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Coulter

Owner's Manual

Model 1600, 1620, 1601, 1602, 1603

Box 520
Elrose, Saskatchewan S0L 0Z0
Canada
Ph: (306)378-2258
Fax: (306)378-2926
E-mail: sales@khartindustries.com

626500 Rev. 0
18-Jun-10

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Contents

Safety	4
Warranty	5
Specifications.....	6
Assembly and Parts.....	7
General	7
Arm Assembly, Single	8
Arm Assembly, Double.....	10
Model 1600: Coulter Assembly, Single	12
Model 1620: Coulter Assembly, Double.....	14
Coulter Assembly, Single with Applicator Arm.....	16
Options	
Discs	19
Applicators.....	20
Model 1601: Single Coulter with Granular Applicator	20
Model 1602: Single Coulter with Liquid Applicator	22
Model 1603: Single Coulter with Anhydrous Applicator	24
Operation	26
Maintenance	27
Notes	28

Safety



CAUTION: Main Coulter spring is under extreme pressure. Extreme care must be taken when replacing main coulter bushings - Part # 302012 and Part # 626050.



CAUTION: SAFETY SIGNS

Safety decals are placed on the implement to alert the operator and others to the risk of personal injury or unsafe operation during normal operations and servicing.

1. The safety decals must be kept clean and in good condition to ensure that they are legible.
2. Safety decals must be replaced if they are missing or illegible.
3. When components are replaced during repair or servicing, check that the new components include the necessary safety signs.
4. Replacement safety decals may be obtained from your local dealer.



WARNING:

1. Never clean, lubricate or adjust a machine that is in motion. Always install the transport lock pins and bracket when transporting for any length of time or on public roadways.
2. If required to service unit in raised position, be sure to install all safety/transport lock pins and locking bracket.
3. Do not allow children to operate equipment.
4. Do not allow riders on the tractor or implement.
5. Use speeds and caution dictated by the terrain being traversed. Do not operate on any slope steep enough to cause tipping or loss of control.
6. Be sure all personnel are clear of immediate area before operating. Be aware of towed implement width and allow safe clearance.
7. Read and understand the operator's manual and require all other persons who will operate the equipment to do the same.
8. In operating on public roadways, where legal, be certain all lighting is operating properly and observe all traffic laws. Ensure slow moving vehicle emblem on tractor is visible.
9. Be familiar with all tractor and implement controls and be prepared to stop engine and implements quickly in an emergency.
10. Keep all bolts properly tightened.
11. Disc blades are sharp! Use care when handling the coulter units.

FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.

K-Hart's objective is to insure that all owners obtain maximum reliability and performance from all K-Hart products.

K-Hart Industries warrants your K-hart products to be free of defects in material and workmanship, under normal use and service. Obligations under this warranty shall extend for a period of 1 year following the date of delivery to the original purchaser and shall be limited to, at the option of K-hart Industries, replacement or repair of any parts found, upon inspection by K-hart, to be defective.

K-Hart Industries reserves the right to make changes or add improvements at any time without notice or obligation.

Warranty claims

The purchaser claiming under this warranty shall report a warranty claim to his Authorized dealer.

Exclusions and/or Deviations from the Base Warranty

- Rubber packer wheels, when used in excessively rocky conditions and will not be warranted against cuts, scrapes, and abrasions.
- **Limitation of Liability.** In no event shall the owner be entitled to recover for incidental, special or consequential damages such as, but not limited to, loss of crops, loss of profits or revenue, other commercial losses, inconvenience or cost of rental or replacement.
- **Normal wear, repair and maintenance not related to defects.** The expressed warranty does not cover wear of components, and is conditional upon the product being properly assembled, adjusted, and operated under normal farming conditions.

This warranty does not cover conditions resulting from misuse, negligence, unauthorized alterations, accident, or lack of performance of required maintenance.

Owner's Obligation

Warranty Transportation Costs. It is the responsibility of the owner, at the owner's expense, to transport the equipment to the service shop of an authorized K-Hart dealer or alternately for any travel or transportation expense involved in fulfilling this warranty.

Specifications



Model #	Weight (lbs)	Weight (Kgs)
1600: Coulter Assembly, Single	125	57
1620: Coulter Assembly, Double	154	70
1601: Single Coulter with Granular Applicator	147	67
1602: Single Coulter with Liquid Applicator	141	64
1603: Single Coulter with Anhydrous Applicator	145	66

All coulters and optional parts are painted **gloss black**.

