MANUAL NO. LD-101

WAGNER

MODEL W7 HYDRAULIC LOADER

INSTALLATION AND OPERATION INSTRUCTION MANUAL

AND SERVICE PARTS LIST

FOR

FORDSON MAJOR TRACTORS

WAGNER IRON WORKS | 1905 South First Street, Milwaukee 1, Wisconsin

WAGNER W7 HYDRAULIC LOADER
INSTALLATION AND OPERATION INSTRUCTION MANUAL AND PARTS LIST FOR FORDSON MAJOR TRACTORS

INSTALLATION INSTRUCTIONS

A. Preparation of tractor

1. Remove headlights.

2. Remove hood and grill.

3. Drain radiator and remove.

4. If tractor is equipped with belt pulley, it must be removed. A cover plate, part No. 62617, if required, is available through our parts department. Orginal cap screws can be used.

5. Using sketch provided in Figure (1) as a guide, cut or burn out bottom of fan shroud to allow clearance for adapter coupling.

6. Remove crank nut from fan pulley.

7. Secure adapter furnished to fan pulley with two 3/8" N.C. x 2" lg. allen head cap screws and lockwashers and one 1" N.F. x 1-1/2" lg. allen head cap screw in place of tractor crank nut.

8. Bolt #352 Morflex Coupling with 7/8" flange to adapter using two 5/16" N.F. x 1-5/8" lg. cap screws and lockwashers.

9. Secure drive shaft (7/8" dia. x 11-3/4" lg.) to coupling flange with a woodruff key #9 and tighten set screw.

10. Replace radiator, grill and hood.

11. Install #402 Morflex Coupling on drive shaft with a woodruff key #9 and tighten set screw.

NOTE: Leave about 3/32" clearance between inside flange and front casting of tractor.

12. Remove fender bolts and draw bar links from rear axle.

13. Remove cap screw securing tail pipe hanger bracket to axle.

14. Additional weight must be applied to rear of tractor to act as a ballast. It is recommended that a ballast box (optional) be installed as shown in Figure (2), and weighted with about 1500 lbs. of material. However, if customer desires, weights may be applied to rear wheels and rear tires filled with liquid, per tractor manufactures specifications.

15. If tractor is equipped with heavy duty 14-30 industrial tires, it is necessary to purchase spacer kit #2104. See Wagner Accessory Sheet. Use the following procedure for mounting.

A. Remove wheels.

b. Secure spacers to tractor wheel hubs with original nuts. See Figure (2).

c. Tighten coarse thread end of 3/4" studs into tapped holes of spacers.

d. Replace wheels on studs and secure with original tapered washers and 3/4" N.F. special heavy hex nuts furnished.

NOTE: Check tightness of hex nuts periodically.

B. Preparation of Loader

1. Remove masking tape and plugs from ends of all feed lines on main frame and dipperstick assemblies and fasten adapter unions in their place.

2. Secure valve mounting bracket to welded extension on right side of main frame with two 1/2" N.C. x 1-1/2" lg. cap screws, lockwashers and nuts.

3. Assemble all fittings and connections to control valve using Figure 3 as a guide.

NOTE: Use pipe joint compound when installing hydraulic fittings to prevent oil leakage.

4. Fasten control valve to mounting bracket with four 1/2" N.C. x 4-1/2" lg. cap screws, lockwashers and nuts.

5. Secure control valve levers to lug on mounting bracket using a 5/16" N.C. x 3" lg. cap screw and two 5/16" N.C. hex jam nuts.

6. Using Figure 1 for a guide, assemble all fittings to suction and return ports of hydraulic pump.

7. Tighten six 3/8" N.C. x 1-1/2" lg. stud bolts into tapped holes on front of frame. See Figure 1.

8. Bolt steps to frame using four 1/2" N.C. x 1-1/2" lg. cap screws, lockwashers and nuts.

C. Main Frame Mounting

1. Hoist frame to height approximating position on tractor.

2. Roll tractor into frame.

3. Bolt front mounting bracket on frame loosely to front casting of tractor using four 3/4" N.C. x 1-1/2" lg. cap screws and lockwashers.

4. Position rear mounting pads on frame under rear axle.

5. Insert the two longest bolts removed from fenders through forward hole in fenders and through forward outside hole in rear mounting pads with plain washers furnished and replace lockwashers and nuts. See Figure 2.

6. Place draw bar links in position under rear mounting pads and insert two 5/8" N.C. x 9-1/4" lg. cap screws through rear hole in fenders and through outside hole in draw bar links. Secure with lockwashers and nuts.

7. Through remaining two holes in draw bar links and center holes in mounting pad, insert four 5/8" N.C. x 2" lg. cap screws and lockwashers.

8. Through inside holes in mounting pad insert four 5/8" N.C. x 1-3/4" lg. cap screws, 1/4" thk. plain washers and lockwashers. Place tail pipe hanger bracket in position before inserting cap screw in forward inside hole of left mounting pad. See Figure 2.

9. Tighten down all bolts on front and rear mountings.

10. Place pump in position on front mounting bracket and insert shaft into flexible coupling flange with key in position on shaft. Tighten set screw. Secure pump to stud bolts with six 3/8" N.C. hex nuts and lockwashers. See Figure 1.

D. Dipperstick Installation

1. Hoist dipperstick into position on main frame.

2. Insert pivot rod through pivot hubs on dipperstick and center brace on main frame. Secure rod to pivot hubs with two 5/8" N.C. x 3-3/4" lg. cap screws, lockwashers and nuts. See Figure 4.

3. Mount leveling rods to lugs on main frame using two 7/8" dia. x 4-3/8" lg. pins and four 5/16" x 2" lg. cotter pins. See Figure 4.

4. Mount base of "H" links to lugs on front end of dipperstick with two 7/8" dia. x 7-1/2" lg. pins and four 5/16" x 2" lg. cotter pins. See Figure 4.

5. Install clevis end of bucket cylinders to lug welded under front end of leveling rods with two 5/8" dia. x 3-1/8" lg. pins and four 5/16" x 2" lg. cotter pins.

6. Connect leveling rods to "H" links with two 7/8" dia. x 6-1/4" lg. pins and four 5/16" x 2" lg. cotter pins.

7. Install lift cylinders, securing base with 1" dia. x 5" lg. pins and 3/8" x 2-1/2" lg. cotter pins and securing piston rods to cylinder lugs on dipperstick with 1" dia. x 4-1/2" lg. pins and 3/8" x 2-1/2" lg. cotter pins.

8. Mount headlights on brackets welded to grill guards.

E. Hydraulic Installation

1. Connect pump return line to strainer assembly with hose and clamps furnished. See Figure 1.

2. Connect pump pressure port to pump pressure line with 1/2" x 16-3/4" lg. hose.

3. Connect two 1/2" x 22-3/4" lg. hoses to R. H. valve ports and join to Female-Female adapter unions on bucket cylinder feed lines. See Figure 3.

4. Connect a 1/2" & 3/8" hose 16-3/4" lg. to open end of tees at left valve ports and join to Female-Female adapter unions on feed lines located at main frame center brace. See Figure 3.

5. Install 3/8" x 90° street elbow, feed line and 3/8" x 90° elbow in front port of each lift cylinder. See figure 3.

6. Connect a 1/2" & 3/8" hose 22-3/4" lg. to ports in left lift cylinder and join to female-female adapter unions on nipples leading to tees at left port of valve. See figure 3.

7. Connect a 1/2" & 3/8" hose 22-3/4" lg. to ports in left lift cylinder and join to feed lines on main frame center brace. See figure 3.

