

CE Compliant Chain Loop System without Controls

Owner's Manual - Original Instructions

PNEG-1128CE

Date: 07-26-13

GSI GROUP



PNEG-1128CE



The GSI Group declares that the machine, parts or equipment

Chain Loop Systems (50 Hz models)

Models

8" (203 mm) Systems up to 2 drive stations 15 HP - 30 HP (11.25 - 22.5 kW).

10" (254 mm) Systems with up to 2 drive stations 20 HP - 50 HP (15 - 37.5 kW).

12" (305 mm) Systems with up to 2 drive stations 25 HP - 60 HP (18.75 - 45 kW).

With the following required elements:

- Minimum 700 mm long outlet tube on each discharge gate outlet.
- Drive over grid on each drive over inlet dump hopper.
- Hopper top safety screen for non-drive over inlet dump hoppers.
- Safety screens on all in bin floor wells.

Meet the following clauses of the Essential Requirements of the Machinery Directive 2006/42/EC.

- 1.1.2 and sub-clauses principles of safety integration
- 1.3.1 Risk of loss of stability
- 1.3.2 Risk of break-up during operation
- 1.3.7 Risk related to moving parts
- 1.3.8 Choice of protection against risks arising from moving parts
 - 1.3.8.1 Moving transmission parts
 - 1.3.8.2 Moving parts involved in the process
- 1.3.9 Risks of uncontrolled movements
- 1.4 Required characteristics of guards and protective devices
 - 1.4.1 General requirements
 - 1.4.2 Special requirements for guards
 - 1.4.2.1 Fixed guards
- 1.5.4 Errors of fitting
- 1.5.5 Extreme temperatures
- 1.5.6 Fire
- 1.5.7 Explosion
- 1.5.8 Noise
- 1.5.9 Vibrations



CE Declaration of Incorporation
MACHINERY DIRECTIVE
2006/42/EC

1004 East Illinois Street, Assumption, IL, 62510, USA

+1 217 226 4429

1.5.13 Emissions of hazardous materials and substances

1.6 Maintenance

1.6.1 Machinery maintenance

1.6.4 Operator intervention

1.7 Information

1.7.1 Information and warnings on the machinery

1.7.1.1 Information and information devices

1.7.2 Warning of residual risks

1.7.4 Instructions

1.7.4.1 General principles for the drafting of instructions

1.7.4.2 Contents of the instructions but not inclusive of sub-clause (u)

1.7.4.3 Sales literature

This declaration applies only to the mechanical elements of the above machines and does not imply conformity by any other items of equipment fitted to or connected with the above machines. The equipment above must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of all relevant Directives, nor until these components have been assembled in the manner recommended in the manufacturers instructions.

Signed : *F. G. Ward*

Name: Frank Ward

Director Hennock International Limited

On behalf The GSI Group

Date:

Contents

Chapter 1 Safety	7
Safety Guidelines	7
Safety Instructions	8
Correct Use	10
Electrical Safety	11
Possible Hazards Inside Grain Bins	14
Working at Heights	15
Safety Guarding Requirements	16
Un-Guarded Moving Parts	16
Chapter 2 Safety Decals	17
Chain Loop Safety Decal Placements	17
Chapter 3 Chain Loop Information	20
Motor Power Calculation Example 10" (250 mm) System	21
System Specification	22
Chapter 4 System Installation	23
Assembly Sequence and Procedures	24
Chapter 5 Electrical Controls	47
Final Inspection Check List	48
Chapter 6 Commissioning	49
Chapter 7 Chain Loop Operation	50
Filling Bins	50
Transferring Bin to Bin	52
Bin Emptying	55
Chapter 8 Maintenance	58
Dodge Gear Reducer	58
Vent Elbow Installation Instructions	59
Drive Belts	59
Chain and Paddles	60
Corner Shaft Bearings	60
Corner Sprockets	60
Chapter 9 Troubleshooting	61

Table of Contents

Chapter 10 Parts List	62
8" and 10" Chain and Paddles	64
12" Chain and Paddles (8120141)	65
8" Discharge Gate (8081370)	66
10" Discharge Gate (8101554)	68
12" - (7 Gauge) Discharge Gate (8120293)	70
12" - (10 Gauge) Discharge Gate (8120291)	72
Discharge Gate Ground Control Kit Parts	74
Chain Loop Drive Components	76
8" (15 HP) Drive Components (8081365)	79
8" (20 HP) Drive Components (8081363)	80
8" (15 HP-20 HP) Drive Components (8081362)	81
10" (20 HP) Drive Components (8101526)	82
10" (15 HP-20 HP) Drive Components (8101525)	83
8" (25 HP-30 HP) Drive Components (8081360)	84
8" (25 HP-30 HP) Drive Components (8081359)	85
10" (25 HP-30 HP) Drive Components (8101517)	86
10" (25 HP-30 HP) Drive Components (8101516)	87
10" (40 HP) Drive Components (8101513)	88
10" (50 HP) Drive Components (8101514)	89
10" (40 HP-50 HP) Drive Components (8101511)	90
8" (15 HP) Drive Components (8081271)	91
8" (20 HP) Drive Components (8081285)	92
8"-10" (25 HP-30 HP) Drive Components (8081296)	93
10" (40 HP) Drive Components (8101303)	94
10" (50 HP) Drive Components (8101331)	95
Belt Guard Assembly TA3 (8120217)	96
Belt Guard Assembly TA4 (8120211)	98
Belt Guard Assembly TA5 (8120214)	99
12" 7 Gauge (30 HP) Drive Components (8120000)	100
12" 7 Gauge (40 HP-50 HP) Drive Components (8120144)	102
12" 7 Gauge (60 HP) Drive Components (8120163)	104
12" 10 Gauge (30 HP) Drive Components (8120175)	106
12" 10 Gauge (40 HP-50 HP) Drive Components (8120179)	108
12" 10 Gauge (60 HP) Drive Components (8120180)	110
8" and 10" Inlet Dump Hoppers	112
12" (7 Gauge) 42-1/2" Inlet Dump Hoppers (8120121)	113
12" (7 Gauge) 102-1/2" Inlet Dump Hoppers (8120127)	114
12" (7 Gauge) 122-1/2" Inlet Dump Hoppers (8120134)	115
12" (10 Gauge) 42-1/2" Inlet Dump Hoppers (8120185)	116
12" (10 Gauge) 102-1/2" Inlet Dump Hoppers (8120186)	118
12" (10 Gauge) 122-1/2" Inlet Dump Hoppers (8120187)	119
8" and 10" Standard Corner	120
12" (7 Gauge) Standard Corner (8120031)	122
12" (10 Gauge) Standard Corner (8120176)	124
8" and 10" Inspection Corner	126
12" (7 Gauge) Inspection Corner (8120051)	128
12" (10 Gauge) Inspection Corner (8120177)	130
Chain Loop Torque Plate Assembly	132
Chapter 11 Warranty	133

Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury.

1. Safety

Safety Instructions

This manual is to help you understand safe Chain Loop operating procedures and some problems which may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards, and precautions exist, and to inform all personnel associated with the equipment or in the area.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

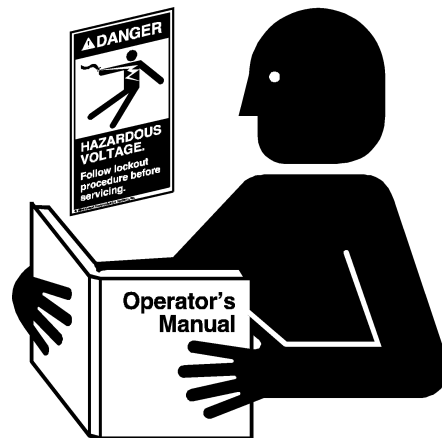
Follow Safety Instructions

Carefully read all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual or need assistance, contact your dealer.



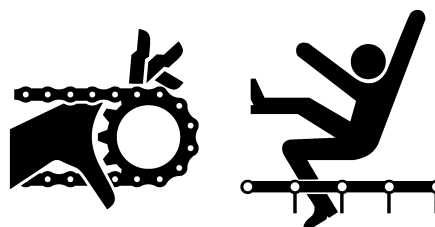
Read and Understand Manual

Stay Clear of Moving Parts

Entanglement in rotating impeller arms will cause serious injury or death.

Keep all shields and covers in place at all times.

Wear close fitting clothing. Stop and lock out power source before making adjustments, cleaning, or maintaining equipment.



Entanglement Hazard

Practice Safe Maintenance

Understand service procedures before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is in operation. Keep hands, feet, and clothing away from rotating parts.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any built-up grease, oil, and debris.



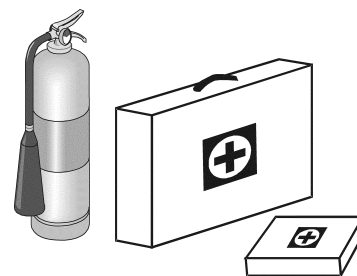
Maintain Equipment and Work Area

Prepare for Emergencies

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



Keep Emergency Equipment Quickly Accessible

Wear Protective Clothing

Wear close-fitting clothing and safety equipment appropriate to the job.

Remove all jewelry.

Tie long hair up and back.

Wear safety glasses at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

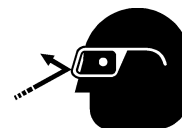
Wear steel-toed boots to help protect your feet from falling debris. Tuck in any loose or dangling shoestrings.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

Wear a hard hat to help protect your head.

Wear appropriate fall protection equipment when working at elevations greater than six feet (6').

Eye Protection



Gloves



Steel-Toed Boots



Respirator



Hard Hat



Fall Protection



Correct Use



Incorrect use can be extremely dangerous. Moving chain, paddles, pulleys and shafts can cause serious injury and kill.

1. The Chain Loop system is for conveying whole agricultural seeds and grains only. Any other use is prohibited.
2. It may be equipped to receive grains from trucks, trailers, other mechanical grain handling equipment.
3. It shall never be filled manually.
4. Where installed in or under a grain store or bin the Chain Loop shall never be used with personnel inside the store or bin.
5. Electrical control systems shall be designed to the requirements of the Machinery Directive 2006/42/EC, risk assessment and should be in accordance with EN60204:2006, EN ISO 13849:2006 or EN954-1.
6. The final installation shall be in accordance with all the safety requirements outlined in this manual and fulfil the Essential Requirements of the Machinery Directive 2006/42/EC.
7. Never use the Chain Loop with any guards removed.
8. Never enter the grain bin or store, or attempt to work on the Chain Loop unless the power supply to the Chain Loop and all other equipment associated with the Chain Loop is OFF, TAGGED and LOCKED. (See [Figure 1A.](#))



Figure 1A

9. Be aware that when stopped, the drive, belts, chain and paddles may move unexpectedly due to the weight of grain held in vertical tubes. Wherever possible run the Chain Loop empty before stopping it.
10. Never leave the Chain Loop running un-attended.
11. Always TURN OFF and LOCK the power supply to the Chain Loop before leaving it un-attended.
12. Never allow an untrained person less or one less than 18 years old to operate the Chain Loop.
13. Never allow someone under the influence of alcohol or drugs to operate the equipment.
14. Never modify the Chain Loop from it's original specification.
15. Never work alone.
16. Never start equipment until all persons are clear of the grain bin.
17. Keep hands and feet away from all moving parts.
18. Always think before acting. Never act impulsively around the equipment.
19. Never allow anyone inside a bin, truck or wagon which is being loaded or unloaded. Flowing grain can trap and suffocate in seconds.

Electrical Safety



Equipment shall include:

1. Fuse protected main power supply.
 - a. The electrical supply should include earth leakage protection, eg residual current device (RCD) or residual current circuit breaker (RCCB), to provide automatic disconnection in the event of a fault.



2. Lockable main safety disconnect.
 - a. Disconnects all electrical power.

3. Lockable motor service disconnect.



- a. Adjacent to each motor (or group of motors).
 - b. Disconnects all power to the motors.

4. Emergency stops.



- a. Stops all equipment immediately when pressed.
 - b. Must remain engaged until manually disengaged.
 - c. Equipment shall not immediately re-start when the emergency stop is re-set.

1. Safety

5. Door safety interlocks - Where doors provide access to dangerous machinery.
 - a. Immediately stops and prevents re-start of all equipment when the door is open.
 - b. Equipment shall not immediately re-start when the door is closed.
 - c. Safety switches shall be SIL3 in accordance with IEC62061:2005.
 - d. Safety circuits should be Category 3 in accordance with EN954-1:1997 or PLc in accordance with ISO 13849-1:2006.



Figure 1B *Door Interlock Locations*

6. The electrical supply must include a properly designed protective earth system (PE), with connection to all exposed conductive parts.



7. All motors shall be connected to protective earth at the terminal provided.

8. The control system shall include

- a. Short circuit protection.



- b. Start/stop controls (labelled 1 and 0 respectively).



- c. Equipment shall not immediately re-start following re-establishment of power.
- d. Motor circuits shall include over current protection set according to the full load current, stated on the motor rating plate.
- e. Motor thermal protection may also be required.
9. All electrical design, installation and testing must be carried out by a qualified electrical engineer, in accordance with EU Directives and Standards, local laws and codes.

1. Safety

Possible Hazards Inside Grain Bins

The inside of a grain bin, no matter what size, is a dangerous location. Grain bins should be kept **locked shut** at all times.



NEVER allow a child or untrained, inexperienced person to enter a grain bin.

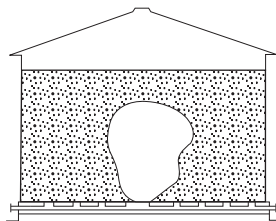
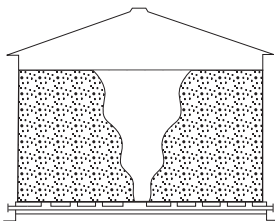
Hazards present at any time may include:



Mass flow of grain when filling or emptying which could draw you in and cause suffocation/burial.



Bridged, crusted or capped grain which could collapse if you stand on it. It is recommended **NEVER** to walk on the surface of the stored material.



If grain has stopped flowing, become bridged, capped or crusted, the **only safe way** to remedy this is from the outside of the bin.



Exposed machinery such as fans, augers and conveyors with which you could become entangled.



It is a recommended **additional** safety measure to fit grain bin doors and hatches with electrical interlock switches, to stop all equipment if the door or hatch is opened. However this does not override the need to lock out power before entering.



Hazardous substances such as dust, mould spores, vapors and gases or low oxygen levels which could cause respiratory problems.



High temperature combustible material.



Working at Heights

The equipment has been designed to operate primarily at ground level, at some stages during the life cycle it will be necessary to work at heights. For this reason, the equipment should be provided with access ladders and platforms, to minimize the risk to health and safety. In addition attention should be paid to the following safety requirements.

1. The ladders, platforms and walkways are for use by competent and trained personnel only. NEVER allow children or members of the general public to gain access to the equipment, its ladders or access platforms.
2. Where the equipment is sited in an unsecured location, access must be restricted by use of security fencing and lockable gates.
3. Lower sections of ladders on the equipment should be fitted with a lockable safety gate, to prevent unauthorized access.
4. The equipment should be OFF and all power LOCKED OFF before work on or in the equipment. Ensure the power isolator is OFF and LOCKED and TAGGED to prevent inadvertent re-start. This must include all equipment attached to the elevator on which you are working. (See Figure 1C.)



Figure 1C

5. NEVER attach lifting equipment to ladders or platforms.
6. When working on the equipment, NEVER go outside the safety rails provided.
7. Do not work at heights during high winds, heavy rain, snow, ice or storm.

The majority of routine service can be carried out from the service platforms provided. In the rare event that access is required outside these structures additional access and safety equipment may be required. We recommend the use of powered access lift platforms and safety harness. Such work must only be carried out by specialist technicians trained and qualified in working at heights and only after a complete risk assessment has been carried out and safe working methods established.

Safety Guarding Requirements

Guards provided with the equipment must be fitted at all times when the equipment is in operation.

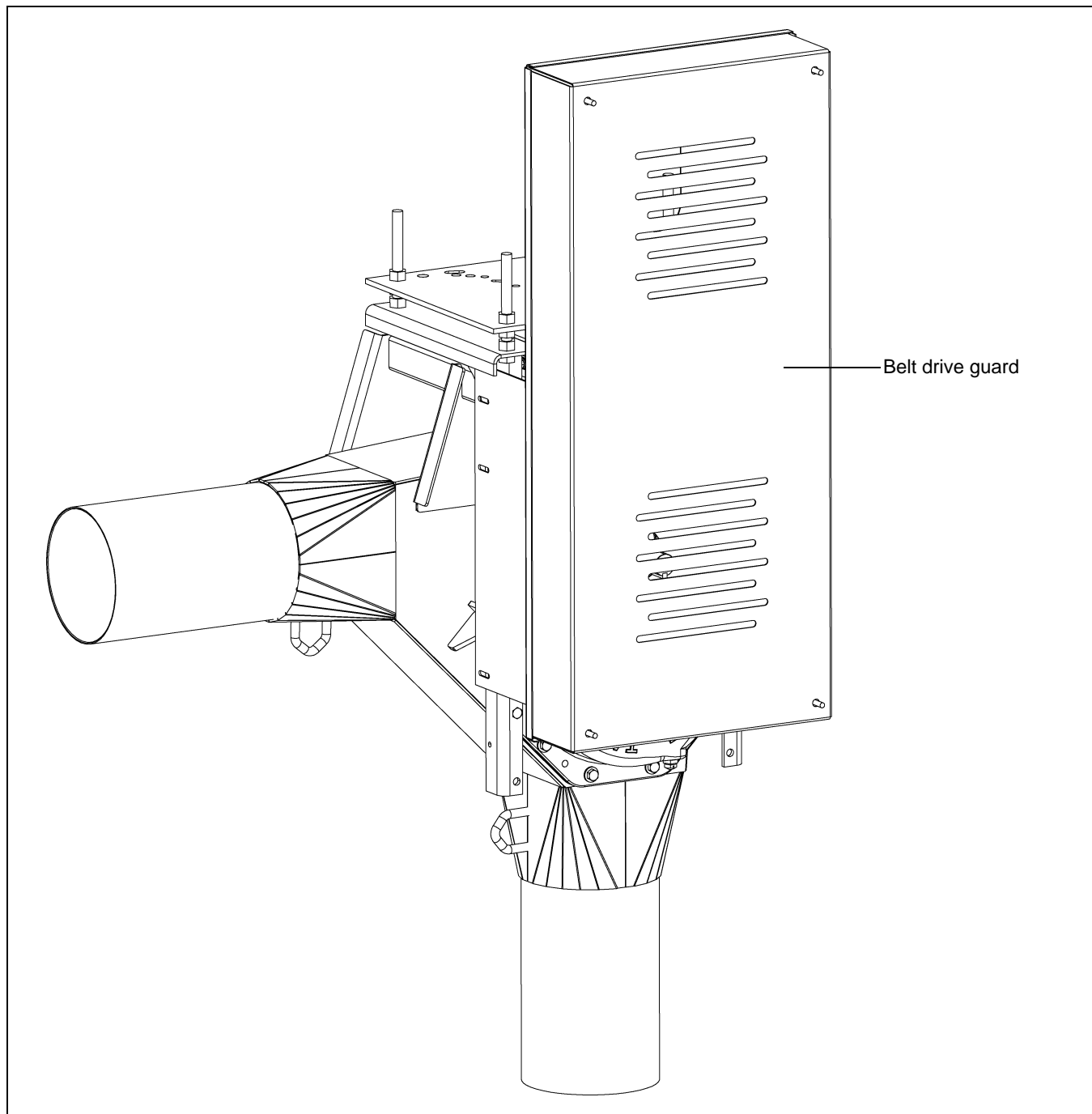


Figure 1D

Un-Guarded Moving Parts

Where moving parts are required to be exposed, eg sweep augers, stirring augers, they shall be located within enclosed areas (eg grain bin/grain dryer) and user's prevented from gaining access during operation by use of electrical safety interlocks. See electrical safety on [Page 11](#).

Chain Loop Safety Decal Placements

1. Safety and instructions decals shall be fitted to the Chain Loop system to.
2. These warn and instruct regarding residual hazards and risk.
3. Please ensure these remain clear and legible.
4. Replacements are available from GSI or your dealer.
5. Standard language English. For other languages, please order a Chain Loop Language Pack, part number is LPAK-0009-**. The last 2 letters denote the language. This contains a translated manual and decals.
6. Please fit the decals as shown *below*.

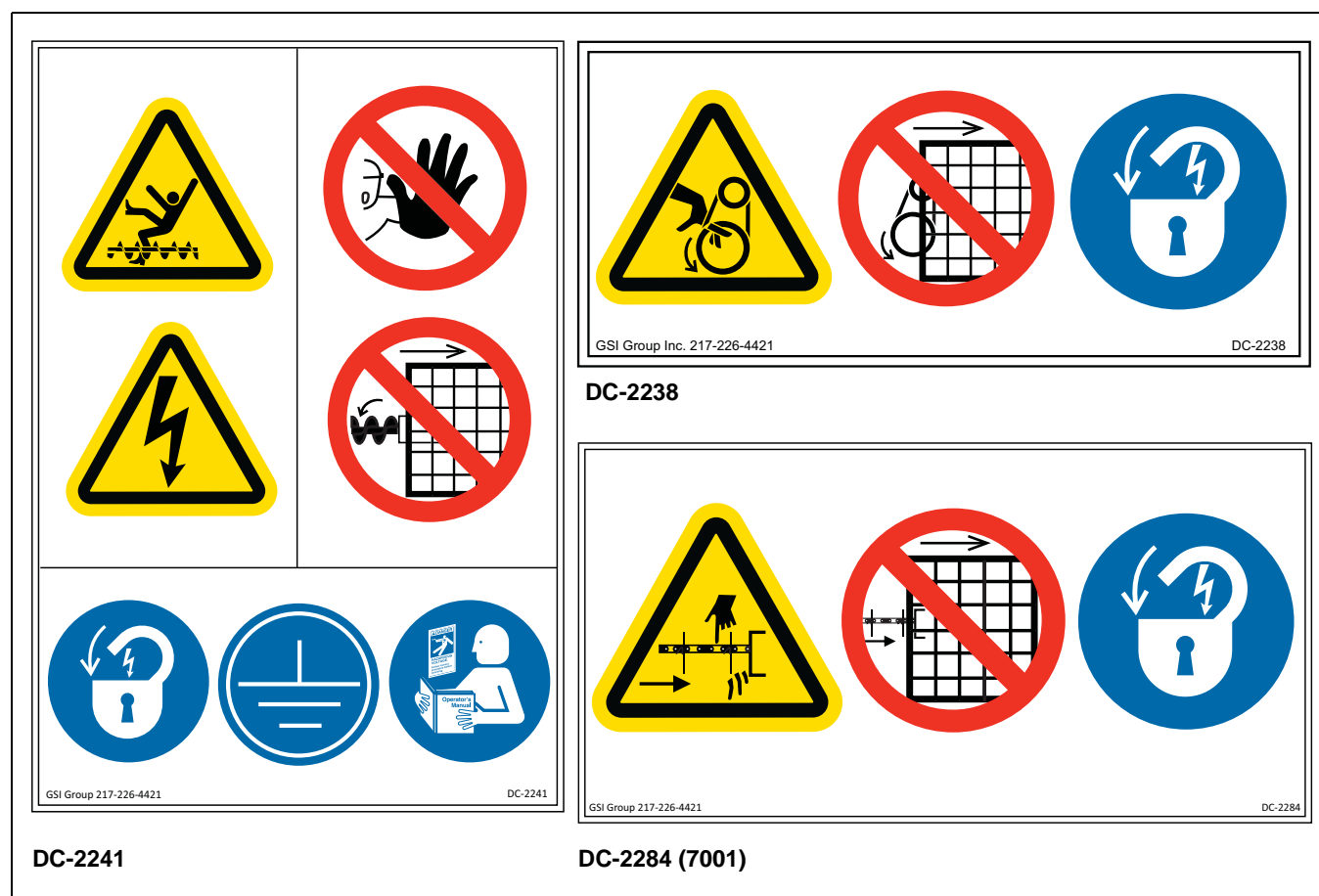
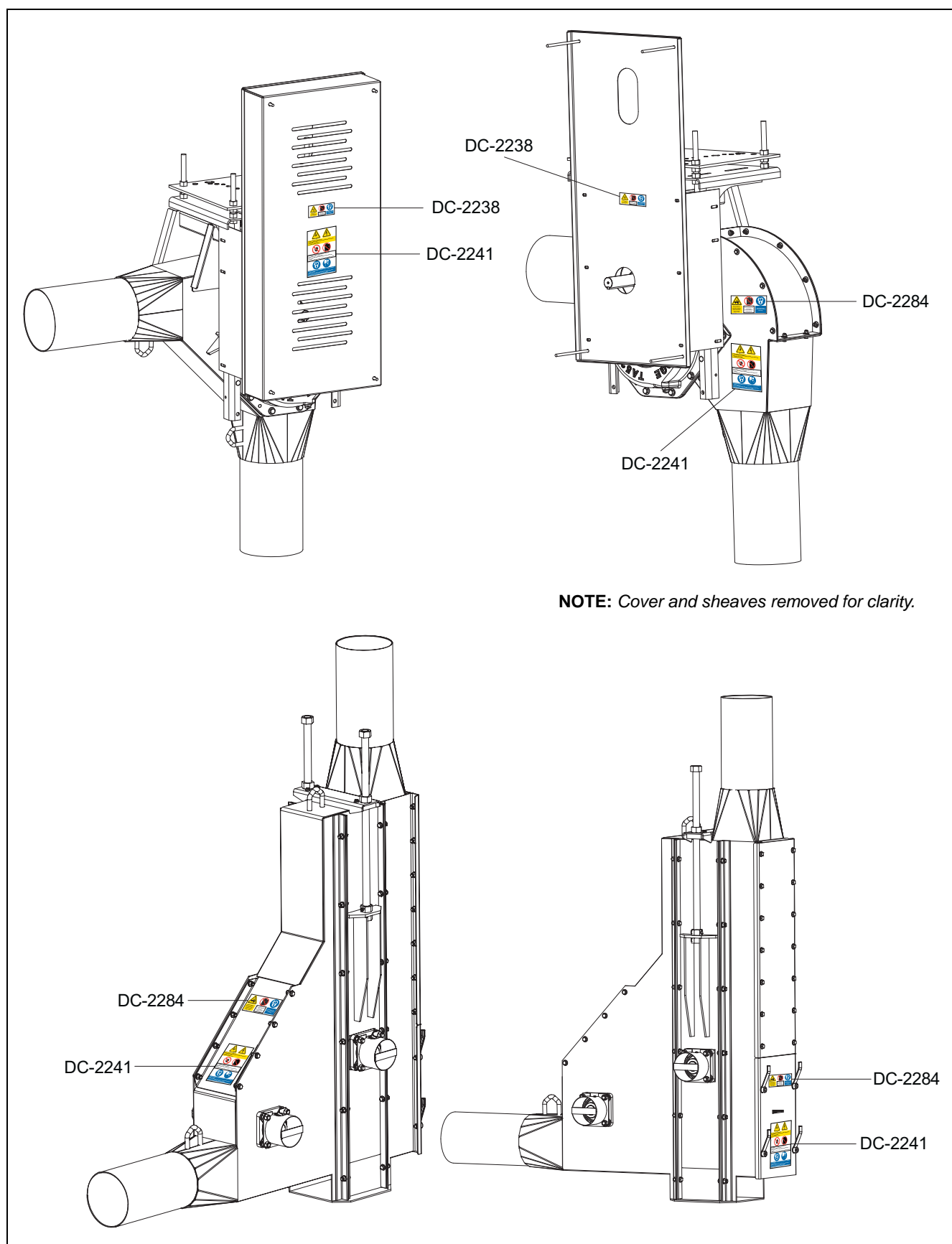
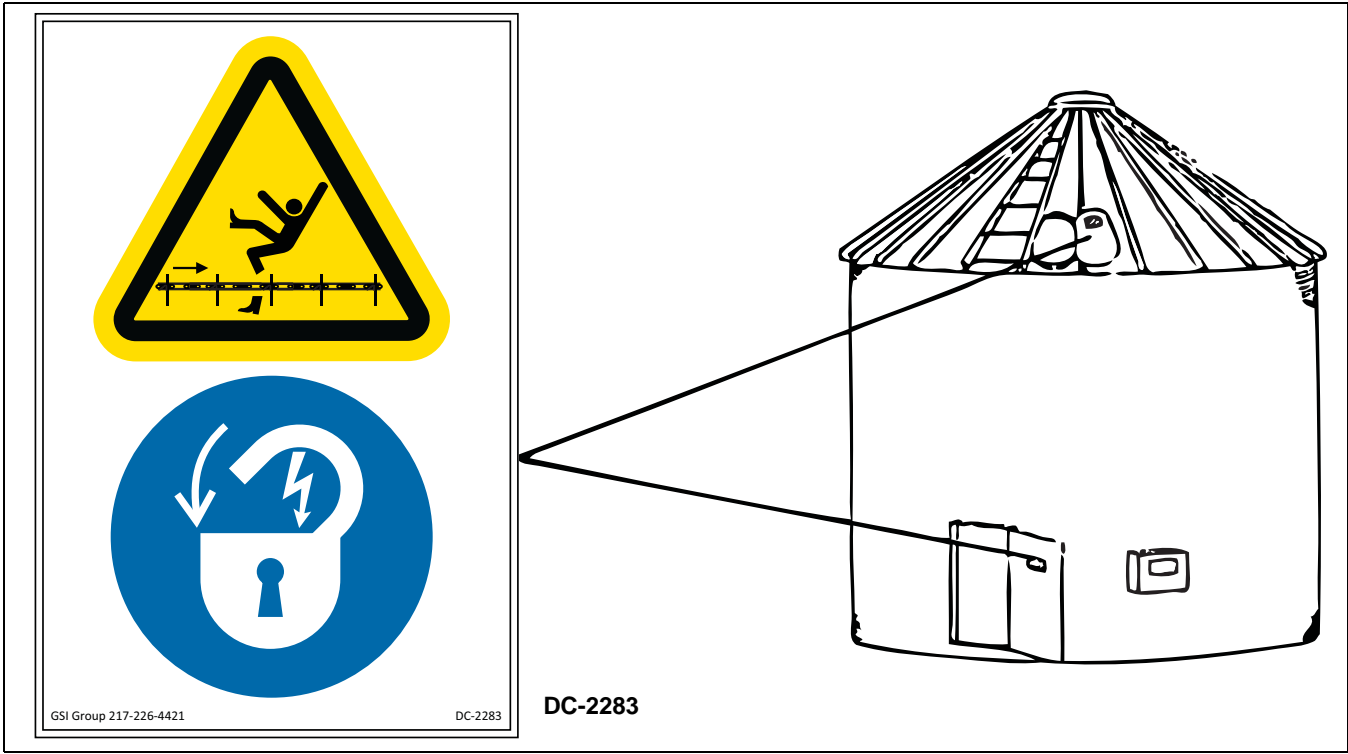
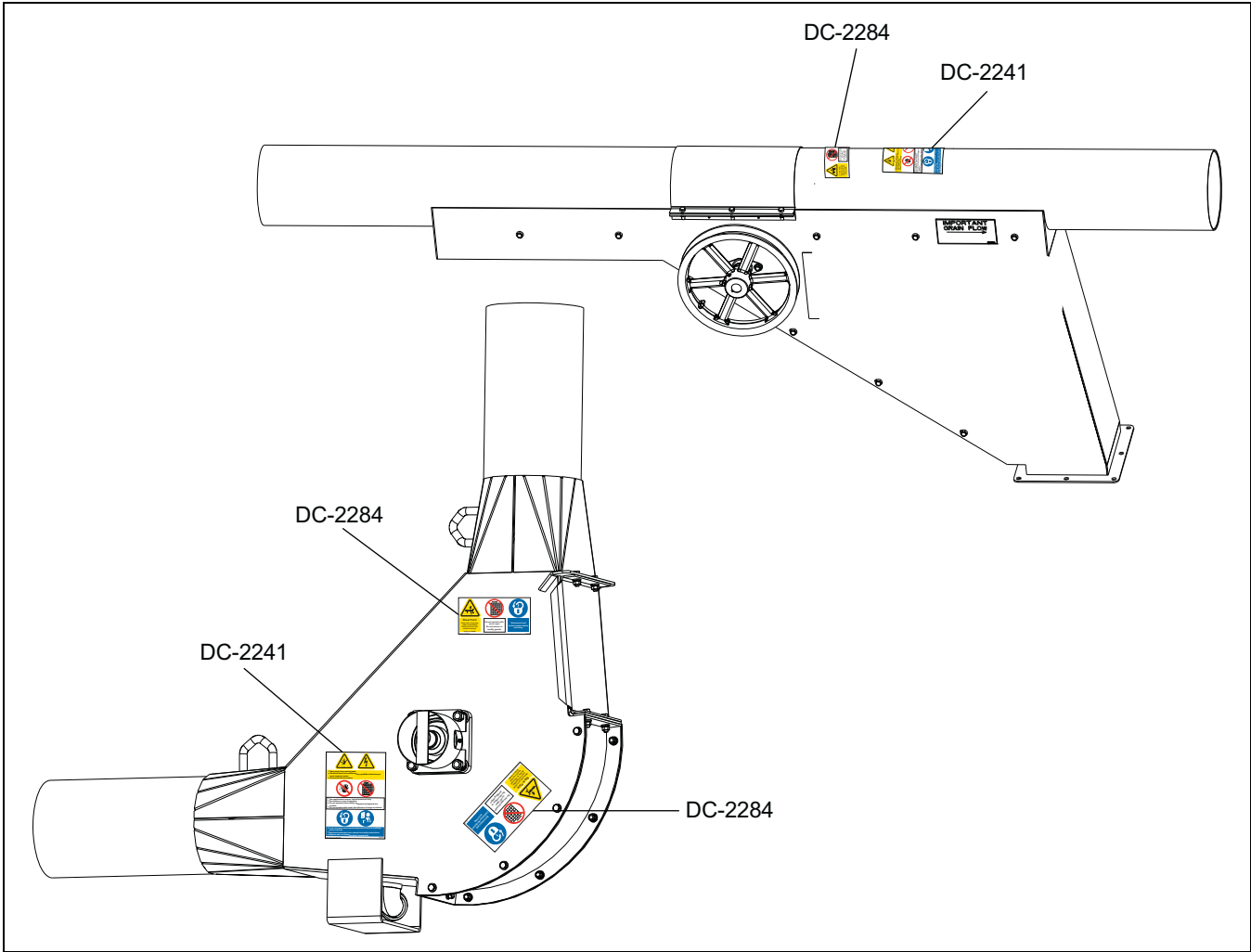


Figure 2A

2. Safety Decals





3. Chain Loop Information

Chain Loop Specifications

Nominal Diameter (mm)	200	250	300-10 Gauge/300-7 Gauge
*Maximum Capacity m ³ /h (T/h)	140 (105)	211 (158)	352 (264)
Chain Speed in m/s	1.65	1.65	2.03
Head Shaft RPM	94	94	83
Corner Housing Thickness, Galvanized mm	4.8	4.8	4.8
Galvanized Tubing Wall Thickness mm	2.7	2.7	3.47/5.0
Paddle Thickness (UHMW) mm	9.5	12.7	12.7
Corner Shaft Diameter mm	50.8	76.2	87.3
Conveyor Chain	81 X HH	81 X HH	81 X HH
Conveyor Sprocket	16 Tooth	16 Tooth	22 Tooth
* Power Requirements			
Vertical kW/m	0.86	1.22	1.84
Horizontal kW/m	0.19	0.27	0.44
Weights			
Empty kg/m	18.4	22.9	37.1/45.6
*Full kg/m	42.5	60.7	89.8/98.4
Standard Corner kg	155	222	418/424
Drive Corner kg	502	634	1094/1101
Discharge Gate kg	187	242	466/493

* Clean, dry wheat at 750 kg/m³.

Motor Power Calculation Example 10" (250 mm) System

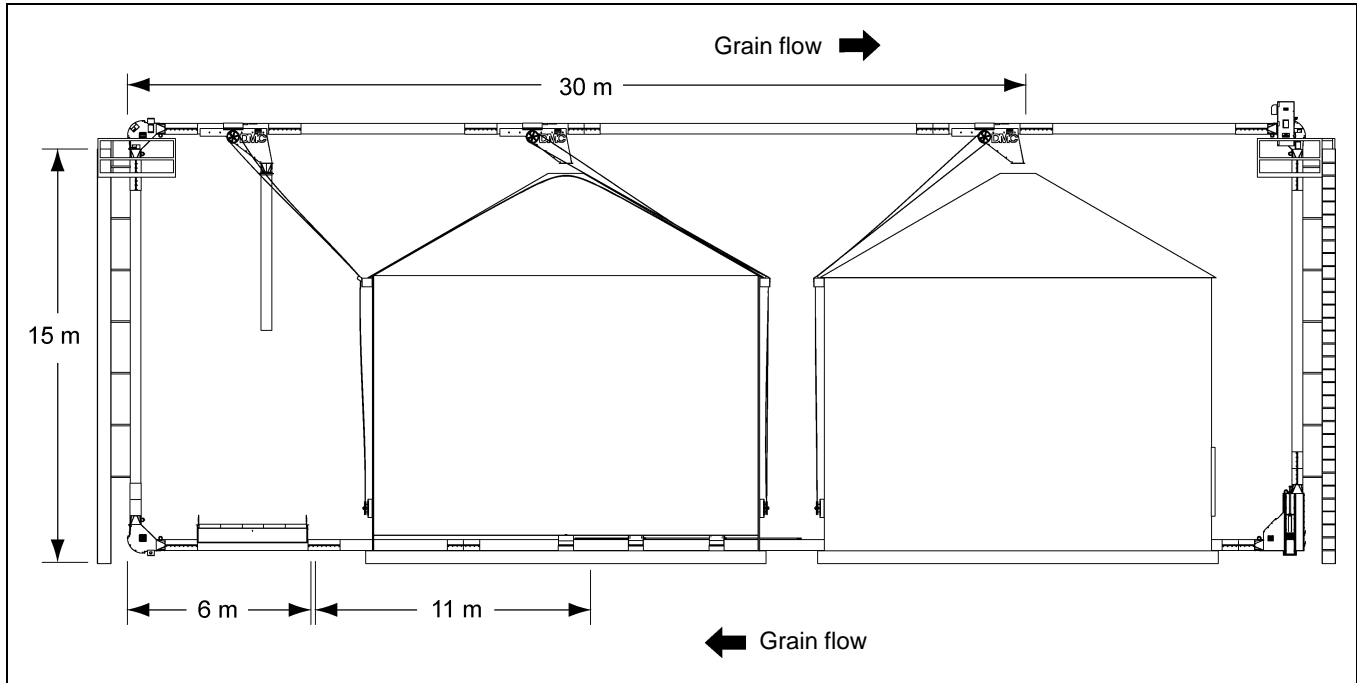


Figure 3A Typical Layout

- Vertical power = $15 \times 1.22 = 18.3$ kW
- Horizontal power = $(30 + 6 + 11) \times 0.27 = 12.7$ kW
- Total = $18.3 + 12.7 = 31$ kW. Note, maximum single drive is 30 kW, therefore use 2 x 18.75 kW drives.

50 Hz Drive Head Specifications

	15 HP	20 HP	25 HP	40 HP	50 HP
Motor (RPM)	1450	1450	1450	1450	1450
Motor Sheave (in)	6.00	9.00	9.00	8.50	10.30
Reducer Sheave (in)	6.20	9.25	9.25	9.00	10.90
Reducer (n)	15.07	15.07	15.00	14.92	14.92
Head Shaft (RPM)	93.11	93.62	94.05	91.79	91.84

System Specification

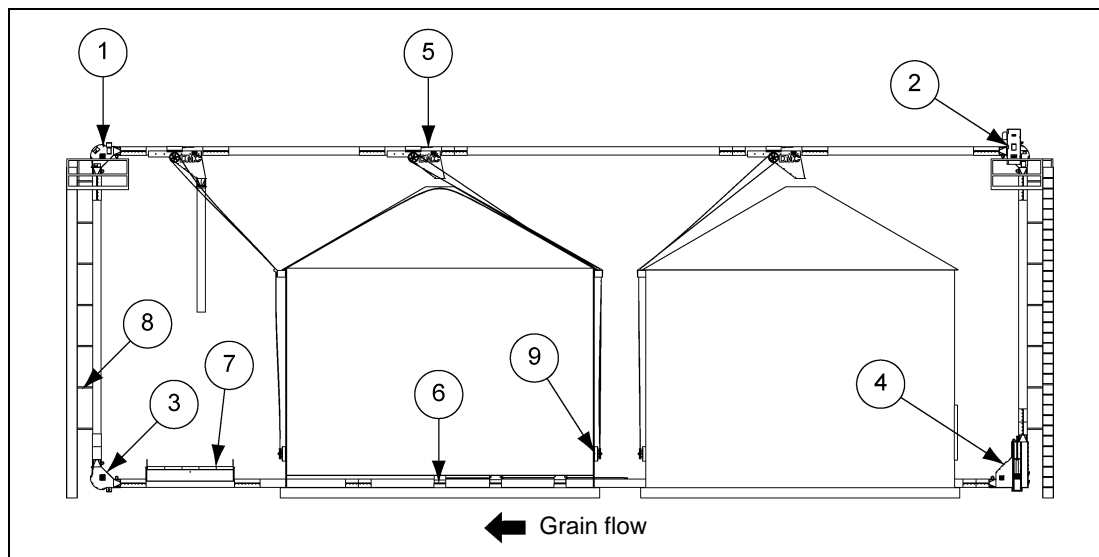


Figure 3B *Standard Components*

Ref #	Description
1	Upper Standard Corner
2	Drive Corner(s)
3	Lower Standard Corner
4	Inspection Corner
5	Discharge Gates
6	Floor Wells
7	Inlet Dump Hopper
8	End Support Towers (and Intermediate Towers)
9	Ground Gate Controls

1. Vertical support towers shall be fitted with personnel access ladder and service platform in accordance with relevant sections of EN 14122.
2. Intermediate support towers, or bin roof supports. Check with bin manufacturer for maximum roof loading.
3. Maximum distance between supports shall be 10 m.

1. Chain Loop Systems can be installed either vertically (under and over the grain bin) or at an angle (to accommodate standard horizontal bin unload system). (See [Figure 4A](#) and [Figure 4B](#).)



Figure 4A *Vertical Installation*



Figure 4B *Angle Installation*

2. Draw accurate plans to:
 - a. Minimize grain travel distance.
 - b. Enable positioning of inlets, outlets, corners and tube connectors and to minimize tube cuts.
 - c. Ensure tubes are perfectly straight.

NOTE: *Chain only travels in one direction and cannot be reversed.*

Assembly Sequence and Procedures

NOTE: Work towards making the final chain splice inside the inspection corner once the assembly is complete.

Construct Concrete Support Structures

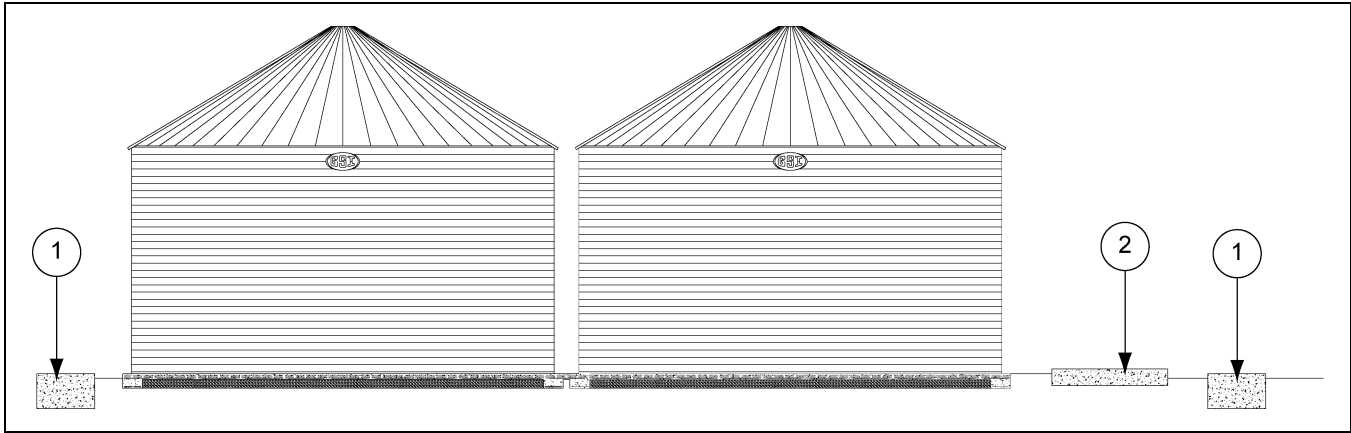


Figure 4C Concrete Bases

Ref #	Description
1	Main Tower Bases (Typical 2 m x 2 m x 2 m)
2	Dump Hopper Base (See Figure 4D.)

NOTE: For drive over applications, the hopper must be fitted into and supported by a suitable concrete structure and may require a ramp to allow tipping vehicles to drive up.

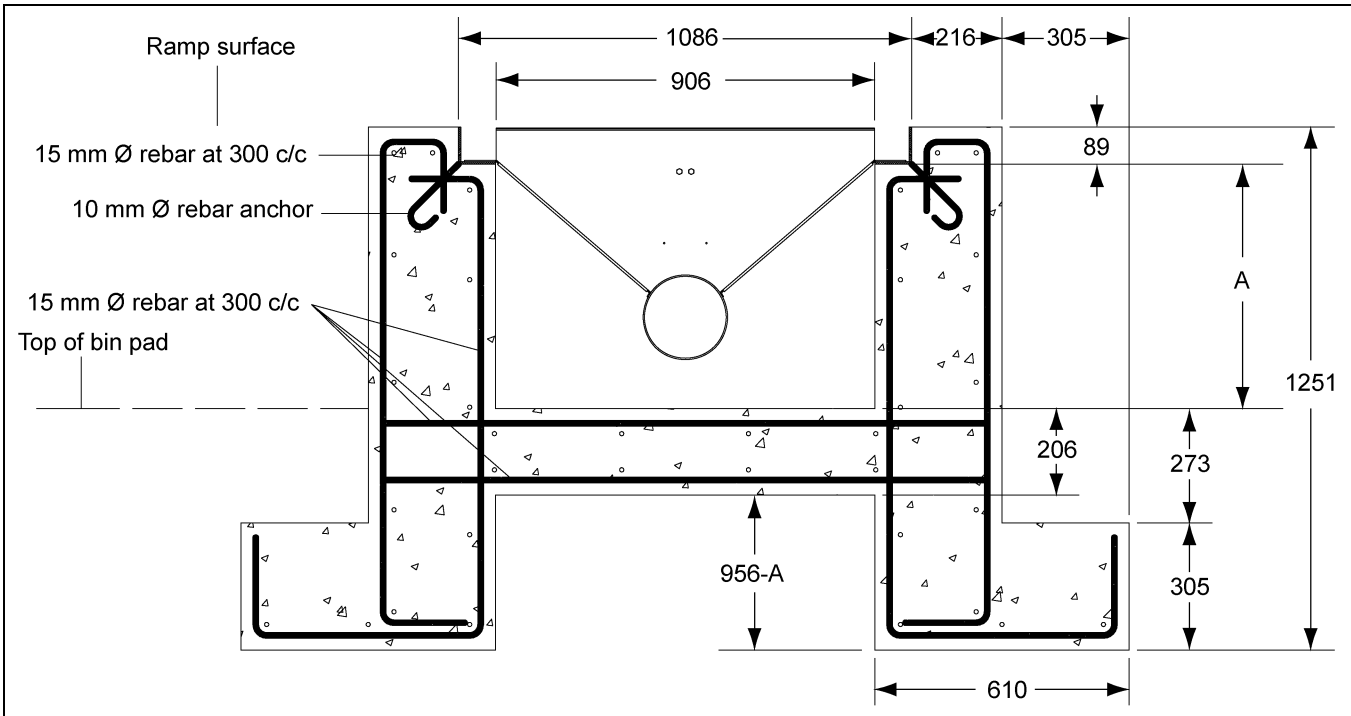


Figure 4D Dump Hopper Base Detail

Dump Hopper Base Dimensions

Floor Support	Top of Floor	A		
		8" System	10" System	12" System
FL-379-191	340	521		
FL-379-193	403	584	565	
FL-379-192	475	654	635	610
4031325	337	517		
4031550	394	575	556	
4031850	470	653	632	605

NOTES:

1. Based on minimum soil bearing capacity of 140 kPa, determined by geotechnical investigation over full area of construction site.
2. Foundation must be frost free.
3. Site must be well drained and free from vegetation.
4. Reinforcement to be checked to structural engineers requirements.
5. Concrete to have minimum compressive strength of 25 N/mm² at 28 days, 6%-8% air entrainment and 100 mm slump.
6. Below detail in [Figure 4E](#) shall be viewed as recommendation only. Site conditions may vary, and structural engineering design should be sought. GSI assumes no liability for results arising from the use of such recommendations.

