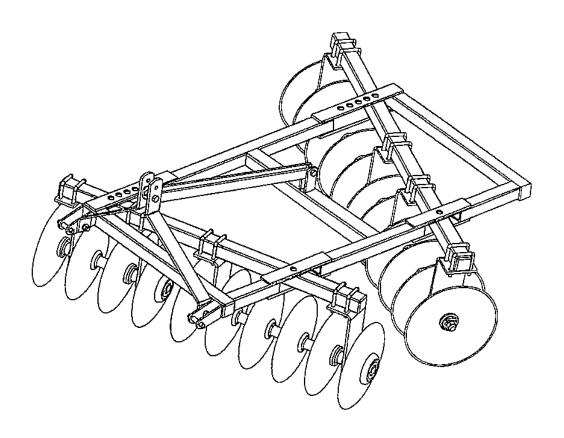




SERIES 600 OFFSET HARROW



OWNER'S MANUAL

TABLE OF CONTENTS

WARRANTY	1
SAFETY SYMBOLS & SIGNAL WORDS	2
GENERAL INFORMATION	3
BOLT TORQUE CHART	3
SPECIFICATIONS	4
SAFETY RULES	5 - 6
SAFETY DECALS & LOCATIONS	7
INTRODUCTION	8
ASSEMBLY	8
BEFORE OPERATION	88
OPERATION	9
ATTACHING	9
TRACTOR STABILITY	9
TRANSPORTING	9
ADJUSTMENTS	9 - 10
MAINTENANCE	10
STORAGE	10
MAIN FRAME COMPONENTS	11 - 12
DISC GANG COMPONENTS	13

TO THE DEALER:

The disc harrow assembly and proper installation to the tractor is the responsibility of the TAYLOR PITTSBURGH dealer. Read manual instructions and safety rules. Make sure all items on the Predelivery and Delivery Check Lists are completed before releasing equipment to the owner.

TO THE OWNER:

Read this manual before operating your TAYLOR PITTSBURGH disc harrow. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer or by calling 1-423-745-3110, in the USA and Canada only.

The disc harrow you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the disc harrow and tractor.

For service, your authorized TAYLOR PITTSBURGH dealer has trained mechanics, genuine TAYLOR PITTSBURGH service parts, and the necessary tools and equipment to handle all your needs.

Provide this information to your dealer to obtain correct repair parts.

LIMITED WARRANTY

TAYLOR PITTSBURGH MFG., INC., the manufacturer, warrants only to the Original Purchaser that this equipment, under normal use and service, will be free from defects in material and workmanship for one (1) year from date of purchase providing this equipment is purchased for individual and not for commercial use. Warranty for commercial usage is 90 days. This warranty does not apply to any equipment which has been damaged or which has been subjected to abuse, misuse, negligence, abnormal wear and tear, alterations, tampering, or failure to follow operating instructions. This warranty does not cover any product or parts not manufactured by Taylor Pittsburgh Manufacturing, Inc..

Under this warranty, the manufacturer will repair or replace any part which the manufacturer determines has failed during the period of the warranty due to defects in material or workmanship. After approval by the manufacturer, the equipment or defective part must be returned to Taylor Pittsburgh Mfg., Inc., Athens, Tennessee 37371.

PURCHASER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, OTHER DEFECT, OR CONDUCT GIVING RISE TO LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT SOLD, AND THE MANUFACTURER UNDER NO CIRCUMSTANCES SHALL BE LIABLE FOR ECONOMIC LOSS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

Taylor Pittsburgh Mfg., Inc. reserves the right to make improvements and changes in specifications without notice or obligation to modify previously sold units.

This manual describes the proper assembly procedures for your disc harrow and furnishes operating and maintenance recommendations to help you obtain long and satisfactory service.

