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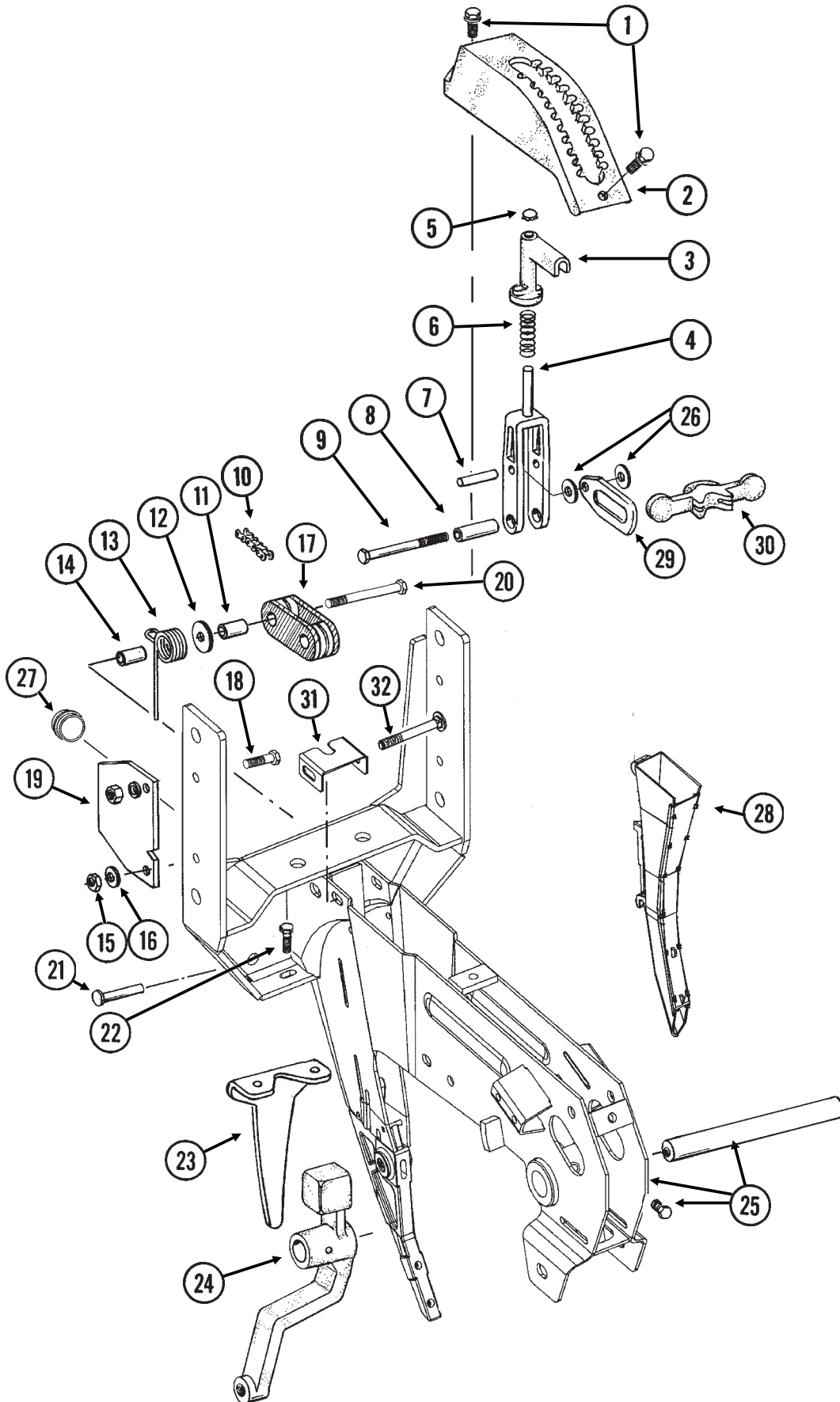
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# SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

(METR29c)

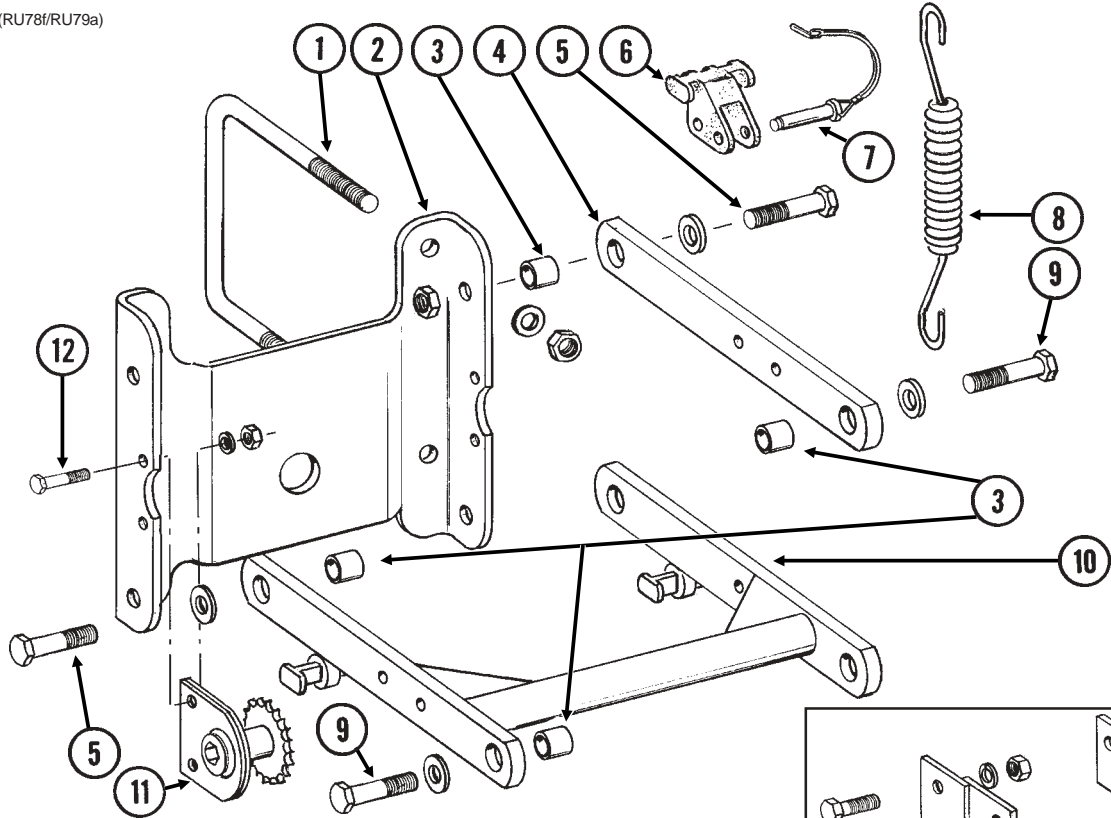


# SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

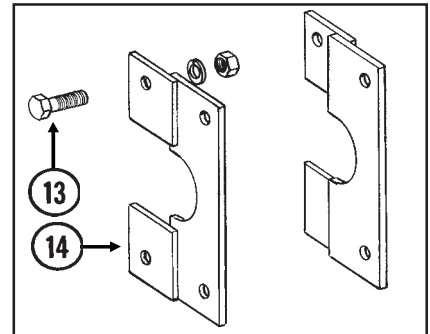
ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G11015	2	Hex Washer Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{1}{4}$ "
2.	GB0274	1	Cover, Depth Adjustment
3.	GB0266	1	Handle, Depth Adjustment
4.	GB0267	1	Lever, Depth Adjustment
5.	GD3612	1	Cap Plug
6.	GD10993	1	Spring
7.	GD13361	1	Pin, $\frac{3}{8}$ " x 1 $\frac{2}{3}$ "
8.	GD11259	1	Sleeve, $\frac{3}{8}$ " I.D. x $\frac{5}{8}$ " O.D. x 1 $\frac{25}{32}$ " Long
9.	G11008	1	Hex Head Cap Screw, $\frac{3}{8}$ "-24 x 2 $\frac{1}{2}$ ", Grade 8
	G11007	1	Lock Nut, $\frac{3}{8}$ "-24, Grade C
10.	G3303-98	1	Chain, No. 41, 98 Pitch Including Connector Link
	G3303-16	1	Chain, No. 41, 16 Pitch Including Connector Link (Used W/Row Unit Extension Brackets)
	GR0196	1	Connector Link, No. 41
11.	GD1026	1	Sleeve, 1 $\frac{3}{16}$ " Long
12.	G10201	1	Special Washer, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " O.D.
13.	GD1065	1	Idler Spring
14.	GD7318	1	Sleeve, 1" Long
15.	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
16.	G10210	1	Washer, $\frac{3}{8}$ " USS
17.	GD11962	1	Idler
18.	G10003	3	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{1}{2}$ "
	G10108	3	Lock Nut, $\frac{3}{8}$ "-16
19.	GD10867	2	Stop
20.	G10326	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 3 $\frac{3}{4}$ "
21.	G10551	1	Clevis Pin, $\frac{1}{4}$ " x 2 $\frac{1}{2}$ "
	G10669	1	Hair Pin Clip, No. 22
22.	G10312	2	Carriage Bolt, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
	G10620	2	Serrated Flange Nut, $\frac{5}{16}$ "-18
23.	GD1033	1	Shield
24.		-	Wheel Arm, See "Gauge Wheels", Pages P6 And P7
25.	GA10157	1	Shank W/Gauge Wheel Pivot Spindle And Set Screw
	GD11001	-	Spindle
	G10438	-	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x $\frac{3}{4}$ "
26.	G10207	2	Washer, $\frac{7}{8}$ " O.D. x $\frac{13}{32}$ " I.D. x .134" (If Applicable)
27.	GD11845	1	Dust Cap
28.			See "KPM I/KPM II Stack-Mode Electronic Seed Monitor", Pages P60 And P61
29.	GB0285	1	Collar, Depth Adjustment
30.	GB0265	1	Pivot Link, Depth Adjustment
31.	GD15970	1	Sun Shade
32.	G10304	1	Carriage Bolt, $\frac{3}{8}$ "-16 x 3"
	G10108	1	Lock Nut, $\frac{3}{8}$ "-16

# PARALLEL ARMS, MOUNTING SUPPORT PLATE AND QUICK ADJUSTABLE DOWN FORCE SPRINGS

RUB021/RUB022(RU78/RU79a)

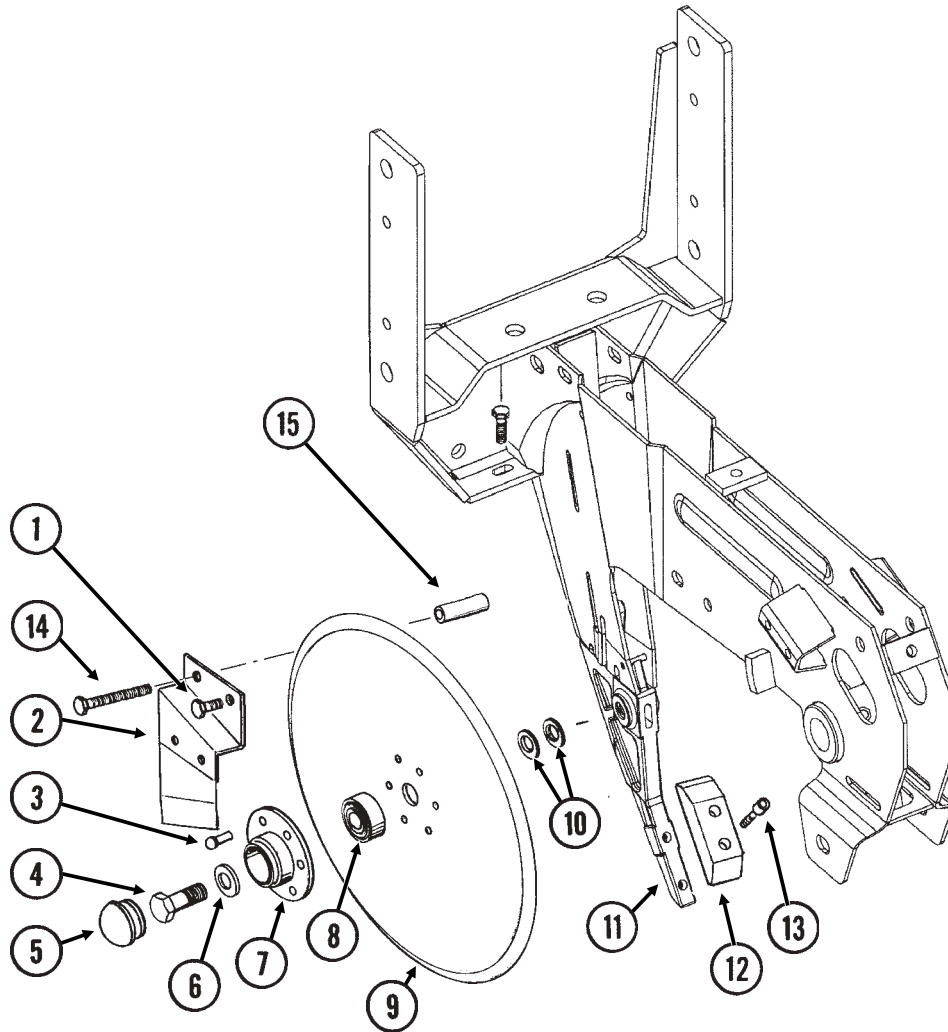


ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
2.	GD10036	1	Mounting Support Plate
3.	GB0218	4	Bushing, 21/32" I.D. x 7/8" O.D. x 19/32" Long
4.	GD11422	2	Upper Parallel Arm
5.	G10732	4	Hex Head Cap Screw, 5/8"-18 x 2"
	GD7805	4	Special Washer, 5/8", Hardened
	G10412	4	Lock Nut, 5/8"-18
6.	GB0186	2	Spring Anchor
7.	GD14217	2	Tab Lock Pin, 7/16" x 1 1/2"
8.	GD8249	2-4	Spring
9.		-	See "Hopper Support And Meter Drive", Page P12
10.	GA5651	1	Lower Parallel Arm
11.	GA1720	1	Bearing/Sprocket, 7/8" Hex Bore
12.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
13.	G10007	4	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
14.	GA7410	2	Extension Bracket
A.	G6325X	-	U-Bolt Package For 5" x 7" Toolbar, Includes: (2) GD1113, (4) G10230, (4) G10104



# 15" SEED OPENER DISC BLADE/BEARING ASSEMBLY AND SCRAPERS

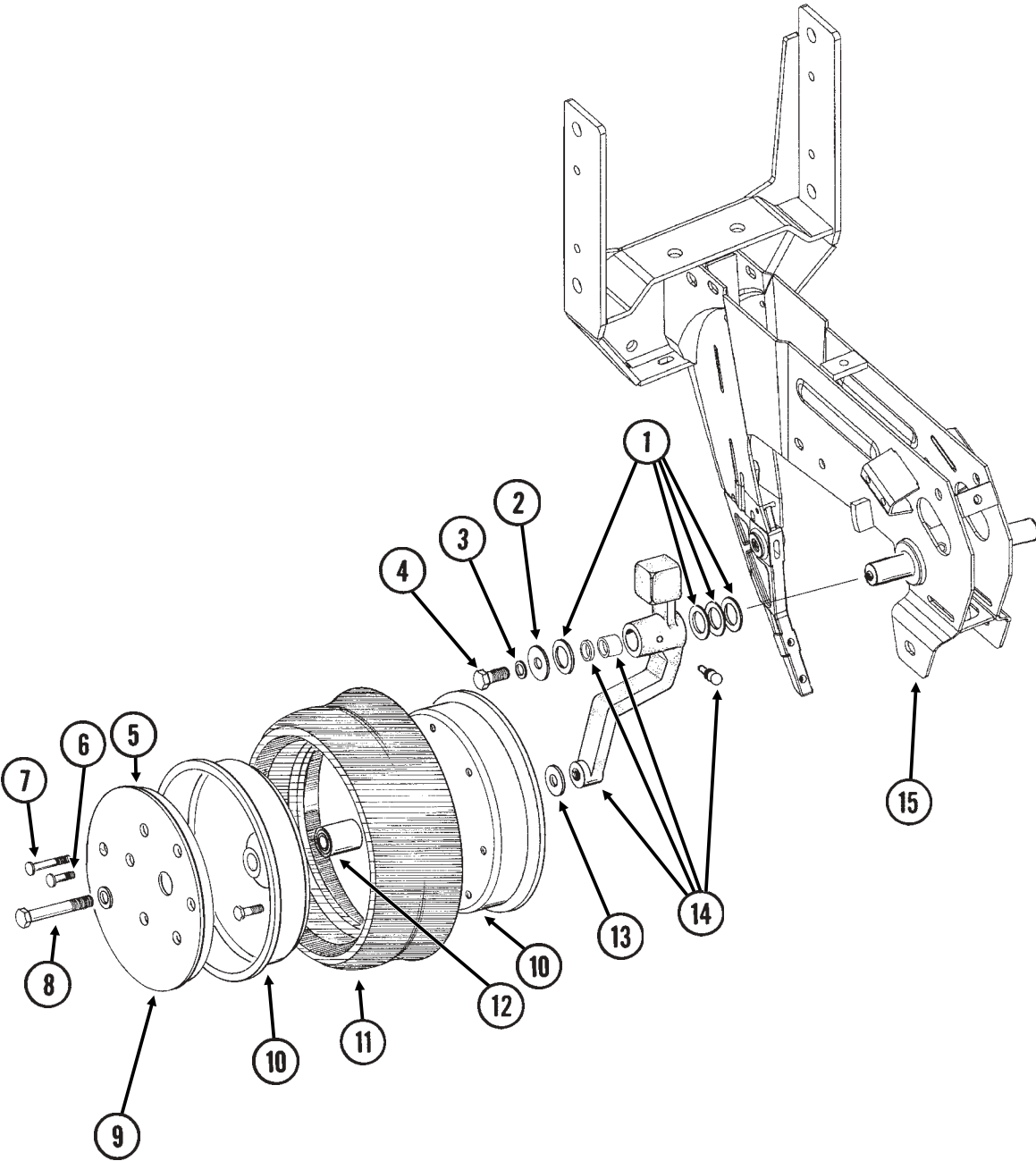
(RU139)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10328	2	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x $\frac{5}{8}$ "
	G10622	2	Serrated Flange Nut, $\frac{3}{8}$ "-16
2.	GA2012R	1	Disc Scraper, R.H.
	GA2012L	-	Disc Scraper, L.H. (Shown)
3.	G10427	12	Rivet, $\frac{1}{4}$ " x $\frac{1}{2}$ "
4.	GD11017	1	Special Hex Head Cap Screw, $\frac{5}{8}$ "-11 x $1\frac{1}{2}$ ", L.H. Threads
	G10007	1	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x $1\frac{1}{2}$ "
5.	GD11845	2	Dust Cap
6.	G10204	2	Special Machine Bushing, $\frac{5}{8}$ " x 1" O.D.
7.	GD10473	2	Bearing Housing
8.	GA2014	2	Bearing
9.	GD11306	2	Disc Blade, 3.5 mm x 15"
10.	G10213	-	Machine Bushing, $\frac{5}{8}$ " (.030" Thick)(As Required)
11.		-	See "Shank Assembly", Pages P2 And P3
12.	GB0301	1	Seed Tube Guard/Inner Scraper
13.	G10912	2	Hex Socket Head Cap Screw, $\frac{5}{16}$ "-18 x 1", Grade 8
14.	G10325	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x $2\frac{3}{4}$ "
	G10622	1	Serrated Flange Nut, $\frac{3}{8}$ "-16
15.	GD11259	1	Sleeve, $\frac{3}{8}$ " I.D. x $\frac{5}{8}$ " O.D. x $1\frac{25}{32}$ " Long
A.	GA8324	-	Disc Blade/Bearing Assembly, Less Dust Cap (Items 3 And 7-9)

# GAUGE WHEELS

(RU140)



# GAUGE WHEELS

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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10940	-	Machine Bushing, 1" (.048" Thick)
2.	G10216	2	Washer, 1/2" USS
3.	G10228	2	Lock Washer, 1/2"
4.	G10014	1	Hex Head Cap Screw, 1/2"-13 x 1"
5.	GD11453	2	Cover
6.	G10338	12	Carriage Bolt, 5/16"-18 x 1 1/4"
	G10620	12	Serrated Flange Nut, 5/16"-18
7.	G10924	8	Carriage Bolt, 5/16"-18 x 1 3/4"
	G10620	8	Serrated Flange Nut, 5/16"-18
8.	G10010	2	Hex Head Cap Screw, 5/8"-11 x 3"
	G10230	2	Lock Washer, 5/8"
9.	G10018	14	Hex Head Cap Screw, 5/16"-18 x 5/8"
	G10109	14	Lock Nut, 5/16"-18, Grade 8
10.	GD11423	4	Half Wheel
11.	GD1086	2	Tire
12.	GA6171	2	Bearing
13.	G10204	2	Special Machine Bushing, 5/8" x 1" O.D.
14.	GA7975	1	Wheel Arm W/Grease Fitting, Bushings And Seals, L.H. (Shown)
	GA7976	1	Wheel Arm W/Grease Fitting, Bushings And Seals, R.H.
	G10640	1	Grease Fitting, 1/4"-28 (Per Arm)
	GB0276	2	Bushing, 1" I.D. x 1 1/4" O.D. x 1" Long (Per Arm)
	GD10991	2	Seal (Per Arm)
15.		-	See "Shank Assembly", Pages P2 And P3
A.	GA7949	-	Gauge Wheel Complete (Items 5-7 And 9-12)

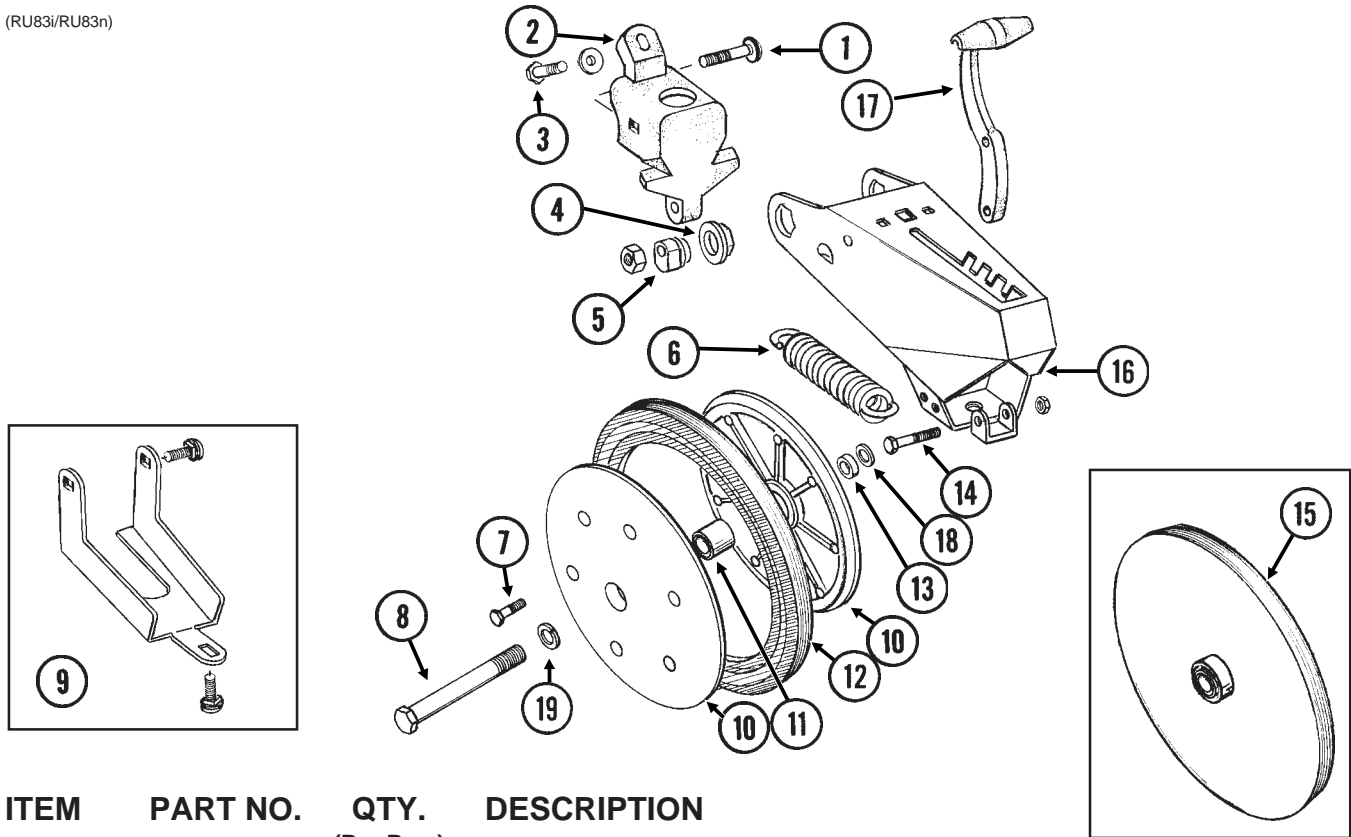


# COVERING DISCS/SINGLE PRESS WHEEL

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10001	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1"
	G10210	1	Washer, $\frac{3}{8}$ " USS
2.	GB0268	1	Wheel Arm Stop
3.	G10801	2	Carriage Bolt, $\frac{1}{2}$ "-13 x 2 $\frac{1}{4}$ "
	G10315	-	Carriage Bolt, $\frac{1}{2}$ "-13 x 2 $\frac{1}{2}$ " (Used W/Straight Drop In-Furrow Granular Chemical Bracket)
	G10102	2	Hex Nut, $\frac{1}{2}$ "-13
4.	GA2054	1	Spring
5.	GB0239	2	Eccentric Bushing
6.	G10102	1	Hex Nut, $\frac{1}{2}$ "-13
7.	G10015	1	Adjusting Bolt, $\frac{1}{2}$ "-13 x 5"
8.	GA6619	1	Mounting Arm
9.	G10463	2	Cotter Pin, $\frac{1}{4}$ " x 1 $\frac{1}{2}$ "
10.	G10171	4	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x 1 $\frac{1}{4}$ "
	G10232	4	Lock Washer, $\frac{5}{16}$ "
	G10106	4	Hex Nut, $\frac{5}{16}$ "-18
11.	GA6620	2	Bracket
12.	GA6618	2	Mount
13.	G10303	2	Carriage Bolt, $\frac{5}{16}$ "-18 x 1"
	G10219	2	Washer, $\frac{5}{16}$ " USS
	G10232	2	Lock Washer, $\frac{5}{16}$ "
	G10106	2	Hex Nut, $\frac{5}{16}$ "-18
14.	G10107	3	Lock Nut, $\frac{5}{8}$ "-11
15.	GD1109	2	Bushing, $\frac{41}{64}$ " I.D. x $\frac{7}{8}$ " O.D. x $\frac{1}{4}$ " Long
16.	GD9290	2	Disc Blade, 8"
17.	G10018	7	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x $\frac{5}{8}$ "
	G10109	7	Lock Nut, $\frac{5}{16}$ "-18, Grade 8
18.	G10152	1	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 9"
19.	GD3180-12	2	Sleeve, $\frac{5}{8}$ " I.D. x $\frac{7}{8}$ " O.D. x 2 $\frac{7}{8}$ " Long
20.	GD9562	2	Half Wheel
21.	GA6171	1	Bearing
22.	GD9305	1	Tire
23.	GA2014	2	Bearing
24.	GD10473	2	Bearing Housing
25.	G10427	12	Rivet, $\frac{1}{4}$ " x $\frac{1}{2}$ "
26.	G10006	2	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 2 $\frac{1}{4}$ "
27.	GD11845	2	Dust Cap
A.	GA6733	-	Single Press Wheel Complete W/Bearing (Items 17 And 20-22)
B.	GA6801	-	Covering Disc Blade Complete W/Bearing (Items 16 And 23-25)

# "V" CLOSING WHEELS

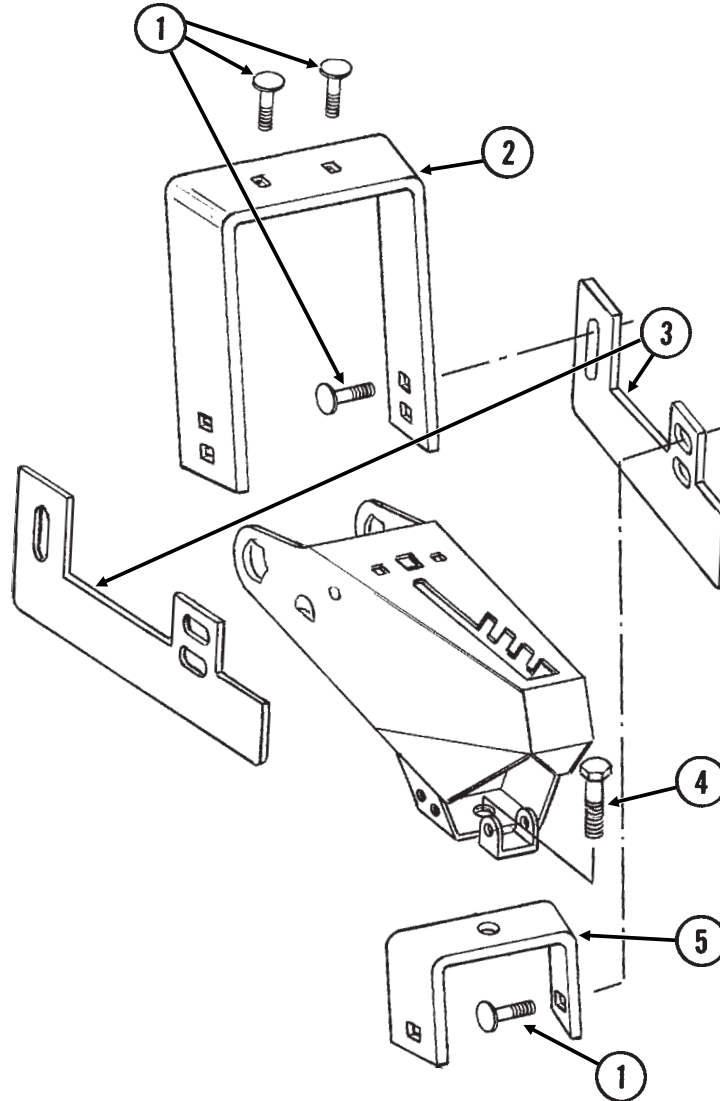
(RU83/RU83n)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10801	2	Carriage Bolt, 1/2"-13 x 2 1/4"
	G10315	-	Carriage Bolt, 1/2"-13 x 2 1/2" (Used W/Straight Drop In-Furrow Granular Chemical Bracket)
2.	G10111	2	Lock Nut, 1/2"-13
	GB0268	1	Wheel Arm Stop
3.	G10001	1	Hex Head Cap Screw, 3/8"-16 x 1"
	G10210	1	Washer, 3/8" USS
4.	GB0282	2	Stepped Bushing
5.	GB0239	2	Eccentric Bushing
6.	GD8460	1	Spring
7.	G10064	6	Hex Head Cap Screw, 1/4"-20 x 1"
8.	G10013	2	Hex Head Cap Screw, 5/8"-11 x 3 1/2"
	G10107	2	Lock Nut, 5/8"-11
9.	G1K345	-	Closing Wheel Shield Kit W/Hardware And Instruction
	G10308	3	Carriage Bolt, 3/8"-16 x 3/4"
	G10210	1	Washer, 3/8" USS
	G10229	3	Lock Washer, 3/8"
	G10101	3	Hex Nut, 3/8"-16
10.	GD9120	4	Nylon Half Wheel
11.	GA6171	2	Bearing
12.	GD1085	2	Rubber Tire, 1" x 12"
13.	GD1109	2	Bushing, 41/64" I.D. x 7/8" O.D. x 1/4" Long
14.	G10133	1	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	1	Lock Nut, 5/16"-18, Grade 8
15.	GA6597	-	Cast Iron Closing Wheel W/Bearing
	GA6171	-	Bearing
16.	GA8322	1	Arm
17.	GB0254	1	Lever
18.	GD7805	2	Special Washer, 5/8", Hardened
19.	G10230	2	Lock Washer, 5/8"
A.	GA6434	-	Rubber Closing Wheel Complete W/Bearing (Items 7 And 10-12)

# DRAG CLOSING ATTACHMENT

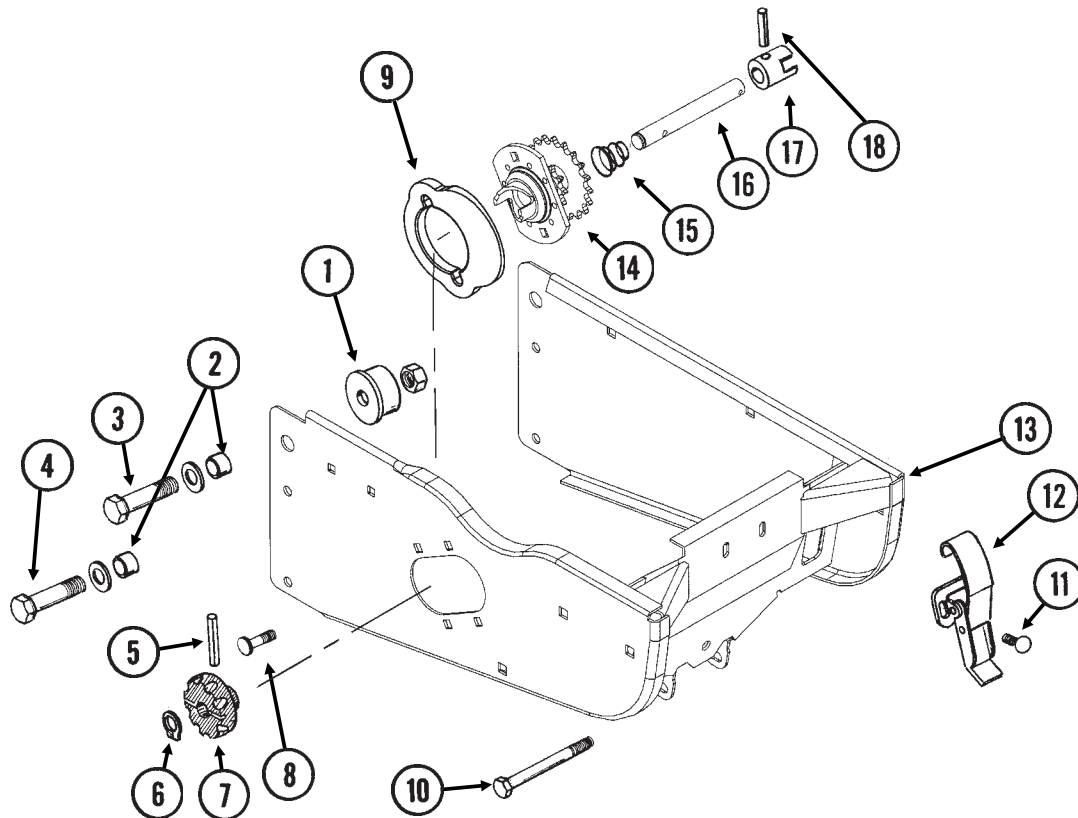
RUB050(RU90c)



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Row)	
1.	G10599	6	Carriage Bolt, $\frac{3}{8}$ "-16 x 1 $\frac{1}{4}$ "
	G10210	6	Washer, $\frac{3}{8}$ " USS
	G10229	6	Lock Washer, $\frac{3}{8}$ "
	G10101	6	Hex Nut, $\frac{3}{8}$ "-16
2.	GD11508	1	Front Bracket
3.	GD11313	2	Blade
4.	G10007	1	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 1 $\frac{1}{2}$ "
	G10230	1	Lock Washer, $\frac{5}{8}$ "
	G10104	1	Hex Nut, $\frac{5}{8}$ "-11
5.	GD11509	1	Rear Bracket
A.	G7566X	-	Drag Closing Attachment Complete (Items 1-5)

# HOPPER SUPPORT AND METER DRIVE

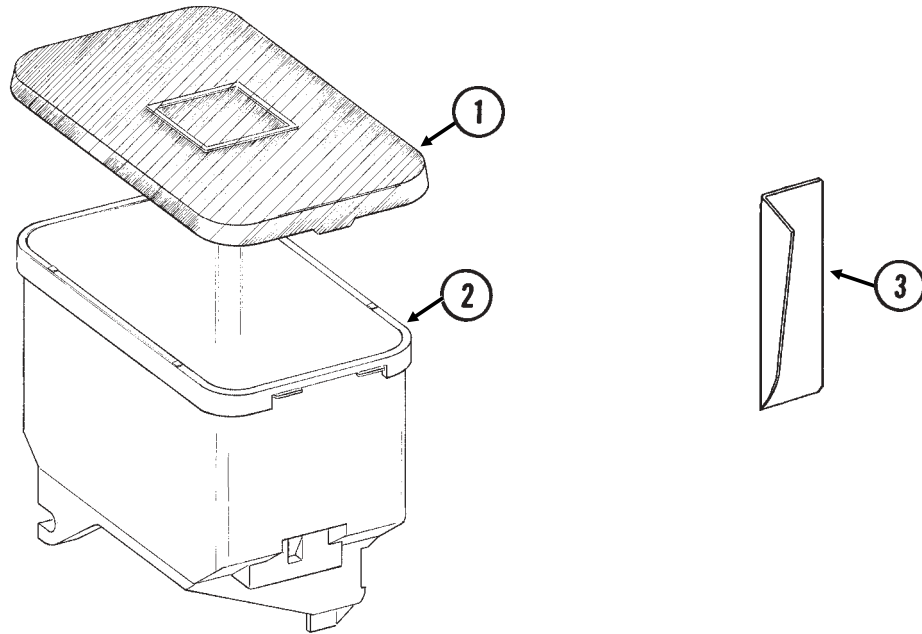
(METR22d)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GB0314	2	Hopper Mount
2.	GB0218	4	Bushing, $2\frac{1}{32}$ " I.D. x $7\frac{7}{8}$ " O.D. x $1\frac{19}{32}$ " Long
3.	G10752	2	Hex Head Cap Screw, $\frac{5}{8}$ "-18 x $2\frac{1}{4}$ "
	GD7805	2	Special Washer, $\frac{5}{8}$ ", Hardened
	G10412	2	Lock Nut, $\frac{5}{8}$ "-18
4.	G10751	2	Hex Head Cap Screw, $\frac{5}{8}$ "-18 x $1\frac{3}{4}$ "
	GD7805	2	Special Washer, $\frac{5}{8}$ ", Hardened
	G10412	2	Lock Nut, $\frac{5}{8}$ "-18
5.	G10602	1	Spring Pin, $\frac{1}{4}$ " x $1\frac{1}{2}$ "
6.	G10567	1	External Retaining Ring, $\frac{5}{8}$ "
7.	GD11239	1	Knob
8.	G10338	2	Carriage Bolt, $\frac{5}{16}$ "-18 x $1\frac{1}{4}$ "
	G10620	2	Serrated Flange Nut, $\frac{5}{16}$ "-18
9.	GB0331	1	Clutch Adapter Plate
10.	G10061	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x $3\frac{1}{2}$ "
	G10210	2	Washer, $\frac{3}{8}$ " USS
	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
11.	G10309	2	Carriage Bolt, $\frac{1}{4}$ "-20 x $\frac{5}{8}$ ", Grade 2
	G10621	2	Serrated Flange Nut, $\frac{1}{4}$ "-20
12.	GA2007	1	Hopper Hold Down Latch
13.	GA10155	1	Hopper Support
14.	GA10137	1	Double Sprocket And Bearing, Drive Clutch, 11/19 Tooth
15.	GD11413	1	Spring
16.	GD15747	1	Shaft
17.	GB0278	1	Coupler
18.	G10546	1	Spring Pin, $\frac{3}{16}$ " x $1\frac{1}{4}$ "
A.	GA10151	-	Meter Drive Assembly Complete (Items 5-7 And 14-18)

# SEED HOPPER AND LID

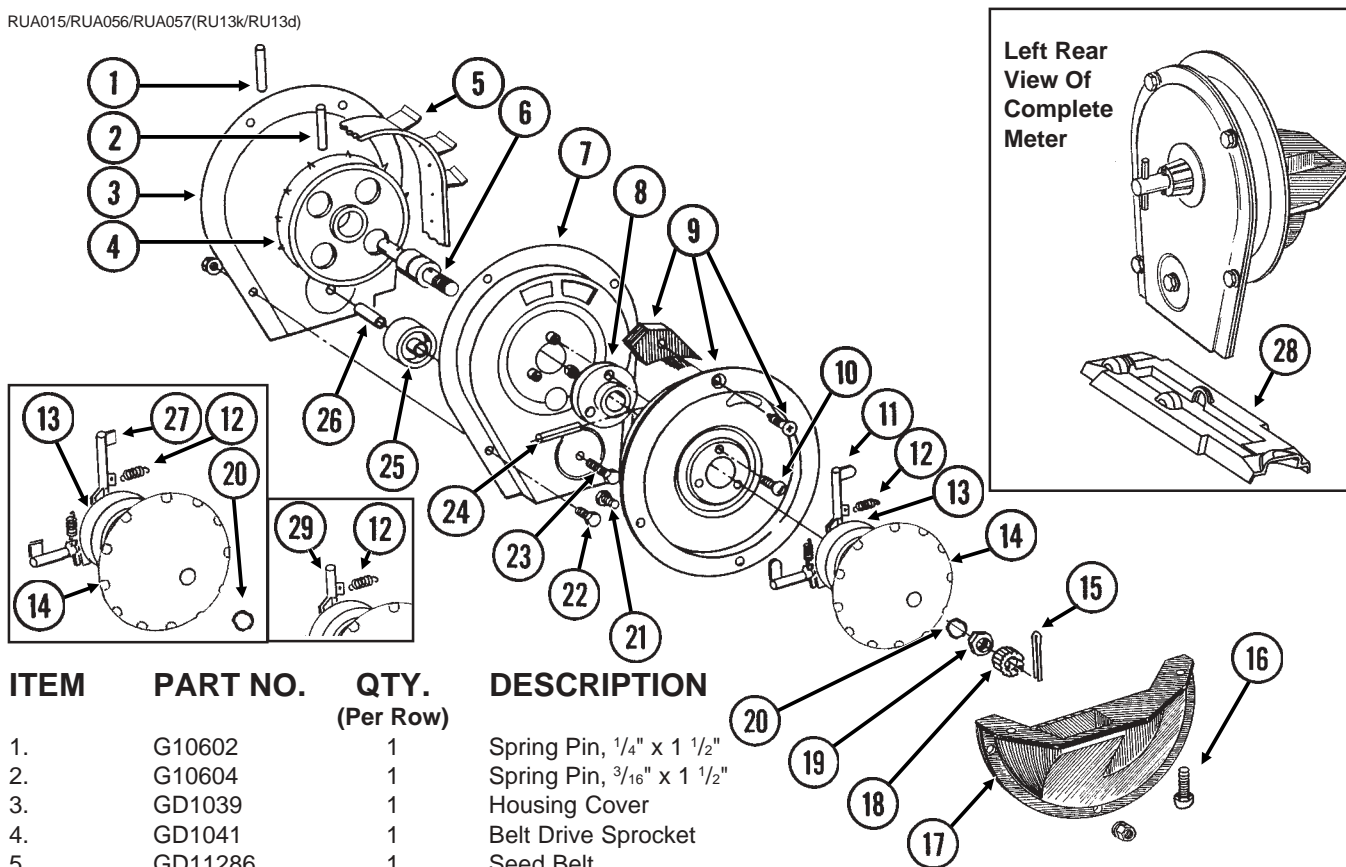
(RU87e/RU87a)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD11279	1	Lid
2.	GA9714	1	Seed Hopper, Reinforced
3.	GD11747	1	Seed Reserve Baffle

