



Sidefeed Gearbox Baler, 3-Tie

OPERATOR'S AND PARTS ADDENDUM

89-053

A Product of

Allied Systems
COMPANY

Sherwood, Oregon USA

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See alliedsystems.com for our most current documents.

Safety

General

The following pages contain general safety warnings which supplement specific warnings and cautions appearing elsewhere in this manual. All electrical and hydraulic equipment is potentially hazardous. You must thoroughly review and understand this Safety Section before attempting to operate, troubleshoot, maintain or service this baler.

Time, money and effort have been invested in making your Baler a safe product. The dividend from this investment is **YOUR PERSONAL SAFETY**.

However, it must be realized that no power-driven equipment can be any safer than the person behind the controls. If you don't operate and maintain your Freeman Baler safely, our efforts will have been in vain.

The safety instructions and warnings, as documented in this manual and shipped with the machine, provide the most reliable procedures for the safe operation and maintenance of your Baler. It's your responsibility to see that they are carried out.

Allied Systems Company cannot anticipate all worksite conditions, local regulations, etc. It is the responsibility of the end user to be aware of and obey any specific worksite, local, state, or national regulations or procedures that are applicable to operating this baler.

NOTE: All possible safety hazards cannot be anticipated so as to be included in this manual. Therefore, you must always be alert to potential hazards that could endanger personnel and/or damage the equipment.



Safety Symbols

The following symbols/terms are used to emphasize safety precautions and notices in this manual:



DANGER

The “**DANGER**” symbol indicates a hazardous situation which, if not avoided, will result in death or serious injury. Carefully read the message that follows to prevent serious injury or death.



WARNING

The “**WARNING**” symbol indicates a hazardous situation which, if not avoided, could result in death or serious injury. Carefully read the message that follows to prevent serious injury or death.



CAUTION

The “**CAUTION**” symbol indicates a hazardous situation which, if not avoided, could result in minor or moderate injury, or equipment damage. Carefully read the message that follows to prevent minor or moderate injury.

NOTICE

The “**NOTICE**” symbol alerts to a situation that is not related to personal injury but may cause equipment damage.

NOTE: ...

The term “**NOTE**” highlights operating procedures or practices that may improve equipment reliability and/or personnel performance, or to emphasize a concept.

Intended Use Statement:

This baler is intended to gather and compress loose, fibrous material (i.e., hay) and form it into rectangular bales. Use in any other way is considered to be contrary to the intended use. If you are unsure of the material you intend to bale, consult the factory.

Operation Warnings



WARNING

Failure to observe the following safety rules may result in extreme personal injury, dismemberment or death. It is the operator's responsibility to understand the proper and safe use of this baler.

- Make sure that you read, understand, and obey all of the safety precautions and operating instructions in this Operator's Manual.
- Keep this Operator's Manual and the Safety Card (Allied form #89-028) with the baler at all times.
- Do not operate the baler unless you are authorized and trained to do so. If it has been some time since you last operated the baler, re-familiarize yourself with the baler before starting, then proceed slowly.
- Do not operate the baler if you are aware of any malfunctions, needed maintenance or repairs.
- Stop the baler immediately if any problems arise.
- Never allow others to ride on the baler.
- Never allow anyone within 10 ft of the baler while the baler is in operation.
- Never operate the baler without all safety shielding in place.
- Keep hands, feet, hair, jewelry and clothing away from moving parts, including but not limited to the pickup, knotter, and PTO shaft.
- Avoid wearing loose clothing which can easily be caught in moving parts.
- Use appropriate signs (i.e., Slow Moving Vehicle sign), signals or warning lights when transporting on highways.



- Always use lights when working at night or in low light conditions.
- Know your job-site rules. Some have site specific directions and procedures. The methods outlined in this manual provide a basis for safe operation of the baler. Because of special conditions, your company's baling procedures may be somewhat different from those shown in this manual.
- Do not start the tractor if the key had been marked with a "DO NOT START" or "RED" tag.
- Never operate any of the tractor's controls from anywhere other than the operator's seat.
- Alert personnel in the area before starting the engine, and make sure everyone is clear. Be sure that all controls are in neutral and the baler is disengaged before starting the engine.
- Each country has its own safety legislation. It is in the operator's own interest to be conversant with these regulations and to comply with them in full. This also applies to local bylaws and regulations in force on a particular worksite.
- Should the recommendations in this manual deviate from those in the user's country, the national regulations should be followed.
- Never attempt to disconnect any of the safety devices built into the baler or tractor.
- Maintain proper clearance from energized equipment, energized power lines or other power sources. High voltage electricity can discharge to ground without direct contact with the baler's or tractor's structure. If the baler or tractor contacts energized equipment, or if electrical energy does discharge through the machine—stay clear, and prevent anyone else from coming in contact with the baler or tractor. If you are on the tractor, stand fast, avoid contact with metal surfaces, and do not permit anyone to come into contact with the tractor or baler. Finally, **Do not jump off.**

Hydraulic Hazards

Be aware of the hazards of pressurized hydraulics:

- Wear personal protective equipment, such as gloves and safety glasses, whenever servicing or checking a hydraulic system.
- Assume that all hydraulic hoses and components are pressurized. Relieve all hydraulic pressure before disconnecting any hydraulic line.
- Never try to stop or check for a hydraulic leak with any part of your body; use a piece of cardboard to check for hydraulic leaks.
- Small hydraulic hose leaks are extremely dangerous, and can inject hydraulic oil under the skin, even through gloves.
- Infection and gangrene are possible when hydraulic oil penetrates the skin. See a doctor immediately to prevent loss of limb or death.



Maintenance Safety

- Perform all routine maintenance outlined in this Operator's Manual in the time intervals indicated.
- Maintenance, lubrication and repair of this machine can be dangerous unless performed properly. In order to ensure safety, each person working on this baler must have the necessary skills, information, tools and equipment, and satisfy himself that his work method is safe, correct, and meets his own company's requirements.
- Do not attempt to make adjustments, or perform repairs unless you are authorized and qualified to do so.
- Never attempt to service energized equipment.
- Do not rely on the hydraulic system to support any part of the baler during maintenance or lubrication. Never stand under a baler component that is supported only by the hydraulic system. Ensure components are resting on their mechanical stops or supported with appropriate safety stands during maintenance or lubrication.
- Never attempt servicing while the baler is moving. Shut off the tractor and secure power.

- Shut off tractor and baler engine, engage the parking brake, disengage the baler, and wait for all movement to stop before adjusting, lubricating, cleaning, or servicing the baler.
- Tag the key switch with a "DO NOT START" sign and/or remove the key.
- Always perform all maintenance and lubrication procedures with the baler on level ground, parked in a safe area.
- Block the tires to keep the machine from rolling.
- Any unauthorized modifications made to the baler by the customer or parties other than Allied Systems will relieve Allied Systems Company and your Freeman dealer of any liability for damage or injury.
- Replace any worn parts only with genuine Freeman parts. Call your dealer for assistance.
- Unless specified in service procedures, never attempt maintenance or lubrication procedures while the baler is moving or the engine is running.

- Engine exhaust fumes can cause death. If it is necessary to run the engine in an enclosed space, remove the exhaust fumes from the area with an exhaust pipe extension. Use ventilation fans and open shop doors to provide adequate ventilation.
- DO NOT remove the radiator cap when the engine is hot. The coolant will be under pressure and can flash to steam with explosive force, causing severe burns. To prevent burns, remove the radiator cap only when the engine is cool.



- Batteries contain sulfuric acid which can cause severe burns. Avoid contact with skin, eyes or clothing.

- Batteries produce explosive gases. Keep sparks, flame and cigarettes away. Ventilate when charging or servicing in an enclosed space. Always shield your eyes when working near batteries. When removing battery cables, disconnect the negative (-) cable first. When installing a battery, always connect the positive (+) cable first. This procedure will help to prevent a spark which could cause an explosion.



- Before making adjustments to the engine or chassis electrical system, disconnect the battery. An electrical spark could cause a fire, explosion or severe burns.

Safety Equipment

- Ensure test equipment is in good condition.
- If an instrument must be held while taking measurements, ground the case of the instrument before energizing equipment.
- Do not touch live equipment or personnel working on live equipment while holding a multimeter. Some types of measuring devices should not be grounded—do not hold such devices while taking measurements.
- Prevent personal injury or equipment damage by using a lifting device with a lifting capacity greater than twice the weight of any equipment to be lifted.
- Always use personal protective equipment (PPE) appropriate to the situation. This may include the use of hearing protection, eye protection, a respirator, a hard hat, leather gloves, steel toed boots, etc.



Electrical Hazards

- An electric shock could be fatal. Ensure power to the baler is “OFF” before opening electrical panels.
- All electrical cables and connectors must be in good condition (free of corrosion, damage, etc). Use caution in wet weather to avoid danger from electrical shock. Never attempt electrical testing or repair while standing in water.
- Do not wear electrically conductive jewelry, clothing, or other items while working on the electrical system.



Hot Oil Hazards

- Burns from hot oil can be severe—Always allow lubricating and hydraulic oil to cool before draining.

Compressed Air Hazards

- When using compressed air to dry parts, pressure should not exceed 30 psi (200 kPa).
- Air pressure penetrating your skin can be fatal. Never direct compressed air at anyone.

Fire Safety



WARNING

Diesel fuel and hydraulic oil are flammable. Never smoke while handling fuel or working on the fuel system. The fumes in an empty fuel container are explosive. Never cut or weld on or near fuel lines, tanks, or containers. Keep open flames and sparks away from the machine.

Reduce the Risk of Fire

- Keep the baler free of oil, grease, hay, and trash accumulations. Regular cleaning is recommended for fire prevention and general safety. Use an approved solvent to clean machine parts. Never use gasoline or diesel fuel.
- Shut off the engine and electrical equipment while filling the fuel tank. Use extra caution when fueling a hot engine. Always ground the fuel nozzle against the filler neck to avoid sparks.
- Never overfill the fuel or hydraulic tanks. Any overflow could cause a fire. Immediately repair any hydraulic or fuel leaks and clean up any spills.
- Handle all solvents and dry chemicals according to procedures identified on manufacturer's containers. Work in a well-ventilated area. Make sure you know where fire extinguishers are kept and how to use them.
- Avoid spilling fuel or other hazardous liquids. If a spill occurs, follow local or state regulations for clean-up. Contact your state's OSHA office for details.
- Always ensure that excess grease and oil accumulation, including spillage, is cleaned up immediately.
- Inspect the baler daily for potential fire hazards and make any necessary repairs immediately.
- Check all the electrical wiring and connections for defects, and repair or replace as necessary. Keep battery terminals clean and tight.



- Never perform welding operations until the entire machine has undergone a thorough cleaning. In addition, cover rubber hoses, disconnect the battery, and have at least a fire extinguisher at hand.
- Hydraulic fluid is flammable. Do not weld on or near pipes, tubes, or hoses that are filled with fluid. Do not smoke when checking or filling the tank. Keep open flames and sparks away from the baler.
- Hay dust is combustible. Do not have an open flame or weld in dusty environments.
- Maintain the engine cooling system to avoid overheating.
- Remember, there is always a risk of fire.

Fire Fighting Equipment

- It is recommended to carry an "ABC" fire extinguisher on the baler or in the pull vehicle at all times. Install it within easy reach of the operator in a position that protects it from damage. Use only a "quick release" type of mount. It is also recommended to carry a four gallon water container with a pump, or as required by local and state law.
- Keep your fire extinguisher(s) fully charged and in good working order. Know how to use them.
- Read and understand the instructions printed on the canisters and learn how to operate them. Learn how to remove the canisters from their mounting brackets in the shortest amount of time.
- Service the extinguisher according to the manufacturer's specifications. Service after every use, no matter how short a time.

Fire Suppression

- Do not panic. At the first sign of trouble (burning smell, smoke, visible flame, etc), stop the tractor and turn off the engine in the clearest area available, with the tractor upwind from the baler if possible.
- If the fire cannot be extinguished safely, immediately evacuate the area. DO NOT attempt to extinguish it. DO NOT risk personal injury. Contact your local fire department.
- If you have determined that the fire may be safely extinguished, use the fire extinguisher according to the manufacturer's instructions, or use the water pump, aiming water at the base of the fire.
- When the baler has fully cooled, thoroughly inspect, and make all necessary repairs to return the baler to normal operation.
- Recharge or replace the extinguishers before returning to work.

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Serial Number Location

Each Freeman Baler is identified by means of a baler model number and baler serial number. As a further identification, all power units are provided with a serial number. The serial number is an important piece of information about the machine and it may be necessary to know it before obtaining the correct replacement part. The serial number is located on the top chamber rail on the rear left-hand side, above the tool box. To ensure prompt, efficient service when ordering parts or requesting repairs from your authorized Freeman dealer, record the serial numbers in the spaces provided.

Baler Serial Number

Rear, left side of baler on upper frame.

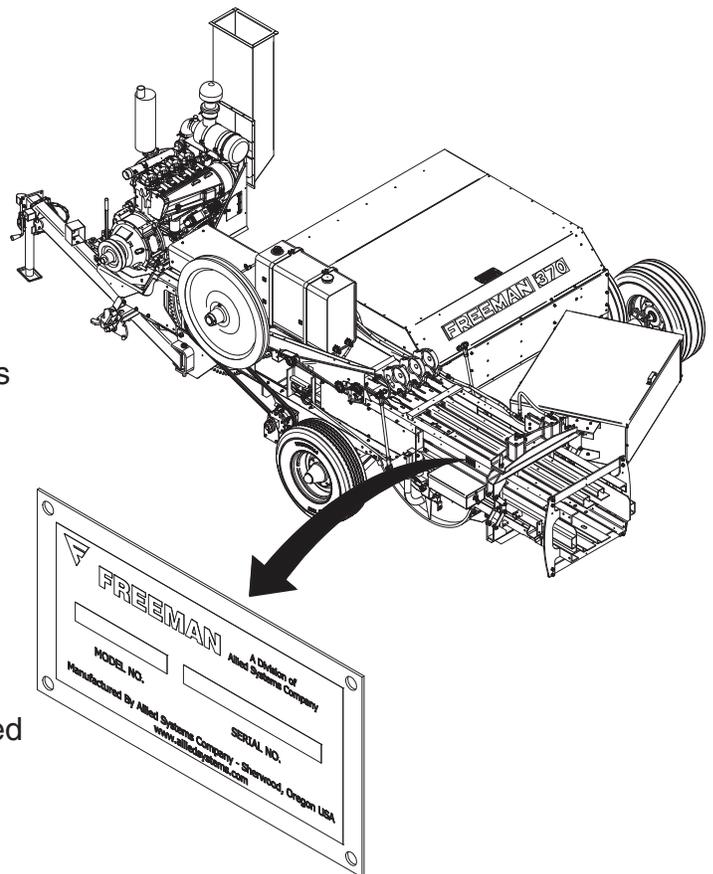
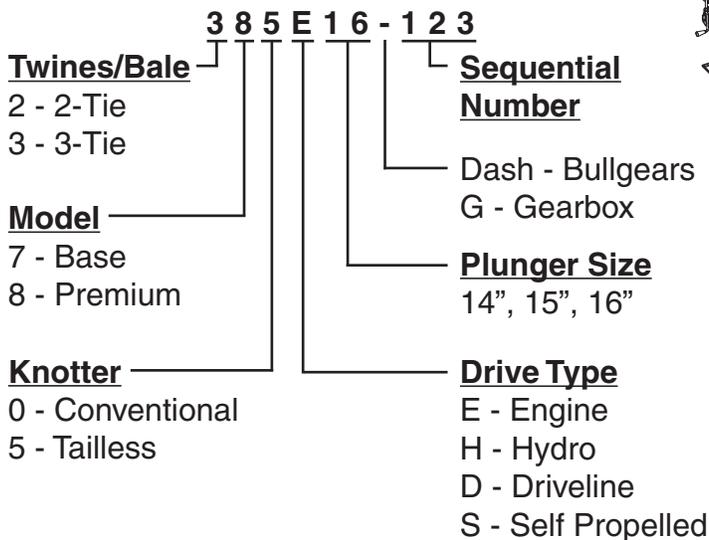
Power Unit Serial Number

Deutz Diesel - forward side of engine on block.

Driveline P.T.O. 540 RPM - top of gearbox.

NOTE: Reference to left-hand and right-hand used throughout the manual are understood to mean from a position facing in the direction of travel.

Side Feed Baler Serial Number Format As Of 2011



Maintenance

WARNING

Chock baler wheels to prevent baler from moving and make sure baler and tractor are both turned off and all moving parts have come to a complete stop before starting any maintenance. Contact with moving equipment can cause serious injury or death.

Use Mobilube HD Plus 80W-90 Gear Oil, Allied P/N 235720.

Check oil level daily:

With the baler sitting level, remove the fill/check plug. Oil should be level with the bottom of the opening (see Figure 2.) Add oil as necessary through the same opening. Replace plug and tighten securely.

Change oil after first 50 hours, then every 250 hours:

1. Place a catch pan beneath the gearbox, under the drain plug.
2. Remove the drain plug from the bottom of the gearbox (see Figure 2) and let oil drain into catch pan.
3. Replace the drain plug.
4. Add new oil through the fill/check plug opening until the oil is level with the bottom of the opening (see Figure 2.) Replace plug and tighten securely.
5. Dispose of used oil in accordance with local regulations.

Check Bolts on Crank Arm Every 3 months/125 hours/25,000 bales, whichever comes first (see Figure 1).

1. Torque the four (4) retaining cap bolts to 340 ft-lbs.
2. Torque the one (1) clamp bolt to 750-755 ft-lbs.

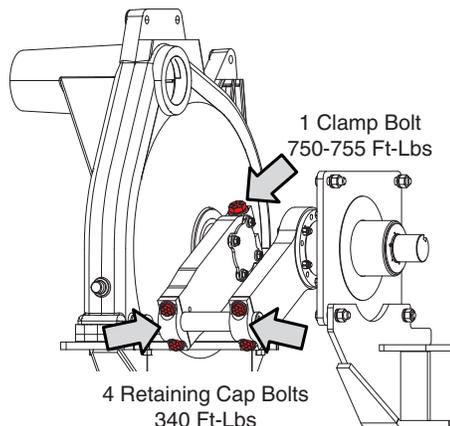


Figure 1 - Crank Arm Torque

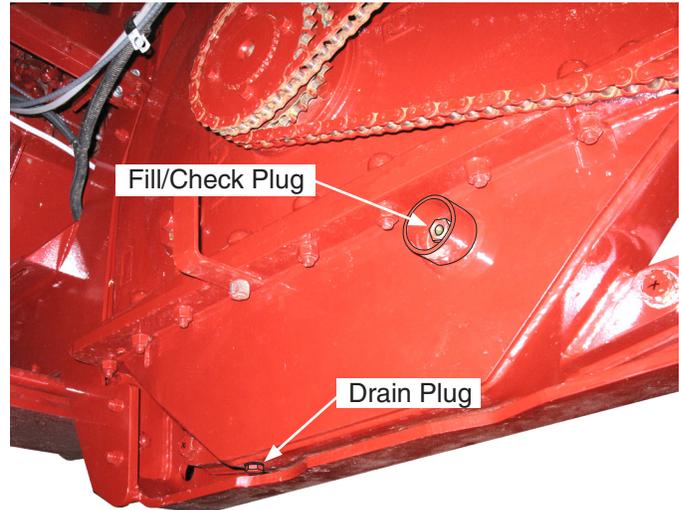


Figure 2 - Gearbox

Connecting Rod/Crank Arm:

Grease the connecting rod bushing daily until you just see grease emerging from around the bushing (see Figure 3).

Grease the gearbox crank arm bearings at the beginning of every season, and then every 50 hours (see Figure 3).

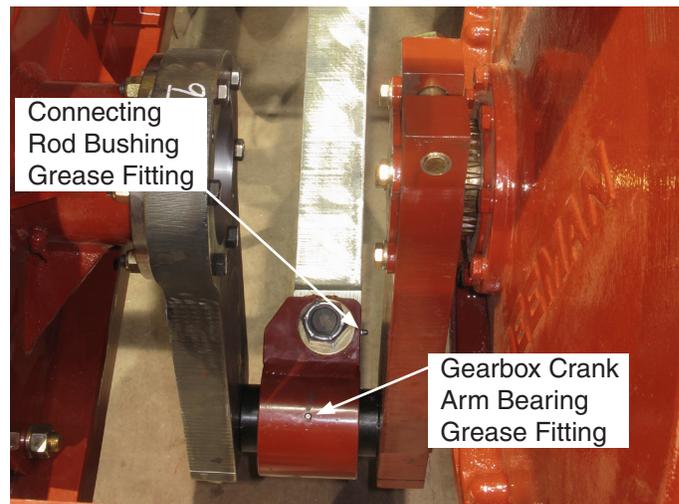


Figure 3 - Gearbox Lubrication (Top View)

Gearbox Baler Parts

This section contains all components of the Gearbox baler that are not included in the standard Engine/Hydro Parts Manual. This includes all parts that can be separately identified as well as parts necessary for equipment support.

Illustrations

Illustrations are provided whenever possible to represent component parts and the mounting location of those parts. The numbered labels correspond to the item numbers in the parts list.

Parts Lists

Component parts lists are presented in a 5-column format:

Item: Index numbers found in this column correspond to the numbers found on the respective parts location illustration. Some items are shown for reference purposes only to illustrate their relationship to other systems.

Notes: This column identifies footnotes applicable to specified items.

Part Number: This column lists the Allied Systems Company Part Number.

Quantity: This column lists the total number of a specific item required per assembly or subassembly. This number may not necessarily be the number of items used in the end item or system. Only one set of components is listed whenever the components of two assemblies are the same.

“**A/R**” (as required) identifies bulk items whose length or other dimension must be specified when requisitioning.

“**Ref**” identifies items shown for reference purposes only to illustrate their relationship to other systems.

“**NSS**” (not sold separately) identifies items such as valve housings and spools, ring gears and pinions, etc., which must be ordered as a set because they are closely mated at manufacture.

Description: This column lists the item nomenclature along with those modifiers necessary to identify the item. Additionally, cross references for repairable sub-assemblies are listed in this column. One dot preceding the description indicates that the item is a component part of the previously listed item or assembly with no dot. Two dots indicate that the item is part of the previously listed item with one dot.

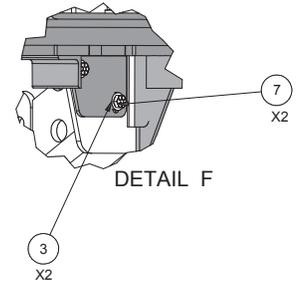
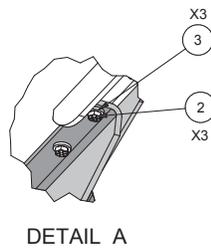
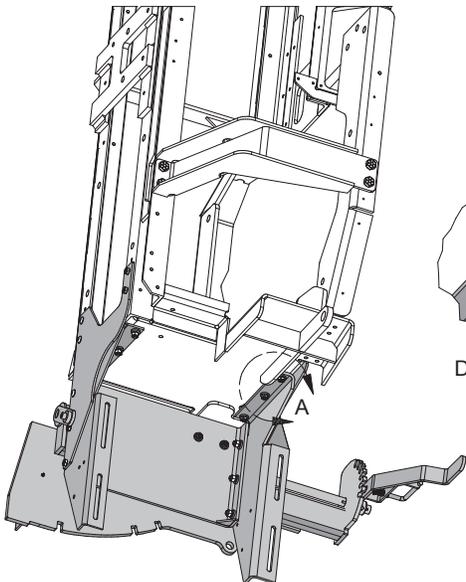
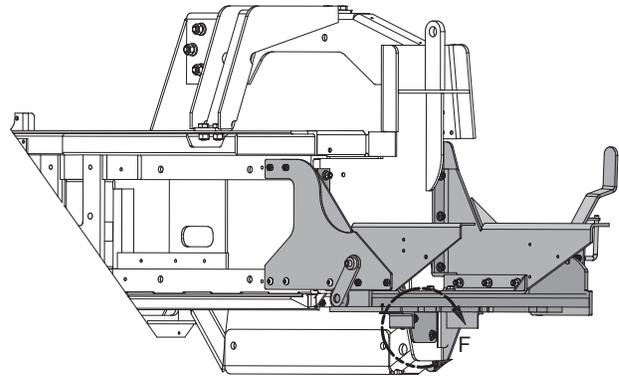
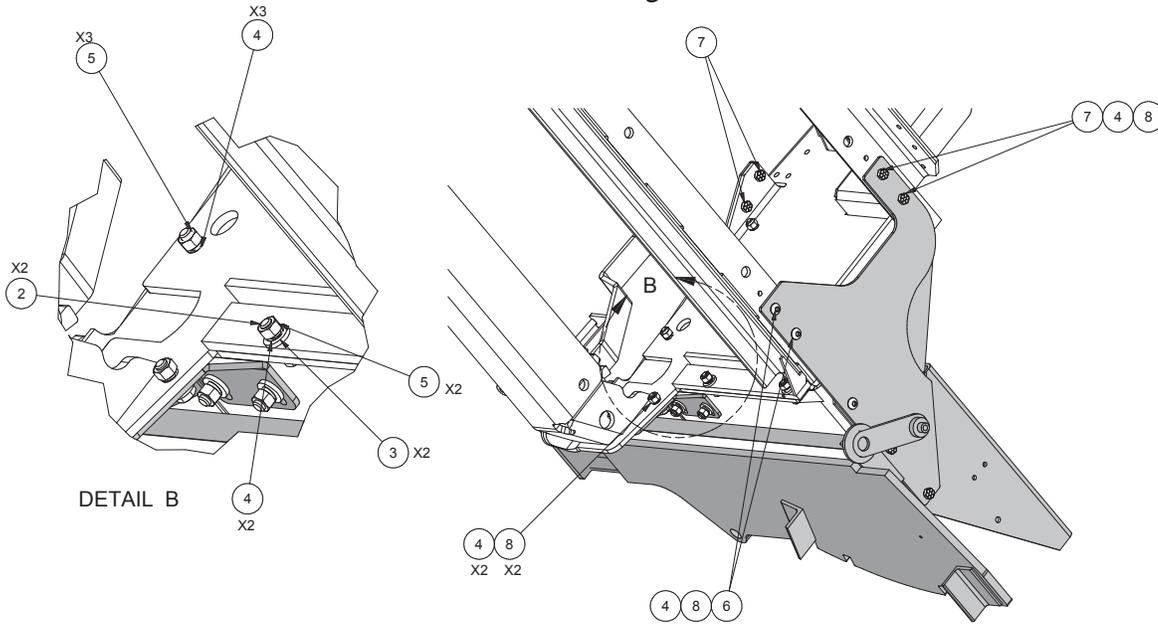
Example:

Engine Installation
. Engine Assembly
. . Manifold Assembly
. . Control Box Assembly
. . . Module Assembly

The Engine Assembly is a first level subassembly of the Engine Installation as indicated with one dot. The Manifold Assembly and the Control Box Assembly are second level components of the Engine Assembly as indicated by the two dots. The Module Assembly is a third level component of the Control Box Assembly which is indicated with three dots.

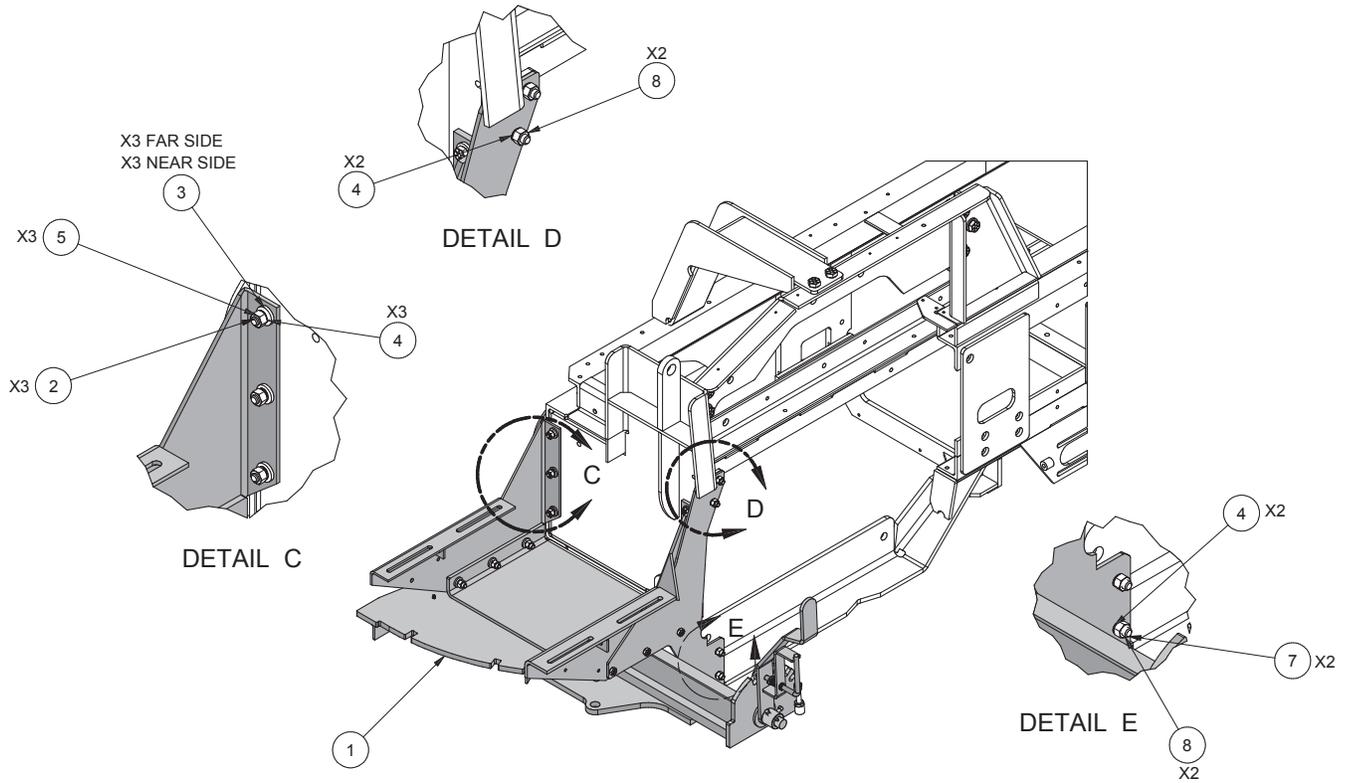
Front End Installation, Gearbox 37X

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Front End Installation, Gearbox 37X

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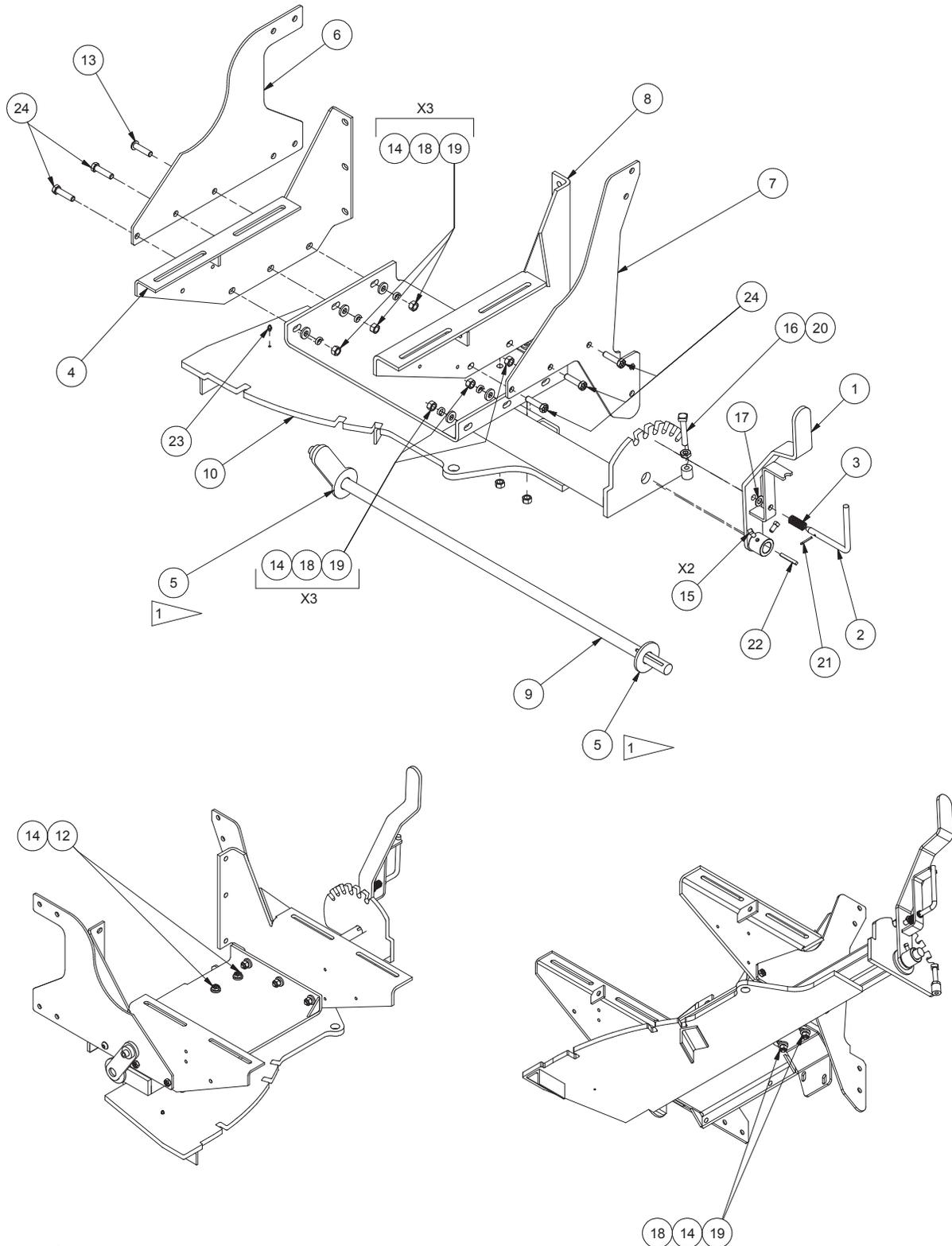
| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|--------------------------------------|-----------|-----|----------------------|------|-----------|-----|-------------|
| 904470 Front End Installation | | | | | | | |
| 1 | * 904471 | 1 | . Front End Assembly | 6 | Y25G-0824 | 2 | . Capscrew |
| 2 | R13806345 | 8 | . Capscrew | 7 | 200454W | 8 | . Capscrew |
| 3 | 221771W | 13 | . Washer | 8 | 221711W | 10 | . Hex Nut |
| 4 | Y22E-08 | 18 | . Washer, Lock | | | | |
| 5 | 221712W | 8 | . Hex Nut | | | | |

* See Separate Coverage Page 15

Rev A

Front End Assembly, Gearbox 37X

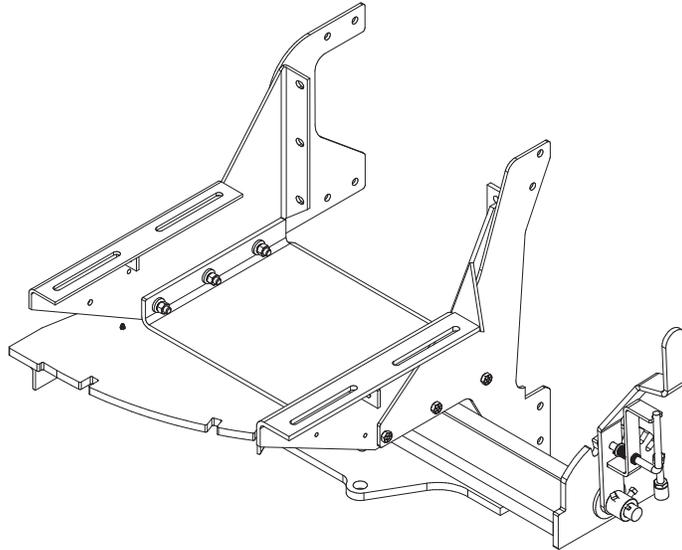
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1 USE WASHER F000008247 AS NEEDED TO LIMIT SIDE-TO-SIDE MOVEMENT, BUT STILL ALLOW LEVER TO ROTATE FREELY

Front End Assembly, Gearbox 37X

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| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|---------------------------|------|------------|-----|-----------------|
| | 904471 | | Front End Assembly | | | | |
| 1 | 904826 | 1 | . Lever Weldment | 14 | 221771W | 10 | . Washer |
| 2 | F000007540 | 1 | . Pin, Adj | 15 | SQS3750750 | 2 | . Screw |
| 3 | F000007541 | 1 | . Compression Spring | 16 | SQS5003000 | 1 | . Set Screw |
| 4 | 904444 | 1 | . Engine Mt, Rh | 17 | 223634 | 1 | . Flat Washer |
| 5 | F000008247 | 2 | . Washer | 18 | R13812516 | 8 | . Lockwasher |
| 6 | GUS0024467 | 1 | . Plate, Support Gusset | 19 | 221711W | 8 | . Hex Nut |
| 7 | 904463 | 1 | . Plate, Support | 20 | 234218 | 1 | . Jam Nut |
| 8 | 904442 | 1 | . Engine Mt, Lh | 21 | 00103385 | 1 | . Cotter Pin |
| 9 | 903899 | 1 | . Lever | 22 | 48688 | 1 | . Key |
| 10 | 904446 | 1 | . Base, Hitch | 23 | 11079 | 1 | . Fitting, Lube |
| 11 | 904477 | 1 | . Plate, Fnt Gusset | 24 | R13811077 | 5 | . Capscrew |
| 12 | 221569W | 2 | . Capscrew | | | | |
| 13 | Y25G-0832 | 1 | . Capscrew | | | | |

Rev B

Engine Installation, Gearbox 37X

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No illustration available at this time.

| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|----------------------------|------|------------|-----|-------------------|
| | 906175 | | Engine Installation | | | | |
| 1 | * 906251 | 1 | . Engine Assembly | 20 | SMS0000184 | 4 | . Bolt, Whiz |
| 3 | 252293 | 1 | . Muffler | 21 | 902789 | 1 | . Plate, Mounting |
| 4 | F000007742 | 1 | . Battery Ground Strap | 22 | 252742 | 1 | . Precleaner |
| 5 | CLP0035751 | 1 | . Exhaust Clamp | 23 | ACL0000004 | 1 | . Indicator |
| 6 | EXH0011007 | 1 | . Exhaust Cap | 24 | 902904 | 1 | . Tube, Spacer |
| 7 | F000007010 | 2 | . Bolt, Adj | 25 | 902909 | 1 | . Elbow |
| 9 | 256812 | 1 | . Belt, Drive | 26 | 902913 | 1 | . Tube |
| 10 | ** 254896 | 1 | . Air Cleaner Assembly | 27 | 221574W | 2 | . Capscrew |
| 11 | ACL0004307 | 2 | . Band, Mounting | 28 | 234665 | 4 | . Lockwasher |
| 12 | 207146 | 3 | . T-Bolt Clamp | 29 | 221771W | 14 | . Washer |
| 13 | 207147 | 1 | . T-Bolt Clamp | 30 | 221711W | 8 | . Hex Nut |
| 14 | 225370 | 2 | . T-Bolt Clamp | 31 | 221576W | 2 | . Capscrew |
| 15 | ACL0000005 | 1 | . Insert, Rubber | 32 | HYD5275032 | 1 | . Fitting |
| 16 | 4200115 | 1 | . Elbow, Rubber | | | | |
| 17 | 255118 | 1 | . Reducer, Insert | | | | |
| 18 | 255120 | 1 | . Reducer, Hump Hose | | | | |
| 19 | 00273802 | 4 | . Nut, Serrated | | | | |

Rev 107699

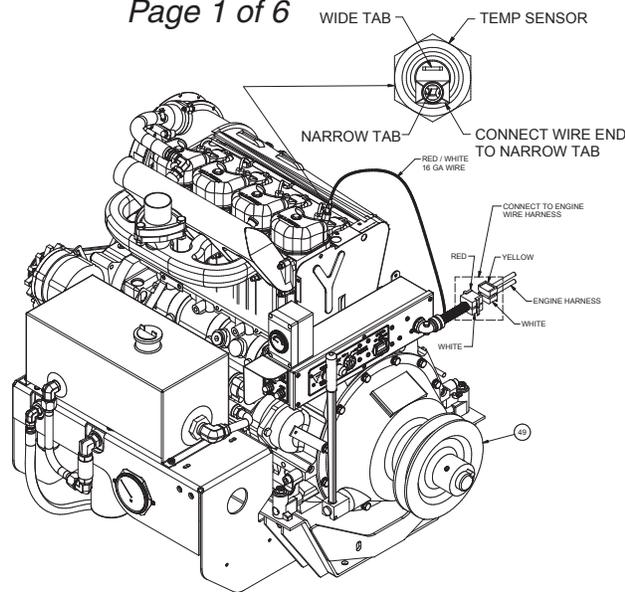
* See Separate Coverage Page 18

** See Separate Coverage Page 24

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Engine Assembly, Tier 4-Interim, Gearbox 37X