Assembly and Parts

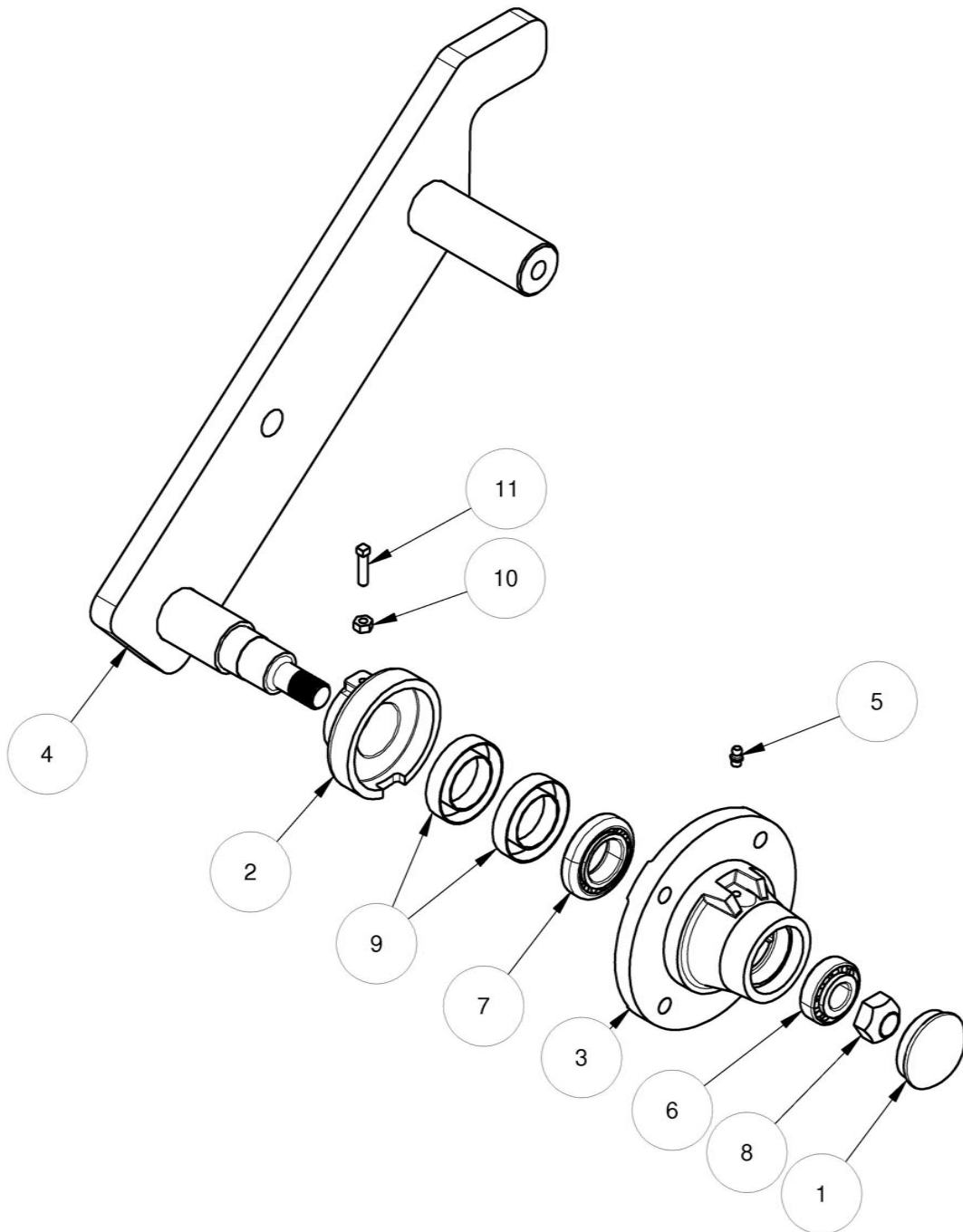
General

- Assembly procedure is shown in the following pages. Assembly and parts are shown for all coultter systems and options. Your system may not have all the illustrated parts.
- Tighten all bolts to the torques shown in the following table unless otherwise instructed. All u-bolts should be torqued to the Grade 5 specification.
- Lubricate all bearings and moving parts as assembled.

Bolt Torque Chart				
Bolt Size	Grade 5 		Grade 8 	
	ft*lbs	N*m	ft*lbs	N*m
1/4	8	11	12	16
5/16	17	23	24	33
3/8	30	41	45	61
7/16	50	68	70	95
1/2	75	102	105	142
9/16	110	149	155	210
5/8	150	203	210	285
3/4	270	366	375	508
7/8	395	536	610	827
1	590	800	910	1234

Assembly and Parts

ARM ASSEMBLY, SINGLE



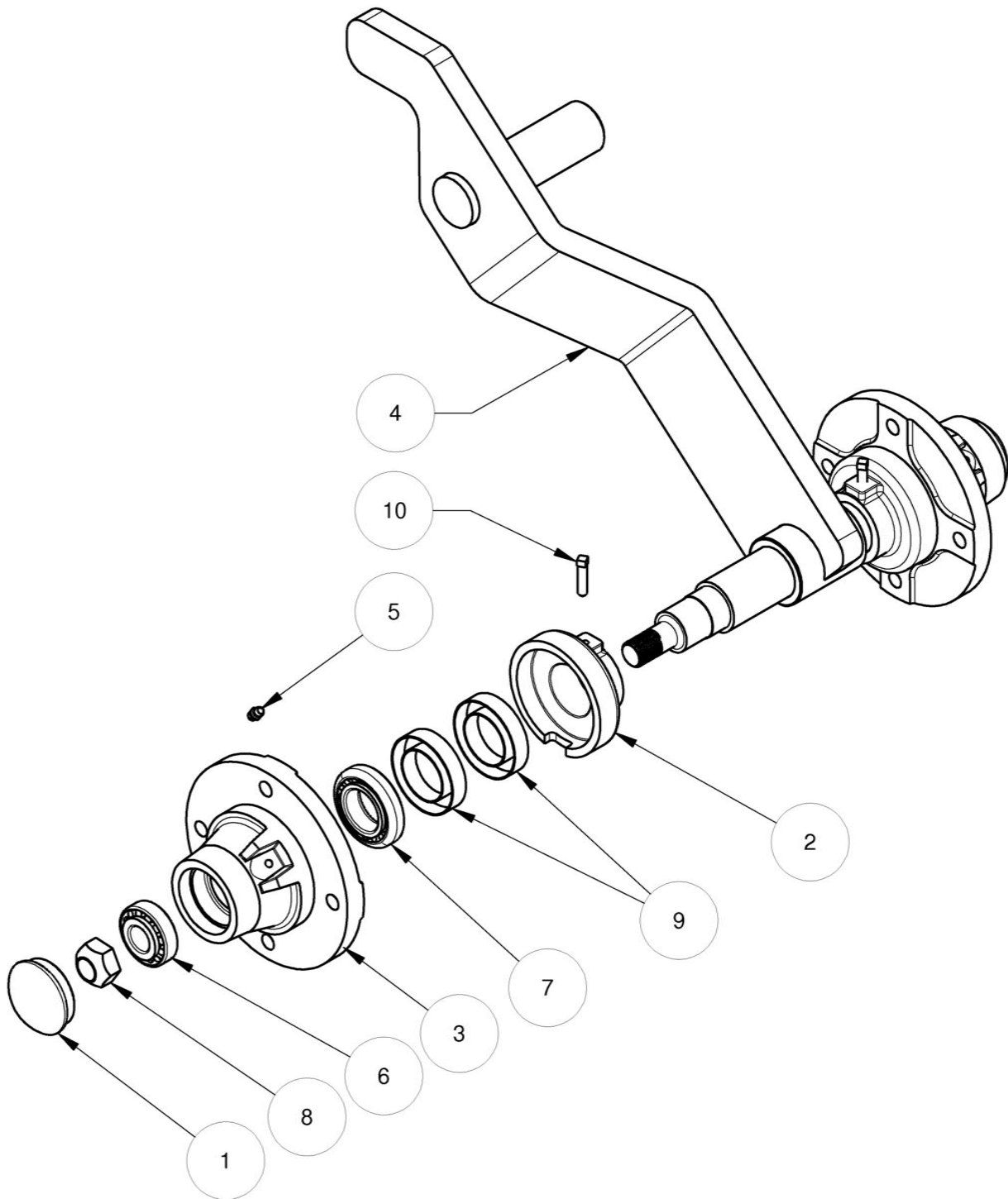
Assembly and Parts

ARM ASSEMBLY, SINGLE

Item	Part No	Rev	Description	Qty
1	302036	0	DUST CAP	1
2	626000	0	HUB SHIELD	1
3	626001	5	HUB 4 BOLT	1
4	627009	0	ARM, SINGLE	1
5	GN04S	0	GREASE NIPPLE 1/4-28 STRAIGHT	1
6	LM11949- LM11910	0	BEARING SET LM 11949-LM11910	1
7	LM67048- LM67010	0	BEARING SET LM67048-LM67010	1
8	LS12FCP	0	LOCKNUT, STOVER 3/4 UNF GRC PL	1
9	SE11ECC	0	SEAL	2
10	SN04C5P	0	NUT 1/4 UNC GR5 PL	1
11	SSQ0404CP	0	SET SCREW SQ 1/4-20 X 1 CUP POINT	1

