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ITEM	QTY	PART NAME	B-315-A-CS		B-315-A-SS	
			PART NO.	MATERIAL	PART NO.	MATERIAL
1	2	PIN	315-101-CS	CARBON STEEL	315-101-SS	STAINLESS STEEL
2	1	BUSHING	315-2-CS	CARBON STEEL	315-2-SS	STAINLESS STEEL
3	1	TORSION SPRING	315-31-SS	STAINLESS STEEL	315-31-SS	STAINLESS STEEL
4	2	WASHER	308-4-CS	CARBON STEEL	308-4-SS	STAINLESS STEEL
5	2	WASHER	315-51-CS	CARBON STEEL	315-51-SS	STAINLESS STEEL
6						
7	1	EYEBOLT	308-7-CS	CARBON STEEL	308-7-SS	STAINLESS STEEL
8	1	NAMEPLATE	303-32-PS	PLASTIC	303-32-PS	PLASTIC
9	1	BRACKET	315-9-SS	STAINLESS STEEL	315-9-SS	STAINLESS STEEL
10						
11	1	LOCKNUT	308-11-CS	CARBON STEEL	713-14-SS	STAINLESS STEEL
12	1	WASHER	308-12-CS	CARBON STEEL	308-12-SS	STAINLESS STEEL
13	1	COTTER PIN	308-13-SS	STAINLESS STEEL	308-13-SS	STAINLESS STEEL
14	2	SPACER	315-14-SS	STAINLESS STEEL	315-14-SS	STAINLESS STEEL

NOTE:
THIS LIFTER ASSISTER IS DESIGNED FOR USE ON ARI 20" MANWAY COVERS.

- B-315-A ASSEMBLY PROCEDURE STEPS:**
1. CLOSE THE COVER. LIFT FORCE AT 25.7" FROM HINGE SHOULD BE 40 TO 72 LBS.
 2. REMOVE EXISTING HINGE PIN ASSEMBLY.
 3. IF REQUIRED MODIFY COVER PER DETAIL "A".
 4. IF REQUIRED MODIFY STOP BAR PER DETAIL "B" (REINFORCE WELDS IF REQUIRED).
 5. WELD BRACKET #9 TO COVER IN THE CENTER (TOP VIEW).
 6. WELD PIN #1 FOR SPRING END TO HINGE PER SIDE VIEW.
 7. ASSEMBLE SPRING #3 ON BUSHING #2. PLACE WASHER #4 ON EACH END OF BUSHING #2. ALIGN THE HOLES AND CLAMP ASSEMBLY FOR EASE OF INSTALLATION.
 8. PLACE THE ASSEMBLY INTO OPENING IN THE COVER WITH SHORTER SPRING END (HOOK END) RESTING ON WELDED PIN #1.
 9. INSERT SECOND PIN #1 THRU HOLES IN HINGE, SPACERS (#14) COVER AND CLAMPED ASSEMBLY. REMOVE CLAMP.
 10. TACK WELD WASHERS #5 ON EACH END OF HINGE PIN #1.
 11. OPEN COVER TO FULL OPEN POSITION AGAINST STOP BAR.
 12. SLIP EYEBOLT #7 ON LONGER SPRING END AND INSTALL IT TO WELDED BRACKET #9 WITH WASHER #12, LOCK NUT #11 AND COTTER PIN #13.
 13. CLOSE AND OPEN COVER TO TEST OPERATION.
 14. THE ASSIST IS 32 LBS. @ 25.7"

MIDLAND MANUFACTURING CORP.
SKOKIE, IL, U.S.A.

LIFTER ASSISTER

MATERIAL: SEE TABLE
TOLERANCES UNLESS SPECIFIED:
2 PLACE DECIMAL ± .015
3 PLACE DECIMAL ± .005
ANGULAR ± 1', FRACTIONS ± 1/64
CHAMFERS AND WELD PREP ± 5'

REMOVE ALL BURRS, BREAK ALL EDGES & CORNERS.
FINISH (Ra) : √ = 125

SCALE: 1=5.25 DRAWN: CHP DATE: 4-6-06 APPROVED: CHP

CAD FILE NO. B-315-A SIZE B DWG NO. B-315-A-CS REV B
B-315-A-SS

LTR	REVISIONS	DRN	DATE	APP
B	CORRECTED TOP VIEW TO SHOW LONGER SPRING END OF L-H SIDE	FS	3/15/13	CHP
A	ADDED B-315-A-SS, CAD FILE NO. WAS 7885	FS	10/29/12	CHP