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| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|-----------------------------|------|------------|-----|----------------------------------|
| | 906251 | | Engine Assembly | | | | |
| 1 | 12663 | 1 | . Fitting | 40 | 906367 | 1 | . Filter, Inline High Pressure |
| 2 | 19920 | 1 | . Fitting | | 906860 | 1 | . Element, Filter, High Pressure |
| 3 | 208713 | 1 | . Fitting | 41 | 906378 | 1 | . Hose Assembly |
| 4 | 209417 | 2 | . Fitting | 42 | 906391 | 1 | . Mount, Tank |
| 5 | 209427 | 1 | . Fitting | 44 | CBL1743180 | 1 | . Cable, Control |
| 6 | 209488 | 2 | . Fitting | 45 | CLH0001084 | 1 | . Clutch |
| 7 | 209490 | 1 | . Fitting | 46 | CLV1756012 | 1 | . Clevis W/Pin & Cotter |
| 8 | 211367 | 1 | . Fitting | 47 | EXH0013806 | 1 | . Tube, Exhaust |
| 9 | 211550 | 1 | . Fitting | 48 | F000007013 | 1 | . Bracket |
| 10 | 211560 | 1 | . Fitting | 49 | F000007699 | 1 | . Motor Pulley |
| 11 | 220044 | 1 | . Hex Nut | 50 | FIL0HF6613 | 1 | . Filter Element-Synthetic |
| 12 | 221474W | 2 | . Capscrew | 51 | FIL0HH6935 | 1 | . Hydraulic Filter Head |
| 13 | 221499W | 4 | . Capscrew | 52 | FILS1510V3 | 1 | . Hydraulic Tank Filter |
| 14 | 221767W | 6 | . Hard Washer | 53 | GAG0000001 | 1 | . Gauge Assy, Tension |
| 15 | 221771W | 8 | . Washer | 54 | MNT0018340 | 1 | . Belly Pan |
| 16 | 22308 | 1 | . Fitting | 55 | R13122 | 4 | . Flat Washer |
| 17 | 224298 | 1 | . Fitting | 56 | R13802914 | 3 | . Hard Washer |
| 18 | 228783 | 1 | . Hose Assembly | 57 | R13806992 | 4 | . Lockwasher |
| 19 | 231486 | 1 | . Set Screw | 58 | R13810989 | 2 | . Capscrew |
| 20 | 234589 | 22 | . Lockwasher | 59 | R13811014 | 5 | . Capscrew |
| 21 | 235633 | 4 | . Capscrew | 60 | R13811085 | 4 | . Capscrew |
| 22 | 23578 | 1 | . Fitting | 61 | R13811189 | 2 | . Locknut |
| 23 | 245273 | 1 | . Valve Body | 62 | R13811190 | 4 | . Locknut |
| 24 | 248075 | 1 | . Hose Assembly | 63 | R13811191 | 8 | . Locknut |
| 25 | 252319 | 1 | . Check Valve | 64 | R13811193 | 4 | . Locknut |
| 26 | 252601 | 1 | . Fitting | 65 | R13812513 | 3 | . Lockwasher |
| 27 | 252867 | 1 | . Hose Assembly | 66 | R1939218 | 1 | . Hose Assembly |
| 28 | *a - - - - - | 1 | . Pump, Gear | 67 | SHD0028273 | 1 | . Shield |
| 29 | 258766 | 1 | . Engine | 68 | STS5000750 | 1 | . Socket Set Screw |
| 30 | 292680W | 1 | . Washer | 69 | TNK004Z980 | 1 | . Hydraulic Reservoir |
| 32 | 296420W | 18 | . Hard Washer | 70 | Y09C-M0616 | 1 | . Capscrew |
| 33 | 900534 | 1 | . Plate, Mounting | 71 | Y09C-M1030 | 22 | . Capscrew |
| 34 | 900537 | 1 | . Arm | 72 | Y17C-0616 | 4 | . Capscrew |
| 35 | 902222 | 1 | . Tube Assembly | 73 | 906659 | 1 | . Fitting |
| 36 | * 903907 | 1 | . Control Box Assembly | 74 | 906660 | 1 | . Hose Assembly |
| 37 | 904697 | 1 | . Plate, Exhaust Restrictor | 75 | 201431 | 1 | . Hose Clamp |
| 38 | 905246 | 16 | . Washer, Fender | 76 | 906939 | 1 | . Cable, Batt |
| 39 | 905462 | 1 | . Flow Control Valve | | | | |
| | 242101 | 1 | . Seal Kit | | | | |

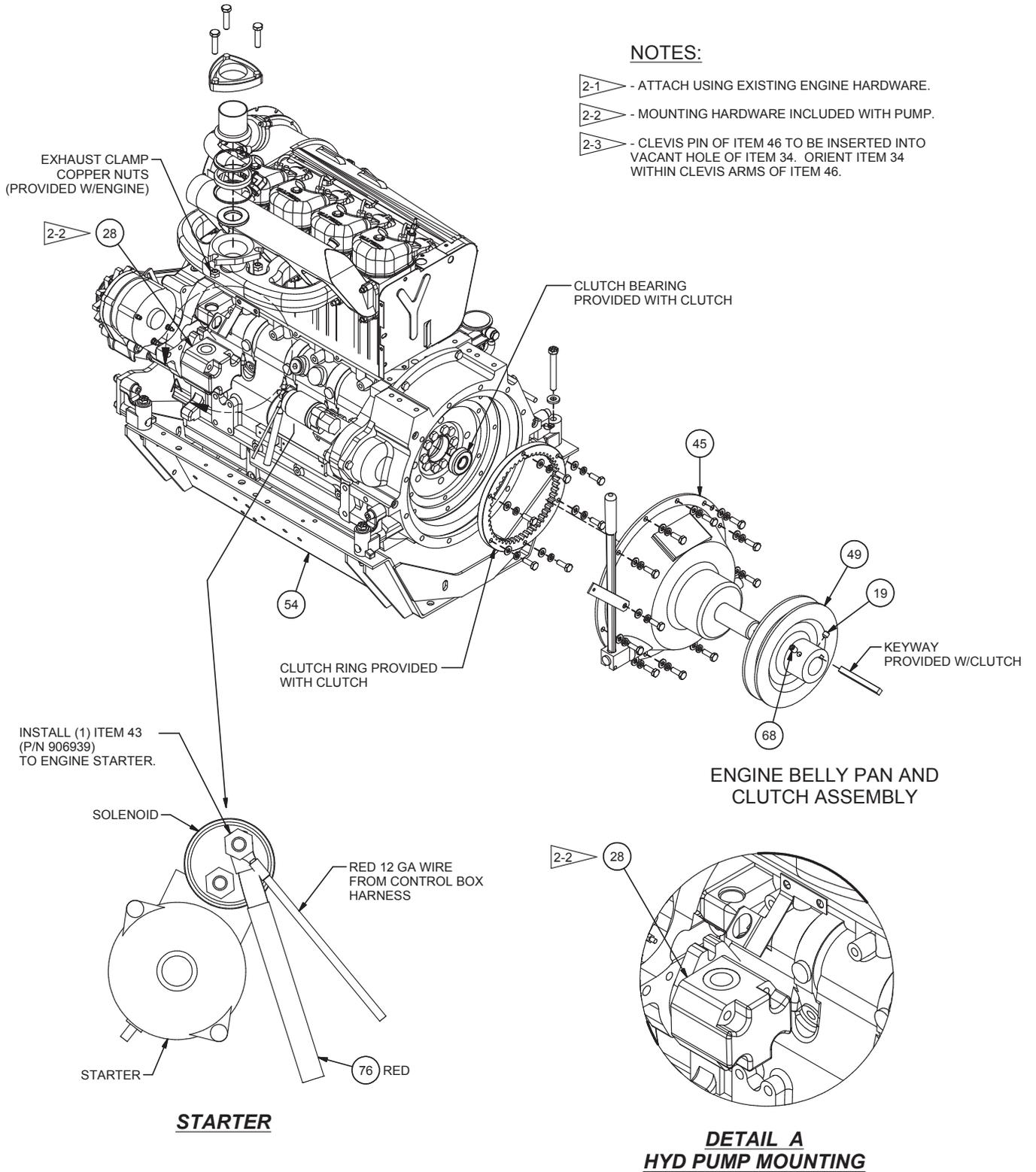
* See Separate Coverage In Baler Parts Manual Rev C
 *a See 908301 Kit, Tension In Appendix

Engine Assembly, Tier 4-Interim, Gearbox 37X

Page 2 of 6

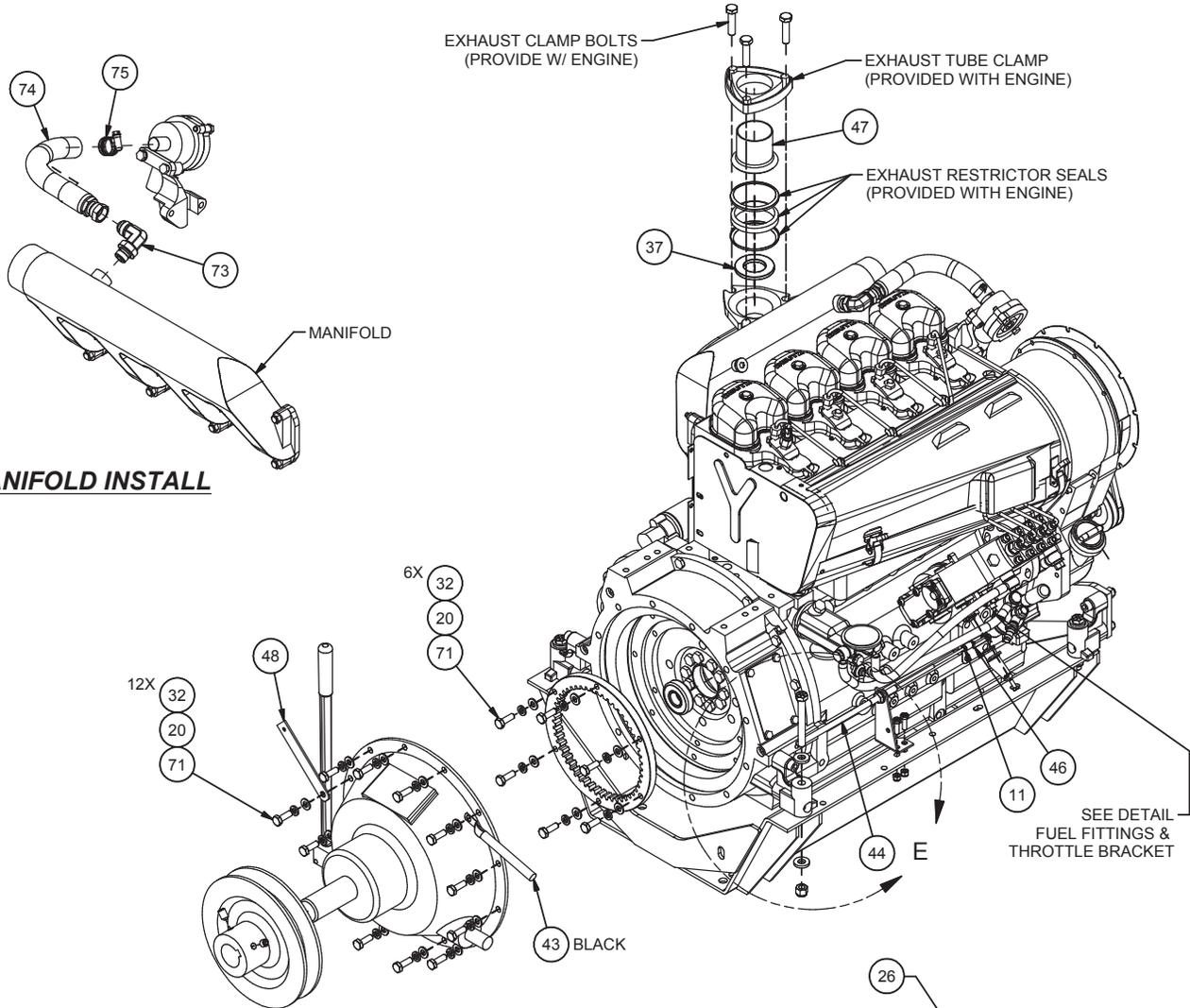
NOTES:

- 2-1 - ATTACH USING EXISTING ENGINE HARDWARE.
- 2-2 - MOUNTING HARDWARE INCLUDED WITH PUMP.
- 2-3 - CLEVIS PIN OF ITEM 46 TO BE INSERTED INTO VACANT HOLE OF ITEM 34. ORIENT ITEM 34 WITHIN CLEVIS ARMS OF ITEM 46.

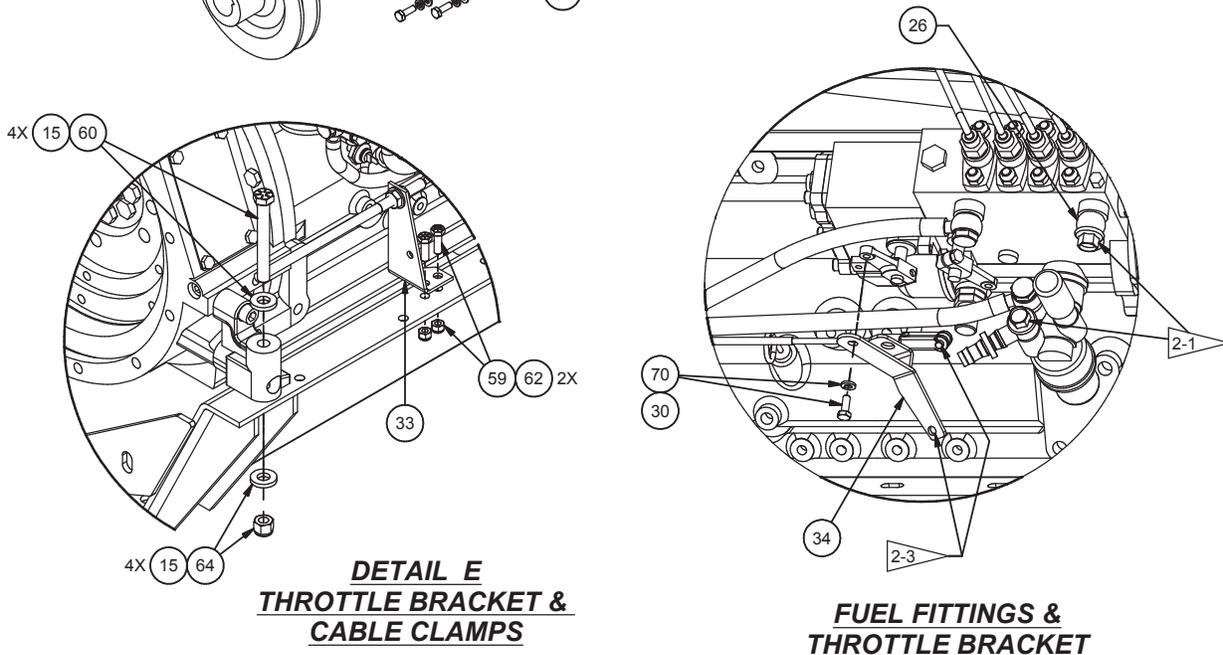


Engine Assembly, Tier 4-Interim, Gearbox 37X

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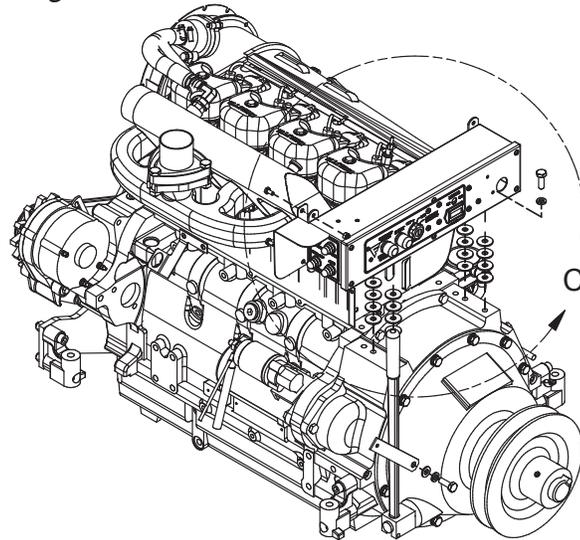


MANIFOLD INSTALL

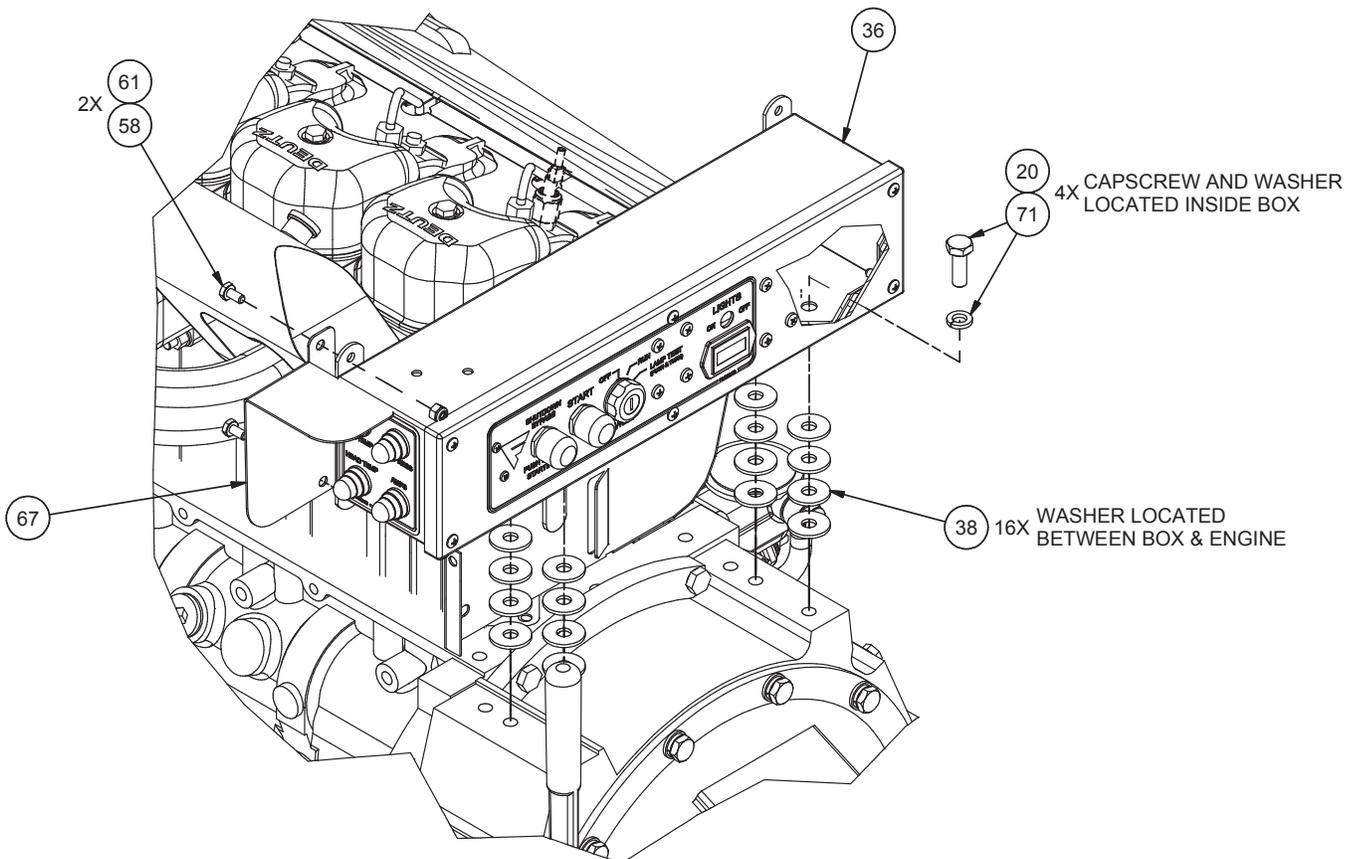


Engine Assembly, Tier 4-Interim, Gearbox 37X

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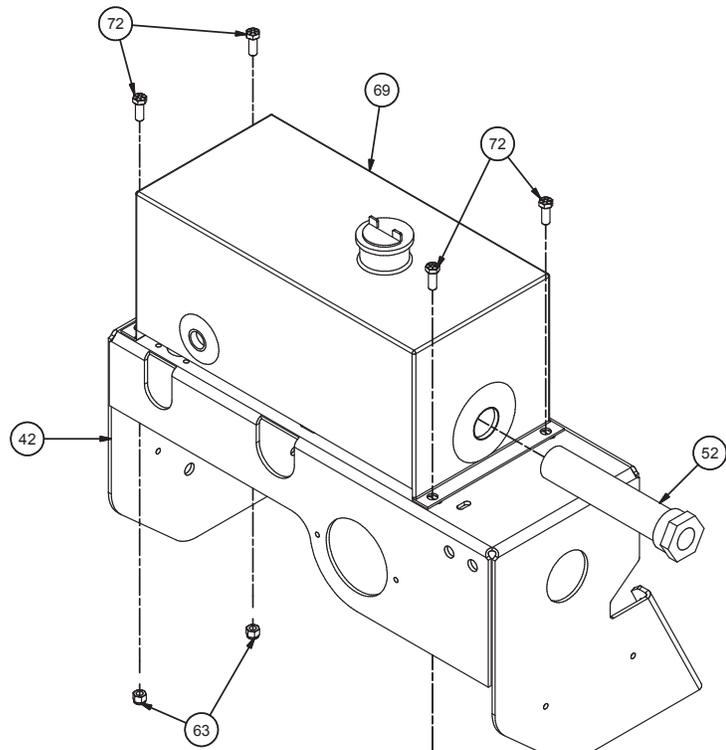
CONTROL BOX ASSEMBLY



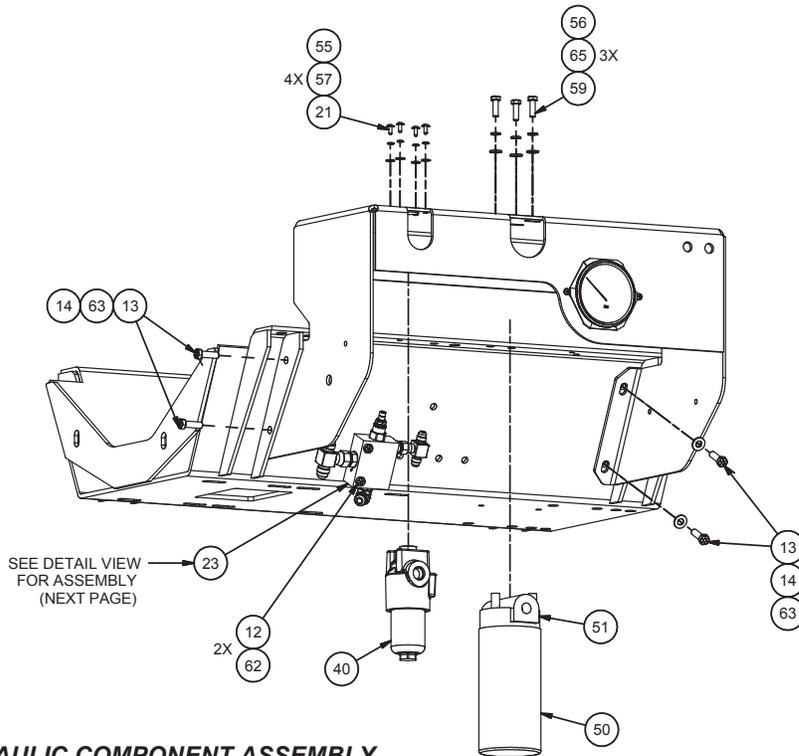
DETAIL C CONTROL BOX MOUNTING

Engine Assembly, Tier 4-Interim, Gearbox 37X

Page 5 of 6

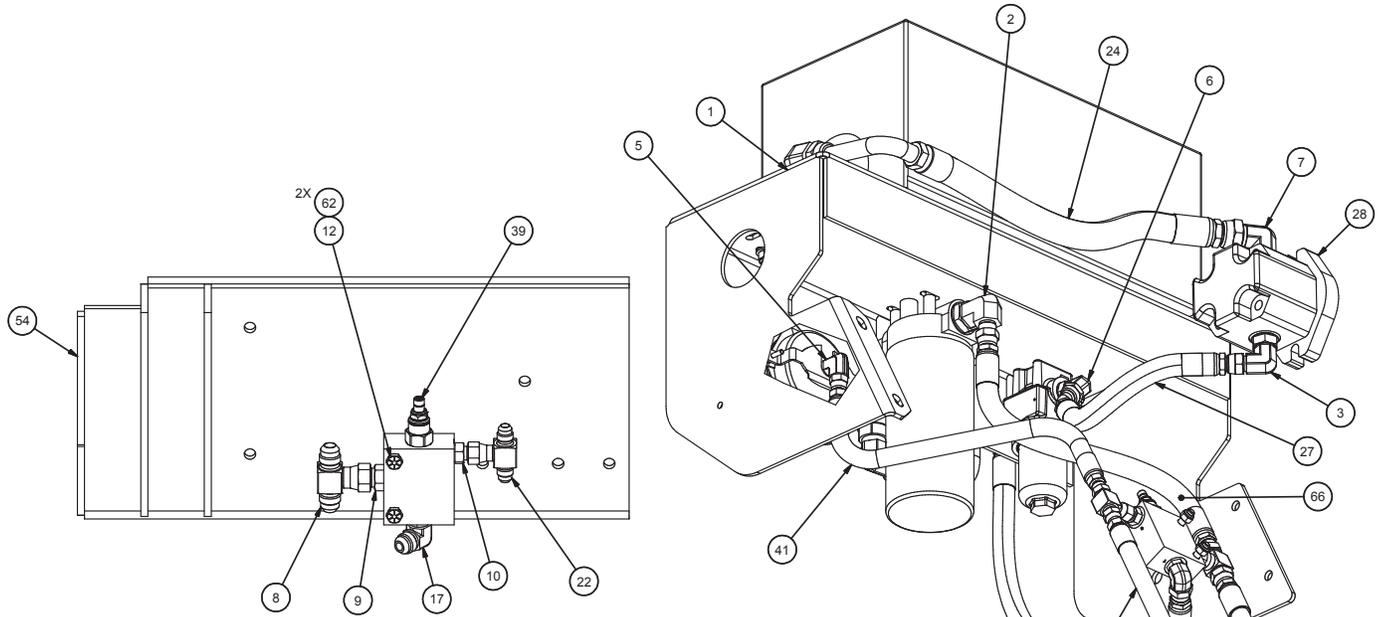


HYDRAULIC TANK ASSEMBLY

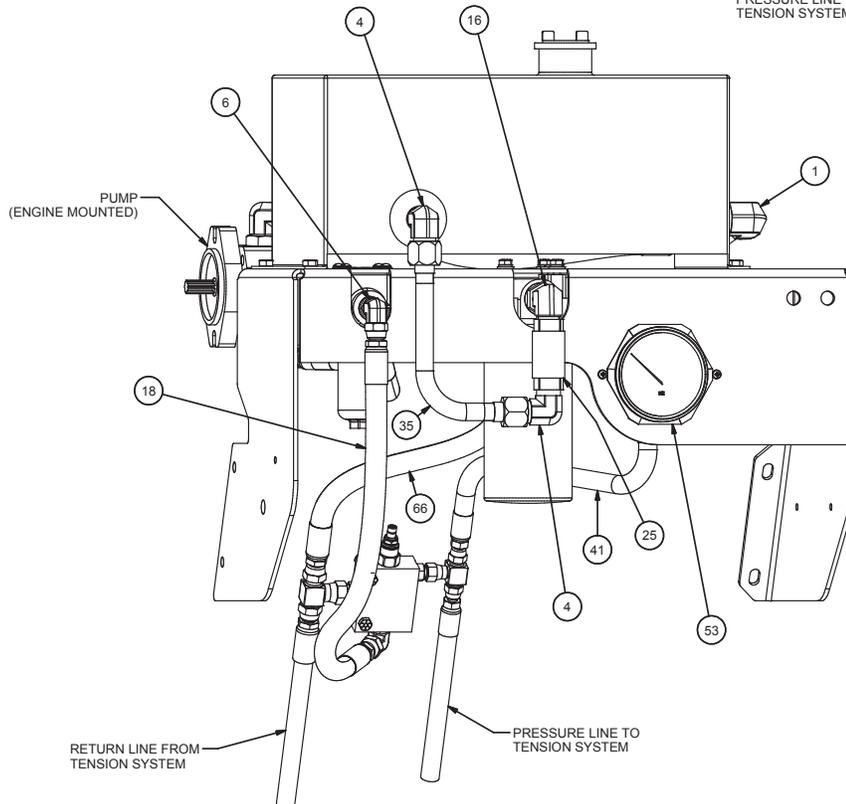


HYDRAULIC COMPONENT ASSEMBLY

Engine Assembly, Tier 4-Interim, Gearbox 37X

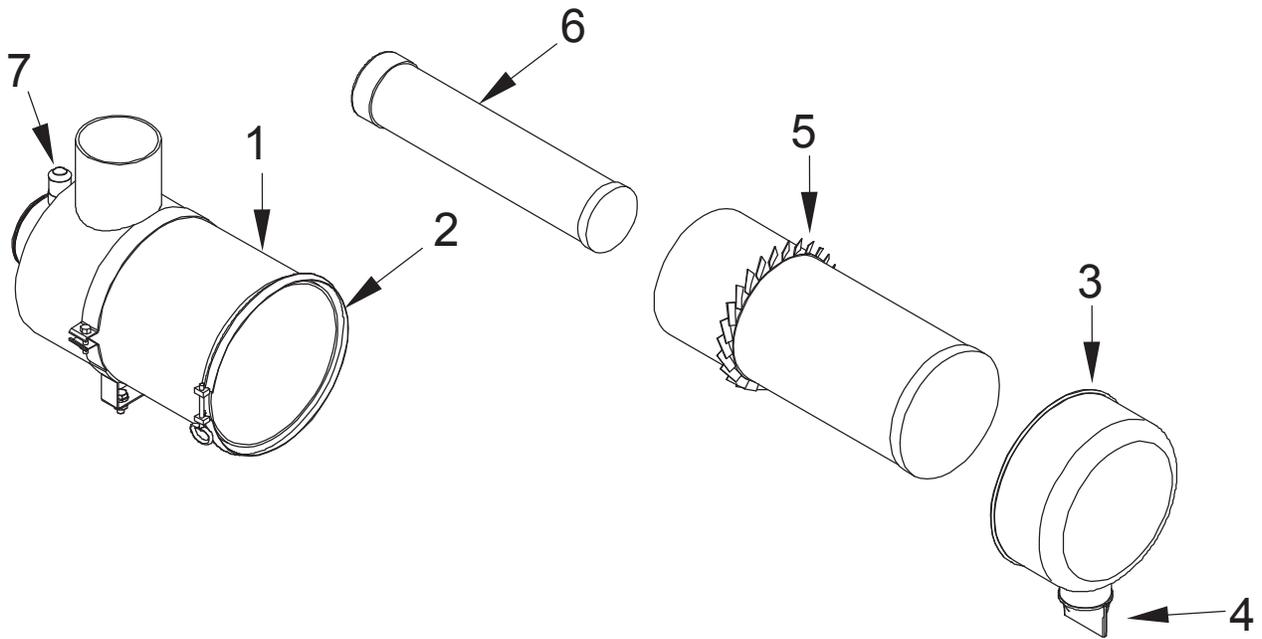


VALVE & FITTING ASSEMBLY



Air Cleaner Assembly

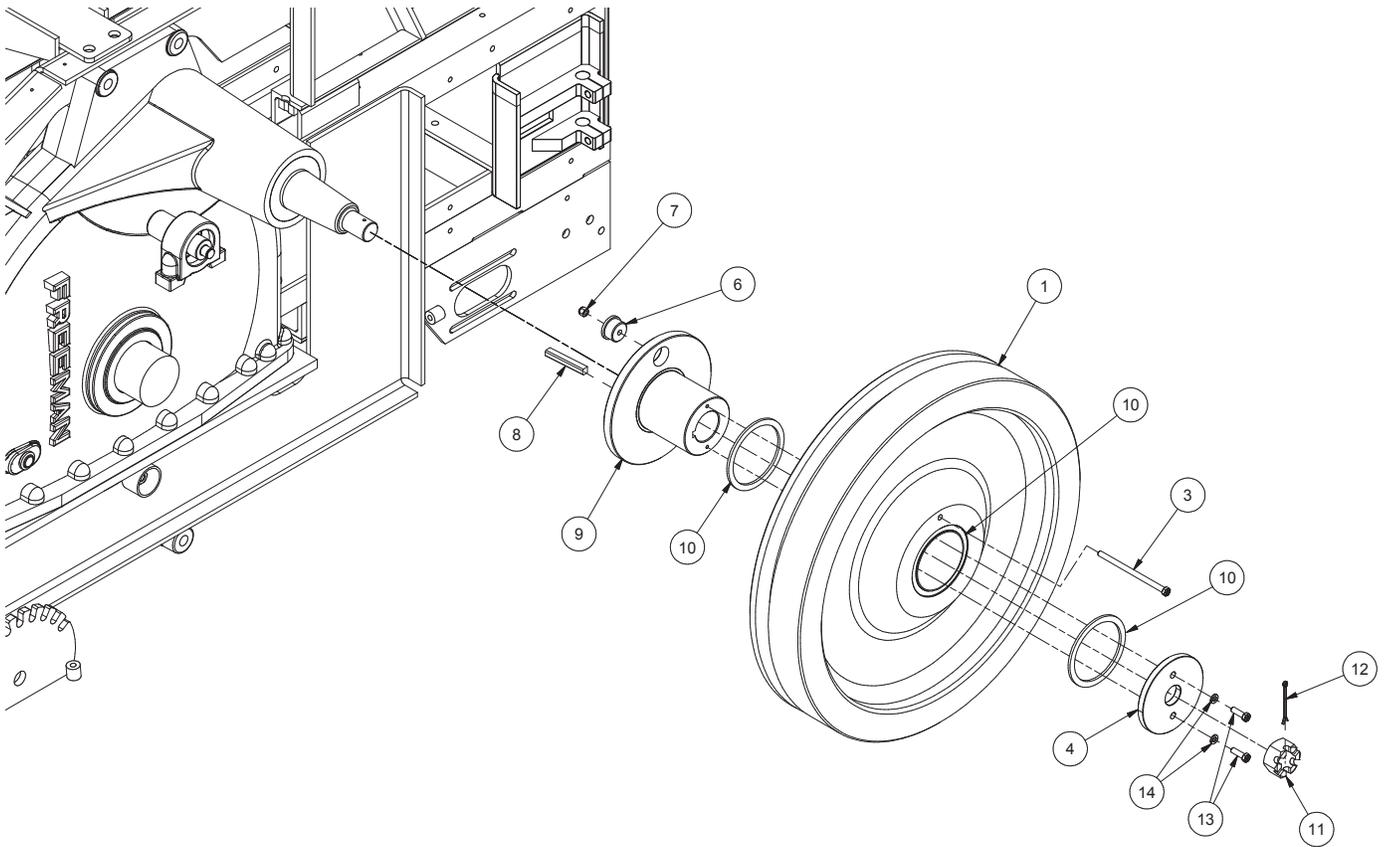
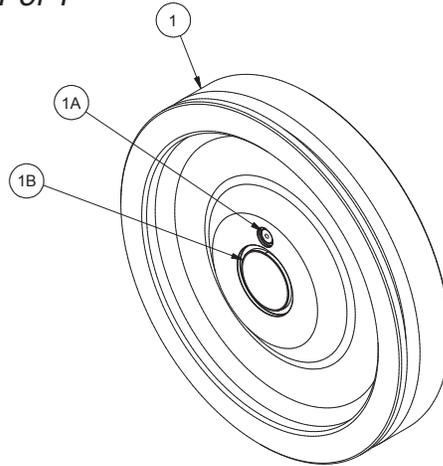
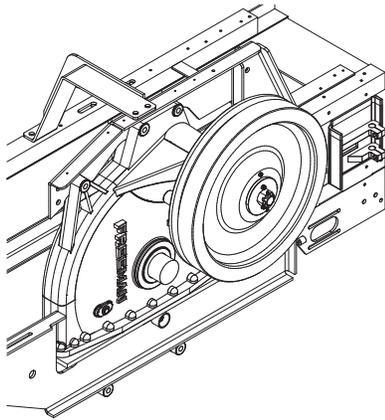
Page 1 of 1



| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|-----------------------------|------|------------|-----|------------------------------|
| | 254896 | | Air Cleaner Assembly | | | | |
| 1 | 255496 | 1 | . Body | 5 | 255494 | 1 | . Filter |
| 2 | 255492 | 1 | . Body Clamp | 6 | 255495 | 1 | . Filter, Safety |
| 3 | 255493 | 1 | . Cover | 7 | ACL0002251 | 1 | . Mini Restriction Indicator |
| 4 | 255497 | 1 | . Valve, Actuator | | | | |

Flywheel Installation, Gearbox Baler

Page 1 of 1

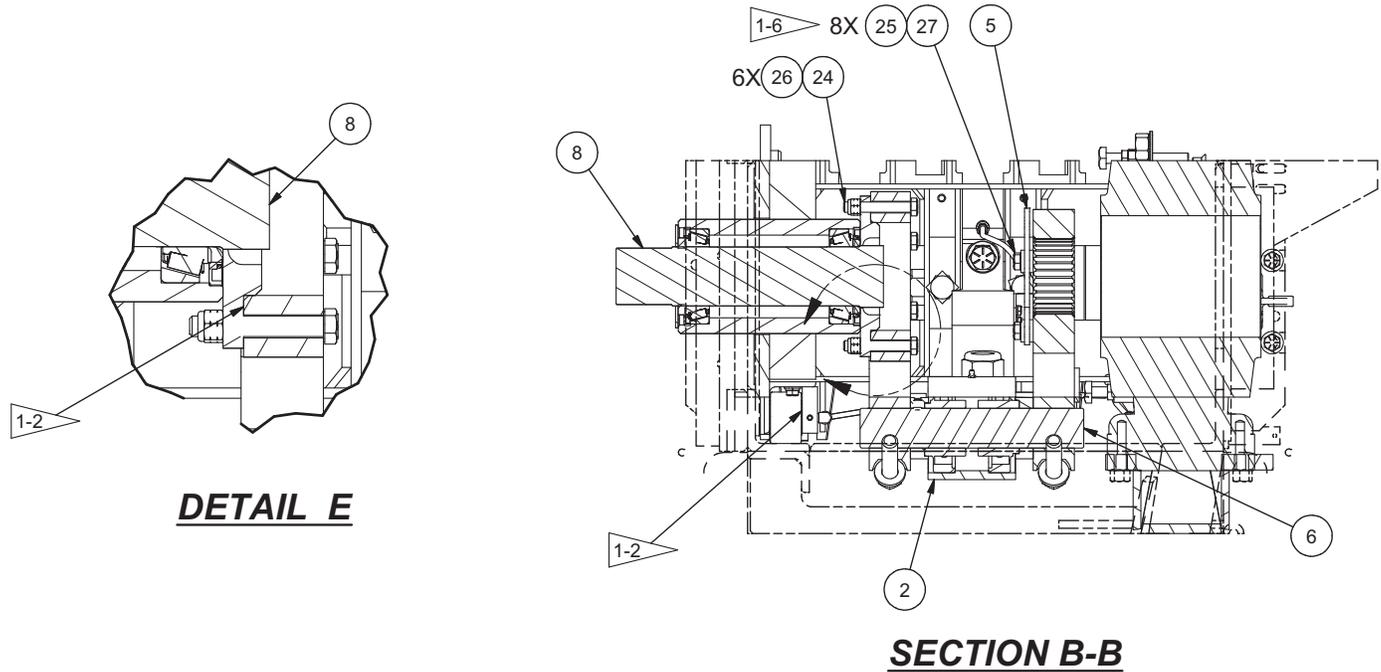


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|---------------------------------|------------|-----|----------------------------|--------------------------------------------------------------------|------------|-----|---------------------|
| 903730 Flywheel Assembly | | | | | | | |
| 1 | 906259 | 1 | . Flywheel w/Shear Bushing | 10 | SEL0045025 | 2 | . Flywheel Oil Seal |
| 1A | BSH0031142 | 1 | .. Bushing, Shear | 11 | 230536 | 1 | . Nut, Slotted |
| 1B | BRG072DU32 | 2 | .. Flywheel Bearing | 12 | 214782 | 1 | . Pin, Cotter |
| 3* | 17258W | 1 | . Shear Bolt, GR5 | 13 | 221499W | 2 | . Capscrew |
| 4 | RET0031144 | 1 | . Plate, Washer | 14 | 234135 | 2 | . Washer, Lock |
| 6 | BSH0031143 | 1 | . Bushing | *Included in Kit 906700, Shear Bolt & Nut, Flywheel, Gearbox Baler | | | |
| 7* | R13811191 | 1 | . Nut, Esna | | | | |
| 8 | F000000072 | 1 | . Key, Shear Hub | | | | |
| 9 | HUB0031140 | 1 | . Flywheel Shear Hub | | | | |

Rev C

Gearbox Installation, 16" Chamber

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| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------------------------------------|---------------|-----|--------------------------------------|------|------------|-----|-------------------|
| 904360 Gearbox Installation | | | | | | | |
| 1 | * 904464 | 1 | . Gearbox Assembly Page 47 | 23 | 221576W | 2 | . Capscrew |
| 2 | * 904473 | 1 | . Plunger Assembly Page 63 | 24 | R13811082 | 6 | . Capscrew |
| 3 | * 904466 | 1 | . Drive Arm Assembly, Feeder Page 48 | 25 | 221771W | 10 | . Washer |
| 4 | * 904467 | 1 | . Crank Arm Assembly, Feeder Page 49 | 26 | 223587 | 8 | . Nut, Esna |
| 5 | 904409 | 1 | . Plate, Keeper | 27 | 221560W | 4 | . Capscrew |
| 6 | 904468 | 1 | . Pin, Crank | 28 | 221656W | 1 | . Capscrew |
| 7 | 903503 | 1 | . Bracket Weldment, Drawbar | 29 | R13806363 | 1 | . Capscrew |
| 8 | ** PLT0163070 | 1 | . Side Plate Assembly, RH | 30 | 221660W | 1 | . Capscrew |
| 9 | F000007547 | 1 | . Stop Dog | 31 | SHM0163090 | 7 | . Shim |
| 10 | PIN0035710 | 1 | . Pin Assembly | 32 | SHM0163091 | 7 | . Shim |
| 11 | ZZ00000209 | 1 | . Mach Bushing | 33 | SHM0163092 | 7 | . Shim |
| 12 | 027-0933 | 1 | . Set Screw | 34 | SHM0163093 | 7 | . Shim |
| 13 | 904412 | 1 | . Plate, Retainer | 35 | 232854 | 1 | . Capscrew |
| 14 | 221777W | 10 | . Washer | 36 | 235720 | 2GL | . Lubricant, Gear |
| 15 | 221716W | 9 | . Hex Nut | 37 | SHD0016332 | 0 | . Plate, Brace |
| 16 | 200608 | 9 | . Lockwasher | 38 | * 908677 | 1 | . Kit, Service |
| 17 | 221666W | 5 | . Capscrew | 39 | NA | 1 | . Plug , Drain |
| 18 | R13801901 | 1 | . Capscrew | | | | |
| 19 | 221780W | 1 | . Hard Washer | | | | |

