

# **Farm King**

## **OPERATOR AND PARTS MANUAL**

### **C13 CONVENTIONAL AUGER COLLAPSIBLE HOPPER**

Models 1342, 1352, 1362



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**Manufacturer’s Statement:** For technical reasons, Farm King reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature. Performance quality may depend on soil fertility, applied agricultural techniques, weather conditions, and other factors.

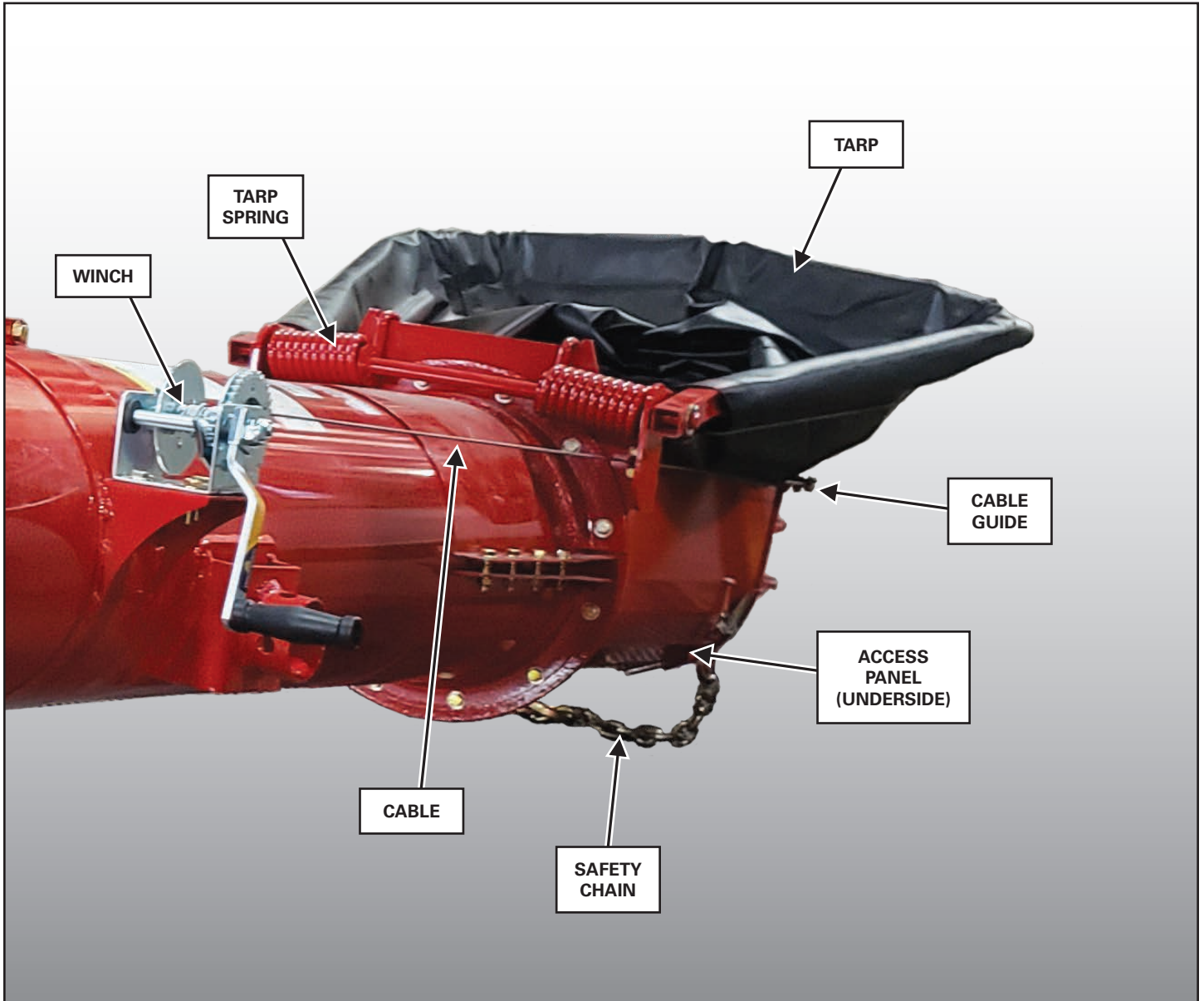
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# Farm King



# EQUIPMENT IDENTIFICATION

Figure 1



## SAFETY

Safety rules:

Read and follow instructions in this manual and the tractor's Operators Manual before operating.

Under no circumstances should young children be allowed to work with this equipment.

This equipment is dangerous to children and persons unfamiliar with its operation.

Stay clear of overhead power lines when raising or lowering the auger. Electrocutation can occur without direct contact.

Check for overhead and / or underground lines before operating equipment (if applicable).

In addition to the 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.

Operate the equipment only from the operator's position.

Operate the equipment according to the Operator And Parts Manual.

When learning to operate the equipment, do it at a slow rate in an area clear of bystanders, especially small children.

**DO NOT** permit personnel to be in the work area when operating the equipment.

The equipment must be used **ONLY** on approved tractors / transport vehicles.

**DO NOT** modify the equipment (unless specified).

**DO NOT** make any adjustments or repairs on the equipment while the machine is running.

Keep shields and guards in place. Replace if damaged.

## ASSEMBLY

Unload the crate(s) and components on a flat level area of adequate size to assemble the equipment.



### IMPORTANT

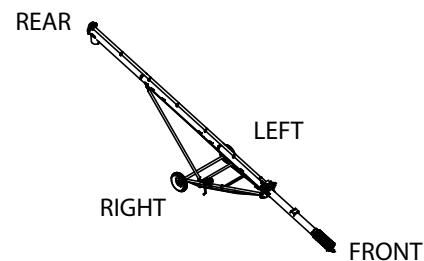
**Unload crate(s) and components carefully, not to cause damage to any of the components.**

**Using the packing list, locate and place all components and hardware in one area. Count the individual components and verify that you have received the correct number of components to fully assemble the equipment.**

