

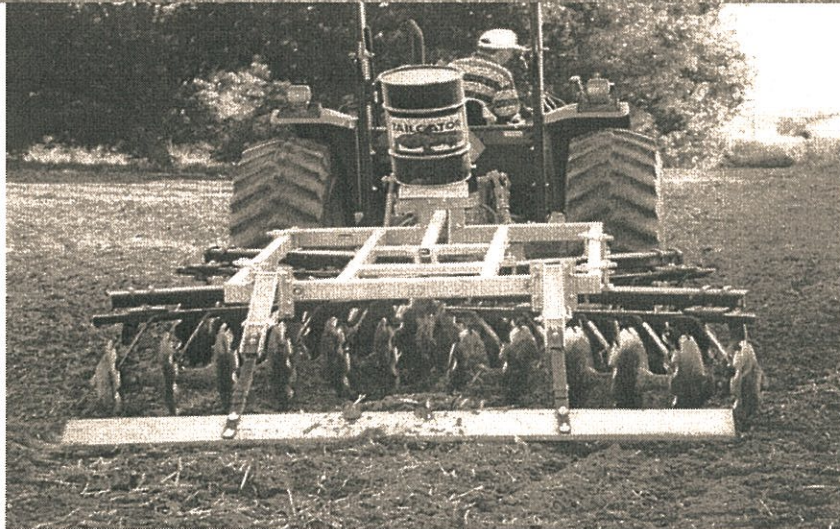
AMCO

PARTS CATALOG

OPERATION * MAINTENANCE * SET-UP
INSTRUCTIONS FOR

MODEL LTF 100 SERIES DISK HARROW

LTF 100
1618
2018



LTF 100
2422
2822

AMCO MANUFACTURING, INC.

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TO THE PURCHASER

The care you give your new LTF100 will greatly determine the satisfaction and service life you will obtain from it. By observing the instructions and suggestions in this manual, your AMCO LTF100 will serve you well for many years. Please furnish this manual to new owners when the AMCO LTF100 is sold.

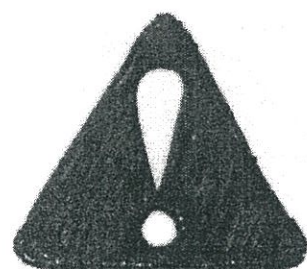
As an Authorized AMCO Dealer, we stock Genuine AMCO Parts, which are manufactured with the same precision and skill as the original equipment. For best performance and longer life use only Genuine AMCO replacement parts. Our factory-trained staff is kept fully informed of the most efficient methods of servicing AMCO equipment and is ready and able to assist you.

When you sell your LTF100 Harrow you should pass this manual to the new owner.

If you should require additional aid or information, please contact us.

YOUR AUTHORIZED AMCO DEALER

OSHA requires that as a farm employer you meet certain safety requirements. Become familiar with and comply with those requirements. Be sure anyone who operates this equipment understands all safety related items. If this harrow is repainted, be certain new decals are ordered. Decals pertaining to personal safety must be replaced.



Look for this symbol to point out important safety precautions. It means -- **ATTENTION!** Become alert! Your safety is involved.

To insure efficient and prompt service, please provide the model number and serial number of your AMCO Harrow in all correspondence or contacts. Remember, the right and left hand sides of the harrow are determined by standing at the rear of the harrow and facing the direction of travel.

MODEL NUMBER

SERIAL NUMBER

DESCRIPTION

The LTF100 is a double offset tandem disk. This means it will cut the entire disk path and not leave a center balk like the tandem disk. If the disk is not cutting the entire path adjust the front gang to become closer to the center of the disk.

OPERATION

The LTF100 is usually assembled in full set. This means that it has the steepest gang angles. This makes the disk the most aggressive. If your tractor has problems pulling the disk, you can reduce the gang angles of the disk gangs. Note: All four gangs should be set in the same setting for best results. Reduction of the gang angles reduces the aggressiveness of the disk resulting in less horsepower required from the tractor. It also reduces how deep the blades will dig in. The least setting of the gang angle will result in a harrow action.

The LTF100 is designed to be as heavy as the hydraulic system on the tractors' three point can lift. This weight can cause the front end of the tractor to raise up during transport. To alleviate this problem additional weight must be added to the front of the tractor.

The adjustments that can be made to the LTF100 to change the profile of the dirt after disking are as follows:

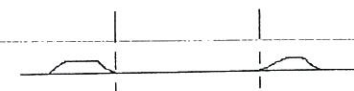
If you have a watermelon row as pictured below:



The rear gangs are pulling more dirt towards the center than the front gangs are throwing out.

To alleviate this you must shorten the third (upper) link of your tractor. This raises the rear gangs up and lowers the front gangs down.

If you have a valley in the middle or two ridges on each side as pictured below:



The front gangs are throwing more dirt out than the rear gangs are pulling in.

To alleviate this you must lengthen the third (upper) link of your tractor. This raises the front gangs up and lowers the rear gangs down.

gangs up and lowers the rear gangs down.

The lower links of the tractor need to be level with each other and low enough to let the disk cut full depth. The speed of the tractor and the third (upper) link is the main adjustments that change the profile of the dirt after disking.

LUBRICATION

The bearings should be greased every 24 hours of operation minimum. Just a few pumps or until you see grease coming out through the gap between the Protect-O-Shield® washer and the bearing inner race. You can not blow the seals with this style bearing design. NOTE: It is highly recommended to grease the disk completely before putting it up for the season. The grease will protect the seals from contact with rain water while the disk is sitting idle.

SEEDER & DRAGBOARD

The seeder and dragboard kit adds versatility to your LTF100. The seeder should be cleaned and stored out of the weather when not in use. The dragboard should also be removed, especially if disk is doing primary tillage work in high obstacle conditions, or folded up on disk.