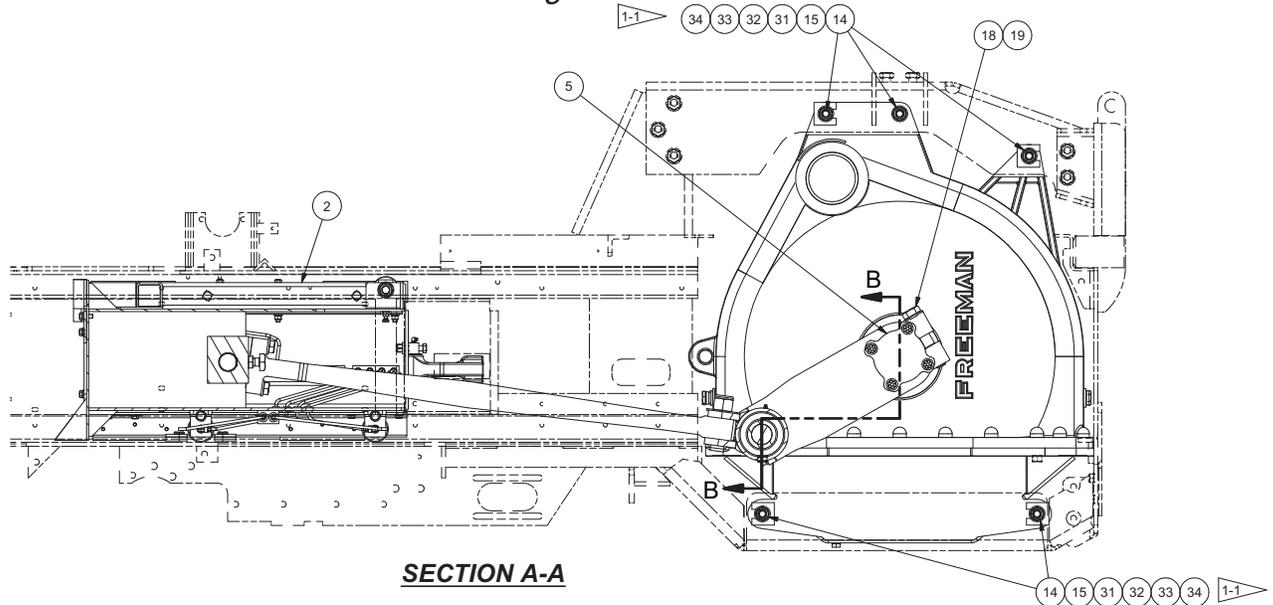
* See Separate Coverage

Rev EJ

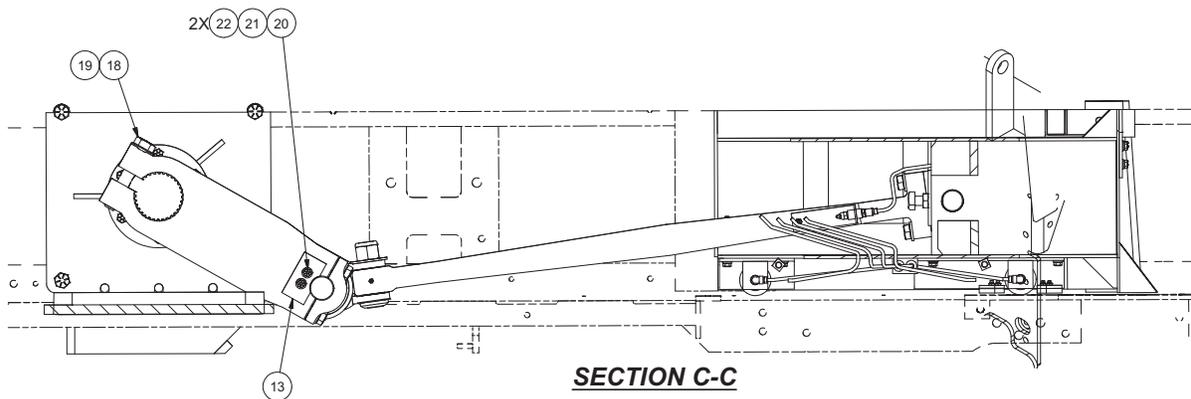
** See Separate Coverage In Baler Parts Manual

Gearbox Installation, 16" Chamber

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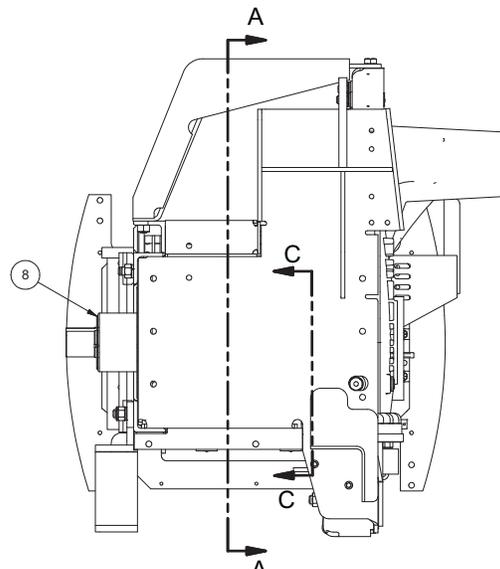
SECTION A-A



SECTION C-C

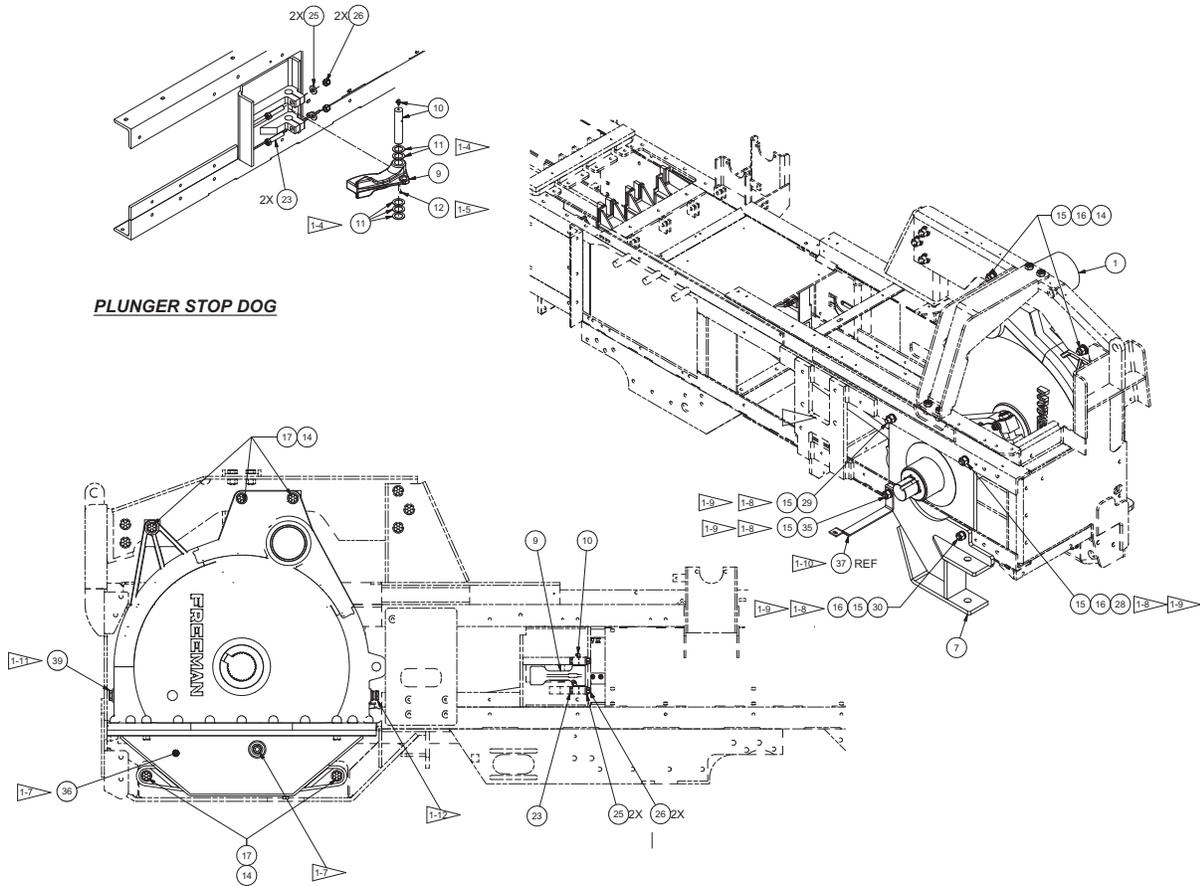
NOTES:

- 1-1 SHIM GEARBOX TO ALIGN CRANK ARM PIN HOLE WITH FEEDER DRIVE ARM PIN HOLE IN 4 QUADRANTS IN ITS RANGE OF MOTION.
- 1-2 FEEDER DRIVE ARM IS TO BE ASSEMBLED TO THE RIGHT-HAND SIDE PLATE WITH THE CHAMFER ON THE FEEDER CRANK ARM FACING THE SIDE PLATE.
- 1-3 16" CHAMBER & PLUNGER ASSY. SHOWN, REFER TO CHART FOR PLUNGER ASSEMBLIES FOR OTHER CHAMBER SIZES.
- 1-4 SHIM AS NEEDED FOR STOP DOG TO FULLY ENGAGE PLUNGER STOP.
- 1-5 USE LOCTITE #242.
- 1-6 ADD 221771W FLAT WASHERS BETWEEN KEEPER PLATE AND DRIVE ARM SO THAT KEEPER PLATE IS BOLTED FLAT TO DRIVE ARM AND NOT PUSHING ON END OF GEARBOX OUTPUT SHAFT.
- 1-7 ADD 12.7 LBS (6.62 LITERS) OF LUBRICATING OIL TO GEARBOX. OIL LEVEL SHOULD BE LEVEL WITH THE BOTTOM OF THE FILL OPENING.
- 1-8 TORQUE SIDE PLATE BOLTS TO 365 FT-LBS.
- 1-9 PHOTO SHEET FOR SIDE PLATE BOLT CONFIGURATION IS AVAILABLE FOR REFERENCE UNDER CHART DRAWING (906223)
- 1-10 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP



Gearbox Installation, 16" Chamber

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Gearbox Installation, 16" Chamber

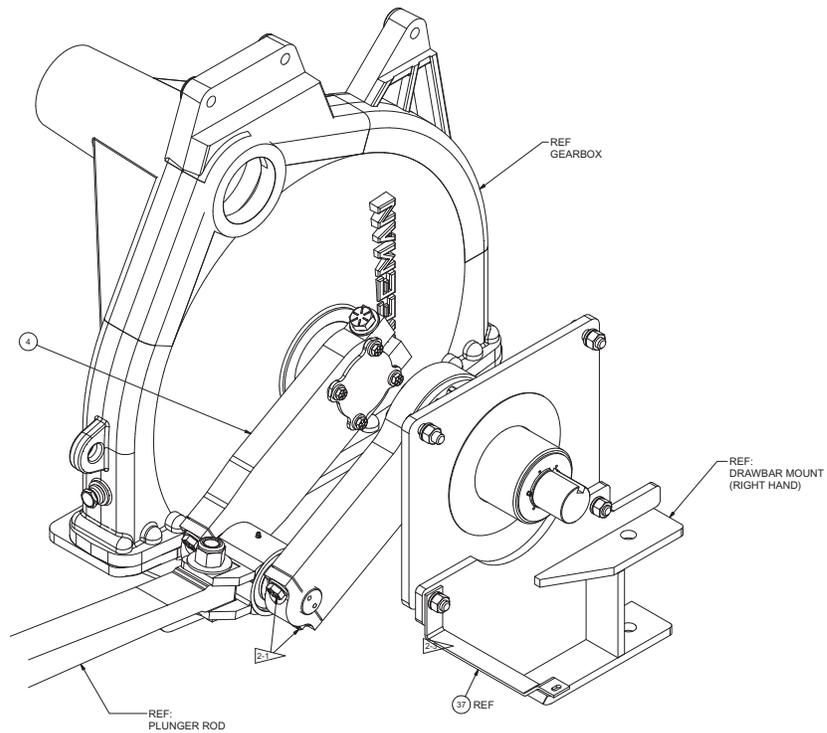
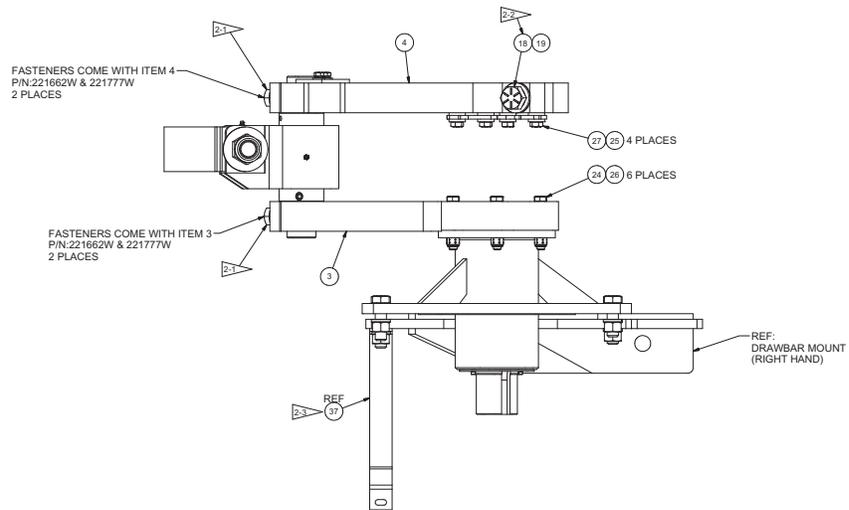
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Gearbox Installation

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NOTES:

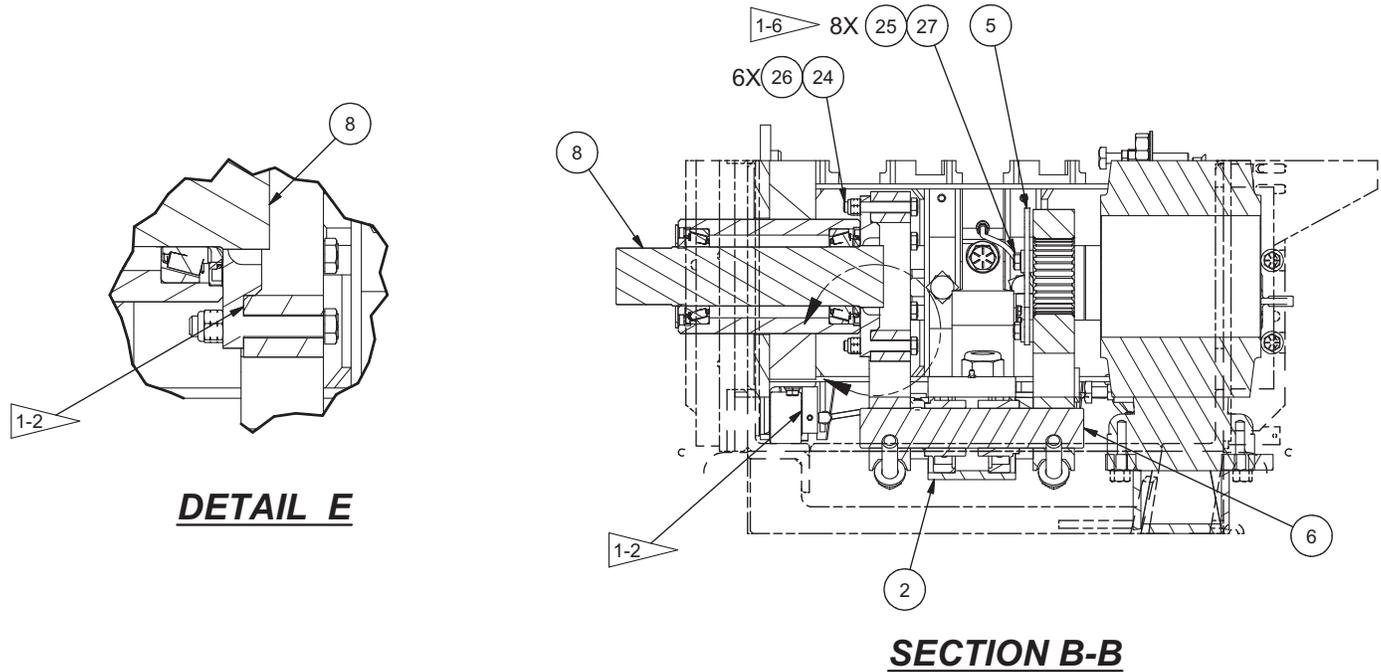
- ▶ TORQUE BOLTS TO 340 FT-LBS
- ▶ TORQUE BOLTS TO 750-755 FT LBS
- ▶ INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP



CRANK ARM & FEEDER DRIVE ARM

Gearbox Installation,(37X) 16" Kitted to 15" Chamber

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| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------------------------------------|---------------|-----|-------------------------------------|------|------------|-----|-------------------|
| 906226 Gearbox Installation | | | | | | | |
| 1 | * 904464 | 1 | . Gearbox Assembly Page 47 | 23 | 221576W | 2 | . Capscrew |
| 2 | * 906224 | 1 | . Plunger Assembly Page 63 | 24 | R13811082 | 6 | . Capscrew |
| 3 | * 904466 | 1 | . Drive Arm Assembly,Feeder Page 48 | 25 | 221771W | 10 | . Washer |
| 4 | * 904467 | 1 | . Crank Arm Assembly, FeederPage 49 | 26 | 223587 | 8 | . Nut, Esna |
| 5 | 904409 | 1 | . Plate,Keeper | 27 | 221560W | 4 | . Capscrew |
| 6 | 904468 | 1 | . Pin,Crank | 28 | 221656W | 1 | . Capscrew |
| 7 | 903503 | 1 | . Bracket Weldment, Drawbar | 29 | R13806363 | 1 | . Capscrew |
| 8 | ** PLT0163070 | 1 | . Side Plate Assembly, RH | 30 | 221660W | 1 | . Capscrew |
| 9 | DOG0018185 | 1 | . Stop Dog | 31 | SHM0163090 | 7 | . Shim |
| 10 | PIN0035710 | 1 | . Pin Assembly | 32 | SHM0163091 | 7 | . Shim |
| 11 | ZZ00000209 | 1 | . Mach Bushing | 33 | SHM0163092 | 7 | . Shim |
| 12 | 027-0933 | 1 | . Set Screw | 34 | SHM0163093 | 7 | . Shim |
| 13 | 904412 | 1 | . Plate,Retainer | 35 | 232854 | 1 | . Capscrew |
| 14 | 221777W | 10 | . Washer | 36 | 235720 | 2GL | . Lubricant, Gear |
| 15 | 221716W | 9 | . Hex Nut | 37 | SHD0016332 | 0 | . Plate, Brace |
| 16 | 200608 | 9 | . Lockwasher | 38 | * 908677 | 1 | . Kit, Service |
| 17 | 221666W | 5 | . Capscrew | 39 | NA | 1 | . Plug , Drain |
| 18 | R13801901 | 1 | . Capscrew | | | | |
| 19 | 221780W | 1 | . Hard Washer | | | | |

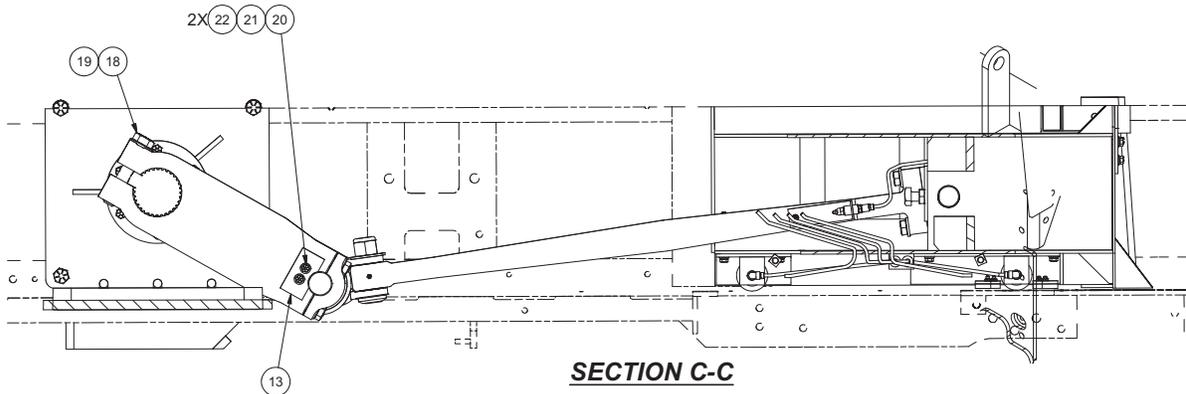
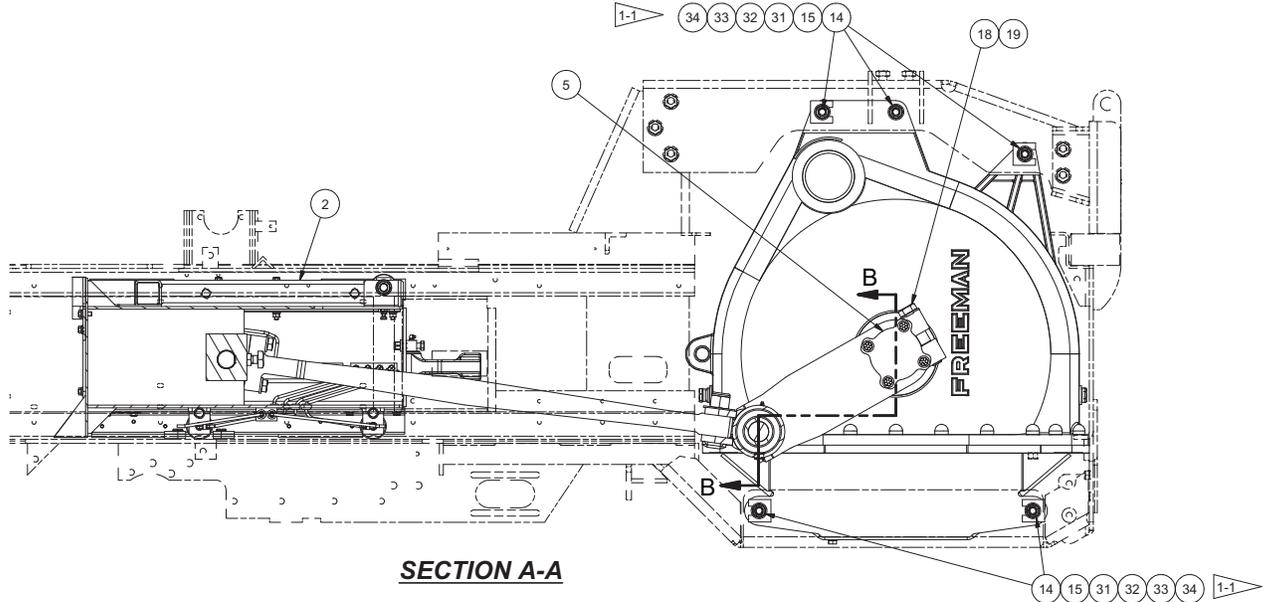
* See Separate Coverage

Rev DJ

** See Separate Coverage In Baler Parts Manual

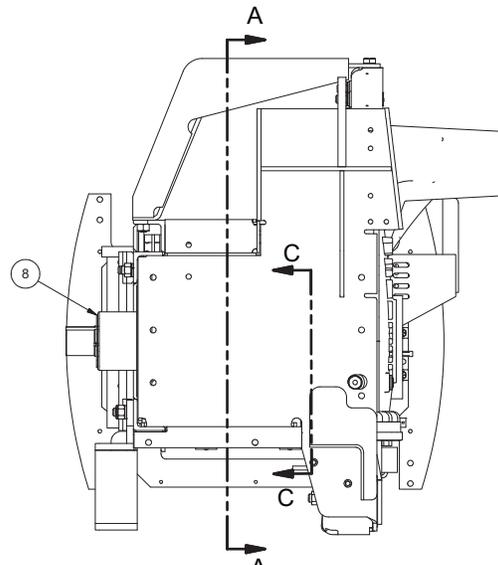
Gearbox Installation,(37X) 16" Kitted to 15" Chamber

Page 2 of 4



NOTES:

- 1-1 SHIM GEARBOX TO ALIGN CRANK ARM PIN HOLE WITH FEEDER DRIVE ARM PIN HOLE IN 4 QUADRANTS IN ITS RANGE OF MOTION.
- 1-2 FEEDER DRIVE ARM IS TO BE ASSEMBLED TO THE RIGHT-HAND SIDE PLATE WITH THE CHAMFER ON THE FEEDER CRANK ARM FACING THE SIDE PLATE.
- 1-3 16" CHAMBER & PLUNGER ASSY. SHOWN, REFER TO CHART FOR PLUNGER ASSEMBLIES FOR OTHER CHAMBER SIZES.
- 1-4 SHIM AS NEEDED FOR STOP DOG TO FULLY ENGAGE PLUNGER STOP.
- 1-5 USE LOCTITE #242.
- 1-6 ADD 221771W FLAT WASHERS BETWEEN KEEPER PLATE AND DRIVE ARM SO THAT KEEPER PLATE IS BOLTED FLAT TO DRIVE ARM AND NOT PUSHING ON END OF GEARBOX OUTPUT SHAFT.
- 1-7 ADD 12.7 LBS (6.62 LITERS) OF LUBRICATING OIL TO GEARBOX. OIL LEVEL SHOULD BE LEVEL WITH THE BOTTOM OF THE FILL OPENING.
- 1-8 TORQUE SIDE PLATE BOLTS TO 365 FT-LBS.
- 1-9 PHOTO SHEET FOR SIDE PLATE BOLT CONFIGURATION IS AVAILABLE FOR REFERENCE UNDER CHART DRAWING (906223)
- 1-10 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP

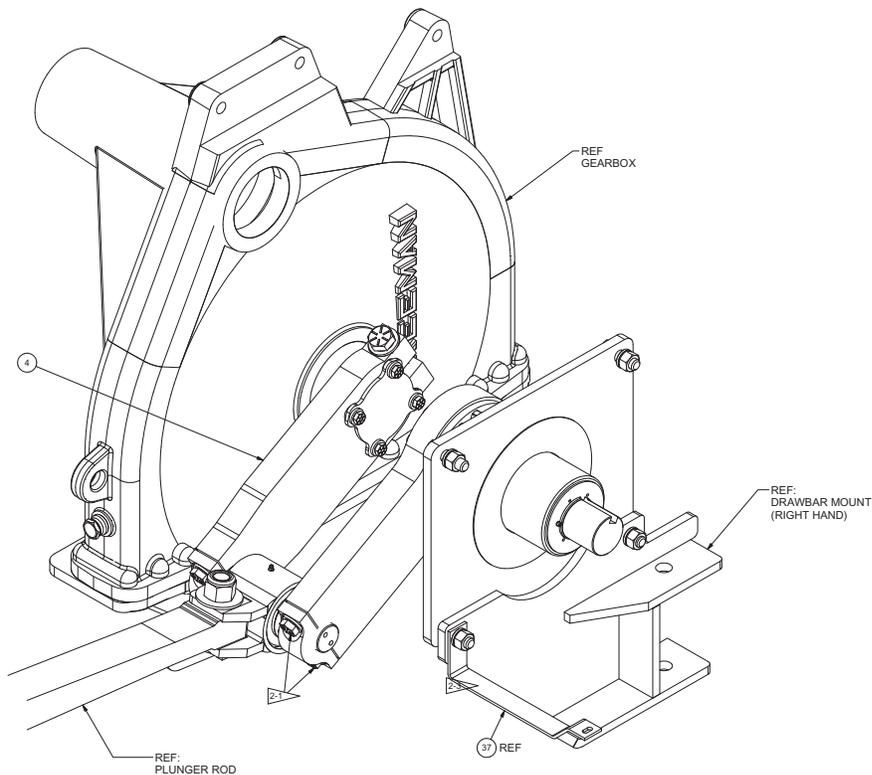
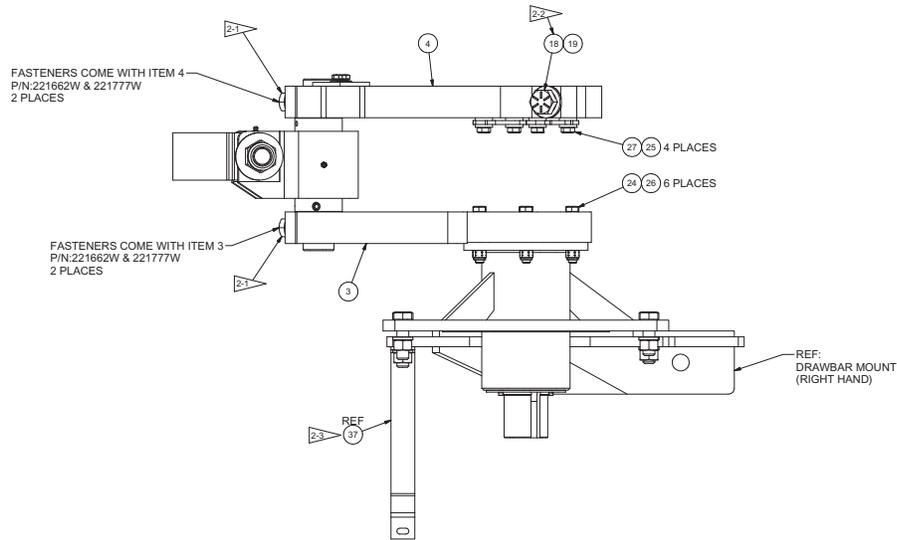


Gearbox Installation,(37X) 16" Kitted to 15" Chamber

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NOTES:

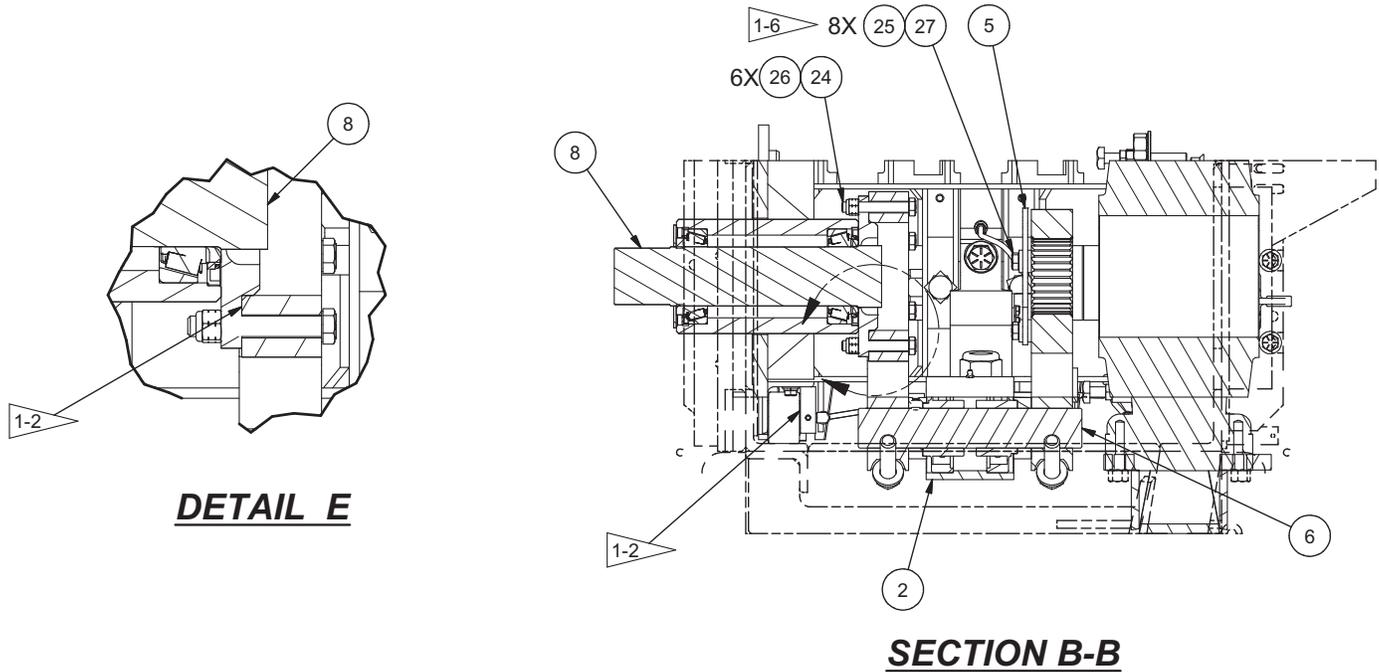
- ▶ TORQUE BOLTS TO 340 FT-LBS
- ▶ TORQUE BOLTS TO 750-755 FT LBS
- ▶ INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP



CRANK ARM & FEEDER DRIVE ARM

Gearbox Installation,(37X) 16" Kitted to 14" Chamber

Page 1 of 4



| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------------------------------------|---------------|-----|--------------------------------------|------|------------|-----|-------------------|
| 906227 Gearbox Installation | | | | | | | |
| 1 | * 904464 | 1 | . Gearbox Assembly Page 47 | 23 | 221576W | 2 | . Capscrew |
| 2 | * 906225 | 1 | . Plunger Assembly Page 63 | 24 | R13811082 | 6 | . Capscrew |
| 3 | * 904466 | 1 | . Drive Arm Assembly, Feeder Page 48 | 25 | 221771W | 10 | . Washer |
| 4 | * 904467 | 1 | . Crank Arm Assembly, Feeder Page 49 | 26 | 223587 | 8 | . Nut, Esna |
| 5 | 904409 | 1 | . Plate, Keeper | 27 | 221560W | 4 | . Capscrew |
| 6 | 904468 | 1 | . Pin, Crank | 28 | 221656W | 1 | . Capscrew |
| 7 | 903503 | 1 | . Bracket Weldment, Drawbar | 29 | R13806363 | 1 | . Capscrew |
| 8 | ** PLT0163070 | 1 | . Side Plate Assembly, RH | 30 | 221660W | 1 | . Capscrew |
| 9 | F000007547 | 1 | . Stop Dog | 31 | SHM0163090 | 7 | . Shim |
| 10 | PIN0035710 | 1 | . Pin Assembly | 32 | SHM0163091 | 7 | . Shim |
| 11 | ZZ00000209 | 1 | . Mach Bushing | 33 | SHM0163092 | 7 | . Shim |
| 12 | 027-0933 | 1 | . Set Screw | 34 | SHM0163093 | 7 | . Shim |
| 13 | 904412 | 1 | . Plate, Retainer | 35 | 232854 | 1 | . Capscrew |
| 14 | 221777W | 10 | . Washer | 36 | 235720 | 2GL | . Lubricant, Gear |
| 15 | 221716W | 9 | . Hex Nut | 37 | SHD0016332 | 0 | . Plate, Brace |
| 16 | 200608 | 9 | . Lockwasher | 38 | * 908677 | 1 | . Kit, Service |
| 17 | 221666W | 5 | . Capscrew | 39 | NA | 1 | . Plug, Drain |
| 18 | R13801901 | 1 | . Capscrew | | | | |
| 19 | 221780W | 1 | . Hard Washer | | | | |

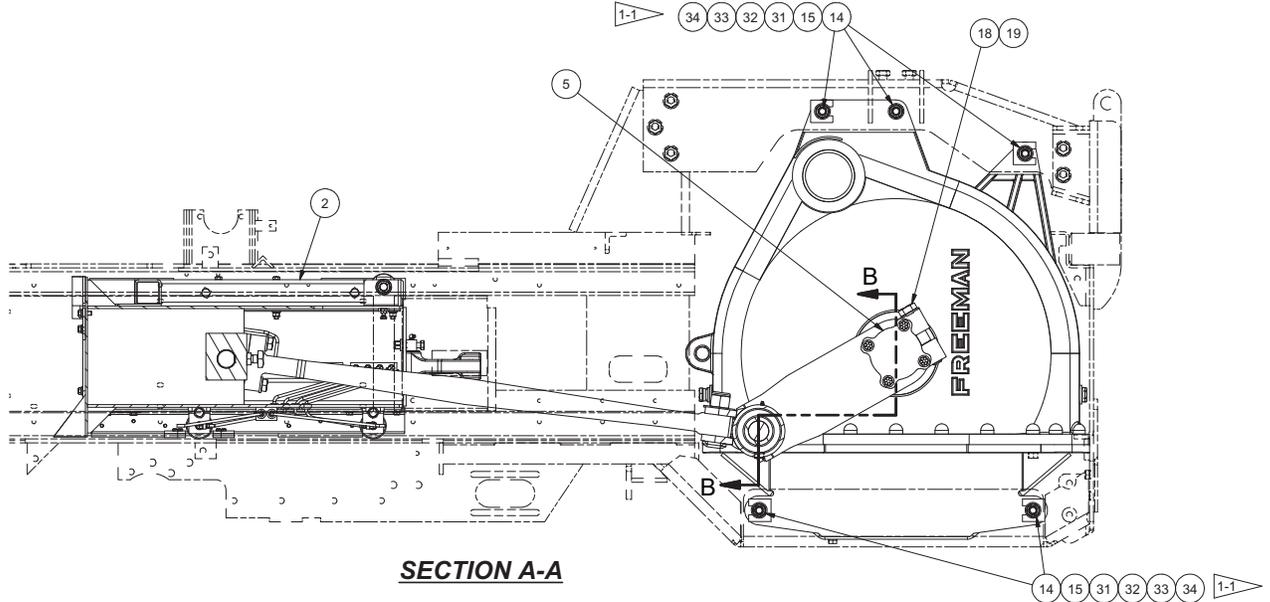
* See Separate Coverage

Rev DJ

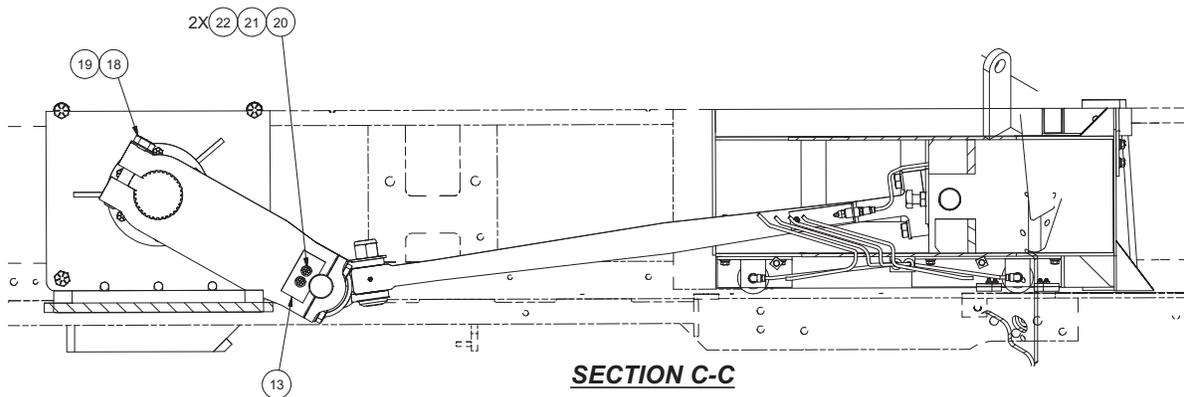
** See Separate Coverage In Baler Parts Manual

Gearbox Installation, (37X) 16" Kitted to 14" Chamber

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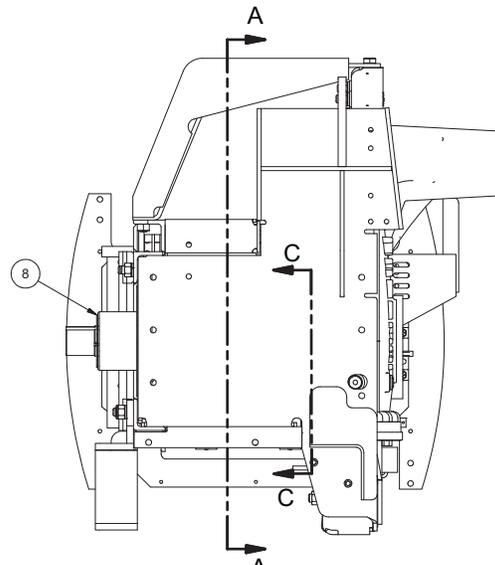
SECTION A-A