8. Clamp on 18" lg. neoprene hose to nipple at by-pass port on right side of valve and join to nipple in main frame reservoir as shown in figure 3.

9. Connect a 1/2" x 16-3/4" hose to elbow at left side port of valve and join to adapter union on pump pressure line.

10. Clamp a 15" lg. neoprene hose to nipple welded in lower rear right side of frame and join to pump feed line as shown in figure 3.

    NOTE: An oil filter (optional at slight extra cost) may be installed at this location. See figure 3 for installation. If filter is used, cut 5" from hose before clamping to filter assembly.

11. Connect a 1/2" x 22-3/4" and a 1/2" x 16-3/4" hose to elbows on front end of bucket cylinder feed lines and join to equalizer tees as shown in figure 5.

12. Connect a 3/8" x 18-3/4" hose to elbow at upper port of right bucket cylinder and a 3/8" x 22-3/4" hose to street elbow in lower port. Join hoses to adapter unions in equalizer assembly as shown in figure 5.

13. Connect 3/8" x 22-3/4" hoses into top port and street elbow in lower port of left bucket cylinder and join to adapter unions in equalizers. See figure 5.

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II. OPERATING AND SERVICE INSTRUCTIONS

A. Operating Instructions

1. Remove breather cap from filler pipe and fill main frame reservoir with Wagner Special Hydraulic Oil.

2. Operate all cylinders to complete length of stroke two or three times.

3. Add oil to bring level up to "oil level check nipple" located on right side of main frame below filler pipe. See Figure 4.

   NOTE: Close all cylinders before adding oil. Total amount of oil required for operation is about 9 gallons.

4. If oil flows from breather cap on reservoir filler pipe during operation, operate all cylinders to full stroke several more times. Should oil continue to leak from breather cap when operated, reduce oil level in reservoir.

5. Control valve is operated as follows:

   a. Outisde (right hand) valve lever controls bucket cylinders. Push lever forward to dump bucket. Pull lever back to raise bucket.

   b. Inside (left hand) valve lever controls lift cylinders. Pull lever back to raise dipperstick. Push lever forward to lower.

6. Mount attachments using a 1-1/4" dia. x 9-1/4" lg. pin and two 3/8" x 2-1/2" lg. cotter pins at each hinge point and a 7/8" dia. x 4-3/4" lg. pin and 3/8" x 2" lg. cotter pin to mount each cylinder piston rod to mounting lug on attachment.

7. Be very careful when installing or replacing hose connections to prevent hoses from becoming twisted. If it is noticed that a hose appears twisted when loader is operated, straighten it out immediately because under high pressure, it may break in a short time.

B. Service Instructions

1. Alemite fittings are located on main frame center brace, each end of lift cylinders and base of leveling rod pivot arms. All fittings should be greased thoroughly before loader is operated and daily or as required thereafter.

2. Check and tighten set screws in flexible coupling after several hours of initial operation and periodically thereafter. Should these set screws have a tendency to continually work loose, they can be cinched by peening the threads in the flanges with a center punch.

3. Check tightness of all bolts on front and rear mountings, trunnion, pump and valve after first eight hours of operation and weekly thereafter. Loose bolts can cause unsatisfactory operation and excessive wear.

4. After first eight hours of operation, clean strainer. Thereafter oil strainer must be cleaned when oil is changed seasonally.

NOTE: If loader is equipped with optional oil fitler, it should be cleaned after the first eight hours of operation and after the first week of operation. It should also be cleaned each time the oil is changed in reservoir.

5. Oil must be drained after the first 100 hours of operation, strained and returned to the reservoir, adding oil if necessary to the proper level - "oil level check nipple".

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S E R V I C E P A R T S L I S T

WAGNER MODEL W7 HYDRAULIC LOADER

FOR FORDSON MAJOR TRACTORS

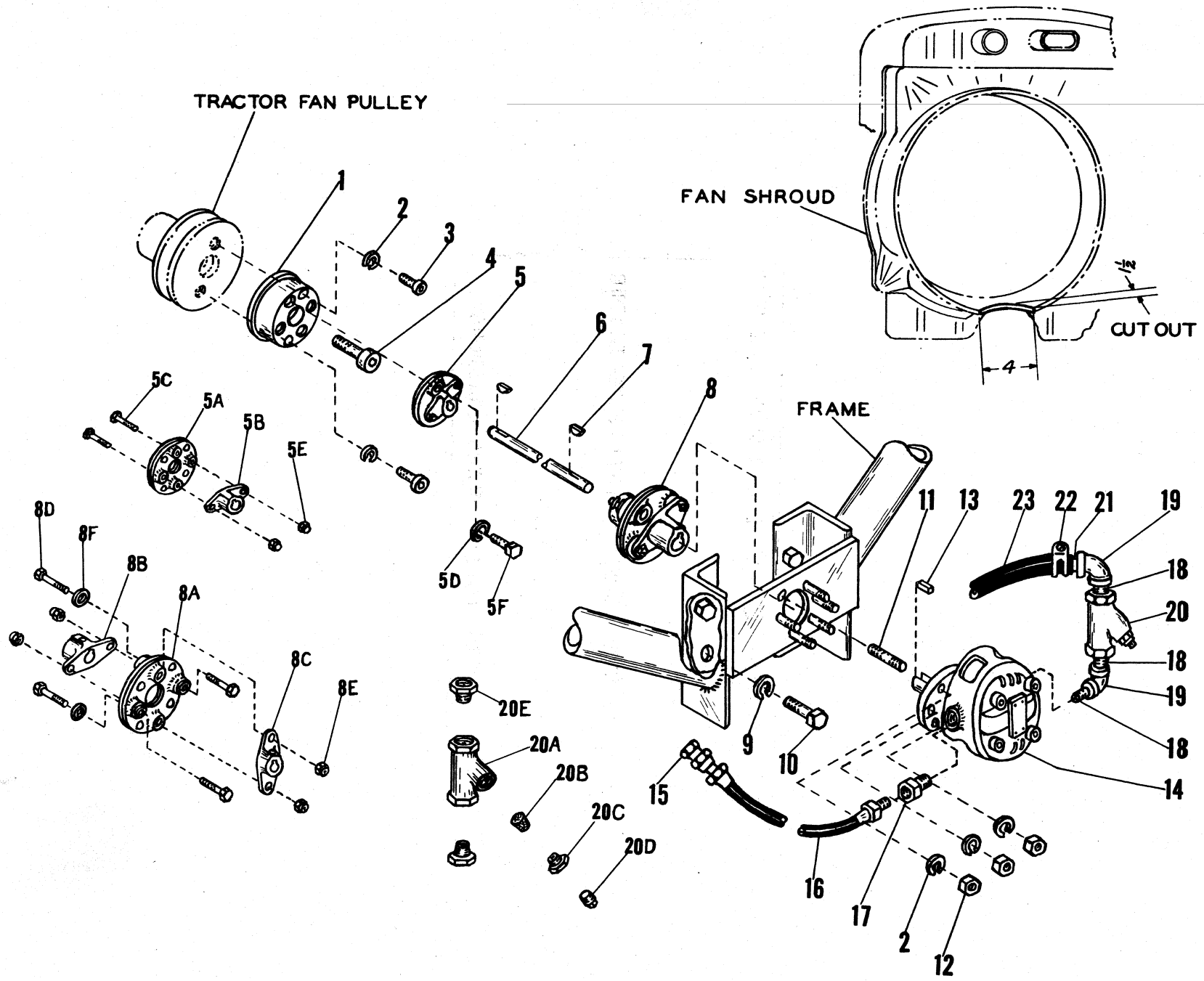


Figure 1, Wagner W7 Hydraulic Loader Front Mounting and Drive Assembly Installation for Fordson Major Tractor

