PARMA COMPANY

PARMA ROLLA-HARROW

PARTS CATALOG

Manual Number 083096-R.H.

Rev 03/04/97

PO BOX 190 * 101 MAIN STREET

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INTRODUCTION

This catalog has been prepared to provide you with the repair parts breakdown information of your PARMA 4-BAR ROLLA-HARROW. We urge you to study this manual carefully in order that you become acquainted with those repair parts needed to assure correct operation of your PARMA Rolla-Harrow.

When it comes to parts and service, keep in mind that your dealer knows your implement well and is interested in your complete satisfaction. Your dealer invites you to call him for your parts and service needs both during and after the warranty period. We encourage you to use genuine PARMA parts that are engineered and designed for your Rolla-Harrow best performance.

We thank you for choosing a PARMA product and want to assure you of our continuing interest in your satisfaction.

CHECKLIST

PRE-DELIVERY

After the machine has been completly assembled and lubricated, inspect it thouroughly to be certain it is operating properly before delivering it to a customer. The following checklist is a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

	Check that machine is assembled according to assembly instructions.
	Check all bolts, nuts and bearing lock collars to be sure they are tight.
	Inspect and if necessary, lubricate all lubrication points; making sure all bearings are taking grease.
	Check all moving parts for smooth operation.
· · · · · · · · · · · · · · · · · · ·	Check to see that 4-bolt flange bearings are positioned with the grease zerk up.
	Check to see that all hydraulic fittings around cylinders, are free of leaks and making sure fittings are tight.
	DELIVERY
	Complete Delivery and Warranty Registration forms, listing serial numbers of machine.
	Have dealer and customer sign form. Explain warranty on back of Title page.
	Show the customer how to operate the Rolla-Harrow.
	Explain adjustments
	Explain the importance of proper lubrication.
	Give the Operator's manual to the customer and ask him to familiarize himself with all sections of it.
	Explain to the customer that when the equipment is transported on a road or highway at night or during the day, accessory lights and devices should be used for adequate warning to operators of other vehicles. Check local governmental regulations.

CHECKLIST cont.

BEFORE EACH SEASON

	Check all cast rings for breakage.
	Check s-tine chisel points for normal wear.
	Check all adjustable components for correct setting.
	Perform complete lubrication of machine.
	With equipment operating, observe operation of moving parts. watch for faulty operation, overheated bearings, and unusual sounds.
	Perform daily checklist.
	DAILY CHECKLIST
	Remove all debris from s-tines, smoothing bar and rollers.
	Lubricate all lubrication points.
	Check for loose or missing bolts or parts.
· .	Check for undue or excessive wear of parts.
	Read safety precautions.

REFERENCE GUIDE

READ ALL OF THE INFORMATION CONTAINED IN THIS GUIDE PRIOR TO USING YOUR ROLLA-HARROW, ALSO OBSERVE AND ADHERE TO ALL WARNING AND OPERATING PLACARDS THAT ARE PLACED ON THE MACHINE ITSELF, AS THESE CONTAIN VALUABLE INFORMATION AS TO THE SAFE AND RELIABLE OPERATION OF YOUR ROLLA-HARROW.

1. BEARINGS

The over greasing of bearings is the most frequent cause of bearing failure. When greasing the sealed Rolla-Harrow bearings, be careful to watch the bearing seals. 1 1/2 pumps of grease from a grease gun should be adequate. You should stop immediately when you see the seal start to swell. If grease comes out of the bearing, you have destroyed the seal. This should then be replaced immediately before using your PARMA Rolla-Harrow. Failure to replace a damaged bearing seal will allow soil to enter bearing and destroy it.

2. HYDRAULIC COMPONENTS

Before operating you PARMA Rolla-Harrow, check all hydraulic components and connections to make sure they are secure and fitting properly. If for any reason you need to replace a hydraulic cylinder or line, before reinstalling the component, make sure the hoses/cylinders are free from any foreign materials. If foreign material is in the line, rinse thoroughly and blow it out to remove it.

If after reinstalling the hydraulic components they do not work, recheck to make sure everything is connected properly. If after checking, the hydraulic components still do not work you may have air in your hydraulic lines. To release the air, loosen one of the main tractor lines slightly, and then re-tighten. You may have to repeat this process several times. If the problem persists, check or replace the tractors plug in receptacles.

If, after taking delivery of your new machine, one of the hydraulic components is defective, immediately contact your PARMA dealership to make arrangements for a replacement.

3. S-TINE TEETH

The S-Tine teeth or your Rolla-Harrow are manufactured using a high grade of steel. After forming and cooling, a shot peened method is used to stress relieve them.

Under normal usage, the S-Tine teeth may last for several years, however the reversible point will usually wear out quicker.

Under normal conditions (after plowing or discing you can pull your PARMA Rolla-Harrow through the field at speeds up to 6mph.

THE TIRES AND WHEELS ON YOUR ROLLA-HARROW ARE FOR TRANSPORTING THE MACHINE ONLY. THEY ARE NOT DESIGNED TO BE USED AS GAUGE WHEELS WHILE OPERATING THE MACHINE IN THE FIELD.

4. ROLLER RINGS (HOE-N-PACK RINGS)

After some usage of your machine, your roller rings will wear, creating a gap on your roller tube. When this occurs, simply add enough new rings to fill this gap. If you do not add more rings to fill in the gap, your existing rings will wear out at an accelerated rate. and breakage will be more frequent.

