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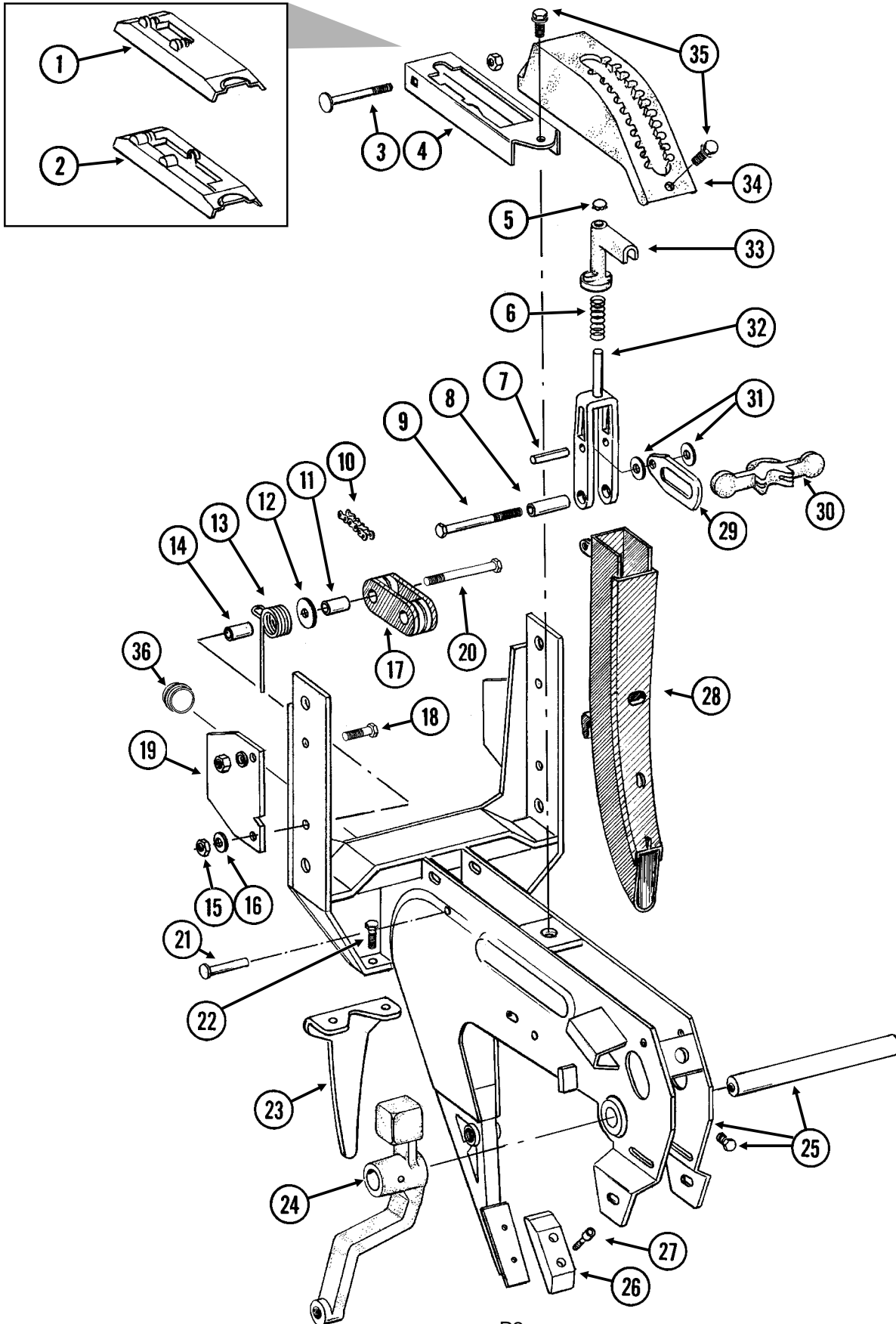
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SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

RUB023/RUB024RUB022(RU80i)

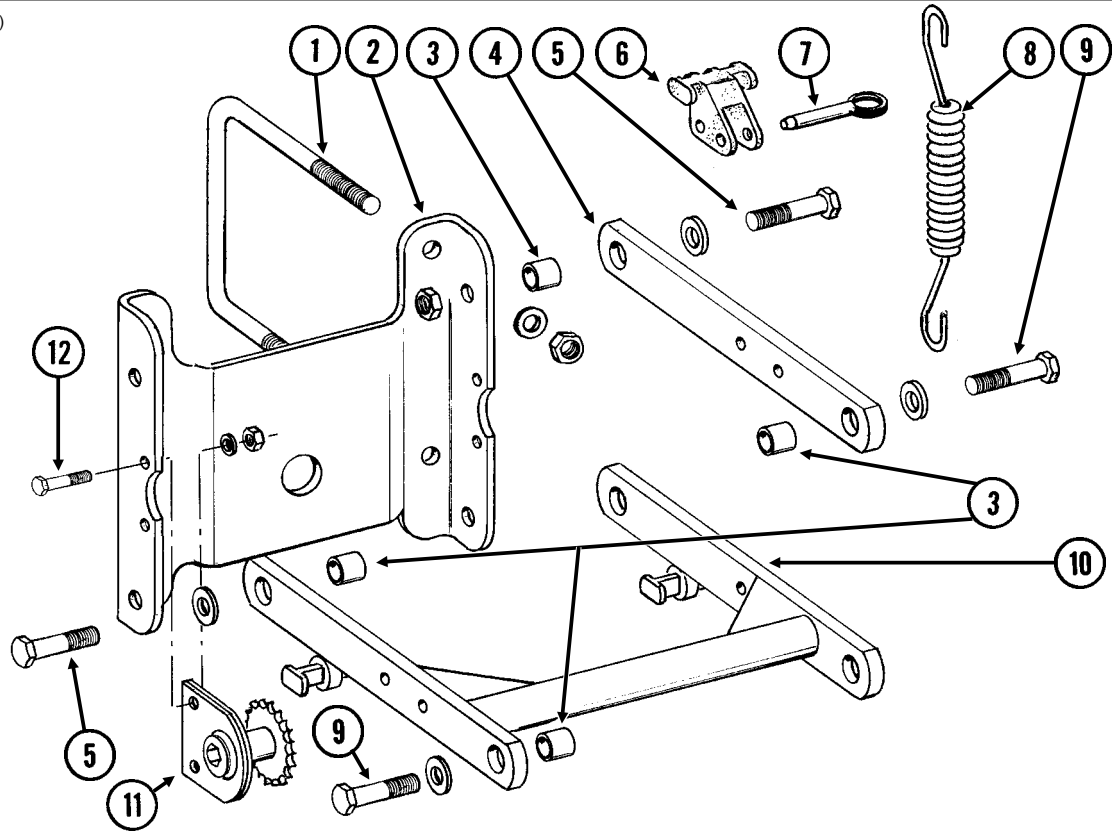


SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.		-	Shank Cover, See "Brush-Type Seed Meter", Page P15
2.		-	Shank Cover, See "Finger Pickup Seed Meter", Page P14
3.	G10304	1	Carriage Bolt, $\frac{3}{8}$ "-16 x 3"
	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
4.	GD10986	1	Cover
5.	GD3612	1	Cap Plug
6.	GD10993	1	Spring
7.	G10489	1	Spring Pin, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ "
8.	GD11259	1	Sleeve, $\frac{3}{8}$ " I.D. x $\frac{5}{8}$ " O.D. x 1 $\frac{25}{32}$ " Long
9.	G10049	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 2 $\frac{1}{2}$ "
	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
10.	G3303-98	1	Chain, No. 41, 98 Pitch Including Connector Link
	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	Flange Nut, $\frac{5}{16}$ "-18
23.	GD1033	1	Shield
24.		-	See "Gauge Wheels", Pages P6 And P7
25.	GA7965	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.	GB0284	1	Seed Tube Guard/Inner Scraper
27.	G10912	2	Hex Socket Head Cap Screw, $\frac{5}{16}$ "-18 x 1", Grade 8
28.	GD1130	-	Seed Tube (No Monitor)
			See "KPM I/KPM II Electronic Seed Monitor" For Seed Tube With Sensor, Pages 74 And 75
29.	GB0285	1	Collar, Depth Adjustment
30.	GB0265	1	Pivot Link, Depth Adjustment
31.	G10207	2	Washer, $\frac{7}{8}$ " O.D. x $\frac{13}{32}$ " I.D. x .134" (If Applicable)
32.	GB0267	1	Lever, Depth Adjustment
33.	GB0266	1	Handle, Depth Adjustment
34.	GB0274	1	Cover, Depth Adjustment
35.	G10985	2	Hex Washer Head Cap Screw, $\frac{3}{8}$ "-16 x 1"
36.	GD11845	1	Dust Cap

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

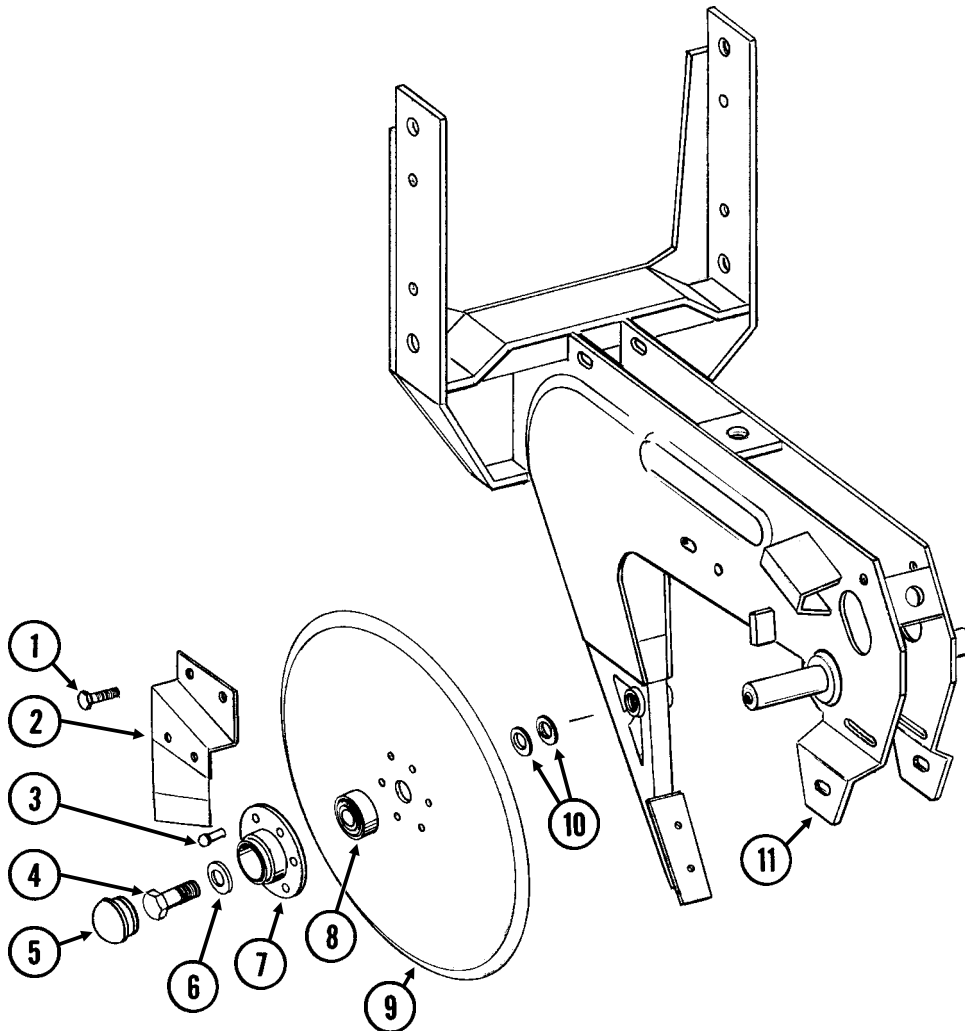
RUB021/RUB022(RU78e)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1113	-	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, 2 1/32" 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.	G10545	2	Detent Pin, 1" Grip
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.	G10001	2	Hex Head Cap Screw, 3/8"-16 x 1"
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
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 SEED DISC SCRAPERS

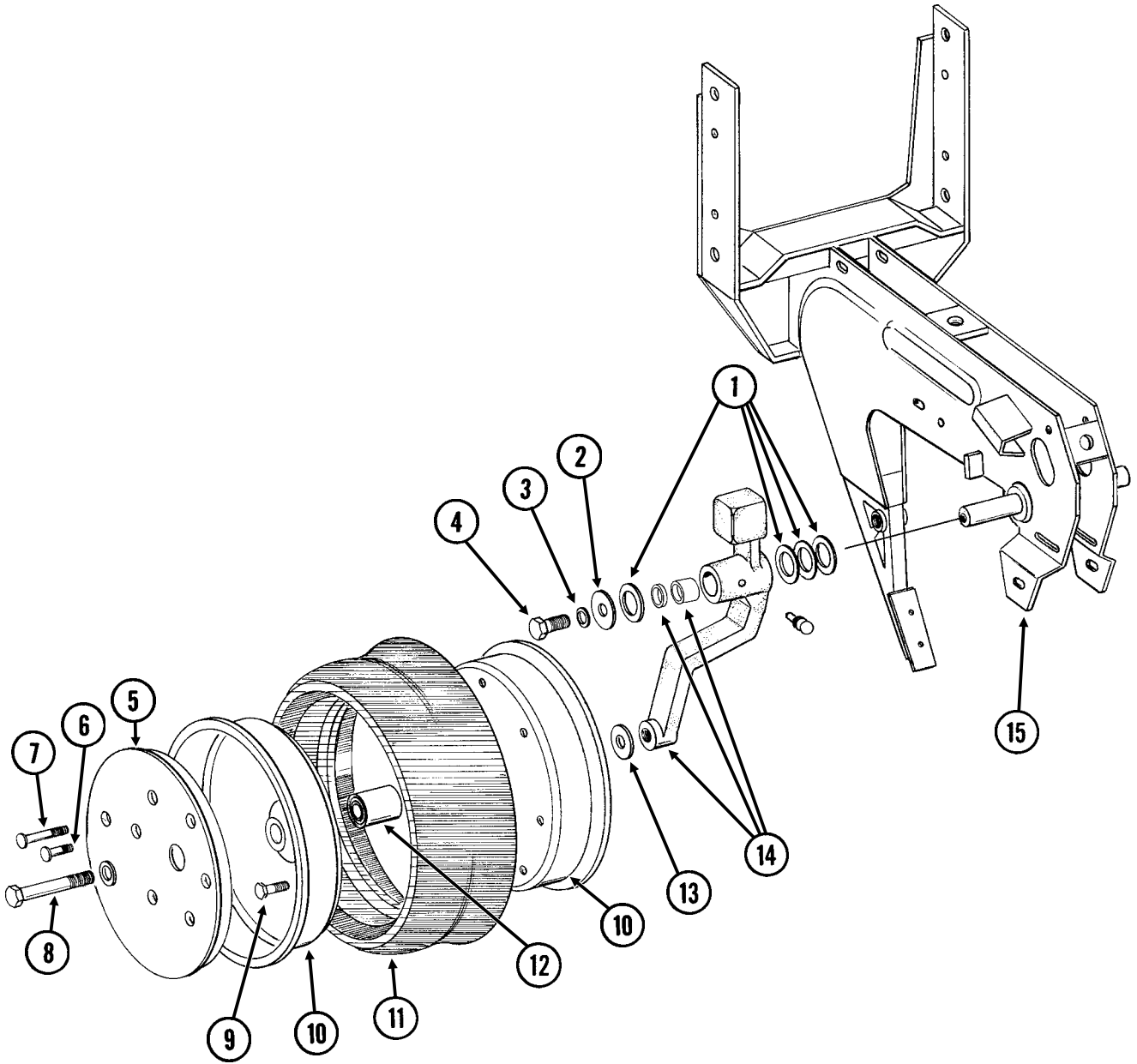
RUB023/RUB025(RU82a)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10328	4	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x $\frac{5}{8}$ "
	G10622	4	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. Thread
	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, 15"
10.	G10213	-	Machine Bushing, $\frac{5}{8}$ " (.030" Thick)(As Required)
11.		-	See "Shank Assembly", Pages P2 And P3
A.	GA8324	-	Disc Blade And Bearing Assembly, Less Bearing Cap (Items 3 And 7-9)

GAUGE WHEELS

RUB027/RUB023(RU84a)

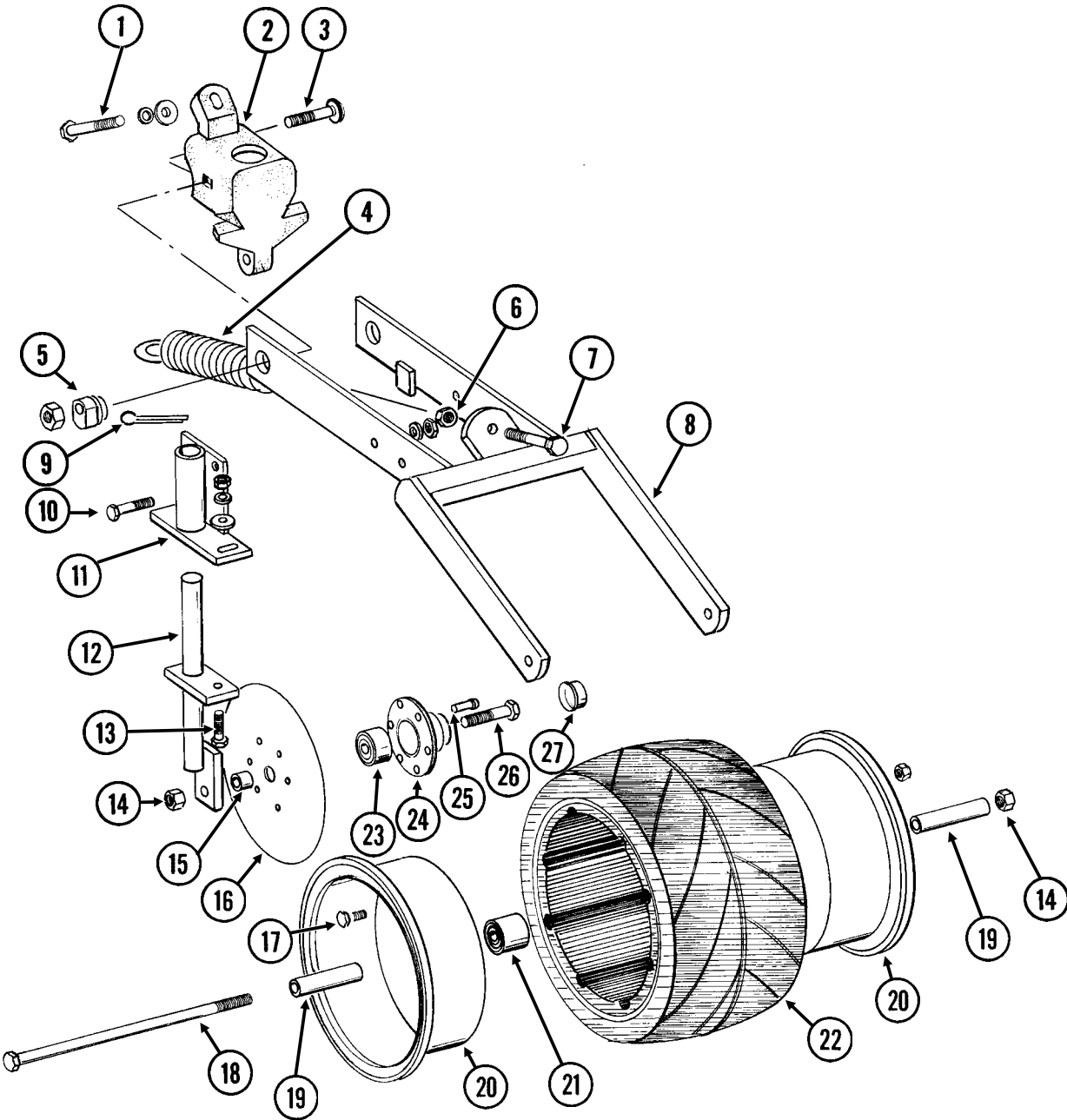


GAUGE WHEELS

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	Flange Nut, 5/16"-18
7.	G10924	8	Carriage Bolt, 5/16"-18 x 1 3/4"
	G10620	8	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
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

RUA054/RUB026(RU94a)

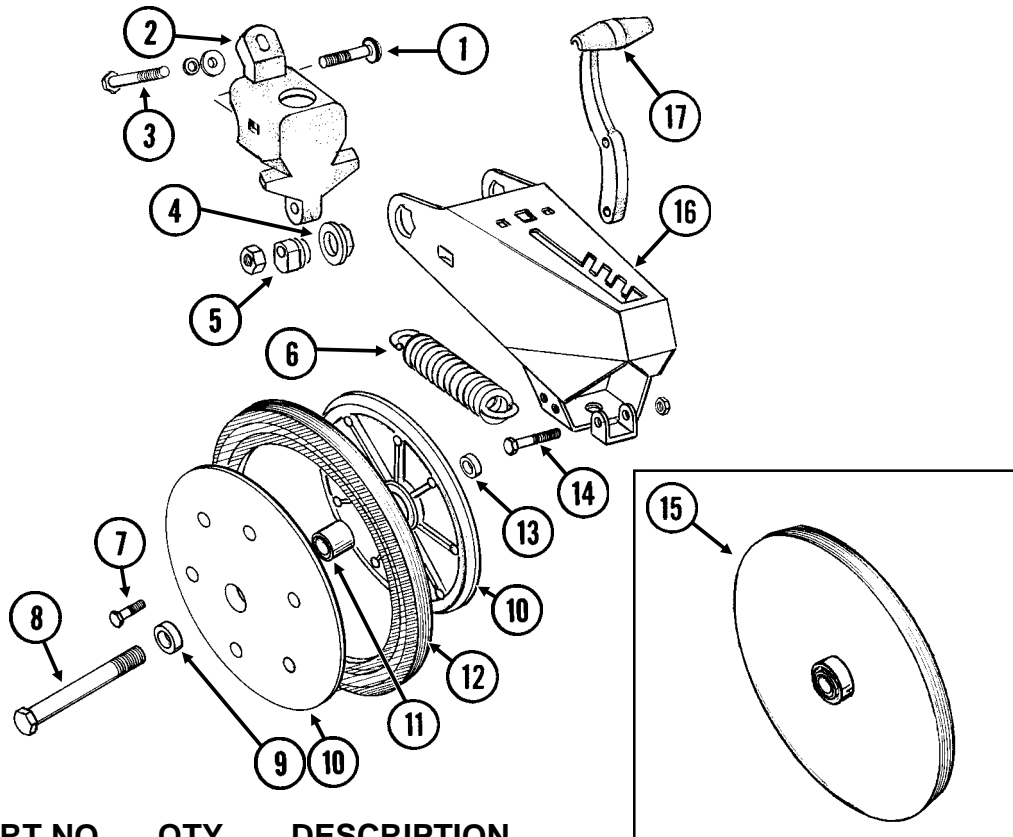


COVERING DISCS/SINGLE PRESS WHEEL

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10003	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{1}{2}$ "
	G10229	1	Lock Washer, $\frac{3}{8}$ "
	G10210	2	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
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

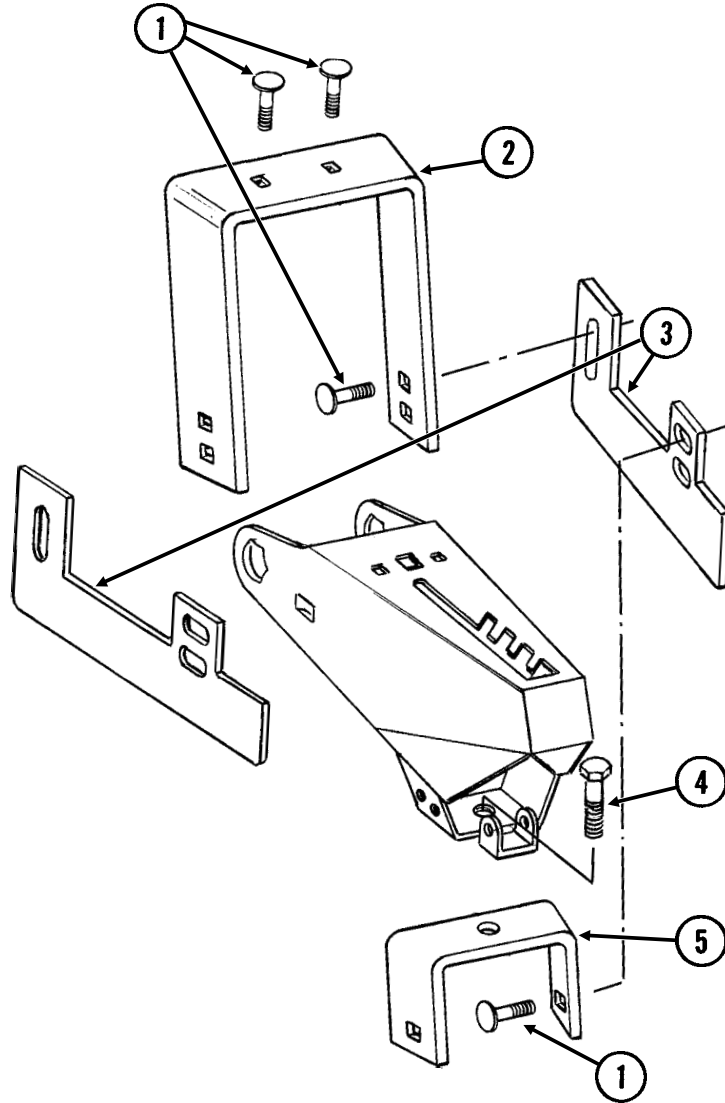
RUB026(RU83)



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)
	G10111	2	Lock Nut, 1/2"-13
2.	GB0268	1	Wheel Arm Stop
3.	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10229	1	Lock Washer, 3/8"
	G10210	2	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.	GB0218	2	Bushing, 21/32" I.D. x 7/8" O.D. x 19/32" Long
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
15.	GA6597	-	Cast Iron Closing Wheel W/Bearing
	GA6171	-	Bearing
16.	GA8322	1	Arm
17.	GB0254	1	Lever
A.	GA6434	-	Rubber Closing Wheel Complete With Bearing (Items 7 And 10-12)

DRAG CLOSING ATTACHMENT

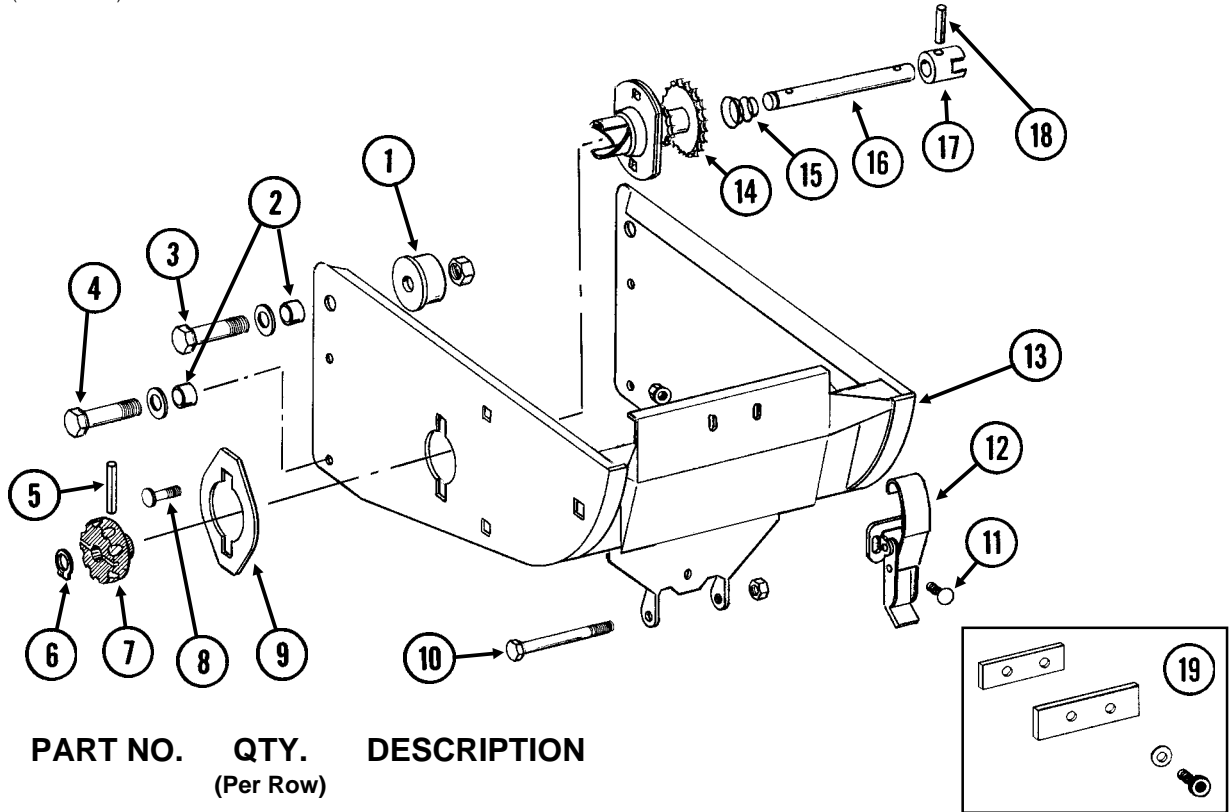
RUB050(RU90a)



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

HOPPER SUPPORT AND METER DRIVE

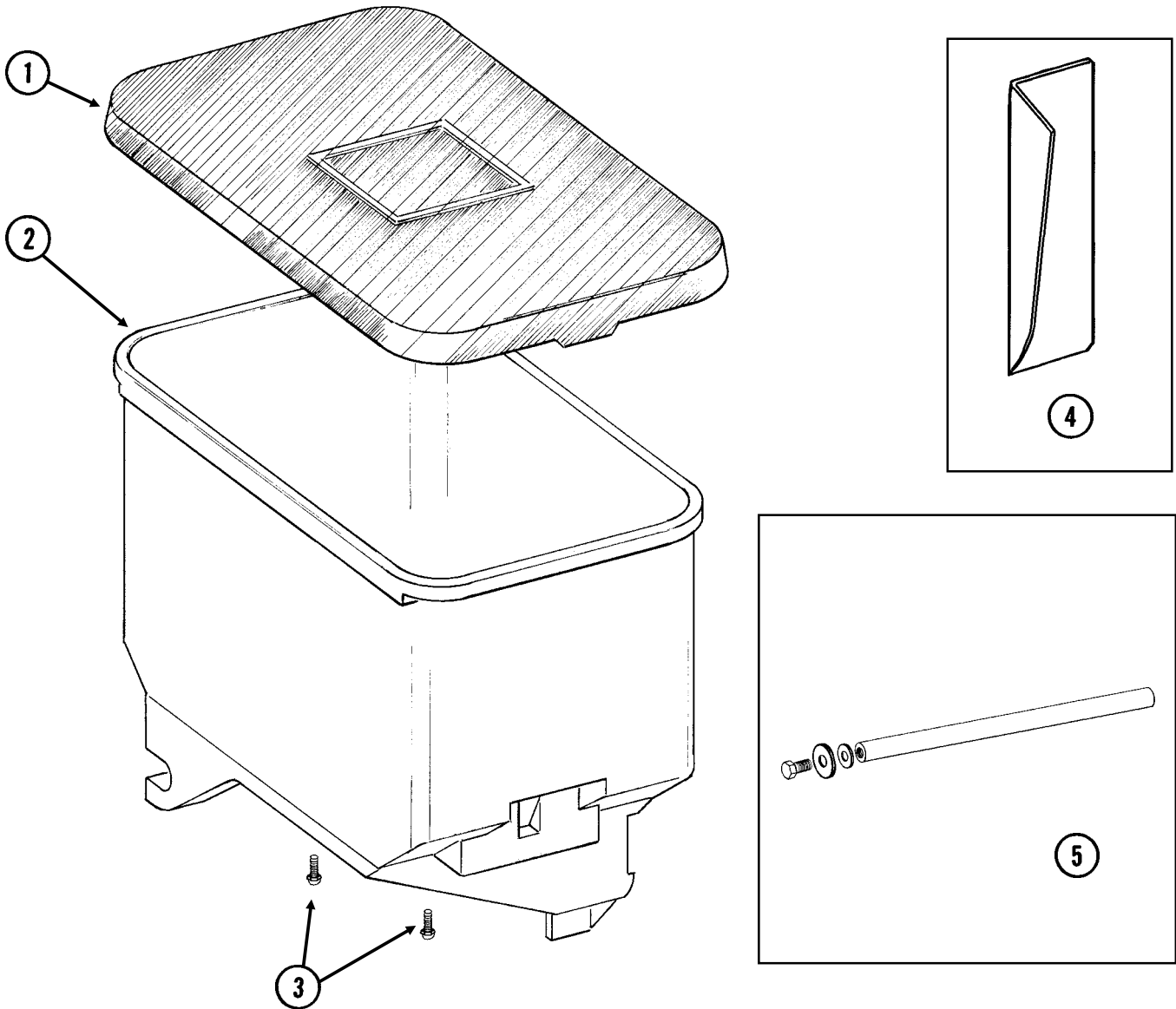
RUB028/RUB029(RU86h/RU86f)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GB0286	2	Hopper Mount
2.	GB0218	4	Bushing, 2 ¹ / ₃₂ " I.D. x 7 ⁷ / ₈ " O.D. x 1 ⁹ / ₃₂ " Long
3.	G10752	2	Hex Head Cap Screw, 5 ⁵ / ₈ "-18 x 2 1 ¹ / ₄ "
	GD7805	2	Special Washer, 5 ⁵ / ₈ ", Hardened
	G10412	2	Lock Nut, 5 ⁵ / ₈ "-18
4.	G10751	2	Hex Head Cap Screw, 5 ⁵ / ₈ "-18 x 1 3 ³ / ₄ "
	GD7805	2	Special Washer, 5 ⁵ / ₈ ", Hardened
	G10412	2	Lock Nut, 5 ⁵ / ₈ "-18
5.	G10602	1	Spring Pin, 1 ¹ / ₄ " x 1 1 ¹ / ₂ "
6.	G10567	1	External Retaining Ring, 5 ⁵ / ₈ "
7.	GD11239	1	Knob
8.	G10302	2	Carriage Bolt, 5 ⁵ / ₁₆ "-18 x 7 ⁷ / ₈ "
	G10620	2	Flange Nut, 5 ⁵ / ₁₆ "-18
9.	GD11305	1	Plate
10.	G10061	1	Hex Head Cap Screw, 3 ³ / ₈ "-16 x 3 1 ¹ / ₂ "
	G10210	2	Washer, 3 ³ / ₈ " USS
	G10108	1	Lock Nut, 3 ³ / ₈ "-16
11.	G10309	2	Carriage Bolt, 1 ¹ / ₄ "-20 x 5 ⁵ / ₈ ", Grade 2
	G10621	2	Flange Nut, 1 ¹ / ₄ "-20
12.	GA2007	1	Hopper Hold Down Latch
13.	GA8304	1	Hopper Support
14.	GA8363	1	Double Sprocket And Bearing, Drive Clutch, 11/19 Tooth
15.	GD11413	1	Spring
16.	GD10958	1	Shaft
17.	GB0278	1	Coupler
18.	G10546	1	Spring Pin, 3 ³ / ₁₆ " x 1 1 ¹ / ₄ "
19.	G1K312	-	Seed Hopper Support Panel Kit W/Hardware And Instruction (2 Rows)
	G10211	-	Washer, 1 ¹ / ₄ " SAE
	G10252	-	Socket Head Screw, 1 ¹ / ₄ "-20 x 7 ⁷ / ₈ ", Grade 8
A.	GA8365	-	Meter Drive Assembly Complete (Items 5-7 And 14-18)

