

PARMA[®]

ROLLAHARROW

Rigid Model

OWNERS MANUAL

02
01
Manual Number 042800-RH

PARMA COMPANY

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INTRODUCTION

This manual has been prepared to acquaint you with the operation and maintenance of your **PARMA Rollaharrow**, and to provide important safety information. We urge you to read this manual carefully. The recommendations will help assure the safe and trouble free operation of your machine.

When it comes to service, keep in mind that your dealer knows your Rollaharrow well and is interested in your complete satisfaction. Your dealer invites you to call him for your service needs both during and after the warranty period.

We thank you for choosing a PARMA product and want to assure you of our continuing interest in your satisfaction. You have purchased a very good machine and with proper care it will give you good service.

CUSTOMER AND DEALER CHECKLIST

After the machine has been completely assembled, inspect it thoroughly to be certain it is in operating condition 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.

PRE-DELIVERY:

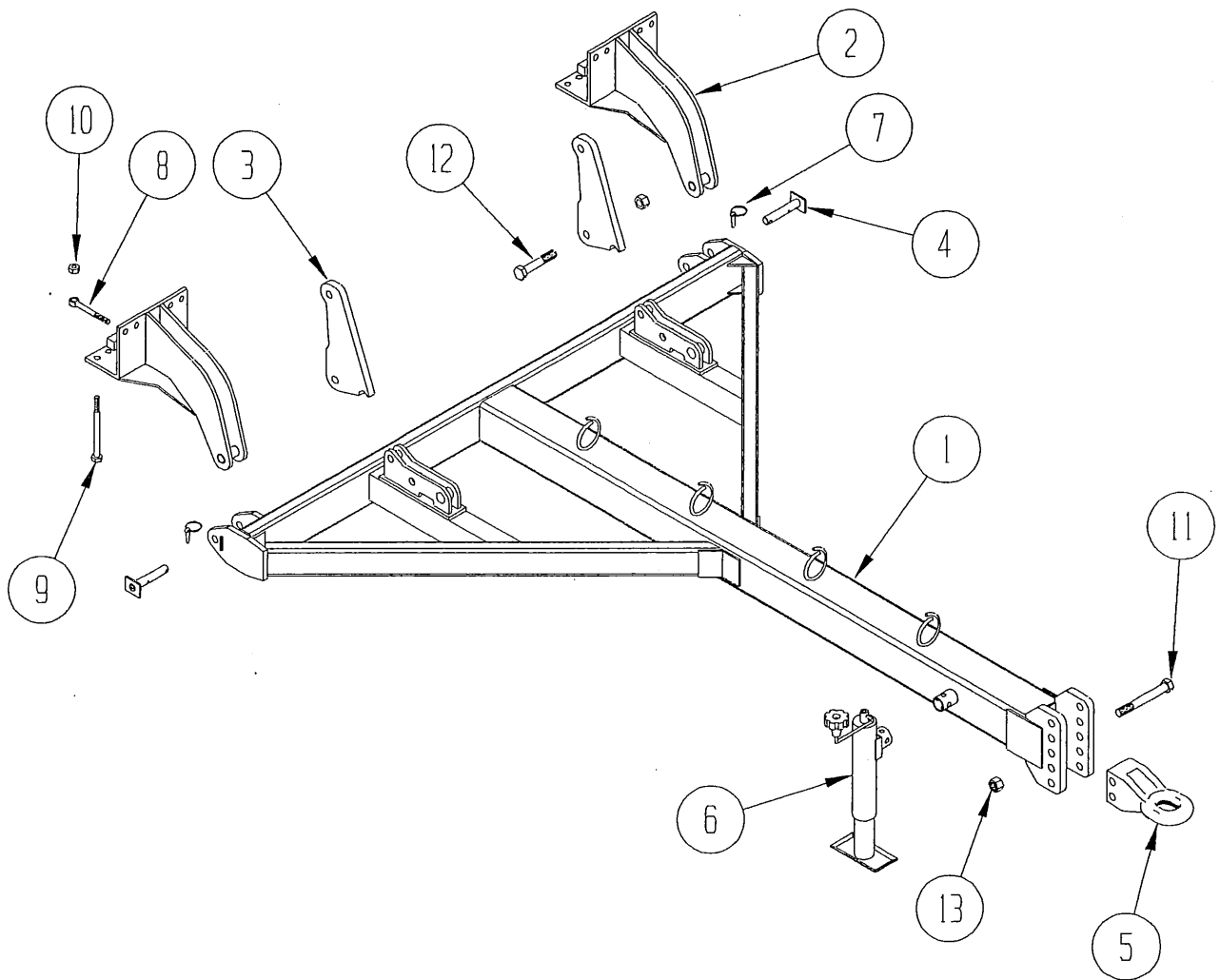
- Remove all transport locks on cylinders.
- Check all bolts and nuts to be sure they are tight.
- Check to see that 4-bolt flange bearings are positioned with the grease zerks up.
- Make sure all bearing lock collars are set correctly and tightened (see pg.6).
- Inspect and, if necessary, grease at all lubrication points; making sure all bearings are taking grease (see pg.5).
- Check all moving parts for smooth operation.
- Check to see that all hydraulic fittings and cylinders are tight and free of leaks (see pg.6).

DELIVERY:

- Complete the Delivery and Warranty Registration Forms, listing serial numbers of machine.
- Have the dealer and customer sign the form. Explain warranty policy on the Warranty Registration Form.
- Show the customer how to operate the Rollaharrow.
- Explain adjustments (see pg.5).
- Explain the importance of proper lubrication (see page 5).

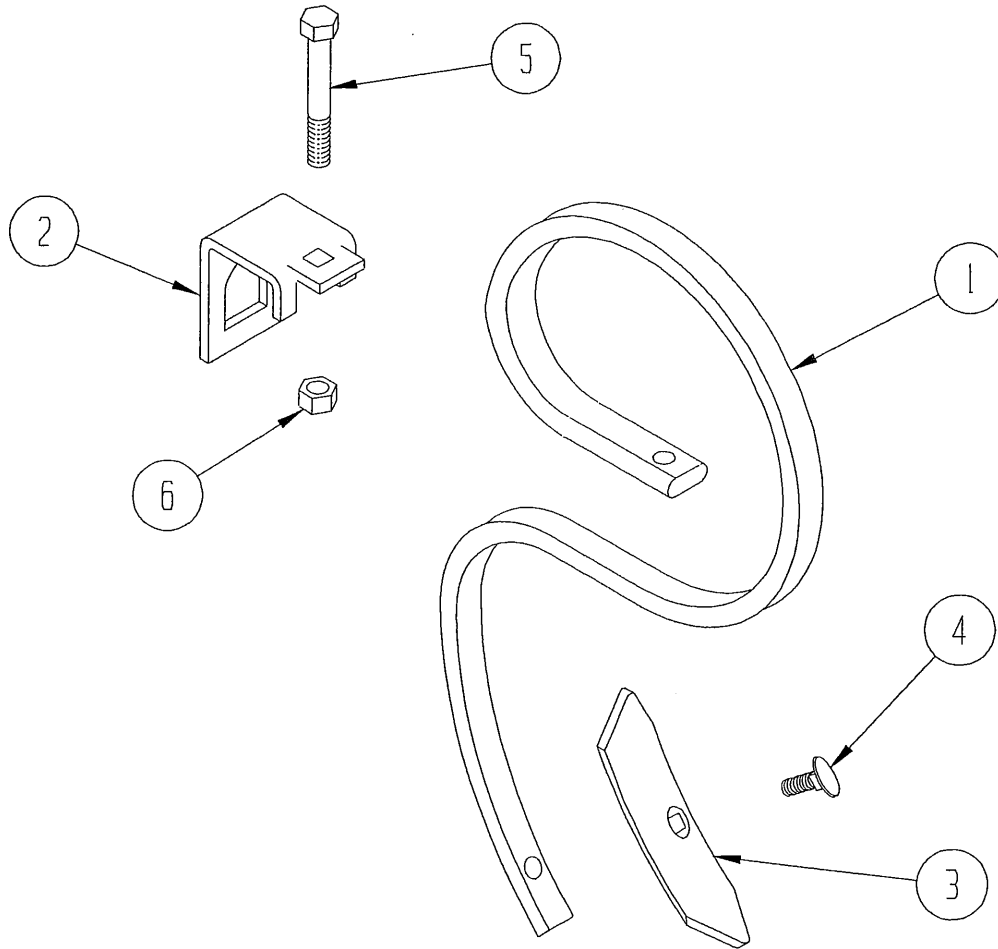
Parts Book Section

Rigid Rollharrow



TONGUE GROUP

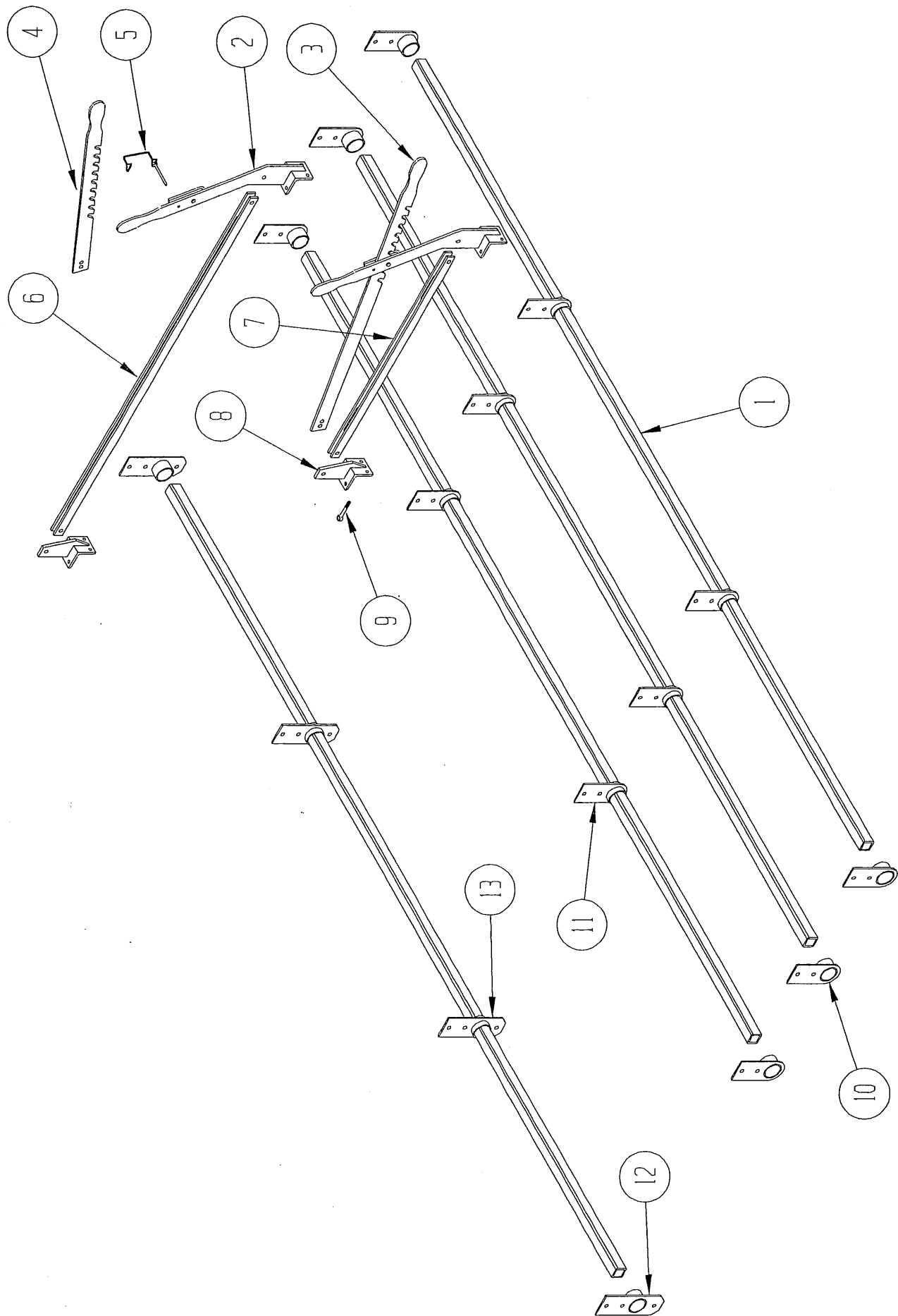
ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	521465	Tongue Weldment
2	2	522205	Tongue Pull Bracket
3	2	522208	Cylinder Anchor
4	2	521434	Tongue Pin
5	1	521104	Ring Hitch, Category 3
6	1	521409	Jack
7	2	530053	Lynch Pin
8	8	997903	Eye Bolt, 3/4 x 6
9	8		Hex Bolt, 3/4 x 9 Grade 5
10	16		Hex Nut, 3/4"
11	2		Hex Bolt, 1" x 8 Grade 5
12	2		Hex Bolt, 1" x 4 Grade 5
13	4		Hex Locknut, 1"



