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## FERTILIZER

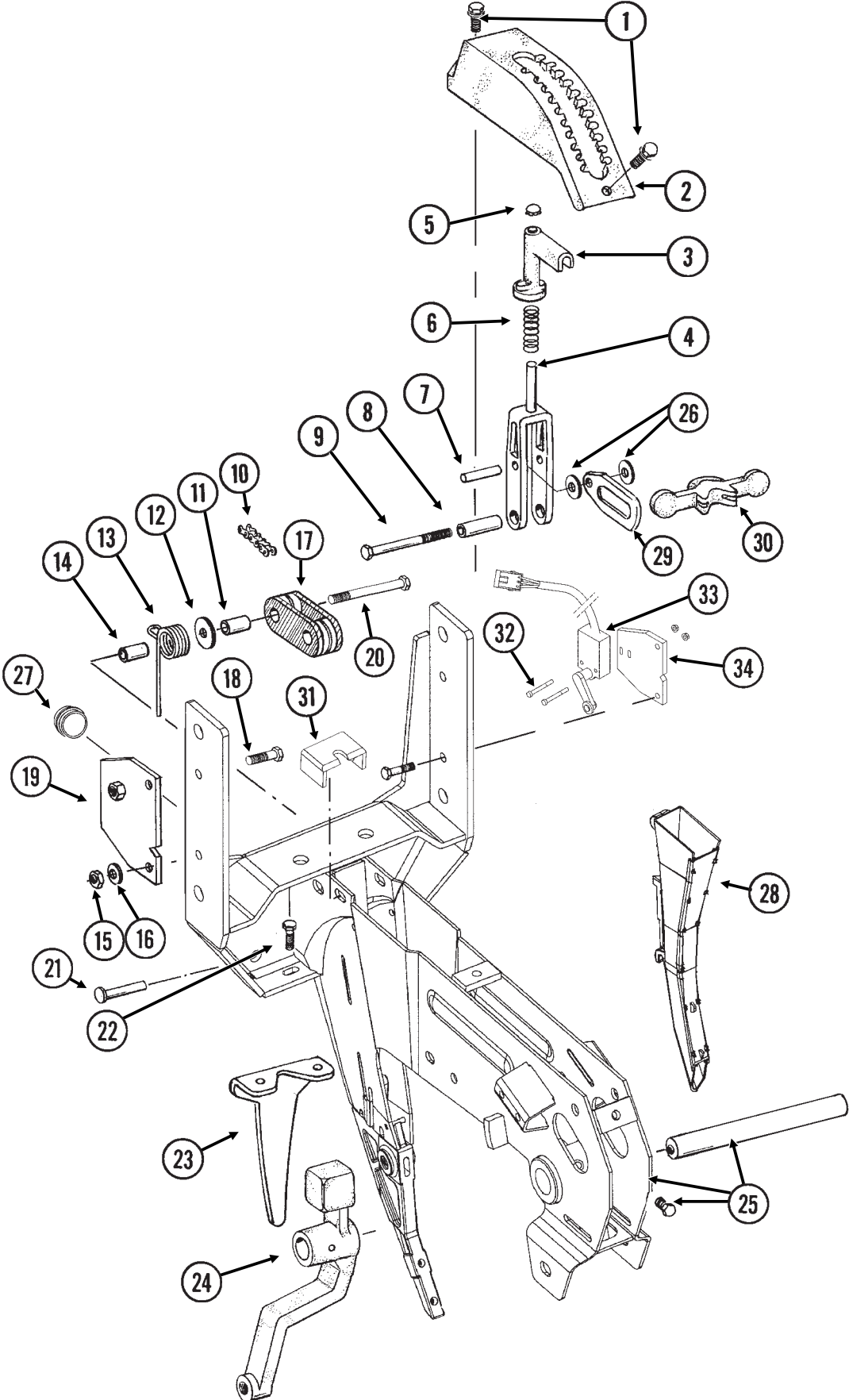
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# SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

(RU166/D16245)



# SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

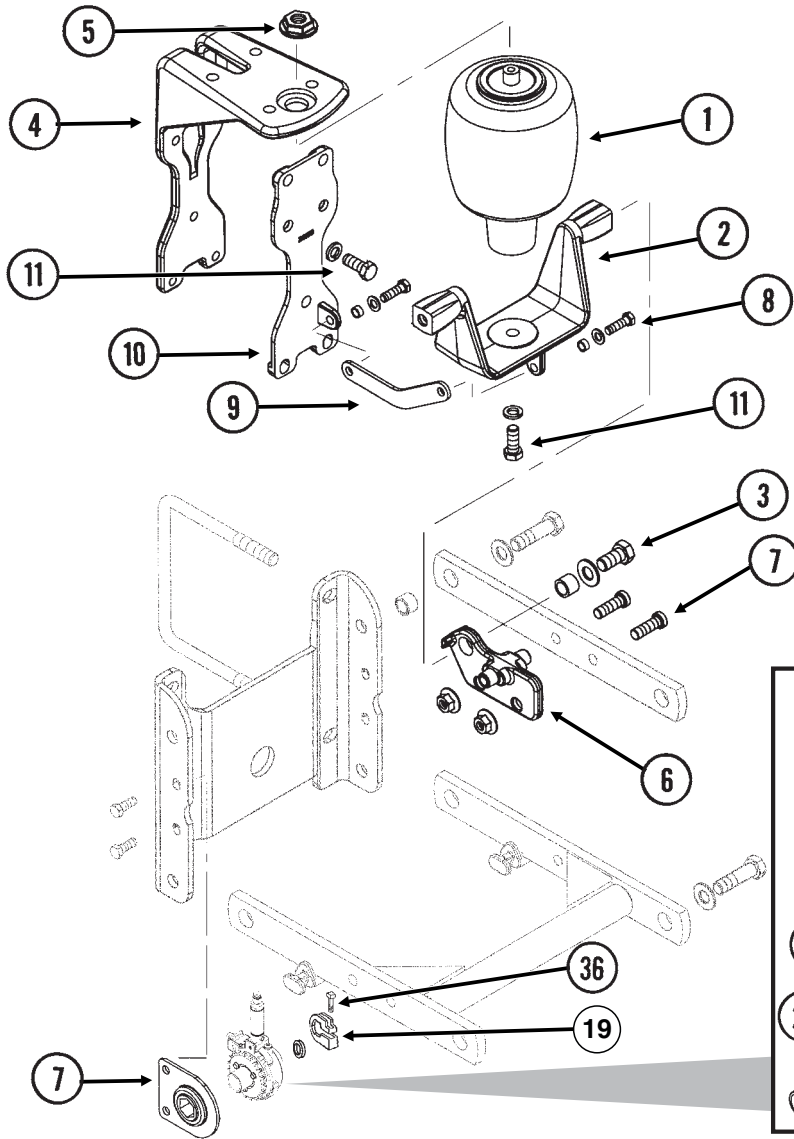
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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G11015	2	Hex Washer Head Cap Screw, 3/8"-16 x 1 1/4"
2.	GB0274	1	Cover, Depth Adjustment
3.	GB0266	1	Handle, Depth Adjustment
4.	GB0267	1	Lever, Depth Adjustment
5.	GD3612	1	Cap Plug
6.	GD10993	1	Spring
7.	GD13361	1	Pin, 3/8" x 1 2/3"
8.	GD11259	1	Sleeve, 3/8" I.D. x 5/8" O.D. x 1 25/32" Long
9.	G11008	1	Hex Head Cap Screw, 3/8"-24 x 2 1/2", Grade 8
	G11007	1	Lock Nut, 3/8"-24, Grade C
10.	G3303-98	1	Chain, No. 41, 98 Pitch Including Connector Link
	G3303-16	1	Chain, No. 41, 16 Pitch Including Connector Link (Used W/Row Unit Extension Brackets)
	GR0196	1	Connector Link, No. 41
11.	GD1026	1	Sleeve, 1 3/16" Long
12.	G10201	1	Special Washer, 3/8" x 1 1/2" O.D.
13.	GD1065	1	Idler Spring
14.	GD7318	1	Sleeve, 1" Long
15.	G10108	1	Lock Nut, 3/8"-16
16.	G10210	1	Washer, 3/8" USS
17.	GD11962	1	Idler
18.	G10003	3	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10108	3	Lock Nut, 3/8"-16
19.	GD10867	2	Stop
20.	G10326	1	Hex Head Cap Screw, 3/8"-16 x 3 3/4"
21.	G10551	1	Clevis Pin, 1/4" x 2 1/2"
	G10669	1	Hair Pin Clip, No. 22
22.	G10312	2	Carriage Bolt, 5/16"-18 x 3/4"
	G10620	2	Serrated Flange Nut, 5/16"-18
23.	GD1033	1	Shield
24.		-	See "Gauge Wheels", Pages P12 And P13
25.	GA10157	1	Shank W/Gauge Wheel Pivot Spindle And Set Screw
	GD11001	-	Spindle
	G10438	-	Hex Head Cap Screw, 1/2"-13 x 3/4"
26.	G10207	2	Washer, 7/8" O.D. x 1 3/32" I.D. x .134" (If Applicable)
27.	GD11845	1	Dust Cap
28.			See "KPM III Electronic Seed Monitor", Pages P106-P107 Or "Planter Monitor Module (PMM), Pages P110-P111
29.	GB0285	1	Collar, Depth Adjustment
30.	GB0265	1	Pivot Link, Depth Adjustment
31.	GD16245	-	Sun Shade (Rubber)
32.	G11298	2	Hex Slotted Head Cap Screw, #10-32 x 1" (If Applicable)
	G11284	2	Serrated Flange Nut, #10-32 (If Applicable)
33.	GA13580	1	Limit Switch W/Cable (If Applicable)
34.	GD19317	1	Implement Switch Bracket (If Applicable)
A.	GA13593	-	Implement Switch Assembly, (Items 32-34) (If Applicable)

# PNEUMATIC DOWN PRESSURE PACKAGE OPTION

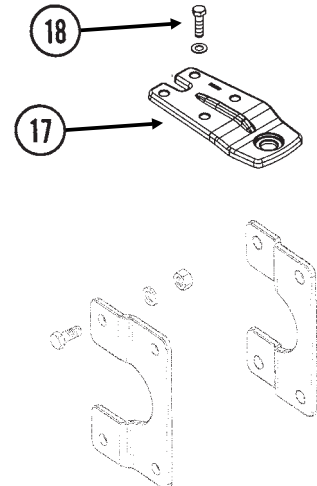
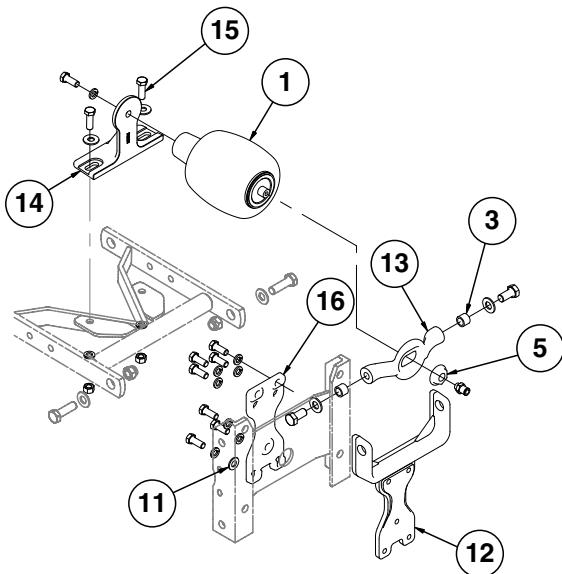
(RU157c/RU159a/RU157d/A12405)

## Pull Row Unit Shown



**NOTE:** Items that are not referenced on this page may be referenced on page P10.

## Push Row Unit Shown

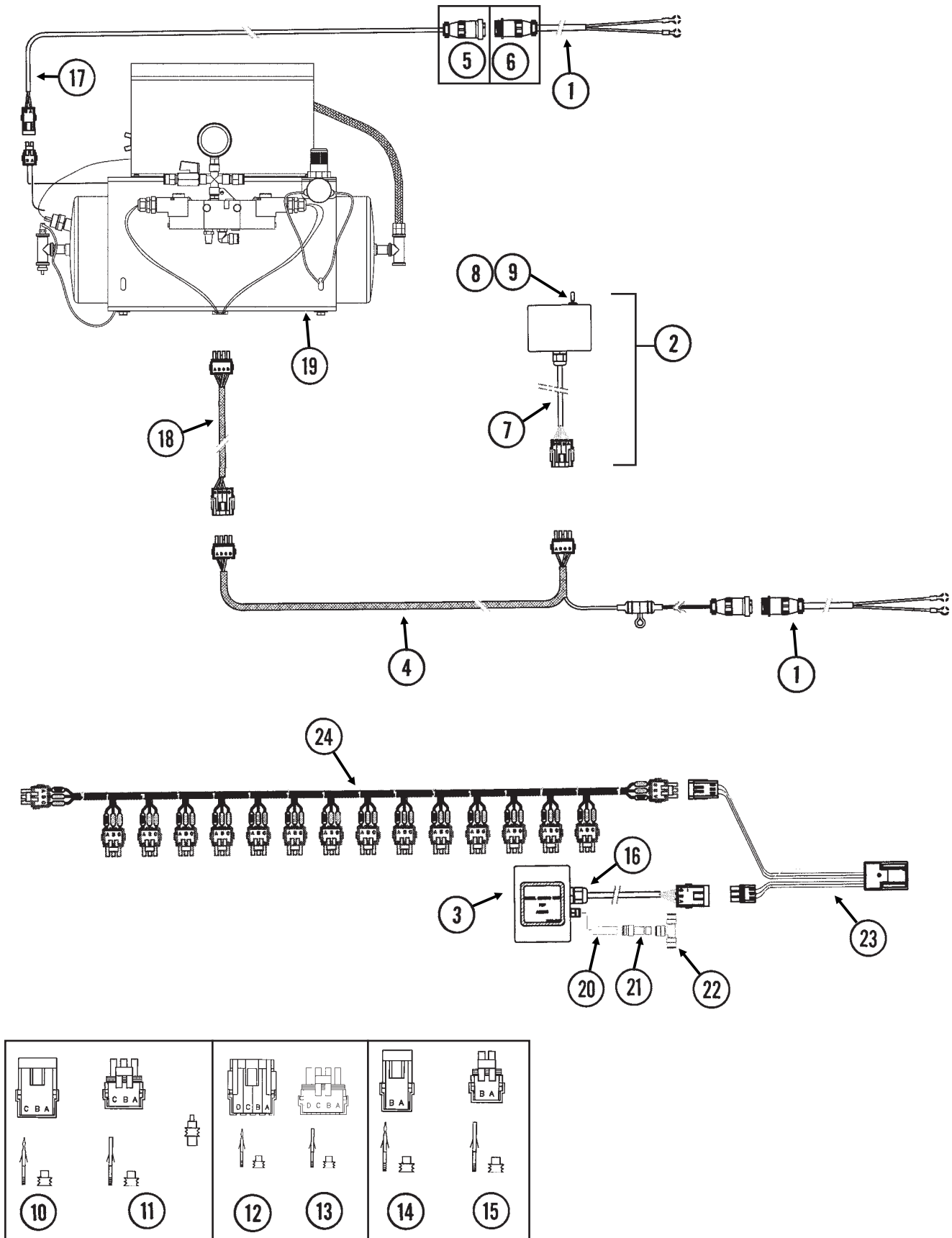


# PNEUMATIC DOWN PRESSURE PACKAGE OPTION

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GA11982	1	Air Spring Assembly
	G10037	1	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10228	1	Lock Washer, 1/2"
2.	GB0394	1	Saddle
3.	G11018	2	Hex Head Cap Screw, 5/8"-18 x 1 1/4"
	GD7805	2	Special Washer, 5/8", Hardened
	GD3180-30	2	Sleeve, 7/8" O.D. x 5/8" I.D. x 2 1/32"
4.	GB0396	1	Head Mount
5.	GB0397	1	Shoulder Nut, 3/4"-16
6.	GB0395	2	Bracket
7.	G11220	4	Hex Socket Cap Screw, 1/2"-13 x 1 1/2"
	G10071	4	Serrated Flange Nut, 1/2"-13
8.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10203	2	Washer, 3/8" SAE
	GD11963-04	2	Spacer, 1/4"
	G10108	2	Lock Nut, 3/8"-16
9.	GD17794	1	Link
10.	GB0393	1	Plate
11.	G10037	7	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10206	2	Washer, 1/2" SAE (Lower Two Holes Only)
	G10228	7	Lock Washer, 1/2"
12.	GB0390	1	Yoke Mount
13.	GB0392	1	Yoke
14.	GB0391	1	Mount
15.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10216	2	Washer, 1/2" USS
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
16.	GB0389	1	Plate
17.	GB0398	1	Extension
18.	G10039	4	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
	G10206	4	Washer, 1/2" SAE
	G10111	4	Lock Nut, 1/2"-13
19.	GD11045	-	Lock Clamp
20.	GD18891	1	Spacer, 1 1/4" O.D. x 1"
21.	G10020	1	Hex Head Cap Screw, 1/4"-20 x 5/8"
22.	GR1812	1	Sprocket, 19 Tooth
23.	G11295	1	Retaining Ring
24.	G11243	1	Slotted Flat Head Machine Screw, No. 8-32 x 1/2", Stainless Steel
25.	GR1894	1	Air Housing Cover
26.	GR1815	1	Sprocket Hub
27.	GR1818	1	Ratchet Gear
28.	GR1813	1	Clutch Spring
29.	GR1830	1	Hex Bushing
30.	GR1895	1	Air Clutch Housing
31.	G10023	3	Hex Head Cap Screw, 1/4"-20 x 3/4"
	G10103	3	Hex Nut, 1/4"-20
32.	GR1896	1	Air Cylinder
33.	GR1819	1	Push Connect, 1/8" NPT Male x 1/4"
34.	G11296	1	Pan Head Machine Screw, 1/4"-20 x 3/4" x 3/4"
35.	GR1898	1	Filter
36.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
A.	GA12405	-	Air Clutch Assembly, (Items 20-35)

# PNEUMATIC DOWN PRESSURE CONTROL CONSOLE, SENDING UNIT AND HARNESSES

(PNE30b/MTR27a/ELC27b/MTR45/MTR27/PNE30c)



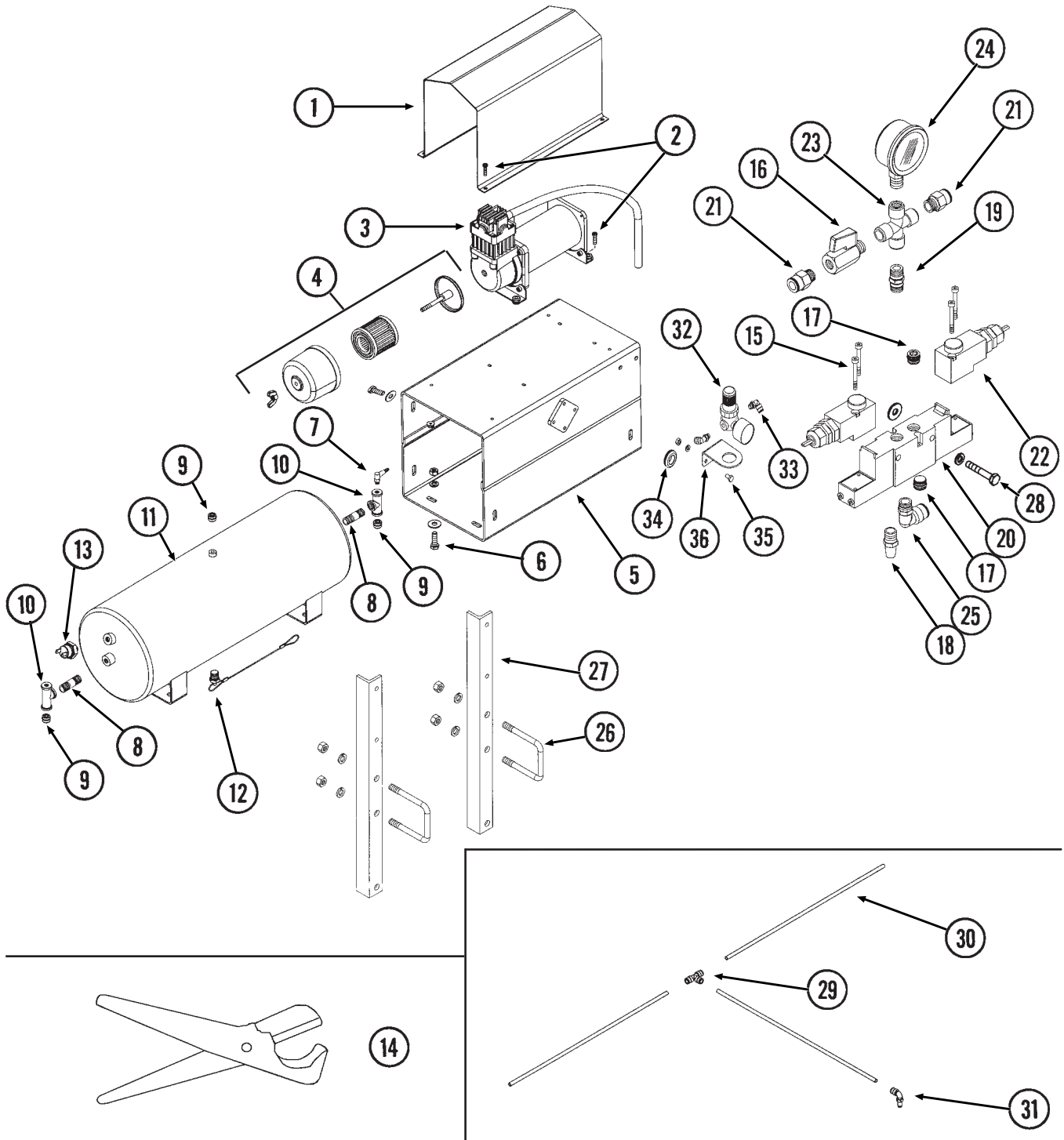
# PNEUMATIC DOWN PRESSURE CONTROL CONSOLE, SENDING UNIT AND HARNESSSES

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7856	2	Power Lead Adapter
2.	GA12813	1	Control Box Assembly
3.	GA12815	1	Sending Unit
4.	GA13944	1	Wiring Harness W/Fuse Holder And Fuse, 206"
	GD14258	-	Fuse Holder
	GD14660	-	Fuse, 2 Amp Delay Action
5.	G1K268	-	Console Cable Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (1) Lock Ring, (3) Female Terminal Pins
6.	G1K267	-	Console Cable Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (3) Male Terminal Pins
7.	GA9964	1	Strain Relief
8.	GR1363	1	Hex Face Nut, $1\frac{5}{32}$ "-32
	GR1364	1	Internal Tooth Lock Washer, $1\frac{5}{32}$ "
9.	GA6978	1	Switch, 3 Position Toggle, Momentary On-Off-Momentary On
10.	G1K248	-	3-Pin Female Connector Kit (Black), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
11.	G1K252	-	3-Pin Male Connector Kit (Black), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
12.	GA8328	-	4-Pin Female Connector Kit, Includes: (1) 4-Pin Female Housing, (4) Pin Contacts, (4) Seals
13.	GA8329	-	4-Pin Male Connector Kit, Includes: (1) 4-Pin Male Housing, (4) Socket Contacts, (4) Seals
14.	G1K321	-	2-Pin Female Connector Kit (Black), Includes: (3) 2-Pin Female Housings, (6) Pin Contacts, (6) Seals
15.	G1K320	-	2-Pin Male Connector Kit (Black), Includes: (3) 2-Pin Male Housings, (6) Socket Contacts, (6) Seals
16.	GA9964	2	Strain Relief
17.	GA12684	1	Wiring Harness W/Fuse Holder And Fuse, 60'
	GD14258	-	Fuse Holder
	GD18275	-	Fuse, 20 Amp
18.	GA12858	1	Wiring Harness, 60'
19.			See "Pneumatic Down Pressure Air Compressor Package Option, Dual Solenoid Assembly, Tubing And Fittings", Pages P8 And P9
20.	GD17151-06	1	Nylon Tubing, $\frac{1}{4}$ " O.D. x 1 $\frac{1}{2}$ '
21.	GD18796	1	Reducer, $\frac{3}{8}$ " To $\frac{1}{4}$ "
22.	GD18010	1	Tee, $\frac{3}{8}$ " Tube Union
23.	GA12812	1	Hall Effect Adapter
24.			See "Planter Monitor Module (PMM)", Pages P110 And P111



# AIR COMPRESSOR PACKAGE OPTION, DUAL SOLENOID ASSEMBLY, TUBING AND FITTINGS

(PNE06c/PNE02/PNE05/A13169/PNE09/PNE08)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD18112	1	Cover
2.	G11066	8	Phillips Pan Head Machine Screw, No. 10-24 x 3/4", Stainless Steel
	G10992	8	Serrated Flange Nut, No. 10-24
3.	GA12102	1	Air Compressor
4.	GA12404	1	Filter Assembly
	GR1809	-	Filter
5.	GA12358	1	Compressor Mount

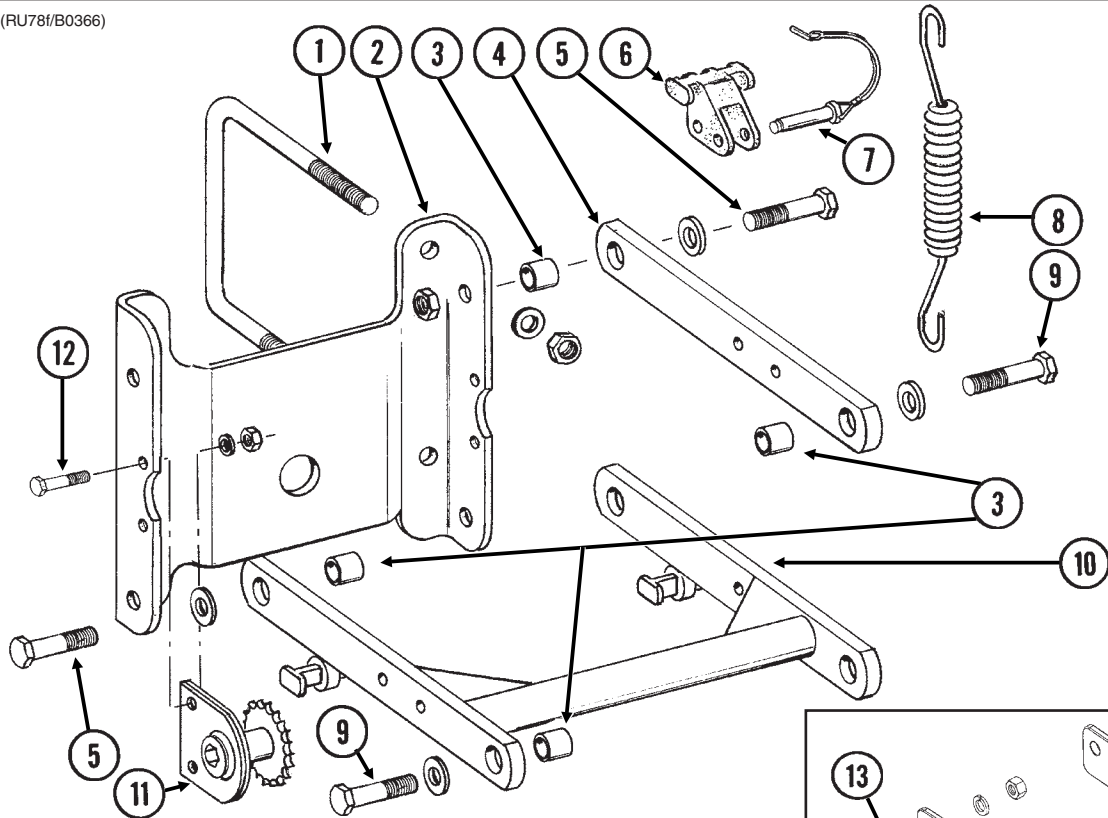


# AIR COMPRESSOR PACKAGE OPTION, DUAL SOLENOID ASSEMBLY, TUBING AND FITTINGS

ITEM	PART NO.	QTY.	DESCRIPTION
6.	G10019	4	Hex Head Cap Screw, 5/16"-18 x 1"
	G10219	4	Washer, 5/16" USS
	G10232	4	Lock Washer, 5/16"
	G10106	4	Hex Nut, 5/16"-18
7.	GA13512	1	Valve Stem, 1/4" NPT
8.	GD19238	2	Nipple, 1/4" NPT
9.	GD17156	3	Plug, 1/4" NPT
10.	GD19237	2	Tee, 1/4" NPT
11.	GA11988	1	Tank, 3 Gallon
12.	GA11991	1	Drain, 1/4" NPT
13.	GR1778	1	Pressure Switch
14.	GA13169	1	Tube Cutter W/Blade
	GR1843	-	Blade
15.	G11247	4	Slotted Pan Head Machine Screw, M4-0.7 x 8
16.	GA11992	1	Shutoff Valve, 1/4" NPT
17.	GD17156	2	Plug, 1/4" NPT
18.	GA11997	1	Breather, 1/4" NPT
19.	GD17154	1	Connector, 1/4" Male NPT
20.	GA11993	1	Block
21.	GD17141	3	Connector, 1/4" Male NPT
22.	GA11994	2	Solenoid
23.	GD18078	1	Female Cross, 1/4" NPT
24.	GA12104	1	Pressure Gauge, 1/4" NPT
25.	GD17143	1	Swivel Elbow, 1/4" NPT x 3/8"
26.	GD4743	2	U-Bolt, 3" x 3" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
27.	GD18119	2	Compressor Mount
28.	G10040	2	Hex Head Cap Screw, 1/4"-20 x 1 3/4"
	G10227	2	Lock Washer, 1/4"
	G10209	2	Washer, 1/4" USS
29.	GD18010	-	Tee, 3/8" Tube Union, Pull Row Unit (Pneumatic Down Pressure)
	GD18274	-	Tee, 3/8" x 1/8" NPT Extended, Push Row Unit (Pneumatic Down Pressure)
	GD18015	-	Tee, 1/4" Press On, Pull/Push Row Units (Air Clutch)
30.	GD17150-02	-	Nylon Tubing, 3/8" O.D. x 44', 8 Row Pull Row Units (Pneumatic Down Pressure)
	GD17150-03	-	Nylon Tubing, 3/8" O.D. x 64', 12 Row Pull Row Units (Pneumatic Down Pressure)
	GD17150-04	-	Nylon Tubing, 3/8" O.D. x 86', 16 Row Pull Row Units (Pneumatic Down Pressure)
	GD17150-08	-	Nylon Tubing, 3/8" O.D. x 60', 11 Row Push Row Units (Pneumatic Down Pressure)
	GD17150-09	-	Nylon Tubing, 3/8" O.D. x 82', 15 Row Push Row Units (Pneumatic Down Pressure)
	GD17150-12	-	Nylon Tubing, 3/8" O.D. x 5', Even-Row Push Row Unit (Pneumatic Down Pressure)
	GD17151-01	-	Nylon Tubing, 1/4" O.D. x 52', 12 Row Pull/Push Row Units (Air Clutch)
	GD17151-02	-	Nylon Tubing, 1/4" O.D. x 70', 16 Row Pull Row Units (Air Clutch)
GD17151-03	-	Nylon Tubing, 1/4" O.D. x 37', 11 Row Push Row Units (Air Clutch)	
31.	GD18011	-	Elbow, 3/8" x 1/8" NPT Extended, Pull Row Unit (Pneumatic Down Pressure)
32.	GA12629	1	Mini Regulator W/Gauge
33.	GD19080	2	Elbow, 1/4" x 1/8" NPT Swivel
34.	GD19087	2	Grommet, 1"
35.	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
A.	GA12626	-	Air Compressor Assembly (Items 1-14)
B.	GA11995	-	Dual Solenoid Assembly (Items 15-25) (Only applicable with pneumatic down pressure option)