SEED HOPPER AND LID

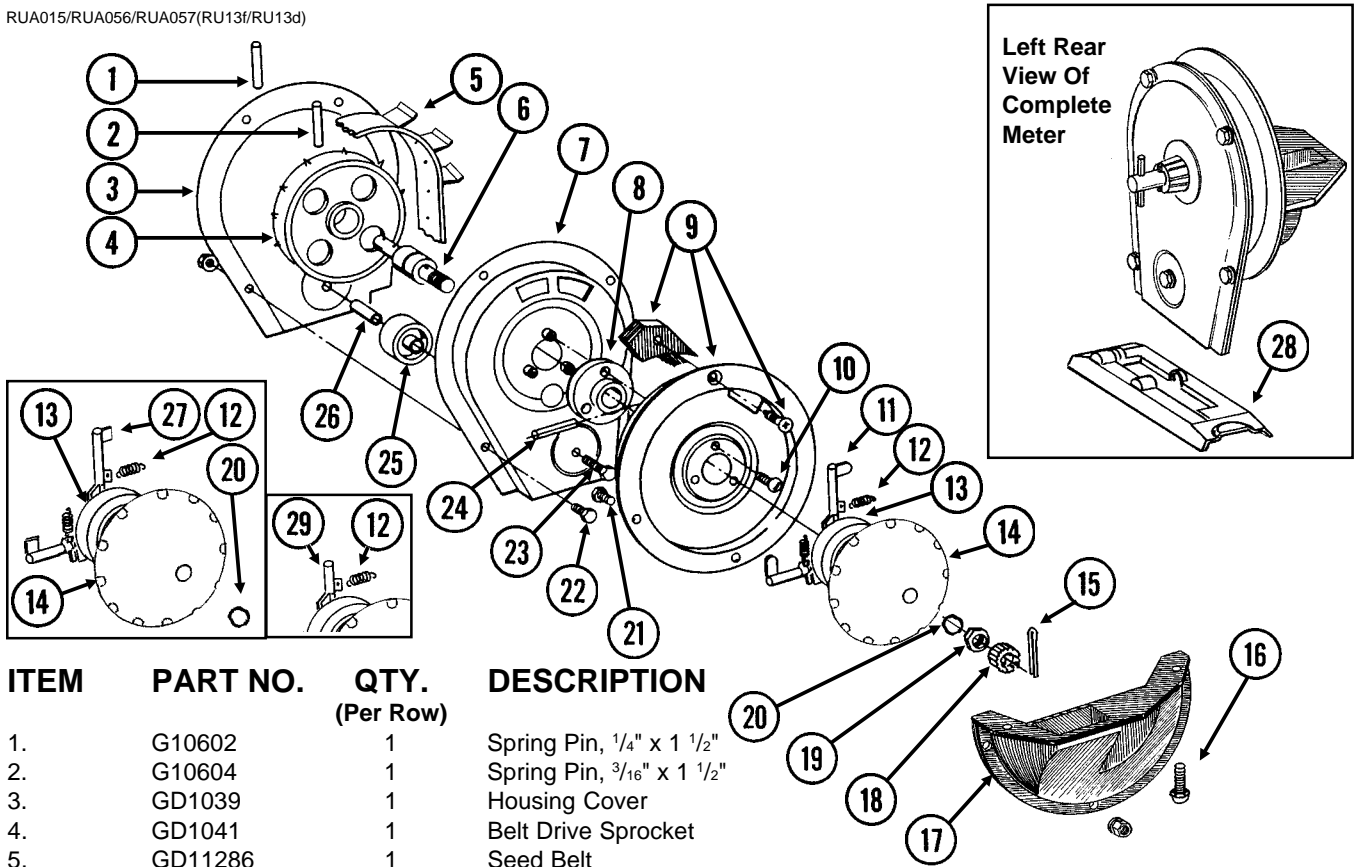
RUA030(RU87/RU87a/RU128)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD11279	1	Lid
2.	GA8370	1	Seed Hopper
3.	G10922	2	Thumbscrew, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
4.	GD11747	1	Seed Reserve Baffle
5.	G1K313	1	Seed Hopper Cross Brace Kit W/Hardware And Instruction
	G10989	2	Hex Washer Head Cap Screw, $\frac{3}{8}$ "-16 x $\frac{3}{4}$ "
	G10201	2	Special Washer, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " O.D.
	G10210	2	Washer, $\frac{3}{8}$ " USS

FINGER PICKUP SEED METER

RUA015/RUA056/RUA057(RU13f/RU13d)

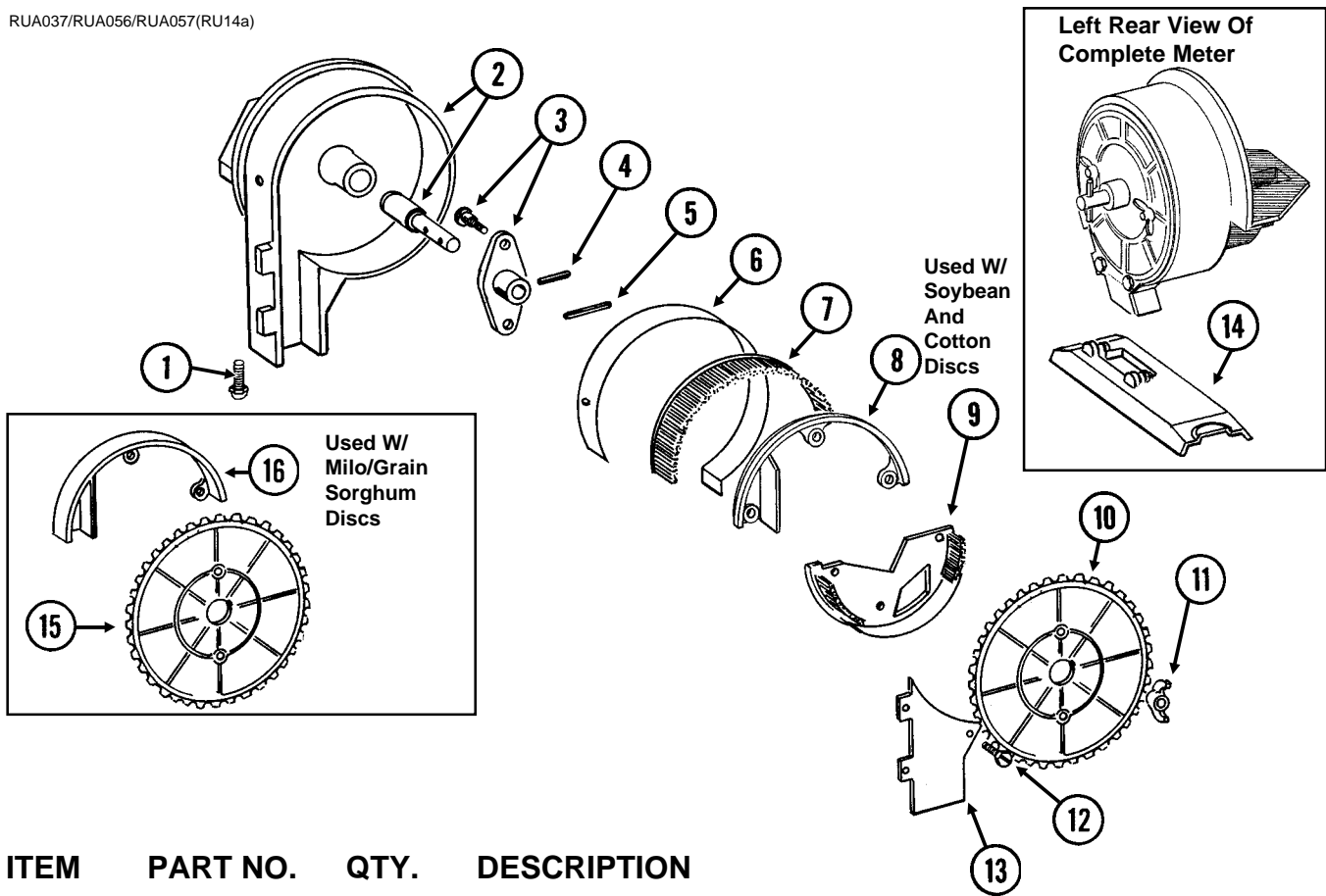


ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10602	1	Spring Pin, 1/4" x 1 1/2"
2.	G10604	1	Spring Pin, 3/16" x 1 1/2"
3.	GD1039	1	Housing Cover
4.	GD1041	1	Belt Drive Sprocket
5.	GD11286	1	Seed Belt
6.	GA2019	1	Bearing
7.	GA2018	1	Conveyor Housing
8.	GB0110	1	Bearing Housing
9.	GR0664	1	Carrier W/Brush 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.	G10922	2	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	Flange Nut, 1/4"-20
23.	G10021	1	Hex Head Cap Screw, 1/4"-20 x 1 1/2"
	G10621	1	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.	GD11373	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

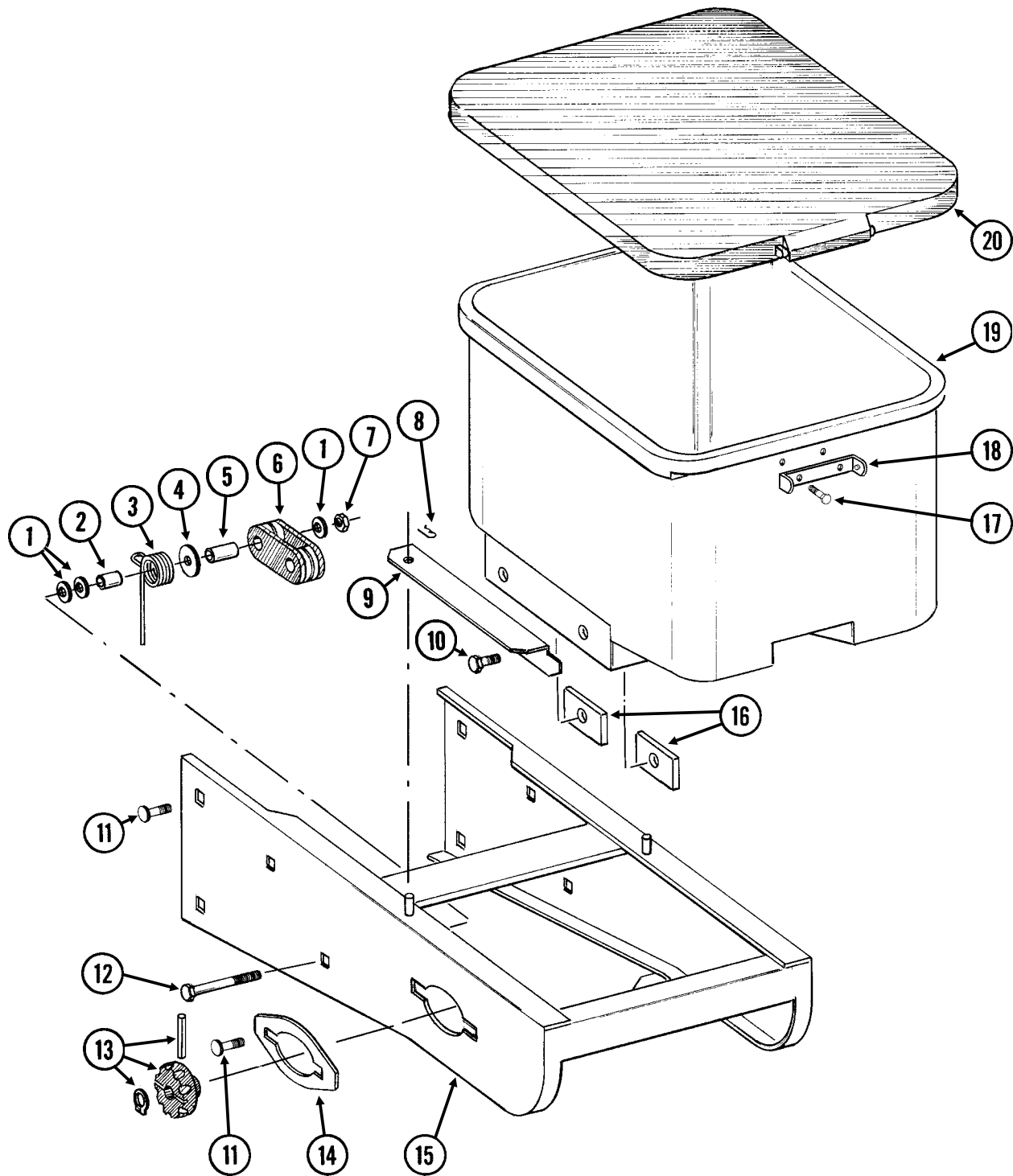
RUA037/RUA056/RUA057(RU14a)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10922	2	Thumbscrew, 5/16"-18 x 3/4"
2.	GA6027	1	Housing W/Bearing
	GA5698	-	Bearing
3.	GA6038	1	Hub W/Shoulder Bolts
	GD1755	-	Shoulder Bolt, 1/4"-20 (2 Used)
4.	G10603	1	Spring Pin, 1/4" x 1 1/4"
5.	G10602	1	Spring Pin, 1/4" x 1 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	Nylon Insert Wing Nut, 1/4"-20
12.	G10584	9	Slotted Tap Screw, No. 10-24 x 1/2"
	G10634	-	Slotted Tap Screw, No. 10-24 x 5/8" (Use As Required)
13.	GD7878	1	Cover
14.	GD11374	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

RUA052/RUA053/RUB028(RU92k)

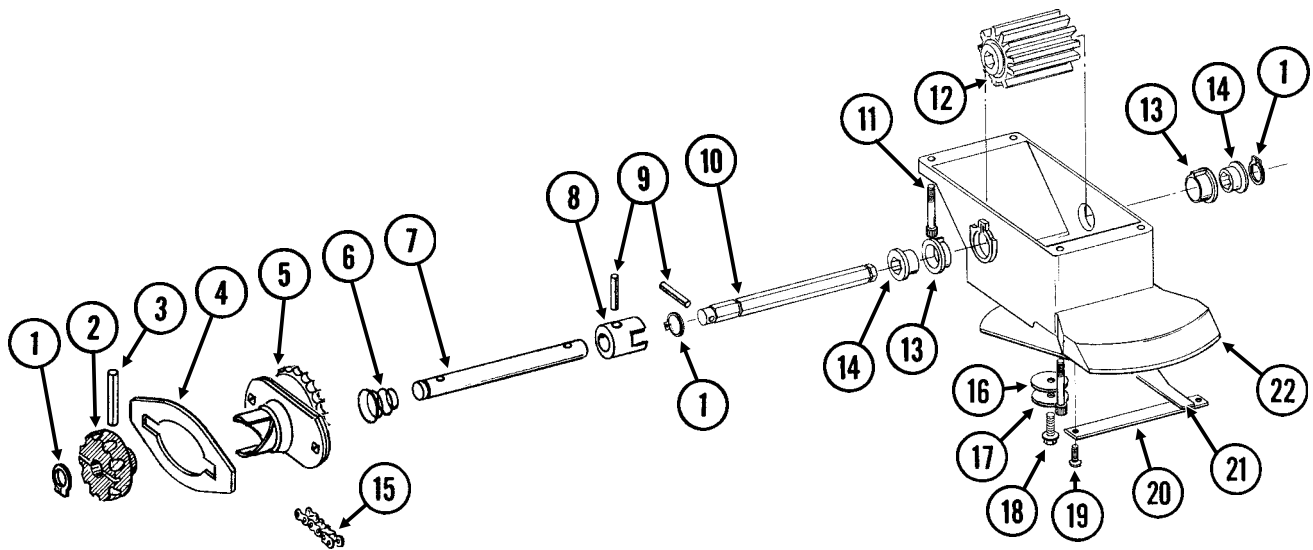


GRANULAR CHEMICAL HOPPER AND HOPPER PANEL EXTENSION

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10210	3	Washer, $\frac{3}{8}$ " USS
2.	GD2971-10	1	Sleeve, $\frac{9}{16}$ " Long
3.	GD11219	1	Spring
4.	G10201	1	Special Washer, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " O.D.
5.	GD1026	1	Sleeve, 1 $\frac{3}{16}$ " Long
6.	GD11962	1	Idler
7.	G10108	1	Lock Nut, $\frac{3}{8}$ "-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, $\frac{3}{8}$ "-16 x $\frac{3}{4}$ "
	G10229	4	Lock Washer, $\frac{3}{8}$ "
	G10101	4	Hex Nut, $\frac{3}{8}$ "-16
11.	G10312	8	Carriage Bolt, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
	G10620	8	Flange Nut, $\frac{5}{16}$ "-18
12.	G10325	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 2 $\frac{3}{4}$ "
13.		-	See "Granular Chemical Meter And Meter Drive", Page P18
14.	GD11305	1	Plate
15.	A8422	1	Hopper Panel Extension (Non-Stock Item) (Sub Wholegoods Order Code 700-01080)
16.	GD11424	4	Block
17.	G10023	2	Hex Head Cap Screw, $\frac{1}{4}$ "-20 x $\frac{3}{4}$ "
	G10621	2	Flange Nut, $\frac{1}{4}$ "-20
18.	GD1060	1	Hinge
19.	GA8371	1	Hopper
20.	GA4444	1	Lid

GRANULAR CHEMICAL METER AND METER DRIVE

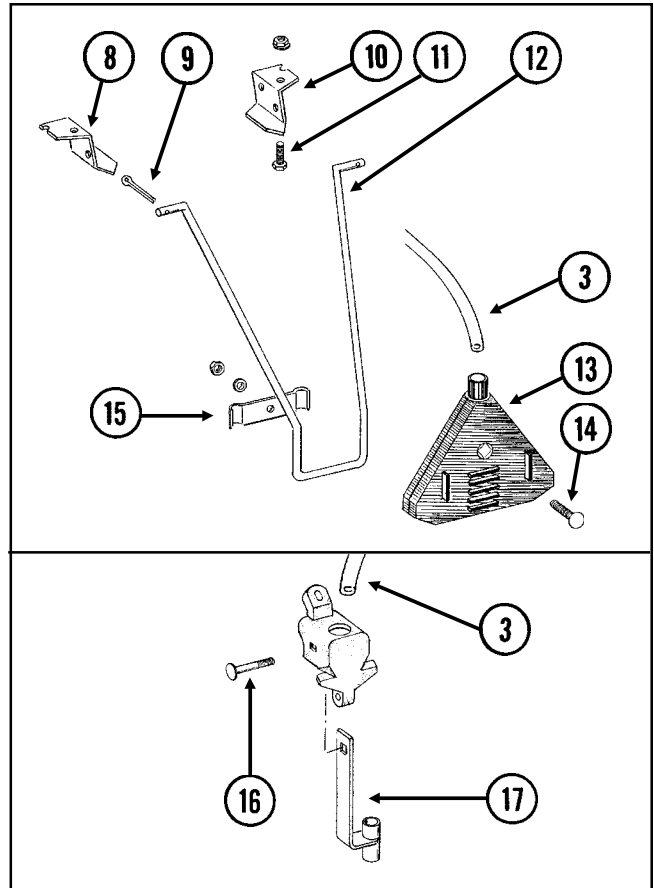
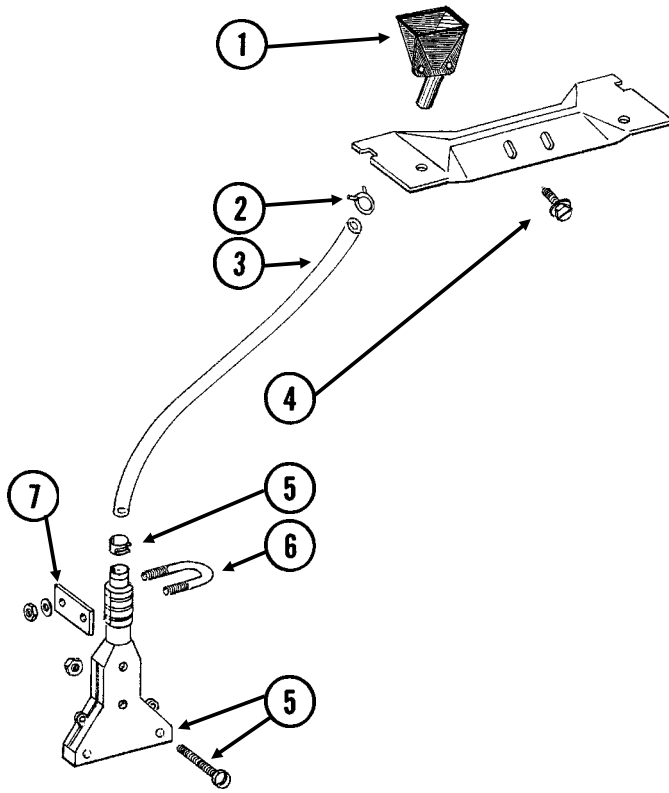
RUA051/RUB028(RU91a)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10567	3	External Retaining Ring, $\frac{5}{8}$ "
2.	GD11239	1	Knob
3.	G10602	1	Spring Pin, $\frac{1}{4}$ " x $1 \frac{1}{2}$ "
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, $\frac{3}{16}$ " x $1 \frac{1}{4}$ "
10.	GD11297	1	Shaft
11.	G10921	4	Hex Socket Head Cap Screw, No. 10-24 x $\frac{7}{8}$ "
	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, $\frac{1}{2}$ "
17.	G10209	1	Washer, $\frac{1}{4}$ " USS
18.	G10570	1	Slotted Hex Self-Tapping Screw, $\frac{1}{4}$ " x $\frac{3}{4}$ "
19.	G10521	2	Slotted Pan Head Self-Tapping Screw, No. 10 x $\frac{3}{8}$ "
20.	GD1061	1	Support Strap
21.	GD1063	1	Metering Gate
22.	GB0116	1	Granular Housing

GRANULAR CHEMICAL BANDING OPTIONS

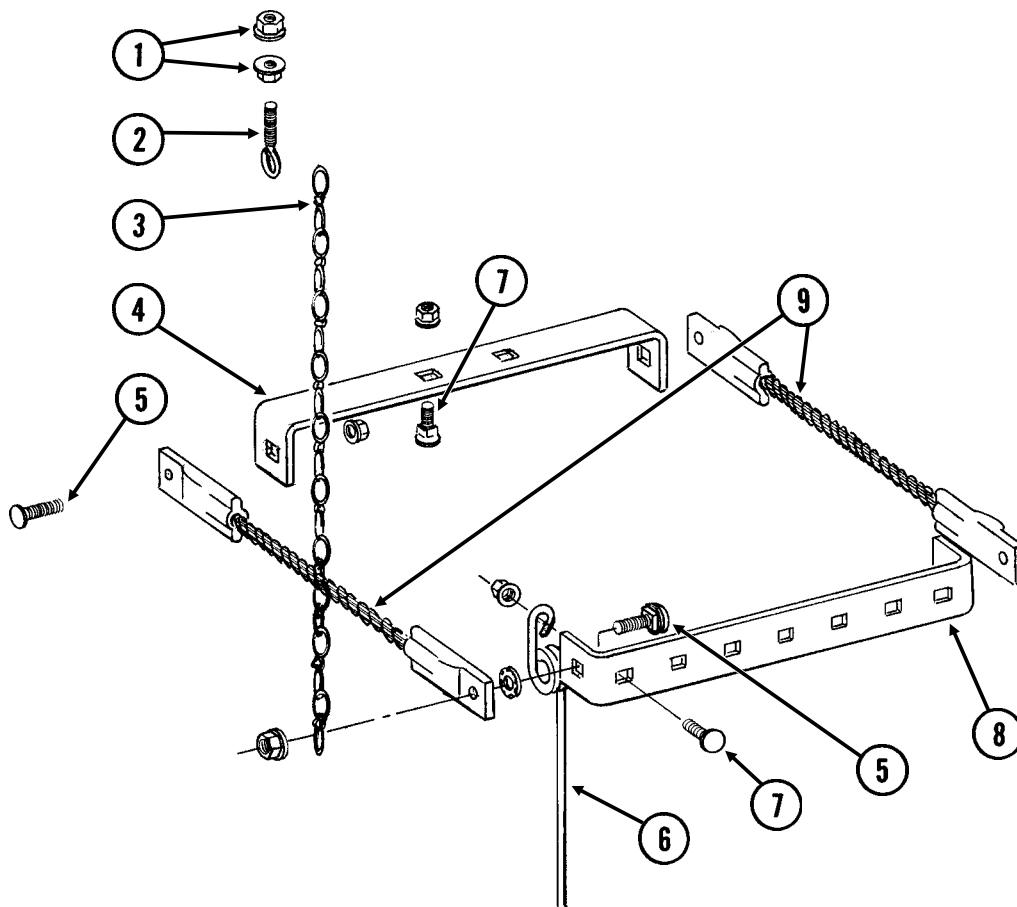
RUA061/RUA073(RU101d)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD2423	1	Funnel
2.	G10680	1	Wire Hose Clamp, 7/16"
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
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)

SPRING TOOTH INCORPORATOR

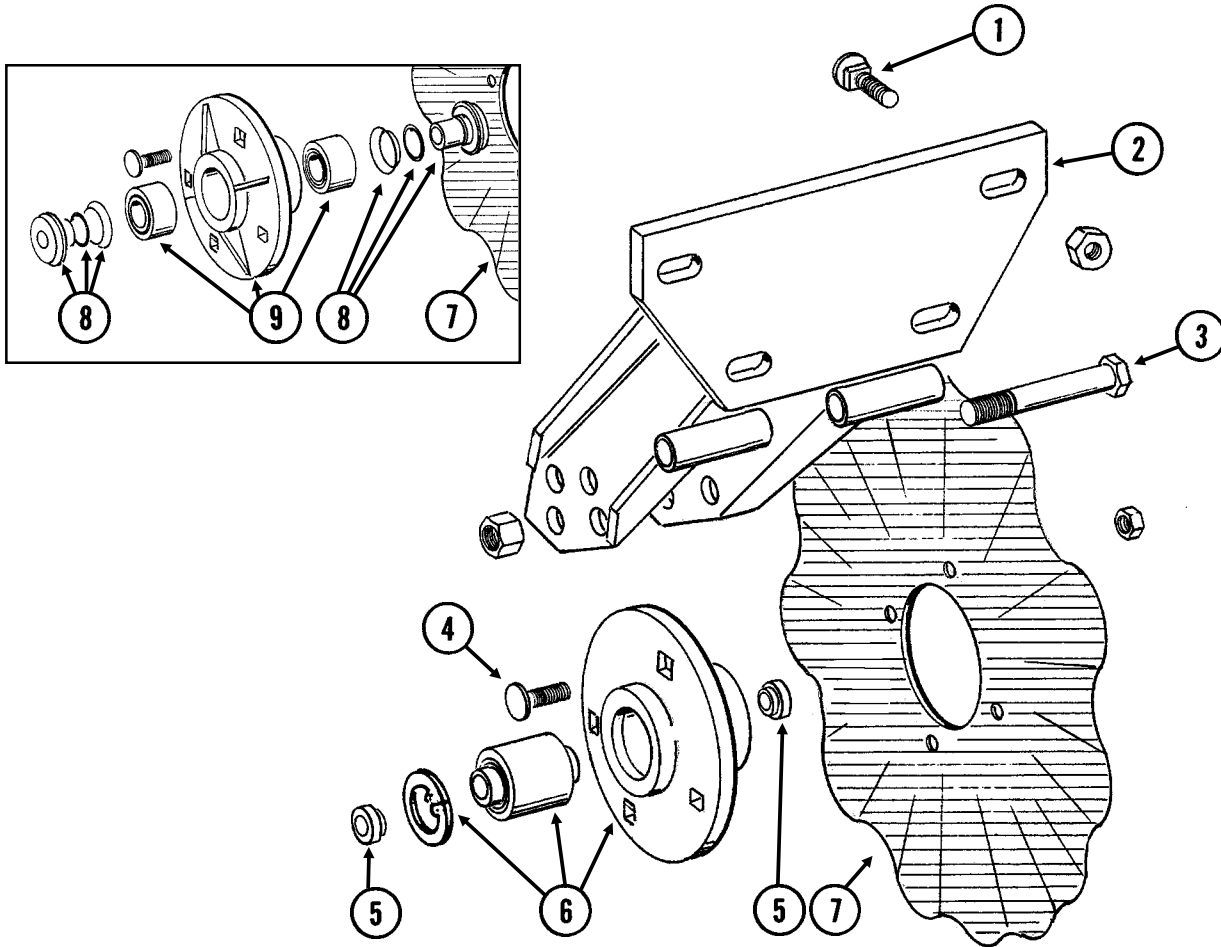
RUA055(RU95)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10621	4	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	Flange Nut, 3/8"-16
6.	GD1145	7	Spring Tooth
7.	G10308	9	Carriage Bolt, 3/8"-16 x 3/4"
	G10622	9	Flange Nut, 3/8"-16
8.	GD1144	1	Rear Bracket
9.	GA2094	2	Cable Assembly

ROW UNIT MOUNTED NO TILL COULTER

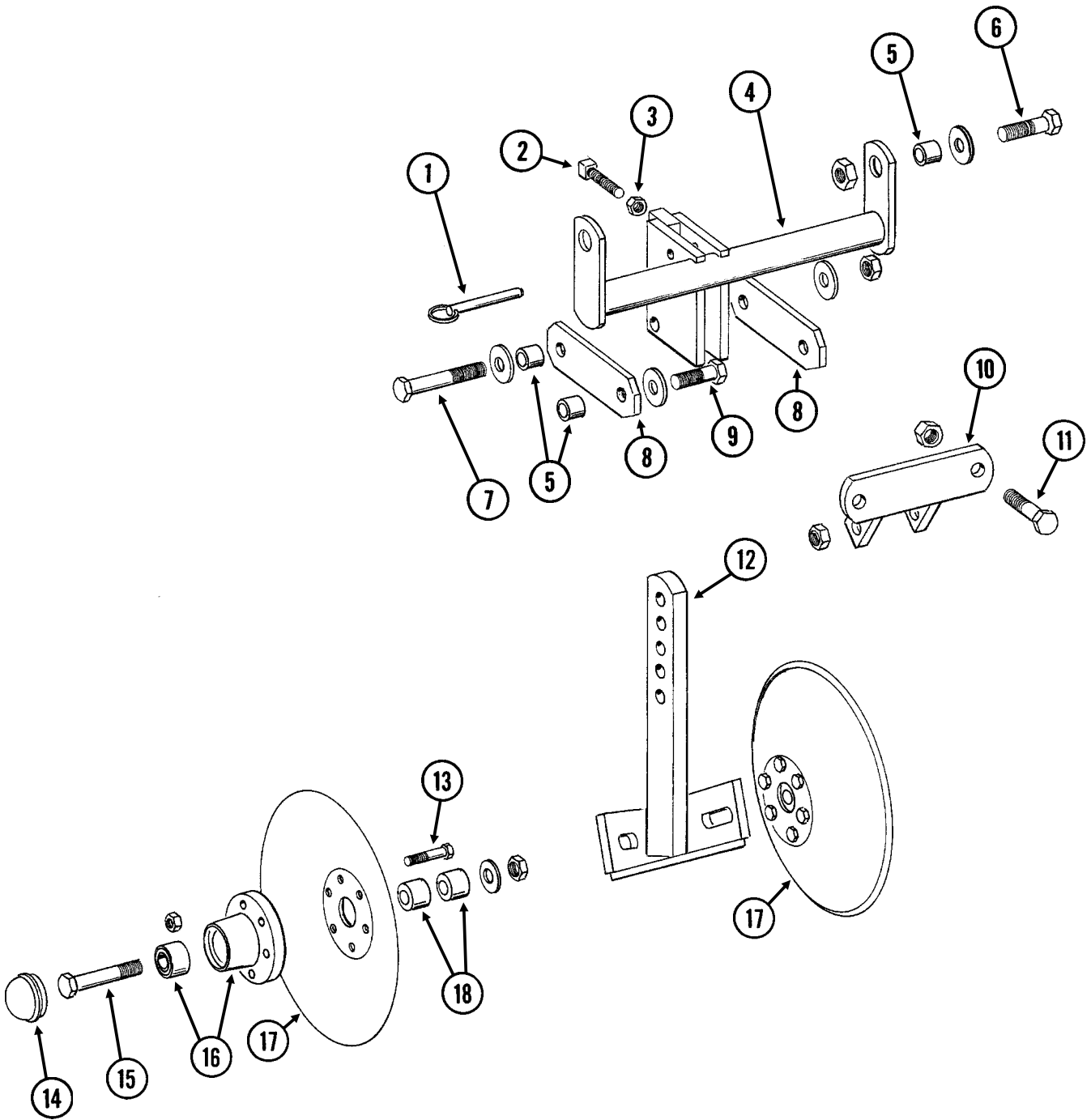
RUA061(RU102/RU102c)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
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
8.	GB0227	2	Adapter W/O-Ring And Spring Washer
	GD8844	2	O-Ring
	GD8843	2	Spring Washer
9.	GA5640	1	Hub W/Bearings And Grease Fitting (Sub G1K289)
	GA5622	-	Bearing (2 Used Per Hub)
	G10640	-	Grease Fitting, 1/4"-28

ROW UNIT MOUNTED DISC FURROWER

RUA059/RUA058(RU99/RU98)

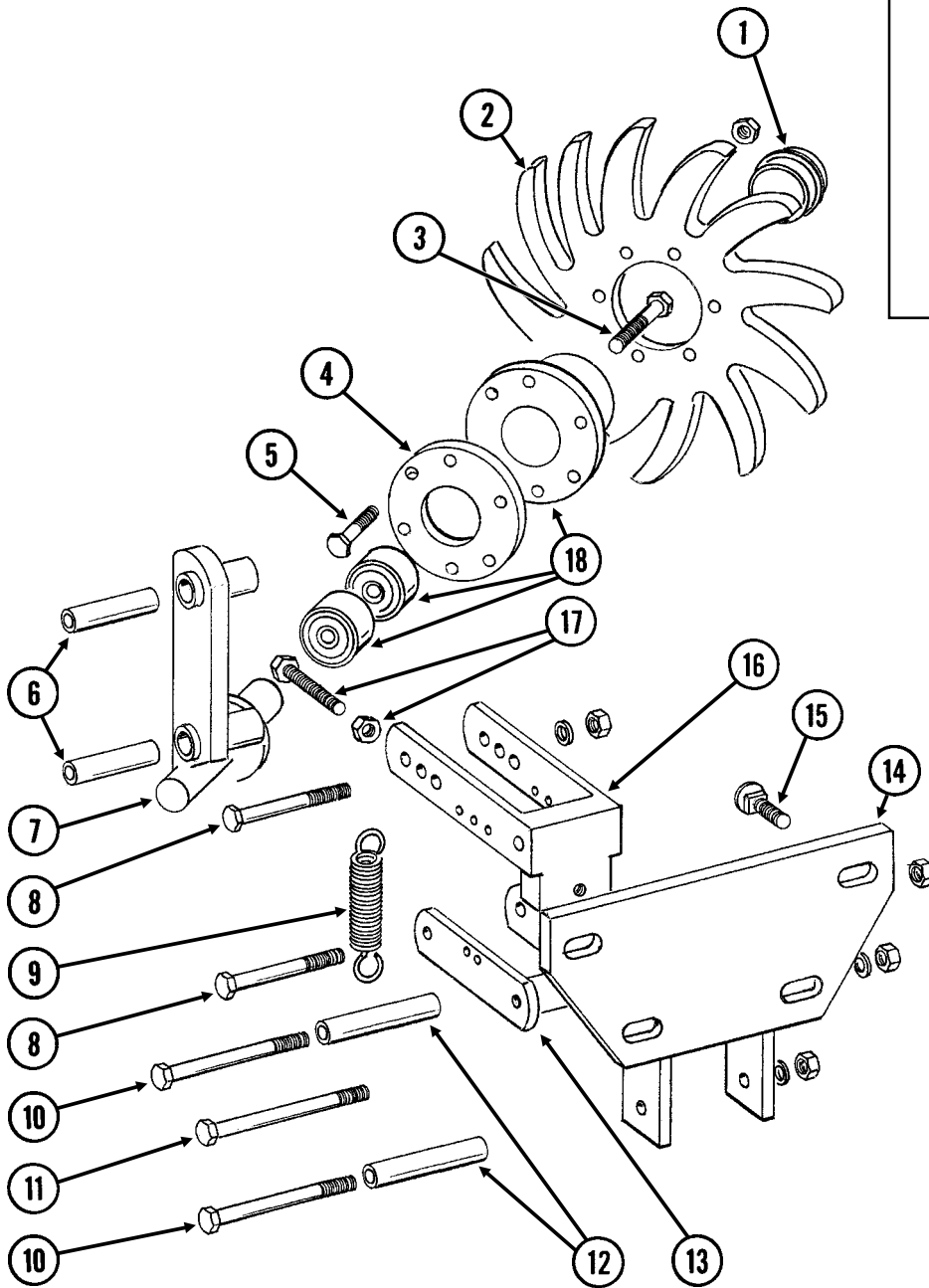


ROW UNIT MOUNTED DISC FURROWER

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10536	1	Detent Pin, 1/2" x 2 1/2"
2.	G10597	1	Hex Socket Head Set Screw, 5/8"-11 x 2 1/4"
3.	G10503	1	Jam Nut, 5/8"-11
4.	GA5719	1	Mounting Bracket
5.	GD7889	6	Bushing
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, 11/16" I.D. x 3/4" Long
	GD7817-04	2	Spacer, 11/16" I.D. x 1/2" Long

ROW UNIT MOUNTED RESIDUE WHEEL

RUA062(RU103/RU103b)

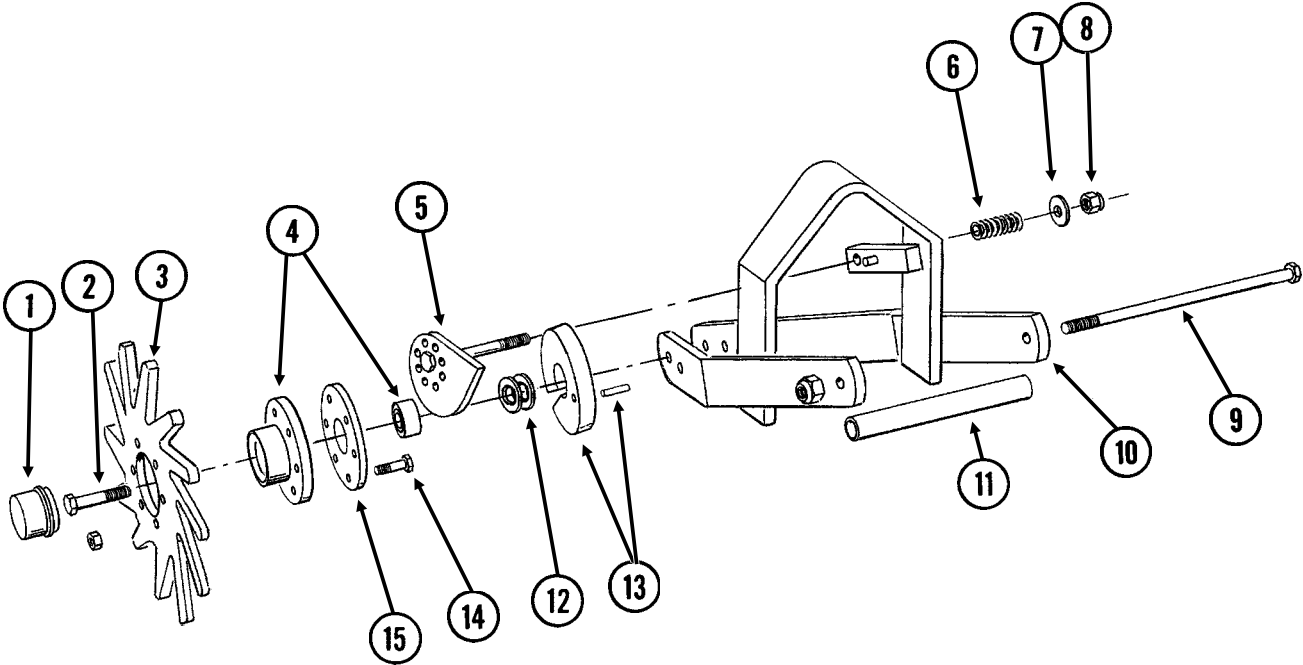


ROW UNIT MOUNTED RESIDUE WHEEL

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1132	1	Dust Cap
2.	GD10552	1	Wheel, $\frac{3}{8}$ " 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 $\frac{1}{2}$ "

