DTH Tools

SHAREATE TOOLS LTD.

Headquarter Office

Add : No.6 Weixi Road, Suzhou Industrial Park, Jiangsu, 215121, China

Tel : 86 (512) 6285 0656 / 86 (512) 6285 1667

Fax: 86 (512) 6285 1661

Web: en.shareate.com

E-mail : info@shareate.com

ABOUT US

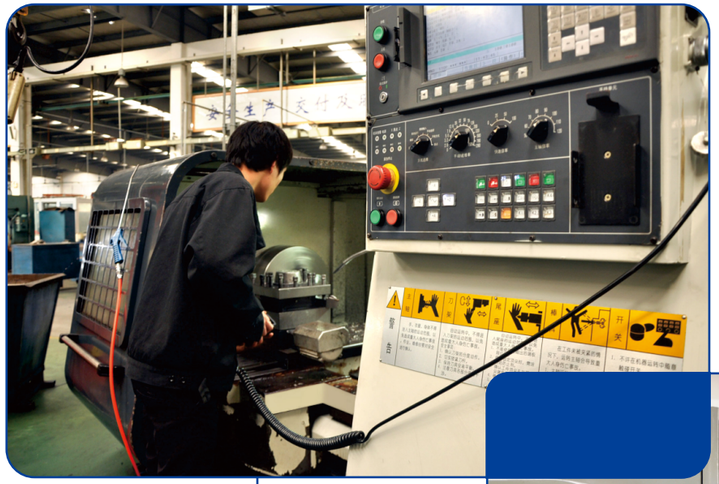
Shareate Tools Ltd., located in Suzhou Industrial Park,is a company engaged in the R&D and manufacturing of cemented carbide products and rock drilling tools. It has two major manufacturing bases in Qianjiang and Suzhou, fitted with advanced producing and testing equipment, It is a research and development and manufacturing base of cemented carbide and rock drilling tools with leading technology level and continuously increasing scale in China. Shareate was officially listed on the Sci-tech Innovation Board of the Shanghai Stock Exchange (stock code "688257").

Shareate has strong scientific and technological innovation capabilities, and has formed a system of independent intellectual property rights and technologies. Up to now, Shareate has obtained 42 invention patents and 125 utility model patents. The company has passed the double certification of API and ISO9001. At present, it has won the "National High-tech Enterprise", "National Specialized Special New Little Giant", "Jiangsu Enterprise Technology Center", "Jiangsu Province High-efficiency Rock Drilling Tool Engineering Technology Research Center", "Jiangsu Province Postdoctoral Innovation Practice Base", "Jiangsu Province Enterprise Graduate Workstation", "Jiangsu Province Specialized, Special and New Little Giant", "Jiangsu Province Integration of Industrialization and Industrialization Demonstration Enterprise", "Jiangsu Boutique Brand Certification Enterprise", "Jiangsu Private Technology Enterprise", "Suzhou Industrial Design Center", "Suzhou Gazelle Enterprise", "Suzhou Manufacturing Brand Certification Enterprise", "Suzhou Industrial Park Technology Leading Talent Enterprise", "Suzhou Industrial Park Demonstration Intelligent Workshop"... The products have obtained the titles of "Jiangsu High-tech Products", "Jiangsu High-quality Products", "Suzhou Famous Brand Products", "Made in Suzhou" and the certificates of "National Standard Qualified Unit, Quality Tracking Key Protection Product".

The company adopts advanced flexible manufacturing system and builds a flexible production line with CNC machining center as the main body, laying a solid foundation for manufacturing first-class quality products.

The company's main products include: cemented carbide products such as cemented carbide for oil drilling, cemented carbide for mining, matrix for diamond composite chip, nozzle for oil drilling bit, and rock drilling products such as tricone bits, single roller bits, trenchless drilling bits, roller cutters, DTH hammer, hammer bits, etc. Our products are exported to South Korea, the United States, Canada, Australia, South America, Russia and more than 40 countries and regions, highly liked and praised by the customers at home and abroad.

PRODUCTION EQUIPMENT



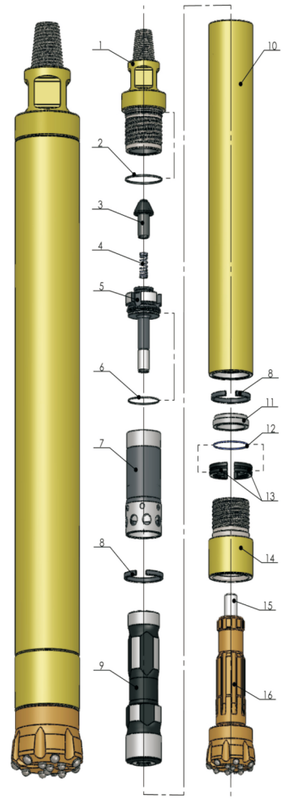
Advanced production equipment and strict quality control is one of the guarantees for us to provide high-quality products.

