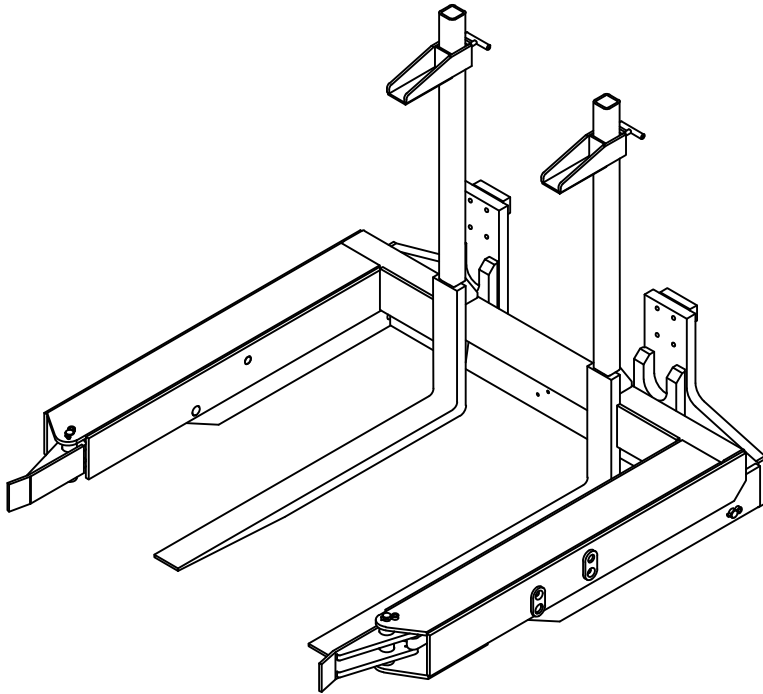




SERVICE MANUAL / PARTS LIST

FORWARD BIN DUMPER

MODEL #112521



CONTENT:

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1	Lift Truck Requirements
	General Installation Procedures
	General Inspection & Maintenance
2-5	Clamp Assembly
6-8	Hydraulic Assembly
9-10	Cylinder Assembly
11	Troubleshooting

Specifications:

Mounting: Class II or III

Capacity: 4000 lbs at 24"

Bin Size: 48" Long x 48" Wide

Bin Height: 18" - 54"

Forks: 1.50" x 47" Usable

Rotation: 135° Forward

R0 - 10/2019

425 Hazel St.
Kelso WA 98626
(800) 248-6079
Fax (360) 578-9934

LIFT TRUCK REQUIREMENTS

CAPACITY

Capacity shown on the bin dumper name plate is for the bin dumper only. The combined truck and bin dumper capacity is provided by the lift truck manufacturer.

CLAMP HYDRAULICS

Recommended Truck Pressure: 2300 to 2400 PSI (159 to 165 bar)

Hydraulic fluid: petroleum based hydraulic fluid only.

Hydraulic supply group: includes hoses and take-up - one for each function.

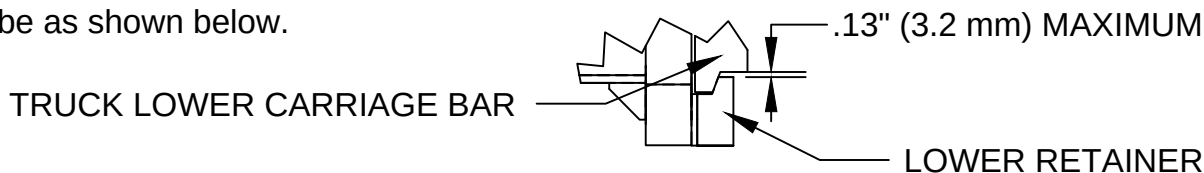
Auxiliary valve: 2 function (Side Shift & Clamp) = a double auxiliary valve.

Oil Volume Settings: 6-10 GPM

NOTE: Three Position Force Selector must be disabled.

GENERAL INSTALLATION PROCEDURES

1. Make sure that the attachment centering lug is completely seated in truck carriage center notch.
2. Clearance between the lower retainers that hold the attachment to the truck lower carriage bar should be as shown below.



3. Attach truck supply group (take-up) to hose bulkhead on attachment base.
4. Standing clear of the attachment, cycle the attachment in and out several times. Use caution because partially filled hydraulic lines may cause erratic movement.

GENERAL INSPECTION AND MAINTENANCE

1. Check all hydraulic fittings, hoses, cylinders and valves for leakages - repair or replace as required.
2. Check hoses for pinch points and signs of wear.
3. All bolts should be checked and tightened as required.
4. Check all weld joints for signs of cracking.

