



Installation Instructions for Center Drive Update

for the 3P4025AH

Before Getting Started

Before you begin installation of your center drive update, read these instructions carefully and check that all parts and tools in kit are accounted for. All hand and specialty tools for installation are provided at owner's expense. Please retain these installation instructions for future reference and parts ordering information.

These installation instructions contain information for assembling gauge wheels and gauge wheel adjustment rods to the main machine. Please read all instructions in your 3P4025AH operator manual thoroughly before proceeding. Your operator manual includes information on operation, adjustment, troubleshooting, and maintenance for this attachment (some manual sections do not apply to all accessories).



38286

General Information

The center drive update kit removes pressure from the center gauge wheel and redistributes weight onto two center non-drive gauge wheels.

Center Drive Update	Reference #
3P4025AH Center Drive Update	402-587A

Refer to page 3 for a detailed list of parts included in these kits. Use this list to inventory parts received.

Tools Required

The following tools are required for installation:

- General hand tools
- Welding tools
- Cutting torch

Refer to page 8 for torque values chart.



3P4025AH Update Kit QRC

The QR Code (Quick Response) to the left will take you to this update kit. Use your smart phone or tablet to scan the QR Code with an appropriate app to begin viewing.

Document Family

All manuals related to this kit are available free of charge by visiting www.greatplainsag.com. Have machine model and serial numbers available when looking for the manual you need.

3P4025AH Manuals

411-099Q	Pre-Delivery Manual
411-099M	Operator Manual
411-099P	Parts Manual
411-099B	Material Rate Manual



3P4025AH Manual Family QRC

The QR Code (Quick Response) to the left will take you to this machine's family of manuals. Use your smart phone or tablet to scan the QR Code with an appropriate app to begin viewing.

Using This Manual

This manual was written to help you install and prepare your new kit. The manual includes instructions for installation and setup. Read this manual and follow the recommendations for safe, efficient, and proper assembly and setup.

Read and understand “Important Safety Information” and “Operating Instructions” in the operator’s manual before installing your new kit. As a reference, keep the operator’s manual on hand while installing.

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

Use this kit only in conjunction with a Great Plains implement.

Be Aware of Signal Words

The following signal words designate a degree or level of hazard seriousness. Take the necessary precautions and exercise sound judgment.

DANGER

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

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

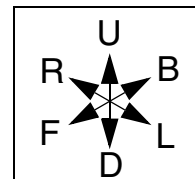
CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Safety & Symbol Information



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!

Right-hand and left-hand as used in this manual are determined by facing the direction the machine will travel. An orientation rose in some line art illustrations shows the directions of: Up, Back, Left, Down, Front, Right.



NOTICE

A crucial point of information related to the current topic. Read and follow the directions to remain safe, avoid serious damage to equipment and ensure desired field results.

Call-Outs

① to ⑨	Single-digit callouts identify components in the currently referenced Figure.
⑪ and up	Two-digit callouts in the range 11 to 34 reference new parts from the list on page 3.

Further Assistance

Great Plains Manufacturing, Inc. wants you to be satisfied with your new planter. If for any reason you do not understand any part of this manual or are otherwise dissatisfied with the product please contact:

Great Plains Service Department
1525 E. North St.
P.O. Box 5060
Salina, KS 67402-5060

Or go to www.greatplainsag.com and follow the contact information at the bottom of your screen for our service department.