Assembly and Parts

ARM ASSEMBLY, DOUBLE



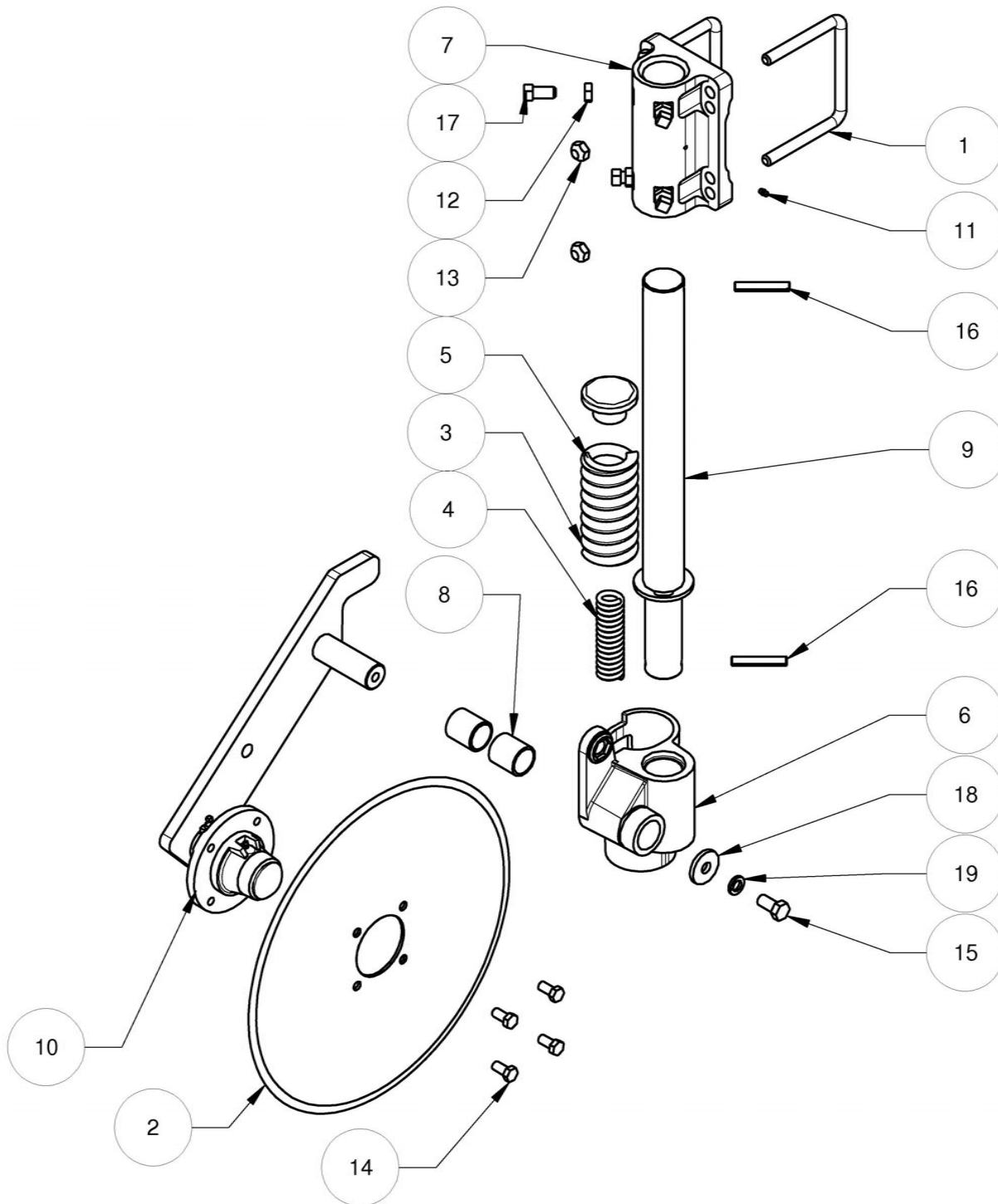
Assembly and Parts

ARM ASSEMBLY, DOUBLE

Item	Part No	Rev	Description	Qty
1	302036	0	DUST CAP	2
2	626000	0	HUB SHIELD	2
3	626001	5	HUB 4 BOLT	2
4	627018	0	ARM, DOUBLE, 8"	1
	627019	0	ARM, DOUBLE, 9"	1
	627020	0	ARM, DOUBLE, 10"	1
	627022	0	ARM, DOUBLE, 12"	1
5	GN04S	0	GREASE NIPPLE 1/4-28 STRAIGHT	2
6	LM11949- LM11910	0	BEARING SET LM11949-LM11910	2
7	LM67048- LM67010	0	BEARING SET LM67048-LM67010	2
8	LS12FCP	0	LOCKNUT, STOVER 3/4 UNF GRC PL	2
9	SE11ECC	0	SEAL	4
10	SSQ0404CP	0	SET SCREW SQ 1/4-20 X 1 CUP POINT	2