COULTER MOUNTED RESIDUE WHEELS

RUA063(RU104i)

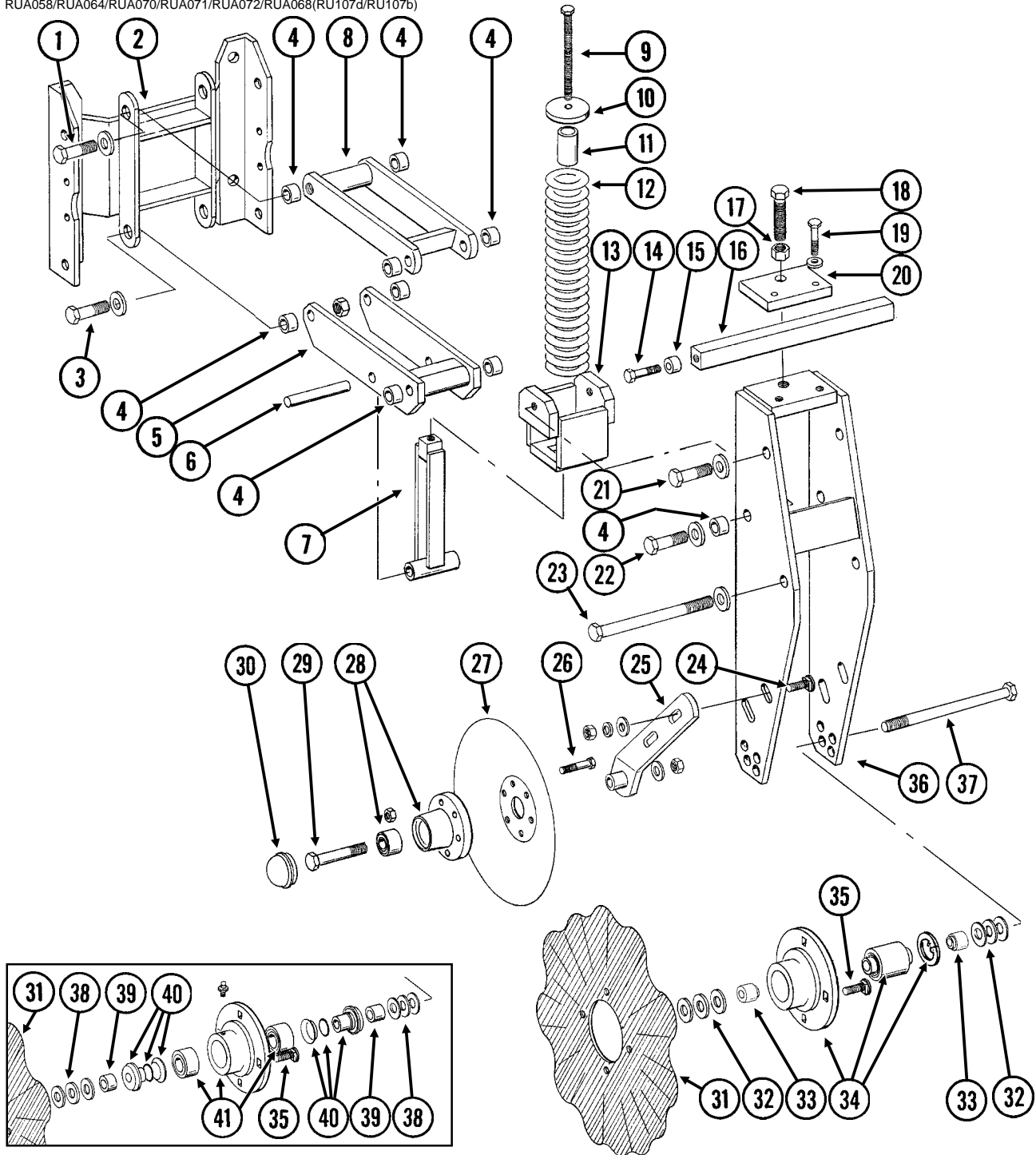


COULTER MOUNTED RESIDUE WHEELS

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1132	2	Dust Cap
2.	G10009	2	Hex Head Cap Screw, 5/8"-11 x 2 1/2"
3.	GD10552	2	Wheel, 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.	G10148	1	Hex Head Cap Screw, 1/2"-13 x 9 1/2"
	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
10.	GA7271	1	Mount
11.	GD10526	1	Sleeve, 7 1/2"
12.	G10213	4	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
15.	GD9724	2	Backing Plate
A.	GA7446	-	Wheel Assembly, R.H. (Items 3, 4, 14 And 15) (Shown)
	GA7445	-	Wheel Assembly, L.H. (Items 3, 4, 14 And 15)

FRAME MOUNTED COULTER W/DISC FURROWER

RUA058/RUA064/RUA070/RUA071/RUA072/RUA068(RU107d/RU107b)



ITEM PART NO. QTY. DESCRIPTION
(Per Row)

1.	G10008	2	Hex Head Cap Screw, 5/8"-11 x 2"
	GD7805	2	Special Washer, 5/8", Hardened
2.	GA5798	1	Support Plate
3.	G10008	2	Hex Head Cap Screw, 5/8"-11 x 2"
	GD7805	2	Special Washer, 5/8", Hardened
	G10107	2	Lock Nut, 5/8"-11
4.	GB0218	10	Bushing, 21/32" I.D. x 7/8" O.D. x 19/32" Long
5.	GA5631	1	Lower Parallel Link
6.	GD7815	1	Pin, 5/8" x 4 1/4"
7.	GA5635	1	Spring Guide

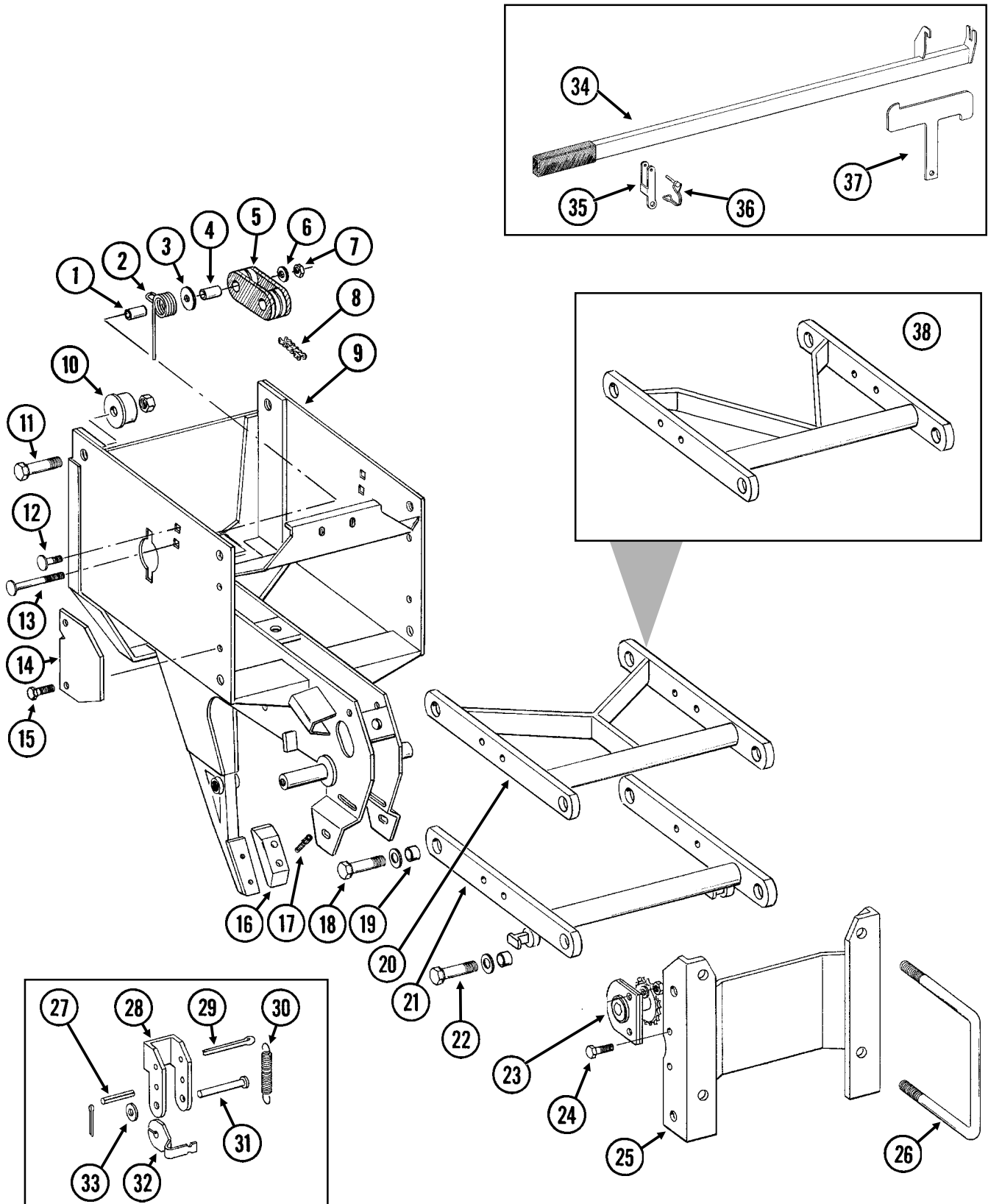
FRAME MOUNTED COULTER W/DISC FURROWER

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
8.	GA5630	1	Upper Parallel Link
9.	G10573	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2", Full Thread
10.	GB0196	1	Washer
11.	GD7817-09	1	Spacer, 1 1/16" I.D. x 1 3/4" Long
12.	GD7831	1	Compression Spring
13.	GA5637	1	Spring Socket
14.	GD7818	2	Special Bolt
15.	GD7817-01	2	Spacer, 1 1/16" I.D. x 3/4" Long
16.	GD7816	1	Depth Control Bar
17.	G10104	1	Hex Nut, 5/8"-11
18.	G10582	1	Hex Head Cap Screw, 5/8"-11 x 4", Full Thread
19.	G10581	2	Hex Head Cap Screw, 1/2"-13 x 2 1/4"
	G10228	2	Lock Washer, 1/2"
20.	GD7811	1	Depth Adjustment Clamp
21.	G10008	2	Hex Head Cap Screw, 5/8"-11 x 2"
	GD7805	2	Special Washer, 5/8", Hardened
	GD1109	-	Bushing, 41/64" I.D. x 7/8" O.D. x 1/4" Long (As Required)
	G10107	1	Lock Nut, 5/8"-11
22.	G10055	2	Hex Head Cap Screw, 5/8"-11 x 1 1/4"
	GD7805	2	Special Washer, 5/8", Hardened
23.	G10012	1	Hex Head Cap Screw, 5/8"-11 x 6 1/2"
	GD7805	2	Special Washer, 5/8", Hardened
	GD1109	-	Bushing, 41/64" I.D. x 7/8" O.D. x 1/4" Long (As Required)
	G10107	1	Lock Nut, 5/8"-11
24.	G10747	4	Carriage Bolt, 1/2"-13 x 2"
	G10206	-	Washer, 1/2" SAE (As Required)
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
25.	GA5636	2	Arm
26.	G10572	12	Truss Head Slotted Machine Screw, 5/16"-18 x 7/8"
	G10106	12	Hex Nut, 5/16"-18
27.	GD7823	2	Disc Blade, Solid, 12" (Shown)
	GD8307	-	Disc Blade, Notched, 12"
28.	GA5654	2	Hub W/Bearings
	GA2014	4	Bearing
29.	G10036	2	Hex Head Cap Screw, 5/8"-11 x 4"
	G10107	2	Lock Nut, 5/8"-11
30.	GD1132	2	Dust Cap
31.	GD7803	1	Disc Blade, Fluted, 1", 8 Flutes (Shown)
	GD7804	-	Disc Blade, Bubbled, 1"
	GD9254	-	Disc Blade, Fluted, 3/4", 13 Flutes
32.	G10213	-	Machine Bushing, 5/8", (.030" Thick) (As Required)
	G10918	-	Machine Bushing, 5/8", 14 Gauge (As Required)
33.	GD11698	2	Adapter
34.	GA8641	1	Hub W/Bearing And Retaining Ring
	GA8603	-	Double Row Bearing
	GD11652	-	Retaining Ring, 2 7/16"
35.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
36.	GA5643	1	Fork Mount
37.	G10068	1	Hex Head Cap Screw, 5/8"-11 x 6"
	G10107	1	Lock Nut, 5/8"-11
38.	G10217	-	Washer, 5/8" USS (As Required)
39.	GD7817-04	2	Spacer, 1 1/16" I.D. x 1/2" Long
40.	GB0227	2	Adapter W/O-Ring And Spring Washer
	GD8844	-	O-Ring
	GD8843	-	Spring Washer
41.	GA5640	1	Hub W/Bearings And Grease Fitting (Sub G1K290)
	GA5622	-	Bearing (2 Used Per Hub)
	G10640	-	Grease Fitting, 1/4"-28

INTERPLANT® PUSH ROW UNIT

RPU011/RPU012/RPU013(RU89/RU121/RU89i)

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.

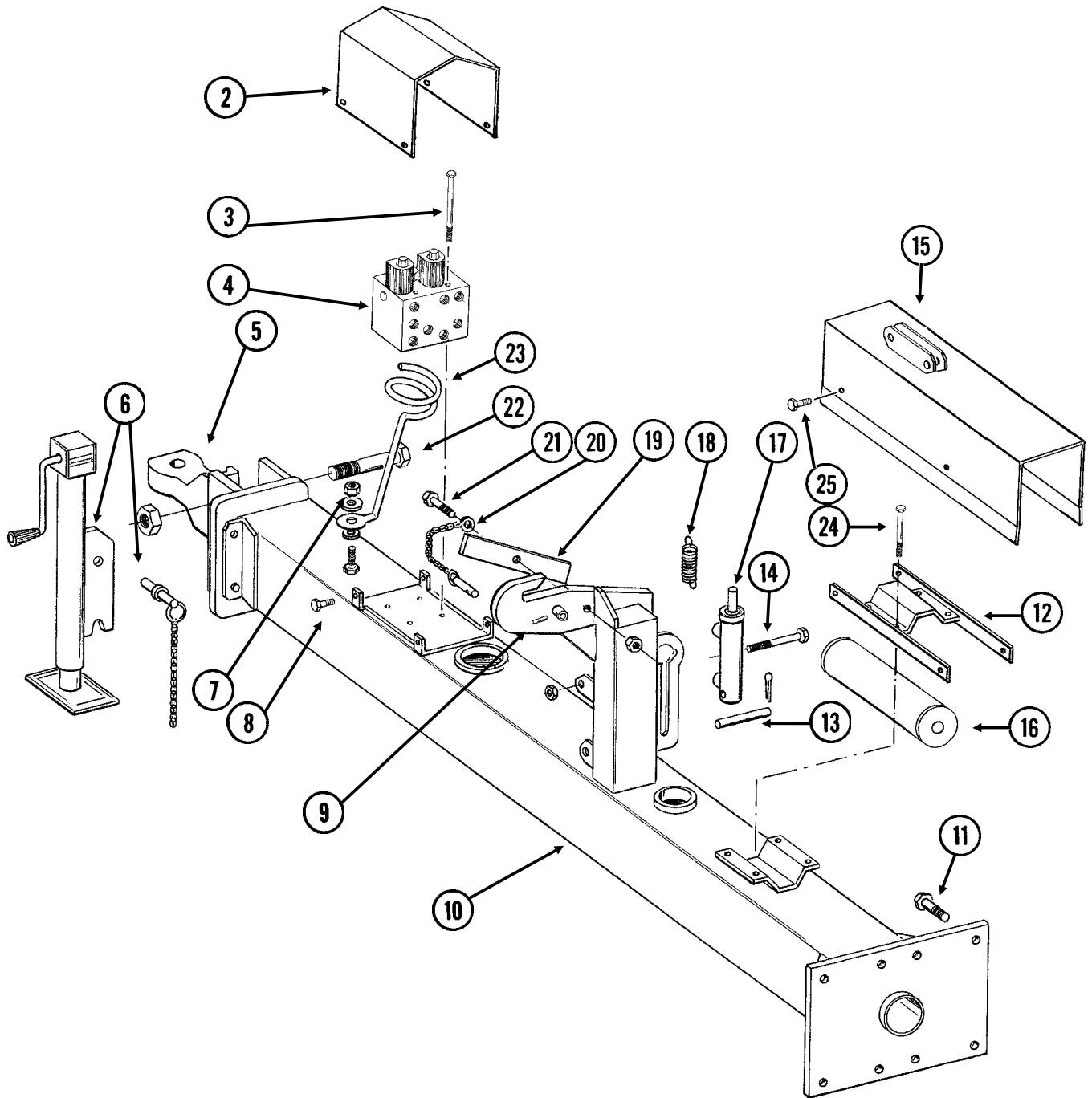
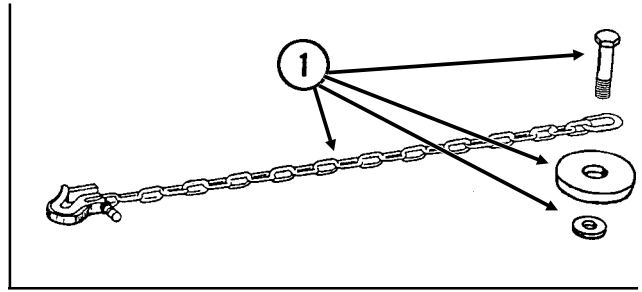


INTERPLANT® PUSH ROW UNIT

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD8893-01	1	Sleeve, 1 3/8" Long
2.	GD11218	1	Spring
3.	G10201	1	Special Washer, 3/8" x 1 1/2" O.D.
4.	GD1026	1	Sleeve, 1 3/16" Long
5.	GD11962	1	Idler
6.	G10210	1	Washer, 3/8" USS
7.	G10108	1	Lock Nut, 3/8"-16
8.	G3303-96	1	Chain, No. 41, 96 Pitch Including Connector Link
	GR0196	1	Connector Link, No. 41
9.	GA8037	-	Push Unit Shank
10.	GB0286	2	Hopper Mount
11.	G10751	2	Hex Head Cap Screw, 5/8"-18 x 1 3/4"
	G10412	2	Lock Nut, 5/8"-18
12.	G10599	1	Carriage Bolt, 3/8"-16 x 1 1/4"
	G10101	1	Hex Nut, 3/8"-16
	G10108	1	Lock Nut, 3/8"-16
13.	G10307	1	Carriage Bolt, 3/8"-16 x 3 1/2"
14.	GD10867	2	Stop
15.	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10108	4	Lock Nut, 3/8"-16
16.	GB0284	1	Seed Tube Guard/Inner Scraper
17.	G10912	2	Hex Socket Head Cap Screw, 5/16"-18 x 1", Grade 8
18.	G10751	4	Hex Head Cap Screw, 5/8"-18 x 1 3/4"
	GD7805	4	Special Washer, 5/8", Hardened
	G10412	4	Lock Nut, 5/8"-18
19.	GB0218	8	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
20.	GA5788	1	Upper Arm
21.	GA5787	1	Lower Arm
22.	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
23.	GA1720	1	Bearing/Sprocket, 7/8" Hex Bore
24.	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
25.	GA5786	1	Mounting Plate
26.	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.	G10718	2	Spring Pin, 5/16" x 1 1/8"
28.	GD11264	2	Lockup
29.	G10463	2	Cotter Pin, 1/4" x 1 1/2"
30.	GD11447	2	Spring
31.	G10284	2	Clevis Pin, 1/2" x 1 1/2"
	G10456	2	Cotter Pin, 1/8" x 3/4"
32.	GD11263	2	Spring Tab
33.	G10216	2	Washer, 1/2" USS
34.	GA8651	1	Lift Lever W/Boot
	GD11649	-	Boot
35.	GD11659	1	Bracket
36.	GD9695	1	Wire Lock Pin, 1/4" x 1 3/4"
37.	GD11752	1	Mount
38.	GA8930	-	Upper Arm

HITCH AND SAFETY CHAIN

WAC011/PHA048/PHS049(WGN47b/TWL169)

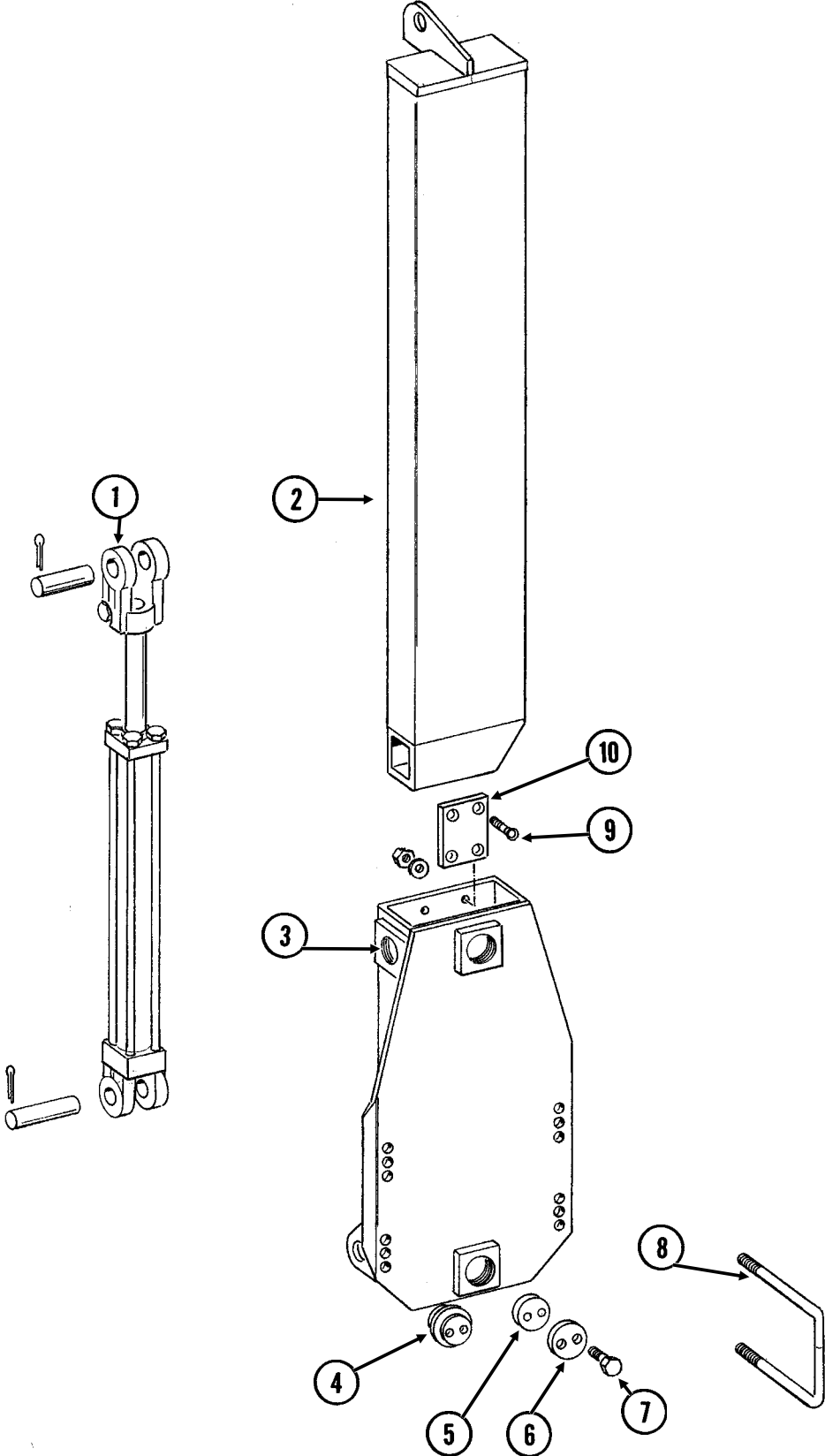


HITCH AND SAFETY CHAIN

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G1K299	1	Safety Chain Kit, $\frac{3}{8}$ " (Optional)
	G10119	1	Hex Head Cap Screw, 1"-8 x 3"
	GD10646	1	Special Washer
	G10200	1	Washer, 1" USS
	G10396	1	Lock Nut, 1"-8
2.	GD11510	-	Cover
3.	G10935	4	Hex Head Cap Screw, $\frac{1}{4}$ "-20 x 5"
	G10209	4	Washer, $\frac{1}{4}$ " USS
	G10227	4	Lock Washer, $\frac{1}{4}$ "
4.		-	See "Valve Block - Located On Hitch", Page P65
5.	GB0237	1	Clevis, Single
6.	GA4994	1	Jack Assembly Complete
	GA4995	-	Detent Pin Assembly
	GR0517	-	Pin
	GR0516	-	Crank Assembly
	GR0515	-	Bevel Gear
7.	G10217	1	Washer, $\frac{5}{8}$ " USS
	G10107	1	Lock Nut, $\frac{5}{8}$ "-11
8.	G10043	4	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ "
	G10232	4	Lock Washer, $\frac{5}{16}$ "
	G10106	4	Hex Nut, $\frac{5}{16}$ "-18
9.	G10765	-	Spring Pin, $\frac{1}{4}$ " x 1"
10.	A8349	-	Front Hitch (Non-Stock Item)
11.	G10441	8	Hex Head Cap Screw, $\frac{7}{8}$ "-9 x 3", Grade 8
	GD10063	16	Hardened Washer
	G10442	8	Hex Nut, $\frac{7}{8}$ "-9
12.	GA8765	1	Cover Mount
13.	GD7137	1	Pin, $\frac{3}{4}$ " x 3 $\frac{3}{8}$ "
	G10457	2	Cotter Pin, $\frac{5}{32}$ " x 1 $\frac{1}{2}$ "
14.	G10061	1	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 3 $\frac{1}{2}$ "
	GD2971-09	1	Sleeve, 2" Long
	G10229	1	Lock Washer, $\frac{3}{8}$ "
	G10101	1	Hex Nut, $\frac{3}{8}$ "-16
15.	GA8764	1	Cover/Bracket, Jack Storage
16.		-	See "Master Cylinder", Page P56
17.		-	See "Transport Latch Cylinder", Page P59
18.	GD5857	1	Spring
19.	GA7016	1	Catch Bar
20.	GA7022	1	Detent Pin W/Chain (Transport Latch Locking Pin)
21.	G10006	1	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 2 $\frac{1}{4}$ "
	GB0218	1	Bushing, $\frac{21}{32}$ " I.D. x $\frac{7}{8}$ " O.D. x $\frac{19}{32}$ " Long
	GD5154	1	Shim, 4" x 4"
	G10107	1	Lock Nut, $\frac{5}{8}$ "-11
22.	G10169	1	Hex Head Cap Screw, 1 $\frac{1}{4}$ "-7 x 6"
	G10157	1	Lock Nut, 1 $\frac{1}{4}$ "-7
23.	GD8260	1	Hose Holder
24.	G10063	4	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 4"
	G10029	4	Lock Washer, $\frac{3}{8}$ "
	G10101	4	Hex Nut, $\frac{3}{8}$ "-16
25.	G10001	4	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1"
	G10229	4	Lock Washer, $\frac{3}{8}$ "

TRANSPORT LATCH POST

PHA049(2400m)

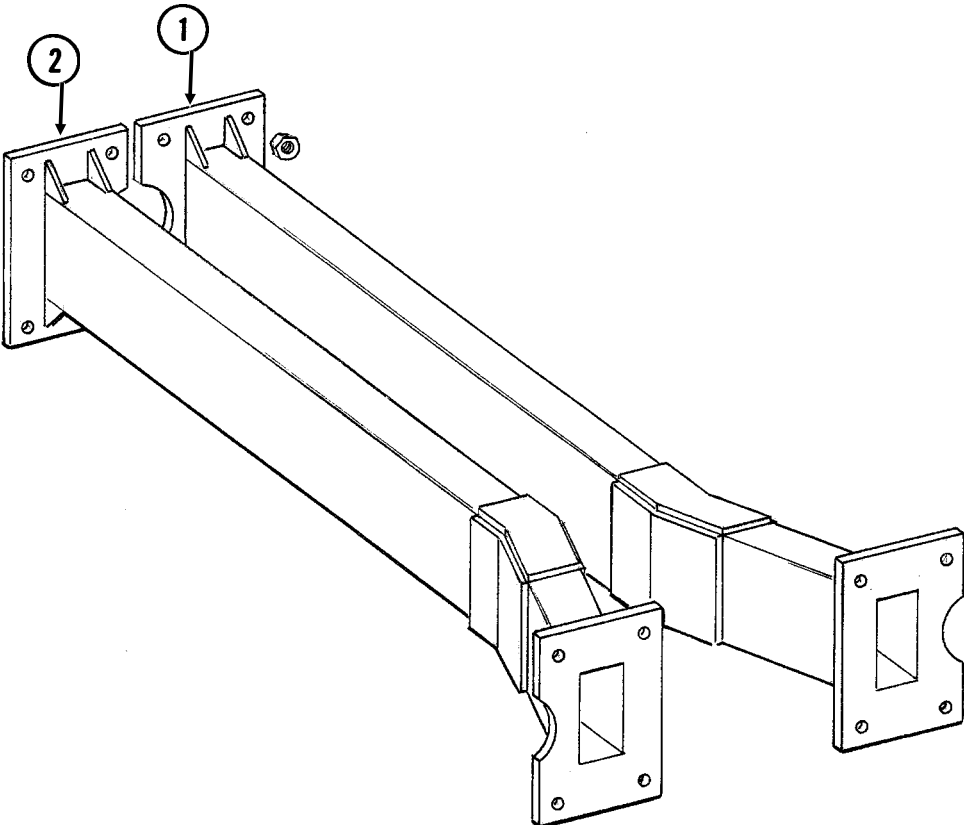
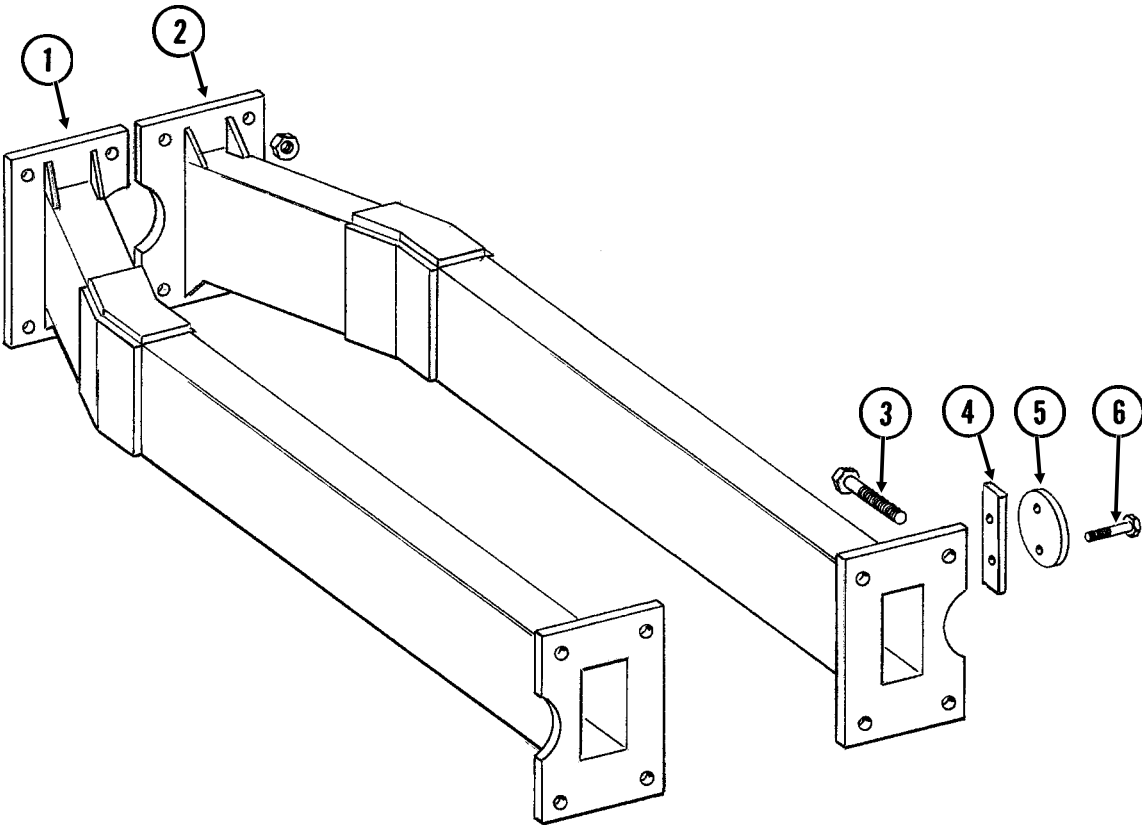


TRANSPORT LATCH POST

ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Transport Latch Post Cylinder", Page P60
2.	GA8356	1	Catch Post
3.	GA8357	1	Catch Mount
4.	GD9093	6	Poly Wear Pad
5.	GB0230	6	Cap
6.	GB0234	6	Adjustment Plug
7.	G10438	8	Hex Head Cap Screw, 1/2"-13 x 3/4"
	G10014	4	Hex Head Cap Screw, 1/2"-13 x 1"
8.	GD11489	2	U-Bolt, 3" x 6" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
9.	G10934	8	Flat Head Hex Socket Cap Screw, 5/16"-18 x 1"
	G10221	8	Washer, 5/16" SAE
	G10232	8	Lock Washer, 5/16"
	G10106	8	Hex Nut, 5/16"-18
10.	GD11473	2	Pad

HITCH EXTENSIONS

PHA050/PHA051(2400L)

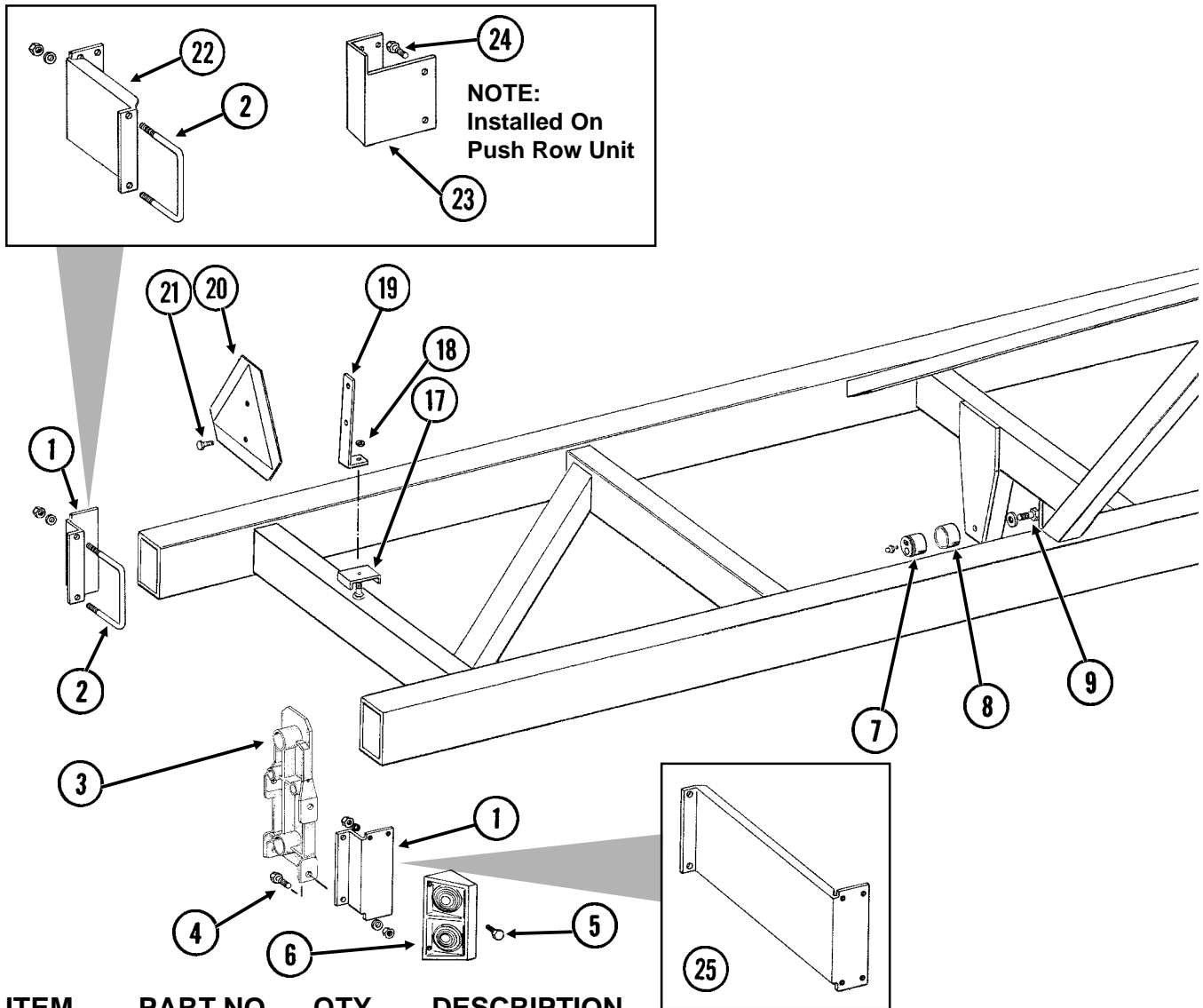


HITCH EXTENSIONS

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8350	1	Hitch Extension W/Push Unit Hole, R.H.
2.	GA8362	1	Hitch Extension W/Fertilizer Hole, L.H.
3.	G10441	8	Hex Head Cap Screw, $\frac{7}{8}$ "-9 x 3", Grade 8
	GD10063	16	Hardened Washer
	G10442	8	Hex Nut, $\frac{7}{8}$ "-9
4.	GD11512	1	Dust Cap Bar
5.	GD11507	1	Dust Cap
6.	G10048	2	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 2"
	G10229	2	Lock Washer, $\frac{3}{8}$ "

