



READY FOR THE CHALLENGE

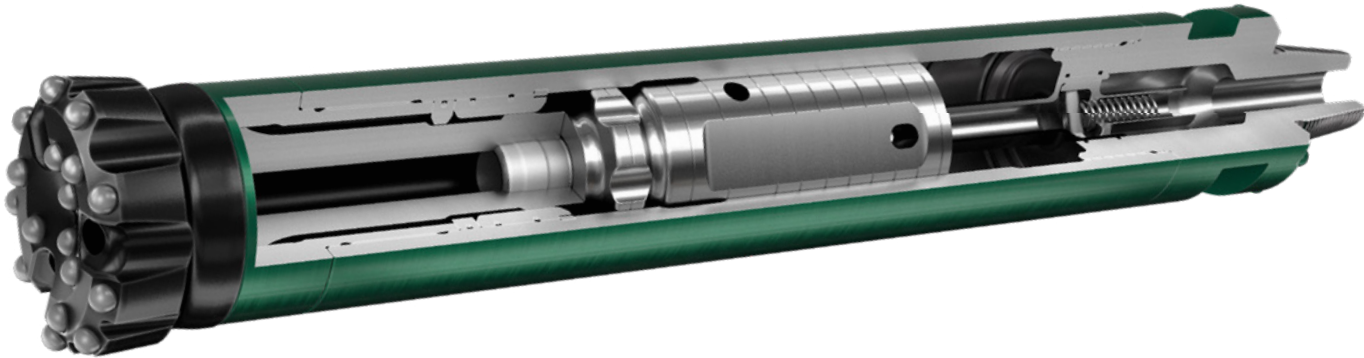
Terelion manufactures and services application specific drilling tools for the Mining and Construction industries. Our proprietary design capabilities, efficient manufacturing, and global sales force uniquely positions us to provide reliable drilling solutions faster than anyone else. We are a customer focused company with an innovative team conducting business in a responsible manner and a passion to win.



THE WARRIOR DTH SERIES
FOR MINING & CONSTRUCTION APPLICATIONS

Terelion is bringing new power to the Down the Hole drilling tools market with the Warrior DTH product line. The initial offering features a 6" hammer built to be a reliable workhorse – combining high performance and efficiency with a rugged construction. Its easy-to-service design allows for minimal service time and higher productivity. A range of QL60 shank bits complement the hammer for reliable and high performance drilling.

WARRIOR DTH HAMMER



ROBUST PISTON

- Designed to withstand the most difficult of drilling conditions
- High level of reliability achieved by a robust solid piston and thorough field testing
- Premium material and heat treatment process to achieve maximum resistance to fatigue and failure
- Value Add: a reliable workhorse hammer that delivers productivity over an extended life

OPTIMIZED AIR CYCLE

- Achieved through a comprehensive design simulation analysis
- Designed to deliver maximum power output
- Value Add: a powerful hammer with low air consumption; resulting in lower cost operation

SIMPLE DESIGN

- Very easy to assemble and disassemble, with very few tools needed
- Value Add: easy to service and return to production with minimal service time

PREMIUM QUALITY

- Premium materials and state of the art processes assure the highest manufacturing standards and exacting tolerances
- Value Add: a rugged hammer consistently delivering elevated power levels over an extended tool life

WARRIOR DTH BITS

OPTIMIZED DESIGN

- Air holes and channels designed for efficient cuttings evacuation and fast drilling
- Cutting structure are load balanced for maximum power transmission and even drilling
- Comprehensive bit selection for commonly encountered rock conditions
- Value Add: a fast and efficient bit designed for your drilling conditions

PREMIUM TUNGSTEN CARBIDE

- Proven carbide technology and grade selection developed through years of experience in mining industry
- Wear resistant carbide allows extended runs between re-grinding gives improved utilization
- Value Add: longer bit life and better utilization

WEAR RESISTANT STEEL BODY

- Premium steel and proprietary heat treatment provides high surface hardness and tough core optimal material properties
- Wear resistant bit face provides extended service life and button retention
- Value Add: extended life and lower cost per meter