⚠ CAUTION: Do not back up with the dragboard down. This will bend or break the dragboard kit. NOTE: If fertilizer is spread with the seeder, the entire unit needs to be washed thoroughly. The seeder, disk, and dragboard kit are made of steel and the fertilizer will corrode it quickly. If you get corrosion, clean it and put some primer paint or grease on it.

You need to cut a piece of plywood to set on top of the disk when you want to use the seeder. This board serves two main purposes: 1) a safe place to stand while you are pouring seed and fertilizer into the seeder, and 2) a storage deck for bags of seed during planting. Make it so you can remove it during primary tillage work in high obstacle conditions. You can slip on the steel frame and hurt yourself in the disk gangs if you do not put a platform for loading seed into the seeder.

⚠ Always put disk on the ground and turn tractor off in park position before putting seed into the seeder.

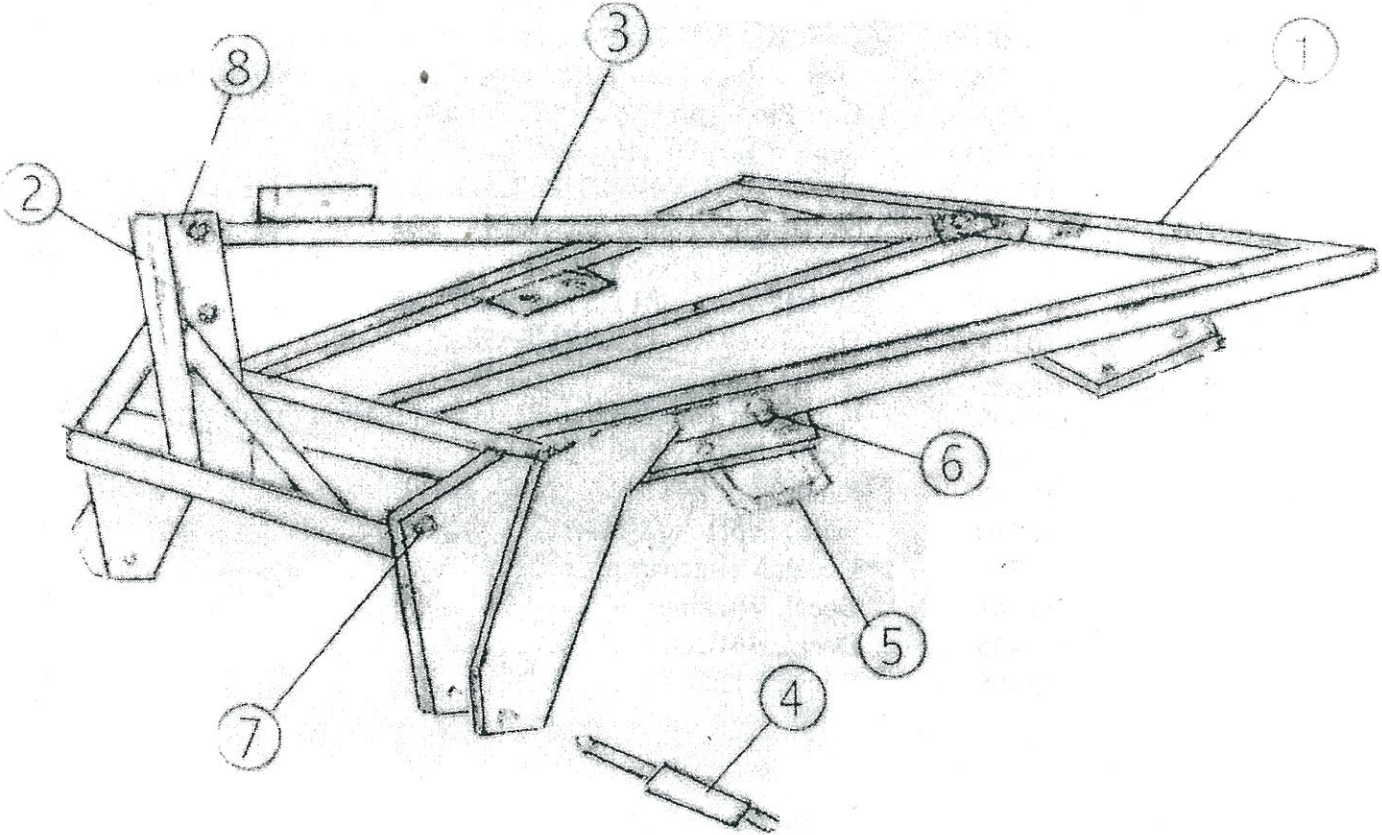
The dragboard kit has multiple adjustments. These are to help you set the kit for different

The dragboard kit has multiple adjustments. These are to help you set the kit for different diameter disc blades. You can not back up the disk with the dragboard down. It will break. You can tilt the disk back with the third link, or set the dragboard to be lower than the disc blades. It is best to do a short run with the tractor to make sure you are putting out the amount of seed that is needed. Not enough seed - slow the tractor down. Too much seed - speed the tractor up. Once you have the right speed put the dragboard down and adjust it to cover the seeds.

