

DOWN THE HOLE ROCK DRILLING TOOLS

2020



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WORKING WITH SAFETY IN MIND

OPERATING THE HAMMER

- Only operate the controls while the engine is running
- Proper PPE must be worn when you are operating the drill rig and the hammer
- Before you move the drill rig with the hammer, ensure that no one will be endangered
- Do not go close to the edge of a cliff, an excavation or an overhang
- Maintain control of the drill rig while you operate the hammer. Operating the equipment beyond its design limits can cause damage to people or equipment
- Know the maximum operating dimensions of your drill rig when the hammer is installed
- Ensure that there is adequate clearance between the drill rig and any stationary objects when you are maneuvering the machine
- Know the appropriate work site hand signals, and the personnel who are authorized to give these hand signals

PROHIBITED USE OF MACHINERY

The hammer must only be operated by trained professionals. Never allow operation by anyone who is intoxicated, tired or feeling unwell. Use of the hammer in an explosive atmosphere (gasoline fumes, coal dust, etc.) is strictly prohibited.

HAMMER MAINTENANCE

Read through the safety procedures in the operator's manual before assembling or disassembling the hammer. Always keep the hammer in the correct position to avoid heavy parts which can fall from hammer. Use a proper assembly stand to avoid the falling-over or rolling-over of either the hammer or its parts. Always use tongs with jaws that place a uniform load on the outside diameter of the hammer. Never grip the hammer with pipe wrenches or wrenches that can deform and damage it. Always place tongs on the body of the bit, not on the carbides. Do not apply heat of any kind to the piston case in order to remove the driver sub or the top sub.

HEALTH AND SAFETY INFORMATION

ROUTES OF EXPOSURE

Grinding or heating hardmetal blanks or hardmetal products will produce dust or fumes with dangerous ingredients that can be inhaled or swallowed, or which might come in contact with the skin or eyes.

ACUTE TOXICITY

The dust is toxic by inhalation. Inhalation may cause irritation and inflammation in the airways. Skin contact can cause irritation and rash. Sensitized people may experience an allergic reaction.

CHRONIC TOXICITY

Repeated inhalation of aerosols containing cobalt may cause obstruction in the airways. Prolonged inhalation of increased concentrations may cause lung fibrosis or lung cancer. Cobalt is a potent skin sensitizer. Repeated or prolonged contact can cause sensitization.

CLASSIFICATION

Following hazard classification according to GHS/CLP applies to the hardmetal powder ($3\% \leq Co < 10\%$):
- Acute Inhalation 3, H331: Toxic if inhaled

- Carcinogenicity 1B, H350i, May cause cancer by inhalation
- Repr. 2, H361f; Suspected of damaging fertility
- STOT RE 1, H372: Causes damage to lungs through prolonged or repeated exposure through inhalation
- Resp. Sens. 1B, H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled
- Skin Sens.1, H317: May cause an allergic skin reaction.
- Aquatic Acute 1, H400: Very toxic to aquatic life
- Aquatic Chronic 2, H411: Toxic to aquatic life, with long lasting effects

PRECAUTIONARY STATEMENTS

- Do not breathe the dust
- Wear protective gloves/protective clothing/eye protection
- In case of inadequate ventilation, wear respiratory protection
- Avoid release into the environment

IF INHALED: If breathing is difficult, remove the victim to fresh air and keep them at rest in a position comfortable for breathing. If they are experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

SANDVIK ROCK TOOLS: A SUSTAINABLE CHOICE

Sandvik is committed to contributing to a sustainable world. This commitment is summarized by our sustainability agenda for 2030 with goals in four areas: "Make the Shift".



GLOBAL CARBIDE RECYCLING

Sandvik Rock Tools is world-leading in recycling cemented carbide. We view our customers' waste problem as an opportunity. By finding ways to make our own and our customers' businesses more energy efficient and environmentally friendly, we can grow together with high ethics and brand recognition.

The benefits are great with making tools from recycled solid carbide:

- 70% less energy
- 40% less CO₂ emissions

OPTIMIZED LOGISTICS CHAIN

Sandvik Rock Tools work closely with both customers and suppliers to optimize the entire logistics chain in order to reduce our global footprint. Between 2017 and 2019, Sandvik Rock Tools reduced its airfreight with 140%, and in all transportation we have reduced the CO₂ emissions with more than 33%!

MASTERING CEMENTED CARBIDES

Cemented carbides are a key to efficient and productive drilling. Whatever you're doing, we can ensure the right grade for the task. We are a world leader in research and development for cemented carbides. That know-how goes into every bit you order.

MATERIALS EXPERTISE

We continue to develop new hard material alloys to meet today's industry challenges. Tool performance is crucial when you're dealing with harder rock and mineral formations. The cemented carbide insert material's resistance to wear and fracturing is particularly important. Dual Property (DP) cemented carbides are our patented grades. Their properties are tailored to suit drilling conditions causing exceptional load or cemented carbide wear.

GRINDING OF CEMENTED CARBIDE

Grinding or heating a cemented carbide product will produce dust or fumes of hazardous ingredients that can be inhaled, swallowed or come in contact with the skin or eyes.

Cemented carbide contains two hazardous components: cobalt and tungsten carbide.

Cobalt may cause sensitization through inhalation or skin contact. Inhalation or skin contact may also cause irritation. Sensitive persons may experience an allergic reaction. Long-term inhalation of high concentrations may cause permanent respiratory disease.



XT48

Sandvik's standard cemented carbide grade for most drilling conditions. XT48 should be your first choice, especially when drilling in rock that is not fully known. Spherical XT48 inserts are optimized to withstand high load and wear.



DP55

This grade has wear resistance similar to XT48 but offers greater toughness. It is especially suited to ballistic inserts, accommodating the higher loads the insert may be exposed to because of the longer protrusion.



DP65

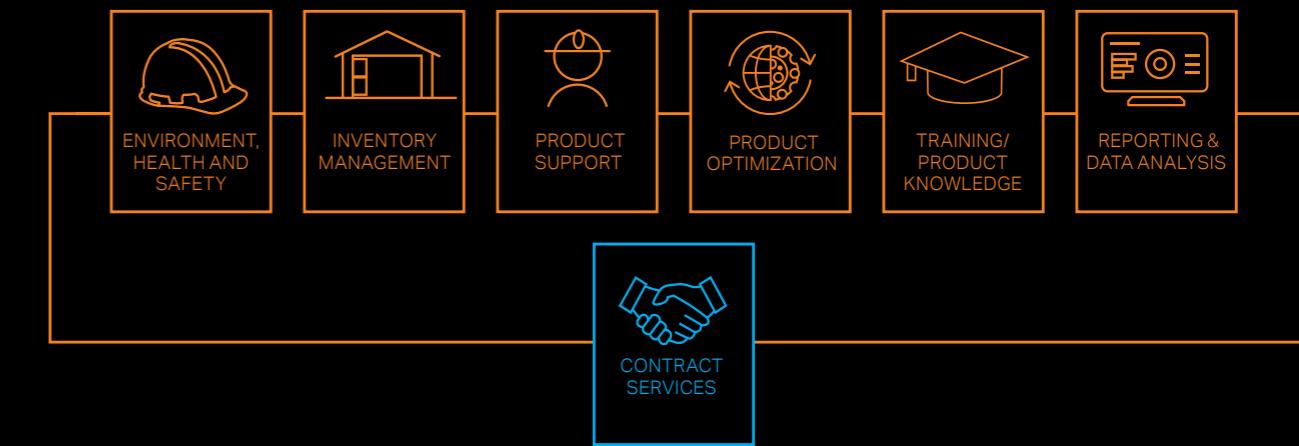
DP65 has similar toughness to XT48 but considerably higher wear resistance. This grade should be your first choice when drilling in very abrasive rock with large spherical inserts.





ROCK TOOLS SERVICES

Sandvik is a world-leader in the supply of mining and rock excavation tools and equipment. In addition to supplying your operation with the premium brand of rock tools, our range of added services and digital solutions support your drilling operations, everyday – all year round. And we can also take full responsibility for the supply and life cycle management of your tools with our Rock Tools Contract Services. Overall, we do everything we can to ensure you get maximum life, productivity and performance from your rock tools, so that you can achieve the lowest total drilling costs. With Sandvik Rock Tools Services, you will never work alone.



PROPER CARE MEANS MAXIMIZED UPTIME

LUBRICATION

It is extremely important that you provide the DTH hammer with a constant supply of good quality rock drill oil. This provides an air seal to reduce friction and prevent galling, when one hammer part is moving relative to another. Galling is a phenomenon that occurs when two pieces of metal rub against each other in the absence of a lubricant film between them. The excessive friction between these rubbing parts generates heat, which changes the properties of the metal, and which will consequently cause cracks in and breakage of the parts. This, therefore, leads to the loss of valuable production time.

Always make sure that you use the right rock drill oil for the climate and operating conditions at the work site.

CORROSION

Corrosion can, in a simplified way, be defined as the destructive attack on metal through interaction with its environment.

Most environments encountered while drilling are considered to be corrosive, to a greater or lesser degree, to the metal parts of hammers and bits. For example, the fatigue strength of a steel part could be reduced by 100 times in the presence of ordinary tap water. The most devastating type of corrosion encountered in hammers and bits is corrosion pitting, where an extremely localized chemical attack results in holes in the metal. Pitting acts as a stress-raiser, which initiates cracking. Many cracks emanating from these stress sites eventually join together to form a single crack front, which ultimately results in failure of the component through corrosion fatigue.

You can prevent corrosion failures by having a protective barrier between the bit and hammer components, and the environment. This is achieved through proper and diligent use of readily available protective materials, such as rock drill oils and thread lubricants.

SANDVIK RIGS AND HAMMERS – A PERFECT FIT

RIG	Max pressure [bar]	Max flow [m³/min]	4" hammer	5" hammer	6" hammer	8" hammer	RH460 4" HP *	RH460 5" HP *	RH460 6" HP *
SANDVIK D25KS	24	25.5/28.3	●	●	●●	○	○	○	○
SANDVIK D45KS	24	28.3	●	●	●	○	○	○	○
SANDVIK D55SP	24	38.2	●	●	●	●	○	○	○
SANDVIK D75KS	24	38.2	●	●	●	●	○	○	○
SANDVIK DR460	24	41.0	●	●	●	●	○	○	○
SANDVIK DR540	24	29.7	●	●	●	○	●*1	○*1	○
SANDVIK DR560	24	38.2	●	●	●	●	●*2	●*2	●
SANDVIK DR580	24	44.6	●	●	●	●	●*3	●*3	●
SANDVIK DI550	24	24.4	●	●	●	○	○	○	○
SANDVIK DI650i	30	28.3	●	●	●	○	○	○	○

● = excellent with rig

○ = works with rig

○ = not recommended

* 35 bar hammers:

*1 34.5 bar | 25.5 m³/min

*2 34.5 bar | 32.6 m³/min

*3 34.5 bar | 38.2 m³/min

SANDVIK RIGS AND HAMMERS – A PERFECT FIT

BOOSTER	Max pressure [bar]	Max flow [m³/min]	4" hammer	5" hammer	6" hammer	8" hammer
KR551	24	19	●	●	○	○
KR1101	24	38	●	●	●	●
KS921	28	19	●	●	○	○
KS1121	28	27	○	●	●	●
KS1501	28	34	○	○	●	●

● = excellent with booster

○ = works with booster

○ = not recommended with booster

NOTE: Available air may vary depending on rig configuration and inlet conditions.
Check rig specifications for available onboard or auxiliary boosters.



STANDARD DTH HAMMERS AND DRILL BITS

We offer one of the widest range of hammers and drill bits in the market. We pride ourselves on standard parts being in stock and delivered without delay from warehouse to our customers. Every product is of high, proven quality as only the best is good enough for Sandvik customers. No minimum quantity order required for all standard hammer and drill bit offering.

We offer one of the widest range of hammers and drill bits in the market.



TAKES DTH DRILLING TO NEW PERFORMANCE HEIGHTS

The Sandvik RH510 series of hammers deliver high performance and added value to most drilling applications.

This is achieved through a proprietary interface between the piston and bit. This optimizes impact energy transmission to boost penetration rates. The result will deliver excellent economy through high productivity. It is designed for operating pressures up to 24 bar (350 psi). The RH510 hammer does not require a foot valve in the bit further lowering the chance for down time. The unique design maximizes energy efficiency along with fuel savings and minimizes total drilling costs.

- Key features:
- Foot valve less bit shank
 - High performance
 - Simple design
 - Easy to service
 - Mirror impact concept

3" RH510 HAMMERS	24
4" RH510 HAMMERS	25
5" RH510 HAMMERS	26
6" RH510 HAMMERS	29
8" RH510 HAMMERS	33

RH510r

3"

RH510r

4"

Complete Hammer

2 3/8" API reg. pin top sub 32-5130-RMA-16S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT		Bit closed		Bit extended		
			mm	inch	mm	inch	mm	inch	
25	55	81.3	3.2	823	32.4	875	34.4	911	35.9
AIR CONSUMPTION, CFM									
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar				
172	304	436	4.87	8.61	12.34				

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs			
2 3/8" API reg. pin	5	11	33-3A001/16A
2. O-ring top sub (3) ID and OD			In seal kit
3. Check valve dart with spring	0.3	0.7	25-99006A
4. Check valve dart spring	0.02	0.01	22-99071
5. Check valve guide	0.23	0.5	39-3A001
6. Choke set, blank 1/8", 3/16", & 1/4"	0.1	0.2	29-48017A
7. Feed tube retainer pin	0.03	0.1	12-99021
8. Feed tube with retainer pin & blank choke	0.45	1	37-3A001A
9. Piston	3.86	8.5	BG00468603
10. Piston case with retainer ring	10.9	24	BG00468599
11. Piston retainer ring	0.05	0.1	23-99027
12. O-rings – guide sleeve, bit retainer			In seal kit
13. Guide sleeve with 2 O-rings (#12)	1	2.2	26-3A010A
14. Bit retainer ring with O-ring (#12)	0.09	0.2	27-3A006A
15. Driver sub	2.18	4.8	34-3A006
Seal kit			
3 piece of #2 & 3 of #12	0.25	0.5	38-3A056
Rebuild kit			
1 piece of #1, 1 of #10, 1 of #15 & seal kit			
2 3/8" API reg. pin	18.1	40	BG00478477
Bit shank			
M30			



Complete Hammer

2 3/8" API reg. pin top sub 32-5140-RMA-16S

2 7/8" API reg. pin top sub 32-5140-RMA-11S

2 3/8" API reg. pin top sub and hard faced driver sub 32-5140-TMA-16S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT		Bit closed		Bit extended		
			mm	inch	mm	inch	mm	inch	
38	83	98	3.56	914	36	989	38.9	1029	40.5

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M³/MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
180	370	560	5.1	10.5	15.9

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs with 3 O-rings			
2 3/8" API reg. pin	10	22	33-48001-1/16A
2 7/8" API reg. pin	10	22	33-48001-1/11A
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart (with spring)	0.3	0.66	25-99001A
5. Check valve spring	0.02	0.04	22-99071
6. Check valve guide	0.2	0.44	39-48001-1
7. Feed tube retainer pin	0.03	0.07	12-99014
8. Tuning ring for low volume (optional)	0.23	0.51	56-48552
9. Solid Feedtube with retainer pin	0.7	1.54	BG00785560
10. Piston	7	15.4	BG00387202
11. Piston case with retainer ring	15	33	BG00387230
12. Piston retainer ring	0.05	0.11	23-99029
13. O-rings guide sleeve & bit ret.			In seal kit
14. Guide sleeve with 2 O-rings (#14)	1.8	3.96	26-48J10A
15. Bit retainer ring with O-ring (#14)	0.23	0.51	27-48006A
16. Driver sub	3.2	7.04	34-48006
Driver sub hard faced			BG00718268
Optional			
Feed tube with retainer pin & blank choke	0.7	1.54	37-48001-1A
Choke set, blank 1/8", 3/16", & 1/4"	0.1	0.22	29-48017A
Seal kit			
1 piece of #2, 2 of #3 & 3 of #13	0.25	0.5	38-48056-1
Rebuild kit			
1 piece of #1, 1 of #11, 1 of #16 & seal kit			
2 3/8" API reg. pin	28	62	BG00475620
2 7/8" API reg. pin	28	62	BG00475753
2 3/8" API reg. pin & hard faced driver sub	28	62	BG00765621

Bit shank
M40

STANDARD DTH HAMMERS

STANDARD DTH BITS

DTH TUBE SYSTEMS

DRILL PIPES

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH BITS

RH510

5"

RH510g

5"

Complete Hammer

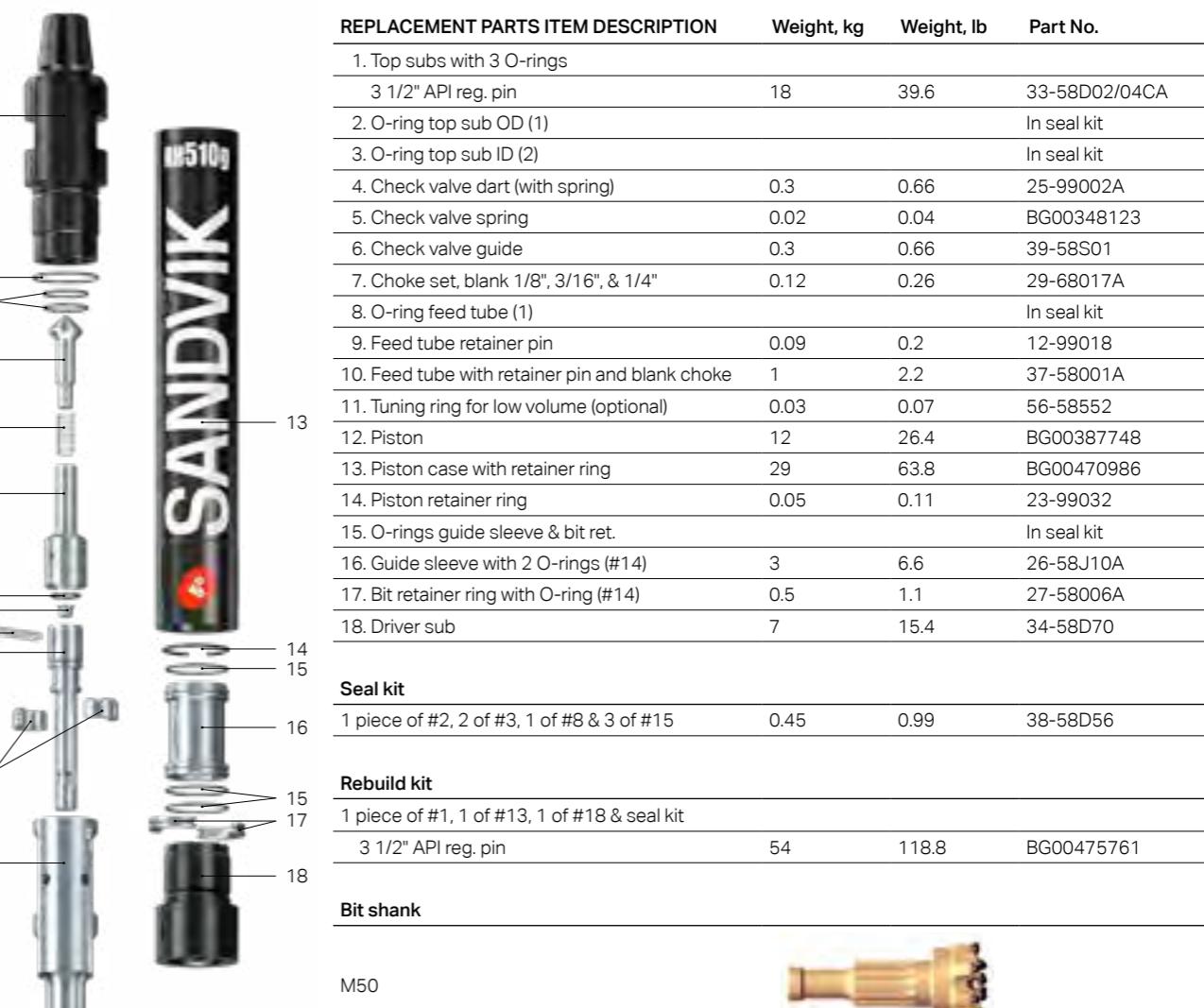
3 1/2" API reg. pin top sub

32-5150-SMA-04S

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT									
kg	lb	mm	inch	mm	inch	mm	inch	mm	inch						
68	145	120	4.72	987	38.86	1082	42.6	1122	44.2						
AIR CONSUMPTION, CFM					AIR CONSUMPTION, M ³ /MIN										
150 psi		250 psi		350 psi		10 bar		18 bar							
305		580		855		8.64		16.42							
Low volume option					24 bar										
285		540		790		8.07		15.25							



