



Disk Harrow Field Update

Disk Gang Bearings

Applies to Models: Update Kit Numbers:

• 3323	557-301V Bearing & Washers	557-317V Washer Only
• 3326	557-302V Bearing & Washers	557-318V Washer Only
• 3329	557-303V Bearing & Washers	557-319V Washer Only
• 4330	557-304V Bearing & Washers	557-320V Washer Only
• 4333	557-305V Bearing & Washers	557-321V Washer Only
• 4336	557-306V Bearing & Washers & C-Shank	557-322V Washer Only & C-Shank

General Information

These instructions explain how to install the Bearing and Washer Update Kits. If you are updating a new machine use the Washer Only Kit. If you have a used machine you will use the Bearing Kit. If you have model 4336 disk harrow you will have to install 1 new c-shank assembly on 2 gangs. This will be explained in the Assembly Instructions.

Manual Update

Refer the Disk Harrow operator's manual for detailed information on safely operating, maintaining and it is *very important to grease bearings as shown in operator's manual*. Refer to parts manual for part identification.

556-100M	Operator's Manual
556-100P	Parts Manual

Before You Start

For safety it is best to park machine on level concrete floor. Leave machine hooked to tractor or some kind of hydraulic source so you can raise machine up and down while you are assembling Kits. Review these instructions and make sure you understand where and how the components are installed, and which existing parts are removed or re-used.

Tools Required

- Basic Hand Tools
- Torque Wrench or 6' Cheater
- Gang Wrenches (provided with machine)

Assembly Instructions

Refer to drawings on pages 3-5.

Start by unfolding the wings and removing transport lock from lift cylinders and lower the machine to the ground. Loosen the scraper assemblies from the c-shank plate bottom (13) by loosening the 1/2 x 2 1/32 x 3 u-bolts and sliding the scraper assemblies over enough to clear gangs but don't take them clear off. **Removal of hose hangers on scrapers may be necessary to slide scrapers over.**

Remove the 3/4 hex nuts and 3/4 lock washers off the 3/4 x 7 hex bolts (1) from each gang. Raise machine up for clearance and roll gang out from under machine. You can take all the wing gangs loose at once and fold wings back up. **Note: Tighten scrapers before folding wings so bar will not get bent while folding.**

If this is a new machine and you will be re-installing these bearings, pull the bottom bearing casting off the bearings. **Verify that**

the grease path is correct and mark the rubber bearing along the top casting.

Pay close attention of how you disassemble gang. Remove 5/16 x 4 hex bolts (2) and 5/16 lock nuts and slide thread protector (3) off 1 3/4 slotted nut (4). Remove 1 3/4 slotted nut (4) with gang wrenches. Slide all components off gang bolt and lay in order you took them off. If it is a used machine discard all the bearings (5) and short half spools (6). If new machine you will re-use bearings.

You are now ready to re-assemble gang. Clean bearing casting top (7) and bottom (8). Hand tighten the 1 3/4 slotted nut on one end of the gang bolt about the same as it was before disassembling or to where the 5/16 x 4 hex bolt will go through slot in nut and hole in gang bolt easily. Install a gang wrench over castle nut (4) and install 5/16 x 4 hex bolt (2) only to hold first castle nut position during re-assembly. Re-assemble components as shown on page 3. **Install new bearings**, if applicable. **Use new half spool short (8)** on all applications. **Be sure to install new Bearing Shield (10)**, one on each side of bearing. **Make sure grease path alignment is correct during re-assembly, and grease zerk (15) is to the rear of the machine, see page 3.**

On Model 4336DH you will need to install another bearing (5) on the right front and left front gang in position shown in placement drawings on pages 4-5. This will go between the 3rd and 4th blade from outer end of each gang. You will also need to add a bearing shield on each side of this new bearing and a new half spool long (9) & short (6). This is a list of the part numbers in 4336 update kit that are used on gangs.