Kit Contents

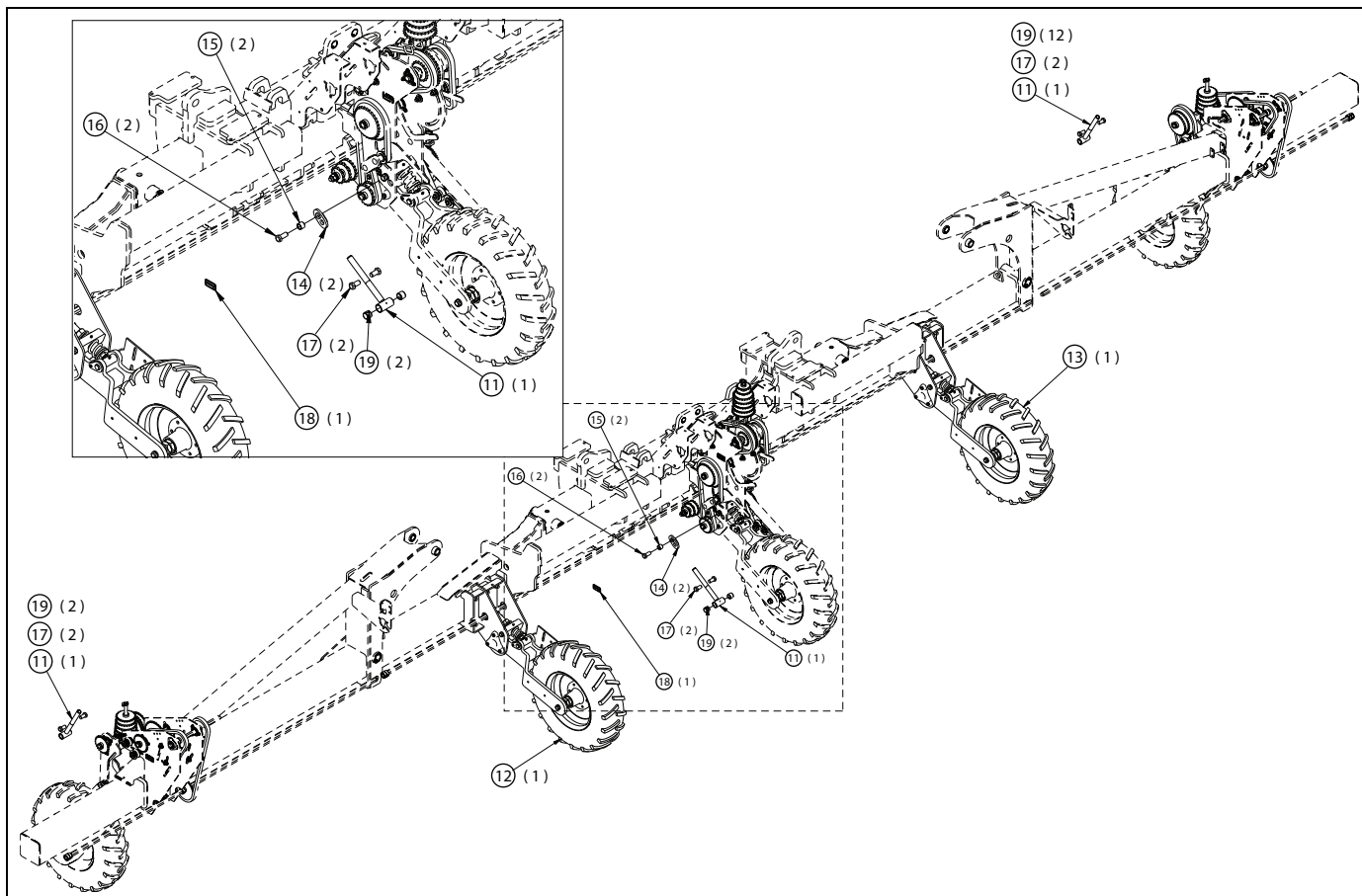


Figure 1
3P4025AH Center Row Update

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Callout	Part Number	Part Description	Qty.
11	402-548H	TOP ADJUSTMENT ROD WELDMENT	3
12	402-585K	3P4025AH NON DRIV GAUGE WHL LH	1
13	402-586K	3P4025AH NON DRIV GAUGE WHL RH	1
14	402-588H	GW ADJU PIVOT BACKUP WELDMENT	2
15	402-897D	GW ADJ LINK PIVOT BUSH X 7/8	2
16	802-392C	HHCS 3/4-10X1 3/4 GR5	2
17	802-438C	HHCS 3/4-10X1 1/2 GR5 NYL	6
18	838-042C	DECAL DRIVING	1
19	890-005C	BUSHING CYL 1 1/4 X 1 X 1	6

Note: The part call-out numbers in this list match all figures in these installation instructions.