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



SAFETY ALERT SYMBOL

FIG. 1: This is the safety alert symbol. It means ATTENTION: BECOME ALERT! YOUR SAFETY IS INVOLVED! Look for it, both in this manual and on safety decals on the equipment. It will direct your attention to information that involves your safety and the safety of others.

SIGNAL WORDS

FIG. 2: The words DANGER, WARNING or CAUTION are used with the safety alert symbol. Learn to recognize these safety alerts, and follow the recommended precautions and safe practices.



DANGER: The safety alert symbol, with the word DANGÉR, indicates an imminently hazardous situation that, if not avoided, will cause DEATH OR VERY SERIOUS INJURY.



WARNING: The safety alert symbol, with the word WARNING, indicates a potentially hazardous situation that, if not avoided, could cause DEATH OR SERIOUS INJURY.



CAUTION: The safety alert symbol, with the word CAUTION, indicates a potentially hazardous situation that, if not avoided, may cause a MINOR INJURY.

Replace any DANGER, WARNING, CAUTION or instructional decal that is not readable or is missing. The location and part number of these decals is identified later in the section of the manual.

IMPORTANT:

The word IMPORTANT is used to identify special instructions or procedures which, if not strictly observed could result in damage to, or destruction of the machine, process or its surroundings.



Figure 1



Figure 2

GENERAL INFORMATION

READ THIS MANUAL carefully to learn how to properly operate and service your harrow correctly. Failure to do so could result in personal injury or equipment damage.

Throughout this manual references are made to right and left direction. RIGHT - HAND AND LEFT - HAND sides are determined by standing behind the harrow facing the direction the harrow will travel when going forward.

The purpose of this manual is to assist you in operating and maintaining your harrow. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying operating conditions.

However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.Maintain your harrow with original equipment repair parts to optimum performance.

The illustrations and data used in this manual were current at the time of printing, but due to possible production changes, your machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification.

BOLT TORQUE CHART





GRADE 5



GRADE 8



TORQUE IN FOOT POUNDS (NEWTON METERS)

BOLT SIZ	ZE	3/8	1/2	5/8	3/4	7/8	1
HEX HEA	۸D	9/16	3/4	15/16	1-1/8	1-5/16	1-1/2
G	2	18 (24.4)	45 (61.0)	89 (120.7)	160 (216.9)	252 (341.6)	320 (433.9)
R	5	30 (40.6)	68 (92.2)	140 (189.8)	240 (325.4)	360 (488.1)	544 (737.5)
D E	8	40 (54.2)	100 (135.6)	196 (265.7)	340 (460.9)	528 (715.1)	792 (1073.8)

SPECIFICATIONS

Model	5-1/2 ft.			6-1/2 ft.			
Wodei	18" Disc	20" Disc	22" Disc	18" Disc	20" Disc	22" Disc	
Cutting width - in. (mm)	66 (1676)	66 (1676)	66 (1676)	78 (1981)	78 (1981)	78 (1981)	
Max. Cutting Depth - in. (mm)	6 (152)	7 (178)	8 (203)	6 (152)	7 (178)	8 (203)	
Hitch type		CAT I			CATI		
Tractor D.B. HP		30-45			40-60		
Number of Discs		19			21		
Disc Blade Spacing - in. (mm)	7-1/2	(190) or 9	(228)	7-1/2 (190) or 9 (228)			
Disc Blade Diameter - in.(mm)	18 (457)	20 (508)	22 (558)	18 (457)	20 (508)	22 (558)	
Angling Degrees	10 - 28			10 - 28			
Blade Material	Heat Trea	ited High Cai	rbon Steel	Heat Treated High Carbon Steel			
Frame Type – in. (mm)	3 (76	.2) Square T	ubing	3 (76.2) Square Tubing			
Gang Tube – in. (mm)	3 (76	.2) Square T	ubing	3 (76.2) Square Tubing			
Gang Axles – in. (mm)	1 (25.4) Sq. High Carbon Steel		1 (25.4) Sq. High Carbon Steel				
Bearing Type	Maintena	ince Free Se	aled Brg.	Maintenance Free Sealed Brg.			
Approximate Weight							
With 7-1/2" Spacing – Ibs. (kg)	809 (365)	855 (386)	980 (442)	851 (384)	935 (422)	1040 (470)	
**With 9" Spacing – lbs. (kg)							
Approximate weight per blade			•	_			
With 7-1/2" Spacing – lbs. (kg)	42 (19.21)	45 (20.31)	51 (23.26)	40 (18.28)	44 (20.09)	49 (22.38)	
**With 9" Spacing – lbs. (kg)							