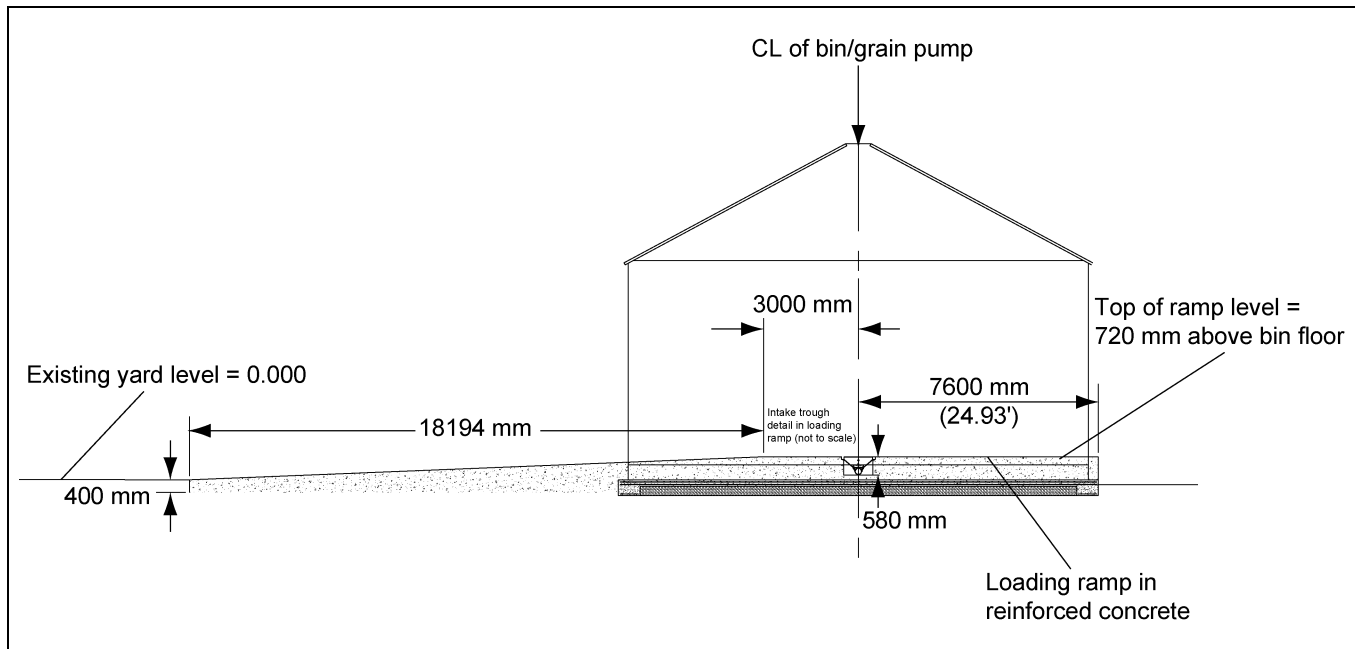


Figure 4E Typical Loading Ramp

4. System Installation

Assemble Chain and Paddles

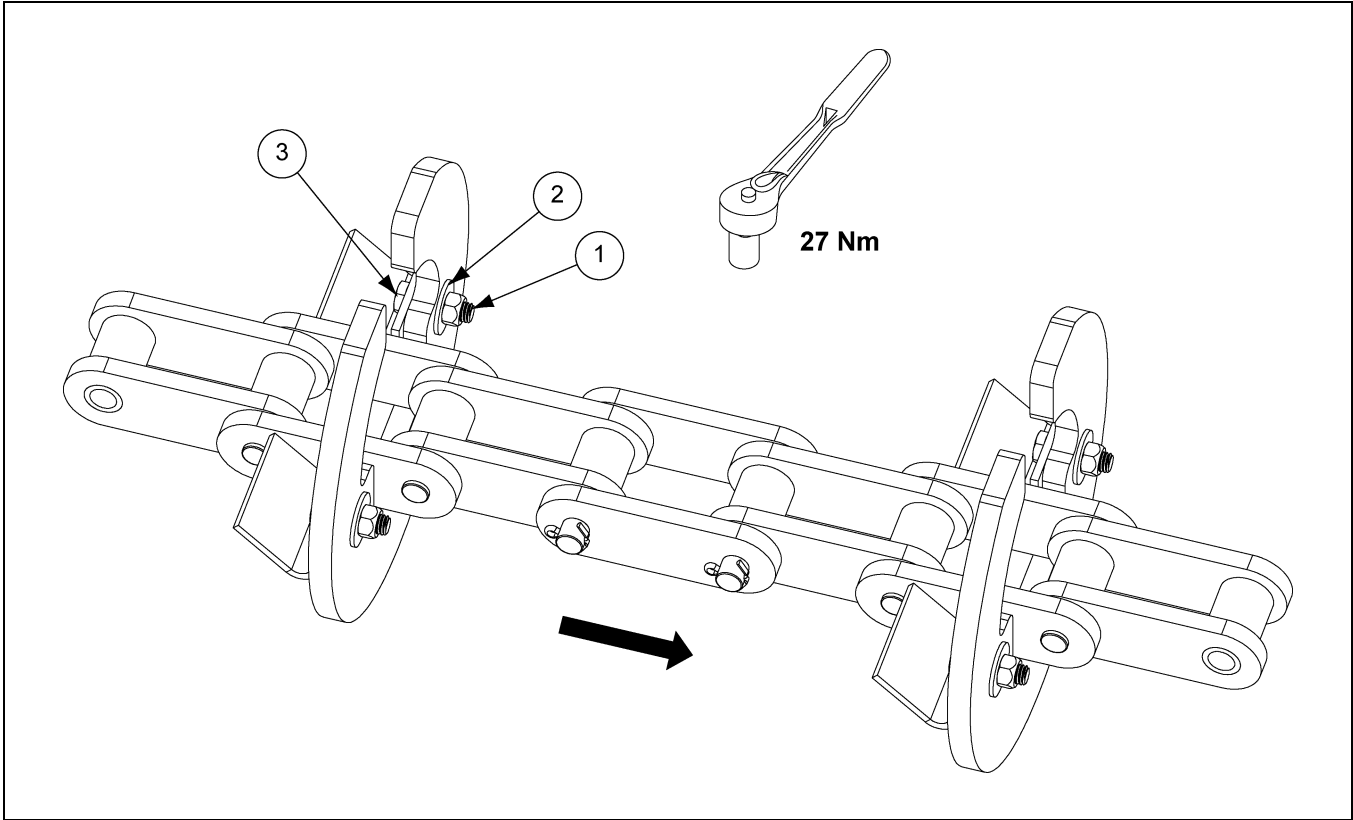
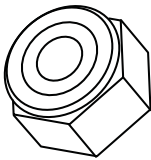
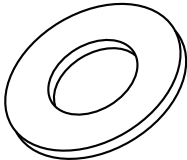
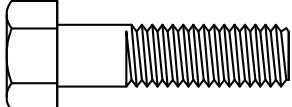


Figure 4F Chain and Paddles

Ref #	Part	Part #	Description
1		S-8324	Stover Nut 5/16"-18 ZN Grade C
2		S-845	Flat Washer 5/16" USS SAE YDP Grade 2
3		S-7470	Flange Bolt 5/16"-18 X 1" ZN Grade 5

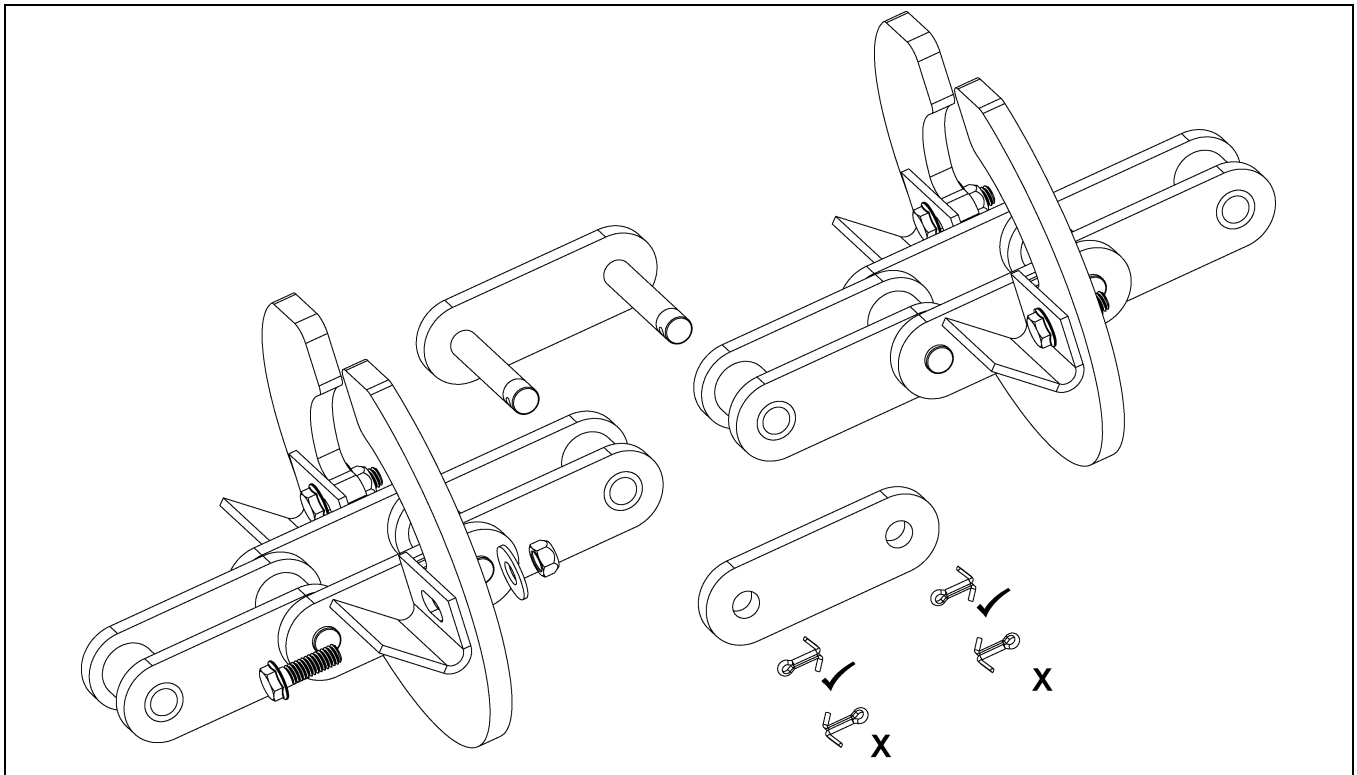


Figure 4G *Splice Chain Sections*

NOTE: Assemble chain in manageable lengths at ground level.

Assemble and Fit all Support Structures

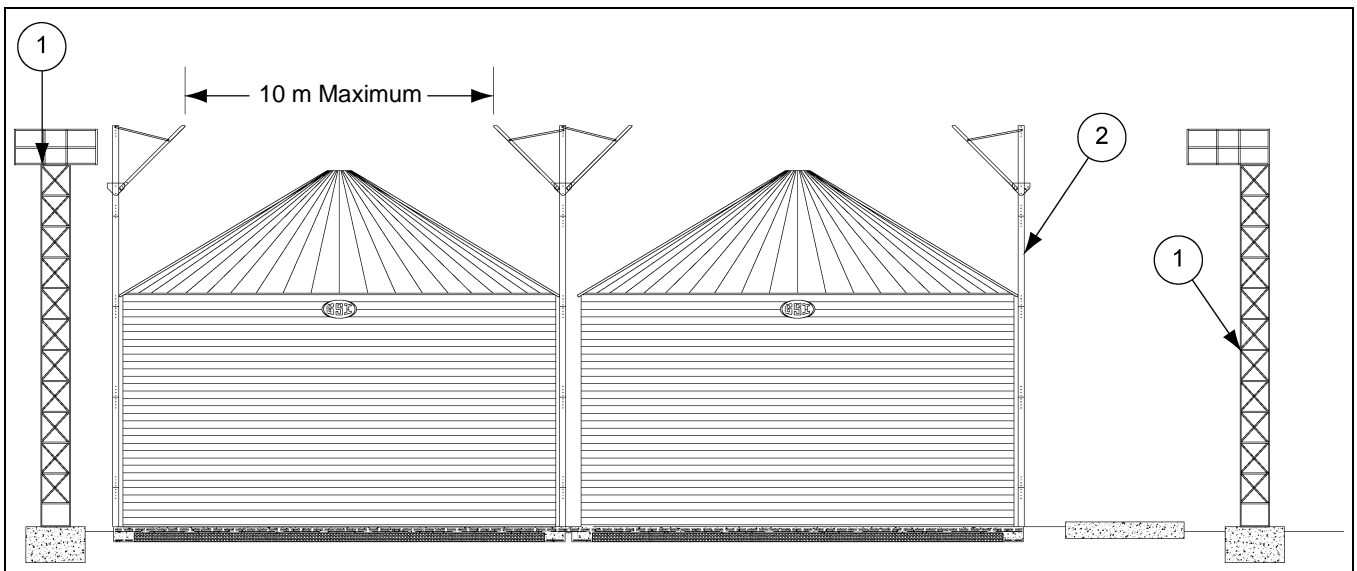


Figure 4H *Support Structures*

Ref #	Description
1	End Support
2	Intermediate Support

Position Floor Wells

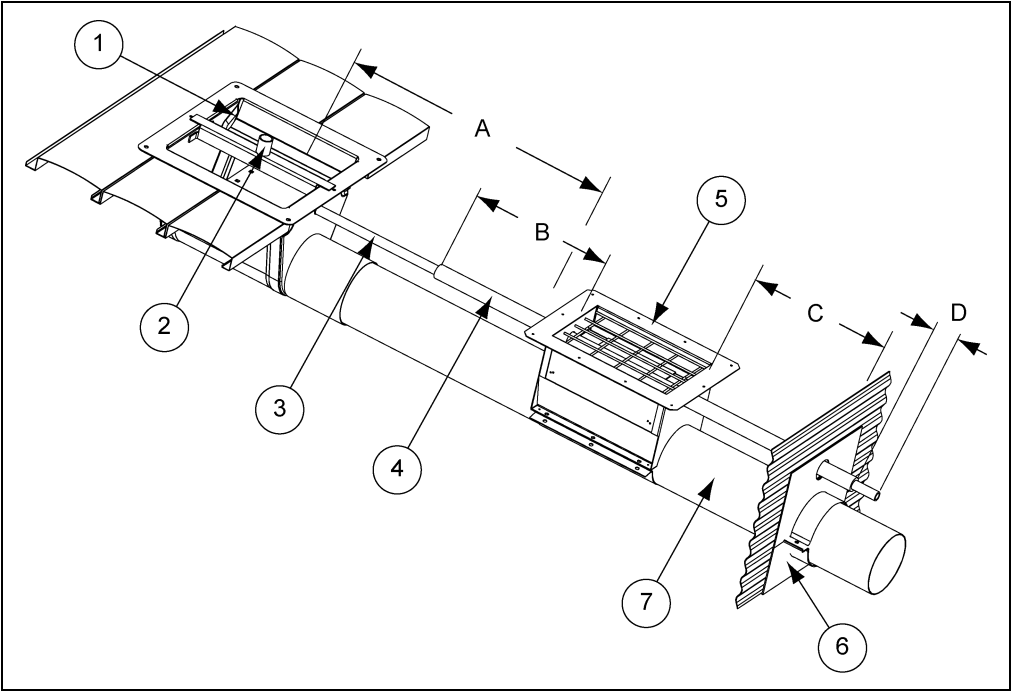


Figure 4I Centre and Intermediate Wells

Ref #	Description
1	Centre Well
2	Sweep Pivot (Centre of Bin)
3	Centre Well Control Rod
4	Intermediate Well Control Rod
5	Intermediate Well(s)
6	Bin Wall Flange
7	Conveyor Tube

Dimension	Minimum
A	686 mm
B	356 mm
C	356 mm
D	50 mm

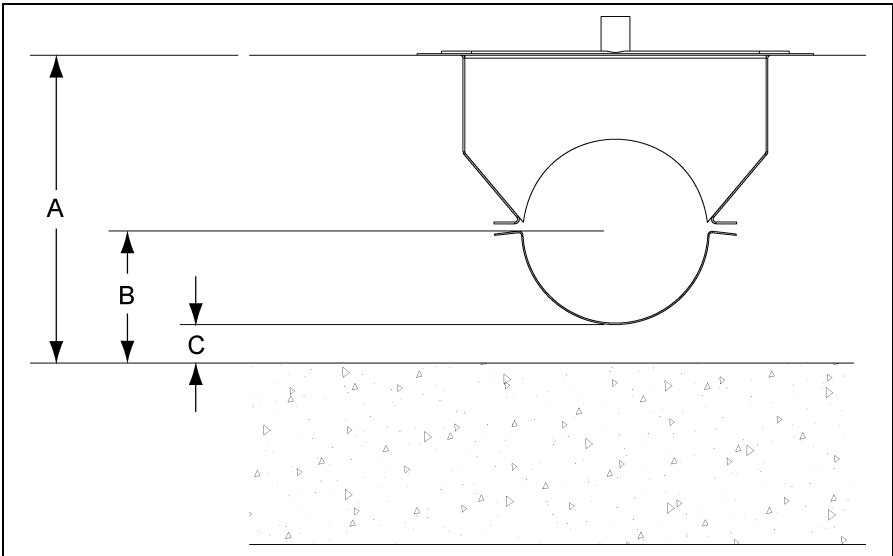


Figure 4J Centre Well Positions

Centre Well Positions

Floor Support	A mm	8" System		10" System		12" System	
		B mm	C mm	B mm	C mm	B mm	C mm
FL-379-191	340	146	43	NA	NA	NA	NA
FL-379-193	403	209	107	167	39	NA	NA
FL-379-192	475	281	179	239	111	214	59
4031325	337	143	40	NA	NA	NA	NA
4031550	394	200	97	158	30	NA	NA
4031850	470	276	173	234	104	209	56

Fit Lower Horizontal Section

1. Mark and cut openings through the bin walls to allow the lower tubes to pass through. Use [Figure 4J on Page 28](#) dimensions.
2. Allow for minor positional adjustment and to be fully covered by the bin wall flange.

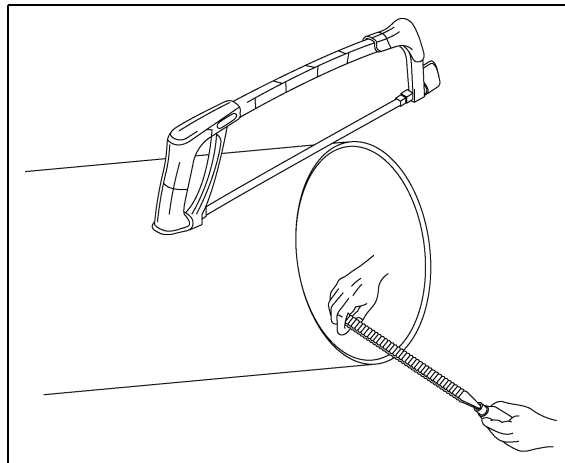


Figure 4K Cut and Chamfer Tube

NOTE: Tube must be cut square, all burrs must be removed and inner edge chamfered.

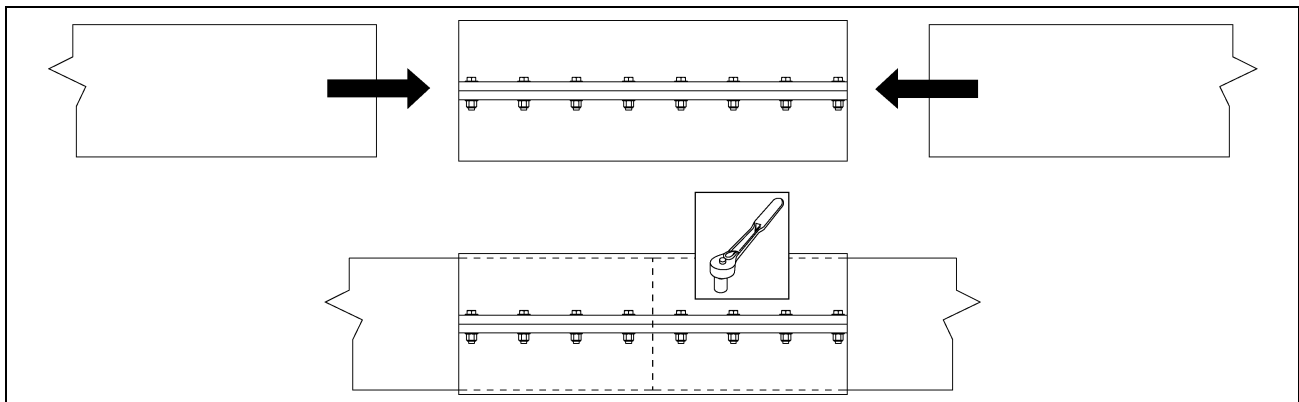


Figure 4L Join Tubes

4. System Installation

NOTE: Draw a nylon rope through the tubes, to assist when drawing through the chain.

3. Install chain in sections with each tube, and splice.
4. Place supports beneath the tubes to reduce the load carried by the wells and floor.
5. Fit dump hopper and chain.

NOTE: The tubes must be laid perfectly horizontal and straight.

Build Vertical Ends

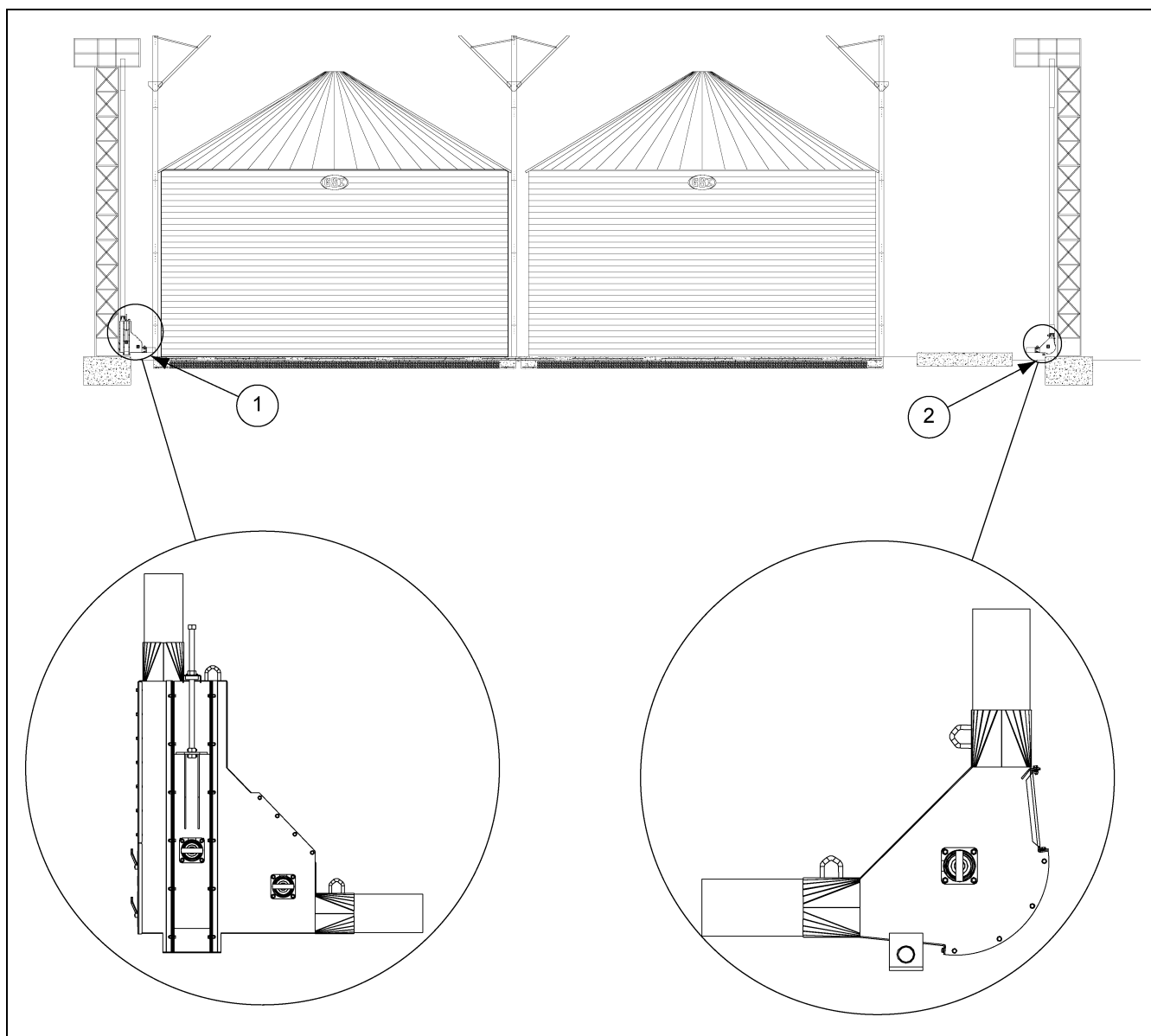


Figure 4M Vertical Ends

Ref #	Description
1	Inspection Corner
2	Standard Corner

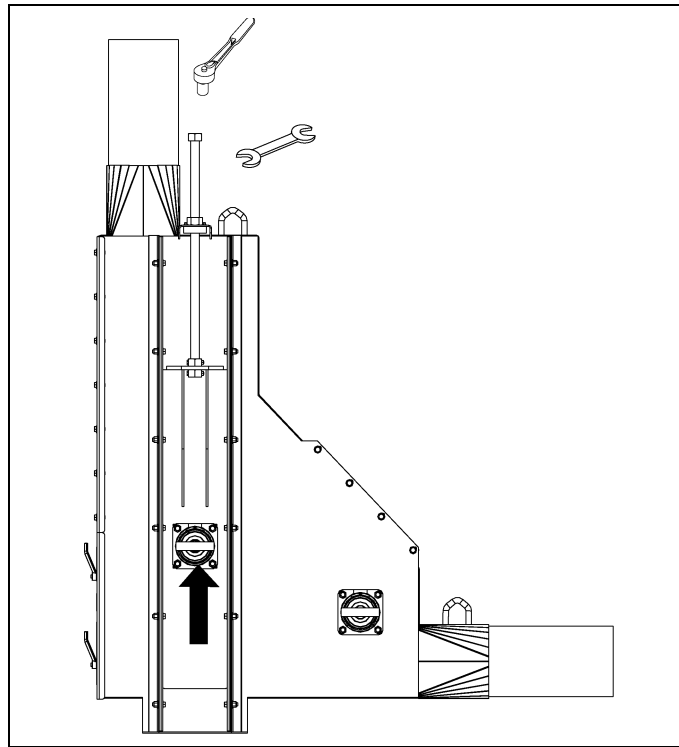


Figure 4N *Slacken Chain Adjuster*

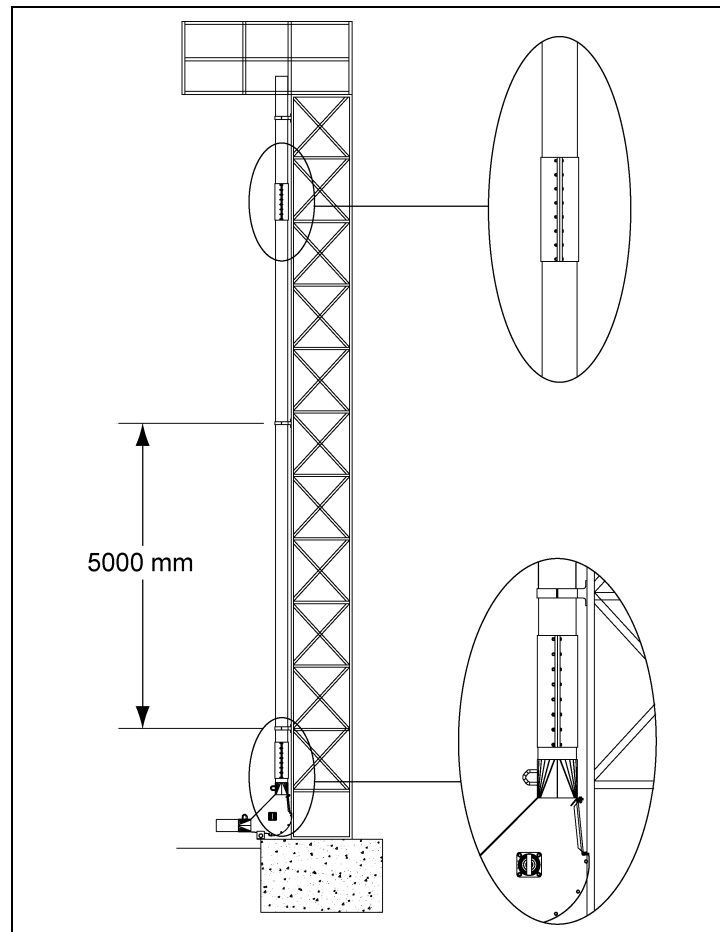


Figure 4O *Assemble and Join Vertical Tubes*

4. System Installation

NOTE: Mechanical lift equipment is required to handle and position tubes.



Do not attempt to lift the vertical sections when assembled. Tube may slip out of the tube coupler and fall.

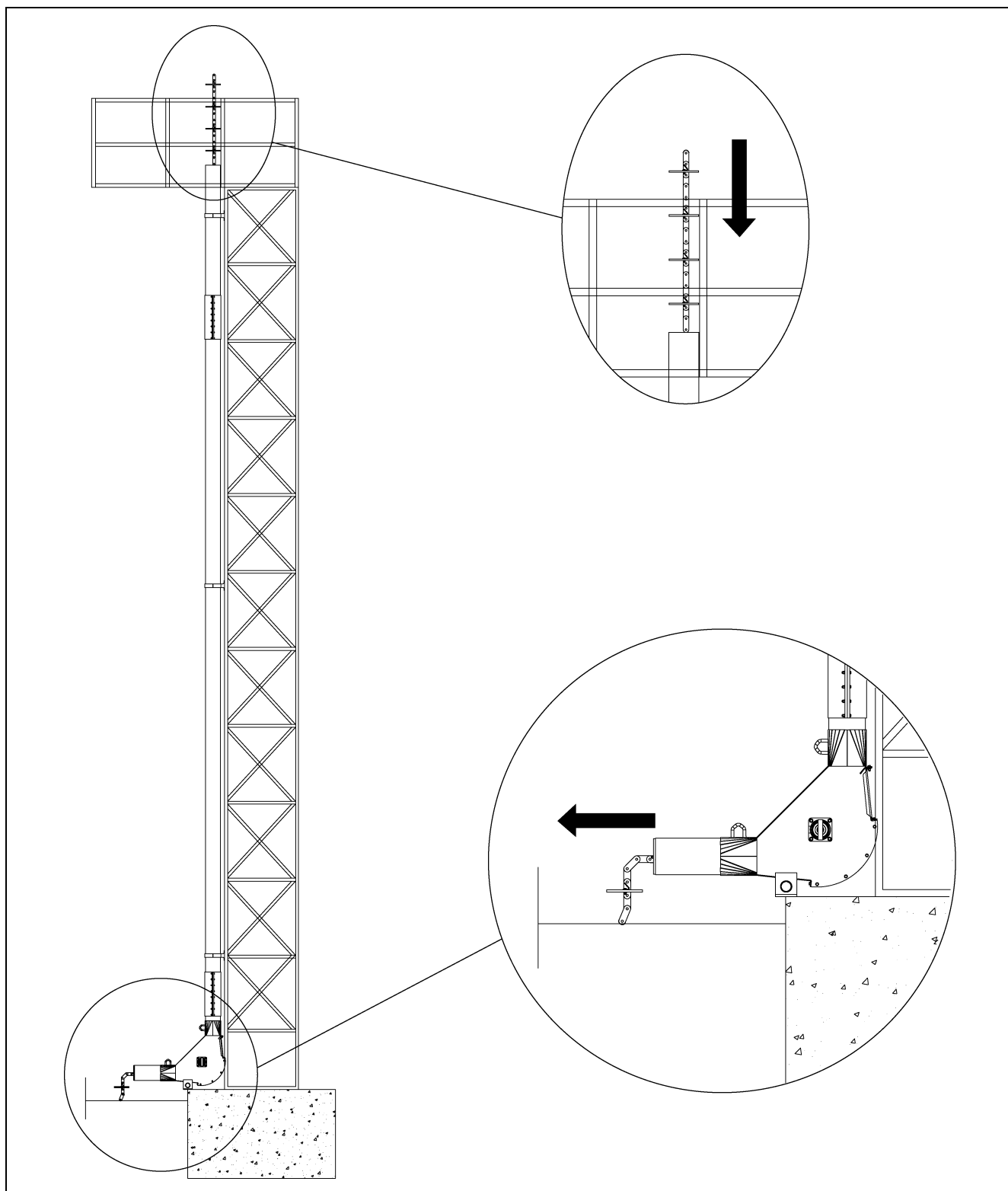


Figure 4P *Install Chain*

Fit Upper Corners

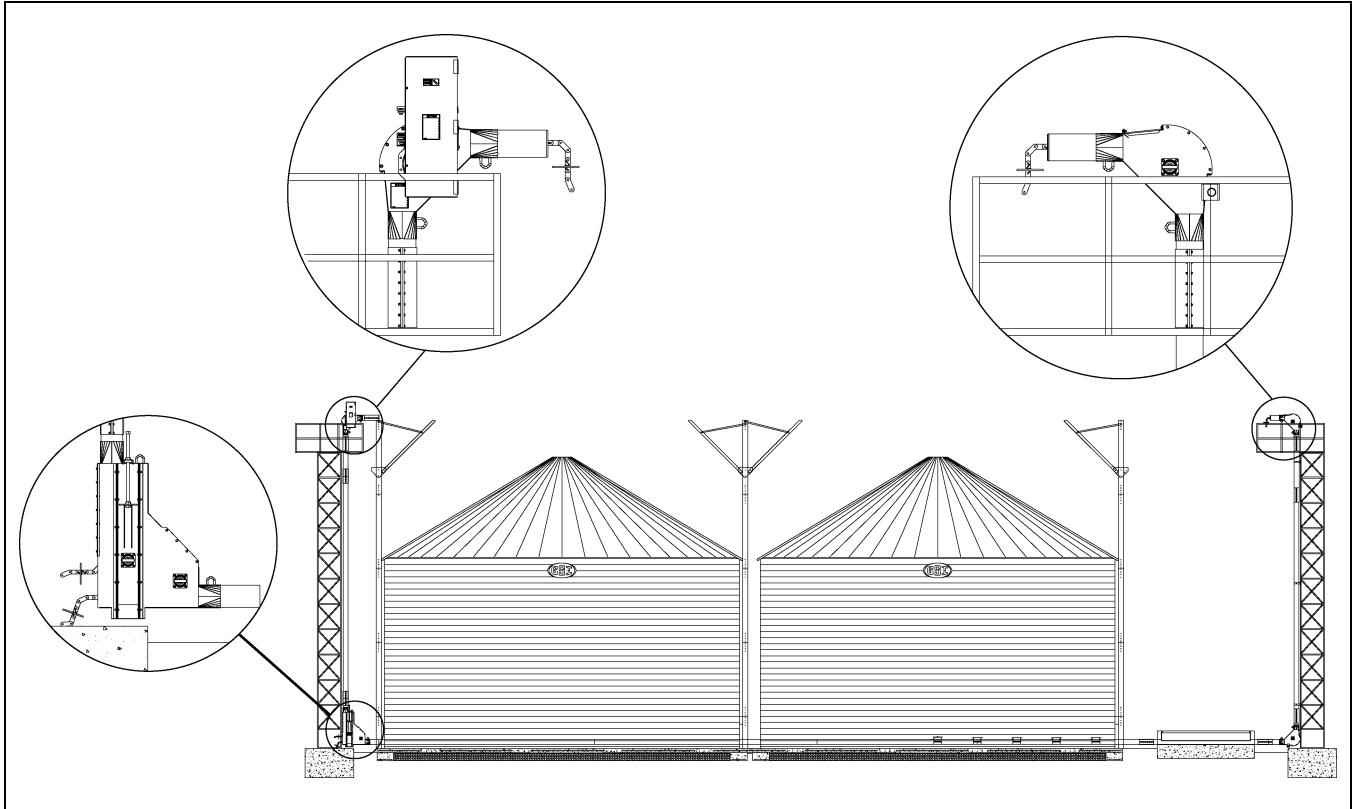


Figure 4Q *Fit Upper Corners*

Draw the chain through the corners whilst fitting and splice to vertical sections.

Fit Upper Horizontal Sections

1. Accurately cut the tubes and layout on the ground, positioning the discharge gates and drawing in the chain.

NOTE: *Discharge gates must be set in the correct direction relative to the travel of the chain.*

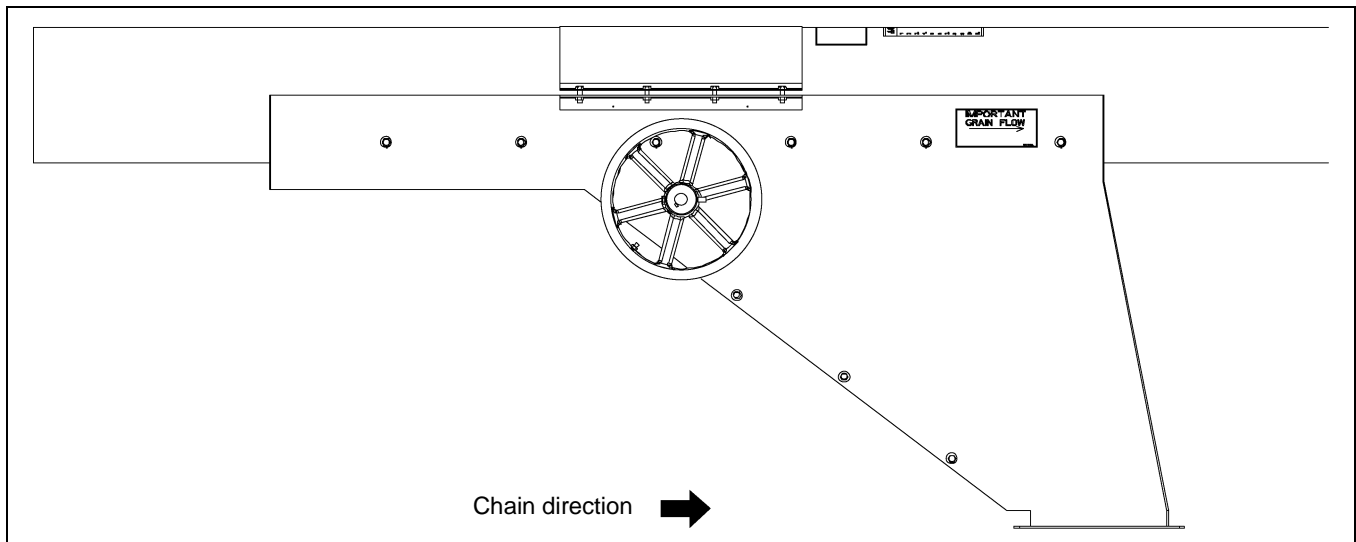


Figure 4R *Discharge Gate*

4. System Installation

2. Raise the position the upper horizontal assembly section by section, ensuring the chain is not twisted or kinked and that the tubes butt together perfectly.
3. Join the tubes and discharge gates with tube couplers.

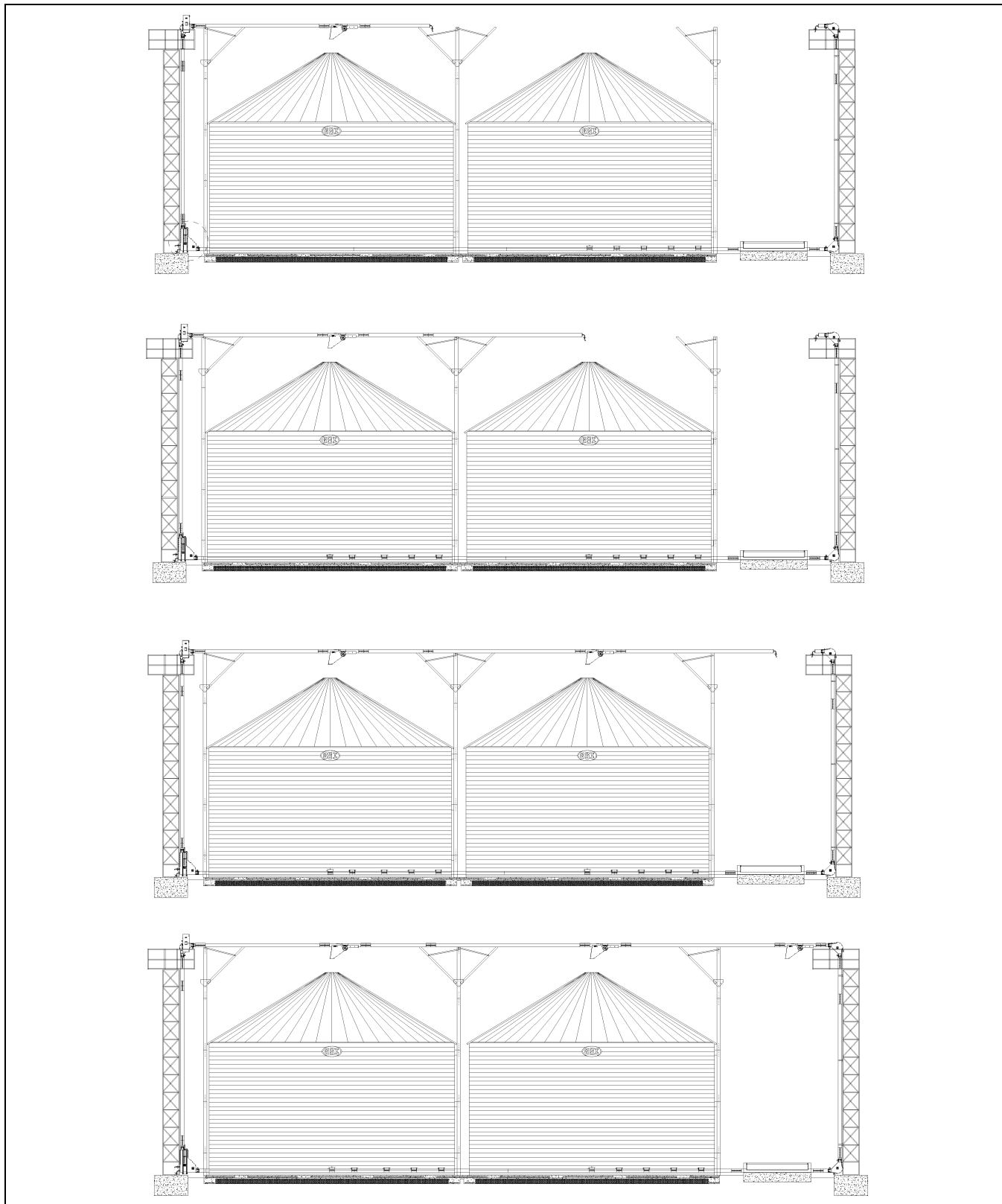


Figure 4S *Position Upper Sections*

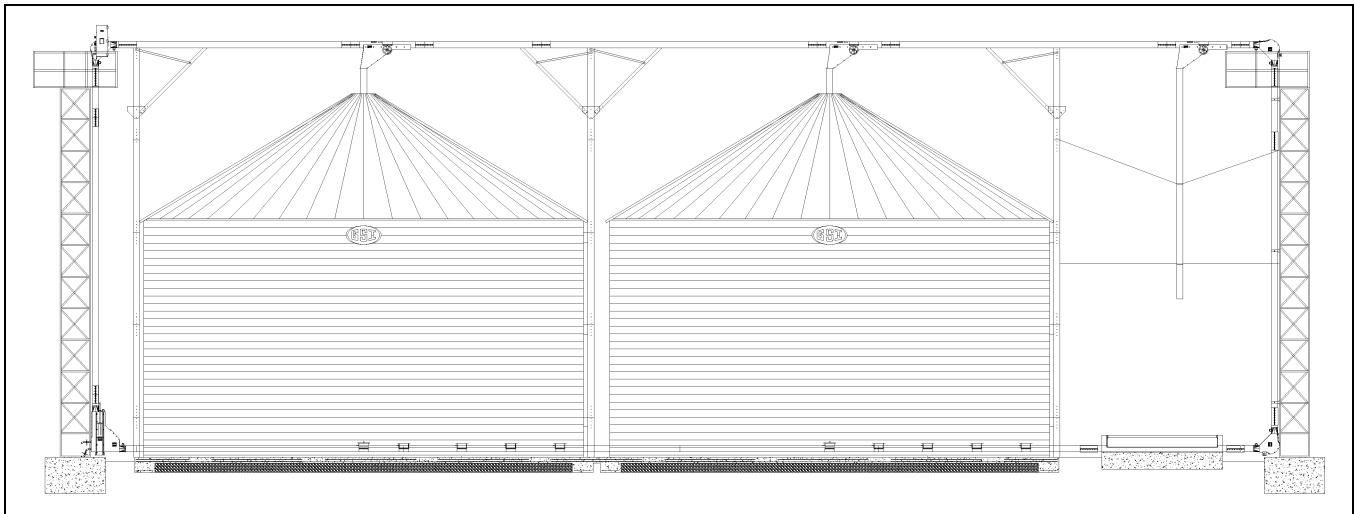


Figure 4T *Fit Outlet Spouts*



When open, discharge gates expose the chain and paddles. To reduce the risk from these parts when moving, the outlet must be directly connected to the bin inlet, additional handling equipment, or be fitted with a discharge tube longer than 500 mm.

NOTE: *Tubes must be perfectly horizontal and straight.*

Tension Chain

1. Remove links from the loose end of the chain to adjust it's final length.
2. Splice the chain inside the inspection corner.

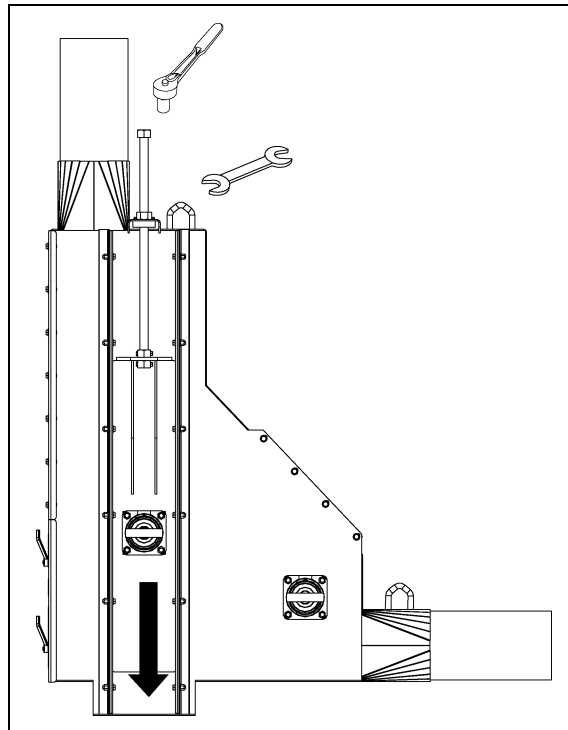


Figure 4U *Tension Chain*

4. System Installation

3. Ensure adequate adjustment remains to allow for later adjustment after running in. If necessary remove additional links.

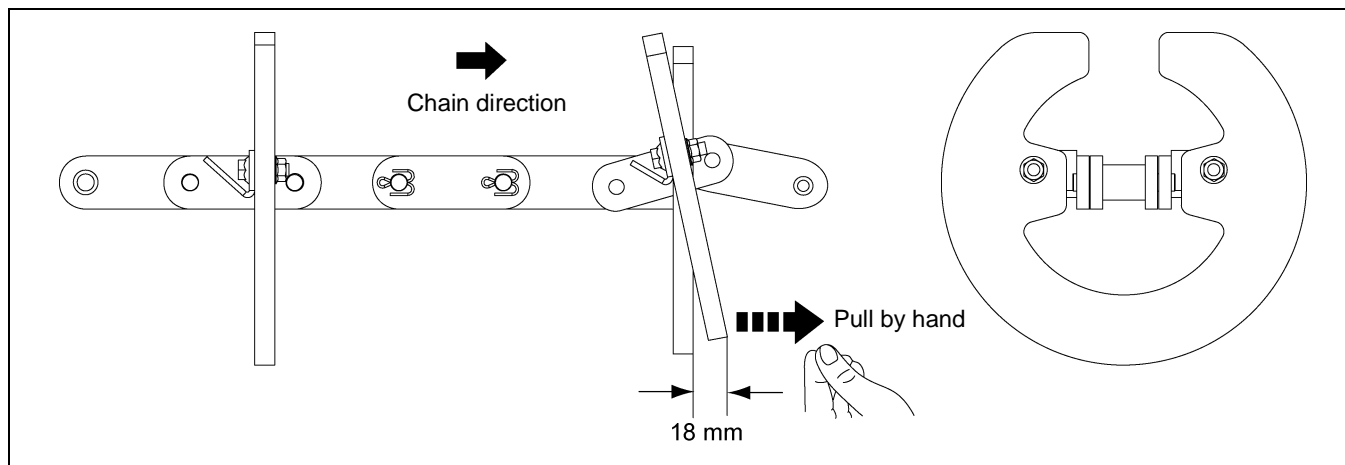


Figure 4V Chain Tension

NOTE: Check that the chain is not twisted or kinked.

