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DBD-25H PORTABLE REBAR BENDER

Tool Manual DBD-Series 0-180 degree Rebar Benders



BN Products-USA, LLC. 3450 Sabin Brown Road Wickenburg, AZ 85390 (800) 992-3833 • (928) 684-2813 FAX: (928) 684-7041 mail@bnproducts.com • www.bnrebartools.com

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

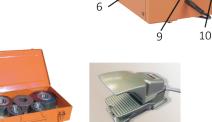
READ ALL INSTRUCTIONS AND SAVE THEM FOR FURTURE REFERENCE

- 1. Keep hands away. From all moving parts and rollers while operating.
- Dress properly. Loose clothing or jewelry can get caught in moving parts. Wear sturdy boots with nonskid soles. Steel toed boots and safety glasses are recom mended.
- 3. Keep children and bystanders away. Distractions can cause you to lose control.
- 4. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 5. Stay alert. Watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs or alcohol. A moment of inattention while operating power tools may result in serious personal injury.

- 6. Do not exceed the maximum number of bars that can be bent at one time. Please refer to specifications.
- 7. When positioning the bar between rollers, make sure to lay it flat on the machine surface. Failure to do so may cause the rebar to fly out.
- Do not expose tool to rain or use in damp locations.. Do not use tool in presence of flammable liquids or gases. Keep work area well lit. If the tool is used out doors, keep it covered when not in use and protect it from rain or water.
- 9. Do not try to bend materials harder than "Grade 60 or 600N/mm2" as they will either crack and fly out or cause machine failure.
- 10. Disconnect tool from receptacle when not in use. Dis connect when servicing or changing rollers to prevent accidents.
- 11. Keep tool clean at all times for best and safest perfor mance. Follow instructions for lubricating and chang ing parts. Keep hands dry and free of oil or grease. Inspect switches, tool cords periodically and have them repaired or replaced by an authorized service center if damaged. Check 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 unless otherwise indicated in this instruction book.

DBD-25X Portable Rebar Bender

- 1. Moving bending roller
- 2. Center roller
- 3. Adjustable stopper
- 4. Main switch
- 5. Pilot lamp
- 6. Operation button On/Off
- 7. Angle setter (lever type) 2-stops
- 8. Angle stopper (two)
- 9. Emergency stop button
- 10. Plug-in for foot switch
- 11. Roller set
- 12. Foot Operated Switch





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Recommended Bending Roller Selection Chart

for DBD-25H Bender on Standard Hook Details

Combination of Center Roller and Moving Roller according to the bar size:

| Bar Diameter Size Max. Grade 60 | Center Roller # | Center Roller Outside Diameter | CRSI Recommended Inside Bend Diameter | Moving Roller | No. of bars that can be bent |
|------------------------------------|--------------------|-----------------------------------|--|------------------|------------------------------|
| 1" (25mm) #8 | No. 7 | 5.97" (153mm) | 6.00" (155mm) | No. 1 | 1 -Piece |
| 7/8" (22mm) #7 | No. 6 | 5.15" (132mm) | 5.25" (135mm) | No. 3 | 1 -Piece |
| 3/4" (19mm) #6 | No. 4 | 4.45" (114mm) | 4.50" (115mm) | No. 5 | 2 -Pieces |
| 5/8" (16mm) #5 | No. 3 | 3.63" (93mm) | 3.75" (95mm) | No. 6 | 2 -Pieces |
| 1/2" (13mm) #4 | No. 2 | 3.09" (79mm) | 3.00" (80mm) | No. 8 | 3 -Pieces |
| 3/8" (10mm) #3 | No. 1 | 2.54" (65mm) | 2.25" (60mm) | No. 9 | 4 -Pieces |

** Use a second No. 4 Roller on moving roller to produce a complete 180° Bend.

Recommended Bending Roller Selection Chart

for DBD-25H Bender on Stirrup Hooks

Combination of Center Roller and Moving Roller according to the bar size:

| Bar Diameter Size Max. Grade 60 | Center Roller # | Center Roller Outside Diameter | *ACI Recommended Inside Bend Diameter | Moving Roller | No. of bars that can be bent at one time |
|------------------------------------|--------------------|-----------------------------------|--|------------------|--|
| 5/8" (16mm) #5 | No. 1 | 2.54" (65mm) | 2.50" (51mm) | No. 8 | 2 -Pieces |
| 1/2" (13mm) #4 | Special * | 1.95" (50mm) | 2.00" (51mm) | No. 9 | 3 -Pieces |
| 3/8" (10mm) #3 | ** | 1.57" (42mm) | 1.50" (38mm) | No. 9 | 4 -Pieces |

