

## ASSEMBLY MANUAL

Keep With Loader Operator's Manual

### COMBINATION BUCKET JOHN DEERE LOADER MODEL 430

Bucket and plumbing are factory assembled. Cylinders must be connected to front bucket assembly.

**NOTE:** *Frequent lubrication of grease fittings at each end of cylinders and torque tube bushings (with multi purpose grease) will greatly increase life of product.*

#### CONNECTING CYLINDERS

Refer to Figure 1. Remove shipping brackets (A) and plastic strap (B). Extend rods of bucket cylinders (6) to allow assembly to front bucket assembly (1) with pins (4), 5/16-18 x 1.75 cap screws (7) and 5/16-18 lock nuts (8).

#### ATTACHING BUCKET TO LOADER

1. Locate bucket tractor and loader on firm level ground.
2. Extend bucket cylinders slightly while slowly driving toward bucket. Position quick attach holders parallel against bucket just below attachment hooks.
3. Raise loader until quick attach holders engage underneath bucket hooks. Retract bucket cylinders allowing bucket to roll back until quick attach holders are firmly against the bucket. Install linch pins through pins at heel of bucket to secure bucket to holders.



**WARNING:** *Do not operate loader and bucket without linch pins installed. Bucket will come off loader and could cause serious personal injury.*

#### PLUMBING BUCKET TO LOADER HYDRAULICS (Figure 1)

1. Uncoil hoses assembled to bucket and attach to loader auxiliary lines.
2. Start tractor engine and slowly cycle bucket cylinders several times to purge system of air, check for leaks and proper hydraulic connection.

#### DETACHING BUCKET FROM LOADER

1. Locate tractor on firm level ground.
2. Raise loader so bucket is level with ground at transport height.
3. Remove linch pins from pins at heel of bucket.
4. Lower bucket until front of bucket is resting on the ground.
5. Extend loader bucket cylinders allowing holders to rotate away from heel of bucket.
6. Lower loader until holders clear hooks on bucket.
7. Shut off tractor engine and work loader controls to relieve any hydraulic pressure in bucket cylinders.
8. Disconnect hoses between bucket and loader. Place hoses over bucket where they will not be contaminated.



