

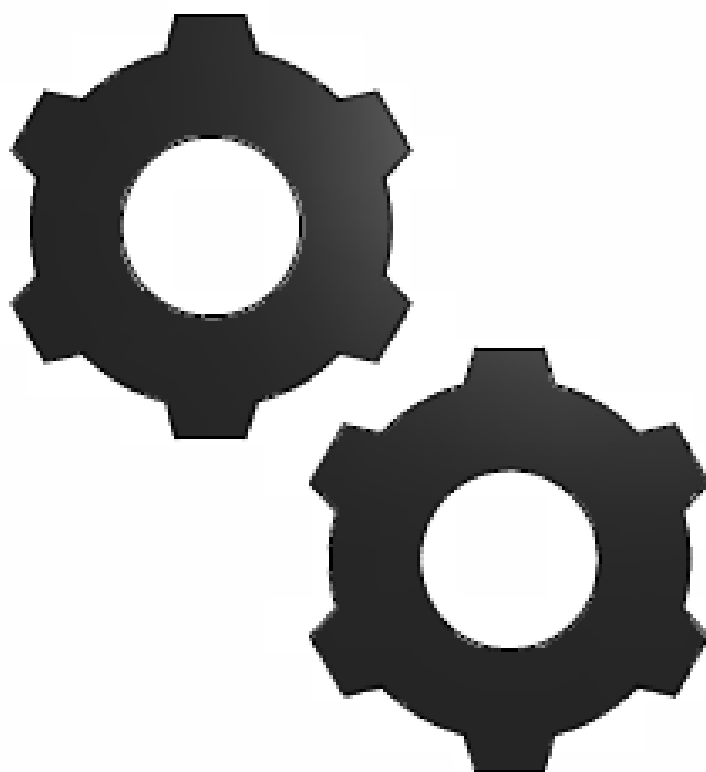
ACCELERATOR

HAY CONDITIONER 7500

& *ACCELERATOR*

HAY CONDITIONER 9500

Accelerator
PARTS BOOK/OWNERS MANUAL



TUBE•LINE™
MANUFACTURING LTD.

28174 (09/2/11)

TO THE OWNER

This manual contains information concerning the adjustment, assembly and maintenance of your Tube-Line Accelerator. You have purchased a dependable machine, but only by proper care and operation can you expect to receive the performance and long life built into the Tube-Line Accelerator.

Please have all operators read this manual carefully and keep it available for ready reference.

Your authorized dealer will instruct you in the general operation of your Tube-Line Accelerator. (Refer to the "delivery report" at the back of this manual.) Your dealer's staff of factory-trained service technicians will be glad to answer any questions that may arise regarding the operation of your Tube-line Accelerator.

Model : _____
Product Serial Number : _____



WARNING



This safety alert symbol indicates important safety messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death.



WARNING



Pictures in this manual may show protective shielding open or removed to better illustrate a particular feature or adjustment.

Be certain, however, to close or replace all shielding before operating the machine

Improvements

Tube-Line Manufacturing Inc. is continually striving to improve its products. We reserve the right to make improvements or changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.

Contents

Safety.....	0-3
Assembly.....	1-0
General information.....	2-0
Operation.....	3-0
Lubrication	4-0
Maintenance.....	5-0
Troubleshooting.....	6-0
Optional Equipment.....	7-0
Index.....	7-2
Warranty.....	7-3
Checklist.....	7-4
Delivery Report.....	7-5

Precautionary Statements

Personal Safety

Throughout this manual and on machine decals you will find precautionary statements (“DANGER”, “WARNING”, and “CAUTION”) followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take time to read them.



This word “DANGER” indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury.



This word “WARNING” indicates a Potentially Hazardous situation that, if not avoided, could result in death or serious injury.



This word “CAUTION” indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. Failure to follow the danger warning and caution instructions may result in serious bodily injury or death.

MACHINE SAFETY

The precautionary statement (“important”) is followed by specific instructions. This statement is intended for machine safety.

IMPORTANT: The word “*IMPORTANT*” is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.

Safety

Precautionary Statements

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents read the following precautions before operating this equipment. Equipment should be operated only by those who are responsible and instructed to do so.

Carefully review the procedures given in this manual with all operators. It is important that all operators be familiar with and follow safety precautions.

1. When transporting the machine on public roads, make sure the machine is in compliance with all local road regulation.
2. Before operating the unit be sure that it is assembled correctly and in good operating condition.
3. If machine maintenance work, repairs or adjustments must be done in the field, they should be done at a spot where the ground is firm and level. Turn off the tractor and apply the parking brake. Use the proper tools and wear suitable protection (safety goggles, work gloves, etc.).
4. If any maintenance work, repairs or adjustments are done which require disassembly, always make sure that everything is reassembled or retightened as it has been prior to making repairs or adjustments.
5. Follow the schedule provided for maintenance. By following these suggestions, it will be possible to keep the machine operating safely and efficiently, to the benefit of the user.
6. General checking of bolts, security pins and split pins must be carried out initially after the first 8 hours of use. Subsequently, check every 50 hours and whenever the machine is laid up for extended periods.
7. Before applying pressure to the system, be sure all connections are tight and that hoses and connections are not damaged.
8. Fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Always protect the skin and eyes from escaping fluid under pressure. If injured by escaping fluid, obtain medical assistance at once. Serious infection or reaction can develop if medical treatment is not administered immediately.
9. Do not weld on wheels. Welding on wheels may cause high stress and a wheel failure.
10. Do not weld on wheels with a mounted tire. Welding on wheels with a mounted tire may cause the tire to burst, causing serious injury or death.
11. Before leaving the cab, engage the parking brake, shut down engine, and wait for all moving parts to stop.
12. Always keep bystanders away from machine during operation, Rotating elements may cause serious bodily injury.

General Safety

YOU are responsible for the safe operation and maintenance of your Tube-line Accelerator. You must ensure that you and anyone else who is going to operate, maintain or work around the Accelerator be familiar with the operating and maintenance procedures and related safety information contained in this manual.

Remember, YOU are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

Review the operating instructions for this header at least once a year per OSHA regulations 1928.57. Know the meaning and location of each decal before operating the Accelerator.

Watch for this symbol in this manual and on the Accelerator:



1. Keep a first aid kit in the cab for emergencies and know how to use it.
2. Do not allow any one to ride on the Accelerator while it is in motion.
3. Clear the area of bystanders, especially small children before starting the Bale Feeder.
4. Do not allow anyone to operate the Accelerator who has not been instructed in how to use the machine.
5. All operators should familiarize themselves with the safety section in the operator's manual.
6. Some pictures or illustrations may not show protective shields in place. Make certain that all protective shields are in place before operating the machines.

Operating and Maintenance safety

1. DANGER, DO NOT stand around or near the Discharge or bed area. Objects thrown from the beaters may cause death or serious injury
2. Hydraulic leaks can penetrate the skin causing serious injuries. Small leaks can be invisible and are the most dangerous. Use some object, like cardboard, to find the leak. Do not use your hand.
3. Ensure that all the pressure is released from the hydraulic lines before repairing. Replace or repair damaged hoses immediately.
4. DO NOT remove side guard until all moving parts have stopped, rollers and chain inside the side panel are free wheeling and may be still spinning, failure to comply could result in death or serious injury.

Hydraulic Safety

Ensure that all the pressure is released from the hydraulic lines before repairing.
Replace or repair damaged hoses immediately.



WARNING



When checking for oil leaks use a piece of cardboard; DO NOT use your hand:

Escaping fluid under pressure can penetrate the skin causing serious injury.
Avoid the hazard by relieving pressure before disconnecting hydraulic of other lines.
Tighten all line connections before applying pressure.
Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Failure to comply could result in death or serious injury.

DO NOT weld on or near rotating parts. Welding close to rotating parts will cause warping and will challenge the structural integrity.

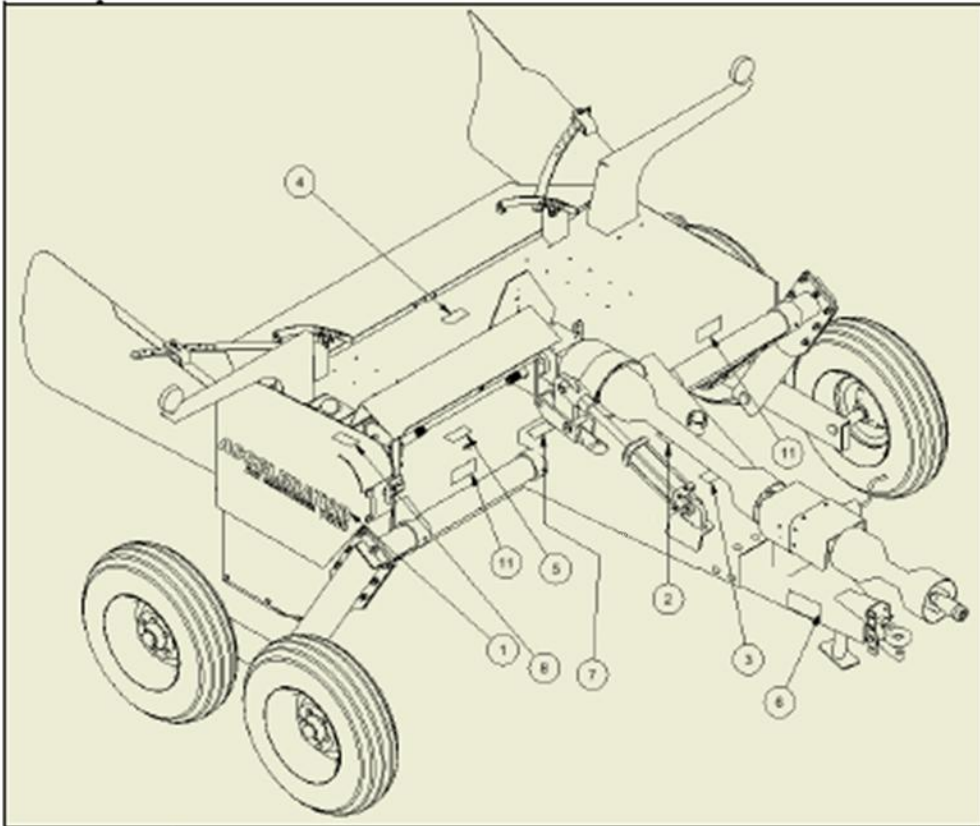
DO NOT weld on or near rotating parts. Welding close to rotating parts may cause warping thus creating high stress loads for moving or rotating parts.

DO NOT weld on wheels. Welding on wheels may cause high stress and wheel failure.

DO NOT weld on wheels with a mounted tire, Welding on wheels with a mounted tire may cause tire to burst, causing serious injury or death.

Decals

The following safety decals have been placed on your machine in the areas indicated. They are intended for personal safety and or those working with you. Please take this manual and walk around your machine to note the content and location of these warning signs. Review these warning signs and the operating instruction detailed in this manual with your machine operators. Keep the decals legible, if they are not, obtain replacements from your authorized dealer. The decal replacement numbers are listed with each decal.



Item	Qty	Part #	Description
1	1	HC-129	Accelerator 7500 Decal
1	1	HC-130	Accelerator 9500 Decal
2	1	PP-00353	Rotating Driveline
3	1	PP-00788	Warning High Pressure Fluid
4	1	PP-00790	Warning Thrown Object
5	2	PP-00791	Warning Entanglement
6	2	PP-00794	Caution Read Manual
7	1	PP-00927	Warning Crush Point
8	1	PP-00928	Warning Freewheeling Parts
9	1	PP-00929	Important use clean SAE #30 Oil
11	2	PP-00933	Danger Entanglement

ACCELERATOR HAY CONDITIONER 7500

Decal 1 > HC-129

ACCELERATOR HAY CONDITIONER 9500

Decal 1 > HC-130



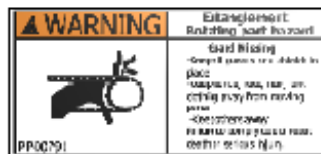
Decal 2 > PP-00353



Decal 3 > PP-00788



Decal 4 > PP-00790



Decal 5 > PP-00791

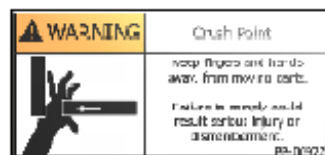


Decal 7 > PP-00795

0-9



Decal 6 > PP-00794



Decal 8 > PP-00927



Decal 9 > PP-00928



Decal 10 > PP-00929



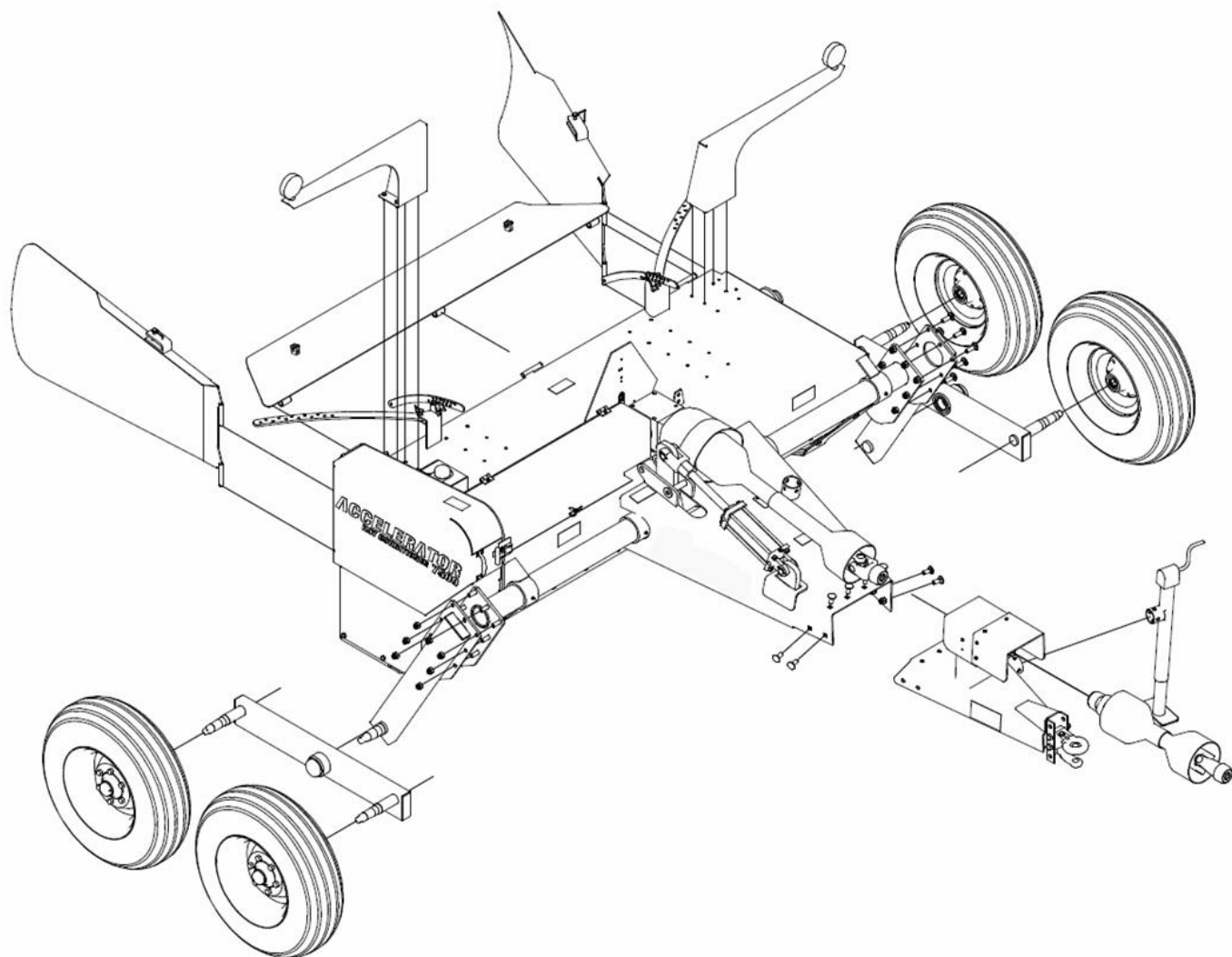
Decal 11 > PP-00933

SECTION 1

ASSEMBLY INFORMATION

NOTE: Assembly drawings are intended for use of replacement parts only, and not as an assembly guide.