Assemble Drive Components

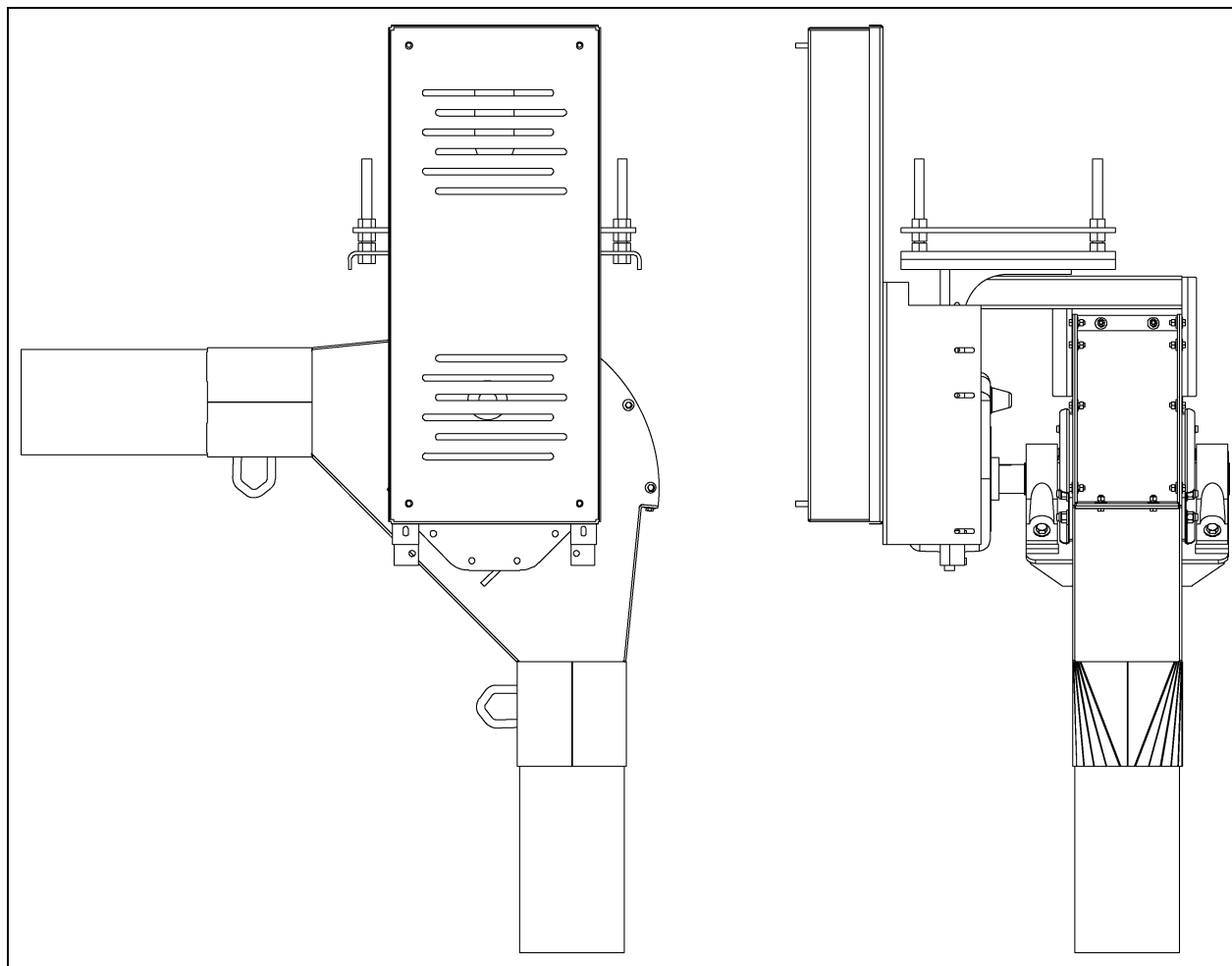


Figure 4W Drive Assembly

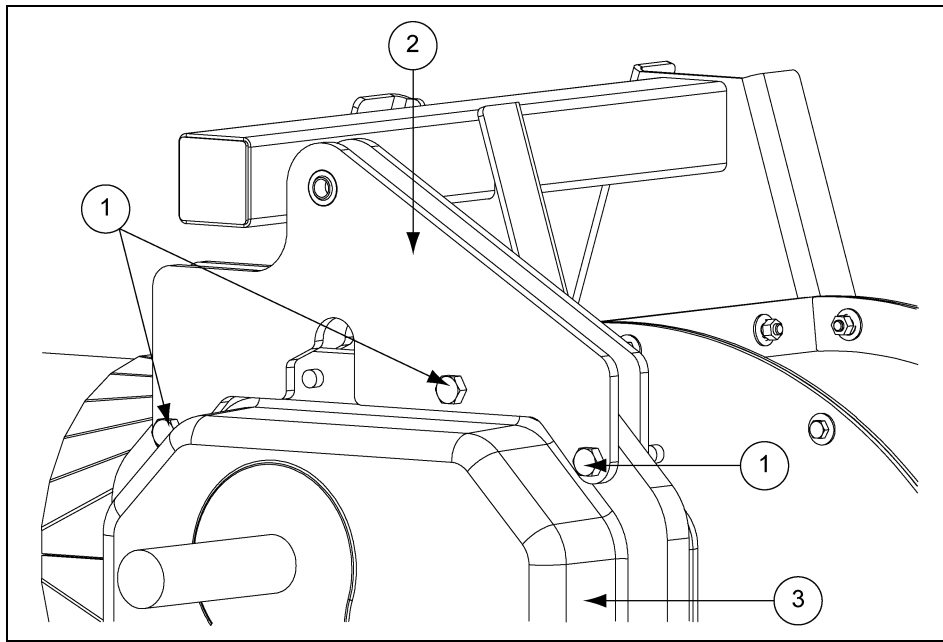
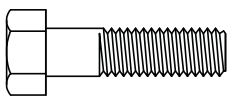




Figure 4X Attach Torque Plate Assemblies to Sides of the Gear Reducer

Ref #	Description
1	Torque Arm Hardware
2	Torque Plates
3	Gear Reducer

			Qty
3/8"-16 TA3	On Reducer	On Reducer	3
1/2"-13 TA4/TA5	On Reducer	On Reducer	3

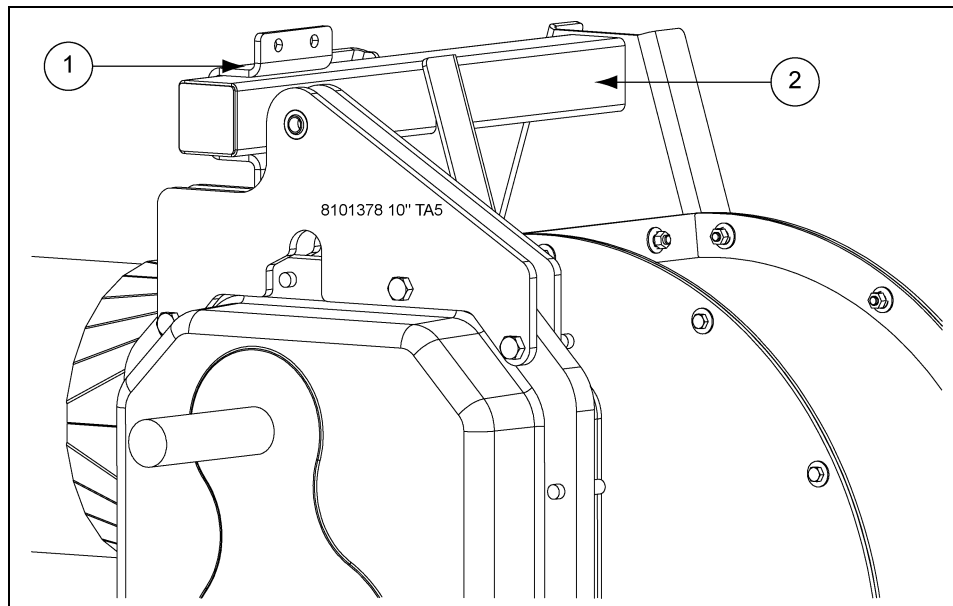


Figure 4Y Place the C-Clamp Bracket

Ref #	Description
1	C-Clamp Bracket
2	Square Tubing

4. System Installation

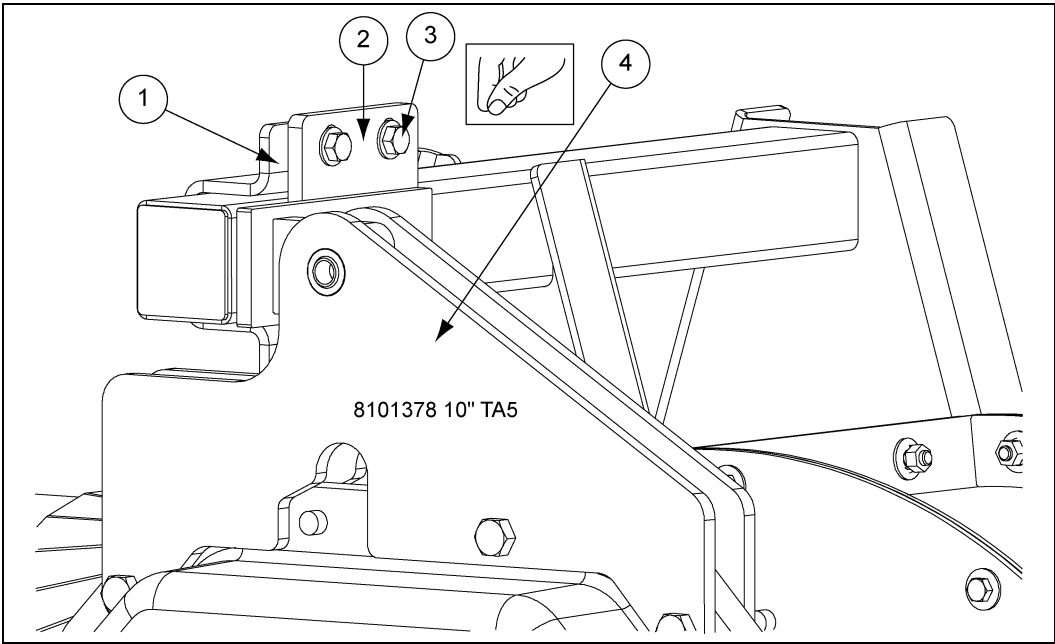


Figure 4Z Place the Torque Plate Anchor Bracket

Ref #	Description
1	C-Clamp bracket
2	Torque Plate Anchor Bracket
3	Hardware
4	Torque Plate Assembly

		Qty
3/8"-16	3/8"	4

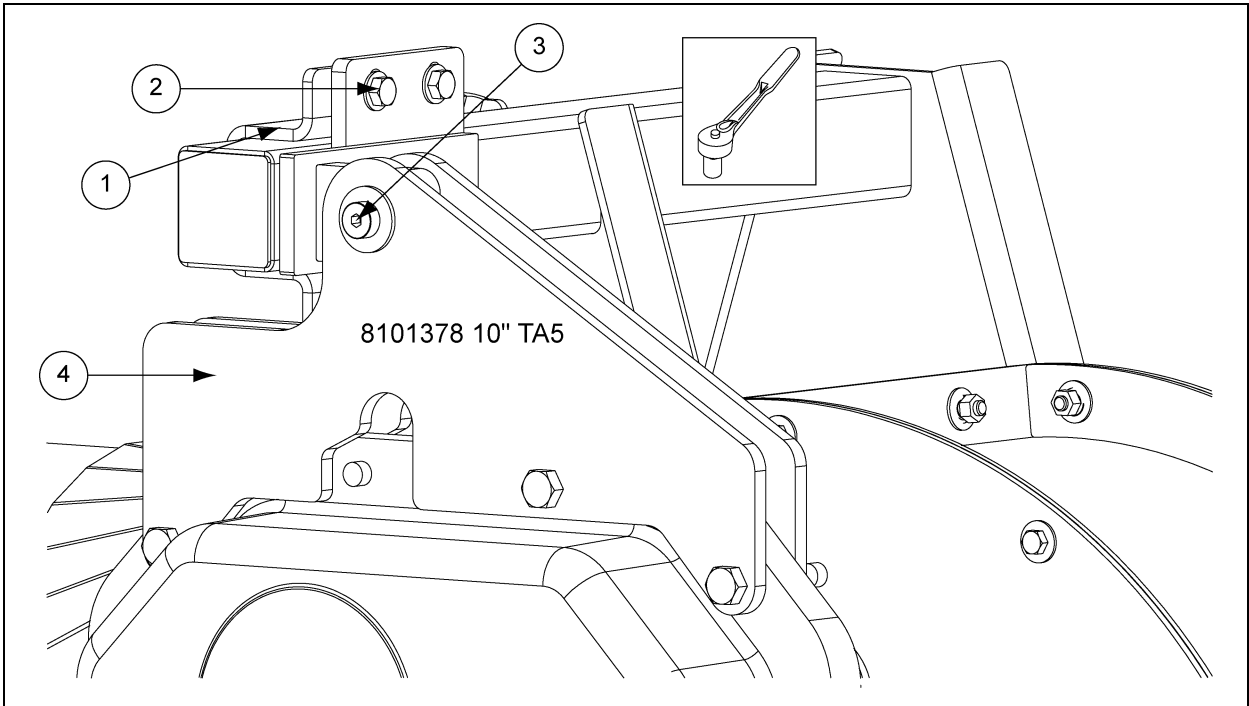
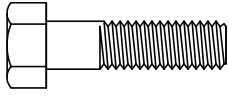

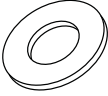


Figure 4AA Attach the Torque Plate Anchor Bracket to the Torque Plates

Ref #	Description
1	C-Clamp Bracket
2	Torque Plate Anchor Bracket
3	Hardware
4	Torque plate assembly

			Qty
3/8"-16	3/8"	1/2"	1

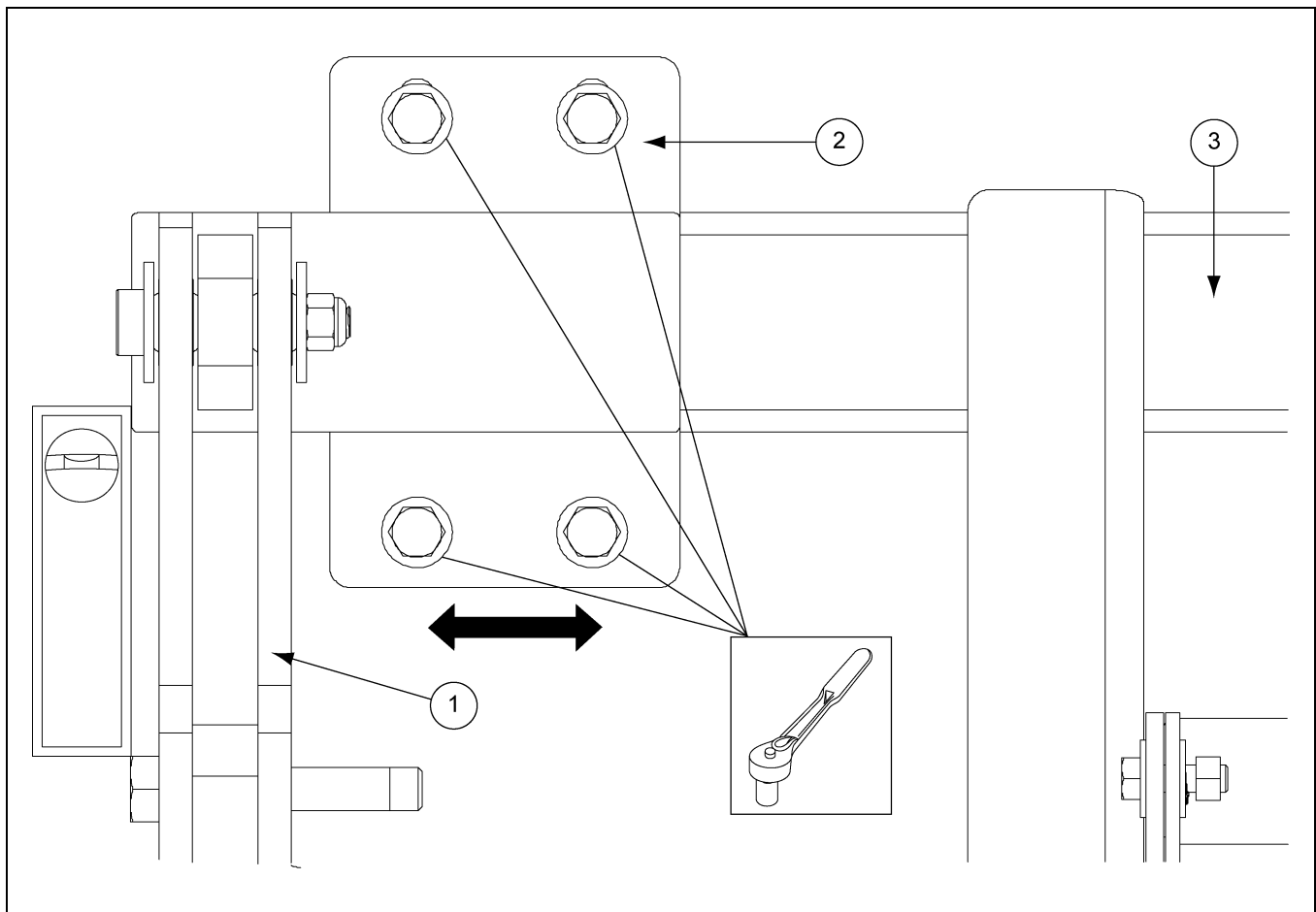


Figure 4AB Adjust Torque Plate Anchor Bracket

Ref #	Description
1	Torque Plate Assembly
2	Torque Plate Anchor Bracket
3	Square Tube

4. System Installation

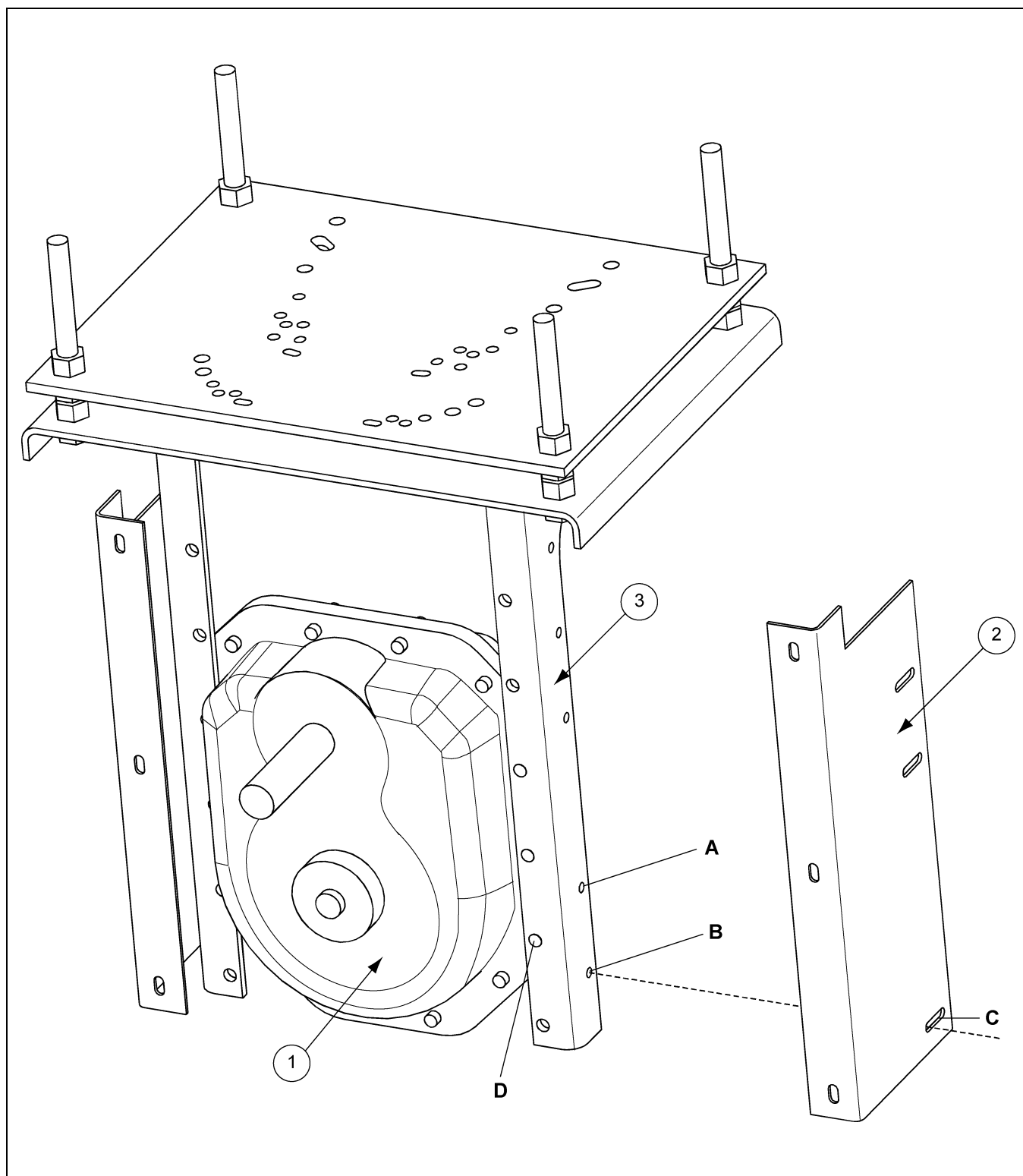


Figure 4AC Drive Box Assembly

1. Align hole D with the lower side hole in the reducer.
2. Use hardware supplied with the reducer.
3. For TA3 and TA4 reducers align holes A and C.
4. For TA5 and TA6 reducers align holes B and C.

Fitting Motor and Pulleys

1. Mount the belt guard back plate.
2. Mount the sheaves as close to the belt guard back as possible.
3. Align sheaves by using a straight edge, placed across the outer faces of both sheaves. Secure in place using taper lock bushing.
4. Be sure drive keys are properly installed.
5. Check sheave alignment again after sheaves are secured to shafts.
6. Install the belts onto the sheaves and set belt tension.
7. Ensure the motor mount assembly is parallel with the top.
8. Check that all fasteners are tightly secured. Close and fasten belt guard.



The gear reducer is shipped without oil. It is necessary to add the proper amount of oil before running.

Use a high grade petroleum base, rust and oxidation inhibited gear oil.

Follow the instructions on the reducer name plate, warning tags and in the installation manual attached to the reducer.

4. System Installation

Discharge Gate Ground Control Kit

The ground control wheel can be mounted to the same bin as the discharge gate or to an adjacent bin. See examples 1 and 2 in [Figure 4AD](#).

1. Attach idler pulleys to mounting bracket.
 - a. On INSIDE surface if going to gate on same bin.
 - b. On OUTSIDE surface if going to on adjacent bin.

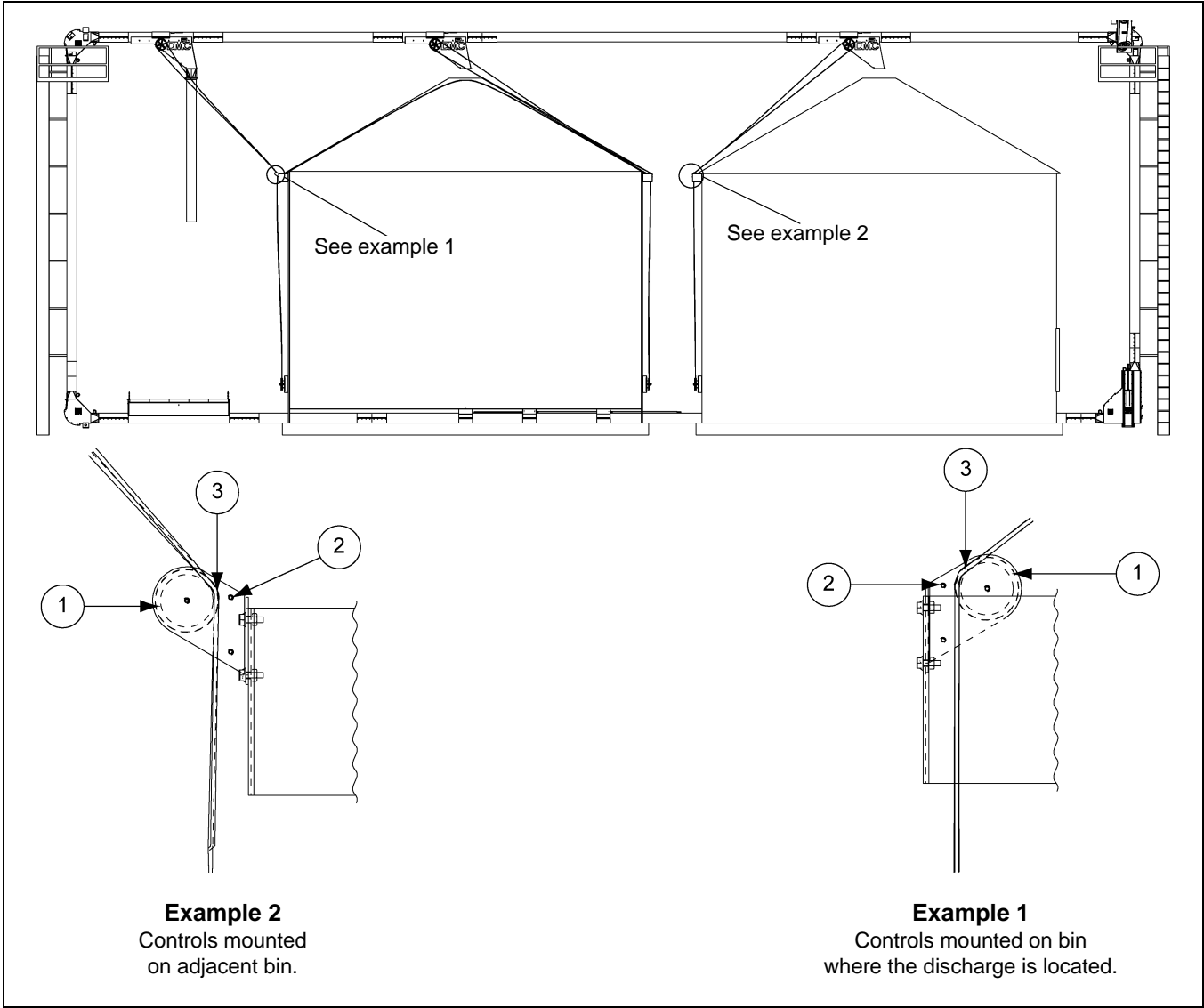


Figure 4AD

Ref #	Description
1	Pulley
2	Guide Pin
3	Control Cable Routed Between Pulley and Guide Pin

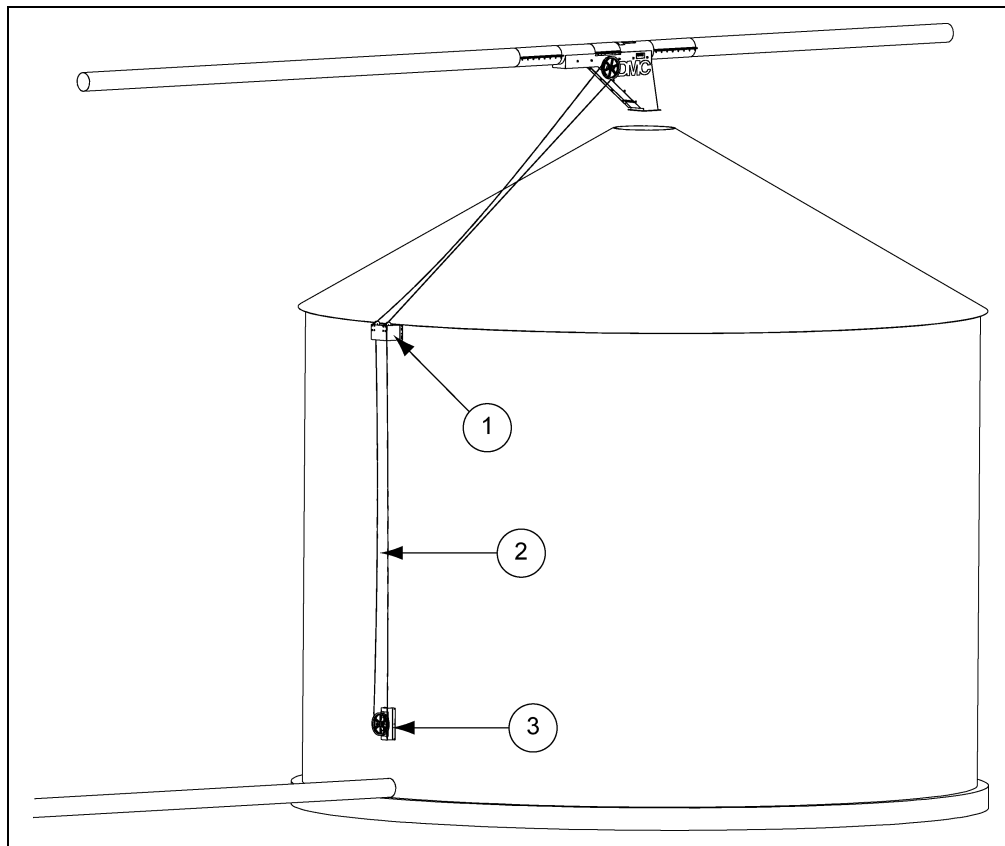


Figure 4AE

Ref #	Description
1	Fasten upper pulley bracket below eave at top of bin wall in-line with discharge control wheel.
2	Splice control cable away from control wheel and pulleys.
3	Fasten ground control wheel bracket directly below pulleys.

2. Attach idler pulley bracket to bin wall under eave. Ensure cable clears bin roof. (*See Figure 4AF.*)

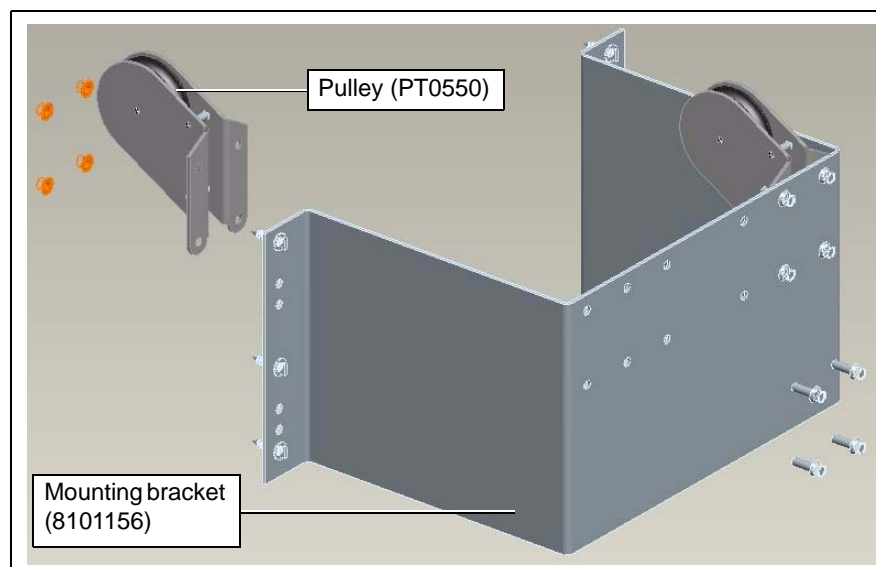


Figure 4AF

4. System Installation

3. Attach ground control wheel bracket to bin wall below the idler bracket. Loosely attach the wheel mounting bracket to the wall bracket and slide it up as far as possible. (See Figure 4AG.)

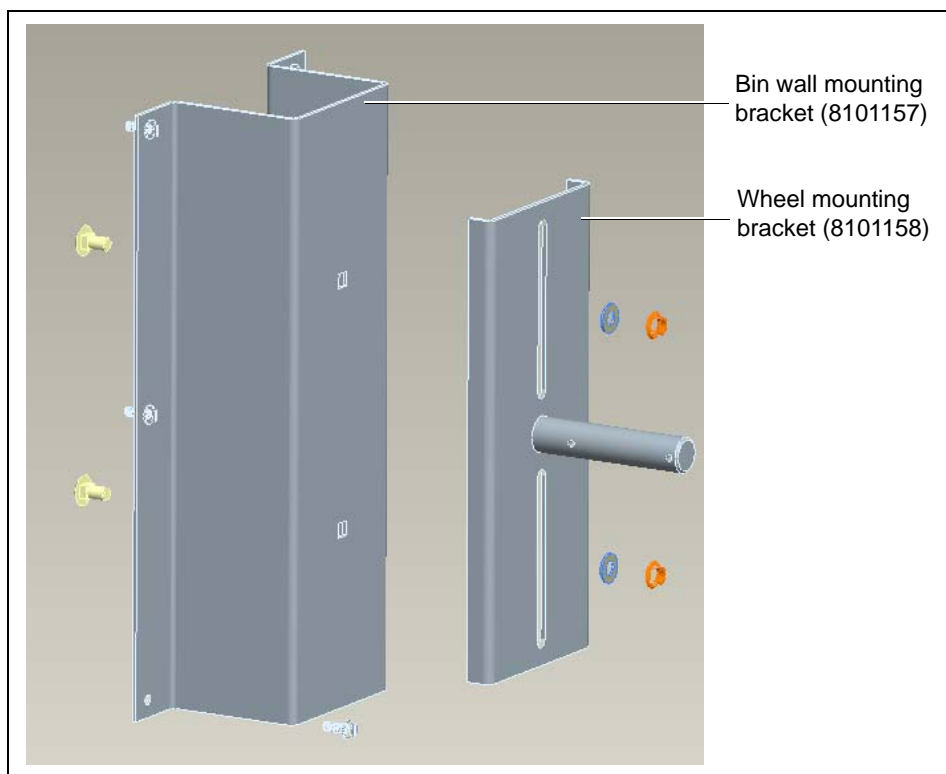


Figure 4AG

4. Use anti-seize and attach control wheel to the shaft and secure with cotter pins. (See Figure 4AH.)

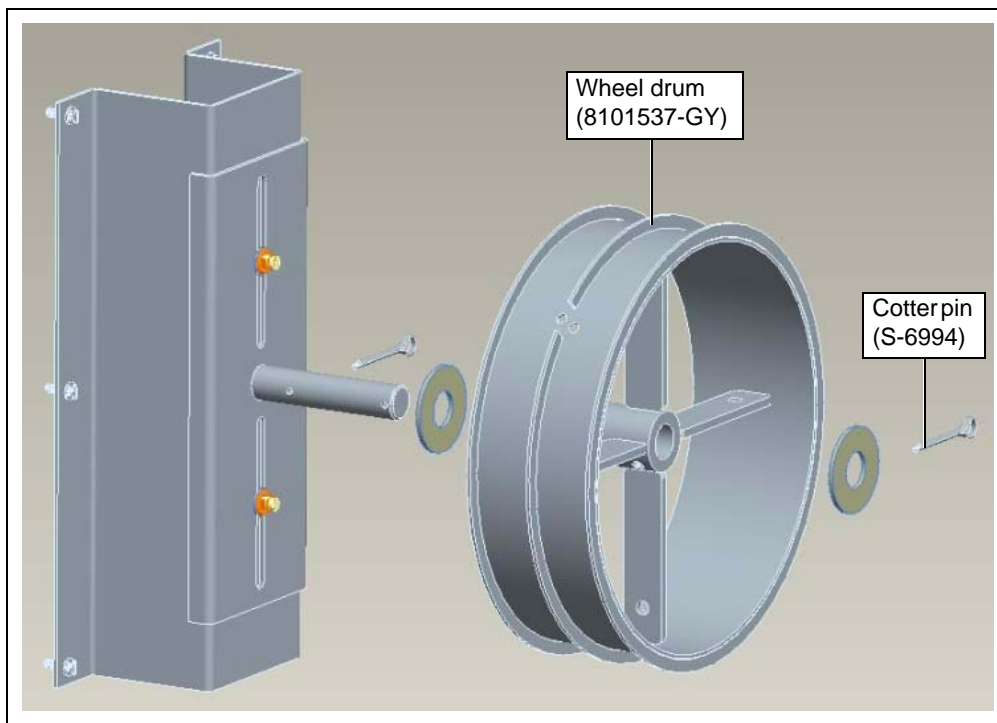


Figure 4AH

5. Attach handle mounting brackets to underside of control wheel spokes and then attach handle and connect the roller to the handle. (See Figure 4AI and Figure 4AJ.)

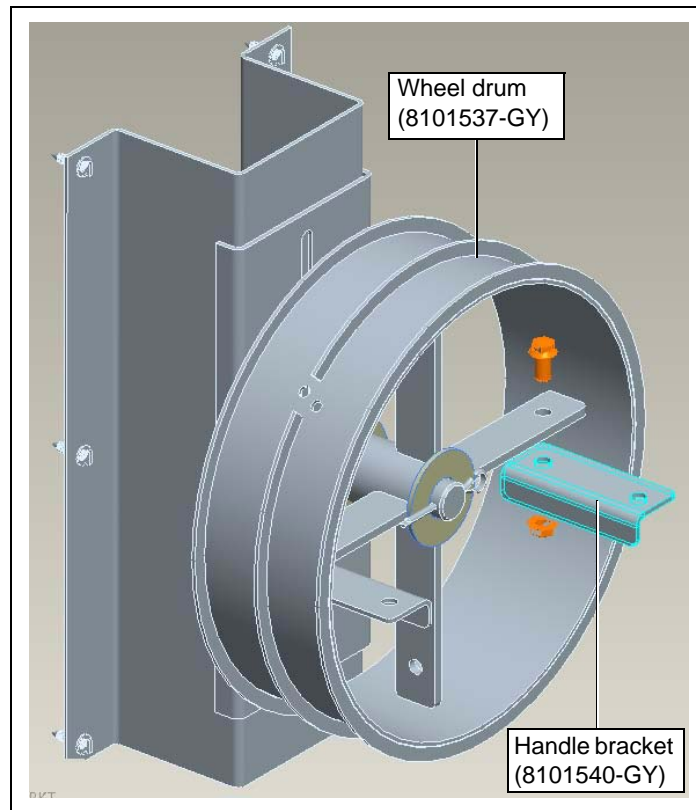


Figure 4AI

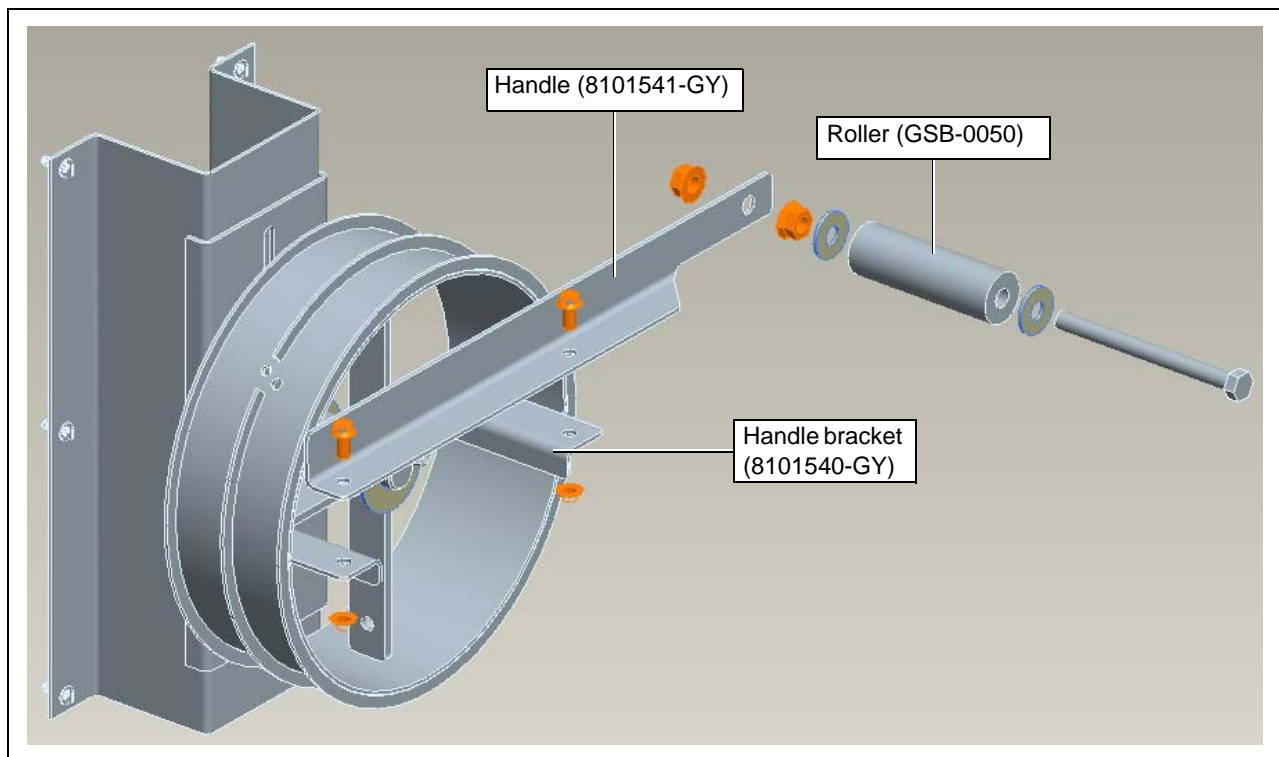


Figure 4AJ

4. System Installation

6. Open the discharge gate fully. Wrap cable counterclockwise around the outside sections (closest to you) of the discharge gate control wheel six (6) times. Start at the outside and work toward the middle. Use cable clamp to secure the cable to the control wheel. *(See Figure 4AK.)*

Cross the cable to the inside section of the discharge gate control wheel and wrap the cable two (2) times starting at the middle and working towards the outside.

NOTE: *NEVER wrap cable on top of itself.*

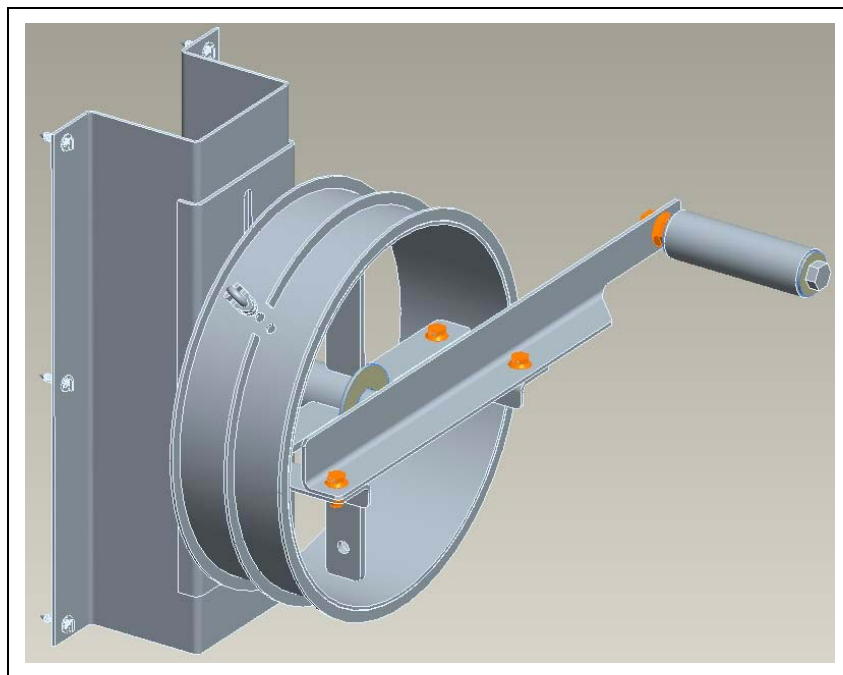


Figure 4AK

7. Confirm the discharge gate is still fully open and route the cable back through the idler pulleys and down to the ground control wheel.
8. Wrap the cable counterclockwise around the outside section of the discharge gate control wheel two (2) times. Start at the outside and work toward the middle. Use cable clamp to secure the cable to the control wheel.

Cross the cable to the inside section of the discharge gate control wheel and wrap the cable six (6) times starting at the middle and work toward the outside.

NOTE: *NEVER wrap cable on top of itself.*

9. Splice the ends of the cable with two (2) cable clamps.

NOTE: *With the gate completely open, the splice should be at least 10 feet (10') away from pulleys and control wheels.*

10. Slide the ground wheel bracket down to take up slack in cable and tighten in place.
11. Check installation by turning the ground wheel clockwise to fully close the discharge gate and counterclockwise to fully open the gate.

- ## PNEG-1128CE CE Compliant Chain Loop System without Controls



Final Inspection Check List

Before first start-up:



Figure 5B



Lock out all power.

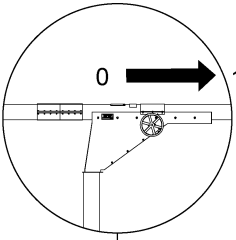
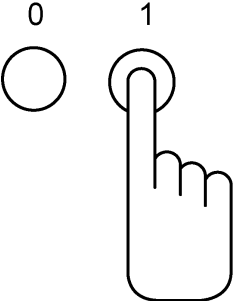
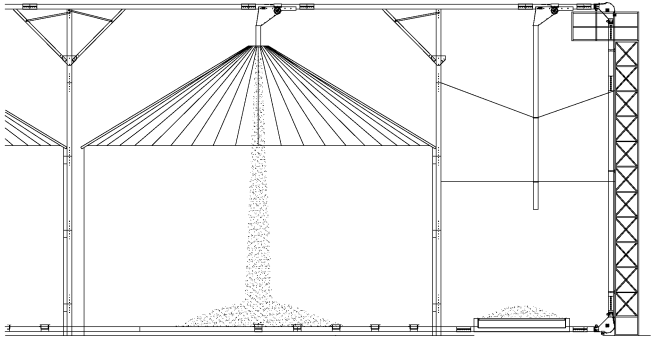
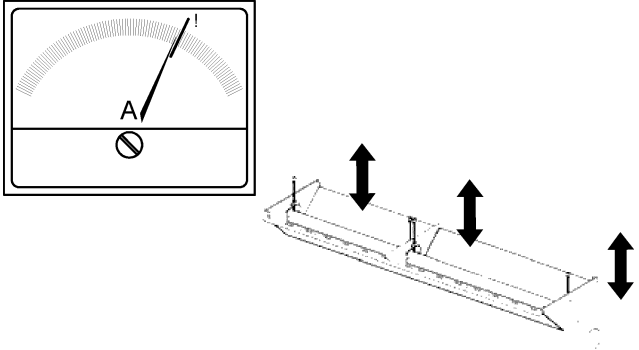
1. Check all safety decals are in place.
2. Check chain tension and adjust if necessary.
3. Check that the discharge gates open and close completely.
4. Check the lubricant level in the gear reducer. See the lubrication specifications on the Dodge manual.
5. Check the condition of the drive belts and make sure that they are aligned and tensioned properly.
6. Check that the corner sprockets are centered in the housings. Re-align the sprockets and tighten the set screws if necessary.
7. Check overall structural integrity of the Chain Loop System and make sure that all supports and components are secure.
8. Check to make sure that the chain moves freely. (This is particularly important if the temperature is below freezing.) Use a pipe wrench on the end of each of the corner shafts to manually move the chain.

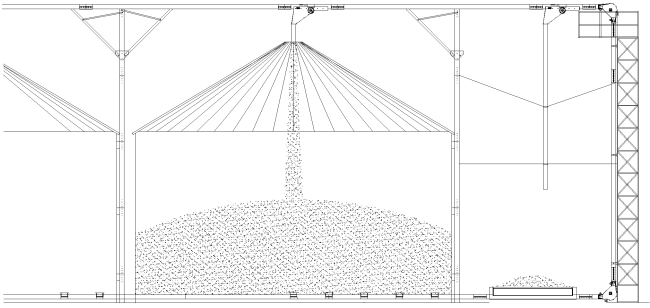
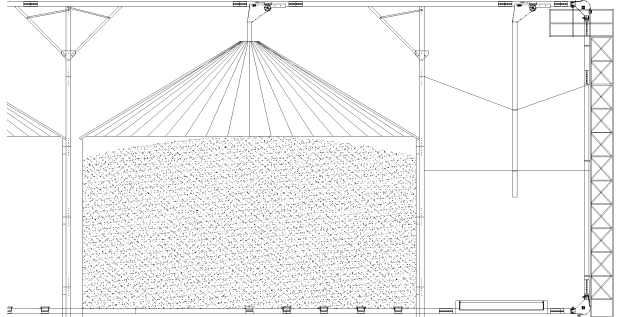
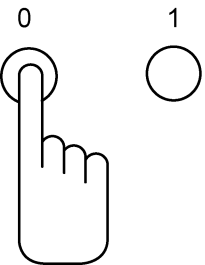
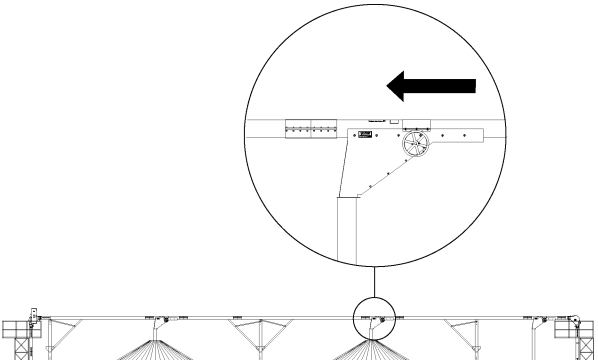



Make sure all shields and safety guards are in place before restoring power.

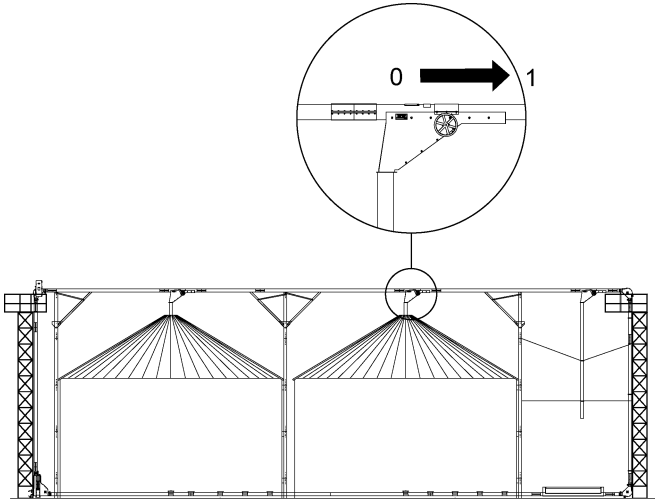
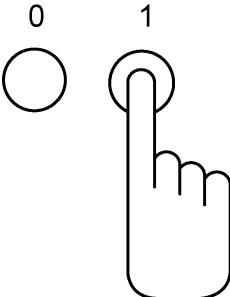
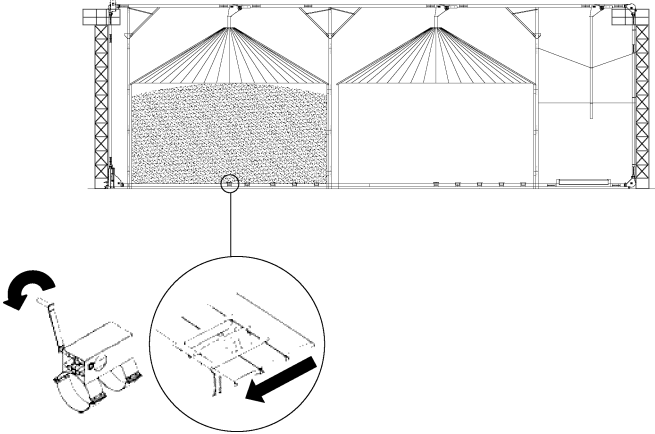
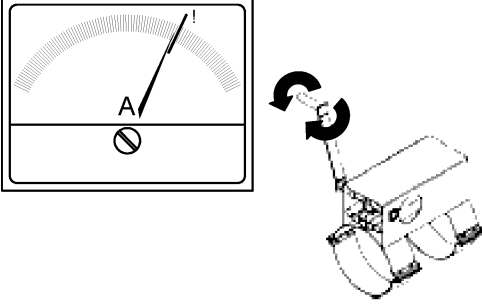
1. Run the Chain Loop empty for around 30 minutes and listen for excess noise or vibration.
2. Place an ammeter on the phase conductors going to the motor and check for correct running current in accordance with the motor rating plate.
3. Check the motor over current is set correctly.
4. Check operation of door safety switches and emergency stop.
5. If all runs smoothly, shut down, lock out and remove the inspection cover.
6. Check the chain tension and if necessary, adjust.
7. Make sure one discharge gate is fully open.
8. Re-close the inspection cover and re-start the system, this time with grain flowing from the inlet to the furthest bin.
9. Re-check motor current. Increase or decrease the rate of loading, at the dump hopper, to ensure maximum throughput without motor over load.
10. After 30 minutes satisfactory running, empty the system and shut down. (Do not shut down when full.)
11. Re-check the chain tension, with the system locked out.

