

**XL – 6084 (RA)
ROCK PICKER
OWNER'S MANUAL**

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Warranty

HIGHLINE Mfg. Inc. warrants its products to the original owner for a period of two years from date of purchase, subject to the following provisions:

- 1st year Warranty covers Parts & Labor
- 2nd year Warranty covers Parts Only
- Warranty registration must be submitted to HIGHLINE Mfg. Inc. within 30 days of purchase.
- Highline Mfg. Inc. is not liable for any damages to this equipment resulting from use of this equipment that is inconsistent with this manual and such is not covered under this warranty.
- Warranty will be void, and Highline Mfg. Inc. will not be liable in any way, if the equipment is used for any other purpose than the intended agricultural application.
- All warranty service must be handled through an authorized HIGHLINE Mfg. Inc. dealer. At the time of requesting warranty service, the purchaser must present evidence of the delivery date of the equipment. The purchaser shall pay any premium for requested overtime, any charge for making service calls, and any charges incurred in transporting the equipment to and from the location of the warranty service. Freight costs associated with warranty repairs are not reimbursable.
- A HIGHLINE MFG. INC. Representative must authorize any labor subject to warranty, before work is started.
- Warranty will be void if any component of this equipment is altered or modified in any way, unless written HIGHLINE MFG. INC gives permission.
- Equipment used for rental, custom work, industrial or construction use will not be warranted by Highline Mfg. Inc.
- HIGHLINE Mfg. Inc. will not assume any responsibility for any damage occurring to equipment which this equipment may be attached.
- Warranty terms and conditions are subject to provincial and state legislation.
- Warranty is limited to the Purchase price paid for the equipment, up to the Manufacturers suggested retail price. ***ANY LIABILITY RESULTING FROM THE WORKMANSHIP OF THIS EQUIPMENT*** is limited to the purchase price paid. Highline Mfg. Inc. assumes no responsibility whatsoever for liability resulting from the misuse or improper operation and maintenance of this equipment.

President's Message

HIGHLINE Mfg Inc manufactures the XL-6084, a proven name in the rock-picking field. The XL-6084 rock picker was designed to work in the most difficult of rock picking situations. A little time and effort spent in proper maintenance will ensure the performance and durability of your rock picker.

This operator's manual has been prepared to provide necessary information for the safe and efficient operation of your rock picker. In it you will find safety procedures, maintenance routines and detailed parts diagrams.

In order to maintain high standards, changes or improvements are made from time to time. **Highline Mfg. Inc.** reserves the right to make those changes and add improvements when practical to do so without incurring any obligation to make such changes and improvements on machines sold previously.

Should the need arise, this manual will assist you in acquiring replacement parts. If your dealer does not have the parts you require in stock, the dealer will be happy to order them for you. If you should find that you require information not covered in this manual, feel free to consult **Highline Mfg. Inc.** or your local dealer.

Highline Mfg. Inc. thanks and congratulates you for selecting a XL-6084 rock picker as the machine for your rock picking needs.

Raymond Bussière
President

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Safety Precautions

CAREFUL OPERATION IS THE BEST INSURANCE AGAINST AN ACCIDENT

- Always disengage PTO and hydraulic motors before dismounting tractor.
- Do not operate unless guards are in place.
- Keep yourself and others clear of rotating parts to prevent injury.
- Never allow anyone to stand near rock picker while dumping or picking rocks.
- Never attempt to manually remove rocks from tynes while hydraulic motor is engaged.
- Lower transport locks before raising bucket. To remove transport **locks, raise** apron slightly and lower brackets. **DO NOT** lift bucket when transport locks are in position otherwise severe damage **WILL** occur.
- Relieve pressure in hydraulic lines before disconnecting lines or performing maintenance on the hydraulic system.

1.0 Introduction & Pre-Delivery

1.1 General Description of XL-6084 Rock Picker

The XL-6084 rock picker covers a width of 60" and has a dumping height of 84". One set of hydraulic lines is required for dumping and lowering the picker's collecting apron. The rock picker may either be PTO or hydraulic driven, however, the hydraulic driven reel may be reversed if the rock picker becomes plugged.

1.2 Pre-Delivery Check List

The following is a list of parts required if the XL-6084 rock picker has not been assembled prior to delivery. If any parts are not included, contact your authorized Highline dealer or **HIGHLINE Mfg. Inc.**

Quantity	Description	Part No.
1	XL 6084 Rock Picker	
2	Tire Assy, 16.5I x 16.1 Tire	37684
2	Axle Assembly	70130
8	Bolt, Hex, $\frac{3}{4}$ " x 2 $\frac{1}{2}$ ", UNC, Gr5	31040
2	Nut, Nylock, $\frac{3}{4}$ ", UNC	31175
8	Nut, Hex, $\frac{3}{4}$ ", UNC	31167
8	Washer, Lock, $\frac{3}{4}$ " Plated	31246

2.0 Operating Instructions

2.1 Field Preparation

Field preparation plays a major role in the picking performance of the XL-6084. For best picking conditions, the field should be cultivated prior to picking. This operation brings stones to the surface and buries field residue.

2.2 Pre-Start Instructions

Transport locks must be lowered before operation. To lower transport locks, raise apron slightly and lower transport locks towards the front of the machine. DO NOT lower apron when transport locks are in position otherwise severe damage WILL occur.

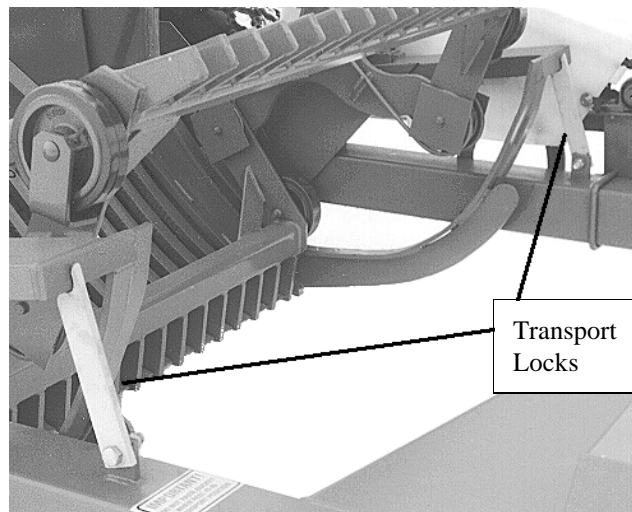


Figure 1. Locks in Transport Position

2.3 Transporting Instructions

To ensure safe transport of the XL-6084 rock picker, the transport locks and reel should be raised to prevent the apron from dragging. To put transport locks in place, raise the apron until the transport locks catch on the reel frame. To lower transport locks, raise apron until locks are free and turn them forward.

For road transport, the hitch may be turned to reduce the travel width of the rock picker. To change the position of the hitch, the wedge (See Figure 2) is removed and the hitch is positioned for field or transport position. The wedge is then placed back into position and ready for field or transport.