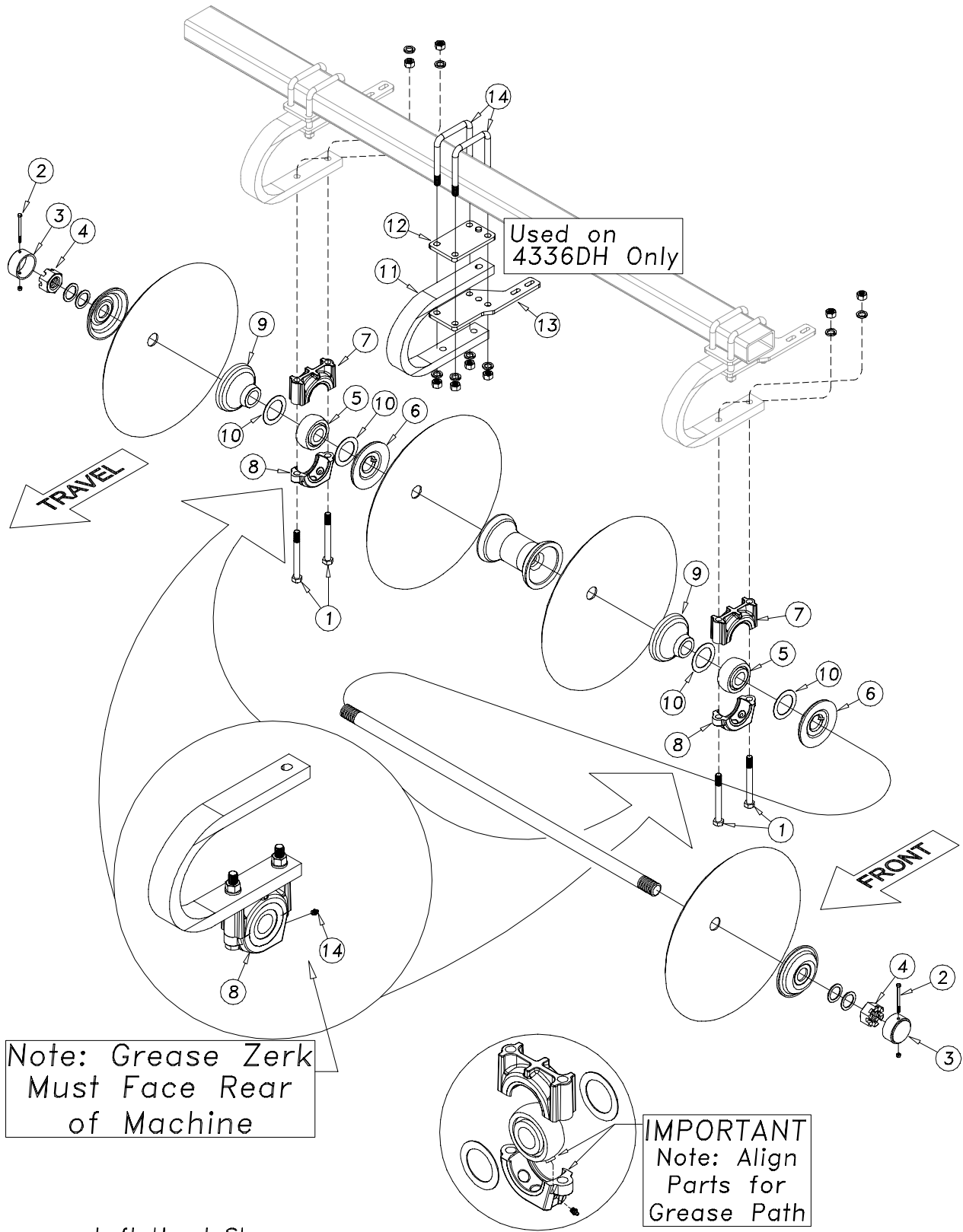
Part No.	Description
822-026C	BRG INS 1.78ID CDS211TTR23N
556-375D	BEARING SHIELD
812-006C	CASTING TOP CAP
586-187D	CASTING BOTTOM BRG FINISHD
556-122D	HALF SPOOL DISK, SHORT
556-124D	HALF SPOOL LONG, 9
802-095C	HHCS 3/4-10X7 GR5
804-023C	WASHER LOCK SPRING 3/4 PLT
803-027C	NUT HEX 3/4-10 PLT

