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DIAMOND CORE DRILL STANDS

MAINTENANCE MANUAL

(Rev.20230518-A1.0)

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LIMITED WARRANTY

1. Warranty period

1.1 The length of warranty is 12 months from date of original purchase.

2. Parts or components covered by this warranty

2.1 Carriage, stand base, gear rack and gear shaft etc. All of these damaged parts should not be caused by user.

2.2 Column, tensioners and locating wheels, needles etc. All these normal wearing parts are not covered.

3. This limited warranty does not include the following

3.1 Product purchased date beyond the warranty period.

3.2 Product with no specific BYCON warranty card or valid invoice.

3.3 Operating methods other than those indicated in the Instruction Manual.

3.4 Product manufactured neither by BYCON group nor authorized manufacturers.

3.5 Unauthorized alteration.

3.6 Damage caused by force majeure factors such as earthquakes, typhoons, floods and fires.

3.7 Natural wear and tear (natural fading of painted or plated surfaces, sheet peeling and other natural deterioration).

3.8 Exposure of product to chemical agents or other corrosive environments.

3.9 Model listed on invoice or on Product Registration doesn't match with the actual product, or product with defaced or altered serial number.

3.10 All damaged parts that are caused by user.

3.11 Product purchased thru illegal distribution channel.

4. Before Obtain Warranty Service, Please Follow

4.1 Read and refer to Instruction Manual before use.

4.2 Check all moving and clamping parts before use.

4.3 Keep the periodic maintenance procedure in Maintenance Schedule.

4.4 Shorten the maintenance period after consecutive use of product.

4.5 When purchasing, make sure it is a genuine BYCON product, parts or accessories.

MAINTENANCE

1.1 There is a 4-wheel alignment in the front and 4 eccentric tensioners in the back inside of the carriage. The contact face of the column and the carriage would wear as time passes by, and the carriage would wobble. When it occurs, tighten the 4 eccentric tensioners. However, if the 4-wheel alignment is worn out, replace all 4 of them to ensure the mesh of the gear shaft and the rack.

1.2 Pay attention to the attrition rate mentioned above, replace the wheels and or tensioners first if necessary. If still can't solve the problem, replace the column.

1.3 Always check the drill stand first, repair it if necessary, before operating a stand drilling.

1.4 When perform a check, it is always your top priority to make sure all clamping and moving parts of the stand functioning perfectly.

1.5 Never drill beyond maximum diameter with stand drilling. Otherwise, it may lead to stand malfunction and result in operator injury.

MAINTENANCE SCHEDULE

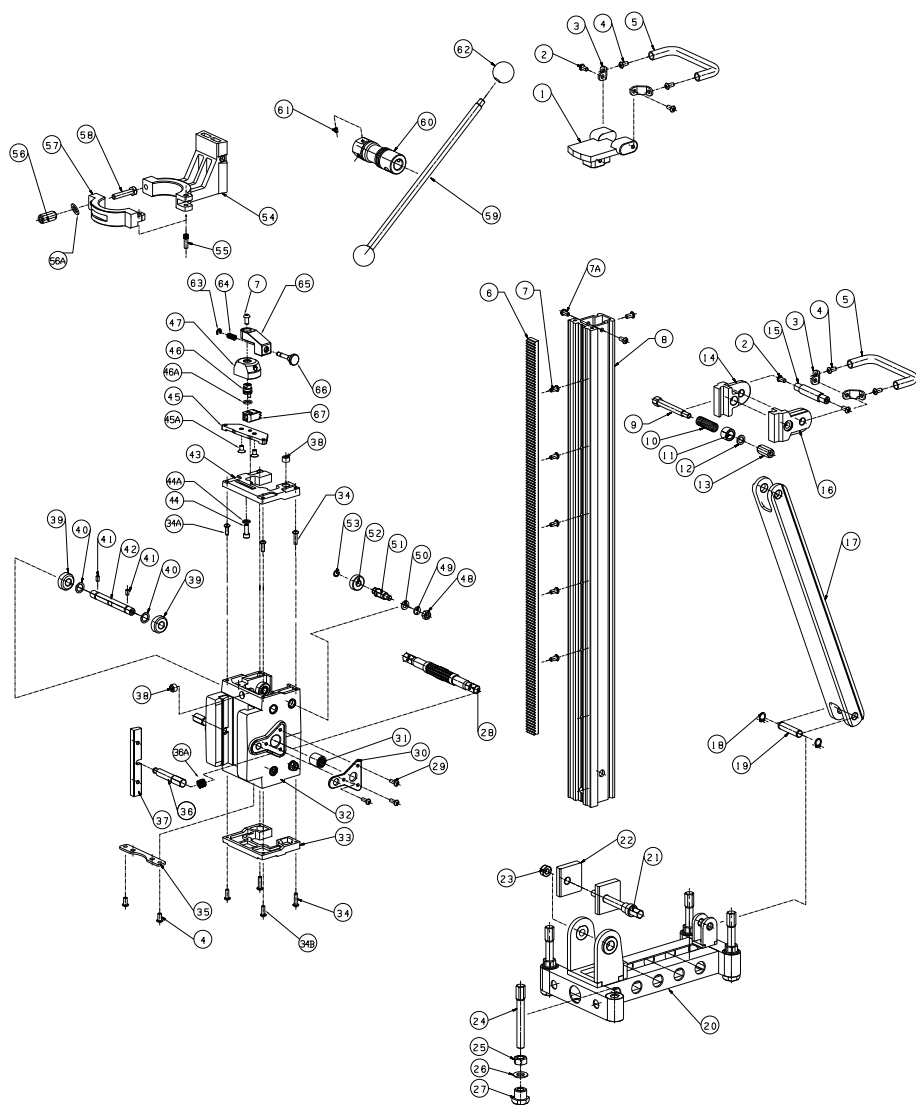
Maintenance Parts	Every time before use	The first month or after 25 working hours	The third month or after reaches 50 working hours	Every year or after reaches 200 working hours
Carriage lever lock	√	√	√	√
Tensioners and wheels	-	√	√	√
Column	-	-	-	√
Gear shaft and gears	-	-	-	√
All clamping parts and threads	√	√	√	√
Angle lock clamp	√	√	√	√
Gear rack	√	√	√	√
Welding position on the base	-	√	√	√

