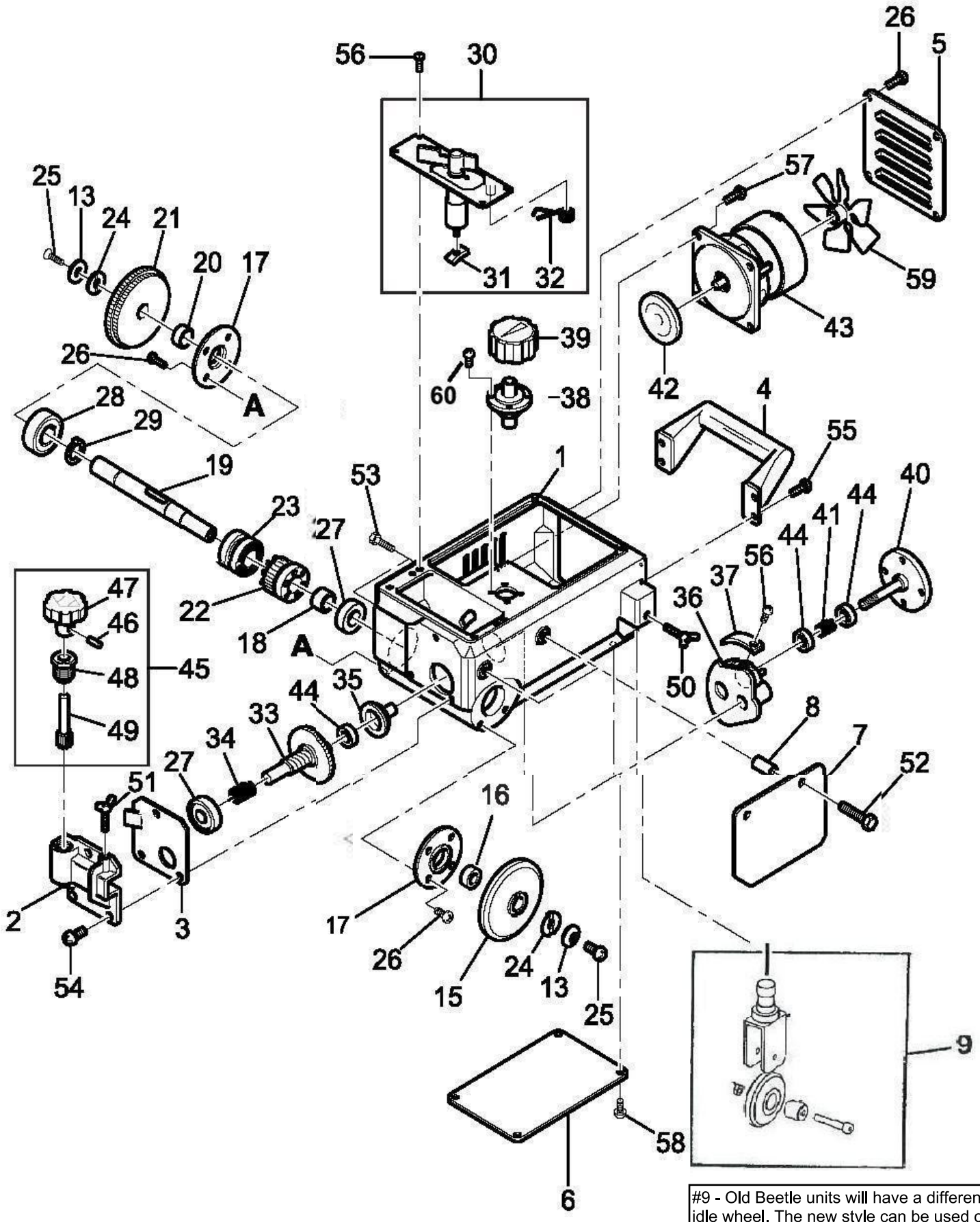