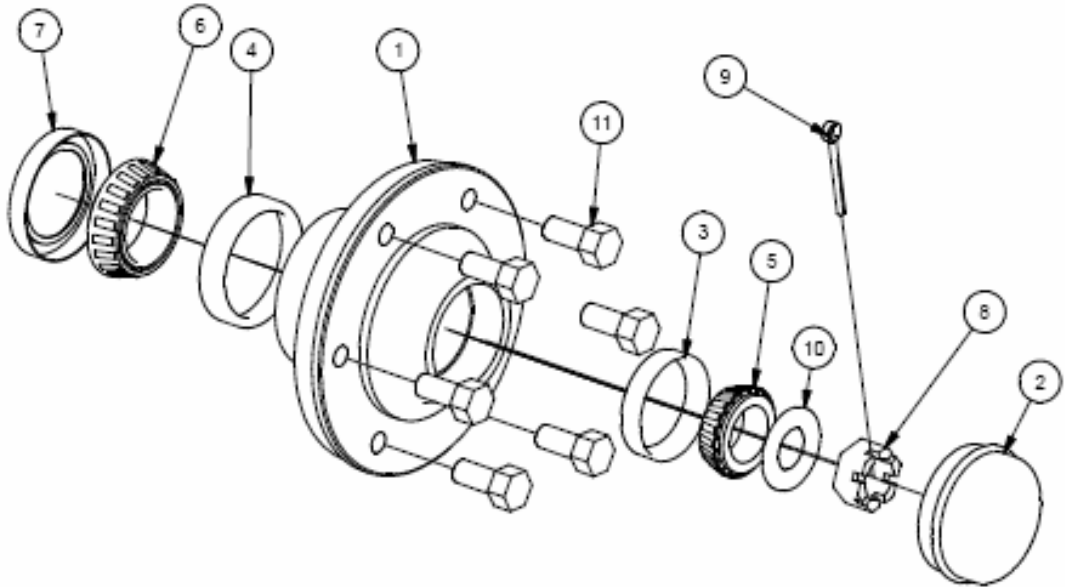
Assembling the Tube-line Accelerator after Shipment



PP-0017

Parts Breakdown

(Used on 7500S)

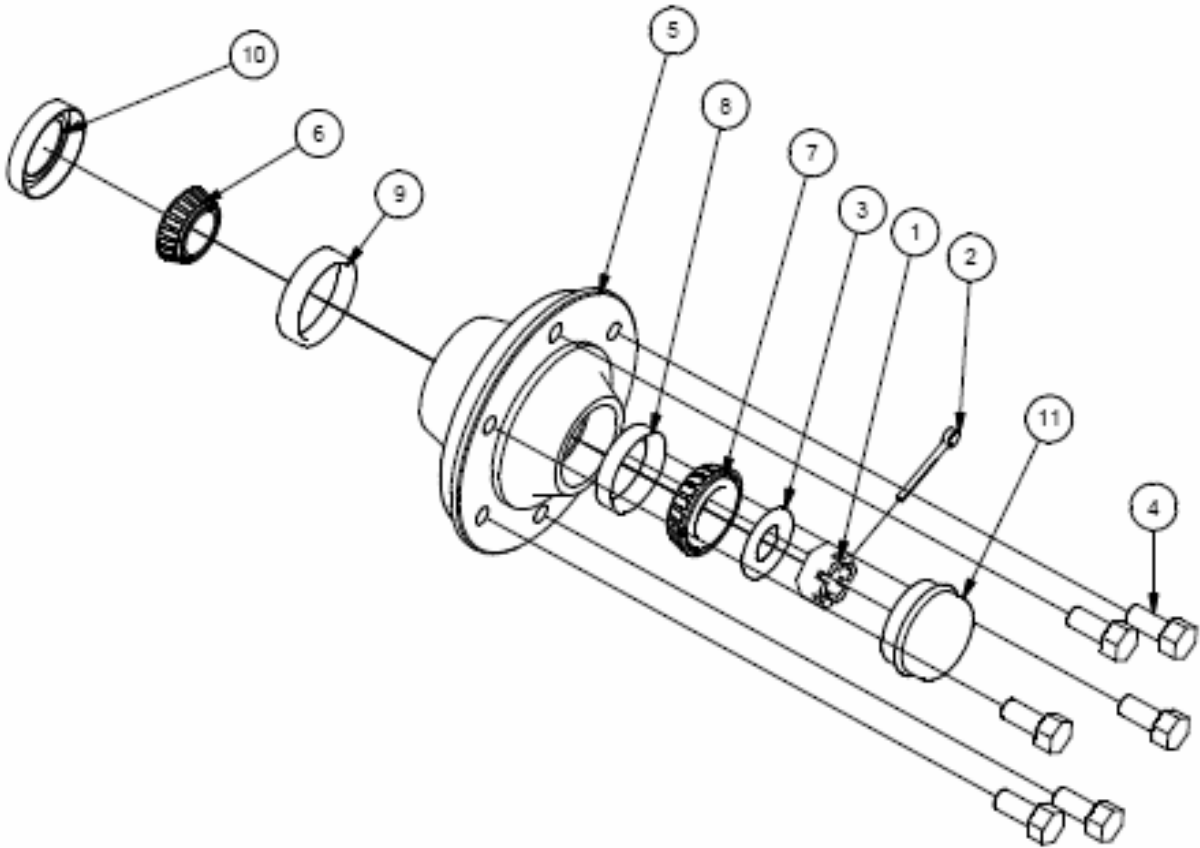


Item	Qty	Part #	Description
1	1	PP-00018	5000lb Hub
2	1	PP-00019	D-5000-dustcap
3	1	PP-00020	LM48510 Outer Cup
4	1	PP-00021	LM503011 Inner Cup
5	1	PP-00022	LM48549 Outer Cone
6	1	PP-00023	LM503049 Inner Bearing
7	1	PP-00024	CR200044 Seal
8	1	PP-00025	1-UNC Castle Nut
9	1	PP-00028	3-16 x Cotter Pin, Brass
10	1	PP-00030	1" Flat Washer
11	6	PP-00031	9/16-18 UNF x 1.75 Wheel Stud

PP-0017

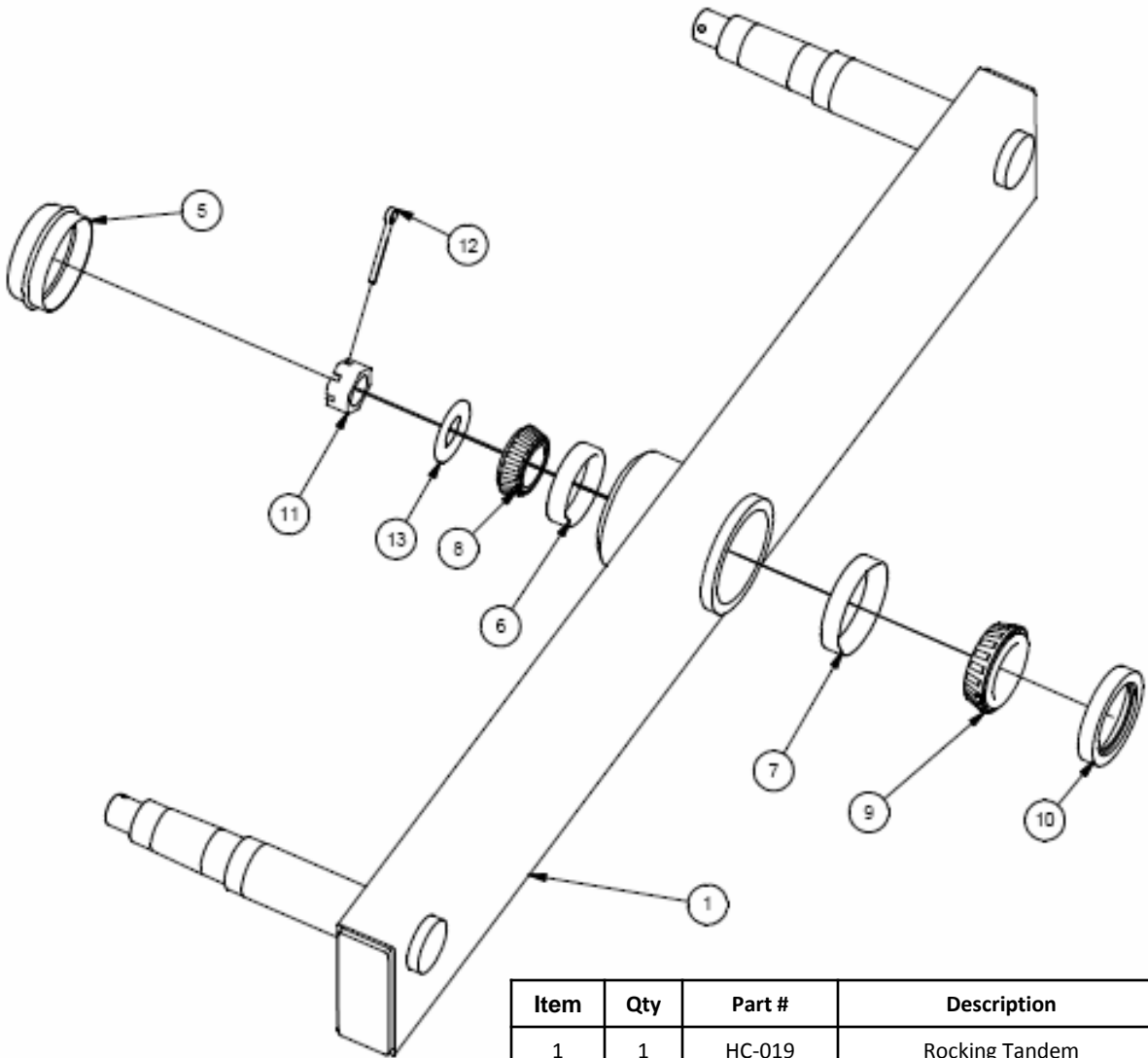
Parts Breakdown

(Used on 7500S & 9500T)



Item	Qty	Part #	Description
1	1	PP-00025	1-UNC Castle Nut
2	1	PP-00026	3/16 x 2 Cotter Pin, Brass
3	1	PP-00030	1 Flat Washer
4	6	PP-00031	9/16-18 UNF x 1.75 Wheel Stud
5	1	PP-00211	4000lb Hub
6	1	PP-00212	LM7048 Outer Bearing
7	1	PP-00213	LM29749 Inner Bearing
8	1	PP-00214	LM57010 Outer Cup
9	1	PP-00215	LM29710 Inner Cup
10	1	PP-00216	521227 Seal
11	6	PP-00217	D-4000 Dustcap

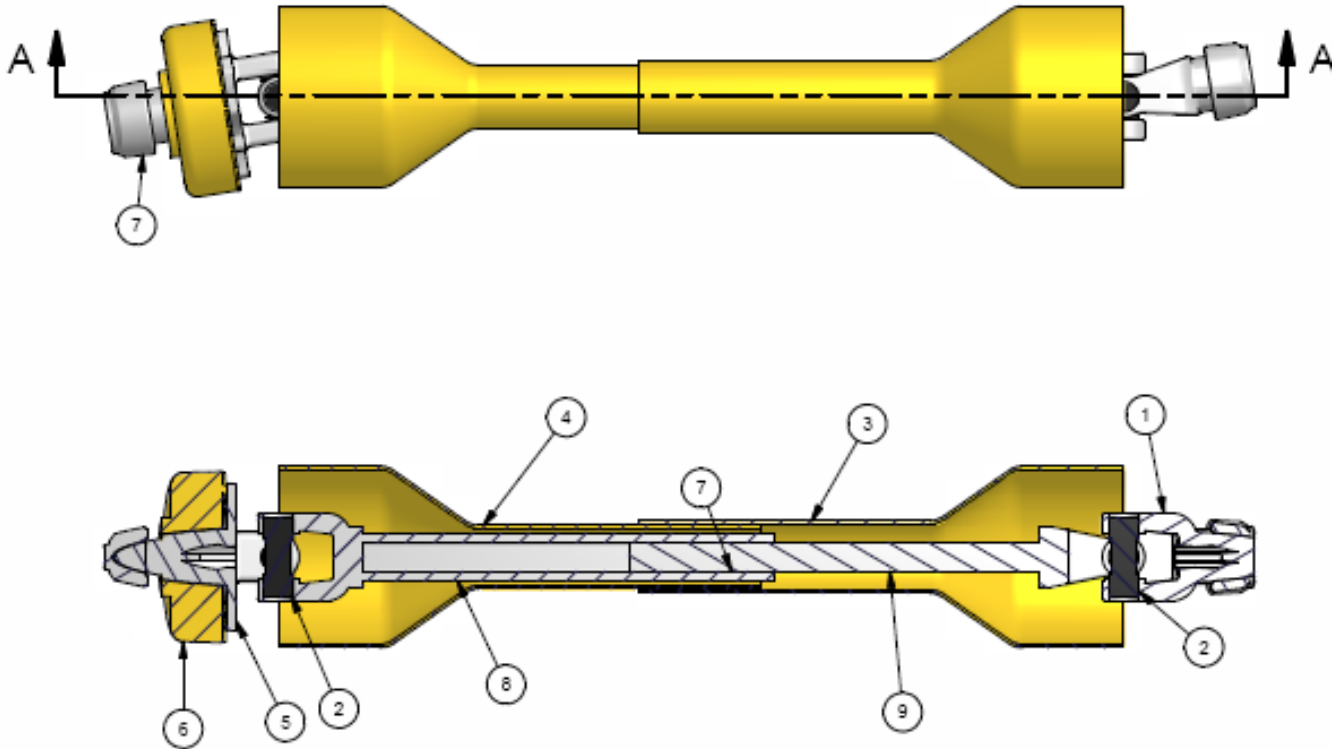
Tandem Assembly (Used on 7500S & 9500T)



Item	Qty	Part #	Description
1	1	HC-019	Rocking Tandem
2	1	HC-020	Tandem Pivot Boss
3	2	HC-021	4000lb Spindle
4	2	HC-022	Cap
5	1	PP-00019	D-5000-dustcap
6	1	PP-00020	LM48510 Outer Cup
7	1	PP-00021	LM503011 Inner Cup
8	1	PP-00022	LM503049 Inner Bearing
9	1	PP-00023	CR20044 Inner Bearing
10	1	PP-00024	CR20044 Seal
11	1	PP-00025	1-UNC Castle Nut
12	1	PP-00028	3/16 x 2 Cotter Pin, Brass
13	1	PP-00030	1 Flat Washer

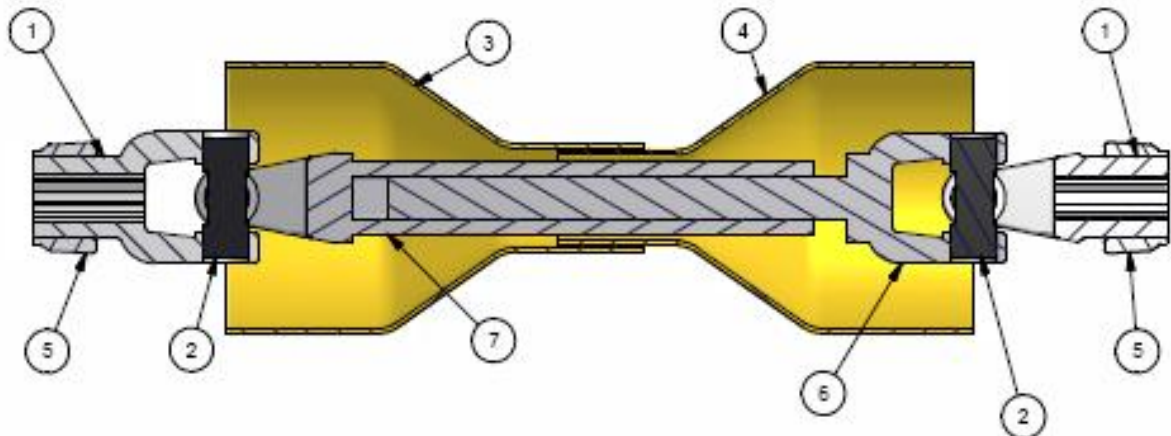
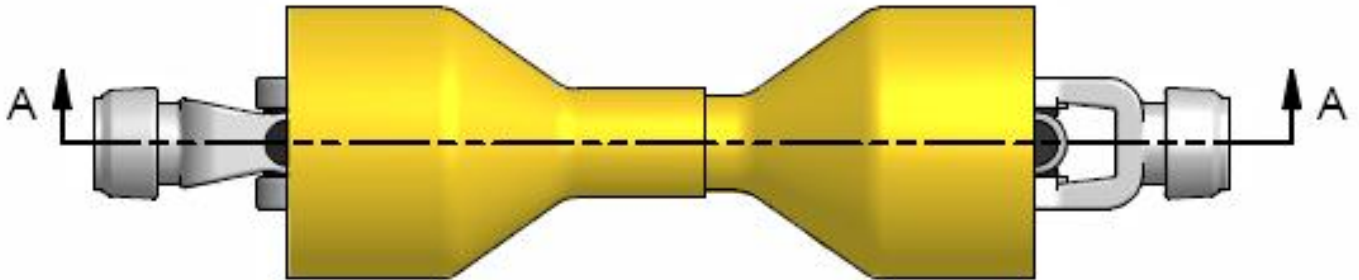
PP-00338

