



FIELDMASTER

'94

WING UP PACKER BAR

Assembly-Operator Parts Manual

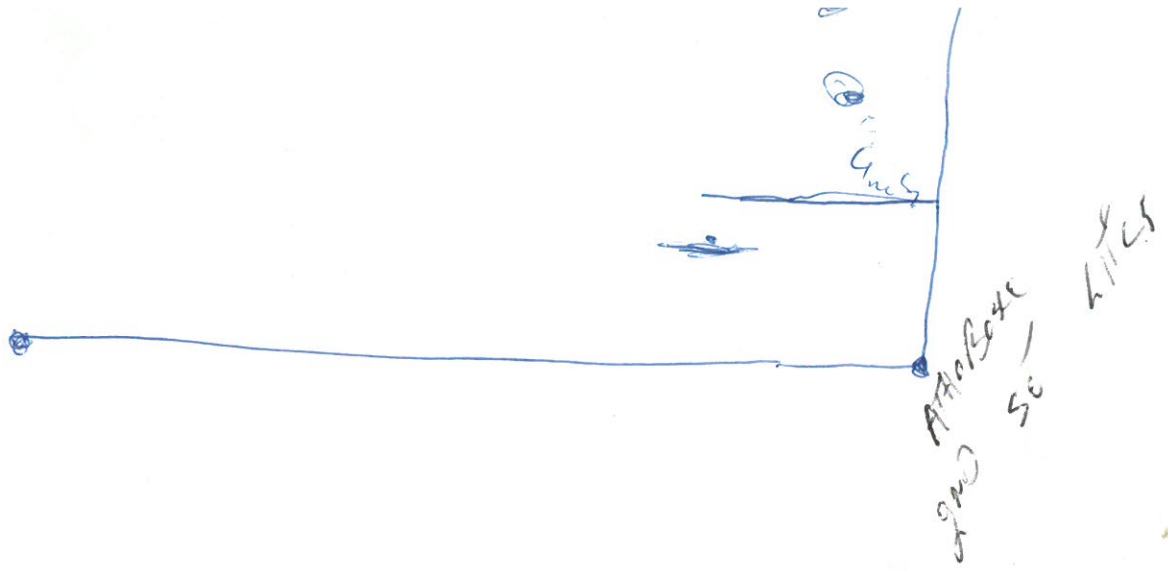


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Warranty Claim

High-Line Mfg. Inc. warrants its products to the original owner for a period of two years from date of purchase, subject to the following.

- 1st year Parts & Labour
- 2nd year Parts Only
- All matters related with the warranty of products must be handled through an authorized High-Line Manufacturing dealer.
- Any labour subject to warranty must be authorized by a High-Line Mfg. Inc. representative, before work is started.
- Machines used for rental, custom work, industrial or construction use will be warranted for a period of 30 days from date of purchase. (Parts and Labour)
- Warranty will be void if any component of this machine is altered or modified in any way, unless written permission is given by High-Line Mfg. Inc.
- High-Line Mfg. Inc. will not assume any responsibility for whatever damage may occur to equipment to which this machine may be attached.
- Warranty terms and conditions are subject to provincial and state legislation.

IMPORTANT

Please read manual before you operating your Wing Up Harrow Bar

Presidents Message

To the new owner:

Congratulations on your purchase of the new Wing Up Packer Bar.

High-Line Mfg. Inc. is proud to offer this piece of quality equipment. The Wing Up Packer Bar is designed and engineered to provide years of exceptional, trouble free service under normal operating conditions. The features incorporated into this machine will allow the operator to increase field efficiency as less time will be spent adjusting the machine.

Please be sure to read the instruction manual for proper operation and adjustment procedures. A little time invested now could save precious time in the field and protect your machinery investment. If in time you should need replacement parts, please consult the parts list in this manual and contact your High-Line dealer.

A handwritten signature in cursive script, appearing to read 'Ray Bussiere', followed by a horizontal line.

Ray Bussiere, President

1. Notice

Although this manual was compiled with great care, there may be some items which may cause confusion. If this is the case, please do not hesitate to contact High-Line Mfg. Inc at the following address.

High-Line Manufacturing Inc.
 P.O. Box 307
 Vonda, Saskatchewan
 S0K 4N0
 Tel: 1-800-665-2010 or (306) 258-2233
 Fax: 306-258-2010

1.1 Specification

Model Number	3436	4043	5 plex
Working Width	34'-36'	40'-43'	43'-52'
Transport Width	16 1/2'	16 1/2'	16 1/2'
Transport Length	22'	22'	22'
Minimum Transport Height	18'	18'	19'
Minimum Frame Ground Clearance	28"	28"	28"
Tire Size	11Lx15 6 Ply	11Lx15 6 Ply	11Lx15 6 Ply
Hydraulic Outlet Required	2	2	2

Serial Number: _____

The owner should fill in the serial number for his/her records.

2. Safety

CAREFUL OPERATION IS THE BEST INSURANCE AGAINST AN ACCIDENT

Care should be exercised when operating this machine as with any machine. Observe local regulations concerning the transport of machinery on public roads.

- Keep children and adults away from machine while putting machine in field or transport position.
- Transport height of this machine is 18 feet. Avoid overhead lines.
- Relieve pressure in hydraulic lines before disconnecting lines or performing other work on the hydraulic system.
- When transporting always set transport locks.

3. Description of the Wing Up Packer Bar

The Field-Master Wing Up Packer Bar is designed to handle all your packing requirements behind your air seeder or behind your tractor. In addition to the hitch telescoping from 15' to 20' the hitch also has a height adjustment of 18" to 40". This allows you to tow the packer behind your air seeder, tractor, cultivator and other tillage implements.

The heavy duty, floating packer mount allows each packer coil to follow the contours of your fields for more uniform packing and germination. To match your soil type 1 1/2" and 1 3/4" packer coils are available. They are mounted in heavy duty 1 1/4" ductile pillow block bearings for extra long life.

The main frame is manufactured with reinforced heavy walled tubing for long term durability and value. Only one hydraulic outlet is required and a special automatic hydraulic interlock allows you to lift the packer coils without lifting the wings when turning.

3.1 Packer Parts

To identifying the left and right packer look at the ends of the packers. If the end comes up on the left side or is turning clock-wise it a left packer, and if the end goes down on the left side or is turning counter clock-wise it is a right packer. Packers are available in 1-1/2" or 1-3/4" steel and three lengths; 5ft, 5-1/2ft and 6 ft.