SECTION C-C

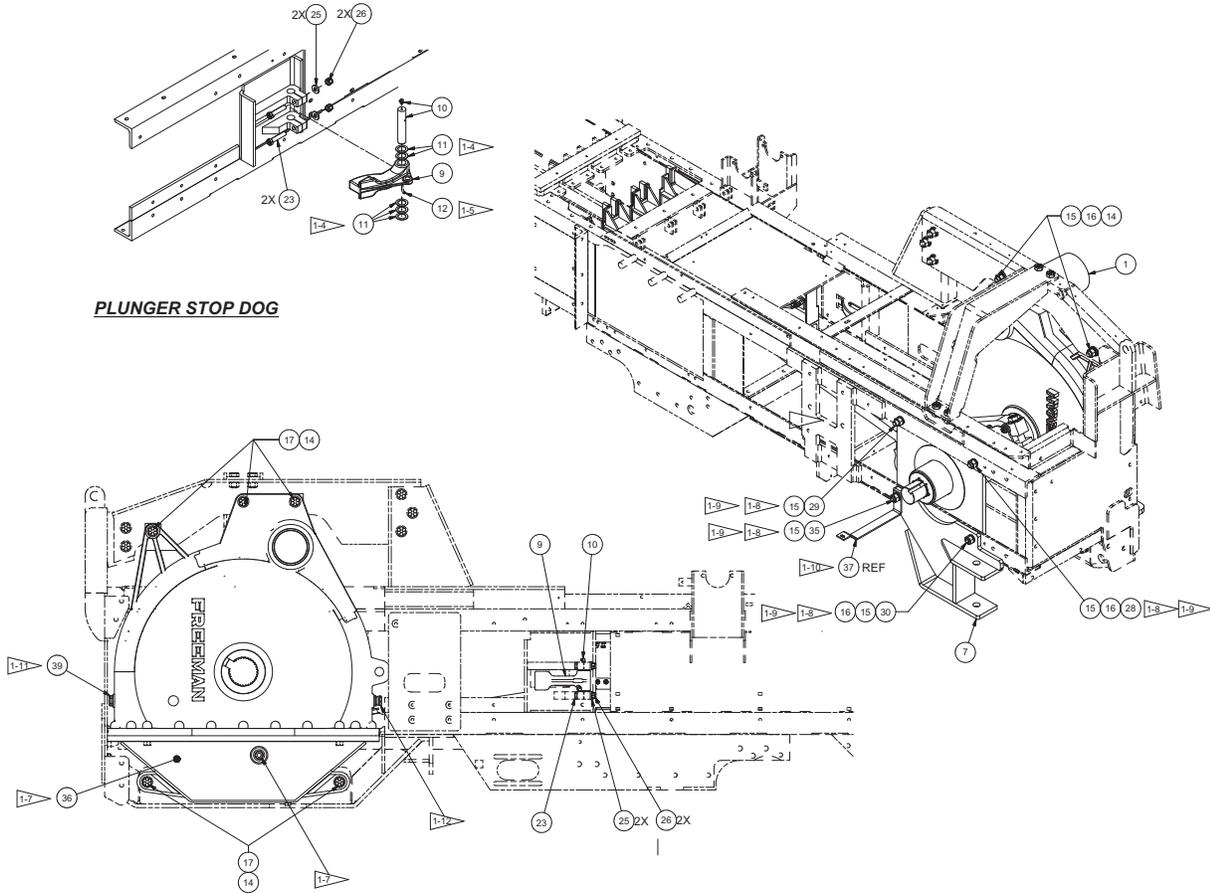
NOTES:

- 1-1 SHIM GEARBOX TO ALIGN CRANK ARM PIN HOLE WITH FEEDER DRIVE ARM PIN HOLE IN 4 QUADRANTS IN ITS RANGE OF MOTION.
- 1-2 FEEDER DRIVE ARM IS TO BE ASSEMBLED TO THE RIGHT-HAND SIDE PLATE WITH THE CHAMFER ON THE FEEDER CRANK ARM FACING THE SIDE PLATE.
- 1-3 16" CHAMBER & PLUNGER ASSY. SHOWN, REFER TO CHART FOR PLUNGER ASSEMBLIES FOR OTHER CHAMBER SIZES.
- 1-4 SHIM AS NEEDED FOR STOP DOG TO FULLY ENGAGE PLUNGER STOP.
- 1-5 USE LOCTITE #242.
- 1-6 ADD 221771W FLAT WASHERS BETWEEN KEEPER PLATE AND DRIVE ARM SO THAT KEEPER PLATE IS BOLTED FLAT TO DRIVE ARM AND NOT PUSHING ON END OF GEARBOX OUTPUT SHAFT.
- 1-7 ADD 12.7 LBS (6.62 LITERS) OF LUBRICATING OIL TO GEARBOX. OIL LEVEL SHOULD BE LEVEL WITH THE BOTTOM OF THE FILL OPENING.
- 1-8 TORQUE SIDE PLATE BOLTS TO 365 FT-LBS.
- 1-9 PHOTO SHEET FOR SIDE PLATE BOLT CONFIGURATION IS AVAILABLE FOR REFERENCE UNDER CHART DRAWING (906223)
- 1-10 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP



Gearbox Installation,(37X) 16" Kitted to 14" Chamber

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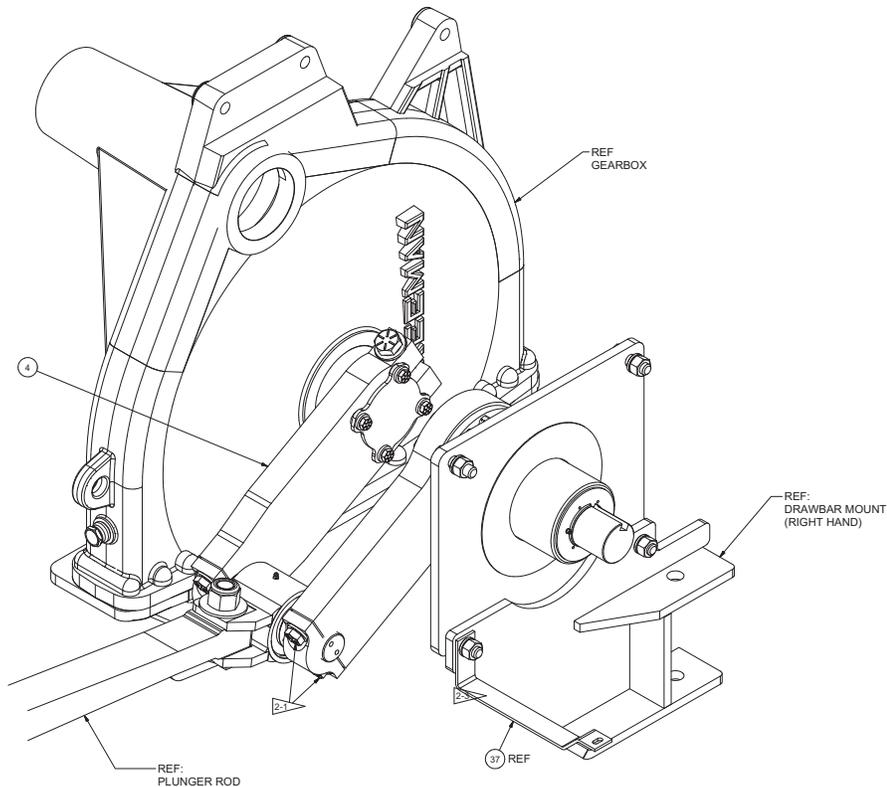
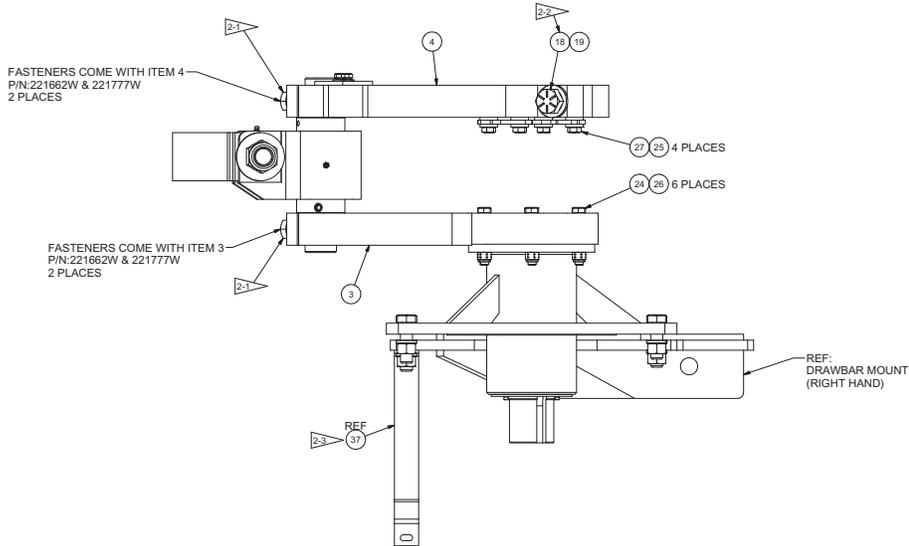


Gearbox Installation, (37X) 16" Kitted to 14" Chamber

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NOTES:

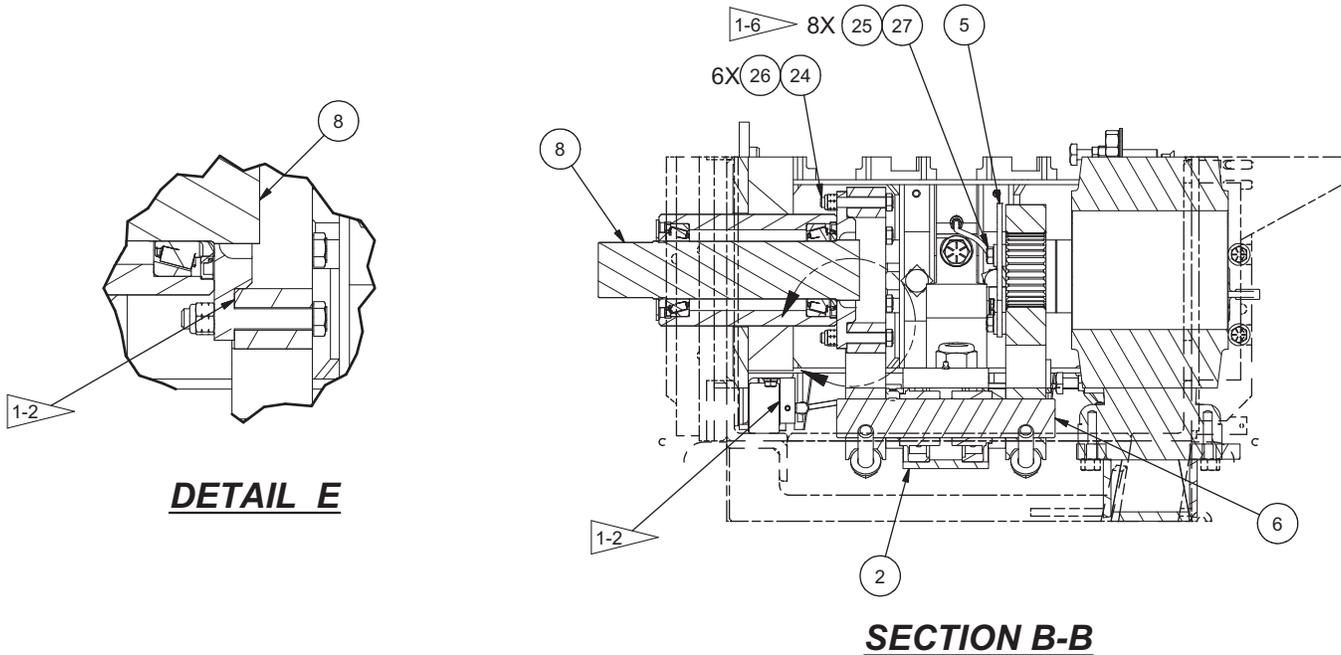
- 2-1 TORQUE BOLTS TO 340 FT-LBS
- 2-2 TORQUE BOLTS TO 750-755 FT LBS
- 2-3 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP



CRANK ARM & FEEDER DRIVE ARM

Gearbox Installation,(37X) 16" Kitted to 14" X 21" Chamber

Page 1 of 4



| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|--------------------------------------|------|------------|-----|-------------------|
| | 908709 | | Gearbox Installation | | | | |
| 1 | * 904464 | 1 | . Gearbox Assembly Page 47 | 23 | 221576W | 2 | . Capscrew |
| 2 | * 908708 | 1 | . Plunger Assembly Page | 24 | R13811082 | 6 | . Capscrew |
| 3 | * 904466 | 1 | . Drive Arm Assembly,Feeder Page 48 | 25 | 221771W | 10 | . Washer |
| 4 | * 904467 | 1 | . Crank Arm Assembly, Feeder Page 49 | 26 | 223587 | 8 | . Nut, Esna |
| 5 | 904409 | 1 | . Plate,Keeper | 27 | 221560W | 4 | . Capscrew |
| 6 | 904468 | 1 | . Pin,Crank | 28 | 221656W | 1 | . Capscrew |
| 7 | 903503 | 1 | . Bracket Weldment, Drawbar | 29 | R13806363 | 1 | . Capscrew |
| 8 | ** PLT0163070 | 1 | . Side Plate Assembly, RH | 30 | 221660W | 1 | . Capscrew |
| 9 | F000007547 | 1 | . Stop Dog | 31 | SHM0163090 | 7 | . Shim |
| 10 | PIN0035710 | 1 | . Pin Assembly | 32 | SHM0163091 | 7 | . Shim |
| 11 | ZZ00000209 | 1 | . Mach Bushing | 33 | SHM0163092 | 7 | . Shim |
| 12 | 027-0933 | 1 | . Set Screw | 34 | SHM0163093 | 7 | . Shim |
| 13 | 904412 | 1 | . Plate,Retainer | 35 | 232854 | 1 | . Capscrew |
| 14 | 221777W | 10 | . Washer | 36 | 235720 2GL | | . Lubricant, Gear |
| 15 | 221716W | 9 | . Hex Nut | 37 | SHD0016332 | 0 | . Plate, Brace |
| 16 | 200608 | 9 | . Lockwasher | 38 | * 908677 | 1 | . Kit, Service |
| 17 | 221666W | 5 | . Capscrew | 39 | NA | 1 | . Plug , Drain |
| 18 | R13801901 | 1 | . Capscrew | | | | |
| 19 | 221780W | 1 | . Hard Washer | | | | |
| 20 | Y17C-0616 | 2 | . Capscrew | | | | |
| 21 | 221767W | 2 | . Hard Washer | | | | |
| 22 | Y22E-06 | 2 | . Washer . | | | | |

* See Separate Coverage

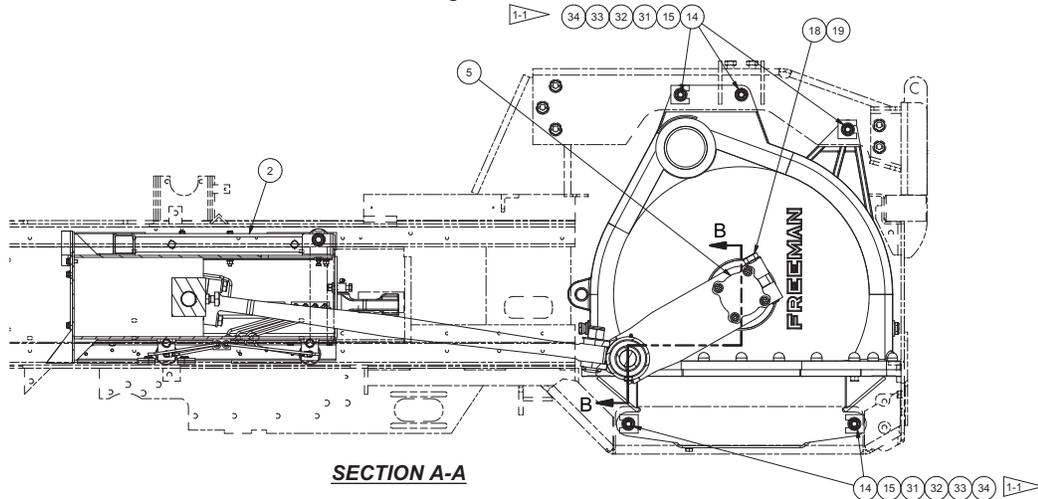
Rev AJ

NA Not Applicable

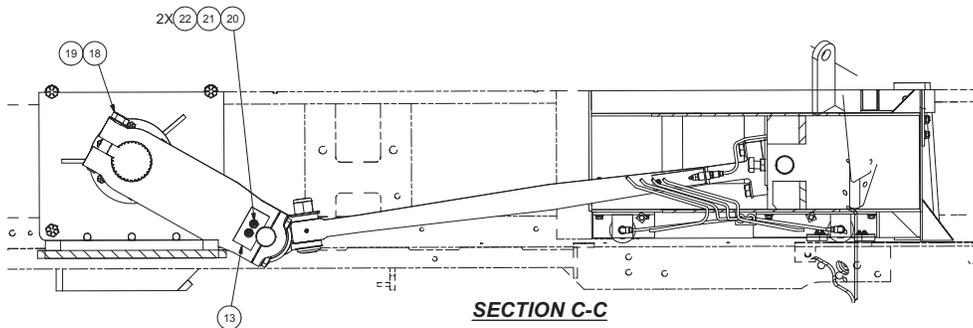
** See Separate Coverage In Baler Parts Manual

Gearbox Installation, (37X) 16" Kitted to 14" X 21" Chamber

Page 2 of 4



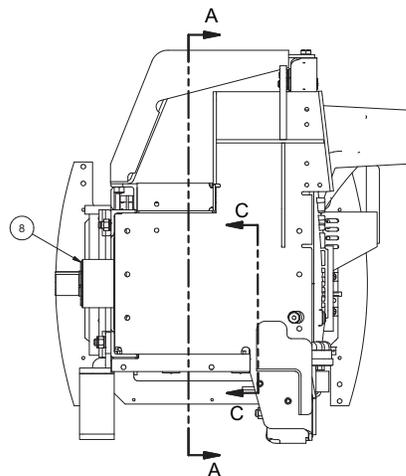
SECTION A-A



SECTION C-C

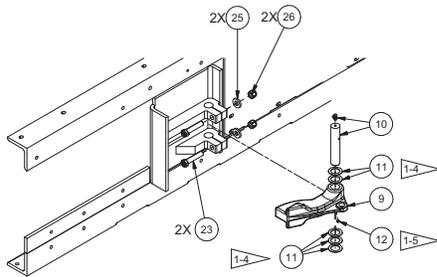
NOTES:

- 1-1 SHIM GEARBOX TO ALIGN CRANK ARM PIN HOLE WITH FEEDER DRIVE ARM PIN HOLE IN 4 QUADRANTS IN ITS RANGE OF MOTION.
- 1-2 FEEDER DRIVE ARM IS TO BE ASSEMBLED TO THE RIGHT-HAND SIDE PLATE WITH THE CHAMFER ON THE FEEDER CRANK ARM FACING THE SIDE PLATE.
- 1-3 16" CHAMBER & PLUNGER ASSY. SHOWN, REFER TO CHART FOR PLUNGER ASSEMBLIES FOR OTHER CHAMBER SIZES.
- 1-4 SHIM AS NEEDED FOR STOP DOG TO FULLY ENGAGE PLUNGER STOP.
- 1-5 USE LOCTITE #242.
- 1-6 ADD 221771W FLAT WASHERS BETWEEN KEEPER PLATE AND DRIVE ARM SO THAT KEEPER PLATE IS BOLTED FLAT TO DRIVE ARM AND NOT PUSHING ON END OF GEARBOX OUTPUT SHAFT.
- 1-7 ADD 12.7 LBS (6.62 LITERS) OF LUBRICATING OIL TO GEARBOX. OIL LEVEL SHOULD BE LEVEL WITH THE BOTTOM OF THE FILL OPENING.
- 1-8 TORQUE SIDE PLATE BOLTS TO 365 FT-LBS.
- 1-9 PHOTO SHEET FOR SIDE PLATE BOLT CONFIGURATION IS AVAILABLE FOR REFERENCE UNDER CHART DRAWING (906223)
- 1-10 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP
- 1-11 FOR 38X GEARBOX BALER, REMOVE MAGNETIC PLUG ALREADY INSTALLED IN THIS LOCATION AND INSTALL ITEM 39 IN ITS PLACE. KEEP MAGNETIC PLUG (SEE NOTE 1-12).
- 1-12 FOR 38X GEARBOX BALER, REMOVE PLUG AND INSTALL MAGNETIC PLUG FROM OPPOSITE SIDE OF GEARBOX. RESTOCK PLUG THAT WAS REMOVED (P/N BON000012).

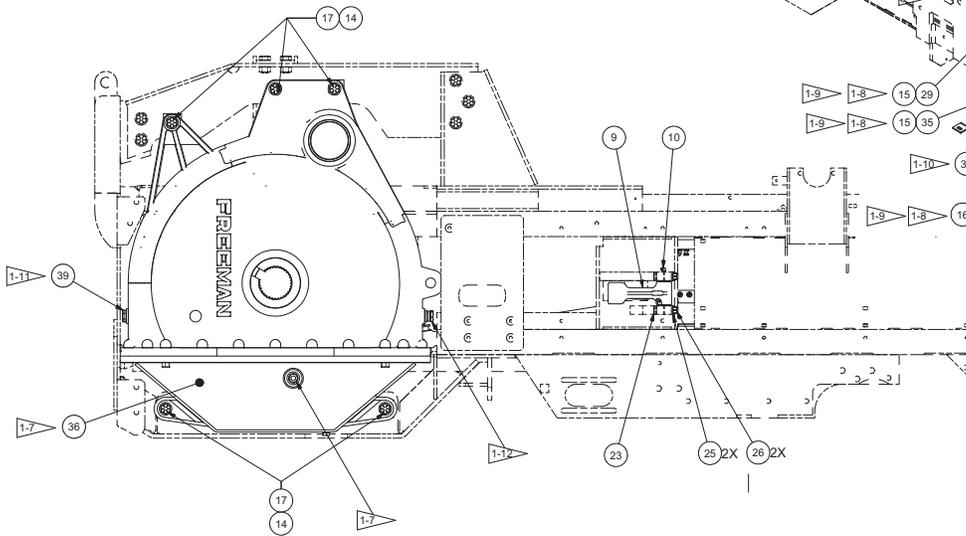
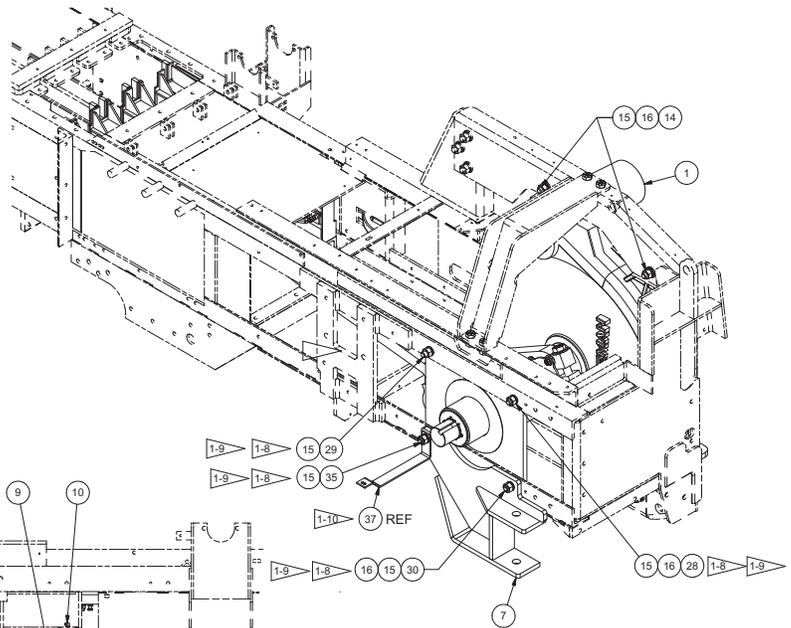


Gearbox Installation,(37X) 16" Kitted to 14" X 21" Chamber

Page 3 of 4



PLUNGER STOP DOG

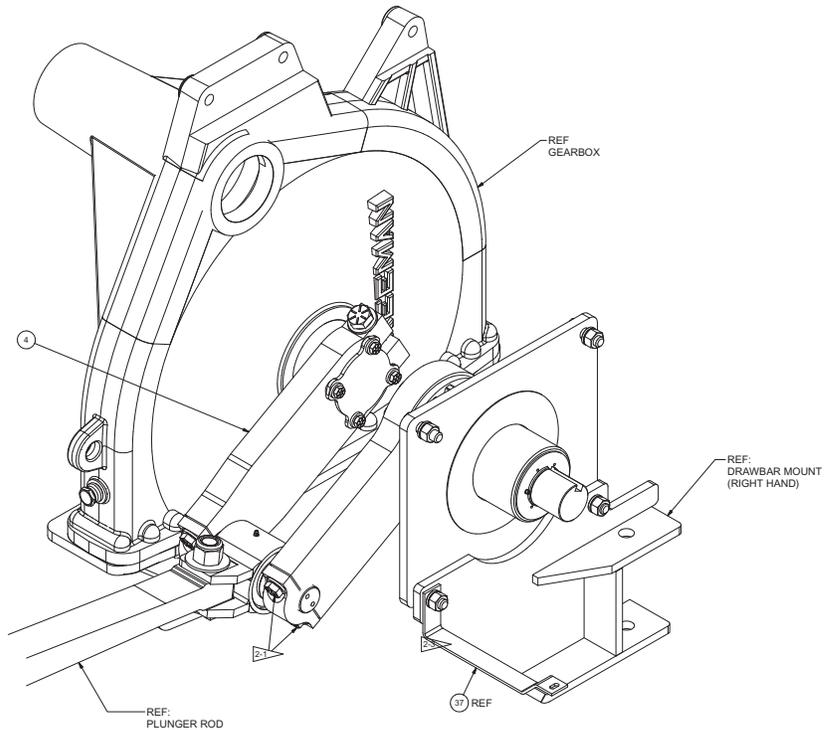
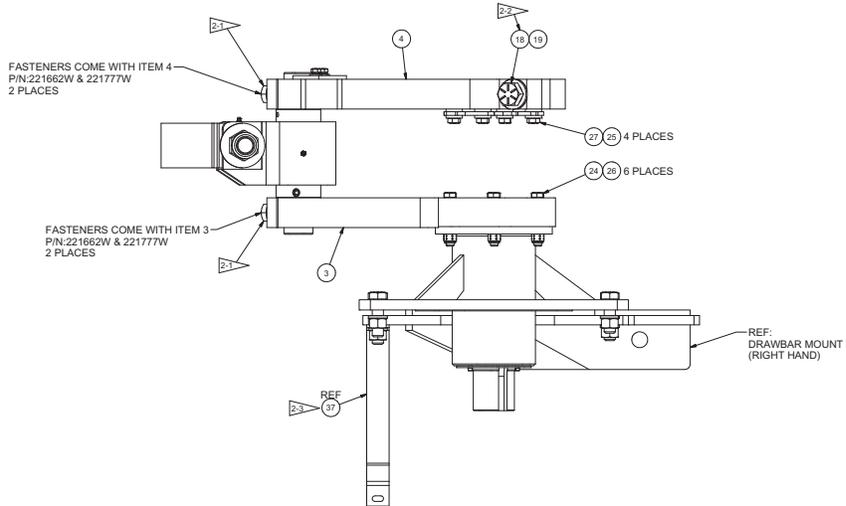


Gearbox Installation, (37X) 16" Kitted to 14" X 21" Chamber

Page 4 of 4

NOTES:

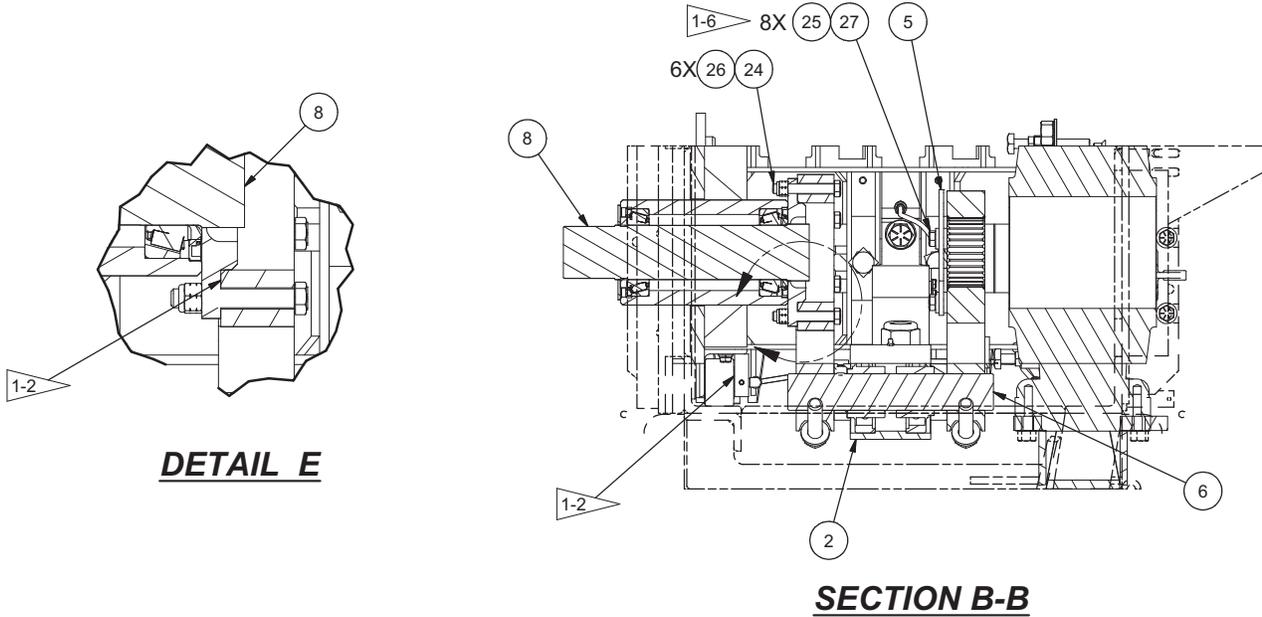
- 2-1 TORQUE BOLTS TO 340 FT-LBS
- 2-2 TORQUE BOLTS TO 750-755 FT LBS
- 2-3 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP



CRANK ARM & FEEDER DRIVE ARM

Gearbox Installation,(38X) 16” Kitted to 15” Chamber

Page 1 of 4



| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|-------------------------------------|------|------------|-----|-------------------|
| | 908718 | | Gearbox Installation | | | | |
| 1 | * 904464 | 1 | . Gearbox Assembly Page 47 | 23 | 221576W | 2 | . Capscrew |
| 2 | * 906224 | 1 | . Plunger Assembly Page 63 | 24 | R13811082 | 6 | . Capscrew |
| 3 | * 904466 | 1 | . Drive Arm Assembly,Feeder Page 48 | 25 | 221771W | 10 | . Washer |
| 4 | * 904467 | 1 | . Crank Arm Assembly, FeederPage 49 | 26 | 223587 | 8 | . Nut, Esna |
| 5 | 904409 | 1 | . Plate, Keeper | 27 | 221560W | 4 | . Capscrew |
| 6 | 904468 | 1 | . Pin, Crank | 28 | 221656W | 1 | . Capscrew |
| 7 | 903503 | 1 | . Bracket Weldment, Drawbar | 29 | R13806363 | 1 | . Capscrew |
| 8 | ** PLT0163070 | 1 | . Side Plate Assembly, RH | 30 | 221660W | 1 | . Capscrew |
| 9 | DOG0018185 | 1 | . Stop Dog | 31 | SHM0163090 | 7 | . Shim |
| 10 | PIN0035710 | 1 | . Pin Assembly | 32 | SHM0163091 | 7 | . Shim |
| 11 | ZZ00000209 | 1 | . Mach Bushing | 33 | SHM0163092 | 7 | . Shim |
| 12 | 027-0933 | 1 | . Set Screw | 34 | SHM0163093 | 7 | . Shim |
| 13 | 904412 | 1 | . Plate, Retainer | 35 | 232854 | 1 | . Capscrew |
| 14 | 221777W | 10 | . Washer | 36 | 235720 | 2GL | . Lubricant, Gear |
| 15 | 221716W | 9 | . Hex Nut | 37 | SHD0016332 | 0 | . Plate, Brace |
| 16 | 200608 | 9 | . Lockwasher | 38 | * 908677 | 1 | . Kit, Service |
| 17 | 221666W | 5 | . Capscrew | 39 | 908717 | 1 | . Plug , Drain |
| 18 | R13801901 | 1 | . Capscrew | | | | |
| 19 | 221780W | 1 | . Hard Washer | | | | |
| 20 | Y17C-0616 | 2 | . Capscrew | | | | |
| 21 | 221767W | 2 | . Hard Washer | | | | |
| 22 | Y22E-06 | 2 | . Washer . | | | | |

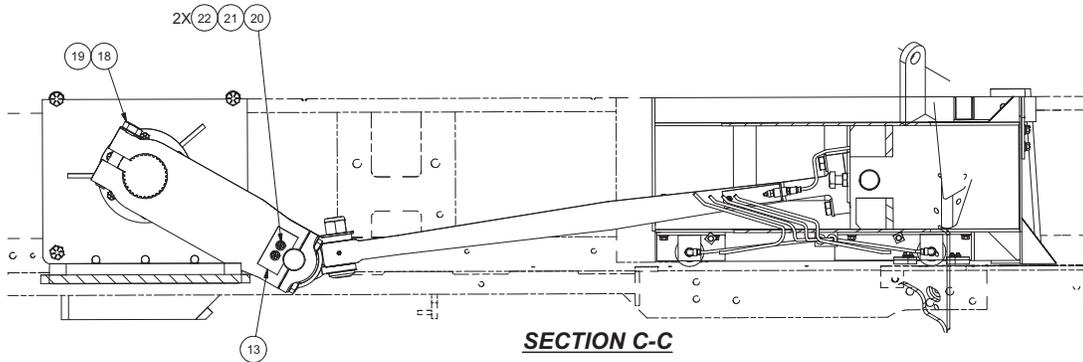
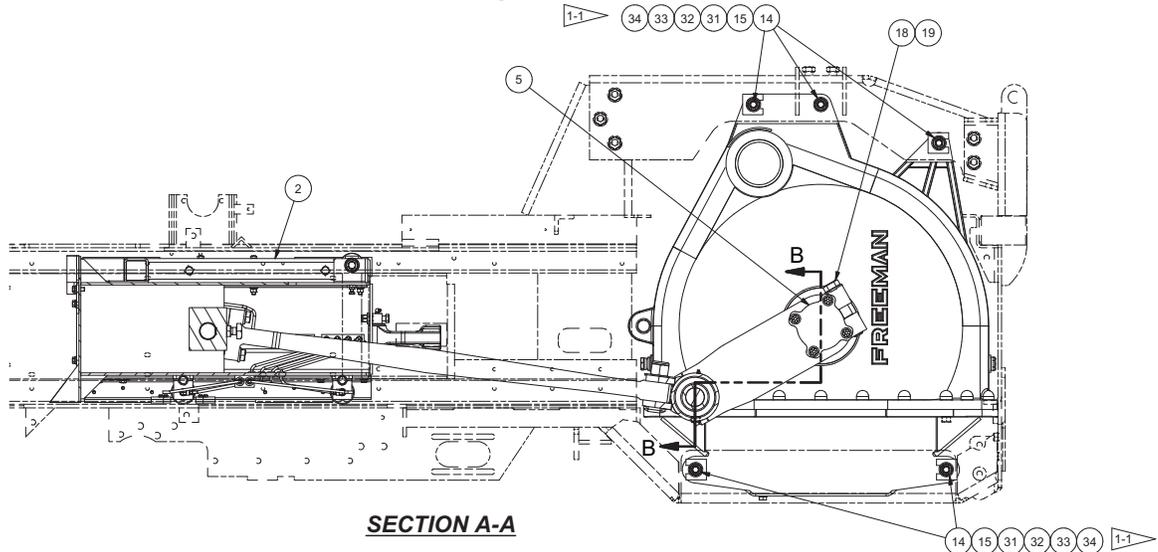
* See Separate Coverage
 NA Not Applicable

Rev -J

** See Separate Coverage In Baler Parts Manual

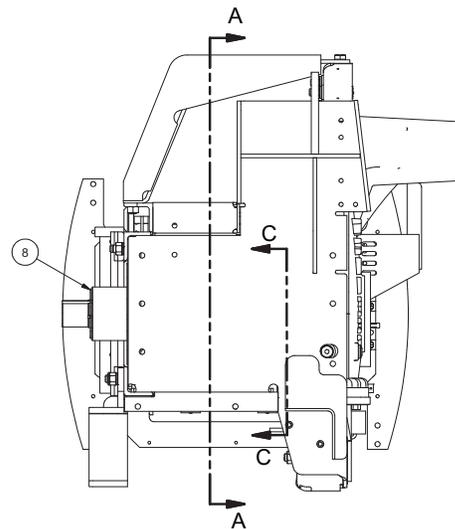
Gearbox Installation, (38X) 16" Kitted to 15" Chamber

Page 2 of 4



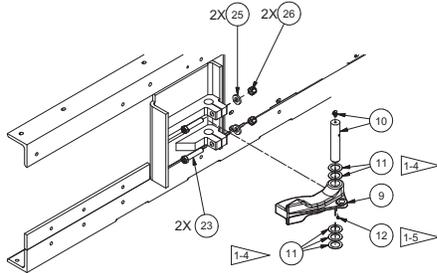
NOTES:

- 1-1 SHIM GEARBOX TO ALIGN CRANK ARM PIN HOLE WITH FEEDER DRIVE ARM PIN HOLE IN 4 QUADRANTS IN ITS RANGE OF MOTION.
- 1-2 FEEDER DRIVE ARM IS TO BE ASSEMBLED TO THE RIGHT-HAND SIDE PLATE WITH THE CHAMFER ON THE FEEDER CRANK ARM FACING THE SIDE PLATE.
- 1-3 16" CHAMBER & PLUNGER ASSY. SHOWN, REFER TO CHART FOR PLUNGER ASSEMBLIES FOR OTHER CHAMBER SIZES.
- 1-4 SHIM AS NEEDED FOR STOP DOG TO FULLY ENGAGE PLUNGER STOP.
- 1-5 USE LOCTITE #242.
- 1-6 ADD 221771W FLAT WASHERS BETWEEN KEEPER PLATE AND DRIVE ARM SO THAT KEEPER PLATE IS BOLTED FLAT TO DRIVE ARM AND NOT PUSHING ON END OF GEARBOX OUTPUT SHAFT.
- 1-7 ADD 12.7 LBS (6.62 LITERS) OF LUBRICATING OIL TO GEARBOX. OIL LEVEL SHOULD BE LEVEL WITH THE BOTTOM OF THE FILL OPENING.
- 1-8 TORQUE SIDE PLATE BOLTS TO 365 FT-LBS.
- 1-9 PHOTO SHEET FOR SIDE PLATE BOLT CONFIGURATION IS AVAILABLE FOR REFERENCE UNDER CHART DRAWING (906223)
- 1-10 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP
- 1-11 FOR 38X GEARBOX BALER, REMOVE MAGNETIC PLUG ALREADY INSTALLED IN THIS LOCATION AND INSTALL ITEM 39 IN ITS PLACE. KEEP MAGNETIC PLUG (SEE NOTE 1-12).
- 1-12 FOR 38X GEARBOX BALER, REMOVE PLUG AND INSTALL MAGNETIC PLUG FROM OPPOSITE SIDE OF GEARBOX. RESTOCK PLUG THAT WAS REMOVED (P/N BON000012).

