



**Owner's Manual** 

# **PNEG-2177**

Version 2.0

Date: 01-28-22





All information, illustrations, photos, and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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# **1** Safety Precautions

#### **Topics Covered in this Chapter**

- Safety Guidelines
- Cautionary Symbol Definitions
- Safety Cautions
- Safety Decals
- Safety Sign-off Sheet

# **Safety Guidelines**

Safety guidelines are general-to-specific safety rules that must be followed at all times. This manual is written to help you understand safe operating procedures and problems that can be encountered by the operator and other personnel when using this equipment. Read and save these instructions.

As owner or operator, you are responsible for understanding the requirements, hazards, and precautions that exist and to inform others as required. Unqualified persons must stay out of the work area at all times.

Alterations must not be made to the equipment. Alterations can produce dangerous situations resulting in SERIOUS INJURY or DEATH.

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

When necessary, you must consider the installation location relative to electrical, fuel and water utilities.

Personnel operating or working around equipment must read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

ST-0001-4

# **Cautionary Symbol Definitions**

Cautionary symbols appear in this manual and on product decals. The symbols alert the user of potential safety hazards, prohibited activities and mandatory actions. To help you recognize this information, we use the symbols that are defined below.

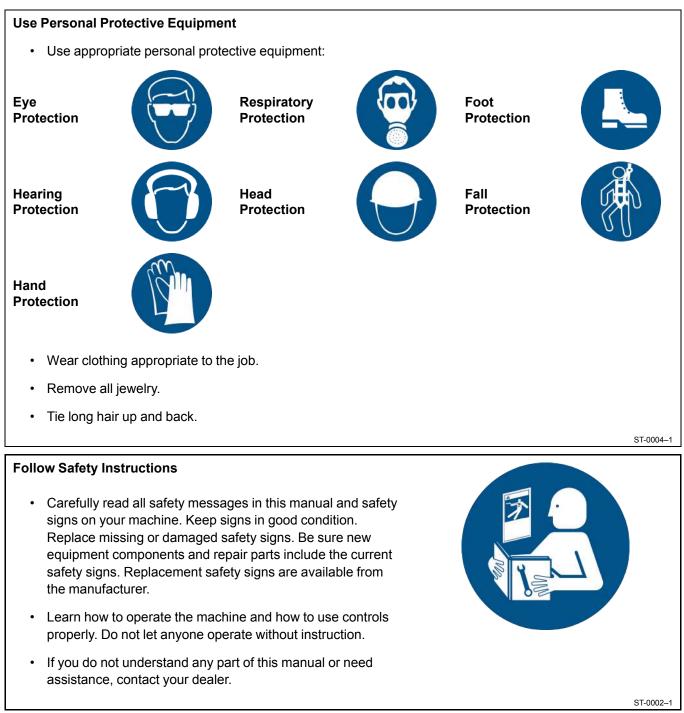
| Table 1-1 | Description | of the differen | t cautionary | symbols |
|-----------|-------------|-----------------|--------------|---------|
|-----------|-------------|-----------------|--------------|---------|

| Symbol           | Description                                                                                                                   |
|------------------|-------------------------------------------------------------------------------------------------------------------------------|
|                  | This symbol indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.        |
| <b>WARNING</b>   | This symbol indicates a potentially hazardous situation which, if not avoided, <b>can result in serious injury or death.</b>  |
|                  | This symbol indicates a potentially hazardous situation which, if not avoided, <b>can result in minor or moderate injury.</b> |
| NOTICE           | This symbol is used to address practices not related to personal injury.                                                      |
| $\bigtriangleup$ | This symbol indicates a general hazard.                                                                                       |
| $\bigcirc$       | This symbol indicates a prohibited activity.                                                                                  |
|                  | This symbol indicates a mandatory action.                                                                                     |

ST-0005–2

# **Safety Cautions**

This is all the topics contained in the Master Safety Reference File. Mainly used to verify formatting before releasing the topic.



#### Maintain Equipment and Work Area

- Understand service procedures before doing work. Keep area clean and dry.
- Never service equipment while it is operating. Keep hands, feet, and clothing away from moving parts.
- Keep your equipment in proper working condition. Replace worn or broken parts immediately.

#### **Operate Motor Properly**

- All electrical connections must be made in accordance with applicable local codes (National Electrical Code for the US, Canadian Electric Code, or EN60204 along with applicable European Directives for Europe). Make sure equipment and bins are properly grounded.
- Lock-out power before resetting motor overloads.
- Do not repetitively stop and start the drive in order to free a plugged condition. Jogging the drive in this manner can damage the equipment and drive components.

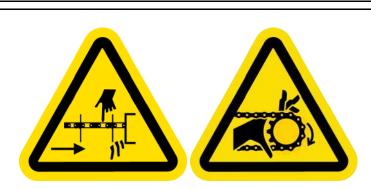
#### **Stay Clear of Moving Parts**

- Entanglement in rotating sprocket or moving chain will cause serious injury or death.
- Keep all guards and covers in place at all times.
- Lock-out power source before making adjustments, cleaning, or maintaining equipment.

#### Sharp Edge Hazard

- This product has sharp edges, which can cause serious injury.
- To avoid injury, handle sharp edges with caution and always use proper protective clothing and equipment.







ST-0009–3

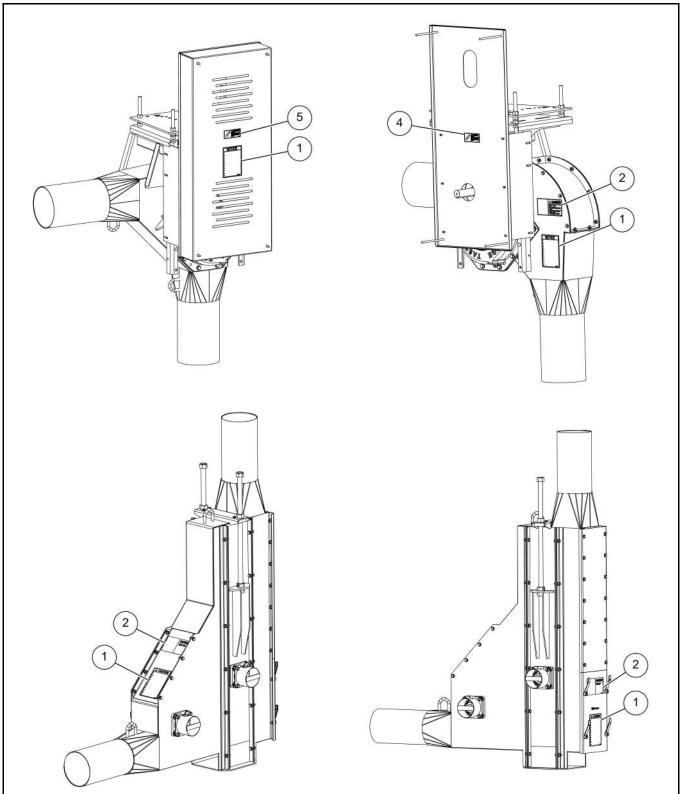
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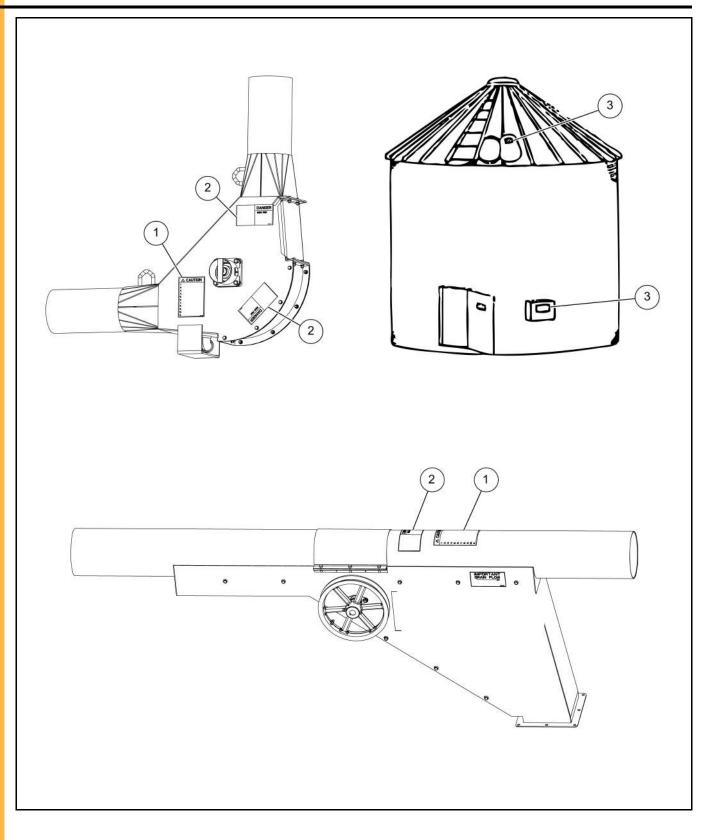
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# Safety Decals

The safety decals on your equipment are safety indicators which must be carefully read and understood by all personnel involved in the installation, operation, service and maintenance of the equipment.

## **Decals Placement**





| Ref # | Decal No. | Decal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Description   |
|-------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 1     | DC-1379   | Description         1. Read and understand the operator's manual and all safety instructions.         2. Do not operate while under the influence of drugs or alcohol.         3. Do not operate while under the influence of drugs or alcohol.         3. Do not operate unless all safety equipment, switches, guards, and shields are securely in place and operational.         4. Allow only trained authorized personnel in the operating area.         5. Any electrical wiring or service work must be performed by a qualified electrician. It must meet all state and local electricial codes.         6. Do not allow children in the area of operation.         7. Keep hands, feet, & clothing away from moving parts.         8. Disconnect and lockout power before making any adjustments or performing any service work.         9. Disconnect power prior to resetting any motor overload.         10. Make certain all electric motors are grounded.         11. Replace all worn or damaged labels immediately.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Decal, Notice |
| 2     | 8107001   | A serious 217.228-421A serious INJURY or DEATH.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Decal, Danger |
| 3     | 8107006   | DANGER         Image: Constraint of the second sec | Decal, Danger |

| Ref # | Decal No. | Decal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description                |
|-------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 4     | DC-994    | A Sti Group Inc. 217-226-4421                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Decal, Danger Shear Point  |
| 5     | DC-995    | Image: String boxImage: String boxString box <tr< td=""><td>Decal, Warning Shear Point</td></tr<> | Decal, Warning Shear Point |

To replace a damaged or missing decal, contact us to receive a free replacement.

#### **GSI Decals**

1004 E. Illinois St. Assumption, IL 62510 Tel: 1-217-226-4421

# Safety Sign-off Sheet

Below is a sign-off sheet that can be used to verify that all personnel have read and understood the safety instructions. This sign-off sheet is provided for your convenience and personal record keeping.

| Date | Employee Name | Supervisor Name |
|------|---------------|-----------------|
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ST-0007

# NOTES

# **2** Information

### **Chain Loop System Information**

A Chain Loop System is a chain and paddle conveyor moving through a round housing. A loop system allows you to do total loading and unloading with a single drive. Chain Loop Systems will handle a wide range of free flowing materials. They are primarily intended for grain and grain products. They will move material into and out of grain storage structures, vehicles, dryers and other facilities with ease and gentleness. The Chain Loop System is well suited for blending materials while being transferred from one storage unit to another.

The height and length of the system is limited by the combined horsepower required to move the grain. The vertical Chain Loop System requires greater horsepower per foot, so the taller units will be more limited in the overall horizontal length. System lengths of several hundred feet are common. However, relatively small systems to accomplish more specific tasks are also available.

|                                           | 8 in.         | 10 in.         | 12 in.                  |
|-------------------------------------------|---------------|----------------|-------------------------|
| *Maximum capacity in BPH (Tons/Hr)        | 4000 (100)    | 6000 (150)     | 1000 (250)              |
| Chain travel in FPM (Meters, Min)         | 325 (99)      | 325 (99)       | 400 (122)               |
| Head shaft RPM                            | 94            | 94             | 83                      |
| Corner housing thickness, galvanized (mm) | 7 Ga. (4.8)   | 5 Ga. (4.8)    | 3/16 in. (4.8)          |
| Galvanized tubing wall thickness (mm)     | 12 Ga. (2.7)  | 12 Ga. (2.7)   | 10 Ga. (3.47) 7 Ga. (5) |
| Paddle thickness (UHMW) (mm)              | 3/8 in. (9.5) | 1/2 in. (12.7) | 1/2 in. (12.7)          |
| Corner shaft diameter (mm)                | 2 in. (50.8)  | 3 in. (76.2)   | 3-7/16 in. (87.3)       |
| Conveyor chain                            | 81XHH         | 81XHH          | 81XHH                   |
| Conveyor sprocket                         | 16 Tooth      | 16 Tooth       | 22 Tooth                |
| *Power requirements                       | -             | -              | -                       |
| Per foot vertical (KW/M)                  | 0.35 (0.86)   | 0.5 (1.22)     | 0.75 (1.84)             |
| Per foot horizontal (KW/M)                | 0.08 (0.19)   | 0.11 (0.27)    | 0.18 (0.44)             |
| Weight per foot lbs (KG/M)                | -             | -              | -                       |
| Empty                                     | 12 (17.9)     | 15 (22.3)      | 24 (35.8) 30 (44.7)     |
| Full of 56 lb. per bu. material           | 28 (41.7)     | 40 (59.5)      | 59 (88) 65 (97)         |

Table 2-1 Chain loop system specifications

\*Clean dry grain

## **Final Inspection Check List**

The Chain Loop System requires an inspection before start-up after the assembly is complete and before each use. The following are critical areas to be inspected.



Make sure that the main power isolator is locked in the "OFF" position and that the only key is in the possession before removing any shields and inspection covers.

- 1. Check all safety decals and replace any that are worn, missing or illegible. Refer to *Safety Decals, page* 9 for decal part numbers and location.
- 2. Check for proper chain tension and adjust if necessary. See *Chain and Paddles, page 35* for full instructions.
- 3. Check that the discharge gates open and close completely. Remove the inspection cover from the top of the discharge gate and make sure that the gate is clean inside.
- 4. Check the lubricant level in the gear reducer at the drive corner. See *Dodge Gear Reducer, page 21* for lubrication specifications.

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

- 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.



# **3** Operation

The Chain Loop is generally used to transfer grain to or from storage bins. Grain can be fed into the system through an inlet dump hopper or through center or intermediate grain wells in the storage bins. Wells from more than one bin can be opened at the same time to blend the contents of different bins. The system is usually oriented vertically (with the tube running under the storage bins), or at an angle with the bottom tube running along the sides and the top tube running over the fill holes of the storage bins. Horizontal installations are also possible - check with your dealer for special gear reducer lubrication requirements for horizontal installations.

The Chain Loop System should always be run under partial load for a period of time to polish the tube walls before attempting to run at full load. This is especially true when breaking in a new system but equally important after being idle for a length of time. Observe the amp meter on the drive motor while running with a partial load until the amperage starts to decline. This is an indication that the tube walls have been polished enough to handle a larger load.

It is very important to avoid stopping the chain under a loaded condition. Never attempt to restart until the Loop System has been emptied of as much grain as possible.



Lock out the main power source before removing any inspection covers or shields necessary to empty the system.

#### Observe the following basic sequence for using the Chain Loop System to fill storage bins.

- 1. Open the discharge gate above the destination bin.
- 2. If available, open the discharge gate above a bin downstream from the destination bin to be used as an overflow.
- 3. Start the Chain Loop drive motor. Station an individual at the control box to observe the amp gauge of the drive motor.
- 4. Let grain flow into the inlet dump hopper. Open the flow control by adjusting the chains on the hopper a small amount at a time to make sure that the amperage does not exceed the capability of the drive motor.
  - **NOTE:** Some materials and grains such as soybeans flow very easily, so it is important to make sure that the center shield in the inlet hopper is adjusted low enough to prevent overloading the system.
- 5. Let the Chain Loop run until the system is empty.
- 6. Close the discharge gates and the dump hopper flow control when through filling.



Shut down the drive motor. Make sure to lock out the power source before leaving the work area.

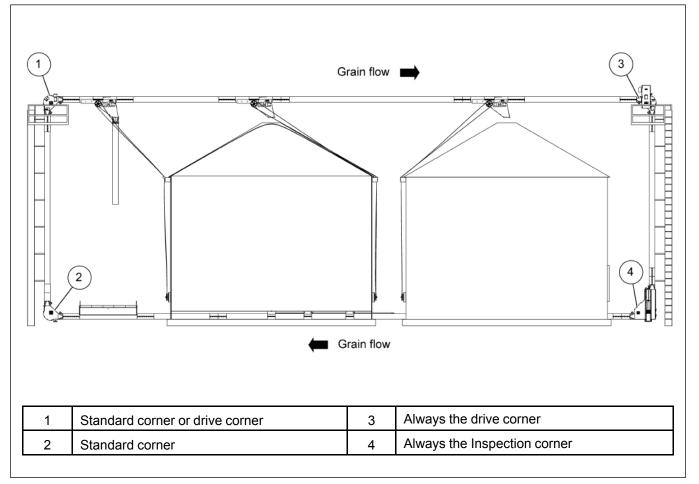
#### **Chapter 3: Operation**

# Observe the following basic sequence for using the Chain Loop System to transfer grain from storage bins.

- 1. Open the discharge gate above the withdrawal bin.
- 2. Open the discharge gate above the destination bin or truck-loading spout.
- 3. Start the Chain Loop drive motor. Station an individual at the control box to observe the amp gauge of the drive motor.
- 4. Open the slide gate under the withdrawal bin a little at a time to make sure that the amperage does not exceed the capability of the drive motor.
- 5. Close the discharge gate above the destination bin or truck when full. **DO NOT SHUT DOWN THE CHAIN LOOP DRIVE MOTOR AT THIS TIME.**
- 6. Close the slide gate under the withdrawal bin.
- 7. Run the Chain Loop System until all remaining grain in the tube has been returned to the withdrawal bin.

Shut down the drive motor. Make sure to lock out the power source before leaving the work area.





A sweep auger may be placed in the bin after all the grain has been removed that will gravity-flow through the center well. Shut down and lock out all power to the Chain Loop System before installing the sweep auger.

If intermediate bin wells are being used, they should be opened after grain has stopped flowing into the center well and before the sweep auger is placed in the bin. Shut down and lock out the Chain Loop System before installing the sweep auger.

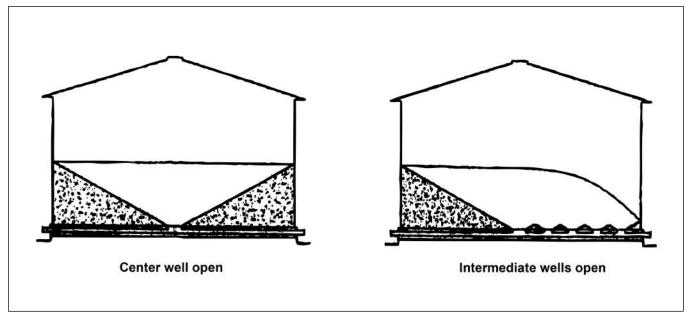


Figure 3-2 Grain unload using sweep auger

# NOTES





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.

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). Oils with an "EP" additive are not recommended for average conditions (see the lubrication section of the dodge manual). Use the check oil plug for determining the correct amount of oil; too much oil will cause overheating and too little will cause bearing and gear failure. The approximate quantity of oil for each reducer size is:

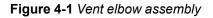
| Model   | Quarts (qt) | Liters (L) | Motors HP |
|---------|-------------|------------|-----------|
| TA3203H | 4.0         | 3.80       | 15-20     |
| TA4207H | 7.3         | 6.90       | 25-30     |
| TA5215H | 12.9        | 12.2       | 40        |
| TA6307H | 15.8        | 15.0       | 60        |

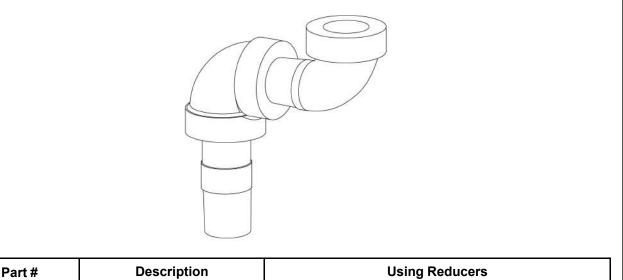
The oil should be changed at the beginning of every harvesting season if the Chain Loop is used for seasonal grain handling. It should be changed after 2500 hours of operation or every 6 months if used under average industrial conditions. The oil should be changed more frequently if used under extreme operating conditions such as large changes in ambient temperatures, dust, dirt, chemical particles, chemical fumes or oil sump temperatures above 200°F.

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

### **Drive Belts**

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





|   | Part #  | Description                 | Using Reducers                                         |
|---|---------|-----------------------------|--------------------------------------------------------|
|   | 8101333 | 1/2 in. Vent elbow assembly | Used on TA4, TA5, TA6 and TA7 reducers in "D" position |
|   | 8101335 | 3/8 in. Vent elbow assembly | Used on TA3 reducers in "D" position                   |
| L |         |                             |                                                        |

#### To install vent elbow assembly:

**NOTE:** Reducer is shown in "D" position with input shaft at the top.

Figure 4-2 Installing the vent elbow assembly

|   |                     |   | -(1)                |
|---|---------------------|---|---------------------|
| 1 | Vent elbow assembly | 2 | Magnetic drain plug |
|   |                     |   |                     |

- 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.

## **Chain and Paddles**

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 3/4 in. when the chain is properly tensioned. See *Chain and Paddles, page 35* for details.

The Chain Loop chain has connecting links spaced every 10 ft. Check these links to make sure that they are securely fastened and that the cotter pins are bent back correctly. See *Figure 5-13, page 36*.

Check the lock nuts used to fasten the paddles to the chain brackets. They should be tightened to a torque specification of 20 ft. lbs. (2.8 KG-M or 26 N-M).

Adjust the chain tension by loosening the locking jam nuts on the adjusting screw and turning the screw to move the inspection corner sprocket. Turning the adjusting screw clockwise will tighten the chain and turning it counterclockwise will loosen the chain. Remove chain links if there is not enough travel in the adjusting screw to tighten the chain. Adjust each side equally to keep the sprocket shaft square with the corner housing. See *Figure 5-14, page 37*.

Spray a light coating of oil on the chain after a season of use.

### **Corner Shaft Bearings**

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

## **Corner Sprockets**

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

# NOTES

# **5** Installation

#### **Topics Covered in this Chapter**

- General Information
- Tube and Corner Assembly
- Drive Assembly
- Chain Loop Torque Arm Repair Kit
- Drive Box Assembly Instructions
- Discharge with Gate Assembly
- Unload Well Installation
- Chain and Paddles
- Inspection Corner
- Ground Control Kit for Discharge Gates
- Inlet Dump Hopper Assembly

# **General Information**

# It is expected that an experienced millwright or contractor will provide the supporting structure and do the installation of a Chain Loop System including the electrical wiring and the control box.

All electrical wiring and controls should be in accordance with local regulations (BS767: 1992 or the National Electric Code).

**NOTE:** It is recommended that an amp meter for the drive motor be installed close to the inlet hopper so an operator can easily monitor and avoid overloading the system.

The supporting structure needs to comply with local wind loads and soil supporting requirements as well as support the weight of the Chain Loop System. Component weights full of grain are:

| System Size    | Tube (Full)             | Discharge Gate     | Standard Corner   | Drive Corner        |
|----------------|-------------------------|--------------------|-------------------|---------------------|
| 8 in.          | 29 lbs./ft. (43.1 Kg/m) | 411 lbs. (187 Kg)  | 342 lbs. (155 Kg) | 1103 lbs. (502 Kg)  |
| 10 in.         | 40 lbs./ft. (59.5 Kg/m) | 533 lbs. (242 Kg)  | 489 lbs. (222 Kg) | 1394 lbs. (634 Kg)  |
| 12 in. 7 Gauge | 65 lbs./ft. (97 Kg/m)   | 1084 lbs. (493 Kg) | 933 lbs. (424 Kg) | 2420 lbs. (1101 Kg) |

NOTE: Each calculation includes the respective chain.

A layout should be drawn to show the exact location of grain bins, inlets, outlets, the control box, outlet control kits, the power source and the supporting structure. The layout should consider future expansion, the ability to mix grains from several locations, the grain direction, the operation of slide gates, the use of other conveyors to fill or unload bins and whether the Chain Loop tube is under the center of or beside the grain bins. Chain Loop Systems are provided with one or two drive corners depending on the power requirements of each system. Drive corners are always located at the upper corners, and the drive corner for single drive systems must be located at the far end of the top chain run. This will allow the drive corner to pull grain up from the loading hopper and across the top to the storage bins. **The inspection corner is always located on the ground furthest from the loading hopper. This allows proper chain tensioning throughout the system.** See *Figure 3-1, page 18*.

#### **Chapter 5: Installation**

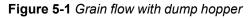
It is important to slide components together tightly and to have the clamping band centered on the joint before tightening the bands. All cuts should be made square and the inside diameter chamfered to ensure that the ends butt together tightly during assembly. Even small gaps left in the tubing system during assembly will gradually close during operation of the Chain Loop causing the chain to require frequent inspection and tightening. See *Tube and Corner Assembly, page 27*.

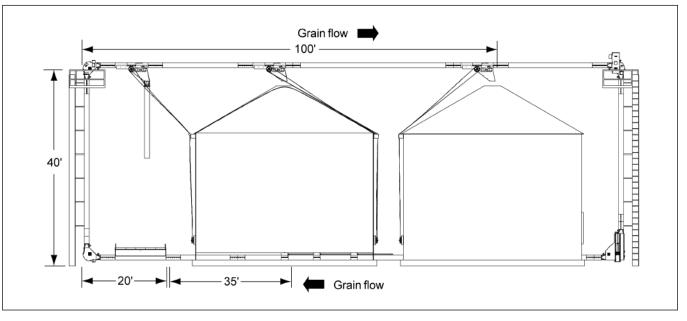
General guidelines to consider are:

- 1. The Chain Loop will move grain in one direction only; it is not reversible.
- 2. Provide room for service and maintenance at each of the corners and discharge gates.
- 3. Avoid having any part of the system under grade to eliminate water accumulation problems.
- 4. Provide adequate footings for solid supporting structures.
- 5. Minimize the loaded distance by placing the inlet hopper as close to the vertical tube as possible.
- 6. There can be no twist in the chain/paddles. The opening should be oriented so that the open side of the paddle will pass across the sprockets.

| System Size | Vertical Factor                 | Horizontal Factor               |
|-------------|---------------------------------|---------------------------------|
| 8 in.       | 0.35 HP/loaded foot (0.86 Kw/M) | 0.08 HP/loaded foot (0.19 Kw/M) |
| 10 in.      | 0.50 HP/loaded foot (1.22 Kw/M) | 0.11 HP/loaded foot (0.27 Kw/M) |
| 12 in.      | 0.75 HP/loaded foot (1.84 Kw/M) | 0.18 HP/loaded foot (0.44 Kw/M) |

The system should be designed to minimize the distance grain must be moved. The example shows the dump hopper located next to the vertical tube. If it were located on the other side of the grain bins then the system would have to move grain that much farther before taking it up and over to the discharge gates.





This example illustrates a system and the power requirements for different functions of a Chain Loop System.

- If the main requirement is maximum filling rate, then the motor size for this 8 in. system would be: 0.35 HP/ft x 40 vertical ft. = 14 HP plus 0.08 HP/ft x (20 + 100 horizontal ft.) = 9.6 HP / 23.6 (Use a 25 HP motor)
- If the requirement is maximum flow rate while moving grain from bin to bin as well as a maximum filling rate, then the motor size would be:
   0.35 HP/ft x 40 vertical ft. = 14 HP plus
   0.08 HP/ft x (35 + 20 + 100 horizontal ft.) = 12.4 HP / 26.4 (Use a 30 HP motor)

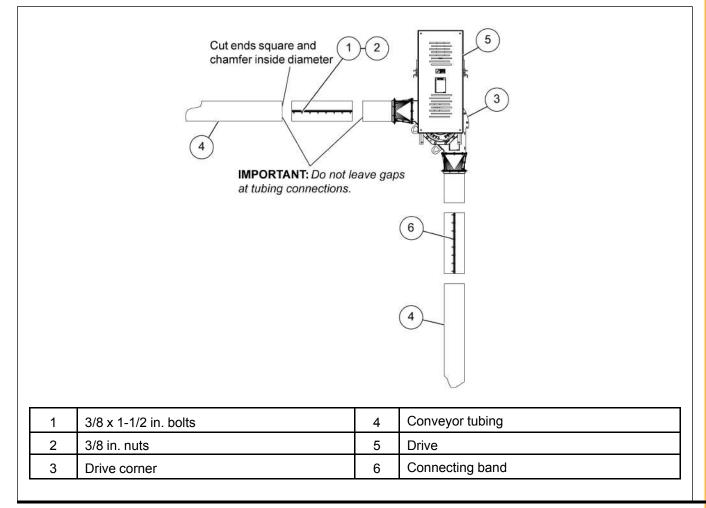
# **Tube and Corner Assembly**

Lay the sections out in order so as to determine what portions to assemble prior to actual placement in the system.