TROUBLE SHOOTING

Fault	Cause	Solution
1.Carriage wobbles	Tensioners wear	Tighten the 4 eccentric tensioners
2.Gear shaft jamming	4-wheel alignment wears	Replace all 4 of them
3. Gear shaft runout on the rack	The lever lock deforms or the welding seam comes off	Replace the lever lock
4. Carriage lever lock can't lock on the rack	The lever lock deforms or the welding seam comes off	Replace the lever lock
5.After replacing all tensioners and aligning wheels, the carriage moving is still unreliable	The Column is worn out	Replace the column
6.The drill stand malfunctioning when drill in 45°	When tighten the angle clamp bolt, the torqueforce of the nut is over-reached	Replace the angle lock clamp on top of the back support
7.The drill motor malfunctioning when using the 60mm clamp bracket	Reaches the maximum diameter or drill hole deviation	Replace the ø60mm clamp bracket
8.Wobble on the welding position of the base	Crack on the welding position	Re-welding or replace the stand's base

EXPLODED VIEW

Model: DSP-162



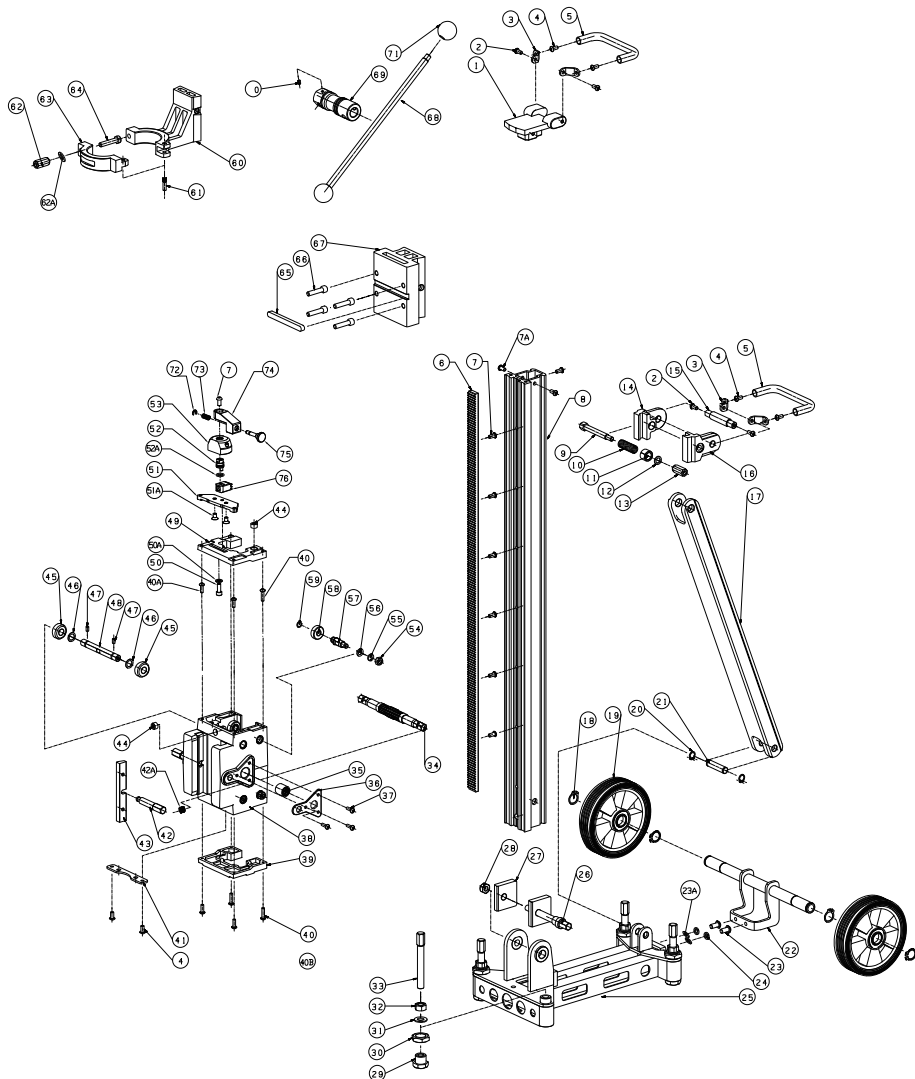
PARTS LIST

Model: DSP-162

No.	Parts Name	Qty	No.	Parts Name	Qty
1	Column guard top	1	36	Cradle lock bolt	2
2	Hex socket screw M6x17, Shaft shoulder Φ8x6	4	36A	Wire thread insert M12x1.5x1.5D	2
3	Back handle connector	4	37	Iron wedge	2
4	Hex socket mushroom cap screw M6x10	6	38	Bubble level Φ12x6	2
5	Back handle	2	39	Locating wheel	4
6	Gear rack M1.5x700=L	1	40	Flat washer Φ17.8xΦ12.3x0.8	4
7	Hex socket mushroom cap screw M6x10	7	41	Cone point socket set screw M5x10	4