**If any components are damaged, missing or replacement parts are required, contact your Farm King Dealer.**

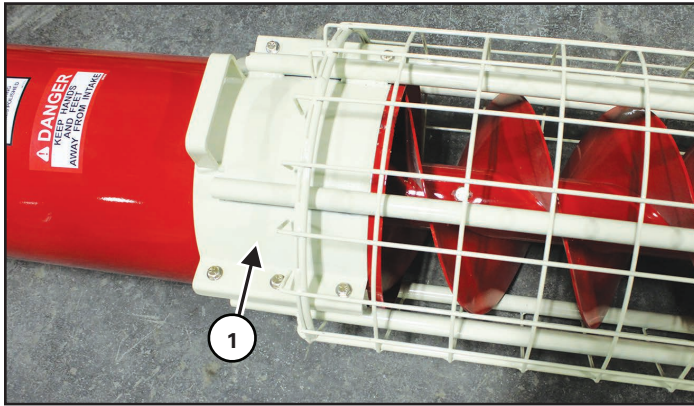


### IMPORTANT



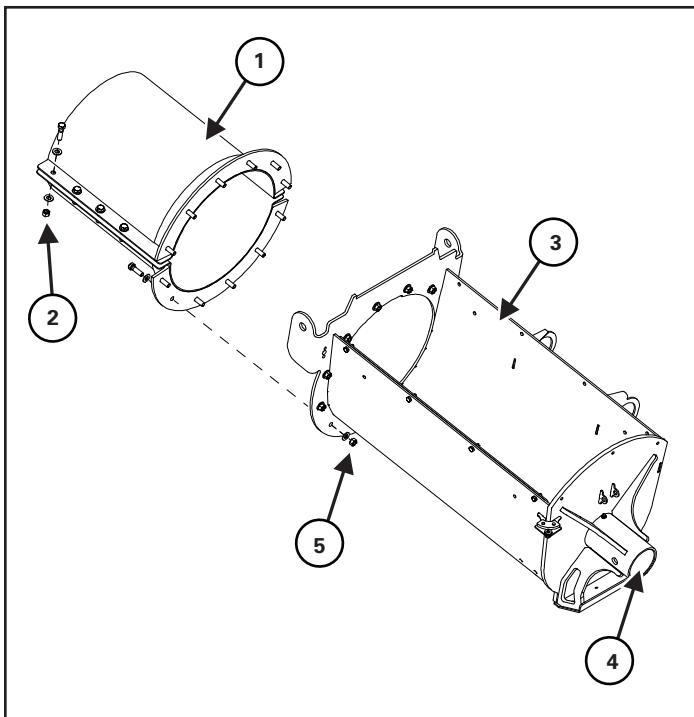
**The directions left, right, front and rear, as mentioned throughout this manual, are as viewed as the operator sitting in the tractor's seat with the equipment hitched to the tractor.**

**Figure 2**



Block auger wheels. Support the auger intake so the intake cage can be removed (Item 1). Remove the intake cage. [Figure 2].

**Figure 3**



Place the mounting clamps (Item 1) onto the auger tube. Attach the top and bottom clamps using 3/8" x 1-1/2" hex bolts (Item 2), 3/8" flat washers (each side of bracket), and 3/8" lock nuts [Figure 3].

Do not tighten clamp bolts at this time.

Slide the hopper body (Item 3) over the flighting and align to the clamps flanges. Position the flighting shaft inside the bearing (Item 4) [Figure 3].

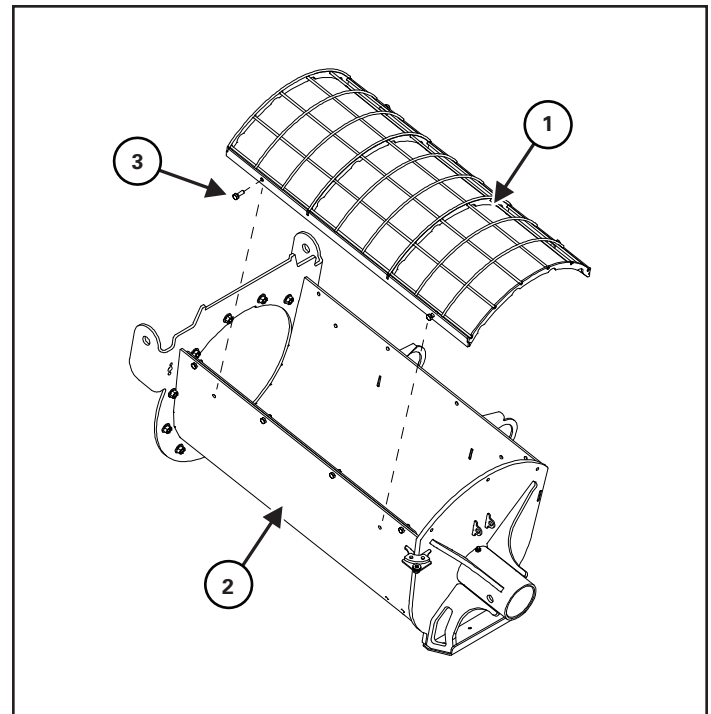
Attach the flanges using 3/8" x 1-1/4" hex bolts (Item 5), 3/8" flat washers (each side of flange), and 3/8" lock nuts [Figure 3].

Do not tighten bolts at this time.

Adjust the hopper opening so it is even with the top of the tube.

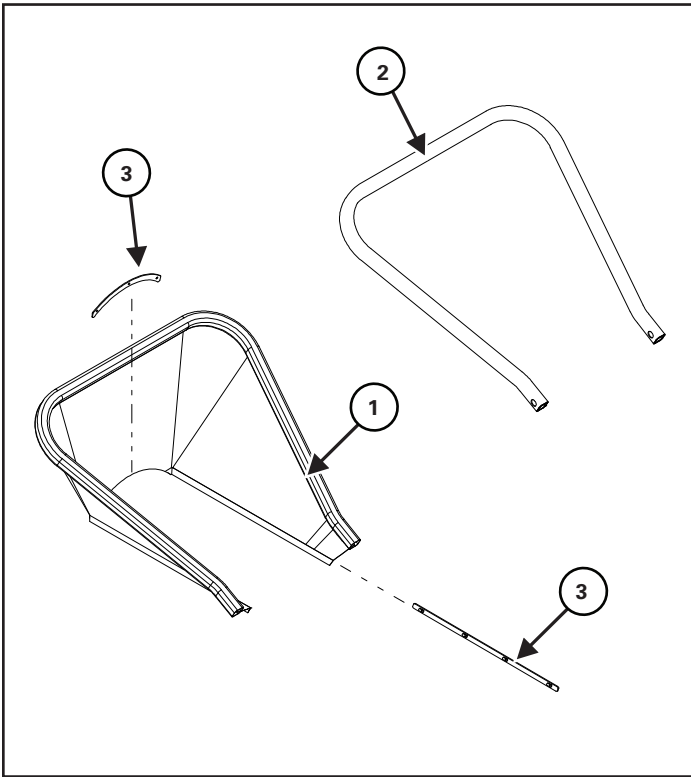
Tighten all bolts on the flanges and clamps.

**Figure 4**



Install the cage (Item 1) within the hopper body (Item 2). Attach using four 1/4" x 3/4" hex bolts (Item 3) [Figure 4].