When cutting tubes to exact length, the ends must be cut square and any burrs on the ends must be removed by chamfering the inside diameter. Join tube and corner components together with connecting bands. Slide the tube sections tight together and space the connecting band in equal amounts on both parts of the connection. Tighten the bolts in the band.

Fasten the discharge in place within the tube with connecting bands.

Figure 5-2 Tube and corner assembly



# **Drive Assembly**

The Chain Loop System is powered by an electric 1750 RPM motor.

#### IMPORTANT:

- 1. Use the proper size motor to ensure satisfactory operation. Too small of a motor will not supply the horsepower required to achieve capacity and damage to the motor may occur. Too large of a motor may cause high stress on components resulting in shorter life. See Table 2-1, page 15 for motor size specifications.
- 2. Use the motor sheave furnished. If other size sheaves are used or substituted, improper chain speed and unsatisfactory operation will result.

Mount the sheaves as close to the belt guard back as possible. Align sheaves by using a straight edge, placed across the outer faces of both sheaves. Secure in place using taper lock bushing. Be sure drive keys are properly installed. Check sheave alignment again after sheaves are secured to shafts.

Install the belts onto the sheaves and set belt tension. To tighten belts, turn the 3/4 in. nuts on the motor mount rods to raise the motor mount assembly. Raise all the rods the same distance so the motor mount assembly is parallel with the top.

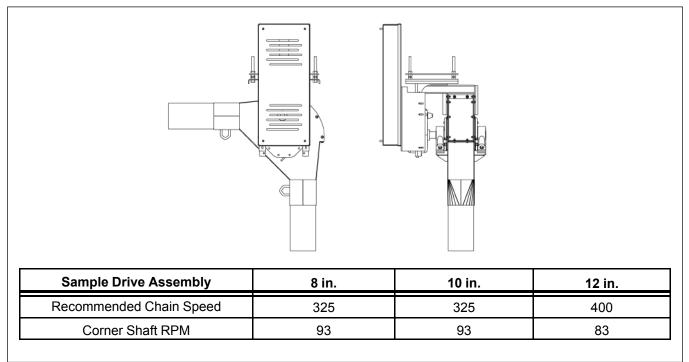
Check that all fasteners are tightly secured. Close and fasten belt guard.



Keep all safety shields and devices in place.

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

#### Figure 5-3 Sample drive assembly



# Chain Loop Torque Arm Repair Kit

#### **Before You Begin**



Secure the motor mount from both sides to prevent the drive unit from pivoting either direction on the shaft.

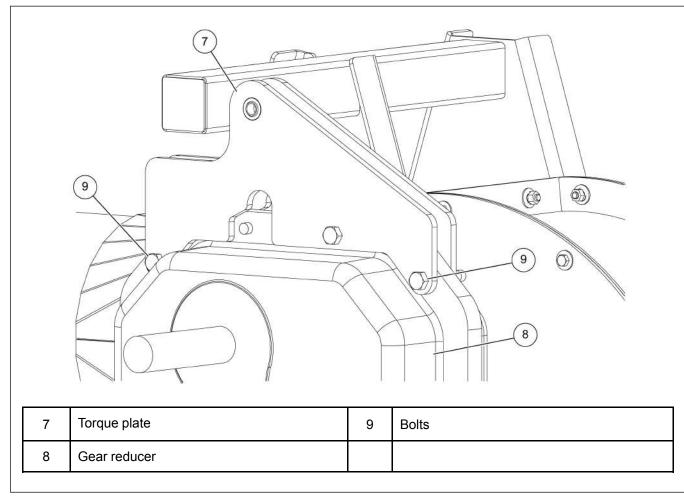
NOTE: Motor mount and belt guard removed for clarity.

1. Attach both torque plate (7) assemblies to each side of the gear reducer (8) using the bolts provided. Re-use the lock washer and hex nut provided with the gear reducer.

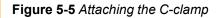
#### NOTE:

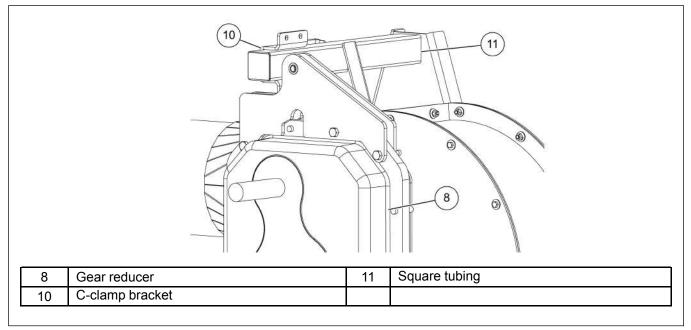
- a. Leave the hardware loose to allow for ease of assembly.
- b. 3/8 in. bolts (9) are used for TA3 reducer.
- c. 1/2 in. bolts (9) are used for TA4 and TA5 reducers.

Figure 5-4 Attaching the torque plate



2. Place the C-clamp bracket (8) to the back side of the square tubing (11).

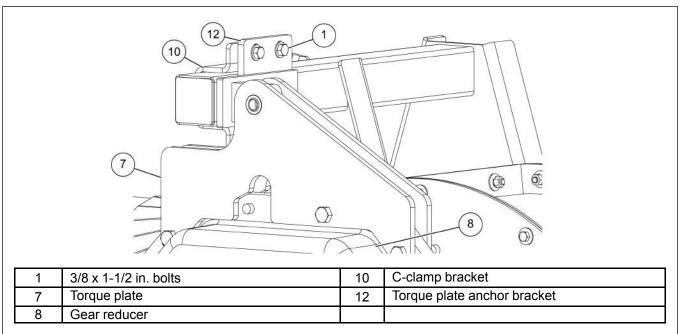




3. Place the torque plate anchor bracket (12) between the torque plate assemblies (7) and attach it to the C-clamp (10) using the 3/8 in. hardware (1).

#### NOTE: Leave the hardware loose to allow for ease of assembly.

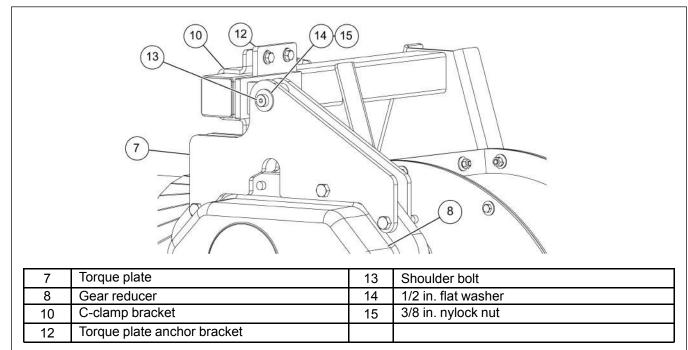
Figure 5-6 Attaching the anchor bracket to the C-clamp



4. Attach the torque plate anchor bracket (12) to the torque plates (7) using the two 1/2 in. flat washers (14), shoulder bolt (13) and 3/8 in. nylock nut (15). Refer to *Figure 5-7, page 31*.

5. Tighten the hardware attaching the torque plate assemblies (7) to the gear reducer (8) after tightening the shoulder bolt (13) hardware.

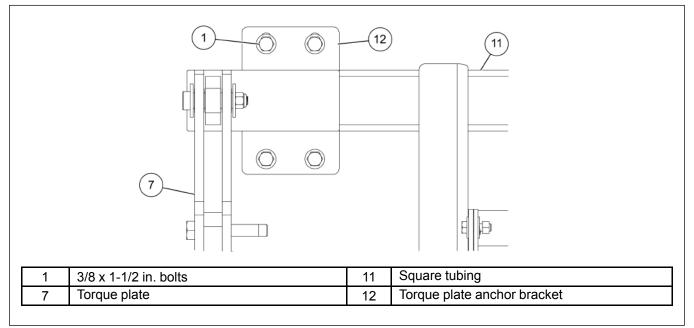
**Figure 5-7** Attaching the anchor bracket to the torque plate



Move the torque plate anchor bracket (12) on the square tube (11) so the torque plate assemblies (7) are aligned vertical. Once aligned, the 3/8 in. hardware (1) attaching the torque plate anchor bracket (12) to the C-clamp can be tightened.

NOTE: Washers must be on the outside of each torque plate (7) assembly.

Figure 5-8 Aligning the torque plate assemblies



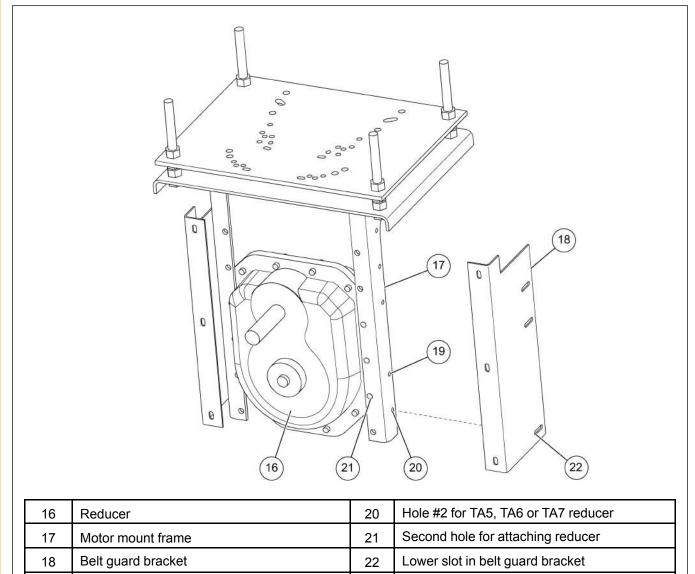
# **Drive Box Assembly Instructions**

The below image shows the details for assembling the drive box.

#### NOTE:

- 1. When attaching the reducer to the motor mount frames, fasten reducer starting with second hole (21) from the bottom. Use the hardware supplied in the reducer.
- 2. When attaching the belt guard bracket to the motor mount frame, align the lower slot (22) with hole #1 (19) when using a TA3 or TA4 reducer. (Use hole #2 (20) when using a TA5, TA6 or TA7 reducer.)

Figure 5-9 Drive box assembly

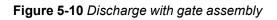


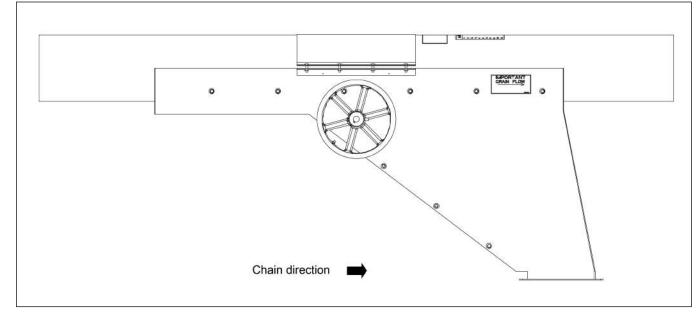
19

Hole #1 for TA3 or TA4 reducer

# **Discharge with Gate Assembly**

The discharge unit includes an 8 ft. long section (12 ft. long in 12 in. system). Locate the outlet of the discharge in the desired location. It may be necessary to cut exact lengths of other tube conveyor sections to locate the discharge unit in its proper place. The discharge with gate is designed for chain travel in only one direction. Make sure it is oriented properly by comparing the appearance to the diagram or referring to the decal on the discharge unit. Operation in the wrong direction can cause paddle damage.





When cutting tubes to exact length, the ends must be cut square and any burrs on the ends must be removed by chamfering the inside diameter. Join tube and discharge gate together with connecting bands. Slide the tube sections tightly together and space the connecting band in equal amounts on both parts of the connection.

#### Bin well installation for Chain Loop Systems installed under a row of grain bins.

Position the center bin well so that the bin sweep pivot is at the center of the bin and on top of the Chain Loop tube. Intermediate wells may be placed on the tube between the center and bin wall if desired. See *Figure 5-11, page 34* for minimum spacing requirements and as a guide to mark and cut the openings for the wells in the tube.

#### NOTE: Do not cut the opening with the chain and paddles inside the tube or they may be damaged.

The control pipe for the center well (1/2 in. pipe) should fit inside the pipe used for the intermediate wells (1 in. pipe). With the center and intermediate wells closed, drill a hole through both control pipes so that a bolt can be used to lock both pipes together. This will allow both slide gates to be operated together.

Open the slide gate in the center well and withdraw grain until no more flows. Close the center well slide-gate and place the bolt in the hole drilled through both control rods. The intermediate well slide-gates can now be operated with the center well.

# **Unload Well Installation**

Observe the minimum spacings shown in the illustration below. Wells should be positioned on the tube so that the gates will open when control pipes are pulled out and away from the center of the bin.

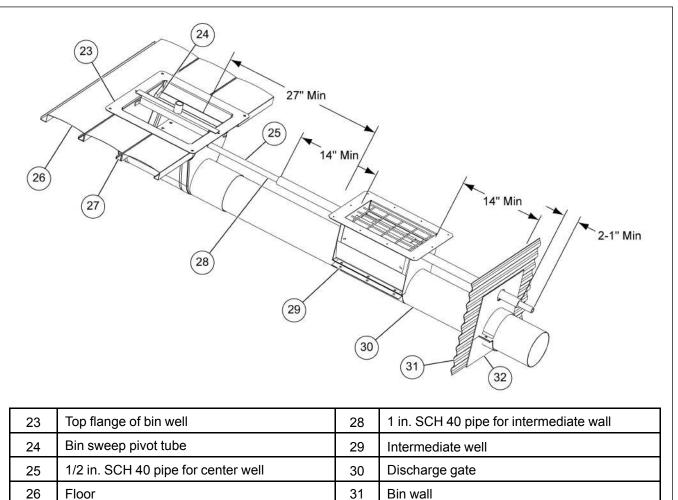
A control pipe kit may be ordered from your dealer. For the center well, use 1/2 in. SCH. 40 pipe (-7/8 in. O.D.). For the intermediate well(s), use 1 in. SCH. 40 pipe (-1 3/8 in. O.D.). It may be necessary to support the unload well(s) and/or discharge tube from below with blocks or other material.

Consult the manufacturer of the bin floor for information on cutting openings in the floor for unload wells, for sealing around unload wells and for proper support of the floor around the unload wells and discharge tube.

#### NOTE:

- 1. The top flange of the bin well (23) is intended to lay flat on the bin floor.
- 2. Bin sweep pivot tube (24) must be in exact center of the bin.
- 3. 1/2 in. SCH 40 pipe for center well runs inside of pipe for intermediate wells.

Figure 5-11 Unload well installation



32

Optional bin flange

27

Center well

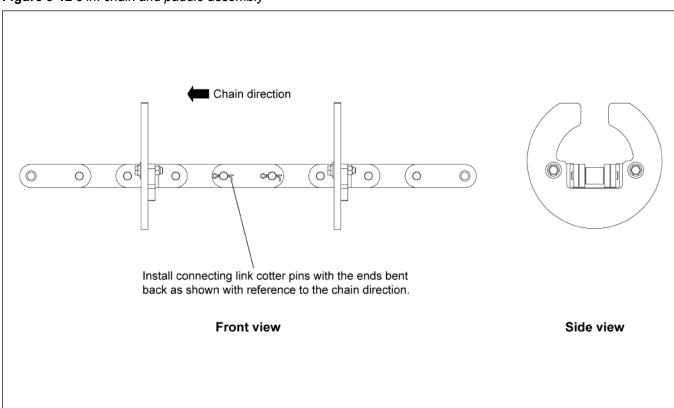
## **Chain and Paddles**

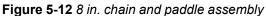
The paddles are attached to the chain with  $5/16 \times 1$  in. serrated flange bolts, flat washers and locking nuts. Make sure that the slots in the chain paddle brackets are oriented as shown in *Figure 5-13, page* 36. The head of the bolt should be against the face of the plastic paddle and the washer and nut should be against the face of the chain paddle bracket. Make sure all hardware is tightened properly to a torque of 20 ft. lbs.

The chain is shipped in 10 ft. lengths and needs to be spliced as shown in *Figure 5-13, page 36*. Make sure to bend the ends of the cotter pins as shown to prevent them from working loose and causing the chain to break.

Use an electrical fish tape or wire to pull the chain through the tube assembly. It is possible for the chain to twist a full 360° during this process. Visually check the chain through open inspection covers at the discharge gates and openings for wells to make sure that this has not happened.

Adjust the tightening screws in the inspection corner all the way up and connect the final chain link through the access door in the inspection corner after removing as much chain slack as possible. Tighten the chain by turning the adjusting screws clockwise; adjust each side equally to keep the sprocket shaft square with the housing. Remove chain links if there is not enough travel in the adjusting screw to tighten the chain. Make sure that the sprocket shaft is square to the housing by measuring the shaft position on both sides of the housing. See *Figure 5-14, page 37*.





#### **Chapter 5: Installation**

The chain should be tightened until the paddles are nearly rigid on the chain. The tips of the paddles should only move 3/4 in. when grabbed and pulled by hand.



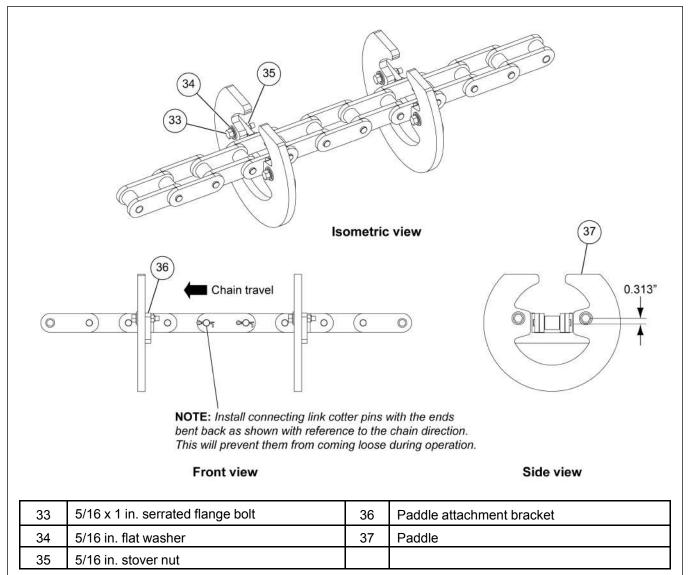
Make sure all shields and safety guards are in place before restoring power.

Check and re-tension the chain after the system has been trial run while empty.



*Turn OFF and lock out the main power source BEFORE removing any inspection covers or shields.* 

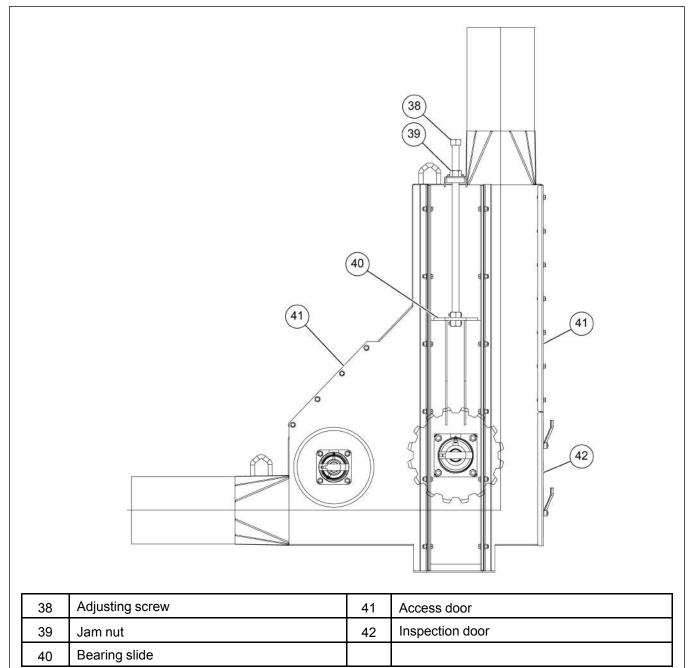
#### Figure 5-13 10 in. chain and paddle assembly



# **Inspection Corner**

The below image shows details about the inspection cover assembly.

Figure 5-14 Inspection cover



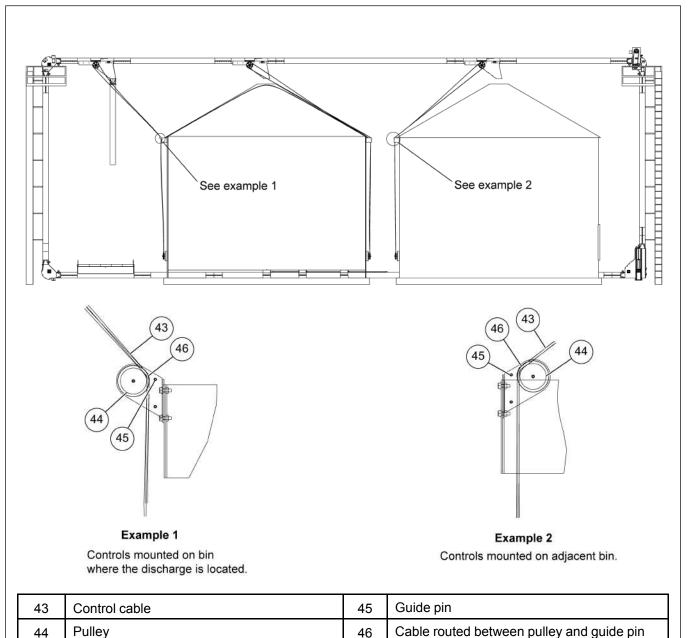
# **Ground Control Kit for Discharge Gates**

Determine the best location for each ground control kit. Note that each kit comes with 100 ft. of cable, which should be adequate for individual bin installations.

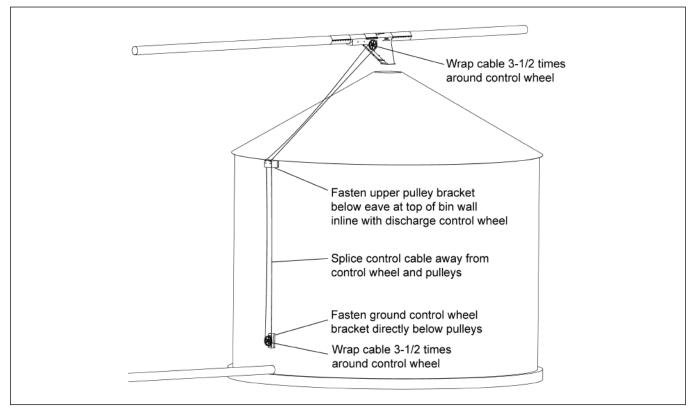
The cable idler pulley bracket is usually mounted at the top of the bin wall, just under the roof eave, in line with the control wheel on the discharge gate. The ground control wheel mounting bracket should be mounted to the bin wall directly under the idler pulley bracket at a convenient operating height. It is important to keep the cable in line with the control wheels on both the discharge gate and at the ground to avoid having the cable "walk off" either wheel.

The ground control wheel can be mounted to the same bin as the discharge gate, or to an adjacent bin.

Figure 5-15 Ground control wheel mounting



- Each control system should be marked to identify which discharge gate is being controlled.
- Each control system should be marked after installation to clearly identify whether the discharge gate is open or closed.
- Set screws in the ground control wheel can be used to lock the wheel in position to prevent accidental opening or closing of the discharge gate.
- Assemble the idler pulleys to the mounting bracket on the inside surface if the cable is going to a
  discharge gate on the same bin. Assemble them on the outside if the cable is going to an adjacent
  bin. Attach the idler pulley bracket to the bin wall just under the eave to ensure that the cable will
  clear the bin roof.
- Attach the ground control wheel bracket to the bin wall directly below the idler bracket. Assemble the wheel mounting bracket loosely to the wall bracket and slide it up as far as possible. Assemble the control wheel to the shaft and secure with cotter pins. See *Ground Control Kit, page 127*.



#### Figure 5-16 Ground control wheel mounting

- Make sure that the discharge gate is half open and wrap the cable 3-1/2 times around the discharge gate control wheel. Note that turning the wheel clockwise will close the gate.
- Secure the cable to the wheel with the cable clamp by attaching it to the approximate middle of the 3-1/2 wraps of cable. This will ensure that the gate will fully open and close without restriction from the cable clamped to the wheel.
- Make sure that the discharge gate is still half open.
- Route the cable back through the right idler pulley and down to the ground control wheel.

#### **Chapter 5: Installation**

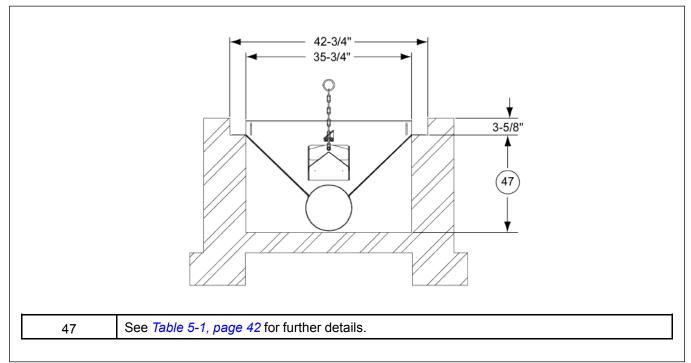
- At the ground control wheel, turn the wheel until the cable clamp is up and wrap the cable 3-1/2 times around it.
- Secure the cable clamp to the middle wrap.
- Splice the ends of the cable with a cable clamp. With the discharge gate half open, the splice should be at least 5 ft. away from the pulleys and control wheels.
- Slide the ground wheel bracket down to take-up any slack in the cable and tighten in place.
- Check the installation by turning the ground wheel clockwise to fully close the discharge gate and counterclockwise to fully open the gate without any restrictions from the cable splice or the clamps on the control wheels.
- If the rotation is wrong, then reverse the direction of the 3-1/2 wraps on the ground control wheel.

# Inlet Dump Hopper Assembly

The dump hopper will include a length of tubular conveyor from 6 ft. to 11 ft. depending on the length of dump hopper selected. It will also include a top safety screen or drive over grating. There is a grain flow control inside the hopper that is adjustable using chains mounted at each end. A dump hopper is to receive grain into the Chain Loop System and should be located at a point along the bottom conveyor portion. Usually dump hoppers are located near the standard corner where the chain and paddles turn to carry grain up.

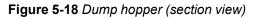
For drive over systems, the grate must be supported by a concrete structure.

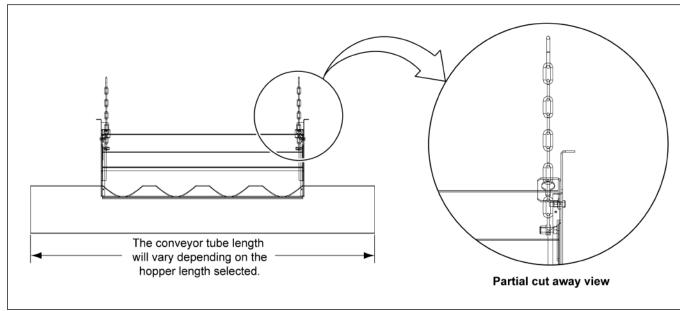
#### Figure 5-17 Dump hopper



A hopper with top safety screen may be used in non-drive over situations. The top safety screen will not support vehicles. Make sure either the top safety screen or drive-over grating is in place on the hopper.

Fasten the inlet dump hopper assembly in place within the tubular conveyor with connecting bands.





**NOTE:** When the system is not in use, it is a good practice to cover the hopper with a rubber mat to help keep water, animals and debris out.

#### **Dump Hopper and Foundation**

#### NOTE:

- 1. The dump hopper is based on a minimum allowable soil bearing capacity of 3000 PSF. Bearing capacity of the soil should be determined by geotechnical investigation and be of uniform bearing capacity.
- 2. The construction site must be free of vegetation and debris and well drained.
- 3. The hopper foundation must be founded below the frost line, or placed on frost free line.
- 4. 1 ft. well graded gravel must be laid directly under foundation bottom.
- 5. All reinforcements must meet the requirements of ASTM A615 Grade 60 deformed bars.
- 6. Concrete must have a minimum compressive strength of 3000 PSI at 28 days, 6-8% air entrainment, 4 in. slump.