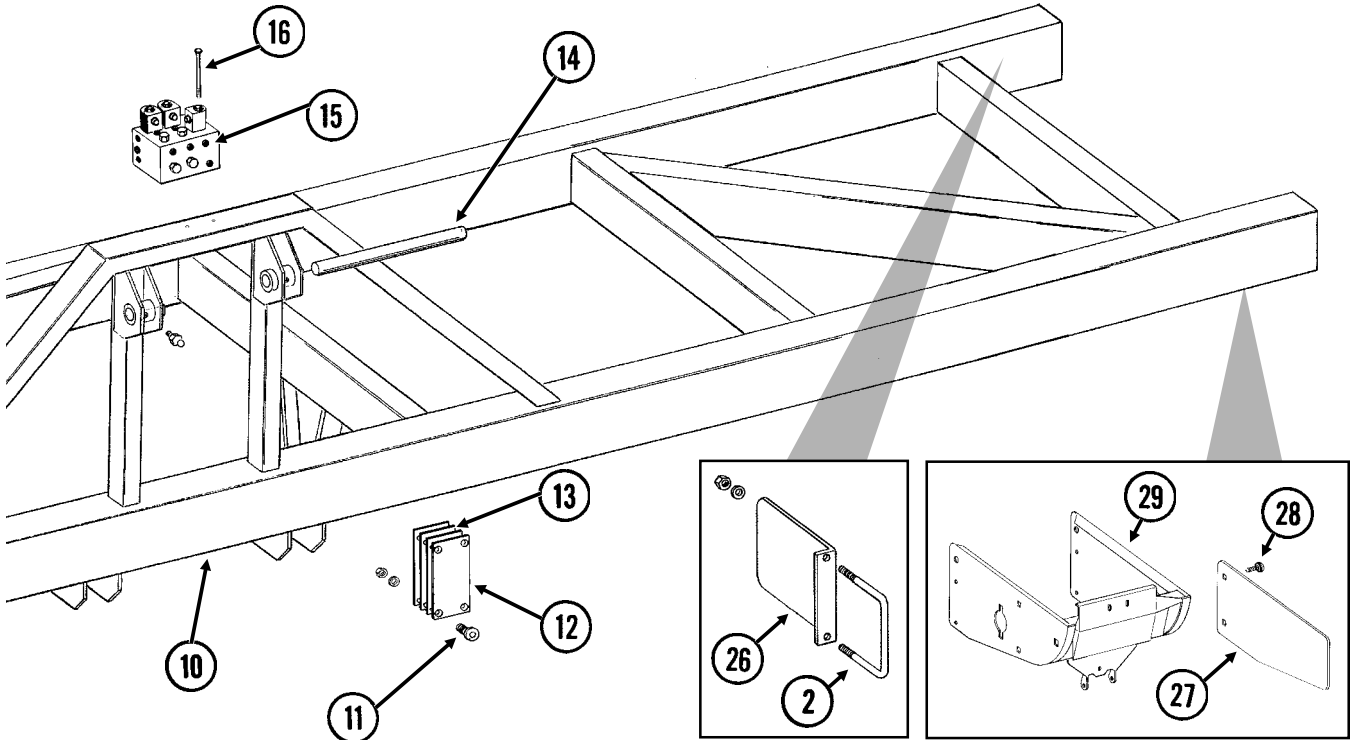
PLANTER FRAME

PFA080/PFA081a/PFA081b/PFA081c/PFA084(TWL178/TWL180/2400i/TWL179/2400j/TWL181/TWL182)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA6792	2	Light Bracket
2.	GD1113	1-2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	2-4	Lock Washer, 5/8"
	G10104	2-4	Hex Nut, 5/8"-11
3.		-	See "Transmission", Pages P50 And P51
4.	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
5.	G10064	8	Hex Head Cap Screw, 1/4"-20 x 1"
	G10227	8	Lock Washer, 1/4"
	G10103	8	Hex Nut, 1/4"-20
6.		-	See "Electrical Components", Pages P72 And P73
7.	GA6497	2	Cam Follower W/Grease Fitting
	G10640	-	Grease Fitting, 1/4"-28
8.	GD10532	2	Sleeve
9.	G10025	2	Hex Head Cap Screw, 3/4"-10 x 1 1/2"
	G10231	2	Lock Washer, 3/4" (If Applicable)
	GD9052	2	Special Washer, 3/4" I.D. x 2" O.D.
10.	A8352	1	Frame, 270" (Non-Stock Item)

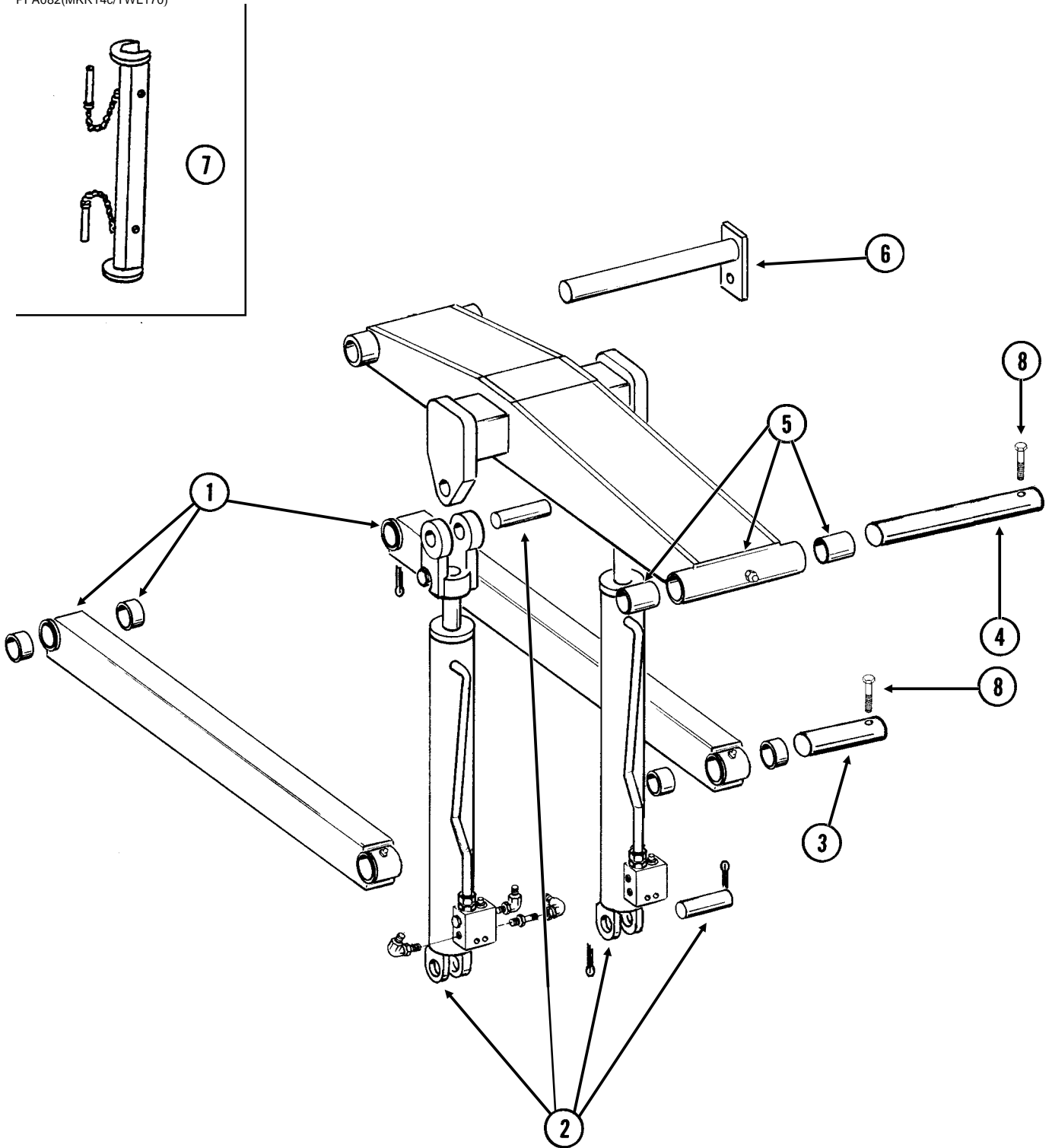
PLANTER FRAME



ITEM	PART NO.	QTY.	DESCRIPTION
11.	G10361	8	Flat Head Hex Socket Countersunk Cap Screw, 1/2"-13 x 1 1/2"
	G10228	8	Lock Washer, 1/2"
	G10102	8	Hex Nut, 1/2"-13
12.	GD11362	2	Push Pad
13.	GD11359	6	Shim
14.		-	See "Frame Lift Linkage", Pages P40 And P41
15.		-	See "Valve Block - Located On Rear Center Frame", Page P67
16.	G10937	1	Hex Head Cap Screw, 3/8"-16 x 6 1/2"
	G10954	1	Hex Head Cap Screw, 3/8"-16 x 7"
	G10210	2	Washer, 3/8" USS
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
17.	GD0740	-	Hose Clamp, 3/4" x 4" x 3 1/2"
	GD5875	-	Hose Clamp, 9/16" x 2 1/2" x 2"
18.	G10101	-	Hex Nut, 3/8"-16
19.	GD11555	-	SMV Bracket
20.			See "SMV Sign, Decals, Reflectors And Tie Straps", Pages P94-P96
21.	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
22.	GA9061	1	Light Bracket, Short
23.	GD12703	1	Push Row Unit Light Bracket
24.	G10001	2	Hex Head Cap Screw, 3/8"-16 x 1"
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
25.	GA9062	1	Light Bracket, Long
26.	GA9063	1	Reflective Decal Bracket
27.	GD12710	1	Reflective Decal Bracket
28.	G10312	2	Carriage Bolt, 5/16"-18 x 3/4"
	G10620	2	Flange Nut, 5/16"-18
29.		-	See "Hopper Support And Meter Drive", Page P12

FRAME LIFT LINKAGE

PFA082(MKR14c/TWL170)

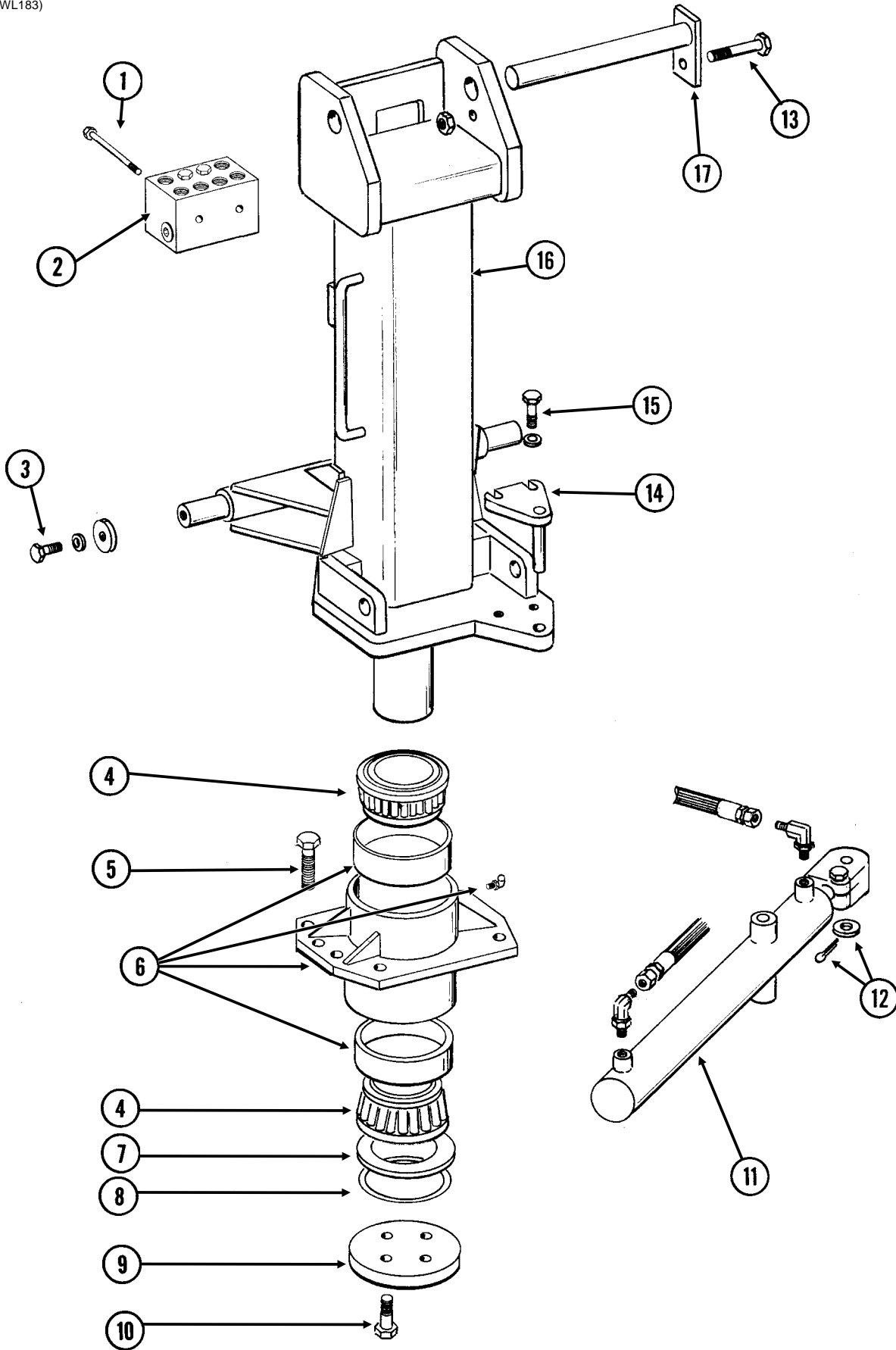


FRAME LIFT LINKAGE

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8762	2	Lower Arm W/Grease Fittings And Bronze Bushings
	G10640	-	Grease Fitting, 1/4"-28
	GD11428	-	Bronze Bushing, 1 1/4" Wide (4 Per Arm)
2.		-	See "Slave Cylinder", Page P55
3.	GD11444	2	Pin, 1 3/4" x 7 3/8"
4.	GD11445	1	Pin, 1 3/4" x 18 1/4"
5.	GA8372	1	Upper Lift Arm W/Grease Fittings And Bronze Bushings
	G10641	-	Grease Fitting, 1/8" NPT
	G10373	-	Grease Fitting, 45°, 1/8"-27
	GD11427	-	Bronze Bushing, 2" Wide (4 Per Arm)
	GD11751	-	Steel Bushing, 1" Wide (2 Per Arm)
6.		-	See "Center Pivot", Pages P42 And P43
7.	GA8172	2	Safety Lockup W/Detent Pins, 20"
	G10536	-	Detent Pin, 1/2" x 2 1/2"
8.	G10755	3	Hex Head Cap Screw, 5/16"-18 x 3"
	G10109	3	Hex Nut, 5/16"-18

CENTER PIVOT

PFA083(TWL183)

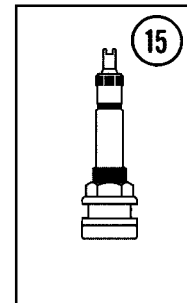
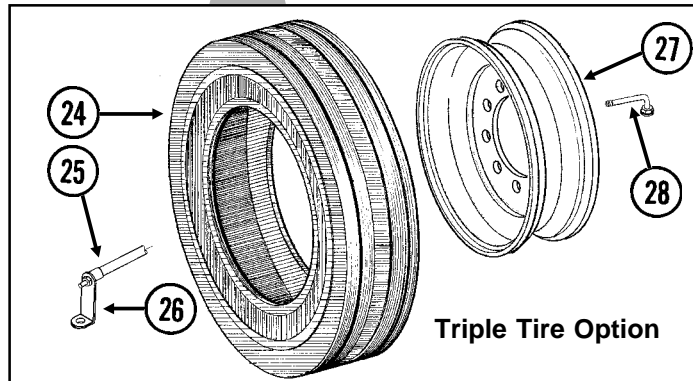
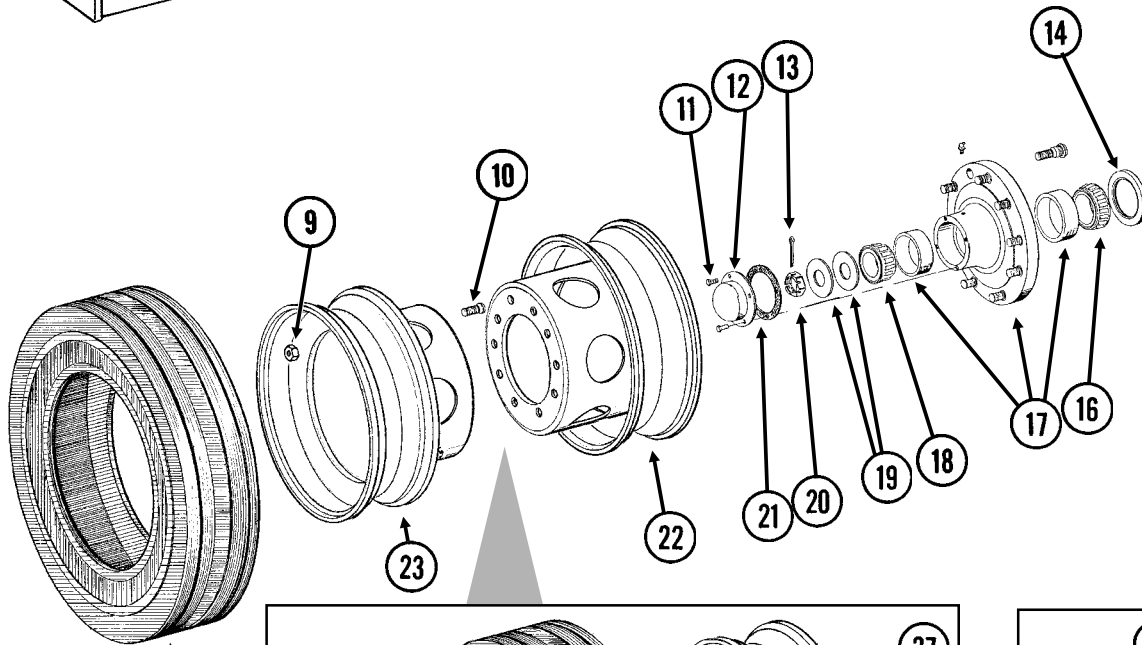
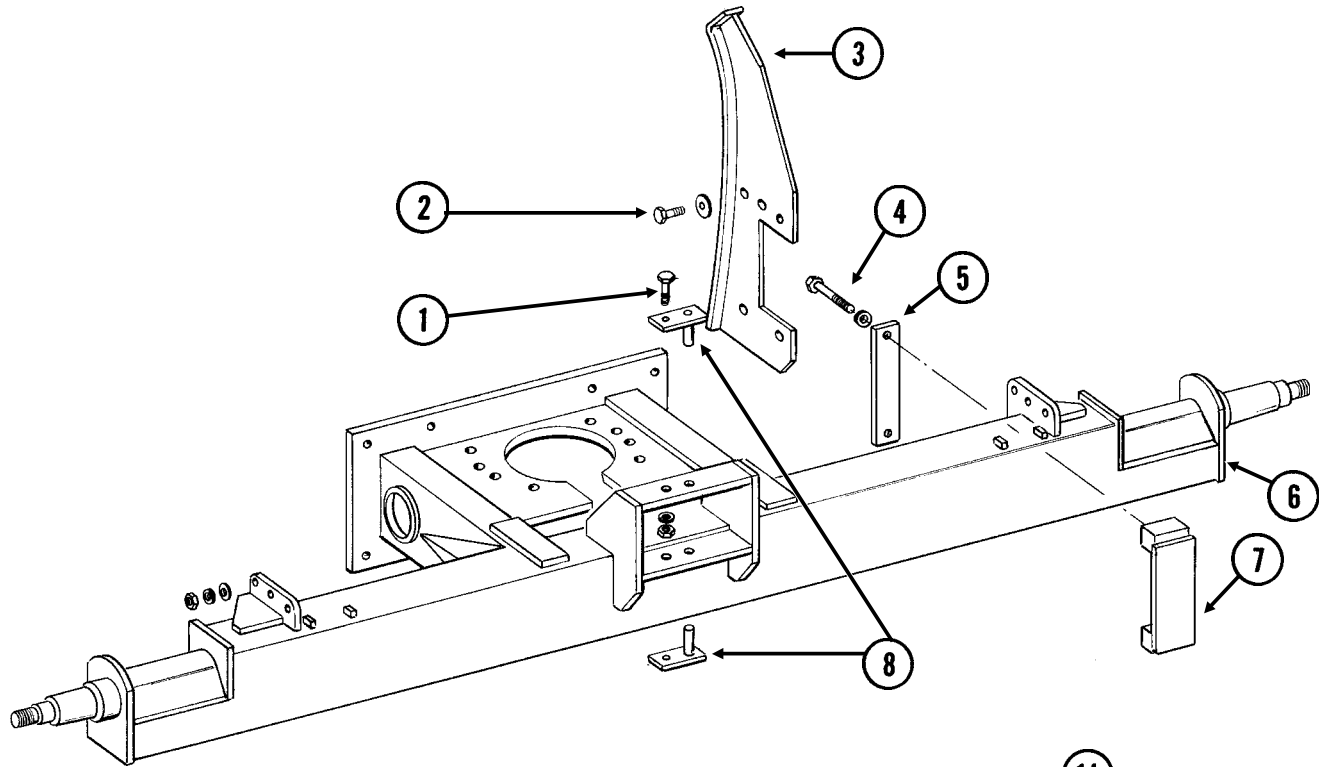


CENTER PIVOT

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10936	2	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x 3 $\frac{1}{2}$ "
	G10210	2	Washer, $\frac{3}{8}$ " USS
	G10229	2	Lock Washer, $\frac{3}{8}$ "
2.		-	See "Junction Block - Located On Front Of Center Pivot", Page P66
3.	G10007	2	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 1 $\frac{1}{2}$ "
	GD11456	2	Washer, $\frac{11}{16}$ " I.D. x 2 $\frac{1}{2}$ " O.D. x $\frac{1}{4}$ " Thick
	GD7805	2	Special Washer, $\frac{5}{8}$ ", Hardened
	G10230	2	Lock Washer, $\frac{5}{8}$ "
4.	GA7096	2	Cone
5.	G10441	8	Hex Head Cap Screw, $\frac{7}{8}$ "-9 x 3", Grade 8
	GD10063	8	Hardened Washer
	G10442	8	Hex Nut, $\frac{7}{8}$ "-9
6.	GA7067	1	Bearing Housing W/Cups And Grease Fitting
	GD10011	-	Cup
	G10779	-	Grease Fitting, 90°, $\frac{1}{4}$ "-28
7.	GD10012	10	Shim, .005" Thick (As Required)
	GD10014	10	Shim, .007" Thick (As Required)
	GD10013	10	Shim, .020" Thick (As Required)
8.	GD9130	1	O-Ring
9.	GD9636	1	Bearing Cap
10.	G10027	4	Hex Head Cap Screw, $\frac{3}{4}$ "-10 x 2 $\frac{1}{2}$ "
	GD2169	4	Special Washer, $\frac{25}{32}$ " I.D. x 1 $\frac{1}{4}$ " O.D.
11.		-	See "Rotation Cylinder", Pages P61 And P62
12.	G10139	1	Washer, 1 $\frac{1}{4}$ " USS
	G10460	1	Cotter Pin, $\frac{1}{4}$ " x 2"
13.	G10016	1	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x 2"
	G10228	1	Lock Washer, $\frac{1}{2}$ "
	G10102	1	Hex Nut, $\frac{1}{2}$ "-13
14.	GA8351	1	Hammer Strap
15.	G10394	2	Hex Head Cap Screw, $\frac{3}{4}$ "-16 x 2"
	GD2169	2	Special Washer, $\frac{25}{32}$ " I.D. x 1 $\frac{1}{4}$ " O.D.
	G10231	2	Lock Washer, $\frac{3}{4}$ "
16.	GA9064	1	Center Post
17.	GA8374	1	Hammer Strap

AXLE AND TRANSPORT/GROUND DRIVE WHEEL ASSEMBLY

HTA047/HTA048(2400q/TWL184/A7434)



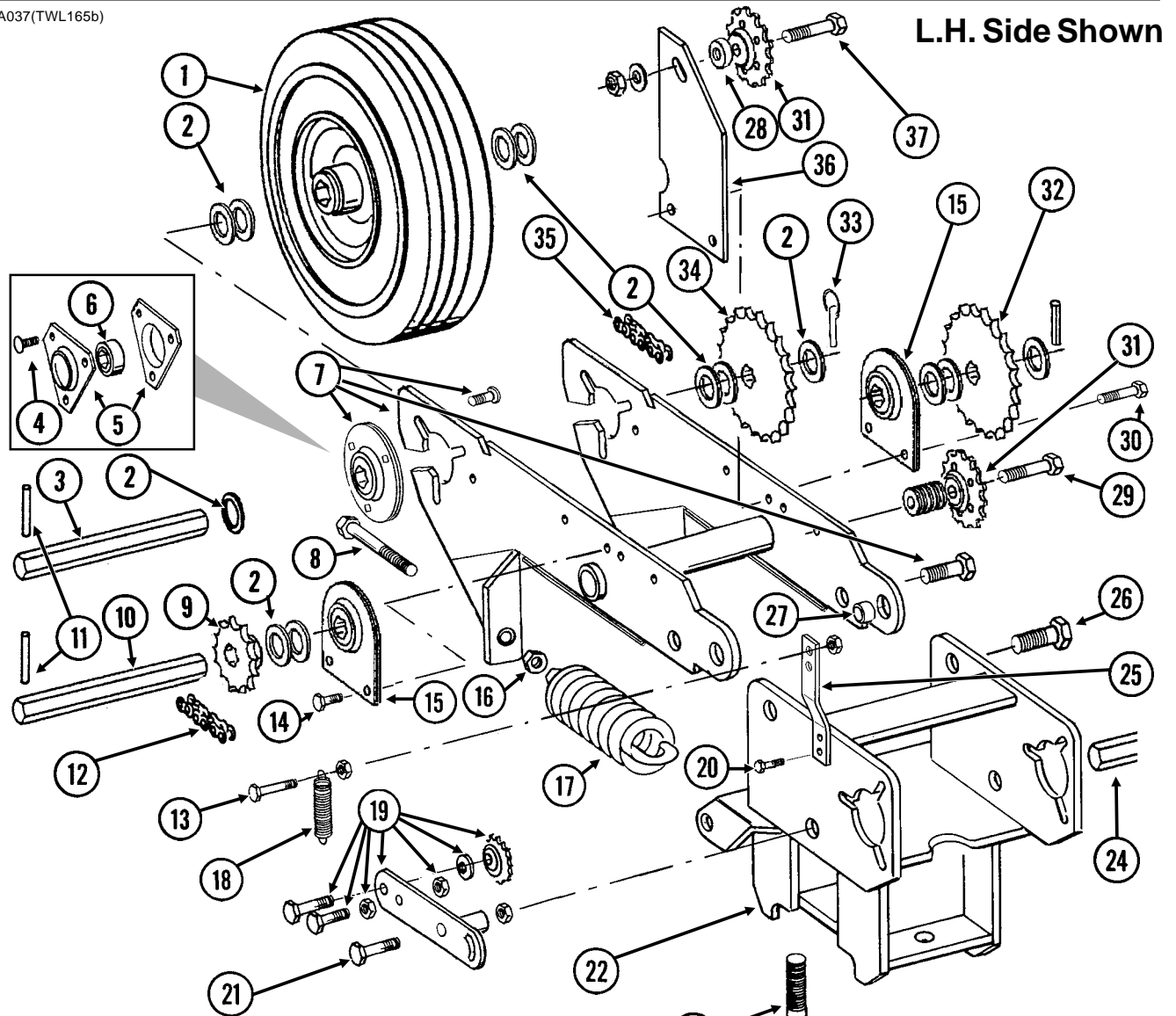
AXLE AND TRANSPORT/GROUND DRIVE WHEEL ASSEMBLY

ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
2.	G10008	10	Hex Head Cap Screw, 5/8"-11 x 2"
	GD7805	20	Special Washer, 5/8", Hardened
	G10107	10	Lock Nut, 5/8"-11
3.	GA8402	1	Cam Guide
4.	G10318	2	Hex Head Cap Screw, 5/8"-11 x 4 1/2"
	G10230	2	Lock Washer, 5/8"
5.	GD11454	1	Bar
6.	GA8348	1	Axle
7.	GA8383	1	Push Pad
8.	GA8405	2	Hammer Strap
9.	GD9509	10	Outer Budd Nut
10.	GD12567	10	Inner Budd Nut, 2 5/8" Long
11.	G10376	4	Hex Head Cap Screw, 5/16"-18 x 3/4"
12.	GD1529	1	Dust Cap
13.	G10460	1	Cotter Pin, 1/4" x 2"
14.	GA5988	1	Seal
15.	GA7434	1	Valve Stem
16.	GA5987	1	Inner Bearing
17.	GA5965	1	Hub W/Cups, Grease Fitting And Bolts (10 Bolt)
	GR0322	-	Outer Cup
	GD8532	-	Inner Cup
	G10373	-	Grease Fitting, 45°, 1/8"-27
	GR0257	-	Bolt, 3/4"-16 x 2 1/2"
18.	GA0705	1	Outer Bearing
19.	G10139	2	Washer, 1 1/4" USS
20.	G10070	1	Slotted Hex Nut, 1 1/4"-12
21.	GD1536	1	Seal
22.	GA8354	1	Long Rim, 15 1/4" Deep
23.	GA8353	1	Short Rim, 11 1/4" Deep
24.	GD10785	2-3	Tubeless Tire, 255-70R 22.5" W/O Center Rib (Specify Brand*)
25.	GA9056	1	Air Hose
26.	GD12704	1	Bracket
27.	GA8952	1	Center Rim Weld
28.	GA9139	1	Air Hose Elbow, 90°

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

CONTACT DRIVE WHEEL ASSEMBLY

PLA037(TWL165b)



ITEM	PART NO.	QTY. (Per Wheel)	DESCRIPTION
1.	GA5090 GD5753 GD5752	- 1 1	Tire And Rim Assembly (Specify Brand*) Tire, 4.10" x 6" (Specify Brand*) Tube
2.	G10233	-	Machine Bushing, 1", 10 Gauge
3.	GD6825-10.25	1	Hex Shaft, 7/8" x 10 1/4" (2 Holes)
4.	G10303 G10219 G10232 G10106	6 6 6 6	Carriage Bolt, 5/16"-18 x 1" Washer, 5/16" USS Lock Washer, 5/16" Hex Nut, 5/16"-18
5.	G3400-01	4	Flangette
6.	G2100-03	2	Bearing, 7/8" Hex Bore, Spherical
7.	A7370	1	Arm W/Flange Bearings And Hardware (Non-Stock Item) (Sub G1K253)
	G10303 G10232 G10106 GA8789 G10971 G10055 G10107	6 6 6 2 - 2 2	Carriage Bolt, 5/16"-18 x 1" Lock Washer, 5/16" Hex Nut, 5/16"-18 Flange Bearing W/Grease Fitting, 7/8" Hex Bore Grease Fitting, 45°, 1/4" Drive-In Hex Head Cap Screw, 5/8"-11 x 1 1/4" (Stop Bolt) Lock Nut, 5/8"-11
8.	G10890	2	Hex Head Adjusting Bolt, 1/2"-13 x 4", Grade 2
9.	GA5105	1	Sprocket, 15 Tooth
10.	GD6825-11.375	1	Hex Shaft, 7/8" x 11 3/8" (2 Holes)

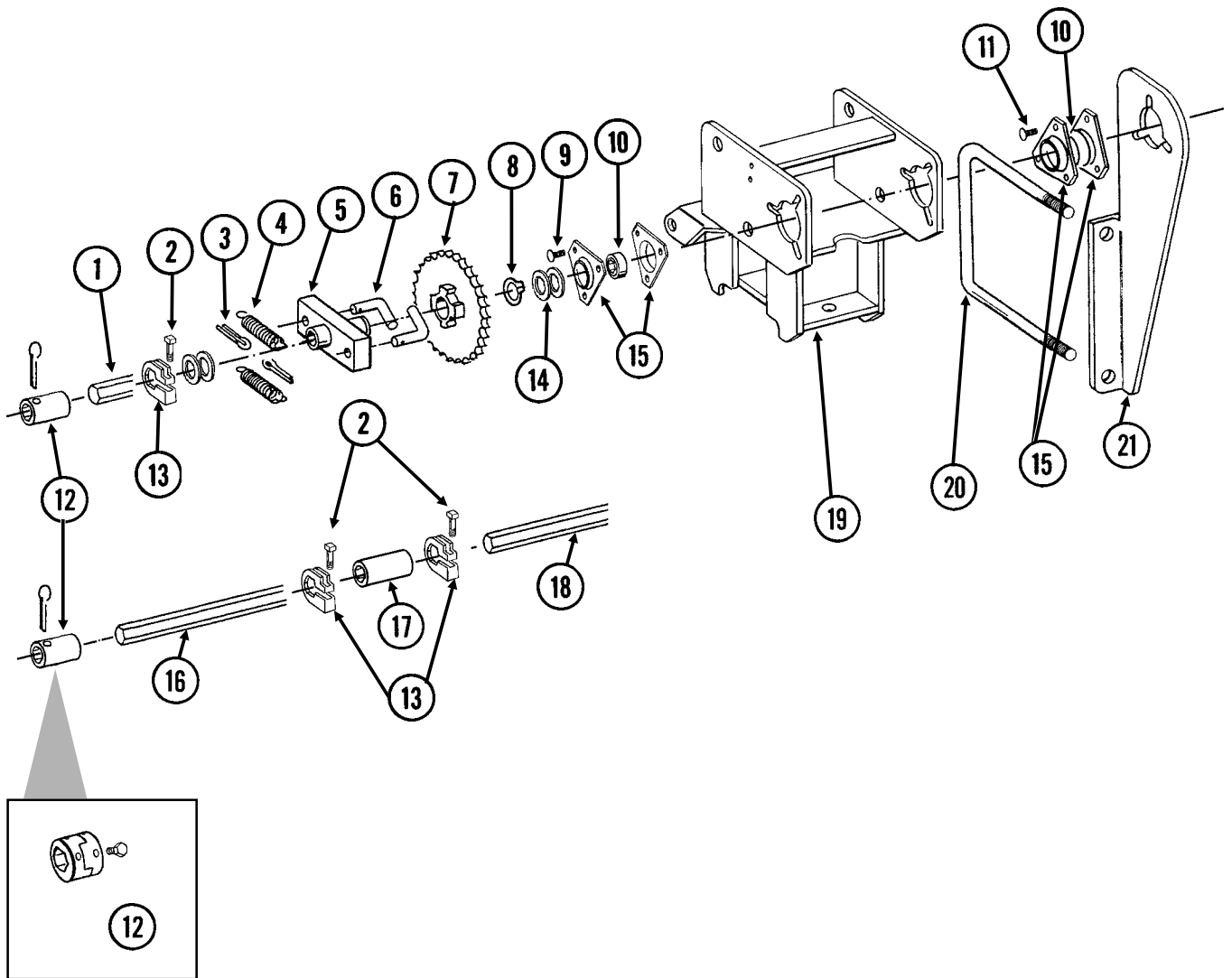
CONTACT DRIVE WHEEL ASSEMBLY

ITEM	PART NO.	QTY. (Per Wheel)	DESCRIPTION
11.	G10602	4	Spring Pin, 1/4" x 1 1/2"
12.	G3310-83	1	Chain, No. 40, 83 Pitch Including Connector Link And Offset Link
	GR0912	-	Connector Link, No. 40
	GR0911	-	Offset Link, No. 40
13.	G10746	1	Hex Head Cap Screw, 1/4"-20 x 2 3/4"
	G10103	1	Hex Nut, 1/4"-20
	G10110	1	Lock Nut, 1/4"-20
14.	G10001	3	Hex Head Cap Screw, 3/8"-16 x 1"
	G10229	3	Lock Washer, 3/8"
	G10101	3	Hex Nut, 3/8"-16
15.	GA2180	2	Hanger Bearing, 7/8" Hex
16.	G10501	2	Jam Nut, 1/2"-13
17.	GA2068	2	Spring
18.	GD5857	1	Spring
19.	GA8477	1	Idler W/Sprocket And Hardware
	G10100	2	Hex Nut, 7/16"-14
	G10421	1	Hex Head Cap Screw, 7/16"-14 x 1 1/4"
	G10128	3	Machine Bushing, 1/2", 14 Gauge
	G10111	1	Lock Nut, 1/2"-13
	G10016	1	Hex Head Cap Screw, 1/2"-13 x 2"
	GA7154	1	Sprocket W/Bearing, 18 Tooth
20.	G10019	2	Hex Head Cap Screw, 5/16"-18 x 1"
	G10232	2	Lock Washer, 5/16"
	G10106	2	Hex Nut, 5/16"-18
21.	G10862	1	Hex Head Cap Screw, 5/8"-11 x 3 1/4"
	G10503	1	Jam Nut, 5/8"-11
	G10107	1	Lock Nut, 5/8"-11
22.	GA8426	1	Wheel Mount
23.	GD1134	1	U-Bolt, 7" x 5" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
24.		-	See "Driveline", Pages P48 And P49
25.	GD5860	1	Bar
26.	G10751	2	Hex Head Cap Screw, 5/8"-18 x 1 3/4"
	G10235	6	Machine Bushing, 7/8", 14 Gauge
	GD7805	2	Special Washer, 3/8" Hardened
	G10412	2	Lock Nut, 5/8"-18
27.	GB0218	2	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
28.	GD11158	1	Spacer, 3/4" O.D. x 9/16" Long
29.	G10053	1	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	G10128	5	Machine Bushing, 1/2", 14 Gauge
	G10111	1	Lock Nut, 1/2"-13
30.	G10004	1	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	1	Lock Washer, 3/8"
	G10101	1	Hex Nut, 3/8"-16
31.	GA7154	2	Sprocket W/Bearing, 18 Tooth
32.	GA5114	1	Sprocket, 30 Tooth
33.	GD2558	1	Lynch Pin, 1/4"
34.	GA5114	1	Sprocket, 30 Tooth
	GA5105	1	Sprocket, 15 Tooth, Used With Half Rate (2 To 1) Drive
35.	G3310-101	1	Chain, No. 40, 101 Pitch Including Connector Link And Offset Link
	G3310-93	1	Chain, No. 40, 93 Pitch Including Connector Link And Offset Link, Used With Half Rate (2 To 1) Drive
	GR0912	-	Connector Link, No. 40
	GR0911	-	Offset Link, No. 40
36.	GD11125	1	Bar
37.	G10053	1	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	G10216	1	Washer, 1/2" USS
	G10111	1	Lock Nut, 1/2"-13
A.	G1K253	-	Contact Wheel Arm Replacement Kit (Item 3, 7, 8, 11 And 16)

* Specific brand requests will be supplied only as available from current KINZE® 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 could result in rate changes. To maintain consistent planting rates throughout all rows, it is recommended that all contact tires be of the same brand and be equally inflated.