S E R V I C E P A R T S L I S T

WAGNER MODEL W7 HYDRAULIC LOADER

FOR FORDSON MAJOR TRACTORS

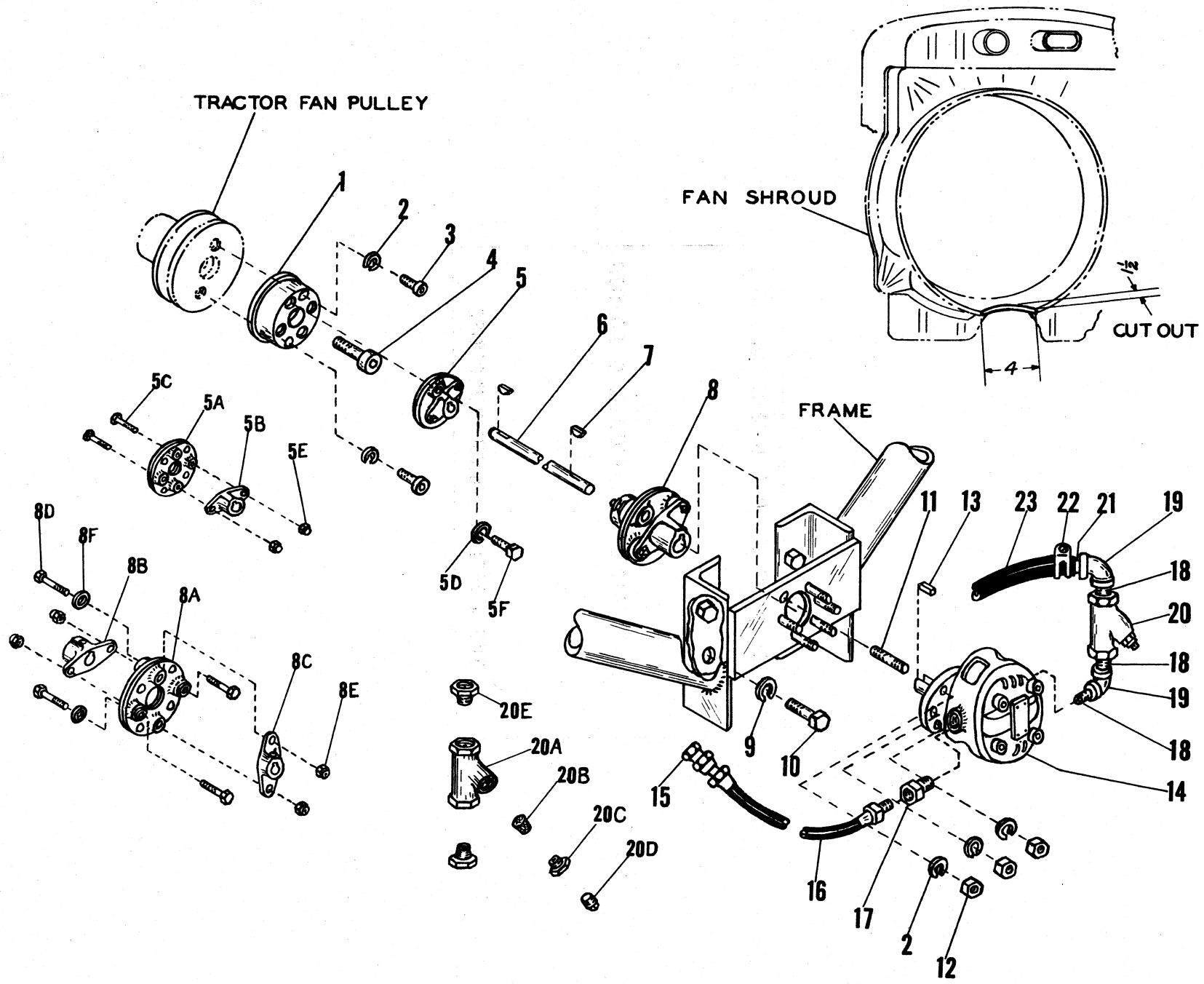


Figure 1, Wagner W7 Hydraulic Loader Front Mounting and Drive Assembly Installation for Fordson Major Tractor

SERVICE PARTS LIST

FRONT MOUNTING AND DRIVE ASSEMBLY INSTALLATION
WAGNER W7 HYDRAULIC LOADER FOR FORDSON MAJOR TRACTOR

INDEX NO.	DESCRIPTION	QTY.	PART NO.
1	Adapter	1	45575
2	3/8" Lockwasher	8	A-40005
3	3/8"-16 N.C. x 1-3/4" lg. Socket Head Cap Screw	2	A-20225
4	1"-14 N.F. x 1-1/2" lg. Socket Head Cap Screw	1	A-20208
5	Flexible Coupling - Morflex #352 Consisting of:	1	45920
5a	Center Assembly	1	45922
5b	Flange 7/8"	1	45921
5c	5/16"-24 N.F. x 1-5/8" lg. Hex Head Cap Screw	2	A-20209
5d	5/16" Lockwasher	2	A-40004
5e	5/16"-24 N.F. Elastic Stop Nut	2	A-10056
5f	5/16"-24 N.F. x 1-1/2" lg. Hex Head Cap Screw	2	A-20217
6	Drive Shaft 7/8" Dia. x 11-3/4" lg.	1	45780
7	Woodruff Key #9	2	A-90000
8	Flexible Coupling Assembly - Morlfex #402	1	45930
8a	Center Assembly	1	45932
8b	Flange 7/8" I.D.	1	45931
8c	Flange 1" I.D.	1	45933
8d	3/8"-24 N.F. x 2-1/8" lg. Special Hex Head Cap Screw	4	A-20212
8e	3/8"-24 N.F. Special Elastic Stop Nut	4	A-10057
8f	3/8" Special Plain Washer	2	A-30042
9	3/4" Lockwasher	4	A-40010
10	3/4"-10 N.C. x 1-1/2" lg. Hex Head Cap Screw	4	A-20030
11	3/8"-16 N.C. x 1-1/2" lg. Stud Bolt	6	64901
12	3/8"-16 N.C. Hex Light Nut	6	10046
13	3/16" Square Key	1	40110
14	Hydraulic Pump - Hydreco Model #2015 F2B2	1	40200-B
15	1/2" N.P.T. Female-Female Adapter Union	1	D-40003
16	1/2" N.P.T. x 16-3/4" lg. Hose Assembly	1	D-30009
17	1/2" x 3/4" N.P.T. Hex Bushing	1	B-70004
18	3/4" N.P.T. Close Nipple	3	B-60009
19	3/4" N.P.T. x 90° Elbow	2	B-20014
20	Strainer Assembly - Sterlco	1	60100-D
20a	"Y" Fitting	1	60101-D
20b	Screen	1	60102-C
20c	1-1/4" x 3/4" Hex Bushing	1	60103-B
20d	1/2" Pipe Plug	1	B-30000
20e	3/4" x 1" Hex Bushing	2	B-70007
21	3/4" N.P.T. x 1-3/4" lg. T.O.E. Nipple	1	60505
22	1" x 5W Allen Hose Clamp	2	D-50000
23	1" I.D. x 6" lg. Neoprene Hose	1	D-60002