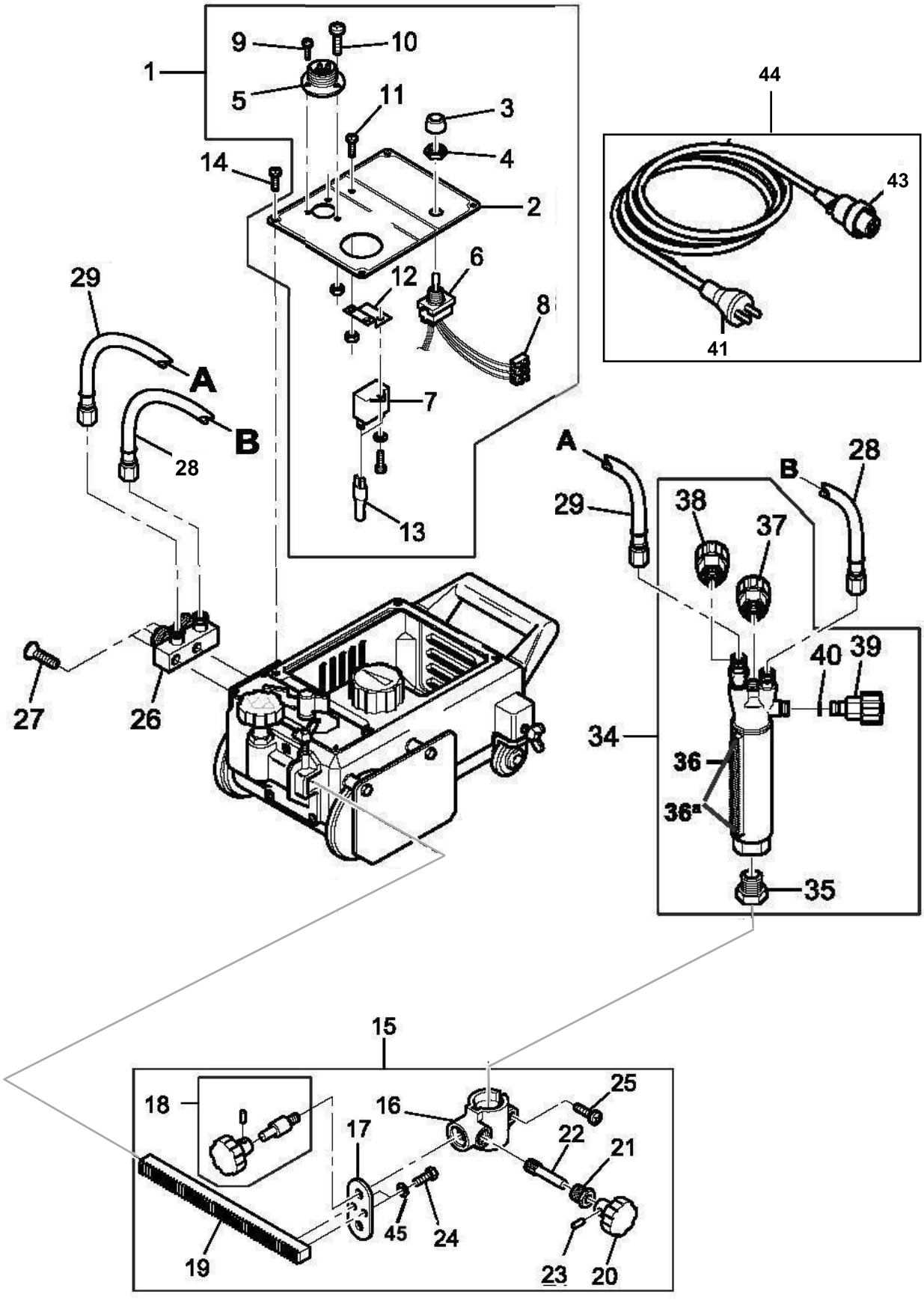
9.1 Main units