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs with 3 O-rings			
3 1/2" API reg. pin	10	22	33-58D01/04A
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart (with spring)	0.3	0.66	25-99002A
5. Check valve spring	0.02	0.04	BG00348123
6. Check valve guide	0.3	0.66	39-58S01
7. O-ring feed tube (1)			In seal kit
8. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.26	29-68017A
9. Feed tube retainer pin	0.09	0.2	12-99018
10. Feed tube with retainer pin and blank choke	1	2.2	37-58001A
11. Tuning ring for low volume (optional)	0.03	0.07	56-58552
12. Piston	12	26.4	BG00387748
13. Piston case with retainer ring	27	59.4	BG00473260
14. Piston retainer ring	0.05	0.11	23-99032
15. O-rings guide sleeve & bit ret.			In seal kit
16. Guide sleeve with 2 O-rings (#14)	3	6.6	26-58J10A
17. Bit retainer ring with O-ring (#14)	0.5	1.1	27-58006A
18. Driver sub	6	13.2	34-58D69
Seal kit			
1 piece of #2, 2 of #3, 1 of #7 & 3 of #15	0.45	0.99	38-58D56
Rebuild kit			
1 piece of #1, 1 of #13, 1 of #18 & seal kit			
3 1/2" API reg. pin	43	94.6	BG00475763
Bit shank			
M50			



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs with 3 O-rings			
3 1/2" API reg. pin	18	39.6	33-58D02/04CA
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart (with spring)	0.3	0.66	25-99002A
5. Check valve spring	0.02	0.04	BG00348123
6. Check valve guide	0.3	0.66	39-58S01
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.26	29-68017A
8. O-ring feed tube (1)			In seal kit
9. Feed tube retainer pin	0.09	0.2	12-99018
10. Feed tube with retainer pin and blank choke	1	2.2	37-58001A
11. Tuning ring for low volume (optional)	0.03	0.07	56-58552
12. Piston	12	26.4	BG00387748
13. Piston case with retainer ring	29	63.8	BG00470986
14. Piston retainer ring	0.05	0.11	23-99032
15. O-rings guide sleeve & bit ret.			In seal kit
16. Guide sleeve with 2 O-rings (#14)	3	6.6	26-58J10A
17. Bit retainer ring with O-ring (#14)	0.5	1.1	27-58006A
18. Driver sub	7	15.4	34-58D70
Seal kit			
1 piece of #2, 2 of #3, 1 of #7 & 3 of #15	0.45	0.99	38-58D56
Rebuild kit			
1 piece of #1, 1 of #13, 1 of #18 & seal kit			
3 1/2" API reg. pin	54	118.8	BG00475761
Bit shank			
M50			

RH510r

5"

RH510

6"

Complete Hammer

3 1/2" API reg. pin top sub	32-5155-RMA-04C
3 1/2" API reg. pin top sub and hard faced driver sub	32-5155-TMA-04C

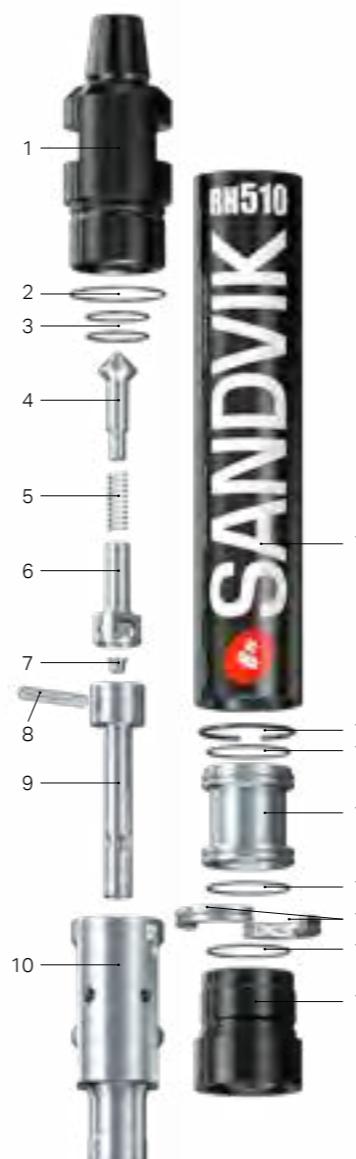
WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH WITH BIT	HAMMER LENGTH WITH BIT				
			Bit closed	Bit extended			
kg	lb	mm	inch	mm	inch	mm	inch
73	160	126	4.96	987	38.86	1082	42.6
						1122	44.2

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
305	580	855	8.64	16.42	24.21
Low volume option	285	540	790	8.07	15.25
					22.37

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs with 3 O-rings			
3 1/2" API reg. pin	18	39.6	33-58S02/04CA
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart (with spring)	0.3	0.66	25-99002A
5. Check valve spring	0.02	0.04	BG00348123
6. Check valve guide	0.3	0.66	39-58S01
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.26	29-68017A
8. O-ring feed tube (1)			In seal kit
9. Feed tube retainer pin	0.09	0.2	12-99018
10. Feed tube with retainer pin and blank choke	1	2.2	37-58001A
11. Tuning ring for low volume (optional)	0.03	0.07	56-58552
12. Piston	12	26.4	BG00387748
13. Piston case with retainer ring	29	63.8	BG00409895
14. Piston retainer ring	0.05	0.11	23-99032
15. O-rings guide sleeve & bit ret.			In seal kit
16. Guide sleeve with 2 O-rings (#14)	3	6.6	26-58J10A
17. Bit retainer ring with O-ring (#14)	0.5	1.1	27-58006A
18. Driver sub	7	15.4	34-58070
Driver sub hard faced	7.4	16.3	BG00629893
Seal kit			
1 piece of #2, 2 of #3, 1 of #8 & 3 of #15	0.45	0.99	38-58D56
Rebuild kit			
1 piece of #1, 1 of #13, 1 of #18 & seal kit			
3 1/2" API reg. pin	54	118.8	BG00475756
3 1/2" API reg. pin and hard faced driver sub	54.4	119.9	BG00767207

Bit shank

M50



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub with 3 O-rings			
3 1/2" API reg. pin	20	44	33-68D08/04A
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart with spring	0.3	0.66	22-99072
5. Check valve dart spring	0.02	0.044	BG00348123
6. Check valve guide	0.3	0.66	39-68001
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.264	29-68017A
8. Feed tube retainer pin	0.2	0.44	12-99013
9. Feed tube with retainer pin and blank choke	1	2.2	37-68601A
10. Piston	18	39.6	BG00210384
11. Piston case with retainer ring	33	72.6	BG00214914
12. Piston retainer ring	0.1	0.22	23-99028
13. O-rings – guide sleeve, bit retainer			In seal kit
14. Guide sleeve with 2 O-rings (#13)	4	8.8	26-68J10A
15. Bit retainer ring with O-ring (#13)	1	2.2	27-68006A
16. Driver sub	6	13.2	34-68D69

Seal kit

1 piece of #2, 2 of #3 & 3 of #13 0.25 0.55 38-68656

Rebuild kit

1 piece of #1, 1 of #13, 1 of #18 & seal kit
 3 1/2" API reg. pin 20 44 BG00474856

Bit shank

M60



STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL PIPES

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

RH510w

6"

RH510g

6"

Complete Hammer

3 1/2" API reg. pin

32-5160-WMA-04S

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	Bit closed		Bit extended	
						mm	inch	mm	inch
72	158	142	5.6	922	36.3	1008	39.7	1046	41.2
AIR CONSUMPTION, CFM				AIR CONSUMPTION, M ³ /MIN					
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar				
395	759	1120	11.2	21.5	31.7				
Low volume option	345	680	1000	9.8	19.3	28.3			



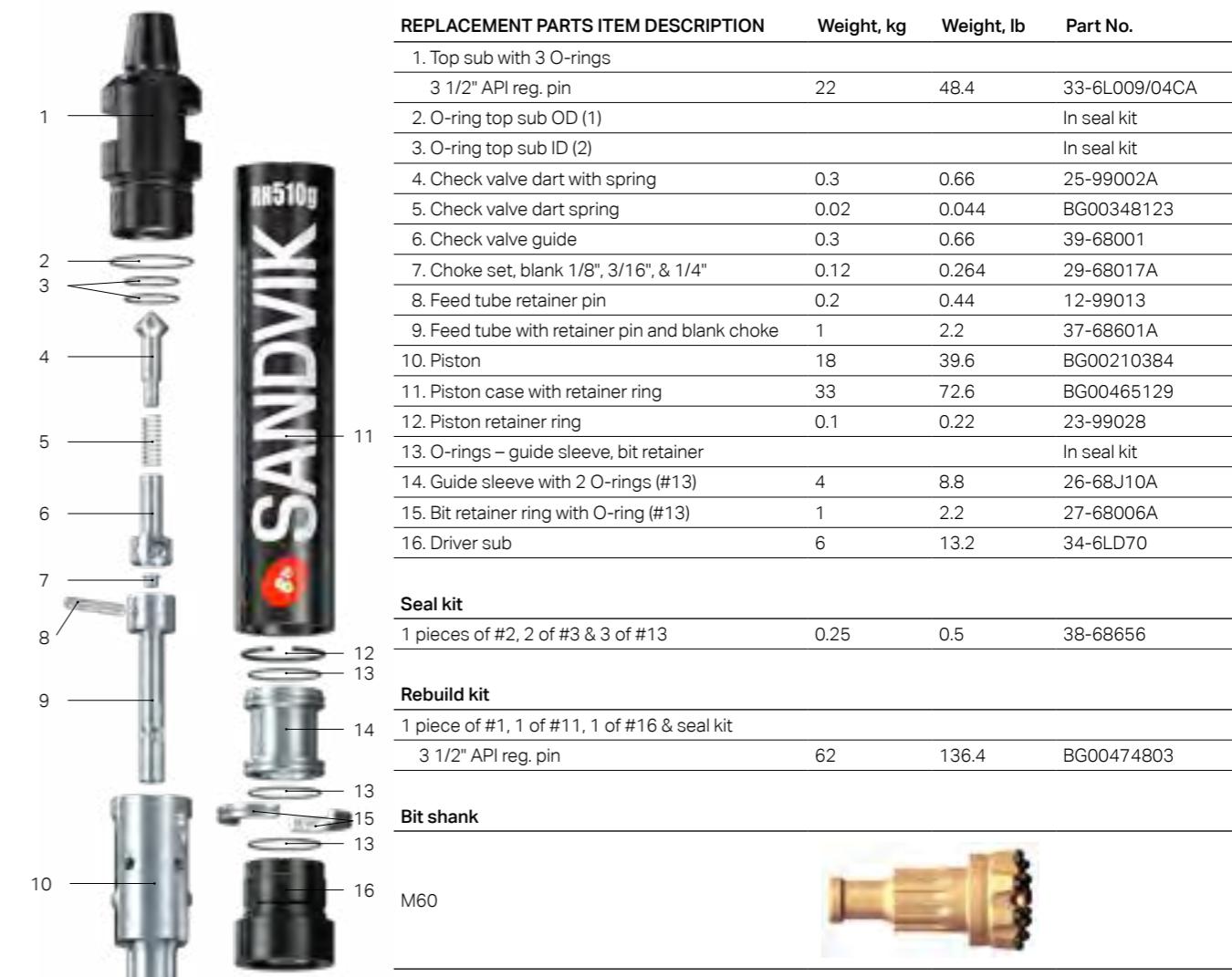
REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub with 3 O-rings			
3 1/2" API reg. pin	20	44	33-68N08/04A
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart with spring	0.3	0.66	25-99002A
5. Check valve dart spring	0.02	0.044	BG00348123
6. Check valve guide	0.3	0.66	39-68001
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.264	29-68017A
8. Feed tube retainer pin	0.2	0.44	12-99013
9. Tuning ring (optional)	0.4	0.9	56-68552
10. Feed tube with retainer pin and blank choke	1	2.2	37-68301A
11. Piston	18	39.6	BG00210384
12. Piston case with retainer ring	33	72.6	BG00214914
13. Piston retainer ring	0.1	0.22	23-99028
14. O-rings – guide sleeve, bit retainer (3 req.)			In seal kit
15. Guide sleeve with 2 O-rings (#13)	4	8.8	26-68J10A
16. Bit retainer ring with O-ring (#13)	1	2.2	27-68006A
17. Driver sub	6	13.2	34-68D69
Seal kit			
1 pieces of #2, 2 of #3 & 3 of #14	0.25	0.5	38-68656
Rebuild kit			
1 piece of #1, 1 of #12, 1 of #17 & seal kit			
3 1/2" API reg. pin	20	44	BG00474824
Bit shank			
M60			

Complete Hammer

3 1/2" API reg. pin top sub

32-5165-GMA-04C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	Bit closed		Bit extended	
						mm	inch	mm	inch
82	180	150	5.9	922	36.3	1008	39.7	1046	41.2
AIR CONSUMPTION, CFM				AIR CONSUMPTION, M ³ /MIN					
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar				
343	659	972	9.8	18.7	27.5				



STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL PIPES

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

RH510r

6"

RH510r

8"

Complete Hammer

3 1/2" API reg. pin top sub	32-5165-RMA-04C
#28 Cubex. pin top sub	32-5165-RMA-56C
3 1/2" BECO. pin top sub	32-5165-RMA-55C
3 1/2" API reg. pin top sub and hard faced driver sub	32-5165-TMA-04C

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT		Bit closed		Bit extended		
			mm	inch	mm	inch	mm	inch	
82	180	150	5.9	922	36.3	1008	39.7	1046	41.2
AIR CONSUMPTION, CFM									
150 psi	250 psi	350 psi	10 bar		18 bar		24 bar		
343	659	972	9.8		18.7		27.5		

REPLACEMENT PARTS ITEM DESCRIPTION					Weight, kg	Weight, lb	Part No.
1. Top sub with 3 O-rings							
3 1/2" API reg. pin	22	48.4	33-68602/04CA				
#28 Cubex. pin	22	48.4	33-68602/56CA				
3 1/2" BECO. pin	22	48.4	33-68602/55CA				
2. O-ring top sub OD (1)			In seal kit				
3. O-ring top sub ID (2)			In seal kit				
4. Check valve dart with spring	0.3	0.66	25-99002A				
5. Check valve dart spring	0.02	0.044	BG00348123				
6. Check valve guide	0.3	0.66	39-68001				
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.264	29-68017A				
8. Feed tube retainer pin	0.2	0.44	12-99013				
9. Feed tube with retainer pin and blank choke	1	2.2	37-68601A				
10. Piston	18	39.6	BG00210384				
11. Piston case with retainer ring	33	72.6	BG00143988				
12. Piston retainer ring	0.1	0.22	23-99028				
13. O-rings – guide sleeve, bit retainer			In seal kit				
14. Guide sleeve with 2 O-rings (#13)	4	8.8	26-68J10A				
15. Bit retainer ring with O-ring (#13)	1	2.2	27-68006A				
16. Driver sub	6	13.2	34-68670				
Driver sub hard faced	7.4	16.3	BG00370990				
Seal kit							
1 pieces of #2, 2 of #3 & 3 of #13	0.25	0.5	38-68656				
Rebuild kit							
1 piece of #1, 1 of #11, 1 of #16 & seal kit							
3 1/2" API reg. pin	62	136.4	BG00195819				
#28 Cubex. pin	62	136.4	BG00474776				
3 1/2" BECO. pin	62	136.4	BG00474787				
3 1/2" API reg. pin and hard faced driver sub	62	136.4	BG00718140				
Bit shank							
M60							



STANDARD DTH HAMMERS

STANDARD DTH BITS

DTH TUBE SYSTEMS DRILL PIPES

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

RH510w

8"

Complete Hammer

4 1/2" API reg. pin top sub

32-5185-WMA-19S

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
173	380	181	7.12	1270	50	1361	53.6	1405	55.3

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
525	975	1540	14.9	27.6	43.6





RELIABLE PERFORMANCE WITH A ROCK SOLID DESIGN

The Sandvik RH460 hammer series has a proven track record of high reliability, performance and efficiency in varying ground conditions.

This has been achieved through solid piston and inner cylinder concept. The solid piston concept without any cross holes reduces stress induced failures. This provides for more reliability and long and uninterrupted service life. The design has been optimized to deliver high performance with maximum efficiency. The RH460 hammers can operate at pressures up to 35 bar (500 psig) and have the capability to drill in all directions.