# FINGER PICKUP SEED METER

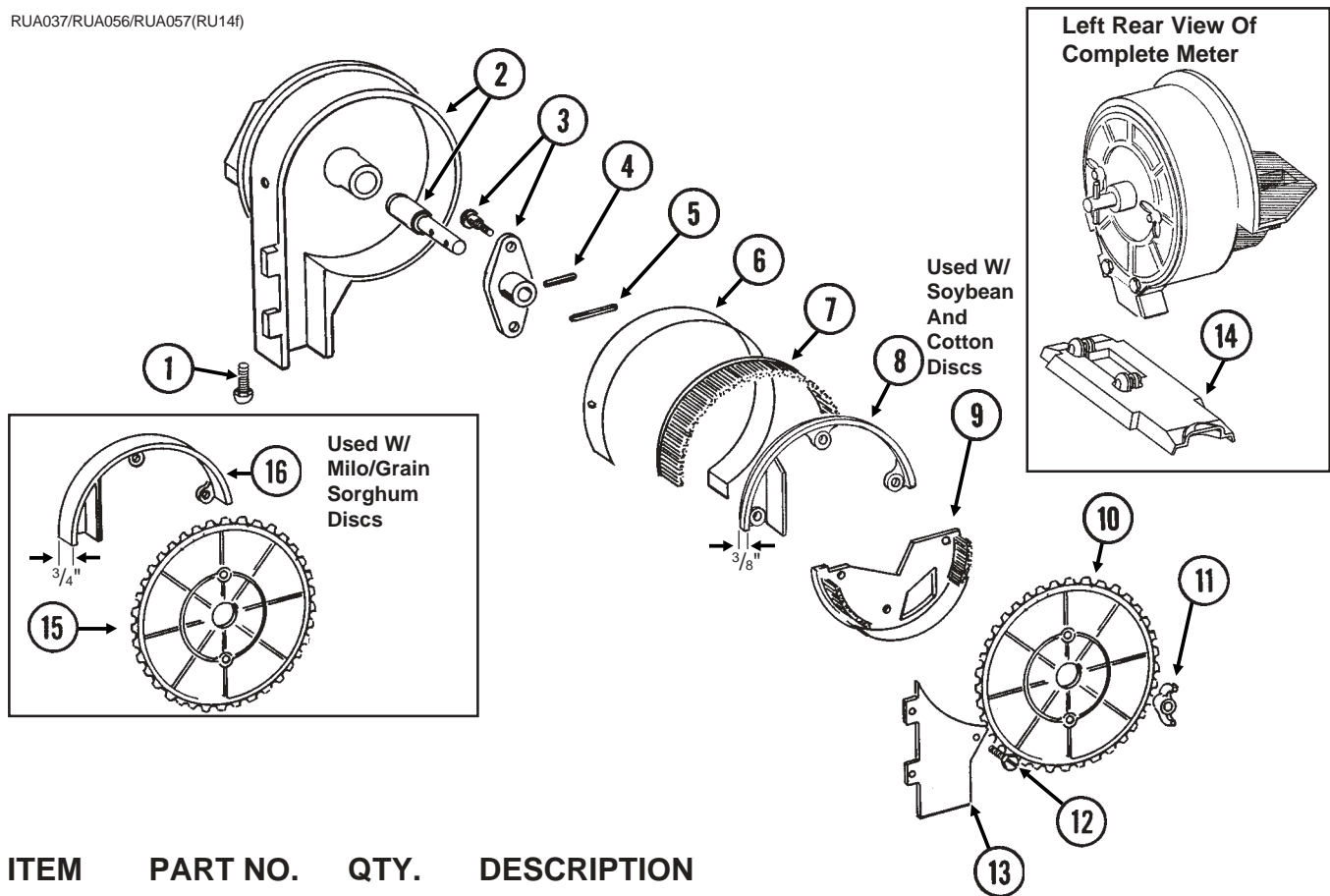
RUA015/RUA056/RUA057(RU13k/RU13d)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10602	1	Spring Pin, 1/4" x 1 1/2"
2.	G10604	1	Spring Pin, 3/16" x 1 1/2"
3.	GD1039	1	Housing Cover
4.	GD1041	1	Belt Drive Sprocket
5.	GD11286	1	Seed Belt
6.	GA2019	1	Bearing
7.	GA2018	1	Conveyor Housing
8.	GB0110	1	Bearing Housing
9.	GR1569	1	Carrier Plate W/Brush And Screw
	GA2020	-	Brush
	G10690	-	Rolling Thread Screw, No. 10 x 3/4"
10.	G10401	3	Slotted Hex Washer Head Screw, No. 10-32 x 5/8"
11.	GD10733	12	Finger, Corn
12.	GD6501	12	Spring
13.	GB0111	1	Cam
14.	GD11528	1	Finger Holder
15.	G10470	1	Cotter Pin, 5/32" x 1"
16.	G11009	2	Locking Thumbscrew, 5/16"-18 x 3/4"
17.	GD11311	1	Seed Baffle
18.	GD1083	1	Cover Nut
19.	G10500	1	Jam Nut, 5/8"-18 UNF
20.	GA8343	1	Wave Washer, 5/8" (Triple Wave)
21.	G10020	3	Hex Head Cap Screw, 1/4"-20 x 5/8"
	G10323	3	Hex Flange Nut, 1/4"-20
22.	G10022	4	Hex Head Cap Screw, 1/4"-20 x 1/2"
	G10621	4	Serrated Flange Nut, 1/4"-20
23.	G10021	1	Hex Head Cap Screw, 1/4"-20 x 1 1/2"
	G10621	1	Serrated Flange Nut, 1/4"-20
24.	G10603	1	Spring Pin, 1/4" x 1 1/4"
25.	GD1042	1	Idler
26.	GB0120	1	Bushing, 17/64" I.D. x 1 1/32" Long
27.	GD10226	12	Finger, Oil Sunflower
28.	GD15698	1	Shank Cover, Finger Pickup Seed Meter
29.	GD11787	-	Half Rate Blank Finger
A.	GR1487	-	Finger Assembly, Corn (Items 11-14 And 20)
B.	GR1327	-	Finger Assembly, Oil Sunflower (Items 12-14, 20 And 27)

# BRUSH-TYPE SEED METER

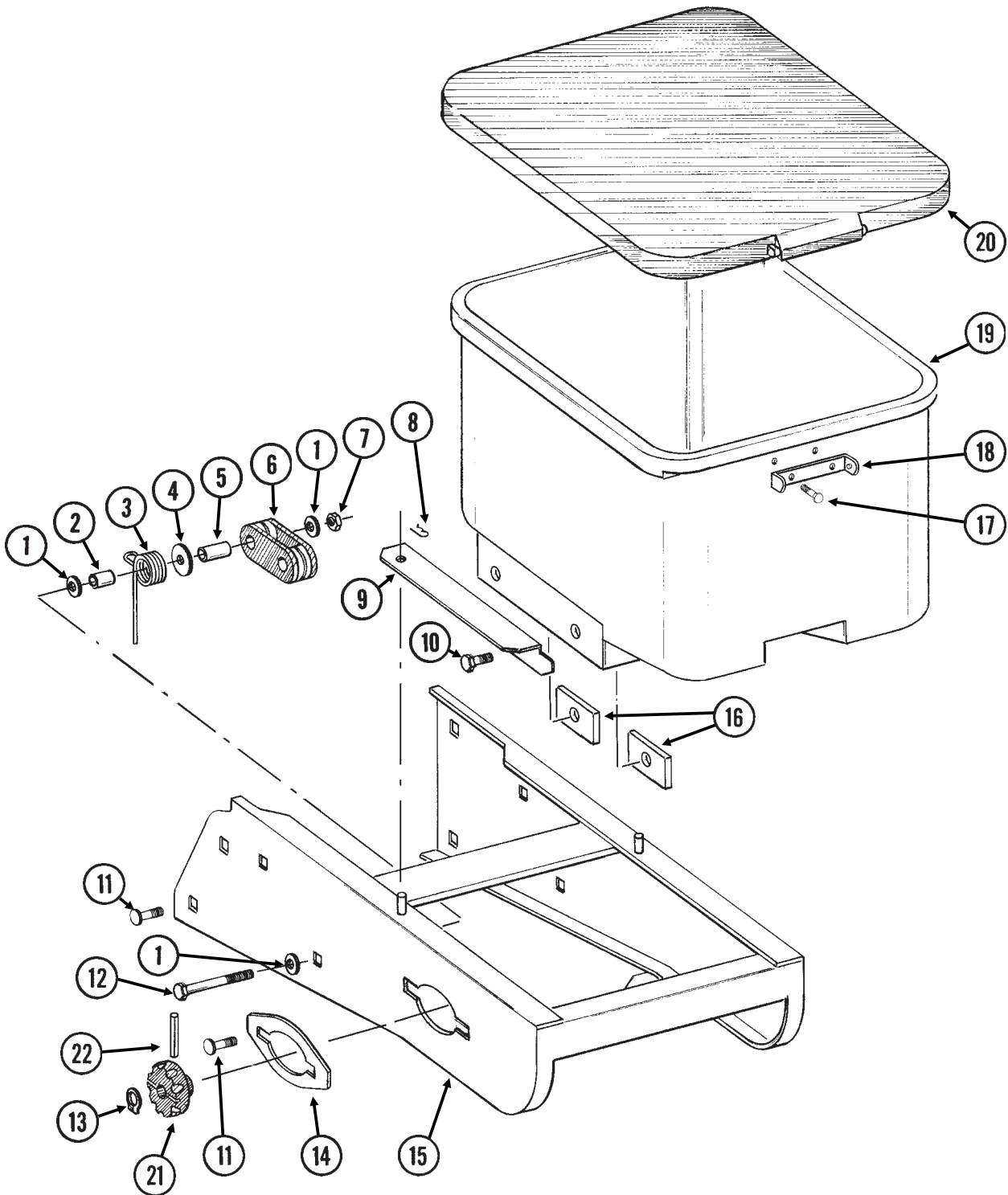
RUA037/RUA056/RUA057(RU14f)



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Row)	
1.	G11009	2	Locking Thumbscrew, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
2.	GA6027	1	Housing W/Bearing
	GA5698	-	Bearing
3.	GA6038	1	Hub W/Shoulder Bolts
	GD1755	-	Shoulder Bolt, $\frac{1}{4}$ "-20 (2 Used)
4.	G10603	1	Spring Pin, $\frac{1}{4}$ " x $1\frac{1}{4}$ "
5.	G10602	1	Spring Pin, $\frac{1}{4}$ " x $1\frac{1}{2}$ "
6.	GD8778	1	Wear Strip
7.	GA5699	1	Upper Brush
8.	GD11122	1	Upper Brush Retainer (Used W/Soybean And Cotton Discs)
9.	GA5834	1	Lower Brush
10.	GA5794	-	Seed Disc, Soybean, 60 Cell, Black Color-Coded
	GA6184	-	Seed Disc, Specialty Soybean, 48 Cell, Dark Blue Color-Coded
	GA5796	-	Seed Disc, Cotton, Acid-Delinted, 30 Cell, White Color-Coded
	GA6168	-	Seed Disc, Large Cotton, Acid-Delinted, 36 Cell, Tan Color-Coded
	GA6478	-	Seed Disc, High-Rate Cotton, Acid-Delinted, 48 Cell, Light Green Color-Coded
	GA6182	-	Seed Disc, Hill-Drop Cotton, Acid-Delinted, 12 Cell, Brown Color-Coded
	GA7255	-	Seed Disc, Small Hill-Drop Cotton, Acid-Delinted, 12 Cell, Dark Green Color-Coded
11.	G10531	2	Wing Nut W/Nylon Insert, $\frac{1}{4}$ "-20
12.	G11151	9	Hex Washer Head Screw, No. 10-24 x $\frac{1}{2}$ "
	G10634	-	Slotted Tap Screw, No. 10-24 x $\frac{5}{8}$ " (Use As Required)
13.	GD7878	1	Cover
14.	GD15699	1	Shank Cover, Brush-Type Seed Meter
15.	GA5982	-	Seed Disc, Small Milo/Grain Sorghum, 30 Cell, Red Color-Coded
	GA6187	-	Seed Disc, Large Milo/Grain Sorghum, 30 Cell, Light Blue Color-Coded
	GA5795	-	Seed Disc, High-Rate Small Milo/Grain Sorghum, 60 Cell, Red Color-Coded
	GA6633	-	Seed Disc, High-Rate Large Milo/Grain Sorghum, 60 Cell, Yellow Color-Coded
16.	GD8237	-	Upper Brush Retainer (Used W/Milo/Grain Sorghum Discs)

# GRANULAR CHEMICAL HOPPER AND HOPPER PANEL EXTENSION

(METR14d)



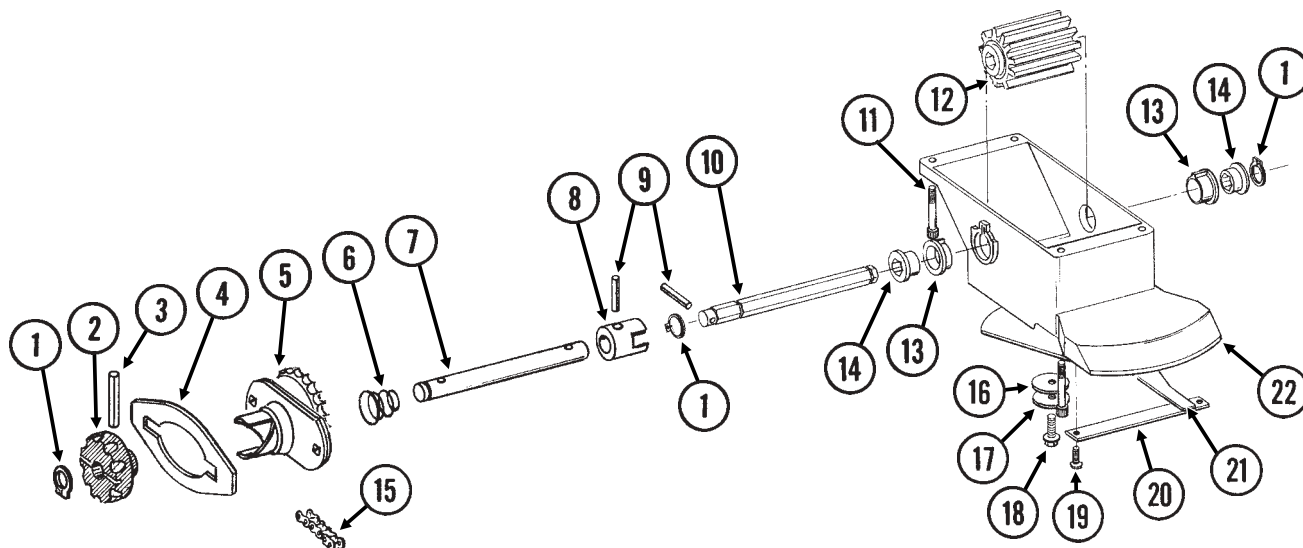
# GRANULAR CHEMICAL HOPPER AND HOPPER PANEL EXTENSION

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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10210	3	Washer, 3/8" USS
2.	GD2971-10	1	Sleeve, 9/16" Long
3.	GD11219	1	Spring
4.	G10201	1	Special Washer, 3/8" x 1 1/2" O.D.
5.	GD1026	1	Sleeve, 1 3/16" Long
6.	GD11962	1	Idler
7.	G10108	1	Lock Nut, 3/8"-16
8.	G10670	2	Hair Pin Clip, No. 3
9.	GD1059L	1	Support, L.H. (Shown)
	GD1059R	1	Support, R.H.
10.	G10002	4	Hex Head Cap Screw, 3/8"-16 x 3/4"
	G10229	4	Lock Washer, 3/8"
11.	G10312	8	Carriage Bolt, 5/16"-18 x 3/4"
	G10620	8	Serrated Flange Nut, 5/16"-18
12.	G10325	1	Hex Head Cap Screw, 3/8"-16 x 2 3/4"
13.	G10567	3	External Retaining Ring, 5/8"
14.	GD11305	1	Plate
15.	A10759	1	Hopper Panel Extension <b>(Non-Stock Item)</b> <b>(Sub Wholegoods Order Code 700-01099)</b>
16.	GD11424	4	Block
17.	G10023	2	Hex Head Cap Screw, 1/4"-20 x 3/4"
	G10621	2	Serrated Flange Nut, 1/4"-20
18.	GD1060	1	Hinge
19.	GA8371	1	Hopper
20.	GA4444	1	Lid
21.	GD11239	1	Knob
22.	G10602	1	Spring Pin, 1/4" x 1 1/2"

# GRANULAR CHEMICAL METER AND METER DRIVE

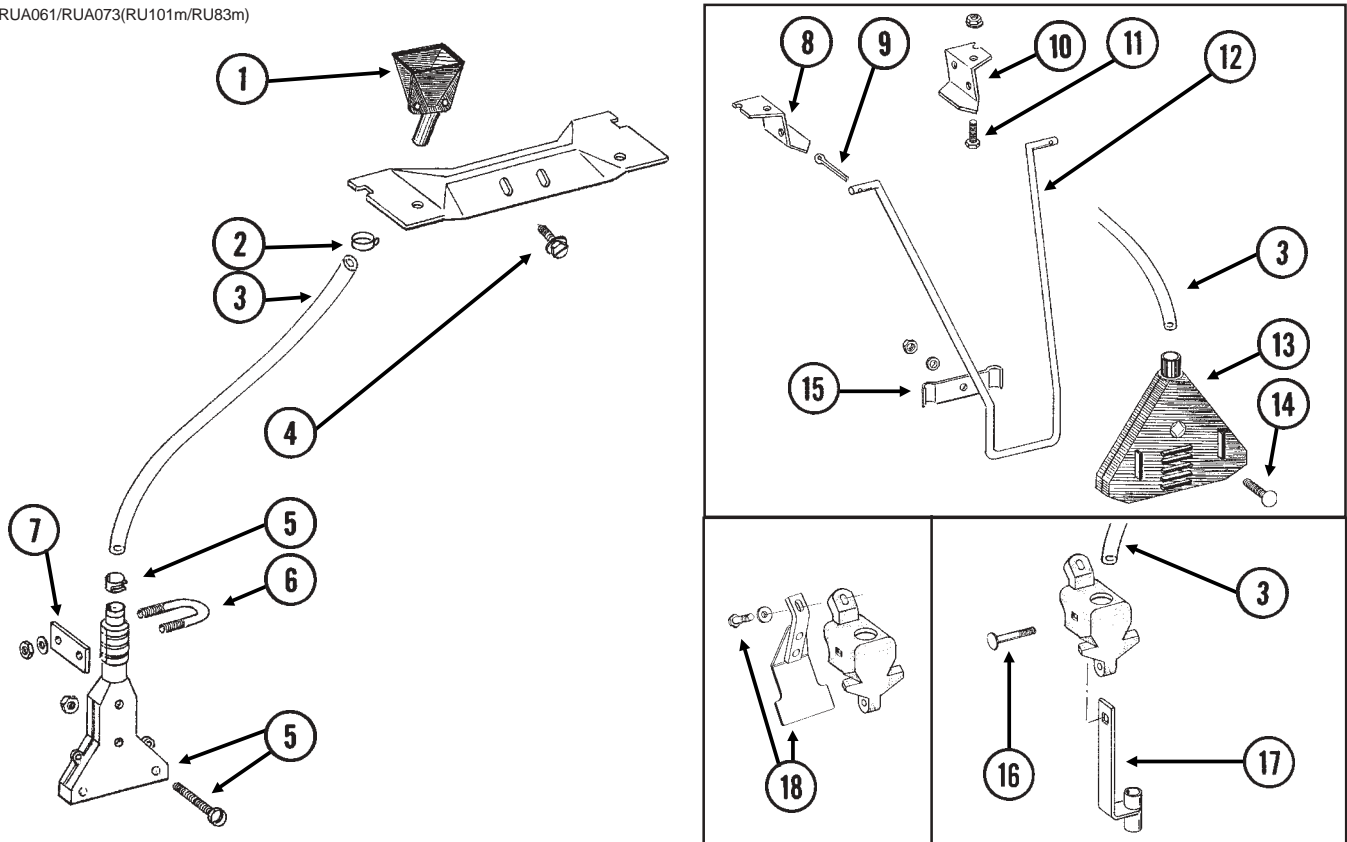
RUA051/RUB028(RU91a)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10567	3	External Retaining Ring, 5/8"
2.	GD11239	1	Knob
3.	G10602	1	Spring Pin, 1/4" x 1 1/2"
4.		-	See "Granular Chemical Hopper And Hopper Panel Extension", Pages P16 And P17
5.	GA8364	1	Sprocket And Bearing, Drive Clutch, 24 Tooth
6.	GD11413	1	Spring
7.	GD11240	1	Shaft
8.	GB0278	1	Coupler
9.	G10546	2	Spring Pin, 3/16" x 1 1/4"
10.	GD11297	1	Shaft
11.	G10921	4	Hex Socket Head Cap Screw, No. 10-24 x 7/8"
	G10257	4	Lock Washer, No. 10
12.	GD7148	1	Feed Roller, Hex Bore
13.	GB0115	2	Bearing
14.	GD7258	2	Hex Bushing
15.	G3303-114	1	Chain, No. 41, 114 Pitch Including Connector Link
	GR0196	1	Connector Link, No. 41
16.	G10660	1	Wave Washer, 1/2"
17.	G10209	1	Washer, 1/4" USS
18.	G10570	1	Slotted Hex Self-Tapping Screw, 1/4"-20 x 3/4"
19.	G11073	2	Slotted Hex Self-Tapping Screw, No. 10 x 3/8"
20.	GD1061	1	Support Strap
21.	GD1063	1	Metering Gate
22.	GB0116	1	Granular Housing
A.	GA8326	-	Granular Chemical Meter Complete (Items 1, 9, 10, 12-14 And 16-22)

# GRANULAR CHEMICAL BANDING OPTIONS

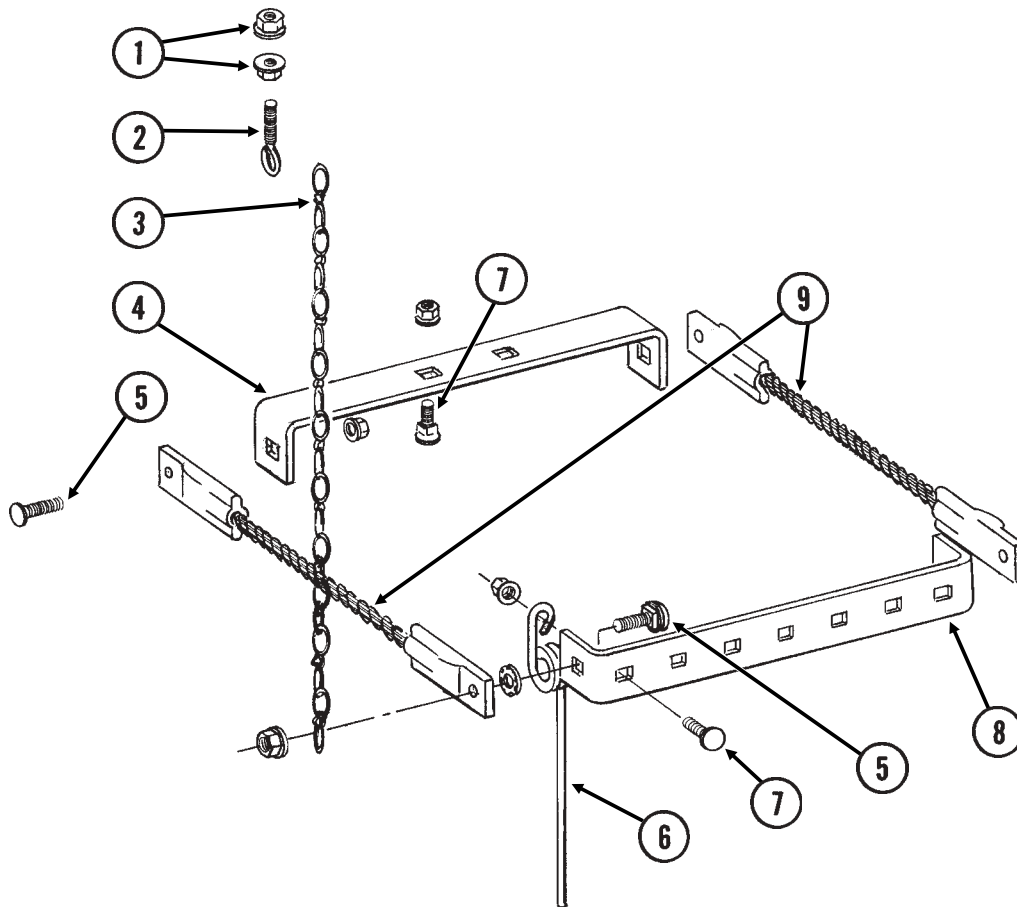
RUA061/RUA073(RU101m/RU83m)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD2423	1	Funnel
2.	G10673	1	Hose Clamp, No. 8
3.	GD2947	1	Hose, 7/16" x 28"
4.	G10523	2	Slotted Pan Head Self-Tapping Screw, No. 10 x 1/2"
5.	GA6907	1	Slope-Compensating Bander W/Hardware (4 1/2" Band Width)
	G10864	1	Uni-Clamp
	G10757	2	Pan Head Screw, No. 10-32 x 1 1/4"
	G10758	2	Hex Nut, No. 10-32
6.	GD10963	1	U-Bolt, 1 1/2" x 1 5/16" x 1/4"-20
	G10209	2	Washer, 1/4" USS
	G10110	2	Lock Nut, 1/4"-20, Grade B
7.	GD10984	1	Spacer
8.	GD1115L	-	Hanger Bracket, L.H.
9.	G10452	-	Cotter Pin, 1/8" x 1/2"
10.	GD1115R	-	Hanger Bracket, R.H.
11.	G10310	-	Carriage Bolt, 1/4"-20 x 3/4", Grade 2
	G10227	-	Lock Washer, 1/4"
	G10103	-	Hex Nut, 1/4"-20
12.	GD1116	-	Hanger
13.	GA2075	-	Diffuser, 14" Band
14.	G10306	-	Carriage Bolt, 3/8"-16 x 2"
	G10229	-	Lock Washer, 3/8"
	G10101	-	Hex Nut, 3/8"-16
15.	GD1118	-	Clamp
16.	G10315	1	Carriage Bolt, 1/2"-13 x 2 1/2" (Replaces Existing 1/2" x 2 1/4" Hardware)
17.	GA6741	1	Bracket (Straight Drop In-Furrow)
18.	G1K385	-	Bander Shield Kit W/Hardware And Instruction
	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	GD14659	1	Special Washer, 3/8", Hardened

# SPRING TOOTH INCORPORATOR

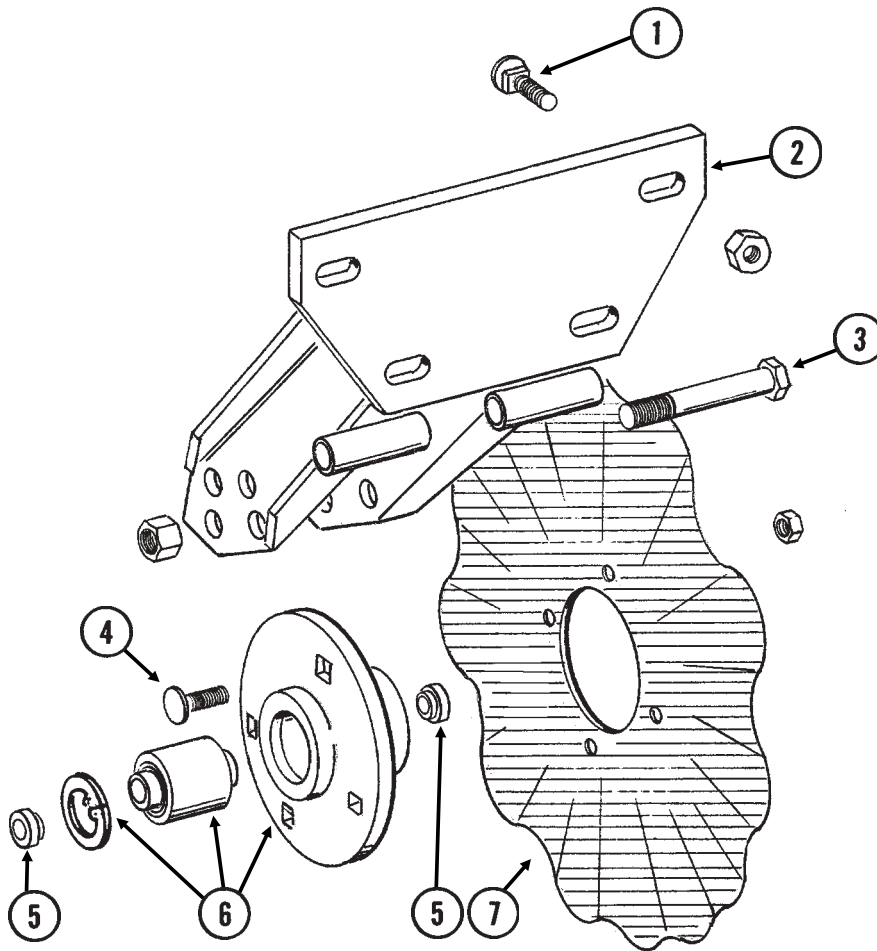
RUA055(RU95)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10621	4	Serrated Flange Nut, 1/4"-20
2.	GD2460	2	Eyebolt, 1/4"-20
3.	G3305-01	4	Twin Loop Chain, 9 Links
4.	GD1143	1	Front Bracket
5.	G10305	4	Carriage Bolt, 3/8"-16 x 1"
	G10529	4	External Tooth Lock Washer, 3/8"
	G10622	4	Serrated Flange Nut, 3/8"-16
6.	GD1145	7	Spring Tooth
7.	G10308	9	Carriage Bolt, 3/8"-16 x 3/4"
	G10622	9	Serrated Flange Nut, 3/8"-16
8.	GD1144	1	Rear Bracket
9.	GA2094	2	Cable Assembly

# ROW UNIT MOUNTED NO TILL COULTER

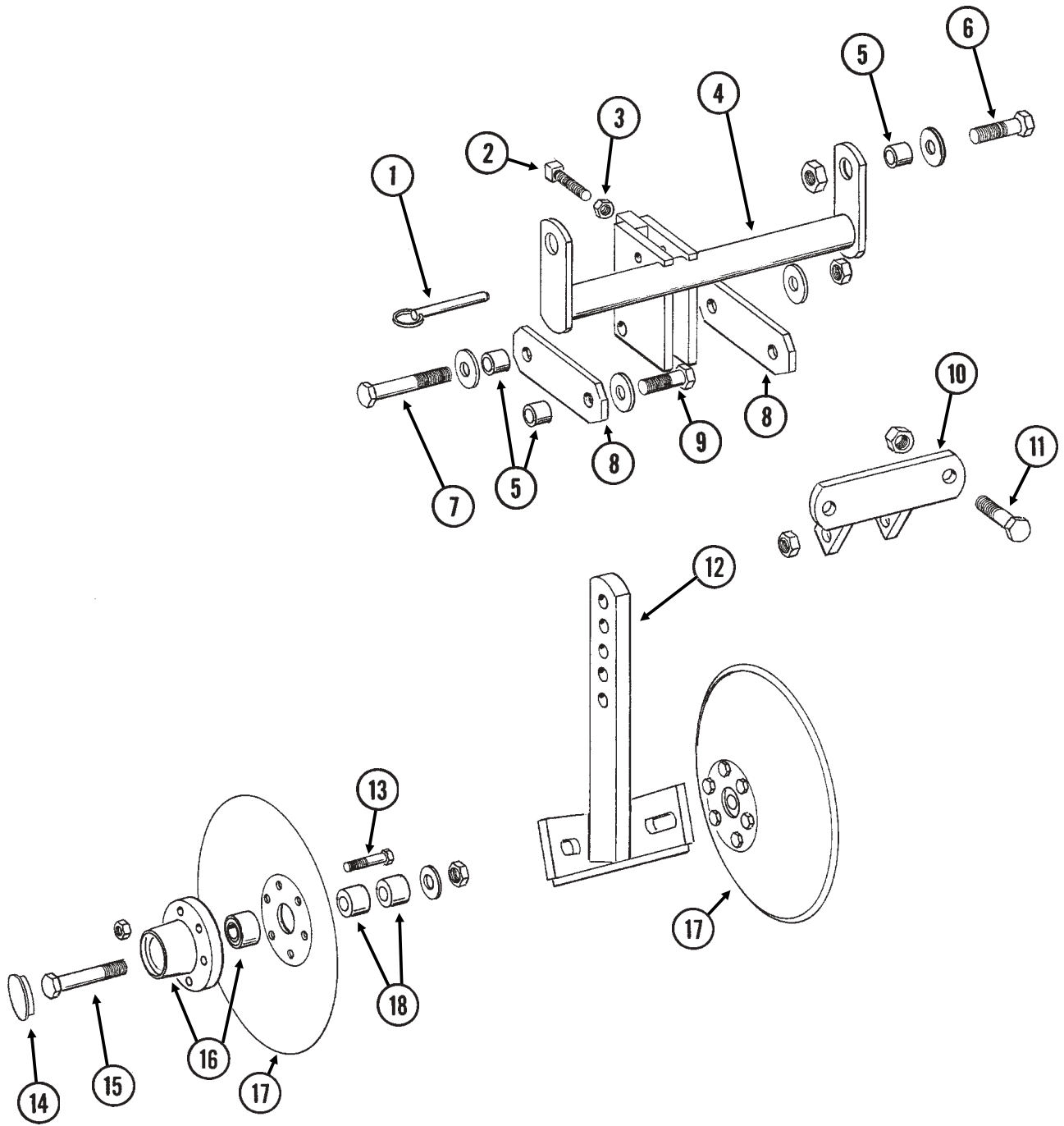
RUA061(RU102/RU102c)



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Row)	
1.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
2.	GA5625	1	Arm
3.	G10036	1	Hex Head Cap Screw, 5/8"-11 x 4"
	G10107	1	Lock Nut, 5/8"-11
4.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
5.	GD11677	2	Adapter
6.	GA8641	1	Hub W/Bearing And Retaining Ring
	GA8603	-	Double Row Bearing
	GD11652	-	Retaining Ring, 2 7/16"
7.	GD7803	-	Disc Blade, Fluted, 1", 8 Flutes (Shown)
	GD7804	-	Disc Blade, Bubbled, 1"
	GD9254	-	Disc Blade, Fluted, 3/4", 13 Flutes

# ROW UNIT MOUNTED DISC FURROWER

RUA059/RUA058(RU99/RU98g)



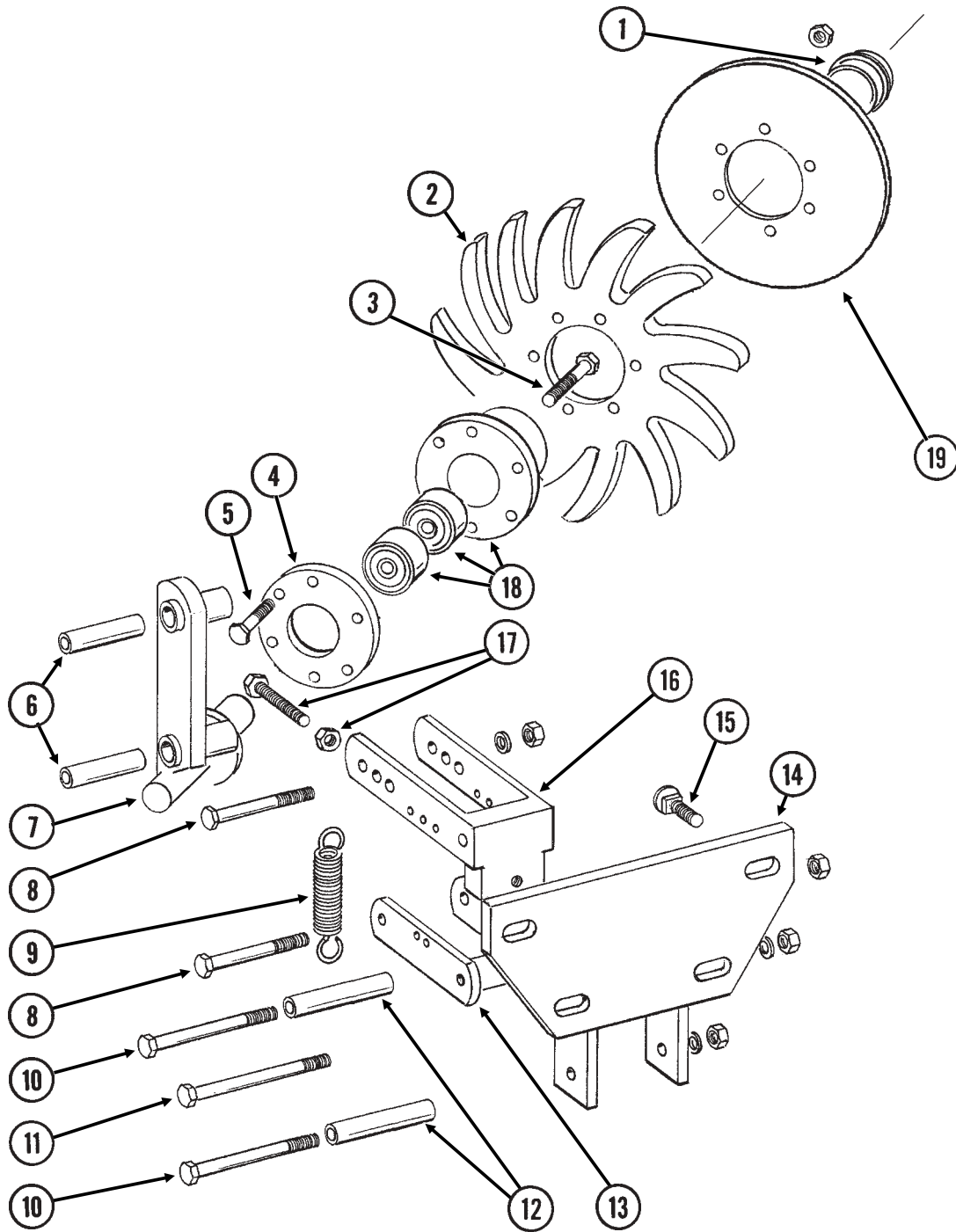
# ROW UNIT MOUNTED DISC FURROWER

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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10536	1	Detent Pin, 1/2" x 2 1/2" Grip
2.	G10597	1	Square Head Set Screw, 5/8"-11 x 2 1/4"
3.	G10503	1	Hex Jam Nut, 5/8"-11, Grade 2
4.	GA5719	1	Mounting Bracket
5.	GD7889	6	Bushing, 1" O.D. x 9/16" I.D. x 7/16" Long
6.	G10039	2	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
	G10216	2	Washer, 1/2" USS
	G10111	2	Lock Nut, 1/2"-13
7.	G10585	1	Hex Head Cap Screw, 1/2"-13 x 3 1/4"
	G10216	2	Washer, 1/2" USS
	G10111	1	Lock Nut, 1/2"-13
8.	GD7890	2	Link
9.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10216	2	Washer, 1/2" USS
	G10111	2	Lock Nut, 1/2"-13
10.	GA5715	1	Anchor
11.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10111	2	Lock Nut, 1/2"-13
12.	GA5718	1	Support Arm
13.	G10572	6	Truss Head Slotted Machine Screw, 5/16"-18 x 7/8"
	G10106	6	Hex Nut, 5/16"-18
14.	GD1132	2	Dust Cap
15.	G10318	2	Hex Head Cap Screw, 5/8"-11 x 4 1/2"
	GD7805	2	Special Washer, 5/8", Hardened
	G10107	2	Lock Nut, 5/8"-11
16.	GA5654	2	Hub W/Bearings
	GA2014	-	Bearing
17.	GD7823	-	Disc Blade, Solid, 12" (Shown)
	GD8307	-	Disc Blade, Notched, 12"
18.	GD7817-01	2	Spacer, 1 1/16" I.D. x 3/4" Long
	GD7817-04	2	Spacer, 1 1/16" I.D. x 1/2" Long

# ROW UNIT MOUNTED RESIDUE WHEEL

(RU103d)

