SHAREATE

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SHAREATE



DTH DRILLING TOOLS

Shareate Tools Ltd.



Company Overview

Shareate Tools Ltd. (hereinafter referred to as “Shareate”) is a national high-tech enterprise, focusing on six core businesses such as cemented carbide, mining drilling tools, cutting tools, petroleum instrumentation, engineering equipment, international trade and mining services, forming an operation model of upstream and downstream industrial chain penetration and industrial integration development. Shareate includes Australia AMS, the United States AMS, Canada Shareate, South Korea Shareate, Wuhan Shareate, and 24 other domestic and foreign molecular companies, with the domestic leading and largest drilling tools R&D, and manufacturing base, a thousand-ton cemented carbide R&D and manufacturing base. Shareate has a sound technology research and development system and independent intellectual property rights system, the comprehensive introduction of the intelligent management system and production equipment, many products leading the domestic market segments, widely used in the petroleum industry, mining, infrastructure, aerospace, automobile manufacturing, electronic information, machining, intelligent equipment, and other fields.

Over the years, Shareate has been granted 57 invention patents and 230 utility model patents. We are the leading supplier of rock drilling tools in Asia. Our rock drilling tools are widely used in mine quarry and construction sites worldwide. From the softest to the hardest rock conditions, Shareate's products are exported across 6 continents and distributed to over 60 countries. We are currently working with Rio Tinto, BHP Glencore, Barrick, FMG, Vale and Anglo American.

Shareate consistently supports the development of core technologies, works to establish a globally recognized brand of mining drilling tools and cemented carbide, and follows the path of internationalization, modernization, and integration of manufacturing services. Shareate is prepared to collaborate with local and international users to build a better future!

Product Equipment



Advantages of Shareate DTH Hammer

Hammer without inner cylinder: Designed with simplicity structure without foot valve or inner cylinder.

- Use DTH Bit without foot valve which eliminates time lost caused by the breakage or damage of the foot valve from thermal expansion or contraction.
- Optimized design structure to achieve lower energy loss, high impact frequency, and improved efficiency.
- Simple structure improves product reliability and maintenance simplicity.
- Made from high-quality heat-treated alloy steel, with a long service life.

Hammer with inner cylinder: High drilling efficiency and low energy consumption.

- Higher operating frequency brings higher drilling efficiency.
- New valve structure brings higher efficiency of energy.
- Made from high-quality heat-treated alloy steel, with a long service life.

Diversified product features: Meet different needs of customers.

- Different surface treatments meet different wear requirements.
- Different hard-facing processes to meet different work conditions.
- Work with customers on new products.

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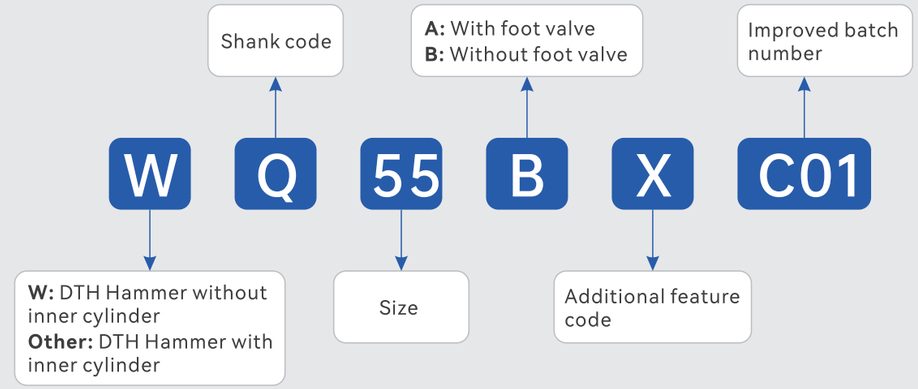
Basic Structure of DTH Hammer

DTH (Down The Hole) Hammer is a rock drilling tool which generate impacts at the bottom of the hole during the drilling process. The air passes through the drill pipe and enters the Hammer, pushing the piston to impact the DTH bit directly to drill. The air is then discharged from the DTH bit to bail the rock cuttings from the bottom of the hole.
DTH Hammer can be categorized into two types.

- One is composed of parts such as a drive chuck, top sub, piston, inner cylinder, air distributor, guide sleeve, and check valve, with the top sub, air distributor, inner cylinder, and outer casing forming the air intake passage.

- The other type is composed of parts such as drive chuck, top sub, piston, distributor tube (feed tube), guide sleeve, check valve seat, check valve, with the top sub, distributor tube (feed tube), and piston case forming the air intake passage.

Naming of DTH Hammer Series



Shank	Code (with inner cylinder)	Code (without inner cylinder)
DHD	DH	WD
QL	SQ	WQ
Mission	SM	/
SD	SD	/
SX	SX	/
SW	SW	/

Hammer Product Series

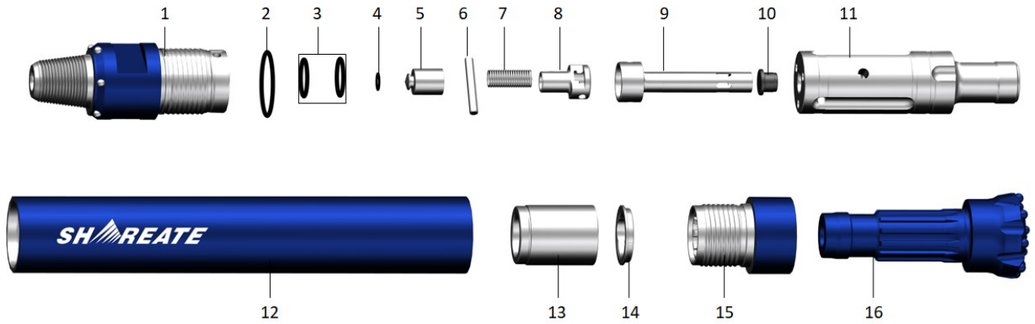
Shank	Product Introduction
WQ	**Hammer without inner cylinder : WQ55B, WQ65BK, WQ85B** Designed to pair with bit from sizes 5”-10” without foot valve. Suitable for surface mining, quarry blasting and water well drilling. Work stably under high wind pressure conditions. Easy disassemble and maintenance.
SQ	**Hammer with inner cylinder : sizes 4”- 8”** Designed to pair with QL series bit with or without foot valve. Suitable for surface mining, quarry blasting and water well drilling. High efficiency and long service life.
DH	**Hammer with inner cylinder : sizes 3.5”- 8”** Designed to pair with DHD series bit from sizes 3.5”-8” with or without foot valve. Suitable for surface mining, quarry blasting and water well drilling. High efficiency and long service life.
SD	**Hammer with inner cylinder : sizes 3.5”- 12”** Designed to pair with SD series bit from sizes 3.5”-12” with foot valve. Suitable for surface mining, quarry blasting and water well drilling. High efficiency and long service life.
SM	**Hammer with inner cylinder : sizes 3.5”- 8”** Designed to pair with Mission series bit from sizes 3.5”-8”. Suitable for surface mining, quarry blasting and water well drilling. High efficiency and long service life.
SN	**Hammer with inner cylinder: sizes 10”-12”** Designed to pair with NUMA series bit from sizes 10"-12". Suitable for surface mining, quarry blasting and water well drilling. High efficiency and long service life.
SX	**Hammer with inner cylinder: sizes 4”-8”** Designed to pair with Fast X series bits from size 4”-8”. Suitable for various drilling applications, including open-pit mining, quarry blastholes, water wells, geothermal wells, etc.
SW	**Hammer with inner cylinder: sizes 4”-8”** Designed to pair with Fast W series bits from size 4”-8”. Suitable for various drilling applications, including open-pit mining, quarry blastholes, water wells, geothermal wells, etc.

WQ Series
—— WQ55B
5”

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	QL50 without Foot Valve	1065 mm	126mm	69.3 kg	138-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.4-2.5 MPa		30-60 RPM		17 m^3/min	25 m^3/min

Parts List



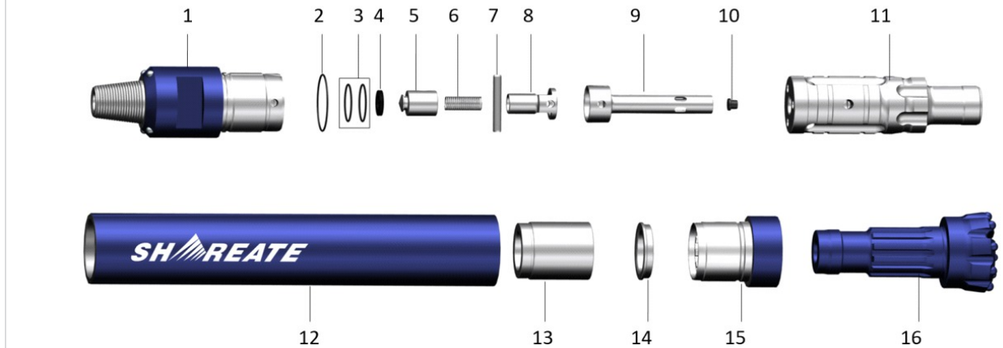
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	WQ55B0101	18.5	10	Air Plug	WQ55B1201	0.01
2	TS O/Ring	F55B0201	0.01		Air Plug (ϕ4 hole)	WQ55B1202	0.01
3	TS O/Ring	F45B0901	0.01		Air Plug (ϕ6 hole)	WQ55B1203	0.01
4	Quad Ring	WQ55B0401	0.01	11	Piston	WQ55B1402	15.7
5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

WQ Series — WQ65BK 6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	QL60 without Foot Valve	1100 mm	146mm	95.6 kg	156-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.4-2.5 MPa		30-60 RPM		22 m^3/min	30 m^3/min

Parts List



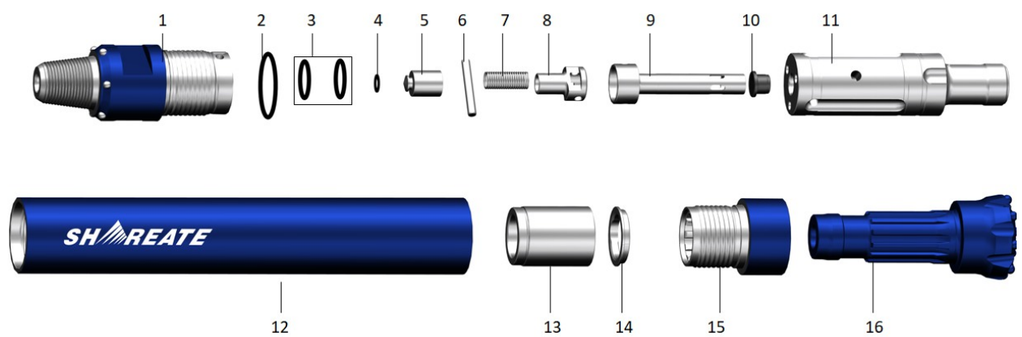
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	WQ65BK0101	25.2	10	Air Plug	WQ65BK1201	0.01
2	TS O/Ring	WQ65BK0201	0.01		Air Plug (ϕ5 hole)	WQ65BK1202	0.01
3	TS O/Ring	WQ65BK0901	0.01		Air Plug (ϕ8 hole)	WQ65BK1203	0.01
4	Quad Ring	WQ65BK0401	0.01	11	Piston	WQ65BK1401	21.5
5	Check Valve	WQ65BK0501	0.5	12	Piston Case	WQ65BK0301	34.8
6	Spring	WQ65BK0701	0.06	13	Guide Sleeve	WQ65BK1703	4.7
7	Dowel Pin	WQ65BK0801	0.5	14	Retainer Ring	WQ65BK1905	0.6
8	CV Holder	WQ65BK0601	0.2	15	Drive Sub	WQ65BK2001	6.3
9	Central Control Tube	WQ65BK1001	1.2	16	Drill Bit	QL60 Shank Bit	/

WQ Series — WQ85B 8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	QL80 without Foot Valve	1377 mm	185 mm	182 kg	200-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.5 MPa		30-60 RPM		24 m^3/min	35.5 m^3/min

Parts List



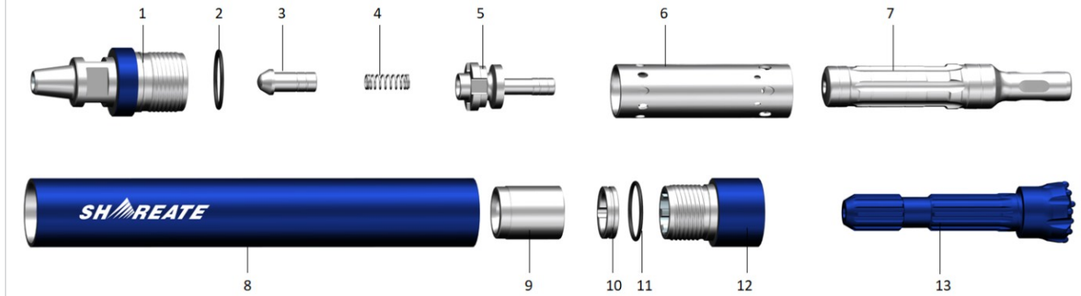
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	WQ85B0101	58.4	10	Air Plug	WQ85B1201	0.02
2	TS O/Ring	WQ85B0201	0.02		Air Plug (ϕ4 hole)	WQ85B1202	0.02
3	TS O/Ring	WQ85B0901	0.02		Air Plug (ϕ6 hole)	WQ85B1203	0.01
4	Quad Ring	WQ85B0401	0.7	11	Piston	WQ85B1401	42
5	Check Valve	WQ85B0501	0.6	12	Piston Case	WQ85B0301	69.6
6	Dowel Pin	WQ85B0801	0.3	13	Guide Sleeve	WQ85B1701	9.2
7	Spring	WQ85B0701	0.11	14	Retainer Ring	WQ85B1901	0.94
8	CV Holder	WQ85B0601	0.8	15	Drive Sub	WQ85B2001	13.4
9	Central Control Tube	WQ85B1001	1.7	16	Drill Bit	QL80 Shank Bit	/

SQ Series — SQ45B 4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	QL40 without Foot Valve	1060 mm	99mm	43 kg	110-135 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 Mpa	1.8 Mpa
1.0-2.2 Mpa		30-60 RPM		5 m^3/min	9 m^3/min