- Key features:
- Industry standard shank
 - High reliability
 - Optimized air cycle
 - Solid piston and Inner cylinder concept
 - High Pressure hammers, up to 35 bar (500 psig)

3.5" RH460 HAMMERS	38
4" RH460 HAMMERS	39
5" RH460 HAMMERS	41
6" RH460 HAMMERS	43
8" RH460 HAMMERS	45

RH460

3.5"

RH460

4"

Complete Hammer

2 3/8" API reg pin	32-4635-SDA-16S
#21 Cubex Pin	32-4635-SDA-63S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT		Bit closed	Bit extended			
			mm	inch	mm	inch	mm	inch	
kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
25,5	56,2	85	3,35	846	33	911	36	939	37

AIR CONSUMPTION, CFM		AIR CONSUMPTION, M ³ /MIN, DIN 1343		POWER OUTPUT (kW)		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	
169	324	445	4.8	9.2	12.6	18



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
2 3/8" API reg pin	5.80	12.8	BG00014759
#21 Cubex pin	5.80	12.8	BG00568016
2. Check valve dart no choke	0.25	0.6	BG00320005
3. Check valve spring	0.02	0.04	BG00876172
4. Make up ring	0.10	0.2	BG00014763
5. Air distributor with O-ring	1.90	4.2	BG00100316
6. O-ring air distributor		In seal kit	
7. Inner cylinder	1.90	4.2	BG00100315
8. Piston	4.50	9.9	BG00100318
9. Piston case with retainer ring	9.20	20.3	BG00100312
10. Piston retainer ring	0.05	0.1	BG00014773
11. Bit retainer ring with O-ring	0.30	0.7	BG00232818
12. O-ring bit retainer ring		In seal kit	
13. Driver sub	2.10	4.6	BG00368000
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.02	0.04	BG00015430
Check valve dart with choke hole	0.24	0.5	BG00119068
Driver sub hard faced	2.2	5.0	BG00821703
Seal kit			
1 piece of 6, 12	0.02	0.04	BG00566365
Rebuild kit			
1 piece of 1,9,13 & seal kit			
2 3/8" API reg pin	17.0	37.5	BG00566394
#21 Cubex pin	17.0	37.5	BG00568045
Bit shank			
DHD3.5HD			

Complete Hammer

2 3/8" API reg pin	32-4640-SDA-16S
#24 Cubex pin	32-4640-SDA-77S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT		Bit closed	Bit extended	
			mm	inch			
kg	lb	mm	inch	mm	inch	mm	inch
40	88	97.5	3.84	985	38.78	1075	42.16

AIR CONSUMPTION, CFM		AIR CONSUMPTION, M ³ /MIN, DIN 1343		POWER OUTPUT (kW)	
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
190	395	565	5.4	11.2	16
					25

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
2 3/8" API reg pin	8.2	18	BG00014822
#24 Cubex pin	7.9	17.4	BG00242018
2. Check valve dart no choke	0.24	0.53	BG00320005
3. Check valve spring	0.02	0.04	BG00876172
4. Make up ring	0.1	0.22	BG00014825
5. Air distributor with O-ring	2	4.4	BG00056811
6. O-ring air distributor		In seal kit	
7. Inner cylinder	2.1	4.62	BG00110688
8. Piston DHD340	7.8	17.2	BG00243036
9. Piston case with retainer ring	15.4	33.9	BG00050403
10. Piston retainer ring	0.1	0.22	BG00014819
11. Bit retainer ring with O-ring DHD340	0.17	0.37	BG00014818
12. O-ring bit retainer ring		In seal kit	
13. Driver sub	3.5	7.7	BG00059100
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.02	0.04	BG00015430
Check valve dart with choke hole	0.24	0.53	BG00119068
Driver sub hard faced DHD340	3.5	7.7	BG00241988
Seal kit			
1 piece of #6, #12	0.02	0.04	BG00014848
Rebuild kit			
1 piece of #1, #9, #13 & seal kit			
2 3/8" API reg pin	27	59.4	BG00081841
#24 Cubex pin	26.8	59	BG00242283
Bit shank			
DHD340			

STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL PIPES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH BITS

RH460

4"

RH460

5"

Complete Hammer

2 3/8" API reg pin	32-4640-STA-16S
#24 Cubex pin	32-4640-STA-77S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
40	88	97.5	3.84	985	38.78	1075	42.16
						1109	43.66

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar	24 bar	24 bar
190	395	565	5.4	11.2	16	25		



REPLACEMENT PARTS ITEM DESCRIPTION

	Weight, kg	Weight, lb	Part No.
1. Top sub			
2 3/8" API reg pin	8.2	18	BG00014822
#24 Cubex pin	7.9	17.4	BG00242018
2. Check valve dart no choke	0.24	0.53	BG00320005
3. Check valve spring	0.02	0.04	BG00876172
4. Make up ring	0.1	0.22	BG00014825
5. Air distributor with O-ring	2	4.4	BG00056811
6. O-ring air distributor			In seal kit
7. Inner cylinder	2.1	4.62	BG00110688
8. Piston QLX40	7.7	16.9	BG00242889
9. Piston case with retainer ring	15.4	33.9	BG00050403
10. Piston retainer ring	0.1	0.22	BG00014819
11. Bit retainer ring with O-ring QLX40	0.2	0.44	BG00059039
12. O-ring bit retainer ring			In seal kit
13. Driver sub	2.8	6.16	BG00058997

Optional

Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.02	0.04	BG00015430
Check valve dart with choke hole	0.24	0.53	BG00119068
Driver sub hard faced QLX40	2.8	6.16	BG00242001

Seal kit

1 piece of #6, #12	0.02	0.04	BG00014848
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Rebuild kit

1 piece of #1, #9, #13 & seal kit			
2 3/8" API reg pin	27	59.4	BG00242267
#24 Cubex pin	26.8	59	BG00242295

Bit shank

QLX40			
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Complete Hammer

3 1/2" API reg pin	32-4650-SQA-04S
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WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT		Bit closed	Bit extended	
			kg	lb	mm	inch	mm
66	145	120	4.72	1067	42.01	1156	45.51
					1185		46.65

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar	24 bar	24 bar
275	544	756	7.8	15.4	21.4	21.4	21.4	32.3

	REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1	1. Top sub			
2	3 1/2" API reg pin	14.8	32.56	BG00014995
3	2. Check valve dart no choke	0.45	0.99	BG00319921
4	3. Check valve spring	0.03	0.07	BG00854876
5	4. Make up ring	0.20	0.44	BG00014994
6	5. Air distributor with O-ring	3.60	7.92	BG00014996
7	6. O-ring air distributor			In seal kit
8	7. Inner cylinder	4.2	9.24	BG00025161
9	8. Piston	14.3	31.46	BG00062889
10	9. Piston case with retainer ring	22	48.4	BG00014999
11	10. Piston retainer ring	0.10	0.22	BG00014998
12	11. O-ring guide sleeve			In seal kit
13	12. Guide sleeve with O-ring	1	2.2	BG00014988
14	13. Bit retainer ring with O-ring	0.4	0.88	BG00014989
15	14. O-ring bit retainer ring			In seal kit
	15. Driver sub	5	11	BG00014993

	Optional	Weight, kg	Weight, lb	Part No.
6	Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00015430
7	Check valve dart with choke hole	0.4	0.88	BG00014985
8	Driver sub hard faced	5	11	BG00162923

	Seal kit	Weight, kg	Weight, lb	Part No.
9	1 piece of #6, #14 & 2 of #11	0.01	0.02	BG00015014

	Rebuild kit	Weight, kg	Weight, lb	Part No.
10	1 piece of #1, #9, #15 & seal kit	41.5	91.3	BG00081790

	Bit shank	Weight, kg	Weight, lb	Part No.

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RH460g

5"

RH460

6"

Complete Hammer

3 1/2" API reg pin	32-4655-GQA-04C
#24 Cubex pin	32-4655-GQA-77C

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH WITH BIT	HAMMER LENGTH WITH BIT				
			Bit closed	Bit extended			
kg	lb	mm	inch	mm	inch	mm	inch
76	167	126	4.96	1067	42.01	1156	45.51
						1185	46.65

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar		
275	544	756	7.8	15.4	21.4	32.3		



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API reg pin	15.5	34.1	BG00068455
#24 Cubex pin	13.5	29.7	BG00166404
2. Check valve dart no choke	0.45	0.99	BG00319921
3. Check valve spring	0.03	0.07	BG00854876
4. Make up ring	0.20	0.44	BG00014994
5. Air distributor with O-ring	3.60	7.92	BG00014996
6. O-ring air distributor			In seal kit
7. Inner cylinder	4.20	9.24	BG00025161
8. Piston	14.3	31.5	BG00062889
9. Piston case with retainer ring	30.0	66.0	BG00068439
10. Piston retainer ring	0.10	0.22	BG00014998
11. O-ring guide sleeve			In seal kit
12. Guide sleeve with O-ring	1.00	2.20	BG00014988
13. Bit retainer ring with O-ring	0.40	0.88	BG00014989
14. O-ring bit retainer ring			In seal kit
15. Driver sub hard faced	5.50	12.1	BG00068435
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00015430
Check valve dart with choke hole	0.40	0.88	BG00014985
Seal kit			
1 piece of #6, #14 & 2 of #11	0.01	0.02	BG00015014
Rebuild kit			
1 piece of #1, #9, #15 & seal kit			
3 1/2" API reg pin	51.0	112	BG00081817
#24 Cubex pin	49.0	108	BG00166783
Bit shank			
QL50			



Complete Hammer

3 1/2" API reg pin	32-4660-SQA-04S
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WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT	Bit closed		Bit extended	
				kg	lb	mm	inch
100	220	142	5.59	1155	45.47	1263	49.72
						1304	51.34

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar	24 bar	24 bar
307	625	879	8.7	17.7	25			42.4

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API reg pin	24	52.8	BG00014888
2. O-ring top sub			In seal kit
3. Check valve dart no choke	0.7	1.54	BG00321398
4. Check valve spring	0.1	0.22	BG00854872
5. Make up ring	0.4	0.88	BG00014865
6. Air distributor with O-ring	6.2	13.6	BG00054361
7. O-ring air distributor			In seal kit
8. Inner cylinder	6.4	14.1	BG00123002
9. Piston	21.4	47.1	BG00243084
10. Piston case with retainer ring	32.4	71.3	BG00054318
11. Piston retainer ring	0.1	0.22	BG00055711
12. O-ring guide sleeve			In seal kit
13. Guide sleeve with O-ring	2.3	5.06	BG00055719
14. Bit retainer ring with O-ring	0.6	1.32	BG00014871
15. O-ring bit retainer ring			In seal kit
16. Driver sub hard faced	6.5	14.3	BG00014887
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00081800
Check valve dart with choke hole	0.7	1.54	BG00014869
Driver sub hard faced	6.50	14.3	BG00242302
Seal kit			
1 piece of #2, #7, #15 & 2 of #12	0.01	0.02	BG00014894
Rebuild kit			
1 piece of #1, #10, #16 & seal kit			
3 1/2" API reg pin	63.0	139	BG00240392
Bit shank			
QL60			

STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL PIPES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

RH460g

6"

RH460

8"

Complete Hammer

3 1/2" API reg pin	32-4665-GQA-04C
#28 Cubex pin	32-4665-GQA-56C

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
117	257	150	5.91	1155	45.47	1263	49.72
						1304	51.34

AIR CONSUMPTION, CFM		AIR CONSUMPTION, M ³ /MIN, DIN 1343		POWER OUTPUT (kW)	
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
307	625	879	8.7	17.7	25
					42.4



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API reg pin	25.4	55.9	BG00224812
#28 Cubex pin	26	57.2	BG00237751
2. O-ring top sub			In seal kit
3. Check valve dart no choke	0.7	1.54	BG00321398
4. Check valve spring	0.03	0.07	BG00854872
5. Make up ring	0.4	0.88	BG00014865
6. Air distributor with O-ring	6.2	13.6	BG00054361
7. O-ring air distributor			In seal kit
8. Inner cylinder	6.4	14.1	BG00123002
9. Piston	21.4	47.1	BG00243084
10. Piston case with retainer ring	46.4	102	BG00224808
11. Piston retainer ring	0.1	0.22	BG00055711
12. O-ring guide sleeve			In seal kit
13. Guide sleeve with O-ring	2.3	5.06	BG00055719
14. Bit retainer ring with O-ring	0.6	1.32	BG00014871
15. O-ring bit retainer ring			In seal kit
16. Driver sub	7.2	15.8	BG00224798
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00081800
Check valve dart with choke hole	0.7	1.54	BG00014869
Seal kit			
1 piece of #2, #7, #15 & 2 of #12	0.01	0.02	BG00014894
Rebuild kit			
1 piece of #1, #10, #16 & seal kit			
3 1/2" API reg pin	79	174	BG00240400
#28 Cubex pin	80	176	BG00240135
Bit shank			
QL60			



RH460

8"

Complete Hammer

4 1/2" API reg pin	32-4680-SQA-19S
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WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
213	469	183	7.20	1426	56.14	1566	61.65
						1608	63.31

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar	24 bar	24 bar
365	852	1,290	10.3	24.1	36.5	36.5	50	50

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
4 1/2" API reg pin	55	121	BG00096730
2. Check valve dart no choke	0.80	1.76	BG00321984
3. Check valve spring	0.04	0.09	BG00652827
4. Make up ring	0.4	0.88	BG00015380
5. Air distributor with O-ring	9.4	20.7	BG00078615
6. O-ring air distributor			In seal kit
7. Inner cylinder	10.5	23.1	BG00057803
8. Piston	50	110	BG00277131
9. Piston case with retainer ring	64	141	BG00057909
10. Piston retainer ring	0.2	0.44	BG00096748
11. O-ring guide sleeve			In seal kit
12. Guide sleeve with O-ring	3	6.6	BG00096749
13. Bit retainer ring with O-ring	1.4	3.08	BG00096752
14. O-ring bit retainer ring			In seal kit
15. Driver sub	13.6	29.9	BG00096753
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00081800
Check valve dart with choke hole	0.8	1.76	BG00015375
Driver sub hard faced			BG00367978
Seal kit			
1 piece of #6, #11 & #14	0.01	0.02	BG00303706
Rebuild kit			
1 piece of #1, #9, #15 & seal kit			
4 1/2" API reg pin	134	295	BG00305733
Bit shank			
QL80			

RH460g

8"

Complete Hammer

4 1/2" API reg pin	32-4685-GQA-19C
4 1/2 BECO pin	32-4685-GQA-72C

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT					
			Bit closed		Bit extended			
kg	lb	mm	inch	mm	inch	mm	inch	
244	537	194	7.64	1426	56.14	1566	61.65	
						1608	63.31	

AIR CONSUMPTION, CFM		AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)	
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar
365	852	1,290	10.3	24.1	36.5	50



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
4 1/2" API reg pin	57.0	125	BG00365764
4 1/2 BECO pin	57.0	125	BG00278298
2. Check valve dart no choke	0.80	1.76	BG00321984
3. Check valve spring	0.04	0.09	BG00652827
4. Make up ring	0.40	0.88	BG00015380
5. Air distributor with O-ring	9.40	20.7	BG00078615
6. O-ring air distributor			In seal kit
7. Inner cylinder	10.5	23.1	BG00057803
8. Piston	50.0	110	BG00277131
9. Piston case with retainer ring	94.2	207	BG00278268
10. Piston retainer ring	0.20	0.44	BG00096748
11. O-ring guide sleeve			In seal kit
12. Guide sleeve with O-ring	3.00	6.60	BG00096749
13. Bit retainer ring with O-ring	1.40	3.08	BG00096752
14. O-ring bit retainer ring			In seal kit
15. Driver sub hard faced	15.9	35.0	BG00303677
Optional			
Choke set, blank, 3mm, 4.5mm and 6mm	0.01	0.02	BG00081800
Check valve dart with choke hole	0.80	1.76	BG00015375
Seal kit			
1 piece of #6, #11 & #14	0.01	0.02	BG00303706
Rebuild kit			
1 piece of #1, #9, #15 & seal kit			
4 1/2" API reg pin	168	370	BG00367721
4 1/2 BECO pin	167	367	BG00305742
Bit shank			
QL80			



STANDARD DTH HAMMERS

DRILL FASTER AND REDUCE YOUR COSTS

HIGHER PRODUCTIVITY, REDUCED DOWNTIME

The all-new RH560 DTH hammer has been developed to be a robust and reliable addition to your surface mining and long-haul production drilling operations. It helps you drill faster and lower your drilling cost per hole.

The RH560 hammer is made for jobs that require a more efficient air cycle, allowing you to get more energy out of each blow of the piston and increase your rate of penetration. Using less air, you still get a high output of power that is more energy efficient and uses less fuel.

It also does not use a foot valve in the bits, which will help prevent inconvenient and costly breakdowns. Instead, designed so the airflow can be handled without the use of a foot valve. With less leakage, you'll enjoy better efficiency and lower energy costs.

Other improvements have made the RH560 an evenmore reliable and functional workhorse in your operations:

- Industry-standard shanks proven and reliable technology
- Robust piston, increased reliability
- A new bit retaining system, that are able to carry high loads
- A reduced number of inner components minimizes parts breakage
- A V-lock system prevents component movement
- Less air is required, allowing you to build pressure much faster and shorten start up phase for the drill

3.5" RH560 HAMMERS

16

4" RH560 HAMMERS

17

5" RH560 HAMMERS

19

6" RH560 HAMMERS

20

RH560g

3.5"

RH560g

4"

COMPLETE HAMMER

2 3/8" API Reg Pin	32-5635-SRA-16S
#21 Cubex Pin	32-5635-SRA-63S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
29	63.8	85	3.3	914	36.0	979	38.5
					1,004		39.5

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M3/MIN, DIN 1343		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
159	293	392	4.5	8.3	11.1



COMPLETE HAMMER

2 3/8" API Reg Pin	32-5645-GTA-16S
#24 Cubex Pin	32-5645-GTA-77S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
48	105.6	105	4.1	1,016	40	1,106	43.5
					1,140		44.9

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M3/MIN, DIN 1343		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
237	441	597	6.7	12.5	16.9



RH560w

4"

RH560g

5"

COMPLETE HAMMER

2 3/8" API Reg Pin	32-5645-WTA-16S
--------------------	-----------------

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
48	105.6	105	4.1	1,016	40	1,106	43.5
						1,140	44.9

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343		
150 psi	250 psi	350 psi	24 bar	30 bar	35 bar
237	441	597	17.9	23.0	27.1



COMPLETE HAMMER

3 1/2" API Reg Pin	32-5655-GQA-04C
#24 Cubex Pin	32-5655-GQA-77C

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
76	167	127	5,0	1,052	41.4	1,141	41
						1,170	42.1

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
250	526	755	7.1	14.9	21.4



STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL PIPES

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

RH560g

6"

COMPLETE HAMMER

3 1/2" API Reg Pin	32-5665-GQA-04C
#28 Cubex Pin	32-5665-GQA-56C

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
117	257.9	150	5.9	1,158	45.6	1,266	49.8
						1,307	51.5

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
310	629	847	8.8	17.8	24





INVEST IN LONG-TERM DRILLING CAPACITY

All drill bits are fitted with our cemented carbide inserts, which provide you with superior life and drilling productivity.

Drill bit bodies make use of precision hardened Nickel Molybdenum steel and compound curve body designs to maximize cutting efficiency and cuttings removal.

Each bit is uniquely designed to maximize penetration and increase flushing. The Sandvik DTH button bit designs are well known and extensively used around the world. The bits in our new range have an optimized bit head length, with maximized steel support for the cemented Carbide buttons, deep face grooves for excellent flushing and an aggressive cutting structure.

OPTIMIZED HEAD DESIGN

Long wear life, and optimal balance between wear and energy transmission

BALLISTIC OR SPHERICAL BUTTONS

IN DIFFERENT CARBIDE GRADES

Allows you to make the best choice for different rock conditions

OPTIMIZED CUTTING STRUCTURE

Gives good penetration and bit life in all rock formations

STANDARD DTH BITS

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BIT SELECTION GUIDE

FACES	CARBIDES	ROCK HARDNESS	ROCK STRUCTURE	ROCK ABRASIVENESS
Concave	Ballistic	Very hard	Soft	Fissured Homogeneous
	XT48			
	DP55			
Concave	Spherical	Very hard	Soft	Fissured Homogeneous
	XT48			
	DP65			
Convex	Ballistic	Very hard	Soft	Fissured Homogeneous
	XT48			
	DP55			
Convex	Spherical/Ballistic	Very hard	Soft	Fissured Homogeneous
!	DP55 DP55			
Flat	Spherical	Very hard	Soft	Fissured Homogeneous
	XT48			
	DP65			

This bit selection guide will help you select the right bit for the type of rock you are drilling.

Note: Cemented carbide grades DP55 and DP65 are available on several bits.

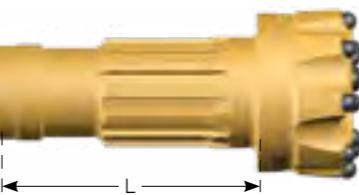
! Convex face with spherical gauge buttons and ballistic front buttons.

