



# 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 offering will have 4", 5", 6", 7" and 8" hammers - 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 QL shank bits complement the hammer range 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 4" HAMMER

HAMMER WEIGHT		HAMMER DIAMETER		HAMMER LENGTH		BIT SIZE		BIT SHANK
kg	lb	mm	inch	mm	inch	mm	inch	
31,68	69,84	98	3,86	803	31,61	115 - 127	4 1/2 - 5	QLX40

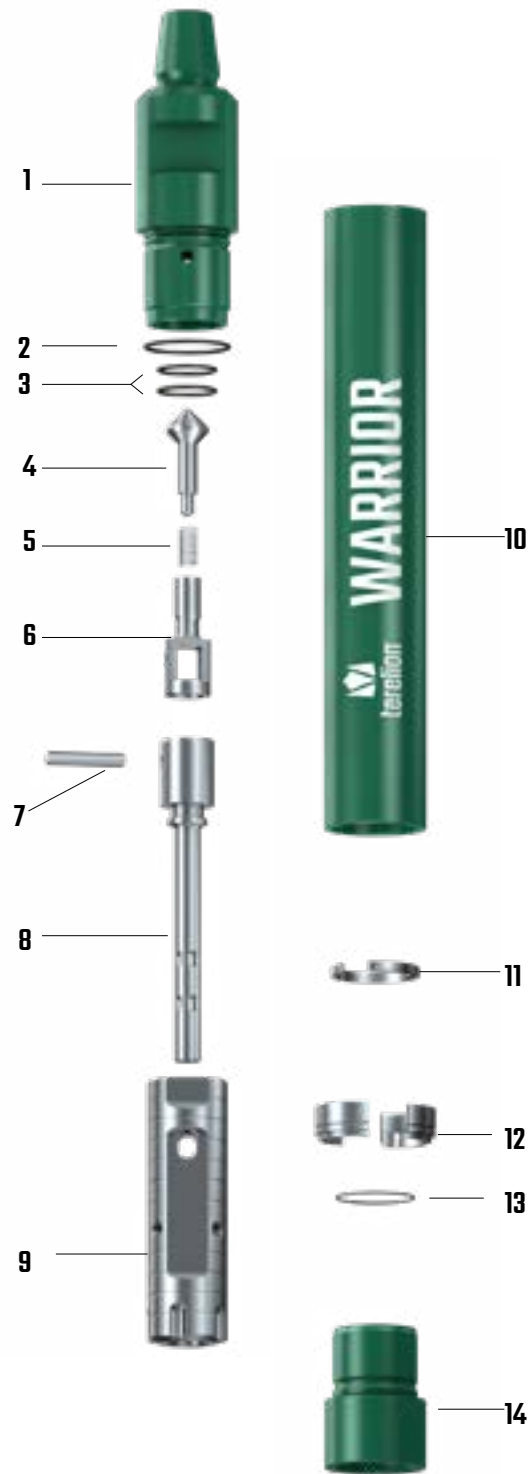
AIR CONSUMPTION					
150 psi	250 psi	350 psi	10 bar	18 bar	24 bar
221 cfm	455 cfm	627 cfm	6.3 m3/min	12.9 m3/min	17.8 m3/min

HAMMER ASSEMBLY				
Type	Part#	Description	lb	kg
WA040QX-S23AX	H20033	2 3/8" API PIN HAMMER	69.84	31.68





SPARES LIST				
Item	Part#	Description	lb	kg
1	DH60359	TOP SUB 2 3/8 API PIN	18,87	8,56
2		O-RING TOP SUB OD	In seal kit	
3		O-RING TOP SUB ID	In seal kit	
4	DH60351	CHECK VALVE DART	0,11	0,05
5	DH60350	CHECK VALVE SPRING	0,15	0,07
6	DH60352	CHECK VALVE GUIDE	0,59	0,27
7	DH60354	RETAINER PIN	0,15	0,07
8	DH60353	FEED TUBE	1,61	0,73
9	DH60366	PISTON	7,43	6,67
10	DH60357	PISTON CASE	26,59	12,06
11	DH60358	PISTON RET. RING	0,15	0,07
12	DH60363	BIT RETAINER RING	0,66	0,3
13		O-RING BIT RETAINER RING	In seal kit	
14	DH60365	DRIVER SUB	6,17	2,8