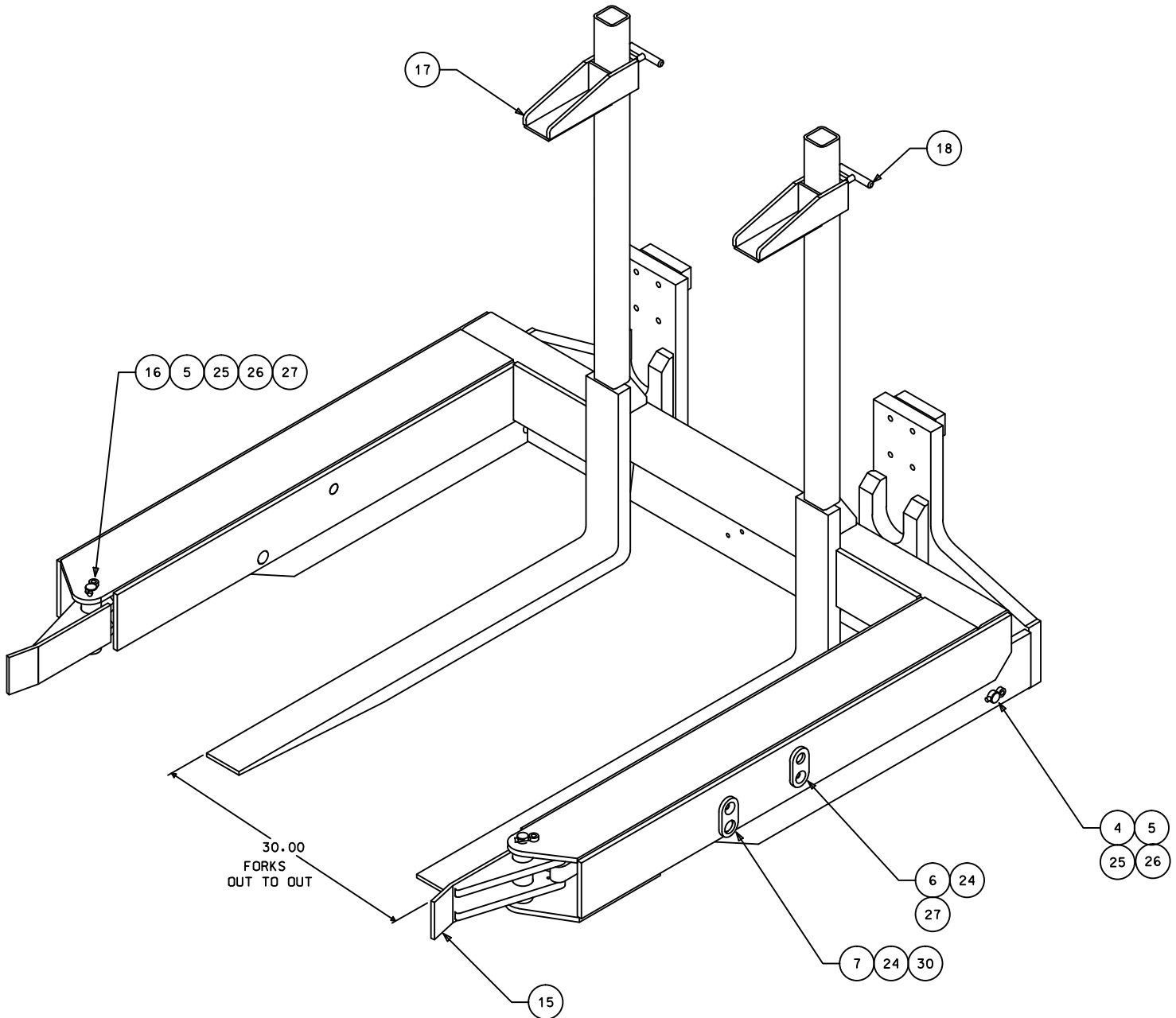
CLAMP ASSEMBLY-1

Drawing reference 112522

#	QTY	PART #	DESCRIPTION
1	1	112525	Carriage Mounting Frame
2	1	112524	Dumping Frame Weldment
3	2	112543.1	Rotating Cylinder
4	2	100663.19	Pin 1.00 x 6.50 L
5	4	101294.5	Lock Pin
6	2	112570	Pin Retainer 1.00" Pin
7	2	112568	Pin Retainer 1.25" Pin
8	2	105535	Pin Clevis
9	2	100574.83	Cotter Pin
10	2	112538.1	Cylinder Assembly (Clamping)
11	2	112537	Cylinder Nut
12	2	112585	Pin .62 Dia x 4.0L
13	2	101224.3	Lock Pin .31 x 1.00U
14	2	25G.0516	Bolt Button Head
15	2	112532	Bin Retainer Weldment
16	2	100663.20	Pin 1.00 x 7.38L
17	2	112563	Stop Weldment
18	2	112566	Stop Handle
19	4	105747	Hook
20	4	112581	Spacer Plate
21	8	11G.1032	Bolt Socket Head
22	1	111832	Centering Lug
23	2	11G.1020	Bolt Socket Head
24	4	9G.0812	Bolt Flat Head
25	4	25G.0616	Bolt Button Head
26	4	4E.06	Lockwasher
27	8	100665.38	Thrust Washer
28	2	4E.05	Lockwasher
29	2	8D.14	Jam Nut
30	10	100665.53	Thrust Washer
31	2	7D.08	Jam Nut
32	4	100785.16	Bushing