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

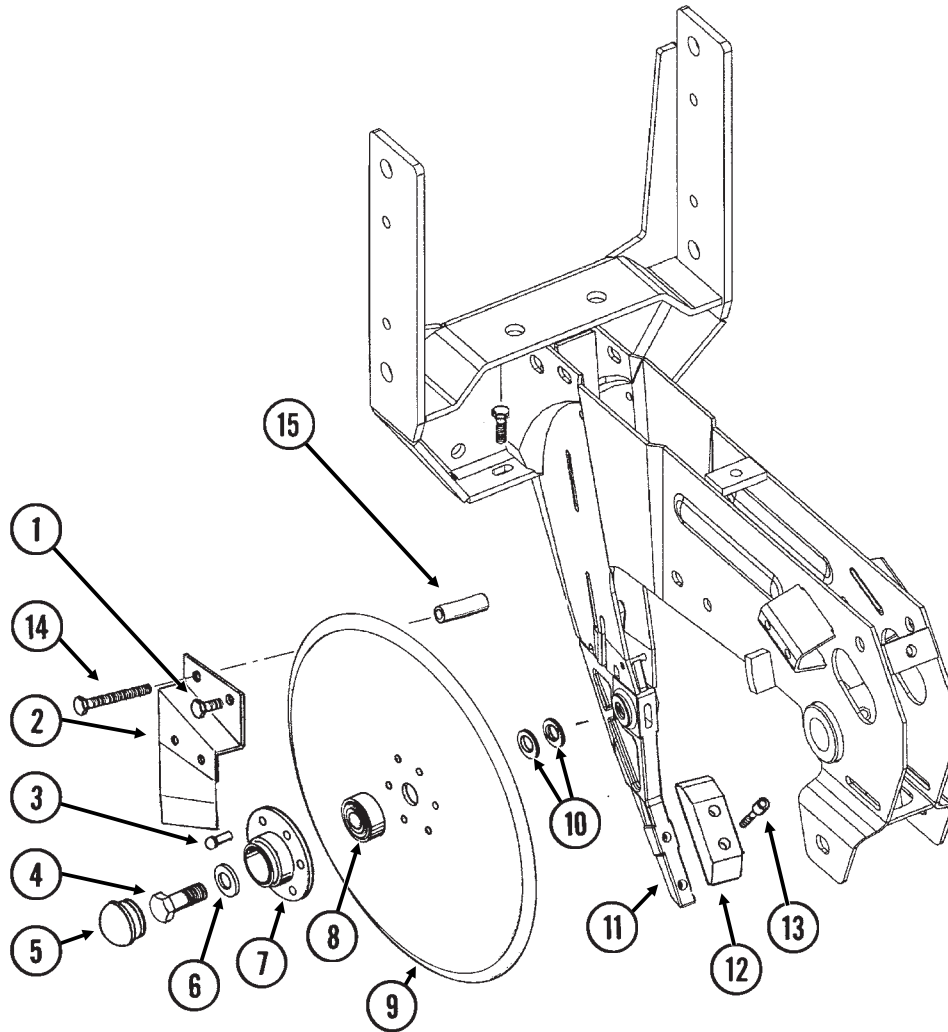
RUB021/RUB022(RU78f/B0366)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
2.	GD10036	1	Mounting Support Plate
3.	GB0218	4	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
4.	GD11422	2	Upper Parallel Arm
5.	G10732	4	Hex Head Cap Screw, 5/8"-18 x 2"
	GD7805	4	Special Washer, 5/8", Hardened
	G10412	4	Lock Nut, 5/8"-18
6.	GB0186	2	Spring Anchor
7.	GD14217	2	Tab Lock Pin, 7/16" x 1 1/2"
8.	GD8249	2-4	Spring
9.		-	See "Hopper Support And Meter Drive", Page P18
10.	GA5651	1	Lower Parallel Arm
11.	GA1720	1	Bearing/Sprocket, 7/8" Hex Bore
12.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G11091	2	Serrated Flange Nut, 3/8"-16
13.	G10007	4	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
14.	GB0366	2	Extension Bracket
A.	G6325X	-	U-Bolt Package For 5" x 7" Toolbar, Includes: (2) GD1113, (4) G10230, (4) G10104

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

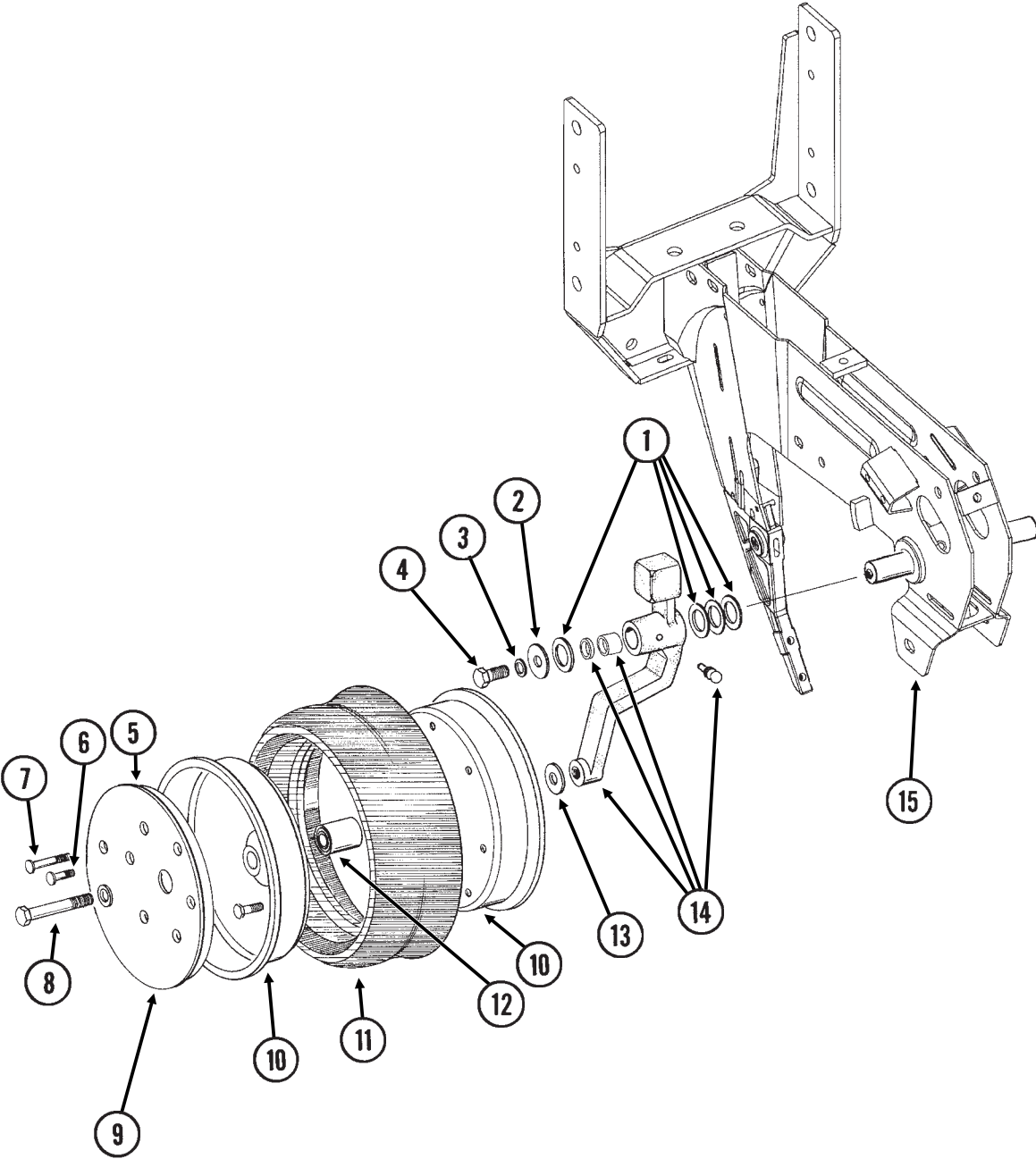
(RU139)



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

# GAUGE WHEELS

(RU140)



# 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	Serrated Flange Nut, 5/16"-18
7.	G10924	8	Carriage Bolt, 5/16"-18 x 1 3/4"
	G10620	8	Serrated Flange Nut, 5/16"-18
8.	G10010	2	Hex Head Cap Screw, 5/8"-11 x 3"
	G10230	2	Lock Washer, 5/8"
9.	G10018	14	Hex Head Cap Screw, 5/16"-18 x 5/8"
	G10109	14	Lock Nut, 5/16"-18, Grade 8
10.	GD11423	4	Half Wheel
11.	GD1086	2	Tire
12.	GA6171	2	Bearing
13.	G10204	2	Special Machine Bushing, 5/8" x 1" O.D.
14.	GA7975	1	Wheel Arm W/Grease Fitting, Bushings And Seals, L.H. (Shown)
	GA7976	1	Wheel Arm W/Grease Fitting, Bushings And Seals, R.H.
	G10640	1	Grease Fitting, 1/4"-28 (Per Arm)
	GB0276	2	Bushing, 1" I.D. x 1 1/4" O.D. x 1" Long (Per Arm)
	GD10991	2	Seal (Per Arm)
15.		-	See "Shank Assembly", Pages P2 And P3
A.	GA7949	-	Gauge Wheel Complete (Items 5-7 And 9-12)
B.	G1K296	-	Gauge Wheel Arm Bushing And Seal Driver Kit, Includes: (1) Seal Driver, (1) Bushing Driver, (1) Instruction



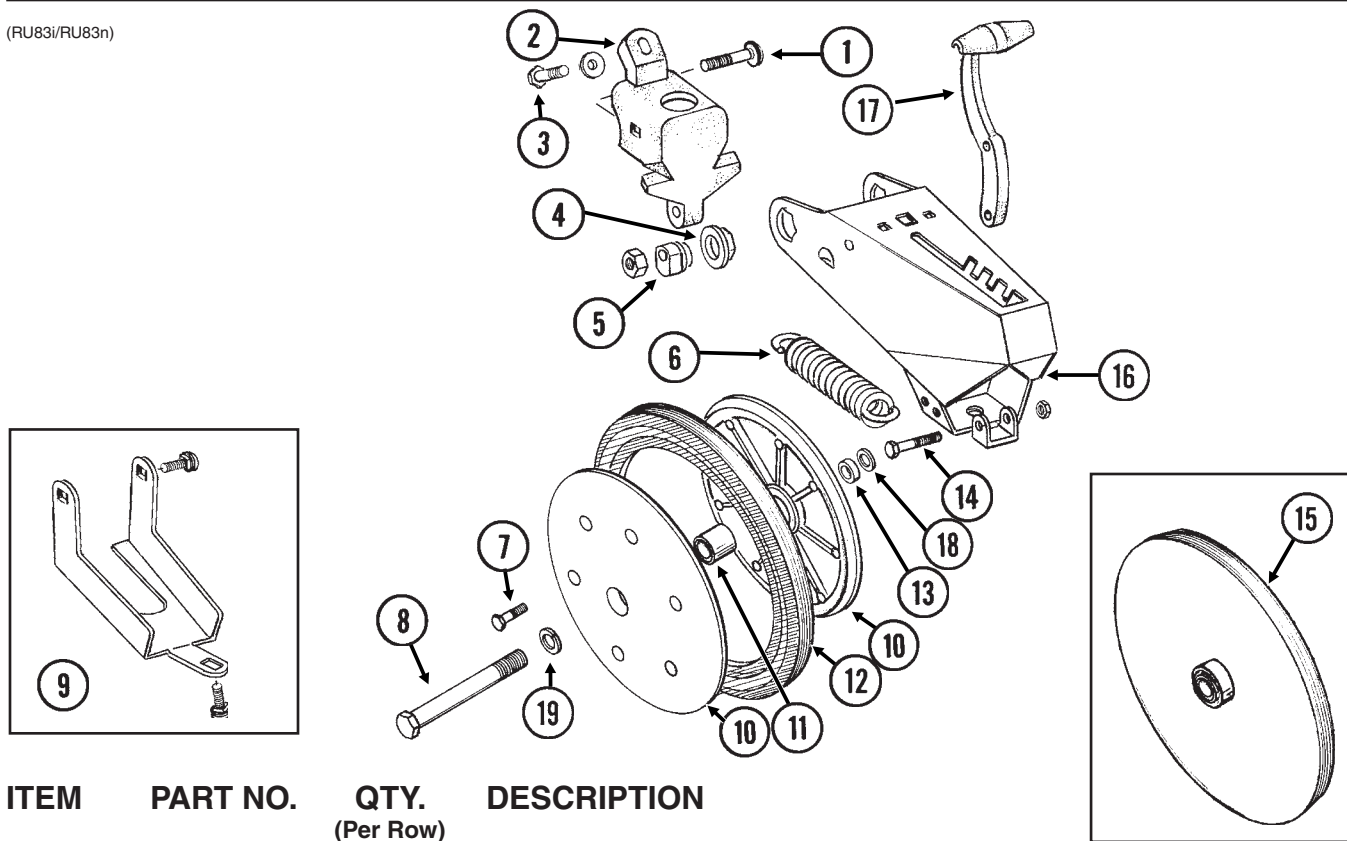
# COVERING DISCS/SINGLE PRESS WHEEL

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10001	1	Hex Head Cap Screw, 3/8"-16 x 1"
	G10210	1	Washer, 3/8" USS
2.	GB0268	1	Wheel Arm Stop
3.	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)
	G10102	2	Hex Nut, 1/2"-13
4.	GA2054	1	Spring
5.	GB0239	2	Eccentric Bushing
6.	G10102	1	Hex Nut, 1/2"-13
7.	G10015	1	Adjusting Bolt, 1/2"-13 x 5"
8.	GA6619	1	Mounting Arm
9.	G10463	2	Cotter Pin, 1/4" x 1 1/2"
10.	G10171	4	Hex Head Cap Screw, 5/16"-18 x 1 1/4"
	G10232	4	Lock Washer, 5/16"
	G10106	4	Hex Nut, 5/16"-18
11.	GA6620	2	Bracket
12.	GA6618	2	Mount
13.	G10303	2	Carriage Bolt, 5/16"-18 x 1"
	G10219	2	Washer, 5/16" USS
	G10232	2	Lock Washer, 5/16"
	G10106	2	Hex Nut, 5/16"-18
14.	G10107	3	Lock Nut, 5/8"-11
15.	GD1109	2	Bushing, 4 1/64" I.D. x 7/8" O.D. x 1/4" Long
16.	GD9290	2	Disc Blade, 8"
17.	G10018	7	Hex Head Cap Screw, 5/16"-18 x 5/8"
	G10109	7	Lock Nut, 5/16"-18, Grade 8
18.	G10152	1	Hex Head Cap Screw, 5/8"-11 x 9"
19.	GD3180-12	2	Sleeve, 5/8" I.D. x 7/8" O.D. x 2 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, 1/4" x 1/2"
26.	G10006	2	Hex Head Cap Screw, 5/8"-11 x 2 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

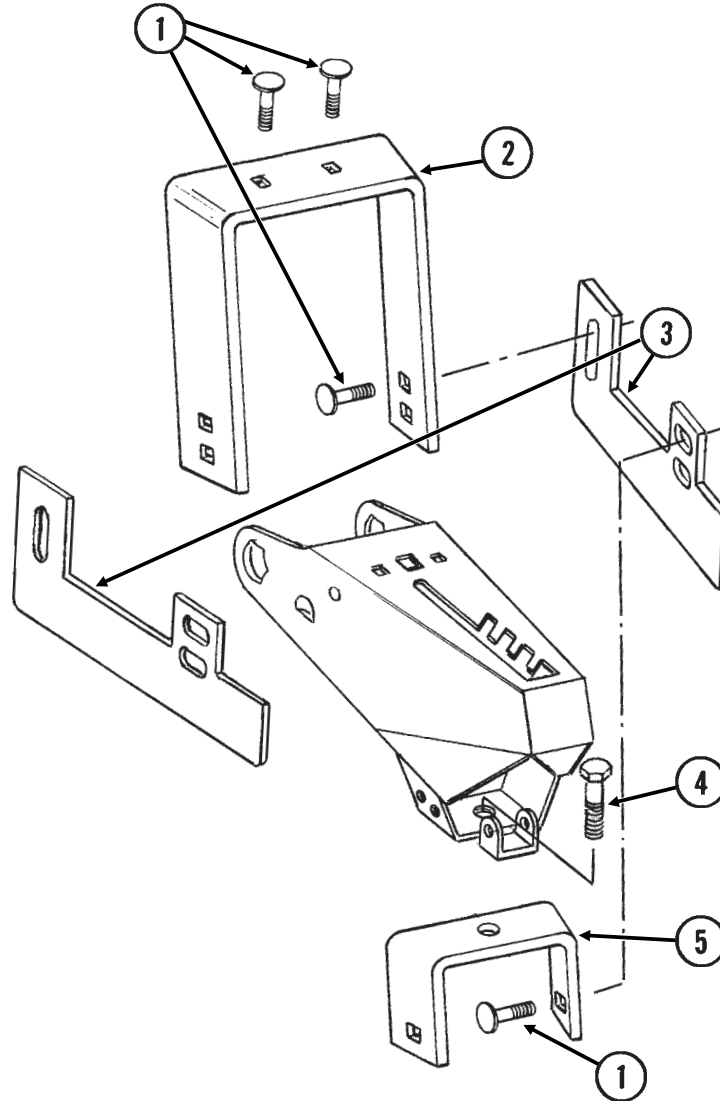
(RU831/RU83n)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10801 G10315	2 -	Carriage Bolt, 1/2"-13 x 2 1/4" 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.	G10001 G10210	1 1	Hex Head Cap Screw, 3/8"-16 x 1" Washer, 3/8" USS
4.	GB0282	2	Stepped Bushing
5.	GB0239	2	Eccentric Bushing
6.	GD8460	1	Spring
7.	G10064	6	Hex Head Cap Screw, 1/4"-20 x 1"
8.	G10013 G10107	2 2	Hex Head Cap Screw, 5/8"-11 x 3 1/2" Lock Nut, 5/8"-11
9.	G1K345	-	Closing Wheel Shield Kit W/Hardware And Instruction
	G10308	2	Carriage Bolt, 3/8"-16 x 3/4"
	G10599	1	Carriage Bolt, 3/8"-16 x 1 1/4"
	G10210	1	Washer, 3/8" USS
	G10229	3	Lock Washer, 3/8"
	G10101	3	Hex Nut, 3/8"-16
10.	GD9120	4	Nylon Half Wheel
11.	GA6171	2	Bearing
12.	GD1085	2	Rubber Tire, 1" x 12"
13.	GD1109	2	Bushing, 41/64" I.D. x 7/8" O.D. x 1/4" Long
14.	G10133 G10109	1 1	Hex Head Cap Screw, 5/16"-18 x 1 1/2" Lock Nut, 5/16"-18, Grade 8
15.	GA6597	-	Cast Iron Closing Wheel W/Bearing
	GA6171	-	Bearing
16.	GA8322	1	Arm
17.	GB0254	1	Lever
18.	GD7805	2	Special Washer, 5/8", Hardened
19.	G10230	2	Lock Washer, 5/8"
A.	GA6434	-	Rubber Closing Wheel Complete W/Bearing (Items 7 And 10-12)

# DRAG CLOSING ATTACHMENT

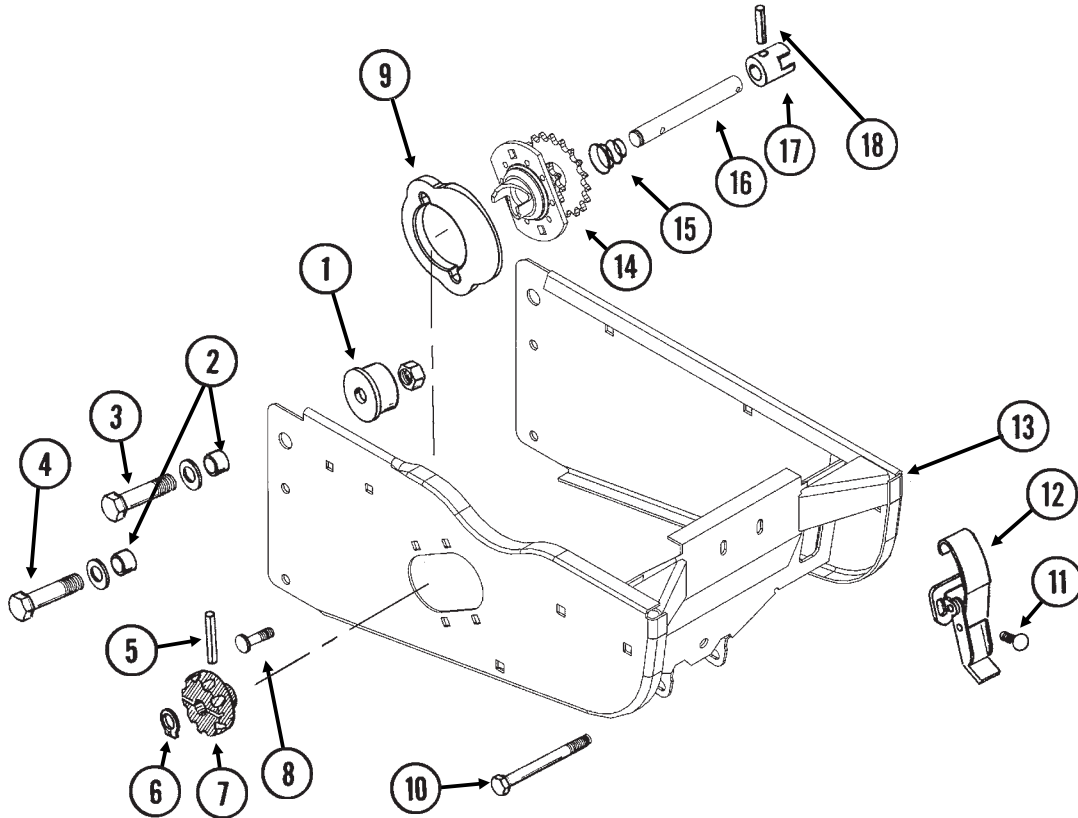
RUB050(RU90c)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
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

(METR22d)

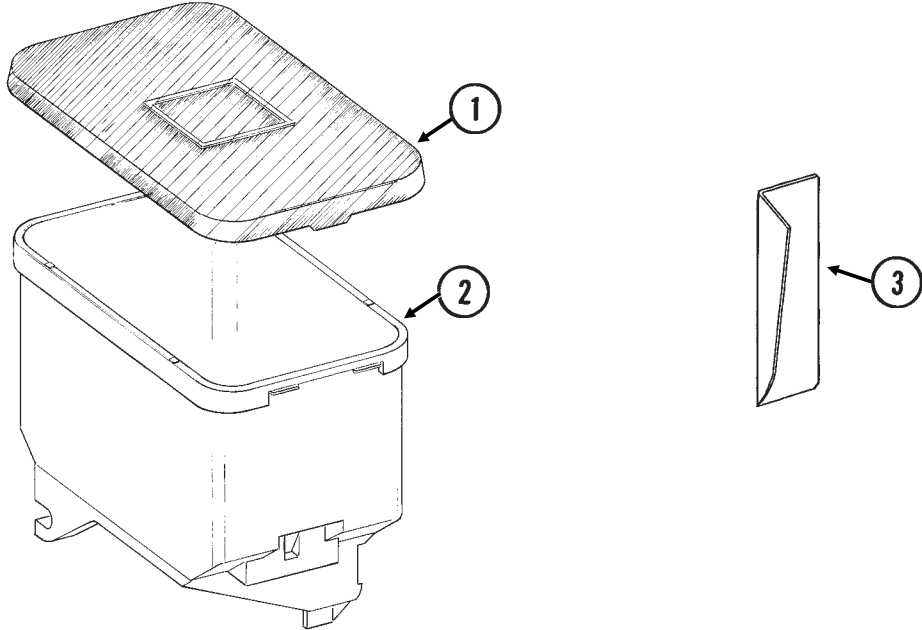


ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GB0314	2	Hopper Mount
2.	GB0218	4	Bushing, 2 <sup>1</sup> / <sub>32</sub> " I.D. x 7/8" O.D. x 1 <sup>19</sup> / <sub>32</sub> " Long
3.	G10752	2	Hex Head Cap Screw, 5/8"-18 x 2 1/4"
	GD7805	2	Special Washer, 5/8", Hardened
	G10412	2	Lock Nut, 5/8"-18
4.	G10751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

# SEED HOPPER AND LID

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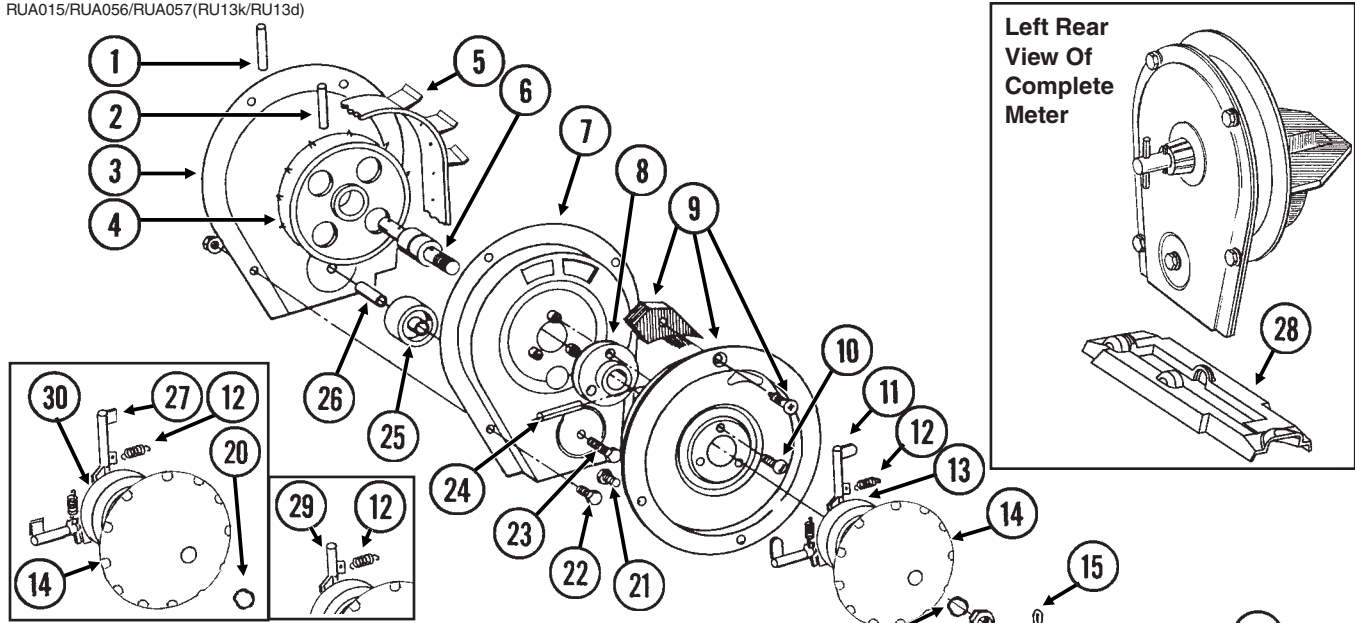
(RU87e/RU87a)



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

# FINGER PICKUP SEED METER

RUA015/RUA056/RUA057(RU13k/RU13d)

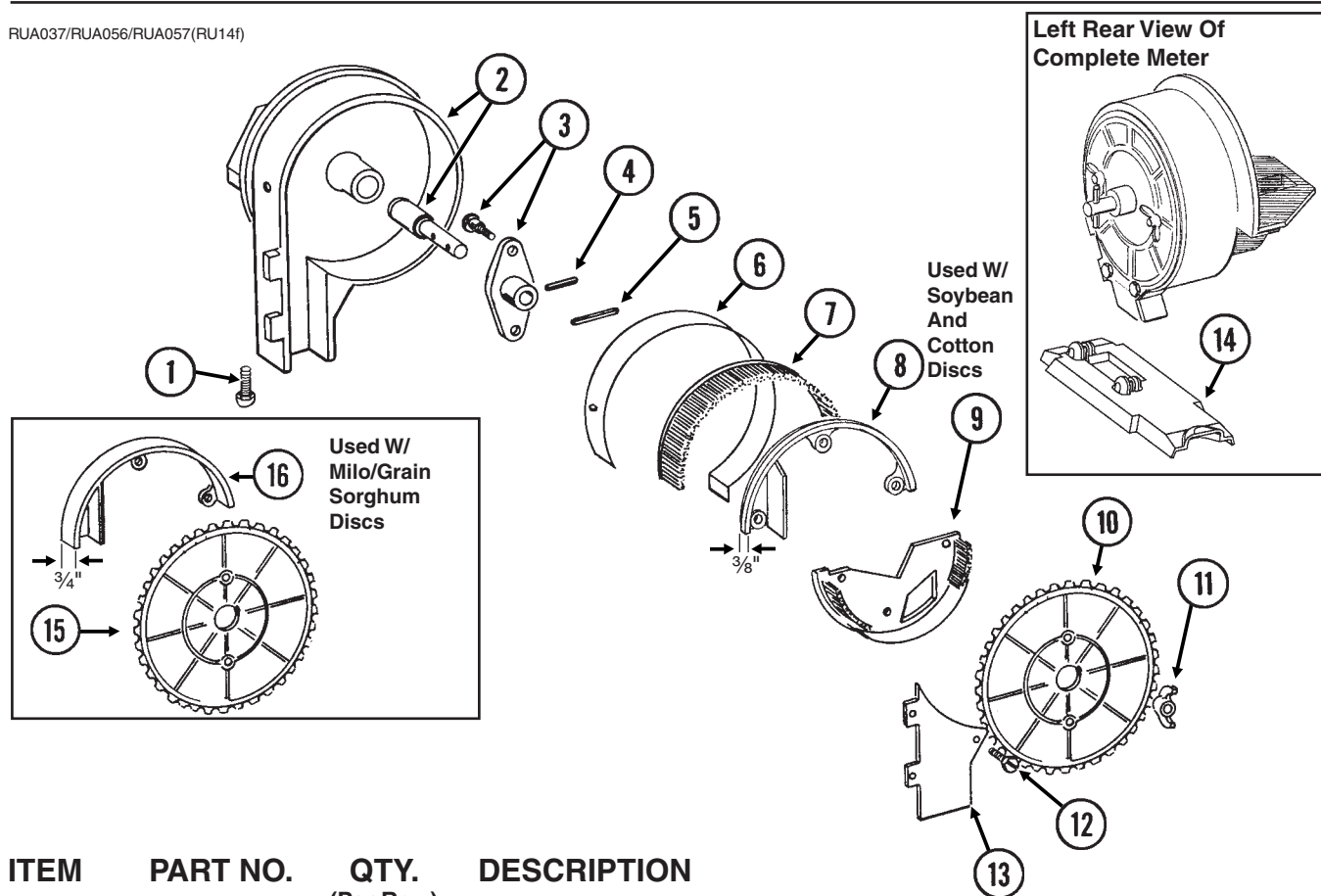


ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10602	1	Spring Pin, 1/4" x 1 1/2"
2.	G10604	1	Spring Pin, 3/16" x 1 1/2"
3.	GD1039	1	Housing Cover
4.	GD1041	1	Belt Drive Sprocket
5.	GD11286	1	Seed Belt
6.	GA2019	1	Bearing
7.	GA2018	1	Conveyor Housing
8.	GB0110	1	Bearing Housing
9.	GR1569	1	Carrier Plate W/Brush And Screw (Corn)
	GR0664	-	Carrier Plate W/Brush And Screw (Sunflower)
	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.	GD18704	12	Finger, Corn
12.	GD19790	12	Spring
13.	GB0410	1	Cam (Corn)
14.	GD11528	1	Finger Holder
15.	G10470	1	Cotter Pin, 5/32" x 1"
16.	G11009	2	Locking Thumbscrew, 5/16"-18 x 3/4"
17.	GD11311	1	Seed Baffle
18.	GD1083	1	Cover Nut
19.	G10500	1	Jam Nut, 5/8"-18 UNF
20.	GA8343	1	Wave Washer, 5/8" (Triple Wave)
21.	G10020	3	Hex Head Cap Screw, 1/4"-20 x 5/8"
	G10323	3	Hex Flange Nut, 1/4"-20, No Serrations
22.	G10022	4	Hex Head Cap Screw, 1/4"-20 x 1/2"
	G10621	4	Serrated Flange Nut, 1/4"-20
23.	G10021	1	Hex Head Cap Screw, 1/4"-20 x 1 1/2"
	G10621	1	Serrated Flange Nut, 1/4"-20
24.	G10603	1	Spring Pin, 1/4" x 1 1/4"
25.	GD1042	1	Idler
26.	GB0120	1	Bushing, 17/64" I.D. x 1 1/32" Long
27.	GD19333	12	Finger, Oil Sunflower
28.	GD15698	1	Shank Cover, Finger Pickup Seed Meter
29.	GD11787	-	Half Rate Blank Finger
30.	GB0111	1	Cam (Sunflower)

- A. GR1487 - Finger Assembly, Corn (Items 11-14 And 20)
- B. GR1897 - Finger Assembly, Oil Sunflower (Items 12, 14, 20, 27 And 30)

