



M-B COMPANIES, INC.
PAVEMENT MARKING EQUIPMENT DIVISION

Double Drop Glass Bead System
for Apollo® Handliners



(Complies with Florida Section 711)

This system incorporates a new second bead box that mounts to the side of the existing Apollo. A double beader unit slides onto the existing support bar, replacing the current beader. The new unit incorporates a high capacity, grooved beader bar to distribute the larger beads from the front-most beader box. It is followed by distribution of the smaller beads from the conventional beader box



Parts Required (Figure 1 and Figure 2)

1. Apollo II
2. Double drop beader assembly
3. Sprocket and chain set
4. Second bead tank and hose assembly
5. Attachment hardware and offset nuts
6. Extended handle latch
7. Die handle extender



FIGURE 1

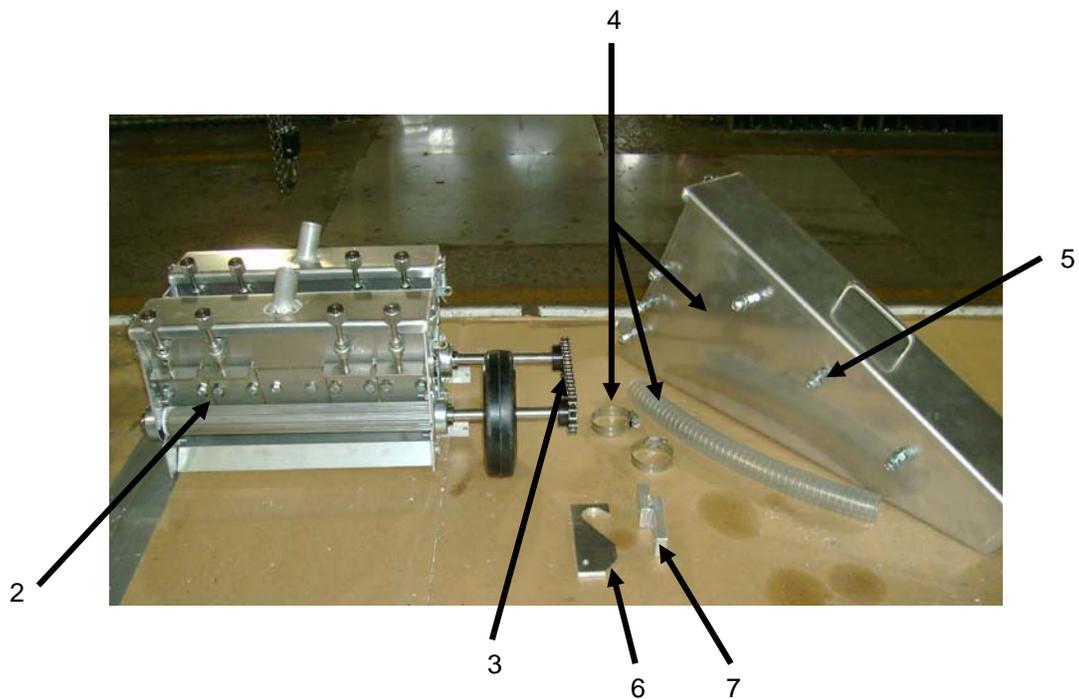


FIGURE 2

Assembly instructions:

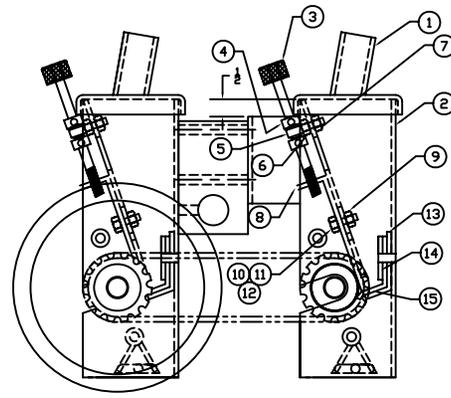
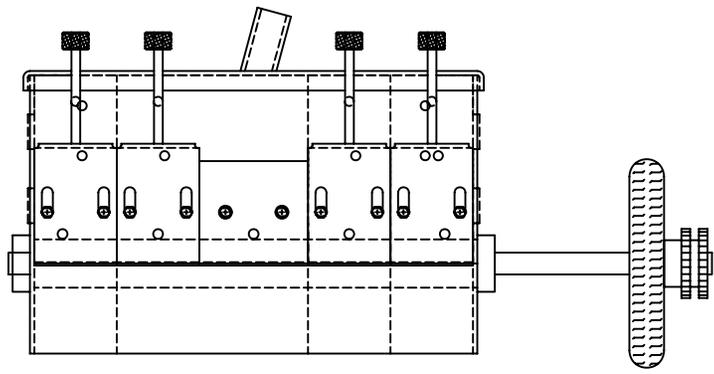
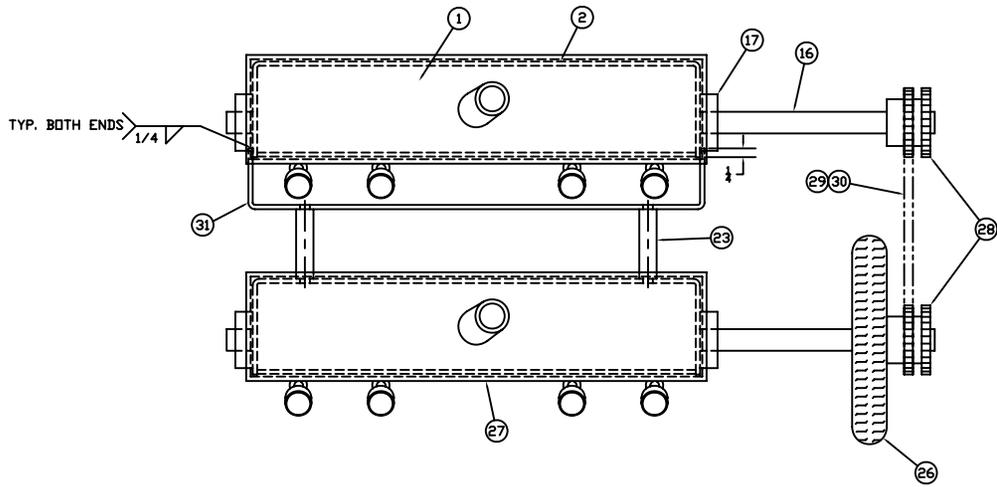
1. Remove the existing handle latch and bracket from the side of the Apollo. Drill new holes for the bracket on the top rim of the Apollo in the same lateral location as the old holes. Attach the old bracket using the new holes. Replace existing latch with the new extended latch (Item 6 in Figure 2).
2. Flip Apollo onto its front side. Remove drive wheel underneath unit by loosening the $\frac{1}{4}$ "-20 set screw. Set aside.
3. Remove beader box from beader support rod by removing bolts (shown in Figure 3). Set beader box aside.



FIGURE 3

4. If your unit came with the chain and sprockets attached (As pictured in Figure 2), it will be necessary to remove them before sliding the double drop unit into place. Loosen set screws on sprockets to remove from double drop beader unit.
5. Install double drop beader box on the beader support rod using the attachment bolts from the old unit.
6. Install the new drive wheel in the same position it was on the single beader unit. Install one of the sprockets on the end of the drive side of the beader roller shaft. The hub should be facing away from the drive roller. (Note: It may be necessary to adjust the position of the drive roller in order to install the sprocket. It is only necessary to have the shaft inserted through the hub portion of the sprocket.) Tighten the $\frac{1}{4}$ "-20 set screw.