^{**}Weights for 9" Spacing not available at time manual printed

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Your personal safety is a primary concern in the design and manufacture of our products. Our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said "The best safety device is an informed, careful operator." We ask you to be that kind of an operator.

The design of this equipment depends on it being operated within the limitations as explained in this manual.

TRAINING

- Safety Instructions are Important! Read this manual and the tractor manual; follow all safety rules and safety decal information. (Replacement manuals are available from dealer.) Failure to follow instructions or safety rules can result in serious injury or death.
- If you do not understand any part of this manual and need assistance, see your dealer.
- Know your controls and how to stop engine and attachment quickly in an emergency.
- The operator must be instructed in and be capable
 of the proper operation of the equipment, its
 attachments and all controls. Do not allow anyone to
 operate this equipment without proper instructions.
- Do not allow children or untrained persons to operate equipment.

PREPARATION

- Always wear close fitting clothing and personal protection equipment called for by the Job conditions. These items may include a hard hat, safety glasses, goggles or face shield, hearing protection and safety boots. DO NOT wear loose clothing, jewelry or any other items that may be entangled in moving parts. Tie up long hair.
- Ensure implement is properly mounted, adjusted and in good operating condition.

- Tighten all bolts and nuts and check that all cotter pins are installed securely to ensure equipment is properly assembled before operating.
- Tractor must be equipped with ROPS FRAME or ROPS CAB and seat belt. Keep seat belt securely fastened. Failing off tractor can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.
- Remove accumulated debris from this equipment, tractor and engine to avoid fire hazard.
- Ensure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- Ensure shields and guards are properly installed and in good condition. Replace if damaged.
- A minimum 20% of a tractor and harrow weight must be on tractor front wheels with attachment in transport position. Without this weight, tractor could tip over causing personal injury or death. See your tractor operators manual for information regarding adding weight.

OPERATIONAL SAFETY

- Keep bystanders away from equipment while it is in operation.
- · Operate only in daylight or good artificial light.
- Always comply with all state and local lighting and marking requirements.
- Use caution when working around sharp objects such as disc blades, tines, etc.

(Safety Rules continued on following page)

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

- · No riders are allowed on equipment.
- Always sit in tractor seat with seat belt fastened when operating controls or starting engine. Place transmission in park or neutral, engage brake and ensure all other controls are disengaged before starting tractor engine.
- Look down and to the rear and make sure area is clear before operating in reverse.
- · Do not operate on steep slopes.
- Do not stop, start or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Watch for hidden hazards on the terrain during operation.
- Stop tractor and implement immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operation.
- When performing any service or maintenance, disengage power to implement. Lower all raised components to the ground. Operate valve levers to release any hydraulic pressure. Stop engine, set parking brake and remove key before dismounting tractor.

- Frequently check blades. They should be sharp, free of nicks and cracks and securely fastened.
- Do not handle blades with bare hands. Careless or improper handling may result in serious injury.
- Your dealer can supply genuine replacement blades.
 Substitute blades may not meet original equipment specifications.

