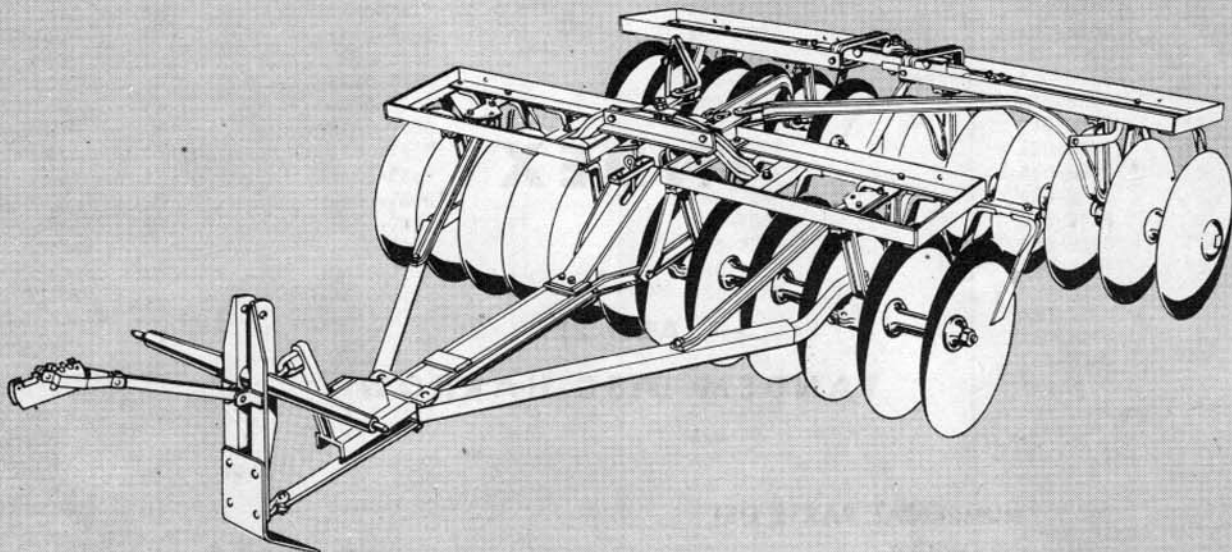


ABO-21

TANDEM DISC HARROW



PARTS LIST

February, 1945



HARRY FERGUSON, INC. • Dearborn, Michigan



INDEX

ABO-21 TANDEM DISC HARROW

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IMPORTANT!!!

GIVE PART NUMBER AND DESCRIPTION WHEN ORDERING

ABO-21 Tandem Disc Harrows equipped with new hitch start at Serial No. 22700

To convert ABO-20 Tandem with old style hitch to ABO-21 Tandem with new style hitch, order ABO-90 conversion kit. For details of this set refer to Page 5.

NUMERICAL PARTS LIST

PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.
ABO-90	5,7,16	ABO-7413	15	ABO-7905	9,11	ABO-8041	16
1ABO-202	15	1ABO-7830	9	1ABO-7906	9,11	ABO-8046	7
2ABO-202	15	10ABO-7830	9	10ABO-7906	9,11	ABO-8047	9
4ABO-202	15	19ABO-7830	9	19ABO-7906	9,11	ABO-8048	9,11
5ABO-202	15	1ABO-7831	9	A30-7913	11	ABO-8056	7
A30-220	9,11	10ABO-7831	9	ABO-7915	7	ABO-8057	7
ABO-221	9,11	19ABO-7831	9	ABO-7918	9	ABO-8058	7
ABO-222	9,11	1ABO-7832	11	ABO-7919	9	ABO-8067	15
ABO-223	9,11	10ABO-7832	11	ABO-7920	9	ABO-8069	15
ABO-5540	5	19ABO-7832	11	ABO-7921	9	ABO-8070	15
ABO-5541-B	15	1ABO-7833	11	ABO-7923	7	ABO-8071	15
ABO-5544	7	10ABO-7833	11	ABO-7927	9	ABO-8077	12
ABO-5550	15	19ABO-7833	11	ABO-7928	11	ABO-8078	13
ABO-5551	15	ABO-7837	7	A30-7929	11	ABO-8084	16
ABO-5552	15	ABO-7852	7	ABO-7930	9,11	ABO-9508	7
ABO-5553	15	ABO-7853	7	ABO-7931	9	ABO-9510	7
A30-5559	7	1ABO-7858	11	ABO-7932	11	A30-9515	13
ABO-5560	15	10ABO-7858	11	ABO-7933	7	A30-9520	16
ABO-5561	15	19ABO-7858	11	ABO-7934	11	A30-9521	16
ABO-5562	15	1ABO-7859	11	A30-7936	7	ABO-9546	11
ABO-5563	15	10ABO-7859	11	ABO-7945	13	ABO-9549	9
A30-5575-B	15	19ABO-7859	11	ABO-7946	13	ABO-9565	7
ABO-5576-B	15	ABO-7860	11	ABO-7955	12	ABO-9575	9
ABO-5577-B	15	1ABO-7862	11	A30-7956	12	ABO-9650	15
A30-5580-B	15	10ABO-7862	11	ABO-7957	11	ABO-9651	15
ABO-5581-B	15	19ABO-7862	11	A30-7958	11	ABO-9666	5
ABO-5582	7,12,13	1ABO-7863	11	ABO-7960	11	ABO-9700	7
ABO-6802	5	10ABO-7863	11	ABO-7961	11	A30-9714	15
A30-6803	5	19ABO-7863	11	ABO-7963	12	ABO-9715	15
ABO-6804	5	ABO-7865	9	A30-7964	12	A30-9752	12
A30-6805	5	A30-7866	11	ABO-7970	7	20878-S7-8	11,16
A30-6806	5	ABO-7867	11	ABO-7971	7	20879-S7-8	9
A30-6807	5	ABO-7869	11	ABO-7973	9,11	20880-S7-8	7,16
ABO-6809	5	ABO-7871	7	ABO-7980	11	20890-S7-8	7
A30-6810	5	ABO-7872	7	ABO-7984	13	20892-S7-8	7,16
ABO-6811	5	ABO-7873	7	ABO-7985	13	20895-S7-8	9,11,12,13
ABO-6812	5	ABO-7874	7	A30-7986	13	21008-S7-8	12,13
ABO-6813	5	ABO-7875	7	ABO-8005	16	21534-S7-8	7
ABO-6814	5	ABO-7876	7	ABO-8006	16	23413-S7-8	5,9
ABO-6815	5	A30-7877	7	ABO-8010	16	23473-S7-8	7,9,11,15
A30-6816	5	ABO-7878	7	ABO-8011	16	23503-S7-8	9,11
ABO-6817	5	A30-7881	7	A30-8012	16	23578-S7-8	7
A30-6818	5	ABO-7882	7	ABO-8013-A	16	23643-S7-8	12
A30-6819	5	A30-7883	7	A30-8014-A	16	23673-S7-8	13
ABO-6820	5	ABO-7884	7	ABO-8015	16	33792-S7-8	5,7,9,11,12,13,15,16
ABO-6821	5	ABO-7886	7	1ABO-8026	9	33944-S7-8	12,13
A30-6822	5	ABO-7887	7	10A30-8026	9	34091-S7-8	12,13
ABO-6823	5	ABO-7888	7	19ABO-8026	9	34094-S7-8	12,13
ABO-6824	5	ABO-7889	7	1ABO-8027	9	34709-S	9,11
A30-6825	5	A30-7897	7	10ABO-8027	9	34807-S7-8	7
ABO-6826	5	1ABO-7898	9,11	19ABO-8027	9	60985-S	9,11
A30-6827	5	10ABO-7898	9,11	1ABO-8028	9	60997-S	9,11
1ABO-7408	15	19ABO-7898	9,11	10ABO-8028	9	61010-S	9
10ABO-7408	15	1ABO-7899	9,11	19ABO-8028	9	61063-S	16
19ABO-7408	15	10ABO-7899	9,11	1ABO-8029	9	72018-S	5
1ABO-7409	15	19ABO-7899	9,11	10ABO-8029	9	72037-S	5,16
10ABO-7409	15	ABO-7901	11	19ABO-8029	9	72057-S	7
19ABO-7409	15	A30-7902	9	A30-8036	16	351436-S7-8	5,7,9,11,12,13,15,16
ABO-7410	15	ABO-7903	9	ABO-8037	16	351484-S	16
ABO-7411	15	ABO-7904	9	ABO-8040	16	353024-S7-8	15
ABO-7412	15						

TANDEM DRAWBAR ASSEMBLY

Conversion Set
ABO-90
includes parts 1 through 10 and additional parts on pages 6 and 16.