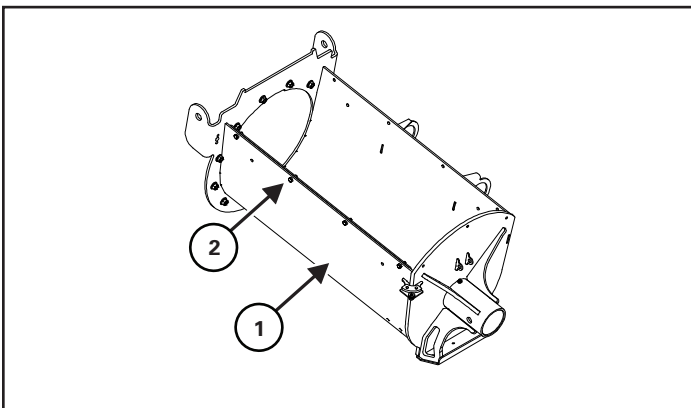
**Figure 5**



Fit the tarp (Item 1) evenly around the hoop (Item 2) [Figure 5].

Slide clamp bars (Item 3) into pockets on the sides and back of tarp. Pierce holes in the tarp through the clamp bar holes for the hardware [Figure 5].

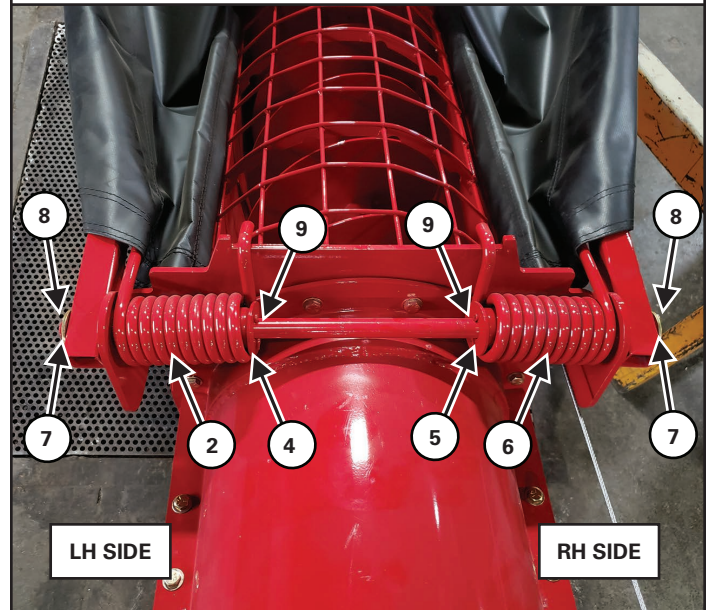
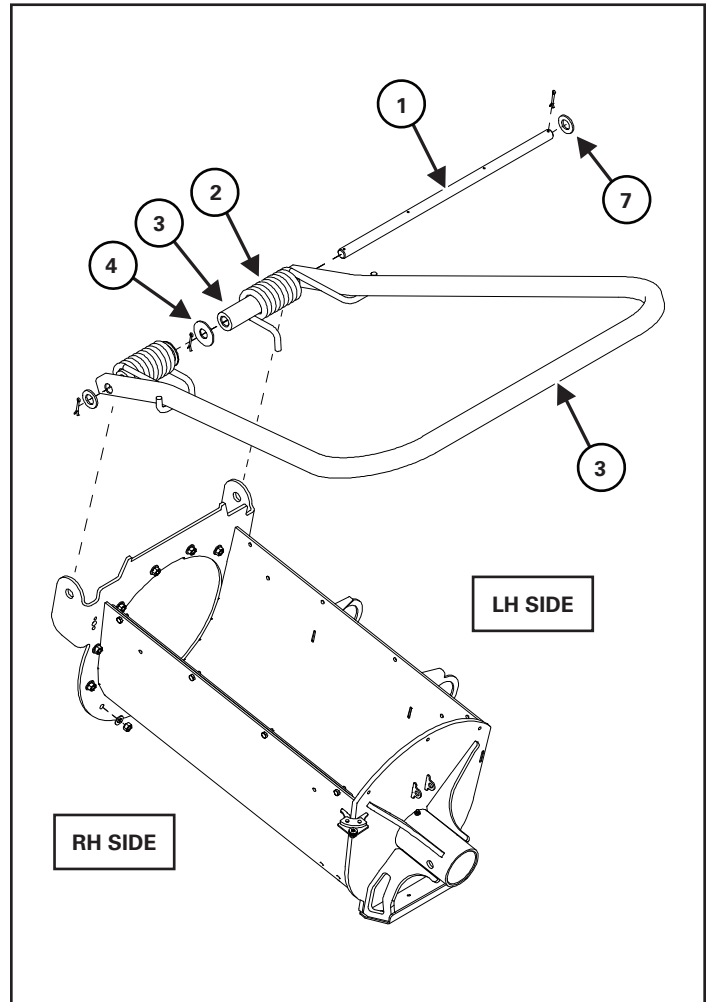
**Figure 6**



Position the tarp and hoop inside the hopper. Align tarp to holes (Item 2) [Figure 6].

Do not install hardware at this time.

**Figure 7**





Pass one 22" pin (Item 1) through the hoop holes and through the following [Figure 7]:

- LH spring (Item 2, pn 938728)
- LH sleeve (Item 3, pn 939428)
- LH 2"OD plate (Item 4, pn 939429L)
- RH 2"OD plate (Item 5, pn 939429L)
- RH sleeve (inside RH spring, pn 939428)
- RH spring (Item 6, pn 938742)

Attach 3/4" flat washers (Item 7) and cotter pins (Item 8) on the ends of the pin [Figure 7].

Attach cotter pins (Item 9) between the two inside plates [Figure 7].

Fold the hoop back onto the tube and hook the LH and RH springs to the flange and to the tarp hoop.