**WARNING:** *Escaping fluid under pressure can penetrate skin causing serious personal injury.*

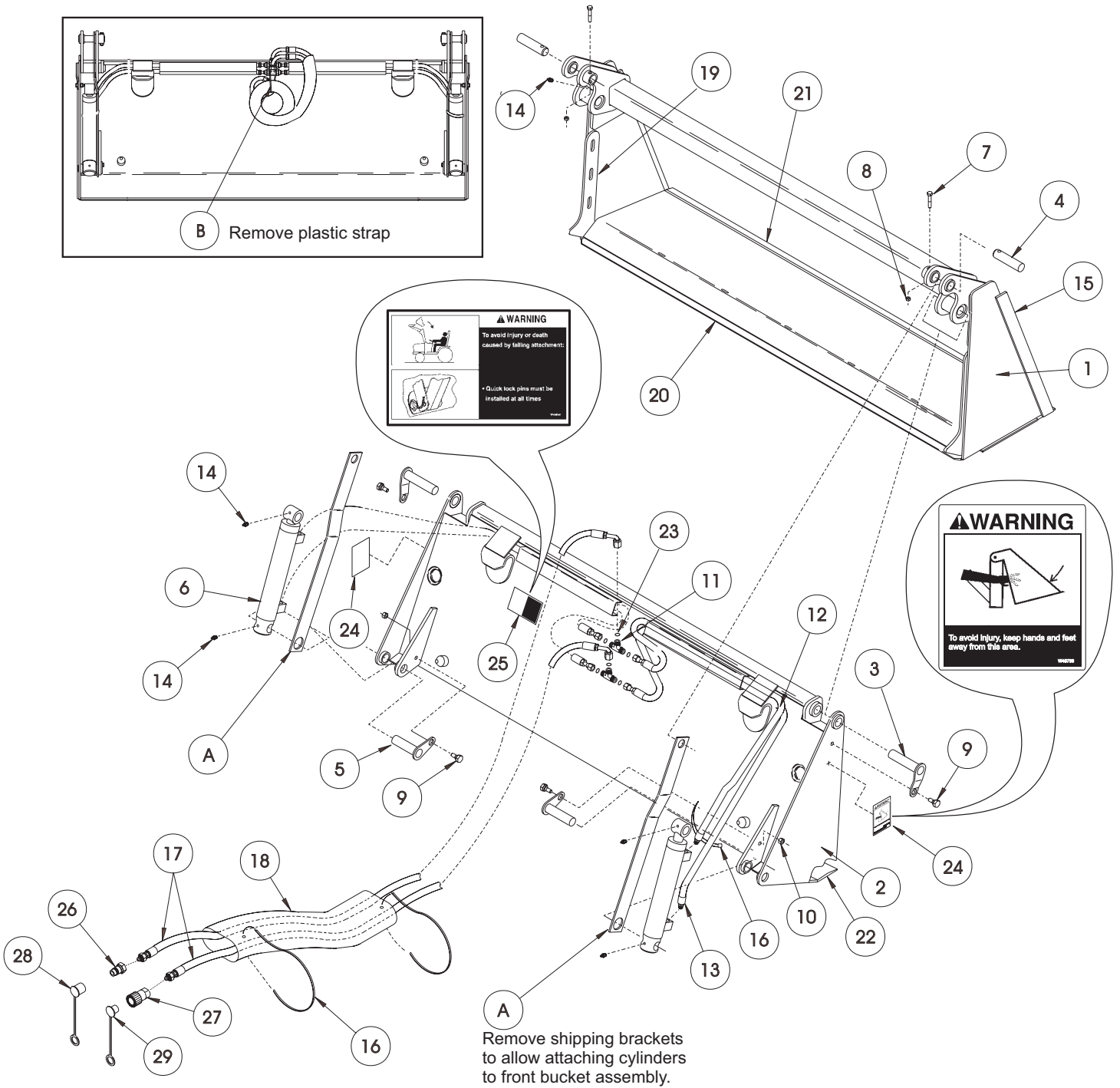
- *Do not use your hands to check for leaks. Use a piece of cardboard or paper. Always wear eye protection when searching for leaks.*
- *Stop engine and relieve pressure before connecting and disconnecting lines.*
- *Tighten all connections before starting engine or pressurizing lines.*

*If any fluid is injected into skin, obtain medical attention immediately or gangrene may result.*

**2-6590****PARTS LIST - COMBINATION BUCKET**

Item	Part No.	Description	Qty.
1	46441	BUCKET ASSEMBLY, Front, 60"	1
2	50166	BUCKET ASSEMBLY, Rear, with Decals, 60"	1
3	46472-1	PIN ASSEMBLY, 1" x 4.50"	2
4	43528-3	PIN 1" x 4"	2
5	31332-9	PIN ASSEMBLY, 1" x 3.62"	2
6	46364	CYLINDER ASSEMBLY (See page 5 for parts breakdown)	2
7	41838-4	SCREW, Cap, 5/16-18 x 1.75 Grade 5	2
8	41840-2	NUT, Lock, 5/16-18	2
9	47046	BOLT, Shoulder, 3/8-16 x 1	8
10	41840-3	NUT, Lock, 3/8-16	8
11	46665-1	FITTING,	2
12	46481-1	HOSE, .250 x 33 (Bucket cylinder rod)	2
13	46481-2	HOSE, .250 x 41 (Bucket cylinder base)	2
14	6075-4	FITTING, Grease, 1/4-28 straight	6
15	46447	FLAT, Stiffener	2
16	8137-1	STRAP, Adjustable, 11"	2
17	46515-1	HOSE, .250 x 43	2
18	34853-16	SLEEVE, Nylon, 1.59 ID x 35"	1
19	46443	GRABBER, Stiffener	2
20	40218-3	EDGE, Cutting Jaw	1
21	22541-16	EDGE, Cutting	1
22	22541-17	EDGE, Cutting	1
23		O-Ring	6
24	46611	DECAL, Warning	2
25	46885	DECAL, Warning	1
26	6137-4	COUPLING, Male	2
27	6137-9	COUPLING, Female	1
28	4838-7	DUST CAP	1
29	4838-11	DUST PLUG	1