# BRUSH-TYPE SEED METER

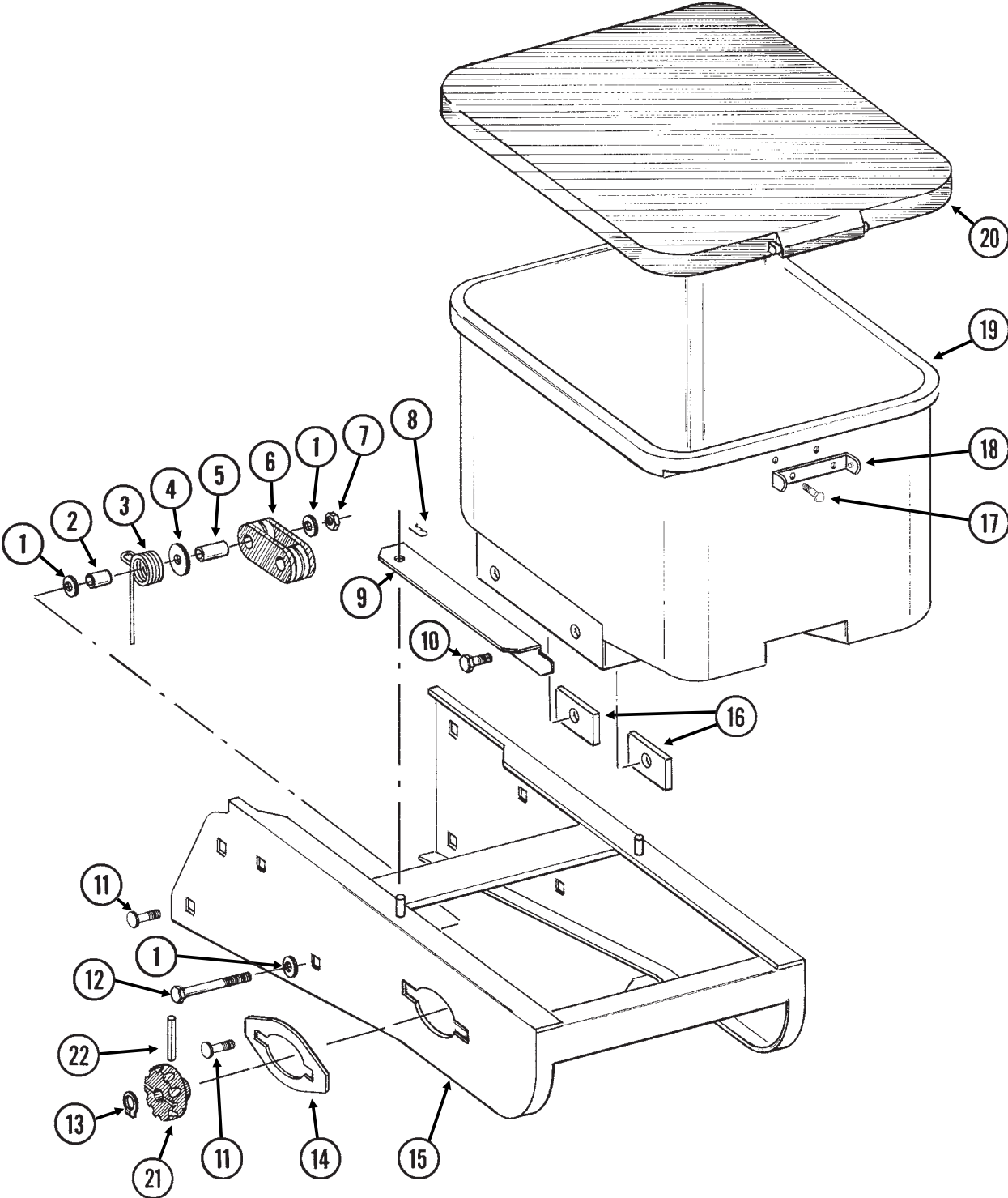
RUA037/RUA056/RUA057(RU14f)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G11009	2	Locking 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	Wing Nut W/Nylon Insert, 1/4"-20
12.	G11151	9	Hex Washer Head 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.	GD15699	1	Shank Cover, Brush-Type Seed Meter
15.	GA5982	-	Seed Disc, Small Milo/Grain Sorghum, 30 Cell, Red Color-Coded
	GA6187	-	Seed Disc, Large Milo/Grain Sorghum, 30 Cell, Light Blue Color-Coded
	GA5795	-	Seed Disc, High-Rate Small Milo/Grain Sorghum, 60 Cell, Red Color-Coded
	GA6633	-	Seed Disc, High-Rate Large Milo/Grain Sorghum, 60 Cell, Yellow Color-Coded
16.	GD8237	-	Upper Brush Retainer (Used W/Milo/Grain Sorghum Discs)

# GRANULAR CHEMICAL HOPPER AND HOPPER PANEL EXTENSION

(METR14d)





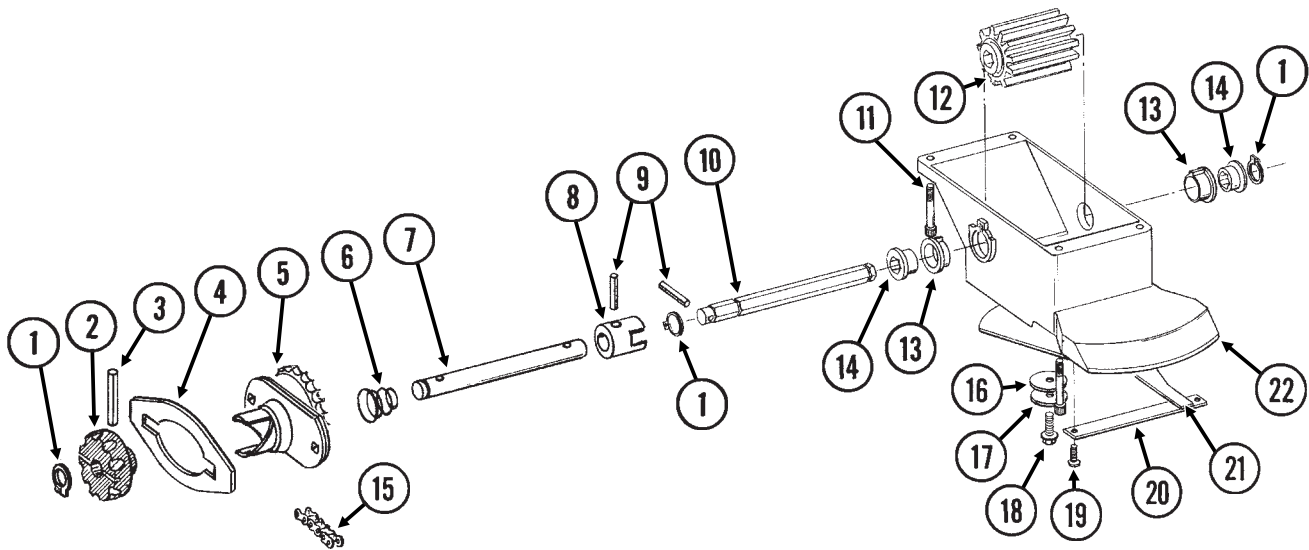
# GRANULAR CHEMICAL HOPPER AND HOPPER PANEL EXTENSION

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

# GRANULAR CHEMICAL METER AND METER DRIVE

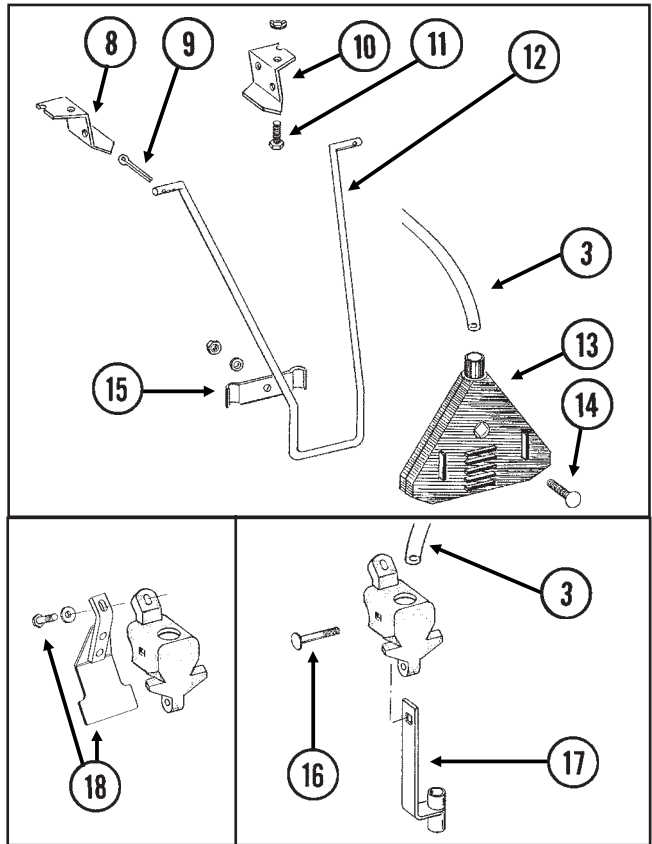
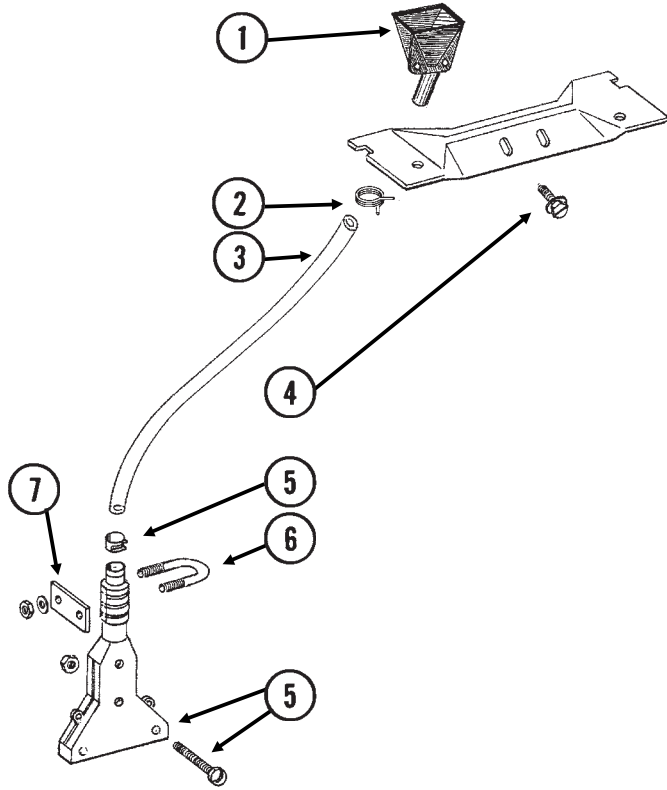
RUA051/RUB028(RU91a)



ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10567	3	External Retaining Ring, 5/8"
2.	GD11239	1	Knob
3.	G10602	1	Spring Pin, 1/4" x 1 1/2"
4.		-	See "Granular Chemical Hopper And Hopper Panel Extension", Pages P22 And P23
5.	GA8364	1	Sprocket And Bearing, Drive Clutch, 24 Tooth
6.	GD11413	1	Spring
7.	GD11240	1	Shaft
8.	GB0278	1	Coupler
9.	G10546	2	Spring Pin, 3/16" x 1 1/4"
10.	GD11297	1	Shaft
11.	G10921	4	Hex Socket Head Cap Screw, No. 10-24 x 7/8"
	G10257	4	Lock Washer, No. 10
12.	GD7148	1	Feed Roller, Hex Bore
13.	GB0115	2	Bearing
14.	GD7258	2	Hex Bushing
15.	G3303-114	1	Chain, No. 41, 114 Pitch Including Connector Link
	GR0196	1	Connector Link, No. 41
16.	G10660	1	Wave Washer, 1/2"
17.	G10209	1	Washer, 1/4" USS
18.	G10570	1	Slotted Hex Self-Tapping Screw, 1/4"-20 x 3/4"
19.	G11073	2	Slotted Hex Self-Tapping Screw, No. 10 x 3/8"
20.	GD1061	1	Support Strap
21.	GD1063	1	Metering Gate
22.	GB0116	1	Granular Housing
A.	GA8326	-	Granular Chemical Meter Complete (Items 1, 9, 10, 12-14 And 16-22)

# GRANULAR CHEMICAL BANDING OPTIONS

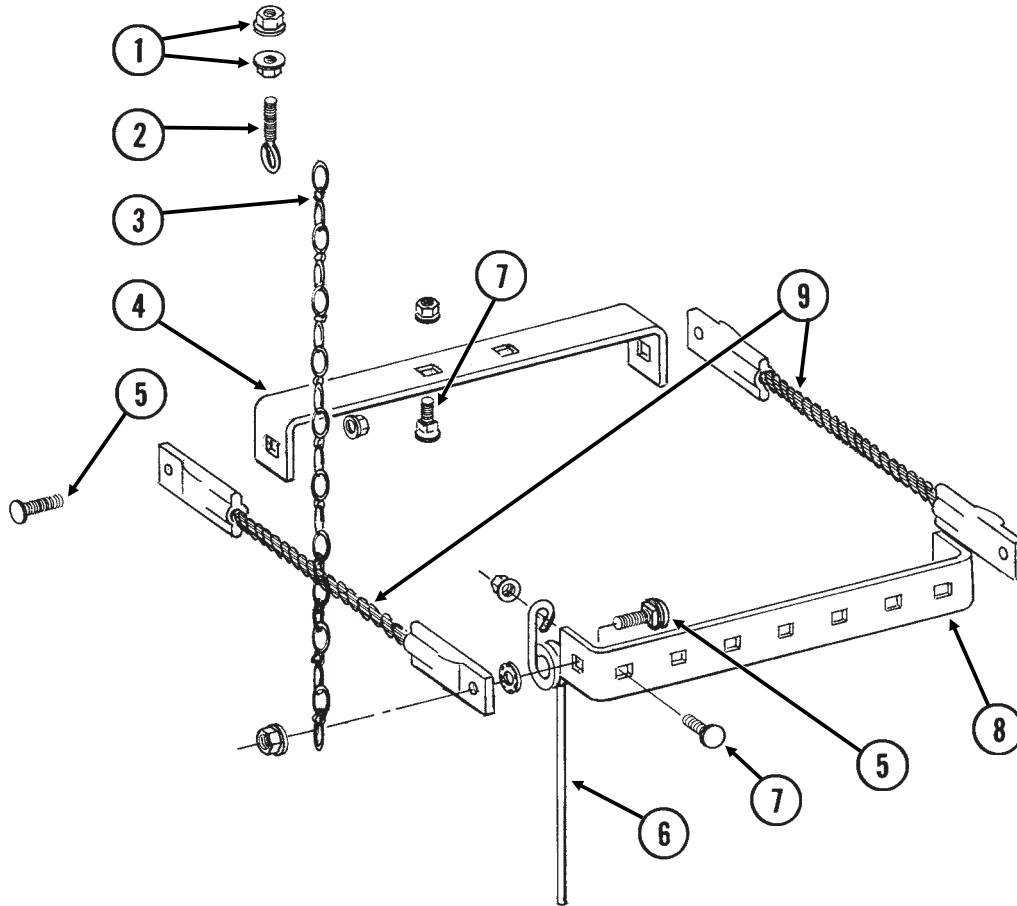
RUA061/RUA073(RU101m/RU83m)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD2423	1	Funnel
2.	G11209	1	Wire Hose Clamp, 3/4"
3.	GD2947	1	Hose, 7/16" x 28"
4.	G10523	2	Slotted Pan Head Self-Tapping Screw, No. 10 x 1/2"
5.	GA6907	1	Slope-Compensating Bander W/Hardware (4 1/2" Band Width)
	G10864	1	Uni-Clamp
	G10757	2	Pan Head Screw, No. 10-32 x 1 1/4"
	G10758	2	Hex Nut, No. 10-32
6.	GD10963	1	U-Bolt, 1 1/2" x 1 5/16" x 1/4"-20
	G10209	2	Washer, 1/4" USS
	G10110	2	Lock Nut, 1/4"-20, Grade B
7.	GD10984	1	Spacer
8.	GD1115L	-	Hanger Bracket, L.H.
9.	G10452	-	Cotter Pin, 1/8" x 1/2"
10.	GD1115R	-	Hanger Bracket, R.H.
11.	G10310	-	Carriage Bolt, 1/4"-20 x 3/4", Grade 2
	G10227	-	Lock Washer, 1/4"
	G10103	-	Hex Nut, 1/4"-20
12.	GD1116	-	Hanger
13.	GA2075	-	Diffuser, 14" Band
14.	G10306	-	Carriage Bolt, 3/8"-16 x 2"
	G10229	-	Lock Washer, 3/8"
	G10101	-	Hex Nut, 3/8"-16
15.	GD1118	-	Clamp
16.	G10315	1	Carriage Bolt, 1/2"-13 x 2 1/2" (Replaces Existing 1/2" x 2 1/4" Hardware)
17.	GA6741	1	Bracket (Straight Drop In-Furrow)
18.	G1K385	-	Bander Shield Kit W/Hardware And Instruction
	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	GD14659	1	Special Washer, 3/8", Hardened

# SPRING TOOTH INCORPORATOR

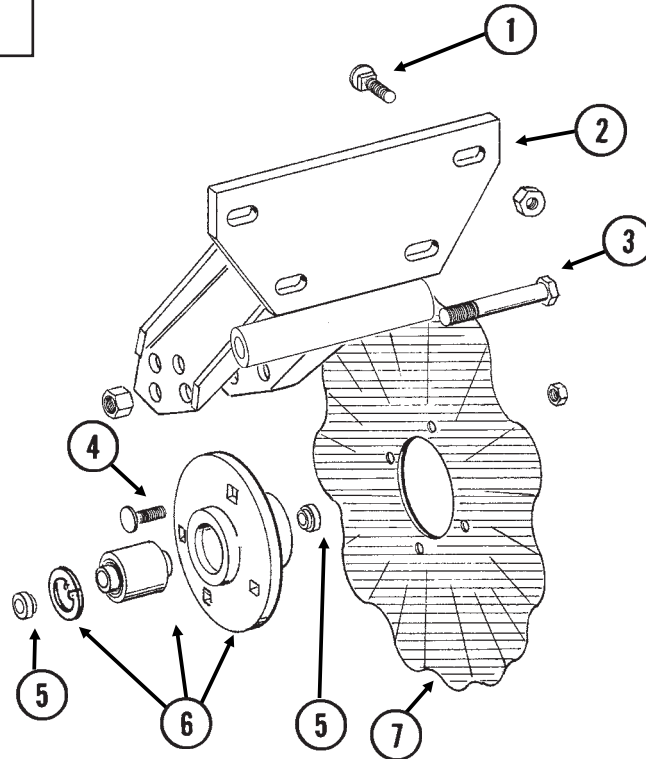
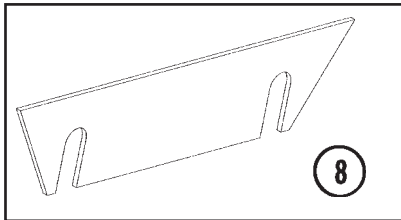
RUA055(RU95)



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

# ROW UNIT MOUNTED NO TILL COULTER

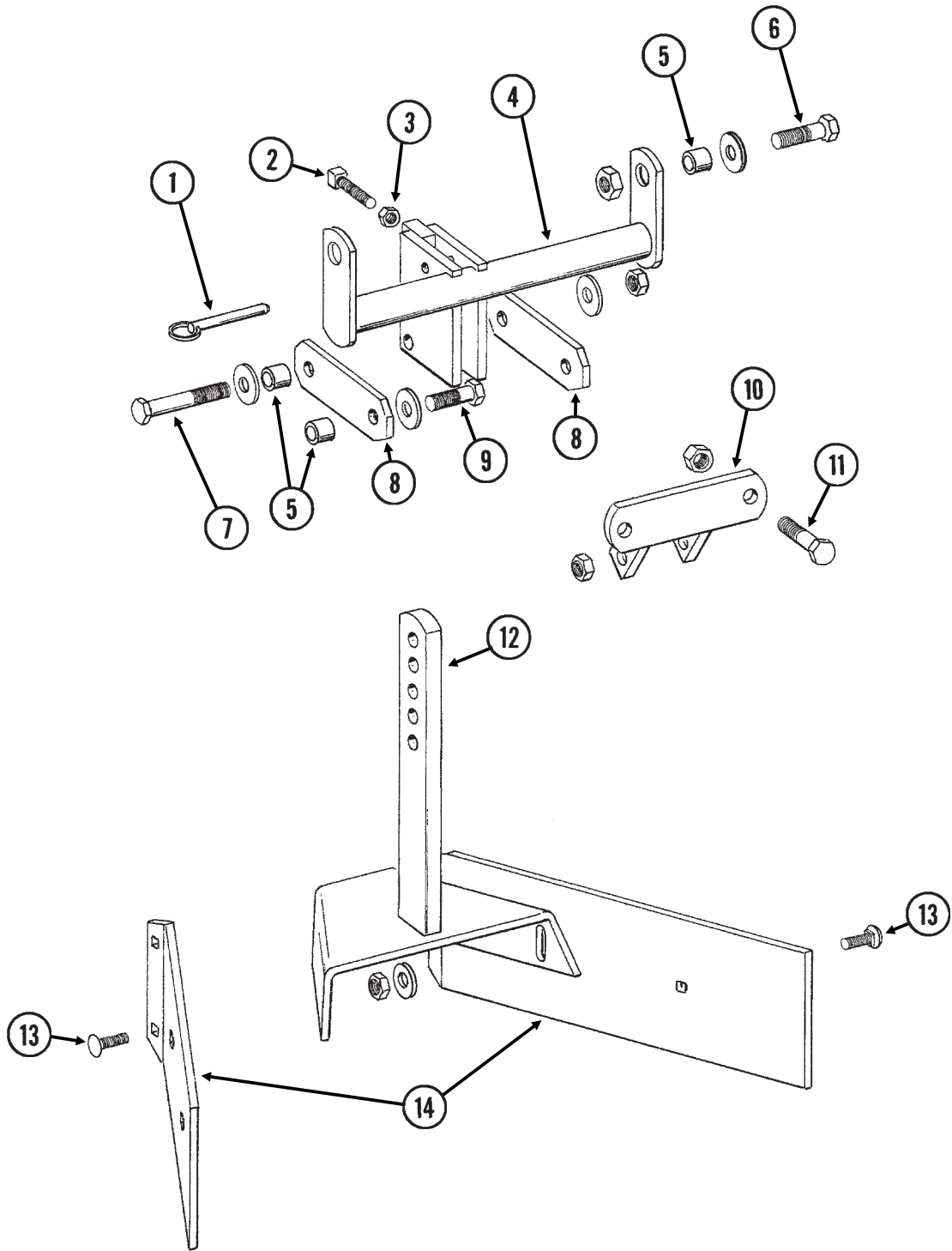
(D14398/RU102c/RU152)



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.	GA11520	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	-	Bearing, Double Row
	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.	GD14398	-	Spacer

# ROW UNIT MOUNTED BED LEVELER

RUA059/RUA060(RU99/RU100)



# ROW UNIT MOUNTED BED LEVELER

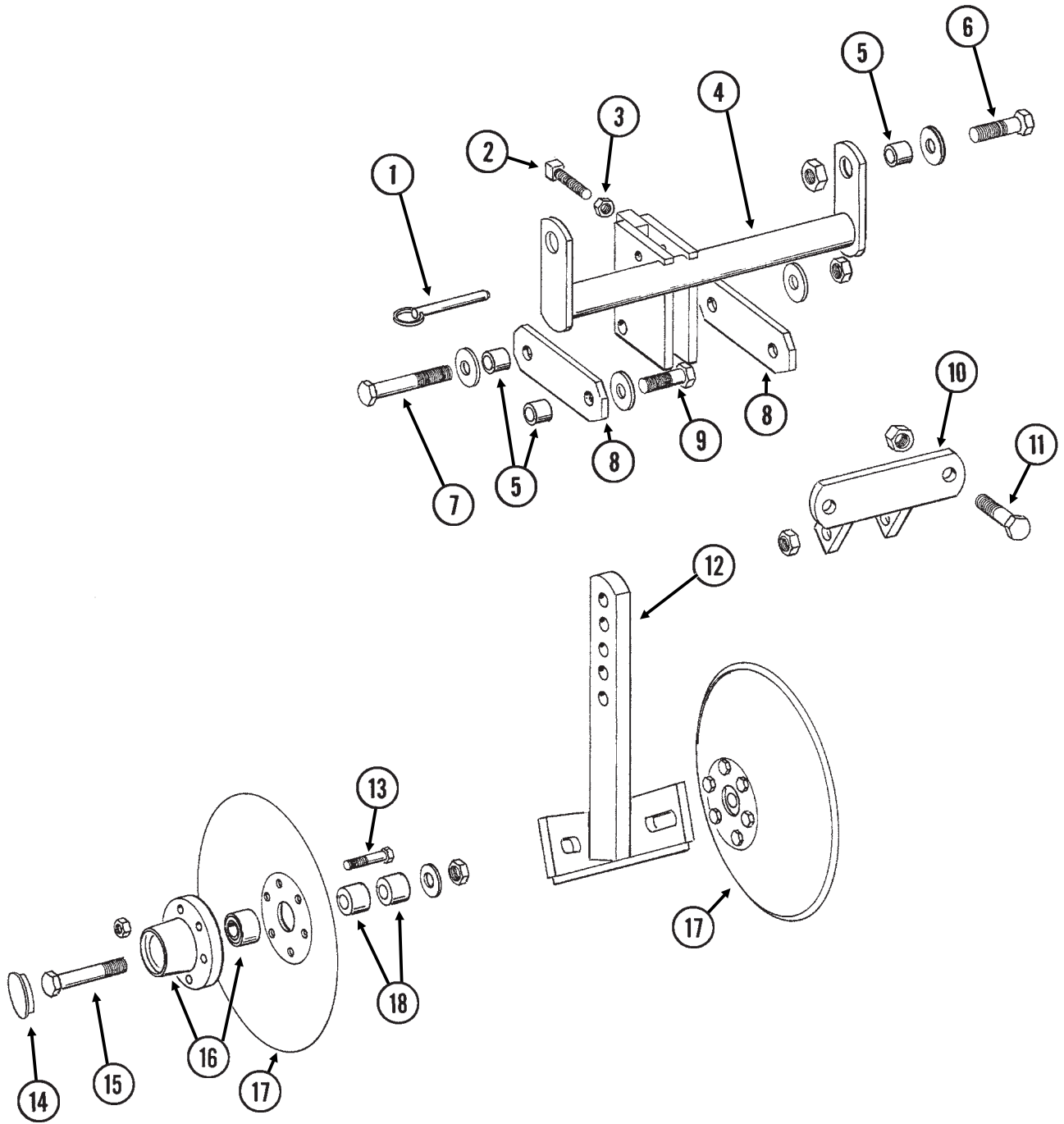
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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10536	1	Detent Pin, 1/2" x 2 1/2" Grip
2.	G10597	1	Square Head Set Screw, 5/8"-11 x 2 1/4"
3.	G10503	1	Hex Jam Nut, 5/8"-11, Grade 2
4.	GA5719	1	Mounting Bracket
5.	GD7889	6	Bushing, 1" O.D. x 9/16" I.D. x 7/16" Long
6.	G10039	2	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
	GD14674	2	Special Washer, 1/2", Hardened
	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.	GA5892	1	Leveler
13.	G10303	6	Carriage Bolt, 5/16"-18 x 1"
	G10219	4	Washer, 5/16" USS
	G10109	6	Lock Nut, 5/16"-18, Grade 8
14.	GD8266	2	Blade



# ROW UNIT MOUNTED DISC FURROWER

RUA059/RUA058(RU99/RU98g)

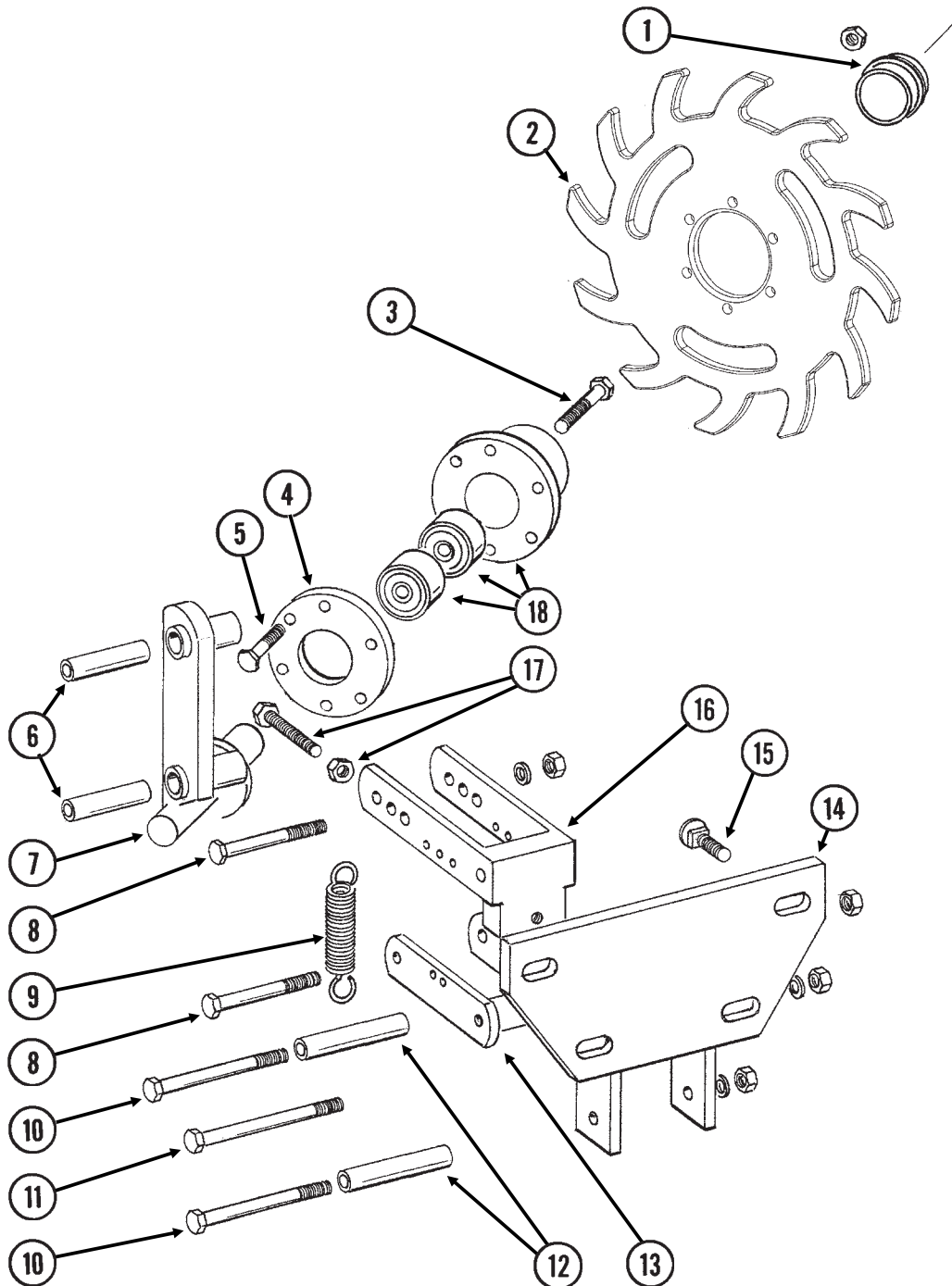


# ROW UNIT MOUNTED DISC FURROWER

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10536	1	Detent Pin, 1/2" x 2 1/2" Grip
2.	G10597	1	Square Head Set Screw, 5/8"-11 x 2 1/4"
3.	G10503	1	Hex Jam Nut, 5/8"-11, Grade 2
4.	GA5719	1	Mounting Bracket
5.	GD7889	6	Bushing, 1" O.D. x 9/16" I.D. x 7/16" Long
6.	G10039	2	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
	GD14674	2	Special Washer, 1/2", Hardened
	G10111	2	Lock Nut, 1/2"-13
7.	G10585	1	Hex Head Cap Screw, 1/2"-13 x 3 1/4"
	G10216	2	Washer, 1/2" USS
	G10111	1	Lock Nut, 1/2"-13
8.	GD7890	2	Link
9.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10216	2	Washer, 1/2" USS
	G10111	2	Lock Nut, 1/2"-13
10.	GA5715	1	Anchor
11.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10111	2	Lock Nut, 1/2"-13
12.	GA5718	1	Support Arm
13.	G10572	6	Truss Head Slotted Machine Screw, 5/16"-18 x 7/8"
	G10106	6	Hex Nut, 5/16"-18
14.	GD1132	2	Dust Cap
15.	G10318	2	Hex Head Cap Screw, 5/8"-11 x 4 1/2"
	GD7805	2	Special Washer, 5/8", Hardened
	G10107	2	Lock Nut, 5/8"-11
16.	GA5654	2	Hub W/Bearings
	GA2014	-	Bearing
17.	GD7823	-	Disc Blade, Solid, 12" (Shown)
	GD8307	-	Disc Blade, Notched, 12"
18.	GD7817-01	2	Spacer, 1 1/16" I.D. x 3/4" Long
	GD7817-04	2	Spacer, 1 1/16" I.D. x 1/2" Long