DRIVELINE

PTD091(TWL166/PLTR157)

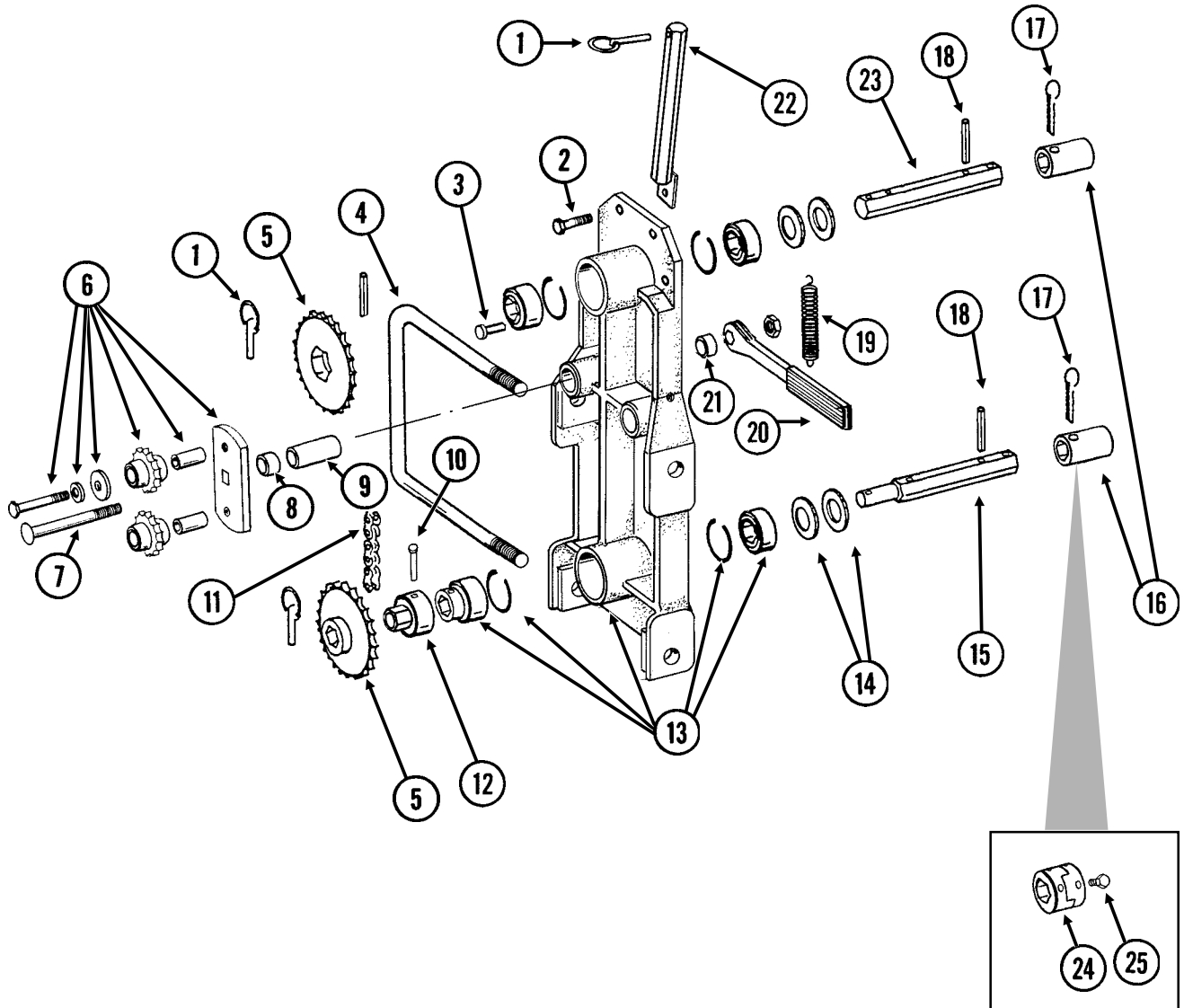


DRIVELINE

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD0914-204	1	Hex Shaft, 7/8" x 204" (No Holes)
2.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
3.	G10464	2	Cotter Pin, 3/16" x 1"
4.	GD1256	2	Spring
5.	GA0378	1	Block And Hub Assembly
6.	GD1255	2	L-Pin
7.	GA7574	1	Sprocket W/Bushing, 34 Tooth
8.	G10430	1	External Retaining Ring, 1 1/4"
9.	G10303	6	Carriage Bolt, 5/16"-18 x 1"
	G10232	6	Lock Washer, 5/16"
	G10106	6	Hex Nut, 5/16"-18
10.	G2100-03	3	Bearing, 7/8" Hex Bore, Spherical
11.	G10303	3	Carriage Bolt, 5/16"-18 x 1"
	G10219	3	Washer, 5/16" USS
	G10232	3	Lock Washer, 5/16"
	G10106	3	Hex Nut, 5/16"-18
12.		-	See "Transmission", Pages P50 And P51
13.	GD11045	-	Lock Clamp
14.	G10233	-	Machine Bushing, 1", 10 Gauge
15.	G3400-01	6	Flangette
16.	GD0914-43	1	Hex Shaft, 7/8" x 43" (No Holes)
17.	GD1719	1	Coupler, 4"
18.	GD0914-206	1	Hex Shaft, 7/8" x 206" (No Holes)
19.		-	See "Contact Drive Wheel Assembly", Pages P46 And P47
20.	GD1113	1	U-Bolt, 7" x 5" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
21.	GD11549	1	Center Support
A.	GA8451	-	Ratchet/Sprocket Assembly, L.H. (Items 3-8)(Shown)
	GA8450	-	Ratchet/Sprocket Assembly, R.H. (Items 3-8)
B.	G1K269	-	Lock Clamp Kit (Items 2 And 13)

TRANSMISSION

PTD091(2400h/PLTR157)

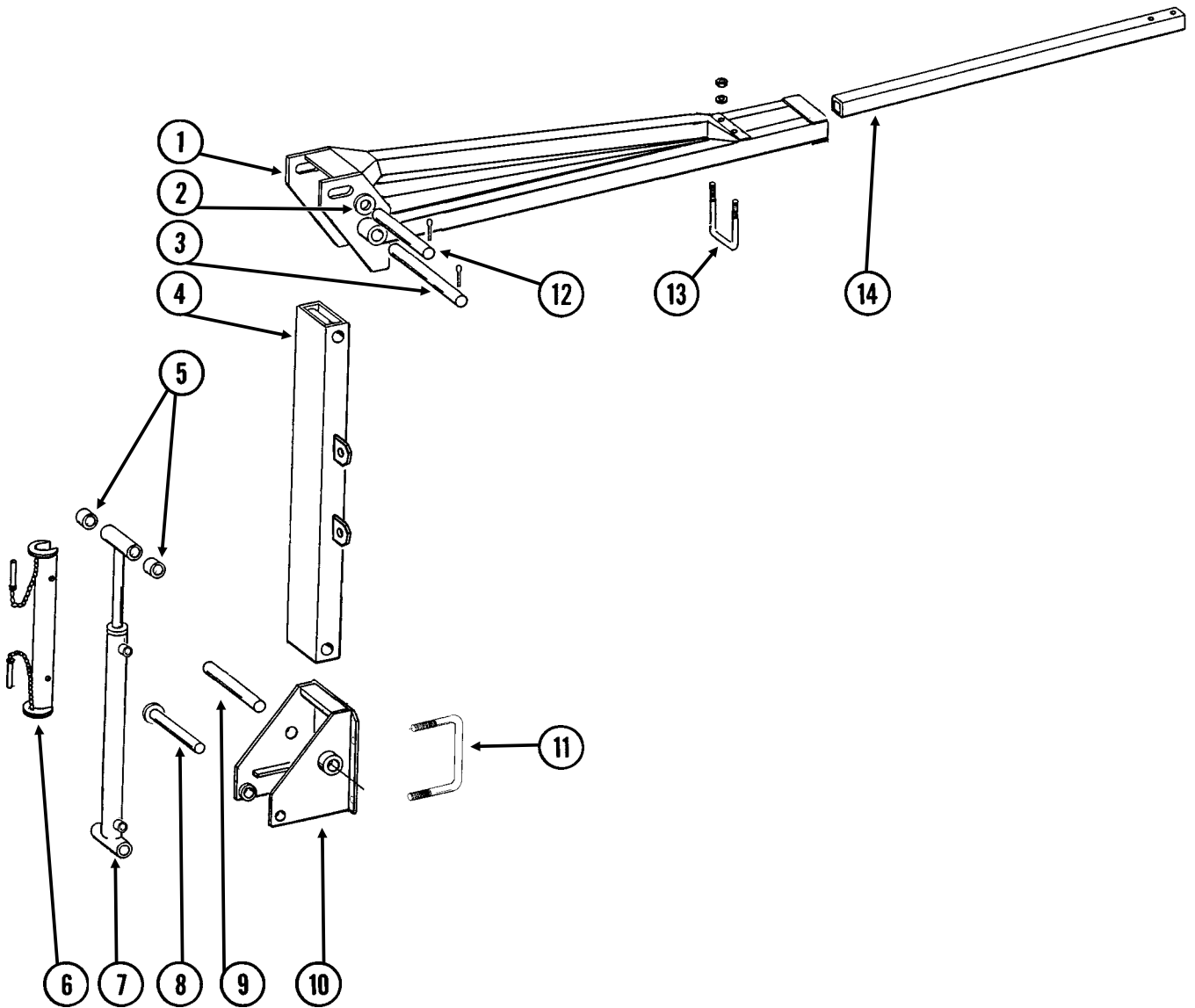


TRANSMISSION

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD2558	3	Lynch Pin, 1/4"
2.	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
3.	G10478	1	Clevis Pin, 5/16" x 1"
	G10409	1	Retaining Ring, 5/16"
4.	GD1113	1	U-Bolt, 7" x 5" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
5.	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
6.	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"
7.	G10867	1	Carriage Bolt, 1/2"-13 x 5"
	G10111	1	Lock Nut, 1/2"-13
8.	GD2734-01	1	Sleeve, 1 1/4" O.D. x 1/2" Long
9.	GD3180-16	1	Sleeve, 5/8" I.D. x 7/8" O.D. x 2 13/16" Long
10.	G10821	1	Clevis Pin, 3/16" x 2"
	G10099	1	Cotter Pin, 3/32" x 1/2"
11.	G3310-80	1	Chain, No. 40, 80 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
12.	GD7127	1	Shear Coupler
	GR0912	-	Connector Link, No. 40
13.	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
	G10640	-	Grease Fitting, 1/4"-28
14.	G10233	4	Machine Bushing, 1", 10 Gauge
15.	GD7822	1	Shaft, 7/8" x 7"
16.	GD7867	2	Coupler, 3"
17.	G10460	2	Cotter Pin, 1/4" x 2"
18.	G10602	3	Spring Pin, 1/4" x 1 1/2"
19.	GD5857	1	Spring
20.	GA4235	1	Ratchet Wrench W/Protective Closure
	G10445	-	Protective Closure
21.	GD10161	1	Spacer, 3/8"
22.	GA5146	1	Sprocket Storage Rod
23.	GD5835	1	Shaft, 7/8" x 7"
24.	GB0287	2	Coupler
25.	G10043	4	Hex Head Cap Screw, 5/16"-18 x 3/4"

MARKER ASSEMBLY

MKR019/MKR027(MKR23)

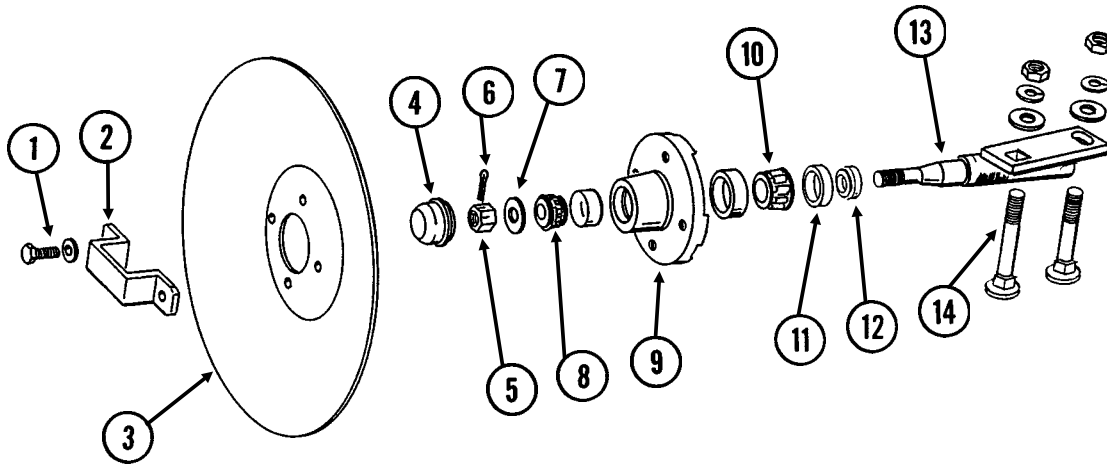


MARKER ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GA8472	1	Arm, Second Stage, 46"
2.	G10226	-	Washer, 1 1/4" SAE (As Required)
	G10159	-	Machine Bushing, 1 1/4", 10 Gauge (As Required)
	G10322	-	Machine Bushing, 1 1/4", 18 Gauge (As Required)
3.	GD3214	1	Pin, 1 1/4" x 12 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
4.	GA8407	1	Arm W/Grease Fittings, First Stage
	G10641	2	Grease Fitting, 1/8" NPT
5.	GD0752-41	4	Sleeve, 1"
6.	GA8170	1	Safety Lockup W/Detent Pins, 19 3/8" (Used W/2" x 20 1/16" Marker Cylinder)
	GA8876	-	Safety Lockup W/Detent Pin, 23 7/8" (Used W/2 1/2" x 20 1/16" Marker Cylinder)
	G10536	-	Detent Pin, 1/2" x 2 1/2"
7.		-	See "Marker Cylinder", Pages P63 And P64
8.	GA6532	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.	GA8382	1	Mount
11.	GD11489	2	U-Bolt, 3" x 6" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
12.	GD2161	1	Pin, 1 1/4" x 8 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
13.	GD2721	-	U-Bolt, 2" x 2" x 1/2"-13
	G10228	-	Lock Washer, 1/2"
	G10102	-	Hex Nut, 1/2"-13
14.	GD0453-08	-	Extension Tube, 65"

MARKER SPINDLE/HUB/BLADE

MKR020(MKR3a)



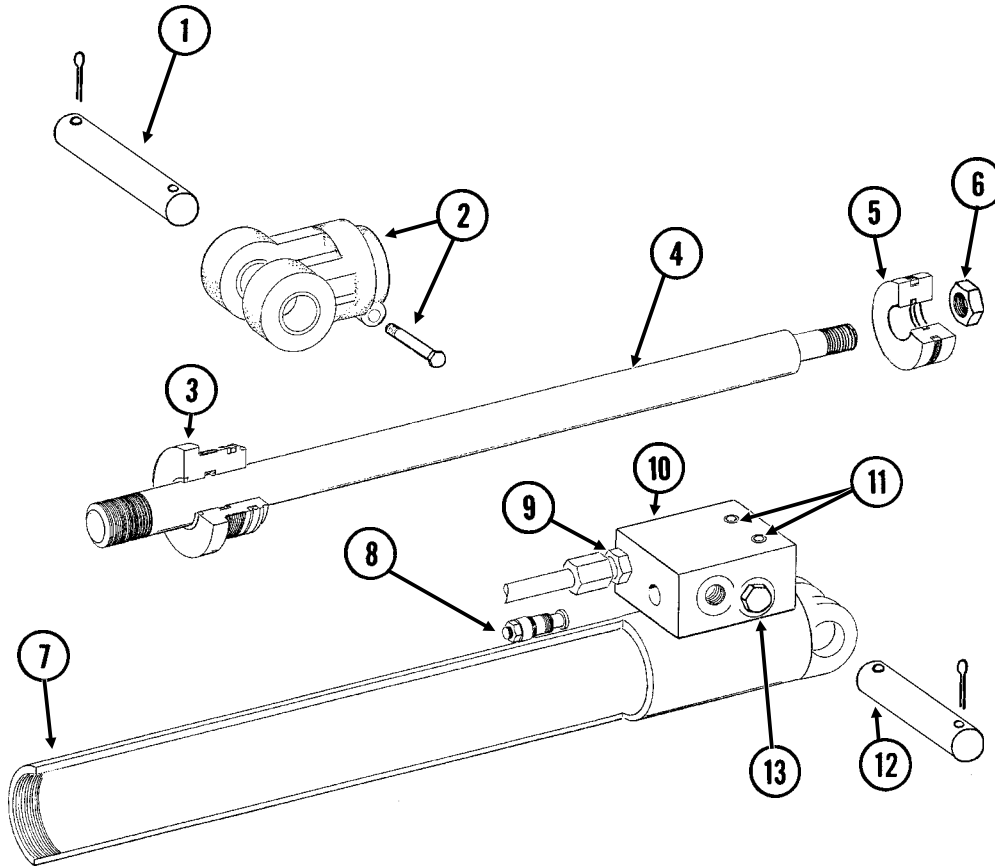
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	G10722	4	Hex Head Cap Screw, 1/2"-20 x 1"
	G10228	4	Lock Washer, 1/2"
2.	GD2597	1	Retainer
3.	GD0746	1	Solid Blade, 16" (Shown)
	GD10283	-	Notched Blade, 16" (Optional)
4.	GD0840	1	Dust Cap
5.	G10725	1	Slotted Hex Nut, 5/8"-18
6.	G10544	1	Cotter Pin, 5/32" x 1"
7.	G10724	1	Washer, 5/8" SAE
8.	GA0257	1	Bearing
9.	GA0167	1	Hub With 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)

SLAVE CYLINDER

CYL062(CYL54b)

Prior To Serial No. 625025

NOTE: Use With GA8745 Or GA8795 Master Cylinders



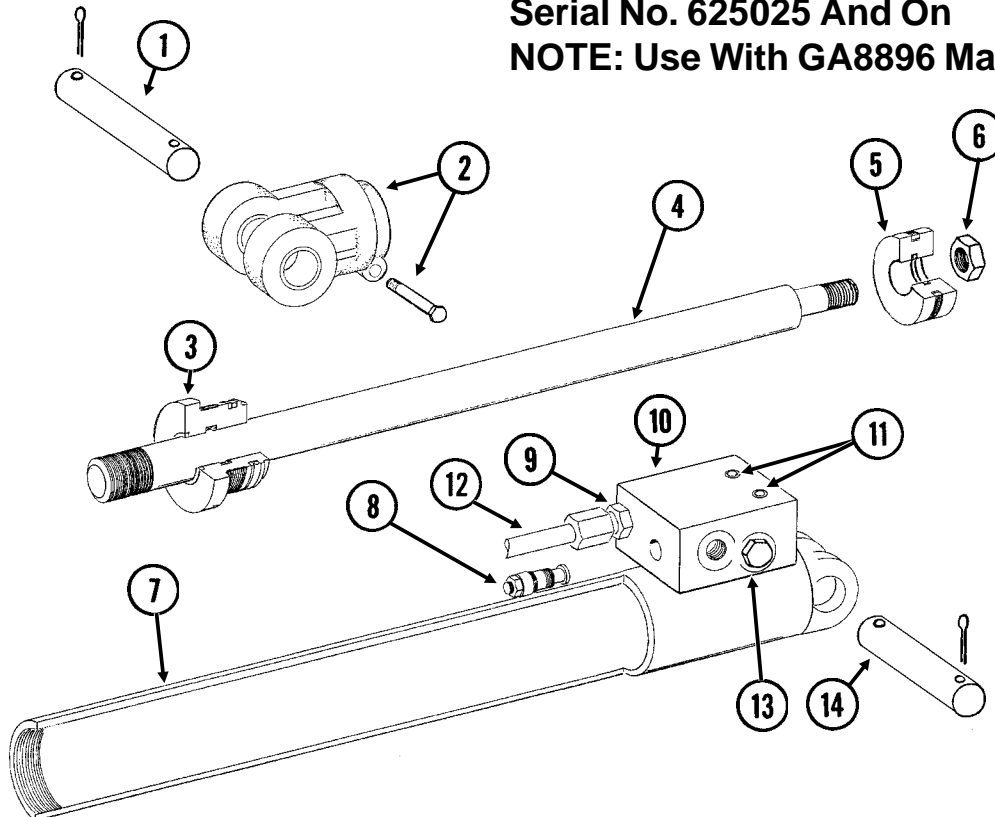
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1287	1	Pin W/Cotter Pins
	G10460	-	Cotter Pin, 1/4" x 2"
2.	GA8130	1	Clevis W/Bushings, Cap Screw And Hex Nut
	GR1401	-	Bushing
	G10939	1	Hex Head Cap Screw, 3/8"-16 x 2 1/4"
	G10101	1	Hex Nut, 3/8"-16
3.	GD11522	1	Gland
4.	GD11521	1	Rod
5.	GD11520	1	Piston
6.	GR0983	1	Lock Nut, 1"-14
7.	A8467	1	Barrel (Non-Stock Item)
8.	GR1183	1	Counter Balance Valve
9.	G6400-08	1	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
10.	GD11579	1	Block
11.	G10932	2	Hex Socket Head Cap Screw, 5/16"-18 x 2", Grade 8
12.	GR1454	1	Pin W/Cotter Pins, 1 1/4" x 3 1/2"
	G10460	-	Cotter Pin, 1/4" x 2"
13.	G6408-08	-	Plug W/O-Ring, 3/4"-16 O-Ring
	GR1037	-	O-Ring
A.	GA8181	-	Cylinder Complete, 3" x 20" <i>(Part Number Stamped On Barrel)</i>
B.	GR1453	-	Seal Kit, Includes: (1) Seal, (3) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper

SLAVE CYLINDER

CYL062(CYL54b)

Serial No. 625025 And On

NOTE: Use With GA8896 Master Cylinder



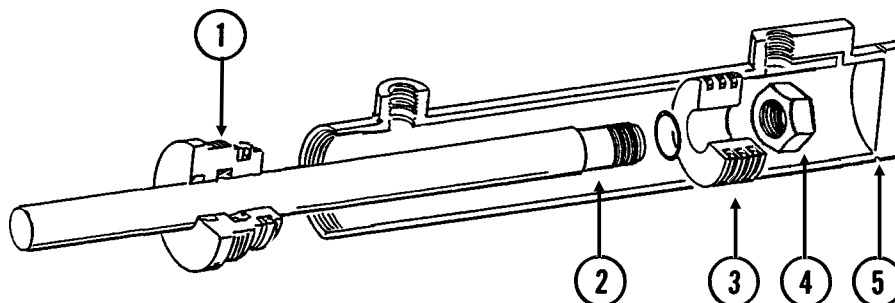
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD12585	1	Pin, 1 1/4" x 4 1/2"
	G10460	-	Cotter Pin, 1/4" x 2"
2.	GA8130	1	Clevis W/Bushings, Cap Screw And Hex Nut
	GR1401	-	Bushing
	G10939	1	Hex Head Cap Screw, 3/8"-16 x 2 1/4"
	G10101	1	Hex Nut, 3/8"-16
3.	GD12548	1	Gland
4.	GD12600	1	Rod
5.	GD12602	1	Piston
6.	G10958	1	Lock Nut, 1"-14
7.	A8986	1	Barrel (Non-Stock Item)
8.	GA8882	1	Counter Balance Valve
9.	G6400-08	1	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
10.	GD11579	1	Block
11.	G10932	2	Hex Socket Head Cap Screw, 5/16"-18 x 2", Grade 8
12.	GA8984	1	Steel Hydraulic Line, 15 1/8"
13.	G6408-08	-	Plug W/O-Ring, 3/4"-16 O-Ring
	GR1037	-	O-Ring
14.	GD12790	1	Pin, 1 1/4" x 3 1/2"
	G10460	-	Cotter Pin, 1/4" x 2"
A.	GA8987	-	Cylinder Complete, 3 1/2" x 20" (Items 2-13) (Part Number Stamped On Barrel)
B.	GR1548	-	Seal Kit (For Cylinder And Counter Balance Valve), Includes: (1) Seal, (6) O-Rings, (4) BU Rings, (1) U-Cup, (1) Wiper, (1) Expander, (2) Cast Iron Rings

MASTER CYLINDER

(CYL14d)

Prior To Serial No. 625025

NOTE: Use With GA8181 Slave Cylinder



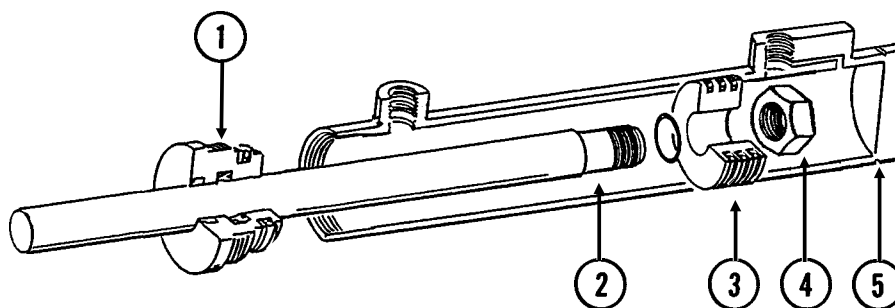
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD11513	1	Gland
2.	GD11763	1	Rod
3.	GD11294	1	Piston
4.	G10958	1	Lock Nut, 1"-14
5.	A8744	1	Barrel (Non-Stock Item)
A.	GA8745	-	Cylinder Complete, 4 1/4" x 9 3/4" <i>(Part Number Stamped On Barrel)</i>
B.	GR1496	-	Seal Kit, Includes: (2) O-Rings, (1) Piston Ring, (1) Expander, (1) BU Ring, (2) Cast Iron Rings, (1) Wiper, (1) U-Packing

MASTER CYLINDER

(CYL14d)

Prior To Serial No. 625025

NOTE: Use With GA8181 Slave Cylinder

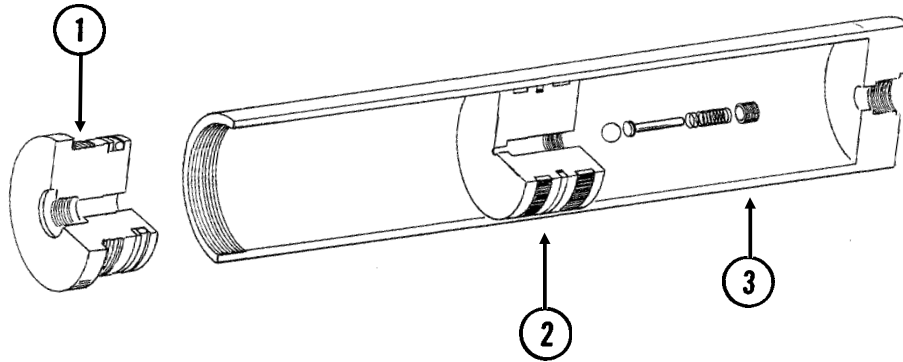


ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD11835	1	Gland
2.	GD11763	1	Rod
3.	GD11294	1	Piston
4.	G10958	1	Lock Nut, 1"-14
5.	A8794	1	Barrel (Non-Stock Item)
A.	GA8795	-	Cylinder Complete, 4 1/4" x 9 3/4" <i>(Part Number Stamped On Barrel)</i>
B.	GR1496	-	Seal Kit, Includes: (2) O-Rings, (1) Piston Ring, (1) Expander, (1) BU Ring, (2) Cast Iron Rings, (1) Wiper, (1) U-Packing

MASTER CYLINDER

(CYL55a)

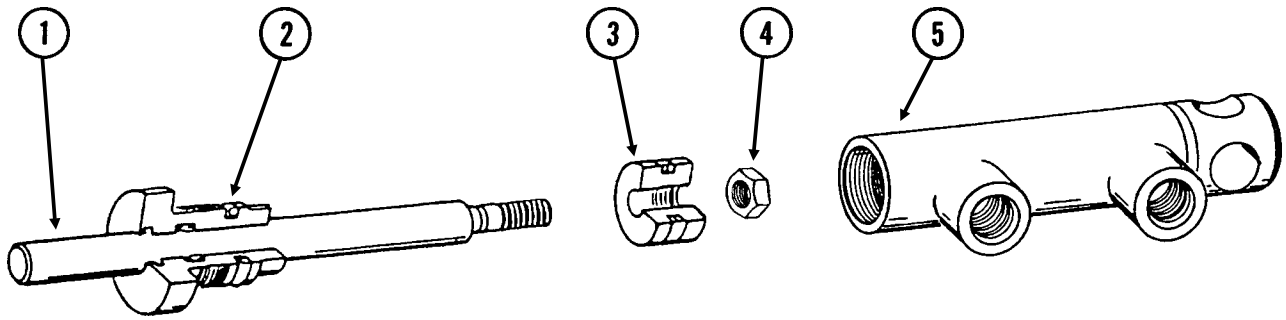
Serial No. 625025 And On
NOTE: Use With GA8987 Slave Cylinder



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD12606	1	Gland
2.	GA8989	1	Piston W/Rephasing Valve
	GR1169	-	Rephasing Valve Replacement Kit (Set Screw, Guide, 2 Springs And Ball)
3.	A8988	1	Barrel (Non-Stock Item)
A.	GA8896	-	Cylinder Complete, 4 1/4" x 11 1/16" <i>(Part Number Stamped On Barrel)</i>
B.	GR1549	-	Seal Kit, Includes: (1) O-Ring, (1) BU Ring, (2) Cast Iron Rings, (1) Seal, (1) Expander

TRANSPORT LATCH CYLINDER

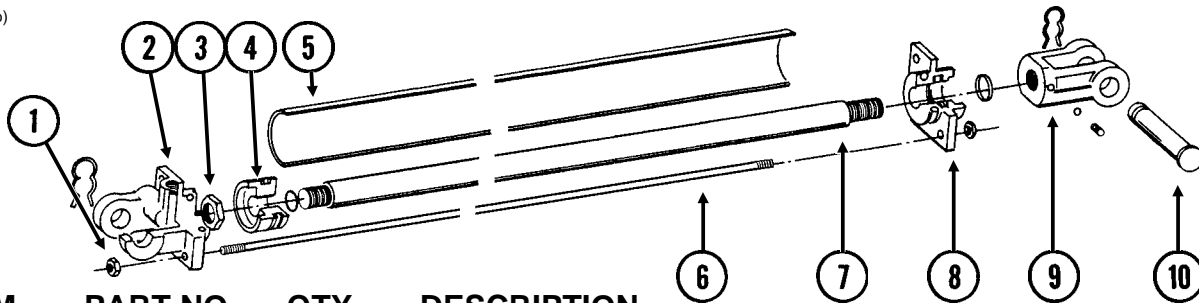
CYL035/CYL050(CYL9b)



TEM	PART NO.	QTY.	DESCRIPTION
1.	GD7124	1	Rod
2.	GD7122	1	Gland
3.	GD7120	1	Piston
4.	GR0999	1	Lock Nut, 1/2"-20
5.	A6020	1	Barrel (Non-Stock Item)
A.	GA4309	-	Cylinder Complete, 1 1/2" x 2 1/2"
B.	GR1001	-	Seal Kit, Includes: (2) O-Rings, (1) U-Cup, (1) Rod Wiper, (1) Seal

TRANSPORT LATCH POST CYLINDER

(CYL22b)



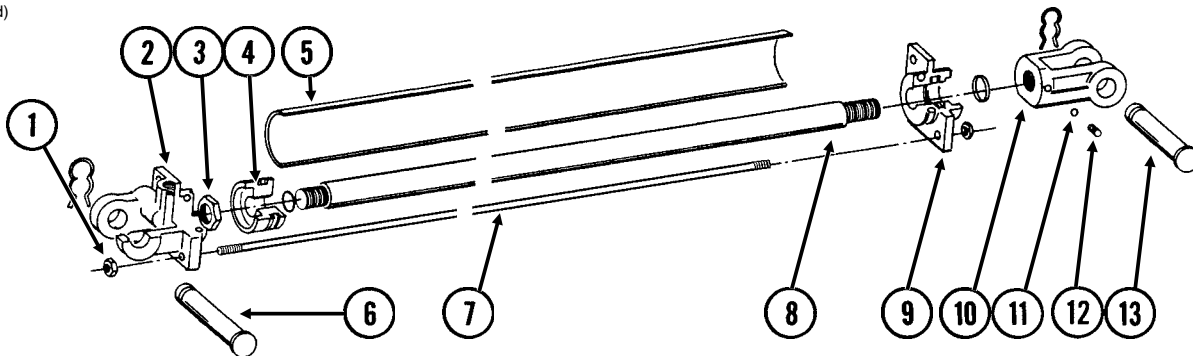
ITEM	PART NO.	QTY.	DESCRIPTION
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1.	GR1476	8	Tie Rod Nut
2.	GR1469	1	Clevis
3.	GR1478	1	Piston Nut
4.	GR1472	1	Piston
5.	R1474	1	Barrel (Non-Stock Item)
6.	GR1475	4	Tie Rod
7.	GR1473	1	Rod
8.	GR1470	1	Gland
9.	GR1471	1	Clevis
10.	GR1479	2	Clevis Pin W/Clip
A.	GA8456A	-	Cylinder Complete, 2" x 24"
B.	GR1477	-	Seal Kit, Includes: (1) Seal, (5) O-Rings, (5) BU Seals

IDENTIFICATION NOTE: Decal on barrel identified "Lion Hydraulics".

TRANSPORT LATCH POST CYLINDER

(CYL22d)



ITEM	PART NO.	QTY.	DESCRIPTION
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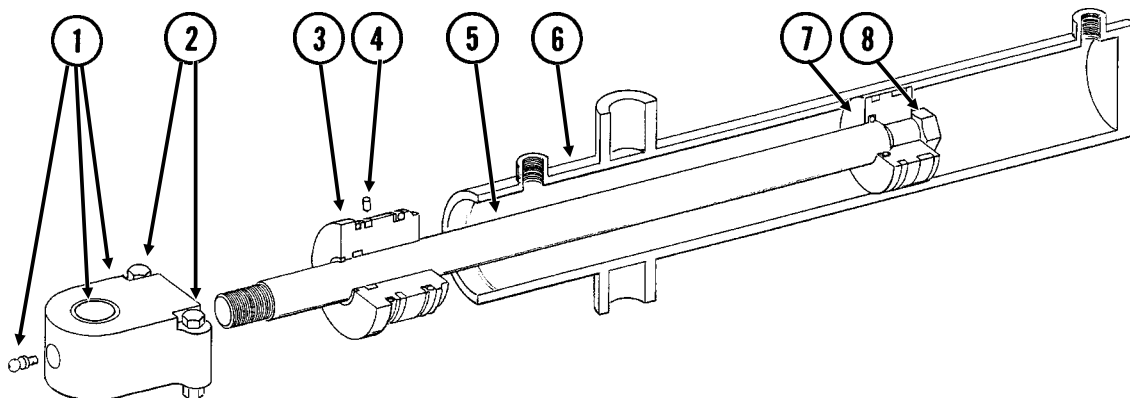
1.	G10100	8	Hex Nut, 7/16"-14
2.	GR1494	1	Clevis
3.	GR0170	1	Hex Nut, 7/8"-14
4.	GR1498	1	Piston
5.	R1500	1	Barrel (Non-Stock Item)
6.	GR1503	1	Clevis Pin W/Clip
	GR0193	-	Hair Pin Clip
7.	GR1501	4	Tie Rod
8.	GR1499	1	Rod
9.	GR1495	1	Gland
10.	GR1497	1	Clevis
11.	GR0716	1	Nylon Ball
12.	G10072	1	Hex Socket Set Screw, 3/8"-16 x 3/8"
13.	GR1504	1	Clevis Pin W/Clip
	GR0193	-	Hair Pin Clip

A.	GA8456B	-	Cylinder Complete, 2" x 24"
B.	GR1502	-	Seal Kit, Includes: (2) Seals, (3) O-Rings, (3) BU Seals, (1) Wiper

IDENTIFICATION NOTE: "Energy" cast in clevis.

