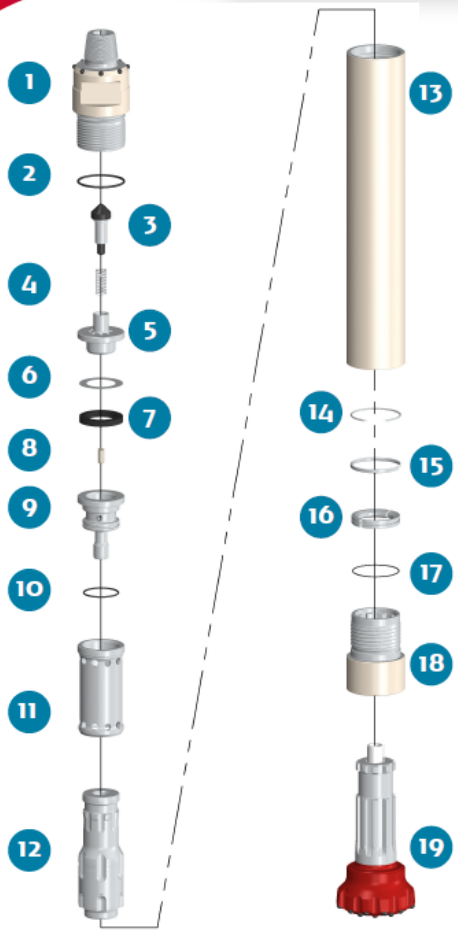
GHB GROUND ENGINEERING

PUMA 8.1 WA
DHD 380

HAMMER TYPE / **HDR** (Heavy Duty with retractile Backhead) CODE / **0001080-040004**



SPARE PARTS

ITEM / DESCRIPTION	kg /	lb	CODE
1 HDR Backhead 4 1/2" Reg. Pin (1)(2)	41.8	91.9	0101080-010022
2 O'ring	0.0	0.0	C180010-002434
3 Check Valve Dart	0.9	2.1	0101080-030000
4 Spring	0.1	0.1	0101080-040000
5 Air Distribuidor	4.3	9.5	0101080-050000
6 Make Up Ring Shim (3)	0.1	0.1	0101080-180000
7 Make up Ring	0.2	0.4	0101080-060000
8 Choke (4)	0.0	0.0	0101080-070000
9 Air Guide	6.7	14.7	0101080-080000
10 O'ring	0.0	0.0	C180010-002347
11 WA Cylinder	8.1	17.8	0101080-100001
12 WA Piston DHD 380	35.0	77.0	0101080-120008
13 HD Wear Sleeve	73.0	160.6	0101080-110002
14 Piston Retainer Ring	0.1	0.1	0101080-190000
15 Flat Stop Ring	0.2	0.4	0101080-130000
16 Bit Retainer DHD 380	1.4	3.1	0101080-150002
17 O'ring	0.0	0.0	C180010-002255
18 HD Chuck DHD 380	20.2	44.4	0101080-170020
19 Bit DHD 380	-	-	-

(1) Other thread types can be delivered at request.
(2) With retractile insert (ø186 mm-7.3"between inserts).
(3) Not installed in new hammers.
(4) Different Choke sizes are available
WA: Adapted to work under water
HD: Heavy Duty; HDR: HD with retractile Backhead.

GENERAL DESCRIPTION

NET WEIGHT		OUTSIDE DIAMETER		HAMMER LENGTH		HAMMER LENGTH WITH BIT			
						CLOSED BIT		EXTENDED BIT	
kg	lb	mm	in	mm	in	mm	in	mm	in
192	423	185 (2)	7.28 (2)	1302	51.3	1431	56.3	1482	58.3

AIR CONSUMPTION											
PRESSURE	psig	150	200	250	300	350	barg	10.3	13.8	17.2	20.7	24.1
VOLUME	SCFM	530	735	950	1170	1390	m³/min	15.0	20.8	26.9	33.1	39.3