402-585K and 402-586K Contents

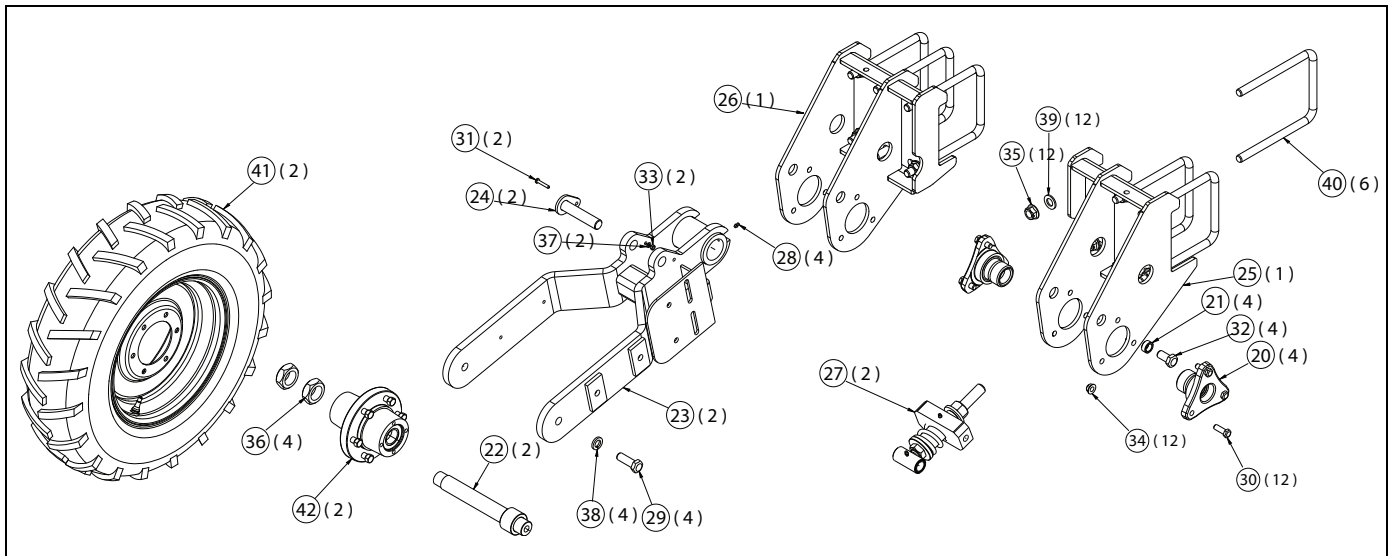


Figure 2
3P4025AH Gauge Wheels

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Callout	Part Number	Part Description	Qty.
20	120-223D	3 BOLT PIVOT CAST MACHINED	4
21	402-035D	SLEEVE SPRING LINK MOUNT	4
22	402-203H	SPINDLE GW WELDMENT	2
23	402-204H	YOKE GA WHL WLMT GRND DRV LEFT	2
24	402-209H	PIN 1 X 4 5/8 NONROTATE	2
25	402-568H	40FT GA WHL MOUNT WLDMT RH	1
26	402-569H	40FT GA WHL MOUNT WLDMT LH	1
27	402-584S	5.00-7.88 GW ADJUSTMENT LINK	2
28	800-001C	GREASE ZERK STRAIGHT 1/4-28	4
29	802-065C	HHCS 3/4-10 X 2 1/4 GR5	4
30	802-091C	HHCS 1/2-13 X 1 1/2 GR5	12
31	802-167C	HHCS 1/4-20X1 1/2 GR5	2
32	802-438C	HHCS 3/4-10 X 1 1/2 GR5 NYL	4
33	803-006C	NUT HEX 1/4-20 PLT	2
34	803-169C	NUT HEX FLG. LOCK 1/2-13 PLT	12
35	803-181C	NUT HEX FLANGE LOCK 3/4-10 PLT	12
36	803-210C	NUT HEX JAM 1 1/2-12 PLT	4
37	804-006C	WASHER LOCK SPRING 1/4 PLT	2
38	804-023C	WASHER LOCK SPRING 3/4 PLT	4
39	804-093C	WASHER FLAT 3/4 HARD ASTM F436	12
40	806-193C	U-BOLT 3/4-10 X 7 X 1/32 X 9 3/4	6
41	814-528C	TIRE/WHL 7.60-15 LUG RIGHT BKS N	2
42	815-200C	HUB ASSY 6BOLT 6"BC 4.62PILOT	2

Note: The part call-out numbers in this list match all figures in these installation instructions.