7A	Hex socket mushroom cap screw M6x12	3	42	Front wheel shaft	2
8	Column L=850mm	1	43	Carriage guard upper	1
9	Hex bolt M10x75	1	44	Hex socket cylindrical head screws M6x16	1
10	Spring Φ13xΦ1.4x50=L	1	44A	Flat washer Φ6	1
11	Spacer 13.4	1	45	Latch lower seat	1
12	Flat washer Φ16xΦ10.6x1.5	1	45A	Sink hexangular screw inside the head M6x10	2
13	Hex nut M10x30 S=13	1	46	Eccentric shaft	1
14	Right angle lock clamp	1	46A	O-ring 14xΦ1.9	1
15	Positioning mandrel	1	47	Lock catch	1
16	Left angle lock clamp	1	48	Hex nut M8	4
17	Back support 35x50x500	1	49	Spring washer Φ8	4
18	External circlip Φ12	2	50	Flat washer Φ15xΦ8.6x1.0	4
19	Back support positioning shaft	1	51	Eccentric shaft	4
20	Base DSP-162	1	52	Eccentric tensioner	4
21	Column fastener	1	53	Constant section ring Φ10	4
22	Column block	2	54	Φ60mm clamp bracket	1
23	Hex lock nut M10	1	55	Knurled parallel pin Φ6	1
24	Leveling bolt M12x85	4	56	Hex nut M8x30 S=13	1
25	Hex bolt nut M12	4	56A	Flat washer Φ8	1
26	Flat washer Φ12 T=2	4	57	Clamp plate	1
27	Base insert	4	58	Bracket clamp bolt M8x60	1
28	Crank spindle M1.5x11T	1	59	Crank handle	1
29	Hex socket mushroom cap screw M5x10	6	60	Feeding crank body S=13	1
30	Cover plate	2	61	Ball plunger M5x8	3
31	Self-lubricating graphite copper sleeve	2	62	Knob M10x35	2
32	Carriage	1	63	Open circlip Φ5	1
33	Carriage guard lower	1	64	Spring Φ8xΦ0.8x15	1
34	Hex socket cap screw M5x20	4	65	Lock tooth knob	1
34A	Hex socket mushroom cap screw M5x25	2	66	Self-locking shaft	1
34B	Hex socket mushroom cap screw M5x16	2	67	Locking tooth	1
35	Cradle plate	1			