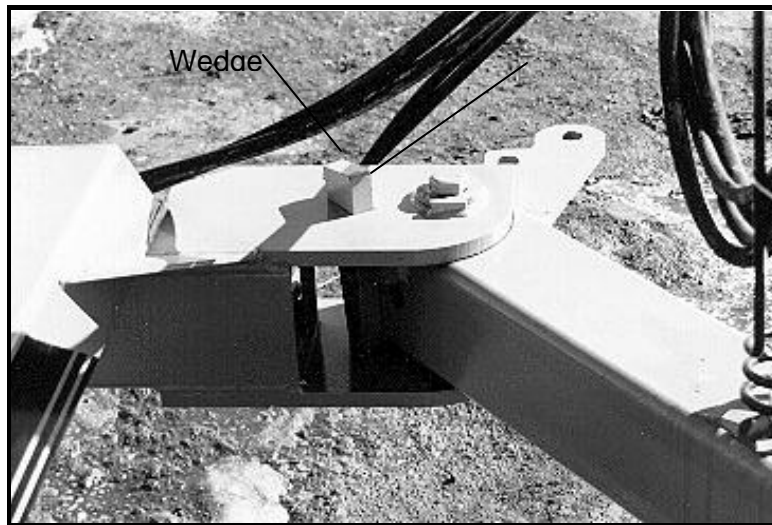


Figure 2. Hitch Wedge

2.4 Apron Height Adjustment & Bucket Dumping

The apron height (Figure 3) is adjustable through the hydraulic cylinders. By lowering the cylinders completely, the apron will be at its lowest picking level. The working height of the apron will depend upon the soil conditions and the size of rocks. By extending the cylinder, the apron will lower. Extending the cylinder more will raise the bucket into dumping position.

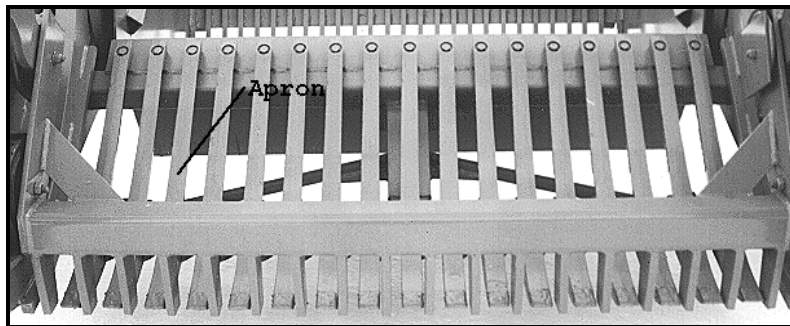


Figure 3. Front View of Apron

2.5 Field Instructions

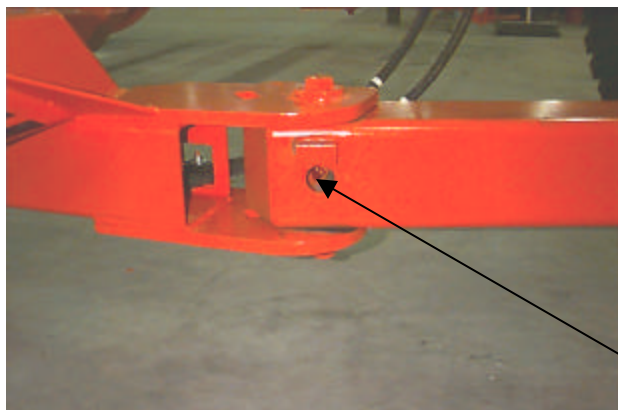
For proper operation, the XL-6084 should run at a field speed of 3-4 mph (4.8-6.5 km/h) and the reel rotating at 35 rpm. When picking large rocks, field speed should be decreased to reduce possible damage from large impacts. The operating height of the apron varies depending on the size of stones picked. For small stones, the apron should be as low as possible to the ground and be raised to a suitable level for larger stones.

3.0 Maintenance Instructions

To ensure long operating life of your XL-6084 Rock Picker, follow this maintenance procedure.

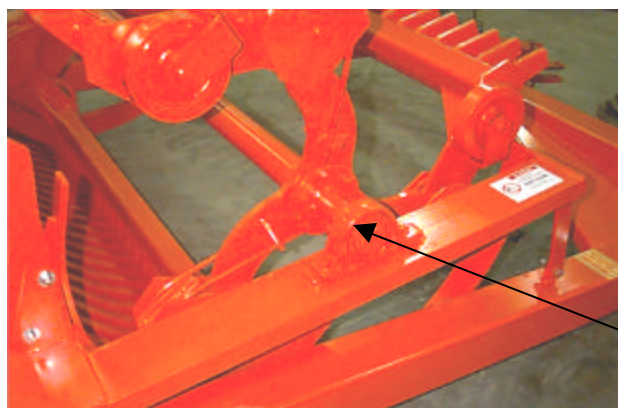
- Ensure tire air pressure is maintained at 23 psi. Tire air pressure fluctuation may result in tire damage.
- Check gear box oil and add #90 gear oil if needed
- Periodically check all bolts and set screws for tightness.
- Grease the following points as described.

3.1 Grease Locations



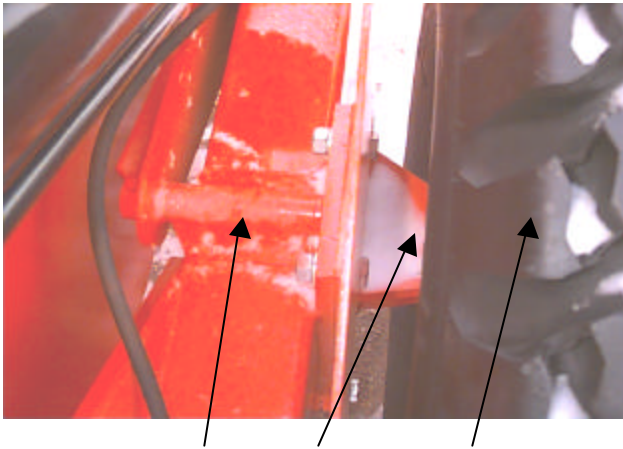
Grease No	Description	Frequency
1	Hitch Pivot	Monthly

Figure 4. Hitch Grease Location



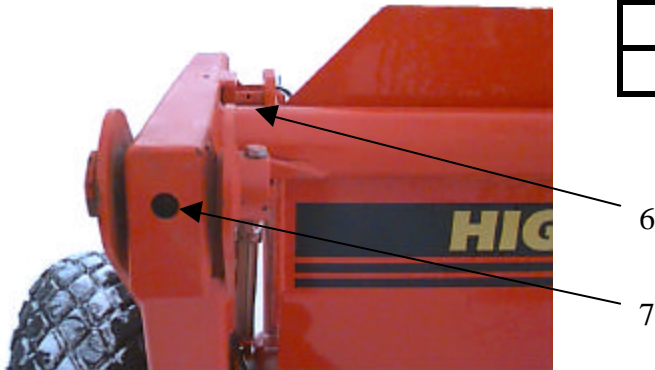
Grease No	Description	Frequency
2	Reel Bearings	Yearly