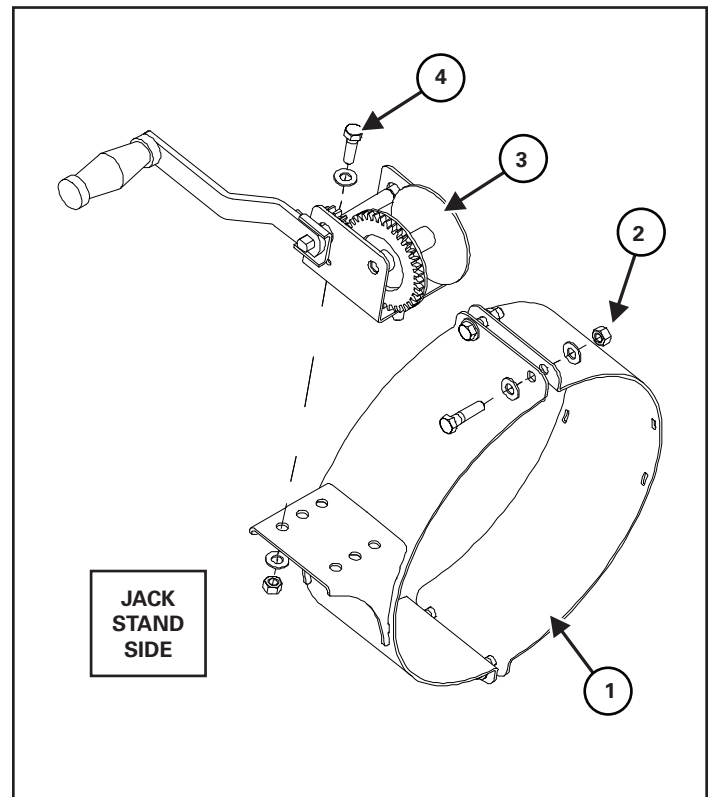
Figure 8



Install the winch (Item 1) to an open section of the intake auger tube past the jack stand [Figure 8].

Do not obscure any safety or equipment decals.

Figure 9

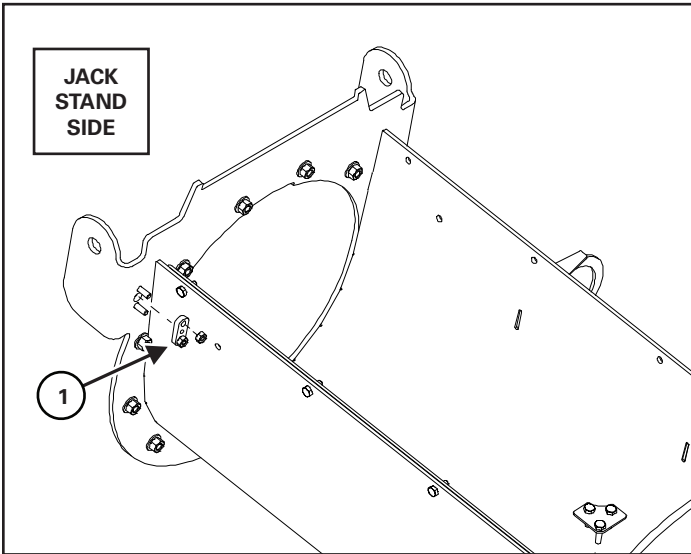


Attach the two clamp halves (Item 1) around the auger tube using two 3/8" x 1-1/2" hex bolts, four 3/8" flat washers (both sides of bracket), and two 3/8" lock nuts (Item 2) [Figure 9].

Install the handle and crank assembly (Item 3) to the mount. Attach using 3/8" x 1-1/4" hex bolts (Item 4), 3/8" flat washers (both sides of bracket), and 3/8" lock nuts [Figure 9].

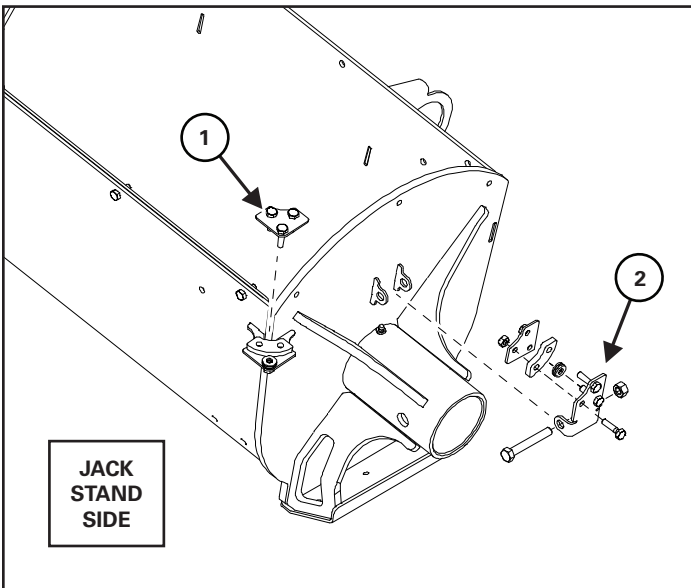
**Note: Install winch on same side as jack stand.**

**Figure 10**



Attach one cable guide (Item 1) to the mounting flange using two 1/4" x 1" hex bolts and two 1/4" lock nuts [Figure 10].

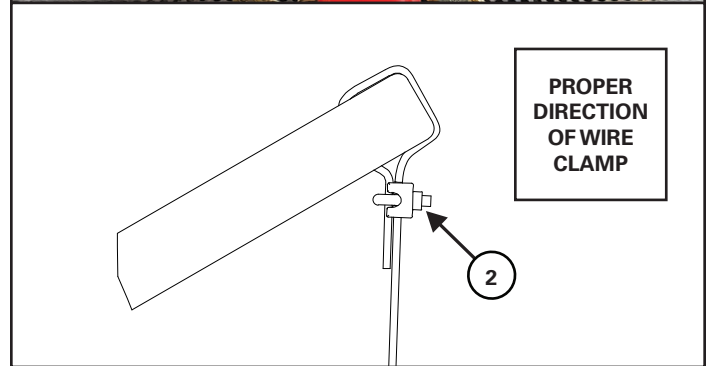
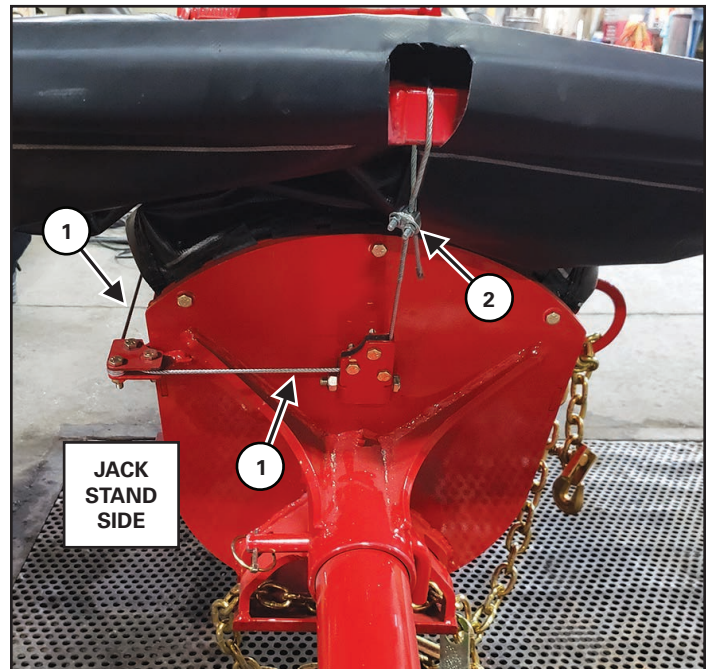
**Figure 11**



Attach one 90° cable guide (Item 1) to the corner mount using three 1/4" x 1" hex bolts and three 1/4" lock nuts. Use three 1/4" flat washer on the corner bolt as a spacer [Figure 11].