Figure 1  
Combination  
Bucket



## 2-6590

### CYLINDER SERVICE (Figure 2)

#### CYLINDER DISASSEMBLY

1. Hold cylinder tube (13) stationary and rotate cylinder head (5) so beveled end of wire ring (14) will thread out through slot (Figure 2A).
2. Pull shaft (1) with all assembled parts out of cylinder tube (13).

**NOTE:** Resistance will be felt until seals (7) and (10) slide over wire retaining ring groove. O-Ring (7) and piston seal (10) will be damaged when cylinder is disassembled and must be replaced.

3. Remove locknut (12) from end of shaft (1). Slide piston (8) and cylinder head (5) off of shaft (1).
4. Remove piston wear ring (11), piston seal (10) and o-ring (9) from piston (8).
5. Remove wiper seal (2), U-Cup seal (3) and wear ring (4) from inside of cylinder head (5) and o-ring (7) and backup washer (6) from groove on outside of head.
6. Clean all parts, including cylinder tube, in a suitable cleaning solvent, then use air pressure to blow any dirt or excess solvent from all parts.
7. Examine all parts for wear or damage and replace, if necessary.

#### CYLINDER ASSEMBLY

**NOTE:** Be careful not to damage seals, packings and o-rings on the edges or holes in cylinder tube. Inspect cylinder tube and remove burrs and sharp edges if necessary before reassembling.

1. Install wear ring (4) in groove inside cylinder head (5).

2. Place new U-Cup seal (3) and wiper seal (2) inside cylinder head (5).

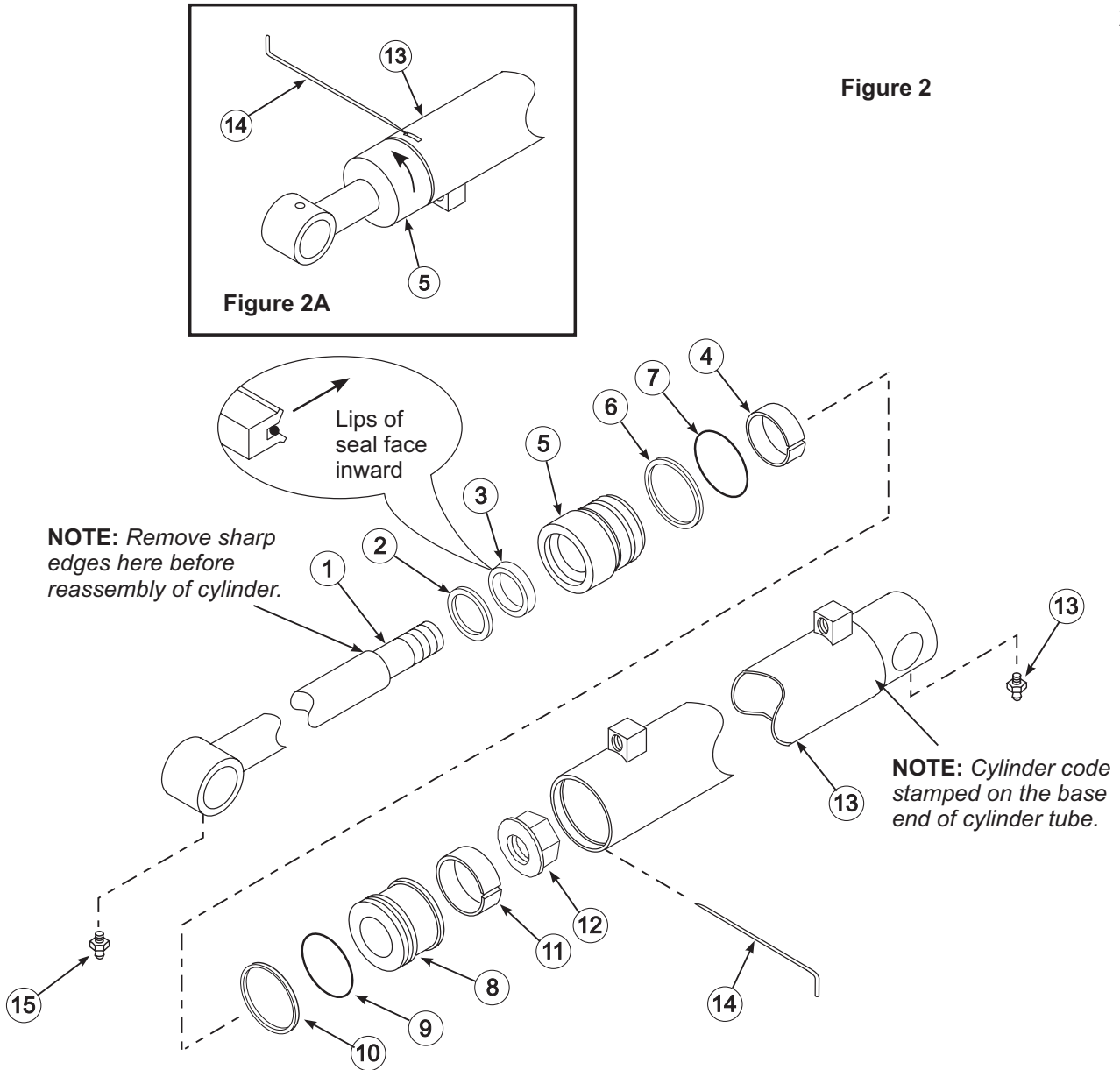
**NOTE:** Lips on U-Cup seal must face toward inside of cylinder (See figure 2). For easier installation, place U-Cup seal (3) in 120° F water to make seal more flexible.