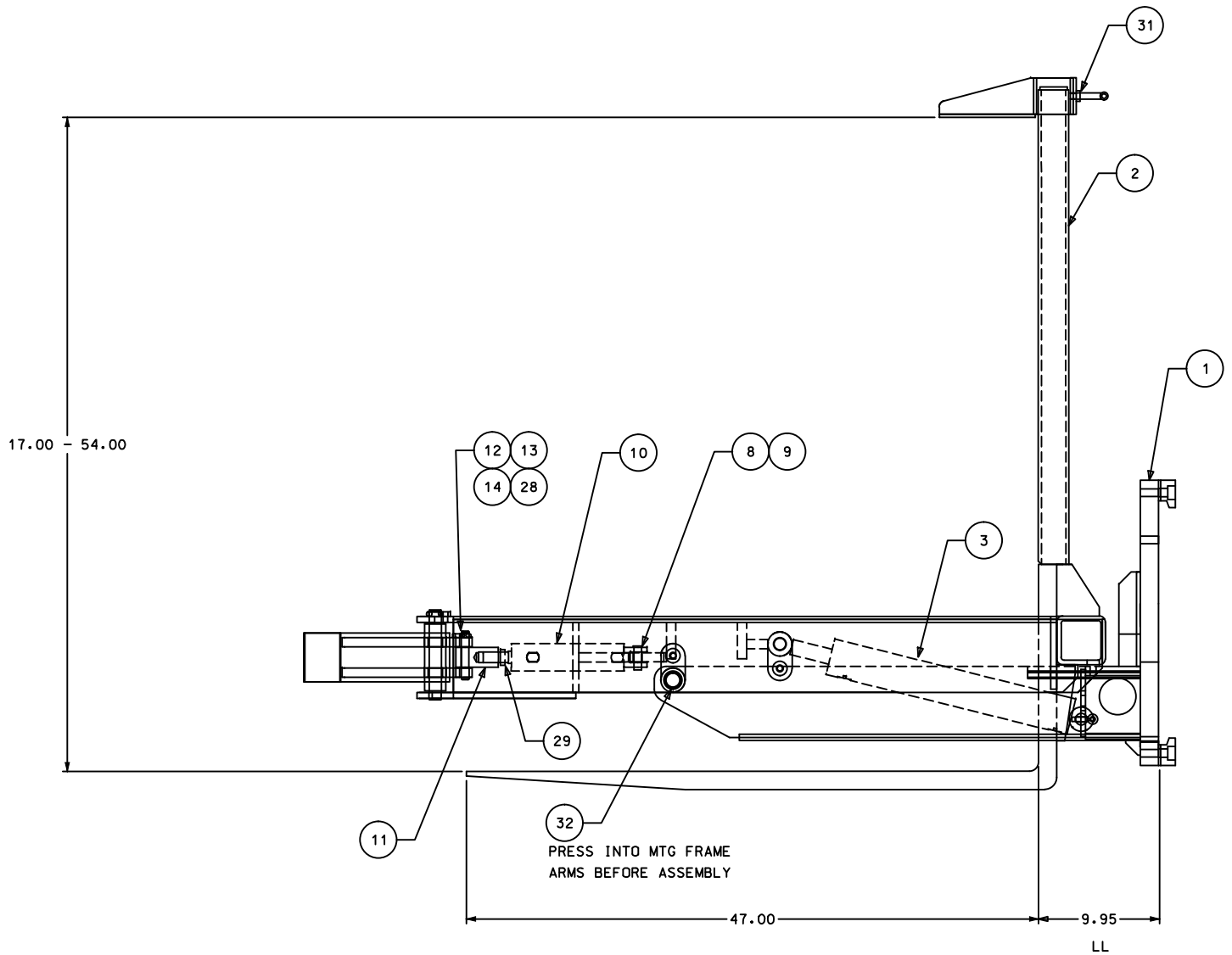
CLAMP ASSEMBLY-2

Drawing reference 112522



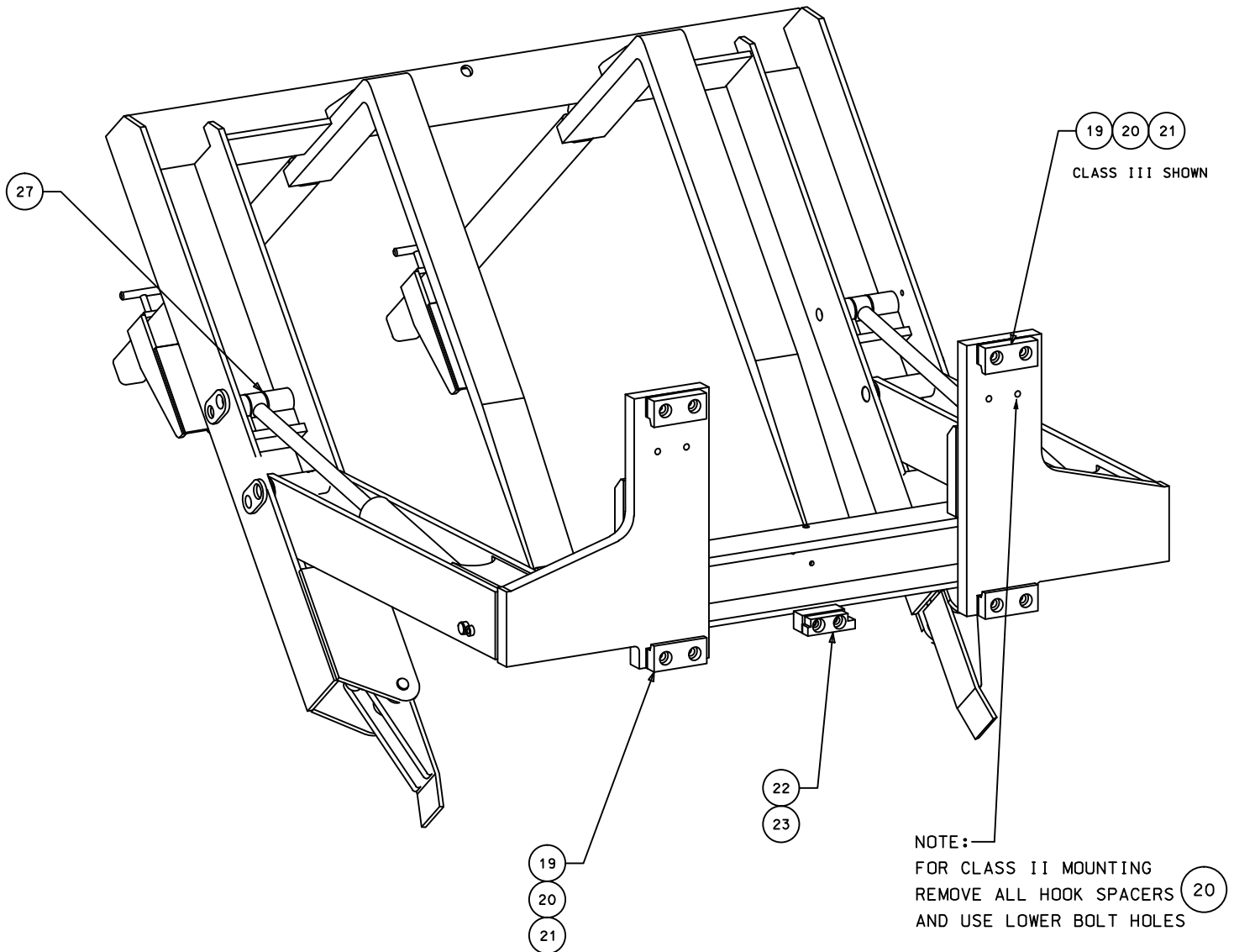
CLAMP ASSEMBLY-3

Drawing reference 112522



CLAMP ASSEMBLY-4

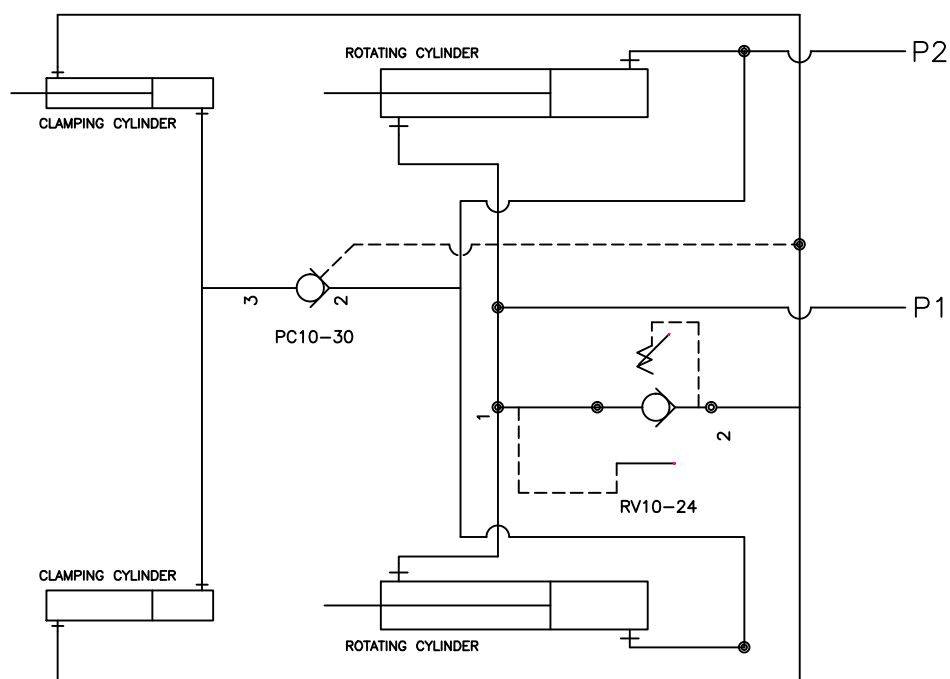
Drawing reference 112522



HYDRAULIC ASSEMBLY-1

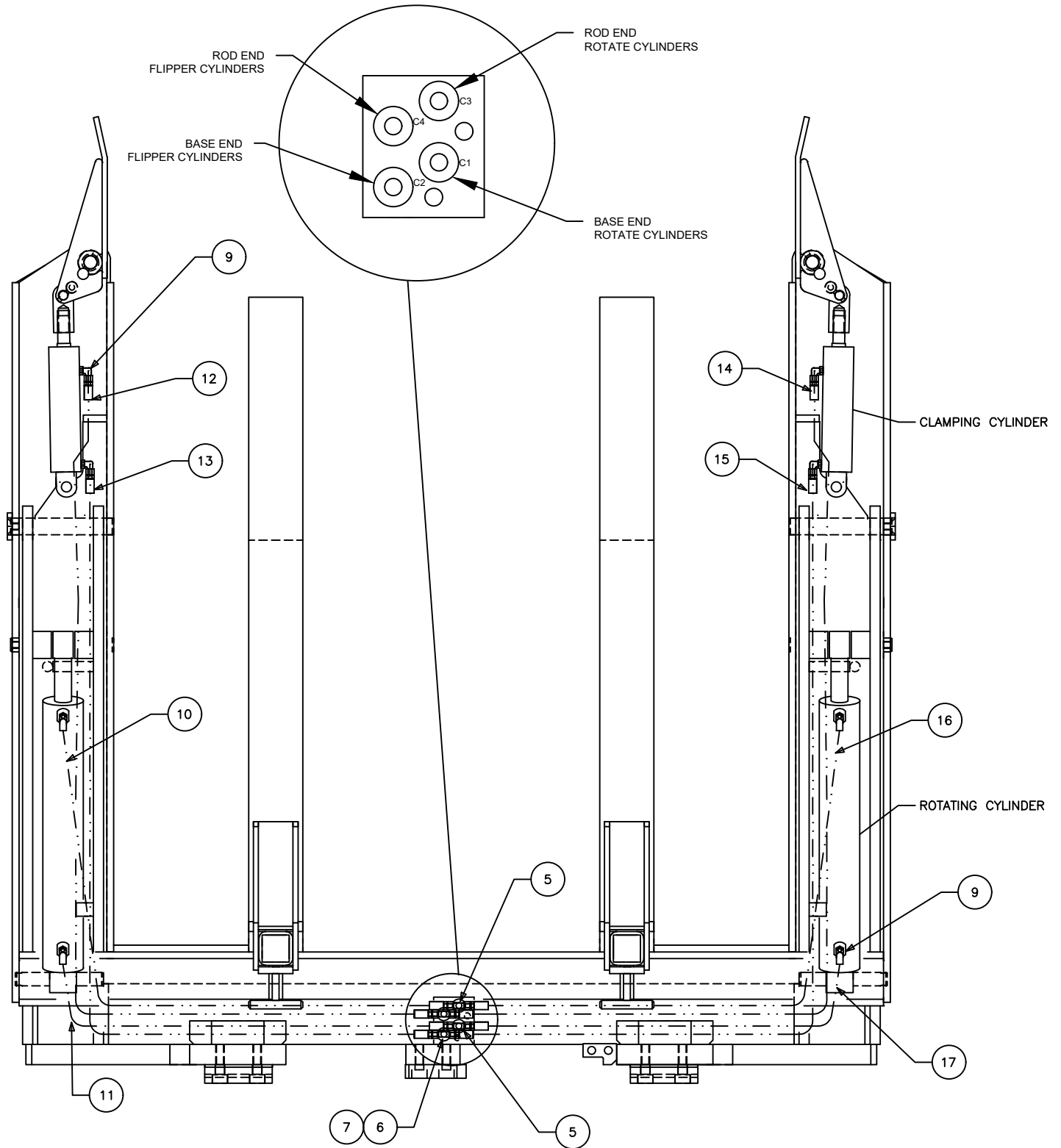
Drawing reference 112523

#	QTY	PART #	DESCRIPTION
1	1	112600	Valve Assembly
2	2	1C.0556	Bolt Hex Head
3	2	2F.05	Washer Flat
4	2	17D.05	Nut ESNA
5	2	100678.05	O-Ring Tee Branch Fitting
6	4	100676.05	Straight Thread Adapter
7	2	101134.05	Swivel Branch Tee
8	2	100744.05	Bulkhead Union
9	8	100095.05	90° Fitting O-Ring Elbow
10	1	100233.0485	Hose Assembly
11	1	100233.0340	Hose Assembly
12	1	100233.0743	Hose Assembly
13	1	100233.0680	Hose Assembly
14	1	100233.0753	Hose Assembly
15	1	100233.0703	Hose Assembly
16	1	100233.0475	Hose Assembly
17	1	100233.0325	Hose Assembly
18	1	100674.0170	Hose Assembly
19	1	100674.0190	Hose Assembly



