



Installation Manual

Ultra High Capacity Level Dry



SHIVVERS MANUFACTURING, INC

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**IT IS ESSENTIAL THAT YOU READ AND FULLY UNDERSTAND THE ELECTRICAL MANUAL
AND THIS MANUAL PRIOR TO INSTALLATION OR OPERATING THIS EQUIPMENT.**

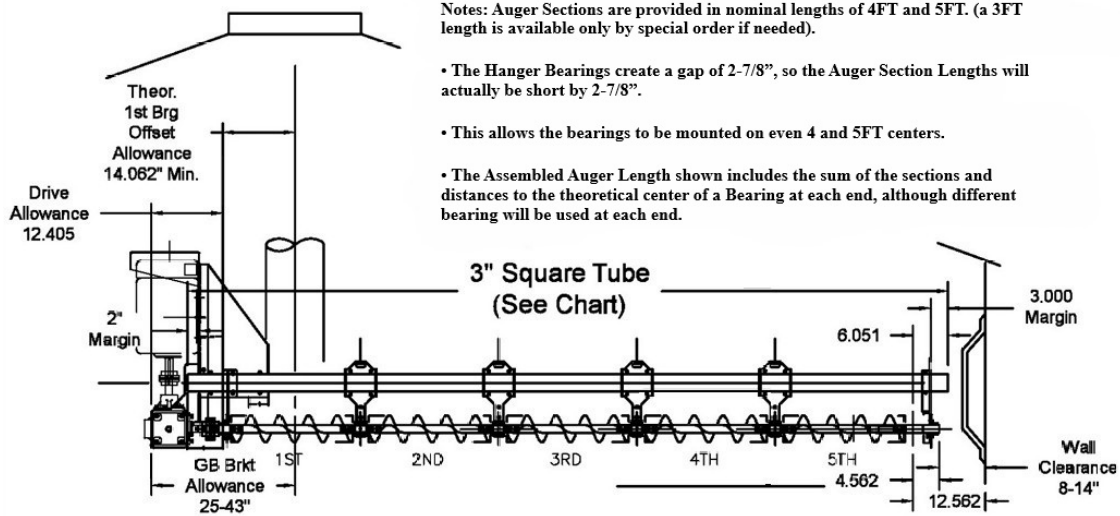
Model Numbers and Descriptions

Model Number	Center Vertical Diameter	Bin Diameter	Power	Description
LDUHC8241P	8"	24'	1P	LEVEL DRY, UHC, 8 INCH CV, 1P, 24 FT, HMI
LDUHC8243P	8"	24'	3P	LEVEL DRY, UHC, 8 INCH CV, 3P, 24 FT, HMI
LDUHC8271P	8"	27'	1P	LEVEL DRY, UHC, 8 INCH CV, 1P, 27 FT, HMI
LDUHC8273P	8"	27'	3P	LEVEL DRY, UHC, 8 INCH CV, 3P, 27 FT, HMI
LDUHC8301P	8"	30'	1P	LEVEL DRY, UHC, 8 INCH CV, 1P, 30 FT, HMI
LDUHC8303A	8"	30'	3P	LEVEL DRY, UHC, 8 INCH CV, 3P, 30 FT, HMI
LDUHC8331P	8"	33'	1P	LEVEL DRY, UHC, 8 INCH CV, 1P, 33 FT, HMI
LDUHC8333P	8"	33'	3P	LEVEL DRY, UHC, 8 INCH CV, 3P, 33 FT, HMI
LDUHC8361P	8"	36'	1P	LEVEL DRY, UHC, 8 INCH CV, 1P, 36 FT, HMI
LDUHC8363P	8"	36'	3P	LEVEL DRY, UHC, 8 INCH CV, 3P, 36 FT, HMI
LDUHC8421P	8"	42'	1P	LEVEL DRY, UHC, 8 INCH CV, 1P, 42 FT, HMI
LDUHC8423P	8"	42'	3P	LEVEL DRY, UHC, 8 INCH CV, 3P, 42 FT, HMI
LDUHC8481P	8"	48'	1P	LEVEL DRY, UHC, 8 INCH CV, 1P, 48 FT, HMI
LDUHC8483P	8"	48'	3P	LEVEL DRY, UHC, 8 INCH CV, 3P, 48 FT, HMI

Note: The column labeled **Power** refers to electrical supply type: 1P = Single-phase, 3P = Three-phase.
Each Ultra High Capacity Level Dry has a touch screen for controls (HMI).

Model Number	Center Vertical Diameter	Bin Diameter	Power	Description
LDUHC10241P	10"	24'	1P	LEVEL DRY, UHC, 10 INCH CV, 1P, 24 FT, HMI
LDUHC10243P	10"	24'	3P	LEVEL DRY, UHC, 10 INCH CV, 3P, 24 FT, HMI
LDUHC10271P	10"	27'	1P	LEVEL DRY, UHC, 10 INCH CV, 1P, 27 FT, HMI
LDUHC10273P	10"	27'	3P	LEVEL DRY, UHC, 10 INCH CV, 3P, 27 FT, HMI
LDUHC10301P	10"	30'	1P	LEVEL DRY, UHC, 10 INCH CV, 1P, 30 FT, HMI
LDUHC10303A	10"	30'	3P	LEVEL DRY, UHC, 10 INCH CV, 3P, 30 FT, HMI
LDUHC10331P	10"	33'	1P	LEVEL DRY, UHC, 10 INCH CV, 1P, 33 FT, HMI
LDUHC10333P	10"	33'	3P	LEVEL DRY, UHC, 10 INCH CV, 3P, 33 FT, HMI
LDUHC10361P	10"	36'	1P	LEVEL DRY, UHC, 10 INCH CV, 1P, 36 FT, HMI
LDUHC10363P	10"	36'	3P	LEVEL DRY, UHC, 10 INCH CV, 3P, 36 FT, HMI
LDUHC10421P	10"	42'	1P	LEVEL DRY, UHC, 10 INCH CV, 1P, 42 FT, HMI
LDUHC10423P	10"	42'	3P	LEVEL DRY, UHC, 10 INCH CV, 3P, 42 FT, HMI
LDUHC10481P	10"	48'	1P	LEVEL DRY, UHC, 10 INCH CV, 1P, 48 FT, HMI
LDUHC10483P	10"	48'	3P	LEVEL DRY, UHC, 10 INCH CV, 3P, 48 FT, HMI

Level Dry System to Bin Matchup Chart



Level Dry Auger Length Chart

☐ Flange Bearing ☐ Hanger bearing			1st Section (ft)	2nd Section(ft)	3rd Section (ft)	4th Section (ft)	5th Section (ft)	Auger Length (Nom.)	Wall clearance	Gearbox bracket allowance (in.)	3" Sq. Tube			
Bin Size														
LDUHC8241P, LDUHC8243P														
Bin Size ft / in.	Dia. (in.)	Radius (in.)						ft	in.		25-43 in.		ft	in.
22 00	264	132	☐ 4	☐ 4	☐ 4	☐ 4		12	144	8	37	631AC-001A	13	156
22 06	270	135	☐ 4	☐ 4	☐ 4	☐ 4		12	144	8	31	631AC-001A	13	156
22 09	273	136.5	☐ 4	☐ 4	☐ 4	☐ 4		12	144	8	25	631AC-001A	13	156
23 00	276	138	☐ 4	☐ 4	☐ 4	☐ 4		12	144	8	29.41	631AC-001A	13	156
23 06	282	141	☐ 4	☐ 4	☐ 4	☐ 4		12	144	8	28	631AC-001A	13	156
24 00	288	144	☐ 4	☐ 4	☐ 4	☐ 4		12	144	8	25	631AC-001A	13	156
24 00	288	144	☐ 4	☐ 4	☐ 4	☐ 4		12	144	10	27	631AC-001A	13	156
24 09	297	148.5	☐ 4	☐ 4	☐ 4	☐ 4		12	144	14	26	631AD-001A	13	156
25 00	300	150	☐ 4	☐ 4	☐ 4	☐ 4		12	144	8	25	631AD-001A	13	156
LDUHC8271P, LDUHC8273P														
26 03	315	157.5	☐ 5	☐ 5	☐ 5	☐ 4		14	168	8	32	631AD-001A	15	180
26 05	317	158.5	☐ 5	☐ 5	☐ 5	☐ 4		14	168	8	34	631AD-001A	15	180
26 09	321	160.5	☐ 5	☐ 5	☐ 5	☐ 4		14	168	8	32	631AD-001A	15	180
26 10	322	161	☐ 5	☐ 5	☐ 5	☐ 4		14	168	8	32	631AD-001A	15	180
27 00	324	162	☐ 5	☐ 5	☐ 5	☐ 4		14	168	8	31	631AD-001A	15	180
27 10	334	167	☐ 5	☐ 5	☐ 5	☐ 4		14	168	8	26	631AD-001A	15	180
28 00	336	168	☐ 5	☐ 5	☐ 5	☐ 4		14	168	10	27	631AD-001A	15	180
28 03	339	169.5	☐ 5	☐ 5	☐ 5	☐ 4		14	168	12	27	631AD-001A	15	180

Level Dry Auger Length Chart (Cont'd.)

☐ Flange Bearing ☐ Hanger Bearing			1st Section (ft)	2nd Section(ft)	3rd Section (ft)	4th Section (ft)	5th Section (ft)	Auger Length (Nom.)	Wall clearance	Gearbox bracket allowance (in.)	3" Sq. Tube			
Bin Size														
LDUHC8301P, LDUHC8303A														
Bin Size ft / in.	Dia. (in.)	Radius (in.)						ft	in.		25-43 in.		ft	in.
29 00	348	174	☐ 5	☐ 5	☐ 5	☐ 5		15	180	8	31	631AE-001A	16	192
29 04	352	176	☐ 5	☐ 5	☐ 5	☐ 5		15	180	8	29	631AE-001A	16	192
29 06	354	177	☐ 5	☐ 5	☐ 5	☐ 5		15	180	8	24	631AE-001A	16	192
30 00	360	180	☐ 5	☐ 5	☐ 5	☐ 5		15	180	8	25	631AE-001A	16	192
30 06	366	183	☐ 5	☐ 5	☐ 5	☐ 5		15	180	12	26	631AE-001A	16	192
31 00	372	186	☐ 5	☐ 5	☐ 5	☐ 5		15	180	14	25	631AE-001A	16	192
LDUHC8331P, LDUHC8333P														
33 00	396	198	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	17	204	8	31	631AF-001A	18	216
33 05	401	200.5	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	17	204	8	28	631AF-001A	18	216
34 00	408	204	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	17	204	10	27	631AF-001A	18	216
34 03	411	205.5	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	17	204	12	27	631AF-001A	18	216
LDUHC8361P, LDUHC8363P														
35 10	430	215	☐ 5	☐ 5	☐ 4	☐ 4	☐ 4	18	216	10	28	631AG-001A	19	228
36 00	432	216	☐ 5	☐ 5	☐ 4	☐ 4	☐ 4	18	216	8	25	631AG-001A	19	228
36 01	433	216.5	☐ 5	☐ 5	☐ 4	☐ 4	☐ 4	18	216	10	24	631AG-001A	19	228
36 04	436	218	☐ 5	☐ 5	☐ 4	☐ 4	☐ 4	18	216	10	25	631AG-001A	19	228
37 01	445	222.5	☐ 5	☐ 5	☐ 4	☐ 4	☐ 4	18	216	15	25	631AG-001A	19	228
LDUHC8421P, LDUHC8423P														
40 07	487	243.5	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	21	252	8	33	631AI-001A	22	264
41 07	499	249.5	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	21	252	8	27	631AI-001A	22	264
42 00	504	252	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	21	252	8	25	631AI-001A	22	264
42 08	512	256	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	21	252	10	23	631AI-001A	22	264
43 03	519	259.5	☐ 5	☐ 4	☐ 4	☐ 4	☐ 4	21	252	16	25	631AI-001A	22	264
LDUHC8481P, LDUHC8483P														
48 00	576	288	☐ 5	☐ 5	☐ 5	☐ 5	☐ 4	24	288	8	25	631AJ-001A	25	300
49 03	591	295.5	☐ 5	☐ 5	☐ 5	☐ 5	☐ 4	24	288	16	25	631AJ-001A	25	300
49 05	593	296.5	☐ 5	☐ 5	☐ 5	☐ 5	☐ 4	24	288	17	25	631AJ-001A	25	300

NOTE: For certain bin sizes, the wall clearance and gearbox bracket allowance may fall below or exceed the nominal ranges shown in the drawing. Use the values listed in the chart for the applicable bin size.



Contents

GENERAL	v
Shivvers Manufacturing, Inc.	v
Use of the Manual	v
Shipment Inspection	v
Warranty	v
SAFETY	vi
ILLUSTRATED PARTS LIST	viii
INSTALLATION INSTRUCTIONS	1
Center Vertical Boot Mount	2
Center Tube Assembly Mount	3
Level Dry Winch Installation	9
Octo-Hopper Assembly	17
Leveling Arm Installation	25
<i>Motor and Gearbox</i> Installation	27
Auger Section Installation	34
Counterweight Arm Installation	41
Auger End Shield Mount	43
Support Chain Installation	46
Hanger Bearing Baffle Attachment	51
Level Dry Rake Installation	52
Grain Proximity Sensor Assembly and Installation	55
Rotary Switch and Cable Wire Installation	58
Final Installation Check	61
MAINTENANCE	62
Gearbox	62
Carrier and Outside Bearing	62
Leveler Motor	62
Cable and Pulley System	62
Brake/Rake Assembly	62
Safety Decals and Locks	62
TROUBLESHOOTING	63
Level Dry system does not power on	63
Leveler Motor does not operate	63
Winch does not operate	63
Leveling Auger does not rotate around the bin	63

GENERAL

SHIVVERS MANUFACTURING, INC.

Founded in 1968 by brothers Charles and Gerald Shivvers, Shivvers Manufacturing Inc. has been a pioneer in grain drying technology. Starting with the invention of the tapered sweep auger, Shivvers revolutionized the efficiency of grain drying.

Still family-owned, the company continues to prioritize innovation and quality, offering advanced, farmer-focused solutions. From its humble beginnings as a small family business, Shivvers has grown into an industry leader, producing American-made products, driven by the same commitment to excellence and hard work that inspired its founders. Today, Shivvers remains dedicated to meeting the evolving needs of modern agriculture.

USE OF THE MANUAL

All Shivvers products are designed to be safe and reliable when installed, operated, and serviced according to the instructions provided.

The intended use of the Ultra High Capacity Level Dry is to spread grain inside a grain bin that is equipped with a SHIVVERS Circu-Lator or Dri-Flo In-Bin Drying system. Use of this product outside its intended purpose is not recommended. Companion electrical manual: P-13767, Ultra High Capacity Level Dry with HMI Controls Electrical Installation Manual — for wiring, setup, calibration and operation.

This manual contains the most current information available at the time of publication. We reserve the right to make changes at any time. The assembly steps are accompanied by figures for easy reference.

SHIPMENT INSPECTION

Each shipment is inspected before leaving the factory. All parts and components are recorded on the packing slip. The quantity of each item is listed for easy verification. Some parts are packaged pre-assembled for easy installation.

When checking the shipment, compare each item's description, part number, quantity, and specifications with the packing slip.

Notify Shivvers Manufacturing or your authorized Shivvers dealer within 48 hours of delivery if any parts are missing or damaged.

The hardware is as important as the major parts. Make sure all parts are accounted for before discarding any packaging. We cannot be held responsible for the loss of items included in the shipping list.

WARRANTY

Two-Season Prorated Warranty: SHIVVERS' Ultra-High Capacity Level Dry is guaranteed for the first season of harvest operation, regardless of purchase date, when installed and operated according to the instructions. Under this Warranty, SHIVVERS will repair or replace such parts as are returned to us and found defective. During the second season of harvest operation, SHIVVERS will repair or replace at 50% of retail price, such parts that are returned to us and found defective.

Attention: Circu-Lator will set up flow patterns of grain which exert extra stress on the walls and floor of your bin. Additional floor supports are required for your drying floor. Bin side-wall stiffeners are required. You should consult the bin floor manufacturer for recommendations before using Circu-Lator. Shivvers will not be responsible for structural failure of your drying floor or bin, or for any loss, damage or injury relating to use of Circu-Lator.

V-Belts are not covered by this Warranty. Electric Motors (including Spreader Motors) are under Warranty of the motor manufacturers and are not covered by the SHIVVERS Warranty.

SHIVVERS makes no Warranty of any kind, expressed or implied, except as stated herein and buyer assumes all risk and liability resulting from the use of products manufactured by SHIVVERS, whether used singly or in combination with other products.

For purposes of this Warranty, "Season of Harvest" is defined as the period of time between June 1st and December 31st of a calendar year.

SAFETY

The health and safety of our customers are important to us. It is therefore important to read this section and pay particular attention to the recommendations and stickers on the equipment. Replace them if they are damaged.

Only qualified personnel should enter the work area during installation, operation, service, or maintenance. This equipment must be installed in accordance with the instructions in this manual and the regulations applicable to your area of operation. The appropriate authorities must be consulted **BEFORE** installation begins.

Pay Attention to Safety Decals



- Moving parts are a potential hazard. Keep hands, feet, clothing, and other body parts away from moving components whenever the equipment is connected to a power source.
- Never wear loose, torn or bulky clothing near the equipment.
- Due to the flammable nature of some products, it is recommended to have a fire extinguisher near the equipment. A clean environment is less likely to lead to fire hazards.
- If it is necessary to lift the equipment, **BEFORE** doing so, proper supports must be installed. A hydraulic device is not considered to be a compliant support since it may sink slowly, give way suddenly or be lowered accidentally.
- Electrical equipment must be installed by a qualified electrician. The standards established by your industry must be followed. Shut off and lock out electrical power sources before installing, servicing or repairing electrical equipment.

- **DO NOT** modify or alter the equipment other than as described in this manual. Any modifications can lead to extremely dangerous situations, premature deterioration of your equipment, serious injury and even death. Any tampering will automatically void the warranty.



- Be alert to any of these symbols. They alert you to a potential hazard. Failure to observe any of these symbols could result in **SERIOUS INJURY** or **DEATH**
- **BEFORE** undertaking any operation on the equipment, it is imperative to turn the main switch to the OFF position and lock it. Make sure all moving parts are completely stopped.

- Wear the necessary protective equipment such as earmuffs or plugs, hard hat, eye protection and safety shoes. If you are working at heights, be sure to follow the standards for such work.
- If the equipment begins to vibrate abnormally, turn off the power immediately and check the cause. Excessive vibration usually means there is a problem.
- Always keep the machinery area clean and dry. Keep all pieces of equipment in good operating condition. Keep safety guards in place. Periodically check components for wear and tear and tighten hardware. All broken or damaged parts must be replaced with original parts.
- It is the responsibility of the owner of the equipment to **ALWAYS** keep this manual accessible to all persons involved in the installation, operation and/or maintenance of this equipment.
- During maintenance, always lower the Level Dry to its lowest point, turn off the power and lock out the power source.
- Keep safety decals clean and free from foreign matter. If decals are illegible, contact your local dealer for replacements.



- The safety alert symbol will be accompanied by one of three signal words whose definitions are given as:

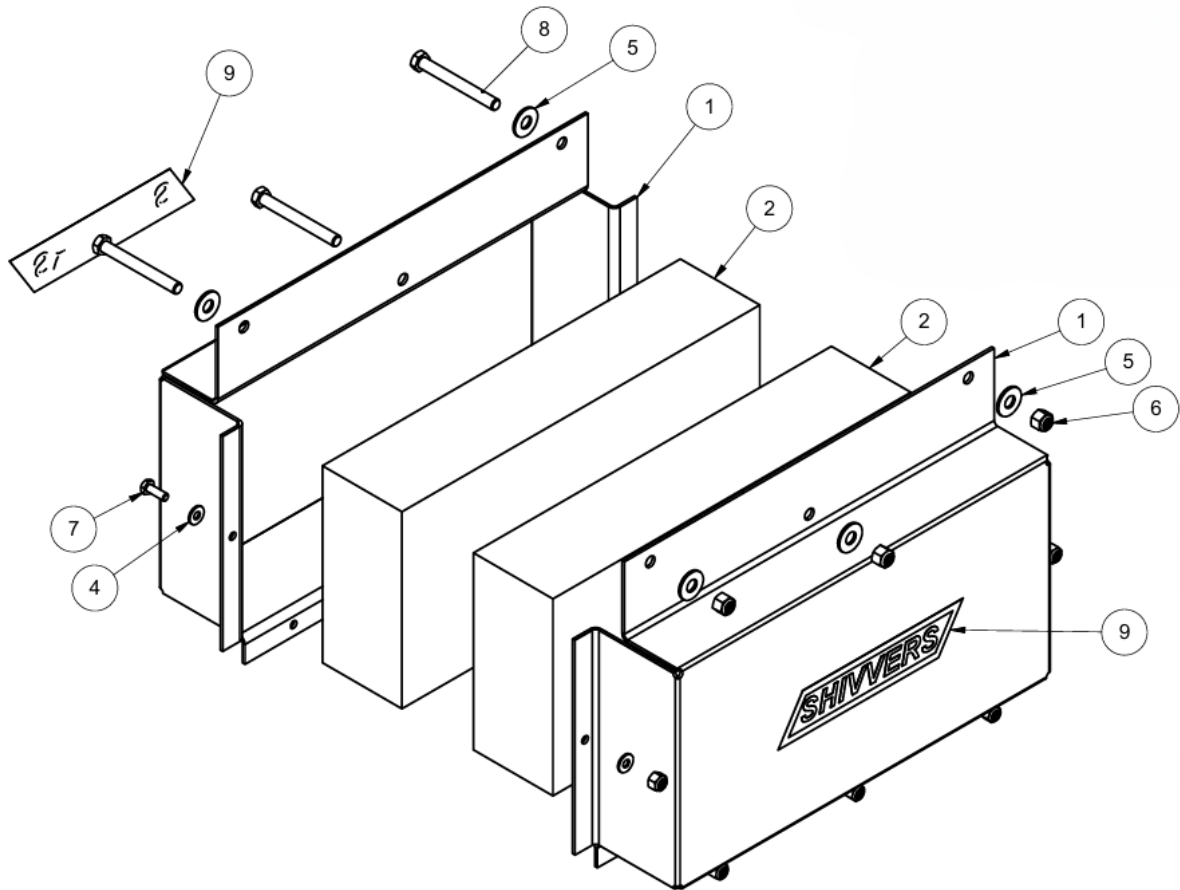
DANGER: Red and white. Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING: Orange and black. Indicates a potentially hazardous situation that, 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: Yellow and black. Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

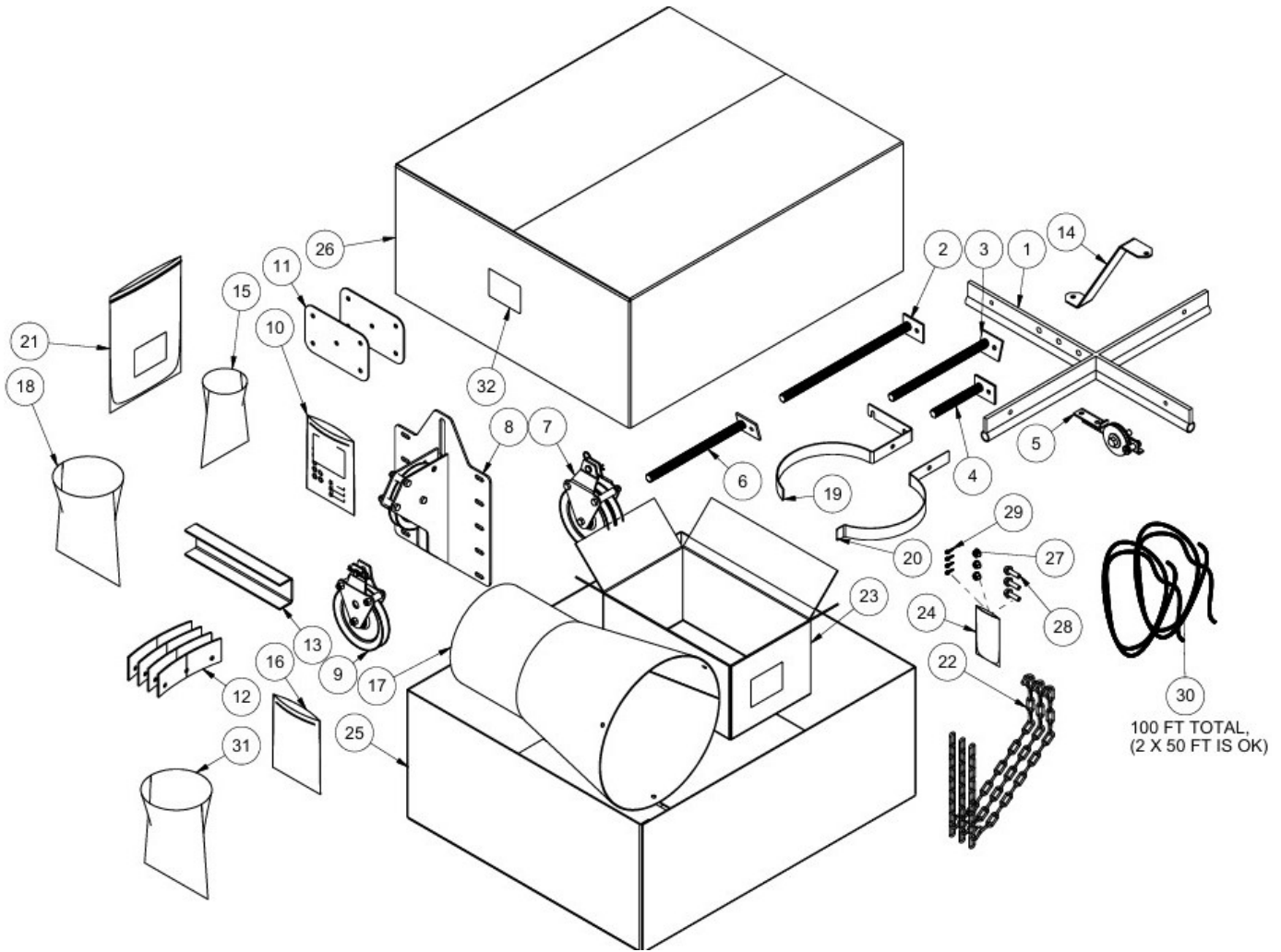
ILLUSTRATED PARTS LIST

BOX NO. 634C-001A - COUNTERWEIGHT BOX



ITEM	PART NO.	DESCRIPTION	QTY
1	632-048P	COUNTERWEIGHT BRACKET	2
2	H-2039	CEMENT BLOCK, 4 X 8 X 16	2
3	F-1005-01	NUT, 1/4-20 w/NYLOC, YZ	5
4	F-1009-01	FLAT WASHER, 1/4", YZ	10
5	F-1009-03	WASHER, FLAT, 3/8, YZ	6
6	F-1239	LOCKNUT, 3/8-16, NYLOC, YZ	3
7	F-1538	HHCS, 1/4-20 X 3/4"	5
8	F-1616	CAPSCREW, 3/8-16 X 3-1/4 GR. 5	3
9	P-7080	DECAL, SHIVERS, SMALL	2

BOX NO. 634U-001A - GRAIN/WINCH SYSTEM



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	632-015W	CROSS WLDT	1
2	632-017W	LONG ROD WLDT	1
3	632-018W	MIDDLE ROD WLDT, LH	1
4	632-021W	SHORT ROD WLDT	1
5	632-027A	PULLEY ASSEMBLY	1
6	632-043W	MIDDLE ROD WLDT, RH	1
7	632-110A	LDRY: BIN ROOF PULLEY ASSEMBLY	1
8	632-112A	LDRY: LIFT PLY ASSEMBLY, 6-1/4"	1
9	632-113A	LEVELER PULLEY ASSEMBLY	1
10	632-116A	HARDWARE SACK COUNTERWEIGHT	1



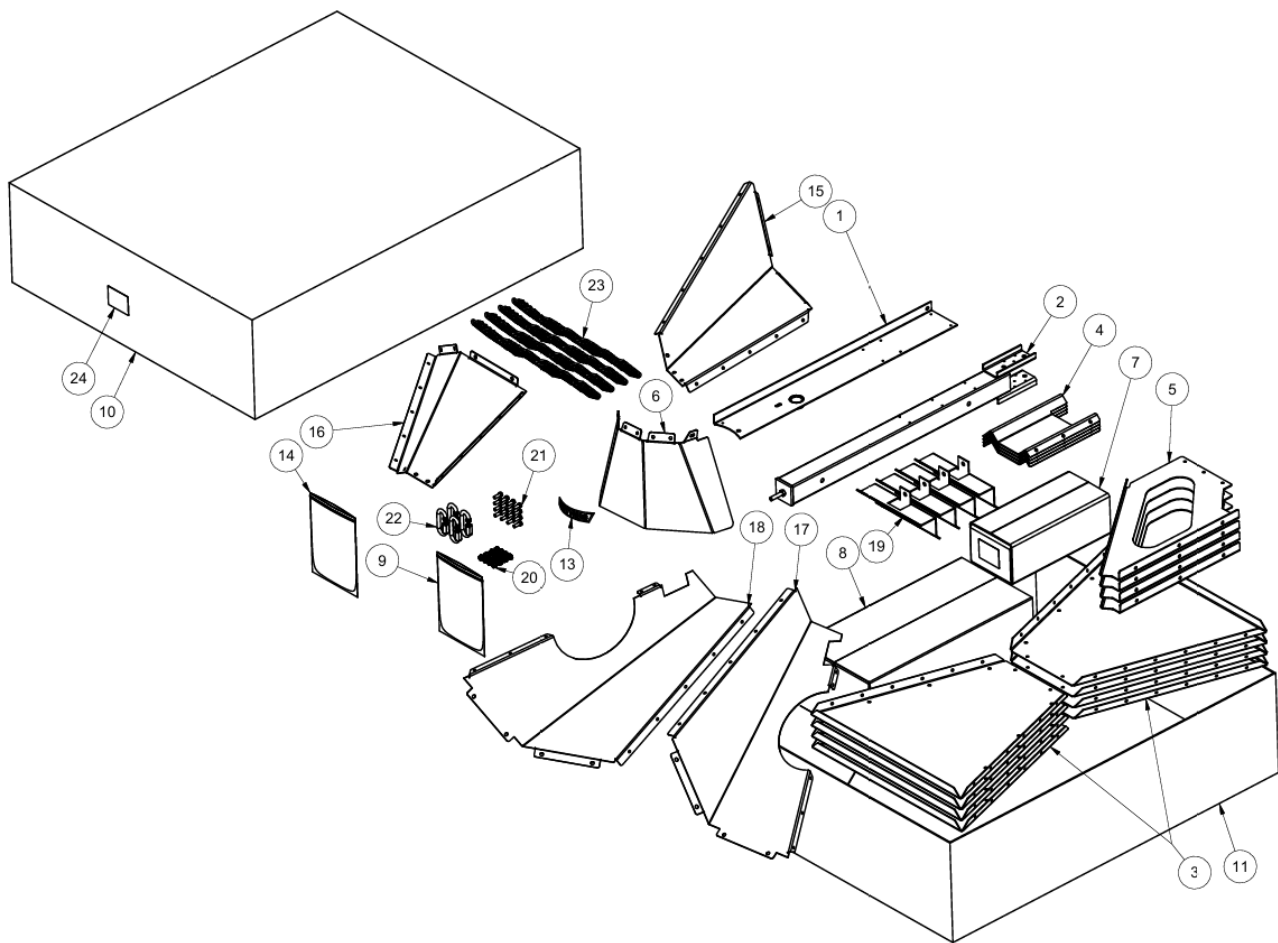
BOX NO. 634U-001A - GRAIN/WINCH SYSTEM

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
11	632-148P	ROOF MOUNTING PAD	2
12	632-151P	ROOF RING SUPPORT	4
13	632-152P	STIFFENER CONNECTOR, OUTSIDE	1
14	632-205P	BOOM ARM SUPPORT	1
15	632-224A	LDRY: CROSS TUBE HARDWARE SACK	1
16	632-253A	LDRY: HDWE SACK (FOR WSCV FINS)	1
17	632-333W	10" GRAIN INPUT CONE WLDT	1
18	632-342A	HARDWARE SACK GRAIN INPUT	1
19	632-354P	FLEX TUBE BRACE A	1
20	632-355P	FLEX TUBE BRACE B	1
21	632-357A	HARDWARE SACK, WINCH SYSTEM, 10" LDRY	1
22	685-038P	CHAIN, 47" LONG	3
23	755-036A	10" LDRY WINCH AND PULLEY	1
24	B-2066	BAG, POLY END SEAL 3 X 5 X 6MIL	1
25	B-2126	BOX, CBDB BODY, 34.5 X 29.5 X 14	1
26	B-2127	BOX, CBDB COVER, 34.5 X 29.5 X 14	1
27	F-1233	FLANGE NUT, 3/8-16 HEX SERRATED	3
28	F-2125	FHCS, 3/8-16 X 1-1/4", YZ, GR5	3
29	F-2199	SCREW, SHEET METAL #8 X 3/4" SELF DRILLER	4
30	H-1382	CABLE, 1/4" GALV AIRCRAFT UNCOATED- NO VINYL COATING	100LF
31	632-254A	LDRY: HDWE SACK, LG BIN PARTS	1
32	CARTON TAG	CARTON TAG	1

MISCELLANEOUS PARTS BOX

634P-001A - 8 INCH

634V-001A - 10 INCH

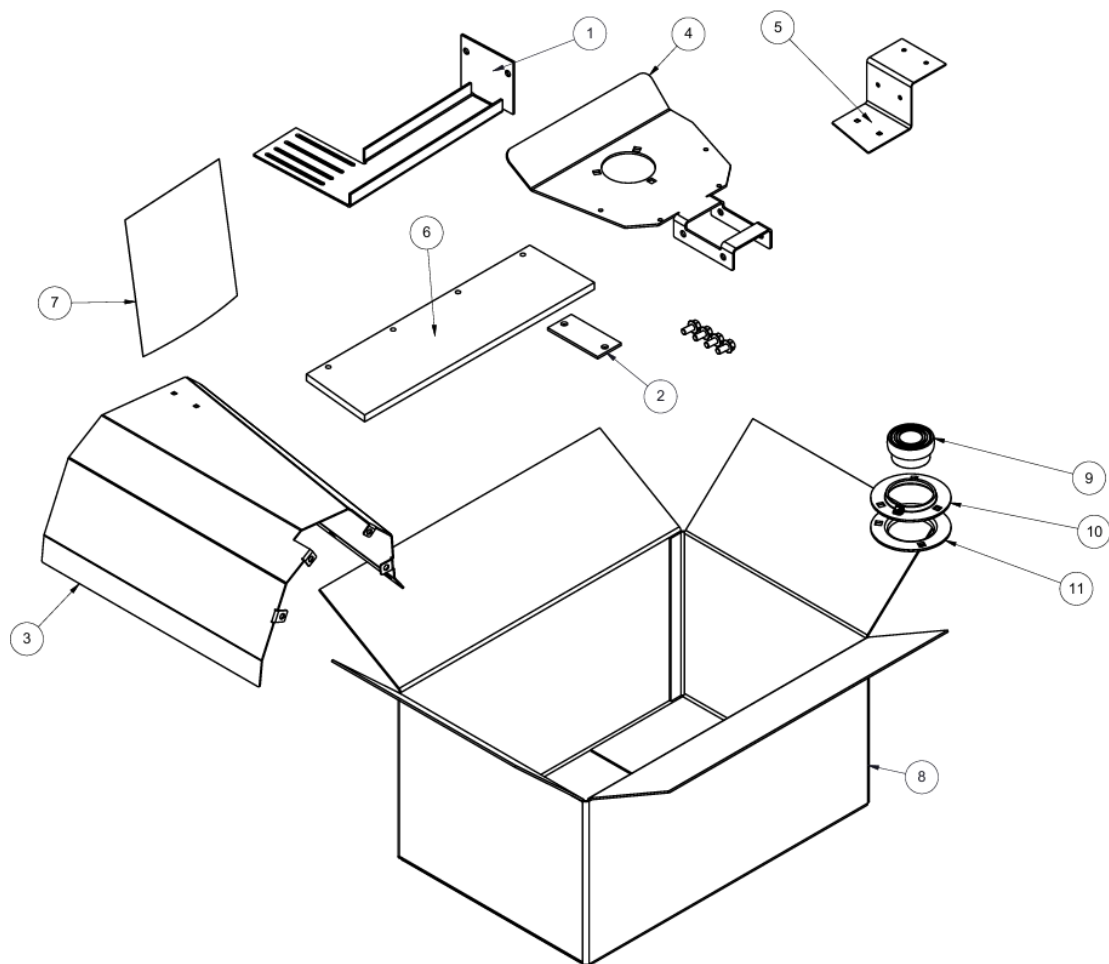


NOTE: Use the 634P-001A parts for 8-inch Center Vertical systems and 634V-001A parts for 10-inch Center Vertical systems.