Parts Breakdown



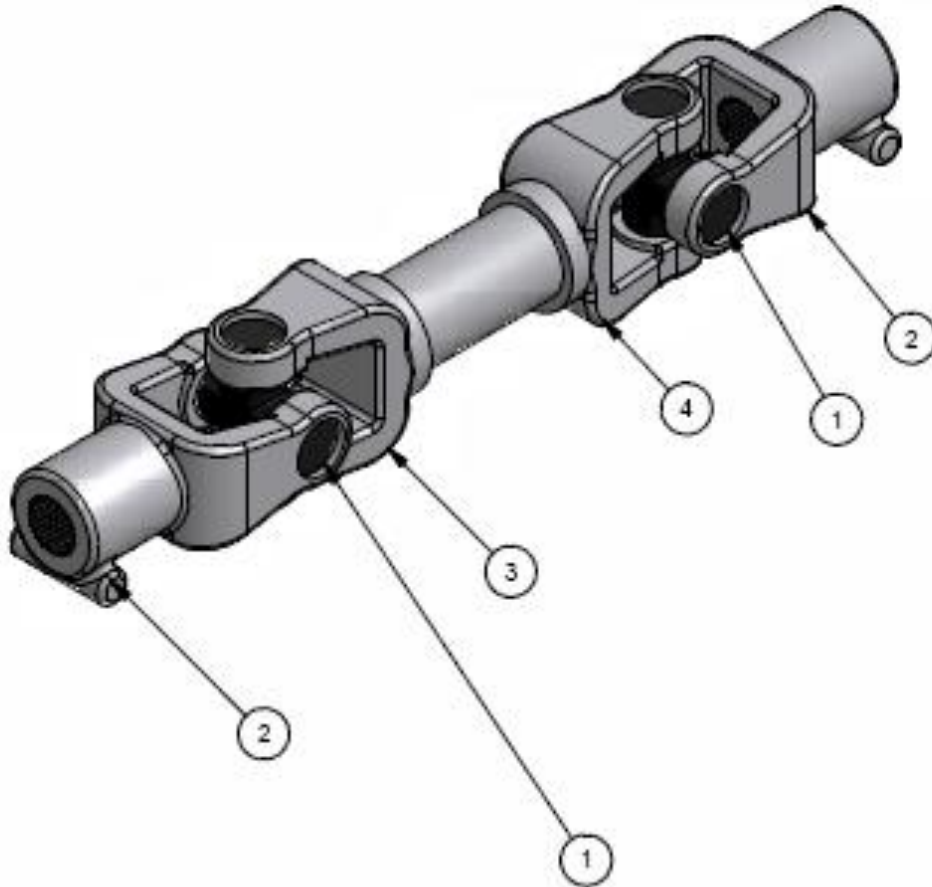
Item	Qty	Part #	Description
1	1	PP-00963	Auto lock yoke ass./35031-1015
2	2	PP-00964	35e cross and bearing kit/03-15303
3	1	PP-00967	Outer guard/97-24673
4	6	PP-00968	Inner Guard/97-24673
5	1	PP-00969	35e clutch yoke/38-20015
6	1	PP-00970	Over running friction clutch pack/38-51014
7	2	PP-00984	Auto lock repair kit/36-15120
8	1	PP-00985	Yoke, tube and slip sleeve/98-24673
9	1	PP-00986	Yoke and shaft/99-24673

PP-00339 Parts Breakdown



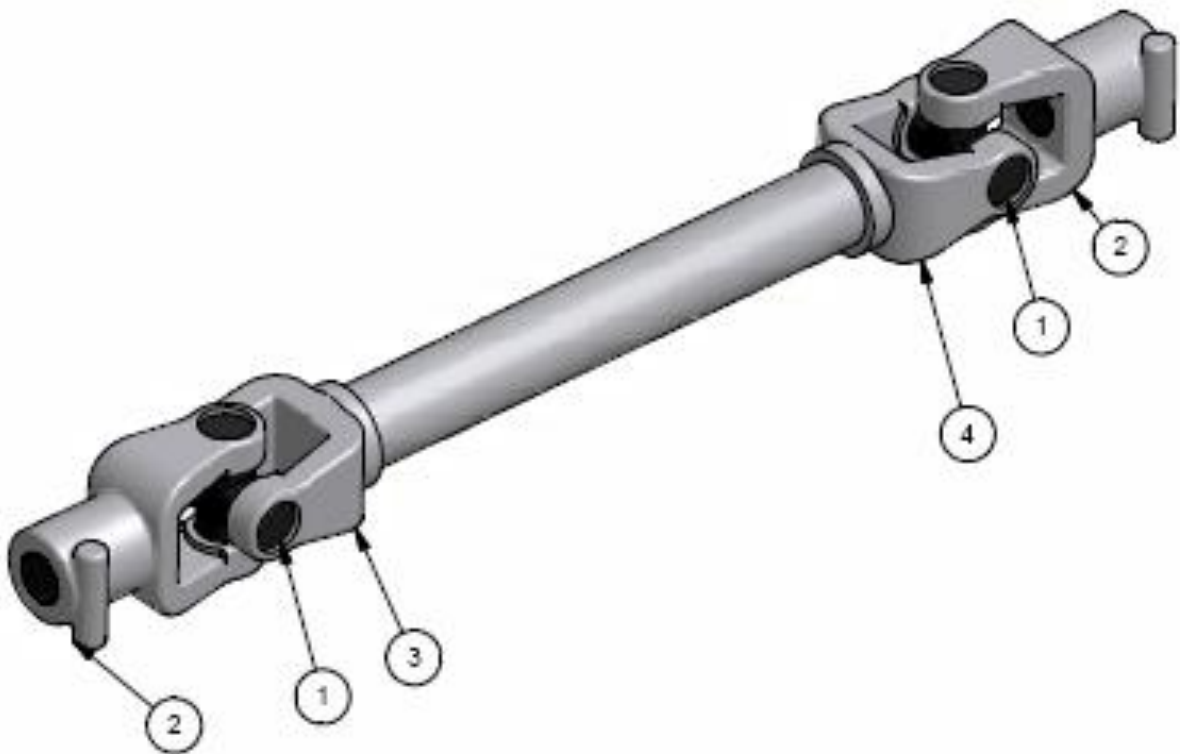
Item	Qty	Part #	Description
1	2	PP-00953	Auto lock yoke ass./35031-1015
2	2	PP-00954	35e cross and bearing kit/03-15303
3	1	PP-00955	Outer guard/97-24672
4	1	PP-00956	Inner guard/95-24672
5	2	PP-00984	Auto lock repair kit/26-15120
6	1	PP-00997	Yoke and shaft/99-24672
7	1	PP-00998	Yoke tube and slip sleeve/98-24672

PP-00836
Parts Breakdown



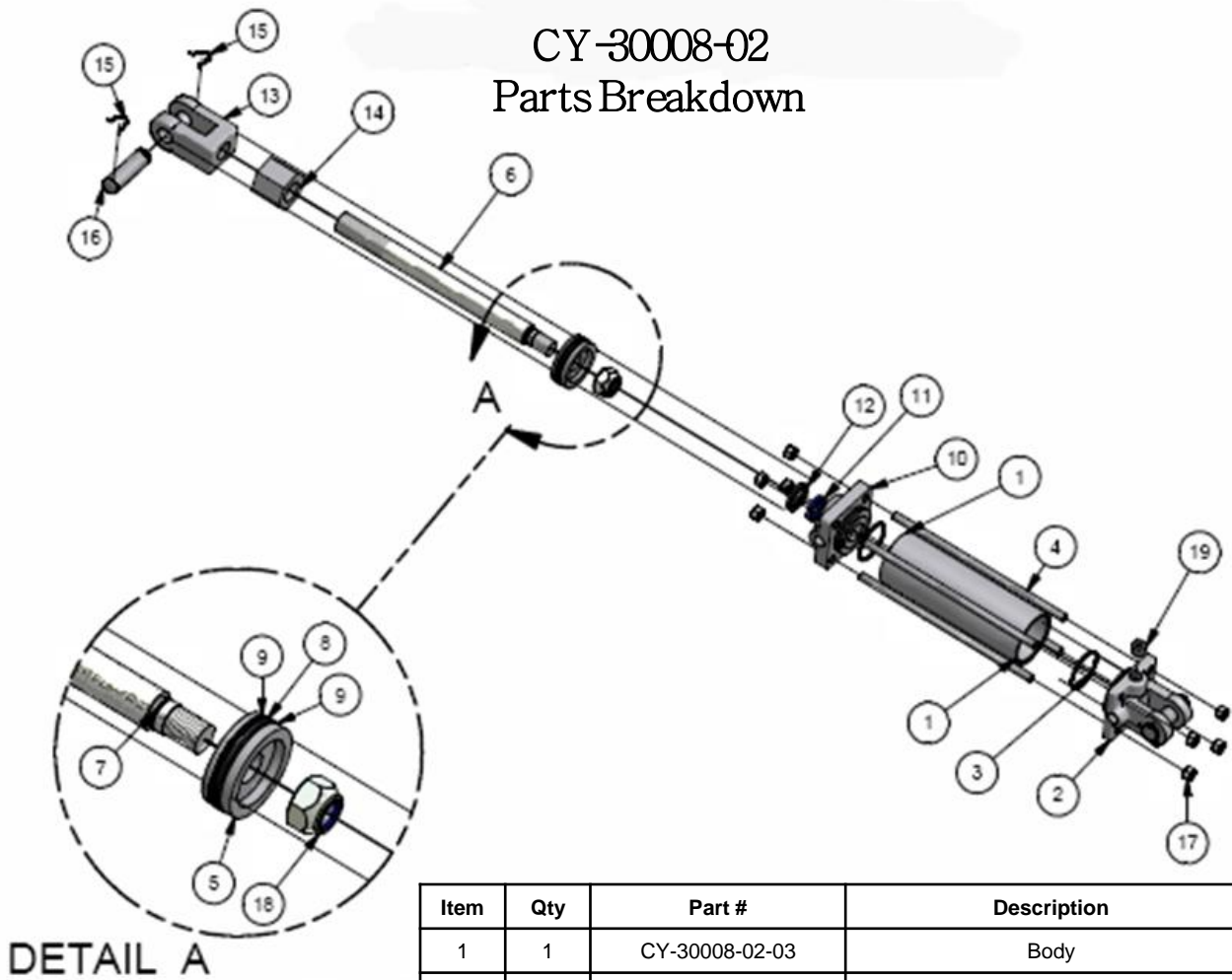
Item	Qty	Part #	Description
1	2	PP-0954	35e cross and bearing kit/03-15303
2	2	PP-0971	Yoke/35190-1001
3	1	PP-01001	Yoke tube and slip sleeve/98-24674
4	1	PP-01002	Yoke and shaft/99-24674

PP-008367
Parts Breakdown



Item	Qty	Part #	Description
1	2	PP-00964	35e cross and bearing kit/03-15303
2	2	PP-0971	Yoke/35190-1001
3	1	PP-0999	Yoke tube and slip sleeve/98-24675
4	1	PP-0100	Yoke and shaft/99-24675

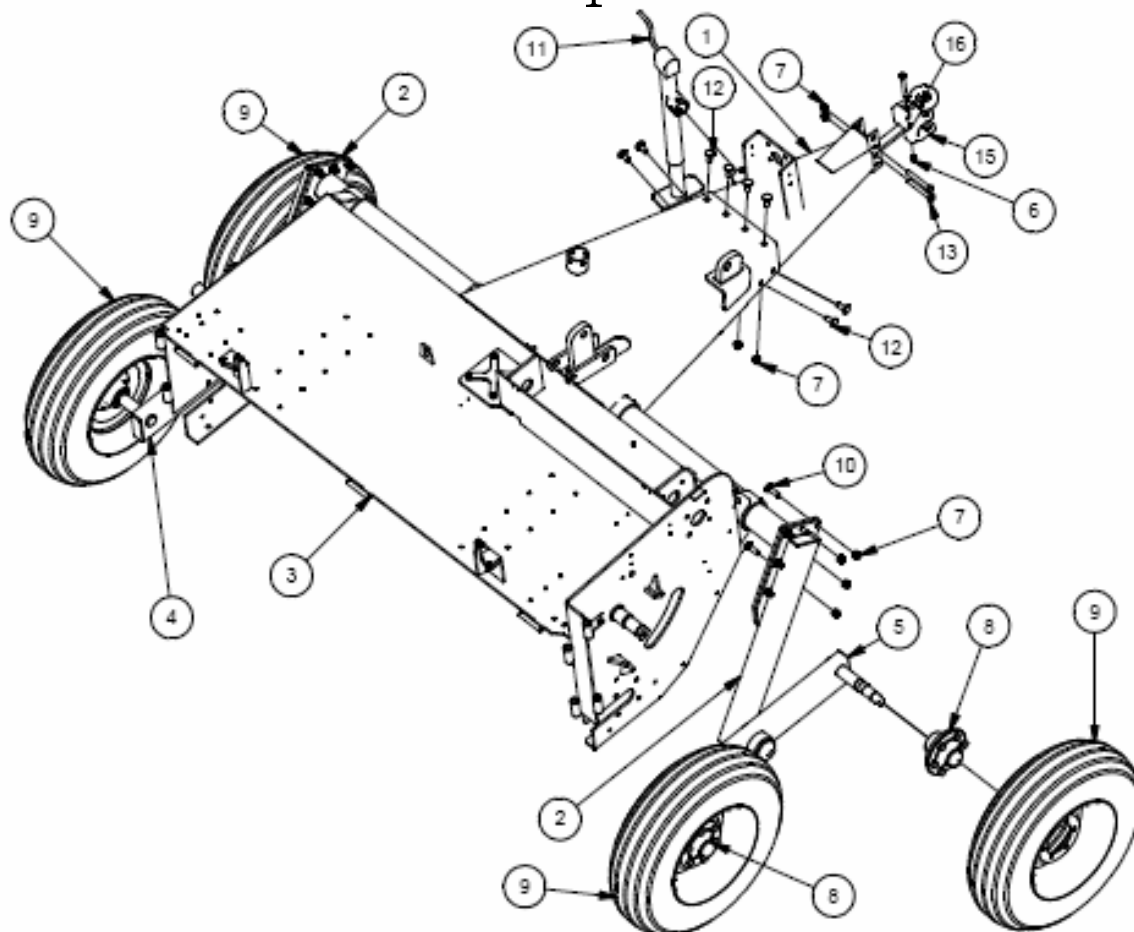
CY-30008-02 Parts Breakdown



Item	Qty	Part #	Description
1	1	CY-30008-02-03	Body
2	1	CY-30008-02-04	Body Head
3	2	CY-30008-02-05	Barrel Seal
4	4	CY-30008-02-06	Tightening Rod
5	1	CY-30008-02-07	Piston
6	1	CY-30008-02-08	Rod
7	1	CY-30008-02-09	Rod Seal
8	1	CY-30008-02-10	Piston Seal
9	2	CY-30008-02-11	Piston Wear Ring
10	1	CY-30008-02-12	Head Plate
11	1	CY-30008-02-13	Head Seal
12	1	CY-30008-02-14	Cylinder Head Wiper
13	1	CY-30008-02-15	Cylinder Head
14	1	CY-30008-02-16	Cylinder Nut Head
15	4	Obtain Locally	¾ Id, Hair Pin Cotter
16	2	PP-00347	Cylinder Pin
17	8	Obtain Locally	Gr.5 M12 x 1.75 Finished Hex Nut
18	1	Obtain Locally	1-12 UNF, Lock Nut
19	1	Obtain Locally	7/8-14 UNF Set Screw