#### Figure 5-19 Dump hopper and foundation

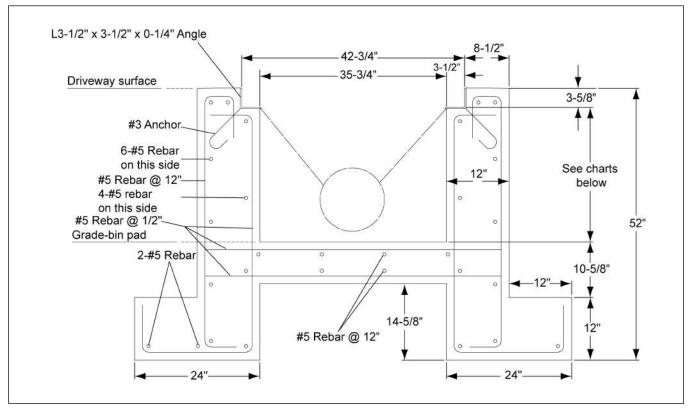


 Table 5-1 Grandstand floor supports

| Support #  | Top of<br>Floor<br>Height | 8" Hopper<br>Ledge<br>Height | 8" Power<br>Sweep Ledge<br>Height | 10" Hopper and<br>Power Sweep<br>Ledge Height | 12" Hopper<br>Ledge<br>Height | 12" Power<br>Sweep<br>Ledge Height |
|------------|---------------------------|------------------------------|-----------------------------------|-----------------------------------------------|-------------------------------|------------------------------------|
| FL-379-191 | 13-3/8"                   | 20-1/2"                      | 19-3/4"                           | -                                             | -                             | -                                  |
| FL-379-193 | 15-7/8"                   | 23"                          | 22-1/4"                           | 22-1/4"                                       | -                             | -                                  |
| FL-379-192 | 18-11/16"                 | 25-3/4"                      | 25"                               | 25"                                           | 24"                           | 23-5/8"                            |

Table 5-2 Air flow supports

| Support # | Top of<br>Floor<br>Height | 8" Hopper<br>Ledge<br>Height | 8" Power<br>Sweep Ledge<br>Height | 10" Hopper and<br>Power Sweep<br>Ledge Height | 12" Hopper<br>Ledge<br>Height | 12" Power<br>Sweep<br>Ledge Height |
|-----------|---------------------------|------------------------------|-----------------------------------|-----------------------------------------------|-------------------------------|------------------------------------|
| 4031325   | 13-1/4"                   | 20-3/8"                      | 19-5/8"                           | -                                             | -                             | -                                  |
| 4031550   | 15-1/2"                   | 22-5/8"                      | 21-7/8"                           | 21-7/8"                                       | -                             | -                                  |
| 4031850   | 18-1/2"                   | 25-5/8"                      | 24-7/8"                           | 24-7/8"                                       | 23-13/16"                     | 23-1/2"                            |

**NOTE:** All instructions shall be construed as recommendations only. Due to variation and discontinuities in local site conditions and foundation installation, grain systems assumes no liability for results arising from the use of such recommendations.

# **6** Troubleshooting

#### 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. See *Chain and Paddles, page 35* for details.

#### 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.

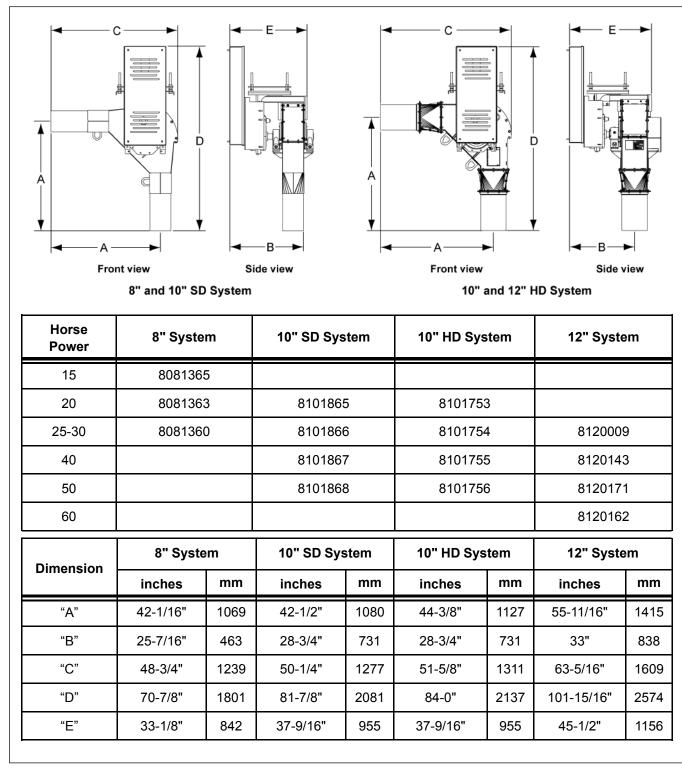
#### 6. Chain failure

- a. Check to make sure that the master connecting links have been installed correctly. See *Figure 5-13, 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.

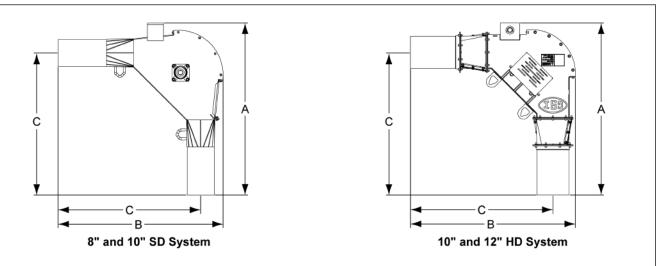
# **7** Component Dimensions

### 8", 10" and 12" Component Dimensions

Figure 7-1 Drive corners

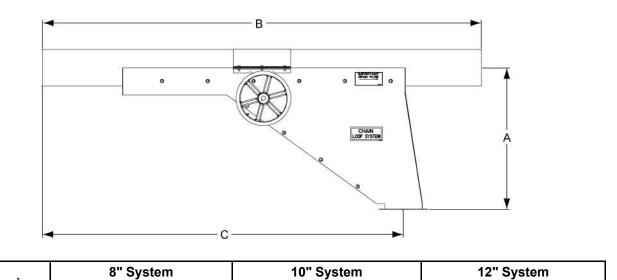


#### Figure 7-2 Standard corners



| Dimension  | 8" System |      | 10" SD System |      | 10" HD System |      | 12" System |      |
|------------|-----------|------|---------------|------|---------------|------|------------|------|
| inches     | inches    | mm   | inches        | mm   | inches        | mm   | inches     | mm   |
| "A"        | 50-7/32"  | 1275 | 51-21/32"     | 1312 | 53-3/4"       | 1365 | 65-25/32"  | 1670 |
| "B"        | 48-3/4"   | 1238 | 50-1/16"      | 1271 | 51-5/8"       | 1311 | 63-9/32"   | 1607 |
| "C"        | 42-1/16"  | 1068 | 42-1/2"       | 1080 | 44-3/8"       | 1127 | 55-11/16"  | 1415 |
| Assembly # | 808102    | 1    | 810186        | 9    | 8101599       | )    | 812003     | 1    |
|            |           |      |               |      |               |      |            |      |

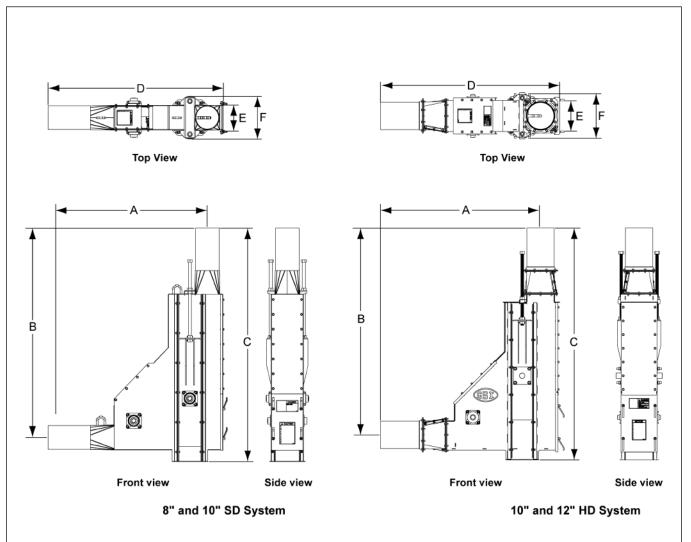
#### Figure 7-3 Discharge gates



| Dimension  | 8" Sy    | stem | 10" S    | ystem | 12" System |      |  |
|------------|----------|------|----------|-------|------------|------|--|
| Dimension  | inches   |      | inches   | mm    | inches     | mm   |  |
| "A"        | 30-1/16" | 764  | 32-1/16" | 814   | 54-11/16"  | 1388 |  |
| "B"        | 96"      | 2438 | 96"      | 2438  | 144"       | 3657 |  |
| "C"        | 79"      | 2007 | 79"      | 2007  | 123-63/64" | 3148 |  |
| Assembly # | 8081370  |      | 8101     | 1554  | 8120293    |      |  |



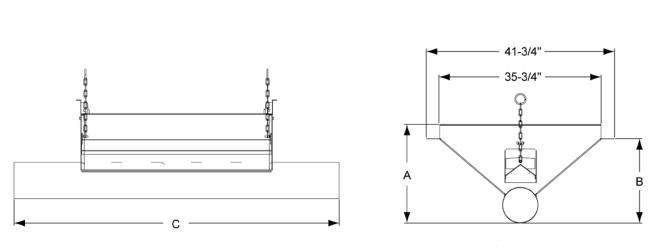
#### Figure 7-4 Inspection corners



| Dimension  | 8" System |      | 10" SD System |      | 10" HD System |      | 12" System |      |
|------------|-----------|------|---------------|------|---------------|------|------------|------|
| Dimension  | inches    | mm   | inches        | mm   | inches        | mm   | inches     | mm   |
| "A"        | 53-5/8"   | 1362 | 54-5/8"       | 1387 | 58-7/16"      | 1484 | 67-19/32"  | 1717 |
| "B"        | 70-7/16"  | 1789 | 71-1/2"       | 1816 | 75-7/16"      | 1916 | 86-3/32"   | 2187 |
| "C"        | 78-19/32" | 1996 | 80-21/32"     | 2049 | 84-5/8"       | 2149 | 96-3/16"   | 2443 |
| "D"        | 58-15/16" | 1497 | 61-1/8"       | 1553 | 65-7/16"      | 1662 | 75-7/32"   | 1911 |
| "E"        | 8-3/8"    | 213  | 10-3/8"       | 264  | 10-3/8"       | 264  | 12-3/16"   | 309  |
| "F"        | 13-7/8"   | 1492 | 15-7/8"       | 403  | 15-7/8"       | 403  | 25-5/16"   | 643  |
| Assembly # | 808104    | 8    | 810187        | 0    | 8101618       | 3    | 812005     | 1    |

# 8", 10" and 12" Bin Well and Dump Hopper Dimensions

Figure 7-5 Inlet hopper part numbers and dimensions

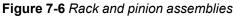


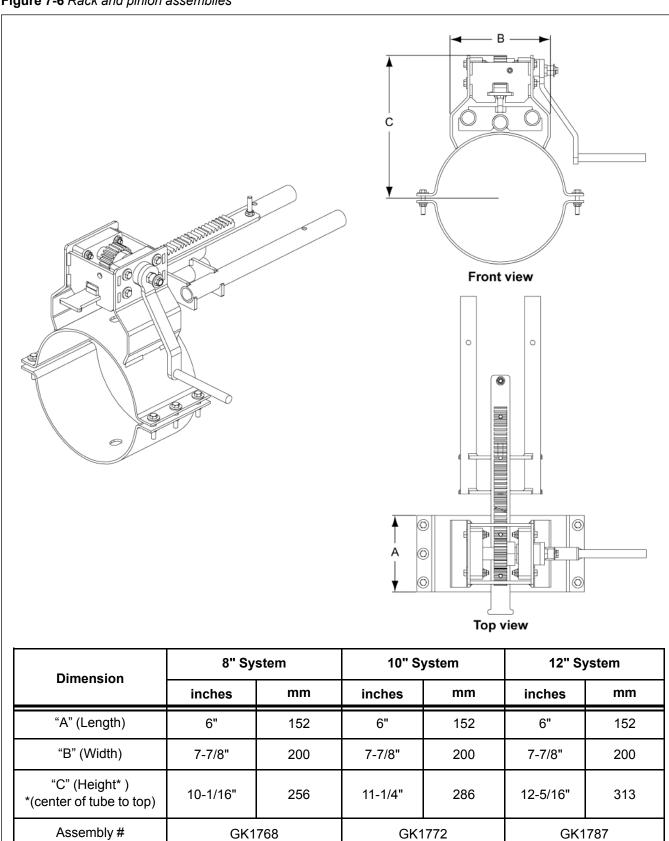
Front view

Side view

| Honnor Width                  |                             |           |       |         | Part #     |          |      | Dimen      | sion "C" |  |
|-------------------------------|-----------------------------|-----------|-------|---------|------------|----------|------|------------|----------|--|
| Hopper Width                  |                             | 8" S      | ystem | 10      | )" System  | 12" Syst | em   | inches     | mm       |  |
| 42-1/2" w/ Drive-over Grates  | es 8089025H 8109035 8129024 |           | 24    | 72"     | 1829       |          |      |            |          |  |
| 42-1/2" Hopper Assembly Or    | nly                         | 808       | 31106 |         | 8101106    | 812012   | 21   | 72"        | 1829     |  |
| 62-1/2" w/ Drive-over Grates  |                             | 808       | 9027H |         | 8109027    | -        |      | 92"        | 2337     |  |
| 62-1/2" Hopper Assembly Only  |                             | 808       | 31107 |         | 8101107    | -        |      | 92"        | 2337     |  |
| 102-1/2" w/ Drive-over Grates |                             | 8089029H  |       | 8109039 | 8129025    |          | 132" | 3353       |          |  |
| 102-1/2" Hopper Assembly Only |                             | 8081108   |       |         | 8101108    | 8120127  |      | 132"       | 3353     |  |
| 122-1/2" w/ Drive-over Grate  | s                           | -         |       |         | -          | 8129026  |      | 152"       | 3861     |  |
| 122-1/2" Hopper Assembly C    | Dnly                        | -         |       |         | -          | 8120134  |      | 152"       | 3861     |  |
| 125" w/ Drive-over Grates     |                             | 8089031H  |       | 8       | 3101166L   | -        |      | 155"       | 3937     |  |
| 125" Hopper Assembly Only     |                             | 808       | 31166 |         | 8101166    | -        |      | 155"       | 3937     |  |
| 144-1/2" w/ Drive-over Grate  | S                           | 808       | 9033H |         | 8109043    | -        |      | 168"       | 4267     |  |
| 144-1/2" Hopper Assembly C    | Dnly                        | 808       | 31109 |         | 8101109    | -        |      | 168"       | 4267     |  |
| Dimension                     |                             | 8" System |       |         | 10" System |          |      | 12" System |          |  |
| Dimension                     | inc                         | hes       | mm    |         | inches     | mm       | i    | nches      | mm       |  |

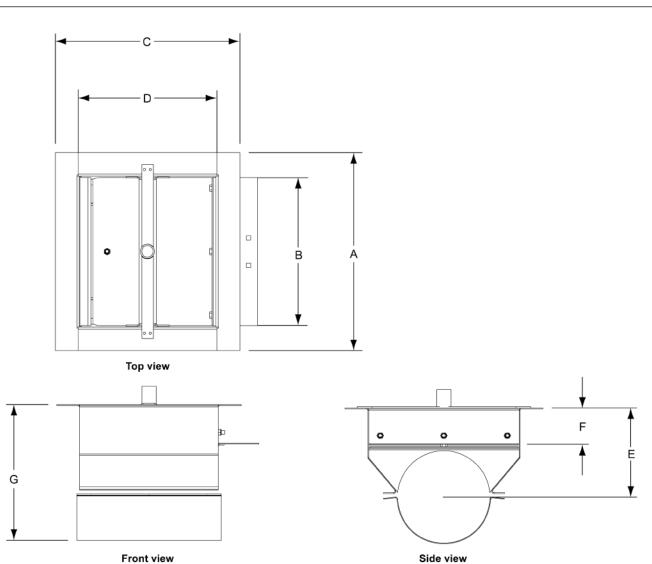
| Dimension                        | 8" Sy   | /stem | 10" S   | ystem | 12" System |     |
|----------------------------------|---------|-------|---------|-------|------------|-----|
| Dimension                        | inches  | mm    | inches  | mm    | inches     | mm  |
| "A"<br>(Top of Drive-over Grate) | 22-1/2" | 572   | 24-3/8" | 619   | 24-13/32"  | 620 |
| "B"<br>(Top of Hopper Flange)    | 18-3/4" | 476   | 20-3/4" | 527   | 21-3/8"    | 543 |





# **Chapter 7: Component Dimensions**

#### Figure 7-7 Center wells

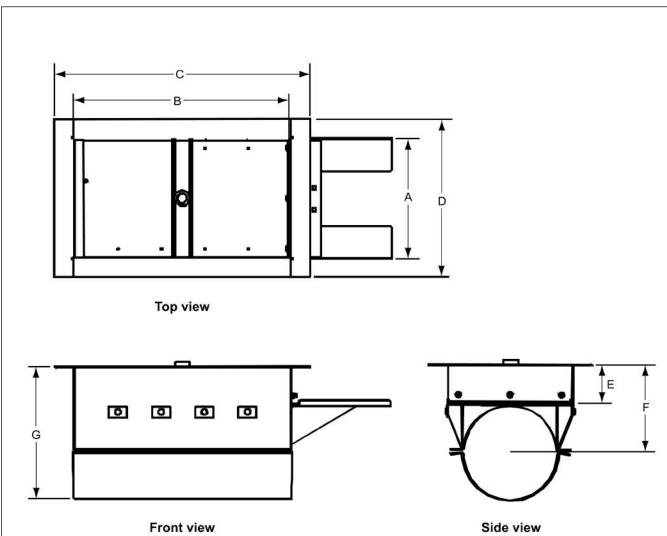


Front view

|            |            | 8" Sy           | stem    |             | 10" System |                 |          |     |  |
|------------|------------|-----------------|---------|-------------|------------|-----------------|----------|-----|--|
| Dimension  | without Ro | without Rollers |         | with Roller |            | without Rollers |          | ler |  |
|            | inches     | mm              | inches  | mm          | inches     | mm              | inches   | mm  |  |
| "A"        | 17-1/8"    | 435             | 17-1/8" | 435         | 17-1/8"    | 435             | 17-9/32" | 439 |  |
| "B"        | 13"        | 330             | 13"     | 330         | 13"        | 330             | 13"      | 330 |  |
| "C"        | 16"        | 406             | 16"     | 406         | 18"        | 457             | 18"      | 457 |  |
| "D"        | 12"        | 305             | 12"     | 305         | 13-3/4"    | 349             | 13-3/4"  | 349 |  |
| "E"        | 7-3/4"     | 197             | 7-3/4"  | 197         | 9-1/2"     | 241             | 9-1/2"   | 241 |  |
| "F"        | 3-1/8"     | 79              | 3-1/8"  | 79          | 3-3/8"     | 86              | 3-3/8"   | 86  |  |
| "G"        | 11-3/4"    | 298             | 11-3/4" | 298         | 14-1/2"    | 368             | 14-1/2"  | 368 |  |
| Assembly # | GK278      | 5               | 808119  | 2           | GK1943     | 3               | 810119   | 2   |  |

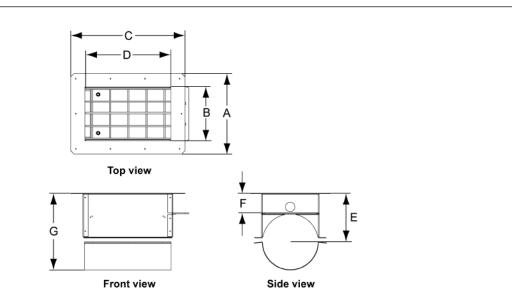
# Chapter 7: Component Dimensions

Figure 7-8 Large center wells



| Dimension  | 8" System in. with roller |         | 10" System i | n. with roller | 12" System in. with<br>roller |     |  |
|------------|---------------------------|---------|--------------|----------------|-------------------------------|-----|--|
|            | inches                    | mm      | inches       | mm             | inches                        | mm  |  |
| "A"        | 13"                       | 330     | 13"          | 330            | 13"                           | 330 |  |
| "B"        | 21-27/32"                 | 555     | 23-3/4"      | 603            | 23-3/4"                       | 603 |  |
| "C"        | 25-31/32"                 | 659     | 28"          | 711            | 28"                           | 711 |  |
| "D"        | 17-5/32"                  | 436     | 17-9/32"     | 439            | 17-9/32"                      | 439 |  |
| "E"        | 3-9/32"                   | 83      | 4-1/16"      | 103            | 3-9/16"                       | 76  |  |
| "F"        | 7-23/32"                  | 196     | 9-13/32"     | 239            | 9-7/8"                        | 229 |  |
| "G"        | 11-25/32"                 | 299     | 14-1/2"      | 368            | 16"                           | 406 |  |
| Assembly # | 8081                      | 8081238 |              | 254            | 8120101                       |     |  |

#### Figure 7-9 Intermediate wells

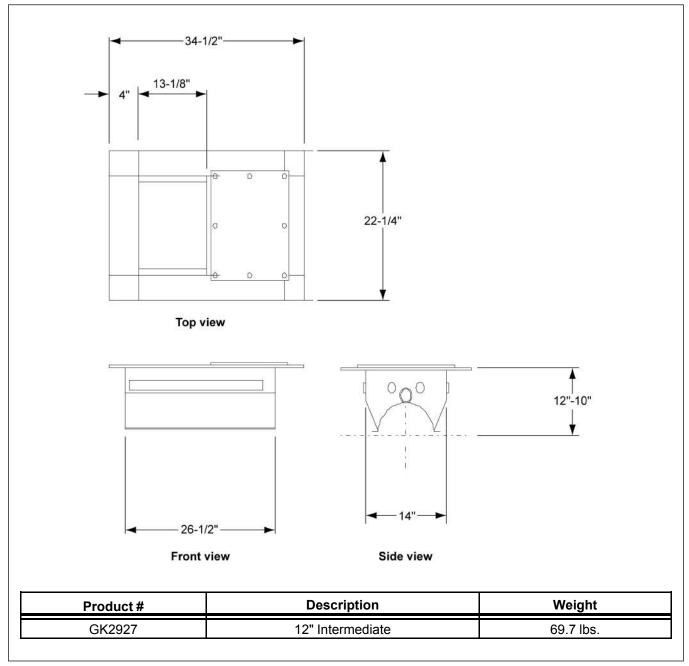


|            |            |       | 10" Syste  | em  |                 |          |  |
|------------|------------|-------|------------|-----|-----------------|----------|--|
| Dimension  | without Ro | llers | with Rolle | ers | with Slide Gate |          |  |
|            | inches     | mm    | inches     | mm  | inches          | mm       |  |
| "A"        | 17-1/8"    | 435   | 17-1/8"    | 435 | 17-1/8"         | 435      |  |
| "B"        | 13"        | 330   | 13"        | 330 | 13"             | 330      |  |
| "C"        | 18"        | 457   | 18"        | 457 | 22"             | 559      |  |
| "D"        | 13-7/8"    | 352   | 13-7/8"    | 352 | 17-7/8"         | 454      |  |
| "E"        | 9-1/2"     | 241   | 9-1/2"     | 241 | 9-1/2"          | 241      |  |
| "F"        | 2-1/8"     | 54    | 2-1/8"     | 54  | -               | -        |  |
| "G"        | 14-1/2"    | 368   | 14-1/2"    | 368 | 14-1/2"         | 368      |  |
| Assembly # | GK1942     | 2     | 8101193    | 3   | 8101194         |          |  |
|            |            | 8" Sy | stem       |     | *12" Syst       | " System |  |
| Dimension  | without Ro | llers | with Rolle | ers | with Roller     |          |  |
|            | inches     | mm    | inches     | mm  | inches          | mm       |  |
| "A"        | 11-5/8"    | 295   | 13-1/8"    | 333 | 22-1/4"         | 565      |  |
| "B"        | 7-1/2"     | 191   | 7-5/16"    | 186 | 14-1/4"         | 362      |  |
| "C"        | 16-1/2"    | 419   | 19-1/4"    | 489 | 34-1/2"         | 876      |  |
| "D"        | 13-1/2"    | 343   | 13-1/2"    | 343 | 13-1/8"         | 333      |  |
| "E"        | 7"         | 178   | 7-5/8"     | 194 | 10"             | 254      |  |
| "F"        | 2-3/4"     | 70    | 1-15/16"   | 49  | 2-1/8"          | 54       |  |
| "G"        | 11"        | 279   | 11-5/8"    | 295 | 16"             | 406      |  |
|            |            |       |            | -   | *GK2927         |          |  |

\* 12" Commercial intermediate well drawing. Refer to Figure 7-10, page 53.