PRODUCT DESCRIPTION

Our Strategy is to make the customer the focal point of everything we do, meet and exceed the expectations of our customers by offering quality products, services, and solutions at maximum value and by pursuing a philosophy of Continuous Improvement. We continually strive to give customers the best products to enable them to achieve the highest productivity possible for their investment

4" A series DTH structure diagram

SHAREATE TOOLS LTD. | SD45A/SQ45A DTH HAMMER | High Air Pressure With Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	D45A01	7.80
2	O-Ring	D45A02	0.02
3	Check valve	D45A05	0.50
4	Spring	D45A07	0.10
5	Air Distributor	D45A11	1.50
6	O-Ring	D45A12	0.02
7	Inner Cylinder	D45A13	1.10
8	Piston retainer ring	D45A16	0.10
9	Piston	D45A14	8.30
10	Piston case	D45A03	14.00
11	Guide sleeve	D45A17	1.10
12	O-Ring	D45A18	0.02
13	Bit Retaining Ring	D45A19	0.30
14	Chuck	D45A20	4.10
15	Foot valve		0.05
16	Bit		8.50

Technical Parameter

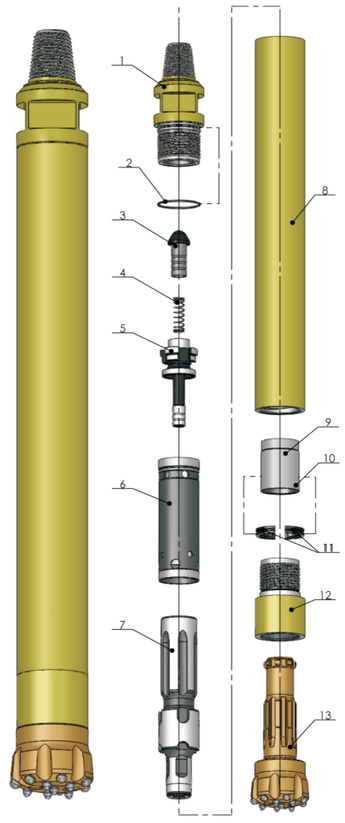
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
983mm	39.00Kg	ϕ100mm	SD4/SQ4	ϕ105-135	API $2^3/_8$ Reg

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	28Hz	25-40r/min	6m^3/min	9.2m^3/min	14.5m^3/min

Note：SD4 or DHD340A bits for SD45A hammers. SQ4 or QL40 bits for SQ45A hammers.

4" B series DTH structure diagram

SHAREATE TOOLS LTD. | SF45B/SM45B DTH HAMMER | High Air Pressure Without Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	F45B01	6.70
2	O-Ring	F45B02	0.02
3	Check valve	F45B05	0.50
4	Spring	F45B07	0.10
5	Air Distributor	F45B11	1.10
6	Inner Cylinder	F45B13	1.70
7	Piston	F45B14	8.30
8	Piston case	F45B03	15.00
9	Guide sleeve	F45B17	1.20
10	O-Ring	F45B18	0.02
11	Bit Retaining Ring	F45B19	0.20
12	Chuck	F45B20	3.60
13	Bit		8.50

Technical Parameter

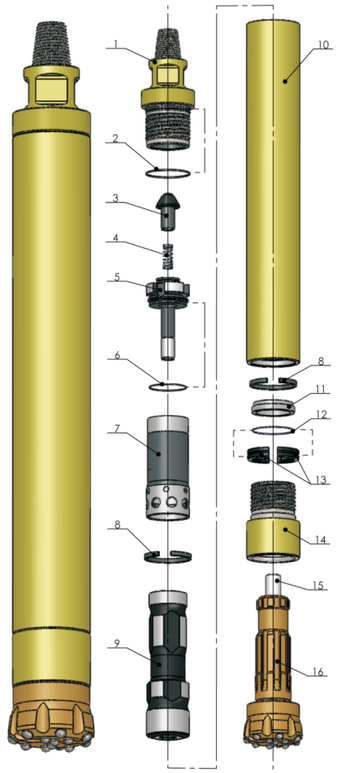
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
985mm	38.50Kg	ϕ99mm	SD4/SM4	ϕ115-133	API $2^3/_8$ Reg

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	30Hz	70-90r/min	5m^3/min	8m^3/min	13m^3/min

Note：SD4 or DHD340A bits for SF45B hammers. SM4 or Mission 4 bits for SM45B hammers.

5" A series DTH structure diagram

SHAREATE SHAREATE TOOLS LTD. | SD55A/SQ55A DTH HAMMER | High Air Pressure With Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	D55A01	12.00
2	O-Ring	D55A02	0.02
3	Check valve	D55A05	0.50
4	Spring	D55A07	0.01
5	Air Distributor	D55A11	3.00
6	O-Ring	D55A12	0.02
7	Inner Cylinder	D55A13	2.50
8	Piston retainer ring	D55A16	0.15
9	Piston	D55A14	18.00
10	Piston case	D55A03	26.50
11	Guide sleeve	D55A17	0.15
12	O-Ring	D55A18	0.02
13	Bit Retaining Ring	D55A19	0.08
14	Chuck	D55A20	8.00
15	Foot valve		0.08
16	Bit		16.00

Technical Parameter

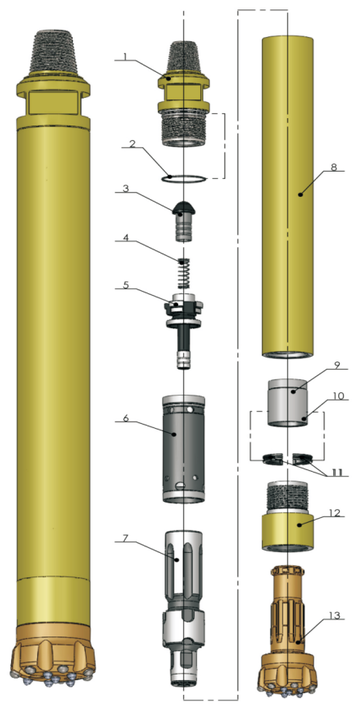
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1114mm	71.00Kg	ϕ126mm	SD5/SQ5	ϕ138-152	API $2^3/_8$ Reg

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	26Hz	40-60r/min	8.5m^3/min	15.5m^3/min	20.5m^3/min

Note：SD5 or DHD350R bits for SD55A hammers. SQ5 or QL50 bits for SQ55A hammers.