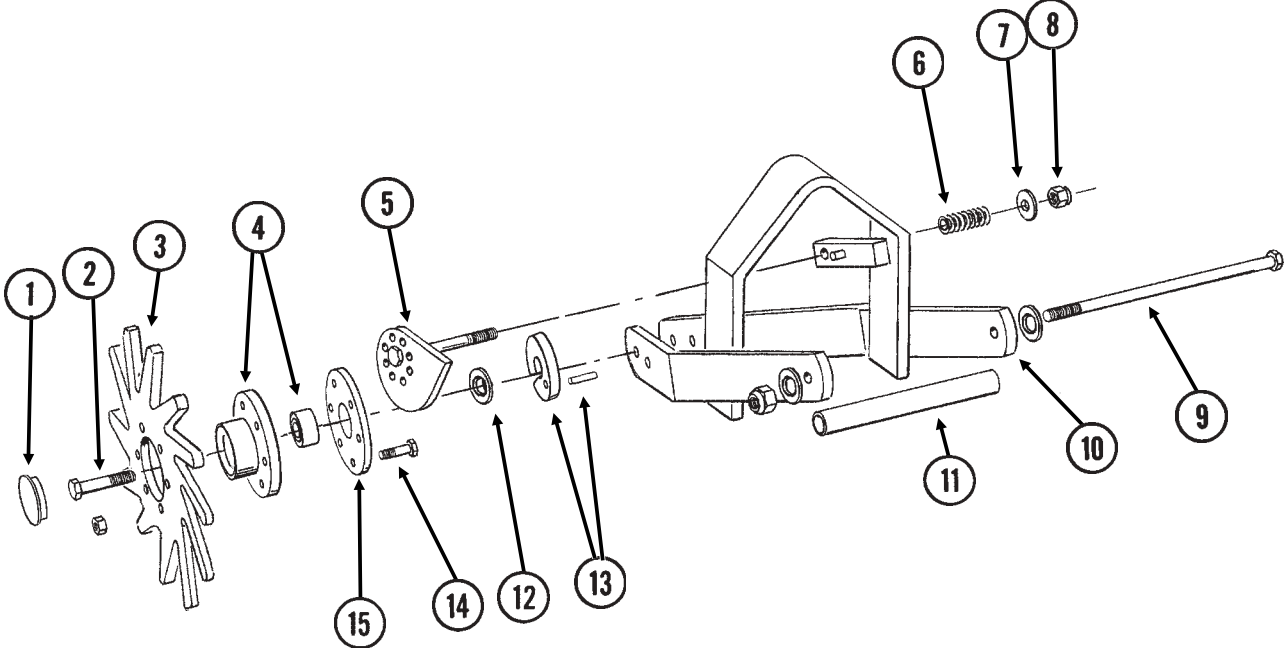


# ROW UNIT MOUNTED RESIDUE WHEEL

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1132	1	Dust Cap
2.	GD10552	1	Wheel, 12 Tine, $\frac{3}{8}$ " x 12"
3.	G10006	1	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 2 $\frac{1}{4}$ "
4.	GD9724	1	Backing Plate
5.	G10133	6	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x 1 $\frac{1}{2}$ "
	G10109	6	Lock Nut, $\frac{5}{16}$ "-18, Grade 8
6.	GD9720	2	Spacer, $\frac{1}{2}$ " x 2 $\frac{3}{16}$ " Long
7.	GA6838	1	Wheel Mount
8.	G10033	2	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x 3 $\frac{1}{2}$ "
	G10228	2	Lock Washer, $\frac{1}{2}$ "
	G10102	2	Hex Nut, $\frac{1}{2}$ "-13
9.	GD5857	2	Spring
10.	G10045	2	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x 4 $\frac{1}{2}$ "
	G10228	2	Lock Washer, $\frac{1}{2}$ "
	G10102	2	Hex Nut, $\frac{1}{2}$ "-13
11.	G10348	1	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x 5" (Lockup Bolt)
	G10111	1	Lock Nut, $\frac{1}{2}$ "-13
12.	GD9715	2	Spacer, $\frac{1}{2}$ " x 3" Long
13.	GA6834	1	Lower Link
14.	GA6832	1	Mount
15.	G10574	4	Carriage Bolt, $\frac{1}{2}$ "-13 x 1 $\frac{1}{4}$ "
	G10111	4	Lock Nut, $\frac{1}{2}$ "-13
16.	GA6833	1	Upper Link
17.	G10371	1	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x 3", Full Thread
	G10501	1	Hex Jam Nut, $\frac{1}{2}$ "-13, Grade 2
18.	GA5654	1	Hub W/Bearings
	GA2014	-	Bearing
19.	GD12534	-	Cover
A.	GA7446	-	Wheel Assembly, 12 Tine (Items 2, 4, 5 And 18)

# COULTER MOUNTED RESIDUE WHEELS

RUA063(RU104u)



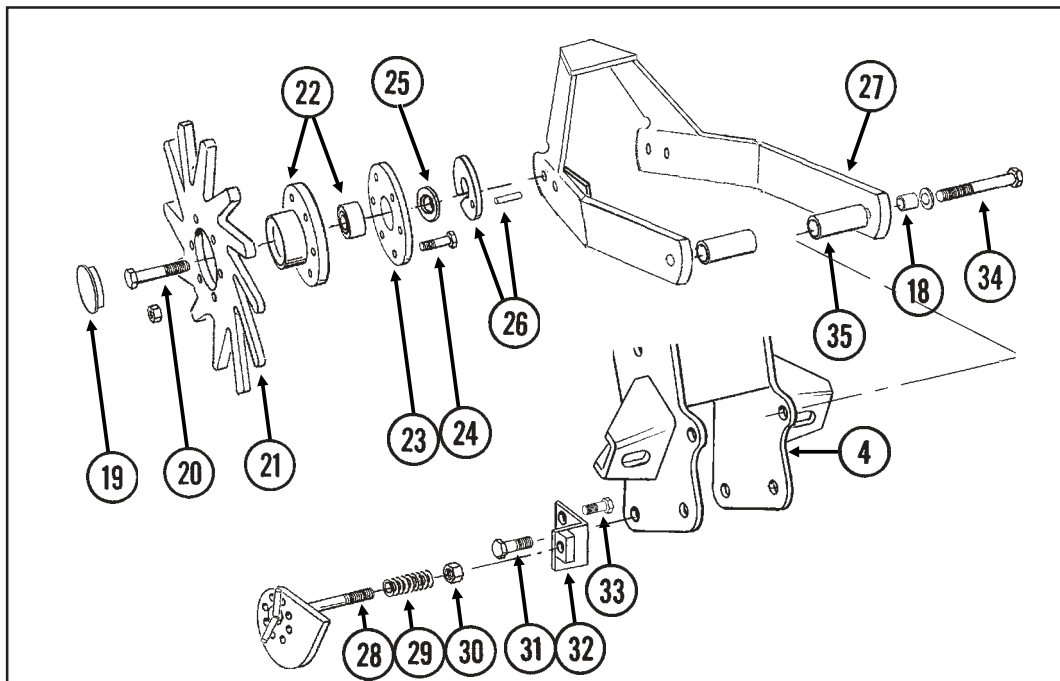
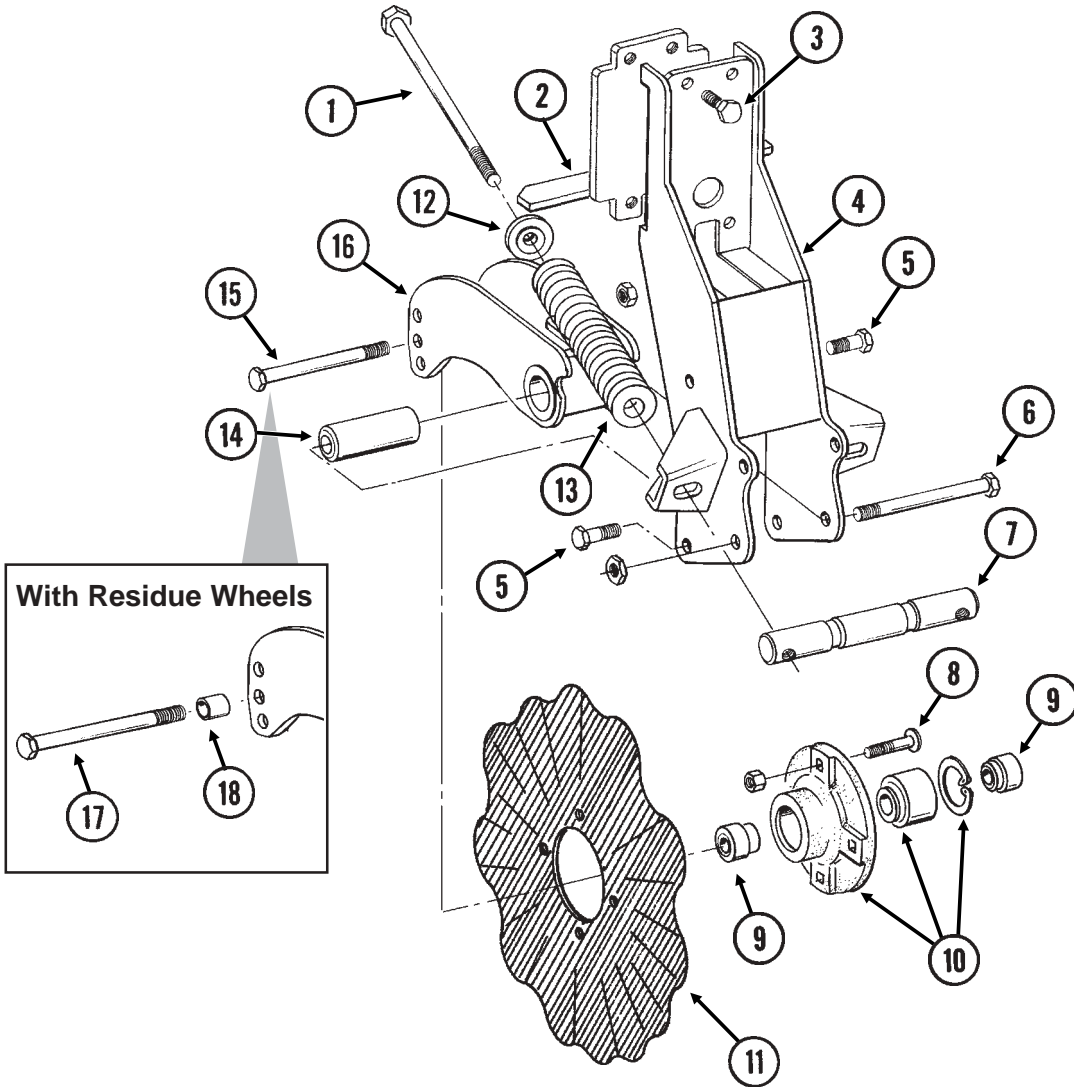
# COULTER MOUNTED RESIDUE WHEELS

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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1132	2	Dust Cap
2.	G10010	2	Hex Head Cap Screw, 5/8"-11 x 3"
	G10503	2	Hex Jam Nut, 5/8"-11, Grade 2
3.	GD10552	2	Wheel, 12 Tine, 3/8" x 12"
4.	GA5654	2	Hub W/Bearings
	GA2014	-	Bearing
5.	GA7412	1	Cam
6.	GD10519	1	Spring
7.	G10206	1	Washer, 1/2" SAE
8.	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
9.	G11098	1	Hex Head Cap Screw, 1/2"-13 x 9 1/2", Grade 8
	GD14674	2	Special Washer, 1/2", Hardened
	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
10.	GA7271	1	Mount
11.	GD10526	1	Sleeve, 7 1/2"
12.	G10213	2	Machine Bushing, 5/8" (.030" Thick)
13.	GA8760	2	Weed Guard W/Spring Pin
	G10765	-	Spring Pin, 1/4" x 1"
14.	G10133	12	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	12	Lock Nut, 5/16"-18, Grade 8
15.	GD9724	2	Backing Plate
A.	GA7446	-	Wheel Assembly, 12 Tine, R.H. (Items 3, 4, 14 And 15) (Shown)
	GA7445	-	Wheel Assembly, 12 Tine, L.H. (Items 3, 4, 14 And 15)

# FRAME MOUNTED COULTER W/RESIDUE WHEELS

(RU135c/RU135g/RU135hh)



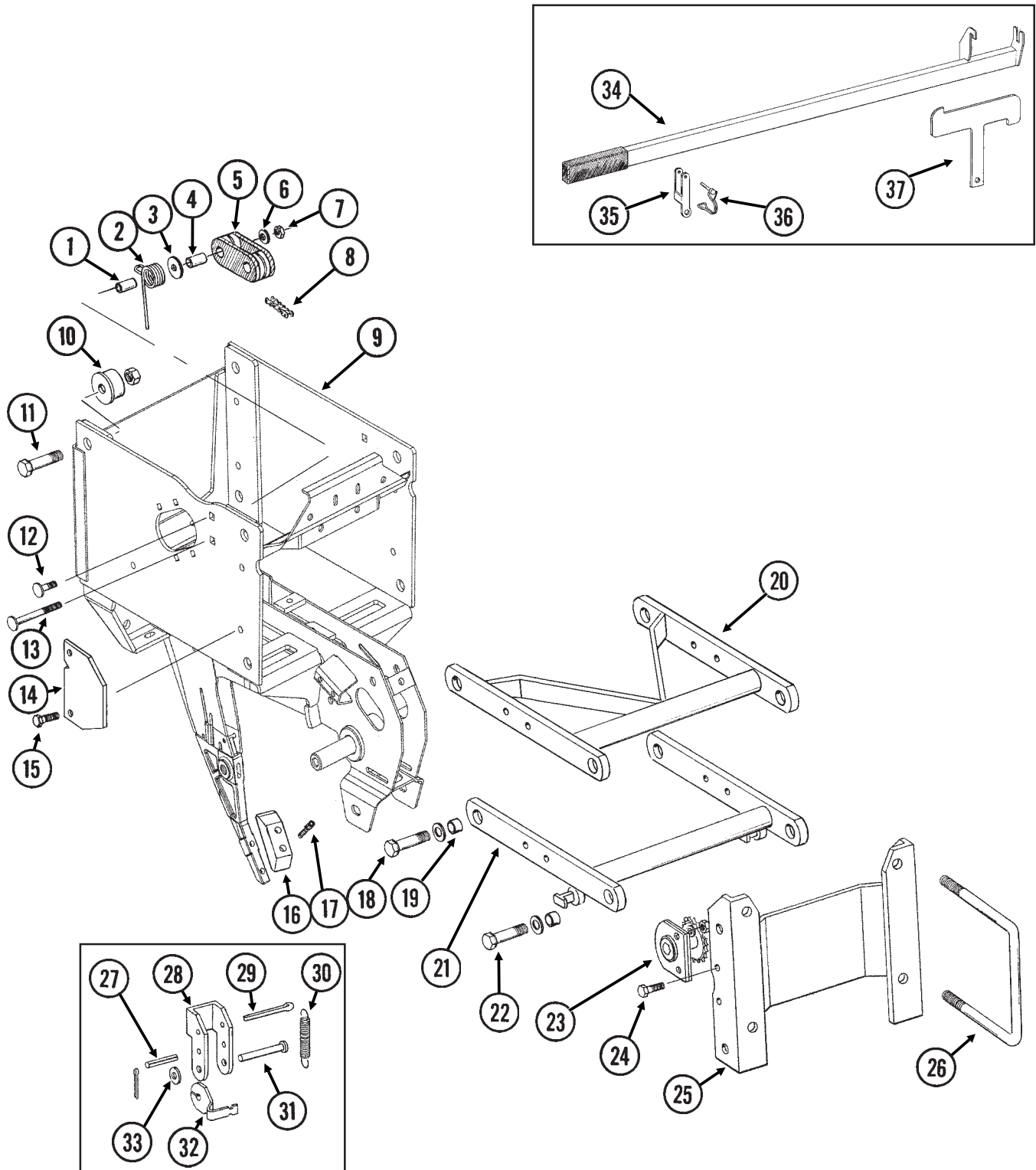
# FRAME MOUNTED COULTER W/RESIDUE WHEELS

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G11010	2	Hex Head Cap Screw, 3/4"-10 x 12"
2.	GA9844	1	Plate W/Angle
3.	G10039	4	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
4.	GA9131	1	Coulter Frame
5.	G10007	4	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10107	4	Lock Nut, 5/8"-11
6.	G10400	1	Hex Head Cap Screw, 3/4"-10 x 6 1/2"
	G10112	1	Lock Nut, 3/4"-10
7.	GD12826	1	Spring Anchor Bar
8.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
9.	GD12827	2	Adapter
10.	GA8641	1	Hub W/Bearing And Retaining Ring
	GA8603	1	Double Row Bearing
	GD11652	1	Retaining Ring, 2 7/16"
11.	GD7803	1	Disc Blade, Fluted, 1", 8 Flutes (Shown)
	GD7804	-	Disc Blade, Bubbled, 1"
	GD9254	-	Disc Blade, Fluted, 3/4", 13 Flutes
12.	GB0213	2	Spring Seat
13.	GD12817	2	Compression Spring
14.	GD12829	1	Sleeve
15.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10107	1	Lock Nut, 5/8"-11
16.	GA9845	1	Coulter Arm W/Grease Fitting
	G10643	-	Grease Fitting, 45°, 1/4"-28
17.	G10011	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	G10107	1	Lock Nut, 5/8"-11
18.	GB0218	3	Bushing, 21/32" I.D. x 7/8" O.D. x 19/32" Long
19.	GD1132	2	Dust Cap
20.	G10010	2	Hex Head Cap Screw, 5/8"-11 x 3"
	G10503	2	Hex Jam Nut, 5/8"-11, Grade 2
21.	GD10552	2	Wheel, 12 Tine, 3/8" x 12"
22.	GA5654	2	Hub W/Bearings
	GA2014	-	Bearing
23.	GD9724	2	Backing Plate
24.	G10133	12	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	12	Lock Nut, 5/16"-18, Grade 8
25.	G10213	2	Machine Bushing, 5/8" (.030" Thick)
26.	GA9862	2	Weed Guard W/Spring Pin
	G10765	-	Spring Pin, 1/4" x 1"
27.	GA9865	1	Mount
28.	GA9861	1	Cam
29.	GD10519	1	Spring
30.	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
31.	G10005	1	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	G10107	4	Lock Nut, 5/8"-11
32.	GA9864	1	Support
33.	G10014	1	Hex Head Cap Screw, 1/2"-13 x 1"
	G10102	1	Hex Nut, 1/2"-13
34.	G10011	2	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	G10205	2	Washer, 5/8" SAE
	G10730	2	Lock Nut W/Nylon Insert, 5/8"-11
35.	GD14170	2	Sleeve, 3"
A.	GA7446	-	Wheel Assembly, 12 Tine, R.H. (Items 21-24) (Shown)
	GA7445	-	Wheel Assembly, 12 Tine, L.H. (Items 21-24)

# INTERPLANT® PUSH ROW UNIT

(RU121/RU141a)

**NOTE:** Push row units use the same seed tube, row unit depth adjustment components, quick adjustable down force springs, 15" opener disc blades, gauge wheels, closing wheels, meter drive and seed hopper as the pull row unit. See those pages for common parts.

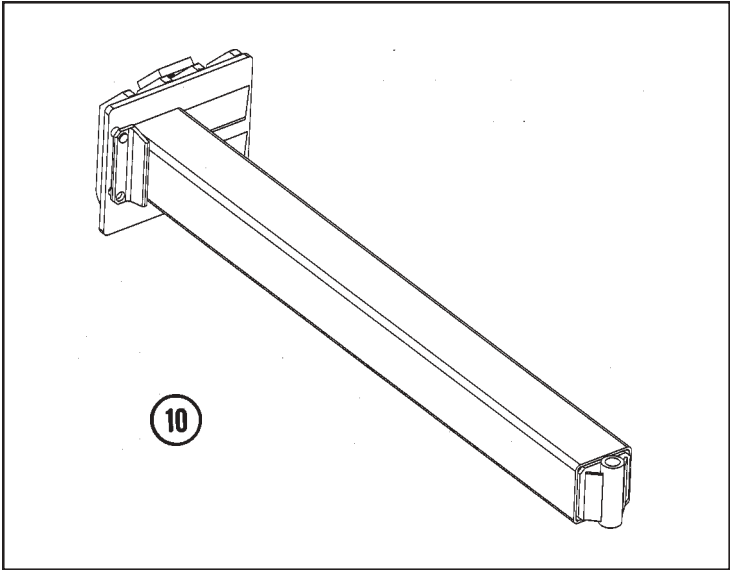
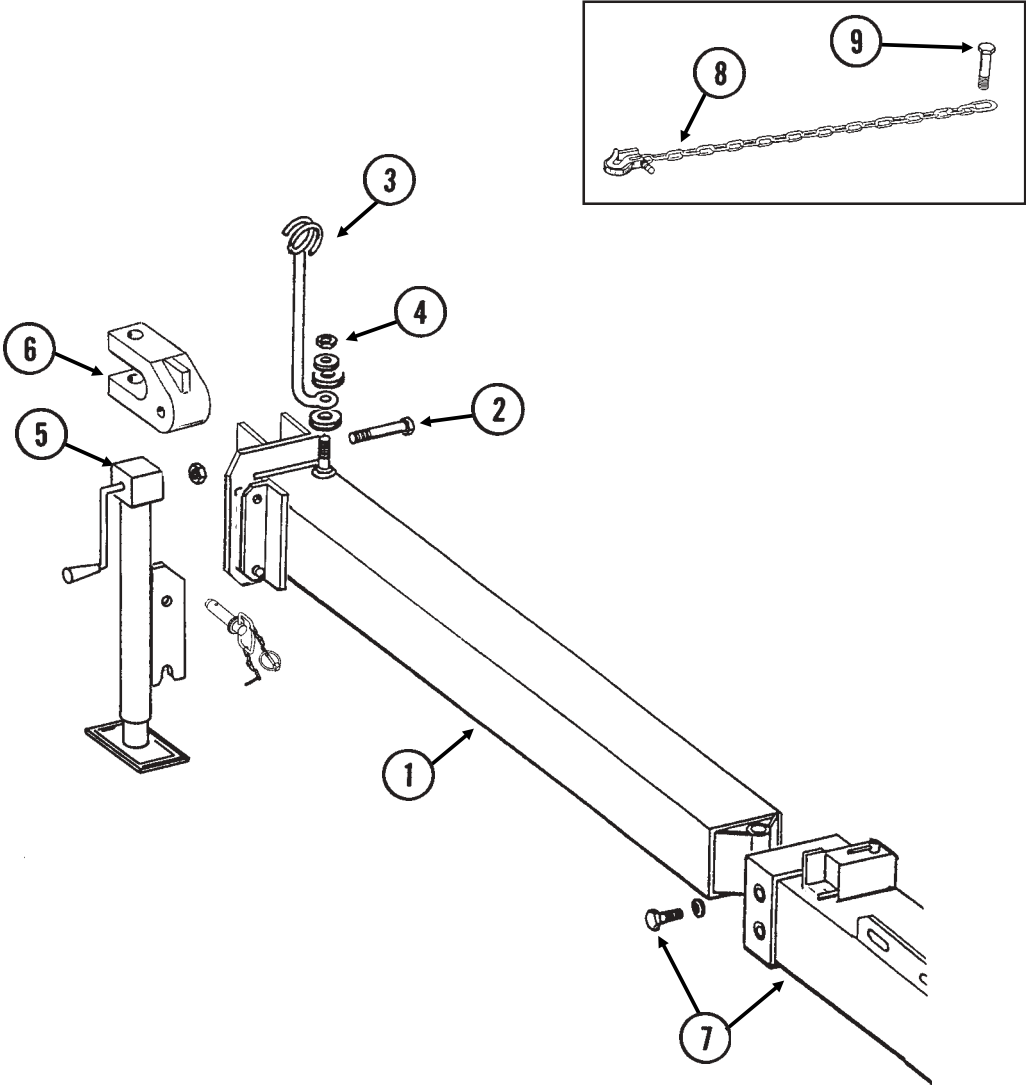


# INTERPLANT® PUSH ROW UNIT

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1026	1	Sleeve, 1 <sup>3</sup> / <sub>16</sub> " Long
2.	GD11218	1	Spring
3.	G10201	1	Special Washer, <sup>3</sup> / <sub>8</sub> " x 1 <sup>1</sup> / <sub>2</sub> " O.D.
4.	GD8893-01	1	Sleeve, 1 <sup>3</sup> / <sub>8</sub> " Long
5.	GD11962	1	Idler
6.	G10210	1	Washer, <sup>3</sup> / <sub>8</sub> " USS
7.	G10108	1	Lock Nut, <sup>3</sup> / <sub>8</sub> "-16
8.	G3303-96	1	Chain, No. 41, 96 Pitch Including Connector Link
	GR0196	1	Connector Link, No. 41
9.	GA10161	-	Push Row Unit Shank
10.	GB0314	2	Hopper Mount
11.	G10751	2	Hex Head Cap Screw, <sup>5</sup> / <sub>8</sub> "-18 x 1 <sup>3</sup> / <sub>4</sub> "
	G10412	2	Lock Nut, <sup>5</sup> / <sub>8</sub> "-18
12.	G10599	1	Carriage Bolt, <sup>3</sup> / <sub>8</sub> "-16 x 1 <sup>1</sup> / <sub>4</sub> "
	G10101	1	Hex Nut, <sup>3</sup> / <sub>8</sub> "-16
	G10108	1	Lock Nut, <sup>3</sup> / <sub>8</sub> "-16
13.	G10307	1	Carriage Bolt, <sup>3</sup> / <sub>8</sub> "-16 x 3 <sup>1</sup> / <sub>2</sub> "
14.	GD10867	2	Stop
15.	G10004	4	Hex Head Cap Screw, <sup>3</sup> / <sub>8</sub> "-16 x 1 <sup>1</sup> / <sub>4</sub> "
	G10108	4	Lock Nut, <sup>3</sup> / <sub>8</sub> "-16
16.	GB0301	1	Seed Tube Guard/Inner Scraper
17.	G10912	2	Hex Socket Head Cap Screw, <sup>5</sup> / <sub>16</sub> "-18 x 1", Grade 8
18.	G10751	4	Hex Head Cap Screw, <sup>5</sup> / <sub>8</sub> "-18 x 1 <sup>3</sup> / <sub>4</sub> "
	GD7805	4	Special Washer, <sup>5</sup> / <sub>8</sub> ", Hardened
	G10412	4	Lock Nut, <sup>5</sup> / <sub>8</sub> "-18
19.	GB0218	8	Bushing, <sup>21</sup> / <sub>32</sub> " I.D. x <sup>7</sup> / <sub>8</sub> " O.D. x <sup>19</sup> / <sub>32</sub> " Long
20.	GA8930	-	Upper Arm
21.	GA5787	1	Lower Arm
22.	G10732	4	Hex Head Cap Screw, <sup>5</sup> / <sub>8</sub> "-18 x 2"
	GD7805	4	Special Washer, <sup>5</sup> / <sub>8</sub> ", Hardened
	G10412	4	Lock Nut, <sup>5</sup> / <sub>8</sub> "-18
23.	GA1720	1	Bearing/Sprocket, <sup>7</sup> / <sub>8</sub> " Hex Bore
24.	G10004	2	Hex Head Cap Screw, <sup>3</sup> / <sub>8</sub> "-16 x 1 <sup>1</sup> / <sub>4</sub> "
	G10229	2	Lock Washer, <sup>3</sup> / <sub>8</sub> "
	G10101	2	Hex Nut, <sup>3</sup> / <sub>8</sub> "-16
25.	GA5786	1	Mounting Plate
26.	GD1113	2	U-Bolt, 5" x 7" x <sup>5</sup> / <sub>8</sub> "-11
	G10230	4	Lock Washer, <sup>5</sup> / <sub>8</sub> "
	G10104	4	Hex Nut, <sup>5</sup> / <sub>8</sub> "-11
27.	G10718	2	Spring Pin, <sup>5</sup> / <sub>16</sub> " x 1 <sup>1</sup> / <sub>8</sub> "
28.	GD11264	2	Lockup
29.	G10463	2	Cotter Pin, <sup>1</sup> / <sub>4</sub> " x 1 <sup>1</sup> / <sub>2</sub> "
30.	GD11447	2	Spring
31.	G10284	2	Clevis Pin, <sup>1</sup> / <sub>2</sub> " x 1 <sup>1</sup> / <sub>2</sub> "
	G10456	2	Cotter Pin, <sup>1</sup> / <sub>8</sub> " x <sup>3</sup> / <sub>4</sub> "
32.	GD11263	2	Spring Tab
33.	G10216	2	Washer, <sup>1</sup> / <sub>2</sub> " USS
34.	GA8651	1	Lift Lever W/Boot
	GD11649	-	Boot
35.	GD11659	1	Bracket
36.	GD9695	1	Wire Lock Pin, <sup>1</sup> / <sub>4</sub> " x 1 <sup>3</sup> / <sub>4</sub> "
37.	GD11752	1	Mount

# INNER HITCH/SAFETY CHAIN

PHA021/PHA025(WGN47e/TWL48c/A10709)



# INNER HITCH/SAFETY CHAIN

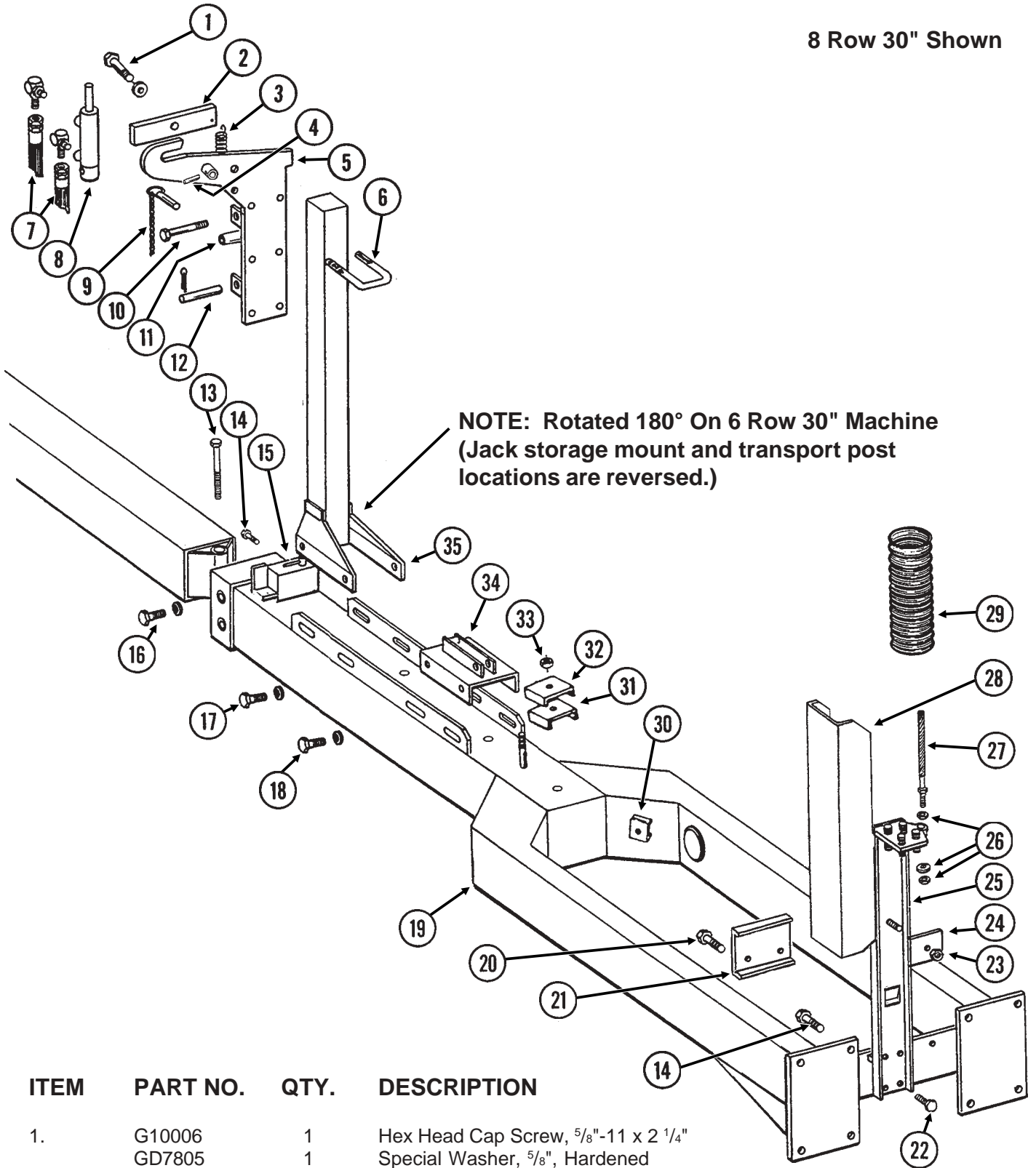
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8699	1	Inner Hitch, 65 1/4"
2.	G10169	1	Hex Head Cap Screw, 1 1/4"-7 x 6"
	G10157	1	Lock Nut, 1 1/4"-7
3.	GD7140	1	Hose Holder
4.	G10217	2	Washer, 5/8" USS
	G10230	1	Lock Washer, 5/8"
	G10104	1	Hex Nut, 5/8"-11
5.	GA4994	1	Jack Assembly Complete
	GA4995	-	Detent Pin Assembly
	GR0517	-	Pin
	GR0516	-	Crank Assembly
	GR0515	-	Bevel Gear
6.	GB0156	1	Clevis
7.		-	See "Outer Hitch", Pages P34 And P35
8.	GA4774	1	Safety Chain, 3/8"
9.	G11058	1	Hex Head Cap Screw, 1 1/4"-7 x 3"
	G10226	1	Washer, 1 1/4" SAE
	GD10646	1	Special Washer
	G10157	1	Lock Nut, 1 1/4"-7
10.	GA10709	1	Inner Hitch, 65 1/4", 7 1/2" Offset

# OUTER HITCH

PHA028(TWL49e)

8 Row 30" Shown



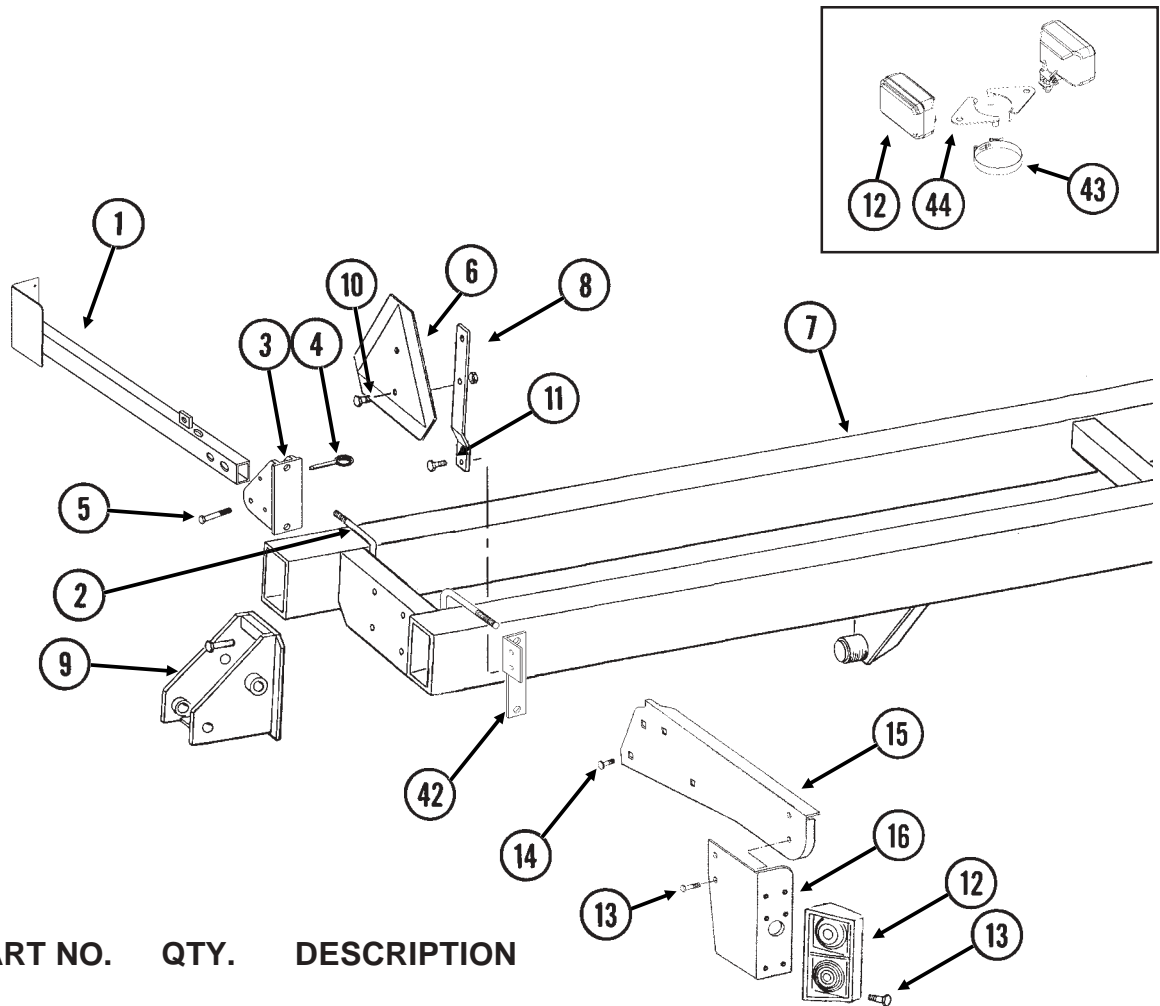
ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10006	1	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 2 $\frac{1}{4}$ "
	GD7805	1	Special Washer, $\frac{5}{8}$ ", Hardened
	GB0218	1	Bushing, $\frac{21}{32}$ " I.D. x $\frac{7}{8}$ " O.D. x $\frac{19}{32}$ " Long
	G10107	1	Lock Nut, $\frac{5}{8}$ "-11
2.	GA6422	1	Catch Bar
3.	GD5857	1	Spring
4.	G10765	1	Spring Pin, $\frac{1}{4}$ " x 1"
5.	GA6420	1	Transport Catch

# OUTER HITCH

ITEM	PART NO.	QTY.	DESCRIPTION
6.	GD4743	3	U-Bolt, 3" x 3" x 1/2"-13
	G10228	6	Lock Washer, 1/2"
	G10102	6	Hex Nut, 1/2"-13
7.		-	See "Hydraulic System", Pages P56 And P57
8.		-	See "Transport Latch Cylinder", Page P51
9.	GA7022	1	Detent Pin W/Chain
10.	G10061	1	Hex Head Cap Screw, 3/8"-16 x 3 1/2"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
11.	GD2971-09	1	Sleeve, 2" Long
	GD3180-03	-	Sleeve, 5/8" I.D. x 7/8" O.D. x 1 15/16" Long (As Required)
12.	GD7137	1	Pin, 3/4" x 3 3/8"
	G10457	2	Cotter Pin, 5/32" x 1 1/2"
13.	G10717	1	Hex Head Cap Screw, 1 1/4"-7 x 9"
	G10236	1	Lock Washer, 1 1/4"
	G10239	1	Hex Nut, 1 1/4"-7
14.	G10027	8	Hex Head Cap Screw, 3/4"-10 x 2 1/2"
	GD2169	8	Special Washer, 25/32" I.D. x 1 1/4" O.D., Hardened
	G10105	8	Hex Nut, 3/4"-10
15.		-	See "Selector Valve", Page P54
16.	G10716	2	Hex Head Cap Screw, 3/4"-10 x 1"
	G10231	2	Lock Washer, 3/4"
	GD2169	2	Special Washer, 25/32" I.D. x 1 1/4" O.D., Hardened
17.	G10005	4	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	GD7805	4	Special Washer, 5/8", Hardened
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
18.	G10005	4	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	G10205	4	Washer, 5/8" SAE
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
19.	GA6371	1	Outer Hitch, 125 1/2"
20.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10108	2	Lock Nut, 3/8"-16
21.	GD10731	1	Wire Clamp (If Applicable)
22.	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	4	Lock Washer, 3/8"
	G10101	4	Hex Nut, 3/8"-16
23.	G10048	1	Hex Head Cap Screw, 3/8"-16 x 2"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
24.	GD9046	1	Hose Clamp, 3 1/4" x 4"
25.	GA6402	1	Hose Support
26.	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
27.	GA6608	1	Cable Assembly
28.	GD14106	1	Channel
29.	GD9129-01	1	Hose Protector, 48"
30.	GD5875	3	Hose Clamp, 9/16" x 2 1/2" x 2"
31.	GD0740	2	Hose Clamp, 3/4" x 4" x 3 1/2"
32.	GD5892	2	Hose Clamp, 5/8" x 1 1/2" x 1 1/2"
33.	G10108	1	Lock Nut, 3/8"-16
34.	GA6404	1	Jack Storage Mount
35.	GA6623	-	Transport Post, 6 Row 30"
	GA6418	-	Transport Post, 8 Row 30" (Shown)

# FRAME ASSEMBLY

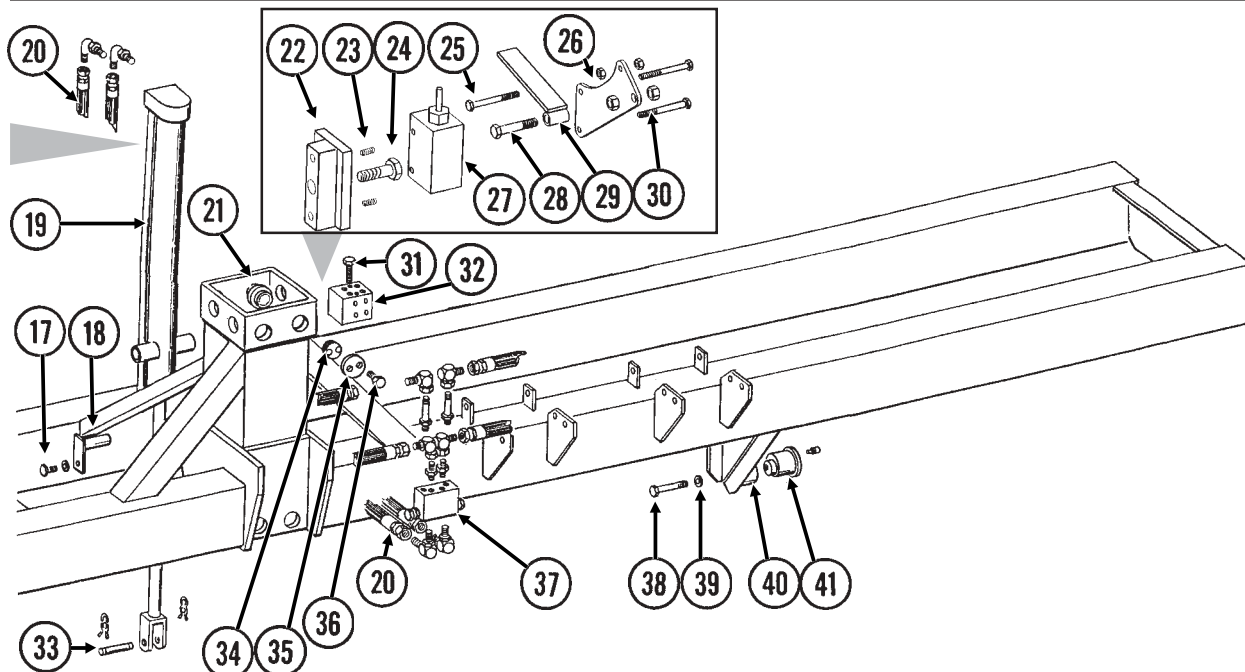
(TWL50e/A9689/TWL51b)