AMCO Model LTF100
 SERIES DISK HARROW
 Main Frame 6' & 7'3"

Ref. No.	Part No.	Description	No. Req'd
1	20618	Main Frame Assembly	1
2	20619	A-Frame Hitch Assembly	1
3	20605	Back Post Bar Assembly	1
4	102602	Lower Hitch Pin	2
5	7205	U-Bolt 3/4" Dia.	6
6	10300	Lock Nut 3/4 NC, PLT, GR-B ..	2
7	11692	Hex Bolt 7/8 x 2 NC, PLT, GR-5	2
8	10113	Hex Bolt 3/4 x 4 NC, PLT, GR-5	2
Not Shown:			
	7397	Upper Hitch Pin, 1"	1
	10317	Klick Pin 1/4"	4
	10696	Hex Bolt 3/4 x 7 NC, PLT, GR-5	1
	10910	Roll Pin	1
	11691	Flanged Lock Nut 7/8 NC, PLT	2
	12069	Flanged Lock Nut 3/4 NC, PLT	13
	100683	Lock Pin 3/4 Dia. Hot Roll - 9 1/2" Long	1
	11716	Decal, Maintenance	1
	11741	Decal, Warning	
	12369	Decal, BrushMaster	

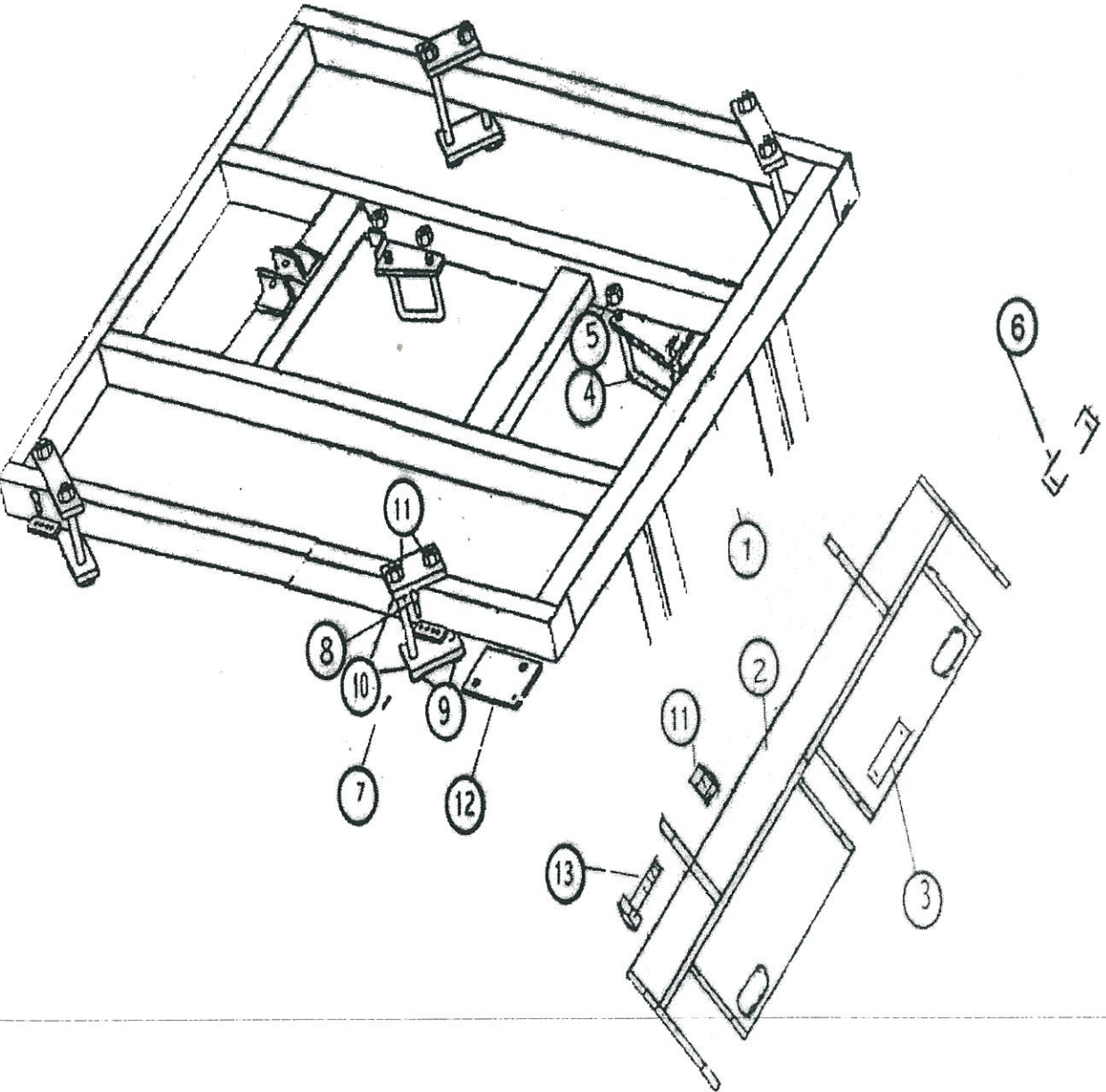
AMCO Model LTF100
 SERIES DISK HARROW
 Main Frame 6' & 7'3"



AMCO Model LTF 100
 SERIES DISK HARROW
 Main Frame 8'7" & 10'2"