# ROW UNIT MOUNTED RESIDUE WHEEL

(RU103dd)

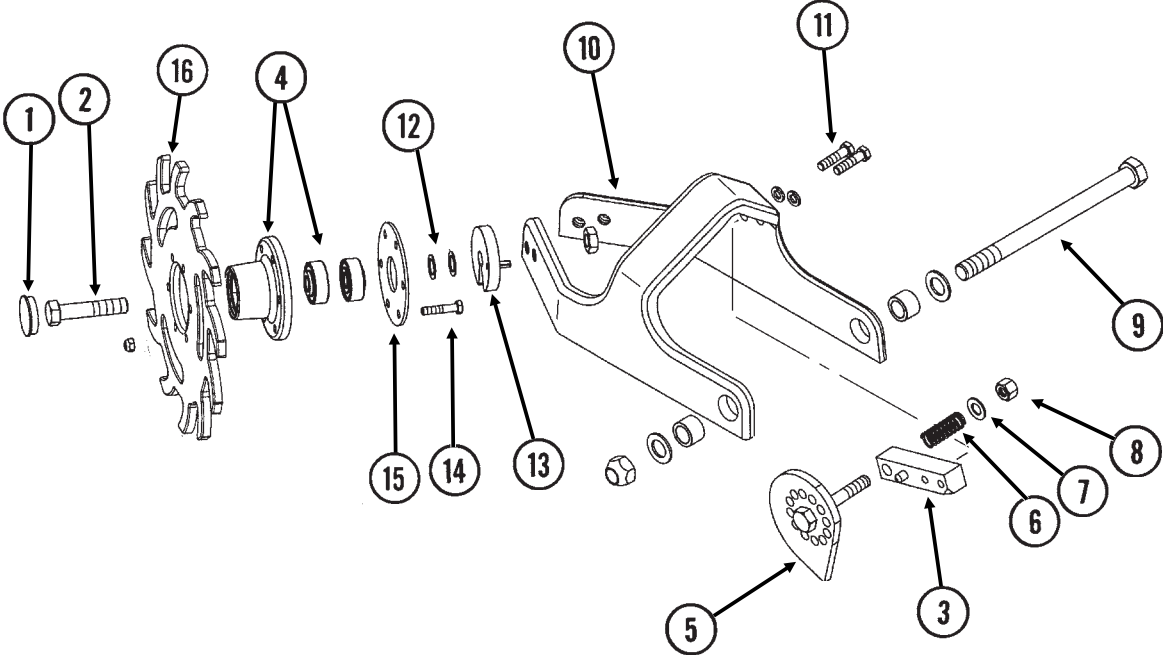


# ROW UNIT MOUNTED RESIDUE WHEEL

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1132	1	Dust Cap
2.	GB0387	1	Wheel, 12 Tine, 3/8" x 12"
3.	G10006	1	Hex Head Cap Screw, 5/8"-11 x 2 1/4"
4.	GD9724	1	Backing Plate
5.	G10133	6	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	6	Lock Nut, 5/16"-18, Grade 8
6.	GD9720	2	Spacer, 1/2" x 2 3/16" Long
7.	GA6838	1	Wheel Mount
8.	G10033	2	Hex Head Cap Screw, 1/2"-13 x 3 1/2"
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
9.	GD5857	2	Spring
10.	G10045	2	Hex Head Cap Screw, 1/2"-13 x 4 1/2"
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
11.	G10348	1	Hex Head Cap Screw, 1/2"-13 x 5" (Lockup Bolt)
	G10111	1	Lock Nut, 1/2"-13
12.	GD9715	2	Spacer, 1/2" x 3" Long
13.	GA6834	1	Lower Link
14.	GA6832	1	Mount
15.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
16.	GA6833	1	Upper Link
17.	G10371	1	Hex Head Cap Screw, 1/2"-13 x 3", Full Thread
	G10501	1	Hex Jam Nut, 1/2"-13, Grade 2
18.	GA5654	1	Hub W/Bearings
	GA2014	-	Bearing
A.	GA12236	-	Wheel Assembly, 12 Tine, R.H. (Items 2, 4, 5, And 18)

# COULTER MOUNTED RESIDUE WHEELS

(RU153)

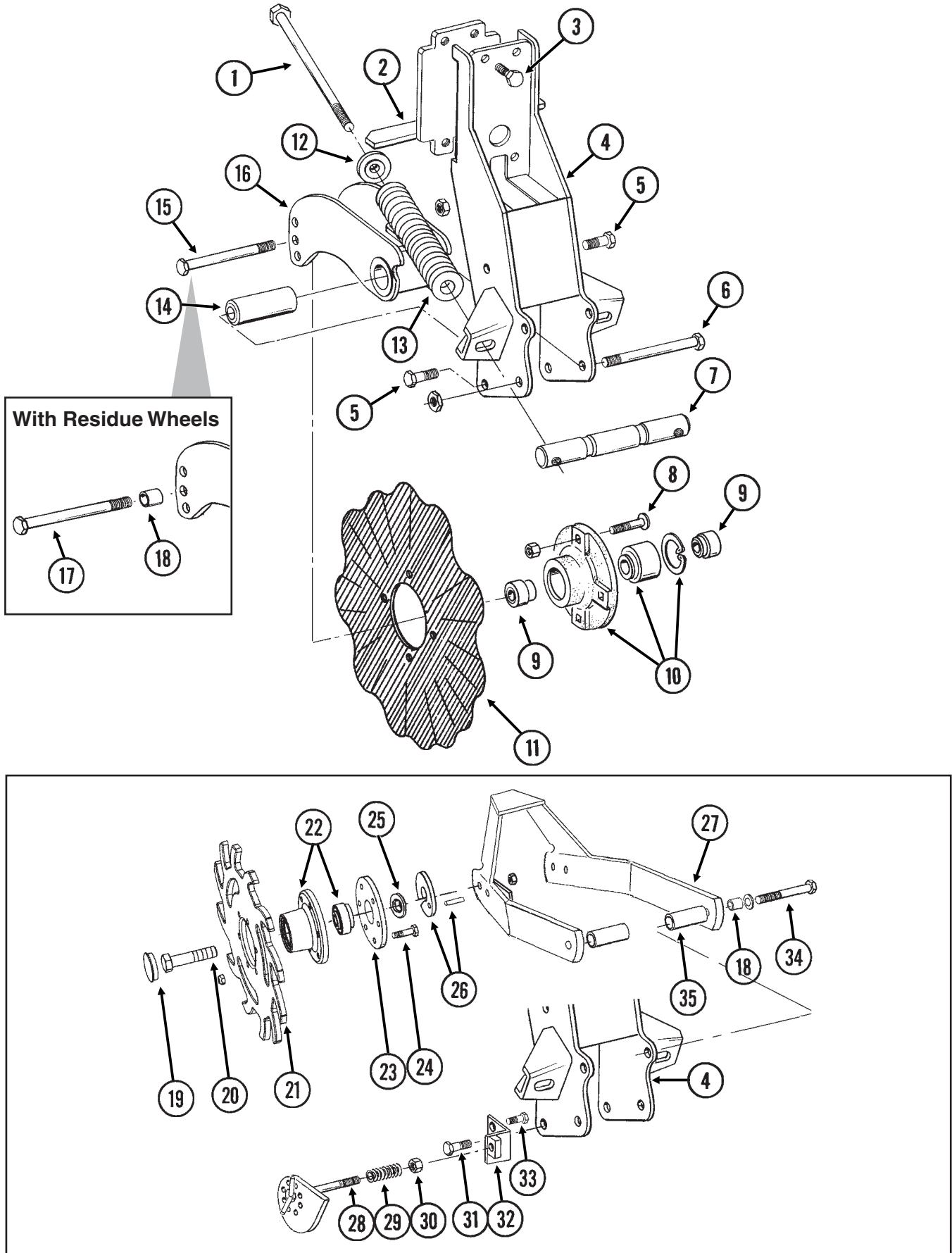


# COULTER MOUNTED RESIDUE WHEELS

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1132	2	Dust Cap
2.	G10010	2	Hex Head Cap Screw, 5/8"-11 x 3"
	G10503	2	Hex Jam Nut, 5/8"-11, Grade 2
3.	GA12256	1	Locking Pin
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.	G11236	1	Hex Head Cap Screw, 3/4"-10 x 10 1/2"
	GB0383	2	Bushing, 1 1/8" O.D. x 25/32" I.D. x 3/4" Long
	G10194	2	Washer, 3/4" SAE
	G11228	1	Lock Nut, 3/4"-10
10.	GB0401	1	Mount
11.	G10003	2	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10229	2	Lock Washer, 3/8"
12.	G10213	2-4	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, Grade 8
15.	GD9724	2	Backing Plate
16.	GB0387	2	Wheel, 12 Tine, 3/8" x 12"
A.	GA12236	-	Wheel Assembly, 12 Tine, R.H. (Items 3, 4, 14, And 15) (Shown)
	GA12235	-	Wheel Assembly, 12 Tine, L.H. (Items 3, 4, 14, And 15)
B.	G1K467	-	Residue Wheel Mount Kit (Items 17-20)

# FRAME MOUNTED COULTER W/RESIDUE WHEELS

(RU135c/RU135g/RU153b/RU135hh)





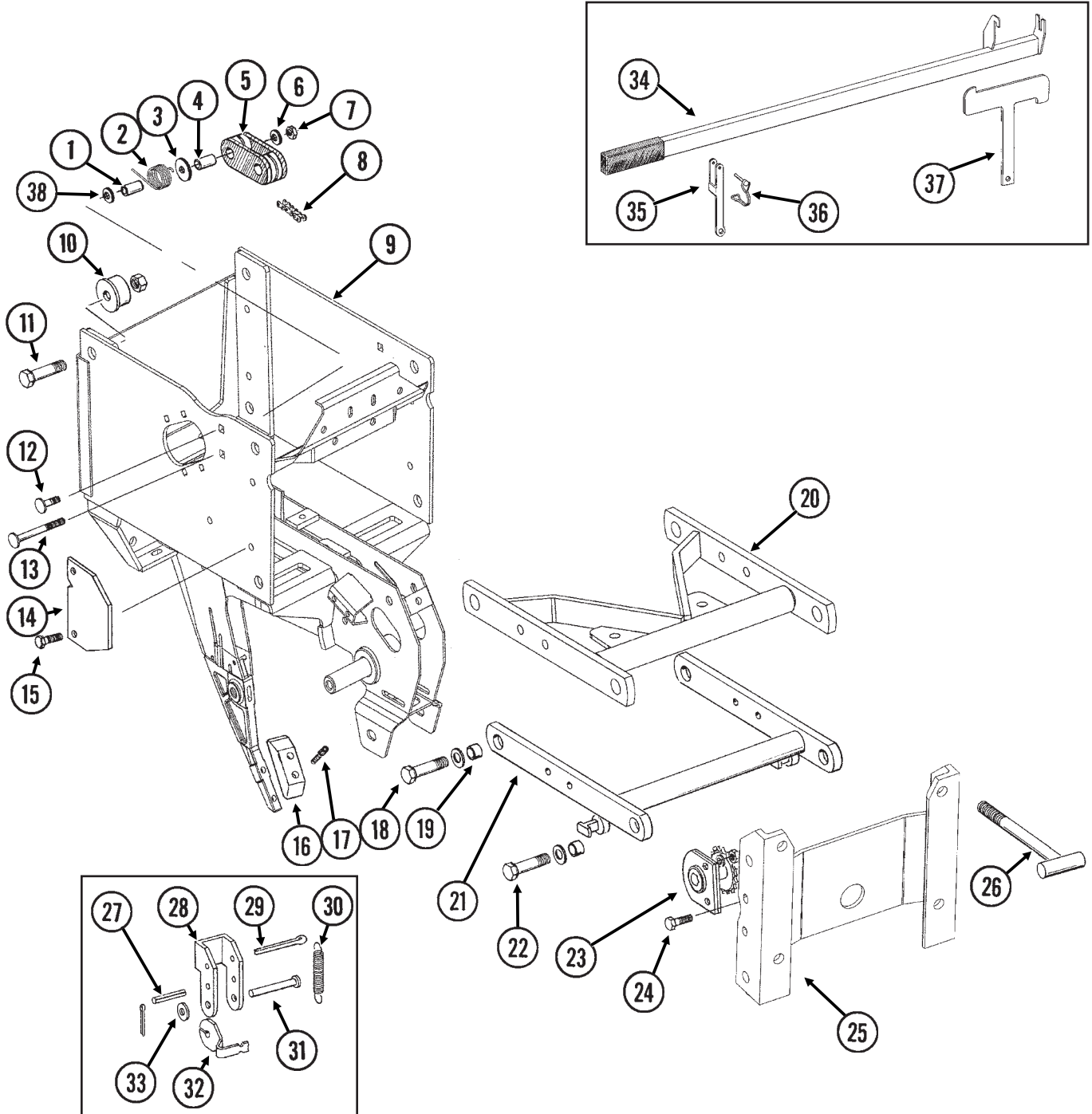
# FRAME MOUNTED COULTER W/RESIDUE WHEELS

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G11010	2	Hex Head Cap Screw, 3/4"-10 x 12"
2.	GA9844	1	Plate W/Angle
3.	G10039	4	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
4.	GA9131	1	Coulter Frame
5.	G10007	4	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10107	4	Lock Nut, 5/8"-11
6.	G10400	1	Hex Head Cap Screw, 3/4"-10 x 6 1/2"
	G10112	1	Lock Nut, 3/4"-10
7.	GD12826	1	Spring Anchor Bar
8.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
9.	GD12827	2	Adapter
10.	GA8641	1	Hub W/Bearing And Retaining Ring
	GA8603	1	Bearing, Double Row
	GD11652	1	Retaining Ring, 2 7/16"
11.	GD7803	1	Disc Blade, Fluted, 1", 8 Flutes (Shown)
	GD7804	-	Disc Blade, Bubbled, 1"
	GD9254	-	Disc Blade, Fluted, 3/4", 13 Flutes
12.	GB0213	2	Spring Seat
13.	GD12817	2	Compression Spring
14.	GD12829	1	Sleeve
15.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10107	1	Lock Nut, 5/8"-11
16.	GA9845	1	Coulter Arm W/Grease Fitting
	G10643	-	Grease Fitting, 45°, 1/4"-28
17.	G10011	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	G10107	1	Lock Nut, 5/8"-11
18.	GB0218	3	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
19.	GD1132	2	Dust Cap
20.	G10010	2	Hex Head Cap Screw, 5/8"-11 x 3"
	G10503	2	Hex Jam Nut, 5/8"-11, Grade 2
21.	GB0386	2	Wheel, 12 Tine, 3/8" x 12"
22.	GA5654	2	Hub W/Bearings
	GA2014	-	Bearing
23.	GD9724	2	Backing Plate
24.	G10133	12	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	12	Lock Nut, 5/16"-18, Grade 8
25.	G10213	2	Machine Bushing, 5/8" (.030" Thick)
26.	GA9862	2	Weed Guard W/Spring Pin
	G10765	-	Spring Pin, 1/4" x 1"
27.	GA9865	1	Mount
28.	GA9861	1	Cam
29.	GD10519	1	Spring
30.	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
31.	G10005	1	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	G10107	4	Lock Nut, 5/8"-11
32.	GA9864	1	Support
33.	G10014	1	Hex Head Cap Screw, 1/2"-13 x 1"
	G10102	1	Hex Nut, 1/2"-13
34.	G10011	2	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	G10205	2	Washer, 5/8" SAE
	G10730	2	Lock Nut W/Nylon Insert, 5/8"-11
35.	GD14170	2	Sleeve, 3"
A.	GA12236	-	Wheel Assembly, 12 Tine, R.H. (Items 21, 22, 23, And 24) (Shown)
	GA12235	-	Wheel Assembly, 12 Tine, L.H. (Items 21, 22, 23, And 24)

# INTERPLANT® PUSH ROW UNIT

(RU156c/R141h)

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



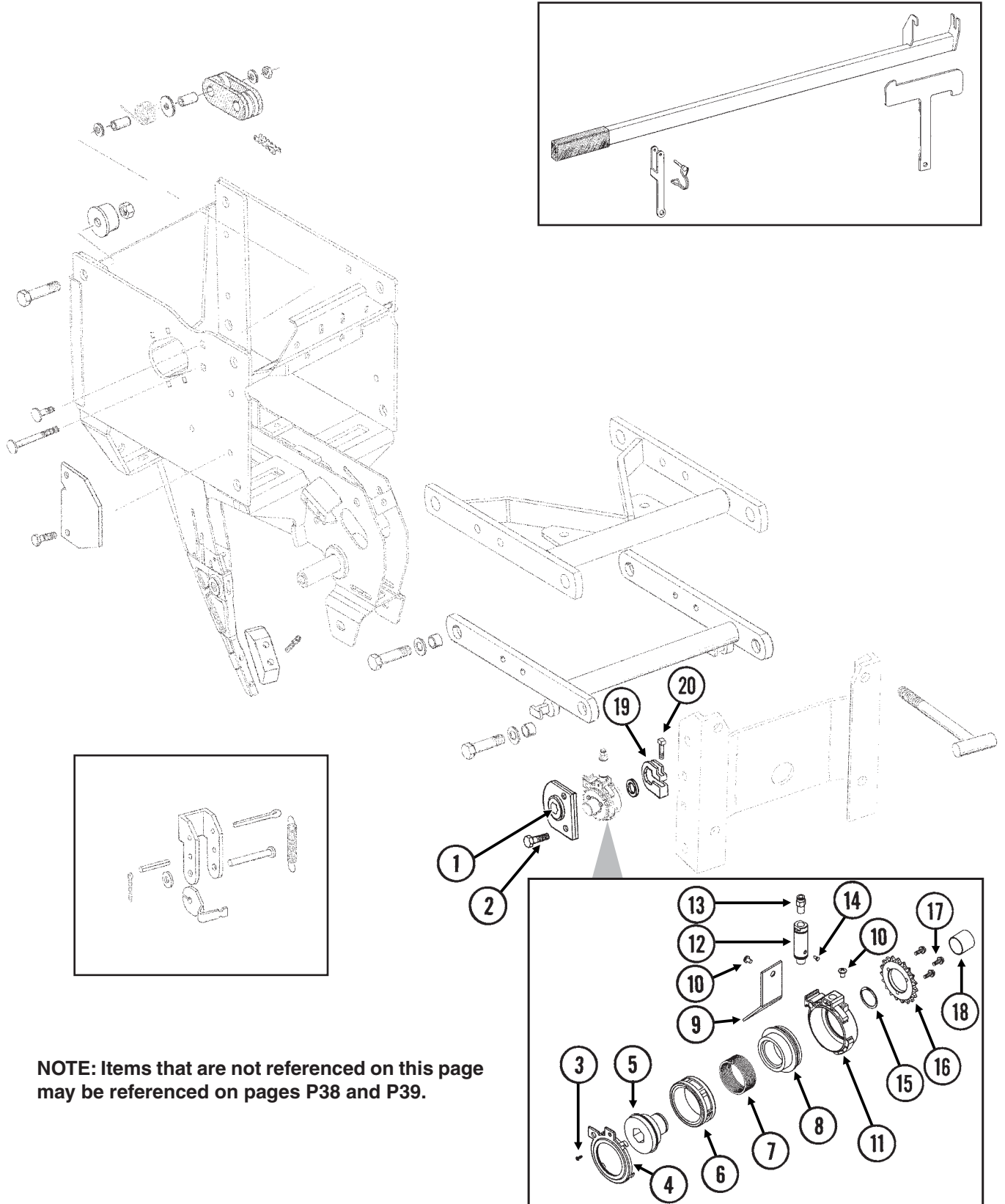
# INTERPLANT® PUSH ROW UNIT

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1026	1	Sleeve, 1 3/16" Long
2.	GD11218	1	Spring
3.	G10201	1	Special Washer, 3/8" x 1 1/2" O.D.
4.	GD8893-01	1	Sleeve, 1 3/8" 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.	GA10161	-	Push Row Unit Shank
10.	GB0314	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.	GB0301	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.	GA11969	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.	GA11971	1	Mounting Plate
26.	GA9105	-	T-Bolt, 5/8"-11 x 6"
	G10230	-	Lock Washer, 5/8"
	G10104	-	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.	GD18073	1	Bracket (Lift Lever)
36.	GD9695	1	Wire Lock Pin, 1/4" x 1 3/4"
37.	GD18074	1	Mount
38.	G10203	1	Washer, 3/8" SAE

# INTERPLANT® PUSH ROW UNIT, AIR CLUTCH PACKAGE

(RU156d/RU141h/RU164a)

**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.



**NOTE:** Items that are not referenced on this page may be referenced on pages P38 and P39.

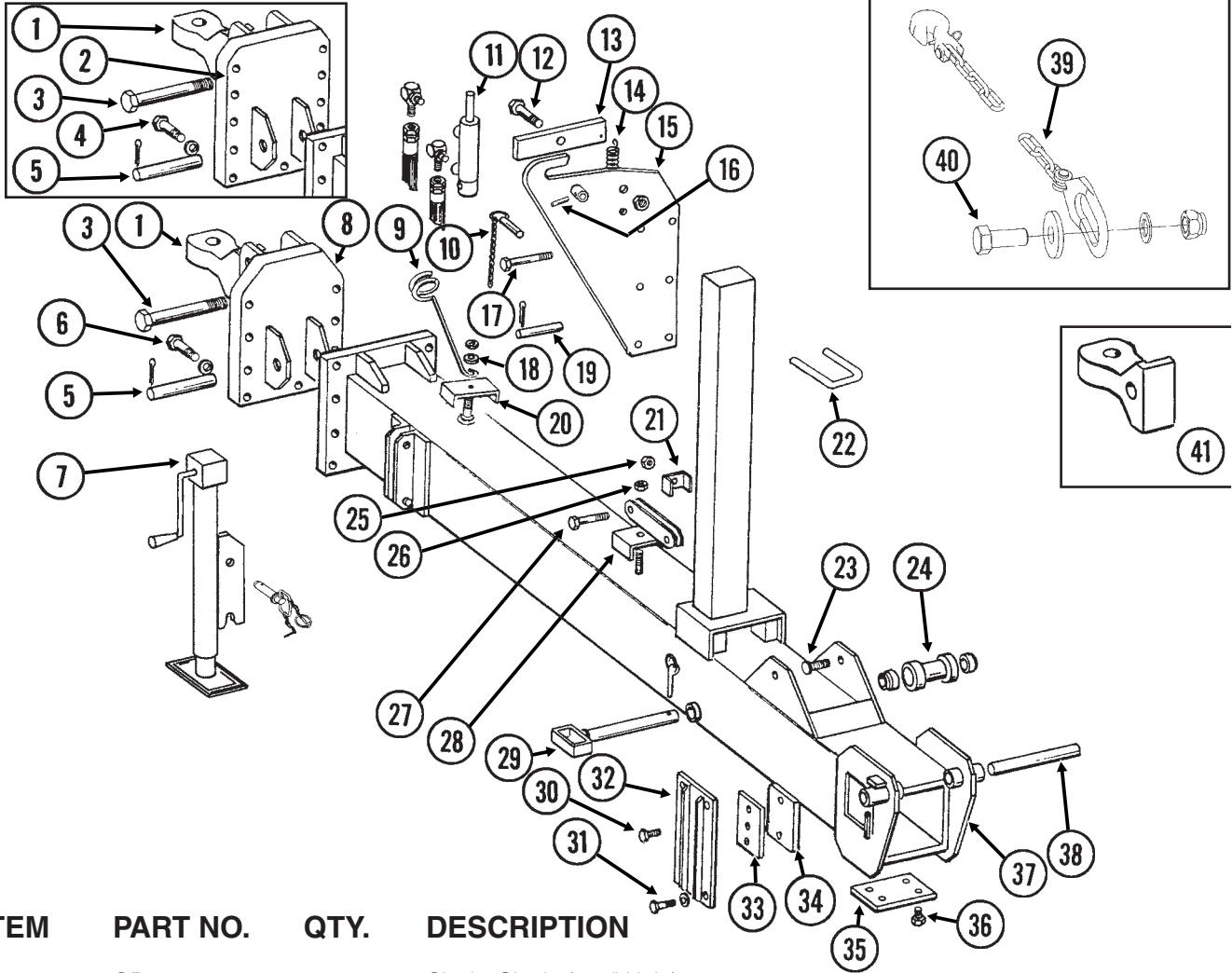
# INTERPLANT® PUSH ROW UNIT, AIR CLUTCH PACKAGE

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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GA2180	-	Hanger Bearing, 7/8" Hex Bore
2.	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
3.	G11243	1	Slotted Flat Head Machine Screw, No. 8-32 x 1/2", Stainless Steel
4.	GR1894	1	Air Housing Cover
5.	GR1830	1	Hex Bushing
6.	GR1818	1	Ratchet Gear
7.	GR1813	1	Clutch Spring
8.	GR1829	1	Sprocket Hub
9.	GR1899	1	Anti-Rotation
10.	G11296	2	Pan Head Machine Screw, 1/4"-20 x 3/4" x 3/4"
11.	GR1895	1	Air Clutch Housing
12.	GR1896	1	Air Cylinder
13.	GR1819	1	Push Connect, 1/8" NPT Male x 1/4"
14.	GR1898	1	Filter
15.	G11295	1	Retaining Ring
16.	GR1831	1	Sprocket, 19 Tooth
17.	G11239	3	Hex Head Cap Screw, 10-32 x 1/2"
18.	GD18891	1	Spacer, 1 1/4" O.D. x 1"
19.	GD11045	-	Lock Clamp
20.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
A.	GA12630	-	Air Clutch Assembly, (Items 3-18)

# OUTER HITCH/SAFETY CHAIN

PHA038/PHA025(TWL11/WGN47a/B0292)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GB0237	1	Clevis, Single (1 3/4" Hole)
2.	GA9837	-	Hitch Mount, 16 Row 30"
3.	G10169	1	Hex Head Cap Screw, 1 1/4"-7 x 6"
	G10157	1	Lock Nut, 1 1/4"-7
4.	G10802	11	Hex Head Cap Screw, 3/4"-10 x 2 3/4"
	G10231	11	Lock Washer, 3/4"
	G10105	11	Hex Nut, 3/4"-10
5.	GD5173	1	Pin, 1 1/4" x 5 1/8"
	G10462	2	Cotter Pin, 3/16" x 2"
6.	G10009	9	Hex Head Cap Screw, 5/8"-11 x 2 1/2"
	G10230	9	Lock Washer, 5/8"
	G10104	9	Hex Nut, 5/8"-11
7.	GA13986	1	Jack Assembly Complete
	GA4995	-	Detent Pin Assembly
	GR0516	-	Crank Assembly
	GR0515	-	Bevel Gear Set, Includes: (2) Bevel Gears, (1) Gear Pin, (1) Groove Pin
8.	GA9836	1	Hitch Mount, 8 Row 36"/38", 12 Row 30" And 12 Row 36"/38" ("Y" Hitch Only)
9.	GD8260	1	Hose Holder
10.	GA7022	1	Detent Pin W/Chain (Transport Latch Locking Pin)
11.			See "Transport Latch Cylinder", Page P86
12.	G10006	1	Hex Head Cap Screw, 5/8"-11 x 2 1/4"
	GB0218	1	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
	GD7805	1	Special Washer, 5/8", Hardened
	G10107	1	Lock Nut, 5/8"-11
13.	GA7016	1	Catch Bar
14.	GD5857	1	Spring
15.	GA7433	1	Transport Latch
16.	G10765	-	Spring Pin, 1/4" x 1"

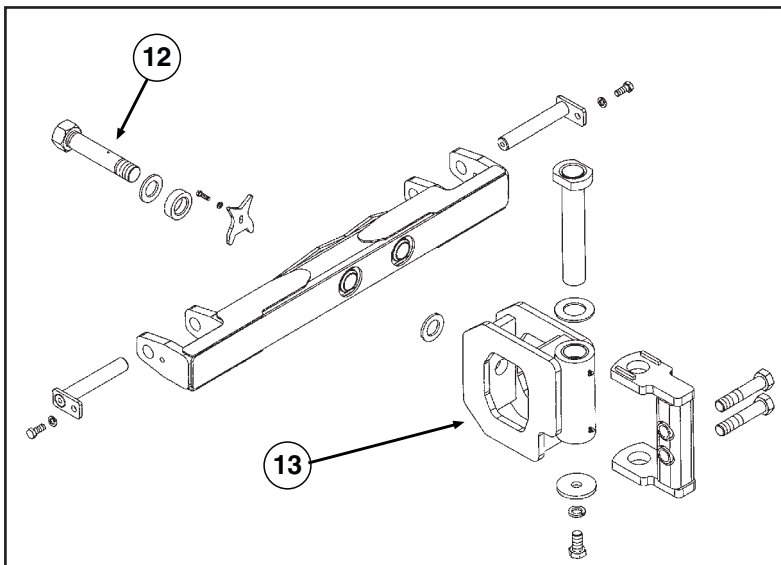
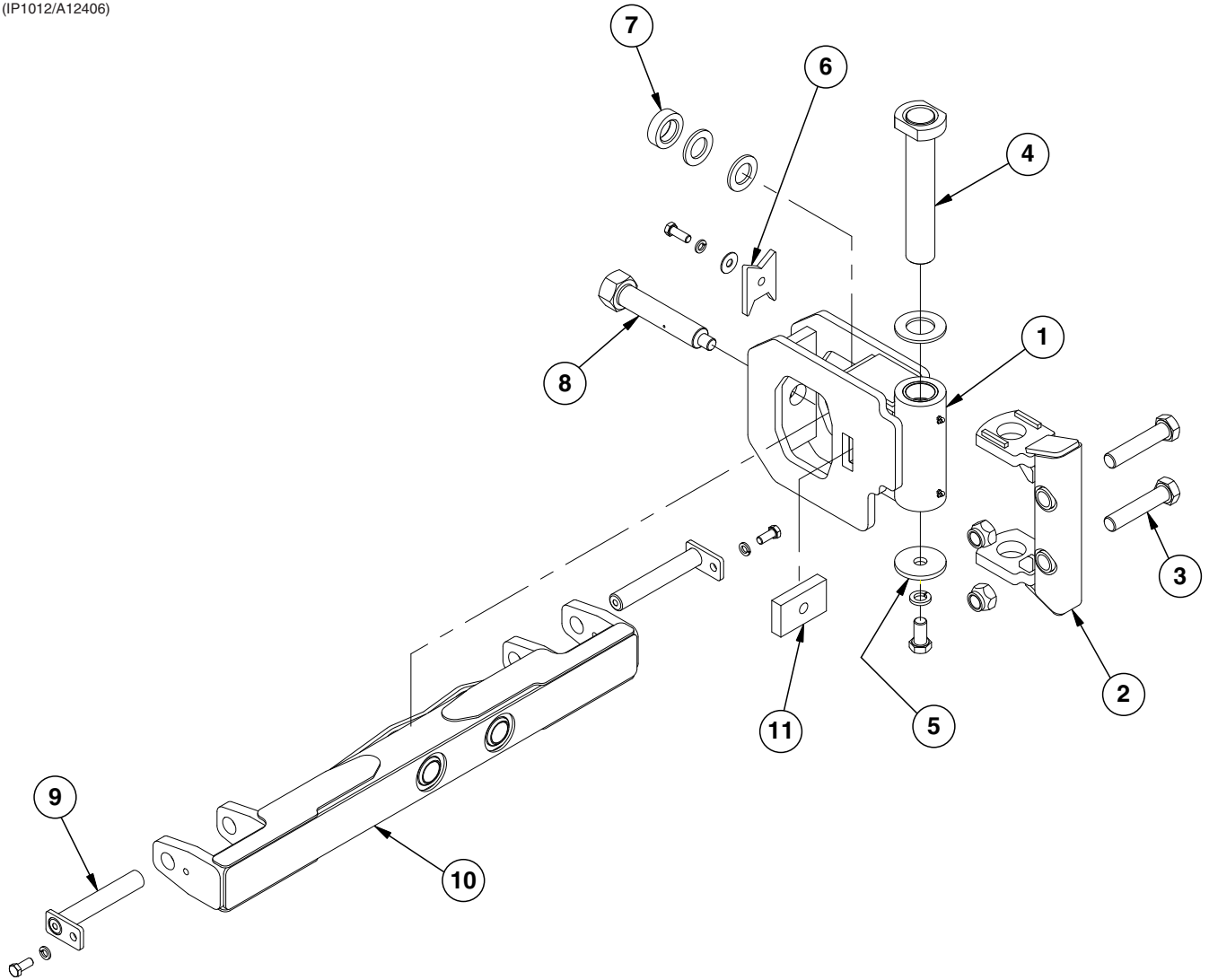
# OUTER HITCH/SAFETY CHAIN