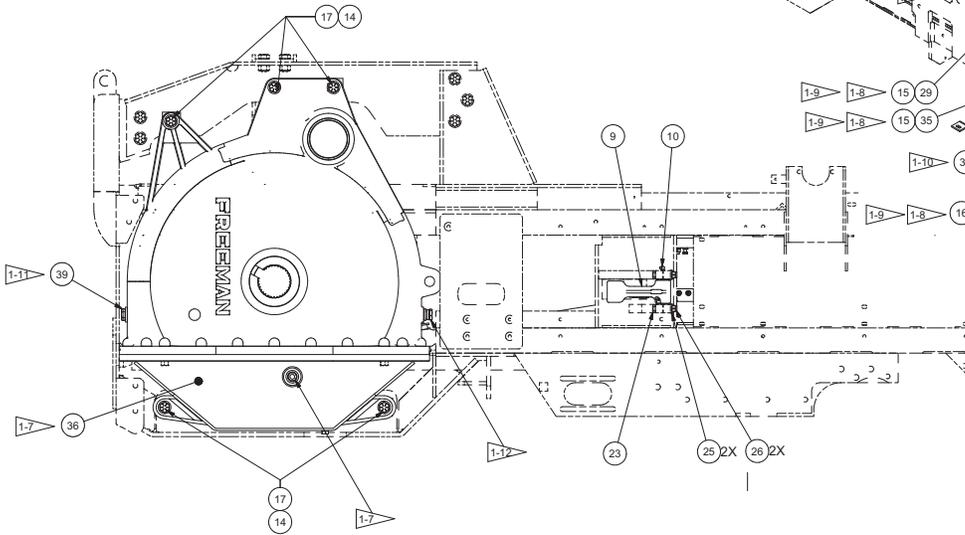
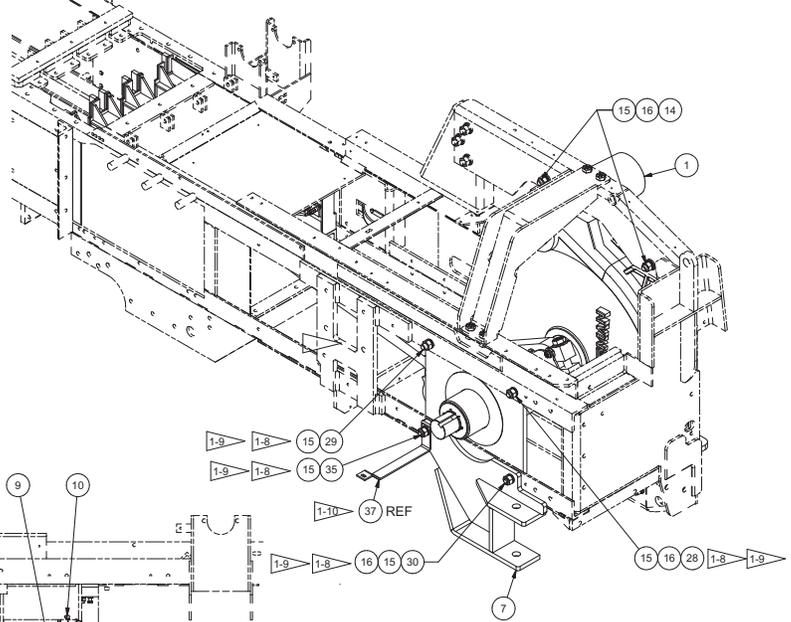


Gearbox Installation,(38X) 16" Kitted to 15" Chamber

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PLUNGER STOP DOG

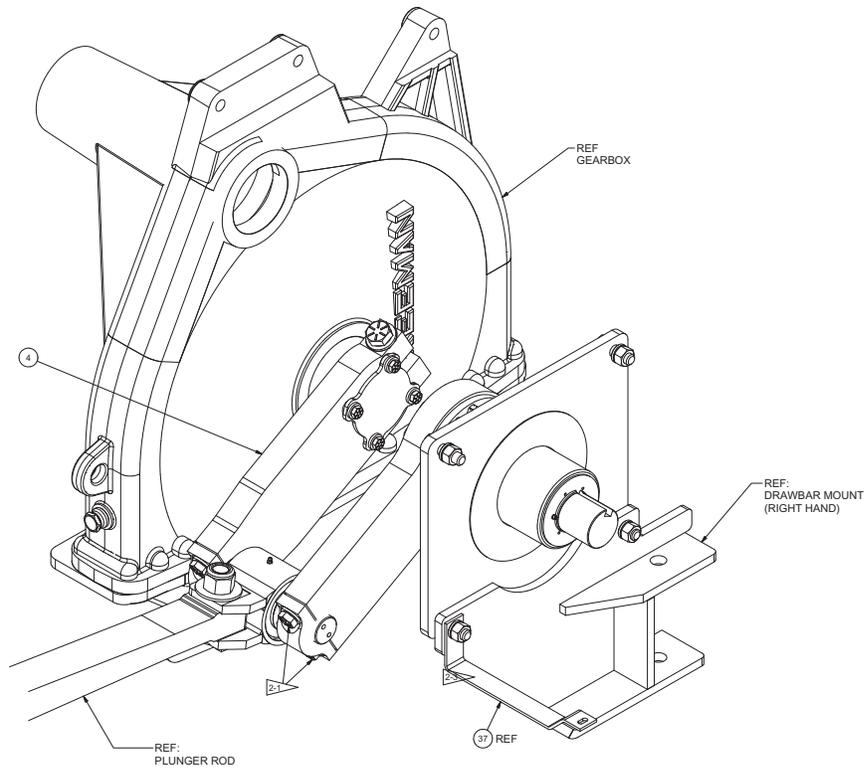
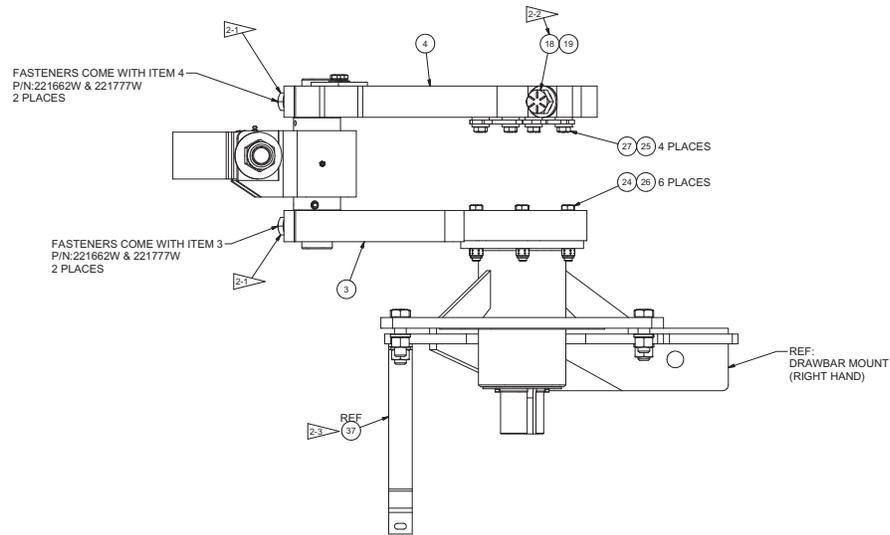


Gearbox Installation,(38X) 16" Kitted to 15" Chamber

Page 4 of 4

NOTES:

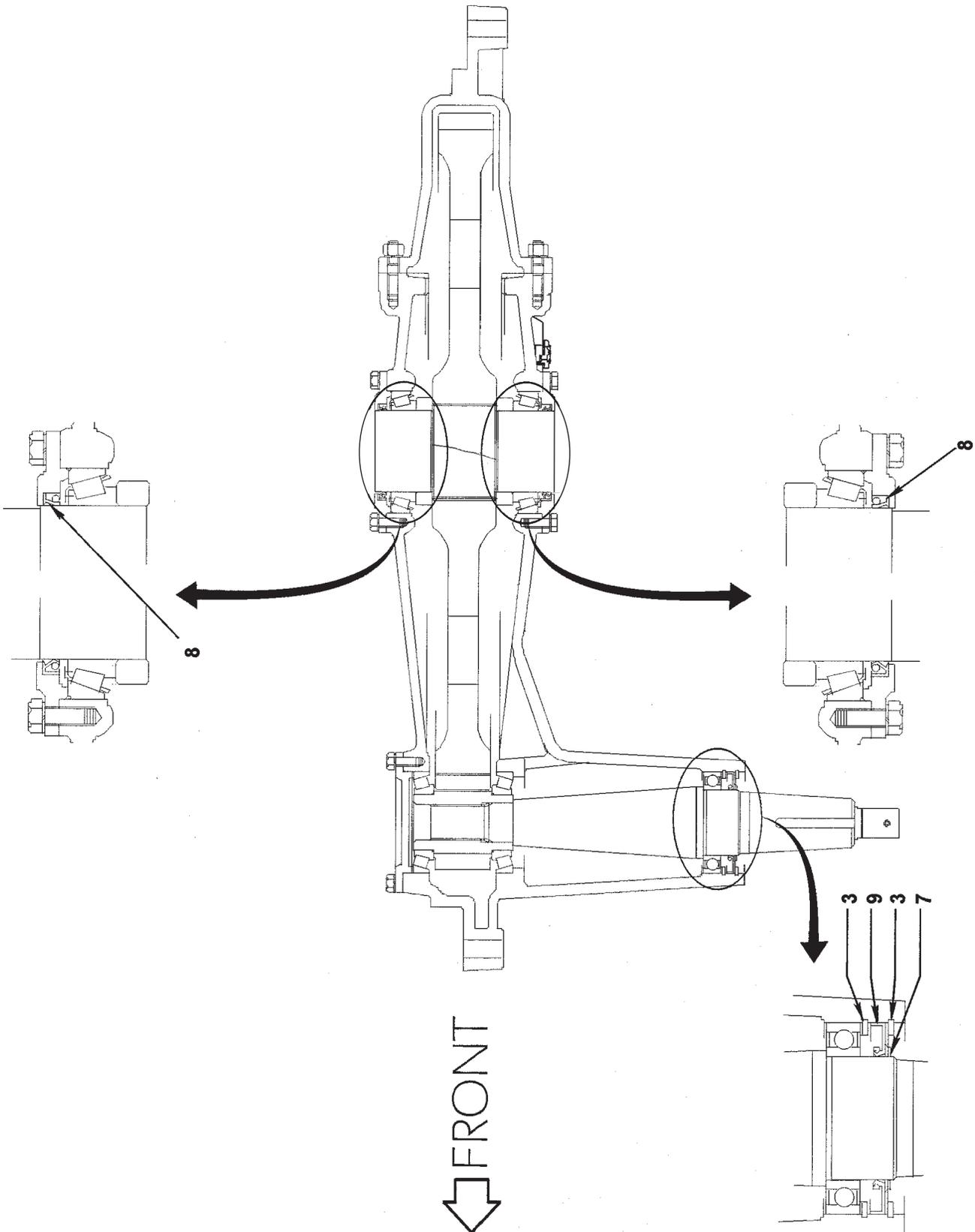
- 2-1 TORQUE BOLTS TO 340 FT-LBS
- 2-2 TORQUE BOLTS TO 750-755 FT LBS
- 2-3 INSTALL ITEM 37 AT THIS LEVEL, IT IS CALLED OUT IN THE SHIELD GROUP



CRANK ARM & FEEDER DRIVE ARM

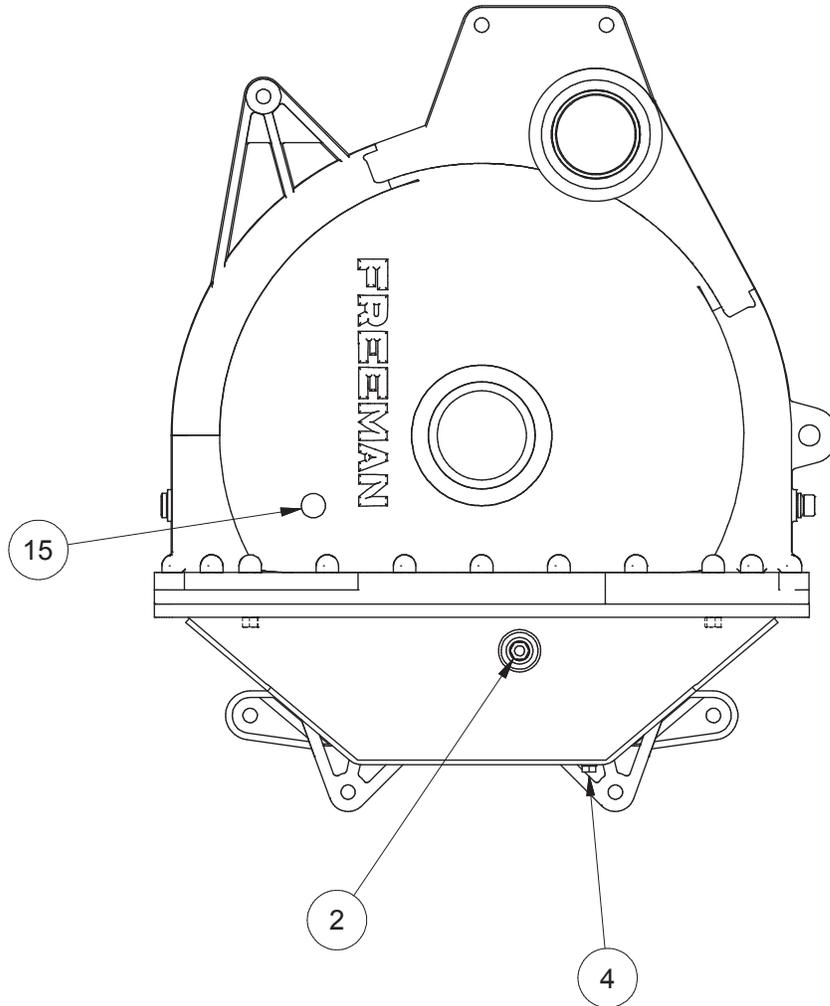
Gearbox

Page 1 of 2



Gearbox

Page 2 of 2

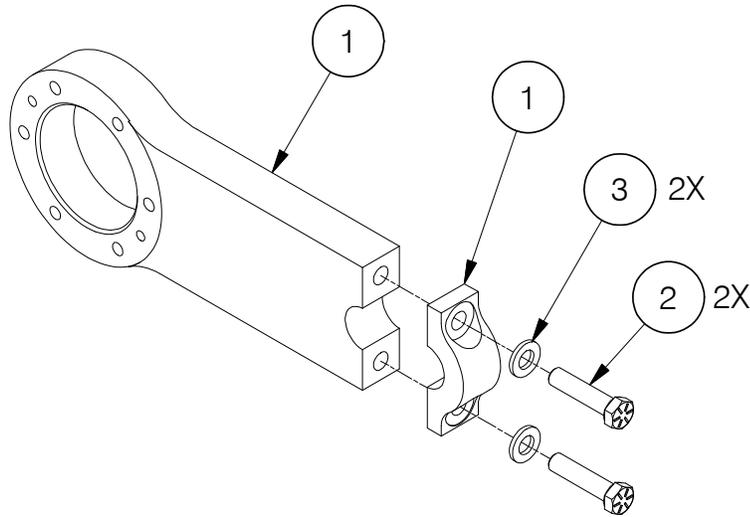


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|-------------------------|------|------------|-----|-------------------------------|
| | 904464 | | Gearbox | | | | |
| 2 | 253208 | 1 | . Sight Glass | 8 | BON0000007 | 2 | . Gearbox Main Shaft Oil Seal |
| 3 | BON0000002 | 2 | . Snap Ring | 9 | BON0000008 | 1 | . Input Shaft Oil Seal |
| 4 | 256829 | 1 | . Drain Plug | 15 | BON0000014 | 1 | . Pressure/Breather Plug |
| 7 | BON0000006 | 1 | . Gearbox Dirt Excluder | | | | |

Rev B

Drive Arm Assembly, Gearbox Baler

Page 1 of 1



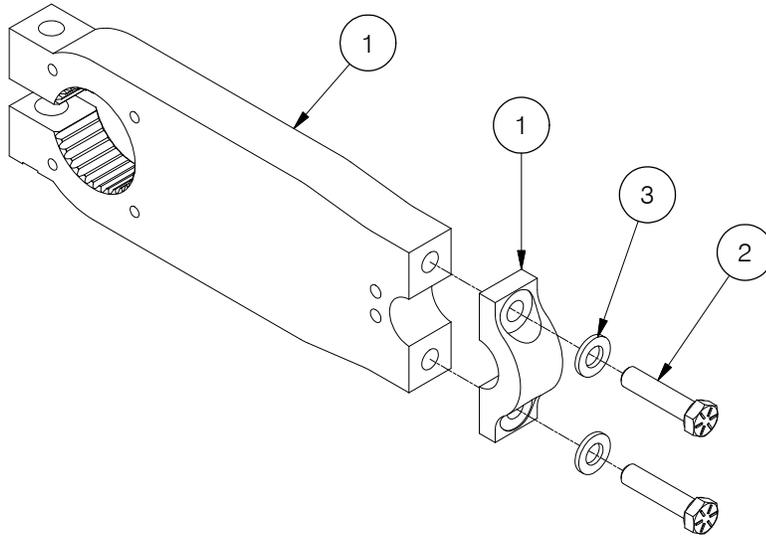
| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|---------------------------------|------|----------|-----|-------------|
| | 904466 | | Drive Arm Assembly | | | | |
| 1 | 904479 | 1 | . Drive Arm w/Cap (As Set Only) | | | | |
| 2 | * ----- | 2 | . Capscrew | | | | |
| 3 | * ----- | 2 | . Washer | | | | |

* See Service Kit 908677 on page 72 & 73

Rev D

Crank Arm Assembly, Gearbox Baler

Page 1 of 1



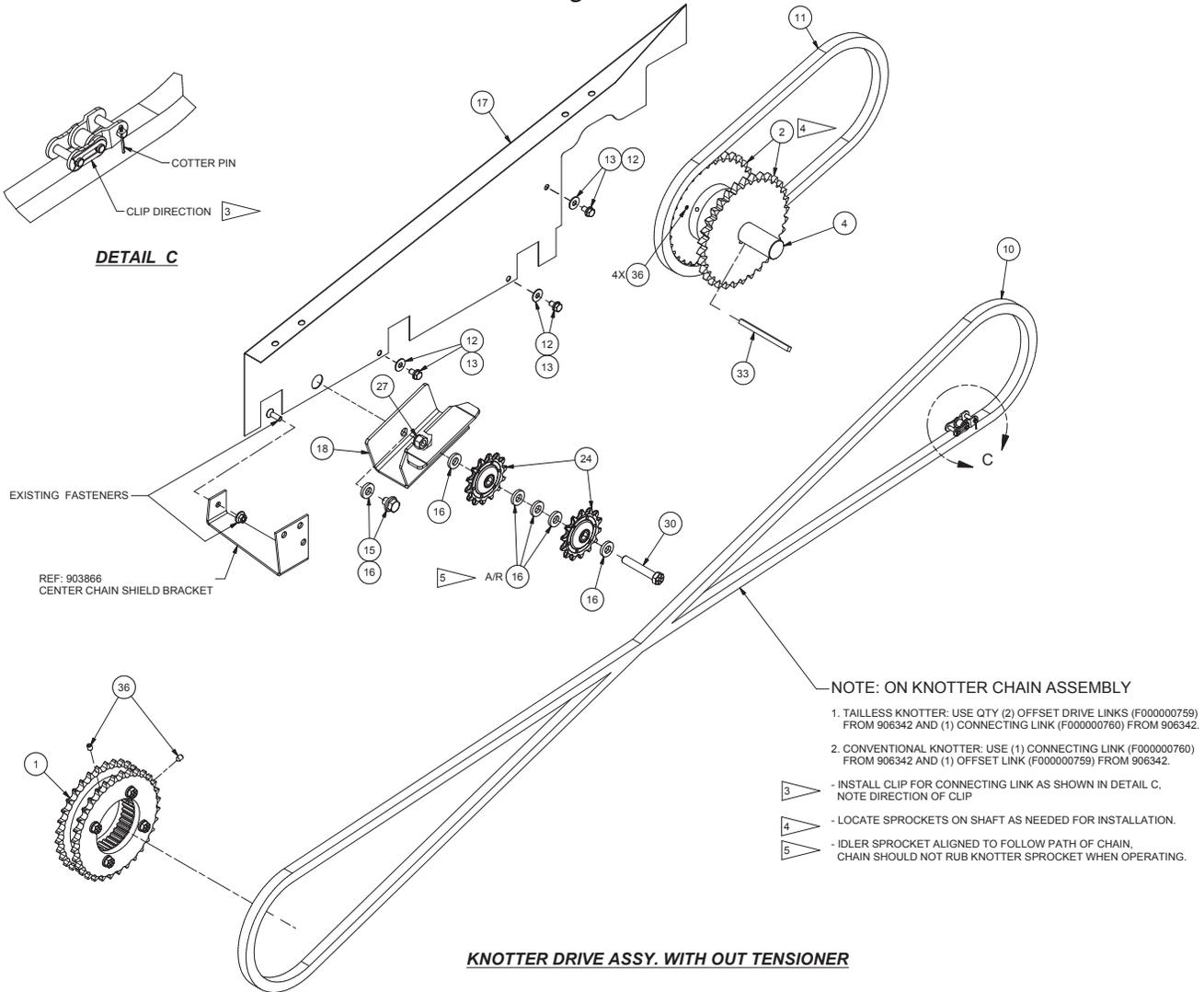
| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|---------------------------------|------|----------|-----|-------------|
| | 904467 | | Crank Arm Assembly | | | | |
| 1 | 904480 | 1 | . Crank Arm w/Cap (As Set Only) | | | | |
| 2 | ----- | 2 | . Capscrew | | | | |
| 3 | ----- | 2 | . Washer | | | | |

* See Service Kit 908677 on page 72 & 73

Rev B

Knotter Drive Installation, Gearbox Baler

Page 1 of 3

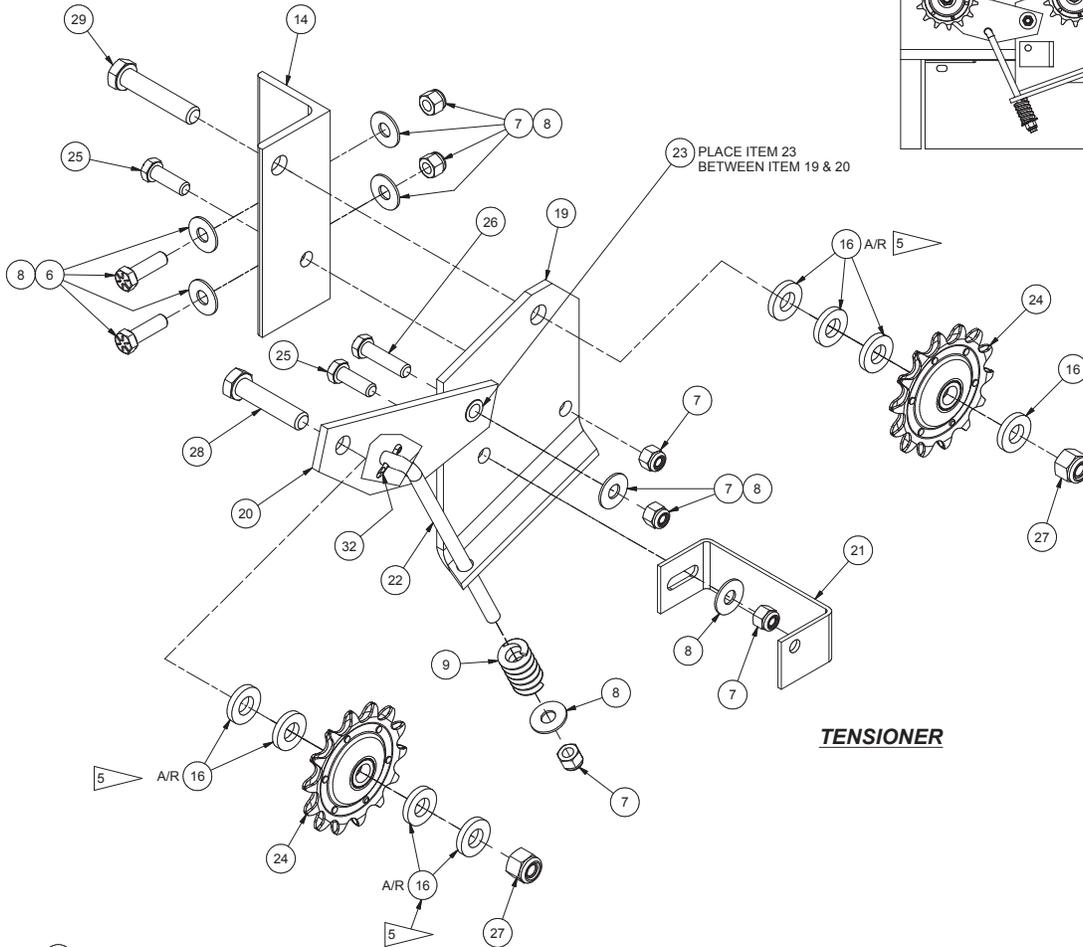
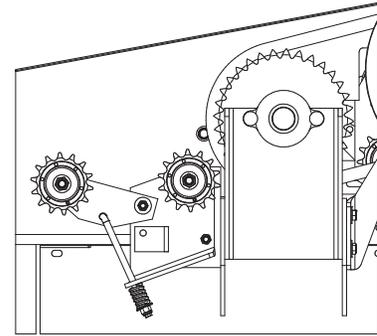


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------------------------------------------|------------|-----|-----------------------------------|------|------------|-----|---------------------------|
| 906144 Knotter Drive Installation | | | | | | | |
| 1 | 903677 | 1 | . Drive Sprocket Assembly | 19 | F000008086 | 1 | . Bracket |
| 2 | 256798 | 2 | . Sprocket | 20 | F000008083 | 1 | . Bracket |
| 3 | F000007063 | 2 | . Bearing | 21 | 903865 | 1 | . Bracket |
| 4 | 903678 | 1 | . Shaft, Knotter Drive | 22 | F000008084 | 1 | . Rod, Chain Tightener |
| 5 | 905147 | 1 | . Bracket | 23 | F000000440 | 1 | . Ferrule |
| 6 | 221499W | 6 | . Capscrew | 24 | F000007397 | 5 | . Idler Sprocket |
| 7 | 237567 | 14 | . Nut, Esna | 25 | 221497W | 2 | . Capscrew |
| 8 | 221767W | 13 | . Washer | 26 | Y17C-0624 | 1 | . Capscrew |
| 9 | F000001797 | 1 | . Clutch Plate Compression Spring | 27 | 223587 | 4 | . Nut, Esna |
| 10 | 906341 | 1 | . Drive Chain Assembly | 28 | 221574W | 1 | . Capscrew |
| 11 | 906342 | 1 | . Drive Chain Assembly | 29 | 221576W | 1 | . Capscrew |
| 12 | SMS0000198 | 3 | . Bolt, Whiz | 30 | R13801850 | 1 | . Capscrew |
| 13 | 223428 | 3 | . Flat Washer | 31 | PWB3751250 | 4 | . Bolt, Plateow |
| 14 | 906311 | 1 | . Angle, Mounting | 32 | 00103384 | 1 | . Cotter Pin |
| 15 | Y17C-0808 | 1 | . Capscrew | 33 | 906347 | 1 | . Key |
| 16 | 239519 | 16 | . Flat Washer | 34 | 905124 | 1 | . Plate, Sprocket Support |
| 17 | 903860 | 1 | . Plate, Inner Shield | 35 | R13811077 | 1 | . Capscrew |
| 18 | 906314 | 1 | . Plate, Holddown | 36 | 2305986W | 6 | . Set Screw |

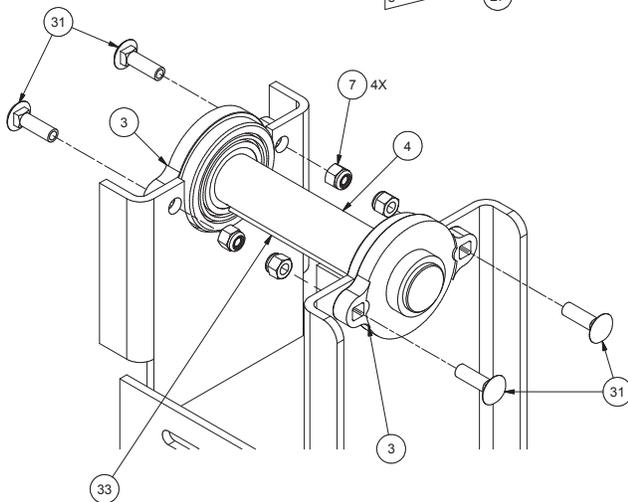
Rev C

Knotter Drive Installation, Gearbox Baler

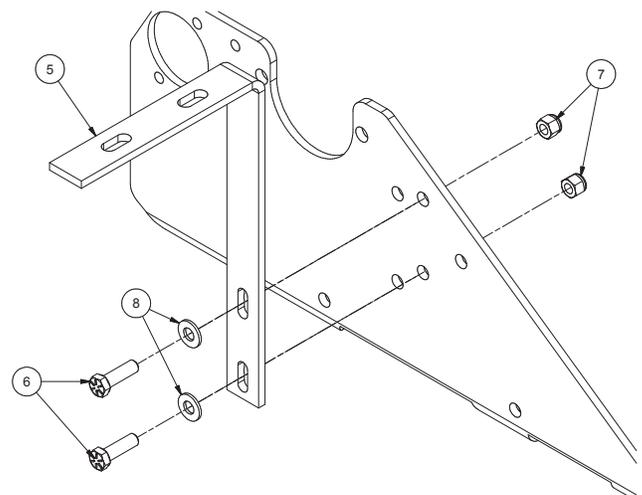
Page 2 of 3



TENSIONER



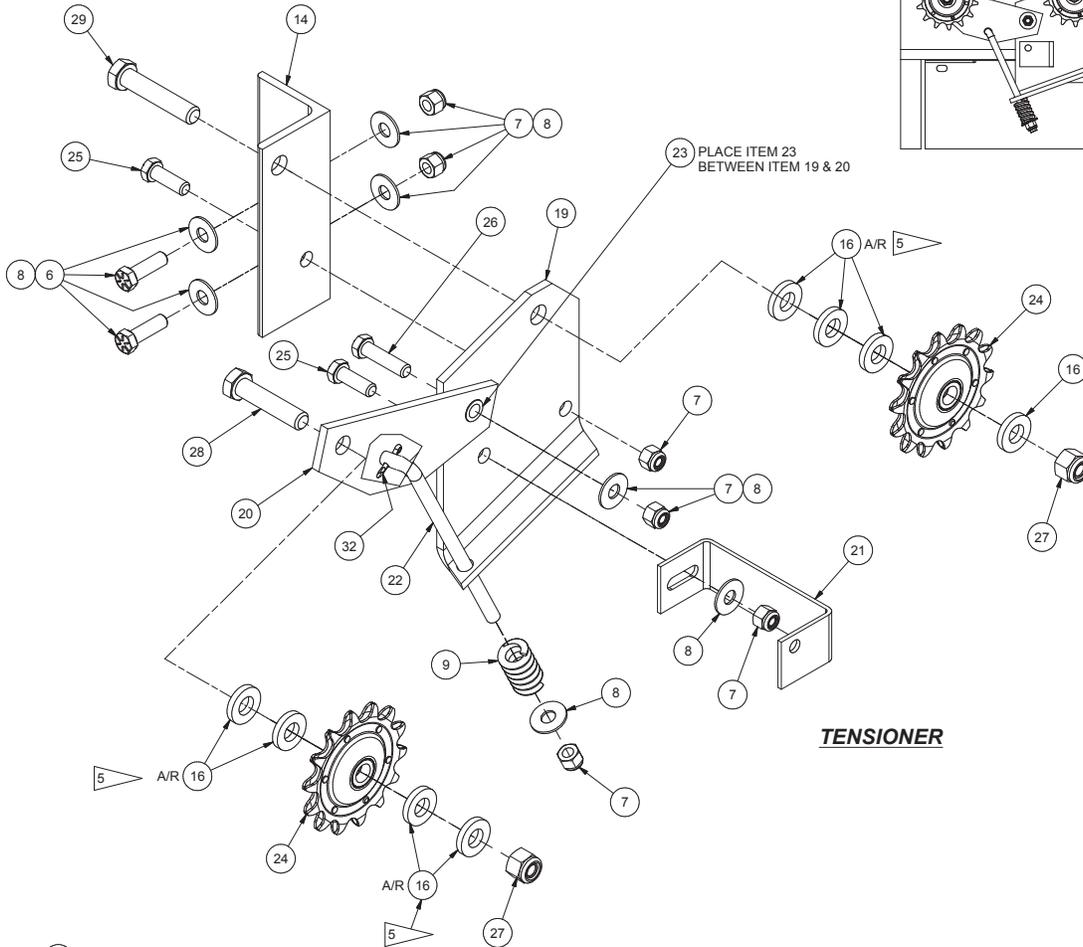
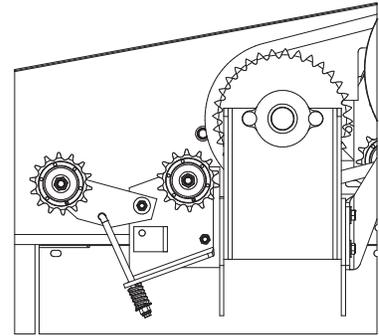
SHAFT AND BEARINGS



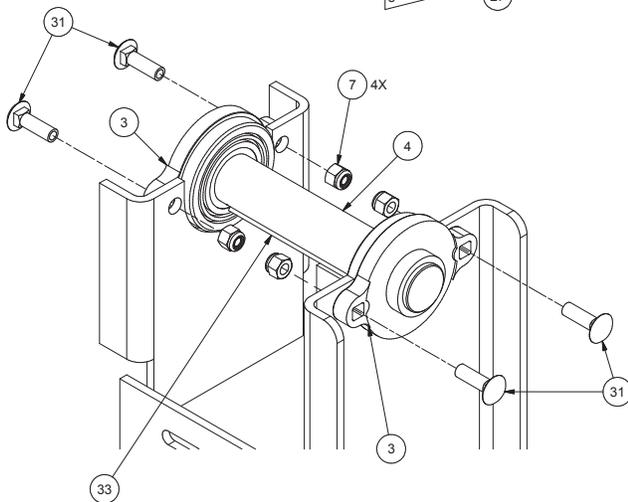
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Knotter Drive Installation, Gearbox Baler

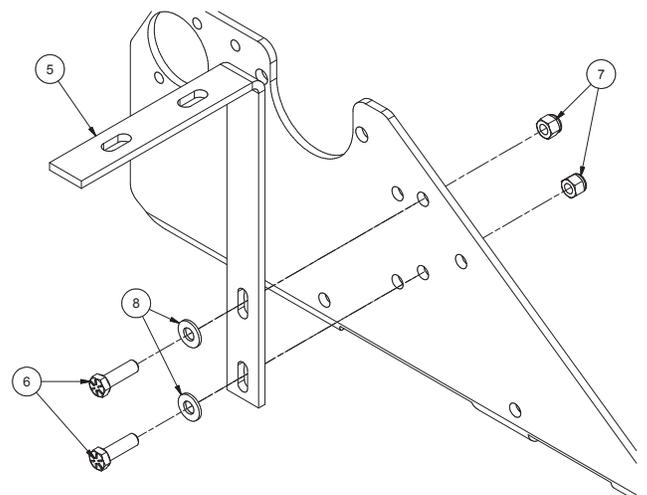
Page 3 of 3



TENSIONER



SHAFT AND BEARINGS

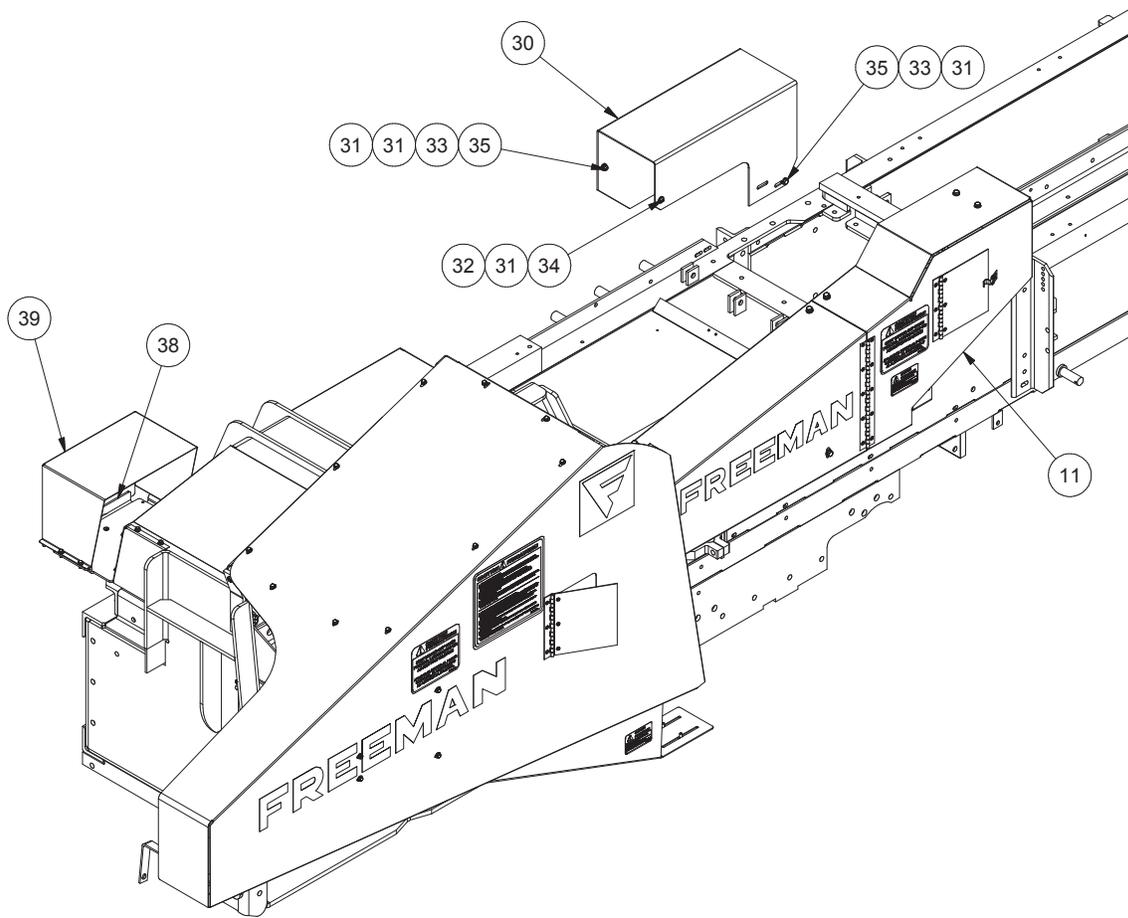


GUARD BRACKET

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Shield Installation, Gearbox Baler

Page 1 of 4



| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|------------------------------|------|------------|-----|--------------------|
| | 904402 | | Shield Installation | | | | |
| 1 | 903849 | 1 | . Plate, Top Frame | 24 | R13801813 | 1 | . Capscrew |
| 2 | 903846 | 1 | . Plate, Leg | 25 | Y17C-0616 | 4 | . Capscrew |
| 3 | 903851 | 1 | . Bracket | 26 | 09416918 | 13 | . Nut, Serrated |
| 4 | 903848 | 1 | . Plate, Rear | 27 | 134803W | 1 | . Screw |
| 6 | 903847 | 1 | . Plate, Support | 28 | 09411507 | 1 | . Nut, Serrated |
| 7 | 903859 | 1 | . Plate, Rear Shield | 30 | F000008375 | 1 | . Plate, Rh Shield |
| 8 | 903858 | 1 | . Plate, Fnt Shield | 31 | 223428 | 16 | . Flat Washer |
| 9 | * 904364 | 1 | . Shield Assembly, Flywheel | 32 | 232939 | 1 | . Nut, Esna |
| 10 | 904401 | 1 | . Plate, Shield | 33 | 00273802 | 5 | . Nut, Serrated |
| 10A | FD00023572 | 1 | .. Decal, Shields Are For... | 34 | 235240 | 1 | . Machine Screw |
| 11 | ** 905242 | 1 | . Shield Assembly | 35 | SMS0000184 | 10 | . Bolt, Whiz |
| 12 | 903880 | 1 | . Bracket, Fnt | 36 | NCC0003125 | 7 | . Cage Nut |
| 13 | 904418 | 1 | . Bracket, Rear | 37 | SMS0000177 | 2 | . Bolt, Whiz |
| 16 | 903906 | 1 | . Plate, Support | 38 | 903904 | 1 | . Batt Holder |
| 17 | 903911 | 1 | . Plate, Fnt Shield | 39 | 903905 | 1 | . Batt Cover |
| 18 | 399741W | 35 | . Screw | 41 | Y09G-0416 | 3 | . Capscrew |
| 19 | 903855 | 1 | . Plate, Support | 43 | R13802619 | 35 | . Flat Washer |
| 20 | 221499W | 9 | . Capscrew | | | | |
| 21 | 223427 | 23 | . Flat Washer | | | | |
| 22 | 237567 | 15 | . Nut, Esna | | | | |
| 23 | Y17C-0624 | 1 | . Capscrew | | | | |

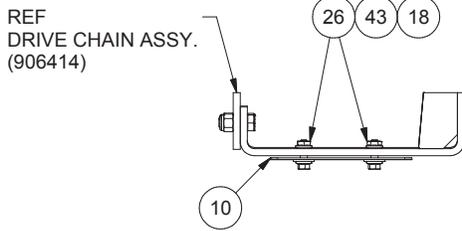
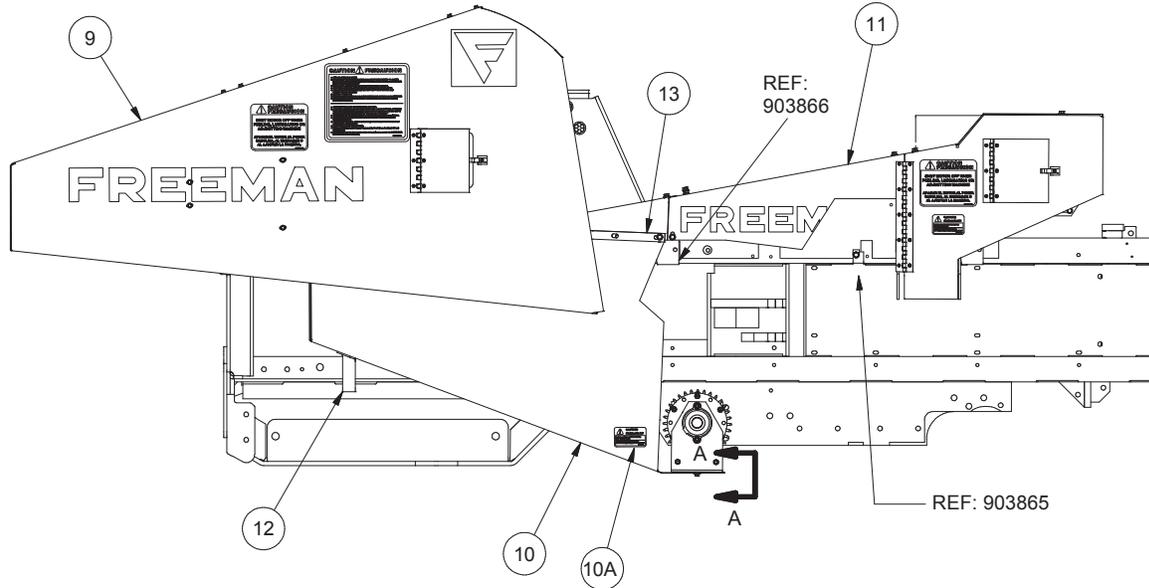
* See Separate Coverage Page 58