S-TINE GROUP

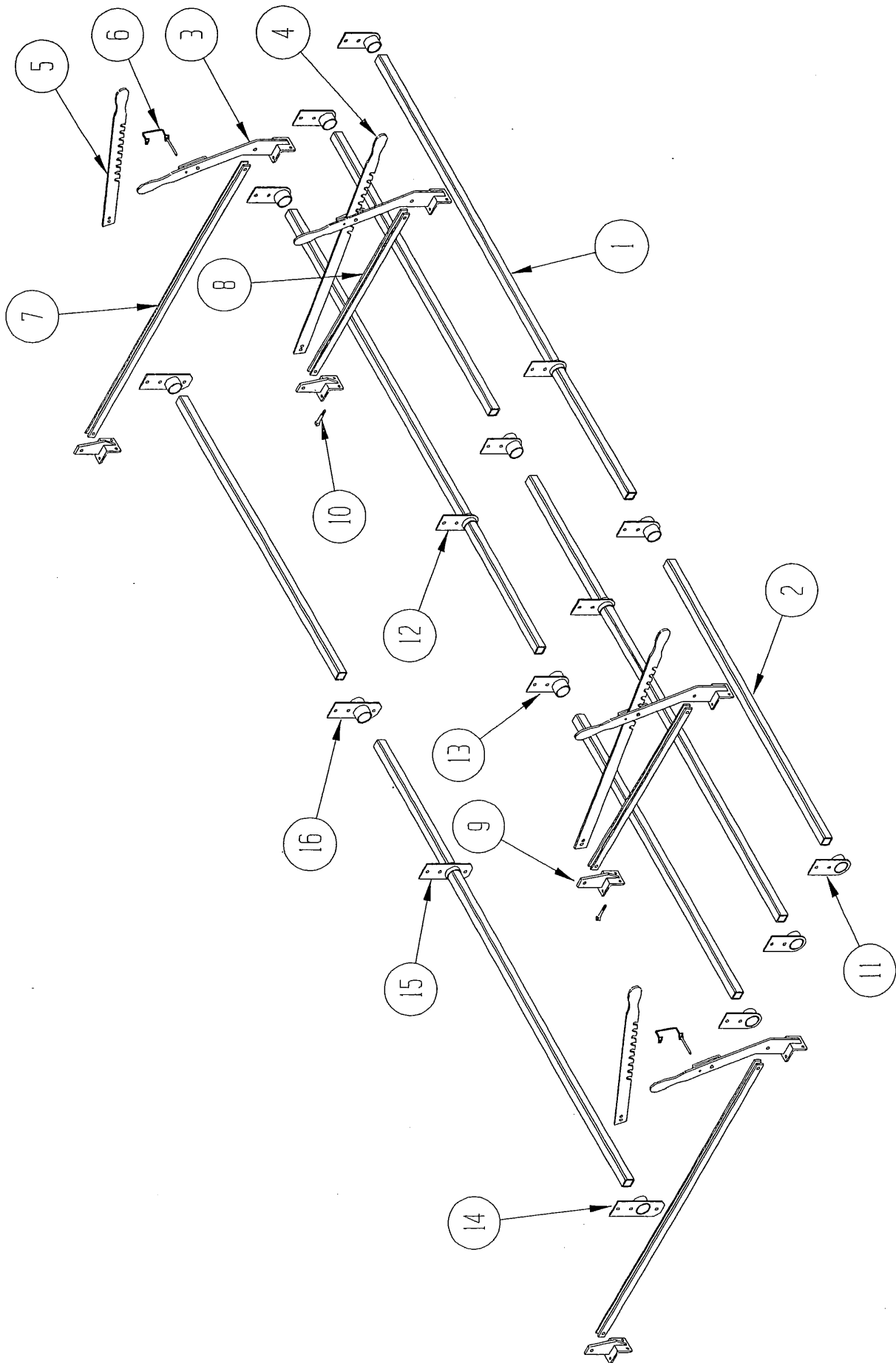
(See Owners Manual for Spacing, pg. 10)

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	521483	S-tine, Std.
		521564	S-tine, High Clearance (Optional)
2	1	521485	S-tine Clamp
3	1	521484	Chisel Point
		521560	Chisel Point, Heavy Duty (Optional)
4	1	530052	Cultivator Bolt, 3/8 x 1 1/2
5	1		Hex Bolt, 1/2 x 3 1/2
6	1		Hex Locknut, 1/2"



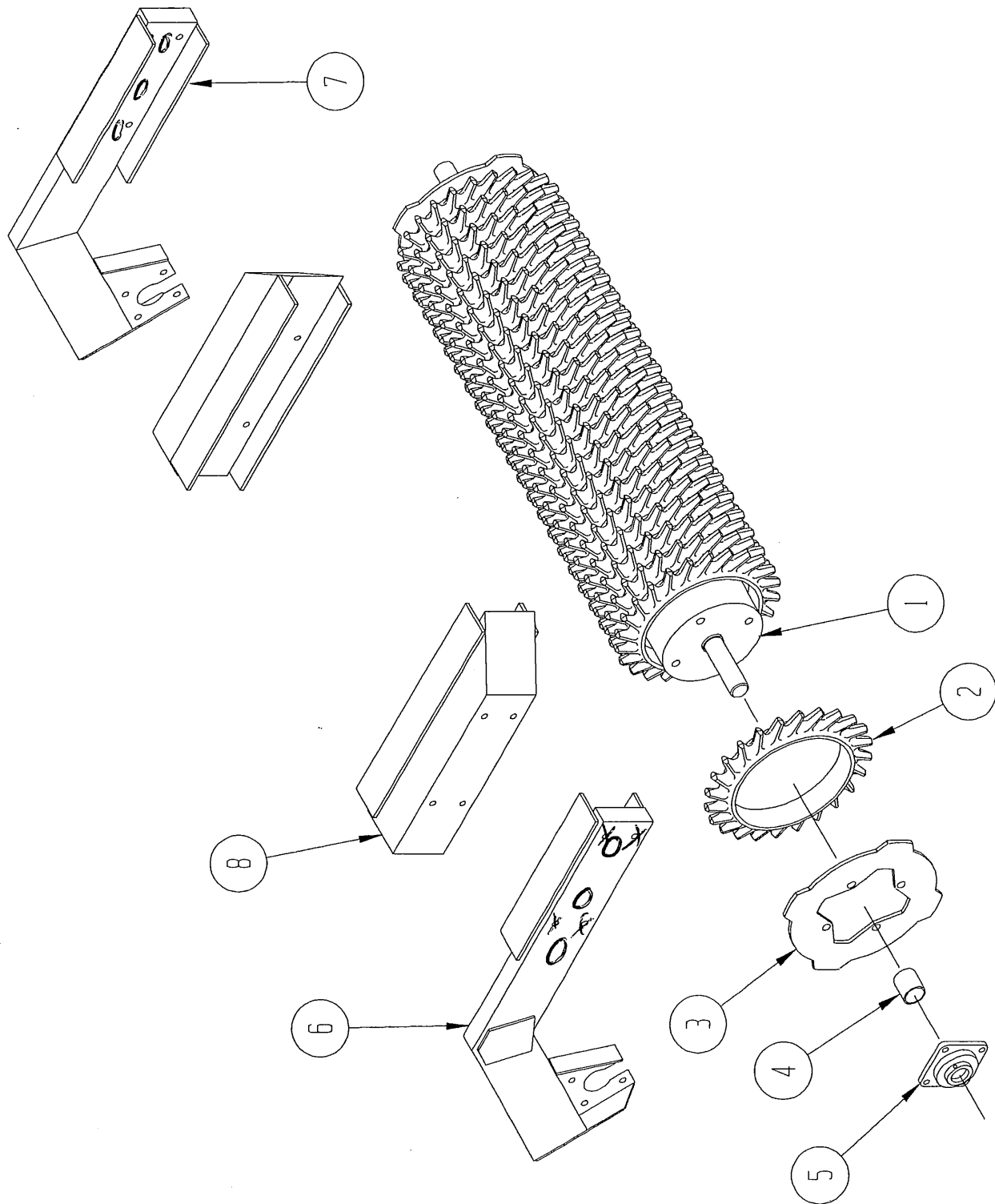
TINE BAR GROUP 12' & 14'
(4 Bar)

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	4	521587	Tine Bar, 12' - 147 1/4"
	4	521571	Tine Bar, 14' - 171 1/4"
2	2	522035	Toolbar Control Handle
3	1	521505	Toolbar Control Ratchet, Long
4	1	521504	Toolbar Control Ratchet, Short
5	2	521442	Safety Snap Pin
6	1	521501	Toolbar Control Linkage, Long
7	1	521489	Toolbar Control Linkage, Short
8	2	521495	Toolbar Control Clamp
9	8	521099	Rod End, 1/2 x 3 1/2
10	6	521307	Outer Toolbar Bracket
11	6	521306	Inner Toolbar Bracket
12	2	521411	Outer Toolbar Bracket, Rear
13	2	521407	Inner Toolbar Bracket, Rear



TINE BAR GROUP 16' - 24'
(4 Bar)

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	4	521572	Tine Bar, 16', Long – 119-1/2"
	4	521574	Tine Bar, 18', Long – 131-1/2"
	4	521576	Tine Bar, 20', Long – 143-1/2"
	4	521580	Tine Bar, 24', Long – 167-1/2"
2	4	521573	Tine Bar, 16', Short – 75-1/2"
	4	521575	Tine Bar, 18', Short – 87-1/2"
	4	521577	Tine Bar, 20', Short – 99-1/2"
	4	521581	Tine Bar, 24', Short – 123-1/2"
3	4	522035	Toolbar Control Handle
4	2	521505	Toolbar Control Ratchet, Long
5	2	521504	Toolbar Control Ratchet, Short
6	4	521442	Safety Snap Pin
7	2	521501	Toolbar Control Linkage, Long
8	2	521489	Toolbar Control Linkage, Short
9	4	521495	Toolbar Control Clamp
10	16	521099	Rod End, 1/2 x 3 1/2
11	6	521307	Outer Toolbar Bracket
12	3	521306	Inner Toolbar Bracket
13	3	521308	Large Frame Toolbar Bracket
14	2	521411	Outer Toolbar Bracket, Rear
15	1	521407	Inner Toolbar Bracket, Rear
16	1	521423	Large Frame Toolbar Bracket, Rear



