

RDS

ROCK DRILL SALES

BLACKLINE

Working Tools for Hydraulic
Breakers



Experience our quality on
your breakers

Atlas Copco

ANYTIME ANY PRODUCT ANYWHERE

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** The brand names and models are included for identification purposes only.*





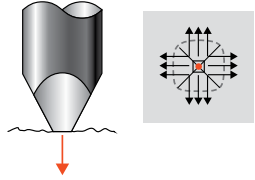
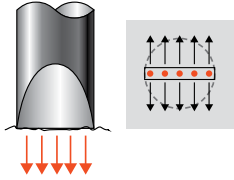
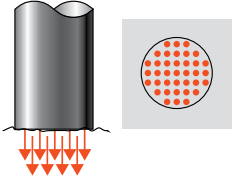
INTRODUCTION

Atlas Copco has thorough knowledge and experience producing working tools. Our vision is to become a First in Mind-First in Choice® global working tools provider.

Every year our facilities produce thousands of working tools that are manufactured and processed using state-of-the-art machinery and technology to ensure our finished products comply with the highest standards of quality. Our production process begins with the selection of the best alloy, passes through our heat treatment and ends with blasting for finishing. The result is a high-end product with the characteristics of hardness and wear resistance that provides maximum durability in tough applications, such as road construction, demolition, trenching, quarrying, tunneling and mining.

Put our working tools to the test on your breakers, and you will soon experience the quality, durability and strength that will increase your productivity.

TOOL TYPE OVERVIEW

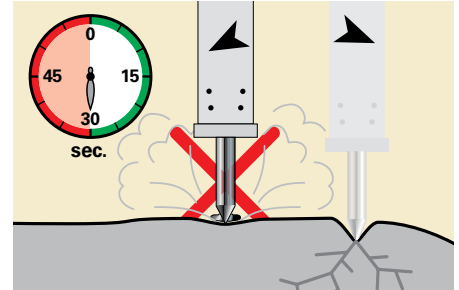
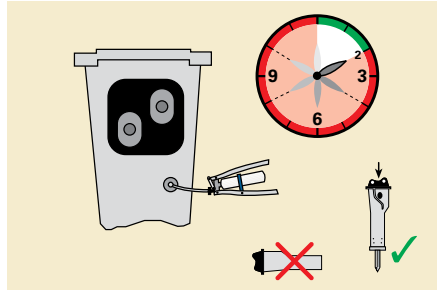
TOOL TYPE	MOIL POINT	CHISEL	BLUNT TOOL
Working principle			
Key properties	Excellent penetration and good wedge effect	Good penetration and excellent wedge effect	Excellent energy transmission
Use in sedimentary rock	Primary breaking in lightly fissured or monolithic rock	Primary breaking in heavily fissured rock	Secondary breaking (breaking oversizes)
Use in crystalline/magmatic rock		Primary breaking in heavily fissured rock	Primary breaking in lightly fissured or monolithic rock as well as secondary breaking (breaking oversizes)

WORKING TOOL RECOMMENDATION

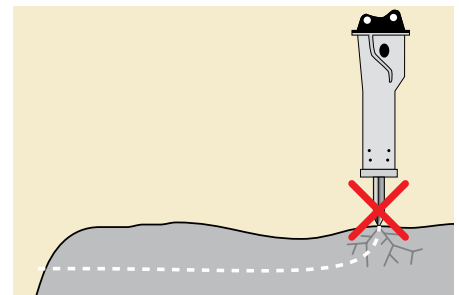
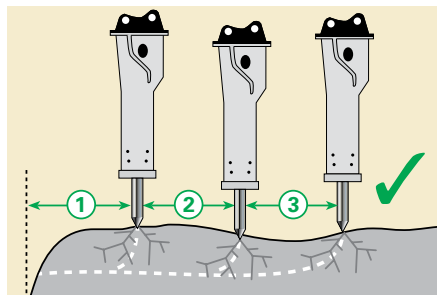
MATERIAL	USE	SPECIFICATIONS	TOOL TYPE
Concrete	Thin and thick floors, walls	Reinforced	Chisel
		Non-reinforced	Moil point
	Foundations	Reinforced	Chisel
		Non-reinforced	Moil point
	Blocks, columns, support	Reinforced	Chisel
Recycling	/	Blunt tool	
Sedimentary rock (limestone, sandstone, graywacke, calcareous sediment)	Trenching, foundation work, primary quarry breaking	Heavily fissured	Chisel
		Lightly fissured	Moil point
		Monolithic	Moil point
	Breaking oversize's	/	Blunt tool
Crystalline/magmatic rock (magma, greenstone, gabbro, granite...)	Trenching, foundation work, primary quarry breaking	Heavily fissured	Chisel
		Lightly fissured	Blunt tool
		Monolithic	Blunt tool
	Breaking oversizes	/	Blunt tool
Asphalt	Road surfaces, transport routes	Soft structures	Chisel
Soil	Frozen ground	/	Chisel

HOW TO HANDLE WORKING TOOLS

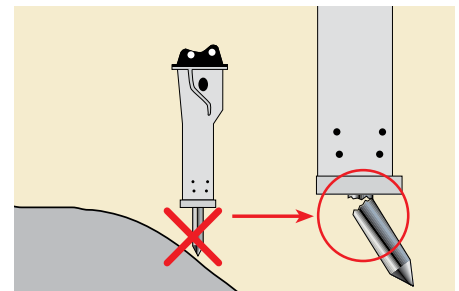
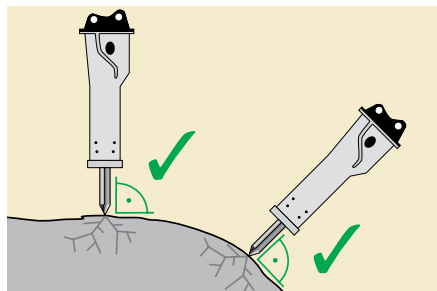
Lubricate working tools at regular intervals. When lubricating, observe the correct position to avoid over-greasing. Reposition the demolition tool at regular intervals during operation to avoid overheating of the material.



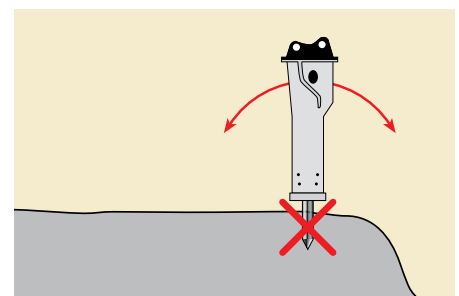
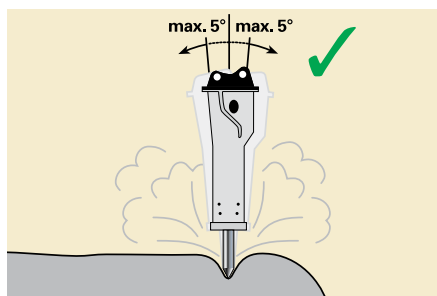
Advancing in large steps will decrease your performance. Advancing in small steps is more efficient and increases your productivity.