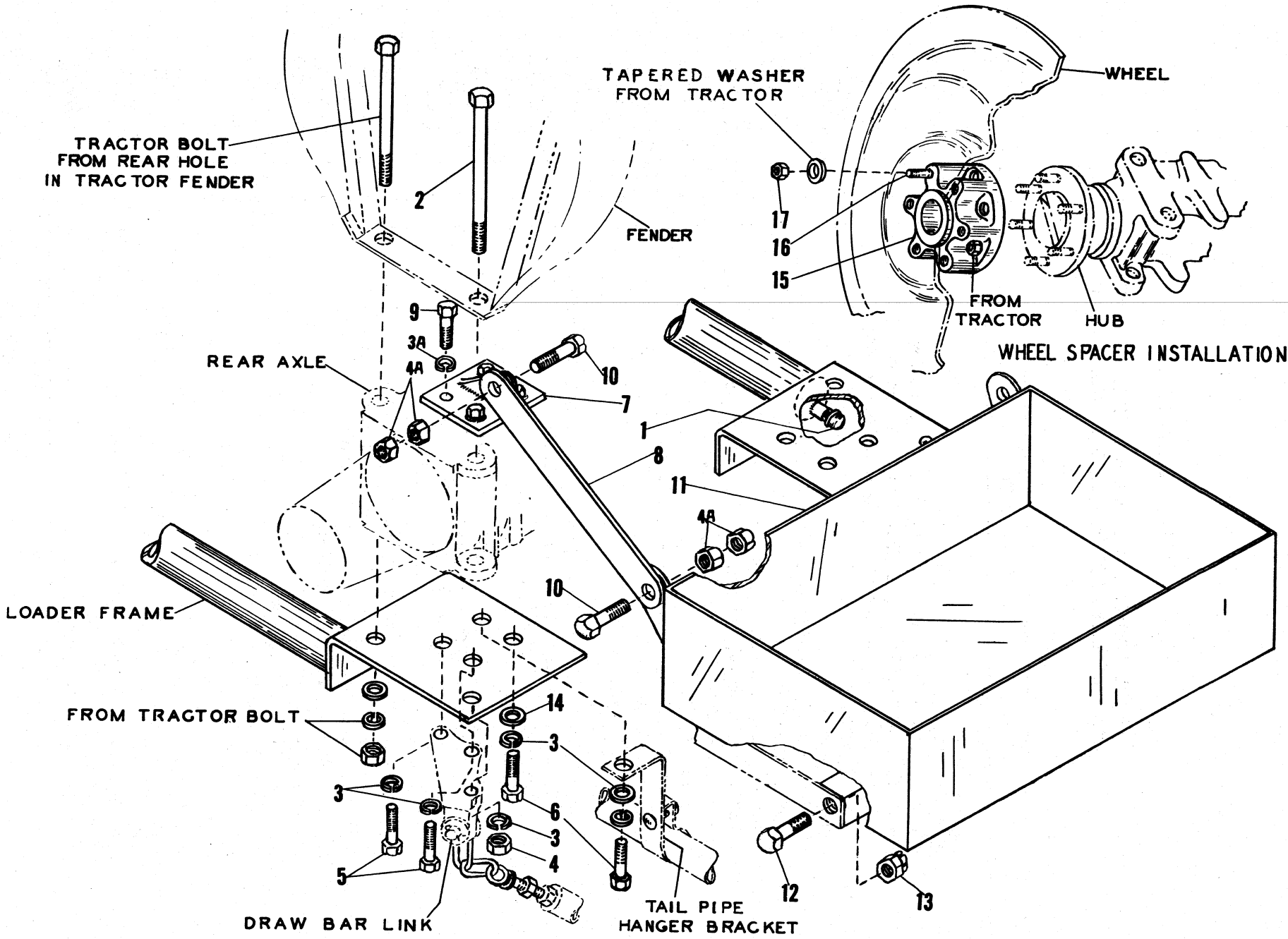


Figure 2, Rear Mounting and Ballast Box Installation of Wagner W7 Hydraulic Loader for Fordson Major Tractor

SERVICE PARTS LIST

REAR MOUNTING AND BALLAST BOX INSTALLATION
WAGNER W7 HYDRAULIC LOADER FOR FORDSON MAJOR TRACTOR

INDEX NO.	DESCRIPTION	QTY.	PART NO.
1	1" Reservoir Drain Pipe Cap	1	B-50002
2	5/8"-11 N.C. x 9-1/4" lg. Hex Head Cap Screw	2	A-20210
3	5/8" Lockwasher	10	A-40009
* 3a	5/8" Lockwasher	8	A-40009
4	5/8"-11 N.C. Hex Nut	2	A-10013
* 4a	5/8"-11 N.C. Hex Nut	8	A-10013
5	5/8"-11 N.C. x 2" lg. Hex Head Cap Screw	4	A-20022
6	5/8"-11 N.C. x 1-3/4" lg. Hex Head Cap Screw	4	A-20021
* 7	Mounting Pad	2	95001
* 8	Mounting Bar	2	95002
* 9	5/8"-11 N.C. x 1-1/4" lg. Hex Head Cap Screw	8	A-20019
*10	5/8"-11 N.C. x 2-1/4" lg. Hex Head Cap Screw	4	A-20023
*11	Ballast Box	1	95000
*12	1"-8 N.C. x 3-1/2" lg. Hex Head Cap Screw	2	A-20211
*13	1"-8 N.C. Flex Lock Nut	2	A-10021
14	5/8" x 1/4" thk. Plain Washer	6	A-30019
**15	Wheel Spacer	2	65818
**16	3/4" x 2-1/4" lg. Special Stud	12	64902
**17	3/4" N.F. Special Heavy Hex Nut	12	64802

* Ballast box assembly is optional at additional cost. See Wagner Attachment List.

