

30 SERIES

SHOCK ABSORBER
BEARING RISER
ASSEMBLY
INSTRUCTIONS

Amco
PRODUCTS

Portable Elevator Division, Dynamics Corporation of America
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AMCO 30 SERIES DISK HARROW
Optional Shock Absorber Bearing Riser

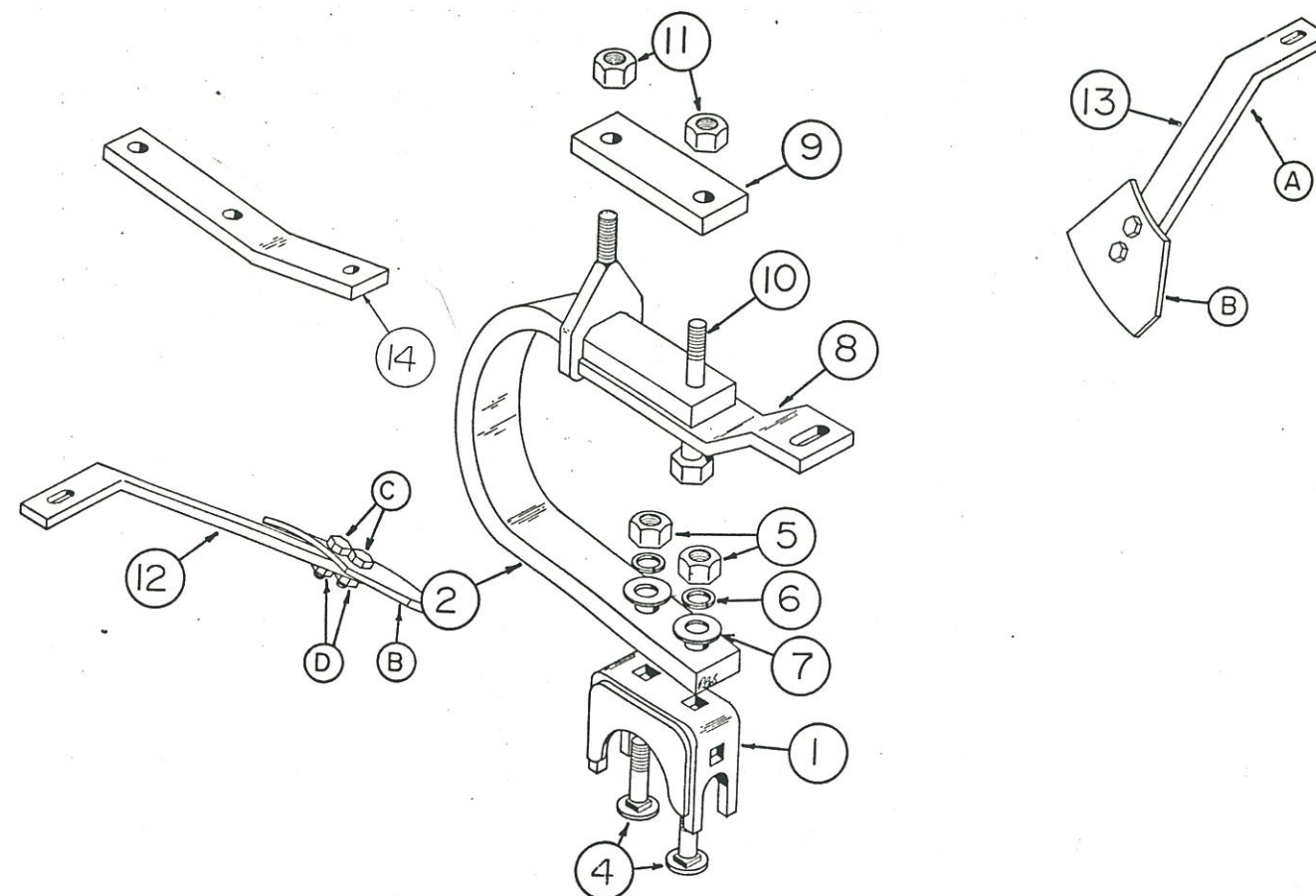
Ref. No.	Part No.	Description	No. Req'd
1	20273	Assy. Trunion Mount.....	1
2	11699	Flex Gang Shank - RH (Shown).....	1
3	11700	Flex Gang Shank - LH.....	1
4	10579	Carriage Screw 3/4 x 3 NF, GR5.....	2
5	10585	Hex Nut 3/4 NF, CH.....	2
6	10061	Lock Washer 3/4 PL.....	2
7	10866	Flat Washer 3/4 PL.....	2
8	20268	Assy. Flex Shank Bracket.....	1
9	101633	Top Plate 3/4 x 2 1/2 - 7 3/4 Long.....	1
10	10788	Hex Screw 3/4 x 6 1/2 NC, PL, GR2.....	1
11	10300	Lock Nut 3/4 NC, PL.....	2
12	20275	Scraper L.H. (for shock absorbers only).....	1
A	100271	Scraper Leg.....	1
B	101648	Scraper Blade.....	1
C	11652	Machine Bolt (Black) 1/2 x 1 1/4 NC.....	2
D	10395	Lock Nut 1/2 NC, PL.....	2
13	20274	Scraper R.H. (for shock absorbers only).....	1
14	101634	Scraper Bar Support.....	See Note