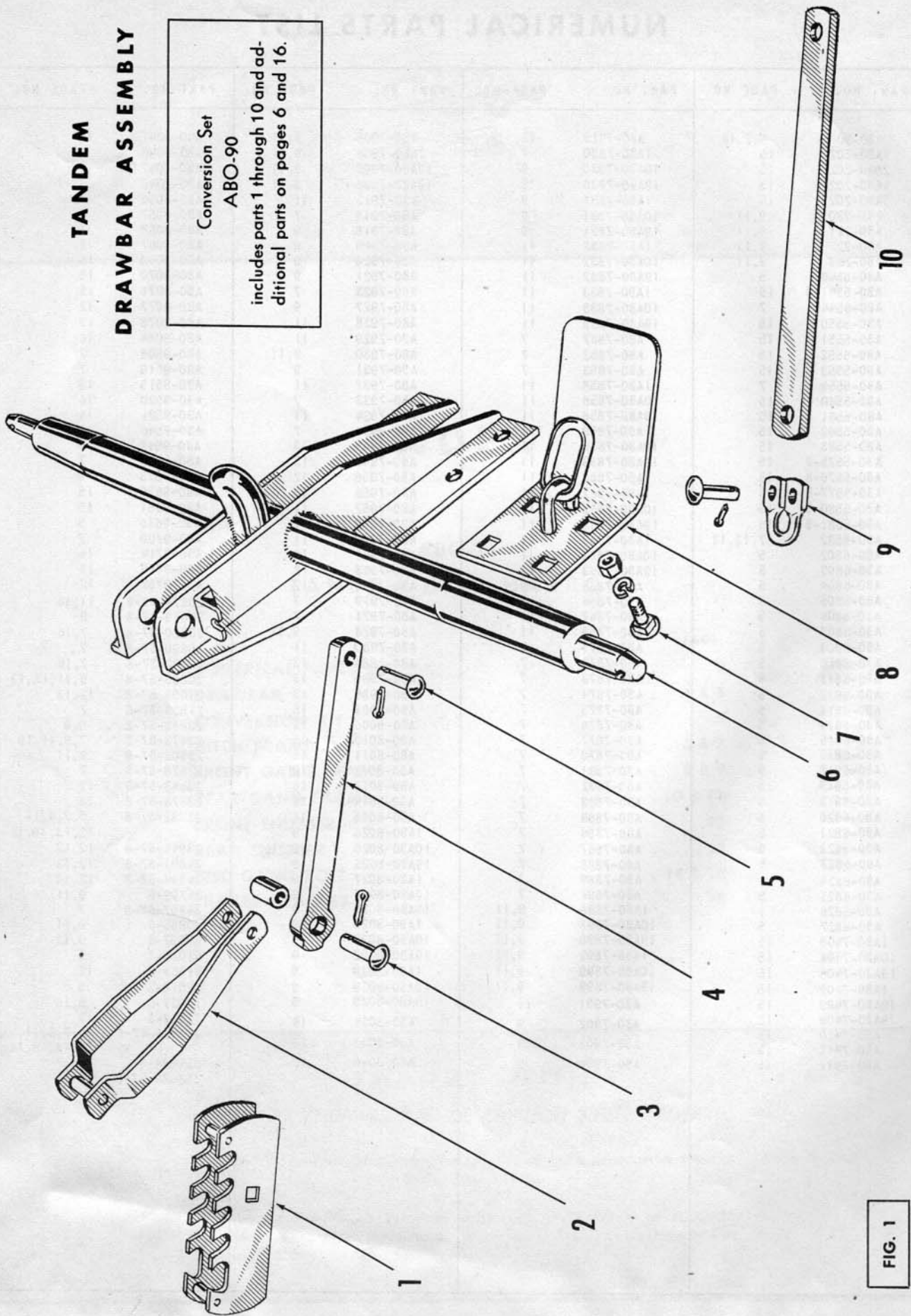


FIG. 1

A B O - 2 1 T A N D E M D I S C H A R R O W P A R T S L I S T

Tandem

Ref. no.	Part No.	Description	Tandem					
			5 Ft.		6 Ft.		7 Ft.	
			16" 1A	18" 4A	16" 10A	18" 13A	16" 19A	18" 22A
		FIG. (1) TANDEM DRAWBAR ASSEMBLY						
1	ABO-6810	Adjusting Rack - Cutting Angle - Riveted Assembly,	1	1	1	1	1	1
		includes						
	ABO-6811	Rack Plate - Left - Riveted Assembly,						
		includes						
	ABO-6812	Rack Plate - Left						
	ABO-9666	Rivet - Cone Head 1/4 x .38						
	ABO-6813	Rack Plate - Right						
	ABO-6814	Spacer Pins - Rack Plate						
2	ABO-6802	Adjusting Yoke - Cutting Angle - Riveted Assembly,	1	1	1	1	1	1
		includes						
	ABO-6803	Adjusting Yoke Strap						
	ABO-6804	Spacer Pin						
3	ABO-6815	Pin, Drilled, 3/8 x 1-3/8 Yoke Connecting-Angle Adj.	1	1	1	1	1	1
	ABO-5540	Bushing - Adjusting Strap	1	1	1	1	1	1
	72018-S	Pin, Cotter 5/32 x .75	1	1	1	1	1	1
4	ABO-6805	Adjusting Bar - Cutting Angle	1	1	1	1	1	
5	ABO-6809	Pin, Drilled, 3/8 x 1-5/8. Yoke Connecting-Angle Adj.	1	1	1	1	1	1
	72018-S	Pin, - Cotter, 5/32 x .75	1	1	1	1	1	1
6	ABO-6816	Drawbar Assembly - Welded,	1	1	1	1	1	1
		includes						
	ABO-6817	Drawbar						
	ABO-6818	Coupling Eye - Hitch Post						
	ABO-6819	Retainer - Linch Pin						
	ABO-6820	Angle - Drawbar R.H.						
	ABO-6821	Angle - Drawbar L.H.						
	ABO-6822	Bracket - Angle Adjusting Bar						
7	23413-S7-8	Carr. Bolt - 7/16-20 x 1" Drawbar Shoe to Angle	4	4	4	4	4	4
	33792-S7-8	Hex Nut 7/16-20 Drawbar Shoe to Angle	4	4	4	4	4	4
	351436-S7-8	Lockwasher 7/16 Drawbar Shoe to Angle	4	4	4	4	4	4
8	ABO-6806	Drawbar Shoe - Assembly - Welded,	1	1	1	1	1	1
		includes						
	ABO-6807	Shoe - Drawbar						
	ABO-6826	Coupling - Middle Draft Bar						
	ABO-6827	Link - Coupling - Middle Draft Bar						
9	ABO-6823	Clevis - Shoe Coupling to Draft Bar	1	1	1	1	1	1
	ABO-6825	Pin - Drilled 1/2 x 1-5/8 - Middle Draft Bar Clevis	1	1	1	1	1	1
	72037-S	Pin - Cotter - Clevis Pin	1	1	1	1	1	1
10	ABO-6824	Connecting Strap - Middle Draft Bar	1	1	1	1	1	
	ABO-90	Tandem Conversion Kit						
	includes							
	Ref. No.	(Illustrated on Page 4						
	1 thru 10	(Listed on Page 5)						
	and							
	Ref. No.	(Illustrated on Page 6)						
	2 thru 6 &	(Listed on Page 7)						
	12 thru 15							
	and							
	Ref. No. 4	(Illustrated on Page 16)						
	and 16	(Listed on Page 16)						

TANDEM HITCH FRAME ASSEMBLY

Conversion Set
 ABO-90
 includes parts 2 through 6 and 12
 through 15 and additional parts
 on page 16.