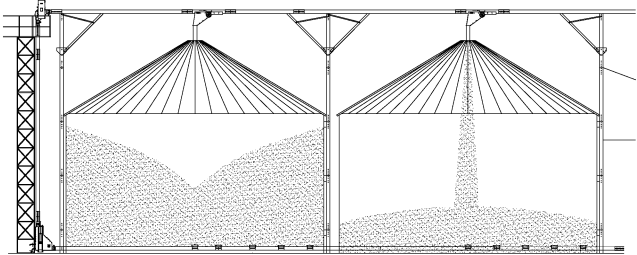
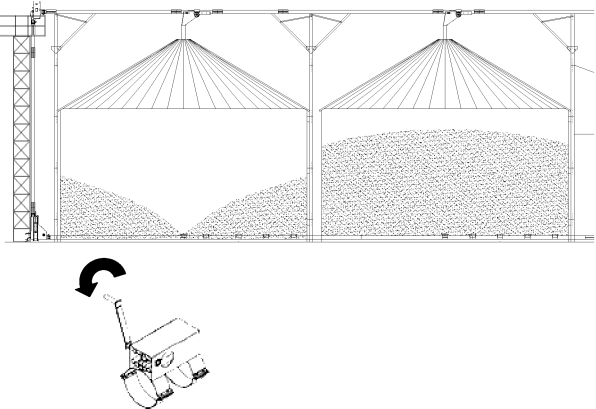
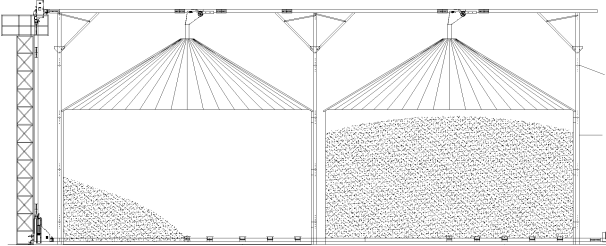

Filling Bins

1		Open Discharge Gate
2		Start chain loop
3		Load dump hopper and let bin start to fill
4		Check motor amps and adjust feed rate at hopper

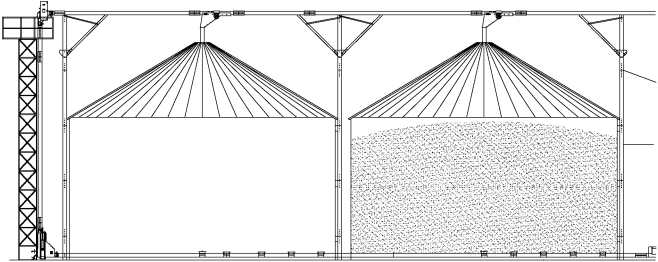
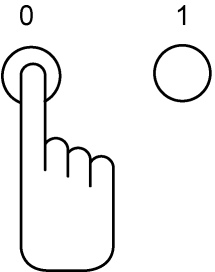
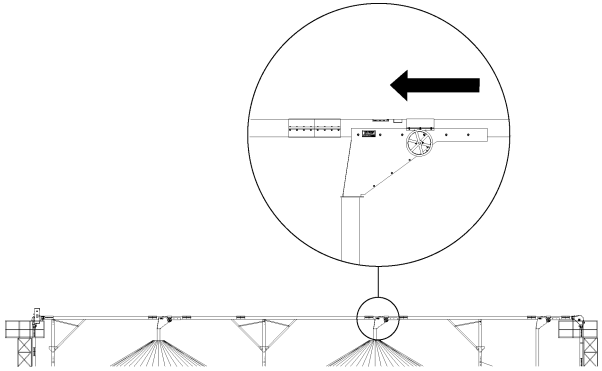

5		Continue loading as bin fills
6		Let hopper empty and grain stop flowing
7		Stop chain loop
8		Close discharge
9		Lock out power

Transferring Bin to Bin

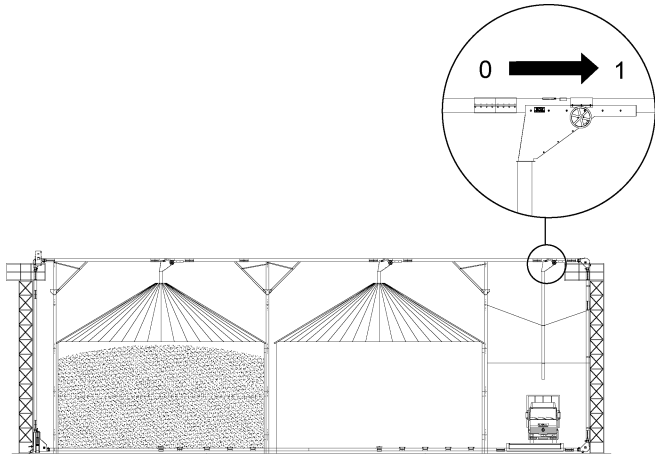
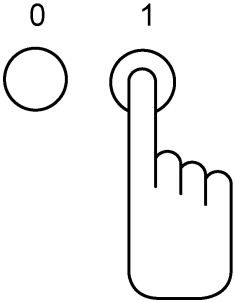
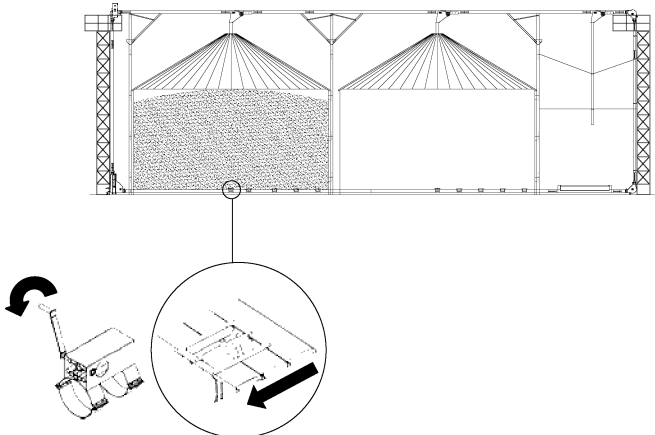
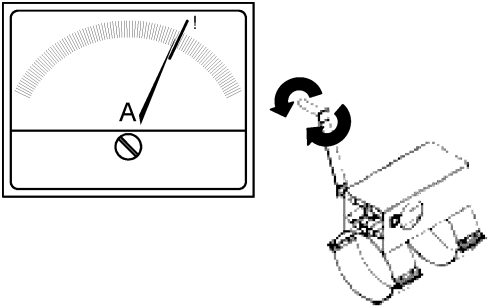
1		Open Discharge Gate
2		Start chain loop
3		Gradually open centre well only
4		Check motor amps and adjust well opening

5		Continue transferring
6		When grain stops flowing open intermediate wells
7		When grain stops, use sweep auger
8		Lock out power before entering bin

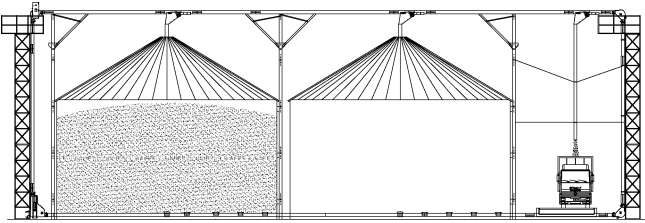
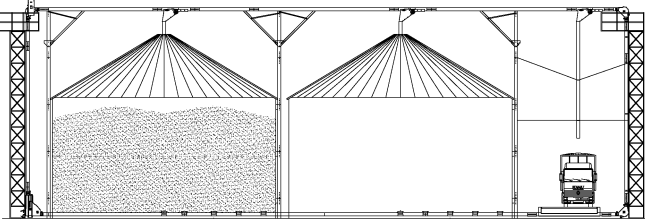
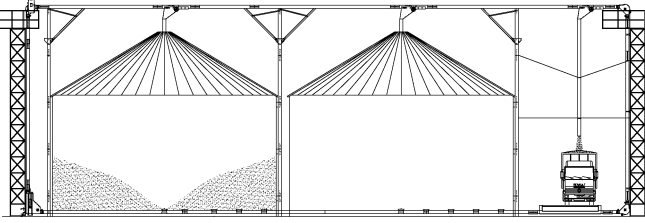
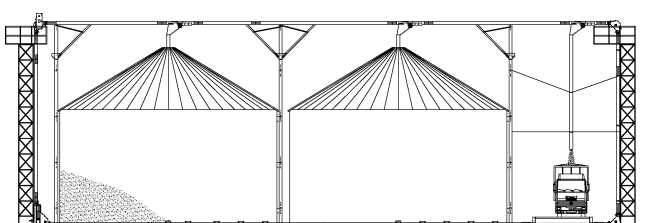
7. Chain Loop Operation

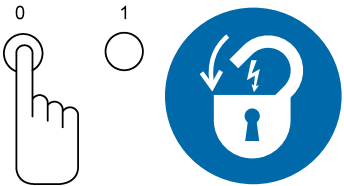

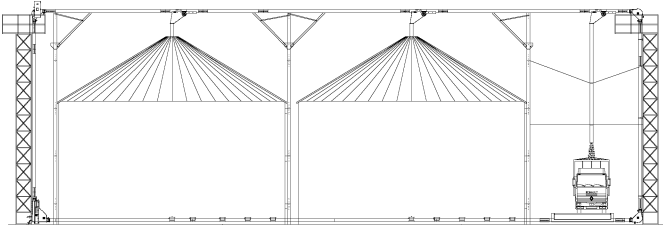
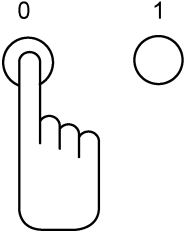
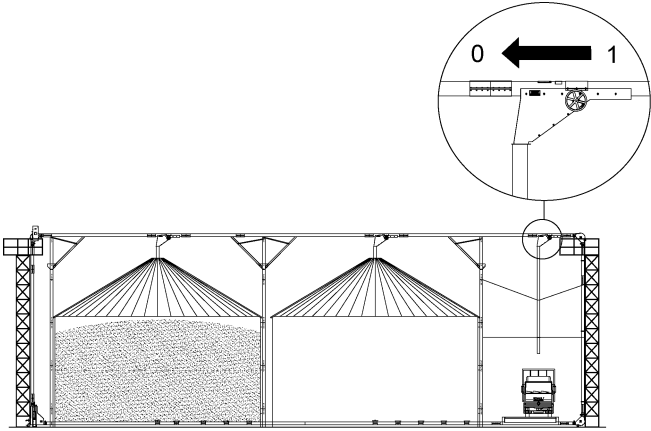

9		Complete transfer
10		Stop chain loop
11		Close discharge
12		Lock out power

Bin Emptying

1		Open Discharge Gate
2		Start chain loop
3		Gradually open centre well only
4		Check motor amps and adjust well opening

7. Chain Loop Operation

5		Load truck
6		<p>When truck nears full, close well.</p> <p>Re-open to load subsequent trucks.</p>
7		When grain stops, open intermediate wells
8		When grain stops, use sweep auger

9	 	Lock out power before entering bin
10		Complete emptying
11		Stop chain loop
12		Close discharge
13		Lock out power



Lock out the main power source before performing any maintenance or service inspections.

Dodge Gear Reducer

Use the information that is on the gear reducer nameplate, the warning tags and the Dodge instruction manual that is included with the Chain Loop manual to determine specific maintenance instructions for the gear reducer used on the system. When referring to the Dodge manual, note that the reducer is mounted in the “D” position on the Chain Loop.

NOTE: *The gear reducer is shipped dry and must be filled to the proper level before use.*

- 1. Use a high-grade petroleum base rust and oxidation inhibited SAE 90 weight gear oil for ambient temperatures from 15°F to 125°F (-10°C to 52°C).
- 2. Oils with an “EP” additive are not recommended for average conditions. (See the lubrication section of the Dodge manual.)
- 3. Use the check oil plug for determining the correct amount of oil.
- 4. The approximate quantity of oil for each reducer size is:

Model	TA3203H	3.80L - for 15-20 HP motors
	TA4207H	6.90L - for 25-30 HP motors
	TA5215H	12.2L - for 40 HP motors
	TA6307H	15.0L - for 60 HP motors

Change the oil as follows:

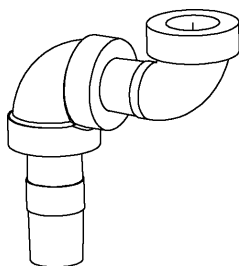
- 1. Every season for seasonal grain handling.
- 2. Every 6 months (2500 hrs) for regular normal use.
- 3. Every 3 months in extreme (high temperature, dirty and dusty) conditions.

Drain the reducer, clean the magnetic plug and flush with kerosene before refilling with new oil.

Vent Elbow Installation Instructions

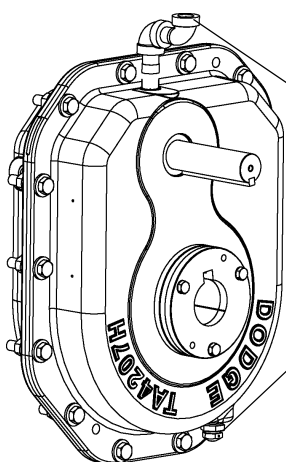


Lock out the main power source before performing any maintenance or service inspections.



8101333 - 1/2" Vent elbow assembly
(Used on TA4, TA5 and TA6 reducers in "D" position.)

8101335 - 3/8" Vent elbow assembly
(Used on TA3 reducers in "D" position.)



To install vent elbow assembly:

(Reducer is shown in "D" position - Input shaft at the top.)

- Remove magnetic drain plug from the top of the reducer and replace with the proper vent elbow assembly.
- Remove vent plug from the bottom of the reducer and replace with the magnetic drain plug from the top.
- Install the vent plug in the top of the vent elbow assembly.

Drive Belts

1. Check to make sure that drive belts are tensioned and aligned properly.
2. Use a straight edge to check the alignment with the motor and reducer sheaves.
3. Adjust all the motor tensioning rods equally to keep the motor shaft parallel to the reducer shaft.

Chain and Paddles

1. Check for proper chain tension. Open the inspection door at the inspection corner and check chain tension by pulling the bottom edge of a paddle by hand. The paddle tip should not move more than 18 mm when the chain is properly tensioned. ([See Figure 4R on Page 33.](#))
2. Adjust the chain tension by loosening the locking jam nuts on the adjusting screw and turning the screw to move the inspection corner sprocket.
3. Turning the adjusting screw clockwise will tighten the chain and turning it counterclockwise will loosen the chain.
4. Remove chain links if there is not enough travel in the adjusting screw to tighten the chain.
5. Adjust each side equally to keep the sprocket shaft square with the corner housing.
6. Spray a light coating of oil on the chain after a season of use.

Corner Shaft Bearings

1. The bearings for the corner sprockets are sealed bearings and require only a small amount of multi-purpose grease every 50 hours.
2. Check bearings for wear and that the locking collars are secure.

Corner Sprockets

1. Inspect the condition of corner sprockets for teeth wear and that they are centrally aligned in each of the corner housings.

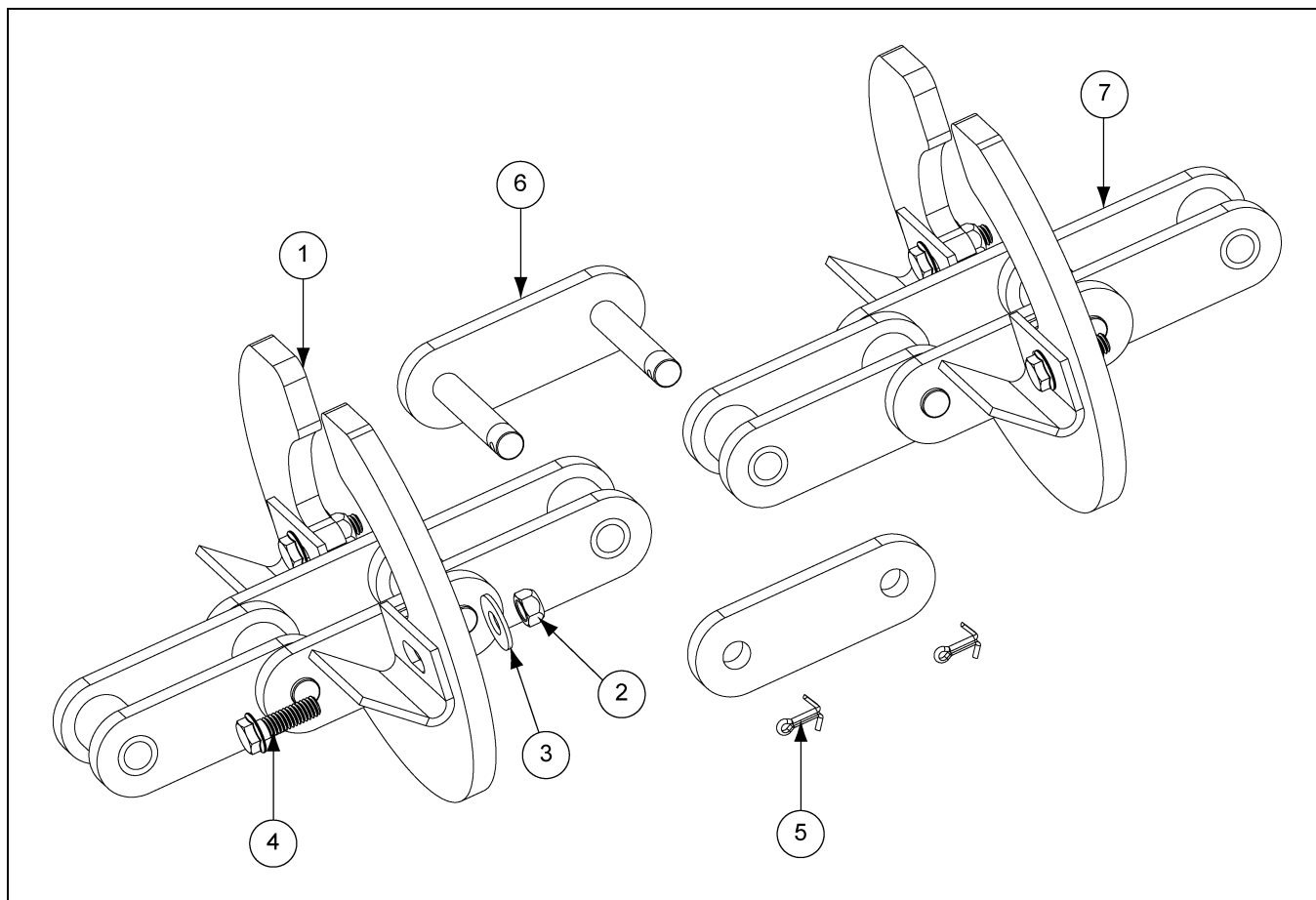
1. Chain is slipping on the drive sprocket.
 - a. Check the chain tension and tighten at the inspection corner if necessary.
 - b. Check for obstructions in the system. The paddles may be catching at joints in the tubing.
 - c. Check to make sure that the sprockets are centered in the corner housings.
 - d. Avoid starting the system under load. Let the system run until empty before shutting down.
If shut down does occur while the system is loaded, remove as much grain as possible and turn the corner sprockets by hand with a pipe wrench to loosen the chain before turning the power back ON.
2. Grain recycling back to the fill point.
 - a. Check to make sure that the discharge gate is open.
 - b. Check and clean out the slide gate in the discharge gate.
 - c. Chain speed may be too fast. The drive corner shaft speed should be 94 RPM.
3. Drive belts are slipping.
 - a. Check the drive motor amperage and make sure that the motor is not overloaded.
 - b. Tighten belts if slippage occurs when the drive motor is not fully loaded.
4. System is not delivering full capacity.
 - a. Make sure that grain is not over running the discharge gate and returning to the fill-point.
 - b. Chain speed may be too slow. The drive corner shaft speed should be 94 RPM.
 - c. High moisture grain will move at a lower capacity than dry grain.
 - d. Check for obstructions in the inlet hopper.
 - e. Check to make sure that the chain has not been installed with a twist.
5. Paddles breaking.
 - a. Check to make sure that the sprockets are centered in the corner housings.
 - b. Avoid starting the system under load. Let the system run until empty before shutting down.
If shut down does occur while the system is loaded, remove as much grain as possible and turn the corner sprockets by hand with a pipe wrench to loosen the chain before turning the power back ON.
 - c. Check to make sure that the paddles are fastened securely to the chain brackets.
 - d. Let the system “break-in” and the tubing become polished before loading to full capacity.
 - e. If you hear paddles “clicking” at a joint, check for gaps in the tubing. This will require loosening the bolts in the connecting band to be able to see the tube joint.
6. Chain failure.
 - a. Check to make sure that the master connecting links have been installed correctly. *(See Figure 4V on Page 36.)*
 - b. Check for obstructions in the system.
 - c. Avoid starting the system under load. Let the system run until empty before shutting down.

10. Parts List

1. 8" and 10" Chain and Paddles - ([See Page 64.](#))
2. 12" Chain and Paddles (8120141) - ([See Page 65.](#))
3. 8" Discharge Gate (8081370) - ([See Page 66-67.](#))
4. 10" Discharge Gate (8101554) - ([See Page 68-69.](#))
5. 12" - (7 Gauge) Discharge Gate (8120293) - ([See Page 70-71.](#))
6. 12" - (10 Gauge) Discharge Gate (8120291) - ([See Page 72-73.](#))
7. Discharge Gate Ground Control Kit Parts - ([See Page 74-75.](#))
8. Chain Loop Drive Components - ([See Page 76-78.](#))
9. 8" (15 HP) Drive Components (8081365) - ([See Page 79.](#))
10. 8" (20 HP) Drive Components (8081363) - ([See Page 80.](#))
11. 8" (15 HP-20 HP) Drive Components (8081362) - ([See Page 81.](#))
12. 10" (20 HP) Drive Components (8101526) - ([See Page 82.](#))
13. 10" (15 HP-20 HP) Drive Components (8101525) - ([See Page 83.](#))
14. 8" (25 HP-30 HP) Drive Components (8081360) - ([See Page 84.](#))
15. 8" (25 HP-30 HP) Drive Components (8081359) - ([See Page 85.](#))
16. 10" (25 HP-30 HP) Drive Components (8101517) - ([See Page 86.](#))
17. 10" (25 HP-30 HP) Drive Components (8101516) - ([See Page 87.](#))
18. 10" (40 HP) Drive Components (8101513) - ([See Page 88.](#))
19. 10" (50 HP) Drive Components (8101514) - ([See Page 89.](#))
20. 10" (40 HP-50 HP) Drive Components (8101511) - ([See Page 90.](#))
21. 8" (15 HP) Drive Components (8081271) - ([See Page 91.](#))
22. 8" (20 HP) Drive Components (8081285) - ([See Page 92.](#))
23. 8"-10" (25 HP-30 HP) Drive Components (8081296) - ([See Page 93.](#))
24. 10" (40 HP) Drive Components (8101303) - ([See Page 94.](#))

25. 10" (50 HP) Drive Components (8101331) - [\(See Page 95.\)](#)
26. Belt Guard Assembly TA3 (8120217) - [\(See Page 96.\)](#)
27. Belt Guard Assembly TA4 (8120211) - [\(See Page 98.\)](#)
28. Belt Guard Assembly TA5 (8120214) - [\(See Page 99.\)](#)
29. 12" 7 Gauge (30 HP) Drive Components (8120000) - [\(See Page 100-101.\)](#)
30. 12" 7 Gauge (40 HP-50 HP) Drive Components (8120144) - [\(See Page 102-103.\)](#)
31. 12" 7 Gauge (60 HP) Drive Components (8120163) - [\(See Page 104-105.\)](#)
32. 12" 10 Gauge (30 HP) Drive Components (8120175) - [\(See Page 106-107.\)](#)
33. 12" 10 Gauge (40 HP-50 HP) Drive Components (8120179) - [\(See Page 108-109.\)](#)
34. 12" 10 Gauge (60 HP) Drive Components (8120180) - [\(See Page 110-111.\)](#)
35. 8" and 10" Inlet Dump Hoppers - [\(See Page 112.\)](#)
36. 12" (7 Gauge) 42-1/2" Inlet Dump Hoppers (8120121) - [\(See Page 113.\)](#)
37. 12" (7 Gauge) 102-1/2" Inlet Dump Hoppers (8120127) - [\(See Page 114.\)](#)
38. 12" (7 Gauge) 122-1/2" Inlet Dump Hoppers (8120134) - [\(See Page 115.\)](#)
39. 12" (10 Gauge) 42-1/2" Inlet Dump Hoppers (8120185) - [\(See Page 116.\)](#)
40. 12" (10 Gauge) 102-1/2" Inlet Dump Hoppers (8120186) - [\(See Page 118.\)](#)
41. 12" (10 Gauge) 122-1/2" Inlet Dump Hoppers (8120187) - [\(See Page 119.\)](#)
42. 8" and 10" Standard Corner - [\(See Page 120-121.\)](#)
43. 12" (7 Gauge) Standard Corner (8120031) - [\(See Page 122-123.\)](#)
44. 12" (10 Gauge) Standard Corner (8120176) - [\(See Page 124-125.\)](#)
45. 8" and 10" Inspection Corner - [\(See Page 126-127.\)](#)
46. 12" (7 Gauge) Inspection Corner (8120051) - [\(See Page 128-129.\)](#)
47. 12" (10 Gauge) Inspection Corner (8120177) - [\(See Page 130-131.\)](#)
48. Chain Loop Torque Plate Assembly - [\(See Page 132.\)](#)

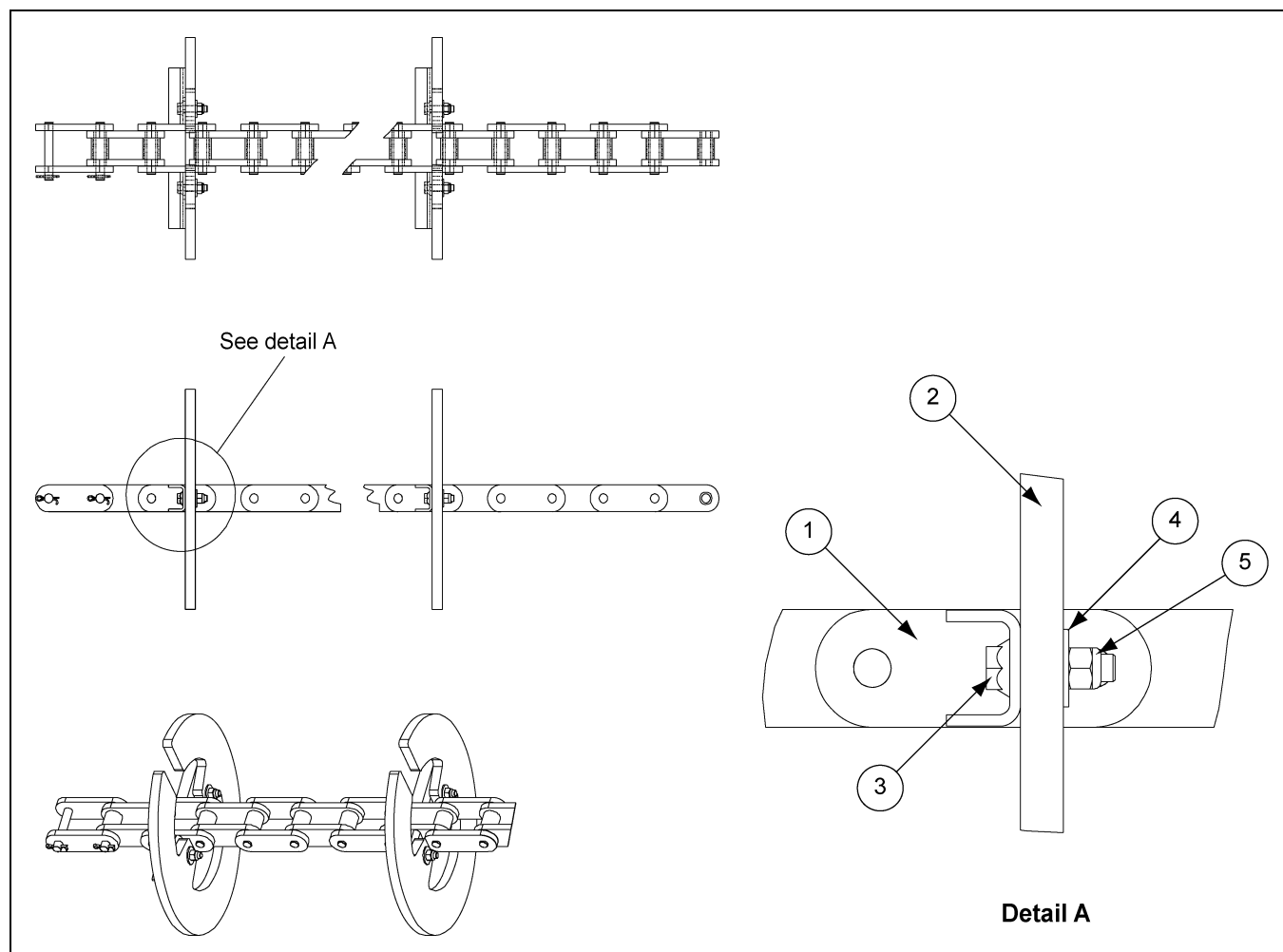
8" and 10" Chain and Paddles



8" and 10" Chain and Paddles Parts List

Ref #	Part #	Description
1	8101145	Paddle 10", UHMW 10" Chain Loop System
1	8081145	Paddle 8", UHMW 8" Chain Loop System
2	S-8324	5/16"-18 Stover Nut Zinc Grade C
3	S-845	Flat Washer 5/16" USS SAE YDP Grade 2
4	S-7470	5/16"-18 x 1" Serrated Flange Bolt Zinc Grade 5
5	S-9159	1/8" x 3/4" Cotter Pin Zinc
6	CE-00764	Link Connecting, #81 x with Side Plate and Cotter Pin
6	CE-00766	Link Connecting, #81 x HH with Side Plate and Cotter Pin
7	8101162 - 8"	Chain Standard, 81 x with Brackets and Connecting Link
7	8101163 - 10"	Chain Heavy Duty, 81 x HH with Brackets and Connecting Link

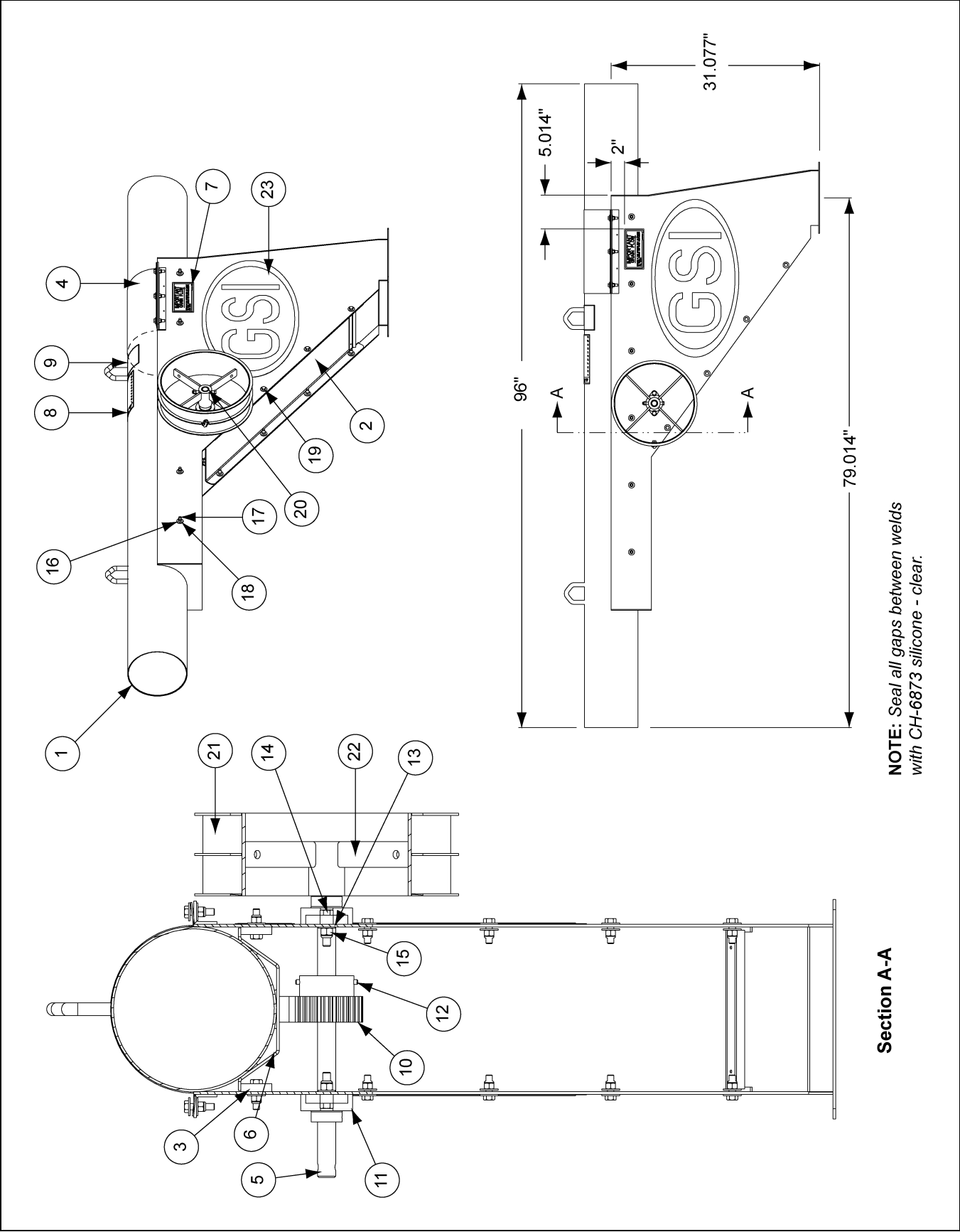
12" Chain and Paddles (8120141)



12" Chain and Paddles (8120141) Parts List

Ref #	Part #	Description	Qty
1	8120140	Chain with Bracket 12' 81 X HH with Conlk	1
2	8120139	Paddle, 12" Chain Loop UHMW	9
3	S-8135	Flange Bolt 5/16"-18 x 1-1/4" ZN Grade 5	18
4	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	18
5	S-7382	Nylock Nut 5/16"-18 ZN Grade 5	18

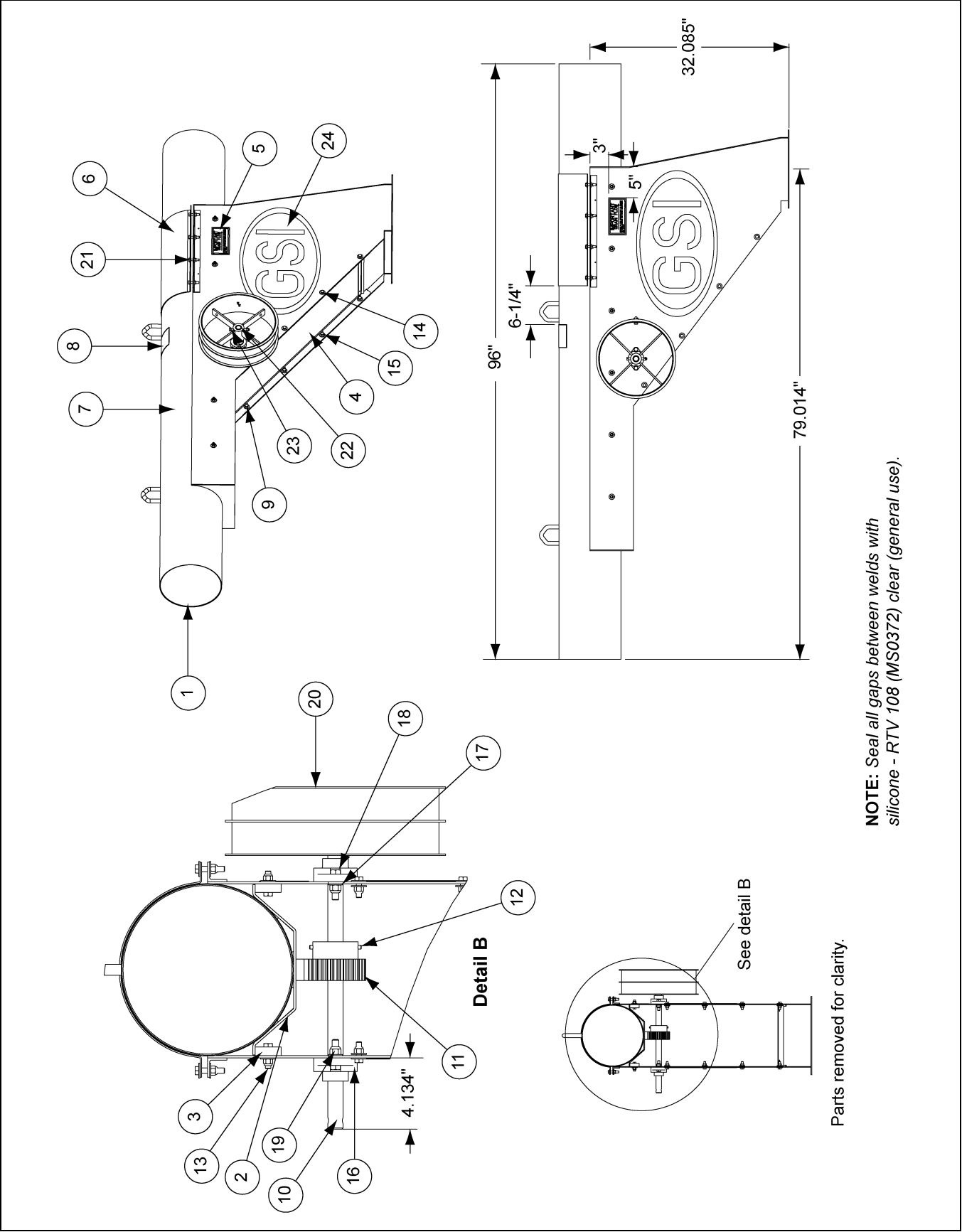
8" Discharge Gate (8081370)



8" Discharge Gate (8081370) Parts List

Ref #	Part #	Description	Qty
1	8081369-BS	Chain Loop: Discharge Weld 8"	1
2	8081093	Access Panel Weldment	1
3	8081351	Chain Loop: 8" Discharge Gate Rail	2
4	8081096	Access Door Assembly	1
5	8081298	Shaft Control Wheel Discharge Gate	1
6	8081368	Chain Loop: Discharge Gate Weld 8"	1
7	8107004	Decal, Important	1
8	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1
9	8107001	Decal, Danger	1
10	S-8129	Gear, SPUR 8 DP 26 Tooth 7/8" Bore	1
11	S-8030	Bearing, 7/8" 2 - Flange Bolt 3" C/C	2
12	3FH0887	Spring Pin 1/4" x 3" Plated	1
13	S-7409	Flat Washer 3/8" SAE ZN Grade 2	4
14	S-7515	Bolt, HHCS 3/8"-16 x 1-1/2" ZN Grade 5	4
15	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	4
16	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	40
17	S-4276	Bolt, HHCS 5/16"-18 x 1-1/4" ZN Grade 5	18
18	S-7382	Nylock Nut 5/16"-18 ZN Grade 5	27
19	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	8
20	8081316	Bushing, Control Wheel Discharge	1
21	8101555	Ground Control: Wheel with Clamp 1" Bore	1
22	S-7601	Bolt, HHCS 5/16"-18 x 3" ZN Grade 2	1
23	DC-1058	Decal, GSI Logo	2

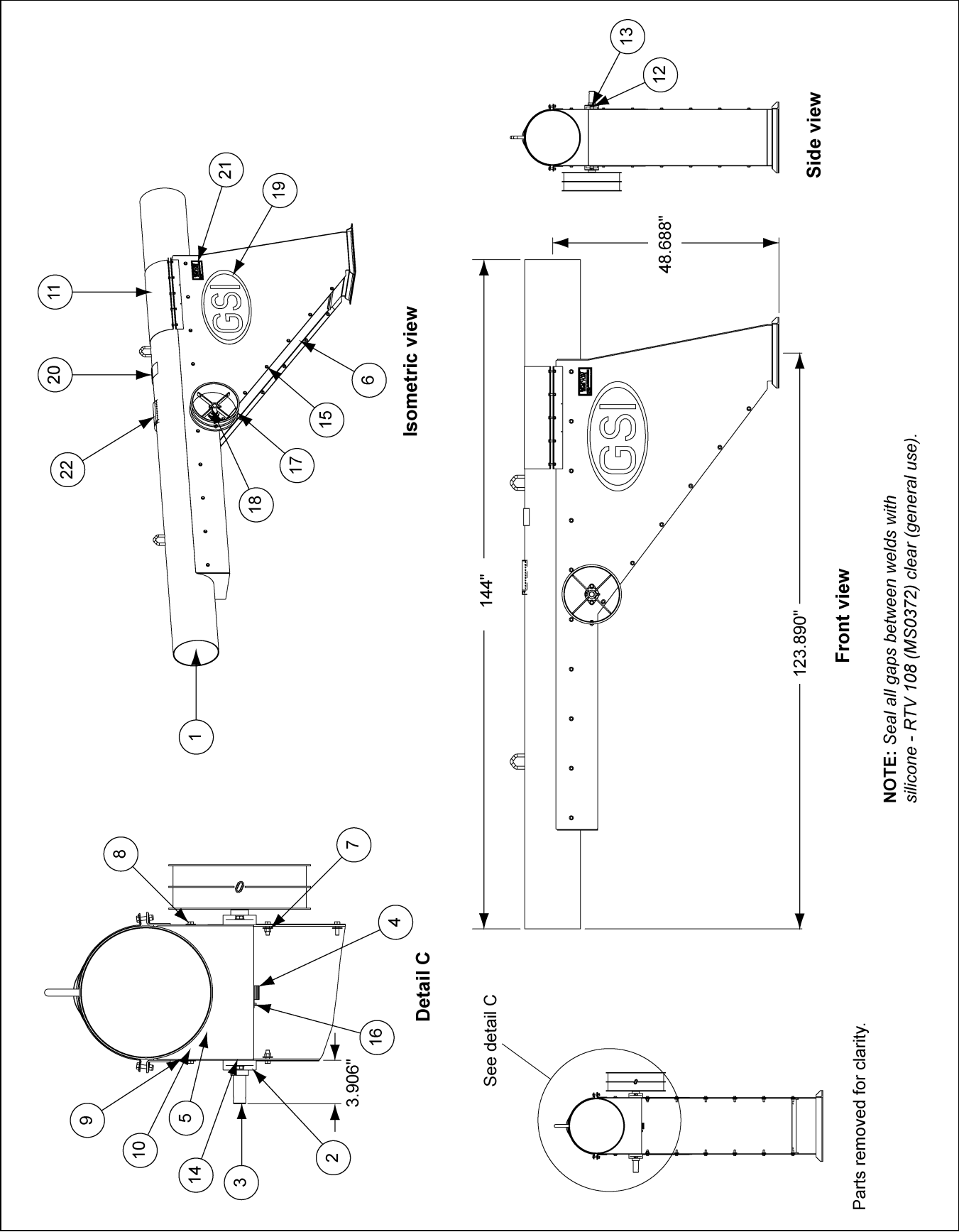
10" Discharge Gate (8101554)



10" Discharge Gate (8101554) Parts List

Ref #	Part #	Description	Qty
1	8101553-BS	Chain Loop: Discharge Weldment 10"	1
2	8101552	Chain Loop: Discharge Gate Weldment 10"	1
3	8101501	10" Discharge Gate Steel Rail	2
4	8101093	Access Panel - Weldment	1
5	8107004	Decal, Important	1
6	8101096	Access Door - Assembly	1
7	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1
8	8107001	Decal, Danger	1
9	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	44
10	8101304	Shaft Control Wheel Discharge Gate	1
11	S-8129	Gear, SPUR 8 DP 26 Tooth 7/8" Bore	1
12	3FH0887	Spring Pin 1/4" x 3" Plated	1
13	S-4276	Bolt, HHCS 5/16"-18 x 1-1/4" ZN Grade 5	12
14	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	8
15	S-7382	Nylock Nut 5/16"-18 ZN Grade 5	29
16	S-8030	Bearing, 7/8" 2 - Flange Bolt 3" C/C	2
17	S-7409	Flat Washer 3/8" SAE ZN Grade 2	4
18	S-7515	Bolt, HHCS 3/8"-16 x 1-1/2" ZN Grade 5	4
19	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	4
20	8101555	Ground Control: Wheel with Clamp 1" Bore	1
21	S-2741	Bolt, HHCS 5/16"-18 x 1-1/2" ZN Grade 5	8
22	8081316	Bushing, Control Wheel Discharge	1
23	S-7601	Bolt, HHCS 5/16"-18 x 3" ZN Grade 2	1
24	DC-1058	Decal, GSI Logo	2

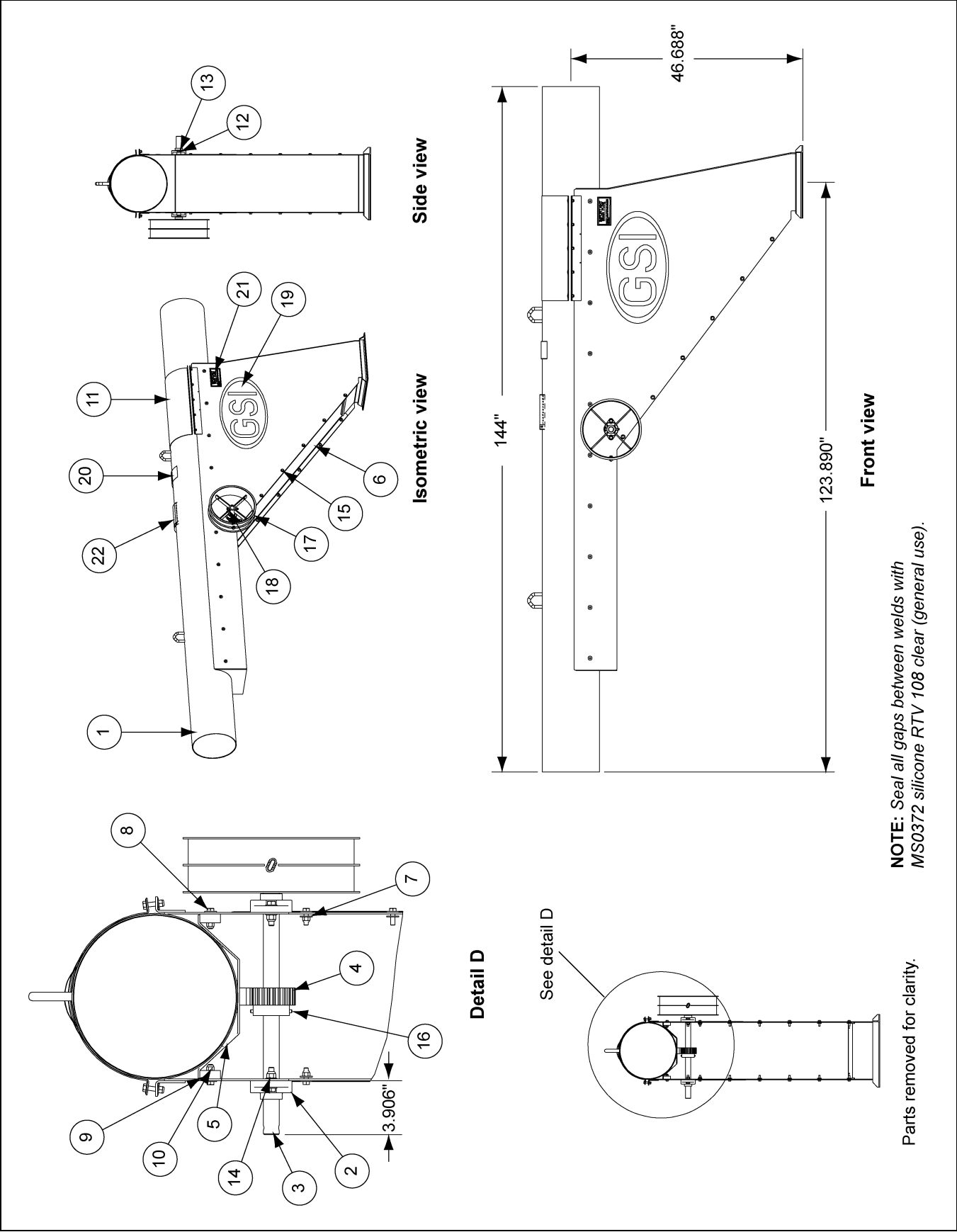
12" - (7 Gauge) Discharge Gate (8120293)