BIT SHANK IDENTIFICATION CHART

SS3.5 FOR RH560 • 3.5" L = 180 MM, 12 SPLINES QLX560-4 • 4" L = 209 MM, 12 SPLINES QL560-5 • 5" L = 240 MM, 12 SPLINES



QL560-6 • 6" L = 253 MM, 12 SPLINES



QLX40 • 4", L = 266 MM, 12 SPLINES



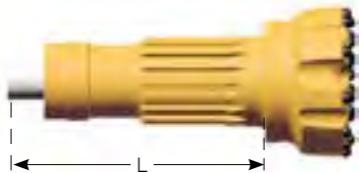
QL50 • 5", L = 293 MM, 12 SPLINES



QL60 • 6", L = 312 MM, 12 SPLINES



QL80 • 8", L = 384 MM, 16 SPLINES



STANDARD DTH HAMMERS

STANDARD DTH BITS

DTH TUBEX SYSTEMS

DRILL PIPES

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

DTH BITS/M SHANKS

M30 • 3", L = 224 MM, 8 SPLINES



M40 • 4", L = 228 MM, 12 SPLINES



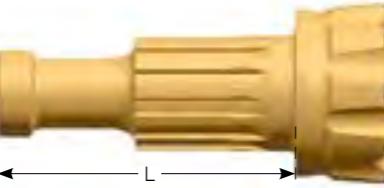
M50 • 5", L = 259 MM, 12 SPLINES



M60 • 6", L = 230 MM, 12 SPLINES



M80 • 8", L = 329 MM, 12 SPLINES



DHD3.5 HD • 3.5", L = 240 MM, 8 SPLINES



DHD340 • 4", L = 267 MM, 8 SPLINES



DHD350 • 5", L = 316 MM, 8 SPLINES



DHD360 • 6", L = 365 MM, 8 SPLINES



DHD380 • 8", L = 401 MM, 10 SPLINES



STANDARD
DTH HAMMERS

DTH TUBEX SYSTEMS

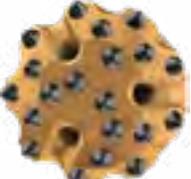
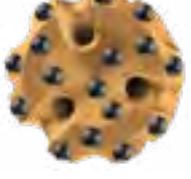
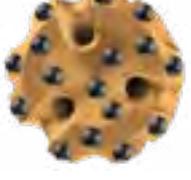
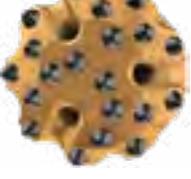
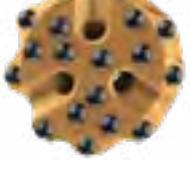
DRILL PIPES

ACCESSORIES

NON-STANDARD
DTH HAMMERS

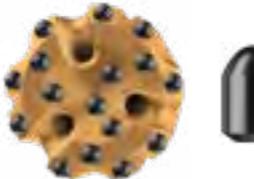
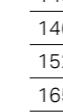
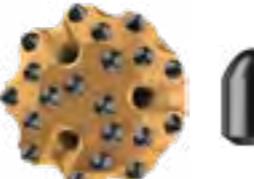
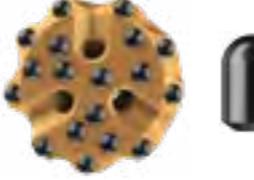
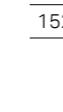
NON-STANDARD
DTH DRILL BITS

DTH BITS/M SHANKS

SANDVIK RH510	Diameter										Part No.
	mm	inch	Air holes	Gauge buttons	Button dia. mm	Weight					
		gauge	front	kg	lb						
M30											
Convex face / Ballistic button											
	90	3 1/2	2	8	12	12	5.7	12.6	42-3A51090-R48		
	95	3 3/4	2	8	12	12	5.8	12.8	42-3A51095-R48		
	100	3 7/8	2	8	13	13	6.0	13.2	42-3A54100-R48		
	105	4 1/8	2	8	14	14	6.1	13.4	42-3A5B105-R48		
M40											
Concave face / Ballistic button											
	115	4 1/2	2	8	14	14	9.1	20.1	42-481B115-R48		
	115	4 1/2	2	8	14	14	9.1	20.1	42-481B115-R55		
	127	5	2	8	14	14	9.7	21.4	42-481B127-R48		
	127	5	2	8	14	14	9.7	21.4	42-481B127-R55		
Convex face / Spherical button											
	115	4 1/2	2	8	14	14	9.1	20.1	42-481B115-S48		
	115	4 1/2	2	8	14	14	9.1	20.1	42-481B115-S48K		
	115	4 1/2	2	8	14	14	9.1	20.1	42-481B115-S65		
	127	5	2	8	14	14	9.7	21.4	42-481B127-S48		
	127	5	2	8	14	14	9.7	21.4	42-481B127-S65		
	133	5 1/4	2	8	16	13	10.6	23.4	42-481B133-S48		
Convex face / Ballistic button											
	110	4 3/8	2	8	14	14	8.7	19.2	42-485B110-R48		
	115	4 1/2	2	8	14	14	8.8	19.4	42-485B115-R48		
	127	5	2	8	14	14	9.7	21.4	42-485B127-R48		
Flat face / Spherical button											
	110	4 3/8	2	8	14	14	8.8	19.4	42-48FB110-S48		
	115	4 1/2	2	8	14	14	9.0	19.8	42-48FB115-S48		
	127	5	2	8	14	14	9.7	21.4	42-48FB127-S48		
	130	5 1/8	2	8	16	14	10.4	22.9	42-48F9130-S48		

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS/M SHANKS

SANDVIK RH510	Diameter										Part No.
	mm	inch	Air holes	Gauge buttons	Button dia. mm	Weight					
		gauge	front	kg	lb						
M50											
Concave face / Ballistic button											
	140	5 1/2	2	8	16	14	14.8	32.6	42-5819140-R48		
	140	5 1/2	2	8	16	14	14.8	32.6	42-5819140-R55		
Concave face / Spherical button											
	140	5 1/2	2	8	16	14	14.7	32.4	42-5819140-S48		
	140	5 1/2	2	8	16	14	14.7	32.4	42-5819140-S65		
	146	5 3/4	2	8	16	14	15.0	33.1	42-5819146-S48		
	152	6	2	8	18	16	15.3	33.7	42-581D152-S48		
	165	6 1/2	2	8	18	16	16.3	35.9	42-581D165-S48		
Convex face / Ballistic button											
	140	5 1/2	3	9	16	16	14.6	32.2	42-58LC140-R48		
	140	5 1/2	3	9	16	16	14.6	32.2	42-58LC140-R55		
Flat face / Spherical button											
	133	5 1/4	3	9	16	14	13.9	30.6	42-58F9133-S48		
	140	5 1/2	3	9	16	14	15.0	33.0	42-5829140-S48		
	152	6	3	9	18	16	15.7	34.6	42-582D152-S48		

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS/M SHANKS

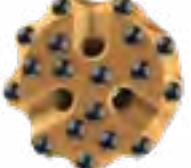
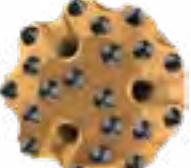
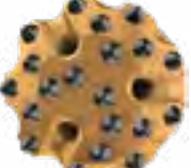
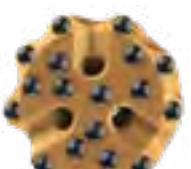
DTH BITS/DHD3.5 HD/DHD340 SHANKS

SANDVIK RH510	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
M60												
Concave face/Spherical button												
	152	6	2	8	18	18	20.3	44.8	42-681E152-S48			
	155	6 1/8	2	8	18	18	20.4	45.0	42-681E155-S48			
	155	6 1/8	2	8	18	18	20.4	49.2	42-681E155-S65			
	165	6 1/2	3	9	18	18	22.3	49.2	42-68DE165-S48			
	165	6 1/2	3	9	18	18	22.3	49.2	42-68DE165-S65			
	172	6 3/4	3	9	18	18	22.9	50.5	42-68DE172-S48			
	172	6 3/4	3	9	18	18	22.9	50.5	42-68DE172-S65			
	203	8	3	9	18	18	28.6	63.1	42-68DE203-S48			
Convex face/Ballistic button												
	165	6 1/2	3	9	18	18	21.1	46.5	42-68GE165-R48K			
	165	6 1/2	3	9	18	18	22.1	48.7	42-68GE165-R55			
	172	6 3/4	3	9	18	18	22.3	49.2	42-68GE172-R48K			
	172	6 3/4	3	9	18	18	22.8	50.3	42-68GE172-R48			
	172	6 3/4	3	9	18	18	22.8	50.3	42-68GE172-R55			
Convex face/Spherical button												
	165	6 1/2	2	10	18	16	22.3	49.2	42-686D165-S48K			
	165	6 1/2	3	9	18	18	22.1	48.7	42-68GE165-W55K			
	172	6 3/4	2	10	18	16	23.0	50.7	42-686D172-S48K			
	172	6 3/4	3	9	18	18	23.4	51.6	42-68GE172-W55			
Flat face/Spherical button												
	155	6 1/8	2	9	18	18	22.3	49.2	42-681E155-S48K			
	165	6 1/2	3	9	18	18	22.3	49.2	42-682E165-S48			
	165	6 1/2	3	9	18	18	22.3	49.2	42-682E165-S65			
	172	6 3/4	3	9	18	18	22.9	50.5	42-682E172-S48			
	203	8	3	9	18	18	29.7	65.5	42-682E203-S48			
Bulldog / Spherical button												
	165	6 1/2	2	12	18	18/16	21.3	47.0	42-68BV165-S48			
	165	6 1/2	2	12	18	18/16	21.3	47.0	42-68BV165-S48K			
	165	6 1/2	2	12	18	18/16	21.3	47.0	42-68BV165-S69			
	165	6 1/2	2	10	18	16/16	21.3	47.0	42-68ED165-S69			
	165	6 1/2	2	10	20	18/16	21.3	47.0	42-68EV165-S69			
	172	6 3/4	2	12	18	18/16	21.9	48.3	42-68BV172-S48			
	172	6 3/4	2	12	18	18/16	21.9	48.3	42-68BV172-S48K			
M80												
Concave face / Spherical button												
	203	8	3	9	18	18	44.3	97.7	42-88PE203-S48			
	222	8 3/4	3	12	18	18	48.3	106.5	42-888E222-S48			
	254	10	3	12	18	18	57.9	127.6	42-888E254-S48			

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.



DTH BITS/DHD3.5 HD/DHD340 SHANKS

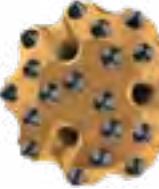
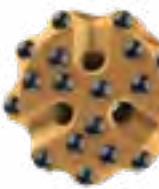
SANDVIK RH460	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.
	mm	inch			gauge	front	kg	lb	
DHD3.5 HD									
Flat face / Spherical button									
	90	3 1/2	2	8	11	11	6.2	13.7	42-3HF0090-S48
	95	3 3/4	2	8	12	12	6.4	14.1	42-3HF1095-S48
	100	3 7/8	2	8	13	13	6.6	14.6	42-3HF4100-S48
	105	4 1/8	2	8	14	14	6.8	15.0	42-3HFB105-S48
Convex face / Ballistic button									
	90	3 1/2	2	8	12	12	6.2	13.7	42-3H51090-R48
									
Foot valve									
							0.5	1.0	47-3H017
DHD340									
Concave face / Spherical button									
	115	4 1/2	2	8	14	13	9.2	20.3	42-361A115-S48
									
Convex face / Ballistic button									
	127	5	2	8	14	13	10.0	22.0	42-365A127-R48
									
Flat face / Spherical button									
	115	4.5	2	8	14	13	9.2	20.3	42-36FA115-S48
	127	5	2	8	14	13	10.1	22.3	42-36FA127-S48
Foot valve									
							0.5	1.0	47-36017

DTH BITS /QLX/QL SHANKS



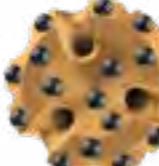
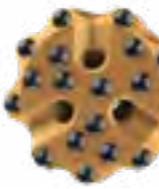
For all the bit pages, a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / QLX40 SHANKS

SANDVIK RH460	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
QLX 40												
Concave face / Spherical button												
	115	4 1/2	2	8	14	13	9.3	20.5	42-4G1A115-S48			
	115	4 1/2	2	8	14	13	9.3	20.5	42-4G1A115-S65			
	127	5	2	8	14	13	10.2	22.5	42-4G1A127-S48			
Convex face / Ballistic button												
	115	4 1/2	2	8	14	13	9.5	20.9	42-4G5A115-R48			
	115	4 1/2	2	8	14	13	9.5	20.9	42-4G5A115-R65			
	127	5	2	8	14	13	10.3	22.7	42-4G5A127-S48			
Flat face / Spherical button												
	115	4 1/2	2	8	16	13	8.7	19.2	72-4GW8115-S48K			
	115	4 1/2	2	8	16	13	9.5	20.9	42-4GF8115-S65			
	127	5	2	8	14	13	10.3	22.7	42-4GF8127-S48			
Foot valve												
					0.5	1.0			47-4G017			

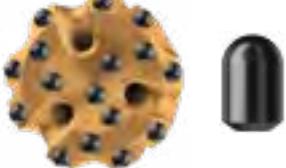
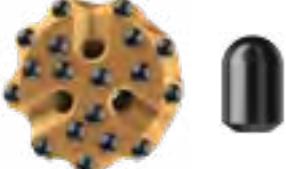
For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / QL50 SHANKS

SANDVIK RH460	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
QL50												
Concave face / Spherical button												
	140	5 1/2	2	8	16	14	16.5	36.4	42-5019140-S48			
	140	5 1/2	2	8	16	14	16.2	35.7	42-5019140-S65			
	146	5 3/4	2	8	16	14	16.9	37.3	42-5019146-S65			
	152	6	2	8	18	16	17.2	37.9	42-501D152-S48			
Flat face / Spherical button												
	140	5 1/2	3	9	16	14	16.8	37.0	42-5029140-S48			
	146	5 3/4	3	9	16	14	17.2	37.9	42-5029146-S48			
Foot valve												
							0.5	1.2	47-50017			

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / QL60 SHANKS

SANDVIK RH460	Diameter									Part No.	
	mm	inch	Air holes	Gauge buttons	Button dia. mm	Weight	kg	lb			
QL60											
Concave face / Spherical button											
	165	6 1/2	3	9	18	18	24.6	54.2	42-76DE165-S48		
	165	6 1/2	3	9	18	18	24.6	54.2	42-76DE165-S65		
	172	6 3/4	3	9	18	18	25.3	55.8	42-76DE172-S48		
	203	8	3	9	18	18	31.5	69.4	42-76DE203-S48		
Flat face / Spherical button											
	165	6 1/2	3	9	18	18	23.7	52.2	42-762E165-S48		
	165	6 1/2	3	9	18	18	24.1	53.1	42-762E165-S65		
	203	8	3	9	18	18	31.5	69.4	42-762E203-S48		
Bulldog face / Spherical button											
	165	6 1/2	2	12	18	18/16	23.7	52.2	42-76BV165-S48		
	172	6 3/4	2	12	18	18/16	24.4	53.8	42-76BV172-S48		
Foot valve											
	0.5	1.2	—	—	—	—	—	—	—	47-76017	

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / QL80 SHANKS

SANDVIK RH460	Diameter									Part No.	
	mm	inch	Air holes	Gauge buttons	Button dia. mm	Weight	kg	lb			
QL80											
Concave face / Spherical button											
	203	8	3	9	18	18	50.6	111.6	42-83PE203-S48		
	222	8 3/4	3	12	18	18	53.9	118.8	42-838E222-S48		
	229	9	3	12	18	18	56.8	125.2	42-838E229-S48		
	229	9	3	12	18	18	56.0	123.5	42-838E229-S65		
	254	10	3	12	18	18	65.1	143.5	42-838E254-S48		
	254	10	3	12	18	18	63.0	138.9	42-838E254-S65		

Foot valve



0.5 1.2 47-83017

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS/560 SHANKS



DTH BITS/SS3.5 SHANKS

SANDVIK RH560	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
SS3.5 bits												
Concave face / Spherical button												
	100	3 7/8	2	8	13	12	6.7	14.7	42-3R13100-S48			
	105	4 1/8	2	8	13	12	7.0	15.4	42-3R13105-S48			
	115	4 1/2	2	8	14	13	7.4	16.3	42-3R1A115-S65			
Convex face / Ballistic button												
	95	3 3/4	2	8	12	12	6.4	14.1	42-3R51095-R48			
	100	3 7/8	2	8	13	12	6.6	14.5	42-3R53100-R48			
	105	4 1/8	2	8	13	13	6.8	15.0	42-3R54105-R48			
	115	4 1/2	2	8	14	12	6.2	10.7	42-3R5A115-RKK			
Flat Face / Ballistic button												
	105	4 1/8	2	8	13	13	7.0	15.4	42-3RF4105-R48			
Flat face / Spherical button												
	95	3 3/4	2	8	12	12	6.6	14.5	42-3RF1095-S48			
	100	3 7/8	2	8	13	12	6.8	15.0	42-3RF3100-S48			
	105	4 1/8	2	8	13	13	7.0	15.4	42-3RF4105-S48			
Convex face / Spherical button												
	115	4 1/2	2	8	14	13	6.2	10.7	42-3R5A115-S55			

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS/560-4 SHANKS

SANDVIK RH560	Diameter										Part No.
	mm	inch	Air holes	Gauge buttons	Button dia. mm	Weight	kg	lb			
560-4 bits											
Concave face / Spherical button											
		115	4 1/2	2	8	14	13	9.8	21.6	42-4H1A115-S48	
		115	4 1/2	2	8	14	13	9.8	21.6	42-4H1A115-S65	
		121	4 3/4	2	8	14	13	8.9	19.6	72-4H1A121-S48K	
		121	4 3/4	2	8	14	13	9.9	21.8	42-4H18121-S65	
		127	5	2	8	14	13	10.4	22.9	42-4H1A127-S48	
		127	5	2	8	14	14	10.3	22.7	42-4H1B127-S65	
Concave face / Ballistic button											
		115	4 1/2	2	8	14	13	8.6	18.9	42-4H1A115-R48	
		115	4 1/2	2	8	14	13	8.6	18.9	42-4H1A115-R55	
		127	5	2	8	14	13	10.3	22.7	42-4H1B127-R48	
Convex face / Ballistic button											
		115	4 1/2	2	8	14	13	9.5	20.9	42-4H5A115-R48	
Flat face / Spherical button											
		115	4 1/2	2	8	14	13	9.8	21.6	42-4HF115-S48	
		115	4 1/2	2	8	16	13	9.7	21.3	42-4HF8115-S65	
		115	4 1/2	2	8	16	13	8.7	19.1	72-4Hw8115-S48	
		115	FF	2	8	16	13	8.7	19.1	72-4HW8115-S48K	
		115	4 1/2	2	8	16	13	8.7	19.1	72-4Hw8115-S65	
		127	5	2	8	14	14	10.3	22.7	42-4HFB127-S48	
		140	FF	2	8	16	13	9.9	21.8	42-4HF9140-S48C	
Convex face / Spherical button											
		127	5	2	8	14	13	9.1	20.1	42-4H5A127-S48	

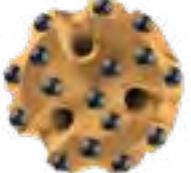
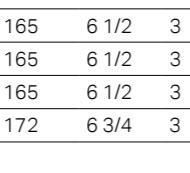
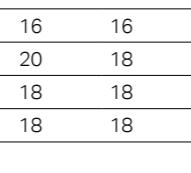
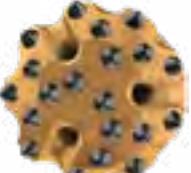
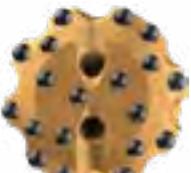
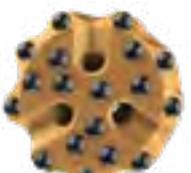
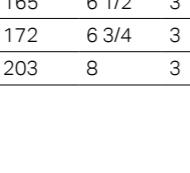
For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS/560-5 SHANKS

SANDVIK RH560	Diameter										Part No.
	mm	inch	Air holes	Gauge buttons	Button dia. mm	Weight	kg	lb			
560-5 bits											
Concave face / Spherical button											
		140	5 1/2	2	8	16	14	16.2	35.6	42-5H19140-S48	
		140	5 1/2	2	8	16	14	16.2	35.6	42-5H19140-S65	
		146	5 3/4	2	8	16	14	16.6	36.5	42-5H19146-S48	
		152	6	2	8	18	16	16.8	37.0	42-5H1D152-S48	
		165	6 1/2	2	8	18	16	17.9	39.4	42-5H1D165-S48	
Concave face / Ballistic button											
		140	5 1/2	2	8	16	14	16.3	35.9	42-5H19140-R55	
Convex face / Ballistic button											
		140	5 1/2	3	9	16	16	16.1	35.4	42-5HLC140-R55	
		146	5 3/4	3	9	16	16	16.7	36.7	42-5HLC146-R48	
		146	5 3/4	3	9	16	16	16.7	36.7	42-5HLC146-R55	
Flat face / Spherical button											
		140	5 1/2	3	9	16	14	16.5	36.3	42-5H29140-S48	
		152	6	3	9	18	16	17.2	37.8	42-5H2D152-S48	

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / 560-6 SHANKS

SANDVIK RH560	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
560-6 bits												
Concave face / Spherical button												
	165	6 1/2	3	9	18	18	24.1	53.0	42-63DE165-S48			
	165	6 1/2	3	9	16	16	24.5	54.0	42-63DC165-S48			
	165	6 1/2	3	9	20	18	23.4	51.6	42-63DP165-S65			
	165	6 1/2	3	9	18	18	24.1	53.0	42-63DE165-S65			
	172	6 3/4	3	9	18	18	24.8	54.6	42-63DE172-S48			
Convex face / Ballistic button												
	165	6 1/2	3	9	18	18	24.2	53.2	42-63GE165-R55			
	172	6 3/4	3	9	18	18	24.6	54.1	42-63GE172-R55			
Convex face / Spherical button												
	172	6 3/4	3	9	18	18	25.8	56.8	42-63GE172-W55			
	190	7 1/2	3	9	18	18	28.8	63.4	42-63GE190-W55			
Flat face / Spherical button												
	165	6 1/2	3	9	18	18	25.2	55.4	42-632E165-S48			
	172	6 3/4	3	9	18	18	26.0	57.2	42-632E172-S48			
	203	8	3	9	18	18	31.4	69.1	42-632E203-S48			

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

HOLE OPENERS



For further information, please contact your nearest Sandvik Mining and Rock Technology representative for a quote and delivery time.