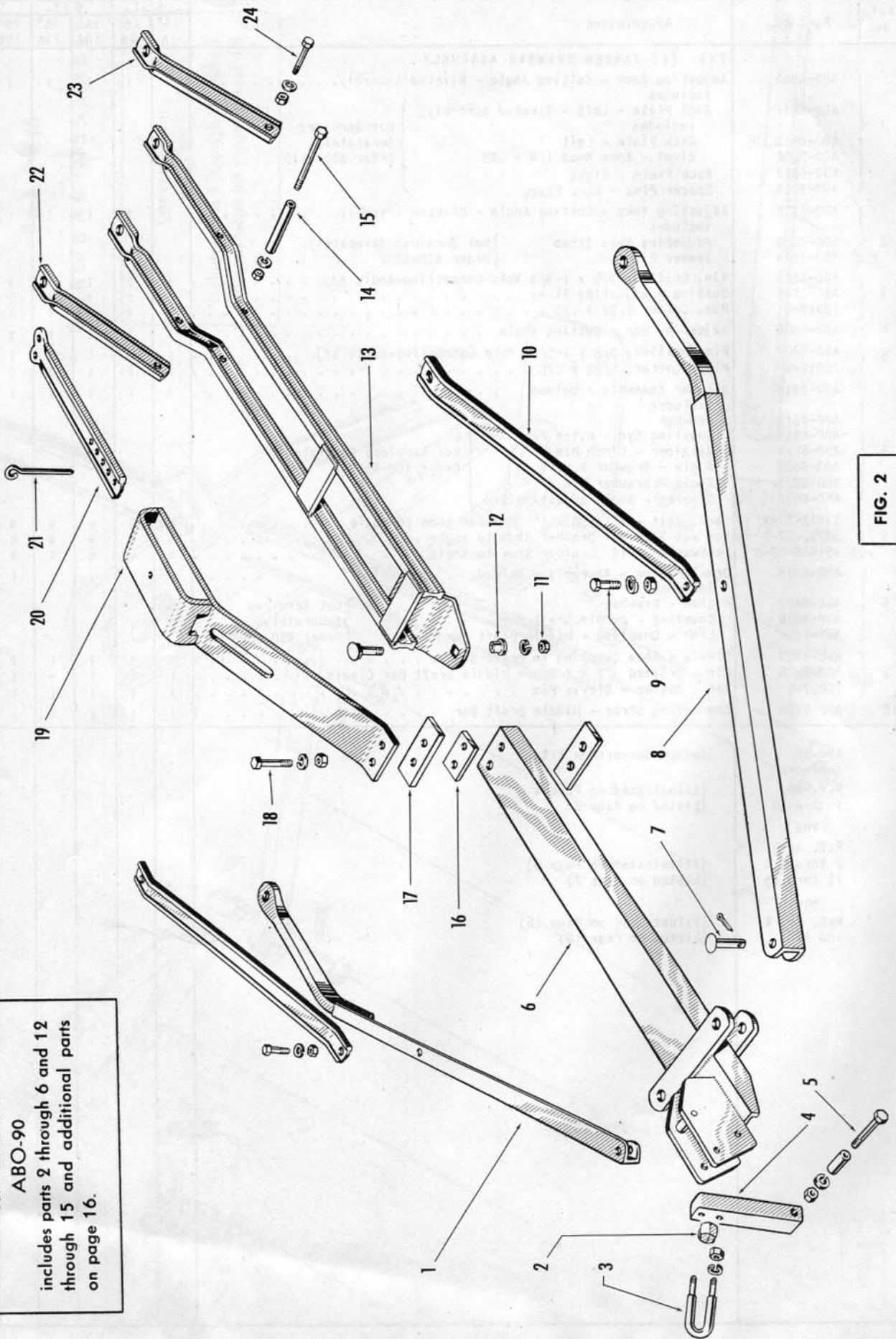


FIG. 2

ABO - 21 TANDEM DISC HARROW PARTS LIST

Ref. No.	Part No.	Description	Tandem							
			5 Ft.		6 Ft.		7 Ft.			
			16" 1A	18" 4A	16" 10A	18" 13A	16" 19A	18" 22A		
		FIG. (2) TANDEM HITCH FRAME ASSEMBLY								
1	ABO-7852	Draft Angle R.H. - Welded Assembly	1	1	1	1	1	1	1	1
	ABO-7871	includes Clip, Draft Angle								
	ABO-7872 ABO-7874	Draft Angle, Right Reinforcement, Draft Angle - Right								
2	ABO-7915	Filler, Hitch Post Yoke	1	1	1	1	1	1	1	
3	ABO-7897	Hitch Post Yoke	1	1	1	1	1	1	1	
	33792-S7-8	Hex Nut 7/16-20	2	2	2	2	2	2	2	
	351436-S7-8	Lockwasher 7/16	2	2	2	2	2	2		
4	ABO-7888	Hitch Post, Draft Channel, Riveted at foot in assembly ABO-7881, can be serviced separately with parts in Ref. No. 5.	1	1	1	1	1	1	1	
5	ABO-9700	Hitch Post Service Kit includes								
	21534-S7-8	hex Hd. Bolt 3/8-24 x 2.50								
	ABO-5559	Spacer, Bushing								
	34807-S7-8	Lockwasher								
	ABO-9508	hex Nut 3/8-24 Heavy Series								
6	ABO-7881	Draft Channel - Welded Assembly includes	1	1	1	1	1	1	1	
	ABO-7884	Hitch Post Plate Assembly includes								
	ABO-7886	Plate, Draft Channel, Right								
	ABO-7887	Plate, Draft Channel, Left								
	ABO-7888	Post - Draft Channel Hitch								
	ABO-7889	Pins - Hitch Post Stoo								
	ABO-7882	Channel - Draft								
	ABO-7883	Plates - Draft Channel Head								
7	ABO-9510	Rivet - Drilled 5/8 x 2.75 Draft Angle Coupling Pin	2	2	2	2	2	2	2	
	72057-S	Pin - Cotter 1/4 x 1.25	2	2	2	2	2	2		
8	ABO-7853	Draft Angle L.H. - Welded Assembly	1	1	1	1	1	1		
	ABO-7871	includes Clip, Draft Angle								
	ABO-7873	Draft Angle, Left								
	ABO-7875	Reinforcement, Draft Angle, Left								
9	20892-S7-8	Cap Screw 7/16-20 x 1.12 Draft Angle to Draft Angle Brace	2	2	2	2	2	2		
	33792-S7-8	Nut 7/16-20 Draft Angle to Draft Angle Brace	2	2	2	2	2	2		
	351436-S7-8	Lockwasher Draft Angle to Draft Angle Brace	2	2	2	2	2	2		
10	ABO-7837	Brace - Draft Angle - Right & Left	2	2	2	2	2	2		
11	23473-S7-8	Carr. Bolt 7/16-20 x 1.50 Middle Draft Bar to Draft Strap	1	1	1	1	1	1		
	33792-S7-8	Hex Nut 7/16-20 Middle Draft Bar to Draft Strap	1	1	1	1	1	1		
	351436-S7-8	Lockwasher 7/16 Middle Draft Bar to Draft Strap	1	1	1	1	1	1		
12	ABO-5582	Bushing - Draft Bar to Draft Strap	1	1	1	1	1	1		
13	ABO-7876	Middle Draft Bar - Welded Assembly	1	1	1	1	1	1		
	ABO-7877	includes Middle Draft Bar								
	ABO-7878	Tie - Middle Draft Bar								
	ABO-7923	Hammer Strap - Middle Draft Bar								
14	ABO-5544	Pipe Bushing 3/8 x 3-3/8 - Spacer For Middle Draft Bars	1	1	1	1	1	1		
15	20890-S7-8	Dolt, Hex Hd. Mach. 7/16-20 x 4-3/4 Middle Draft Bar Bush.	1	1	1	1	1	1		
	33792-S7-8	Hex Nut 7/16-20 Middle Draft Bar Bush.	1	1	1	1	1	1		
	351436-S7-8	Lockwasher 7/16 Middle Draft Bar Bush.	1	1	1	1	1	1		
16	ABO-7933	Filler, Draft Channel Clip	1	1	1	1	1	1		
17	ABO-7936	Clip, Draft Channel	2	2	2	2	2	2		
18	23578-S7-8	Bolt, Carr. 7/16-20 x 2.88 Draft Channel Frame to Trailer Adj.	2	2	2	2	2	2		
	33792-S7-8	Hex Nut 7/16-20 Draft Channel Frame to Trailer Adj.	2	2	2	2	2	2		
	351436-S7-8	Lockwasher 7/16 Draft Channel Frame to Trailer Adj.	2	2	2	2	2	2		
19	ABO-8056	Trailer Adjusting Frame Assembly includes								
	ABO-8057	Yoke - Trailer Adjusting Frame								
	ABO-8058	Frame - Adjusting Trailer								
20	ABO-8046	Bar - Adjusting Trailer	1	1	1	1	1	1		
21	ABO-9565	Eyebolt - Trailer Adjusting Bar	1	1	1	1	1	1		
22	ABO-7970	Brace - Middle Draft Bar R.H.	1	1	1	1	1	1		
23	ABO-7971	Brace - Middle Draft Bar L.H.	1	1	1	1	1	1		
24	20880-S7-8	Cap Screw 7/16-20 x 1.38 Middle Draft Bar to Brace	2	2	2	2	2	2		
	33792-S7-8	Nut 7/16-20 Middle Draft Bar to Brace	2	2	2	2	2	2		
	351436-S7-8	Lockwasher 7/16 Middle Draft Bar to Brace	2	2	2	2	2	2		
	ABO-90	Conversion Set (Includes parts 2 thru 6 and 12 thru 15)								

