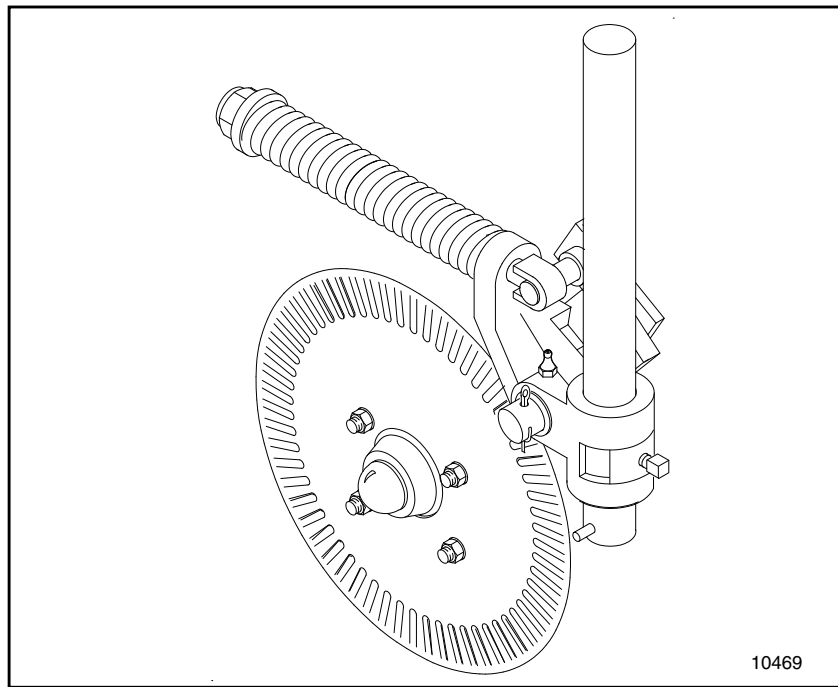


Operator's/Parts Manual

Heavy Duty
Fertilizer Coulter



Read the operator manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!



Illustrations may show optional equipment not supplied with standard unit.



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General Information

Important Notice

Great Plains Manufacturing, Inc. provides this publication “as is” without warranty of any kind, either expressed or implied, while every precaution has been taken in the preparation of this manual, Great Plains Manufacturing, Inc. assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Great Plains Manufacturing, Inc. reserves the right to revise and improve its products as it sees fit. This publication describes the state of this product at the time of its publication, and may not reflect the product at all times in the future.

Printed in the United States of America.

For your convenience, record your Model and the Date Purchased on page 4. Have this information before you when calling a Great Plains Authorized Dealer.

This Operator’s Manual applies to the Product Name listed below:

Heavy Duty Fertilizer Coulter

Reading this Manual

For your safety and to help in developing a better understanding of your equipment we highly recommend that you read the operator sections of this manual. Reading these sections not only provides valuable training but also familiarizes you with helpful information and its location. The parts sections are for reference only and don’t require cover to cover reading. After reviewing your manual store it in a dry, easily accessible location for future reference.



Introduction

Great Plains welcomes you to its growing family of new product owners. This Heavy Duty Fertilizer Coulter has been designed with care and built by skilled workers using quality materials. Proper setup, maintenance and safe operating practices will help you get years of satisfactory use from the machine.

Description of Unit

The parts on your Heavy Duty Fertilizer Coulter have been specially designed and should only be replaced with genuine **Great Plains** parts. Therefore, should your Heavy Duty Fertilizer Coulter require replacement parts go to your **Great Plains Dealer**.

Using This Manual

This manual will familiarize you with safety, assembly, operation, adjustments and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

The information in this manual is current at printing. Some parts may change to assure top performance.

Definitions

The following terms are used throughout this manual.

Right-hand and left-hand as used in this manual are determined by facing the direction the machine will travel while in use unless otherwise stated.

NOTICE

A crucial point of information related to the preceding topic. For safe and correct operation, read and follow the directions provided before continuing.

NOTE: Useful information related to the preceding topic.



Important Safety Information

Look for Safety Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.



Be Aware of Signal Words

Signal words designate a degree or level of hazard seriousness.

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.





Owner Assistance

If you need customer service or repair parts, contact a **Great Plains** dealer. They have trained personnel, repair parts and equipment specially designed for **Great Plains** products.

Your machine's parts were specially designed and should only be replaced with **Great Plains** parts. Always use the model number when ordering parts from your **Great Plains** dealer.

Record your Model and Date Purchased here for quick reference:

Model: _____

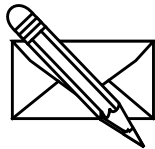
Date Purchased: _____

Your **Great Plains** dealer wants you to be satisfied with your new machine. If you do not understand any part of this manual or are not satisfied with the service received, please take the following actions.

1. Discuss the matter with your dealership service manager. Make sure they are aware of any problems so they can assist you.
2. If you are still unsatisfied, seek out the owner or general manager of the dealership.
3. For further assistance write to:

Product Support

Great Plains Mfg. Inc., Service Department
PO Box 5060
Salina, KS 67402-5060





Operating, Assembly Instructions and Adjustments

Most accidents are the result of negligence and carelessness, usually caused by failure of the operator to follow simple but necessary safety precautions. The following safety precautions are suggested to help prevent such accidents. The safe operation of any machinery is a big concern to consumers and manufactures. Your Heavy Duty Fertilizer Coulter has been designed with many built-in safety features. However, no one should operate this product before carefully reading this Operators Manual.