Main Frame Assembly

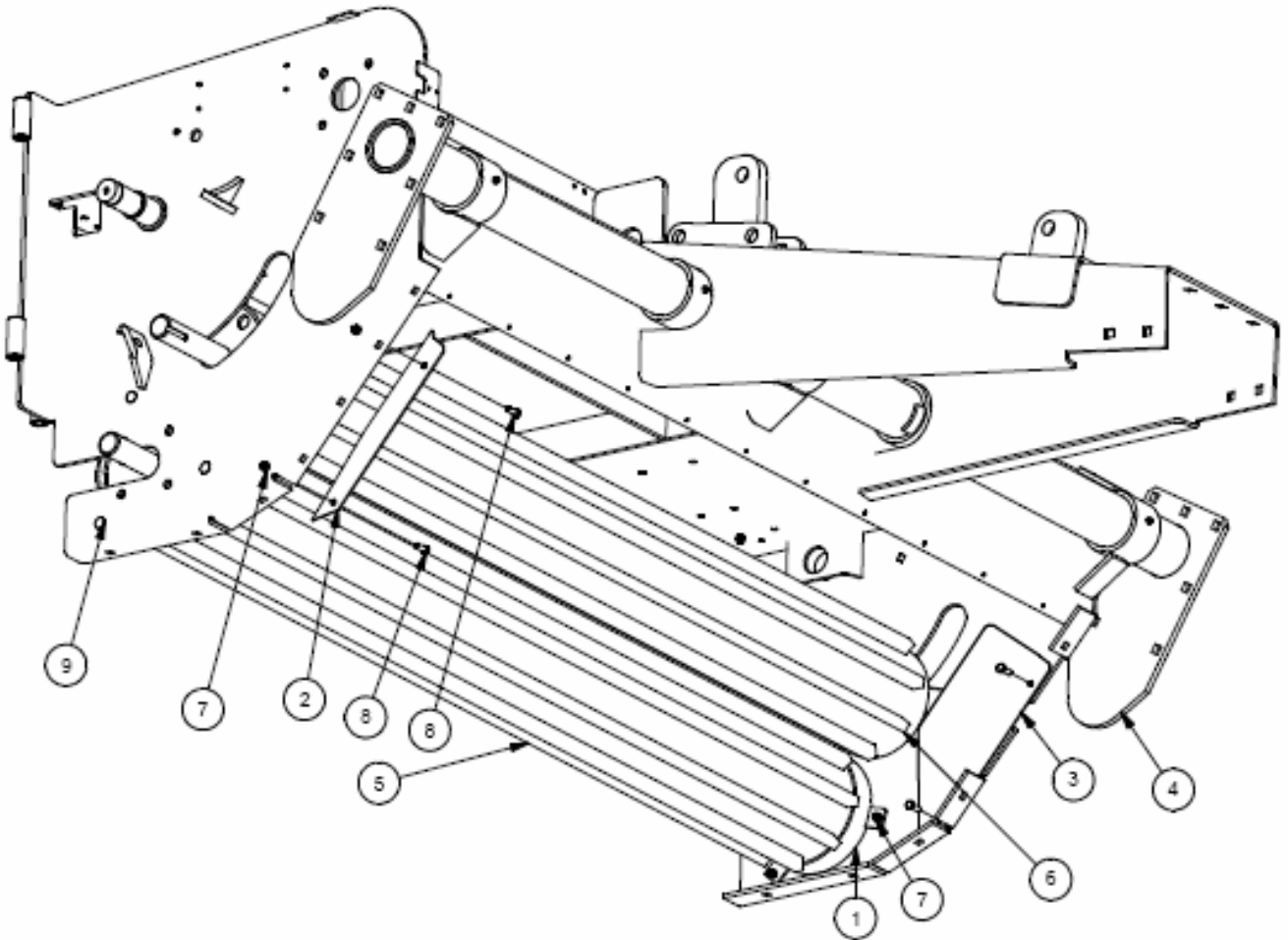
1



Item	Qty	Part #	Description
1	1	HC-01b	Tongue Assembly
2	2	HC-03	Lift Arm Assembly
3	1	HC-7501c	Frame Assembly
4	1	HC-02	Tandem Assembly
5	1	HC-02_MIR	Tandem Assembly
6	1	Obtain Locally	½-13 UNC Lock Nut
7	24	Obtain Locally	5/8-11 UNC Lock Nut
8	4	PP-00210	4000lb Hub Assembly
9	4	PP-00296	Tire and Rim 11L 15
10	14	Obtain Locally	Gr.3 5/8-11 UNC x 2 Carriage Bolt
11	1	PP-00302	15" Jack
12	8	Obtain Locally	Gr.3 5/8-11 UNC x 1.5 Carriage Bolt
13	2	Obtain Locally	Gr.5 5/8-11 x 4.5 UNC Hex Head Cap Screw
14	1	Obtain Locally	Gr.3 ½-13 UNC x 4.5 Hex Head Cap Screw
15	1	PP-00893	Clevis PPI-107VR
16	1	PP-0894	Implement Hitch, Base Hitch PPI-126VR

Main Frame Assembly

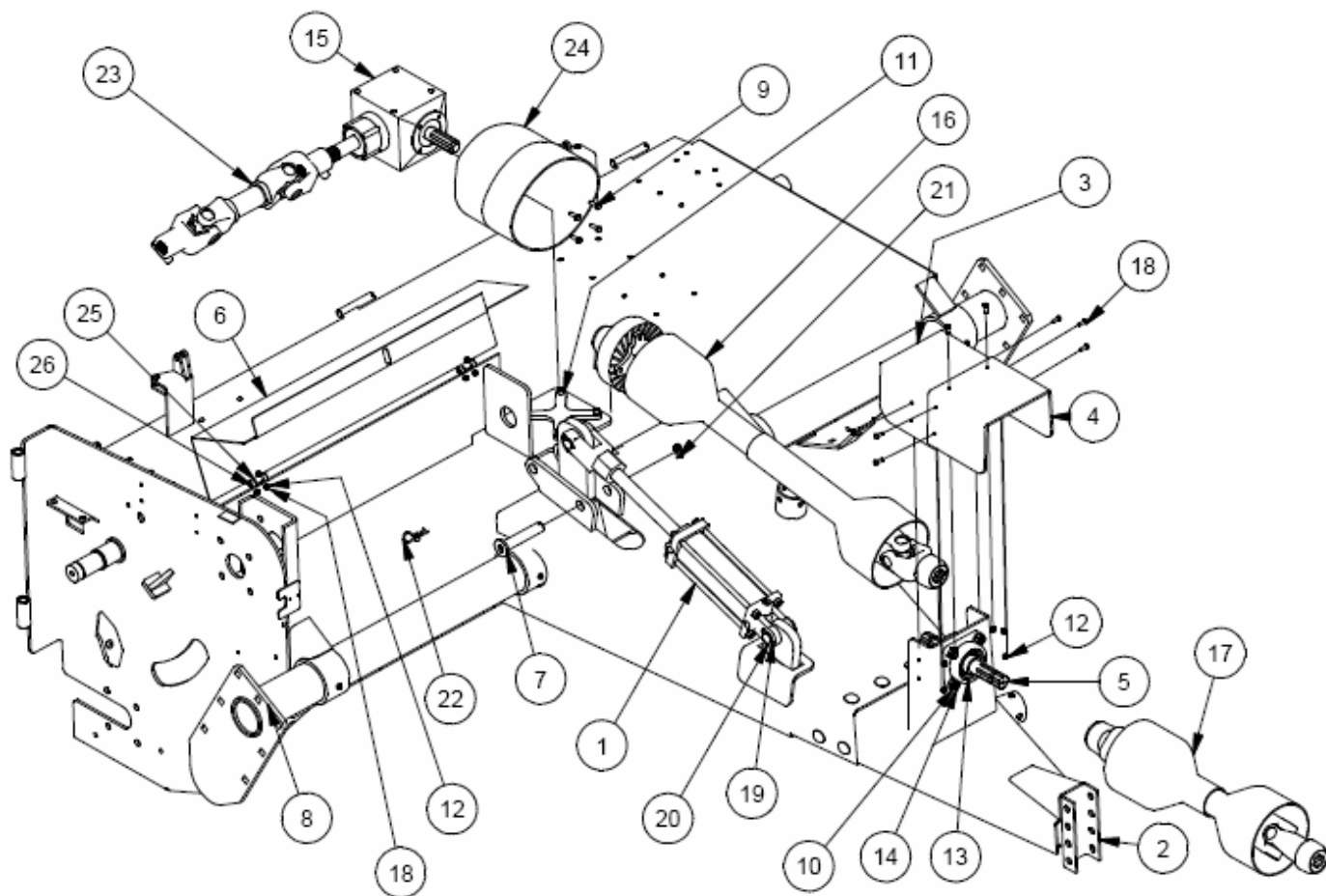
2



Item	Qty	Part #	Description
1	2	HC-04	Hay Guard Assembly
2	1	HC-106	Roller Guard
3	1	HC-106_mir	Roller Guard
4	1	HC-7501c	Frame Assembly
5	1	HC-7502	Bottom Roller Assembly
6	1	HC-7503	Top Roller Assembly
7	11	Obtain Locally	3/8-16 UNC Lock Nut
8	4	Obtain Locally	Gr.5 3/8-16 x 1 Hex Head Cap Screw
9	6	Obtain Locally	Gr.3 3/8-16 UNC x 1 Carriage Bolt

Main Frame Assembly

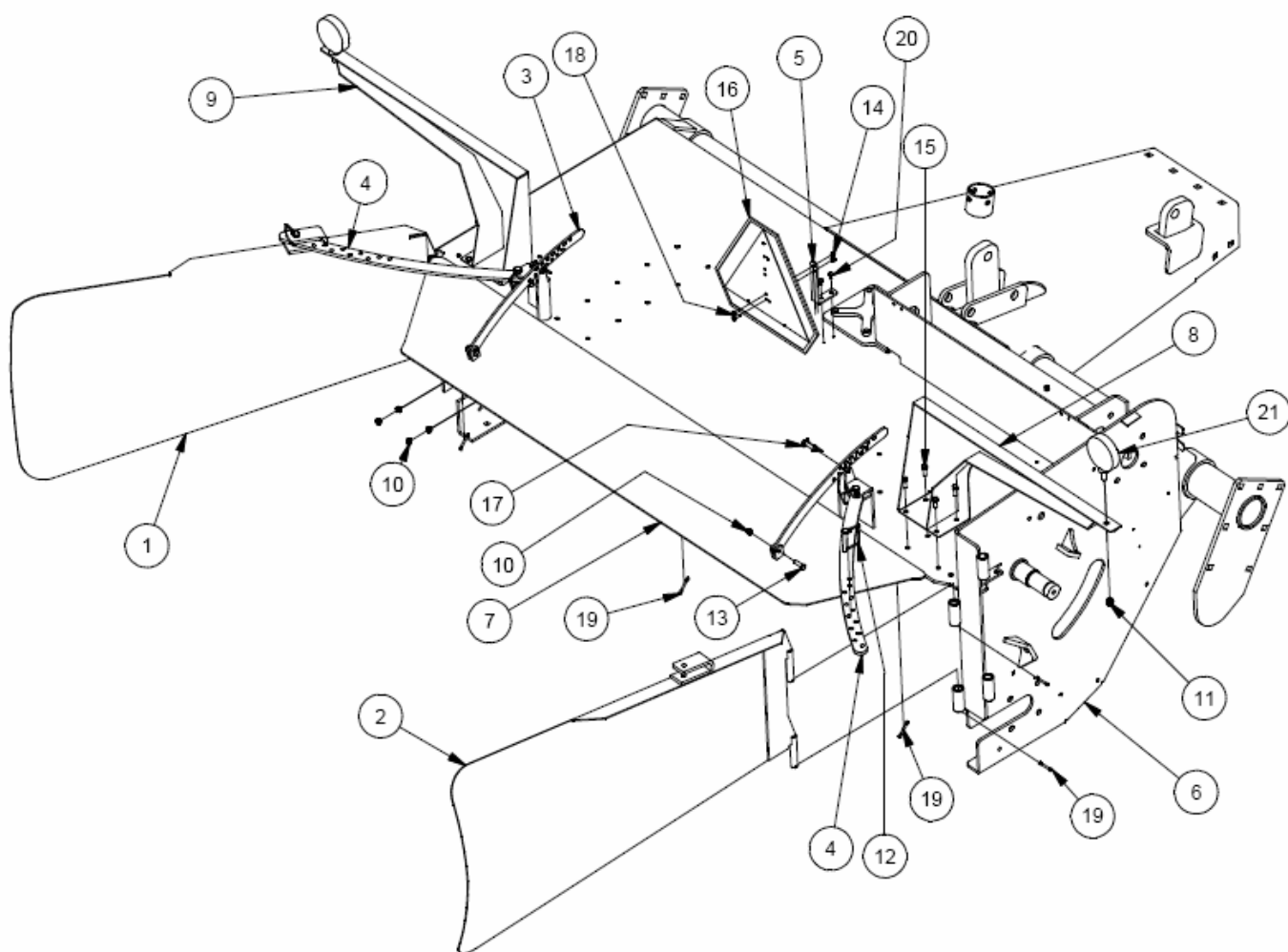
3



Item	Qty	Part #	Description	Item	Qty	Part #	Description
1	1	CYL-30008-02-01	Cylinder 3 x 8 Stroke	14	4	PP-00310	Gr.3 1/2-13 UNC x 2 Hex Cap Screw
2	1	HC-01b	Tongue Assembly	15	1	PP-00337	T27-J Comer Gearbox
3	1	HC-072	Shield	16	1	PP-00338	#6 Driveline w/ overrunning clutch
4	1	HC-094	Rubber Shield	17	1	PP-00339	#6 Driveline
5	1	HC-117	540 Stub Shield	18	14	PP-00343	Gr.3 1/2-13 UNC x Hex Cap Screw
6	1	HC-144c	Small Shield	19	4	PP-00346	3/4 ID Lynch Pin
7	1	HC-22c	Safety Pin	20	2	PP-00347	Cylinder Pin
8	1	HC-7501c	Frame Assembly	21	1	PP-00357	3/16 Lynch Pin
9	4	Obtain Locally	Gr.3 5/16-18 UNC x 1 Hex Head Cap Screw	22	1	Obtain Locally	Hitch Pin Clip (.15 dia)
10	4	Obtain Locally	1/2-13 UNC Lock Nut	23	1	PP-00836	#5 – 1 3/8-19 spline both ends, 21.5 to 25"
11	4	Obtain Locally	Gr.3 1/2-13 UNC x 1.5 Hex Head Cap Screw	24	1	PP-00924	PTO Shield
12	14	Obtain Locally	1/4-20 UNC Lock Nut	25	2	PP-00936	3/16 Hinge
13	2	PP-00309	F207-22 Pillow Block	26	2	PP-00937	3/16 Hinge

Main Frame Assembly

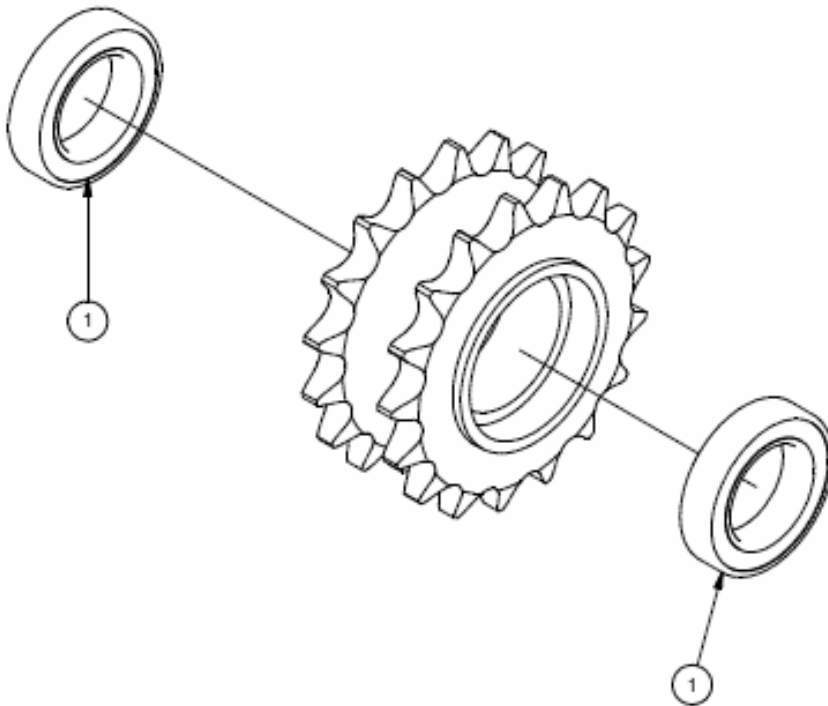
4



Item	Qty	Part #	Description	Item	Qty	Part #	Description
1	1	HC-06b	Left Side Deflector Assembly	12	2	PP-00052	3/8 x 2.25 Lock Pin
2	1	HC-06b_MIR	Right Side Deflector Assembly	13	2	Obtain Locally	Gr.3 3/8-16 UNC x 1.25 Hex Head Cap Screw
3	2	HC-105	Deflector Arm	14	2	Obtain Locally	1/4-20 UNC Lock Nut
4	2	HC-109	Side Deflector Arm	15	8	Obtain Locally	Gr.3 3/8-16 x 1 Hex Head Cap Screw
5	1	HC-157	Yield Bracket	16	1	PP-00204	SMV Sign
6	1	HC-7501c	Frame Assembly	17	4	Obtain Locally	3/8 x 1 3/8 Lock Pin
7	1	HC-75A04	Deflector Assembly	18	2	Obtain Locally	Gr.3 1/4-20 UNC x .75 Hex Cap Screw
8	1	HC-A27	Light Arm	19	7	Obtain Locally	3/16 x 1 1/2 Cotter Pin
9	1	HC-A27_MIR	Light Arm	20	2	Obtain Locally	Gr.3 1/4-20 UNC x .5 Hex Cap Screw
10	10	Obtain Locally	3/8-16 UNC Lock Nut	21	2	PP-00770	Orange Flasher
11	2	Obtain Locally	1/2-13 UNC Finished Hex Nut				