Figure 5. Reel Greasing Locations



Grease No	Description	Frequency
3	Apron Pivot	Daily
4	Wheel Hub	4 Times/Year
5	Tire Pressure	23 psi

Figure 6. Apron & Tire Maintenance Locations



Grease No	Description	Frequency
6	Front Bucket Pivot	Daily
7	Bucket Dump Pivot	Daily

Figure 7. Dump Mechanism Grease Locations

4.0 Parts Information

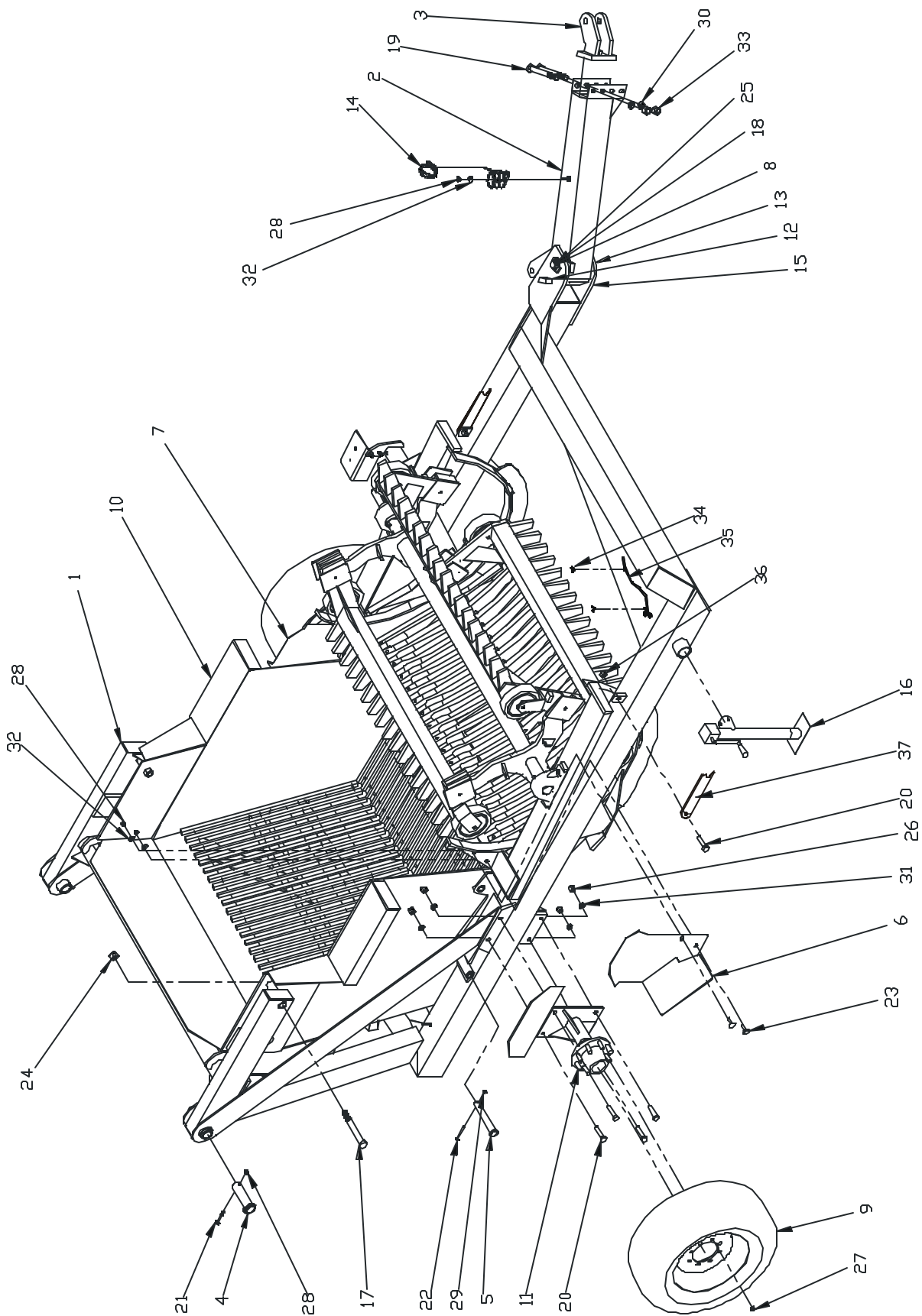
4.1 Main Assembly

Item	Part No.	Description	Quantity
1	70001	Dump, Bucket	1
2	70002	Arm, Hitch	1
3	70003	Hitch, Clevis	1
4	70025	Pin, Dump	2
5	70193	Pin, Pivot, Apron	2
6	70051	Guard, Cylinder, Dump, Right	1
7	70052	Guard, Cylinder, Dump, Left	1
8	70190	Hitch, Pin	1
9	37684	Tire Assy, 16.5in, 6 Ply	2
10	70008	Bucket	1
11	70130	Axle, Complete	2
12	E5574	Wedge	1
13	E2240	Washer, Hitch, Bottom	1
14	30206	Holder, Hose, Hydraulic, 1/2"	1
15	91609	Pin, Hitch, 5/32"	1
16	92095	Jack, Sidewind, 5000 Lbs. x 15 in	1
17	31035	Bolt, Hex, 1 1/4 x 8, UNC, Gr5, Pltd	2
18	31243	Washer, Lock, 1, ZP	1
19	31038	Bolt, Hex, 1 x 7 1/2, UNC, Gr5, Pltd	2
20	31040	Bolt, Hex, 3/4 x 2 1/2, UNC, Gr5, Pltd	10
21	31023	Bolt, Hex, 1/2 x 3 1/2, UNC, Gr5, ZP	2
22	31783	Bolt, Hex, ? x 2 1/2, UNC, Gr8, ZP	2
23	31007	Bolt, Carr, 1/2 x 1 1/2, UNC, Gr2, ZP	4
24	31165	Nut, Hex, 1 1/4, UNC, Gr5, ZP	2
25	31037	Bolt, Hex, 1x1 1/2, UNC, Gr5, ZP	1
26	31167	Nut, Hex, 3/4	8
27	32319	Nut, Wheel, ?	16
28	31173	Nut, Nylock 1/2, UNC, ZP	7
29	31176	Nut, Nylock, ?	2
30	31243	Washer, Lock, 1	2
31	31246	Washer, Lock, 3/4	8
32	31236	Washer, Flat, 1/2	4
33	31172	Nut, Nylock, 1, UNC, ZP	2
34	31532	Nut, Wing, 1/4, UNC, ZP	2
35	70179	Tool, Rockpicker	1
36	31175	Nut, Nylock, 3/4, UNC	2
37	E2343	Plt, Lock, Transport	2