Parts List



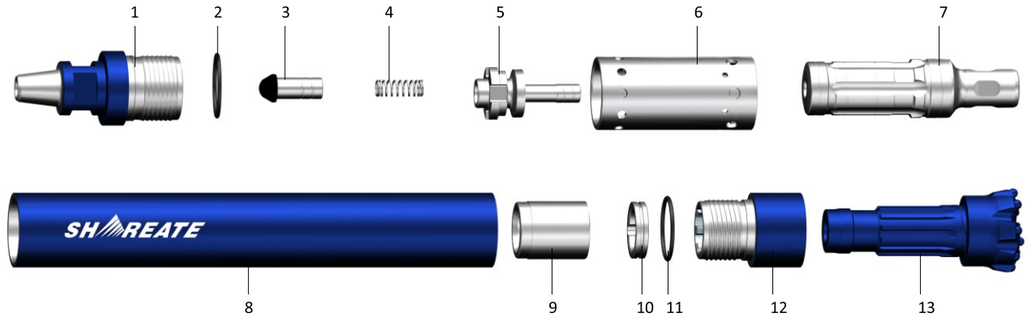
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ45B0101	8.3	8	Piston Case	SQ45B0301	16.4
2	O/Ring	SQ45B0201	0.02	9	Guided Sleeve	SQ45B1701	2.3
3	Check Valve	SQ45B0501	0.3	10	Retainer Ring	SQ45B1901	0.27
4	Spring	SQ45B0701	0.04	11	O/Ring	SQ45B0201	0.02
5	Valve Seat	SQ45B1101	1.5	12	Drive Sub	SQ45B2001	3.3
6	Inner Cylinder	SQ45B1301	2.1	13	Drill Bit	QL40 Shank Bit	/
7	Piston	SQ45B1401	8.4				

SQ Series — SQ55B 5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	QL50 without Foot Valve	1105 mm	126 mm	70 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.2 MPa		30-60 RPM		7 m^3/min	13 m^3/min

Parts List



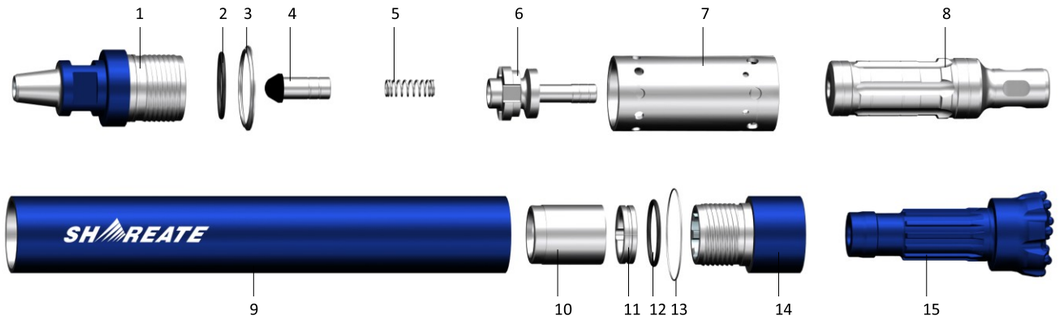
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ55B0101	14.2	8	Piston Case	SQ55B0301	24.2
2	O/Ring	SQ55B0201	0.02	9	Guided Sleeve	SQ55B1701	2.8
3	Check Valve	SQ55B0501	0.7	10	Retainer Ring	SQ55B1901	0.5
4	Spring	SQ55B0701	0.08	11	O/Ring	SQ55B0201	0.02
5	Valve Seat	SQ55B1101	2.2	12	Drive Sub	SQ55B2001	5.4
6	Inner Cylinder	SQ55B1301	3.3	13	Drill Bit	QL50 Shank Bit	/
7	Piston	SQ55B1401	15.5				

SQ Series — SQ65B — 6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	QL60 without Foot Valve	1158 mm	148 mm	103.5 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.2-2.7 MPa		30-60 RPM		16 m^3/min	23 m^3/min

Parts List



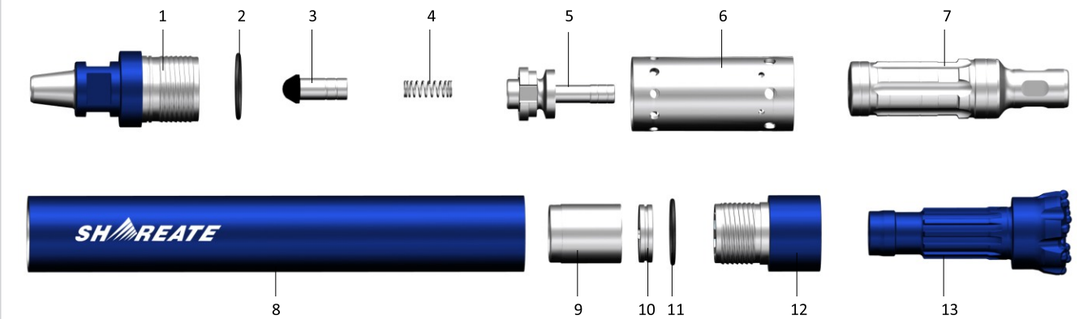
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ65B0101	21.5	9	Piston Case	SQ65B0301	34.3
2	O/Ring	SQ65B0201	0.02	10	Guide Sleeve	SQ65B1701	5.4
3	DiscSpring	SQ65B2501	0.34	11	Retainer Ring	SQ65B1901	0.92
4	Check Valve	SQ65B0501	0.7	12	O/Ring	SQ65B0201	0.02
5	Spring	SQ65B0701	0.08	13	Circlip	SQ65B2801	0.02
6	Valve Seat	SQ65B1101	4.3	14	Drive Sub	SQ65B2001	7.5
7	Inner Cylinder	SQ65B1301	4.2	15	Drill Bit	QL60 Shank Bit	/
8	Piston	SQ65B1401	23				

SQ Series — SQ85B — 8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	QL80 without Foot Valve	1335 mm	185 mm	188 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		30-60 RPM		25 m^3/min	34 m^3/min

Parts List



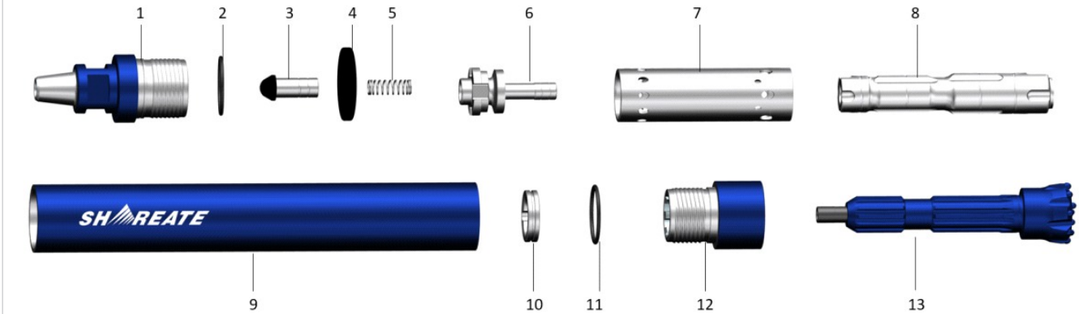
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ85B0101	38.8	8	Piston Case	SQ85B0301	65
2	O/Ring	SQ85B0201	0.02	9	Guide Sleeve	SQ85B1701	10.5
3	Check Valve	SQ85B0501	0.7	10	Retainer Ring	SQ85B1901	1.2
4	Spring	SQ85B0701	0.08	11	O/Ring	SQ85B0201	0.02
5	Valve Seat	SQ85B1101	6.2	12	Drive Sub	SQ85B2001	14.5
6	Inner Cylinder	SQ85B1301	7.4	13	Drill Bit	QL80 Shank Bit	/
7	Piston	SQ85B1401	44.5				

SQ Series — SQ40A 4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	QL40 with Foot Valve	1105 mm	99 mm	44 kg	110-135 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.2 MPa		30-60 RPM		5.5 m^3/min	10 m^3/min

Parts List



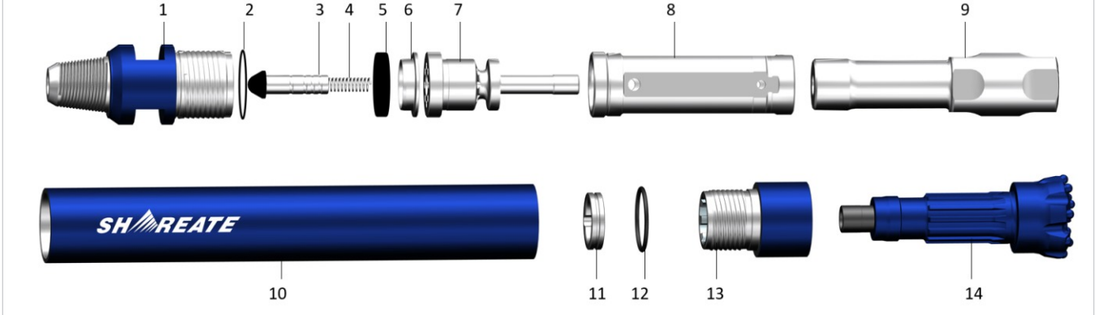
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ45A0101	8.8	8	Piston	SQ45A1401	8.8
2	O/Ring	SQ45A0201	0.02	9	Piston Case	SQ45A0301	16.5
3	Check Valve	SQ45A0501	0.5	10	Retainer Ring	SQ45A1901	0.2
4	Rubber Buffer	SQ45A0401	0.2	11	O/Ring	SQ45A0201	0.02
5	Spring	SQ45A0701	0.04	12	Drive Sub	SQ45A2001	3.3
6	Valve Seat	SQ45A1101	2.1	13	Drill Bit	QL40 Shank Bit	/
7	Inner Cylinder	SQ45A1301	2.5				

SQ Series — SQ50A 5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	QL50 with Foot Valve	1154 mm	126 mm	67.8 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.2 MPa		30-60 RPM		9 m^3/min	15 m^3/min

Parts List



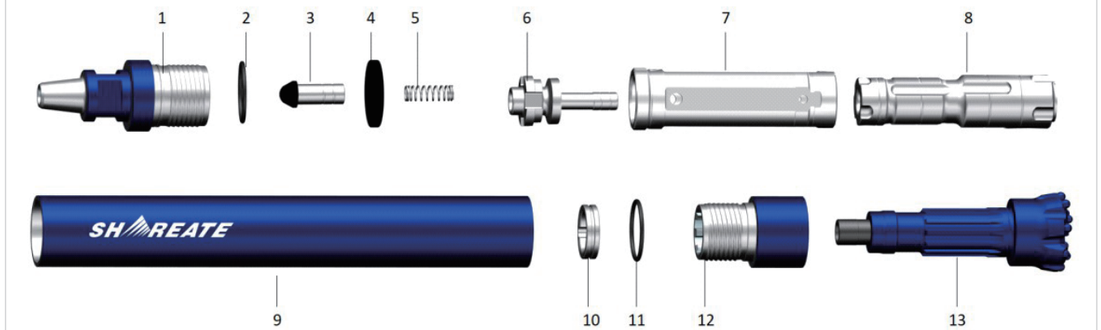
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH50A0101	15.2	8	Inner Cylinder	DH50A1301	4.70
2	TS O/Ring	F55B0201	0.01	9	Piston	DH50A1401	15.49
3	Check Valve	SQ60A0501	0.2	10	Piston Case	SQ50A0301	32
4	Spring	SX65B0701	0.01	11	Retainer Ring	SQ50A1901	0.2
5	Rubber Buffer	DH50A1501	0.01	12	TS O/Ring	SQ50A1801	0.01
6	Pad Seat	DH50A2601	0.2	13	Drive Sub	SQ50A2001	6
7	Valve Seat	DH50A1101	4.03	14	Drill Bit	QL60 Shank Bit	/

SQ Series — SQ60A — 6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	QL60 with Foot Valve	1210 mm	148 mm	104 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.2-2.7 MPa		30-60 RPM		20 m^3/min	28 m^3/min

Parts List



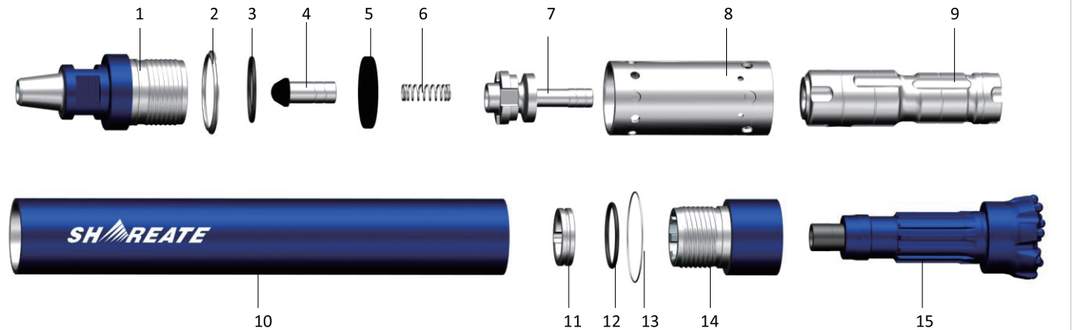
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ60A0101	23	8	Piston	SQ60A1401	23.5
2	O/Ring	SQ60A0201	0.02	9	Piston Case	SQ60A0301	39
3	DiscSpring	SQ60B2501	0.34	10	Retainer Ring	SQ60A01901	0.8
4	Check Valve	SQ65A1101	1.5	11	O/Ring	SQ60A0202	0.02
5	Spring	SQ60A1101	0.08	12	Drive Sub	SQ60A2001	6.3
6	Valve Seat	SQ60A0701	6.2	13	Drill Bit	QL60 Shank Bit	/
7	Inner Cylinder	SQ60A1301	5.9				

SQ Series — SQ80A — 8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	QL80 with Foot Valve	1471 mm	185 mm	187 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		30-60 RPM		26 m^3/min	35 m^3/min