** Wheel Spacer kit #2104 is optional at additional cost.

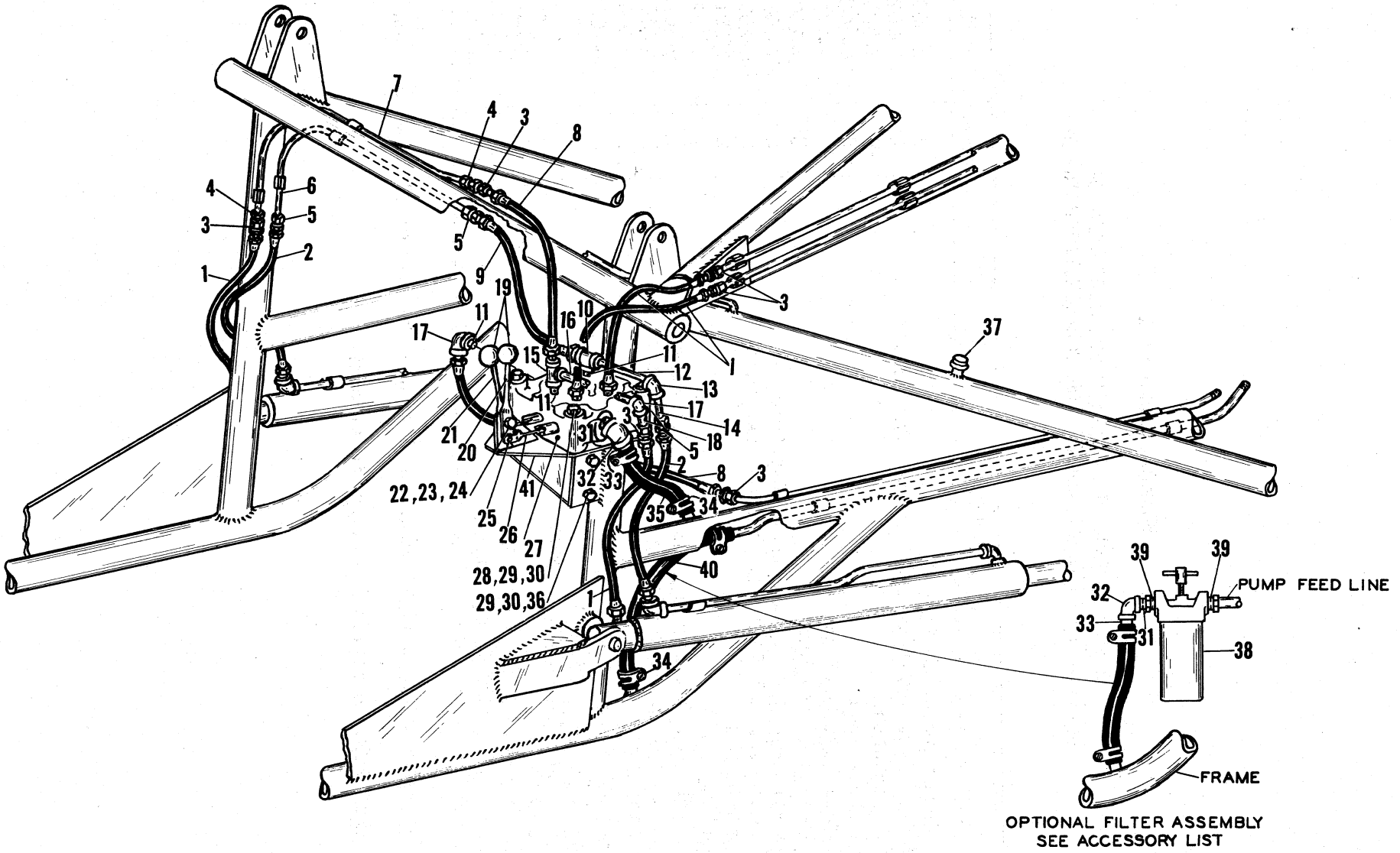


Figure 3, Wagner W7 Hydraulic Loader Rear Hydraulic Installation for Fordson Major Tractor

SERVICE PARTS LIST

REAR HYDRAULIC INSTALLATION
WAGNER W7 HYDRAULIC LOADER FOR FORDSON MAJOR TRACTOR

INDEX NO.	DESCRIPTION	QTY.	PART NO.
1	1/2" N.P.T. x 22-3/4" lg. Hose Assembly	4	D-30010
2	3/8" N.P.T. x 22-3/4" lg. Hose Assembly	2	D-30002
3	1/2" N.P.T. Female-Female Adapter Union	7	D-40003
4	3/8" x 1/2" N.P.T. Hex Bushing	2	B-70002
5	3/8" N.P.T. Female-Female Adapter Union	3	D-40001
6	3/8" N.P.T. x 24" lg. Feed Line	1	60226
7	3/8" N.P.T. x 30" lg. Feed Line	1	60227
8	1/2" N.P.T. x 16-3/4" lg. Hose Assembly	2	D-30009
9	3/8" N.P.T. x 16-3/4" lg. Hose Assembly	1	D-30000
10	3/8" x 3/8" x 1/2" N.P.T. Tee	1	B-10005
11	1/2" N.P.T. Close Nipple	3	B-60004
12	3/8" N.P.T. x 4-3/8" lg. T.B.E. Nipple	1	B-60032
13	3/8" N.P.T. x 90° Elbow	1	B-20007
14	3/8" N.P.T. x 3" lg. T.B.E. Nipple	1	B-60010
15	1/2" x 1/2" x 1/2" N.P.T. Tee	1	B-10002
16	1/2" N.P.T. x 4-3/8" lg. T.B.E. Nipple	1	B-60033
17	1/2" N.P.T. x 90° Elbow	2	B-20008
18	1/2" N.P.T. x 3" lg. T.B.E. Nipple	1	B-60008
19	Control Lever Knob	2	W-50000
20	Outer Valve Lever	1	30201-B
21	Inner Valve Lever	1	30202-B
22	5/16"-18 N.C. x 3" lg. Hex Head Cap Screw	1	A-20168
23	5/16"-18 N.C. Hex Jam Nut	2	A-10049
24	5/16" Lockwasher	1	A-40004
25	Yoke Pin Assembly	2	F-20000
26	Valve Rod	2	30203-B
27	Control Valve - Hydreco Model #V1DD3D	1	30200-B
28	1/2"-13 N.C. x 4-1/2" lg. Hex Head Cap Screw	4	A-20167
29	1/2"-13 N.C. Hex Nut	6	A-10011
30	1/2" Lockwasher	6	A-40007
31	3/4" N.P.T. Close Nipple	2	B-60009
32	3/4" N.P.T. x 90° Elbow	2	B-20014
33	3/4" N.P.T. x 1-3/4" lg. T.O.E. Nipple	2	60505
34	1" x 5W Allen Hose Clamp	4	D-50000
35	1" I.D. x 18" lg. Neoprene Hose	1	D-60002
36	1/2"-13 N.C. x 1-1/2" lg. Hex Head Cap Screw	2	A-20013
37	1" N.P.T. Oil Level Check Pipe Cap	1	B-50002
* 38	Filter Assembly	1	60825
39	3/4" x 1" N.P.T. Hex Bushing	2	B-70007
40	1" I.D. x 15" lg. Neoprene Hose	1	D-60002
41	Valve Mounting Bracket	1	65962

*Filter assembly is available as optional equipment at slight extra cost. See Wagner Accessory List.