ITEM	PART NO.	QTY.	DESCRIPTION
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1.	GA9840	1	Light Bracket
2.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
3.	GB0309	1	Light Mount Bracket
4.	G10874	1	Detent Pin, 1/2" x 3 1/2" Grip
5.	G10033	1	Hex Head Cap Screw, 1/2"-13 x 3 1/2"
	G10206	4	Washer, 1/2" SAE
	G10111	1	Lock Nut, 1/2"-13
6.		-	See "Decals, Paint And Miscellaneous", Pages P96-P98
7.	A6401	-	Frame, 180", 6 Row 30" <b>(Non-Stock Item)</b>
	A9402	-	Frame, 188", 6 Row 30" <b>(Non-Stock Item)</b>
	A6364	-	Frame, 240", 8 Row 30" <b>(Non-Stock Item)</b>
	A9401	-	Frame, 248", 8 Row 30" <b>(Non-Stock Item)</b>
8.	GD6783	1	Bracket
9.		-	See "Row Marker Assembly", Page P53
10.	G10022	2	Hex Head Cap Screw, 1/4"-20 x 1/2"
	G10227	2	Lock Washer, 1/4"
	G10103	2	Hex Nut, 1/4"-20
11.	G10019	2	Hex Head Cap Screw, 5/16"-18 x 1"
	G10232	2	Lock Washer, 5/16"
	G10106	2	Hex Nut, 5/16"-18
12.		-	See "Electrical Components", Pages P58 And P59
13.	G10064	-	Hex Head Cap Screw, 1/4"-20 x 1"
	G10227	-	Lock Washer, 1/4"
	G10103	-	Hex Nut, 1/4"-20
	G10110	-	Lock Nut, 1/4"-20, Grade B
14.	G10312	2-4	Carriage Bolt, 5/16"-18 x 3/4"
	G10620	2-4	Serrated Flange Nut, 5/16"-18

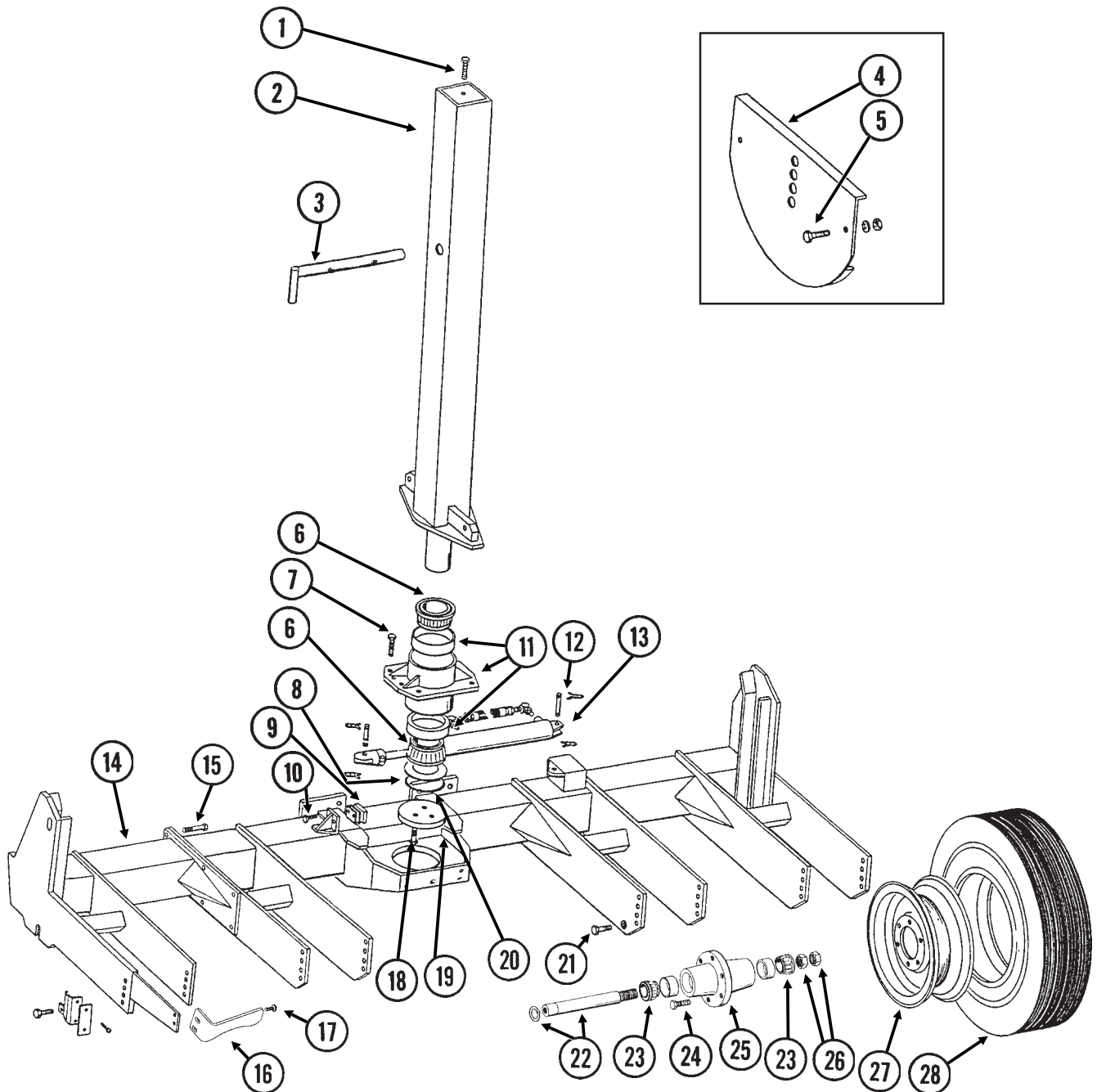
# FRAME ASSEMBLY



ITEM	PART NO.	QTY.	DESCRIPTION
15.	GD15950	1	Light Mount Extension
16.	GD12724	1	Bracket
17.	G10037	2	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
18.	GA5121	2	Pin, 2 1/8"
19.		-	See "Lift Cylinder", Page P52
20.		-	See "Hydraulic System", Pages P56 And P57
21.	GD9093	16	Poly Wear Pad
22.	GA6850	1	Valve Mount
23.	G10120	2	Hex Socket Set Screw, 3/8"-16 x 1/2"
24.	G10005	1	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
25.	G10638	1	Hex Head Cap Screw, 1/4"-20 x 2"
	G10103	2	Hex Nut, 1/4"-20
26.	GD10129	1	Mounting Bracket
27.		-	See "Stroke Limiter Valve", Page P54
28.	G10048	1	Hex Head Cap Screw, 3/8"-16 x 2"
	G10101	2	Hex Nut, 3/8"-16
29.	GA7153	1	Stroke Limiter Arm
30.	G10403	2	Hex Head Cap Screw, 1/4"-20 x 2 1/2"
	G10227	2	Lock Washer, 1/4"
31.	G10172	2	Hex Head Cap Screw, 3/8"-16 x 5"
	G10108	2	Lock Nut, 3/8"-16
32.	GD9971	1	Manifold Block
33.	GR0375	1	Pin, 1" x 3 1/2"
	GR0193	2	Hair Pin Clip
34.	GB0234	16	Adjustment Plug
35.	GB0230	16	Cap
36.	G10014	32	Hex Head Cap Screw, 1/2"-13 x 1"
37.		-	See "Row Marker Sequencing/Flow Control Valve", Page P55
38.	G10025	2	Hex Head Cap Screw, 3/4"-10 x 1 1/2"
	G10231	2	Lock Washer, 3/4"
39.	GD9052	2	Special Washer, 3/4" I.D. x 2" O.D., Hardened
40.	GD10532	2	Sleeve
41.	GA6497	2	Cam Follower W/Grease Fitting
	G10640	-	Grease Fitting, 1/4"-28
42.	GD13250	1	SMV Bracket
43.	G11159	1-2	T-Bolt Clamp, 3 1/2" Stainless Steel
44.	GD16046	2	Bracket

# AXLE/PIVOT AND WHEEL ASSEMBLY

PFA040/PLA015/HTA014(TWL52f)



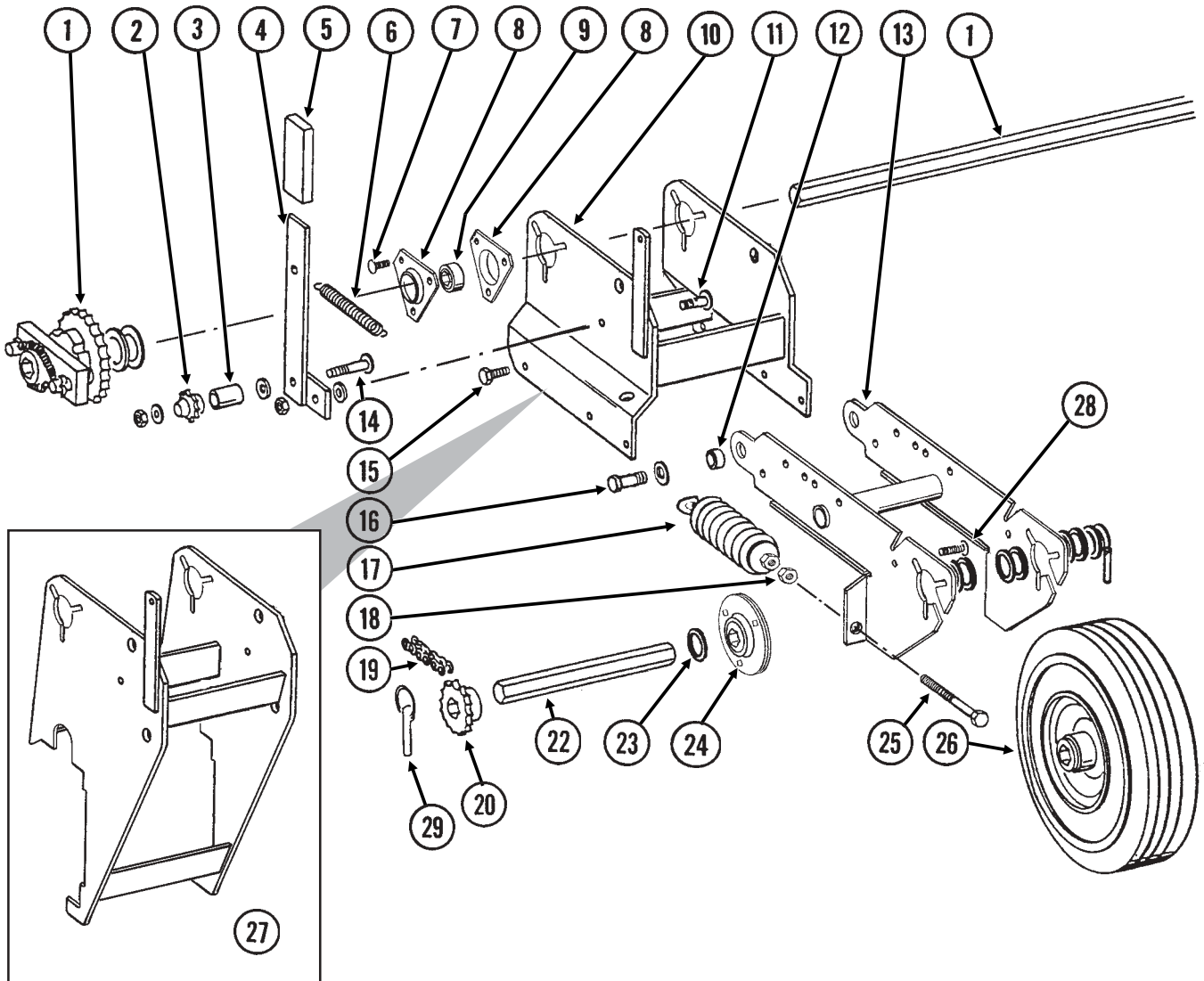
# AXLE/PIVOT AND WHEEL ASSEMBLY

ITEM	PART NO.	QTY. (Per Planter)	DESCRIPTION
1.		-	See "Rear Trailer Hitch", Pages P94 And P95
2.	GA7543	1	Center Post
3.	GA6849	1	Safety Lockup Pin, 17 1/4"
	G10671	1	Slotted Spring Pin, 3/16" x 3 1/4"
	G10606	1	Spring Pin, 1/4" x 2"
4.	GA6529	-	Rock Guard (Optional)
5.	G10037	-	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10228	-	Lock Washer, 1/2"
	G10102	-	Hex Nut, 1/2"-13
6.	GA6435	2	Bearing
7.	G10028	8	Hex Head Cap Screw, 3/4"-10 x 3"
	GD2169	8	Special Washer, 25/32" I.D. x 1 1/4" O.D., Hardened
	G10105	8	Hex Nut, 3/4"-10
8.	GD9122	-	Shim, .005" Thick (As Required)
	GD9123	-	Shim, .007" Thick (As Required)
	GD9124	-	Shim, .020" Thick (As Required)
9.	GD3389	1	Tap Block
	GD3398	-	Shim, 16 Gauge (As Required)
	GD7888	-	Shim, 22 Gauge (As Required)
10.	G10016	2	Hex Head Cap Screw, 1/2"-13 x 2"
	G10228	2	Lock Washer, 1/2"
11.	GA6496	1	Bearing Housing W/Cups And Grease Fitting
	GD9121	-	Cup
	G10779	-	Grease Fitting, 90°, 1/4"-28
12.	GR0375	2	Pin, 1" x 3 1/2"
	GR0193	4	Hair Pin Clip
13.		-	See "Rotation Cylinder", Page P51
14.	A7380	1	Axle W/Stub And Scraper Mounts <b>(Non-Stock Item)</b>
15.	G10027	6	Hex Head Cap Screw, 3/4"-10 x 2 1/2"
	G10231	6	Lock Washer, 3/4"
	G10105	6	Hex Nut, 3/4"-10
16.	GD12543	4	Scraper
17.	G10636	8	Carriage Bolt, 1/2"-13 x 1 1/2"
	G10216	8	Washer, 1/2" USS
	G10228	8	Lock Washer, 1/2"
	G10102	8	Hex Nut, 1/2"-13
18.	G10008	3	Hex Head Cap Screw, 5/8"-11 x 2"
	G10230	3	Lock Washer, 5/8"
19.	GD9051	1	Bearing Cap
20.	GD9130	1	O-Ring
21.	G10026	2	Hex Head Cap Screw, 3/4"-10 x 2"
	G10231	2	Lock Washer, 3/4"
22.	GA4693	1	Spindle, W/Round External Retaining Ring, 10 1/2"
	GD11490	-	Round External Retaining Ring
23.	GA0895	2	Bearing
24.	GR0270	6	Lug Bolt, 9/16"-18
25.	GA2148	1	Hub W/Cups, 6 Bolt
	GR0434	-	Cup
26.	G11081	2	Hex Jam Nut, 1 1/2"-12, Grade 2
27.	GA2142	1	Rim, 5.50" x 20"
28.	GD13401	-	Tire, 7.50" x 20", 8 Ply, Tubeless W/O Center Rib (Specify Brand*)
	GA7434	1	Valve Stem
A.	GA6428	-	Hub And Spindle Assembly (Items 22, 23, 25 And 26)

\* Specific brand requests will be supplied only as available from current KINZE® Repair Parts stock. If a specific brand requested is not in stock, the brand available will be supplied.

# CONTACT DRIVE WHEEL AND ARM ASSEMBLY

PLA026(TWL53o/TWL53m)



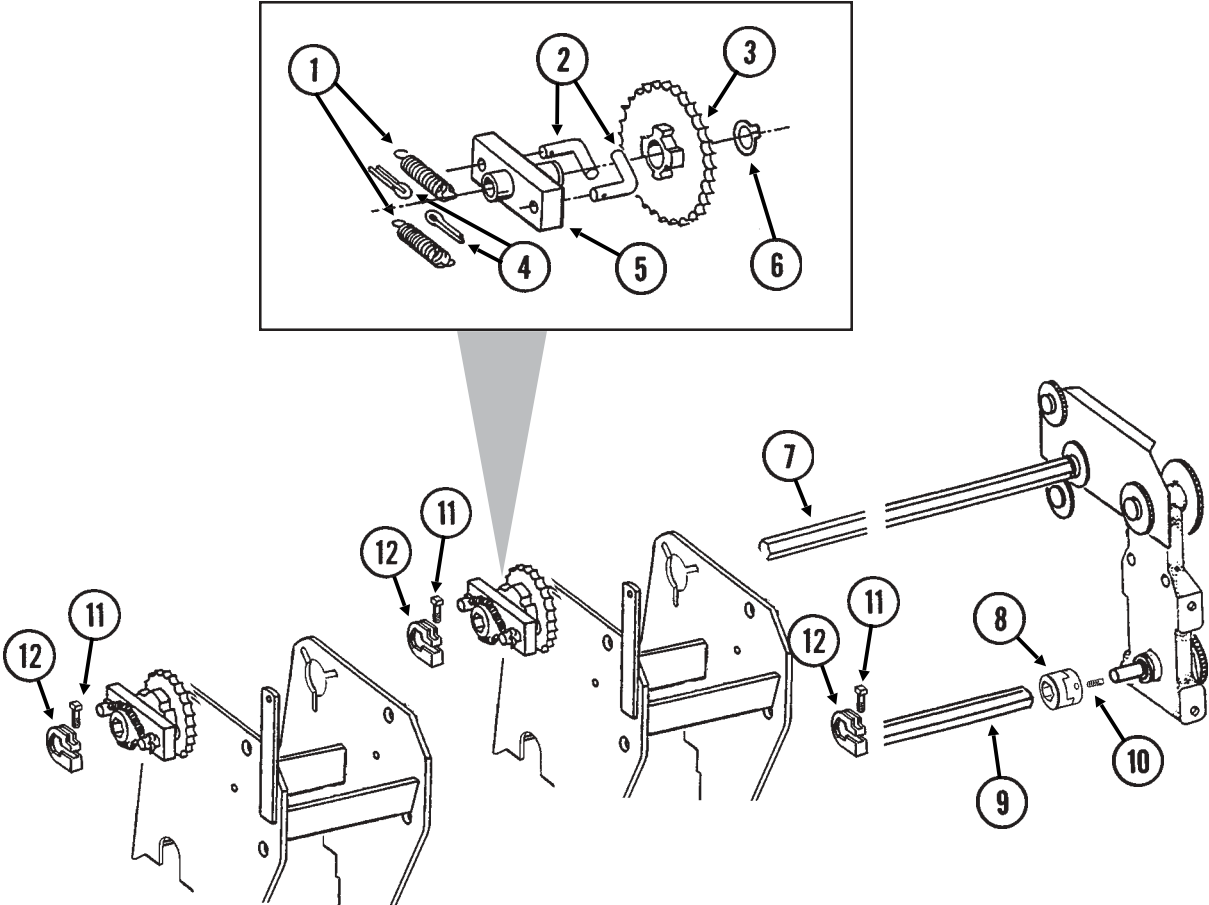
# CONTACT DRIVE WHEEL AND ARM ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Wheel)	
1.		-	See "Driveline", Pages P42 And P43
2.	GD7426	1	Sprocket, 12 Tooth
3.	GD1026	1	Sleeve, 1 <sup>3</sup> / <sub>16</sub> " Long
4.	GA5157	1	Idler Arm, L.H.
5.	GD5827	1	Cover
6.	GD5857	1	Spring
7.	G10312	3	Carriage Bolt, <sup>5</sup> / <sub>16</sub> "-18 x <sup>3</sup> / <sub>4</sub> "
	G10232	3	Lock Washer, <sup>5</sup> / <sub>16</sub> "
	G10106	3	Hex Nut, <sup>5</sup> / <sub>16</sub> "-18
8.	G3400-01	4	Flangette
9.	G2100-03	2	Bearing, <sup>7</sup> / <sub>8</sub> " Hex Bore, Spherical
10.	GA7826	1	Mount
11.	G10004	1	Hex Head Cap Screw, <sup>3</sup> / <sub>8</sub> "-16 x 1 <sup>1</sup> / <sub>4</sub> "
	G10229	1	Lock Washer, <sup>3</sup> / <sub>8</sub> "
	G10370	1	Machine Bushing, <sup>3</sup> / <sub>8</sub> ", 22 Gauge
	GD5756	1	Special Nut, <sup>3</sup> / <sub>8</sub> "-16
12.	GB0218	2	Bushing, <sup>21</sup> / <sub>32</sub> " I.D. x <sup>7</sup> / <sub>8</sub> " O.D. x <sup>19</sup> / <sub>32</sub> " Long
13.	A7369	1	Wheel Arm ( <b>Non-Stock Item</b> )(Sub <b>G1K253</b> )
14.	G10306	1	Carriage Bolt, <sup>3</sup> / <sub>8</sub> "-16 x 2"
	G10210	-	Washer, <sup>3</sup> / <sub>8</sub> " USS (As Required)
	G10108	1	Lock Nut, <sup>3</sup> / <sub>8</sub> "-16
15.	G10001	6	Hex Head Cap Screw, <sup>3</sup> / <sub>8</sub> "-16 x 1"
	G10229	6	Lock Washer, <sup>3</sup> / <sub>8</sub> "
	G10101	6	Hex Nut, <sup>3</sup> / <sub>8</sub> "-16
16.	G10751	2	Hex Head Cap Screw, <sup>5</sup> / <sub>8</sub> "-18 x 1 <sup>3</sup> / <sub>4</sub> "
	G10235	6	Machine Bushing, <sup>7</sup> / <sub>8</sub> ", 14 Gauge
	GD7805	2	Special Washer, <sup>5</sup> / <sub>8</sub> ", Hardened
	G10412	2	Lock Nut, <sup>5</sup> / <sub>8</sub> "-18
17.	GA2068	2	Spring W/Plug
18.	G10501	2	Hex Jam Nut, <sup>1</sup> / <sub>2</sub> "-13, Grade 2
19.	G3310-116	1	Chain, No. 40, 116 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
20.	GA5105	1	Sprocket, 15 Tooth
21.	G10602	1	Spring Pin, <sup>1</sup> / <sub>4</sub> " x 1 <sup>1</sup> / <sub>2</sub> "
22.	GD6825-10.375	1	Hex Shaft, <sup>7</sup> / <sub>8</sub> " x 10 <sup>3</sup> / <sub>8</sub> " (2 Holes)
23.	G10233	6	Machine Bushing, 1", 10 Gauge
24.	GA9846	-	Flanged Bearing, <sup>7</sup> / <sub>8</sub> " Hex Bore
25.	G10890	2	Hex Head Adjusting Bolt, <sup>1</sup> / <sub>2</sub> "-13 x 4", Grade 2
26.	GA5090	-	Tire And Rim Assembly (Specify Brand*)
	GD5753	1	Tire, 4.10" x 6" (Specify Brand*)
	GD5752	1	Inner Tube
27.	GA8925	-	Mount
28.	G10303	-	Carriage Bolt, <sup>5</sup> / <sub>16</sub> "-18 x 1"
	G10232	-	Lock Washer, <sup>5</sup> / <sub>16</sub> "
	G10106	6	Hex Nut, <sup>5</sup> / <sub>16</sub> "-18
29.	GD2558	1	Lynch Pin, <sup>1</sup> / <sub>4</sub> "
A.	G1K253	-	Contact Wheel Arm Replacement Kit (Items 13, 18, 21, 22, 24, 25, 28 And 29)

\* Specific brand requests will be supplied only as available from current KINZE® Repair Parts stock. If a specific brand requested is not in stock, the brand available will be supplied. Different brand tires may have different diameters. Change in tire brand may affect rates. Field checks are recommended after any change in contact tires.

# DRIVELINE

PTD033/PLA026/PTD016/PTD066(TWL54e)



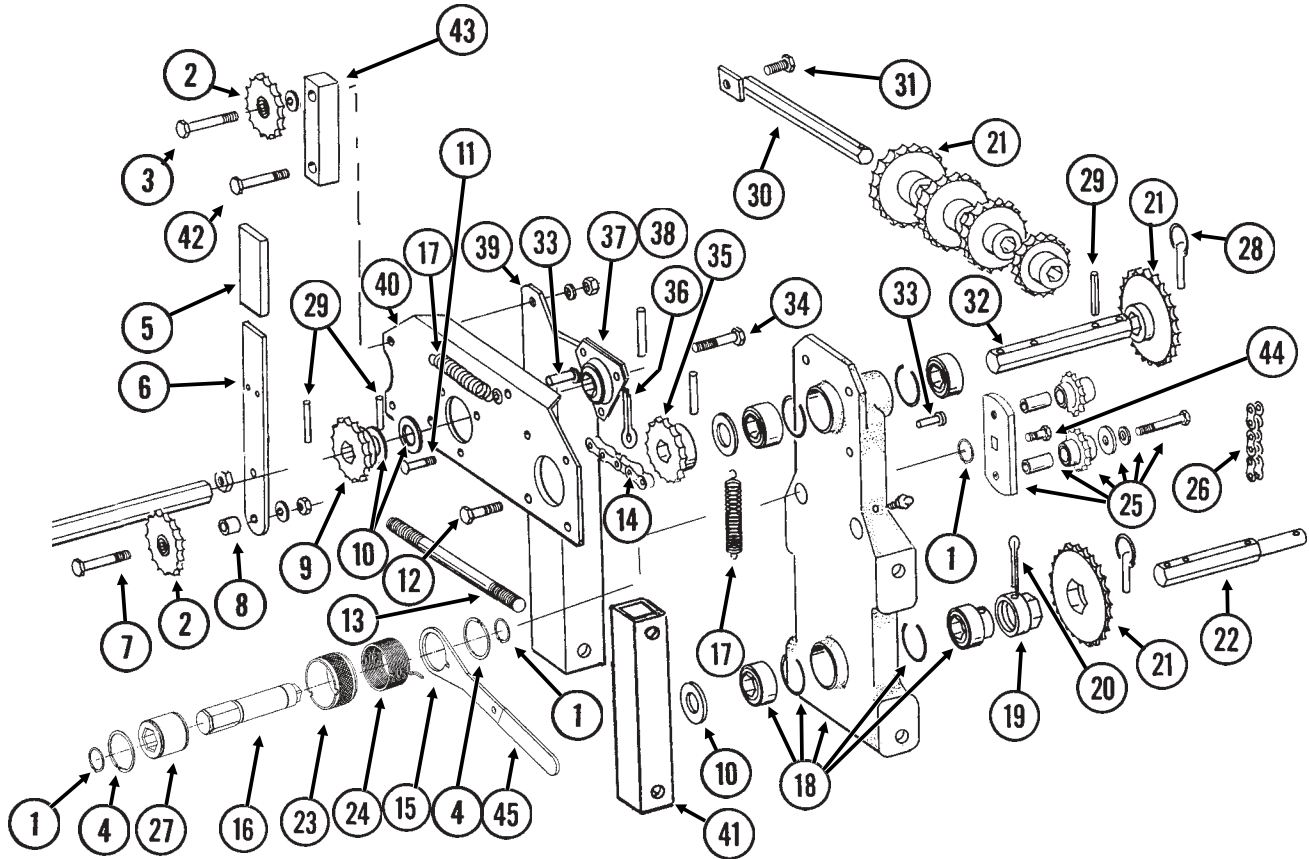
# DRIVELINE

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ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Planter)	
1.	GD1256	4	Spring
2.	GD1255	4	L-Pin
3.	GA5165	2	Sprocket, 30 Tooth
4.	G10464	4	Cotter Pin, $\frac{3}{16}$ " x 1"
5.	GA0378	2	Block And Hub Assembly
6.	G10430	2	External Retaining Ring, 1 $\frac{1}{4}$ "
7.	GD9078	-	Hex Shaft, $\frac{7}{8}$ " x 58" (4 Holes), 6 Row 30"
	GD9077	-	Hex Shaft, $\frac{7}{8}$ " x 98" (4 Holes), 8 Row 30"
8.	GB0287	2	Coupler
9.	GD0914-165	-	Hex Shaft, $\frac{7}{8}$ " x 165" (No Holes), 6 Row 30"
	GD0914-225	-	Hex Shaft, $\frac{7}{8}$ " x 225" (No Holes), 8 Row 30"
10.	G10131	4	Square Head Set Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
11.	G10130	-	Square Head Machine Bolt, $\frac{5}{16}$ "-18 x 1 $\frac{3}{4}$ "
	G10923	-	Flange Nut, $\frac{5}{16}$ "-18, No Serration
12.	GD11045	-	Lock Clamp
A.	GA5164	-	Ratchet/Sprocket Assembly (Items 1-6)
B.	G1K269	-	Lock Clamp Kit (Items 11 And 12)

# SEED RATE TRANSMISSION ASSEMBLY

PTD040/PTD066/PTD041(PT8)



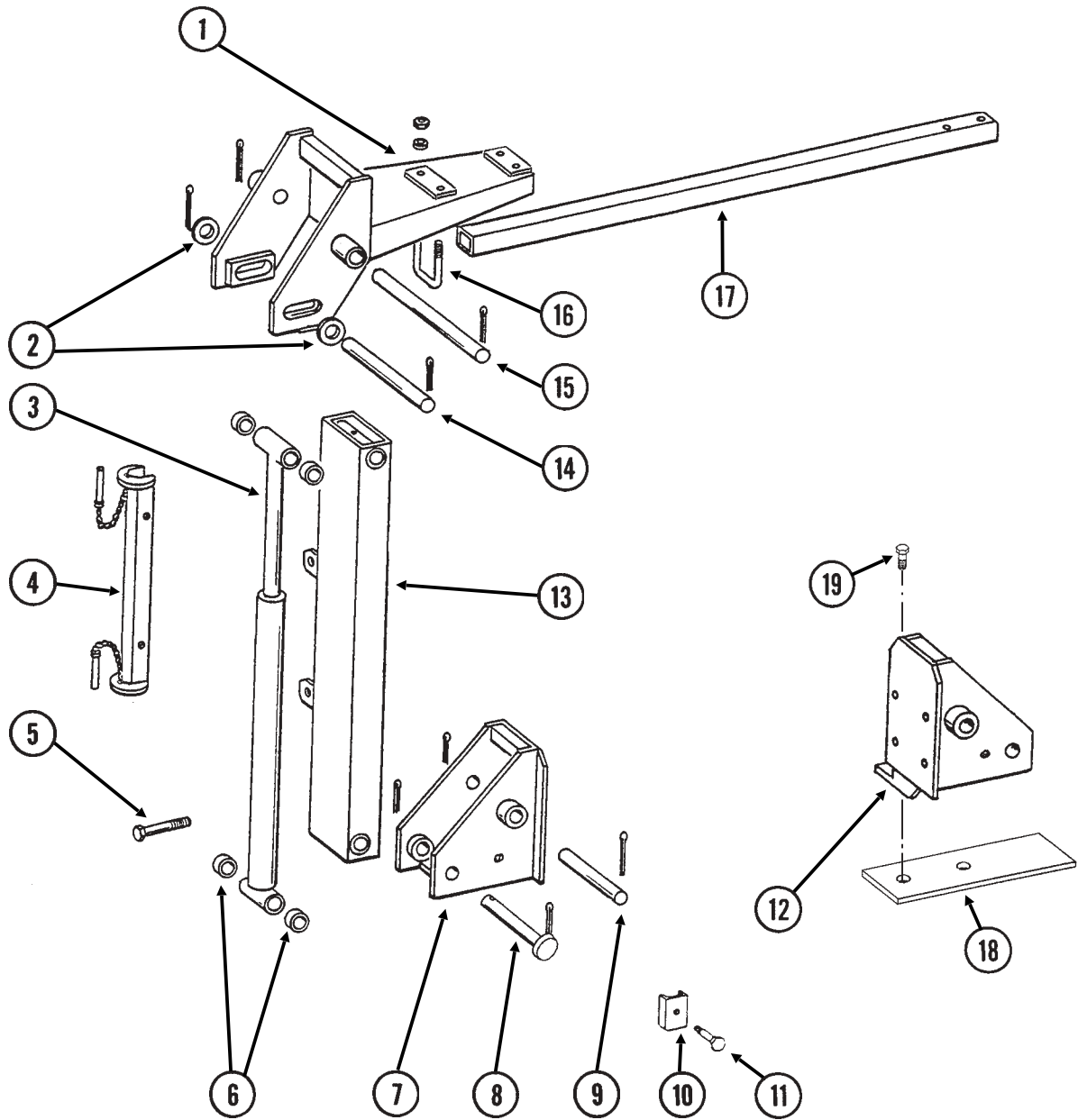
ITEM	PART NO.	QTY.	DESCRIPTION
1.	G11075	3	Internal Inverted Snap Ring, 7/8"
2.	GA7154	2	Sprocket W/Bearing, 18 Tooth
3.	G10033	1	Hex Head Cap Screw, 1/2"-13 x 3 1/2"
	G10128	-	Machine Bushing, 1/2", 14 Gauge (As Required)
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
4.	G10496	2	External Inverted Snap Ring, 1 1/2"
5.	GD5827	1	Cover
6.	GD5829	1	Arm
7.	G10053	1	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	G10128	-	Machine Bushing, 1/2", 14 Gauge (As Required)
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
8.	GD4887-01	1	Sleeve, 1/2" I.D. x 5/8" Long
9.	GA5105	1	Sprocket, 15 Tooth
10.	G10233	-	Machine Bushing, 1", 10 Gauge
11.	G10303	3	Carriage Bolt, 5/16"-18 x 1"
	G10232	3	Lock Washer, 5/16"
	G10106	3	Hex Nut, 5/16"-18
12.	G10037	3	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10228	3	Lock Washer, 1/2"
	G10102	3	Hex Nut, 1/2"-13
13.	GD6793	2	Stud, 5/8"-11 x 9 1/2" (Threaded Both Ends)
	G10230	4	Lock Washer, 5/8"
	G10107	4	Lock Nut, 5/8"-11
14.	G3310-92	1	Chain, No. 40, 92 Pitch Including Connector Link
	G3310-100	-	Chain, No. 40, 100 Pitch Including Connector Link, Used With Half Rate (2 To 1) Drive Reduction
	GR0912	-	Connector Link, No. 40

# SEED RATE TRANSMISSION ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION
15.	GD14431	1	Handle
16.	GD14427	1	Tightener Shaft, 4 7/8"
17.	GD5857	2	Spring
18.	GA5629	1	Transmission Plate W/Bearings, Grease Fittings And Retaining Rings
	GA5116	3	Bearing, 7/8" Hex Bore, Cylindrical
	GA5624	1	Special Bearing, 7/8" Hex Bore x 1.6"
	GD6551	4	Ring
	G10641	-	Grease Fitting, 1/8" NPT
19.	GD7127	1	Shear Coupler
20.	G10462	1	Cotter Pin, 3/16" x 2"
	G10641	-	Grease Fitting, 1/8" NPT
21.	GA5106	1	Sprocket, 17 Tooth
	GA5107	1	Sprocket, 19 Tooth
	GA5108	2	Sprocket, 23 Tooth
	GA5109	1	Sprocket, 24 Tooth
	GA5110	1	Sprocket, 25 Tooth
	GA5111	1	Sprocket, 26 Tooth
	GA5112	1	Sprocket, 27 Tooth
	GA5113	1	Sprocket, 28 Tooth
22.	GD7822	1	Shaft, 7/8" x 7"
23.	GD14430	1	Release Collar, Gold, R.H.
24.	GD14413	1	Torsion Spring, L.H. (Used On R.H. Wrap Spring Wrench)
25.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	GD1026	-	Sleeve, 1 3/16" Long
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"
	G10047	-	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
26.	G3310-80	1	Chain, No. 40, 80 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
27.	GD14432	1	Sleeve, 1 1/4"
28.	GD2558	3	Lynch Pin, 1/4"
29.	G10602	5	Spring Pin, 1/4" x 1 1/2"
30.	GA5146	1	Sprocket Storage Rod
31.	G10017	1	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10527	1	Lock Washer, 1/2" Internal/External
	G10111	1	Lock Nut, 1/2"-13
32.	GD5835	1	Shaft, 7/8" x 7"
33.	G10478	1	Clevis Pin, 5/16" x 1"
	G10409	1	Retaining Ring, 5/16"
34.	G10004	1	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	1	Lock Washer, 3/8"
	G10203	-	Washer, 3/8" SAE (As Required)
	G10210	-	Washer, 3/8" USS (As Required)
	GD5756	1	Special Nut, 3/8"-16
35.	GA5106	1	Sprocket, 17 Tooth, Standard Drive
	GA5202	-	Sprocket, 34 Tooth, Half Rate (2 To 1) Drive Reduction
36.	G10460	1	Cotter Pin, 1/4" x 2"
37.	G2100-03	1	Bearing, 7/8" Hex Bore, Spherical
38.	G3400-01	2	Flangette
39.	GD5830	1	Angle Support, R.H.
40.	GD5824	1	Plate, R.H.
41.	GD9047	1	Spacer
42.	G10053	1	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
43.	GD12571	1	Spacer, 1" x 4"
44.	G11100	1	Hex Socket Button Head Screw, 1/4"-20 x 1 1/2", Grade 8
	G10227	1	Lock Washer, 1/4"
	G10209	1	Washer, 1/4" USS
45.	G11078	1	Vinyl Cap
A.	G1K269	-	Lock Clamp Kit (Items 7 And 28)
B.	G1K378	1	Wrap Spring Wrench Replacement Kit, Gold Collar, R.H. (Items 1, 4, 15, 16, 23, 24, 27, 44 And 45)

# ROW MARKER ASSEMBLY, TWO-FOLD LOW PROFILE, 6 ROW 30"

MKR025/PFA054(MKR9e)



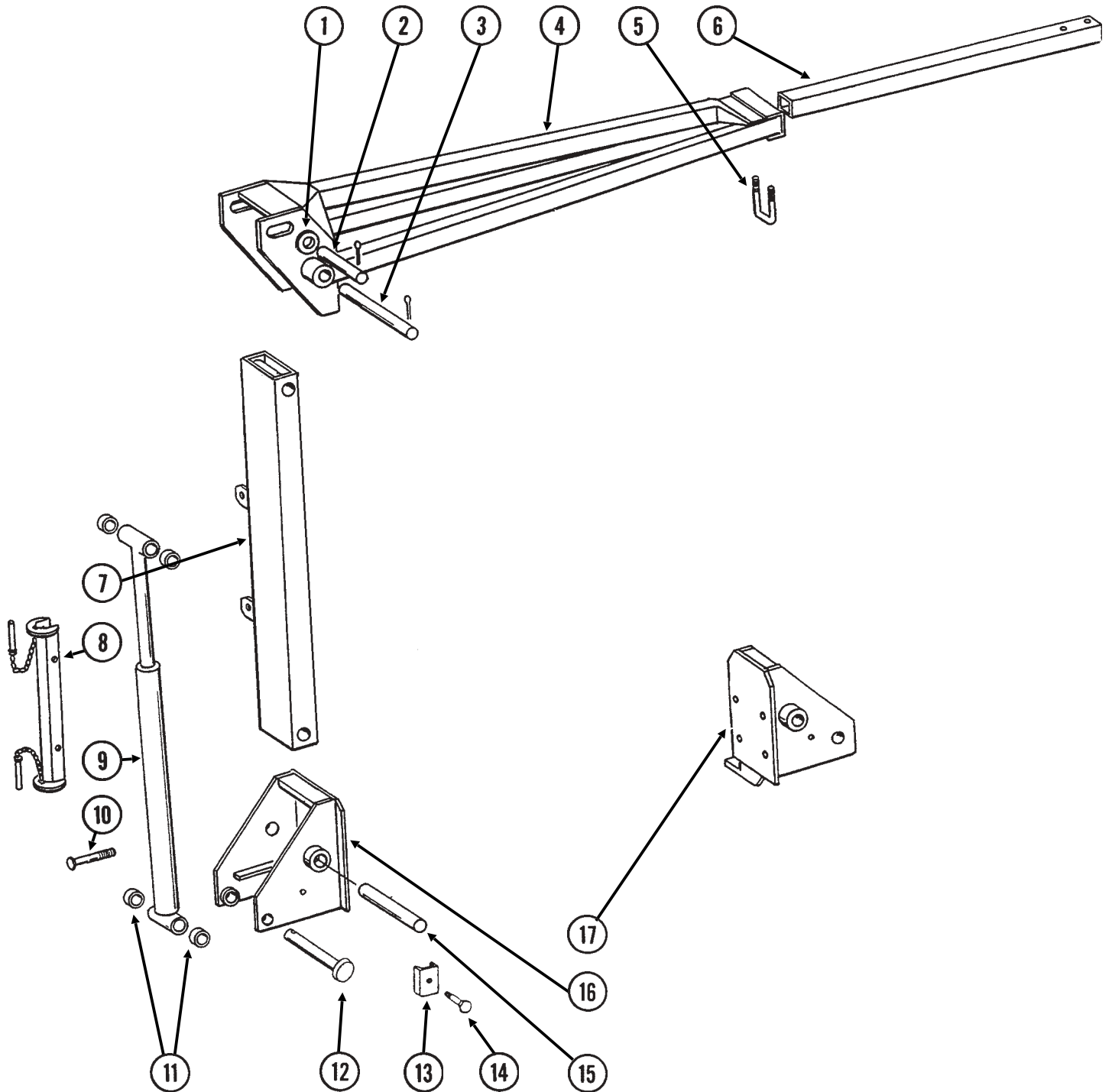
# ROW MARKER ASSEMBLY, TWO-FOLD LOW PROFILE, 6 ROW 30"

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ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Marker)	
1.	GA6442	1	Arm, Second Stage, 20"
2.	G10226	2	Washer, 1 1/4" SAE
3.		-	See "Row Marker Cylinder", Page P53
4.	GA5526	1	Safety Lockup W/Detent Pins <b>(Sub GA8170)</b>
	G10536	-	Detent Pin, 1/2" x 2 1/2" Grip
5.	G10008	4	Hex Head Cap Screw, 5/8"-11 x 2"
	G10230	4	Lock Washer, 5/8"
	G10205	4	Washer, 5/8" SAE
	G10104	4	Hex Nut, 5/8"-11
6.	GD0752-41	-	Sleeve, 1" (If Applicable)
7.	GA6859	1	Mount, L.H.
8.	GD15386	1	Pin, 1 1/4" x 7 5/8"
	G10460	1	Cotter Pin, 1/4" x 2"
9.	GD0652	1	Pin, 1 1/4" x 9 1/2"
	G10460	2	Cotter Pin, 1/4" x 2"
10.	GD5875	1	Hose Clamp, 9/16" x 2 1/2" x 2"
11.	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
12.	GA6858	-	Mount, R.H.
13.	GA6585	1	Arm W/Grease Fittings, First Stage, L.H. (Shown)
	GA6586	-	Arm W/Grease Fittings, First Stage, R.H.
	G10641	-	Grease Fitting, 1/8" NPT
14.	GD2161	1	Pin, 1 1/4" x 8 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
15.	GD3214	1	Pin, 1 1/4" x 12 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
16.	GD2721	2	U-Bolt, 2" x 2" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
17.	GD0453-02	1	Extension Tube, 40"
	GD0453-06	-	Extension Tube, 30" (Used With Interplant® Package Option)
	GD0453-05	-	Extension Tube, 55" (L.H. Side Only With Even-Row Push Row Unit)
18.	GD13457	1	Extension Plate (If Applicable)
19.	G10005	2	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11

# ROW MARKER ASSEMBLY, TWO-FOLD LOW PROFILE, 8 ROW 30"

MKR026/PFA054/MKR019(MKR10d)



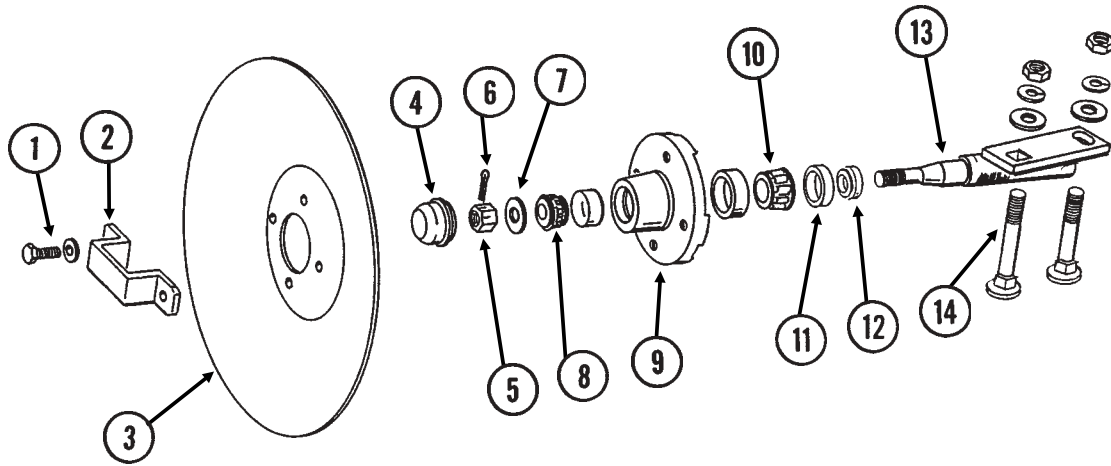
# ROW MARKER ASSEMBLY, TWO-FOLD LOW PROFILE, 8 ROW 30"

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ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Marker)	
1.	G10226	2	Washer, 1 1/4" SAE
2.	GD2161	1	Pin, 1 1/4" x 8 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
3.	GD3214	1	Pin, 1 1/4" x 12 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
4.	GA5188	1	Arm, Second Stage, 46"
5.	GD2721	1	U-Bolt, 2" x 2" x 1/2"-13
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
6.	GD0453-03	1	Extension Tube, 50"
	GD0453-08	-	Extension Tube, 65" (L.H. Side Only With Even-Row Push Row Unit)
7.	GA6585	1	Arm W/Grease Fittings, First Stage, L.H. (Shown)
	GA6586	-	Arm W/Grease Fittings, First Stage, R.H.
	G10641	-	Grease Fitting, 1/8" NPT
8.	GA5526	1	Safety Lockup W/Detent Pins <b>(Sub GA8170)</b>
	G10536	-	Detent Pin, 1/2" x 2 1/2" Grip
9.		-	See "Row Marker Cylinder", Page P53
10.	G10008	4	Hex Head Cap Screw, 5/8"-11 x 2"
	G10230	4	Lock Washer, 5/8"
	G10205	4	Washer, 5/8" SAE
	G10104	4	Hex Nut, 5/8"-11
11.	GD0752-41	-	Sleeve, 1" (If Applicable)
12.	GD15386	1	Pin, 1 1/4" x 7 5/8"
	G10460	1	Cotter Pin, 1/4" x 2"
13.	GD5875	1	Hose Clamp, 9/16" x 2 1/2" x 2"
14.	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
15.	GD0652	1	Pin, 1 1/4" x 9 1/2"
	G10460	2	Cotter Pin, 1/4" x 2"
16.	GA6859	1	Mount, L.H.
17.	GA6858	-	Mount, R.H.