Installation Instructions

Before you begin installation of your center drive update kit, first hook the drill to a tractor and attach the hydraulics for folding and unfolding the machine's wings. See the machine's "Operator Manual" for more information on hooking up the hydraulics and folding/unfolding the wings.

Installing Adjustment Rods

Refer to Figure 3

1. Starting on the right-hand side of the machine's gauge wheel, remove the hardware from around the link spring adjuster assembly ①.
 - a. Unscrew and remove the bolts ② and bushings ③ from the adjuster assembly.
 - b. Unscrew and remove nut ④, washer ⑤, and bolt ⑥ from the large pin ⑦ that runs through the bottom of the adjuster assembly.
 - c. Remove adjuster assembly from gauge wheel. Set aside lower pin and upper pivot bushings for reuse. Set aside lock nuts and washers. Discard upper pivot bolts.

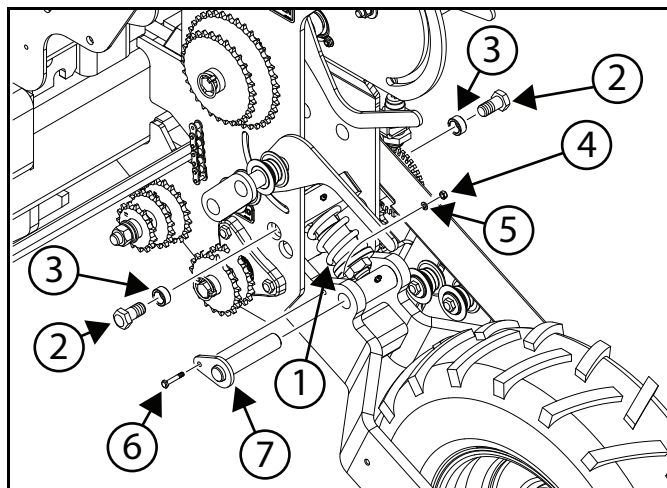


Figure 3
Removing Adjuster Hardware

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Refer to Figure 4

2. Unscrew and remove nut ① and washer ② from the adjustment rod ③. Remove grease zerk ④ from the adjustment rod. Unscrew adjustment rod and discard. Screw new adjustment rod ⑪ into the block assembly ⑤ and reattach nut ① and washer ②.
3. Set bushings ⑥ and zerk in new adjustment rod.
4. Reinstall the adjuster assembly to the gauge wheel. Use the kit's nylock bolts ⑪ in place of the upper pivot bolts when reinstalling to the frame's upper gauge wheel mount hole.

WARNING

If the upper gauge wheel mount hole is not used, gauge wheel heights will not be even and will cause uneven pressure on center and outer gauge wheels. To avoid damage to your machine, make sure that the gauge wheel is mounted to the upper hole on all assemblies.

5. Repeat steps 1 - 4 for the left-hand side gauge wheel.
6. If the center section's upper adjustment pivot holes do not require a reinforcement plate, then repeat steps 1-5 for the center gauge wheel. If the use of a reinforcement plate is necessary (see page 6 for details) then skip this step and proceed to the next part of the installation.