MISCELLANEOUS PARTS BOX

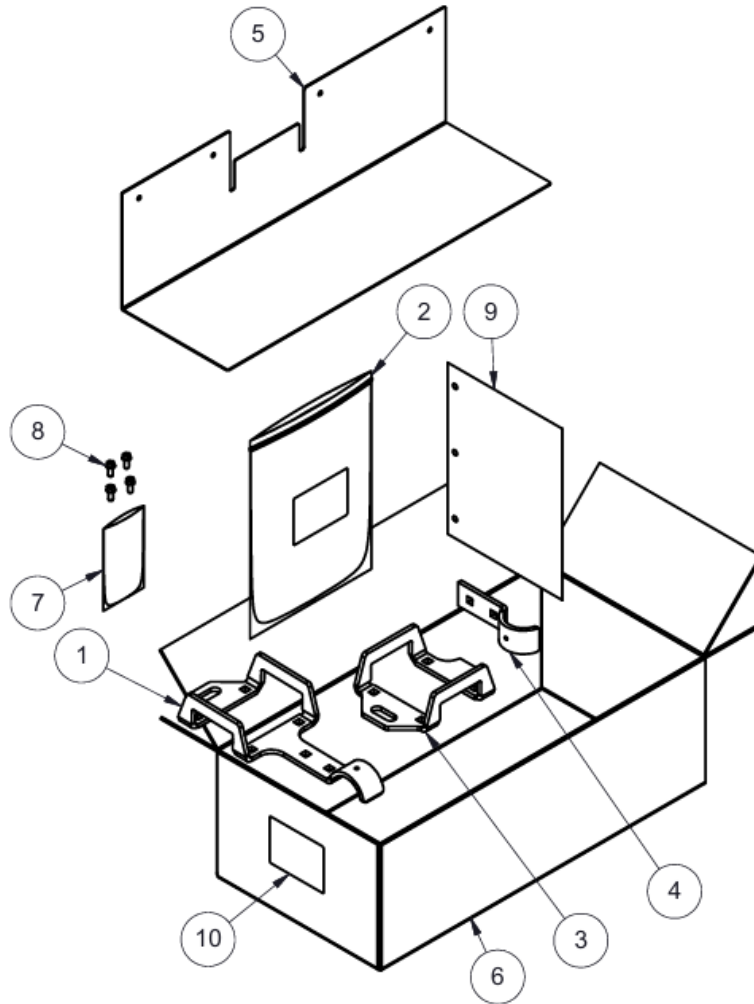
ITEM	PART NO.	DESCRIPTION	QTY
1	632-188W	BOOM ARM WELDMENT	1
2	632-210W	LEVEL DRY MAST WELDMENT	1
3	632-291P	LDRY OCTL HOPPER: HOPPER SECTION, TOP	8
4	632-292P	LDRY OCTOHPR MOUNT - 8IN	4
	755-031P	LDRY OCTOHPR MOUNT - 10IN	
5	632-297P	LDRY OCTOHPR BRACKET - 8IN	4
	755-030P	LDRY OCTOHPR BRACKET - 10IN	
6	632-298P	LDRY OCTO HPPR: CHUTE	1
7	632-317A	LEVEL DRY PARTS BOX #1	1
8	632-318A	LEVEL DRY MISC. PARTS BOX #2 - 8IN	1
	755-035A	LEVEL DRY MISC. PARTS BOX #2 - 10IN	
9	B-2041	BAG, POLY9X12, 4MIL FINGER SEAL CLEAR,	1
10	B-2312	BOX TOP, 60 X 48 X 16, TRIPLE WALL, PREMIER	1
11	B-2313	BOX BOTTOM, 60 X 48 X 16, TRIPLE WALL, PREMIER	1
12	B-2316	CRATE, PREMIER (NOT SHOWN)	1
13	P-7080	DECAL, SHIVERS, SMALL	1
14	755-024A	LDRY SUSPENSION COMPONENTS, BAGGED	1
15	632-293P	OCT HPPR: BTTM SECTION RH FRONT	1
16	632-294P	OCT HPPR: BTTM SECTION LH FRONT	1
17	632-295P	OCT HPPR: BTTM SECTION RH REAR - 8IN	1
	755-021P	OCT HPPR: BTTM SECTION RH REAR - 10IN	
18	632-296P	OCT HPPR: BTTM SECTION LH REAR - 8IN	1
	755-020P	OCT HPPR: BTTM SECTION LH REAR - 10IN	
19	631-014P	COUPLER, 3" SQUARE	4
20	F-1233	FLANGE NUT, 3/8-16 HEX SERRATED	16
21	F-1394	HHCS, 3/8-16NC X 1"G.R.5, YELLOW PLATED	16
22	H-3301	OVAL LOCKING CHAIN LINK, 1/2"	4
23	222-090P	CHAIN, 24' LONG	4
24	CARTON TAG	CARTON TAG	1

BOX NO. 634R-001A - LDRY AUGER END HARDWARE BOX



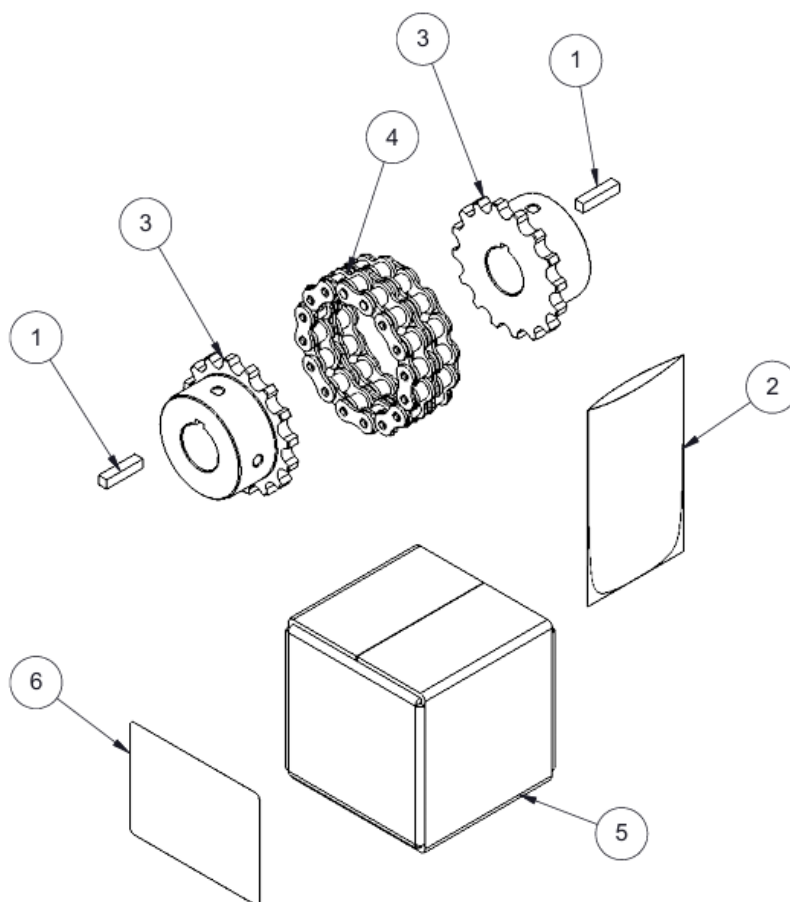
ITEM	PART NO.	DESCRIPTION	QTY
1	631-003P	LEVEL DRY LEVEL SENSOR BRACKET	1
2	632-063P	BAR CLAMP	1
3	632-310P	AUGER END SHIELD	1
4	632-311P	AUGER SHIELD END PLATE	1
5	632-323P	LDRY END SHIELD HANGER	1
6	632-324P	LDRY END SHIELD FLEX SECTION	1
7	632-325A	LDRY AUGER END HARDWARE SACK	1
8	B-2182	BOX, 24 X 16 X 12	1
9	D-3578	BEARING: 1-3/8"ID, TIMKEN GRA106RRB-COL	1
10	D-3579	FLANGE, BRG, WITH ZERK	1
11	D-3580	FLANGE, BRG, NO ZERK	1

BOX NO. 632K-001A - LEVEL DRY WOOD HANGER BEARING KIT



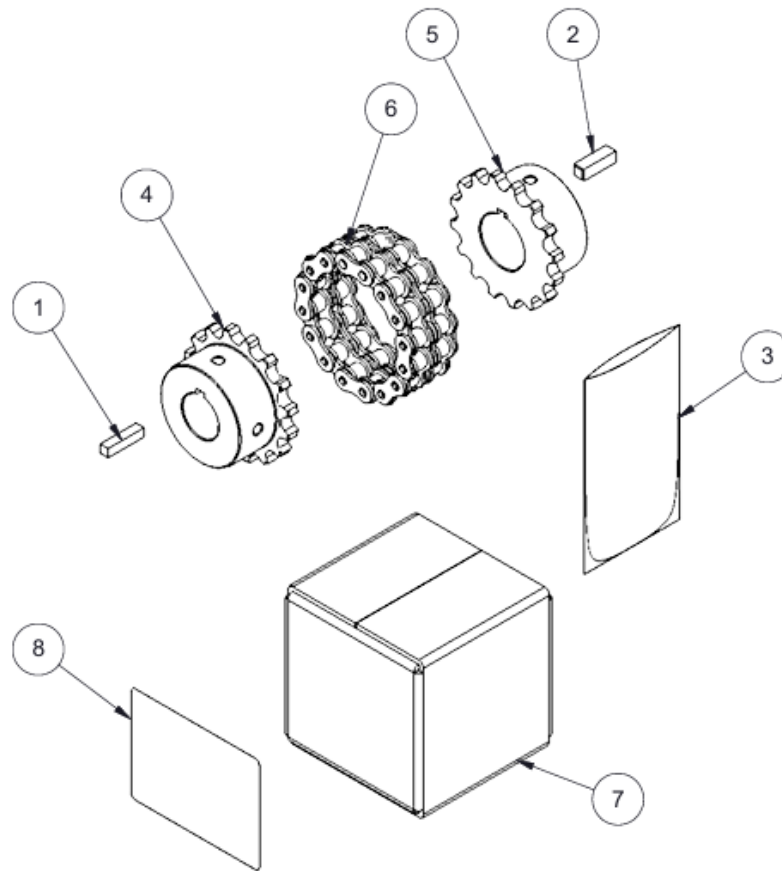
ITEM	PART NO.	DESCRIPTION	QTY
1	632-237P	LDRY: HGR BRG BRKT HALF, (FOR WOOD BRG)	1
2	632-250A	LDRY: WD HGR BRG ASSEMBLY, BOXED W/SHAFT	1
3	632-321P	LDRY: HGR BRG BRKT TOP HALF, (FOR WOOD BRG)	1
4	632-322P	LDRY: HGR BRG BRKT BOTTOM HALF, (FOR WOOD BRG)	1
5	632-326P	LDRY HANGER BEARING BAFFLE	1
6	B-2051	BOX, CARDBOARD 8X12X24 (J19)	1
7	B-2066	BAG, POLY END SEAL 3 X 5 X 6MIL	1
8	F-2030	1/4 X 5/8" SELF-TAPPING HEX SCREW	4
9	P-13801	UHC LDRY: INSTALL WOOD HNGR BRG	1
10	CARTON TAG	CARTON TAG	1

BOX NO. 631V-001A - CHAIN/SPRKT KIT, 16T: 1-1/8" ID



ITEM	PART NO.	DESCRIPTION	QTY
1	656-027P	HIGH TORQUE DRIVE KIT CHAIN COUPLER KEY	2
2	B-2066	BAG, POLY END SEAL 3 X 5 X 6MIL	1
3	D-3576	SPROCKET, COUPLER: 5016 X 1-1/8"ID	2
4	D-3226	CPLR CHAIN ASSEMBLY: 16T W/LINK	1
5	B-2043	BOX, 4" X 4" X 4" (J-48) 125# TEST; 5 X 4 X 3 MOTOR PULLEY	1
6	CARTON TAG	CARTON TAG	1

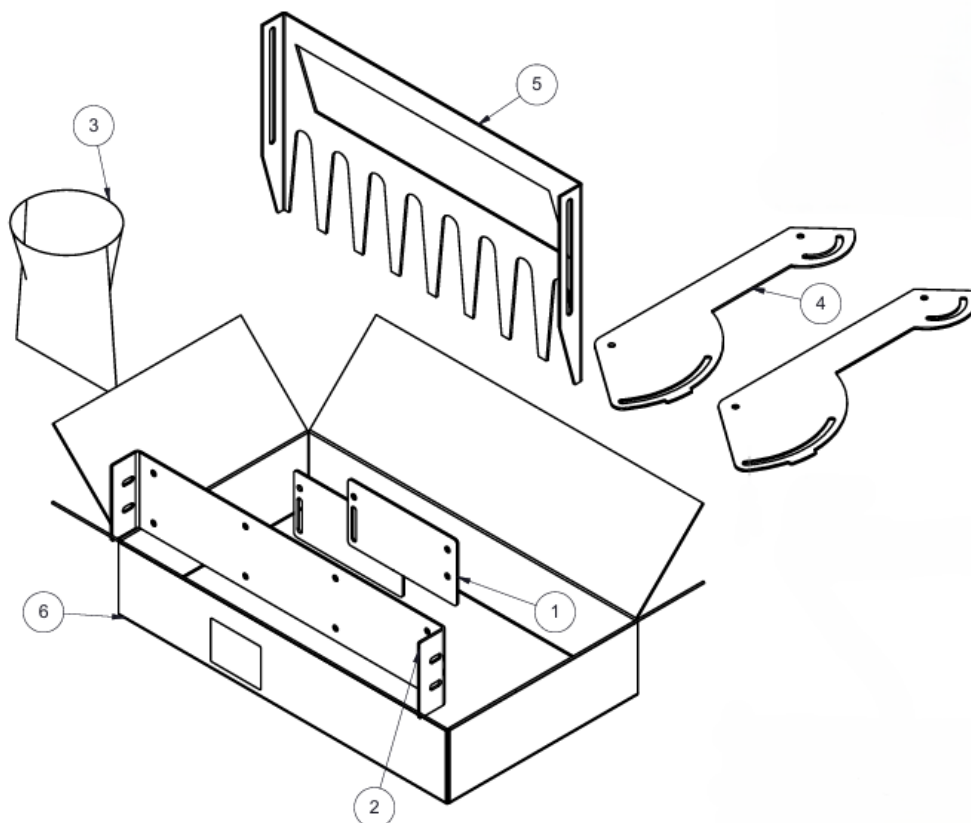
BOX NO. 631W-001A - CHAIN/SPRKT, 16T; 1-3/8" ID



ITEM	PART NO.	DESCRIPTION	QTY
1	656-027P	HIGH TORQUE DRIVE KIT CHAIN COUPLER KEY	1
2	428-053P	HI-TORQUE GEAR BOX (HTGB) KEY, SQ: 5/16" X 1-1/16"L, 8630	1
3	B-2066	BAG, POLY END SEAL 3 X 5 X 6MIL	1
4	D-3576	SPROCKET, COUPLER: 5016 X1-1/8"ID	1
5	D-3577	SPROCKET, COUPLER: 5016 X1-3/8"ID	1
6	D-3226	CPLR CHAIN ASSEMBLY: 16T W/LINK	1
7	B-2043	BOX, 4" X 4" X 4" (J-48) 125# TEST; 5 X 4 X 3 MOTOR PULLEY	1
8	CARTON TAG	CARTON TAG	1

- **NOTE: THIS BOX WILL BE INCLUDED ONLY WHEN THE BIN SIZE IS EQUAL TO OR GREATER THAN 36'.**

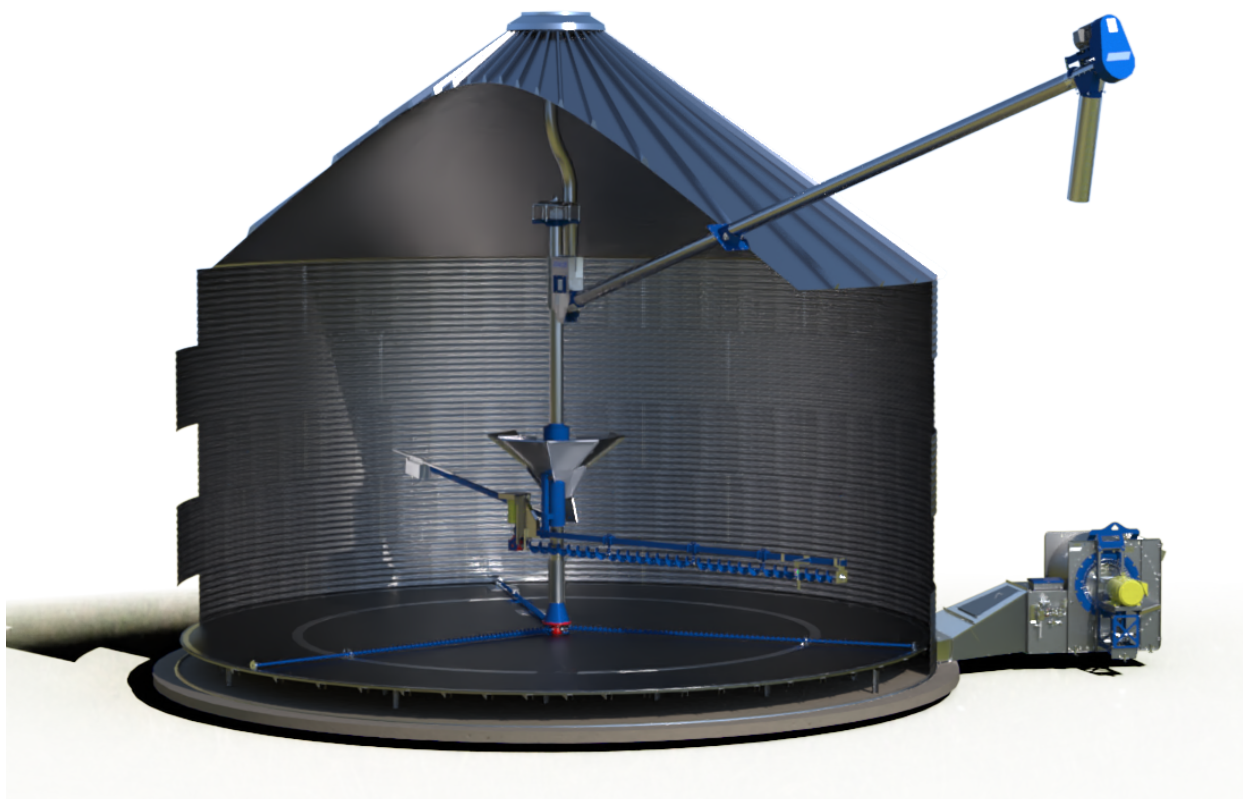
BOX NO. 634N-001A - DRAG/RAKE HARDWARE KIT



ITEM	PART NO.	DESCRIPTION	QTY
1	632-301P	LDRY: BRAKE ADJ ARM	2
2	632-302P	LDRY: Brake Skid Mounting Bracket	1
3	632-303A	LDRY: BRAKE SKID HDWR SACK	1
4	632-338P	LDRY: BRAKE ADJ ARM BRACKET	2
5	632-339P	BRAKE BLADE, LEVEL DRY ADJUSTABLE	1
6	B-2261	BOX, 26 X 15 X 5	1

- **NOTE: THIS BOX WILL BE INCLUDED ONLY WHEN THE BIN SIZE IS EQUAL TO OR GREATER THAN 33'.**

INSTALLATION INSTRUCTIONS

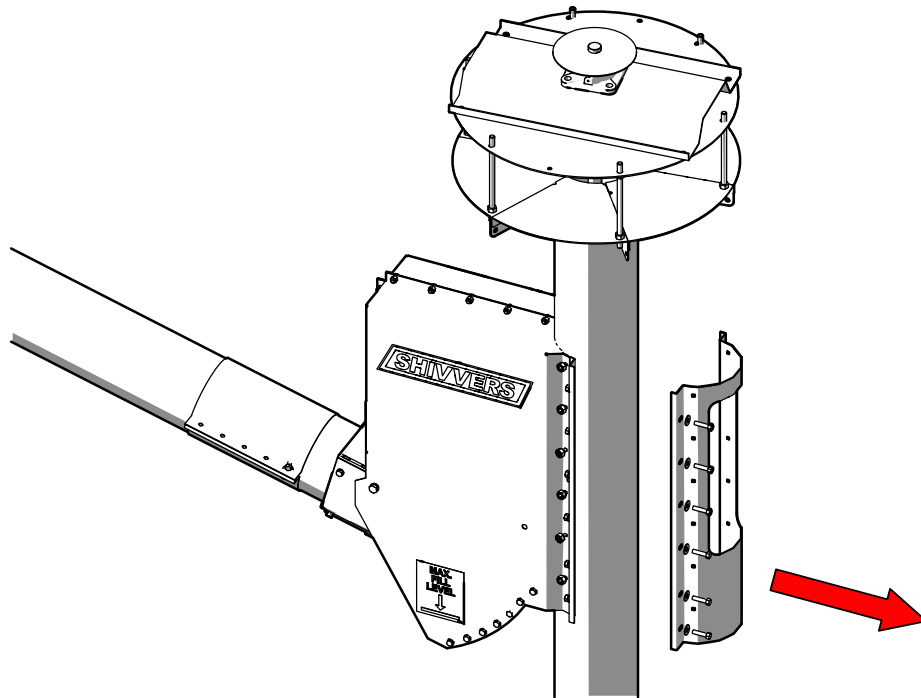


Step 1: Install the Center Tube Assembly.

- a. Remove the existing Grain Spreader.
- b. Fasten a Winch to the Bin's Center Roof Opening.
- c. Lower the hook and fasten it securely to the top of the Center Vertical. Remove slack from the cable without lifting the Center Vertical.
- d. Remove the Moisture Sensor from the Center Vertical.

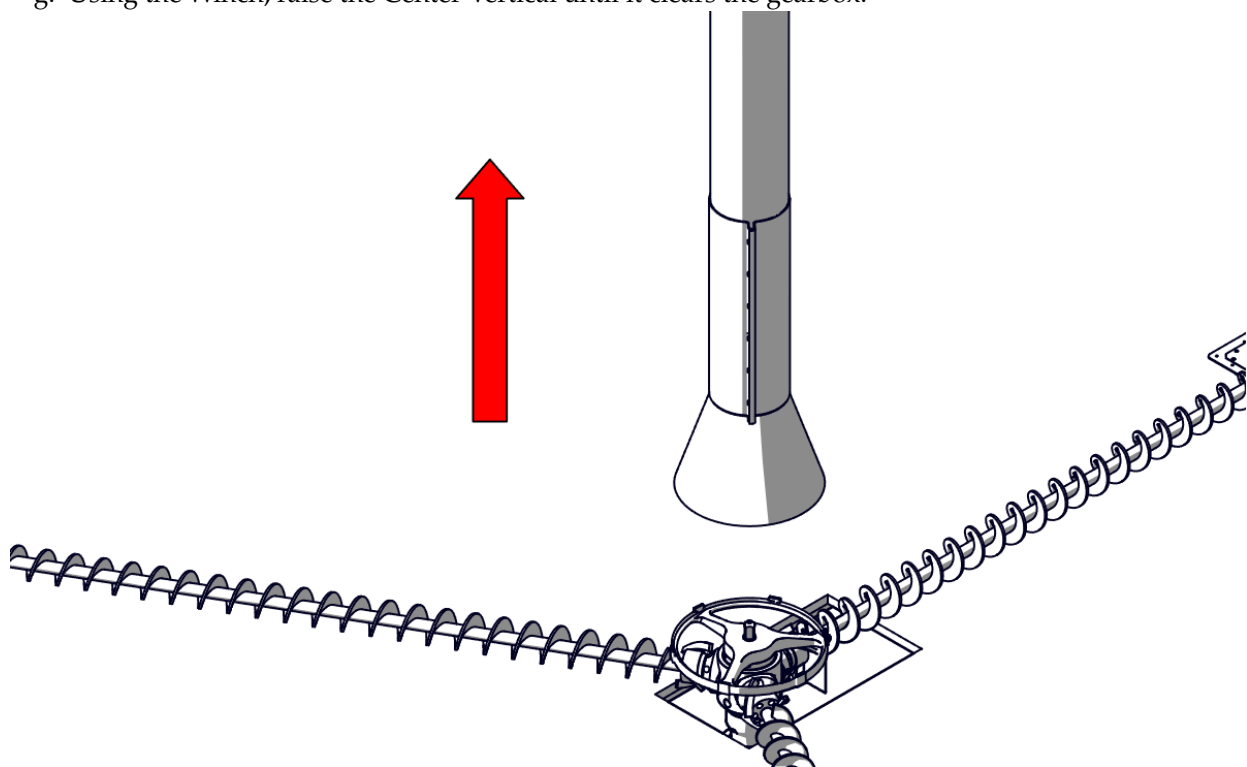
The wires of the Moisture Sensor may be attached to the Chains holding the Center Vertical. Unscrew the turnbuckle holding the Chain and lower the Moisture Sensor carefully.
- e. Unscrew the rest of the turnbuckles and lower the Chains.

- f. Remove the Half-Bands connecting the Center Vertical to the Continuous Flow Tube.



Note: If needed, use properly rated ratchet straps to support the weight of the Continuous Flow Tube and Boot before removing the half-bands. Do not allow the assembly to hang unsupported.

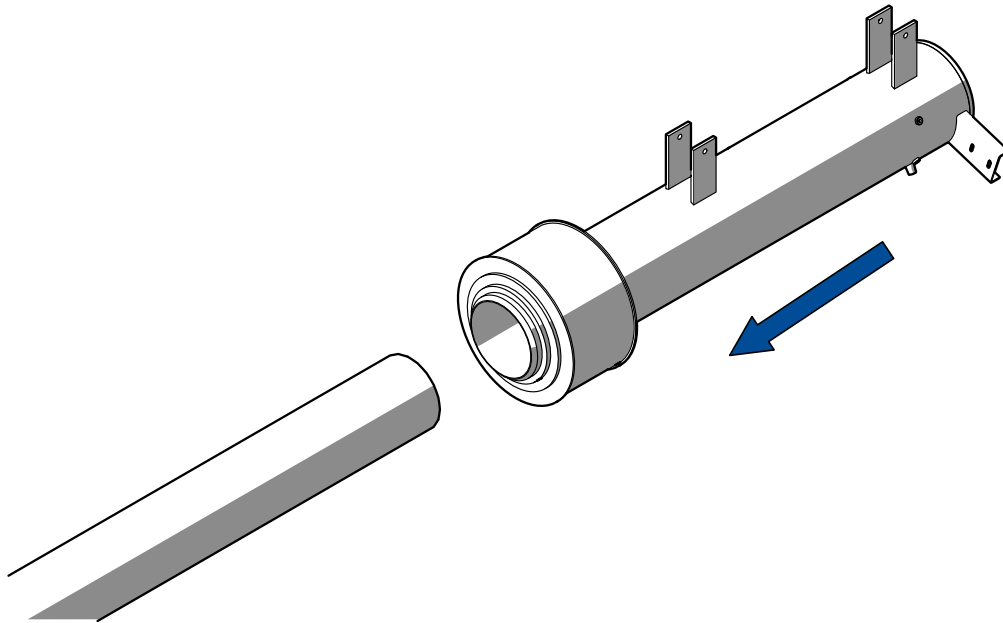
- g. Using the Winch, raise the Center Vertical until it clears the gearbox.



- h. Remove the Cone Weldment and Pickup Fingers.
- i. Remove the bolts in the Half-Bands and the Half-Bands themselves. At this point, the Cone will become loose but remain supported by the Pickup Fingers.
- j. Remove the bolts from Pickup Fingers and lower the Pickup Fingers and the cone together.

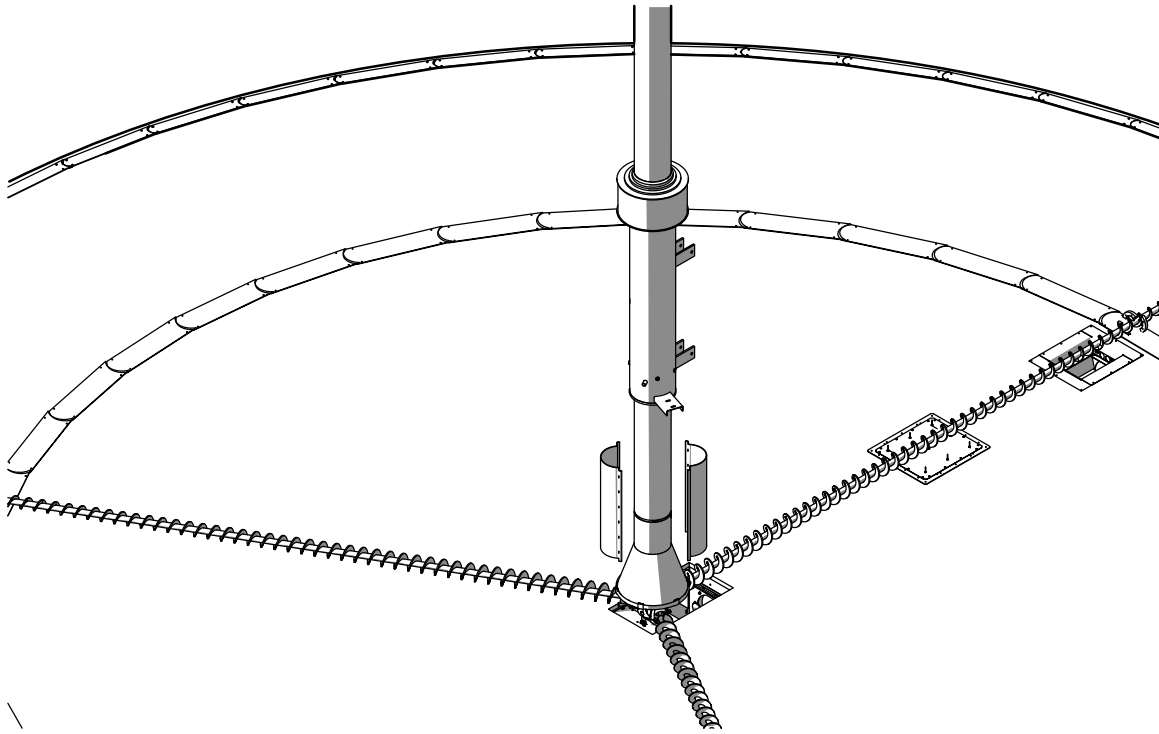
Note: Before loosening the last bolt, make sure the pickup fingers are close enough to the floor to be safely lowered. Inspect the Cone, Pickup Fingers and the Center Vertical flighting. If necessary, replace the parts before moving forward.

- k. Slide the Center Tube Assembly over the outer tube of the Center Vertical.