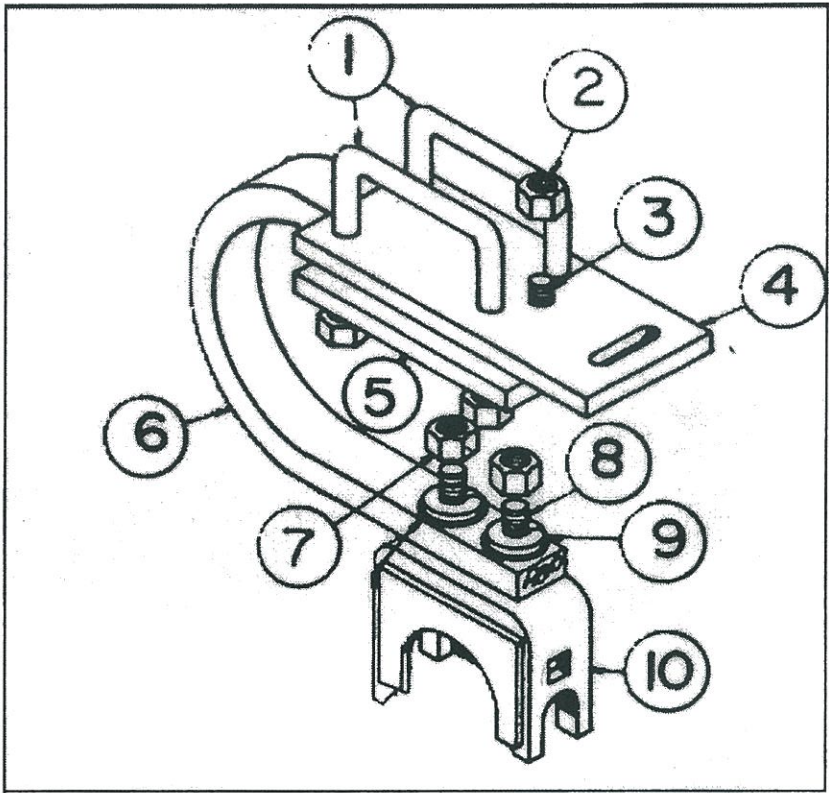
Ref. No.	Part No.	Description	No. Req'd
1	20606	Main Frame Assembly	1
2	20604	A-Frame Hitch Assembly	1
3	0871	Upper Hitch Pin 1" Dia. C-1045 CF 5" Long	1
4	7205	U-Bolt 3/4" Dia. - 14" Long	4
5	10300	Lock Nut 3/4" Dia. NC, PLT, GR-B	10
6	102558	Lower Hitch Pin - 1-1/8" Dia. C-1045, 5-13/16 " Long	2
7	11967	Hair Pin Clip	4
8	101967	Set Pin 1/2" Dia. Hot Roll - 2-1/2" Long	4
9	11102	Hex Bolt 7/8 x 10 NC, PLT, GR-2	8
10	101936	Set Bracket 3/4 x 3 Flat Bar 7-1/2" Long	8
11	10396	Lock Nut 7/8 NC, PLT, GR-B	10
12	102000	Spacer Mount 1/4 x 5 Flat Bar 7" Long	4
13	10189	Hex Bolt 7/8 x 3 NC, PLT, GR-5	2
Not Shown:			
	20605	Back Post Bar (Same as #3 on Small Main Frame)	1
	10113	Hex Bolt 3/4 x 4 NC, PLT, GR-5	2
	10317	Klick Pin 1/4"	3
	10910	Roll Pin 5/16 x 2-1/4	2
	11716	Decal, Maintenance	1
	11741	Decal, Warning	1
	10465	Decal, AMCO	3
	12368	Decal, LTF100	1

AMCO Model LTF100
 SERIES DISK HARROW
 Main Frame 8'7" & 10'2"



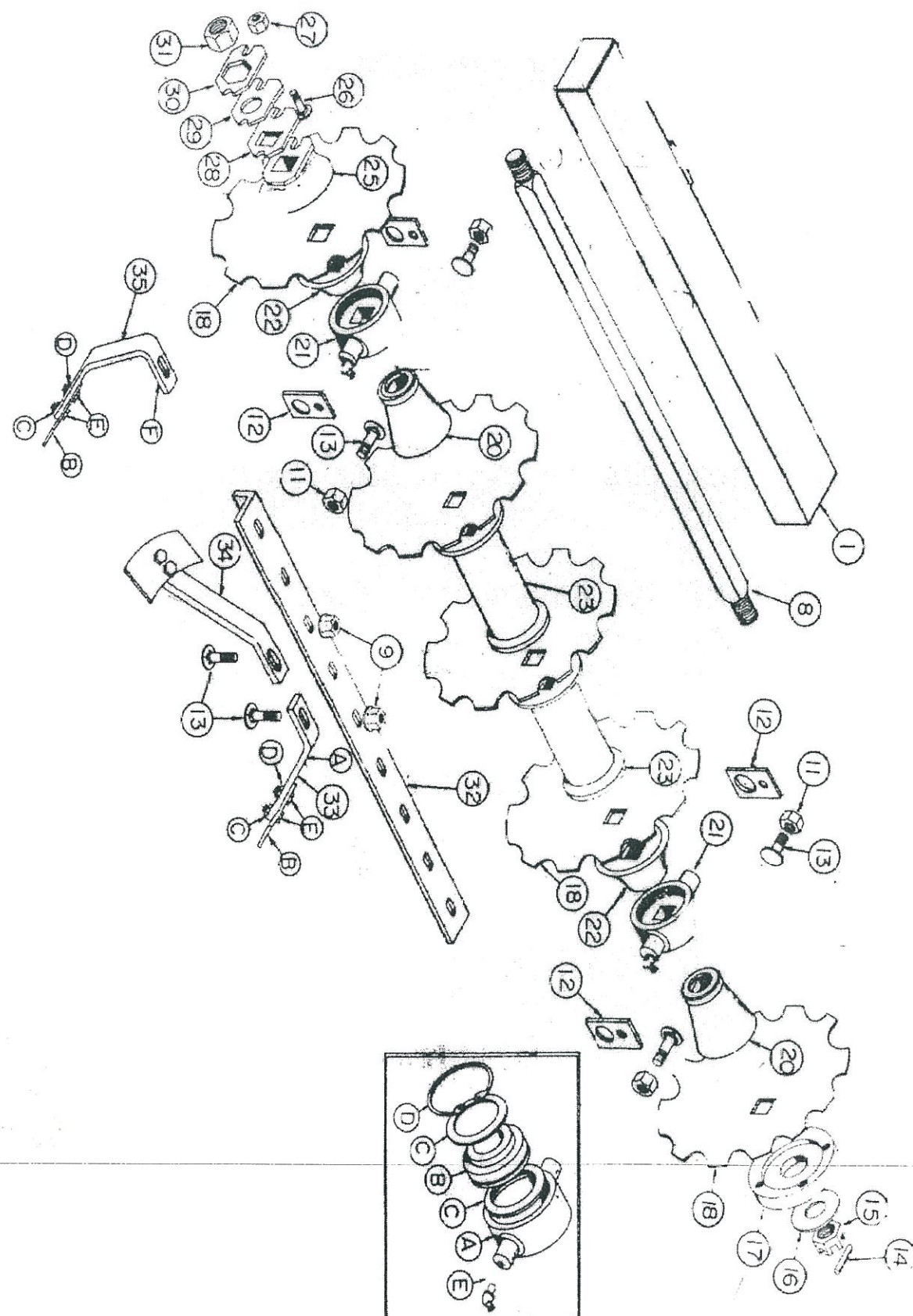
AMCO Model LTF100
SERIES DISK HARROW
6' - 10'2"