#9 - Old Beetle units will have a different style idle wheel. The new style can be used on ALL (old & new) Beetle units.

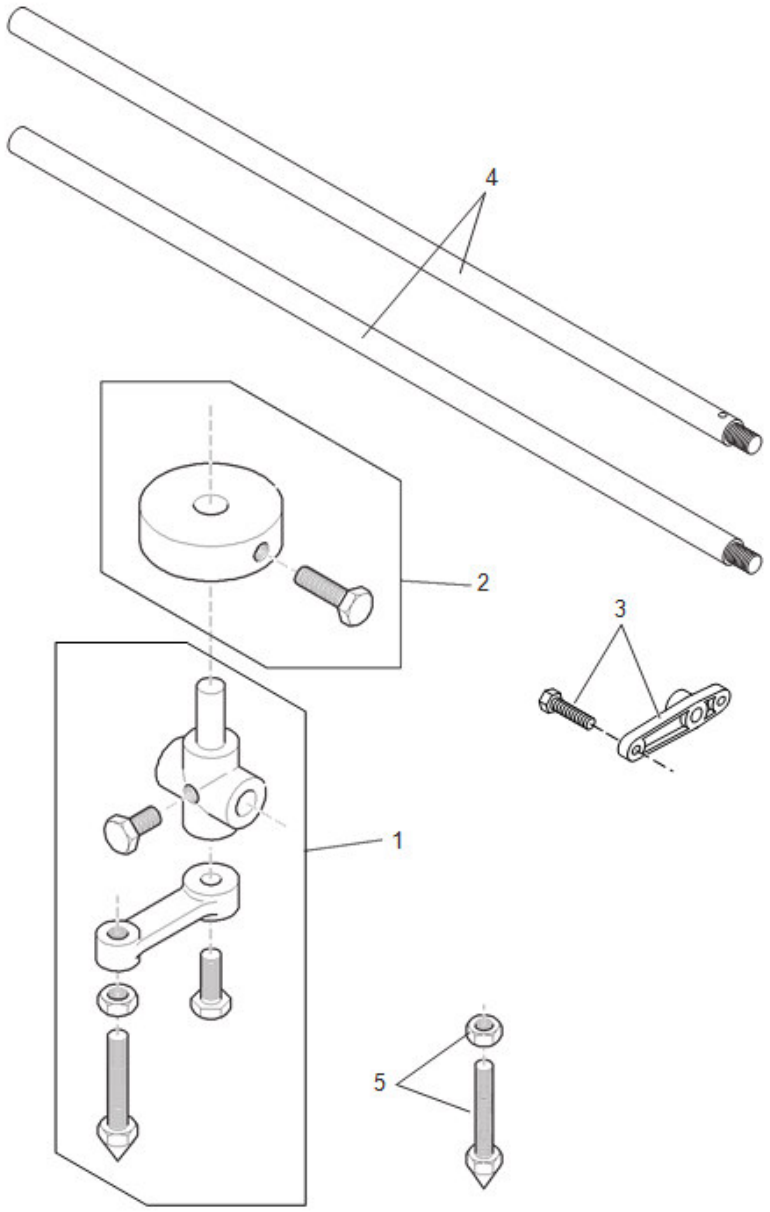
ITEM NUMBER	PART DESCRIPTION	QUANTITY	PART NUMBER	REMARKS
1	CASE	1	ZS31802	
2	CROSS FEED HOLDER	1	ZS31803	
3	CROSS FEED LINER	1	ZS31804	
4	HANDLE	1	ZS31805	
5	FAN COVER	1	ZS31806	
6	BOTTOM PLATE	1	ZS31807	
7	HEAT SHIELD	1	ZS31808	
8	HEAT SHIELD COLLAR	1	ZS31809	
9	SWIVEL GUIDE WHEEL UNIT	1	ZS31810	*See notes on drawing*
10	*N/A*	*1*		*Included in #ZS31810*
11	*N/A*	*1*		*Included in #ZS31810*
12	*N/A*	*1*		*Included in #ZS31810*
13	WASHER ROUND	2		
14	*N/A*	*1*		*Included in #ZS31810*
15	LARGE IDLE WHEEL	1	ZS31813	
16	COLLAR BEARING (A)	1	ZS31814	
17	BEARING RETAINER	2	ZS31815	
18	COLLAR BEARING (B)	1	ZS31816	
19	DRIVE WHEEL SHAFT	1	ZS31817	WITH KEY
20	COLLAR BEARING (C)	1	ZS31818	
21	DRIVE WHEEL	1	ZS31819	
22	WORM WHEEL	1	ZS30247	
23	CLUTCH	1	ZS30246	
24	WASHER	2	ZS30242	
25	PHILLIPS SCREW	2	9968164400	M5X15
26	PHILLIPS SCREW	12	9968177100	M5X8
27	BEARING BALL	2	1138357000	6300ZZ
28	BEARING BALL	1	1138359400	6302ZZ