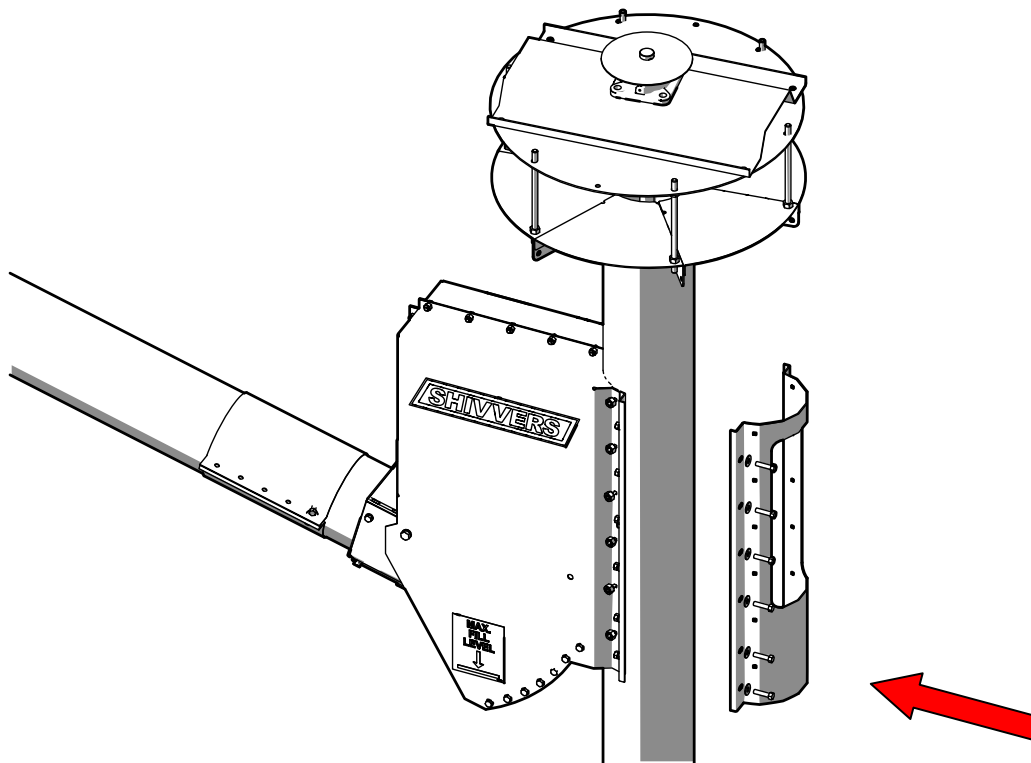


Use a screwdriver to pull up the Brush Bristles on the top of the Center Tube Assembly.

- l. Re-install and secure both the Pickup Fingers and the Cone Weldment before returning the Center Vertical to service.



- m. Raise the Center Vertical back into place.
- n. Re-install the Continuous Flow Boot, Moisture Sensor and Half-Bands.



- o. Re-attach the Chains and plumb the Center Vertical.

Step 2: Install the Boom Arm Weldment and Support.

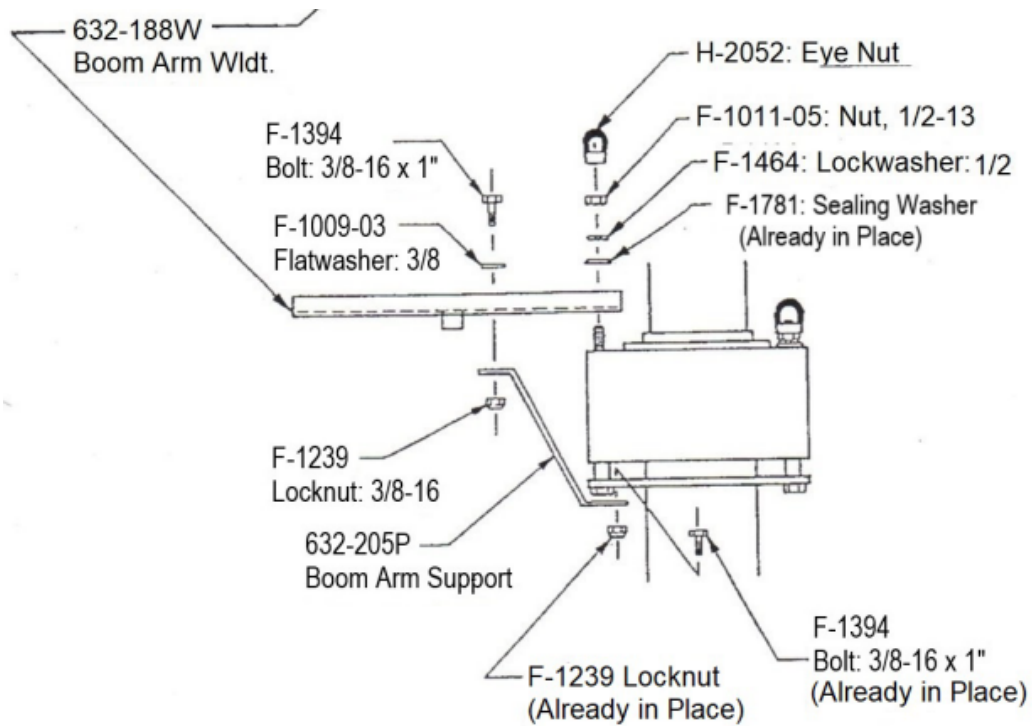
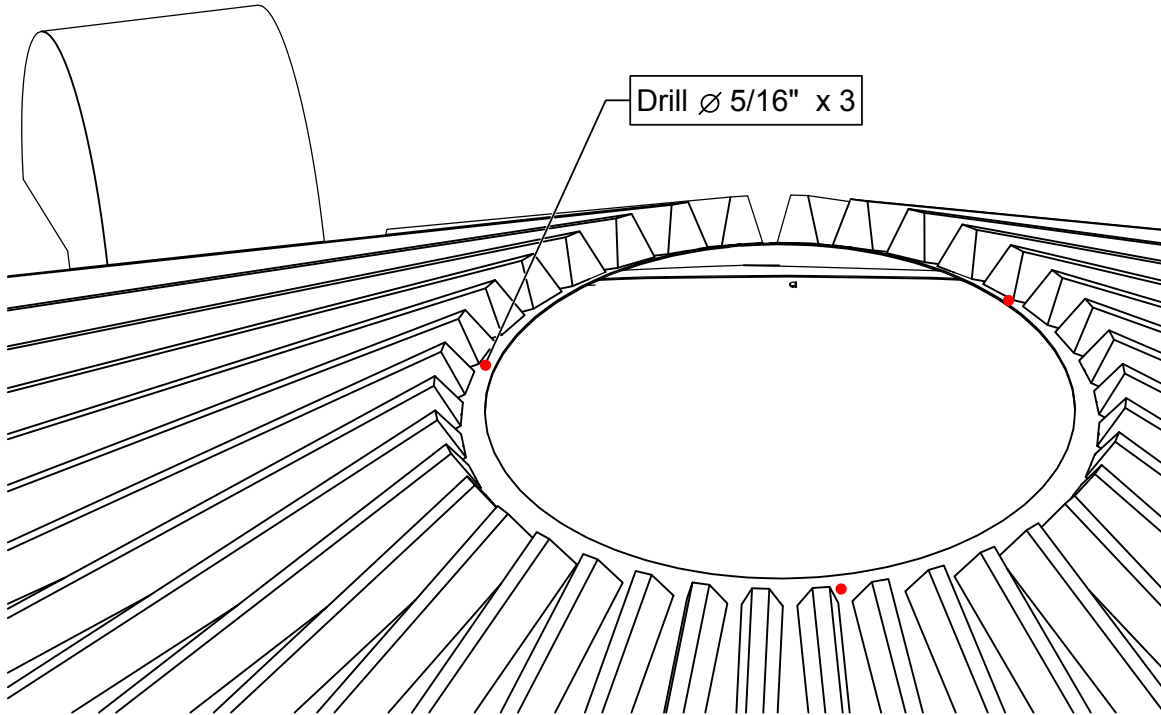


Figure 1: Level Dry Boom Arm & Support

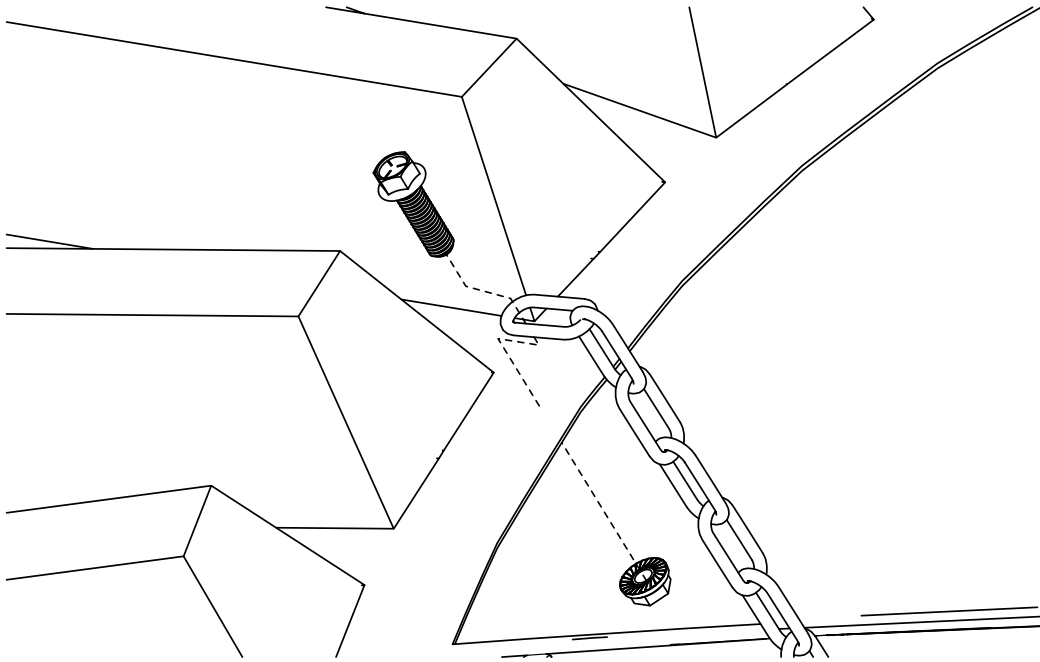
- a. Attach the Boom Arm Support and the Boom Arm Weldment to the Center Tube Assembly.
 - I. Boom Arm Support located in 634U-001A.
 - II. Boom Arm Weldment located in 634P-001A for 8IN and 634V-001A for 10IN.
 - III. Position the boom arm toward the side of the bin nearest the external Level Dry control panel to simplify electrical conduit and wire routing.

Step 3: Install the Grain Input Weldment.

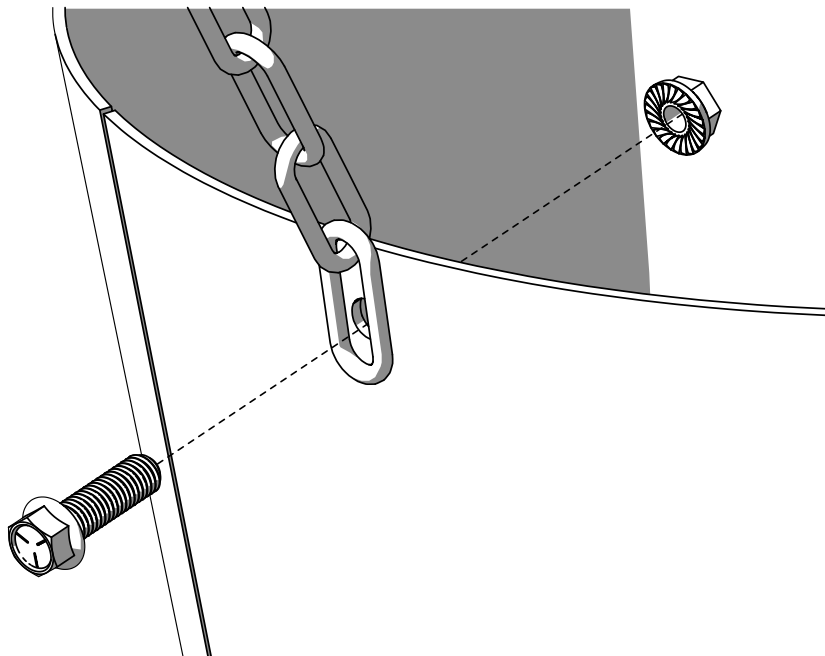
- a. Drill three 5/16-in diameter holes in the bin roof, spaced 120° apart around the center opening, to form a triangle for attaching the chains.



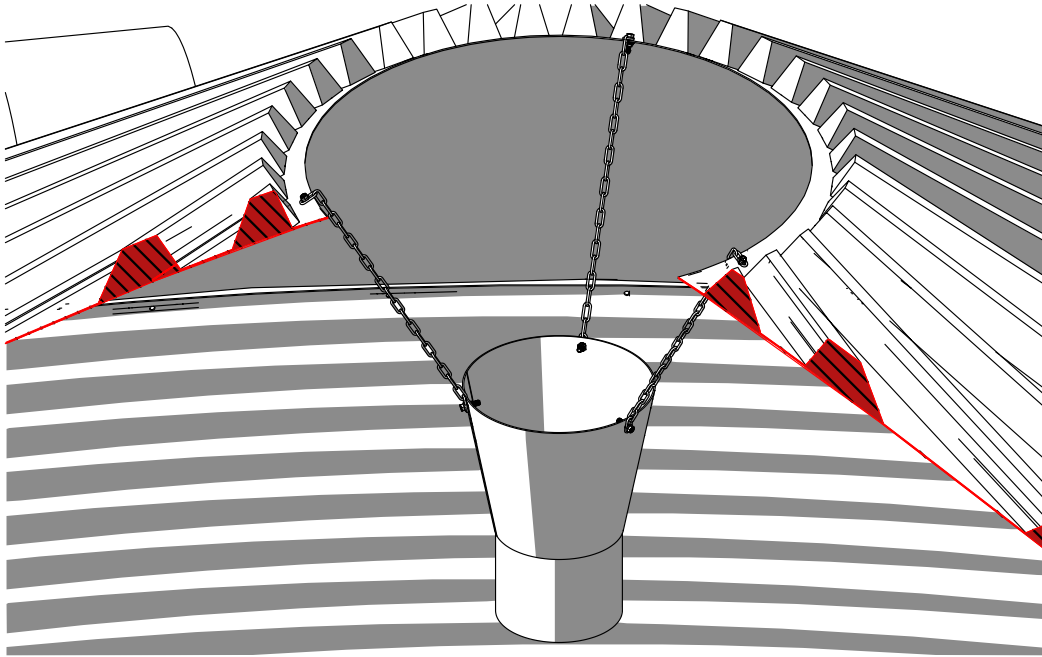
b. Attach the Chains to the Bin Roof.



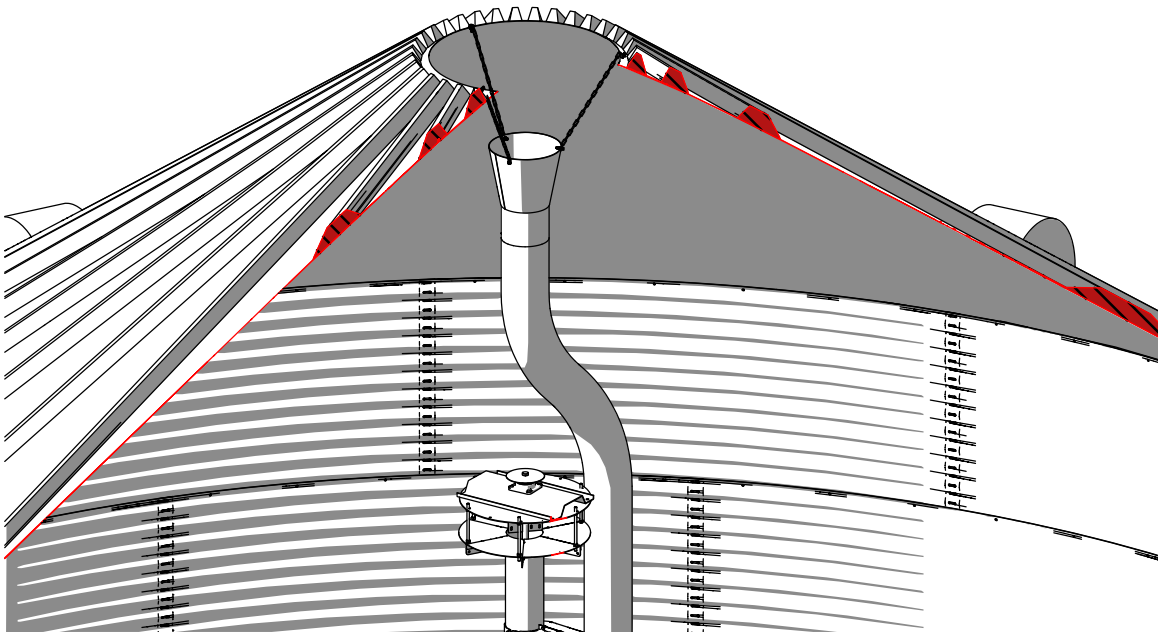
c. Bolt the Grain Input Weldment to the Chains.



Item No.	Part No.	Description	QTY.
Parts Box: 632-342A Inside 634U-001A			
1	F-1931	Serrated Flange Nut, 5/16-18	6
2	F-2122	Flange head Capscrew, 5/16-18 × 1-1/4	6



- d. Attach the Flex tube to the Weldment. Splice the flex tube and slide it over the weldment. Attach a half-band over the weldment, fasten, and stitch screw around the half-band using F-2199 inside 634U-001A.



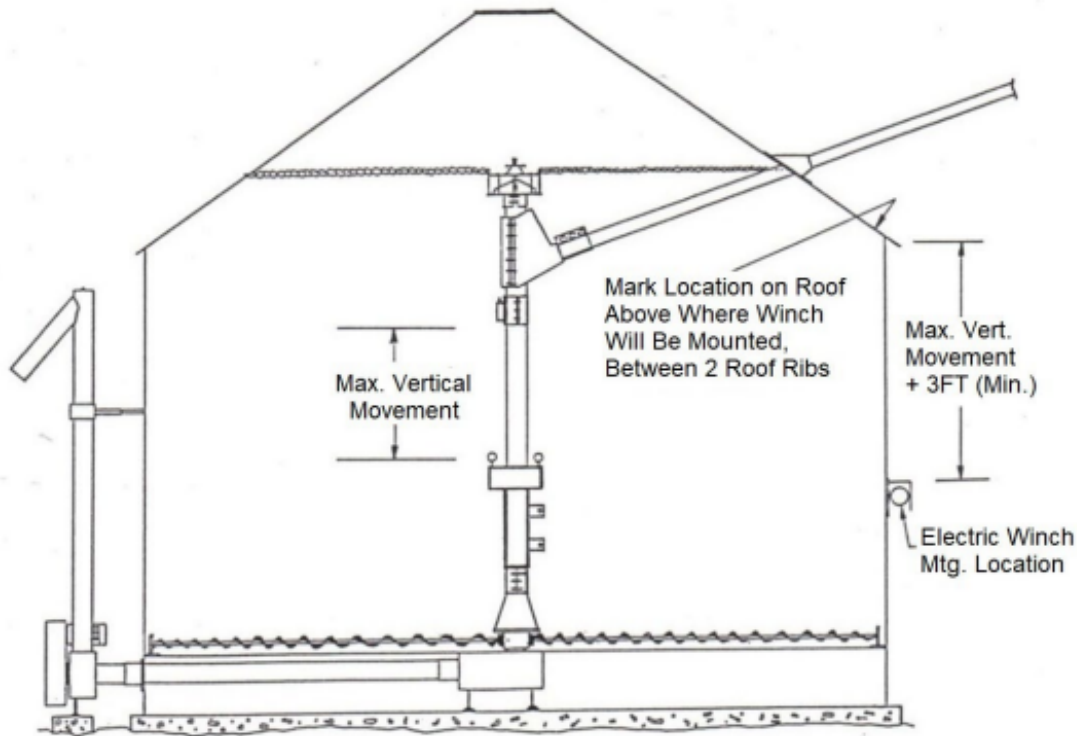
Step 4: Prior to installing the Winch, refer to the Electrical Manual for wiring. Then, proceed to install the Winch. The system uses an outside wall-mounted Winch.

WARNING: DO NOT CONNECT THE WINCH SYSTEM TO AN A.C. POWER SOURCE.

- a. **Determine the Winch location.** Measure the maximum vertical travel of the Level Dry center tube from its lowest operating position to its highest operating position. Position the winch and lift pulley so the installation provides the full center-tube lift plus a minimum of **3 ft additional usable cable travel**.

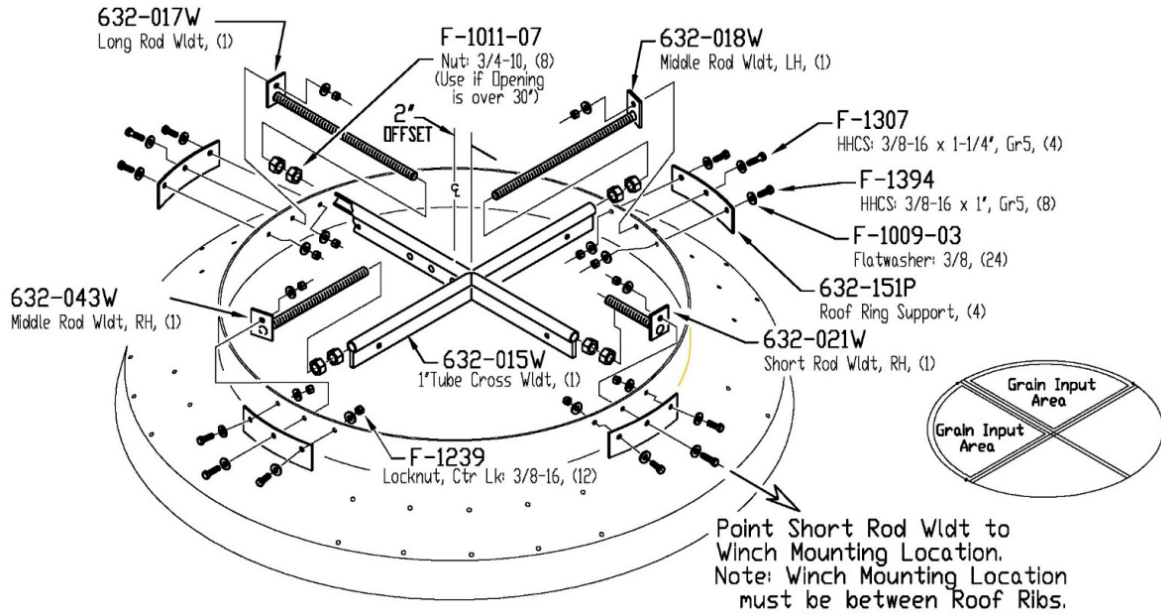
Final winch position must also maintain the required **1 ft minimum winch-to-pulley-block clearance** at maximum center tube height.

Planning Note: Do not mount the winch yet; only mark its location at this stage.

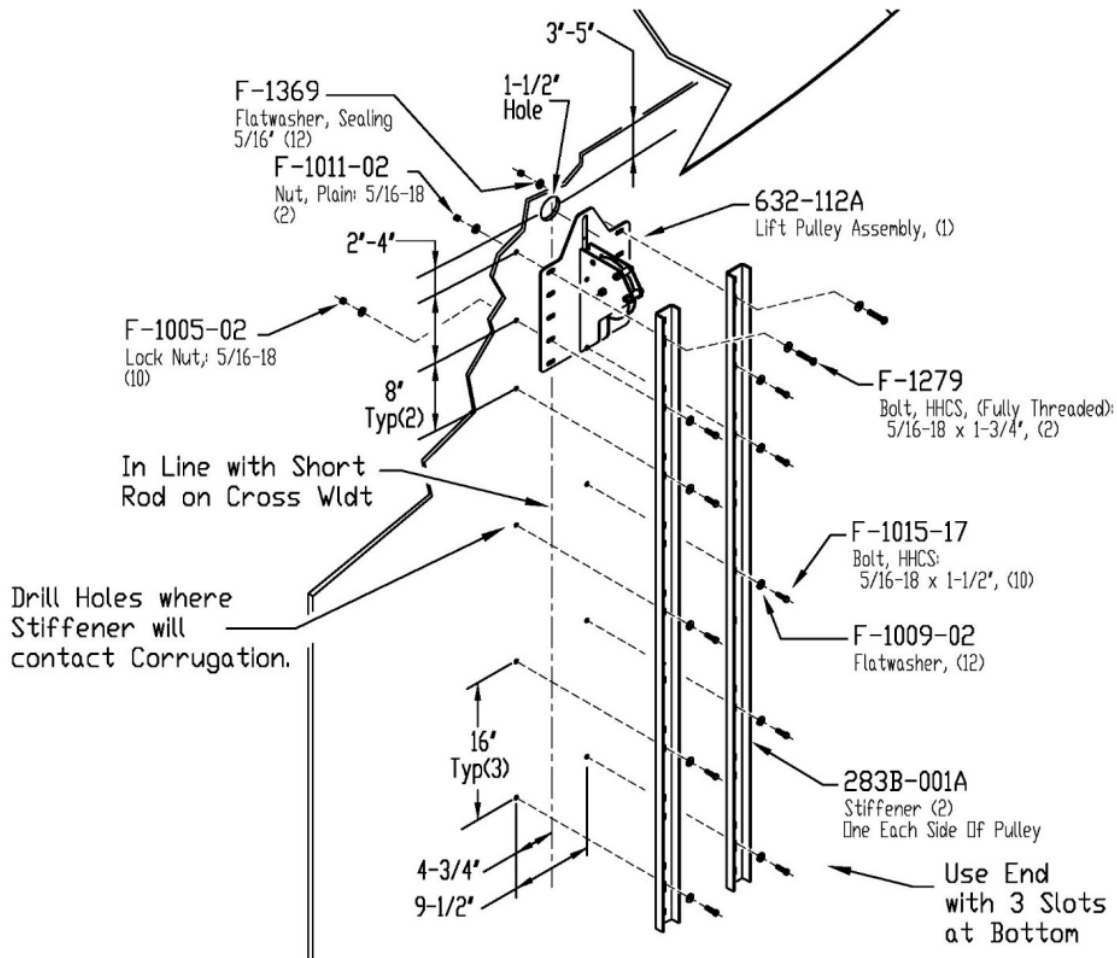


- b. **Install the Cross Tube Assembly.** Assemble the cross tube and support rods at the roof opening. Point the short rod toward the Winch location, verify grain flow through an open quadrant, then adjust and secure the assembly.

Fit Note: The assembly accommodates **30–48 in. openings**. Smaller openings may require the cross tube and rods to be shortened.



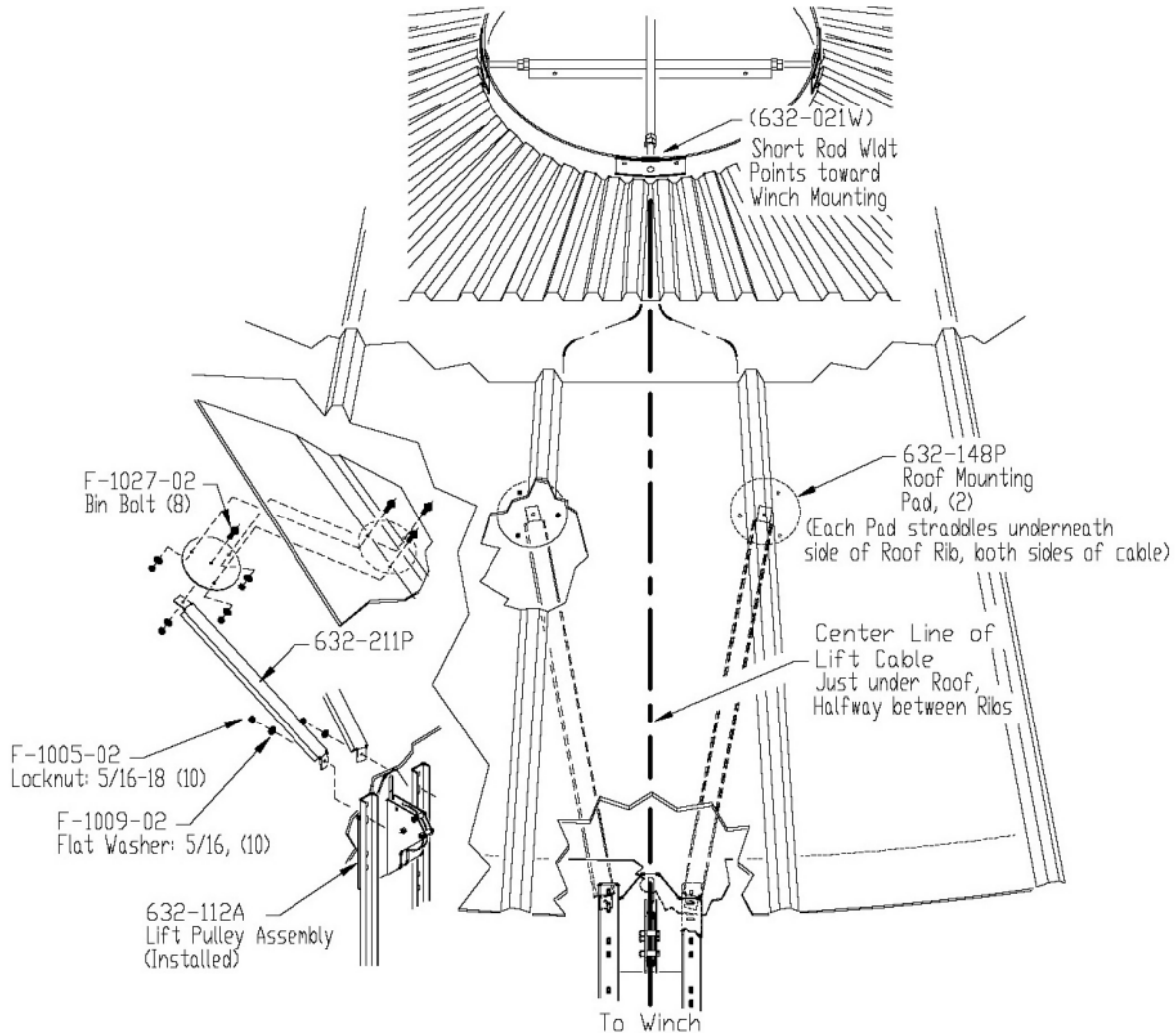
- c. **Install the lift pulley.** Mount the lift pulley near the top of the bin wall, aligned with the short rod on the cross tube. Position the lift pulley high enough for the cable to clear the eave throughout the full travel range. Mount the pulley to a structurally adequate stiffener or reinforced location.



Note: Bin layouts vary. Verify pulley location, cable clearance, and structural support before drilling or mounting. Contact Shivvers or an authorized Shivvers dealer if the pulley cannot be mounted as shown.

- d. **Install Roof Mounting Pads and Braces.** Attach roof braces and roof pads. Position the pads so they straddle a roof rib whenever possible for maximum strength.

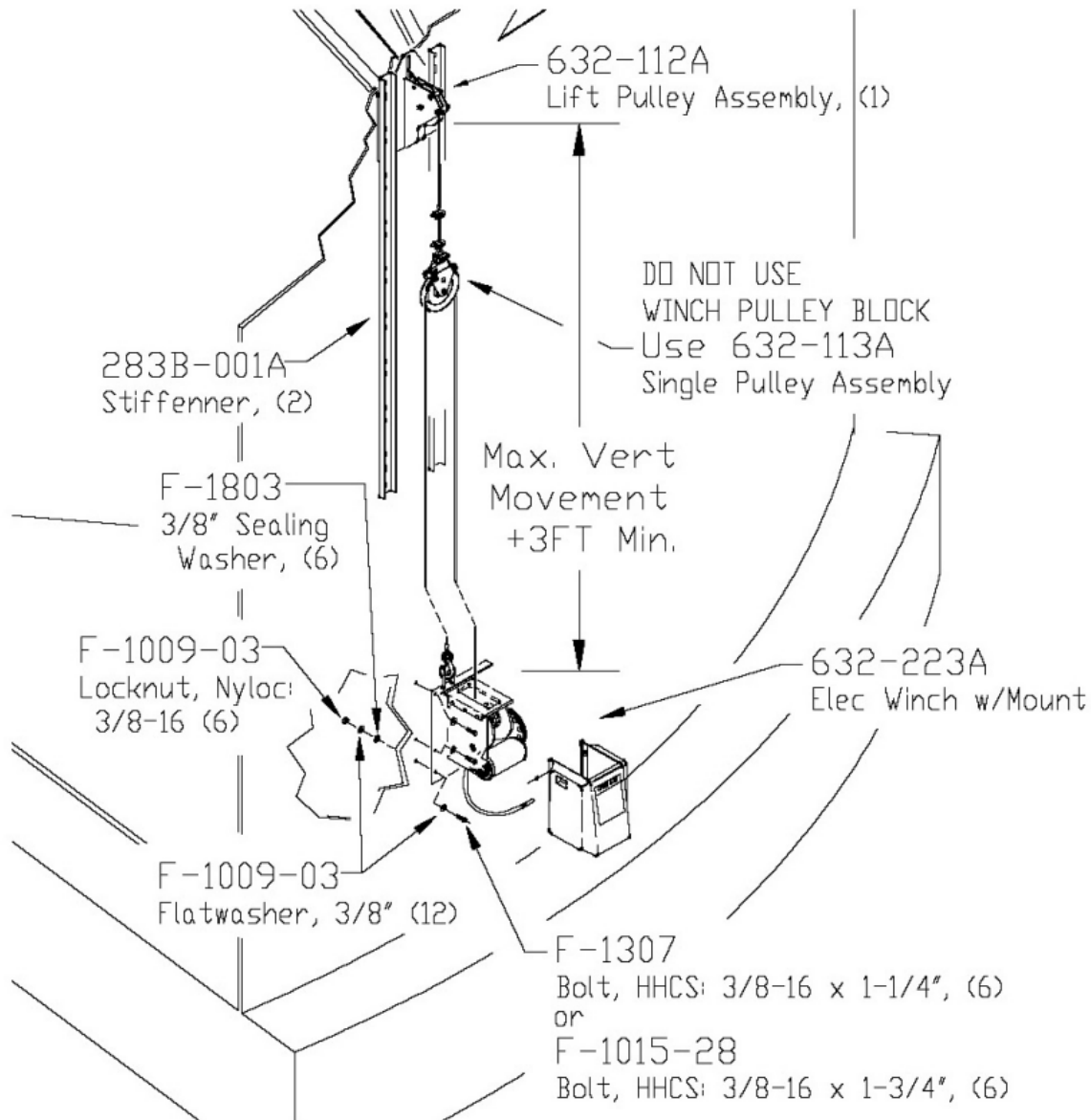
Mounting Note: Use the three pad holes that provide the best fit.