# ROW MARKER SPINDLE/HUB/BLADE

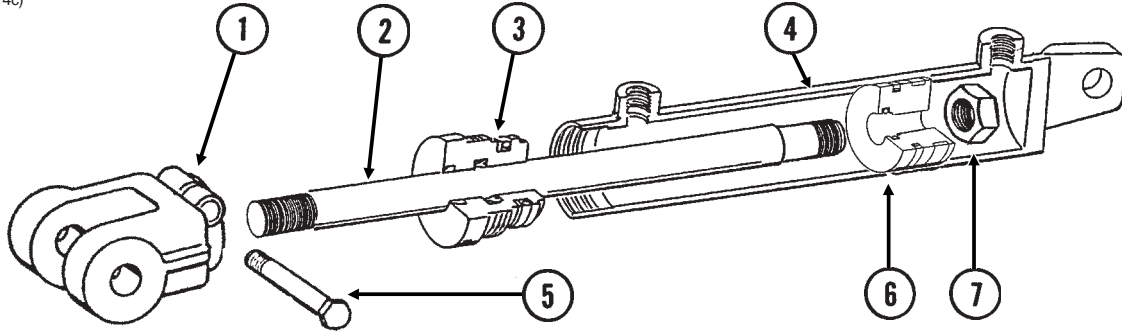
MKR020(MKR3a)



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	G10722	4	Hex Head Cap Screw, 1/2"-20 x 1"
	G10228	4	Lock Washer, 1/2"
2.	GD2597	1	Retainer
3.	GD0746	1	Disc Blade, Solid, 16" (Shown)
	GD10283	-	Disc Blade, Notched, 16" (Optional)
4.	GD0840	1	Dust Cap
5.	G10725	1	Slotted Hex Nut, 5/8"-18
6.	G10544	1	Cotter Pin, 5/32" x 1"
7.	G10724	1	Washer, 5/8" SAE
8.	GA0257	1	Bearing
9.	GA0167	1	Hub W/Cups
	GR0151	-	Outer Cup
	GR0150	-	Inner Cup
10.	GA0245	1	Bearing
11.	GA0243	1	Grease Seal
12.	GA0899	1	Rubber Seal
13.	GA1676	1	Spindle, R.H.
	GA1677	-	Spindle, L.H. (Shown)
14.	G10844	2	Carriage Bolt, 1/2"-13 x 3 1/2"
	G10168	2	Machine Bushing, 1/2", 7 Gauge
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
A.	GA1679	-	Hub And Spindle Assembly, L.H. (Items 1, 2 And 4-13)
	GA1678	-	Hub And Spindle Assembly, R.H. (Items 1, 2 And 4-13)

# ROTATION CYLINDER

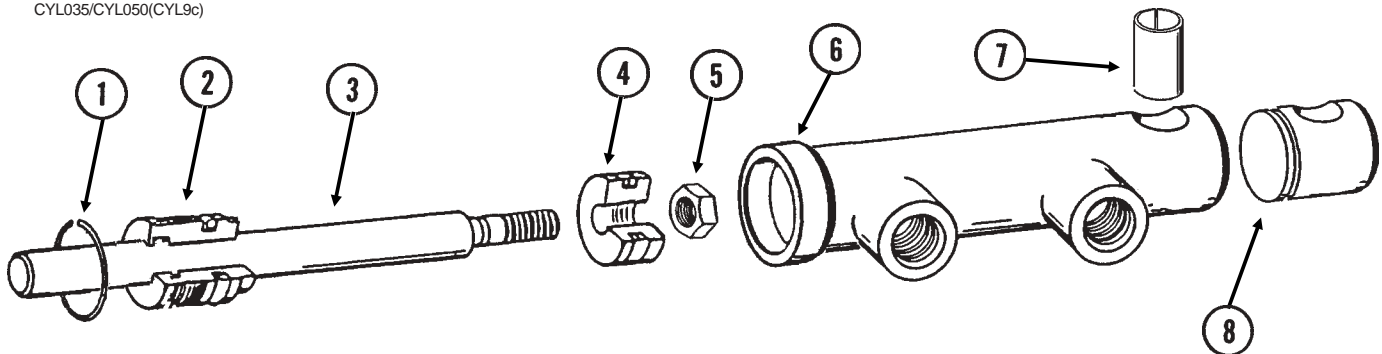
CYL032(CYL14c)



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Cylinder)	
1.	GD11950	1	Clevis
2.	GD12501	1	Rod
3.	GD11999	1	Gland
4.	A6524	1	Barrel <b>(Non-Stock Item)</b>
5.	G10939	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 2 $\frac{1}{4}$ "
	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
6.	GD12502	1	Piston
7.	G10958	1	Lock Nut, 1"-14
A.	GA8911	-	Cylinder Complete, 3" x 16" (Part Number Stamped On Barrel)
B.	GR1526	-	Seal Kit, Includes: (1) Wear Ring, (1) T-Seal, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper

# TRANSPORT LATCH CYLINDER, ALL SIZES

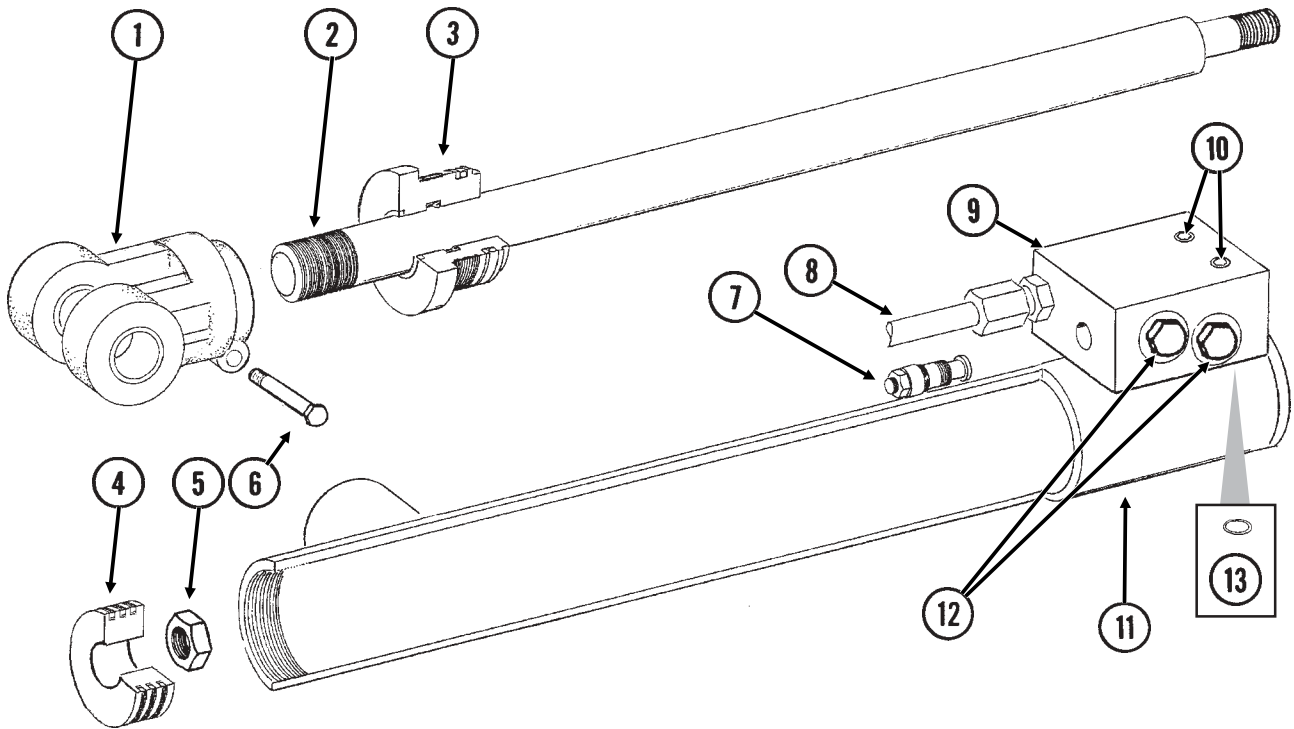
CYL035/CYL050(CYL9c)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10770	1	Internal Retaining Ring, 1 $\frac{11}{16}$ "
2.	GD13170	1	Gland
3.	GD13425	1	Rod
4.	GD13172	1	Piston
5.	G11016	1	Lock Nut, $\frac{1}{2}$ "-20
6.	D13426	1	Barrel <b>(Non-Stock Item)</b>
7.	GD13400	1	Tension Bushing, 1" x 2" Long
8.	GD13173	1	End Cap
A.	GA9559	-	Cylinder Complete, 1 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " (Part Number Stamped On Barrel)
B.	GR1598	-	Seal Kit, Includes: (3) O-Rings, (2) BU Rings, (1) Rod Wiper, (1) T-Seal, (1) Bronze Bushing, (1) Seal, (1) U-Cup

# LIFT CYLINDER

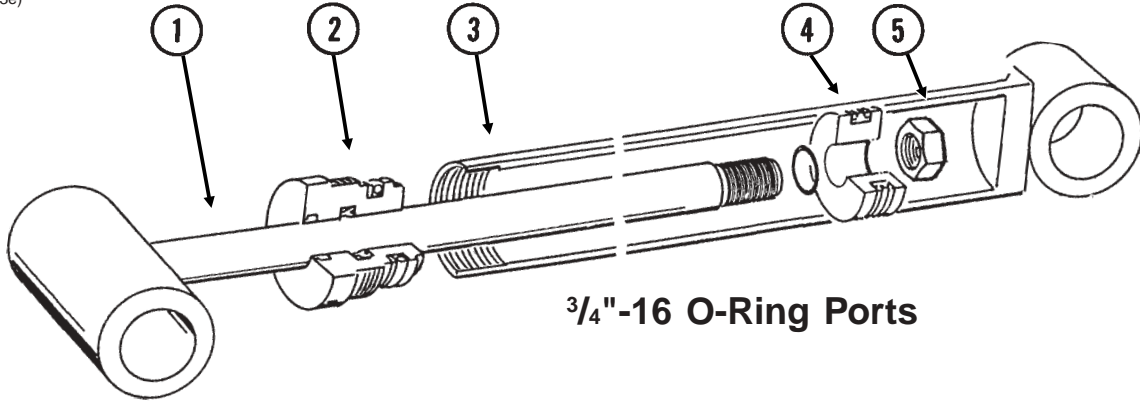
(CYL54a)



ITEM	PART NO.	QTY.	DESCRIPTION
(Per Cylinder)			
1.	GD11950	1	Clevis
2.	GD11957	1	Rod
3.	GD12518	1	Gland
4.	GD11253	1	Piston
5.	G10958	1	Lock Nut, 1"-14
6.	G10939	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 2 $\frac{1}{4}$ "
	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
7.	GA8882	1	Counter Balance Valve
	GR1517	-	Seal Kit For Counter Balance Valve, Includes: (3) O-Rings, (3) BU Rings
8.	GA8888	1	Steel Hydraulic Line, 43 $\frac{11}{16}$ "
9.	GD11579	1	Block
10.	G10932	2	Hex Socket Head Cap Screw, $\frac{5}{16}$ "-18 x 2", Grade 8
11.	GA8884	1	Barrel
12.	G6408-08	2	Plug W/O-Ring, $\frac{3}{4}$ "-16 O-Ring
	GR1037	-	O-Ring
13.	GD12239	1	O-Ring, No. 016
A.	GA8885	-	Cylinder Complete, 3" x 48" ( <i>Part Number Stamped On Barrel</i> )
B.	GR1520	-	Seal Kit (For Cylinder And Counter Balance Valve), Includes: (1) Wiper, (1) U-Cup, (6) O-Rings, (4) BU Rings, (1) Seal, (1) Seal Expander, (2) Cast Iron Rings

# ROW MARKER CYLINDER

CYL039(CYL3e)

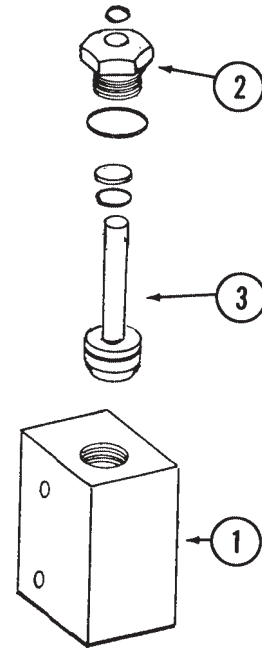


ITEM	PART NO.	QTY.	DESCRIPTION
			(Per Cylinder)
1.	GA9440	1	Rod Assembly
2.	GD12510	1	Gland
3.	A9442	1	Barrel <b>(Non-Stock Item)</b>
4.	GD12511	1	Piston
5.	G10967	1	Lock Nut, $\frac{3}{4}$ "-16
A.	GA9443	-	Cylinder Complete, 2" x 20 $\frac{1}{16}$ " (Part Number Stamped On Barrel)
B.	GR1529	-	Seal Kit, Includes: (1) T-Seal, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper

# STROKE LIMITER VALVE

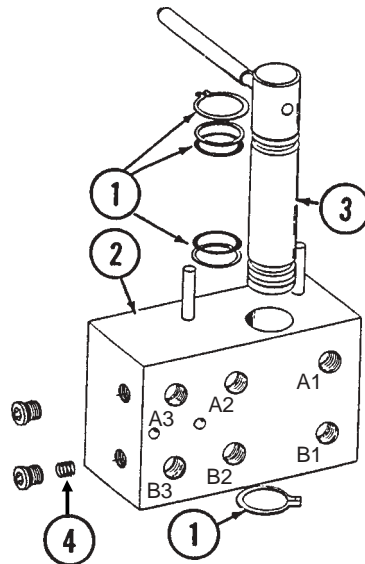
VVB027rev(TWL55)

ITEM	PART NO.	QTY.	DESCRIPTION
1.		1	Block <b>(Non-Stock Item)</b>
2.	GR1281	1	Adapter Plug
3.	GR1282	1	Piston Rod And Poppet Assembly
A.	GA6884	-	Stroke Limiter Valve Complete
B.	GR1289	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring, (1) Seal



# SELECTOR VALVE

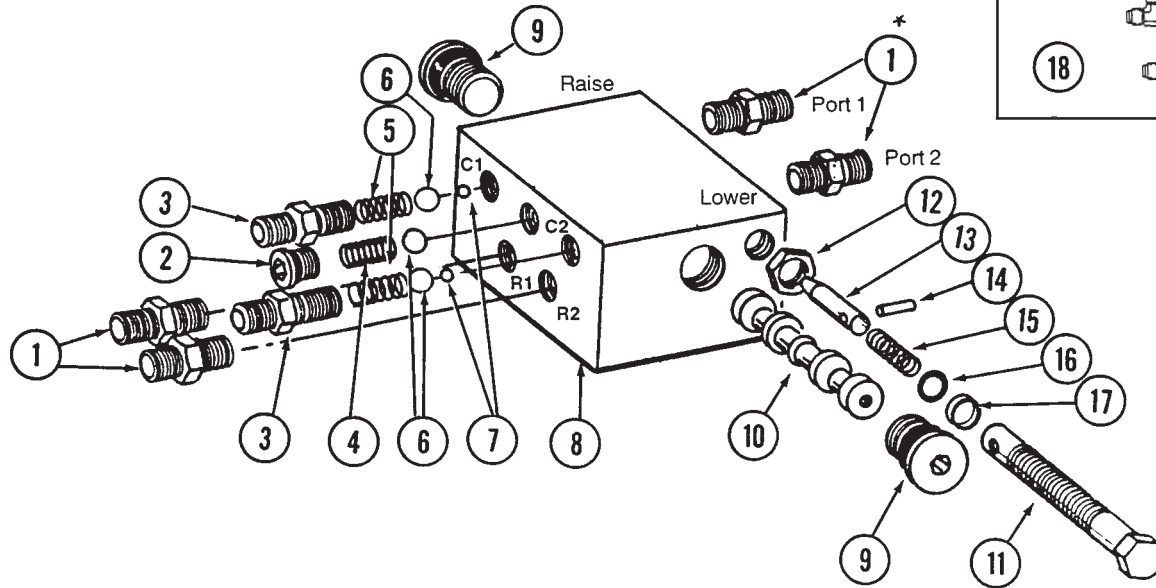
VVB028(EF8a)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1096	1	Seal Kit, Includes: (2) Retaining Rings, (2) O-Rings, (2) BU Rings
2.		1	Block <b>(Non-Stock Item)</b>
3.	GR1177	1	Spool W/Handle
4.	GR1178	1	Restrictor
A.	GA6438	-	Valve Assembly

# ROW MARKER SEQUENCING/FLOW CONTROL VALVE

VVB025(PT9a/TWL56)

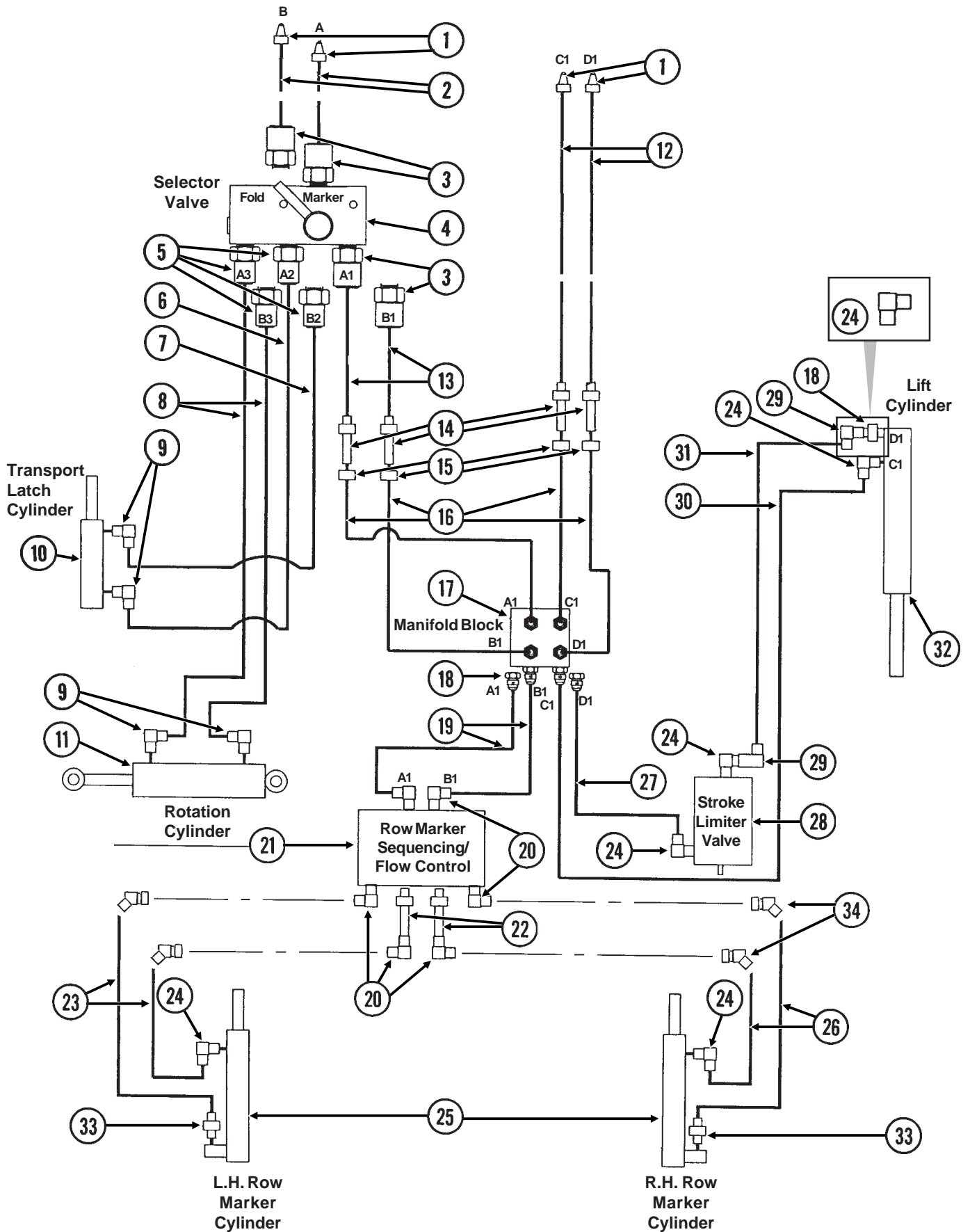


ITEM	PART NO.	QTY.	DESCRIPTION
1.	*G6400-06	4	Connector W/O-Ring, 9/16"-18 Male JIC To O-Ring
	GR1045	-	O-Ring
2.	GR1034	2	Hex Socket Plug W/O-Ring
	GR1035	-	O-Ring
3.	GR1032	2	Port Adapter W/O-Ring
	GR1045	-	O-Ring
4.	GR1033	1	Detent Spring
5.	GR1036	2	Spring
6.	GR1044	3	7/16" Check Ball
7.	GR1043	2	1/4" Steel Ball
8.		1	Valve Body ( <b>Non-Stock Item</b> )
9.	GR1047	2	Hex Socket Plug W/O-Ring
	GR1037	-	O-Ring
10.		-	Spool ( <b>Non-Stock Item</b> )
11.	GR1042	2	Adjustment Screw
12.	GR1048	2	Hex Jam Nut, 1/2"-20
13.	GR1038	2	Needle
14.	GR1039	2	Spring Pin
15.	GR1046	2	Compression Spring
16.	GR1040	2	O-Ring
17.	GR1041	2	Teflon BU Ring
18.		-	See "Hydraulic System", Pages P56 And P57
A.	GA5552	-	Valve Assembly Complete (Items 1-17)
B.	GA5572	-	Flow Control Portion Only (Items 11-17)

\*Not used.

# HYDRAULIC SYSTEM

A6499-2(TWL92c/TWL92b)



# HYDRAULIC SYSTEM

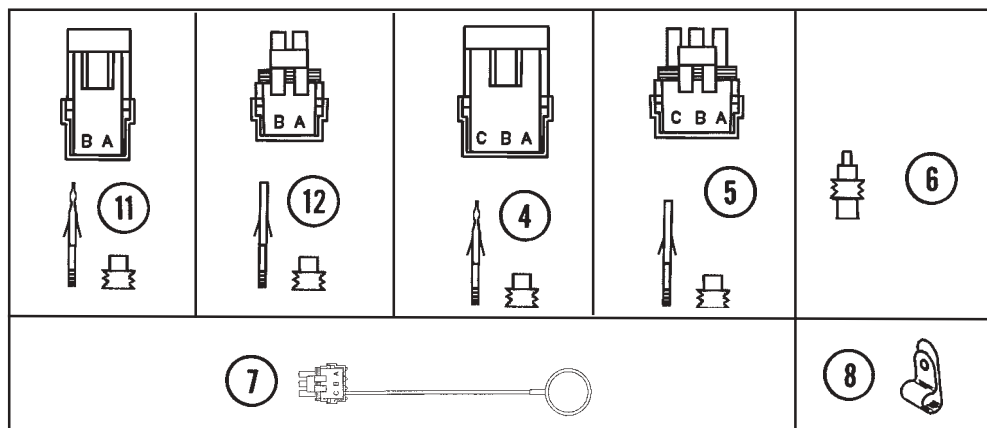
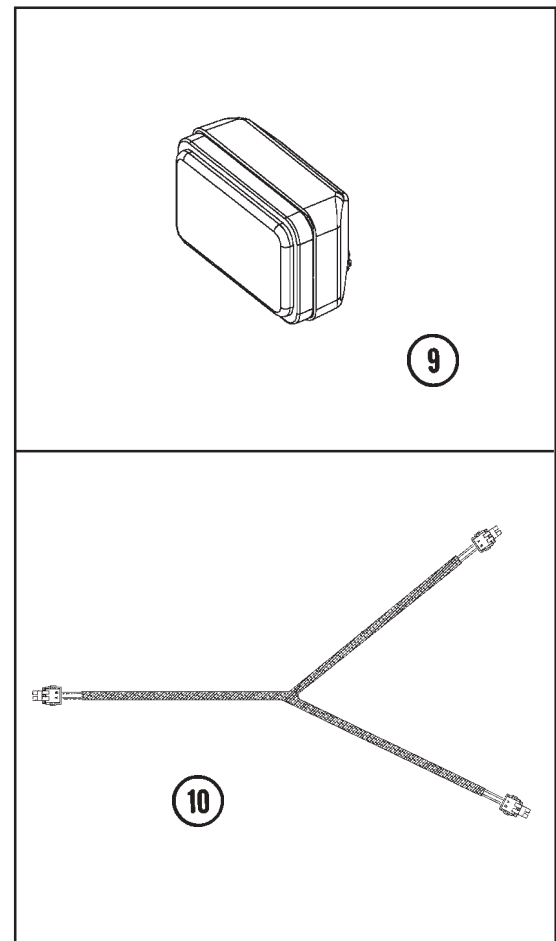
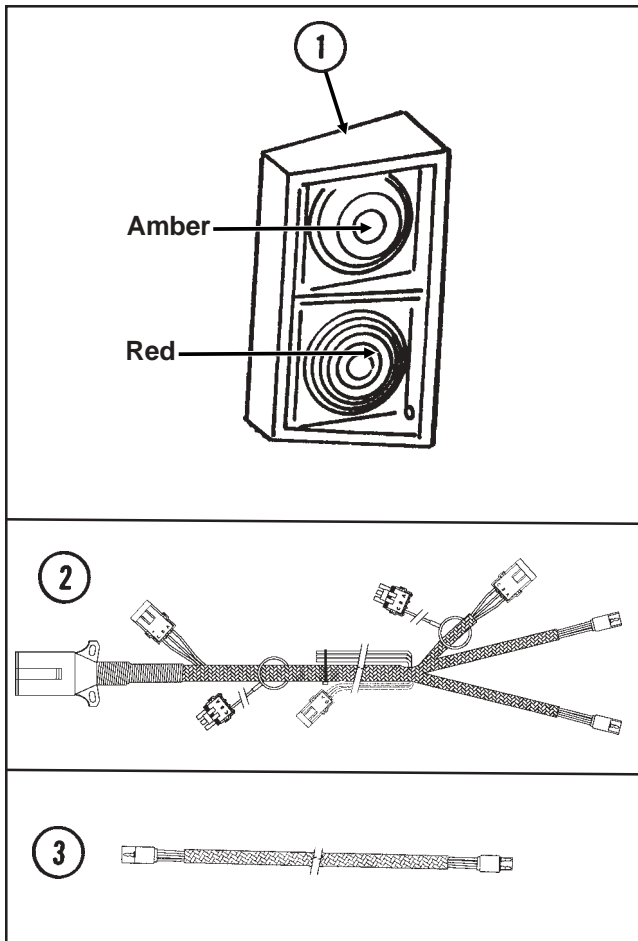
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD4086	4	ISO Coupler
2.	*A3210	2	Hose Assembly, $\frac{3}{8}$ " x 88"
3.	G6400-08-06	4	Connector W/O-Ring, $\frac{3}{4}$ "-16 Male JIC To $\frac{9}{16}$ "-18 O-Ring
	GR1045	-	O-Ring
4.		-	See "Selector Valve", Page P54
5.	G6400-06	4	Connector W/O-Ring, $\frac{9}{16}$ "-18 Male JIC To O-Ring
	GR1045	-	O-Ring
6.	*A1153	1	Hose Assembly, $\frac{1}{4}$ " x 56", 6 Row 30"
	*A1194	-	Hose Assembly, $\frac{1}{4}$ " x 30", 8 Row 30"
7.	*A1141	1	Hose Assembly, $\frac{1}{4}$ " x 62", 6 Row 30"
	*A1195	-	Hose Assembly, $\frac{1}{4}$ " x 34", 8 Row 30"
8.	*A1107	2	Hose Assembly, $\frac{1}{4}$ " x 140"
9.	G6801-06-08	4	Elbow W/O-Ring, 90°, $\frac{9}{16}$ "-18 Male JIC To $\frac{3}{4}$ "-16 O-Ring
	GR1037	-	O-Ring
10.		-	See "Transport Latch Cylinder", Page P51
11.		-	See "Rotation Cylinder", Page P51
12.	*A3183	2	Hose Assembly, $\frac{3}{8}$ " x 246"
13.	*A1026	2	Hose Assembly, $\frac{3}{8}$ " x 152"
14.	G2700-08	4	Bulkhead Tube Union, $\frac{3}{4}$ "-16 Male JIC
15.	G306-08	4	Lock Nut, $\frac{3}{4}$ "-16
16.	*A1021	4	Hose Assembly, $\frac{3}{8}$ " x 56"
17.		-	See "Frame Assembly", Pages P36 And P37
18.	G6400-08	8-9	Connector W/O-Ring, $\frac{3}{4}$ "-16 Male JIC To O-Ring
	GR1037	-	O-Ring
19.	*A1002	2	Hose Assembly, $\frac{3}{8}$ " x 20"
20.	G6500-08-06	6	Swivel Elbow, 90°, $\frac{3}{4}$ "-16 Male JIC To $\frac{9}{16}$ "-18 Female
21.		-	See "Row Marker Sequencing/Flow Control Valve", Page P55
22.	G6400-L-06	2	Long Connector W/O-Ring, $\frac{9}{16}$ "-18 Male JIC To O-Ring
	GR1045	-	O-Ring
23.	*A3137	2	Hose Assembly, $\frac{3}{8}$ " x 140", 6 Row 30"
	*A3105	-	Hose Assembly, $\frac{3}{8}$ " x 170", 8 Row 30"
24.	G6801-08	5-6	Elbow W/O-Ring, 90°, $\frac{3}{4}$ "-16 Male JIC To O-Ring
	GR1037	-	O-Ring
25.		-	See "Row Marker Cylinder", Page P53
26.	*A1041	2	Hose Assembly, $\frac{3}{8}$ " x 130", 6 Row 30"
	*A1090	-	Hose Assembly, $\frac{3}{8}$ " x 162", 8 Row 30"
27.	*A1076	1	Hose Assembly, $\frac{3}{8}$ " x 30"
28.		-	See "Stroke Limiter Valve", Page P54 And "Frame Assembly", Pages P36 And P37
29.	G6500-08	1-2	Swivel Elbow, 90°, $\frac{3}{4}$ "-16 Male JIC To Female
30.	*A1055	3	Hose Assembly, $\frac{3}{8}$ " x 66"
31.	*A1018	1	Hose Assembly, $\frac{3}{8}$ " x 40"
32.		-	See "Lift Cylinder", Page P52
33.	G6400-08	2	Connector W/O-Ring, $\frac{3}{4}$ "-16 Male JIC To O-Ring
	GR1037	-	O-Ring
	G6400-08-04	2	Connector W/O-Ring, $\frac{3}{4}$ "-16 Male JIC To $\frac{7}{16}$ "-20 O-Ring
	GR1465	-	O-Ring
34.	G6502-08	4	Swivel Elbow, 45°, $\frac{3}{4}$ "-16 Male JIC To Female

\* Hydraulic hose is not stocked by KINZE® Repair Parts, but can be made available on a special order basis. Call for quote.

# ELECTRICAL COMPONENTS

(TWL23/A9152a/ELC38/MTR27v/MTR27a/ELC8/ELC39/A9689/A10924)

See "Frame Assembly", Pages P36 and P37 for light brackets.