ITEM	PART NO.	QTY.	DESCRIPTION
17.	G10062	1	Hex Head Cap Screw, 3/8"-16 x 3"
	GD2971-09	1	Sleeve, 2" Long
	G10108	1	Lock Nut, 3/8"-16
18.	G10206	1	Washer, 1/2" SAE
	G10111	1	Lock Nut, 1/2"-13
19.	GD7137	1	Pin, 3/4" x 3 3/8"
	G10457	2	Cotter Pin, 5/32" x 1 1/2"
20.	GD8188	-	Hose Clamp, 7/8" x 3" x 5 3/8"
	GD8189	-	Rubber Strip, 3/8"
21.	GD5875	2	Hose Clamp, 9/16" x 2 1/2" x 2"
22.	GD9953	3	U-Bolt, 3" x 4" x 5/8"-11
	G10205	1	Washer, 5/8" SAE
	G10230	6	Lock Washer, 5/8"
	G10104	6	Hex Nut, 5/8"-11
23.			See "Hose Take-Up", Pages P50 And P51
24.	GA4418	1	Roller W/Bronze Bushings, 8 Row "Y" And 12 Row "Y" Hitch
	GA4842	-	Roller W/Bronze Bushings, 12 Row "T" Hitch And 16 Row "Y" and "T" Hitch
	GD6556	1	Bronze Bushing
25.	G10108	1	Lock Nut, 3/8"-16
26.	G10111	1	Lock Nut, 1/2"-13
27.	G10026	1	Hex Head Cap Screw, 3/4"-10 x 2"
	G10112	1	Lock Nut, 3/4"-10
28.	GA5842	1	Bracket, Jack Mount
	GD8189	-	Rubber Strip, 3/8"
29.	GA13768	1	Safety Pin, 12 3/4", 8 Row 36"/38" And 12 Row 30", 12 Row 36"/38" ("Y" Hitch Only)
	GA4845	-	Safety Pin, 14 3/4", 16 Row 30"
	GD2558	-	Lynch Pin, 1/4"
	GD2557	-	Lynch Pin, 7/16"
30.	G10016	4	Hex Head Cap Screw, 1/2"-13 x 2"
	G10206	4	Washer, 1/2" SAE
31.	G10017	8	Hex Head Cap Screw, 1/2"-13 x 1 1/2", 8/12 Row
	G10016	10	Hex Head Cap Screw, 1/2"-13 x 2", 16 Row
	G10071	8-10	Serrated Flange Nut, 1/2"-13
32.	GA7029	2	Wear Mount, 8 Row 36"/38" And 12 Row 30", 12 Row 36"/38" ("Y" Hitch Only)
	GA7084	-	Wear Mount, L.H., 16 Row 30"
	GA7085	-	Wear Mount, R.H., 16 Row 30"
	GA7083	-	Wear Pad Retainer, 16 Row 30"
33.	GD5154	-	Shim, 4" x 4" (As Required), All Sizes
	GD3501	-	Shim, 4" x 6" (As Required), 16 Row 30"
34.	GD9959	-	Wear Pad, Nylatron, 4" x 4" (As Required), All Sizes
	GD9960	-	Wear Pad, Nylatron, 4" x 6" (As Required), 12 Row 36"/38" ("T" Hitch Only) And 16 Row 30"
35.	GD7519	3	Shim, 16 Gauge (16 Row Only)
	GD7518	1	Shim, 3/8" (16 Row Only)
36.	G10014	4	Hex Head Cap Screw, 1/2"-13 x 1"
	G10228	4	Lock Washer, 1/2"
	G10216	4	Washer, 1/2" USS
37.	A7835	-	Outer Hitch, "Y", 73", 8 Row 36"/38" <b>(Non-Stock Item)</b>
	A7010	-	Outer Hitch, "Y", 97", 12 Row 30" <b>(Non-Stock Item)</b>
	A7061	-	Outer Hitch, "T", 121", 12 Row 30" <b>(Non-Stock Item)</b>
	A7044	-	Outer Hitch, "Y", 121", 12 Row 36"/38" <b>(Non-Stock Item)</b>
	A7088	-	Outer Hitch, "Y", 127 1/2", 16 Row 30" <b>(Non-Stock Item)</b>
	A7073	-	Outer Hitch, "T", 151 1/2", 16 Row 30" <b>(Non-Stock Item)</b>
38.	GD5804	1	Pin, 1 1/4" x 12", 8 Row "Y" And "T" Hitch, 12 Row "Y" Hitch
	GD7251	1	Pin, 1 1/4" x 14", 12 Row "T" Hitch And 16 Row "Y" and "T" Hitch
	G10468	2	Pin, 3/8" x 2"
39.	GA13594	1	1/2" Safety Chain W/Hook
	G1K412	-	Safety Chain Repair Kit, Includes Hook, Flat Washer, Latch Pin, Safety Latch, Spring And Retaining Ring
40.	G11058	1	Hex Head Cap Screw, 1 1/4"-7 x 3"
	GD10646	1	Special Washer
	G10226	1	Washer, 1 1/4" SAE
	G10157	1	Lock Nut, 1 1/4"-7
41.	GB0292	-	Hitch Clevis, Single (2" Hole)



# 2-POINT HITCH OPTION

(IP1012/A12406)



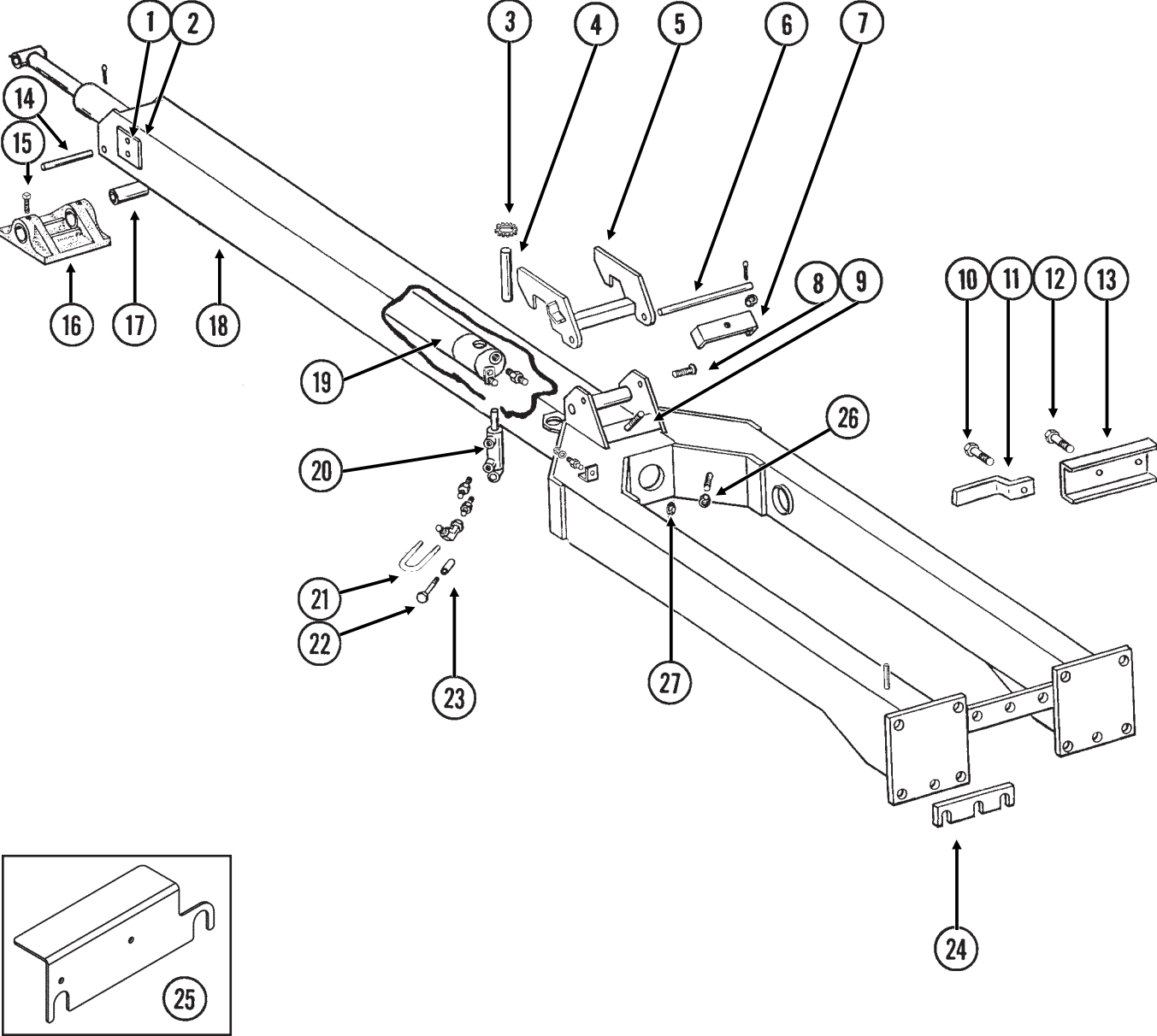


## 2-POINT HITCH OPTION

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA13665	1	Hitch Pivot (March 1, 2009 and on)
2.	GA13783	1	Pivot Mount
3.	G10169	2	Hex Head Cap Screw, 1 1/4"-7 x 6"
	G10157	2	Lock Nut, 1 1/4"-7
4.	GA12163	1	Pin, 13 3/8"
	GD15725	1	Washer, 4" O.D. x 2 1/4" I.D. x 1/4"
5.	GD17245	1	Washer, 4" O.D. x 1 1/32" I.D. X 3/8"
	G11223	1	Hex Head Cap Screw, 1"-8 x 2"
	G10118	1	Lock Washer, 1"
6.	GD15100	1	Pivot Lock
	G10230	1	Lock Washer, 5/8"
	G10217	1	Washer, 5/8" USS
	G10005	1	Hex Head Cap Screw, 7/8"-11 x 1 3/4"
7.	GD16226	1	Sleeve, 3" O.D. x 1 25/32" x 29/32" Thick
	GD16303	2	Washer, 3" O.D. x 1 25/32" x 1/4" Thick
8.	GA13673	1	Pivot Pin (March 1, 2009 and on)
9.	GA11079	2	Hammer Strap, Category 3 And 3N
	G10007	2	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	2	Lock Washer, 5/8"
10.	GA12164	1	Hitch Bar
11.	GD19468	1	Tapped Bar
12.	GA11082	1	Pivot Bolt W/Grease Fitting, 1 3/4" x 10 3/8" (Total Length) (Prior to March 1, 2009)
	G10640	-	Grease Fitting, 1/4"-28
	GD16303	2	Washer, 3" O.D. x 1 25/32" x 1/4" Thick
	GD16226	1	Sleeve, 3" O.D. x 1 25/32" x 29/32" Thick
13.	GA11083	1	Hitch Pivot W/Bushings And Grease Fittings (Prior to March 1, 2009)
	GD14562	2	Hardened Bushing, 2 3/4" O.D. x 2 1/4" I.D. x 3"
	G10779	2	Grease Fitting, 90°, 1/4"-28

# INNER HITCH, "Y"

PHA035/PHA037(TWL2i)

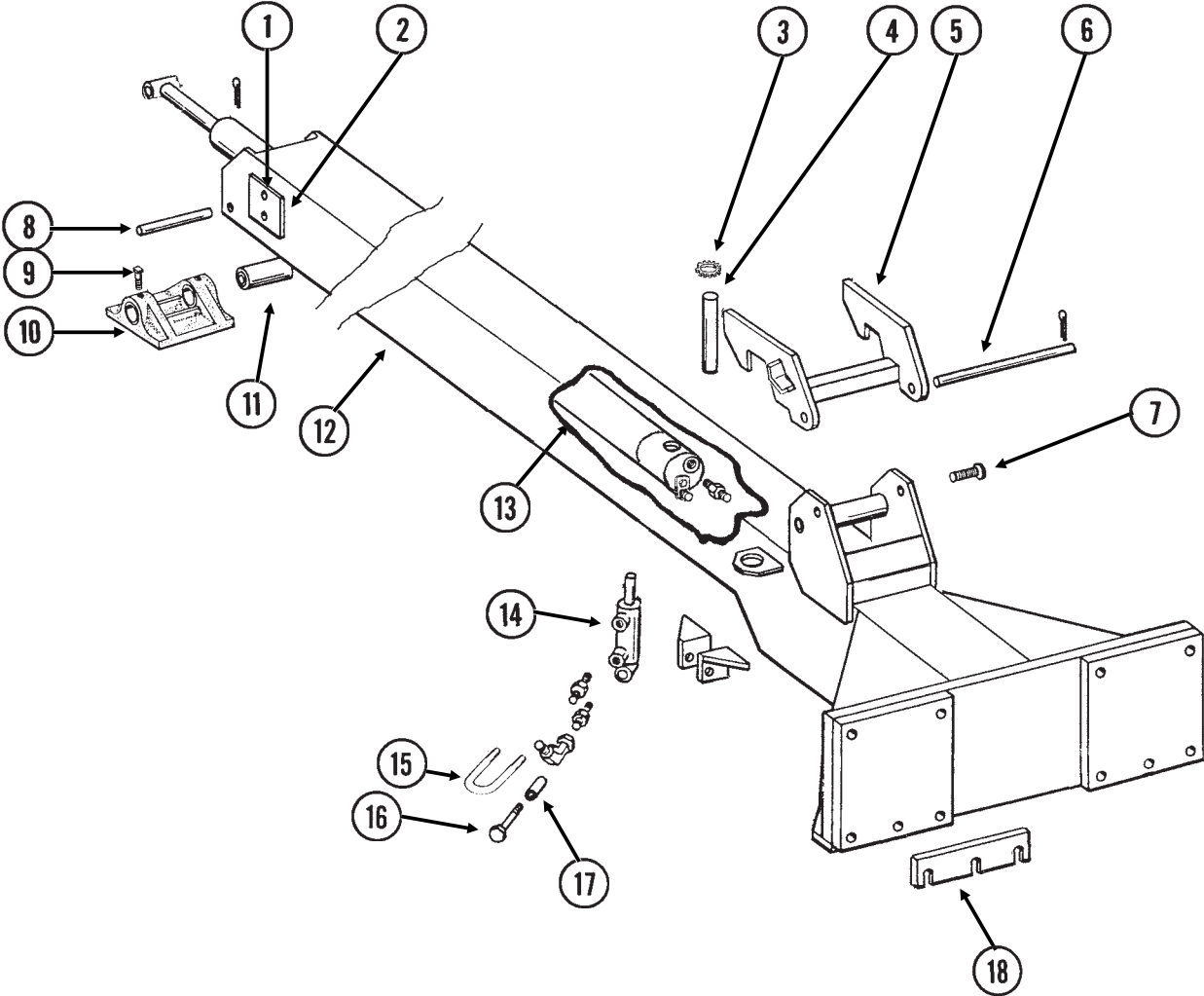


# INNER HITCH, "Y"

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10014	4	Hex Head Cap Screw, 1/2"-13 x 1", 8 Row 36"/38" And 12 Row 30"/36"/38"
	G10017	4	Hex Head Cap Screw, 1/2"-13 x 1 1/2", 16 Row 30"
	G10228	4	Lock Washer, 1/2", 16 Row 30"
2.	GD9959	2	Wear Pad, Nylatron, 4" x 4"
	GD5154	4-6	Shim, 4" x 4"
3.	G10894	-	External Washer
4.	GD3537-17	1	Shaft, 1 1/4" x 6 3/8", 8 Row 36"/38" And 12 Row 30"/36"/38"
	GD3537-18	-	Shaft, 1 1/4" x 7 3/8", 16 Row 30"
5.	GA7423	1	Tongue Hook W/Grease Fittings, 8/12 Row
	GA7424	-	Tongue Hook W/Grease Fittings, 16 Row
	G10641	-	Grease Fitting, 1/8" NPT
6.	GD5804	1	Pin, 1 1/4" x 12", 8/12 Row
	GD7883	-	Pin, 1 1/4" x 14 1/2", 16 Row
	G10468	2	Cotter Pin, 3/8" x 2"
7.	GD8188	-	Hose Clamp, 7/8" x 3" x 5 3/8"
	GD8189	-	Rubber Strip, 3/8"
8.			See "Hose Take-Up", Pages P50 And P51
9.	G11169	1	Hex Head Cap Screw, 1/2"-13 x 3 1/2"
	G10111	1	Lock Nut, 1/2"-13
10.	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
11.	GD10650	1	Hose Clamp
12.	G10003	1	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10210	1	Washer, 3/8" USS
	G10108	1	Lock Nut, 3/8"-16
13.	GD10664	1	Shield (If Applicable)
14.	GD5173	1	Pin, 1 1/4" x 5 1/8"
	G10462	1	Cotter Pin, 3/16" x 2"
15.	G10131	1	Square Head Set Screw, 5/16"-18 x 3/4"
16.	GB0246	1	Shoe
17.	GD3537-11	1	Shaft, 1 1/4" x 7", 8/12 Row
	GD3537-12	-	Shaft, 1 1/4" x 8", 16 Row
18.	A7427	-	Inner Hitch, 145 3/8", 8 Row 36"/38" <b>(Non-Stock Item)</b>
	A7429	-	Inner Hitch, 169 3/8", 12 Row 30" (Shown) <b>(Non-Stock Item)</b>
	A7428	-	Inner Hitch, 191 5/8", 12 Row 36"/38" <b>(Non-Stock Item)</b>
	A7426	-	Inner Hitch, 205 3/8", 16 Row 30" <b>(Non-Stock Item)</b>
19.		-	See "Tongue Cylinder", Pages P87-P89
20.		-	See "Tongue Lock Cylinder", Page P86
21.	GD10530	1	U-Bolt, 2 1/8" x 1 7/8" x 3/8"-16
	G10229	2	Lock Washer, 3/8"
	G11091	2	Serrated Flange Nut, 3/8"-16
22.	G10585	1	Hex Head Cap Screw, 1/2"-13 x 3 1/4"
	G10206	1	Washer, 1/2" SAE
	G10071	1	Serrated Flange Nut, 1/2"-13
23.	GD10538-01	1	Sleeve
24.	GD13543	1	Shim, 2 1/2" x 10", 7 Gauge
	GD13544	1	Shim, 2 1/2" x 10", 10 Gauge
	GD13545	1	Shim, 2 1/2" x 10", 12 Gauge
	GD13546	1	Shim, 2 1/2" x 10", 14 Gauge
25.	GD18116	1	Shield (If Applicable)
26.	GD5875	1	Hose Clamp, 9/16" x 2 1/2" x 2"
	G10108	1	Lock Nut, 3/8"-16
27.	GD8189	1	Rubber Strip, 3/8"
	GD8188	1	Hose Clamp, 7/8" x 3" x 5 3/8"
	G10111	1	Lock Nut, 1/2"-13

# INNER HITCH, "T"

PHA035/PHA036(TWL3f)

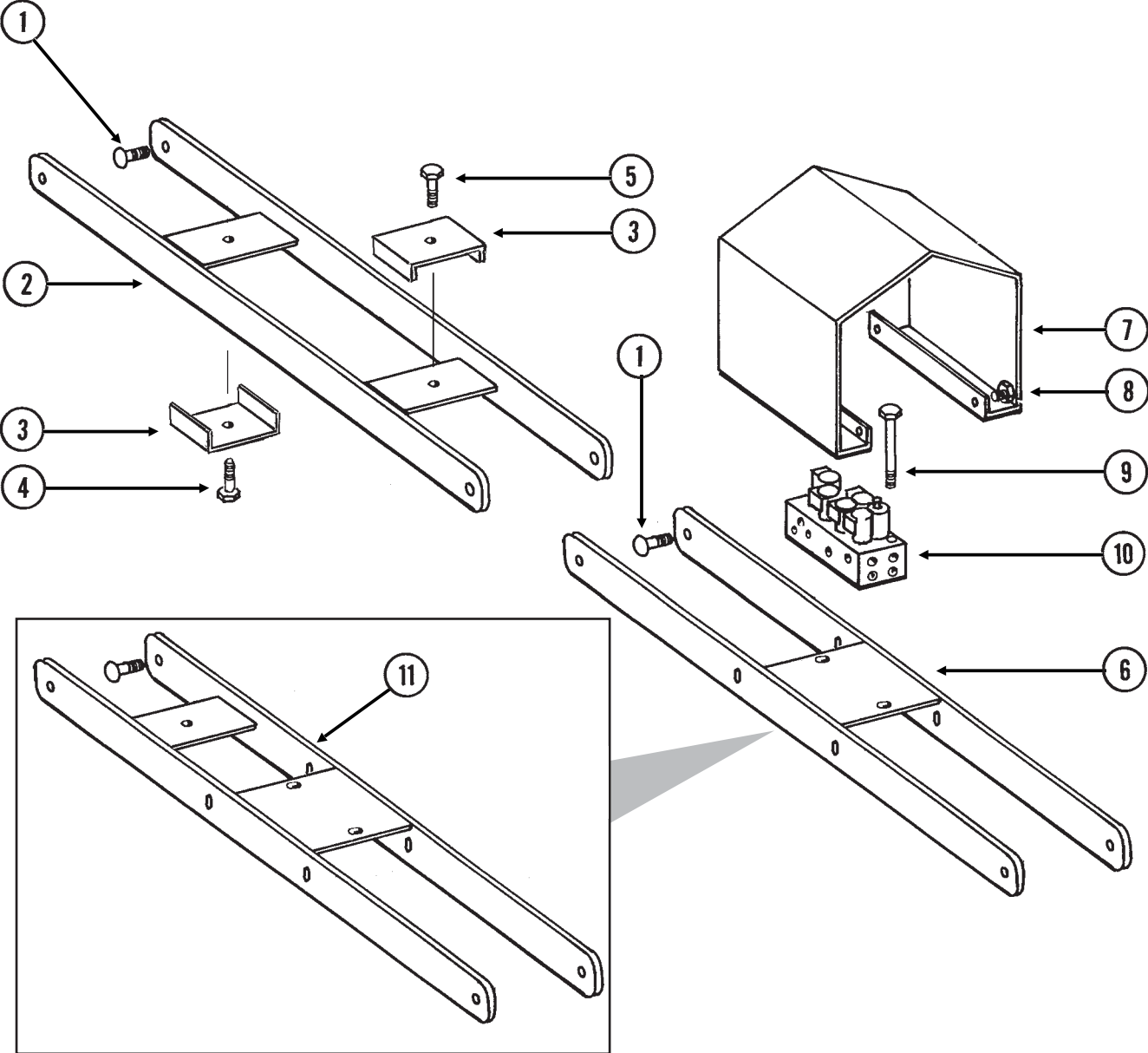


# INNER HITCH, "T"

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10014	4	Hex Head Cap Screw, 1/2"-13 x 1", 8 Row 36"/38" And 12 Row 30"
	G10017	4	Hex Head Cap Screw, 1/2"-13 x 1 1/2", 12 Row 36"/38" And 16 Row 30"
	G10228	4	Lock Washer, 1/2", 12 Row 36"/38" And 16 Row 30"
2.	GD9959	2	Wear Pad, Nylatron, 4" x 4"
	GD5154	4-6	Shim, 4" x 4"
3.	G10894	-	External Washer
4.	GD3537-17	1	Shaft, 1 1/4" x 6 3/8", 8 Row 36"/38" And 12 Row 30"
	GD3537-18	-	Shaft, 1 1/4" x 7 3/8", 12 Row 36"/38" And 16 Row 30"
5.	GA7423	1	Tongue Hook W/Grease Fittings, 8 Row 36"/38" And 12 Row 30"
	GA7424	-	Tongue Hook W/Grease Fittings, 12 Row 36"/38" And 16 Row 30"
	G10641	-	Grease Fitting, 1/8" NPT
6.	GD5804	1	Pin, 1 1/4" x 12", 8 Row 36"/38" And 12 Row 30"
	GD7883	-	Pin, 1 1/4" x 14 1/2", 12 Row 36"/38" And 16 Row 30"
	G10468	2	Cotter Pin, 3/8" x 2"
7.		-	See "Hose Take-Up", Pages P50 And P51
8.	GD5173	1	Pin, 1 1/4" x 5 1/8"
	G10462	1	Cotter Pin, 3/16" x 2"
9.	G10131	1	Square Head Set Screw, 5/16"-18 x 3/4"
10.	GB0246	1	Shoe
11.	GD3537-11	1	Shaft, 1 1/4" x 7", 8 Row 36"/38" And 12 Row 30"
	GD3537-12	-	Shaft, 1 1/4" x 8", 12 Row 36"/38" And 16 Row 30"
12.	A7431	-	Inner Hitch, 121 5/8", 8 Row 36"/38" <b>(Non-Stock Item)</b>
	A7432	-	Inner Hitch, 145 3/8", 12 Row 30" (Shown) <b>(Non-Stock Item)</b>
	A7430	-	Inner Hitch, 183 1/8", 12 Row 36"/38" And 16 Row 30" <b>(Non-Stock Item)</b>
13.		-	See "Tongue Cylinder", Pages P87-P90
14.		-	See "Tongue Lock Cylinder", Page P86
15.	GD10530	1	U-Bolt, 2 1/8" x 1 7/8" x 3/8"-16
	G10229	2	Lock Washer, 3/8"
	G11091	2	Serrated Flange Nut, 3/8"-16
16.	G10585	1	Hex Head Cap Screw, 1/2"-13 x 3 1/4"
	G10206	1	Washer, 1/2" SAE
	G10071	1	Serrated Flange Nut, 1/2"-13
17.	GD10538-01	1	Sleeve
18.	GD13543	1	Shim, 2 1/2" x 10", 7 Gauge
	GD13544	1	Shim, 2 1/2" x 10", 10 Gauge
	GD13545	1	Shim, 2 1/2" x 10", 12 Gauge
	GD13546	1	Shim, 2 1/2" x 10", 14 Gauge

# HOSE TAKE-UP

PHA039(TWL137TWL137f)



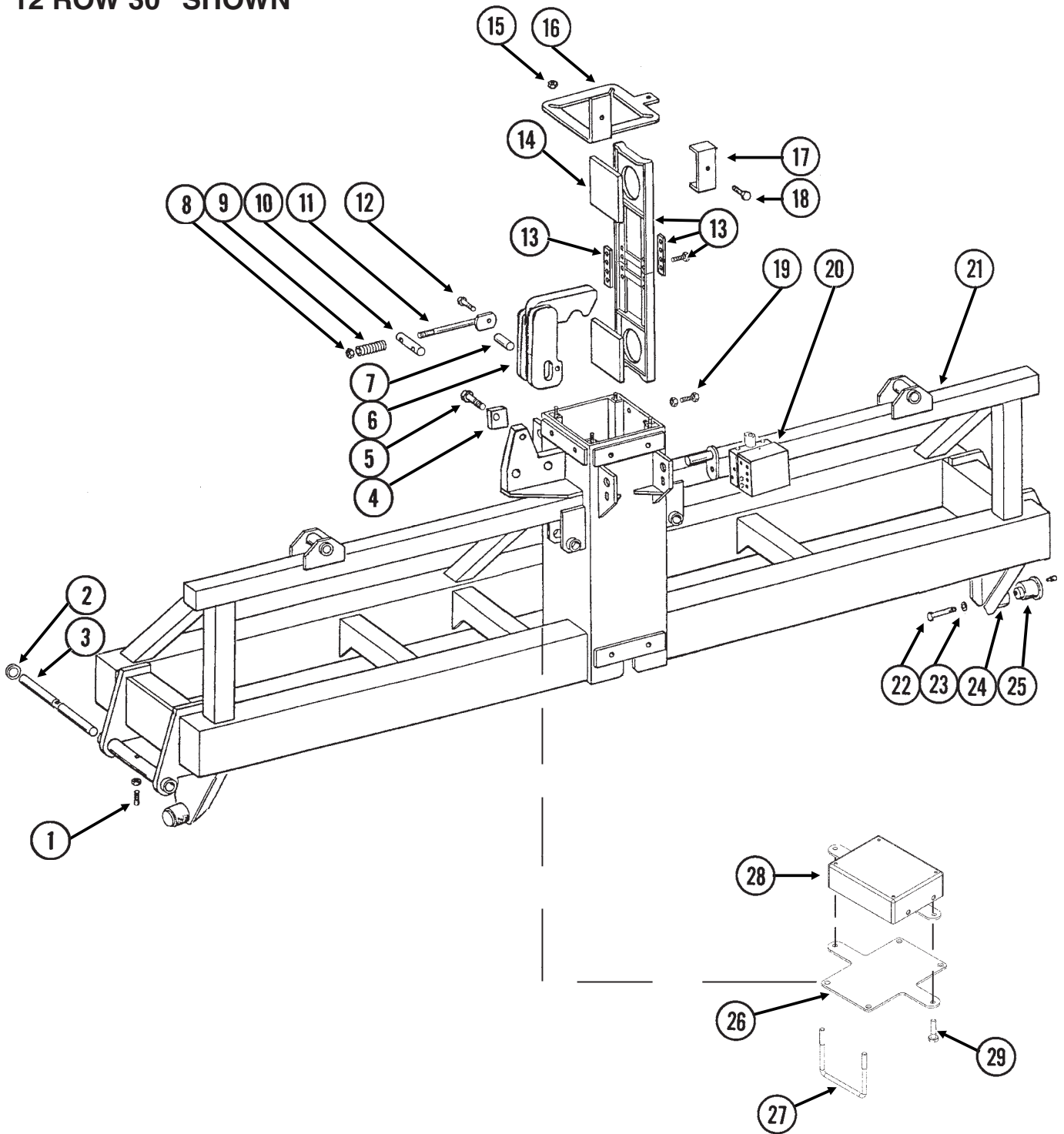
# HOSE TAKE-UP

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10689	6	Carriage Bolt, 5/8"-11 x 2"
	GB0218	6	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
	GD7805	6	Special Washer, 5/8", Hardened
	G10107	6	Lock Nut, 5/8"-11
2.	GA7058	1	Take-Up, 28 1/4", 8 Row 36"/38" "Y" Hitch
	GA7013	-	Take-Up, 44 1/4", 8 Row 36"/38" "T" Hitch And 12 Row 30" "Y" Hitch (Shown)
	GA7049	-	Take-Up, 56 1/4", 12 Row 30" "T" Hitch, 12 Row 36"/38" And 16 Row 30" "Y" Hitch
	GA7074	-	Take-Up, 67 5/8", 12 Row 36"/38" And 16 Row 30" "T" Hitch
3.	GD8188	2	Hose Clamp, 7/8" x 3" x 5 3/8"
	GD8189	2	Rubber Strip, 3/8"
4.	G10581	1-2	Hex Head Cap Screw, 1/2"-13 x 2 1/4"
	G10053	-	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	G10111	1	Lock Nut, 1/2"-13
5.	G11170	1	Hex Head Tap Bolt, 1/2"-13 x 3 1/2"
	G10111	1	Lock Nut, 1/2"-13
6.	GA7057	1	Take-Up, 28 1/4", 8 Row 36"/38" "Y" Hitch
	GA7021	-	Take-Up, 44 1/4", 8 Row 36"/38" "T" Hitch And 12 Row 30" "Y" Hitch (Shown)
	GA7075	-	Take-Up, 67 5/8", 12 Row 36"/38" And 16 Row 30" "T" Hitch
	GD9952	1	Cover, 8 Row 36"/38" "T" Hitch, 12 Row 30"/36"/38" "Y"/"T" Hitch And 16 Row 30" "Y"/"T" Hitch (Shown)
8.	GD10295	-	Cover, 8 Row 36"/38" "Y" Hitch
	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10203	8	Washer, 3/8" SAE
	G11091	4	Serrated Flange Nut, 3/8"-16
9.	G10172	2	Hex Head Cap Screw, 3/8"-16 x 5"
	G10210	2	Washer, 3/8" USS
	G10108	2	Lock Nut, 3/8"-16
10.			See "Valve Block - Located On Hitch", Pages P94 And P95
11.	GA7050	-	Take-Up, 56 1/4", 12 Row 30" "T" Hitch And 12 Row 36"/38" And 16 Row 30" "Y" Hitch

# CENTER FRAME

PFA070/VVB034(TWL138b)

