

LIFTER ASSISTERS
UNION TANK CAR - 20", 8 BOLT

UTC

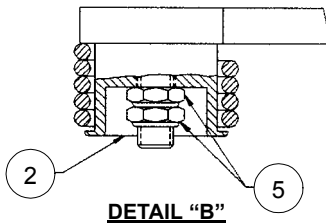
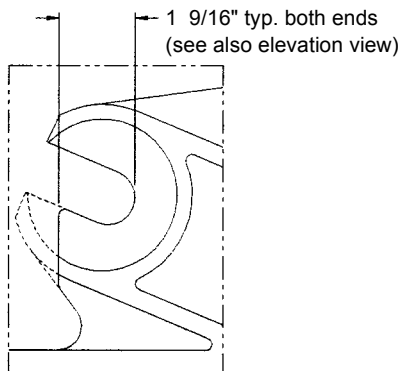
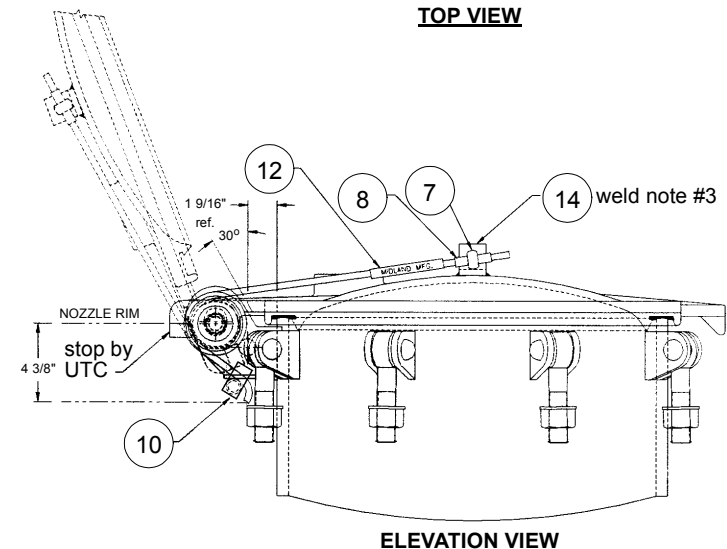
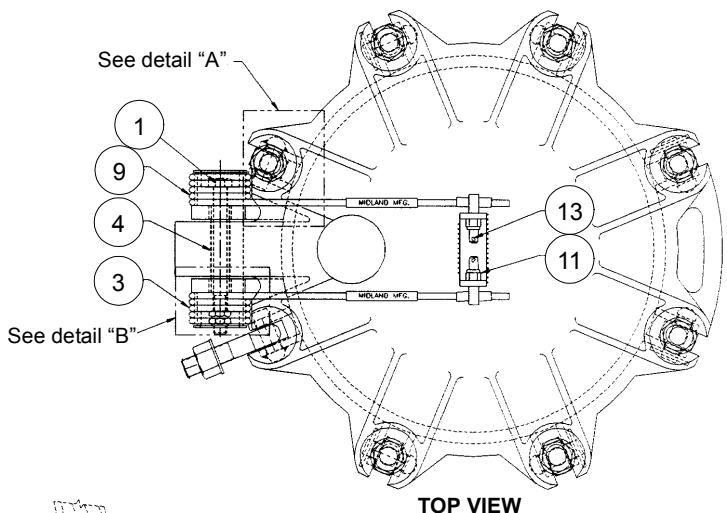
USED WITH COVERS

MATERIAL

ASTM A216 WCB
STAINLESS STEEL 304
STAINLESS STEEL 316

DWG. NUMBER

42198
42269
42270



PATENT 5,394,650

ITEM NO.	QTY.	PART NAME	PART NO.	MATERIAL
1	1	HINGE BOLT	310-1-CS	STEEL, PLATED
2	2	BUSHING	310-2-CS	STEEL, PAINTED
3	1	SPRING RH	310-3-SS	STAINLESS STEEL
4	1	TUBE	310-4-SS	STAINLESS STEEL
5	2	LOCKNUT	310-5-CS	STEEL, PLATED
6				STEEL
7	2	EYEBOLT	308-7-CS	STEEL, PLATED
8	2	SLEEVE	308-8-TF	TEFLON
9	1	SPRING LH	310-9-SS	STAINLESS STEEL
10	1	BRACKET	310-10-CS	STEEL, PAINTED
11	2	LOCKNUT	308-11-CS	STEEL, PLATED
12	2	NAMEPLATE	310-32-PS	PLASTIC
13	2	COTTER PIN	308-13-SS	STAINLESS STEEL
14	1	BRACKET	309-15-SS	STAINLESS STEEL

1. Open cover fully. If cover opens about 60° or more beyond vertical, stop will limit travel. (The stop will be welded to the cover in step #5.)
2. Close the cover.
3. Weld bracket #14 to the cover and weld bracket #10 to the housing hinge per detail.
4. Remove existing hinge pin assembly.
5. If stop #6 is to be used to limit opening travel as determined in step 1, turn cover over and weld assemble stop #6 to stop tab of cover. Turn cover over. If stop #6 is not used, ship this stop.
6. Install tube #4 in hinge pin hole.
7. Assemble bushing #2 LH spring #9 on hinge bolt #1. Insert bolt thru the tube #4 & orient shorter spring end on bracket #10.
8. Install RH spring #3 with shorter end oriented on bracket #10, second bushing #2 and locknuts #5 with 1st locknut on turn loose.
9. Open cover to full position against the stop #6.
- 10.
11. Position sleeve #8 and eyebolt #7 on each longer (top) spring end.
12. Insert eyebolts thru the holes in bracket #15. Add locknuts #11 & cotter pins #13.
2. Close and open cover to test operation. Lifting force at the handle should be 5-15 lbs. Cover eyebolts should swing and clear bushings.