TRANSPORTING SAFETY

- Use a Slow-Moving-Vehicle (SMV) emblem and proper lighting on the tractor when transporting the disc harrow.
- Do not transport the harrow over 20 MPH (30 KPH) on the best surface conditions. Reduce speed when approaching ditches or corners.
- Always comply with all state and local lighting and marking requirements.
- · Raise harrow to highest position for transport.
- Keep your harrow in proper working condition.
 Unauthorized modifications to the harrow may impair the function, affect harrow life, and put you at risk. Do not add excessive weight to harrow.
 Additional weight could cause frame to fail resulting in loss of control of harrow/tractor during transport.
- Watch low hanging Overhead Power Lines during transport. Avoid contact as this can cause serious injury or death.

MAINTENANCE SAFETY

- Before working underneath, raise disc harrow to highest position and block securely. Blocking up prevents disc harrow dropping from hydraulic leak down, hydraulic system failures, or mechanical failure on the tractor.
- Keep all persons away from operator control area while performing adjustments, service or maintenance.

STORAGE

- Lower disc harrow to the ground for storage and block to prevent rolling.
- Store on a level surface sheltered from the weather.
- Coat soil engaging surfaces with a rust inhibitor after cleaning.
- Keep playing children and bystanders away from storage area.

SAFETY DECALS



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! Replace immediately If Damaged!

DECAL LOCATIONS

The following safety decals are located on your implement. Read them and follow their instructions for your safety. Keep all decals in place and legible. Replace worn or missing decals. Replacement safety decals are available through your dealer. Order by number listed.

▲ CAUTION

READ YOUR OWNERS MANUAL USE SAFE OPERATING PRACTICES MAX. TRANSPORT SPEED - 20 MPH_

009537 on front cross member of frame

INTRODUCTION

This manual covers the assembly, operation, and maintenance of your Series 600 Disc Harrow. Studying and obeying these Instructions will Insure optimum product performance and longevity. Be sure to read all instructions carefully. Read all safety precautions prior to operation.

Maintain your implement with original repair parts to insure optimum performance.

MODIFICATIONS

It is the policy of the manufacturer to Improve its products whenever possible and practical. We reserve the right to make changes, improvements, and modifications at any time without incurring the obligation to make such changes, improvements, and modifications on any implement sold previously.

ASSEMBLY

General

Your Series 600 Disc Harrow is shipped completely assembled except for the three point hitch. Choose a level area to arrange the parts conveniently. Assemble parts for each step loosely to insure fit. Use flatwashers with slotted holes. Always use lockwashers unless a lock nut is called for. Tighten hardware after parts are installed according to the torque chart given. Unless otherwise stated, all hardware is Grade 5. The following

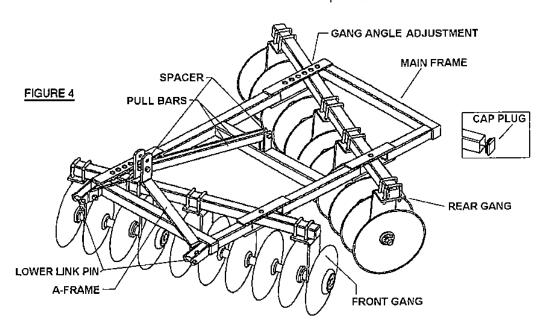
assembly steps are given to minimize the need for adjustment after assembly. Remember that LEFT and RIGHT are determined by standing at the rear of the implement and facing it.

MODEL 600 Hitch Assembly (Refer to Fig 4)

- 1) Remove bundle wire on the hitch from the main frame.
- 2) Attach the A-frame bars to the inside of the inner pull lugs using the 3/4" bolts, lockwashers and nuts.
- Bolt pull lugs to A-Frame bars using bolt and spacer provided.
- Check all hardware to see that it is in position and tight.

BEFORE OPERATION

- Tighten all loose hardware using the torque chart.
 SEE ASSEMBLY. Replace any missing hardware. On new machines, all hardware must be rechecked after first few hours of operation.
- 2) Replace any bent or broken parts.
- 3) Refer to your Tractor's Owner's Manual for recommended adjustments and weight distribution.
- 4) Read the SAFETY section of this manual to be sure of all precautions.