12" - (7 Gauge) Discharge Gate (8120293) Parts List

Ref #	Part #	Description	Qty
1	8120292-BS	Chain Loop: Discharge Weld 12" 7 Gauge	1
2	MHC01377	Bearing, 2 Bolt Flange 1-1/8"	2
3	8120091	Shaft Control Wheel Discharge Gate	1
4	MHC00999	Gear, SPUR 8 DP 26T 1-1/8" Bore	1
5	8120289	Chain Loop: Discharge Gate Weld 12"	1
6	8120086	Bottom Cover Weld - Discharge Gate	1
7	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	64
8	S-4276	Bolt, HHCS 5/16"-18 x 1-1/4" ZN Grade 5	30
9	8120286	Chain Loop: 10" Discharge, Gate Rail	4
10	S-7382	Nylock Nut 5/16"-18 ZN Grade 5	38
11	8120169	12" x 22" Half Band	1
12	S-7409	Flat Washer 3/8" SAE ZN Grade 2	8
13	S-7515	Bolt, HHCS 3/8"-16 x 1-1/2" ZN Grade 5	4
14	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	4
15	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	12
16	3FH0887	Spring Pin 1/4" x 3" Plated	1
17	8101556	Ground Control: Wheel with Clamp 1-1/8" Bore	1
18	S-7601	Bolt, HHCS 5/16"-18 x 3" ZN Grade 2	1
19	DC-1058	Decal, GSI Logo	2
20	8107001	Decal, Danger	1
21	8107004	Decal, Important	1
22	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1

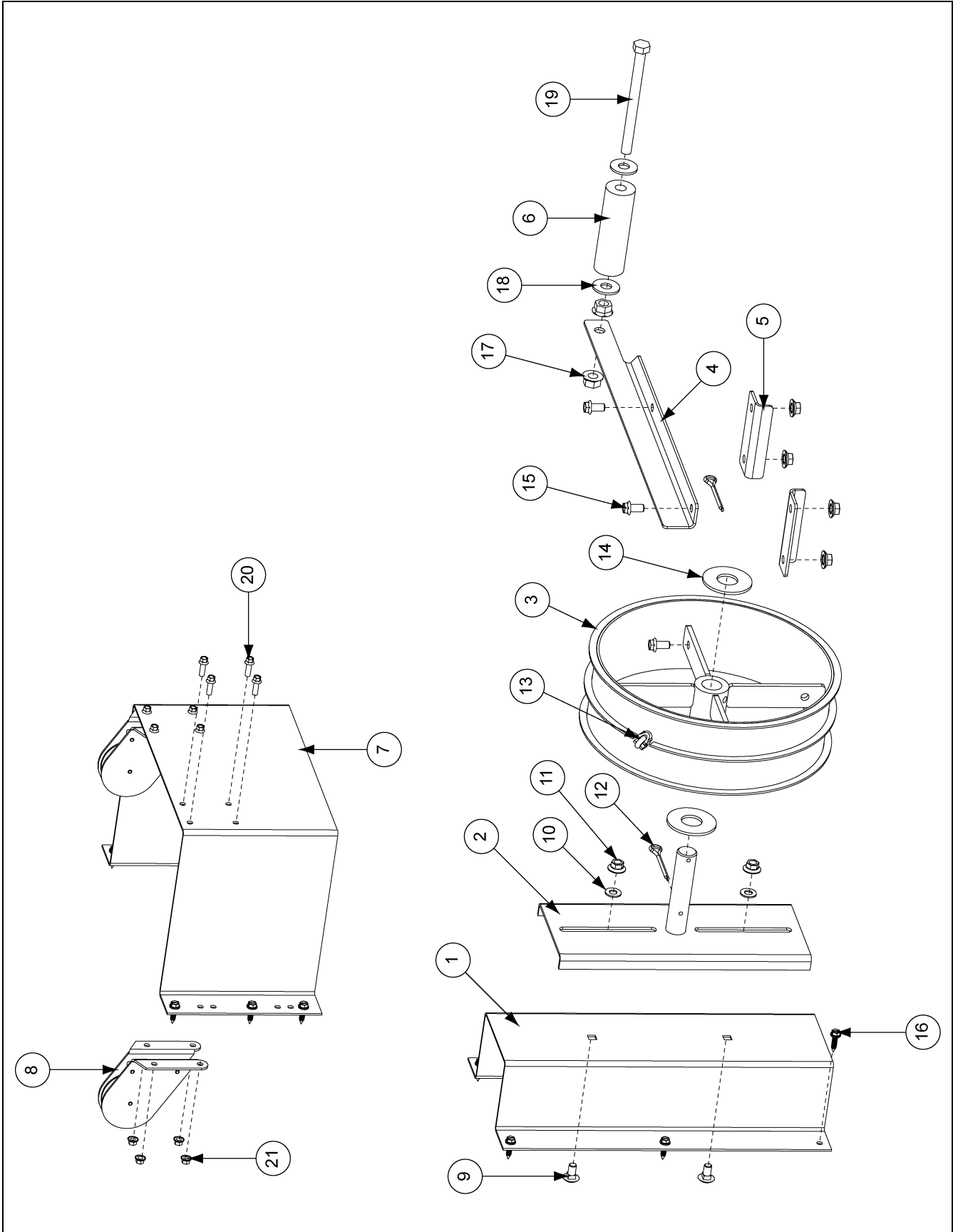
12" - (10 Gauge) Discharge Gate (8120291)



12" - (10 Gauge) Discharge Gate (8120291) Parts List

Ref #	Part #	Description	Qty
1	8120290-BS	Chain Loop: Discharge Weld 12" 10 Gauge	1
2	MHC01377	Bearing, 2 Bolt Flange 1-1/8"	2
3	8120091	Shaft Control Wheel Discharge Gate	1
4	MHC00999	Gear, SPUR 8 DP 26T 1-1/8" Bore	1
5	8120289	Chain Loop: Discharge Gate Weld 12"	1
6	8120086	Bottom Cover Weld - Discharge Gate	1
7	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	64
8	S-4276	Bolt, HHCS 5/16"-18 x 1-1/4" ZN Grade 5	30
9	8120286	Chain Loop: 10" Discharge, Gate Rail	4
10	S-7382	Nylock Nut 5/16"-18 ZN Grade 5	38
11	8120169	12" x 22" Half Band	1
12	S-7409	Flat Washer 3/8" SAE ZN Grade 2	8
13	S-7515	Bolt, HHCS 3/8"-16 x 1-1/2" ZN Grade 5	4
14	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	4
15	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	12
16	3FH0887	Spring Pin 1/4" x 3" Plated	1
17	8101556	Ground Control: Wheel with Clamp 1-1/8" Bore	1
18	S-7601	Bolt, HHCS 5/16"-18 x 3" ZN Grade 2	1
19	DC-1058	Decal, GSI Logo	2
20	8107001	Decal, Danger	1
21	8107004	Decal, Important	1
22	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1

Discharge Gate Ground Control Kit Parts



Discharge Gate Ground Control Kit Parts List

Ref #	Part #	Description	Qty per Assembly
1	8101157	Ground Control Kit Bin Wall Mount Bracket	1
2	8101158	Ground Control Kit Wheel Weldment	1
3	8101537-GY	Ground Control: Wheel Drum Weld 1"	1
4	8101541-GY	Ground Control: Handle	1
5	8101540-GY	Ground Control: Handle Bracket	2
6	GSB-0050	Hand Roller 1-1/2" O.D.	1
7	8101156	Ground Control Kit Pulley Mount Bracket	1
8	PT0550	Pulley, Hot House	2
9	S-7391	Carriage Bolt 3/8"-16 x 3/4" ZN Grade 5	2
10	S-7409	Flat Washer 3/8" SAE ZN Grade 2	2
11	S-968	Flange Nut 3/8"-16 ZN Grade 5 Wide Flange	6
12	S-6994	Cotter Pin 3/16" x 2" ZN Grade 2	2
13	S-8762	Clamp, 3/16" Cable Zinc Plated	4
14	S-7835	Flat Washer 1" I.D. USS Washer Low Carbon	2
15	S-9067	Flange Bolt 3/8"-16 x 3/4" ZN Grade 5	4
16	S-8166	Screw, SMSAB 1/4" x 1" HWH ZN	12
17	S-8506	Flange Nut 1/2"-13 ZN	2
18	S-2121	Flat Washer 1/2"	2
19	S-8377	Bolt, HHCS 1/2"-13 x 6" ZN Grade 5	1
20	S-8680	Flange Bolt 1/4"-20 x 3/4" ZN Grade 5	8
21	S-7215	Flange Nut 1/4"-20 ZN	8
N/S	8109050	Cable 145' Roll 3/16" Diameter - 7 x 19	1

Chain Loop Drive Components

50 Hz - International Chain Loop Motors - 50 Hz

Hz	Part #	Size	Voltage	Shaft Diameter	(Lbs)	(Kgs)
50	1500-3-50	15 HP	220/380/440 3 PH	1-5/8"	264.0	119.7
50	2000-3-50	20 HP	220/380/440 3 PH	1-5/8"	277.0	125.6
50	2500-3-50	25 HP	220/380/440 3 PH	1-7/8"	480.0	217.7
50	3000-3-50	30 HP	220/380/440 3 PH	1-7/8"	380.0	172.4
50	4000-3-50	40 HP	220/380/440 3 PH	2-1/8"	571.0	259.0

8" Motor Pulleys, Bushings and Drive Belts - 50 Hz

HP	Part	Part #	Description	Qty	(Lbs)	(Kg)
15 HP	Motor Pulley	PT0703	4 Grade B6.0 SD	1	11.73	5.3
	Motor Pulley Bushing	GC06516	SD x 1-5/8" Bore	1	1.6	0.7
	Reducer Pulley	GC09690	4 Grade B6.2 SD	1	25	11.3
	Reducer Bushing	CE-00614	SD x 1-3/8" Bore	1	3.8	1.7
	Drive Belts	020-1035-3	BX59	3	0.9	0.4
20 HP	Motor Pulley	KD-PDS0028	2 Grade 5V 9.0 SK	1	23	10.4
	Motor Pulley Bushing	GC03810	SK x 1-5/8" Bore	1	5	2.3
	Reducer Pulley	KD-PDS0018	2 Grade 5V 9.25 SK	1	38	17.2
	Reducer Bushing	PT0778	SK x 1-3/8" Bore	1	9	4.1
	Drive Belts	KD-PDV0017	5VX710	4	1.1	0.5
25-30 HP	Motor Pulley	MHC01668	3 Grade 5V 9.0 SF	1	36	16.3
	Motor Pulley Bushing	MHC01162	SF x 1-7/8" Bore	1	9	4.1
	Reducer Pulley	MHC01160	3 Grade 5V 9.25 SF	1	44	19.9
	Reducer Bushing	GC07551	SF x 1-7/16" Bore	1	9	4.1
	Drive Belts	MHC00604	5VX800	3	1.1	0.5

10" Motor Pulleys, Bushings and Drive Belts - 50 Hz

HP	Part	Part #	Description	Qty	(Lbs)	(Kg)
20 HP	Motor Pulley	KD-PDS0028	2 Grade 5V 9.0 SK	1	23	10.4
	Motor Pulley Bushing	GC03810	SK x 1-5/8" Bore	1	5	2.3
	Reducer Pulley	KD-PDS0018	2 Grade 5V 9.25 SK	1	38	17.2
	Reducer Bushing	PT0778	SK x 1-3/8"	1	9	4.1
	Drive Belts	KD-PDV0017	5VX710	4	1.1	0.5
25-30 HP	Motor Pulley	MHC01668	3 Grade 5V 9.0 SF	1	36	16.3
	Motor Pulley Bushing	MHC01162	SF x 1-7/8" Bore	1	9	4.1
	Reducer Pulley	MHC01160	3 Grade 5V 9.25 SF	1	44	19.9
	Reducer Bushing	GC07551	SF x 1-7/16" Bore	1	9	4.1
	Drive Belts	MHC00604	5VX800	3	1.1	0.5
40 HP	Motor Pulley	MHC01717	4 Grade 5V 8.5 E	1	36	16.3
	Motor Pulley Bushing	MHC01540	E x 2-1/8" Bore	1	9	4.1
	Reducer Pulley	KD-PDS0016	4 Grade 5V 9.0 E	1	44	19.9
	Reducer Bushing	MHC01537	E x 1-5/8" Bore	1	9	4.1
	Drive Belts	MHC00604	5VX800	3	1.2	0.5
50 HP	Motor Pulley	KD-PDS0021	4 Grade 5V 10.3 E	1	36	16.3
	Motor Pulley Bushing	MHC01540	E x 2-1/8" Bore	1	9	4.1
	Reducer Pulley	KD-PDS0029	4 Grade 5V 10.9 E	1	44	19.9
	Reducer Bushing	MHC01537	E x 1-5/8" Bore	1	9	4.1
	Drive Belts	CE-00562	5VX900	4	1.2	0.5

Chain Loop Drive Components (Continued)

USA and Countries with 60 Hz Power Chain Loop Motors - 60 Hz

Hz	Part #	Size	Voltage	Shaft Diameter	(Lbs)	(Kgs)
60	3EL5069	15 HP	230, 1 PH	1-5/8"	314.0	142.4
60	MTR-0022	15 HP	230/460 3 PH	1-5/8"	234.0	106.1
60	MTR-0025	20 HP	230/460 3 PH	1-5/8"	264.0	119.7
60	MTR-0054	25 HP	230/460 3 PH	1-7/8"	396.0	179.6
60	MTR-0056	30 HP	230/460 3 PH	1-7/8"	433.0	196.4
60	MTR-0063	40 HP	230/460 3 PH	2-1/8"	514.0	233.1
60	MTR-0067	50 HP	230/460 3 PH	2-1/8"	579.0	263.0
60	MTR-0069	60 HP	230/460 3 PH	2-3/8"	747.0	339.0

8" Motor Pulleys, Bushings and Drive Belts - 60 Hz

HP	Part	Part #	Description	Qty	(Lbs)	(Kg)
15 HP	Motor Pulley	CE-00582	3 Grade B6.4 SD	1	11.73	5.3
	Motor Pulley Bushing	GC06516	SD x 1-5/8" Bore	1	1.6	0.7
	Reducer Pulley	GC07874	3 Grade B8.0 SK	1	25	11.3
	Reducer Bushing	PT0778	SK x 1-3/8" Bore	1	3.8	1.7
	Drive Belts	MHC00823	BX61	3	0.9	0.4
20 HP	Motor Pulley	3311A1	4 Grade B6.4 SD	1	23	10.4
	Motor Pulley Bushing	GC06516	SD x 1-5/8" Bore	1	5	2.3
	Reducer Pulley	GC06676	4 Grade B8.0 SK	1	38	17.2
	Reducer Bushing	PT0778	SK x 1-3/8"	1	9	4.1
	Drive Belts	MHC00823	BX61	4	1.1	0.5
25-30 HP	Motor Pulley	MHC01566	3 Grade B11.0 SK	1	36	16.3
	Motor Pulley Bushing	CE-00617	SK x 1-7/8" Bore	1	9	4.1
	Reducer Pulley	MHC01567	3 Grade B13.6 SK	1	44	19.9
	Reducer Bushing	GC06687	SK x 1-7/16" Bore	1	9	4.1
	Drive Belts	D02-0067	BX85	3	1.1	0.5

Chain Loop Drive Components (Continued)

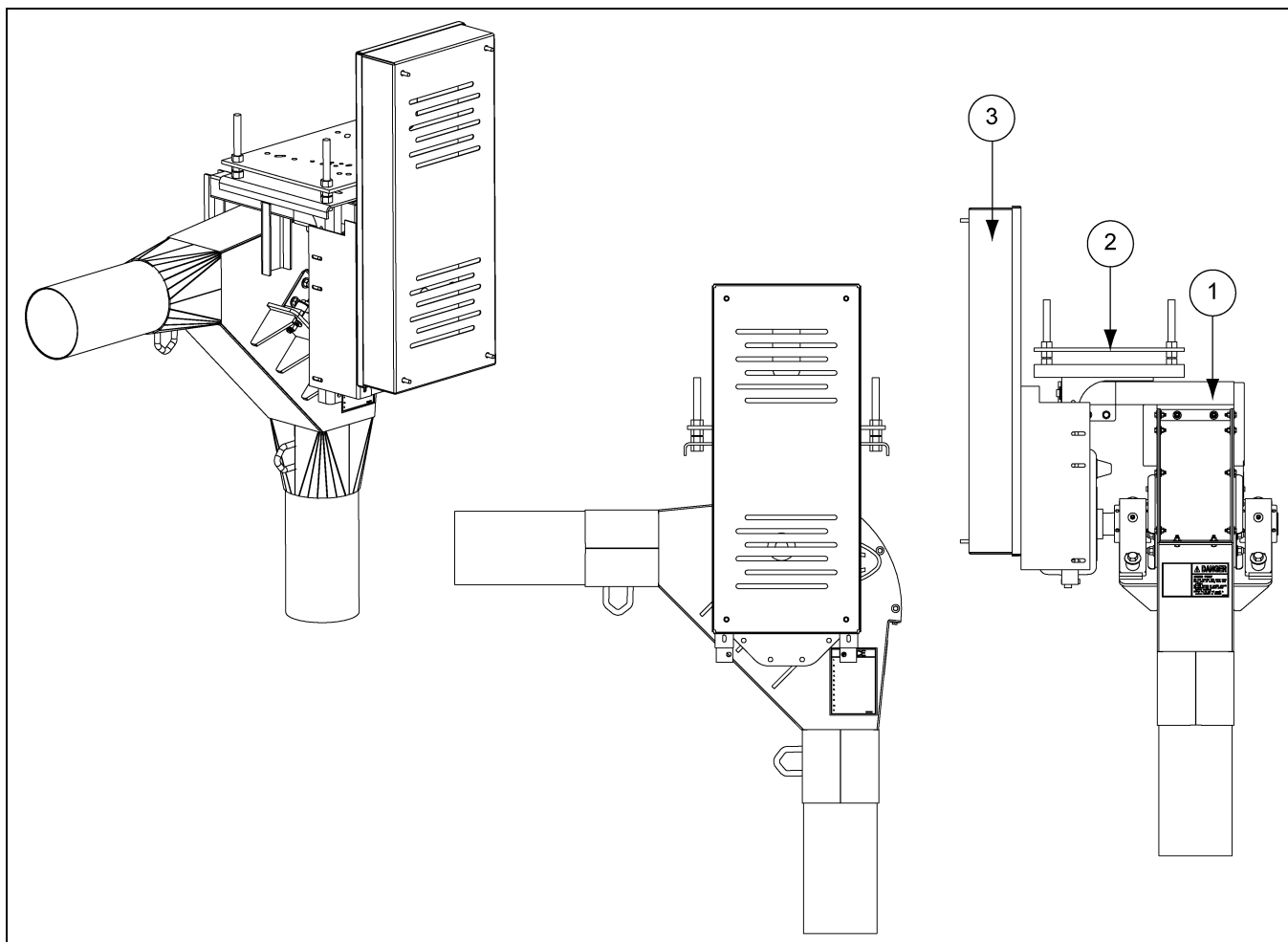
10" Motor Pulleys, Bushings and Drive Belts - 60 Hz

HP	Part	Part #	Description	Qty	(Lbs)	(Kg)
20 HP	Motor Pulley	3311A1	4 Grade B6.4 SD	1	23	10.4
	Motor Pulley Bushing	GC06516	SD x 1-5/8" Bore	1	5	2.3
	Reducer Pulley	GC06676	4 Grade B8.0 SK	1	38	17.2
	Reducer Bushing	PT0778	SK x 1-3/8"	1	9	4.1
	Drive Belts	MHC00823	BX61	4	1.1	0.5
25-30 HP	Motor Pulley	MHC01566	3 Grade B11.0 SK	1	36	16.3
	Motor Pulley Bushing	CE-00617	SK x 1-7/8" Bore	1	9	4.1
	Reducer Pulley	MHC01567	3 Grade B13.6 SK	1	44	19.9
	Reducer Bushing	GC06687	SK x 1-7/16" Bore	1	9	4.1
	Drive Belts	D02-0067	BX85	3	1.1	0.5
40 HP	Motor Pulley	MHC01668	3 Grade 5V 9.0 SF	1	36	16.3
	Motor Pulley Bushing	GT3-0068	SF x 2-1/8" Bore	1	9	4.1
	Reducer Pulley	MHC01531	3 Grade 5V 11.3 SF	1	44	19.9
	Reducer Bushing	MHC01669	SF x 1-5/8" Bore	1	9	4.1
	Drive Belts	MHC00039	5VX850	3	1.2	0.5
50 HP	Motor Pulley	KD-PDS0016	4 Grade 5V 9.0 E	1	36	16.3
	Motor Pulley Bushing	MHC01540	E x 2-1/8" Bore	1	9	4.1
	Reducer Pulley	MHC01699	4 Grade 5V 11.3 E	1	44	19.9
	Reducer Bushing	MHC01537	E x 1-5/8" Bore	1	9	4.1
	Drive Belts	MHC00039	5VX850	4	1.2	0.5

12" Motor Pulleys, Bushings and Drive Belts - 60 Hz

HP	Part	Part #	Description	Qty	(Lbs)	(Kg)
30 HP	Motor Pulley	MHC01530	3 Grade 5V 8.0 SF	1	19	8.6
	Motor Pulley Bushing	MHC01162	SF x 1-7/8" Bore	1	3.8	1.7
	Reducer Pulley	MHC01531	3 Grade 5V 11.3 SF	1	25	11.3
	Reducer Bushing	GC07551	SF x 1-7/16" Bore	1	3.8	1.7
	Drive Belts	MHC00604	SVX800	3	0.9	0.4
40 HP	Motor Pulley	MHC01160	3 Grade 5V 9.25 SF	1	23	10.4
	Motor Pulley Bushing	GT3-0068	SF x 2-1/8" Bore	1	5	2.3
	Reducer Pulley	MHC01536	3 Grade 5V 13.2 E	1	38	17.2
	Reducer Bushing	MHC01537	E x 1-5/8V	1	9	4.1
	Drive Belts	MHC00475	5VX1000	3	1.1	0.5
50 HP	Motor Pulley	MHC01538	4 Grade 5V 9.25 E	1	36	16.3
	Motor Pulley Bushing	MHC01540	E x 2-1/8" Bore	1	9	4.1
	Reducer Pulley	MHC01539	4 Grade 5V 13.2 E	1	44	19.9
	Reducer Bushing	MHC01537	E x 1-5/8" Bore	1	9	4.1
	Drive Belts	MHC00475	5VX1000	4	1.1	0.5
60 HP	Motor Pulley	KD-PDS0014	4 Grade 5V 9.75 E	1	36	16.3
	Motor Pulley Bushing	017-1371-8	E x 2-3/8" Bore	1	9	4.1
	Reducer Pulley	MHC01539	4 Grade 5V 13.2 E	1	44	19.9
	Reducer Bushing	MHC01541	E x 2-3/16" Bore	1	9	4.1
	Drive Belts	MHC00477	5VX1060	4	1.2	0.5

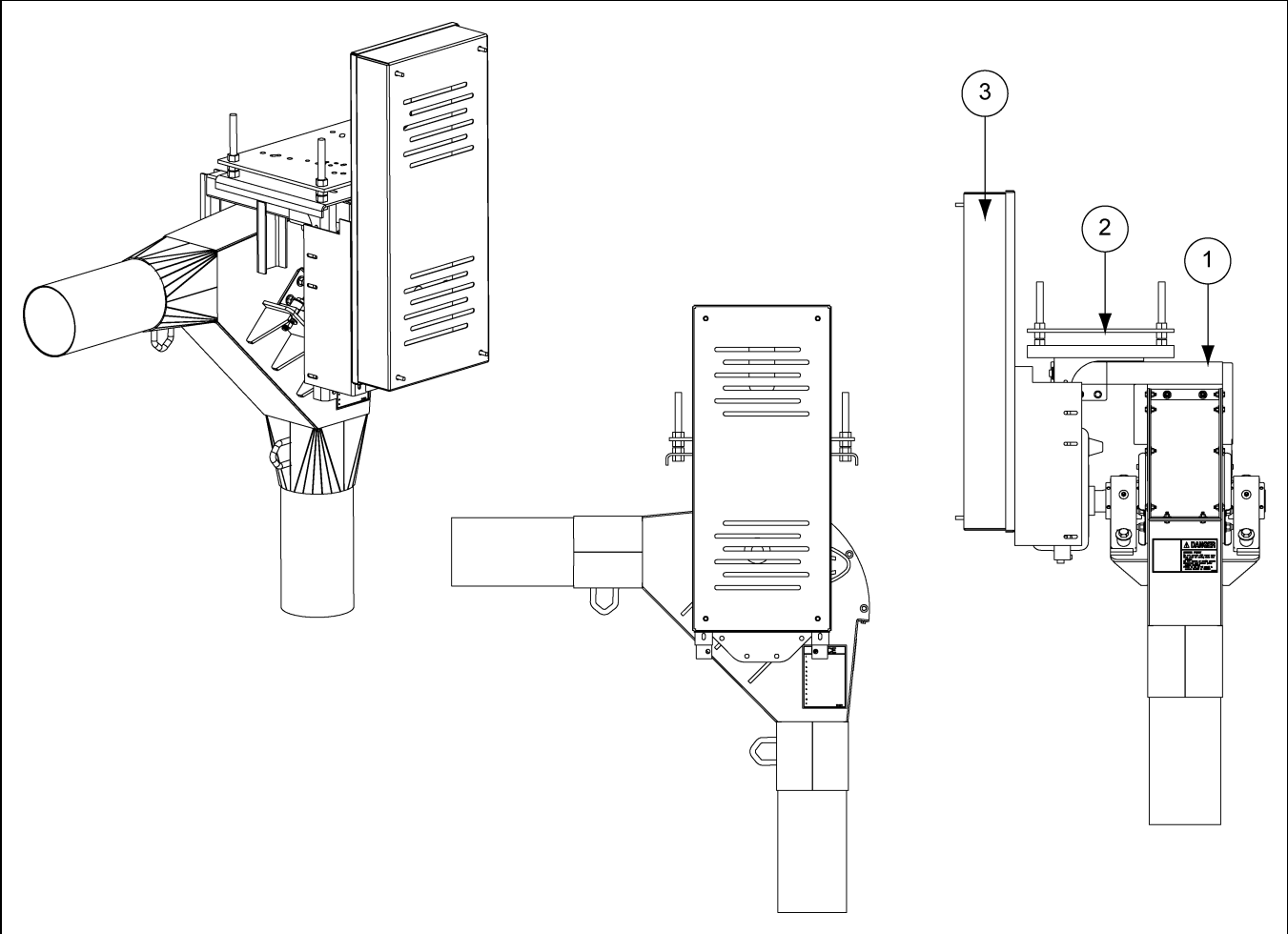
8" (15 HP) Drive Components (8081365)



8" (15 HP) Drive Components (8081365) Parts List

Ref #	Part #	Description	Qty
1	8081362	Chain Loop: 15, 20 HP TA3 Drive Corner Assembly - 8" 207 "E" Bearing	1
2	8081271	Drive Box TA3, 15 HP, 8" and 10" Chain Loop	1
3	8120217	Belt Guard Assembly Chain Loop, TA3	1

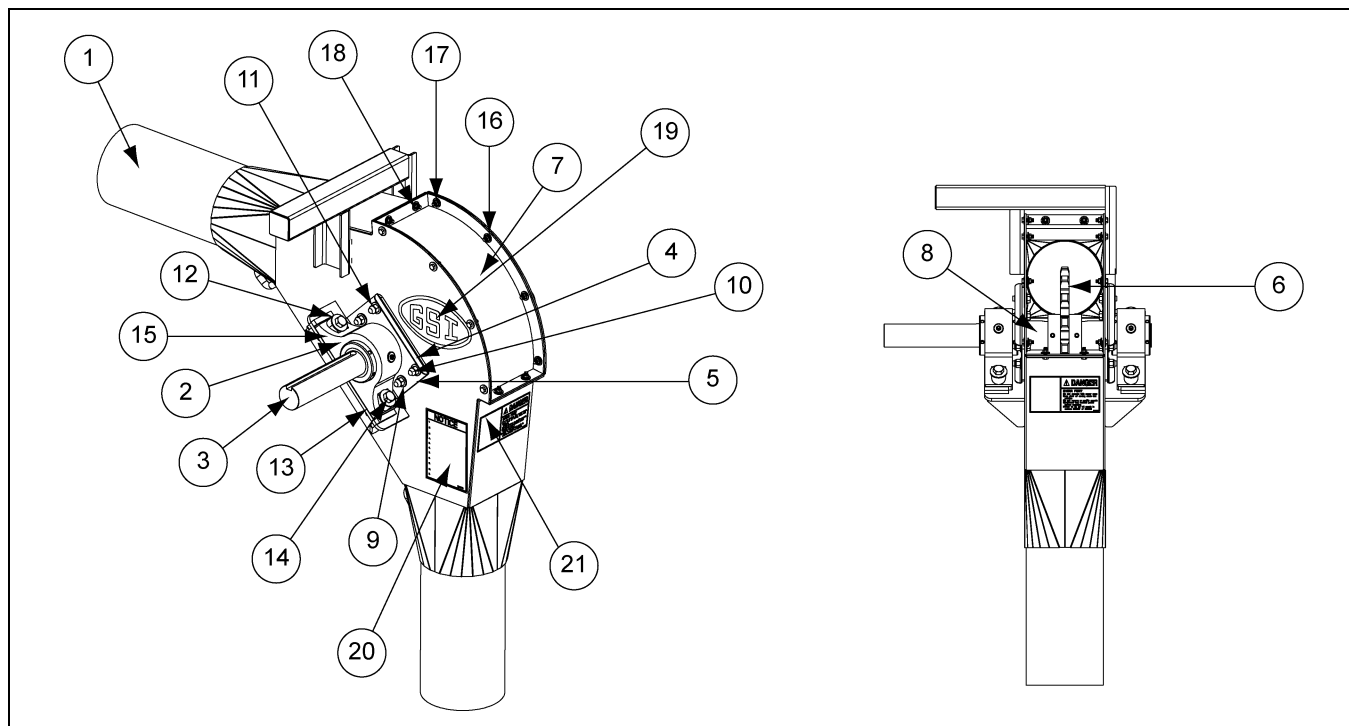
8" (20 HP) Drive Components (8081363)



8" (20 HP) Drive Components (8081363) Parts List

Ref #	Part #	Description	Qty
1	8081362	Chain Loop: 15, 20 HP TA3 Drive Corner Assembly - 8" 207 "E" Bearing	1
2	8081285	Drive Box TA3, 20 HP, 8" and 10" Chain Loop	1
3	8120217	Belt Guard Assembly Chain Loop, TA3	1

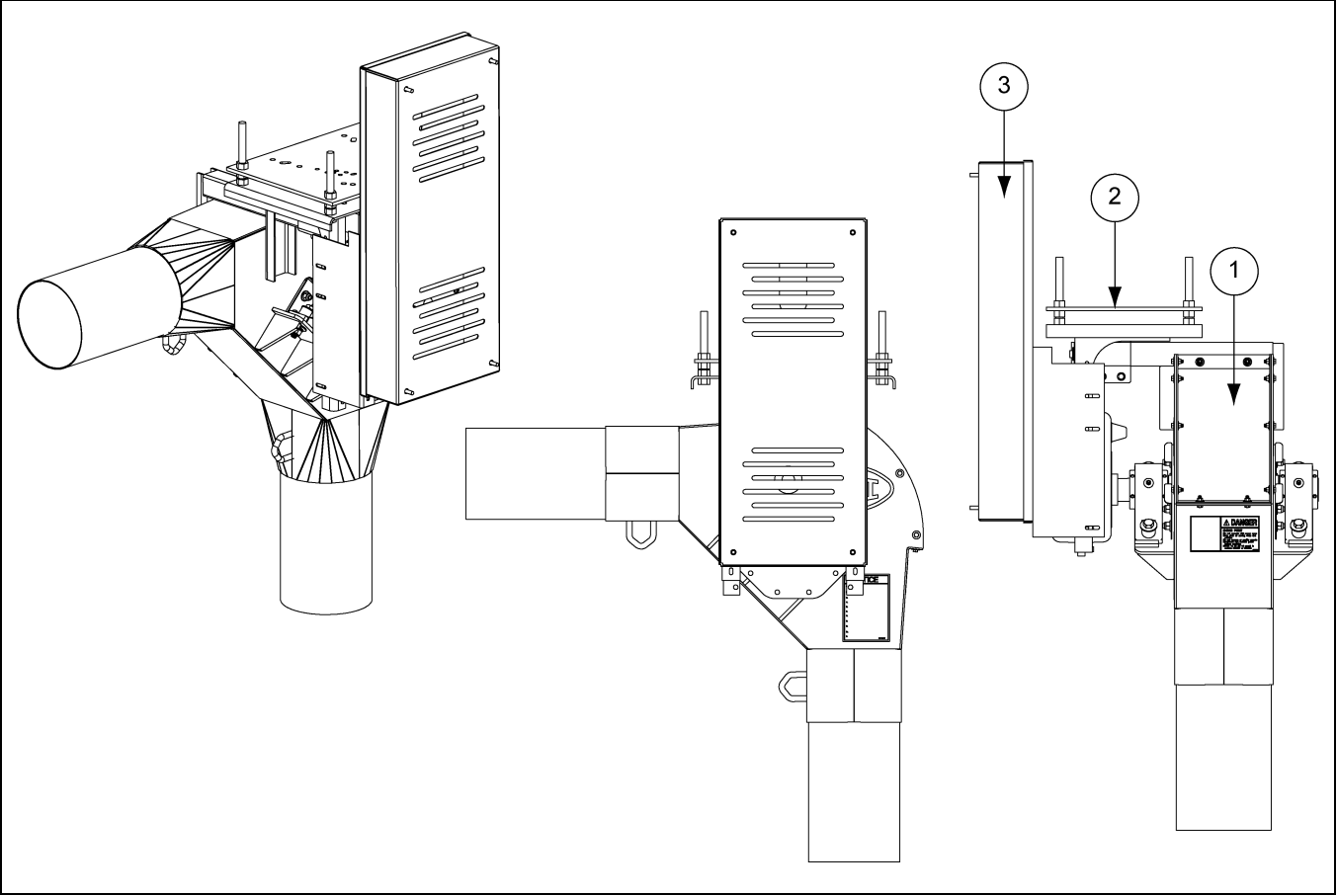
8" (15 HP-20 HP) Drive Components (8081362)



8" (15 HP-20 HP) Drive Components (8081362) Parts List

Ref #	Part #	Description	Qty
1	8081361	Chain Loop: TA3 Drive Corner Weld - 8" 207 "E" Bearing	1
2	8101510	Bearing, Taper Dodge #P2BE207R	2
3	8081364	Chain Loop: TA3 Drive Shaft - 8" 207 "E" Bearing	1
4	8081269	Corner Seal UHMW, 8" and 10" Chain Loop	2
5	8081270	Cover Plate for UHMW Bearing Seal	2
6	PT1086	Sprocket, (Hub Type) 3" I.D.	1
7	8081009	Weld, 8" Drive/Stand Corner Inspection Door	1
8	S-9177	Square Key 3/4" x 3-7/16"	1
9	S-8562	Flat Washer 1/2" GV	16
10	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
11	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
12	S-858	Flat Washer 5/8" USS ZN Grade 2	8
13	S-3208	Split Lock Washer 5/8" Med ZN Zinc	4
14	S-7011	Bolt, HHCS 5/8"-11 x 3-1/2" ZN Grade 8 Zinc	4
15	S-4110	Hex Nut 5/8"-11 YDP Grade 5	4
16	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	24
17	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	12
18	S-3611	Flange Nut 5/16"-18 YDP Grade 2	12
19	DC-1474	Decal, Logo GSI 5" x 9"	2
20	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1
21	8107001	Decal, Danger	1

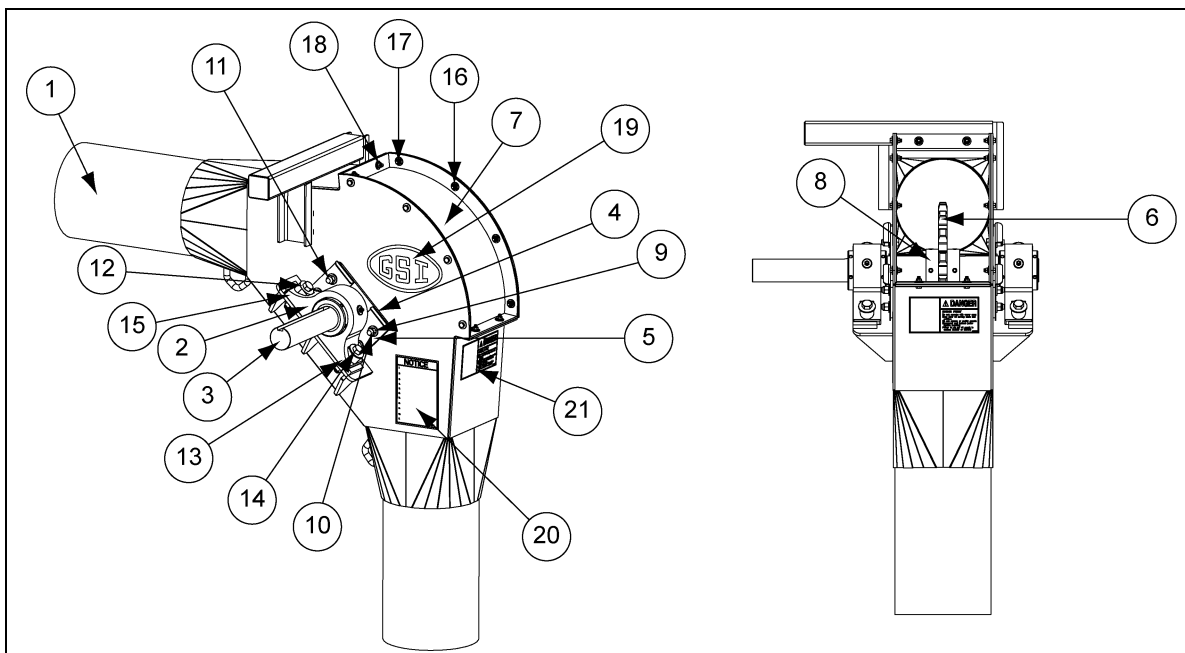
10" (20 HP) Drive Components (8101526)



10" (20 HP) Drive Components (8101526) Parts List

Ref #	Part #	Description	Qty
1	8101525	Chain Loop: 15, 20 HP TA3 Drive Corner Assembly - 10" 207 "E" Bearing	1
2	8081285	Drive Box TA3, 20 HP, 8" and 10" Chain Loop	1
3	8120217	Belt Guard Assembly Chain Loop, TA3	1

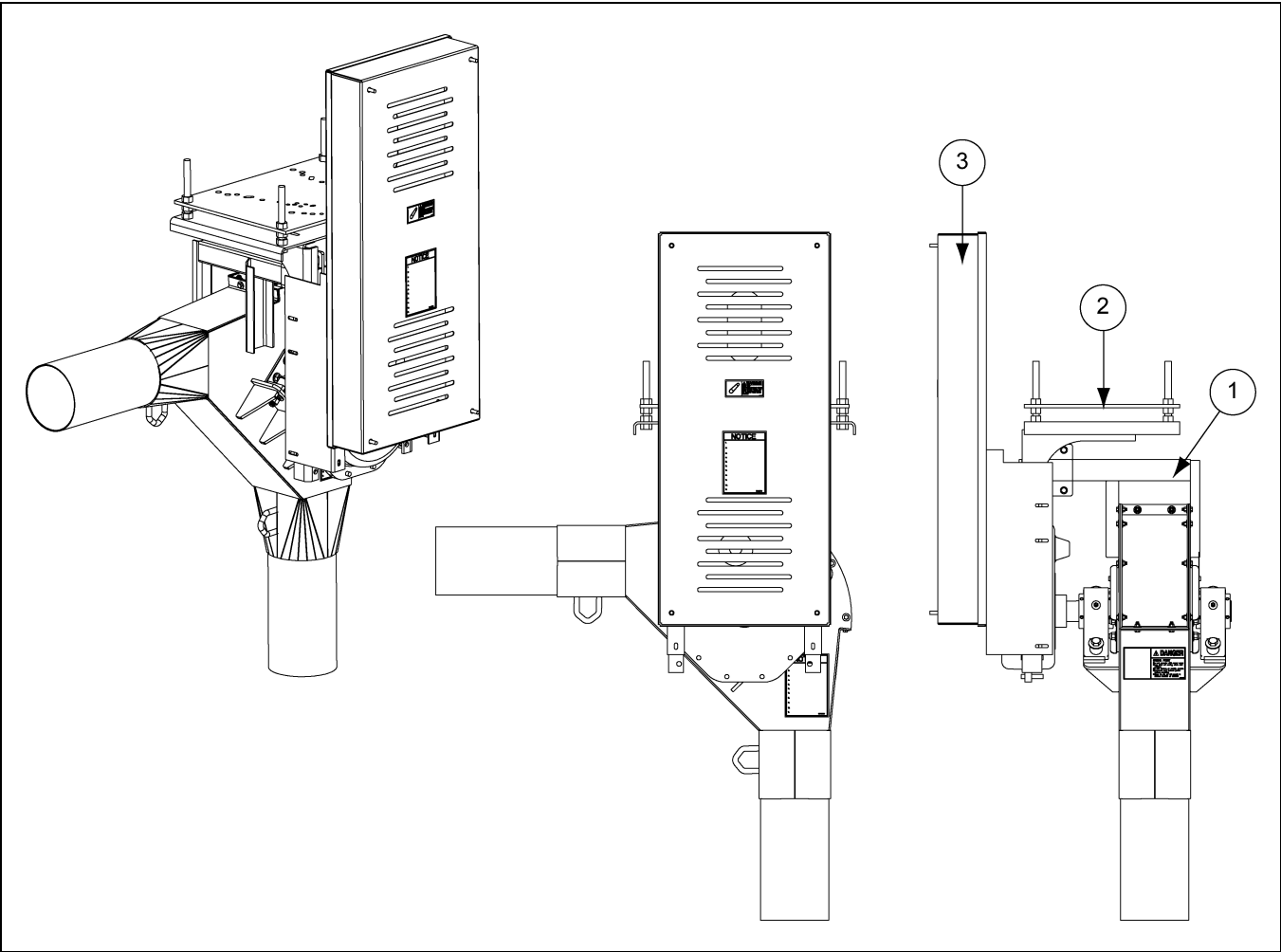
10" (15 HP-20 HP) Drive Components (8101525)



10" (15 HP-20 HP) Drive Components (8101525) Parts List

Ref #	Part #	Description	Qty
1	8101524	Chain Loop: TA3 Drive Corner Weld - 10" 207 "E" Bearing	1
2	8101510	Bearing, Taper Dodge #P2BE207R	2
3	8101527	Chain Loop: TA3 Drive Shaft - 10" 207 "E" Bearing	1
4	8081269	Corner Seal UHMW,8 and 10" Chain Loop	2
5	8081270	Cover Plate for UHMW Bearing Seal	2
6	PT1086	Sprocket, (Hub Type) 3" I.D.	1
7	8101009	Door-Inspection, Weldment	1
8	S-9177	Square Key 3/4" x 3-7/16"	1
9	S-8562	Flat Washer 1/2" GV	16
10	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
11	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
12	S-858	Flat Washer 5/8" USS ZN Grade 2	8
13	S-3208	Split Lock Washer 5/8" Med ZN	4
14	S-7011	Bolt, HHCS 5/8"-11 x 3-1/2" ZN Grade 8 Zinc	4
15	S-4110	Hex Nut 5/8"-11 YDP Grade 5	4
16	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	24
17	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	12
18	S-3611	Flange Nut 5/16"-18 YDP Grade 2	12
19	DC-1474	Decal, Logo GSI 5" x 9"	2
20	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1
21	8107001	Decal, Danger	1

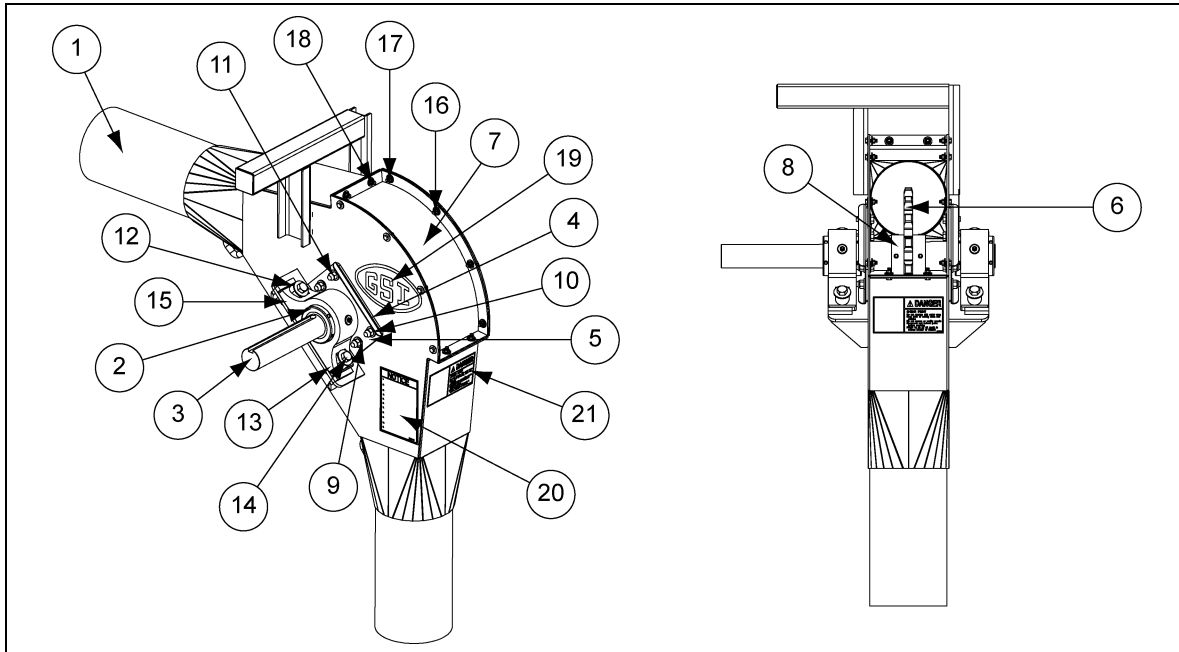
8" (25 HP-30 HP) Drive Components (8081360)



8" (25 HP-30 HP) Drive Components (8081360) Parts List

Ref #	Part #	Description	Qty
1	8081359	Chain Loop: 25, 30 HP TA4 Drive Corner Assembly - 8" 207 "E" Bearing	1
2	8081296	Drive Box TA4, 25 and 30 HP, 8" and 10" Chain Loop	1
3	8120211	Belt Guard Assembly Chain Loop, TA4	1

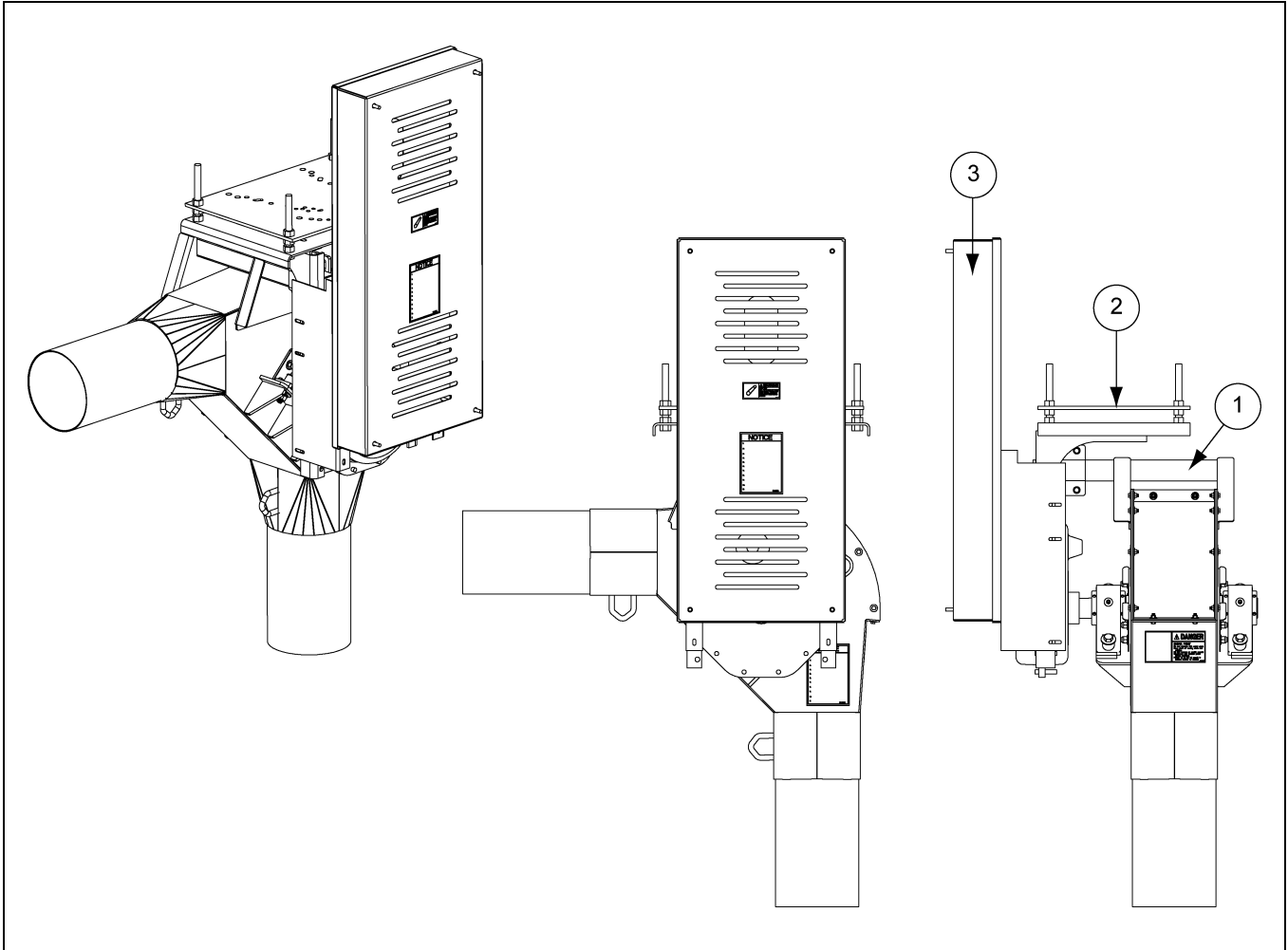
8" (25 HP-30 HP) Drive Components (8081359)