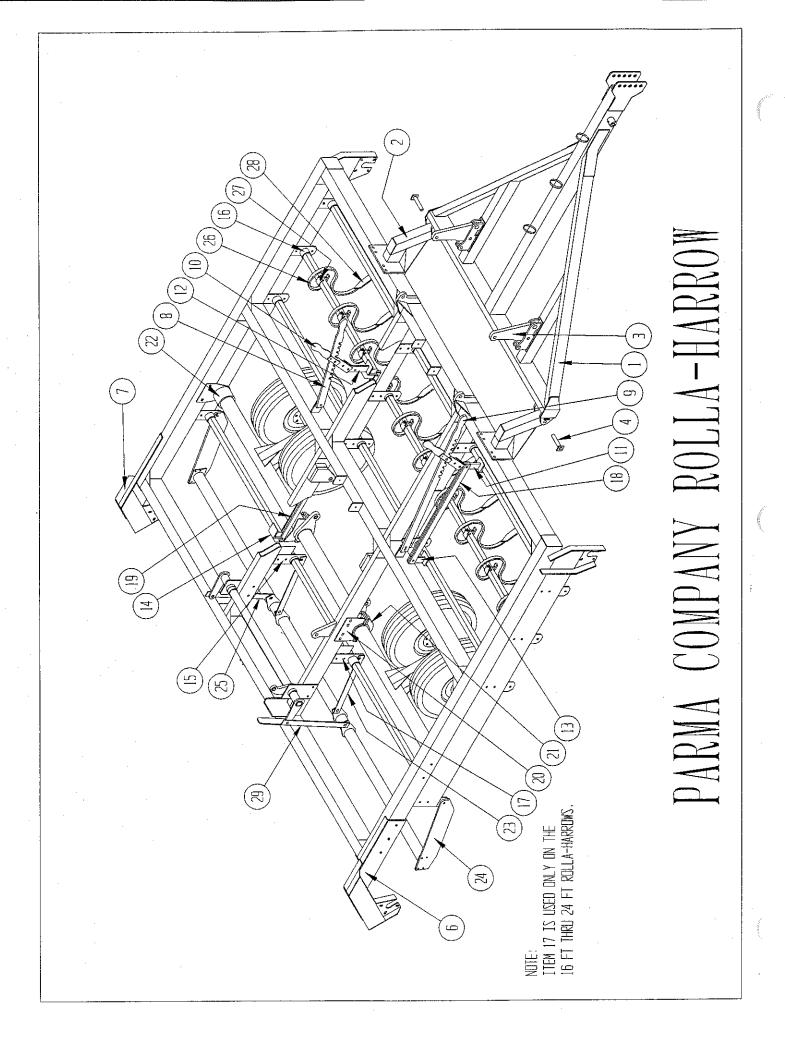
5. TONGUE/ADJUSTMENT

When connecting your Rolla-Harrow to the tractor, make sure the tongue can move freely up and down with the tongue cylinder fully retracted.

After connecting the machine to the tractor, the hydraulic cylinder anchor on the tongue should be level with the tongue itself. If the tongue cylinder anchor leans toward the machine, then you must adjust the tractor end of the tongue pin.

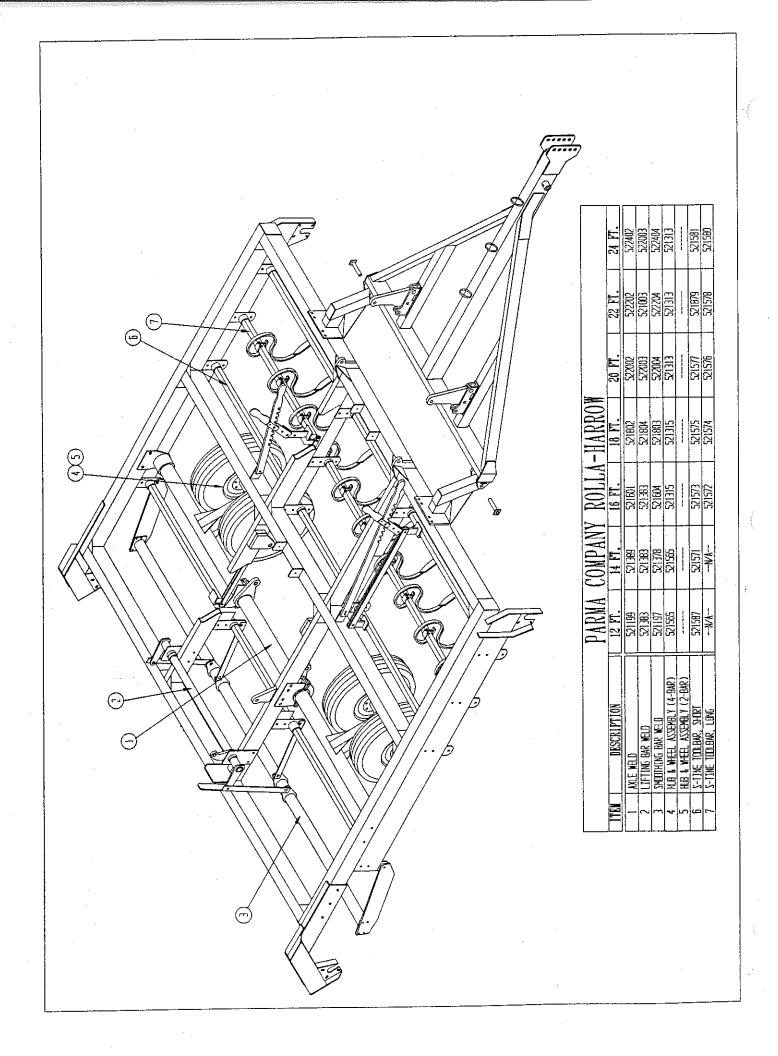
In some conditions, soil will build up under this hydraulic cylinder anchor on the tongue. When this occurs, you must periodically remove this buildup.