Part No.	Description	Qty
32324	Tire, 16.5L x 16.1, 6 Ply	1
32325	Rim, W14Cx 16.1	1

32327	Hub, Complete, HA817-3	1
37684	Tire, Assy, 16.5in, 6ply	

Main Assembly Drawing

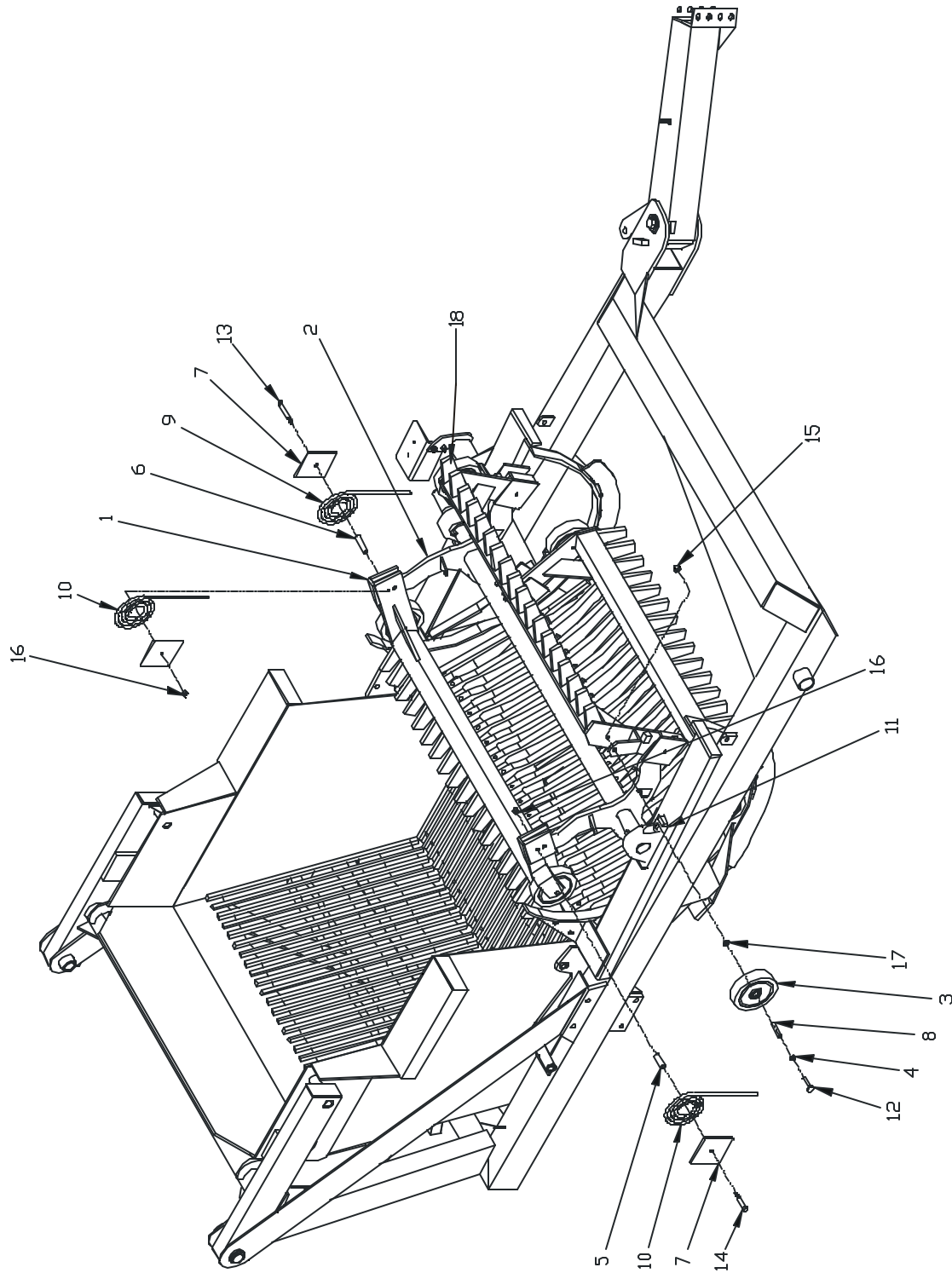


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4.2 Reel Assembly

Item	Part No.	Description	Quantity
1	70006	Bat, Reel	3
2	70029	Reel	1
3	70106	Wheel, Bogey, Complete	6
4	E2304	Bushing, Wheel, Bogey	6
5	E2306	Bushing, Batt, Reel, Right	3
6	E2307	Bushing, Batt, Reel, Left	3
7	E2314	Plate, Retainer, Spring	9
8	E4627	Bushing, Wheel, Bogey	6
9	32362	Spring, Reel, Left	3
10	32363	Spring, Reel, Right	6
11	32373	Drv, Brg, Pillow, 2-7/16	2
12	31642	Bolt, Carr, ? x 5, UNC, GR5, ZP	6
13	31644	Bolt, Hex, 9/16 X 5, UNC, GR8, ZP	3
14	31645	Bolt, Hex, 9/16 X 4-1/2, UNC, GR8, ZP	3
15	31169	Nut, Stover, ? , UNC. ZP	6
16	31646	Nut, Nylock, 9/16, UNC, GRC	9
17	E4626	Bushing, Wheel, Inside	6
18	E2294	Tooth, Batt, Reel	51