OPERATION

Your personal safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said "The best safety device is an informed, careful operator." We ask you to be that kind of an operator.

The operator is responsible for the proper operation of this disc harrow. The operator must be properly trained. Operators should be familiar with the disc harrow and tractor and all safety practices before starting operation. Read the safety information on pages 5 through 6.

Tractor Stability (Figure 5)

WARNING

A minimum 20% of combined tractor and harrow weight must be on tractor front wheels with attachment intransport position. Without this weight, tractor could tip over causing personal injury or death. See your tractor operators manual regarding adding weights.

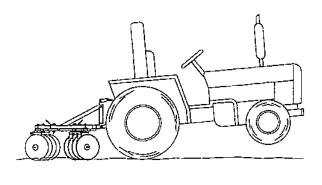


Figure 5

ATTACHING

 Back tractor to align lower link arms with implement link pins.

WARNING

Be sure bystanders are clear. Do not stand between harrow and tractor. Shut off tractor and engage parking brake prior to dismounting.

- 2) Connect lower link arms to harrow using link pins provided. Secure with click pins.
- 3) Connect top link to harrow using a pin. Secure with click pins.

TRANSPORTING

- 1) Transport harrow lifted high above ground.
- 2) Travel at a speed suitable for terrain and other conditions. Transport at speeds compatible with safety and no more than 20 MPH (30 KPH). Use care when transporting on rough terrain.
- 3) Avoid night travel on public roads. If unavoidable, be sure to use adequate lighting on tractor and implement. Always have a Slow Moving Vehicle (SMV) emblem attached to the implement clearly visible from the rear. Check local laws regarding transport on public roads.

ADJUSTMENTS

Side To Side Leveling

The harrow should be leveled from side to side. With the harrow and tractor on level ground, use the tractor's link arm crank to adjust the lower link arm up or down as need to level the harrow.

Front To Rear Leveling

The harrow is leveled front to rear by adjusting the length of the top link of the three point hitch. Shorten the top link to tilt the harrow forward, and lengthen the top link to tilt the harrow backward.

Gang Angle Adjustment

- 1) Lift harrow enough to relieve pressure on gangs.
- Remove bolts and nuts -- adjust gangs to desired angle.

3) Reinstall bolts and nuts at new position.

Adjusting Front Gang Spacing

- 1) Loosen the U-bolts holding the front disc gangs to the gang tubes.
- 2) Make sure bearing hangers are square with the gang tubes and retighten U-bolts.

Adjusting For Ridging or Furrowing

- 1) Loosen the U-bolte holding the rear disc gangs to the gang tubes and move both gangs out if the harrow is ridging and in if the harrow is not filling the furrow left by the front gangs. Be sure to move both gangs the same amount.
- 2) Make sure bearing hangers are square with gang tubes and retighten U-bolts.

MAINTENANCE

Before Each Use

- 1) Your Series 600 Harrow is equipped with triple lipped sealed bearings which do not require lubrication.
- 2) Check over entire implement to see that all bolts are in place and tight.

After First Few Hours of Use

The disc gangs are torqued at the factory but can become loose during the first use as they seat themselves. Because of this it is necessary to check the disc blades to see they are tight. Do this by lightly striking each blade with a hammer. If a ringing sound is heard, the blade is tight. If a flat sound is heard, the blade is loose and the gang should be retorqued. Do this by removing the cotter pin from the gang bolt nut and torquing the bolt to 500 ft-lbs (667.9 N.m).