After getting all components assembled you can torque the 1 3/4 slotted nut on other end to the torque specs on page 6. Before installing thread protector caps (3), fill both castle nut slots with grease and fill the thread protector caps 1/3 full of clean grease. Reinstall the two thread protector caps (3) and 5/16 x 4 hex bolt (2) and 5/16 lock nut.

On Model 4336DH you will need to install a new c-shank assembly on the right front and left front gang in position shown in placement drawings on pages 4-5. Bolt the c-shank RH or LH, (11), c-shank plate top (12) and c-shank plate bottom (13) using 3/4 x 5 x 6 1/2 u-bolts (14), 3/4 lock washers, and 3/4 hex nuts as shown on page 3. Don't tighten u-bolts until you get gangs back in position. You will need to add another 1/2 x 2 1/32 x 3 u-bolt on scraper bar and c-shank plate and secure with 1/2 flg hex nut. This is a list of the part numbers in 4336 update kit that are used on front wing gang bars.

Part No.	Description
807-263C	C-SHANK HANGER 1.25X2.50 RH
807-264C	C-SHANK HANGER 1.25X2.50 LH
556-064H	C-SHANK PLATE, TOP
556-196D	C-SHANK PLATE, BOTTOM
800-130C	GREASE ZERK STRGT 1/8-27NPT
806-120C	U-BOLT 3/4-10 X 5 1/32 X 6 1/2
804-023C	WASHER LOCK SPRING 3/4 PLT
803-027C	NUT HEX 3/4-10 PLT
806-023C	U-BOLT 1/2-13 X 2 1/32 X 3 1/4
803-169C	NUT HEX FLG. LOCK 1/2-13 PLT
556-309D	DUAL-SCRAPER BRACKET RH
556-310D	DUAL-SCRAPER BRACKET LH
556-311D	DUAL-SCRAPER BLADE RH
556-312D	DUAL-SCRAPER BLADE LH
802-091C	HHCS 1/2-13X1 1/2 GR5
804-017C	WASHER FLAT 1/2 USS PLT
804-015C	WASHER LOCK SPRING 1/2 PLT
803-020C	NUT HEX 1/2-13 PLT

When you have gangs reassembled you may start bolting them back to machine. You can lower the wings down, then slowly lower the machine down and bolt gangs on just like you took them off. Slide scraper bar assemblies back in position and tighten 1/2 x 2 x 3 1/4 u-bolts. Now you can tighten all bolts.