EXPLODED VIEW

Model: DSP-252



PARTS LIST

Model: DSP-252

No.	Parts Name	Qty	No.	Parts Name	Qty
1	Column guard top	1	40B	Hex socket mushroom cap screw M5x16	2
2	Hex socket screw M6x17, Shaft shoulder Φ8x6	4	41	Cradle plate	1
3	Back handle connector	4	42	Cradle lock bolt	2
4	Hex socket mushroom cap screw M6x10	6	42A	Wire thread insert M12x1.5x1.5D	2
5	Back handle	2	43	Iron wedge	2
6	Gear rack M1.5x800=L	1	44	Bubble level Φ12x6	2
7	Hex socket mushroom cap screw M6x10	7	45	Positioning wheel	4
7A	Hex socket mushroom cap screw M6x12	3	46	Flat washer Φ17.8xΦ12.3x0.8	4
8	Column L=900mm	1	47	Cone point socket set screw M5x10	4
9	Hex bolt M10x75	1	48	Front wheel shaft	2
10	Spring Φ13xΦ1.4x50=L	1	49	Carriage guard upper	1
11	Spacer 13.4	1	50	Hex socket cylindrical head screws M6x16	1
12	Flat washer Φ16xΦ10.6x1.5	1	50A	Flat washer Φ6	1
13	Hex nut M10x30 S=13	1	51	Latch lower seat	1
14	Right angle lock clamp	1	51A	Sink hexangular screw inside the head M6x10	2
15	Positioning mandrel	1	52	Eccentric shaft	1
16	Left angle lock clamp	1	52A	O-ring 14xΦ1.9	1
17	Back support 35x50x605	1	53	Lock catch	1
18	External circlip Φ20 (optional)	4	54	Hex nut M8	4
19	6" wheel with bearing (optional)	2	55	Spring washer Φ8	4
20	External circlip Φ12 (optional)	2	56	Flat washer Φ15xΦ8.6x1.0	4
21	Back support positioning shaft	1	57	Eccentric shaft	4
22	Wheel kit bracket (optional)	1	58	Eccentric tensioner	4
23	Hex socket mushroom cap screw M8x16 (optional)	2	59	Constant section ring Φ10	4
23A	Flat washer Φ8 (optional)	2	60	Φ60mm clamp bracket	1
24	Spring washer Φ8 (optional)	2	61	Knurled parallel pin Φ6	1
25	Base DSP-252	1	62	Hex nut M8x30 S=13	1
26	Column fastener	1	62A	Flat washer Φ8	1
27	Column block	2	63	Clamp plate	1
28	Hex lock nut M10	1	64	Bracket clamp bolt M8x60	1
29	Base insert	4	65	Key 10x8x100	1
30	Hex nut M20xP1.5 T=9 S=30	4	66	Spacer mounting bolt M8x35	4
31	Flat washer Φ12 T=2	4	67	Motor mounting spacer T=60mm	1
32	Hex nut M12	4	68	Crank handle	1
33	Leveling bolt M12x85	4	69	Feeding crank body S=13	1
34	Crank spindle M1.5x11T	1	70	Ball plunger M5x8	3
35	Self-lubricating graphite copper sleeve	2	71	Knob M10x35	2
36	Cover plate	2	72	Open circlip Φ5	1
37	Hex socket cap screw M5x10	6	73	Spring Φ8xΦ0.8x15	1
38	Carriage DSP-162/252	1	74	Lock tooth knob	1
39	Carriage guard lower	1	75	Self-locking shaft	1
40	Hex socket cap screw M5x20	4	76	Locking tooth	1
40A	Hex socket mushroom cap screw M5x25	2			

PRODUCT REGISTRATION

Product Registration

As for technical data, please refer to the name plate on the machine.

- 1.Fill in the blanks with Product Model, Serial No., and Date of Purchase
- 2.Fill in the blanks with Parts Name and No., Spec. if purchasing spare parts
- 3.Fill in the blank with details when consulting technical issues

Product Model: _____

Serial No.: _____

Date of Purchase: _____

Parts Name & No.: _____

Spec.: _____

Technical Issue: _____

Defective Component: _____

Sales or Distributor Info: _____



WARRANTY CARD

Date of Maintenance: _____

Usage Time: _____

Fault: _____

Solution and Result: _____

Return and/or Exchange Info: _____

Engineer Signature and Date: _____

User Signature and Date: _____