- e. **Extend and mount the Winch cable.** Extend the Winch cable to the lift pulley, keeping it centered on the drum. Verify that the available usable cable travel is at least the maximum center tube lift plus 3 ft. Mount the winch only after confirming this requirement and the final clearance requirements. Install over a horizontal seam if possible for added strength.

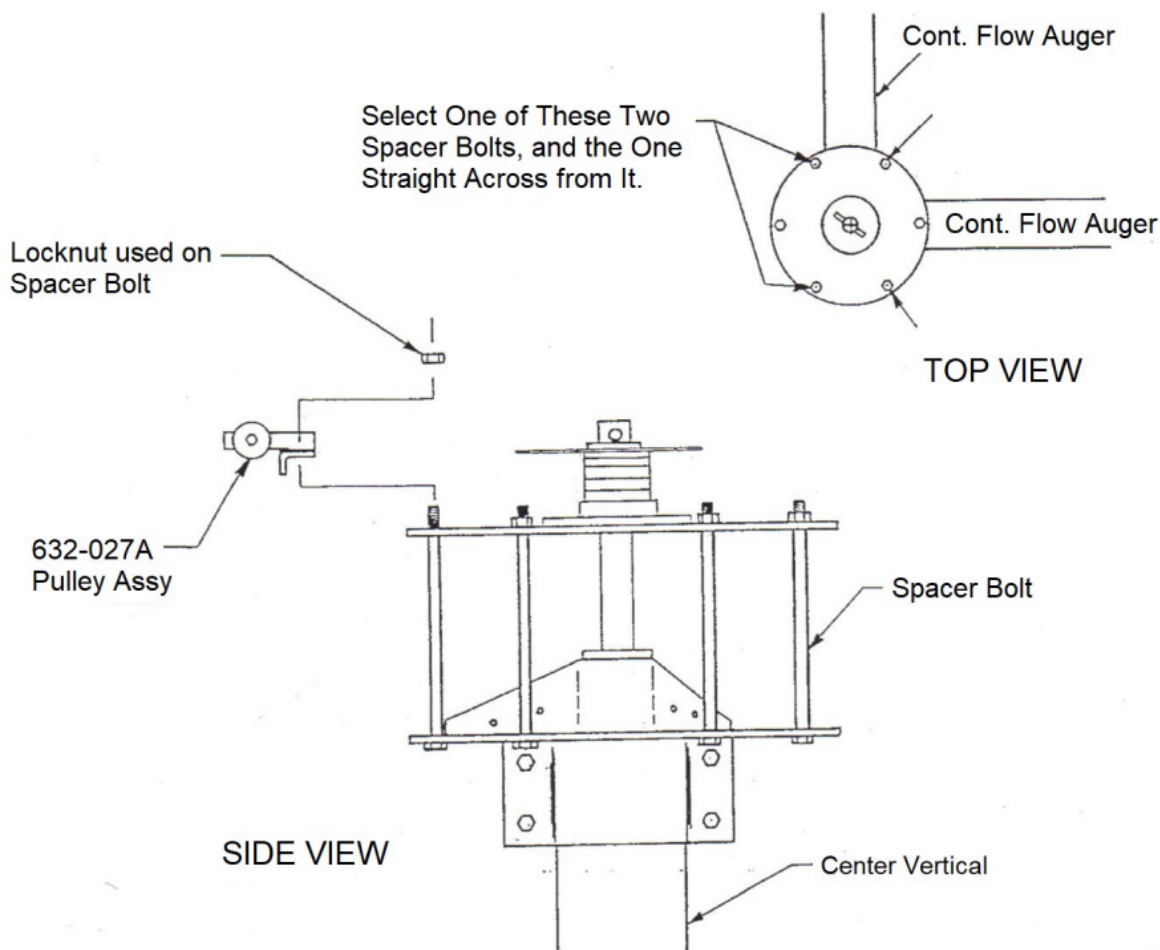
Note: Make sure that the end of the Winch cable is hooked in the U-bolt of the Winch mounting plate.

Strength Note: Reinforcement plates may be needed inside the bin.



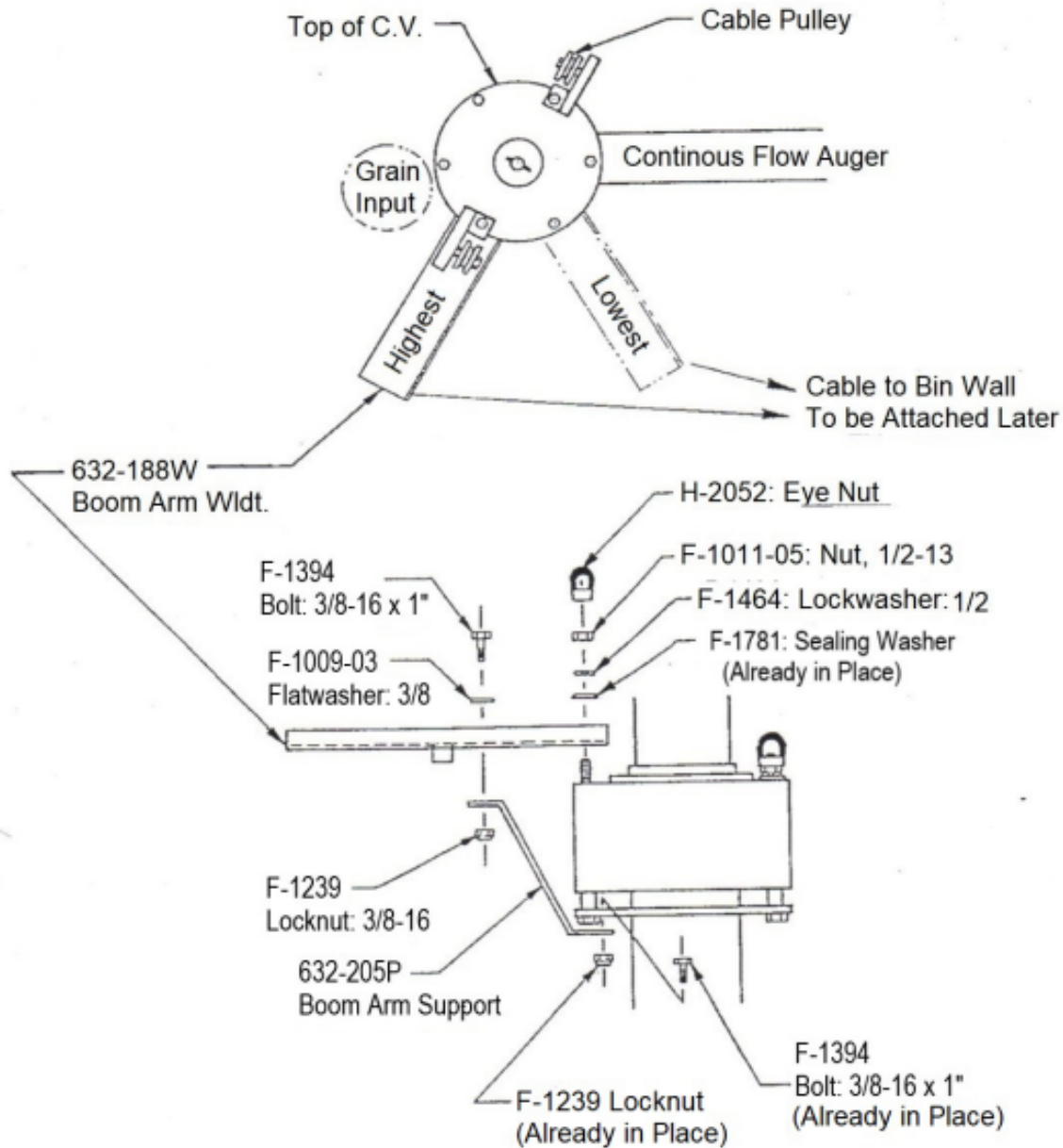
- f. **Install Center Vertical pulleys.** Attach the two pulley assemblies to opposite spacer bolts at the top of the Center Vertical.

Alignment Check: Choose spacer bolts with a clear line of sight to the Center Tube eye bolts.



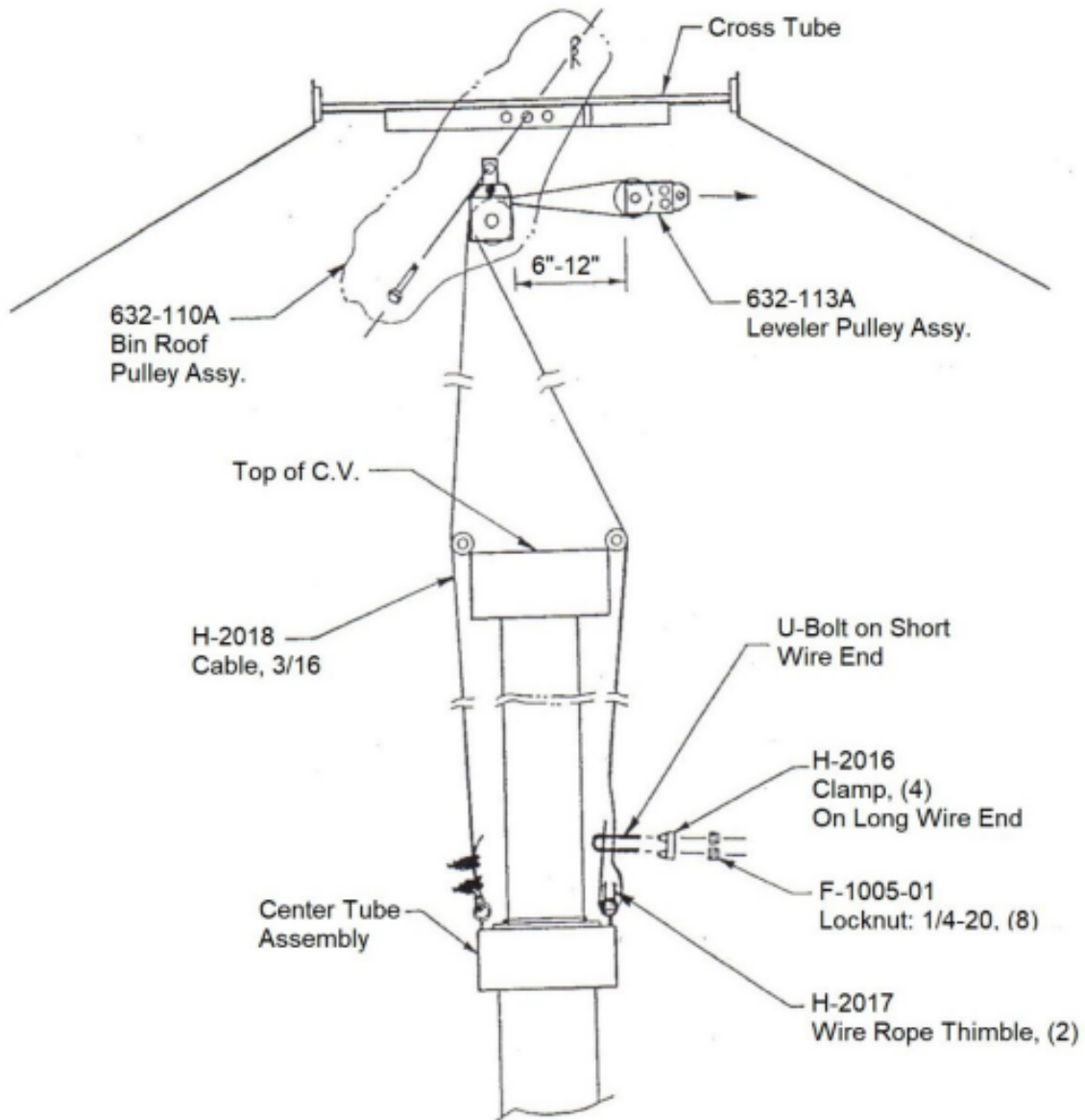
- g. **Boom-arm orientation and clearance check.** Verify the boom arm is oriented near the control-panel/conduit exit side and clear of the incoming grain stream.

Future Installation Note: A cable will later run from the boom arm to the bin wall, and the electrical conduit can typically follow this cable.



- h. **Install the Leveler Pulley and inside cable.** Hang the roof pulley from the center cross tube, then route the cable over the Center Vertical pulley, through the roof pulley and leveler pulley, and connect both ends to the center tube eye bolts.

Mounting Options: The roof pulley can use the center hole or the adjacent hole in the cross tube, depending on alignment.

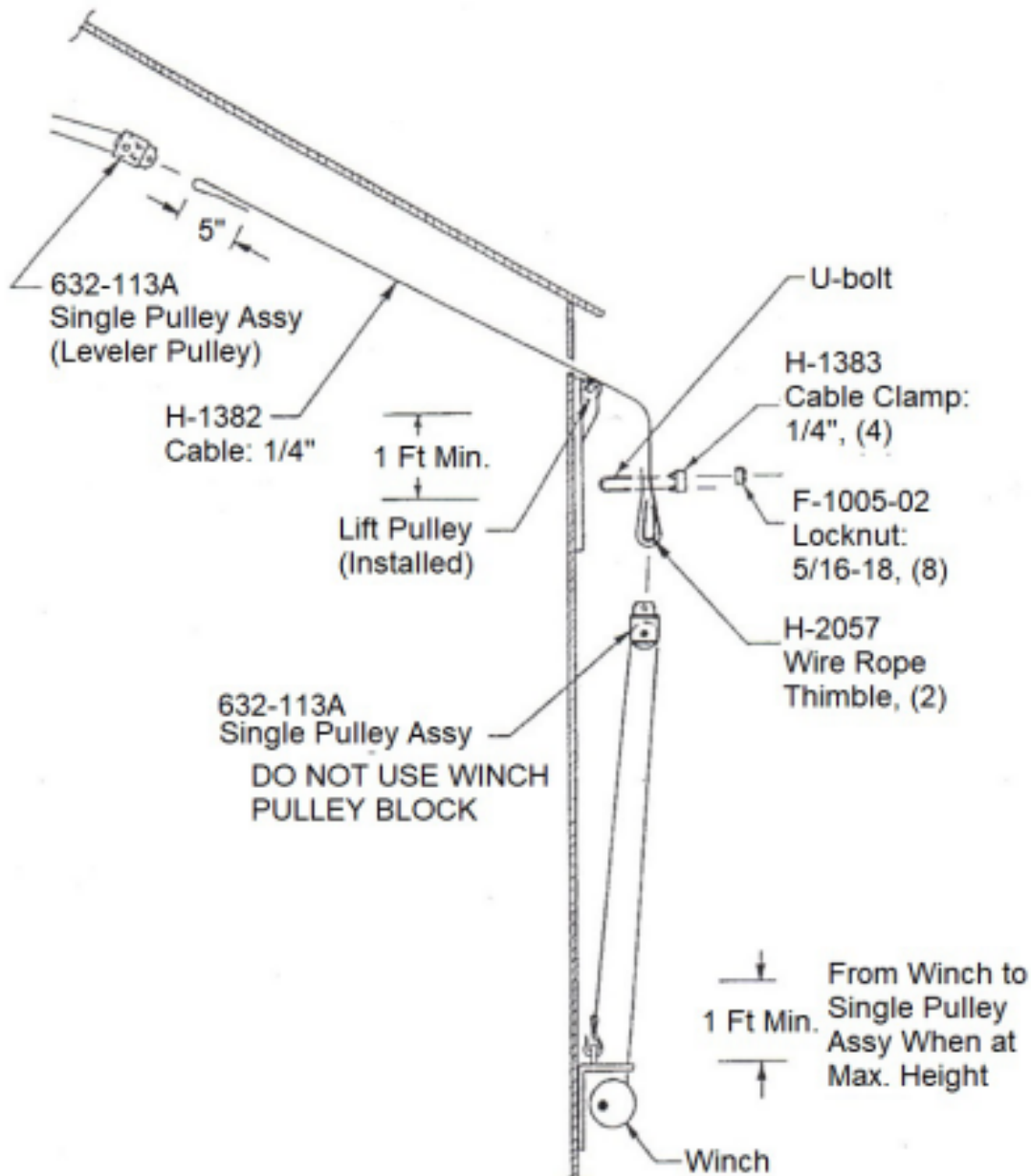


- i. **Install the under-roof cable and perform the preliminary mechanical check.** Route the cable through the sidewall, connect it to the leveler pulley with thimbles and clamps, attach the Winch pulley block, tension the cable, and test the center tube movement.

With power disconnected and locked out, verify that the cable is seated correctly in every pulley and is clear of the bin eave and all other obstructions.

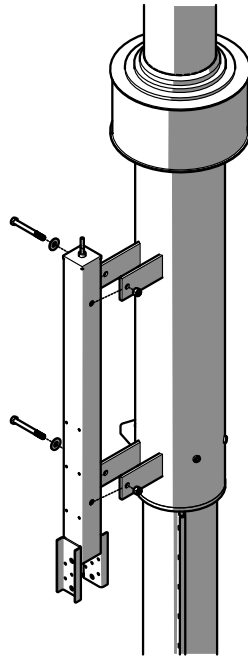
Do not perform the final full-travel test at this stage. If powered movement is required to complete the installation, first verify that the main disconnect and lockout provisions are functional. All personnel must exit the bin, and the bin entrance must be secured before power is restored. Operate and observe the system only from outside the bin. Use only the minimum controlled movement necessary and follow the Auger Height Calibration procedure in Electrical Manual P-13767, page 16.

Stop movement immediately if the cable binds, leaves a pulley, approaches a physical limit, or contacts an obstruction. Disconnect and lock out power before anyone reenters the bin or makes an adjustment.



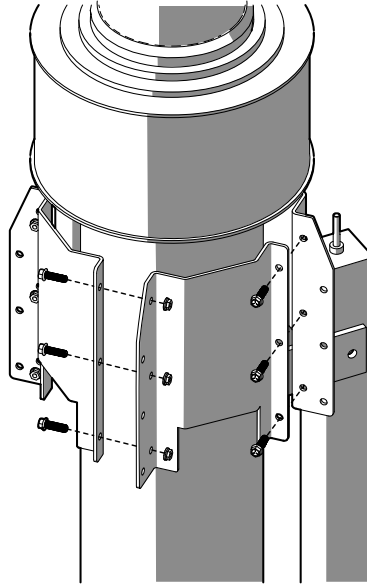
Step 5: Install the Hopper.

- a. Attach the Mast Weldment to the Center Tube Assembly.



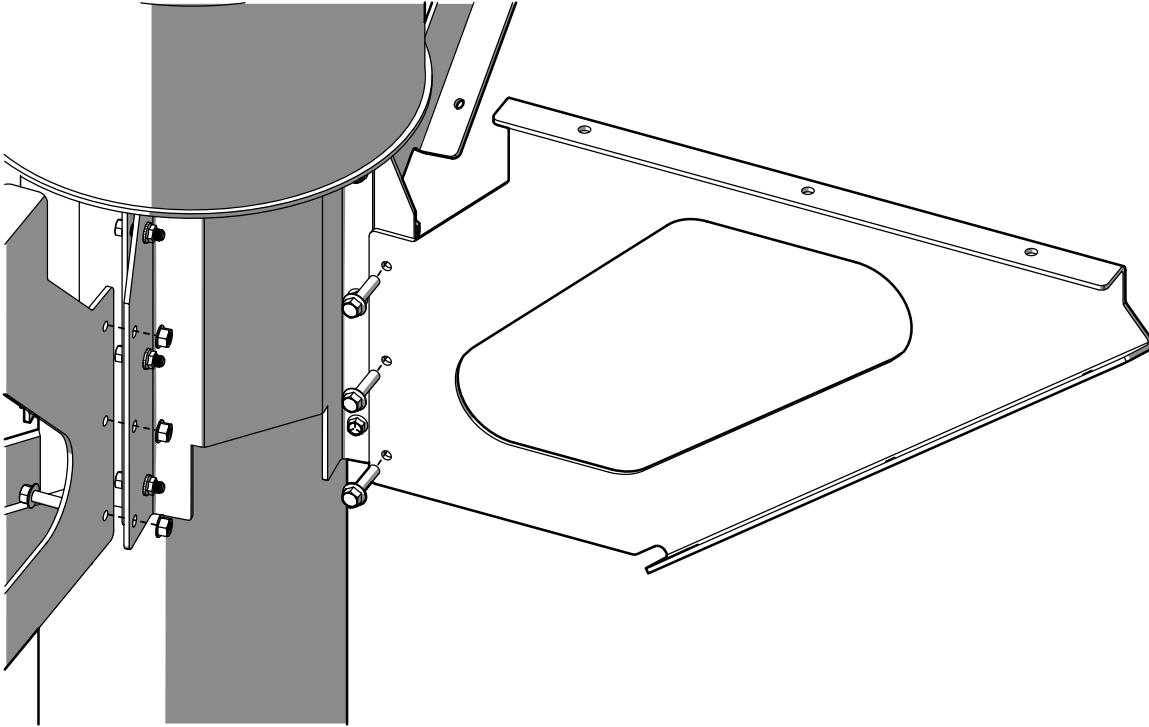
Parts Box: 634P-001A or 634V-001A			
Item No.	Part No.	Description	QTY.
1	632-210W	LDRY: Mast Weldment	1
Parts Box: 631-089A inside 632-317A inside 634P-001A or 634V-001A			
2	F-1778	Bolt, 1/2-13×4-1/2", GR 5	2
3	F-1009-05	Standard Flat Washer 1/2"	4
4	F-1005-05	Centerlocking Hex Nut, 1/2-13	2

b. Install the Octo-Hopper Mount on the Center Tube.



Item No.	Part No.	Description	QTY.
Parts Box: 634P-001A or 634V-001A			
1	632-292P	LDRY Octo-Hopper Mount - 8IN	4
	755-031P	LDRY Octo-Hopper Mount - 10IN	
Parts Box: 632-319A in 632-317A			
2	F-2122	Flange Head Capscrew, 5/16-18×1-1/4", GR 5	12
3	F-1931	Hex Serrated Flange Nut, 5/16-18	12

c. Attach the Octo-Hopper Brackets.

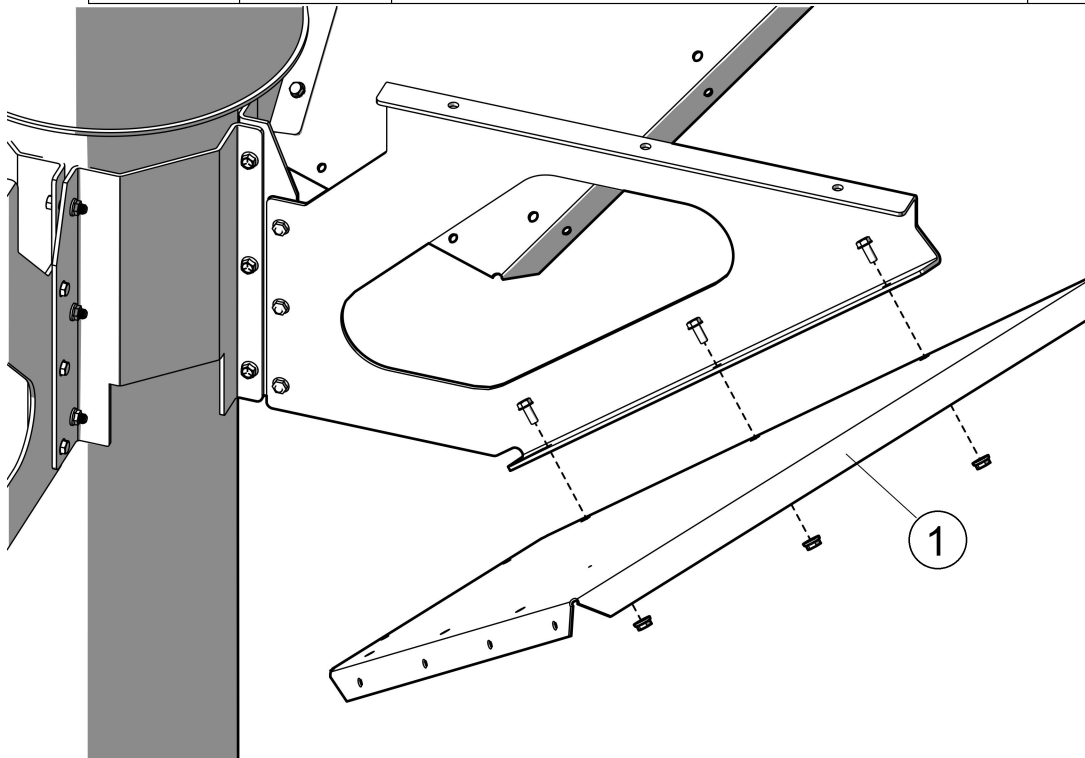


Item No.	Part No.	Description	QTY.
Parts Box: 634P-001A or 634V-001A			
1	632-297P	LDRY Octo-Hopper Bracket - 8IN	4
	755-030P	LDRY Octo-Hopper Bracket - 10IN	
Parts Box: 632-319A in 632-317A			
Item No.	Part No.	Description	QTY.
2	F-1212	Flange Head Capscrew, 5/16-18×3/4", GR 5	12
3	F-1931	Hex Serrated Flange Nut, 5/16-18	12

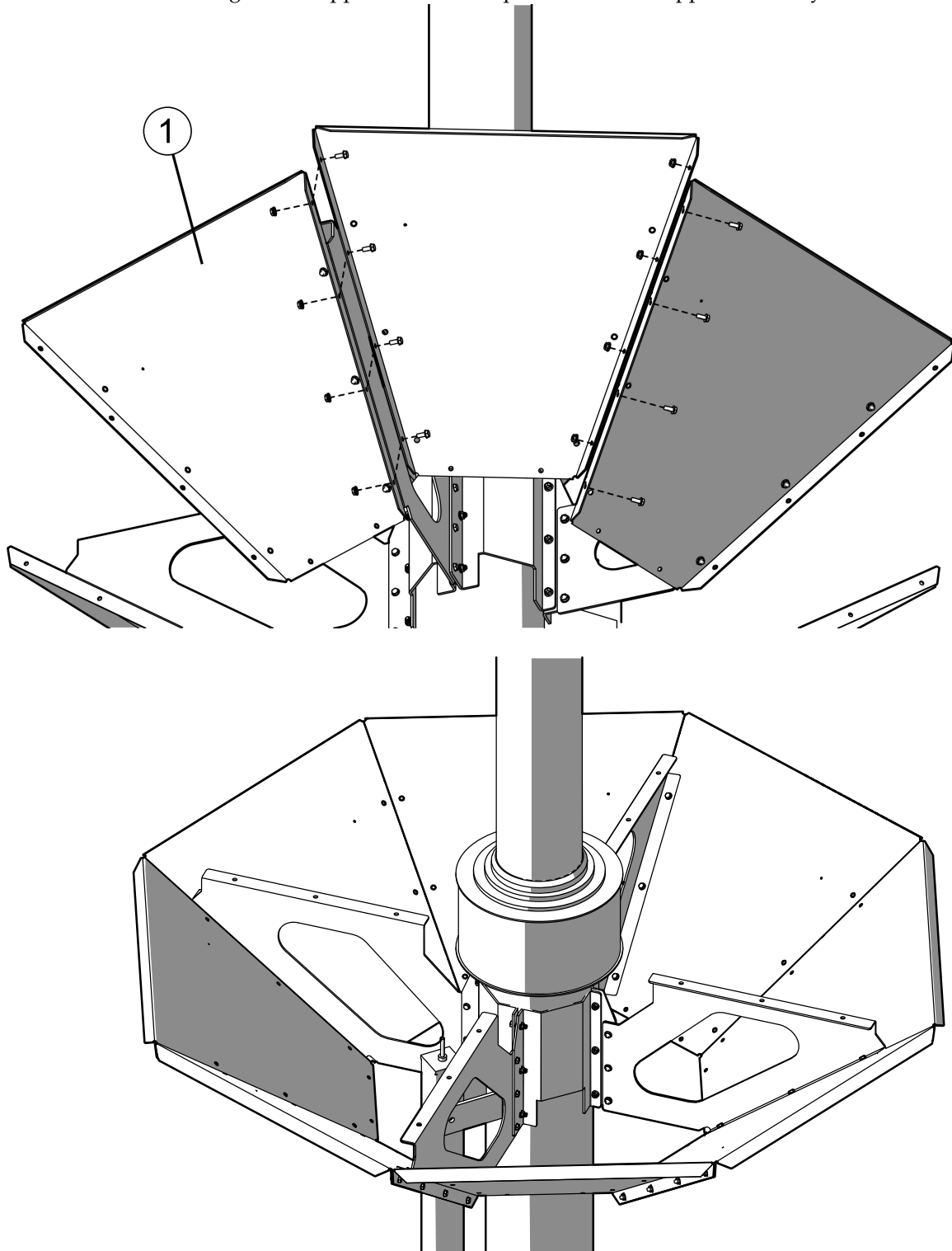
d. Mount the Octo-Hopper Sides to the Bracket.

Use the Hardware below for the rest of the Assembly.

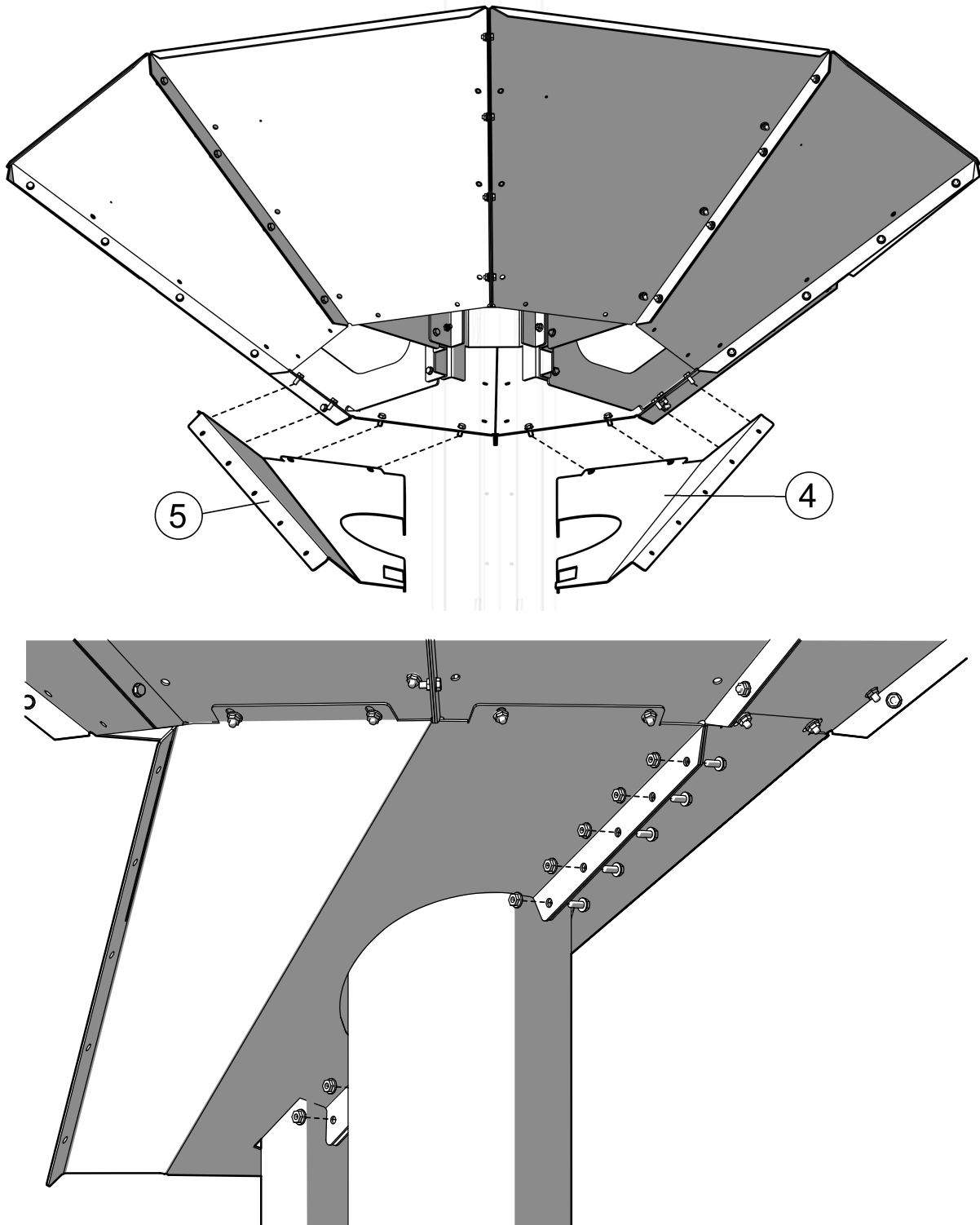
Item No.	Part No.	Description	QTY.
Parts Box: 634P-001A or 634V-001A			
1	632-291P	LDRY Octo-Hopper: Hopper Section, Top	8
2	632-293P	Octo-Hopper: Bottom Section, RH Front	1
3	632-294P	Octo-Hopper: Bottom Section, LH Front	1
4	632-295P	Octo-Hopper: Bottom Section, RH Rear - 8IN	1
	755-021P	Octo-Hopper: Bottom Section, RH Rear - 10IN	
5	632-296P	Octo-Hopper: Bottom Section, LH Rear - 8IN	1
	755-020P	Octo-Hopper: Bottom Section, LH Rear - 10IN	
6	632-298P	LDRY Octo-Hopper: Chute	1
Parts Box: 632-319A in 632-317A			
Item No.	Part No.	Description	QTY.
7	F-1212	Flange Head Capscrew, 5/16-18×3/4", GR 5	88
8	F-1931	Hex Serrated Flange Nut, 5/16-18	88



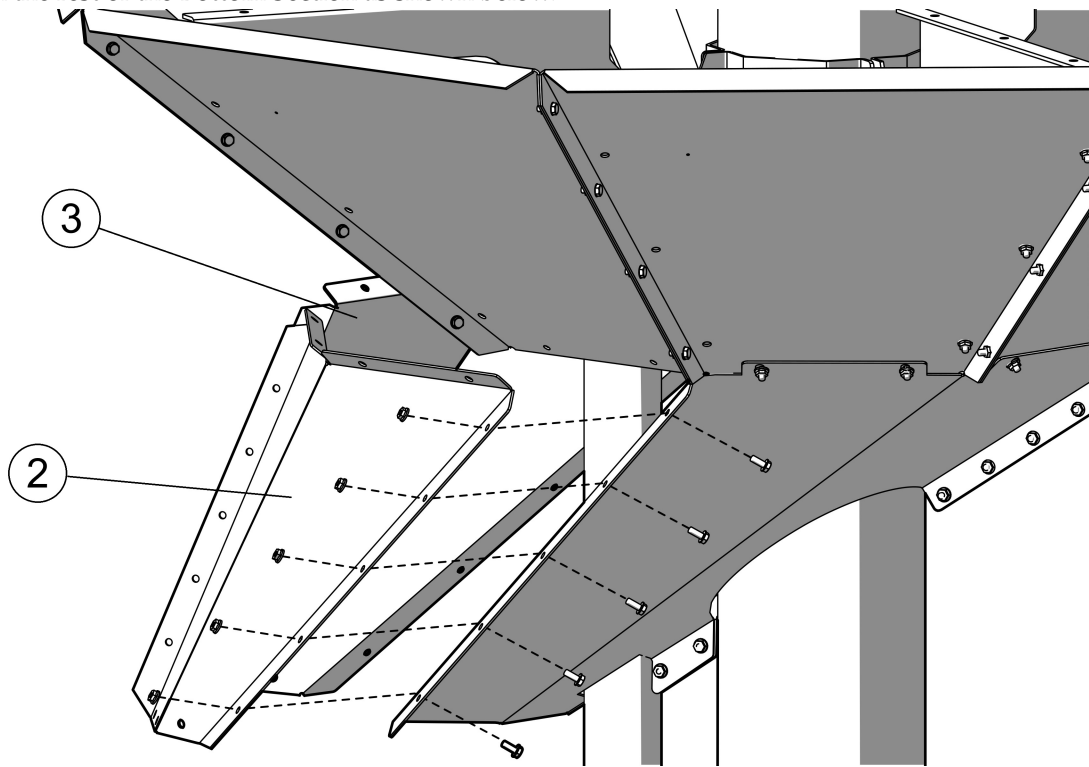
- e. Mount the remaining Octo-Hopper Sides to complete the Octo-Hopper Assembly.



f. Attach the Bottom Section of the hopper to the Octo-Hopper.