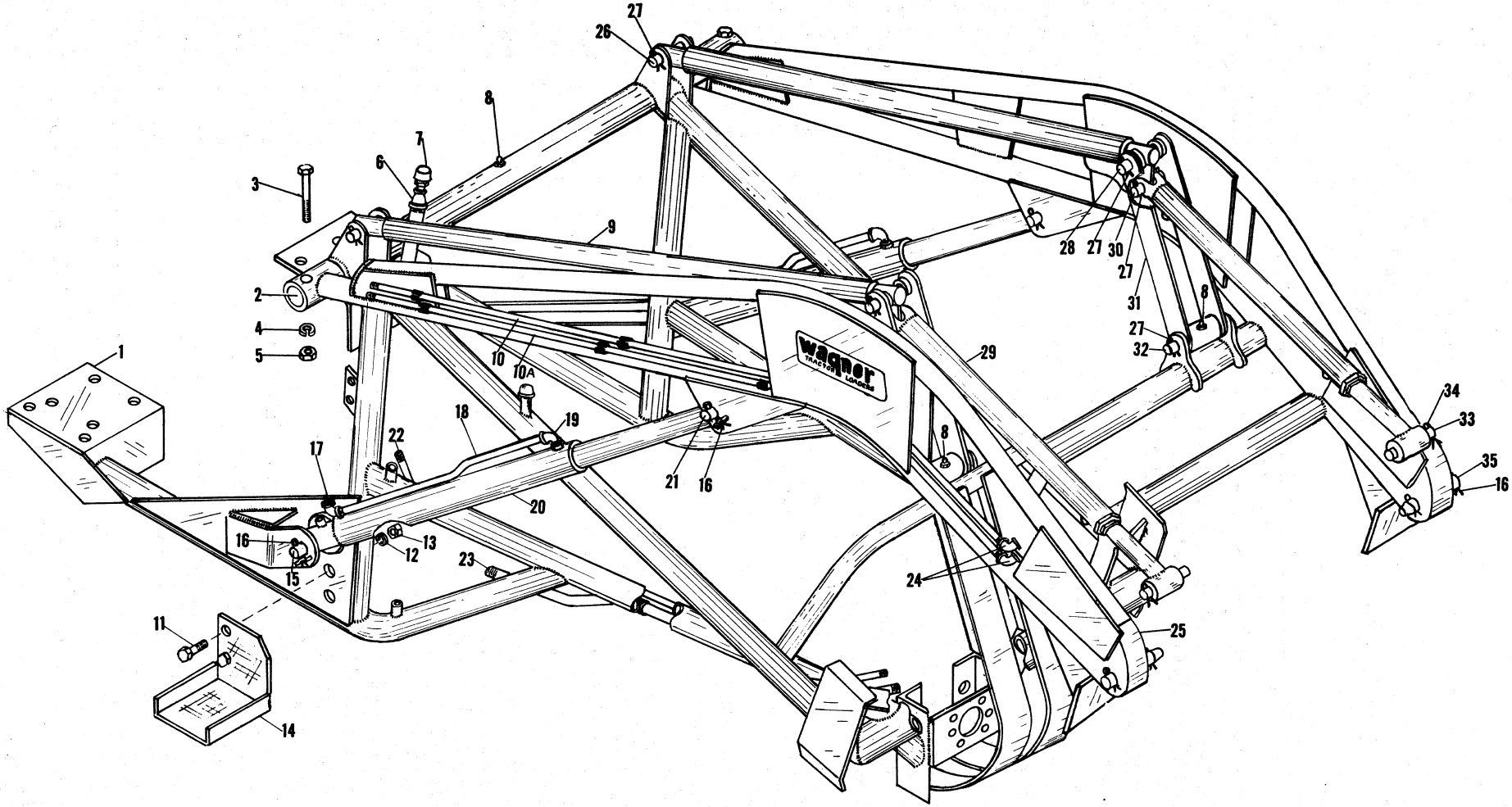


Figure 4, Main Frame and Dipperstick Assembly of Wagner W7 Hydraulic Loader for Fordson Major Tractor

SERVICE PARTS LIST

MAIN FRAME AND DIPPERSTICK ASSEMBLY
WAGNER W7 HYDRAULIC LOADER FOR FORDSON MAJOR TRACTOR

INDEX NO.	DESCRIPTION	QTY.	PART NO.
1	Main Frame	1	10262
2	Pivot Rod 1-7/8" Dia. x 52-1/2" lg.	1	60006
3	5/8"-11 N.C. x 3-3/4" lg. Hex Head Cap Screw	2	A-20026
4	5/8" Lockwasher	2	A-40009
5	5/8"-11 N.C. Hex Nut	2	A-10013
6	1/2" x 1" N.P.T. Reducer Coupling	1	B-80002
7	1/2" N.P.T. Breather Cap	1	W-90000
8	1/8" Straight Alemite Fitting	3	C-20000
9	Leveling Rod	2	60048
10	Bucket Cylinder Feed Line 1/2" x 69-3/8" lg.	1	60630
10a	Bucket Cylinder Feed Line 1/2" x 69-3/8" lg.	1	60631
11	1/2"-13 N.C. x 1-1/2" lg. Hex Head Cap Screw	4	A-20013
12	1/2" Lockwasher	4	A-40007
13	1/2"-13 N.C. Hex Nut	4	A-10011
14	Step - Right	1	65586
14a	Step - Left	1	65587
15	1" Dia. x 5" lg. Pin	2	60628-B
16	3/8" x 2-1/2" lg. Cotter Pins	8	A-50023
17	3/8" N.P.T. x 90° Elbow	2	B-20007
18	Cylinder Feed Line 3/8" x 32" lg.	2	60621
19	3/8" N.P.T. x 90° Street Elbow	2	B-20003
20	Double Acting Cylinder Model #5	2	55200
21	1" dia. x 4-1/2" lg. Pin	2	60050
22	Pump Pressure Line 1/2" x 47-1/2" lg.	1	60422
23	Pump Suction Line 3/4" x 56" lg.	1	60423
24	1/2" N.P.T. x 90° Elbow	2	B-20008
25	Dipperstick	1	20263
26	7/8" dia. x 4-3/8" lg. Pin	2	60051
27	5/16" x 2" lg. Cotter Pin	16	A-50012
28	7/8" dia. x 6-1/4" lg. Pin	2	60052
29	Double Acting Cylinder Model #14	2	55600
30	7/8" dia. x 3-1/8" lg. Pin	2	60053
31	"H" Link	2	60040-B
32	7/8" dia. x 7-1/2" lg. Pin	2	60054
33	7/8" dia. x 4-3/4" lg. Pin	2	60055
34	3/8" x 2" lg. Cotter Pin	2	A-50015
35	1-1/4" dia. x 9-1/4" lg. Pin	2	60043