Parts List



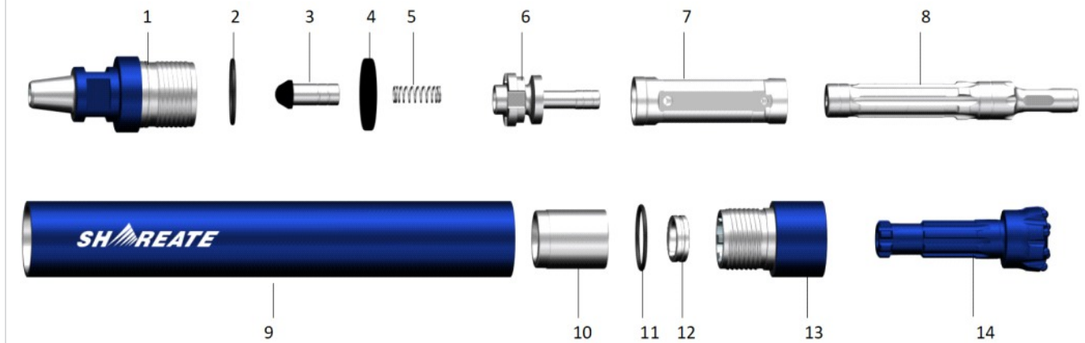
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ80A0101	42	9	Piston	SQ80A1401	41
2	Adjuster Shim	SQ80A2701	0.2	10	Piston Case	SQ80A0301	64
3	O/Ring	SQ80A0201	0.02	11	Retainer Ring	SQ80A1901	1.2
4	Check Valve	SQ80A0501	1.5	12	O/Ring	SQ80A0202	0.02
5	Rubber Buffer	SQ80A0401	0.4	13	Adjuster Shim	SQ80A2701	0.2
6	Spring	SQ80A0701	0.1	14	Drive Sub	SQ80A2001	12
7	Valve Seat	SQ80A1101	12.8	15	Drill Bit	QL80 Shank Bit	/
8	Inner Cylinder	SQ80A1301	9.1				

DH Series — DH35B 3.5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	DHD3.5 without Foot Valve	885 mm	82 mm	24 kg	90-115 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.5 MPa
1.0-1.7 MPa		30-50 RPM		4 m^3/min	6.5 m^3/min

Parts List



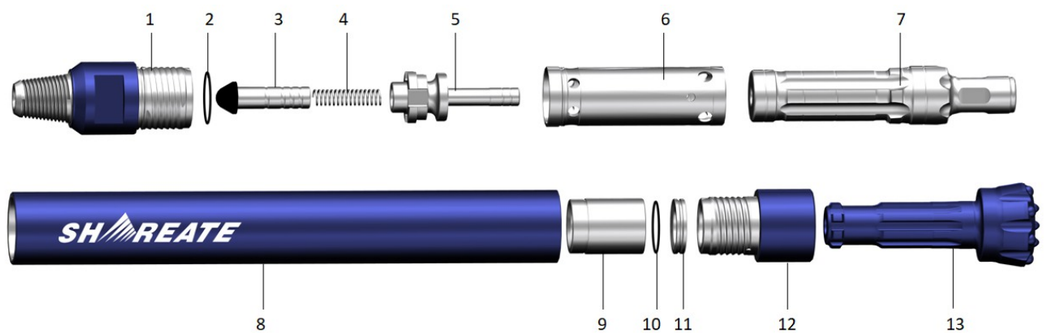
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH35B0101	7.14	8	Piston	DH35B1401	8.51
2	TS O/Ring	DH35B0201	0.01	9	Piston Case	DH35B0301	14.72
3	Check Valve	DH35B0501	0.1	10	Guide Sleeve	DH35B1701	1.20
4	Rubber Buffer	DH35B0401	0.4	11	TS O/Ring	F45B1801	0.01
5	Spring	DH35B0701	0.01	12	Retainer Ring	DH35B1901	0.15
6	Valve Seat	DH35B1101	1.2	13	Drive Sub	DH35B2001	3.90
7	Inner Cylinder	DH35B1301	1.75	14	Drill Bit	DHD3.5 Shank Bit	/

DH Series — DH45B 4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	DHD340 without Foot Valve	985 mm	99 mm	41.5 kg	115-127 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.2 MPa		30-60 RPM		5 m^3/min	9 m^3/min

Parts List



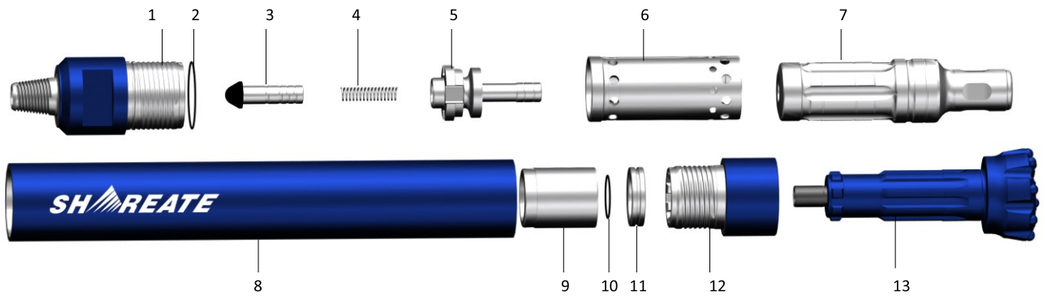
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH40A0101	7.14	8	Piston Case	DH45B0301	14.72
2	TS O/Ring	F45B0201	0.01	9	Guide Sleeve	DH45B1701	1.20
3	Check Valve	F45B0501	0.1	10	TS O/Ring	F45B1801	0.01
4	Spring	F45B0701	0.01	11	Retainer Ring	SF45B1901	0.2
5	Valve Seat	DH45B1101	1.2	12	Drive Sub	SF45B2001	3.90
6	Inner Cylinder	DH45B1301	1.75	13	Drill Bit	DHD340 Shank Bit	/
7	Piston	DH45B1401	8.51				

DH Series — DH55B 5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	DHD350 without Foot Valve	1103 mm	126 mm	71 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.5 MPa		30-60 RPM		7 m^3/min	13 m^3/min

Parts List



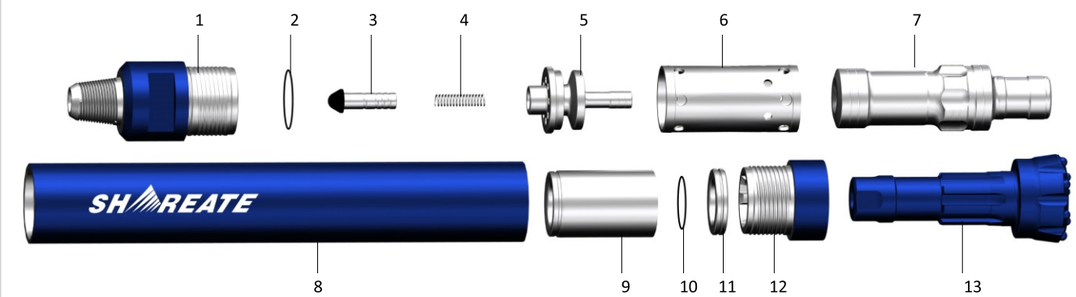
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH55B0101	13.87	8	Piston Case	DH55B0301	26.5
2	TS O/Ring	F55B0201	0.01	9	Guide Sleeve	DH55B1701	2.65
3	Check Valve	DH55B0501	0.2	10	TS O/Ring	F55B1801	0.01
4	Spring	DH55B0701	0.01	11	Retainer Ring	DH55B1901	0.5
5	Valve Seat	DH55B1101	2.1	12	Drive Sub	DH55B2001	7.0
6	Inner Cylinder	DH55B1301	2.8	13	Drill Bit	DH350 Shank Bit	/
7	Piston	DH55B1401	16.0				

DH Series — DH65B 6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	DHD360 without Foot Valve	1210 mm	148 mm	106.5 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.0-2.5 MPa		30-60 RPM		20 m^3/min	28 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX65B0101	21.8	8	Piston Case	DH65B0301	36.3
2	TS O/Ring	M65B0201	0.01	9	Guide Sleeve	DH65B1701	8.9
3	Check Valve	SX65B0501	0.2	10	TS O/Ring	SX65B1801	0.01
4	Spring	SX65B0701	0.1	11	Retainer Ring	DH65B1901	1.0
5	Valve Seat	SX65B1101	4.34	12	Drive Sub	DH65B2001	8.1
6	Inner Cylinder	SX65B1301	4.1	13	Drill Bit	DHD360 shank bit	/
7	Piston	SX65B1401	22.6				

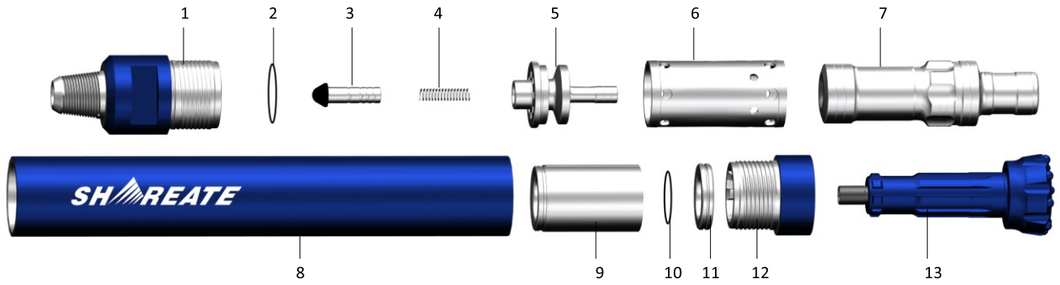
DH Series — DH85B

8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	DHD380 without Foot Valve	1355 mm	185 mm	194 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		30-60 RPM		25 m^3/min	34 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH85B0101	38.8	8	Piston Case	DH85B0301	26.5
2	O/Ring	DH85B0201	0.02	9	Guide Sleeve	DH85B1701	2.65
3	Check Valve	DH85B0501	0.7	10	Retainer Ring	DH85B1901	0.01
4	Spring	DH85B0701	0.08	11	O/Ring	DH85B0202	0.5
5	Valve Seat	DH85B1101	6.2	12	Drive Sub	DH85B2001	7.0
6	Inner Cylinder	DH85B1301	7.4	13	Drill Bit	DHD380 Shank Bit	/
7	Piston	DH85B1401	44.5				

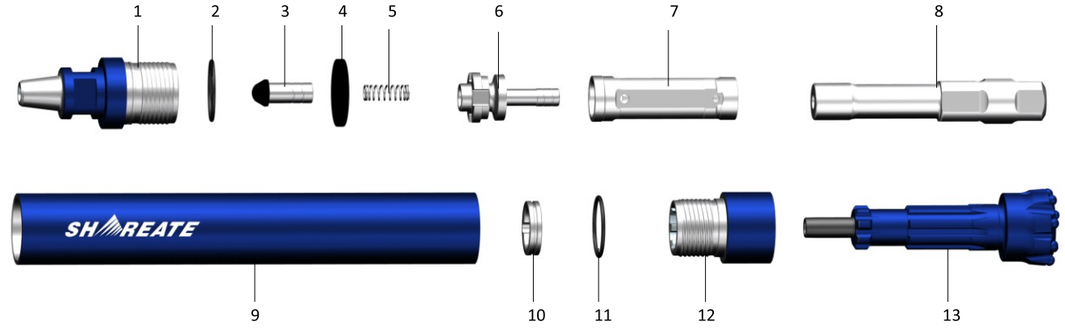
DH Series — DH35A

3.5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	DHD360 without Foot Valve	1210 mm	148 mm	106.5 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.0-2.5 MPa		30-60 RPM		20 m^3/min	28 m^3/min

Parts List



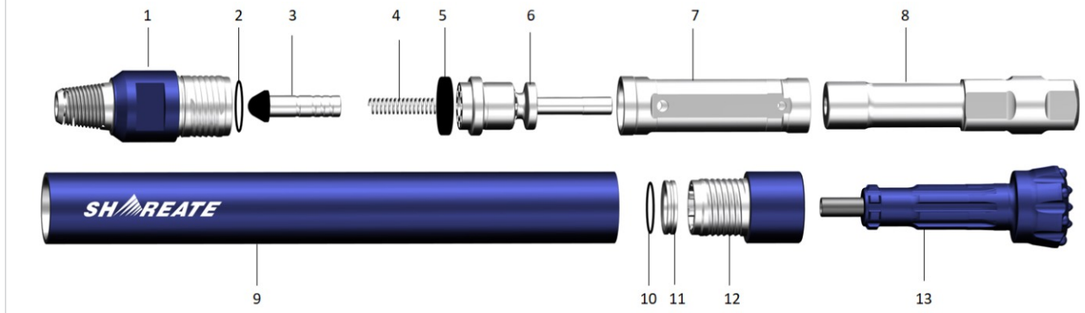
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH35A0101	7.14	8	Piston Case	DH35A0301	14.72
2	TS O/Ring	DH35A0201	0.01	9	Guide Sleeve	DH35A1701	1.20
3	Check Valve	DH35A0501	0.1	10	TS O/Ring	F45A1801	0.01
4	Spring	DH35A0701	0.01	11	Retainer Ring	DH35A1901	0.2
5	Valve Seat	DH35A1101	1.2	12	Drive Sub	DH35A2001	3.90
6	Inner Cylinder	DH35A1301	1.75	13	Drill Bit	DHD3.5 Shank Bit	/
7	Piston	DH35A1401	8.51				

DH Series — DH40A 4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	DHD340 with Foot Valve	1031 mm	99 mm	43 kg	115-127 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.2 MPa		30-60 RPM		5.5 m^3/min	10 m^3/min

Parts List



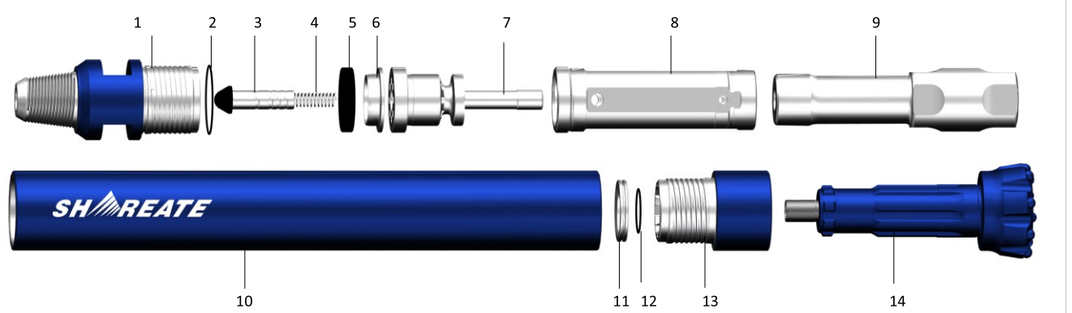
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH40A0101	7.14	8	Piston Case	DH40A0301	14.72
2	TS O/Ring	DH40A0201	0.01	9	Guide Sleeve	DH40A1701	1.20
3	Check Valve	DH40A0501	0.1	10	TS O/Ring	F45B1801	0.01
4	Spring	DH40A0701	0.01	11	Retainer Ring	DH40A1901	0.2
5	Valve Seat	DH40A1101	1.2	12	Drive Sub	DH40A2001	3.90
6	Inner Cylinder	DH40A1301	1.75	13	Drill Bit	DHD340 Shank Bit	/
7	Piston	DH40A1401	8.51				