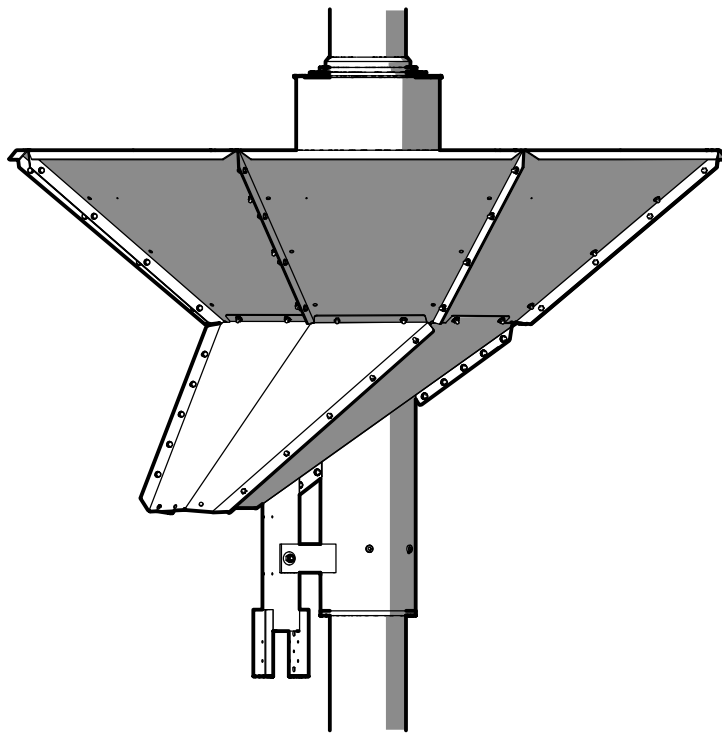


g. Attach the rest of the Bottom Section as shown below.

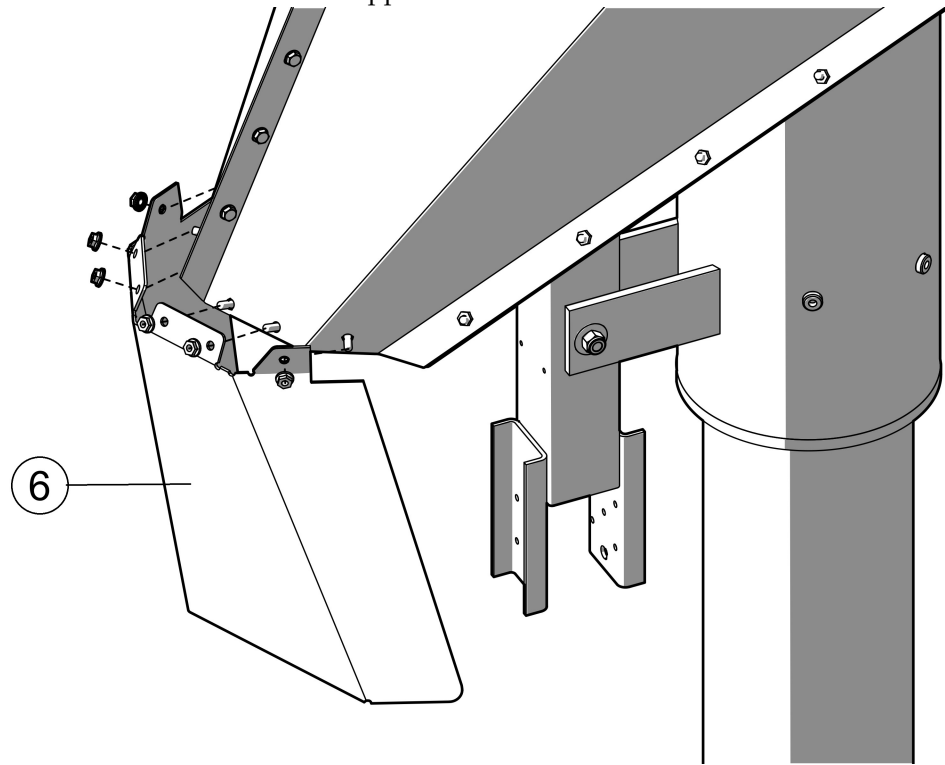


Secure the tabs with bolts as done in the previous step.

h. Secure all the tabs with bolt holes using the nuts and bolts to complete the Bottom Section assembly.

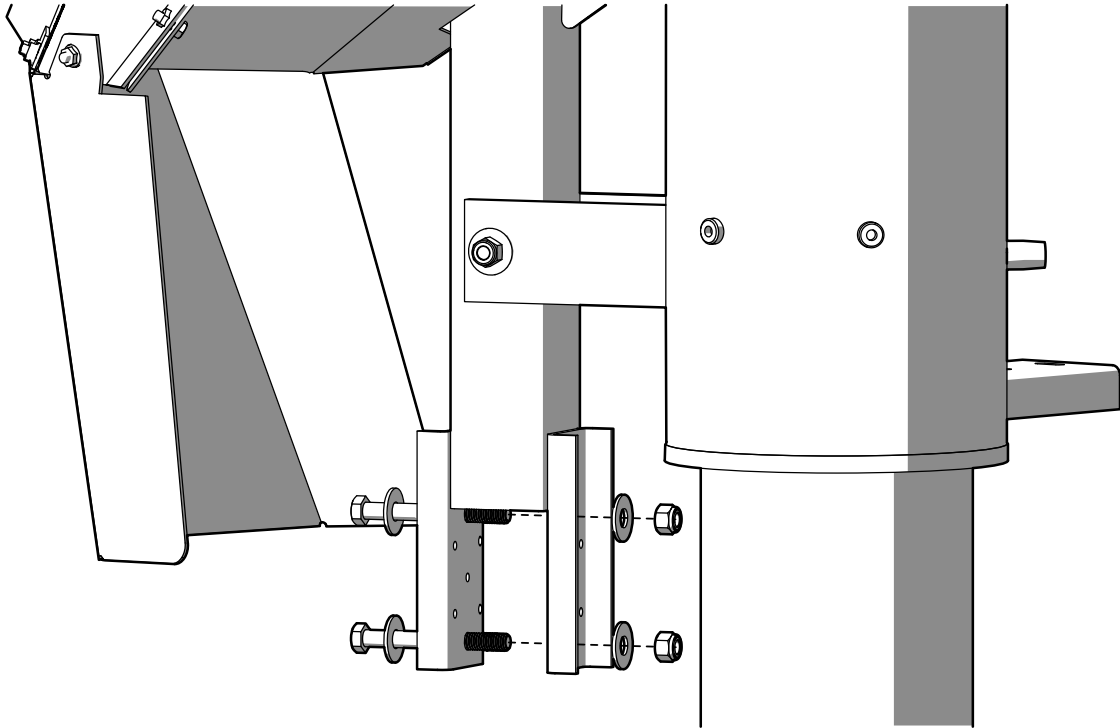


- i. Attach the Chute to the Bottom Section of the hopper.



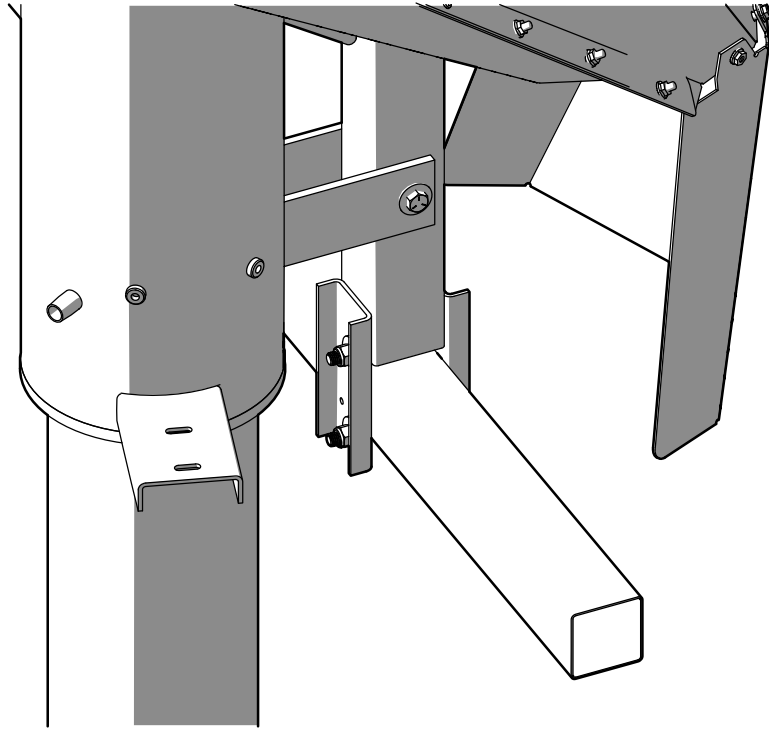
Step 6: Install the Leveling Arm.

- a. Install the bolts in the Mast Arm Weldment as shown. Leave the hardware loose so the leveling arm can be adjusted.



Item No.	Part No.	Description	QTY.
Parts Box: 631-089A Inside 632-317A Inside 634P-001A or 634V-001A			
1	F-1778	Bolt, 1/2-13×4-1/2", GR 5	2
2	F-1009-05	Standard Flat Washer 1/2"	4
3	F-1005-05	Centerlocking Hex Nut, 1/2-13	2

- b. Slide the Leveling Arm through the Mast Arm.

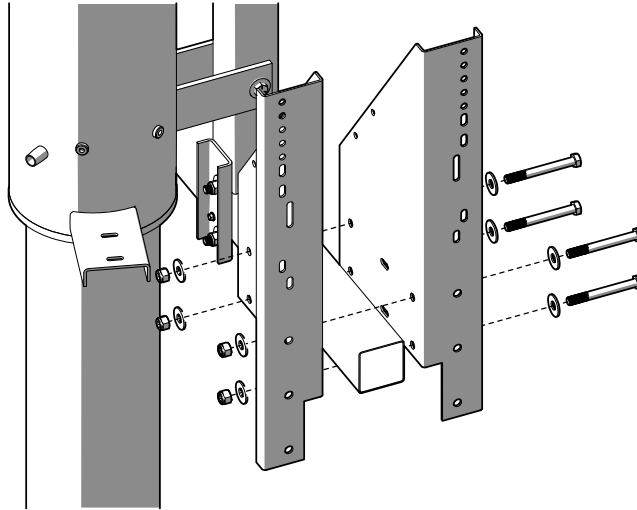


Support the outer end of the leveling arm with an approved, properly rated support until the support chains are installed and tensioned.

- c. Temporarily secure the hardware to hold the leveling arm in place.

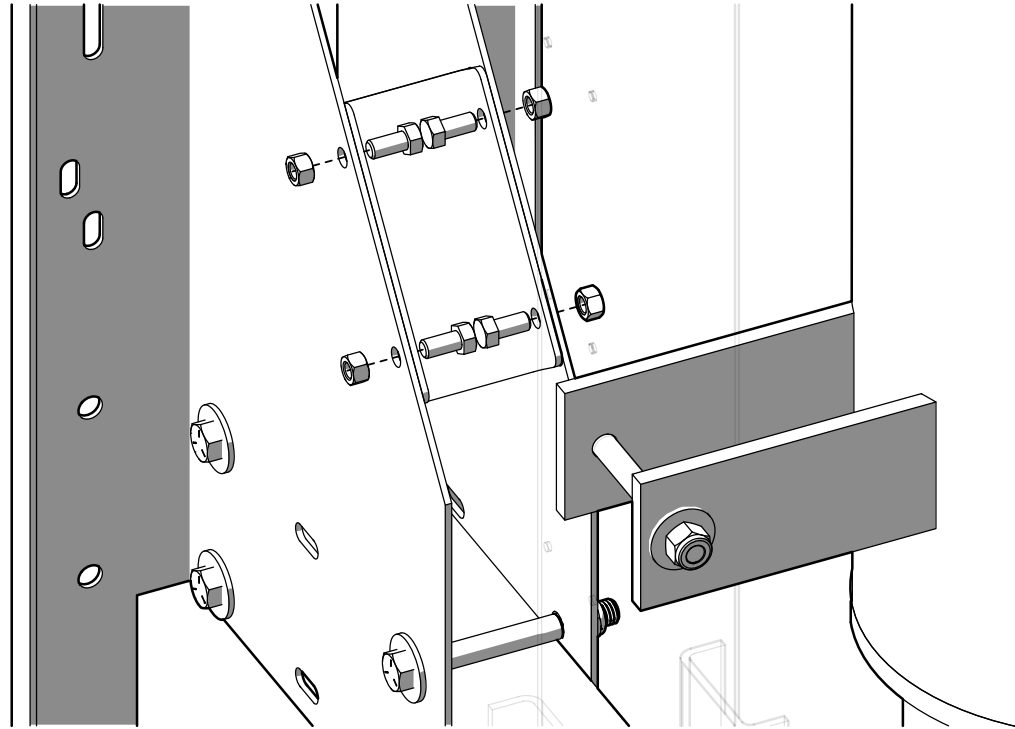
Step 7: Attach Motor and Gearbox Mounts.

- a. Bolt the Level Dry Motor Mount Plates on the Leveling Arm.



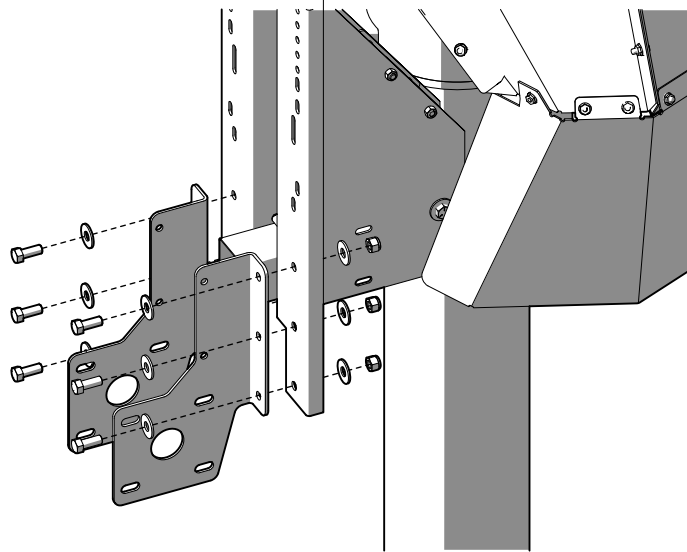
Item No.	Part No.	Description	QTY.
Parts Box: 631X-001A			
1	632-145P	LDRY: Motor Mount, RH	1
2	632-146P	LDRY: Motor Mount, LH	1
Parts Box: 632-252A inside 631X-001A			
3	F-1778	Bolt, 1/2-13×4-1/2", GR 5	4
4	F-1009-05	Standard Flat Washer 1/2"	8
5	F-1378	Nyloc Nut, 1/2-13	4

b. Attach the Level Dry Motor Mount Support Plate.



Item No.	Part No.	Description	QTY.
Parts Box: 632-252A inside 631X-001A			
1	632-249P	LDRY: Spacer Channel	1
2	F-1015-23	Hex Head Capscrew, 3/8-16×3/4", GR 5	4
3	F-1005-03	Centerlocking Nut, 3/8-16	4

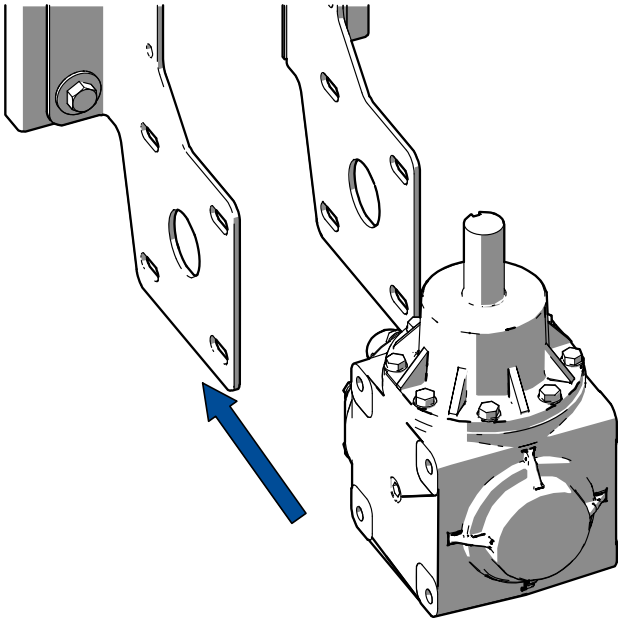
c. Attach the Level Dry Gearbox Mount.



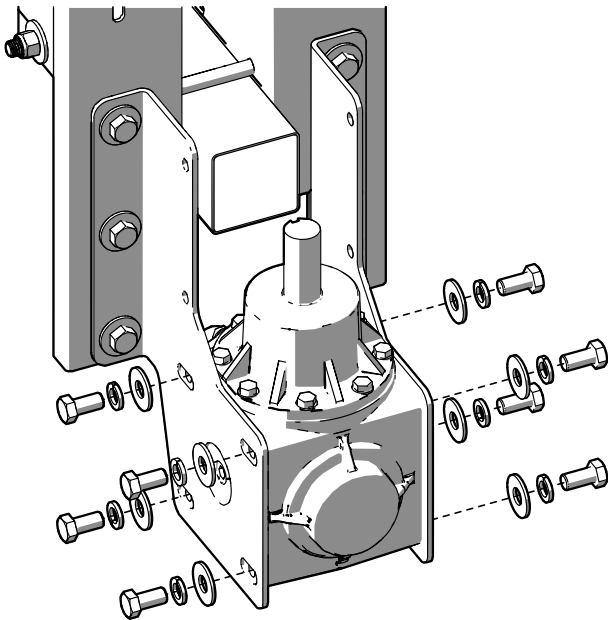
Item No.	Part No.	Description	QTY.
Parts Box: 631X-001A			
1	632-231P	LDRY: Gearbox Mount, RH	1
2	632-232P	LDRY: Gearbox Mount, LH	1
Parts Box: 632-252A in 631X-001A			
3	F-1386	Hex Head Capscrew, 1/2-13×1-1/4", GR 5	6
4	F-1009-05	Standard Flat Washer 1/2"	12
5	F-1378	Nyloc Nut, 1/2-13	6

Step 8: Install the Motor and Drive Assembly.

- a. Align the Bolt holes on the Gearbox (632-216P, in Parts Box: 631X-001A) with the Gearbox Mount Plates.

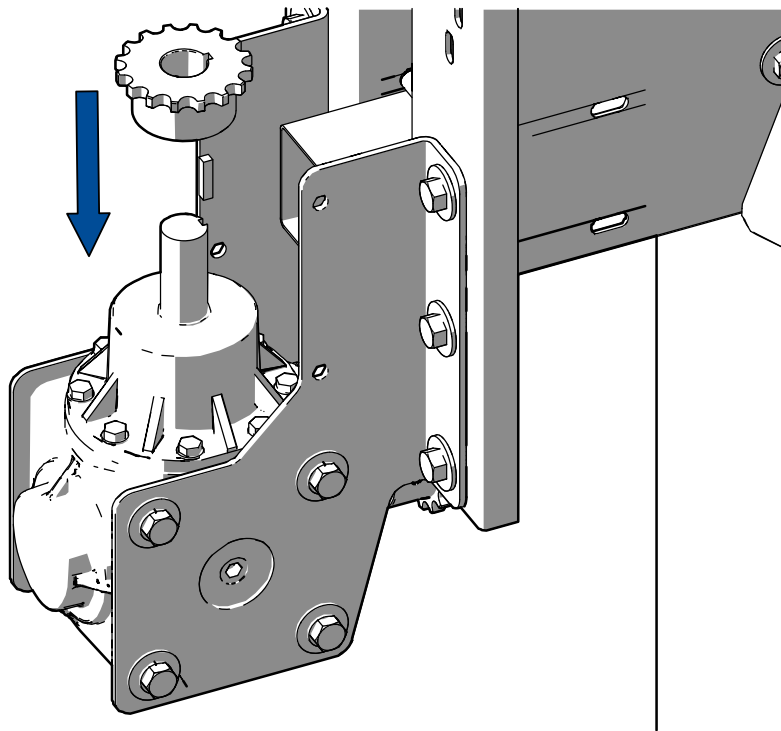


- b. Bolt the Gearbox to the Gearbox Mount Plates loosely.

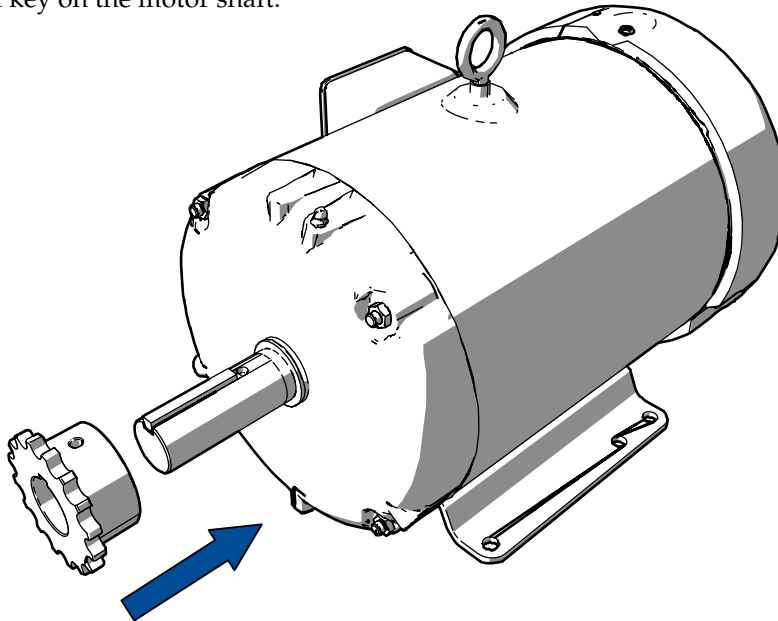


Item No.	Part No.	Description	QTY.
Parts Box: 632-252A in 631X-001A			
1	F-1759	Hex Head Screw, 1/2-13×1", GR 5	8
2	F-1009-05	Standard Flat Washer 1/2"	8
3	F-1464	Lockwasher, Standard 1/2"	8

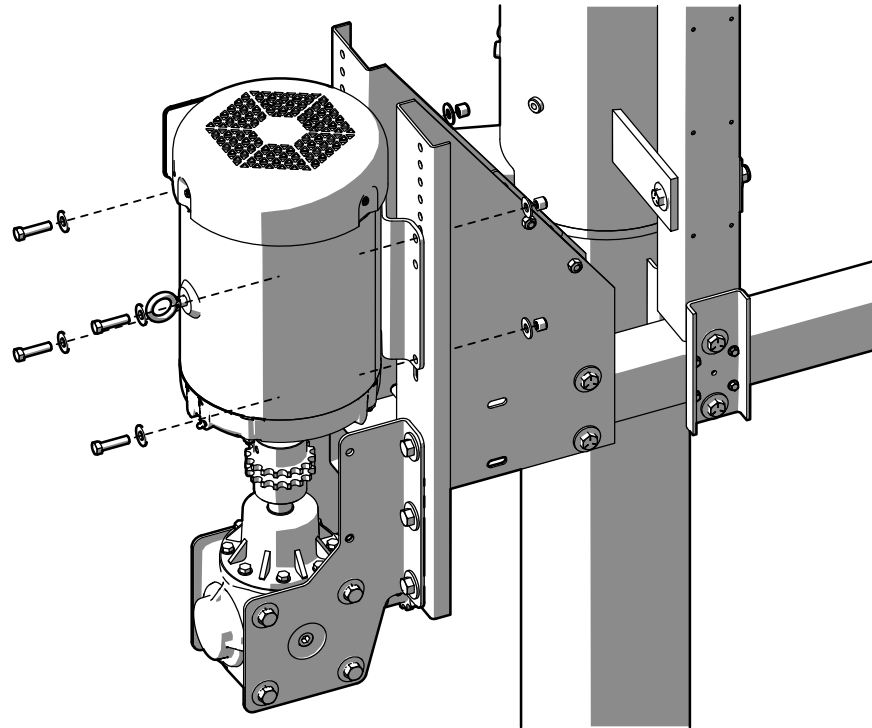
- c. Attach the Sprocket to the vertical shaft of the Gearbox.
Use kit 631V-001A for a 5 HP Motor and kit 631W-001A for a 7.5 HP Motor.



- d. Install the Sprocket and key on the motor shaft.

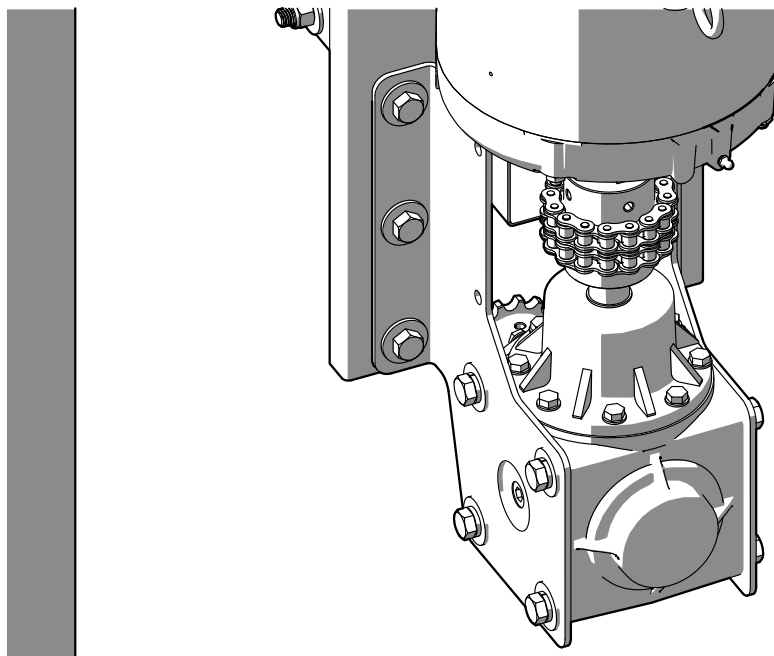


- e. Raise the Motor into position and secure it to the motor mount. (Use spacers and longer bolts when using the 184T Mounting Holes).

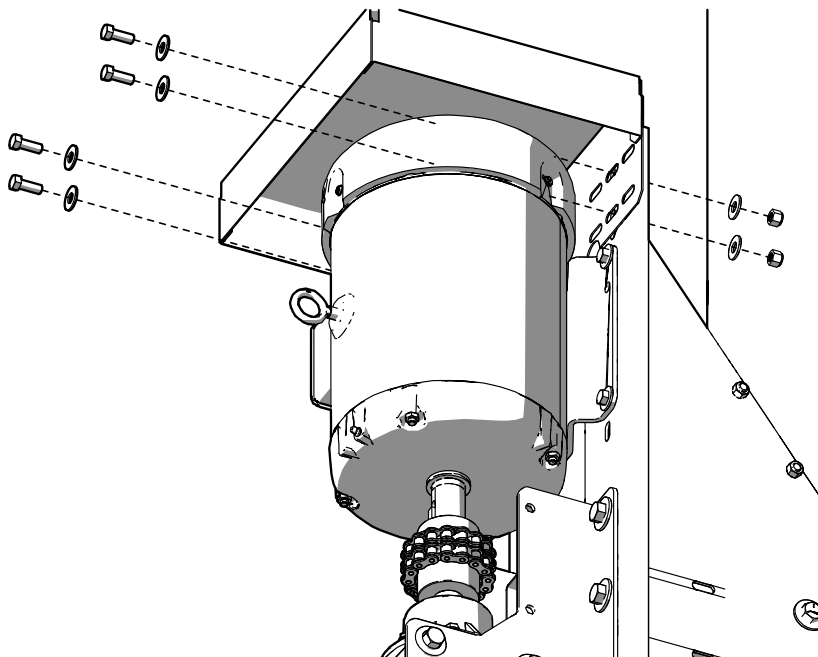


Item No.	Part No.	Description	QTY.
Parts Box: 632-252A inside 631X-001A			
1	F-1015-27	Hex Head Capscrew, 3/8-16×1-1/2", GR 5	4
	F-1015-30	Hex Head Capscrew, 3/8-16×2-1/2", GR 5	
2	632-147P	Bushing (for 184T Mounting Holes)	4
3	F-1009-03	Standard Flat Washer 3/8"	8
4	F-1005-03	Center Locking Nut, 3/8-16	4

- f. Align the Gearbox and Motor Shafts and join the sprockets using a Chain Coupler.



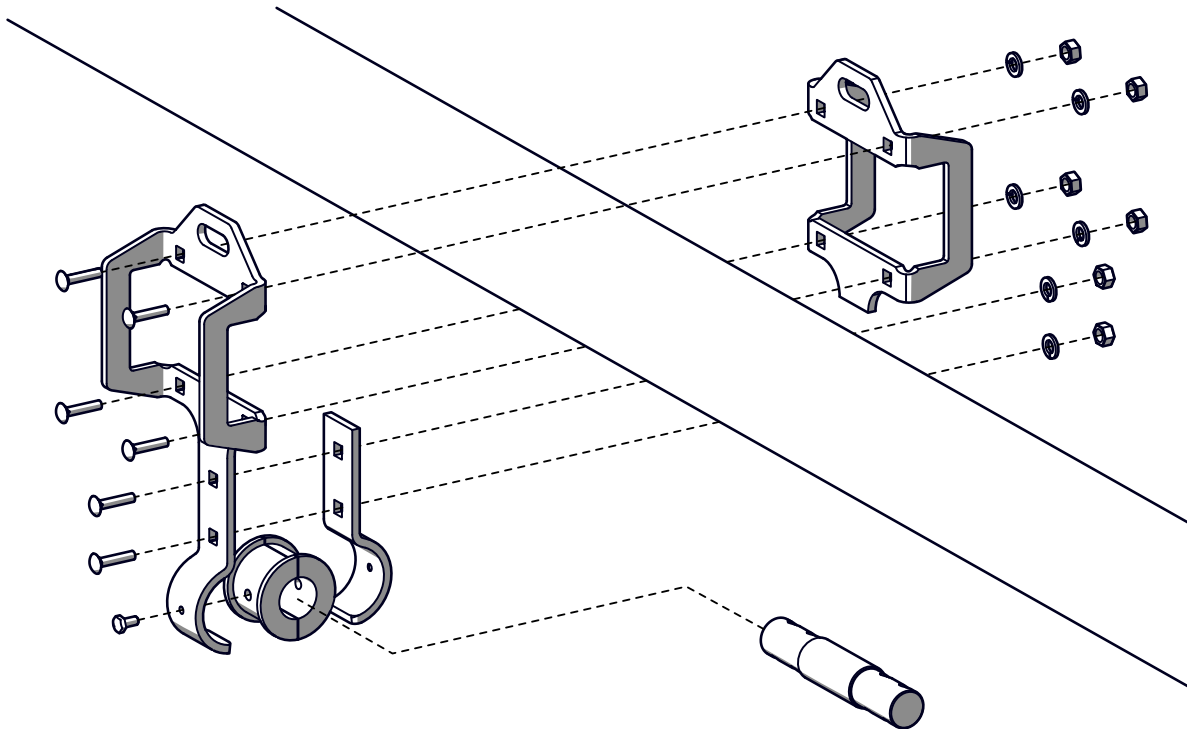
- g. Tighten the gearbox and motor mounting hardware to the approved specifications, then recheck the shaft alignment.
- h. Attach the Motor Cover.