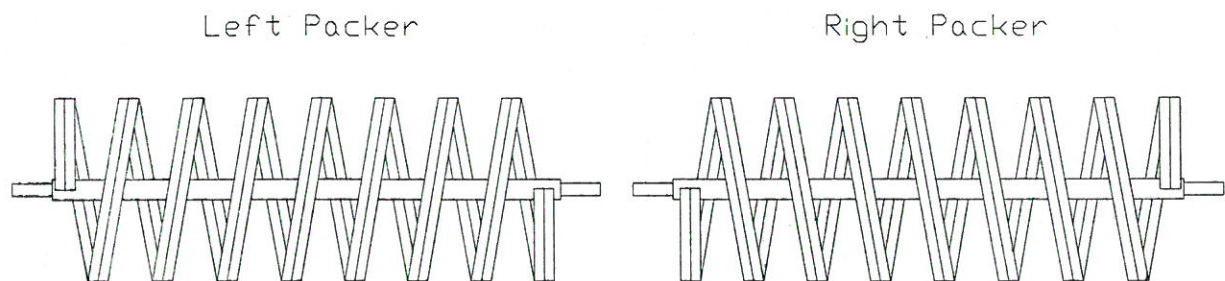


Figure 1. Left and Right Packer

4. Operation

4.1 Transport

To put the Wing Up Packer Bar into transport position:

- a. Retract lift cylinder to place wings in the up position.
- b. Set transport locks.
- c. Drive ahead.

Care should be exercised when transporting this equipment, as with any equipment. Avoid low overhead power lines and obey all regulations concerning the transport of equipment on public roads.

4.2 Field Operation

To put the Wing Up Packer bar into field position.

- a. Remove transport locks.
- b. Lower hydraulic cylinders to place wings in the field position.
- c. Drive ahead.

4.3 Maintenance

Maintenance of the Wing Up Active Harrow Packer Bar is simply and straight forward. The four areas that need to be maintained are,

Tires, Hubs
Centre Frame Wheel Pivot Assembly
Packer Pivot Assembly
Packer Bearings

The table below describes location, frequency and type of maintenance required at each area.

Table 1. Maintenance Schedule

Area	Position	Type of Maintenance	Frequency	Number of Sites
Wheel Pivot	Sec. 5.3 Item #6	Grease	MONTHLY	4
Tires	Sec. 5.3 Item - Hub	Grease	WEEKLY	4
	Sec. 5.10 Item #2	Grease	WEEKLY	2
	Sec. 5.3 Item - Tire	Check Air	MONTHLY	4
	Sec. 5.10 Item #4	Check Air	MONTHLY	2
Packer Pivot	Sec 5.4 Item #3	Grease	DAILY	2/packer
	Sec 5.4 Item #4	Grease	DAILY	1/packer
Packer Bearings	Sec 5.4 Item #8	Grease	*	2/packer

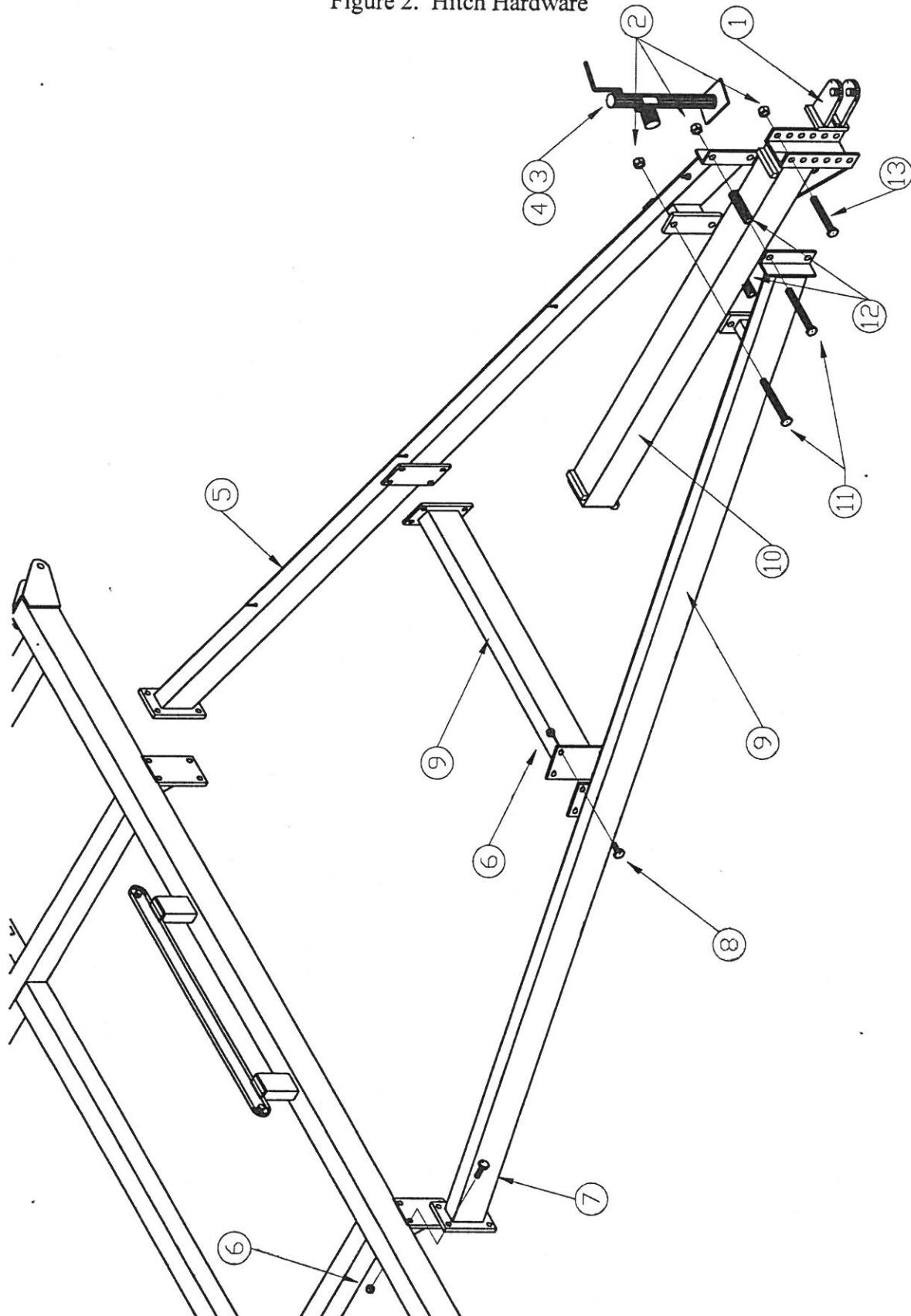
* Bearings are sealed and do not need to be greased. Zerks are supplied to allow use of non-sealed bearings.