DTH TUBEX SYSTEMS



TUBEX PRODUCT RANGE

Tubex type	Casing, recom. size, mm	Min. wall thickness, mm	Max. drill diameter, mm A	Reaming diameter, mm
	Max. OD	Min. ID		
	90	115	102	5
	115	142	128	5
	140	171	157	5
	165	196	183	5,5
	180	219	194	6,3
	190	222	205	6,3
	240	273	260	6,3
	280	327	305	7,1
				280
				370

TUBEX	Part	Description	Weight (Kg)	Weight (lbs)	Part no.
XL-90					
	Guide device	M30	7	15,4	80-3A00-090D
	Guide device	DHD3,5 (Foot valve, 47-24017)	7	15,4	80-2400-090D
	Pilot bit	1/8, 12/12, CV, DP65	3,6	7,9	81-090B-090A65
	Eccentric reamer		1,4	3	82-090B-123W65
	Casing shoe		1,1	2,4	84-090D-00
	Locking kit		0,5	1	85-090A-KT
XL-115					
	Guide device	M40	12	26,4	80-4800-115D
	Guide device	DHD340 (Foot valve, 47-36017)	12	26,4	80-3600-115D
	Guide device	QLX40 (Foot valve, 47-4G017)	12	26,4	80-4G00-115D
	Pilot bit	2/8, 14/14, CV, DP65	8	17,6	81-115A-115A65
	Eccentric reamer		2,6	5,7	82-115A-152W65
	Casing shoe		1,6	3,5	84-115D-00
	Locking kit		0,5	1	85-115A-KT
XL-140					
	Guide device	M50	21	46,3	80-5800-140D
	Guide device	QL50 (Foot valve, 47-55017)	21	46,3	80-5500-140D
	Guide device	DHD350 (Foot valve, 47-69037)	21	46,3	80-6900-140D
	Pilot bit	2/8, 14/14, CV, DP65	11	24,2	81-140A-140A65
	Eccentric reamer		4	8,8	82-140A-189W65
	Casing shoe		2,4	5,3	84-140D-00
	Locking kit		0,5	1	85-140A-KT

DTH TUBEX SYSTEMS

TUBEX	Part	Description	Weight (Kg)	Weight (lbs)	Part no.
XL-165					
	Guide device	M60	34	75	80-6800-165D
	Guide device	DHD360 (Foot valve, 47-73017-1)	34	75	80-7300-165D
	Guide device	QL60 (Foot valve, 47-76017)	34	75	80-7600-165D
	Pilot bit	2/8, 16/16, CV, DP65	17	37,5	81-165A-165A65
	Eccentric reamer		7	15,4	82-165A-212W65
	Casing shoe		3,2	7	84-165D-00
	Locking kit		0,5	1	85-165A-KT
XL-180					
	Guide device	DHD360 (Foot valve, 47-73017-1)	44	97	80-7300-180D
	Pilot bit	2/8, 16/16, CV, DP65	24	53	81-180A-180A65
	Eccentric reamer		10	22	82-180A-232W65
	Casing shoe		4	8,8	84-180D-00
	Locking kit		0,5	1	85-180A-KT
XL-190					
	Guide device	M60	40	88	80-6800-190D
	Guide device	QL60 (Foot valve, 47-76017)	44	97	80-7600-190D
	Guide device	DHD360 (Foot valve, 47-73017-1)	44	97	80-7300-190D
	Pilot bit	3/8, 16/16, CV, DP65	29	64	81-190A-190A65
	Eccentric reamer		10	22	82-190A-237W65
	Casing shoe		4	8,8	84-190D-00
	Locking kit		0,5	1,0	85-190A-KT
XL-240					
	Guide device	M80	67	148	80-8800-240D
	Guide device	DHD 380 (Foot valve, 47-87017)	67	148	80-8700-240D
	Pilot bit	2/12, 16/16, CV, DP65	46	101	81-240B-240A65
	Eccentric reamer		18	40	82-240B-308W65
	Casing shoe		7	15,4	84-240A-00
	Locking kit		1	2,2	85-240A-KT
XL-280					
	Guide device	SD10 (Foot valve, 47-10017)	160	353	80-1000-280A
	Pilot bit	3/12, 18/18, CV, DP65	88	194	81-280A-280A65
	Eccentric reamer		43	94	82-280A-378W65
	Casing shoe		15	33	84-280A-00
	Locking kit		1,5	3,3	85-280A-KT

STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL PIPE SYSTEMS

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS



DRILL PIPES

HIGH-TECH DRILL PIPES FOR SMOOTH DRILLING

We offer a line of drill pipes which provides you with a great degree of compatibility between rigs and tools.

Cold-drawn seamless tubing material, N80, is used to ensure straightness, thickness and high strength. This gives a smoother drilling process and, consequently, a longer service life. The material also provides a smooth, fine surface that eliminates the risk of hammer failures caused by scaling. Furthermore, the tool joints are made out of micro alloy steel and are case-hardened for superior thread life.

COLD-DRAWN SEAMLESS TUBING MATERIAL

- Superior straightness
- High strength
- Uniform pipe wall thickness
- Less weight

FRiction-welded end pieces

- High-strength, 100% metal-to-metal joint with parent metal properties
- Low-temperature process, gives a small HAZ (heat affected zone) that reduces the risk of failure

HEAVY-DUTY TOOL JOINTS

- Made of micro alloy steel
- Case-hardened for extra strength
- Offer superior thread life

SANDVIK DRILL PIPES

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SANDVIK ROTATION UNIT ADAPTERS

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SANDVIK SUBS

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SANDVIK ROTATION UNIT ADAPTERS



Diameter outside mm	Length shoulder to shoulder mm	Thread for male connection	Thread for female connection	Thread for male connection	Spanner Flats	Internal Splines	Weight kg	Part no.
mm	mm	Pin	Box	Pin			lb	
76	215	M62x2	2 3/8 Reg		Y	N	7	14 52-076-11687703
76	131	M62x2	2 3/8 Reg		Y	N	5	10 52-076-11516950
89	215	M62x2	2 3/8 Reg		Y	N	9	20 52-089-11512674
89	300	M80x3	2 3/8 Reg		Y	N	13	28 52-089-11516555
89	89	M62x2		2 3/8 Reg	Y	N	6	13 52-089-11687217
102	300	M80x3	2 7/8 Reg		Y	N	17	37 52-102-11517523
102	215	M62x2	2 7/8 Reg		Y	N	13	28 52-102-11502994
114	300	M80x3	3 1/2 Reg		Y	N	19	42 52-114-11505151
114	215	M62x2	3 1/2 Reg		Y	N	13	29 52-114-11503612
114	307	3 1/2 Reg	2 3/8 Reg		Y	N	14	30 52-114-11518907
114	307	3 1/2 Reg	3 1/2 Reg		Y	N	21	47 52-114-11518332
114	307	3 1/2 Reg		3 1/2 Reg	Y	N	26	56 52-114-11518871
127	307	3 1/2 Reg	3 1/2 Reg		Y	N	27	60 52-127-11518872
127	300	M80x3	3 1/2 Reg		Y	N	24	53 52-127-11516261

SANDVIK SUBS



Diameter outside mm	Thread for male connection	Thread for female connection	Length shoulder to shoulder	Spanner Flats	Internal Splines	Weight kg	Part no.
mm	Pin	Box	mm			lb	
89	API 2 3/8" Reg	API 2 3/8" Reg	305	N	N	13	29 52-089-111202
102	CUBEX #24	API 2 3/8" Reg	140	N	N	9	20 52-102-112648
102	API 2 7/8" Reg	API 2 3/8" Reg	130	Y	N	7	15 52-102-111029
114	CUBEX #24	API 3 1/2" Reg	160	Y	N	10	22 52-114-112649
114	CUBEX #24	API 3 1/2" Reg	160	Y	Y	9	20 52-114-112269
114	CUBEX #28	API 3 1/2" Reg	160	Y	Y	11	24 52-114-111059
114	API 2 3/8" Reg	API 3 1/2" Reg	160	Y	N	9	19 52-114-111053
114	API 2 7/8" Reg	API 3 1/2" Reg	160	Y	N	9	20 52-114-111056
114	API 3 1/2" Reg	API 2 3/8" Reg	120	Y	N	9	20 52-114-111031
114	API 3 1/2" Reg	API 2 3/8" Reg	223	Y	N	10	22 52-114-11518177
114	API 3 1/2" Reg	API 2 7/8" Reg	150	Y	N	11	24 52-114-111039
114	API 3 1/2" Reg	API 3 1/2" Reg	160	Y	N	11	23 52-114-111061
114	API 3 1/2" Reg	API 3 1/2" Reg	228	Y	N	15	33 52-114-111352
114	API 3 1/2" Reg	API 3 1/2" Reg	230	Y	N	14	32 52-114-112668
114	API 3 1/2" Reg	API 3 1/2" Reg	305	N	N	21	46 52-114-111578
114	API 3 1/2" Reg	API 3 1/2" Reg	500	Y	N	32	70 52-114-112537
114	DIBH 3 1/8"	API 3 1/2" Reg	260	Y	N	17	36 52-114-112700
114	BECO 3"	API 3 1/2" Reg	160	Y	N	10	22 52-114-112637
127	CUBEX #28	API 3 1/2" Reg	132	Y	Y	11	23 52-127-111060
127	BECO 3 1/2"	API 3 1/2" Reg	228	Y	N	20	44 52-127-111897
127	BECO 3 1/2"	API 3 1/2" Reg	228	Y	N	20	44 52-127-111943
127	BECO 3 1/2"	API 3 1/2" Reg	410	Y	N	36	79 52-127-112572
127	BECO 3 1/2"	API 3 1/2" Reg	609	Y	N	55	121 52-127-111524
127	API 3 1/2" Reg	BECO 3"	228	Y	N	19	41 52-127-112543
127	DIBH 3 1/8"	API 3 1/2" Reg	260	Y	N	21	46 52-127-11-2675
127	DIBH 3 1/8"	DIBH 3 1/8"	260	Y	N	15	32 52-127-112674
140	BECO 3 1/2"	API 4 1/2" Reg	228	Y	N	21	46 52-140-111948
146	API 4 1/2" Reg	API 3 1/2" Reg	132	Y	N	17	36 52-146-111067
150	API 4" IF	API 3 1/2" Reg	280	N	N	37	82 52-150-112621
164	API 3 1/2" Reg	BECO 3 1/2"	311	Y	N	33	73 52-164-112616
164	API 4 1/2" Reg	CUBEX #24	310	Y	N	24	53 52-164-112592
164	API 4 1/2" Reg	CUBEX #28	310	Y	N	26	57 52-164-112667
171	API 5 1/2" Reg	API 3 1/2" Reg	406	Y	N	42	93 52-171-112396
171	API 5 1/2" Reg	API 3 1/2" Reg	406	Y	N	43	95 52-171-112065
171	API 5 1/2" Reg	API 3 1/2" Reg	406	Y	N	45	99 52-171-112402

ACCESSORIES

Sandvik has recently developed and manufactured a comprehensive range of accessories to further increase safety.



PRODUCTS AND TOOLS FOR MORE EFFICIENT, SAFE WORK

80

SANDVIK ROCK DRILL PERFORMANCE FLUIDS

82

PRODUCTS AND TOOLS FOR MORE EFFICIENT, SAFE WORK

In order to best facilitate service and enable you to work efficient and safely, we supply many products and tools which work perfectly with our hammers. These accessories include Hammer lifting bails, foot valve assembly and disassembly tools, and a comprehensive hammer service kit. Our range of accessories optimizes your safety and productivity, and also reduces down-time, giving you better reliability.



Bit lifter

Air distributor removal tool



Foot valve assembly tool



Foot valve disassembly tool



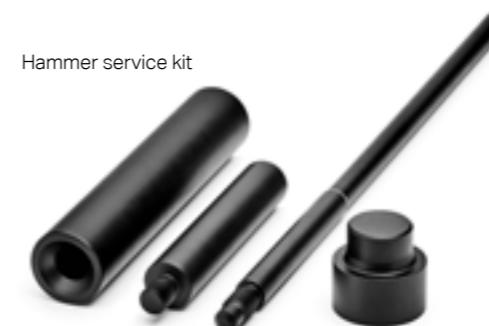
Description	Weight	Part no.
	kg	lb
Bit lifters		
QL80	4.2	9.2
TD90	3.7	8.2
DHD380	3.9	8.6
M80 Bit	3.6	7.9
QL60 Bit	3.7	8.2
DHD360	3.7	8.2
M60	3.6	7.9
Air distributor removal tool		
RH460-3.5"	2.8	6.2
RH460-4"	3.9	8.2
RH460-5"	7.2	15.9
RH460-6" I	8.6	19
RH460-8"	19.8	43.7
RH560-3.5"	2.9	6.4
RH560-4.5"	4.3	9.5
RH560-5.5"	6.7	14.8
RH560-6.5"	8.6	19
RH560-9"	24.2	53.4
Foot valve assembly tool		
QLX40	0.3	0.7
DHD3.5	0.2	0.4
DHD340	0.3	0.7
QL50	0.4	0.8
QL60	0.4	0.8
QL80	0.6	1.3
Foot valve disassembly tool		
DHD3.5 / DHD340	1.8	3.9
QLX4 / QL5 / DHD350	2.5	5.5
QL6 / DHD 360	3.2	7
QL8 / DHD380	4.9	10.9



Driver sub lifter



Hammer lifting bail



Hammer service kit



Grinding templates

Description	Weight	Part no.
	kg	lb
Driver sub lifters		
RH460-8" Drive Sub Lifter ASSY	4.8	10.6
RH510G-8" Drive Sub Lifter ASSY	4.8	10.6
RH510R-8" Drive Sub Lifter ASSY	4.8	10.6
Hammer lifting bail		
2-3/8" Reg box 3600 kg	5.1	11.2
2-7/8" Reg box 3600 kg	8	17.6
3-1/2" Reg box 3600 kg	14	30.8
3-1/2" IF box 3600 kg	10	22
4-1/2" Reg box 3600 kg	19	41.8
CUBEX #24 box 3600 kg	13	28.6
CUBEX #21 box 3600 kg	13	28.6
CUBEX #28 box 3600 kg	13	28.6
4 1/2" BECO box 3600 kg	25	55
Hammer service kit		
4"	2	4.4
5"	4.5	9.9
6"	5.4	11.9
8"	11.5	25.3
Grinding templates		
Grinding template, spherical buttons	0.1	0.2
Grinding template, ballistic buttons	0.1	0.2

SANDVIK PERFORMANCE FLUIDS HEAVY-DUTY ROCK DRILL LUBRICATION OIL

Sandvik heavy-duty rock drill lubrication oils are specially engineered for your Sandvik rock tools that operate under harsh mining conditions. With different viscosity

classes for colder and warmer climates, this oil will increase the service life of your rock tools and maximize your return on investment.

SANDVIK ROCK DRILL PERFORMANCE FLUIDS HEAVY-DUTY SHANK LUBRICATION OIL

Product name	Viscosity grade	Item number	Size
Sandvik OS32	ISO VG32	BG00636017	205 L
Sandvik OS32	ISO VG32	BG00636016	5 L e
Sandvik OS46	ISO VG46	BG00861758	205 L
Sandvik OS46	ISO VG46	BG00861769	5 L e
Sandvik OS68	ISO VG68	BG00861806	205 L
Sandvik OS68	ISO VG68	BG00861807	5 L e
Sandvik OS100	ISO VG100	BG00636013	205 L
Sandvik OS100	ISO VG100	BG00636014	5 L e
Sandvik OS150	ISO VG150	BG00861808	205 L
Sandvik OS150	ISO VG150	BG00861809	5 L e
Sandvik OS220	ISO VG220	BG00861810	205 L
Sandvik OS220	ISO VG220	BG00861811	5 L e
Sandvik OS320	ISO VG320	BG00861812	205 L
Sandvik OS320	ISO VG320	BG00861813	5 L e

Sandvik reserves the right to make changes to the information on this data specification without prior notification to users. Please contact a Sandvik representative for clarification on specifications and options.



SETTING THE STANDARDS IN NON-STANDARD

Special orders can be made for a wide range of non-standard tools specifically designed to increase safety, productivity and – not least – revenue on machines where off-the-shelf parts don't fit. We know that every customer has their own specific challenges that require different solutions. This is why we offer tools

suitable for all conceivable situations – including special requirement for non-standard tools – length, shank, cutting, dimensions and diameter or pitch of thread. Non-standard orders take more time to complete and require a minimum quantity. Please contact your local sales representative for details.