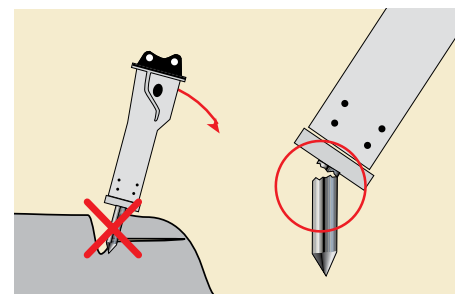
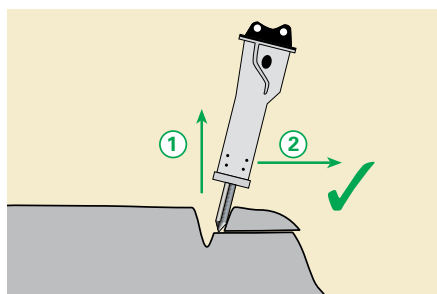
Working tools should always be positioned at right angles to the working surface to avoid long-term secondary damage.



Rock the breaker gently during operation to allow the dust to escape from beneath the tip of the demolition tool. Never attempt to use the hydraulic breaker as a crowbar.



Try to avoid bending stresses on working tools at all times to avoid overstressing of the material.



Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel	Blunt
	mm	in	mm	in	kg	lbs			

BOBCAT

HB 280	40	1.57	440	17.32	4	8	4211 1010 81	4211 1010 82	4211 1010 83
HB 380	42	1.65	460	18.11	5	12	4211 1010 84	4211 1010 85	4211 1010 86
HB 580	44	1.73	480	18.9	6	13	4211 1010 87	4211 1010 88	4211 1010 89
HB 680	54	2.13	550	21.65	10	21	4211 1010 90	4211 1010 91	4211 1010 92
HB 880	62	2.44	620	24.41	15	33	4211 1010 93	4211 1010 94	4211 1010 95
HB 980	69	2.72	660	25.98	20	43	4211 1010 96	4211 1010 97	4211 1010 98
HB 1180	76	2.99	710	27.95	23	52	4211 1010 99	4211 1011 00	4211 1011 01
HB 1380	85	3.35	780	30.71	31	69	4211 1011 02	4211 1011 03	4211 1011 04
HB 2380	95	3.74	850	33.46	42	92	4211 1010 30	4211 1010 31	4211 1010 32
B 290/B 300	40	1.57	410	16.14	4	8	4211 1010 00	4211 1010 01	4211 1010 02
B 400	45	1.77	500	19.69	5	12	4211 1010 15	4211 1010 16	4211 1010 17
B 500	50	1.97	480	18.9	7	15	4211 1010 03	4211 1010 04	4211 1010 05
B 600/B 700	50	1.97	520	20.47	7	16	4211 1010 06	4211 1010 07	4211 1010 08
B 850/B 950	62	2.44	620	24.41	13	29	4211 1010 09	4211 1010 10	4211 1010 11
B 1200/B 1400	74	2.91	740	29.13	23	50	4211 1010 12	4211 1010 13	4211 1010 14
1250	44	1.73	500	19.69	5	12	4211 1095 03	4211 1095 04	4211 1095 05
1750	45	1.77	500	19.69	6	13	4211 1000 03	4211 1000 04	4211 1000 05
2500/2560/2570 3500/3560/3570	64	2.52	580	22.83	13	29	4211 1095 15	4211 1095 16	4211 1095 17
5060	68	2.68	740	29.13	20	43	4211 1095 18	4211 1095 19	4211 1095 20

CASE

CB32/CB140	45	1.77	500	19.69	6	13	4211 1000 03	4211 1000 04	4211 1000 05
CB45/CB200	50	1.97	530	20.87	7	15	4211 1000 09	4211 1000 10	4211 1000 11
CB65/CB370	63	2.48	680	26.77	15	33	4211 1000 12	4211 1000 13	4211 1000 14
CB85/CB620	70	2.76	730	28.74	20	44	4211 1000 18	4211 1000 19	4211 1000 20
CB120/CB735	83.7	3.3	880	34.65	35	77	4211 1000 24	4211 1000 25	4211 1000 26
CB150/CB1150	95	3.74	900	35.43	44	97	4211 1000 27	4211 1000 28	4211 1000 29
CB1450	106	4.17	1050	41.34	63	139	4211 1000 39	4211 1000 40	4211 1000 41
CB200/CB2850	115	4.53	1050	41.34	78	172	4211 1000 36	4211 1000 37	4211 1000 38
CB260	125	4.92	1050	41.34	88	194	4211 1000 42	4211 1000 43	4211 1000 44
CB320/CB3720	130	5.12	1100	43.31	105	231	4211 1000 45	4211 1000 46	4211 1000 47
CB400/CB4000	140	5.51	1200	47.24	131	289	4211 1000 63	4211 1000 64	4211 1000 65
CB550/CB5200	160	6.3	1350	53.15	192	423	4211 1000 66	4211 1000 67	4211 1000 68
CB700/CB6000	175	6.89	1450	57.09	247	545	4211 1000 84	4211 1000 85	4211 1000 86



The brand names and models are included for identification purposes only.

Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel	Blunt
	mm	in	mm	in	kg	lbs			