* Requires optional roller #1BR5140 used on DBD-25X bender ** Use roller shaft only with no roller, shaft outside diameter 1.57"

| Bending Roller Sizes for DBD-25H Rebar Bender | | | | |
|---|------------------|--|--|--|
| Part Number -Roller Number | Outside Diameter | | | |
| #1BR4212500 -No. 1 | 2.54" (65mm) | | | |
| #1BR4212600 -No. 2 | 3.09" (79mm) | | | |
| #1BR4207000 -No. 3 | 3.63" (93mm) | | | |
| #1BR4207201 -No. 4 | 4.45" (114mm) | | | |
| #1BR4207101 -No. 5 | 4.45" (114mm) | | | |
| #1BR4207300 -No. 6 | 5.15" (132mm) | | | |
| #1BR4212800 -No. 7 | 5.97" (153mm) | | | |
| #1BR4209600 No. 8 | 6.48" (166mm) | | | |
| #1BR4212900 -No. 9 | 7.14" (183mm) | | | |



Information from CRSI -Concrete Reinforcing Steel Institute, www.crsi.org

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Warning: Always Unplug This Tool Before Attaching Or Removing Rollers Or Accessories.

- 1. Select and set the correct rollers for the bars to be bent. See the table above.
- 2. Plug the electrical power cord into an appropriate outlet.
- 3. Lay the bar on the machine surface between the center roller and bending roller. Adjust the stopper so that the bar is parallel to the front edge of the machine.
- 4. Turn the main switch on and check that the pilot lamp has lit up.
- 5. Set the angle and make a test bend. If the bent angle is not exact, adjust the angle setter slightly to the right or left. Lock in the angle stoppers to duplicate the same angle each time.
- 6. Push the operation button or foot switch. The moving bending roller will automatically return to the start position once the bend has been completed.
- 7. If it is necessary to stop the machine in an emer gency, push the emergency stop button or release your foot from the foot operated switch. The bending roller will return to the start position automatically.

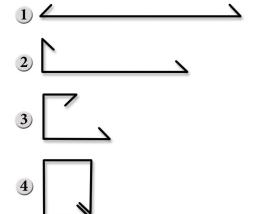


BENDING ANGLES CAN BE PRESET

- 1. Set the angle setter to 135° then tighten the right angle stopper to lock the 135° position.
- 2. Set the angle setter to 90° then tighten the left angle stopper to lock the 90° position.
- 3. Set the angle setter to 135°. Push the operation but ton to make your first bend.
- 4. Slide the rebar to the desired length and set the angle setter to 90°. Push the operation button to complete your second bend.

For stirrups, cut your rebar to the desired length before bending. Then make both bends for your turndowns. Finally make your (3) 90° bends to connect your ends together. See below.

WARNING: Never touch any moving parts or roll ers while the rebar bender is being operated.



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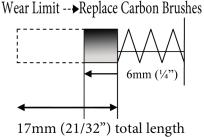


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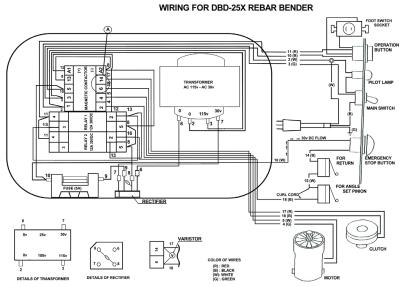
INSPECTION AND MAINTENANCE WARNING: ALWAYS UNPLUG TOOL BEFORE PERFORMING MAINTENANCE. DO NOT USE PARTS OR ACCESSORIES THAT ARE NOT GENUINE DIAMOND BRAND from BN Products-USA

1. At least once a month remove the bottom plate and grease all the visible gears and pinions. At the same time, check the carbon brushes for wear or damage. Replace with new brushes if they are worn out.





- 2. Check that there are no loose nuts and bolts before starting the operation.
- 3. After operation is completed, be sure to remove metal dust, dirt, oil, etc... adhering to the machine surface.
- 4. In order to empty the metal dust from the bender, (remove side cover DBD-25X and DBD-32X models) then tilt the machine to one side allowing the debris to fall out of the catch pan. Be sure to blow out any remaining dirt and dust with compressed air prior to using the tool again (wear safety goggles to block blowing debris).