Item No.	Part No.	Description	QTY.
Parts Box: 632-252A inside 631X-001A			
1	F-1394	Hex Head Capscrew, 3/8-16×1", GR 5	4
2	F-1009-03	Standard Flat Washer 3/8"	8
3	F-1005-03	Center Locking Nut, 3/8-16	4

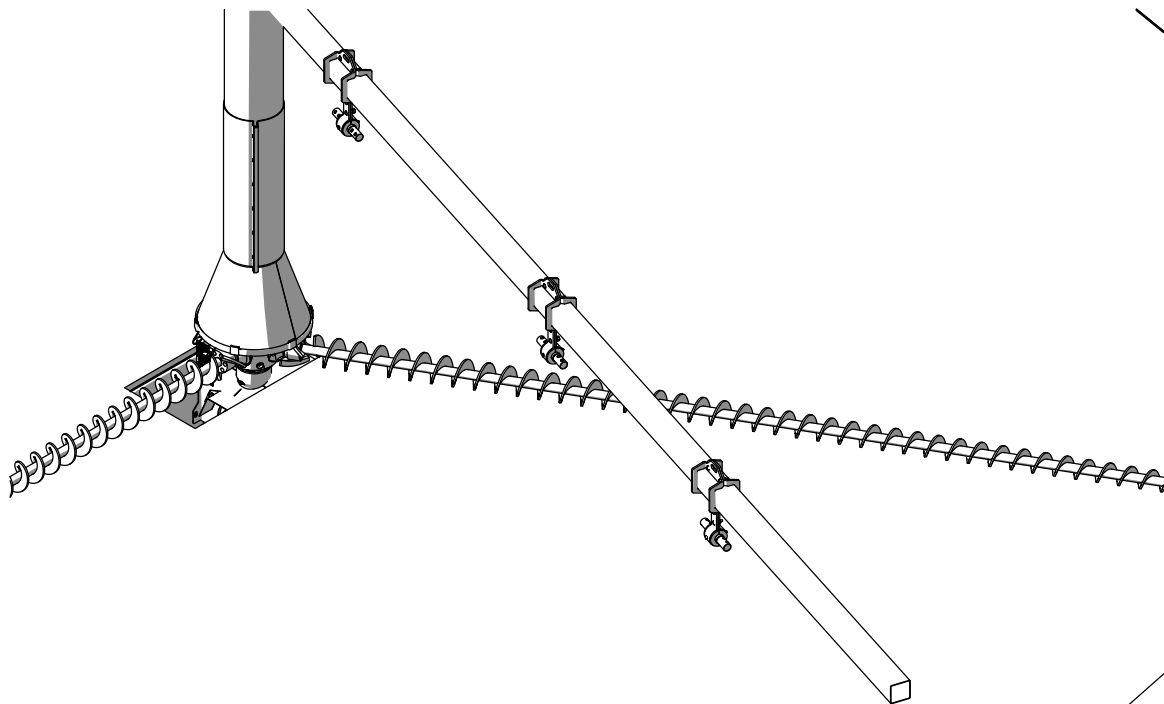
Step 9: Install the Auger Sections on the Leveling Arm.

- a. Install the wood hanger bearing with the Coupling Shaft on the Leveling Arm. Leave loose to adjust position along the Arm.

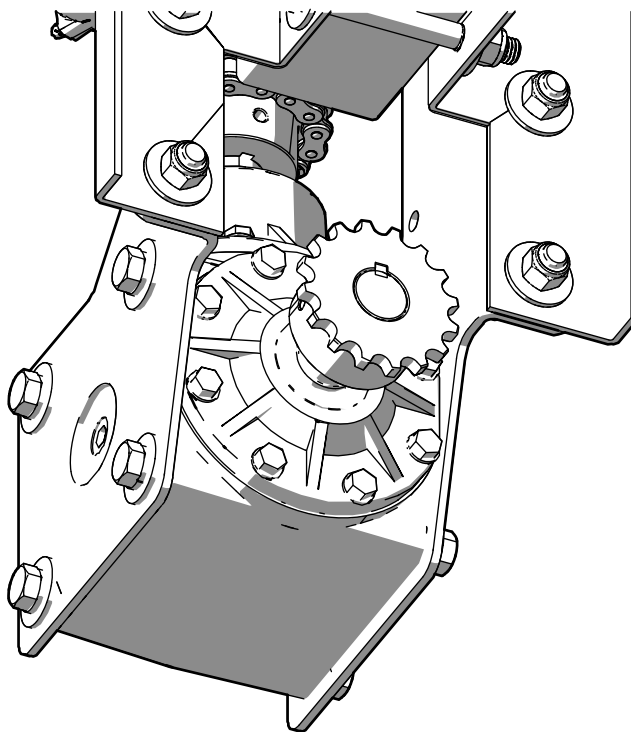


Item No.	Part No.	Description	QTY.
Parts Box: 632K-001A			
1	632-237P	LDRY: Hanger Bearing Bracket	1
2	632-321P	LDRY: Hanger Bearing Bracket, Top Half	1
3	632-322P	LDRY: Hanger Bearing Bracket, Bottom Half	1
Parts Box: 632-250A in 632K-001A			
4	631-074P	LDRY: Hanger Bearing Shaft	1
5	D-3817	Wood Bearing	1
6	F-1672	Carriage Bolt, 3/8-16×1-1/4", GR 5	6
7	F-1019-03	Lockwasher, 3/8"	6
8	F-1011-03	Hex Nut, 3/8-16	6
9	F-1513	Capscrew, 1/4-28×1/2"	1

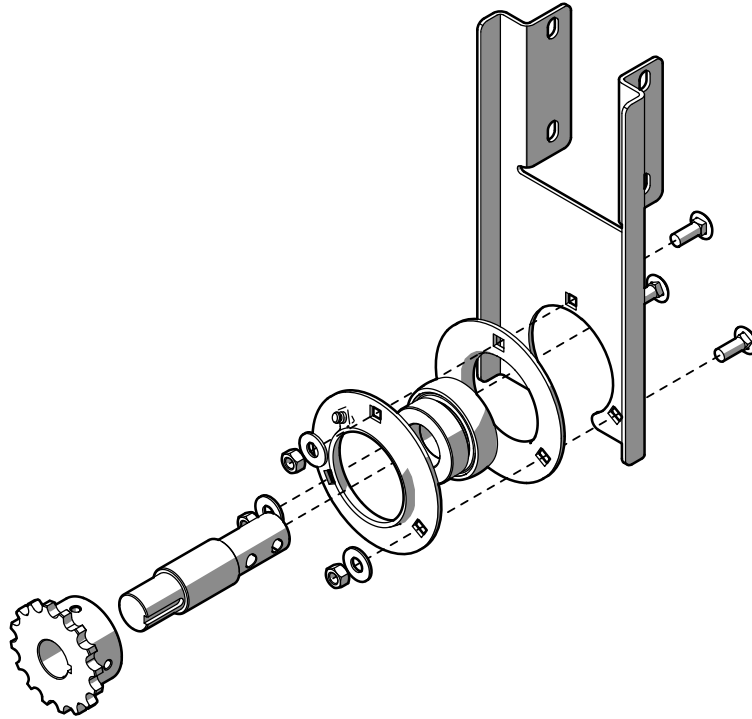
- b. Space the Hanger Bearings on the leveling arm approximately one auger length apart, or as shown in the auger length chart.



- c. Attach Sprocket to the Horizontal Shaft of the Gearbox (If not already attached, Use 631V-001A for 5 HP motor and 631W-001A for 7.5 HP motor).

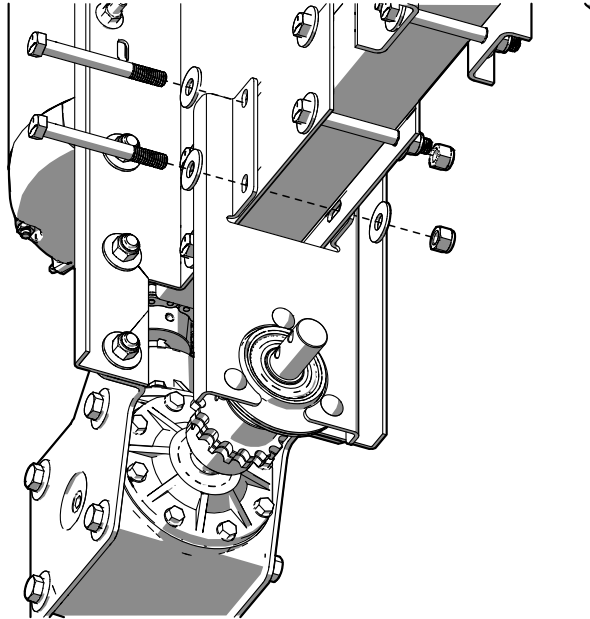


d. Assemble the gearbox-side carrier bearing assembly.



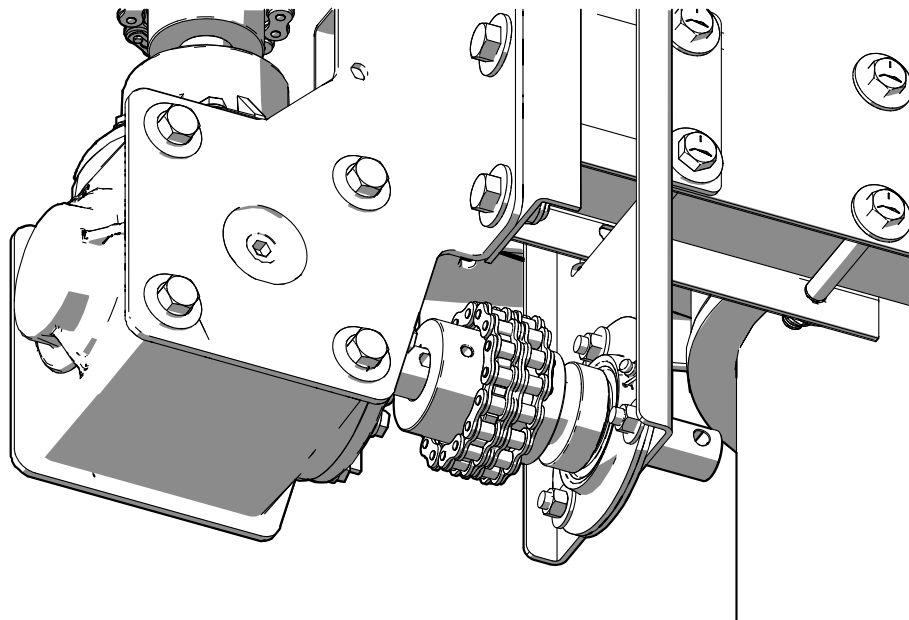
Item No.	Part No.	Description	QTY.
1	-	Sprocket	1
Parts Box: 632-252A in 631X-001A			
2	631-070P	LDRY: Hanger Bearing Shaft	1
3	632-170P	Key, 1/4 Sq. × 3/4" Al.	1
4	F-1005-03	Center Locking Nut, 3/8-16	3
5	F-1009-03	Flat Washer, 3/8"	3
6	D-3579	Bearing Flange with Zerk	1
7	D-3578	Bearing, 1-3/8" ID	1
8	D-3580	Bearing Flange without Zerk	1
9	631-069P	LDRY: Hanger Bearing Bracket	1
10	F-1274	Carriage Bolt, 3/8-16×1", GR 5	3

e. Mount the gearbox-side carrier bearing assembly on the Leveling Arm.



Item No.	Part No.	Description	QTY.
Parts Box: 632-252A inside 631X-001A			
1	F-1778	Bolt, 1/2-13×4-1/2", GR 5	2
2	F-1009-05	Standard Flat Washer 1/2"	4
3	F-1378	Nyloc Nut, 1/2"-13	2

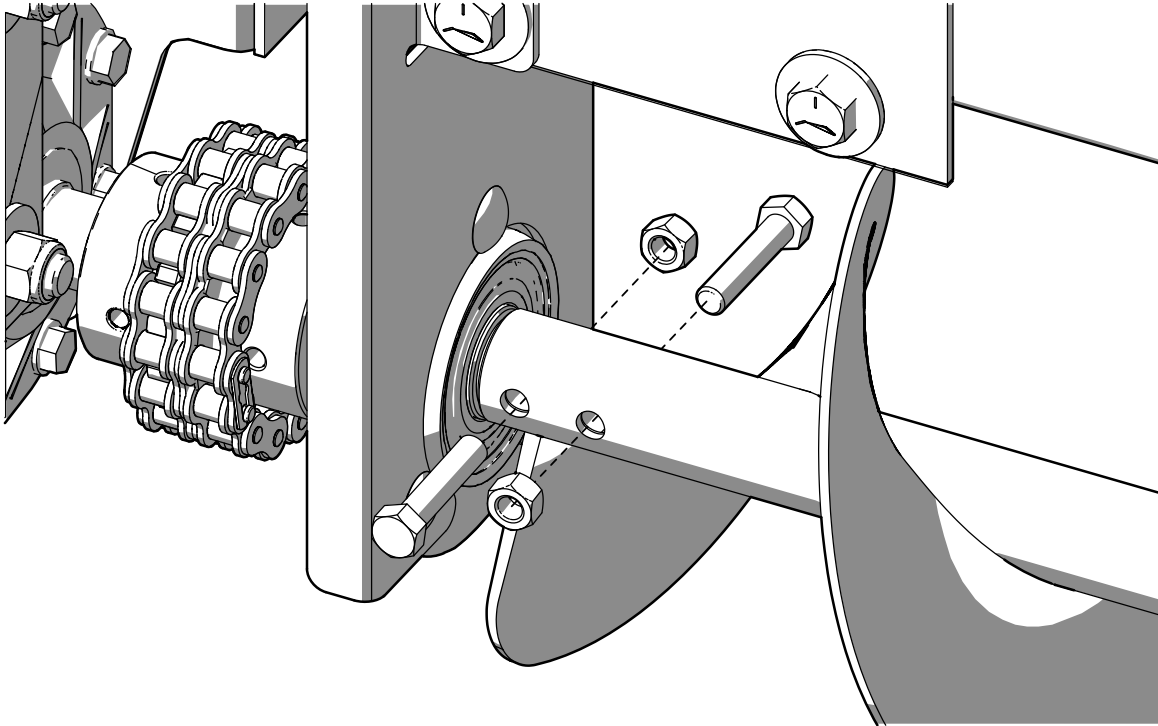
f. Couple the Gearbox Sprocket and the Sprocket on the gearbox-side carrier bearing assembly.



g. Attach the First Auger to the gearbox-side carrier bearing assembly coupled to the Gearbox.

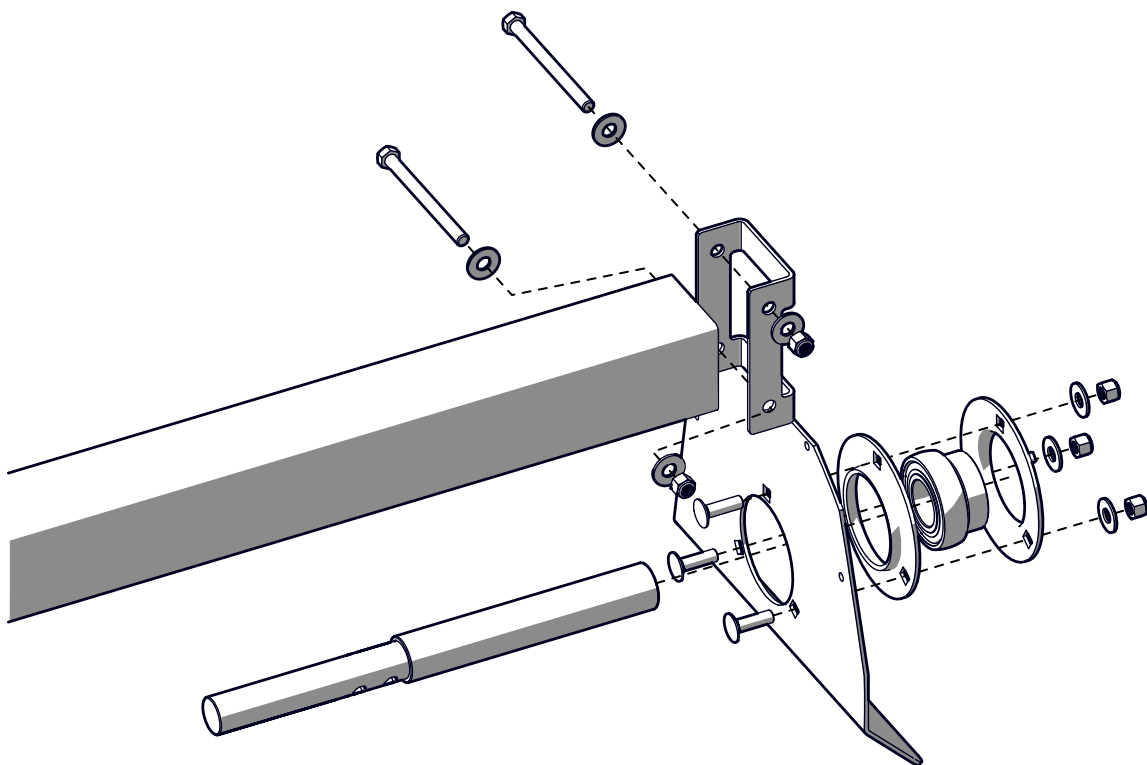
Slide the Auger Tube over the gearbox-side carrier bearing shaft and bolt them together using F-2126 and F-1005-03 from 632-250A hardware sack inside 632K-001A.

Note: Make sure the weld seams on the auger face toward the gearbox.

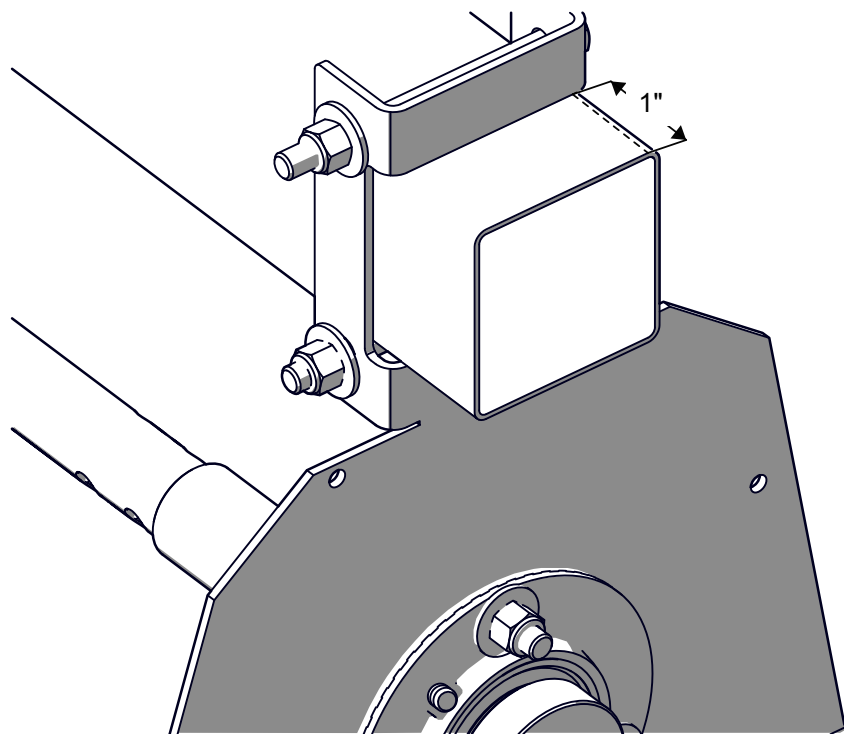


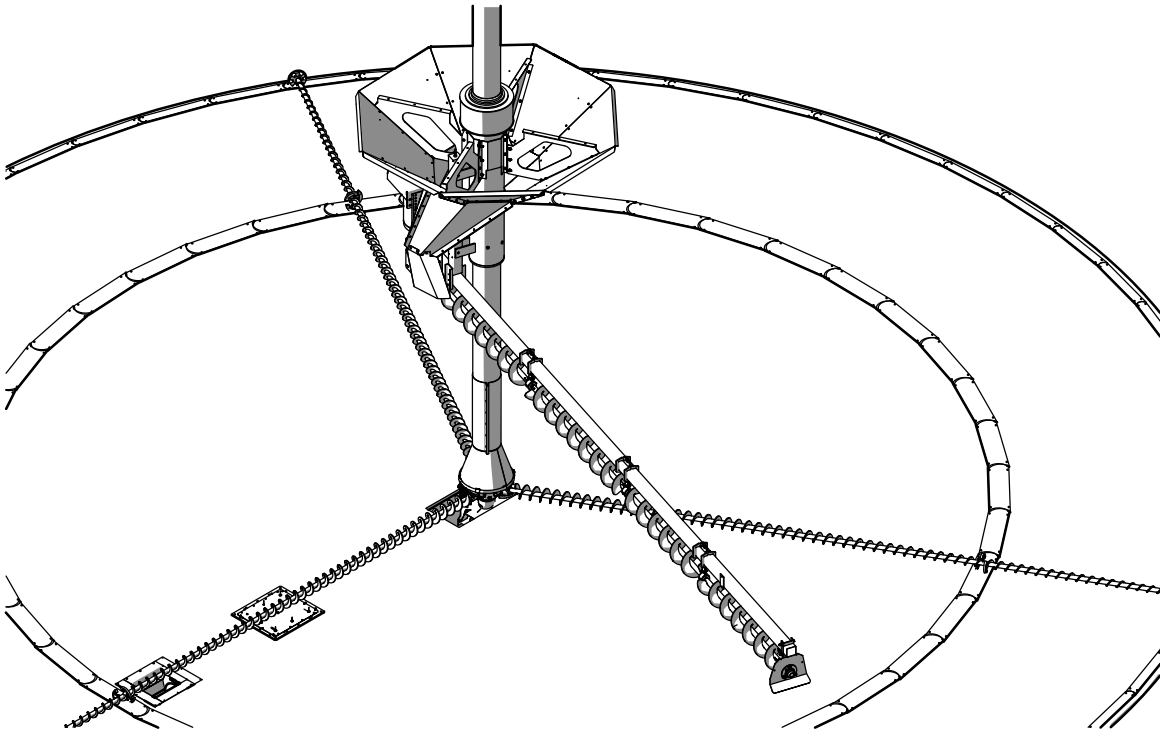
h. Attach the outer end bearing assembly at the end of the Leveling Arm.

Item No.	Part No.	Description	QTY.
Parts Box: 634R-001A			
1	632-311P	Auger Shield End Plate	1
2	D-3579	Bearing Flange with Zerk	1
3	D-3580	Bearing Flange without Zerk	1
4	D-3578	Bearing	1
Parts Box: 632-317A in 634P-001A or 634V-001A			
5	631-073P	Level Dry End Shaft, Long	1
Parts Box: 632-325A in 634R-001A			
6	F-1541	Capscrew, 3/8-16×4-1/2"	2
7	F-1672	Carriage Bolt, 3/8-16×1-1/4"	3
8	F-1239	Nyloc Nut, 3/8-16	5
9	F-1009-03	Flat washer, 3/8"	7



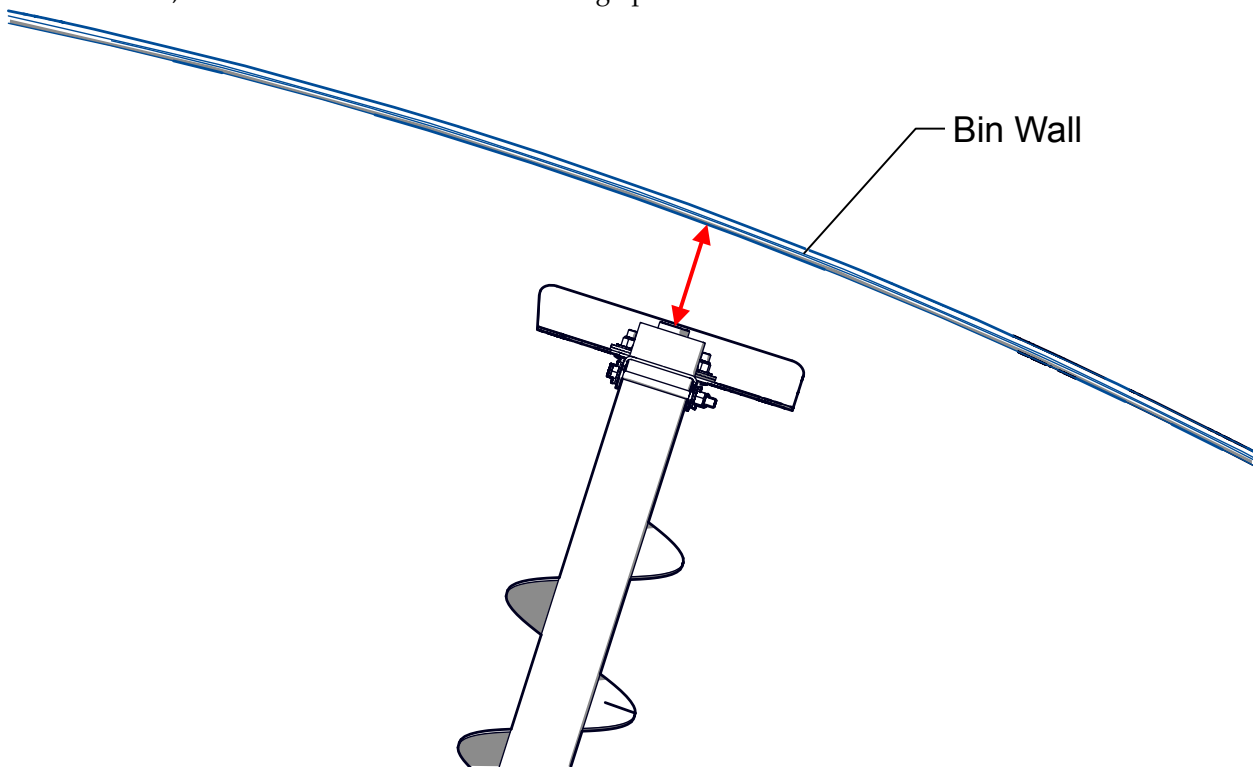
- i. Attach the Augers to the Hanger Bearing Shafts using the same method described in Step 9g. Time the Augers so the flighting is as close to continuous across each coupling.
- j. Slide the End Bearing until it is 1 in from the Tube edge.



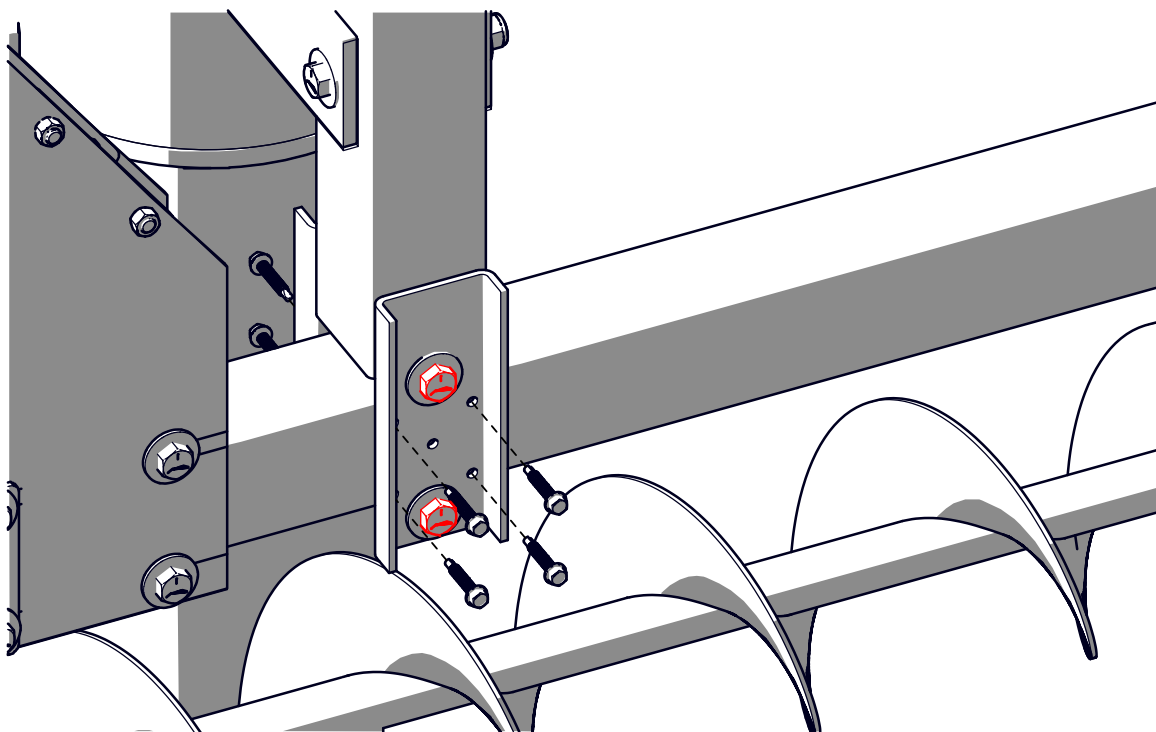


- k. Slide the Leveling Arm, including Motor, Gearbox and Augers, to ensure there is clearance between the Bin Wall and the Leveling Arm.

Note: Make sure the Leveling Arm clears all Ladders, Sensors, and any other structure attached to the Bin Wall, to rotate without obstruction during operation.



- l. Tighten the Bolts holding the Leveling Arm on the Mast Arm and secure the position of the Leveling Arm using F-1186, self drilling screws, in parts sack 631-089A inside 632-317A inside 634P-001A or 634V-001A.

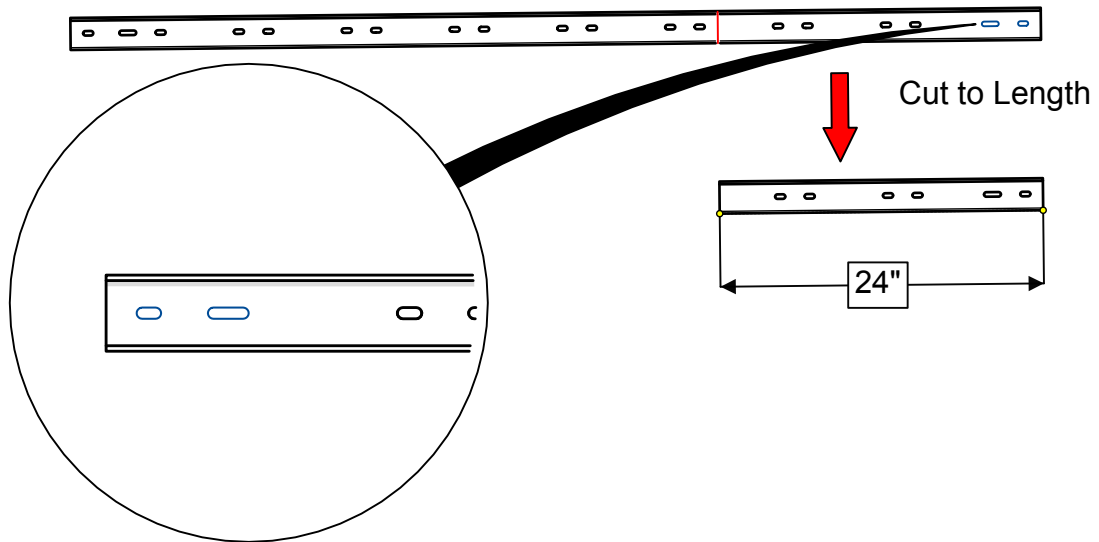


Step 10: Assemble the Counterweight Arm on the Center Tube Assembly.