PARTS



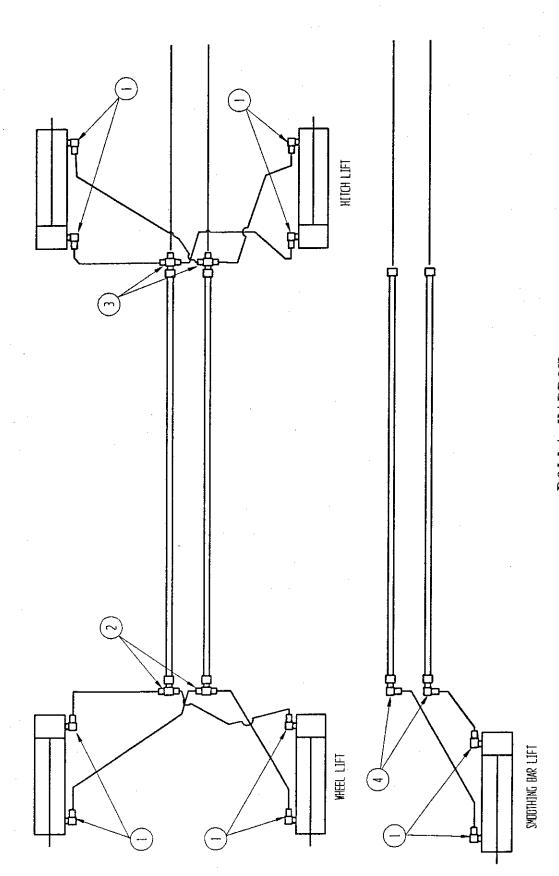
PARMA ROLLA HARROW

ITEM	PART	
NO.	NO.	<u>DESCRIPTION</u> TONGUE
1	521465	TONGUE
2	521474	TONGUE PULL BRACKET
3	521401	CYLINDER ANCHOR
4	521434	TONGUE PIN
5	521409	JACK
6	521433	REAR ROLLER BRACKET R.H.
7	521437	REAR ROLLER BRACKET L.H.
8	521504	TOOLBAR CONTROL RATCHET, SHORT TOOLBAR CONTROL RATCHET, LONG
9	521505	TOOLBAR CONTROL RATCHET, LONG
10	521506	TOOLBAR CONTROL HANDLE
11	521499	TOOLBAR CONTROL CLAMP, BAR 1
12	521514	TOOLBAR CONTROL CLAMP, BAR 2
13	521495	TOOLBAR CONTROL CLAMP, BAR 3 TOOLBAR CONTROL CLAMP, BAR 4
14	521513	TOOLBAR CONTROL CLAMP, BAR 4
15	521407	INNER TOOLBAR BRACKET
16	521411	OUTER TOOLBAR BRACKET LARGE FRAME TOOLBAR BRACKET
17	521423	LARGE FRAME TOOLBAR BRACKET
18	521489	TOOLBAR CONTROL LINKAGE, SHORT TOOLBAR CONTROL LINKAGE, LONG
19	521501	TOOLBAR CONTROL LINKAGE, LONG
20	521402	INNER AXLE BRACKET, TOP
21	521436	INNER AXLE BRACKET, BOTTOM
22	521413	OUTER AXLE BRACKET
23	521374	SMOOTHING BAR LINKAGE
24	521375	SMOOTHING BAR LINKAGE, OUTSIDE
25	521488	SMOOTHING BAR LIFT LINKAGE
	521483	
		S-TINE CLAMP
		CHISEL POINT
29	521533	SMOOTHING BAR LIFT LINKAGE WELD



QUANTITY OF CAST RINGS PER ROLLA-HARROW ROLLER ASSEMBLY'S

SIZE	FRONT QTY.	REAR QTY.	FRONT SPLIT QTY.	REAR SPLIT W/ TAG ALONG QTY.
12 FT	60	60		
**12 FT EXT	60	65		
14 FT	70	70		
**14 FT EXT	70	75		·
16 FT	80	80		
**16 FT EXT	80	85		
18 FT		90	85	
**18 FT EXT		95	85	خبب نيب سه سند شک
20 FT		100	95	
**20 FT EXT		105	95	
22 FT			105	115
**22 FT EXT			105	120
24 FT			115	125
**24 FT EXT			115	130



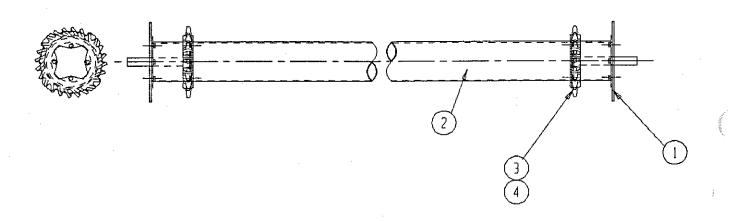
ROLLA HARROW HYDRAULICS

4-BAR ROLLA HARROW CYLINDERS									
		12, 14, 16 FT.	18 FT.	22, 24 FT.					
HITCH	PRT.#	998903	998903	998903					
LIFT	QTY.	2	2	2					
	DESCRIPTION	3 X 8, D-RING PORTS	3 X 8, D-RING PORTS	3 X 8, D-RING PORTS					
SMOOTHING	PRT.#	998903	998401	998903					
BAR	QTY.	1	2	2					
LIFT	DESCRIPTION	3 X 8, O-RING PORTS	2 1/2 X 8, O-RING PORTS	3 X 8, D-RING PORTS					
T IPPI	PRT.#	998903	998401	998903					
VHEEL LIFT	QTY.	2	4	4					
FILI	DESCRIPTION	3 X 8, D-RING PORTS	2 1/2 X 8, D-RING PORTS	3 X 8, D-RING PORTS					

COMMON FITTINGS ON ALL 4-BAR ROLLA HARROWS

ITEN	PRT.#	DESCRIPTION
1 .	6801-NWD-8-8	90 DEG. ELBDW; -8 M D-RING/ -8 M JIC
2	2603-10	TEE: -10 M JIC
3	2650-10	CROSS: -10 M JIC
4	2500-10-8	90 DEG. ELBOW: −10 M JIC/ −8 M JIC