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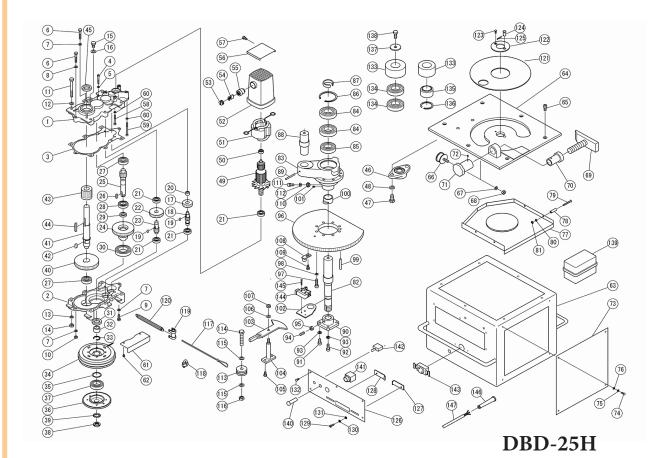
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| No. | Part No. | Part Name | Qty |
|-----|----------|-------------------|-----|
| 1 | 1BR5001 | GEAR CASE M | 1 |
| 2 | 1BR5002 | GEAR CASE C | 1 |
| 3 | | | 1 |
| 3 | 1BR5206 | GEAR CASE PACKING | - |
| 4 | 7CB06045 | CAP BOLT M6X45 | 2 |
| 5 | 7SW006 | SPRING WASHER M6 | 2 |
| 6 | 7B08050 | BOLT M8X50 | 3 |
| 7 | 7SW008 | SPRING WASHER M8 | 4 |
| 8 | 7PW008 | PLATE WASHER M8 | 1 |
| 9 | 7B08025 | BOLT M8X25 | 1 |
| 10 | 7N008 | NUT M8 | 1 |
| 11 | 7B10100 | BOLT M10X100 | 4 |
| 12 | 7PW010 | PLATE WASHER M10 | 4 |
| 13 | 7SW010 | SPRING WASHER M10 | 4 |
| 14 | 7N010 | NUT M10 | 4 |
| 15 | 7B12020 | BOLT M12X20 | 1 |

| No. | Part No. | Part Name | Qty |
|-----|----------|-----------------------|-----|
| 16 | 7WF12 | SEAL WASHER WF12 | 1 |
| 17 | 1BR5023 | HELICAL GEAR | 1 |
| 18 | 1BR5025 | PINION NO.1 | 1 |
| 19 | 1BR5024 | HELICAL GEAR KEY | 2 |
| 20 | 1BR5009 | NEEDLE BEARING TA1212 | 1 |
| 21 | 1BR5003 | BEARING 6202V | 4 |
| 22 | 1BR5026 | GEAR NO.1 | 1 |
| 23 | 1BR5027 | PINION NO.2 | 1 |
| 24 | 1BR5028 | GEAR NO.2 | 1 |
| 25 | 1BR5029 | PINION NO.3 | 1 |
| 26 | 1BR5030 | PINION KEY 7X7X20 | 1 |
| 27 | 1BR5004 | BALL BEARING 6204 | 2 |
| 28 | 1BR5006 | BALL BEARING 6005 | 1 |
| 29 | 1BR5015 | OIL SEAL SC22-32-7 | 1 |
| 30 | 1BR5008 | BALL BEARING 6009Z | 1 |

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| No. | Part No. | Part Name | Qty |
|-----|------------|--------------------------------|-----|
| 31 | 1BR5016 | OIL SEAL SC45-62-9 | 1 |
| 32 | 1BR5010 | NEEDLE BEARING TA223020 | 1 |
| 33 | 1BR5011 | CIRCLIP AR-30 | 1 |
| 34 | 7TMF1341 | CLUTCH ASS'Y | 1 |
| 35 | 1BR5043 | SHIM | 1 |
| 36 | 1BR5038D | CLUTCH ARMATURE FLANGE | 1 |
| 37 | 1BR5007 | BEARING 6007ZZ | 1 |
| 38 | 1BR5031 | BEARING NUT | 1 |
| 39 | 1BR5032 | BEARING WASHER | 1 |
| 40 | 1BR5033 | GEAR NO.3 | 1 |
| 41 | 1BR5035 | SHAFT | 1 |
| 42 | 1BR5034 | GEAR NO.3 KEY | 1 |
| 43 | 1BR4206200 | PINION NO.4 | 1 |
| 44 | 1BR5037 | PINION KEY | 1 |
| 45 | 1BR5017 | OIL SEAL SC30-45-8 | 1 |
| 46 | 1BR5047 | FLANGE UNIT UCFL205 | 1 |
| 47 | 7B14028 | BOLT M14X28 | 2 |
| 48 | 7SW014 | SPRING WASHER M14 | 2 |
| 49 | 1BR5012C | ARMATURE | 1 |
| 50 | 1BR6200ZZ | BALL BEARING 6200ZZ | 1 |
| 51 | 1BR5012B | STATOR COIL | 1 |
| 52 | 1BR5012D | MOTOR HOUSING | 1 |
| 53 | 1BR5012H | BRUSH CAP | 2 |
| 54 | 1BR5012A | CARBON BRUSH SET | 1 |
| 55 | 1BR5012E | CARBON BRUSH HOLDER | 2 |
| 56 | 1BR5048 | MOTOR COVER | 1 |
| 57 | 7B08015 | BOLT M8X15 WITH WASHER | 1 |
| 58 | 7CB06050 | CAP BOLT M6X50 | 2 |
| 59 | 7CB06070 | CAP BOLT M6X70 | 2 |
| 60 | 7SW006 | SPRING WASHER M6 | 4 |
| 61 | 1BR5044 | CLUTCH COVER | 2 |
| 62 | 7PB206008 | PAN HEAD BOLT M6X8 W/WASHER | 4 |
| 63 | 1BR1025600 | FRAME | 1 |
| 64 | 1BR2062800 | BASE | 1 |
| 65 | 7CB10020 | CAP BOLT M10X20 | 6 |
| 66 | 1BR5133 | DAMPER | 1 |
| 67 | 7SW010 | SPRING WASHER M10 | 1 |