3. Place backup washer (6) and o-ring (7) in grooves on outside of head (5). Make sure backup washer is placed in groove toward rod end of cylinder as shown.
4. Remove sharp edges on outer edge of threaded end of shaft (1) (See figure 2). Lubricate wiper seal (2), U-Cup seal (3) and wear ring (4) inside head (5) and carefully slide head onto shaft.
5. Place o-ring (9), piston seal (10) and piston wear ring (11) in grooves on outside of piston (8).

**NOTE:** For easier installation, place piston seal (10) in 120° F water to make seal more flexible.

6. Slide piston (8) onto shaft (1). Install 7/8 locknut (12) and tighten to 150 ft. lbs. of torque.
7. Lubricate piston wear ring (11), piston seal (10) and o-ring (9) on piston (8); backup washer (6) and o-ring (7) on head (5) and inside of cylinder tube (13) then carefully slide piston and head into cylinder tube.
8. Insert wire retaining ring (14) into slot in cylinder tube (13) and turn cylinder head while applying pressure to wire ring to thread it into groove until hook on end of wire ring catches against end of slotted hole in cylinder tube.

Figure 2



**PARTS LIST - CYLINDER (46364)**

Item	Part No.	Description	Qty.
1	46475	ROD, Weldment	1
2	*	SEAL, Wiper	1
3	*	SEAL, U-Cup	1
4	*	RING, Wear	1
5	44027	HEAD, Cylinder	1
6	*	WASHER, Back-up	1
7	*	O-RING	1
8	46479	PISTON, Cylinder	1
9	*	O-RING	1
10	*	SEAL, Piston	1
11	*	RING, Wear	1
12	32903-1	NUT, Flange Lock, 3/4-10	1
13	46478	TUBE, Cylinder Assembly	1
14	*	RETAINER, Wire	1
15	6075-4	FITTING, Grease	2
*	46525	Repair Kit, Includes (*) Items	1

# **INSTALLATION INSTRUCTIONS**