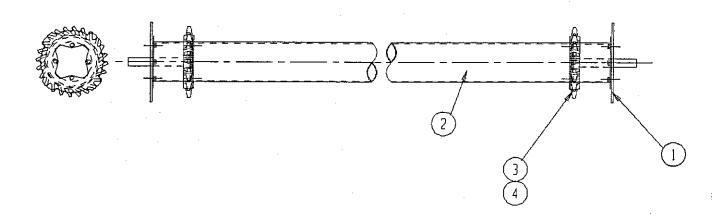
10" RING ROLLER ASSY **



ITEM	DESCRIPTION	12 FT	13 FT	14 FT	15 FT	16 FT	17 FT	18 FT	19 FT	20 FT	21 FT
1	ROLLER END PLATE	521496	521496	521496	521496	521496	521496	521496	521496	521496	521496
2	10" ROLLER WELD	521863	521864	521865	521866	521867	521868	521869	521870	521871	521872
3	CAST RING (10-12-16)	521566	521566	521566	521566	521566	521566	521566	521566	521566	521566
4	CAST RING (10-12-17)	521590	521590	521590	521590	521590	521590	521590	521590	521590	521590

**THE PART SHOWN IS USED AS A
FRONT ROLLER ON THE 12FT, 14FT, 16FT,
AND 18FT ROLLA-HARROWS, IT IS ALSO USED AS A
REAR ROLLER FOR 12FT THROUGH 21 FT.

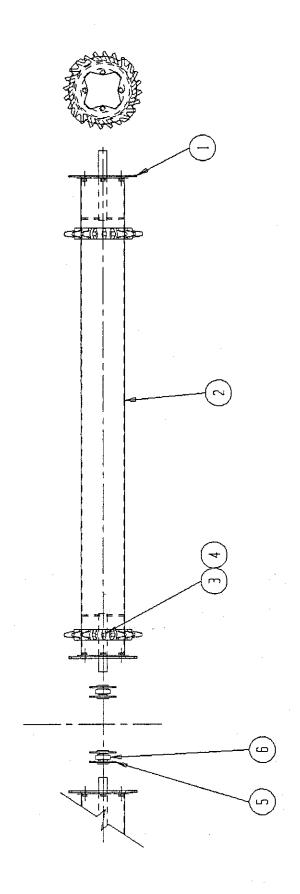
12" RING ROLLER ASSY **



ITEM	DESCRIPTION	12 FT	13 FT	14 FT	15 FT	16 FT	17 FT	18 FT	19 FT	20 FT	21_FT
1	ROLLER END PLATE	521447	521447	521447	521447	521447	521447	521447	521447	521447	521447
2	12" ROLLER WELD	521930	521931	521932	521933	521934	521935	521936	521937	521938	521939
3	CAST RING (10-12-16)	521592	521592	521592	521592	521592	521592	521592	521592	521592	521592

**THE PART SHOWN IS USED AS A
FRONT ROLLER ON THE 12FT, 14FT, 16FT,
AND 18FT ROLLA-HARROWS. IT IS ALSO USED AS A
REAR ROLLER FOR 12FT THROUGH 21 FT.

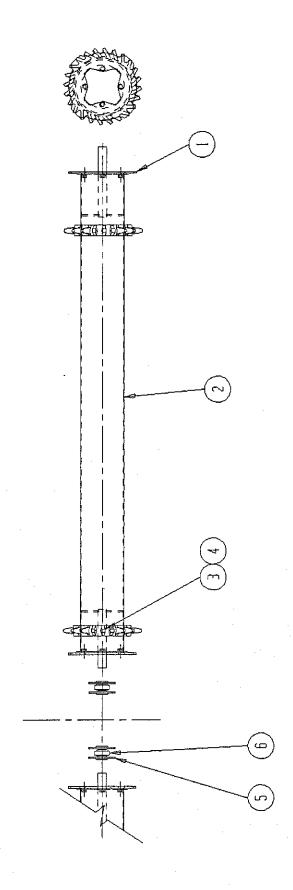
10" FRONT SPLIT-RING ROLLER ASSY**



1496 +*THE PART SHIDIN IS FOR THE FRONT ROLLERS
ON THE 18 FT THROUGH 24 FT, ROLLA-HARROWS

	*					
24 FT	521496	521880	521566	521590	521486	521481
23 FT		***************************************			1	
22 FT	521496	521878	521566	521590	521486	521481
21 FT						
20 FT 21 FT	521496	521876	521566	521590	521486	521481
19 FI						
18 FT 19 FI	521496	521510	521566	521590	521486	521481
DESCRIPTION	ROLLER END PLATE	10" ROLLER WELD	CAST RING (10-12-16)	CAST RING (10-12-17)	FLANGETTE PAIRS 90 MS	1 15/16" BEARING, G115XPPB3
ITEM	-	2	[7	נייט	G

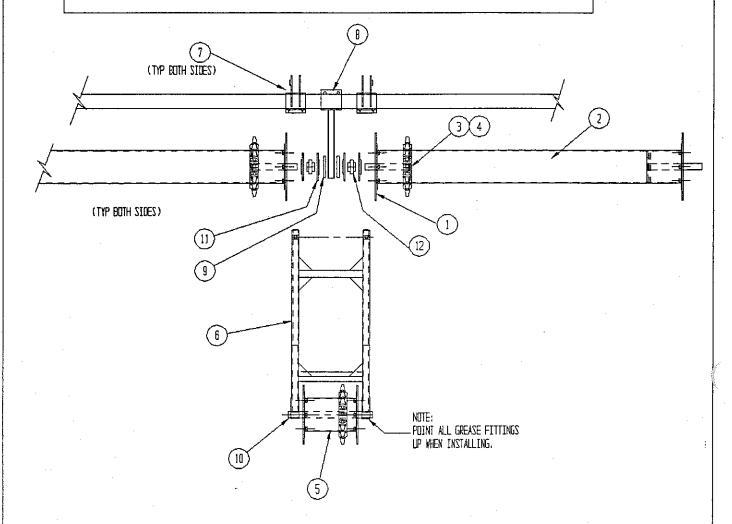
12" FRONT SPLIT-RING ROLLER ASSY**



			·` 			
24 FT	521447	521886	521592		521486	521481
3 FI						
22 FT 23 FT	521447	521884	25125		521486	521481
20 FT 21 FT						
20 FT	521447	28175	265125		521486	521481
19 FT						7 9 9 7 6 6
18 FT 19 FT	521447	521464	251265		521486	521481
DESCRIPTION	ROLLER END PLATE	12" ROLLER WELD	CAST RING (12-14-20)		FLANGETTE PAIRS 90 MS	I 15/16° BEARING, GIJSKPPB3
ITEM	-	2	3	4	r.	9