5" B series DTH structure diagram

SHAREATE SHAREATE TOOLS LTD. | SF55B/SM55B DTH HAMMER | High Air Pressure Without Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	F55B01	11.70
2	O-Ring	F55B02	0.02
3	Check valve	F55B05	0.50
4	Spring	F55B07	0.01
5	Air Distributor	F55B11	2.00
6	Inner Cylinder	F55B13	2.80
7	Piston	F55B14	15.20
8	Piston case	F55B03	26.50
9	Guide sleeve	F55B17	2.60
10	O-Ring	F55B18	0.02
11	Bit Retaining Ring	F55B19	0.50
12	Chuck	F55B20	6.90
13	Bit		18.00

Technical Parameter

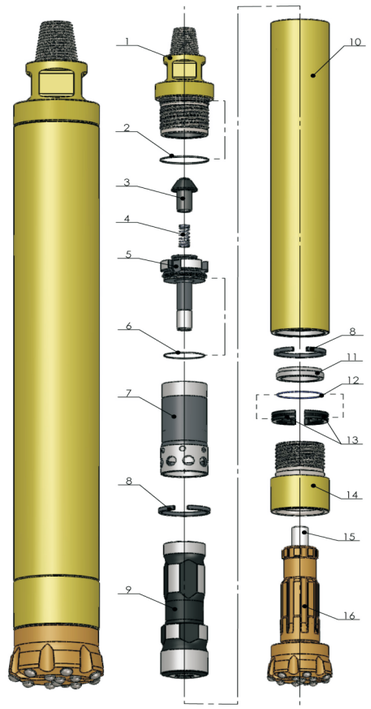
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1103mm	68.50Kg	ϕ126mm	SD5/SM5	ϕ138-152	API $2^3/_8$ Reg

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	28Hz	50-70r/min	7m^3/min	14m^3/min	19m^3/min

Note：SD5 or DHD350R bits for SF55B hammers. SM5 or Mission 5 bits for SM55B hammers.

6" A series DTH structure diagram

SHAREATE TOOLS LTD. | SD65A/SQ65A DTH HAMMER | High Air Pressure With Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	D65A01	15.40
2	O-Ring	D65A02	0.02
3	Check valve	D65A05	0.50
4	Spring	D65A07	0.10
5	Air Distributor	D65A11	5.50
6	O-Ring	D65A12	0.02
7	Inner Cylinder	D65A13	2.30
8	Piston retainer ring	D65A16	0.20
9	Piston	D65A14	25.00
10	Piston case	D65A03	34.00
11	Bearing	D65A17	1.30
12	O-Ring	D65A18	0.02
13	Bit Retaining Ring	D65A19	0.80
14	Chuck	D65A20	3.00
15	Foot valve		0.10
16	Bit		24.00

Technical Parameter

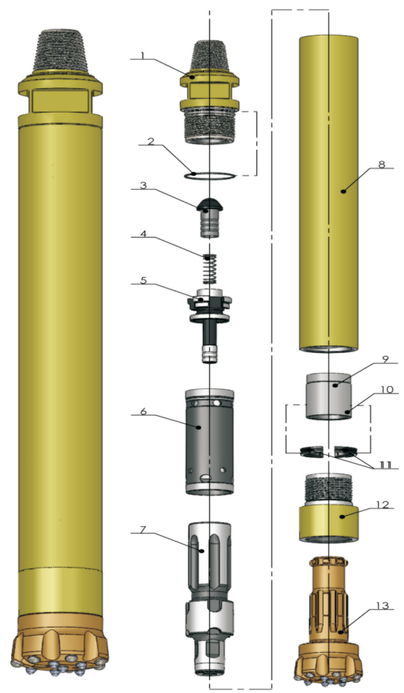
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1300mm	88.00Kg	ϕ138mm	SD6/SQ6	ϕ152-178	API $3^1/_2$ Reg

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	22Hz	30-50r/min	11m^3/min	19.5m^3/min	28m^3/min

Note：SD6 or DHD360 bits for SD65A hammers. SQ6 or QL60 bits for SQ65A hammers.

6" B series DTH structure diagram

SHAREATE TOOLS LTD. | SF65B/SM65B DTH HAMMER | High Air Pressure Without Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	F65B01	20.3
2	O-Ring	F65B02	0.02
3	Check valve	F65B05	0.50
4	Spring	F65B07	0.10
5	Air Distributor	F65B11	3.40
6	Inner Cylinder	F65B13	5.30
7	Piston	F65B14	23.30
8	Piston case	F65B03	28.50
9	Guide sleeve	F65B17	5.30
10	O-Ring	F65B18	0.02
11	Bit Retaining Ring	F65B19	1.30
12	Chuck	F65B20	6.50
13	Bit		24.00

Technical Parameter

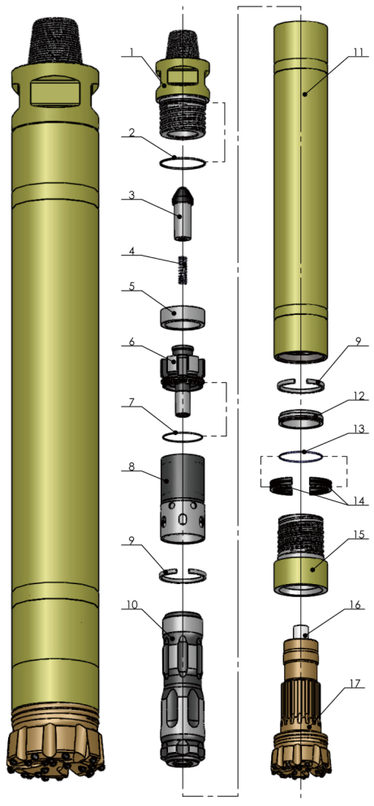
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1161mm	94.50Kg	ϕ144mm	SD6/SM6	ϕ152-178	API $3^1/_2$ Reg

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	25Hz	40-60r/min	9m^3/min	18m^3/min	26m^3/min

Note：SD6 or DHD360 bits for SF65B hammers. SM6 or Mission 6 bits for SM65B hammers.