HC-28

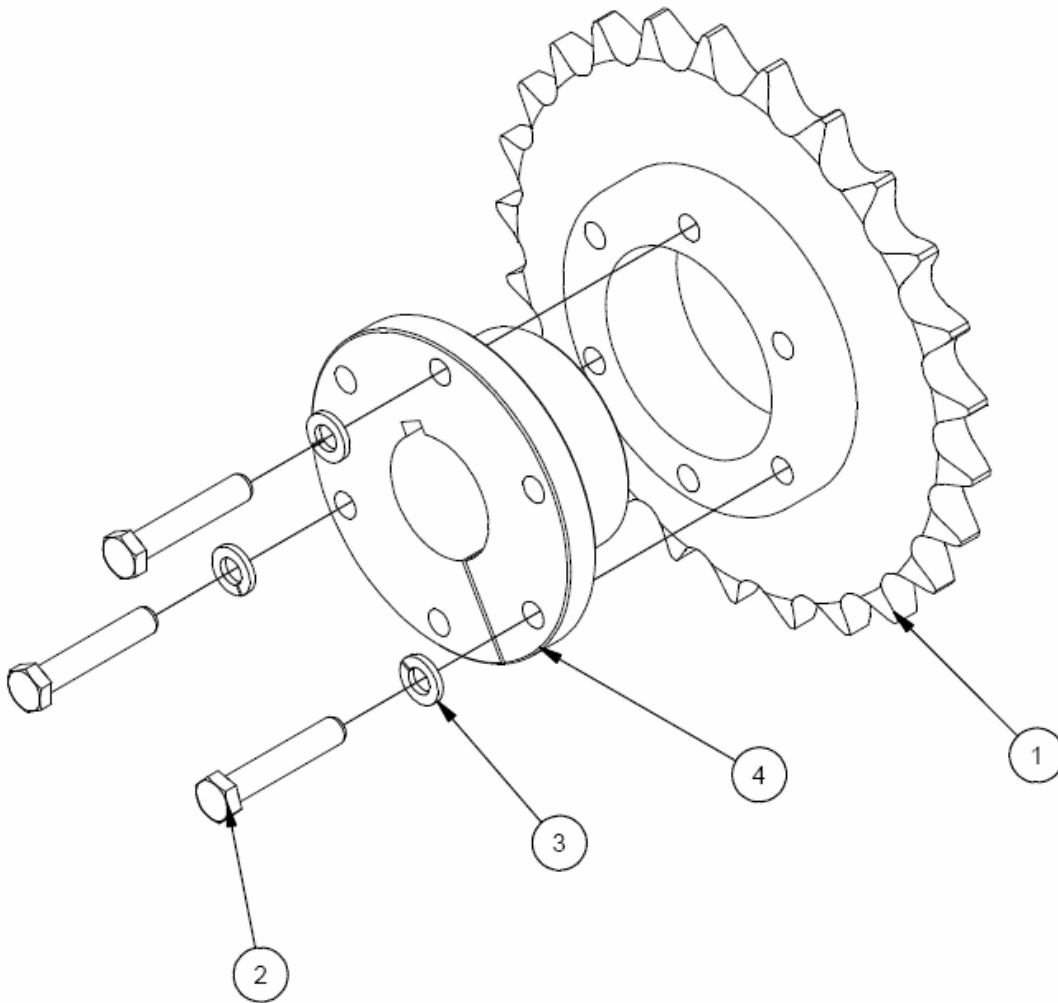
Parts Breakdown



Item	Qty	Part #	Description
1	2	PP-00900	45 x 75 x 16mm Ball Bearing #6009

PP-00303

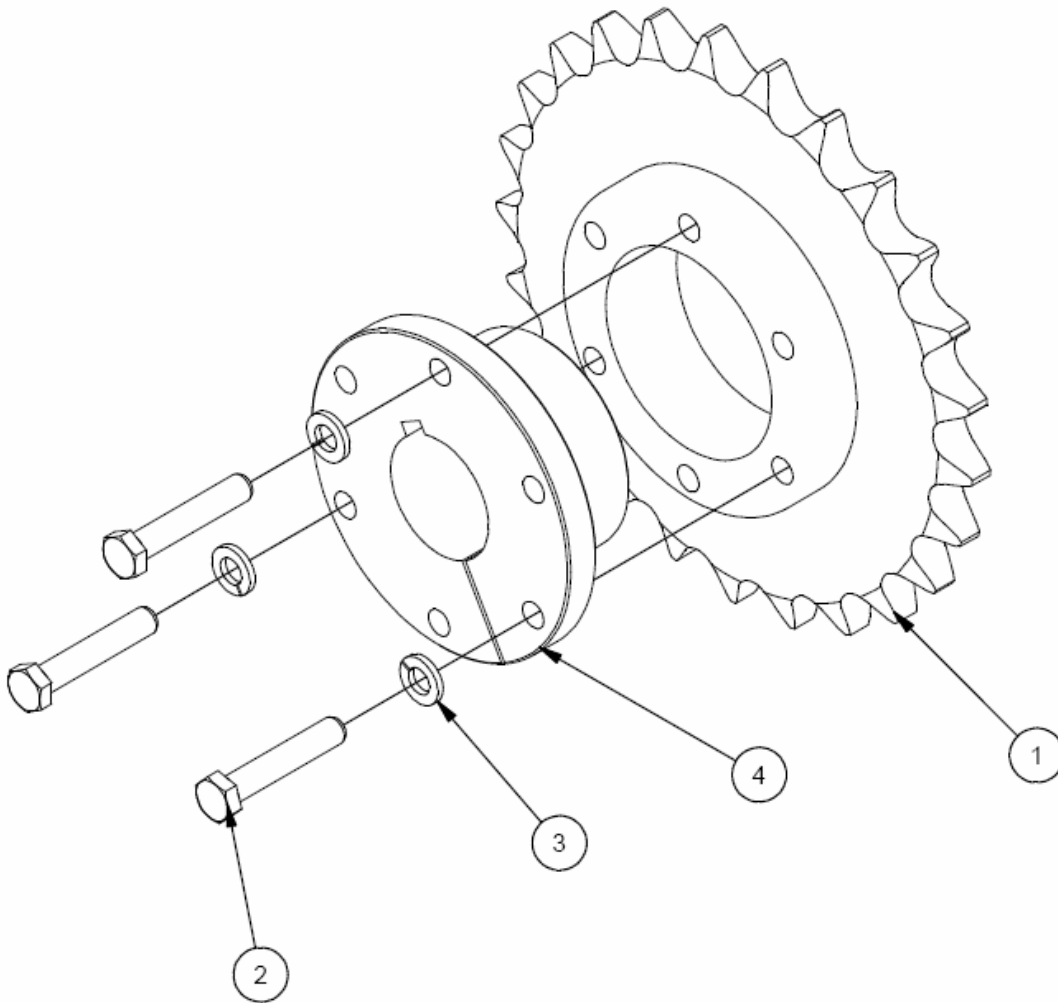
Parts Breakdown



Item	Qty	Part #	Description
1	1	PP-00304	80SF25 Taper Lock Sprocket
2	3	Obtain Locally	Gr.3 3/8-16 UNC x 2 Hex Cap Screw
3	3	Obtain Locally	3/8 Lock Washer
4	1	PP-00305	SF 1 3/4 Taper Lock

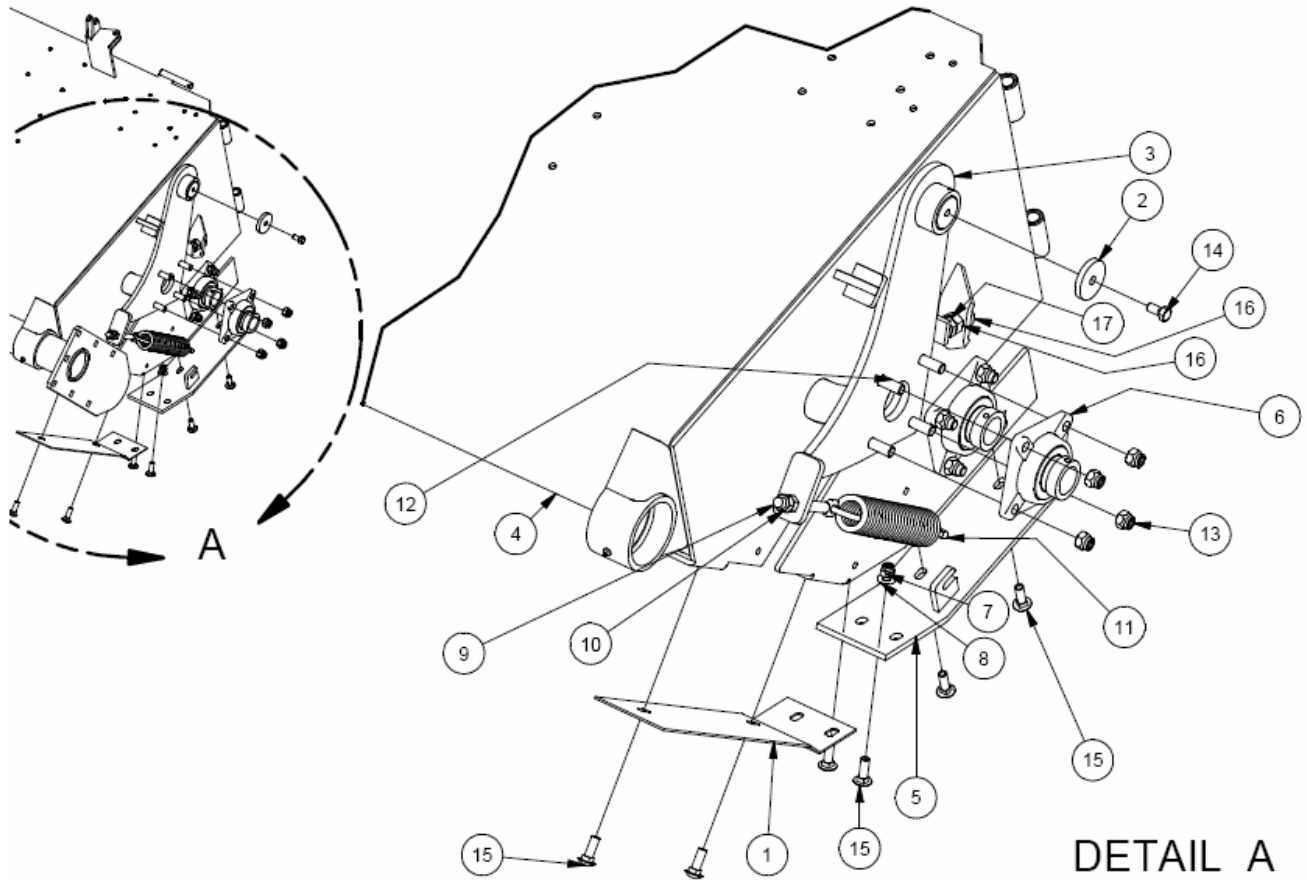
PP-00318

Parts Breakdown



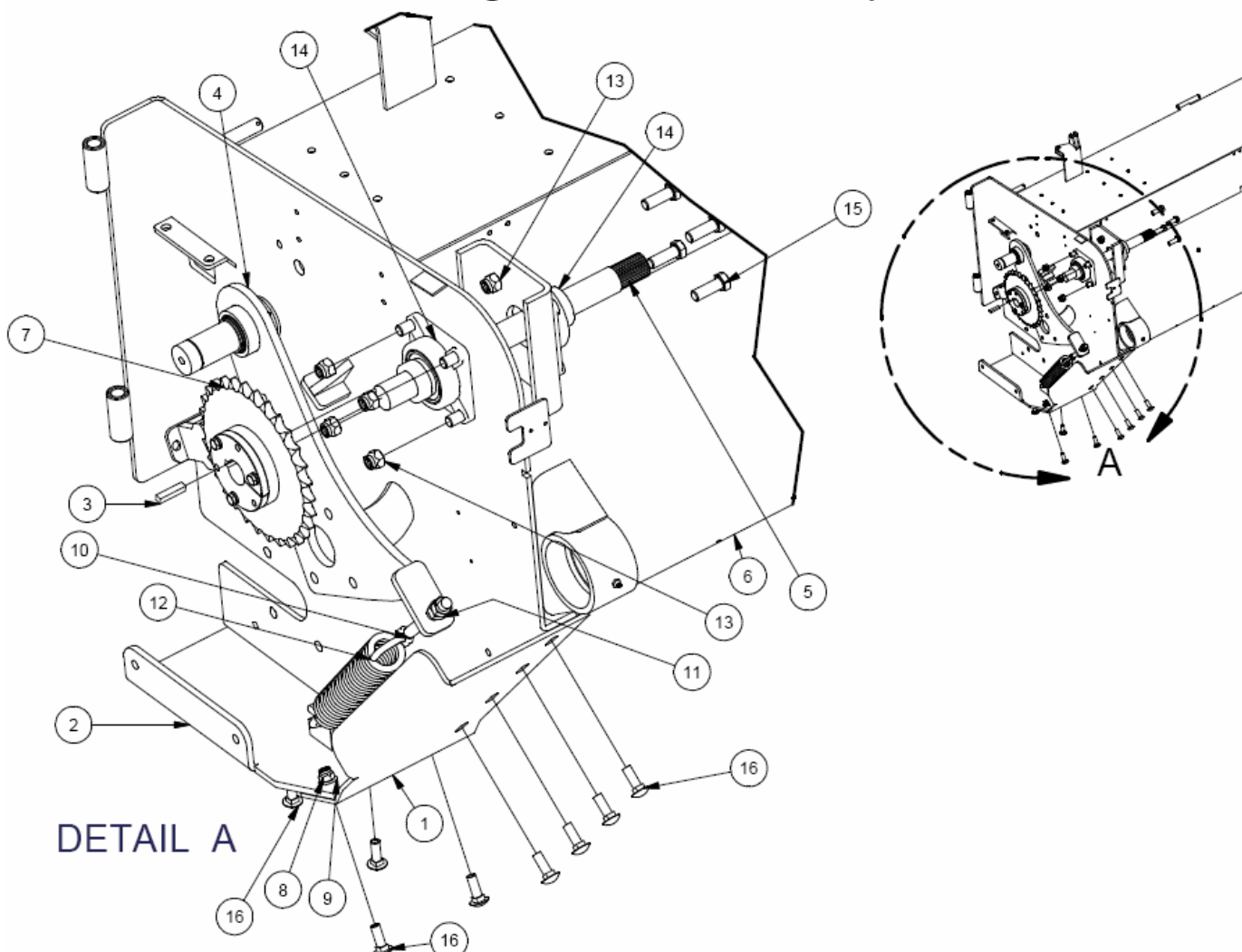
Item	Qty	Part #	Description
1	1	PP-00320	80SF30 Taper Lock Sprocket
2	3	Obtain Locally	Gr.3 3/8-16 UNC x 2 Hex Cap Screw
3	3	Obtain Locally	3/8 Lock Washer
4	1	PP-00319	SF 1 1/2 Taper Lock