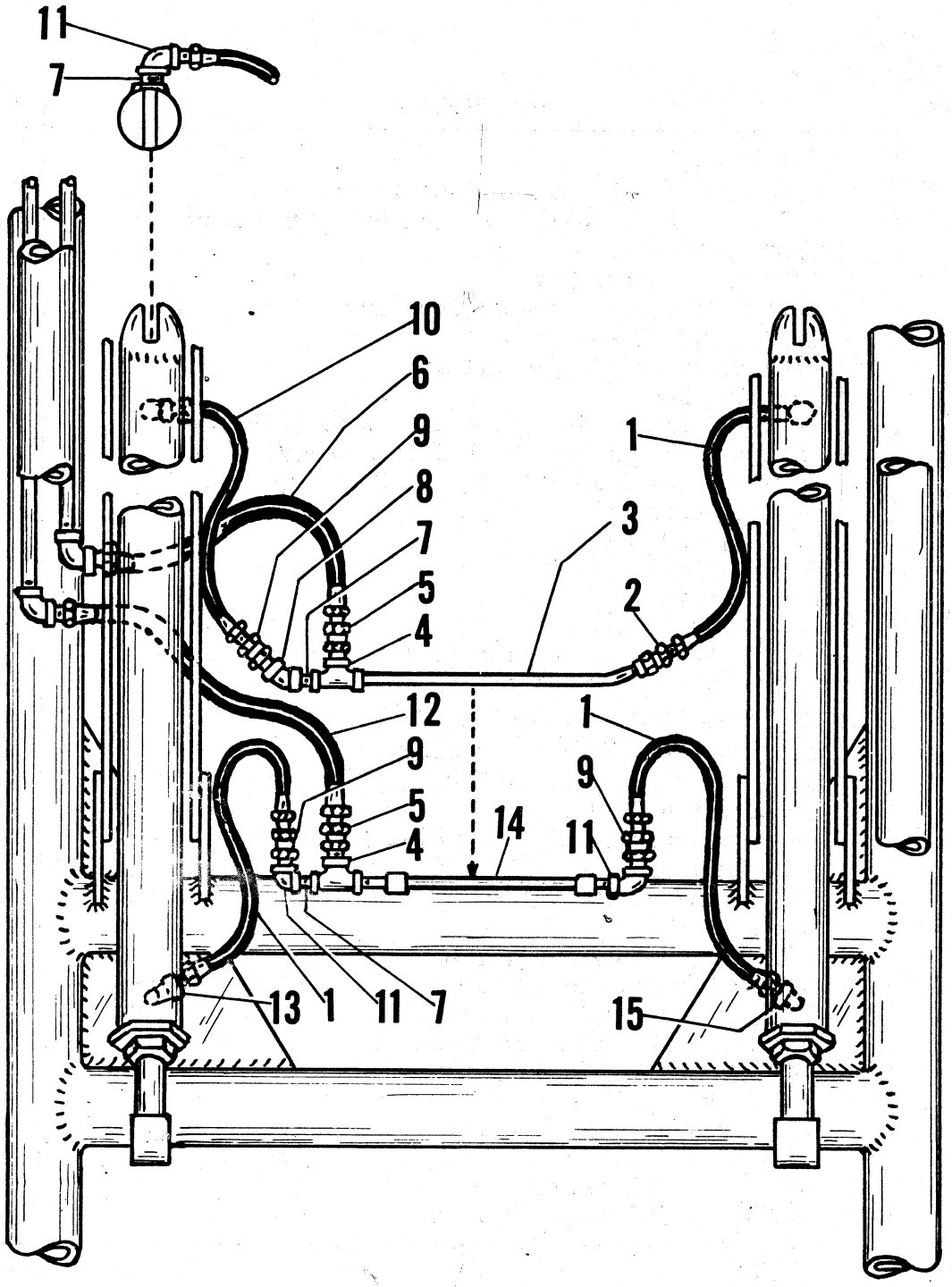
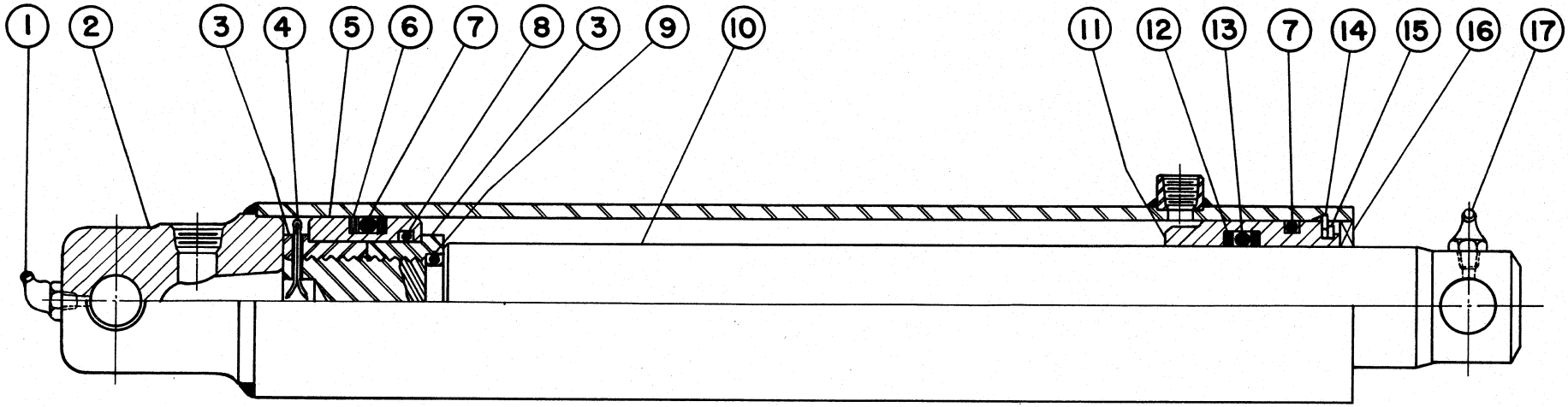


Figure 5, Front Hydraulic Installation of Wagner W7 Hydraulic Loader for Fordson Major Tractor

SERVICE PARTS LIST

FRONT HYDRAULIC INSTALLATION
WAGNER W7 HYDRAULIC LOADER FOR FORDSON MAJOR TRACTOR

INDEX NO.	DESCRIPTION	QTY.	PART NO.
1	3/8" N.P.T. x 22-3/4" lg. Hose Assembly	3	D-30002
2	3/8" N.P.T. Female-Female Adapter Union	1	D-40001
3	3/8" N.P.T. x 17-1/2" lg. Feed Line	1	61041
4	3/8" x 3/8" x 1/2" N.P.T. Tee	2	B-10005
5	1/2" N.P.T. Female-Male Adapter Union	2	D-40004
6	1/2" N.P.T. x 16-3/4" lg. Hose Assembly	1	D-30009
7	3/8" N.P.T. Close Nipple	3	B-60002
8	3/8" N.P.T. x 45° Elbow	1	B-20015
9	3/8" N.P.T. Female-Male Adapter Union	3	D-40000
10	3/8" N.P.T. x 18-3/4" lg. Hose Assembly	1	D-30001
11	3/8" N.P.T. x 90° Elbow	3	B-20007
12	1/2" N.P.T. x 22-3/4" lg. Hose Assembly	1	D-30010
13	3/8" N.P.T. x 45° Street Elbow	1	B-20004
14	3/8" N.P.T. x 11-1/2" lg. T.B.E. Nipple	1	B-60031
15	3/8" N.P.T. x 90° Street Elbow	1	B-20003



DOUBLE ACTING CYLINDER — MODEL NO.5

ITEM	PART NO.	DESCRIPTION
	55200	DOUBLE ACTING CYLINDER
1	C-20001	GREASE FITTING
2	55201	CYLINDER TUBE ASSEMBLY
3	55202	PISTON NUT
4	A-50021	COTTER PIN
5	55203	PISTON
6	55204	LEATHER BACKUP WASHER
7	55205	2-5/8" I.D. x 3" O.D. x 3/16", "O" RING
8	55206	2-1/8" I.D. x 2-3/8" x 1/8", "O" RING

ITEM	PART NO.	DESCRIPTION
9	55153	1-3/8" I.D. x 1-5/8" O.D. x 1/8", "O" RING
10	55207	PISTON ROD
11	55208	GLAND
12	50307	LEATHER BACKUP WASHER
13	50306	2" I.D. x 2-3/8" O.D. x 3/16", "O" RING
14	55209	CYLINDER RETAINER RING
15	55210	GLAND RETAINER RING
16	55211	WIPER RING
17	C-20000	GREASE FITTING

FORM NO 1037

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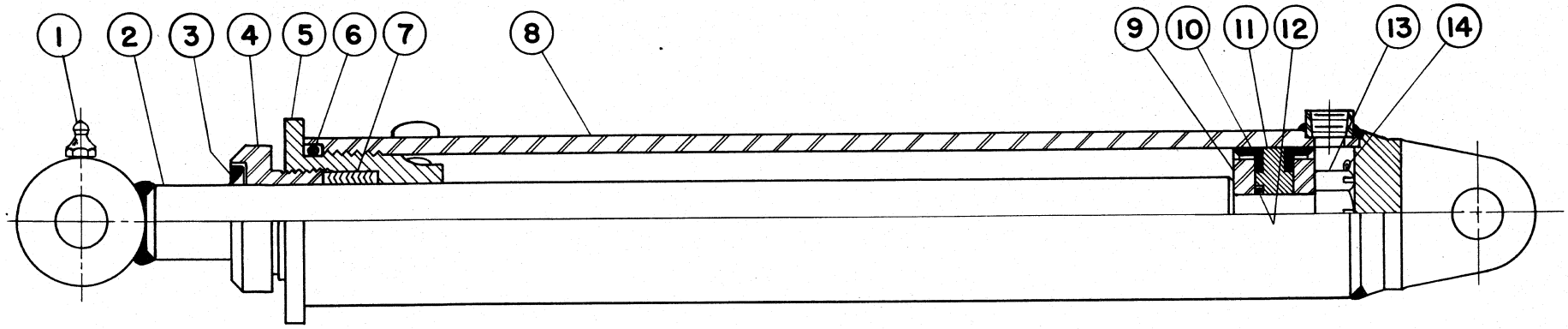