5 Parts**5.1 Hitch Hardware**

Table 2. Hitch Component List

Item No.	Part No.	Description
1	45060	Double Tongue Hitch
2	LNC16	1" UNC Lock Nut
3	92095	5000 LB. x 15" S.W.
5	65004	Left Hitch Frame
6	LNC12	3/4" UNC Lock Nut
7	B5C1240P	3/4" x 2 1/2" UNC GR. 5 Bolt
8	B5C1232P	3/4" x 2" UNC GR. 5 Bolt
9	65022	Right Hitch Frame
10	65005	Sliding Hitch
11	B5C12144	1" x 9" UNC GR. 5 Bolt
12	65001	Hitch Roller
13	B5C16120	1" x 7 1/2" UNC GR. 5 Bolt

Figure 2. Hitch Hardware



5.2 Centre & Wing

Table 3. Centre & Wing Component List
for Machines with Widths Greater than 30'

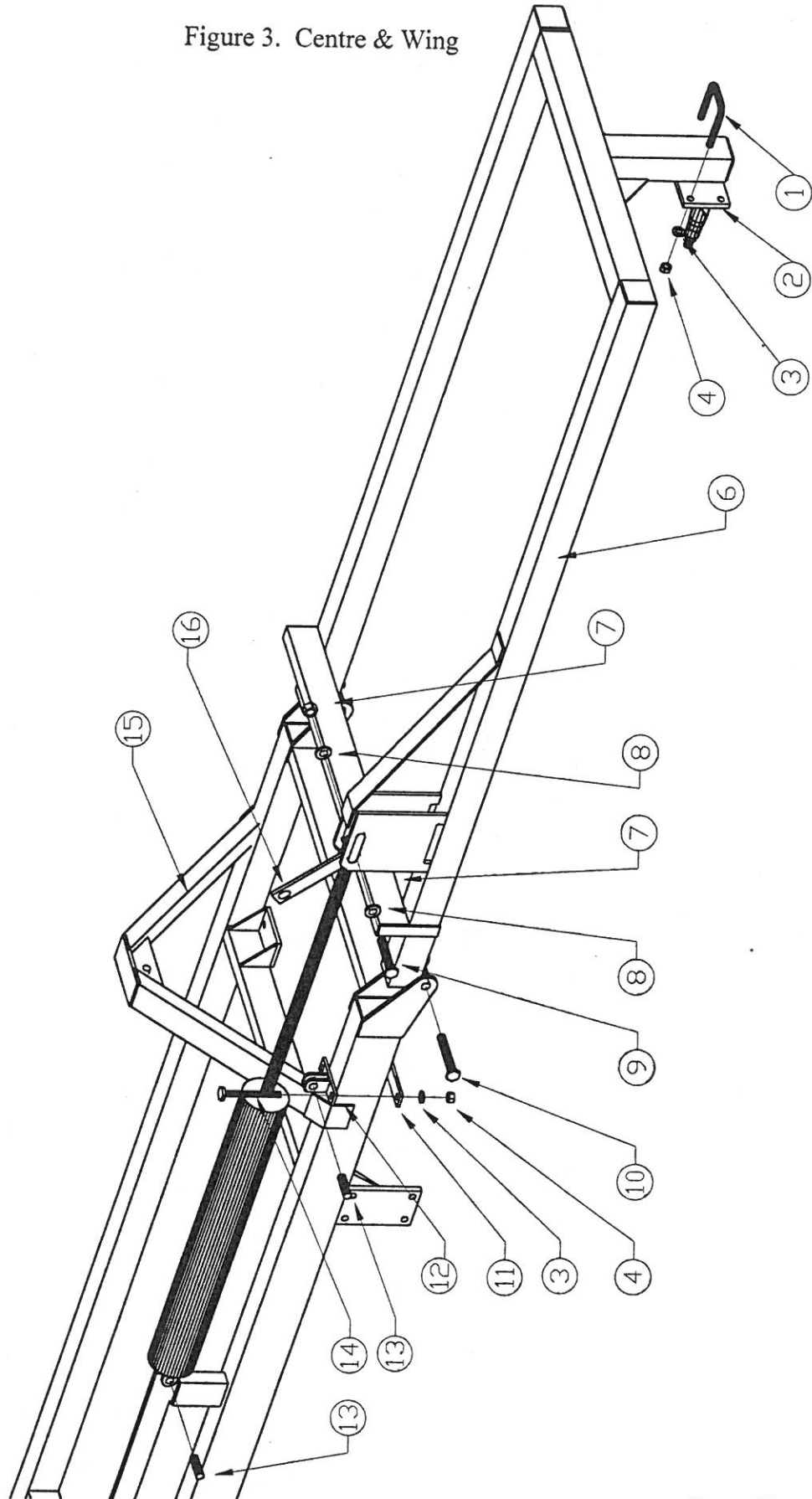
Item No.	Part No.	Description
1	UB126496	3/4" x 4" x 6" U-Bolt
2	65014	Wing Axle Plate
3	LW12P	3/4" Lock Washer Plated
4	NC12P	3/4" UNC Nut Plated
6	65018	35' Right Wing
6	65021	35' Left Wing
6	65043	37'-40' Right Wing
6	65044	37'-40' Left Wing
6	65045	41'-42' Right Wing
6	65046	41'-42' Left Wing
7	LNC16P	1" UNC Lock Nut Plated
8	FW16P	1" FLAT Washer Plated
9	B5C1688P	1" x 5 1/2" UNC GR. 5 Bolt PL
10	B5C16104P	1" x 6 1/2" UNC GR. 5 Bolt PL
11	65056	4" Mounting Plate
12	65055	Wing Transport Lock
13	91603	1" x 3 3/8" PIN
14	B5C12120P	3/4"x7 1/2" UNC GR. 5 Bolt PL
15	65018	Centre Frame
16	65013	Wing Transport Lock

Table 3a *. Centre & Wing Component List
for Machines with Widths Less than 30'

Item No.	Part No.	Description
6	65041	25' Stub Wing
6	65042	30' Stub Wing
7	LNC16P	1" UNC Lock Nut Plated
8	FW16P	1" FLAT Washer Plated
9	B5C1688P	1" x 5 1/2" UNC GR. 5 Bolt PL
10	B5C16104P	1" x 6 1/2" UNC GR. 5 Bolt PL
11	65056	4" Mounting Plate
12	65055	Wing Transport Lock
13	91603	1" x 3 3/8" PIN
14	B5C12120P	3/4"x7 1/2" UNC GR. 5 Bolt PL
16	65013	Wing Transport Lock

* For Units with widths less than 30' neglect items #1-#4 on Figure 3.
Drawing Not Accurate.

