



## REBAR & MESH

### CONVERSION SUPPLIES (PTY) LTD

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## **D I A M O N D**

DBD-16L

MINI REBAR BENDER

HANDLING INSTRUCTIONS

READ THESE INSTRUCTIONS CAREFULLY PRIOR TO USING  
AND SAVE THEM FOR FUTURE REFERENCE

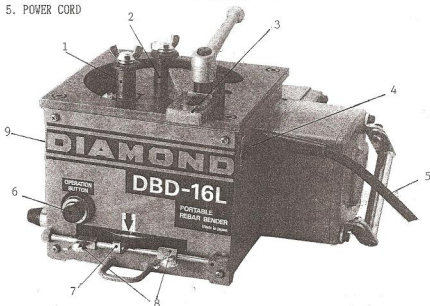
## DIAMOND

### SPECIFICATIONS

BENDING SPEED	: 1.5 SEC./180° BENDING
BENDING ANGLE	: ANY ANGLE UPTO 180° (0°-180°)
BENDING CAPACITY	: 8MM $\phi$ -16MM $\phi$
MAX. Q'TY CAN BE BENT AT ONE TIME	: 10MM $\phi$ (7/16")... 3 PCS 13MM $\phi$ (9/16")... 2 PCS 16MM $\phi$ (11/16")... 1 PC
POWER SUPPLY	: ELECTRIC MOTOR/SINGLE PHASE
OUTPUT	: 5A:220V / 9.4A:115V
WEIGHT (WITHOUT BENDING TABLE)	: 19 KG (42 LBS)
DIMENSIONS (WITHOUT BENDING TABLE)	: 329 × 350 × 245MM

### PART NAME

- |                       |                           |
|-----------------------|---------------------------|
| 1. BENDING ROLLER     | 6. OPERATION BUTTON       |
| 2. CENTER ROLLER      | 7. ANGLE SETTER           |
| 3. ADJUSTABLE STOPPER | 8. ANGLE STOPPER          |
| 4. MAIN SWITCH        | 9. SOCKET FOR FOOT SWITCH |
| 5. POWER CORD         |                           |



## DIAMOND

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### SAFETY PRECAUTIONS

**▲ WARNING ▲** : When using electric tools, basic safety precautions should always be followed to reduce risk of electric shock and personal injury including the following items:

1. Keep hands away from all moving parts and rollers.
2. When positioning the bar between rollers, make sure that it lies flat on machine surface. If the bar is off surface, the action of rollers may cause it to fly out.
3. Do not exceed the maximum number of bars that can be bent at one time. Refer to the table of page No.3.
4. Wear safety goggles and gloves while the bender is operated.
5. Wear proper apparell. No loose clothing or Jewerly to get caught in moving parts. Wear sturdy boots with non-skid soles. Steel-toed boots are recommended.
6. Don't expose tool to rain or use in damp or wet locations. Do not use tool in presence of flammable liquids or gases. Keep work area well lit. If the tool is used outdoors, keep it covered when not in use and protect it from rain or water.
7. Minors should never be allowed to use a Rebar Bender, especially children should not be allowed in the area where Rebar Bender is used.
8. Do not try to bend materials harder than 80,000psi as they will either crack and fly out or cause machine failure.
9. Disconnect tool from receptacle when not in use, changing rollers and before servicing.
10. Tool must be grounded while in use to protect from electric shock. The tool should be plugged into a three-hole electrical receptacle. If an adaptor is used to accomodate a two-hole

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receptacle, the grounded ear must be attached to a known ground. Never remove the third prong.

11. Keep tool clean at all times for best and safest performance. Keep hands dry and free of oil or grease. Inspect switches, tool cords periodically and have them repaired or replaced by an authorized facility if damaged. Check all moving parts for alignment and binding as well as for breakage and improper mounting. Damaged parts should be repaired or replaced by an authorized service facility.