8" (25 HP-30 HP) Drive Components (8081359) Parts List

Ref #	Part #	Description	Qty
1	8081358	Chain Loop: TA4 Drive Corner Weld - 8" 207 "E" Bearing	1
2	8101510	Bearing, Taper Dodge #P2BE207R	2
3	8081355	Chain Loop: TA4 Drive Shaft - 8" 207 "E" Bearing	1
4	8081269	Corner Seal UHMW, 8" and 10" Chain Loop	2
5	8081270	Cover Plate for UHMW Bearing Seal	2
6	PT1086	Sprocket, (Hub Type) 3" I.D.	1
7	8081009	Weld, 8" Drive/Stand Corner Inspection Door	1
8	S-9177	Square Key 3/4" x 3-7/16"	1
9	S-8562	Flat Washer 1/2" GV	16
10	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
11	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
12	S-858	Flat Washer 5/8" USS ZN Grade 2	8
13	S-3208	Split Lock Washer 5/8" Med ZN	4
14	S-7011	Bolt, HHCS 5/8"-11 x 3-1/2" ZN Grade 8 Zinc	4
15	S-4110	Hex Nut 5/8"-11 YDP Grade 5	4
16	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	24
17	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	12
18	S-3611	Flange Nut 5/16"-18 YDP Grade 2	12
19	DC-1474	Decal, Logo GSI 5" x 9"	2
20	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1
21	8107001	Decal, Danger	1

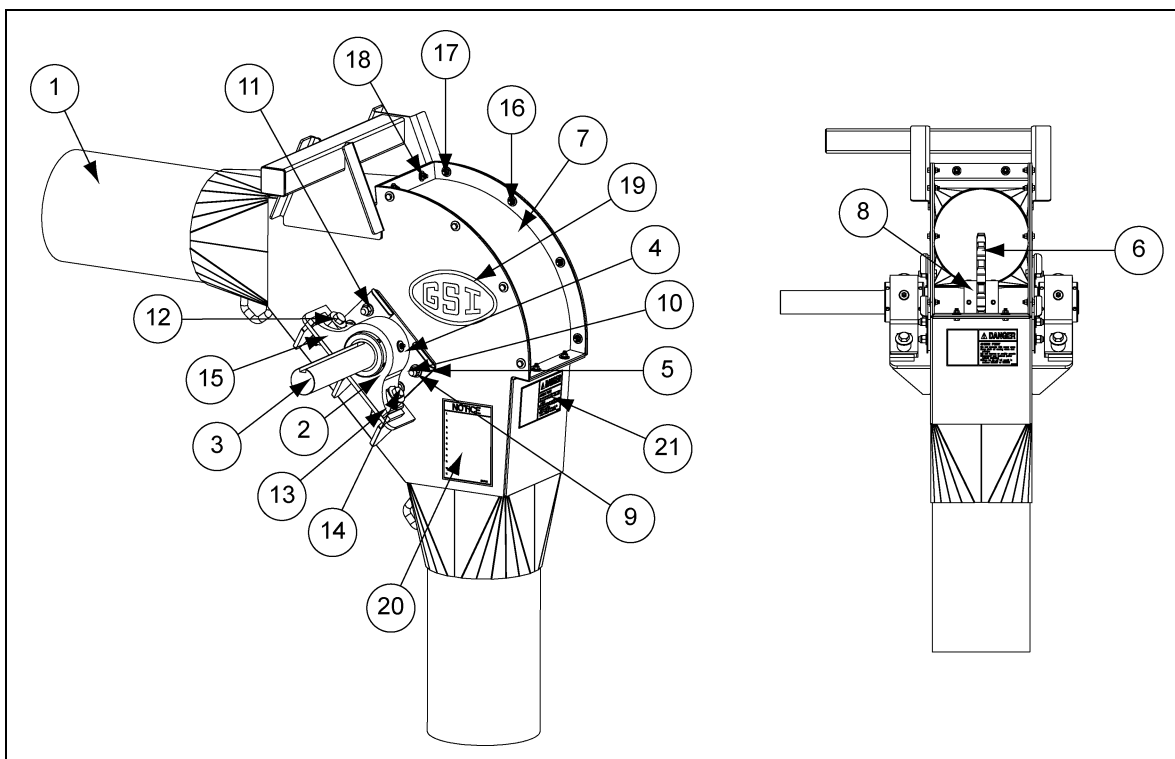
10" (25 HP-30 HP) Drive Components (8101517)



10" (25 HP-30 HP) Drive Components (8101517) Parts List

Ref #	Part #	Description	Qty
1	8101516	Chain Loop: 25, 30 HP TA4 Drive Corner Assembly - 10" 207 "E" Bearing	1
2	8081296	Drive Box TA4, 25 and 30 HP, 8" and 10" Chain Loop	1
3	8120211	Belt Guard Assembly Chain Loop, TA4	1

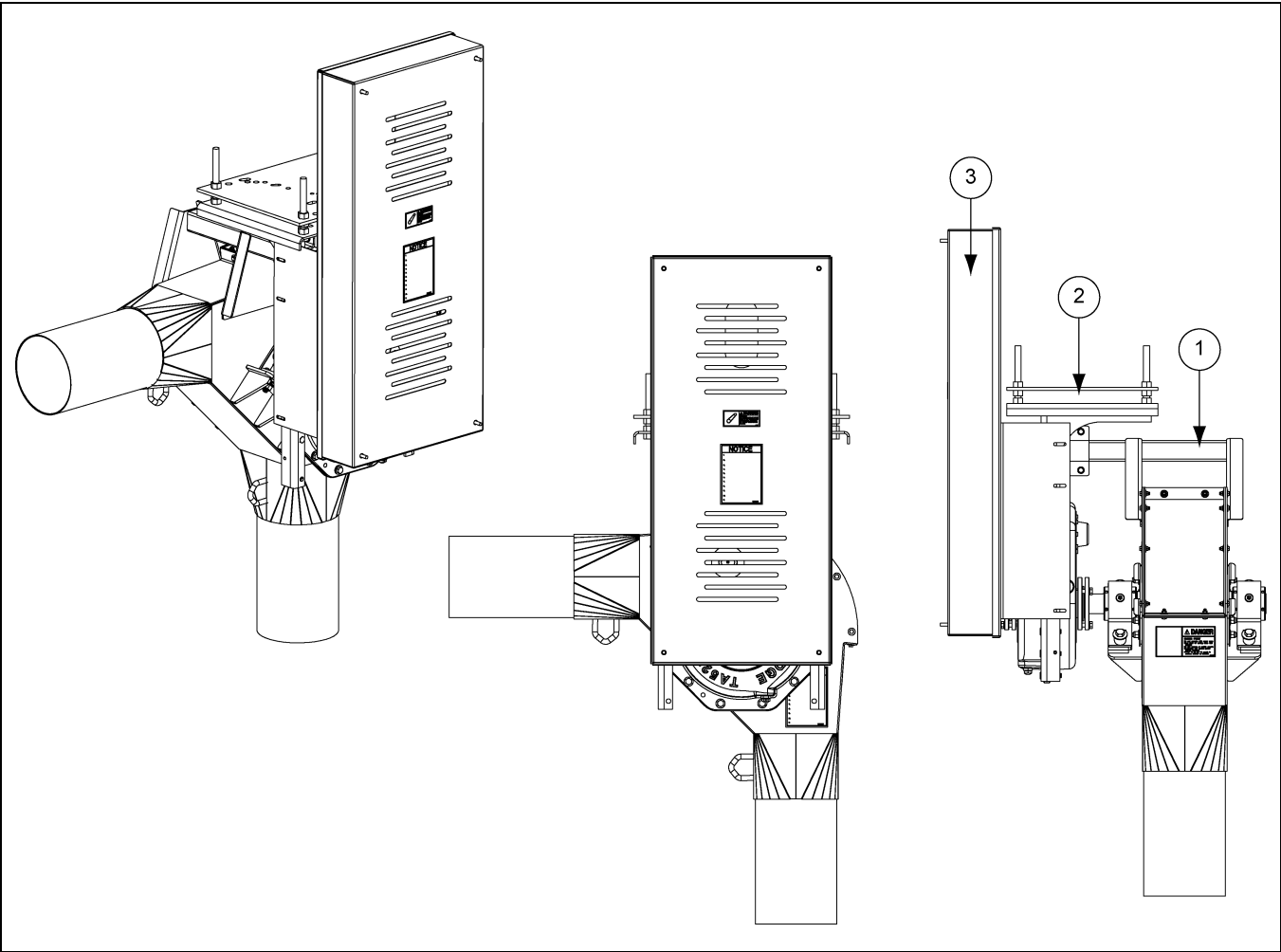
10" (25 HP-30 HP) Drive Components (8101516)



10" (25 HP-30 HP) Drive Components (8101516) Parts List

Ref #	Part #	Description	Qty
1	8101515	Chain Loop: TA4 Drive Corner Weld - 10" 207 "E" Bearing	1
2	8101510	Bearing, Taper Dodge #P2BE207R	2
3	8101518	Chain Loop: TA4 Drive Shaft - 10" 207 "E" Bearing	1
4	8081269	Corner Seal UHMW, 8" and 10" Chain Loop	2
5	8081270	Cover Plate for UHMW Bearing Seal	2
6	PT1086	Sprocket, (Hub Type) 3" I.D.	1
7	8101009	Door-Inspection, Weldment	1
8	S-9177	Square Key 3/4" x 3-7/16"	1
9	S-8562	Flat Washer 1/2" GV	16
10	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
11	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
12	S-858	Flat Washer 5/8" USS ZN Grade 2	8
13	S-3208	Split Lock Washer 5/8" Med ZN	4
14	S-7011	Bolt, HHCS 5/8"-11 x 3-1/2" ZN Grade 8 Zinc	4
15	S-4110	Hex Nut 5/8"-11 YDP Grade 5	4
16	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	24
17	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	12
18	S-3611	Flange Nut 5/16"-18 YDP Grade 2	12
19	DC-1474	Decal, Logo GSI 5" x 9"	2
20	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1
21	8107001	Decal, Danger	1

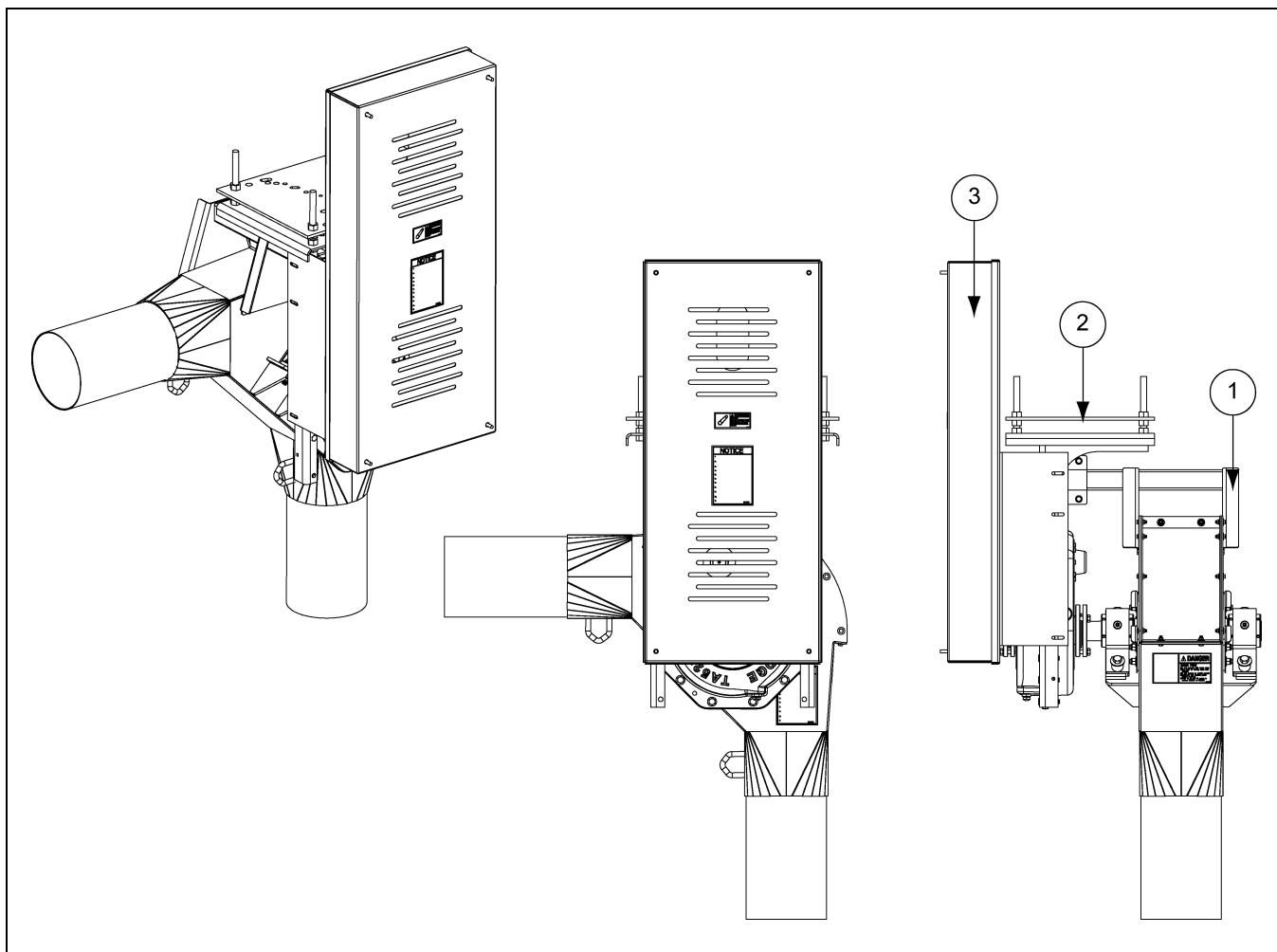
10" (40 HP) Drive Components (8101513)



10" (40 HP) Drive Components (8101513) Parts List

Ref #	Part #	Description	Qty
1	8101511	Chain Loop: 40, 50 HP TA5 Drive Corner Assembly - 10" 207 "E" Bearing	1
2	8101303	Drive Box TA5, 40 HP, 10" Chain Loop	1
3	8120214	Belt Guard Assembly Chain Loop, TA5	1

10" (50 HP) Drive Components (8101514)

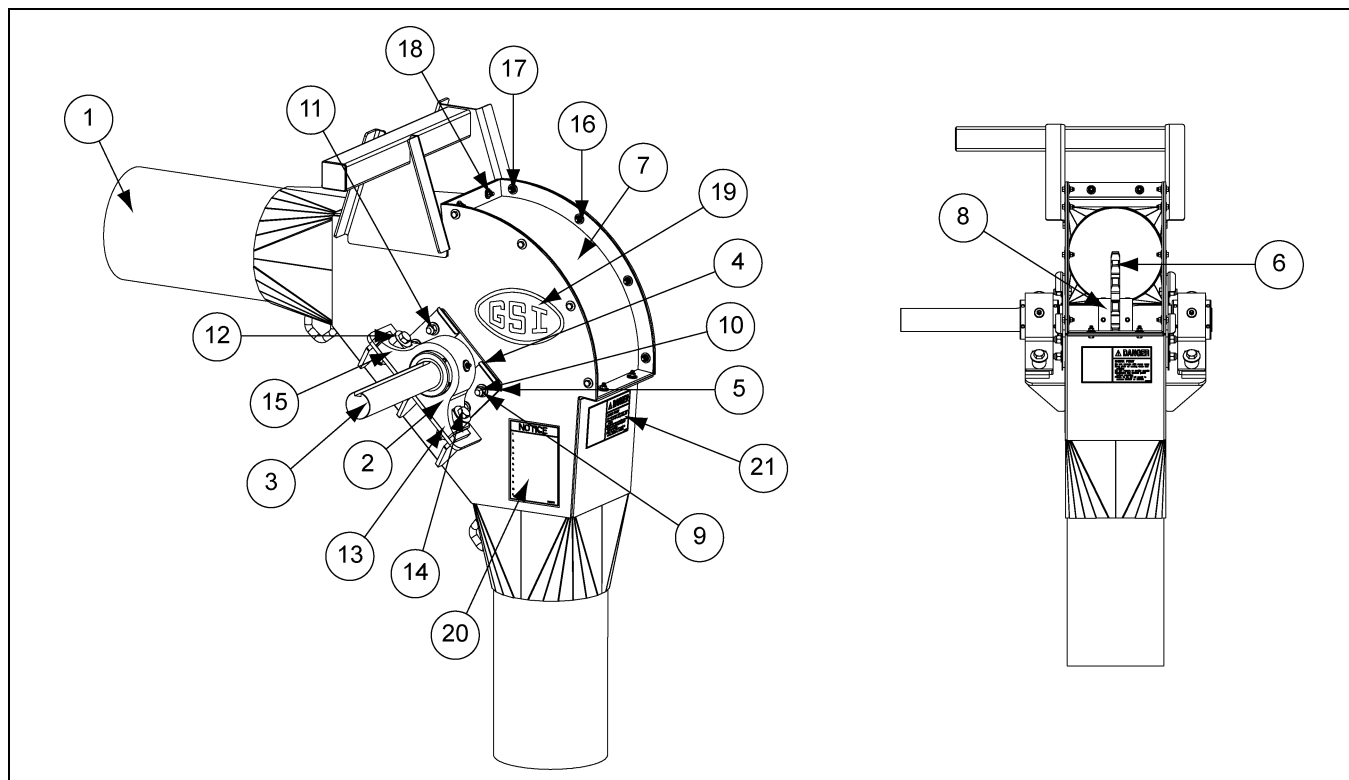


10" (50 HP) Drive Components (8101514) Parts List

Ref #	Part #	Description	Qty
1	8101511	Chain Loop: 40, 50 HP TA5 Drive Corner Assembly - 10" 207 "E" Bearing	1
2	8101331	Drive Box TA5, 50 HP, 10" Chain Loop	1
3	8120214	Belt Guard Assembly Chain Loop, TA5	1

10. Parts List

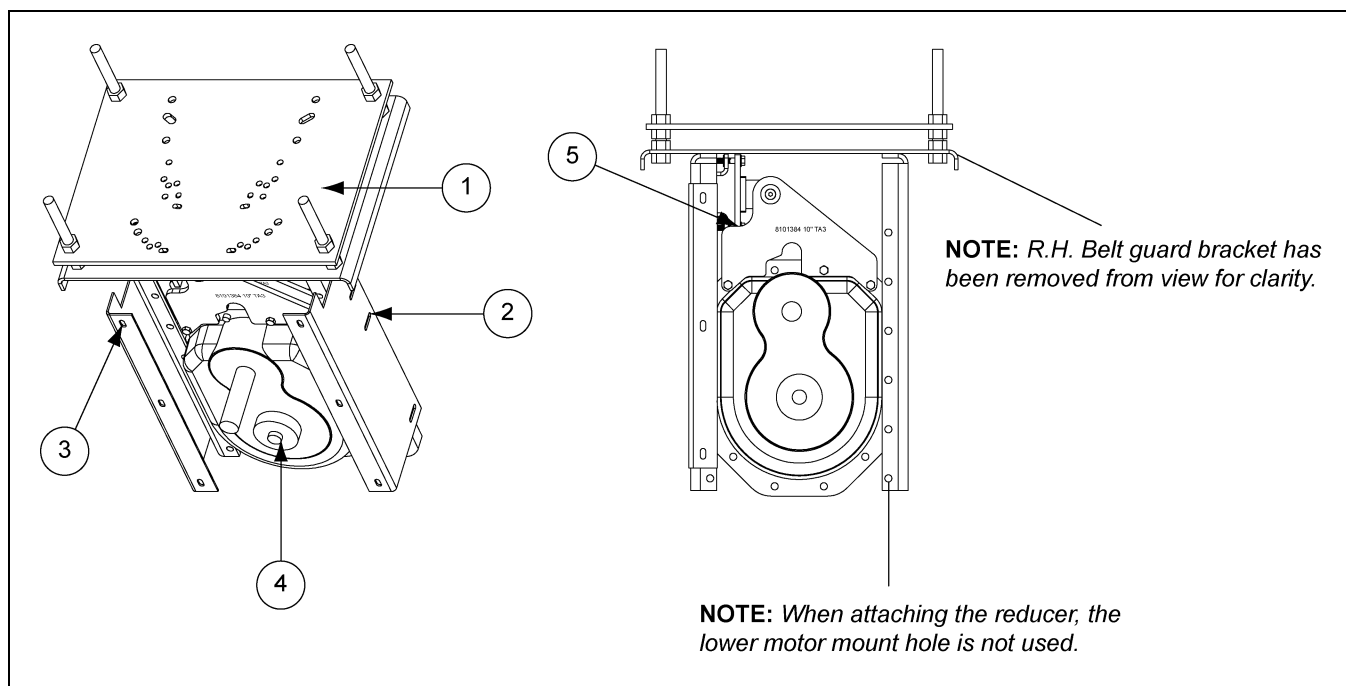
10" (40 HP-50 HP) Drive Components (8101511)



10" (40 HP-50 HP) Drive Components (8101511) Parts List

Ref #	Part #	Description	Qty
1	8101509	Chain Loop: TA5 Drive Corner Weld - 10" 207 "E" Bearing	1
2	8101510	Bearing, Taper Dodge #P2BE207R	2
3	8101512	Chain Loop: TA5 Drive Shaft-10" 207 "E" Bearing	1
4	8081269	Corner Seal UHMW, 8" and 10" Chain Loop	2
5	8081270	Cover Plate for UHMW Bearing Seal	2
6	PT1086	Sprocket, (Hub Type) 3" I.D.	1
7	8101009	Door-Inspection, Weldment	1
8	S-9177	Square Key 3/4" x 3-7/16"	1
9	S-8562	Flat Washer 1/2" GV	16
10	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
11	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
12	S-858	Flat Washer 5/8" USS ZN Grade 2	8
13	S-3208	Split Lock Washer 5/8" Med ZN	4
14	S-7011	Bolt, HHCS 5/8"-11 x 3-1/2" ZN Grade 8 Zinc	4
15	S-4110	Hex Nut 5/8"-11 YDP Grade 5	4
16	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	24
17	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	12
18	S-3611	Flange Nut 5/16"-18 YDP Grade 2	12
19	DC-1474	Decal, Logo GSI 5" x 9"	2
20	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1
21	8107001	Decal, Danger	1

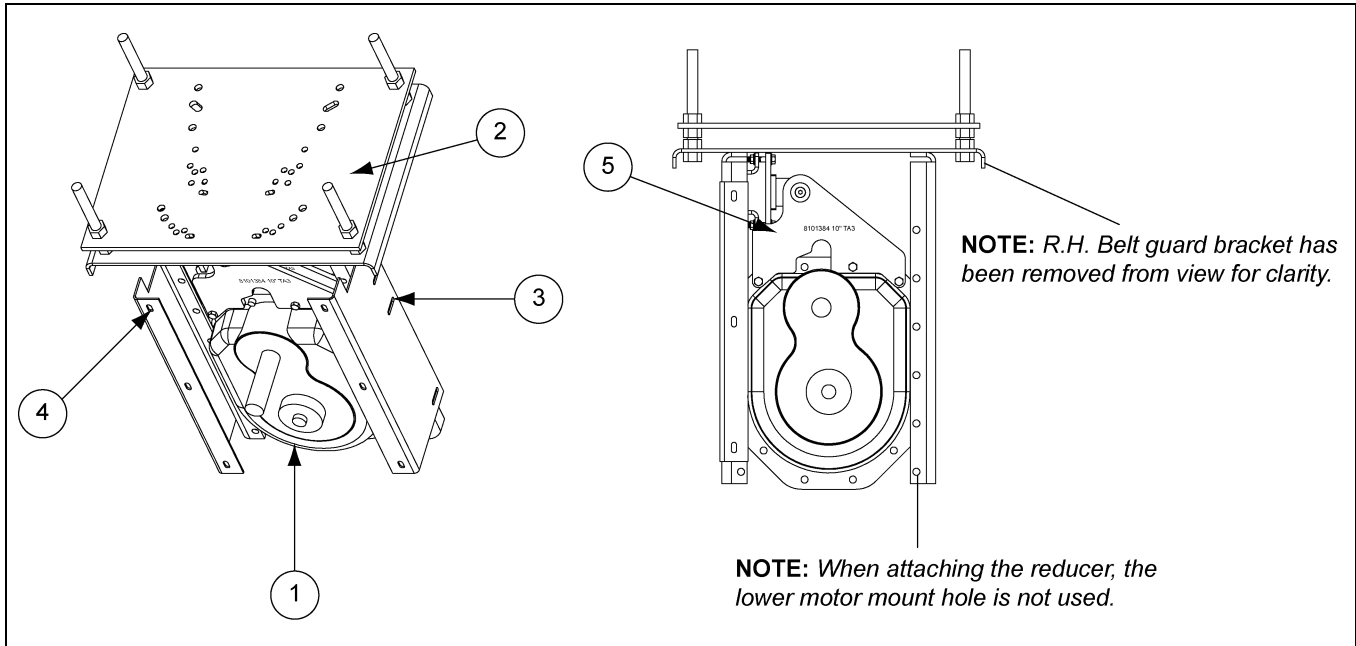
8" (15 HP) Drive Components (8081271)



8" (15 HP) Drive Components (8081271) Parts List

Ref #	Part #	Description	Qty
1	TA3CLMM	Motor Mount, Chain Loop TA3	1
2	BG-0167	Belt Guard Bracket, R.H., TA3	1
3	BG-0168	Belt Guard Bracket, L.H., TA3	1
4	MHC01074	Shaft, Reducer Dodge #TA3203H15	1
5	8081324	TA3 Torque Plate Kit 8", 10" Loop	1
N/S	CE-00582	Sheave, 3 Grade, A6.0-B6.4 - SD, 6-3/4" O.D.	1
N/S	GC06516	Bushing, SD x 1-5/8" Bore	1
N/S	GC07874	Sheave, 3 Grade, A7.6-B8.0 - SK, 8.35" O.D.	1
N/S	MHC00823	Belt, V BX61	3
N/S	MHC01094	Bushing, Taper, TA3203TB x 2-3/16 Dodge # 903022	1
N/S	PT0778	Bushing, SK 1-3/8" Bore QD Style	1
N/S	TA3HDW	Hardware, Belt Guard TA3	1
N/S	8101336	Vent Elbow Kit 3/8" with Instructions	1

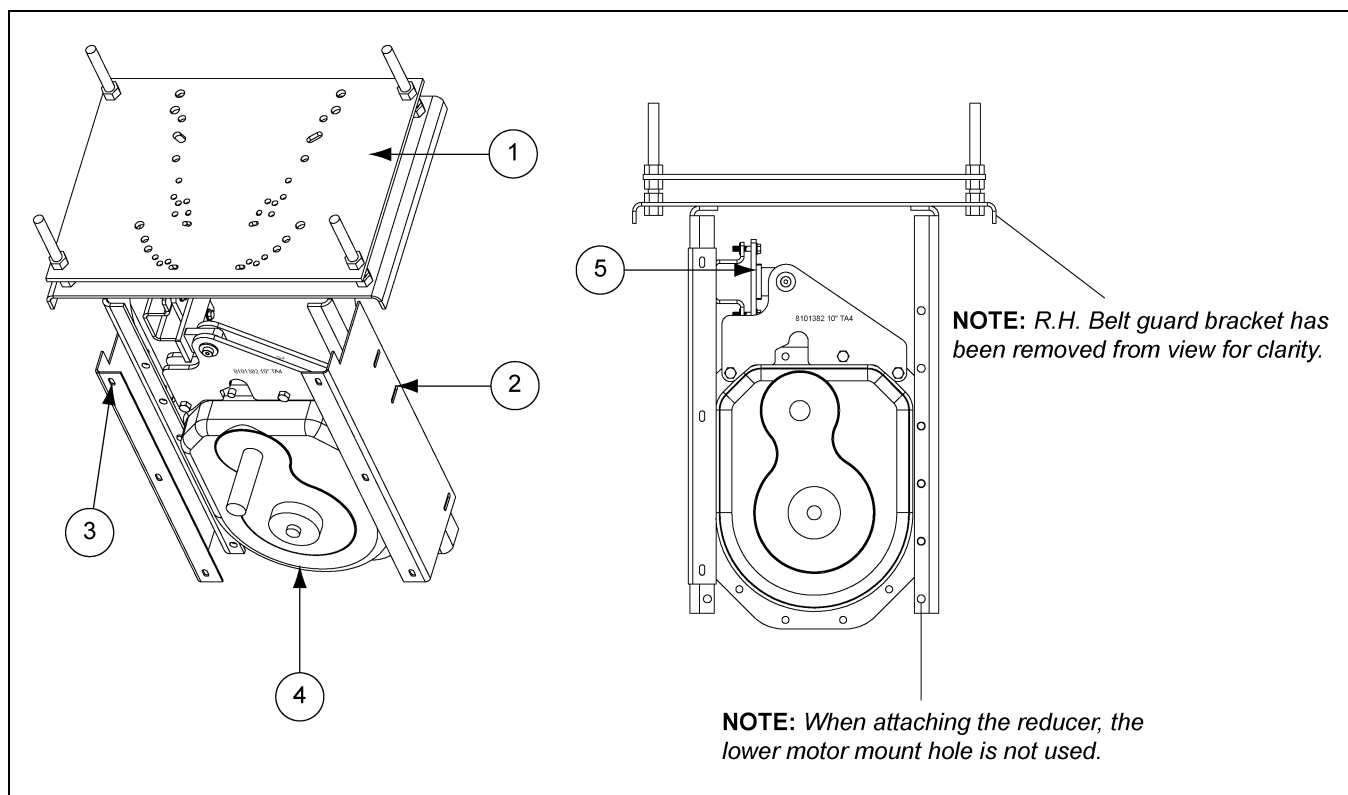
8" (20 HP) Drive Components (8081285)



8" (20 HP) Drive Components (8081285) Parts List

Ref #	Part #	Description	Qty
1	MHC01074	Shaft, Reducer Dodge #TA3203H15	1
2	TA3CLMM	Motor Mount, Chain Loop TA3	1
3	BG-0167	Belt Guard Bracket, R.H., TA3	1
4	BG-0168	Belt Guard Bracket, L.H., TA3	1
5	8081324	TA3 Torque Plate Kit 8", 10" Loop	1
N/S	3311A1	Sheave, 4 Grade, A6.0-B6.4 -SD, 6-3/4" O.D.	1
N/S	GC06516	Bushing, SD x 1-5/8" Bore	1
N/S	GC06676	Sheave, 4 Grade, A7.6-B8.0 - SK, 8.35" O.D.	1
N/S	MHC00823	Belt, V BX61	4
N/S	MHC01094	Bushing, Taper, TA3203TB x 2-3/16 Dodge # 903022	1
N/S	PT0778	Bushing, SK 1-3/8" Bore QD Style	1
N/S	TA3HDW	Hardware, Belt Guard TA3	1
N/S	8101336	Vent Elbow Kit 3/8" with Instructions	1

8"-10" (25 HP-30 HP) Drive Components (8081296)

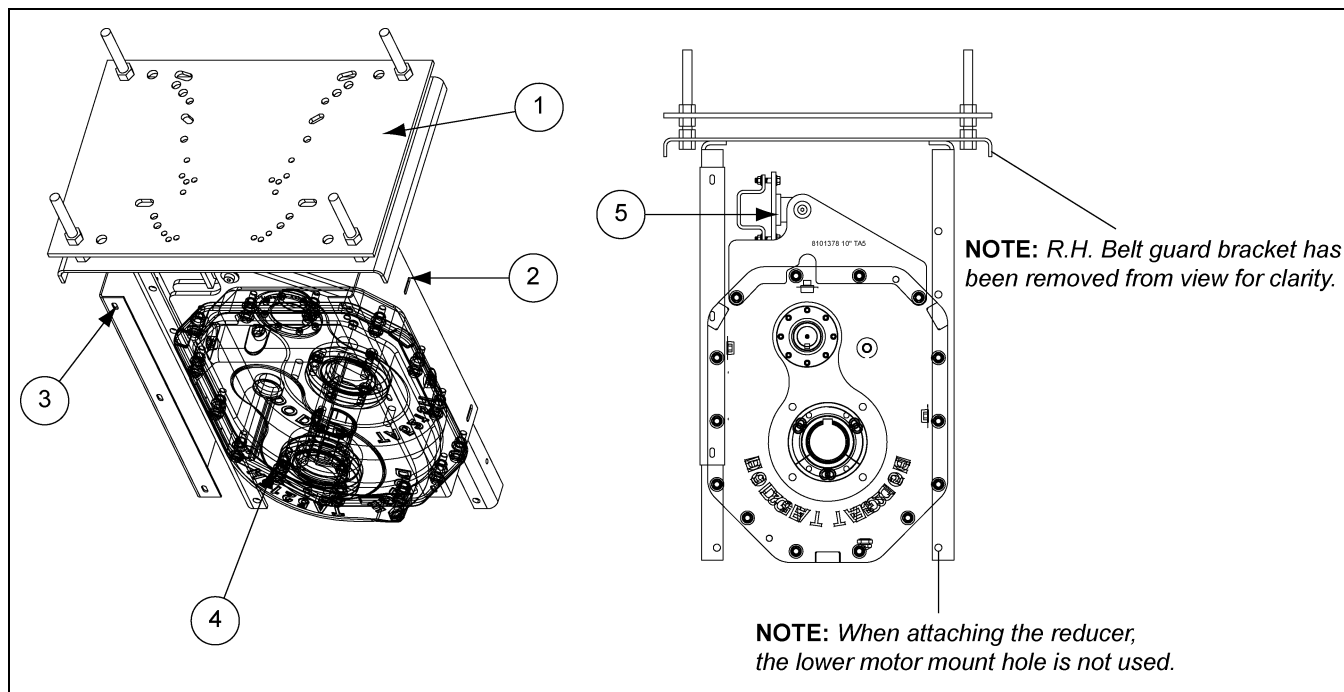


8"-10" (25 HP-30 HP) Drive Components (8081296) Parts List

Ref #	Part #	Description	Qty
1	TA4CLMM	Motor Mount, Chain Loop TA4	1
2	BG-0181	Belt Guard Bracket, R.H., TA4	1
3	BG-0182	Belt Guard Bracket, L.H., TA4	1
4	MHC01075	Shaft, Reducer Dodge #TA4207H15	1
5	8101424	TA4 Torque Plate Kit 8", 10" Loop	1
N/S	CE-00617	Bushing, SK 1-7/8" Bore	1
N/S	D02-0067	Belt, V BX85 Replaces 717-1346-5	3
N/S	GC06687	Bushing, SK x 1-7/16" Bore	1
N/S	MHC01096	Bushing, Taper, TA4207TB x 2-7/16	1
N/S	MHC01566	Sheave, 3 Garde, A10.6-B11.0 - SK, 11.35" O.D.	1
N/S	MHC01567	Sheave, 3 Grade, A13.2-B13.6 - SK, 13.95" O.D.	1
N/S	TA4HDW	Hardware, Belt Guard TA4	1
N/S	8101334	Vent Elbow Kit 1/2"	1

10. Parts List

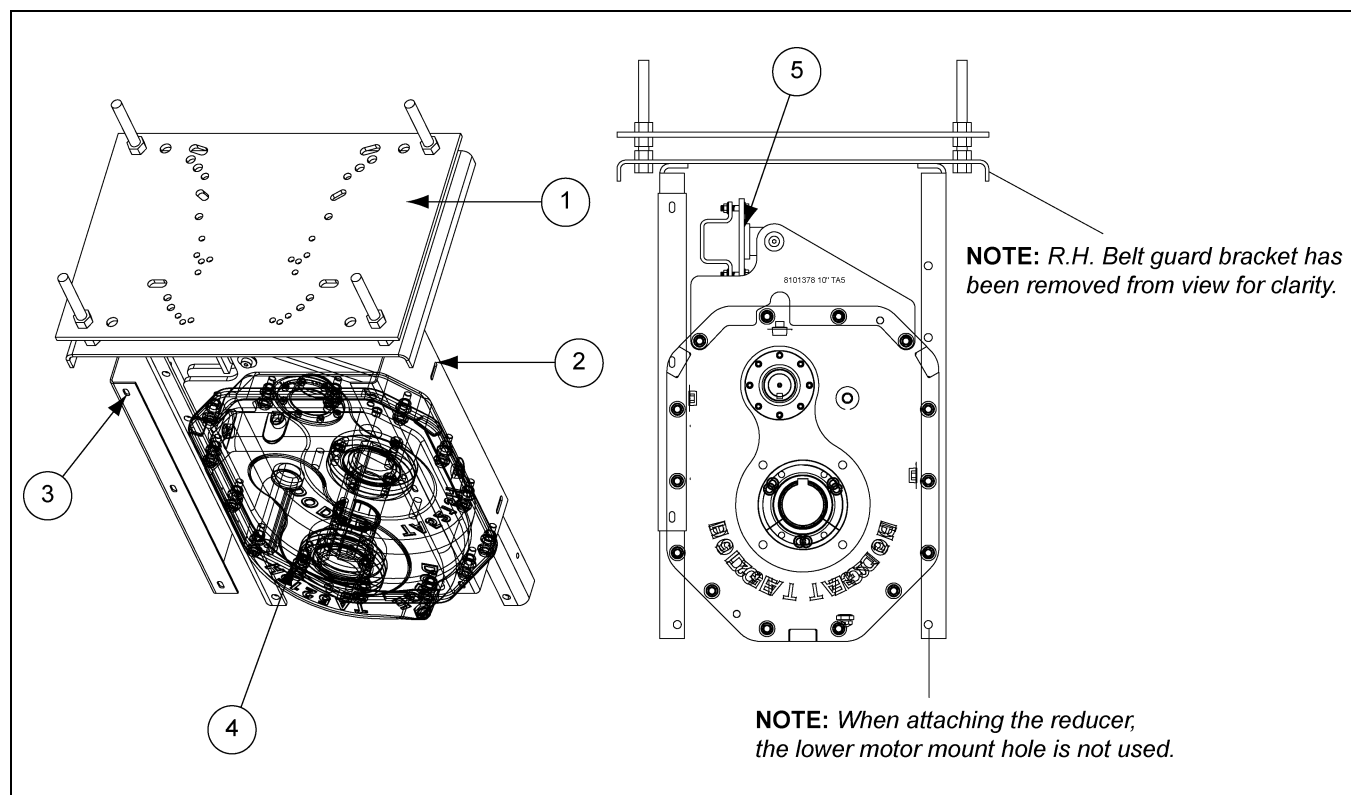
10" (40 HP) Drive Components (8101303)



10" (40 HP) Drive Components (8101303) Parts List

Ref #	Part #	Description	Qty
1	TA5CLMM	Motor Mount, Chain Loop TA5	1
2	BG-0196	Belt Guard Bracket, R.H., TA5	1
3	BG-0197	Belt Guard Bracket, L.H., TA5	1
4	MHC01076	Shaft, Reducer Dodge #TA4207H15	1
5	8101425	TA5 Torque Plate Kit 8", 10" Loop	1
N/S	GT3-0068	Bushing, SF 2-1/8" Bore	1
N/S	MHC00039	Belt, V 5VX-850	3
N/S	MHC01097	Bushing, Taper, TA5215TB x 2-7/16	1
N/S	MHC01531	Sheave, 3 Grade 5V 11.3-SF QD	1
N/S	MHC01668	Sheave, 3 Grade 5V 9.0SF QD	1
N/S	MHC01669	Bushing, SF x 1-5/8" Bore QD	1
N/S	TA5HDW	Hardware, Belt Guard TA5	1
N/S	8101334	Vent Elbow Kit 1/2"	1

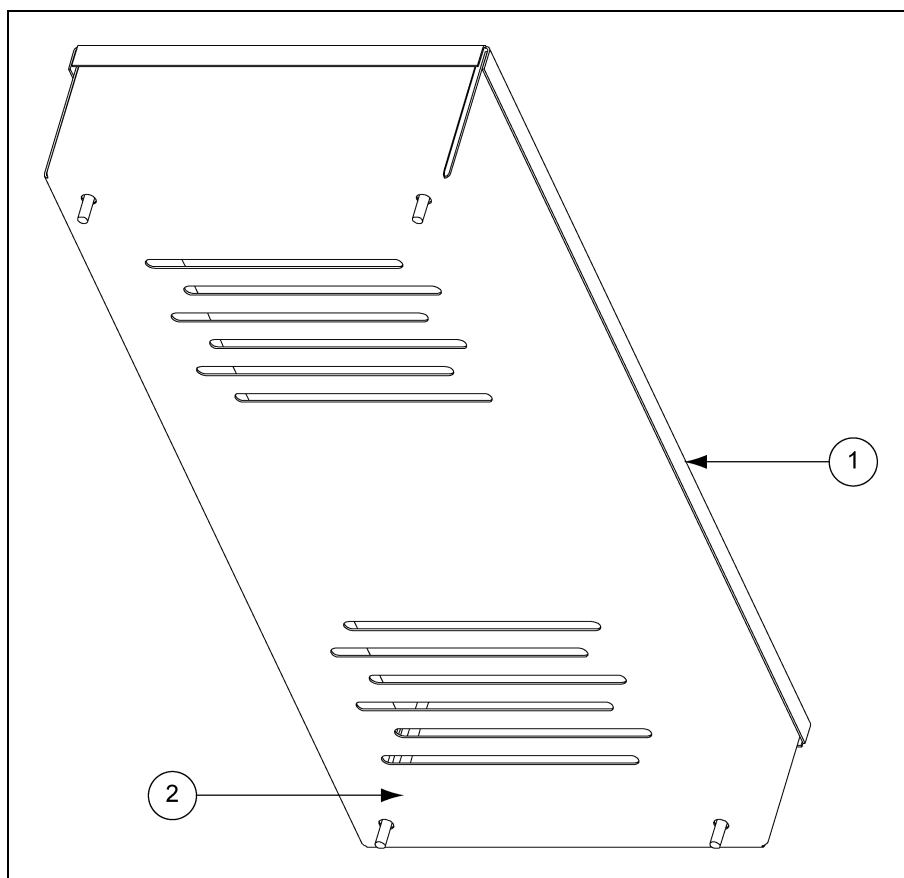
10" (50 HP) Drive Components (8101331)



10" (50 HP) Drive Components (8101331) Parts List

Ref #	Part #	Description	Qty
1	TA5CLMM	Motor Mount, Chain Loop TA5	1
2	BG-0196	Belt Guard Bracket, R.H., TA5	1
3	BG-0197	Belt Guard Bracket, L.H., TA5	1
4	MHC01076	Shaft, Reducer Dodge #TA4207H15	1
5	8101425	TA5 Torque Plate Kit 8", 10" Loop	1
N/S	MHC01540	Bushing, E x 2-1/8" Bore QD	1
N/S	MHC00039	Belt, V 5VX-850	4
N/S	MHC01097	Bushing, Taper, TA5215TB x 2-7/16	1
N/S	MHC01699	Sheave, 4 Grade 5V 11.3" QD "E"	1
N/S	KD-PDS0016	Sheave, 4 Grade 5V 9.0" QD "E"	1
N/S	MHC01537	Bushing, E x 1-5/8" Bore QD	1
N/S	TA5HDW	Hardware, Belt Guard TA5	1
N/S	8101334	Vent Elbow Kit 1/2"	1

Belt Guard Assembly TA3 (8120217)

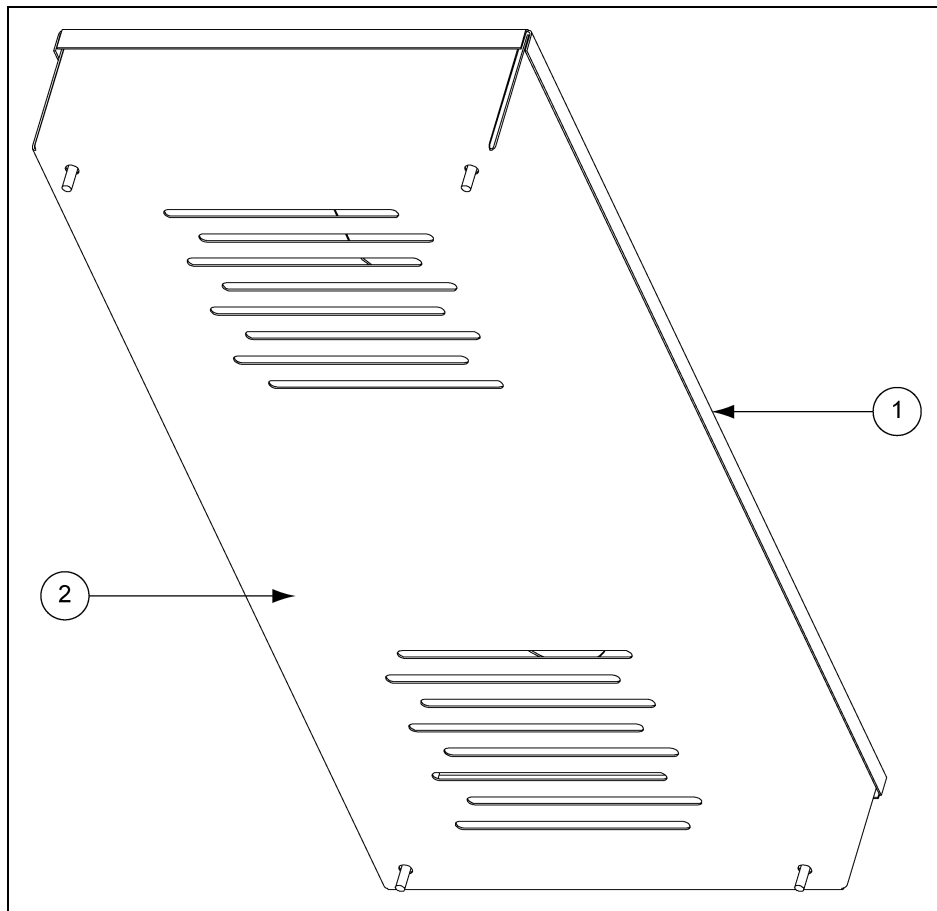


Belt Guard Assembly TA3 (8120217) Parts List

Ref #	Part #	Description	Qty
1	8120216	Belt Guard Back Weld Chain Loop, TA3	1
2	8120222	Belt Guard Cover Weld Chain Loop, TA3	1
N/S	S-1054	Split Lock Washer 3/8" ZN	4
N/S	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	4
N/S	S-456	Hex Nut 3/8"-16 YDP Grade 5	4
N/S	DC-994	Decal, Danger Shear Point	1
N/S	DC-995	Decal, Warning Shear Point	1
N/S	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1

NOTES

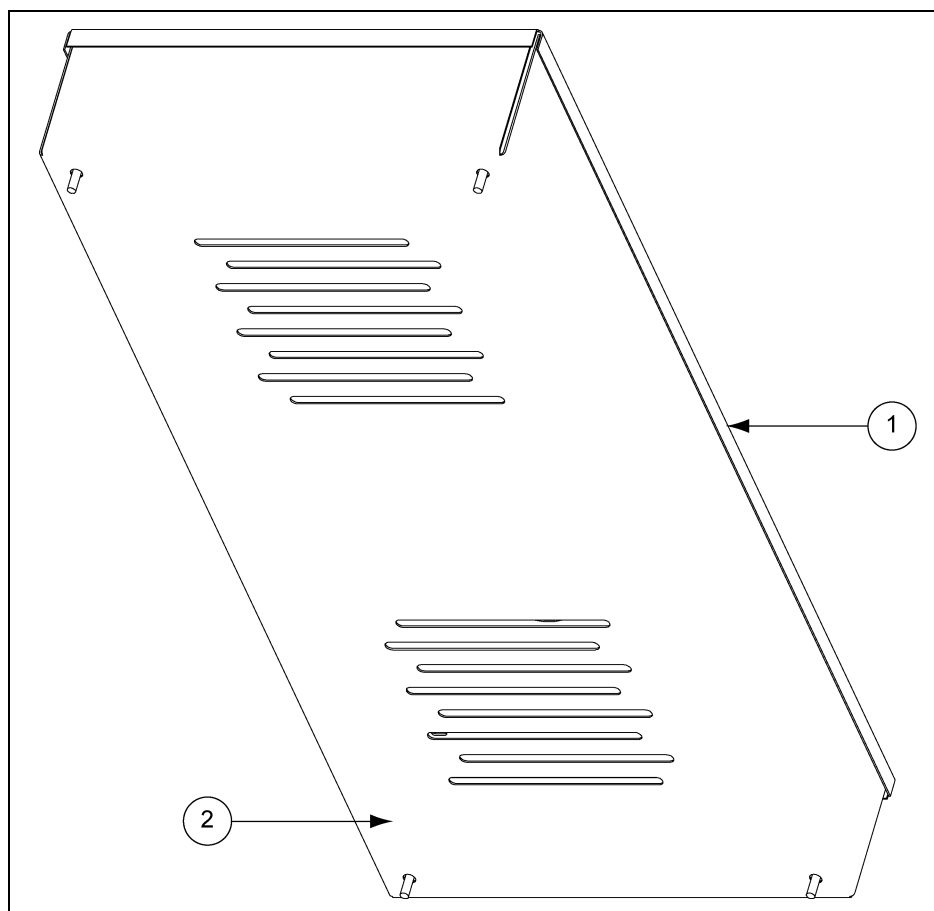
Belt Guard Assembly TA4 (8120211)



Belt Guard Assembly TA4 (8120211) Parts List

Ref #	Part #	Description	Qty
1	8120210	Belt Guard Back Weld Chain Loop, TA4	1
2	8120220	Belt Guard Cover Weld Chain Loop, TA4	1
N/S	S-1054	Split Lock Washer 3/8" ZN	4
N/S	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	4
N/S	S-456	Hex Nut 3/8"-16 YDP Grade 5	4
N/S	DC-994	Decal, Danger Shear Point	1
N/S	DC-995	Decal, Warning Shear Point	1
N/S	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1