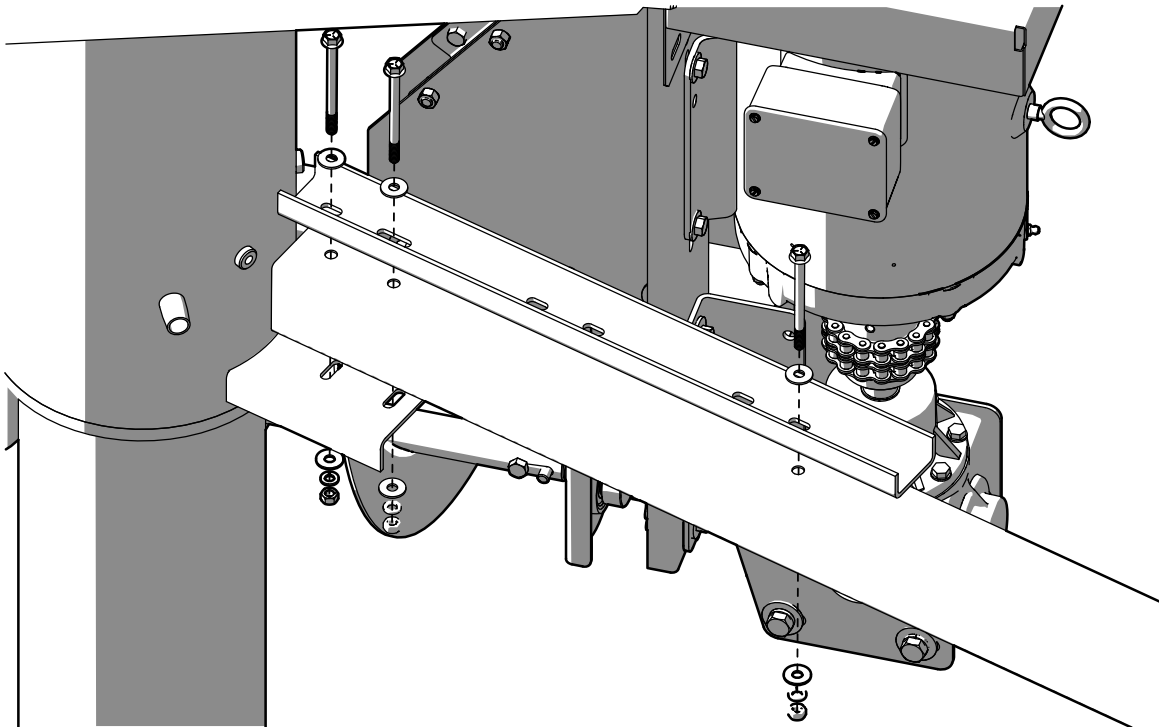
- a. Shorten the Counterweight Arm to length by referring to the dimensions below.

Item No.	Bin Diameter (ft.)	3" Square Tube	Original Length	Shortens to
1	27	631AA-001A	120"	84"
2	30	631AA-001A	120"	102"
3	33	631AA-001A	120"	Use as is
4	36	631AC-001A	156"	138"
5	42	631AE-001A	192"	174"
6	48	631AG-001A	228"	210"

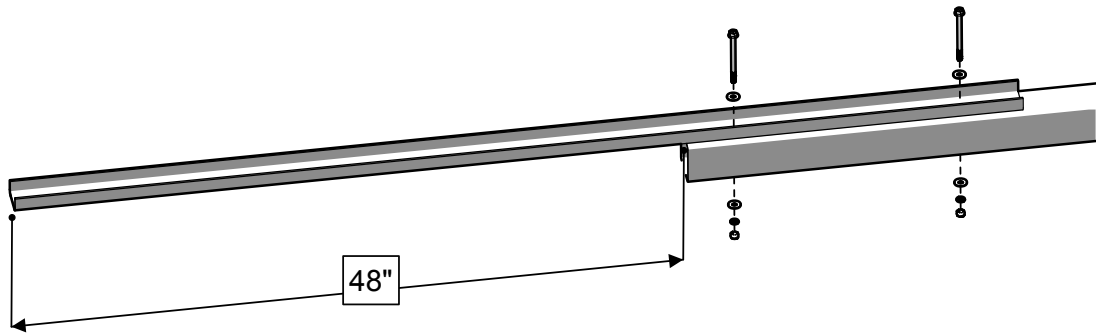
- b. Shorten a 6' Bin Stiffener (283D-001A).



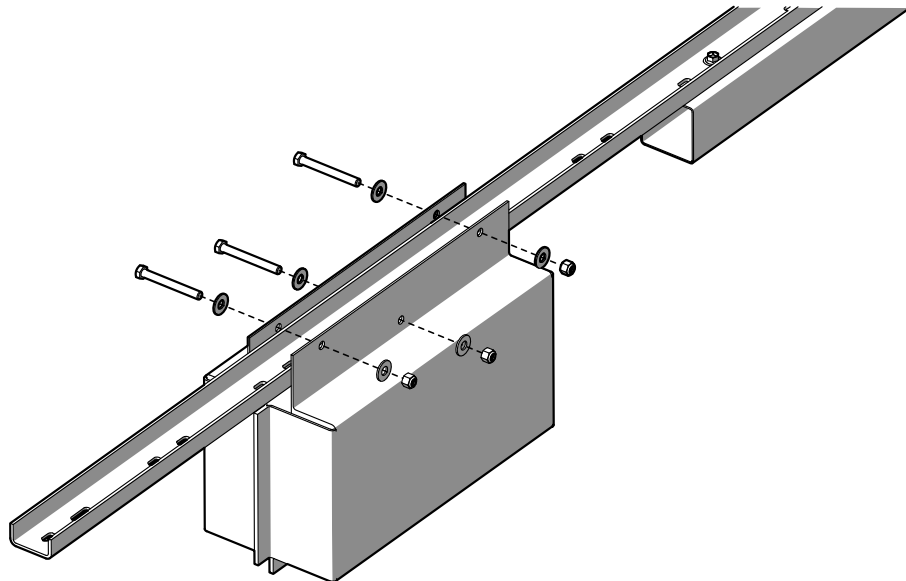
- c. Attach the Counterweight Arm to the Center Tube along with the shortened Bin Stiffener using parts sack 632-254A inside 634U-001A.



- d. Attach a 6ft Bin Stiffener at the end of the Counterweight Arm as shown.



- e. Install the complete Counterweight assembly from parts box 634C-001A (one assembly consisting of two brackets and two cement blocks; see the parts list below, Item 1, QTY. 1) to the Bin Stiffener. Do not fully tighten the Counterweights at this time. Later, their position will be adjusted.

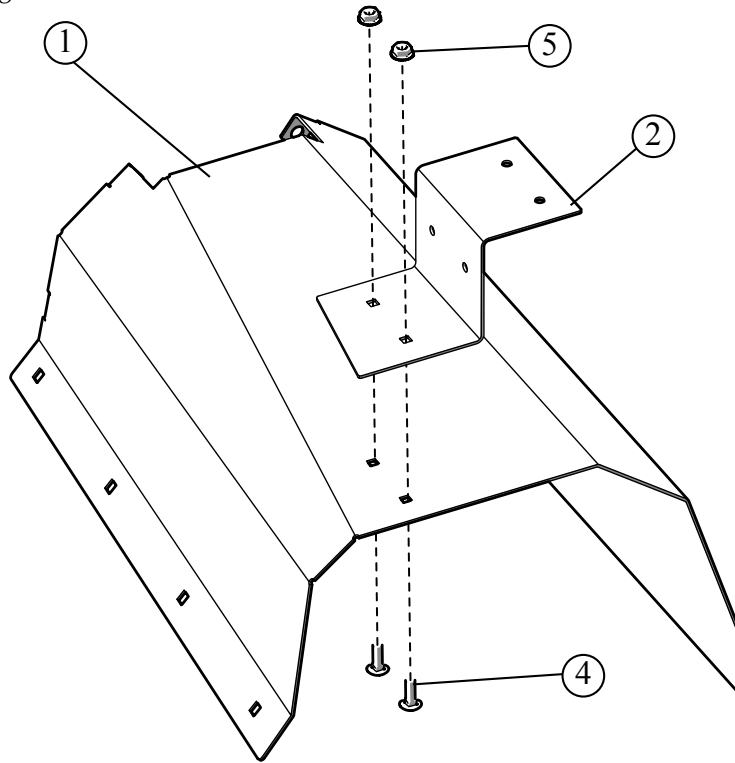


Item No.	Part No.	Description	QTY.
Parts Box: 634C-001A			
1	-	Counterweight assembly (2 brackets + 2 cement blocks)	1
2	F-1616	Capscrew, 3/8-16×3-1/4"	3
3	F-1009-03	Standard Flat Washer, 3/8"	6
4	F-1239	Nyloc Nut, 3/8-16	3

- f. Support the end of the Bin Stiffener until Chains are attached.

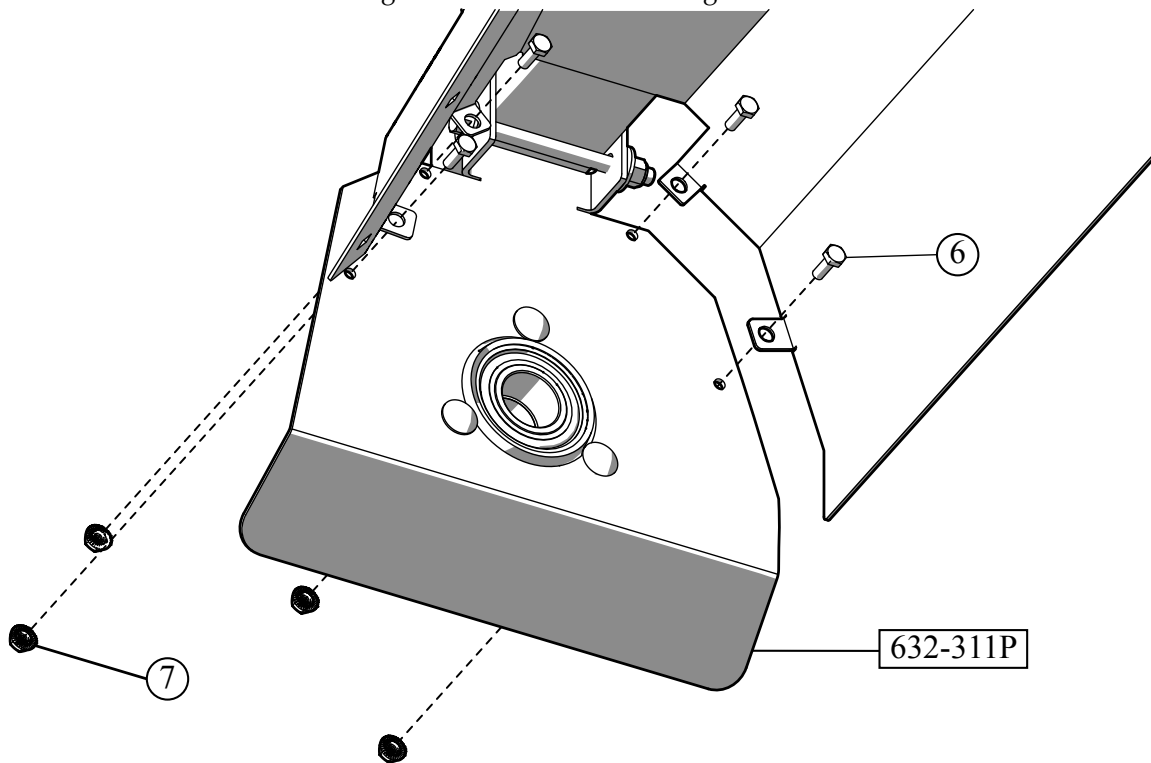
Step 11: Install the Shield.

a. Attach the Hanger Tab to the Shield.

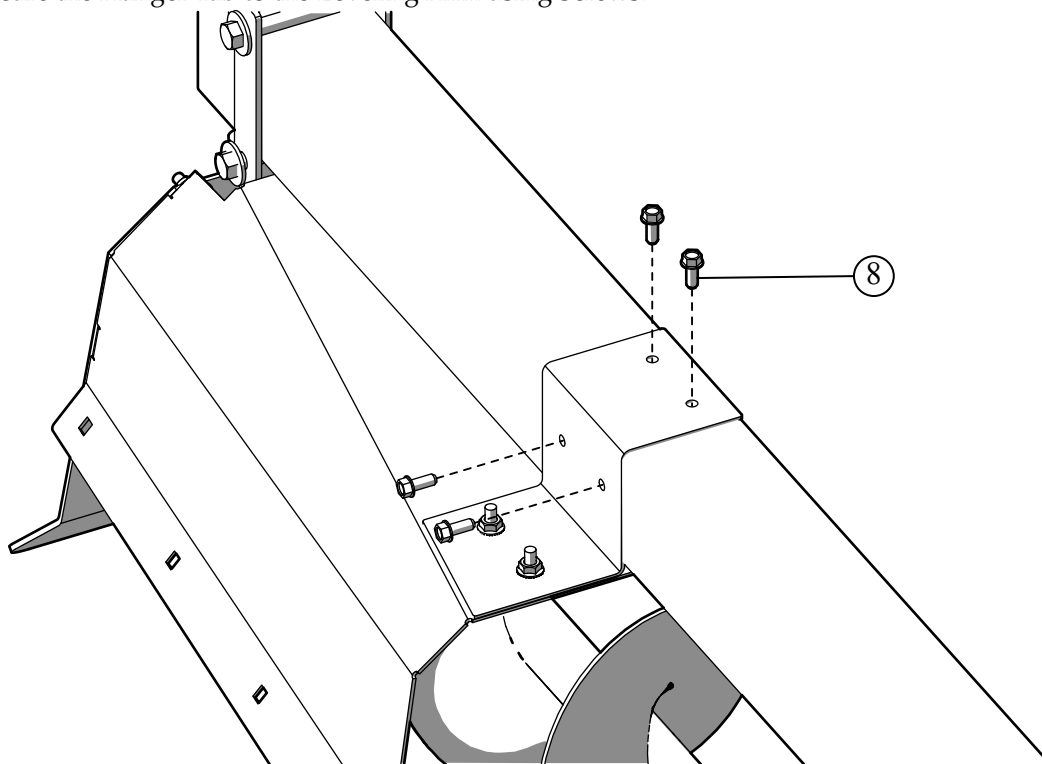


Item No.	Part No.	Description	QTY.
Parts Box: 634R-001A			
1	632-310P	Auger End Shield	1
2	632-323P	LDRY End Shield Hanger	1
3	632-324P	LDRY End Shield Flex Section	1
Parts Box: 632-325A in 634R-001A			
4	F-1823	Carriage Bolt, 1/4-20×3/4"	2
5	F-2297	Serrated Flanged Nut, 1/4-20	2
6	F-1538	Capscrew 1/4-20 ×3/4in	4
7	F-2297	Serrated Flanged Nut, 1/4 - 20	4
8	F-2030	1/4 X 5/8" SELF-TAPPING HEX SCREW	4
9	F-1269	Carriage Bolt, 5/16-18×1in	4
10	F-2063	Nyloc Flanged Nut, 5/16-18	4

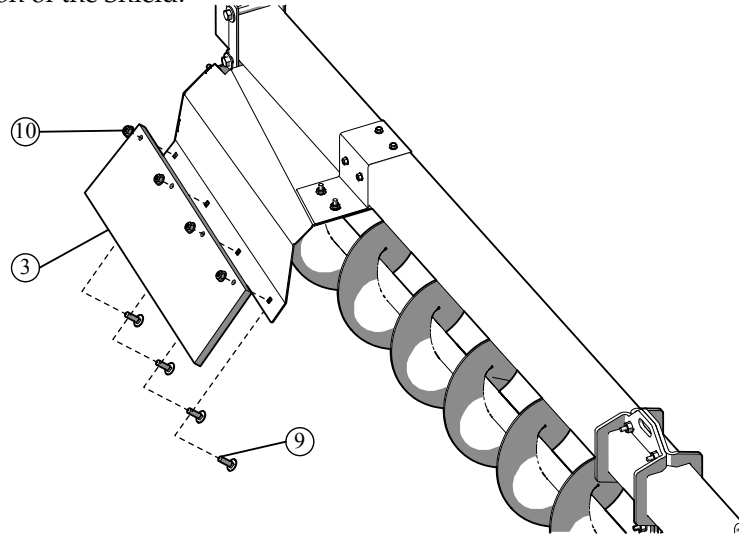
- b. Slide the Shield on the Leveling Arm and attach to the Auger Shield End Plate.



- c. Secure the Hanger Tab to the Leveling Arm using Screws.



d. Attach the Flex Section of the Shield.

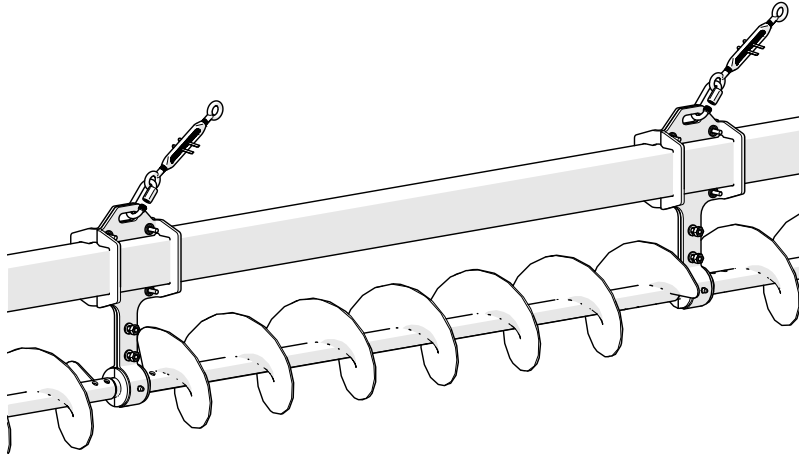


Step 12: Attach Support Chains to the Leveling Arm.

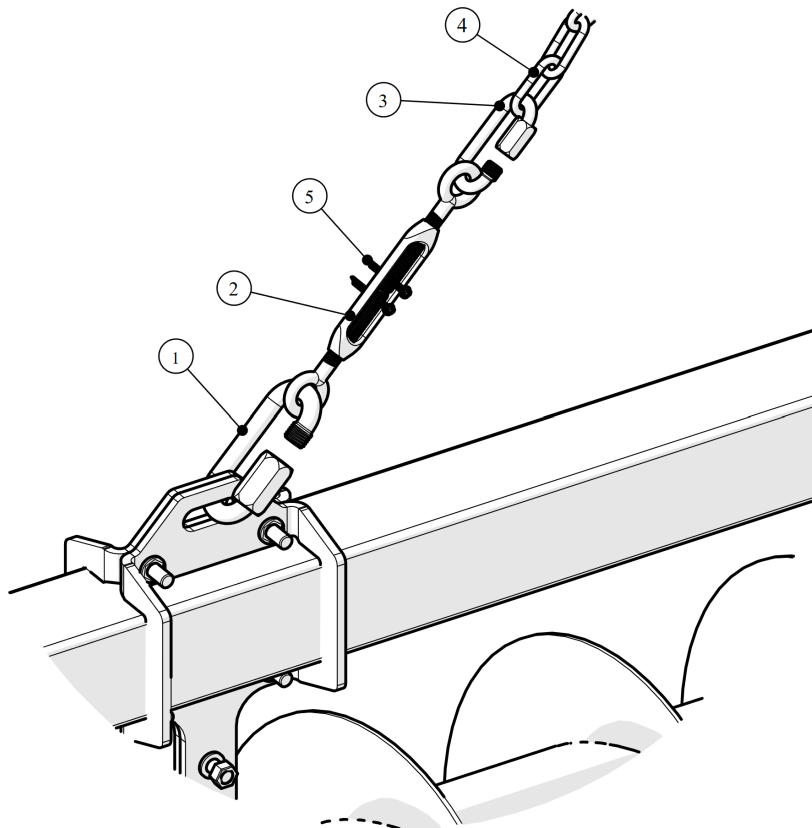
Use the Hardware below for Steps 12 & 13.

Item No.	Part No.	Description	QTY.
Parts Box: 634P-001A or 634V-001A			
1	H-3301	Locking Chain Link, 1/2"	4
2	755-023P	Turnbuckle, 3/8-16, Eye/Eye	4
3	F-2373	Locking Chain Link, 5/16"	4
4	222-090P	Chain, 24'	4
5	F-2027	Cotter Pin 5/32 x 2"	8

- a. Connect one eye of each turnbuckle (755-023P) to the large 1/2" Locking Chain Link (H-3301) after looping it around the two farthest Hanger Bearing Brackets, then screw the large Chain Link shut.



- b. Extend the turnbuckles by unscrewing them, then connect the other eye of each turnbuckle to the chain through the small 5/16" Locking Chain Link (F-2373) and screw the small Chain Link shut. Hold onto Cotter Pins (F-2027) until you remove supports.



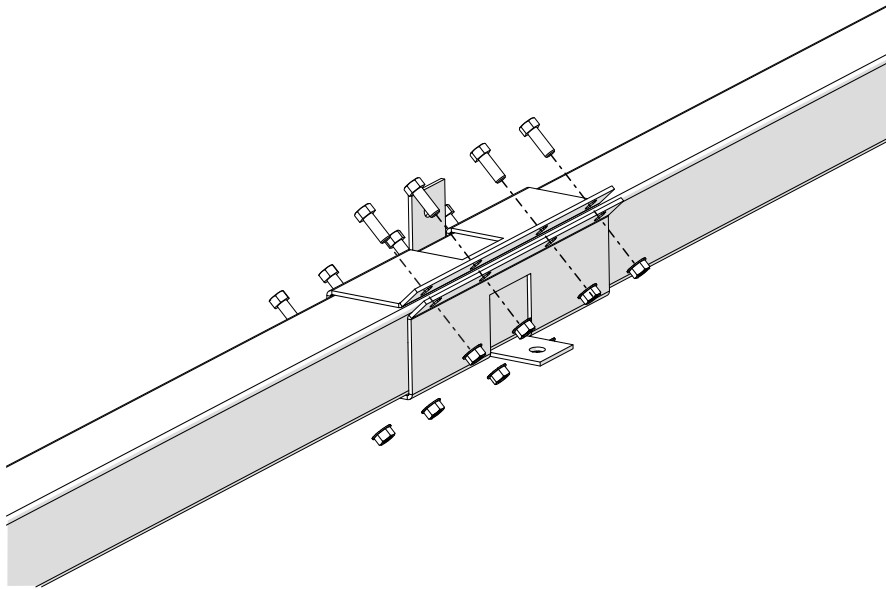
- c. Fasten the turnbuckles to tension the Chain.
- d. Remove Supports, re-tension the Chain if necessary. Insert Cotter Pins (F-2027) into turnbuckles to lock.

Step 13: Attach Support Chains to the Counterweight Arm.

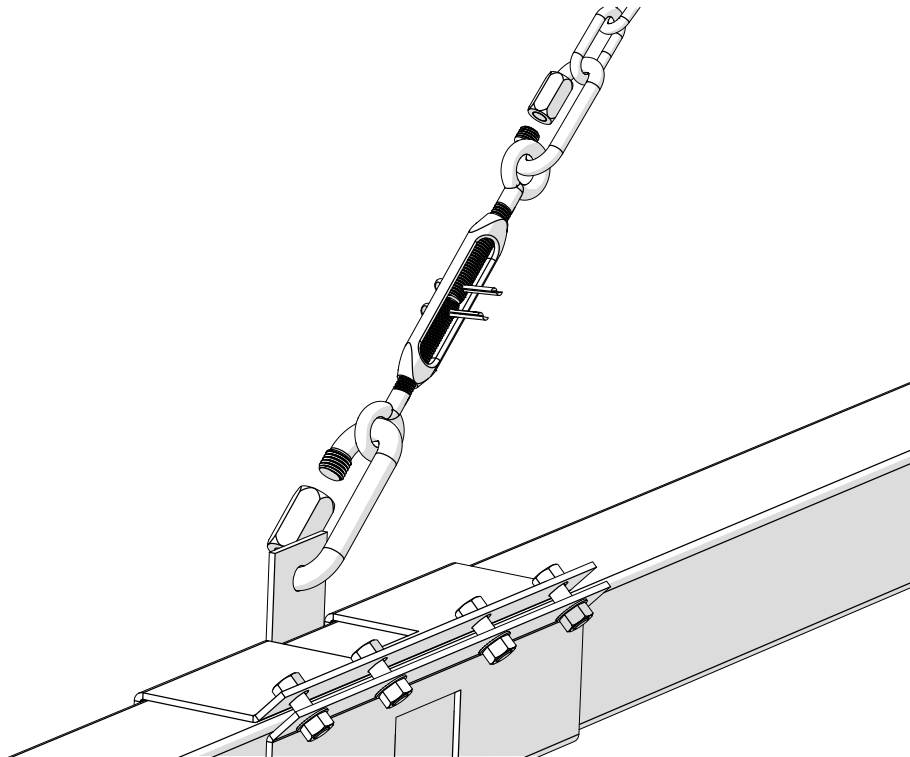
- a. Using the existing hardware on the Octo Hopper, assemble Chains into the nearest Hopper hole as shown in the figure.



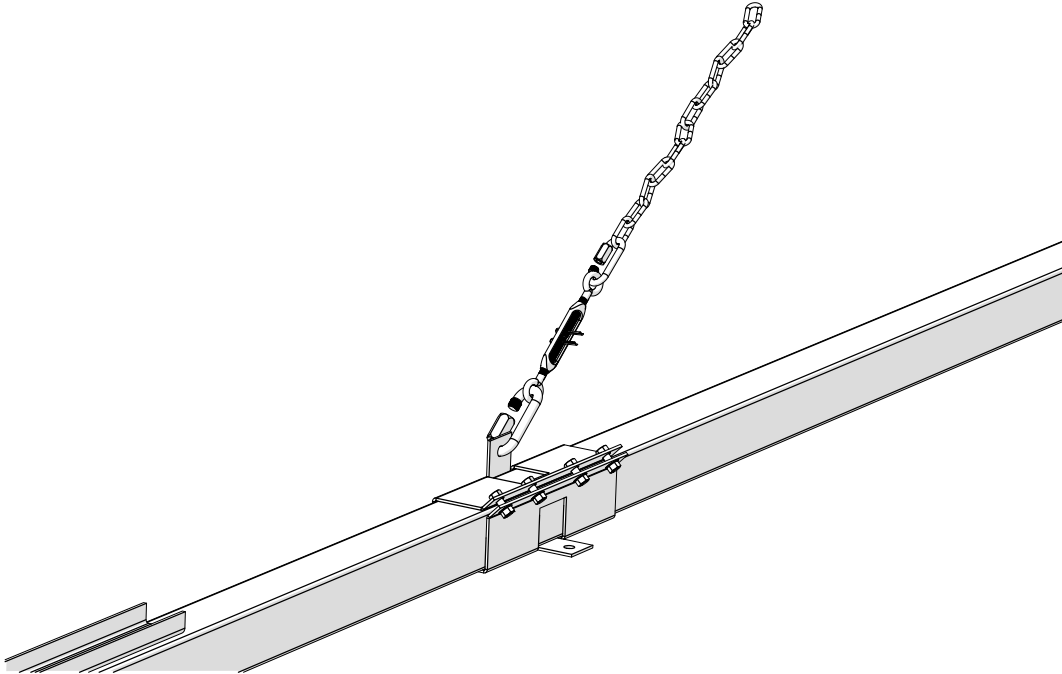
- b. Fasten Chain Brackets onto the Counterweight Arm 12" apart as shown, using (8x) F-1233s & (8x) F-1394s, from 634P-001A or 634V-001A parts box.



- c. If needed, perform the above step again, to install the second set of brackets using the fasteners provided.
- d. Attach a Chain Link (H-3301) and Turnbuckle (755-023P) onto the Square Coupling Bracket.



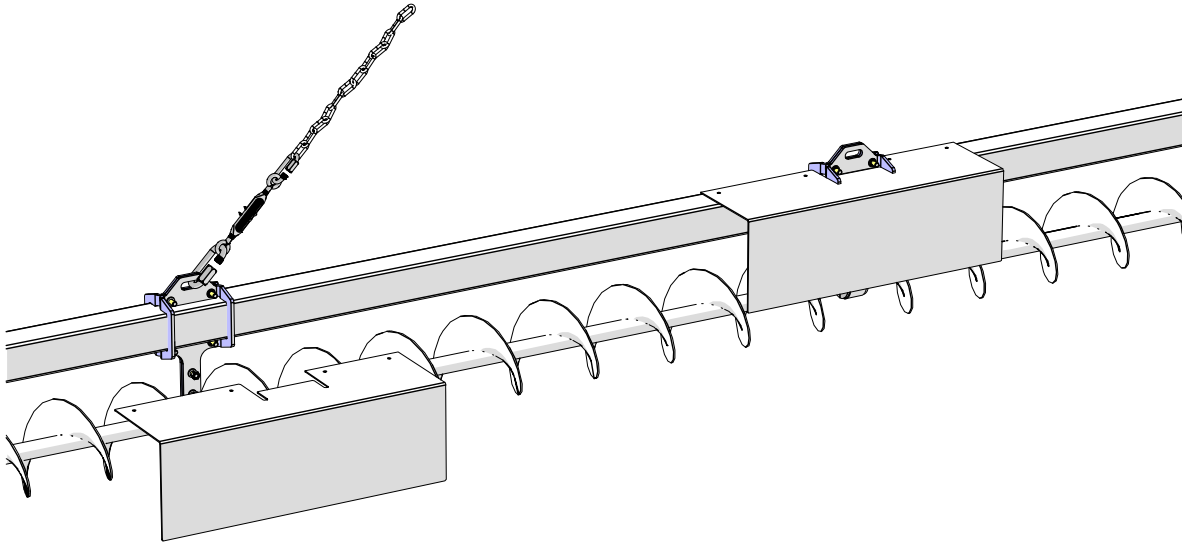
- e. Pull the chain tight towards the turnbuckle and secure it using a chain link (F-2373).



- f. Cut the excess Chain and tighten the Turnbuckle to tension.
- g. Repeat for the second Chain. If a second bracket is installed, the second chain can be attached to the second bracket. Install cotter pins (F-2027) once tensioned.

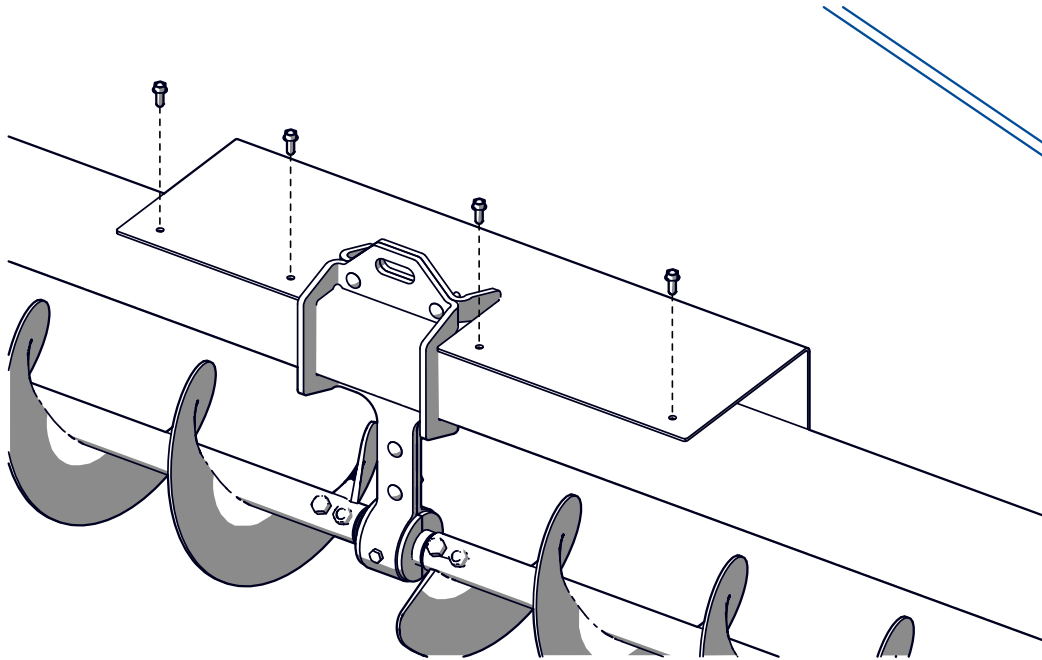
Step 14: Install Hanger Bearing Baffles.

- a. Slide the Hanger Bearing Baffles over the Hanger Bearings as shown. Baffle quantity should match Hanger Bearing quantity.



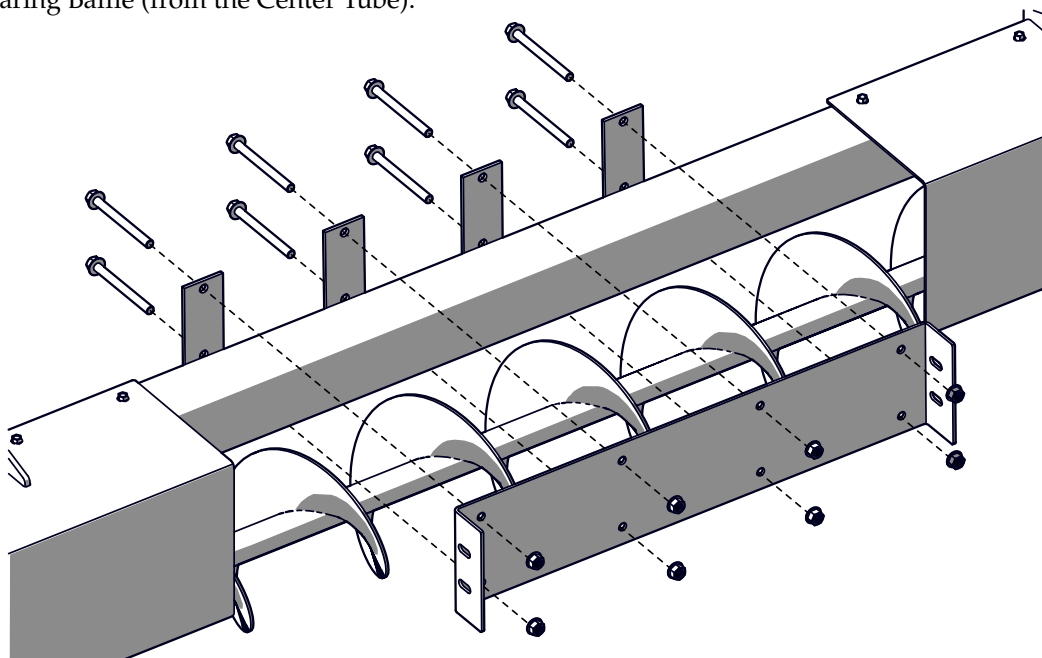
Parts Box: 632K-001A			
Item No.	Part No.	Description	QTY.(per Bearing)
1	632-326P	LDRY Hanger Bearing Baffle	1
2	F-2030	1/4 X 5/8" SELF-TAPPING HEX SCREW	4

- b. Use Self-Tapping Screws (F-2030) to secure the Hanger Bearing Baffles to the Leveling Arm from 632K-001A.