Assembly and Parts

Model 1600: COULTER ASSEMBLY, SINGLE



Assembly and Parts

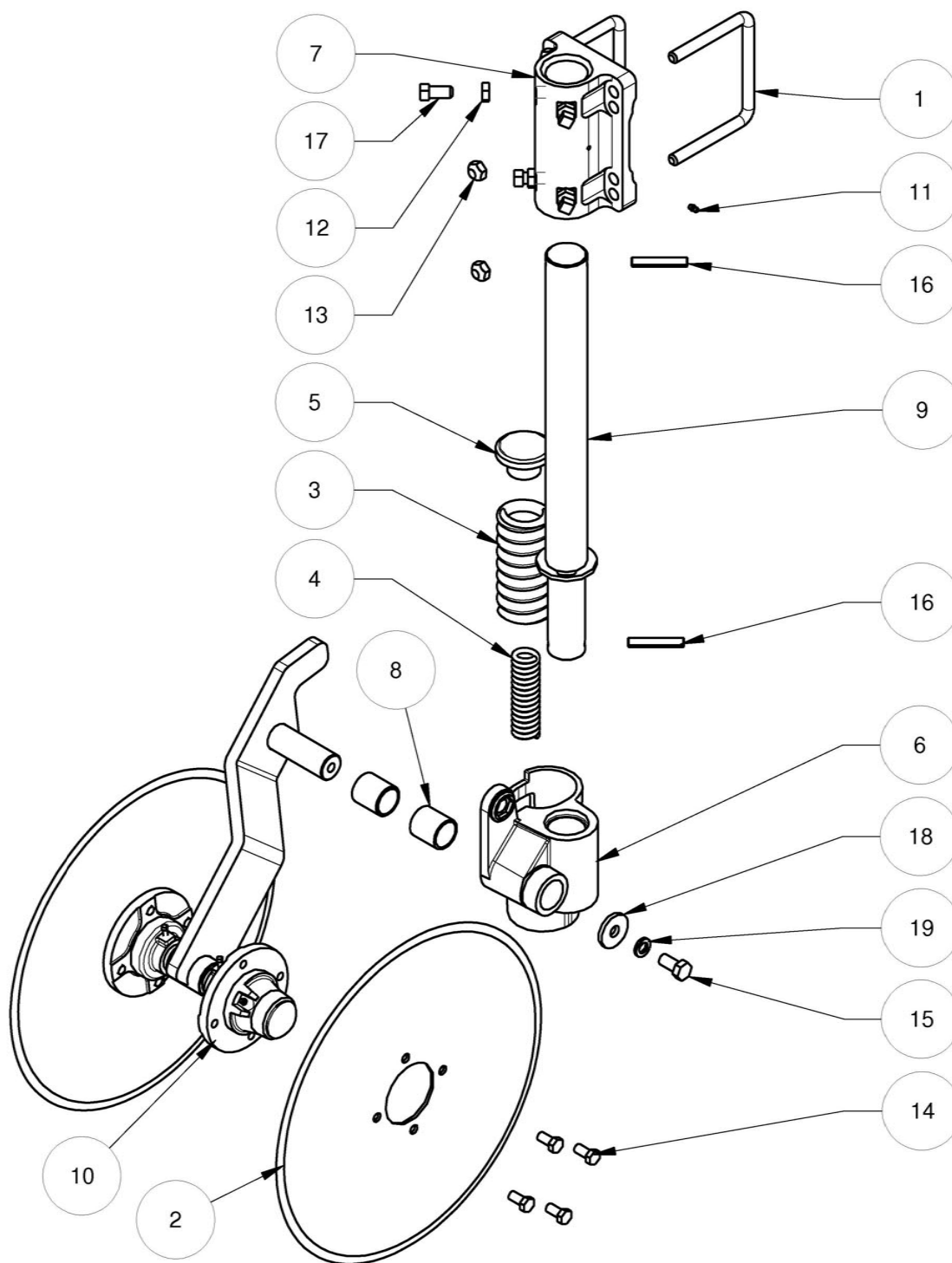
MODEL 1600: COULTER ASSEMBLY, SINGLE

Item	Part No	Rev	Description	Qty
1	225020	0	UBOLT 5/8 X 6 1/16 X 5 1/2	2
	225019	0	UBOLT 5/8 X 4 1/16 X 5 1/2	2
2	302033	1	DISC, COULTER, 20" FLAT	1
	302032	1	DISC, COULTER, 20" RIPPLE	1
	302035	1	DISC, COULTER, 18" FLAT	1
	302034	1	DISC, COULTER, 17" RIPPLE	1
3	302050	2	SPRING, COULTER, MAIN	1
4	304152	0	COMPRESSION SPRING, INNER (OPTIONAL)	1
5	626002	0	SPRING PLUG	1
6	626003	5	COULTER PIVOT BODY	1
7	626020	3	COULTER MNT	1
8	626050	0	BUSHING	2
9	627024	0	VERTICAL LEG 20 ASSEMBLY	1
10	628010	0	ARM ASSEMBLY, SINGLE	1
11	GN04S	0	GREASE NIPPLE 1/4-28 STRAIGHT	1
12	JN10C5P	0	JAM NUT 5/8 UNC GR5 PL	4
13	LS10CBP	0	LOCKNUT, STOVER 5/8 GRB PL	4
14	SB0804F5P	0	BOLT, HEX, 1/2 X 1 UNF GR5 PL	4
15	SB1005C5P	0	BOLT, HEX, 5/8 X 1 1/4 UNC GR5 PL	1
16	SP0812	0	SPRING PIN, 1/2 X 3	2
17	SS1005CP	0	SET SCREW 5/8-11 X 1 1/4 CUP POINT	4
18	WF1032250P	0	WASHER, FLAT, 5/8 X 2 X 1/4	1
19	WL10P	0	WASHER, LOCK, 5/8 PL	1