General Operation & Repair

Never allow the Heavy Duty Fertilizer Coulter to be operated by anyone who is unfamiliar with the operation of all functions of the unit. All operators should read and thoroughly understand the instructions given in this manual prior to moving the unit.

1. Make sure safety rules are understood before operating machinery or tractor.
2. Never permit any persons other than the operator to ride on the tractor.
3. Never permit any persons to ride on or stand near the drill while it is in operation.
4. Regulate your speed to the field conditions, maintaining complete control at all times.
5. After repairing or adjusting, make sure all tools and parts are removed from the implement before attempting to operate it.
6. Do not grease or oil machine while it is in operation.
7. Loose fitting clothing should not be worn as it may catch in moving parts.
8. Never dismount from a moving tractor.
9. Do not leave the tractor or the implement unattended with the engine running.
10. Do not stand between the tractor and the implement during hitching.
11. Detach and store implements in an area where children normally do not play. Stabilize implements by using suitable supports and block wheels.

12. If a hydraulic leak develops, correct it immediately. Escaping hydraulic oil can have extremely high pressure. A stream of high pressure oil may easily penetrate the skin as with modern needle-less vaccination equipment - but with the exception that hydraulic fluid may cause blood poisoning. It is imperative that the connections are tight and that all lines and pipes are in good condition. If an injury is caused by the escaping hydraulic fluid, see doctor at once!
13. Use a piece of cardboard or wood to detect leaks of hydraulic oil under pressure.
14. Be sure to relieve all hydraulic pressure before disconnecting any lines or pipes between the implement and the tractor hydraulic system. Keep all guards and shields in place.

Assembly Instructions

Refer to Figure 1

1. Mount coulters blade (5) to hub using carriage bolt (8) and fasteners (6) & (7). Tighten nuts.
2. Lock set screw (3) in swivel collar (4) onto the vertical shaft (1), (purchased separately) with roll pin below swivel mounting casting (2).
3. Mount clamp brackets (purchased separately) with coulters vertical shaft to tool bar. Adjust vertically and align with unit as desired, so coulters assembly is running true with unit.

Spring Adjustments

No spring adjustment is necessary on this unit. Initial operating force to move coulters upwards is 540 pounds. The preload has proved to be more than adequate for most No-Till conditions.

CAUTION

Any attempt to make coulters force greater than factory setting, may contribute to premature failure of parts and warranty shall be null and void.

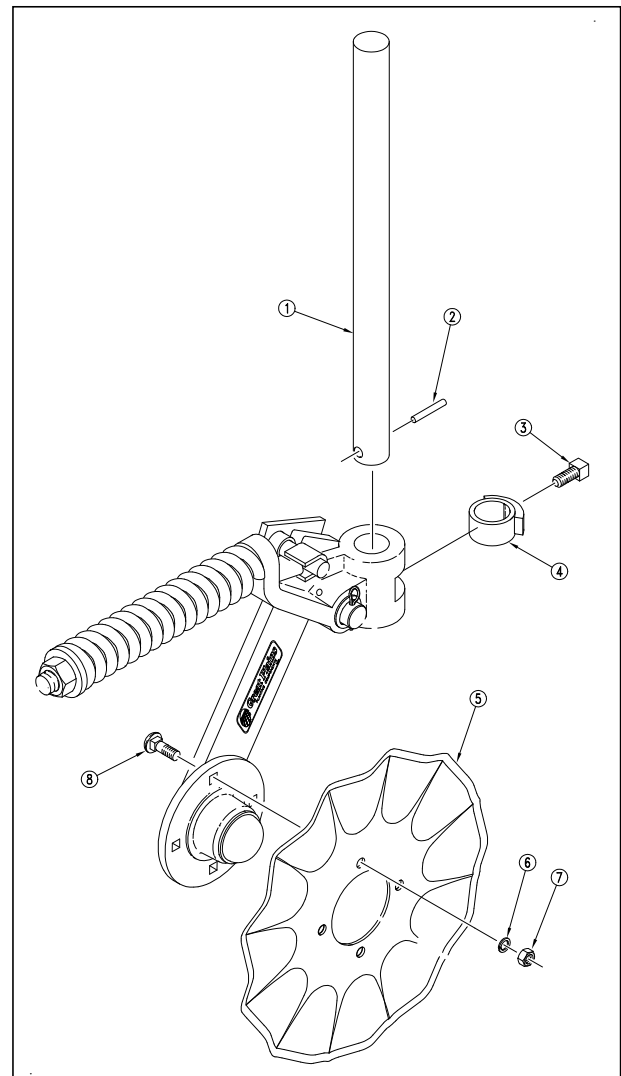


Figure 1
Assembly

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Maintenance and Lubrication

Maintenance

Proper servicing and adjustment is the key to the long life of any farm implement. With careful and systematic inspection, you can avoid costly maintenance, time and repair.