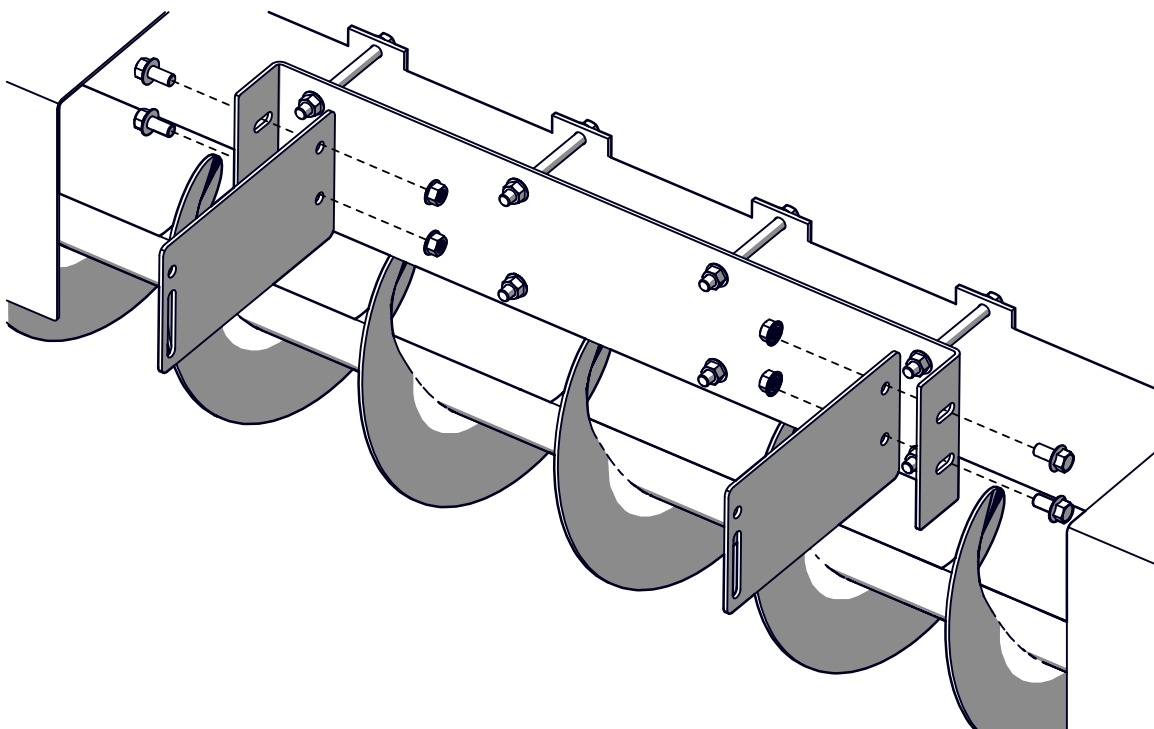
Step 15: Install the Rake. Only to be used on bins 33' and larger. 634N-001A is not included on bins smaller than 33'. SKIP STEP 15 IF BIN IS SMALLER THAN 33'.

- a. Attach the Brake Skid Mounting Bracket to the Leveling Arm between the First and Second Hanger Bearing Baffle (from the Center Tube).



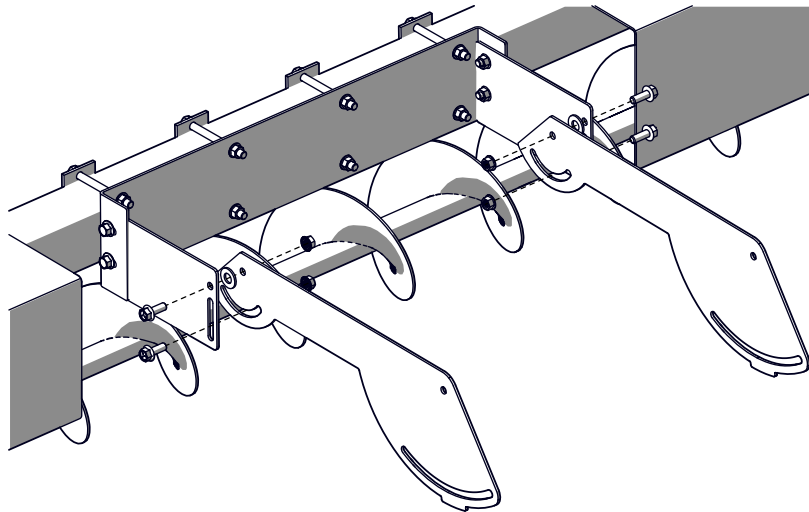
Item No.	Part No.	Description	QTY.
Parts Box: 634N-001A			
1	632-302P	Brake Skid Mounting Bracket	1
2	632-063P	Bar Clamp	4
Parts Box: 632-303A in 634N-001A			
3	F-2142	Flange Head Capscrew, 3/8-16×4"	8
4	F-1233	Serrated Flanged Nut, 3/8-16	8

b. Attach the Adjustable Arms to the Brake Skid Mounting Bracket.



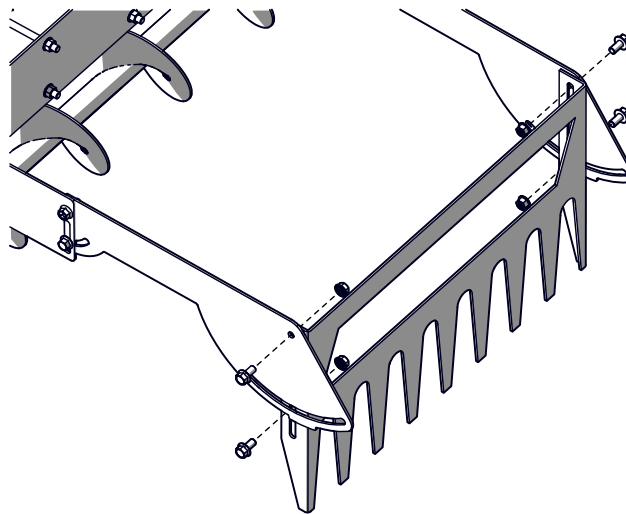
Item No.	Part No.	Description	QTY.
Parts Box: 634N-001A			
1	632-301P	Brake Adjustable Arm	2
Parts Box: 632-303A in 634N-001A			
2	F-2124	Flange Head Capscrew, 3/8-16×3/4"	4
3	F-1233	Serrated Flanged Nut, 3/8-16	4

c. Attach the Adjustable Arm Brackets to the Adjustable Arm.



Item No.	Part No.	Description	QTY.
Parts Box: 634N-001A			
1	632-338P	Brake Adjustable Arm Bracket	2
Parts Box: 632-303A in 634N-001A			
2	606-152P	Nylon Washer	2
3	F-2141	Flange Head Capscrew, 3/8-16×1"	4
4	F-1233	Serrated Flanged Nut, 3/8-16	4

d. Attach the Brake Blade to the Adjustable Arm Brackets.



Item No.	Part No.	Description	QTY.
Parts Box: 634N-001A			
1	632-339P	LDRY Adjustable Brake Blade	1
Parts Box: 632-325A in 634R-001A			
2	F-2124	Flange Head Capscrew, 3/8-16×3/4"	4
3	F-1233	Serrated Flanged Nut, 3/8-16	4

Step 16: Balance the Level Dry.

Use the Winch to raise the Level Dry until the bottom of the Center Tube Assembly is a couple inches above the Pickup Finger sleeve.

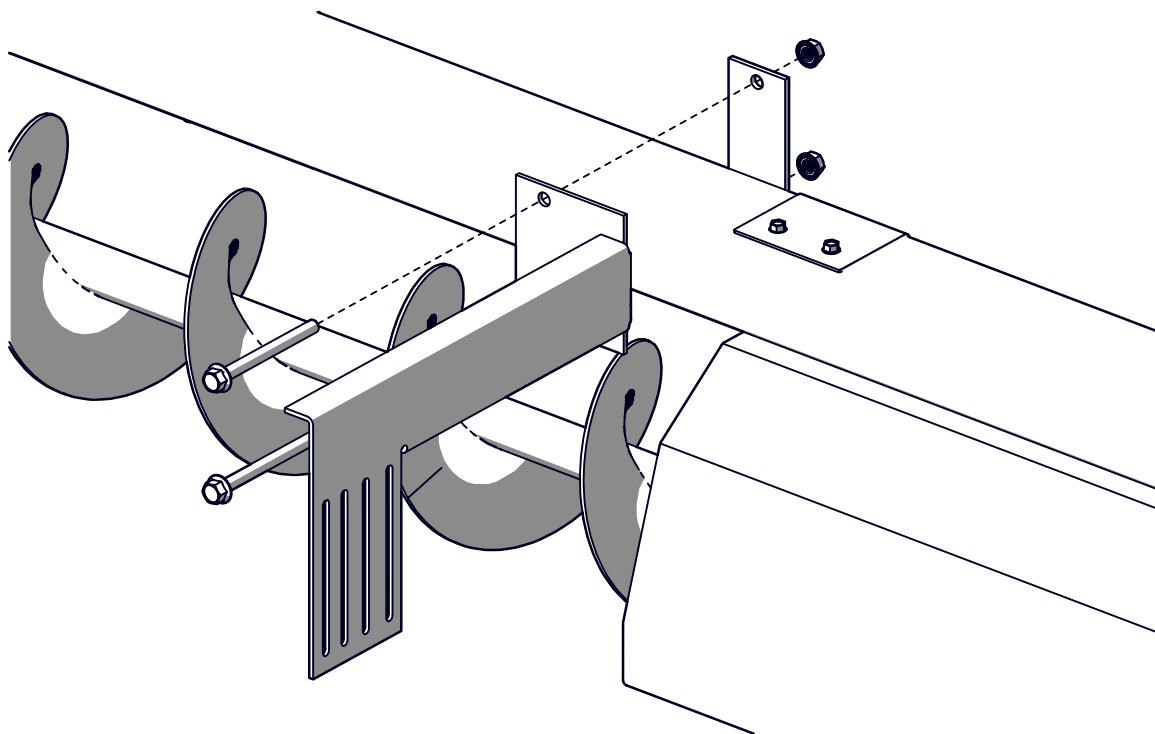
Look at the bottom of the Nylon Bushing in the Center Tube Assembly to estimate required adjustments to the position of the counterweight.

Adjust the Counterweight by sliding it in and out on the Bin Stiffener such that the Level Dry can **slide smoothly on the Center Vertical**.

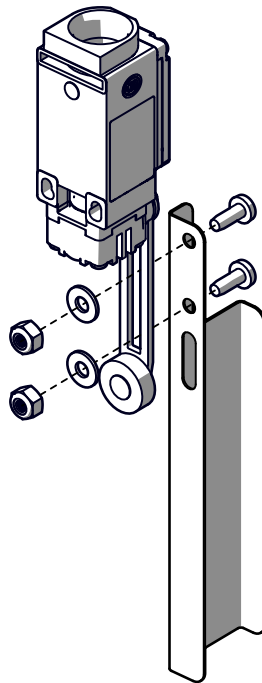
Step 17: Install the Grain Proximity Sensor.

- a. Attach the Level Sensor Bracket to the Leveling Arm as shown.

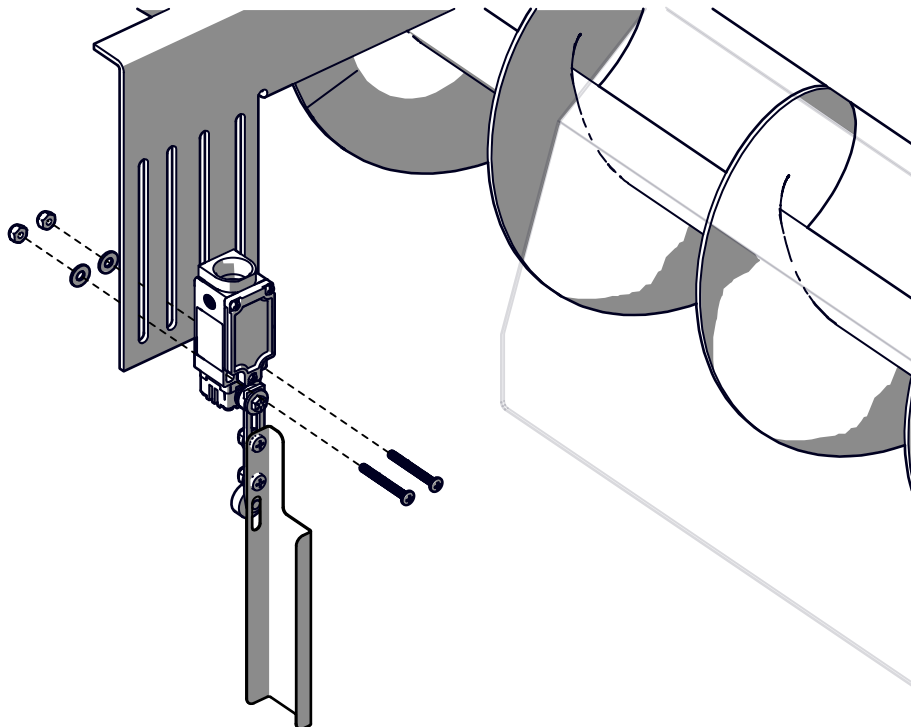
Item No.	Part No.	Description	QTY.
Parts Box: 634R-001A			
1	631-003P	Level Sensor Bracket	1
2	632-063P	Bar Clamp	1
Parts Box: 632-325A in 634R-001A			
3	F-2142	Flange Head Capscrew, 3/8-16×4"	2
4	F-1233	Serrated Flanged Nut, 3/8-16	2



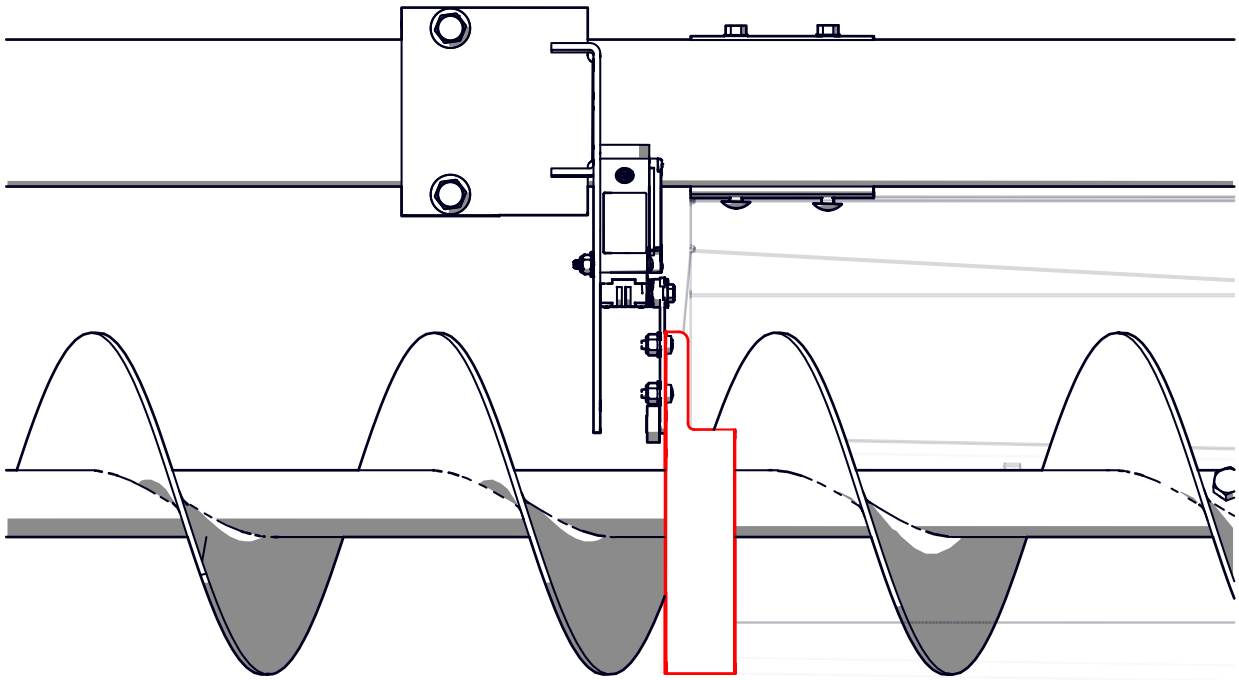
b. Attach the Switch Paddle to the Limit Switch.



c. Attach the Switch Assembly to the Level Sensor Bracket.



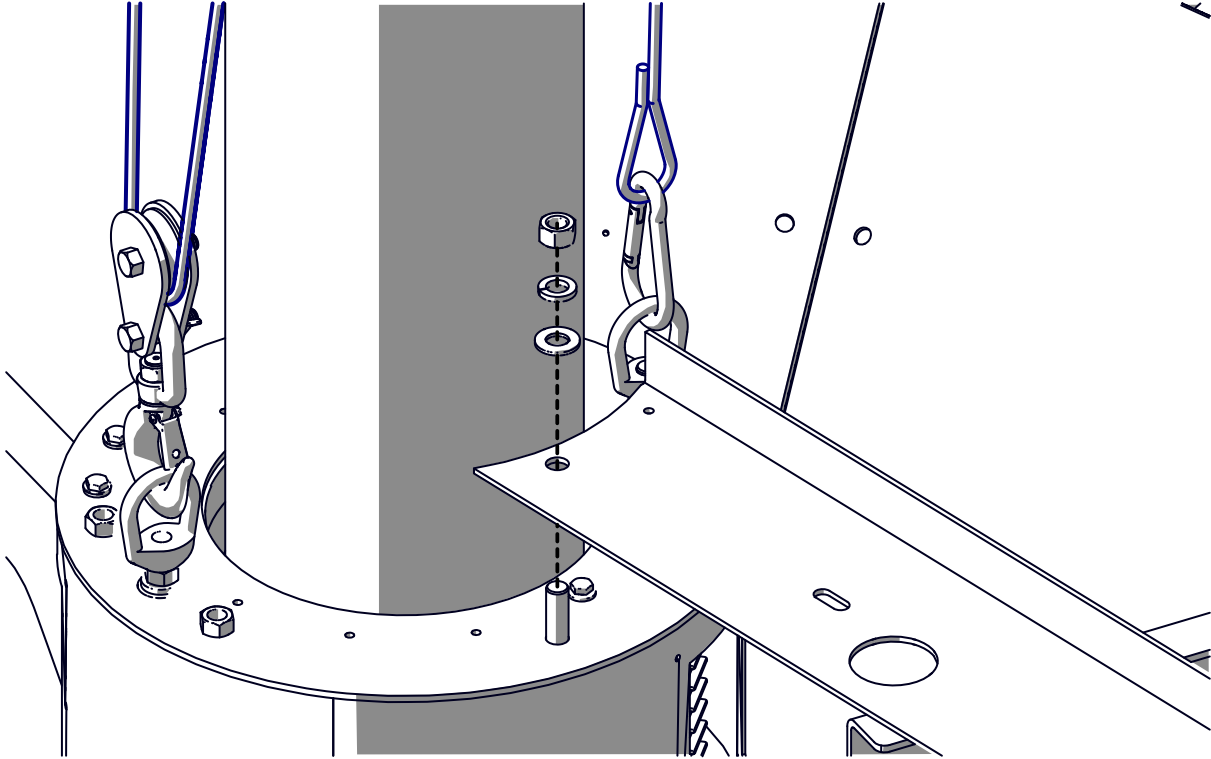
- d. Raise the Switch until the bottom of the Switch Paddle is level with the bottom of the auger flighting, then tighten the hardware.



Step 18: Install the Rotary Switch and Cable Wire.

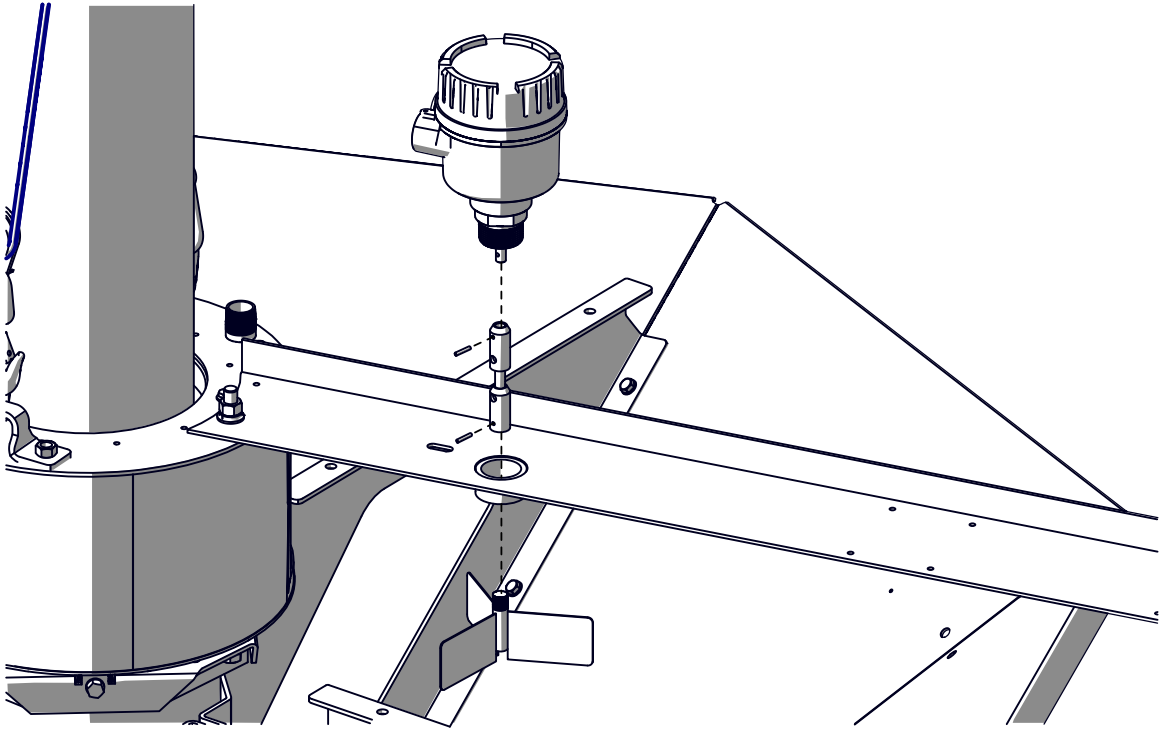
- a. The Boom Arm should already be installed on the Center Tube Assembly. If it is not installed, complete Step 2 on installation page 5 before proceeding.

Verify the Boom Arm is oriented near the control-panel/conduit exit side and clear of the incoming grain stream.

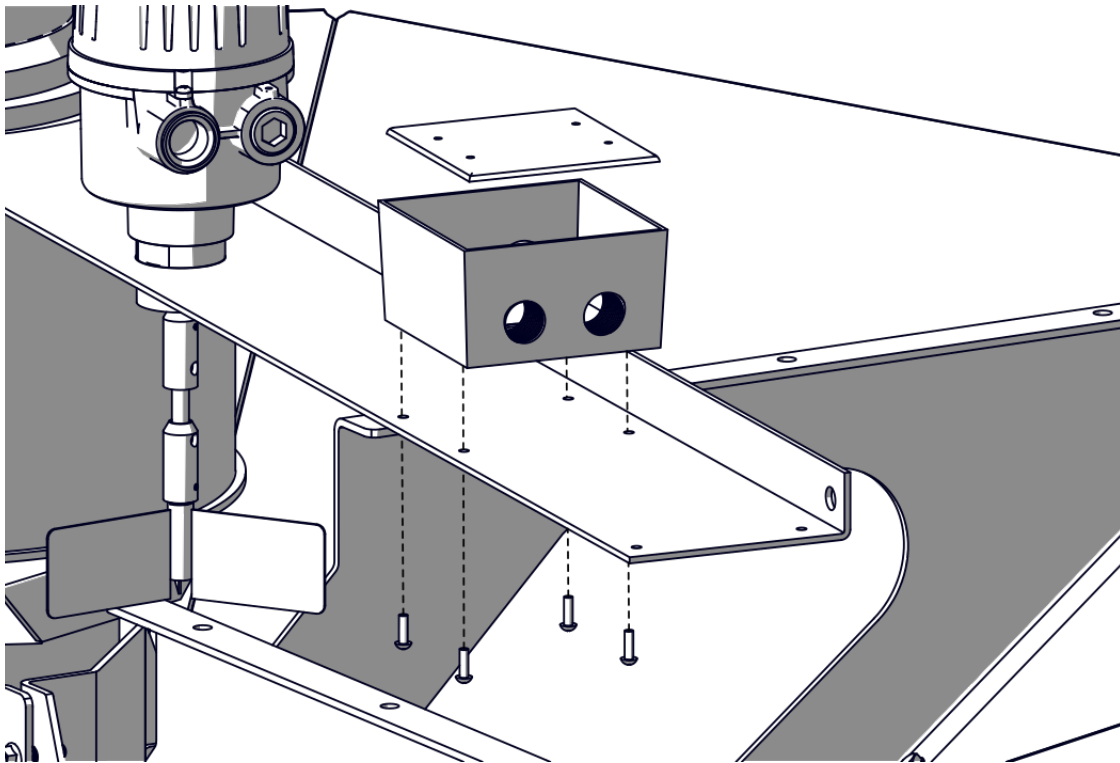


Item No.	Part No.	Description	QTY.
Parts Box: 8-inch systems use 632-318A; 10-inch systems use 755-035A			
1	E-6171	Rotary Switch	1
2	E-6172	Shaft Coupler w/ Roll Pins	1
3	E-6173	Rotary Switch Paddle	1
4	E-6182	Junction Box Cover	1
5	E-6183	Junction Box	1

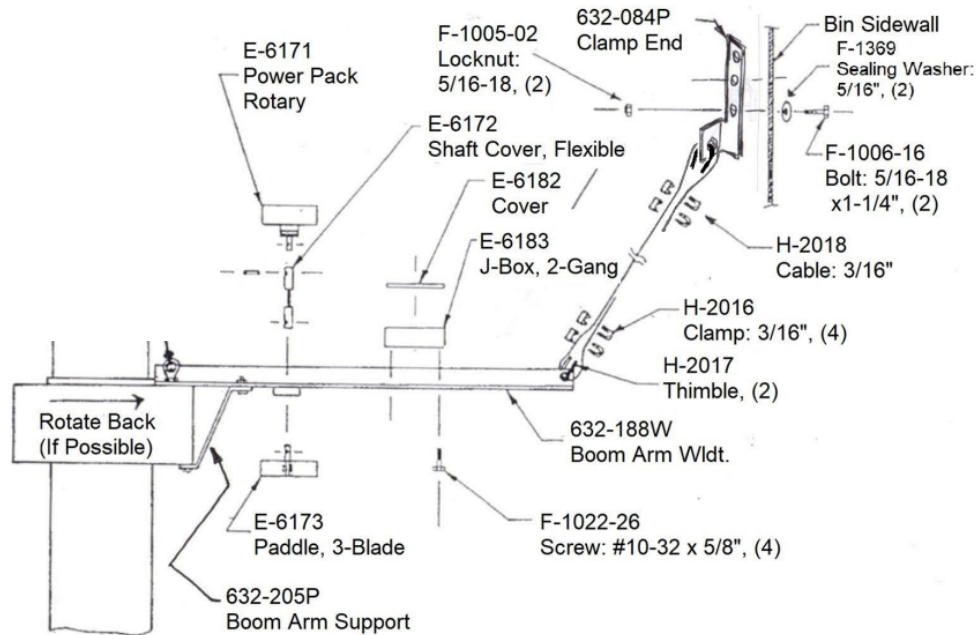
- b. Mount the Rotary Switch to the Boom Arm with the Flexible Coupler and Paddles, with roll pins.



- c. Attach the Junction Box to the Boom Arm.



- d. Use Conduit to protect the wires on the Boom Arm.
- e. Install the Cable Wire to keep the slip-rings assembly from rotating.
 - I. Make sure the Level Dry is at its lowest point. Install the 3/16" Cable with a H-2017 Thimble at the end of the Boom Arm Weldment. Secure with (2) H-2016 clamps.
 - II. Attach the 632-084P Clamp End to the wall of the bin, above the maximum height of the Level Dry, in line with the Boom Arm or slightly counter-clockwise/opposite of Level Dry Rotation.
 - III. Attach the remaining Thimble and secure the 3/16" Cable with the Cable Clamps at the bin wall.



Step 19: Final Installation Checklist.

- a. Verify all hardware is installed and tightened.
- b. Verify all chains, turnbuckles, and cotter pins are secure.
- c. Verify the Level Dry is properly balanced and moves freely on the Center Vertical.
- d. Verify the main disconnect and lockout provisions are installed and functional according to the Electrical Manual.
- e. Operate the Winch through its intended travel and verify smooth movement without binding.
- f. Verify upper and lower travel limits are correctly calibrated per the Electrical Manual.
- g. Verify the Grain Proximity sensor is positioned correctly and operates as intended.
- h. Observe the winch mounting area, bin wall, roof supports, cross tube, braces, and pulleys while cycling the Level Dry. Correct any excessive movement or deformation before operation.
- i. Verify all guards, shields, safety decals, and bin-entry locks are installed and functional.
- j. Leave the Level Dry at its lowest position when installation is complete.
- k. Verify the winch cable is routed correctly and seated in all pulleys.
- l. Verify all cable clamps are installed in the correct orientation and tightened.
- m. Verify the leveling arm clears ladders, sensors, conduit, bin wall stiffeners, and other obstructions through full rotation.
- n. Verify the rake/brake assembly is installed at all required hanger bearing locations.
- o. Verify the counterweights are tightened after balancing.
- p. Verify the Level Dry electrical manual setup and calibration steps are complete.

MAINTENANCE



BEFORE PERFORMING ANY MAINTENANCE, LOWER THE LEVEL DRY TO ITS LOWEST POINT, DISCONNECT ALL ELECTRICAL POWER, AND LOCK OUT THE POWER SOURCE. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.

GEARBOX

Drain and replace the gearbox oil after the first 25 hours of run time and every 200 hours of run time thereafter. The gearbox requires about one quart of 90-weight gear oil. A drain plug is located on the bottom of the gearbox. To fill, remove both of the side plugs. Install a 1/2in 90° street elbow in one side. Fill with oil until it starts running out the other side. Plug the side holes, leaving the street elbow in place if desired. Grease the top zerk on the gearbox with one shot of multipurpose No. 2 Lithium Complex grease (Moly-Tac II) every 50 hours of run time.

CARRIER AND OUTSIDE BEARING

Grease with 1–2 shots of multipurpose No. 2 Lithium Complex grease (Moly-Tac II) at the beginning of each dryer season.

LEVELER MOTOR

Contact the motor manufacturer for the recommended greasing interval and grease type. Clean the outside of the motor and the motor cooling fan occasionally, if there is a buildup on them.

CABLE AND PULLEY SYSTEM

Inspect and lubricate all wire rope and pulleys before and after each drying season. Use a spray-type lubricant such as WD-40. Replace wire rope when frayed or rusty. Inspect all cable and Winch supports to make sure they are in good condition. Replace any worn, frayed, rusty, bent, cracked, or otherwise damaged components before returning the equipment to service. Inspect the bin wall around the supports for signs of pulling, deformation, or damage.

BRAKE/RAKE ASSEMBLY

Lubricate pivot points with WD-40 before and after each drying season.

SAFETY DECALS AND LOCKS

Review location and legibility of safety decals. Replace if necessary. Make sure safety locks on bin entrances work and are being used. Go over this manual, and other equipment safety manuals, with everyone running the drying system.

TROUBLESHOOTING



PRIOR TO ANY TROUBLESHOOTING, MAKE SURE THE LEVEL DRY IS AT ITS LOWEST LIMIT, POWER IS DISCONNECTED, AND POWER IS LOCKED OUT. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

1). LEVEL DRY POWER-ON TROUBLESHOOTING.

- a) **Control panel has no power.** Refer to Electrical Manual P-13767, page 24, for control-panel power and electrical checks.
- b) **Leveling auger will not run / hopper blockage.** Hopper may be full of grain. Disconnect and lock out main power. Station someone outside the bin for assistance. Carefully enter the bin and shovel grain out of the hopper. Make sure the rotary paddle switch starts turning. Check the reset on the leveler motor, if there is one. Check the chain coupler, gearbox, and auger sections. At the Level Dry control box, check the overload reset. After everyone is outside of the bin, and the control box is shut, turn the main power back on. Try the Level Dry again to identify what caused the hopper to fill with grain and correct the malfunction.

2). LEVELER MOTOR DOES NOT OPERATE.

- a). If LEVELING AUGER "ON" light doesn't come on, overload may be tripped. Disconnect and lock out main power. Open Level Dry control box and press Reset on overload. Shut control box and turn power back on.
- b). If LEVELING AUGER "ON" indicator on the HMI does not become active, check fuses or circuit breakers feeding leveler motor. If these are OK, and there is an overload on the leveler motor, lower the Level Dry completely. Disconnect and lock out main power. Do not enter until all moving equipment is stopped and all bin-entry safety procedures have been followed. Station a qualified person outside the bin before entry. Later, check the thermal overload on the leveler motor.

3). WINCH DOES NOT OPERATE.

- a). Check Winch power reset breaker on the control panel. Make sure cables are in pulleys. Only use Winch intermittently. Continuous operation for more than 3 minutes may damage the Winch motor.
- b). Check to see if the high and low limit are calibrated correctly.
- c). Grain Proximity Switch is too high and not interacting with grain to raise Winch.

4). LEVELING AUGER DOES NOT ROTATE AROUND THE BIN.

- a). The Brake/Rake assembly may be set too low, causing it to hold too much grain and stop forward motion. Raise or adjust the Brake/Rake assembly and retest operation.