**THE PART SHOWN IS FOR THE FRONT ROLLERS ON THE 18 FT THROUGH 24 FT, ROLLA-HARROWS

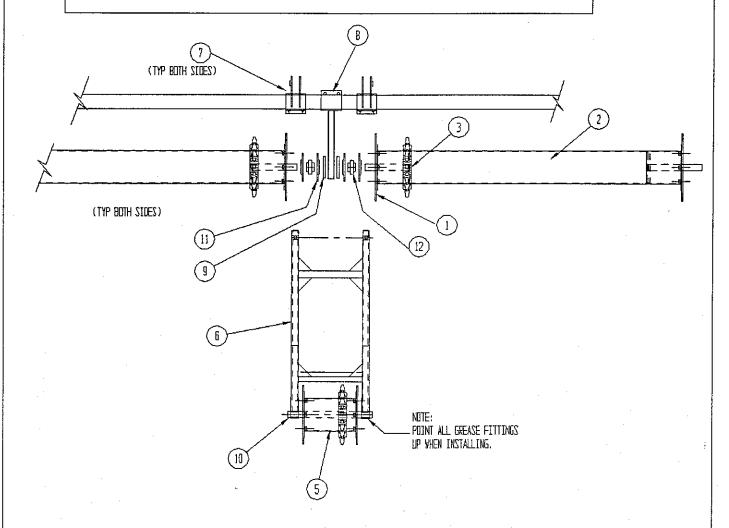
10" REAR ROLLER ASSEMBLY**



ITEM	DESCRIPTION	22 FT	23 FT	24 FT	25 FT
1	ROLLER END PLATE	521496	521496	521496	521496
2	10" SPLIT ROLLER	521878	521879	521880	521881
3	CAST RING (10-12-15)	521566	521566	521566	521566
4	CAST RING (10-12-17)	521590	521590	521590	521590
5	TAG ALONG ROLLER	522397	522397	522397	522397
6	TAG ALDNG FRAME	522410	522410	522410	522410
7	HINGE BRACKET	522407	522407	522407	522407
8	ROLLER MOUNT, REAR	521364	521364	521364	521364
9	BEARING SPACER PLATE	521361	521361	521361	521361
10	PILLOW BLOCK BEARING: 1 15/16° TAK	980020	980020	980020	980020
11	FLANGETTE PAIRS 90 MS	521486	521486	521486	521486
12	1 15/16" BEARING, G115KPPB3	521481	521481	521481	521481

**THE PART SHOWN IS FOR THE REAR ROLLERS
ON THE 22 FT THROUGH 25 FT, ROLLA-HARROWS.

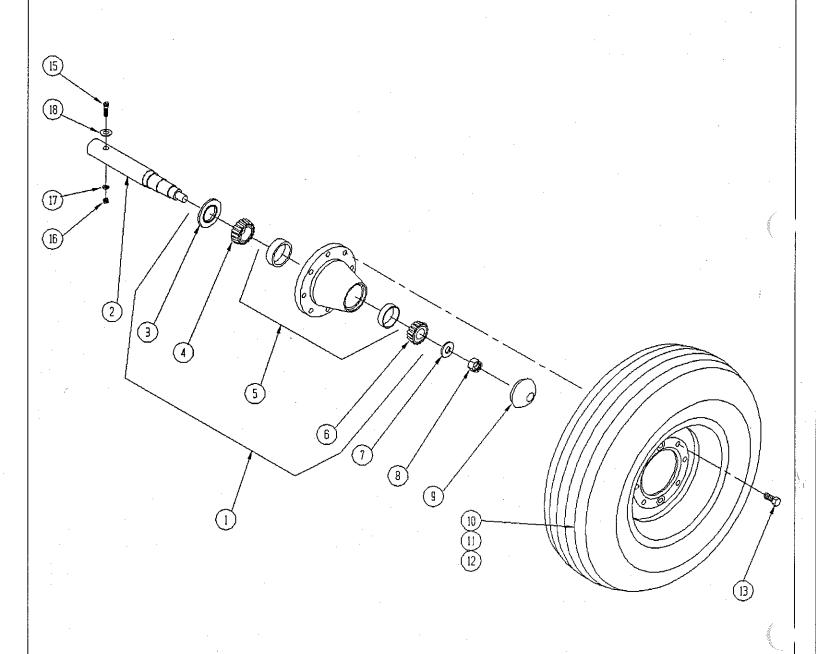
12" REAR ROLLER ASSEMBLY**



ITEM	DESCRIPTION	22 FT	23 FT	24 FT	25 FT
1	ROLLER END PLATE	521447	521447	521447	521447
2	12" SPLIT ROLLER	521884	521885	521886	521887
3	CAST RING (12-14-20)	521592	521592	521592	521592
4					
. 5	TAG ALONG ROLLER	522397	522397	522397	522397
6	TAG ALUNG FRAME	522410	522410	522410	522410
7	HINGE BRACKET	522407	522407	522407	522407
8	ROLLER MOUNT, REAR	521364	521364	521364	521364
9	BEARING SOACER PLATE	521361	521361	521361	521361
10	PILLOW BLOCK BEARING: 1 15/16′ TAK	980020	980020	980020	980020
11	FLANGETTE PAIRS 90 MS	521486	521486	521486	521486
12	I 15/16* BEARING, GI15KPPB3	521481	521481	521481	521481