#### Figure 7-10 12" intermediate well



# NOTES

# **8** Parts List

#### **Topics Covered in this Chapter**

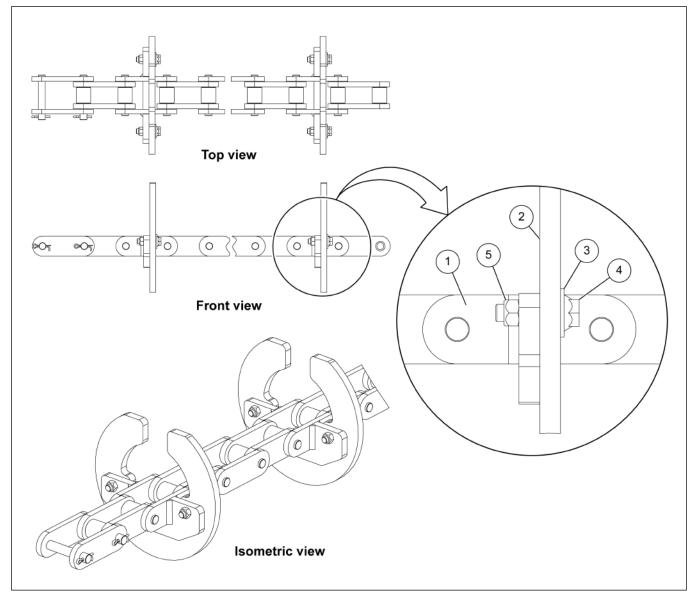
- 8 in. Chain and Paddles
- 10 in. Chain and Paddles
- 12 in. Chain and Paddles (8120141)
- 8 in. Discharge Gate Assembly (8081370)
- 10 in. Discharge Gate Assembly (8101554)
- 12 in. (7 Gauge) Discharge Gate (8120293)
- Chain Loop Drive Components
- 8 in. (15 HP) Drive Components (8081365)
- 8 in. (20 HP) Drive Components (8081363)
- 8 in. (15 HP-20 HP) Drive Components (8081362)
- 10 in. (20 HP) Standard Drive Components (8101865)
- 10 in. (20 HP) HD Drive Components (8101753)
- 10 in. (15 HP-20 HP) Drive Components (8101871)
- 10 in. (15 HP-20 HP) HD Drive Components (8101633)
- 8 in. (25 HP-30 HP) Drive Components (8081360)
- 8 in. (25 HP-30 HP) Drive Components (8081359)
- 10 in. (25 HP-30 HP) Standard Drive Components (8101866)
- 10 in. (25 HP-30 HP) HD Drive Components (8101754)
- 10 in. (25 HP-30 HP) Standard Drive Components (8101872)
- 10 in. (25 HP-30 HP) HD Drive Components (8101628)
- 10 in. (40 HP) Standard Drive Components (8101867)
- 10 in. (40 HP) HD Drive Components (8101755)
- 10 in. (50 HP) Standard Drive Components (8101868)
- 10 in. (50 HP) HD Drive Components (8101756)
- 10 in. (40 HP-50 HP) Standard Drive Components (8101873)
- 10 in. (40 HP-50 HP) HD Drive Components (8101604)
- 8 in. (15 HP) Drive Components (8081271)
- 8 in. (20 HP) Drive Components (8081285)
- 8 in. 10 in. (25 HP-30 HP) Drive Components (8081296)
- 10 in. (40 HP) Drive Components (8101303)
- 10 in. (50 HP) Drive Components (8101331)
- Belt Guard Assembly TA3 (8120217)
- Belt Guard Assembly TA4 (8120211)
- Belt Guard Assembly TA5 (8120214)
- 12 in. 7 Gauge (30 HP) Drive Components (8120000)
- 12 in. 7 Gauge (40 HP-50 HP) Drive Components (8120144)
- 12 in. 7 Gauge (60 HP) Drive Components (8120163)
- 8 in. and 10 in. Inlet Dump Hoppers
- 12 in. (7 Gauge) 42-1/2 in. Inlet Dump Hoppers (8120121)
- 12 in. (7 Gauge) 102-1/2 in. Inlet Dump Hoppers (8120127)
- 12 in. (7 Gauge) 122-1/2 in. Inlet Dump Hoppers (8120134)

#### **Chapter 8: Parts List**

- 12 in. (10 Gauge) 102-1/2 in. Inlet Dump Hoppers (8120186)
- 12 in. (10 Gauge) 122-1/2 in. Inlet Dump Hoppers (8120187)
- 8 in. and 10 in. Standard Corner
- 10 in. HD Standard Corner (8101599)
- 12 in. (7 Gauge) Standard Corner (8120031)
- 8 in. and 10 in. Inspection Corner
- 10 in. HD Inspection Corner (8101618)
- 12 in. (7 Gauge) Inspection Corner (8120051)
- Chain Loop Torque Plate Assembly
- Ground Control Kit

# 8 in. Chain and Paddles

Figure 8-1 8 in. Chain and paddles parts

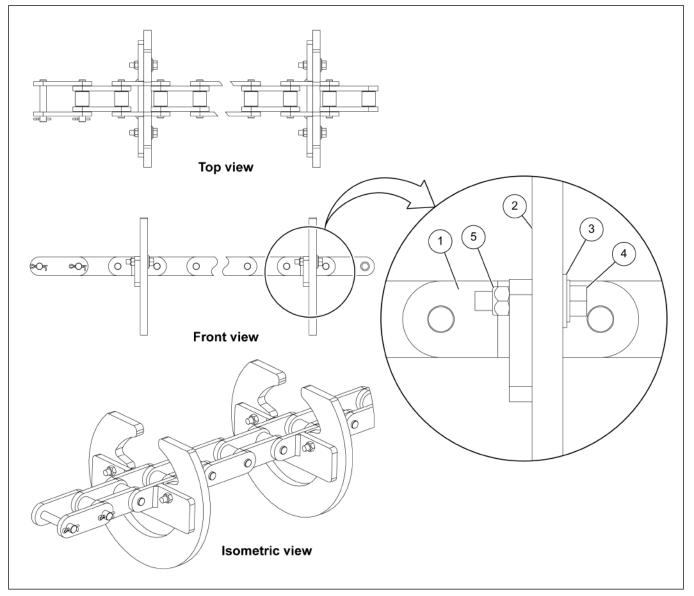


| Table 8-1 8 in | Chain and paddles parts list |
|----------------|------------------------------|
|----------------|------------------------------|

| Ref # | Part #  | Description                                                | Qty |
|-------|---------|------------------------------------------------------------|-----|
| 1     | 8081387 | Chain Weldment 8 in. x 10 ft. 81 x HH with Connection Link | 1   |
| 2     | 8081145 | Paddle 8 in., 8 in. Chain Loop UHMW                        | 12  |
| 3     | S-845   | Flat Washer 5/16 in. USS SAE YDP Grade 2                   | 24  |
| 4     | S-8135  | Flange Bolt 5/16-18 x 1-1/4 in. ZN Grade 5                 | 24  |
| 5     | S-8324  | Stover Nut 5/16-18 in. ZN Grade C                          | 24  |

# 10 in. Chain and Paddles

Figure 8-2 10 in. Chain and paddles parts



| Table 8-2 10 in | . Chain and paddles parts list |
|-----------------|--------------------------------|
|-----------------|--------------------------------|

| Ref # | Part #  | Description                                                 | Qty |
|-------|---------|-------------------------------------------------------------|-----|
| 1     | 8101573 | Chain Weldment 10 in. x 10 ft. 81 x HH with Connection Link | 1   |
| 2     | 8101145 | Paddle 10 in., Chain Loop UHMW                              | 12  |
| 3     | S-845   | Flat Washer 5/16 in. USS SAE YDP Grade 2                    | 24  |
| 4     | S-10185 | Flange Bolt 5/16-18 x 1-1/2 in. ZN Grade 5                  | 24  |
| 5     | S-8324  | Stover Nut 5/16-18 in. ZN Grade C                           | 24  |

# 12 in. Chain and Paddles (8120141)

Figure 8-3 12 in. Chain and paddles (8120141) parts

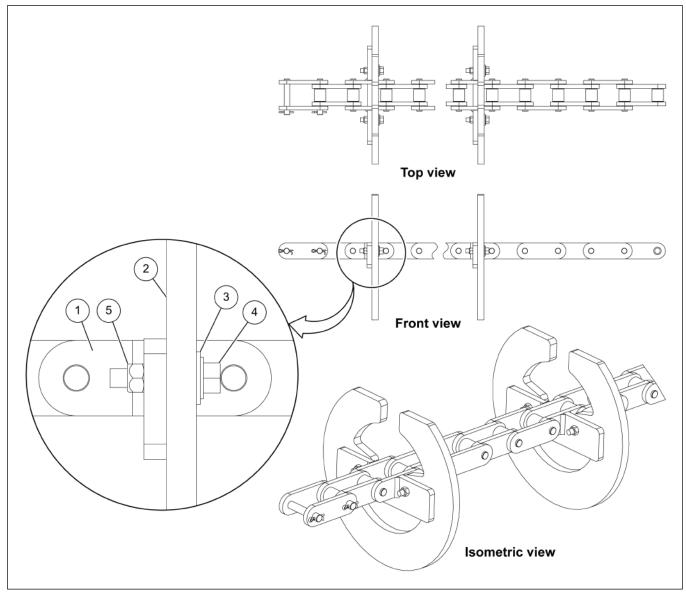
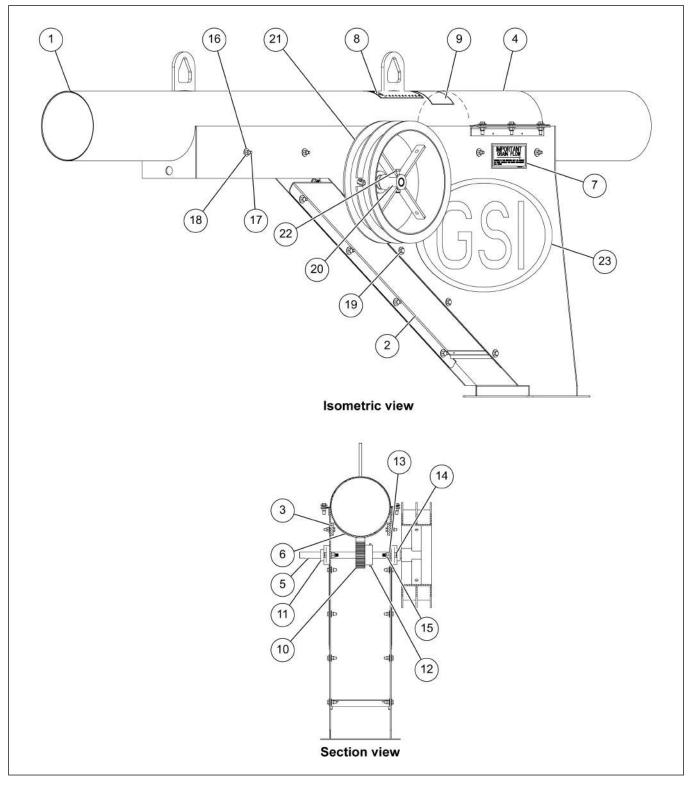


Table 8-3 10 in. Chain and paddles parts list

| Ref # | Part #  | Description                                                 | Qty |
|-------|---------|-------------------------------------------------------------|-----|
| 1     | 8120302 | Chain Weldment 12 in. x 10 ft. 81 x HH with Connection Link | 1   |
| 2     | 8120139 | Paddle 12 in., Chain Loop                                   | 9   |
| 3     | S-845   | Flat Washer 5/16 in. USS SAE YDP Grade 2                    | 18  |
| 4     | S-10185 | Flange Bolt 5/16-18 x 1-1/2 in. ZN Grade 5                  | 18  |
| 5     | S-8324  | Stover Nut 5/16-18 in. ZN Grade C                           | 18  |

# 8 in. Discharge Gate Assembly (8081370)

Figure 8-4 8 in. Discharge gate Assembly (8081370) parts

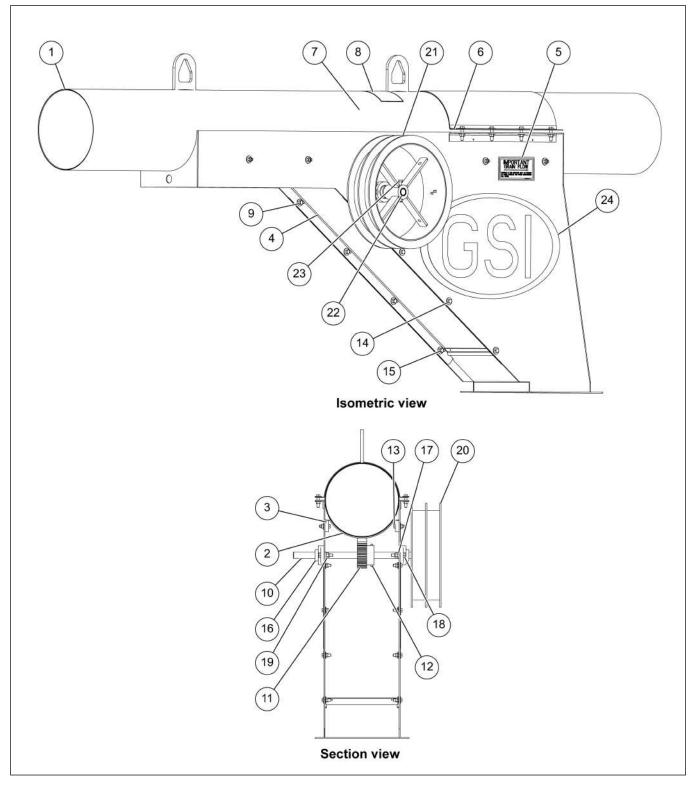


| Ref # | Part #       | Description                                         | Qty |
|-------|--------------|-----------------------------------------------------|-----|
| 1     | 8081369-BS   | Chain Loop: Discharge Weldment 8 in.                | 1   |
| 2     | 8081093-BS   | Weldment, 8 in. 90° Discharge Access Panel          | 1   |
| 3     | 8081351-BS   | 8 in. Discharge Gate Steel Rail                     | 2   |
| 4     | 8081096      | Access Door Assembly 8 in. 90° Discharge with Gate  | 1   |
| 5     | 8081298      | Shaft Control with Discharge Gate                   | 1   |
| 6     | 8081097      | Slide Gate Weldment 8 in. 90° Discharge with Gate   | 1   |
| 7     | 8107004      | Decal, Important                                    | 1   |
| 8     | DC-1379      | Decal, Notice 5-1/8 x 7-3/8 in.                     | 1   |
| 9     | 8107001      | Decal, Danger                                       | 1   |
| 10    | S-8129       | Spur Gear 8DP 26 Tooth 7/8 in. Bore                 | 1   |
| 11    | S-8030       | Bearing, 7/8 2-Bolt Flange 3 in. C/C                | 2   |
| 12    | 3FH0887      | Spring Pin 1/4 x 3 in. Plated                       | 1   |
| 13    | S-7409       | Flat Washer 3/8 in. SAE ZN Grade 2                  | 4   |
| 14    | S-10275      | Bolt, HHCS 3/8-16 x 1-1/2 in. Grade 8               | 4   |
| 15    | S-7383       | Nylock Nut 3/8-16 in. ZN Grade 5                    | 4   |
| 16    | S-845        | Flat Washer 5/16 in. USS SAE YDP Grade 2            | 40  |
| 17    | S-4276       | Bolt, HHTB 5/16-18 x 1-1/4 in. ZN Grade 5           | 18  |
| 18    | S-7382       | Nylock Nut 5/16-18 in. ZN Grade 5                   | 27  |
| 19    | S-1196       | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5               | 8   |
| 20    | 8081316      | Bushing - Control Wheel Discharge                   | 1   |
| 21    | 8101555      | Ground Control: Wheel with Clamp 1 in. Bore         | 1   |
| 22    | S-7076       | Bolt, HHCS 5/16-18 x 2-1/2 in. ZN Grade 5           | 1   |
| 23    | DC-1058      | Decal, GSI Logo 13 x 23.5 in.                       | 2   |
| N/S   | CRTGATESTCNR | Crate Chain Loop Discharge Gate and Standard Corner | 1   |
| N/S   | MHC01031     | Sealant, Gray MD Max 3500 Tube, Acrylic Caulking    | 1   |

Table 8-4 8 in. Discharge gate Assembly (8081370) parts list

# 10 in. Discharge Gate Assembly (8101554)

Figure 8-5 10 in. Discharge gate Assembly (8101554) parts

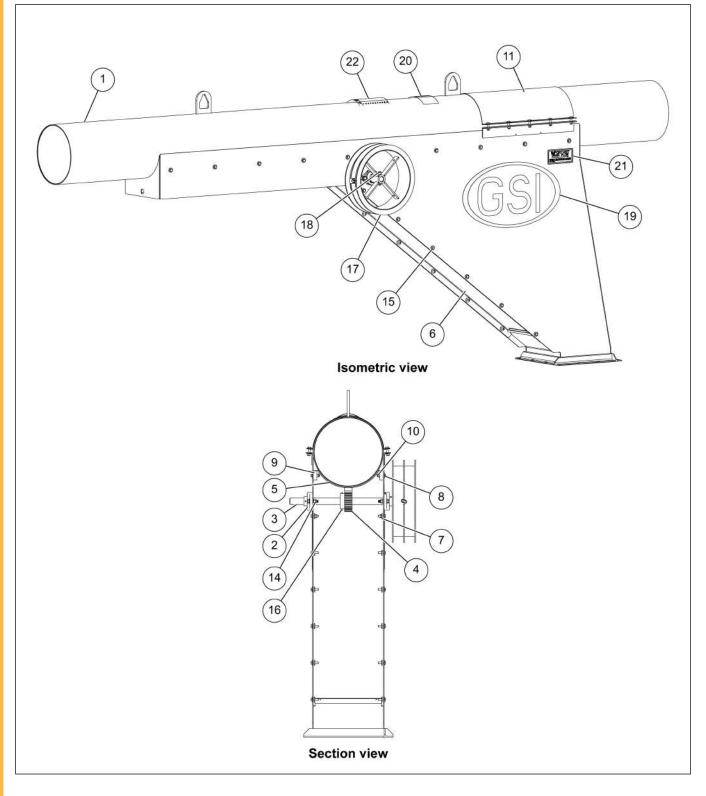


| Ref # | Part #     | Description                                         | Qty |
|-------|------------|-----------------------------------------------------|-----|
| 1     | 8101553-BS | Chain Loop: Discharge Weldment 10 in.               | 1   |
| 2     | 8101097    | Slide Gate Weldment 10 in. 90° Discharge with Gate  | 1   |
| 3     | 8101501-BS | Chain Loop 10 in. Discharge Gate Rail               | 2   |
| 4     | 8101093-BS | Weldment, 10 in. 90° Discharge Access Panel         | 1   |
| 5     | 8107004    | Decal, Important                                    | 1   |
| 6     | 8101096    | Access Door Assembly 10 in. 90° Discharge with Gate | 1   |
| 7     | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                     | 1   |
| 8     | 8107001    | Decal, Danger                                       | 1   |
| 9     | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2            | 44  |
| 10    | 8101304    | Shaft Control with Discharge Gate                   | 1   |
| 11    | S-8129     | Spur Gear 8DP 26 Tooth 7/8 in. Bore                 | 1   |
| 12    | 3FH0887    | Spring Pin 1/4 x 3 in. Plated                       | 1   |
| 13    | S-4276     | Bolt, HHTB 5/16-18 x 1-1/4 in. ZN Grade 5           | 12  |
| 14    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5               | 8   |
| 15    | S-7382     | Nylock Nut 5/16-18 in. ZN Grade 5                   | 29  |
| 16    | S-8030     | Bearing, 7/8 2-Bolt Flange 3 in. C/C                | 2   |
| 17    | S-7409     | Flat Washer 3/8 in. SAE ZN Grade 2                  | 4   |
| 18    | S-10275    | Bolt, HHCS 3/8-16 x 1-1/2 in. Grade 8               | 4   |
| 19    | S-7383     | Nylock Nut 3/8-16 in. ZN Grade 5                    | 4   |
| 20    | 8101555    | Ground Control: Wheel with Clamp 1 in. Bore         | 1   |
| 21    | S-2741     | Bolt, HHCS 5/16-18 x 1-1/2 in. ZN Grade 5           | 8   |
| 22    | 8081316    | Bushing - Control Wheel Discharge                   | 1   |
| 23    | S-7076     | Bolt, HHCS 5/16-18 x 2-1/2 in. ZN Grade 5           | 1   |
| 24    | DC-1058    | Decal, GSI Logo 13 x 23.5 in.                       | 2   |

 Table 8-5 10 in. Discharge gate Assembly (8101554) parts list

# 12 in. - (7 Gauge) Discharge Gate (8120293)

Figure 8-6 12 in. - (7 Gauge) Discharge gate (8120293) parts



| Ref # | Part #     | Description                                                              | Qty  |
|-------|------------|--------------------------------------------------------------------------|------|
| 1     | 8120292-BS | Chain Loop: Discharge Weldment 12 in. 7 Gauge                            | 1    |
| 2     | MHC01377   | Bearing, Light Duty 1-1/8 in.                                            | 2    |
| 3     | 8120091    | Shaft - Discharge Gate                                                   | 1    |
| 4     | MHC00999   | Gear, Spur 8 DP 26T 1-1/8 in. Bore                                       | 1    |
| 5     | 8120088    | Slide Gate Weld - Discharge Gate                                         | 1    |
| 6     | 8120086-BS | Bottom Cover Weldment                                                    | 1    |
| 7     | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                                 | 64   |
| 8     | S-4276     | Bolt, HHTB 5/16-18 x 1-1/4 in. ZN Grade 5                                | 30   |
| 9     | 8120286-BS | Chain Loop: 10 in. Discharge, Gate Rail                                  | 4    |
| 10    | S-7382     | Nylock Nut 5/16-18 in. ZN Grade 5                                        | 38   |
| 11    | 8120169-BS | 12 x 22 in. Halfband                                                     | 1    |
| 12    | S-7409     | Flat Washer 3/8 in. SAE ZN Grade 2                                       | 8    |
| 13    | S-10275    | Bolt, HHCS 3/8-16 x 1-1/2 in. Grade 8                                    | 4    |
| 14    | S-7383     | Nylock Nut 3/8-16 in. ZN Grade 5                                         | 4    |
| 15    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                                    | 12   |
| 16    | 3FH0887    | Spring Pin 1/4 x 3 in. Plated                                            | 1    |
| 17    | 8101556    | Ground Control: Wheel with Clamp 1.125 in. Bore                          | 1    |
| 18    | S-7076     | Bolt, HHCS 5/16-18 x 2-1/2 in. ZN Grade 5                                | 1    |
| 19    | DC-1058    | Decal, GSI Logo 13 x 23.5 in.                                            | 2    |
| 20    | 8107001    | Decal, Danger                                                            | 1    |
| 21    | 8107004    | Decal, Important                                                         | 1    |
| 22    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                          | 1    |
| N/S   | S-8762     | Clamp, 3/16 in. Cable Zinc Plated                                        | 1    |
| N/S   | S-2052     | Foam Strip 1/8 in. Thick x 1/2 in. Wide Weather In Rolls 75 ft. Per Roll | 7    |
| N/S   | MHC01031   | Sealant, Gray MD Max 3500 Tube, Acrylic Caulking                         | 0.25 |

Table 8-6 12 in. - (7 Gauge) Discharge gate (8120293) parts list

# **Chain Loop Drive Components**

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

Table 8-7 International chain loop motors - 50 Hz

Table 8-8 8 in. Motor pulleys, bushings and drive belts - 50 Hz

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

Table 8-9 10 in. Motor pulleys, bushings and drive belts - 50 Hz

| HP       | Part                 | Part #     | Description          | Qty | Lbs. | Kgs. |
|----------|----------------------|------------|----------------------|-----|------|------|
| 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 in. 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 in.       | 1   | 9    | 4.1  |
|          | Drive Belts          | KD-PDV0017 | 5VX710               | 4   | 1.1  | 0.5  |
|          | Motor Pulley         | MHC01668   | 3 Grade 5V 9.0 SF    | 1   | 36   | 16.3 |
|          | Motor Pulley Bushing | MHC01162   | SF x 1-7/8 in. Bore  | 1   | 9    | 4.1  |
| 25-30 HP | Reducer Pulley       | MHC01160   | 3 Grade 5V 9.25 SF   | 1   | 44   | 19.9 |
|          | Reducer Bushing      | GC07551    | SF x 1-7/16 in. Bore | 1   | 9    | 4.1  |
|          | Drive Belts          | MHC00604   | 5VX800               | 3   | 1.1  | 0.5  |
|          | Motor Pulley         | MHC01717   | 4 Grade 5V 8.5 E     | 1   | 36   | 16.3 |
|          | Motor Pulley Bushing | MHC01540   | E x 2-1/8 in. Bore   | 1   | 9    | 4.1  |
| 40 HP    | Reducer Pulley       | KD-PDS0016 | 4 Grade 5V 9.0 E     | 1   | 44   | 19.9 |
|          | Reducer Bushing      | MHC01537   | E x 1-5/8 in. Bore   | 1   | 9    | 4.1  |
|          | Drive Belts          | MHC00604   | 5VX800               | 3   | 1.2  | 0.5  |
|          | Motor Pulley         | KD-PDS0021 | 4 Grade 5V 10.3 E    | 1   | 36   | 16.3 |
|          | Motor Pulley Bushing | MHC01540   | E x 2-1/8 in. Bore   | 1   | 9    | 4.1  |
| 50 HP    | Reducer Pulley       | KD-PDS0029 | 4 Grade 5V 10.9 E    | 1   | 44   | 19.9 |
|          | Reducer Bushing      | MHC01537   | E x 1-5/8 in. Bore   | 1   | 9    | 4.1  |
|          | Drive Belts          | CE-00562   | 5VX900               | 4   | 1.2  | 0.5  |

| Hz | Part #   | Size  | Voltage      | Shaft Diameter | Lbs. | Kgs.  |
|----|----------|-------|--------------|----------------|------|-------|
| 60 | 3EL5069  | 15 HP | 230, 1 PH    | 1-5/8 in.      | 314  | 142.4 |
| 60 | MTR-0022 | 15 HP | 230/460 3 PH | 1-5/8 in.      | 234  | 106.1 |
| 60 | MTR-0025 | 20 HP | 230/460 3 PH | 1-5/8 in.      | 264  | 119.7 |
| 60 | MTR-0054 | 25 HP | 230/460 3 PH | 1-7/8 in.      | 396  | 179.6 |
| 60 | MTR-0056 | 30 HP | 230/460 3 PH | 1-7/8 in.      | 433  | 196.4 |
| 60 | MTR-0063 | 40 HP | 230/460 3 PH | 2-1/8 in.      | 514  | 233.1 |
| 60 | MTR-0067 | 50 HP | 230/460 3 PH | 2-1/8 in.      | 579  | 263   |
| 60 | MTR-0069 | 60 HP | 230/460 3 PH | 2-3/8 in.      | 747  | 339   |

 Table 8-11
 8 in. Motor pulleys, bushings and drive belts - 60 Hz

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

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

Table 8-12 10 in. Motor pulleys, bushings and drive belts - 60 Hz  $\,$ 

 Table 8-13 12 in. Motor pulleys, bushings and drive belts - 60 Hz

| HP    | Part                 | Part #     | Description          | Qty | Lbs. | Kgs. |
|-------|----------------------|------------|----------------------|-----|------|------|
| 30 HP | Motor Pulley         | MHC01530   | 3 Grade 5V 8.0 SF    | 1   | 19   | 8.6  |
|       | Motor Pulley Bushing | MHC01162   | SF x 1-7/8 in. 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 in. Bore | 1   | 3.8  | 1.7  |
|       | Drive Belts          | MHC00604   | SVX800               | 3   | 0.9  | 0.4  |
|       | Motor Pulley         | MHC01160   | 3 Grade 5V 9.25 SF   | 1   | 23   | 10.4 |
|       | Motor Pulley Bushing | GT3-0068   | SF x 2-1/8 in. Bore  | 1   | 5    | 2.3  |
| 40 HP | 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  |
|       | Motor Pulley         | MHC01538   | 4 Grade 5V 9.25 E    | 1   | 36   | 16.3 |
|       | Motor Pulley Bushing | MHC01540   | E x 2-1/8 in. Bore   | 1   | 9    | 4.1  |
| 50 HP | Reducer Pulley       | MHC01539   | 4 Grade 5V 13.2 E    | 1   | 44   | 19.9 |
|       | Reducer Bushing      | MHC01537   | E x 1-5/8 in. 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 in. 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 in. Bore  | 1   | 9    | 4.1  |
|       | Drive Belts          | MHC00477   | 5VX1060              | 4   | 1.2  | 0.5  |

# 8 in. (15 HP) Drive Components (8081365)

Figure 8-7 8 in. (15 HP) Drive components (8081365) parts

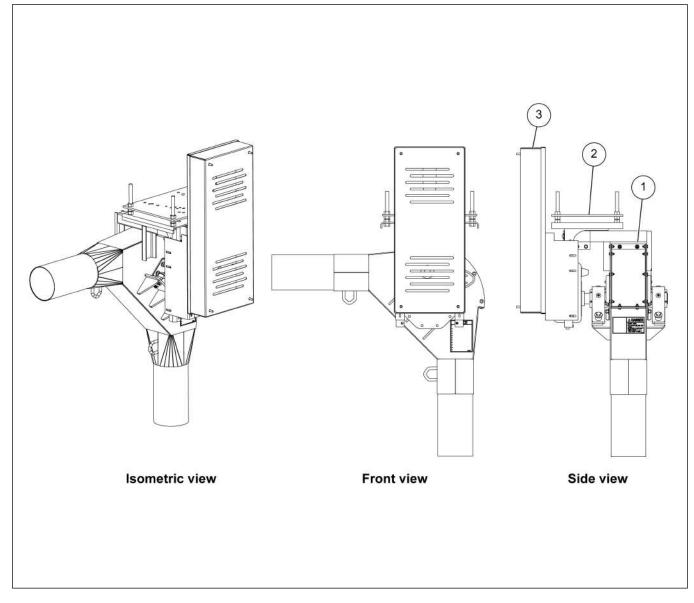


Table 8-14 8 in. (15 HP) Drive components (8081365) parts list

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

# 8 in. (20 HP) Drive Components (8081363)

Figure 8-8 8 in. (20 HP) Drive components (8081363) parts

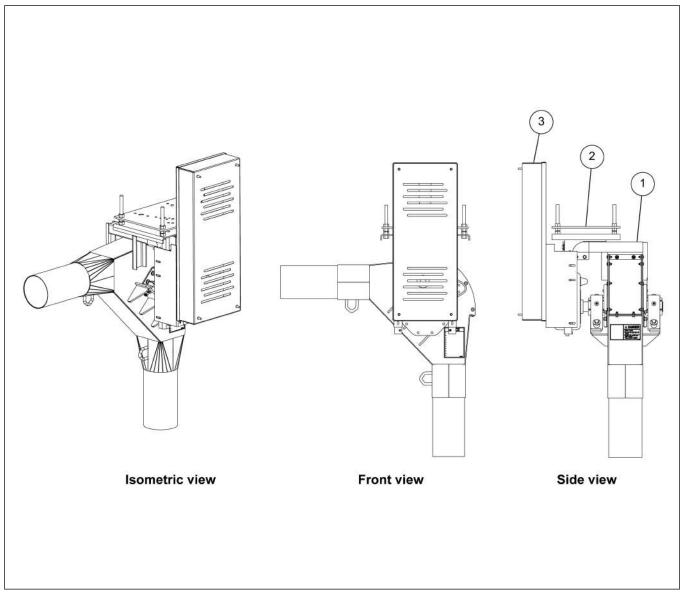
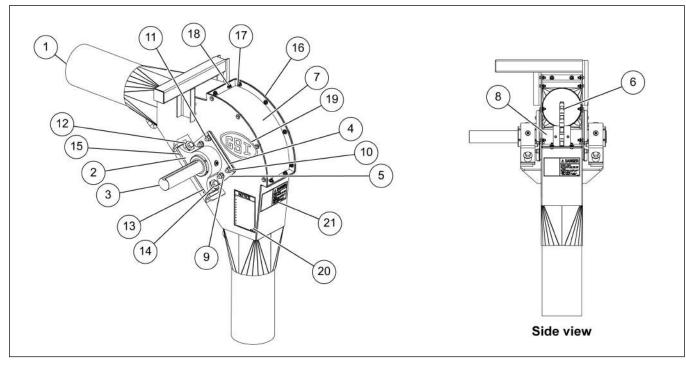