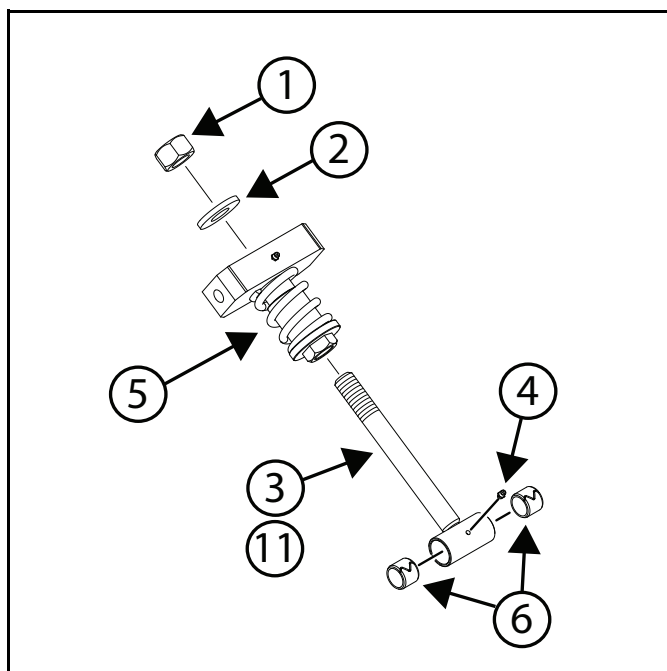


Figure 4
Link Spring Adjustment

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Welding Replacement Pivot

If the center drive wheel was operated with the upper adjustment pivot bolts in the lower holes, then the metal between the two pivot holes may be damaged. This damage will have to be repaired with a reinforcement plate. If only the upper hole was used to anchor the upper adjustment pivot or there is no damage between the two holes, skip this step in the installation.

1. Remove the surrounding hardware by unbolting the lower gauge wheel section ① from the frame and setting the wheel and adjoining hardware safely out of the way.
2. Remove the pre-existing driving decal.

Refer to Figure 6

3. Make one upper and one lower tangent lines between the two holes. See Figure 6 for example.
4. Use a cutting torch or other suitable cutting tool to carefully cut out the damaged metal between the upper and lower holes. This process should create one continuous slot out of the two holes.

CAUTION

Make sure not to cut out too much of the metal or the reinforcement plate's inset will be loose within the slot. Do not cut out any of the top or bottom of the holes!

Refer to Figure 7

5. Choose one side of the adjustment assembly to start and position the reinforcement plate ⑭ so the hole on a plate runs through the top of the newly made slot ①. Place the reinforcement plate's inset into the slot. Use the kit's 7/8" bushing ⑮ to make sure the reinforcement plate is aligned correctly. If the alignment is not straight, make any adjustments necessary for the plate to align with the top of the slot.
6. Weld all the way around the reinforcement plate.

DANGER

Use all necessary safety equipment and precautions when working with welding tools.

7. Clean the area around the weld.
 8. Repeat steps 5 - 7 for the opposite side.
 9. Apply the replacement driving decal ⑱ over the old driving decal on the frame.
 10. Install new adjustment rod. See page 5 and perform steps 1 - 5 in order to install the center gauge wheel's adjustment rod. Substitute the kit's bushings ⑮ and bolts ⑯ for the top hole.
 11. Use a removable lock tite on the longer pivot bolts.
- Note: Lock tite is not supplied in kit.
12. Replace lower drive wheel and supporting hardware.

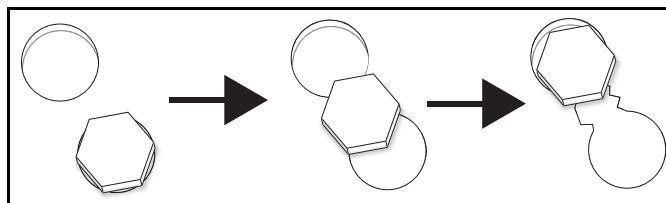


Figure 5
Adjustment Bolt Movement

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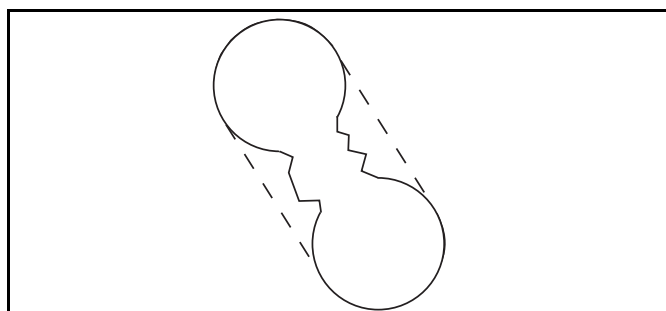