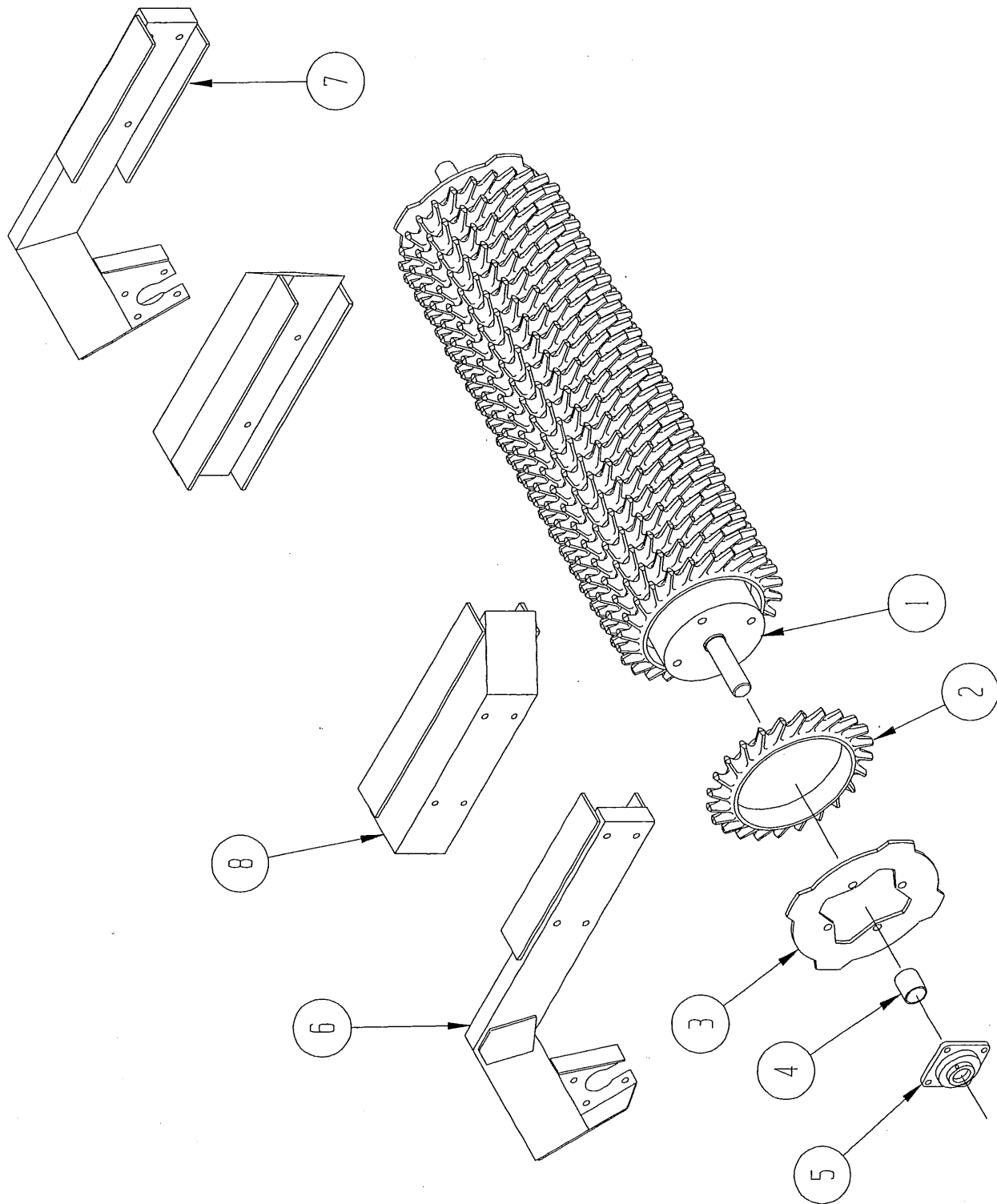
10" SOLID ROLLER ASSEMBLIES

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1		521863	12' Roller Weldment
		521864	13' Roller Weldment*
		521865	14' Roller Weldment
		521866	15' Roller Weldment*
		521867	16' Roller Weldment
		521868	17' Roller Weldment*
		521869	18' Roller Weldment
		521870	19' Roller Weldment*
		521871	20' Roller Weldment
		521872	21' Roller Weldment*
2	**	521566	Cast Ring, 10-12-16 Standard
	**	521639	Cast Ring, 10-12-16 Ductile
	**	521640	Cast Ring, 10-12-16 Domestic
	**	521590	Cast Ring, 10-12-17 Standard
	**	521641	Cast Ring, 10-12-17 Ductile
	**	521642	Cast Ring, 10-12-17 Domestic
3	2	521496	Roller End Plate
4	2	521677	Spacer, Roller
5	2	980821	Bearing, 4 Bolt Flange 1 15/16
6	1	522068	Rear Roller Bracket, Right
7	1	522067	Rear Roller Bracket, Left
8	2*	522071	Frame Extender
	8*		Hex Bolt 5/8 X 12 (For Rear Roller Bkt)
	8		Hex Bolt 5/8 X 6 (For Rear Roller Bkt)

* Used only for extended rear roller

** See table for quantities

ROLLER LENGTH	CAST RING QUANTITY
12'	60
13'	65
14'	70
15'	75
16'	80
17'	85
18'	90
19'	95
20'	100
21'	105



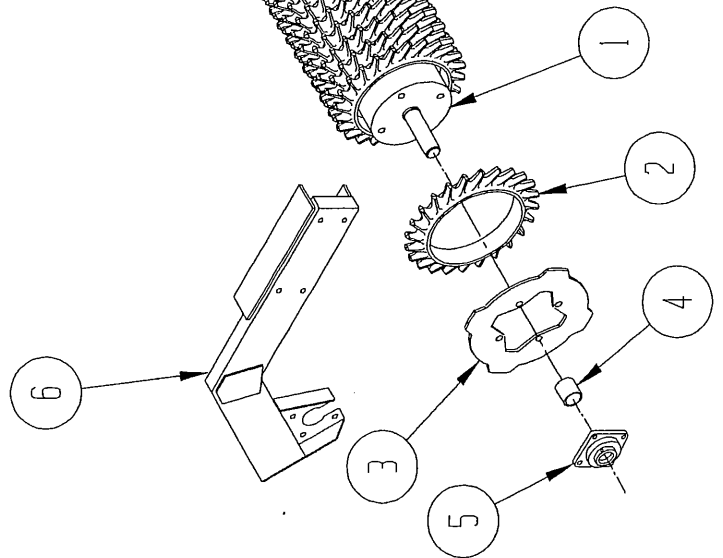
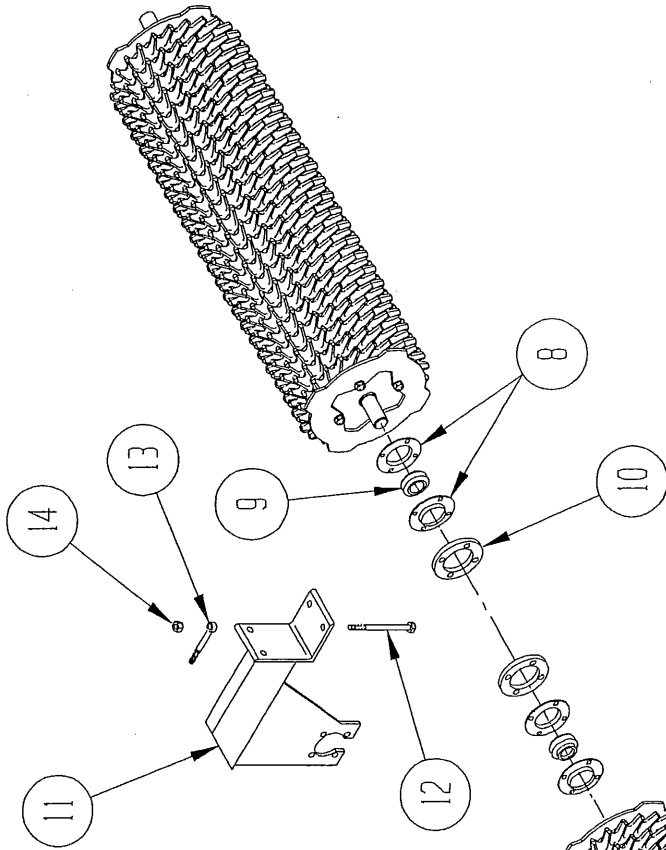
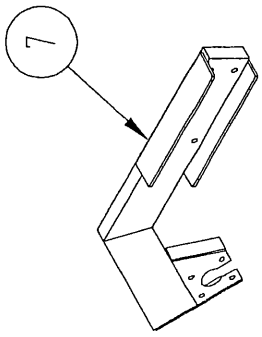
12" SOLID ROLLER ASSEMBLIES

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1		521930	12' Roller Weldment
		521931	13' Roller Weldment*
		521932	14' Roller Weldment
		521933	15' Roller Weldment*
		521934	16' Roller Weldment
		521935	17' Roller Weldment*
		521936	18' Roller Weldment
		521937	19' Roller Weldment*
		521938	20' Roller Weldment
		521939	21' Roller Weldment*
	2	**	521592
**		521643	Cast Ring, 12-14-20 Ductile
**		521644	Cast Ring, 12-14-20 Domestic
3	2	521447	Roller End Plate
4	2	521677	Spacer, Roller
5	2	980821	Bearing, 4 Bolt Flange 1 15/16
6	1	522068	Rear Roller Bracket, Right
7	1	522067	Rear Roller Bracket, Left
8	2*	522071	Frame Extender
	8		Hex Bolt 5/8 X 6 (For Rear Roller Bkt)
	8*		Hex Bolt 5/8 X 12 (For Rear Roller Bkt)

* Used only for extended rear roller

** See table for quantities

ROLLER LENGTH	CAST RING QUANTITY
12'	60
13'	65
14'	70
15'	75
16'	80
17'	85
18'	90
19'	95
20'	100
21'	105



10" SPLIT ROLLER ASSEMBLIES

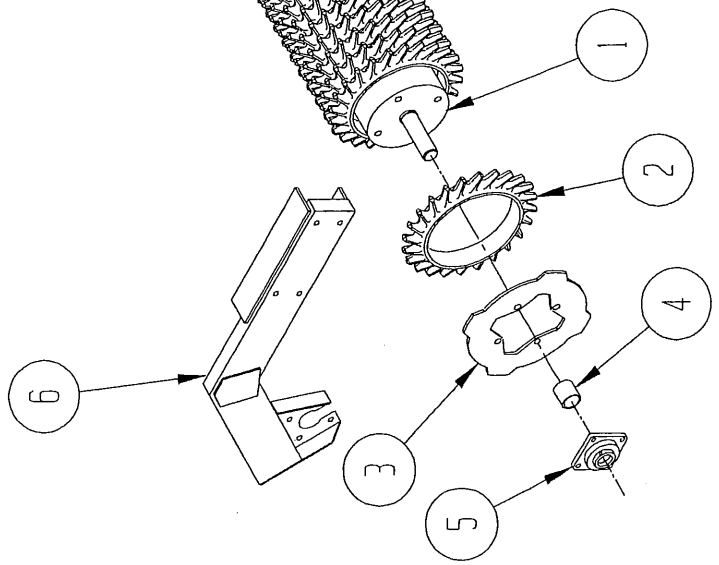
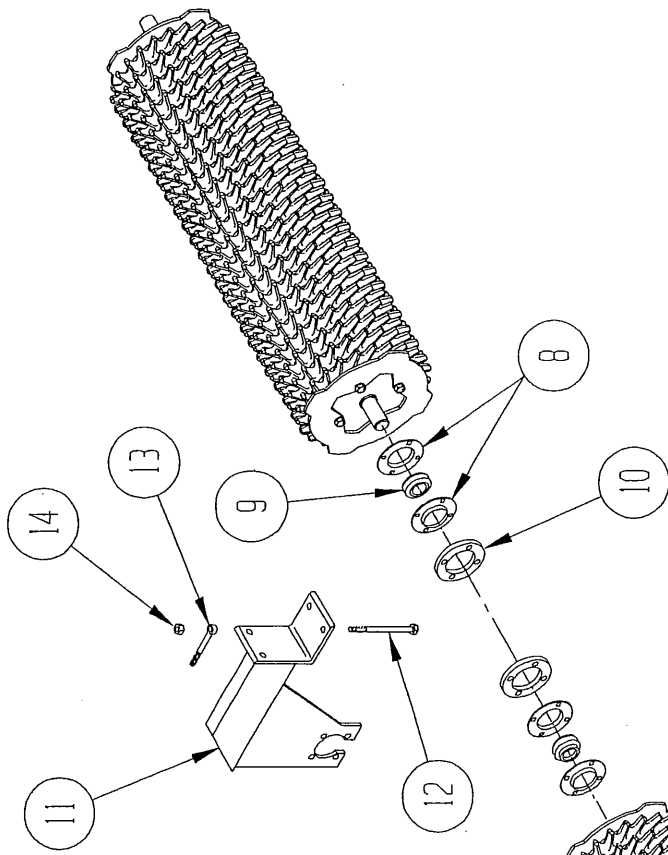
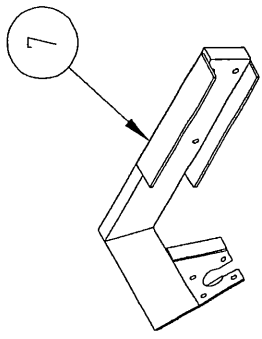
ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	2*	521510	9' Roller Weldment (front only) (18' Frame)
	2*	521876	10' Roller Weldment (front only) (20' Frame)
	4*	521880	12' Roller Weldment (front & rear)(24' Frame)
2	***	521566	Cast Ring, 10-12-16 Standard
	***	521639	Cast Ring, 10-12-16 Ductile
	***	521640	Cast Ring, 10-12-16 Domestic
	***	521590	Cast Ring, 10-12-17 Standard
	***	521641	Cast Ring, 10-12-17 Ductile
	***	521642	Cast Ring, 10-12-17 Domestic
3	4**	521496	Roller End Plate
4	2**	521677	Spacer, Roller
5	2**	980821	Bearing, 4 Bolt Flange 1 15/16
6	1	522068	Rear Roller Bracket, Right
7	1	522067	Rear Roller Bracket, Left
8	2**	521486	Flangette Pair, G90 MS
9	2**	521481	Bearing Insert, 1 15/16
10	2**	521361	Bearing Spacer Plate
11	2	521364	Roller Mount, Rear (24' only)
12	2		Hex Bolt, 3/4 x 9
13	2	997903	Rod End, 3/4 x 6
14	4		Hex Nut, 3/4"
	8		Hex Bolt 5/8 X 6 (For Rear Roller Bkt)