Reel Assembly Drawing

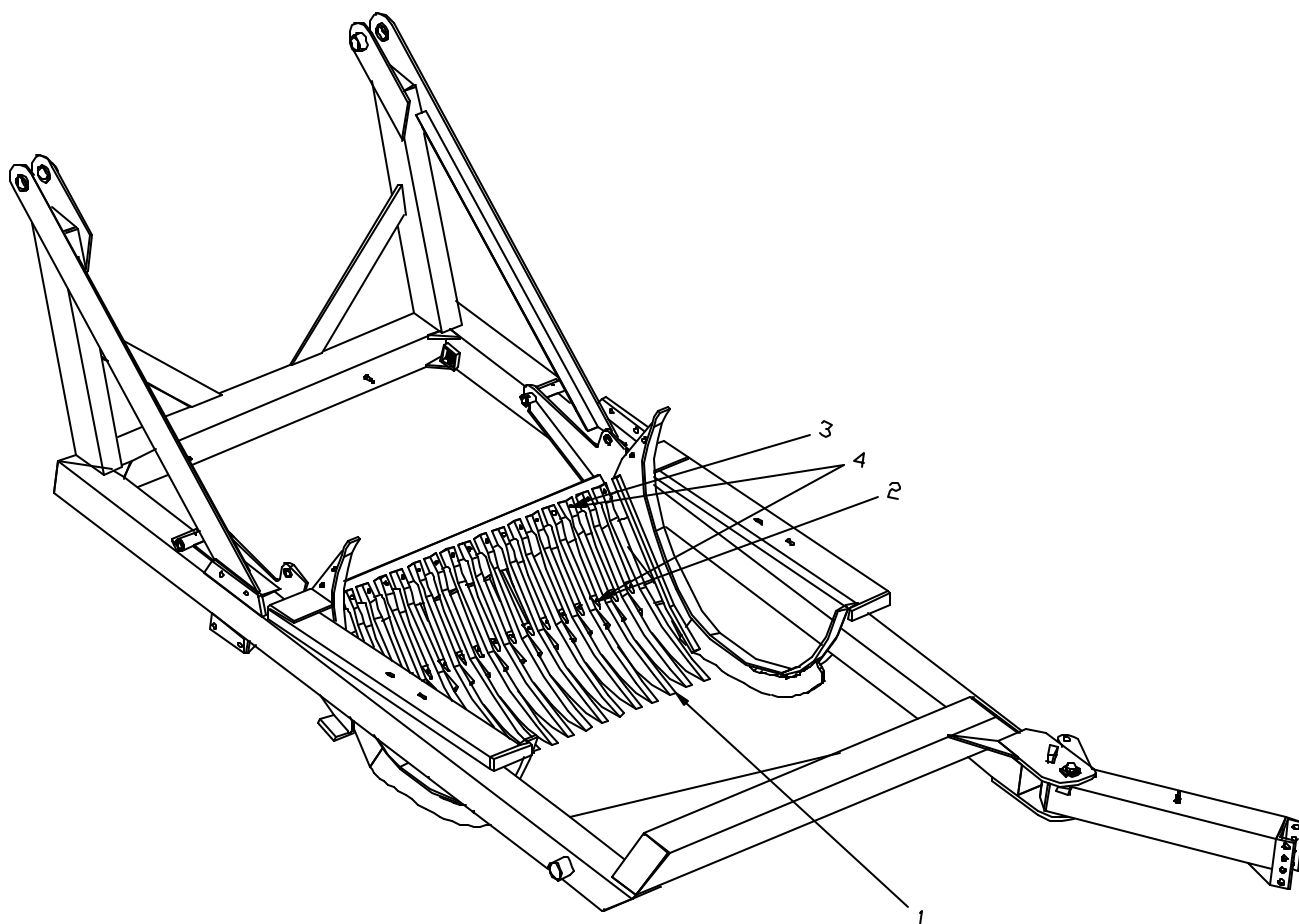


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4.3 Apron Assembly

Item	Part No.	Description	Quantity
1	32466M	Tyne, Apron, 65-45-12	17
2	31024	Bolt, Hex, ½ x 3 ½, UNC, Gr8	17
3	31019	Bolt, Hex, ½ x 2 ½, UNC, Gr8	17
4	31612	Nut, Stover, ½, UNC, ZP	34