Left Side Panel Assembly



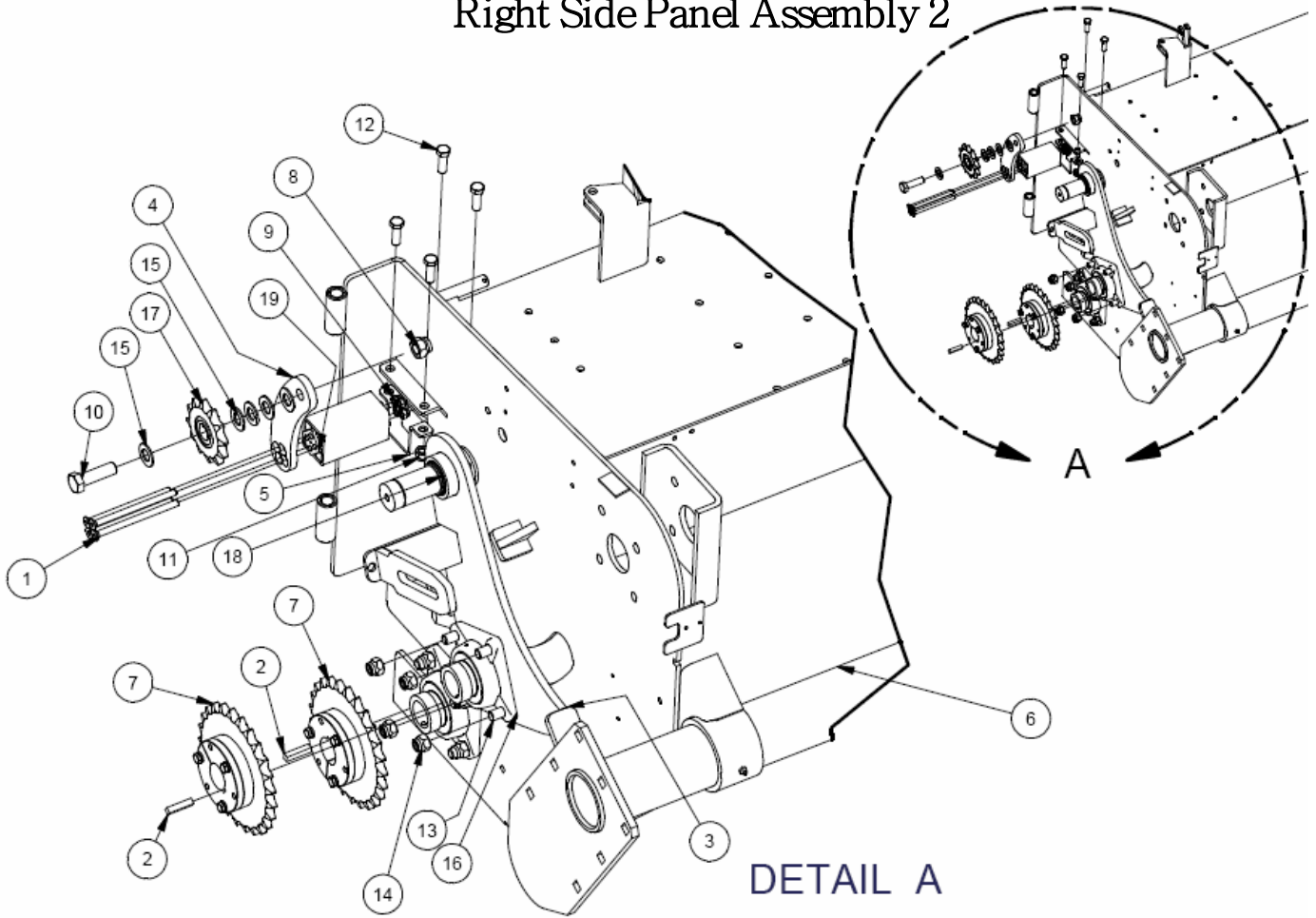
Item	Qty	Part #	Description
1	1	HC-067b	Left Hay Guard
2	1	HC-075	Pivot Washer
3	1	HC-12c	Left Pivot Arm
4	1	HC-13	Left Skid Shoe Assembly
5	1	HC-7501c	Frame Assembly
6	2	PP-00315	F209-28 Pillow Block
7	6	PP-00014	1/2-13 UNC Lock Nut
8	7	Obtain Locally	1/2 Flat Washer
9	1	PP-00051	Flat Spade Bolt 5/8 x 6
10	2	Obtain Locally	5/8-11 UNC Finished Hex Nut
11	1	PP-00054	Standard Snow Plow Spring
12	8	Obtain Locally	Gr.3 5/8-11 UNC x 2 Hex Head Cap Screw
13	8	Obtain Locally	5/8-11 UNC Lock Nut
14	1	Obtain Locally	Gr.3 1/2-13 UNC x 1 Hex Head Cap Screw
15	6	Obtain Locally	Gr.3 1/2-13 UNC x 1.5 Carriage Bolt
16	2	Obtain Locally	Gr.3 3/4-16 UNF Hex Nut
17	1	Obtain Locally	Gr.3 3/4-10 UNF x 2 Hex Head Cap Screw

Right Side Panel Assembly



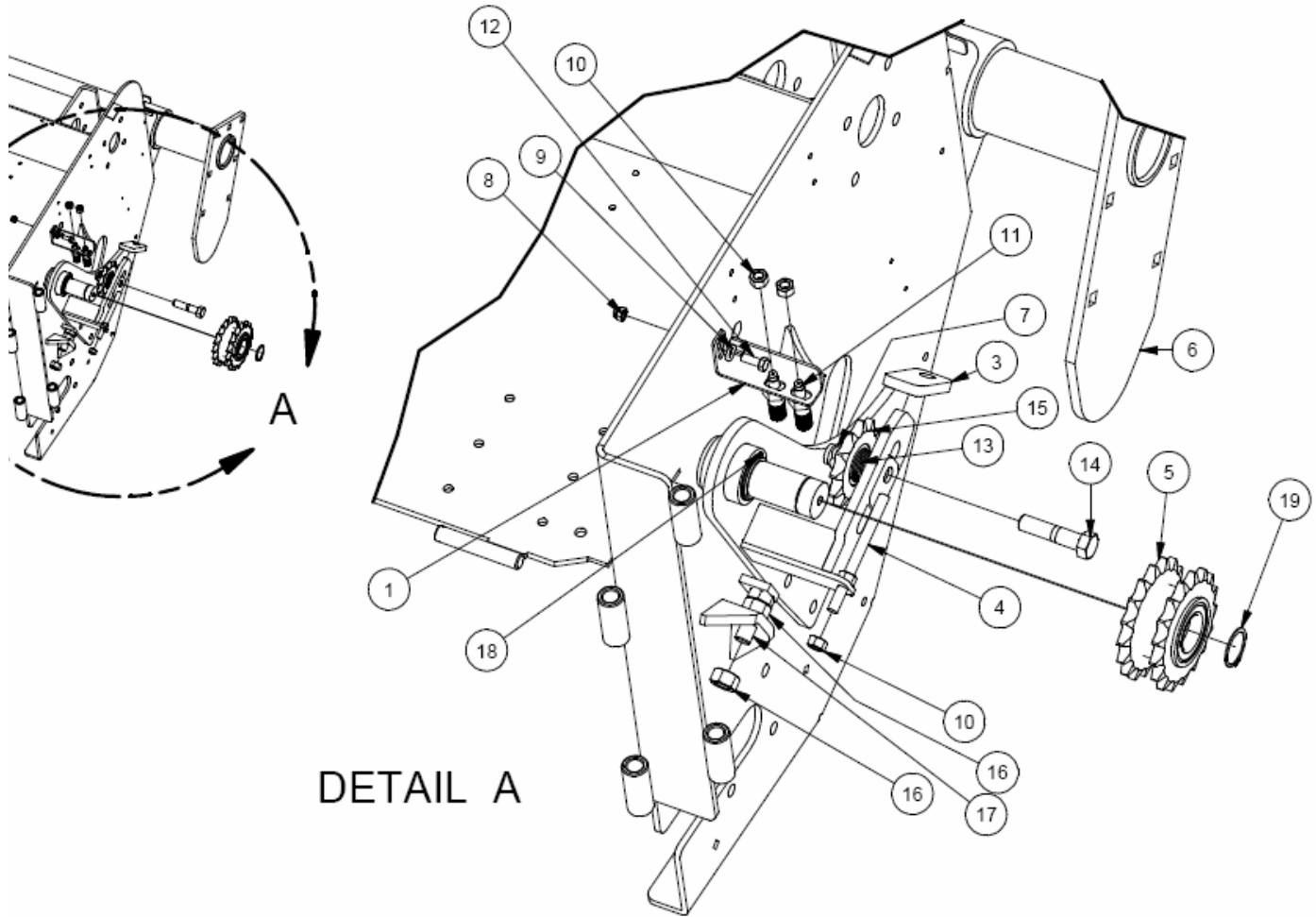
Item	Qty	Part #	Description
1	1	HC-040	Right Hay Guard
2	1	HC-05b	Right Skid Shoe Assembly
3	1	HC-063	Key
4	1	HC-10c	Right Pivot Arm
5	1	HC-142	Drive Shaft
6	1	HC-7501c	Frame Assembly
7	1	P-00318	80SF30 x 1 1/2 bore
8	8	Obtain Locally	1/2-13 UNC Lock Nut
9	8	Obtain Locally	1/2 Flat Washer
10	1	PP-00051	Flat Spade Bolt 5/8 x 6
11	2	PP-00053	5/8-11 UNC Finished Hex Nut
12	1	PP-00054	Standard Snow Plow Spring
13	8	Obtain Locally	5/8-11 UNC Lock Nut
14	2	PP-00322	F208-24 Pillow Block
15	8	Obtain Locally	Gr.3 5/8-10 UNC x 1.75 Hex Cap Screw
16	8	Obtain Locally	Gr.3 1/2-13 UNC x 1.5 Carriage Bolt

Right Side Panel Assembly 2



Item	Qty	Part #	Description
1	1	Obtain Locally	3/8-16 x 6 Hex Bolt
2	1	HC-063	Key
3	1	HC-10c	Right Pivot Arm
4	1	HC-166c	Tensioner Arm
5	1	HC-167c	Tensioner Bracket
6	1	HC-7501c	Frame Assembly
7	1	PP-00303	80SF25 x 1 3/4 bore
8	8	Obtain Locally	3/4-10 UNC Lock Nut
9	8	Obtain Locally	3/8-16 UNC Lock Nut
10	1	Obtain Locally	Gr.3 3/4-10 UNC x 2.5 Hex Head Cap Screw
11	2	Obtain Locally	1/2-13 UNC Lock Nut
12	1	Obtain Locally	Gr.3 1/2-13 UNC x 2 Hex Head Cap Screw
13	8	Obtain Locally	Gr.3 5/8-11 UNC x 2 Hex Head Cap Screw
14	2	Obtain Locally	5/8-11 UNC Lock Nut
15	8	Obtain Locally	USS Zinc Plated 3/4 Flat Washer
16	8	PP-00315	F209-28 Pillow Block
17	1	PP-00342	80SF11 x .75 Bore Idler Sprocket
18	1	Obtain Locally	2" Snap Ring
19	1	PP-00982	Rosta Tensioner DR-A38 x 120

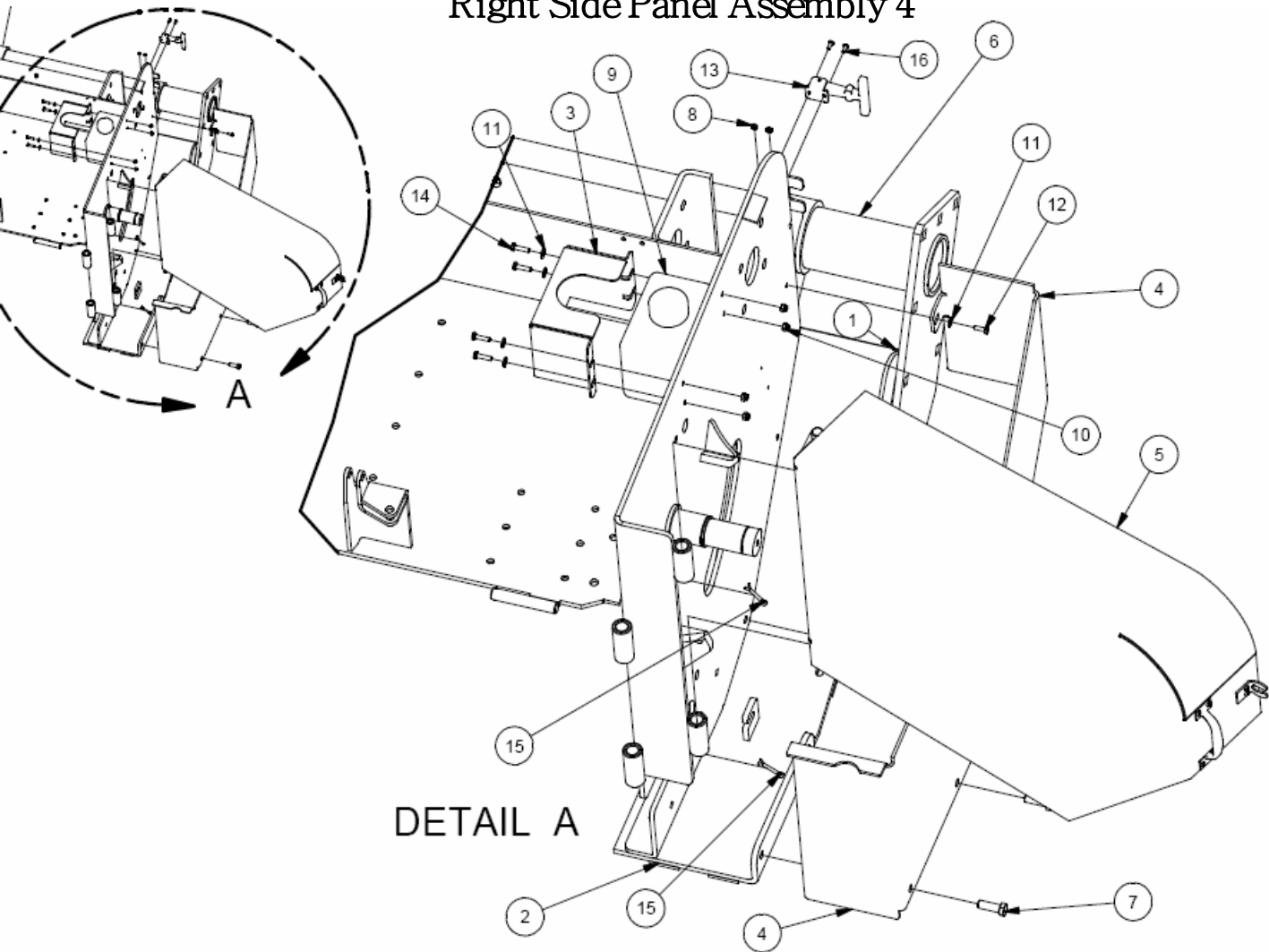
Right Side Panel Assembly 3



DETAIL A

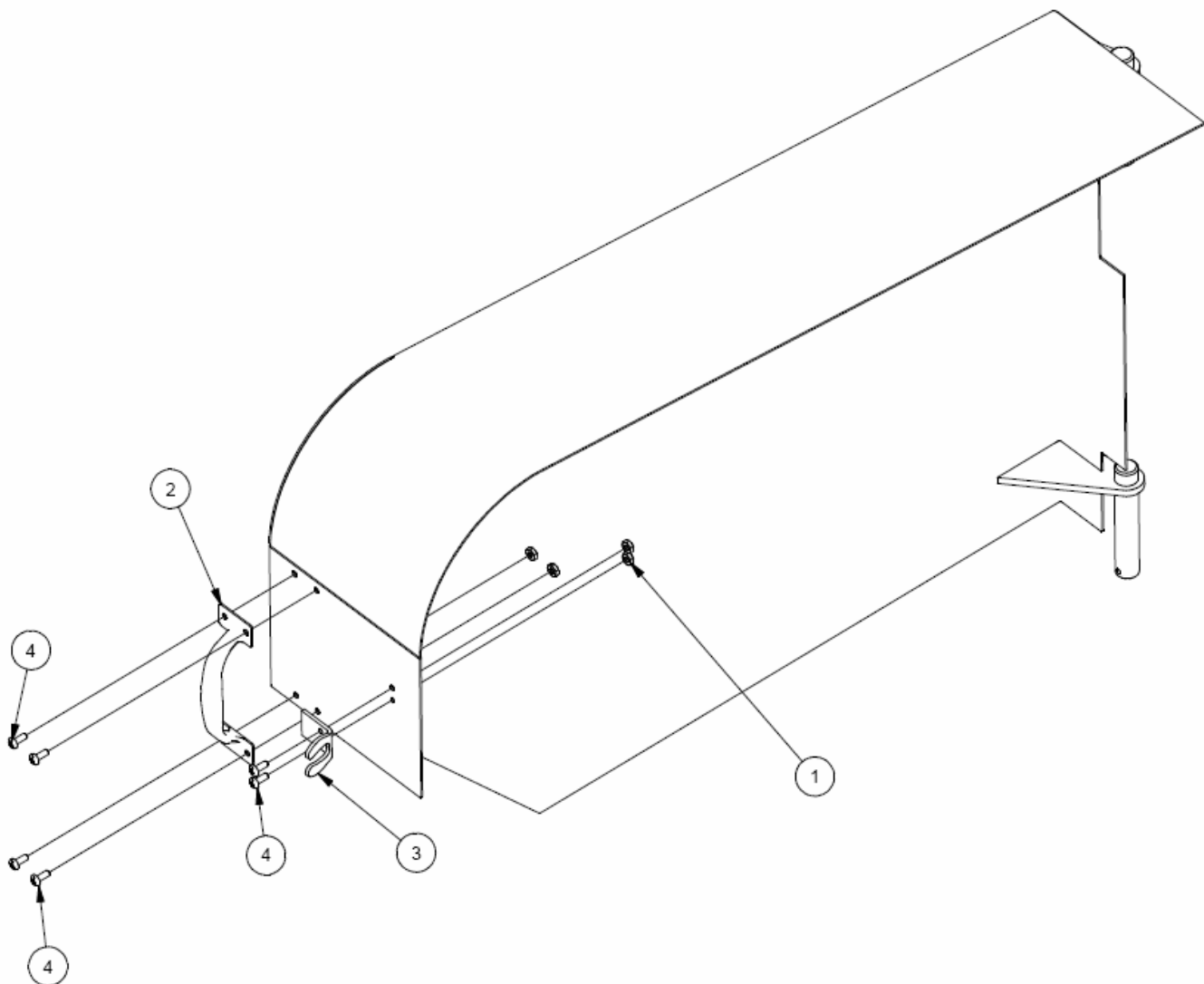
Item	Qty	Part #	Description
1	1	HC-098b	Brush Mount
3	1	HC-10c	Right Pivot Arm
4	1	HC-14c	Thread Rod Assembly
5	1	HC-28	17 tooth Double Sprocket
6	1	HC-7501c	Frame Assembly
7	1	Obtain Locally	3/4-10 UNC Lock Nut
8	1	Obtain Locally	3/8-16 UNC Lock Nut
9	1	Obtain Locally	3/8 Flat Washer
10	1	Obtain Locally	1/2-13 UNC Finished Hex Nut
11	4	PP-00088	Brush
12	2	Obtain Locally	Gr.3 3/8-16 x 1 Hex Head Cap Screw
13	1	Obtain Locally	USS Zinc Plated 3/4 Flat Washer
14	11	Obtain Locally	Gr.3 3/4-10 UNC x 3 Hex Head Cap Screw
15	1	PP-00342	80SF11 x .75 Bore Idler Sprocket
16	1	Obtain Locally	Gr.3 3/4-16 UNF Hex Nut
17	2	PP-00315	Gr.3 3/4-10 UNC x 2 Hex Head Cap Screw
18	1	PP-00923	2" Snap Ring
19	1	PP-01004	1 7/16" Snap Ring