* Total number of rollers required per machine

** Quantities for these parts are double for 24'

*** See table for quantities (quantities are total for front or rear only)

ROLLER LENGTH	CAST RING QUANTITY
18'	85
20'	95
24'	115



12" SPLIT ROLLER ASSEMBLIES

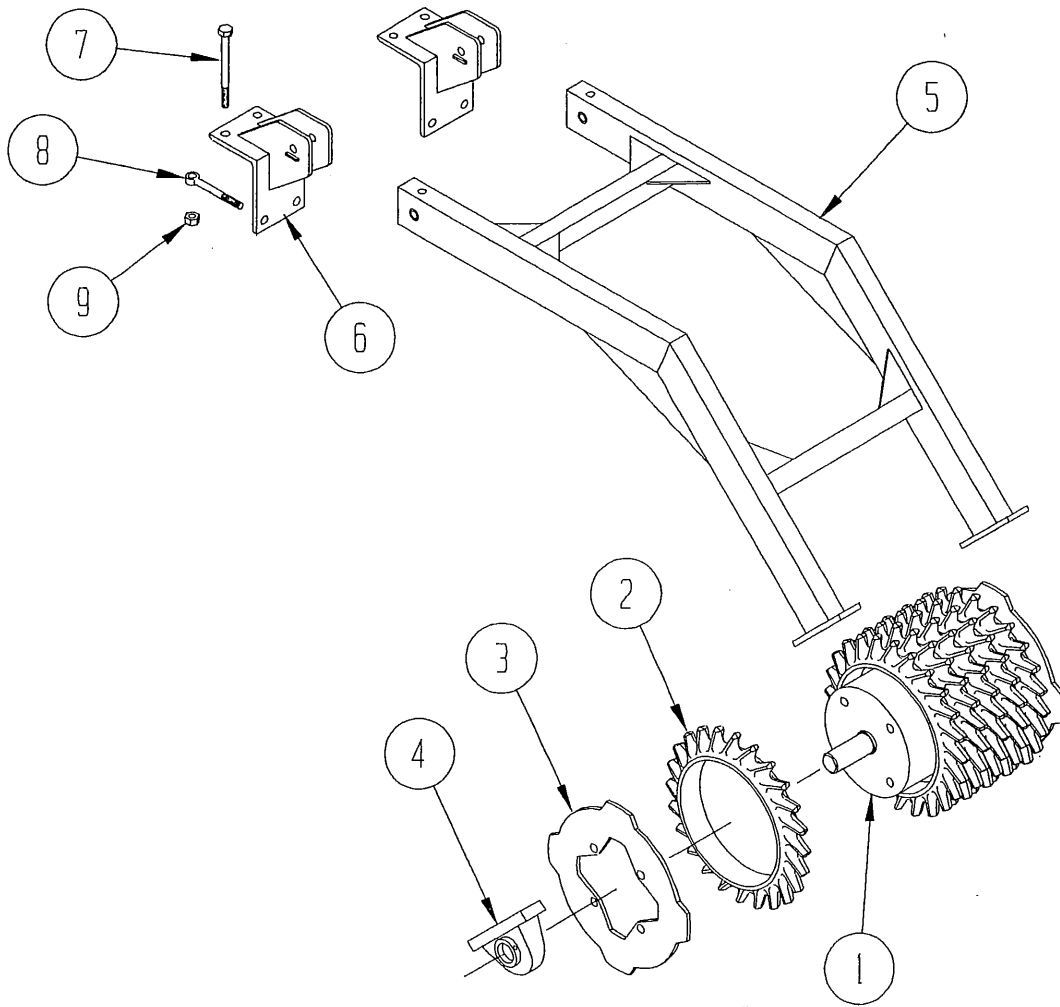
ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	2*	521464	9' Roller Weldment (front only)(18' Frame)
	2*	521882	10' Roller Weldment (front only) (20' Frame)
	4*	521886	12' Roller Weldment (front & rear)(24' Frame)
2	***	521592	Cast Ring, 10-12-16 Standard
	***	521643	Cast Ring, 10-12-16 Ductile
	***	521644	Cast Ring, 10-12-16 Domestic
3	4**	521447	Roller End Plate
4	2**	521677	Spacer, Roller
5	2**	980821	Bearing, 4 Bolt Flange 1 15/16
6	1	522068	Rear Roller Bracket, Right
7	1	522067	Rear Roller Bracket, Left
8	2**	521486	Flangette Pair, G90 MS
9	2**	521481	Bearing Insert, 1 15/16
10	2**	521361	Bearing Spacer Plate
11	2	521364	Roller Mount, Rear (24' only)
12	2		Hex Bolt, 3/4 x 9
13	2	997903	Rod End, 3/4 x 6
14	4		Hex Nut, 3/4"
	8		Hex Bolt 5/8 X 6 (For Rear Roller Bkt)

* Total number of rollers required per machine

** Quantities for these parts are double for 24'

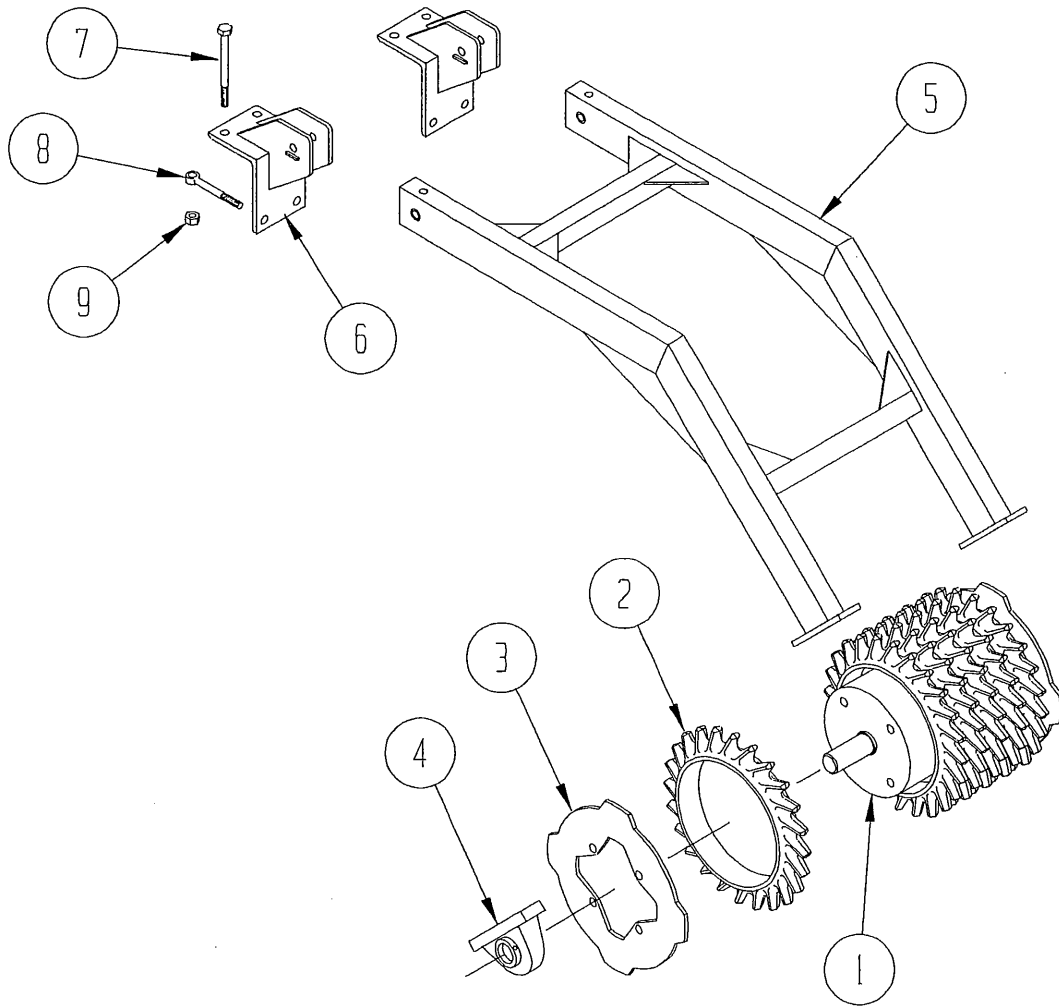
*** See table for quantities (quantities are total for front or rear only)

ROLLER LENGTH	CAST RING QUANTITY
18'	85
20'	95
24'	115



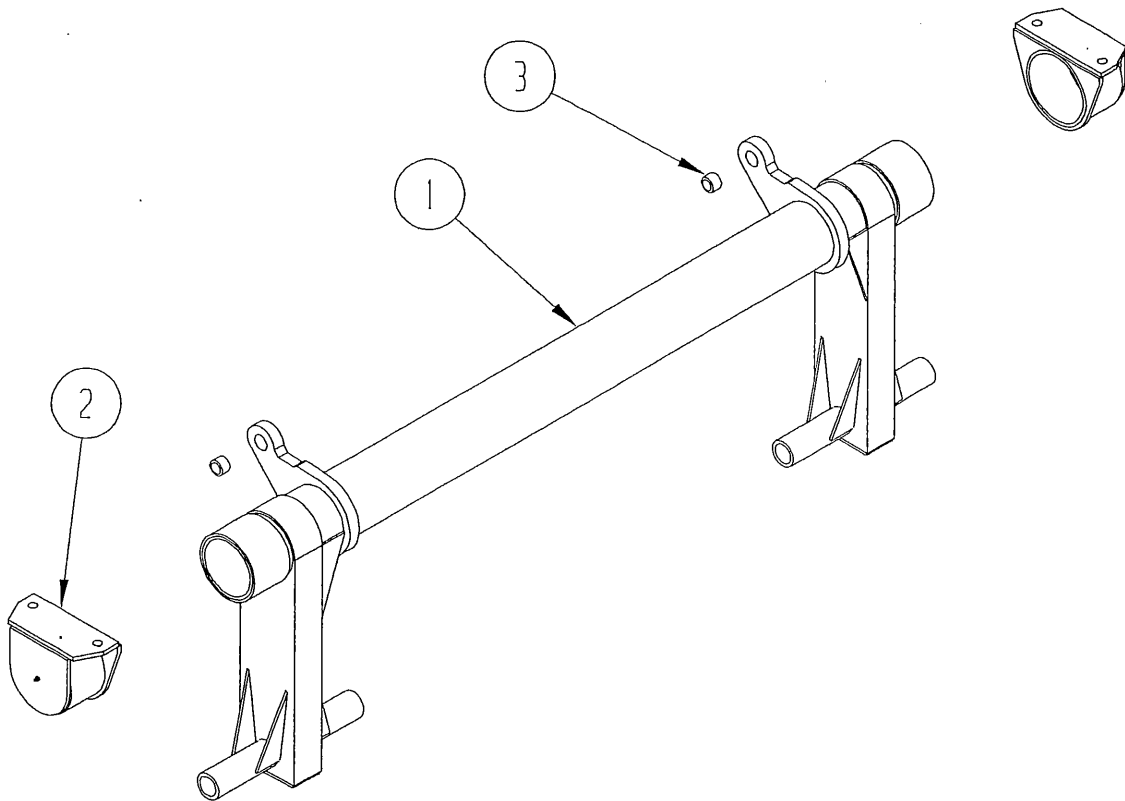
TAG-ALONG ASSEMBLY w/ 10" ROLLER

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	522397	Tag Along Roller Weldment
2	6	521566	Cast Ring, 10-12-16 Standard
	6	521639	Cast Ring, 10-12-16 Ductile
	6	521640	Cast Ring, 10-12-16 Domestic
	6	521590	Cast Ring, 10-12-17 Standard
	6	521641	Cast Ring, 10-12-17 Ductile
	6	521642	Cast Ring, 10-12-17 Domestic
3	2	521496	Roller End Plate
4	2	980020	Bearing, Pillow Block 1 15/16
5	1	522410	Tag Along Roller Frame
6	2	522407	Hinge Bracket
7	4		Hex Bolt, 3/4 x 9
8	4	997903	Rod End, 3/4 x 6
9	8		Hex Nut, 3/4"