Assemble one 90° cable guide and pivoting bracket (Item 2). Attach the guide to the hopper frame using one 3/8" x 2-1/2" hex bolt and one 3/8" lock nut [Figure 11].

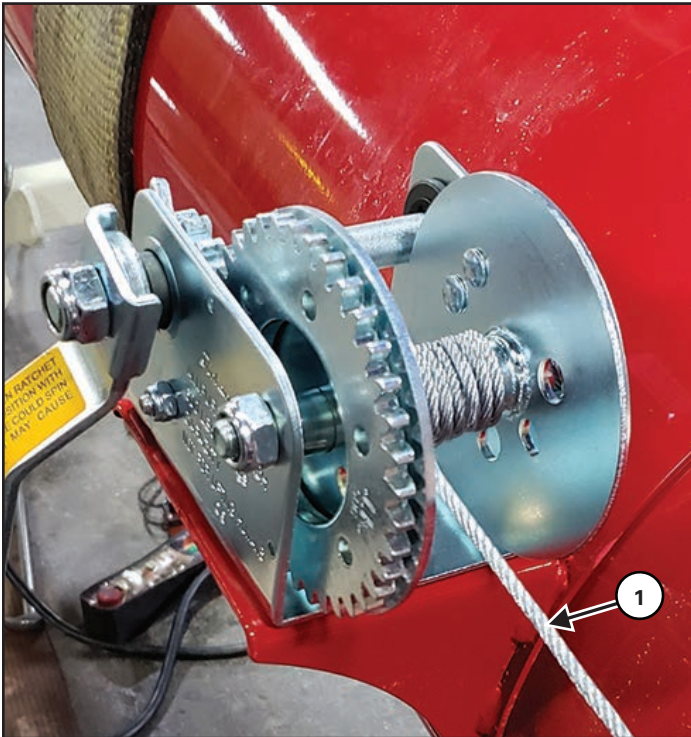
**Figure 12**



Route the cable (Item 1) through the cable guide on the flange, the corner guide, and the pivot guide. Loop the cable over the tarp hoop and secure with a wire clamp (Item 2) [Figure 12].

**Note: Wire clamp must be installed correctly. Clamp nuts must face away from hopper.**

Figure 13



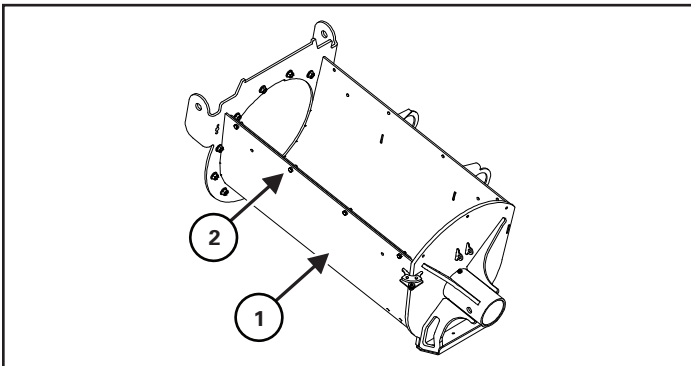
Connect the loose cable (Item 1) to the winch. Pull the hoop over to put tension on the springs while winding the winch [Figure 13].

Wind the cable evenly around the spool [Figure 13].

**Note: Make sure winch locking pawl is secure before winding.**

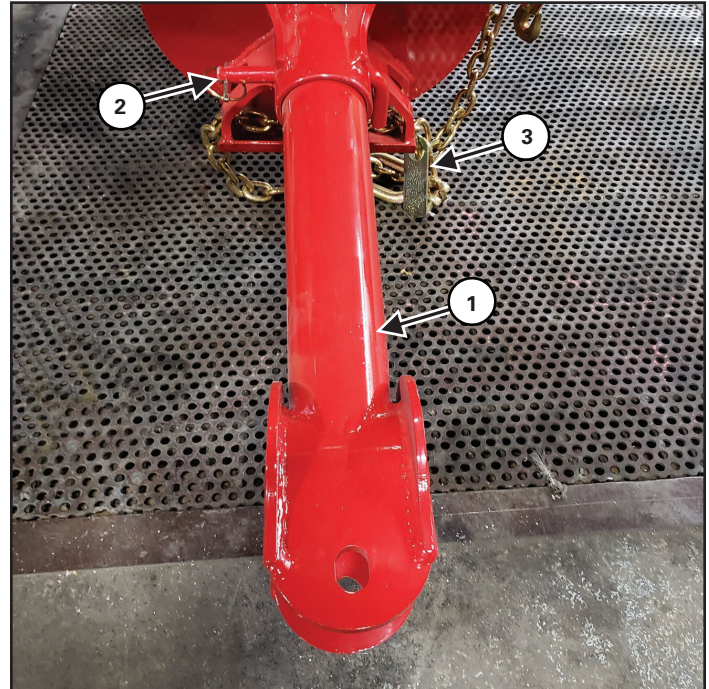
If winch is not used, secure hoop in down position.

Figure 14



Attach the tarp through the side and back clamp bars to the hopper body (Item 1) using 1/4" x 3/4" hex bolts (Item 2) [Figure 14].

Figure 15



Install the hitch weldment (Item 1) to the hopper body. Secure with one clevis pin (Item 2) and retaining pin [Figure 15].

Install the hook and safety chain (Item 3) to the brackets above the skid plate on hopper body [Figure 15].

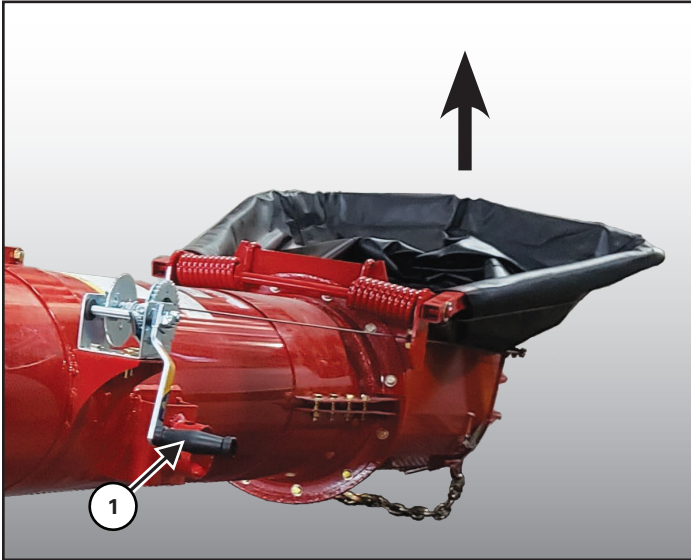


**IMPORTANT**

**Tighten all hopper hardware.**

## OPERATION

Figure 16



Act on the winch crank (Item 1) to raise or lower the tarp [Figure 16].