Right Side Panel Assembly 4



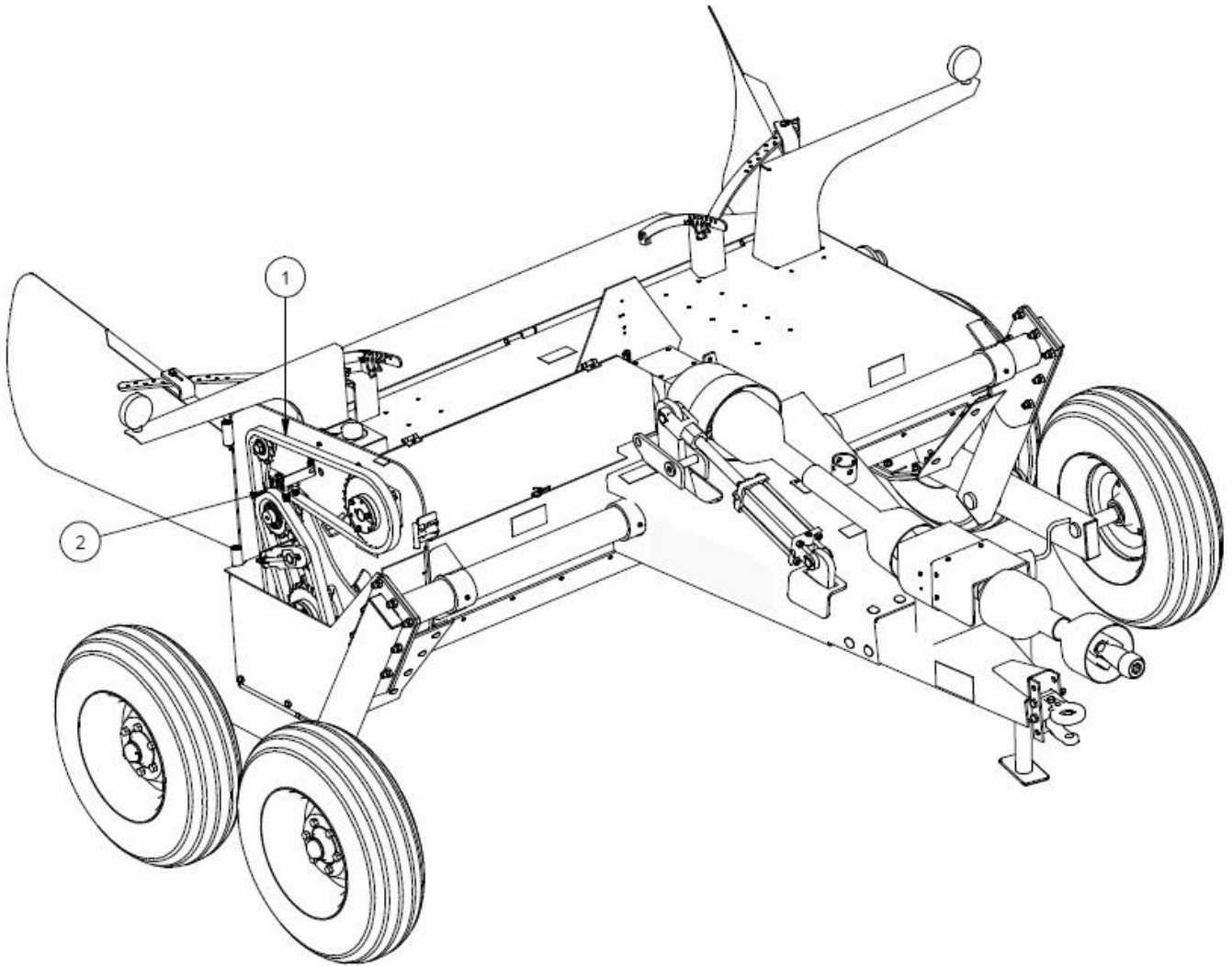
Item	Qty	Part #	Description
1	1	HC-040b	Right Hay Guard
2	1	HC-10c	Right Skid Shoe Assembly
3	1	HC-14c	Oiler Shield
4	1	HC-28	Bolt-on Bottom Shield
5	1	HC-7501c	Shield Assembly
6	1	Obtain Locally	Frame Assembly
7	2	Obtain Locally	Gr.3 1/2-13 UNC x 1.5 Hex Head Cap Screw
8	2	Obtain Locally	10-20 UNC Finished Hex Nut
9	1	PP-00072	Oil reservoir 2 Quart Tank
10	4	Obtain Locally	1/4-20 UNC Lock Nut
11	5	Obtain Locally	1/4 USS Zinc Plated Flat Washer
12	1	Obtain Locally	Gr.3 1/4-20 UNC x .75 Hex Cap Screw
13	1	PP-00345	T-Strap
14	4	PP-00342	Gr.3 1/4-20 UNC x 1 Hex Cap Screw
15	2	PP-00356	3/16 x 1 1/2 Cotter Pin
16	2	Obtain Locally	10-24 x .5 Round head slot drive machine screw

HC-17c Shield Assembly



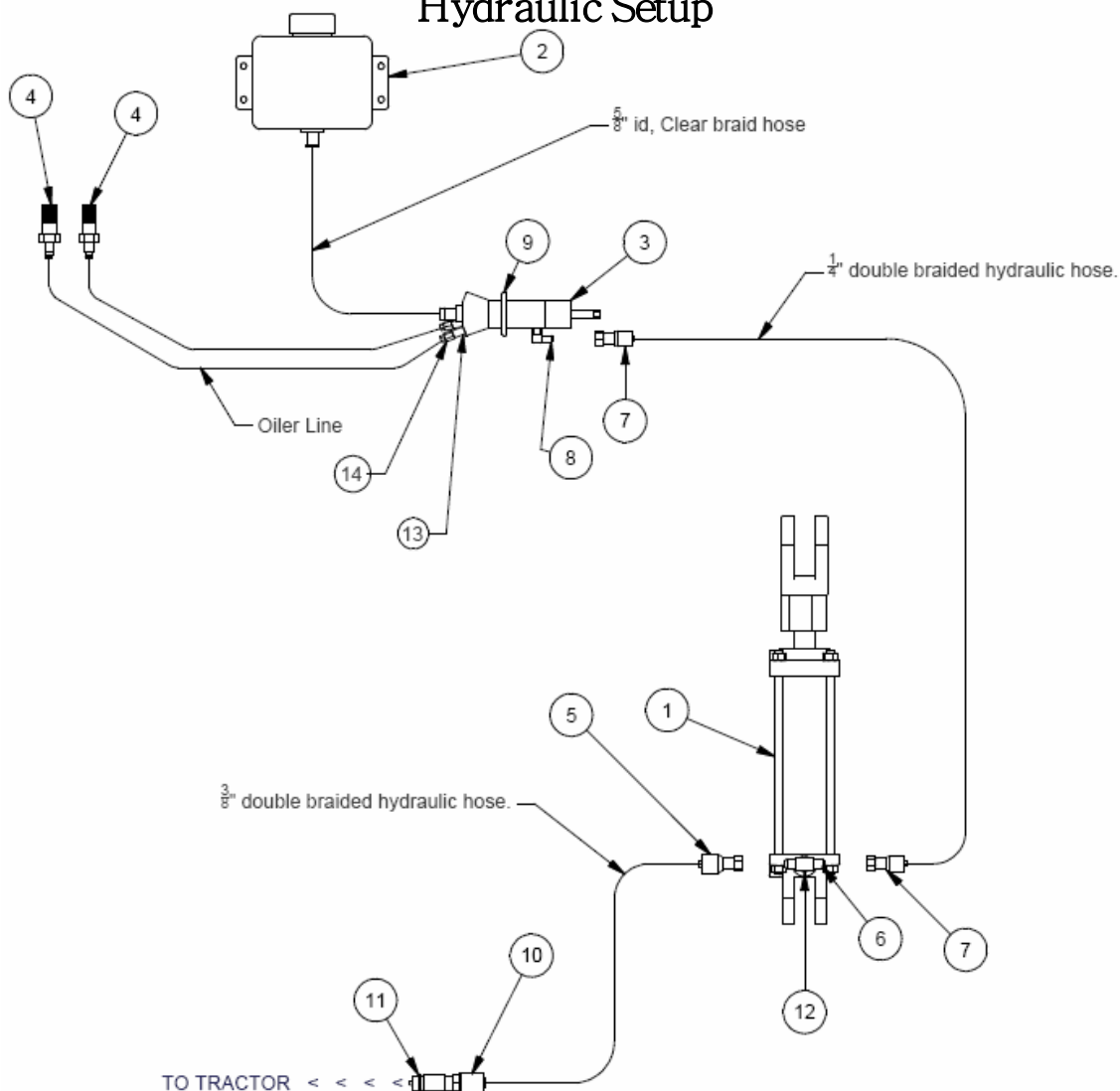
Item	Qty	Part #	Description
1	6	Obtain Locally	10-24 UNC Finished Hex Nut
2	1	PP-00920	Handle
3	1	PP-00935	T-Strap Brace
4	6	Obtain Locally	10-24 x .5 Round head slot drive machine screw

Accelerator Chain



Item	Qty	Part #	Description
1	1	AC-Chain-01	80 series/ 58 links
2	1	AC-Chain-02	80 series/ 23 links

Hydraulic Setup



Item	Qty	Part #	Description
1	1	CYL-30008-02	Hydraulic Cylinder 3 x 8 stroke
2	1	PP-00072	Oil Reservoir 2 quart tank
3	1	PP-00087	Lube Minder 2 port Pump
4	2	PP-00088	Brush
5	1	PP-00094	Coupling #6 F-JIC 3/8 bore
6	1	PP-00095	Run Tee #6M-NPT/ #6M-JIC
7	2	PP-00125	Coupling #6 F-JIC x 1/4 bore
8	1	PP-00147	90° 4# M-JIC/ 6# M-ORB
9	1	PP-00358	1/4-20 U Bolt
10	1	PP-00616	Coupling #8 M-NPT, 3/8 Bore
11	1	PP-00661	Pioneer Male Coupler #8 F-NPT
12	1	PP-01008	Adapter #6 F-NPT to #8 M-NPT
13	2	PP-01027	5/32 Ferrule
14	2	PP-01026	Sleeve Nut

SECTION 2

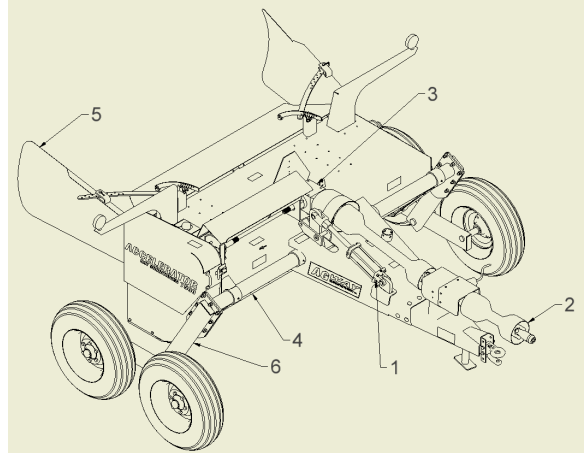
GENERAL INFORMATION

Accelerator

The Tube-Line Accelerator consists of two rollers located on the underside of the machine. The Accelerator is powered by the PTO drive, and hydraulic pressure from the tractor.

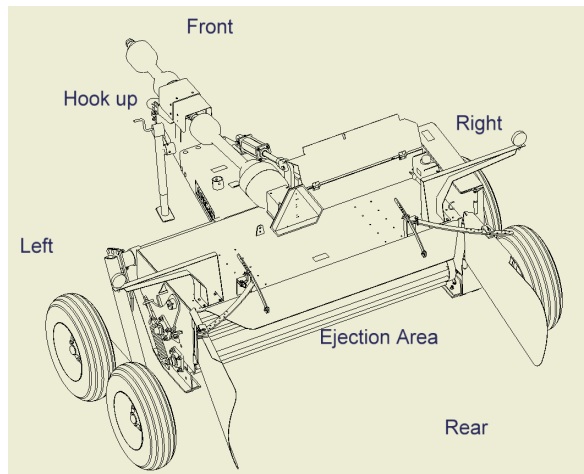
Principle Components

- 1) Lift cylinder
- 2) PTO drive
- 3) Gear box
- 4) Rollers
- 5) Deflectors
- 6) Lift arms



Tube-Line Accelerator Terminology

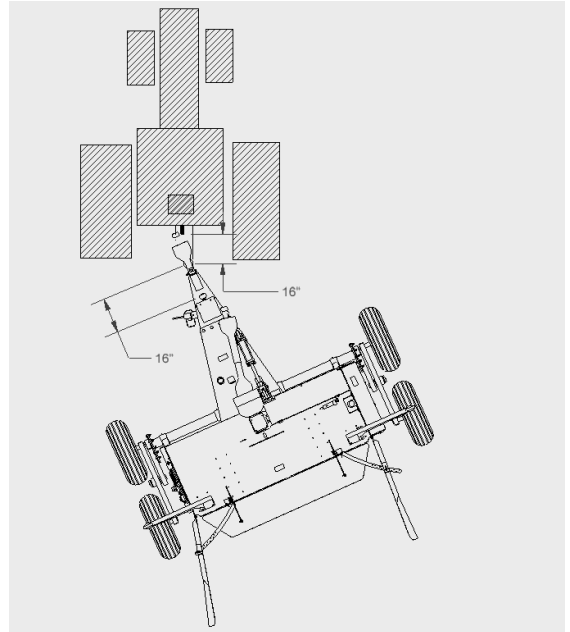
Front
Rear
Left and Right
Hook up
Ejection area



Initial Setup

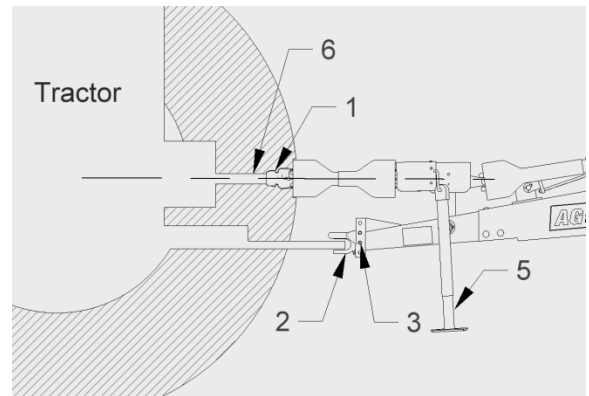
The Tube-line Accelerator in most cases will come assembled and ready to go, however if you are a customer overseas the Accelerator will arrive in a crate and will require some assembly. See page 1-1

NOTE: for first time run operation or first time initial startup refer to “SECTION 3 OPERATION” in this manual.