Apron Assembly Drawing

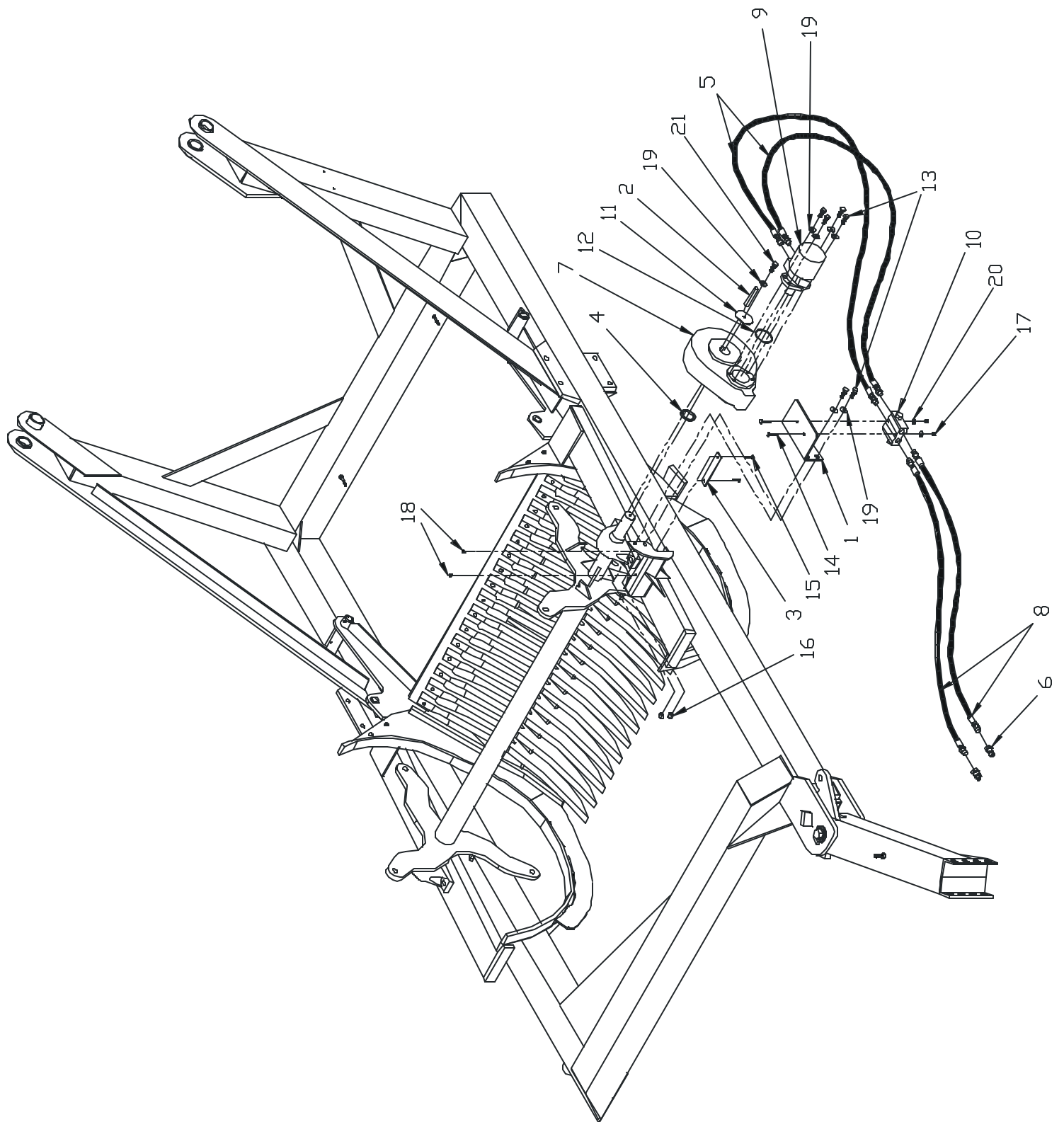


5.0 Hydraulic Systems

5.1 Motor Hydraulics

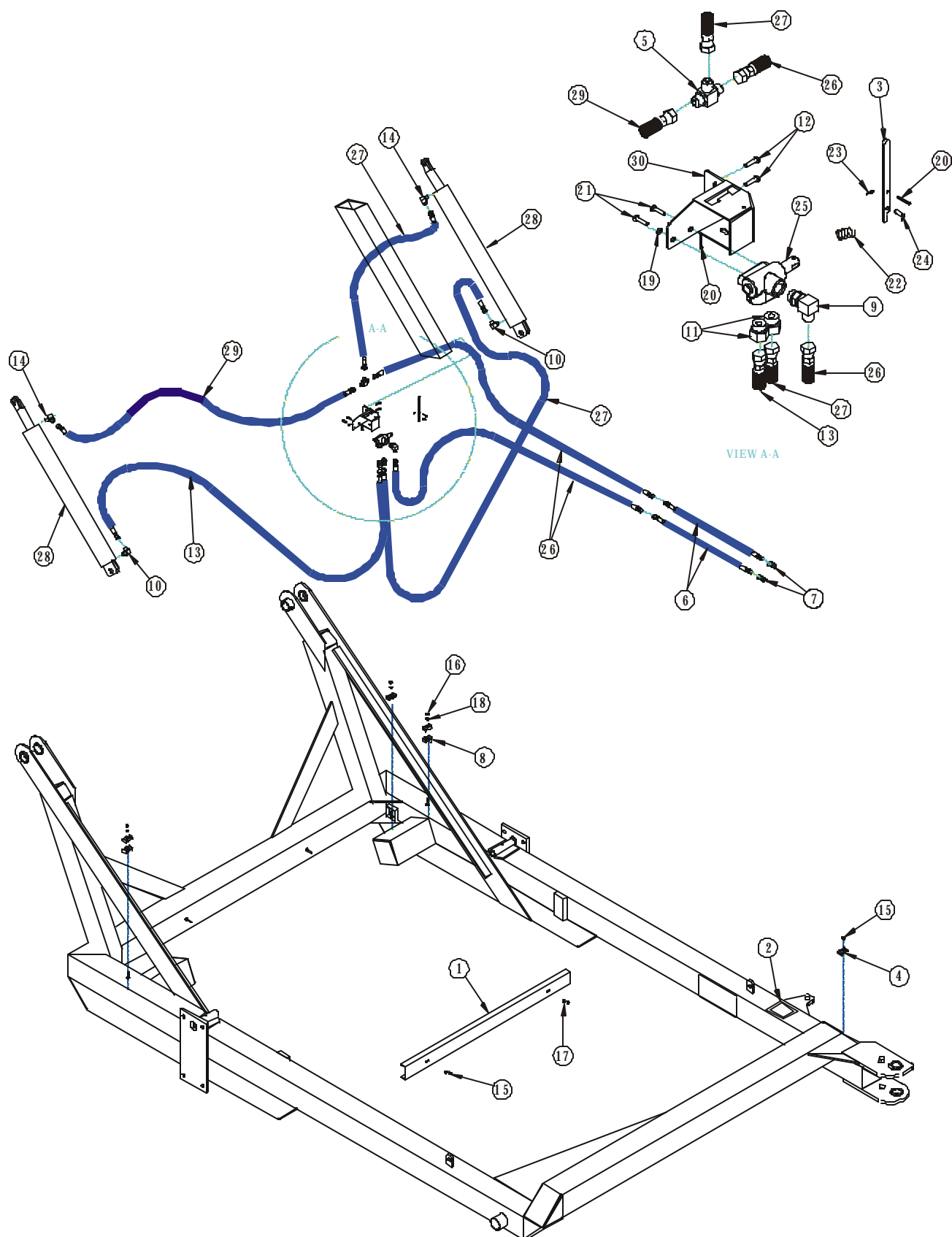
Item	Part No.	Description	Quantity
1	E2339	Anchor, Valve, Cushion, Hydraulic	1
2	E3045	Key, Drive, Reel	1
3	E4502	Bumper, Mount, Hydraulic	1
4	E4571	Bushing, Reel, Gearbox	1
5	30586	Hose, Hydraulic, ½ x 20, 8MP-8FJX	2
6	30209	Hydraulic, Tip, Pioneer, ½, 8FP	2
7	32209	Gearbox, Complete, 590	1
8	31784	Hyd, Hose, ½ x 164, 8MP-8MP	2
9	32644	Motor, Hydraulic	1
10	32660	Hydraulic, Valve, Cushion, DXV50	1
11	32734	Washer, Flat, 3 ? x ½	1
12	32786	Hydraulic, O-Ring, 151	1
13	31016	Bolt, Hex, ½ x 1 ½, UNC, Pltd	6
14	31048	Bolt, Hex, 5/16 x 2 ½, UNC, Pltd	2
15	31029	Bolt, Hex, ¼ x 1, UNC, Gr5, ZP	2
16	31173	Nut, Nylock, ½	2
17	31177	Nut, Nylock, 5/16	2
18	31174	Nut, Nylock, ¼, UNC, ZP	2
19	31236	Washer, Flat, ½	5
20	31244	Washer, Lock, 5/16	2
21	31069	Bolt, Hex, ½ x 1, UNC, Pltd	1

Motor Hydraulics Drawing



5.2 Cylinder Hydraulics

Item	Part No.	Description	Quantity
1	E2636	Guard, Line, Hydraulic	1
2	E4247	Elec, Loom, Split, 3/4, 18	1
3	E4637	Handle	1
4	E5553	Clamp, Hose, Hydraulic	1
5	30151	Hyd, Fit, Tee, 8MJ	1
6	30159	Hyd, Hose, 1/2 x 96, 8MP-8MJ, 1W	2
7	30209	Hyd, Fit, Pioneer, Male, 8FP	2
8	30210	Hyd, Clamp, Hose, 1/2	5
9	30211	Hyd, Fit, Elbow, 8MB-8MJ90	1
10	30212	Hyd, Fit, Elbow, 8MP-8MJ90	2
11	30215	Hyd, Fit, Adapter, 8MB-8MJ	2
12	30294	Screw, Tek, 1/4 x 1	2
13	30561	Hyd, Hose, 3/8 x 122, 8FJX, 1W	1
14	31148	Hyd, Fit, Adapter, 8MP-8MJ	2
15	31173	Nut, Hex, 1/2, UNC, Gr5, ZP	3
16	31177	Nut, Nylock, 5/16	3
17	31236	Washer, Flat, 1/2	2
18	31239	Washer, Flat, 5/16	3
19	31346	Washer, Lock, 5/16	2
20	31450	Pin, Cotter, 1/8 x 1	2
21	31533	Bolt, Hex, 5/16 x 3/4, UNC, Gr5	2
22	31604	Spring	1
23	31605	Pin, Hair	1
24	31606	Pin, Clevis, 1/4 x 7/8	1
25	31607	Hyd, Valve, Selector, 2 Position	1
26	31665	Hyd, Hose, 1/2 x 156, 8FJX, 1W	2
27	32054	Hyd, Hose, 3/8 x 54, 8FJX	1
28	32260	Hyd, Cyl, 3.5 x 42, 2.0, 8FP	2
29	32614	Hyd, Hose, 3/8 x 109, 8FJ-8FJ, 1W	1
30	70180	Bracket, Valve, Safety	1