GHB Ground Engineering AG
Schulstrasse 11
CH-6443 Morschach

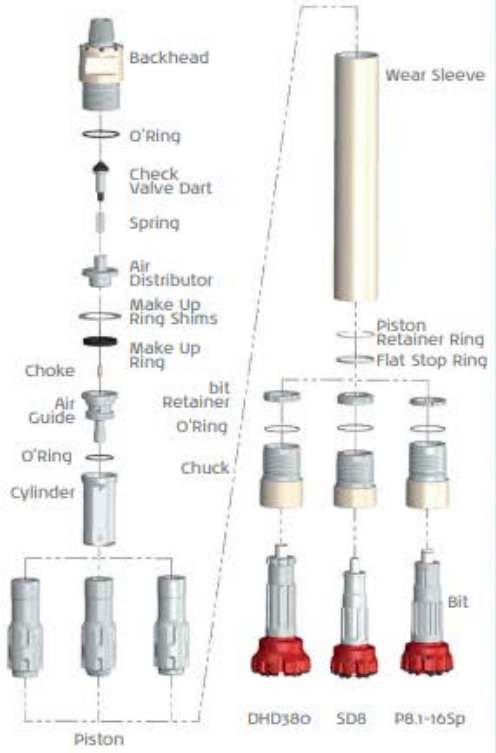
info@ghb.swiss
www.ghb.swiss

+41 (0) 41 852 01 84
+41 (0) 41 852 01 85

GHB GROUND ENGINEERING

PUMA 8.1 MAINTENANCE SHEET
DHD380, SD8, P8.1-16SP

EXPLODED VIEW



DISASSEMBLY

WARNING!
- Use hammer disassembly bench.
- Do not apply heat to any component
- Use wrenches in good condition
- Apply wrench over bit Body
- Apply clamps on recommended areas

DISASSEMBLY SEQUENCE

1 Disassemble the hammer on the bit side
2 Extract the chuck, Bit retainer and Bit
3 Rotate and loosen the hammer at the backhead side
4 Take out the back head and remove its O'ring
5 Remove the check Valve, Spring, Air distributor and Make up ring.
6 Remove the Cylinder and Air guide
7 Remove the Piston
8 Remove the Wear sleeve
9 Remove the Stop Ring

A Bit Side		B Back Head Side		C Clamp Location	
inch	mm	inch	mm	inch	mm
10.7	273	16.1	410	2.0 - 3.9	50-100

ASSEMBLY

WARNING!
1 All components must be in good operating conditions
2 Follow assembly sequence shown in drawing
3 Lubricate each component, before installation
4 Secure Make up ring Position
5 Check gap between Wear Sleeve and Backhead ("S")
6 Apply recommended Pre-torque

Make up Ring Position

T=Force x Arm

PRE-TORQUE	
ft-lb,	kg,-m
9,500 - 10,500	1317 - 1455

Gap "S"	
inch	mm
0.07 à 0.17	2,0 à 4,5

LUBRICATION

OIL GRADE SELECTION (cSt)

Work Pressure (Psig)	TEMPERATURE		ISO GRADE	
	Environment Air	Discharge Air	Dry	Drilling with water
100 - 150	-4°F to 86°F	< 212°F	50 to 100	100 to 150
	Over 86°F	> 212°F	100 to 150	150 to 220
150 - 350	-4°F to 86°F	< 212°F	150 to 220	220 to 320
	Over 86°F	> 212°F	220 to 320	320

OIL CONSUMPTION (gal/h)

Drilling	WORK PRESSURE (psig)				
	150	200	250	300	350
Consumption	1.5	2.1	2.8	3.6	4.5

MAINTENANCE

STANDARD MAINTENANCE PROGRAM

OPERATION CONDITIONS	INSPECT EVERY:
· Stable, non abrasive ground · No water injection	200 (operating hours)
· Stable and abrasive ground · With or without water injection	100 (operating hours)
· Unstable and abrasive ground · With or without water injection	50 (operating hours)

COMPONENT INSPECTION AND REPAIR.

All components must be washed thoroughly with appropriate solvent, eliminating all accumulated dirt. Use sand paper to smooth steel surfaces and friction marks , leaving all contact, sliding and threaded surfaces in good smooth condition

DIMENSIONS LIMITS mm (in)

	COMPONENT	DIMENSION		P8.1-16SP	SD8	DHD 380
1	Backhead	ø External	a		169,00 (6.654")	
2	Air Guide	ø Flute	b		47,64 (1.876")	
3	Cylinder	ø Internal	c		120,12 (4.729")	
		Shoulder Width	c2		15,00 (0.591")	
4	Wear Sleeve	ø External	d		169,00 (6.654")	
		ø Rotate (*)	d		174,00 (6.850")	
		ø Internal	e		146,13 (5.753")	
5	Piston	ø Ext. Body	f		145,76 (5.739")	
		ø Ext. Tail	g		119,76 (4.715")	
		ø Int. Body	h	51.41 (2.024")	41.96 (1.652")	51,69 (2.035")
		ø Int. Tail	i		48,13 (1.895")	
6	Chuck	ø External	j		169,00 (6.654")	
		External Length	k	107,00 (4.213")	77,00 (3.031")	107,00 (4.213")
		Spline width	l		6,00 (0.236")	

(*) This dimension is the allowable lower limiting diameter in which the wear sleeve can be reversed prolonging the operational life-time of the part