RH510	86
RH460	95
DTH BITS / M SHANKS	108
DTH BITS / DHD SHANKS	112
DTH BITS / QLX/QL SHANKS	117



RH510r

3"

RH510r

4"

Complete Hammer

#21 Cubex pin top sub 32-5130-RMA-63S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH WITH BIT	HAMMER LENGTH WITH BIT				
			Bit closed		Bit extended		
kg	lb	mm	inch	mm	inch	mm	inch
25	55	81.3	3.2	823	32.4	875	34.4
						911	35.9

AIR CONSUMPTION, CFM

150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
172	304	436	4.87	8.61	12.34

REPLACEMENT PARTS ITEM DESCRIPTION

	Weight, kg	Weight, lb	Part No.
1. Top subs			
#21 Cubex pin	5	11	33-3A001/63A
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart with spring	0.3	0.7	25-99006A
5. Check valve dart spring	0.02	0.01	22-99071
6. Check valve guide	0.23	0.5	39-3A001
7. Choke set, blank 1/8", 3/16", & 1/4"	0.1	0.2	29-48017A
8. Feed tube retainer pin	0.03	0.1	12-99021
9. Feed tube with retainer pin & blank choke	0.45	1	37-3A001A
10. Piston	3.86	8.5	BG00468603
11. Piston case with retainer ring	10.9	24	BG00468599
12. Piston retainer ring	0.05	0.1	23-99027
13. O-rings – guide sleeve, bit retainer (3)			In seal kit
14. Guide sleeve with 2 O-rings (#12)	1	2.2	26-3A010A
15. Bit retainer ring with O-ring (#12)	0.09	0.2	27-3A006A
16. Driver sub	2.18	4.8	34-3A006
Seal kit			
3 piece of #2 & 3 of #12	0.25	0.5	38-3A056
Rebuild kit			
1 piece of #1, 1 of #10, 1 of #15 & seal kit			
#21 Cubex pin	18.1	40	BG00478480
Bit shank			
M30			



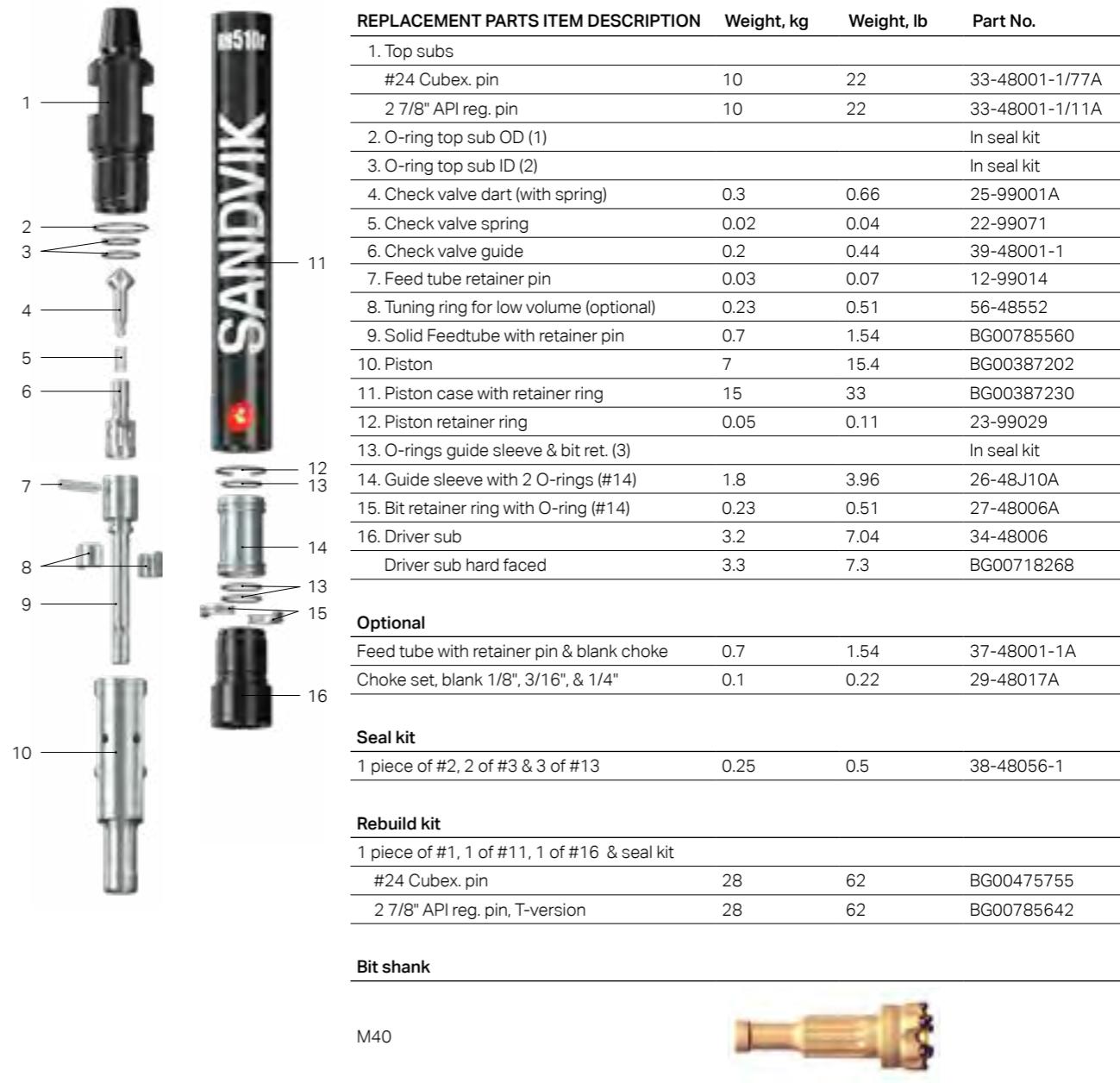
Complete Hammer

#24 Cubex pin top sub 32-5140-RMA-77S

2 7/8" API pin T-version 32-5140-TMA-11S

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT		
			Bit closed	Bit extended	
kg	lb	mm	inch	mm	inch
38	83	98	3.56	914	36
				989	38.9
				1029	40.5

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
180	370	560	5.1	10.5	15.9
Low volume option	151	315	4.3	8.9	13.2



RH510

5"

RH510g

5"

Complete Hammer

2 7/8" API reg. pin top sub 32-5150-SMA-11S

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT	
kg	lb	mm	inch	mm	inch	mm	inch
68	145	120	4.72	987	38.86	1082	42.6
AIR CONSUMPTION, CFM							
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar		
305	580	855	8.64	16.42	24.21		
Low volume option	285	540	790	8.07	15.25	22.37	



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs with 3 O-rings			
2 7/8" API reg. pin	10	22	33-58D01/11A
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart (with spring)	0.3	0.66	25-99002A
5. Check valve spring	0.02	0.04	BG00348123
6. Check valve guide	0.3	0.66	39-58S01
7. O-ring feed tube (1)			In seal kit
8. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.26	29-68017A
9. Feed tube retainer pin	0.09	0.2	12-99018
10. Feed tube with retainer pin and blank choke	1	2.2	37-58001A
11. Tuning ring for low volume (optional)	0.03	0.07	56-58552
12. Piston	12	26.4	BG00387748
13. Piston case with retainer ring	27	59.4	BG00473260
14. Piston retainer ring	0.05	0.11	23-99032
15. O-rings guide sleeve & bit ret. (3)			In seal kit
16. Guide sleeve with 2 O-rings (#14)	3	6.6	26-58J10A
17. Bit retainer ring with O-ring (#14)	0.5	1.1	27-58006A
18. Driver sub	6	13.2	34-58D69
Seal kit			
1 piece of #2, 2 of #3, 1 of #7 & 3 of #15	0.45	0.99	38-58D56
Rebuild kit			
1 piece of #1, 1 of #13, 1 of #18 & seal kit			
2 7/8" API reg. pin	43	94.6	BG00475764
Bit shank			
M50			

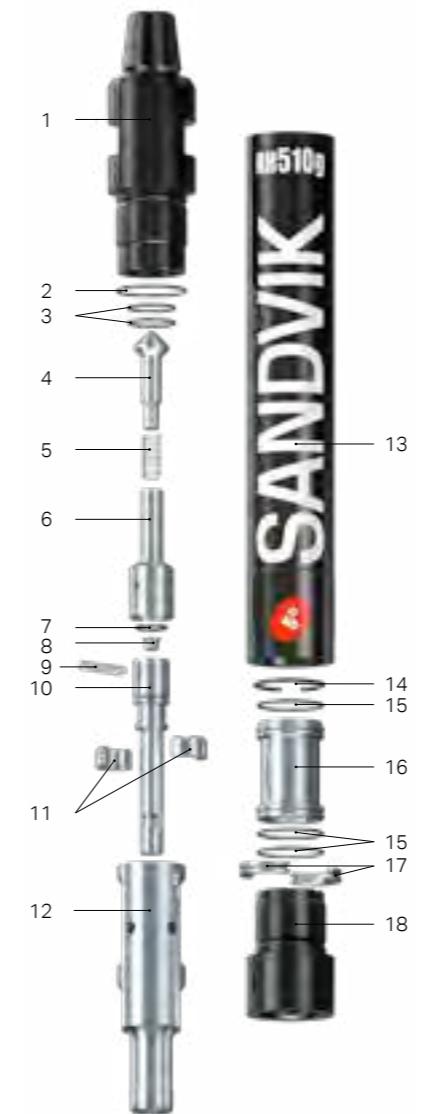


Complete Hammer

#24 Cubex pin top sub 32-5155-GMA-77C
3 1/8 DIBH pin 32-5155-GMA-83C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT	
kg	lb	mm	inch	mm	inch	mm	inch
73	160	126	4.96	987	38.86	1082	42.6

AIR CONSUMPTION, CFM		AIR CONSUMPTION, M ³ /MIN	
150 psi	250 psi	350 psi	10 bar
305	580	855	8.64
Low volume option	285	540	790



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs with 3 O-rings			
#24 Cubex. pin	18	39.6	33-58D02/77CA
3 1/8 DIBH pin			33-58D02/83CA
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart (with spring)	0.3	0.66	25-99002A
5. Check valve spring	0.02	0.04	BG00348123
6. Check valve guide	0.3	0.66	39-58S01
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.26	29-68017A
8. O-ring feed tube (1)			In seal kit
9. Feed tube retainer pin	0.09	0.2	12-99018
10. Feed tube with retainer pin and blank choke	1	2.2	37-58001A
11. Tuning ring for low volume (optional)	0.03	0.07	56-58552
12. Piston	12	26.4	BG00387748
13. Piston case with retainer ring	29	63.8	BG00470986
14. Piston retainer ring	0.05	0.11	23-99032
15. O-rings guide sleeve & bit ret. (3)			In seal kit
16. Guide sleeve with 2 O-rings (#14)	3	6.6	26-58J10A
17. Bit retainer ring with O-ring (#14)	0.5	1.1	27-58006A
18. Driver sub	7	15.4	34-58D70
Seal kit			
1 piece of #2, 2 of #3, 1 of #7 & 3 of #15	0.45	0.99	38-58D56
Rebuild kit			
1 piece of #1, 1 of #13, 1 of #18 & seal kit			
#24 Cubex. pin	54	118.8	BG00475762
Bit shank			
M50			



STANDARD DTH HAMMERS

STANDARD DTH BITS

DTH TUBE SYSTEMS

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH BITS

RH510r

5"

RH510

6"

STANDARD DTH HAMMERS

STANDARD DTH BITS

DTH TUBEX SYSTEMS

DRILL PIPES

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

Complete Hammer

#24 Cubex. pin top sub

32-5155-RMA-77C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT	
kg	lb	mm	inch	mm	inch	Bit closed	Bit extended
73	160	126	4.96	987	38.86	1082	42.6
						1122	44.2

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
305	580	855	8.64	16.42	24.21
Low volume option	285	540	790	8.07	15.25
					22.37



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top subs with 3 O-rings #24 Cubex. pin	18	39.6	33-58S02/77CA
2. O-ring top sub OD (1)			In seal kit
3. O-ring top sub ID (2)			In seal kit
4. Check valve dart (with spring)	0.3	0.66	25-99002A
5. Check valve spring	0.02	0.04	22-99072
6. Check valve guide	0.3	0.66	39-58S01
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.26	29-68017A
8. O-ring feed tube (1)			In seal kit
9. Feed tube retainer pin	0.09	0.2	12-99018
10. Feed tube with retainer pin and blank choke	1	2.2	37-58001A
11. Tuning ring for low volume (optional)	0.03	0.07	56-58552
12. Piston	12	26.4	BG00387748
13. Piston case with retainer ring	29	63.8	BG00409895
14. Piston retainer ring	0.05	0.11	23-99032
15. O-rings guide sleeve & bit ret. (3)			In seal kit
16. Guide sleeve with 2 O-rings (#14)	3	6.6	26-58J10A
17. Bit retainer ring with O-ring (#14)	0.5	1.1	27-58006A
18. Driver sub	7	15.4	34-58070

Seal kit

1 piece of #2, 2 of #3, 1 of #8 & 3 of #15 0.45 0.99 38-58D56

Rebuild kit

1 piece of #1, 1 of #13, 1 of #18 & seal kit
#24 Cubex. pin 54 118.8 BG00475760

Bit shank

M50



Complete Hammer

3 1/2" API box

32-5160-SMA-25S

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT	
kg	lb	mm	inch	mm	inch	Bit closed	Bit extended
72	158	142	5.6	922	36.3	1008	39.7
						1046	41.2

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
343	659	972	9.8	18.7	27.5



RH510g

6"

RH510r

8"

Complete Hammer

#28 Cubex. pin top sub

32-5165-GMA-56C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
82	180	150	5.9	922	36.3	1008	39.7	1046	41.2

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
343	659	972	9.8	18.7	27.5

REPLACEMENT PARTS ITEM DESCRIPTION		Weight, kg	Weight, lb	Part No.
1. Top sub with 3 O-rings				
#28 Cubex. pin		22	48.4	33-6L009/56CA
2. O-ring top sub OD (1)				In seal kit
3. O-ring top sub ID (2)				In seal kit
4. Check valve dart with spring	0.3	0.66	25-99002A	
5. Check valve dart spring	0.02	0.044	BG00348123	
6. Check valve guide	0.3	0.66	39-68001	
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.264	29-68017A	
8. Feed tube retainer pin	0.2	0.44	12-99013	
9. Feed tube with retainer pin and blank choke	1	2.2	37-68601A	
10. Piston	18	39.6	BG00210384	
11. Piston case with retainer ring	33	72.6	BG00465129	
12. Piston retainer ring	0.1	0.22	23-99028	
13. O-rings – guide sleeve, bit retainer (3)				In seal kit
14. Guide sleeve with 2 O-rings (#13)	4	8.8	26-68J10A	
15. Bit retainer ring with O-ring (#13)	1	2.2	27-68006A	
16. Driver sub	6	13.2	34-6LD70	
 Seal kit				
1 pieces of #2, 2 of #3 & 3 of #13	0.25	0.5	38-68656	
 Rebuild kit				
1 piece of #1, 1 of #11, 1 of #16 & seal kit				
#28 Cubex. pin	62	136.4	BG00474819	
 Bit shank				
M60				



Complete Hammer

4 1/2" BECO pin

32-5185-RMA-72C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
173	380	181	7.12	1219	48	1310	51.6	1354	53.3

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
460	850	1240	13	23.8	35.1
Low volume option	300	560	830	08.05	15.9

REPLACEMENT PARTS ITEM DESCRIPTION		Weight, kg	Weight, lb	Part No.
1. Top sub with 3 O-rings				
4 1/2" BECO pin		42	92.4	33-88002/72CA
2. O-ring top sub OD (1)				In seal kit
3. O-ring top sub ID (2)				In seal kit
4. Check valve dart (with spring)	0.5	1.1	38-11663A	
5. Check valve spring	0.1	0.22	38-1/1235-073	
6. Check valve guide	0.7	1.54	39-88001	
7. Choke set, blank 1/8", 3/16", & 1/4"	0.12	0.264	29-68017A	
8. Feed tube retainer pin	0.2	0.44	12-99016	
9. Tuning ring for low volume (optional)	0.8	1.76	56-88552	
10. Feed tube with retainer pin and blank choke	2.2	4.84	37-88001A	
11. Piston	42	92.4	BG00473429	
12. Piston case with retainer ring	56	123.2	BG00473546	
13. Piston retainer ring	0.2	0.44	23-99030	
14. O-rings guide sleeve & bit ret. (3)				In seal kit
15. Guide sleeve with 2 O-rings (#14)	11	24.2	26-88J10A	
16. Bit retainer ring with O-ring (#14)	1.9	4.18	27-88006A	
17. Driver sub	17	37.4	34-88007	
 Seal kit				
1 piece of #2, 2 of #3 & 3 of #14	0.25	0.55	38-88056	
 Rebuild kit				
1 piece of #1, 1 of #12, 1 of #17 & seal kit				
4 1/2" BECO pin	115	253	BG00629764	
 Bit shank				
M80				



RH510HD

8"

RH460

4"

Complete Hammer

5 1/4" BECO pin	32-5185-XMA-84S
4 1/2" API pin	32-5185-XMA-19C

WEIGHT kg	lb	OUTSIDE DIAMETER mm	HAMMER LENGTH mm	HAMMER LENGTH WITH BIT			
				Bit closed		Bit extended	
				mm	inch	mm	inch
213	470	193	7.60	1219	48	1310	51.6
						1354	53.3
AIR CONSUMPTION, CFM				AIR CONSUMPTION, M ³ /MIN			
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar		
460	850	1240	13	23.8	35.1		
Low volume option	300	560	830	08.05	15.9	23.5	



Complete Hammer

2 3/8" API pin, single lead threads	BG00708123
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WEIGHT kg	lb	OUTSIDE DIAMETER mm	HAMMER LENGTH mm	HAMMER LENGTH WITH BIT		Bit closed		Bit extended	
				mm	inch	mm	inch	mm	inch
40	88	97.5	384	985	38.78	1075	42.16	1109	43.66
AIR CONSUMPTION, CFM									
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	10 bar	18 bar	24 bar	24 bar
190	395	565	5.4	11.2	16				

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.	Weight, kg	Weight, lb	Part No.
1. Top sub				1. Top sub		
2 3/8" API reg pin	8.2	18	BG00707804	2 3/8" API reg pin	8.2	18
2. Check valve dart no choke	0.24	0.53	BG00320005	Check valve dart no choke	0.24	0.53
3. Check valve spring	0.02	0.04	BG00876172	Check valve spring	0.02	0.04
4. Make up ring	0.1	0.22	BG0014825	Make up ring	0.1	0.22
5. Air distributor with O-ring	2	4.4	BG00056811	Air distributor with O-ring	2	4.4
6. O-ring air distributor			In seal kit	O-ring air distributor		
7. Inner cylinder	2.1	4.62	BG00110688	Inner cylinder	2.1	4.62
8. Piston DHD340	7.8	17.2	BG00243036	Piston DHD340	7.8	17.2
9. Piston case with retainer ring	15.4	33.9	BG00707798	Piston case with retainer ring	15.4	33.9
10. Piston retainer ring	0.1	0.22	BG00014819	Piston retainer ring	0.1	0.22
11. Bit retainer ring with O-ring DHD340	0.17	0.37	BG00014818	Bit retainer ring with O-ring DHD340	0.17	0.37
12. O-ring bit retainer ring			In seal kit	O-ring bit retainer ring		
13. Driver sub	3.5	7.7	BG00707830	Driver sub	3.5	7.7
Optional						
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.02	0.04	BG00015430			
Check valve dart with choke hole	0.24	0.53	BG00119068			
Seal kit						
1 piece of #6, #12	0.02	0.04	BG00014848			
Rebuild kit						
1 piece of #1, #9, #13 & seal kit				1 piece of #1, #9, #13 & seal kit		
2 3/8" API reg pin	27	59.4	BG00708138	2 3/8" API reg pin	27	59.4
Bit shank						
M80				DHD340		

RH460

4"

RH460hp

4"

