





Top Sub With Back Reaming Buttons Heavy Duty Diameter Lower Air Consumption

Recommended Bit Diameter 165 - 178mm [6.5" - 7.0"]

Suited for in-hole Bit / Driver Sub disassembly

**DTH HAMMER** 

## **ROK 650M**

Blast Hole / Mining Applications



## Features:

- Suited for in-hole Bit / Driver Sub disassembly
- Double-lead Top Sub Thread Design
- Triple-lead Driver Sub Thread Design
- Ultra High Performance Design
- Lower Air Consumption
- Higher Efficiency
- Integrated SonicFlow Technology
- Patented Innovations
- Superior Penetration Rates
- Reduced Number of Components
- Easy Assembly / Maintenance
- Advanced Materials / Heat-Treatment
- Extended Service Life

SonicFlow Technology greatly improves the air flow characteristics within the ROK hammer and ensures that the high pressure air paths are optimized to deliver greater energy to the

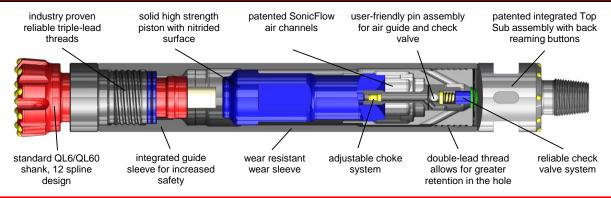
piston. This is achieved bγ incorporating scientific air flow concepts in the design of the hammer and its various components such as the Top Sub, Piston, and Wear Sleeve. This technology results in more impact energy to the bit and produces higher penetration rates better and overall hammer performance.



## Applications:

Blast Hole / Mining
Construction / Quarry

## Innovative Design Features



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Integrated SonicFlow	
Technology	ROK 650M

Suited for in-hole Bit / Driver Sub	Parts List			
disassembly	Item	Part Number	Description	
		ROK650M-001	DTH Hammer, 650M, QL6/QL60, 3-1/2" API Reg Pin	
	1	650TS-001 *	Top Sub, 3-1/2" API Reg Pin with Back Reaming Buttons	
		ROK650M-002	DTH Hammer, 650M, QL6/QL60, 3-1/2" API IF Pin	
	1	650TS-002 *	Top Sub, 3-1/2" API IF Pin with Back Reaming Buttons	
(2)		ROK650M-003	DTH Hammer, 650M, QL6/QL60, 2-7/8" API Reg Pin	
	1	650TS-006 *	Top Sub, 2-7/8" API Reg Pin with Back Reaming Buttons	
(3)	2	R2-349	O-Ring, 4.475" X 0.210"	
	3	CV-001	Check Valve	
4	4	SP-001	Spring	
	5	SR-002	Spring Rest	
5	6	PN-001	Pin, 0.625" Dia, 4.5" L	
3	7	R2-135	O-Ring, 1.925" X 0.103"	
	8	AG-001	Air Guide - includes o-ring and choke	
(6)	9	CH-005	Blank Choke, Nylon	
	10	650AWS-002	Wear Sleeve	
(7)	11	PT-014	Piston	
	В	BTQL6-1014	QL6/QL60 Blow Tube	
8	12	R2-236	O-Ring, 3.234" X 0.139"	
	13	BR-001	Bit Retainer Ring - includes o-ring	
9	14	650DS-002	Driver Sub	
9	Α	DTH Bit	QL6/QL60 Shank	
		CHSET-002	Choke Set, Nylon, 1 each of CH-005 - 0" (0mm), CH-006 - 1/16"	
(10)			(2mm), CH-007 - 1/8" (3mm), CH-008 - 3/16" (5mm)	
11 - 11	* Includes o-ring			
(11)				

Operating Parameters					
	Air Pressure	Air Consumpti	on		
	10.4 Bar [150 PSI]	7.4 m3/min [269 SC	FM]		
	17.2 Bar [250 PSI]	16.7 m3/min [606 S	CFM]		
	24.1 Bar [350 PSI]	26.5 m3/min [962 S	CFM]		
Oil consump	tion:	0.2 l/hr per 3.0 m3/min [1	1/3 pint/hr per 100 cfm]		
Recommended rotation speed:			15 r/min to 60 r/min		
Minimum diameter difference between wear sleeve and bit:			12 mm [0.47"]		

Technical Specifications				
Bit shank type	QL6/QL60			
Recommended bit diameter, mm [in]	165 to 178 [6.5 to 7.0]			
Outside diameter, mm [in]	149 [5.9]			
Wear sleeve discard diameter, mm [in]	130 [5.1]			
Wrench flat size on Top Sub, mm [in]	95 [3.74]			
Effective Length without drill bit, mm [in]	942 [37.1] - only for ROK650M-001			
Weight without drill bit, kg [lbs]	88 [194.0] - only for ROK650M-001			

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