8" A series DTH structure diagram

SHAREATE TOOLS LTD.	SD80A/SQ80A DTH HAMMER	High Air Pressure With Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	D80A01	37.00
2	O-Ring	D80A02	0.05
3	Check Valve	D80A05	1.50
4	Spring	D80A07	0.20
5	Compression ring	D80A08	2.40
6	Air Distributor	D80A11	8.20
7	O-Ring	D80A12	0.05
8	Inner Cylinder	D80A13	4.60
9	Piston retainer ring	D80A16	0.30
10	Piston	D80A14	53.50
11	Piston case	D80A03	68.00
12	Guide sleeve	D80A17	3.20
13	O-Ring	D80A18	0.05
14	Bit Retaining Ring	D80A19	1.30
15	Chuck	D80A20	16.60
16	Foot valve		0.50
17	Bit		40.50

Technical Parameter

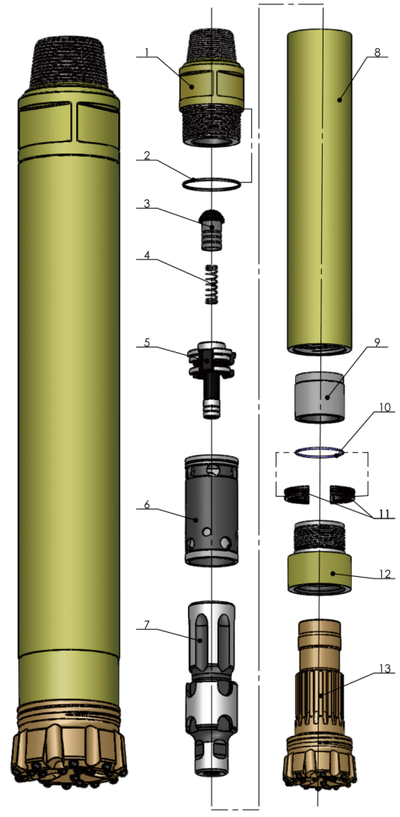
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1484mm	197.00Kg	ϕ184mm	SD8/SQ8	ϕ203-254	API $4^1/_2$ Reg

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	19Hz	15-25r/min	14m^3/min	24.2m^3/min	30m^3/min

Note：SD8 or DHD380 bits for SD80A hammers. SQ8 or QL80 bits for SQ80A hammers.

8" B series DTH structure diagram

SHAREATE TOOLS LTD.	SF85B/SM85B DTH HAMMER	High Air Pressure Without Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top subs	F85B01	34.00
2	O-Ring	F85B02	0.05
3	Check valve	F85B05	1.50
4	Spring	F85B07	0.20
5	Air Distributor	F85B11	6.00
6	Inner Cylinder	F85B13	6.50
7	Piston	F85B14	42.50
8	Piston case	F85B03	61.00
9	Guide sleeve	F85B17	5.30
10	O-Ring	F85B18	0.05
11	Bit Retaining Ring	F85B19	1.50
12	Chuck	F85B20	17.30
13	Bit		40.50

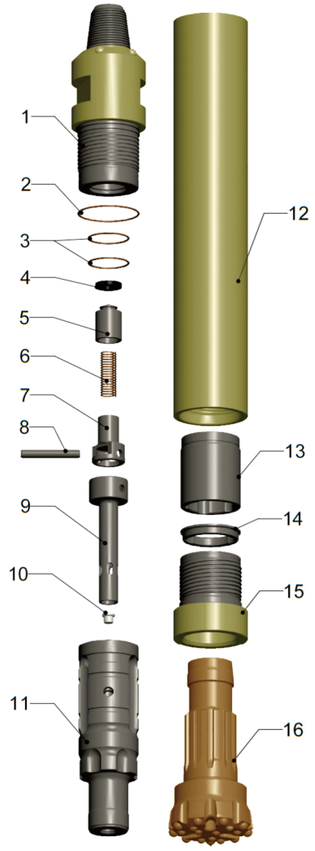
Technical Parameter

Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1338mm	176.00Kg	ϕ180mm	SD8/SM8	ϕ203-254	API $4^1/_2$ Reg

Wor Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.0MPa	1.8MPa	2.4MPa
1.0-2.5MPa	22Hz	15-25r/min	12m^3/min	22m^3/min	28m^3/min

Note：SD8 or DHD380 bits for SF85B hammers. SM8 or Mission 8 bits for SM85B hammers.