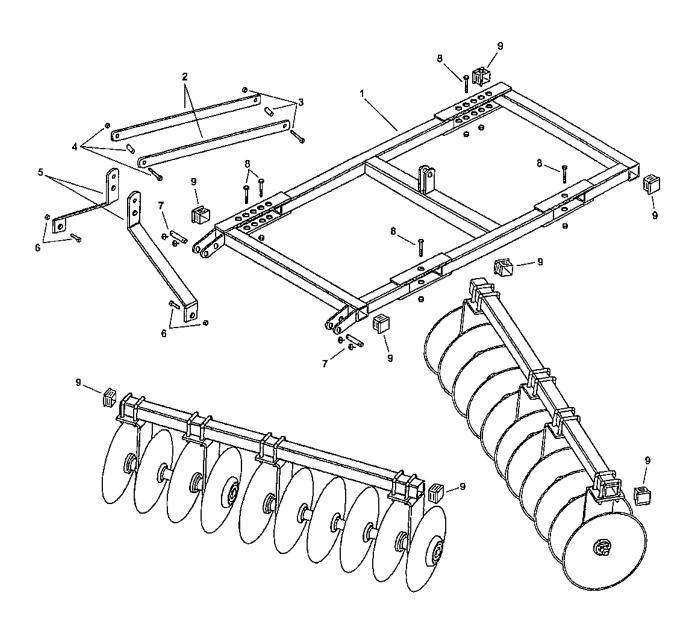
STORAGE

- 1) Clean all dirt and debris from harrow prior to storage.
- 2) Store your harrow on a flat surface shellered from the weather.
- Lower the harrow to the ground and block to prevent rolling.
- 4) For periods of long storage, coat soil engaging surfaces with a rust inhibitor such as grease or oil. Apply touch-up paint to frame where paint is worn or chipped to prevent rusting.

MAIN FRAME COMPONENTS

Item	Part #	Description
1	608100	MAIN FRAME
2	608101	REAR PULL BAR
3	608102	SPACER BUSHING 1-1/4"O.D. X 3/4"I.D. X 2-1/4" LONG
	303707	HHCS 3/4" X 5 – NC Gr.5
	304009	3/4"HEX NUT
	303957	3/4" LOCKWASHER
4	608103	SPACER BUSHING 1-1/4"O.D. X 3/4"I.D. X 2" LONG
	303707	HHC\$ 3/4" X 5 – NC Gr.5
	304009	3/4" HEX NUT - NC
	303957	3/4" LOCKWASHER
5	608104	FRONT A-FRAME STRUT
6	303699	HHCS 3/4" X 2 – NC Gr.5
ĺ	304009	3/4" HEX NUT
	303957	3/4" LOCKWASHER
7	814698	LOWER LINK PIN
	303113	3/8" CLICK PIN
8	303707	3/4" X 5" HHCS – NC Gr.5
	303957	3/4" LOCKWASHER
	304009	3/4" HEX NUT - NC
9	607616	3" PLASTIC CAP PLUG