Flex Riser



Flex Riser

Ref. No.	Part No.	Description	No. Req'd
1	12335	U-Bolt	2
2	10300	Lock Nut 3/4 NC, PLT, GR-B	1
3	10727	Hex Bolt 3/4 x 3 NC, PLT, GR-B	1
4	102596	Top Plate 1/2 x 5 Flat Bar - 11" Lg.	1
5	102597	Bottom Plate 1/2 x 5 Flat Bar - 7-3/4 Lg. ...	1
6	11521-A	Flex Gang Shank 1-1/4 x 2	1
7	12069	Flanged Lock Nut 3/4 NC, PLT, GR-G ...	2
8	10579	Carriage Bolt 3/4 x 3 NC, PLT, GR-5	2
10	0944	Assy. Trunnion Mount	1



AMCO Model LTF100

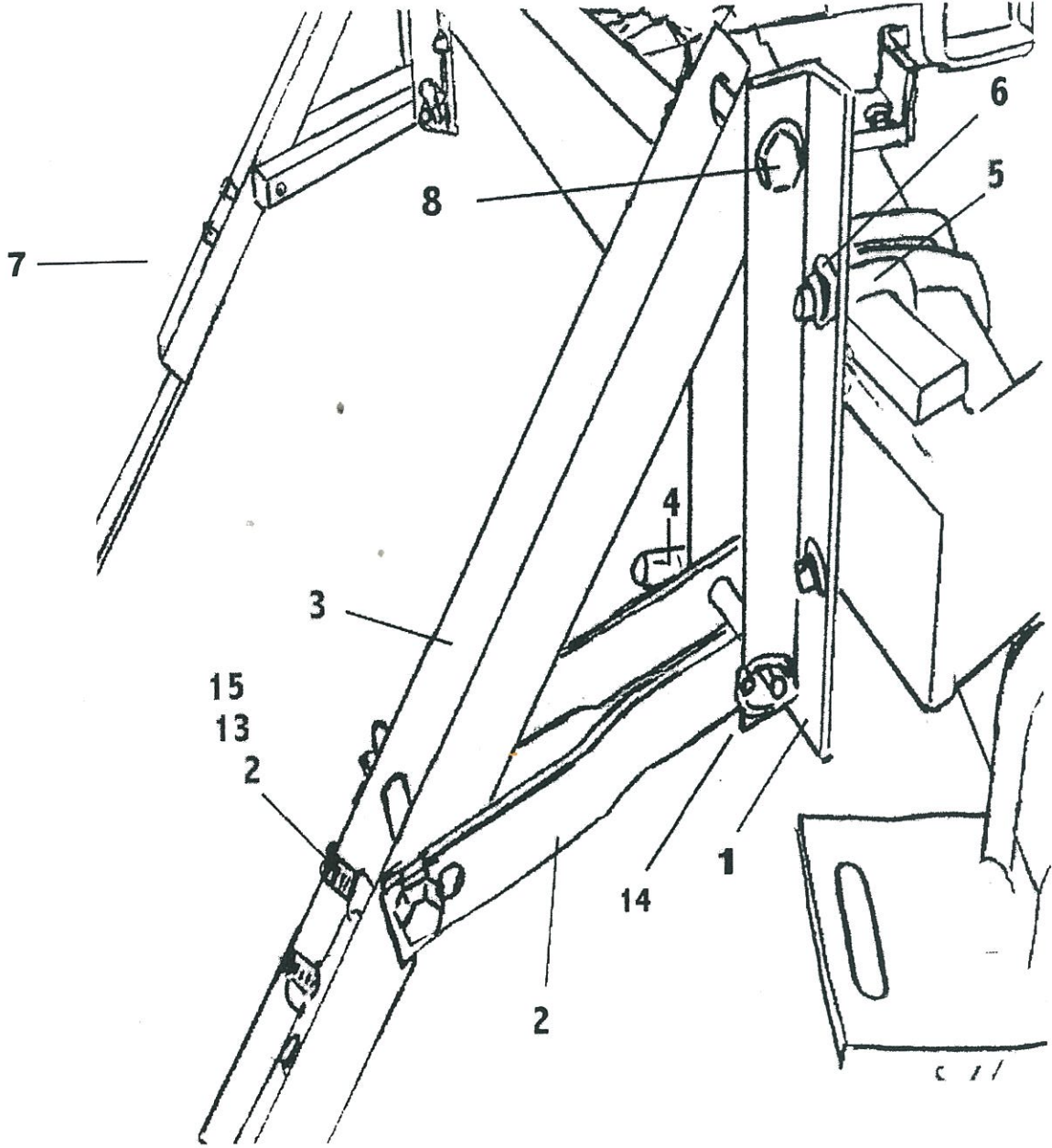
SERIES DISK HARROW

6' - 10'2"