ROTATION CYLINDER

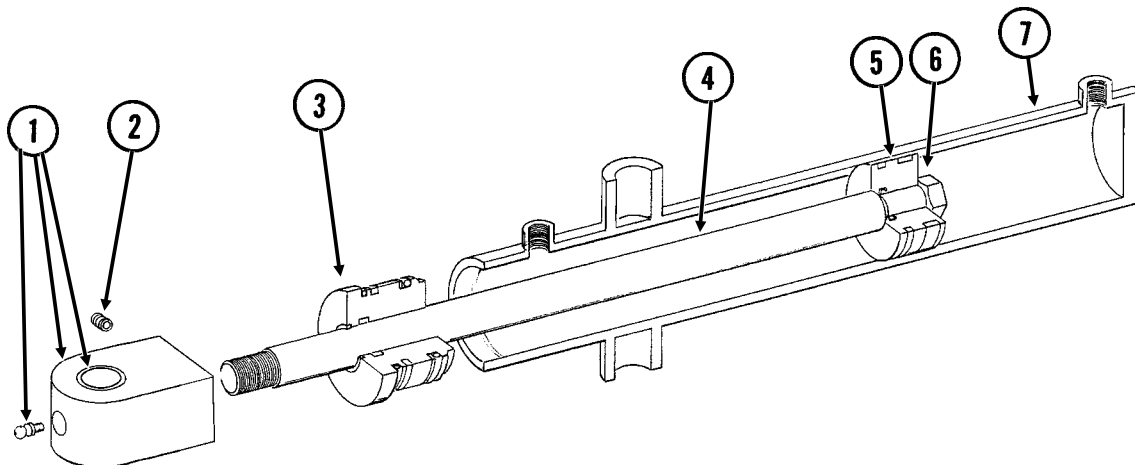
CYL061(CYL53)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8497	1	Clevis W/Spring Bushing And Grease Fitting
	GR1462	-	Spring Bushing
	G10591	-	Grease Fitting, 1/4"-28 Taper
2.	G10939	2	Hex Head Cap Screw, 3/8"-16 x 2 1/4"
	G10108	2	Lock Nut, 3/8"-16
3.	GD11572	1	Gland
4.	GR1463	1	Locking Insert
5.	GD11570	1	Rod
6.	A8496	1	Barrel (Non-Stock Item)
7.	GD11571	1	Piston
8.	GR0986	1	Special Jam Nut, 1"-14
A.	GA8180	-	Cylinder Complete, 3" x 16" <i>(Part Number Stamped On Barrel)</i>
B.	GR1464	-	Seal Kit, Includes: (1) Rod Wiper, (2) Seals, (1) BU Ring, (3) O-Rings, (1) Wear Ring

ROTATION CYLINDER

CYL061(CYL53a)

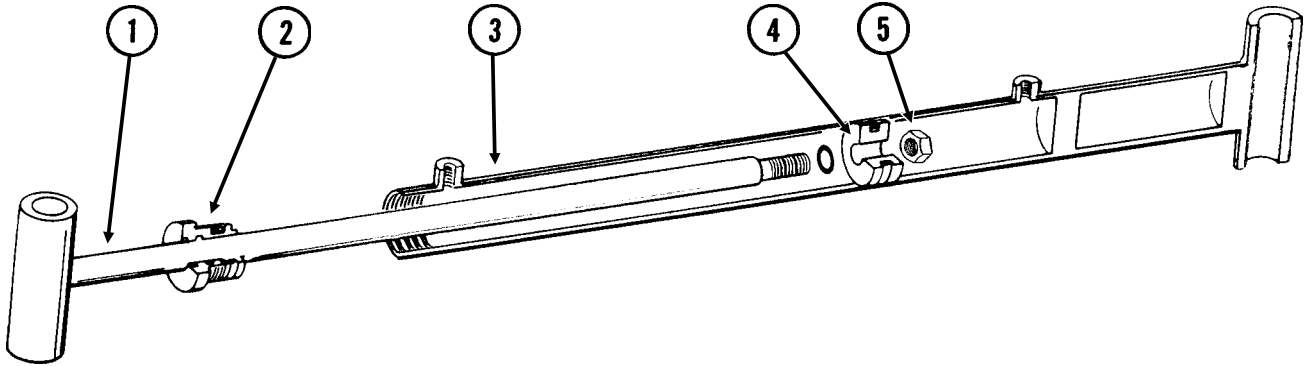


ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8497	1	Clevis W/Spring Bushing And Grease Fitting
	GR1462	-	Spring Bushing
	G10591	-	Grease Fitting, 1/4"-28 Taper
2.	G10760	2	Hex Socket Set Screw, 3/8"-16 x 1 1/2"
3.	GD12615	1	Gland
4.	GD12610	1	Rod
5.	GD12614	1	Piston
6.	G10958	1	Lock Nut, 1"-14
7.	A8991	1	Barrel (Non-Stock Item)
A.	GA8992	-	Cylinder Complete, 3" x 16" <i>(Part Number Stamped On Barrel)</i>
B.	GR1526	-	Seal Kit, Includes: (1) Wear Ring, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper, (1) T-Seal

MARKER CYLINDER

CYL039(CYL13c)

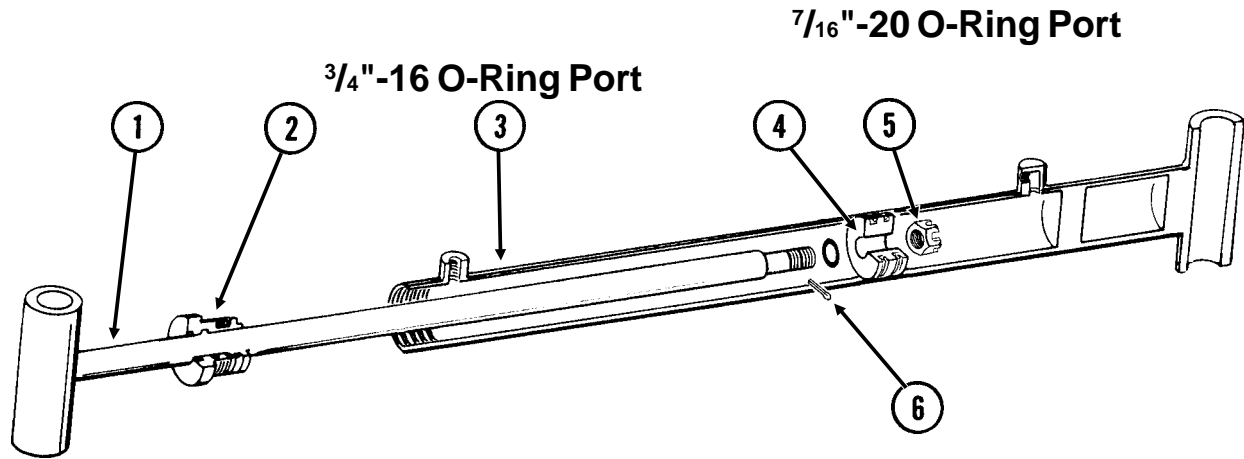
3/4"-16 O-Ring Ports



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA5459	1	Rod Assembly
2.	GD5949	1	Gland
3.	A5458	1	Barrel (Non-Stock Item)
4.	GD4632	1	Piston
5.	G10967	1	Lock Nut, 3/4"-16
A.	GA5096	-	Cylinder Complete, 2" x 20 1/16" (Part Number Stamped On Barrel)
B.	GR0927	-	Seal Kit, Includes: (1) T Seal, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper

MARKER (Cushion) CYLINDER

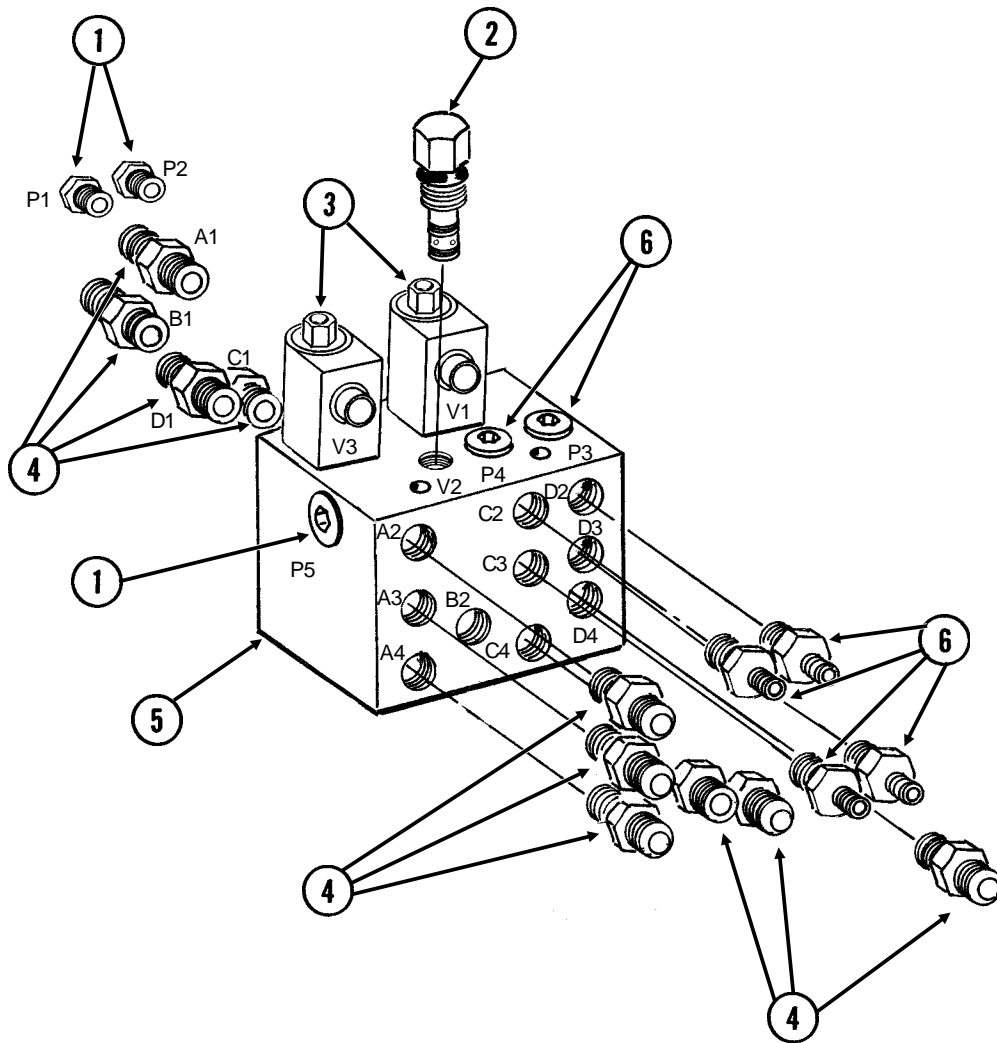
CYL039(CYL13d)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8835	1	Rod Assembly
2.	GD10207	1	Gland
3.	A8836	1	Barrel (Non-Stock Item)
4.	GD10206	1	Piston
5.	G10962	1	Slotted Hex Nut, $\frac{7}{8}$ "-14
6.	G10827	2	Cotter Pin, $\frac{1}{8}$ " x $1\frac{3}{4}$ "
A.	GA8837	-	Cylinder Complete, $2\frac{1}{2}$ " x $20\frac{1}{16}$ " (Part Number Stamped On Barrel)
B.	GR1309	-	Seal Kit, Includes: (1) Seal, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper, (1) Cast Iron Ring

VALVE BLOCK - LOCATED ON HITCH

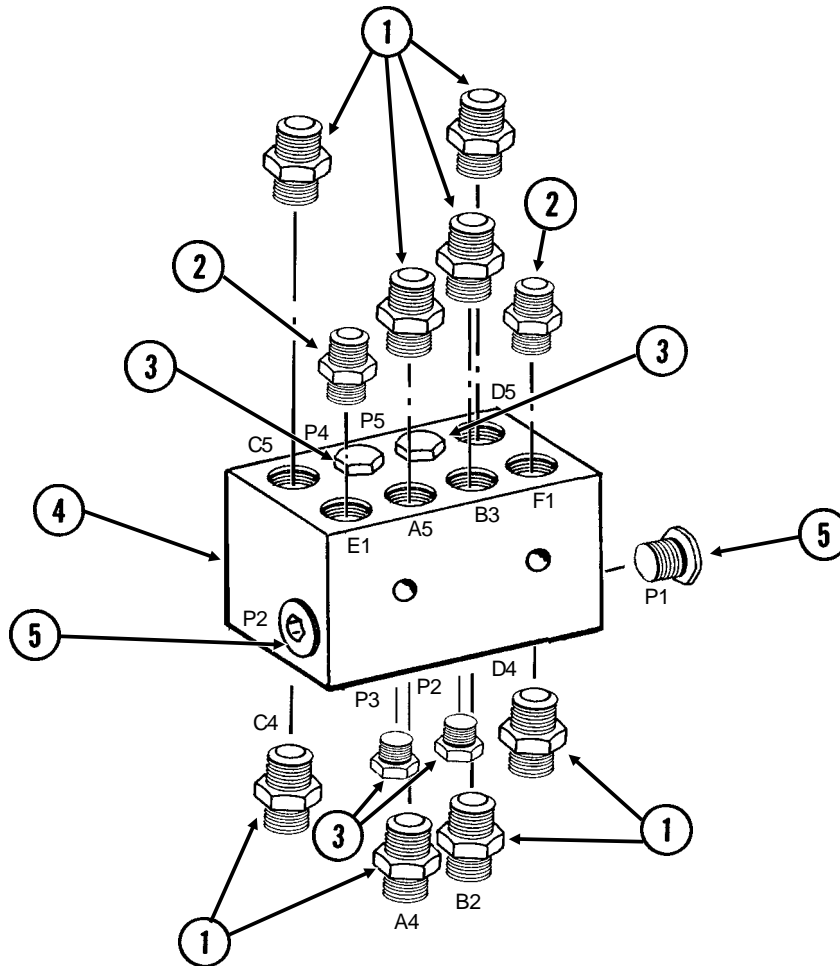
PHS049(2400b)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G6408-H06-O GR1045	5 -	Hex Socket Head Plug W/O-Ring, $\frac{9}{16}$ "-18 O-Ring
2.		-	See "Check Valve", Page P69
3.		-	See "G1K276 Solenoid Valve", Page P68
4.	G6400-08 GR1037	10 -	Connector W/O-Ring, $\frac{3}{4}$ "-16 Male JIC To O-Ring
5.	GD11460	1	Block
6.	G6400-06 GR1045	4 -	Connector W/O-Ring, $\frac{9}{16}$ "-18 Male JIC To O-Ring

JUNCTION BLOCK - LOCATED ON FRONT OF CENTER PIVOT

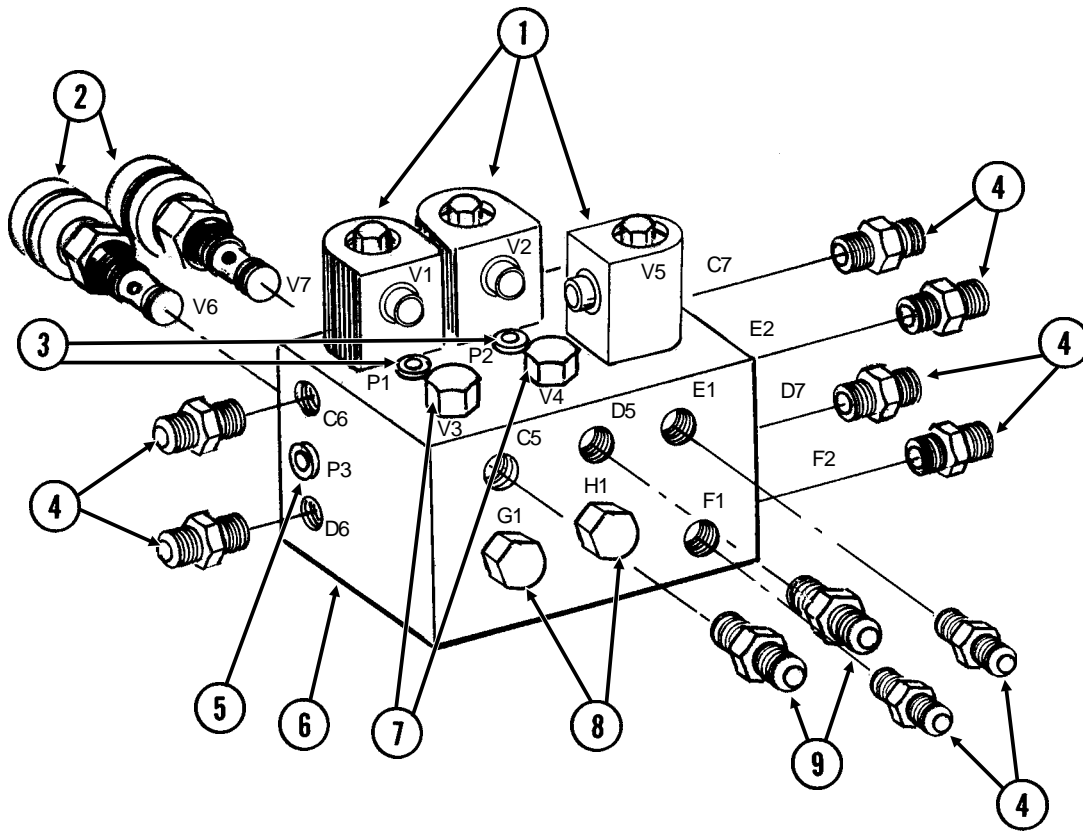
(2400d)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G6400-08 GR1037	8 -	Connector W/O-Ring, $\frac{3}{4}$ "-16 Male JIC To O-Ring O-Ring
2.	G6400-06 GR1045	2 -	Connector W/O-Ring, $\frac{9}{16}$ "-18 Male JIC To O-Ring O-Ring
3.	G6408-08 GR1037	4 -	Plug W/O-Ring, $\frac{3}{4}$ "-16 O-Ring O-Ring
4.	GD11459	1	Block
5.	G6408-H06-O GR1045	2 -	Hex Socket Head Plug W/O-Ring, $\frac{9}{16}$ "-18 O-Ring O-Ring

VALVE BLOCK - LOCATED ON REAR CENTER FRAME

PHS050(2400f)A8455

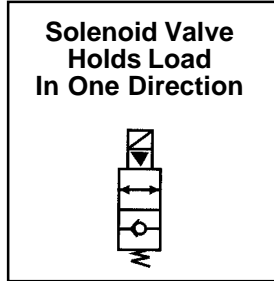
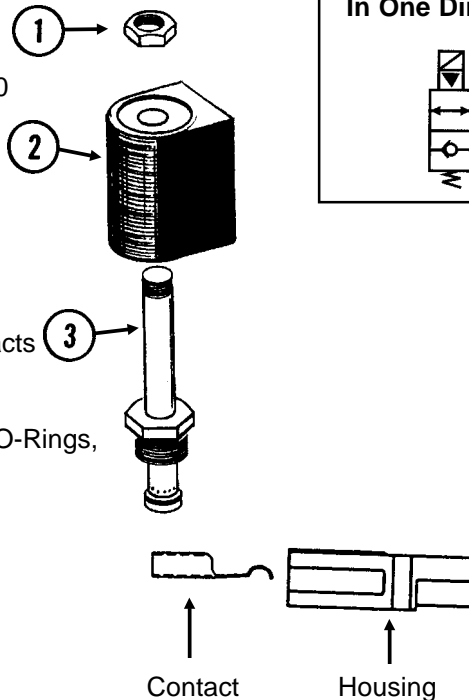


ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "G1K275 Solenoid Valve", Page P68
2.		-	See "Flow Control Valve", Page P69
3.	G6408-H06-O	2	Hex Socket Head Plug W/O-Ring, 9/16"-18 O-Ring
	GR1045	-	O-Ring
4.	G6400-06	8	Connector W/O-Ring, 9/16"-18 Male JIC To O-Ring
	GR1045	-	O-Ring
5.	G6408-06	1	Plug W/O-Ring, 9/16"-18 O-Ring
	GR1045	-	O-Ring
6.	GD11461	1	Block
7.	G6408-10	2	Plug W/O-Ring, 7/8"-14 O-Ring
	GR1466	-	O-Ring
8.	G6408-08	2	Plug W/O-Ring, 3/4"-16 O-Ring
	GR1037	-	O-Ring
9.	G6400-08	2	Connector W/O-Ring, 3/4"-16 JIC To O-Ring
	GR1037	-	O-Ring

SOLENOID VALVE (G1K275)

VVB019(TWL27c/TWL18/
PLTR75c)

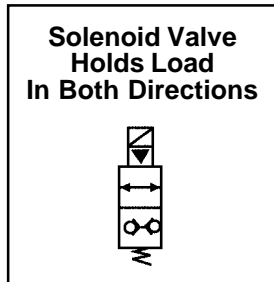
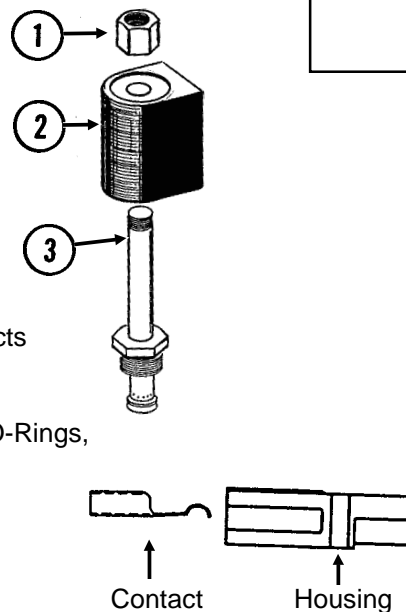
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0761	1	Special Hex Nut, 1/2"-20
2.	G1K274	1	Coil Kit W/Housings And Contacts
	GD9529	2	Housing, Black
	GD9530	2	Contact
3.	GR0763	1	Cartridge
A.	G1K275	-	Solenoid Valve Kit W/Housings And Contacts
	GD9529	2	Housing, Black
	GD9530	2	Contact
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring



SOLENOID VALVE (G1K276)

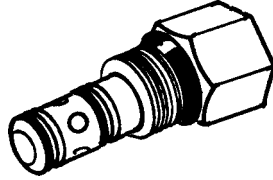
VVB019(FF25/TWL18/PLTR75c)

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1322	1	Special Hex Nut, 1/2"-20
2.	G1K274	1	Coil Kit W/Housings And Contacts
	GD9529	2	Housing, Black
	GD9530	2	Contact
3.	GR1321	1	Cartridge
A.	G1K276	-	Solenoid Valve Kit W/Housings And Contacts
	GD9529	2	Housing, Black
	GD9530	2	Contact
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring



CHECK VALVE

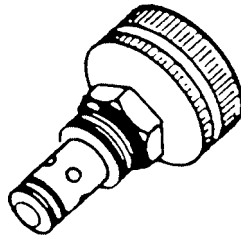
VVB020(TWL30a)



ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA8406	-	Check Valve
B.	GR1468	-	Seal Kit, Includes: (4) O-Rings, (5) BU Rings

FLOW CONTROL VALVE

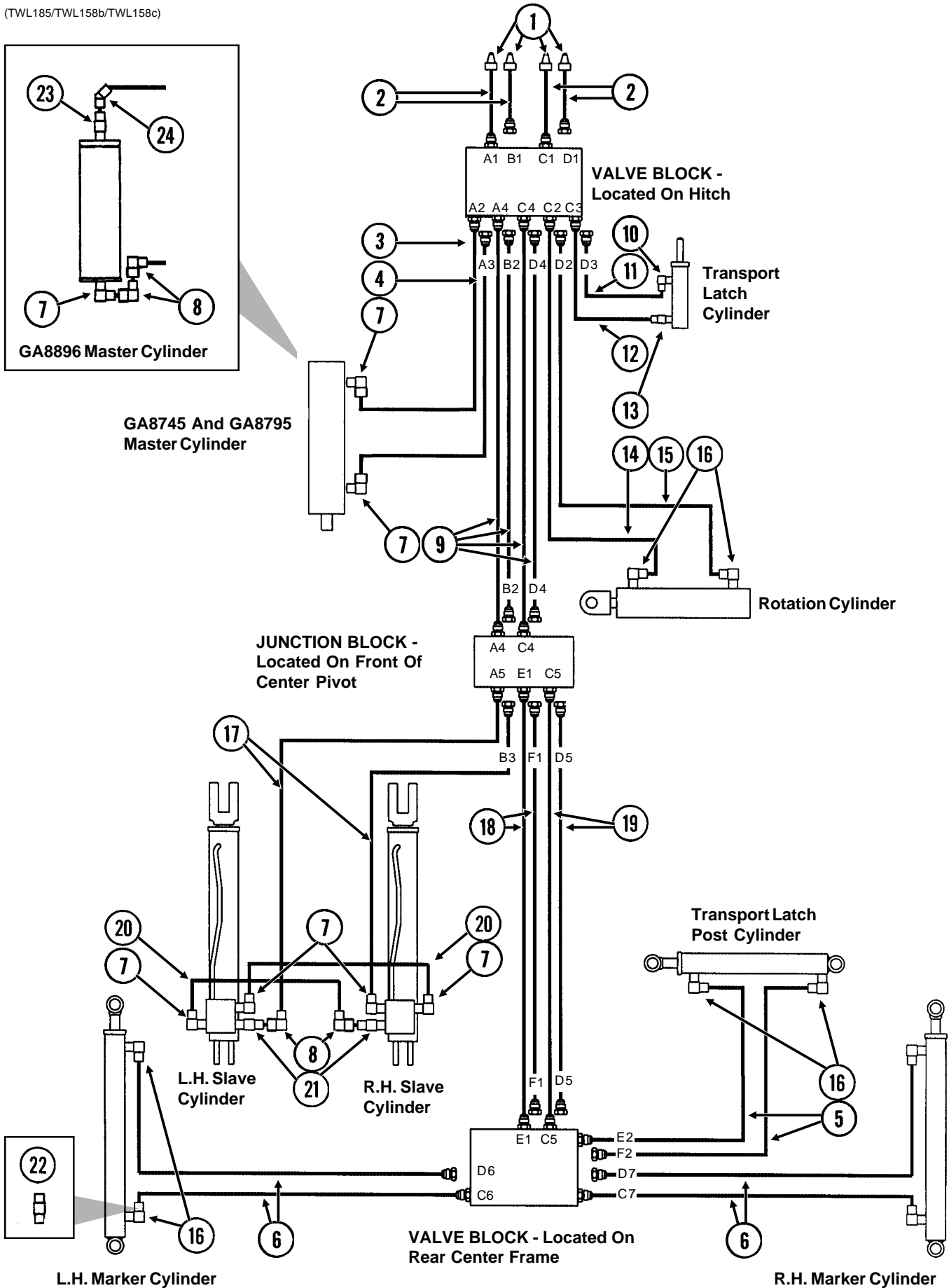
VVB020(TWL28)



ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA3413	-	Flow Control Valve
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring

HYDRAULIC SYSTEM

(TWL185/TWL158b/TWL158c)



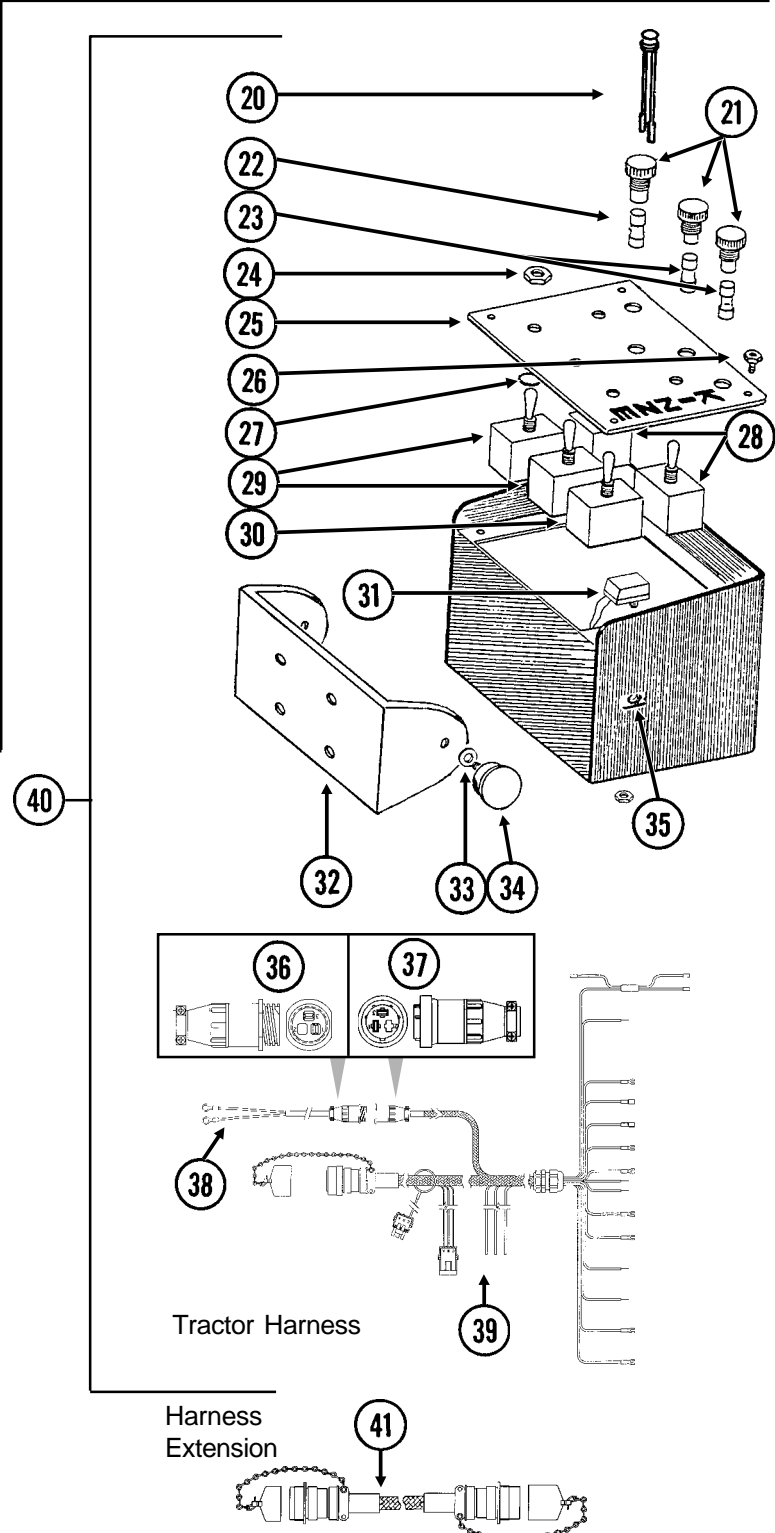
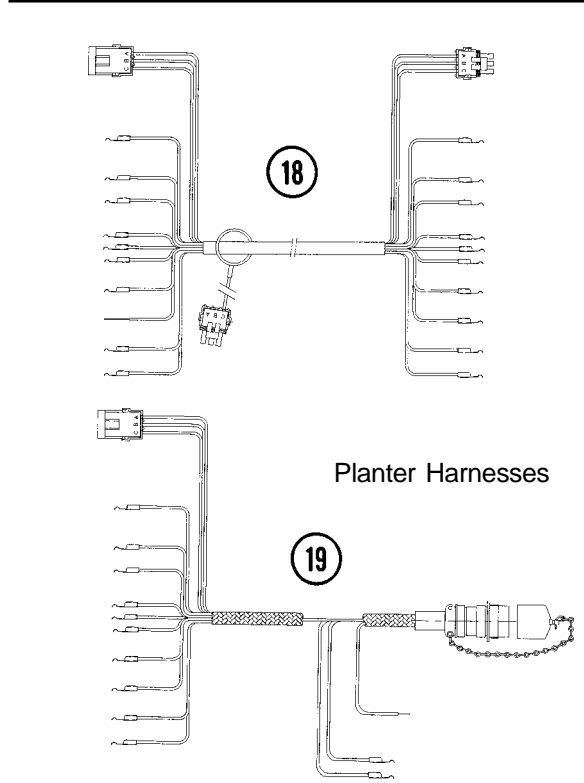
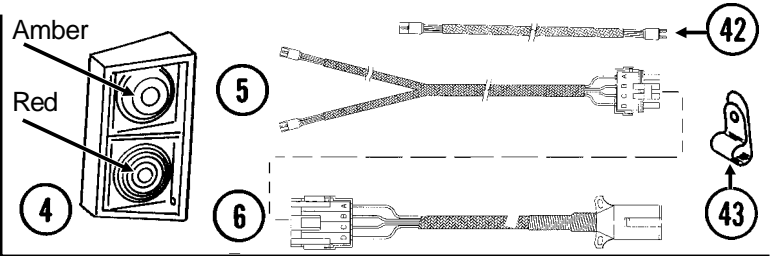
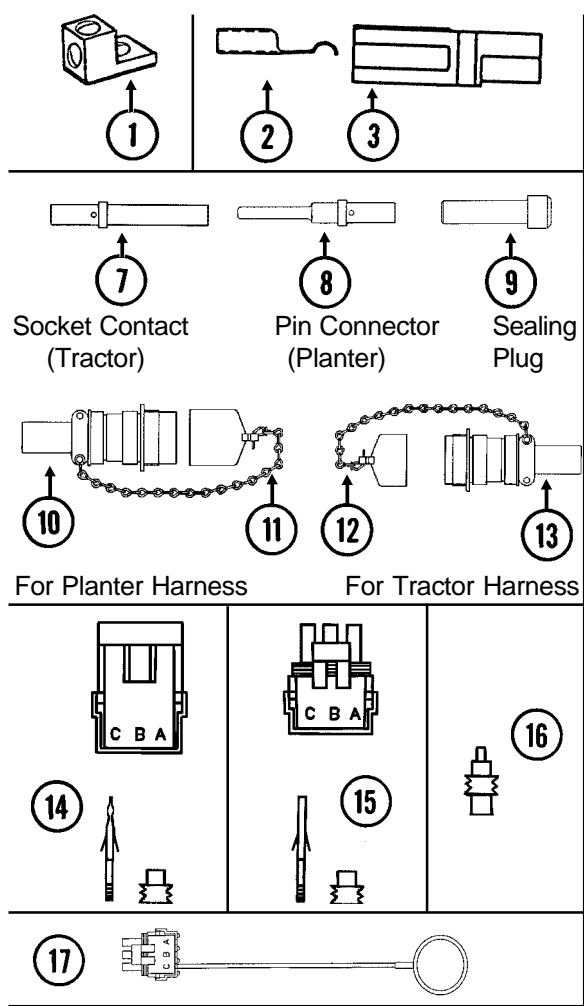
HYDRAULIC SYSTEM

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD4086	4	ISO Coupler
2.	*A3123	4	Hose Assembly, 3/8" x 72"
3.	*A1021	1	Hose Assembly, 3/8" x 56"
4.	*A3158	1	Hose Assembly, 3/8" x 46"
5.	*A7609	2	Hose Assembly, 1/4" x 164"
6.	*A7610	4	Hose Assembly, 1/4" x 175"
7.	G6801-08	5-6	Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
8.	G6500-08	2-4	Swivel Elbow, 90°, 3/4"-16 Male JIC To Female
9.	*A3206	4	Hose Assembly, 3/8" x 184"
10.	G6801-06	1	Elbow W/O-Ring, 90°, 9/16"-18 Male JIC To O-Ring
	GR1045	-	O-Ring
11.	*A1169	1	Hose Assembly, 1/4" x 24"
12.	*A1192	1	Hose Assembly, 1/4" x 20"
13.	G6400-06	1	Connector W/O-Ring, 9/16"-18 Male JIC To O-Ring
	GR1045	-	O-Ring
14.	*A7606	1	Hose Assembly, 1/4" x 177"
15.	*A7607	1	Hose Assembly, 1/4" x 187"
16.	G6801-06-08	6-8	Elbow W/O-Ring, 90°, 9/16"-18 Male JIC To 3/4"-16 O-Ring
	GR1037	-	O-Ring
17.	*A1096	2	Hose Assembly, 3/8" x 50 1/2"
18.	*A1113	2	Hose Assembly, 1/4" x 80"
19.	*A3129	2	Hose Assembly, 3/8" x 79"
20.	*A1079	2	Hose Assembly, 3/8" x 24"
21.	G6400-L-08	2	Long Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
22.	G6400-06-04	2	Connector W/O-Ring, 9/16"-18 Male JIC To 7/16"-20 O-Ring
	GR1465	-	O-Ring
23.	G6400-08	1	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
24.	G6502-08	1	Swivel Elbow, 45°, 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

ECP010/ECP011/ECP018/ECP023(TWL19a/TWL18/TWL23/A8430a/ELC39/ELC14/ELC3a/ELC5c/MTR27a/ELC8/A8433/A8432a/TWL20f/ELC10a/ELC4)



ELECTRICAL COMPONENTS

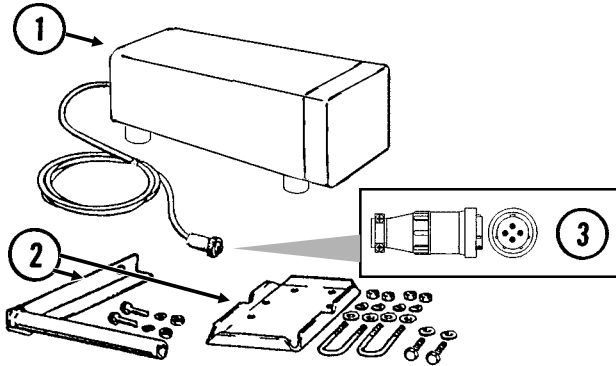
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA3584	-	Ground Clamp
2.	GD9530	-	Contact
3.	GD9529	-	Housing, Black
	GD12726	-	Housing, Red
4.	GA6699	1	Double Light Assembly (Shown)
	GA6700	1	Double Light Assembly
	GR1203	-	Red Lens
	GR1204	-	Amber Lens
	GR1205	-	Cover
	GR1206	-	Rubber Grommet (4)
	GR1207	-	Lamp Unit
	GR1208	-	Bulb
5.	GA8431	1	Light Wiring Harness W/4-Pin Connector, 22'
	GA8329	-	4-Pin Connector W/Male Housing, 4 Seals And 4 Socket Contacts
6.	GA8430	1	Light Wiring Harness W/7 Terminal Female Connector And 4-Pin Connector, 23' 6"
	GA5385	-	7 Terminal Female Connector
	GA8328	-	4-Pin Connector W/Female Housing, 4 Seals And 4 Pin Contacts
7.	GD8740	-	Socket Contact, No. 14
8.	GD8741	-	Pin Connector, No. 14
9.	GD8739	-	Sealing Plug, No. 12
10.	GA6109	1	Connector With Cable Clamp, 23 Pin Capacity
11.	GA7862	-	Dust Cap W/Chain
12.	GA7863	-	Dust Cap W/Chain
13.	GA6108	1	Connector With Cable Clamp, 23 Socket Capacity
14.	G1K248	-	3-Pin Female Connector Kit, Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
15.	G1K252	-	3-Pin Male Connector Kit, Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
16.	GD11089	-	Sealing Plug
17.	GA8047	-	Dust Plug
18.	GA8433	1	Hydraulic Wiring Harness, 6' 6"
19.	GA8432	1	Hydraulic Wiring Harness W/Dust Cap, 16'
20.	GA7077	1-4	Indicator Light
21.	GA2612	3-5	Fuse Holder W/Spade
22.	GD2829	1-2	Fuse, 15 Amp, Type AGC
23.	GD10243	2-6	Fuse, MOL 10 Amp Delay Action
24.	GR1363	5	Hex Face Nut, ¹⁵ / ₃₂ "-32
	GR1364	5	Internal Tooth Lock Washer, ¹⁵ / ₃₂ "
25.	GA8734	1	Cover Plate
26.	GR1292	4	Pan Head Screw, No. 8-32 x 1/2"
27.	GD3860	-	O-Ring (If Applicable)
28.	GA2528	2	Switch, 3 Position Toggle, On/Off/On
29.	GA6978	2	Switch, 3 Position Toggle, Momentary On/Off/ Momentary On
30.	GA6977	1-2	Switch, 2 Position Toggle, On/Off
31.	GA8731	1	Switch, Push Button W/Transformer
32.	GD9896	1	Mounting Bracket
33.	G10211	4	Washer, 1/4" SAE
34.	GA6975	2	Knob
35.	GR1290	2	Cage Nut, 1/4"-20
36.	G1K267	-	Power Lead Adapter Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (3) Male Terminal Pins
37.	G1K268	-	Console Cable Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (1) Lock Ring, (3) Female Terminal Pins
38.	GA7856	1	Power Lead Adapter
39.	GA8729	1	Harness W/Dust Cap And Power Cable
40.	G7633X	-	Back Lit Control Console Assembly With Mounting Brackets, Short Harness W/Dust Cap And Power Cable
41.	GA7399	-	Harness Extension W/Dust Caps, 15'
42.	GA9096	-	Harness Extension, 42"
43.	GD6291	-	Insulated Clamp

NOTE: See "Electronic Seed Monitor" for those components.