Figure 6
Damaged Area Removal

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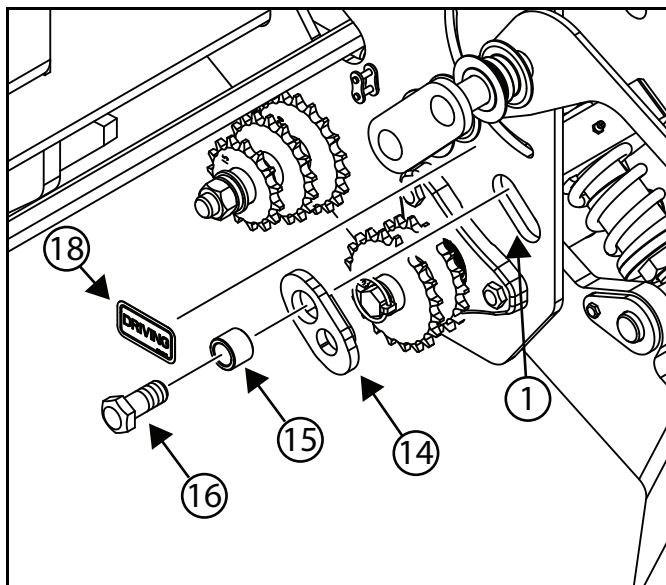


Figure 7
Weld Plate Assembly

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Mouting Non-Drive Gauge Wheels

1. Hook up the machine's hydraulics to a suitable tractor and fold the wings up so they are out of the way. Leave the center gauge wheel and meter drive shaft accessible.
2. Remove the center gauge wheel drive chain from the drive shaft. Loosen the lock collar ① set screws for the center gauge wheel's 30 tooth meter drive sprocket.

NOTICE

Set screws should be loose enough that the center drive shaft can be pulled out. If the drive shaft does not easily slide out, continue to loosen the set screws until it does so.

3. Unhook the meter drive chain tensioner spring on every center section row.
4. Loosen the set screws on all 12 tooth meter drive sprockets.
5. Pull the drive shaft out from either end and set it aside for now.

NOTICE

In order to easily get the drive shaft out, you may find it necessary to loosen some of the 2-bolt support bearings at the openers. Typically only the rear twin row bearings need to be loosened. We recommend starting with these rear twin row bearings and loosening more of the openers if necessary.

6. Measure out a distance from the center of the machine according to the chart below and mark that point on the machine's frame.

3P4025AH with...	Offset from Center
36" row spacings	71.5 inches
38" row spacings	75.5 inches
40" row spacings	79.5 inches

Refer to Figure 10

7. Center the gauge wheel on the marks you made.
8. Mount the kit's non-drive gauge wheels ⑫ ⑬ to the frame using the wheel's assembled U-bolts ④①, nuts ③⑤, and washers ③⑨.
9. Reassemble meter drive shaft making sure all 12 tooth meter drive sprockets are oriented correctly and 30 tooth drive sprocket is in place.
10. Tighten all driven sprocket set screws, lock collar set screws, and 2-bolt support bearings. Refer to the torque values chart on page 8 for recommended values.
11. Assemble all meter drive chains and rehook tensioner springs.
12. Reset all gauge wheels to establish the proper frame height. Refer to your operator manual's 'Gauge Wheel Adjustments' section.