| No. | Part No. | Part Name | Qty |
|-----|------------|----------------------|-----|
| 68 | 7N010 | NUT M10 | 1 |
| 69 | 1BR5063 | ADJUSTABLE STOPPER | 1 |
| 70 | 1BR5064 | ADJUSTABLE NUT | 1 |
| 71 | 1BR5065 | ADJUSTABLE HANDLE | 1 |
| 72 | 7SP05008 | SPRING PIN Ø5X8 | 2 |
| 73 | 1BR3110400 | SIDE COVER | 2 |
| 74 | 7PB06010 | PAN HEAD BOLT M6X10 | 8 |
| 75 | 7SW006 | SPRING WASHER M6 | 8 |
| 76 | 7PW006 | PLATE WASHER M6 | 8 |
| 77 | 1BR3110500 | DUST COVER | 1 |
| 78 | 1BR7121 | DUST COVER STAY | 4 |
| 79 | 7SB06050 | FLAT HEAD BOLT M6X50 | 4 |
| 80 | 7SW006 | SPRING WASHER M6 | 4 |
| 81 | 7N006 | NUT M6 | 4 |
| 82 | 1BR5068 | MAIN SHAFT | 1 |
| 83 | 1BR2062700 | SWIVEL ARM | 1 |
| 84 | 1BR5070 | BALL BEARING 6208Z | 2 |
| 85 | 1BR5071 | BALL BEARING 6207Z | 1 |
| 86 | 7SRH80 | SNAP RING C-80 | 1 |
| 87 | 1BR5073 | SPACER | 1 |
| 88 | 1BR5074 | ROLLER SHAFT | 1 |
| 89 | 7RC08060 | SPRING PIN Ø8X60 | 1 |
| 90 | 1BR5079 | MAIN SHAFT CLAMP | 1 |
| 91 | 7CB10020 | CAP BOLT M10X20 | 2 |
| 92 | 7CB10025 | CAP BOLT M10X25 | 2 |
| 93 | 7SW010 | SPRING WASHER M10 | 4 |
| 94 | 7SS10025 | SET SCREW M10X25 | 1 |
| 95 | 7N010 | NUT M10 | 1 |
| 96 | 1BR3110200 | SWIVEL GEAR | 1 |
| 97 | 7CB10035 | CAP BOLT M10X35 | 8 |
| 98 | 7SW010 | SPRING WASHER M10 | 8 |
| 99 | 7RC08030 | SPRING PIN Ø8x30 | 1 |
| 100 | 1BR5087 | LIMIT SWITCH CAM | 1 |
| 101 | 7SS06006 | SET SCREW M6X6 | 1 |
| 102 | 1BR51324 | ANGLE SET PINION | 1 |
| 103 | 1BR3110600 | ANGLE LEVER | 1 |
| 104 | 1BR50942 | ANGLE STAND | 1 |
| 105 | 7B308015 | BOLT M8X15 WITH | 2 |
| | | WASHERS | |