### SPECIAL INSTRUCTION FOR REBAR BENDER

1. Tool will only operate on the voltage for which it is designed (with a tolerance of  $\pm 10\%$ ). Exceeding the voltage will cause the motor to burn out, while an insufficient voltage will result in clutch slip, eventually seriously damaging the tool.
2. Magnetic clutch has been pre-set and require no further adjustment. Of the dry type, it should be safe-guarded from liquids, especially oil and grease, which will cause clutch-slip.
3. When the moving roller is changed, oil its moving part.
4. As the distance from the supply outlet increase, heavier gauge extension cords are required. The use of extension cords of inadequate size wire causes a seriously drop in voltage, loss of power and possible motor damage.
5. After the operation, be sure to remove by wiping metal dust adhering the tool body.

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## HANDLING INSTRUCTIONS

1. Adjust the main body to the desired height. Use optional stand set if it is necessary.
2. Plug the power cord in.
3. Select and set the correct rollers for the bars to be bent. See the following table.

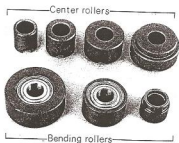
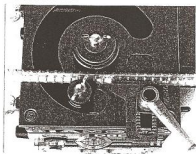


TABLE FOR COMBINATIONS OF CENTER ROLLER AND BENDING ROLLER  
ACCORDING TO BAR SIZE.

Diameter of Rebar	Center Roller			Bending Roller			Max. Bent at one time
	Mark	Diameter(mm)	Parts #.	Mark	Diameter(mm)	Parts #.	
10mm	(10)	30	1BDL400322	10	70	1BDL400361	3 pieces
10mm	10 (13)	38	1BDL400332	10	70	1BDL400361	3 pieces
13mm(12mm)	10 (13)	38	1BDL400332	13	52	1BDL400371	2 pieces
13mm(12mm)	13 (16)	50	1BDL400342	13	52	1BDL400371	2 pieces
16mm	16	62	1BDL400352	16	34	1BDL400381	1 pieces

\*Bending rollers have dust seal & bearings/bush

4. Lay the bar on the machine surface between the center roller and bending roller and adjust the stopper so that the bars is parallel to the front edge of the machine.



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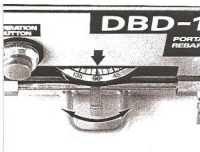
5. Tighten the clamp lever to lock the stopper. The clamp lever will rotate freely so that it may set to the desired angle.

Pull the clamp lever upwards and rotate it to the desired position, and push it back to lock.

6. Turn the switch on.



7. Set the angle setter to the desired angle. First make a test bend and if the angle of the bend is not exact, adjust the angle setter slightly to the right or left to obtain correct angle.



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8. Push the operation button.  
The moving roller will automatically return to the start position once the bend has been completed.

**!WARNING!**

NEVER TOUCH ALL MOVING PARTS AND ROLLERS WHILE THE REBAR BENDER IS BEING OPERATED.

\*Two bending angles can be pre-set.

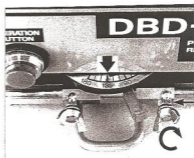
- 1) Set the angle setter at  $90^\circ$  and tighten the left wing bolt to lock the left angle stopper.

Example:



- 3) Set the angle setter at the position of  $135^\circ$  and push operation button.  
4) After the  $135^\circ$  bending has been completed, slide the rebar by desired length and set the angle setter to the  $90^\circ$  bending position.  
5) Push the operation button to make  $90^\circ$  bending.

\*IF IT IS NECESSARY TO STOP THE MACHINE IN AN EMERGENCY, TURN OFF THE MAIN SWITCH. THE MOVING ROLLER WILL RETURN TO THE START POSITION IMMEDIATELY.



## **DIAMOND**

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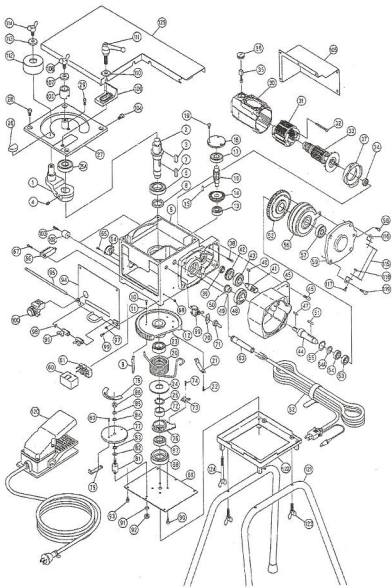
### **INSPECTION & MAINTENANCE**

#### **! WARNING !**

Always unplug tool before performing any maintenance. The use of any parts of necessary other than DIAMOND genuine may be hazardous.