DH Series — DH50A 5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	DHD350 with Foot Valve	1210 mm	126 mm	79 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.5 MPa		30-60 RPM		9 m^3/min	15 m^3/min

Parts List



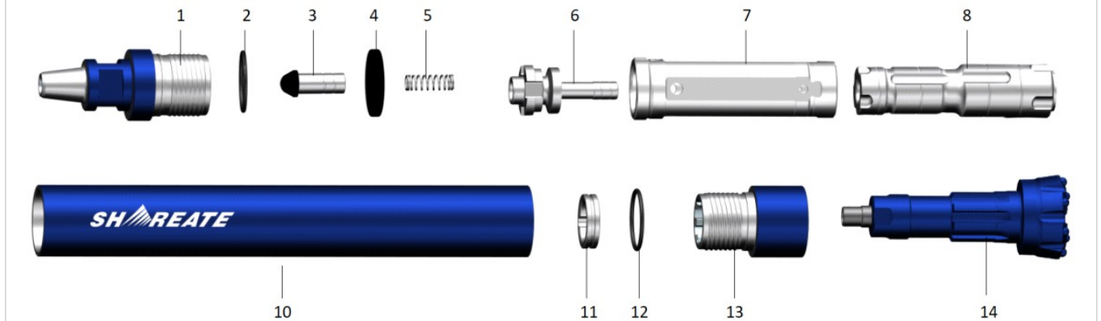
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH50A0101	15.2	8	Inner Cylinder	DH50A1301	4.70
2	TS O/Ring	F55B0201	0.01	9	Piston	DH50A1401	15.49
3	Check Valve	SQ60A0501	0.2	10	Piston Case	DH50A0301	33.16
4	Spring	SX65B0701	0.01	11	Retainer Ring	DH50A1901	0.2
5	Rubber Buffer	DH50A1501	0.01	12	TS O/Ring	DH50A1801	0.01
6	Pad Seat	DH50A2601	0.2	13	Drive Sub	DH50A2001	7.05
7	Valve Seat	DH50A1101	4.03	14	Drill Bit	DHD350 Shank Bit	/

DH Series — DH60A 6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	DHD360 with Foot Valve	1063 mm	148 mm	101 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.0-2.5 MPa		30-60 RPM		20 m^3/min	28 m^3/min

Parts List



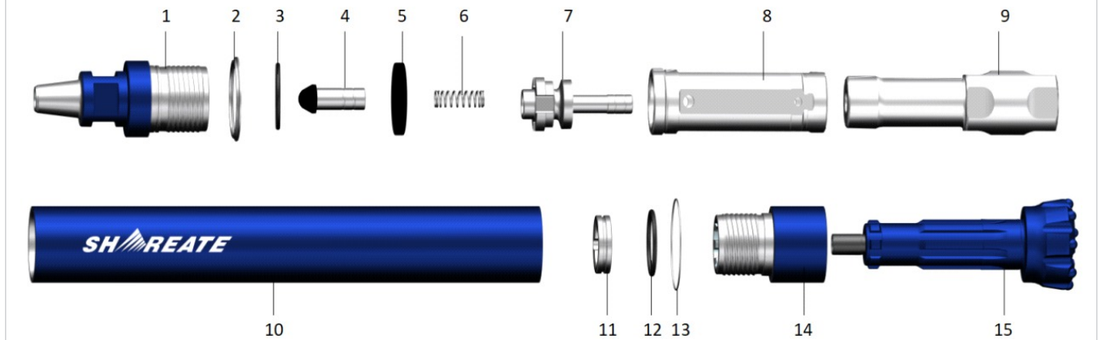
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SQ60A0101	23	8	Piston	SQ60A1401	23.5
2	O/Ring	SQ60A0201	0.02	9	Piston Case	DH60A0301	39
3	DiscSpring	SQ60B2501	0.34	10	Retainer Ring	DH60A01901	0.8
4	Check Valve	SQ65A1101	1.5	11	O/Ring	DH60A0202	0.02
5	Spring	SQ60A1101	0.08	12	Drive Sub	DH60A2001	6.3
6	Valve Seat	SQ60A0701	6.2	13	Drill Bit	DH360 Shank Bit	/
7	Inner Cylinder	SQ60A1301	5.9				

DH Series — DH80A 8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	DHD380 with Foot Valve	1471 mm	180 mm	188 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		30-60 RPM		25 m^3/min	34 m^3/min

Parts List



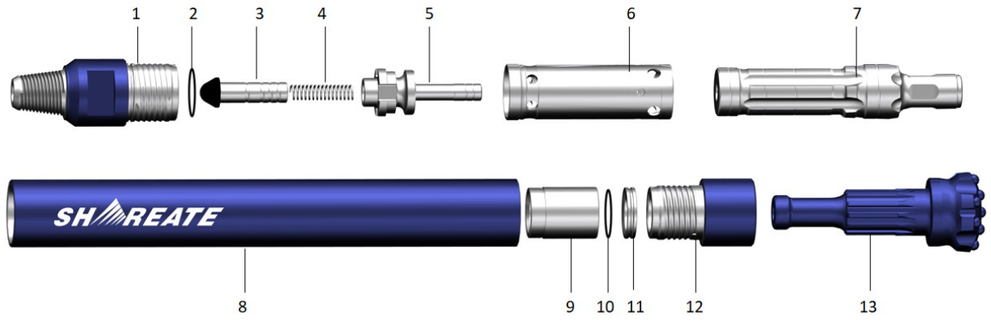
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	DH85A0101	42	9	Piston	DH85A1401	41.5
2	Adjuster Shim	DH85A2701	0.2	10	Piston Case	DH85A0301	63
3	O/Ring	DH85A0201	0.02	11	Retainer Ring	DH85A1901	1.2
4	Check Valve	DH85A0501	1.5	12	O/Ring	DH85A0202	0.03S
5	Rubber Buffer	DH85A0401	0.4	13	Adjuster Shim	DH85A2701	0.2
6	Spring	DH85A0701	0.1	14	Drive Sub	DH85A2001	18.2
7	Valve Seat	DH85A1101	13	15	Drill Bit	DH380 Shank Bit	/
8	Inner Cylinder	DH85A1301	9.1				

SM Series — SM45B 4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	M40 without Foot Valve	1004 mm	99 mm	41 kg	115-127 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.2 MPa		30-60 RPM		5 m^3/min	9 m^3/min

Parts List



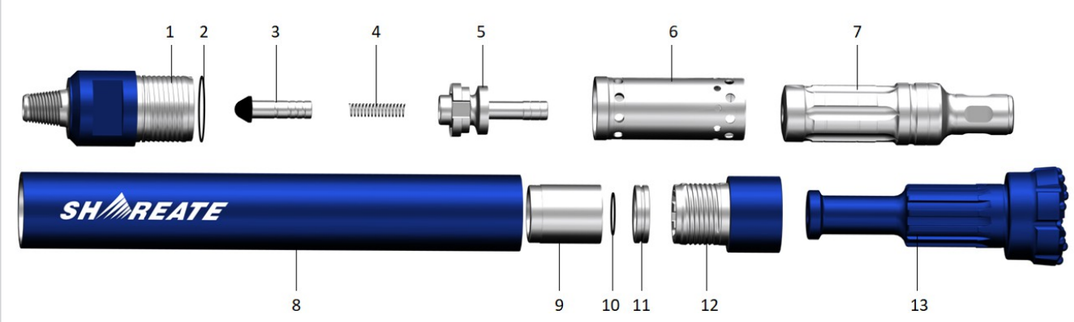
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SM45B0101	8.3	8	Piston Case	SM45B0301	15
2	O/Ring	SM45B0201	0.02	9	Guided Sleeve	SM45B1701	1.9
3	Check Valve	SM45B0501	0.3	10	Retainer Ring	SM45B1901	0.27
4	Spring	SM45B0701	0.1	11	O/Ring	SM45B0202	0.02
5	Valve Seat	SM45B1101	1.5	12	Drive Sub	SM45B2001	3.9
6	Inner Cylinder	SM45B1301	2.1	13	Drill Bit	M40 Shank Bit	/
7	Piston	SM45B1401	8.4				

SM Series — SM55B 5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	M50 without Foot Valve	1122 mm	126 mm	71 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.5 MPa		30-60 RPM		6 m^3/min	12 m^3/min

Parts List



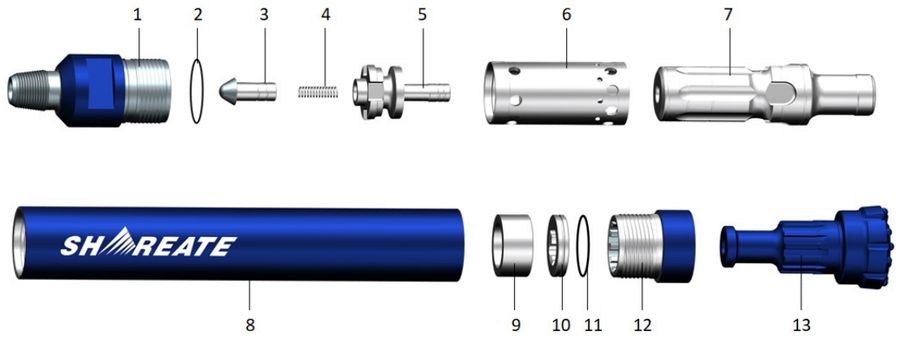
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1	Top Sub	SM55B0101	13.7	8	Piston Case	SM55B0301	24
2	O/Ring	SM55B0201	0.02	9	Guided Sleeve	SM55B1701	2.6
3	Check Valve	SM55B0501	0.7	10	O/Ring	SM55B0202	0.02
4	Spring	SM55B0701	0.1	11	Retainer Ring	SM55B1901	0.7
5	Valve Seat	SM55B1101	2	12	Drive Sub	SM55B2001	7.1
6	Inner Cylinder	SM55B1301	2.8	13	Drill Bit	M50 Shank Bit	/
7	Piston	SM55B1401	15				

SM Series — SM65B 6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	M60 without Foot Valve	1129 mm	144 mm	92 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.0-2.8 MPa		30-60 RPM		18 m^3/min	25 m^3/min

Parts List



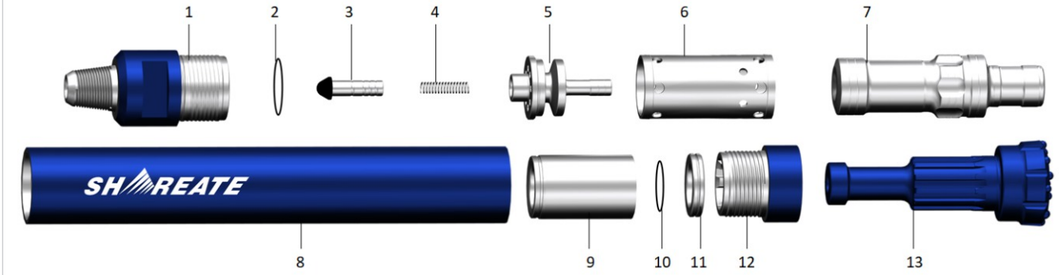
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX65B0101	21.8	8	Piston Case	SD65B0301	36.3
2	TS O/Ring	M65B0201	0.01	9	Guide Sleeve	SD65B1701	8.9
3	Check Valve	SX65B0501	0.2	10	Retainer Ring	SD65B1901	1.0
4	Spring	SX65B0701	0.1	11	TS O/Ring	SX65B1801	0.01
5	Valve Seat	SX65B1101	4.34	12	Drive Sub	SD65B2001	8.1
6	Inner Cylinder	SX65B1301	4.1	13	Drill Bit	M60 Shank Bit	/
7	Piston	SX65B1401	22.6				

SM Series — SM85B 8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	M80 without Foot Valve	1333 mm	185 mm	190 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		30-60 RPM		26 m^3/min	35 m^3/min

Parts List



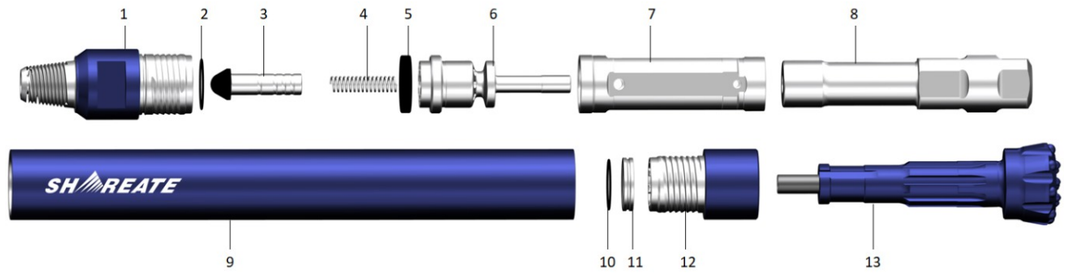
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SM85B0101	38.8	8	Piston Case	SM85B0301	69.5
2	O/Ring	SM85B0201	0.02	9	Guide Sleeve	SM85B1701	6.1
3	Check Valve	SM85B0501	0.7	10	Retainer Ring	SM85B1901	1.2
4	Spring	SM85B0701	0.08	11	O/Ring	SM85B0202	0.02
5	Valve Seat	SM85B1101	6.2	12	Drive Sub	SM85B2001	19.3
6	Inner Cylinder	SM85B1301	7.4	13	Drill Bit	M80 Shank Bit	/
7	Piston	SM85B1401	44.5				

SD Series — SD45A 4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	SD4 with Foot Valve	1082 mm	99 mm	43 kg	115-127 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.2 MPa		30-60 RPM		5.5 m^3/min	10 m^3/min