12 ROW 30" SHOWN





# CENTER FRAME

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10102	1	Hex Nut, 1/2"-13
	G10828	1	Hex Socket Set Screw, 1/2"-13 x 1 1/4"
2.	G10404	-	Machine Bushing, 3 1/8" x 2 1/8" x 3/16" (As Required)
	G10234	-	Machine Bushing, 2 1/8", 10 Gauge (As Required)
	G10336	-	Machine Bushing, 2 1/8", 14 Gauge (As Required)
3.	GD10531	1	Hinge Pin, 2 1/8" x 25 3/4"
4.	GD10492	2	Adjustment Block
5.	G10085	-	Hex Head Cap Screw, 3/4"-10 x 3 3/4"
	G10218	-	Washer, 3/4" USS
	G10112	-	Lock Nut, 3/4"-10
6.	GA7390	-	Safety Hook
7.	GD9898	1	Pin, 1 1/4" x 2 15/16"
8.	G10205	2	Washer, 5/8" SAE
	G10107	2	Lock Nut, 5/8"-11
9.	GD10006	2	Spring
10.	GD9870	1	Pin, 1 1/4" x 6"
11.	GA6943	2	Spring Rod
12.	G10037	2	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10206	2	Washer, 1/2" SAE
	G10228	2	Lock Washer, 1/2"
	GD7904-02	2	Sleeve, 1/2" x 1/2" Long
13.	GA7579	4	Pad Holder W/Bars
	GD10706	-	Bar, 1 1/4" x 6" x 1/4" Thick
	GD10707	-	Bar, 1 1/4" x 6" x 3/8" Thick
	G10001	-	Hex Head Cap Screw, 3/8"-16 x 1"
14.	GD10053	8	Wear Pad, 7" x 7" x 1/2" Thick
15.	GD7805	4	Special Washer, 5/8", Hardened
	G10104	4	Hex Nut, 5/8"-11
16.	GD9968	1	Cap
17.	GD8188	1	Hose Clamp, 7/8" x 3" x 5 3/8"
	GD8189	1	Rubber Strip, 3/8"
18.	G10053	1	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
19.	G10543	16	Hex Head Cap Screw, 3/4"-10 x 3", Full Thread
	G10105	16	Hex Nut, 3/4"-10
20.		-	See "Valve Blocks - Located On R.H. Rear Center Frame", Page P93
21.	A7393	-	Frame W/Cam Follower Mounts, 136" <b>(Non-Stock Item)</b>
	GA6929	-	Cam Follower Mount, L.H.
	GA6928	-	Cam Follower Mount, R.H.
22.	G10026	2	Hex Head Cap Screw, 3/4"-10 x 2"
23.	GB0409	2	Spring Washer
24.	GD10532	2	Sleeve
25.	GA6497	2	Cam Follower W/Grease Fitting
	G10640	-	Grease Fitting, 1/4"-28
26.	GD18344	1	Valve Box Mount (If Applicable)
27.	GD18329	2	U-Bolt, 5/16"-18 (If Applicable)
	G10106	4	Hex Nut, 5/16"-18 (If Applicable)
	G10232	4	Lock Washer, 5/16" (If Applicable)
28.			See "Valve Box Module", Pages P102 and P103 (If Applicable)
29.	G10064	2	Hex Head Cap Screw, 1/4"-20 x 1" (If Applicable)
	G10227	2	Lock Washer, 1/4" (If Applicable)
	GD7363-01	2	Sleeve, 1/2" Long (If Applicable)
	G10103	2	Hex Nut, 1/4"-20 (If Applicable)

# HYDRAULIC DRIVE PACKAGE OPTION

(VI55a)



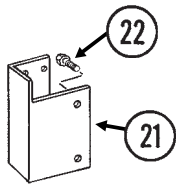
# HYDRAULIC DRIVE PACKAGE OPTION

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD4743	4	U-Bolt, 3" x 3" x 1/2"-13
	G10102	8	Hex Nut, 1/2"-13
2.	GD18114	2	Spacer
3.	GA12569	1	Motor Bracket
4.	G3400-01	4	Flangette
5.	G2100-03	2	Bearing, 7/8" Hex Bore, Spherical
6.	G10002	2	Hex Head Cap Screw, 3/8"-16 x 3/4"
7.	GD18326	1	Hex Spacer
8.	G10233	15	Machine Bushing, 1/2" x 1/32", 10 Gauge
9.			See "Valve Block - Located On L.H. Rear Center Frame", Pages P95
10.	G10133	2	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10232	2	Lock Washer, 5/16"
	G10106	2	Hex Nut, 5/16"-18
11	G10021	2	Hex Head Cap Screw, 1/4"-20 x 1 1/2"
	G10110	2	Lock Nut, 1/4"-20, Grade B
12.	G10036	2	Hex Head Cap Screw, 5/8"-11 x 4"
	G10103	2	Hex Nut, 1/4"-20
13.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10102	2	Hex Nut, 1/2"-13
14.	G3310-84	2	Chain, No. 40, 84 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
15.	GD5857	2	Spring
16.	GA9553	2	Idler W/Sprocket And Hardware
	GA7154	2	Sprocket W/Bearing, 19 Tooth
	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10128	2	Machine Bushing, 1/2", 14 Gauge
	G10501	2	Hex Jam Nut, 1/2"-13, Grade 2
	GD13422	2	Idler Arm
17.	GA5105	2	Sprocket, 15 Tooth
18.	GD16490	2	Coupler, 1" I.D.
19.	G3317-16	1	Chain, Double No. 40, 16 Pitches
	GR1790	-	Connector Link, Double No. 40
20.	GD16489	1	Coupler, 7/8" Hex
21.	G10001	4	Hex Head Cap Screw, 3/8"-16 x 1"
	G10101	4	Hex Nut, 3/8"-16
22.	GA5108	2	Sprocket, 23 Tooth
23.	GA2180	2	Hanger Bearing, 7/8" Hex Bore
24.	GA11331	-	Hex Lock Clamp Assembly
25.	GA12565	1	Encoder Module
26.	G11242	2	Hex Socket Set Screw, 1/4"-20 x 3/8"
27.	GA12661	1	Hex Adapter Encoder
28.	GD18115	1	Encoder Bracket
29.	GD18014	1	Carrier Bracket
30.	GD0914-54.75	1	Hex Shaft, 7/8" x 54 3/4" (No Holes), 12 R 30"

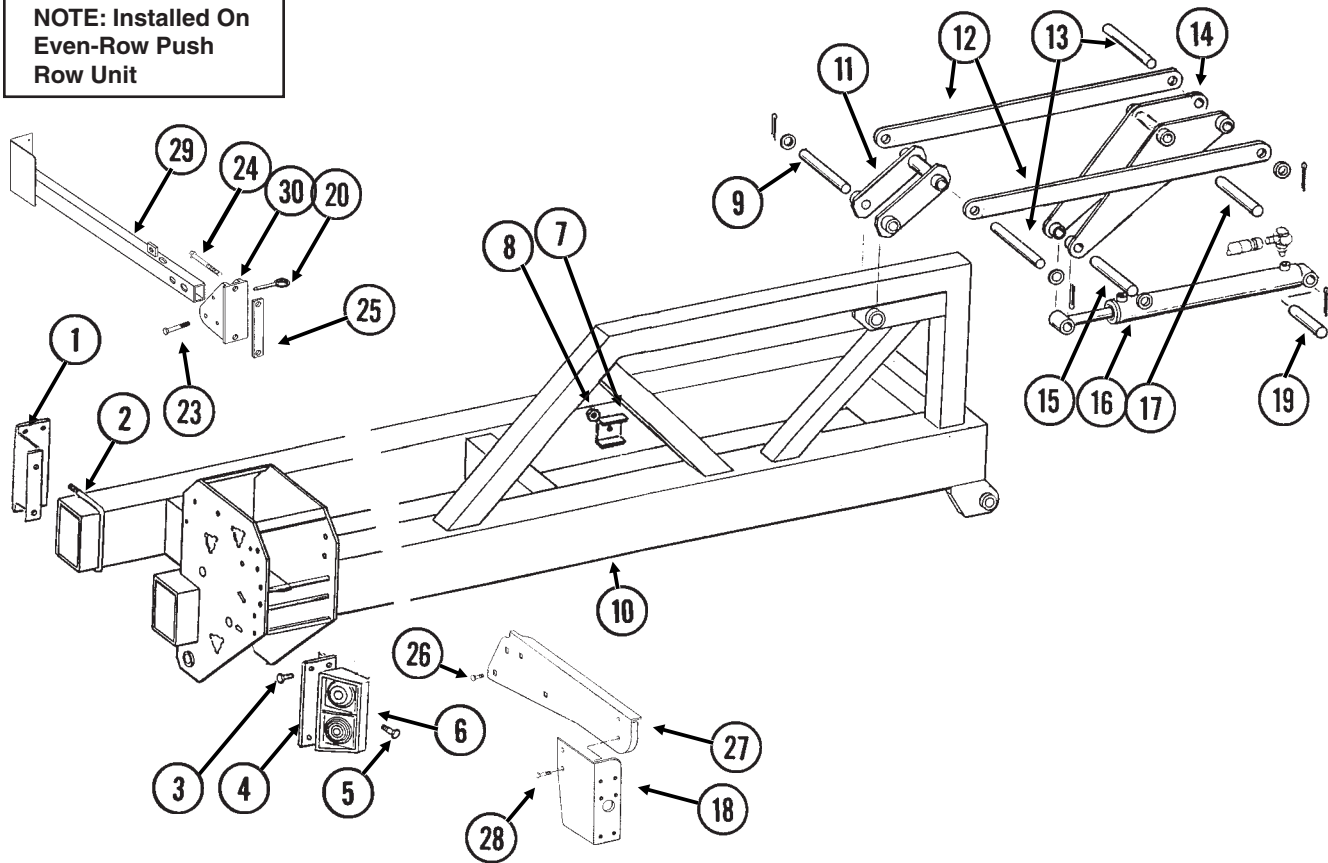
# WING FRAME

(TWL180a/TWL139g)

**WITH INTERPLANT®  
PACKAGE OPTIONS**



**NOTE: Installed On  
Even-Row Push  
Row Unit**



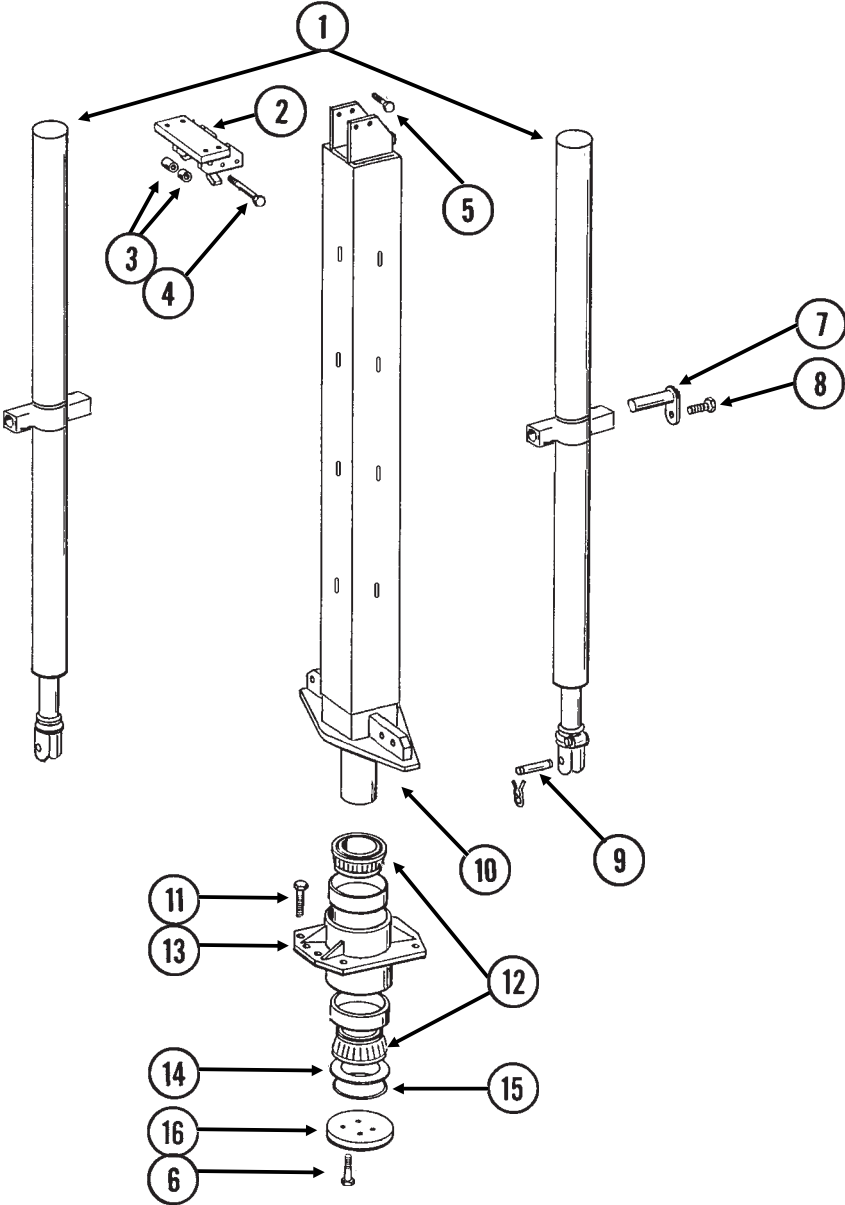
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA6792	1	Light Bracket (Wide Row Sizes Only)
2.	GD1113	1	U-Bolt, 5" x 7" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
3.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10203	1	Washer, 3/8" SAE
	G11091	2	Serrated Flange Nut, 3/8"-16
4.	GD9681	1	Light Bracket (Wide Row Sizes Only)
5.	G10064	8	Hex Head Cap Screw, 1/4"-20 x 1"
	G10110	8	Lock Nut, 1/4"-20, Grade B
6.	-	-	See "Electrical Components", Pages P104 And P105

# WING FRAME

ITEM	PART NO.	QTY.	DESCRIPTION
7.	GD5875	-	Hose Clamp, 9/16" x 2 1/2" x 2"
8.	G10108	-	Lock Nut, 3/8"-16
9.	GD9963	1	Pin, 1 1/4" x 9"
	G10460	2	Cotter Pin, 1/4" x 2"
10.	A7834	-	Wing, R.H., 75 1/2", 8 Row 36"/38" <b>(Non-Stock Item)</b>
	A7833	-	Wing, L.H., 75 1/2", 8 Row 36"/38" <b>(Non-Stock Item)</b>
	A6904	-	Wing, R.H., 119 1/4", 12 Row 30" <b>(Non-Stock Item)</b>
	A6905	-	Wing, L.H., 119 1/4", 12 Row 30" <b>(Non-Stock Item)</b>
	A7028	-	Wing, R.H., 152", 12 Row 36"/38" <b>(Non-Stock Item)</b>
	A7027	-	Wing, L.H., 152", 12 Row 36"/38" <b>(Non-Stock Item)</b>
	A6892	-	Wing, R.H., 179 1/4", 16 Row 30" (Two Wheel Towers Per Wing) <b>(Non-Stock Item)</b>
	A6893	-	Wing, L.H., 179 1/4", 16 Row 30" (Two Wheel Towers Per Wing) <b>(Non-Stock Item)</b>
11.	GA7018	1	Link
12.	GD10049	2	Strap, 56", 8 Row 36"/38" And 12 Row 36"/38"
	GD9956	2	Strap, 41", 12 Row 30" And 16 Row 30"
13.	GD9964	2	Pin, 1 1/4" x 10 1/2"
	G10159	4	Machine Bushing, 1 1/4", 10 Gauge
	G10460	4	Cotter Pin, 1/4" x 2"
14.	GA7019	1	Toggle Link
15.	GD9955	1	Pin, 1 1/4" x 7"
	G10159	2	Machine Bushing, 1 1/4", 10 Gauge
	G10460	2	Cotter Pin, 1/4" x 2"
16.		-	See "Wing Lock Cylinder", Page P91
17.	GD9955	1	Pin 1 1/4" x 7"
	G10606	2	Spring Pin, 1/4" x 2"
18.	GD12724	1	Bracket
19.	GD0826	2	Pin, 1 1/4" x 5 1/2"
	G10460	4	Cotter Pin, 1/4" x 2"
20.	G10874	1	Detent Pin, 1/2" x 3 1/2" Grip
21.	GD12703	1	Push Row Unit Light Bracket
22.	G10001	2	Hex Head Cap Screw, 3/8"-16 x 1"
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
23.	G10033	1	Hex Head Cap Screw, 1/2"-13 x 3 1/2"
	G10111	1	Lock Nut, 1/2"-13
24.	G10012	2	Hex Head Cap Screw, 5/8"-11 x 6 1/2"
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
25.	GD1908	1	Mounting Bracket
26.	G10305	4	Carriage Bolt, 3/8"-16 x 1"
	G11091	4	Serrated Flange Nut, 3/8"-16
27.	GD15950	1	Light Mount Extension
28.	G10064	2	Hex Head Cap Screw, 1/4"-20 x 1"
	G10227	2	Lock Washer, 1/4"
	G10103	2	Hex Nut, 1/4"-20
29.	GA9840	1	Light Bracket
30.	GB0309	1	Light Mount Bracket
A.	G7698X	-	Push Row Unit Mounted Light Bracket Package (Items 21 And 22 On This Page And 42" Harness Extension, Item 5 On Pages P104 And P105)

# CENTER PIVOT

PFA067/PFA068(TWL7c)



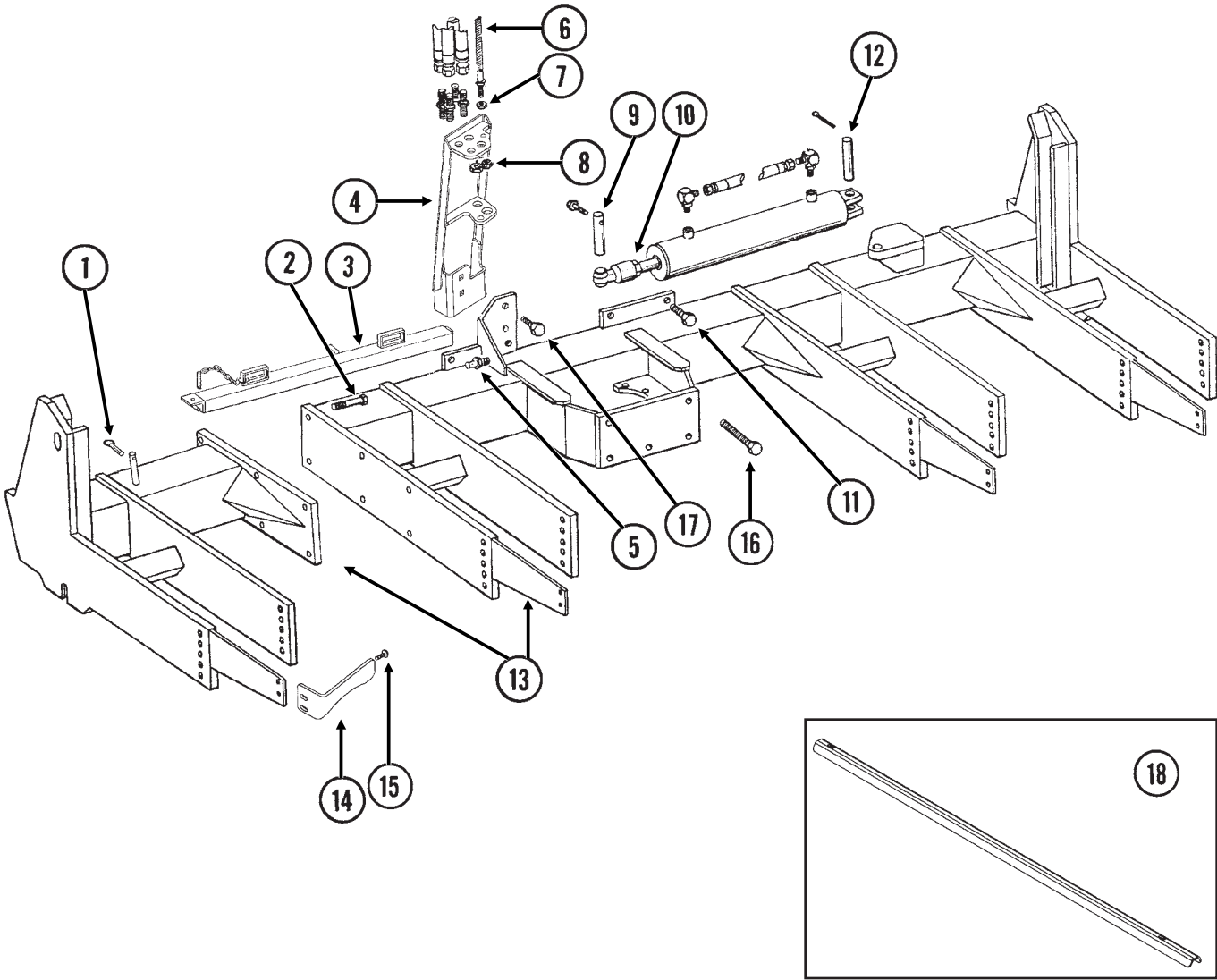
# CENTER PIVOT

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ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Center Lift Cylinder", Page P84
2.	GA6964	1	Hook Strap
3.	GD10447	1	Sleeve, 3 5/8"
	GD10446	1	Sleeve, 3 13/16"
4.	G10011	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	G10107	1	Lock Nut, 5/8"-11
5.	G10689	4	Carriage Bolt, 5/8"-11 x 2"
	G10107	4	Lock Nut, 5/8"-11
6.	G10027	4	Hex Head Cap Screw, 3/4"-10 x 2 1/2"
	GD2169	1	Special Washer, 25/32" I.D. x 1 1/4" O.D., Hardened
7.	GA5121	4	Pin, 2 1/8"
8.	G10017	4	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10206	4	Washer, 1/2" SAE
	G10111	4	Lock Nut, 1/2"-13
9.	GR0375	2	Pin, 1" x 3 1/2"
	GR0193	4	Hair Pin Clip
10.	GA7540	1	Center Post
11.	G10441	8	Hex Head Cap Screw, 7/8"-9 x 3", Grade 8
	GD10063	8	Hardened Washer, 7/8"
	G11053	8	Hex Nut, 7/8"-9, Grade 8
12.	GA7096	2	Cone
13.	GA7067	1	Bearing Housing W/Cups, Less Grease Fitting
	GD10011	2	Cup
	G10779	1	Grease Fitting, 90°, 1/4"-28
14.	GD10012	-	Shim, .005" Thick (As Required)
	GD10013	-	Shim, .020" Thick (As Required)
	GD10014	-	Shim, .007" Thick (As Required)
15.	GD9130	1	O-Ring
16.	GD9636	1	Bearing Cap

# AXLE ASSEMBLY

HTA043/HTA044/PFA071/PHA033/PHA034/PFA073(TWL140cc)



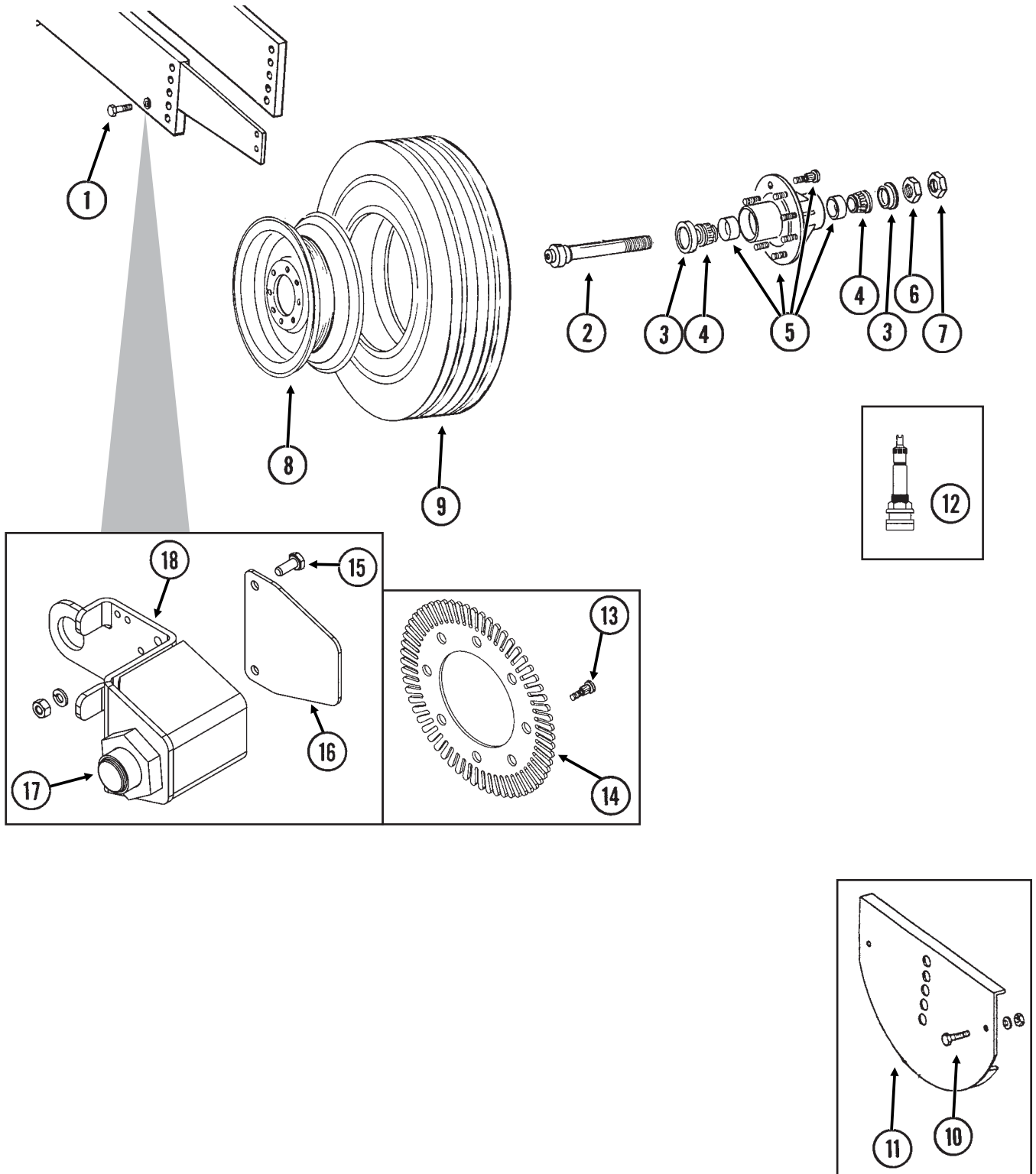


# AXLE ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD2558	1	Lynch Pin, 1/4"
2.	G10802	6	Hex Head Cap Screw, 3/4"-10 x 2 3/4"
	G10028	-	Hex Head Cap Screw, 3/4"-10 x 3"
	G10231	6	Lock Washer, 3/4"
	G10105	6	Hex Nut, 3/4"-10
3.	GA7098	1	Manual Safety Lockup W/Detent Pin
	GA7022	1	Detent Pin W/Chain
4.	GA11200	1	Bulkhead Mount
5.	GD19655	1	Pin
	G10237	1	Lock Washer, 7/16"
	G10100	1	Hex Nut, 7/16"-14
6.	GA7120	1	Cable, 8 Row 36"/38" And 12 Row 36"/38"
	GA6608	-	Cable Assembly, 12 Row 30" And 16 Row 30"
7.	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
8.	G306-08	2	Lock Nut, 3/4"-16
	G306-10	2	Lock Nut, 7/8"-14
9.	GD10092	1	Pin, 1 1/4" x 5 1/4"
	G10159	4	Machine Bushing, 1 1/4", 10 Gauge
	G10049	1	Hex Head Cap Screw, 3/8"-16 x 2 1/2"
	G10108	1	Lock Nut, 3/8"-16
10.		-	See "Rotation Cylinder", Page P84
11.	G10437	4	Hex Head Cap Screw, 3/4"-8 x 2 1/2", Grade 8, "Y" Hitch
	G10810	4	Hex Head Cap Screw, 3/4"-10 x 3 1/2", Grade 8, "T" Hitch
	GD2169	4	Special Washer, 25/32" I.D. x 1 1/4" O.D., Hardened
	G10436	4	Hex Nut, 3/4"-10
12.	GD10064	1	Pin, 1 1/4" x 5 1/4", All Sizes
	G10460	2	Cotter Pin, 1/4" x 2"
13.	GA8062	-	Axle W/Stub Axle, 12 Row 30" And 16 Row 30"
	GA9883	-	Stub Axle, Narrow Row
	GA8063	-	Axle W/Stub Axle, 8 Row 36"/38" And 12 Row 36"/38"
	GA9882	-	Stub Axle, Wide Row
14.	GD12543	-	Scraper
15.	G10636	-	Carriage Bolt, 1/2"-13 x 1 1/2"
	G10071	-	Serrated Flange Nut, 1/2"-13
16.	G10808	6	Hex Head Cap Screw, 1"-8 x 10", Grade 8, "Y" Hitch
	G10811	6	Hex Head Cap Screw, 1"-8 x 11", Grade 8, "T" Hitch
	GD10231	6	Special Washer, 1 1/16" I.D. x 2" O.D.
	G10647	6	Hex Nut, 1"-8, Grade 8
17.	G10636	-	Carriage Bolt, 1/2"-13 x 1 1/2"
	G10228	-	Lock Washer, 1/2"
	G10102	-	Hex Nut, 1/2"-13
18.	GD18645	1	Cable Guard (If Applicable)

# TRANSPORT WHEELS/ROCK GUARDS

HTA032/HTA040/HTA043/HTA004(TWL141c)



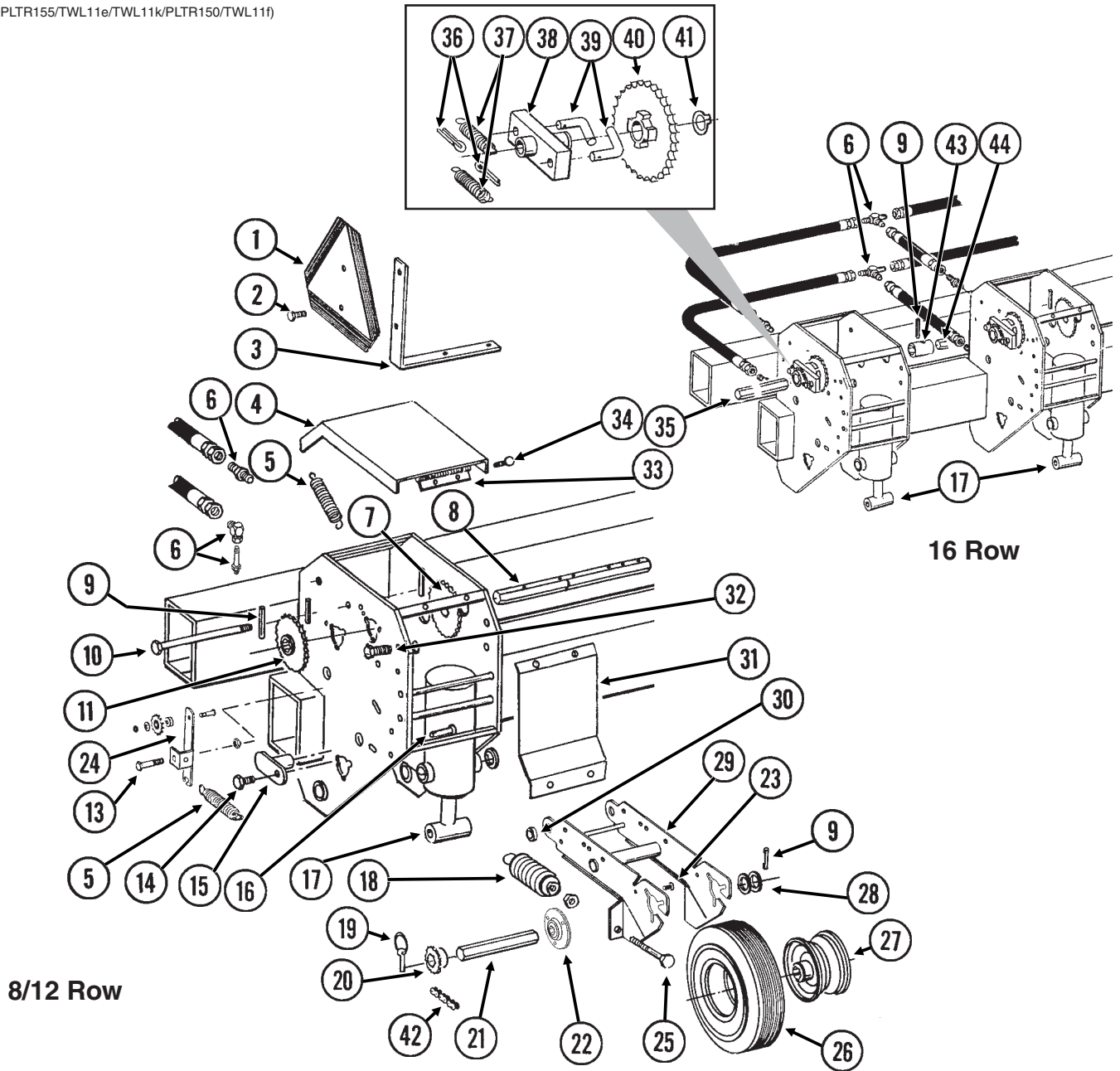
# TRANSPORT WHEELS/ROCK GUARDS

ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	G10441	2	Hex Head Cap Screw, 7/8"-9 x 3", Grade 8
	G10330	2	Lock Washer, 7/8"
2.	GA4727	1	Spindle W/Retaining Ring, 1 3/4"
	G10913	-	External Retaining Ring, 2 1/2"
3.	GA4722	2	Seal
4.	GA4723	2	Bearing
5.	GA4729	1	Hub W/Cups, Bolts, Nuts And Grease Fitting, 8 Bolt, 1 3/4" Bore
	G10640	-	Grease Fitting, 1/4"-28
	GD7079	-	Cup
	GR0528	-	Stud Bolt, 5/8"-12 x 2 1/4", Grade 8
6.	GD7089	1	Special Nut, 1 3/4"-12 UNF
7.	GD7864	1	Special Hex Nut, 1 3/4"-12 UNF
8.	GA9544	-	Rim, 5.5" x 22.5", All Sizes
9.	GD13409	-	Tire, 255-70R 22.5" W/O Center Rib, Tubeless (Specify Brand*)
10.	G10037	-	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10228	-	Lock Washer, 1/2"
	G10102	-	Hex Nut, 1/2"-13
11.	GA5716	-	Rock Guard (Optional)
12.	GA7434	-	Valve Stem
13.	GD18676	4	Lug Bolt, 5/8"-18 x 2 3/4" (If Applicable)
14.	GD18643	1	Jump Start Wheel (If Applicable)
15.	G10020	2	Hex Head Cap Screw, 1/4"-20 x 5/8" (If Applicable)
	G10227	2	Lock Washer, 1/4" (If Applicable)
	G10103	2	Hex Nut, 1/4"-20 (If Applicable)
16.	GD18646	1	Sensor Bracket Cover (If Applicable)
17.	GA13204	1	Hall Effect Sensor (If Applicable)
18.	GA13227	1	Sensor Bracket (If Applicable)
A.	GA9545	-	Tire And Rim Assembly (Items 8, 9 And 12) (Specify Brand*)
B.	GA13214	-	Sensor Bracket Assembly (Items 15 - 18) (If Applicable)