** See Separate Coverage Page 59

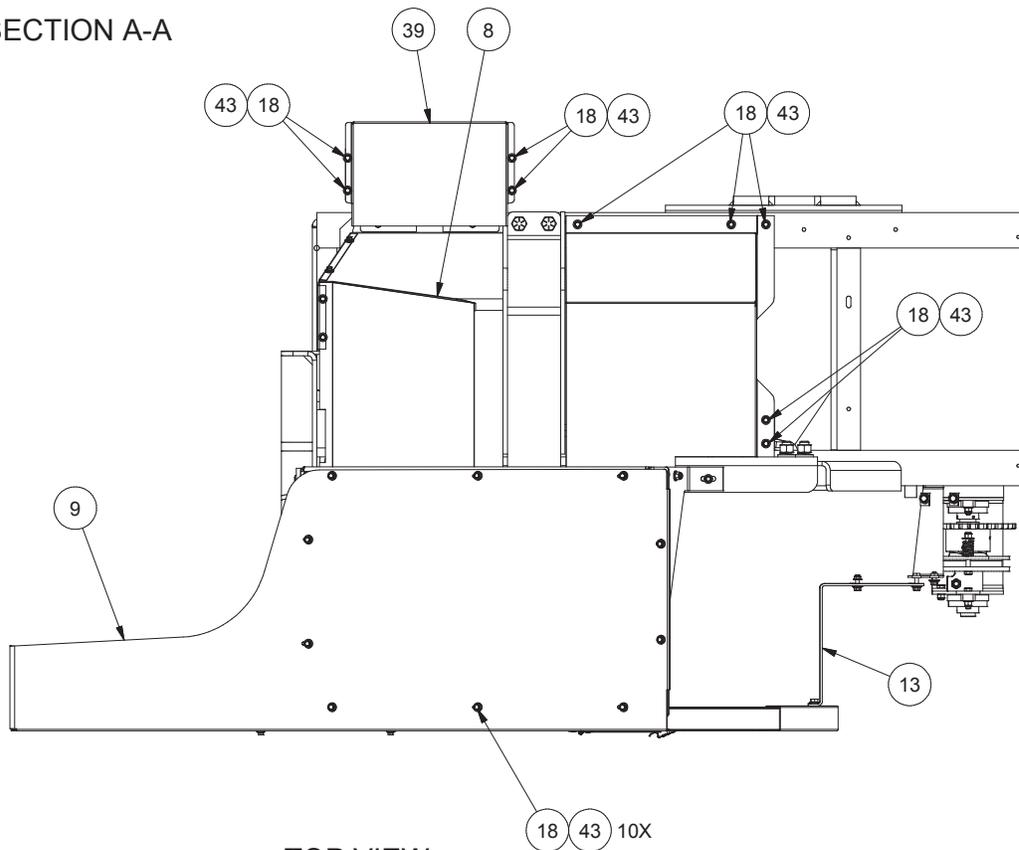
Rev C

Shield Installation, Gearbox Baler

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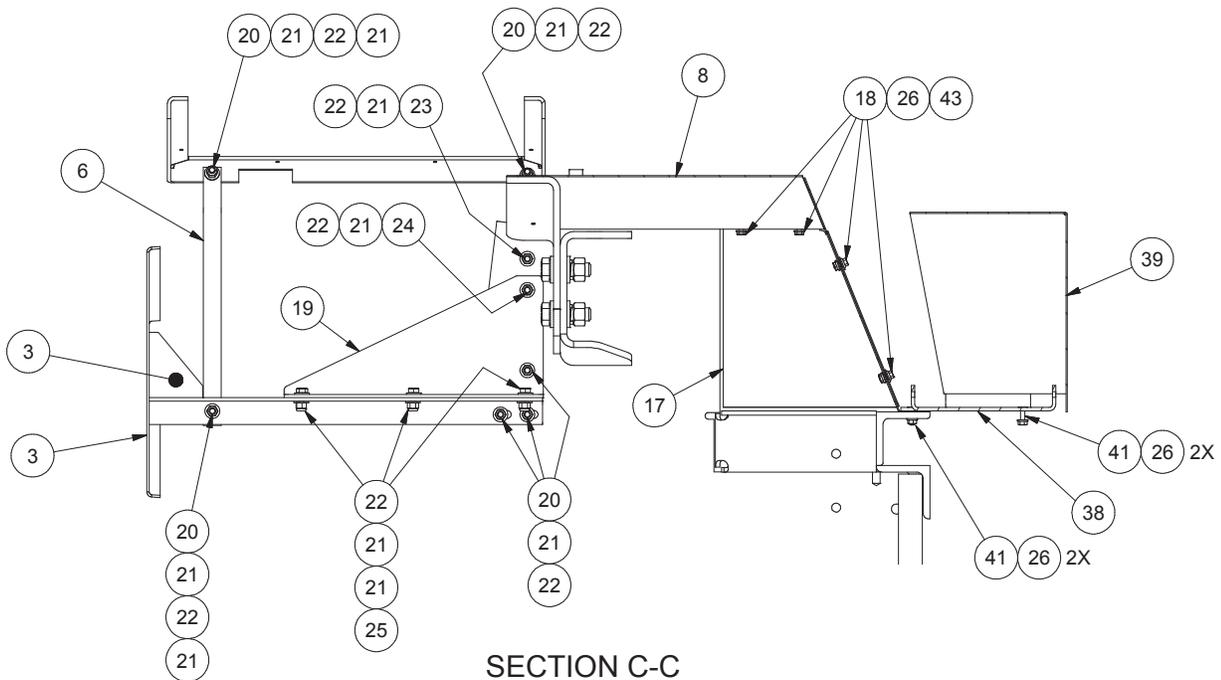
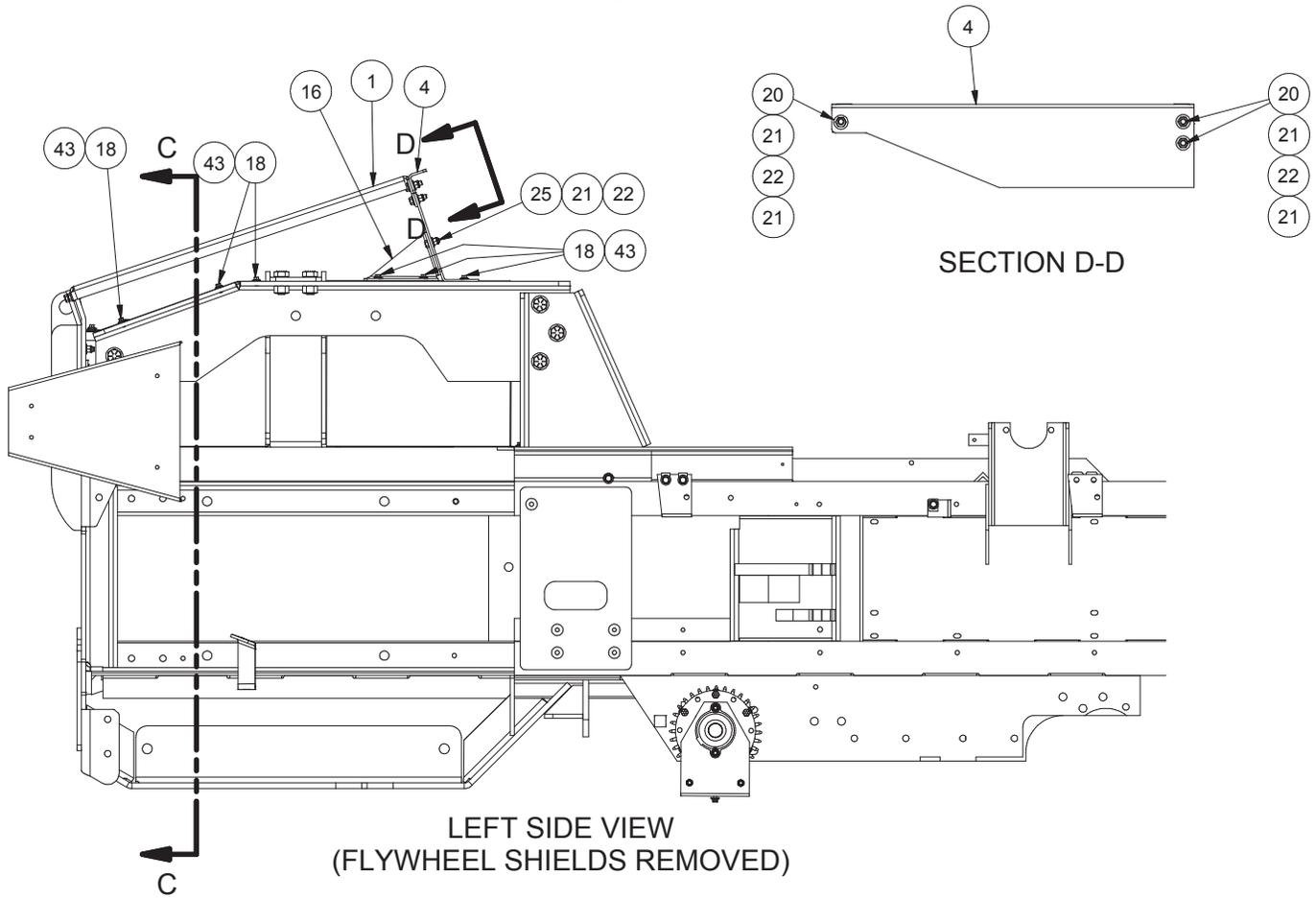
SECTION A-A



TOP VIEW

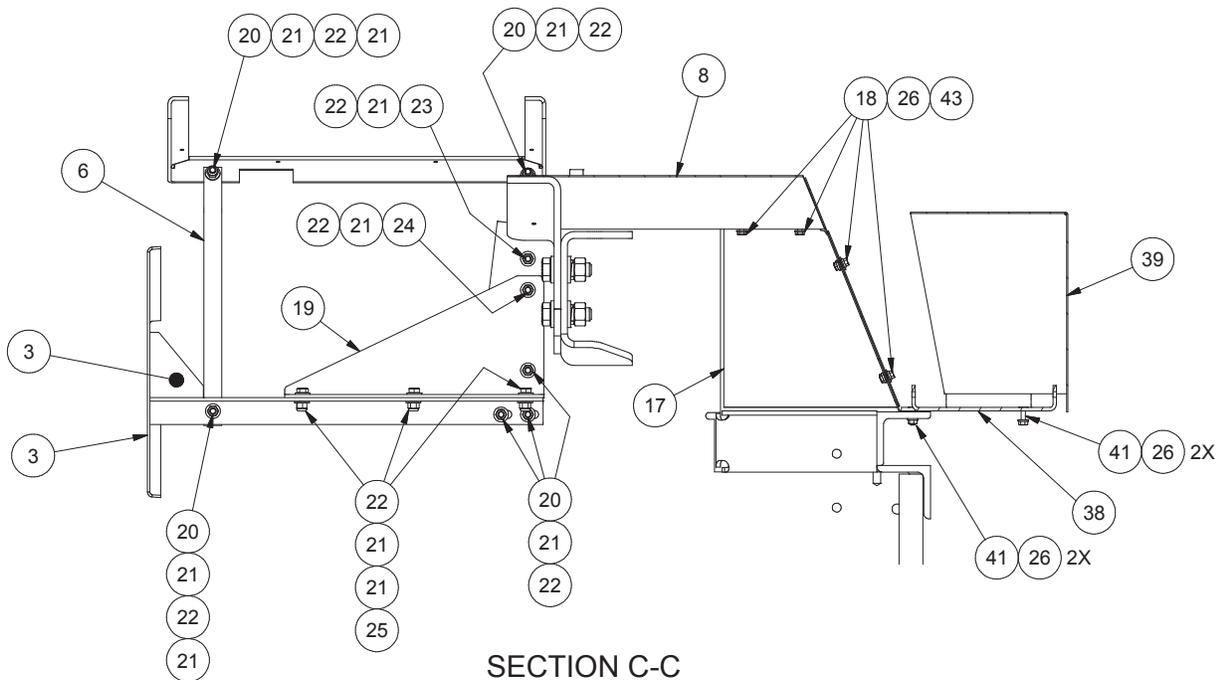
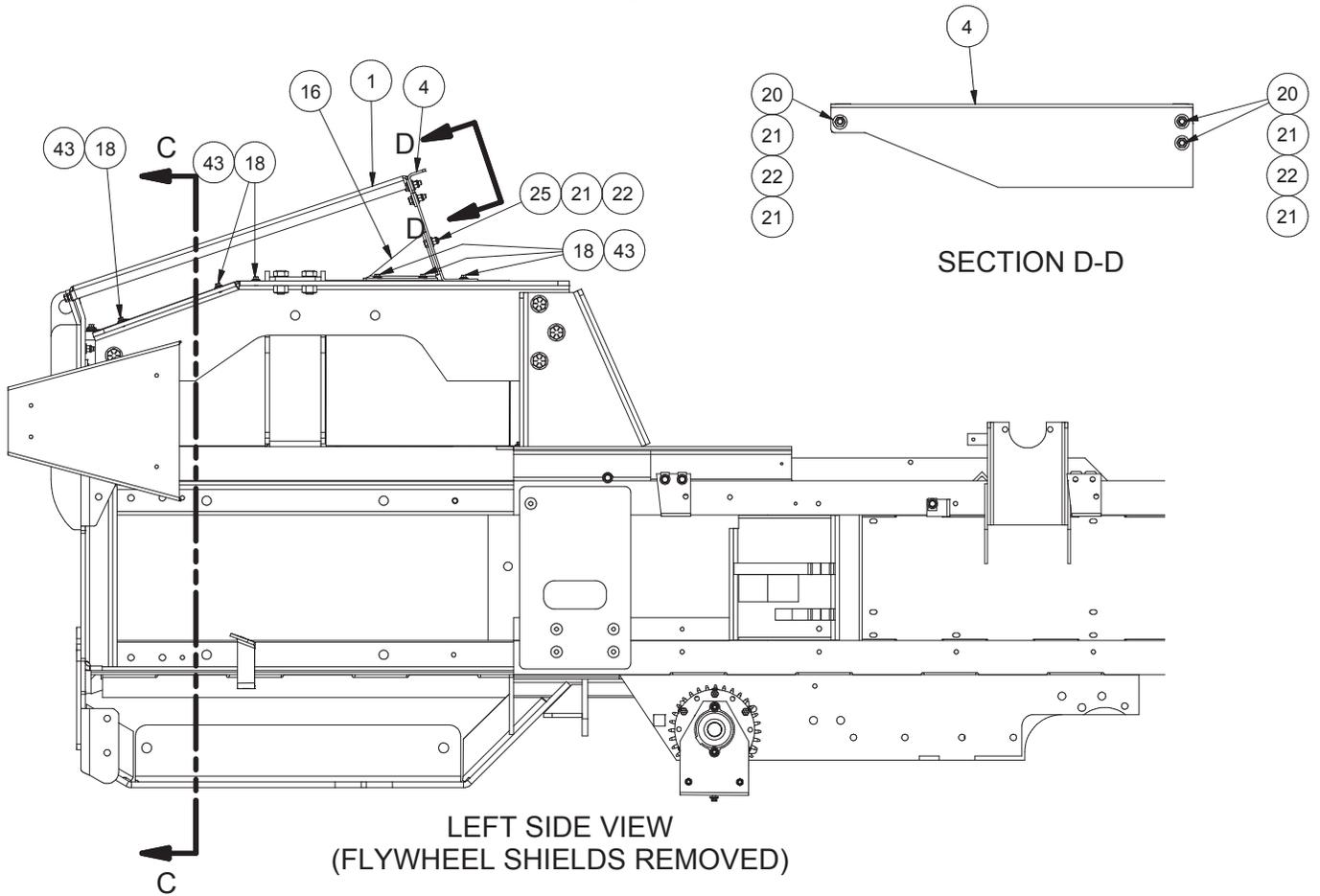
Shield Installation, Gearbox Baler

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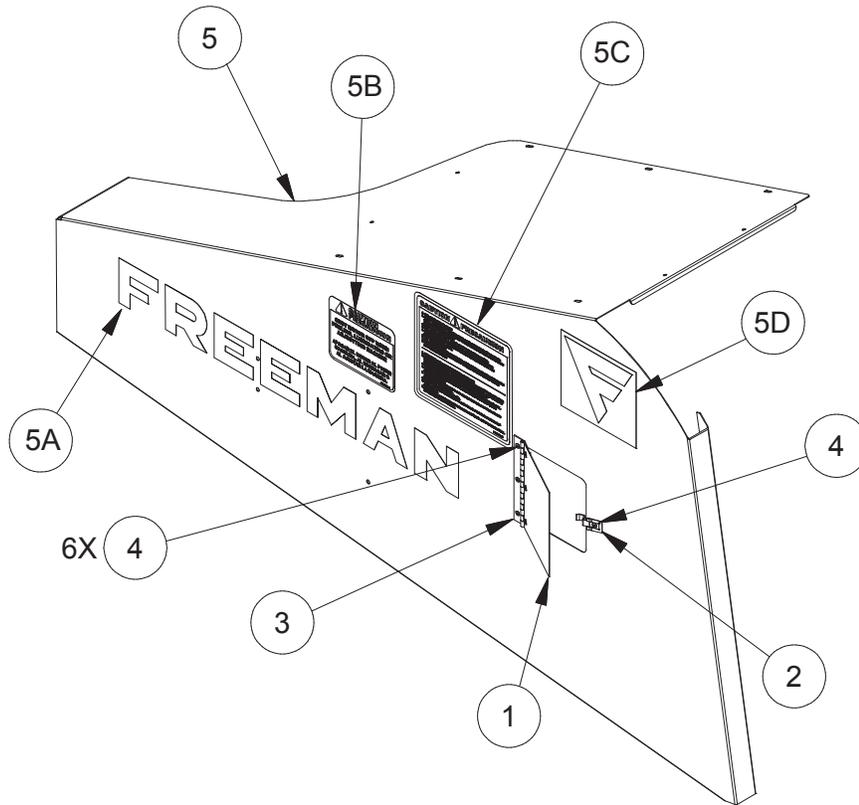
Shield Installation, Gearbox Baler

Page 4 of 4



Shield Assembly, Flywheel, Gearbox Baler

Page 1 of 1

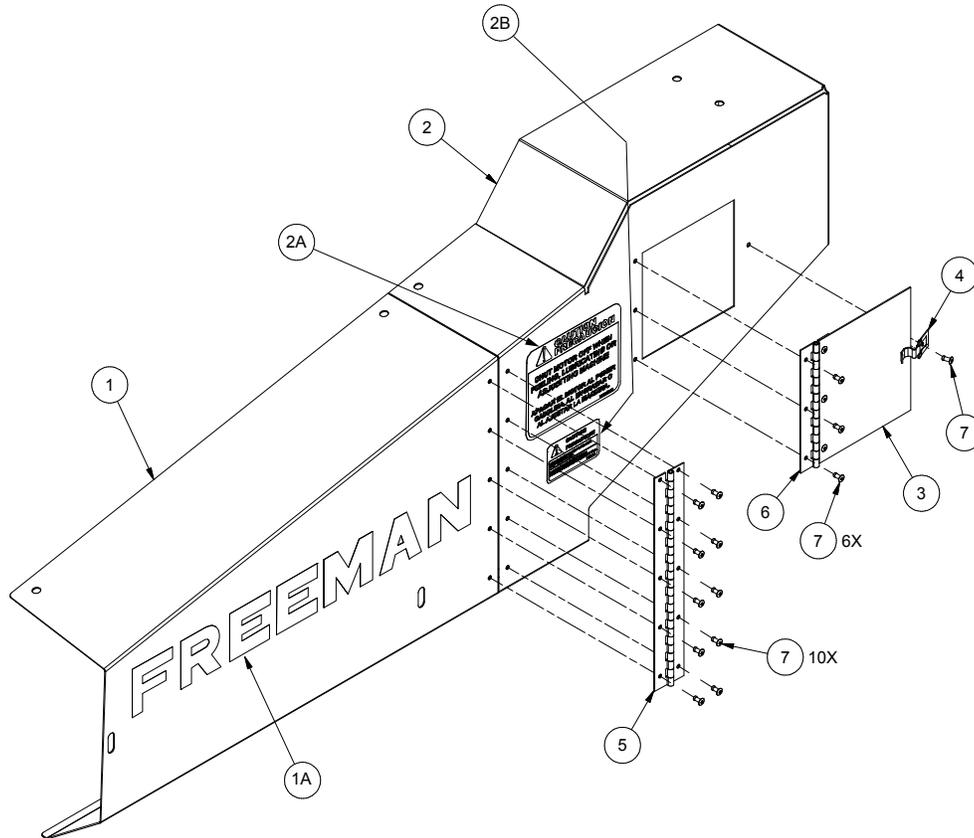


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|----------------------------------|------|------------|-----|-------------------------|
| | 904364 | | Shield Assembly, Flywheel | | | | |
| 1 | 906504 | 1 | . Door, Access, White | 5A | FD00007114 | 1 | .. Decal, FREEMAN |
| 2 | F000006108 | 1 | . Catch | 5B | FD00023581 | 1 | .. Decal, Caution |
| 3 | 906533 | 1 | . Hinge | 5C | FD00023473 | 1 | .. Decal, Caution |
| 4 | RIV0000604 | 7 | . Rivet | 5D | 905235 | 1 | .. Decal, Flying F, Red |
| 5 | 906374 | 1 | . Plate, Shield w/Decals | | | | |

Rev - A

Shield Assembly, Knottter Drive, Gearbox Baler

Page 1 of 1

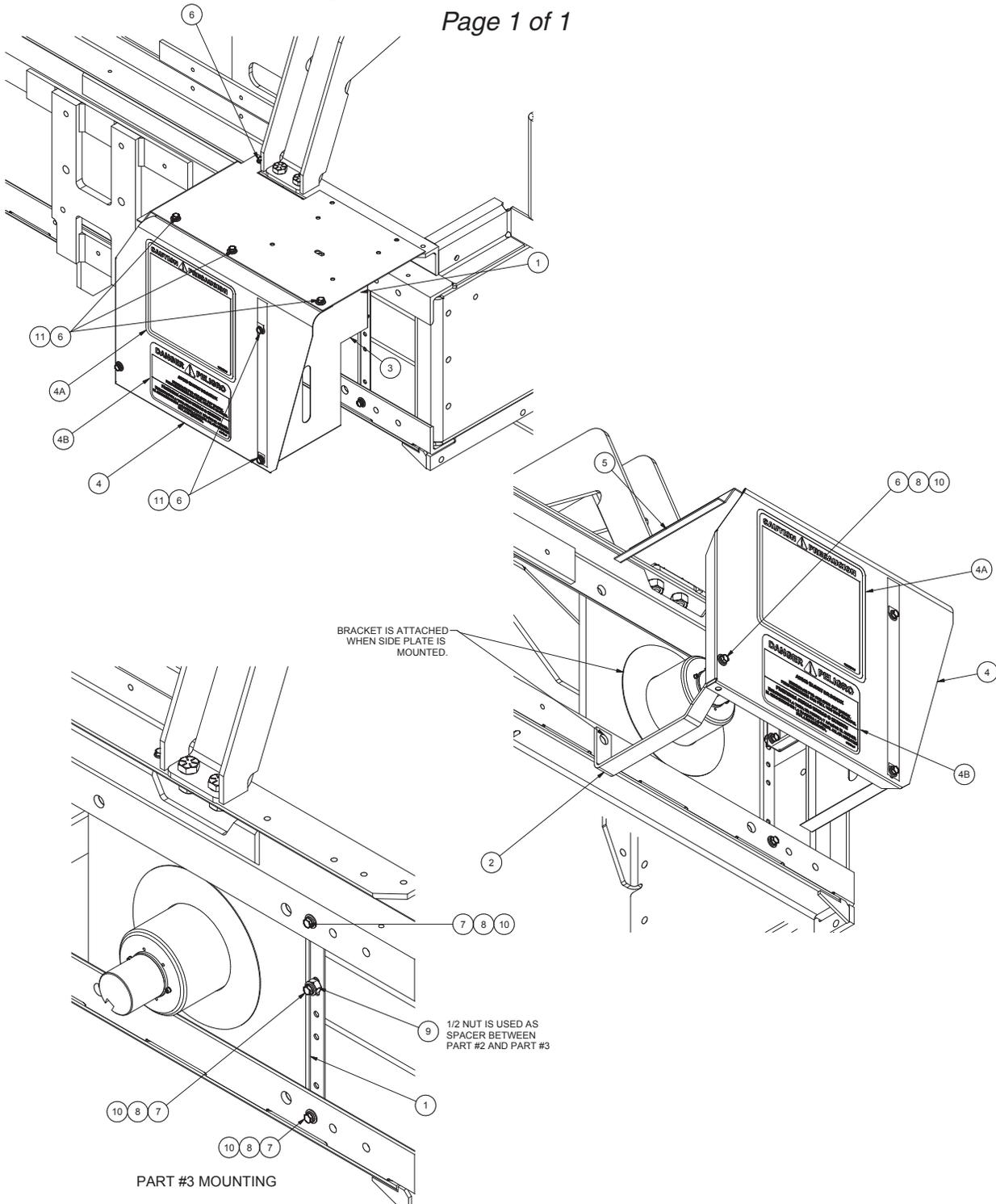


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|-------------------------------|------------|-----|---------------------------------|------|------------|-----|-------------|
| 905242 Shield Assembly | | | | | | | |
| 1 | 906375 | 1 | . Plate, Front Shield, w/Decals | 4 | F000006108 | 1 | . Catch |
| 1A | FD00007112 | 1 | .. Decal, FREEMAN | 5 | 905245 | 1 | . Hinge |
| 2 | 906376 | 1 | . Plate, Rear Shield, w/Decals | 6 | 906533 | 1 | . Hinge |
| 2A | FD00023581 | 1 | .. Decal, Shut Motor Off... | 7 | RIV0000108 | 17 | . Rivet |
| 2B | FD00023572 | 1 | .. Decal, Shields Are For... | | | | |
| 3 | 906504 | 1 | . Cover, Access Opening | | | | |

Rev B

Feed/Connecting Arm Shield Installation, Gearbox

Page 1 of 1

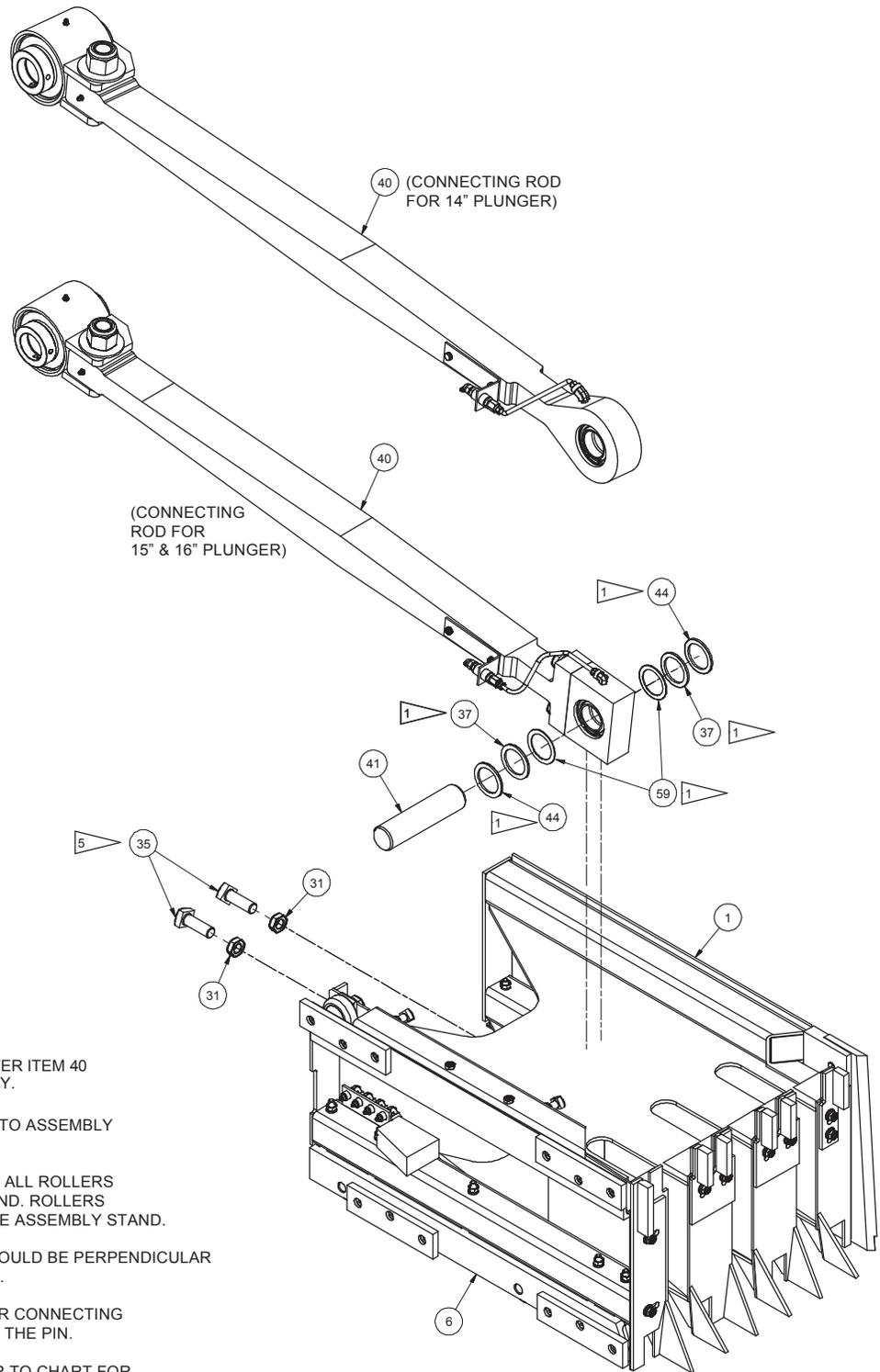


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|--------------------------------------------|------------|-----|---------------------------------|------|------------|-----|-----------------|
| 904812 Shield Installation, Gearbox | | | | | | | |
| 1 | SHD0006906 | 1 | . Plate, Mounting | 6 | SMS0000184 | 7 | . Bolt, Whiz |
| 2 | 904814 | 1 | . Plate, Brace | 7 | SMS0000177 | 3 | . Bolt, Whiz |
| 3 | 903984 | 1 | . Shield Weldment, Crank Arm | 8 | 223428 | 9 | . Flat Washer |
| 4 | 903319 | 1 | . Plate, Shield, w/Decals | 9 | 221711W | 1 | . Hex Nut |
| 4A | FD00023473 | 1 | .. Decal, Caution | 10 | 00273802 | 4 | . Nut, Serrated |
| 4B | FD00025126 | 1 | .. Decal, Pickup Hazard Warning | 11 | NCC0003125 | 5 | . Nut |
| 5 | 904813 | 1 | . Plate, Shield | | | | |

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Plunger Assembly, Gearbox Baler

Page 1 of 4

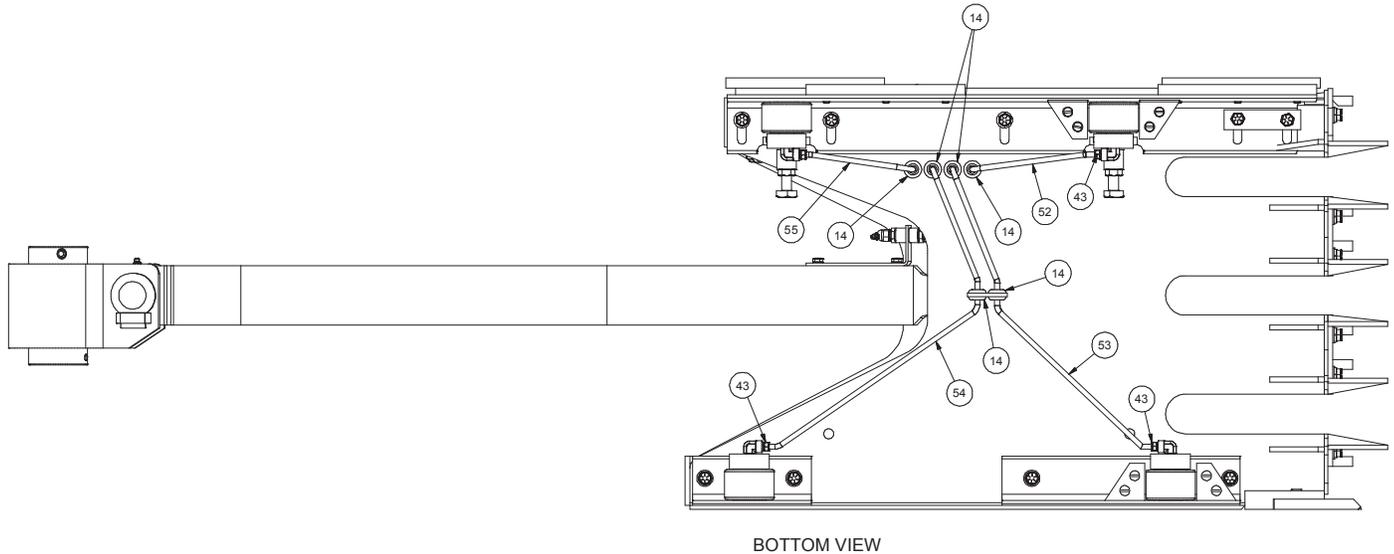


- 1 USE SHIMS ITEMS 37, 44 AND 59 TO CENTER ITEM 40 IN PLUNGER DURING PLUNGER ASSEMBLY.
- 2 SHIM PLUNGER KNIFE PERPENDICULAR TO ASSEMBLY STAND WITHIN 0.003"
- 3 USE ITEMS 4 & 5 AS REQUIRED TO MAKE ALL ROLLERS CONTACT AND ROLL ON ASSEMBLY STAND. ROLLERS SHOULD BE FLAT WITHIN 0.003" WITH THE ASSEMBLY STAND.
- 4 RIGHT SIDE OF PLUNGER ASSEMBLY SHOULD BE PERPENDICULAR WITHING +/- 0.015" TO ASSEMBLY STAND.
- 5 INSURE RETAINING BOLTS FOR PLUNGER CONNECTING ROD PIN ARE LOCATED ON THE FLAT OF THE PIN.
- 6 16" PLUNGER ASSEMBLY SHOWN. REFER TO CHART FOR INFORMATION ON OTHER ASSEMBLIES.
- 7 ASSEMBLY PARTS ARE SAME AS 16" & 15" CON ROD VIEW EXCEPT WHERE LABELED.
- 8 USE 145 - 150 FT-LB TORQUE WHEN INSTALLING BEARING. THREADED SHAFT OF BEARING IS EQUIVALENT TO A GRADE 2 FASTENER.

CON ROD VIEW
 (FOR 16" & 15" PLUNGER ASSEMBLIES)

Plunger Assembly, Gearbox Baler

Page 2 of 4



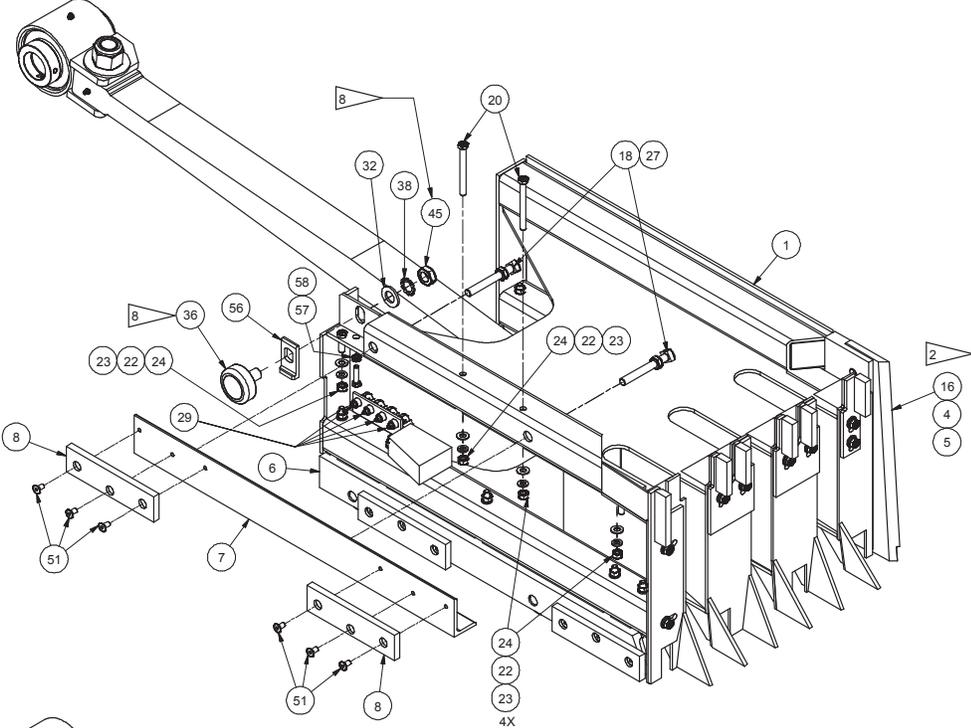
| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|------------|-----|-------------------------------------|------|------------|-----|--------------------------------|
| | * ----- | | Plunger Assembly | | | | |
| 1 | * ----- | 1 | . Plunger | 37 | ZZ00000203 | A/R | . Mach Bushing |
| 2 | F000008056 | 1 | . Pad, Adjusting, Right | 38 | WES0007500 | 1 | . Ext. Star Washer |
| 3 | F000008057 | 2 | . Pad, Adjusting, Center | 39 | PLG0007839 | 1 | . Mounting Weldment, RH Rear |
| 4 | SHM0034535 | A/R | . Shim, Knife, Plunger (Not Shown) | 40 | * ----- | 1 | . Connecting Rod Assy, Gearbox |
| 5 | SHM0034534 | A/R | . Shim, Knife, Plunger (Not Shown) | 41 | F000007914 | 1 | . Pin |
| 6 | 903882 | 1 | . Mount, LH Btm Roller & Slide | 42 | R13807736 | 6 | . Capscrew |
| 7 | 905084 | 1 | . Mounting Rail, Hard Slide, Top LH | 43 | F000001441 | 8 | . Fitting |
| 8 | F000001537 | 4 | . Plunger Hard Slide | 44 | ZZ00000200 | A/R | . Mach Bushing |
| 9 | PIN0007831 | 4 | . Pin, Roll | 45 | 221717W | 1 | . Hex Nut |
| 10 | LOK0005857 | 1 | . Plate, Lock | 50 | R13811047 | 5 | . Capscrew |
| 11 | F000000986 | 2 | . Rear Wiper | 51 | Y09G-0510 | 6 | . Capscrew |
| 12 | F000000774 | 2 | . Front Wiper | 52 | 904564 | 1 | . Tube |
| 13 | F000000775 | 4 | . Bearing, Roller | 53 | 904565 | 1 | . Tube |
| 14 | F000007735 | 6 | . Grommet, Rubber | 54 | 904566 | 1 | . Tube |
| 15 | PLG0007840 | 1 | . Roller Mount, RH Front | 55 | 904567 | 1 | . Tube |
| 16 | * ----- | 1 | . Plunger Knife | 56 | 905095 | 1 | . Angle, Mounting |
| 17 | F000000227 | 3 | . Plunger Knife Bolt-Flat Hd Soc | 57 | NCJ0000313 | 1 | . Hex Jam Nut |
| 18 | F000000073 | 2 | . Square Head Set Screw | 58 | 231661 | 1 | . Capscrew |
| 19 | * ----- | 1 | . Pad, Adjusting, Left | 59 | ZZ00000202 | A/R | . Bushing |
| 20 | R13811046 | 6 | . Capscrew | | | | |
| 21 | Y17C-0616 | 8 | . Capscrew | | | | |
| 22 | 234135 | 21 | . Lockwasher | | | | |
| 23 | R13802623 | 21 | . Flat Washer | | | | |
| 24 | 221707W | 12 | . Hex Nut | | | | |
| 26 | SQS5002500 | 2 | . Set Screw | | | | |
| 27 | 234218 | 4 | . Jam Nut | | | | |
| 28 | 00113991 | 8 | . Machine Screw | | | | |
| 29 | 00191758 | 4 | . Fitting, Lube | | | | |
| 30 | STS3125313 | 4 | . Socket Set Screw | | | | |
| 31 | 247008 | 2 | . Jam Nut | | | | |
| 32 | R13811457 | 1 | . Flat Washer | | | | |
| 33 | 4196303 | 8 | . Locknut | | | | |
| 35 | SQS7502250 | 2 | . Set Screw | | | | |
| 36 | BRG0001636 | 1 | . Top Roller Bearing | | | | |

Rev C

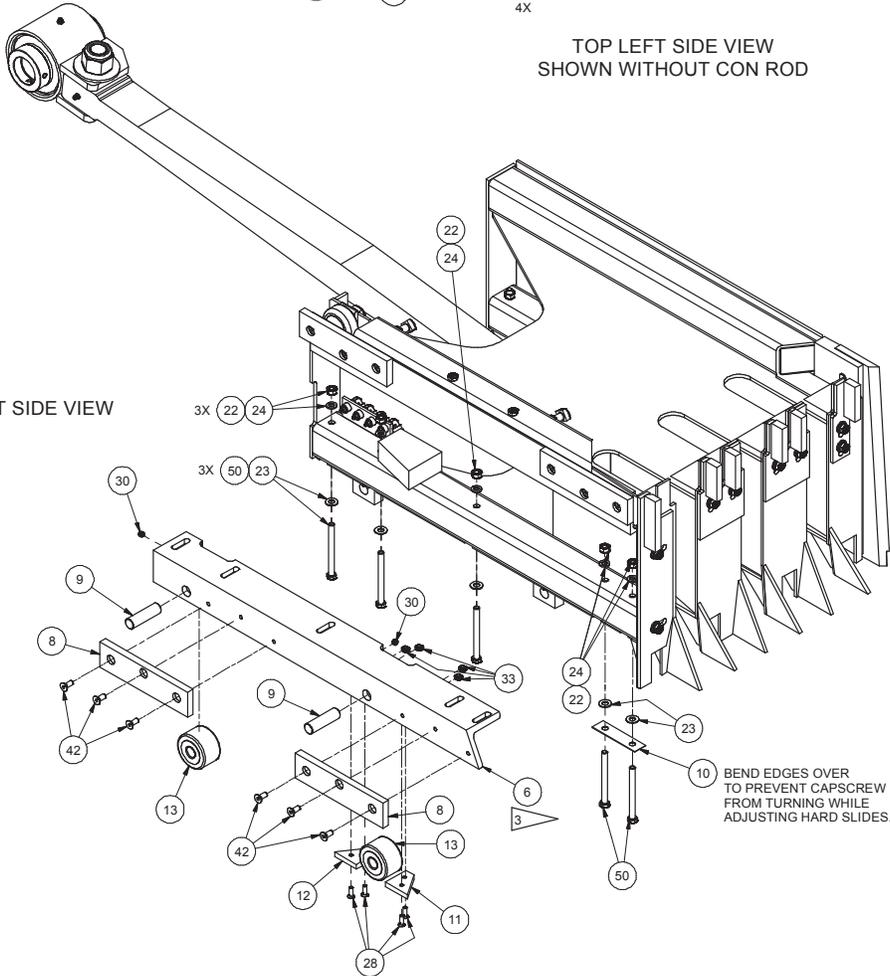
| Note: derived from chart 906236 | | | | | |
|----------------------------------|----------------------|---------|------------|------------|-----------|
| Plunger Size | Plunger Assy. Part # | Item #1 | Item #16 | Item #19 | Item #40 |
| 16x22" | 904473 | 905083 | KNF0011157 | F000008058 | 904474** |
| 15x22" Kitted | 906224 | 906333 | KNF1115715 | PLG0018049 | 904474** |
| 14x22" Kitted | 906225 | 906228 | KNF0021901 | F008058-14 | 906301*** |
| ** See Separate Coverage Page 69 | | | | | |
| ***See Separate Coverage Page 70 | | | | | |

Plunger Assembly, Gearbox Baler

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TOP LEFT SIDE VIEW
SHOWN WITHOUT CON ROD

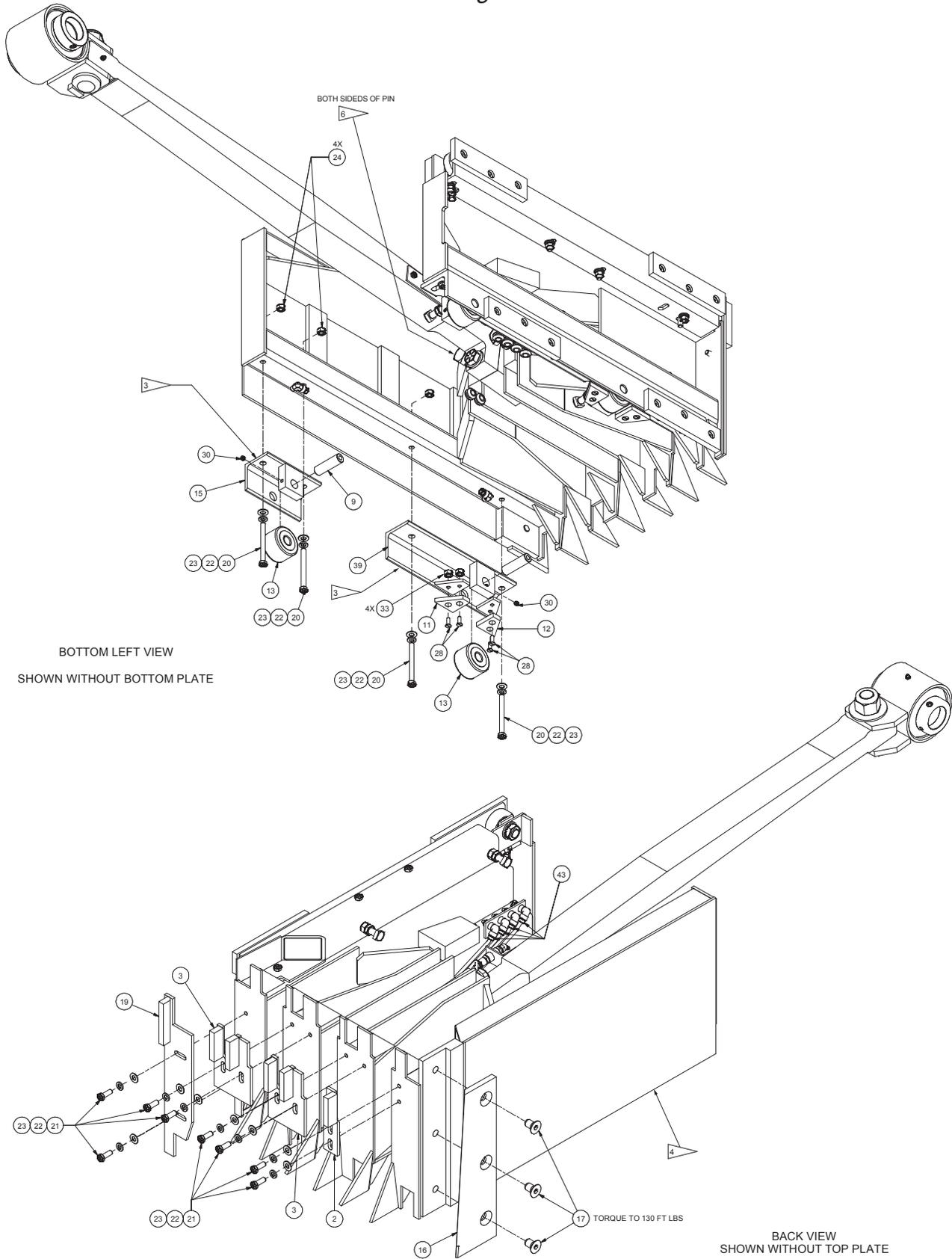


LEFT SIDE VIEW

BEND EDGES OVER
TO PREVENT CAPSCREW
FROM TURNING WHILE
ADJUSTING HARD SLIDES.