1. In order to empty the metal dust, tilt the machine body 45° to the left.
2. At least once per two months, remove the front cover and blow the metal dust with compressed air from inside machine. At the same time, apply grease to the gear.
3. At least once a month, check the carbon brushes for wear or damage. And replace if necessary.
4. If the machine should fail to start when the operation button is pressed, please check whether:-
  - i) the machine is plugged in
  - ii) the main switch is on
  - iii) the carbon brushes have no problemIf there are no faults on the above, please ask to your supplier or directly to us.
5. Check that there are no loose on the visible nuts and bolts before start the operation.
6. If the machine is used outdoors, keep it covered when not in use and protect from rain or water.





**DBD-16L**

15. FEB. 2008

No.	Part No.	Part Name	Qty	No.	Part No.	Part Name	Qty	No.	Part No.	Part Name	Qty
1	1BDL300610	SWIVEL ARM	1	44	1BDL400223	CLUTCH SHAFT	1	87	76004ZZ	BALL BEARING 6004ZZ	1
2	1BDL300115	MAIN SHAFT	1	45	1BDL200040	CLUTCH CASE	1	88	1BDL401031	BOTTOM PLATE	1
3	1BDL401120	KEY (1.0X3X29.5)	1	46	7GB06025	CAP BOLT M6X25	6	89	1BDL300161	BOTTOM FLANGE	1
4	75S08008	SET SCREW M8X8	1	47	1BDL401130	KEY 3X3X18	1	90	7JL2W02010	UPSET BOLT M5X10	4
5	1BDL100046	FRAME	1	48	76302ZZ	BEARING 6302ZZ	1	91	75W0009	SPRING WASHER M8	1
6	762081LU	BEARING 62081LU	1	49	1BDL400230	BEVEL GEAR	1	92	7N0008	NUT M8	1
7	1BDL400116	KEY (6X7X29.5)	1	50	75504004	SET SCREW M4X4	1	93	7JL2W02010	UPSET BOLT M5X10	6
8	1BDL400131	COLOR	1	51	1BDL400146	NET 5X5X26	1	94	1BDL300180	FRONT PANEL	1
9	1BDL400122	DOCK	1	52	1BDL400242	CLUTCH GEAR	1	96	1BDL400940	SLIDE SHAFT	1
10	7P204016	SCREW WITH WASHER M4X16	2	53	76904ZZ	BEARING 6904ZZ	1	98	1BDL400973	SLIDER	2
11	1BDL300130	SWIVEL GEAR	1	54	76904ZZ	BEARING 6904ZZ	1	97	75504004	SET SCREW M4X4	2
12	76301ZZ	BEARING 6301ZZ	1	54A	1BDL400290	COLLAR	1	98	7E008	E RING 8	1
13	1BDL400200	BEVEL GEAR	1	55	75R437	SNAP RING H37	1	99	7P405008	SCREW WITH WASHER M5X8	4
14	1BDL400200	BEVEL GEAR	1	56	1BDL401182	CLUTCH TMC-2.5KW	1	100	1BR51272	OPERATE SWITCH M-FG10	1
15	1BDL400130	KEY (5X5X16)	1	57	76302ZZ	BEARING 6302ZZ	1	102	7C308K	RUBBER C308K-2320	2
16	1BDL400190	PINION GEAR	1	58	7GR06010	CAP BOLT M6X10	4	103	7P404016	SCREW WITH WASHER M4X16	2