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| No. | Part No. | Part Name | Qty |
|-----|------------|-----------------------------|-----|
| 107 | 1BR5099 | LOCK NUT SET | 1 |
| 108 | 1BR5101 | SWITCH CAM | 1 |
| 109 | 7B308015 | Bolt M8X15 With Washers | 1 |
| 110 | 1BR5107 | WIRE CLAMP | 1 |
| 111 | 7CB10020 | CAP BOLT M10X20 | 1 |
| 112 | 7SW010 | SPRING WASHER M10 | 1 |
| 113 | 1BR51101 | JIB | 1 |
| 114 | 7B14060 | BOLT M14X60 | 1 |
| 115 | 7PW014 | PLATE WASHER M14 | 2 |
| 116 | 7NU014 | SELF LOCK NUT M14 | 1 |
| 117 | 1BR4206600 | WIRE ROPE | 1 |
| 118 | 1BR5117 | WIRE CLIP WITH NUT | 1 |
| 119 | 1BR5118 | Spring Hanger | 1 |
| 120 | 1BR5119 | RETURN SPRING | 4 |
| 121 | 1BR4206300 | CENTER COVER | 1 |
| 122 | 1BR5134 | CENTER PLATE | 1 |
| 123 | 7SB06015 | FLAT HEAD BOLT M6X15 | 1 |
| 124 | 1BR50782 | ROLLER STOPPER | 1 |
| 125 | 7SSP10 | SNAP PIN SSP-10 | 1 |
| 126 | 1BR5050 | SWITCH PANEL | 1 |
| 127 | 1BR4206400 | ANGLE STOPPER (R) | 1 |
| 128 | 1BR4206500 | ANGLE STOPPER (L) | 1 |
| 129 | 7CB06018 | CAP BOLT M6X18 | 2 |
| 130 | 7GW006 | TEETHED WASHER M6 | 2 |
| 131 | 7PW006 | PLATE WASHER M6 | 2 |
| 132 | 7PB306015 | Pan Head Bolt W/ Washers | 5 |
| 133 | 1BR421250A | ROLLER NO.1 Ø65MM | 1 |
| 133 | 1BR4212600 | ROLLER NO.2 Ф79MM | 1 |
| 133 | 1BR420700A | ROLLER NO.3 Ф93MM | 1 |
| 133 | 1BR4207201 | ROLLER NO.4 Ф114MM | 1 |
| 133 | 1BR420710A | ROLLER NO.5 Ф114MM | 1 |
| 133 | 1BR421270A | ROLLER NO.6 Φ132MM | 1 |

| No. | Part No. | Part Name | Qty |
|-----|------------|--------------------------------------|-----|
| 133 | 1BR4212800 | ROLLER NO.7 Φ153MM | 1 |
| 133 | 1BR420960A | ROLLER NO.8 Ф166MM | 1 |
| 133 | 1BR421290A | ROLLER NO.9 Ф183MM | 1 |
| 134 | 1BT5070 | BALL BEARING 6208Z | 6 |
| 135 | 7K5B4012 | DU BUSH | 1 |
| | 7K5B4025 | DU BUSH | 1 |
| | 8P1085 | TOOL BOX | 1 |
| 137 | 1BL5402000 | ROLLER CLAMP | 2 |
| 138 | 7B812025 | CLAMP BOLT M12X25 | 2 |
| 139 | 1BR5200 | 1BR5129 CONTROL BOX ASSEMBLY | 1 |
| 139 | 1BR5406 | MAGNET CONTACTOR | 1 |
| 139 | 1BR51296 | DIODE u05G | 1 |
| 139 | 1BR51291K | THYRISTER | 1 |
| 139 | 1BR5129F | FUSE HOLDER | 1 |
| 139 | 1BR5129G | FUSE | 1 |
| 139 | 1BR5200B | TRANSFORMER 115V | 1 |
| 140 | 1BR5126 | PILOT LAMP | 1 |
| 141 | 7BN25F10 | OPERATION SWITCH | 1 |
| | 1BR5231 | EMERGENCY BUTTON | 1 |
| 142 | 3CD0151 | MAIN SWITCH | 1 |
| 143 | 1BR5128 | SOCKET FOR FOOT SWITCH | 1 |
| 144 | 1BR5124 | LIMIT SWITCH AZ7141 | 2 |
| 145 | 7PB204030 | Pan Head Bolt W/ Washer | 4 |
| 146 | 1BR5012G | CORD ARMER | 1 |
| 147 | 1BR5012F | CORD SET | 1 |
| | 1BR2062900 | STAND | 2 |
| | 1BR4206700 | STAND STAY | 1 |
| | 7B10025 | BOLT M10X25 | 10 |
| | 7N010 | NUT M10 | 2 |
| | 7SW010 | SPRING WASHER M10 | 10 |
| | 1BR5231 | EMERGENCY STOP BUTTON (NOT SHOWN) | 1 |
| | 1BR3100400 | HANDLE (NOT SHOWN) | 2 |



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