Parts List



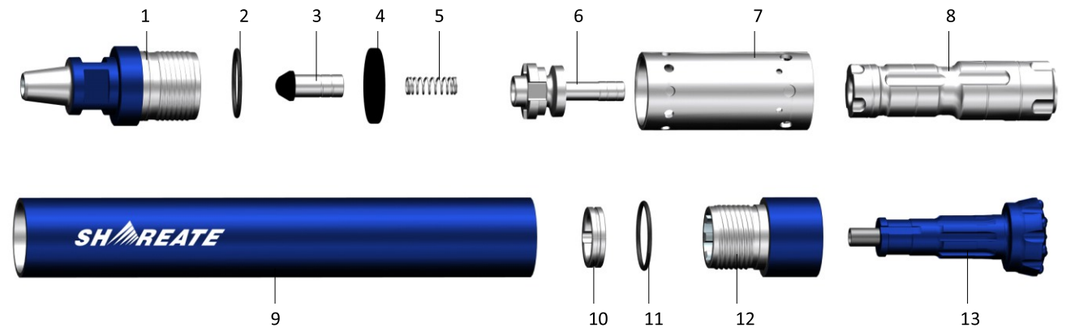
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SD45A0101	8.8	8	Piston	SD45A1401	9
2	O/Ring	SD45A0201	0.02	9	Piston Case	SD45A0301	15.6
3	Check Valve	SD45A0501	0.5	10	Retainer Ring	SD45A1901	0.2
4	Rubber Buffer	SD45A0401	0.2	11	O/Ring	SD45A0202	0.02
5	Spring	SD45A0701	0.04	12	Drive Sub	SD45A2001	4
6	Valve Seat	SD45A1101	2.1	13	Drill Bit	SD4 Shank Bit	/
7	Inner Cylinder	SD45A1301	2.5				

SD Series — SD55A 5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	SD5 with Foot Valve	1178 mm	126 mm	74 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.0-2.5 MPa		30-60 RPM		9 m^3/min	15 m^3/min

Parts List



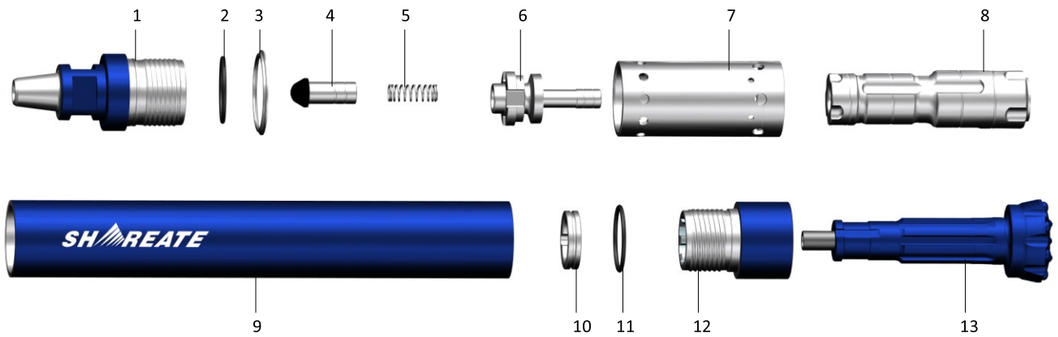
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SD55A0101	14.7	8	Piston	SD55A1401	17
2	O/Ring	SD55A0201	0.02	9	Piston Case	SD55A0301	24.8
3	Check Valve	SD55A1101	1	10	Retainer Ring	SD55A1901	0.6
4	Rubber Buffer	SD55A0401	0.3	11	O/Ring	SD55A0201	0.02
5	Spring	SD55A0701	0.08	12	Drive Sub	SD55A2001	5.6
6	Valve Seat	SD55A1101	4.1	13	Drill Bit	SD5 Shank Bit	/
7	Inner Cylinder	SD55A1301	4.4				

SD Series — SD65A 6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	SD6 with Foot Valve	1277 mm	142 mm	99 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.0-2.5 MPa		30-60 RPM		20 m^3/min	28 m^3/min

Parts List



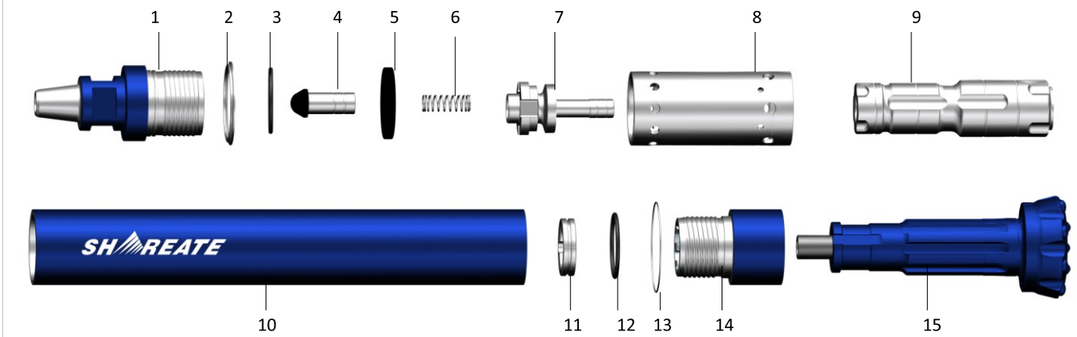
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SD60A0101	23	8	Piston	SD60A1401	23.5
2	O/Ring	SD60A0201	0.02	9	Piston Case	SD60A0301	39
3	DiscSpring	SD60B2501	0.34	10	Retainer Ring	SD60A01901	0.8
4	Check Valve	SD65A1101	1.5	11	O/Ring	SD60A0202	0.02
5	Spring	SD60A1101	0.08	12	Drive Sub	SD60A2001	6.3
6	Valve Seat	SD60A0701	6.2	13	Drill Bit	SD6 Shank Bit	/
7	Inner Cylinder	SD60A1301	5.9				

SD Series — SD85A 8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	SD8 with Foot Valve	1471 mm	180 mm	188 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		30-60 RPM		26 m^3/min	35 m^3/min

Parts List



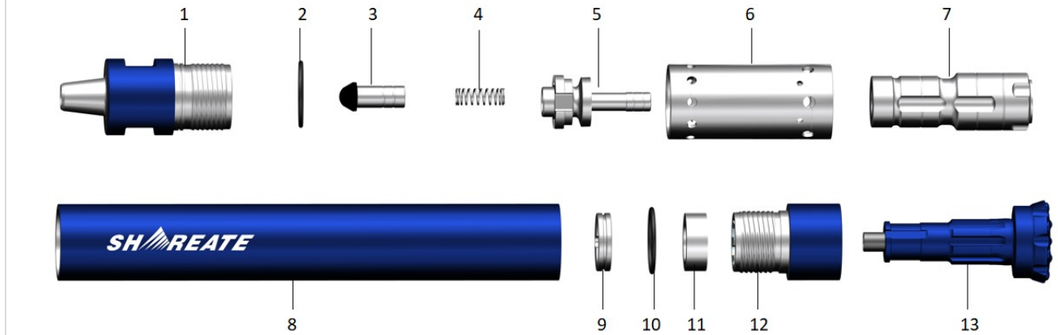
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SD85A0101	42	9	Piston	SD85A1401	41.5
2	Adjuster Shim	SD85A2701	0.2	10	Piston Case	SD85A0301	63
3	O/Ring	SD85A0201	0.02	11	Retainer Ring	SD85A1901	1.2
4	Check Valve	SD85A0501	1.5	12	O/Ring	SD85A0202	0.03S
5	Rubber Buffer	SD85A0401	0.4	13	Adjuster Shim	SD85A2701	0.2
6	Spring	SD85A0701	0.1	14	Drive Sub	SD85A2001	18.2
7	Valve Seat	SD85A1101	13	15	Drill Bit	SD8 Shank Bit	/
8	Inner Cylinder	SD85A1301	9.1				

SD Series — SD100A — 10″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 5 1/2" REG	SD10 with Foot Valve	1413 mm	225 mm	273 kg	254-311 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		25-50 RPM		40 m^3/min	60 m^3/min

Parts List



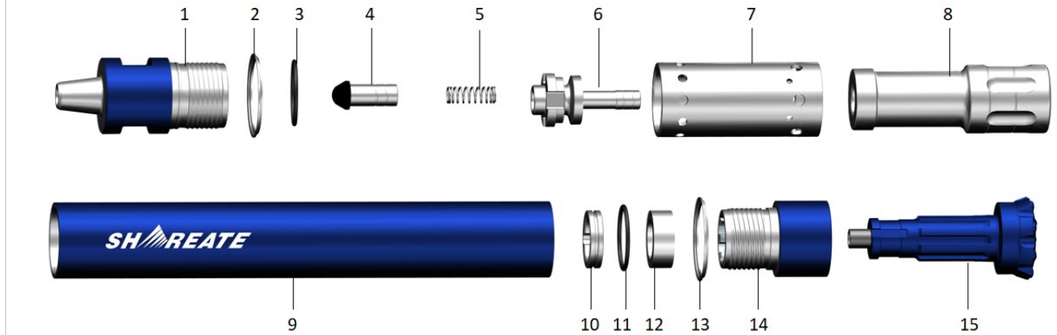
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SD100A0101	60	8	Piston Case	SD100A0301	85
2	O/Ring	SD100A0201	0.04	9	Retainer Ring	SD100A1901	2.8
3	Check Valve	SD100A0501	1.5	10	O/Ring	SD100A0201	0.04
4	Spring	SD100A0701	0.2	11	Guided Sleeve	SD100B1701	5
5	Valve Seat	SD100A1101	12.8	12	Drive Sub	SD100A2001	21
6	Inner Cylinder	SD100A1301	13.5	13	Drill Bit	SD10 Shank Bit	/
7	Piston	SD100A1401	71				

SD Series — SD120A — 12″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 6 5/8" REG	SD12 with Foot Valve	1825 mm	275 mm	589 kg	295-400 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		25-50 RPM		50 m^3/min	70 m^3/min

Parts List



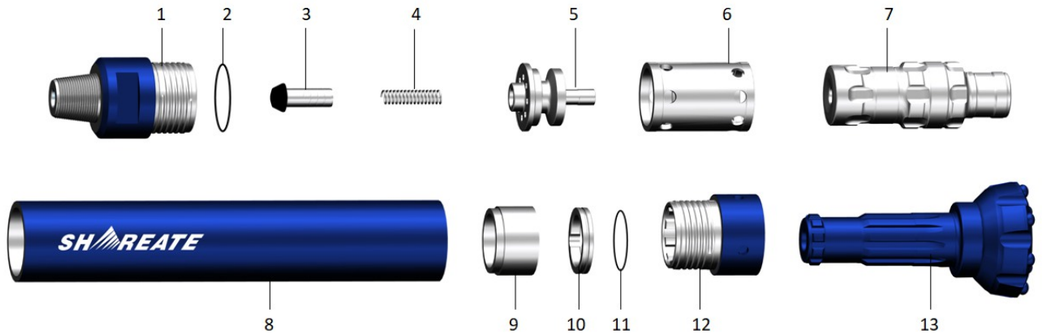
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SD120A0101	134	9	Piston Case	SD120A0301	220
2	Squashing Ring	SD120A2401	0.8	10	Retainer Ring	SD120A1901	5.2
3	O/Ring	SD120A0201	0.04	11	O/Ring	SD120A0201	0.04
4	Check Valve	SD120A0501	1.5	12	Guided Sleeve	SD120B1701	5.2
5	Spring	SD120A0701	0.2	13	Squashing Ring	SD120A2402	0.8
6	Valve Seat	SD120A1101	21	14	Drive Sub	SD120A2001	54
7	Inner Cylinder	SD120A1301	29	15	Drill Bit	SD12 Shank Bit	/
8	Piston	SD120A1401	118				

SN Series — SN100B — 10″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 5 1/2" REG	NUMA100 without Foot Valve	1475 mm	225 mm	300 kg	254-311 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		25-50 RPM		36 m^3/min	58 m^3/min

Parts List



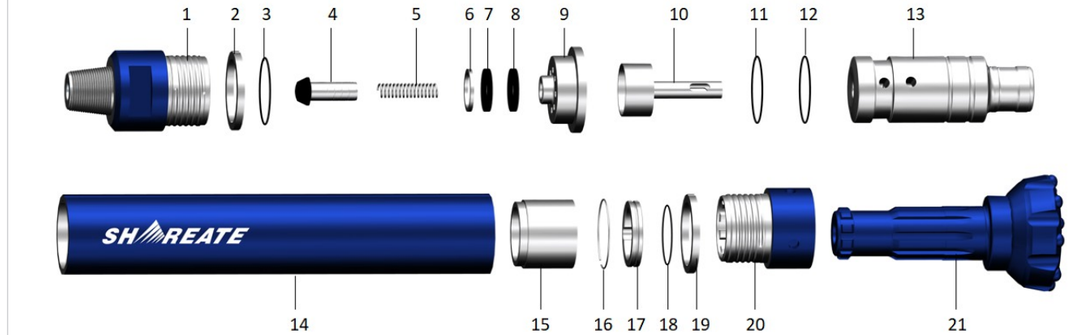
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SN100B0101	62	8	Piston Case	SN100B 0301	98
2	O/Ring	SN100B 0201	0.04	9	Retainer Ring	SN100B 1901	2.2
3	Check Valve	SN100B 0501	1.5	10	O/Ring	SN100B 1801	0.04
4	Spring	SN100B 0701	0.2	11	Guided Sleeve	SN100B 1701	11.5
5	Valve Seat	SN100B 1101	13.5	12	Drive Sub	SN100B 2001	26
6	Inner Cylinder	SN100B 1301	13	13	Drill Bit	NUMA100 Shank Bit	/
7	Piston	SN100B 1401	71.5				

SN Series — SN125B — 12″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 6 5/8" REG	NUMA125 without Foot Valve	1785 mm	305 mm	698 kg	330-400 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		25-45 RPM		46 m^3/min	58 m^3/min