29	RETAINING RING	1	9968261100	M15
30	CLUTCH LEVER UNIT	1	ZS31820	
31	SLIDER	1	ZS30265	
32	CLUTCH SPRING	1	ZS31821	
33	WORM SHAFT UNIT	1	ZS31822	
34	WORM SPRING	1	ZS31823	
35	SPEED ADJUSTING SHAFT	1	ZS31824	
36	SPEED ADJUSTING BRACKET	1	ZS31825	
37	RACK	1	ZS31826	
38	SPEED ADJUSTING HANDLE	1	ZS31827	
39	SPEED ADJUSTING KNOB	1	ZS31828	
40	SPEED ADJUSTING CONE	1	ZS31860	
41	CONE SPRING	1	ZS31829	
42	MOTOR DISK	1	ZS31868	
43	MOTOR W/FAN DISC	1	ZS31830	100V-120V
	MOTOR W/FAN DISC	1	ZS31832	200V
44	BEARING BALL	3	1138352500	608ZZ
45	CROSS FEED PINION UNIT	1	ZS31835	
46	ROLL PIN	1	9968204300	M2.5X16
47	SPEED ADJUSTING HANDLE	1	ZS30223	
48	PINION, METAL	1	ZS30318	
49	PINION	1	ZS30319	
50	WING SCREW	1	9968232500	M6X16
51	WING SCREW	1	9968232800	M6X25
52	HEX SCREW	2	9968105700	M6 1X30
53	HEX SCREW	2	9938105400	¼ - 20 X 1 ½
54	PHILLIPS SCREW	3	9968179800	M6X14
55	PHILLIPS SCREW	4	9968177500	M5X15
56	PHILLIPS SCREW	10	9968174900	M4X10
57	PHILLIPS SCREW	4	9968175300	M4X16
58	PHILLIPS SCREW	8	9968174800	M4X8
59	MOTOR FAN W/ SCREWS	1	ZS30289	
60	PHILLIPS SCREW	1	9968175300	M4X16