Part N

CATERPILLAR

H30	40	1.57	410	16.14	4	9	4211 1000 00	4211 1000 01	4211 1000 02
H45/H45s	45	1.77	500	19.69	6	13	4211 1000 03	4211 1000 04	4211 1000 05
H50/H50s	50	1.97	530	20.87	7	15	4211 1000 09	4211 1000 10	4211 1000 11
H63/H63s	63	2.48	680	26.77	15	33	4211 1000 12	4211 1000 13	4211 1000 14
H70/H70s	70	2.76	730	28.74	20	44	4211 1000 18	4211 1000 19	4211 1000 20
H90	90	3.54	850	33.46	36	79	4211 1000 21	4211 1000 22	4211 1000 23
H90C/H90Cs	83.7	3.3	880	34.65	35	77	4211 1000 24	4211 1000 25	4211 1000 26
H100/H100s	95	3.74	900	35.43	44	97	4211 1000 27	4211 1000 28	4211 1000 29
H115	115	4.53	1050	41.34	77	170	4211 1000 33	4211 1000 34	4211 1000 35
H115s/H115C/H115Cs	106	4.17	1050	41.34	63	139	4211 1000 39	4211 1000 40	4211 1000 41
H120C/H120Cs	115	4.53	1050	41.34	78	172	4211 1000 36	4211 1000 37	4211 1000 38
H130	130	5.12	1100	43.31	100	220	4211 1000 48	4211 1000 49	4211 1000 50
H130s/H130C/H130Cs	130	5.12	1100	43.31	105	231	4211 1000 45	4211 1000 46	4211 1000 47
H140/H140s	140	5.51	1200	47.24	131	289	4211 1000 54	4211 1000 55	4211 1000 56
H140Cs/H140Ds	140	5.51	1200	47.24	131	289	4211 1000 63	4211 1000 64	4211 1000 65
H160	160	6.3	1350	53.15	202	445	4211 1000 57	4211 1000 58	4211 1000 59
H160Cs/H160Ds	160	6.3	1350	53.15	192	423	4211 1000 66	4211 1000 67	4211 1000 68
H180	170	6.69	1450	57.09	236	520	4211 1000 69	4211 1000 70	4211 1000 71
H180Ds	175	6.89	1450	57.09	247	545	4211 1000 84	4211 1000 85	4211 1000 86
H195s	195	7.68	1700	66.93	345	761	4211 1000 72	4211 1000 73	4211 1000 74

FURUKAWA - KENT

F1/FX15/HB 1G - KF1/KHB 1G	36	1.42	400	15.75	3	7	4211 1040 03	4211 1040 04	4211 1040 05
F2/FX25/HB 2G - KF2/KHB 2G	45	1.77	460	18.11	5	11	4211 1040 06	4211 1040 07	4211 1040 08
F3/FX35 - KF3	52	2.05	500	19.69	7	15	4211 1040 60	4211 1040 61	4211 1040 62
F4/FX45 - KF4	60	2.36	560	22.05	11	24	4211 1040 63	4211 1040 64	4211 1040 65
F5/FX55 - KF5	68	2.68	600	23.62	15	33	4211 1040 66	4211 1040 67	4211 1040 68
F6/FX65 - KF6	75	2.95	730	28.74	22	49	4211 1040 69	4211 1040 70	4211 1040 71
F9 - KF9	90	3.54	840	33.07	37	82	4211 1040 72	4211 1040 73	4211 1040 74
F12 - KF12	105	4.13	1090	42.91	64	141	4211 1040 75	4211 1040 76	4211 1040 77
F19 - KF19 Qt	120	4.72	1180	46.46	96	212	4211 1040 78	4211 1040 79	4211 1040 80
F20/F22 - KF22 Qt	135	5.31	1250	49.21	126	278	4211 1040 81	4211 1040 82	4211 1040 83
F27 - KF27 Qt	140	5.51	1310	51.57	141	311	4211 1040 84	4211 1040 85	4211 1040 86
F30/F35 - KF35 Qt	150	5.91	1400	55.12	173	381	4211 1040 87	4211 1040 88	4211 1040 89
F45 - KF45 Qt	165	6.5	1510	59.45	218	481	4211 1040 90	4211 1040 91	4211 1040 92
F70 - KF70 Qt	180	7.09	1650	64.96	285	628	4211 1040 93	4211 1040 94	4211 1040 95
HB 0.5G	30	1.18	350	13.78	2	4	4211 1040 00	4211 1040 01	4211 1040 02
HB 3G - KHB 3G	60	2.36	560	22.05	11	24	4211 1040 09	4211 1040 10	4211 1040 11
HB 5G - KHB 5G	75	2.95	640	25.2	20	44	4211 1040 12	4211 1040 13	4211 1040 14
HB 8G - KHB 8G	90	3.54	750	29.53	34	75	4211 1040 15	4211 1040 16	4211 1040 17
HB 10G - KHB 10G	105	4.13	1000	39.37	62	137	4211 1040 18	4211 1040 19	4211 1040 20
HB 15G - KHB 15G	120	4.72	1100	43.31	89	196	4211 1040 21	4211 1040 22	4211 1040 23
HB 20G - KHB 20G	135	5.31	1200	47.24	122	269	4211 1040 24	4211 1040 25	4211 1040 26
HB 30G - KHB 30G	150	5.91	1300	51.18	160	353	4211 1040 27	4211 1040 28	4211 1040 29
HB 40G - KHB 40G	160	6.3	1400	55.12	194	428	4211 1040 30	4211 1040 31	4211 1040 32
HB 50G - KHB 50G	180	7.09	1500	59.06	270	595	4211 1040 33	4211 1040 34	4211 1040 35
HB 100G	210	8.27	1850	72.83	435	959	4211 1040 36	4211 1040 37	4211 1040 38
HB 100 - KHB 100	55	2.17	460	18.11	8	18	4211 1040 39	4211 1040 40	4211 1040 41

Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel	Blunt
	mm	in	mm	in	kg	lbs			

Part N

FURUKAWA - KENT

HB 200 - KHB 200	70	2.76	600	23.62	16	35	4211 1040 42	4211 1040 43	4211 1040 44
HB 400 - KHB 400	95	3.74	800	31.5	40	88	4211 1040 45	4211 1040 46	4211 1040 47
HB 450 - KHB 450	90	3.54	800	31.5	36	79	4211 1040 48	4211 1040 49	4211 1040 50
HB 700 - KHB 700	105	4.13	930	36.61	56	123	4211 1040 51	4211 1040 52	4211 1040 53
HB 1200/HB 1500 KHB 1200/KHB 1500	140	5.51	1200	47.24	129	284	4211 1040 54	4211 1040 55	4211 1040 56
HB 1800/HB 2000 KHB 1800/KHB 2000	140	5.51	1200	47.24	132	291	4211 1040 96	4211 1040 97	4211 1040 98