DOUBLE ACTING CYLINDER— MODEL NO. 14

ITEM	PART NO.	DESCRIPTION
	55600	DOUBLE ACTING CYLINDER
		$1\frac{1}{4}$" PISTON—MODEL NO. 14
1	C-20000	GREASE FITTING
2	55602	PISTON ROD ASSEMBLY
3	55011-B	OIL SEAL
4	55010-B	CYLINDER TOP GLAND NUT
5	55008-B	CYLINDER GLAND NUT
6	55007	CYLINDER GLAND NUT "O" RING

ITEM	PART NO.	DESCRIPTION
7	55009-B	PACKING SET
8	55601	CYLINDER TUBE ASSEMBLY
9	55003	CUP WASHER
10	55004-B	PACKING
11	55005-B	PISTON ROD FOLLOWER
12	55103	$\frac{3}{4}$ I.D. x $\frac{15}{16}$ O.D. x $\frac{3}{32}$ "O" RING
13	A-10058	SLOTTED HEX NUT
14	A-50021	COTTER PIN

FORM NO. 1110

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SERVICE CHART

TROUBLE	PROBABLE CAUSE	REMEDY
1. Will not lift capacity	1. Insufficient pressure	1. Check valve and pump pressures with Pressure Gage Kit and adjust if necessary.
	2. Oil leakage	2. Tighten all hose connections and adjust gland nuts.
	3. Low R.P.M.	3. Increase R.P.M.
	4. Faulty pump, (Gear journals worn.	4. Replace with new or rebuilt pump or replace pump body and gears.
	5. Oil foaming	5. Use Wagner special Hydraulic oil. Do not operate at full throttle continually.
	6. Low oil level	6. Fill to correct capacity.
	7. Obstruction in valve	7. Remove and clean out valve.
	8. Plugged strainer	8. Remove and clean strainer
	9. Stripped threads in drive assembly	9. Replace hub and pin assembly and drive shaft.
	10. Pump suction air leak.	10. Tighten pump intake connections. (Use pipe joint compound).
2. Load drops or settles	1. Scored pump	1. Replace with new or rebuilt pump.
	2. Scored piston rod	2. Replace piston rod and packings.
	3. Improper hydraulic oil	3. Use "Wagner Special Hydraulic Oil".
	4. Worn valve.	4. Replace with new or rebuilt valve.
	5. Air bound	5. Bleed cylinders to expend air
3. Loader chatters when raising	1. Vent holes clogged	1. Flush out system, clean vent holes.
	2. Clogged strainer	2. Clean strainer
	3. Tight gland nuts	3. Back off gland nuts 1/4 turn and tighten "hand" tight.
	4. Insufficient oil level	4. Fill to correct capacity.

SERVICE CHART

TROUBLE	PROBABLE CAUSE	REMEDY
4. Leaky cylinders	1. Loose gland nuts.	1. Tighten gland nuts "hand" tight.
	2. Damaged packing or seals	2. Replace packing and seals.
	3. Scored piston rod.	3 Replace piston rod, packings, "O" ring, and seals.
5. Leaky valve	1. Damaged or worn seals.	1. Replace seals.
	2. Scored plunger.	2. Replace with new or rebuilt.
	3. Threads in ports stripped.	3. Replace with new or rebuilt.
6. Sticky valve plunber	1. Paint on plunger	1. Clean the plunger.
	2. Not broken in.	2. Operate several times.
7. Leaky pump	1. Loose seals and hose connections	1. Replace pump seals and tighen hose connections. (Use pipe joint compound).
	2. Damaged gaskets	2. Replace gaskets.
8. Blowing pump seals.	1. Clogged hydraulic lines	1. Flush system.
	2. Valve not by passing.	2. Adjust pressure setting on valve.
	3. Excessive pressure	3. Adjust pressure setting on valve.
	4. Drive shaft not aligned properly	4. Realign drive assembly.
9. Coupling failure	1. Poor drive assembly alignment.	1. Replace worn damaged parts and realign drive assembly.
10. Air bound cylinders.	1. Air pocket formed when filling oil.	1. Bleed cylinders to expend air.
11. Double acting cylinder, piston rod failures	1. Piston rod end loose	1. Tighten set screw on piston rod end.
	2. Scored piston rod	2. Replace piston rod, packings and leather cups-- flush out system. (Inspect gland nut & cylinder bore fore score marks before reassembling.
	3. Worn leather cups.	3. Replace packings and leather cups and flush out system. (inspect gland nut & cylinder bore for scored marks before reassembling.
	4. Improper use of attachment	4. Use attachments properly.

S E R V I C E C H A R T

TROUBLE	PROBABLE CAUSE	REMEDY
12. Excessive wear on mounting pins.	1. Insufficient grease on implement pins.	1. Grease fittings.
	2. Grooved mounting pins.	2. Ream out holes in mounting lugs.
13. Loader does not fit-	1. Damaged after leaving factory (Damaged in shipment to destination or abuse when unloading at destination	1. File proper claims and report on A. F. A. form.
14. Broken welds and leakage in the frame.	1. Loose mounting bolts.	1. Tighten all mounting bolts. securely.
	2. Overloading	2. Use equipment in accordange to specifications.

O P E R A T I N G P R E S S U R E C H E C K C H A R T

Max. Operating Pressure Settings for Wagner Loaders

LOADER MODELS	TYPE VALVE	PART NO.	VALVE PRES. SETTING	TRACTOR HYD. SYSTEM MAX. WORKING PRES.
Standard Models WF3, WM3, WM4	Wagner Hein-Werner	30100 30000	1500 p.s.i. 1500 p.s.i.	
Standard Models WM2	Hein-Werner	35000	1500 p.s.i.	
Deere A & B WM1	Tractors			750-790 p.s.i.
Deere 50 & 60 WM1	Tractors			1200 p.s.i.
Ford Model WF1	Tractors			1800 p.s.i.
Ferguson Model WF1	Tractors			1800 p.s.i.
Int. Harv. Model WM3-1-IH-A	Wagner Hein-Werner	30100 30000	1500 p.s.i. 1500 p.s.i.	1200 p.s.i.
Int. Harv. Model WM3-1-IH-A	Gre-Sen Gre-Sen	35100 35200	1275 p.s.i. 1275 p.s.i.	1200 p.s.i.
Int. Harv. Model WM3-1-IH-C	Wagner Hein-Werner	30100 30000	1500 p.s.i. 1500 p.s.i.	1200 p.s.i.
Int. Harv. Model WM3-1-IH-C	Gre-Sen Gre-Sen	35100 35200	1275 p.s.i. 1275 p.s.i.	1200 p.s.i. 1200 p.s.i.
Int. Harv. Model WM1-Cub	Gre-Sen	35100	1275 p.s.i.	1200 p.s.i.
Int. Harv. Model W8-IH TD-6	Hydreco	30400	1500 p.s.i.	
Int. Harv. Model WM3-1-IH H & M	Wagner Hein-Werner	30100 30000	1500 p.s.i. 1500 p.s.i.	850 p.s.i.
Standard Models WSD, WSL	Gre-Sen	35200	1275 p.s.i.	
Case Model WM4 SC & DC	Tractors			1100 p.s.i.
Fordson Major	Hydreco	30400	1500 p.s.i.	

When tractor hydraulic system is utilized for loader operation, the maximum operating pressure settings are determined by the pressure settings of the tractor's system and not the settings of the control valve.