Table 8-15 8 in. (20 HP) Drive components (8081363) parts list

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

# 8 in. (15 HP-20 HP) Drive Components (8081362)

Figure 8-9 8 in. (15 HP-20 HP) Drive components (8081362) parts



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

# 10 in. (20 HP) Standard Drive Components (8101865)

Figure 8-10 10 in. (20 HP) Standard drive components (8101865) parts

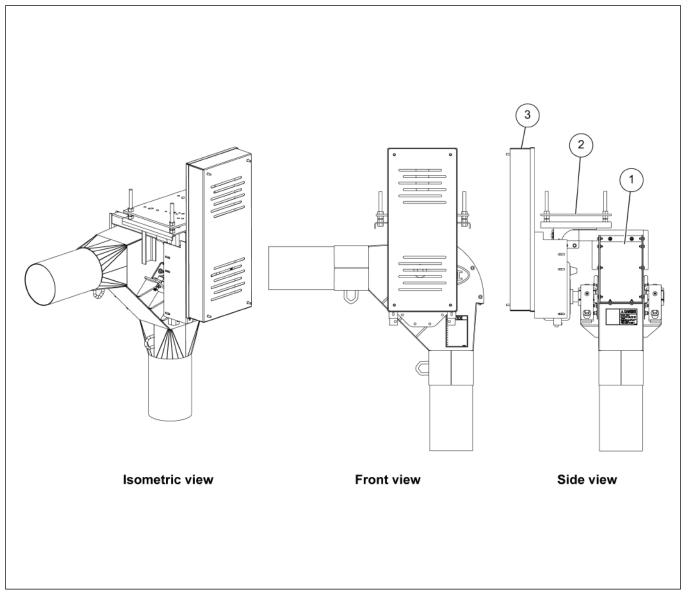


Table 8-17 10 in. (20 HP) Standard drive components (8101865) parts list

| Ref # | Part #  | Description                                                                  | Qty |
|-------|---------|------------------------------------------------------------------------------|-----|
| 1     | 8101871 | Chain Loop: 20 HP TA3 Drive Corner Assembly - 10 in. Standard Split Sprocket | 1   |
| 2     | 8081285 | Drive Box TA3, 20 HP, 8 in. and 10 in. Chain Loop                            | 1   |
| 3     | 8120217 | Belt Guard Assembly Chain Loop, TA3                                          | 1   |

# 10 in. (20 HP) HD Drive Components (8101753)

Figure 8-11 10 in. (20 HP) HD drive components (8101753) parts

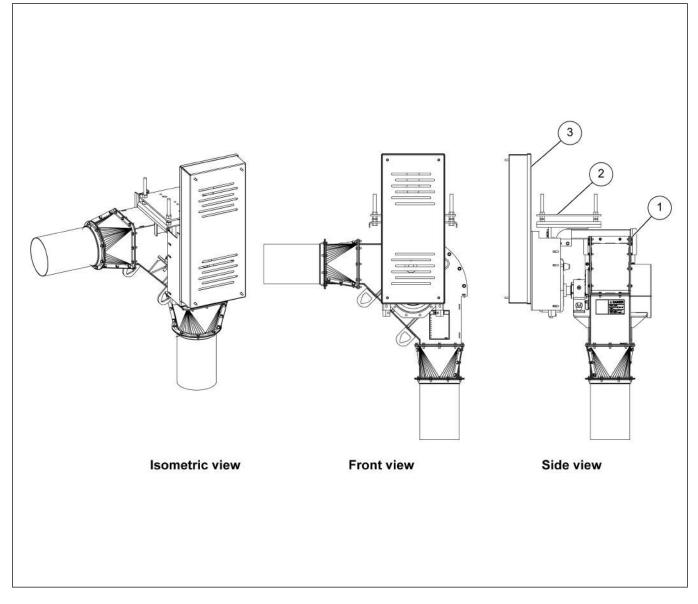
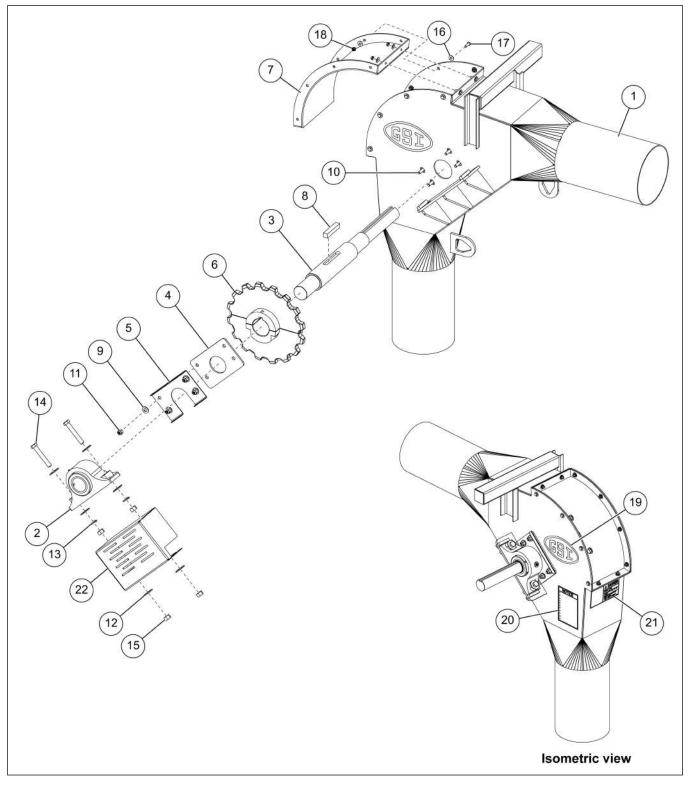


Table 8-18 10 in. (20 HP) HD drive components (8101753) parts list

| Ref # | Part #  | Description                                             | Qty |
|-------|---------|---------------------------------------------------------|-----|
| 1     | 8101633 | Chain Loop: 20 HP TA3 Drive Corner Assembly - 10 in. HD | 1   |
| 2     | 8081285 | Drive Box TA3, 20 HP, 8 in. and 10 in. Chain Loop       | 1   |
| 3     | 8120217 | Belt Guard Assembly Chain Loop, TA3                     | 1   |

# 10 in. (15 HP-20 HP) Drive Components (8101871)

Figure 8-12 10 in. (15 HP-20 HP) Drive components (8101871) parts

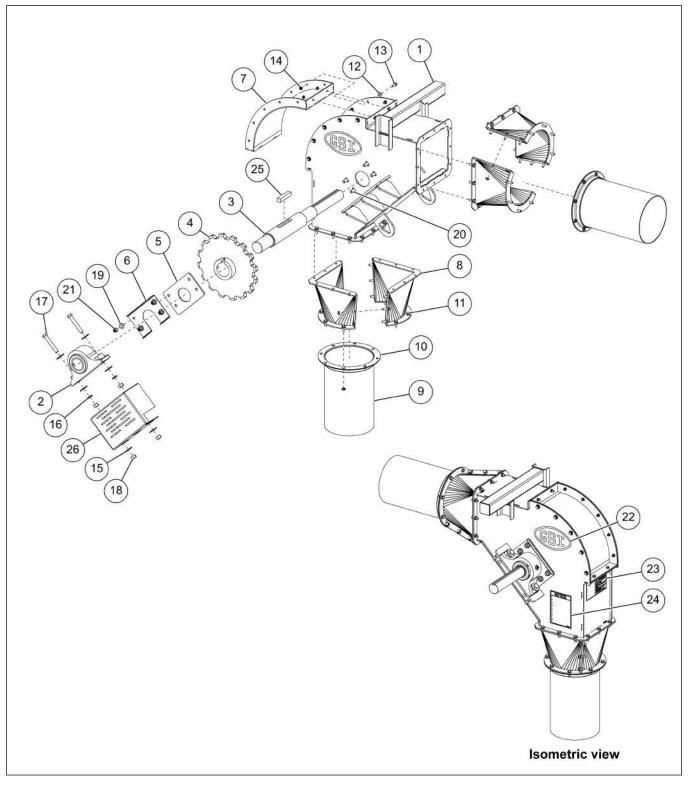


| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101524-BS | Chain Loop: TA3 Drive Corner Weldment - 10 in. 207 "E" Bearing    | 1   |
| 2     | 8101510    | Bearing, Taper Dodge #P2BE207R                                    | 2   |
| 3     | 8101527    | Chain Loop: TA3 Drive Shaft - 10 in. 207 "E" Bearing              | 1   |
| 4     | 8081269    | Corner Seal UHMW, 8 in. and 10 in. Chain Loop                     | 2   |
| 5     | 8081270-BS | Cover Plate for UHMW Bearing Seal                                 | 2   |
| 6     | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 7     | 8101009-BS | Door Inspection Weldment - Bin Silver                             | 1   |
| 8     | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 9     | S-8562     | Flat Washer 1/2 in. GV                                            | 16  |
| 10    | S-8760     | Bolt, HHCS 1/2-13 x 1-1/2 in. ZN Grade 5                          | 8   |
| 11    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                  | 8   |
| 12    | S-858      | Flat Washer 5/8 in. USS ZN Grade 2                                | 10  |
| 13    | S-3208     | Split Lock Washer 5/8 in. Med ZN                                  | 4   |
| 14    | S-7893     | Bolt, HHCS 5/8-11 x 4 in. ZN Grade 8                              | 4   |
| 15    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                    | 6   |
| 16    | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                          | 24  |
| 17    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                             | 12  |
| 18    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                | 12  |
| 19    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 20    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 1   |
| 21    | 8107001    | Decal, Danger Shear Point                                         | 1   |
| 22    | 8101768-Y  | Chain Loop: Shaft Cover - 207 Bearing                             | 1   |
| N/S   | CRTDRVCNR  | Crate Chain Loop Drive Corner                                     | 1   |

Table 8-19 10 in. (15 HP-20 HP) Drive components (8101871) parts list

## 10 in. (15 HP-20 HP) HD Drive Components (8101633)

Figure 8-13 10 in. (15 HP-20 HP) HD drive components (8101633) parts



| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101632-BS | Chain Loop: TA3 Drive Corner Weldment - 10 in. HD                 | 1   |
| 2     | 8101510    | Bearing, Taper Dodge #P2BE207R                                    | 2   |
| 3     | 8101527    | Chain Loop: TA3 Drive Shaft - 10 in. 207 "E" Bearing              | 1   |
| 4     | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 5     | 8081269    | Corner Seal UHMW, 8 in. and 10 in. Chain Loop                     | 2   |
| 6     | 8081270-BS | Cover Plate for UHMW Bearing Seal                                 | 2   |
| 7     | 8101590-BS | Chain Loop: 10 in. Standard Corner Cover Weld                     | 1   |
| 8     | 8101625-BS | Chain Loop: 10 in. Square-Round Weld Assembly                     | 4   |
| 9     | 8101600-BS | Chain Loop: 10 in. HD Corner Tube Weld - Bin Silver               | 2   |
| 10    | S-10028    | Flange Nut 3/8-16 in. ZN Grade 5                                  | 52  |
| 11    | S-9065     | Flange Bolt 3/8-16 x 1 in. ZN Grade 5                             | 52  |
| 12    | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                          | 10  |
| 13    | S-7470     | Flange Bolt 5/16-18 x 1 in. ZN Grade 5                            | 15  |
| 14    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                | 14  |
| 15    | S-858      | Flat Washer 5/8 in. USS ZN Grade 2                                | 10  |
| 16    | S-3208     | Split Lock Washer 5/8 in. Med ZN                                  | 4   |
| 17    | S-7893     | Bolt, HHCS 5/8-11 x 4 in. YDP Grade 8                             | 4   |
| 18    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                    | 6   |
| 19    | S-8562     | Flat Washer 1/2 in. GV                                            | 16  |
| 20    | S-8760     | Bolt, HHCS 1/2-13 x 1-1/2 in. ZN Grade 5                          | 8   |
| 21    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                  | 8   |
| 22    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 23    | 8107001    | Decal, Danger Shear Point                                         | 1   |
| 24    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 1   |
| 25    | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 26    | 8101768-Y  | Chain Loop: Shaft Cover - 207 Bearing - Ochre                     | 1   |

Table 8-20 10 in. (15 HP-20 HP) HD drive components (8101633) parts list

## 8 in. (25 HP-30 HP) Drive Components (8081360)

Figure 8-14 8 in. (25 HP-30 HP) Drive components (8081360) parts

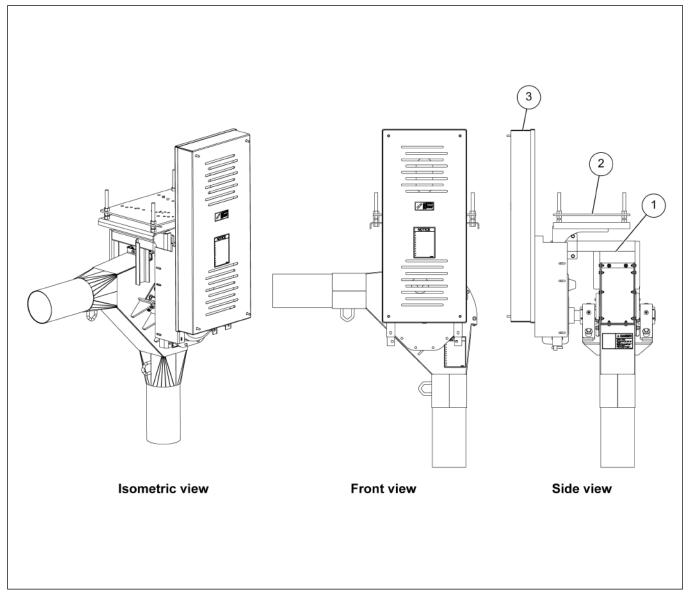
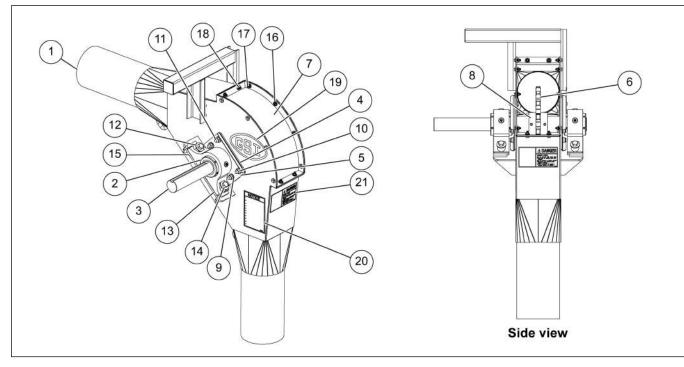


Table 8-21 8 in. (25 HP-30 HP) Drive components (8081360) parts list

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

#### 8 in. (25 HP-30 HP) Drive Components (8081359)

Figure 8-15 8 in. (25 HP-30 HP) Drive components (8081359) parts



| Table 8-22 8 in. | (25 HP-30 HP | ) Drive com | ponents (80 | 081359) parts | list |
|------------------|--------------|-------------|-------------|---------------|------|
|------------------|--------------|-------------|-------------|---------------|------|

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

## 10 in. (25 HP-30 HP) Standard Drive Components (8101866)

Figure 8-16 10 in. (25 HP-30 HP) Standard drive components (8101866) parts

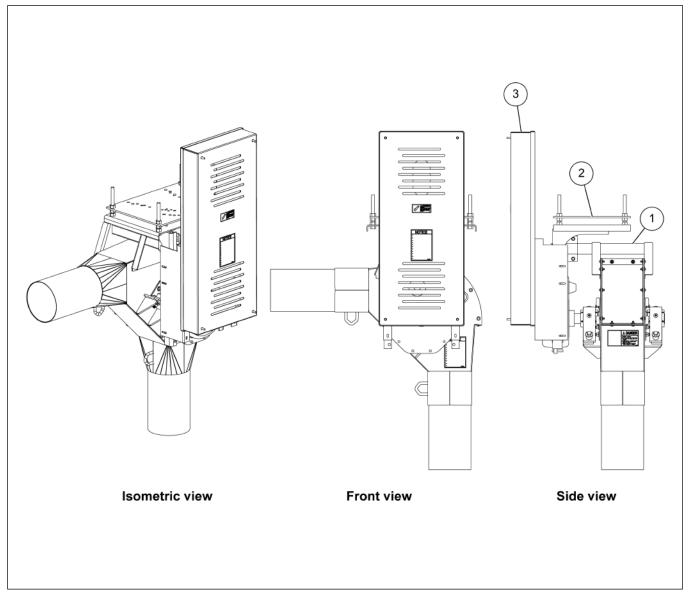


Table 8-23 10 in. (25 HP-30 HP) Standard drive components (8101866) parts list

| Ref # | Part #  | Description                                                                     | Qty |
|-------|---------|---------------------------------------------------------------------------------|-----|
| 1     | 8101872 | Chain Loop: 25-30 HP TA4 Drive Corner Assembly - 10 in. Standard Split Sprocket | 1   |
| 2     | 8081296 | Drive Box TA4, 25 and 30 HP, 8 in. and 10 in. Chain Loop                        | 1   |
| 3     | 8120211 | Belt Guard Assembly Chain Loop, TA4                                             | 1   |

## 10 in. (25 HP-30 HP) HD Drive Components (8101754)

Figure 8-17 10 in. (25 HP-30 HP) HD drive components (8101754) parts

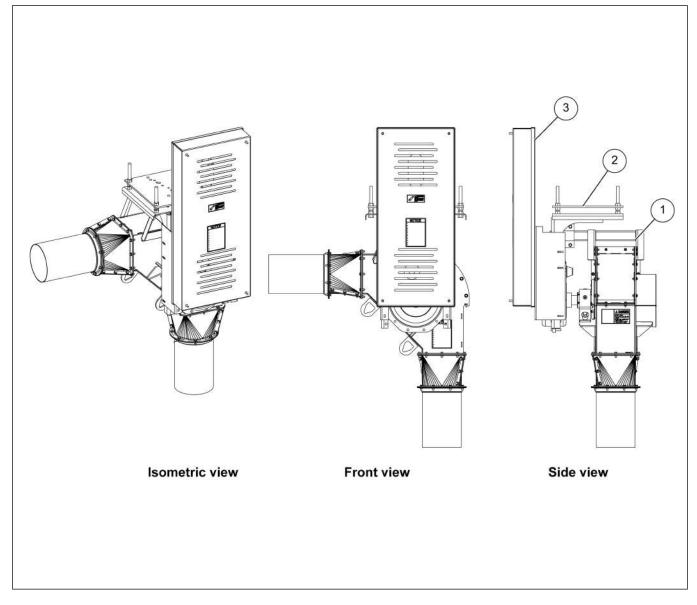
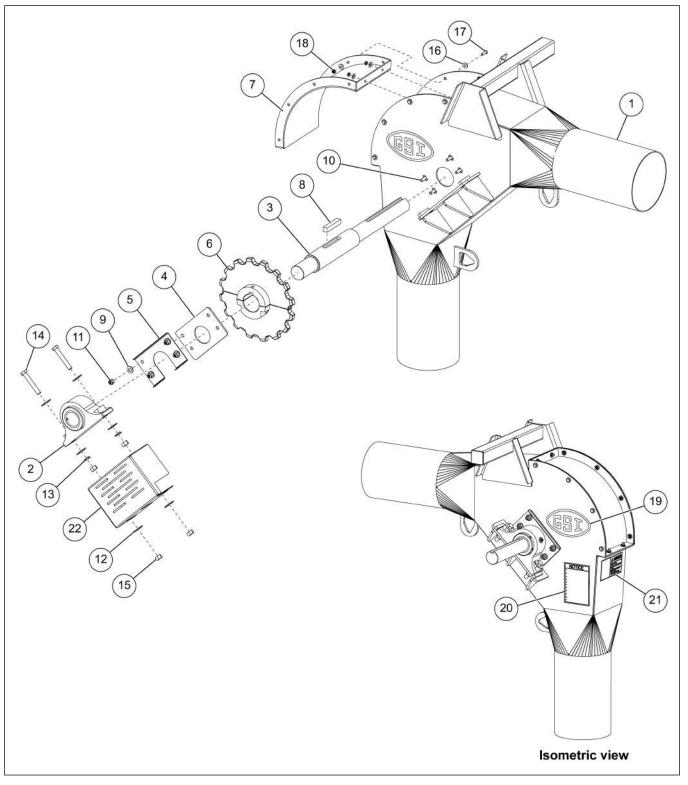


Table 8-24 10 in. (25 HP-30 HP) HD drive components (8101754) parts list

| Ref # | Part #  | Description                                                | Qty |
|-------|---------|------------------------------------------------------------|-----|
| 1     | 8101628 | Chain Loop: 25-30 HP TA4 Drive Corner Assembly - 10 in. HD | 1   |
| 2     | 8081296 | Drive Box TA4, 25-30 HP, 8 in. and 10 in. Chain Loop       | 1   |
| 3     | 8120211 | Belt Guard Assembly Chain Loop, TA4                        | 1   |

## 10 in. (25 HP-30 HP) Standard Drive Components (8101872)

Figure 8-18 10 in. (25 HP-30 HP) Standard drive components (8101872) parts

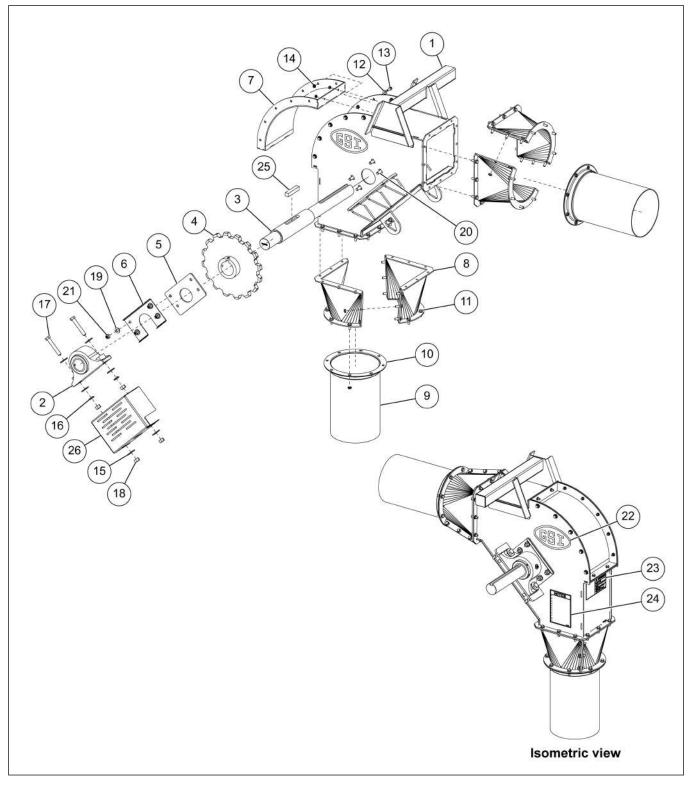


| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101515-BS | Chain Loop: TA4 Drive Corner Weldment - 10 in. 207 "E" Bearing    | 1   |
| 2     | 8101510    | Bearing, Taper Dodge #P2BE207R                                    | 2   |
| 3     | 8101518    | Chain Loop: TA4 Drive Shaft - 10 in. 207 "E" Bearing              | 1   |
| 4     | 8081269    | Corner Seal UHMW, 8 in. and 10 in. Chain Loop                     | 2   |
| 5     | 8081270-BS | Cover Plate for UHMW Bearing Seal                                 | 2   |
| 6     | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 7     | 8101009-BS | Door Inspection Weldment - Bin Silver                             | 1   |
| 8     | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 9     | S-8562     | Flat Washer 1/2 in. GV                                            | 16  |
| 10    | S-8760     | Bolt, HHCS 1/2-13 x 1-1/2 in. ZN Grade 5                          | 8   |
| 11    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                  | 8   |
| 12    | S-858      | Flat Washer 5/8 in. USS ZN Grade 2                                | 10  |
| 13    | S-3208     | Split Lock Washer 5/8 in. Med ZN                                  | 4   |
| 14    | S-7893     | Bolt, HHCS 5/8-11 x 4 in. ZN Grade 8                              | 4   |
| 15    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                    | 6   |
| 16    | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                          | 24  |
| 17    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                             | 12  |
| 18    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                | 12  |
| 19    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 20    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 1   |
| 21    | 8107001    | Decal, Danger Shear Point                                         | 1   |
| 22    | 8101768-Y  | Chain Loop: Shaft Cover - 207 Bearing                             | 1   |
| N/S   | CRTDRVCNR  | Crate Chain Loop Drive Corner                                     | 1   |

Table 8-25 10 in. (25 HP-30 HP) Standard drive components (8101872) parts list

## 10 in. (25 HP-30 HP) HD Drive Components (8101628)

Figure 8-19 10 in. (25 HP-30 HP) HD drive components (8101628) parts



| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101629-BS | Chain Loop: TA4 Drive Corner Weldment - 10 in. HD                 | 1   |
| 2     | 8101510    | Bearing, Taper Dodge #P2BE207R                                    | 2   |
| 3     | 8101518    | Chain Loop: TA4 Drive Shaft - 10 in. 207 "E" Bearing              | 1   |
| 4     | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 5     | 8081269    | Corner Seal UHMW, 8 in. and 10 in. Chain Loop                     | 2   |
| 6     | 8081270-BS | Cover Plate for UHMW Bearing Seal                                 | 2   |
| 7     | 8101590-BS | Chain Loop: 10 in. Standard Corner Cover Weld                     | 1   |
| 8     | 8101625-BS | Chain Loop: 10 in. Square-Round Weld Assembly                     | 4   |
| 9     | 8101600-BS | Chain Loop: 10 in. HD Corner Tube Weld - Bin Silver               | 2   |
| 10    | S-10028    | Flange Nut 3/8-16 in. ZN Grade 5                                  | 52  |
| 11    | S-9065     | Flange Bolt 3/8-16 x 1 in. ZN Grade 5                             | 52  |
| 12    | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                          | 10  |
| 13    | S-7470     | Flange Bolt 5/16-18 x 1 in. ZN Grade 5                            | 15  |
| 14    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                | 14  |
| 15    | S-858      | Flat Washer 5/8 in. USS ZN Grade 2                                | 10  |
| 16    | S-3208     | Split Lock Washer 5/8 in. Med ZN                                  | 4   |
| 17    | S-7893     | Bolt, HHCS 5/8-11 x 4 in. YDP Grade 8                             | 4   |
| 18    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                    | 6   |
| 19    | S-8562     | Flat Washer 1/2 in. GV                                            | 16  |
| 20    | S-8760     | Bolt, HHCS 1/2-13 x 1-1/2 in. ZN Grade 5                          | 8   |
| 21    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                  | 8   |
| 22    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 23    | 8107001    | Decal, Danger, Shear Point                                        | 1   |
| 24    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 1   |
| 25    | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 26    | 8101768-Y  | Chain Loop: Shaft Cover - 207 Bearing - Ochre                     | 1   |

Table 8-26 10 in. (25 HP-30 HP) HD drive components (8101628) parts list

## 10 in. (40 HP) Standard Drive Components (8101867)

Figure 8-20 10 in. (40 HP) Standard drive components (8101867) parts

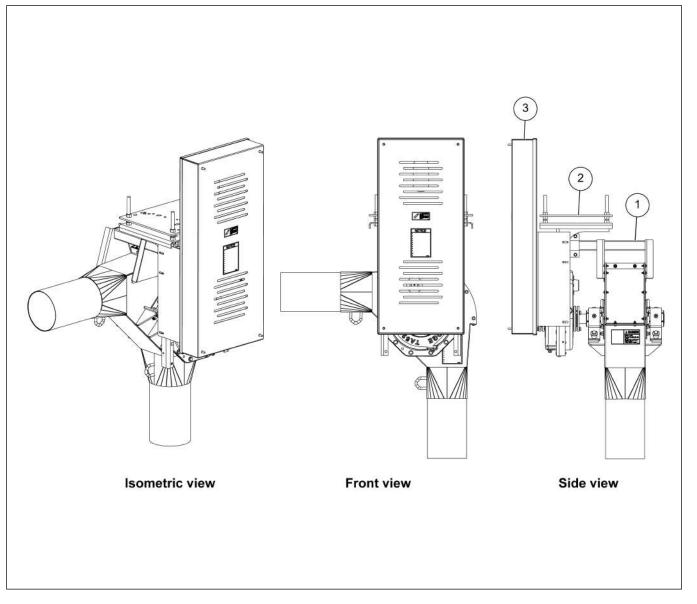


Table 8-27 10 in. (40 HP) Standard drive components (8101867) parts list

| Ref # | Part #  | Description                                                                     | Qty |
|-------|---------|---------------------------------------------------------------------------------|-----|
| 1     | 8101873 | Chain Loop: 40-50 HP TA5 Drive Corner Assembly - 10 in. Standard Split Sprocket | 1   |
| 2     | 8101303 | Drive Box TA5, 40 HP, 10 in. Chain Loop                                         | 1   |
| 3     | 8120214 | Belt Guard Assembly Chain Loop, TA5                                             | 1   |