******DO NOT OVERTIGHTEN BOLTS******
Tighten to Grade 5 Torque Specifications Pg-7

Assembly and Parts

Model 1620: COULTER ASSEMBLY, DOUBLE



Assembly and Parts

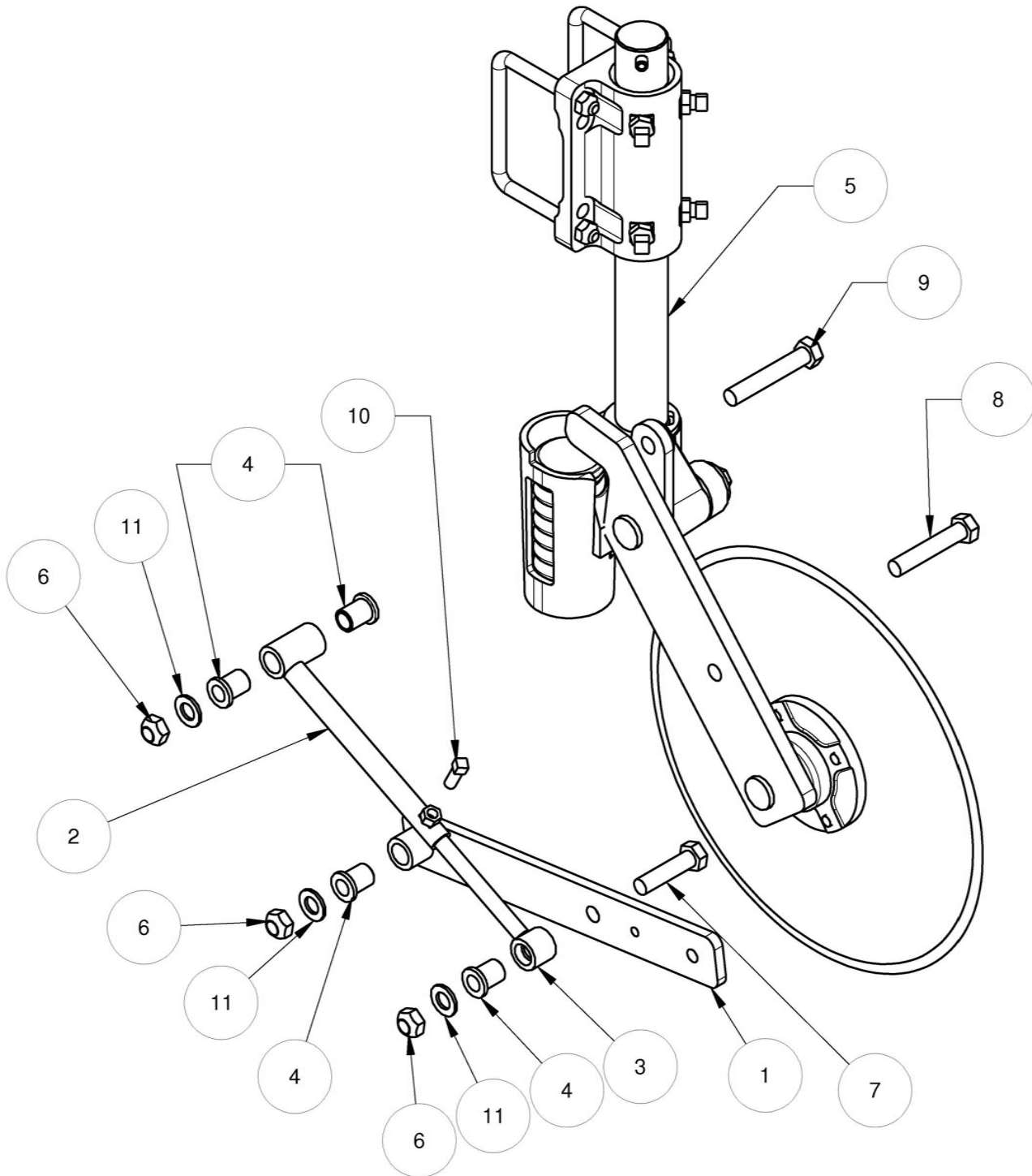
MODEL 1620: COULTER ASSEMBLY, DOUBLE

Item	Part No	Rev	Description	Qty
1	225020	0	UBOLT 5/8 X 6 1/16 X 5 1/2	2
	225019	0	UBOLT 5/8 X 4 1/16 X 5 1/2	2
2	302033	1	DISC, COULTER, 20" FLAT	2
	302032	1	DISC, COULTER, 20" RIPPLE	2
	302035	1	DISC, COULTER, 18" FLAT	2
	302034	1	DISC, COULTER, 17" RIPPLE	2
3	302050	2	SPRING, COULTER, MAIN	1
4	304152	0	COMPRESSION SPRING, INNER (OPTIONAL)	1
5	626002	0	SPRING PLUG	1
6	626003	5	COULTER PIVOT BODY	1
7	626020	3	COULTER MNT	1
8	626050	0	BUSHING	2
9	627024	0	VERTICAL LEG 20 ASSEMBLY	1
10	628018	0	ARM, DOUBLE, 8", W/HUBS	1
11	GN04S	0	GREASE NIPPLE 1/4-28 STRAIGHT	1
12	JN10C5P	0	JAM NUT 5/8 UNC GR5 PL	4
13	LS10CBP	0	LOCKNUT, STOVER 5/8 GR8 PL	4
14	SB0804F5P	0	BOLT, HEX, 1/2 X 1 UNF GR5 PL	8
15	SB1005C5P	0	BOLT, HEX, 5/8 X 1 1/4 UNC GR5 PL	1
16	SP0812	0	SPRING PIN, 1/2 X 3	2
17	SS1005CP	0	SET SCREW 5/8-11 X 1 1/4 CUP POINT	4
18	WF1032250P	0	WASHER, FLAT, 5/8 X 2 X 1/4	1
19	WL10P	0	WASHER, LOCK, 5/8 PL	1

******DO NOT OVERTIGHTEN BOLTS******
Tighten to Grade 5 Torque Specifications Pg-7

Assembly and Parts

COULTER ASSEMBLY, SINGLE W/APPLICATOR ARM



Assembly and Parts

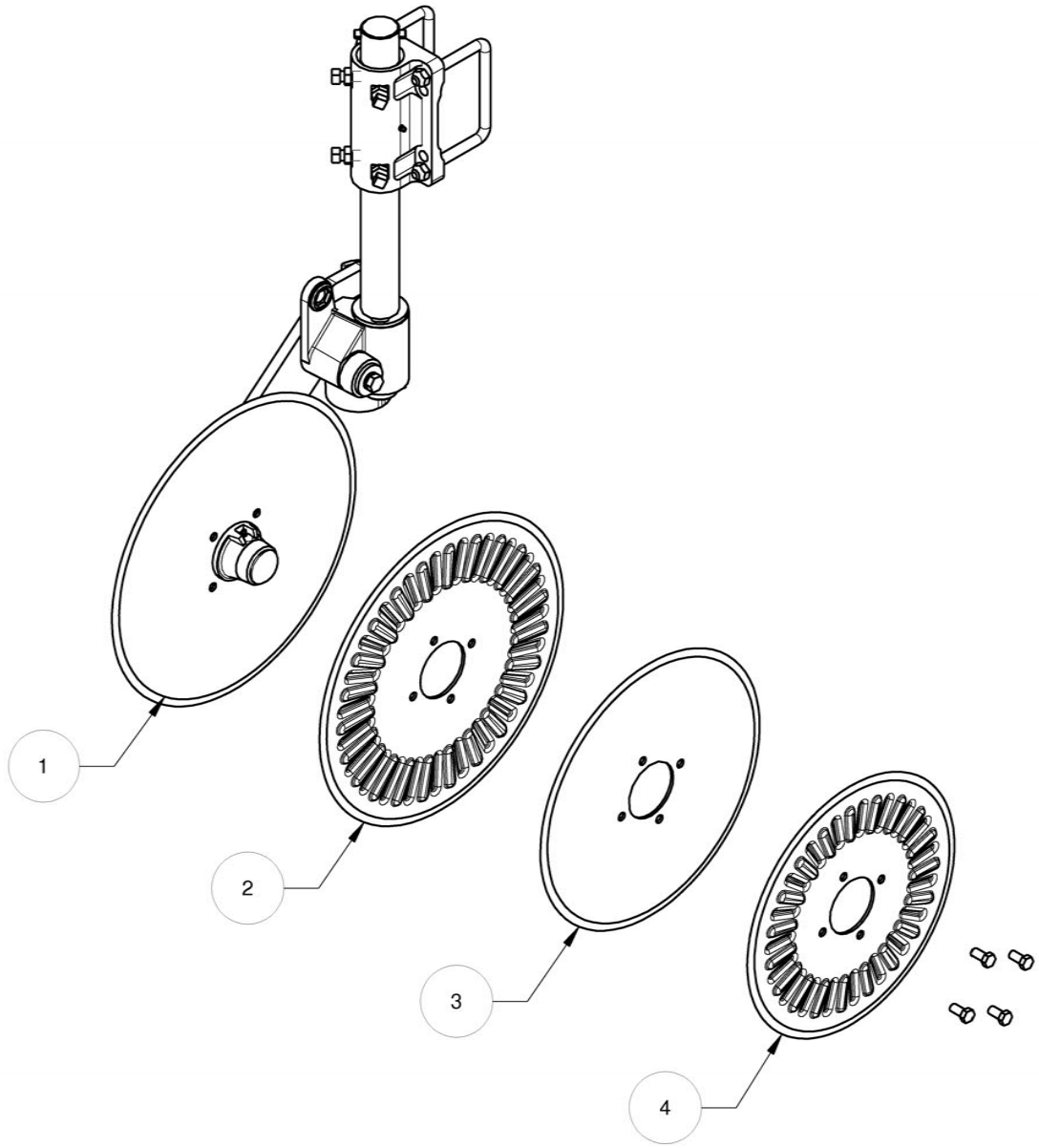
COULTER ASSEMBLY, SINGLE W/APPLICATOR ARM