Ref. No.	Part No.	Description	No. Req'd			
			16	20	24	28
			Bl	Bl	Bl	Bl
1	102630	Gang Frame 16-Bld. Front R. H.	1			
1	102631	Gang Frame 16-Bld. Center				
1	102632	Gang Frame 16-Bld. Rear L. H.	1			
1	102633	Gang Frame 20-Bld. Front R. H.				
1	102634	Gang Frame 20-Bld. Center		1		
1	102635	Gang Frame 20-Bld. Rear L. H.		1		
1	20609	Gang Frame 24-Bld. Front			2	
1	20610	Gang Frame 24-Bld. Rear, 28-Bld. Front .			2	2
1	20611	Gang Frame 28-Bld. Rear				2
8	9440	Gang Bolt (4-Bld.) 16-Bld. Unit	4			
8	9441	Gang Bolt (5-Bld.) 20-Bld. Unit		4		
8	9442	Gang Bolt (6-Bld.) 24-Bld. Unit			4	
8	9443	Gang Bolt (7-Bld.) 28-Bld. Unit				4
9	11646	Flanged Lock Nut 1/2" NC, PLT, Gr-G ...	12	16	20	24
11	10299	Lock Nut 5/8 NC, PLY	16	16	16	16
12	9628	Trunnion Clamp	16	16	16	16
13	10135	Carriage Bolt - 5/8 x 1-3/4 NC, PLT, GR-5	28	32	36	40
14	10910	Roll Pin 5/16 x 2-1/4	4	4	4	4
15	10226	Slotted Nut 1-1/2" NF	4	4	4	4
16	10872	Flat washer 1-3/8" PLT	4	4	4	4
17	2404	Bumper Washer	4	4	4	4
18	12356	Blade	8	10		
18	12357	Blade	8	10		
18	3275	Blade			16	20
18	9487	Blade			6	6
18	12219	Blade			2	2

AMCO Model LTF100
SERIES DISK HARROW
6' - 10'2"

Ref. No.	Part No.	Description	No. Req'd			
			16	20	24	28
			Bl	Bl	Bl	Bl
20	17014	Small End Bell	8	8	8	8
21	FB-09-0015	Bearing & Housing Complete	8	8	8	8
	A	16003.....Bearing Housing.....1 each				
	B	11503.....Bearing.....1 each				
	C	100104.....Washer.....2 each				
	D	11064.....Retainer Ring.....1 each				
	E	12384.....Straight Grease Fitting.....1 each				
22	17010	Large End Bell	8	8	8	8
23	0522	Spacer Spool	4	8	12	16
25	1222-A	End Gang washer	4	4	4	4
26	10710	Carriage Bolt ½ x 2 NC, PLT, Gr-5	4	4	4	4
27	10395	Lock Nut 1/2" NC, PLT, GR-B	4	4	4	4
28	100099	Spacer Plate	4	4	4	4
29	100098	Bearing Plate	4	4	4	4
30	5622-A	Lock Plate	4	4	4	4
31	10489	Gang Bolt Nut 1-1/2 NF	4	4	4	4
32	9476	Scraper Bar 2 x 2 x 3/8 Angle - 33-5/16" Lg. ..	4			
32	9475	Scraper Bar 2 x 2 x 3/8 Angle - 42-1/2" Lg. ...		4		
32	9548	Scraper Bar 2 x 2 x 3/8 Angle 51-11/16 (6-Bld.)			4	
32	9549	Scraper Bar 2 x 2 x 3/8 Angle 60-7/8 (7-Bld.) ..				4
33	0788	Scraper RH.	6	8	10	12
34	0789	Scraper LH.	6	8	10	12
35	0824	Special Scraper RH				
35	0825	Special Scraper LH				
	A	100271..... Leg Scraper				
	B	100270.....Blade Scraper				
	C	10395.....Lock Nut				
	D	10395.....Lock Nut				
	E	11652.....Bolt				
	F	100368.....Leg Special Scraper				