1. After using your Heavy Duty Fertilizer Coultter for several hours, check all bolts to be sure they are tight.
2. Listed below are the items you need to lubricate every 20 hours of operation. Use a heavy duty multi-purpose grease:
 - a. Grease zerk on hub.
 - b. Grease zerk on swivel mounting casting

Storage

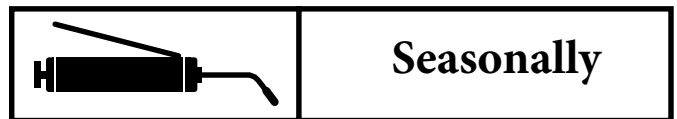
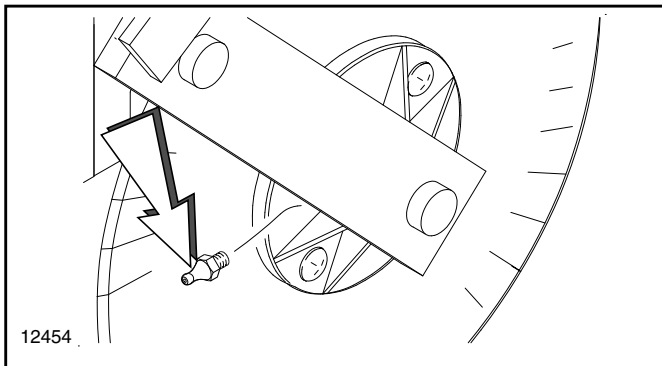
1. Clean the Heavy Duty Fertilizer Coultter as necessary.
2. Lubricate zerks as indicated in the following Illustrations.
3. Store the Heavy Duty Fertilizer Coultter inside if possible for longer Heavy Duty Fertilizer Coultter life.

Lubrication

Lubrication Symbols

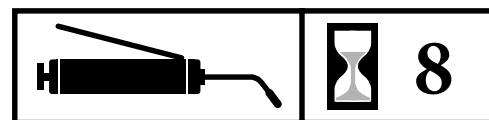
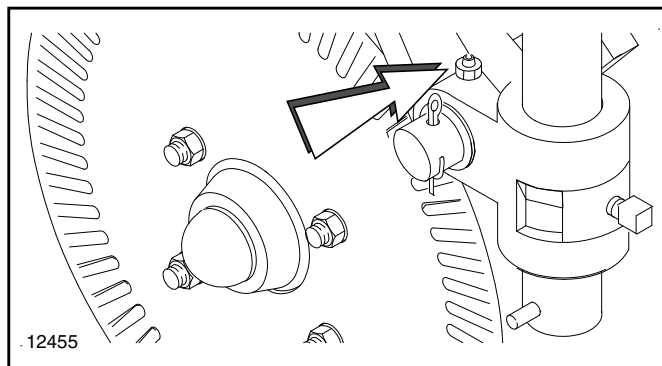


Lubrication is required every 20 hours of operation.