# ELECTRICAL COMPONENTS

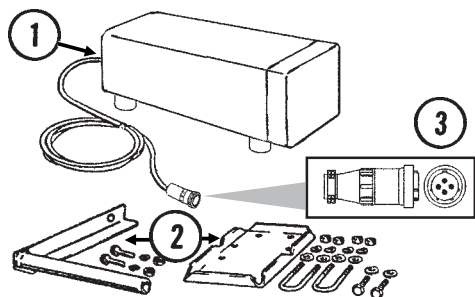
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA6699	1	Double Light Assembly
	GA6700	1	Double Light Assembly (Shown)
	GR1203	-	Red Lens
	GR1204	-	Amber Lens
	GR1205	-	Cover
	GR1206	-	Rubber Grommet (4)
	GR1207	-	Lamp Unit
	GR1208	-	Bulb
2.	GA9152	-	Wiring Harness W/7 Terminal Female Connector, 516" (2 Light Connections), 6 Row 30"
	GA9153	-	Wiring Harness W/7 Terminal Female Connector, 564" (2 Light Connections), 8 Row 30"
	GA5385	-	7 Terminal Female Connector
3.	GA9096	2	Harness Extension, 42"
4.	G1K248	-	3-Pin Female Connector Kit, Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
5.	G1K252	-	3-Pin Male Connector Kit, Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
6.	GD11089	-	Sealing Plug
7.	GA8047	-	Dust Plug (Black)
8.	GD6291	1-2	Insulated Clamp, $\frac{3}{8}$ "
9.	GA9689	2	Work Light Assembly
10.	GA10924	1	Wiring Harness, 348"
11.	G1K321	-	2-Pin Female Connector Kit (Black), Includes: (3) 2-Pin Female Housings, (6) Pin Contacts, (6) Seals
12.	G1K320	-	2-Pin Male Connector Kit (Black), Includes: (3) 2-Pin Male Housings, (6) Socket Contacts, (6) Seals

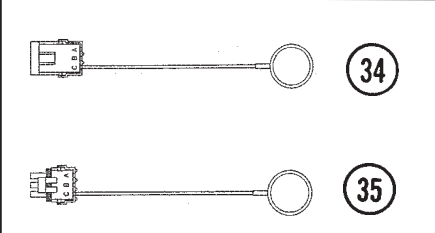
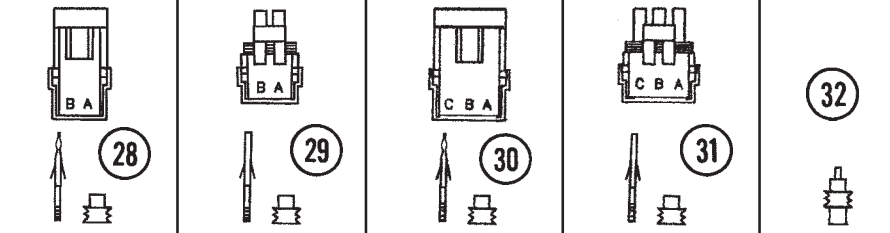
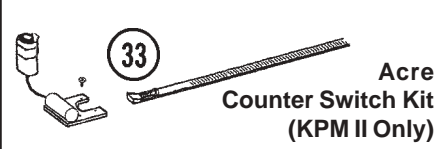
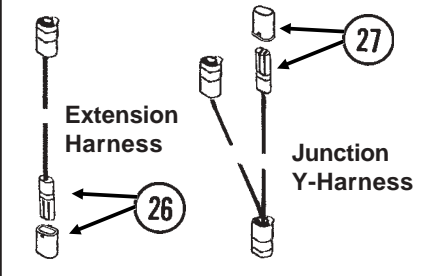
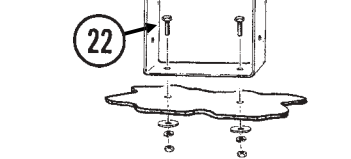
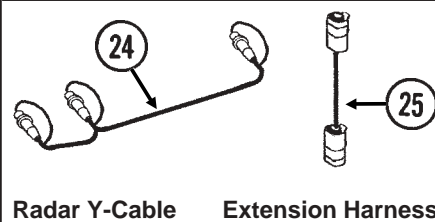
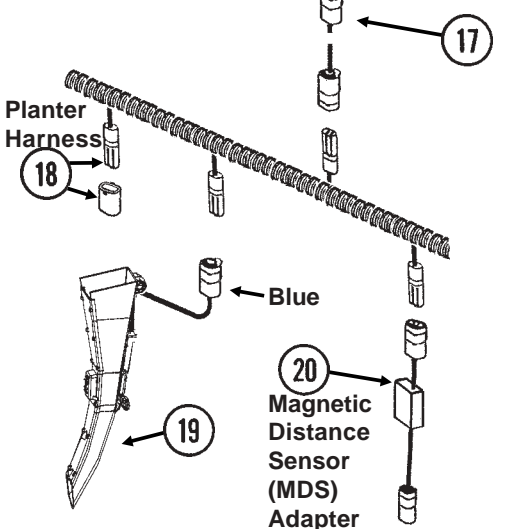
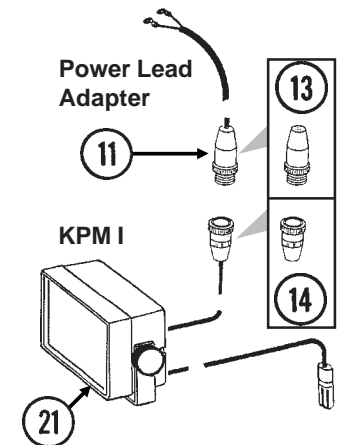
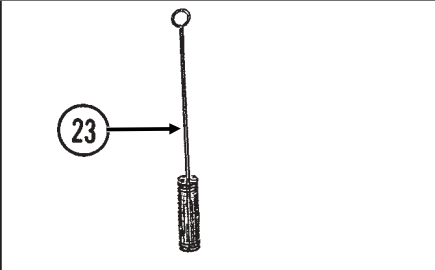
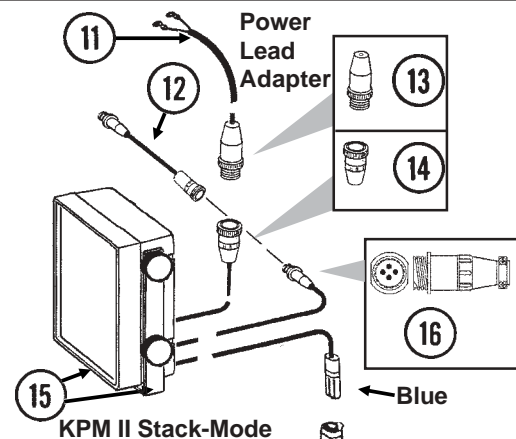
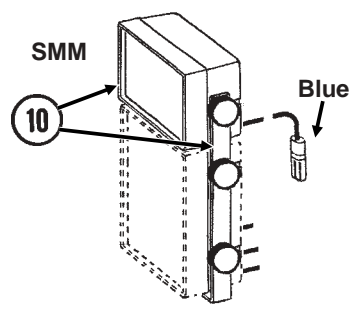
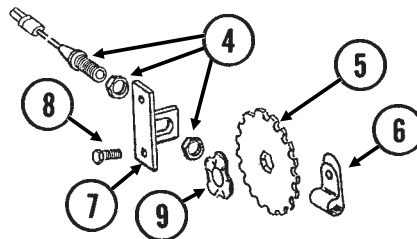
# KPM I/KPM II STACK-MODE ELECTRONIC SEED MONITOR

(MTR46)

Radar Distance Sensor (KPM II Only)



Magnetic Distance Sensor (MDS) (KPM II Only)



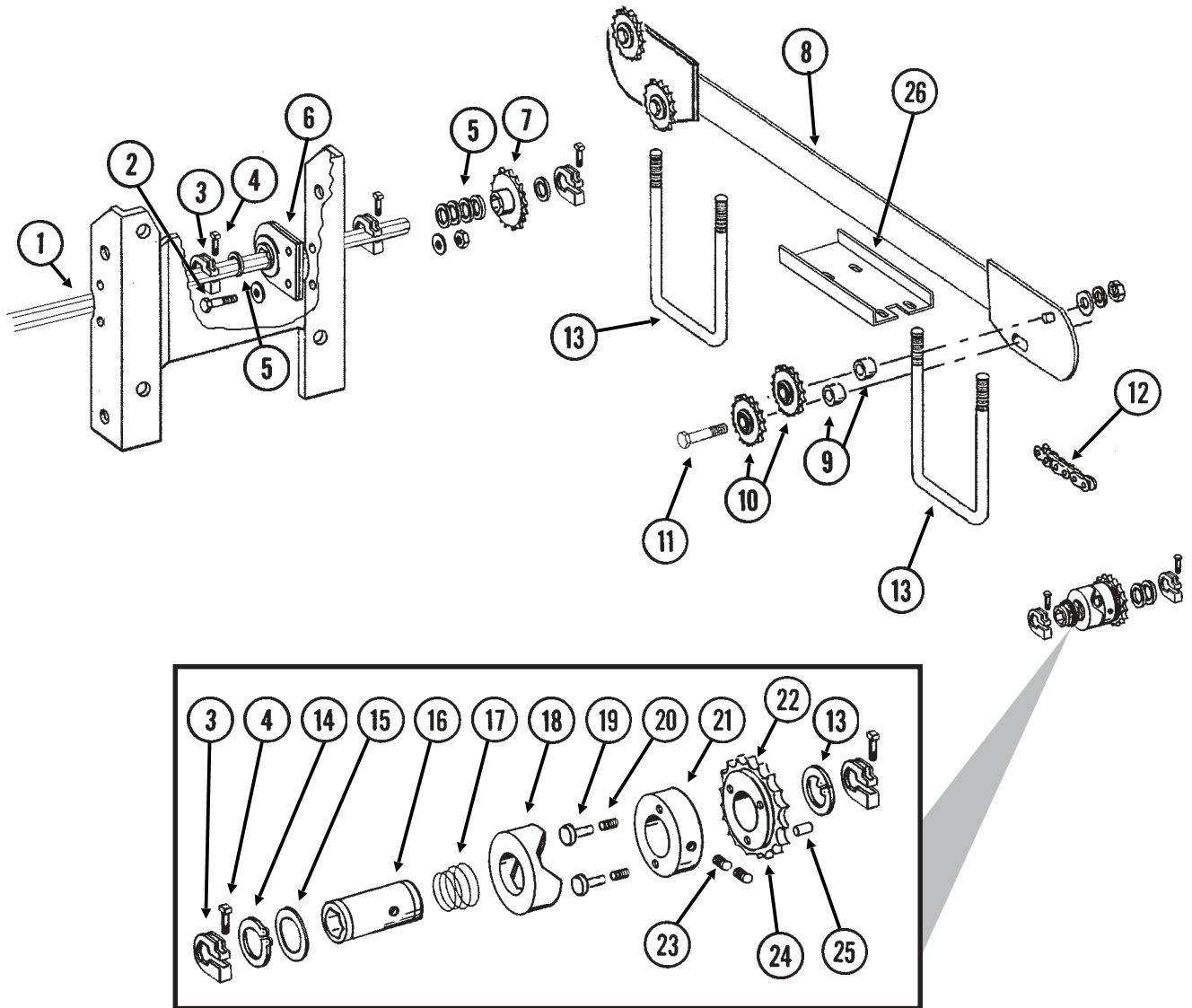
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7858	-	Radar Distance Sensor W/20' Cable
2.	GA8026	-	Radar Sensor Pipe/Mounting Bracket Package
3.	G1K323	-	4-Pin Connector Kit W/Female Housing, 4 Pins And Cable Clamp
4.	GA5600	1	Magnetic Distance Sensor
5.	GD8751	-	Magnetic Distance Sensor Pulse Wheel
6.	GD6291	-	Insulated Clamp, 3/8"
7.	GD8770	1	Bracket
8.	G10001	2	Hex Head Cap Screw, 3/8"-16 x 1"
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
9.	GD8771	1	Spring Wave Washer

# KPM I/KPM II STACK-MODE ELECTRONIC SEED MONITOR

ITEM	PART NO.	QTY.	DESCRIPTION
10.	GA9857	1	SMM Backlit Console W/Mounting Bracket And Dust Plug (Item 36)
	GR1631	-	Mounting Bracket, KPM II Stack-Mode And SMM Consoles
	GR1632	-	Console Mounting Bracket Hardware Package (Includes 2 Knobs And 1/4" Hardware)
11.	GA7856	1	Power Lead Adapter
12.	GA9144	-	Monitor/Radar Adapter, 10"
13.	G1K267	-	Power Lead Adapter Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (3) Male Terminal Pins
14.	G1K268	-	Console Cable Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (1) Lock Ring, (3) Female Terminal Pins
15.	GA10575	-	KPM II Backlit Console W/Mounting Bracket, Fuse Holder And Fuse, Power Lead Adapter (Item 11), Brush (Item 23), Dust Plug (Item 34) And Monitor/Radar Adapter, 10" (Item 12)
	GR1391	-	Mounting Bracket, KPM II
	GR1393	-	Console Mounting Bracket Hardware Package (Includes 4 Knobs And 1/4" Hardware)
	GA10601	-	Fuse Holder
	GD7639	-	Fuse
16.	G1K322	-	4-Pin Connector Kit W/Male Housing, 4 Female Socket Contacts And Cable Clamp
17.		-	Included In Planter Wiring Harness, See Item 2, Pages P58 And P59
18.	GA8021	-	Planter Harness W/Dust Caps, 4 Row (7 Connectors)
	GA8022	-	Planter Harness W/Dust Caps, 6 Row (9 Connectors)
	GA7850	-	Planter Harness W/Dust Caps, 8 Row (12 Connectors)
	GD11993	-	Dust Cap
19.	GA10901	-	Seed Tube W/Computerized Sensor (Shown)
	GR1629	-	Sensor Only
	GA10940	-	Seed Tube (With Holes For Sensor Installation)
	GA10142	-	Seed Tube W/Computerized Sensor (Optional For Large Seed)
	GR1737	-	Sensor Only
	GA10136	-	Seed Tube (With Holes For Sensor Installation)
20.	GA7859	1	Magnetic Distance Sensor Adapter (Analog To Digital)
21.	GA10570	1	KPM I Backlit Console W/Mounting Bracket, Fuse Holder And Fuse, Power Lead Adapter (Item 11), Brush (Item 23) And Dust Plug (Item 34)
	GR1390	-	Mounting Bracket, KPM I
	GR1392	-	Console Mounting Bracket Hardware Package (Includes 2 Knobs And 1/4" Hardware)
	GA10601	-	Fuse Holder
	GD7639	-	Fuse
22.	G10022	2	Hex Head Cap Screw, 1/4"-20 x 1/2"
	G10211	2	Washer, 1/4" SAE
	G10227	2	Lock Washer, 1/4"
	G10103	2	Hex Nut, 1/4"-20
23.	GR0594	-	Brush
24.	GR0586	1	Radar Y-Cable (Used To Connect Radar Distance Sensor For Multiple Functions)
25.	GA7857	-	Extension Harness, 1'
26.	GA7854	-	Extension Harness W/Dust Cap, 15'
	GA7855	-	Extension Harness W/Dust Cap, 30'
	GD11993	-	Dust Cap
27.	GA7853	-	Junction Y-Harness W/Dust Cap
	GD11993	-	Dust Cap
28.	G1K321	-	2-Pin Female Connector Kit (Black), Includes: (3) 2-Pin Female Housings, (6) Pin Contacts, (6) Seals
29.	G1K320	-	2-Pin Male Connector Kit (Black), Includes: (3) 2-Pin Male Housings, (6) Socket Contacts, (6) Seals
30.	G1K248	-	3-Pin Female Connector Kit (Black), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
	G1K362	-	3-Pin Female Connector Kit (Blue), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
31.	G1K252	-	3-Pin Male Connector Kit (Black), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
	G1K363	-	3-Pin Male Connector Kit (Blue), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
32.	GD11089	-	Sealing Plug
33.	G1K249	-	Acre Counter Switch Kit
34.	GA8046	-	Dust Plug (Black)
	GA9978	-	Dust Plug (Blue)
35.	GA8047	-	Dust Plug (Black)
	GA9979	-	Dust Plug (Blue)
A.	GA6147	-	Magnetic Distance Sensor And Mounting Package (Items 4-9)

# INTERPLANT® PUSH ROW UNIT DRIVE

PTD073(TWL58g)

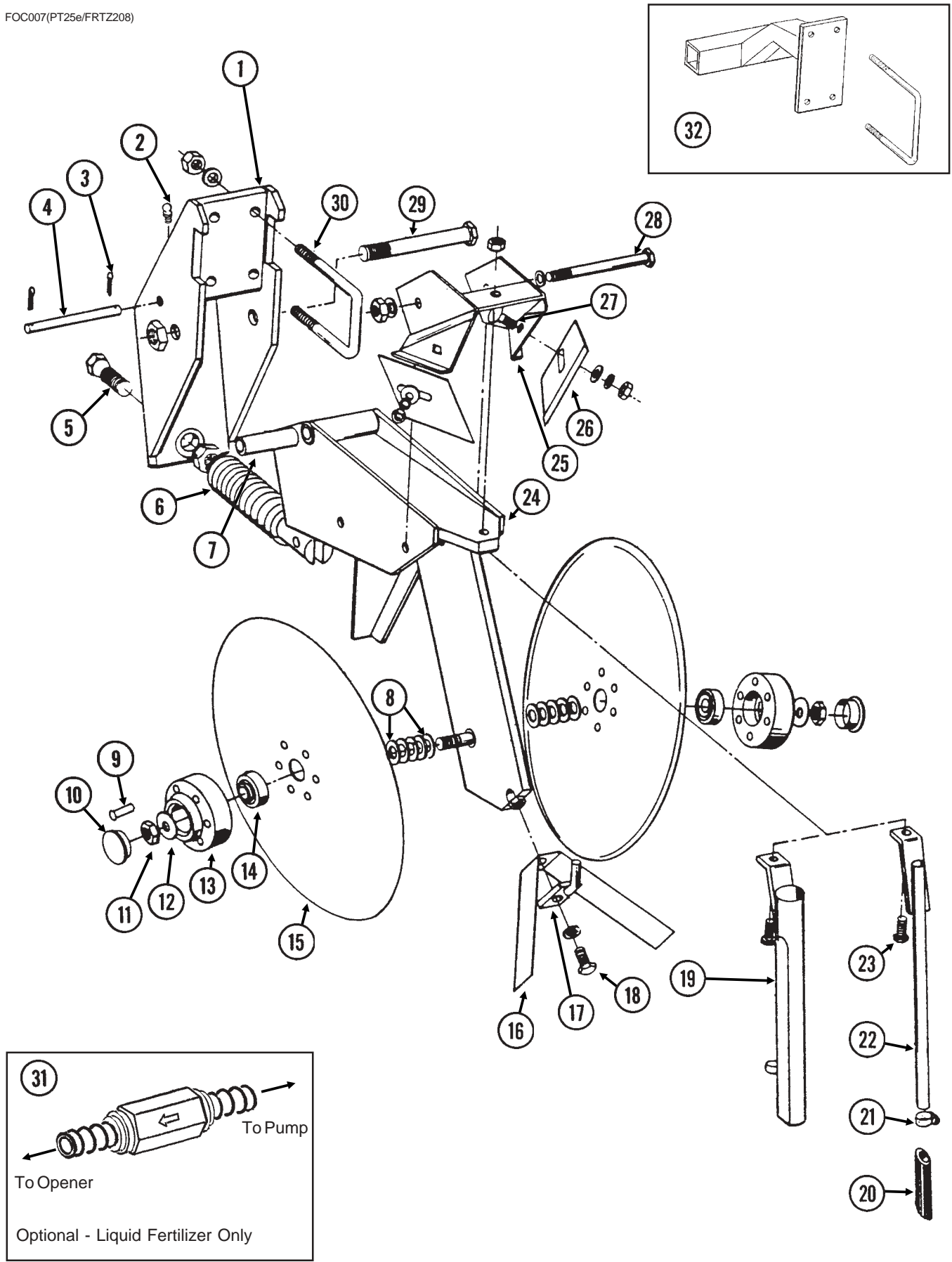


# INTERPLANT® PUSH ROW UNIT DRIVE

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD0914-155	-	Hex Shaft, 7/8" x 155" (No Holes), 6 Row 30"
	GD0914-215	-	Hex Shaft, 7/8" x 215" (No Holes), 8 Row 30"
2.	G10001	-	Hex Head Cap Screw, 3/8"-16 x 1"
	G10229	-	Lock Washer, 3/8"
	G10101	-	Hex Nut, 3/8"-16
3.	GD11045	-	Lock Clamp
4.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
5.	G10233	-	Machine Bushing, 1", 10 Gauge (As Required)
6.	GA2180	-	Hanger Bearing, 7/8" Hex Bore
7.	GA5107	2	Sprocket, 19 Tooth
8.	GA9138	1	Mount
9.	GD9229	4	Spacer, 1 1/4" O.D. x 1/2" Long (If Applicable)
10.	GA7154	4	Sprocket W/Bearing, 18 Tooth
11.	G10581	4	Hex Head Cap Screw, 1/2"-13 x 2 1/4"
	G10016	4	Hex Head Cap Screw, 1/2"-13 x 2"
	G10206	4-8	Washer, 1/2" SAE
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
12.	G3310-226	1	Chain, No. 40, 226 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
	GR0912	-	Connector Link, No. 40
13.	GD8306	2	U-Bolt, 7" x 5" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	-	Hex Nut, 1/2"-13
14.	G10496	2	External Inverted Snap Ring, 1 1/2"
15.	GR1411	1	Shim
16.	GR1407	1	Drive Shaft
17.	GR1408	1	Compression Spring
18.	GR1409	1	Knurled Collar
19.	GR1410	1	Pin
20.	GR1413	1	Spring
21.	GR1405	1	Lock Collar
22.	GR1406	1	Bushing
23.	G10535	1	Hex Socket Set Screw, 3/8"-16 x 3/4"
24.	GR1412	1	Sprocket, 19 Tooth
25.	G10968	1	Spring Pin, 5/32" x 7/16"
26.	GD14417	1	Hose Protector
A.	GA8092	-	Clutch Sprocket Assembly, 19 Tooth (Items 14-25)
B.	G1K269	-	Lock Clamp Kit (Items 3 And 4)
C.	G1K331	-	Clutch Sprocket Kit (Items 22, 24 And 25)

# DOUBLE DISC FERTILIZER OPENER AND MOUNT

FOC007(PT25e/FRTZ208)

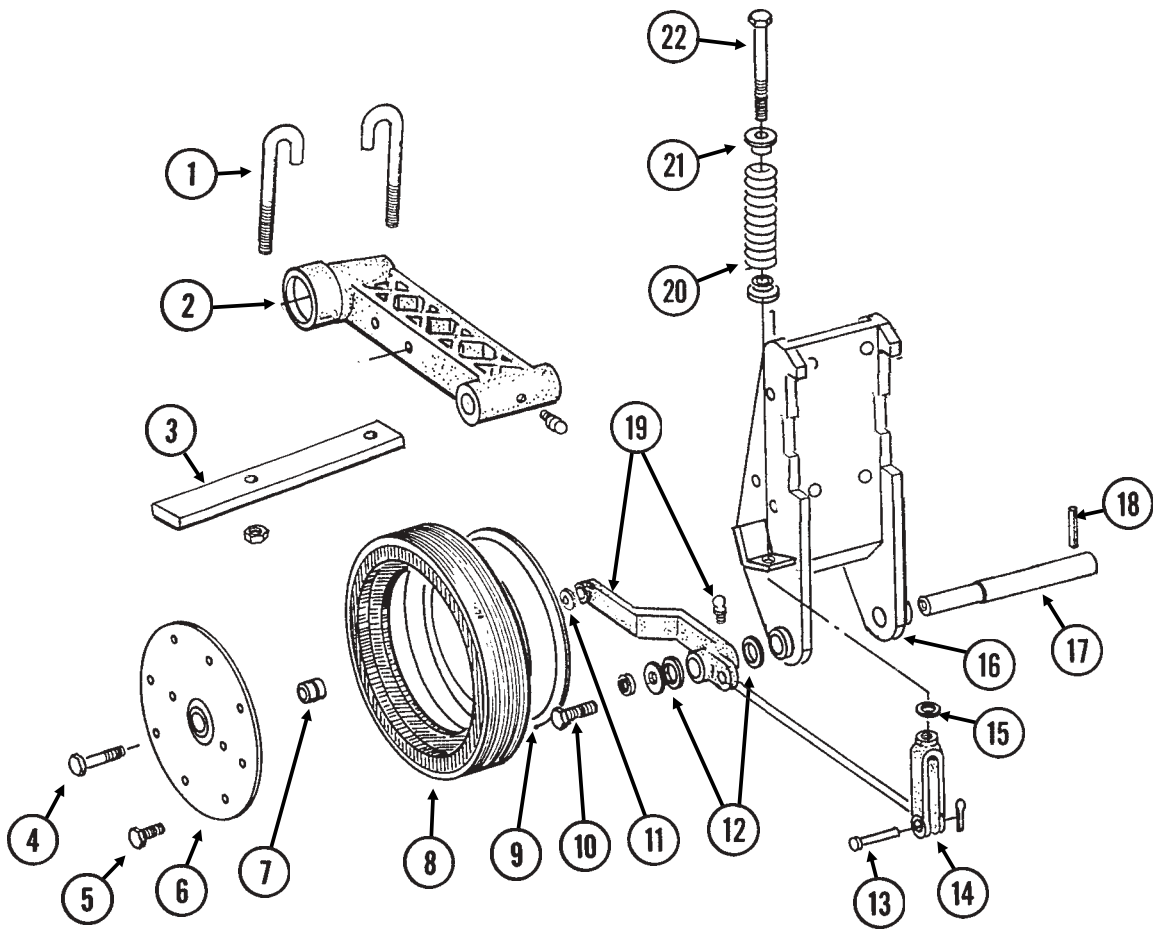


# DOUBLE DISC FERTILIZER OPENER AND MOUNT

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GA8483	1	Bracket
2.	G10938	1	Grease Fitting, 1/4"-28, Taper Thread
3.	G10451	2	Cotter Pin, 1/8" x 1"
4.	GD1657	1	Lockup Pin
5.	GD0962	1	Hex Head Adjusting Bolt, 5/8"-18 x 3 1/4"
	G10499	1	Hex Jam Nut, 5/8"-18, Grade 2
6.	GA0328	1	Spring
7.	GD0487	1	Bushing, 41/64" I.D. x 3 1/2" Long
8.	G10213	-	Machine Bushing, 5/8" (.030" Thick)
9.	G10542	12	Rivet, 1/4" x 1 5/16"
10.	GD1132	2	Dust Cap
11.	G10503	1	Hex Jam Nut, 5/8"-11, Grade 2
	G10504	1	Hex Jam Nut, 5/8"-11, L.H. Thread, Grade 2
12.	G10204	2	Special Machine Bushing, 5/8" x 1" O.D.
13.	GB0134	2	Hub
14.	GA2014	2	Bearing
15.	GD11306	2	Disc Blade, 3.5 mm x 15"
16.	GD2589	1	Inner Scraper
17.	GA0312	1	Mount
18.	G10019	1	Hex Head Cap Screw, 5/16"-18 x 1"
	G10232	1	Lock Washer, 5/16"
19.	GA1369	-	Drop Tube, Dry Fertilizer
20.	GD11705	-	Extension
21.	G10681	-	Hose Clamp, No. 6
22.	GA8685	-	Drop Tube, Liquid Fertilizer
23.	G10133	1	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10221	-	Washer, 5/16" SAE
	G10109	1	Lock Nut, 5/16"-18, Grade 8
24.	GA9195	1	Shank
25.	GA0810	1	Scraper Mount
26.	GD1673	2	Scraper
27.	G10305	2	Carriage Bolt, 3/8"-16 x 1"
	G10210	2	Washer, 3/8" USS
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
28.	G10045	1	Hex Head Cap Screw, 1/2"-13 x 4 1/2"
	G10111	1	Lock Nut, 1/2"-13
29.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10107	1	Lock Nut, 5/8"-11
30.	GD1138	2	U-Bolt, 2 1/2" x 2 1/2" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
31.	GA8983	-	Check Valve, Low Rate
32.	GA7135	-	Mount (One Per Opener) W/U-Bolts
	GD1113	-	U-Bolt, 5" x 7" x 5/8"-11
	G10230	-	Lock Washer, 5/8"
	G10104	-	Hex Nut, 5/8"-11
A.	GA8845	-	Disc Blade And Bearing Assembly (Items 9 And 13-15)

# HD SINGLE DISC FERTILIZER OPENER (Soil Press Wheel)

(TWL35d)

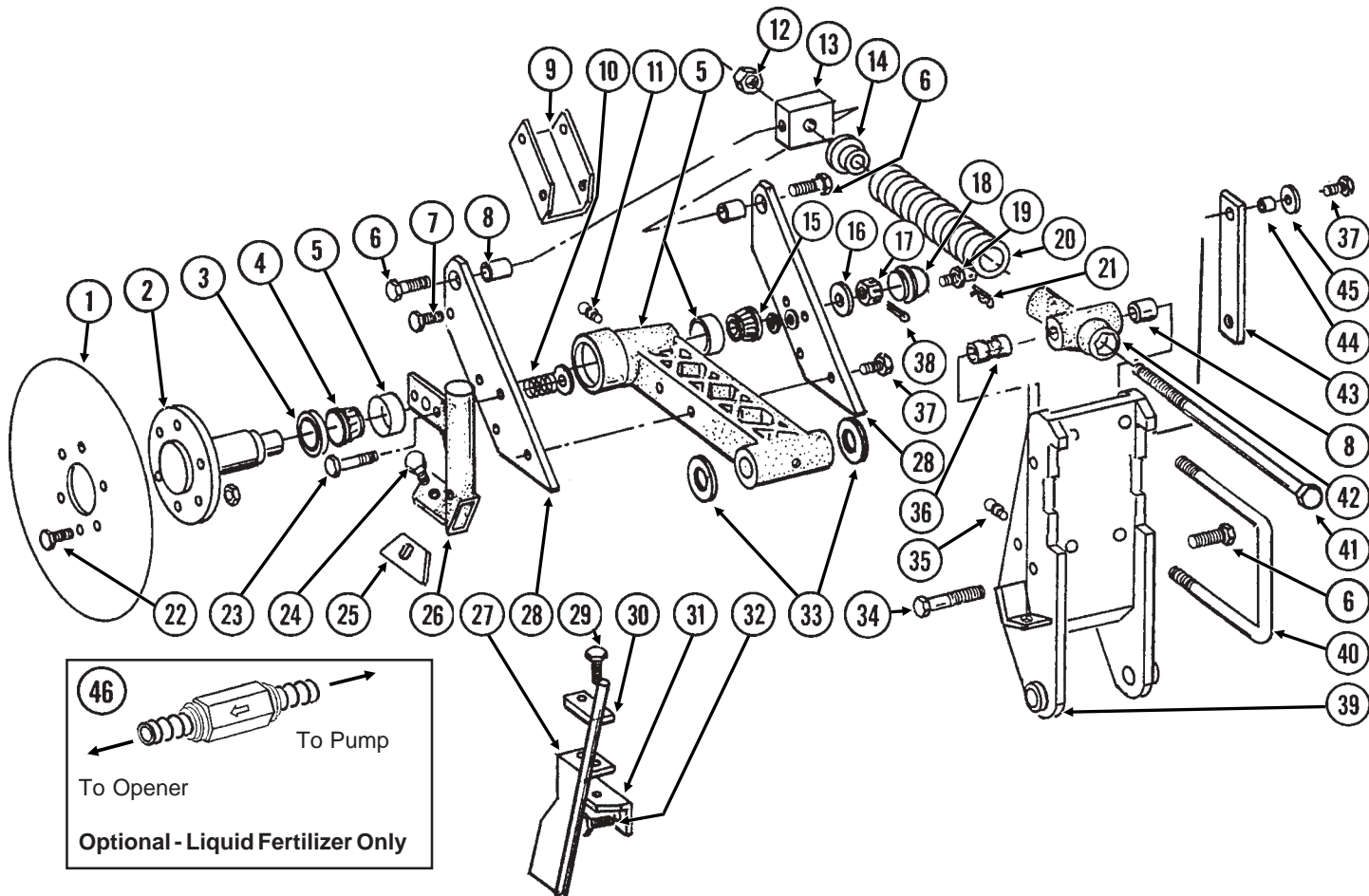


# HD SINGLE DISC FERTILIZER OPENER (Soil Press Wheel)

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GD9705	2	J-Bolt, 1/2"-13
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
2.		-	See "HD Single Disc Fertilizer Opener (Blade And Drop Tube)", Pages P68 And P69
3.	GD9706	1	Lockup Bar
4.	G10010	1	Hex Head Cap Screw, 5/8"-11 x 3"
5.	G10961	11	Flanged Whiz-Lock Screw, 5/16"-18 x 5/8", No Serration
	G10620	11	Serrated Flange Nut, 5/16"-18
6.	GD11954	1	Half Wheel Cover, Nylon
7.	GA6171	1	Bearing
8.	GD11953	1	Offset Tire
9.	GD11423	1	Half Wheel
10.	G10438	1	Hex Head Cap Screw, 1/2"-13 x 3/4"
	G10228	1	Lock Washer, 1/2"
	G10216	1	Washer, 1/2" USS
11.	G10230	1	Lock Washer, 5/8"
12.	G10526	10	Machine Bushing, 1" (.048" Thick)
13.	G10560	1	Clevis Pin, 1/2" x 1 3/4"
	G10456	1	Cotter Pin, 1/8" x 3/4"
14.	GD8218	1	Yoke
15.	G10205	1	Washer, 5/8" SAE
16.		-	See "HD Single Disc Fertilizer Opener (Blade And Drop Tube)", Pages P68 And P69
17.	GD7911	1	Pivot Pin
18.	G10610	1	Spring Pin, 3/8" x 2"
19.	GA8306	-	Wheel Arm W/Grease Fitting, R.H.
	GA8305	1	Wheel Arm W/Grease Fitting, L.H. (Shown)
	G10640	1	Grease Fitting, 1/4"-28
20.	GD8308	1	Spring
21.	GB0212	2	Washer
22.	GD9709	1	Special Bolt
A.	G1K215	-	Lockup Kit (Items 1 And 3)
B.	GA8877	-	Gauge Wheel Complete (Items 5-9)

# HD SINGLE DISC FERTILIZER OPENER (Blade And Drop Tube)

FOC016/FOC007/FOC019(PT27c/FRTZ208)



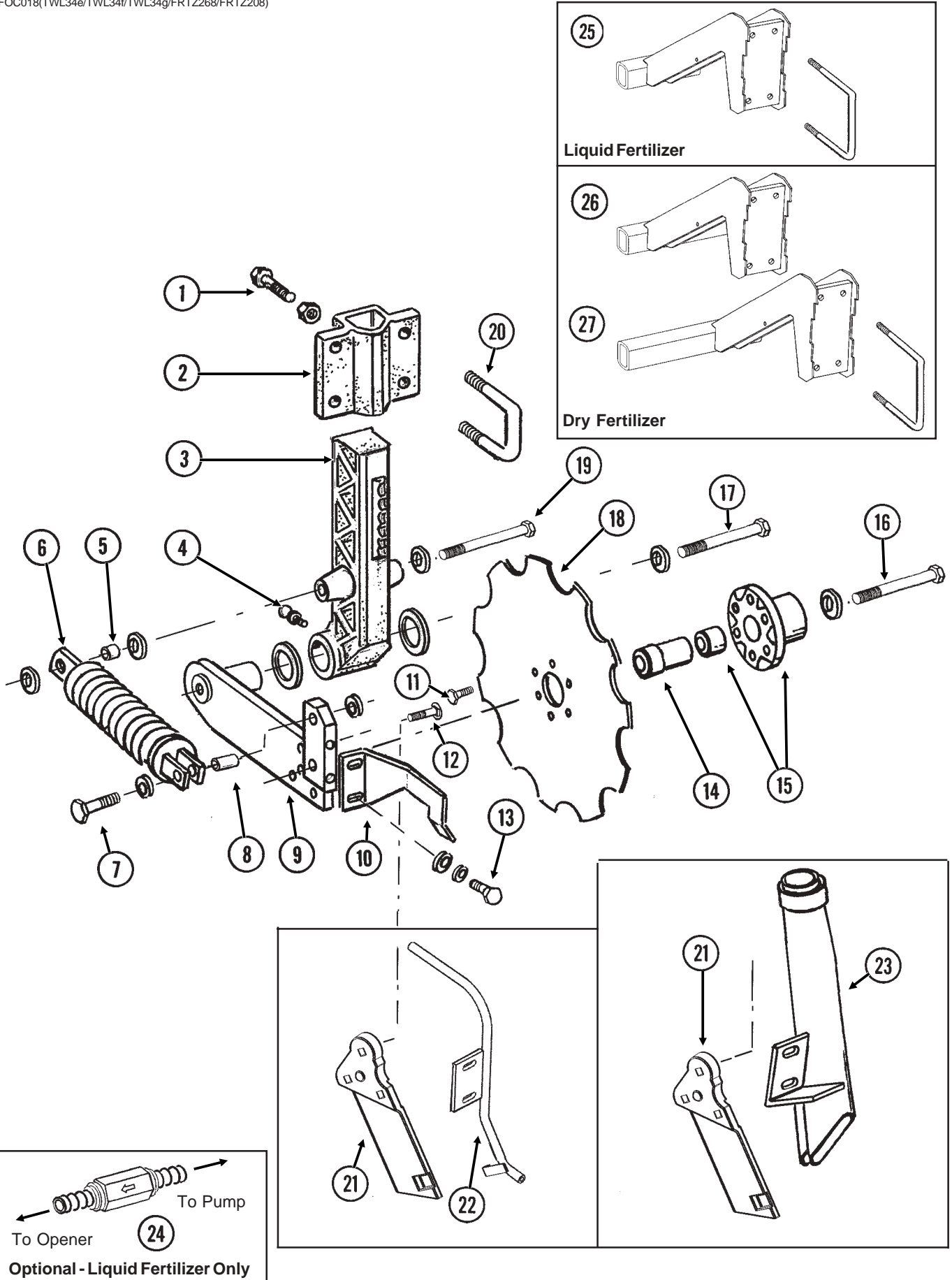
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GD7900	1	Disc Blade, 18"
	GD8247	-	Disc Blade, 20" (Optional)
2.	GB0205	1	Spindle
3.	GA4286	1	Seal
4.	GA4287	1	Bearing
5.	GA5887	1	Arm W/Cups And Washers
	GD6553	-	Inner Cup
	GR0188	-	Outer Cup
	G10205	3	Washer, 5/8" SAE
6.	G10007	3	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
7.	G10001	2	Hex Head Cap Screw, 3/8"-16 x 1"
	G10108	2	Lock Nut, 3/8"-16
8.	GB0218	3	Bushing, 2 1/32" I.D. x 7/8" O.D. x 19/32" Long
9.	GD8238	1	Channel
10.	GD7962	2	Spring
11.	G10641	2	Grease Fitting, 1/8" NPT
12.	G10105	3	Hex Nut, 3/4"-10
13.	GD7908	1	Tap Block
14.	GB0213	1	Spring Seat
15.	GA0237	1	Bearing
16.	G10220	1	Machine Bushing, 1 1/16", 10 Gauge
17.	G10507	1	Slotted Nut, 1"-14
18.	GD1104	1	Dust Cap

# HD SINGLE DISC FERTILIZER OPENER (Blade And Drop Tube)

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
19.	GD8276	1	Pin
	G10237	1	Lock Washer, 7/16"
	G10100	1	Hex Nut, 7/16"-14
20.	GD10273	1	Compression Spring
21.	G10592	1	Hair Pin Clip, No. 11
22.	G10594	6	Bolt, 1/2"-13 x 1 1/2"
	G10111	6	Lock Nut, 1/2"-13
23.	G10049	2	Hex Head Cap Screw, 3/8"-16 x 2 1/2"
	G10210	2	Washer, 3/8" USS
	G10108	2	Lock Nut, 3/8"-16
24.	G10599	1	Carriage Bolt, 3/8"-16 x 1 1/4"
	G10210	1	Washer, 3/8" USS
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
25.	GD7912	1	Scraper
26.	GB0210	-	Drop Tube, R.H., Dry Fertilizer
	GB0209	1	Drop Tube, L.H., Dry Fertilizer (Shown)
27.	GA8689	1	Drop Tube, L.H., Liquid Fertilizer (Shown)
	GA8688	-	Drop Tube, R.H., Liquid Fertilizer
28.	GD8224	2	Bar
29.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	2	Lock Washer, 3/8"
30.	GD10487	1	Clamp
31.	GD10304	-	Angle, R.H.
	GD10303	1	Angle, L.H. (Shown)
32.	G10016	2	Hex Head Cap Screw, 1/2"-13 x 2"
	G10111	2	Lock Nut, 1/2"-13
33.	G10322	-	Machine Bushing, 1 1/4", 18 Gauge (As Required)
34.	G10862	1	Hex Head Cap Screw, 5/8"-11 x 3 1/4"
	G10205	2	Washer, 5/8" SAE
	G10230	1	Lock Washer, 5/8"
35.	G10640	1	Grease Fitting, 1/4"-28
36.	GD10242	1	Bushing, 2 1/4"
37.	G10039	5	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
	G10111	5	Lock Nut, 1/2"-13
38.	G10459	1	Cotter Pin, 3/16" x 1 1/2"
39.	GA7240	-	Opener Mount, R.H.
	GA7239	1	Opener Mount, L.H. (Shown)
40.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
41.	GD7907	1	Special Bolt
42.	GB0206	1	Rod Guide
43.	GD8239	1	Storage Strap
44.	GD7904-02	1	Sleeve, 1/2" x 1/2" Long
45.	G10216	3	Washer, 1/2" USS
46.	GA8983	-	Check Valve, Low Rate

# NOTCHED SINGLE DISC FERTILIZER OPENER

FOC018(TWL34e/TWL34f/TWL34g/FRTZ268/FRTZ208)



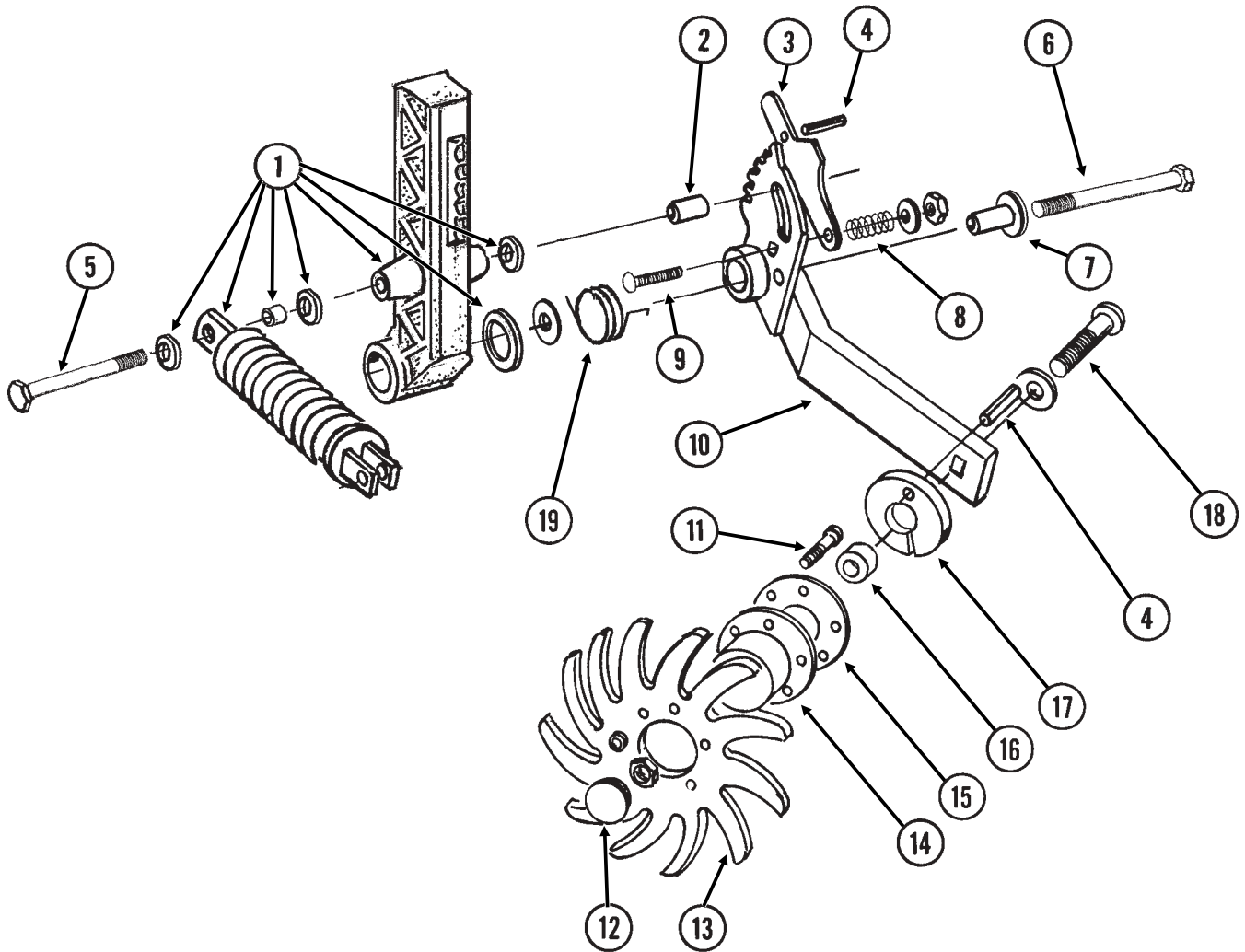
# NOTCHED SINGLE DISC FERTILIZER OPENER

ITEM	PART NO.	QTY.	DESCRIPTION
(Per Assy.)			
1.	G10017	3	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10102	3	Hex Nut, 1/2"-13
2.	GB0297	1	Mount
3.	GB0296	1	Arm, 13 1/2"
4.	G10640	1	Grease Fitting, 1/4"-28
5.	GD12685	1	Bushing, 3/4" O.D. x 1/2" Long
6.	GA6966	1	Compression Spring Assembly
7.	G10047	1	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
	G10210	2	Washer, 3/8" USS
	G10108	1	Lock Nut, 3/8"-16
8.	GD1026	1	Sleeve, 1 3/16" Long
9.	GA9433	1	Pivot Arm, L.H. (Shown)
	GA9434	-	Pivot Arm, R.H.
10.	GD11557	1	Scraper, L.H. (Shown)
	GD11558	-	Scraper, R.H.
11.	G10002	6	Hex Head Cap Screw, 3/8"-16 x 3/4"
12.	G10306	3	Carriage Bolt, 3/8"-16 x 2"
	G10108	3	Lock Nut, 3/8"-16
13.	G10991	2	Hex Head Cap Screw, 5/16"-18 x 7/8"
	G10232	2	Lock Washer, 5/16"
	G10219	6	Washer, 5/16" USS
14.	GD12679	1	Stepped Spacer, 3" Long
15.	GA9437	1	Hub W/Bearing
	GA8603	-	Double Row Bearing
16.	G10011	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	GD12677	1	Washer, 1 1/2" O.D., 7 Gauge, Hardened
	G10107	1	Lock Nut, 5/8"-11
17.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10217	1	Washer, 5/8" USS
	G10450	2	Machine Bushing, 1 1/2", 18 Gauge (As Required)
	G10107	1	Lock Nut, 5/8"-11
18.	GD12676	1	Disc Blade, Notched, 16 3/4"
19.	G10871	1	Hex Head Cap Screw, 1/2"-13 x 6"
	G10206	3	Washer, 1/2" SAE
	G10111	1	Lock Nut, 1/2"-13
20.	GD13287	2	U-Bolt, 1 1/2" x 2 1/2" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
21.	GB0323	1	Knife, L.H. (Shown)
	GB0322	-	Knife, R.H.
22.	GA10213	-	Drop Tube, L.H., Liquid Fertilizer (Shown)
	GA10214	1	Drop Tube, R.H., Liquid Fertilizer
23.	GA10047	-	Drop Tube, L.H., Dry Fertilizer (Shown)
	GA10048	1	Drop Tube, R.H., Dry Fertilizer
24.	GA8983	-	Check Valve, Low Rate
25.	GA9565	1	Mount W/U-Bolts, Liquid Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
26.	GA9821	-	Mount W/U-Bolts, L.H., Dry Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
27.	GA9822	-	Mount W/U-Bolts, R.H., Dry Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11