HYDRAULIC ASSEMBLY-2

Drawing reference 112523

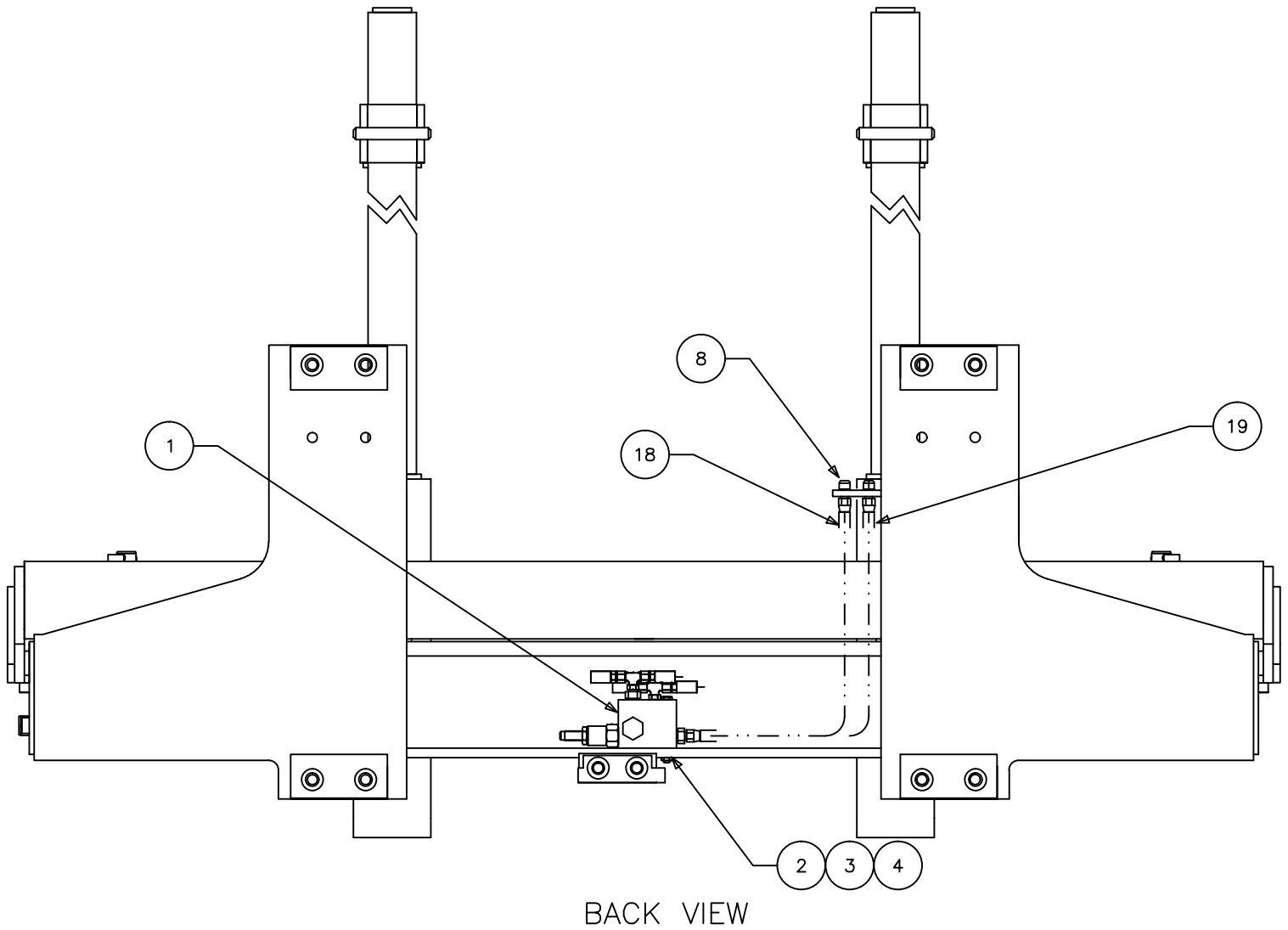


TOP VIEW

—TOP ARM PLATES REMOVED—

HYDRAULIC ASSEMBLY-3

Drawing reference 112523

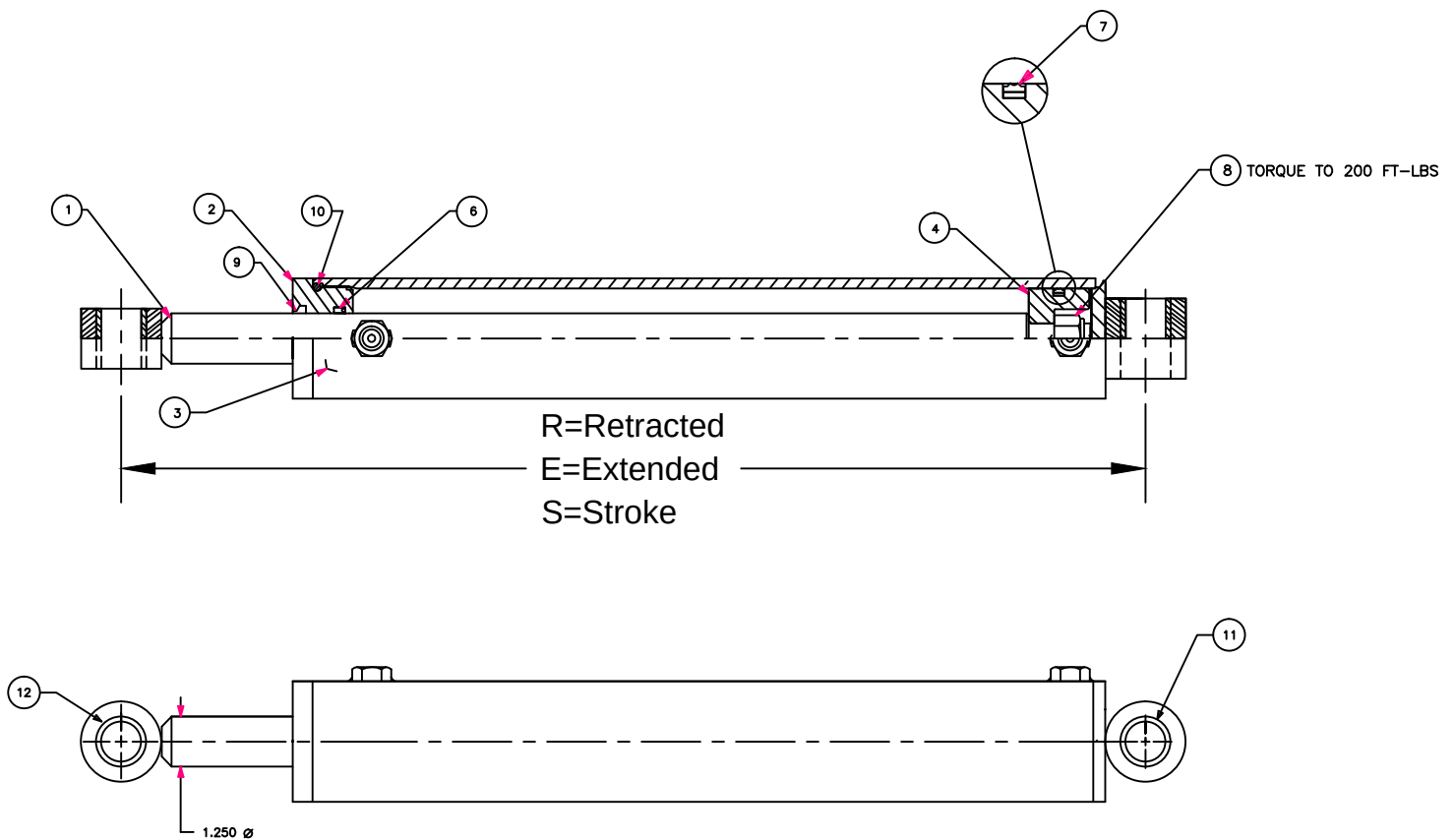


ROTATING CYLINDER ASSEMBLY

Drawing reference 112543

Part #	R	E	S
112543.1	25.52	42.36	16.84

#	QTY	PART #	DESCRIPTION				
1	1	112544	Rod Weldment	8	1	18D.12	Locknut
2	1	102242	Gland Nut	9	1	103208.4	Wiper Ring
3	1	112545	Tube Weldment	10	1	100029.10	O-Ring
4	1	113560	Piston	11	1	100785.3	Bushing
5	1	102183	Seal Kit (Items 6-10)	12	1	100785.2	Bushing
6	1	100031.5	Polypak BS				
7	1	101421.4	PSP Piston Seal				