Hub

Type of Lubrication: Heavy duty multi-purpose grease

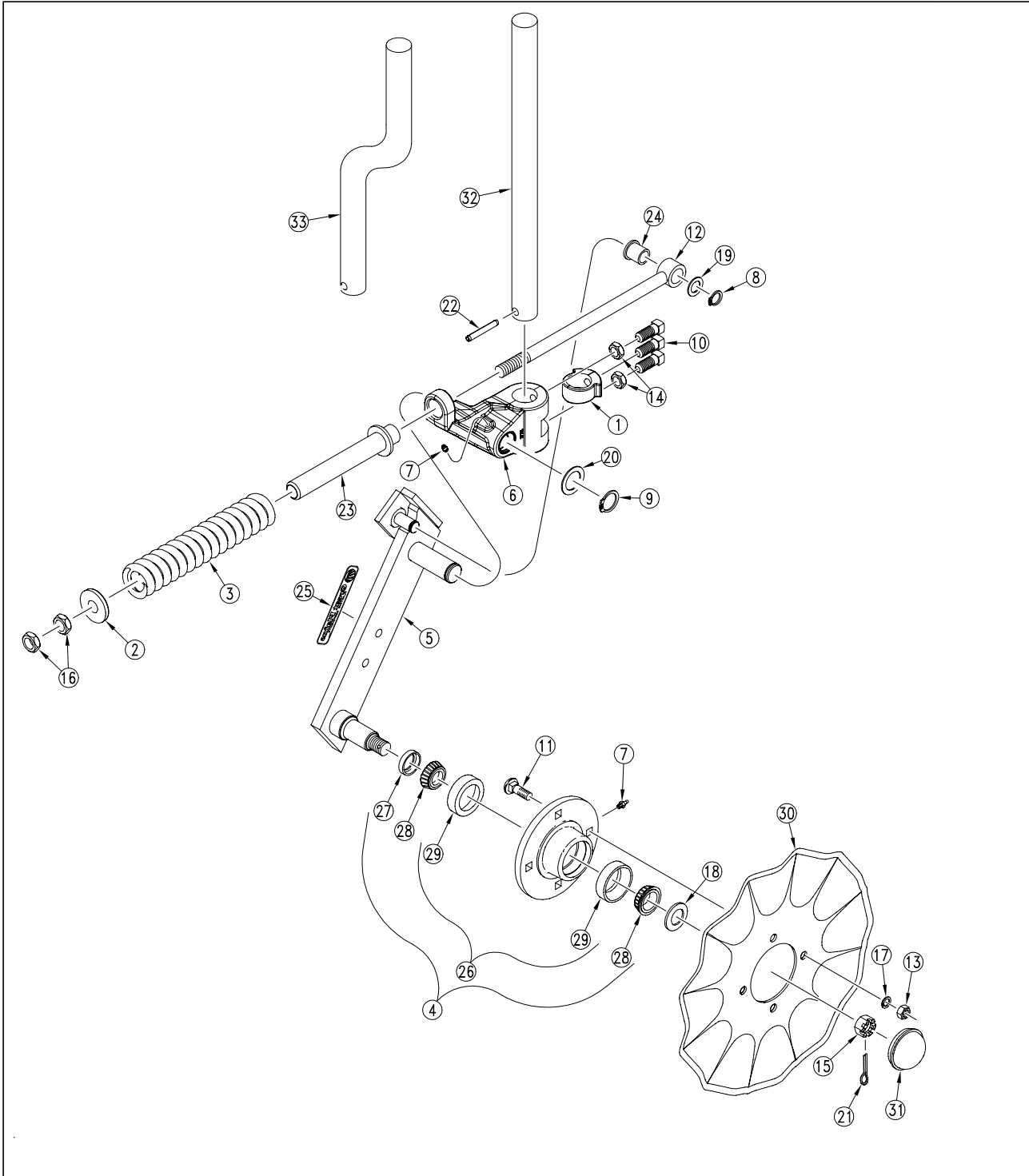


Swivel Mounting Casting

Type of Lubrication: Heavy duty multi-purpose grease

Parts

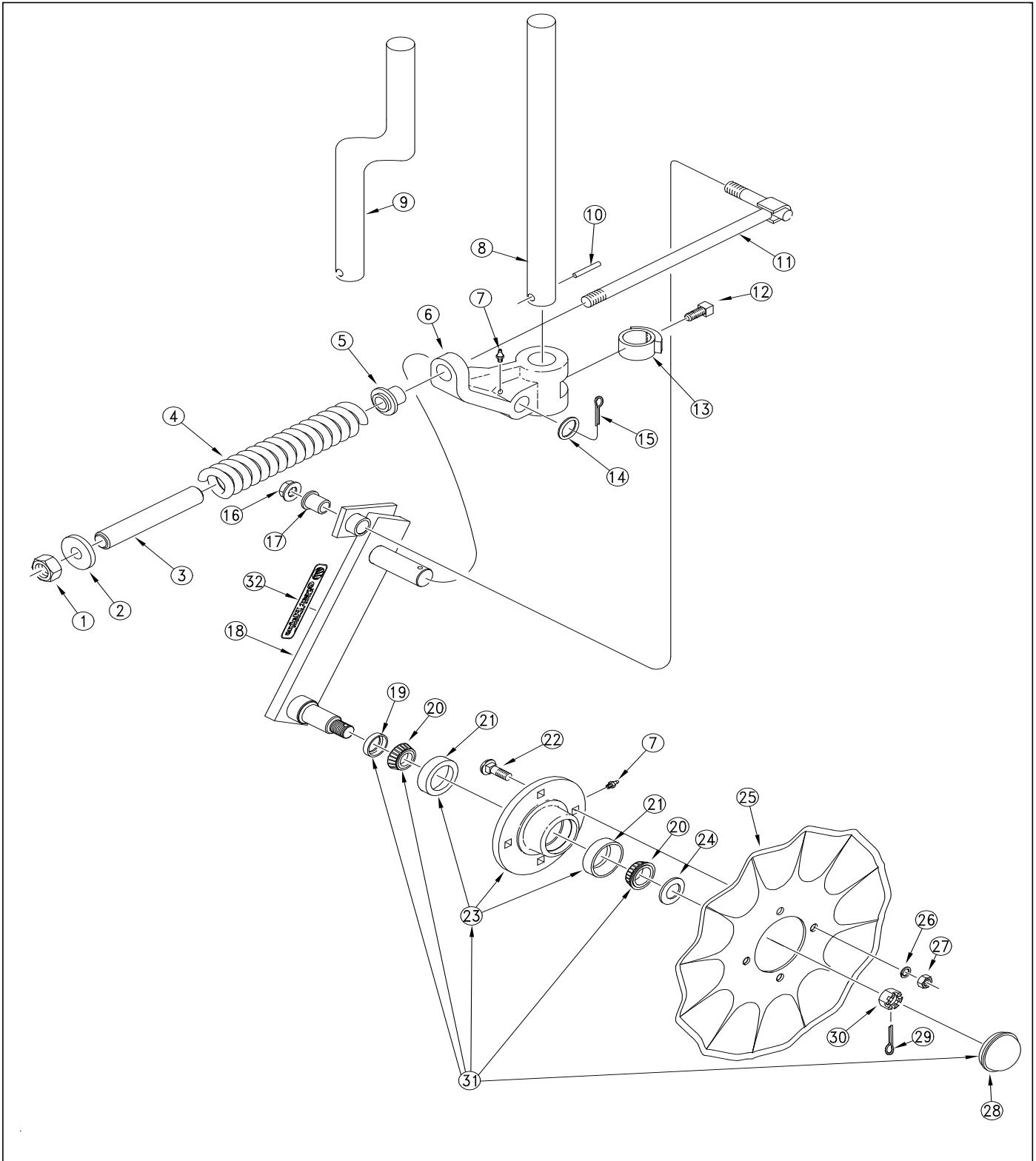
Heavy Duty Fertilizer Coulters (Effective July 1, 2011+)