Figure 3. Centre & Wing

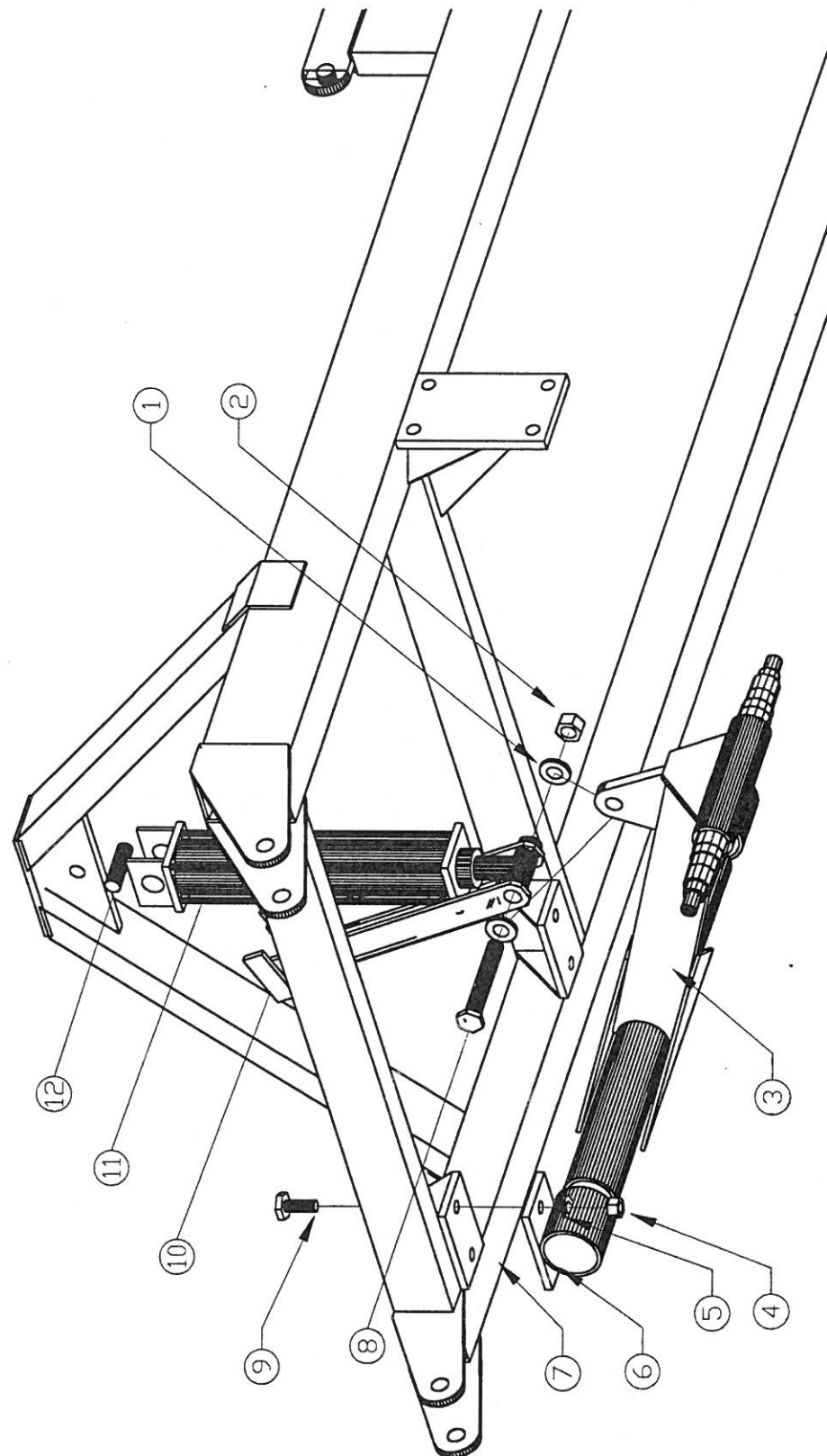


5.3 Main Wheel Lift

Table 4. Main Wheel Lift Component List

Item No.	Part No.	Description
1	FW16P	1" Flat Washer Plated
2	LNC16	1" UNC Lock Nut
3	65016	Tandem Axle
4	NC12P	3/4" UNC Nut Plated
5	LW12P	3/4" Lock Washer Plated
6	65017	Axle Mount
8	B5C1696P	1" x 6" UNC GR. 5 Bolt Plated
9	B5C1240P	3/4" x 2" UNC GR. 5 Bolt Plated
10	65051	Wheel Transport Lock
12	91603	1" x 3 3/8" PIN
Not Shown	301012	HA614-1 Hub
Not Shown	91050	15x8x6 Wheel
Not Shown	301013	11Lx15 6 Ply
Not Shown	91048	TR415 Valve