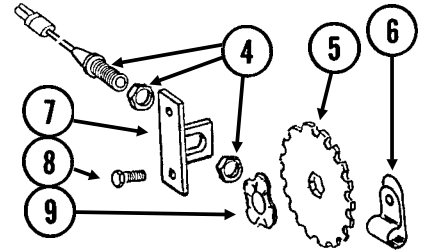
KPM I/KPM II ELECTRONIC SEED MONITOR

(MTR27v)

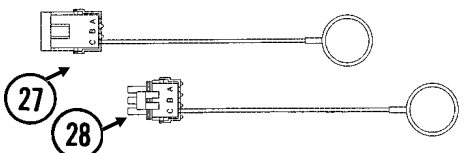
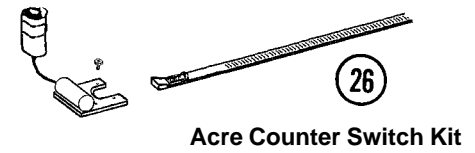
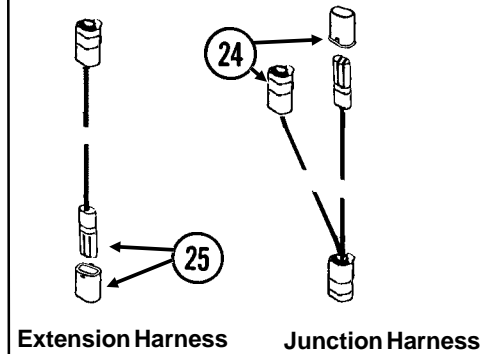
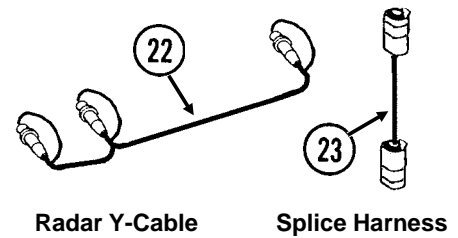
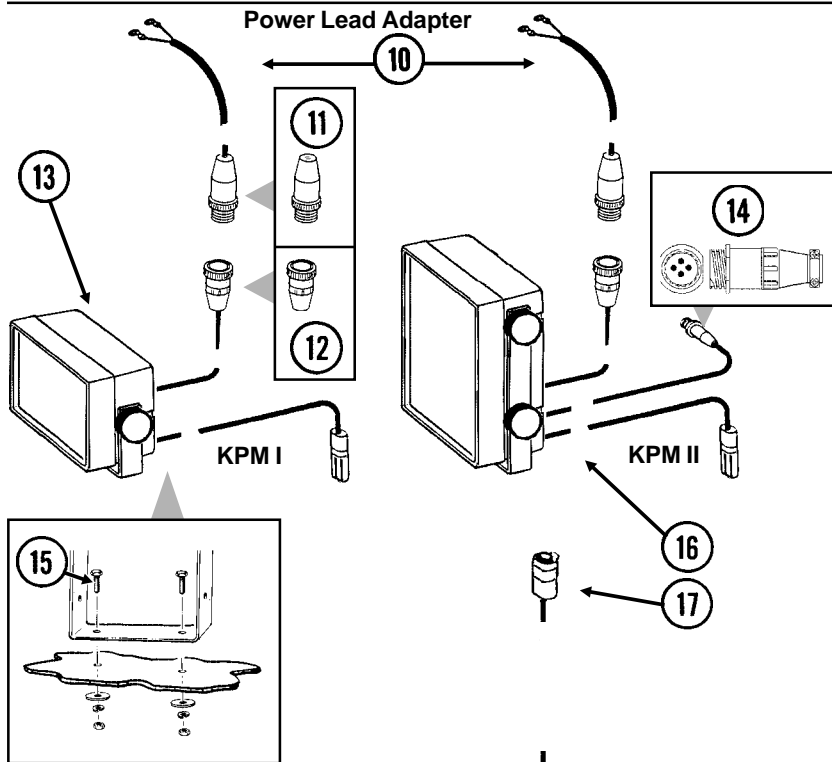
Radar Distance Sensor



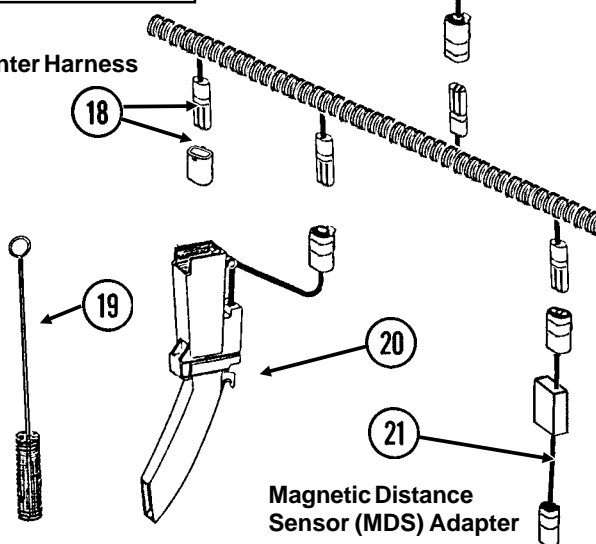
Magnetic Distance Sensor (MDS)



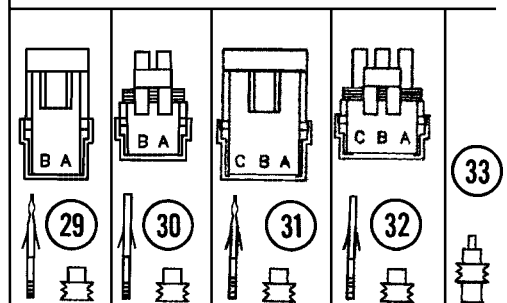
Power Lead Adapter



Planter Harness



Magnetic Distance Sensor (MDS) Adapter

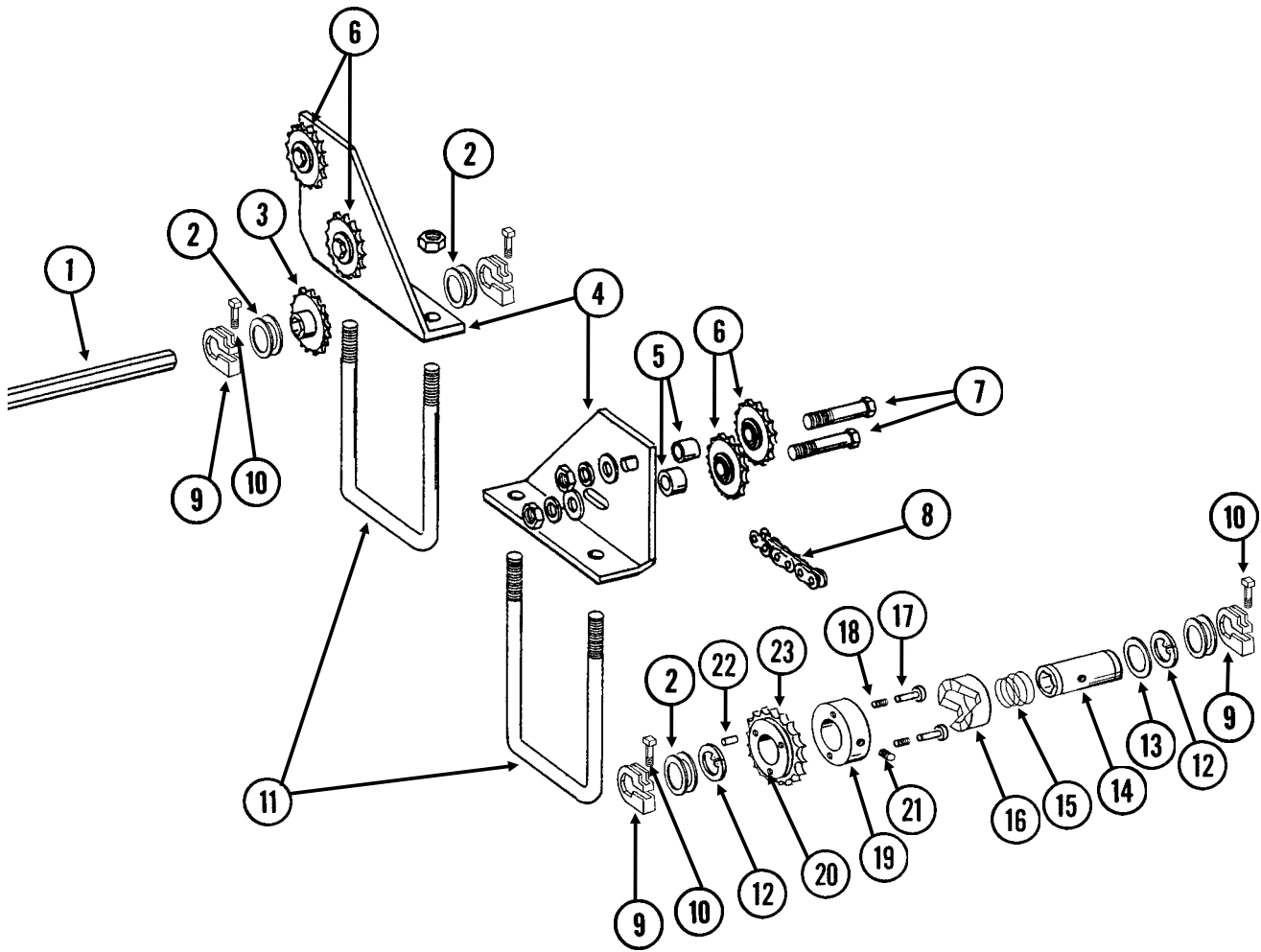


KPM I/KPM II ELECTRONIC SEED MONITOR

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7858	-	Radar Distance Sensor W/20' Cable (Used W/KPM II Console Only)
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 (Used W/KPM II Console Only)
5.	GD8751	-	Magnetic Distance Sensor Pulse Wheel (Used W/KPM II Console Only)
6.	GD6291	-	Insulated Clamp
7.	GD8770	1	Bracket
8.	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
9.	GD8771	1	Spring Wave Washer
10.	GA7856	1	Power Lead Adapter
11.	G1K267	-	Power Lead Adapter Connector Kit, Includes: (1) Cable Clamp, (1) 3-Pin Connector, (3) Male Terminal Pins
12.	G1K268	-	Console Cable Connector Kit, Includes: (1) Cable Clamp, (1) 3-Pin Connector, (1) Lock Ring, (3) Female Terminal Pins
13.	GA8680	1	KPM I Back Lit Console W/Mounting Bracket, Power Lead Adapter (Item 10), Brush (Item 19) And Dust Plug (Item 27)
	GR1390	-	Mounting Bracket, KPM I
	GR1392	-	Console Mounting Bracket Hardware Package (Includes 2 Knobs And 1/4" Hardware)
14.	G1K322	-	4-Pin Connector Kit W/Male Housing, 4 Female Socket Contacts And Cable Clamp
15.	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
16.	GA8681	-	KPM II Back Lit Console W/Mounting Bracket, Power Lead Adapter (Item 10), Brush (Item 19) And Dust Plug (Item 27)
	GR1391	-	Mounting Bracket, KPM II
	GR1393	-	Console Mounting Bracket Hardware Package (Includes 4 Knobs And 1/4" Hardware)
17.		-	Included In Planter Wiring Harnesses, See Item 21, Pages P72 And P73
18.	GA7851	-	Planter Harness W/Dust Caps, 12 Row (16 Connectors)
	GD11993	-	Dust Cap
19.	GR0594	-	Brush
20.	GA8495	-	Seed Tube W/Computerized Sensor
	GR1395	-	Sensor Only
	GR1461	-	Seed Tube (With Holes For Computerized Sensor Installation)
	GD2117	-	Tie Strap, 14 1/2"
21.	GA7859	1	Magnetic Distance Sensor Adapter (Analog To Digital)
22.	GR0586	1	Radar Y-Cable (Used To Connect Radar Distance Sensor For Multiple Functions)
23.	GA7857	-	Splice Harness, 1'
24.	GA7853	-	Junction Harness W/Dust Cap
	GD11993	-	Dust Cap
25.	GA7854	-	Extension Harness W/Dust Cap, 15'
	GA7855	-	Extension Harness W/Dust Cap, 30'
	GD11993	-	Dust Cap
26.	G1K249	-	Acre Counter Switch Kit (Used W/KPM II Console Only)
27.	GA8046	-	Dust Plug
28.	GA8047	-	Dust Plug
29.	G1K321	-	2-Pin Female Connector Kit, Includes: (3) 2-Pin Female Housings, (6) Pin Contacts, (6) Seals
30.	G1K320	-	2-Pin Male Connector Kit, Includes: (3) 2-Pin Male Housings, (6) Socket Contacts, (6) Seals
31.	G1K248	-	3-Pin Female Connector Kit, Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
32.	G1K252	-	3-Pin Male Connector Kit, Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
33.	GD11089	-	Sealing Plug
A.	GA6147	-	Magnetic Distance Sensor And Mounting Package (Items 4-9)

INTERPLANT® DRIVELINE

PTD073(TWL167a)

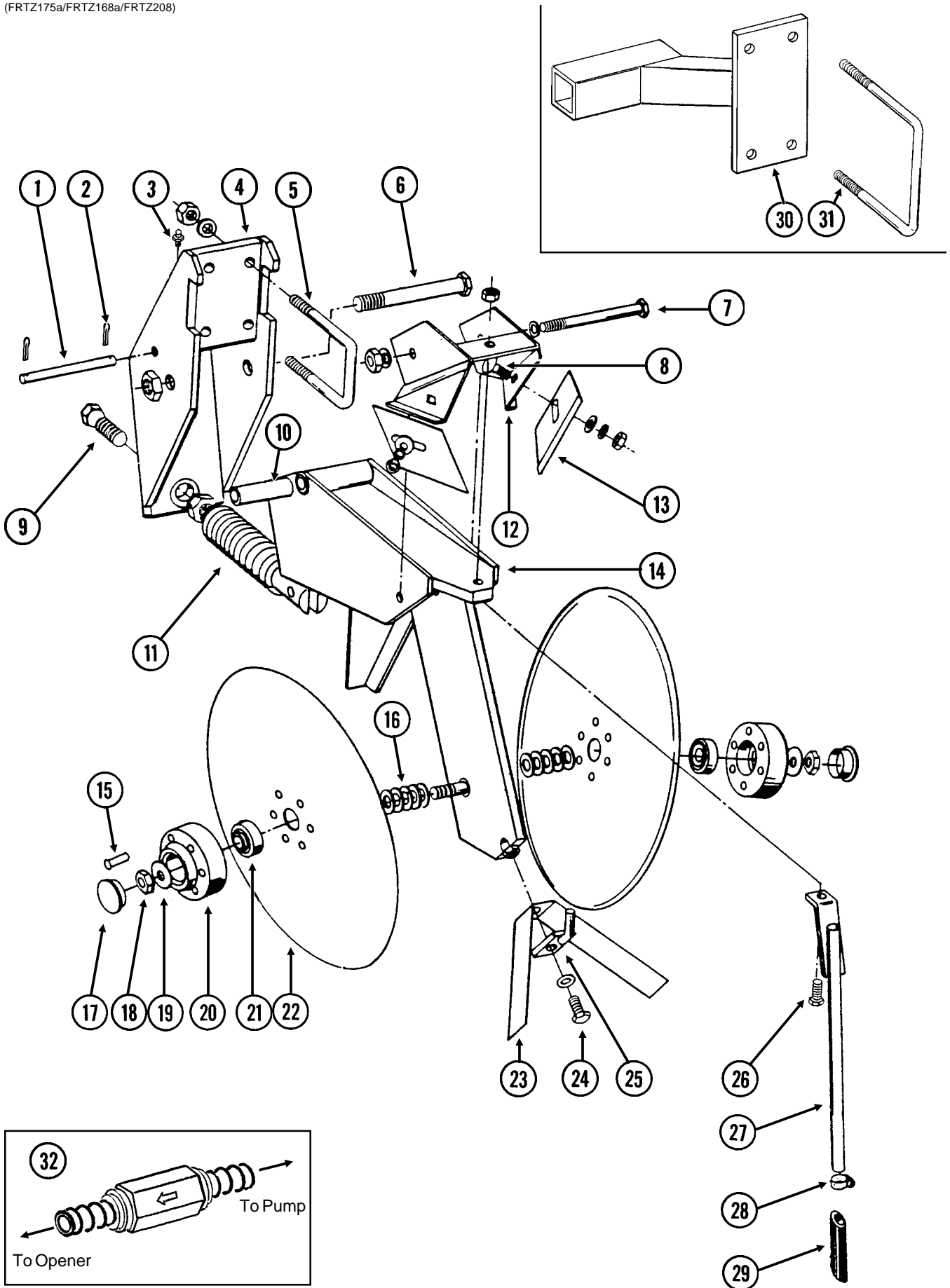


INTERPLANT® DRIVELINE

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD0914-208	-	Hex Shaft, 7/8" x 208" (No Holes)
2.	G10233	-	Machine Bushing, 1", 10 Gauge (As Required)
3.	GA5107	2	Sprocket, 19 Tooth
4.	GD11569	2	Mount
5.	GD9229	4	Spacer, 1 1/4" O.D. x 1/2" Long
6.	GA7154	-	Sprocket W/Bearing, 18 Tooth
7.	G10581	4	Hex Head Cap Screw, 1/2"-13 x 2 1/4"
	G10216	20	Washer, 1/2" USS
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
8.	G3310-328	1	Chain, No. 40, 328 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
9.	GD11045	6	Lock Clamp
10.	G10130	6	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	6	Flange Nut, 5/16"-18, No Serration
11.	GD8306	2	U-Bolt, 7" x 5" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	-	Hex Nut, 1/2"-13
12.	G10496	2	External Inverted Snap Ring, 1 1/2"
13.	GR1411	1	Shim
14.	GR1407	1	Drive Shaft
15.	GR1408	1	Compression Spring
16.	GR1409	1	Knurled Collar
17.	GR1410	1	Pin
18.	GR1413	1	Spring
19.	GR1405	1	Lock Collar
20.	GR1406	1	Bushing
21.	G10535	1	Hex Socket Set Screw, 3/8"-16 x 3/4"
22.	G10968	1	Spring Pin, 5/32" x 7/16"
23.	GR1412	1	Sprocket, 19 Tooth
A.	GA8092	-	Clutch Sprocket Assembly, 19 Tooth (Items 12-23)
B.	G1K269	-	Lock Clamp Kit (Items 9 And 10)

DOUBLE DISC FERTILIZER OPENER AND MOUNT

(FRTZ175a/FRTZ168a/FRTZ208)

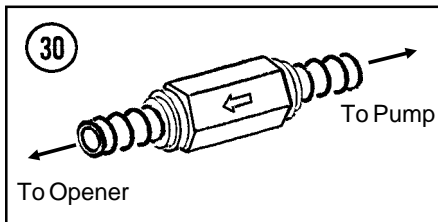
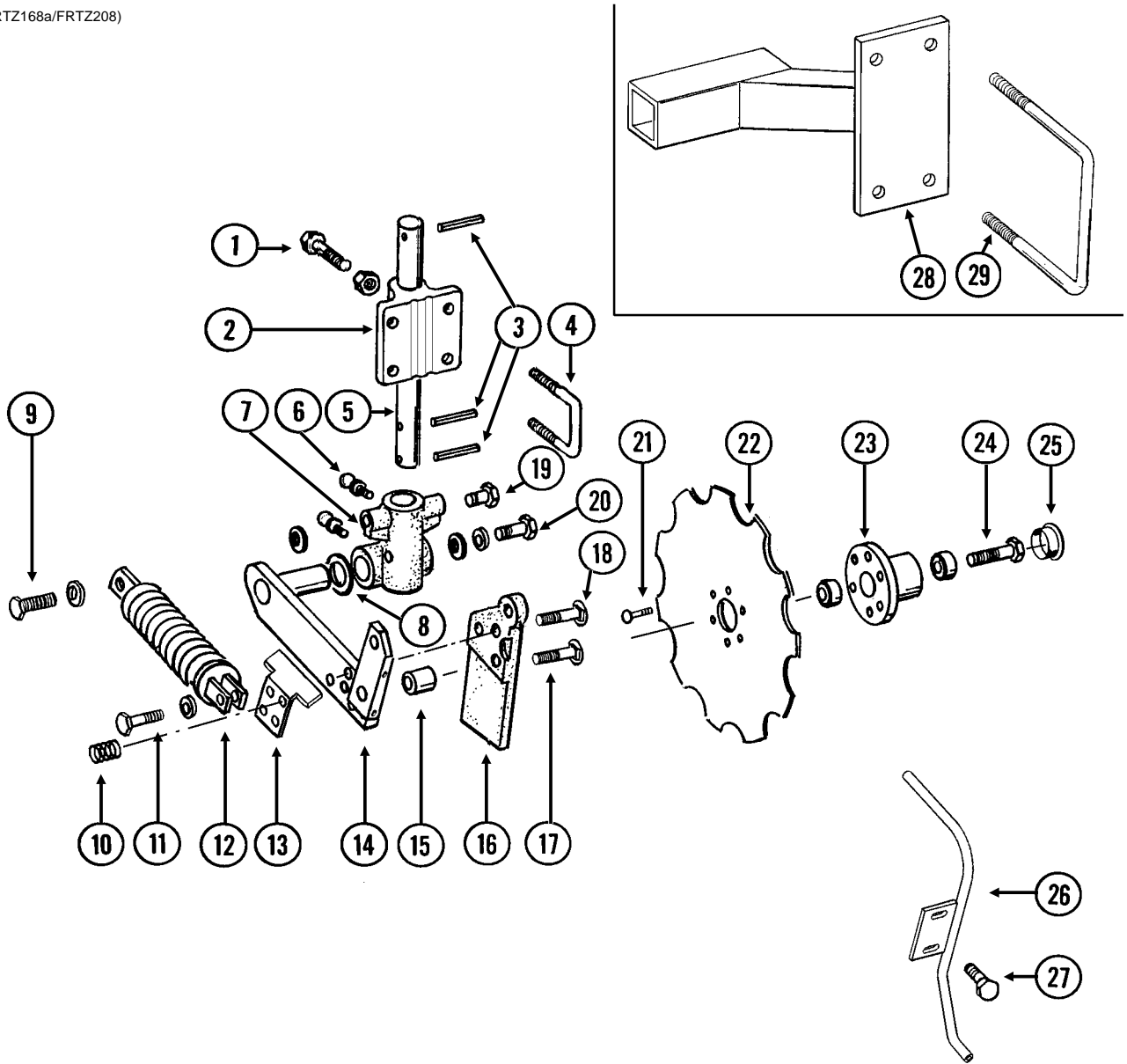


DOUBLE DISC FERTILIZER OPENER AND MOUNT

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GD1657	1	Lockup Pin
2.	G10451	2	Cotter Pin, 1/8" x 1"
3.	G10938	1	Grease Fitting, 1/4"-28 Taper Thread
4.	GA8483	1	Bracket
5.	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
6.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10107	1	Lock Nut, 5/8"-11
7.	G10045	1	Hex Head Cap Screw, 1/2"-13 x 4 1/2"
	G10111	1	Lock Nut, 1/2"-13
8.	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
9.	GD0962	1	Hex Head Adjusting Bolt, 5/8"-18 x 3 1/4"
	G10499	1	Jam Nut, 5/8"-18
10.	GD0487	1	Bushing, 41/64" I.D. x 3 1/2" Long
11.	GA0328	1	Spring
12.	GA0810	1	Scraper Mount
13.	GD1673	2	Scraper
14.	GA8484	1	Shank
15.	G10542	12	Rivet, 1/4" x 1 5/16"
16.	G10213	-	Machine Bushing, 5/8" (.030" Thick)
17.	GD1132	2	Dust Cap
18.	G10503	1	Jam Nut, 5/8"-11
	G10504	1	Jam Nut, 5/8"-11, L.H. Thread
19.	G10204	2	Special Machine Bushing, 5/8" x 1" O.D.
20.	GB0134	2	Hub
21.	GA2014	2	Bearing
22.	GD11306	2	Disc Blade, 15"
23.	GD2589	1	Inner Scraper
24.	G10019	1	Hex Head Cap Screw, 5/16"-18 x 1"
	G10232	1	Lock Washer, 5/16"
25.	GA0312	1	Mount
26.	G10133	1	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	1	Lock Nut, 5/16"-18
27.	GA8685	-	Drop Tube, Liquid Fertilizer
28.	G10681	-	Hose Clamp, No. 6
29.	GD11705	-	Extension
30.	GA8081	-	Opener Mount, L.H. (Shown)
	GA8080	-	Opener Mount, R.H.
31.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
32.	GA8983	-	Check Valve
A.	GA8845	-	Disc Blade And Bearing Assembly (Items 15 And 20-22)

NOTCHED SINGLE DISC FERTILIZER OPENER AND MOUNT

(PT67/FRTZ168a/FRTZ208)

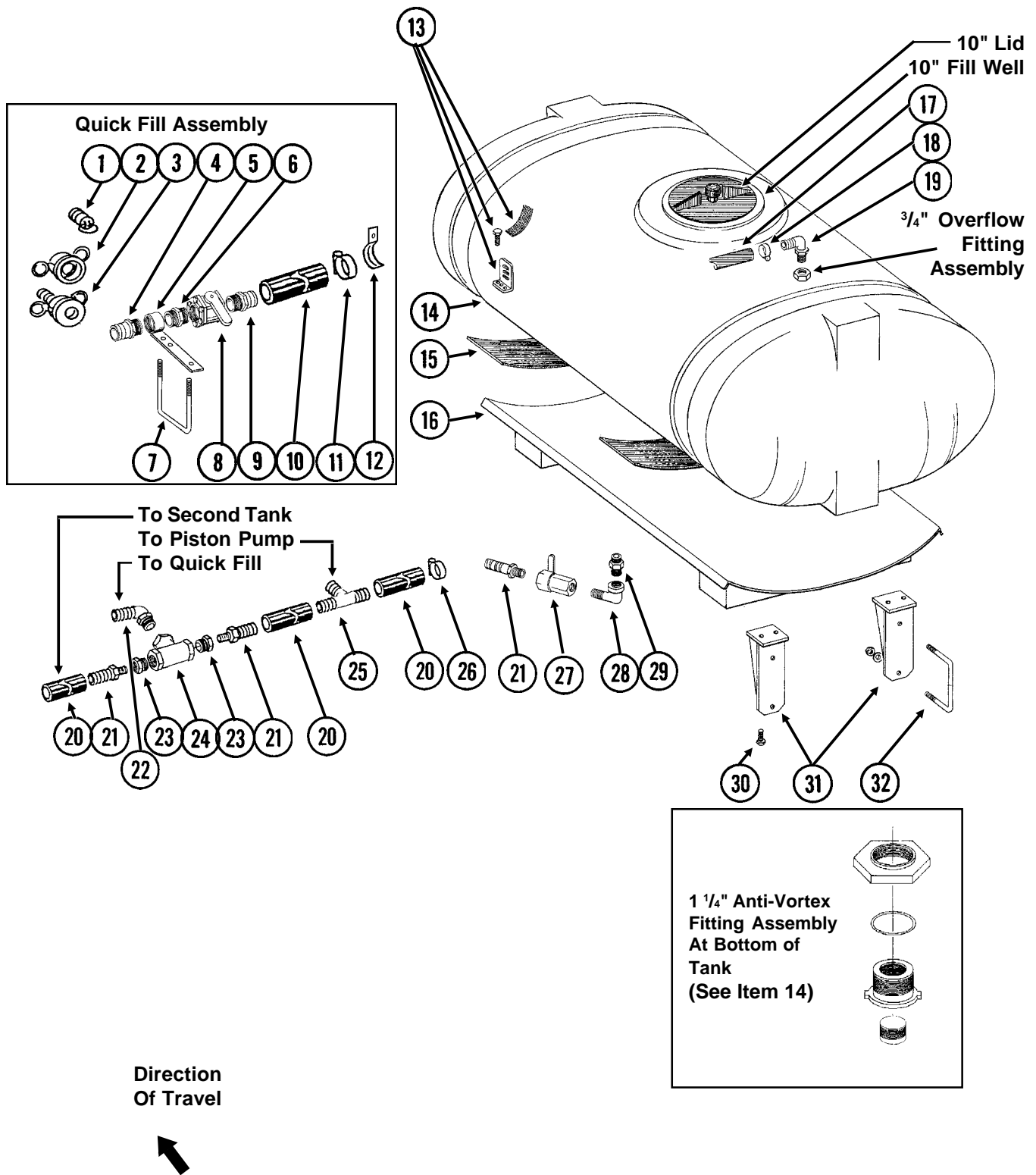


NOTCHED SINGLE DISC FERTILIZER OPENER AND MOUNT

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	G10014	2	Hex Head Cap Screw, 1/2"-13 x 1"
	G10102	2	Hex Nut, 1/2"-13
2.	GB0270	1	Mount
3.	G10476	3	Spring Pin, 3/8" x 2 1/4"
4.	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
5.	GD9908	1	Shaft, 1 1/2" x 14"
6.	G10641	2	Grease Fitting, 1/8" NPT
7.	GB0250	1	Pivot
8.	G10450	2	Machine Bushing, 1 1/2", 18 Gauge
9.	GD7818	1	Special Bolt
	GD7805	2	Special Washer, 5/8" Hardened
10.	GD11106	1	Spring
11.	G10047	1	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
	G10210	1	Washer, 3/8" USS
	GD1026	1	Sleeve, 1 3/16" Long
	G10108	1	Lock Nut, 3/8"-16
12.	GA6966	1	Compression Spring Assembly
13.	GD11097	1	Shield
14.	GA8007	1	Pivot Arm, L.H. (Shown)
	GA8008	-	Pivot Arm, R.H.
15.	GD7817-05	1	Spacer, 1 1/16" I.D. x 1 1/4" Long
16.	GB0249	1	Knife/Scraper, L.H. (Shown)
	GB0248	-	Knife/Scraper, R.H.
17.	G10306	2	Carriage Bolt, 3/8"-16 x 2"
	G10108	2	Lock Nut, 3/8"-16
18.	G10898	1	Carriage Bolt, 3/8"-16 x 2 3/4"
	G10210	1	Washer, 3/8" USS
	G10108	1	Lock Nut, 3/8"-16
19.	G10438	1	Hex Head Cap Screw, 1/2"-13 x 3/4"
20.	G10007	1	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	1	Lock Washer, 5/8"
	G10217	1	Washer, 5/8" USS
21.	G10886	6	Truss Head Bolt, 5/16"-18 x 1"
	G10106	6	Hex Nut, 5/16"-18
22.	GD9934	1	Disc Blade, Notched, 16 3/4"
23.	GA5654	1	Hub W/Bearings
	GA2014	-	Bearing
24.	G10013	1	Hex Head Cap Screw, 5/8"-11 x 3 1/2"
25.	GD1132	1	Dust Cap
26.	GA8398	1	Liquid Drop Tube, R.H.
	GA8399	-	Liquid Drop Tube, L.H.
27.	G10043	2	Hex Head Cap Screw, 5/16"-18 x 3/4"
	G10232	2	Lock Washer, 5/16"
	G10219	2	Washer, 5/16" USS
28.	GA8081	-	Opener Mount, L.H. (Shown)
	GA8080	-	Opener Mount, R.H.
29.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
30.	GA8983	-	Check Valve
A.	G7534X	-	Drop Tube Bundle (1 L.H. And 1 R.H.) (Item 26)

LIQUID FERTILIZER TANKS, SADDLES, SADDLE MOUNTS AND HOSES

LFC037/LFC038(FRTZ196)



