


Mammoth Breakout Wrench Series

The Mammoth Breakout Wrench fitted to a T4BH Rig



Mammoth Breakout Wrench Series (T4BH Rig)



The Mammoth Breakout Wrench in Parked Position (T4BH Rig)

The Mammoth Breakout Wrench in Engaged Position

Technical Specifications

Range One	Mammoth Technologies
Technical Specifications	All designs, specifications & components of the equipment described herein are subject to change at the manufacturer's discretion at any time without prior notice.
Wrench Type	Fully-automated wrench or fully-automated basic wrench
Clamp Type	Slide Clamp or Cam Clamp
Pressure Requirements	2,500 PSI
Breakout Torque	80,120 N.M 59,09 FT/LB
Range	4" up to 9"
Bracket Mounting	Fully-Automated Breakout Wrench Automated Hydraulic Adjustable Bracket Fully-Automated Breakout Wrench Manually Bolted Adjustable Bracket Fully-Automated Basic Breakout Wrench Automated Hydraulic Adjustable Bracket Fully-Automated Basic Breakout Wrench Manually Bolted Adjustable Bracket
Adjustable Bracket Travel	250mm (Standard)
Jaw/Bit Type	Tungsten Carbide Hardened Steel Alloy (Standard)

The Mammoth Breakout Wrench can be designed to fit any OEM machine application. The Mammoth Breakout Wrench is not limited to any specific range only.

It is recommended that only genuine OEM spare parts and consumables are used on the Mammoth product range, to ensure full performance and operational stability. Utilising unauthorised spare parts and consumables can result in injury and potentially void warranty claims.

Enquire for Rigs not displayed here.

Technical Specifications

Range One	Mammoth Technologies
Technical Specifications	All designs, specifications and components of the equipment described herein are subject to change at the manufacturer's discretion at any time without prior notice.
Wrench Type	Fully-automated wrench Fully-automated basic wrench
Clamp Type	Slide Clamp or Cam Clamp
Pressure Requirements	2,500 PSI
Breakout Torque	66,200 N.M 48,82 FT/LB
Range	4" up to 9"
Bracket Mounting	Fully-Automated Breakout Wrench Automated Hydraulic Adjustable Bracket Fully-Automated Breakout Wrench Manually Bolted Adjustable Bracket Fully-Automated Basic Breakout Wrench Automated Hydraulic Adjustable Bracket Fully-Automated Basic Breakout Wrench Manually Bolted Adjustable Bracket
Adjustable Bracket Travel	300mm (Standard)
Jaw/Bit Type	Tungsten Carbide Hardened Steel Alloy (Standard)

The Mammoth Breakout Wrench can be designed to fit any OEM machine application. The Mammoth Breakout Wrench is not limited to any specific range only.

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Enquire for Rigs not displayed here.

Technical Specifications

Range Three	Mammoth Technologies
Technical Specifications	All designs, specifications and components of the equipment described herein are subject to change at the manufacturer's discretion at any time without prior notice.
Wrench Type	Fully-automated wrench or fully-automated basic wrench
Clamp Type	Slide Clamp or Cam Clamp
Pressure Requirements	2,500 PSI
Breakout Torque	70,131 N.M 51,72 FT/LB
Range	4" up to 9"
Bracket Mounting	Fully-Automated Breakout Wrench Automated Hydraulic Adjustable Bracket Fully-Automated Breakout Wrench Manually Bolted Adjustable Bracket Fully-Automated Basic Breakout Wrench Automated Hydraulic Adjustable Bracket Fully-Automated Basic Breakout Wrench Manually Bolted Adjustable Bracket
Adjustable Bracket Travel	300mm (Standard)
Jaw/Bit Type	Tungsten Carbide Hardened Steel Alloy (Standard)

The Mammoth Breakout Wrench can be designed to fit any OEM machine application. The Mammoth Breakout Wrench is not limited to any specific range only.

It is recommended that only genuine OEM spare parts and consumables are used on the Mammoth product range, to ensure full performance and operational stability. Utilising unauthorised spare parts and consumables can result in injury and potentially void warranty claims.

Enquire for Rigs not displayed here.

Technical Specifications

Range Four	Mammoth Technologies
Technical Specifi- cations	All designs, specifications and components of the equipment described herein are subject to change at the manufacturer's discretion at any time without prior notice.
Wrench Type	Fully-automated wrench or fully-automated basic wrench
Clamp Type	Slide Clamp or Cam Clamp
Pressure Require- ments	2,500 PSI
Breakout Torque	157,000 N.M 115,78 FT/LB
Range	6" up to 12"
Bracket Mounting	Fully-Automated Breakout Wrench Automated Hydraulic Ad- justable Bracket Fully-Automated Breakout Wrench Manually Bolted Adjustable Bracket Fully-Automated Basic Breakout Wrench Automated Hydraulic Adjustable Bracket Fully-Automated Basic Breakout Wrench Manually Bolted Ad- justable Bracket
Adjustable Bracket Travel	300mm (Standard)
Jaw/Bit Type	Tungsten Carbide Hardened Steel Alloy (Standard)

The Mammoth Breakout Wrench can be designed to fit any OEM machine application. The Mammoth Breakout Wrench is not limited to any specific range only.

It is recommended that only genuine OEM spare parts and consumables are used on the Mammoth product range, to ensure full performance and operational stability. Utilising unauthorised spare parts and consumables can result in injury and potentially void warranty claims.

Enquire for Rigs not displayed here.

The Mammoth Breakout Wrench



Mammoth Breakout Wrench works with Flanders Automation System







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