**TANDEM FRONT GANG FRAME ASSEMBLY
BEARING HANGERS and SCRAPER BAR**

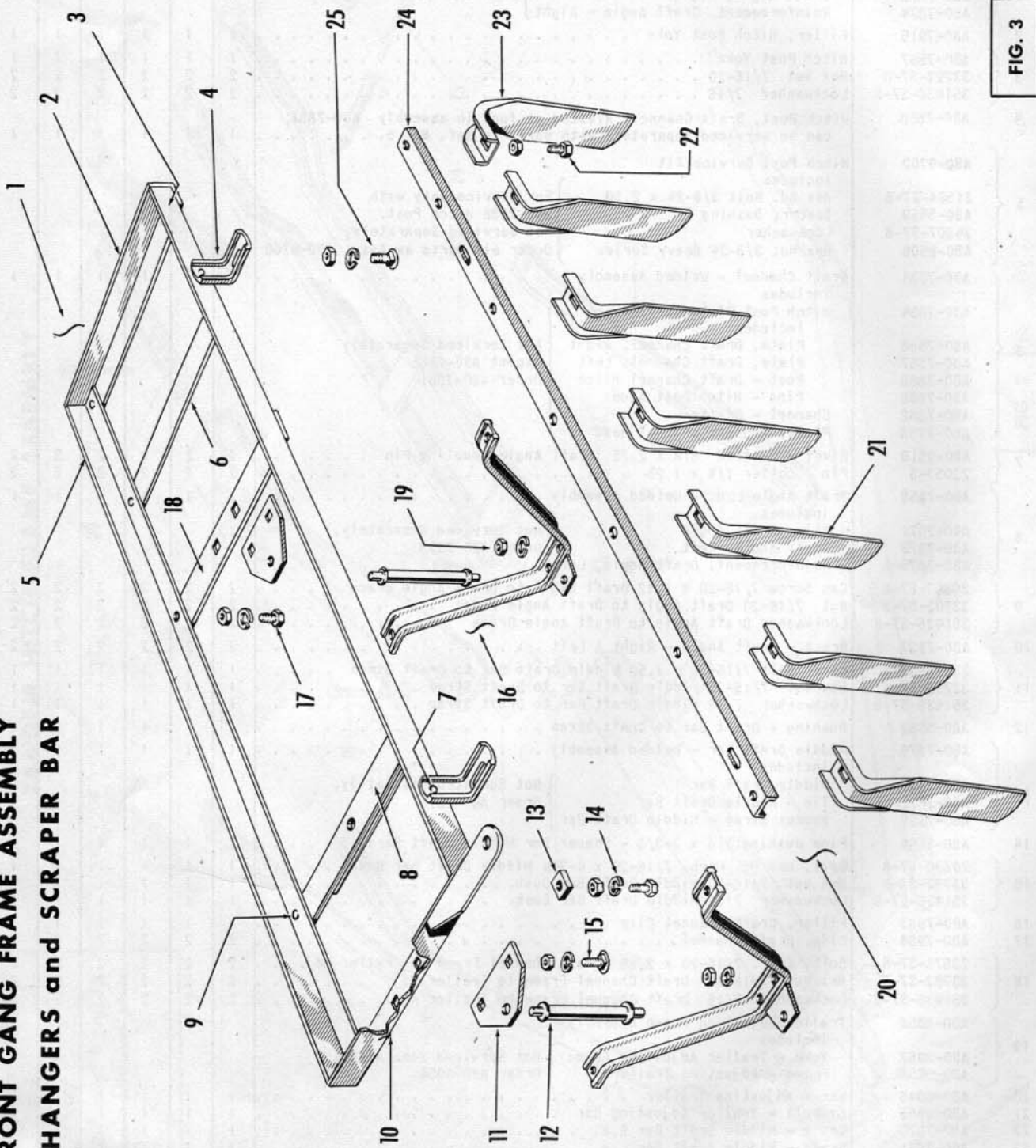


FIG. 3

ABO - 21 TANDEM DISC HARROW PARTS LIST

Ref. No.	Part No.	Description	Tandem							
			5 Ft.		6 Ft.		7 Ft.			
			16" 1A	18" 4A	16" 10A	18" 13A	16" 19A	18" 22A		
		FIG. (3) TANDEM FRONT GANG FRAME ASSY'S, BRG. HANGERS & SCRAPER BARS								
1	IAB0-7830	5' Front Gang Frame Assembly R.H.	} Not Serviced as an Assy., Order Parts 2 thru 9							
	IOAB0-7830	6' Front Gang Frame Assembly R.H.								
	I9AB0-7830	7' Front Gang Frame Assembly R.H.								
	IAB0-7831	5' Front Gang Frame Assembly L.H.								
	IOAB0-7831	6' Front Gang Frame Assembly L.H.								
2	AB0-7905	End Angle - Frame - Regular		2	2	2	2	2	2	2
3	IAB0-8028	Rear Angle - 5' R.H. Gang Frame		1	1					
	IOAB0-8028	Rear Angle - 6' R.H. Gang Frame				1	1			
	I9AB0-8028	Rear Angle - 7' R.H. Gang Frame						1	1	
	IAB0-8029	Rear Angle - 5' L.H. Gang Frame		1	1					
	IOAB0-8029	Rear Angle - 6' L.H. Gang Frame				1	1			
4	AB0-8048	Hanger - Adjustable Scraper Bar		4	4	4	4	4	4	4
5	IAB0-8026	Front Angle - 5' R.H. Gang Frame		1	1					
	IOAB0-8026	Front Angle - 6' R.H. Gang Frame				1	1			
	I9AB0-8026	Front Angle - 7' R.H. Gang Frame						1	1	
	IAB0-8027	Front Angle - 5' L.H. Gang Frame		1	1					
	IOAB0-8027	Front Angle - 6' L.H. Gang Frame				1	1			
6	AB0-7973	Cross Strap - Frame - Inside						2	2	
7	60985-S	Rivet - Oval Head 3/8 x 3/4 -Scraper Bar Hanger to Frame	4	4	4	4	4	4	4	4
8	AB0-7904	Snubber Angle - Frame - Front	2	2	2	2	2	2	2	
9	60997-S	Rivet - Oval Head 3/8 x 13/16 - Frame Snubber Angle to Frame	8	8	8	8	12	12	12	
10	AB0-7902	Inside Angle & Coupling Angle Assembly R.H.		1	1	1	1	1	1	1
	AB0-7903	Inside Angle & Coupling Angle Assembly L.H.		1	1	1	1	1	1	1
		includes								
	AB0-7918	Frame End Angle Inside Front R.H.	} Not Serviced Separately Order ABO-7902, 7903							
	AB0-7919	Frame End Angle Inside Front L.H.								
AB0-7920	Coupling Angle Outer Trlr. Reach R.H.									
AB0-7921	Coupling Angle Outer Trlr. Reach L.H.									
61010-S	Rivet 7/16 x 7/8 Oval Head									
11	AB0-7865	Plate-Gang Draft Pin	4	4	4	4	4	4	4	
12	AB0-8575	Pin-Gang Draft	4	4	4	4	4	4	4	
13	AB0-8549	Washer - Spacer	4	4	4	4	4	4	4	
14	20879-S7-8	Mach. Bolt, Hex Hd. 7/16 x 1-3/4" Inside Brg. Hanger to Frame	4	4	4	4	4	4	4	4
	33792-S7-8	Hex Nut, 7/16-20 Inside Brg. Hanger to Frame	4	4	4	4	4	4	4	4
	351436-S7-8	Lockwasher 7/16 Inside Brg. Hanger to Frame	4	4	4	4	4	4	4	4
15	23413-S7-8	Carr. Bolt 7/16 x 1 (Draft Pin Plate to Frame)	8	8	8	8	8	8	8	8
	33792-S7-8	Hex Nut 7/16-20 (Draft Pin Plate to Frame)	8	8	8	8	8	8	8	8
	351436-S7-8	Lockwasher 7/16 (Draft Pin Plate to Frame)	8	8	8	8	8	8	8	8
16	AB0-7927	Front Bearing Hanger - Welded	4	4	4	4	4	4	4	4
		includes								
	AB0-7930	Hanger - Bearing	} Not Serviced Separately Order ABO-7927							
AB0-7931	Plate - Bearing Stay									
17	20895-S7-8	Mach. Bolt Hex Hd. 7/16 x 1.75 - Brg. Hanger & Cross Strap to Frame.	4	4	4	4	4	4	4	4
	33792-S7-8	Hex Nut 7/16-20 Brg. Hanger & Cross Strap to Frame	4	4	4	4	4	4	4	4
	351436-S7-8	Lockwasher 7/16 Brg. Hanger & Cross Strap to Frame	4	4	4	4	4	4	4	4
18	AB0-8047	Cross Strap-Draft Bearing Hanger	2	2	2	2	2	2	2	
19	351436-S7-8	Lockwasher 7/16 - Bearing Hanger to Bearing Box	8	8	8	8	8	8	8	8
	33792-S7-8	Hex Nut 7/16-20 Bearing Hanger to Bearing Box	8	8	8	8	3	3	3	3
20	IAB0-7898	5' Scraper Bar Assy. R.H.	} Not Serviced as an assembly, order parts 21 thru 24							
	IOAB0-7898	6' Scraper Bar Assy. R.H.								
	I9AB0-7898	7' Scraper Bar Assy. R.H.								
	IAB0-7899	5' Scraper Bar Assy. L.H.								
	IOAB0-7899	6' Scraper Bar Assy. L.H.								
21	AB0-222	Scraper, Regular R.H.	4	4	5	5	6	6	6	
	AB0-223	Scraper, Regular L.H.	4	4	5	5	6	6	6	
22	23473-S7-8	Carr. Bolt 7/16 - 20 x 1.50 Scraper to Bar	10	10	12	12	14	14	14	14
	33792-S7-8	Hex Nut 7/16-20 Scraper to Bar	10	10	12	12	14	14	14	14
23	AB0-220	Scraper, Special R.H.	1	1	1	1	1	1	1	1
	AB0-221	Scraper, Special L.H.	1	1	1	1	1	1	1	1
24	IAB0-7906	Scraper Bar - Adjustable 5'	2	2						
	IOAB0-7906	Scraper Bar - Adjustable 6'			2	2				
	I9AB0-7906	Scraper Bar - Adjustable 7'					2	2	2	2
25	23503-S7-8	Carr. Bolt 7/16 x 1.75 (Scraper Bar to Hanger)	4	4	4	4	4	4	4	4
	33792-S7-8	Hex Nut 7/16-20 (Scraper Bar to Hanger)	4	4	4	4	4	4	4	4
	34709-S	Washer 1/2" Ho. 14 (Scraper Bar to Hanger)	4	4	4	4	4	4	4	4