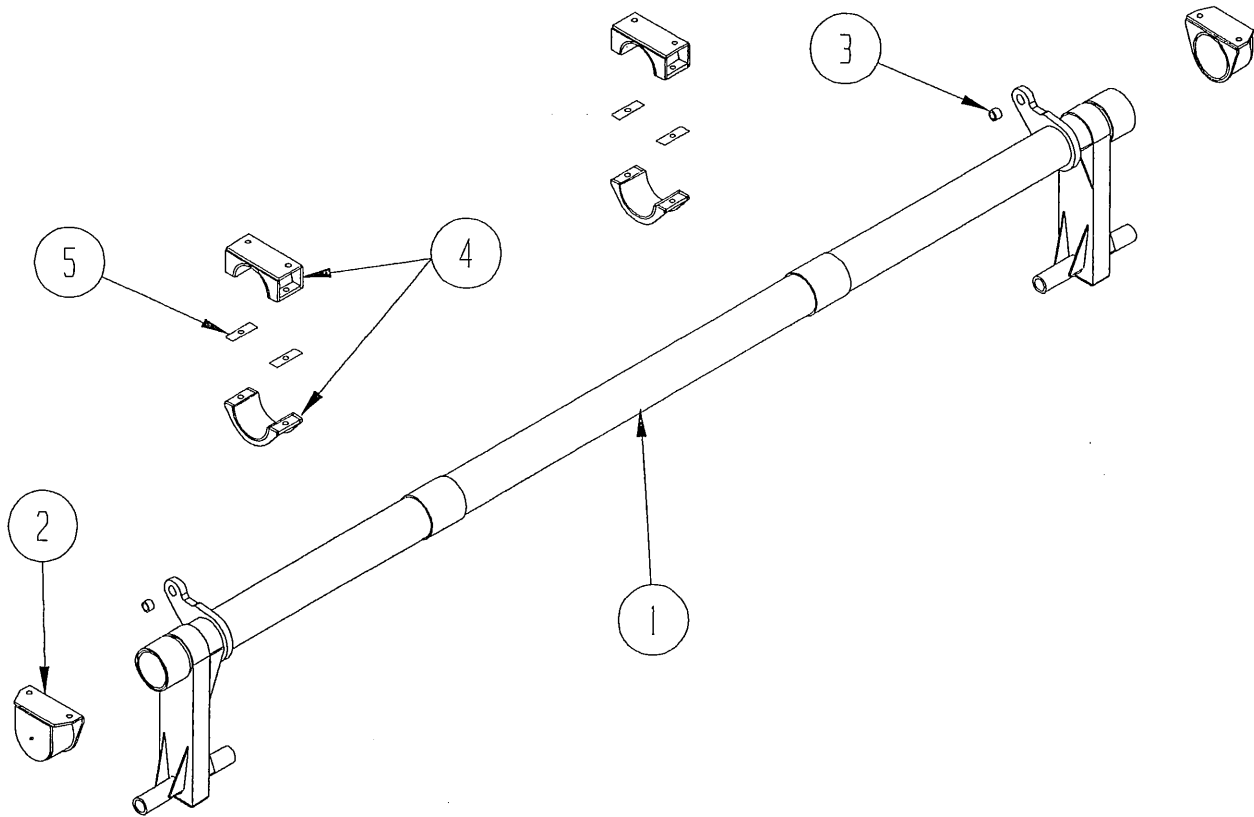
TAG-ALONG ASSEMBLY w/ 12" ROLLER

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	522427	Tag Along Roller Weldment
2	6	521592	Cast Ring, 12-14-20 Standard
	6	521643	Cast Ring, 12-14-20 Ductile
	6	521644	Cast Ring, 12-14-20 Domestic
3	2	521447	Roller End Plate
4	2	980020	Bearing, Pillow Block 1 15/16
5	1	522410	Tag Along Roller Frame
6	2	522407	Hinge Bracket
7	4		Hex Bolt, 3/4 x 9
8	4	997903	Rod End, 3/4 x 6
9	8		Hex Nut, 3/4"



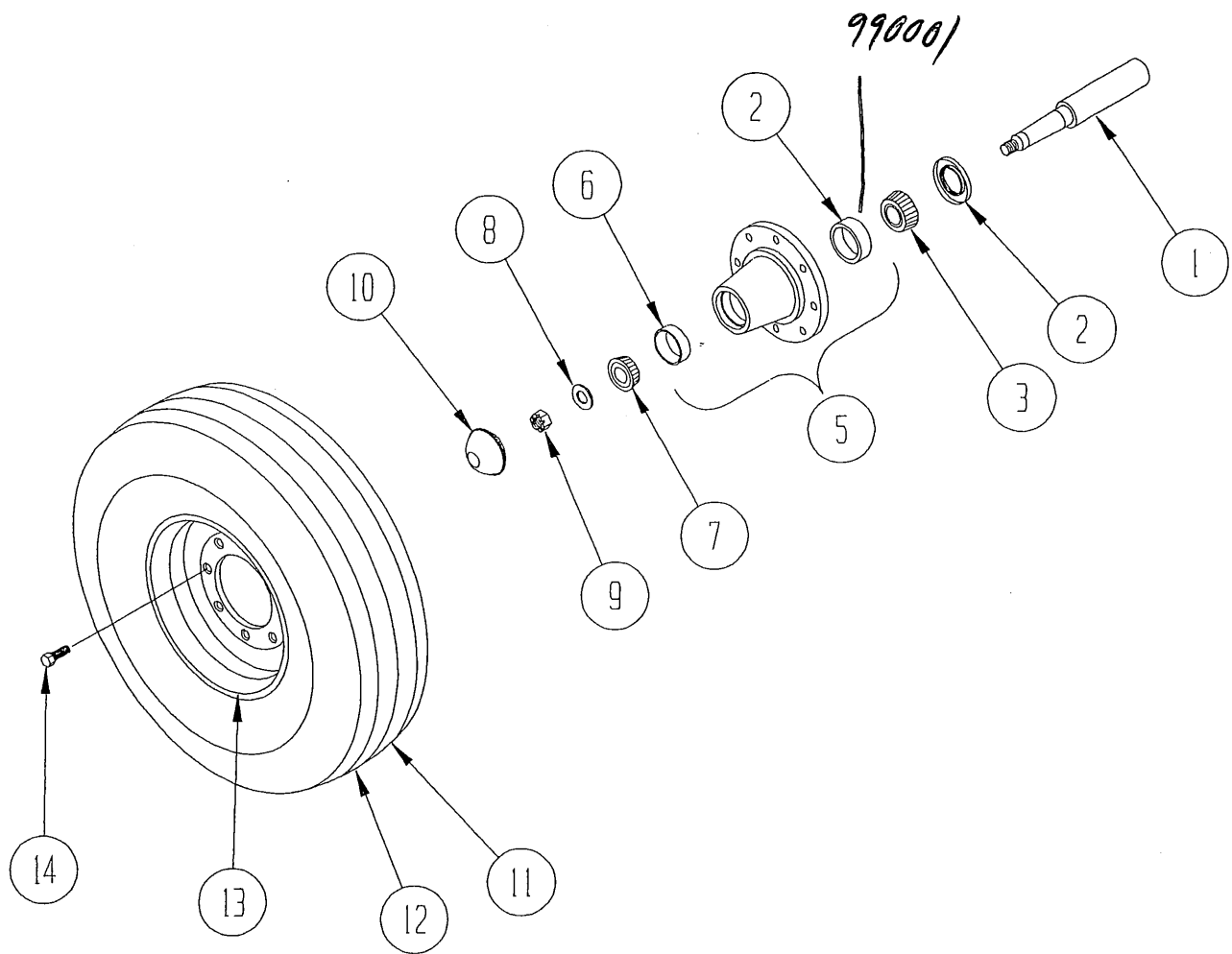
AXLE GROUP 12' - 16'

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	522084	Axle Weldment
2	2	522040	Axle Bracket
3	2	521391	Hardened Bushing



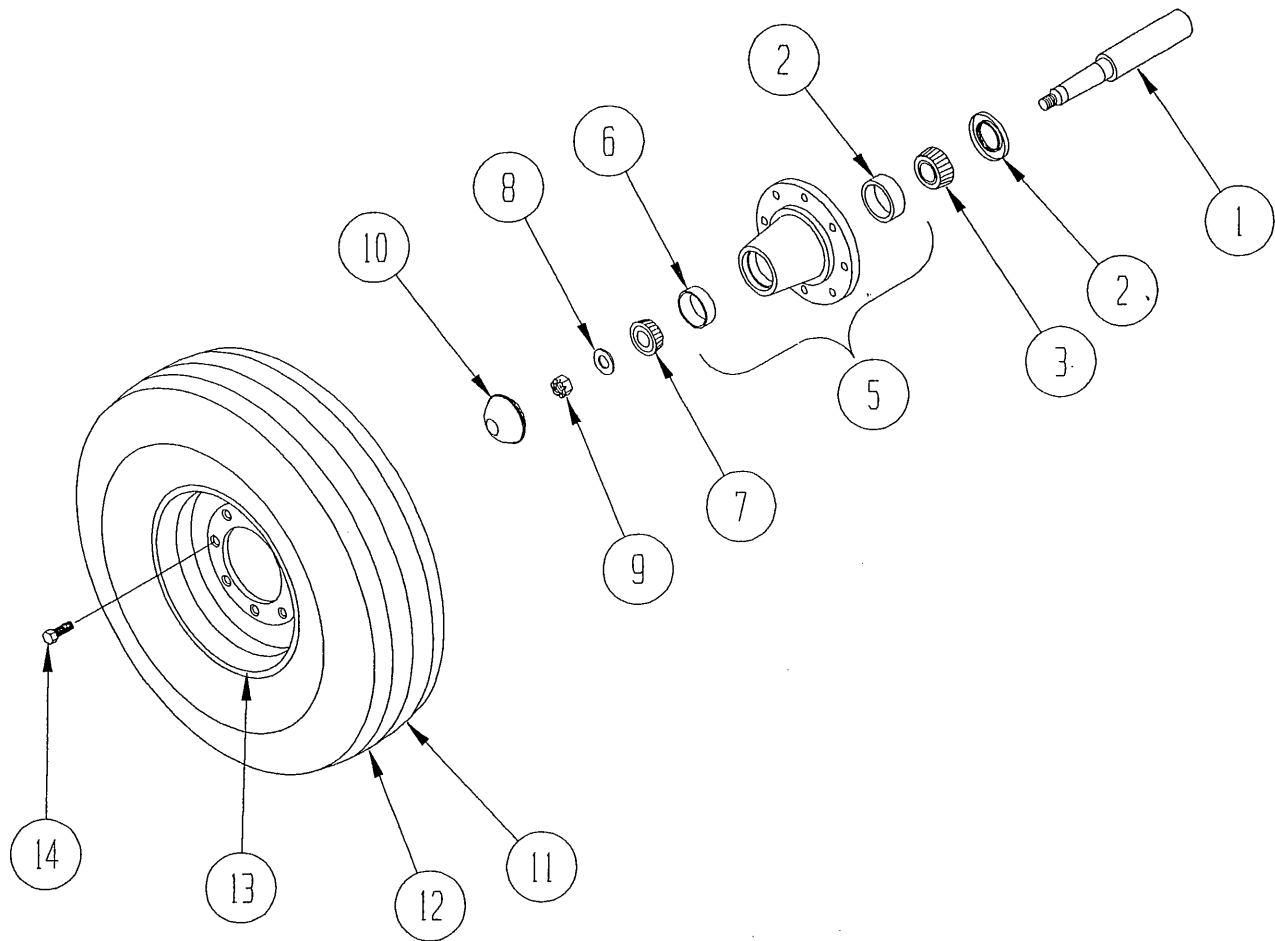
AXLE GROUP 18' - 24'