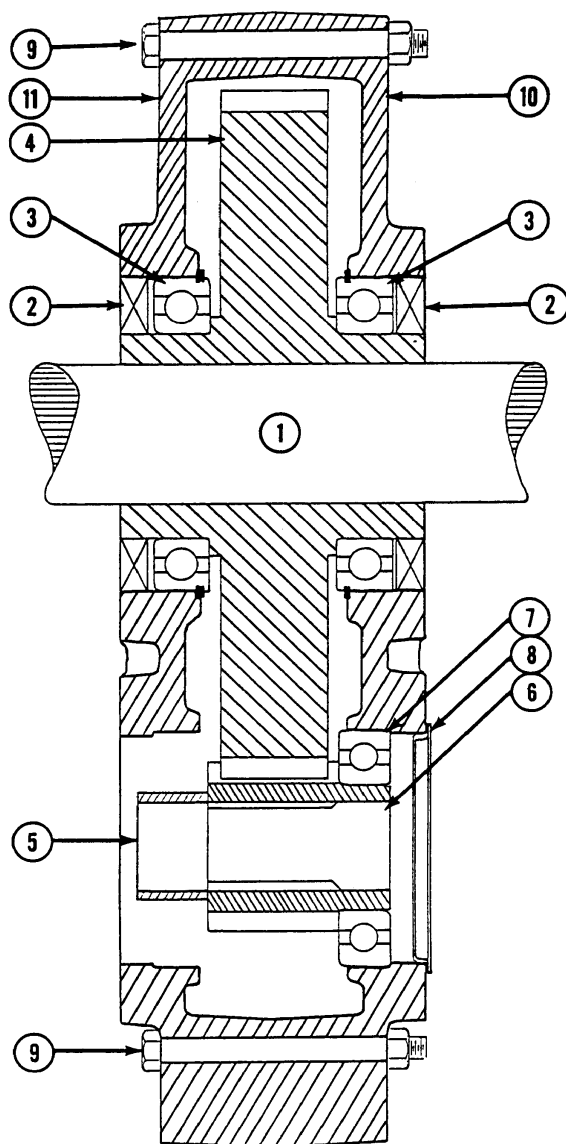
Cylinder Hydraulic Drawing

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6.0 590 Parallel Drive Gearbox

Item	Part No.	Description	Quantity
1	E4561	Shaft, Drive, Reel	1
2	32210	1477 Seal	2
3	32211	1417 Bearing	2
4	32216	58 Tooth Gear	1
5	32214	1821 Spacer	1
6	32215	13 Tooth Pinion	1
7	32212	1418 Bearing	2
8	32213	1154 Cover	1
9	31050	Bolt, Hex, 5/16 x 3, UNC, Gr5 Pltd	12
10	31177	Nut, Nylock, 5/16	12
11	32218	Case, Plain Side	1
12	32217	Case, Hydraulic, Motor Side	1