TANDEM REAR GANG FRAME ASSEMBLY, BEARING HANGERS and SCRAPER BAR

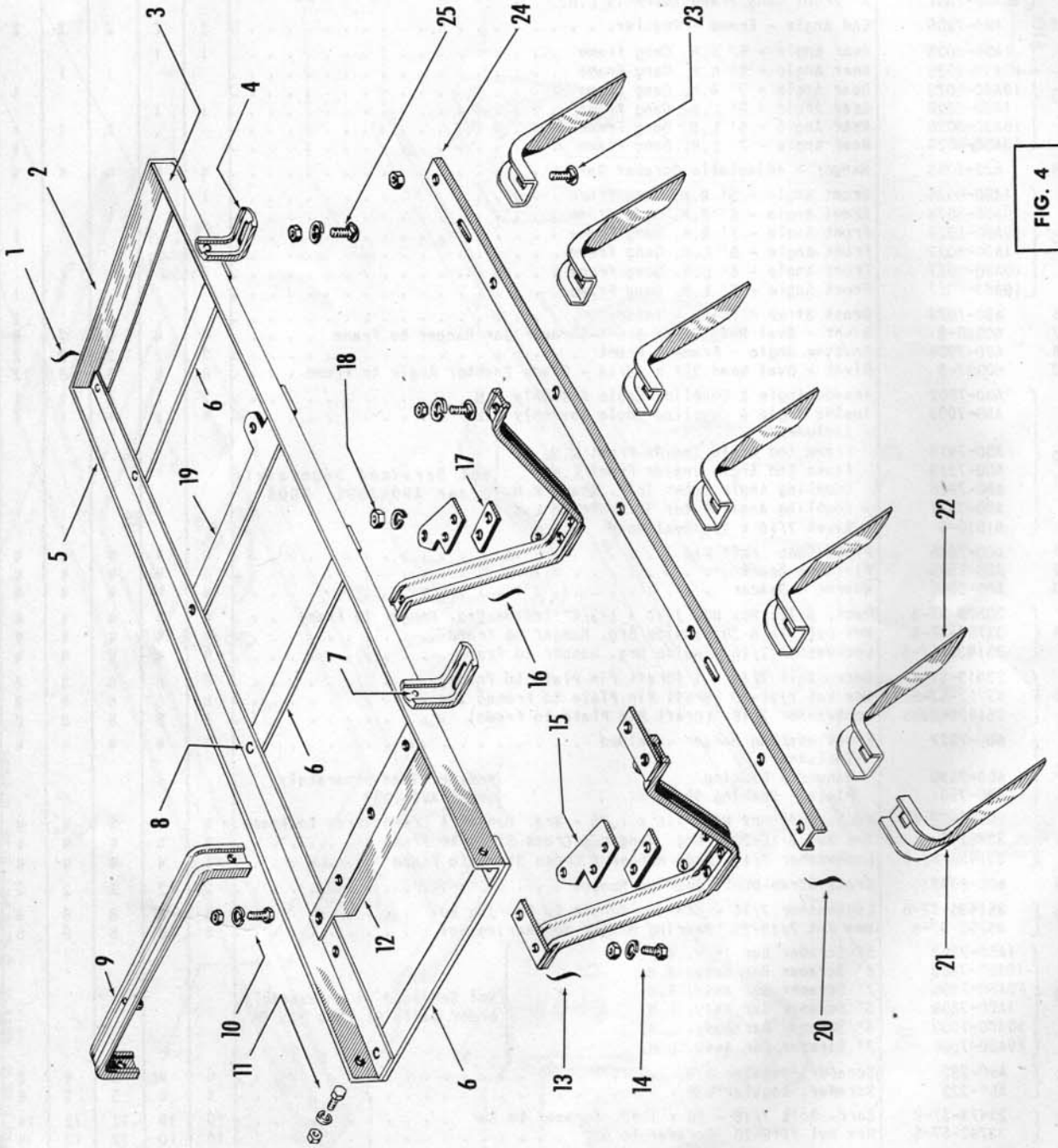


FIG. 4

A B O - 2 1 T A N D E M D I S C H A R R O W P A R T S L I S T

Ref. No.	Part No.	Description	Tandem								
			5 Ft.		6 Ft.		7 Ft.				
			16" 1A	18" 4A	16" 10A	18" 13A	16" 19A	18" 22A			
		FIG.(4)REAR GANG FRAME ASSEMBLIES, BEARING HANGER & SCRAPER BAR									
1	IABO-7832	5' Rear Gang Frame Assembly R.H.									
	10ABO-7832	6' Rear Gang Frame Assembly R.H.									
	19ABO-7832	7' Rear Gang Frame Assembly R.H.									
	IABO-7833	5' Rear Gang Frame Assembly L.H.									
	10ABO-7833	6' Rear Gang Frame Assembly L.H.									
	19ABO-7833	7' Rear Gang Frame Assembly L.H.									
			Not Serviced as an Assembly. Order Parts 2 thru 8								
2	ABO-7913	Angle - End, 5' Gang Frame	2	2							
	ABO-7905	Angle - End Regular, Gang Frame			2	2	2	2			
3	IABO-7862	Rear Angle - 5' R.H. Gang Frame	1	1							
	10ABO-7862	Rear Angle - 6' R.H. Gang Frame			1	1					
	19ABO-7862	Rear Angle - 7' R.H. Gang Frame							1	1	
	IABO-7863	Rear Angle - 5' L.H. Gang Frame	1	1							
	10ABO-7863	Rear Angle - 6' L.H. Gang Frame			1	1					
19ABO-7863	Rear Angle - 7' L.H. Gang Frame							1	1		
4	ABO-8048	Hanger - Scraper Bar	4	4	4	4	4	4	4	4	
5	IABO-7858	Front Angle - 5' R.H. Gang Frame	1	1							
	10ABO-7858	Front Angle - 6' R.H. Gang Frame			1	1					
	19ABO-7858	Front Angle - 7' R.H. Gang Frame							1	1	
	IABO-7859	Front Angle - 5' L.H. Gang Frame	1	1							
	10ABO-7859	Front Angle - 6' L.H. Gang Frame			1	1					
19ABO-7859	Front Angle - 7' L.H. Gang Frame							1	1		
6	ABO-7973	Cross Strap-Frame - Inside	4	4	4	4	4	4	4	4	
7	60935-S	Rivet, 3/8 x 3/4 Oval Head - Scraper Bar Hanger to Frame	4	4	4	4	4	4	4	4	
8	60997-S	Rivet, 3/8 x 13/16 - Cross Strap to Frame	12	12	12	12	16	16	16	16	
9	ABO-7960	Frame Snubber Guide With Stud Assembly, includes	2	2	2	2	2	2	2	2	
	ABO-7961	Frame Snubber Guide									
	ABO-9546	Stud									
		Not Serviced Separately Order ABO-7960									
10	20878-S7-8	Hex Hd. Bolt 7/16-20 x 1.25 Snubber Angle to Frame	4	4	4	4	4	4	4	4	
	33792	Hex Nut 7/16-20 Snubber Angle to Frame	4	4	4	4	4	4	4	4	
	351436-S7-8	Lockwasher 7/16 Snubber Angle to Frame	4	4	4	4	4	4	4	4	
11	20878-S7-8	Hex Hd. Bolt 7/16-20 x 1.25 Frame Snubber Guide to Frame	4	4	4	4	4	4	4	4	
	33792-S7-8	Hex Nut 7/16-20 Frame Snubber Guide to Frame	4	4	4	4	4	4	4	4	
	351436-S7-8	Lockwasher 7/16 Frame Snubber Guide to Frame	4	4	4	4	4	4	4	4	
12	AD0-7901	Snubber Angle, Trailer, Frame	2	2	2	2	2	2	2	2	
13	ABO-7957	Rear Hanger Welded, and Filler Plate R.H.	1	1	1	1	1	1	1	1	
	ABO-7958	Rear Hanger Welded, and Filler Plate L.H.	1	1	1	1	1	1	1	1	
			includes Following Parts - Welded								
	ABO-7928	Rear Brg Hanger & Lower Plate Assy.R.H.									
	ABO-7929	Rear Brg Hanger & Lower Plate Assy.L.H.									
	ABO-7934	Filler Plate Bearing Hanger									
		Not Serviced Separately in this Assembly. Order ABO-7957,ABO-7958									
14	20895-S7-8	Hex Hd. Bolt 7/16 x 1.50 Rear Bearing Hanger to Frame	8	8	8	8	8	8	8	8	
	33792-S7-8	Hex Nut 7/16-20 Rear Bearing Hanger to Frame	8	8	8	8	8	8	8	8	
	351436-S7-8	Lockwasher 7/16 Rear Bearing Hanger to Frame	8	8	8	8	8	8	8	8	
15	ABO-7867	Draft Plate - Brg. Box Upper	4	4	4	4	4	4	4	4	
16	ABO-7928	Rear Brg. Hanger and Lower Plate Assy. R.H.	1	1	1	1	1	1	1	1	
	ABO-7929	Rear Brg. Hanger and Lower Plate Assy. L.H.	1	1	1	1	1	1	1	1	
			includes Following Parts - Welded								
17	ABO-7930	Hanger - Bearing									
	ABO-7932	Plate-Bearing Draft Lower									
		Not Serviced Separately Order ABO-7928, 7929									
18	ABO-7990	Plate - Bearing Hanger Spacer	4	4	4	4	4	4	4	4	
18	351436-S7-8	Lockwasher 7/16 - Bearing Hanger to Bearing Box	8	8	8	8	8	8	8	8	
	33792-S7-8	Nut - 7/16 Hex Bearing Hanger to Bearing Box	8	8	8	8	8	8	8	8	
19	ABO-7860	Cross Strap - Frame - Outside	2	2							
	ABO-7866	Cross Strap - Rear Frame - Outside with Clip Assy. - Welded, includes			2	2	2	2	2	2	
	ABO-7860	Cross Strap - Frame - Outside									
ABO-7869	Extension Clip - Frame Cross Strap										
		Not Serviced in this Assy. Order ABO-7866									
20	IABO-7898	5' Scraper Bar Assy. R.H.									
	10ABO-7898	6' Scraper Bar Assy. R.H.									
	19ABO-7898	7' Scraper Bar Assy. R.H.									
	IABO-7899	5' Scraper Bar Assy. L.H.									
	10ABO-7899	6' Scraper Bar Assy L.H.									
19ABO-7899	7' Scraper Bar Assy. L.H.										
		Not Serviced as an Assembly, order Parts 21 thru 24									
21	ABO-220	Scraper - Special R.H.	1	1	1	1	1	1	1	1	
	ABO-221	Scraper - Special L.H.	1	1	1	1	1	1	1	1	
22	ABO-222	Scraper - Regular R.H.	4	4	5	5	6	6	6	6	
	ABO-223	Scraper - Regular L.H.	4	4	5	5	6	6	6	6	
23	23473-S7-8	Carr. Bolt 7/16-20 x 1.50 Scraper to Bar	10	10	12	12	14	14	14	14	
	33792-S7-8	Hex Nut 7/16-20 Scraper to Bar	10	10	12	12	14	14	14	14	
24	IABO-7906	Scraper Bar - Adj. 5'	2	2							
	10ABO-7906	Scraper Bar - Adj. 6'			2	2					
	19ABO-7906	Scraper Bar - Adj. 7'					2	2			
25	23503-S7-8	Carr. Bolt 7/16 x 1.75 Scraper Bar to Hanger	4	4	4	4	4	4	4	4	
	33792-S7-8	Hex Nut 7/16-20 Scraper Bar to Hanger	4	4	4	4	4	4	4	4	
	34709-S.	Washer 1/2 No. 14 Scraper Bar to Hanger	4	4	4	4	4	4	4	4	