MAIN FRAME COMPONENTS

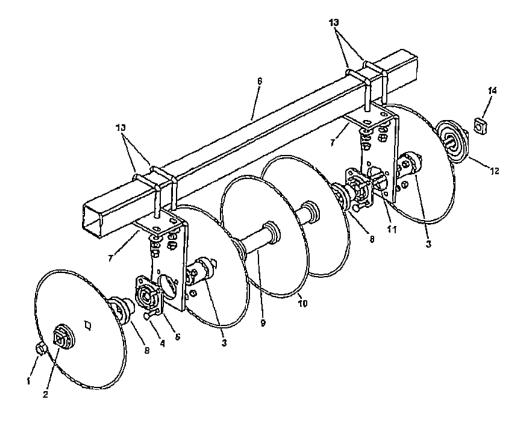


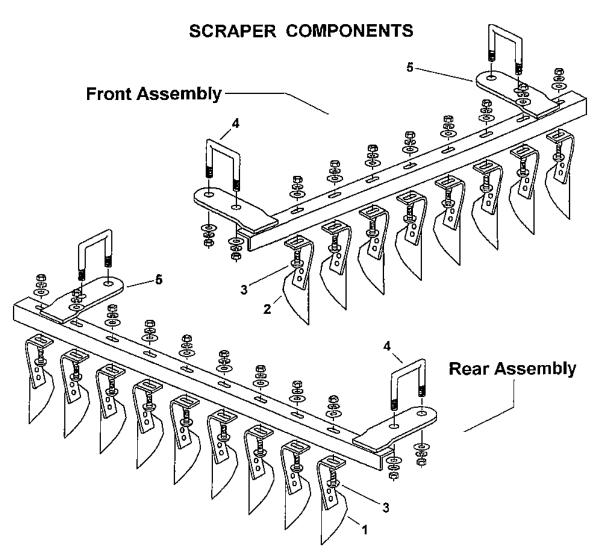
See following page for Disc Gang components

GANG COMPONENTS

Item	Part#	Dascription
1-11-21-11		Description
<u> </u>	304D24	HEX COCK NUT 1º
2	807821	END WASHER 1-5/16"Long
3	507619	HALF SPACER 3-5/8"Long
	808952	HALF SPACER 5-1/8"Long for 5" Sp.
4	003859	CARR/BOLT 1/2"X2-1/2" Gr.5
I [103866	CARR/BOLT 1/2"X3" Gr.5
ł l	303955	LOCK WASHER 1/2"
	304007	HEX NUT 1/2"
<u>5</u>	607727	BRG. DHU ST208-1N
6 [608105	GANG TUBE 3 X 3 X 70°
	808108	GANG TUBE 3 X 3 X 77-3/4'
7	609122	BRG. HANGER
8	607618	HALF SPACER 2-3/8"Long for 7-1/2"Sp.
9	607617	FULL SPACER 7'
L . ſ	810612	FULL SPACER 9"
10	607837	18" ROUND DISC
	60763B	18° CUT OUT DISC

[tem	Part#	Description
10	607835	20" ROUND DISC
1	607628	20° CUT OUT DISC
j	60B120	22" ROUND DISC
<u>L</u>	608121	22" CUT OUT DISC
11	607726	AXLE 26-1/2* 4-disc 7-1/2* specing
	607828	AXLE 33-3/4" 6-disp 7-1/2" spacing
	607627	AXLE 41-3/4" 6-disc 7-1/2" spacing
	BDB941	AXLE 31-1/4" 4-disc 9' specing
	808942	AXLE 40-1/4" 5-disc 9" spacing
	808936	AXLE 49-1/4" 6-disc 9" spacing
12	807820	BUTT PLATE for 7" Spacing
	208613	BUTT PLATE for 9' Spacing
13	607615	U-BOLT 5/8'X4-1/2'
	303972	FLAT WASHER 6/8"
	303956	LOCK WASHER 5/8"
	30400B	HEX NUT 5/B'
14	304078	SQUARE NUT 1" varies upon axte





Item	Part #	Description
1	807099	R.H. SCRAPER ASSEMBLY
2	807098	L.H. SCRAPER ASSEMBLY
3	303859	CARRIAGE BOLT 1/2" X 1-1/2"
' [303971	FLATWASHER 1/2"
	303955	LOCKWASHER 1/2"
	304007	HEX NUT 1/2"
4	608905	U-BOLT 5/8" X 5-1/2"
	303972	FLATWASHER 5/8"
	303956	LOCKWASHER 5/8"
	304008	HEX NUT 5/8"
5	608911	SCRAPER BAR R.H. REAR 10-D 9-S (7-1/2" SP)
	608912	SCRAPER BAR L.H. FRONT 9-D 8-S (7-1/2" SP)
5	608924	SCRAPER BAR R.H. REAR 11-D 10-S (7-1/2" SP)
	608926	SCRAPER BAR L.H. FRONT 10-D 9-S (7-1/2" SP)
	608910	COMPLETE SCRAPER KIT 19-DISC W/7-1/2" SPACING
].	608930	COMPLETE SCRAPER KIT 21-DISC W/7-1/2" SPACING