## IMPORTANT

**SECURE** the locking pawl on the winch when **LOWERING** the tarp.

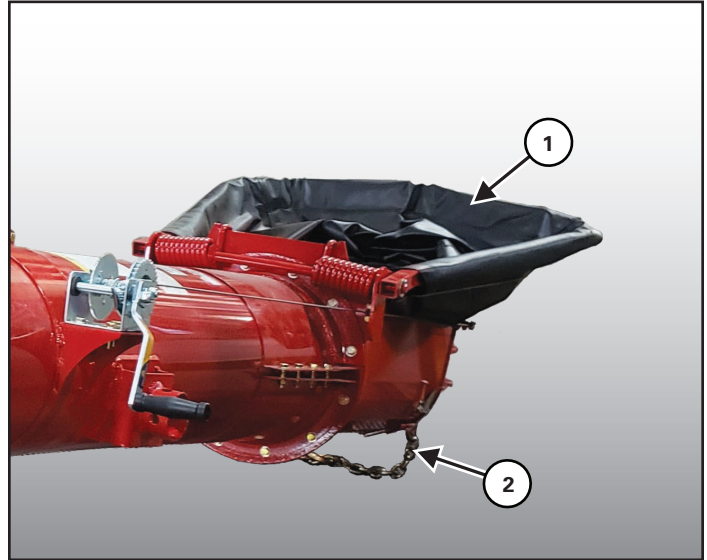
**RELEASE** the locking pawl on the winch when **RAISING** the tarp.

**DO NOT RELEASE** the locking pawl without a firm grasp on the winch crank. Doing so will cause the crank to spin rapidly potentially causing injury.

The hitch weldment may be stored on the side of the hopper when not in use.

## TRANSPORT

Figure 17



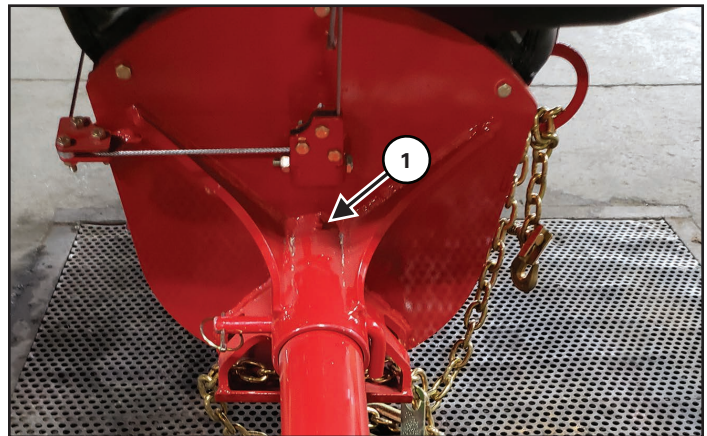
Fully lower the tarp (Item 1) during transportation. Attach the safety chain (Item 2) to the tractor hitch [Figure 17].

## MAINTENANCE

Perform the following daily or after every use:

- Clear out debris from the hopper using the access panel
- Inspect cable and tarp for damage