Note: See Scraper Bar Support on diagram in figure 5 for placement and number required.

FA-01-0017 Bundle Shock Absorber Bearing Riser - RH (Shown)
(Complete) Includes parts 1-11 (omit #3)....

FA-01-0018 Bundle Shock Absorber Bearing Riser - LH
(Complete) Includes parts 1-11 (omit #2)....

NOTE: Bundle FA-01-0017 (RH) is required to replace Bearing Riser 20233 (RH)
Bundle FA-01-0018 (LH) is required to replace Bearing Riser 20234 (LH)
Refer to Shock Absorber Bearing Riser assembly instructions for correct placement of right hand and left hand Shock Absorber Bearing Risers.



assembly instructions

Refer to pages 37 - 50 of 30 Series Catalog for assembly instructions of harrows equipped with shock absorber bearing risers except for steps 3, 4, 5, 9 and 10. Refer to steps 3a, 4a, 5a, 9a and 10a for shock absorber bearing riser assembly instructions.

STEP 3a (Refer to Figure 5 and Table 2)

Slip eye-bolt end of flex shank bracket over the flex shank as shown in the optional shock absorber bearing riser parts diagram. Loosely attach shock absorber bearing risers with 3/4" x 6 1/2" bolts, top plates and 3/4" lock nuts to gang frames on the center main frame. Loosely attach scraper bar supports with 3/4" "U" bolts. Starting with dimension A and going through F for the appropriate harrow model, locate bearing risers and scraper bar supports, measuring to the center line of the bolts. Place right hand bearing risers on the front right hand and the rear left hand gang frames. Place left hand bearing risers on the front left hand and the rear right hand gang frames. Tighten only the four inner most bearing risers snugly in place. Leave supports and other risers loose enough for shifting easily by hand later.

STEP 4a (Refer to the appropriate model diagram in Figure 2, 3 or 4 on pages 42 - 44 for gang and scraper placement).

Position the four inside gangs for attachment. Note position of smaller step-down blades toward the harrow center on rear gangs. Raise gangs to connect gang bearing trunions to bearing riser mounts.

Attach each trunion to the riser with two 2 1/2" x 3 3/4" fastening plates and 5/8" x 1 3/4" carriage screws. Shift outside bearing risers as required to make sure all toggles on the trunions are centered inside the mounting slots on the risers with no bearing preload. Tighten bolts evenly on all risers.

VERY IMPORTANT: Make sure each flex shank bracket is clamped flush to the underside of its gang frame and is square with the gang frame before moving to another gang. Rotate each gang slowly and make sure toggles do not bind against the mounting slots. Loosen the bolts on the lower arm of the flex shank that attach the trunions to the flex shanks, rotate the gang again to allow the trunions to align with the gangs and retighten as required to eliminate bearing preload. Failure to properly align trunions and risers will cause premature failure of gang bearings and will void bearing warranty!