Figure 4. Main Wheel Lift

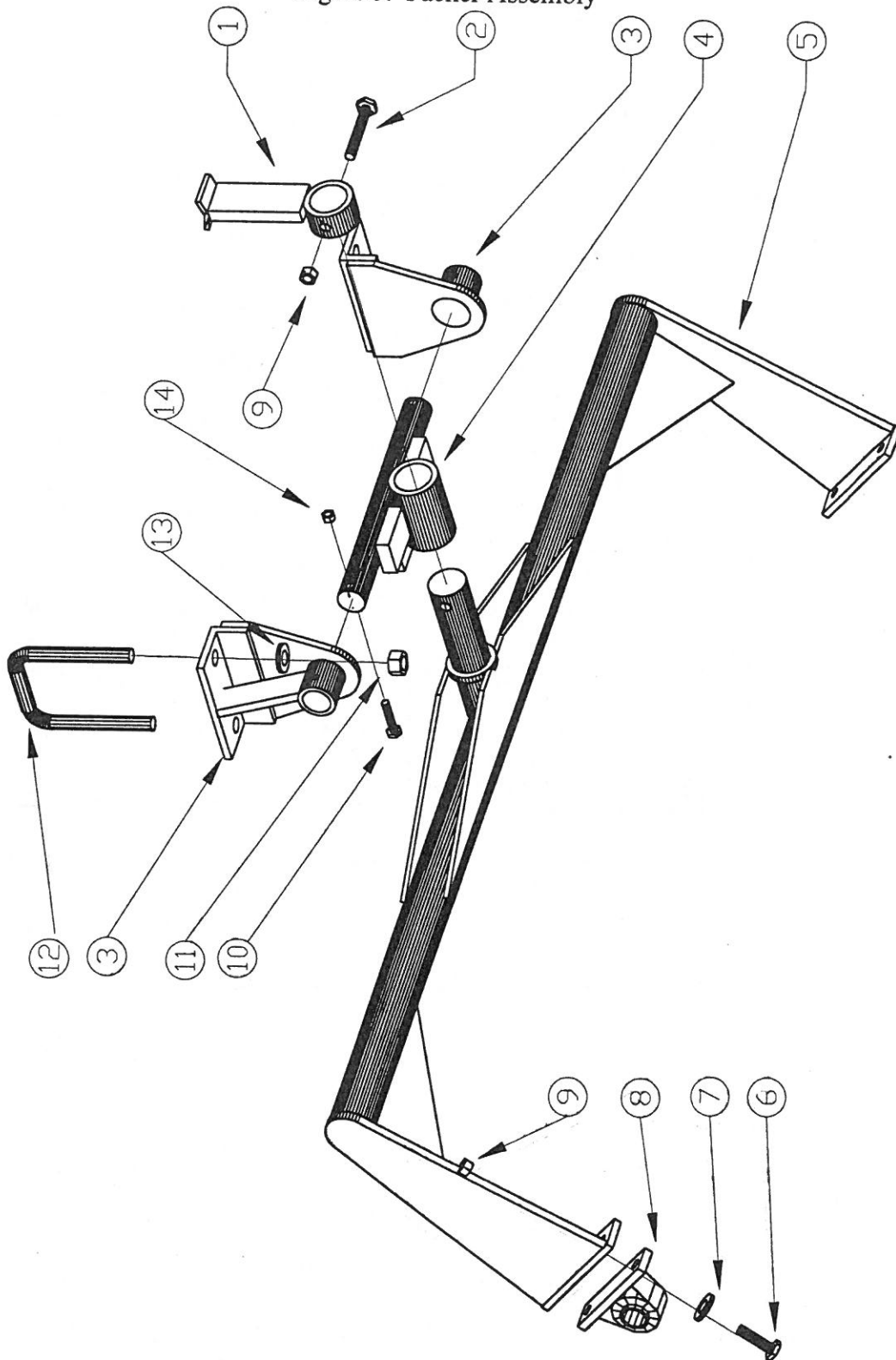


5.4 Packer Assembly

Table 5. Packer Assemble Hardware List

Item No.	Part No.	Description
1	65011	Ring Stop
2	B5C0856P	1/2 x 3 1/2" UNC GR. 5 Bolt PL.
3	65010	Packer Mount
4	65012	Pivot Brace
5	65009	5ft Packer Overbrace
5	65023	5 1/2ft Packer Overbrace
5	65024	6 ft Packer Overbrace
6	B5C0836P	1/2" x 2 1/4" UNC GR. 5 Bolt PL
7	FW08P	1/2" Flat Washer Plated
8	92083	1 1/4" Bearing & Lock Collar
9	LNC08	1/2" UNC Lock Nut
10	B5C0632P	3/8" x 2" UNC GR. 5 Bolt PL
11	NC12P	3/4" UNC Nut Plated
12	UB126496	3/4" x 4" x 6" U-Bolt
13	LW12P	3/4" Lock Washer Plated
14	LNC06	3/8" UNC Lock Nut
Not Shown	65026	5ft Left Packer x 1-1/2"
Not Shown	65027	5ft Right Packer x 1-1/2"
Not Shown	65028	5 1/2ft Left Packer x 1-1/2"
Not Shown	65029	5 1/2ft Right Packer x 1-1/2"
Not Shown	65030	6ft Left Packer x 1-1/2"
Not Shown	65031	6ft Right Packer x 1-1/2"
Not Shown	65032	5ft Left Packer x 1-3/4"
Not Shown	65033	5ft Right Packer x 1-3/4"
Not Shown	65034	5 1/2ft Left Packer x 1-3/4"
Not Shown	65035	5 1/2ft Right Packer x 1-3/4"
Not Shown	65036	6ft Left Packer x 1-3/4"
Not Shown	65037	6ft Right Packer x 1-3/4"

Figure 5. Packer Assembly

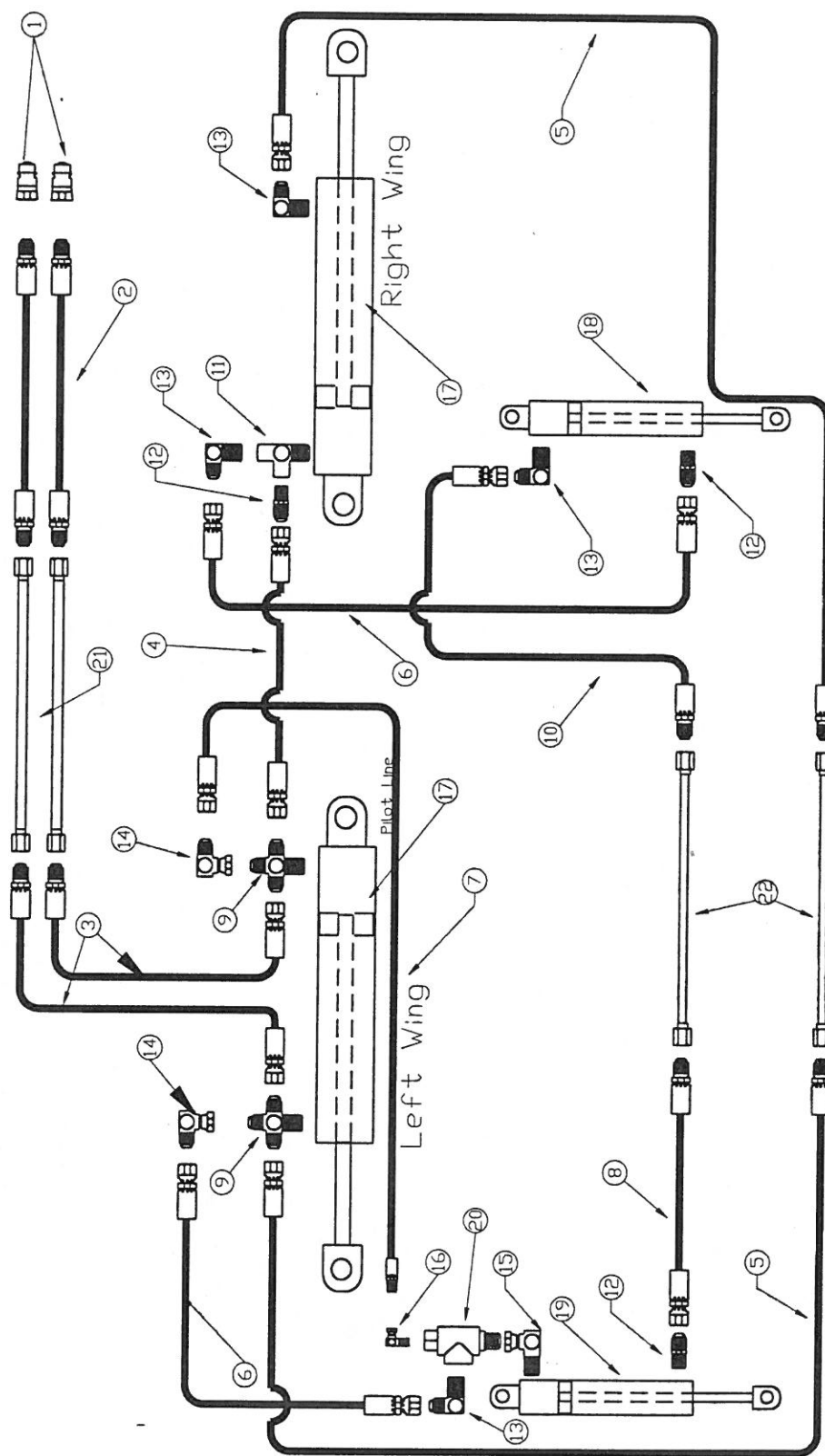


5.5 Hydraulic Layout

Table 6. Hydraulic Layout Component List

Item No.	Part No.	Description
1	601217	Pioneer Tips
2	601003	3/8x96 08MNPT x 08MJIC Hose
3	601026	3/8x55 08MJIC x 08FJIC Hose
4	90271	3/8x42 08FJIC x 08FJIC Hose
5	601027	3/8x60 08FJIC x 08FJIC Hose
6	601028	3/8x62 08FJIC x 08FJIC Hose
7	90284	3/8x60 08FJIC x 04MNPT
8	90248	3/8x20 08FJIC x 08MJIC
9	90563	1/2 MPT x 3(1/2 MJIC) Cross
10	90245	3/8"x28" 08MJIC x 08FJIC
11	25VK08	1/2 MNPT x 2(1/2 FNPT)
12	848FS0808	1/2 MNPT - 1/2MJIC Adapter
13	849FS0808	NPTF Male - 90° MJIC Adapter
14	879FS08	1/2 MJIC -1/2 FJIC Elbow
15	60UA080	M-NPTF to 90° F-NPSM Swivel
16	60US040	M-NPTF to 90° F-NPSM Swivel
17	204225	4-1/2"x42"x1-1/2" Cylinder
18	90116	3-1/4"x16" Bypass Cylinder
19	90115	3-1/2"x16" Bypass Cylinder
20	90691	PC50 Check Valve
21	90416	1/2"x132" Steel Line
22	90407	1/2"x96" Steel Line