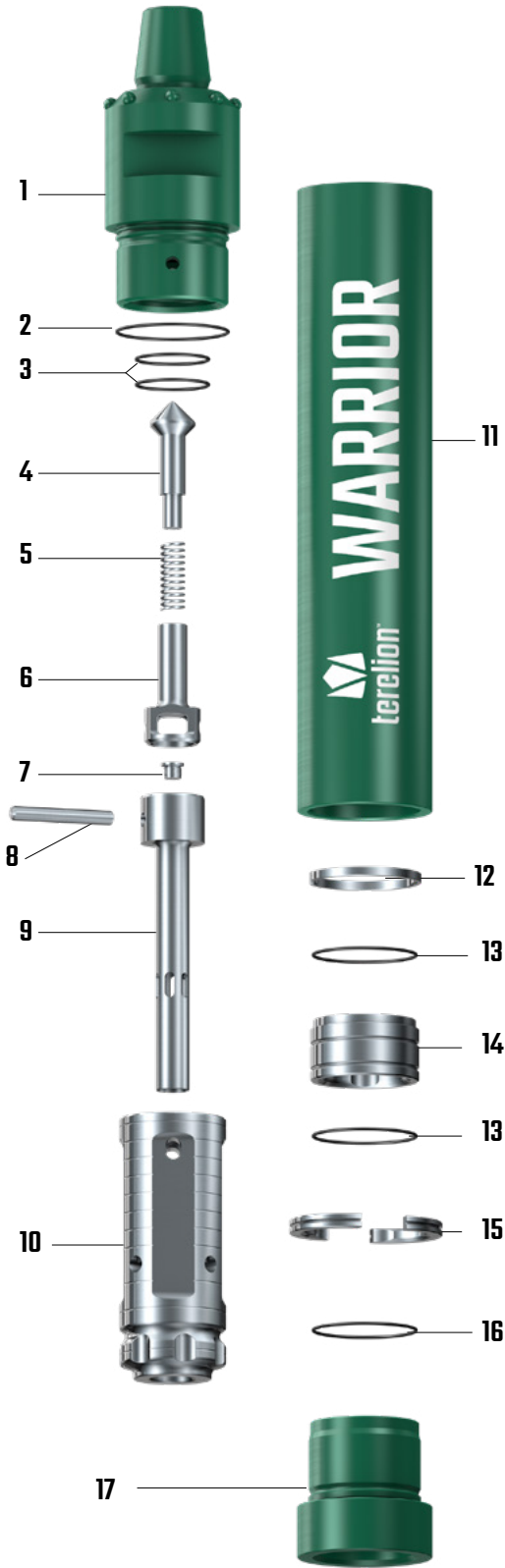
EXACTING MANUFACTURING

- Highly automated manufacturing processes deliver precision machining and reliable process control
- Critical button hole drilling and button installation processes are tightly controlled to assure consistent field performance
- Value Add: long, reliable performance while transmitting high power to rock



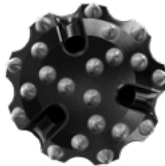



WARRIOR 6" HAMMER

HAMMER WEIGHT		HAMMER DIAMETER		HAMMER LENGTH		BIT SIZE		BIT SHANK
kg	lb	mm	inch	mm	inch	mm	inch	
92	180	150	5.9	1,158	45.6	152 – 203	6 – 8	QL60
AIR CONSUMPTION								
150 psi		250 psi		350 psi		10 bar		18 bar
349 cfm		636 cfm		883 cfm		9.9 m3/min		19.3 m3/min
						25.0 m3/min		
HAMMER ASSEMBLY								
Type		Part#		Description		lb		kg
WA060QL-H34AXC		H09904		3 1/2" API PIN HAMMER		180		92
SPARES LIST								
Item		Part#		Description		lb		kg
1		DH48351		TOP SUB 3 ½ API PIN		51.9		23.6
2				O-RING 110		In seal kit		
3				O-RING 72		In seal kit		
4		DH48356		CHECK VALVE DART		0.7		0.3
5		DH48358		CHECK VALVE SPRING		0.04		0.02
6		DH48361		CHECK VALVE GUIDE		0.7		0.3
7				BLANK CHOKE		In CHOKE SET		
8		DH48347		RETAINER PIN		0.4		0.2
9		DH48357		FEED TUBE		2.6		1.2
10		DH48348		PISTON		40.3		18.3
11		DH48349		PISTON CASE		74.1		33.7
12		DH48350		PISTON RET. RING		0.2		0.1
13				O-RING 110		In seal kit		
14		DH48352		GUIDE SLEEVE		5.1		2.3
15		DH48359		BIT RETAINER RING		1.3		0.6
16				O-RING 110		In seal kit		
17		DH48362		DRIVER SUB		15.8		7.2
IN CHOKE SET								
		DH48898		BLANK, 1/8", 3/16" & 1/4"		0.02		0.01
IN SEAL KIT								
		DH48897		1 piece of #2, #16 & 2 pieces of #3, #13		0.02		0.01
REBUILD KIT								
		DH48947		1 piece of #1, #11, #12, #17 & SEAL KIT		149.9		64.5