STEP 5a (Refer to appropriate model diagram in the figures on pages 42 - 44 for scraper bar and scraper placement).

With the vertical leg downward and to the front, attach each of the four scraper bars to the inside gangs using 5/8" x 1 3/4" carriage screws. Finger tighten nuts to screws at this time. Allow bars to overhang at the ends sufficiently to attach scrapers as shown in Figure 2. Shock Absorber scrapers must be attached at each shock absorber bearing riser to allow additional clearance for flexing gangs. Attach special scrapers with double bend legs for the front outside blades on the inside gangs as shown in the illustration on page 38. Using a 1/2" x 2" carriage screw, attach a special scraper and a regular scraper to the same slot on the scraper bars. Attach all other left hand and right hand scrapers for the inside gangs. Adjust scrapers to run 1/16" to 1/8" from the disk blades. Tighten all bolts.

Figure 5

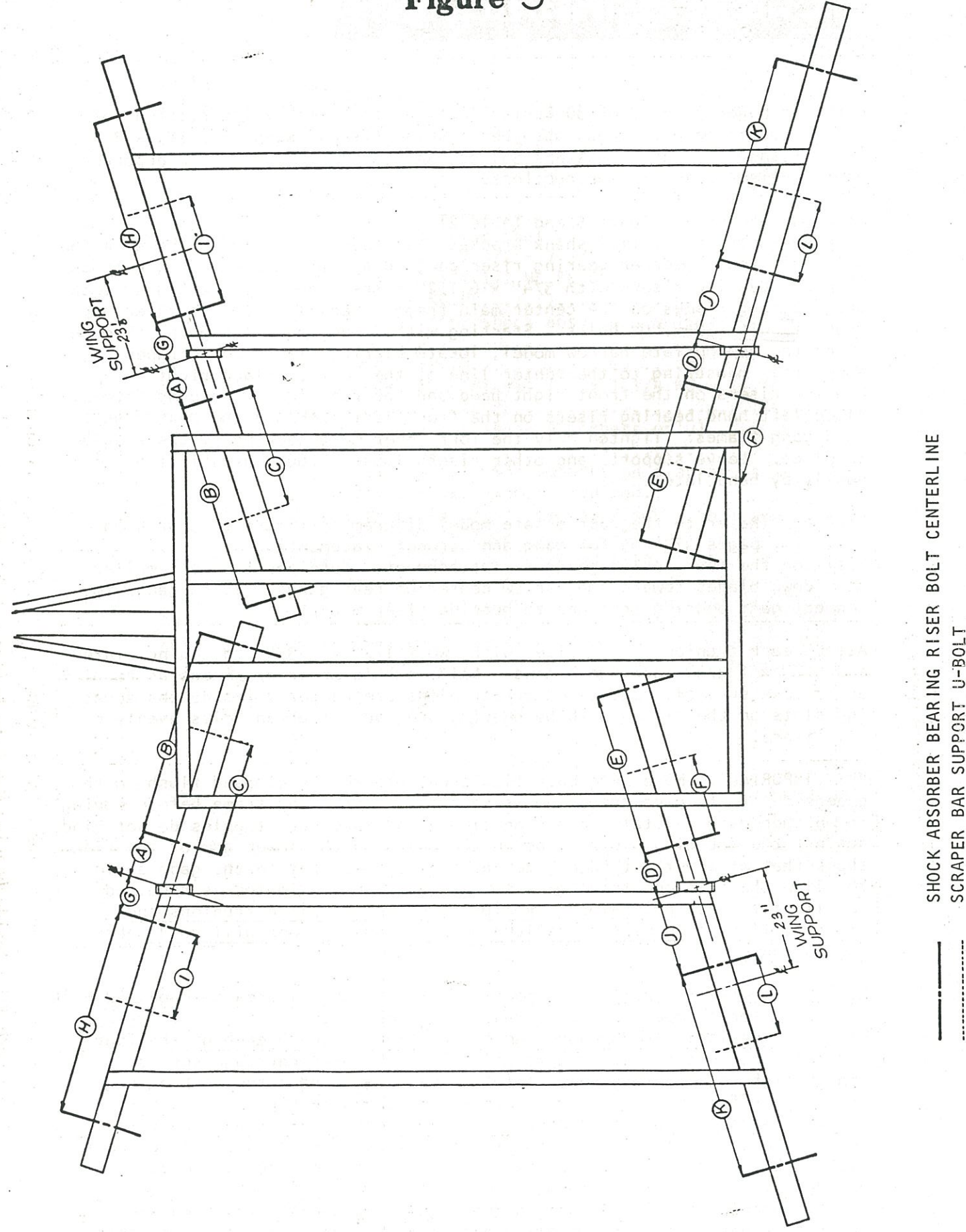


TABLE 2

	A	B	C	D	E	F	G	H	I	J	K	L
D30 50 Blade 18'0"	11 3/8	45 15/16	27 7/16	10 3/8	27 9/16	18 1/2	7	27 9/16	9 5/16	8	36 3/4	27 7/16*
D30 54 Blade 19'6"	11 3/8	45 15/16	27 7/16	10 3/8	27 9/16	18 1/2	7	36 3/4	9 5/16	8	45 15/16	27 7/16
D30 58 Blade 21'0"	11 3/8	45 15/16	27 7/16	10 3/8	27 9/16	18 1/2	7	45 15/16	27 11/16	17 3/16	45 15/16	18 1/4
D30 66 Blade 24'0"	11 3/8	45 15/16	27 7/16	10 3/8	27 9/16	18 1/2	7	27 9/16** 64 5/16***		17 3/16	36 3/4** 64 5/16***	