Figure 6. Hydraulic Layout



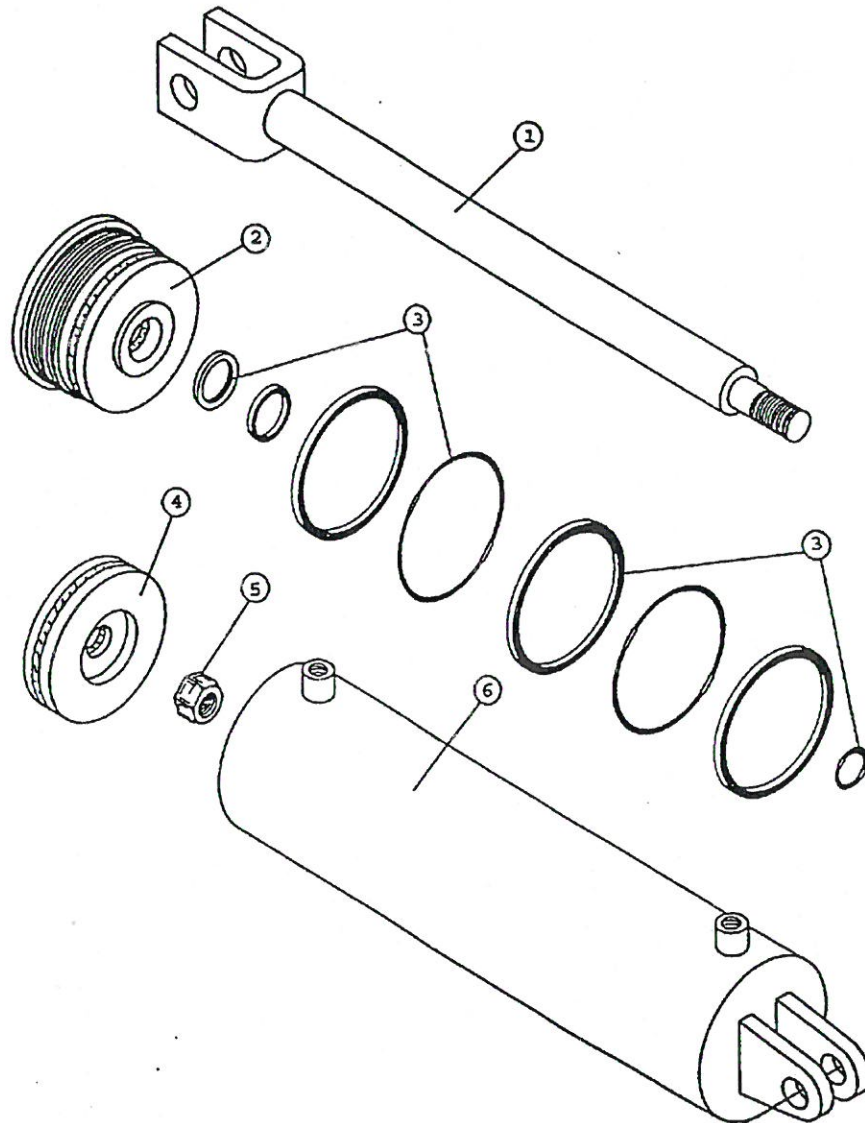
5.6 4-1/2"x42" Cylinder

Figure 7. 4-1/2"x42" Cylinder Component Breakdown

Table 7. 4-1/2"x42" Cylinder Component List

Item No.	Part No.	Description
1	204228	Piston Rod Assembly
2	204226	Head Plate
3	204230	4-1/2"x42" Seal Kit
4	204227	Piston
5	204224	Hexagon Locknut
6	204229	Cylinder Tube
	204225	4-1/2"x42" Cylinder

5.7 3-1/4"x16" Bypass Cylinder

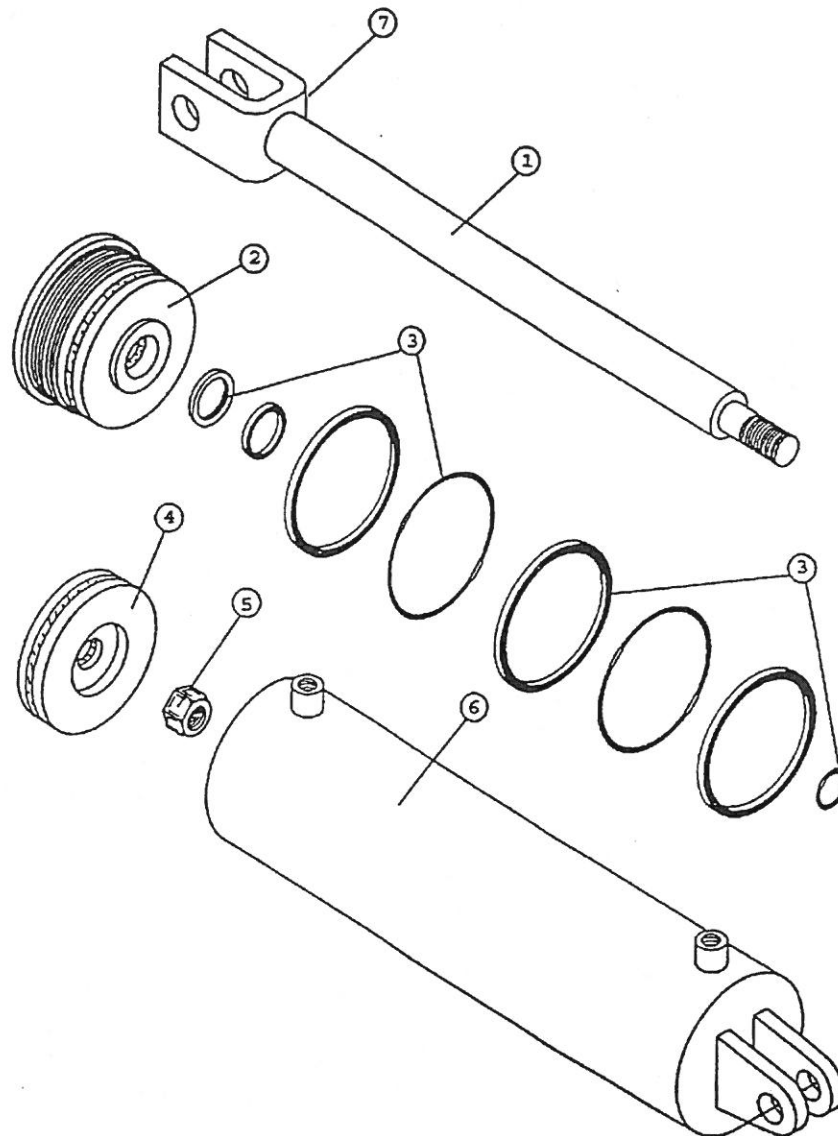


Figure 8. 3-1/4"x16" Cylinder Bypass Component Breakdown

Table 8. 3-1/4"x16" Cylinder Bypass Component List

Item No.	Part No.	Description
1	90651	Piston Rod Assembly 3-1/4"x16" BP
2	90770	Head Plate 3-1/4"x16" BP
3	90675	Seal Kit 3-1/4"x16" BP
4	90707	Piston 3-1/4"x16" BP
5	90723	Hexagon Locknut 3-1/4"x16" BP
6	90751	Cylinder Tube 3-1/4"x16" BP
7	90769	Cylinder Clevis 3-1/4"x16" BP
	90116	3-1/4"x16" BP Cylinder