SHAREATE TOOLS LTD. | WQ55B DTH HAMMER | High Air Pressure Without Foot Valve DTH Hammers



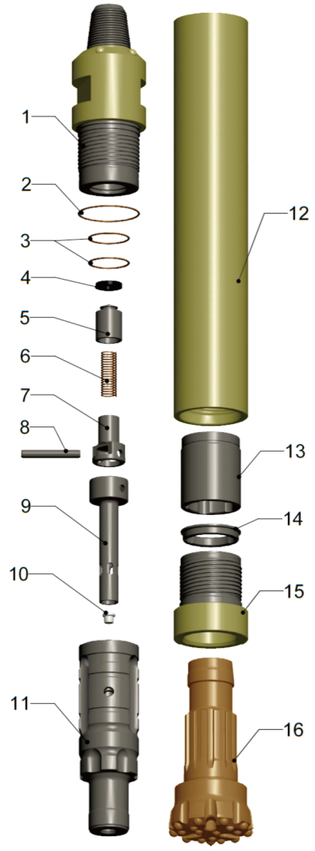
Item	Item Description	Part No .	Weight (Kg)
1	Top Sub	WQ55B0101	18.5
2	Top Sub Outer O/Ring	F55B0201	0.01
3	Top Sub Inner O/Ring	F45B0901	0.01
4	Quad Ring	WQ55B0401	0.01
5	Check Valve	WQ55B0502	0.3
6	Check Valve Spring	WQ55B0702	0.02
7	Check Valve Holder	WQ55B0602	0.4
8	Dowel Pin	WQ55B0801	0.12
9	Central Control Tube	WQ55B1002	0.8
10	Air Plug	WQ55B1201	0.01
	Air Plug (ϕ4 hole)	WQ55B1202	0.01
	Air Plug (ϕ6 hole)	WQ55B1203	0.01
11	Piston	WQ55B1402	15.7
12	Outer Cylinder	WQ55B0302	24.7
13	Guide Sleeve	WQ55B1702	3.1
14	Retaining Ring	WQ55B1904	0.3
15	Drive Sub	WQ55B2003	5.3
16	Drill Bit	QL50 Bit	/

Technical Parameter

Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1065mm	69.3Kg	ϕ126mm	SQ5/SD5	ϕ138-152	API 3-1/2" REG PIN

Work Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.5MPa	1.8MPa	2.4MPa
1.3-2.6MPa	24.9Hz	20-45r/min	19.6m³/min	24.1m³/min	28.7m³/min

SHAREATE TOOLS LTD. | WQ65BK DTH HAMMER | High Air Pressure Without Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top Sub	WQ65BK0101	25.2
2	Top Sub Outer O/Ring	WQ65BK0201	0.01
3	Top Sub Inner O/Ring	WQ65BK0901	0.01
4	Quad Ring	WQ65BK0401	0.01
5	Check Valve	WQ65BK0501	0.5
6	Check Valve Spring	WQ65BK0701	0.06
7	Check Valve Holder	WQ65BK0601	0.5
8	Dowel Pin	WQ65BK0801	0.2
9	Central Control Tube	WQ65BK1001	1.2
10	Air Plug	WQ65BK1201	0.01
	Air Plug (ϕ4 hole)	WQ65BK1202	0.01
	Air Plug (ϕ6 hole)	WQ65BK1203	0.01
11	Piston	WQ65BK1401	21.5
12	Outer Cylinder	WQ65BK0301	34.8
13	Guide Sleeve	WQ65BK1703	4.7
14	Retaining Ring	WQ65BK1903	0.6
15	Drive Sub	WQ65BK2001	6.3
16	Drill Bit	QL60 Shank Bit	/

Technical Parameter

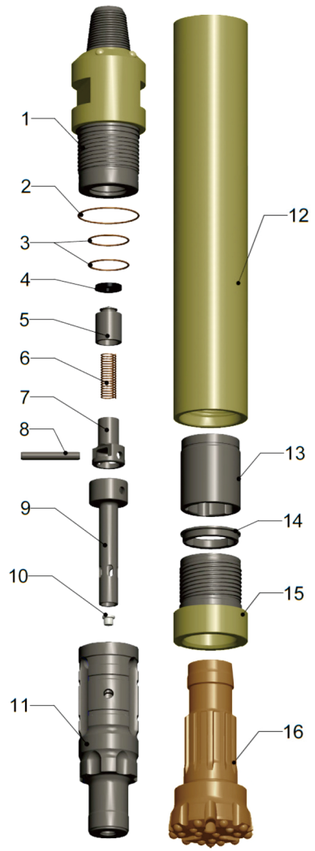
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1100mm	95.6Kg	ϕ146mm	SQ6/SD6	ϕ156-203	API 3-1/2" REG PIN

Wor Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.5MPa	2MPa	2.4MPa
1.3-2.6MPa	25Hz	20-45r/min	20.5m³/min	27m³/min	30.4m³/min

WQ series

DTH structure diagram

SHAREATE SHAREATE TOOLS LTD.	WQ85B DTH HAMMER	High Air Pressure Without Foot Valve DTH Hammers



Item	Item Description	Part No .	Weight (Kg)
1	Top Sub	WQ85B0101	58.4
2	Top Sub Outer O/Ring	WQ85B0201	0.02
3	Top Sub Inner O/Ring	WQ85B0901	0.02
4	Quad Ring	WQ85B0401	0.7
5	Check Valve	WQ85B0501	0.6
6	Check Valve Spring	WQ85B0701	0.11
7	Check Valve Holder	WQ85B0601	0.8
8	Dowel Pin	WQ85B0801	0.3
9	Central Control Tube	WQ85B1001	1.7
10	Air Plug	WQ85B1201	0.02
	Air Plug (ϕ 4 hole)	WQ85B1202	0.02
	Air Plug (ϕ 6 hole)	WQ85B1203	0.01
11	Piston	WQ85B1401	42
12	Outer Cylinder	WQ85B0301	69.6
13	Guide Sleeve	WQ85B1701	9.2
14	Retaining Ring	WQ85B1901	0.94
15	Drive Sub	WQ85B2001	13.4
16	Drill Bit	QL80 Shank Bit	/