Complete Hammer

2 3/8" API pin, double – triple lead thread

BG00358362

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH WITH BIT		HAMMER LENGTH			
kg	lb	mm	inch	mm	inch	mm	inch	Bit closed	Bit extended
40	88	97.5	3.84	985	38.78	1075	42.16	1109	43.66
AIR CONSUMPTION, CFM									
150 psi		250 psi		350 psi		10 bar		18 bar	
190		395		565		5.4		11.2	
POWER OUTPUT (kW)									
						24 bar		24 bar	
						25			



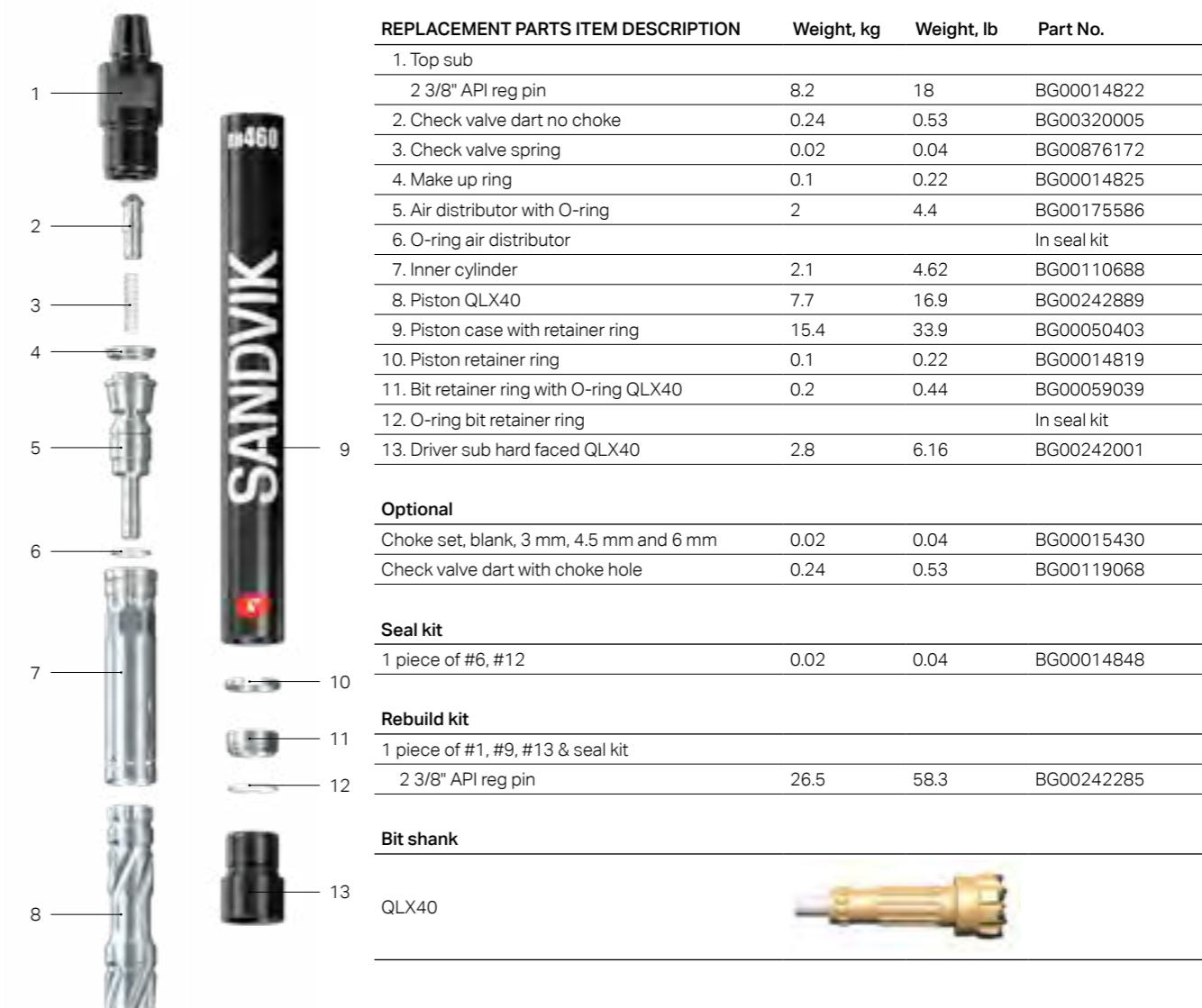
REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
2 3/8" API pin	7.9	17.4	BG00379867
2. Check valve dart no choke	0.24	0.53	BG00320005
3. Check valve spring	0.02	0.04	BG00876172
4. Make up ring	0.1	0.22	BG00014825
5. Air distributor with O-ring	2	4.4	BG00056811
6. O-ring air distributor			In seal kit
7. Inner cylinder	2.1	4.62	BG00110688
8. Piston QLX40	7.7	16.9	BG00242889
9. Piston case with retainer ring	15.4	33.9	BG00358368
10. Piston retainer ring	0.1	0.22	BG00014819
11. Bit retainer ring with O-ring QLX40	0.2	0.44	BG00059039
12. O-ring bit retainer ring			In seal kit
13. Driver sub	2.8	6.16	BG00358367
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.02	0.04	BG00015430
Check valve dart with choke hole	0.24	0.53	BG00119068
Seal kit			
1 piece of #6, #12	0.02	0.04	BG00014848
Rebuild kit			
1 piece of #1, #9, #13 & seal kit			
2 3/8" API pin, double – triple lead thread	27	59.4	BG00358587
Bit shank			
QLX40			

Complete Hammer

2 3/8" API reg pin

32-4640-ETB-16S

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	Bit closed	Bit extended	mm	inch
41	90	97.5	3.84	985	38.78	1075	42.16	1109	43.66
AIR CONSUMPTION, CFM					AIR CONSUMPTION, M³/MIN, DIN 1343				
250 psi		350 psi		500 psi		18 bar		24 bar	
364		519		805		10.3		14.7	
POWER OUTPUT (kW)					AIR CONSUMPTION, M³/MIN, DIN 1343				



STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL TUBEX SYSTEMS

ACCESSORIES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

RH460

5"

RH460g

5"

Complete Hammer

3 1/2" API pin with hard faced driver sub

BG00840043

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT								
kg	lb	mm	inch	Bit closed		Bit extended		mm	inch					
				mm	inch	mm	inch							
66	145	120	4.72	1067	42.01	1156	45.51	1185	46.65					
AIR CONSUMPTION, CFM														
AIR CONSUMPTION, M ³ /MIN, DIN 1343				POWER OUTPUT (kW)										
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar	24 bar	275	544	756	7.8	15.4	21.4	32.3



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API reg pin	14.8	32.56	BG00014995
2. Check valve dart no choke	0.45	0.99	BG00319921
3. Check valve spring	0.03	0.07	BG00854876
4. Make up ring	0.20	0.44	BG00014994
5. Air distributor with O-ring	3.60	7.92	BG00014996
6. O-ring air distributor			In seal kit
7. Inner cylinder	4.2	9.24	BG00025161
8. Piston	14.3	31.46	BG00062889
9. Piston case with retainer ring	22	48.4	BG00014999
10. Piston retainer ring	0.10	0.22	BG00014998
11. O-ring guide sleeve			In seal kit
12. Guide sleeve with O-ring	1	2.2	BG00014988
13. Bit retainer ring with O-ring	0.4	0.88	BG00014989
14. O-ring bit retainer ring			In seal kit
15. Driver sub hard faced	5	11	BG00162923
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00015430
Check valve dart with choke hole	0.4	0.88	BG00014985
Driver sub hard faced	5	11	BG00162923
Seal kit			
1 piece of #6, #14 & 2 of #11	0.01	0.02	BG00015014
Rebuild kit			
1 piece of #1, #9, #15 & seal kit			
3 1/2" API reg pin	41.5	91.3	BG00840065
Bit shank			
QL50			



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API pin, No retrac	15.5	34.1	BG00827973
2. Check valve dart no choke	0.45	0.99	BG00319921
3. Check valve spring	0.03	0.07	BG00854876
4. Make up ring	0.20	0.44	BG00014994
5. Air distributor with O-ring	3.60	7.92	BG00014996
6. O-ring air distributor			In seal kit
7. Inner cylinder	4.20	9.24	BG00025161
8. Piston	14.3	31.5	BG00062889
9. Piston case with retainer ring	30.0	66.0	BG00068439
10. Piston retainer ring	0.10	0.22	BG00014998
11. O-ring guide sleeve			In seal kit
12. Guide sleeve with O-ring	1.00	2.20	BG00014988
13. Bit retainer ring with O-ring	0.40	0.88	BG00014989
14. O-ring bit retainer ring			In seal kit
15. Driver sub hard faced	5.50	12.1	BG00827963
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00015430
Check valve dart with choke hole	0.40	0.88	BG00014985
Seal kit			
1 piece of #6, #14 & 2 of #11	0.01	0.02	BG00015014
Rebuild kit			
1 piece of #1, #9, #15 & seal kit			
2 7/8" API pin	49.0	108	BG00389206
Bit shank			
QL50			

RH460hp

5"

RH460 DHD

5"

Complete Hammer

3 1/2" API reg pin 32-4655-EQB-04C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	Bit closed		Bit extended	
						mm	inch	mm	inch
76	168	126	4.96	1067	42.01	1156	45.51	1185	46.65

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)		
250 psi	350 psi	500 psi	18 bar	24 bar	35 bar	35 bar		
501	692	1102	14.2	19.6	31.2	41.6		



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API reg pin	15.5	34.1	BG00068455
2. Check valve dart no choke	0.45	0.99	BG00319921
3. Check valve spring	0.03	0.07	BG00854876
4. Make up ring	0.2	0.44	BG00014994
5. Air distributor with O-ring	3.6	7.92	BG00093776
6. O-ring air distributor			In seal kit
7. Inner cylinder	4.2	9.24	BG00025161
8. Piston	14.3	31.5	BG00062889
9. Piston case with retainer ring	30	66	BG00068439
10. Piston retainer ring	0.1	0.22	BG00014998
11. O-ring guide sleeve			In seal kit
12. Guide sleeve with O-ring	1	2.2	BG00014988
13. Bit retainer ring with O-ring	0.4	0.88	BG00014989
14. O-ring bit retainer ring			In seal kit
15. Driver sub hard faced	5.5	12.1	BG00068435
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00015430
Check valve dart with choke hole	0.4	0.88	BG00014985
Seal kit			
1 piece of #6, #14 & 2 of #11	0.01	0.02	BG00015014
Rebuild kit			
1 piece of #1, #9, #15 & seal kit			
3 1/2" API reg pin	51	112	BG00081817
Bit shank			
QL50			

Complete hammer

3 1/2" API Reg Pin

32-4655-GDA-04C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	Bit closed		Bit extended	
						mm	inch	mm	inch
76	167	126	4.96	1,098	43.2	1,187	46.7	1,216	47.9

AIR CONSUMPTION, CFM			AIR CONSUMPTION, M ³ /MIN, DIN 1343		
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
275	544	756	7.8	15.4	21.4



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top Sub			
3 1/2" API Reg Pin	15.5	34.1	BG00068455
2. Check Valve Dart no Choke	0.45	0.99	BG00906719
3. Check Valve Spring	0.03	0.07	BG00854876
4. Make Up Ring	0.20	0.44	BG00014994
5. Air Distributor with O-Ring	3.60	7.92	BG00014996
6. O-Ring Air Distributor			In Seal Kit
7. Inner Cylinder	4.20	9.24	BG00025161
8. Piston DHD350	14.3	31.5	BG00794561
9. Piston Case with Retainer Ring	30.0	66.0	BG00068439
10. Piston Retainer Ring	0.10	0.22	BG00014998
11. O-Ring Guide Sleeve			In Seal Kit
12. Guide Sleeve with O-Ring	1.00	2.20	BG00793243
13. Bit Retainer Ring with O-Ring	0.40	0.88	BG00014989
14. O-Ring Bit Retainer Ring			In Seal Kit
15. Driver Sub Hard Faced	5.5	12.1	BG00793240
Optional			
Choke Set, Blank, 3mm, 4.5mm and 6mm	0.01	0.02	BG00015430
Check Valve Dart with Choke Hole*	0.40	0.88	BG00014985
* Need to order choke set separately			
Seal Kit			
1 Piece of 6, 11 & 14	0.01	0.02	BG00015014
Rebuild Kit			
1 piece of 1, 9, 15 & Seal Kit			
3 1/2" API Reg Pin	51.0	112	BG00917840
Bit shank			
DHD350			

RH460

6"

Complete Hammer

3 1/2" API pin with hard faced driver sub

BG00840057

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH WITH BIT		HAMMER LENGTH			
kg	lb	mm	inch	mm	inch	mm	inch	Bit closed	Bit extended
100	220	142	5.59	1155	45.47	1263	49.72	1304	51.34
AIR CONSUMPTION, CFM									
AIR CONSUMPTION, M³/MIN, DIN 1343									
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar	24 bar	POWER OUTPUT (kW)	
307	625	879	8.7	17.7	25	42.4	42.4		



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API pin	25.4	55.9	BG00014888
2. O-ring top sub			In seal kit
3. Check valve dart no choke	0.7	1.54	BG00321398
4. Check valve spring	0.1	0.22	BG00854872
5. Make up ring	0.4	0.88	BG00014865
6. Air distributor with O-ring	6.2	13.6	BG00054361
7. O-ring air distributor			In seal kit
8. Inner cylinder	6.4	14.1	BG00123002
9. Piston	21.4	47.1	BG00243084
10. Piston case with retainer ring	32.4	71.3	BG00054318
11. Piston retainer ring	0.1	0.22	BG00055711
12. O-ring guide sleeve			In seal kit
13. Guide sleeve with O-ring	2.3	5.06	BG00055719
14. Bit retainer ring with O-ring	0.6	1.32	BG00014871
15. O-ring bit retainer ring			In seal kit
16. Driver sub hard faced	6.5	14.3	BG00242302
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0.01	0.02	BG00081800
Check valve dart with choke hole	0.7	1.54	BG00014869
Seal kit			
1 piece of #2, #7, #15 & 2 of #12	0.01	0.02	BG00014894
Rebuild kit			
1 piece of #1, #10, #16 & seal kit			
3 1/2" API reg pin	63.0	139	BG00841109
Bit shank			
QL60			

RH460hp

6"

Complete Hammer

3 1/2" API reg pin

32-4665-EQB-04C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	mm	inch	Bit closed	Bit extended
117	257	150	5,91	1155	45,47	1263	49,72	1304	51,34
AIR CONSUMPTION, CFM									
AIR CONSUMPTION, M³/MIN, DIN 1343									
250 psi	350 psi	500 psi	18 bar	24 bar	35 bar	35 bar	35 bar	POWER OUTPUT (kW)	
508	713	1085	14,4	20,2	30,7	47,3	47,3		

REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top sub			
3 1/2" API reg pin	25,4	55,9	BG00224812
2. O-ring top sub			In seal kit
3. Check valve dart no choke	0,70	1,54	BG00321398
4. Check valve spring	0,03	0,07	BG00854872
5. Make up ring	0,40	0,88	BG00014865
6. Air distributor with O-ring	6,20	13,6	BG00419123
7. O-ring air distributor			In seal kit
8. Inner cylinder	6,40	14,1	BG00419144
9. Piston	21,4	47,1	BG00243084
10. Piston case with retainer ring	46,4	102	BG00224808
11. Piston retainer ring	0,10	0,22	BG00055711
12. O-ring guide sleeve			In seal kit
13. Guide sleeve with O-ring	2,30	5,06	BG00055719
14. Bit retainer ring with O-ring	0,60	1,32	BG00014871
15. O-ring bit retainer ring			In seal kit
16. Driver sub hard faced	7,20	15,8	BG00224798
Optional			
Choke set, blank, 3 mm, 4.5 mm and 6 mm	0,01	0,02	BG00081800
Check valve dart with choke hole	0,70	1,54	BG00014869
Seal kit			
1 piece of 2, 7, 15 & 2 of 12	0,01	0,02	BG00014894
Rebuild kit			
1 piece of 1, 10, 16 & seal kit			
3 1/2" API reg pin	79,0	174	BG00240400
Bit shank			
QL60			



RH460 DHD

6"

RH460 DHD

8"

Complete hammer

3 1/2" API Reg Pin

32-4665-GDA-04C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
121	266	150	5.91	1,210	47.6	1,318	51.9	1,372	54
AIR CONSUMPTION, CFM					AIR CONSUMPTION, M3/MIN, DIN 1343				
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	150 psi	250 psi	350 psi	10 bar
307	625	883	8.7	17.7	25	365	852	1,290	10.3



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top Sub 3 1/2" API Reg Pin	25.4	55.9	BG00224812
2. O-ring Top Sub In Seal Kit			
3. Check Valve Dart no Choke	0.70	1.54	BG00904397
4. Check Valve Spring	0.05	0.11	BG00854872
5. Make Up Ring	0.40	0.88	BG00014865
6. Air Distributor with O-Ring	6.20	13.6	BG00054361
7. O-Ring Air Distributor In Seal Kit			
8. Inner Cylinder	6.40	14.1	BG00123002
9. Piston DHD360	21.8	48.0	BG00731873
10. Piston Case with Retainer Ring	48.9	108	BG00731824
11. Piston Retainer Ring	0.10	0.22	BG00055711
12. O-Ring Guide Sleeve In Seal Kit			
13. Guide Sleeve with O-Ring	3.50	7.70	BG00731788
14. Bit Retainer Ring with O-Ring	0.66	1.45	BG00731857
15. O-Ring Bit Retainer Ring In Seal Kit			
16. Driver Sub Hard Faced	8.10	17.8	BG00731848
Optional			
Choke Set, Blank, 3mm, 4.5mm and 6mm	0.01	0.02	BG00081800
Check Valve Dart with Choke Hole*	0.70	1.54	BG00014869
* Need to order choke set separately			
Seal Kit			
1 Piece of 2, 7, 15 & 2 of 12	0.01	0.02	BG00014894
Rebuild Kit			
1 piece of 1,10,16 & Seal Kit			
3 1/2" API Reg Pin	79.0	174	BG00918157
Bit shank			
DHD360			



COMPLETE HAMMER

4 1/2" API Reg Pin

32-4685-GDA-19C

WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
247	543	194	7.64	1,444	56.6	1,584	62.4	1,632	64.3
AIR CONSUMPTION, CFM					AIR CONSUMPTION, M3/MIN, DIN 1343				
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	150 psi	250 psi	350 psi	10 bar
365	852	1,290	10.3	24.1	36.5				



REPLACEMENT PARTS ITEM DESCRIPTION	Weight, kg	Weight, lb	Part No.
1. Top Sub 4 1/2" API Reg Pin	57.0	125	BG00365764
2. Check Valve Dart No Choke	0.80	1.76	BG00321984
3. Check Valve Spring	0.04	0.09	BG00652827
4. Make Up Ring	0.40	0.88	BG00015380
5. Air Distributor with O-Ring	9.40	20.7	BG00078615
6. O-Ring Air Distributor In Seal Kit			
7. Inner Cylinder	10.5	23.1	BG00057803
8. Piston DHD380	50.3	111	BG00713990
9. Piston Case with Retainer Ring	94.2	207	BG00278268
10. Piston Retainer Ring	0.20	0.44	BG00096748
11. Guide Sleeve	1.30	2.86	BG00713842
12. Bit Retainer Ring	1.65	3.63	BG00713977
13. Driver Sub Hard Faced	21.8	48.0	BG00713911

Optional

Choke Set, Blank, 3mm, 4.5mm and 6mm	0.01	0.02	BG00081800
Check Valve Dart with Choke Hole*	0.80	1.76	BG00015375

* Need to order choke set separately

Seal Kit

1 Piece of 6	0.01	0.02	BG00303706
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Rebuild Kit

1 piece of 1, 9, 13 & Seal Kit 4 1/2" API Reg Pin	168	370	BG00919028
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Bit shank