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

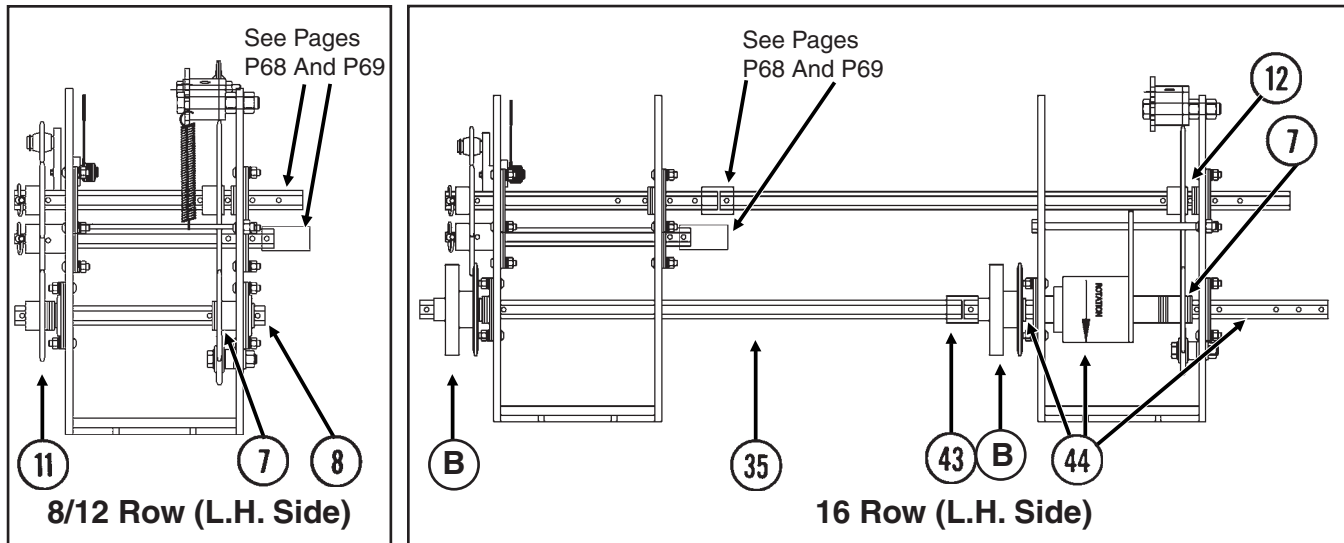
# CONTACT WHEEL AND DRIVE SHAFT(S)

(PLTR155/TWL11e/TWL11k/PLTR150/TWL11f)



# CONTACT WHEEL AND DRIVE SHAFT(S)

(TWL157/TWL156)



ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	GD2199	1	SMV Sign
2.	G10064	2	Hex Head Cap Screw, 1/4"-20 x 1"
	G10621	2	Serrated Flange Nut, 1/4"-20
3.	GD9969	1	Bracket
4.	GD10298	1	Cover
5.	GD5857	2	Spring
6.		-	See "Hydraulic Hoses And Fittings On Planter Frame", Pages P100 And P101
7.		-	See "Inner Module Drive", Page P71
8.	GD10543	1	Hex Shaft, 7/8" x 13", See "Point Row Clutch", Pages P72-P75 For 8 And 12 Row Machines Equipped With Point Row Clutches
9.	G10602	4	Spring Pin, 1/4" x 1 1/2"
10.	G10595	-	Hex Head Cap Screw, 3/8"-16 x 10" (Used To Secure Point Row Clutch)
	G10108	-	Lock Nut, 3/8"-16
11.	GA5114	1	Sprocket, 30 Tooth
12.	G10233	2	Machine Bushing, 1 1/2" x 1/32", 10 Gauge
	G10345	2	Machine Bushing, 1", 14 Gauge
13.	G10036	1	Hex Head Cap Screw, 5/8"-11 x 4"
	G10104	1	Hex Nut, 5/8"-11
	G10107	1	Lock Nut, 5/8"-11
14.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10206	2	Washer, 1/2" SAE
	G10111	2	Lock Nut, 1/2"-13
15.	GA5121	2	Pin, 2 1/8"
16.	G10870	1	Clevis Pin, 3/8" x 1"
	G10860	1	Retaining Ring, 3/8"
17.		-	See "Wing Lift Cylinder", Page P85
18.	GA2068	2	Spring W/Plug
19.	GD2558	1	Lynch Pin, 1/4"
20.	GA5114	1	Sprocket, 30 Tooth
	GA5105	-	Sprocket, 15 Tooth, Half Rate (2 To 1) Drive

(Continued On Following Page)

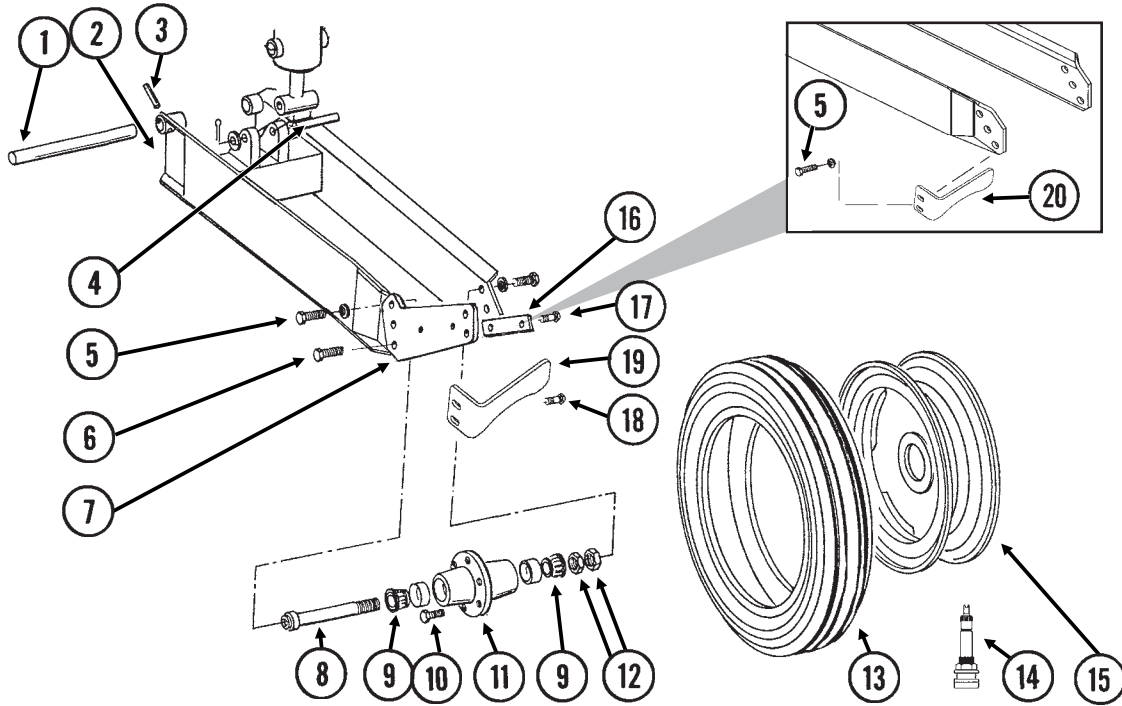
# CONTACT WHEEL AND DRIVE SHAFT(S)

ITEM	PART NO.	QTY.	DESCRIPTION
(Continued)			
21.	GD6775	1	Hex Shaft, 7/8" x 11 3/4" (2 Holes)
22.	GA9846	-	Flanged Bearing, 7/8" Hex Bore
23.	G10303	6	Carriage Bolt, 5/16"-18 x 1"
	G10232	6	Lock Washer, 5/16"
	G10106	6	Hex Nut, 5/16"-18
24.	GA9553	1	Idler W/Sprocket And Hardware, L.H. Side Of Planter
	GA9554	-	Idler W/Sprocket And Hardware, R.H. Side Of Planter
	GA7154	-	Sprocket W/Bearing, 19 Tooth
	G10017	-	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10128	-	Machine Bushing, 1/2", 14 Gauge
	G10501	-	Hex Jam Nut, 1/2"-13, Grade 2
25.	G10890	2	Hex Head Adjusting Bolt, 1/2"-13 x 4", Grade 2
	G10501	2	Hex Jam Nut, 1/2"-13, Grade 2
26.	GD4700	1	Tire, 4.80" x 8", 4 Ply, Rib Implement (Specify Brand*)
	GD4701	-	Valve Stem
27.	GA3553	1	Rim, 3.75" x 8"
28.	G10233	-	Machine Bushing, 1 1/2" x 1/32", 10 Gauge
29.	GA7372	1	Wheel Arm
30.	GB0218	2	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
31.	GD6895	1	Shield
32.	G10004	2	Hex Head Cap Screw, 5/8"-11 x 1 1/4"
	G10235	6	Machine Bushing, 7/8", 14 Gauge
	GD7805	2	Special Washer, 5/8", Hardened
	GB0218	2	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
	G10107	2	Lock Nut, 5/8"-11
33.	GA13790	1	Slip Joint Assembly
34.	G10064	6	Hex Head Cap Screw, 1/4"-20 x 1"
	G10621	6	Serrated Flange Nut, 1/4"-20
35.	GD10099	-	Hex Shaft, 7/8" x 29 5/8"
36.	G10453	2	Cotter Pin, 3/16" x 1"
37.	GD1256	2	Spring
38.	GA0378	1	Block And Hub Assembly
39.	GD1255	2	L-Pin
40.	GA5165	1	Sprocket, 30 Tooth
41.	G10430	1	External Retaining Ring, 1 1/4"
42.	G3310-110	1	Chain, No. 40, 110 Pitch Including Connector Link, Half Rate (2 To 1) Drive
	G3310-118	-	Chain, No. 40, 118 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
43.	GD5212	1	Coupler, 1 3/4", 16 Row Only
44.		-	See "Point Row Clutch", Pages P72-P75
A.	GA3552	-	Tire And Rim Assembly (Items 26 And 27) (Specify Brand*)
B.	GA5164	-	Ratchet/Sprocket Assembly, L.H. Side Of Planter (Items 36-41)
	GA9843	-	Ratchet/Sprocket Assembly, R.H. Side Of Planter (Items 36-41)
C.	G1K324	-	Contact Wheel Arm Replacement Kit (Items 9, 21-23, 25, 28 And 29)

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

# GROUND DRIVE WHEEL

PTD057(TWL142c/TWL142d)



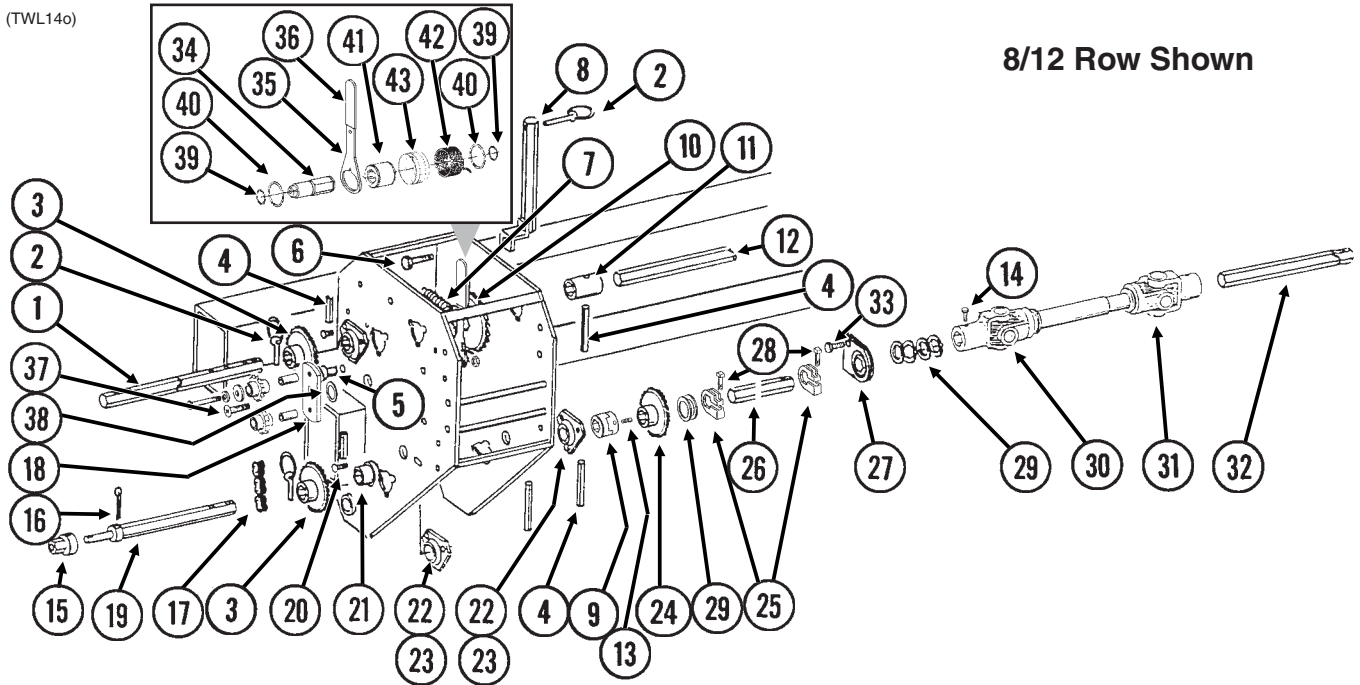
ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	GD11695	-	Pin, 1 1/4" x 13 1/4"
2.	GA8677	1	Wheel Module
3.	G10610	-	Spring Pin, 3/8" x 2"
4.	GD5841	1	Pin, 1 1/4" x 5 5/8"
	G10226	2	Washer, 1 1/4" SAE
	G10460	2	Cotter Pin, 1/4" x 2"
5.	G10026	2	Hex Head Cap Screw, 3/4"-10 x 2"
	G10231	2	Lock Washer, 3/4"
6.	G10026	2	Hex Head Cap Screw, 3/4"-10 x 2"
	G10231	2	Lock Washer, 3/4"
	G10105	2	Hex Nut, 3/4"-10
7.	GD10128	1	Scraper Arm (If Applicable)
8.	GA4376	1	Spindle W/Round External Retaining Ring, 10"
	GD11490	-	Round External Retaining Ring
9.	GA0895	2	Bearing
10.	GR0270	6	Lug Bolt, 9/16"-18
11.	GA2148	1	Hub W/Cups, 6 Bolt
	GR0434	-	Cup
12.	G11081	2	Hex Jam Nut, 1 1/2"-12, Grade 2
13.	GD13401	1	Tire, 7.50" x 20", 8 Ply, Tubeless W/O Center Rib (Specify Brand*)
14.	GA7434	-	Valve Stem
15.	GA2908	1	Rim, 5.5" x 20"
16.	GD10144	1	Bar Clamp (If Applicable)
17.	G10017	1	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10039	1	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
18.	G10636	2	Carriage Bolt, 1/2"-13 x 1 1/2"
	G10216	2	Washer, 1/2" USS
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
19.	GD12543	1	Scraper
20.	GA13335	1	Scraper
A.	GA7997	-	Tire And Rim Assembly (Specify Brand*)(Items 13-15)
B.	GA4377	-	Hub And Spindle Assembly (Items 8, 9, 11 And 12)

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



# SEED RATE TRANSMISSION AND ROW UNIT DRILL SHAFTS

(TWL14c)



ITEM	PART NO.	QTY. (Per Side)	DESCRIPTION
1.	GD6780	1	Shaft, 7/8" x 15"
2.	GD2558	3	Lynch Pin, 1/4"
3.	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
4.	G10602	-	Spring Pin, 1/4" x 1 1/2"
5.	G10870	1	Clevis Pin, 3/8" x 1"
	G10860	1	Retaining Ring, 3/8"
6.	G10583	1	Hex Head Cap Screw, 5/16"-18 x 2 3/4"
	GD4887-14	1	Sleeve, 1" O.D. x 9/16" I.D. x 7/8"
	G10527	2	Lock Washer, 1/2", Internal/External
	G10111	1	Lock Nut, 1/2"-13
7.	GD5857	1	Spring
8.	GA4630	1	Sprocket Storage Rod
9.	GB0287	2	Coupler
10.		-	See "Inner Module Drive", Page P71
11.	GD5212	1	Coupler, 1 3/4", 16 Row Only
12.	GD10100	1	Hex Shaft, 7/8" x 31 3/8", 16 Row Only
13.	G10131	4	Square Head Set Screw, 5/16"-18 x 3/4"
14.	G10688	-	Square Head Set Screw, 3/8"-16 x 5/8"
15.	GD7127	1	Shear Coupler
16.	G10462	-	Cotter Pin, 3/16" x 2"
17.	G3310-80	1	Chain, No. 40, 80 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
18.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	G10047	-	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
	GD1026	-	Sleeve, 1 3/16" Long
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"



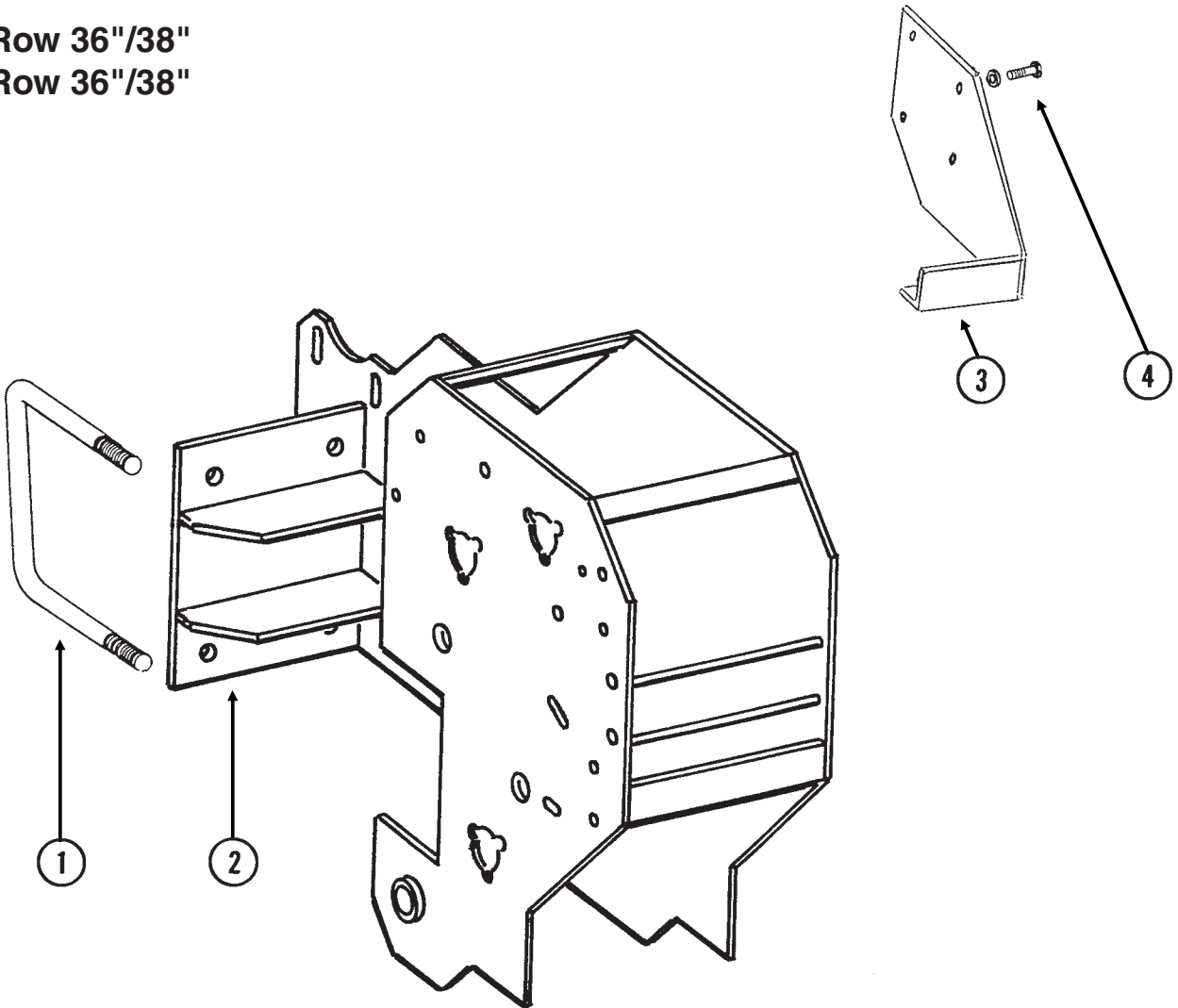
# SEED RATE TRANSMISSION AND ROW UNIT DRILL SHAFTS

ITEM	PART NO.	QTY. (Per Side)	DESCRIPTION
19.	GD7612	1	Shaft, 7/8" x 13 1/2"
20.	G10303	-	Carriage Bolt, 5/16"-18 x 1"
	G10232	-	Lock Washer, 5/16"
	G10106	-	Hex Nut, 5/16"-18
21.	GA5548	1	Special Bearing
22.	G3400-01	-	Flangette
23.	G2100-03	-	Bearing, 7/8" Hex Bore, Spherical
24.	GA5107	1	Sprocket, 19 Tooth, Interplant® Package Drive
25.	GD11045	-	Lock Clamp
26.	GD0914-58.5	2	Hex Shaft, 7/8" x 58 1/2" (No Holes), Wing, 8 Row 36"/38"
	GD0914-106.5	-	Hex Shaft, 7/8" x 106 1/2" (No Holes), Wing, 12 Row 30"
	GD0914-134.5	-	Hex Shaft, 7/8" x 134 1/2" (No Holes), Wing, 12 Row 36"/38"
	GD0914-166.75	-	Hex Shaft, 7/8" x 166 3/4" (No Holes), Wing, 16 Row 30"
27.	GA2180	-	Hanger Bearing, 7/8" Hex Bore
28.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
29.	G10233	-	Machine Bushing, 1 1/2" x 1/32", 10 Gauge
30.	GA7053	1	U-Joint W/Grease Fitting, Female, 18 1/8" Long, 8 Row 36"/38" And 12 Row 36"/38"
	GA7052	-	U-Joint W/Grease Fitting, Female, 10 1/4" Long, 12 Row 30" And 16 Row 30"
	GR1557	-	Grease Fitting, 45°, Metric
	GR1298	-	Inboard Yoke And Outer Profile (18 1/4" U-Joint)
	GR1297	-	Inboard Yoke And Outer Profile (10 1/4" U-Joint)
	GR1294	-	Cross And Bearing Kit
	GR1293	-	Yoke, 7/8" Hex
31.	GA7051	-	U-Joint W/Grease Fitting, Male, 12 1/4" Long
	GR1557	-	Grease Fitting, 45°, Metric
	GR1296	-	Inner Profile
	GR1295	-	Inboard Yoke
	GR1301	-	Spring Pin, 8mm x 50mm
	GR1294	-	Cross And Bearing Kit
	GR1293	-	Yoke, 7/8" Hex
32.	GD0914-53	-	Hex Shaft, 7/8" x 53" (No Holes), R.H. Main Frame, 8 Row 36"/38" And 12 Row 36"/38"
	GD0914-44	-	Hex Shaft, 7/8" x 44" (No Holes), L.H. Main Frame, 8 Row 36"/38" And 12 Row 36"/38"
	GD0914-45	-	Hex Shaft, 7/8" x 45" (No Holes), R.H. Main Frame, 12 Row 30" And 16 Row 30"
	GD0914-35	-	Hex Shaft, 7/8" x 35" (No Holes), L.H. Main Frame, 12 Row 30" And 16 Row 30"
	GD0914-38	-	Hex Shaft, 7/8" x 38" (No Holes, L.H. Main Frame, 12 Row 30" And 16 Row 30"
33.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	2	Lock Washer, 3/8"
	G10101	-	Hex Nut, 3/8"-16
34.	GD14426	1	Tightener Shaft, 3 3/8"
35.	GD14431	1	Handle
36.	G11078	1	Vinyl Cap
37.	G11100	1	Hex Socket Button Head Screw, 1/4"-20 x 1/2", Grade 8
	G10227	1	Lock Washer, 1/4"
	G10209	1	Washer, 1/4" USS
38.	G10235	1	Machine Bushing, 7/8", 14 Gauge
39.	G10496	2	External Inverted Snap Ring, 1 1/2"
40.	G11075	2	External Inverted Snap Ring, 7/8"
41.	GD14432	1	Sleeve, 1 1/4"
42.	GD14414	1	Torsion Spring, R.H. (Used On L.H. Wrap Spring Wrench)(Shown)
	GD14413	-	Torsion Spring, L.H. (Used On R.H. Wrap Spring Wrench)
43.	GD19344	-	Release Collar, L.H. (Shown)
	GD19343	1	Release Collar, R.H.
A.	G1K269	-	Lock Clamp Kit (Items 25 And 28)
B.	G1K381	-	Wrap Spring Wrench Replacement Kit, Silver Collar, L.H. (Items 34-43) (Shown)
	G1K380	1	Wrap Spring Wrench Replacement Kit, Gold Collar, R.H. (Items 34-43)

# BOLT-ON WHEEL MODULE/TRANSPORT LATCH CATCH

PFA072(TWL15a)

**8 Row 36"/38"**  
**12 Row 36"/38"**

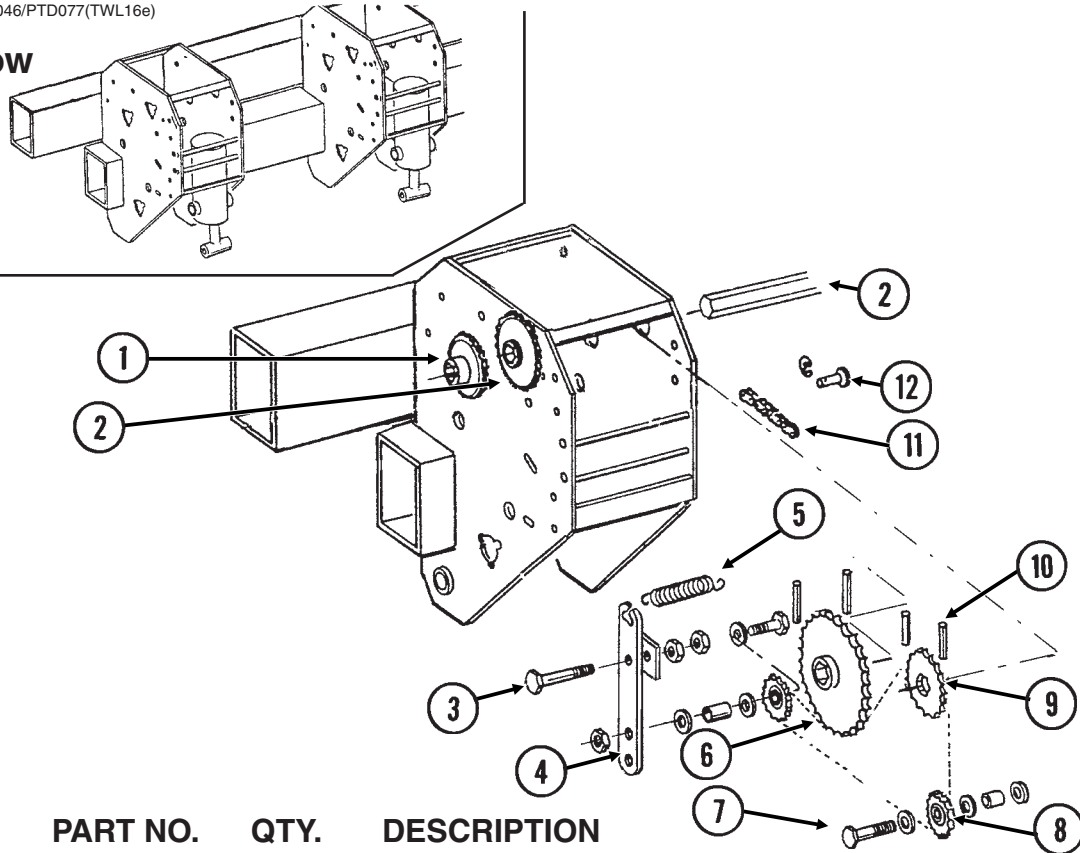


ITEM	PART NO.	QTY. (Per Side)	DESCRIPTION
1.	GD1747	5	U-Bolt, 5" x 7" x 3/4"-10
	G10231	10	Lock Washer, 3/4"
	G10105	10	Hex Nut, 3/4"-10
2.	GA8071	1	Wheel Tower W/Grease Fitting, L.H.
	GA8070	-	Wheel Tower W/Grease Fitting, R.H.
	G10640	-	Grease Fitting, 1/4"-28
3.	GA7108	1	Transport Latch Catch
4.	G10007	4	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	4	Lock Washer, 5/8"

# INNER MODULE DRIVE

PTD058/PFA046/PTD077(TWL16e)