32229

Ref.	Part No.	Description
1	149-044D	COULTER STOP
2	149-558D	COULTER SPRING WASHER
3	149-559D	SPRING 2.25 O.D. X .5 COIL
4	204-379S	COULTER HUB PACKAGE
5	249-051H	CLTR SWING ARM WLMT Used on RH.
5	249-237H	LH COULTER SWING ARM WLMT Used on LH.
6	249-225S	PVT CLTR CASTING MOUNT ASY RH Used on RH.
6	249-226S	PVT CLTR CASTING MOUNT ASY LH Used on LH.
7	800-001C	GREASE ZERK STRAIGHT 1/4-28
8	800-164C	SNAP RING 3/4 EXTERNAL HEAVY
9	800-177C	SNAP RING EXT 1 1/4 HEAVY
10	801-083C	SCREW SET 5/8-11X1 1/2 GR8 CUP
11	802-214C	RHSNB 1/2-13X1 1/4 GR5
12	802-718C	EYE BOLT 3/4-10X14 3/4 LG SP
13	803-020C	NUT HEX 1/2-13 PLT
14	803-023C	NUT HEX JAM 5/8-11 PLT
15	803-029C	NUT HEX SLOTTED 7/8-14 PLT
16	803-048C	NUT HEX JAM 3/4-10 PLT
17	804-015C	WASHER LOCK SPRING 1/2 PLT
18	804-055C	WASHER SPINDLE - 7/8
19	804-156C	WASHER MACH 1 1/4X3/4X14GA
20	804-165C	WASHER MACH 1 7/8X1 1/4X 14GA
21	805-017C	PIN COTTER 3/16 X 1 3/4 PLT
22	805-043C	PIN SPIROL 3/8X2 1/2 PLAIN
23	805-331C	COULTER SPRING GUIDE TUBE
24	817-513C	BUSHING 1X3/4X1 1/8 FLG HD
25	838-482C	DECAL GP PLANTING COMPONENTS
26	200-039V	COULTER HUB & CUP ASSY
27	816-009C	OIL SEAL DOUBLE LIP
28	822-021C	BRG CONE 1.25ID LM-67048
29	822-020C	BRG CUP LM-67010
30	820-018C	COULTER BLADE FLUTED
31	200-001D	HUB GREASE CAP
32	204-026D	SHANK 1 1/2D X 22 FERT COULT
33	820-132C	1 1/2 X 22 OFFSET SHANK

Heavy Duty Fertilizer Coulters (Effective June 30, 2011-)



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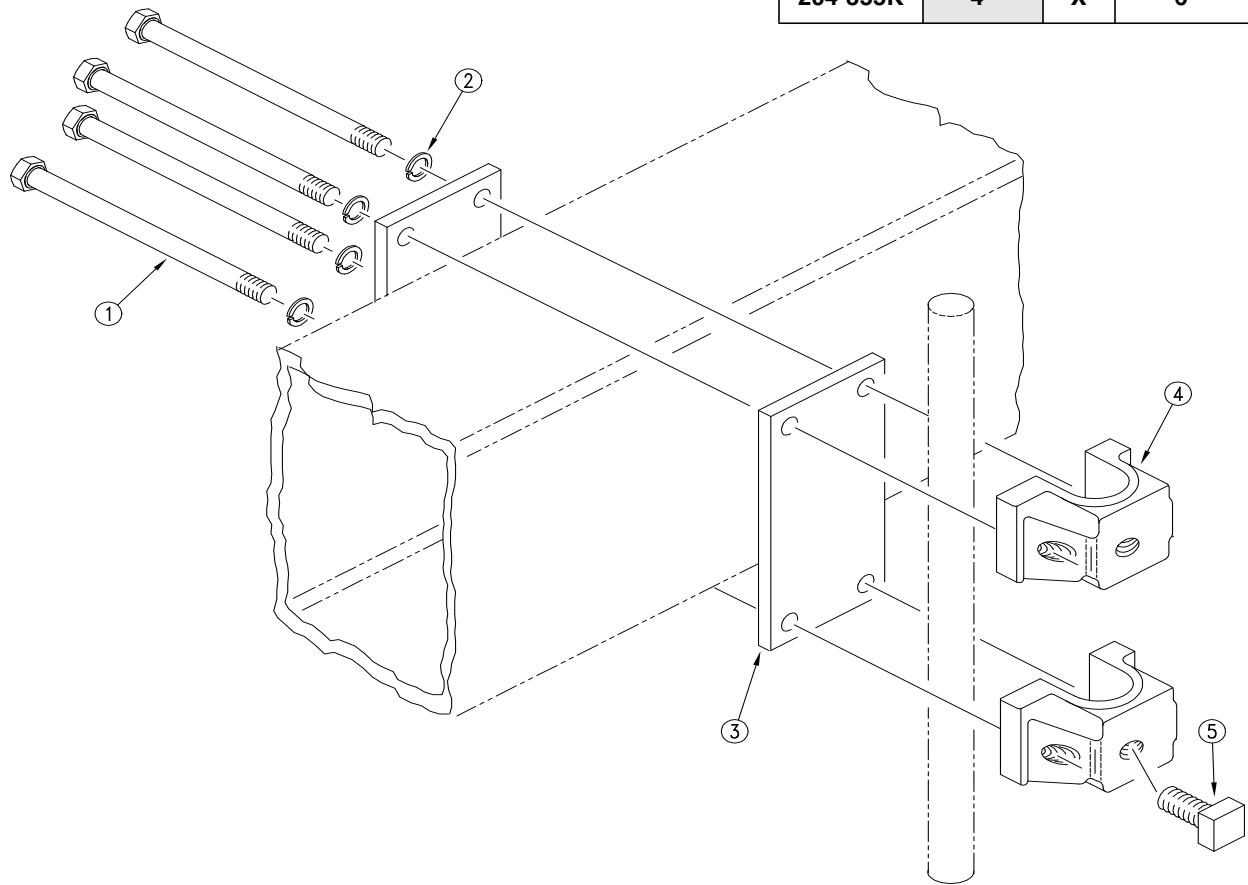
Ref.	Part No.	Description
1.	803-025C	NUT HEX 3/4-10 PLT NYLOCK
2.	812-031C	CASTING COULTER SPRING WASHER
3.	204-107D	SPRING ROD SLEEVE 1 1/8 OD
4.	807-074C	SPRING 2.25 OD X .5 COIL
5.	817-029C	BUSHING COULTER CASTING
6.	149-963S	COULTR MOUNT, CASTNG ASSY
7.	800-001C	GREASE ZERK STRAIGHT 1/4-28
8.	204-026D	SHANK 1 1/2 X 22 FERT COULT
9.	820-132C	1 1/2 X 22 OFFSET SHANK
10.	805-043C	PIN SPIROL 3/8X2 1/2 PLAIN
11.	204-075H	COULTER SPRING ROD WLDMT
12.	801-040C	SCREW SQ HD 5/8-11 X 1 CUP PT
13.	149-162H	COULTER STOP WELDMENT
14.	804-039C	WASHER FLAT 1 1/4 SAE PLT
15.	805-021C	PIN COTTER 1/4 X 2 PLT
16.	803-181C	NUT HEX FLANGE LOCK 3/4-10 PLT
17.	817-051C	SWING ARM BUSHING
18.	149-181E	CLTR SWG ARM WD REPLBY149-181E
19.	816-009C	OIL SEAL DOUBLE LIP
20.	822-021C	BEARING CONE LM-67048
21.	822-020C	BEARING CUP LM-67010
22.	802-106C	RHSNB 1/2-13X1 1/2 GR5
23.	200-039V	COULTER HUB & CUP ASSY
24.	804-055C	WASHER SPINDLE - 7/8
25.	820-018C	COULTER BLADE FLUTED
26.	804-015C	WASHER LOCK SPRING 1/2 PLT
27.	803-020C	NUT HEX 1/2-13 PLT
28.	200-001D	HUB GREASE CAP
29.	805-017C	PIN COTTER 3/16 X 1 3/4 PLT
30.	803-029C	NUT HEX SLOTTED 7/8-14 PLT
31.	200-002S	COULTER HUB PACKAGE
32.	838-482C	DECAL GP PLANTING COMPONENTS