# RESIDUE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

DFC024(FRTZ165)

FOR USE WITH NOTCHED SINGLE DISC FERTILIZER OPENER



# RESIDUE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

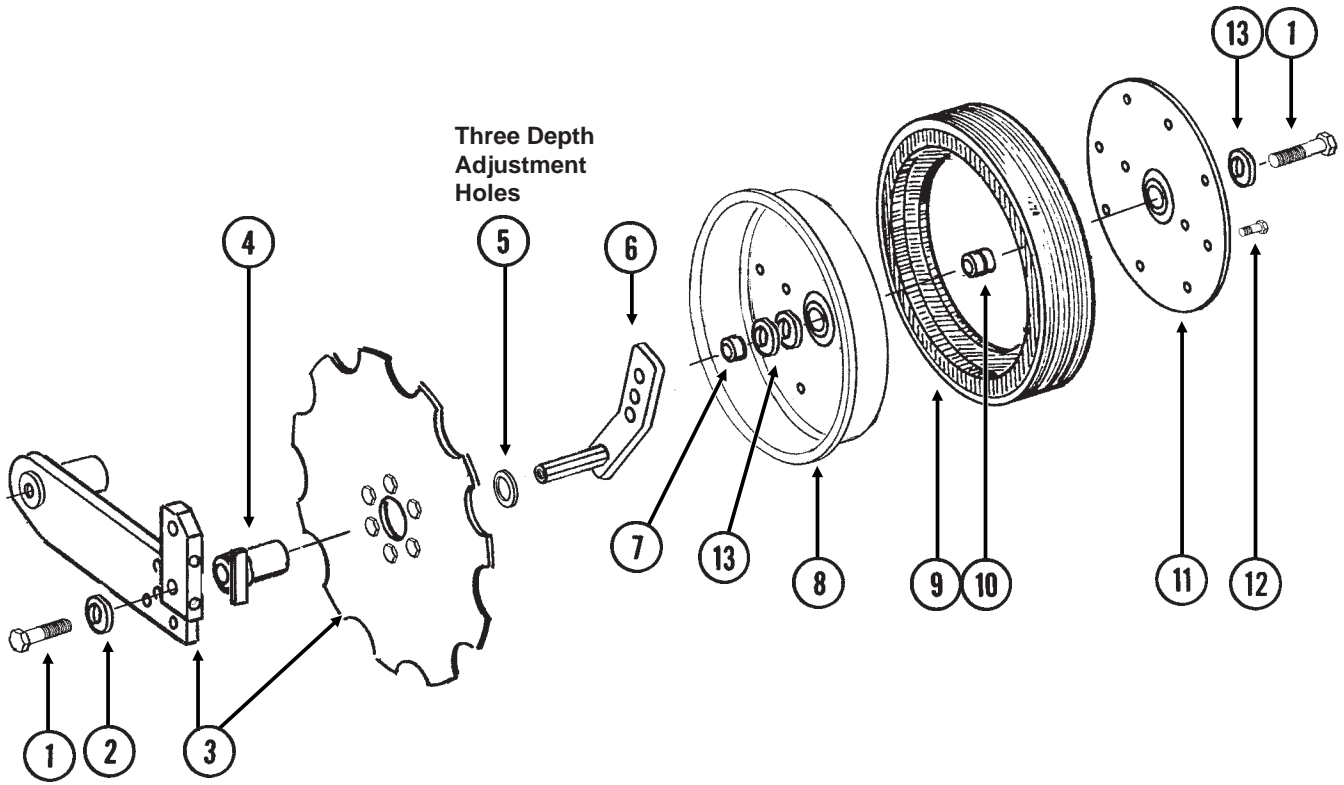
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ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.		-	See "Notched Single Disc Fertilizer Opener", Pages P70 And P71
2.	GD12684	1	Bushing, 1 1/3" Long
3.	GD11178	1	Adjustment Lever
4.	G10603	2	Spring Pin, 1/4" x 1 1/4"
5.	G11034	1	Hex Head Cap Screw, 1/2"-13 x 7"
	G10111	1	Lock Nut, 1/2"-13
6.	G10830	1	Hex Head Cap Screw, 5/8"-11 x 7 1/2"
	GD7805	1	Special Washer, 5/8", Hardened
	G10107	1	Lock Nut, 5/8"-11
7.	GD11836	1	Sleeve, 2 1/8" Long
8.	GD7962	1	Spring
9.	G10306	1	Carriage Bolt, 3/8"-16 x 2"
	G10203	1	Washer, 3/8" SAE
	G10108	1	Lock Nut, 3/8"-16
10.	GA7999	1	Mount W/Grease Fitting, L.H. (Shown)
	GA7998	-	Mount W/Grease Fitting, R.H.
	G10640	-	Grease Fitting, 1/4"-28
11.	G10133	6	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	6	Lock Nut, 5/16"-18, Grade 8
12.	GD1132	2	Dust Cap
13.	GD10552	2	Wheel, 12 Tine, 3/8" x 12"
14.	GA5654	1	Hub W/Bearings
	GA2014	-	Bearing
15.	GD9724	1	Backing Plate
16.	GD7817-04	1	Spacer, 1 1/16" I.D. x 1/2" Long
17.	GD11188	1	Spacer
18.	G10908	1	Carriage Bolt, 5/8"-11 x 3"
	G10503	1	Hex Jam Nut, 5/8"-11, Grade 2
19.	GD11265	1	Spring, L.H. (Shown)
	GD11266	-	Spring, R.H.
A.	GA7445	-	Wheel Assembly, 12 Tine, L.H. (Items 11 And 13-15)(Shown)
	GA7446	-	Wheel Assembly, 12 Tine, R.H. (Items 11 And 13-15)

# DEPTH/GAUGE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

(FRTZ256)

FOR USE WITH NOTCHED SINGLE DISC FERTILIZER OPENER



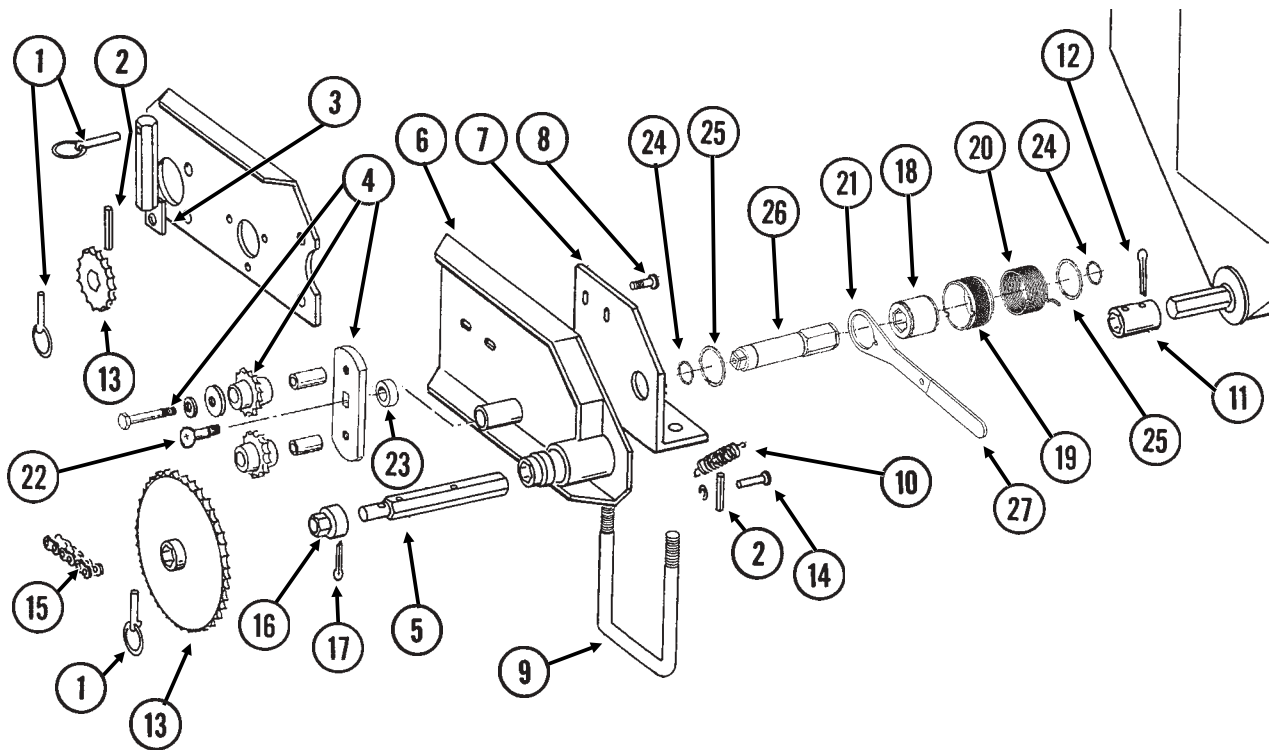
# DEPTH/GAUGE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

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ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	G10010	2	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 3"
2.	GD7805	1	Special Washer, $\frac{5}{8}$ ", Hardened
3.		-	See "Notched Single Disc Fertilizer Opener", Pages P70 And P71
4.	GA9472	1	Blade Mount
5.	G10233	1	Machine Bushing, 1", 10 Gauge
6.	GA10037	1	Wheel Mount, L.H. (Shown)
	GA10036	1	Wheel Mount, R.H.
7.	GD13309	1	Spacer
8.	GD11423	1	Half Wheel
9.	GD11953	1	Offset Tire
10.	GA6171	1	Bearing
11.	GD11954	1	Half Wheel Cover, Nylon
12.	G10961	11	Flanged Whiz-Lock Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ ", No Serration
	G10620	11	Serrated Flange Nut, $\frac{5}{16}$ "-18
13.	G10204	-	Special Machine Bushing, $\frac{5}{8}$ " x 1" O.D. (As Required)
A.	GA8877	-	Gauge Wheel Complete (Items 8-12)

# DRY FERTILIZER TRANSMISSION ASSEMBLY

PTD072(TWL60e)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD2558	3	Lynch Pin, 1/4"
2.	G10602	2	Spring Pin, 1/4" x 1 1/2"
3.	GA5229	1	Sprocket Storage Rod
4.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	GD1026	-	Sleeve, 1 3/16" Long
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"
	G10047	-	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
5.	GD7870	1	Shaft, 7"
6.	GA6579	1	Plate W/Bearings And Grease Fitting
	GA5116	-	Bearing, 7/8" Hex Bore, Cylindrical
	GA5624	-	Special Bearing, 7/8" Hex Bore x 1.6"
	G10643	-	Grease Fitting, 45°, 1/4"-28
7.	GD9320	1	Mount
8.	G10574	2	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10216	4	Washer, 1/2" USS
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
9.	GD1134	1	U-Bolt, 7" x 5" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
10.	GD5857	1	Spring
11.	GD5886	-	Coupler, 1 3/4"
12.	G10460	-	Cotter Pin, 1/4" x 2"
13.	GA5105	1	Sprocket, 15 Tooth
	GA5107	1	Sprocket, 19 Tooth
	GA5114	1	Sprocket, 30 Tooth
	GA5115	1	Sprocket, 33 Tooth
	GA6337	1	Sprocket, 35 Tooth

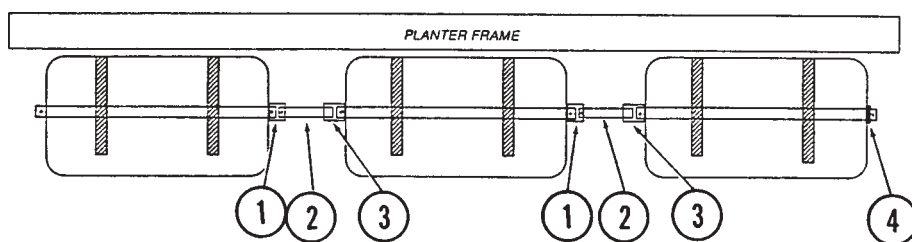
# DRY FERTILIZER TRANSMISSION ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION
14.	G10408	1	Clevis Pin, $\frac{5}{16}$ " x $\frac{3}{4}$ "
	G10409	1	Retaining Ring, $\frac{5}{16}$ "
15.	G3310-155	1	Chain, No. 40, 155 Pitch Including Connector Link And Offset Link
	GR0912	-	Connector Link, No. 40
	GR0911	-	Offset Link, No. 40
16.	GD7127	1	Shear Coupler
17.	G10462	1	Cotter Pin, $\frac{3}{16}$ " x 2"
18.	GD14432	1	Sleeve, 1 $\frac{1}{4}$ "
19.	GD14430	1	Release Collar, Gold, R.H.
20.	GD14413	-	Torsion Spring, L.H. (Used On R.H. Wrap Spring Wrench)
21.	GD14431	1	Handle
22.	G11100	1	Hex Socket Button Head Screw, $\frac{1}{4}$ "-20 x $\frac{1}{2}$ ", Grade 8
	G10227	1	Lock Washer, $\frac{1}{4}$ "
	G10209	1	Washer, $\frac{1}{4}$ " USS
23.	GD2734-18	1	Sleeve, 1 $\frac{1}{4}$ " O.D. x $\frac{7}{16}$ " Long
24.	G11075	2	Internal Inverted Snap Ring, $\frac{7}{8}$ "
25.	G10496	2	External Inverted Snap Ring, 1 $\frac{1}{2}$ "
26.	GD14427	1	Tightener Shaft, 4 $\frac{7}{8}$ "
27.	G11078	1	Vinyl Cap
A.	G1K269	-	Lock Clamp Kit (Items 2 And 3)
B.	G1K378	1	Wrap Spring Wrench Replacement Kit, Gold Collar, R.H. (Items 18-27)

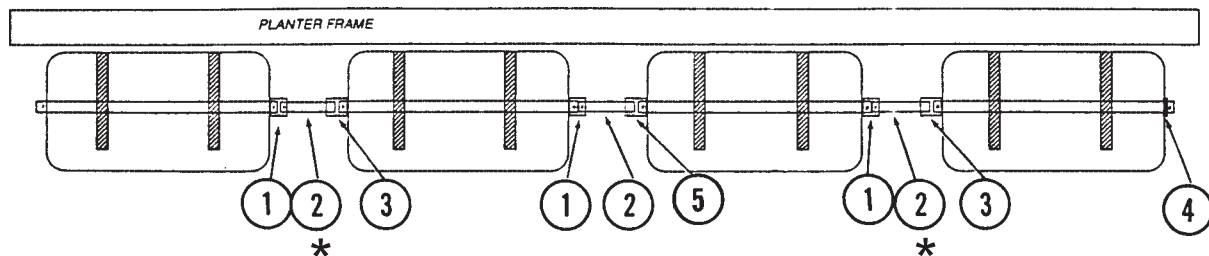
## DRY FERTILIZER COUPLERS/SHAFTS

RH101190(PT33/PT35)

### 6 Row 30"



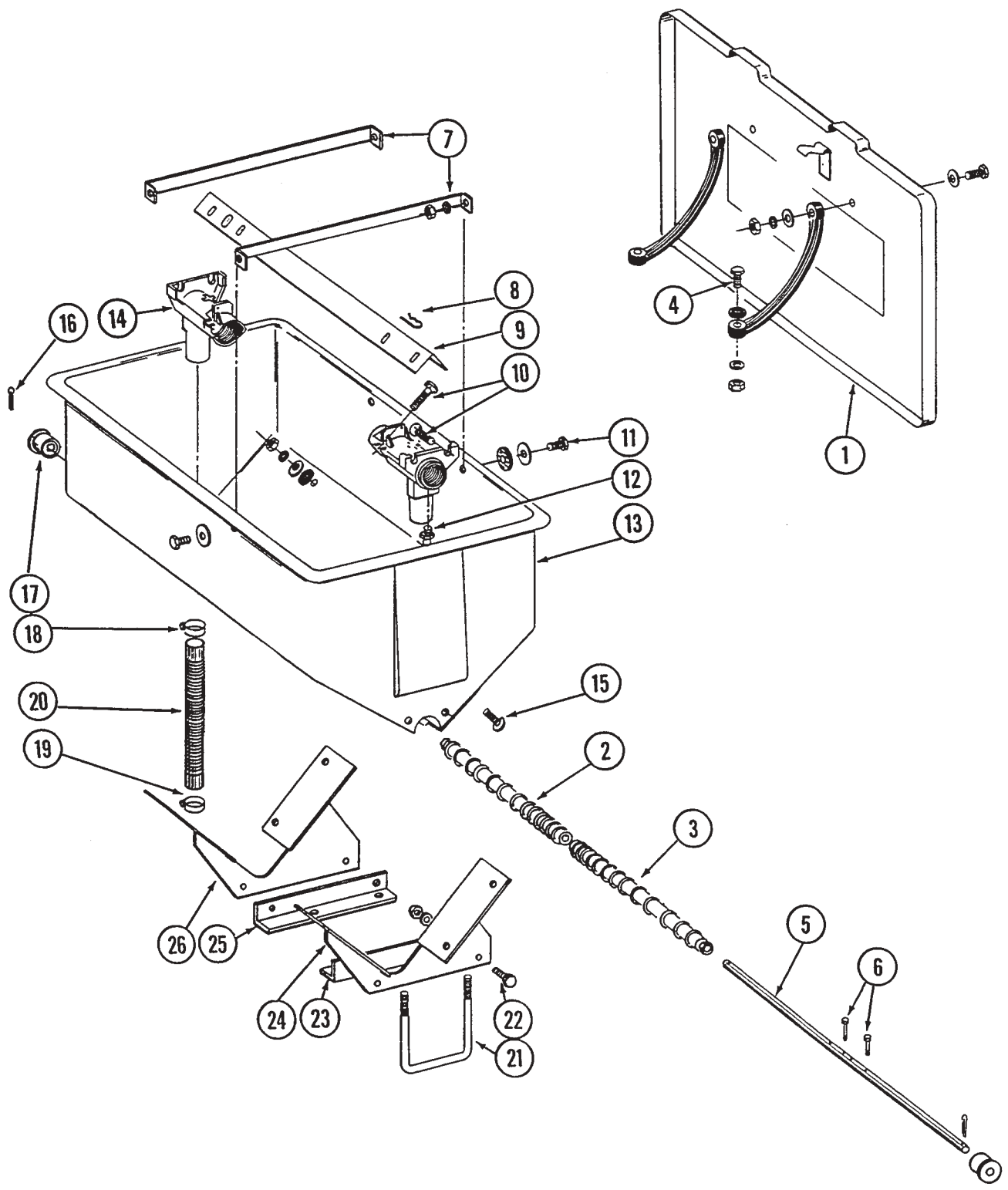
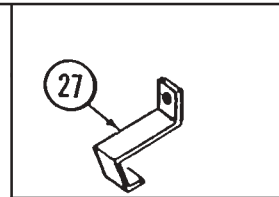
### 8 Row 30"



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD5886	-	Coupler, 1 $\frac{3}{4}$ "
2.	GD2548-15.5	-	Hex Shaft, $\frac{7}{8}$ " x 15 $\frac{1}{2}$ " (1 Hole) (*Trim 4" On 8 Row 30" Size With HD Single Disc Fertilizer Openers)
3.	GD7867	-	Coupler, 3"
4.	G10233	2	Machine Bushing, 1", 10 Gauge
5.	GD9378	-	Coupler, 12"

# DRY FERTILIZER HOPPER AND MOUNTS

DFC009/DFC018/DFC023(TWL61)

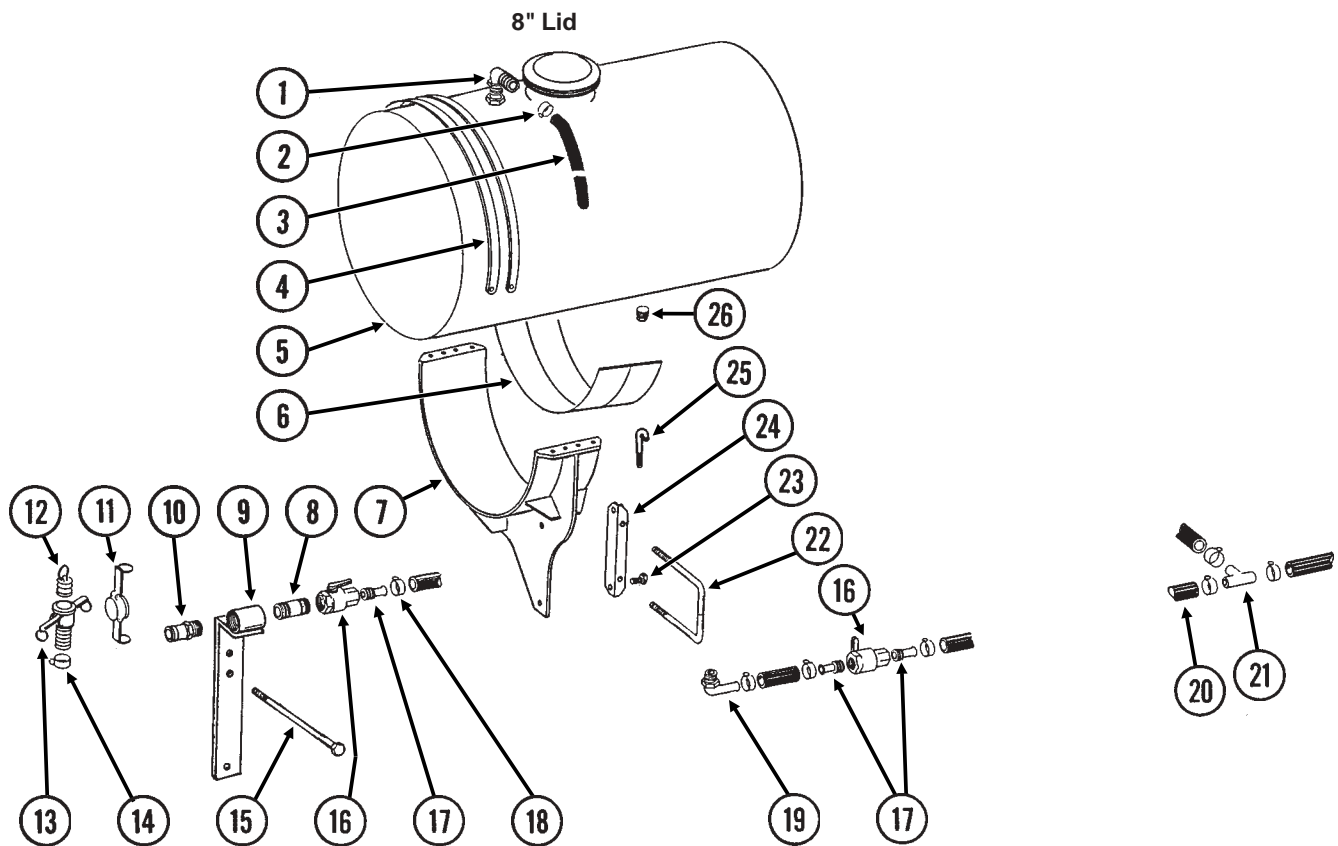
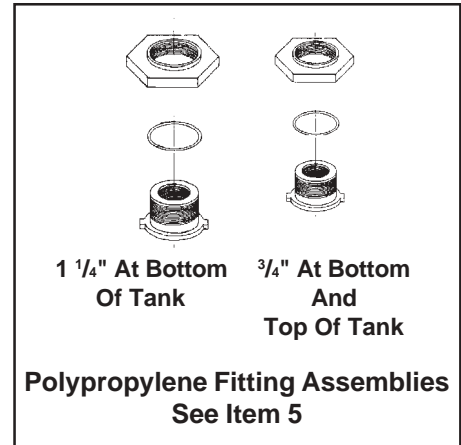


# DRY FERTILIZER HOPPER AND MOUNTS

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Hopper)	
1.	GA0898	1	Lid W/Retainers, Clips, Rivets, Rubber Straps And Hardware
	GD1380	-	Front Clip
	GD2412	-	Rear Retainer
	G10655	-	Rivet, $\frac{3}{16}$ " x $\frac{13}{32}$ "
	GD1210	-	Rubber Strap
	G10171	-	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x 1 $\frac{1}{4}$ "
	G10219	-	Washer, $\frac{5}{16}$ " USS
	G10232	-	Lock Washer, $\frac{5}{16}$ "
	G10106	-	Hex Nut, $\frac{5}{16}$ "-18
2.	GB0198	1	Auger, R.H.
3.	GB0199	1	Auger, L.H.
4.	G10133	2	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x 1 $\frac{1}{2}$ "
	G10219	2	Washer, $\frac{5}{16}$ " USS
	G10232	2	Lock Washer, $\frac{5}{16}$ "
	G10106	2	Hex Nut, $\frac{5}{16}$ "-18
5.	GD7848	1	Shaft
6.	G10587	2	Hex Head Cap Screw, $\frac{1}{4}$ "-20 x 2", Stainless Steel
	G10588	2	Hex Nut, $\frac{1}{4}$ "-20, Stainless Steel
7.	GD1209	2	Strap
8.	G10670	2	Hair Pin Clip, No. 3
9.	GD1207	1	Baffle
10.	G10303	8	Carriage Bolt, $\frac{5}{16}$ "-18 x 1"
	G10219	8	Washer, $\frac{5}{16}$ " USS
	G10232	8	Lock Washer, $\frac{5}{16}$ "
	G10106	8	Hex Nut, $\frac{5}{16}$ "-18
11.	G10171	4	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x 1 $\frac{1}{4}$ "
	G10201	4	Special Washer, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " O.D.
	GD1213	4	Rubber Washer
	G10232	4	Lock Washer, $\frac{5}{16}$ "
	G10106	4	Hex Nut, $\frac{5}{16}$ "-18
12.	G10641	2	Grease Fitting, $\frac{1}{8}$ " NPT
13.	GD1379	1	Hopper
14.	GD1200	2	Outlet Housing
15.	G10303	8	Carriage Bolt, $\frac{5}{16}$ "-18 x 1"
	G10201	8	Special Washer, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " O.D.
	GD1213	8	Rubber Washer
	G10232	8	Lock Washer, $\frac{5}{16}$ "
	G10106	8	Hex Nut, $\frac{5}{16}$ "-18
16.	G10460	2	Cotter Pin, $\frac{1}{4}$ " x 2"
17.	GB0200	2	Bearing
18.	G10676	2	Hose Clamp, No. 36
19.	G10672	2	Hose Clamp, No. 28
20.	GD3790	2	Rubber Tube
21.	GD1134	2	U-Bolt, 7" x 5" x $\frac{5}{8}$ "-11
	G10230	4	Lock Washer, $\frac{5}{8}$ "
	G10104	4	Hex Nut, $\frac{5}{8}$ "-11
22.	G10017	2	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x 1 $\frac{1}{2}$ "
	G10228	2	Lock Washer, $\frac{1}{2}$ "
	G10102	2	Hex Nut, $\frac{1}{2}$ "-13
23.	GD9131	1	Angle, L.H.
24.	GA6437	1	Mount, L.H.
25.	GD9132	1	Angle, R.H.
26.	GA6436	1	Mount, R.H.
27.	GD8722	-	Holder, Rubber Tube (As Required)
A.	GA6503	-	Hopper Sub-Assembly (Items 8,10 And 12-15)
B.	GA5667	-	Hopper Hardware Box (Items 2-7, 9, 11, 16 And 17)

# LIQUID FERTILIZER TANKS, SADDLES, MOUNTS, HOSES AND FITTINGS

LFC012rev(FRTZ201e/PT51/TWL62C)



# LIQUID FERTILIZER TANKS, SADDLES, MOUNTS, HOSES AND FITTINGS

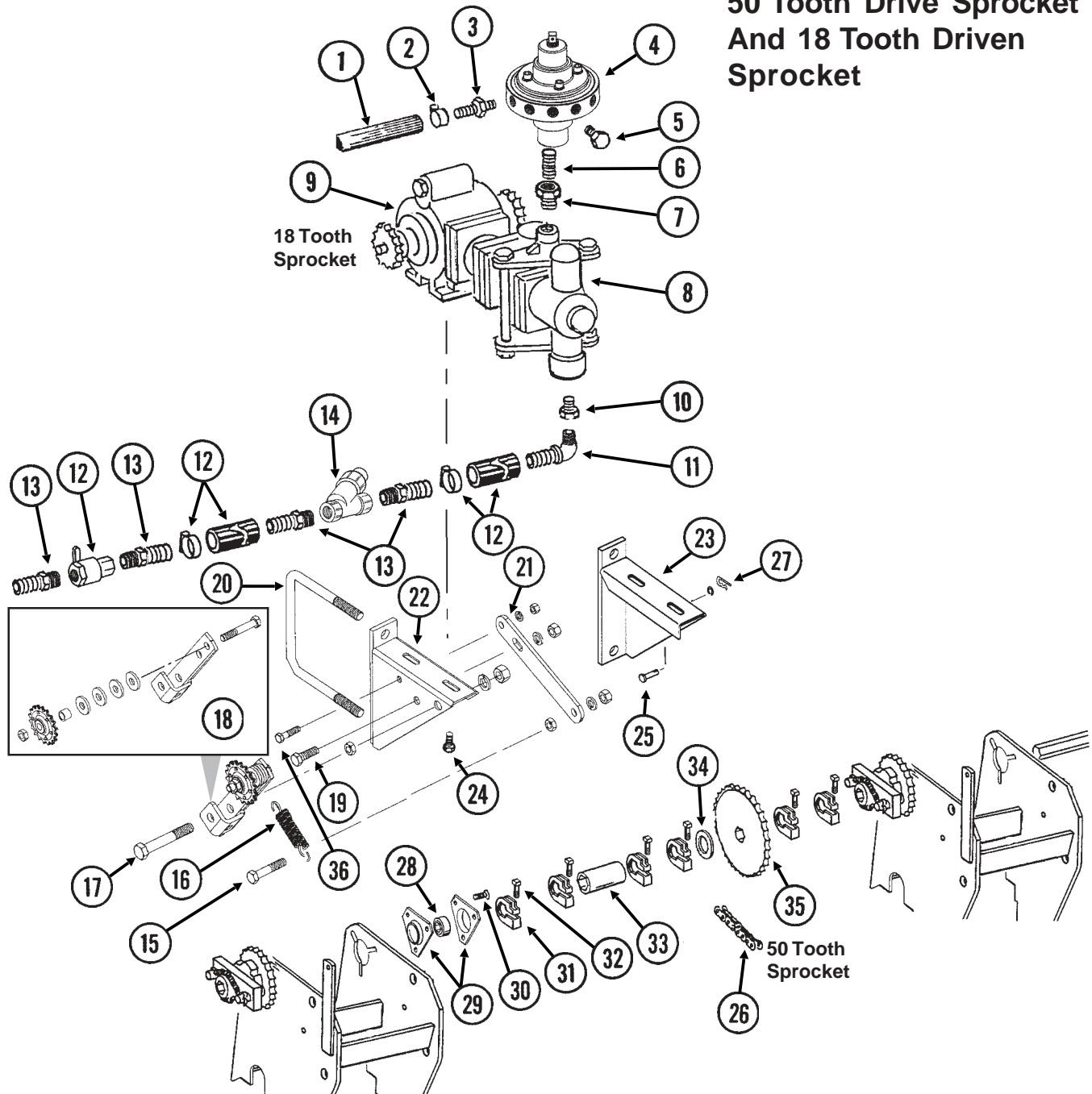
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10917	2	Elbow, 90°, 3/4" NPT To Barb
2.	G10278	2	Hose Clamp, No. 16
3.	G4205-11	1	Hose, 3/4" x 72" (One Per Tank)
4.	GD1520	8	Band, 30"
5.	GR1678	-	Lid W/Vent, 8" (Top Of Tank)
	GR0513	-	3/4" Polypropylene Fitting Assembly (Overflow Fitting, Nut, Bushing And O-Ring) (Top And Bottom Of Tank)
	GR1397	-	Overflow Fitting
	GR0508	-	1 1/4" Polypropylene Fitting Assembly (Nut, Bushing And O-Ring) (Bottom Of Tank)
6.	GD1862	1	Pad, 8" x 14" (For Two 30" Tanks)
7.	GA7375	-	Tank Mount (2 Per Tank)
8.	G10619	-	Close Nipple, 1 1/4" NPT
9.	GA5917	1	Quick Fill Mount
10.	GD1514	1	Adapter, 1 1/4" Male NPT To Cam Lock
11.	GD1515	1	Dust Cap, 1 1/4" Cam Lock
12.	GD1517	1	Dust Plug, 1 1/4" Male Cam Lock
13.	GD1516	1	Adapter, 1 1/4" Barb To Female Cam Lock
14.	G10672	1	Hose Clamp, No. 28
15.	G10829	2	Hex Head Cap Screw, 1/2"-13 x 6 1/2" (Used Between Light Assembly And Quick Fill Mount)
	G10216	2	Washer, 1/2" USS
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
16.	GA4976	-	Shutoff Valve, 1 1/4" NPT
	GR1015	-	Body O-Ring
	GR1016	-	Stem O-Ring
	GR1017	-	Teflon Seat
	GR1018	-	Ball
	GR1019	-	Handle
17.	G10626	-	Adapter, 1 1/4" NPT To Barb
18.	G10674	-	Hose Clamp, No. 24
19.	G10629	2	Elbow, 90°, 1 1/4" NPT To Barb
20.	G4200-02	1	Hose, 1 1/4" x 27', 6 Row 30"
	G4200-03	-	Hose, 1 1/4" x 32', 8 Row 30"
21.	G10633	1	Tee, 1 1/4" Barb
22.	GD1747	4	U-Bolt, 5" x 7" x 3/4"-10
	G10231	8	Lock Washer, 3/4"
	G10105	8	Hex Nut, 3/4"-10
23.	G10007	-	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	-	Lock Washer, 5/8"
	G10104	-	Hex Nut, 5/8"-11
24.	GD10110	-	Mounting Angle (2 Per Tank)
25.	GD1337	16	J-Bolt, 5/16"-18
	G10109	16	Lock Nut, 5/16"-18, Grade 8
26.	G10096	2	Pipe Plug, 3/4" NPT

# LIQUID FERTILIZER PISTON PUMP MOUNTING BRACKETS AND DRIVELINE

(FRTZ246d)

## 50 Tooth Drive Sprocket And 18 Tooth Driven Sprocket



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G4301-02	-	Hose, $\frac{3}{8}$ " x 50', 6 Row 30"
	G4301-04	-	Hose, $\frac{3}{8}$ " x 100', 8 Row 30"
2.	G10681	8	Hose Clamp, No. 6 (As Required)
3.	GD11700	-	Adapter, $\frac{1}{4}$ " NPT To $\frac{3}{8}$ " Barb (As Required)
4.		-	See "Liquid Fertilizer Piston Pump Flow Divider", Pages P88 And P89
5.	G10292	-	Pipe Plug, $\frac{1}{4}$ " NPT (As Required)
6.	G10995	1	Reducing Bushing, 1" Male NPT To $\frac{3}{4}$ " Female, Stainless Steel
7.	G10994	1	Close Nipple, $\frac{3}{4}$ " NPT, Stainless Steel
8.		-	See "Liquid Fertilizer Piston Pump (Cylinder Assembly)", Pages P86 And P87

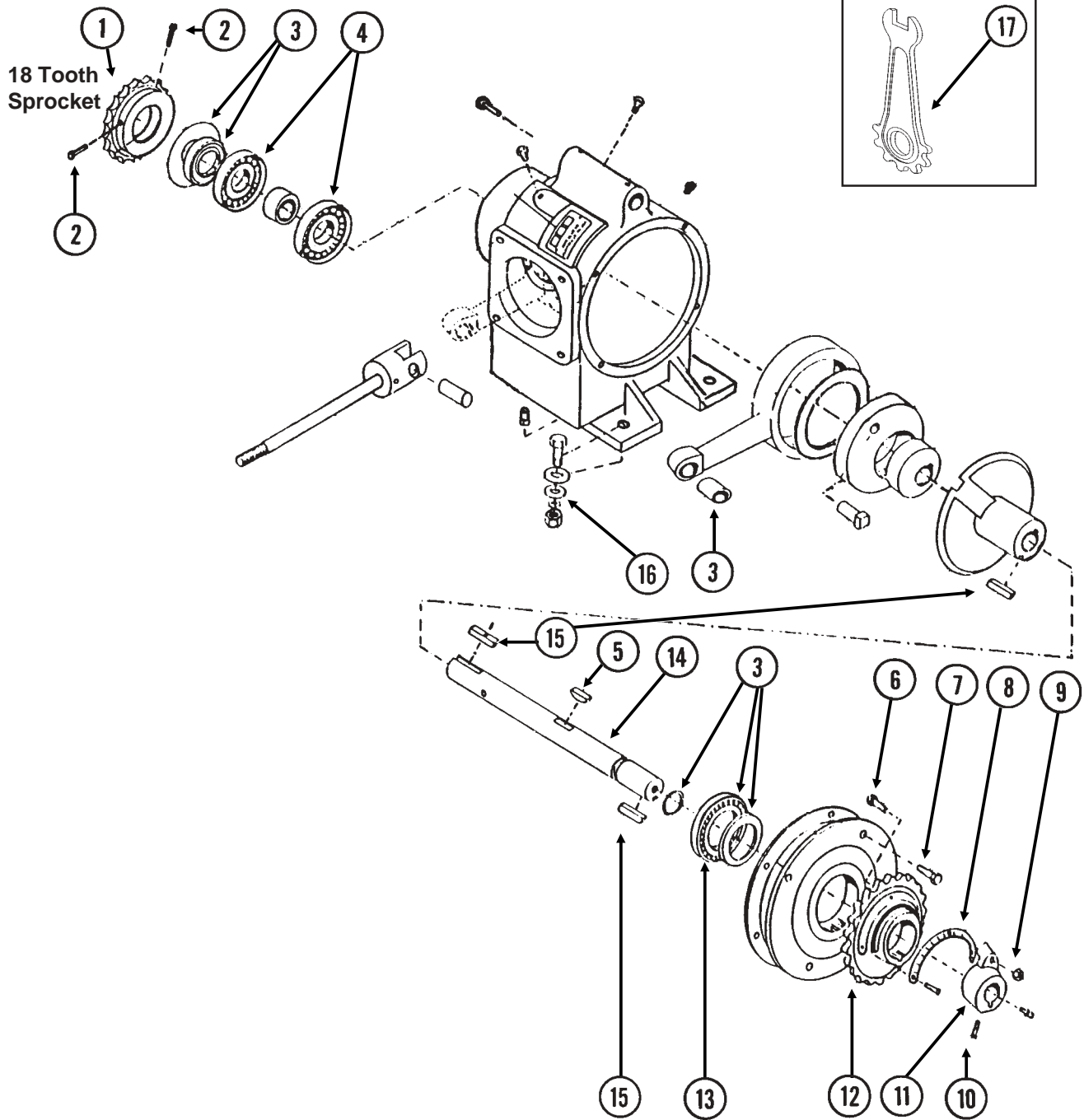
# LIQUID FERTILIZER PISTON PUMP MOUNTING BRACKETS AND DRIVELINE

ITEM	PART NO.	QTY.	DESCRIPTION
9.		-	See "Liquid Fertilizer Piston Pump (Crankcase Assembly)", Pages P84 And P85
10.	G10615	1	Reducing Bushing, 1 1/2" Male NPT To 1 1/4" Female
11.	G10629	1	Elbow, 90°, 1 1/4" NPT To Barb
12.		-	See "Liquid Fertilizer Tanks, Saddles, Mounts, Hoses And Fittings", Pages P80 And P81
13.	G10626	4	Adapter, 1 1/4" NPT To Barb
14.	GA3893	1	Strainer Complete
	GR0880	-	Screen, No. 40 Mesh
	GR0881	-	Gasket
	GR0882	-	Y-Body
	GR0883	-	End Cap
15.	G10053	1	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	G10228	1	Lock Washer, 1/2"
	G10501	1	Hex Jam Nut, 1/2"-13, Grade 2
	G10102	1	Hex Nut, 1/2"-13
16.	GD5857	1	Spring
17.	G10036	1	Hex Head Cap Screw, 5/8"-11 x 4"
	G10230	1	Lock Washer, 5/8"
	G10503	1	Hex Jam Nut, 5/8"-11, Grade 2
	G10104	1	Hex Nut, 5/8"-11
18.	GA11024	1	Idler W/Sprocket And Hardware
	GA7154	1	Sprocket W/Bearing, 18 Tooth
	G10038	1	Hex Head Cap Screw, 1/2"-13 x 3"
	G10168	4	Machine Bushing, 1/2", 7 Gauge
	GD11158	1	Spacer, 3/4" O.D. x 9/16" Long
	G10501	1	Hex Jam Nut, 1/2"-13, Grade 2
19.	G10017	1	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
20.	GD11113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
21.	GD16157	1	Bracket
22.	GA10603	1	Pump Mount, L.H.
23.	GA4620	1	Pump Mount, R.H.
24.	G10003	4	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	GR1122	4	Mounting Pad
	G10210	4	Washer, 3/8" USS
	G10229	4	Lock Washer, 3/8"
	G10101	4	Hex Nut, 3/8"-16
25.	G10478	1	Clevis Pin, 5/16" x 1"
	G10409	1	Retaining Ring, 5/16"
26.	G3310-88	1	Chain, No. 40, 88 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
27.	G10670	1	Hair Pin Clip, No. 3
28.	G2100-03	1	Bearing, 7/8" Hex Bore, Spherical
29.	G3400-01	2	Flangette
30.	G10303	3	Carriage Bolt, 5/16"-18 x 1"
	G10232	3	Lock Washer, 5/16"
	G10106	3	Hex Nut, 5/16"-18
31.	GD11045	5	Lock Clamp
32.	G10130	5	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	5	Flange Nut, 5/16"-18, No Serration
33.	GD1719	1	Coupler, 4"
34.	G10233	1	Machine Bushing, 1", 10 Gauge
35.	GA5194	1	Sprocket, 50 Tooth
36.	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16

# LIQUID FERTILIZER PISTON PUMP (Crankcase Assembly) Uses 18 Tooth Sprocket

JB-L4400-991/CCU077(FRTZ172a/GR1424)