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	522132	Axle Weldment
2	2	522040	Axle Bracket
3	2	521391	Hardened Bushing
4	2	522099	Inner Axle Bracket (set)
5	4	522088	Axle Bracket Shim



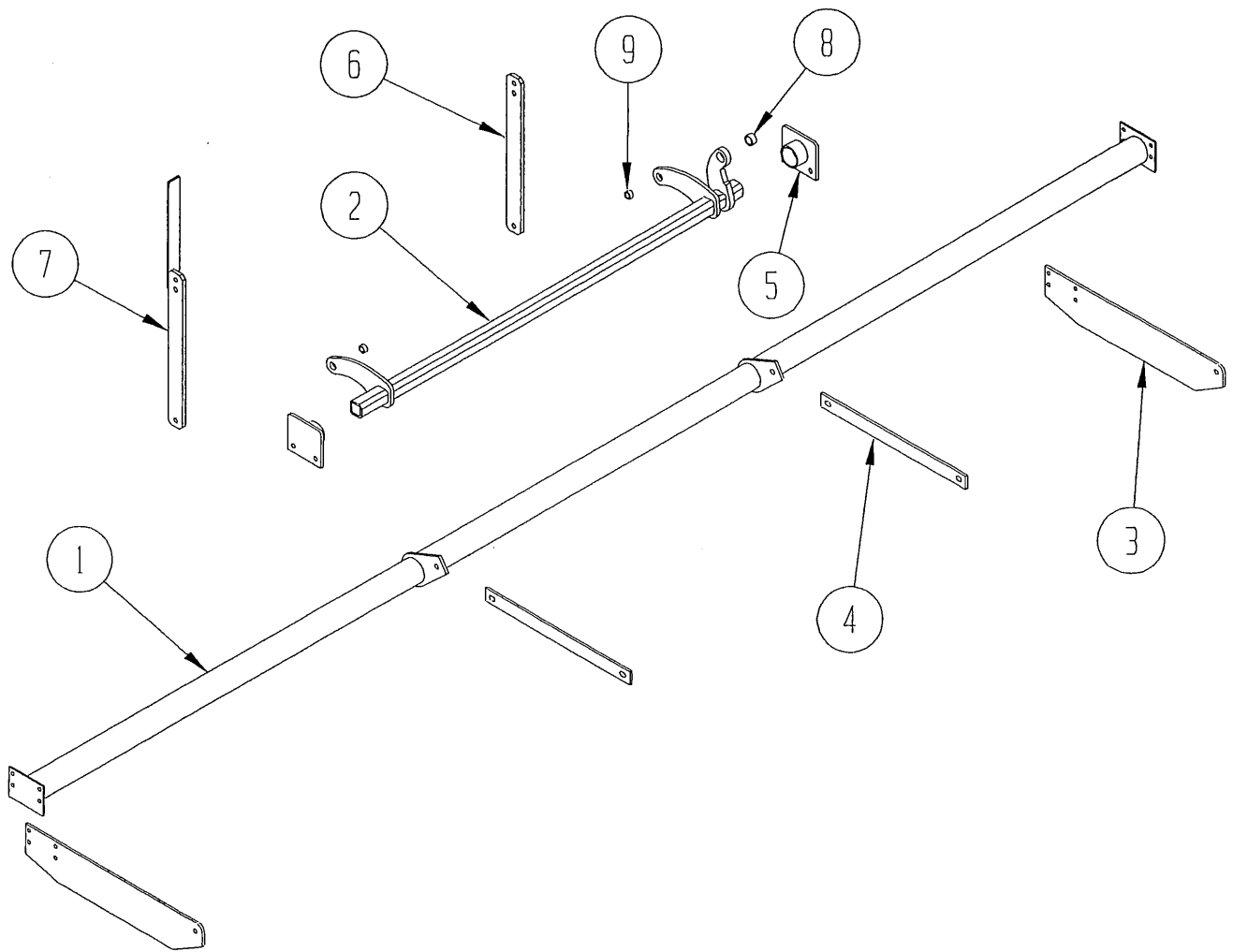
HUB & WHEEL ASSEMBLY 12' - 16'

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	521328	Heavy Duty Spindle <i>521440</i>
2	1	990094	Seal
3	1	990000	Bearing Cone, Inner
4	1	990001	Bearing Cup, Inner
5	1	999981	Hub Asm, Complete w/ Brgs & Seal
6	1	990003	Bearing Cup, Outer
7	1	990002	Bearing Cone, Outer
8	1	999965	Flat Washer - 7/8
9	1	999960	Slotted Nut - 7/8
10	1	999952	Hub Cap
11	1	999977	Tire, 9.50L x 15 8-Ply
12	1	999977-99	Tube, 15"
13	1	999986	Wheel, 15" 8 Hole
14	8	997905	Lug Bolt



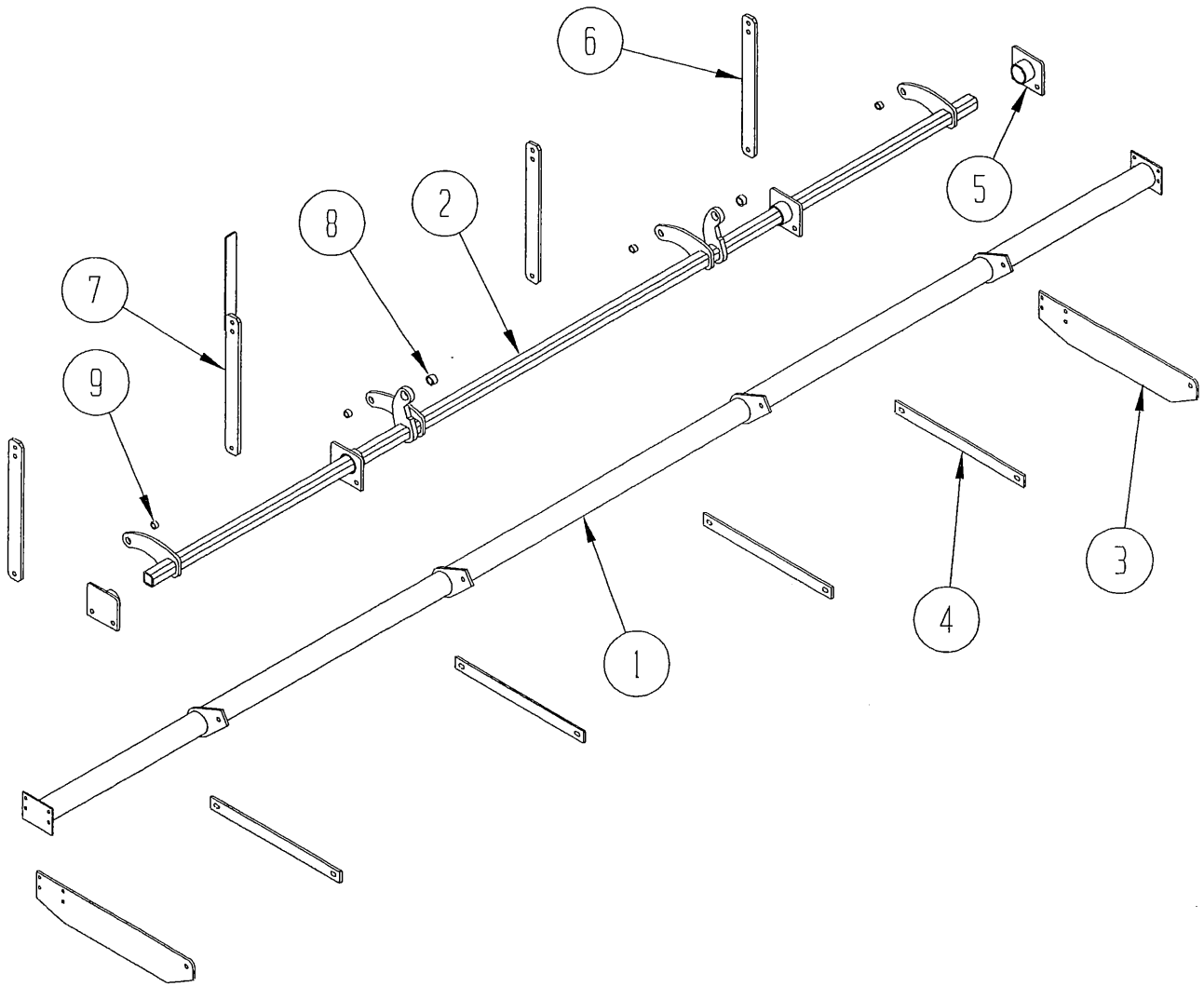
HUB & WHEEL ASSEMBLY 18' - 24'

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	521328	Heavy Duty Spindle
2	1	990094	Seal
3	1	990000	Bearing Cone, Inner
4	1	990001	Bearing Cup, Inner
5	1	999981	Hub Asm, complete w/Brgs & Seal
6	1	990003	Bearing Cup, Outer
7	1	990002	Bearing Cone, Outer
8	1	999965	Flat Washer - 7/8
9	1	999960	Slotted Nut - 7/8
10	1	999952	Hub Cap
11	1	521910	Tire, 11L x 15FI 12-Ply
12	1	999974-99	Tube, 15"
13	1	999986	Wheel, 15" 8 Hole
14	8	997905	Lug Bolt



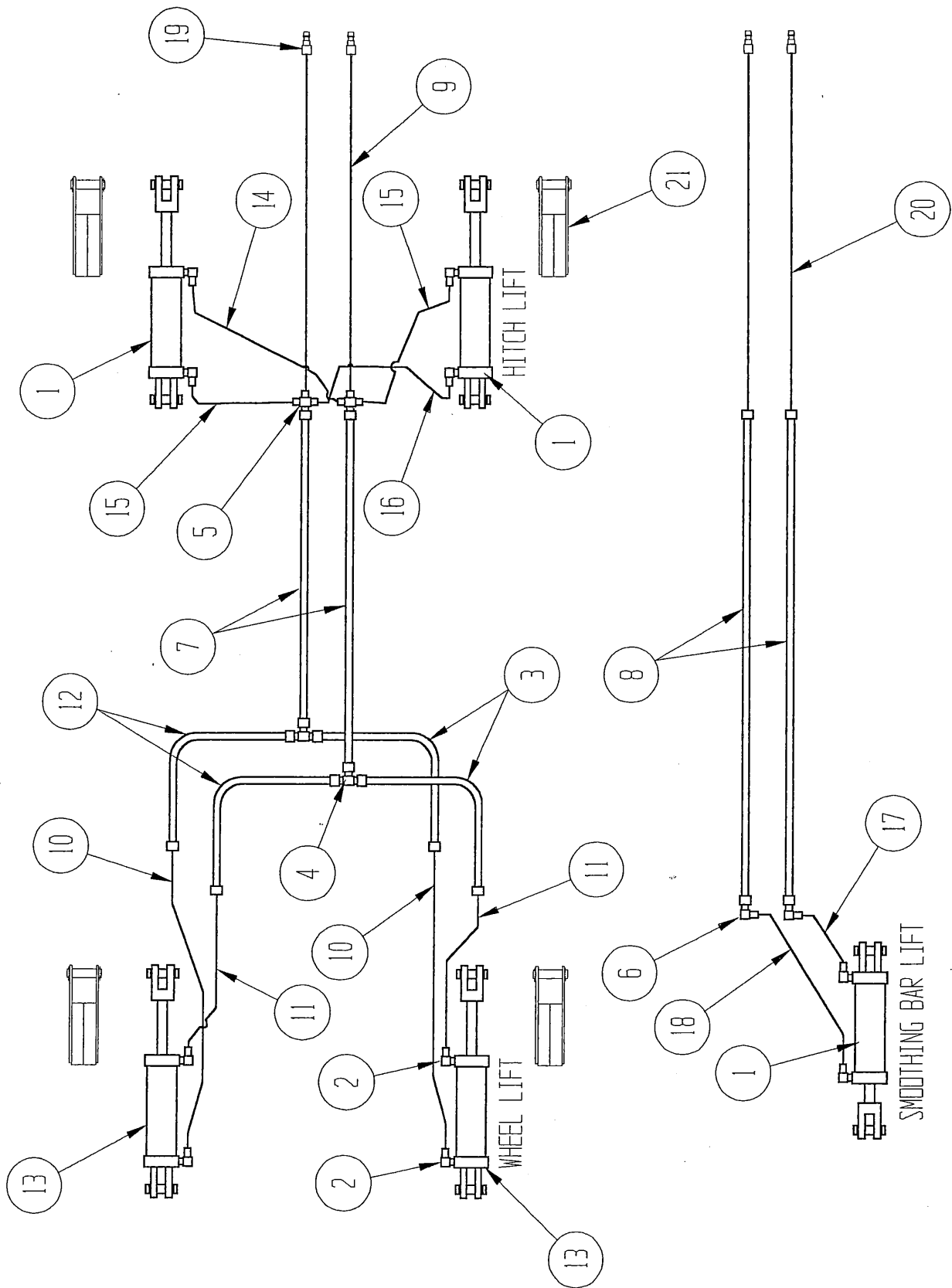
LEVELING BAR & LIFT GROUP 12' - 16'