INDECO

HP 150 (HP200 America) MES 121/MES 150	45	1.77	450	17.72	5	11	4211 1020 00	4211 1020 01	4211 1020 02
HP 200 (HP350 America) MES 181/MES 200	48	1.89	530	20.87	7	15	4211 1020 03	4211 1020 04	4211 1020 05
HP 350 (HP500 America) MES 300/MES 301/MES 350	56	2.2	580	22.83	10	22	4211 1020 06	4211 1020 07	4211 1020 08
HP 500 (HP750 America) MES 521/MES 550 - HB 5	65	2.56	600	23.62	14	31	4211 1020 09	4211 1020 10	4211 1020 11
HP 600 (HP1000 America) MES 553	75	2.95	650	25.59	18	40	4211 1020 12	4211 1020 13	4211 1020 14
HP 700 (HP1100 America) MES 601/MES 621/MES 650 - HB 8	80	3.15	650	25.59	22	49	4211 1020 15	4211 1020 16	4211 1020 17
HP 700 (HP1100 America) MES 601/MES 621/MES 650 - HB 8	80	3.15	750	29.53	26	57	4211 1020 60	4211 1020 61	4211 1020 62
HP 900 (HP1250 America)	90	3.54	700	27.56	31	68	4211 1020 57	4211 1020 58	4211 1020 59
HP 1200 (HP1500 America) MES 1050/MES 1200 - HB 12	90	3.54	780	30.71	35	77	4211 1020 18	4211 1020 19	4211 1020 20
HB 18	104	4.09	800	31.5	47	104	4211 1020 21	4211 1020 22	4211 1020 23
HP 1500 (HP1800 America) MES 1500 - HB 19	110	4.33	900	35.43	59	130	4211 1020 24	4211 1020 25	4211 1020 26
HP 1800 (HP2000 America) MES 1750/MES 1800	115	4.53	1000	39.37	72	159	4211 1020 27	4211 1020 28	4211 1020 29
HP 2000 (HP3000 America) MES 2000 - HB 27	120	4.72	1020	40.16	80	176	4211 1020 30	4211 1020 31	4211 1020 32
HP 2500 (HP4000 America) MES 2500	130	5.12	1050	41.34	98	216	4211 1020 33	4211 1020 34	4211 1020 35
HP 3000 (HP5000 America) MES 3000	140	5.51	1150	45.28	129	284	4211 1020 36	4211 1020 37	4211 1020 38
HP 3500 (HP5500 America) MES 3500	145	5.71	1250	49.21	148	326	4211 1020 39	4211 1020 40	4211 1020 41
HP 4000 (HP7500 America) MES 4000	150	5.91	1260	49.61	160	353	4211 1020 42	4211 1020 43	4211 1020 44
HP 5000 (HP8000 America) MES 5000	160	6.3	1400	55.12	197	434	4211 1020 45	4211 1020 46	4211 1020 47
HP 7000 - MES 7000 (HP10000/HP12001 America)	180	7.09	1450	57.09	261	575	4211 1020 48	4211 1020 49	4211 1020 50
HP 9000 - MES 8500 (HP12000/HP13001 America)	195	7.68	1550	61.02	319	703	4211 1020 51	4211 1020 52	4211 1020 53
HP 12000 (HP16000 America) MES 12000	215	8.46	1550	61.02	395	871	4211 1020 54	4211 1020 55	4211 1020 56

Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel Part N	Blunt
	mm	in	mm	in	kg	lbs			

JCB

HM160	45	1.77	500	19.69	6	13	4211 1000 03	4211 1000 04	4211 1000 05
HM165/HM166	50	1.97	510	20.08	7	15	3083 3169 00*	3083 3170 00	3083 3182 00
HM260	63	2.48	680	26.77	15	33	4211 1000 12	4211 1000 13	4211 1000 14
HM265/HM266	65	2.56	600	23.62	14	31	3083 3162 00*	3083 3161 00	3083 3411 00
HM360	70	2.76	730	28.74	20	44	4211 1000 18	4211 1000 19	4211 1000 20
HM385/HM386	80	3.15	800	31.5	29	64	3083 3191 00*	3083 3192 00	3083 3195 00
HM495/HM496	95	3.74	840	33.07	43	95	3083 3177 00*	3083 3178 00	3083 3188 00
HM550	83.7	3.3	880	34.65	35	77	4211 1000 24	4211 1000 25	4211 1000 26
HM850	95	3.74	900	35.43	44	97	4211 1000 27	4211 1000 28	4211 1000 29
HM860Q	100	3.94	1000	39.37	57	126	3363 0687 05*	3363 0687 07	3363 0944 48
HM870Q	100	3.94	895	35.24	51	112	4211 1055 38*	4211 1055 39	4211 1055 36
HM1050	106	4.17	1050	41.34	63	139	4211 1000 39	4211 1000 40	4211 1000 41
HM1150	115	4.53	1000	39.37	67	148	4211 1000 78	4211 1000 79	4211 1000 80
HM1260Q	115	4.53	1120	44.09	85	187	3363 0872 64	3363 0871 00	3363 0872 65
HM1270Q	120	4.72	995	39.17	81	179	4211 1055 33*	4211 1055 34	4211 1055 31
HM1350	115	4.53	1050	41.34	78	172	4211 1000 36	4211 1000 37	4211 1000 38
HM1450	125	4.92	1050	41.34	88	194	4211 1000 42	4211 1000 43	4211 1000 44
HM1560Q	135	5.31	1142	44.96	110	243	3363 0871 36	3363 0871 35	3363 0871 37
HM1570Q	135	5.31	1050	41.34	99	218	4211 1055 27*	4211 1055 28	4211 1055 25
HM1750	130	5.12	1100	43.31	105	231	4211 1000 45	4211 1000 46	4211 1000 47
HM1760Q	140	5.51	1200	47.24	127	280	3363 0822 35	3363 0822 37	3363 0822 39
HM2350	140	5.51	1200	47.24	131	289	4211 1000 63	4211 1000 64	4211 1000 65
HM2460Q	150	5.91	1150	45.28	143	315	3363 0872 16	3363 0859 70	3363 0872 14
HM2950	160	6.3	1350	53.15	192	423	4211 1000 66	4211 1000 67	4211 1000 68
HM3060Q	165	6.5	1300	51.18	197	434	3363 0872 58	3363 0859 76	3363 0872 57
HM3850	170	6.69	1450	57.09	236	520	4211 1000 69	4211 1000 70	4211 1000 71
HM3950	175	6.89	1450	57.09	247	545	4211 1000 84	4211 1000 85	4211 1000 86
HM4160Q	180	7.09	1400	55.12	250	551	3363 0871 53	3363 0859 79	3363 0872 61

KUBOTA

KXB300/KXB350	40	1.57	410	16.14	4	9	4211 1000 00	4211 1000 01	4211 1000 02
KXB400	45	1.77	500	19.69	6	13	4211 1000 03	4211 1000 04	4211 1000 05
KXB450	50	1.97	530	20.87	7	15	4211 1000 09	4211 1000 10	4211 1000 11
KXB500	63	2.48	680	26.77	15	33	4211 1000 12	4211 1000 13	4211 1000 14
KXB600	70	2.76	730	28.74	20	44	4211 1000 18	4211 1000 19	4211 1000 20
KM55	40	1.57	420	16.54	3	7	3083 3409 18*	3083 3409 19	-
KM100	45	1.77	550	21.65	7	15	3083 3101 00*	3083 3102 00	3083 3204 00
KM105	45	1.77	450	17.72	5	11	3083 3409 08*	3083 3409 09	3083 3409 35
KM150/KM155	50	1.97	510	20.08	7	15	3083 3169 00*	3083 3170 00	3083 3182 00
KM200/KM205	65	2.56	600	23.62	14	31	3083 3162 00*	3083 3161 00	3083 3411 00
KM300/KM305	80	3.15	800	31.5	29	64	3083 3191 00*	3083 3192 00	3083 3195 00
KM450/KM455	95	3.74	840	33.07	43	95	3083 3177 00*	3083 3178 00	3083 3188 00