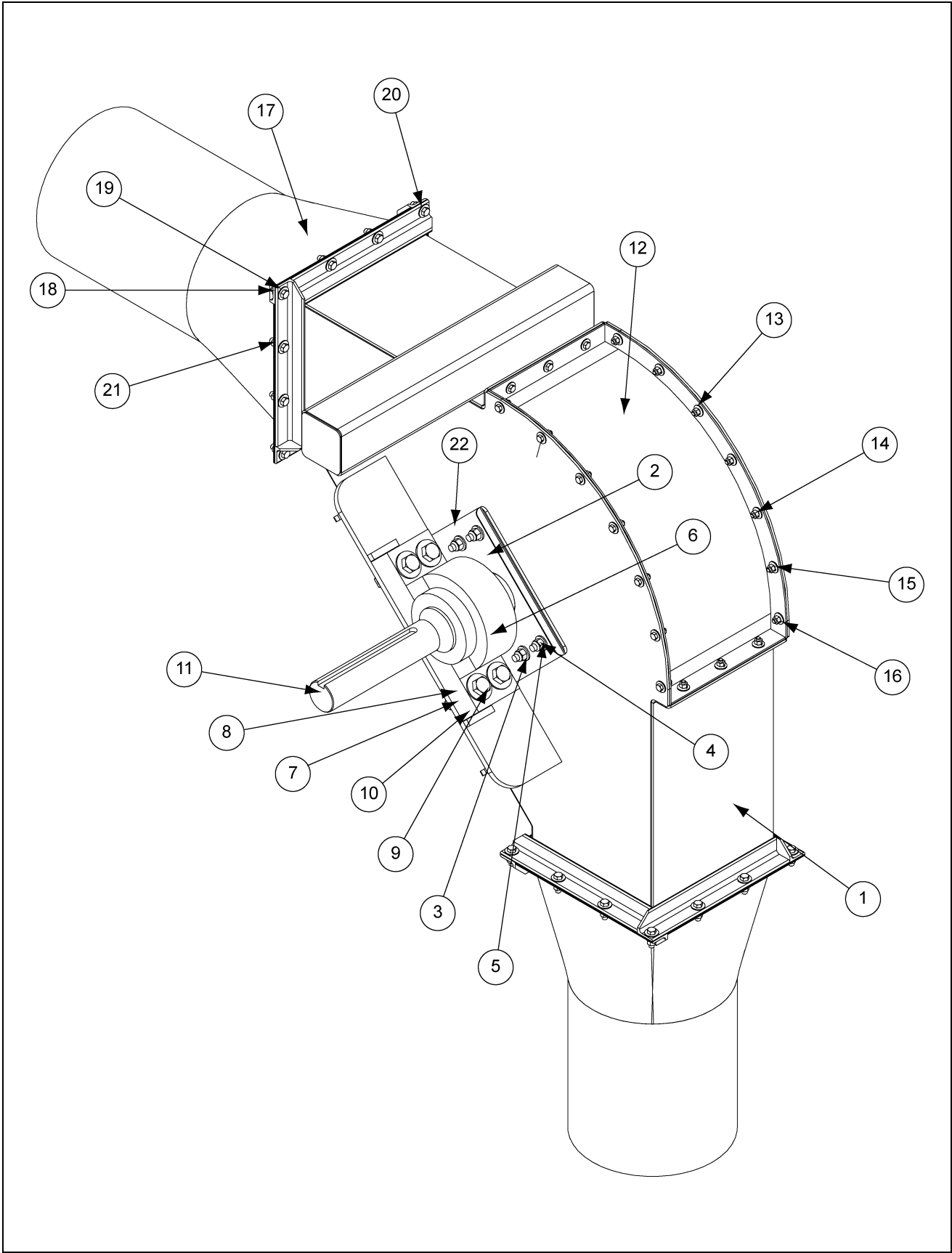
Belt Guard Assembly TA5 (8120214)



Belt Guard Assembly TA5 (8120214) Parts List

Ref #	Part #	Description	Qty
1	8120213	Belt Guard Back Weld Chain Loop, TA5	1
2	8120218	Belt Guard Cover Weld Chain Loop, TA5	1
N/S	S-1054	Split Lock Washer 3/8" ZN	4
N/S	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	4
N/S	S-456	Hex Nut 3/8"-16 YDP Grade 5	4
N/S	DC-994	Decal, Danger Shear Point	1
N/S	DC-995	Decal, Warning Shear Point	1
N/S	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	1

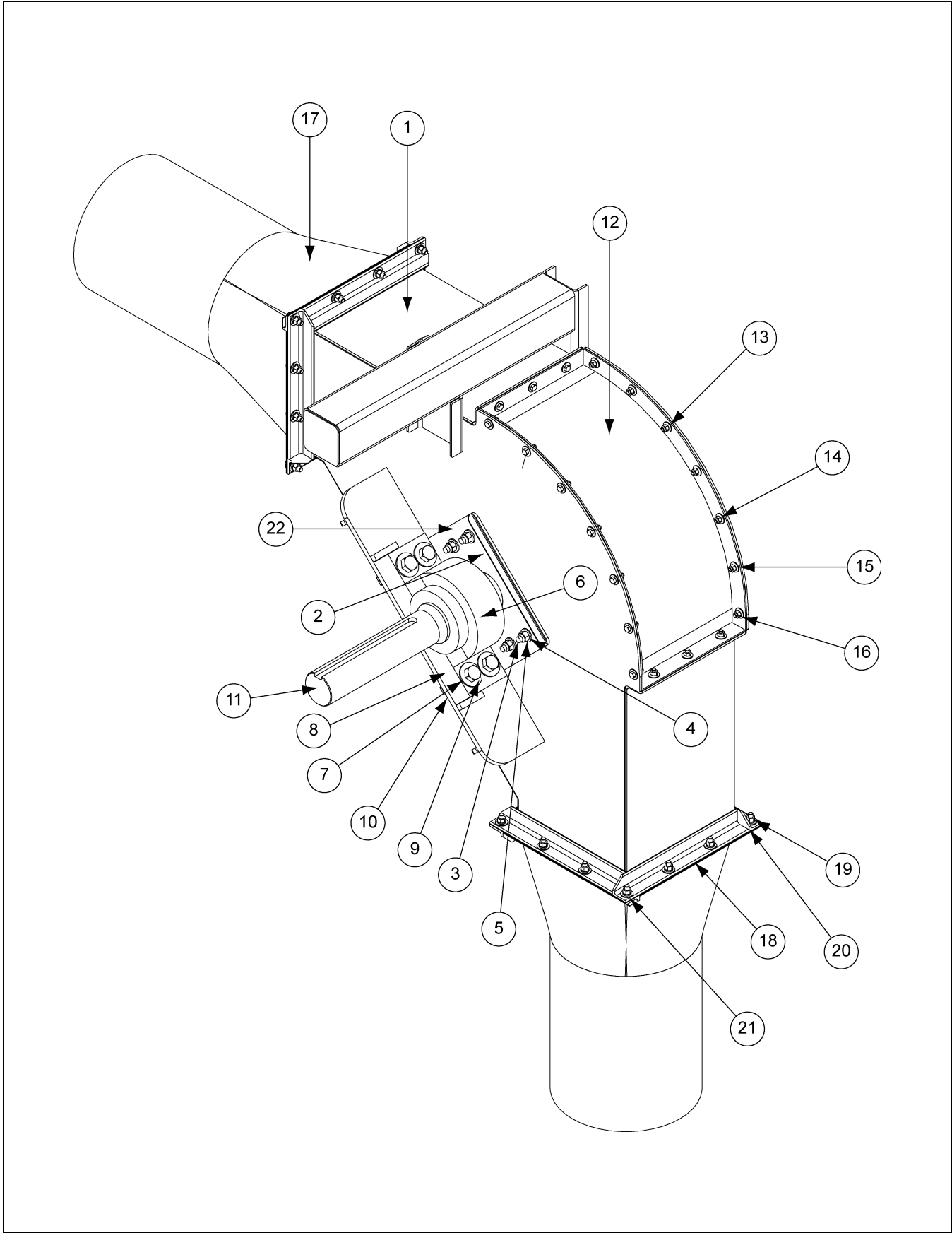
12" 7 Gauge (30 HP) Drive Components (8120000)



12" 7 Gauge (30 HP) Drive Components (8120000) Parts List

Ref #	Part #	Description	Qty
1	8120027	TA4 Drive Corner Weld - 12" Chain Loop	1
2	8120010	Corner Seal UHMW, 12" Chain Loop	2
3	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
4	S-8562	Flat Washer 1/2" GV	8
5	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
6	MHC01277	Bearing, Dodge# P4B-S2-307R	2
7	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
8	S-233	Split Lock Washer 3/4" MED ZN Grade 2 Zinc	8
9	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
10	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
11	8120011	Drive Shaft TA4, 12" Chain Loop	1
12	8120022	Corner Cover Weldment	1
13	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	40
14	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	20
15	S-1147	Split Lock Washer 5/16" ZN	20
16	S-396	Hex Nut 5/16"-18 YDP Grade 2	20
17	8120004	Square/Round Weldment - 7 Gauge	2
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
20	S-1054	Split Lock Washer 3/8" ZN	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1

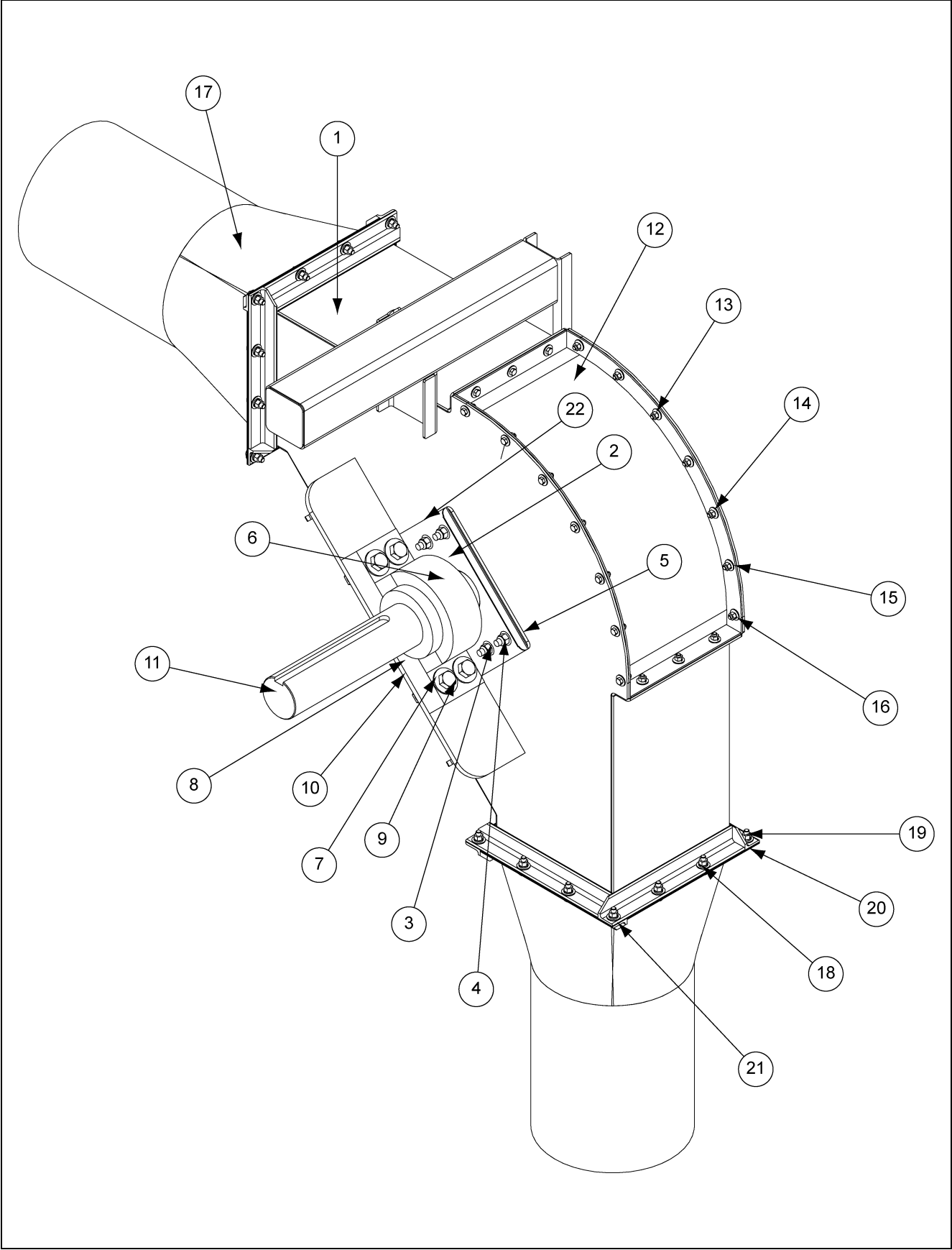
12" 7 Gauge (40 HP-50 HP) Drive Components (8120144)



12" 7 Gauge (40 HP-50 HP) Drive Components (8120144) Parts List

Ref #	Part #	Description	Qty
1	8120154	TA5 Drive Corner Weld - 12" Chain Loop	1
2	8120010	Corner Seal UHMW, 12" Chain Loop	2
3	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
4	S-8562	Flat Washer 1/2" GV	8
5	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
6	MHC01277	Bearing, Dodge# P4B-S2-307R	2
7	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
8	S-233	Split Lock Washer 3/4" Med ZN Grade 2 Zinc	8
9	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
10	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
11	8120148	Drive Shaft TA4, 12" Chain Loop	1
12	8120022	Corner Cover Weldment	1
13	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	40
14	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	20
15	S-1147	Split Lock Washer 5/16" ZN	20
16	S-396	Hex Nut 5/16"-18 YDP Grade 2	20
17	8120004	Square/Round Weldment - 7 Gauge	2
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-1054	Split Lock Washer 3/8" ZN	24
20	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1

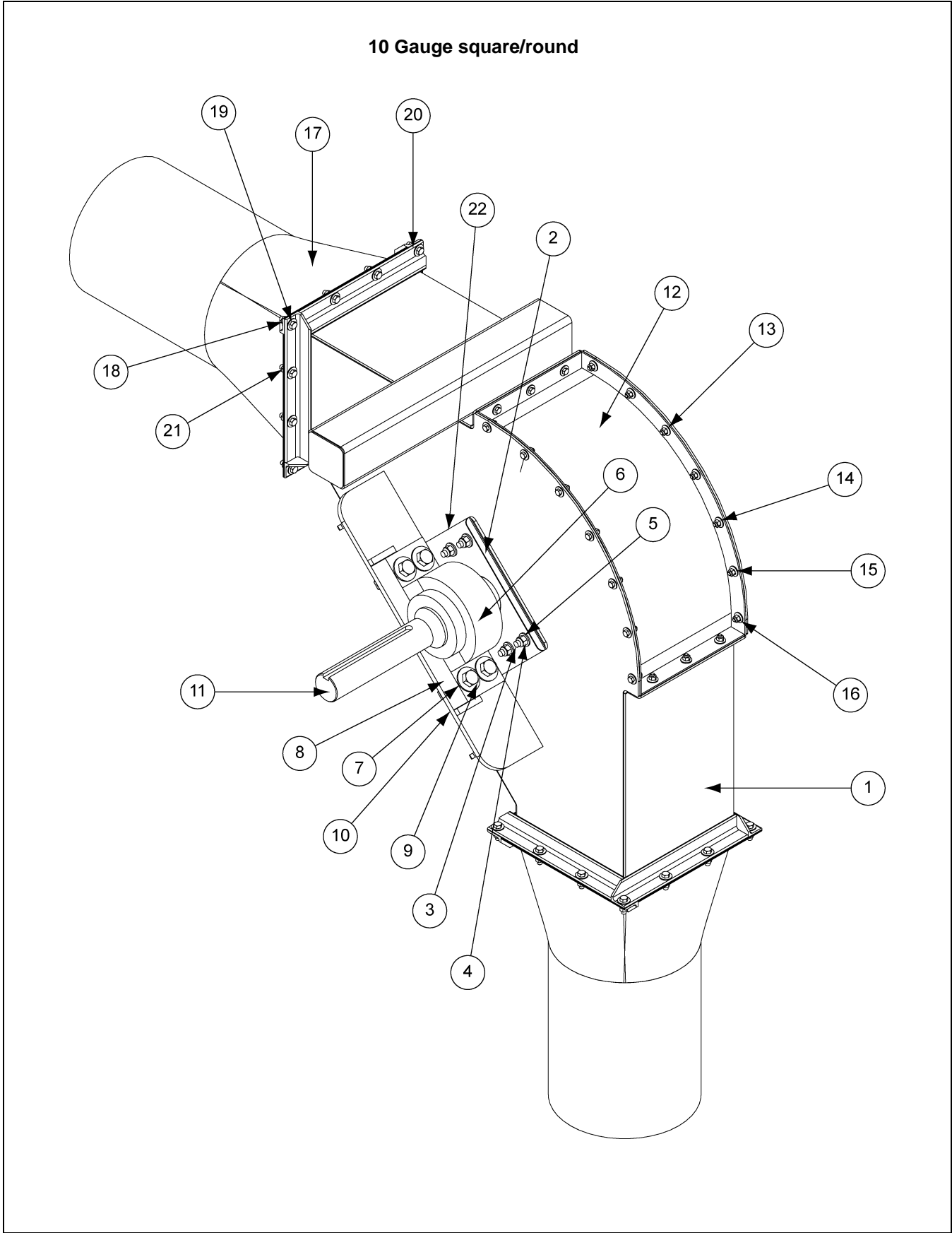
12" 7 Gauge (60 HP) Drive Components (8120163)



12" 7 Gauge (60 HP) Drive Components (8120163) Parts List

Ref #	Part #	Description	Qty
1	8120164	TA6 Drive Corner Weld - 12" Chain Loop	1
2	8120010	Corner Seal UHMW, 12" Chain Loop	2
3	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
4	S-8562	Flat Washer 1/2" GV	8
5	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
6	MHC01277	Bearing, Dodge# P4B-S2-307R	2
7	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
8	S-233	Split Lock Washer 3/4" MED ZN Grade 2 Zinc	8
9	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
10	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
11	8120165	Drive Shaft TA6, 12" Chain Loop	1
12	8120022	Corner Cover Weldment	1
13	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	40
14	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	20
15	S-1147	Split Lock Washer 5/16" ZN	20
16	S-396	Hex Nut 5/16"-18 YDP Grade 2	20
17	8120004	Square/Round Weldment - 7 Gauge	2
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-1054	Split Lock Washer 3/8" ZN	24
20	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1

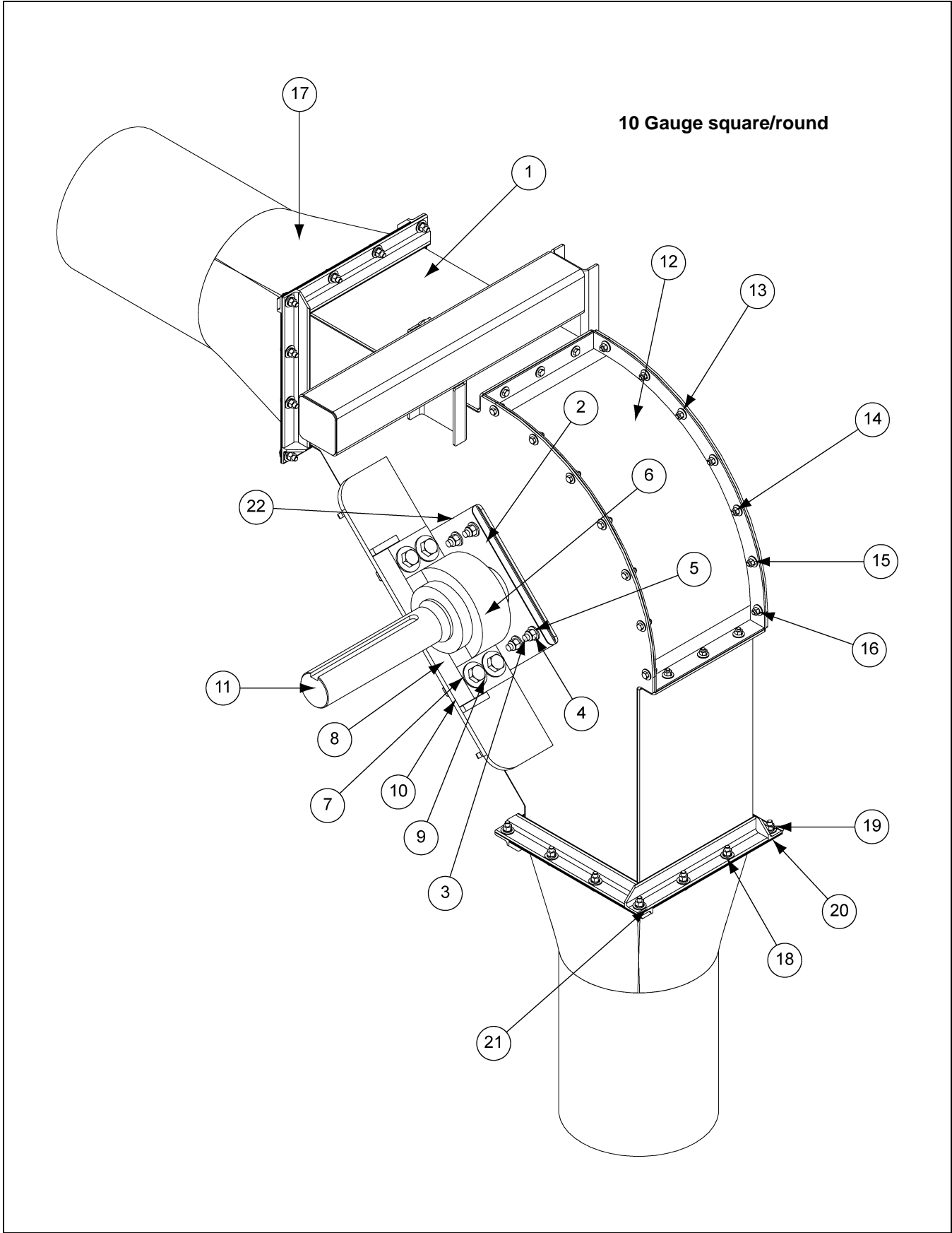
12" 10 Gauge (30 HP) Drive Components (8120175)



12" 10 Gauge (30 HP) Drive Components (8120175) Parts List

Ref #	Part #	Description	Qty
1	8120027	TA4 Drive Corner Weld - 12" Chain Loop	1
2	8120010	Corner Seal UHMW, 12" Chain Loop	2
3	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
4	S-8562	Flat Washer 1/2" GV	8
5	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
6	MHC01277	Bearing, Dodge# P4B-S2-307R	2
7	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
8	S-233	Split Lock Washer 3/4" MED ZN Grade 2 Zinc	8
9	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
10	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
11	8120011	Drive Shaft TA5, 12" Chain Loop	1
12	8120022	Corner Cover Weldment	1
13	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	40
14	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	20
15	S-1147	Split Lock Washer 5/16" ZN	20
16	S-396	Hex Nut 5/16"-18 YDP Grade 2	20
17	8120173	Square/Round Weldment - 10 Gauge	2
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
20	S-1054	Split Lock Washer 3/8" ZN	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1

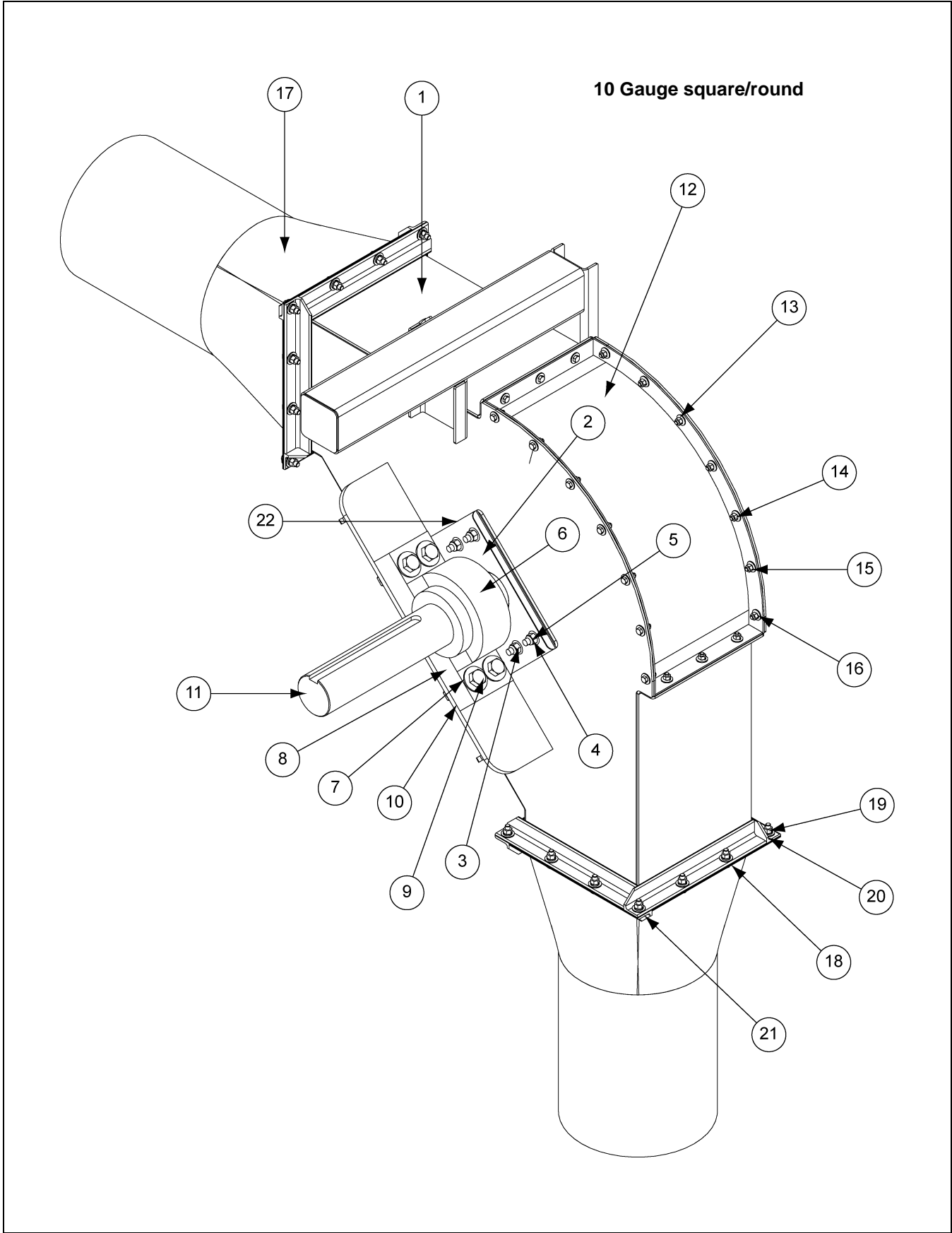
12" 10 Gauge (40 HP-50 HP) Drive Components (8120179)



12" 10 Gauge (40 HP-50 HP) Drive Components (8120179) Parts List

Ref #	Part #	Description	Qty
1	8120154	TA5 Drive Corner Weld - 12" Chain Loop	1
2	8120010	Corner Seal UHMW, 12" Chain Loop	2
3	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
4	S-8562	Flat Washer 1/2" GV	8
5	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
6	MHC01277	Bearing, Dodge# P4B-S2-307R	2
7	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
8	S-233	Split Lock Washer 3/4" MED ZN Grade 2 Zinc	8
9	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
10	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
11	8120148	Drive Shaft TA5, 12" Chain Loop	1
12	8120022	Corner Cover Weldment	1
13	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	40
14	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	20
15	S-1147	Split Lock Washer 5/16" ZN	20
16	S-396	Hex Nut 5/16"-18 YDP Grade 2	20
17	8120173	Square/Round Weldment - 10 Gauge	2
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-1054	Split Lock Washer 3/8" ZN	24
20	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1

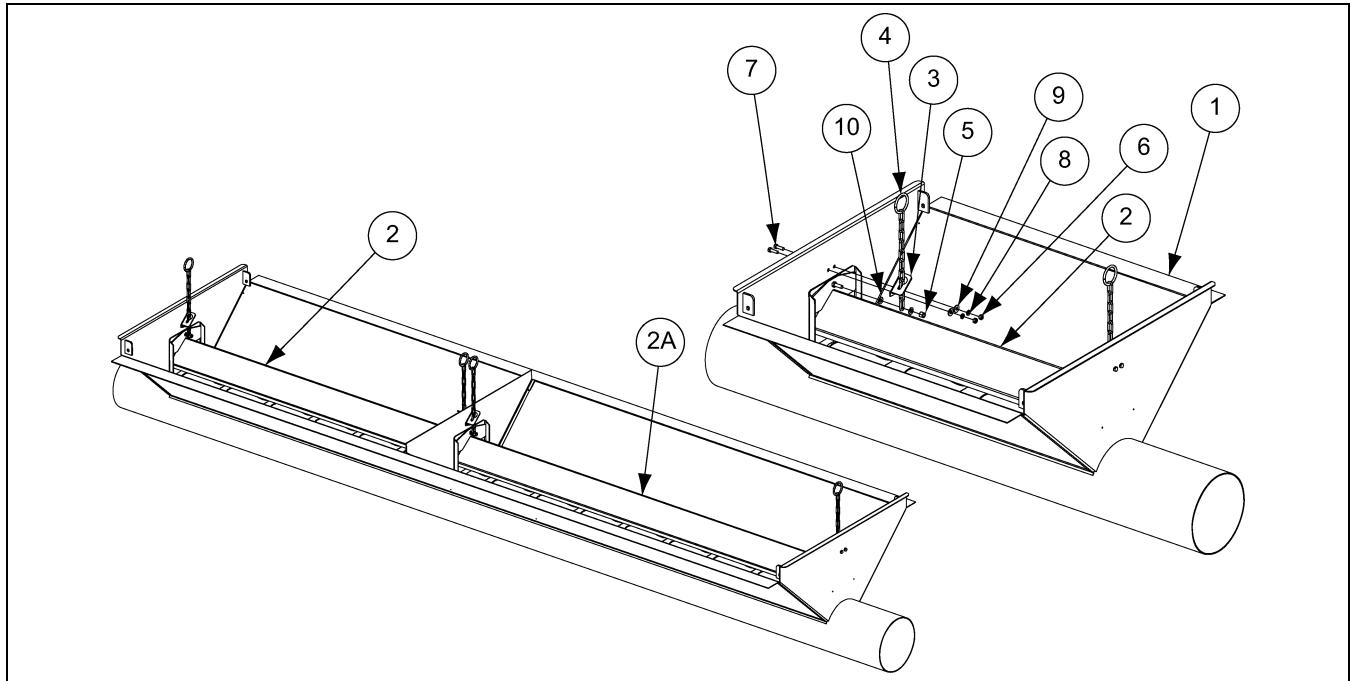
12" 10 Gauge (60 HP) Drive Components (8120180)



12" 10 Gauge (60 HP) Drive Components (8120180) Parts List

Ref #	Part #	Description	Qty
1	8120164	TA6 Drive Corner Weld - 12" Chain Loop	1
2	8120010	Corner Seal UHMW, 12" Chain Loop	2
3	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
4	S-8562	Flat Washer 1/2" GV	8
5	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
6	MHC01277	Bearing, Dodge# P4B-S2-307R	2
7	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
8	S-233	Split Lock Washer 3/4" MED ZN Grade 2 Zinc	8
9	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
10	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
11	8120165	Drive Shaft TA6, 12" Chain Loop	1
12	8120022	Corner Cover Weldment	1
13	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	40
14	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	20
15	S-1147	Split Lock Washer 5/16" ZN	20
16	S-396	Hex Nut 5/16"-18 YDP Grade 2	20
17	8120173	Square/Round Weldment - 10 Gauge	2
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-1054	Split Lock Washer 3/8" ZN	24
20	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1

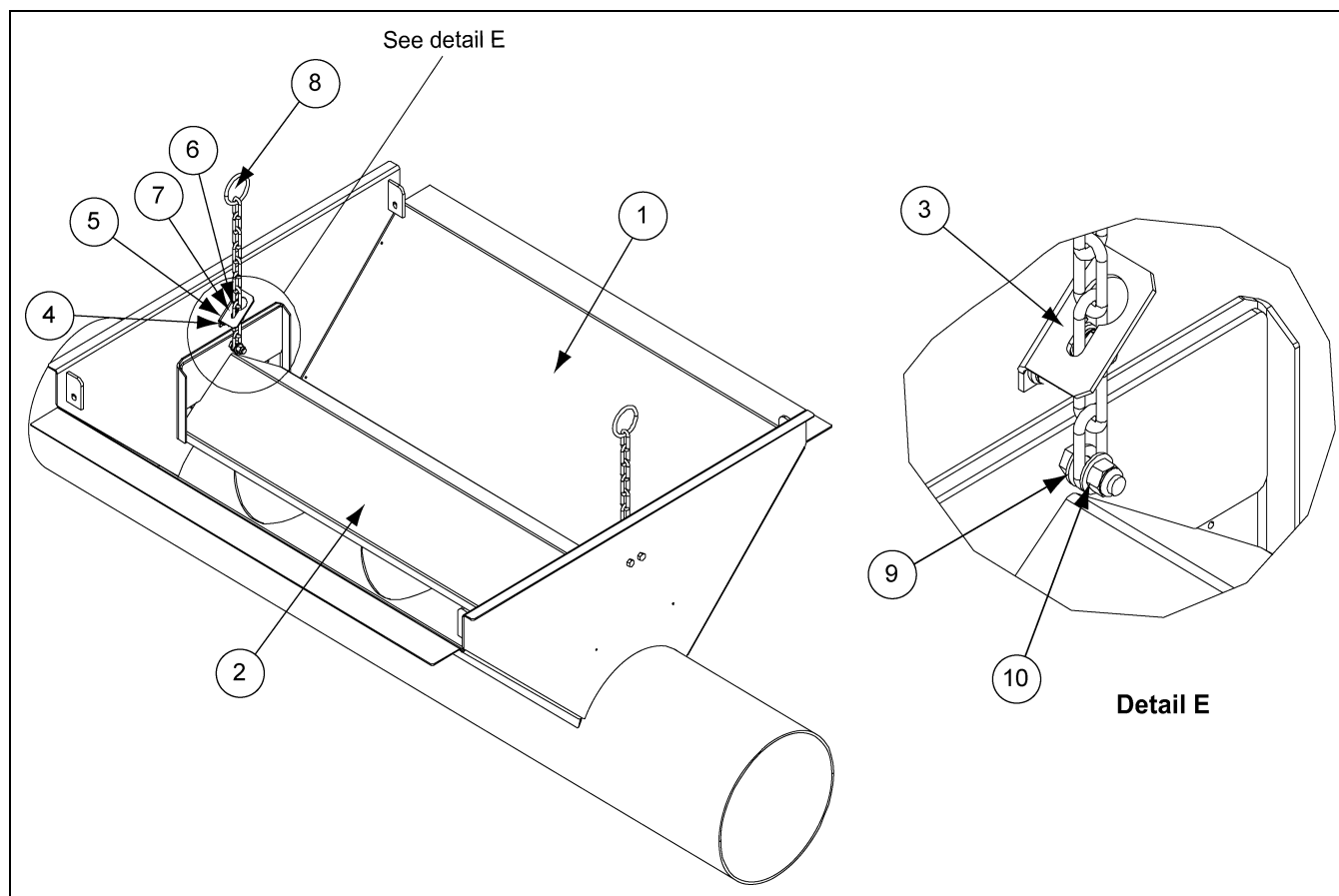
8" and 10" Inlet Dump Hoppers



8" and 10" Inlet Dump Hoppers Parts List

Ref #	Part #	Description	Qty
1	8081110	8" Inlet Dump Hopper Weldment (42-1/2" Long)	1
1	8081111	8" Inlet Dump Hopper Weldment (62-1/2" Long)	1
1	8081112	8" Inlet Dump Hopper Weldment (102-1/2" Long)	1
1	8081113	8" Inlet Dump Hopper Weldment (144-1/2" Long)	1
1	8081167	8" Inlet Dump Hopper Weldment (125" Long)	1
1	8101110	10" Inlet Dump Hopper Weldment (42-1/2" Long)	1
1	8101111	10" Inlet Dump Hopper Weldment (62-1/2" Long)	1
1	8101112	10" Inlet Dump Hopper Weldment (102-1/2" Long)	1
1	8101113	10" Inlet Dump Hopper Weldment (144-1/2" Long)	1
2	8081127	Shield-Center, 42" Long 8" Inlet Dump Hopper Weldment	1
2 2A	8081128	Shield-Center, 62" Long 8" Inlet Dump Hopper Weldment	1
2A	8081129	Shield-Center, 81-1/2" Long 8" Inlet Dump Hopper Weldment	1
2	8081130	Shield-Center, 102" Long 8" Inlet Dump Hopper Weldment	1
2	8101127	Shield-Center, 42" Long 10" Inlet Dump Hopper Weldment	1
2	8101128	Shield-Center, 62" Long 10" Inlet Dump Hopper Weldment	1
2A	8101129	Shield-Center, 81-1/2" Long 10" Inlet Dump Hopper Weldment	1
2	8101130	Shield-Center, 102" Long 10" Inlet Dump Hopper Weldment	1
3	8101137	Bracket, Chain Support Inlet Dump Hopper	2
4	8101138	Weldment, Center Shield Chain	2
5	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	2
6	S-396	Hex Nut 5/16"-18 YDP Grade 2	4
7	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	4
8	S-1147	Split Lock Washer 5/16" ZN	4
9	S-1937	Flat Washer 5/16" ZN SAE Grade 2	4
10	S-7409	Flat Washer 3/8" SAE ZN Grade 2	4

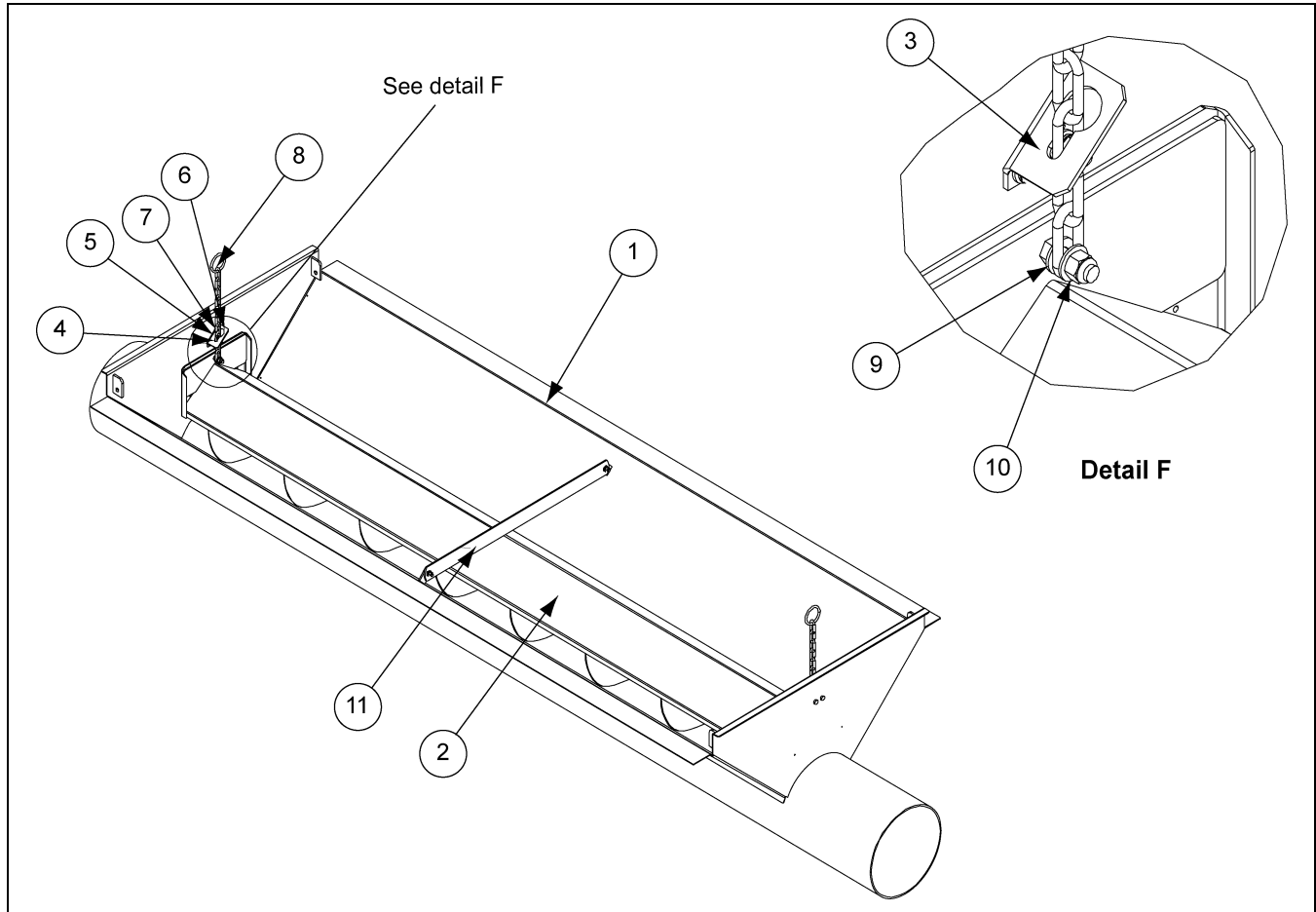
12" (7 Gauge) 42-1/2" Inlet Dump Hoppers (8120121)



12" (7 Gauge) 42-1/2" Inlet Dump Hoppers (8120121) Parts List

Ref #	Part #	Description	Qty
1	8120112	Dump Hopper Weldment 7 Gauge 42-1/2"	1
2	8120119	Center Shield Weldment 42-1/2"	1
3	8101137	Bracket, Chain Support	2
4	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	4
5	S-1937	Flat Washer 5/16" ZN SAE Grade 2	4
6	S-1147	Split Lock Washer 5/16" ZN	4
7	S-396	Hex Nut 5/16"-18 YDP Grade 2	4
8	8101138	Weldment, Center Shield Chain	2
9	S-7409	Flat Washer 3/8" SAE ZN Grade 2	4
10	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	2

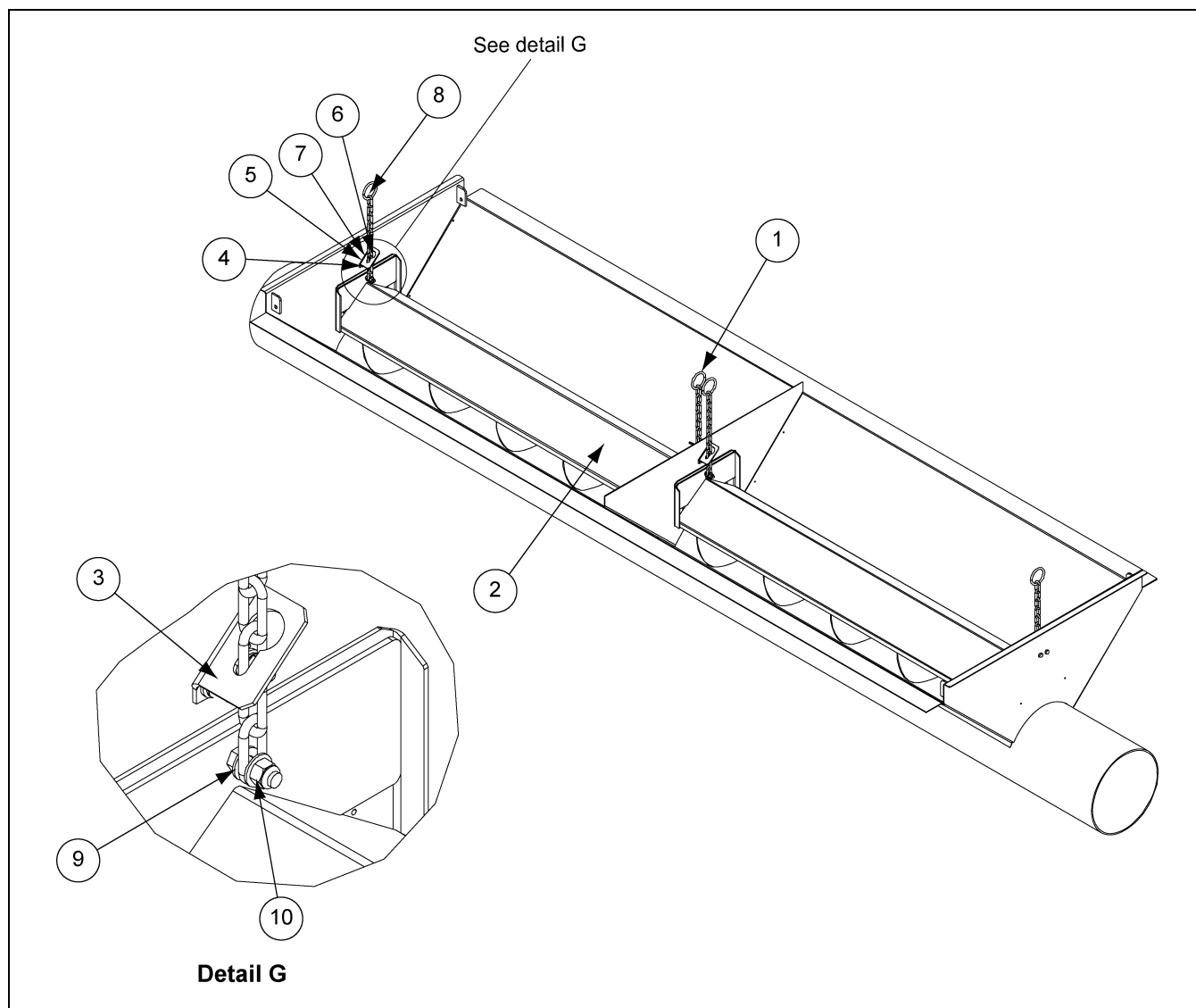
12" (7 Gauge) 102-1/2" Inlet Dump Hoppers (8120127)



12" (7 Gauge) 102-1/2" Inlet Dump Hoppers (8120127) Parts List

Ref #	Part #	Description	Qty
1	8120125	Dump Hopper Weldment 7 Gauge 102-1/2"	1
2	8120122	Center Shield Weldment 102-1/2"	1
3	8101137	Bracket, Chain Support	2
4	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	6
5	S-1937	Flat Washer 5/16" ZN SAE Grade 2	6
6	S-1147	Split Lock Washer 5/16" ZN	6
7	S-396	Hex Nut 5/16"-18 YDP Grade 2	6
8	8101138	Weldment, Center Shield Chain	2
9	S-7409	Flat Washer 3/8" SAE ZN Grade 2	4
10	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	2
11	8120128	Brace, 12" Dump Hopper Center	1

12" (7 Gauge) 122-1/2" Inlet Dump Hoppers (8120134)

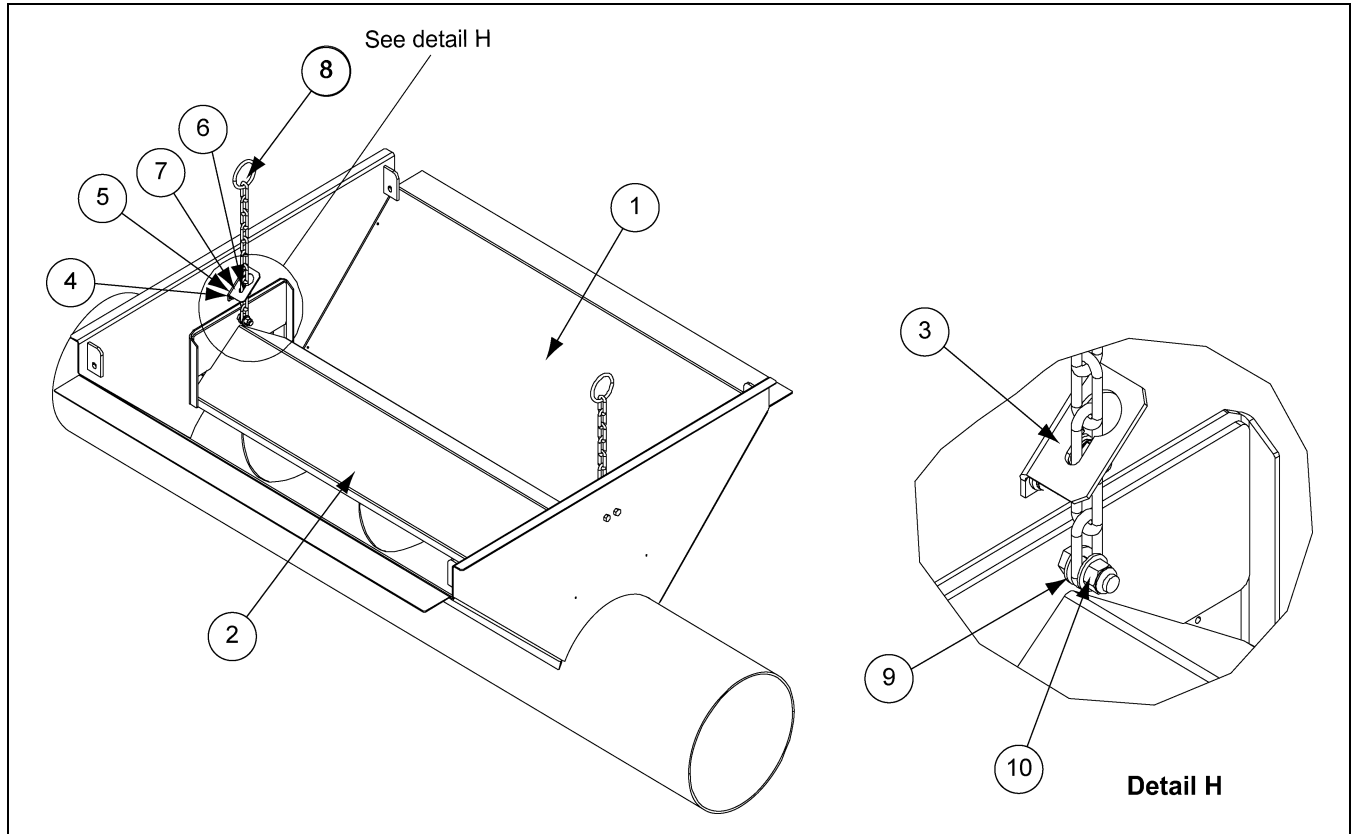


12" (7 Gauge) 122-1/2" Inlet Dump Hoppers (8120134) Parts List

Ref #	Part #	Description	Qty
1	8120132	Dump Hopper Weldment 7 Gauge 122-1/2"	1
2	8120129	Center Shield Weldment 122-1/2"	2
3	8101137	Bracket, Chain Support	4
4	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	6
5	S-1937	Flat Washer 5/16" ZN SAE Grade 2	6
6	S-1147	Split Lock Washer 5/16" ZN	6
7	S-396	Hex Nut 5/16"-18 YDP Grade 2	6
8	8101138	Weldment, Center Shield Chain	4
9	S-7409	Flat Washer 3/8" SAE ZN Grade 2	8
10	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	4