Figure 18

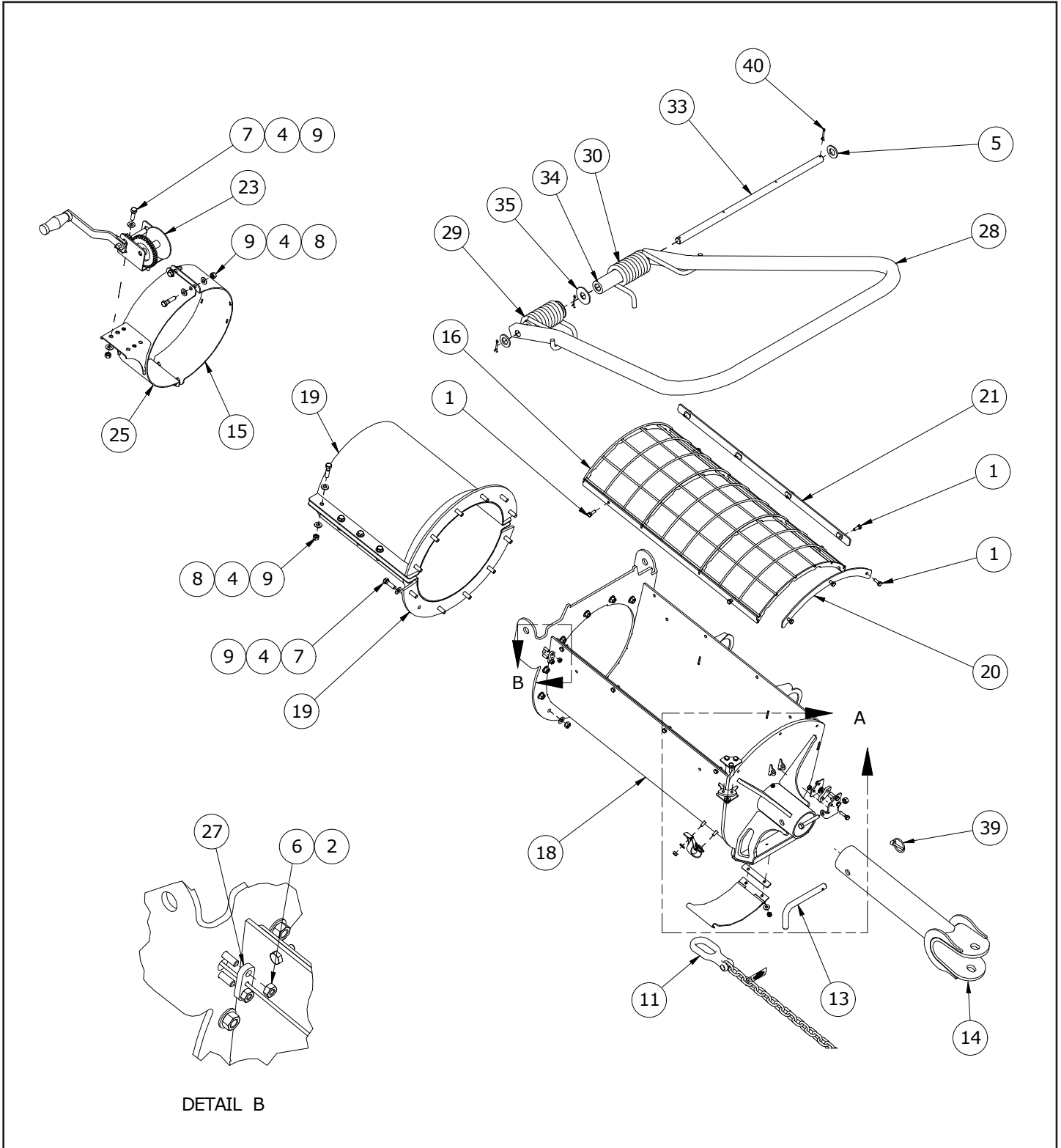


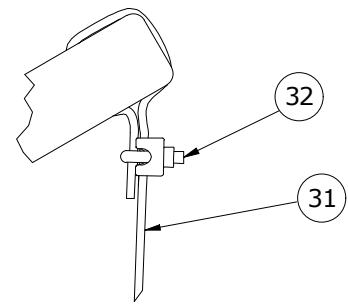
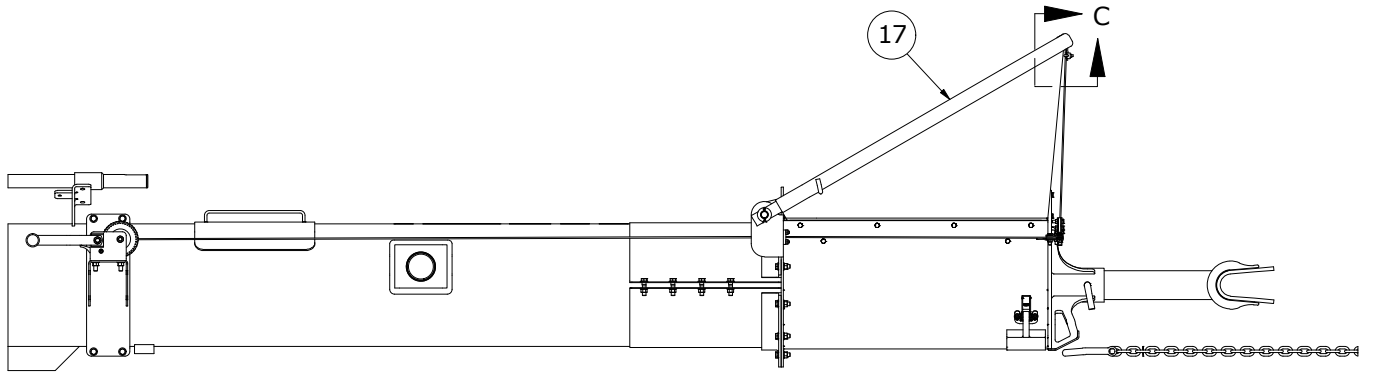
Monthly, or every 100 hours of use, apply grease to the intake auger bearing (Item 1) [Figure 18].

## PARTS IDENTIFICATION

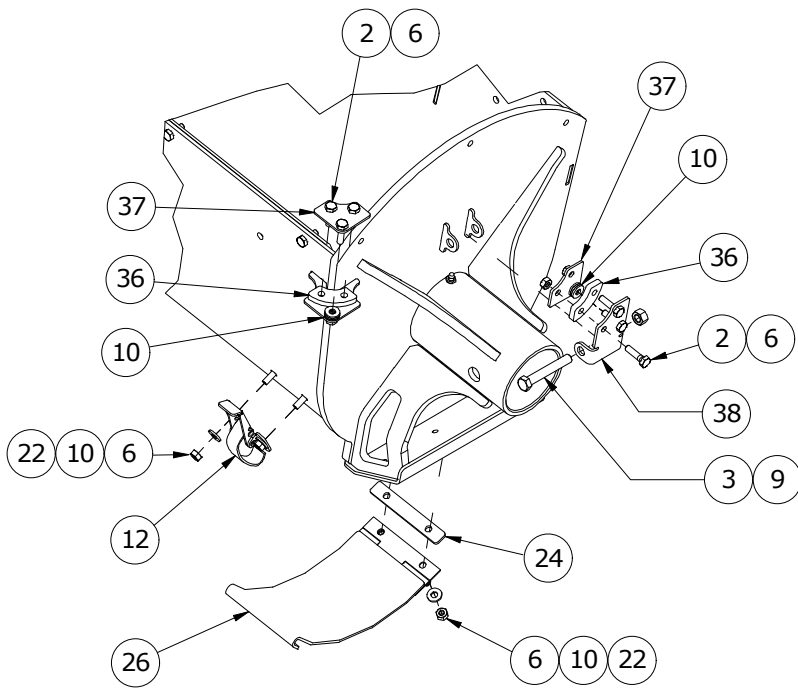
The parts identification section list descriptions, part numbers and quantities for all North America Base Model C13 Auger kits. Contact your Farm King dealer for additional parts information.

### C13 Collapsible Hopper Components





DETAIL C



DETAIL A

**Parts Identification Cont.**

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	81525	1/4" X 3/4" HEX BOLT (PL)	15
2	81527	1/4" X 1" HEX BOLT (PL)	8
3	81581	HEX BOLT 0.375 X 2.50	1
4	84039	WASHER - 3/8" SAE FLAT (PL)	54
5	84050	3/4" S.A.E. FLAT WASHER (PL)	2
6	84498	1/4" LOCK NUT (PL)	12
7	86171	3/8" X 1 1/4" HEX BOLT (PL)	15
8	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	12
9	812363	3/8" LOCK NUT (PL)	28
10	812624	1/4" FLAT WASHER PL	10
11	910287	HOOK & SAFETY CHAIN ASSEMBLY	1
12	931901	LATCH-SLOTTED	1
13	935224	CLEVIS PIN 0.625" DIA	1
14	935946	WELDT-13" CONVERSION HOPPER HITCH	1
15	937330	BRKT-13" HALF CLAMP	1
16	937738	WELDT-MESH GUARD	1
17	937769	HOPPERTARP WALL	1
18	937955	WELDT-HOPPER BODY	1
19	937957	WELD-CLAMP BOTTOM	2
20	937987	WELDT-CANVAS CLAMP	1
21	937988	WELDT-CANVAS CLAMP	2
22	937989	CARRIAGE BOLT- 1/4-20 UNC - 0.75 (PL)	4
23	938280	MANUAL WINCH	1
24	938367L	PLATE-HINGE SPACER	1
25	938403	WELDT-WINCH MOUNT	1
26	938408	WELDT-CLEAN OUT COVER	1
27	938559	CABLE GUIDE 180 DEG	1
28	938724	BRKT-TARP HOOP	1
29	938728	TORSION SPRING LH	1
30	938742	TORSION SPRING RH	1
31	938754	STEEL WIRE ROPE: 1/8" GALVANIZED	1
32	938759	1/8" WIRE ROPE CLAMP	1
33	939424	PIN-COLLAPSIBLE HOPPER	1
34	939428	TUBE-SPRING SLEEVE	2
35	939429L	PLATE-WASHER	2
36	939431	CABLE GUIDE	2
37	939441L	PLATE-CABLE GUIDE	2
38	939458	BRKT-CABLE GUIDE PIVOT	1
39	966729	3/16" LINCH PIN (PL)	1
40	967436	1/8" X 1 1/4" COTTER PIN (PL)	4