Model LM-2455-R



# LIQUID FERTILIZER PISTON PUMP (Crankcase Assembly) Uses 18 Tooth Sprocket

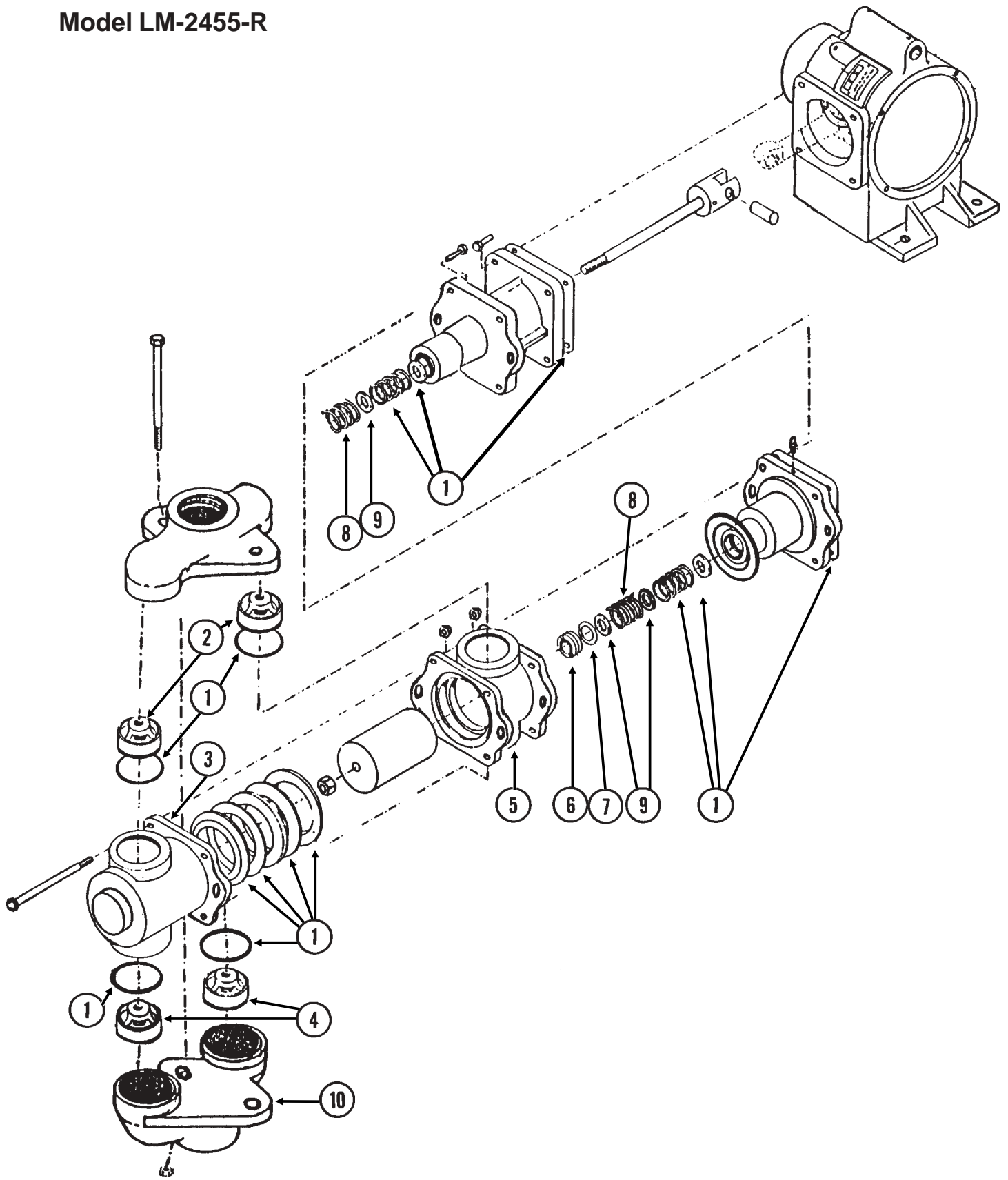
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1389	1	Sprocket, 18 Tooth
2.	G10688	2	Square Head Set Screw, $\frac{3}{8}$ "-16 x $\frac{5}{8}$ "
3.	GR1425	1	Repair Kit, Includes Item 1 On Pages P86 And P87
4.	GR1427	2	Bearing
5.	GR1420	1	Woodruff Key, $\frac{3}{8}$ "-16 x 1 $\frac{3}{4}$ "
6.	GR1167	1	Square Head Bolt, $\frac{3}{8}$ "-16 x 1 $\frac{3}{4}$ "
7.	G10043	4	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
8.	GR1168	1	Scale
9.	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
10.	G10693	3	Hex Socket Head Set Screw, $\frac{5}{16}$ "-18 x $\frac{3}{8}$ "
11.	GR1165	1	Arm
12.	GR1114	1	Flange
13.	GR1116	1	Bearing
14.	GR1421	1	Crankshaft
15.	GR1118	2	Setting Arm Key
16.		-	See "Liquid Fertilizer Piston Pump Mounting Brackets And Driveline", Pages P82 And P83
17.	GR1424	1	Adjustment Wrench
A.	GA8069	-	Piston Pump Complete W/18 Tooth Sprocket (LM-2455-R), Includes Crankcase Assembly On This Page And Cylinder Assembly On Pages P86 And P87

# LIQUID FERTILIZER PISTON PUMP (Cylinder Assembly) Uses 18 Tooth Sprocket

JB-L2190-991(FRTZ171)

Model LM-2455-R



# LIQUID FERTILIZER PISTON PUMP (Cylinder Assembly) Uses 18 Tooth Sprocket

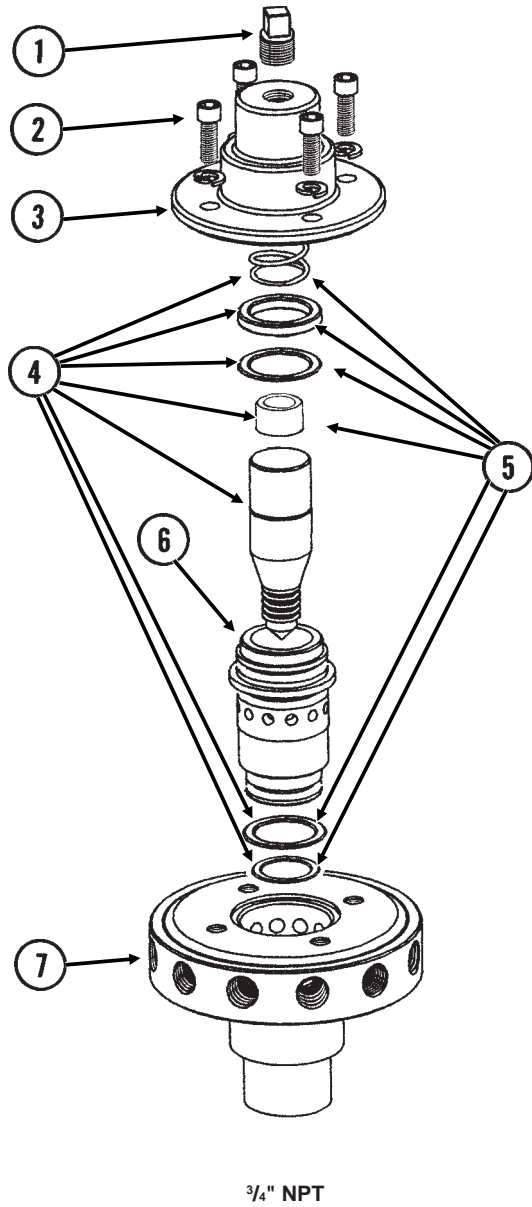
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1425	1	Repair Kit, Includes Item 3 On Pages P84 And P85
2.	GR1144	2	Discharge Valve
3.	GR1423	1	Outboard Cylinder
4.	GR1142	2	Suction Valve
5.	GR1422	1	Inboard Cylinder
6.	GR1134	1	Stuffing Box Insert
7.	GR1133	1	Retaining Ring
8.	GR1130	2	Packing Spring
9.	GR1129	3	Washer
10.	GR1451	1	Suction Manifold

# LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

(FRTZ159/PT40a/FRTZ202c)

## Model FD-1200 Flow Divider, 12 Outlet



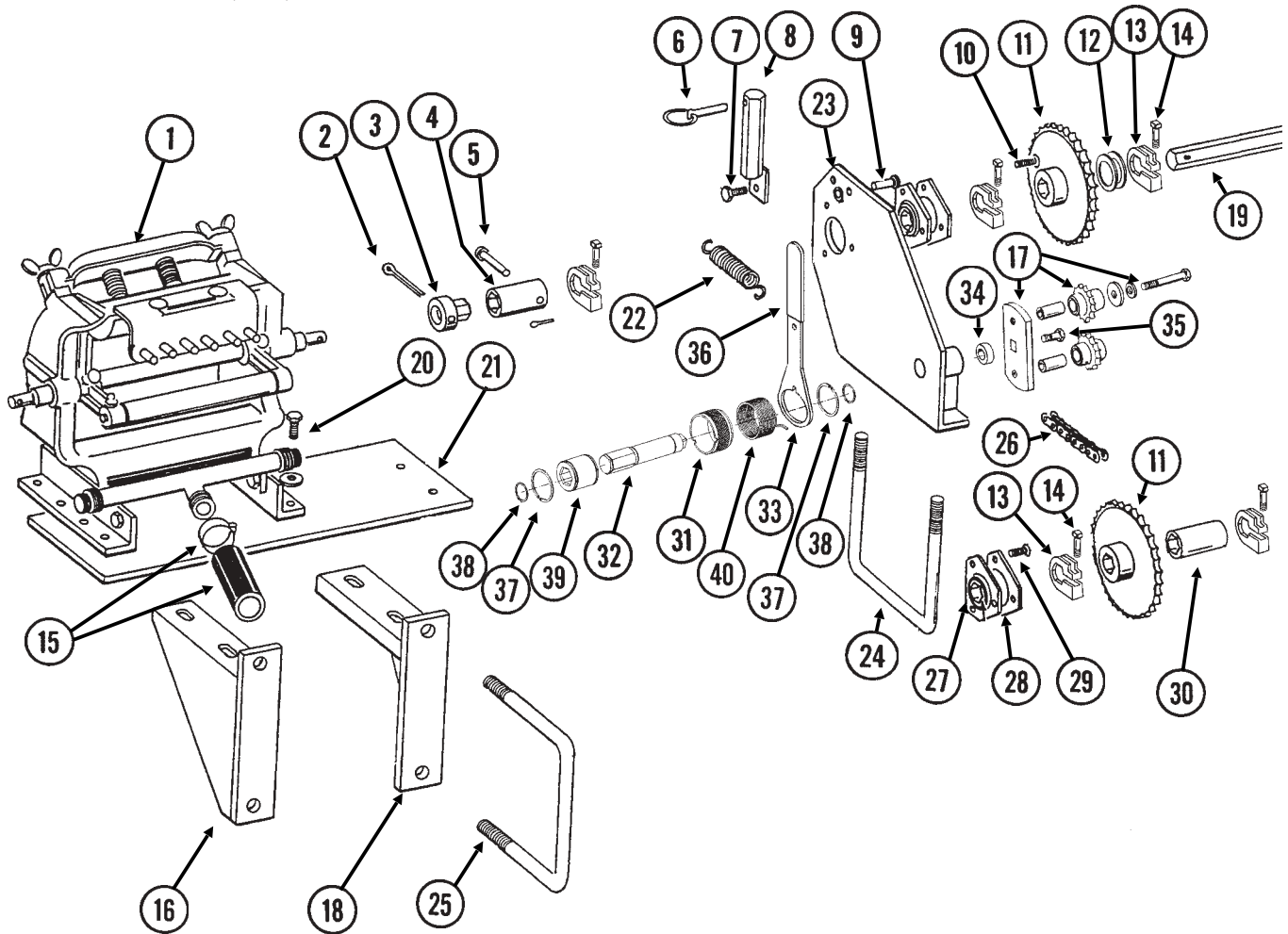
# LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1543	1	Plug
2.	GR1542	4	Hex Socket Head Screw, 1/4"-20 x 3/4", Stainless Steel
	GR1541	4	Lock Washer, 1/4", Stainless Steel
3.	GR1540	1	Cap
4.	GR1544	1	Needle Assembly W/Seal Kit (Item 22)
5.	GR1545	1	Seal Kit, Includes: (3) O-Rings, (1) Seal, (1) Spring, (1) Stainless Steel Sleeve
6.	GR1535	1	Sleeve
7.	GR1533	1	Body
A.	GA8931	1	Liquid Fertilizer Piston Pump Flow Divider Complete, 12 Outlet (Model FD-1200)

# LIQUID FERTILIZER SQUEEZE PUMP MOUNTING BRACKETS AND DRIVELINE

LFC009/LFC010/LFC024/PTD074(TVL63f)



ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Liquid Fertilizer Squeeze Pump", Pages P92 And P93
2.	G10462	1	Cotter Pin, $\frac{3}{16}$ " x 2"
3.	GD7127	1	Shear Coupler
4.	GD9048	1	Coupler, 2 $\frac{1}{2}$ "
5.	G10558	1	Clevis Pin, $\frac{5}{16}$ " x 1 $\frac{3}{4}$ "
	G10456	1	Cotter Pin, $\frac{1}{8}$ " x $\frac{3}{4}$ "
6.	GD2558	1	Lynch Pin, $\frac{1}{4}$ "
7.	G10037	1	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x 1 $\frac{1}{4}$ "
	G10228	1	Lock Washer, $\frac{1}{2}$ "
	G10102	1	Hex Nut, $\frac{1}{2}$ "-13
8.	GA5229	1	Sprocket Storage Rod
9.	G10478	1	Clevis Pin, $\frac{5}{16}$ " x 1"
10.	G10312	3	Carriage Bolt, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
	G10232	3	Lock Washer, $\frac{5}{16}$ "
	G10106	3	Hex Nut, $\frac{5}{16}$ "-18
11.	GA5105	1	Sprocket, 15 Tooth
	GA5107	1	Sprocket, 19 Tooth
	GA6513	1	Sprocket, 32 Tooth
	GA5202	1	Sprocket, 34 Tooth
	GA6514	1	Sprocket, 46 Tooth
	GA6515	-	Sprocket, 62 Tooth (Optional)

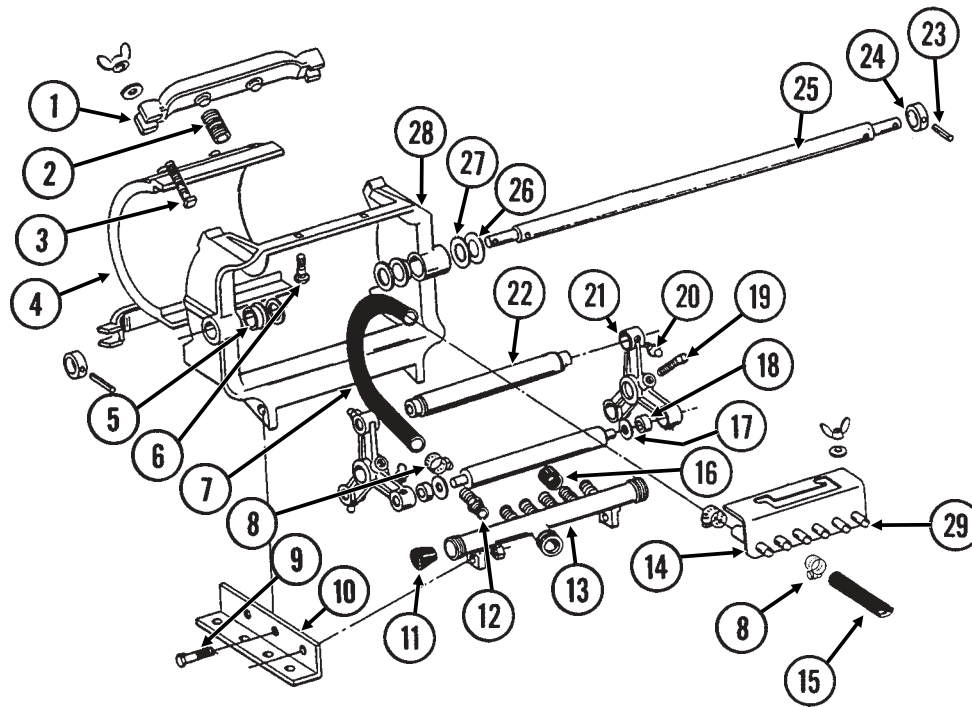
# LIQUID FERTILIZER SQUEEZE PUMP MOUNTING BRACKETS AND DRIVELINE

ITEM	PART NO.	QTY.	DESCRIPTION
12.	G10233	2	Machine Bushing, 1", 10 Gauge
13.	GD11045	5	Lock Clamp
14.	G10130	5	Square Head Machine Bolt, $\frac{5}{16}$ "-18 x 1 $\frac{3}{4}$ "
	G10923	5	Flange Nut, $\frac{5}{16}$ "-18, No Serration
15.		-	See "Liquid Fertilizer Tanks, Saddles, Mounts, Hoses And Fittings", Pages P80 And P81
16.	GA4619	1	Pump Mount, L.H.
17.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	GD1026	-	Sleeve, 1 $\frac{3}{16}$ " Long
	G10210	-	Washer, $\frac{3}{8}$ " USS
	G10229	-	Lock Washer, $\frac{3}{8}$ "
	G10047	-	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{3}{4}$ "
18.	GA4620	1	Pump Mount, R.H.
19.	GD2548-30	1	Hex Shaft, $\frac{7}{8}$ " x 30" (1 Hole)
20.	G10004	4	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{1}{4}$ "
	G10210	4	Washer, $\frac{3}{8}$ " USS
	G10229	4	Lock Washer, $\frac{3}{8}$ "
	G10101	4	Hex Nut, $\frac{3}{8}$ "-16
21.	GD6165	-	Plate, (8 Row 30" Only)
22.	GD5857	1	Spring
23.	GA6403	1	Drive Plate W/Grease Fitting
	G10641	-	Grease Fitting, $\frac{1}{8}$ " NPT
	G10640	-	Grease Fitting, $\frac{1}{4}$ "-28
24.	GD1134	1	U-Bolt, 7" x 5" x $\frac{5}{8}$ "-11
	G10230	2	Lock Washer, $\frac{5}{8}$ "
	G10104	2	Hex Nut, $\frac{5}{8}$ "-11
25.	GD1113	2	U-Bolt, 5" x 7" x $\frac{5}{8}$ "-11
	G10230	4	Lock Washer, $\frac{5}{8}$ "
	G10104	4	Hex Nut, $\frac{5}{8}$ "-11
26.	G3310-176	1	Chain, No. 40, 176 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
27.	G2100-03	2	Bearing, $\frac{7}{8}$ " Hex Bore, Spherical
28.	G3400-01	4	Flangette
29.	G10303	6	Carriage Bolt, $\frac{5}{16}$ "-18 x 1"
	G10232	6	Lock Washer, $\frac{5}{16}$ "
	G10106	6	Hex Nut, $\frac{5}{16}$ "-18
30.	GD1719	1	Coupler, 4"
	G10409	1	Retaining Ring, $\frac{5}{16}$ "
31.	GD14430	1	Release Collar, Gold, R.H. (Shown)
	GD14429	-	Release Collar, Silver, L.H.
32.	GD14427	1	Tightener Shaft, 4 $\frac{7}{8}$ "
33.	GD14431	1	Handle
34.	GD2734-08	1	Sleeve, 1 $\frac{1}{4}$ " O.D. x $\frac{5}{8}$ " Long
35.	G11100	1	Hex Socket Button Head Screw, $\frac{1}{4}$ "-20 x $\frac{1}{2}$ ", Grade 8
	G10227	1	Lock Washer, $\frac{1}{4}$ "
	G10209	1	Washer, $\frac{1}{4}$ " USS
36.	G11078	1	Vinyl Cap
37.	G10496	2	External Inverted Snap Ring, 1 $\frac{1}{2}$ "
38.	G11075	2	Internal Inverted Snap Ring, $\frac{7}{8}$ "
39.	GD14432	1	Sleeve, 1 $\frac{1}{4}$ "
40.	GD14413	-	Torsion Spring, L.H. (Used On R.H. Wrap Spring Wrench)(Shown)
	GD14414	1	Torsion Spring, R.H. (Used On L.H. Wrap Spring Wrench)
A.	G1K269	-	Lock Clamp Kit (Items 13 And 14)
B.	G1K379	-	Wrap Spring Wrench Replacement Kit, Silver Collar, L.H. (Items 31-40)

# LIQUID FERTILIZER SQUEEZE PUMP

6 ROW

LFC011/LFC011(PT47a)

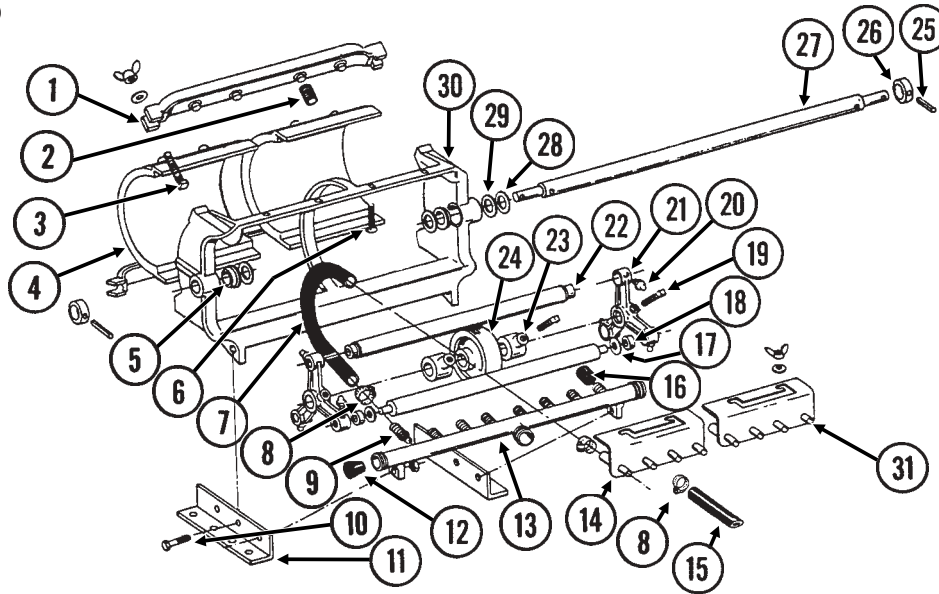


ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0216	2	Spring Anchor Bar
2.	GR0214	4	Spring
3.	G10130	4	Square Head Machine Bolt, $\frac{5}{16}$ "-18 x 1 $\frac{3}{4}$ "
	G10219	4	Washer, $\frac{5}{16}$ " USS
	G10144	4	Wing Nut, $\frac{5}{16}$ "-18
4.	GR0212	1	Plate
5.	GR0207	2	Nylon Bushing
6.	G10303	2	Carriage Bolt, $\frac{5}{16}$ "-18 x 1"
	G10219	2	Washer, $\frac{5}{16}$ " USS
	G10144	2	Wing Nut, $\frac{5}{16}$ "-18
7.	GR0215	6	Metering Hose, $\frac{1}{2}$ " x 13"
8.	G10681	-	Hose Clamp, No. 6
9.	G10004	4	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{1}{4}$ "
	G10101	4	Hex Nut, $\frac{3}{8}$ "-16
10.	GR0213	2	Angle
11.	GR0217	2	Manifold Plug
12.	GR0232	6	Adapter
13.	GR0228	1	Intake Manifold
14.	GR1484	1	Discharge Manifold Less Hose Barbs
15.	G4301-02	1	Hose, $\frac{3}{8}$ " x 50'
16.	GR0211	-	Rubber Cap
17.	GR0229	6	Nylon Washer
18.	GR1626	6	Bushing
19.	G10131	2	Square Head Set Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
20.	G10640	8	Grease Fitting, $\frac{1}{4}$ "-28
21.	GR0231	2	Roller Arm
22.	GR0233	3	Roller
23.	G10718	2	Spring Pin, $\frac{5}{16}$ " x 1 $\frac{1}{8}$ "
24.	GD9109	2	Sleeve
25.	GD9107	1	Shaft
26.	GR0226	2	Shim, $\frac{3}{64}$ "
27.	GR0225	2	Shim, $\frac{1}{32}$ "
28.	GR0208	1	Frame
29.	GR1577	6	Nylon Hose Barb, $\frac{1}{2}$ " x $\frac{3}{8}$ " (If Applicable)
A.	GA8691	-	Squeeze Pump Complete, 6 Rows (Items 1-13, 15-22 And 25-29)

# LIQUID FERTILIZER SQUEEZE PUMP

# 8 ROW

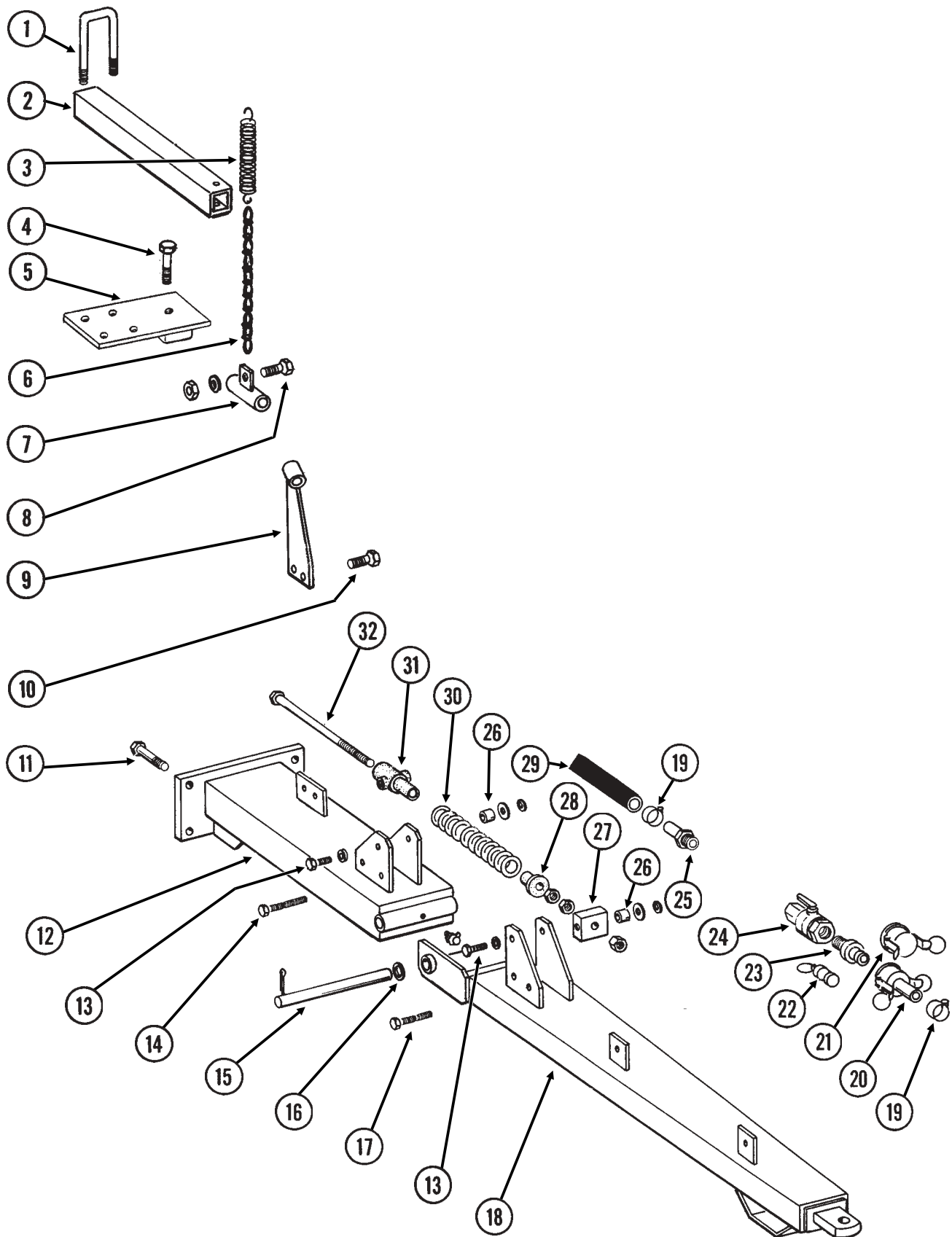
LFC010(PT48a)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0221	2	Spring Anchor Bar
2.	GR0214	8	Spring
3.	G10130	4	Square Head Machine Bolt, $\frac{5}{16}$ "-18 x 1 $\frac{3}{4}$ "
	G10219	4	Washer, $\frac{5}{16}$ " USS
	G10144	4	Wing Nut, $\frac{5}{16}$ "-18
4.	GR0212	2	Plate
5.	GR0207	2	Nylon Bushing
6.	G10303	4	Carriage Bolt, $\frac{5}{16}$ "-18 x 1"
	G10219	4	Washer, $\frac{5}{16}$ " USS
	G10144	4	Wing Nut, $\frac{5}{16}$ "-18
7.	GR0215	8	Metering Hose, $\frac{1}{2}$ " x 13"
8.	G10681	-	Hose Clamp, No. 6
9.	GR0232	8	Adapter
10.	G10004	4	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{1}{4}$ "
	G10101	4	Hex Nut, $\frac{3}{8}$ "-16
11.	GR0279	1	Angle, L.H.
	GR0280	1	Angle, R.H.
12.	GR0217	2	Manifold Plug
13.	GR0284	1	Intake Manifold
14.	GR1485	2	Discharge Manifold Less Hose Barbs
15.	G4301-04	1	Hose, $\frac{3}{8}$ " x 100'
16.	GR0211	-	Rubber Cap
17.	GR0229	6	Nylon Washer
18.	GR1626	6	Bushing
19.	G10131	2	Square Head Set Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
20.	G10640	8	Grease Fitting, $\frac{1}{4}$ "-28
21.	GR0231	2	Roller Arm
22.	GR0283	3	Roller
23.	GR0282	2	Set Collar
24.	GR0281	1	Back Up Roller
25.	G10718	2	Spring Pin, $\frac{5}{16}$ " x 1 $\frac{1}{8}$ "
26.	GD9109	2	Sleeve
27.	GD9108	1	Shaft
28.	GR0226	4	Shim, $\frac{3}{64}$ "
29.	GR0225	4	Shim, $\frac{1}{32}$ "
30.	GR0222	1	Frame
31.	GR1577	8	Nylon Hose Barb, $\frac{1}{2}$ " x $\frac{3}{8}$ " (If Applicable)
A.	GA8692	-	Squeeze Pump Complete, 8 Rows (Items 1-14, 16-24 And 27-31)

# REAR TRAILER HITCH

PHA032/LFC003(TWL47b)



# REAR TRAILER HITCH

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD2721	2	U-Bolt, 2" x 2" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
2.	GD10196	-	Hanger Tube
3.	GD0829	-	Spring
4.	G10013	1	Hex Head Cap Screw, 5/8"-11 x 3 1/2" (As Required)
	G10217	1	Washer, 5/8" USS (As Required)
	G10230	1	Lock Washer, 5/8" (As Required)
	G10056	-	Hex Head Cap Screw, 3/4"-10 x 3 1/2" (As Required)
	G10218	-	Washer, 3/4" USS (As Required)
	G10231	-	Lock Washer, 3/4" (As Required)
5.	GA7211	1	Mount
6.	G3305-03	-	Twin Loop Chain, 15 Links
7.	GA7209	-	Hose Support
8.	G10064	1	Hex Head Cap Screw, 1/4"-20 x 1"
	G10209	2	Washer, 1/4" USS
	G10110	1	Lock Nut, 1/4"-20, Grade B
9.	GA7208	-	Hose Support
10.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10108	2	Lock Nut, 3/8"-16
11.	G10826	5	Hex Head Cap Screw, 1"-8 x 2 1/2"
	G10396	5	Lock Nut, 1"-8
12.	GA6960	1	Hitch
13.	G10007	4	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	GD7805	4	Special Washer, 5/8", Hardened
	G10230	4	Lock Washer, 5/8"
14.	G10756	1	Hex Head Cap Screw, 3/8"-16 x 6"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
15.	GD3547	1	Pin, 1 1/4" x 12 3/4"
16.	G10226	2	Washer, 1 1/4" SAE
	G10460	2	Cotter Pin, 1/4" x 2"
17.	G10172	1	Hex Head Cap Screw, 3/8"-16 x 5"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
18.	GA6961	1	Hitch
19.	G10672	6	Hose Clamp, No. 28
20.	GD1516	1	Adapter, 1 1/4" Barb To Female Cam Lock
21.	GD1515	1	Dust Cap, 1 1/4" Cam Lock
22.	GD1517	1	Dust Plug, 1 1/4" Male Cam Lock
23.	GD1514	1	Adapter, 1 1/4" Male NPT To Cam Lock
24.	GA4976	1	Shutoff Valve, 1 1/4" NPT
	GR1015	-	Body O-Ring
	GR1016	-	Stem O-Ring
	GR1017	-	Teflon Seat
	GR1018	-	Ball
	GR1019	-	Handle
25.	G10626	1	Adapter, 1 1/4" NPT To Barb
26.	GB0218	4	Bushing, 2 1/32" I.D. x 7/8" O.D. x 19/32" Long
27.	GD7908	1	Tap Block
28.	GB0213	1	Spring Seat
29.	G4200-01	1	Hose, 1 1/4" x 22'
30.	GD2115	1	Spring
31.	GB0206	1	Rod Guide
32.	GD7907	1	Special Bolt
	G10105	3	Hex Nut, 3/4"-10

# DECALS, PAINT AND MISCELLANEOUS

**KINZE 3500**

**WARNING**

ALWAYS USE SAFETY PINS IN TRANSPORT POSITION

7100-2

**WARNING**

TO AVOID INJURY – STAND CLEAR—KEEP OTHERS AWAY WHEN RAISING OR LOWERING MARKERS. BEFORE TRANSPORTING PLANTER FULLY EXTEND HYDRAULIC CYLINDERS AND INSTALL LOCKING PINS WHERE PROVIDED.

7100-42

**WARNING**

1. Read and understand the Operator's Manual.
2. Stop the tractor engine before leaving the operator's platform.
3. Keep riders off the machine.
4. Make certain everyone is clear of the machine before starting the tractor engine and operating.
5. Keep all shields in place.
6. Never lubricate, adjust, unclog or service the machine with tractor engine running.
7. Wait for all movement to stop before servicing.
8. Keep hands, feet and clothing away from moving parts.
9. Use flashing warning lights when operating on highways except when prohibited by law.

7100-46

**WARNING**

USE SAFETY CHAINS PROVIDED. TOW ONLY WITH FARM TRACTOR.

7100-383

**CAUTION**

REAR OF PLANTER SWINGS WIDE IN TURNS. ALWAYS ALLOW SUFFICIENT ROOM TO CLEAR OBSTACLES WHEN TURNING.

7100-63

**WARNING**

NEVER WALK UNDER OR WORK ON PLANTER WHEN IT IS RAISED WITHOUT SUPPORTING THE FRAMES WITH ADDITIONAL SUPPORTS.

7100-58

**CAUTION**

AVOID UNEVEN LOADING OF HOPPERS, ESPECIALLY DURING TRANSPORT

7100-75

**WARNING**

TO AVOID INJURY ALWAYS USE HYDRAULIC CYLINDER SAFETY LOCKOUT CHANNELS WHEN TRANSPORTING PLANTER ON THE ROAD. AFTER USE RETURN TO STORAGE LOCATION.

7100-83

**DANGER**

THIS PLANTER IS DESIGNED TO BE DRIVEN BY GROUND TIRES ONLY. THE USE OF HYDRAULIC, ELECTRIC OR PTO DRIVES MAY CREATE SERIOUS SAFETY HAZARDS TO YOU AND THE PEOPLE NEARBY. IF YOU INSTALL SUCH DRIVES YOU MUST FOLLOW ALL APPROPRIATE SAFETY STANDARDS AND PRACTICES TO PROTECT YOU AND OTHERS NEAR THIS PLANTER FROM INJURY.

7100-89

**WARNING**

THIS MACHINE HAS BEEN DESIGNED AND BUILT WITH YOUR SAFETY IN MIND. DO NOT MAKE ANY ALTERATIONS OR CHANGES TO THIS MACHINE. ANY ALTERATION TO THE DESIGN OR CONSTRUCTION MAY CREATE SAFETY HAZARDS.

7100-90

**WARNING**

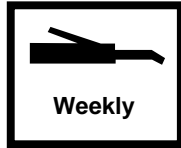
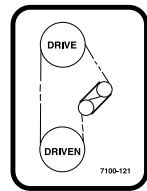
AGRICULTURAL CHEMICALS CAN BE DANGEROUS. IMPROPER SELECTION OR USE CAN SERIOUSLY INJURE PERSONS, ANIMALS, PLANTS, SOIL OR OTHER PROPERTY. BE SAFE. SELECT THE RIGHT CHEMICAL FOR THE JOB. HANDLE WITH CARE. FOLLOW THE INSTRUCTIONS ON THE CONTAINER LABEL AND OF THE EQUIPMENT MANUFACTURER.

7100-115

**KINZE**

USE 1 TABLESPOON POWDERED GRAPHITE WITH EACH HOPPER FILL OF SEED. SEED TREATMENT, FOREIGN MATERIAL, DIRT, OR SEED CHAFF MAY CAUSE GRADUAL REDUCTION OF SEED POPULATION. REFER TO MANUAL FOR MAINTENANCE AND CARE.

7100-153



TORQUE 5/8" SPINDLE BOLTS TO 120 FT/LBS. CHECK PERIODICALLY AND RE-TORQUE AS NEEDED.

7100-234



A A

**3500**

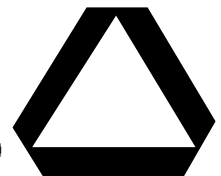
ROTATE KNURLED SLEEVE ON RATCHET TIGHTENER TO RELEASE SPRING TENSION.

7100-295

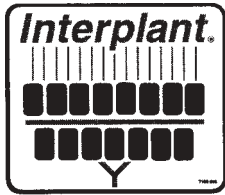
MARKER FOLD

← →

7100-194



# DECALS, PAINT AND MISCELLANEOUS



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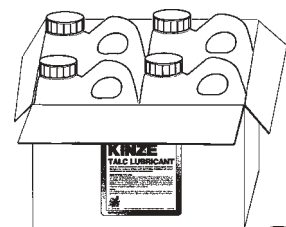
29



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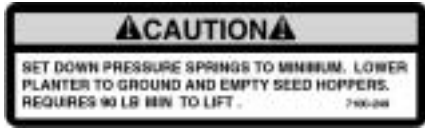
**NOTE**

It is the responsibility of the user to read and understand the Operator's Manual in regards to safety, operation, lubrication and maintenance before operation of this equipment.

AN OPERATOR & PARTS MANUAL IS AVAILABLE FOR THIS MACHINE.

To obtain a manual, furnish model number and serial number and contact your KINZE Dealer or KINZE Manufacturing, Inc., P.O. Box 806 Williamsburg, IA 52361-0806 USA

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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD1162	-	Tie Strap, 28"
	GD1512	-	Tie Strap, 7 1/2"
	GD2117	-	Tie Strap, 14 1/2"
	GD2984	-	Tie Strap, 34"
2.	G7100-294	2	Decal, KINZE® 3500
3.	G7100-02	4	Decal, Warning
4.	G7100-42	-	Decal, Warning (2 Per Marker)
5.	G7100-46	1	Decal, Warning
6.	G7100-302	1	Decal, Warning
7.	G7100-63	2	Decal, Caution
8.	G7100-68	4	Decal, Warning
9.	G7100-75	4	Decal, Caution
10.	G7100-83	-	Decal, Warning (1 Per Marker Lockup)
11.	G7100-89	2	Decal, Danger
12.	G7100-90	1	Decal, Warning
13.	G7100-115	-	Decal, Warning (1 Per Granular Chemical Hopper)
14.	G7100-104	2	Decal, KINZE®, 3" x 12"
15.	G7100-153	-	Decal, Information (1 Per Brush-Type Seed Meter)
16.	G7100-121	1	Decal, Transmission
17.	G7100-116	-	Decal, Grease Daily
18.	G7100-111	-	Decal, Oil Daily
19.	G7100-110	-	Decal, Grease Weekly
20.	G7100-234	-	Decal, Bolt Torque
21.	G7100-247	-	Decal, Logo, 4 3/8" x 4 1/2" (2 Per Row Unit)
	G7100-252	-	Decal, Logo, 3 1/2" x 3 5/8" (Hopper Panel Extension)
22.	GD10057-01	-	Hose Identification Sleeve, Red AA
	GD10057-02	-	Hose Identification Sleeve, Red BB
	GD10057-03	-	Hose Identification Sleeve, Blue AA
	GD10057-04	-	Hose Identification Sleeve, Blue BB
23.	G7100-244	2	Decal, 3500
24.	G7100-295	1	Decal, Spring Tension Release
25.	G7100-194	1	Decal, Instruction
26.	GD2199	1	SMV Sign

(Continued)

# DECALS, PAINT AND MISCELLANEOUS

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ITEM	PART NO.	QTY.	DESCRIPTION
(Continued)			
27.	G7100-208	2	Decal, Interplant®
28.	G7100-177	1	Decal, Twin-Line®, 3/4" x 3"
29.	G7100-215	1	Decal, Danger
30.	GR0146	-	Powdered Graphite, 1 Pound Container
	GR0146MPP	-	Powdered Graphite, Twenty-Four 1 Pound Containers
31.	GR0155	-	Blue Paint, Aerosol Can
	GR0155MPP	-	Blue Paint, Twelve Aerosol Cans
32.	GR1570MPP	-	Talc Lubricant, Four 8 Pound Containers
33.	G7100-217	1	Decal, Note
34.	G7100-249	1	Decal, Caution
35.	G7100-261	-	Reflective Decal, Red, 1 3/4" x 9", Die-Cut (If Applicable)
	G7100-262	-	Reflective Decal, Amber, 1 3/4" x 9", Die-Cut (If Applicable)
	G7100-263	-	Reflective Decal, Orange, 1 3/4" x 9", Die-Cut (If Applicable)
36.	G7100-258	-	Reflective Decal, Red, 1 1/2" x 9", Rectangular (If Applicable)
	G7100-259	-	Reflective Decal, Amber, 1 1/2" x 9", Rectangular (If Applicable)
	G7100-260	-	Reflective Decal, Orange, 1 1/2" x 9", Rectangular (If Applicable)
37.	GM0194	-	Operator & Parts Manual, Model 3500 (Mechanical Seed Metering System)

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