Rectangular Tubing Clamp Kits

NOTE: To find your clamp kit match the height and width of your mounting tube to the chart below

Part No.	Width		Height
204-017K	2 1/2"	X	2 1/2"
204-018K	2"	X	6"
204-021K	4"	X	4"
204-022K	3"	X	7"

204-023K	5"	X	7"
204-024K	7"	X	7"
204-054K	6"	X	4"
204-064K	3"	X	3"
204-340K	3"	X	6"
204-355K	4"	X	6"



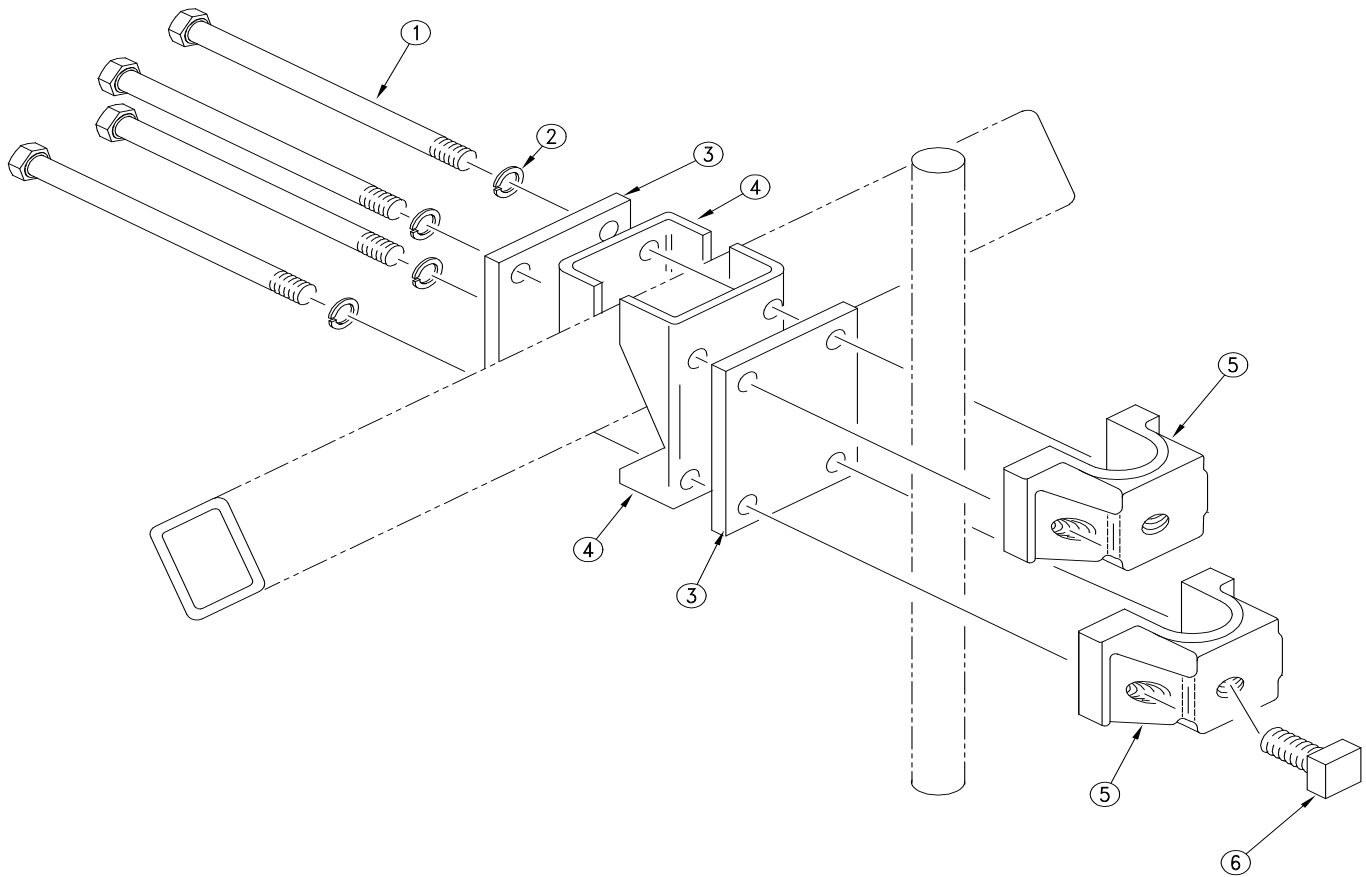
12449

Ref.	Part No.	Description
1.	802-249C	HHCS 1/2-13X4 1/2 GR5 SPTHD (204-017K Clamp Kit Only)
	802-044C	HHCS 1/2-13X4 GR5 (204-018K Clamp Kit Only)
	802-047C	HHCS 1/2-13X6 GR5 (204-021K and 204-355K Clamp Kits Only)
	802-289C	HHCS 1/2-13X8 GR5 (204-054K Clamp Kit Only)
	802-045C	HHCS 1/2-13X5 GR5 (204-022K, 204-340K and 204-064K Clamp Kits Only)
	802-260C	HHCS 1/2-13X7 GR5 (204-023K Clamp Kit Only)