# 10 in. (40 HP) HD Drive Components (8101755)

Figure 8-21 10 in. (40 HP) HD drive components (8101755) parts

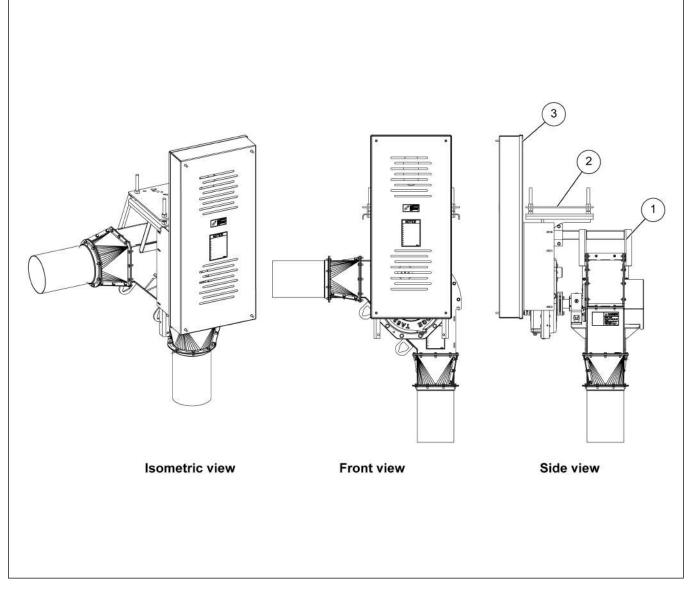


Table 8-28 10 in. (40 HP) HD drive components (8101755) parts list

| Ref # | Part #  | Description                                                | Qty |
|-------|---------|------------------------------------------------------------|-----|
| 1     | 8101604 | Chain Loop: 40-50 HP TA5 Drive Corner Assembly - 10 in. HD | 1   |
| 2     | 8101303 | Drive Box TA5, 40 HP, 10 in. Chain Loop                    | 1   |
| 3     | 8120214 | Belt Guard Assembly Chain Loop, TA5                        | 1   |

## 10 in. (50 HP) Standard Drive Components (8101868)

Figure 8-22 10 in. (50 HP) Standard drive components (8101868) parts

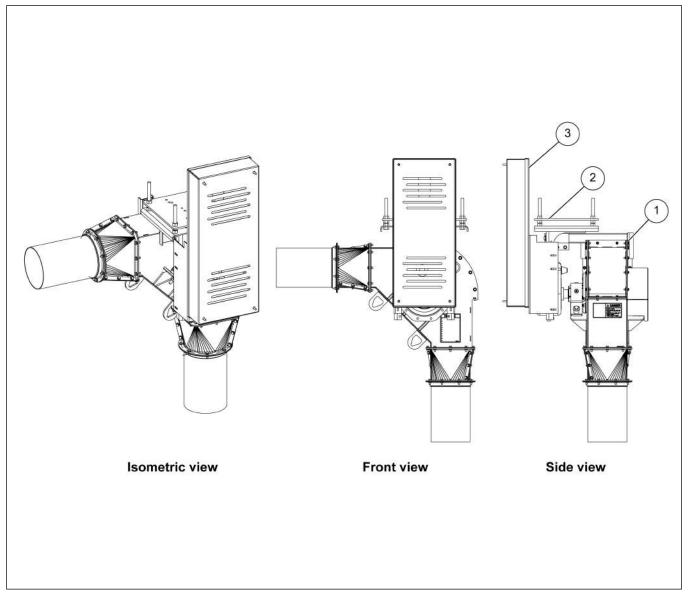


Table 8-29 10 in. (50 HP) Standard drive components (8101868) parts list

| Ref # | Part #  | Description                                                                     | Qty |
|-------|---------|---------------------------------------------------------------------------------|-----|
| 1     | 8101873 | Chain Loop: 40-50 HP TA5 Drive Corner Assembly - 10 in. Standard Split Sprocket | 1   |
| 2     | 8101331 | Drive Box TA5, 50 HP, 10 in. Chain Loop                                         | 1   |
| 3     | 8120214 | Belt Guard Assembly Chain Loop, TA5                                             | 1   |

# 10 in. (50 HP) HD Drive Components (8101756)

Figure 8-23 10 in. (50 HP) HD drive components (8101756) parts

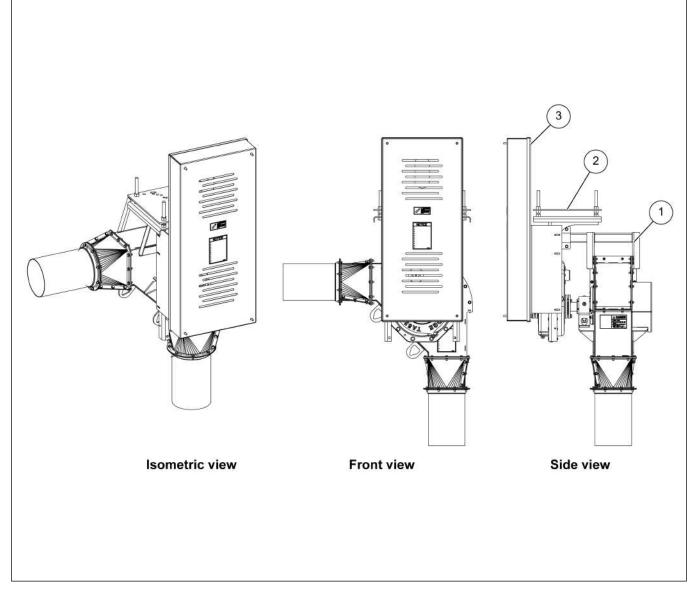
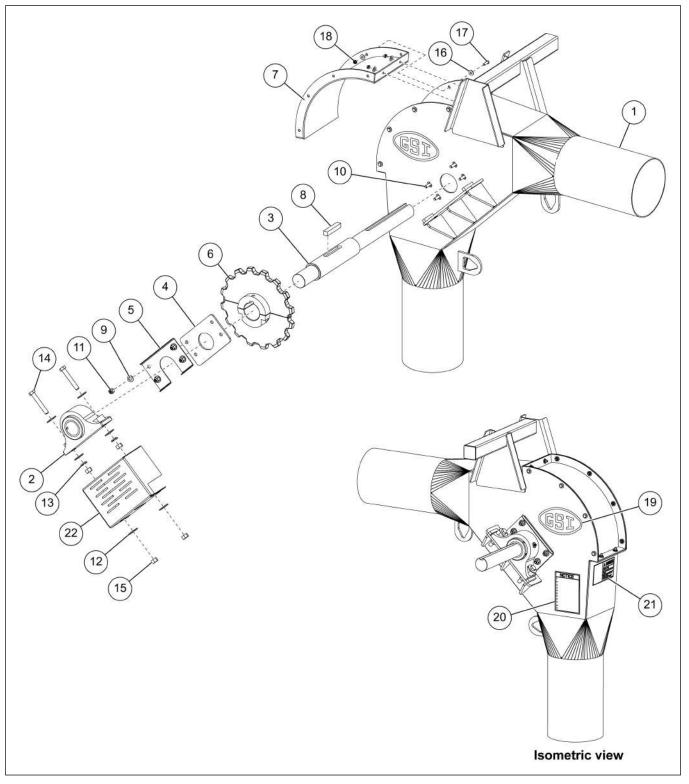


Table 8-30 10 in. (50 HP) HD drive components (8101756) parts list

| Ref # | Part #  | Description                                                | Qty |
|-------|---------|------------------------------------------------------------|-----|
| 1     | 8101604 | Chain Loop: 40-50 HP TA5 Drive Corner Assembly - 10 in. HD | 1   |
| 2     | 8101331 | Drive Box TA5, 50 HP, 10 in. Chain Loop                    | 1   |
| 3     | 8120214 | Belt Guard Assembly Chain Loop, TA5                        | 1   |

## 10 in. (40 HP-50 HP) Standard Drive Components (8101873)

Figure 8-24 10 in. (40 HP-50 HP) Standard drive components (8101873) parts

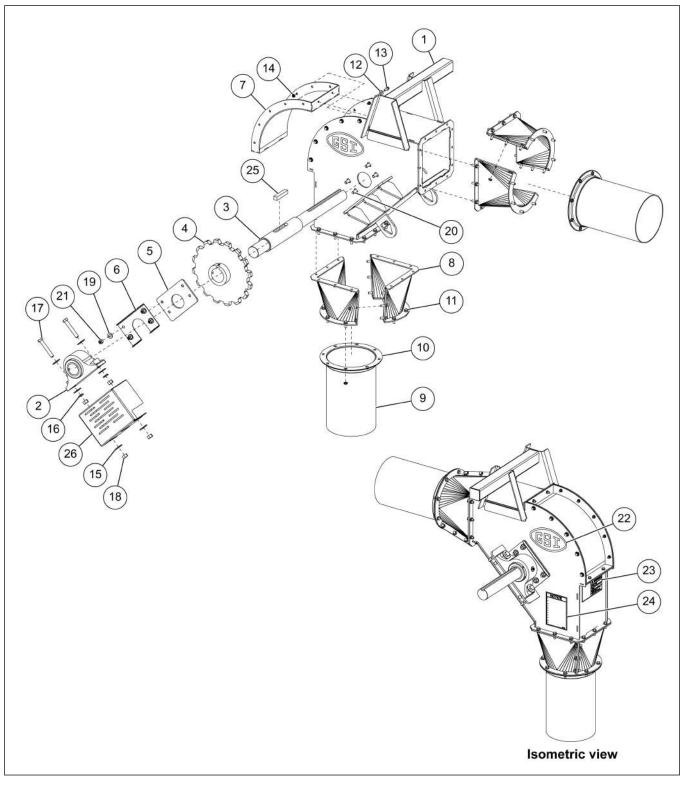


| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101509-BS | Chain Loop: TA5 Drive Corner Weldment - 10 in. 207 "E" Bearing    | 1   |
| 2     | 8101510    | Bearing, Taper Dodge #P2BE207R                                    | 2   |
| 3     | 8101512    | Chain Loop: TA5 Drive Shaft-10 in. 207 "E" Bearing                | 1   |
| 4     | 8081269    | Corner Seal UHMW, 8 in. and 10 in. Chain Loop                     | 2   |
| 5     | 8081270-BS | Cover Plate for UHMW Bearing Seal                                 | 2   |
| 6     | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 7     | 8101009-BS | Door Inspection Weldment - Bin Silver                             | 1   |
| 8     | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 9     | S-8562     | Flat Washer 1/2 in. GV                                            | 16  |
| 10    | S-8760     | Bolt, HHCS 1/2-13 x 1-1/2 in. ZN Grade 5                          | 8   |
| 11    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                  | 8   |
| 12    | S-858      | Flat Washer 5/8 in. USS ZN Grade 2                                | 10  |
| 13    | S-3208     | Split Lock Washer 5/8 in. Med ZN                                  | 4   |
| 14    | S-7893     | Bolt, HHCS 5/8-11 x 4 in. ZN Grade 8                              | 4   |
| 15    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                    | 6   |
| 16    | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                          | 24  |
| 17    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                             | 12  |
| 18    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                | 12  |
| 19    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 20    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 1   |
| 21    | 8107001    | Decal, Danger Shear Point                                         | 1   |
| 22    | 8101768-Y  | Chain Loop: Shaft Cover - 207 Bearing                             | 1   |
| N/S   | CRTDRVCNR  | Crate Chain Loop Drive Corner                                     | 1   |

Table 8-31 10 in. (40 HP-50 HP) Standard drive components (8101873) parts list

## 10 in. (40 HP-50 HP) HD Drive Components (8101604)

Figure 8-25 10 in. (40 HP-50 HP) HD drive components (8101604) parts

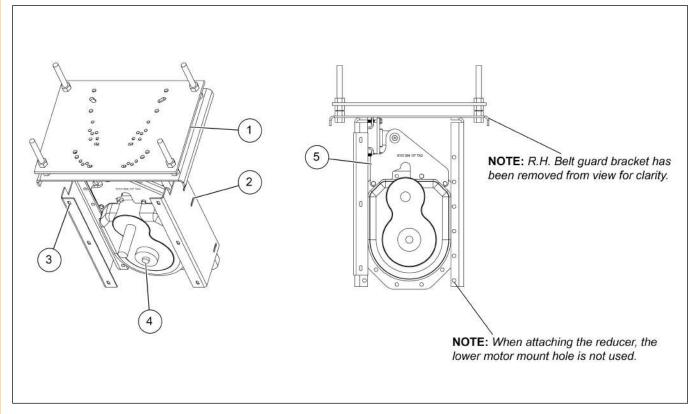


| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101603-BS | Chain Loop: TA5 Drive Corner Weldment - 10 in. HD                 | 1   |
| 2     | 8101510    | Bearing, Taper Dodge #P2BE207R                                    | 2   |
| 3     | 8101512    | Chain Loop: TA5 Drive Shaft - 10 in. 207 "E" Bearing              | 1   |
| 4     | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 5     | 8081269    | Corner Seal UHMW, 8 in. and 10 in. Chain Loop                     | 2   |
| 6     | 8081270-BS | Cover Plate for UHMW Bearing Seal                                 | 2   |
| 7     | 8101590-BS | Chain Loop: 10 in. Standard Corner Cover Weld                     | 1   |
| 8     | 8101625-BS | Chain Loop: 10 in. Square-Round Weld Assembly                     | 4   |
| 9     | 8101600-BS | Chain Loop: 10 in. HD Corner Tube Weld - Bin Silver               | 2   |
| 10    | S-10028    | Flange Nut 3/8-16 in. ZN Grade 5                                  | 52  |
| 11    | S-9065     | Flange Bolt 3/8-16 x 1 in. ZN Grade 5                             | 52  |
| 12    | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                          | 10  |
| 13    | S-7470     | Flange Bolt 5/16-18 x 1 in. ZN Grade 5                            | 15  |
| 14    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                | 14  |
| 15    | S-858      | Flat Washer 5/8 in. USS ZN Grade 2                                | 10  |
| 16    | S-3208     | Split Lock Washer 5/8 in. Med ZN                                  | 4   |
| 17    | S-7893     | Bolt, HHCS 5/8-11 x 4 in. YDP Grade 8                             | 4   |
| 18    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                    | 6   |
| 19    | S-8562     | Flat Washer 1/2 in. GV                                            | 16  |
| 20    | S-8760     | Bolt, HHCS 1/2-13 x 1-1/2 in. ZN Grade 5                          | 8   |
| 21    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                  | 8   |
| 22    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 23    | 8107001    | Decal, Danger Shear Point                                         | 1   |
| 24    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 1   |
| 25    | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 26    | 8101768-Y  | Chain Loop: Shaft Cover - 207 Bearing - Ochre                     | 1   |

Table 8-32 10 in. (40 HP-50 HP) HD drive components (8101604) parts list

## 8 in. (15 HP) Drive Components (8081271)

Figure 8-26 8 in. (15 HP) Drive components (8081271) parts



| Table 8-33 8 in. | (15 HP) | Drive components | (8081271) | parts list |
|------------------|---------|------------------|-----------|------------|
|------------------|---------|------------------|-----------|------------|

| Ref # | Part #         | Description                                      | Qty |
|-------|----------------|--------------------------------------------------|-----|
| 1     | <b>TA3CLMM</b> | 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 in., 10 in. Loop          | 1   |
| N/S   | CE-00582       | Sheave, 3 Grade, A6.0-B6.4 - SD, 6-3/4 in. O.D.  | 1   |
| N/S   | GC06516        | Bushing, SD x 1-5/8 in. Bore                     | 1   |
| N/S   | GC07874        | Sheave, 3 Grade, A7.6-B8.0 - SK, 8.35 in. 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 in. Bore QD Style              | 1   |
| N/S   | TA3HDW         | Hardware, Belt Guard TA3                         | 1   |
| N/S   | 8101336        | Vent Elbow Kit 3/8 in. with Instructions         | 1   |

## 8 in. (20 HP) Drive Components (8081285)

Figure 8-27 8 in. (20 HP) Drive components (8081285) parts

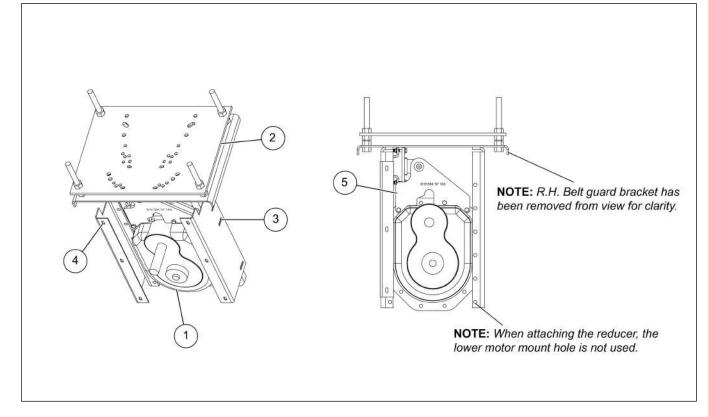
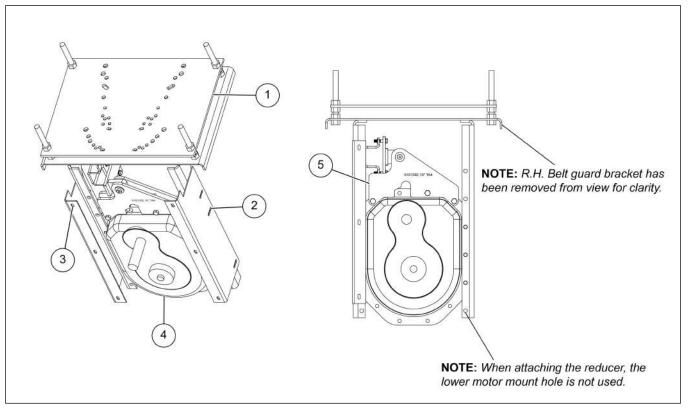


Table 8-34 8 in. (20 HP) Drive components (8081285) parts list

| Ref # | Part #         | Description                                      | Qty |
|-------|----------------|--------------------------------------------------|-----|
| 1     | MHC01074       | Shaft, Reducer Dodge #TA3203H15                  | 1   |
| 2     | <b>TA3CLMM</b> | 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 in., 10 in. Loop          | 1   |
| N/S   | 3311A1         | Sheave, 4 Grade, A6.0-B6.4 -SD, 6-3/4 in. O.D.   | 1   |
| N/S   | GC06516        | Bushing, SD x 1-5/8 in. Bore                     | 1   |
| N/S   | GC06676        | Sheave, 4 Grade, A7.6-B8.0 - SK, 8.35 in. 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 in. Bore QD Style              | 1   |
| N/S   | TA3HDW         | Hardware, Belt Guard TA3                         | 1   |
| N/S   | 8101336        | Vent Elbow Kit 3/8 in. with Instructions         | 1   |

## 8 in. - 10 in. (25 HP-30 HP) Drive Components (8081296)

Figure 8-28 8 in. - 10 in. (25 HP-30 HP) Drive components (8081296) parts



| 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 in., 10 in. Loop           | 1   |
| N/S   | CE-00617 | Bushing, SK 1-7/8 in. Bore                        | 1   |
| N/S   | D02-0067 | Belt, V BX85 Replaces 717-1346-5                  | 3   |
| N/S   | GC06687  | Bushing, SK x 1-7/16 in. Bore                     | 1   |
| N/S   | MHC01096 | Bushing, Taper, TA4207TB x 2-7/16                 | 1   |
| N/S   | MHC01566 | Sheave, 3 Grade, A10.6-B11.0 - SK, 11.35 in. O.D. | 1   |
| N/S   | MHC01567 | Sheave, 3 Grade, A13.2-B13.6 - SK, 13.95 in. O.D. | 1   |
| N/S   | TA4HDW   | Hardware, Belt Guard TA4                          | 1   |
| N/S   | 8101334  | Vent Elbow Kit 1/2 in.                            | 1   |

# 10 in. (40 HP) Drive Components (8101303)

Figure 8-29 10 in. (40 HP) Drive components (8101303) parts

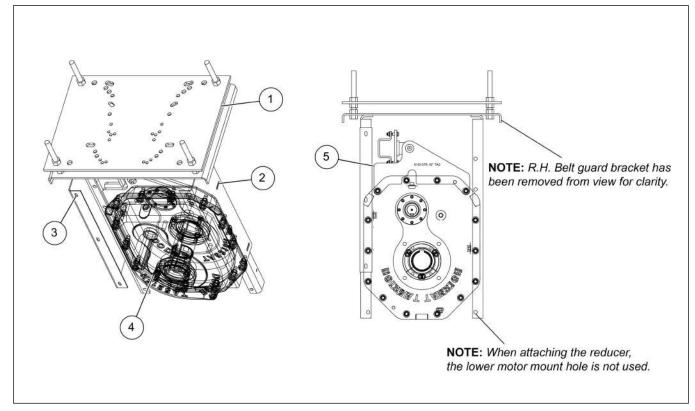


Table 8-36 10 in. (40 HP) Drive components (8101303) parts list

| 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 in., 10 in. Loop | 1   |
| N/S   | GT3-0068 | Bushing, SF 2-1/8 in. 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 in. Bore QD         | 1   |
| N/S   | TA5HDW   | Hardware, Belt Guard TA5                | 1   |
| N/S   | 8101334  | Vent Elbow Kit 1/2 in.                  | 1   |

# 10 in. (50 HP) Drive Components (8101331)

Figure 8-30 10 in. (50 HP) Drive components (8101331) parts

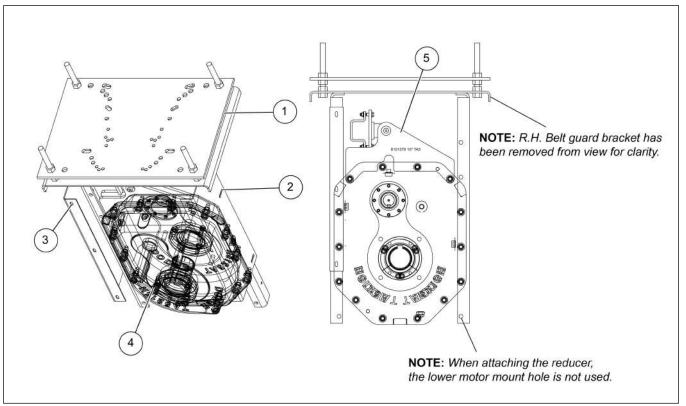


Table 8-37 10 in. (50 HP) Drive components (8101331) parts list

| 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 in., 10 in. Loop | 1   |
| N/S   | MHC01540   | Bushing, E x 2-1/8 in. 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 in. QD "E"      | 1   |
| N/S   | KD-PDS0016 | Sheave, 4 Grade 5V 9.0 in. QD "E"       | 1   |
| N/S   | MHC01537   | Bushing, E x 1-5/8 in. Bore QD          | 1   |
| N/S   | TA5HDW     | Hardware, Belt Guard TA5                | 1   |
| N/S   | 8101334    | Vent Elbow Kit 1/2 in.                  | 1   |

## Belt Guard Assembly TA3 (8120217)

Figure 8-31 Belt guard assembly TA3 (8120217) parts

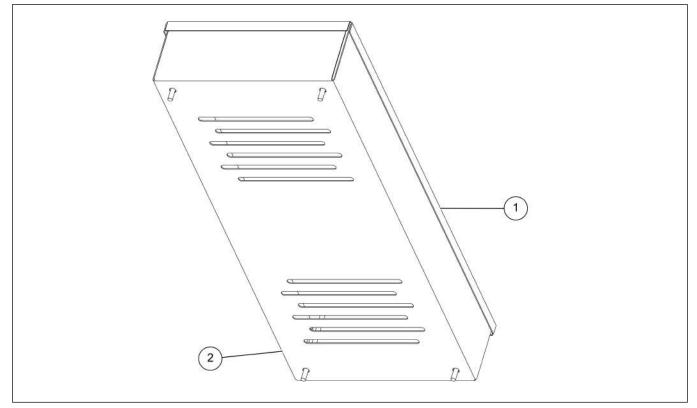


Table 8-38 Belt guard assembly TA3 (8120217) parts list

| 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 in. ZN                     | 4   |
| N/S   | S-248   | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP | 4   |
| N/S   | S-456   | Hex Nut 3/8-16 in. 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 in.                  | 1   |

## Belt Guard Assembly TA4 (8120211)

Figure 8-32 Belt guard assembly TA4 (8120211) parts

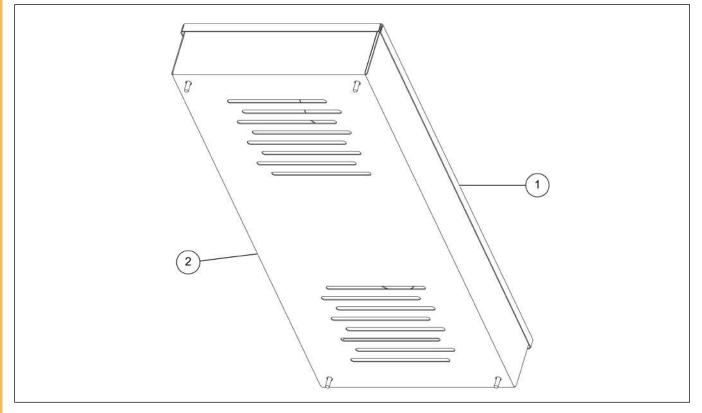


 Table 8-39 Belt guard assembly TA4 (8120211) parts list

| 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 in. ZN                     | 4   |
| N/S   | S-248   | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP | 4   |
| N/S   | S-456   | Hex Nut 3/8-16 in. 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 in.                  | 1   |

## Belt Guard Assembly TA5 (8120214)

Figure 8-33 Belt guard assembly TA5 (8120214) parts

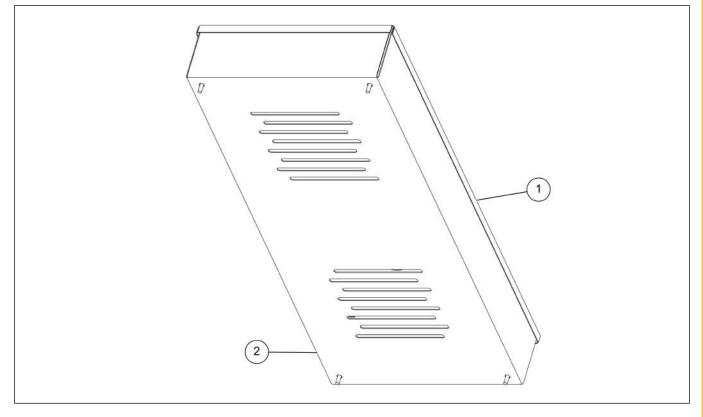
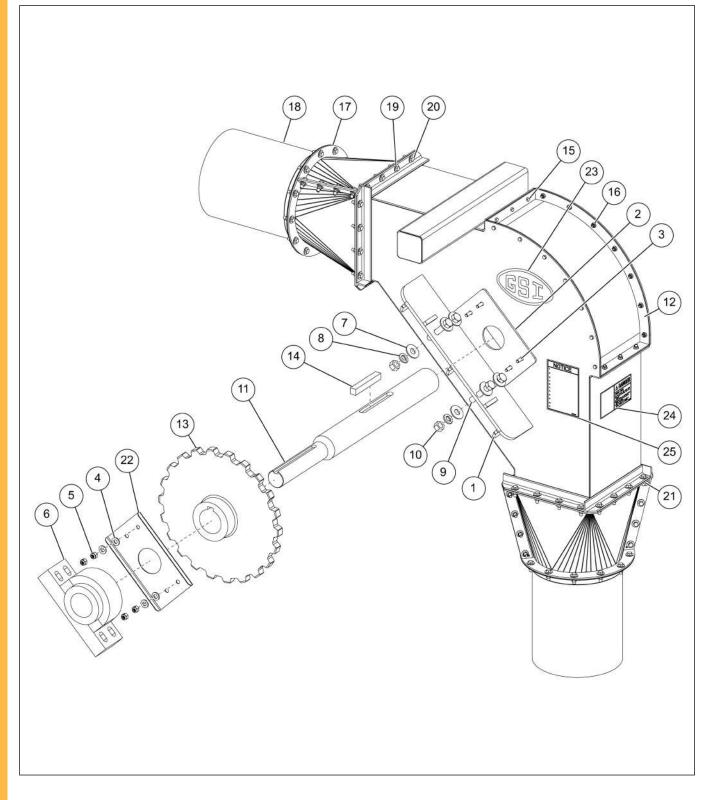


Table 8-40 Belt guard assembly TA5 (8120214) parts list

| 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 in. ZN                     | 4   |
| N/S   | S-248   | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP | 4   |
| N/S   | S-456   | Hex Nut 3/8-16 in. 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 in.                  | 1   |