10. Parts List

12" (10 Gauge) 42-1/2" Inlet Dump Hoppers (8120185)

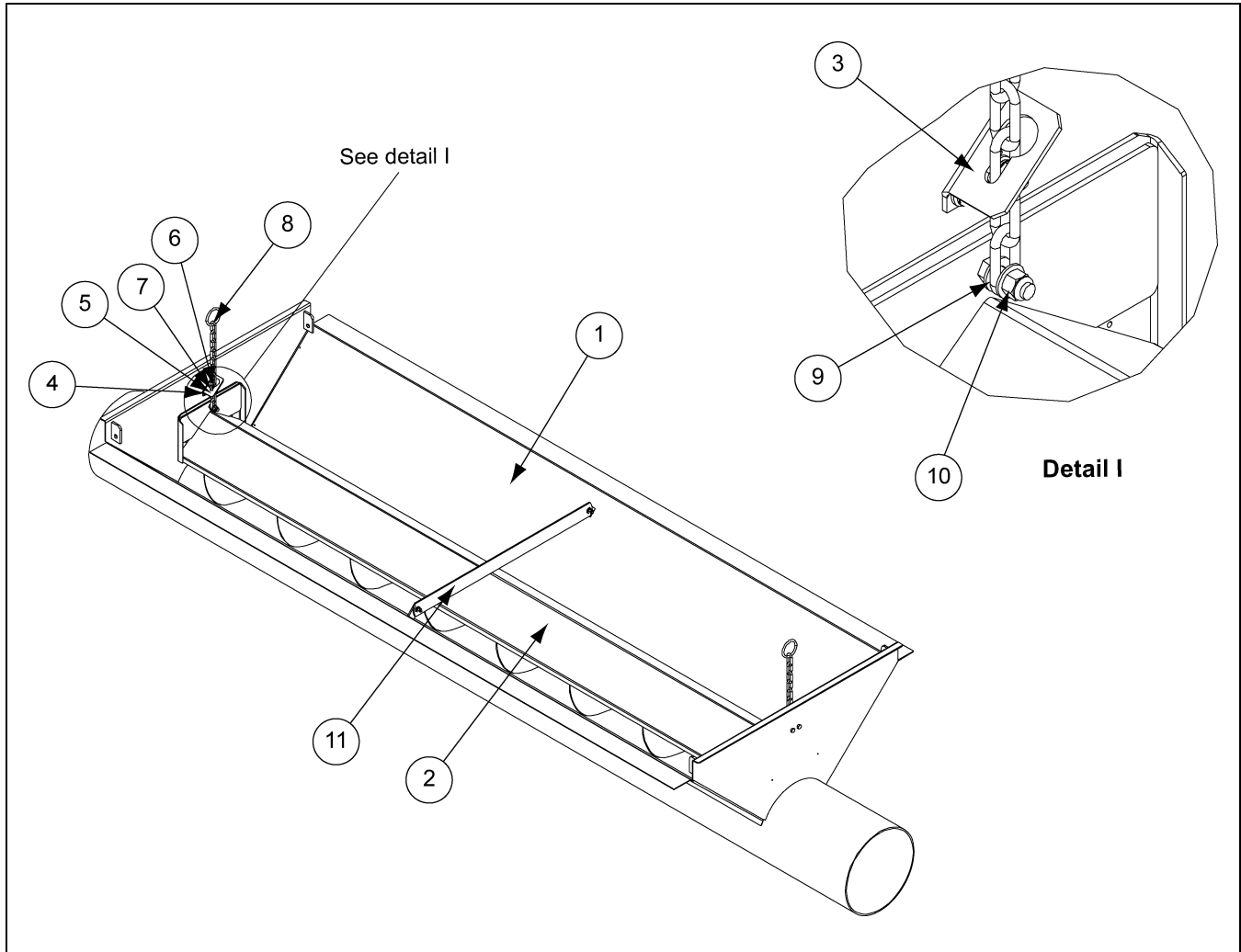


12" (10 Gauge) 42-1/2" Inlet Dump Hoppers (8120185) Parts List

Ref #	Part #	Description	Qty
1	8120188	Dump Hopper Weldment 10 Gauge 42-1/2"	1
2	8120119	Center Shield Weldment 42-1/2"	1
3	8101137	Bracket, Chain Support	2
4	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	4
5	S-1937	Flat Washer 5/16" ZN SAE Grade 2	4
6	S-1147	Split Lock Washer 5/16" ZN	4
7	S-396	Hex Nut 5/16"-18 YDP Grade 2	4
8	8101138	Weldment, Center Shield Chain	2
9	S-7409	Flat Washer 3/8" SAE ZN Grade 2	4
10	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	2

NOTES

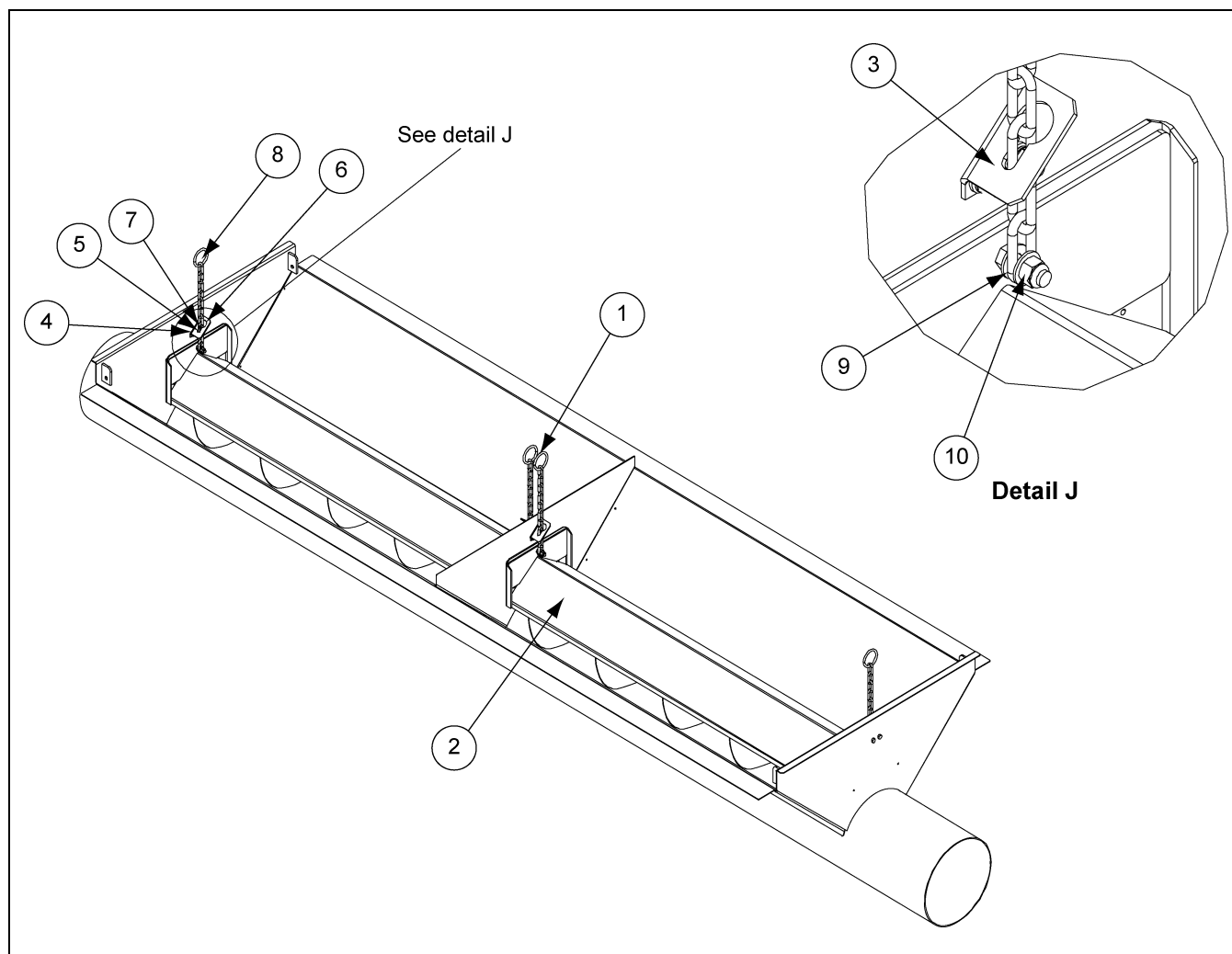
12" (10 Gauge) 102-1/2" Inlet Dump Hoppers (8120186)



12" (10 Gauge) 102-1/2" Inlet Dump Hoppers (8120186) Parts List

Ref #	Part #	Description	Qty
1	8120189	Dump Hopper Weldment 10 Gauge 102-1/2"	1
2	8120122	Center Shield Weldment 102-1/2"	1
3	8101137	Bracket, Chain Support	2
4	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	6
5	S-1937	Flat Washer 5/16" ZN SAE Grade 2	6
6	S-1147	Split Lock Washer 5/16" ZN	6
7	S-396	Hex Nut 5/16"-18 YDP Grade 2	6
8	8101138	Weldment, Center Shield Chain	2
9	S-7409	Flat Washer 3/8" SAE ZN Grade 2	4
10	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	2
11	8120128	Brace, 12" Dump Hopper Center	1

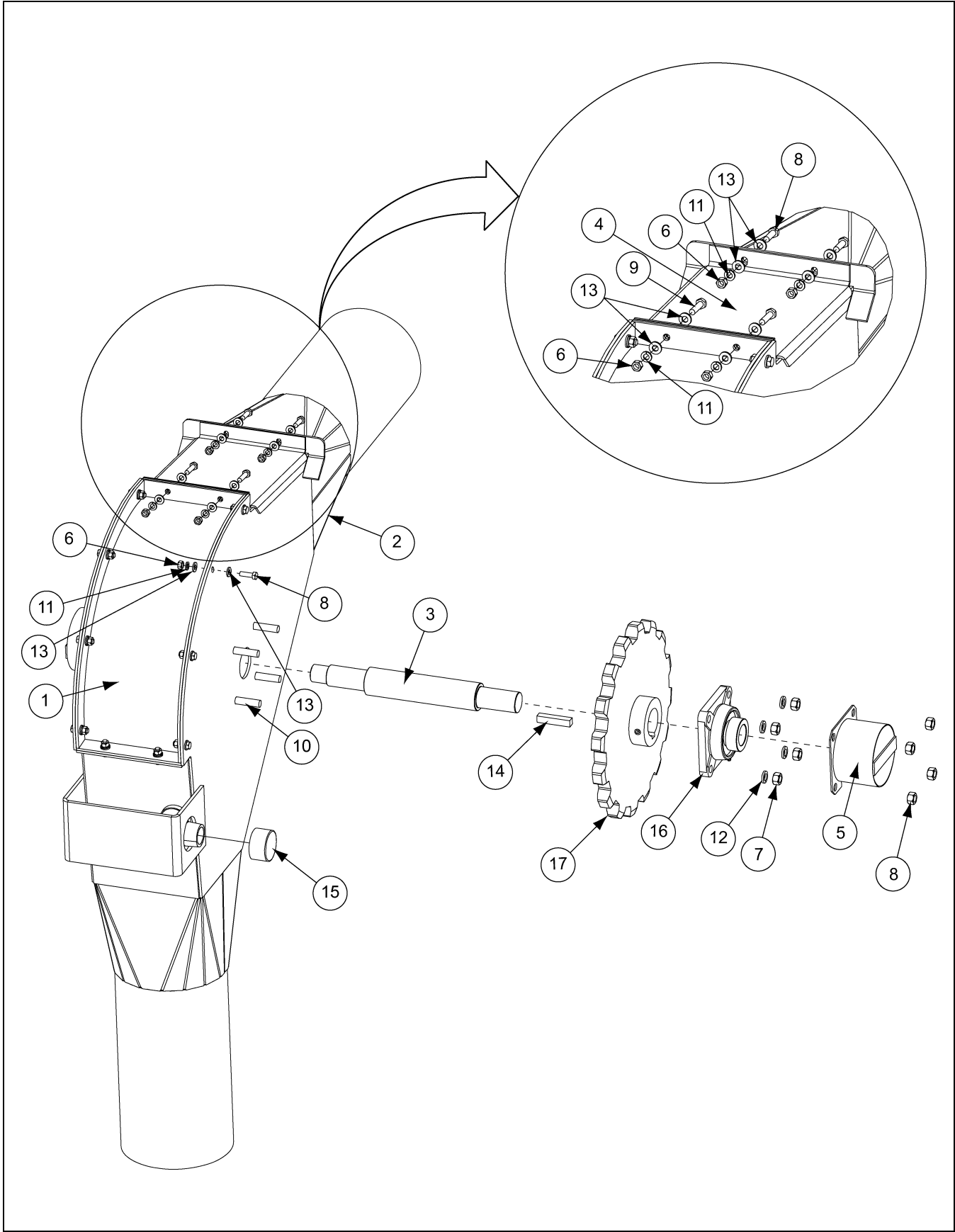
12" (10 Gauge) 122-1/2" Inlet Dump Hoppers (8120187)



12" (10 Gauge) 122-1/2" Inlet Dump Hoppers (8120187) Parts List

Ref #	Part #	Description	Qty
1	8120190	Dump Hopper Weldment 10 Gauge 122-1/2"	1
2	8120129	Center Shield Weldment 122-1/2"	2
3	8101137	Bracket, Chain Support	4
4	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	6
5	S-1937	Flat Washer 5/16" ZN SAE Grade 2	6
6	S-1147	Split Lock Washer 5/16" ZN	6
7	S-396	Hex Nut 5/16"-18 YDP Grade 2	6
8	8101138	Weldment, Center Shield Chain	4
9	S-7409	Flat Washer 3/8" SAE ZN Grade 2	8
10	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	4

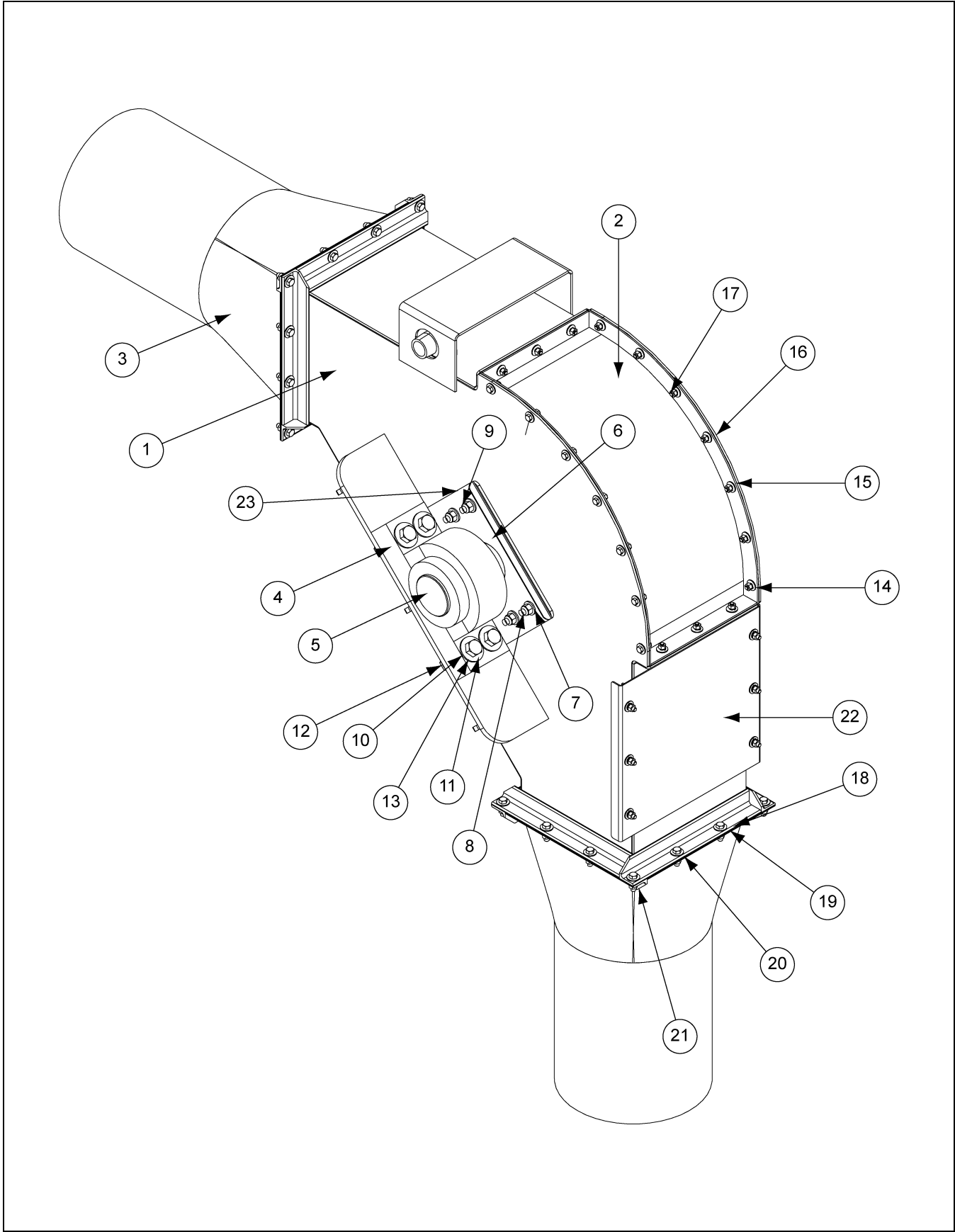
8" and 10" Standard Corner



8" and 10" Standard Corner Parts List

Ref #	Part #	Description	Qty
1	8081009	Weld, 8" Drive/Stand Corner Inspection Door	1
1	8101009	Door-Inspection, Weldment	1
2	8081022	8" Corner-Standard, 8" Weldment Hot Dipped 8081023	1
2	8101022	10" Corner-Standard, 10" Weldment Hot Dipped 8101023	1
3	8081029	8" Shaft-Corner, 8" Standard/Inspection Corner	1
3	8101029	10" Shaft-Corner, 10" Standard/Inspection Corner	1
4	8081032	Access Door, 8" Standard Corner	1
4	8101032	Access Door, 10" Standard Corner	1
5	8081196	8" Cover-Bearing Shield Zinc Plated 8081197	2
5	8101196	10" Cover-Bearing Shield Zinc Plated 8101197	2
6		Hex Nut, 5/16"-18 UNC Finished, Plated, Grade 2	14
7		Hex Nut, 1/2"-13 UNC Finished, Plated, Grade 2	16
8		Hex Bolt, Standard Third-Grade 5 5/16"-18 UNC x 1", Plated	12
9		Hex Bolt, Standard Third-Grade 5 5/16"-18 UNC x 1-1/4", Plated	2
10		Hex Bolt, Standard Third-Grade 5 1/2"-13 UNC x 2, Plated	8
11		Lock Washer, Regular 5/16", Plated	14
12		Lock Washer, Regular 1/2", Plated	8
13		Flat Washer, SAE 5/16", Plated	28
14		Key-Square, 1/2" x 2-1/2"	1
15		Fit-Cap, Pipe 1-1/2", (SCH 40)	1
16	PT0145	8" Bearing with Housing, 1-1/2" ECC LK, Wide, RL, CYL, 4H	2
16	PT0144	10" Bearing with Housing, 2" ECC LK, Wide, RL, CYL, 4H	2
17	PT1093	8" Sprocket (Hub Type) 16 Tooth, 2" I.D., 81XH	1
17	PT1086	Sprocket, (Hub Type) 3" I.D.	1

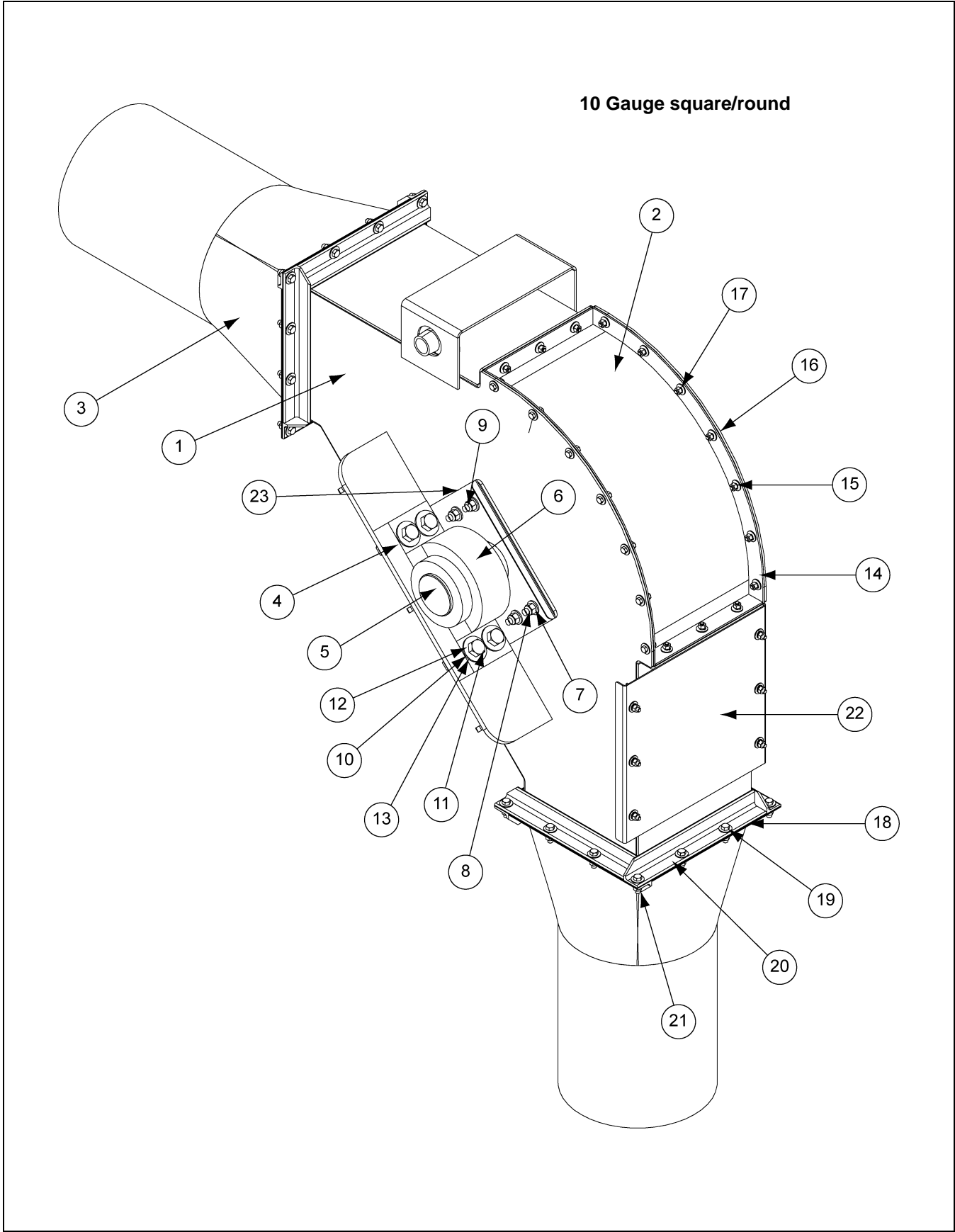
12" (7 Gauge) Standard Corner (8120031)



12" (7 Gauge) Standard Corner (8120031) Parts List

Ref #	Part #	Description	Qty
1	8120030	Standard Corner Weldment	1
2	8120022	Corner Cover Weldment	1
3	8120004	Square/Round Weldment - 7 Gauge	2
4	MHC01277	Bearing, Dodge# P4B-S2-307R	2
5	8120032	Shaft, Standard Corner	1
6	8120010	Corner Seal UHMW, 12" Chain Loop	2
7	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
8	S-8562	Flat Washer 1/2 GV	8
9	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
10	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
11	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
12	S-233	Split Lock Washer 3/4" Med ZN Grade 2	8
13	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
14	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	52
15	S-1147	Split Lock Washer 5/16" ZN	26
16	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	26
17	S-396	Hex Nut 5/16"-18 YDP Grade 2	26
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
20	S-1054	Split Lock Washer 3/8" ZN	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120099	Door, Standard Corner Inspection	1
23	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1
N/S	S-2052	Strip, Foam 1/8" Thick x 1/2" Wide	4.083'

12" (10 Gauge) Standard Corner (8120176)



12" (10 Gauge) Standard Corner (8120176) Parts List

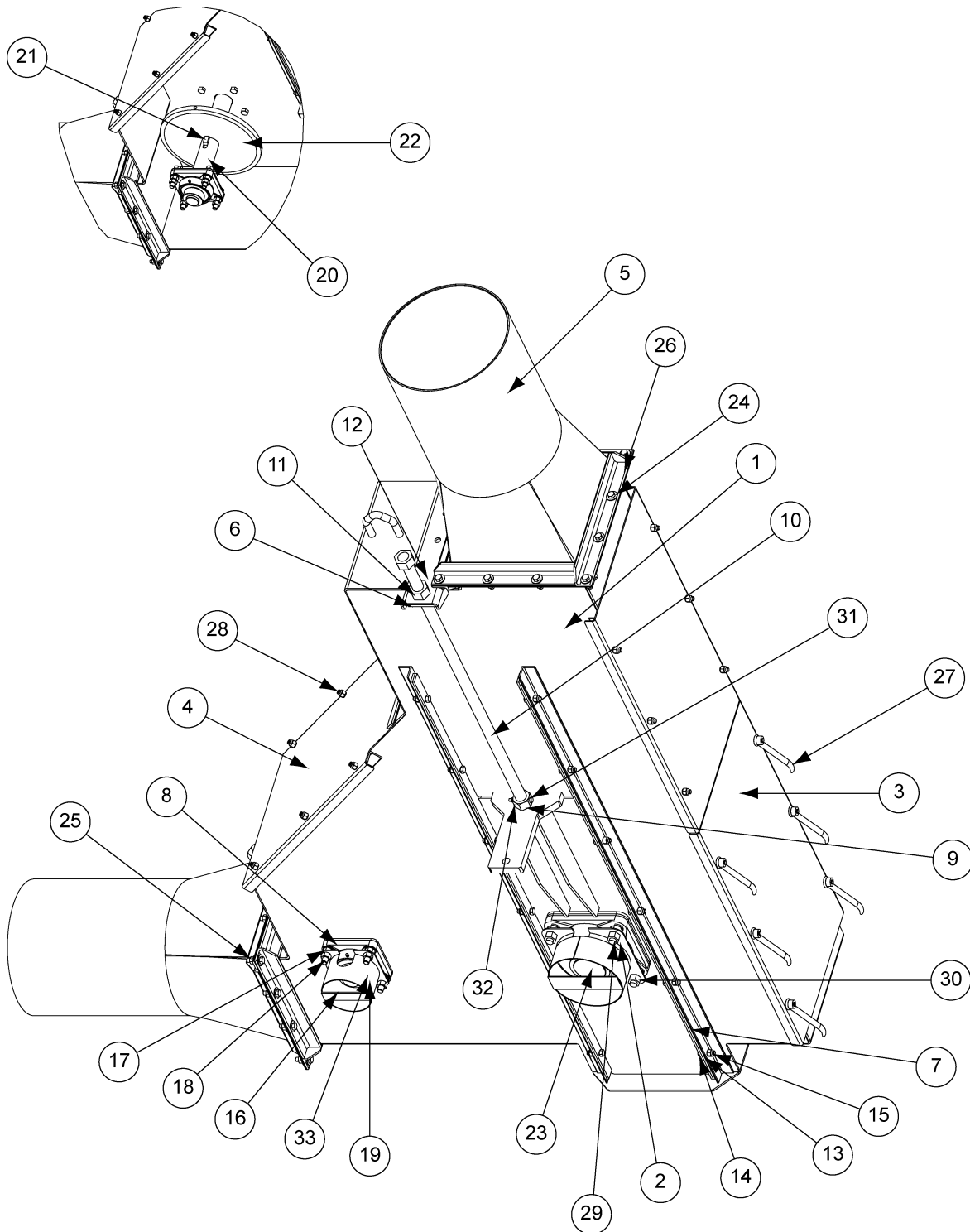
Ref #	Part #	Description	Qty
1	8120030	Standard Corner Weldment	1
2	8120022	Corner Cover Weldment	1
3	8120173	Square/Round Weldment - 10 Gauge	2
4	MHC01277	Bearing, Dodge# P4B-S2-307R	2
5	8120032	Shaft, Standard Corner	1
6	8120010	Corner Seal UHMW, 12" Chain Loop	2
7	S-8760	Bolt, HHCS 1/2"-13 x 1-1/2" ZN Grade 5	8
8	S-8562	Flat Washer 1/2 GV	8
9	S-8260	Nylock Nut 1/2"-13 ZN Grade 5	8
10	S-866	Flat Washer 3/4" USS ZN Flat Grade 2	16
11	S-7884	Bolt, HHCS 3/4"-10 x 4 Grade 8	8
12	S-233	Split Lock Washer 3/4" Med ZN Grade 2	8
13	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated	8
14	S-845	Flat Washer 5/16" USS SAE YDP Grade 2	52
15	S-1147	Split Lock Washer 5/16" ZN	26
16	S-1196	Bolt, HHCS 5/16"-18 x 1" ZN Grade 5	26
17	S-396	Hex Nut 5/16"-18 YDP Grade 2	26
18	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
19	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	24
20	S-1054	Split Lock Washer 3/8" ZN	24
21	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
22	8120099	Door, Standard Corner Inspection	1
23	8120170	Cover, Plate for UHMW Bearing Seal	2
N/S	PT1529	Sprocket, 22 Tooth, 3-7/16" B, 81 x HH C-Hub	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1
N/S	S-2052	Strip, Foam 1/8" Thick x 1/2" Wide	4.083'



8" and 10" Inspection Corner Parts List

Ref #	Part #	Description	Qty
1	8081029	8" Shaft-Corner, 8" Standard/Inspection Corner	1
1	8101029	10" Shaft-Corner, 10" Standard/Inspection Corner	1
2	8081049	Corner-Inspection, 8" Weldment Hot Dipped 8081050	1
2	8101049	Corner-Inspection, 10" Weldment Hot Dipped 8081050	1
3	8081063	Door-Inspection, 45° 8" Inspection Corner	1
3	8101063	Door-Inspection, 45° 10" Inspection Corner	1
4	8081065	Door-Inspection, Long 8" Inspection Corner	1
4	8101065	Door-Inspection, Long 10" Inspection Corner	1
5	8081067	Door-Inspection, Short 8" Inspection Corner	1
5	8101067	Door-Inspection, Short 10" Inspection Corner	1
6	8081078	Slide Plate, 56" Long (8") Hot Dipped 8081079	8
6	8101078	Slide Plate, 57" Long (10") Hot Dipped 8101079	8
7	8081080	Shaft-Inspection Corner, 8" Inspection Corner	1
7	8101080	Shaft-Inspection Corner, 10" Inspection Corner	1
8	8081196 (for PT0145)	8" Cover-Bearing Shield Zinc Plated 8081197	4
8a	8101196 (for PT0144)	10" Cover-Bearing Shield Zinc Plated 8101197	2
9	8101075	Take Up Screw-Weldment 6", 8" and 10" Inspection Corner	2
10	8101077	Take Up Screw-Nut 6", 8", 10" Inspection Corner	4
11	8101202	Take Up Screw - Block	2
12	1FH0582	Nut Handle, Iron 3/8"-16, Zinc Plated	4
13		Lock Nut, 3/8"-16 UNC Nylon Lock, Plated, Grade 2	46
14		Lock Nut, 1/4"-20 UNC Two-way, Plated, Grade 2	4
15		Hex Nut, 1/2"-13 UNC Finished, Plated, Grade 2	32
16		Hex Nut, 1-8 UNC Finished, Plated, Grade 2	2
17	8" System	Bolt-Plow, #3 Head, RD, CSK 1/2"-13 UNC x 2-1/2", SQ Neck	8
17	10" System	Bolt-Plow, #3 Head, RD, CSK 5/8"-11 UNC x 3", SQ Neck	8
18		Screw-Flange Whiz Lock 3/8"-16 UNC x 1, Plated	4
19		Screw-Flange Whiz Lock 5/16"-18 UNC x 3/4", Plated	4
20		Hex Bolt, Standard Third-Grade 5 1/4"-20 UNC x 1-3/4", Plated	4
21		Hex Bolt, Standard Third-Grade 5 3/8"-16 UNC x 1, Plated	22
22		Hex Bolt, Standard Third-Grade 5 3/8"-16 UNC x 1-1/4, Plated	24
23		Hex Bolt, Standard Third-Grade 5 1/2"-13 UNC x 2, Plated	8
24		Lock Washer, Regular 1/2", Plated	16
25		Flat Washer, Standard 3/8", Plated	92
26		Key-Square, 1/2" x 2-1/2"	2
27	PT0145	8" Bearing with Housing, 1-1/2" ECC LK, Wide, RL, CYL, 4H	4
27	PT0144	10" Bearing with Housing, 2" ECC LK, Wide, RL, CYL, 4H	2
28	PT1087	Idler Wheel - 8" and 10" Inspection Corner	1
29	PT1093	8" Sprocket (Hub Type) 16 Tooth, 2" I.D., 81XH	1
29	PT1086	Sprocket-(Hub Type) 16 Tooth, 3" I.D., 81XH	1

12" (7 Gauge) Inspection Corner (8120051)

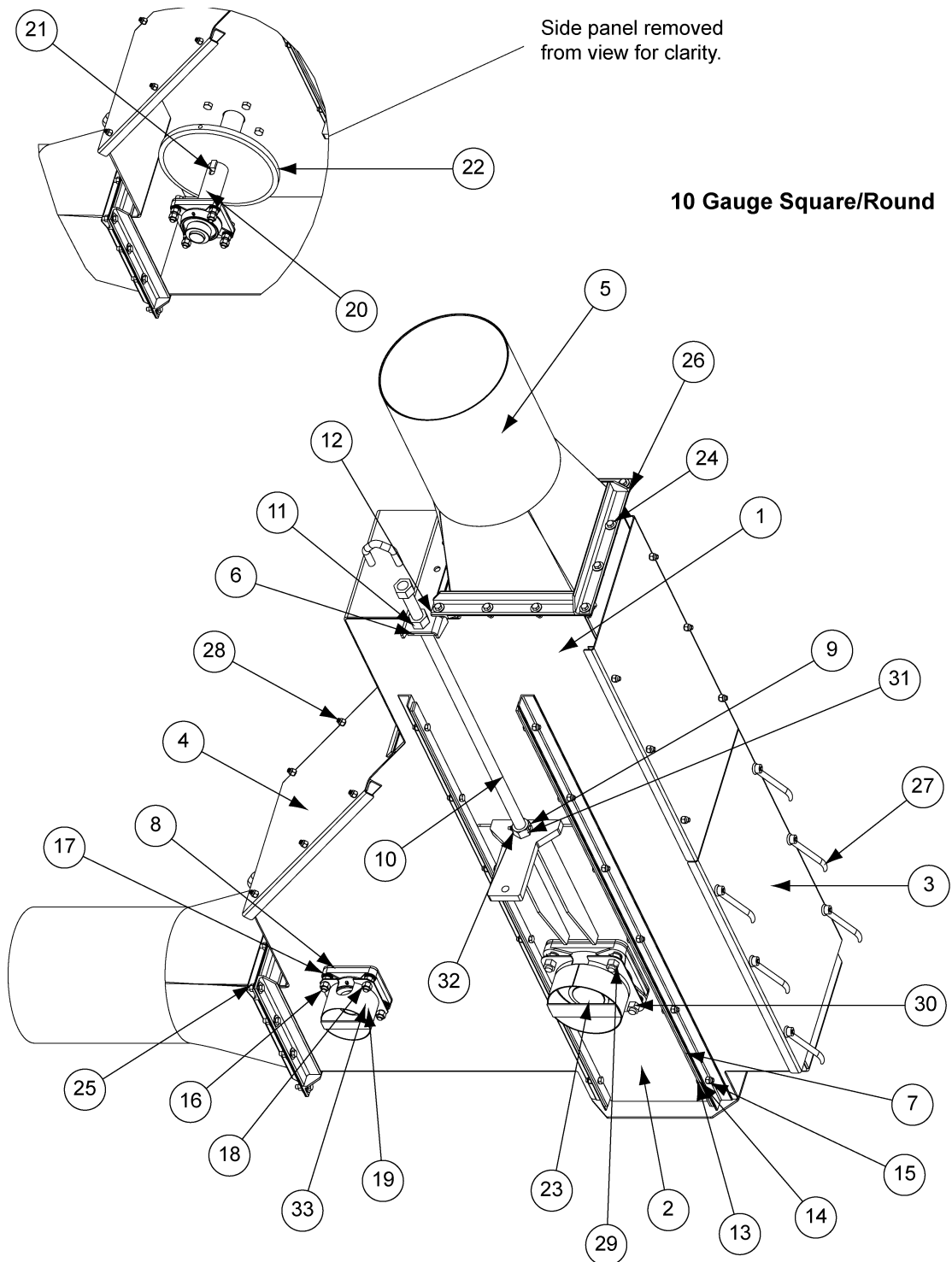


NOTE: Drill 1/4" hole through the nut (S-240) and threaded rod and fasten with bolt (S-8971) and nut (S-4310). Typical four (4) places.

12" (7 Gauge) Inspection Corner (8120051) Parts List

Ref #	Part #	Description	Qty
1	8120034	Inspection Corner Weldment	1
2	8120062	GTU Slide Assembly	2
3	8120050	Sprocket Cover - Inspection Corner	2
4	8120048	Idler Cover	1
5	8120004	Square/Round Weldment - 7 Gauge	2
6	8101202	Take Up Screw - Block	2
7	8081078	Slide Plate 56" Long (8") Hot Dipped 8081079	8
8	PT0145	8" Bearing with Housing, 1-1/2" ECC LK, Wide, RL, CYL, 4H	2
9	8101077	Take Up Screw-Nut 6", 8", 10" Inspection Corner	4
10	8120052	Standard Take Up Screw - Weldment	2
11	S-240	Hex Nut 1"-8" ZN Grade 5	2
12	S-6606	Flange Bolt 5/16"-18 x 3/4" ZN Grade 5	4
13	S-7409	Flat Washer 3/8" SAE ZN Grade 2	88
14	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	48
15	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	40
16	S-6500	Bolt, HHCS 1/2"-13 x 2-1/2" ZN Grade 5	8
17	S-236	1/2" Lock Washer	8
18	S-3729	Hex Nut 1/2"-13 YDP Grade 5	16
19	8081196	8" Cover-Bearing Shield Zinc Plated 8081197	2
20	8120054	Idler Shaft - Inspection Corner	1
21	S-9167	Key - Square, 1/2" x 1/2" x 2-1/2"	1
22	8120242	Idler Wheel	1
23	8120055	Shaft - Inspection Corner	1
24	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
25	S-1054	Split Lock Washer 3/8" ZN	24
26	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
27	BC-00003	Handle, Easy Grip 3/8"-16	6
28	S-7469	Bolt, HHCS 3/8"-16 x 1" ZN Grade 5	22
29	8120056	Bearing Cover Assembly	2
30	S-4110	Hex Nut 5/8"-11 ZN Grade 5	8
31	S-9377	Bolt, 1/4"-20 x 2 ZN Grade 8	4
32	S-7025	Hex Nut 1/4"-20 Nylon	4
33	8101305	UHMW Bearing Seal	2
N/S	MHC01742	Sprocket C Hub, 22 Tooth, 2.609" Pitch	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1
N/S	S-2052	Strip, Foam 1/8" Thick x 1/2" Wide	13.458'

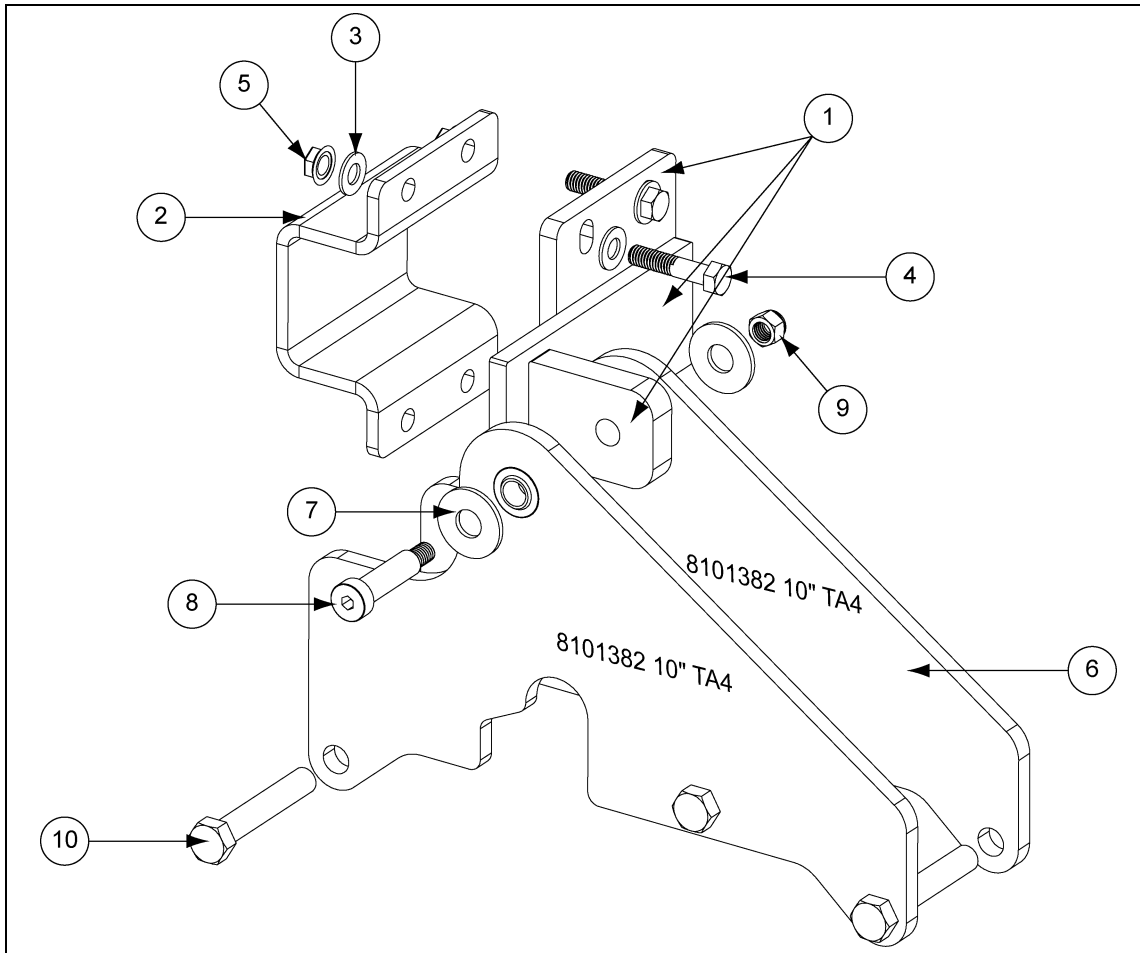
12" (10 Gauge) Inspection Corner (8120177)



12" (10 Gauge) Inspection Corner (8120177) Parts List

Ref #	Part #	Description	Qty
1	8120034	Inspection Corner Weldment	1
2	8120062	GTU Slide Assembly	2
3	8120050	Sprocket Cover - Inspection Corner	2
4	8120048	Idler Cover	1
5	8120173	Square/Round Weldment - 10 Gauge	2
6	8101202	Take Up Screw - Block	2
7	8081078	Slide Plate 56" Long (8") Hot Dipped 8081079	8
8	PT0145	8" Bearing with Housing, 1-1/2" ECC LK, Wide, RL, CYL, 4H	2
9	8101077	Take Up Screw-Nut 6", 8", 10" Inspection Corner	4
10	8120052	Standard Take Up Screw - Weldment	2
11	S-240	Hex Nut 1"-8" ZN Grade 5	2
12	S-6606	Flange Bolt 5/16"-18 x 3/4" ZN Grade 5	4
13	S-7409	Flat Washer 3/8" SAE ZN Grade 2	88
14	S-2071	Bolt, HHCS 3/8"-16 x 1-1/4" ZN Grade 5	48
15	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	40
16	S-6500	Bolt, HHCS 1/2"-13 x 2-1/2" ZN Grade 5	8
17	S-236	1/2" Lock Washer	8
18	S-3729	Hex Nut 1/2"-13 YDP Grade 5	16
19	8081196	8" Cover-Bearing Shield Zinc Plated 8081197	2
20	8120054	Idler Shaft - Inspection Corner	1
21	S-9167	Key - Square, 1/2" x 1/2" x 2-1/2"	1
22	8120242	Idler Wheel	1
23	8120055	Shaft - Inspection Corner	1
24	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP	48
25	S-1054	Split Lock Washer 3/8" ZN	24
26	S-456	Hex Nut 3/8"-16 YDP Grade 5	24
27	BC-00003	Handle, Easy Grip 3/8"-16	6
28	S-7469	Bolt HHCS 3/8"-16 x 1" ZN Grade 5	22
29	8120056	Bearing Cover Assembly	2
30	S-4110	Hex Nut 5/8"-11 ZN Grade 5	8
31	S-9377	Bolt, 1/4"-20 x 2 ZN Grade 8	4
32	S-7025	Hex Nut 1/4"-20 Nylon	4
33	8101305	UHMW Bearing Seal	2
N/S	MHC01742	Sprocket C Hub, 22 Tooth, 2.609" Pitch	1
N/S	CE-00972	Key, 7/8" x 7/8" x 6"	1
N/S	S-2052	Strip, Foam 1/8" Thick x 1/2" Wide	13.458'
N/S	DC-1741	Decal, Notice	1
N/S	DC-1379	Decal, Notice 5-1/8" x 7-3/8"	2
N/S	8107001	Decal, Danger	2

Chain Loop Torque Plate Assembly



Chain Loop Torque Plate Assembly Parts List

Ref #	Part #	Description	Qty
1	8101380	Torque Plate Anchor Bracket	1
2	8101346	8" and 10" C-Clamp Bracket	1
2		12" C-Clamp Bracket	1
3	S-7409	Flat Washer 3/8" SAE ZN Grade 2	8
4	S-8322	Bolt, HHCS 3/8"-16 x 1-3/4" ZN Grade 5	4
5	S-968	Flange Nut 3/8"-16 ZN Grade 5	4
6	8101385	TA3 - 8" and 10" Torque Plate with Bearing	2
6	8101383	TA4 - 8" and 10" Torque Plate with Bearing	2
6	8101381	TA5 - 10" Torque Plate with Bearing	2
6		TA5 - 12" Torque Plate with Bearing	2
6		TA6 - 12" Torque Plate with Bearing	2
7	S-2121	Flat Washer 1/2" x 1-3/8" x 0.109" Type A ZN	2
8	S-9466	Shoulder Bolt 3/18"-16 x 1/2" x 1-3/4" SKT HD	1
9	S-7383	Nylock Nut 3/8"-16 ZN Grade 5	1
10	S-7687	TA3 - Bolt, HHCS 3/8"-16 x 2" ZN	3
10	S-8252	TA4 and TA5 - Bolt, HHCS 1/2"-13 x 3" ZN	3

GSI Group, LLC Limited Warranty

The GSI Group, LLC ("GSI") warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user's sole remedy (and GSI's only obligation) is to repair or replace, at GSI's option and expense, products that in GSI's judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

Warranty Extensions:

The Limited Warranty period is extended for the following products:

	Product	Warranty Period	
AP Fans and Flooring	Performer Series Direct Drive Fan Motor	3 Years	* Warranty prorated from list price: 0 to 3 years - no cost to end-user 3 to 5 years - end-user pays 25% 5 to 7 years - end-user pays 50% 7 to 10 years - end-user pays 75%
	All Fiberglass Housings	Lifetime	
	All Fiberglass Propellers	Lifetime	
Cumberland Feeding/Watering Systems	Feeder System Pan Assemblies	5 Years **	** Warranty prorated from list price: 0 to 3 years - no cost to end-user 3 to 5 years - end-user pays 50%
	Feed Tubes (1-3/4" and 2.00")	10 Years *	
	Centerless Augers	10 Years *	
	Watering Nipples	10 Years *	
Grain Systems	Grain Bin Structural Design	5 Years	† Motors, burner components and moving parts not included. Portable dryer screens included. Tower dryer screens not included.
Grain Systems Farm Fans Zimmerman	Portable and Tower Dryers	2 Years	
	Portable and Tower Dryer Frames and Internal Infrastructure †	5 Years	

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12th) month from the date of purchase and continuing until the sixtieth (60th) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) PRODUCT MANUFACTURED OR SOLD BY GSI OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI shall not be liable for any direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction defects or unauthorized modifications to products which it manufactured. Modifications to products not specifically delineated in the manual accompanying the equipment at initial sale will void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

This equipment shall be installed in accordance with the current installation codes and applicable regulations, which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

G S I G R O U P



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