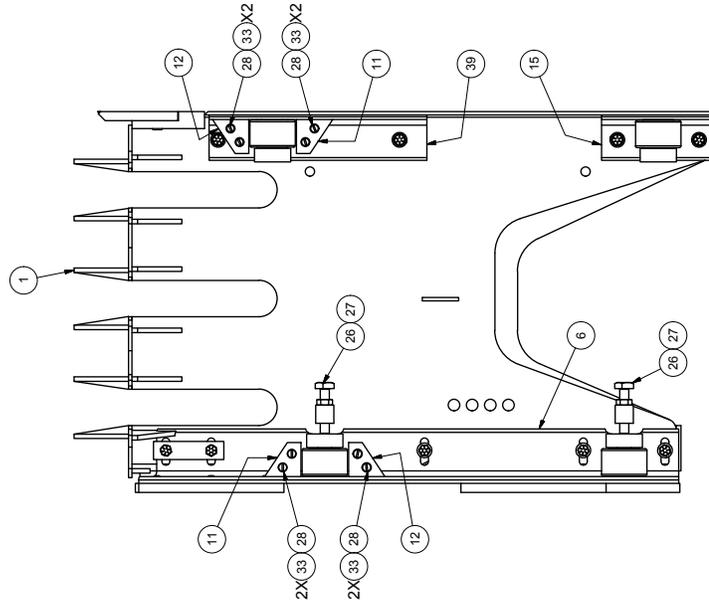
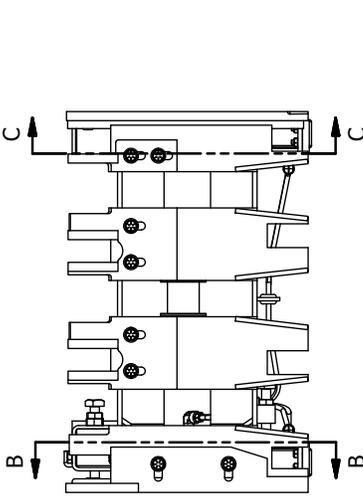
Plunger Assembly, Gearbox Baler

Page 4 of 4

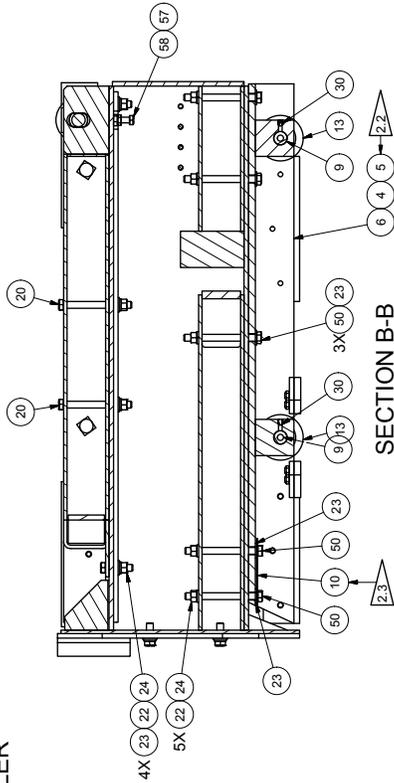
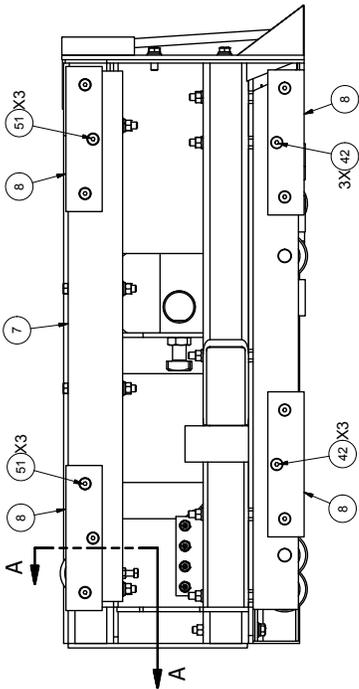


14X21 Plunger Assembly, Gearbox Baler

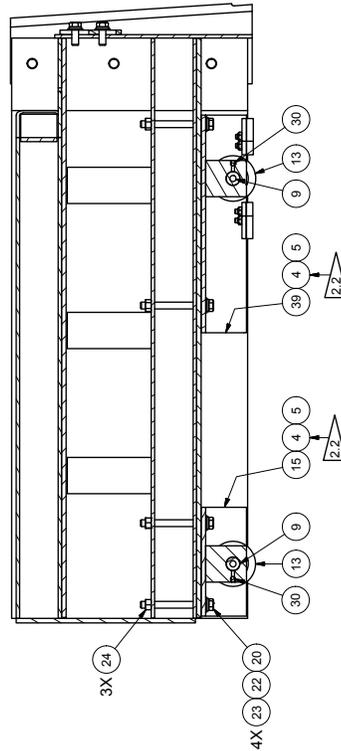
Page 1 of 3



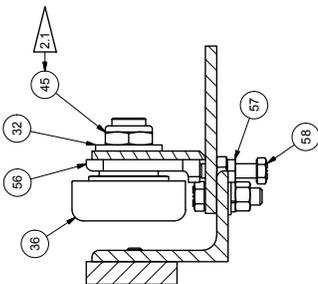
RAILS AND ROLLERS



SECTION B-B



SECTION C-C



**SECTION A-A
TOP ROLLER**

NOTES:

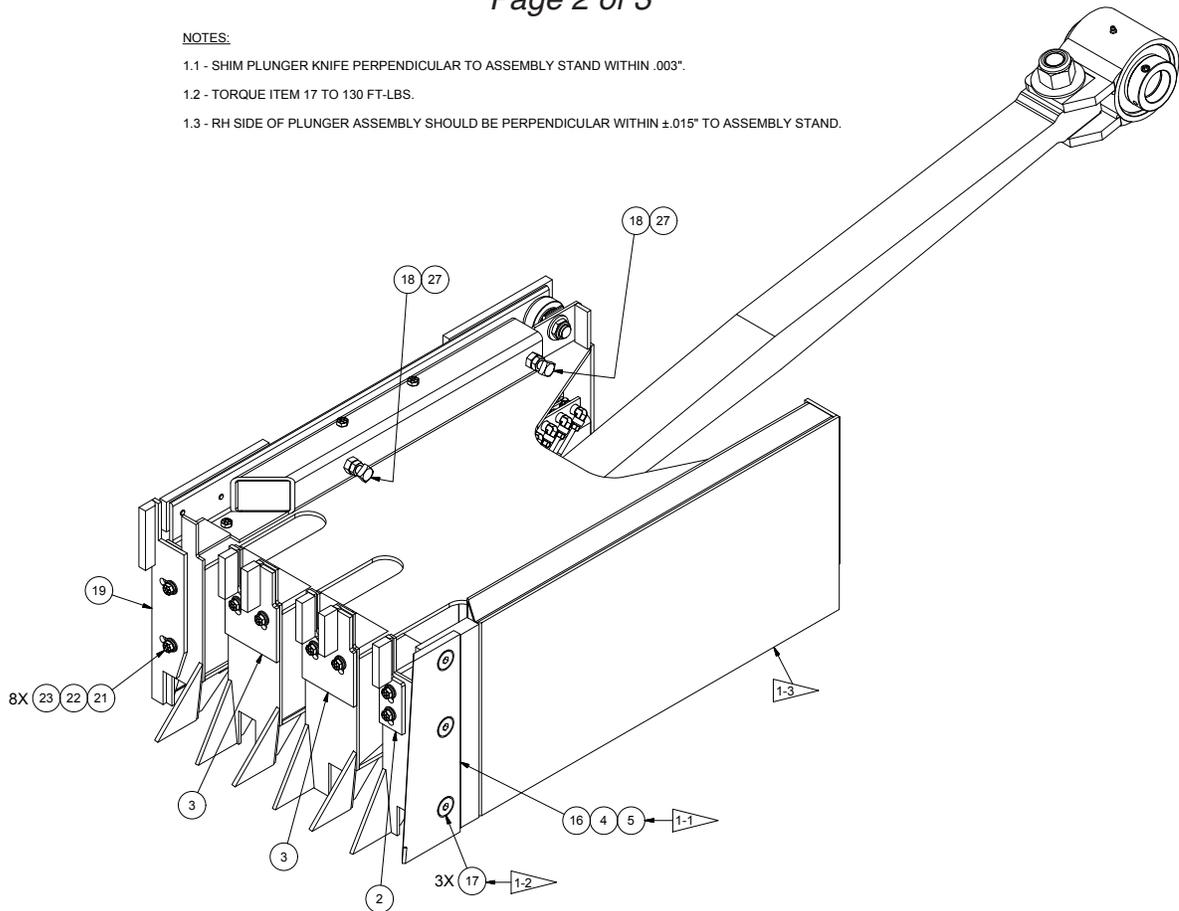
- 2.1 - USE 145 - 150 FT-LB TORQUE WHEN INSTALLING BEARING. THREADED SHAFT OF BEARING IS EQUIVALENT TO A GRADE 2 FASTENER.
- 2.2 - USES ITEMS 4 & 5 AS REQUIRED TO MAKE ALL ROLLER CONTACT AND ROLL ON ASSEMBLY STAND ROLLERS SHOULD BE FLAT WITHIN .003" WITH THE ASSEMBLY STAND
- 2.3 - BEND EDGES OVER TO PREVENT CAPSCREW FROM TURNING WHILE ADJUSTING HARD SLIDES.

14X21 Plunger Assembly, Gearbox Baler

Page 2 of 3

NOTES:

- 1.1 - SHIM PLUNGER KNIFE PERPENDICULAR TO ASSEMBLY STAND WITHIN .003".
- 1.2 - TORQUE ITEM 17 TO 130 FT-LBS.
- 1.3 - RH SIDE OF PLUNGER ASSEMBLY SHOULD BE PERPENDICULAR WITHIN ±.015" TO ASSEMBLY STAND.



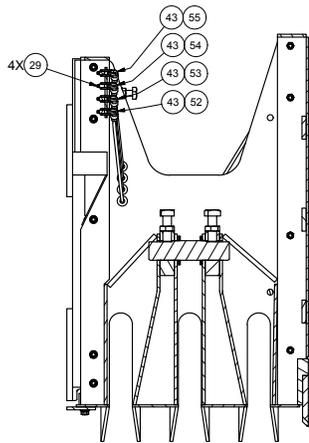
| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|--------------------------------|------|------------|-----|---------------------------|
| | 908708 | | Plunger Assembly; 14X21 | | | | |
| 1 | 908704 | 1 | . Plunger Weldment | 30 | STS3125313 | 4 | . Screw, Set |
| 2 | 906754 | 1 | . Pad Weldment, Rh Adj. | 31 | 247008 | 2 | . Jam Nut |
| 3 | F000008057 | 2 | . Pad Weldment, Adj | 32 | R13811457 | 1 | . Flat Washer |
| 4 | SHM0034535 | 1 | . Shim | 33 | 221342W | 8 | . Locknut |
| 5 | SHM0034534 | 1 | . Shim,Knife,Plunger | 35 | SQS7502250 | 2 | . Screw, Set |
| 6 | 903882 | 1 | . Mounting Weldment | 36 | BRG0001636 | 1 | . Bearing, Top Roller |
| 7 | 905084 | 1 | . Angle, Mounting Rail | 37 | ZZ00000203 | 2 | . Bushing |
| 8 | F000001537 | 4 | . Slide | 39 | PLG0007839 | 1 | . Roller Angle, Rh |
| 9 | PIN0007831 | 4 | . Pin | 40 | * 906301 | 1 | . Connecting Rod Assembly |
| 10 | LOK0005857 | 1 | . Plunger Bolt Lock | 41 | F000007914 | 1 | . Pin |
| 11 | F000000986 | 2 | . Wiper, Rear Plunger | 42 | R13807736 | 6 | . Capscrew |
| 12 | F000000774 | 2 | . Wiper | 43 | F000001441 | 8 | . Fittingbow |
| 13 | F000000775 | 4 | . Bearing, Roller | 44 | ZZ00000200 | 3 | . Bushing, Machine |
| 14 | F000007735 | 6 | . Grommet, Rubber | 45 | 906920 | 1 | . Jam Nut |
| 15 | PLG0007840 | 1 | . Angle Weldment, Rh | 50 | R13811047 | 5 | . Capscrew |
| 16 | KNF0021901 | 1 | . Knife, Plunger | 51 | Y09G-0510 | 6 | . Capscrew |
| 17 | F000000227 | 3 | . Bolt | 52 | 904564 | 1 | . Tube |
| 18 | F000000073 | 2 | . Set Screw | 53 | 904565 | 1 | . Tube |
| 19 | 906756 | 1 | . Pad Weldment, Adj. Rh | 54 | 904566 | 1 | . Tube |
| 20 | R13811046 | 6 | . Capscrew | 55 | 904567 | 1 | . Tube |
| 21 | Y17C-0616 | 8 | . Capscrew | 56 | 905095 | 1 | . Angle, Mounting |
| 22 | R13812514 | 21 | . Lockwasher | 57 | NCJ0000313 | 1 | . Jam Nut |
| 23 | 223427 | 21 | . Use #221767W | 58 | R13811015 | 1 | . Capscrew |
| 24 | 221707W | 12 | . Hex Nut | 59 | ZZ00000202 | 1 | . Bushing, Machine |
| 26 | SQS5002500 | 2 | . Setscrew | | | | |
| 27 | 234218 | 4 | . Jam Nut | | | | |
| 28 | 00113991 | 8 | . Screw, Machine | | | | |
| 29 | 00191758 | 4 | . Fitting, Lube | | | | |

* See Separate Coverage Page 70

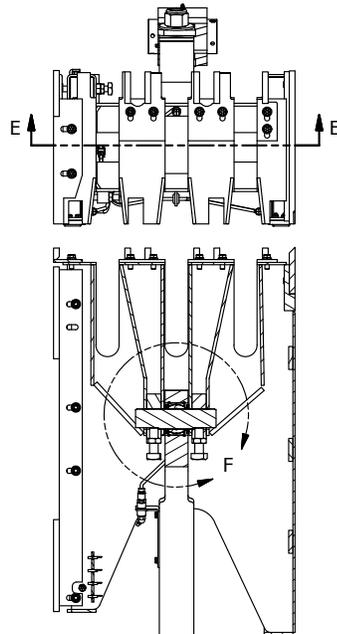
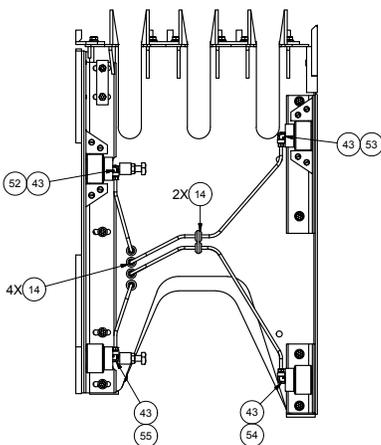
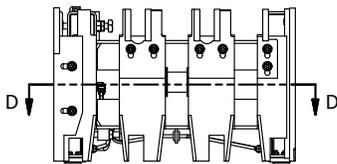
Rev -

14X21 Plunger Assembly, Gearbox Baler

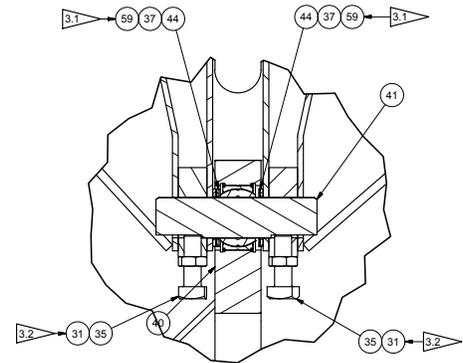
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SECTION D-D



SECTION E-E



DETAIL F

LUBRICATION LINES & CON-ROD

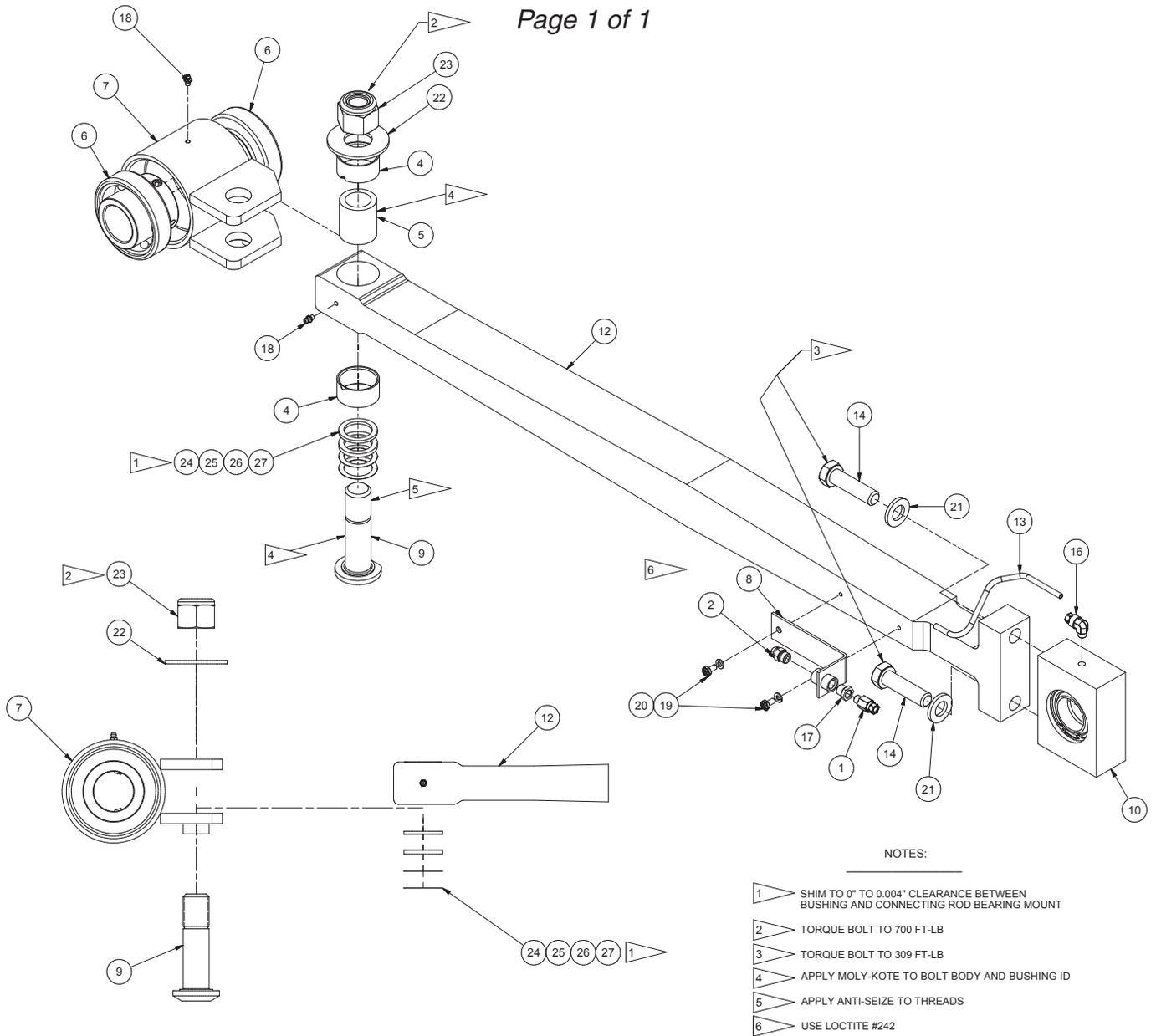
NOTES:

3.1 - USE ITEM 37, 44 & 59 AS REQUIRED TO CENTER ITEM 40 IN PLUNGER DURING PLUNGER ASSEMBLY.

3.2 - ENSURE RETAINING BOLTS FOR ITEM 41 ARE LOCATED ON THE FLAT OF ITEM 41.

Connecting Rod Assy, Gearbox Baler, 15/16" 3-Tie

Page 1 of 1

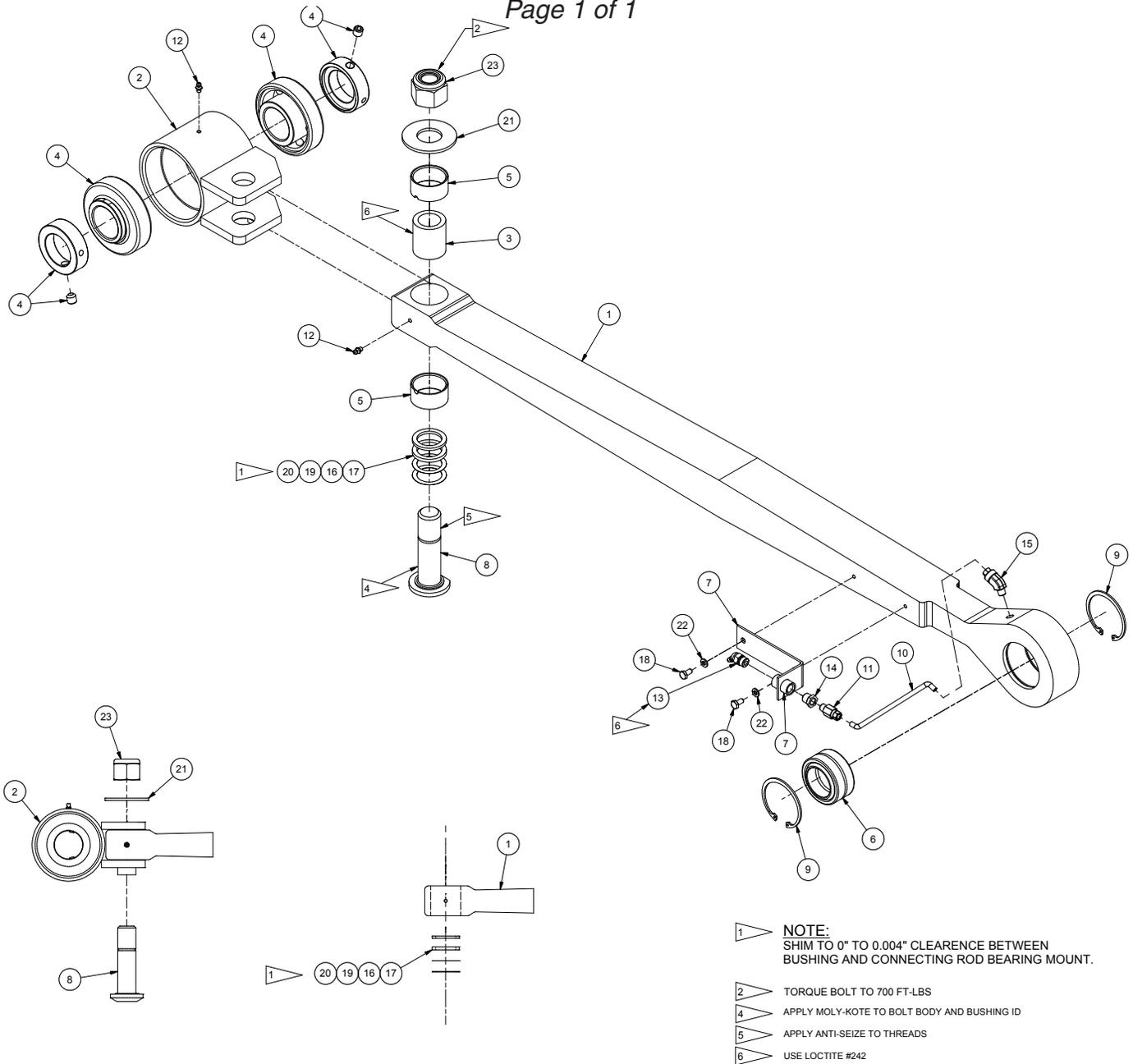


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|---------------------------------------|------------|-----|-----------------------------------|------|------------|-----|-----------------------|
| 904474 Connecting Rod Assembly | | | | | | | |
| 1 | F00000778 | 1 | . Tube Connector | 17 | 209500 | 1 | . Fitting |
| 2 | F00007651 | 1 | . Grease Fitting | 18 | 11079 | 2 | . Fitting, Lube |
| 4 | F00008077 | 2 | . Bearing, Inner Race | 19 | R13810989 | 2 | . Capscrew |
| 5 | F00008078 | 1 | . Connecting Rod Bushing | 20 | 223871 | 2 | . Lockwasher |
| 6 | F00008100 | 2 | . Bearing | 21 | 221777Wv | 2 | . Washer |
| 7 | 903615 | 1 | . Mount, Conn Rod Brg | 22 | 225851 | 1 | . Hard Washer |
| 8 | F00008263 | 1 | . Bracket | 23 | 222465 | 1 | . Locknut |
| 9 | PIN0008670 | 1 | . Connecting Rod Pivot Pin | 24 | F000007977 | 1 | . 0.010 Spacer Washer |
| 10 | HSN0238330 | 1 | . Plunger Bearing Housing W/ Brgs | 25 | F000007978 | 1 | . 0.005 Spacer Washer |
| 12 | 903235 | 1 | . Plate, Conn Rod | 26 | SHM0000105 | 1 | . 0.020 Steel Shim |
| 13 | 903268 | 1 | . Tube, Grease | 27 | SHM0000103 | 1 | . Shim |
| 14 | 221659W | 2 | . Capscrew | | | | |
| 16 | F00001441 | 1 | . Fitting | | | | |

Rev - E

Connecting Rod Assy, Gearbox Baler, 14" 3-Tie

Page 1 of 1



| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|---------------------------------------|------------|-----|--------------------------------|------|------------|-----|-----------------------|
| 906301 Connecting Rod Assembly | | | | | | | |
| 1 | ROD0034342 | 1 | . Plate, Conn Rod | 13 | F000007651 | 1 | . Fitting, Grease |
| 2 | 903615 | 1 | . Mounting, Conn Rod Brg | 14 | 209500 | 2 | . Fitting |
| 3 | F000008078 | 1 | . Connecting Rod Bushing | 15 | 253694 | 1 | . Fitting |
| 4 | F000008100 | 2 | . Bearing | 16 | SHM0000103 | 1 | . Shim |
| 5 | F000008077 | 2 | . Bearing, Inner Race | 17 | SHM0000105 | 1 | . 0.020 Steel Shim |
| 6 | R1574466 | 1 | . Bearing, Sealed Self Aligned | 18 | R13810989 | 2 | . Capscrew |
| 7 | F000008263 | 1 | . Bracket | 19 | F000007978 | 1 | . 0.005 Spacer Washer |
| 8 | PIN0008670 | 1 | . Connecting Rod Pivot Pin | 20 | F000007977 | 1 | . 0.010 Spacer Washer |
| 9 | F000007917 | 2 | . Ring, Snap | 21 | 225851 | 1 | . Hard Washer |
| 10 | NYL0000250 | 1' | . Tube | 22 | 223871 | 2 | . Lockwasher |
| 11 | F000000778 | 1 | . Tube Connector | 23 | 222465 | 1 | . Locknut |
| 12 | 11079 | 2 | . Fitting, Lube, | | | | |

Rev C

Tensioning/Rear Mnt Inst, 370/375 Gearbox Baler

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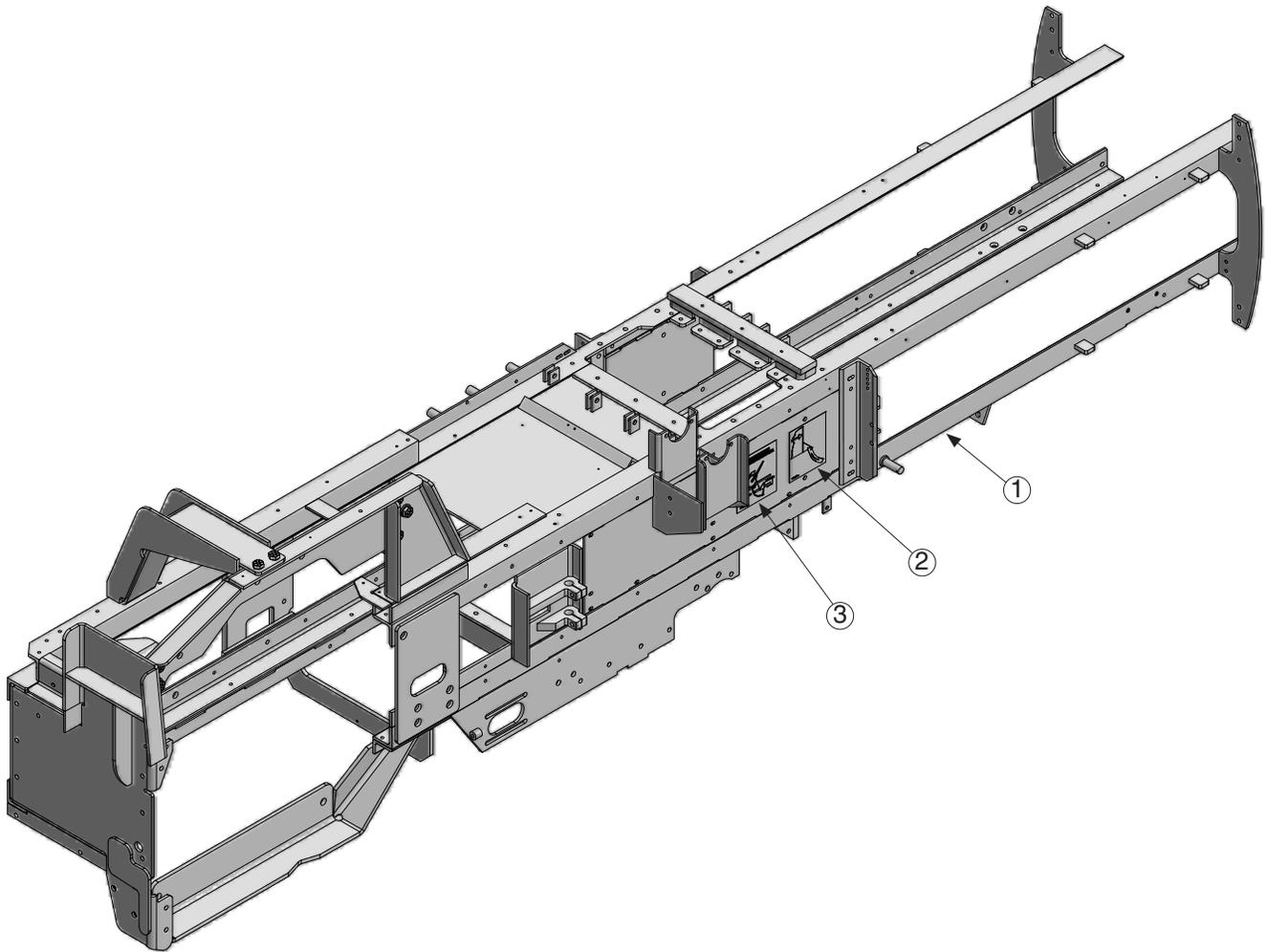
No illustration available at this time.

| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|---------------------------------------------|----------------|-----|-------------------------|------|------------|-----|-------------------------------------------------|
| * ----- Tensioning/Rear Mnts Install | | | | | | | |
| 1 | PLT0035077 | 2 | . Bar, Upper | 37 | 234665 | 10 | . Lockwasher |
| 2 | FT00000221 | 1 | . Hose Assembly | 38 | 221711W | 8 | . Hex Nut |
| 3 | TNS0034362 | 2 | . Rail, Bottom Tension | 39 | 221716W | 2 | . Hex Nut |
| 4 | TNS0018902 | 1 | . Rail, LH | 40 | 237567 | 6 | . Nut, Esna |
| 5 | TNS0018903 | 1 | . Rail, RH | 41 | 223587 | 18 | . Nut, Esna |
| 6 | MNT037760B | 2 | . Plate, Support | 42 | 247008 | 2 | . Jam Nut |
| 7 | PAD0018804 | 2 | . Tens Rail Support Pad | 43 | R13804125 | 4 | . Locknut |
| 8 | F000000497 | 8 | . Plate, Linkage Bar | 44 | HSP0000004 | 1 | . Hose Protector - 4 |
| 9 | TNS0022284 | 2 | . Tension Rail, Top | 46 | CLP0000165 | 1 | . Strap |
| 10 | TNS0007049 | 1 | . Angle | 47 | 174413W | 1 | . Screw |
| 11 | TNS0007050 | 1 | . Angle | 48 | 09411507 | 1 | . Nut, Serrated |
| 12 | F000000600 | 2 | . Tension Bolt | 49 | * ----- | 2 | . Spacer |
| 13 | 905462 | 1 | . Flow Control Valve | 50 | * ----- | 2 | . Capscrew |
| | 242101 | 1 | .. Seal Kit | | | | |
| 14 | 245273 | 1 | . Valve Body | | | | * See Chart 906237 |
| 16 | F000004073 | 1 | . Offset Link | | | | ** See Separate Coverage In Baler Parts Manual |
| 17 | ** FT00000192 | 1 | . Box Assembly, Bypass | | | | *** See Separate Coverage In Baler Parts Manual |
| 21 | *** FT00000277 | 1 | . Ram Assembly, Dual | | | | |
| 23 | FT00000050 | 1 | . Cover Plate | | | | * Chart 906237 |
| 25 | R13811031 | 2 | . Capscrew | | | | |
| 27 | Y17C-0624 | 6 | . Capscrew | | | | |
| 28 | 221563W | 16 | . Capscrew | | | | |
| 29 | R13800229 | 2 | . Capscrew | | | | |
| 30 | 200454W | 8 | . Capscrew | | | | |
| 31 | 234889 | 4 | . Capscrew | | | | |
| 32 | R13801857 | 2 | . Capscrew | | | | |
| 33 | SMS0000173 | 3 | . Bolt, Whiz | | | | |
| 34 | 223428 | 8 | . Flat Washer | | | | |
| 35 | R13802623 | 2 | . Flat Washer | | | | |
| 36 | 234135 | 2 | . Lockwasher | | | | |

| Chamber Size | Tension/Rear Mnt Install | Item #49 | Item #50 |
|--------------|--------------------------|----------|-----------|
| 16" | 905463 | N/A | N/A |
| 15" Kitted | 906229 | 903552 | R13811039 |
| 14" Kitted | 906230 | 903411 | R13811045 |

Frame, Gearbox Baler, 16" 3-Tie

Page 1 of 1

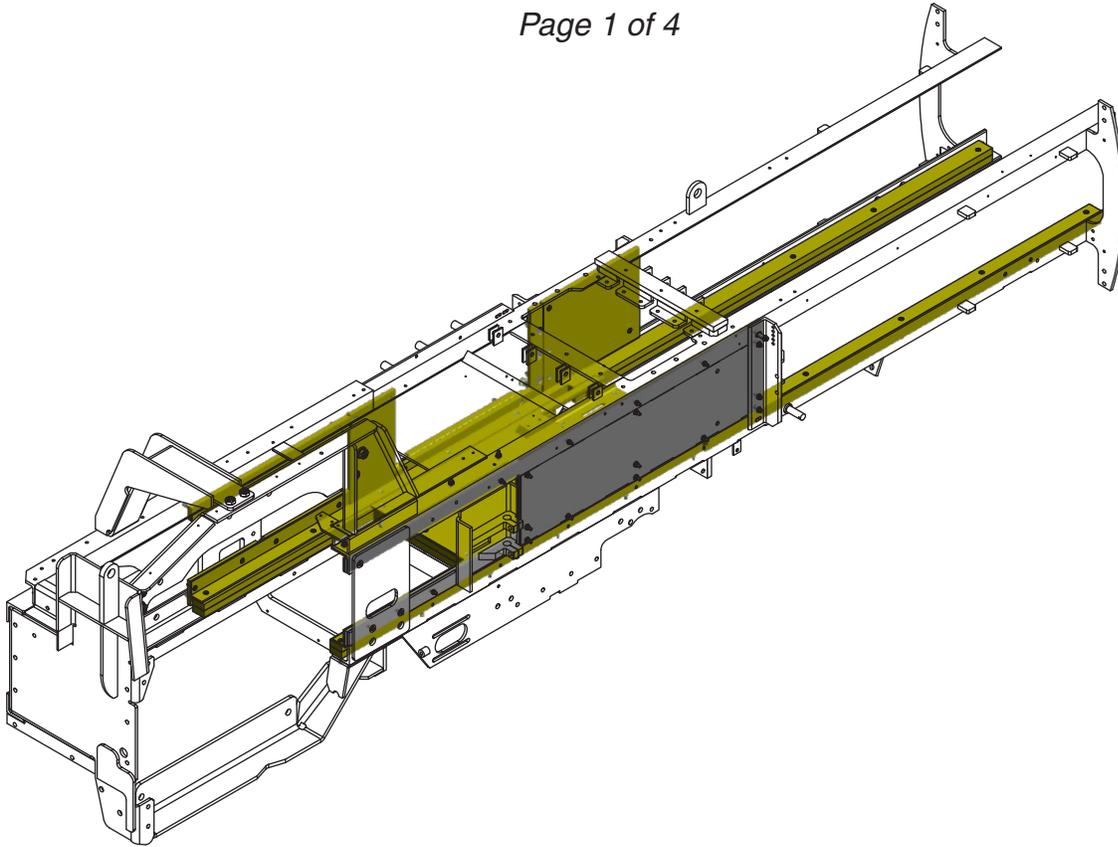


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|---------------|-----|----------------------------------------|------|----------|-----|-------------|
| | 904361 | | Frame, Gearbox Baler, 16" 3-Tie | | | | |
| 1 | 904361 | 1 | . Frame | | | | |
| 2 | FD000008193 | 1 | . Decal, Avoid Equipment Damage | | | | |
| 3 | FD00007126 | 1 | . Decal, Needle Adjustment | | | | |