* Conical moil points instead of pyramidal

Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel	Blunt
	mm	in	mm	in	kg	lbs			

LIFTON

LHB 65	42	1.65	420	16.54	4	9	3376 1103 04*	3376 1103 15	-
LH 70/LH 80/LHB 90/LHB 110	46	1.81	420	16.54	4	10	3376 1120 35*	3376 1120 78	-
LHB 140	50	1.97	510	20.08	7	15	3376 1121 23*	3376 1121 24	-
LH 100/LH 110/LHB 200	55	2.17	460	18.11	7	15	3376 1170 08*	3376 1173 13	-
LH 200/LHB 400	63	2.48	550	21.65	11	23	3376 1400 83*	3376 1401 62	-
LH 300/LH 170/LHB 500	70	2.76	550	21.65	13	29	3376 1280 20*	3376 1452 37	-
LH 360	82	3.23	700	27.56	24	52	3376 1600 11*	3376 1600 10	-
LH 500	100	3.94	780	30.71	48	106	3376 4100 09*	3376 4100 08	-

MONTABERT - TRAMAC

* Conical moil points instead of pyramidal

SC 06	40	1.57	440	17.32	4	9	4211 1010 81	4211 1010 82	4211 1010 83
SC 08	42	1.65	460	18.11	5	11	4211 1010 84	4211 1010 85	4211 1010 86
SC 12	44	1.73	480	18.9	6	13	4211 1010 87	4211 1010 88	4211 1010 89
SC 16	54	2.13	550	21.65	10	22	4211 1010 90	4211 1010 91	4211 1010 92
SC 22	62	2.44	620	24.41	15	33	4211 1010 93	4211 1010 94	4211 1010 95
SC 28	69	2.72	660	25.98	20	44	4211 1010 96	4211 1010 97	4211 1010 98
SC 36	76	2.99	710	27.95	23	51	4211 1010 99	4211 1011 00	4211 1011 01
SC 42	85	3.35	780	30.71	31	68	4211 1011 02	4211 1011 03	4211 1011 04
SC 50/M 300	95	3.74	850	33.46	42	93	4211 1010 30	4211 1010 31	4211 1010 32
BRV 32/V32/V1200	122	4.8	1100	43.31	88	194	4211 1010 51	4211 1010 52	4211 1010 53
BRV 43/V42/V43	150	5.91	1250	49.21	159	351	4211 1010 60	4211 1010 61	4211 1010 62
BRV 45/V45/V46	150	5.91	1300	51.18	164	362	4211 1010 63	4211 1010 64	4211 1010 65
BRV 52	162	6.38	1350	53.15	196	432	4211 1010 66	4211 1010 67	4211 1010 68
BRV 53	170	6.69	1350	53.15	214	472	4211 1010 69	4211 1010 70	4211 1010 71
BRV 55/V55/V56	170	6.69	1450	57.09	234	516	4211 1010 72	4211 1010 73	4211 1010 74
BRV 65/V65	202	7.95	1800	70.87	398	877	4211 1010 78	4211 1010 79	4211 1010 80
V1800	140	5.51	1200	47.24	122	269	4211 1011 08	4211 1011 09	4211 1011 10
V2500	160	6.3	1500	59.06	204	450	4211 1010 75	4211 1010 76	4211 1010 77
V4500	190	7.48	1650	64.96	321	708	4211 1011 05	4211 1011 06	4211 1011 07
BRP 30/M 30	40	1.57	410	16.14	4	9	4211 1010 00	4211 1010 01	4211 1010 02
BRP 45/BRP 50/M 50	50	1.97	480	18.9	7	15	4211 1010 03	4211 1010 04	4211 1010 05
BRP 60/BRP 70/M 60/M 70	50	1.97	520	20.47	7	15	4211 1010 06	4211 1010 07	4211 1010 08
BRP 85/BRP 95/BRP 100 M 85/M 90	62	2.44	620	24.41	13	29	4211 1010 09	4211 1010 10	4211 1010 11
BRP 130/BRP 140/BRP 150 M 130/M 140/M 150	74	2.91	740	29.13	23	51	4211 1010 12	4211 1010 13	4211 1010 14
M 125 SX	74	2.91	720	28.35	23	51	4211 1010 21	4211 1010 22	4211 1010 23
M 600	105	4.13	850	33.46	54	119	4211 1010 33	4211 1010 34	4211 1010 35
M 700	112	4.41	930	36.61	62	137	4211 1010 36	4211 1010 37	4211 1010 38
M 900/BRH 625	118	4.65	1000	39.37	72	159	4211 1010 45	4211 1010 46	4211 1010 47
M 1600	140	5.51	1200	47.24	122	269	4211 1010 54	4211 1010 55	4211 1010 56
BRH 40	45	1.77	500	19.69	5	11	4211 1010 15	4211 1010 16	4211 1010 17
BRH 75/BRH 76/BRH 90/BRH 91	60	2.36	540	21.26	10	22	4211 1010 18	4211 1010 19	4211 1010 20
BRH 125	80	3.15	700	27.56	23	51	4211 1010 24	4211 1010 25	4211 1010 26
BRH 250/BRH 270	95	3.74	850	33.46	41	90	4211 1010 27	4211 1010 28	4211 1010 29
BRH 501/BRH 570	114	4.49	1000	39.37	73	161	4211 1010 39	4211 1010 40	4211 1010 41
BRH 620	115	4.53	1000	39.37	76	168	4211 1010 42	4211 1010 43	4211 1010 44
BRH 750	120	4.72	1100	43.31	88	194	4211 1010 48	4211 1010 49	4211 1010 50
BRH 1100	140	5.51	1350	53.15	147	324	4211 1010 57	4211 1010 58	4211 1010 59

Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel	Blunt
	mm	in	mm	in	kg	lbs			