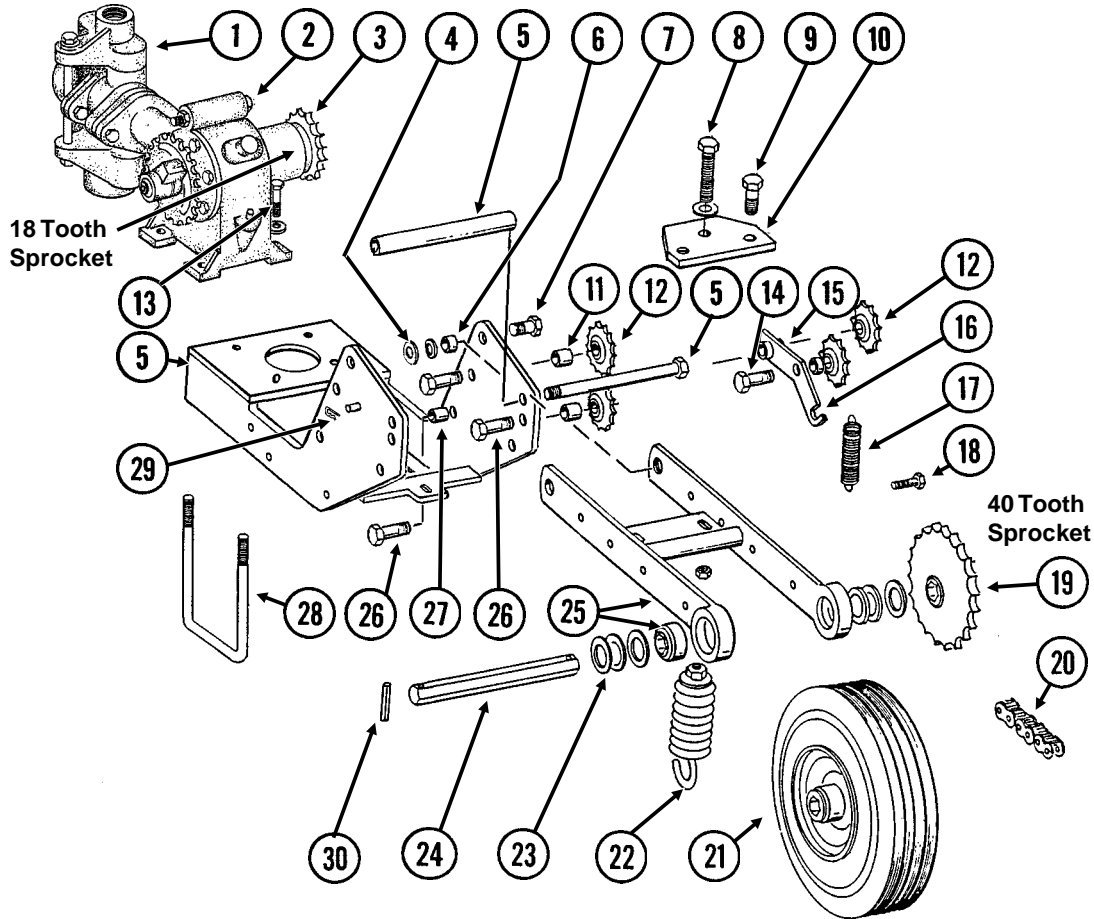
LIQUID FERTILIZER TANKS, SADDLES, SADDLE MOUNTS AND HOSES

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD10777	1	Dust Plug, 2" Male Cam Lock
2.	GD3622	1	Adapter, 2" Female NPT To Cam Lock
3.	GD3951	1	Dust Cap, 2" Cam Lock
4.	GD3623	1	Adapter, 2" Male NPT To Cam Lock
5.	GA8082	1	Quick Fill Mount, 2" NPT
6.	G10623	1	Close Nipple, 2" NPT
7.	GD1134	1	U-Bolt, 7" x 5" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
8.	GA2660	1	Shutoff Valve, 2" NPT
9.	G10628	1	Adapter, 2" NPT To Barb
10.	G4201-04	1	Hose, 2" x 15'
11.	G10676	2	Hose Clamp, No. 36
12.	GD11235	1	Hose Clamp, 2"
13.	GA8114	2	Tank Mounting Hardware Package, Includes: (2) Straps, (4) Anchors, (8) G10485, (8) G10901
	G10485	-	Hex Head Tap Bolt, 3/8"-16 x 5"
	G10901	-	Lock Nut, 3/8"-16
14.	GA8085	2	Tank With Lid And Fittings, 200 Gallon
	GR1005	-	Fill Well, 10", Threaded (Top Of Tank)
	GR1006	-	Lid, 10", Threaded (Top Of Tank)
	GR0513	-	3/4" Polypropylene Overflow Fitting Assembly (Nut, Bushing And O-Ring) (Top Of Tank)
	GR1435	-	1 1/4" Anti-Vortex Fitting Assembly (Nut, Bushing And O-Ring) (Bottom Of Tank)
15.	GD1862	-	Pad, 8" x 14'
16.	GA8088	2	Tank Saddle
17.	G4205-11	-	Hose, 3/4" x 72" (One Per Tank)
18.	G10278	4	Hose Clamp, No. 16
19.	G10917	2	Elbow, 90°, 3/4" NPT To Barb
20.	G4200-01	1	Hose, 1 1/4" x 25'
21.	G10626	4	Adapter, 1 1/4" NPT To Barb
22.	G10630	1	Elbow, 90°, 2" NPT To Barb
23.	G10616	2	Reducing Bushing, 2" Male NPT To 1 1/4" Female
24.	G10888	1	Tee, 2" Female NPT
25.	G10633	1	Tee, 1 1/4" Barb
26.	G10674	10	Hose Clamp, No. 24
27.	GA4976	2	Shutoff Valve, 1 1/4" NPT
	GR1015	-	Body O-Ring
	GR1016	-	Stem O-Ring
	GR1017	-	Teflon Seal
	GR1018	-	Ball
	GR1019	-	Handle
28.	G10887	2	Elbow, 90°, 1 1/4" Male NPT To Female
29.	G10619	2	Close Nipple, 1 1/4" NPT
30.	G10017	16	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10216	32	Washer, 1/2" USS
	G10228	16	Lock Washer, 1/2"
	G10102	16	Hex Nut, 1/2"-13
31.	GA8438	8	Saddle Mount
32.	GD1113	8	U-Bolt, 5" x 7" x 5/8"-11
	G10230	16	Lock Washer, 5/8"
	G10104	16	Hex Nut, 5/8"-11

LIQUID FERTILIZER PISTON PUMP DRIVE

LFC028(TWL43f)

40 Tooth Drive Sprocket And 18 Tooth Driven Sprocket



ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Liquid Fertilizer Piston Pump (Cylinder Assembly)", Pages P90 And P91
2.		-	See "Liquid Fertilizer Piston Pump (Crankcase Assembly)", Pages P88 And P89
3.		-	Sprocket, 18 Tooth, See "Liquid Fertilizer Piston Pump (Crankcase Assembly)", Pages P88 And P89
4.	GD7805	2	Hardened Washer, $\frac{5}{8}$ ", Hardened
5.	GA8486	1	Pump Mount W/Sleeve And Sleeve Mounting Hardware
	GD10165	1	Sleeve, $6 \frac{3}{4}$ "
	G10819	1	Hex Head Cap Screw, $\frac{1}{2}$ "-13 x $8 \frac{1}{2}$ "
	G10228	1	Lock Washer, $\frac{1}{2}$ "
	G10102	1	Hex Nut, $\frac{1}{2}$ "-13
6.	GB0218	2	Bushing, $\frac{21}{32}$ " I.D. x $\frac{7}{8}$ " O.D. x $\frac{19}{32}$ " Long

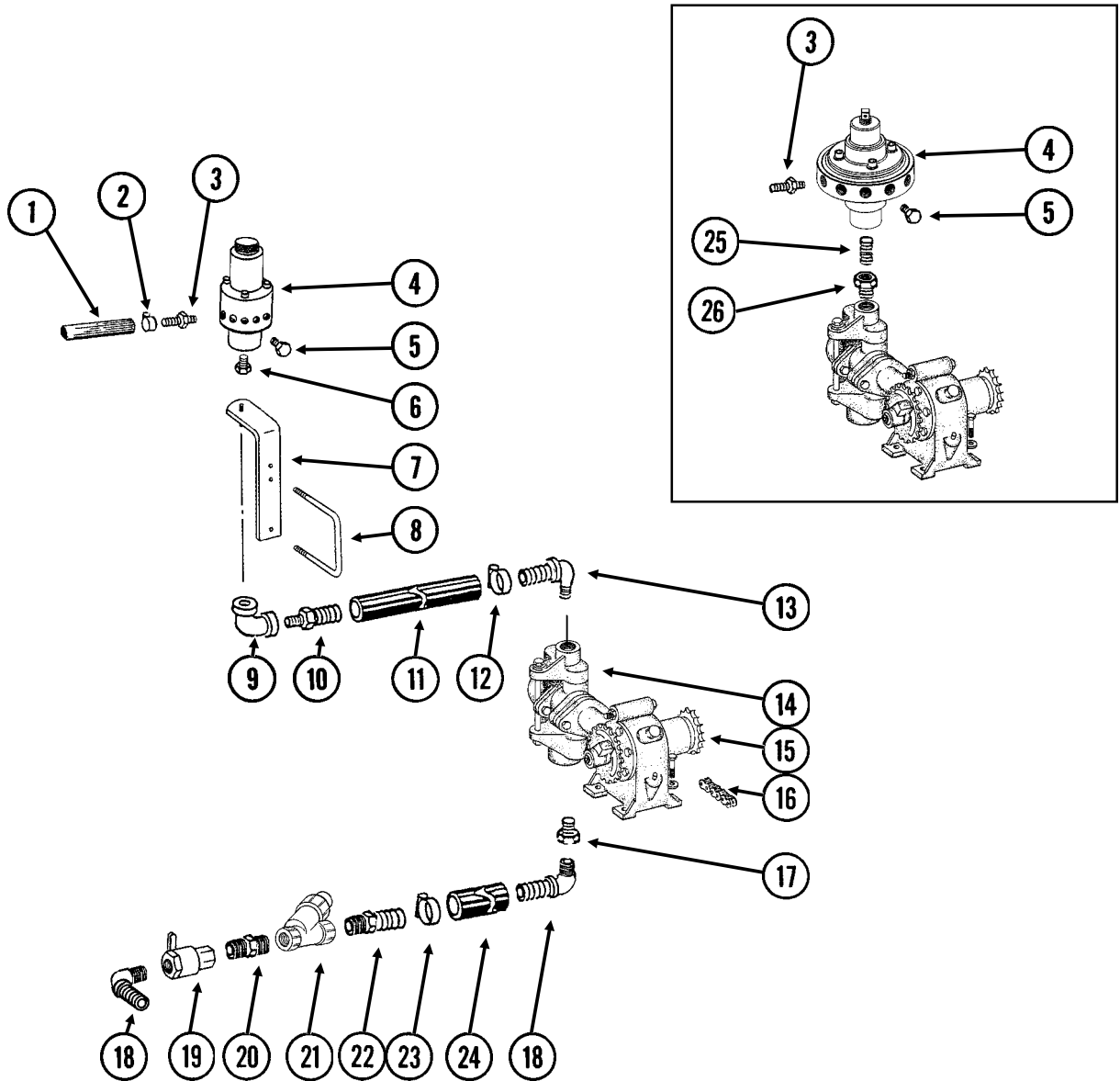
LIQUID FERTILIZER PISTON PUMP DRIVE

ITEM	PART NO.	QTY.	DESCRIPTION
7.	G10005	2	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	G10235	2	Machine Bushing, 7/8", 14 Gauge
	G10107	2	Lock Nut, 5/8"-11
8.	G10371	1	Hex Head Cap Screw, 1/2"-13 x 3", Full Thread
	G10206	1	Washer, 1/2" SAE
	G10102	1	Hex Nut, 1/2"-13
9.	G10039	2	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
	G10206	2	Washer, 1/2" SAE
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
10.	GD10156	1	Spring Mount
11.	GD10007	2	Spacer, 1 1/8"
12.	GA7154	4	Sprocket W/Bearing, 18 Tooth
13.	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
	14.	G10016	1
G10228		1	Lock Washer, 1/2"
G10102		1	Hex Nut, 1/2"-13
15.	GD10161	1	Spacer, 3/8"
16.	GA7179	1	Idler Arm
17.	GD5857	1	Spring
18.	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1/2"
	G10229	1	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
19.	GA7180	1	Sprocket, 40 Tooth
20.	G3310-160	1	Chain, No. 40, 160 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
21.	GA5090	1	Tire And Rim Assembly (Specify Brand*)
	GD5753	-	Tire, 4.10" x 6" (Specify Brand*)
	GD5752	-	Tube
22.	GA2068	1	Spring
23.	G10233	5	Machine Bushing, 1", 10 Gauge
24.	GD5797	1	Shaft, 7/8" x 10"
25.	GA6415	1	Wheel Arm W/Bearings
	GA5116	-	Bearing, 7/8" Hex Bore, Cylindrical
26.	G10038	3	Hex Head Cap Screw, 1/2"-13 x 3"
	G10228	3	Lock Washer, 1/2"
	G10102	3	Hex Nut, 1/2"-13
27.	GD7904-04	-	Sleeve, 1/2" x 1 1/8" Long
28.	GD1134	2	U-Bolt, 7" x 5" x 5/8"-11
	G10217	4	Washer, 5/8" USS
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
29.	G10670	1	Hair Pin Clip, No. 3
30.	G10602	2	Spring Pin, 1/4" x 1 1/2"

* Specific brand requests will be supplied only as available from current KINZE® 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 could result in rate changes.

LIQUID FERTILIZER FLOW DIVIDER MOUNT AND HOSES

(FRTZ176c/FRTZ176i)



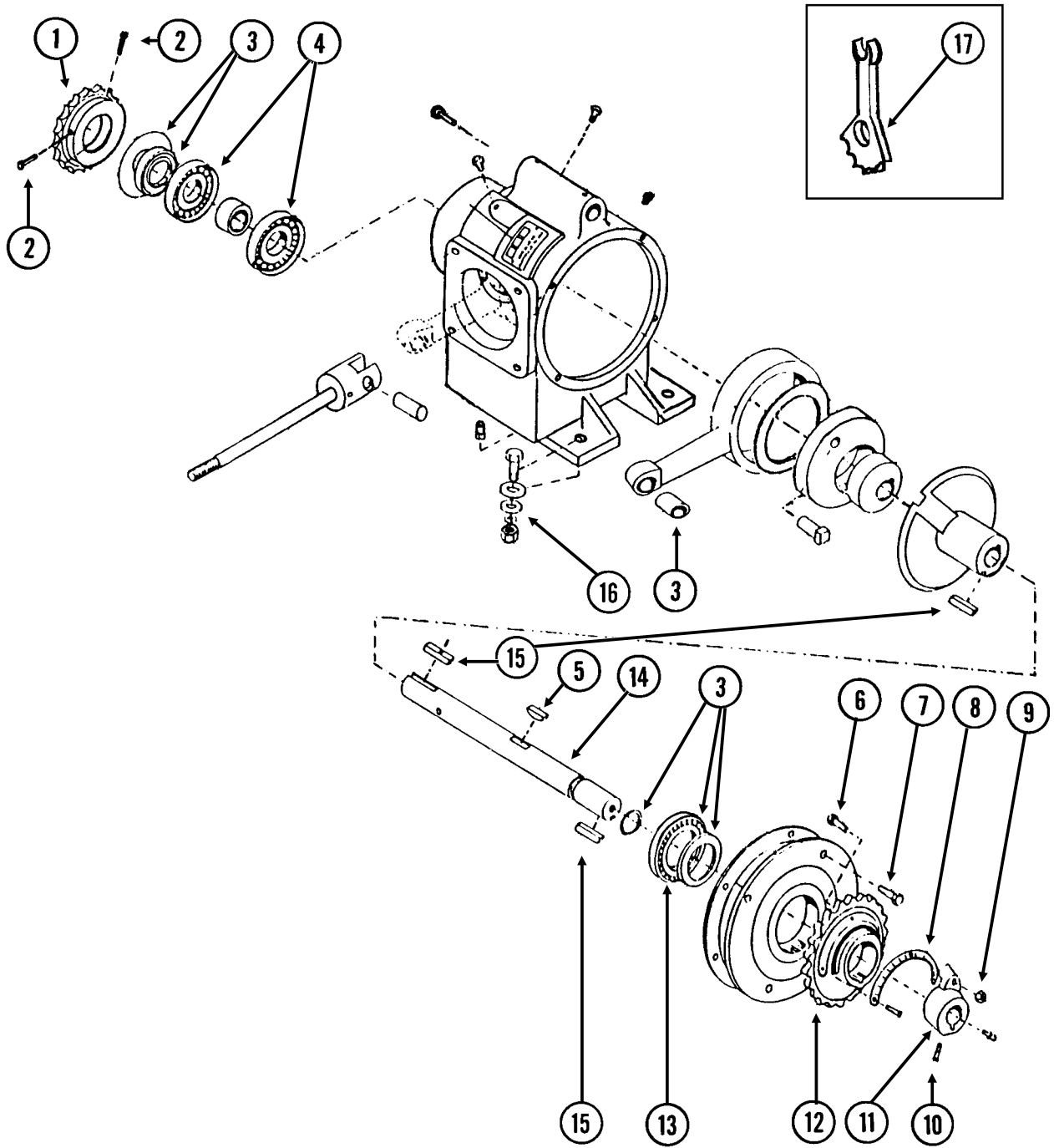
LIQUID FERTILIZER FLOW DIVIDER MOUNT AND HOSES

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G4301-06	1	Hose, 3/8" x 160'
2.	G10681	24	Hose Clamp, No. 6
3.	GD11700	12	Adapter, 1/4" NPT To 3/8" Barb
4.		-	See "Liquid Fertilizer Piston Pump Flow Divider", Pages P92 And P93
5.	G10292	-	Pipe Plug, 1/4" NPT
6.	G10613	1	Reducing Bushing, 1" Male NPT To 3/4" Female (If Applicable)
7.	GA6527	1	Support, 3/4" NPT
8.	GD1113	1	U-Bolt, 5" x 7" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
9.	G10733	1	Elbow, 90°, 3/4" Female NPT
10.	G10734	1	Adapter, 3/4" NPT To Barb
11.	G4205-03	-	Hose, 3/4" x 97"
12.	G10278	2	Hose Clamp, No. 16
13.	G10896	1	Elbow, 90°, 3/4" Barb To 1" NPT
14.		-	See "Liquid Fertilizer Piston Pump (Cylinder Assembly)", Pages P90 And P91
15.		-	See "Liquid Fertilizer Piston Pump (Crankcase Assembly)", Pages P88 And P89
16.		-	See "Liquid Fertilizer Piston Pump Drive", Pages P84 And P85
17.	G10615	1	Reducing Bushing, 1 1/2" Male NPT To 1 1/4" Female
18.	G10629	2	Elbow, 90°, 1 1/4" NPT To Barb
19.	GA4976	2	Shutoff Valve, 1 1/4" NPT
	GR1015	-	Body O-Ring
	GR1016	-	Stem O-Ring
	GR1017	-	Teflon Seal
	GR1018	-	Ball
	GR1019	-	Handle
20.	G10619	1	Close Nipple, 1 1/4" NPT
21.	GA3893	1	Strainer Complete
	GR0880	-	Screen, No. 40 Mesh
	GR0881	-	Gasket
	GR0882	-	Y-Body
	GR0883	-	End Cap
22.	G10626	2	Adapter, 1 1/4" NPT To Barb
23.	G10674	2	Hose Clamp, No. 24
24.		-	Hose, 1 1/4", See "Liquid Fertilizer Tanks, Saddles, Saddle Mounts And Hoses", Pages P82 And P83
25.	G10994	1	Close Nipple, 3/4" NPT, Stainless Steel
26.	G10995	1	Reducing Bushing, 1" Male NPT To 3/4" Female, Stainless Steel

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

JB-L4400-991/CCU077(FRTZ172a)

Model LM-2455-R



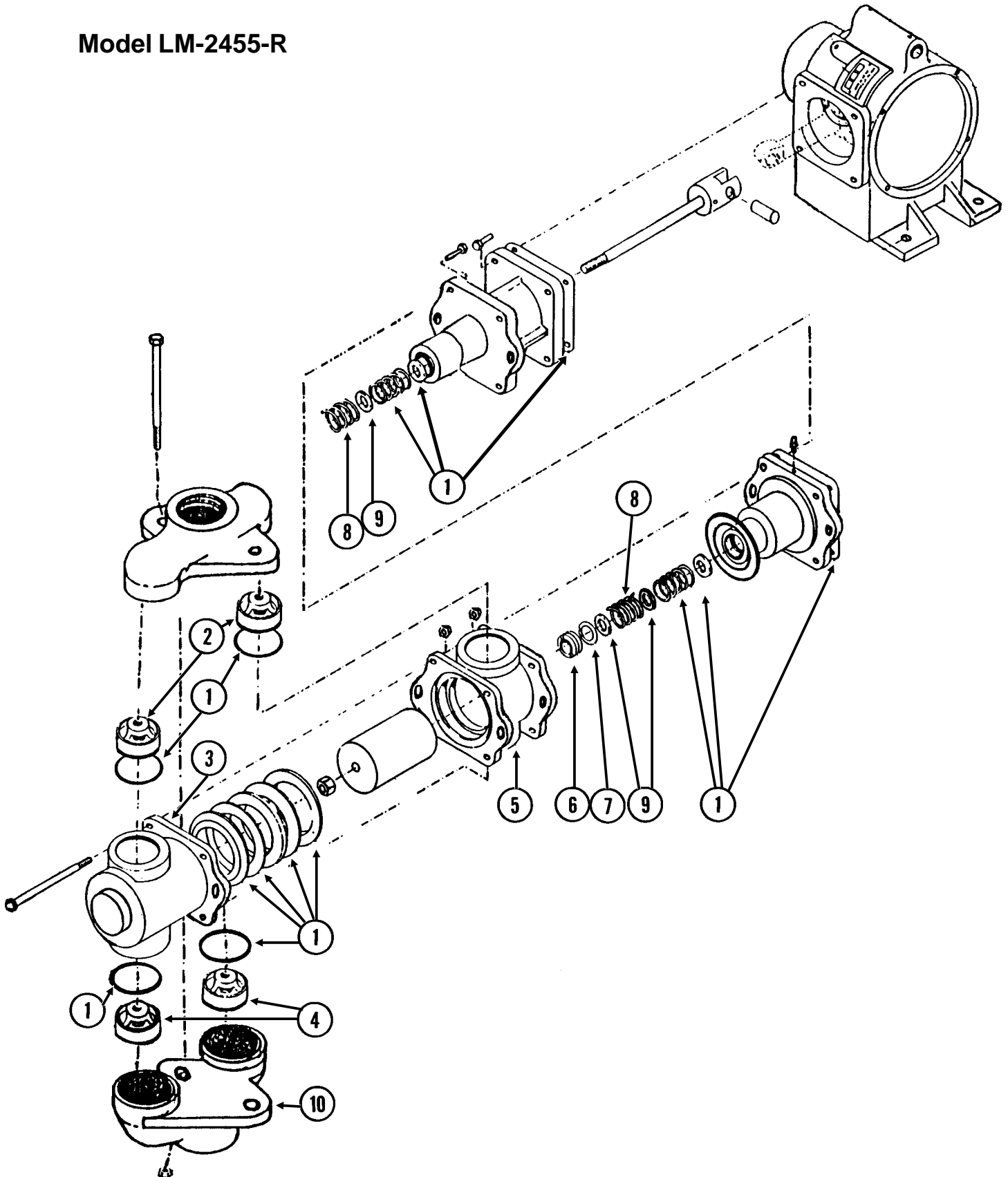
LIQUID FERTILIZER PISTON PUMP (Crankcase Assembly) Uses 18 Tooth Sprocket

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1389	1	Sprocket, 18 Tooth
2.	G10688	2	Hex Socket Head Set Screw, $\frac{3}{8}$ "-16 x $\frac{5}{8}$ "
3.	GR1425	1	Repair Kit, Also Includes Item 1 On Pages P90 And P91
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 Drive", Pages P84 And P85
17.	GR1424	1	Adjustment Wrench
A.	GA8069	-	Piston Pump Complete With 18 Tooth Sprocket (LM-2455-R), Includes Crankcase Assembly On This Page And Cylinder Assembly On Pages P90 And P91

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

JB-L2190-991(FRTZ171)

Model LM-2455-R



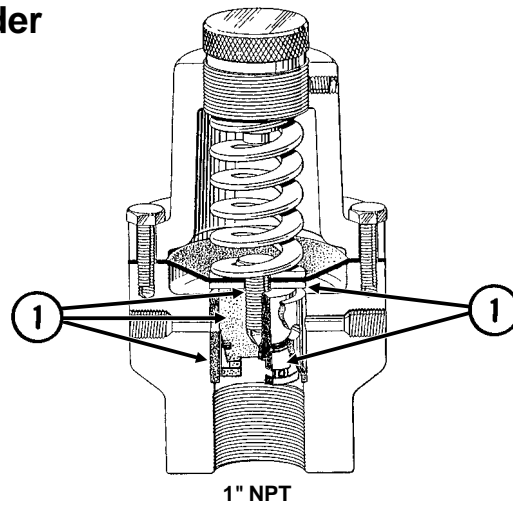
LIQUID FERTILIZER PISTON PUMP (Cylinder Assembly) Uses 18 Tooth Sprocket

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1425	1	Repair Kit, Also Includes Item 3 On Pages P88 And P89
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

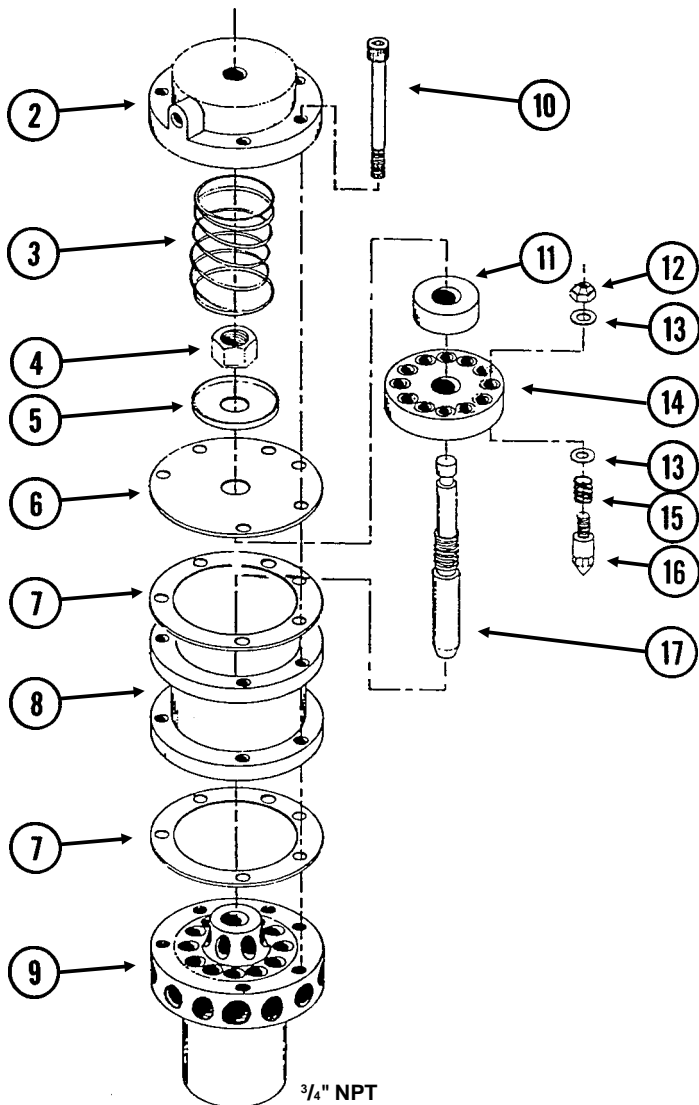
LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

(FRTZ159/PT40a/FRTZ202a)

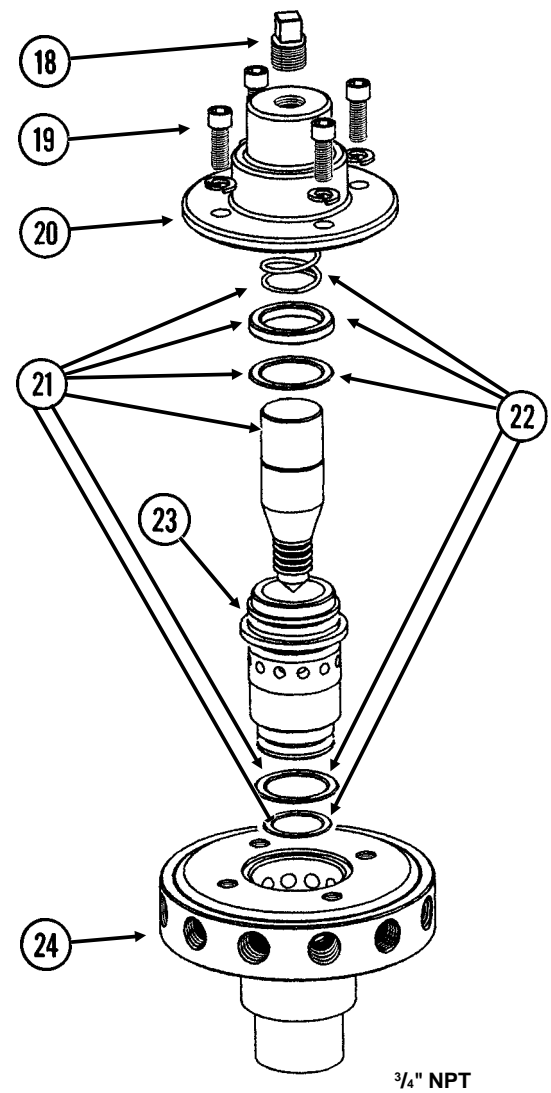
Model 70-12 Flow Divider



Model L-2190 Flow Divider



Model FD-1200 Flow Divider



LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1388	1	Repair Kit, Includes: (2) Washers, (1) Piston, (1) O-Ring, (1) Piston Bolt, (1) Piston Ring
2.	GR1150	1	Cap
3.	GR1151	1	Spring
4.	G10358	1	Hex Nut, $\frac{9}{16}$ "-18
5.	GR1152	1	Plate
6.	GR1153	1	Diaphragm
8.	GR1154	1	Housing
7.	GR1155	2	Gasket
9.	*	1	Manifold
10.	GR1157	6	Socket Screw, $\frac{1}{4}$ "-20
11.	GR1158	1	Lock
12.	*	12	Valve Nut
13.	*	24	Stainless Steel Washer
14.	*	1	Disk
15.	*	12	Spring
16.	*	12	Valve
17.	GR1162	1	Plunger
18.	GR1543	1	Plug
19.	GR1542	4	Hex Socket Head Screw, $\frac{1}{4}$ "-20 x $\frac{3}{4}$ ", Stainless Steel
	GR1541	4	Lock Washer, $\frac{1}{4}$ ", Stainless Steel
20.	GR1540	1	Cap
21.	GR1544	1	Needle Assembly W/Seal Kit (Item 22)
22.	GR1545	1	Seal Kit, Includes: (3) O-Rings, (1) Seal, (1) Spring
23.	GR1535	1	Sleeve
24.	GR1533	1	Body
A.	GA8068	1	Liquid Fertilizer Piston Pump Flow Divider Complete, 12 Outlet (Model 70-12 Or Model L-2190)(Specify Model**)
B.	GA8931	1	Liquid Fertilizer Piston Pump Flow Divider Complete, 12 Outlet (Model FD-1200)

* Factory calibration required on Model L-2190. Replacement not recommended. Always be sure timing marks on disk and manifold line up.

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

SMV SIGN, DECALS, REFLECTORS AND TIE STRAPS



1



2

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

3



4

DANGER

SERIOUS INJURY OR DEATH CAN RESULT FROM CONTACT WITH ELECTRICAL LINES. USE CARE TO AVOID CONTACT WITH ELECTRIC LINES WHEN MOVING OR OPERATING THIS MACHINE.

7100-117

5

ATTENTION

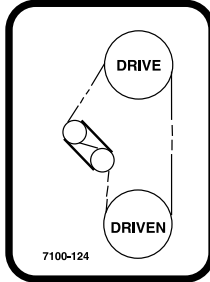
Connect directly to **BATTERY** whenever possible

Connect black lead to negative terminal

Connect to **12 Volts Only**

7100-123

6



7

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

8

Twin-Line

7100-177

9

IMPORTANT

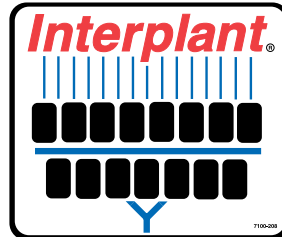
SEED METER ALIGNMENT TO DRIVE CLUTCH IS CRITICAL. REFER TO OPERATOR'S MANUAL FOR INSTRUCTIONS.

7100-248

10



11



12

13

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

WARNING

MAXIMUM INFLATION PRESSURE 75 PSI

7100-119

14

KINZE 3400

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

7100-234

16

15

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

17

WARNING

TO AVOID INJURY -- ALWAYS LOWER PLANTER UNITS TO THE GROUND BEFORE UNHITCHING PLANTER. TONGUE CAN RAISE SUDDENLY.

7100-43

18

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

19

CAUTION

SET DOWN PRESSURE SPRINGS TO MINIMUM. LOWER PLANTER TO GROUND AND EMPTY SEED HOPPERS. REQUIRES 90 LB MIN TO LIFT.

7100-246

20

CAUTION

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

7100-63

22

WARNING

TOW ONLY WITH FARM TRACTOR

7100-56

21

WARNING

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

7100-68

23

CAUTION

AVOID UNEVEN LOADING OF HOPPERS, ESPECIALLY DURING TRANSPORT

7100-75

24

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

25

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

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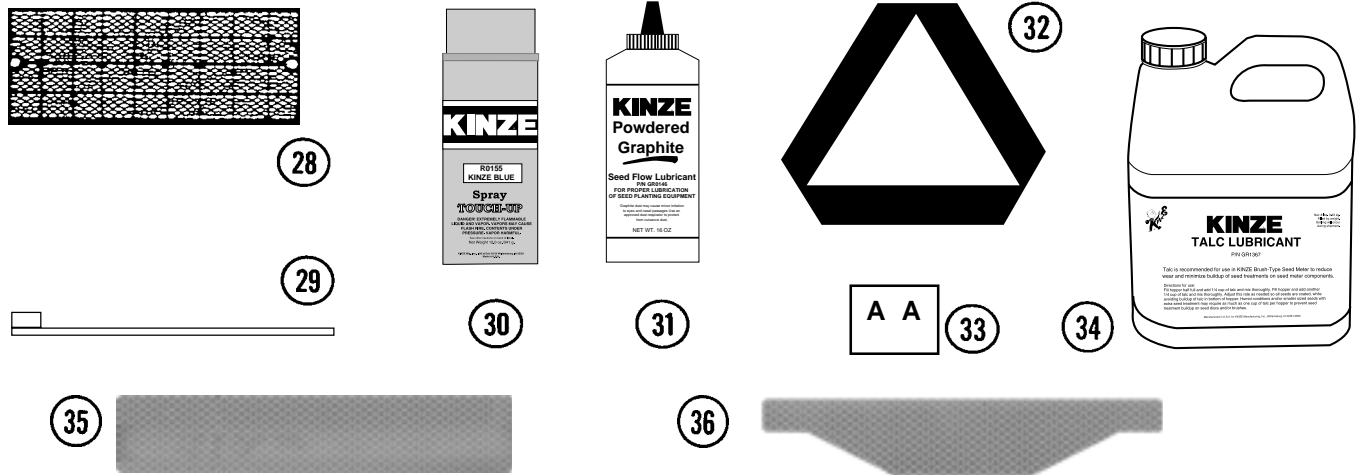
WARNING

THIS MACHINE HAS BEEN DESIGNED AND BUILT WITH YOUR SAFETY IN MIND. ANY ALTERATION TO THE DESIGN OR CONSTRUCTION MAY CREATE SAFETY HAZARDS. DO NOT MAKE ANY ALTERATIONS OR CHANGES TO THE EQUIPMENT, BUT IF ANY ALTERATIONS OR CHANGES ARE MADE YOU MUST FOLLOW ALL APPROPRIATE SAFETY STANDARDS AND PRACTICES TO PROTECT YOU AND OTHERS NEAR THIS MACHINE FROM INJURY.

7100-90

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SMV SIGN, DECALS, REFLECTORS AND TIE STRAPS



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G7100-110	-	Decal, Grease Weekly
2.	G7100-111	-	Decal, Oil Daily
3.	G7100-115	-	Decal, Warning (1 Per Granular Chemical Hopper)
4.	G7100-116	-	Decal, Grease Daily
5.	G7100-117	1	Decal, Danger
6.	G7100-123	1	Decal, Attention
7.	G7100-124	1	Decal, Transmission
8.	G7100-153	-	Decal, Information (1 Per Brush-Type Seed Meter)
9.	G7100-177	1	Decal, Twin-Line®, 3/4" x 3"
10.	G7100-248	-	Decal, Meter Alignment (1 Per Row Unit)
11.	G7100-247	-	Decal, Logo, 4 3/8" x 4 1/2" (Row Unit)
	G7100-252	-	Decal, Logo, 3 1/2" x 3 5/8" (Hopper Panel Extension)
12.	G7100-208	-	Decal, Interplant®
13.	G7100-217	1	Decal, Note
14.	G7100-219	4	Decal, Warning
15.	G7100-243	2	Decal, 3400
16.	G7100-234	-	Decal, Bolt Torque (Frame Mounted Coulters)
17.	G7100-42	4	Decal, Warning
18.	G7100-43	1	Decal, Warning
19.	G7100-46	1	Decal, Warning
20.	G7100-249	-	Decal, Caution (Interplant® Push Unit Lift Lever)
21.	G7100-56	1	Decal, Warning
22.	G7100-63	2	Decal, Caution
23.	G7100-68	4	Decal, Warning
24.	G7100-75	4	Decal, Caution
25.	G7100-83	4	Decal, Warning
26.	G7100-89	2	Decal, Danger
27.	G7100-90	1	Decal, Warning
28.	G7200-03	2	Reflector, Red
	G7200-04	2	Reflector, Amber
29.	GD1512	-	Tie Strap, 7 1/2"
	GD2117	-	Tie Strap, 14 1/2"
	GD1162	-	Tie Strap, 28"
	GD2984	-	Tie Strap, 34"

(Continued)

SMV SIGN, DECALS, REFLECTORS AND TIE STRAPS

ITEM	PART NO.	QTY.	DESCRIPTION
30.	GR0155	-	Blue Paint, Aerosol (Shown)
	GR0439	-	Blue Paint, Quart Can
	GR0440	-	Blue Paint, Gallon Can
31.	GR0146	-	Powdered Graphite, 1 Pound
32.	GD2199	1	SMV Sign
33.	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
34.	GR1367	-	Talc Seed Lubricant, 8 Pounds
35.	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)
36.	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)

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