## SPECIFICATIONS

ITEM	C13 COLLAPSIBLE HOPPER
HOPPER WIDTH	3 FEET APPROX.



## HARDWARE TORQUE VALUES

### Metric Chart

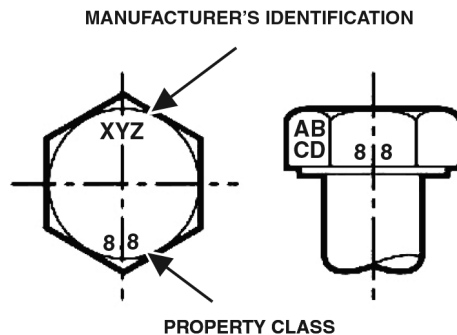
**NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.**

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. **Torque values are listed in newton-meters (inch\* or foot pounds) for normal assembly applications.**

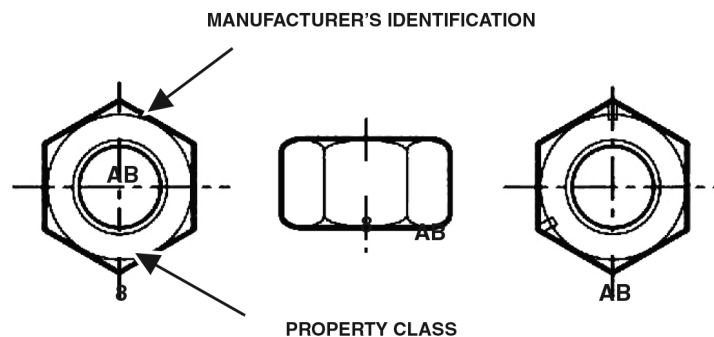
Nominal Size	Class 5.8		Class 8.8		Class 10.9		Lock nuts
	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	CL.8 w/ CL. 8.8 Bolt
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)
M8	14 (124*)	18 (159*)	22 (195*)	28 (248*)	31 (274*)	40 (354*)	15 (133*)
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	30 (22)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	53 (39)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	131 (97)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	265 (195)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	458 (338)

**NOTE: Torque values shown with \* are inch pounds.**

### Identification of Hex Cap Screws and Carriage Bolts - Classes 5 and up



### Identification of Hex Nuts and Lock Nuts - Classes 5 and up



**Imperial Chart**

**NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.**

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. **Torque values are listed in newton-meters (inch\* or foot pounds) for normal assembly applications.**

Nominal Size	SAE Grade 5		SAE Grade 8		LOCK NUTS			
	Unplated or Plated Silver	Plated W / ZnCr Gold	Unplated or Plated Silver	Plated W / ZnCr Gold	Unplated or Plated Silver	Plated W / ZnCr Gold	Grade W / Gr. 5 Bolt	Grade W / Gr. 8 Bolt
1/4	6.2 (55*)	8.1 (72*)	9.7 (86*)	12.6 (112*)	13.6 (121*)	17.7 (157*)	6.9 (61*)	9.8 (86*)
5/16	13 (115*)	17 (149*)	20 (178*)	26 (229*)	28 (250*)	37 (324*)	14 (125*)	20 (176*)
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	26 (19)	35 (26)
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	41 (30)	57 (42)
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	61 (45)	88 (64)
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	88 (65)	125 (92)
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	122 (90)	172 (127)
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	217 (160)	306 (226)
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	350 (258)	494 (364)
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	523 (386)	739 (545)

**NOTE: Torque values shown with \* are inch pounds.**

**Identification of Hex Cap Screws and Carriage Bolts**



SAE GRADE 2 BOLTS



SAE GRADE 5 BOLTS



SAE GRADE 8 BOLTS



SAE GRADE 2 NUTS

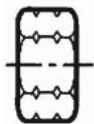


SAE GRADE 2 NUTS



SAE GRADE 2 NUTS

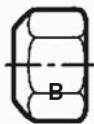
**Identification of Hex Nuts and Lock Nuts**



Grade A - No Notches

Grade B - One Circumferential Notch

Grade C - One Circumferential Notches



Grade A - No Mark

Grade B - Letter B

Grade C - Letter C



Grade A - No Marks

Grade B - Three Marks

Grade C - Six Marks

(Marks not always located at corners)

## **FARM KING BASE LIMITED WARRANTY**

Farm King provides this warranty only to original retail purchasers of its products. Farm King warrants to such purchasers that all Farm King manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of two (2) years. This limited warranty applies only to those parts and components manufactured by Farm King. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Farm King will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Farm King. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance.

### **Repair Parts Limited Warranty**

Farm King warrants genuine Farm King replacement parts purchased after the expiration of the Farm King Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to the Farm King factory at the purchaser's expense.

### **What Is Not Covered**

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Farm King; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Farm King.

### **Authorized Dealer And Labor Costs**

Repairs eligible for labor under this limited warranty must be made by Farm King or an authorized Farm King dealer. Farm King retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Farm King determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Farm King will not approve or pay invoices sent for repairs that Farm King has not previously approved. Warranty service does not extend the original term of this limited warranty. Payment of labor costs will only be considered on repairs made to manufactured parts and components that have been found defective during a period of one (1) year following delivery to the original retail purchaser.

## **Warranty Requirements**

To be covered by warranty, each new product must be registered with Farm King within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Farm King will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

### **EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY**

TO THE EXTENT PERMITTED BY LAW, FARM KING DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

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# Farm King

301 Mountain Street South  
Morden, MB R6M 1X7  
E-mail: [info@buhler.com](mailto:info@buhler.com)  
[www.farm-king.com](http://www.farm-king.com)

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