	802-269C	HHCS 1/2-13X9 GR5 (204-024K Clamp Kit Only)
2.	804-015C	WASHER LOCK SPRING 1/2 PLT
3.	204-037D	CLAMP PLT 3 1/2 SQ BAR (204-017K Clamp Kit Only)
	204-039D	CLAMP PLT 6 BAR (204-018K, 204-355K and 204-340K Clamp Kits Only)
	204-038D	CLAMP PLT 4 BAR (204-021K & 204-054K Clamp Kits Only)
	204-040D	CLAMP PLT 7 BAR (204-022K, 204-023K & 204-024K Clamp Kits Only)
	204-083D	CLAMP PLATE 3 SQ BAR (204-064K Clamp Kit Only)
4.	204-072D	CLAMP SHANK 1 1/2 DIA
5.	801-040C	SCREW SQ HD 5/8-11 X 1 CUP PT

Diamond Bar Clamp Kits

NOTE: To find your clamp kit match your diamond bar tube to the chart below

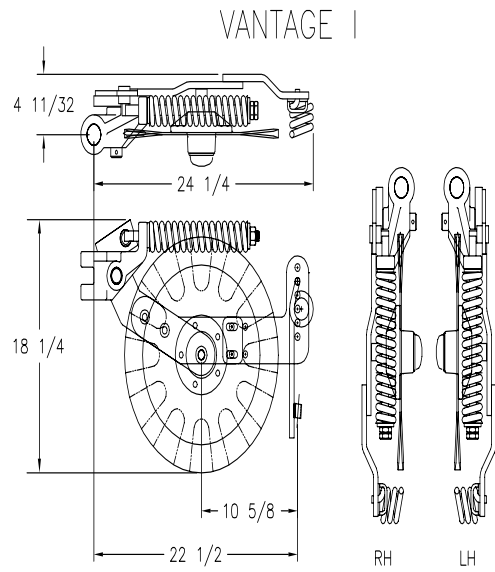
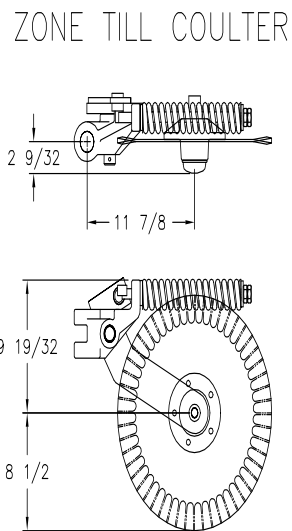
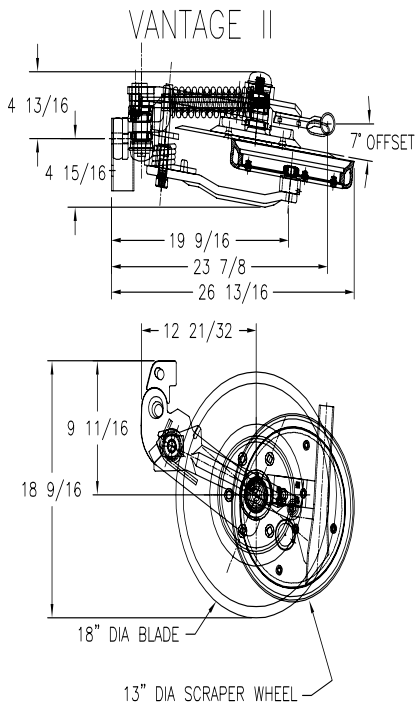
Part No.	Bar Size
204-019K	3"
204-020K	3 1/2"