Technical Parameter

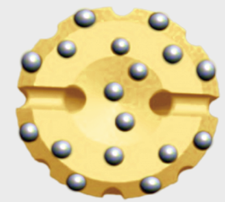
Length (Less Bit, Backhead Shoulder to Chuck)	Weight(without Bit)	Outside Diameter	Bit Shank Type	Hole Range	Backhead Thread
1377mm	192Kg	ϕ185mm	SQ8/SD8	ϕ200-254	API 4-1/2" REG PIN

Wor Pressure	Impact Rate At 1.7MPa	Rotation Speed	Air consumption		
			1.5MPa	2MPa	2.4MPa
1.4-2.7MPa	22.7Hz	20-45r/min	21.9m^3/min	27.7m^3/min	29.9m^3/min

Various series of bits

Schematic diagram and introduction of typical face structure

SHAREATE SHAREATE TOOLS LTD.	Faces selection guide	Hammer Bits Series



Concave Face

Suitable for most rock formations, especially in medium-hard and homogeneous rock formations which has the best effect. The face feature help to reduce deviation of boreholes and allows good cutting flushing on bit face.

Convex Face

Convex face is suitable for drilling soft-medium hard rock formations under low-medium air pressure. It is designed for fast penetration rate in soft-medium ground formation with a good wear profile; but it has less control on hole deviation.

Flat Face

Flat face bits are genral purpose bit suitable for drilling extremely hard and abrasive rocks formation with high air pressure. Flat face bits have good penetration rates and good erosion pattern on bit body.

Drop Center Bit

The drop center face design is best suited to the soft-medium hard formation,and formation with broken layers.The drop center bits have good penetration rate,and low hole deviation.

Gauge Face

Double gauge row design is best suited for hard-very hard formation.The double gauge row configuration has good penetration and provides excellent wear resistance.

Various series of bits

Schematic diagram and introduction of matching carbide inserts

SHAREATE SHAREATE TOOLS LTD.	Carbides selection guide	Hammer Bits Series

Spherical Button

Mainly used for the edge cutting rows of the DTH bit which is suitable for the abrasive and very hard formation.face.

Ogive Button

High exposure height,mainly used for ordinary rock hardness F10−14,improve the penetration rate and wear resistance.

Ballistic Button

High exposure height,suitable for medium abrasion,medium hardness of the rock,fast penetration rate.

Flat Button

Used for the side protection buttons of DTH bit to reduce the wear of outer body surface.

QL Series bits

SHAREATE SHAREATE TOOLS LTD.	High Air Pressure Hammer Bits of DHD Series	Hammer Bits Series

Optional for SD hammers	Face shape	Bit Dia. (Mm)	NO.Air Holes	Gauge Buttongs	Front Buttons	Weight (Kg)	Part No.
SD4 (COP44/ DHD340)	Flat	115	2	8× ϕ14.5	7× ϕ13	9.0	SD41151
		125	2	8× ϕ16	7× ϕ14	10.3	SD41251
		130	2	8× ϕ16	7× ϕ14	12.1	SD41301
	Convex	115	2	7× ϕ16	6× ϕ14	9.0	SD41154
		125	2	8× ϕ16	7× ϕ14	10.3	SD41254
		130	2	8× ϕ16	7× ϕ14	12.1	SD41304
SD5 (COP54/ DHD350)	Flat	140	2	8× ϕ16	8× ϕ14.5	16.0	SD51401
		148	2	8× ϕ18	7× ϕ16	17.5	SD51481
		152	2	8× ϕ18	7× ϕ16	18	SD51521
	Convex	140	2	7× ϕ18	7× ϕ16	16.0	SD51404
		148	2	8× ϕ18	7× ϕ16	17.5	SD51484
		152	2	8× ϕ18	7× ϕ16	18.0	SD51524
	Concave	140	2	8× ϕ16	8× ϕ14.5	16.0	SD51406
		152	2	7× ϕ18	7× ϕ16	17.5	SD51526
SD6 (COP64/ DHD360)	Flat	165	2	8× ϕ18	8× ϕ16	25.1	SD61651
		178	2	8× ϕ18	8× ϕ18	27.2	SD61781
		185	2	10× ϕ18	10× ϕ16	28.0	SD61851
		190	2	10× ϕ19	10× ϕ18	29.0	SD61901
		203	2	10× ϕ19	12× ϕ18	30.3	SD62031
	Convex	165	2	8× ϕ18	8× ϕ16	25.1	SD61654
		178	2	8× ϕ19	8× ϕ18	27.2	SD61784
		203	2	8× ϕ19	8× ϕ18	33.0	SD62034
	Concave	165	3	9× ϕ18	9× ϕ16	25.1	SD61656
		178	3	9× ϕ18	11× ϕ16	27.3	SD61786
		203	3	9× ϕ19	11× ϕ18	30.4	SD62036
SD6 (COP84/ DHD380)	Flat	203	2	10× ϕ18	14× ϕ16	41.0	SD82031
		216	2	10× ϕ18	15× ϕ16	44.0	SD82161
		235	2	12× ϕ18	16× ϕ18	49.0	SD82351
		254	2	12× ϕ18	18× ϕ18	53.2	SD82541
	Concave	203	3	9× ϕ19	12× ϕ16	41.0	SD82036
		216	3	9× ϕ19	14× ϕ16	44.0	SD82166
		229	3	12× ϕ19	16× ϕ18	47.8	SD82296
		254	3	12× ϕ19	18× ϕ18	53.2	SD82546