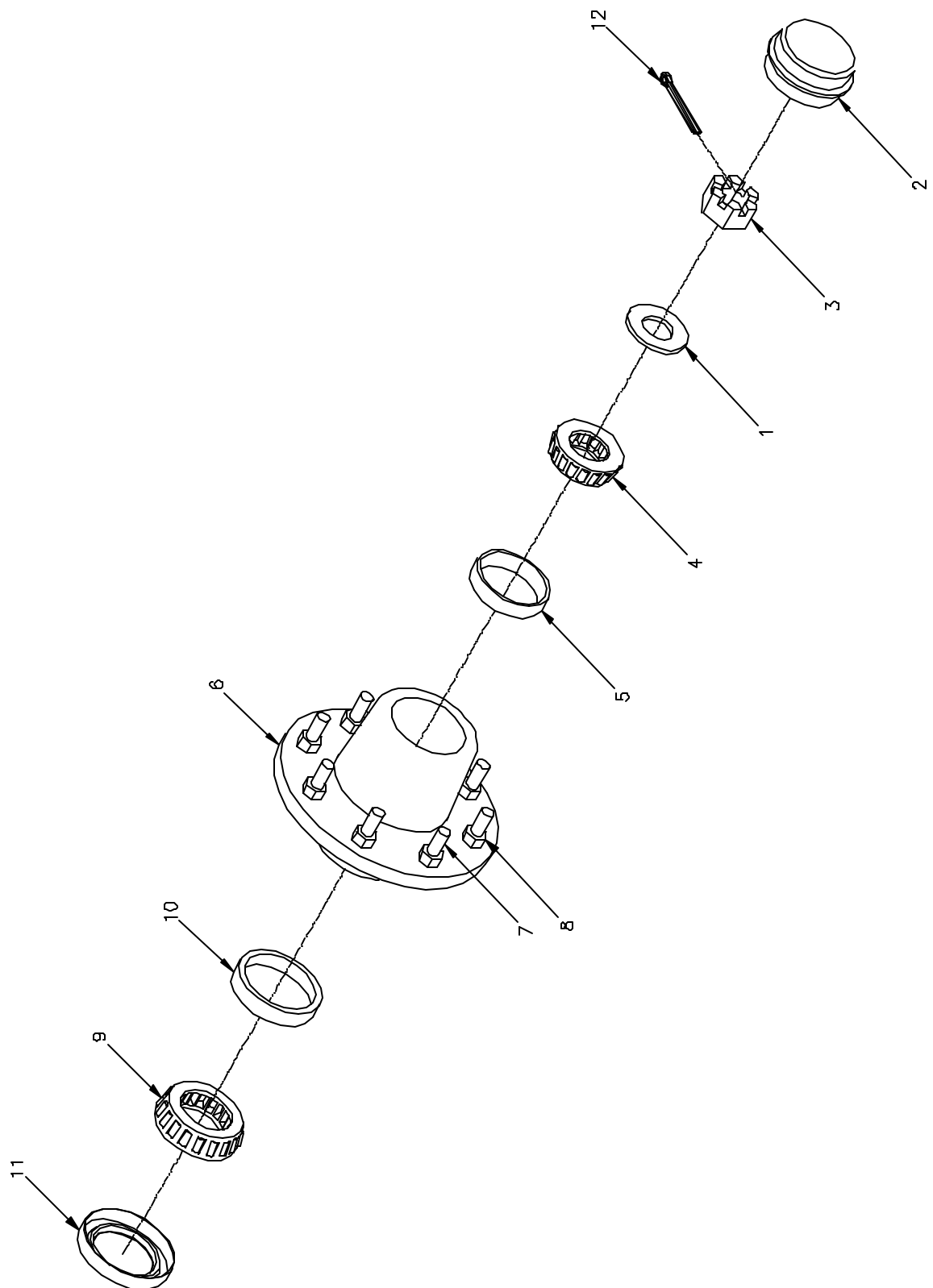
590 Parallel Drive Gearbox



7.0 H817 Hub

Item	Part No.	Description	Quantity
1	30223	Washer, Flat, 1" SAE	1
2	32313	Cap, Dust	1
3	32314	Nut, Slotted, 1 1/4"-UNF	1
4	32315	Bearing, Outer	1
5	32316	Race, Outer	1
6	32318	Hub, 8-Bolt	1
7	32319	Stud, 5/8 x 2 1/4, UNF, WB46	8
8	32320	Nut, 5/8, UNF, WB18	8
9	32321	Bearing, Inner	1
10	32322	Race, Inner	1
11	32323	Seal, Grease	1
12	31183	Pin, Cotter, 3/16 x 2	1

Hub Drawing

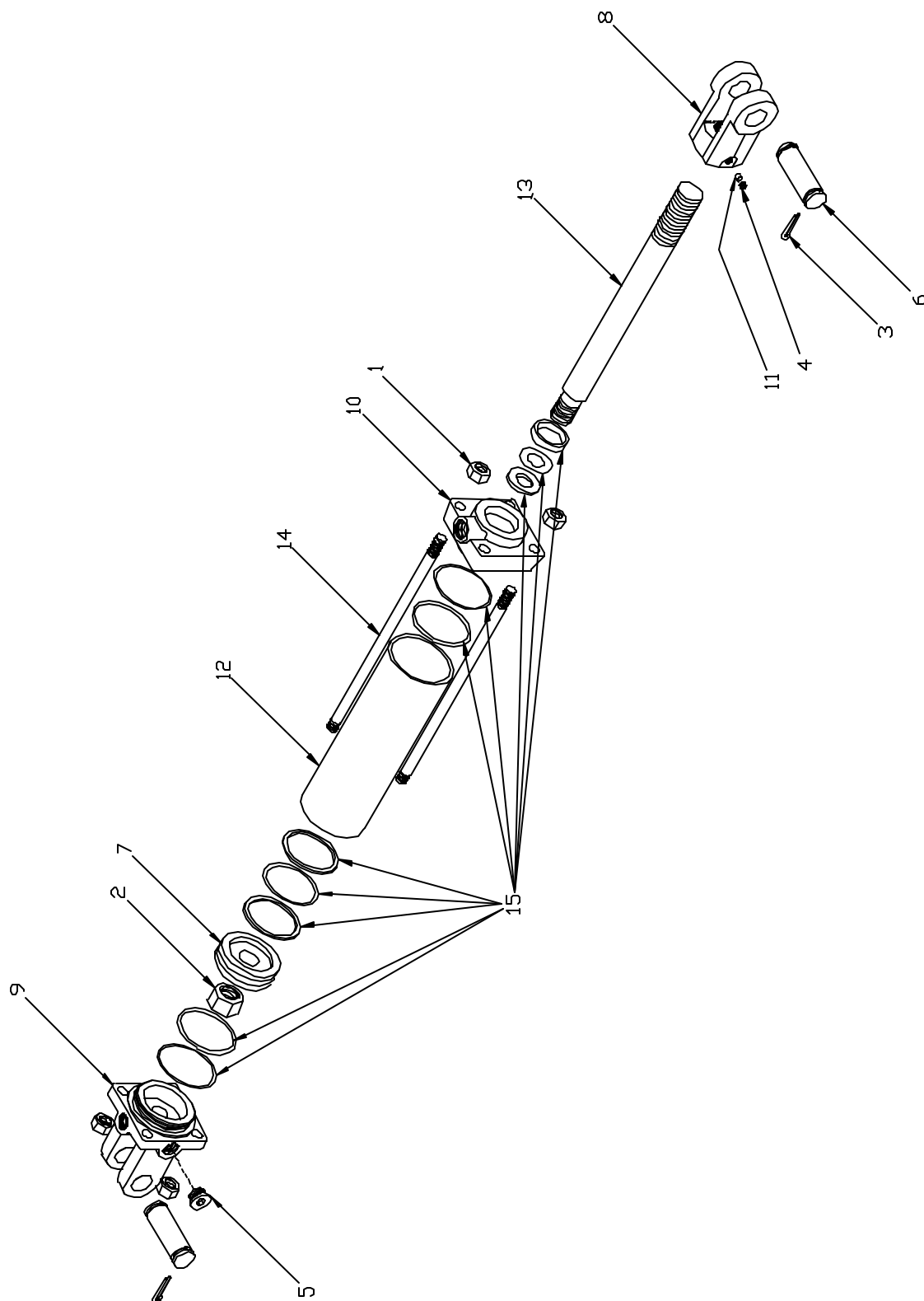


8.0 Cylinders

8.1 3 ½ x 42, 1 1/4 Cylinder

Item	Part No.	Description	Quantity
1	30236	Nut, Hex, 5/8" UNF Grade 5	8
2	30237	Nut, Hex, 1"-14 UNS Gr 5 Phosphate	1
3	30238	Cotterpin, Hammerlock, 3/16" x 1 1/2"	4
4	30239	Screw, Set, Sckt, 3/8"UNC x 1/2" Knur	1
5	30240	Fitting, Plug, 1/2"-14 NPTF Dry Seal	1
6	30241	Pin, 1" Dia, H5552	2
7	30251	Piston, 3 1/2" Dia, H6888	1
8	30253	Clevis, Rod, 1 1/4", 1" Pin	1
9	30258	Cap, Clevis, 3 1/2" NPTF	1
10	30259	Cap, Rod, 3 1/2" x 1 1/2" NPTF	1
11	30261	Lock, Thread, Nylon	1
12	32262	Tube, Cyl., 3 1/2" x 42", H6228 R3	1
13	32265	Rod, 1 1/2" x 42"	1
14	32267	Rod, Tie, 5/8" x 42", H6772	4
15	30263	Kit, Repair, 3 1/2" Cyl.	1

3 1/2 X 42 Cylinder Drawing



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9.0 Specifications

Weight	Approximately 5200 lbs. (2360 kg)
Total Length	16'3"
Total Width	9'4"
Total Height	6'8"
Picking Width	60"
Dumping Height	Approximately 84"
Ground Clearance	17"
Maximum Capacity	2.4 cubic yards (1.83 m ³)
Tires	16.5L x 16.1 Softrac Tires
Horsepower Required	70 - 135 Horsepower 18 gpm flow required
Hydraulic Outlets	2
Hydraulic Pressure	2500 psi.(17240 KPa)