Item	Part No	Rev	Description	Qty
1	302106	1	APPLICATOR ARM ASSEMBLY	1
2	302111	2	TINE ADJUSTMENT OUTER ARM	1
3	302112	1	TINE ADJUSTMENT INNER ARM	1
4	312098	5	BUSHING, SHOULDER, POLYURETHANE	4
5	629030	0	COULTER ASSM, SINGLE	1
6	LS12CCP	0	LOCKNUT, STOVER 3/4 UNC GRC PL	3
7	SB1212C5P	0	BOLT, HEX, 3/4 X 3 UNC GR5 PL	1
8	SB1216C5P	0	BOLT, HEX, 3/4 X 4 UNC GR5 PL	1
9	SB1218C5P	0	BOLT, HEX, 3/4 X 4 1/2 UNC GR5 PL	1
10	SSQ0804CP	0	SET SCREW 1/2-13 X 1 CUP POINT PL	1
11	WF1224134P	0	WASHER, 3/4 SAE PLATED	4

******DO NOT OVERTIGHTEN BOLTS******
Tighten to Grade 5 Torque Specifications Pg-7

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DISCS

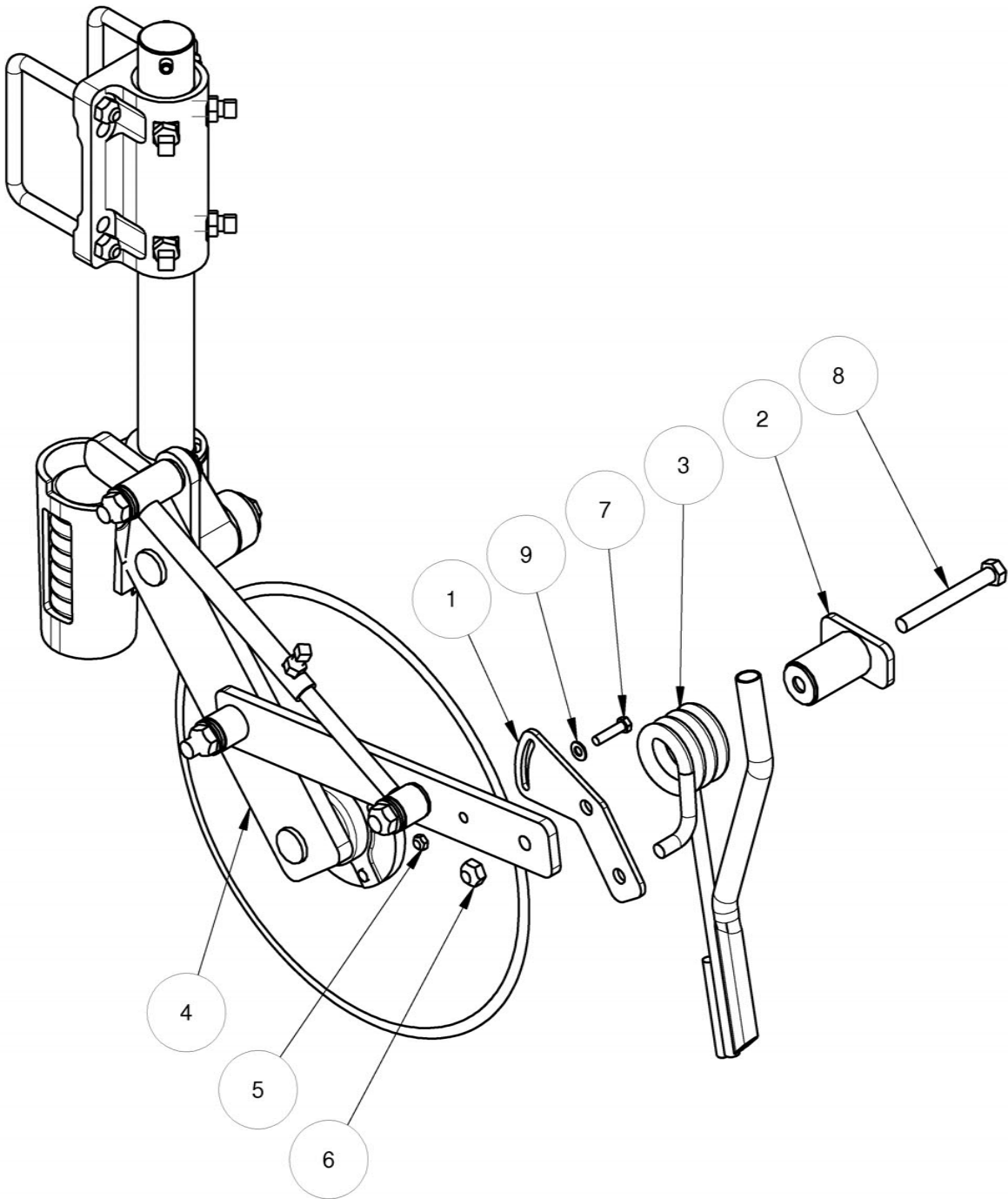


Item	Part No	Rev	Description	Qty
1	302033	1	DISC, COULTER, 20" FLAT	1
2	302032	0	DISC, COULTER, 20" RIPPLE	1
3	302035	0	DISC, COULTER, 18" FLAT	1
4	312034	0	DISC, COULTER, 17" RIPPLE	1