Part N

NEUSON

SC 06	40	1.57	440	17.32	4	9	4211 1010 81	4211 1010 82	4211 1010 83
SC 08	42	1.65	460	18.11	5	11	4211 1010 84	4211 1010 85	4211 1010 86
SC 12	44	1.73	480	18.9	6	13	4211 1010 87	4211 1010 88	4211 1010 89
SC 16	54	2.13	550	21.65	10	22	4211 1010 90	4211 1010 91	4211 1010 92
SC 22	62	2.44	620	24.41	15	33	4211 1010 93	4211 1010 94	4211 1010 95
SC 28	69	2.72	660	25.98	20	44	4211 1010 96	4211 1010 97	4211 1010 98
SC 36	76	2.99	710	27.95	23	51	4211 1010 99	4211 1011 00	4211 1011 01
SC 42	85	3.35	780	30.71	31	68	4211 1011 02	4211 1011 03	4211 1011 04

NPK

GH 07/E-201	47	1.85	510	20.08	6	13	4211 1030 93	4211 1030 94	4211 1030 95
PH 1/GH 1/E-202	57	2.24	580	22.83	10	22	4211 1030 96	4211 1030 97	4211 1030 98
PH 2/GH 2/E-203	66	2.6	650	25.59	15	33	4211 1030 99	4211 1031 00	4211 1031 01
PH 3/GH 3/E-204	76	2.99	710	27.95	22	49	4211 1030 63	4211 1030 64	4211 1030 65
PH 4/GH 4/E-205	86	3.39	850	33.46	35	77	4211 1031 02	4211 1031 03	4211 1031 04
GH 6/E-207	106	4.17	950	37.4	59	130	4211 1031 05	4211 1031 06	4211 1031 07
GH 7	116	4.57	1150	45.28	86	190	4211 1031 08	4211 1031 09	4211 1031 10
GH 9	126	4.96	1200	47.24	104	229	4211 1031 14	4211 1031 15	4211 1031 16
GH 10	136	5.35	1200	47.24	121	267	4211 1031 17	4211 1031 18	4211 1031 19
GH 12	146	5.75	1300	51.18	152	335	4211 1031 20	4211 1031 21	4211 1031 22
GH 15	156	6.14	1350	53.15	172	379	4211 1031 26	4211 1031 27	4211 1031 28
GH 18	165	6.5	1600	62.99	238	525	4211 1031 29	4211 1031 30	4211 1031 31
E-208	116	4.57	1150	45.28	86	190	4211 1031 11	4211 1031 12	4211 1031 13
E-210A	126	4.96	1180	46.46	101	223	4211 1030 66	4211 1030 67	4211 1030 68
E-212/E-12X	126	4.96	1120	44.09	99	218	4211 1030 69	4211 1030 70	4211 1030 71
E-213	136	5.35	1200	47.24	118	260	4211 1030 72	4211 1030 73	4211 1030 74
E-215/E-15X	136	5.35	1220	48.03	120	265	4211 1030 75	4211 1030 76	4211 1030 77
E-216	146	5.75	1300	51.18	153	337	4211 1031 23	4211 1031 24	4211 1031 25
E-218	146	5.75	1300	51.18	150	331	4211 1030 78	4211 1030 79	4211 1030 80
E-220	156	6.14	1350	53.15	174	384	4211 1030 81	4211 1030 82	4211 1030 83
E-224A/E-24X	156	6.14	1380	54.33	192	423	4211 1030 84	4211 1030 85	4211 1030 86
E-225	165	6.5	1600	62.99	224	494	4211 1030 87	4211 1030 88	4211 1030 89
E-235	188	7.4	1550	61.02	312	688	4211 1030 90	4211 1030 91	4211 1030 92
E-240A	184	7.24	1750	68.9	323	712	4211 1031 32	4211 1031 33	4211 1031 34
H-06X	40	1.57	480	18.9	4	9	4211 1030 00	4211 1030 01	4211 1030 02
H-08X	45	1.77	500	19.69	5	11	4211 1030 03	4211 1030 04	4211 1030 05
H-1X	57	2.24	580	22.83	10	22	4211 1030 06	4211 1030 07	4211 1030 08
H-1XA	57	2.24	580	22.83	10	22	4211 1030 09	4211 1030 10	4211 1030 11
H-2XA/H-2XE	65	2.56	620	24.41	14	31	4211 1030 12	4211 1030 13	4211 1030 14
H-2X/H-3XA/H-3XE	75	2.95	710	27.95	21	46	4211 1030 18	4211 1030 19	4211 1030 20
H-3X	70	2.76	680	26.77	19	42	4211 1030 15	4211 1030 16	4211 1030 17
H-4X/H-4XE	90	3.54	780	30.71	34	75	4211 1030 21	4211 1030 22	4211 1030 23
H-5X/H-6X	96	3.78	860	33.86	43	95	4211 1030 24	4211 1030 25	4211 1030 26
H-6XA	96	3.78	860	33.86	43	95	4211 1030 27	4211 1030 28	4211 1030 29
H-7X	106	4.17	920	36.22	57	126	4211 1030 30	4211 1030 31	4211 1030 32
H-8X	106	4.17	810	31.89	51	112	4211 1030 33	4211 1030 34	4211 1030 35
H-8XA/H-8XE	116	4.57	1010	39.76	72	159	4211 1030 36	4211 1030 37	4211 1030 38
H-9X	116	4.57	880	34.65	63	139	4211 1030 39	4211 1030 40	4211 1030 41

Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel	Blunt
	mm	in	mm	in	kg	lbs			
NPK									
H-10X	126	4.96	980	38.58	87	192	4211 1030 42	4211 1030 43	4211 1030 44
H-10XB/H-10XE	126	4.96	1120	44.09	97	214	4211 1030 45	4211 1030 46	4211 1030 47
H-12X/H-12XE	136	5.35	1200	47.24	119	262	4211 1030 48	4211 1030 49	4211 1030 50
H-14X	140	5.51	1000	39.37	110	243	4211 1030 51	4211 1030 52	4211 1030 53
H-16X/H-16XE	146	5.75	1220	48.03	141	311	4211 1030 54	4211 1030 55	4211 1030 56
H-20X	156	6.14	1350	53.15	173	381	4211 1030 57	4211 1030 58	4211 1030 59
H-30X	175	6.89	1560	61.42	264	582	4211 1030 60	4211 1030 61	4211 1030 62