Parts List



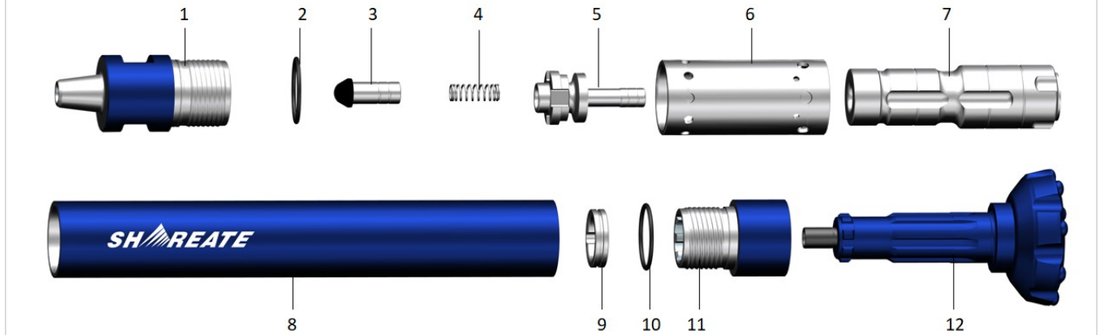
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SN120B0101	164	12	O/Ring	SN120A0203	0.03
2	Washer	SN120B2401	1.5	13	Piston	SN120A1401	138
3	O/Ring	SN120B0201	0.04	14	Piston Case	SN120A0301	247
4	Check Valve	SN120B0501	1.5	15	Guided Sleeve	SN120B1701	30
5	Spring	SN120B0701	0.2	16	Circlip	SN120B2801	0.2
6	Squashing Ring	SN120B2402	0.7	17	Retainer Ring	SN120A1901	7
7	Rubber Buffer	SN120B2403	0.3	18	O/Ring	SN120A0201	0.3
8	Rubber Buffer	SN120B2404	0.3	19	Washer	SN120A2402	1.5
9	Valve Seat	SN120B1101	12	20	Drive Sub	SN120A2001	67
10	Central Control Tube	SN120B1001	27.4	21	Drill Bit	NUMA120 Shank Bit	/
11	O/Ring	SN120B0202	0.03				

SN Series — SN100A — 10″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 5 1/2" REG	NUMA100 with Foot Valve	1432 mm	225 mm	283 kg	254-311 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		25-50 RPM		40 m^3/min	60 m^3/min

Parts List



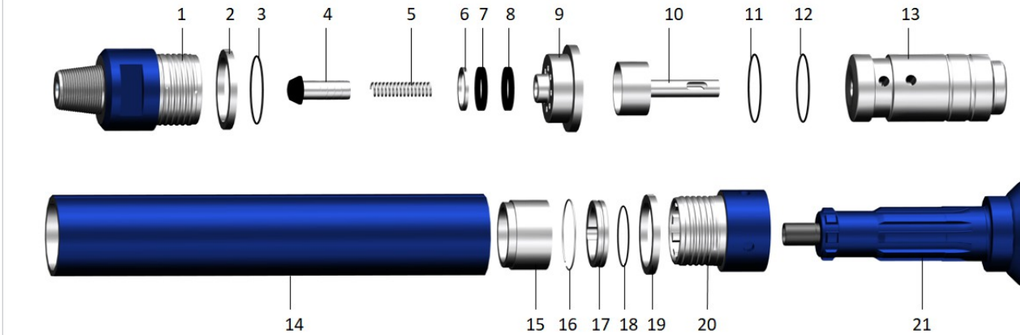
Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SN100A0101	60	7	Piston	SN100A1401	71
2	O/Ring	SN100A0201	0.04	8	Piston Case	SN100A0301	85
3	Check Valve	SN100A0501	1.5	9	Retainer Ring	SN100A1901	2.8
4	Spring	SN100A0701	0.2	10	O/Ring	SN100A0201	0.04
5	Valve Seat	SN100A1101	12.8	11	Drive Sub	SN100A2001	21
6	Inner Cylinder	SN100A1301	13.5	12	Drill Bit	NUMA100 Shank Bit	/

SN Series — SN125A — 12″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 6 5/8" REG	NUMA125 with Foot Valve	1785 mm	305 mm	698 kg	330-400 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 MPa		25-45 RPM		46 m^3/min	58 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SN120A0101	164	12	O/Ring	SN120A0203	0.03
2	Washer	SN120A2401	1.5	13	Piston	SN120A1401	154
3	O/Ring	SN120A0201	0.04	14	Piston Case	SN120A0301	247
4	Check Valve	SN120A0501	1.5	15	Guided Sleeve	SN120B1701	13
5	Spring	SN120A0701	0.2	16	Circlip	SN120B2801	0.2
6	Squashing Ring	SN120A2402	0.7	17	Retainer Ring	SN120A1901	7
7	Rubber Buffer	SN120A2403	0.3	18	O/Ring	SN120A0201	0.3
8	Rubber Buffer	SN120A2404	0.3	19	Washer	SN120A2402	1.5
9	Valve Seat	SN120A1101	12	20	Drive Sub	SN120A2001	69
10	Central Control Tube	SN120A1001	27.4	21	Drill Bit	NUMA120 Shank Bit	/
11	O/Ring	SN120A0202	0.03				

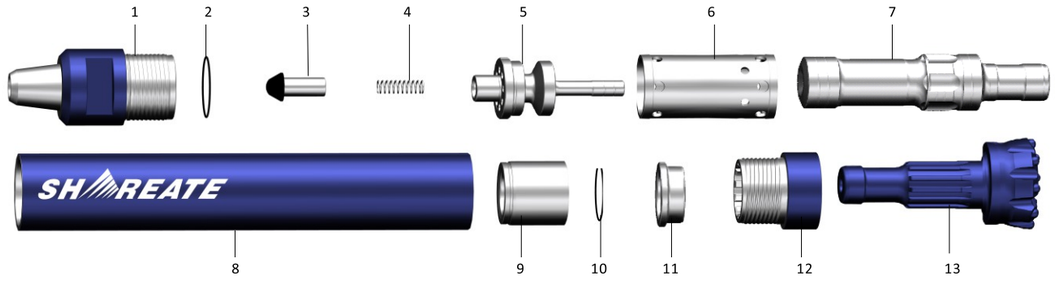
SX Series — SX45B

4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	SH4 without Foot Valve	865 mm	100 mm	35 kg	108-135 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-1.9 MPa		30-60 RPM		5.5 m^3/min	9 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX45B0101	7.4	8	Piston Case	SX45B0301	11.6
2	O/Ring	SX45B0201	0.01	9	Guided Sleeve	SX45B1701	1.5
3	Check Valve	SX45B0501	0.3	10	Stop Ring	SX45B2801	0.03
4	Spring	SX45B0701	0.04	11	Retainer Ring	SX45B1901	0.02
5	Valve Seat	SX45B1101	1	12	Driver Chuck	SX45B2001	3.3
6	Inner Cylinder	SX45B1301	1.5	13	Drill Bit	SH4 Shank Bit	/
7	Piston	SX45B1401	8				

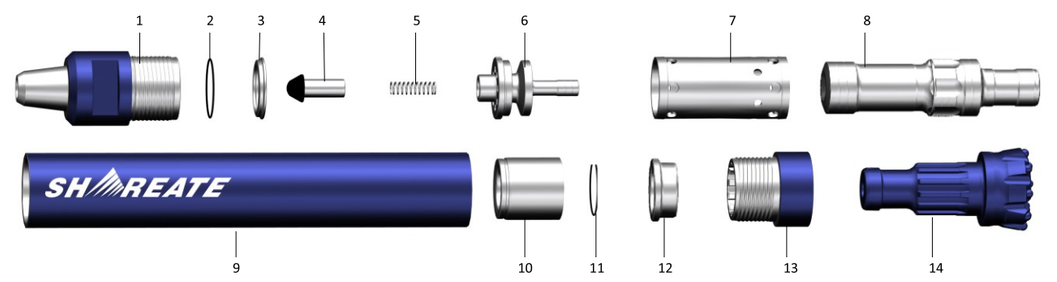
SX Series — SX55B

5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	SH5 without Foot Valve	970 mm	126 mm	64 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.2-2.2 Mpa		30-60 RPM		7.5 m^3/min	12 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX55B0101	14.2	8	Piston	SX55B1401	12
2	O/Ring	SX55B0201	0.02	9	Piston Case	SX55B0301	22.7
3	Dis Spring	SX55B2501	0.2	10	Guided Sleeve	SX55B1701	3.1
4	Check Valve	SX55B0501	0.4	11	Stop Ring	SX55B2801	0.02
5	Spring	SX55B0702	0.1	12	Retainer Ring	SX55B0201	0.7
6	Valve Seat	SX55B1101	2.5	13	Driver Chuck	SX55B2001	5.7
7	Inner Cylinder	SX55B1301	2.3	14	Drill Bit	SH5 Shank Bit	/

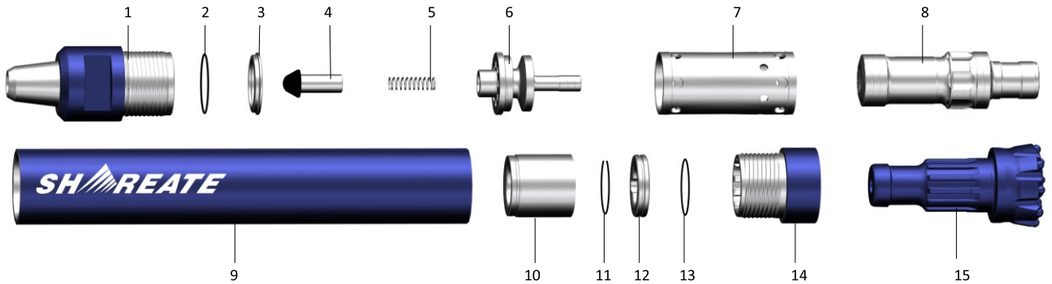
SX Series — SX65B

6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	SH6 without Foot Valve	1131 mm	148 mm	101 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.2-2.7 MPa		30-60 RPM		16 m^3/min	23 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX65B0101	21.5	9	Piston Case	SX65B0301	33
2	O/Ring	M65B0201	0.02	10	Guide Sleeve	SX65B1701	5.5
3	Disc Spring	SX65B2501	0.34	11	Stop Ring	SX65B2801	0.03
4	Check Valve	SX65B0501	0.56	12	Retainer Ring	SX65B1901	1
5	Spring	SX65B0701	0.2	13	O/Ring	SX65B0201	0.02
6	Valve Seat	SX65B1101	4.3	14	Driver Chuck	SX65B2001	7
7	Inner Cylinder	SX65B1301	4.2	15	Drill Bit	SH6 Shank Bit	/
8	Piston	SX65B1401	23				

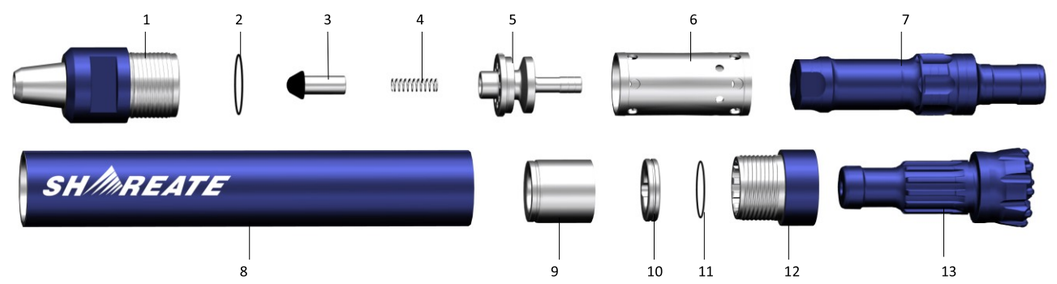
SX Series — SX85B

8″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	SH8 without Foot Valve	1265 mm	185 mm	181 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 Mpa		30-60 RPM		25 m^3/min	34 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX85B0101	38.5	8	Piston Case	SX85B0301	63
2	O/Ring	SX85B0201	0.02	9	Guide Sleeve	SX85B1701	6.8
3	Check Valve	SX85B0501	0.7	10	Retainer Ring	SX85B1901	1.3
4	Spring	SX85B0701	0.3	11	O/Ring	SX85B0201	0.02
5	Valve Seat	SX85B1101	6.2	12	Driver Chuck	SX85B2001	12.6
6	Inner Cylinder	SX85B1301	7.4	13	Drill Bit	SH8 Shank Bit	/
7	Piston	SX85B1401	44.5				

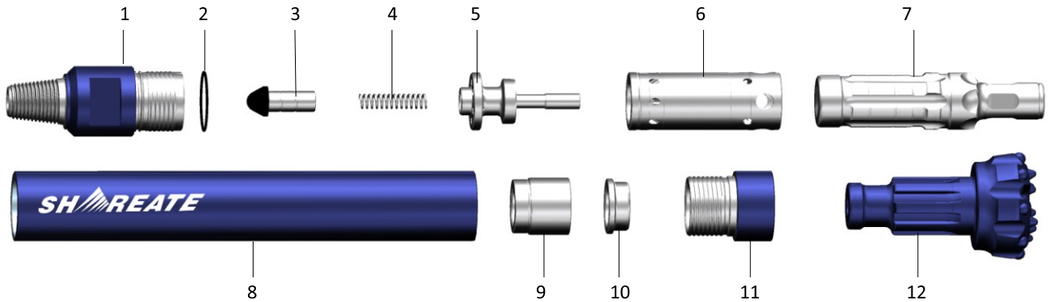
SW Series — SW45B

4″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 2 3/8" REG	SW4 without Foot Valve	839 mm	101 mm	41.5 kg	115-127 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.5 MPa		30-60 RPM		5 m^3/min	9 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SW45B0101	8.4	7	Piston	SW45B1401	7.85
2	O/Ring	F45B0201	0.01	8	Piston Case	SW45B0301	11.5
3	Check Valve	F45B0501	0.15	9	Guide Sleeve	SW45B1701	1.75
4	Spring	F45B0701	0.2	10	Retainer Ring	SW45B1901	0.4
5	Valve Seat	SW45B1101	1.3	11	Drive Sub	SW45B2001	3.0
6	Inner Cylinder	SW45B1301	1.6	12	Drill Bit	SW4 Shank Bit	/