#### 12 in. 7 Gauge (30 HP) Drive Components (8120000)

Figure 8-34 12 in. 7 Gauge (30 HP) drive components (8120000) parts

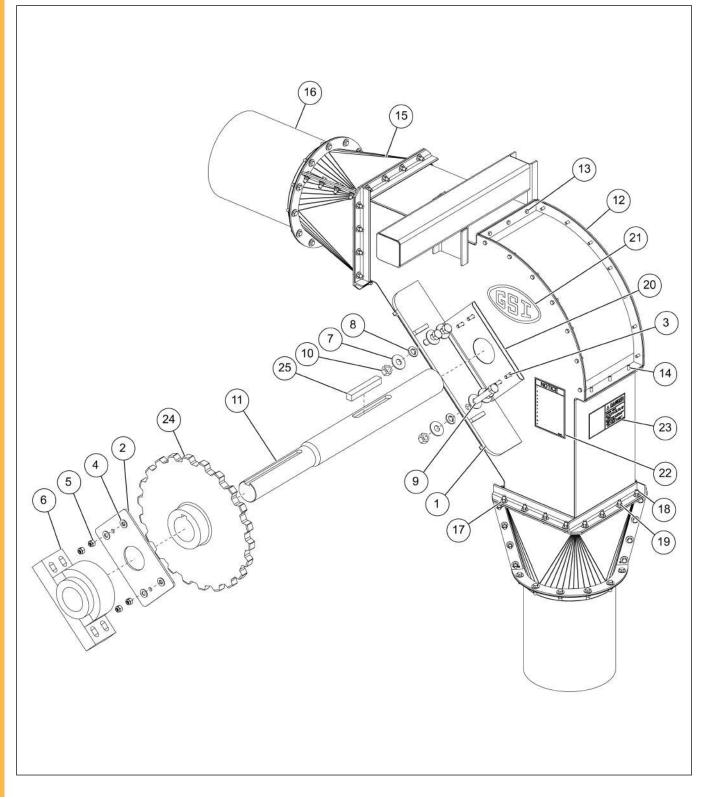


| Ref # | Part #     | Description                                                              | Qty    |
|-------|------------|--------------------------------------------------------------------------|--------|
| 1     | 8120027-BS | TA4 Drive Corner Weld - 12 in. Chain Loop                                | 1      |
| 2     | 8120010    | UHMW Corner Dust Seal                                                    | 2      |
| 3     | S-8760     | Bolt, HHTB 1/2-13 x 1-1/2 in. ZN Grade 5                                 | 8      |
| 4     | S-8562     | Flat Washer 1/2 in. GV                                                   | 8      |
| 5     | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                         | 8      |
| 6     | MHC01277   | Bearing, Dodge 4-Bolt S-2000 P.B. 3-7/16 in.                             | 2      |
| 7     | S-866      | Flat Washer 3/4 in. USS ZN Flat Grade 2                                  | 16     |
| 8     | S-233      | 3/4 in. Lock Washer                                                      | 8      |
| 9     | S-7884     | Bolt, HHCS 3/4-10 x 4 in. ZN Grade 8                                     | 8      |
| 10    | S-234      | Nut 3/4-10 in.                                                           | 8      |
| 11    | 8120011    | TA4 Drive Shaft                                                          | 1      |
| 12    | 8120022-BS | Corner Cover Weldment                                                    | 1      |
| 13    | 8120311    | Sprocket, 81X Split 22T 3 7/16 in. Bore Type C Hub 45-55 RC Teeth Only   | 1      |
| 14    | K0875S06   | Keystock, 7/8 in. Square x 6 in. Long                                    | 1      |
| 15    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                                    | 20     |
| 16    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                       | 20     |
| 17    | 8120308-BS | Chain Loop: 12 in. Square Round Weld Assembly - Bin Silver               | 4      |
| 18    | 8120304-BS | Chain Loop: 12 in. HD Corner Tube Weld - Bin Silver                      | 2      |
| 19    | S-248      | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP                         | 72     |
| 20    | S-2071     | Bolt, HHCS 3/8-16 x 1-1/4 in. ZN Grade 5                                 | 72     |
| 21    | S-968      | Flange Nut 3/8-16 in. ZN Grade 5                                         | 72     |
| 22    | 8120170-BS | Cover, Plate For UHMW Bearing Seal                                       | 2      |
| 23    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                                | 2      |
| 24    | 8107001    | Decal, Danger Shear Point                                                | 1      |
| 25    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                          | 1      |
| N/S   | S-2052     | Foam Strip 1/8 in. Thick x 1/2 in. Wide Weather In Rolls 75 ft. Per Roll | 4.083' |

Table 8-41 12 in. 7 Gauge (30 HP) drive components (8120000) parts list

# 12 in. 7 Gauge (40 HP-50 HP) Drive Components (8120144)

Figure 8-35 12 in. 7 Gauge (40 HP-50 HP) drive components (8120144) parts

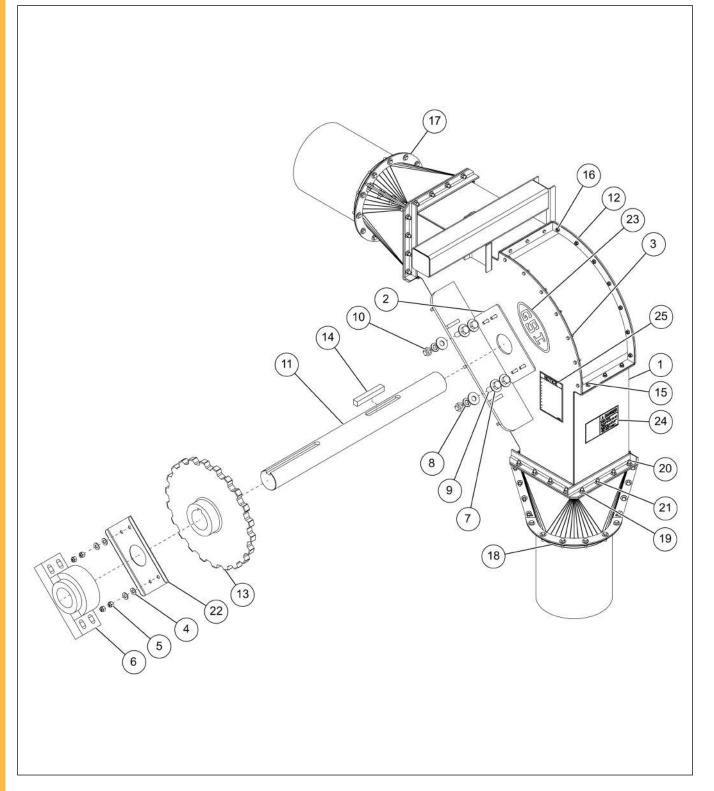


| Ref # | Part #     | Description                                                              | Qty    |
|-------|------------|--------------------------------------------------------------------------|--------|
| 1     | 8120154-BS | TA5 Drive Corner Weld - 12 in. Chain Loop                                | 1      |
| 2     | 8120010    | UHMW Corner Dust Seal                                                    | 2      |
| 3     | S-8760     | Bolt, HHTB 1/2-13 x 1-1/2 in. ZN Grade 5                                 | 8      |
| 4     | S-8562     | Flat Washer 1/2 in. GV                                                   | 8      |
| 5     | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                         | 8      |
| 6     | MHC01277   | Bearing, Dodge 4-Bolt S-2000 P.B. 3-7/16 in.                             | 2      |
| 7     | S-866      | Flat Washer 3/4 in. USS ZN Flat Grade 2                                  | 16     |
| 8     | S-233      | 3/4 in. Lock Washer                                                      | 8      |
| 9     | S-7884     | Bolt, HHCS 3/4-10 x 4 in. ZN Grade 8                                     | 8      |
| 10    | S-234      | Nut 3/4-10 in.                                                           | 8      |
| 11    | 8120148    | TA5 Drive Shaft                                                          | 1      |
| 12    | 8120022-BS | Corner Cover Weldment                                                    | 1      |
| 13    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                                    | 20     |
| 14    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                       | 20     |
| 15    | 8120308-BS | Chain Loop: 12 in. Square Round Weld Assembly - Bin Silver               | 4      |
| 16    | 8120304-BS | Chain Loop: 12 in. HD Corner Tube Weld - Bin Silver                      | 2      |
| 17    | S-248      | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP                         | 72     |
| 18    | S-2071     | Bolt, HHCS 3/8-16 x 1-1/4 in. ZN Grade 5                                 | 72     |
| 19    | S-968      | Flange Nut 3/8-16 in. ZN Grade 5                                         | 72     |
| 20    | 8120170-BS | Cover, Plate for UHMW Bearing Seal                                       | 2      |
| 21    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                                | 2      |
| 22    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                          | 1      |
| 23    | 8107001    | Decal, Danger Shear Point                                                | 1      |
| 24    | 8120311    | Sprocket, 81X Split 22T 3 7/16 in. Bore Type C Hub 45-55 RC Teeth Only   | 1      |
| 25    | K0875S06   | Keystock, 7/8 in. Square x 6 in. Long                                    | 1      |
| N/S   | S-2052     | Foam Strip 1/8 in. Thick x 1/2 in. Wide Weather In Rolls 75 ft. Per Roll | 4.083' |

Table 8-42 12 in. 7 Gauge (40 HP-50 HP) drive components (8120144) parts list

## 12 in. 7 Gauge (60 HP) Drive Components (8120163)

Figure 8-36 12 in. 7 Gauge (60 HP) drive components (8120163) parts

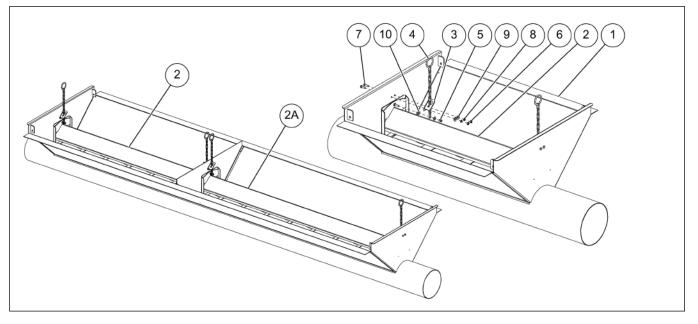


| Ref # | Part #     | Description                                                              | Qty    |
|-------|------------|--------------------------------------------------------------------------|--------|
| 1     | 8120164-BS | TA6 Drive Corner Weld - 12 in. Chain Loop                                | 1      |
| 2     | 8120010    | UHMW Corner Dust Seal                                                    | 2      |
| 3     | S-8760     | Bolt, HHTB 1/2-13 x 1-1/2 in. ZN Grade 5                                 | 8      |
| 4     | S-8562     | Flat Washer 1/2 in. GV                                                   | 8      |
| 5     | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                         | 8      |
| 6     | MHC01277   | Bearing, Dodge 4-Bolt S-2000 P.B. 3-7/16 in.                             | 2      |
| 7     | S-866      | Flat Washer 3/4 in. USS ZN Flat Grade 2                                  | 16     |
| 8     | S-233      | 3/4 in. Lock Washer                                                      | 8      |
| 9     | S-7884     | Bolt, HHCS 3/4-10 x 4 in. ZN Grade 8                                     | 8      |
| 10    | S-234      | Nut 3/4-10 in.                                                           | 8      |
| 11    | 8120165    | TA6 Drive Shaft                                                          | 1      |
| 12    | 8120022-BS | Corner Cover Weldment                                                    | 1      |
| 13    | 8120311    | Sprocket, 81X Split 22T 3 7/16 in. Bore Type C Hub 45-55 RC Teeth Only   | 1      |
| 14    | K0875S06   | Keystock, 7/8 in. Sq x 6 in. Long                                        | 1      |
| 15    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                                    | 20     |
| 16    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                       | 20     |
| 17    | 8120308-BS | Chain Loop: 12 in. Square Round Weld Assembly - Bin Silver               | 4      |
| 18    | 8120304-BS | Chain Loop: 12 in. HD Corner Tube Weld - Bin Silver                      | 2      |
| 19    | S-248      | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP                         | 72     |
| 20    | S-2071     | Bolt, HHCS 3/8-16 x 1-1/4 in. ZN Grade 5                                 | 72     |
| 21    | S-968      | Flange Nut 3/8-16 in. ZN Grade 5                                         | 72     |
| 22    | 8120170-BS | Cover, Plate for UHMW Bearing Seal                                       | 2      |
| 23    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                                | 2      |
| 24    | 8107001    | Decal, Danger Shear Point                                                | 1      |
| 25    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                          | 1      |
| N/S   | S-2052     | Foam Strip 1/8 in. Thick x 1/2 in. Wide Weather In Rolls 75 ft. Per Roll | 4.083' |

Table 8-43 12 in. 7 Gauge (60 HP) drive components (8120163) parts list

## 8 in. and 10 in. Inlet Dump Hoppers

Figure 8-37 8 in. and 10 in. Inlet dump hoppers parts



| Table 8-44 8 in. and 10 in. | Inlet dump hoppers parts list |
|-----------------------------|-------------------------------|
|-----------------------------|-------------------------------|

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

#### 12 in. (7 Gauge) 42-1/2 in. Inlet Dump Hoppers (8120121)

Figure 8-38 12 in. (7 Gauge) 42-1/2 in. Inlet dump hoppers (8120121) parts

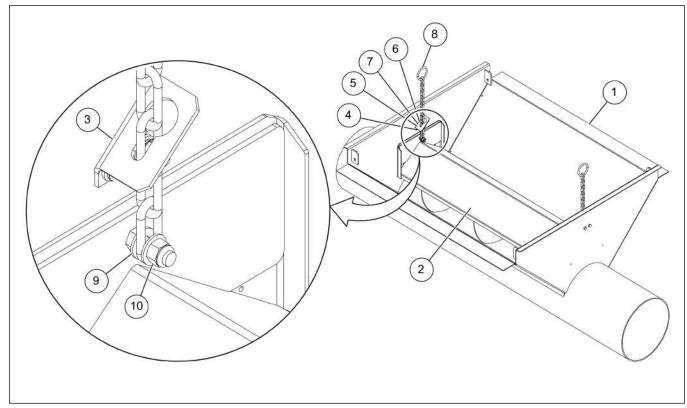


 Table 8-45 12 in. (7 Gauge) 42-1/2 in. Inlet dump hoppers (8120121) parts list

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

#### 12 in. (7 Gauge) 102-1/2 in. Inlet Dump Hoppers (8120127)

Figure 8-39 12 in. (7 Gauge) 102-1/2 in. inlet dump hoppers (8120127) parts

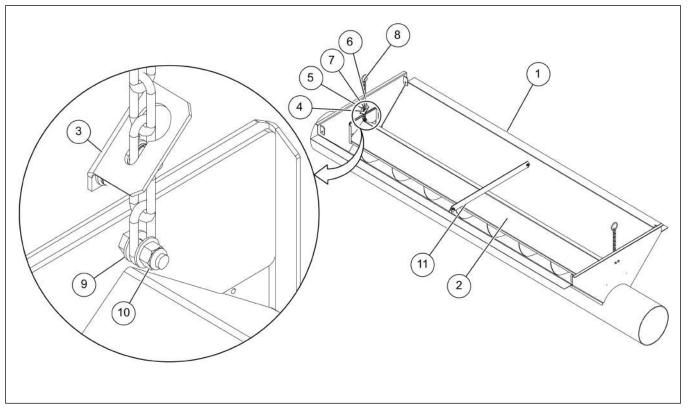
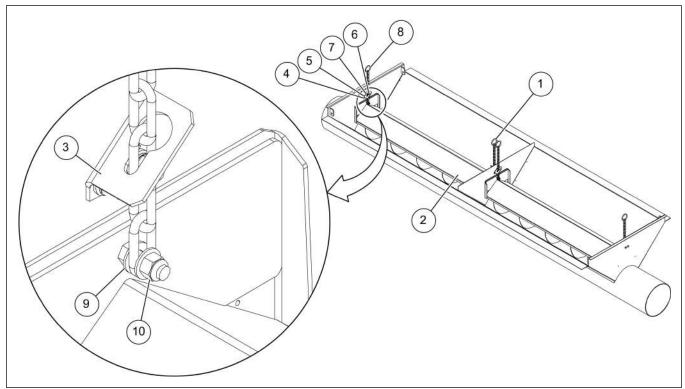


 Table 8-46 12 in. (7 Gauge) 102-1/2 in. inlet dump hoppers (8120127) parts list

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

#### 12 in. (7 Gauge) 122-1/2 in. Inlet Dump Hoppers (8120134)

Figure 8-40 12 in. (7 Gauge) 122-1/2 in. inlet dump hoppers (8120134) parts



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

### 12 in. (10 Gauge) 102-1/2 in. Inlet Dump Hoppers (8120186)

Figure 8-41 12 in. (10 Gauge) 102-1/2 in. inlet dump hoppers (8120186) parts

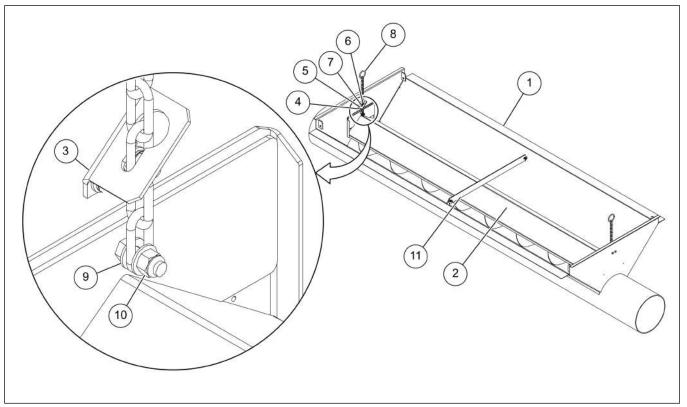


Table 8-48 12 in. (10 Gauge) 102-1/2 in. inlet dump hoppers (8120186) parts list

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

#### 12 in. (10 Gauge) 122-1/2 in. Inlet Dump Hoppers (8120187)

Figure 8-42 12 in. (10 Gauge) 122-1/2 in. inlet dump hoppers (8120187) parts

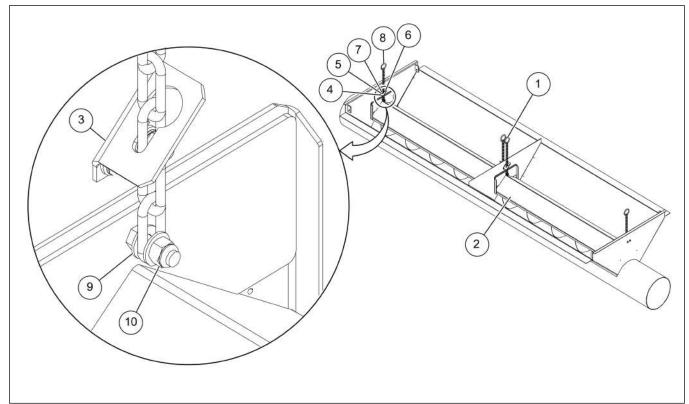
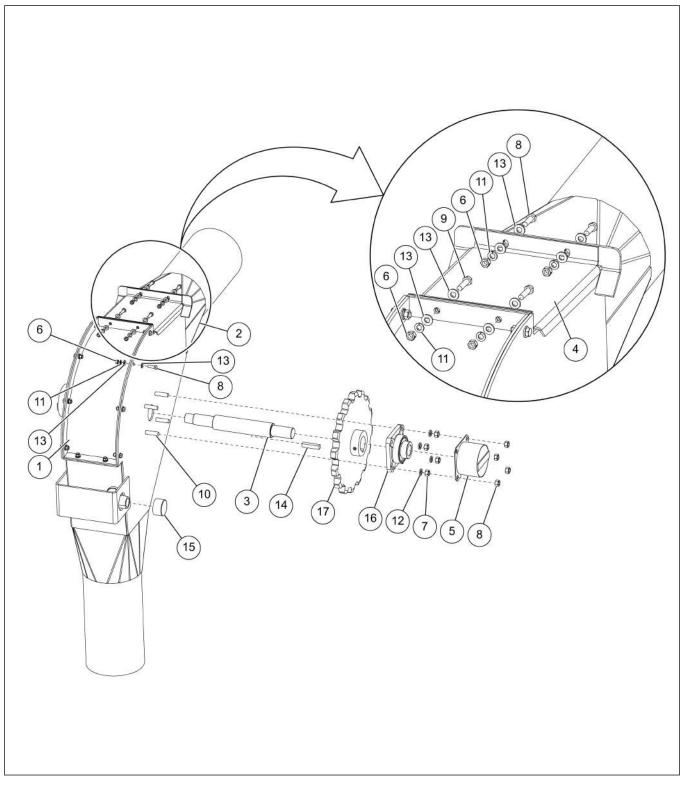


Table 8-49 12 in. (10 Gauge) 122-1/2 in. inlet dump hoppers (8120187) parts list

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

#### 8 in. and 10 in. Standard Corner

Figure 8-43 8 in. and 10 in. Standard corner parts

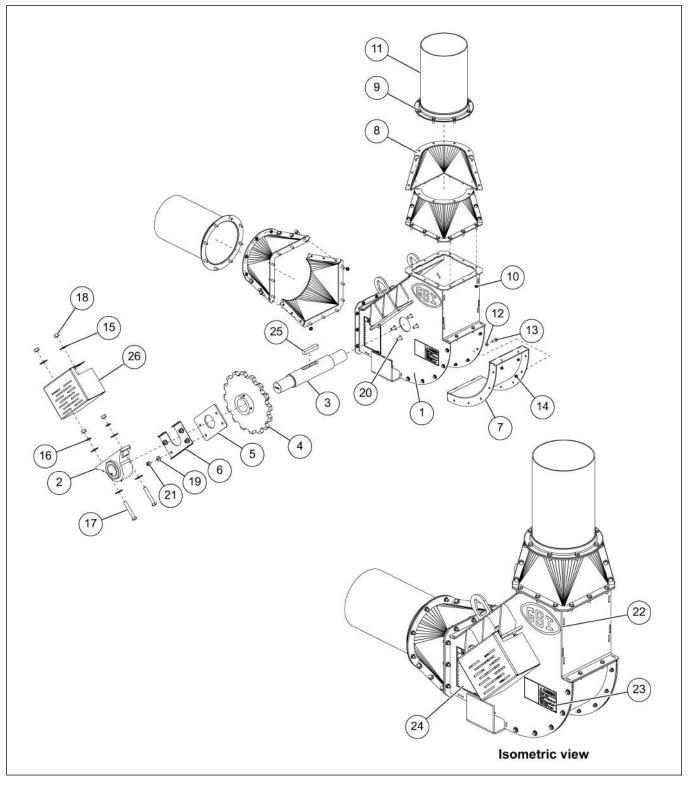


| Ref # | Part #  | Description                                                           | Qty |
|-------|---------|-----------------------------------------------------------------------|-----|
| 4     | 8081009 | Weld, 8 in. Drive/Stand Corner Inspection Door                        | 1   |
| 1   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

Table 8-50 8 in. and 10 in. Standard corner parts list

#### 10 in. HD Standard Corner (8101599)

Figure 8-44 10 in. HD standard corner (8101599) parts

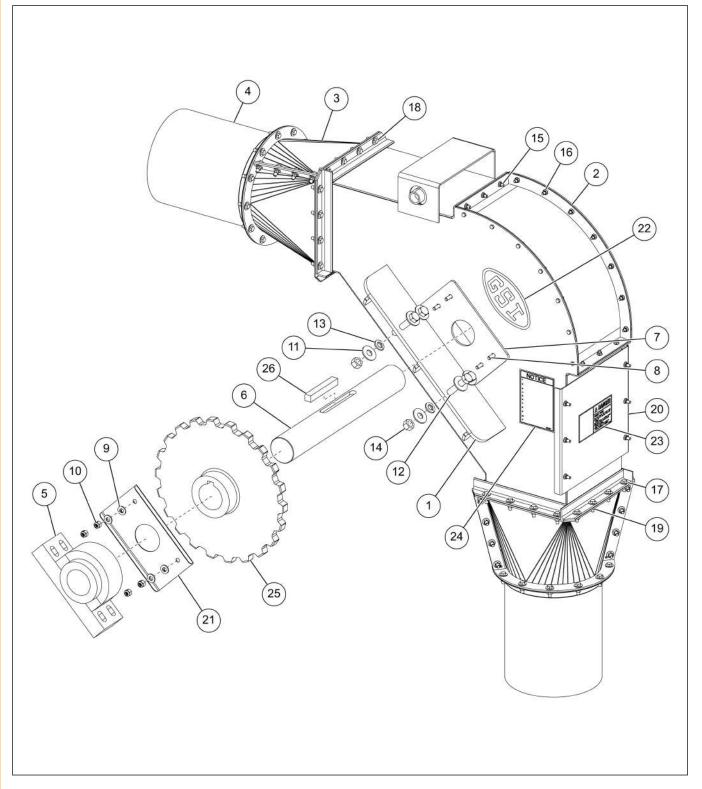


| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101582-BS | Chain Loop: 10 in. Standard Corner Weld Assembly                  | 1   |
| 2     | 8101510    | Bearing, Taper Dodge #P2BE207R                                    | 2   |
| 3     | 8101601    | Chain Loop: 10 in. HD Standard Corner Shaft                       | 1   |
| 4     | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 5     | 8081269    | Corner Seal UHMW, 8 in. and 10 in. Chain Loop                     | 2   |
| 6     | 8081270-BS | Cover Plate for UHMW Bearing Seal                                 | 2   |
| 7     | 8101590-BS | Chain Loop: 10 in. Standard Corner Cover Weld                     | 1   |
| 8     | 8101625-BS | Chain Loop: 10 in. Square-Round Weld Assembly                     | 4   |
| 9     | S-9065     | Flange Bolt 3/8-16 x 1 in. ZN Grade 5                             | 52  |
| 10    | S-10028    | Flange Nut 3/8-16 in. ZN Grade 5                                  | 52  |
| 11    | 8101600    | Chain Loop: 10 in. HD Corner Tube Weld                            | 2   |
| 12    | S-845      | Flat Washer 5/16 in. USS SAE YDP Grade 2                          | 10  |
| 13    | S-7470     | Flange Bolt 5/16-18 x 1 in. ZN Grade 5                            | 15  |
| 14    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                | 14  |
| 15    | S-858      | Flat Washer 5/8 in. USS ZN Grade 2                                | 12  |
| 16    | S-3208     | Split Lock Washer 5/8 in. Med ZN                                  | 4   |
| 17    | S-7893     | Bolt, HHCS 5/8-11 x 4 in. YDP Grade 8                             | 4   |
| 18    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                    | 8   |
| 19    | S-8562     | Flat Washer 1/2 in. GV                                            | 16  |
| 20    | S-8760     | Bolt, HHCS 1/2-13 x 1-1/2 in. ZN Grade 5                          | 8   |
| 21    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                  | 8   |
| 22    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 23    | 8107001    | Decal, Danger Shear Point                                         | 2   |
| 24    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 1   |
| 25    | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 26    | 8101768-Y  | Chain Loop: Shaft Corner - 207 Bearing - Ochre                    | 2   |

 Table 8-51 10 in. HD standard corner (8101599) parts list

#### 12 in. (7 Gauge) Standard Corner (8120031)

Figure 8-45 12 in. (7 Gauge) standard corner (8120031) parts



| Ref # | Part #     | Description                                                              | Qty    |
|-------|------------|--------------------------------------------------------------------------|--------|
| 1     | 8120030-BS | Standard Cover Weldment                                                  | 1      |
| 2     | 8120022-BS | Corner Cover Weldment                                                    | 1      |
| 3     | 8120308-BS | Chain Loop: 12 in. Square Round Weld Assembly - Bin Silver               | 4      |
| 4     | 8120304-BS | Chain Loop: 12 in. HD Corner Tube Weld - Bin Silver                      | 2      |
| 5     | MHC01277   | Bearing, Dodge 4-Bolt S-2000 P.B. 3-7/16 in.                             | 2      |
| 6     | 8120032    | TA4 Drive Shaft                                                          | 1      |
| 7     | 8120010    | UHMW Corner Dust Seal                                                    | 2      |
| 8     | S-8760     | Bolt, HHTB 1/2-13 x 1-1/2 in. ZN Grade 5                                 | 8      |
| 9     | S-8562     | Flat Washer 1/2 in. GV                                                   | 8      |
| 10    | S-8260     | Nylock Nut 1/2-13 in. ZN Grade 5                                         | 8      |
| 11    | S-866      | Flat Washer 3/4 in. USS ZN Flat Grade 2                                  | 16     |
| 12    | S-7884     | Bolt, HHCS 3/4-10 x 4 in. ZN Grade 8                                     | 8      |
| 13    | S-233      | 3/4 in. Lock Washer                                                      | 8      |
| 14    | S-234      | Nut 3/4-10 in.                                                           | 8      |
| 15    | S-1196     | Bolt, HHCS 5/16-18 x 1 in. ZN Grade 5                                    | 26     |
| 16    | S-3611     | Flange Nut 5/16-18 in. YDP Grade 2                                       | 26     |
| 17    | S-248      | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP                         | 72     |
| 18    | S-2071     | Bolt, HHCS 3/8-16 x 1-1/4 in. ZN Grade 5                                 | 72     |
| 19    | S-968      | Flange Nut 3/8-16 in. ZN Grade 5                                         | 72     |
| 20    | 8120099-BS | Door, Standard Corner Inspection                                         | 1      |
| 21    | 8120170-BS | Cover, Plate For UHMW Bearing Seal                                       | 2      |
| 22    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                                | 2      |
| 23    | 8107001    | Decal, Danger Shear Point                                                | 1      |
| 24    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                          | 1      |
| 25    | 8120311    | Sprocket, 81X Split 22T 3 7/16 in. Bore Type C Hub 45-55 RC Teeth Only   | 1      |
| 26    | K0875S06   | Keystock, 7/8 in. Square x 6 in. Long                                    | 1      |
| N/S   | S-2052     | Foam Strip 1/8 in. Thick x 1/2 in. Wide Weather In Rolls 75 ft. per Roll | 4.083' |