TANDEM FRONT SNUBBER ASSEMBLY

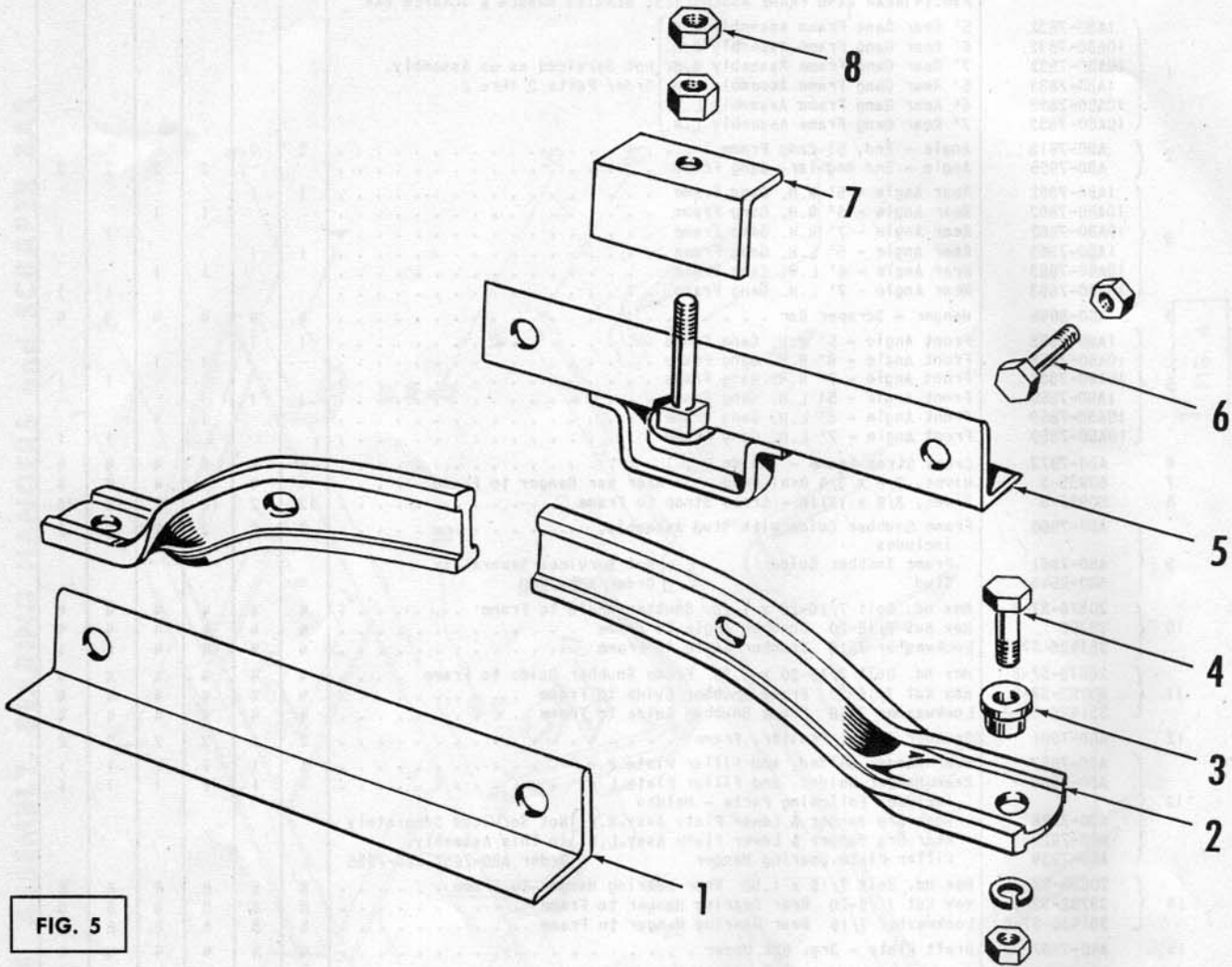


FIG. 5

ABO-21 DISC HARROW PARTS LIST - Continued

Ref. No.	Part No.	Description	Tandem					
			5 Ft.		6 Ft.		7 Ft.	
			16" 1A	18" 4A	16" 10A	18" 13A	16" 19A	18" 22A
		FIG. (5) TANDEM FRONT SNUBBER ASSEMBLY						
1	AB0-7963	Angle - Front	1	1	1	1	1	1
2	AB0-8077	Snubber Arm - Front	2	2	2	2	2	2
3	AB0-5582	Bushing	2	2	2	2	2	2
4	20395-S7-8	Mach. Bolt - Hex Hd. 7/16-20 x 1.50 Snubber Arm To Frame	2	2	2	2	2	2
	33792-S7-8	Hex Nut 7/16-20 Snubber Arm To Frame	2	2	2	2	2	2
	351436-S7-8	Lockwasher 7/16 Snubber Arm To Frame	2	2	2	2	2	2
5	AB0-7955	Angle - Rear - Welded Assembly	1	1	1	1	1	1
		includes						
	AB0-7956	Hanger - Hitch - Trailer	} Not serviced separately, order AB0-7955					
	AB0-7964	Angle - Rear						
	23643-S7-8	Carriage Bolt 5/8 x 4.00	1	1	1	1	1	1
34091-S7-8	Hex Nut 5/8	1	1	1	1	1	1	
6	21008-S7-8	Mach. Bolt - Hex Hd. 9/16 x 1.50 Snubber Angle To Arm	2	2	2	2	2	2
	33944-S7-8	Hex Jam Nut 9/16 Snubber Angle To Arm	2	2	2	2	2	2
7	AB0-9752	Angle - Front Snubber Adjusting Bolt	1	1	1	1	1	1
8	34094-S7-8	Hex Jam Nut 5/8	1	1	1	1	1	1