IN SEAL KIT				
	DH60370	1 piece of #2, #13 & 2 pieces of #3	0,015	0,007

REBUILD KIT				
	DH60618	1 piece of #1, #7, #10, #11, #14 & SEAL KIT	52	23,59



# QLX40 BIT ASSORTMENT FOR WARRIOR 4" HAMMER

	DIAMETER		AIRHOLES	GAGE BUTTONS	BUTTON DIA. MM		WEIGHT		PART NO.	PART TYPE	SHANK
	mm	inch			Gage	Face	kg	lbs			
<b>CONCAVE FACE / SPHERICAL BUTTON</b>											
	115	4 1/2	2	8	14	13	8,6	18,9	H20046	QX4-044V508F2S	QLX40
	121	4 3/4	2	8	14	13	8,9	19,6	H20050	QX4-046V508F2S	
	127	5	2	8	14	13	9,2	20,2	H20051	QX4-050V508F2S	
<b>FLAT FACE / SPHERICAL BUTTON</b>											
	115	4 1/2	2	8	14	13	8,5	18,7	H20049	QX4-044F508F2S	QLX40
	115	4 1/2	2	8	16	13	8,7	19,1	H20048	QX4-044F508J2S	
	127	5	2	8	14	13	9,3	20,5	H20053	QX4-050F508F2S	
<b>CONVEX FACE / BALLISTIC BUTTON</b>											
	115	4 1/2	2	8	14	13	8,5	18,7	H20047	QX4-044XB08F2S	QLX40
	127	5	2	8	14	13	9,3	20,5	H20052	QX4-050XB08F2S	
<b>FOOT VALVE</b>											
							0,04	0,09	DH60368		



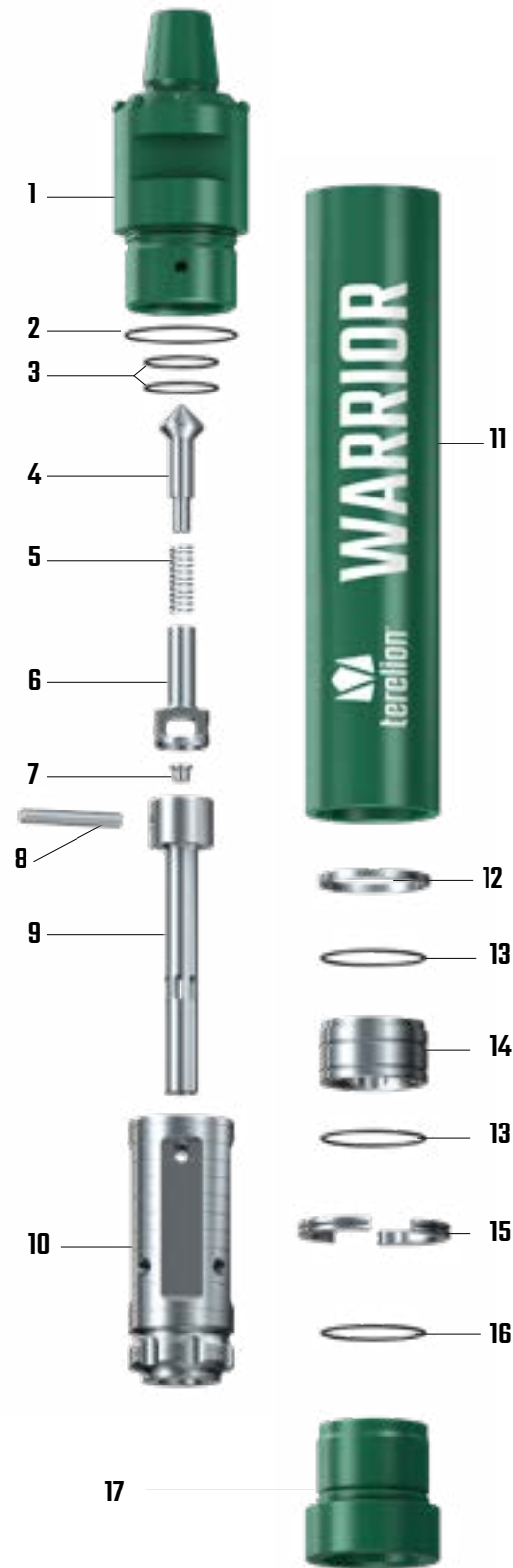
# WARRIOR 6" HAMMER

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	24 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 1/2" 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"	0.06	0.028
IN SEAL KIT				
	DH48897	1 piece of #2, #16 & 2 pieces of #3, #13	0.06	0.03
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				
<b>CONCAVE FACE / SPHERICAL BUTTON</b>												
	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		
<b>FLAT FACE / SPHERICAL BUTTON</b>												
	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		
<b>CONVEX FACE / BALLISTIC BUTTON</b>												
	165	6 1/2	3	9	18	18	28	61	H09929	QL6-064XB09A3S		
	172	6 3/4	3	9	18	18	29	64	H09930	QL6-066XB09A3S		
<b>FOOT VALVE</b>												
							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