**THE PART SHOWN IS FOR THE REAR ROLLERS
ON THE 22 FT THROUGH 25 FT, ROLLA-HARROWS.

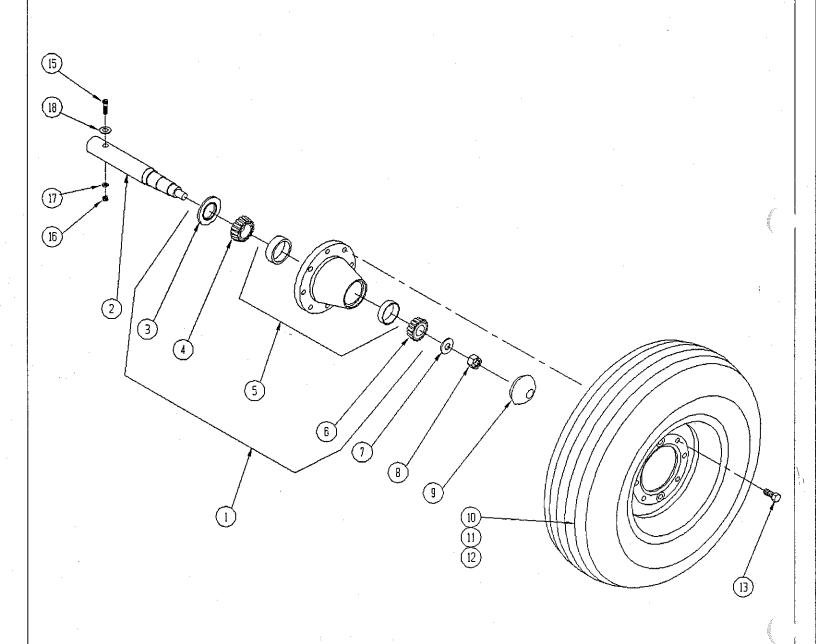
16 FT AND 18 FT 9.50-15" HUB AND WHEEL ASSY. (STANDARD)



16 FT & 18 FT 9.5L-15" STANDARD HUB AND WHEEL ASSEMBLY 521315

ITEM		PART	
NO.	<u>OTY</u>	NO.	DESCRIPTION
1		999981	8 HOLE, HUB ASSY. (ALSO INCLUDES ITEMS 9 & 13)
2	1	521324	HEAVY DUTY SPINDLE
3	1	990094	SEAL
4	1	990000	TAPERED ROLLER BEARING CONE
5	1	999964	WHEEL HUB WITH CUPS
6	1	990002	TAPERED ROLLER BEARING CONE
7	1	999965	FLATWASHER - 7/8
8			CASTELLATED NUT - 7/8
9		999952	
			WHEEL: 8 HOLE x 15
11	1	999974	TIRE: 9.50L-15, 8 PLY
12	1	999974-99	TUBE 15"
13	8	997905	LUG BOLT
14			
15			
	1		HEXBOLT: 3/8-16 UNC X 3 1/2
. 17	1		HEXNUT: 3/8-16 UNC
18	1		LOCKWASHER: 3/8
19	1		FLATWASHER: 3/8
20			

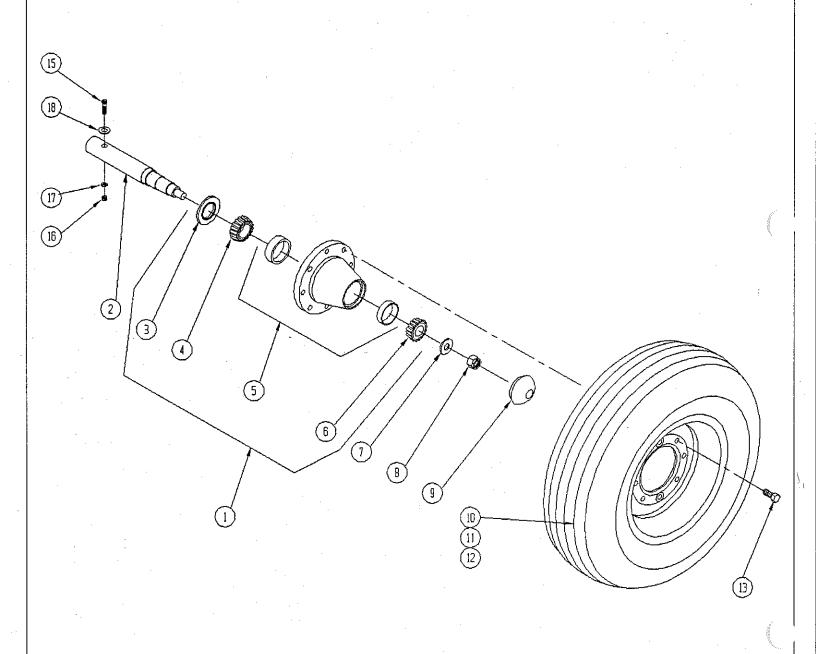
16 FT AND 18 FT 11L-15" HUB AND WHEEL ASSY, (OPTION)



16 FT & 18 FT 11L-15" OPTION HUB AND WHEEL ASSEMBLY 521314

ITEM	[PART	
NO.	<u>oty</u>	NO.	DESCRIPTION
1		999981	8-HOLE, HUB ASSY (ALSO INCLUDES ITEMS 9 & 13)
2		521324	
3	1	990094	SEAL
4	1	990000	TAPERED ROLLER BEARING CONE
5	1	999964	WHEEL HUB WITH CUPS
6	1	990002	TAPERED ROLLER BEARING CONE
7	1	999965	FLATWASHER - 7/8
8	1	999960	CASTELLATED NUT - 7/8
9		999952	
10	1	999986	WHEEL: 8 HOLE X 15"
11	1	999974	TIRE: 11L-15, 12 PLY
12	1	999974-99	TUBE 15"
13	8	997905	LUG BOLT
14			
15			
16	1		HEXBOLT: 3/8-16 UNC X 3 1/2
17	. 1		HEXNUT: 3/8-16 UNC
18	. 1		LOCKWASHER: 3/8
19	1		FLATWASHER: 3/8
20			