TANDEM TRAILER SNUBBER ASSEMBLY

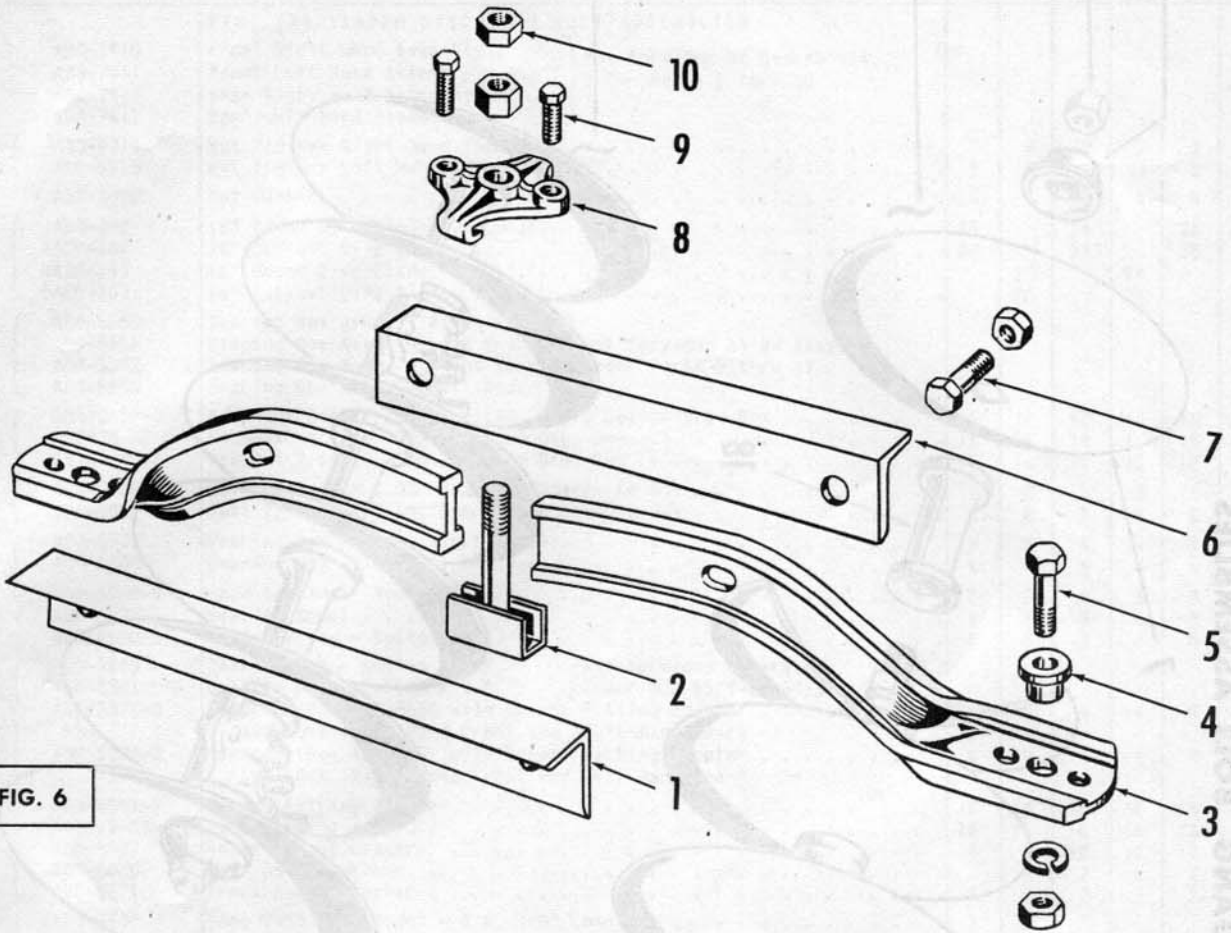


FIG. 6

Ref. No.	Part No	Description	Tandem						
			5 Ft.		6 Ft.		7 Ft.		
			16" 1A	18" 4A	16" 10A	18" 13A	16" 19A	18" 22A	
		FIG. (6) TANDEM TRAILER SNUBBER ASSEMBLY							
1	ABO-7945	Angle - Front	1	1	1	1	1	1	1
	ABO-7984	Adjusting Bolt Assembly - Welded includes	1	1	1	1	1	1	1
2	ABO-7985 23673-S7-8 34091-S7-8	Channel - Adjusting Bolt Carr. Bolt - Snubber Adj. Hex Nut 5/8	} Not Serviced Separately, Order ABO-7984						
3	ABO-8078	Snubber Arm	2	2	2	2	2	2	2
4	ABO-5582	Bushing	2	2	2	2	2	2	2
5	20895-S7-8 33792-S7-8 351436-S7-8	Mach. Bolt - Hex Hd. 7/16-20 x 1.50 Snubber Arm to Frame Hex Nut 7/16-20 Snubber Arm to Frame Lockwasher 7/16 Snubber Arm to Frame	2	2	2	2	2	2	2
6	ABO-7946	Angle - Rear	1	1	1	1	1	1	1
7	21006-S7-8 33944-S7-8	Mach. Bolt Hex Hd. 9/16 x 1.50 Snubber Angle to Arm Hex Jam Nut 9/16 Snubber Angle to Arm	2	2	2	2	2	2	2
8	ABO-7986	Plate - Stop - Snubber	1	1	1	1	1	1	1
9	ABO-9515	Set Screw - Stop Plate 1/2 x 1.25 11/16 Hex Hd.	2	2	2	2	2	2	2
10	34094-S7-8	Hex Jam Nut 5/8	1	1	1	1	1	1	1