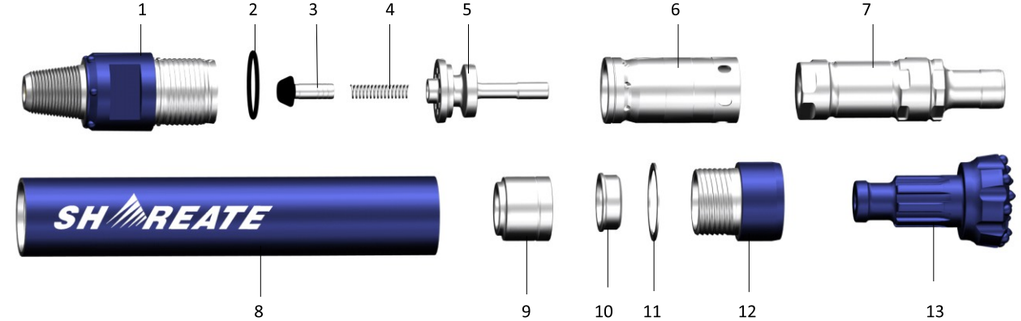
SW Series — SW55B

5″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	SW5 without Foot Valve	954 mm	127 mm	62 kg	136-156 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.0 MPa	1.8 MPa
1.0-2.5 Mpa		30-60 RPM		7 m^3/min	13 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SW56B0101	15	8	Piston Case	SW56B0301	19.6
2	O/Ring	SW56B0201	0.01	9	Guide Sleeve	SW56B1701	2.7
3	Check Valve	SW56B0501	0.2	10	Retainer Ring	SW56B1901	0.6
4	Spring	SW56B0701	0.02	11	Gasket	SW56B2701	0.1
5	Valve Seat	SW56B1101	2.1	12	Drive Sub	SW56B2001	5.5
6	Inner Cylinder	SW56B1301	2.8	13	Drill Bit	SW5 Shank Bit	/
7	Piston	SW56B1401	13.4				

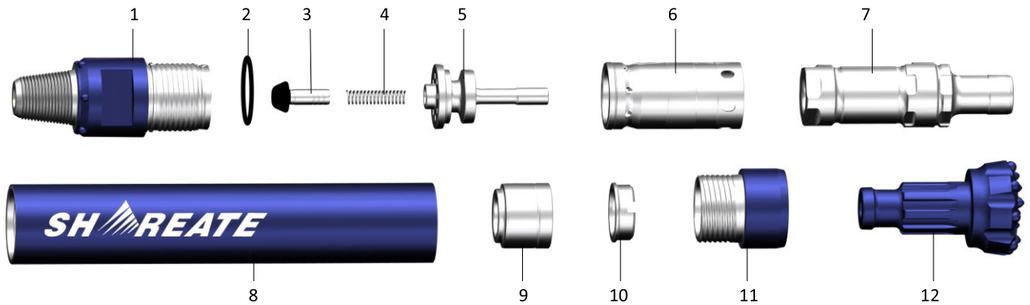
SW Series — SW65B

6″

General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 3 1/2" REG	SW6 without Foot Valve	950 mm	148 mm	93 kg	158-203 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.0-2.5 MPa		30-60 RPM		20 m^3/min	28 m^3/min

Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX65B0101	20.1	7	Piston	SW65B1401	21
2	O/Ring	SW65B0201	0.01	8	Piston Case	SW65B0301	30
3	Check Valve	SW65B0501	0.8	9	Guide Sleeve	SW65B1701	4.3
4	Spring	SW65B0701	0.05	10	Retainer Ring	SW65B1901	1.3
5	Valve Seat	SW65B1101	3.6	11	Drive Sub	SW65B2001	5.5
6	Inner Cylinder	SW65B1301	4.4	12	Drill Bit	SW6 Shank Bit	/

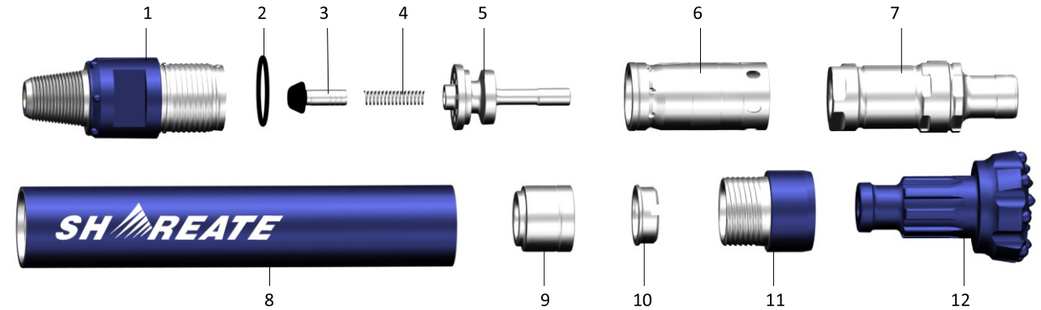
SW Series — SW85B

8″

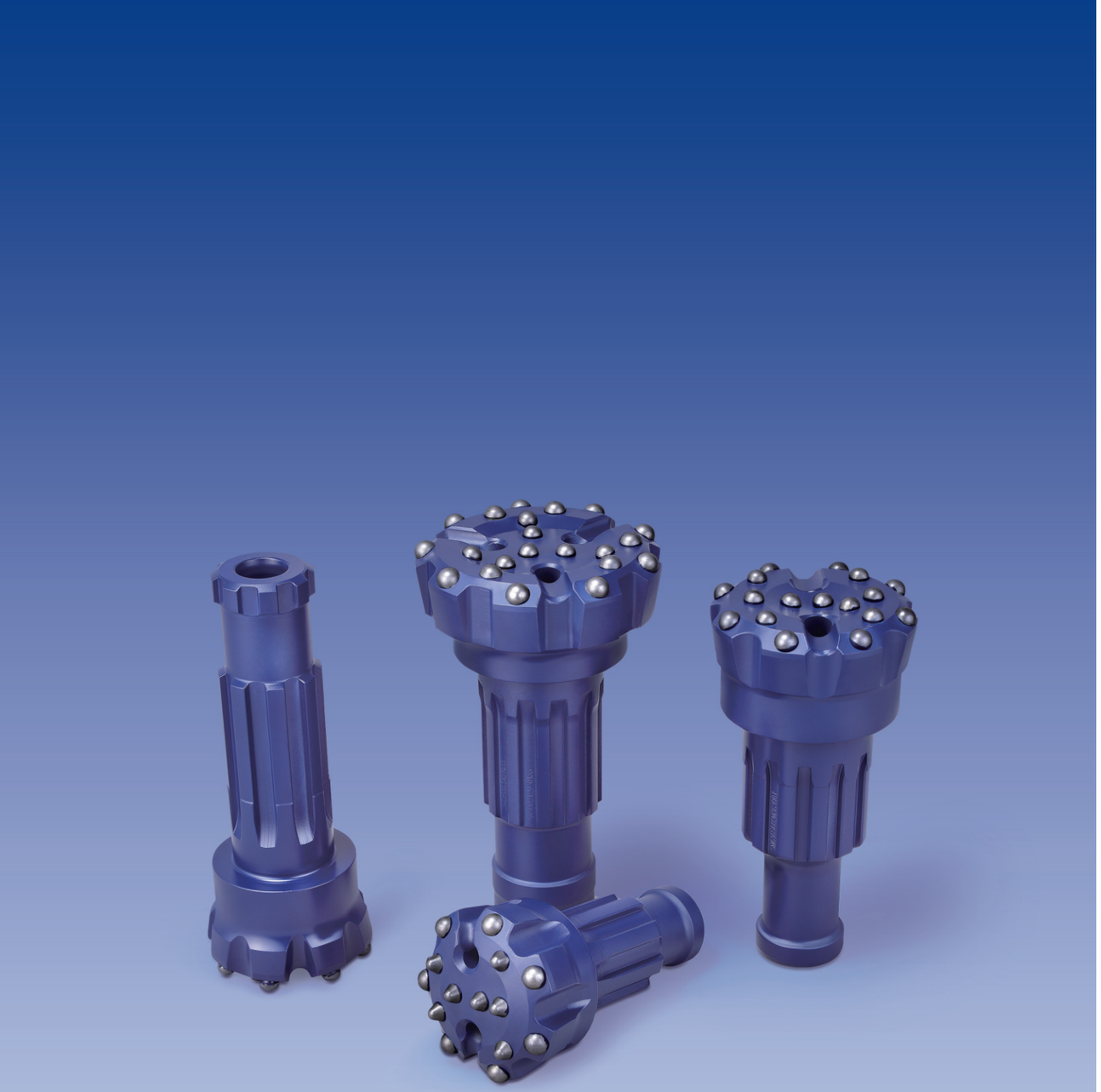
General Specification

Connection Joint	Bit Shank	Length W/O Bit	Outer Diameter	Weight	Bit Size
API 4 1/2" REG	SW8 without Foot Valve	1132 mm	178 mm	177 kg	198-254 mm
Operating Air Pressure		Recommended rotation speed		Air consumption	
				1.8 MPa	2.4 MPa
1.5-3.3 Mpa		30-60 RPM		25 m^3/min	34 m^3/min

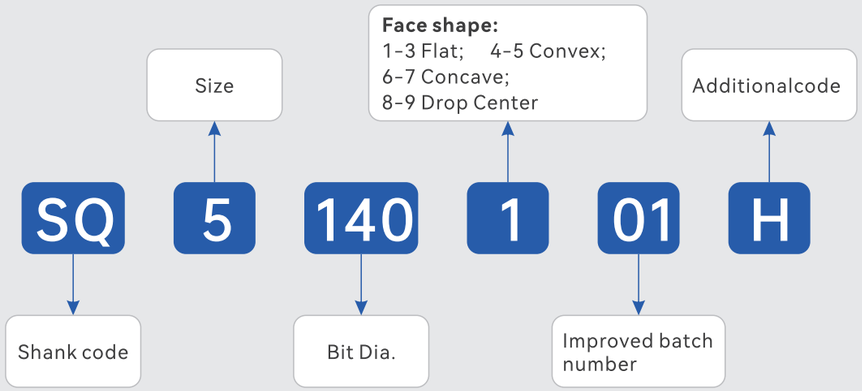
Parts List



Item	Description	Part No.	Weight(Kg)	Item	Description	Part No.	Weight(Kg)
1	Top Sub	SX85B0101	42	7	Piston	SW85B1401	44
2	O/Ring	SW85B0201	0.01	8	Piston Case	SW85B0301	55.6
3	Check Valve	SW85B0501	0.8	9	Guide Sleeve	SW85B1701	5.2
4	Spring	SW85B0701	0.05	10	Retainer Ring	SW85B1901	2
5	Valve Seat	SW85B1101	6.7	11	Drive Sub	SW85B2001	13.2
6	Inner Cylinder	SW85B1301	7.7	12	Drill Bit	SW8 Shank Bit	/



Naming of DTH Bits

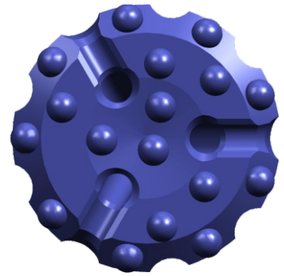


Shank	Code
DHD	DH
QL	SQ
Mission	SM
SD	SD
SN	NUMA
SH	SH
SW	SW

Products series of DTH Bit

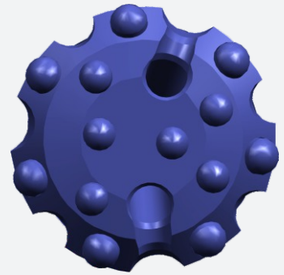
Product Series	Product Introduction
SQ Series	The SQ Series belongs to the QL product line, currently covering QL40~QL80 sizes, available in both with or without foot valve bit configurations. Suitable for various drilling applications including open-pit mining, quarry blasting holes, water wells, and geothermal wells.
DH Series	The DH Series represents the DHD product line, currently offering 4-8 inch sizes in both with or without foot valve bit designs. Ideal for applications such as open-pit mining, quarry blast holes, water wells, and geothermal drilling.
SD Series	The SD Series covers 4-12 inch size range. Designed for versatile drilling operations including open-pit mining, quarry blasting, water well drilling, and geothermal installations.
SM Series	The SM Series is part of the MISSION product family, currently available in 4-8 inch sizes. Engineered for demanding applications like open-pit mining, quarry blasting, water wells, and geothermal projects.
SN Series	The SN Series belongs to the NUMA product line, specializing in large 10-12 inch sizes. Optimized for heavy-duty drilling in open-pit mining, quarry blasting, deep water wells, and geothermal systems.
SH Series	The SH series is the new Fast Hammer X series, currently covering sizes from 4 to 8 inches. It is suitable for various drilling applications, including open-pit mining, quarry blasting holes, water wells, geothermal wells, etc.
SW Series	The SW series is the new Fast Hammer W series, currently covering sizes from 4 to 8 inches. It is suitable for various drilling applications, including open-pit mining, quarry blasting holes, water wells, geothermal wells, etc.

Bit Face Selection



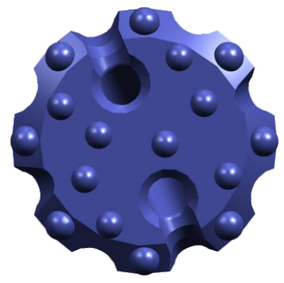
Concave Face

Suitable for most rock formations, most effective in the medium-hard and homogeneous rock formations. The face feature helps to reduce deviation and allows good cutting flushing on bit face.



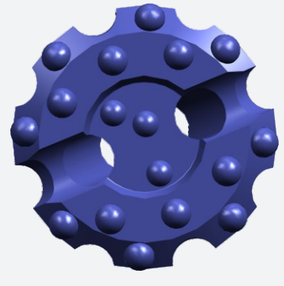
Convex Face

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 general 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 patterns 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.

Carbide Shape Selections



Spherical Button

Spherical button is the most common shape used on DTH drill bit. It provides excellent penetration in medium, hard and broken formations, suitable in most types of drilling.



Ballistic Button

Ballistic button has an very aggressive profile that protrudes out farther than most of the other carbide shapes. This button has the highest penetration rate and rock breaking efficiency, and is mostly used in softer formation.



Flat Button

Flat button is used mainly as an additional protection feature on the DTH bit. It is placed on areas where extreme wear occurs to reduce bit body wear in the area.



Ogive Button

Ogive button has a higher aggressive profile that protrudes out farther than spherical button . This button has the higher penetration rateand rock breaking efficiency, and is mostly used in softer formation.