RAMMER

111/BR111	36	1.42	360	14.17	3	7	4211 1001 08	4211 1001 09	4211 1001 10
222/BR222	42	1.65	400	15.75	4	9	4211 1001 11	4211 1001 12	4211 1001 13
333/BR333	50	1.97	490	19.29	7	15	4211 1001 14	4211 1001 15	4211 1001 16
555/BR555	72	2.83	650	25.59	19	42	4211 1001 17	4211 1001 18	4211 1001 19
777/BR777	80	3.15	740	29.13	25	55	4211 1001 20	4211 1001 21	4211 1001 22
999/BR999	90	3.54	830	32.68	37	82	4211 1001 23	4211 1001 24	4211 1001 25
S18/PICCOLO	40	1.57	410	16.14	4	9	4211 1000 00	4211 1000 01	4211 1000 02
S20	53	2.09	530	20.87	8	18	4211 1000 06	4211 1000 07	4211 1000 08
S21/BR321	45	1.77	500	19.69	6	13	4211 1000 03	4211 1000 04	4211 1000 05
S22/BR422	50	1.97	530	20.87	7	15	4211 1000 09	4211 1000 10	4211 1000 11
S23/BR623	63	2.48	680	26.77	15	33	4211 1000 12	4211 1000 13	4211 1000 14
S24	72	2.83	730	28.74	21	46	4211 1000 15	4211 1000 16	4211 1000 17
S25/BR825	70	2.76	730	28.74	20	44	4211 1000 18	4211 1000 19	4211 1000 20
S26	90	3.54	850	33.46	36	79	4211 1000 21	4211 1000 22	4211 1000 23
S27/BR927	83.7	3.3	880	34.65	35	77	4211 1000 24	4211 1000 25	4211 1000 26
S29/BR1129	95	3.74	900	35.43	44	97	4211 1000 27	4211 1000 28	4211 1000 29
S52	110	4.33	900	35.43	57	126	4211 1000 30	4211 1000 31	4211 1000 32
S54/RAM 700/RAM 700S	115	4.53	1050	41.34	77	170	4211 1000 33	4211 1000 34	4211 1000 35
S55/E66/BR2266	115	4.53	1050	41.34	78	172	4211 1000 36	4211 1000 37	4211 1000 38
S56/RAM 800/RAM 800S	130	5.12	1100	43.31	100	220	4211 1000 48	4211 1000 49	4211 1000 50
S82/RAM 1400	140	5.51	1200	47.24	131	289	4211 1000 51	4211 1000 52	4211 1000 53
S83	140	5.51	1200	47.24	131	289	4211 1000 54	4211 1000 55	4211 1000 56
S84/RAM 1600	160	6.3	1350	53.15	202	445	4211 1000 57	4211 1000 58	4211 1000 59
S86/RAM 2000	170	6.69	1350	53.15	218	481	4211 1000 60	4211 1000 61	4211 1000 62
BR1533	105	4.13	1000	39.37	60	132	4211 1000 93	4211 1000 94	4211 1000 95
BR2155	118	4.65	1050	41.34	80	176	4211 1000 96	4211 1000 97	4211 1000 98
BR2214/M14	125	4.92	1100	43.31	100	220	4211 1000 87	4211 1000 88	4211 1000 89
BR2518/M18	140	5.51	1200	47.24	131	289	4211 1000 90	4211 1000 91	4211 1000 92
BR2577	135	5.31	1120	44.09	121	267	4211 1000 99	4211 1001 00	4211 1001 01
BR4099	166	6.54	1450	57.09	226	498	4211 1001 02	4211 1001 03	4211 1001 04
E63/BR2063	115	4.53	1000	39.37	67	148	4211 1000 78	4211 1000 79	4211 1000 80
E64/BR2064	106	4.17	1050	41.34	63	139	4211 1000 39	4211 1000 40	4211 1000 41
E65/E66 Tunnel/BR2265	125	4.92	1050	41.34	88	194	4211 1000 42	4211 1000 43	4211 1000 44
E68/BR2568	130	5.12	1100	43.31	105	231	4211 1000 45	4211 1000 46	4211 1000 47
G80	140	5.51	1200	47.24	131	289	4211 1000 63	4211 1000 64	4211 1000 65
G88/BR3088	142	5.59	1200	47.24	141	311	4211 1000 81	4211 1000 82	4211 1000 83
G90/BR3890	160	6.3	1350	53.15	192	423	4211 1000 66	4211 1000 67	4211 1000 68
G100/BR4510	170	6.69	1450	57.09	236	520	4211 1000 69	4211 1000 70	4211 1000 71
G110/BR4511	175	6.89	1450	57.09	247	545	4211 1000 84	4211 1000 85	4211 1000 86
G120	195	7.68	1700	66.93	345	761	4211 1000 72	4211 1000 73	4211 1000 74
G130/BR7013	203	7.99	1700	66.93	389	858	4211 1000 75	4211 1000 76	4211 1000 77

Model	Ø Diameter		↔ Length		Weight		Moil point	Chisel Part N	Blunt
	mm	in	mm	in	kg	lbs			

SOOSAN

SB10	40	1.57	430	16.93	4	9	4211 1095 00	4211 1095 01	4211 1095 02
SB20	45	1.77	500	19.69	6	13	4211 1095 06	4211 1095 07	4211 1095 08
SB30	53	2.09	550	21.65	9	20	4211 1095 09	4211 1095 10	4211 1095 11
SB35	60	2.36	600	23.62	12	26	4211 1095 12	4211 1095 13	4211 1095 14
SB40	68	2.68	740	29.13	20	44	4211 1095 18	4211 1095 19	4211 1095 20
SB43	75	2.95	760	29.92	24	53	4211 1095 21	4211 1095 22	4211 1095 23
SB45	85	3.35	760	29.92	30	66	4211 1095 39	4211 1095 40	4211 1095 41
SB50	100	3.94	1000	39.37	56	123	4211 1095 24	4211 1095 25	4211 1095 26
SB60	125	4.92	1100	43.31	93	205	4211 1095 42	4211 1095 43	4211 1095 44
SB70	135	5.31	1200	47.24	120	265	4211 1095 45	4211 1095 46	4211 1095 47
SB81	140	5.51	1250	49.21	132	291	4211 1095 27	4211 1095 28	4211 1095 29
SB100	150	5.91	1250	49.21	155	342	4211 1095 30	4211 1095 31	4211 1095 32
SB120	155	6.1	1400	55.12	182	401	4211 1095 48	4211 1095 49	4211 1095 50
SB121	155	6.1	1300	51.18	172	379	4211 1095 51	4211 1095 52	4211 1095 53
SB130/SB140	165	6.5	1400	55.12	208	459	4211 1095 33	4211 1095 34	4211 1095 35
SB151	175	6.89	1600	62.99	266	586	4211 1095 36	4211 1095 37	4211 1095 38