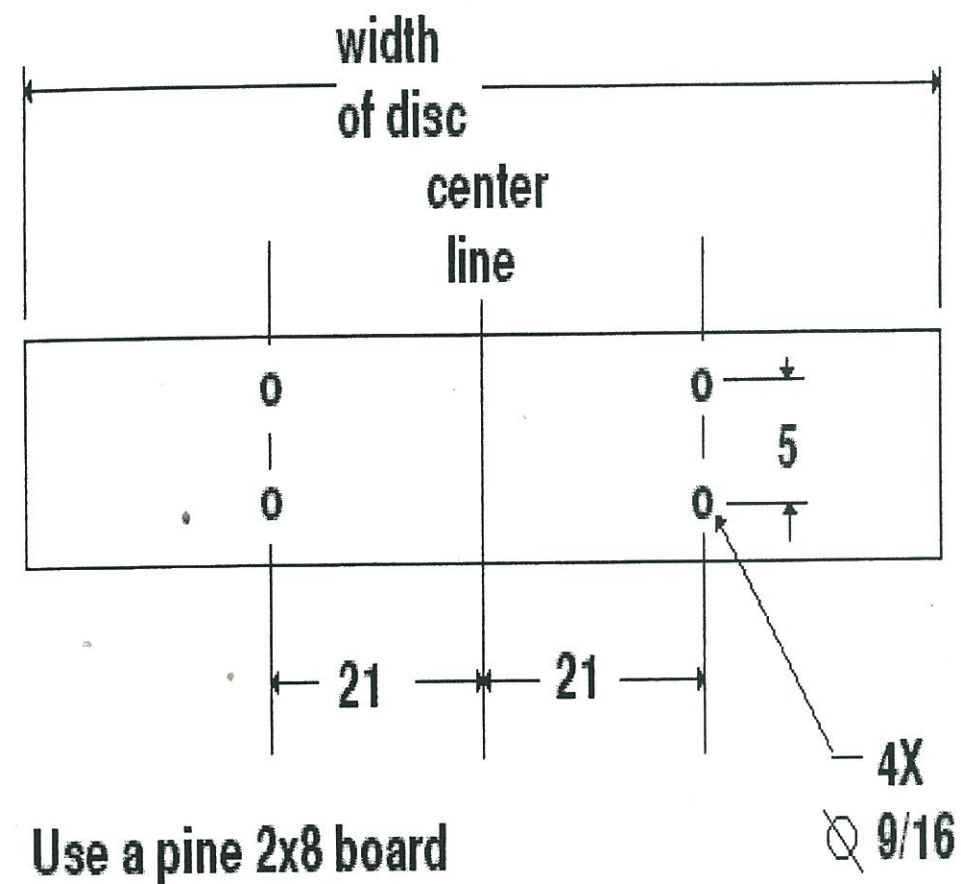


AMCO Model LTF100

SERIES DISK HARROW

Drag Board Kit

Ref. No.	Part No.	Description	No. Req'd
1	102591	Bracket 2 x 2 x 3/8 Angle - 10-1/2" Lg.	4
2	102593	Link Mount 1/4 x 1-1/2 Flat Bar - 13" Lg.	4
3	102592	Spring Mt. Bar 4 x 3 x 1/4 WT - 24" Lg.	2
4	102601	L-Pin 5/8 Dia. Hot Roll - 7" Lg.	2
5	12349	U-Bolt 1/2 x 4 x 3-1/2	4
6	11646	Flanged Lock Nut 1/2" NC, PLT	8
7	12143	Leaf Spring	2
8	10666	Hex Bolt 5/8 x 5 NC, PLT, GR-5	4
9	10299	Lock Nut 5/8 NC, PLT, GR-B	4
10	12350	Carriage Bolt 1/2 x 3 NC, PLT, GR-5	4
11	10832	Flat washer 1/2" PLT	4
12	10097	Hex Bolt 1/2 x 2-1/2 NC, PLT, GR-5	4
13	10786	Lock Washer 1/2" PLT	8
14	10317	Klick Pin 1/4"	2
15	10787	Hex Nut 1/2" NC. PLT	8



Drag Board Sketch

MOST OFTEN ENCOUNTERED DISK BLADE FAILURES

Most disk blade failures can be prevented by selecting the correct blade size and thickness for individual conditions when buying a disk. Reduction of speed in areas containing rocks and stumps will greatly lengthen the blade life. Keeping gang bolts properly torqued and raising the harrow while turning will also reduce disk blade breakage.

FIGURE 1 — Laminated Disc—defective steel. Eligible for warranty consideration.

SURFACE VIEW

EDGE VIEW

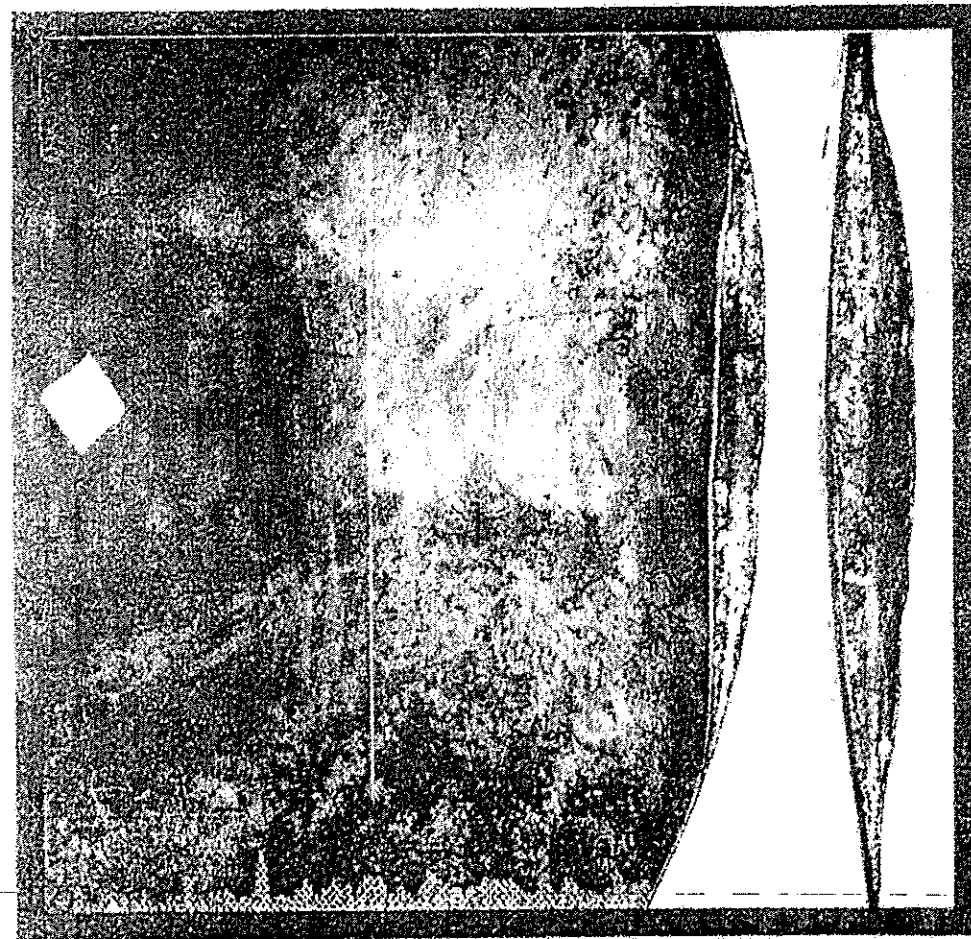


FIGURE 2 — Straight directional break caused by defective steel. Eligible for warranty consideration.