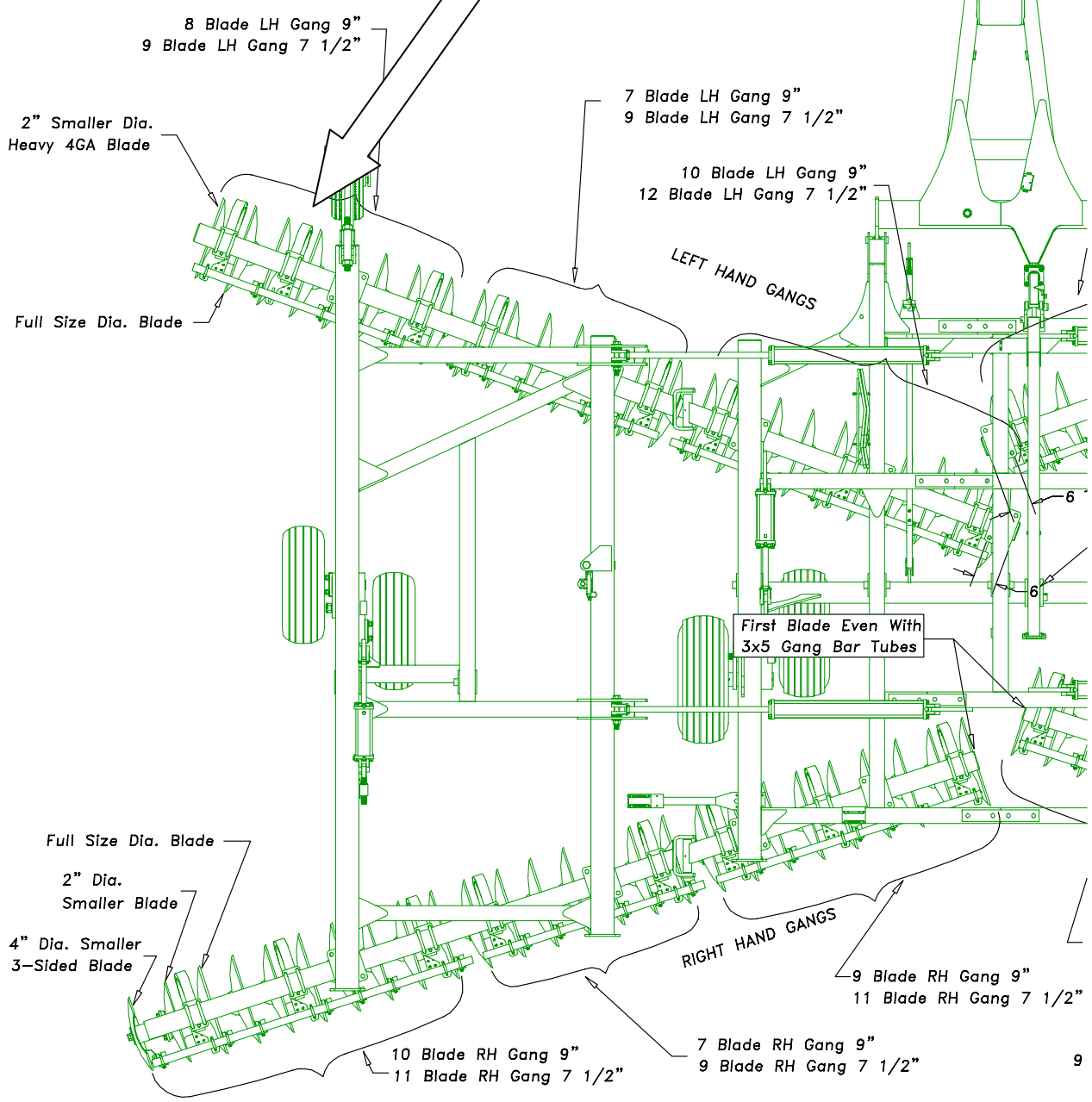


Left Hand Shown

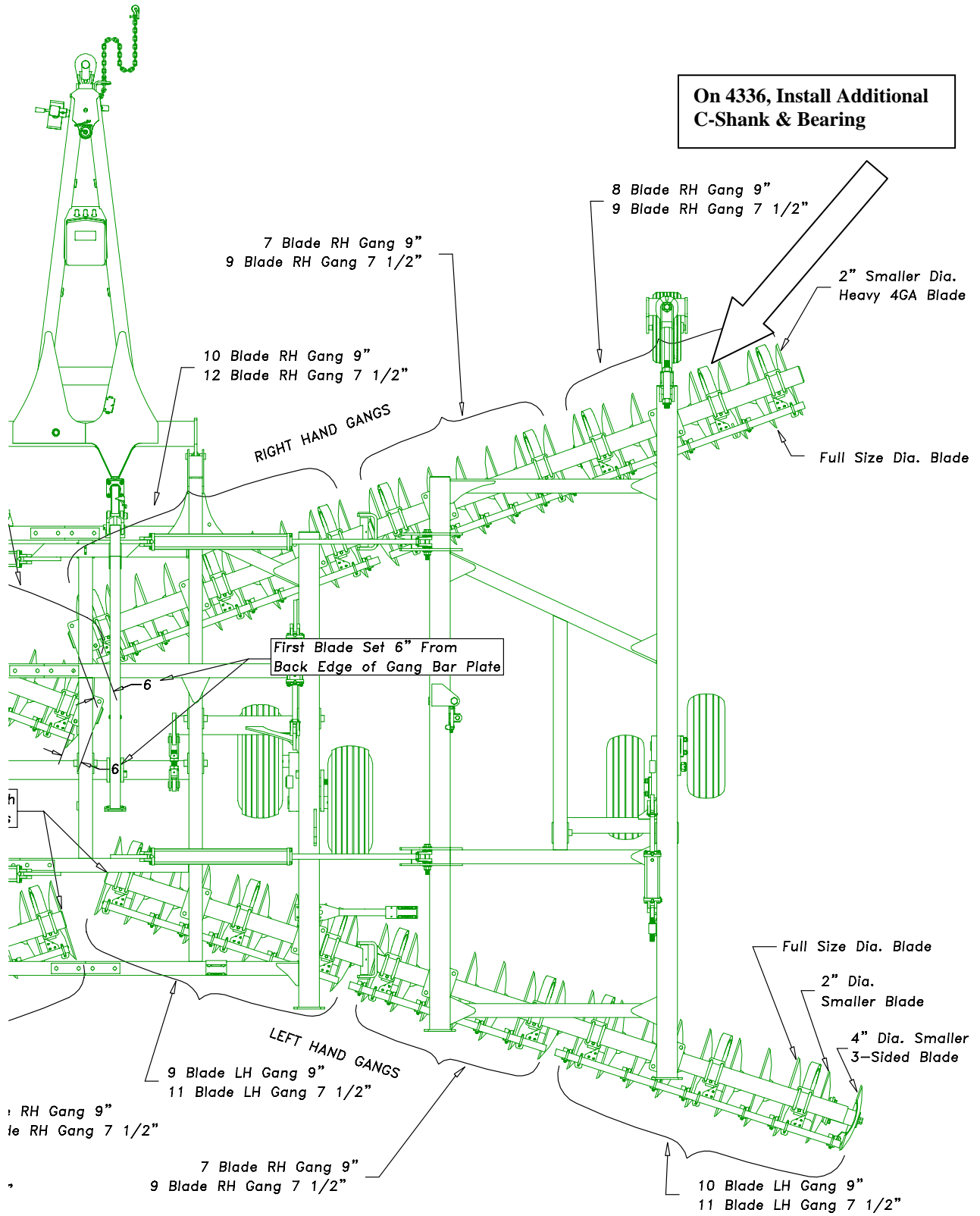
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4336DH Disk Harrow
24" Blades on 9" Spacing Shown
Lift shown in raised position.

On 4336, Install Additional
C-Shank & Bearing



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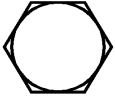
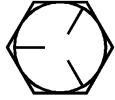
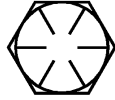





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Appendix

Torque Values Chart for Common Bolt Sizes

Bolt Size (inches)	Bolt Head Identification						Bolt Size (metric)	Bolt Head Identification					
													
	Grade 2		Grade 5		Grade 8			Class 5.8		Class 8.8		Class 10.9	
in-tpi ¹	N · m ²	ft-lb ³	N · m	ft-lb	N · m	ft-lb	mm x pitch ⁴	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 1/4" - 12	750	555	1680	1240	2730	2010							
1 3/8" - 6	890	655	1990	1470	3230	2380							
1 3/8" - 12	1010	745	2270	1670	3680	2710							
1 1/2" - 6	1180	870	2640	1950	4290	3160							
1 1/2" - 12	1330	980	2970	2190	4820	3560							

¹ in-tpi = nominal thread diameter in inches-threads per inch

² N · m = newton-meters

³ ft-lb = foot pounds

⁴ mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Disk Gang Bolt Torque 1 3/4"-5 900-1100 Foot-pounds (170 lbs on 6' cheater).

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