9.2 Electrical, gas and torch slide holder units



ITEM NUMBER	PART DESCRIPTION	QUANTITY	PART NUMBER	REMARKS
1	PANEL ASSEMBLY	1	ZS31894	
2	PANEL COVER	1	ZS31837	
3	CAP FOR DUST PROTECTOR	1	ZS32431	
4	DUST PROTECOR NUT	1	ZS35017	
5	METAL SOCKET 3P	1	ZS30273	3P
	METAL SOCKET 4P	1	ZS30274	4P
6	TOGGLE SWITCH ON/OFF/ON	1	ZS30283	
7	CONDENSER	1	ZS35207	120V-120V
	CONDENSER	1	ZS35219	200V-220V
8	TERMINAL	1	ZS31841	100V-120V
	TERMINAL	1	ZS30656	200V-240V
9	PHILLIPS SCREW C'SUNK	2	9968161000	M3X6
10	PHILLIPS SCREW C'SUNK	1	9968161100	M3X8
11	PHILLIPS PAN HD SCREW	2	9968172300	M3X6
12	CONDENSER FIXING PLATE	1	ZS32389	
13	TERMINAL	2	ZS35211	
14	PHILLIPS PAN HD SCREW	4	9968174800	M4X8
15	TORCH HOLDER ASSEMBLY	1	ZS31801	
16	TORCH HOLDER	1	ZS31842	
17	TORCH HOLDER FIXING PLATE	1	ZS31843	
18	HOLDER FIXING HANDLE W/SET SCREW	1	ZS31844	
19	RACK BAR (10")	1	ZS31845	
	RACK BAR (17")		ZS31850	OPTIONAL
20	ADJUSTMENT KNOB	1	ZS30223	
21	PINION, METAL	1	ZS30909	
22	PINION	1	ZS30910	
23	ROLL PIN	1	9968204300	M2.5X16
24	PHILLIPS PAN HD SCREW	2	9968177500	M5X15
25	SOCKET HD SCREW	1	9968180500	M6X25
26	DISTRIBUTOR	1	ZS31847	
27	PHILLIPS OVAL C'SUNK SCREW	2	9968165000	M5X25
28	OXYGEN HOSE ASSEMBLY	1	ZM30303	
29	FUEL HOSE ASSEMBLY	1	ZM30307	
30	*N/A*			
31	*N/A*			
32	*N/A*			
33	*N/A*			
34	TORCH	1	ZS10051	
35	TIP NUT	1	ZS05020	
36	RACK FOR TORCH W/SCREWS	1	ZS10056	
36a	RACK SCREWS	2	ZS10057	
37	PREHEAT OXY VALVE ASSEMBLY	1	ZS15355	
38	FUEL GAS VALVE ASSEMBLY	1	ZS15356	
39	JET OXYGEN VALVE ASSEMBLY	1	ZS15401	
40	O-RING	1	ZS05026	
41	METAL PLUG	1	ZS31295	
42	*N/A*			
43	METAL PLUG 3SOC	1	ZS30275	
44	POWER CORD ASSEMBLY	1	61004264	
45	WASHER	1	9968148700	M5

9.4 Circle cutting attachment



ITEM NUMBER	PART DESCRIPTION	QUANTITY	PART NUMBER	REMARKS
	CIRCLE CUTTING RADIUS BAR SET		*ZS31858*	*COMPLETE SET*
1	ARM ASSEMBLY	1	ZS30441	
2	WEIGHT	1	ZS30381	
3	FITTING	1	ZS31854	
4	RADIUS BAR	1	ZS30385	
5	PIVOT PIN	1	ZS30384	

11 Cutting data

102(STANDARD SPEED) For Acetylene

PLATE THICKNESS (mm)	TIP SIZE	CUTTING SPEED (mm/min)	OXYGEN PRESSURE (kg/c㎡) / (Mpa)		FUEL GAS PRESSURE (kg/c㎡) / (Mpa)	KERF WIDTH (mm)
			CUTTING	PREHEAT		
3	00	680	1.5 / 0.15	1.5 / 0.15	0.2 / 0.02	1.0
6	0	610	2.0 / 0.2	2.0 / 0.2	0.2 / 0.02	1.3
10	0	560	2.0 / 0.2	2.0 / 0.2	0.2 / 0.02	1.5
12.5	1	530	2.5 / 0.25	2.5 / 0.25	0.2 / 0.02	1.8
19	2	460	3.0 / 0.3	3.0 / 0.3	0.25 / 0.025	2.0
25	2	430	3.0 / 0.3	3.0 / 0.3	0.25 / 0.025	2.0
38	3	355	3.0 / 0.3	3.0 / 0.3	0.25 / 0.025	2.3
50	4	320	3.0 / 0.3	3.0 / 0.3	0.25 / 0.025	2.8