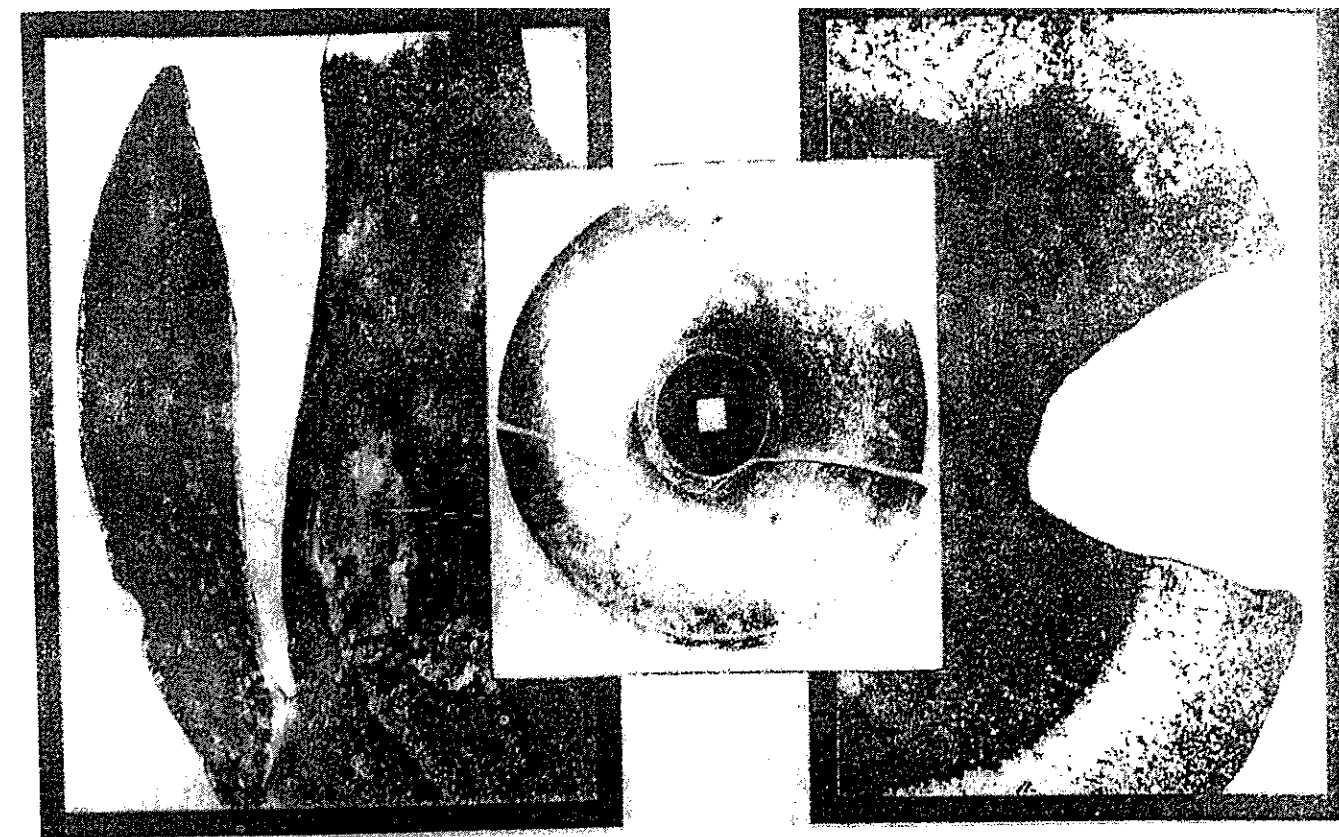
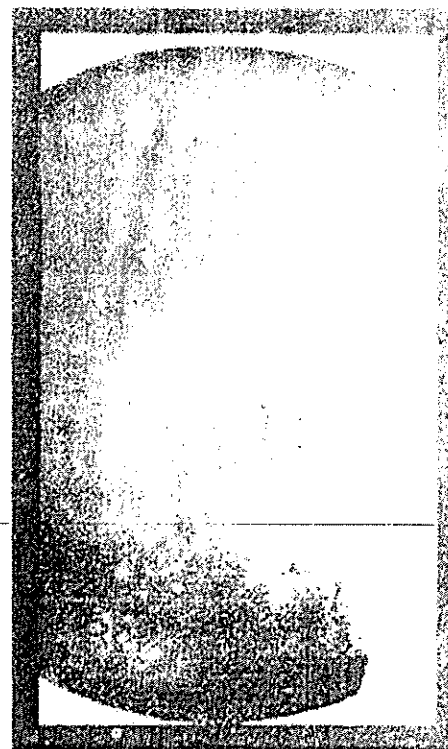


FIGURE 3, 4, 5 Irregular breaks caused by contact against rocks or stumps. Not covered by warranty.



FIGURE 6 — Chipped or dented edges resulting from use in areas containing rocks or stumps. Not covered by warranty.










FIGURE 7 — Center broken out—Experience has shown that this is usually caused by loose bolts, excessive flexing or by contact with rocks and stumps. Not covered by warranty.

GENERAL TORQUE SPECIFICATION TABLE (Revised 2-74)

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

Note: These values apply to fasteners as received from supplier, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly-disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

SAE Grade No.		2	5			8 *		
Bolt head identification marks as per grade NOTE Manufacturing Marks Will Vary								
		Torque	Torque			Torque		
Bolt Size		Foot Pounds	Foot Pounds			Foot Pounds		
Inches	Millimeters	Min Max	Min	Max	Min	Max	Min	Max
1/4	6.35	5 6	9	11	12	15		
5/16	7.94	10 12	17	20.5	24	29		
3/8	9.53	20 23	35	42	45	54		
7/16	11.11	30 35	54	64	70	84		
1/2	12.70	45 52	80	96	110	132		
9/16	14.29	65 75	110	132	160	192		
5/8	15.88	95 105	150	180	220	264		
3/4	19.05	150 185	270	324	380	456		
7/8	22.23	160 200	400	480	600	720		
1	25.40	250 300	580	696	900	1080		
1 1/8	25.58		800	880	1280	1440		
1 1/4	31.75		1120	1240	1820	2000		
1 3/8	34.93		1460	1680	2380	2720		
1 1/2	38.10		1940	2200	3160	3560		

* Thick nuts must be used with Grade 8 bolts

* Thick nuts must be used with Grade 8 bolts

**ALL BOLTS SHOULD BE TIGHTENED TO THE
RECOMMENDED TORQUES SHOWN IN THE
"GENERAL TORQUE SPECIFICATION TABLE"**