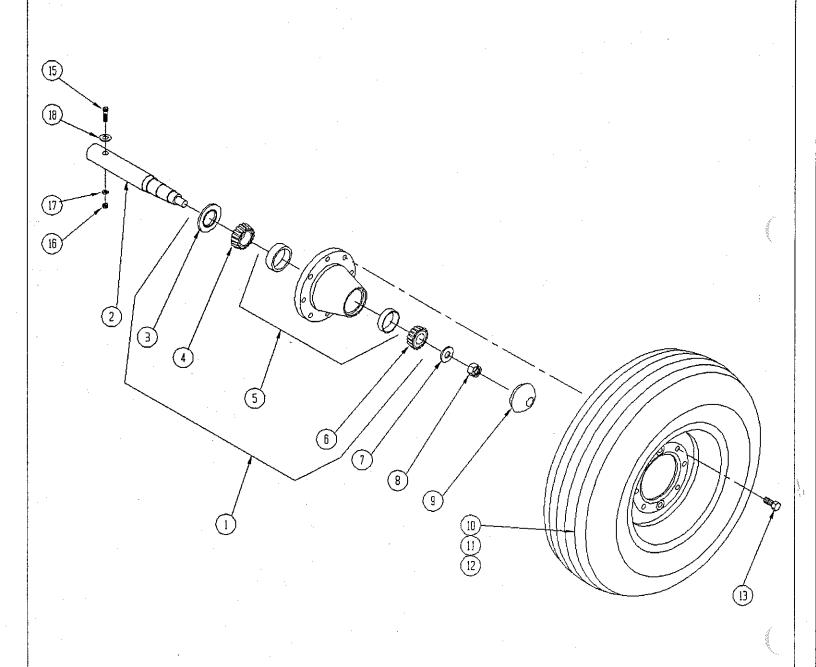
12 FT AND 14 FT 7.60-15" HUB AND WHEEL ASSY. (STANDARD)



12 FT & 14 FT 7.60-15" STANDARD HUB AND WHEEL ASSEMBLY 521565

ITEM		PART	
NO.	OTY	NO.	DESCRIPTION
1		999982	6 HOLE HUB ASSEMBLY (ALSO INCLUDES ITEM 9 & 13)
2	1	521440	SPINDLE
3	1	990099	SEAL
4	1	990004	TAPERED ROLLER BEARING CONE
5	1	999995	WHEEL HUB WITH CUPS
6	1	990006	TAPERED ROLLER BEARING CONE
7	1	999965	FLATWASHER - 7/8
8	1	999960	CASTELLATED NUT - 7/8
9	1	999951	HUB CAP
10	1	999953	WHEEL 15"
11	OPT	999978	TIRE: 7.60 X 15", 8 PLY
12	1	999978-3	TUBE 15"
13	6	999955	LUG BOLT
14			
15	1		HEXBOLT: 3/8-16 UNC X 3 1/2
16	1		HEXNUT: 3/8-16 UNC
17	1		LOCKWASHER: 3/8
18	1		FLATWASHER: 3/8

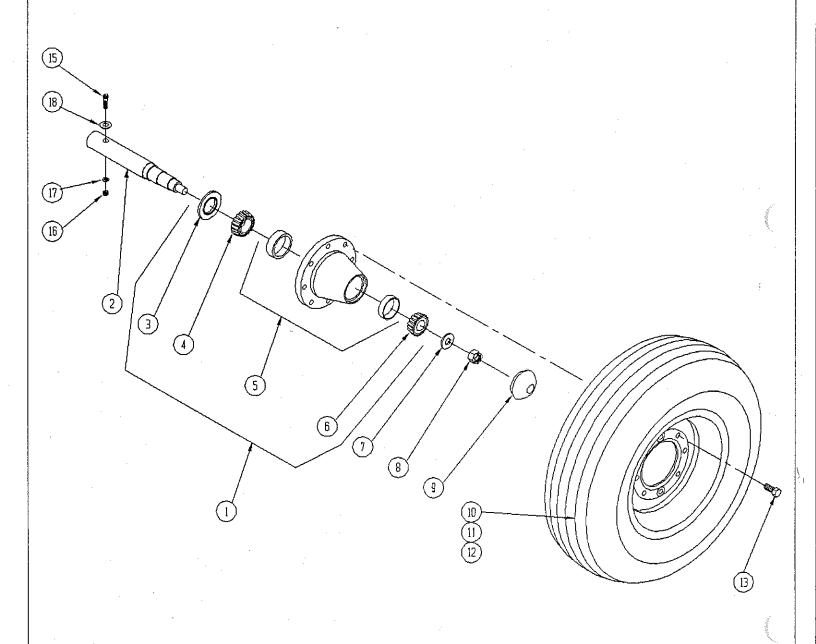
12 FT AND 14 FT 9.50L-15" HUB AND WHEEL ASSY. (OPTION)