Cylinder Service

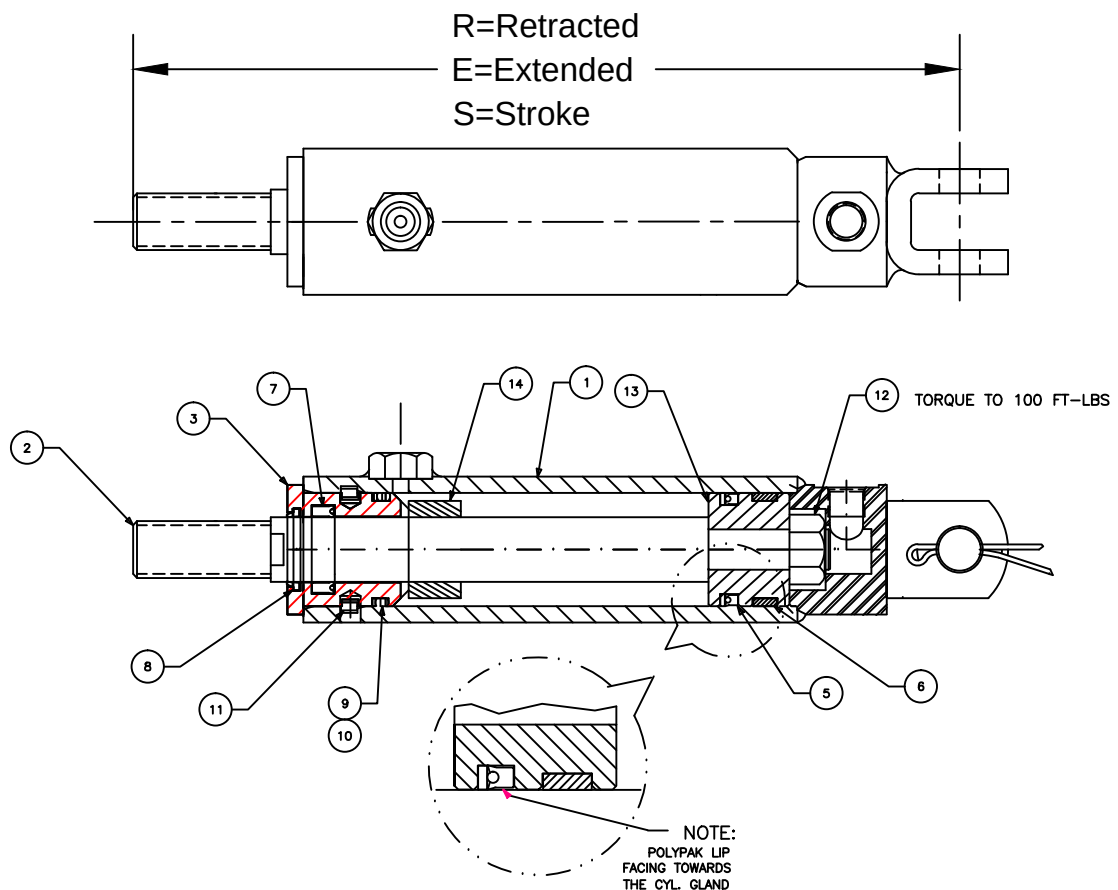
- Prior to assembly lubricate seals, cylinder bore and rod with STP.
- Inspect all parts for scratches, nicks and gouges - replace all damaged components.
- Inspect cylinder bore and rod for scoring - replace if scored.
- Avoid damage to seal grooves - use a dull screwdriver for seal removal.
- Torque piston nut to 200 FT-LBS (27.7 kg-m).

CLAMPING CYLINDER ASSEMBLY

Drawing reference 112538

Part #	R	E	S
112538.1	12.75	17.38	4.63

#	QTY	PART #	DESCRIPTION	7	1	112905	Poly-Pak
1	1	112539.1	Tube Weldment	8	1	102098.5	Rod Wiper
2	1	112540.1	Rod Weldment	9	1	100029.2	"O" Ring
3	1	111373	Gland	10	1	100028.2	Back-up Ring
4	1	111542	Seal Kit (Items 5-12)	11	1	100027.7	Lockwire
5	1	100032.6	Poly-Pak "B"	12	1	27D.10	Nut, Self Locking
6	1	102099.1	Wear Ring	13	1	101841	Piston



Cylinder Service

- Prior to assembly lubricate seals, cylinder bore and rod with STP.
- Inspect all parts for scratches, nicks and gouges - replace all damaged components.
- Inspect cylinder bore and rod for scoring - replace if scored.
- Avoid damage to seal grooves - use a dull screwdriver for seal removal.
- Torque piston nut to 100 FT-LBS (13.8 kg-m).

TROUBLE SHOOTING GUIDE

BIN RETAINERS OPEN TOO SOON

POSSIBLE CAUSES

1. Bin dumper relief set too low.
2. Check valve is stuck open.
3. Relief valve is stuck open.

SOLUTION

1. Adjust relief valve inward.
2. Remove and clean check valve. Replace if needed.
3. Remove and clean relief valve. Replace if needed.

BIN RETAINERS WILL NOT OPEN

POSSIBLE CAUSES

1. Bin dumper relief set too high.

SOLUTION

1. Adjust relief valve outward.