7. Install the second sprocket to the second beader shaft, positioning it so the teeth are lined up with the first sprocket. Tighten into position using the ¼"-20 screw provided. Install chain between sprockets
8. Take the lid off of the second bead hopper assembly and hold the bead box in a level position approximately 1" below the Apollo handle lock mechanism on the beader side of the Apollo. This will be on the angled right hand wall of the Apollo that forms the propane bottle enclosure. The outlet end of the box should be forward and aligned with the intersection of the angled section and the pot section of the Apollo. (Note: Keep the bead hopper rearward enough not to interfere with the valve that controls the propane to the die heater. The propane valve stem may be turned forward to provide more access if desired. The rear of the second bead hopper will extend about 3" behind the rear wall of the propane bottle enclosure) Position the second hopper as high as possible, but so the lid can be removed without interfering with the die handle in the locked position. Mark the position of the 6 mounting holes on the side wall. Remove the second bead hopper and drill 23/64" diameter holes where marked.
9. Using the provided large nuts as spacers, bolt the second bead hopper to the angled wall of the propane enclosure wall. Make sure that the lid fits on the second bead hopper under the handle lock mechanism.
10. Fit the clear bead tube from the second bead hopper to the second beader box lid. Attach with provided hose clamps. (Note: Make sure that the clear hose is angled downward enough to drain the beads.
11. Install die handle extender between die handle and the die lift rod. (Several holes are provided to adjust die height)
12. Load beads and adjust beader mechanism to give required flow for the beads being used.



ITEM	PART NDL	PART NAME	REQD	MATL	DESCRIPTION
1	180707	READER BOX LID ASSY	1	ALUM	ATLAS
2	180705	READER BOX WELDMNT	1	ALUM	ATLAS
3	186403	CONTRN ROD ASSY	4	SST	GATES
4	181897	1/4 SET COLLAR	8	-	
5	190822	1/4 BALL JOINT	4	-	MALE ROD END
6	188902	1/4-28 JAM NUT	4	-	
7	188930	1/4-28 LOCK NUT	8	STL	
8	191186	SLIDE GATE	1	SST	
9	188818	1/4-28 HEX NUT	4	-	
10	181622	CENTER GATE	1	SST	
11	193510	USS FLAT WASHER	4	SST	1/4-28
12	191060	SET SCREW 3/4" LG.	4	SST	1/4-28
13	193287	ATLAS SUPPORT PLATE	1	ALUM	6063-T53
14	193281	URETHANE CLAMPING BAR	1	SST	ATLAS
15	186410	URETHANE SEAL	1	-	
16	187308	KNURLED ROLLER	1	SST	ATLAS
17	193226	PILLOW BLOCK BEARING	2	-	
18	180908	HEX HB. BOLT 1/2" LG.	4	-	1/4-20
19	188814	HEX NUT	4	-	1/4-20
20	193546	TEFLON WASHER	2	-	
21	180682	BEAD DEFLECTOR	1	ALUM	
22	180909	HEX HB. BOLT 3/4" LG.	2	-	1/4-20
23	9910601406	MOUNTING BRACKET	2	ALUM	
24	77040602	LATCH DRAW	2	STL	ZINC PLATED
25	99010100	1/8 X 1/2 BAR	2	ALUM	
26	190146	PUMP WHEEL MODIFIED	1	-	
27	9910601402	READER BOX WELDMNT	1	-	
28	75020415	SPROCKET	2	STL	
29	75010135	CHAIN ROLLER RC-35	A/R	-	
30	75010335	LINK CONNECT RC-35	1	-	
31	9910601401	SUPPORT BRACKET	1	ALUM	
32	193561	WEATHER STRIPPING	A/R	-	(NUT SHOWN)
33	193545	WASHER 1/8 X 5/8 X 1 3/8	1	TEFLON	(NUT SHOWN)
34	180851	BEAD TANK ASSY	1	-	(NUT SHOWN)
35	180840	BEAD SPOUT ASSY.	1	-	(NUT SHOWN)
36	186609	HANDLE 4"	1	SST	(NUT SHOWN)
37	181822	CLAMP HOSE WORM	2	SST	(NUT SHOWN) 1-1/16 - 2
38	9910601400	LATCH, DIE HANDLE	1	-	(NUT SHOWN)

 M-B COMPANIES, INC.	SUBJECT DOUBLE DRIP BEADER KIT, APOLLO		
	DR. GWL	DATE 8/22/06	AP. DATE
CH.	DATE	SCALE	DRAWING NO. 180760
CODE:			



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