C30 62 Blade 17'10"	7 1/4	50 5/16	21 7/16	9 7/8	28 3/4	14 1/2	7 1/8	28 3/4	7 3/8	11 11/16	35 15/16	7 1/8
C30 66 Blade 19'0"	7 1/4	50 5/16	21 7/16	9 7/8	28 3/4	14 1/2	7 1/8	35 15/16	7 3/8	11 11/16	43 1/8	28 7/8*
C30 74 Blade 21'4"	7 1/4	50 5/16	21 7/16	9 7/8	28 3/4	14 1/2	7 1/8	50 5/16	29 1/8	18 7/8	50 3/8	14 3/8
C30 82 Blade 24'0"	7 1/4	50 5/16	21 7/16	9 7/8	28 3/4	14 1/2	7 1/8	28 3/4** 64 11/16***		18 7/8	35 15/16** 64 11/16***	
DC30 56 Blade 17'10"	11 3/8	45 15/16	27 7/16	9 7/8	28 3/4	14 1/2	7	27 9/16	9 5/16	11 11/16	35 15/16	7 1/8
DC30 60 Blade 19'0"	11 3/8	45 15/16	27 7/16	9 7/8	28 3/4	14 1/2	7	36 3/4	9 5/16	11 11/16	43 1/8	28 7/8*
DC30 66 Blade 21'4"	11 3/8	45 15/16	27 7/16	9 7/8	28 3/4	14 1/2	7	45 15/16	27 11/16	18 7/8	50 3/8	14 3/8
DC30 74 Blade 24'0"	11 3/8	45 15/16	27 7/16	9 7/8	28 3/4	14 1/2	7	27 9/16** 64 5/16***		18 7/8	35 15/16** 64 11/16***	

* Rear wing scraper bar supports located outside of frame rail on this model.

** Measure from Inside Bearing Riser to Middle Bearing Riser.

***Measure from Inside Bearing Riser to Outside Bearing Riser.

Follow the same procedure on the wings as was used in Steps 4a and 5a for the inside gangs. Note proper location of gangs with step-down blades and feathering blades. Again, pay particular attention to proper alignment of bearings as discussed in Step 4a to eliminate possible bearing preload and premature bearing failure. Special scrapers are located at the rear wing gangs.