Options

APPLICATORS

MODEL 1601: SINGLE COULTER WITH GRANULAR APPLICATOR



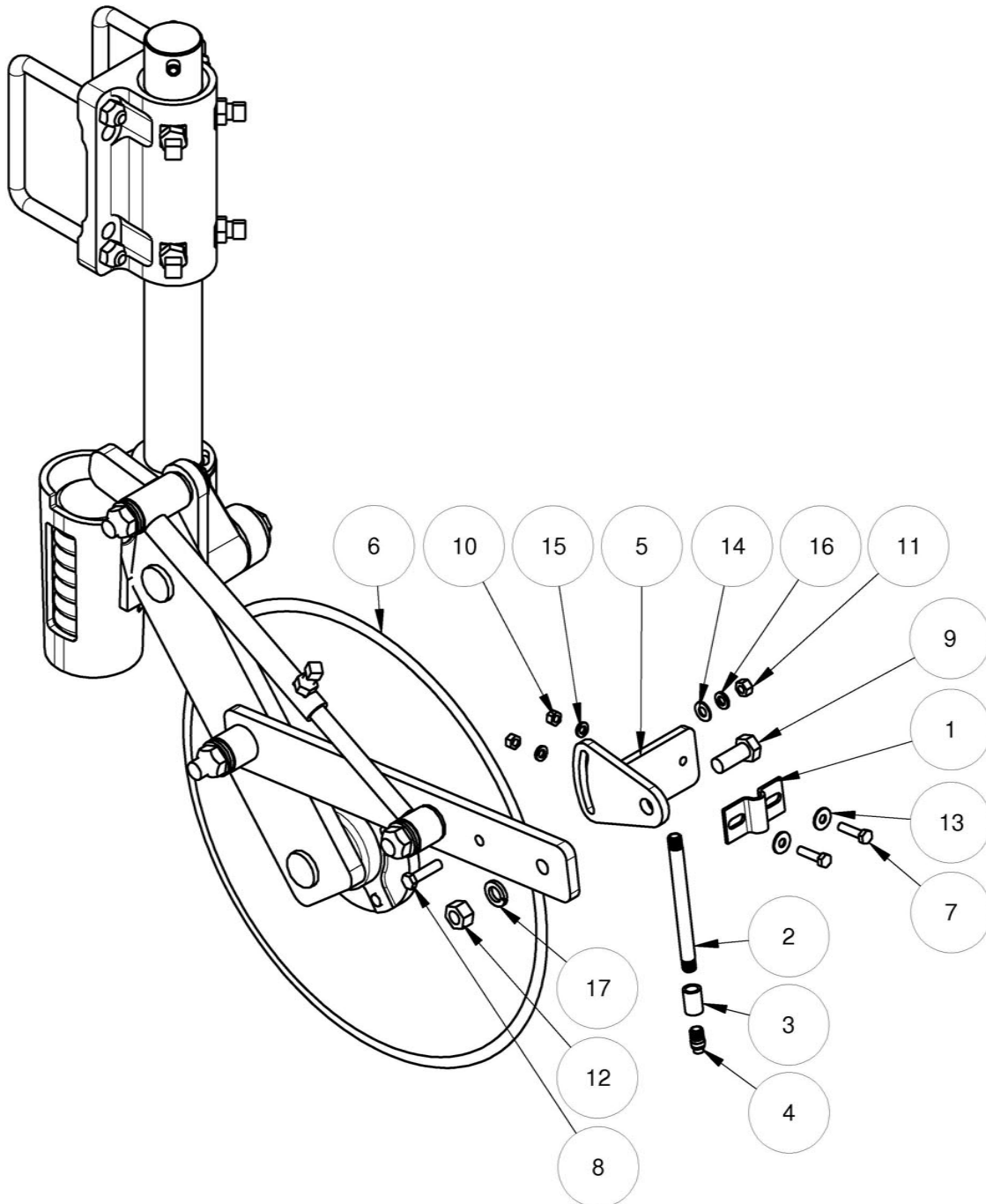
MODEL 1601: SINGLE COULTER WITH GRANULAR APPLICATOR

Item	Part No	Rev	Description	Qty
1	302001	0	TINE HGHT ADJ PL	1
2	302107	1	LARGE TINE PIVOT	1
3	302108	2	GRANULAR TINE ASSEMBLY	1
4	629050	0	COULTER, SINGLE, W/ APPLICATOR ARM	1
5	LS06CBP	0	LOCKNUT STOVER 3/8 UNC GR8 PL	1
6	LS10CBP	0	LOCKNUT, STOVER 5/8 GRB PL	1
7	SB0606C5P	0	BOLT, HEX, 3/8 X 1 1/2 UNC GR5 PL	1
8	SB1020C5P	0	BOLT, HEX, 5/8 X 5 UNC GR5 PL	1
9	WF0613065P	0	WASHER, 3/8 SAE PLATED	1