5.8 3-1/2"x16" Bypass Cylinder

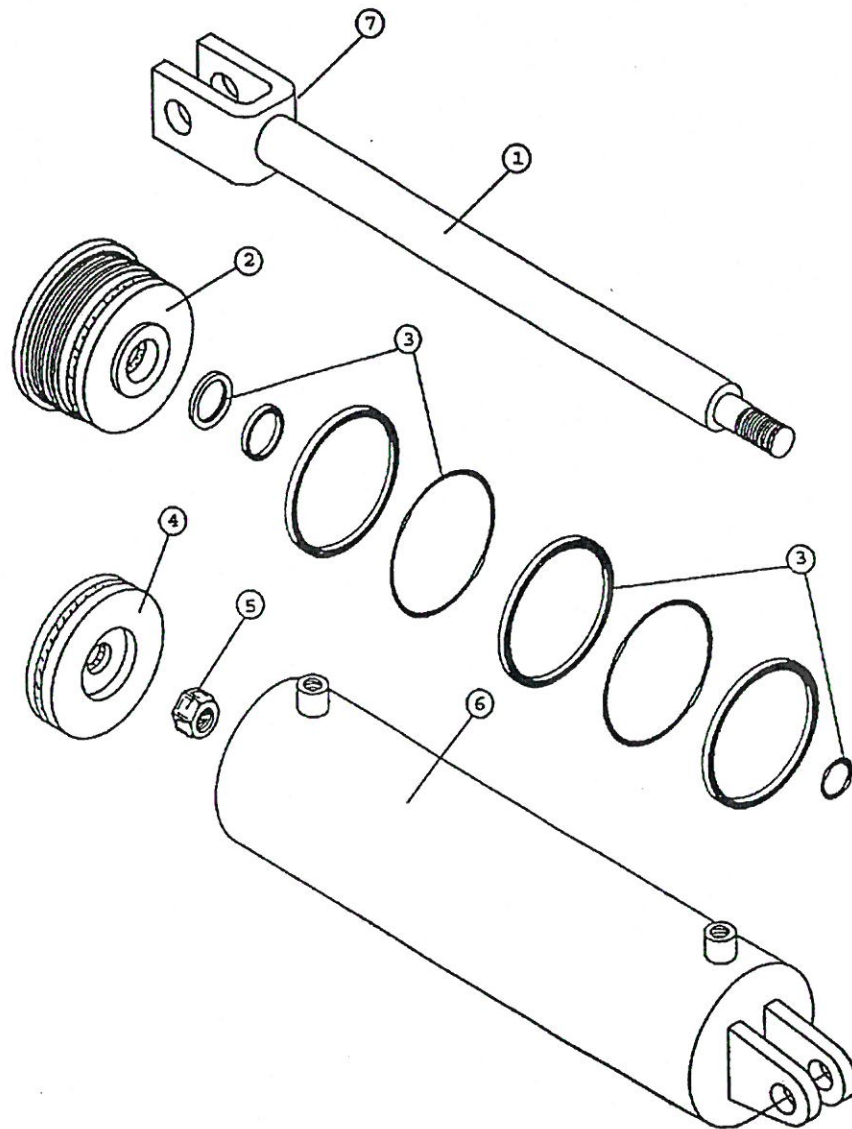


Figure 9. 3-1/2"x16" Cylinder Bypass Component Breakdown

Table 9. 3-1/2"x16" Cylinder Bypass Component List

Item No.	Part No.	Description
1	90651	Piston Rod Assembly 3-1/2"x16" BP
2	90771	Head Plate 3-1/2"x16" BP
3	90697	Seal Kit 3-1/2"x16" BP
4	90708	Piston 3-1/2"x16" BP
5	90723	Hexagon Locknut 3-1/2"x16" BP
6	90752	Cylinder Tube 3-1/2"x16" BP
7	90769	Cylinder Clevis 3-1/2"x16" BP
	90115	3-1/2"x16" BP Cylinder

5.9 Packer Layout

The table below shows the packer configuration for the Wing Up Packer Bar. Please note that machine widths are available from 25ft to 52ft although they may not be shown below. Contact High-Line Manufacturing if you require more information concerning different widths.

Table 10. Packer Requirement List

	25ft	30ft	35ft	40ft	41ft	42ft	45ft	52ft
Packer								
5ft Left	3		4				5	
5ft Right	2		3	3			4	
5 1/2ft Left					2			2
5 1/2ft Right								2
6ft Left		3		4	2	4		2
6ft Right		2			3	3		3