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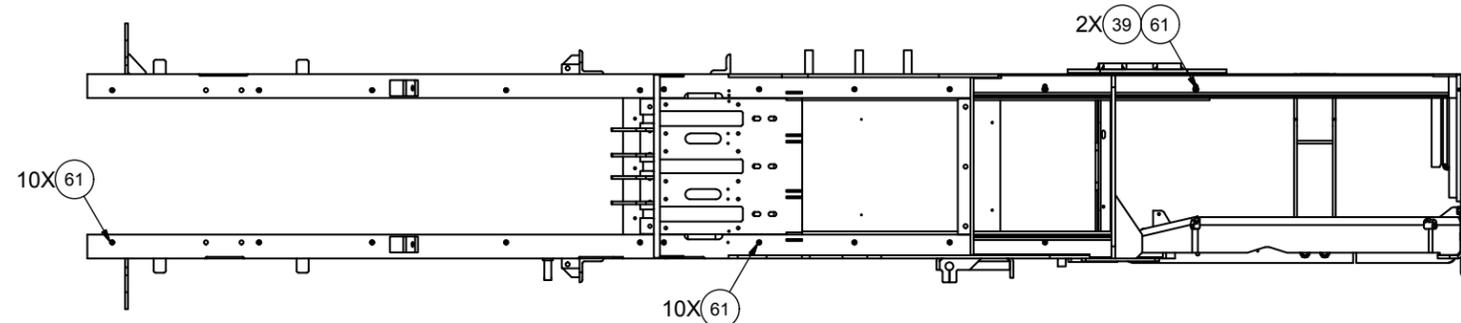
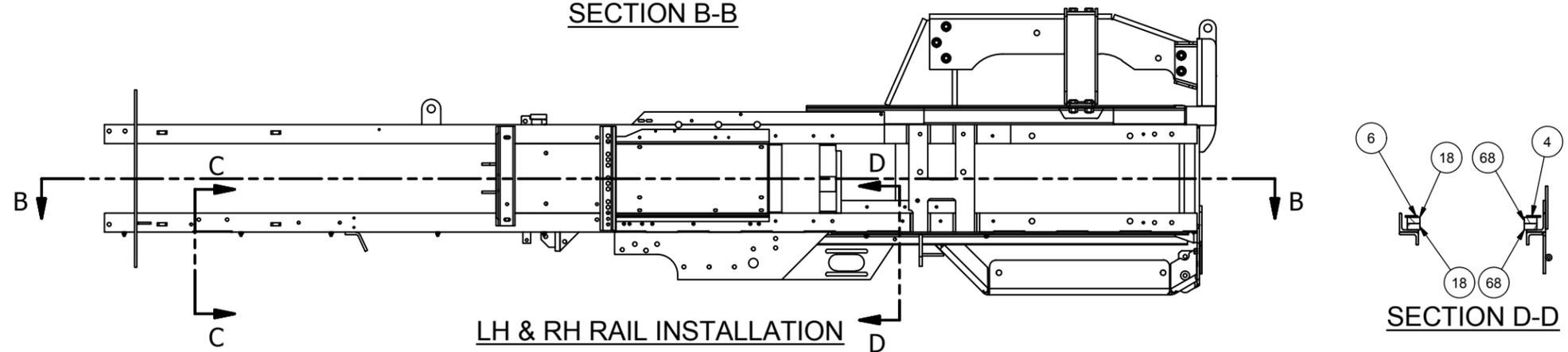
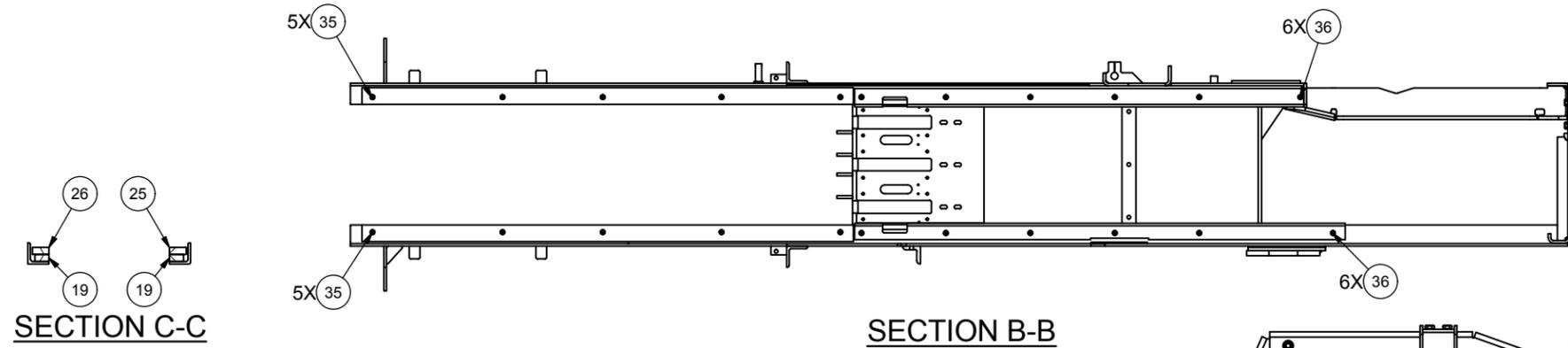
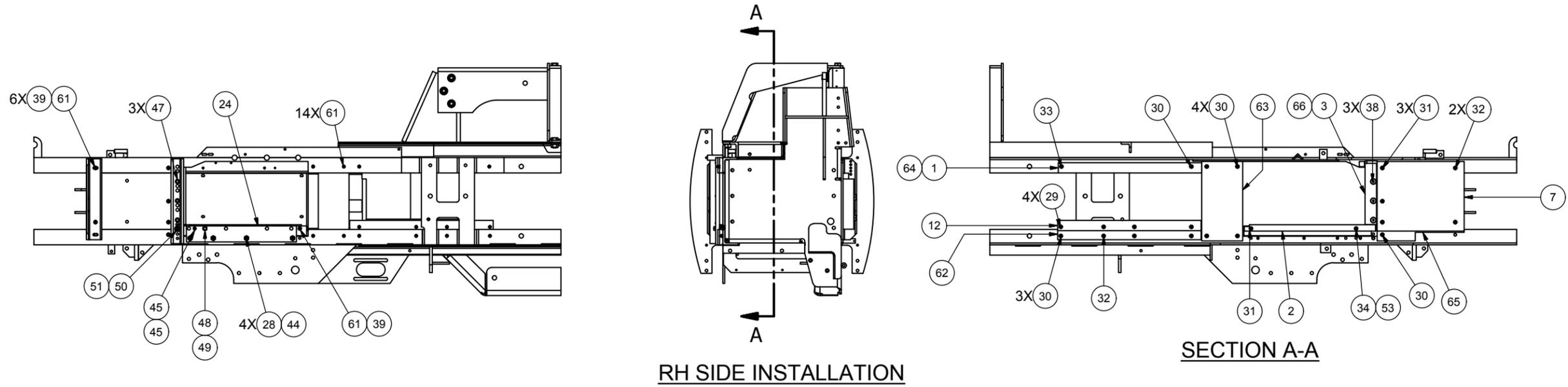
Chamber Inst, 14x21 Gearbox 3 Tie

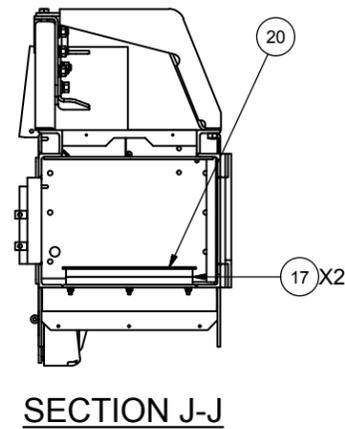
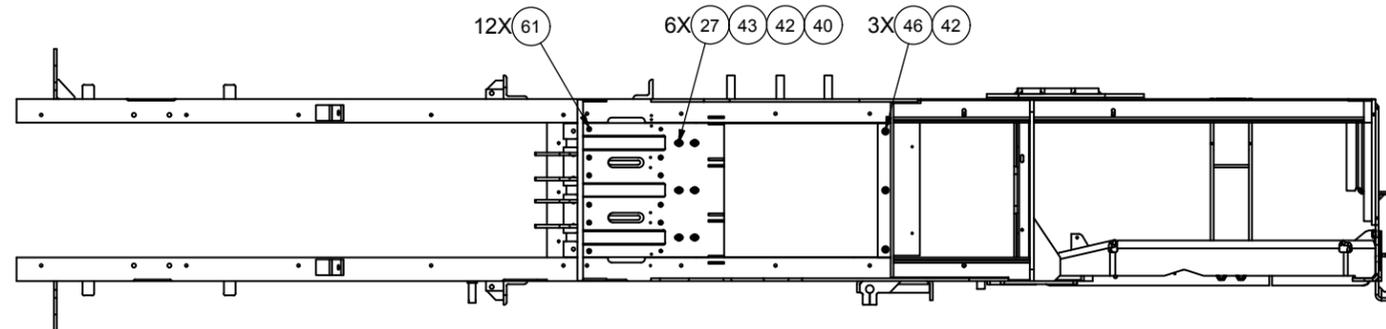
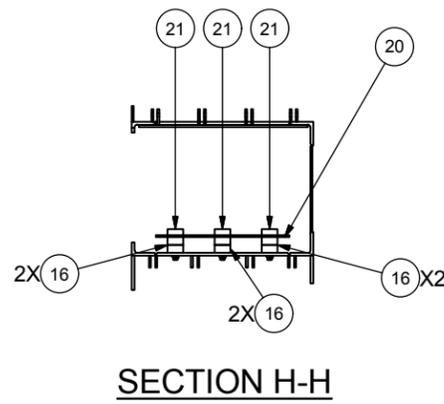
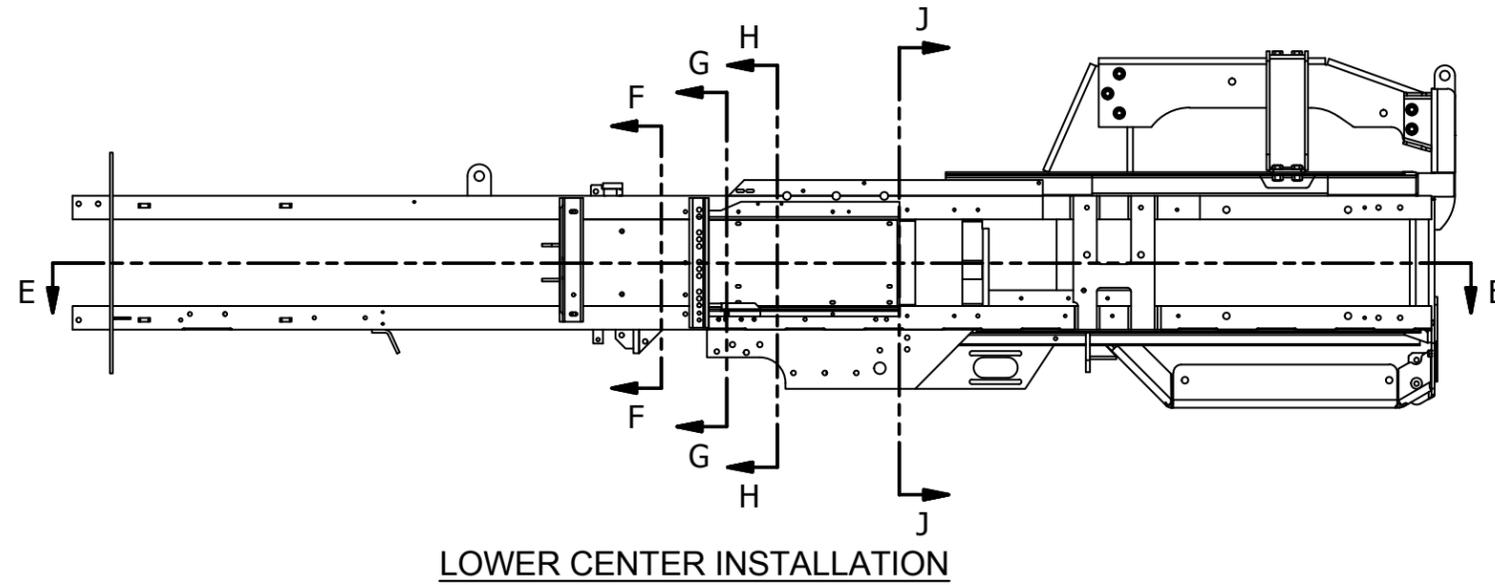
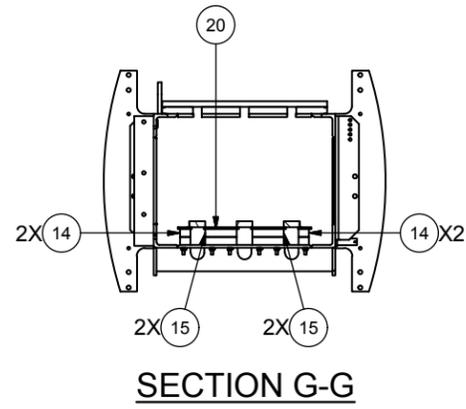
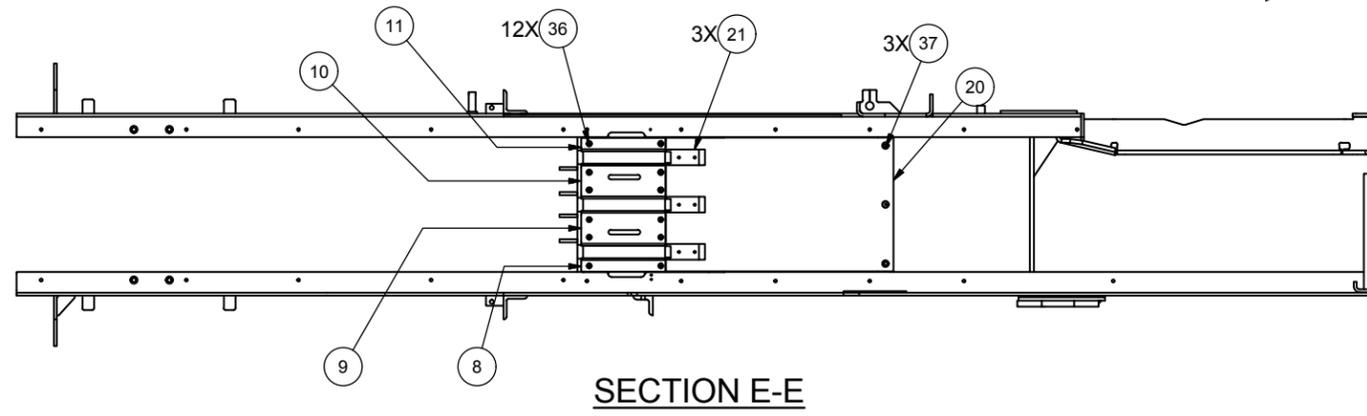
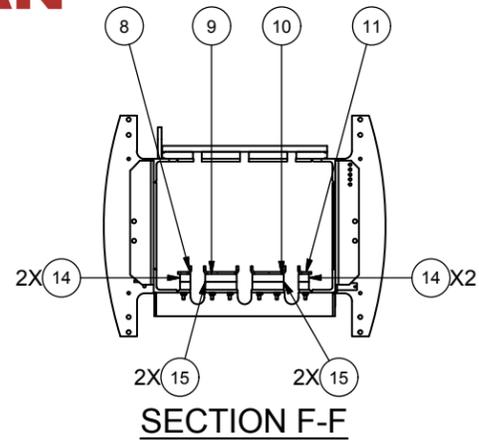
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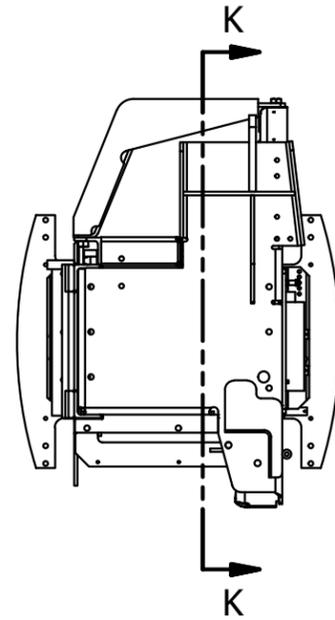


| Item | Part No. | Qty | Description | Item | Part No. | Qty | Description |
|------|------------|-----|------------------------------------------|------|------------|-----|---------------------|
| | 908280 | | Chamber Inst, 14x21 Gearbox 3 Tie | | | | |
| 1 | F00000299 | 1 | . Bar, RH | 32 | Y09G-0532 | 6 | . Capscrew |
| 2 | 906729 | 1 | . Guide Weldment | 33 | Y09G-0536 | 1 | . Capscrew |
| 3 | F000007744 | 1 | . Stationary Knife | 34 | Y09G-0540 | 1 | . Capscrew |
| 4 | 905059 | 1 | . Rail, Bottom LH | 35 | Y09G-0548 | 11 | . Capscrew |
| 5 | 905062 | 1 | . Bar, Side Rail | 36 | Y09G-0556 | 24 | . Capscrew |
| 6 | 906724 | 1 | . Plate, RH Rail | 37 | Y09G-0656 | 3 | . Capscrew |
| 7 | 906731 | 1 | . Plate, RH Liner | 38 | PWB5001750 | 3 | . Bolt, Plow |
| 8 | F000007813 | 1 | . Bar, RH | 39 | R13802914 | 27 | . Hard Washer |
| 9 | F000007816 | 1 | . Liner, RH | 40 | R13811449 | 6 | . Flat Washer |
| 10 | F000007818 | 1 | . Liner, LH | 42 | 221767W | 9 | . Hard Washer |
| 11 | F000007819 | 1 | . Bar, LH | 43 | R13812514 | 6 | . Lockwasher |
| 12 | PLG0026593 | 1 | . Bar, Bottom RH | 44 | R13812516 | 4 | . Lockwasher |
| 13 | 905060 | 1 | . Rail | 45 | 221705W | 2 | . Hex Nut |
| 14 | SPC0018514 | 8 | . Bar, Spacer | 46 | 237567 | 3 | . Nut |
| 15 | SPC0018515 | 8 | . Spacer | 47 | 223587 | 3 | . Nut |
| 16 | SPC0018516 | 6 | . Bar, Spacer | 48 | SQS5001750 | 1 | . Set Screw |
| 17 | SPC0018517 | 2 | . Spacer | 49 | 234218 | 1 | . Jam Nut |
| 18 | SPC0018519 | 2 | . Bar, Spacer | 50 | Y17C-1028 | 1 | . Capscrew |
| 19 | SPC035753B | 2 | . Bar | 51 | 222462 | 1 | . Jam Nut |
| 20 | 908282 | 1 | . Plate, Btm Chm Liner | 53 | 901737 | 2 | . Shim |
| 21 | 903119 | 3 | . Block, Track | 54 | SPC0033118 | 1 | . Spacer |
| 22 | 903364 | 1 | . Plate | 61 | 232939 | 80 | . Nut |
| 23 | 908285 | 1 | . Plate, LH Btm Liner | 62 | 906723 | 1 | . Plate, RH Support |
| 24 | 903368 | 1 | . Adapter Weldment | 63 | 906725 | 1 | . Plate, RH Side |
| 25 | 903370 | 1 | . Plate, RH Rail | 64 | 906726 | 1 | . Plate, RH Top |
| 26 | 903371 | 1 | . Plate, LH Rail | 65 | 906730 | 1 | . Plate, Rh Liner |
| 27 | R13811045 | 6 | . Capscrew | 66 | 906732 | 1 | . Plate, Spacer |
| 28 | R13801840 | 4 | . Capscrew | 67 | 906735 | 1 | . Spacer, LH |
| 29 | Y09G-0520 | 4 | . Capscrew | 68 | 906308 | 2 | . Bar, Spacer |
| 30 | Y09G-0524 | 13 | . Capscrew | 69 | 908283 | 1 | . Spacer, LH Btm |
| 31 | Y09G-0528 | 21 | . Capscrew | 70 | 908284 | 1 | . Spacer, LH Top |

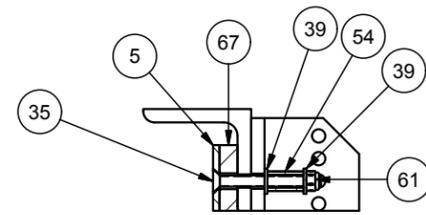
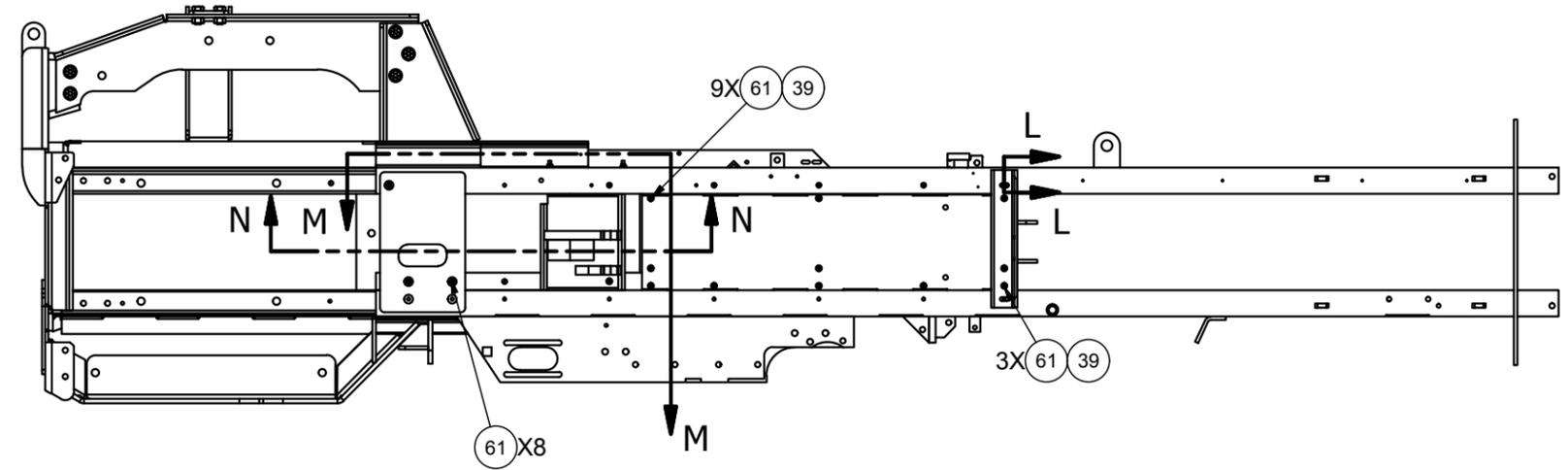
Rev -



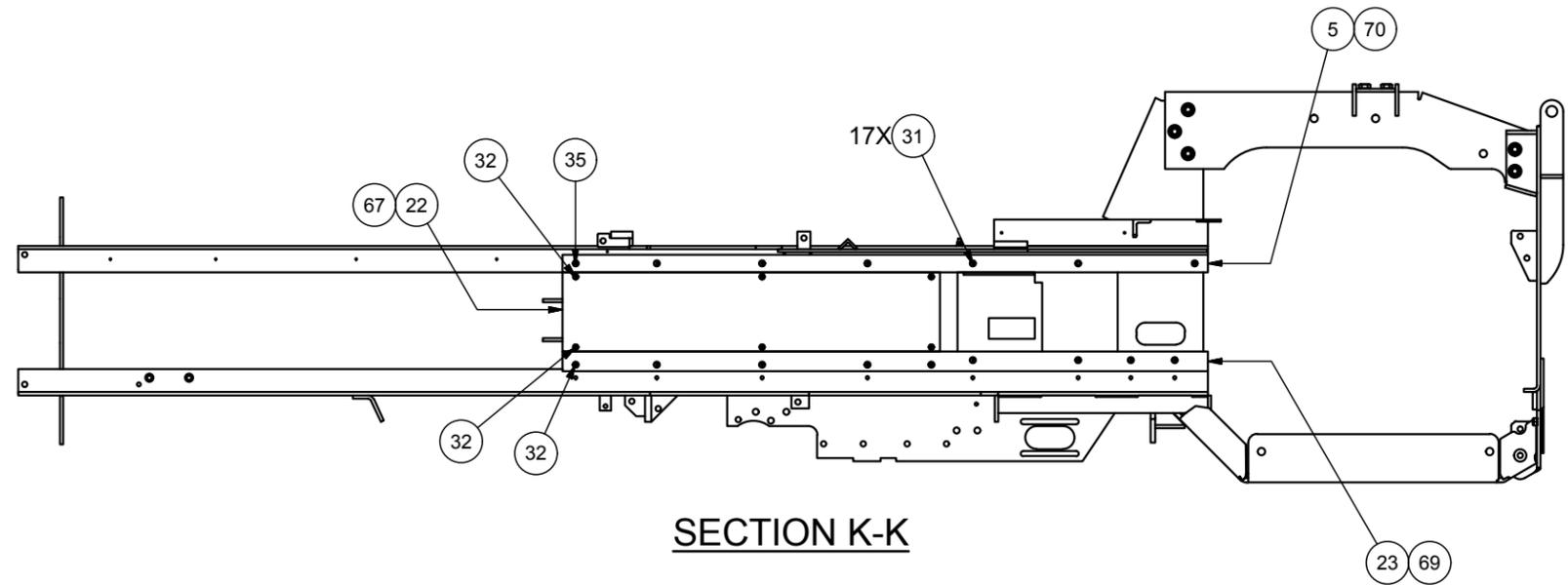




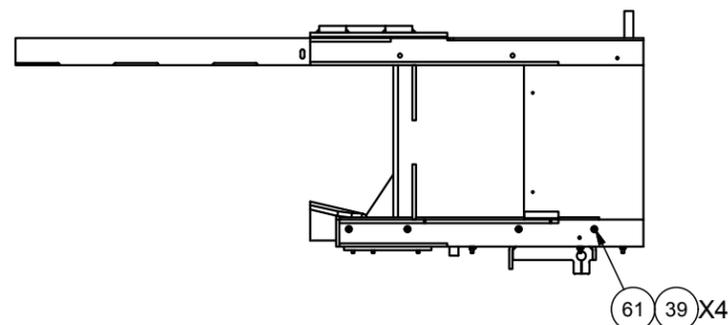
LH SIDE INSTALLATION



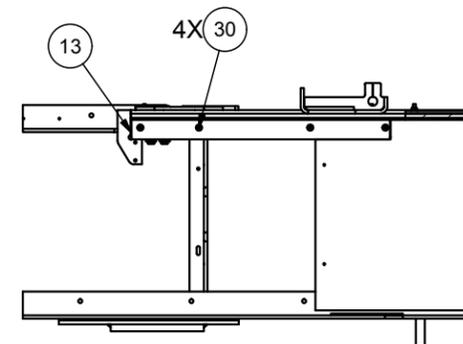
SECTION L-L



SECTION K-K



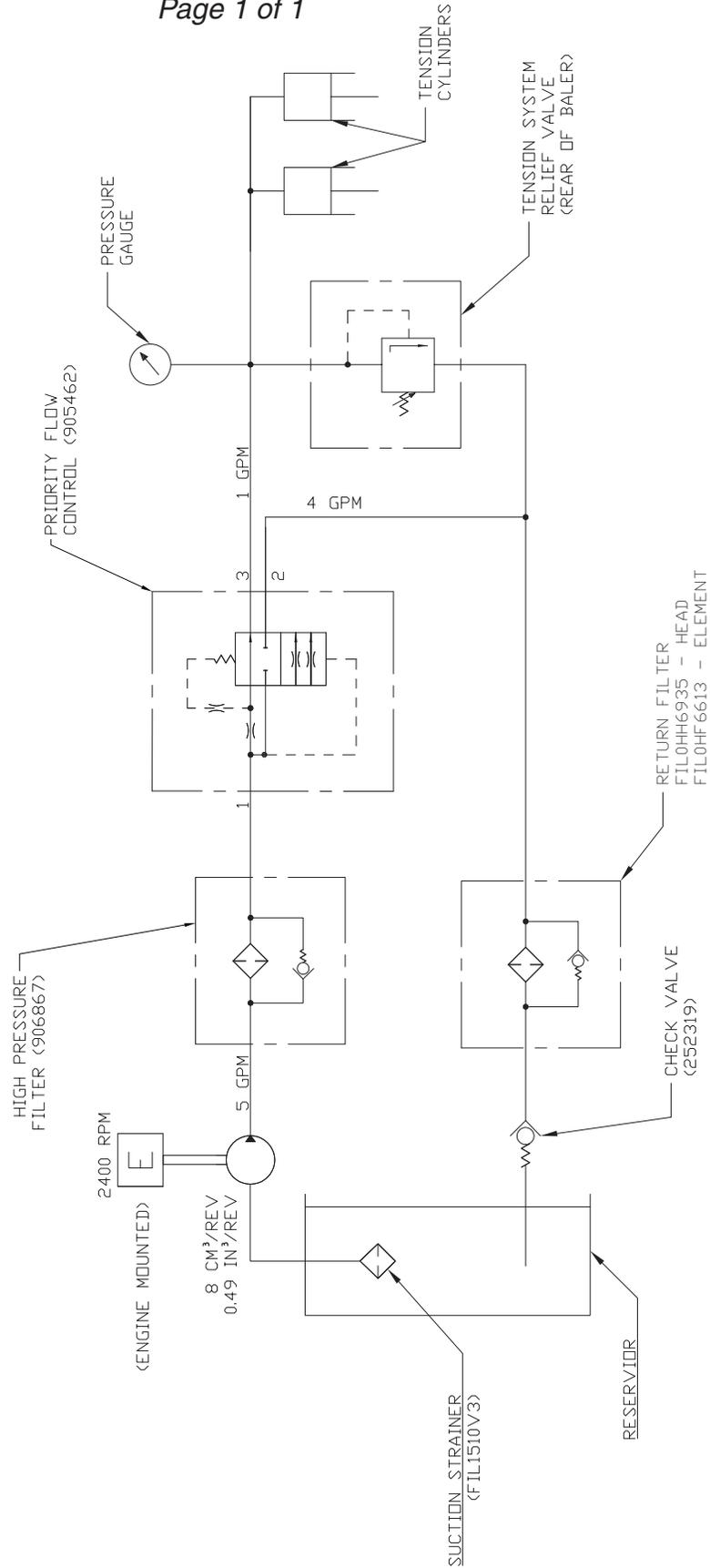
SECTION M-M



SECTION N-N

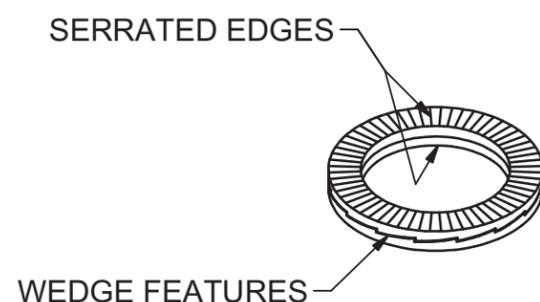
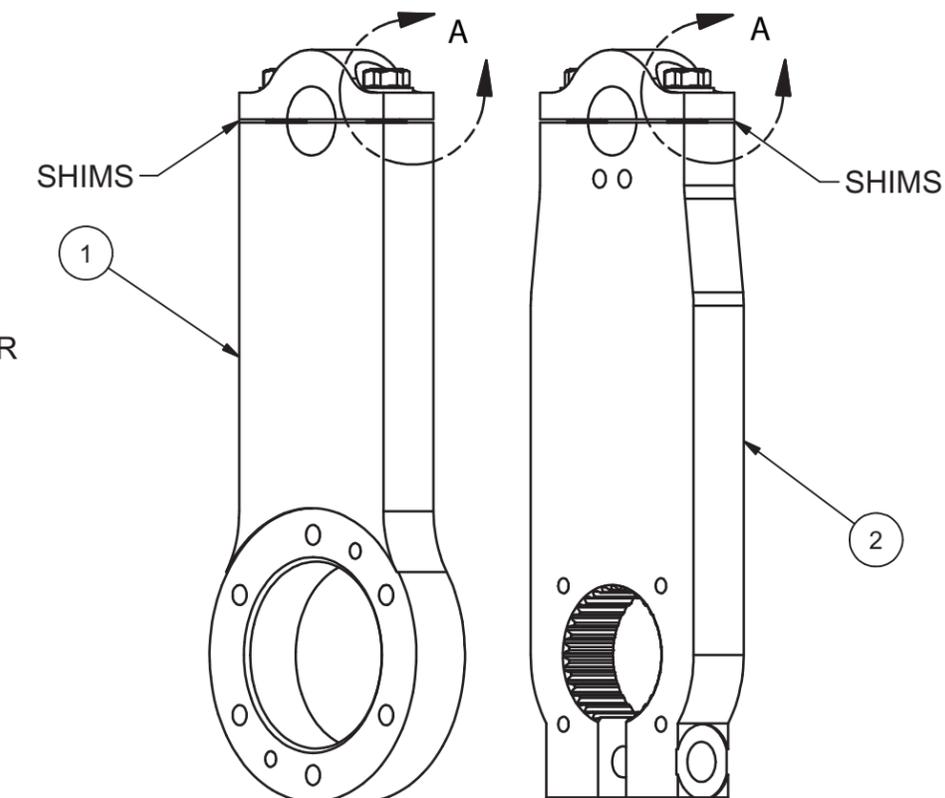
Hydraulic Schematic, Gearbox Baler, 370/375

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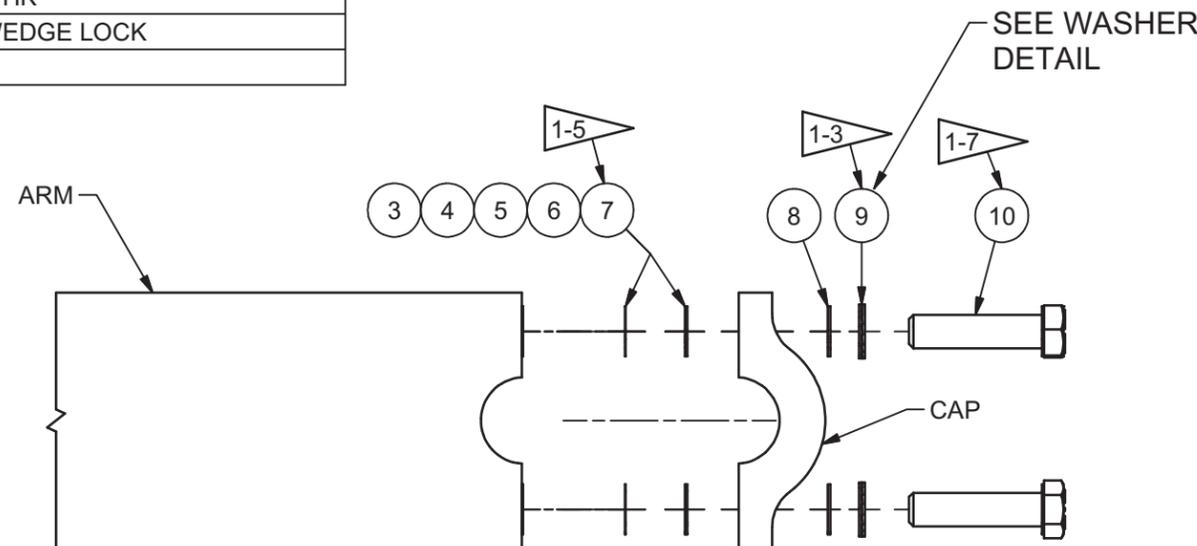


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 906252
 B

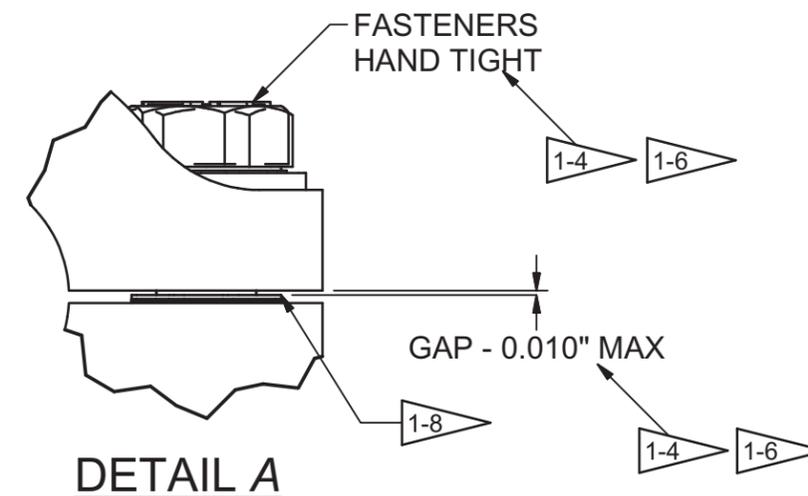
| BILL OF MATERIAL | | | |
|------------------|-----|-------------|----------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | REF | 904466 | PL, FEEDER DRIVE ARM |
| 2 | REF | 904467 | PL, CRANK ARM |
| 3 | 4 | 908678 | SHIM; .005 THK |
| 4 | 4 | 908673 | SHIM; .012 THK |
| 5 | 4 | 2302030W | SHIM; .020 THK |
| 6 | 4 | 2520704 | SHIM; .031 THK |
| 7 | 4 | 908674 | SHIM; .047 THK |
| 8 | 4 | 2508285 | SHIM; .062 THK |
| 9 | 4 | 907012 | WASHER, WEDGE LOCK |
| 10 | 4 | 177192W | CPSCR; |



WASHER DETAIL



CAP INSTALLATION
SAME FOR 904466 & 904467



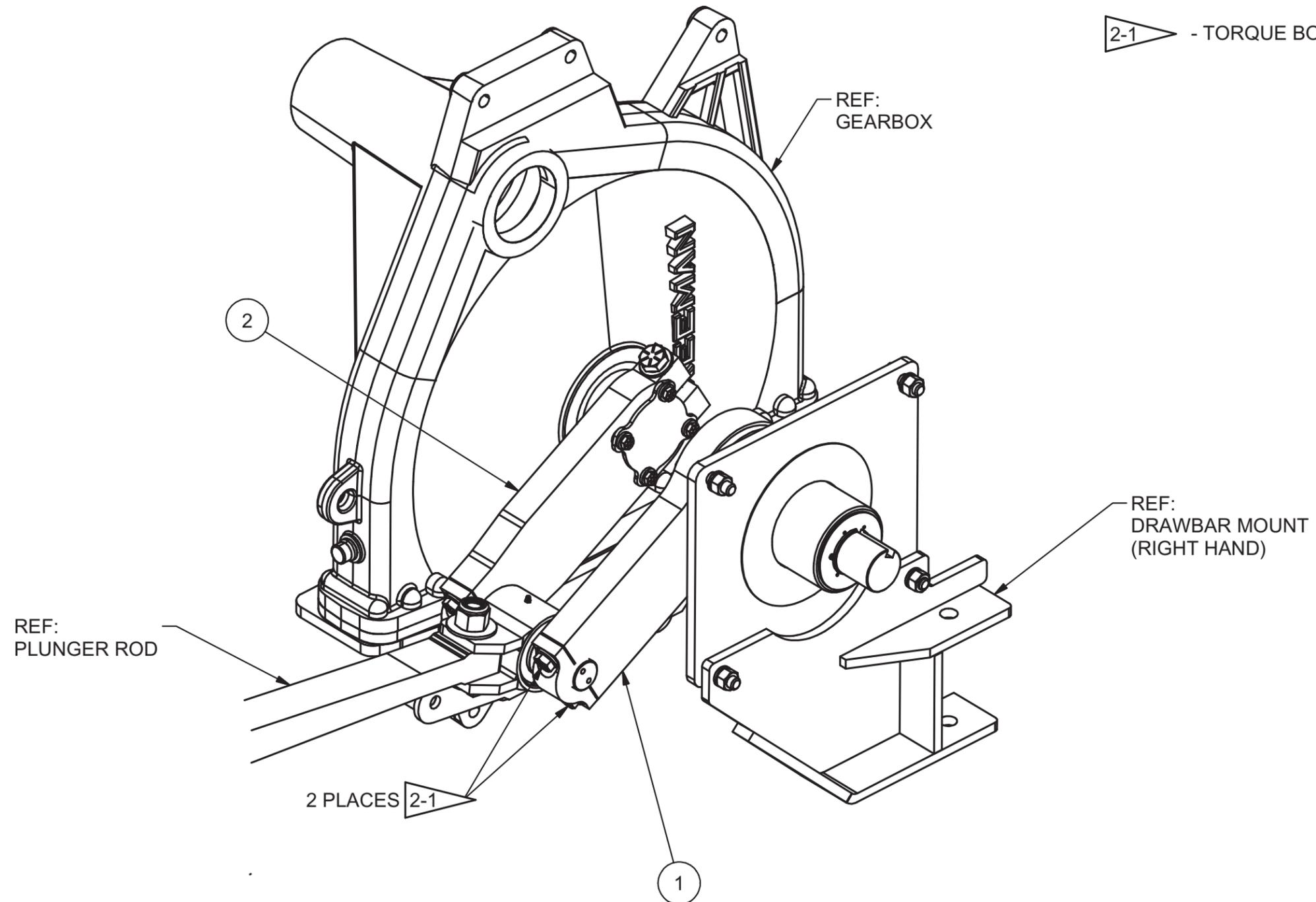
DETAIL A

INSTALLATION NOTES:

- 1-1 - REMOVE AND DISPOSE OF THE HARDWARE RETAINING THE CAP TO THE ARM.
- 1-2 - RE-INSTALL THE CAP TO THE ARM USING THE HARDWARE PROVIDED IN THIS KIT.
- 1-3 - INSTALL ITEM 9 SERRATED EDGES FACING OUT AND WEDGE FEATURES MESHED.
- 1-4 - PLACE CAP ON SHAFT, HAND TIGHTEN BOLTS (ITEM 10), MEASURE GAP (BOTH SIDES) BETWEEN CAP & CRANK/DRIVE ARMS.
- 1-5 - SHIM AS REQUIRED TO ACHIEVE A GAP 0.010 " OR LESS WHEN BOLT (ITEM 10) IS HAND TIGHT. GAP DOES NOT NEED TO BE THE SAME ON BOTH SIDES.
- 1-6 - RE-ASSEMBLE WITH SHIMS, HAND TIGHTEN BOLTS AND CONFIRM GAP (MAX 0.010") BEFORE TIGHTENING.
- 1-7 - TORQUE BOLTS EVENLY TO 340 FT-LB. TORQUE BOTH BOLTS FIRST TO 100 FT-LB, THEN TO 200 FT-LB AND FINALLY TO 340 FT-LB
- 1-8 - INSPECT BOLTED CONNECTION TO CONFIRM GAP IS ELIMINATED (BOTH SIDES)

NOTES:

2-1 - TORQUE BOLTS TO 340 FT-LB





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