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	522046	12' Smoothing Bar Weldment
	1	522052	14' Smoothing Bar Weldment
	1	522075 <i>79</i>	16' Smoothing Bar Weldment
2	1	522030	Lifting Bar Weldment
3	2	521375	Smoothing Bar Link, Side
4	2	521374	Smoothing Bar Link
5	2	522031	Lift Bar Bracket
6	1	521488	Smoothing Bar Lift Linkage
7	1	522029	Smoothing Bar Lift Linkage Weldment
	1	522301	Depth Indicator Decal
8	1	521391	Hardened Bushing
9	2	360098	Spacer Bushing



LEVELING BAR & LIFT GROUP 18' - 24'

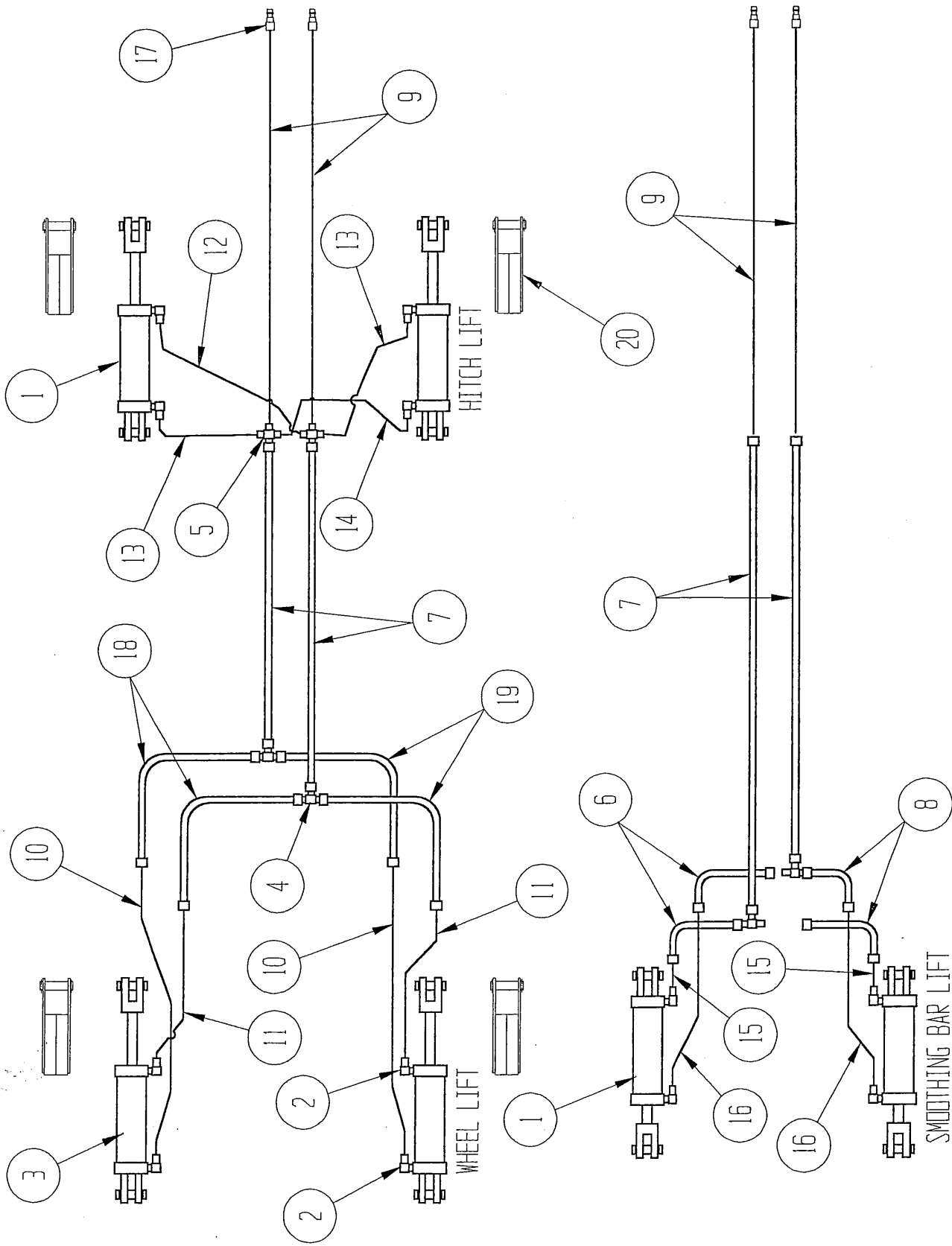
ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	522089	18' Smoothing Bar Weldment
	1	522129	20' Smoothing Bar Weldment
	1	522149	24' Smoothing Bar Weldment
2	1	522127	Lifting Bar weldment
3	2	521375	Smoothing Bar Link, Side
4	4	521374	Smoothing Bar Link
5	2	522031	Lift Bar Bracket
6	3	521488	Smoothing Bar Lift Linkage
7	1	522029	Smoothing Bar Lift Linkage Weldment
	1	522301	Depth Indicator Decal
8	2	521391	Hardened Bushing
9	4	360098	Spacer Bushing



HYDRAULIC SCHEMATIC 12' - 16'

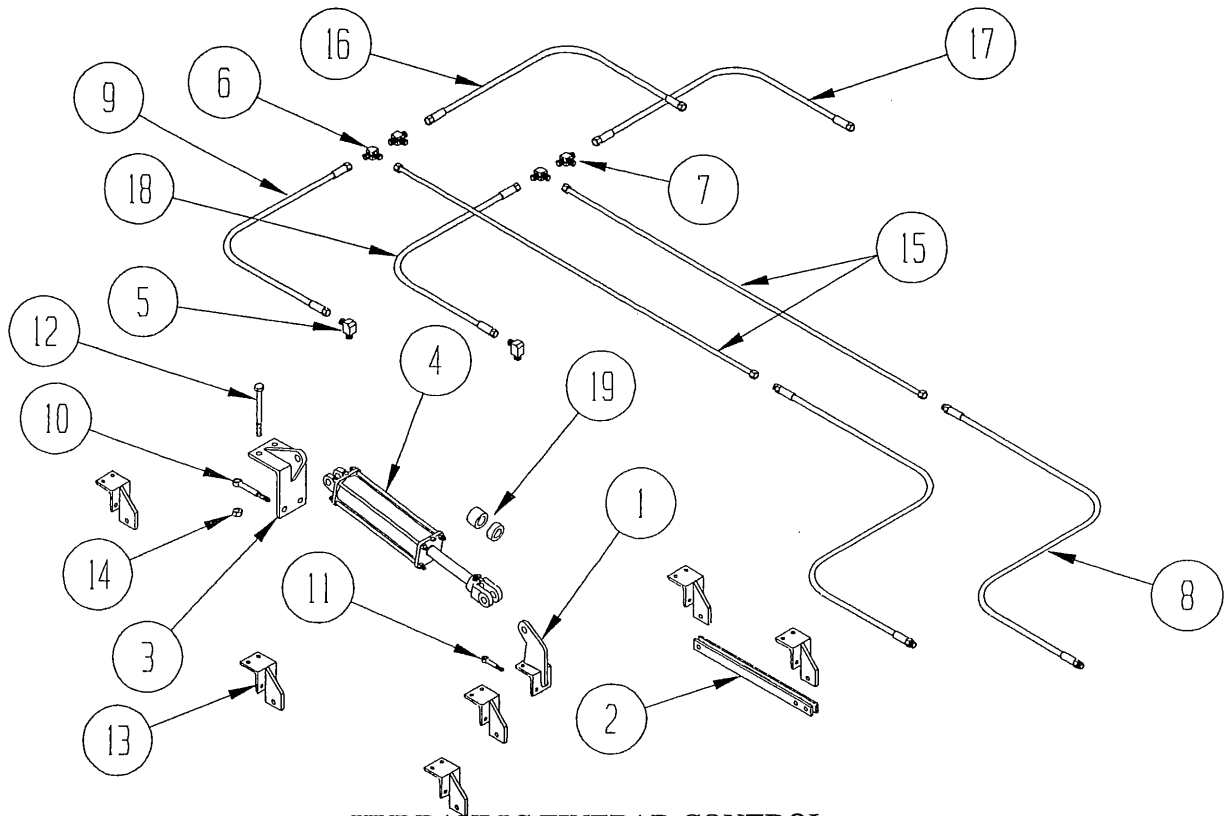
ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	3	998903	Hydraulic Cylinder, 3 x 8
2	10	6801-NWO-8-8	Elbow, 90° O-ring
3	2		Hydraulic Tube, 5/8x47
4	2	2603-10	Tee
5	2	2650-10	Cross
6	2	2500-10-8	Elbow, 90°
7	2		Hydraulic Tube, 5/8 x 70
8	2		Hydraulic Tube, 5/8 x 96
9	2		Hydraulic Hose, 1/2 x 192
10	2		Hydraulic Hose, 1/2 x 32
11	2		Hydraulic Hose, 1/2 x 21
12	2		Hydraulic Tube, 5/8 x 58
13	2	998392	Hydraulic Cylinder, 3 x 8 w/ Bushing
14	1		Hydraulic Hose, 1/2 x 45
15	2		Hydraulic Hose, 1/2 x 34
16	1		Hydraulic Hose, 1/2 x 23
17	1		Hydraulic Hose, 1/2 x 17
18	1		Hydraulic Hose, 1/2 x 28
19	4	291027	Quick Coupler, Male End
20	2		Hydraulic Hose, 1/2 x 216
21	1	521001	Transport Lock Kit (Optional)
	1	998389	Rod End Clevis w/Bshng (Rplcmnt only)
	4	264704	Hydraulic Tube Clamps, Dbl

721070 Bushing for clevis



HYDRAULIC SCHEMATIC 18' – 24'

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	4	998903	Hydraulic Cylinder, 3 x 8
2	12	6801-NWO-8-8	Elbow, 90° O-ring
3	2	998392	Hydraulic Cylinder, 3 x 8 w/ Bushing
4	4	2603-10	Tee
5	2	2650-10	Cross
6	2		Hydraulic Tube, 5/8 x 58
7	4		Hydraulic Tube, 5/8 x 70
8	2		Hydraulic Tube, 5/8 x 47
9	2		Hydraulic Hose, 1/2 x 192
10	2		Hydraulic Hose, 1/2 x 32
11	2		Hydraulic Hose, 1/2 x 21
12	1		Hydraulic Hose, 1/2 x 45
13	1		Hydraulic Hose, 1/2 x 34
14	1		Hydraulic Hose, 1/2 x 23
15	2		Hydraulic Hose, 1/2 x 17
16	2		Hydraulic Hose, 1/2 x 28
17	4	291027	Quick Coupler, Male End
18	2		Hydraulic Tube, 5/8 x 107
19	2		Hydraulic Hose, 1/2 x 96
20	2	521001	Transport Lock Kit (Optional)
	1	998389	Rod End Clevis w/Bshng (Rplcmnt only)
	4	264704	Hydraulic Tube Clamps, Dbl