STANLEY

MB 125	44	1.73	500	19.69	5	11	4211 1095 03	4211 1095 04	4211 1095 05
MB 250/256/257/350/356	64	2.52	580	22.83	13	29	4211 1095 15	4211 1095 16	4211 1095 17
MB 506	68	2.68	740	29.13	20	44	4211 1095 18	4211 1095 19	4211 1095 20
MB 15EX/MB 20EX	85	3.35	760	29.92	30	66	4211 1095 39	4211 1095 40	4211 1095 41
MB 30EX	100	3.94	1000	39.37	56	123	4211 1095 24	4211 1095 25	4211 1095 26
MB 40EX	125	4.92	1100	43.31	93	205	4211 1095 42	4211 1095 43	4211 1095 44
MB 50EX	140	5.51	1250	49.21	132	291	4211 1095 27	4211 1095 28	4211 1095 29
MB 60EX	150	5.91	1250	49.21	155	342	4211 1095 30	4211 1095 31	4211 1095 32
MB 70EX	155	6.1	1300	51.18	172	379	4211 1095 51	4211 1095 52	4211 1095 53
MB 80EX	165	6.5	1400	55.12	208	459	4211 1095 33	4211 1095 34	4211 1095 35
MB 100EX	175	6.89	1600	62.99	266	586	4211 1095 36	4211 1095 37	4211 1095 38

VOLVO

HB80	40	1.57	410	16.14	4	9	4211 1000 00	4211 1000 01	4211 1000 02
HB130	45	1.77	500	19.69	6	13	4211 1000 03	4211 1000 04	4211 1000 05
HB200	50	1.97	530	20.87	7	15	4211 1000 09	4211 1000 10	4211 1000 11
HB300	63	2.48	680	26.77	15	33	4211 1000 12	4211 1000 13	4211 1000 14
HB440/HB450	70	2.76	730	28.74	20	44	4211 1000 18	4211 1000 19	4211 1000 20
HB600	83.7	3.3	880	34.65	35	77	4211 1000 24	4211 1000 25	4211 1000 26
HB800	95	3.74	900	35.43	44	97	4211 1000 27	4211 1000 28	4211 1000 29
HB1100	115	4.53	1000	39.37	67	148	4211 1000 78	4211 1000 79	4211 1000 80
HB1400	125	4.92	1050	41.34	88	194	4211 1000 42	4211 1000 43	4211 1000 44
HB1700	130	5.12	1100	43.31	105	231	4211 1000 45	4211 1000 46	4211 1000 47
HB2400	140	5.51	1200	47.24	131	289	4211 1000 63	4211 1000 64	4211 1000 65
HB3200	160	6.3	1350	53.15	192	423	4211 1000 66	4211 1000 67	4211 1000 68
HB3800	175	6.89	1450	57.09	247	545	4211 1000 84	4211 1000 85	4211 1000 86

WORKING TOOL FAILURES

The correct application of Atlas Copco working tools can make you more productive on the job. This guide provides information to help you quickly analyze and immediately resolve any problems when they occur.



INTRODUCTION

Our steel is submitted to rigorous analysis. Each bar is inspected using ultrasound probes that reveal even the smallest internal defect. For this reason we use only material that passes all the quality tests. These checks cannot be deviated from and are guaranteed by the internal procedures of our Quality System (ISO 9001:2008).

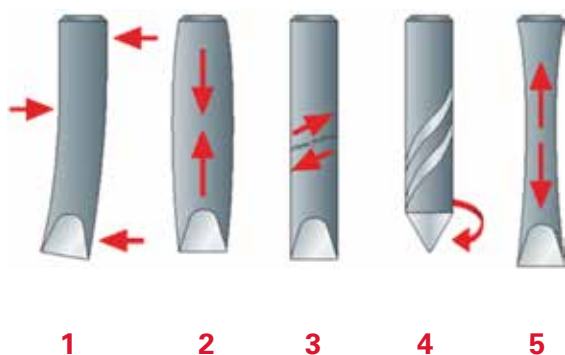
However, hydraulic hammer tools are subjected to extreme demands and, as a result, they break easily when the working conditions create loads that exceed the resistance of the steel. Fatigue failures are most common: they occur

in a gradual way and can be started by an event that precedes the actual and definitive break by hours or even days.

Starting as a small crack, with each successive blow, the rupture progresses to the center of the tool until it detaches completely. Cases of breaks caused by an internal defect of the material are very rare.

Below, we explain some breaks due to fatigue stress occurring on different points of the tool.

MAIN STRESSES ON WORKING TOOLS



These stresses can combine and significantly increase when the working tool is not used properly.

A sharp increase in one of these stresses, or a combination of different kinds of stresses, can cause a fatigue failure of the working tool.

1. **Bending stresses**
2. **Compressive stresses**
3. **Shear stresses**
4. **Torsion stresses**
5. **Tensile stresses**

TROUBLESHOOTING GUIDE

DAMAGE PATTERN	DESCRIPTION	CAUSE	REMEDY
	<ul style="list-style-type: none"> Initial crack on the outer surface of the tool Spiral steps through the cross-section of the tools Appears mainly on chisels 	<ul style="list-style-type: none"> Cutting edge is following the natural rock structure High torsion stresses Occurs mainly in parallel with bending strain 	<ul style="list-style-type: none"> Use either moil point or blunt tool
	<ul style="list-style-type: none"> Fracture in the retainer bar area 	<ul style="list-style-type: none"> High tensile stresses Blank firing Pulling a locked tool out of the rock/reinforcements Hydraulic breaker is too powerful for the application 	<ul style="list-style-type: none"> Avoid blank firing Move breaker slightly during operation Choose a smaller breaker
	<ul style="list-style-type: none"> Initial crack on the outer surface of the tool Rough, light-gray surface in bending direction Appears mainly in the lower wear bush area 	<ul style="list-style-type: none"> Seizures Incorrect working angle Insufficient lubrication Working tool is used as a crowbar 	<ul style="list-style-type: none"> Improve handling Improve lubrication
	<ul style="list-style-type: none"> Fracture on the tool tip Look for reinforcements in the material 	<ul style="list-style-type: none"> Local material overload Hitting on steel girders 	<ul style="list-style-type: none"> Avoid local material overload
	<ul style="list-style-type: none"> Mushrooming on the tool tip 	<ul style="list-style-type: none"> Working too long on one spot without repositioning of the working tool Hydraulic breaker is too weak for the application 	<ul style="list-style-type: none"> Improve handling Switch to a bigger hydraulic breaker
	<ul style="list-style-type: none"> Initial crack on the inside Fracture develops from inside to the outside 	<ul style="list-style-type: none"> Raw material fault 	<ul style="list-style-type: none"> Contact Atlas Copco
	<ul style="list-style-type: none"> Chipping of material at the retainer bar recess 	<ul style="list-style-type: none"> Worn retainer bars Blank firing Hydraulic breaker is too powerful for the application 	<ul style="list-style-type: none"> Avoid blank firing Choose a smaller hydraulic breaker
	<ul style="list-style-type: none"> Galling on the surface of the working tool 	<ul style="list-style-type: none"> High surface pressure Incorrect working angle Levering with the tool Insufficient lubrication 	<ul style="list-style-type: none"> Improve handling Improve lubrication

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