Table 8-52 12 in. (7 Gauge) standard corner (8120031) parts list

#### 8 in. and 10 in. Inspection Corner

Figure 8-46 8 in. and 10 in. Inspection corner parts

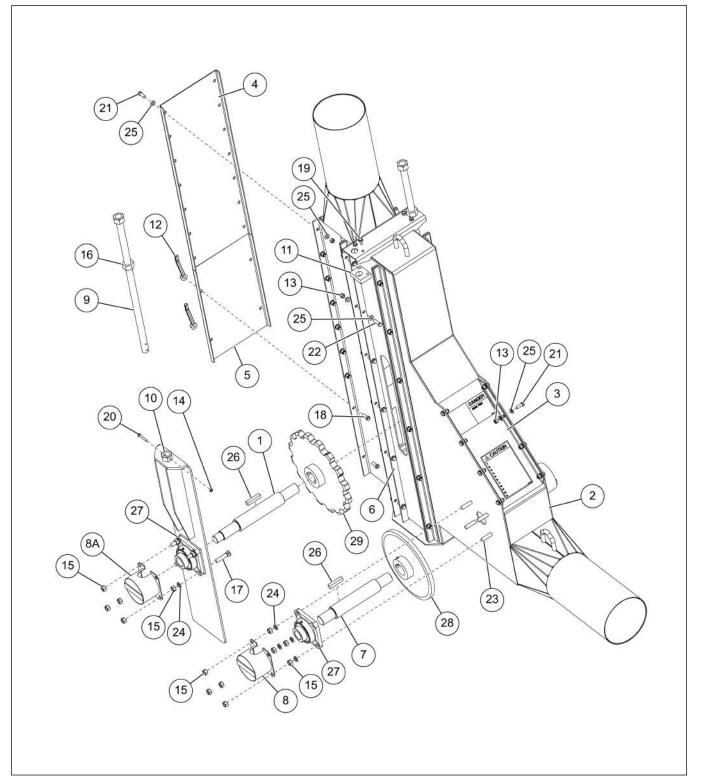
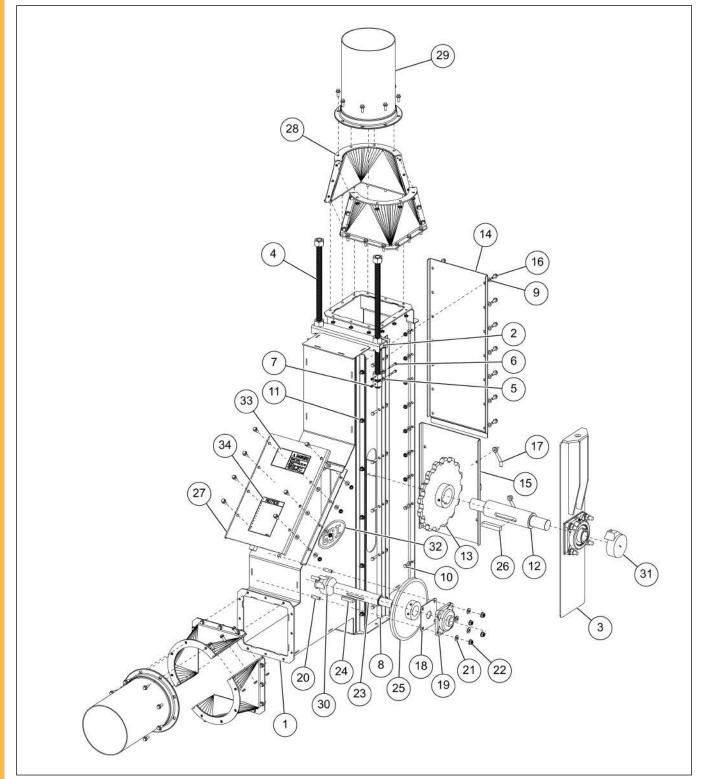


Table 8-53 8 in. and 10 in. Inspection corner parts list

| Ref<br># | Part #               | Description                                                           | Qty |
|----------|----------------------|-----------------------------------------------------------------------|-----|
| 4        | 8081029              | 8 in. Shaft-Corner, 8 in. Standard/Inspection Corner                  | 1   |
| 1        | 8101029              | 10 in. Shaft-Corner, 10 in. Standard/Inspection Corner                | 1   |
| 0        | 8081049              | Corner Inspection, 8 in. Weldment Hot Dipped 8081050                  | 1   |
| 2        | 8101049              | Corner Inspection, 10 in. Weldment Hot Dipped 8081050                 | 1   |
| 0        | 8081063              | Door Inspection, 45° 8 in. Inspection Corner                          | 1   |
| 3        | 8101063              | Door Inspection, 45° 10 in. Inspection Corner                         | 1   |
|          | 8081065              | Door Inspection, Long 8 in. Inspection Corner                         | 1   |
| 4        | 8101065              | Door Inspection, Long 10 in. Inspection Corner                        | 1   |
| -        | 8081067              | Door Inspection, Short 8 in. Inspection Corner                        | 1   |
| 5        | 8101067              | Door Inspection, Short 10 in. Inspection Corner                       | 1   |
| -        | 8081078              | Slide Plate, 8 in. Inspection Corner 56 in. Length                    | 8   |
| 6        | 8101078              | Slide Plate, 10 in. Inspection Corner 57 in. Length                   | 8   |
| _        | 8081080              | Shaft, 8 in. Inspection Corner                                        | 1   |
| 7        | 8101080              | Shaft, 10 in. Inspection Corner Idler                                 | 1   |
| 8        | 8081196 (for PT0145) | 8 in. Cover Bearing Shield Zinc Plated 8081197                        | 4   |
| 8a       | 8101196 (for PT0144) | 10 in. Cover Bearing Shield Zinc Plated 8101197                       | 2   |
| 9        | 8101075              | Take-Up Screw Weldment 6 in., 8 in. and 10 in. Inspection Corner      | 2   |
| 10       | 8101077              | Take-Up Screw Nut 6 in., 8 in., 10 in. Inspection Corner              | 4   |
| 11       | 8101202              | Block, 1-5/16 in. Thread Take-Up                                      | 2   |
| 12       | 1FH0582              | Nut Handle, Iron 3/8 in., Zinc Plated                                 | 4   |
| 13       |                      | Lock Nut, 3/8-16 in. UNC Nylon Lock, Plated, Grade 2                  | 46  |
| 14       |                      | Lock Nut, 1/4-20 in. UNC Two-Way, Plated, Grade 2                     | 4   |
| 15       |                      | Hex Nut, 1/2-13 in. UNC Finished, Plated, Grade 2                     | 32  |
| 16       |                      | Hex Nut, 1-8 UNC Finished, Plated, Grade 2                            | 2   |
|          | 8 in. System         | Bolt-Plow, #3 Head, RD, CSK 1/2 in. UNC x 2-1/2 in., SQ Neck          | 8   |
| 17       | 10 in. System        | Bolt-Plow, #3 Head, RD, CSK 5/8 in. UNC x 3 in., SQ Neck              | 8   |
| 18       |                      | Screw Flange Whiz Lock 3/8-16 in. UNC x 1 in., Plated                 | 4   |
| 19       |                      | Screw Flange Whiz Lock 5/16-18 in. UNC x 3/4 in., Plated              | 4   |
| 20       |                      | Hex Bolt, Standard Third-Grade 5 1/4-20 in. UNC x 1-3/4 in., Plated   | 4   |
| 21       |                      | Hex Bolt, Standard Third-Grade 5 3/8-16 in. UNC x 1 in., Plated       | 22  |
| 22       |                      | Hex Bolt, Standard Third-Grade 5 3/8-16 in. UNC x 1-1/4 in., Plated   | 24  |
| 23       |                      | Hex Bolt, Standard Third-Grade 5 1/2-13 in. UNC x 2 in., Plated       | 8   |
| 24       |                      | Lock Washer, Regular 1/2 in., Plated                                  | 16  |
| 25       |                      | Flat Washer, Standard 3/8 in., Plated                                 | 92  |
| 26       |                      | Key Square, 1/2 x 2-1/2 in.                                           | 2   |
| 07       | PT0145               | Bearing, Normal Duty 1-1/2 in. Bore With Locking Collar 4 Hole Flange | 4   |
| 27       | PT0144               | 10 in. Bearing with Housing, 2 in. ECC LK, Wide, RL, CYL, 4H          | 2   |
| 28       | PT1087               | Idler Wheel - 8 in. and 10 in. Inspection Corner                      | 1   |
|          | PT1093               | 8 in. Sprocket (Hub Type) 16 Tooth, 2 in. I.D.                        | 1   |
| 29       | 8101764              | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only     | 1   |

#### 10 in. HD Inspection Corner (8101618)

Figure 8-47 10 in. HD Inspection Corner (8101618) parts

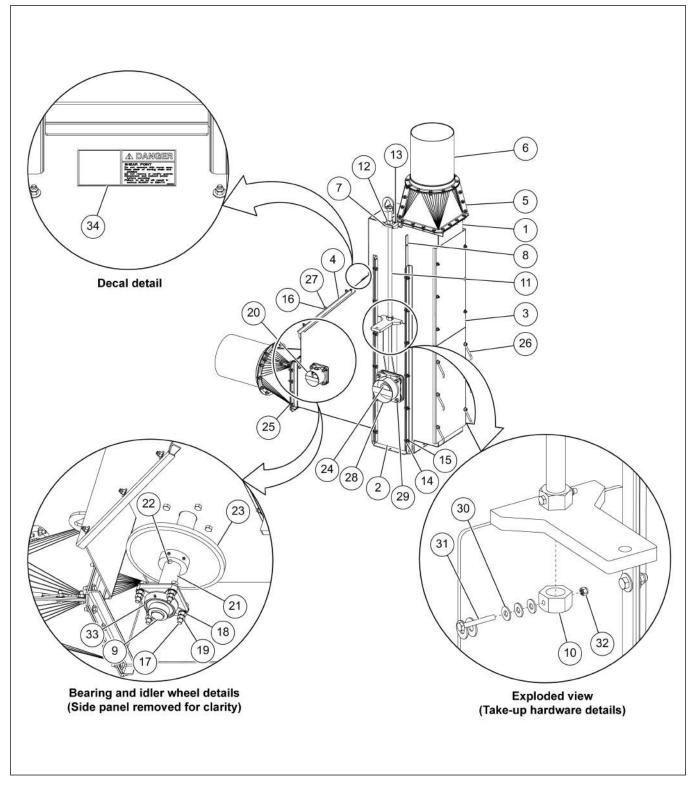


| Ref # | Part #     | Description                                                       | Qty |
|-------|------------|-------------------------------------------------------------------|-----|
| 1     | 8101610-BS | Chain Loop: 10 in. Inspection Corner Weld Assembly                | 1   |
| 2     | S-8906     | Nut, 1-5 ACME Thread SQ Zinc                                      | 2   |
| 3     | 8101621    | Chain Loop: 10 in. Inspection Corner Take-Up Slide                | 2   |
| 4     | 8101637    | Chain Loop: 10 in. Inspection Corner Adjustment Assembly          | 2   |
| 5     | S-1430     | Flat Washer 1/4-20 in. ZN Grade 2                                 | 4   |
| 6     | S-9377     | Bolt, 1/4-20 x 2 in. ZN Grade 8                                   | 4   |
| 7     | S-7025     | Nut, Nylock 1/4-20 in. ZN Grade 5                                 | 4   |
| 8     | 8081078-BS | Slide Plate, 8 in. Inspection Corner 56 in. Length                | 8   |
| 9     | S-7409     | Flat Washer 3/8 in. SAE ZN Grade 2                                | 96  |
| 10    | S-2071     | Bolt, HHCS 3/8-16 x 1-1/4 in. ZN Grade 5                          | 28  |
| 11    | S-10028    | Flange Nut 3/8-16 in. ZN Grade 5                                  | 98  |
| 12    | 8101029    | 10 in. Shaft-Corner, 10 in. Standard/Inspection Corner            | 1   |
| 13    | 8101764    | Sprocket, 81X Split 16T 3 in. Bore Type C Hub 45-55 RC Teeth Only | 1   |
| 14    | 8101617-BS | Chain Loop: 10 in. Inspection Corner Top Cover - Bin Silver       | 1   |
| 15    | 8101619-BS | Chain Loop: 10 in. Inspection Corner Bottom Cover - Bin Silver    | 1   |
| 16    | S-9065     | Flange Bolt 3/8-16 x 1 in. ZN Grade 5                             | 74  |
| 17    | BC-00003   | Handle, Easy Grip 3/8 in.                                         | 4   |
| 18    | 8101305    | UHMW Bearing Seal                                                 | 2   |
| 19    | KD-PBA0003 | Bearing 1-1/2 in. Dodge 4B SC Flange                              | 2   |
| 20    | S-7811     | Bolt, HHCS 1/2-13 x 2 in. ZN                                      | 8   |
| 21    | S-2120     | Flat Washer 1/2 in. SAE ZN                                        | 8   |
| 22    | S-8506     | Flange Nut 1/2-13 in. ZN                                          | 8   |
| 23    | 8101080    | Shaft, 10 in. Inspection Corner Idler                             | 1   |
| 24    | S-9167     | Square Key, 1/2 x 1/2 x 2-1/2 in.                                 | 1   |
| 25    | PT1087     | Idler Wheel - 8 in. and 10 in. Inspection Corner                  | 1   |
| 26    | S-9177     | Square Key 3/4 x 3-7/16 in.                                       | 1   |
| 27    | 8101620-BS | Chain Loop: 10 in. Inspection Corner Front Cover - Bin Silver     | 1   |
| 28    | 8101625-BS | Chain Loop: 10 in. Square-Round Weld Assembly                     | 4   |
| 29    | 8101600-BS | Chain Loop: 10 in. HD Corner Tube Weld - Bin Silver               | 2   |
| 30    | DBR-080079 | Cover, Dodge 208 Series Bearing                                   | 2   |
| 31    | DBR-100068 | Cover, Dodge 211 Series Bearing                                   | 2   |
| 32    | DC-1474    | Decal, Logo GSI 5 x 9 in.                                         | 2   |
| 33    | 8107001    | Decal, Danger Shear Point                                         | 2   |
| 34    | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                   | 2   |

Table 8-54 10 in. HD Inspection Corner (8101618) parts list

#### 12 in. (7 Gauge) Inspection Corner (8120051)

Figure 8-48 12 in. (7 Gauge) inspection corner (8120051) parts



| Ref # | Part #     | Description                                                              | Qty |
|-------|------------|--------------------------------------------------------------------------|-----|
| 1     | 8120034-BS | 12 in. Inspection Corner Weldment                                        | 1   |
| 2     | 8120062    | GTU Slide Assembly                                                       | 2   |
| 3     | 8120050-BS | Sprocket Cover - Inspection Corner                                       | 2   |
| 4     | 8120048-BS | Idler Cover                                                              | 1   |
| 5     | 8120308-BS | Chain Loop: 12 in. Square Round Weld Assembly - Bin Silver               | 4   |
| 6     | 8120304-BS | Chain Loop: 12 in. HD Corner Tube Weld - Bin Silver                      | 2   |
| 7     | 8101202    | Block, 1-5/16 in. Thread Take-Up                                         | 2   |
| 8     | 8081078-BS | Plate, 8 in. Inspection Corner 56 in. L Slide                            | 8   |
| 9     | PT0145     | Bearing, Normal Duty 1-1/2 in. Bore with Locking Collar 4 Hole Flange    | 2   |
| 10    | 8101077    | Take-Up Screw Nut 6 in., 8 in., 10 in. Inspection Corner                 | 4   |
| 11    | 8120052    | Standard Take-Up Screw Weldment                                          | 2   |
| 12    | S-240      | Hex Nut 1-8 in. ZN Grade 5                                               | 2   |
| 13    | S-6606     | Flange Bolt 5/16-18 x 3/4 in. ZN Grade 5                                 | 4   |
| 14    | S-248      | Flat Washer 3/8 in. 7/16 in. I.D. 1 in. O.D. YDP                         | 236 |
| 15    | S-2071     | Bolt, HHCS 3/8-16 x 1-1/4 in. ZN Grade 5                                 | 98  |
| 16    | S-7383     | Nylock Nut 3/8-16 in. ZN Grade 5                                         | 40  |
| 17    | S-6500     | Bolt, HHCS 1/2-13 x 2-1/2 in. ZN Grade 5                                 | 8   |
| 18    | S-236      | 1/2 in. Lock Washer                                                      | 8   |
| 19    | S-3729     | Hex Nut 1/2-13 in. YDP Grade 5                                           | 16  |
| 20    | 8081196-BS | 8 in. Cover Bearing Shield Zinc Plated                                   | 2   |
| 21    | 8120054    | Idler Shaft Inspection Corner                                            | 1   |
| 22    | S-9167     | Key Square, 1/2 x 1/2 x 2-1/2 in.                                        | 1   |
| 23    | PT1087     | Idler Wheel - 8 in. and 10 in. Inspection Corner                         | 1   |
| 24    | 8120055    | Shaft - Inspection Corner                                                | 1   |
| 25    | S-456      | Hex Nut 3/8-16 in. YDP Grade 5                                           | 74  |
| 26    | BC-00003   | Handle, Easy Grip 3/8 in.                                                | 6   |
| 27    | S-7469     | Bolt, HHCS 3/8-16 x 1 in. ZN Grade 5                                     | 22  |
| 28    | 8120056-BS | Bearing Cover Assembly                                                   | 2   |
| 29    | S-4110     | Hex Nut 5/8-11 in. YDP Grade 5                                           | 8   |
| 30    | S-1430     | Flat Washer 1/4 in. ZN Grade 2                                           | 6   |
| 31    | S-9377     | Bolt, 1/4-20 x 2 in. ZN Grade 8                                          | 4   |
| 32    | S-7025     | Nut, Nylock 1/4-20 in. ZN Grade 5                                        | 4   |
| 33    | 8101305    | UHMW Bearing Seal                                                        | 2   |
| 34    | 8107001    | Decal, Danger Shear Point                                                | 1   |
| N/S   | 8120311    | Sprocket, 81X Split 22T 3 7/16 in. Bore Type C Hub 45-55 RC Teeth Only   | 1   |
| N/S   | CE-00972   | Key, 7/8 x 7/8 x 6 in.                                                   | 1   |
| N/S   | S-2052     | Foam Strip 1/8 in. Thick x 1/2 in. Wide Weather In Rolls 75 ft. Per Roll | 2   |
| N/S   | CRTINSP-12 | Crate Chain Loop Inspection Corner - 12 in.                              | 1   |
| N/S   | DC-1379    | Decal, Notice 5-1/8 x 7-3/8 in.                                          | 2   |
| N/S   | K0875S06   | Keystock, 7/8 in. Sq x 6 in. Long                                        | 1   |

Table 8-55 12 in. (7 Gauge) inspection corner (8120051) parts list

#### **Chain Loop Torque Plate Assembly**

Figure 8-49 Chain loop torque plate assembly parts

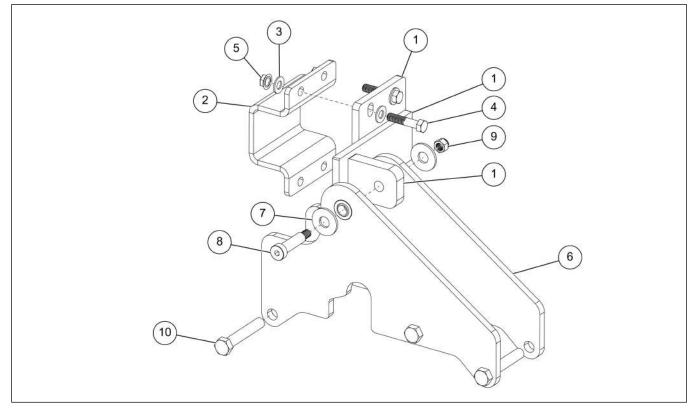


 Table 8-56 Chain loop torque plate assembly parts list

| Ref # | Part #  | Description                                      | Qty |
|-------|---------|--------------------------------------------------|-----|
| 1     | 8101380 | Torque Plate Anchor Bracket                      | 1   |
|       | 8101346 | 8 in. and 10 in. C-Clamp Bracket                 | 1   |
| 2     |         | 12 in. C-Clamp Bracket                           | 1   |
| 3     | S-7409  | Flat Washer 3/8 in. SAE ZN Grade 2               | 8   |
| 4     | S-8322  | Bolt, HHCS 3/8-16 x 1-3/4 in. ZN Grade 5         | 4   |
| 5     | S-968   | Flange Nut 3/8-16 in. ZN Grade 5                 | 4   |
|       | 8101385 | TA3 - 8 in. and 10 in. Torque Plate with Bearing | 2   |
|       | 8101383 | TA4 - 8 in. and 10 in. Torque Plate with Bearing | 2   |
| 6     | 8101381 | TA5 - 10 in. Torque Plate with Bearing           | 2   |
|       |         | TA5 - 12 in. Torque Plate with Bearing           | 2   |
|       |         | TA6 - 12 in. Torque Plate with Bearing           | 2   |
| 7     | S-2121  | Flat Washer 1/2 x 1-3/8 x 0.109 in. Type A ZN    | 2   |
| 8     | S-9466  | Shoulder Bolt 3/8-16 x 1/2 x 1-3/4 in. SKT HD    | 1   |
| 9     | S-7383  | Nylock Nut 3/8-16 in. ZN Grade 5                 | 1   |
| 40    | S-7687  | TA3 - Bolt, HHCS 3/8-16 x 2 in. ZN               | 3   |
| 10    | S-8252  | TA4 and TA5 - Bolt, HHCS 1/2-13 x 3 in. ZN       | 3   |

## **Ground Control Kit**

Figure 8-50 Ground control kit parts

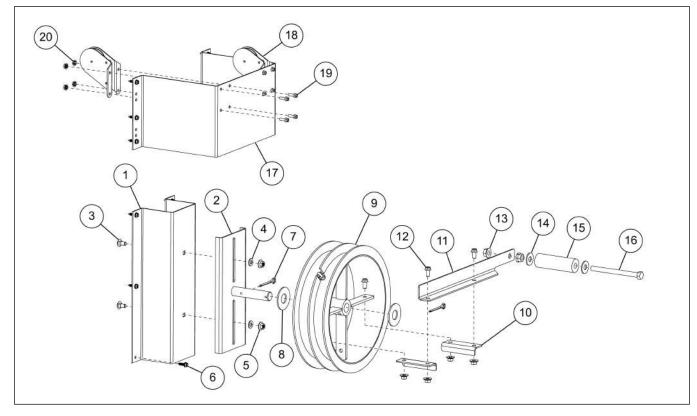


Table 8-57 Ground control kit parts list

| Ref # | Part #     | Description                                     | Qty |
|-------|------------|-------------------------------------------------|-----|
| 1     | 8101157    | Bracket, Ground Control Kit, Bin Wall Mount     | 1   |
| 2     | 8101158    | Weldment, Ground Control Kit Wheel              | 1   |
| 3     | S-7391     | Carriage Bolt, 3/8-16 x 3/4 in. Long ZN Grade 5 | 2   |
| 4     | S-7409     | Flat Washer 3/8 in. SAE ZN Grade 2              | 2   |
| 5     | S-968      | Flange Nut, 3/8-16 in. ZN Grade 5               | 6   |
| 6     | S-8166     | Screw, SMSAB 1/4 x 1 in. HWH ZN                 | 12  |
| 7     | S-6994     | Cotter Pin 3/16 x 2 in. ZN Grade 2              | 2   |
| 8     | S-7835     | Flat Washer 1 in. ID USS Washer                 | 2   |
| 9     | 8101555    | Ground Control: Wheel with Clamp 1 in. Bore     | 1   |
| 10    | 8101540-BS | Ground Control: Handle Bracket                  | 2   |
| 11    | 8101541-BS | Ground Control: Handle                          | 1   |
| 12    | S-9067     | Flange Bolt 3/8-16 x 3/4 in. ZN Grade 5         | 4   |
| 13    | S-8506     | Flange Nut 1/2-13 in. ZN                        | 2   |
| 14    | S-2121     | Flat Washer 1/2 in.                             | 2   |
| 15    | GSB-0050   | Roller, Hand 1.5 in. O.D.                       | 1   |
| 16    | S-8377     | Bolt HHCS 1/2-13 x 6 in. ZN Grade 5             | 1   |
| 17    | 8101156    | Bracket, Ground Control Kit Pulley Mount        | 1   |
| 18    | PT0550     | Pulley, Hot House                               | 2   |
| 19    | S-8680     | Flange Bolt 1/4-20 x 3/4 in. ZN Grade 5         | 8   |
| 20    | S-7215     | Flange Nut 1/4-20 in. ZN                        | 8   |

# NOTES

#### Limited Warranty — N.A. Grain Products

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 from the date of shipment (or, if shipped by vessel, 14 months from the date of arrival at the port of discharge). If, in GSI's sole judgment, a product is found to have a defect in materials and/or workmanship, GSI will, at its own option and expense, repair or replace the product or refund the purchase price. This Limited Warranty is subject to extension and other terms as set forth below.

**Warranty Enhancements:** The warranty period for the following products is enhanced as shown below and is in lieu of (and not in addition to) the above stated warranty period. (Warranty Period is from date of shipment.)

|              | Product                                                                                                                                                                                                               | Warranty Period |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Storage      | Grain Bin Structural Design<br>• Sidewall, roof, doors, platforms and walkarounds<br>• Flooring (when installed using GSI specified floor support system for that floor)<br>• Hopper tanks (BFT, GHT, NCHT, and FCHT) | 5 Years         |
|              | Dryer Structural Design – (Tower, Portable and TopDry)<br>• Includes (frame, portable dryer screens, ladders, access doors and platforms)                                                                             | 5 Years         |
| Conditioning | All other Dryer parts including:<br>• Electrical (controls, sensors, switches and internal wiring)                                                                                                                    | 2 Years         |
|              | All Non-PTO Driven Centrifugal and Axial Fans                                                                                                                                                                         | 3 Years         |
|              | Bullseye Controllers                                                                                                                                                                                                  | 2 Years         |
|              | Bucket Elevators Structural Design                                                                                                                                                                                    | 5 Years         |
| Material     | Towers Structural Design                                                                                                                                                                                              | 5 Years         |
| Handling     | Catwalks Structural Design                                                                                                                                                                                            | 5 Years         |
|              | Accessories (stairs, ladders and platforms) Structural Design                                                                                                                                                         | 5 Years         |

#### **Conditions and Limitations:**

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH HEREIN; SPECIFICALLY, GSI DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) ANY 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.

The sole and exclusive remedy for any claimant is set forth in this Limited Warranty and shall not exceed the amount paid for the product purchased. This Warranty only covers the value of the warranted parts and equipment, and does not cover labor charges for removing or installing defective parts, shipping charges with respect to such parts, any applicable sales or other taxes, or any other charges or expenses not specified in this Warranty. GSI shall not be liable for any other direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. Expenses incurred by or on behalf of a claimant without prior written authorization from the GSI warranty department shall not be reimbursed. 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. Prior to installation, the end-user bears all responsibility to comply with federal, state and local codes which apply to the location and installation of the products.

This Limited Warranty extends solely to products sold by GSI and does not cover any parts, components or materials used in conjunction with the product, that are not sold by GSI. GSI assumes no responsibility for claims resulting from construction defects, unauthorized modifications, corrosion or other cosmetic issues caused by storage, application or environmental conditions. Modifications to products not specifically delineated in the manual accompanying the product at initial sale will void all warranties. 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.

#### Notice Procedure:

In order to make a valid warranty claim a written notice of the claim must be submitted, using the RMA form, within 60 days of discovery of a warrantable nonconformance. The RMA form is found on the OneGSI portal.

#### Service Parts:

GSI warrants, subject to all other conditions described in this Warranty, Service Parts which it manufactures for a period of 12 months from the date of purchase unless specified in Enhancements above.

(Limited Warranty - N.A. Grain Products\_revised 01 October 2020)

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.

# **GS**J

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