QL Series bits

SHAREATE TOOLS LTD. | High Air Pressure Hammer Bits of QL Series | Hammer Bits Series

Optional for SD hammers	Face shape	Bit Dia. (Mm)	NO.Air Holes	Gauge Buttongs	Front Buttons	Weight (Kg)	Part No.
SQ5 (QL50)	Flat	140	2	8× ϕ16	8× ϕ14.5	16.0	SQ51401
		148	2	8× ϕ18	7× ϕ16	16.5	SQ51481
		152	2	8× ϕ18	7× ϕ16	17.0	SQ51521
	Convex	140	2	7× ϕ18	7× ϕ16	16.0	SQ51404
		148	2	8× ϕ18	7× ϕ16	16.5	SQ51484
		152	2	8× ϕ18	7× ϕ16	17.0	SQ51524
	Concave	140	2	8× ϕ16	8× ϕ14.5	16.0	SQ51406
		152	2	7× ϕ18	7× ϕ16	17.0	SQ51526
SQ6 (QL60)	Flat	165	2	8× ϕ18	8× ϕ16	25.1	SQ61651
		178	2	8× ϕ18	8× ϕ18	27.8	SQ61781
		185	2	10× ϕ18	10× ϕ16	28.5	SQ61851
		190	2	10× ϕ19	10× ϕ18	29.0	SQ61901
		203	2	10× ϕ19	12× ϕ18	33.0	SQ62031
	Convex	165	2	8× ϕ18	8× ϕ16	25.1	SQ61654
		178	2	8× ϕ19	8× ϕ18	27.8	SQ61784
		200	2	8× ϕ19	8× ϕ18	32.5	SQ62004
	Concave	165	3	9× ϕ18	9× ϕ16	25.1	SQ61656
		178	3	9× ϕ18	11× ϕ16	27.8	SQ61786
		203	3	9× ϕ19	11× ϕ18	33.0	SQ62036
SQ8 (QL80)	Flat	203	2	10× ϕ18	14× ϕ16	41.0	SQ82031
		216	2	10× ϕ18	15× ϕ16	44.0	SQ82161
		235	2	12× ϕ18	16× ϕ18	49.0	SQ82351
		254	2	12× ϕ18	18× ϕ18	53.2	SQ82541
	Concave	203	3	9× ϕ19	12× ϕ16	41.0	SQ82036
		216	3	9× ϕ19	14× ϕ16	44.0	SQ82166
		229	3	12× ϕ19	16× ϕ18	47.8	SQ82296
		254	3	12× ϕ19	18× ϕ18	53.2	SQ82546

MISSION Series bits

SHAREATE TOOLS LTD. | High Air Pressure Hammer Bits of MISSION Series | Hammer Bits Series

Optional for SD hammers	Face shape	Bit Dia. (Mm)	NO.Air Holes	Gauge Buttongs	Front Buttons	Weight (Kg)	Part No.
SM4 (M40)	Flat	115	2	8× ϕ14.5	7× ϕ13	9.0	SM41151
	Convex	115	2	7× ϕ16	6× ϕ14	9.0	SM41154
		130	2	8× ϕ16	7× ϕ14	12.1	SM41304
SM5 (M50)	Flat	140	2	8× ϕ16	8× ϕ14.5	17.0	SM51401
		148	2	8× ϕ18	7× ϕ16	17.5	SM51481
		152	2	8× ϕ18	7× ϕ16	18	SM51521
	Convex	140	2	7× ϕ18	7× ϕ16	17.0	SM51404
		148	2	8× ϕ18	7× ϕ16	17.5	SM51484
		152	2	8× ϕ18	7× ϕ16	18.0	SM51524
	Concave	140	2	8× ϕ16	8× ϕ14.5	17.0	SM51406
		152	2	7× ϕ18	7× ϕ16	18.0	SM51526
SM6 (M60)	Flat	165	2	8× ϕ18	8× ϕ16	25.1	SM61651
		178	2	8× ϕ18	8× ϕ18	27.2	SM61781
		185	2	10× ϕ18	10× ϕ16	28.5	SM61851
		190	2	10× ϕ19	10× ϕ18	31.0	SM61901
		203	2	10× ϕ19	12× ϕ18	33.0	SM62031
	Convex	165	2	8× ϕ18	8× ϕ16	25.1	SM61654
		178	2	8× ϕ19	8× ϕ18	27.2	SM61784
		203	2	8× ϕ19	8× ϕ18	32.0	SM62034
	Concave	165	3	9× ϕ18	9× ϕ16	25.1	SM61656
		178	3	9× ϕ18	11× ϕ16	27.3	SM61786
		203	3	9× ϕ19	11× ϕ18	32.0	SM62036
SM8 (M80)	Flat	203	2	10× ϕ18	14× ϕ16	40.5	SM82031
		216	2	10× ϕ18	15× ϕ16	45.0	SM82161
		235	2	12× ϕ18	16× ϕ18	49.0	SM82351
		254	2	12× ϕ18	18× ϕ18	53.2	SM82541
	Concave	203	3	9× ϕ19	12× ϕ16	40.5	SM82036
		216	3	9× ϕ19	14× ϕ16	45.0	SM82166
		229	3	12× ϕ19	16× ϕ18	49.0	SM82296
		254	3	12× ϕ19	18× ϕ18	53.2	SM82546

COMPENSATION PROVISIONS

Suzhou shareate company DTH bit compensation provisions

Free replacement

- When drilling hard rocks such as granite and quartz sandstone, the wear width h of the edge teeth of the bit body is less than 50% of the diameter of the edge teeth.
- When drilling hard rock, the wear width h of the side teeth is less than 30% of the diameter of the edge teeth, and there are two or more non adjacent edge teeth losing teeth, broken teeth, local collapse of the bit body, drill tail block, broken neck, broken handle and other failure forms.