12 FT & 14 FT 9.50L-15" OPTION WHEEL AND HUB ASSEMBLY 521304

ITEM		PART	
NO.	OTY	NO.	DESCRIPTION
1		999982	6 HOLE HUB ASSEMBLY (ALSO INCLUDES ITEM 9 & 13)
2	1	521440	SPINDLE
3	1	990099	SEAL
4	1	990004	TAPERED ROLLER BEARING CONE
5	1	999995	WHEEL HUB WITH CUPS
6	1	990006	TAPERED ROLLER BEARING CONE
7	1	999965	FLATWASHER - 7/8
8	. 1	999960	CASTELLATED NUT - 7/8
9	1	999951	HUB CAP
10	1	999950	WHEEL 15"
11	1	999977	TIRE: 9.5L X 15", 8 PLY
12	1	999978-3	TUBE 15"
13	6	999955	LUG BOLT
14			
15	1		HEXBOLT: 3/8-16 UNC X 3 1/2
16	1		HEXNUT: 3/8-16 UNC
17	1		LOCKWASHER: 3/8
18	1		FLATWASHER: 3/8
19			
20			Tex 100 100 100 100

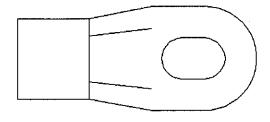
20 FT, 22 FT, AND 24 FT 11L-15" HUB AND WHEEL ASSY. (STANDARD)

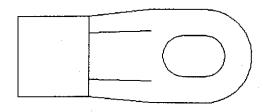


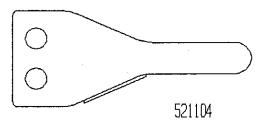
20 FT, 22 FT, AND 24 FT 11L-15" STANDARD HUB AND WHEEL ASSEMBLY 521313

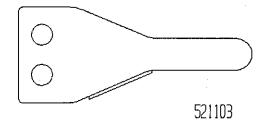
ITEM		PART	
NO.	OTY	NO.	DESCRIPTION
1		999981	8-HOLE, HUB ASSY (ALSO INCLUDES ITEMS 9 & 13)
2	1.	521324	HEAVY DUTY SPINDLE
3	1	990094	SEAL
4	1	990000	TAPERED ROLLER BEARING CONE
5			WHEEL HUB WITH CUPS
6	1	990002	TAPERED ROLLER BEARING CONE
7	1	999965	FLATWASHER - 7/8
8	1	999960	CASTELLATED NUT - 7/8
9	1	999952	HUB CAP
10	1	999986	WHEEL: 8 HOLE X 15"
			TIRE: 11L-15, 12 PLY
12	1	999974-99	TUBE 15"
13	8	997905	LUG BOLT
14			
15			and the sale the sale
16	1		HEXBOLT: 3/8-16 UNC X 3 1/2
17	1		HEXNUT: 3/8-16 UNC
18	1		LOCKWASHER: 3/8
19	1		FLATWASHER: 3/8
20			

HITCH OPTIONS

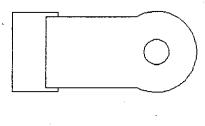


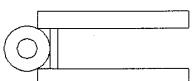




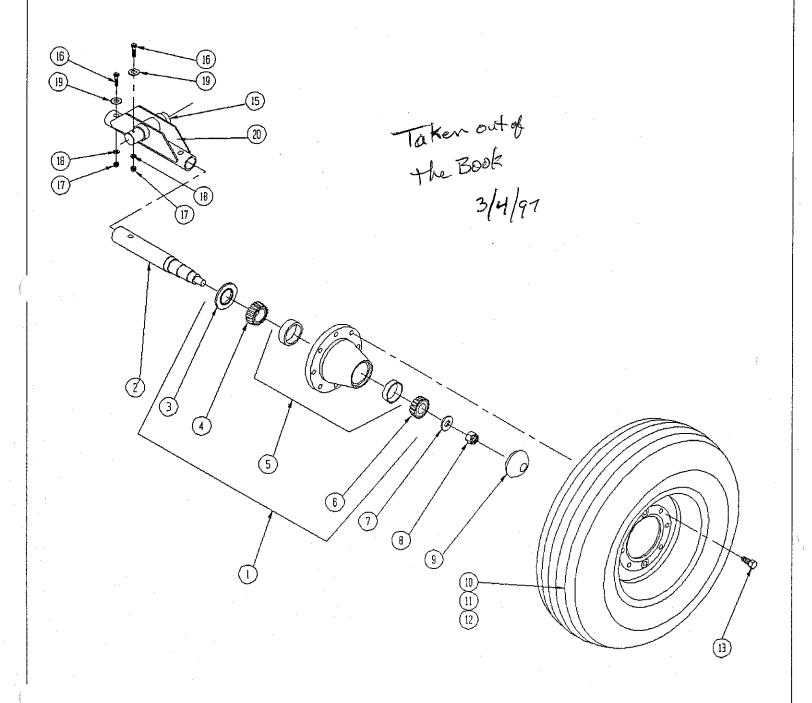


521448





ROCKING STRUT, 9.5L-15" HUB AND WHEEL ASSY. (STANDARD)



ROCKING STRUT, 9.5L-15" HUB AND WHEEL ASSEMBLY, 20FT - 2BAR 521323

ITEM		PART		
NO.	<u>OTY</u>	NO.	DESCRIPTION	
1		999981	8-HOLE, HUB ASSY (ALSO INCLUDES ITEMS 9 & 13)	
2	1	521324	HEAVY DUTY SPINDLE	
3	1	990094	SEAL	
4	1	990000	TAPERED ROLLER BEARING CONE	
5	1	999964	WHEEL HUB WITH CUPS	
6	1	990002	TAPERED ROLLER BEARING CONE	
7	1	999965	FLATWASHER - 7/8	
8	1	999960	CASTELLED NUT - 7/8	
9		999952		
10	1	999986	WHEEL 8 HOLE X 15'	
11	1	999974	TIRE: 9.50L-15, 8 PLY	
12	1	999974-99	TUBE 15"	
13	-8	997905	LUG BOLT	
14				
- 15				
16	1		HEXBOLT: 3/8-16 UNC X 3 1/2	
17	1		HEXNUT: 3/8-16 UNC	
18	1		LOCKWASHER: 3/8	
19	1		FLATWASHER: 3/8	
20				