Hooking up the Tube-Line Accelerator to your tractor

1. Attach the hitch on the Accelerator to the draw bar on the tractor.
2. Attach PTO shaft (1) to tractor.
3. Remove hitch(2), and 5/8-11 x 4.5" bolt (3), and nut, and adjust height of Accelerator with jack(5), until the PTO shaft is in line with tractor PTO(6), tighten and secure hitch.
4. Remove jack.



NOTE: set the accelerator so that the hitch point to the PTO stub shaft is the same distance as the distance from the hitch point to the tractors PTO drive, approximately 16"

Before Transporting

1. Do a complete walk-around visual check to be sure there are no loose parts or components.
2. Do a visual check if all hoses to make sure they are securely tied so they will not pinch or drag during transporting.

Transport Safety

1. Transport the Tube-Line Accelerator with the SMV(Slow Moving Vehicle) sign, displayed at the rear of the machine, and use your hazard lights if the law permits. Check local road law before transporting.
2. When transporting the Tube-Line Accelerator on the road be aware of the width, and length.
3. Do not transport the machine at night, at dawn or at dusk.
4. Do not exceed 32kph (20mph) during transport.

Transporting Checks

1. Check the hitch pin periodically, to make sure it is secure.

SECTION 3 OPERATION

Initial Start-up



WARNING



Keep bystanders away from the machine. Failure to comply could result in death or serious injury.

1. Apply hydraulic pressure and lower and raise the Accelerator.
2. Raise Accelerator to it's raised position.
3. Engage PTO



WARNING



Engage the parking brake on the tractor, shut down the engine, and wait for all moving parts to stop before leaving the cab. Failure to comply could result in death or serious injury.

4. Check for loose or missing nuts and bolts. Tighten any that are loose and replace any missing fasteners.
5. Make sure all protective shields are in place and properly secured.
6. Check all hydraulic hoses and fittings to be sure they are tight and that no hose damage has occurred. Repair or replace any damaged parts before starting the machine.



WARNING



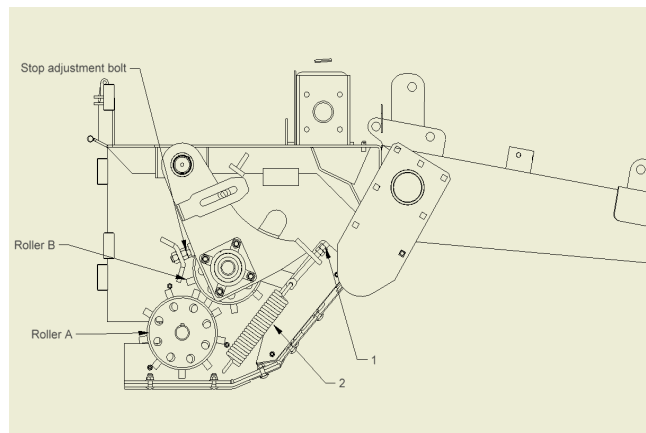
Do not run with defective hoses or fittings. Make sure that there is no pressure in the hydraulic lines before checking repairing. High-pressured hydraulics can cause death or serious injury.

7. Restart the Tube-Line Accelerator

Roller Tensioning

The Tube-Line Accelerator has a spring tension setting on the both the left and the right side of the machine, too set the tensioning of the two rollers.

1. To adjust the rollers simply open the cover shield found on the right side of the machine, and either loosen the nut(1) or tighten it for more or less tension.
2. Do the same for the left side.



NOTE: it is a good practice to make sure that both sides, the left, and the right side tension springs(2), are set at the same tension rate.

SECTION 4

LUBRICATION

Introduction

This section gives full details of the procedures necessary to maintain the Tube-Line Accelerator at peak efficiency. Complete all checks and services in this section at the hour interval shown.

Important: Failure to complete the required maintenance at the interval shown can cause unnecessary downtime.

The recommended lubrication intervals are for average conditions. Perform lubrication more often when operating under adverse conditions.



WARNING

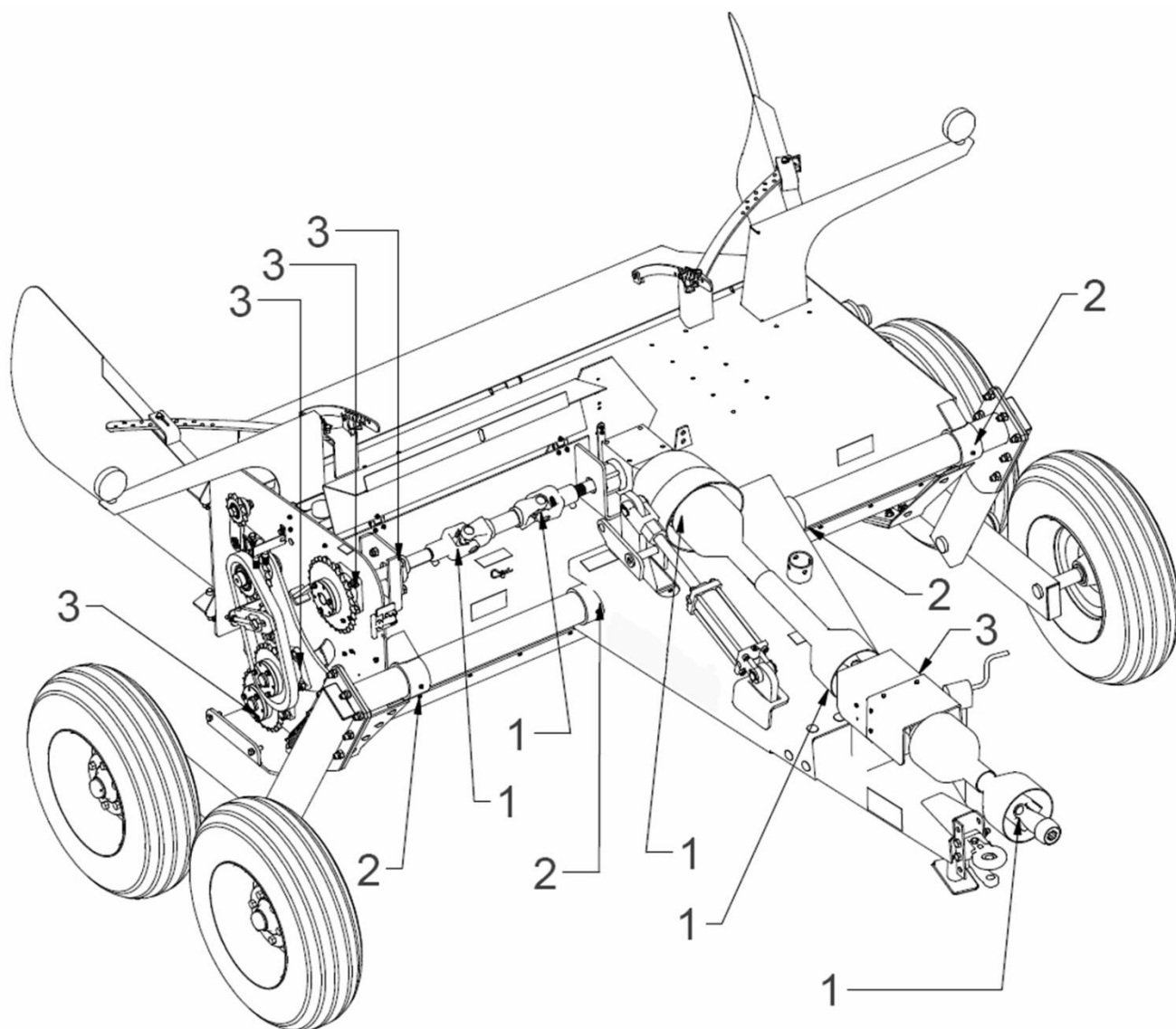


Before lubricating the Tube-Line Accelerator always observe the following precautions:

1. Turn off tractor, set parking brake, remove key and wait for all moving parts to stop before leaving cab.

Failure to comply could result in death or serious injury.

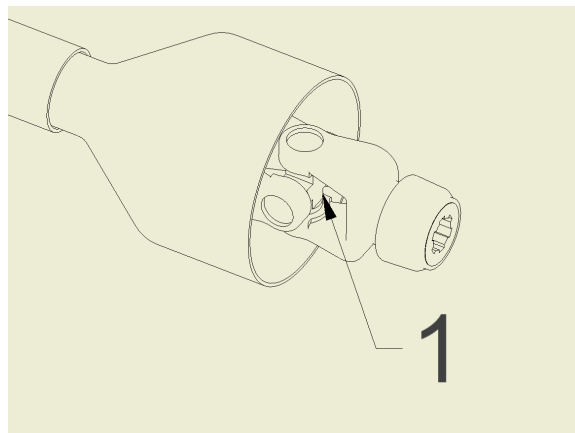
Grease Points



#	Item	Interval
1	PTO Knuckles	Every 50 – 250 Hours
2	Lifting Pivot	Every 100 Hours
3	Pillow Block Bearing	Every 100 Hours

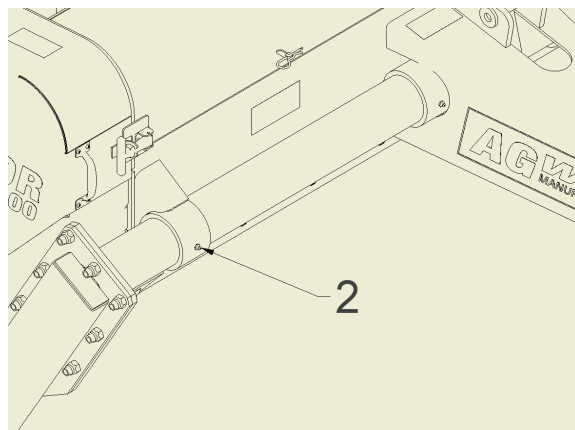
PTO Knuckles (1)

Apply 2 strokes of grease every 50 to 250 hours to point (1) (6 locations).



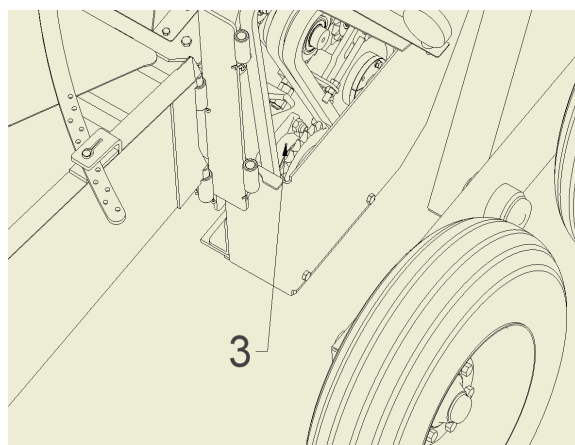
Lifting Pivot (2)

Apply 5 strokes of grease every 100 hours at points (2) (5 locations).



Pillow block bearing (3)

Apply 2 strokes of grease every 100 hours at points (3) (6 locations).



SECTION 5 MAINTENANCE

Complete all checks and services in this section at the hour interval shown.

IMPORTANT: Failure to complete the required maintenance at intervals shown can cause unnecessary downtime.

The recommended intervals are for average conditions. Perform maintenance more often when operating the Tube-Line Accelerator under adverse conditions.



WARNING



Before performing any adjustments or maintenance on the Tube-Line Accelerator, observe these safety precautions:

1. Turn off tractor, set parking brake, remove key and wait for all moving parts to stop before leaving cab.

Failure to comply could result in death or serious injury.

Maintenance on the friction clutch

(If the clutch has not been operated for 1 season we recommend the following)

1. Make sure the tractor is off and the PTO is disengaged.
2. Disconnect the driveline from the tractor.
3. Locate the long bolts on the outside of the clutch pack. Loosen the bolts until all are finger tight, then tighten each, one half turn.
4. Attach the implement to the tractor at the hitch pin, and the driveline to the tractor PTO.
5. Turn the tractor on. Engage the PTO clutch and run for a few seconds, or until the clutch visibly smokes.
6. Disengage the tractor PTO clutch off the tractor. Keep clear of the machine until all parts stop moving.
7. Disconnect the driveline from the tractor.
8. Tighten the long bolts on the outside of the clutch pack until the compression plate is in full contact with the housing.
9. If the clutch contains an integral overrunning clutch, make sure the clutch spins freely in one direction.

Daily Maintenance

Careful inspection and service of the Tube-Line Accelerator prior to operation each day will prevent needless breakdowns and delays in the field. Make the following checks and adjustments.

1. Be alert for loose hardware and tighten or replace as required.
2. Lubricate the Tube-Line Accelerator according to the instruction in the "Lubrication" section of this manual.

Preseason Service

Prior to beginning the harvest, after off season storage, take the following steps to be certain the Tube-Line Accelerator is in good condition.

1. Inspect and make adjustment to the friction clutch as necessary. (refer to page 5-2).
2. Lubricate the Tube-Line Accelerator according to the "Lubrication" section of the manual.
3. Tighten or replace any damaged or missing fasteners

End of Season Service

Prior to storing the Tube-Line Accelerator during the off season, follow these steps to ensure easier preparation for the next season and longer Tube-Line Accelerator life.

1. Pack all grease points with grease (see the "Lubrication" section for grease points location.)
2. Remove all crop material from the Tube-Line Accelerator.

SECTION 6

TROUBLE SHOOTING

Problem: Material wraps on the bottom roller.

Cause #1: Accelerator is set too low and is contacting the ground.

Cause #2: Slip clutch is not set tight enough, causing the slip clutch to slip.

Remedy #1 : Adjust the rod on the cylinder so that the bottom roller is 1-2" off the ground.

Remedy #2 : Tighten tension adjustments on slip clutch 2 rounds each and test, repeat if necessary.

Problem: Main PTO drive knuckles chatter when turning a sharp corner.

Cause: The distance from draw pin to end of the stub shaft on Accelerator and the distance from draw pin to end of PTO in tractor is not equal. (see pg 2-2)

Remedy: Adjust drawbar on tractor so that the distance from draw pin to end of stub shafts are equal each being approximately 16". (see page 2-2)

Problem: After product has passed through the Accelerator the product is not crushed or broken.

Cause #1: The rollers on the Accelerator are too far apart allowing the product to pass through without properly conditioning it.

Cause #2: The spring tension on rollers is not set tight enough.

Remedy #1: Adjust roller spacing.

Remedy #2: Adjust spring tension.

Problem: Rollers chatter

Cause #1: Rollers too close together.

Cause #2: Roller timing is incorrect.

Remedy #1: Adjust the stop for the rollers (see page 3-1)

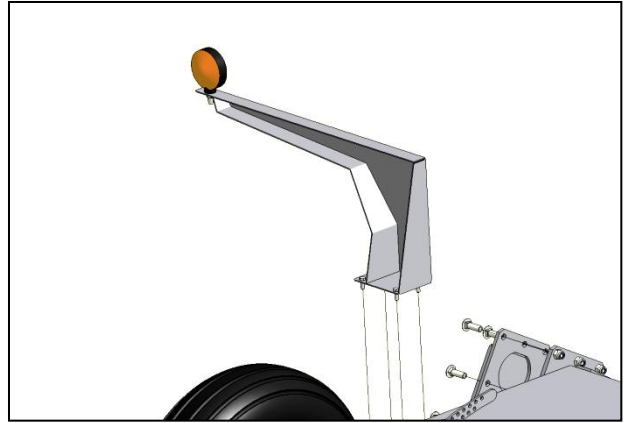
Remedy #2: Remove a link from the chain or readjust hubs on sprockets to correct the timing.

SECTION 7

OPTIONAL EQUIPMENT

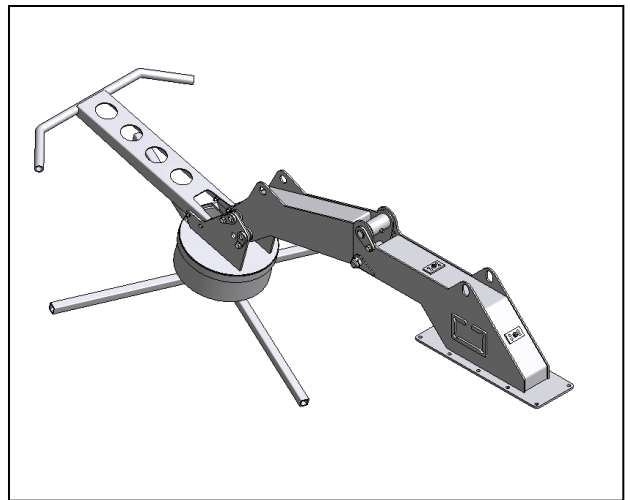
Light Arms

Light arms are available for the Tube-Line Accelerator, light arms make the Tube-Line Accelerator more visible to other traffic, while transporting on the road.



Spreader Kit

The spreader kit available for the Tube-Line Accelerator can be attached at the back of the machine, and will increase drying time by spreading the crop material being ejected from the Accelerator.



TUBE•LINE™
MANUFACTURING LTD.