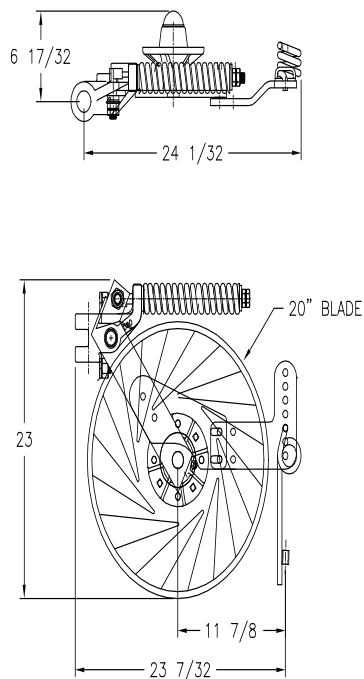
12450

Ref.	Part No.	Description
1.	802-260C	HHCS 1/2-13X7 GR5 (204-019K Clamp Kit Only)
	802-289C	HHCS 1/2-13X8 GR5 (204-020K Clamp Kit Only)
2.	804-015C	WASHER LOCK SPRING 1/2 PLT
3.	204-064D	CLAMP PLATE 3 DIA BAR (204-019K Clamp Kit Only)
	204-041D	CLAMP PLT 3 1/2 DIA BORE (204-020K Clamp Kit Only)
4.	204-077H	ADAPTER PLT WLDMNT 3 DIA BAR (204-019K Clamp Kit Only)
	204-079H	ADAPTER PLT WLDMT 3 1/2DIA BAR (204-020K Clamp Kit Only)
5.	204-072D	CLAMP SHANK 1 1/2 DIA
6.	801-040C	SCREW SQ HD 5/8-11 X 1 CUP PT

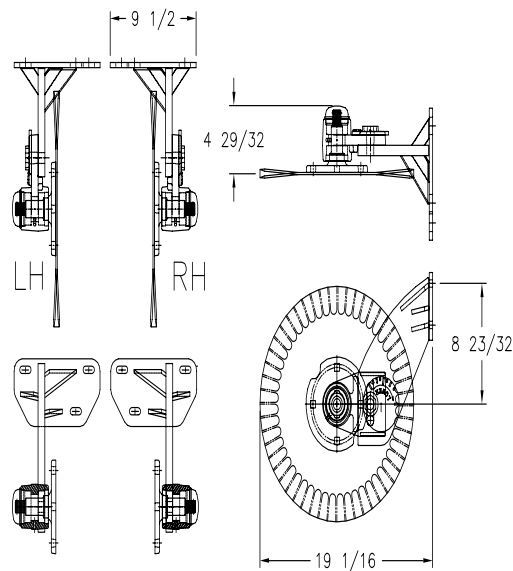
Specifications



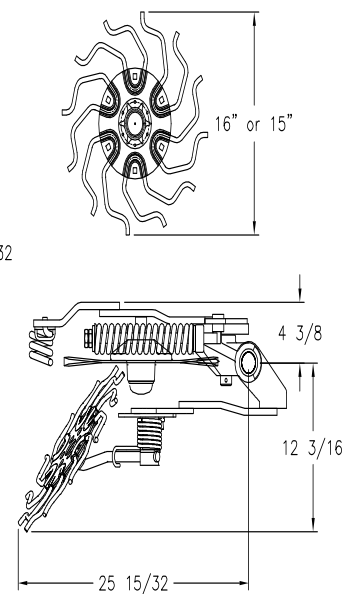
VANTAGE I 20" W/FERTILIZER



UNIT MOUNT COULTER



TERRA TINE™
ROW CLEANER









20120



Appendix

Torque Values Chart

Bolt Size (Inches)	Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8	
in-tpi ¹	N · m ²	ft-lb ³	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12
1/4" - 28	8.5	6	13	10	18	14
5/16" - 18	15	11	24	17	33	25
5/16" - 24	17	13	26	19	37	27
3/8" - 16	27	20	42	31	59	44
3/8" - 24	31	22	47	35	67	49
7/16" - 14	43	32	67	49	95	70
7/16" - 20	49	36	75	55	105	78
1/2" - 13	66	49	105	76	145	105
1/2" - 20	75	55	115	85	165	120
9/16" - 12	95	70	150	110	210	155
9/16" - 18	105	79	165	120	235	170
5/8" - 11	130	97	205	150	285	210
5/8" - 18	150	110	230	170	325	240
3/4" - 10	235	170	360	265	510	375
3/4" - 16	260	190	405	295	570	420
7/8" - 9	225	165	585	430	820	605
7/8" - 14	250	185	640	475	905	670
1" - 8	340	250	875	645	1230	910
1" - 12	370	275	955	705	1350	995
1-1/8" - 7	480	355	1080	795	1750	1290
1 1/8" - 12	540	395	1210	890	1960	1440
1 1/4" - 7	680	500	1520	1120	2460	1820
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

Bolt Size (Metric)	Bolt Head Identification					
	 Class 5.8		 Class 8.8		 Class 10.9	
mm x pitch ⁴	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

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.



Warranty

Great Plains Manufacturing, Incorporated warrants to the original purchaser that this seeding equipment will be free from defects in material and workmanship for a period of one year from the date of original purchase when used as intended and under normal service and conditions for personal use; 90 days for commercial or rental purposes. This Warranty is limited to the replacement of any defective part by Great Plains Manufacturing, Incorporated and the installation by the dealer of any such replacement part. Great Plains reserves the right to inspect any equipment or part which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Great Plains' judgement shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. This Warranty shall not apply if the product is towed at a speed in excess of 20 miles per hour.

Claims under this Warranty must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. Great Plains reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Great Plains liable for damages of any kind, direct, consequential, or contingent, to property. Furthermore, Great Plains shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, losses caused by harvest delays or any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Great Plains Manufacturing, Incorporated within 10 days from the date of original purchase.

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