DHD380



STANDARD DTH HAMMERS

STANDARD DTH BITS

DRILL TUBEX SYSTEMS
DRILL PIPES

NON-STANDARD DTH HAMMERS

NON-STANDARD DTH DRILL BITS

RH460g

8"

Complete Hammer

4 1/2" BECO pin	BG00319133
5 1/4" BECO pin	BG00394481

WEIGHT	OUTSIDE DIAMETER	HAMMER LENGTH	HAMMER LENGTH WITH BIT					
			Bit closed		Bit extended			
kg	lb	mm	inch	mm	inch	mm	inch	
244	537	194	7.64	1426	56.14	1566	61.65	
						1608	63.31	

AIR CONSUMPTION, CFM		AIR CONSUMPTION, M ³ /MIN, DIN 1343			POWER OUTPUT (kW)	
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar	24 bar
365	852	1,290	10.3	24.1	36.5	50



DTH BITS / M SHANKS

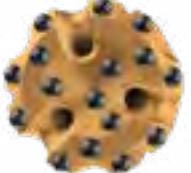
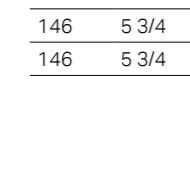
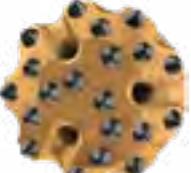
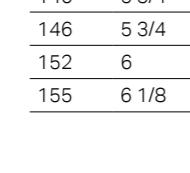
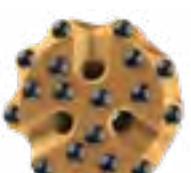
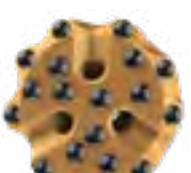
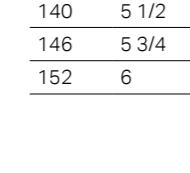
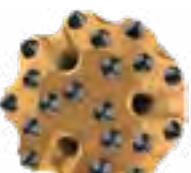
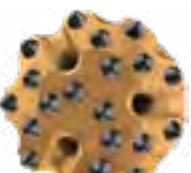


DTH BITS / M SHANKS

	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
M40												
Concave face / Spherical button												
	121	4 3/4	2	8	14	14	9.4	20.7	42-481B121-S65			
	130	5 1/8	2	8	16	13	10.4	22.9	42-4818130-S48			
	152	6	2	8	16	13	12.3	27.1	42-4818152-S48			
Convex face / Ballistic button												
	115	4 1/2	2	8	14	14	8.9	19.6	42-485B115-R55			
Flat face / Spherical button												
	115	4 1/2	2	8	14	14	9.0	19.8	42-48FB115-S65			
	133	5 1/4	2	8	16	14	10.6	23.4	42-48F9133-S48			
	140	5 1/2	2	8	16	14	11.1	24.5	42-48F9140-S48			
Convex face / Spherical / Ballistic buttons												
	127	5	2	8	14	14	9.6	21.2	42-485B127-L55			
	127	5	2	8	14	14	9.6	21.2	42-485B127-L55K			

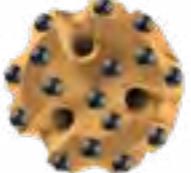
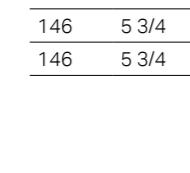
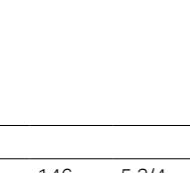
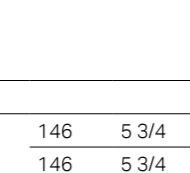
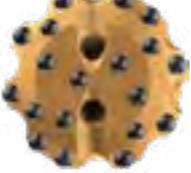
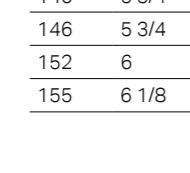
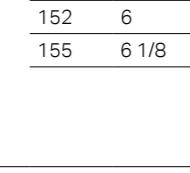
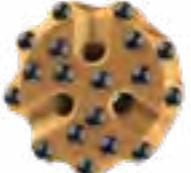
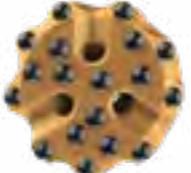
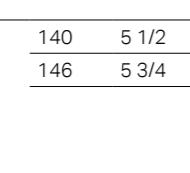
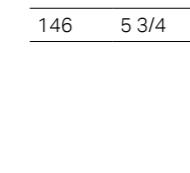
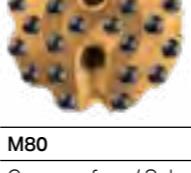
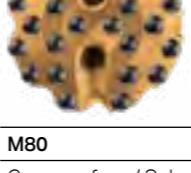
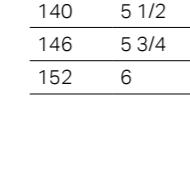
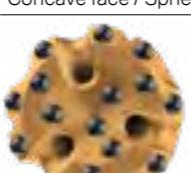
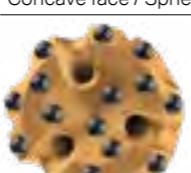
For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / M SHANKS

	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
M50												
Concave face / Spherical button												
	130	5 1/8	2	8	16	13	13.8	30.4	42-5818130-S48			
	146	5 3/4	2	8	16	14	15.1	33.3	42-5819146-S65			
	146	5 3/4	2	8	16	16	15.0	33.1	72-581C146-S48			
												
Convex face / Ballistic button												
	146	5 3/4	3	9	16	16	15.1	33.3	42-58LC146-R48			
	146	5 3/4	3	9	16	16	15.1	33.3	42-58LC146-R55			
	152	6	3	9	18	16	15.4	33.9	42-58LD152-R48			
	155	6 1/8	3	9	18	18	15.4	34.0	42-58LE155-R55H			
												
Convex face / Spherical button												
	140	5 1/2	3	9	18	18	15.0	33.1	42-58GE140-W55			
	146	5 3/4	3	9	18	16	15.7	34.6	42-58LD146-W48			
												
Flat face / Spherical button												
	140	5 1/2	3	9	16	14	15.0	33.1	42-5829140-S65			
	146	5 3/4	3	9	16	14	15.3	33.7	42-5829146-S48			
	152	6	3	9	18	16	15.7	34.6	42-582D152-S48H			
												
Convex face / Spherical / Ballistic buttons												
	155	6 1/8	3	9	18	18	14.5	32.0	42-58LE155-L55K			
												

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / M SHANKS

	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
M60												
Concave face / Spherical button												
	152	6	2	8	18	18	20.3	44.7	42-681E152-S65			
	159	6 1/4	2	8	18	18	20.5	45.2	42-681E159-S48			
	159	6 1/4	2	8	18	18	20.5	45.2	42-681E159-S65			
	165	6 1/2	3	9	20	18	22.2	48.9	42-68DP165-S48			
	178	7	3	9	18	18	23.5	51.8	42-68DE178-S48			
	190	7 1/2	3	9	18	18	27.3	60.2	42-68DE190-S48			
	219	8 5/8	3	9	18	18	31.5	69.4	42-68DE219-S48			
												
Convex face / Spherical button												
	165	6 1/2	3	9	18	18	22.7	50.0	42-68GE165-W55			
	165	6 1/2	2	10	18	16	22.3	49.2	42-686D165-SDDH			
	165	6 1/2	3	9	22	18	21.7	47.8	42-68LL165-S48			
	165	6 1/2	3	9	22	22	22.3	49.2	42-68GM165-S48K			
	172	6 3/4	2	10	18	16	23.0	50.7	42-686D172-SDDH			
	172	6 3/4	3	9	22	18	22.0	48.5	42-68LL172-S48			
												
Flat face / Spherical button												
	165	6 1/2	2	8	18	16	22.0	48.5	42-68FD165-S48K			
	165	6 1/2	3	9	20	18	22.5	49.6	42-682P165-S48			
	165	6 1/2	3	12	18	18	22.6	49.8	42-68XE165-S48			
	172	6 3/4	3	9	18	18	22.9	50.5	42-682E172-S48H			
	172	6 3/4	3	9	20	18	23.2	51.1	42-682P172-S48			
	178	7	3	9	18	18	23.6	52.0	42-682E178-S48			
												
Bulldog face / Spherical button												
	165	6 1/2	2	10	20	18/16	21.3	47.0	42-68EV165-S48			
	165	6 1/2	2	12	18	16/16	21.3	47.0	42-68JV165-S69			
	172	6 3/4	2	10	20	18/16	21.3	47.0	42-68EV172-S48			
	172	6 3/4	2	10	20	18/16	21.3	47.0	42-68EV172-S48K			
												
M80												
Concave face / Spherical button												
	203	8	3	9	22	18	44.1	97.2	42-88PL20			

DTH BITS / DHD SHANKS

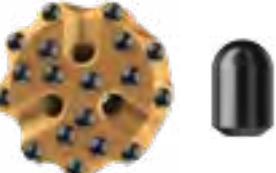
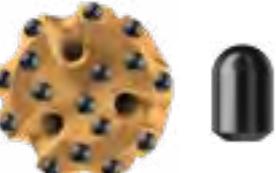


DTH BITS / DHD SHANKS

	Diameter		Air holes	Gauge buttons	Button dia. mm	Weight		Part No.
	mm	inch			gauge	front	kg	lb
DHD3.5 HD								
Convex face / Spherical / Ballistic button								
	105	4 1/8	2	8	14	14	6.6	14.6
							42-3H5B105-L55	
								
DHD340								
Flat face/Spherical button								
	110	4 3/8	2	8	14	13	8.8	19.4
	115	4 1/2	2	8	14	13	9.2	20.3
	130	5 1/8	2	8	16	13	10.8	23.8
							42-36FA110-S48	
							42-36FA115-S65	
							42-36F8130-S48	
								
Foot valve								
	0.5	1.0					47-3H017	
								
Foot valve								
	0.5	1.0					47-36017	

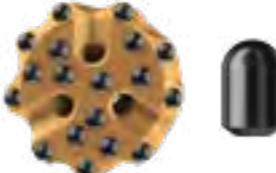
For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / DHD350 SHANKS

SANDVIK RH460	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
DHD 350												
Flat face / Spherical button												
	140	5 1/2	3	9	16	14	16.7	36.8	42-6929140-S48			
	146	5 3/4	2	8	16	14	17.3	38.0	42-69F9146-S48			
												
Concave face / Spherical button												
	140	5 1/2	2	8	16	14	16.5	36.3	42-6919140-S48			
	146	5 3/4	2	8	16	14	16.8	37.0	42-6919146-S48			
	152	6	2	8	16	16	17.4	38.3	42-691C152-S48			
	165	6 1/2	2	8	16	16	18.6	40.9	42-691C165-S48			
												

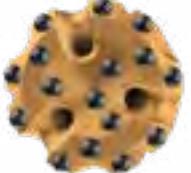
For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / DHD360 SHANKS

SANDVIK RH460	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
DHD bits 6"												
Flat face / Spherical button												
	165	6 1/2	2	8	16	16	26.1	57.4	42-73FC165-S48			
												
Concave face / Spherical button												
	172	6 3/4	2	8	16	16	25.7	56.5	42-731C172-S48			
	178	7	2	8	16	16	26.3	57.9	42-731C178-S48			
	190	7 1/2	2	8	16	16	30.3	66.7	42-731C190-S48			
	203	8	2	10	16	16	32.8	72.2	42-73TC203-S48			
	216	8 1/2	2	10	16	16	35.0	77.0	42-73TC216-S48			
	219	8 5/8	2	10	16	16	35.5	78.1	42-73TC219-S48			
												

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / DHD380 SHANKS

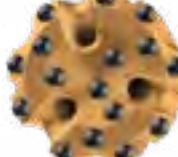
SANDVIK RH460	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
DHD bits 8"												
Concave face / Spherical button												
	203	8	3	9	18	18	49,8	109,6	42-87PE203-S48			
	216	8 1/2	3	9	18	18	52,9	116,4	42-87PE216-S48			
	219	8 5/8	3	9	18	18	53,9	118,6	42-87PE219-S48			
	241	9 1/2	3	12	18	18	60,8	133,8	42-878E241-S48			
	254	10	3	12	18	18	63,3	139,3	42-878E254-S48			
	270	10 5/8	3	12	18	18	71,5	157,3	42-878E270-S48			

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / QLX/QL SHANKS

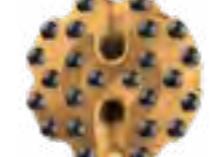
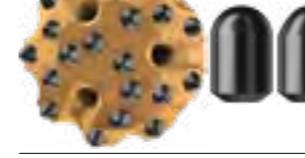


DTH BITS / QLX/QL SHANKS

	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
QLX 40												
Concave face / Spherical button												
	130	5 1/8	2	8	16	13	11.0	24.3	42-4G18130-S48			
 												
Foot valve												
							0.5	1.0	47-4G017			
QL 50												
Concave face / Spherical button												
	130	5 1/8	2	8	16	13	15.6	34.4	42-5018130-S48			
	133	5 1/4	2	8	16	13	15.8	34.8	42-5018133-S48			
	152	6	2	8	18	16	17.2	37.9	42-501D152-S65			
Convex face / Spherical button												
	140	5 1/2	3	9	18	18	16.7	36.8	42-50GE140-W55			
 												
Flat face / Spherical button												
	152	6	3	9	18	16	17.2	37.9	42-502D152-S48			
 												
Foot valve												
							0.5	1.2	47-50017			

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

DTH BITS / QLX/QL SHANKS

	Diameter		Air holes	Gauge buttons	Button dia. mm		Weight		Part No.			
	mm	inch			gauge	front	kg	lb				
QL60												
Concave face/Spherical button												
	155	6 1/8	2	8	18	18	22.8	50.3	42-761E155-S65			
	159	6 1/4	2	8	18	18	23.0	50.7	42-761E159-S65			
	165	6 1/2	3	9	16	16	24.3	53.6	42-76DC165-S65			
	172	6 3/4	3	9	18	18	25.3	55.8	42-76DE172-S65			
	190	7 1/2	3	9	18	18	29.6	65.3	42-76DE190-S48			
Bulldog face / Spherical button												
	165	6 1/2	2	12	18	18/16	23.7	52.2	42-76BV165-S48			
 												
Convex face / Spherical / Ballistic button												
	172	6 3/4	3	12	18	18	25.4	56.0	42-76GE172-L48H			
 												
Convex face / Spherical button												
	165	6 1/2	3	9	22	22	23.0	50.7	42-76GM165-S48			
	165	6 1/2	3	9	22	18	23.6	52.0	42-76LL165-S48			
	172	6 3/4	3	9	22	22	23.9	52.7	42-76GM172-S48			
	172	6 3/4	3	9	18	18	25.2	55.6	42-76GE172-W55			
	172	6 3/4	3	9	18	18	24.6	54.2	42-76GE172-S65			
	172	6 3/4	3	9	22	18	24.1	53.1	42-76LL172-S48			
Flat face/Spherical button												
	172	6 3/4	3	9	18	18	25.2	55.6	42-762E172-S48H			
	172	6 3/4	3	9	18	18	25.2	55.6	42-762E172-S48H			
	178	7	3	9	18	18	25.9	57.1	42-762E178-S48			
Foot valve												
							0.5	1.2	47-76017			
QL80												
Concave face / Spherical button												
	270	10 5/8	3	12	18	18	71.3	159.4	42-838E270-S48			
 												
Foot valve												
							0.5	1.2	47-83017			

For all the bit pages,a generic bit front design has been used in our catalogue. Please read the specifications of every part number to get more details.

PART NO. KEYS

HAMMER CODE		HAMMER CODE																																																				
<p>HAMMER FAMILY</p> <p>HAMMER DIAMETER</p> <p>APPLICATION MODIFIER</p> <p>HAMMER SHANK</p> <p>EXTERNAL MODIFIERS</p> <p>TOP SUB CONNECTION</p> <p>FOR INTERNAL USE</p>		<p>APPLICATION MODIFIER</p> <p>R Reversible</p> <p>G HD (Large OD)</p> <p>W Deep hole</p> <p>H Horizontal</p> <p>S Standard</p> <p>E expanded pressure range</p> <p>HAMMER DIAMETER</p> <p>30 = 3" 70 = 7" HD</p> <p>35 = 3.5" 80 = 8"</p> <p>40 = 4" 85 = 8" HD</p> <p>50 = 5" 10 = 10"</p> <p>55 = 5" HD 12 = 12"</p> <p>60 = 6" 15 = 15"</p> <p>65 = 6" HD 18 = 18"</p>																																																				
HAMMERS		<p>TOP SUB CONNECTION</p> <p>04 = 3 1/2 API REG PIN</p> <p>11 = 2 7/8 API REG PIN</p> <p>16 = 2 5/8 API REG PIN</p> <p>19 = 4 1/2 API REG PIN</p> <p>39 = 6 5/8 API REG PIN</p> <p>25 = 3 1/2 API REG BOX</p> <p>74 = 3 1/2 API IF PIN</p> <p>55 = 3 1/2 BECO PIN</p> <p>72 = 4 1/2 BECO PIN</p> <p>77 = #24 CUBEX PIN</p> <p>63 = #21 CUBEX PIN</p> <p>56 = #28 CUBEX PIN</p> <p>84 = 5 1/4" BECO PIN</p>																																																				
		<p>FOR INTERNAL USE</p> <p>M Mission</p> <p>Q QL</p> <p>D DHD</p> <p>T QLX</p>																																																				
BIT CODE		BIT CODE																																																				
<p>SHANK CODE</p> <p>FACE DESIGN</p> <p>BUTTON COMBINATION</p> <p>OPTIONS</p>		<p>FACE DESIGN</p> <p>Face code Flushing holes Gauge buttons</p> <p>SHANK CODE</p> <p>Concave face</p> <table> <tr><td>0 = 11 / 11</td><td>B = 14 / 14</td><td></td></tr> <tr><td>1 = 12 / 12</td><td>C = 16 / 16</td><td></td></tr> <tr><td>3 = 13 / 12</td><td>D = 18 / 16</td><td></td></tr> <tr><td>4 = 13 / 13</td><td>E = 18 / 18</td><td></td></tr> <tr><td>8 = 16 / 13</td><td>L = 22 / 18</td><td></td></tr> <tr><td>9 = 16 / 14</td><td>M = 22 / 22</td><td></td></tr> <tr><td>A = 14 / 13</td><td>P = 20 / 18</td><td></td></tr> </table> <p>Flat face</p> <table> <tr><td>A</td><td>2</td><td>10</td></tr> <tr><td>F</td><td>2</td><td>8</td></tr> <tr><td>2</td><td>3</td><td>9</td></tr> <tr><td>K</td><td>3</td><td>12</td></tr> </table> <p>Convex face</p> <table> <tr><td>3</td><td>2</td><td>7</td></tr> <tr><td>5</td><td>2</td><td>8</td></tr> <tr><td>6</td><td>2</td><td>10</td></tr> <tr><td>C</td><td>3</td><td>12</td></tr> <tr><td>L</td><td>3</td><td>9</td></tr> <tr><td>G</td><td>3</td><td>9</td></tr> </table>		0 = 11 / 11	B = 14 / 14		1 = 12 / 12	C = 16 / 16		3 = 13 / 12	D = 18 / 16		4 = 13 / 13	E = 18 / 18		8 = 16 / 13	L = 22 / 18		9 = 16 / 14	M = 22 / 22		A = 14 / 13	P = 20 / 18		A	2	10	F	2	8	2	3	9	K	3	12	3	2	7	5	2	8	6	2	10	C	3	12	L	3	9	G	3	9
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