******DO NOT OVERTIGHTEN BOLTS******
Tighten to Grade 5 Torque Specifications Pg-7

Options

MODEL 1602: SINGLE COULTER WITH LIQUID APPLICATOR



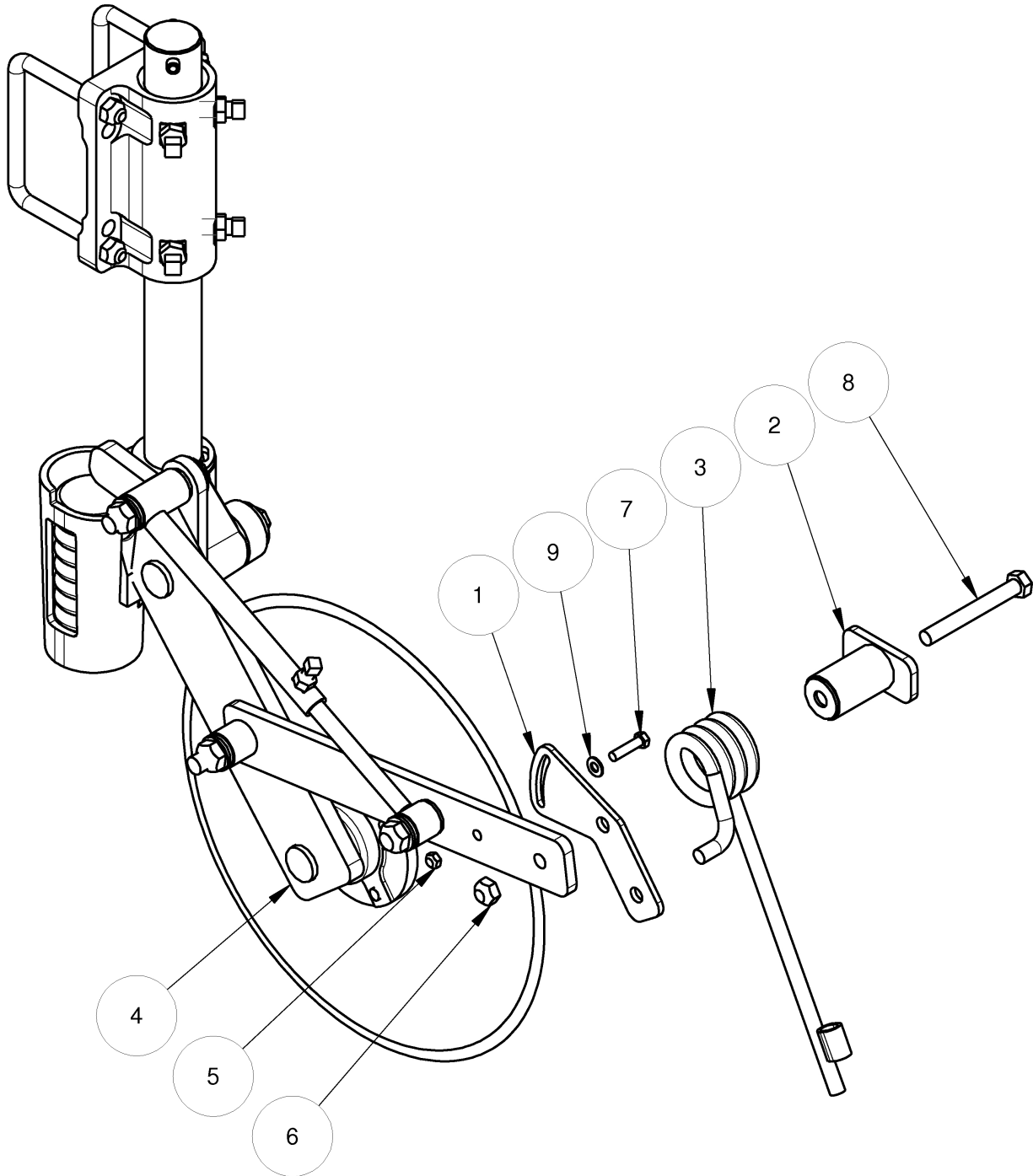
MODEL 1602: SINGLE COULTER WITH LIQUID APPLICATOR

Item	Part No	Rev	Description	Qty
1	623022	0	1/4 X 1 1/2 X 3 1/2 PC PLATE	1
2	623023	0	1/4 X 6 STAINLESS PIPE	1
3	623024	0	1/4 STAINLESS COUPLER PIPE	1
4	623025	0	STREAMJET FERT NOZZLE NO20	1
5	627026	1	LIQUID APPL ATTACHMENT ASSEMBLY	1
6	629050	0	COULTER, SINGLE, W/APPLICATOR ARM	1
7	SB0505C5P	0	BOLT, HEX, 5/16 X 1 1/4 UNC GR5 PL	2
8	SB0606C5P	0	BOLT, HEX, 3/8 X 1 1/2 UNC GR5 PL	1
9	SB1006C5P	0	BOLT, HEX, 5/8 X 1 1/2 UNC GR5 PL	1
10	SN05C5P	0	NUT 5/16 UNC GR5 PL	2
11	SN06C5P	0	NUT 3/8 UNC GR5 PL	1
12	SN10C5P	0	NUT 5/8 UNC GR5 PL	1
13	WF0514083P	0	WASHER, 5/16 USS PL	2
14	WF0613065P	0	WASHER, 3/8 SAE PL	1
15	WL05P	0	WASHER, LOCK, 5/16 PL	2
16	WL06P	0	WASHER, LOCK, 3/8 PL	1
17	WL10P	0	WASHER, LOCK, 5/8 PL	1

******DO NOT OVERTIGHTEN BOLTS******
Tighten to Grade 5 Torque Specifications Pg-7

Options

MODEL 1603: SINGLE COULTER WITH ANHYDROUS APPLICATOR



MODEL 1603: SINGLE COULTER WITH ANHYDROUS APPLICATOR

Item	Part No	Rev	Description	Qty
1	302001	0	TINE HEIGHT ADJUSTMENT PLATE	1
2	302107	1	LARGE TINE PIVOT	1
3	302109	0	ANHYDROUS TINE ASSEMBLY	1
4	629050	0	COULTER, SINGLE, W/ APPLICATOR ARM	1
5	LS06CBP	0	LOCKNUT, STOVER 3/8 UNC GR8 PL	1
6	LS10CBP	0	LOCKNUT, STOVER 5/8 GR8 PL	1
7	SB0606C5P	0	BOLT, HEX, 3/8 X 1 1/2 UNC GR5 PL	1
8	SB1020C5P	0	BOLT, HEX, 5/8 X 5 UNC GR5 PL	1
9	WF0613065P	0	WASHER, 3/8 SAE PLATED	1

******DO NOT OVERTIGHTEN BOLTS******
Tighten to Grade 5 Torque Specifications Pg-7

Operation

- Coulter depth is adjusted by loosening 5/8" x 1" set bolts in main mount cap and either raising or lowering 2" upright shaft.
- Adjust applicator position by loosening the bolts retaining the applicator and swinging the applicator forward or back. Re-tighten the bolts to torque specifications identified on Pg-7.

ATTENTION:

DO NOT ADJUST THE COULTER DEPTH SO DEEP THAT THE COULTER HUBS ARE RUNNING IN THE SOIL. THIS WILL CAUSE PREMATURE BEARING FAILURE.

Maintenance

Your K-Hart packer system is designed to require very little maintenance. The use of special bushings at all pivot points eliminates daily greasing requirements.

General Maintenance:

1. Grease main coultter hub every 50 hours of operation
2. Every 50 hours of operation, check all hardware and retighten if required.
3. Every 100 hours of operation, check the torque on the tapered roller bearings in the main coultter hub.
4. At the end of the season, apply engine or hydraulic oil in the recess on the top of the swivel casting.

ATTENTION:

MAIN COULTTER SPRING IS UNDER EXTREME PRESSURE. EXTREME CARE MUST BE TAKEN WHEN REPLACING THE MAIN COULTTER BUSHING - PART # 302012 OR PART # 626050.