No compensation

- The drill body and its alloy have been worn seriously, such as broken body, block, broken tooth and lost tooth.
- Due to improper operation or human factors or special strata, the drill bit teeth are broken, lost teeth, broken body, etc., such as welding bit, drilling geothermal, spontaneous combustion coal seam, drilling reinforced concrete, pebble layer, fracture layer, etc.
- When it is used in weathered rock, limestone rock, coal mine and other soft rock or very hard rock, the fault body, broken tooth and tooth drop appear.
- Any part of the bit is modified by the user (including sharpened).
- In case of any abnormal situation (3 bits of the same type have the same abnormal damage phenomenon) in batch use of our company's bit products, please immediately suspend the use of our company's products of the same type and batch, and contact the company or the supplier in time, and feed back the abnormal situation; if there are problems in the continuous use and cause greater losses, the company will not compensate.
- The company will record the number of the compensated bit and will not compensate for the failure of the compensated bit.
- No one shall be jointly and severally liable for any compensation.

Compensation regulations for DTH impactor of Suzhou shareate company

Free maintenance and replacement

- In the early stage, the impactor appeared slow and stuck, which could be maintained until its performance was restored;
- In the early stage, the main accessories such as outer casing, piston and front joint have cracks and broken bodies, which can compensate the corresponding parts;

No compensation

- No compensation shall be made to the impactor for well drilling, geothermal or underwater operation, if the water, mud, sand, etc. cannot be impacted and the internal wear is too large due to stopping the air pressure or other reasons when changing the drill pipe.
- The impactor has reached the service life, or the outer sleeve has been replaced, or the piston is pulled or broken due to improper operation or lack of oil.
- The air pressure of 4–inch impactor exceeds 20 bar; that of 5–inch impactor exceeds 23 bar; that of 6–inch impactor exceeds 25 bar; that of 8–inch impactor exceeds 35 bar.
- The impactor is not allowed to be welded or baked. Parts deformed due to welding or baking are stuck or the service life is reduced.
- The number of piston, cylinder, rear joint and outer sleeve is inconsistent with the factory record, or the impactor is damaged due to replacement of piston, cylinder and outer sleeve of other manufacturers.
- The hole falling accident of the impactor was caused by the reversal of the impactor.
- The impactor shall not be held jointly and severally liable for compensation.

INSTRUCTIONS FOR DTH

- When the DTH starts drilling, the minimum impact and propulsion force should be used to make the DTH stand on the ground, and the impact air valve should be opened to make the DTH work under impact. At this time, the DTH does not rotate, so that the bit can enter the rock stratum smoothly, and then the impact and propulsion force are gradually increased.
- The DTH thread is a right–hand thread. When the drilling tool is in the hole, the right rotation of the DTH should be kept all the time. It is strictly prohibited to reverse DTH hammer and bit from falling into the well.
- In the process of drilling, there is always no rock slag in the hole. If necessary, the hole should be cleaned by strong blowing. In the process of drilling or lifting the drilling tool, the gas supply shall not be stopped immediately before the drilling is stopped. The drill shall be lifted for strong blowing, and the air can be stopped until there is no more rock slag dust in the hole, so as to prevent rock powder or mud from flowing back into the DTH.
- In the process of replacing the compressed air pipeline and connecting rod, the dirt in the pipeline must be blown away, and the joint of drill pipe should be kept clean to prevent rock slag dust from entering the DTH.
- Reasonable lubrication is the key to ensure the long life and high efficiency of the DTH, otherwise it will accelerate the wear of the DTH, and even lead to the damage of the DTH parts. The lubrication of the DTH is realized by the lubricator on the drilling rig, so oil must be kept in the lubricator at all times. (20 machine oil is generally used)
- In the process of drilling, due to the pollution of dust and lubricating oil brought by high–pressure gas and dust and mud entering the DTH, the performance of the DTH will be reduced and the contact surface of each moving part of the DTH will be damaged. Therefore, regular maintenance of the DTH can ensure its continuous and reliable operation and prolong its service life.

Notes for Drilling Tool Maintenance and Repair

- Under normal drilling conditions, the DTH should be overhauled, cleaned and reassembled once every 100 hours; if the DTH is not used for a long time, it should be overhauled and cleaned immediately after it is out of use, so as to prevent the DTH from rusting and damaging, especially after it is used in water containing environment, timely maintenance and cleaning should be carried out.
- When disassembling the DTH, pay attention to the protection of the DTH itself. Do not use hard smashing, gas welding or fire baking, otherwise the service life of the DTH will be affected.
- Put the removed parts in a clean place, clean the removed parts, blow dry, brush the parts evenly with engine oil, and reassemble them in place.
- Check all parts of parts during maintenance. If there are bumps and scratches, polish them with file and fine oil stone. If cracks and damages are found, they should be replaced.
- Check the wear of the front joint spline, insert a new drill bit into the front joint spline and twist. If the rotation range is too large, replace the front joint.
- Use micrometer and inner diameter gauge to measure the outer circle of piston and inner diameter of cylinder. If the fit clearance is too large, replace the piston or cylinder.