102-D7(HIGH SPEED) For Acetylene

PLATE THICKNESS (mm)	TIP SIZE	CUTTING SPEED (mm/min)	OXYGEN PRESSURE (kg/c㎡) / (Mpa)		FUEL GAS PRESSURE (kg/c㎡) / (Mpa)	KERF WIDTH (mm)
			CUTTING	PREHEAT		
3	00	800	7.0 / 0.7	1.5 / 0.15	0.2 / 0.02	0.8
6	0	740	7.0 / 0.7	2.0 / 0.2	0.2 / 0.02	1.0
10	0	680	7.0 / 0.7	2.0 / 0.2	0.2 / 0.02	1.3
12.5	1	630	7.0 / 0.7	2.5 / 0.25	0.2 / 0.02	1.3
19	2	560	7.0 / 0.7	3.0 / 0.3	0.25 / 0.025	1.5
25	2	510	7.0 / 0.7	3.0 / 0.3	0.25 / 0.025	1.8
38	3	460	7.0 / 0.7	3.0 / 0.3	0.25 / 0.025	2.0
50	4	410	7.0 / 0.7	3.0 / 0.3	0.25 / 0.025	2.6

NOTE

1) All pressures are torch inlet pressures.
2) Oxygen purity is minimum of 99.7%.
3) Depending on the surface condition of the steel plate (scale, paint) either increase the fuel gas pressure or decrease the cutting speed. Also, when precision cutting is required, adjust all data.

106(STANDARD SPEED) For Propane

PLATE THICKNESS (mm)	TIP SIZE	CUTTING SPEED (mm/min)	OXYGEN PRESSURE (kg/c㎡) / (Mpa)		FUEL GAS PRESSURE (kg/c㎡) / (Mpa)	KERF WIDTH (mm)
			CUTTING	PREHEAT		
3	00	680	1.5 / 0.15	1.5 / 0.15	0.2 / 0.02	1.0
6	0	610	2.0 / 0.2	2.0 / 0.2	0.2 / 0.02	1.3
10	0	560	2.0 / 0.2	2.0 / 0.2	0.2 / 0.02	1.5
12.5	1	530	2.5 / 0.25	2.5 / 0.25	0.2 / 0.02	1.8
19	2	460	3.0 / 0.3	3.0 / 0.3	0.2 / 0.02	2.0
25	2	430	3.0 / 0.3	3.0 / 0.3	0.2 / 0.02	2.0
38	3	355	3.0 / 0.3	3.0 / 0.3	0.2 / 0.02	2.3
50	4	320	3.0 / 0.3	3.0 / 0.3	0.25 / 0.025	2.8

106-D7(HIGH SPEED) For Propane

PLATE THICKNESS (mm)	TIP SIZE	CUTTING SPEED (mm/min)	OXYGEN PRESSURE (kg/c㎡) / (Mpa)		FUEL GAS PRESSURE (kg/c㎡) / (Mpa)	KERF WIDTH (mm)
			CUTTING	PREHEAT		
3	00	800	7.0 / 0.7	1.5 / 0.15	0.2 / 0.02	0.8
6	0	740	7.0 / 0.7	2.0 / 0.2	0.2 / 0.02	1.0
10	0	680	7.0 / 0.7	2.0 / 0.2	0.2 / 0.02	1.3
12.5	1	630	7.0 / 0.7	2.5 / 0.25	0.2 / 0.02	1.3
19	2	560	7.0 / 0.7	3.0 / 0.3	0.2 / 0.02	1.5
25	2	510	7.0 / 0.7	3.0 / 0.3	0.2 / 0.02	1.8
38	3	460	7.0 / 0.7	3.0 / 0.3	0.2 / 0.02	2.0
50	4	410	7.0 / 0.7	3.0 / 0.3	0.2 / 0.02	2.6

NOTE

1) All pressures are torch inlet pressures.
2) Oxygen purity is minimum of 99.7%, propane is minimum of JIS Grade 3.
3) Depending on the surface condition of the steel plate (scale, paint) either increase the fuel gas pressure or decrease the cutting speed. Also, when precision cutting is required, adjust all data.