QL6 BIT ASSORTMENT FOR WARRIOR 6" HAMMER

	DIAMETER		AIRHOLES	GAGE BUTTONS	BUTTON DIA. MM		WEIGHT		PART NO.	PART TYPE	SHANK	
	mm	inch			Gage	Face	kg	lbs			QL60	
CONCAVE FACE / SPHERICAL BUTTON												
	165	6 1/2	3	9	18	18	28	61	H09922	QL6-064VS09A3S		
	172	6 3/4	3	9	18	18	29	64	H09923	QL6-066VS09A3S		
	178	7	3	9	18	18	29	64	H09924	QL6-070VS09A3S		
	190	7 1/2	3	9	18	18	31	68	H09925	QL6-074VS09A3S		
	203	8	3	9	18	18	33	73	H09926	QL6-080VS09A3S		
FLAT FACE / SPHERICAL BUTTON												
	165	6 1/2	3	9	18	18	28	61	H09927	QL6-064FS09A3S		
	172	6 3/4	3	9	18	18	29	64	H09928	QL6-066FS09A3S		
CONVEX FACE / BALLISTIC BUTTON												
	165	6 1/2	3	9	18	18	28	61	H09927	QL6-064XB09A3S		
	172	6 3/4	3	9	18	18	29	64	H09928	QL6-066XB09A3S		
FOOT VALVE												
							0.1	0.2	DH60140			

WARRIOR DTH HAMMER

PART TYPE KEY

1 2 3 4 5 6 7
WA060QL-H34AXC

1. HAMMER RANGE
(WA)RRIOR

2. HAMMER SIZE

040	4"
050	5"
060	6"
070	7"
080	8"

3. SHANK TYPE

QL	QL SHANK
QX	QLX SHANK

4. WEAR RESISTANCE
(H)EAVY DUTY, (S)TANDARD

5. BACK HEAD THREAD TYPE

23A	2 3/8" API
27A	2 7/8" API
34A	3 1/2" API
34B	3 1/2" BECO
080	4 1/2" API

6. BACKHEAD / DRIVESUB
THREAD OPTION

X	TRIPLE / TRIPLE
Y	SINGLE / TRIPLE
Z	DOUBLE / TRIPLE

7. CUSTOM OPTION
C BACK HEAD CARBIDE

WARRIOR DTH BIT

PART TYPE KEY

1 2 3 4 5 6 7 8
QL6-064VS09A3S

1. SHANK TYPE

QL6	6" QL Shank
QX4	4" QLX Shank
QL8	8" QL Shank
QL5	5" QL Shank

2. HEAD DIAMETER

64	6 1/2"
66	6 3/4"
70	7"
74	7 1/2"
80	8"

3. FACE DESIGN
CONVE(X), CONCA(V)E, (F)LAT

4. CARBIDE SHAPE
(S)PHERICAL, (B)ALLISTIC, (K) S/B

5. GAGE CARBIDE COUNT

6. GAGE/FACE CARBIDE SIZE

(A) = 18/18	(B) = 18/16	(C) = 16/16
(D) = 16/14	(E) = 14/14	(F) = 14/13
(G) = 13/13	(H) = 13/12	(I) = 12/12

7. NUMBER OF FLUSHING HOLES

8. CARBIDE GRADE
(S)TANDARD, (P)REMIUM, (U)LTRA PREMIUM