17	76302ZZ	BEARING 6302ZZ	1	59	1BDL300174	CLUTCH COVER	1	104	7668010	BOLT M8X10	4
18	1BDL400210	BEARING COVER	1	60	7VC20FA	RELAY VCG20FAZD19 160V	1	105	1BDL200651	MOTOR COVER	1
19	7GB06014	CAP BOLT M6X14	3	61	7BW9154	BLACKET BW9154	1	106	1BDL400322	CENTER ROLLER #1	1
20	1BDL300141	RETURN SPRING	1	62	1BDL400180	CORD	1	107	1BDL400332	CENTER ROLLER #2	1
21	1BDL400110	SPRING COVER	1	63	1C2561L	CORD ARMER	1	108	1BDL400342	CENTER ROLLER #3	1
22	7PB05063	TAPPING SCREW M3X8	2	64	732701B01	SOCKET S2701B01	1	109	1BDL400352	CENTER ROLLER #4	1
23	1BDL400140	COLOR	1	65	7P203010	SCREW WITH WASHER M3X10	2	107	1BDL400390	WASHER	1
24	1BDL400190	WASHER	1	65A	7N0003	NUT M3	2	108	7WB16020	WING BOLT M16X20	1
25	75RS26	SNAP RING S26	1	66	7GRM0390FS	CLUTCH TERMINAL	1	109	1BDL400292	STOPPER	1
25A	76304ZZ	BEARING 6304ZZ	1	67	7P204010	SCREW WITH WASHER M4X10	2	110	1BDL400660	STOPPER PLATE	1
26	1L1S2066	STOPPER OT-6	1	69	3CD00151	MAIN SWITCH	1	111	7KR12	CLAMP LEVER	1
27	1BDL200504	SWIVEL PLATE	1	70	3CD00121	ON-OFF PLATE	1	112	1BDL400381	BENDING POLLER #1	1
28	7BB08015	BUTTON BOLT M6X15	4	71	3CD00111	RUBBER GAP FOR SWITCH	1	112	1BDL400371	BENDING POLLER #2	1
29	7GB06006	CAP BOLT M6X6	1	72	1BDL400160	BUSH	1	1BDL400381	BENDING POLLER #3	1	
30	1C1661P	MOTOR HOUSING	1	73	7555G42	LIMIT SWITCH	1	113	1BDL400390	WASHER	1
31	1C1661D	STATOR COIL	1	74	7PB23016	PAN HEAD BOLT M2.3X16	2	114	7WB10020	WING BOLT M10X20	1
32	7NS05060	TAPPING SCREW M5X60	2	74A	7N0023	NUT M2.3	2	115	1BDL400980	HANDLE	1
33	1C1661N	ARMATURE	1	76	1BDL300151	ANGLE SET PINION	1	116	1BDL400940	HANDLE BRACKET	2
34	7609	BALL BEARING 609VV	1	77	1BDL400181	ANGLE GEAR	1	117	7GB06014	CAP BOLT M6X14	2
35	1C1661A	CARBON BRUSH SET	2	78	1BDL600411	ANGLE SCALE	1	118	7GB0006	U NUT M6	2
36	1C1661B	BRUSH CAP	2	79	1BDL400421	ANGLE LEVER	1	119	7GB06025	CAP BOLT M6X25	2
37	1C1661G	FURN COVER	1	80	7P204012	SCREW WITH WASHER M4X12	2	120	1BDL401160	FOOT SWITCH	1
38	7NS05025	TAPPING SCREW M5X25	4	81	1BDL400170	ANGLE PIN	1	121	1BDL200070	STAND	1
39	7600	BEARING 6900	1	82	7P4W0008	PLAIN WASHER M8	1	122	1BDL200060	STAND TABLE	1
40	1BDL401170	KEY (5X5X13)	1	83	7P4W0008	WAVE WASHER M8	1	123	7WB098300	WING BOLT M6X30	4
41	1BDL400251	PINION GEAR	1	84	7P4W0006	WAVE WASHER M6	1	124	1BDL400660	WING BOLT	1
42	1BDL400260	HELICAL GEAR	1	85	7P4W0008	PLAIN WASHER M8	1	125	1BDL301160	TABLE	1
43	76044LU	BEARING 60044LU	1	86	7NN008	N NUT M8	1				