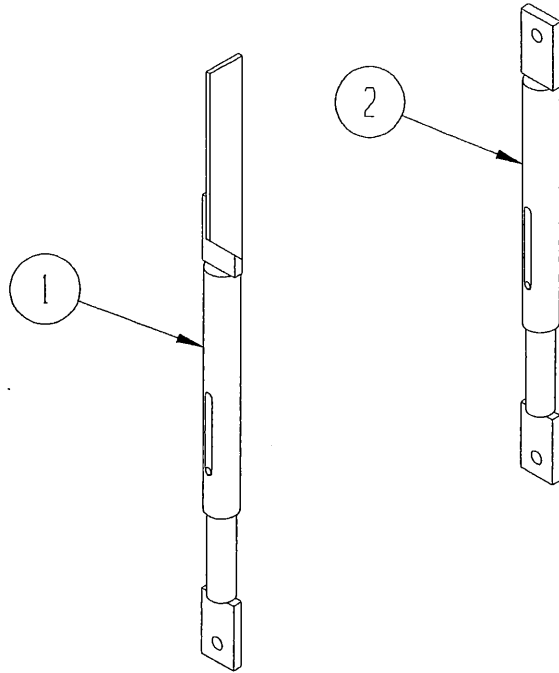
HYDRAULIC TINEBAR CONTROL

521250 4-Bar (12'-14') 521255 4-Bar (16'-24'')

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1*	521240	Toolbar Control Clamp
2	1*	521260	Toolbar Control Linkage
3	1*	521258	Cylinder Mount Clamp
4	1*	998903	Hydraulic Cylinder, 3 x 8
5	2*	6801-NWO-8-8	Elbow, 90°
6	2	2500-10	Elbow, 90°
7**	2	2601-10	Tee
8	2		Hydraulic Hose, 1/2 x 192
9	1		Hydraulic Hose, 1/2 x 60
10	2*	997903	Rod End, 3/4 x 6
11	16	521099	Rod End, 1/2 x 3 1/2
12	2*		Hex Bolt, 3/4" x 9
13	6*	521513	Toolbar Control Clamp
14	8*		Hex Nut, 3/4"
15	2		Hydraulic Tube, 5/8 x 70
16 **	1		Hydraulic Hose, 1/2 x 51
17**	1		Hydraulic Hose, 1/2 x 54
18	1		Hydraulic Hose, 1/2 x 63
19	1*	522012	Stroke Control Spacer Kit
		264704	Hydraulic Tube Clamp, Dbl
	2	291027	Quick Coupler, Male End

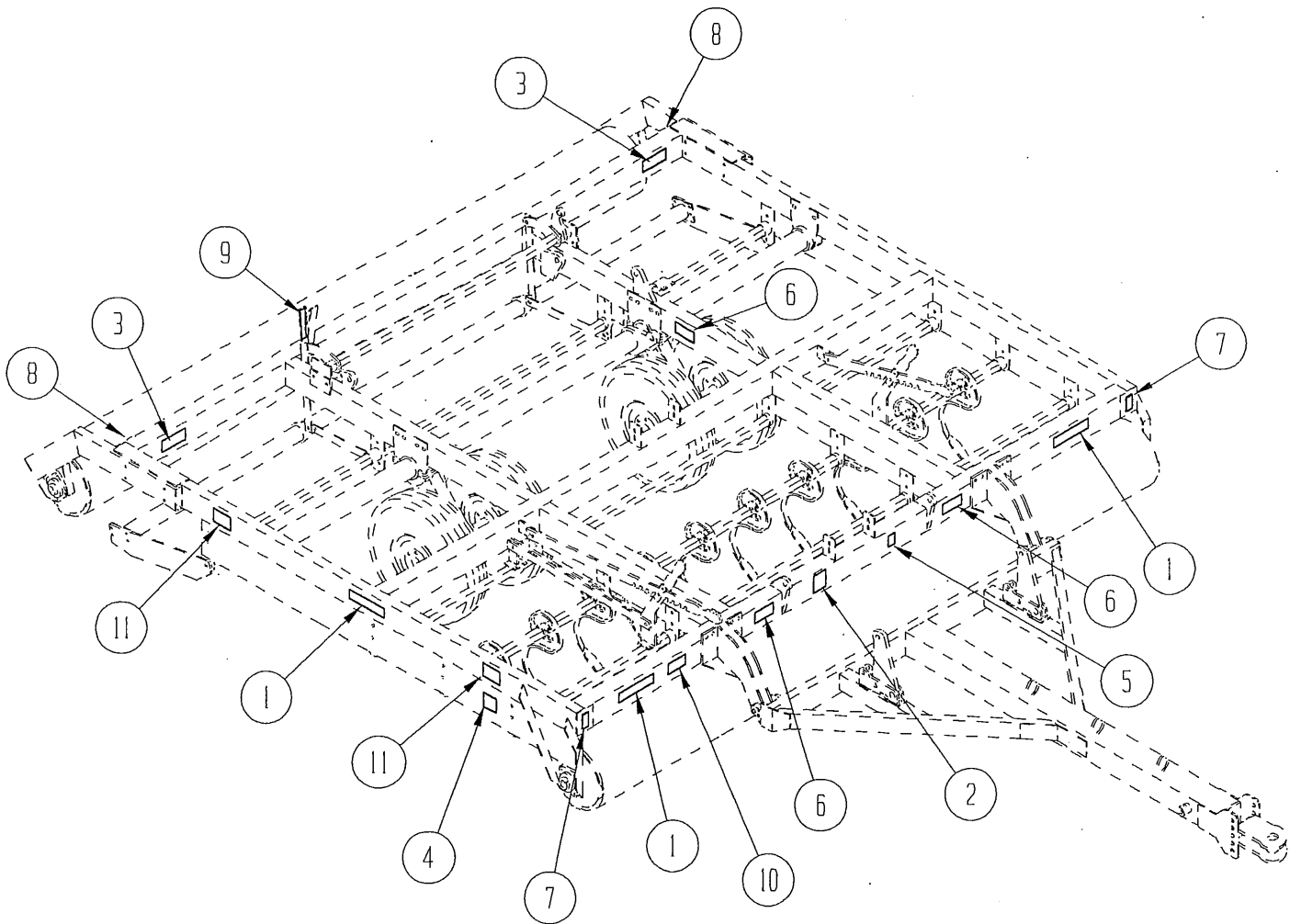
*Quantities will double for 16' - 24'

**Used only on 16' - 24'



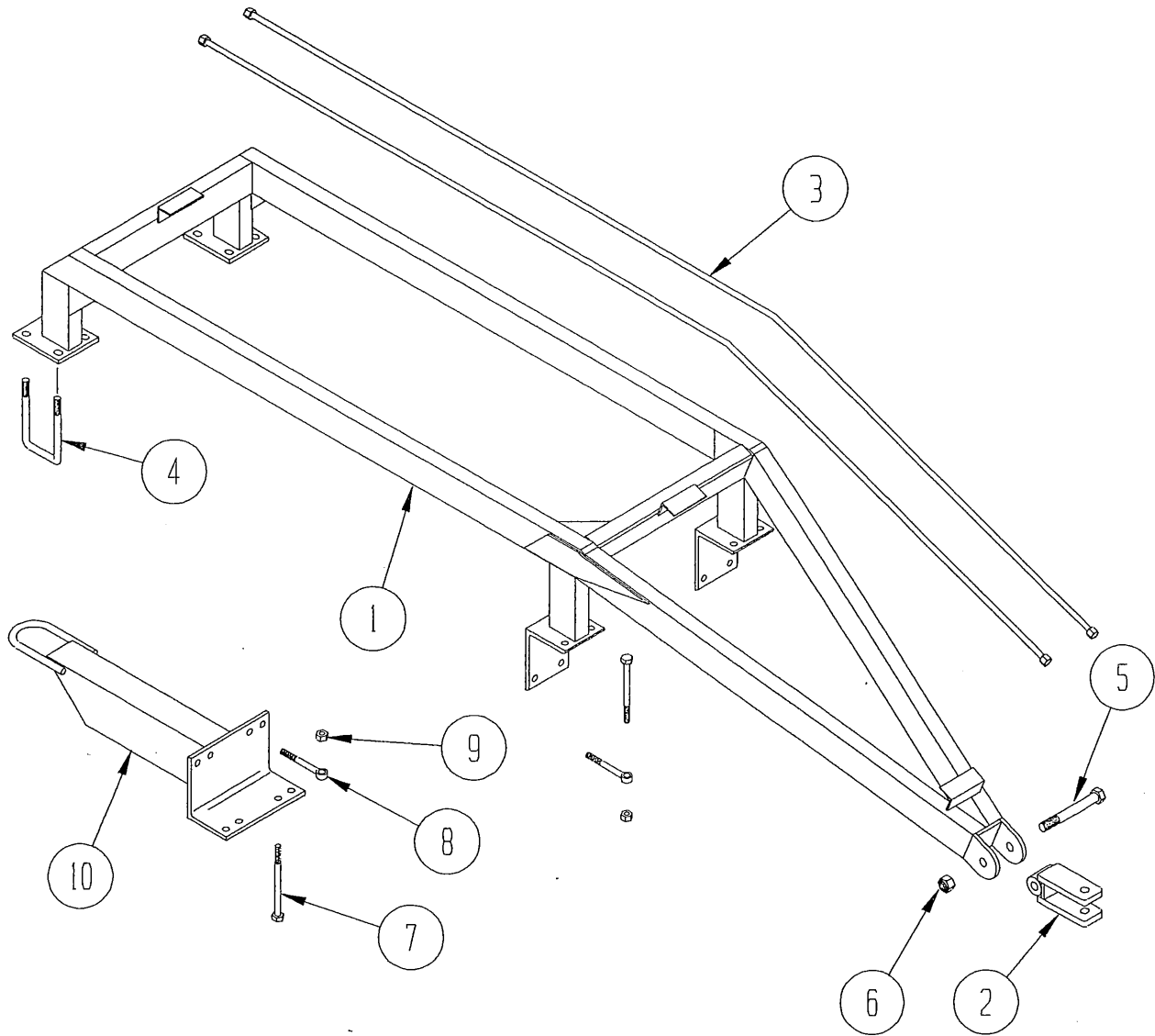
LEVELING BAR ROCK PROTECTION KIT

ITEM NO.	QTY. 12' - 16'	QTY. 18' - 24'	PART NO.	DESCRIPTION
1	1	1	521300	Link Assembly w/ Depth Indicator
2	1	3	521291	Link Assembly
	1	1	522301	Decal Indicator Decal



DECAL GROUP

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	6	264797	Decal, Parma
2	1	100406	Decal, General Caution
3	4	100404	Decal, Block Machine
4	2	100311	Decal, Rotating Parts
5	1	100423	Decal, FEMA
6	4	100408	Decal, Hydraulics Pressurized
7	2	264515	Reflector, Amber
8	2	264516	Reflector, Red
9	1	522301	Decal, Depth Indicator
10	1	521000	Decal, Lift
11	4	265933	Decal, Do Not Ride



GRAIN DRILL (4-Bar) / HARROW HITCH ASSEMBLIES

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	1	521605	Grain Drill Hitch Weldment
2	1	521139	Hitch Clevis
3	2	521613	Hydraulic Tube
4	4	522154	U-bolt
5	1		Hex Bolt, 1" x 6
6	1		Hex Lock Nut, 1"
7	4		Hex Bolt, 3/4 x 8-1/2"
8	4	997903	Eye Bolt, 3/4 x 6-1/2"
9	8		Hex Nut, 3/4"
10		521170	Harrow Hitch Weldment Hydraulic Tube Clamp, Dbl