DTH Bits List

DHD Series							
Bit Specification	Bit Face shape	Bit Dia. (mm)	NO. Air Holes	Gauge Buttons	Front Buttons	Weight (Kg)	Part No.
DH35	Flat Convex Concave Drop Center	90	2	6×Φ14	5×ϕ12	4.7	DH3-90
		95	2	6×Φ14	5×ϕ12	4.8	DH3-95
		100	2	6×Φ14	6×ϕ12	4.9	DH3-100
		108	2	8×Φ13	6×ϕ12	5.4	DH3-108
DH45	Flat Convex Concave Drop Center	105	2	6×Φ14	5×ϕ13	8.5	DH4-105
		110	2	7×Φ14	6×ϕ13	8.8	DH4-110
		115	2	7×Φ14	6×ϕ13	9.0	DH4-115
		120	2	8×Φ14	7×ϕ13	11.0	DH4-120
		127	2	8×Φ14	7×ϕ13	12.1	DH4-127
DH55	Flat Convex Concave Drop Center	135	2	7×Φ18	6×ϕ14	16.0	DH5-135
		140	2	7×Φ18	7×ϕ14	17.5	DH5-140
		146	2	7×Φ18	7×ϕ14	18	DH5-146
		152	2	8×Φ18	8×ϕ14	17.5	DH5-152
		156	2	8×Φ18	8×ϕ16	17.9	DH5-156
		165	2	8×Φ18	8×ϕ16	18.5	DH5-165
DH65	Flat Convex Concave Drop Center	152	2	8×Φ18	7×ϕ16	22.0	DH6-152
		165	2	8×Φ18	8×ϕ16	26	DH6-165
		171	2	8×Φ18	8×ϕ18	27.2	DH6-171
		190	2	10×Φ19	10×ϕ18	29.0	DH6-190
		203	2	10×Φ19	12×ϕ18	30.3	DH6-203
DH85	Flat Convex Concave Drop Center	203	2	10×Φ18	14×ϕ16	40.0	DH8-203
		216	2	10×Φ18	15×ϕ16	49.0	DH8-216
		235	2	12×Φ18	16×ϕ18	58.0	DH8-235
		254	2	12×Φ18	18×ϕ18	71.0	DH8-254

We can add double gauge row button, gauge protection button and back reaming button on the design. Also, we do customization on bit diameter, air holes, carbide shape and face shape according to the customer requirements.

DTH Bits List

QL Series

Bit Specification	Bit Face shape	Bit Dia. (mm)	NO. Air Holes	Gauge Buttons	Front Buttons	Weight (Kg)	Part No.
SQ4	Flat Convex Concave Drop Center	105	2	6×Φ14	5×ϕ13	9.0	SQ4-105
		110	2	7×Φ14	6×ϕ13	9.2	SQ4-110
		115	2	7×Φ14	6×ϕ13	9.5	SQ4-115
		120	2	8×Φ14	7×ϕ13	10.3	SQ4-120
		127	2	8×Φ14	7×ϕ13	11.5	SQ4-127
SQ5	Flat Convex Concave Drop Center	135	2	7×Φ18	6×ϕ14	15.5	SQ5-135
		140	2	7×Φ18	7×ϕ14	16.0	SQ5-140
		146	2	7×Φ18	7×ϕ14	16.5	SQ5-146
		152	2	8×Φ18	8×ϕ14	17.0	SQ5-152
		156	2	8×Φ18	8×ϕ16	17.3	SQ5-156
		165	2	8×Φ18	8×ϕ16	18.0	SQ5-165
SQ6	Flat Convex Concave Drop Center	152	2	8×Φ18	7×ϕ16	26.0	SQ6-156
		165	2	8×Φ18	8×ϕ16	27.0	SQ6-165
		171	2	8×Φ18	8×ϕ18	27.8	SQ6-171
		190	2	10×Φ19	10×ϕ18	32.0	SQ6-190
		203	2	10×Φ19	12×ϕ18	34.0	SQ6-203
SQ8	Flat Convex Concave Drop Center	203	2	10×Φ18	14×ϕ16	41.0	SQ8-203
		216	2	10×Φ18	15×ϕ16	44.0	SQ8-216
		235	2	12×Φ18	16×ϕ18	49.0	SQ8-235
		254	2	12×Φ18	18×ϕ18	53.2	SQ8-254

We can add double gauge row button, gauge protection button and back reaming button on the design. Also, we do customization on bit diameter, air holes, carbide shape and face shape according to the customer requirements.

DTH Bits List

MISSION Series

Bit Specification	Bit Face shape	Bit Dia. (mm)	NO. Air Holes	Gauge Buttons	Front Buttons	Weight (Kg)	Part No.
SM45	Flat Convex Concave Drop Center	105	2	6×Φ14	5×ϕ13	9.0	SM4-105
		110	2	7×Φ14	6×ϕ13	9.2	SM4-110
		115	2	7×Φ14	6×ϕ13	9.5	SM4-115
		120	2	8×Φ14	7×ϕ13	10.3	SM4-120
		127	2	8×Φ14	7×ϕ13	11.5	SM4-127
SM55	Flat Convex Concave Drop Center	135	2	7×Φ18	6×ϕ14	15.5	SM5-135
		140	2	7×Φ18	7×ϕ14	16.0	SM5-140
		146	2	7×Φ18	7×ϕ14	16.5	SM5-146
		152	2	8×Φ18	8×ϕ14	17.0	SM5-152
		156	2	8×Φ18	8×ϕ16	17.3	SM5-156
		165	2	8×Φ18	8×ϕ16	18.0	SM5-165
SM65	Flat Convex Concave Drop Center	152	2	8×Φ18	7×ϕ16	26.0	SM6-156
		165	2	8×Φ18	8×ϕ16	27.0	SM6-165
		171	2	8×Φ18	8×ϕ18	27.8	SM6-171
		190	2	10×Φ19	10×ϕ18	32.0	SM6-190
		203	2	10×Φ19	12×ϕ18	34.0	SM6-203
SM85	Flat Convex Concave Drop Center	203	2	10×Φ18	14×ϕ16	41.0	SM8-203
		216	2	10×Φ18	15×ϕ16	44.0	SM8-216
		235	2	12×Φ18	16×ϕ18	49.0	SM8-235
		254	2	12×Φ18	18×ϕ18	53.2	SM8-254

We can add double gauge row button, gauge protection button and back reaming button on the design. Also we do customization on bit diameter, air holes, carbide shape and face shape according to the customer requirements.

DTH Bits List

SD Series							
Bit Specification	Bit Face shape	Bit Dia. (mm)	NO. Air Holes	Gauge Buttons	Front Buttons	Weight (Kg)	Part No.
SD45	Flat Convex Concave Drop Center	105	2	6×Φ14	5×ϕ13	9.0	SD4-105
		110	2	7×Φ14	6×ϕ13	9.5	SD4-110
		115	2	7×Φ14	6×ϕ13	9.8	SD4-115
		120	2	8×Φ14	7×ϕ13	11.5	SD4-120
		127	2	8×Φ14	7×ϕ13	12.3	SD4-127
SD55	Flat Convex Concave Drop Center	135	2	7×Φ18	6×ϕ14	15.7	SD5-135
		140	2	7×Φ18	7×ϕ14	16.0	SD5-140
		146	2	7×Φ18	7×ϕ14	16.5	SD5-146
		152	2	8×Φ18	8×ϕ14	17.0	SD5-152
		156	2	8×Φ18	8×ϕ16	17.3	SD5-156
		165	2	8×Φ18	8×ϕ16	18.0	SD5-165
SD65	Flat Convex Concave Drop Center	152	2	8×Φ18	7×ϕ16	26.0	SD6-156
		165	2	8×Φ18	8×ϕ16	27.0	SD6-165
		171	2	8×Φ18	8×ϕ18	27.8	SD6-171
		190	2	10×Φ19	10×ϕ18	32.0	SD6-190
		203	2	10×Φ19	12×ϕ18	34.0	SD6-203
SD85	Flat Convex Concave Drop Center	203	2	10×Φ18	14×ϕ16	37	SD8-203
		216	2	10×Φ18	15×ϕ16	48.0	SD8-216
		235	2	12×Φ18	16×ϕ18	55	SD8-235
		254	2	12×Φ18	18×ϕ18	70	SD8-254

We can add double gauge row button, gauge protection button and back reaming button on the design. Also, we do customization on bit diameter, air holes, carbide shape and face shape according to the customer requirements.

DTH Bits List

SN Series							
Bit Specification	Bit Face shape	Bit Dia. (mm)	NO. Air Holes	Gauge Buttons	Front Buttons	Weight (Kg)	Part No.
SN100	Flat Convex Concave Drop Center	254	2	12×Φ19	8×ϕ18+19×ϕ16	89	SN10-254
		275	2	12×Φ19	8×ϕ18+20×ϕ16	94	SN10-275
		305	3	15×Φ19	27×ϕ18+8×ϕ16	104	SN10-305
		325	3	15×Φ19	27×ϕ18+9×ϕ16	112	SN10-325
		350	4	16×Φ19	32×ϕ18+14×ϕ16	121	SN10-350
		400	4	16×Φ19	40×ϕ18+25×ϕ16	147	SN10-400
SN125	Flat Convex Concave Drop Center	305	3	15×Φ20	27×ϕ18+8×ϕ16	175.4	SN12-305
		311	3	15×Φ20	27×ϕ18+8×ϕ16	176	SN12-311
		325	3	15×Φ20	27×ϕ18+9×ϕ16	185	SN12-325
		350	4	16×Φ20	32×ϕ18+13×ϕ16	200	SN12-350
		381	4	16×Φ20	36×ϕ18+18×ϕ16	213	SN12-381
		400	4	16×Φ20	40×ϕ18+28×ϕ16	229	SN12-400
		445	4	20×Φ20	48×ϕ18+25×ϕ16	267	SN12-445
		500	4	24×Φ20	90×ϕ18	322	SN12-500

We can add double gauge row button, gauge protection button and back reaming button on the design. Also, we do customization on bit diameter, air holes, carbide shape and face shape according the customer requirements.

DTH Bits List

SH Series							
Bit Specification	Bit Face shape	Bit Dia. (mm)	NO. Air Holes	Gauge Buttons	Front Buttons	Weight (Kg)	Part No.
SH45	Flat Convex Concave Drop Center	105	2	6×Φ14	5×ϕ13	8.5	SH4-105
		110	2	7×Φ14	6×ϕ13	8.8	SH4-110
		115	2	7×Φ14	6×ϕ13	9.0	SH4-115
		120	2	8×Φ14	7×ϕ13	11.0	SH4-120
		127	2	8×Φ14	7×ϕ13	12.1	SH4-127
SH55	Flat Convex Concave Drop Center	135	2	7×Φ18	6×ϕ14	16.0	SH5-135
		140	2	7×Φ18	7×ϕ14	17.5	SH5-140
		146	2	7×Φ18	7×ϕ14	18	SH5-146
		152	2	8×Φ18	8×ϕ14	17.5	SH5-152
		156	2	8×Φ18	8×ϕ16	17.9	SH5-156
		165	2	8×Φ18	8×ϕ16	18.5	SH5-165
SH65	Flat Convex Concave Drop Center	152	2	8×Φ18	7×ϕ16	22.0	SH6-152
		165	2	8×Φ18	8×ϕ16	26	SH6-165
		171	2	8×Φ18	8×ϕ18	27.2	SH6-171
		190	2	10×Φ19	10×ϕ18	29.0	SH6-190
		203	2	10×Φ19	12×ϕ18	30.3	SH6-203
SH85	Flat Convex Concave Drop Center	203	2	10×Φ18	14×ϕ16	40.0	SH8-203
		216	2	10×Φ18	15×ϕ16	49.0	SH8-216
		235	2	12×Φ18	16×ϕ18	58.0	SH8-235
		254	2	12×Φ18	18×ϕ18	71.0	SH8-254

We can add double gauge row button, gauge protection button and back reaming button on the design. Also we do customization on bit diameter, air holes, carbide button shape and face shape according the customer requirements.

DTH Bits List

SW Series							
Bit Specification	Bit Face shape	Bit Dia. (mm)	NO. Air Holes	Gauge Buttons	Front Buttons	Weight (Kg)	Part No.
SW4	Flat Convex Concave Drop Center	105	2	6×Φ14	5×ϕ13	9.0	SW4-105
		110	2	7×Φ14	6×ϕ13	9.2	SW4-110
		115	2	7×Φ14	6×ϕ13	9.5	SW4-115
		120	2	8×Φ14	7×ϕ13	10.3	SW4-120
		127	2	8×Φ14	7×ϕ13	11.5	SW4-127
SW5	Flat Convex Concave Drop Center	135	2	7×Φ18	6×ϕ14	15.5	SW5-135
		140	2	7×Φ18	7×ϕ14	16.0	SW5-140
		146	2	7×Φ18	7×ϕ14	16.5	SW5-146
		152	2	8×Φ18	8×ϕ14	17.0	SW5-152
		156	2	8×Φ18	8×ϕ16	17.3	SW5-156
		165	2	8×Φ18	8×ϕ16	18.0	SW5-165
SW6	Flat Convex Concave Drop Center	152	2	8×Φ18	7×ϕ16	26.0	SW6-156
		165	2	8×Φ18	8×ϕ16	27.0	SW6-165
		171	2	8×Φ18	8×ϕ18	27.8	SW6-171
		190	2	10×Φ19	10×ϕ18	32.0	SW6-190
		203	2	10×Φ19	12×ϕ18	34.0	SW6-203
SW8	Flat Convex Concave Drop Center	203	2	10×Φ18	14×ϕ16	41.0	SW8-203
		216	2	10×Φ18	15×ϕ16	44.0	SW8-216
		235	2	12×Φ18	16×ϕ18	49.0	SW8-235
		254	2	12×Φ18	18×ϕ18	53.2	SW8-254

We can add double gauge row button, gauge protection button and back reaming button on the design. Also we do customization on bit diameter, air holes, carbide button shape and face shape according the customer requirements.

Compensation Provisions

DTH bit compensation provisions

Free replacement

- When drilling hard rocks such as granite and quartz sandstone, the wear width 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 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 Hammer

Free maintenance and replacement

- In the early stage, the hammer 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 driling, 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

- 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 drlling 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.