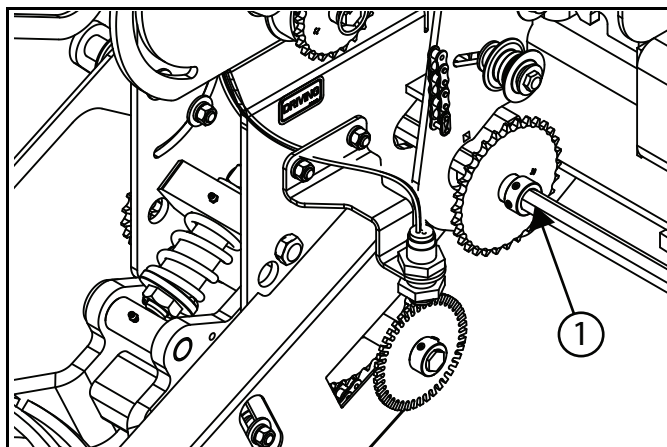


Figure 8
Lock Collar

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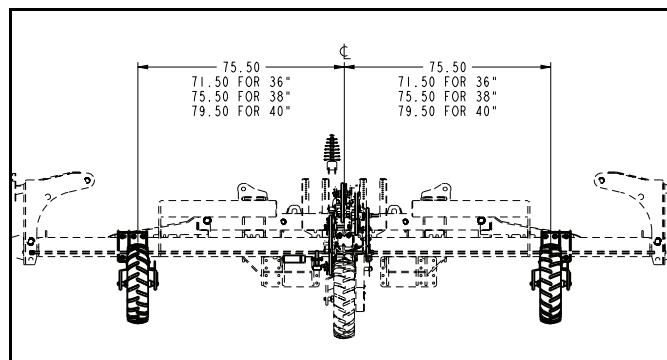


Figure 9
Lock Collar

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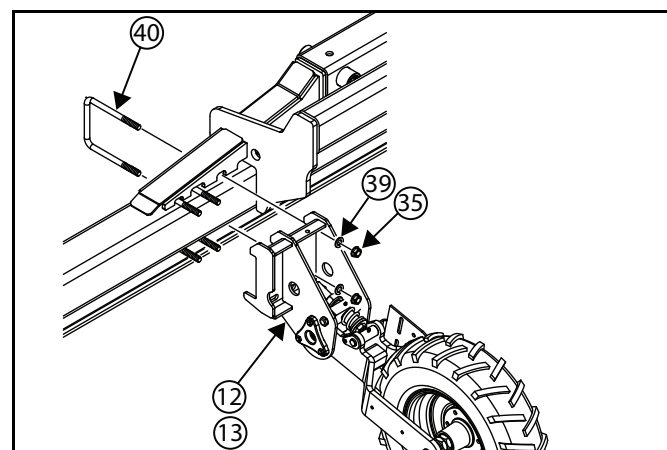


Figure 10
Gauge Wheel Assembly Mount

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Torque Values Chart

Bolt Size in-tpi ^a	Bolt Head Identification					
						
	Grade 2			Grade 5		
	N-m ^b	ft-lb ^d		N-m	ft-lb	
1/4-20	7.4	5.6		11	8	16
1/4-28	8.5	6		13	10	18
5/16-18	15	11		24	17	33
5/16-24	17	13		26	19	37
3/8-16	27	20		42	31	59
3/8-24	31	22		47	35	67
7/16-14	43	32		67	49	95
7/16-20	49	36		75	55	105
1/2-13	66	49		105	76	145
1/2-20	75	55		115	85	165
9/16-12	95	70		150	110	210
9/16-18	105	79		165	120	235
5/8-11	130	97		205	150	285
5/8-18	150	110		230	170	325
3/4-10	235	170		360	265	510
3/4-16	260	190		405	295	570
7/8-9	225	165		585	430	820
7/8-14	250	185		640	475	905
1-8	340	250		875	645	1230
1-12	370	275		955	705	1350
1 1/8-7	480	355		1080	795	1750
1 1/8-12	540	395		1210	890	1960
1 1/4-7	680	500		1520	1120	2460
1 1/4-12	750	555		1680	1240	2730
1 3/8-6	890	655		1990	1470	3230
1 3/8-12	1010	745		2270	1670	3680
1 1/2-6	1180	870		2640	1950	4290
1 1/2-12	1330	980		2970	2190	4820

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

a. in-tpi = nominal thread diameter in inches-threads per inch

b. N·m = newton-meters

c. mm x pitch = nominal thread diameter in mm x thread pitch

d. ft-lb = foot pounds

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

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