5.10 Wing Axle & Wheel

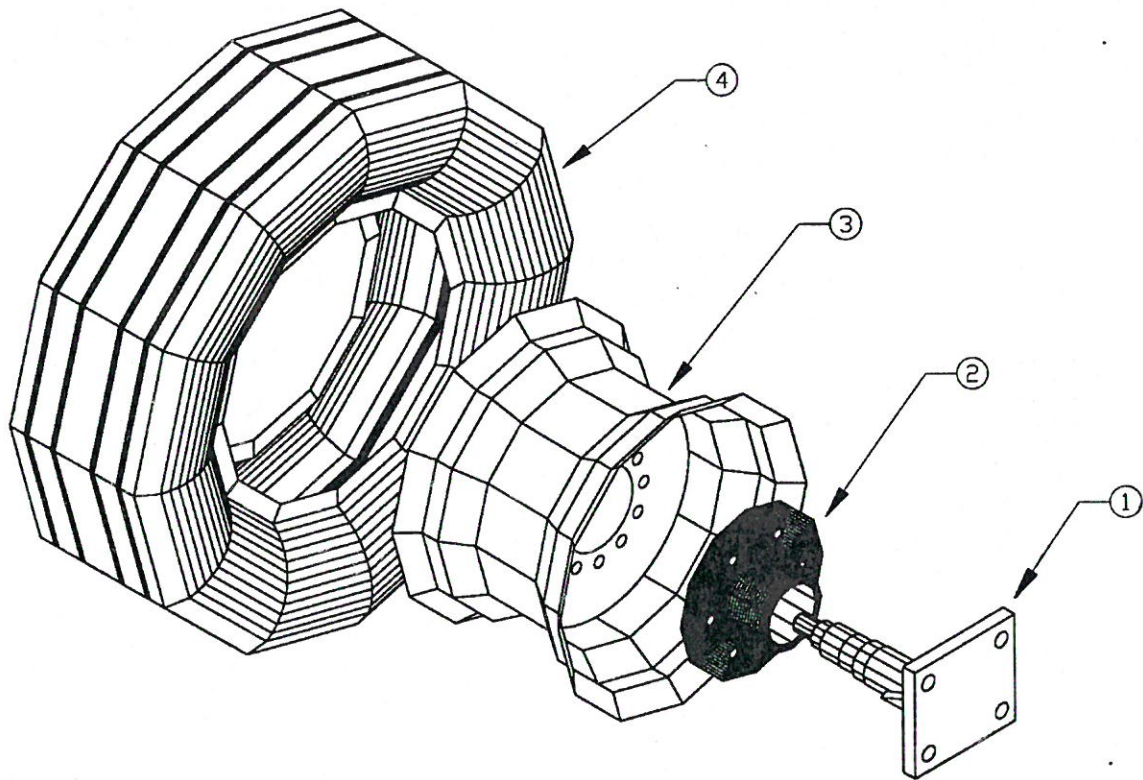


Figure 10. Wing Axle & Wheel Components

Table 11. Wing Axle & Wheel Component List

Item No.	Part No.	Description
1	65014	Wing Axle Plate
2	301012	HA614-1 Hub
3	91050	15x8x6 Wheel
4	301013	11Lx15 6 Ply
Not Shown	91048	TR415 Valve

5.11 H614 Hub

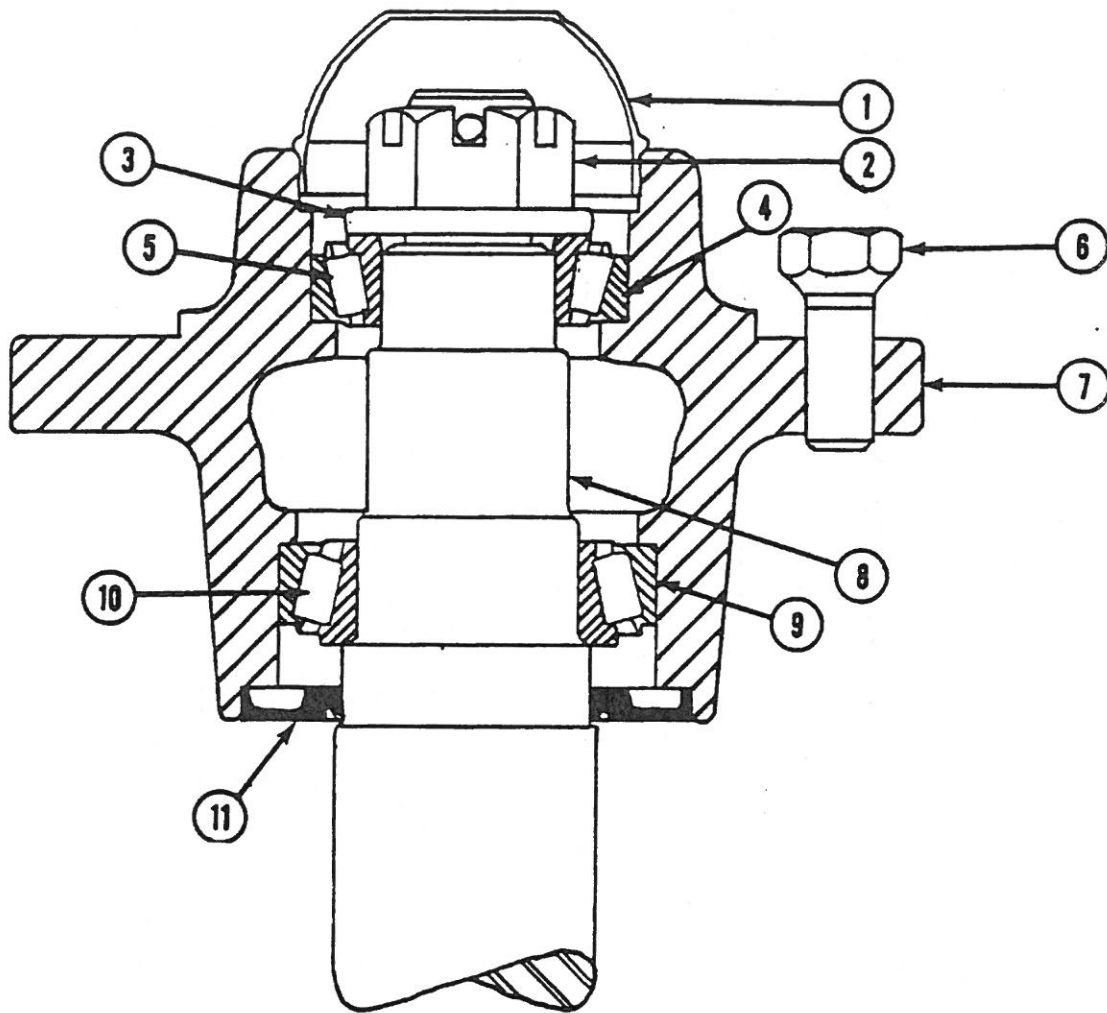


Figure 11. H614 Hub

Table 12. H614 Hub Component List

Item No.	Part No.	Description
1	301001	DC15 Dust Cap
2	301002	Castellated Nut 1"-14 UNC
3	301003	WA17 Washer 2"O.D. x 1"I.D.
4	301004	LM48510 Outer Cup
5	301005	LM48548 Outer Cone
6	301006	WB12 Wheel Bolt 9/16"-18" UNF x 1-1/4"
7	301007	H614 Hub
8	301008	SE16 Spindle Only
9	301009	LM603012 Inner Cup
10	301010	LM603049 Inner Cone
11	301011	SE16 Grease Seal

5.12 Centre, Wing & 5plex Hardware

Table 13. Centre & 5 plex Wing Components

Item No.	Part No.	Description
1	UB126496	3/4" x 4" x 6" U-Bolt
2	65014	Wing Axle Plate
3	LW12P	3/4" Lock Washer Plated
4	NC12P	3/4" UNC Nut Plated
6	65048	5 plex Wing for 52' Right
6	65050	5 plex Wing for 52' Left
6	65019	5 plex Wing for 45' Right
6	65049	5 plex Wing for 45' Left
7	LNC16P	1" UNC Lock Nut Plated
8	FW16P	1" FLAT Washer Plated
9	B5C1688P	1" x 5 1/2" UNC GR. 5 Bolt PL
10	B5C16104P	1" x 6 1/2" UNC GR. 5 Bolt PL
11	65056	4" Mounting Plate
12	65055	Wing Transport Lock
13	91603	1" x 3 3/8" PIN
14	B5C12120P	3/4"x7 1/2" UNC GR. 5 Bolt PL
15	65015	Centre Frame
16	65013	Wing Transport Lock
17	65020	5 plex Stub Wing

Figure 12. Centre & 5 Plex Wing Components