TANDEM DISC GANG BOLT ASSEMBLIES

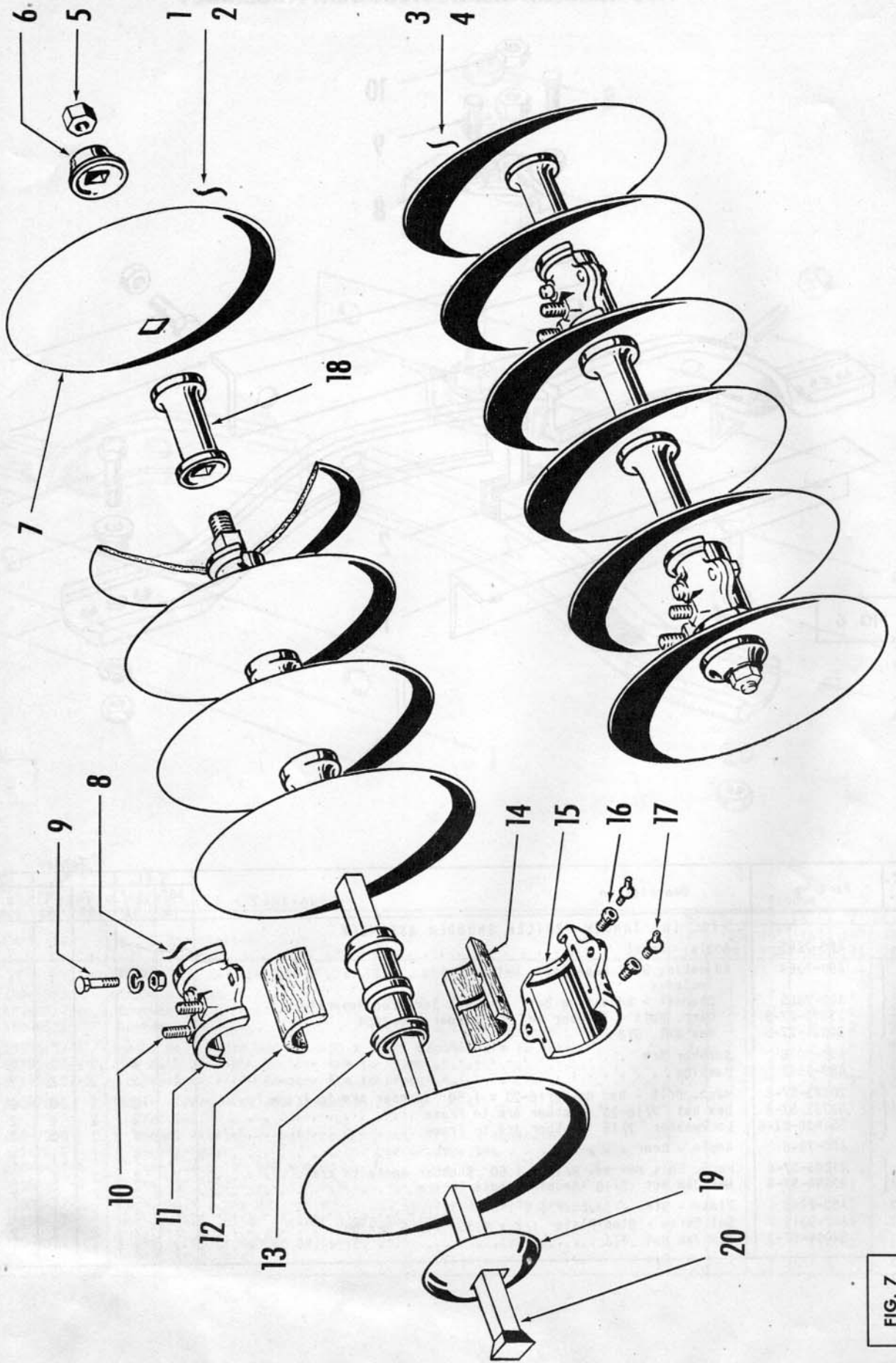


FIG. 7

Ref. No.	Part No.	Description	Tandem											
			5 Ft.		6 Ft.		7 Ft.							
			16" 1A	18" 4A	16" 10A	18" 13A	16" 19A	18" 22A						
		FIG. (7) TANDEM DISC GANG BOLT ASSEMBLIES												
1	ABO-7410	Front Right Hand Assembly	} Not Serviced as Assemblies, Order Parts 5 thru 20											
2	ABO-7411	Front Left Hand Assembly												
3	ABO-7412	Rear Right Hand Assembly												
4	ABO-7413	Rear Left Hand Assembly												
5	{ ABO-9714	Nut 7/8 Hex Right Hand Thread	2	2	2	2	2	2						
	{ ABO-9715	Nut 7/8 Hex Left Hand Thread	2	2	2	2	2	2						
6	ABO-8069	Nut Washer	4	4	4	4	4	4						
7	{ 1ABO-202	16" Round Disc Blade	20		24		28							
	{ 2ABO-202	16" Cut-out Disc Blade	20		24		28							
	{ 4ABO-202	18" Round Disc Blade		20		24		28						
	{ 5ABO-202	18" Cut-out Disc Blade		20		24		28						
8	{ ABO-5550	Bearing Box Assy. - Right Front	} Not Serviced as an Assy., Order Parts 9 thru 17											
	{ ABO-5551	Bearing Box Assy. - Left Front												
	{ ABO-5552	Bearing Box Assy. - Right Rear												
	{ ABO-5553	Bearing Box Assy. - Left Rear												
9	{ 23473-S7-8	Carriage Bolt 7/16-20 x 1.50 Top & Bottom Brg. Box	16	16	16	16	16	16						
	{ 351436-S7-8	Lockwasher 7/16 Top & Bottom Brg. Box	16	16	16	16	16	16						
	{ 33792-S7-8	Hex Nut 7/16-20 Top & Bottom Brg. Box	16	16	16	16	16	16						
10	{ ABO-9650	Dolt 7/16-20 x 1.38 Bearing Hangers to Box	8	8	8	8	8	8						
	{ ABO-9651	Dolt 7/16-20 x 2.00 Bearing Hangers to Box	8	8	8	8	8	8						
11	{ ABO-5562	Bearing Box - Top - Right Front	4	4	4	4	4	4						
	{ ABO-5563	Bearing Box - Top - Right Rear	4	4	4	4	4	4						
12	ABO-5581-B	Wood Bearing - Top	8	8	8	8	8	8						
13	ABO-5577-B	Bearing Spool	8	8	8	8	8	8						
14	ABO-5580-B	Wood Bearing - Bottom	8	8	8	8	8	8						
15	{ ABO-5560	Bearing Box - Bottom - R.F.	} Not Serviced Separately, Order ABO-5575-B, 5576-B											
	{ ABO-5561	Bearing Box - Bottom - R.R.												
	{ ABO-5575-B	(Bearing Box ABO-5560 with Grease Fitting Adapter ABO-5541. Left Hand Front and Right Hand Rear)							4	4	4	4	4	4
	{ ABO-5576-B	(Bearing Box ABO-5561 with Grease Fitting Adapter ABO-5541. Right Hand Front and Left Hand Rear)							4	4	4	4	4	4
16	ABO-5541-B	Grease Fitting Adapter	16	16	16	16	16	16						
17	353024-S7-8	Lube Fitting 1/8"	16	16	16	16	16	16						
18	ABO-8067	Spool - Disc Spacer	8	8	12	12	16	16						
19	{ ABO-8070	Rear Bumper Washer	2	2	2	2	2	2						
	{ ABO-8071	Front Bumper Washer	2	2	2	2	2	2						
20	{ 1ABO-7403	Gang Bolt - 5' Model - R.H. 29" Long	2	2										
	{ 10ABO-7408	Gang Bolt - 6' Model - R.H. 35½" Long			2	2								
	{ 19ABO-7408	Gang Bolt - 7' Model - R.H. 42" Long					2	2						
	{ 1ABO-7409	Gang Bolt - 5' Model - L.H. 29" Long	2	2										
	{ 10ABO-7409	Gang Bolt - 6' Model - L.H. 35½" Long			2	2								
	{ 19ABO-7409	Gang Bolt - 7' Model - L.H. 42" Long					2	2						

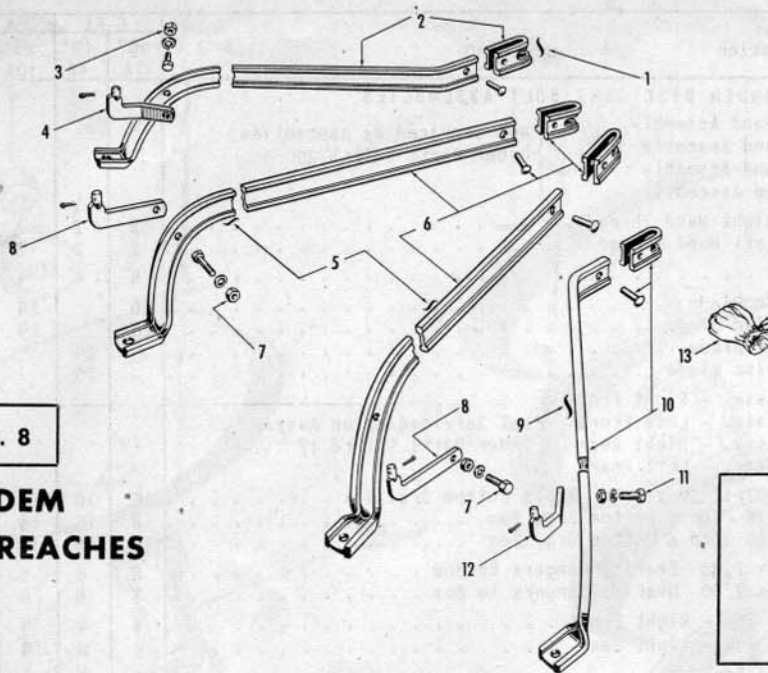


FIG. 8

TANDEM TRAILER REACHES

Conversion Set
ABO-90
 includes parts 2 and 10.

Ref. No.	Part No.	Description	Tandem					
			5 Ft.		6 Ft.		7 Ft.	
			16"	18"	16"	18"	16"	18"
			1A	4A	10A	13A	19A	22A
		FIG. (8) TANDEM TRAILER REACHES						
1	ABO-8040	Reach Assy. - Outside L.H. } Not Serviced as an Assembly. Order Parts 2 thru 4						
2	ABO-8014-A	Reach & Clevis Assy. - Outside Left includes	1	1	1	1	1	1
	ABO-8084	Clevis	1	1	1	1	1	
	61063-S	Rivet, Oval Head 3/8 x 1.18 Clevis to Reach	1	1	1	1	1	
	ABO-8041	Reach (Not Serviced Separately, Order ABO-8014-A						
3	20878-S7-8	Mach. Bolt Hex Head 7/16-20 x 1.25 Brace to Outside L. Reach . . .	1	1	1	1	1	
	351436-S7-8	Lockwasher 7/16 Brace to Outside L. Reach	1	1	1	1	1	
	33792-S7-8	Hex Nut 7/16-20 Brace to Outside L. Reach	1	1	1	1	1	
4	ABO-8011	Brace - Outside Left Trailer Reach	1	1	1	1	1	
5	ABO-8005	Trailer Reach, Inside Assy. } Not Serviced as an Assembly. Order Parts 6 thru 8						
6	ABO-8015	Reach & Clevis Assy. - Inside includes	2	2	2	2	2	
	ABO-8006	Reach } Not Serviced Separately, Order ABO-8015						
	61063-S	Rivet, Oval head 3/8 x 1.18 Clevis to Reach	2	2	2	2	2	
	ABO-8084	Clevis	2	2	2	2	2	
7	20878-S7-8	Mach. Bolt Hex Head 7/16-20 x 1.25 Brace to Inside Reach	2	2	2	2	2	
	351436-S7-8	Lockwasher 7/16 Brace to Inside Reach	2	2	2	2	2	
	33792-S7-8	Hex Nut 7/16-20 Brace to Inside Reach	2	2	2	2	2	
8	ABO-8012	Brace - Inside Trailer Reach	2	2	2	2	2	
9	ABO-8036	Reach Assy. - Outside R.H. } Not Serviced as an Assembly. Order Parts 10 thru 12.						
10	ABO-8013-A	Reach & Clevis Assy. - Outside R. includes	1	1	1	1	1	
	ABO-8037	Reach } Not Serviced Separately, Order ABO-8013-A						
	61063-S	Rivet, Oval Head 3/8 x 1.18 Clevis to Reach	1	1	1	1	1	
	ABO-8084	Clevis	1	1	1	1	1	
11	20878-S7-8	Mach. Bolt Hex Head 7/16-20 x 1.25 Brace to Outside R. Reach . . .	1	1	1	1	1	
	351436-S7-8	Lockwasher 7/16 Brace to Outside R. Reach	1	1	1	1	1	
	33792-S7-8	Hex Nut 7/16-20 Brace to Outside R. Reach	1	1	1	1	1	
12	ABO-8010	Brace - Right - Outside Trailer Reach	1	1	1	1	1	
13	ABO-9520	Rear Pin-1/2 x 1.63 Oval Head Rivet - Drilled	4	4	4	4	4	
	ABO-9521	Front Pin - 1/2 x 2.00 Oval Head Rivet - Drilled	4	4	4	4	4	
	20880-S7-8	Hex Hd. Bolt 7/16-20 x 1.38 Outside Braces to Draft Fork	2	2	2	2	2	
	20892-S7-8	Hex Hd. Bolt 7/16-20 x 1.12 Draft Angle Braces to Draft Angle	2	2	2	2	2	
	33792-S7-8	Hex Nut - 7/16-20	4	4	4	4	4	
	72037-S	Cotter Pin - 3/16 x 1.00	12	12	12	12	12	
	351436-S7-8	Lockwasher - 7/16	4	4	4	4	4	
	351484-S	Washer No. 14 - 1-1/8 x 9/16 Trailer Rear Front Pin	4	4	4	4	4	
			All Parts in Reference No. 13 are Shipped in Bag.					

ABO-90 Conversion Set (Includes Parts 2 and 10)