## 16 Row

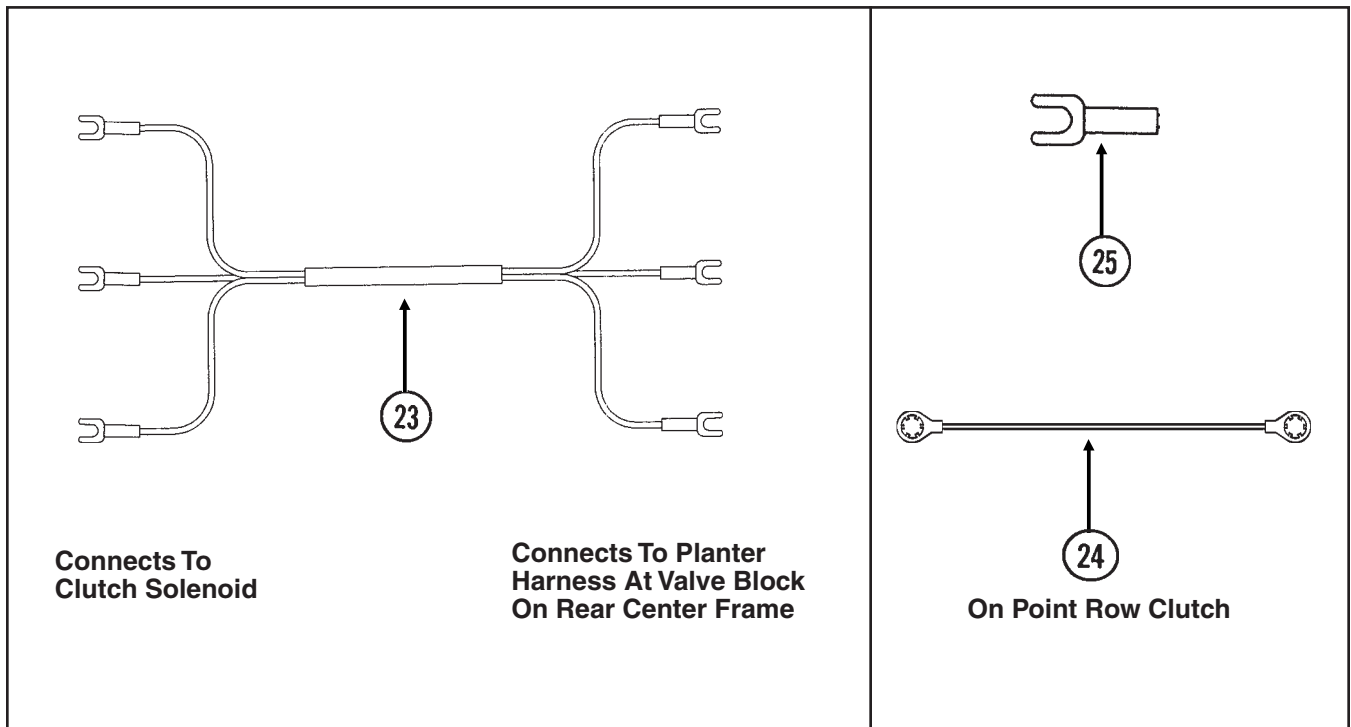
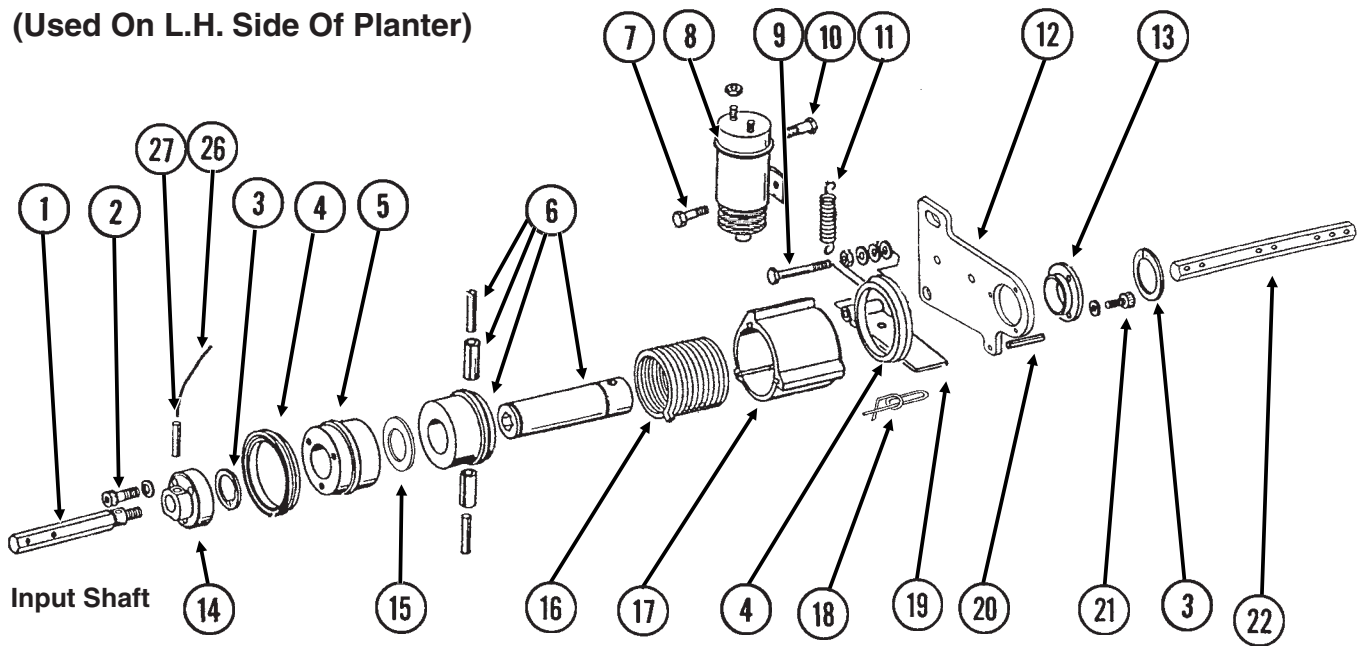


ITEM	PART NO.	QTY. (Per Module)	DESCRIPTION
1.		-	See "Seed Rate Transmission And Row Unit Drill Shafts", Pages P68 And P69
2.		-	See "Contact Drive Wheel And Drive Shaft(s)", Pages P64-P66
3.	G10743	1	Hex Head Cap Screw, 5/8"-11 x 3 3/4"
	G10918	3	Machine Bushing, 5/8", 14 Gauge (As Required)
	G10104	1	Hex Nut, 5/8"-11
	G10107	1	Lock Nut, 5/8"-11
4.	GA9558	1	Idler W/Sprocket And Hardware, L.H. Side Of Planter
	GA9557	-	Idler W/Sprocket And Hardware, R.H. Side Of Planter
	GA7154	-	Sprocket W/Bearing, 18 Tooth
	G10038	-	Hex Head Cap Screw, 1/2"-13 x 3"
	GD10007	-	Spacer, 1 1/8" Long
	G10206	-	Washer, 1/2" SAE
	G10111	-	Lock Nut, 1/2"-13
5.	GD5857	1	Spring
6.	GA5194	1	Sprocket, 50 Tooth
7.	G10581	1	Hex Head Cap Screw, 1/2"-13 x 2 1/4"
	GD7889	1	Bushing, 1" O.D. x 9/16" I.D. x 7/16" Long
	G10168	2	Machine Bushing, 1/2", 7 Gauge
	G10205	2	Washer, 5/8" SAE
	G10111	1	Lock Nut, 1/2"-13
8.	GA7154	1	Sprocket W/Bearing, 18 Tooth
9.	GA5113	1	Sprocket, 28 Tooth
10.	G10602	-	Spring Pin, 1/4" x 1 1/2"
11.	G3310-100	1	Chain, No. 40, 100 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
12.	G10870	1	Clevis Pin, 3/8" x 1"
	G10860	1	Retaining Ring, 3/8"

# POINT ROW CLUTCH

PRC019(TWL70d/TWL71d/TWL71/TWL18/A10054)

**L.H. Point Row Clutch Shown  
(Used On L.H. Side Of Planter)**



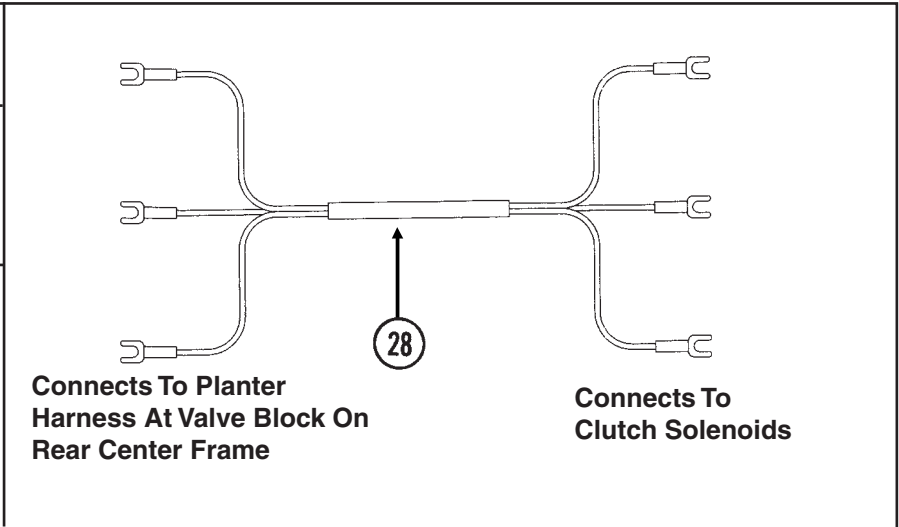
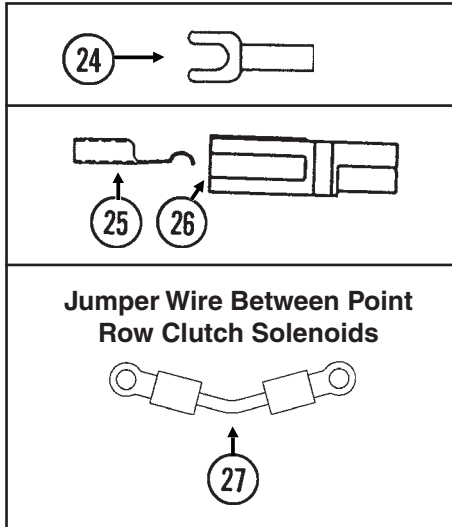
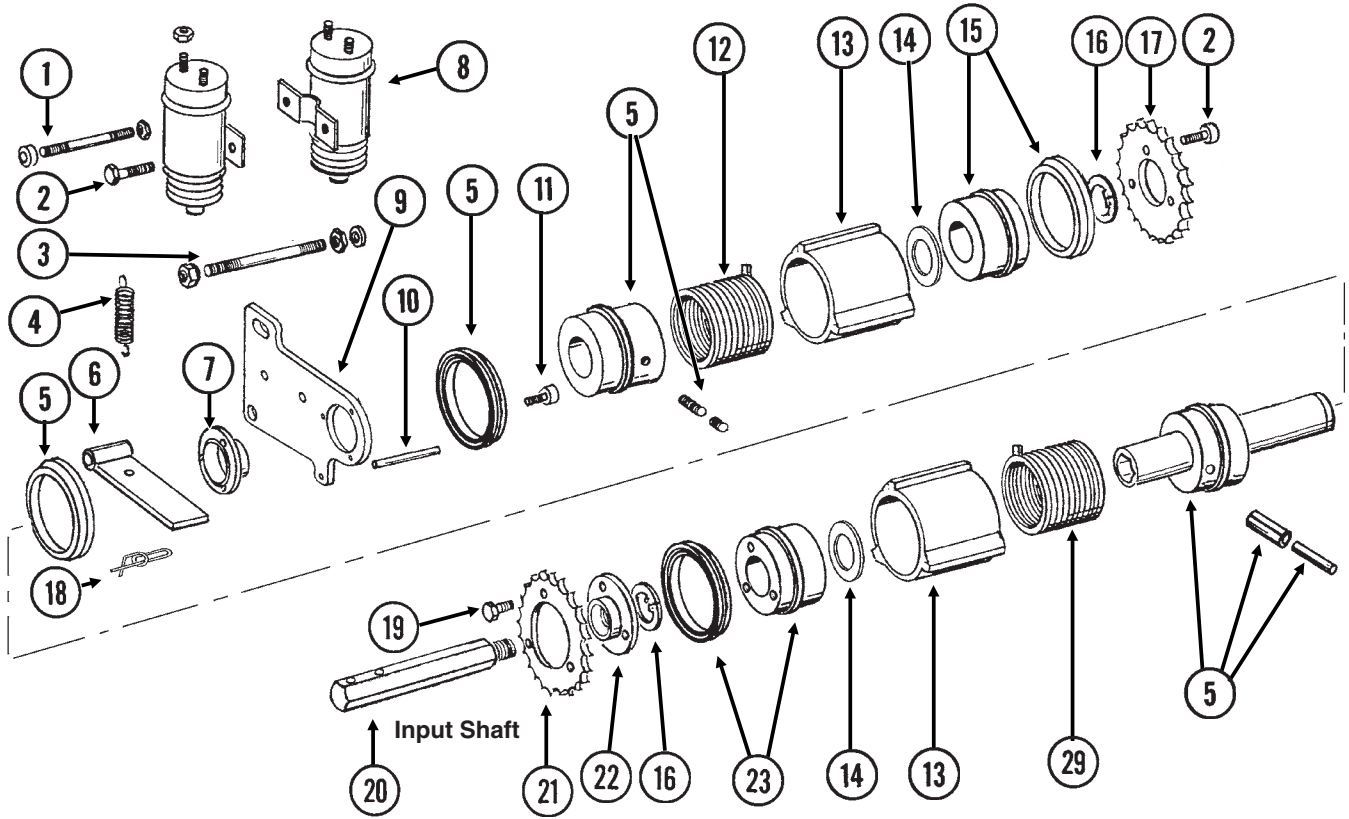
# POINT ROW CLUTCH

ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	GD10068	1	Input Shaft, R.H. Threads (Shown)
	GD10069	1	Input Shaft, L.H. Threads
2.	G10374	3	Hex Socket Head Screw, 1/4"-20 x 1"
	G10227	3	Lock Washer, 1/4"
3.	G10496	2	External Inverted Snap Ring, 1 1/2"
4.	GD14512	2	V-Ring Seal
5.	GD10104	1	Input Hub
6.	GA7137	1	Hub/Sleeve Assembly W/Spring Pins
	G10765	-	Spring Pin, 1/4" x 1"
	G10804	-	Spring Pin, 5/32" x 7/8"
7.	G10023	1	Hex Head Cap Screw, 1/4"-20 x 3/4"
	G10227	1	Lock Washer, 1/4"
	G10103	1	Hex Nut, 1/4"-20
8.	GA8393	1	Solenoid Complete
	GR1306	1	Snap Ring
	GR1303	1	Spring
	GR1304	1	Boot
	GR1305	1	Plunger
9.	G10049	1	Hex Head Cap Screw, 3/8"-16 x 2 1/2"
	G10101	1	Hex Nut, 3/8"-16
	G10203	1	Washer, 3/8" SAE
	G10229	2	Lock Washer, 3/8"
	G10497	1	Hex Jam Nut, 3/8"-16, Grade 2
10.	G10900	1	Hex Socket Head Cap Screw, 1/4"-20 x 1 3/4", Grade 8
	G10227	1	Lock Washer, 1/4"
	G10103	2	Hex Nut, 1/4"-20
11.	GD10123	1	Spring
12.	GD10103	1	Mounting Plate
13.	GD9667	1	Bushing
14.	GD10070	1	Coupler W/R.H. Threads (Shown)
	GD10071	1	Coupler W/L.H. Threads
15.	GD14513	1	Felt Washer
16.	GD9671	-	Spring, L.H. (Shown)
	GD9672	-	Spring, R.H.
17.	GD10102	1	Stop Collar
18.	GD11120	1	Rue Ring Cotter, 5/16"
19.	GD10510	1	Actuator Arm
20.	G10859	1	Spring Pin, 3/16" x 2 1/4"
21.	G10253	3	Hex Socket Head Cap Screw, No. 10-32 x 1/2"
	G10257	3	Lock Washer, No. 10
22.	GD10543	-	Hex Shaft, 7/8" x 13"
23.	GA9490	1	Wiring Harness, 192", R.H. Side, 8 Row 36"/38"
	GA9479	1	Wiring Harness, 228", L.H. Side, 8 Row 36"/38" And R.H. Side, 12 Row 30"
	GA9480	-	Wiring Harness, 264", L.H. Side, 12 Row 30" And R.H. Side, 12 Row 36"/38"
	GA9489	-	Wiring Harness, 312", L.H. Side, 12 Row 36"/38"
	GA9483	-	Wiring Harness, 252", R.H. Side, 16 Row 30"
	GA9482	-	Wiring Harness, 300", L.H. Side, 16 Row 30"
24.	GA10054	-	Ground Cable, Green
25.	G10996	-	Fork Terminal
26.	GD13524-01	1	Lock Wire, 10", Stainless Steel
27.	G10546	1	Spring Pin, 3/16" x 1 1/4"
A.	GA7110	-	Point Row Clutch Assembly, R.H. (R.H. Side Of Machine) (Items 1-21, 24, 26 And 27)
	GA7111	-	Point Row Clutch Assembly, L.H. (L.H. Side Of Machine) (Items 1-21, 24, 26 And 27)

# TWO-SPEED POINT ROW CLUTCH

PRC023(FF47b/A7274/TWL71/TWL18/A10054)

## L.H. Two-Speed Point Row Clutch Shown (Used On L.H.Side Of Planter)



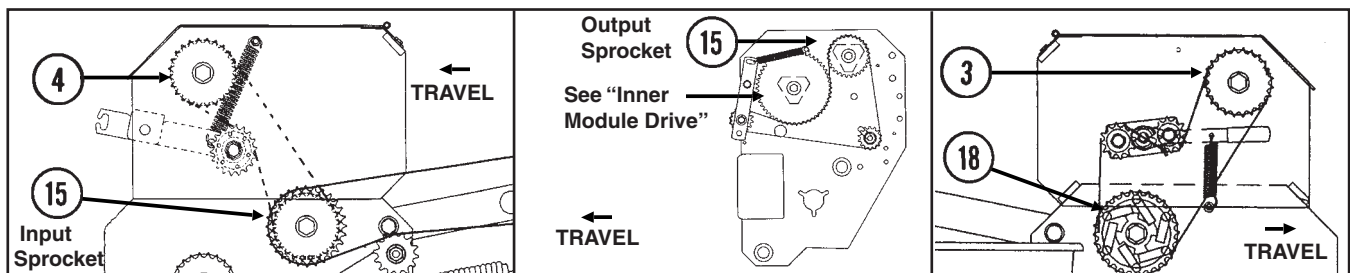
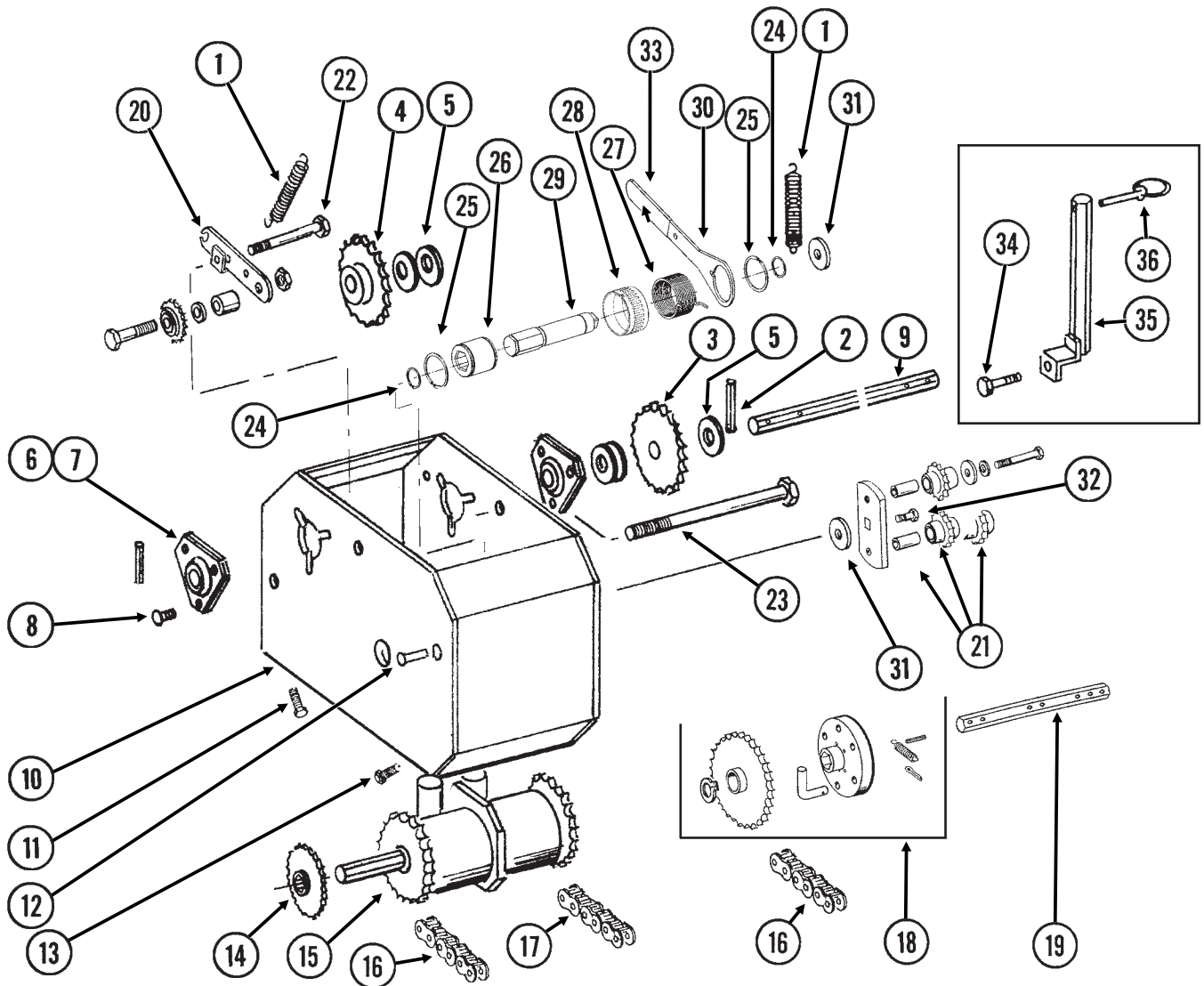
# TWO-SPEED POINT ROW CLUTCH

ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	GD10635	1	Threaded Rod, 1/4"-20 x 3 1/2"
	G10103	2	Hex Nut, 1/4"-20
	G10227	2	Lock Washer, 1/4"
	GD10282	2	Allen Nut, 1/4"-20
2.	G10023	4	Hex Head Cap Screw, 1/4"-20 x 3/4"
	G10227	4	Lock Washer, 1/4"
	G10103	1	Hex Nut, 1/4"-20
3.	GD10636	1	Threaded Rod, 3/8"-16 x 4 1/4"
	G10108	2	Lock Nut, 3/8"-16
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
4.	GD10123	2	Spring
5.	GA7463	1	Hub/Sleeve Assembly W/Seals, Sleeve, Pins And Screws
	GD10120	-	Seal
	GD10584	-	Sleeve
	G10873	-	Hex Socket Set Screw, 5/16"-18 x 3/4"
	G10872	-	Hex Socket Set Screw, 5/16"-18 x 1/4"
	G10804	-	Spring Pin, 5/32" x 7/8"
	G10765	-	Spring Pin, 1/4" x 1"
6.	GD10510	2	Actuator Arm
7.	GD10586	1	Bushing
8.	GA8393	2	Solenoid Complete
	GR1306	-	Snap Ring
	GR1303	-	Spring
	GR1304	-	Boot
	GR1305	-	Plunger
9.	GD10103	1	Mounting Plate
10.	G10859	1	Spring Pin, 3/16" x 2 1/4"
11.	G10876	3	Hex Socket Head Screw, No. 10-32 x 1/4"
12.	GD9671	2	Spring, L.H. (Shown)
13.	GD10585	2	Stop Collar
14.	GD14513	2	Felt Washer
15.	GA9572	1	Hub W/Seal
	GD10120	-	Seal
16.	G10496	2	External Inverted Snap Ring, 1 1/2"
17.	GD10579	1	Output Sprocket, 28 Tooth
18.	GD11120	2	Rue Ring Cotter, 5/16"
19.	G10374	3	Hex Socket Head Screw, 1/4"-20 x 1"
	GD10588	3	Key
20.	GD10068	1	Input Shaft, R.H. Threads (Shown)
	GD10069	-	Input Shaft, L.H. Threads
21.	GD10578	1	Input Sprocket, 28 Tooth
22.	GD10638	1	Coupler W/R.H. Threads (Shown)
	GD10587	-	Coupler W/L.H. Threads
23.	GA9571	1	Hub W/Seal
	GD10120	-	Seal
24.	G10996	-	Fork Terminal
25.	GD9530	-	Contact
26.	GD9529	-	Housing, Black
	GD12726	-	Housing, Red
27.	GA7274	1	Jumper Wire W/Ring Terminals, 2 3/16"
28.	GA9479	1	Wiring Harness, 228", R.H. And L.H. Sides, 8 Row 36"/38" And R.H. Side, 12 Row 30"
	GA9480	-	Wiring Harness, 264", L.H. Side, 12 Row 30" And R.H. Side, 12 Row 36"/38"
	GA9489	-	Wiring Harness, 312", L.H. Side, 12 Row 36"/38"
	GA9483	-	Wiring Harness, 252", R.H. Side, 16 Row 30"
	GA9482	-	Wiring Harness, 300", L.H. Side, 16 Row 30"
29.	GD9672	-	Spring, R.H.



# TWO-SPEED POINT ROW CLUTCH WHEEL MODULE EXTENSION

(TWL77h/TWL84b/TWL79a/TWL80)





# TWO-SPEED POINT ROW CLUTCH WHEEL MODULE EXTENSION

ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	GD5857	2	Spring
2.	G10602	3	Spring Pin, 1/4" x 1 1/2"
3.	GA5109	1	Sprocket, 24 Tooth
	GA5105	1	Sprocket, 15 Tooth
	GA5106	1	Sprocket, 17 Tooth
	GA5112	1	Sprocket, 27 Tooth
	GA5108	-	Sprocket, 23 Tooth (From Transmission)
	GA5110	-	Sprocket, 25 Tooth (From Transmission)
	GA5111	-	Sprocket, 26 Tooth (From Transmission)
4.	GA5113	1	Sprocket, 28 Tooth
5.	G10233	-	Machine Bushing, 1 1/2" x 1/32", 10 Gauge
6.	G3400-01	-	Flangette
7.	G2100-03	-	Bearing, 7/8" Hex Bore, Spherical
8.	G10312	6	Carriage Bolt, 5/16"-18 x 3/4"
	G10232	6	Lock Washer, 5/16"
	G10106	6	Hex Nut, 5/16"-18
9.	GD10355	1	Shaft, 7/8" x 13 3/4"
10.	GA7306	1	Extension Bracket
11.	G10857	2	Hex Head Cap Screw, 1/4"-20 x 1 1/4"
	G10209	2	Washer, 1/4" USS
	G10227	2	Lock Washer, 1/4"
	G10103	2	Hex Nut, 1/4"-20
12.	G10408	1	Clevis Pin, 5/16" x 3/4"
	G10409	1	Retaining Ring, 5/16"
13.	G10064	2	Hex Head Cap Screw, 1/4"-20 x 1"
	G10209	2	Washer, 1/4" USS
	G10227	2	Lock Washer, 1/4"
	G10103	2	Hex Nut, 1/4"-20
14.		-	See "Contact Wheel And Drive Shaft(s)", Pages P64-P66
15.		-	See "Two-Speed Point Row Clutch", Pages P74 And P75
16.	G3310-74	2	Chain, No. 40, 74 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
17.	G3310-100	1	Chain, No. 40, 100 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
18.	GA7320	1	Overrunning Sprocket Assembly, R.H.
	GA7321	-	Overrunning Sprocket Assembly, L.H.
	G10430	1	External Retaining Ring, 1 1/4"
	GD1255	6	L-Pin
	G10546	6	Spring Pin, 3/16" x 1 1/4"
	G10470	6	Cotter Pin, 5/32" x 1"
	GD10366	6	Spring
	GA7317	1	Block
	GA7319	1	Sprocket W/Bushing, 30 Tooth
19.	GD10543	1	Hex Shaft, 7/8" x 13"
20.	GA9918	1	Idler W/Sprocket And Hardware
	GD10356	-	Bushing, 3/4" Long
	G10128	-	Machine Bushing, 1/2", 14 Gauge
	G10501	-	Hex Jam Nut, 1/2"-13, Grade 2
	G10053	-	Hex Head Cap Screw, 1/2"-13 x 2 1/2"
	GA7154	-	Sprocket W/Bearing, 18 Tooth

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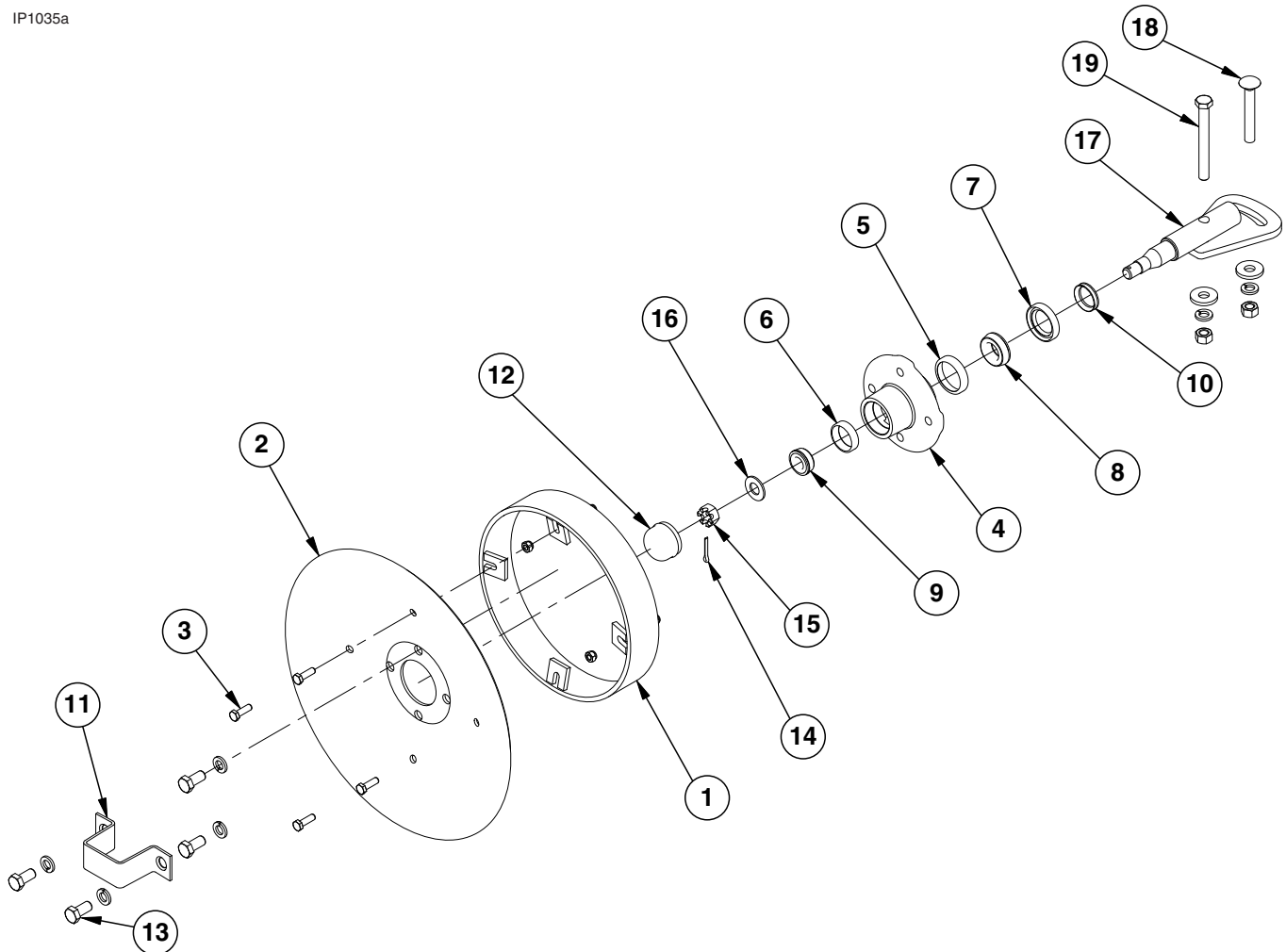
# TWO-SPEED POINT ROW CLUTCH WHEEL MODULE EXTENSION

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ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
(Continued)			
21.	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"
22.	G10036	1	Hex Head Cap Screw, 5/8"-11 x 4"
	G10107	1	Lock Nut, 5/8"-11
	G10104	1	Hex Nut, 5/8"-11
23.	G10595	1	Hex Head Cap Screw, 3/8"-16 x 10"
	G10108	1	Lock Nut, 3/8"-16
24.	G10496	2	External Inverted Snap Ring, 1 1/2"
25.	G11075	2	External Inverted Snap Ring, 7/8"
26.	GD14432	1	Sleeve, 1 1/4"
27.	GD14414	1	Torsion Spring, R.H. (Used On L.H. Wrap Spring Wrench) (Shown)
	GD14413	-	Torsion Spring, L.H. (Used On R.H. Wrap Spring Wrench)
28.	GD19344	-	Release Collar, L.H. (Shown)
	GD19343	1	Release Collar, R.H.
29.	GD14426	1	Tightener Shaft, 3 3/8"
30.	GD14431	1	Handle
31.	G10235	2	Machine Bushing, 7/8", 14 Gauge
32.	G11100	1	Hex Socket Button Head Screw, 1/4"-20 x 1/2", Grade 8
	G10227	1	Lock Washer, 1/4"
	G10209	1	Washer, 1/4" USS
33.	G11078	1	Vinyl Cap
34.	G10037	1	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10216	1	Washer, 1/2" USS
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
35.	GA7313	1	Sprocket Storage Rod
36.	GD2558	2	Lynch Pin, 1/4"
A.	G1K381	-	Wrap Spring Wrench Replacement Kit, Silver Collar, L.H. (Items 24-33) (Shown)
	G1K380	1	Wrap Spring Wrench Replacement Kit, Gold Collar, R.H. (Items 24-33)

# ROW MARKER SPINDLE/HUB/BLADE

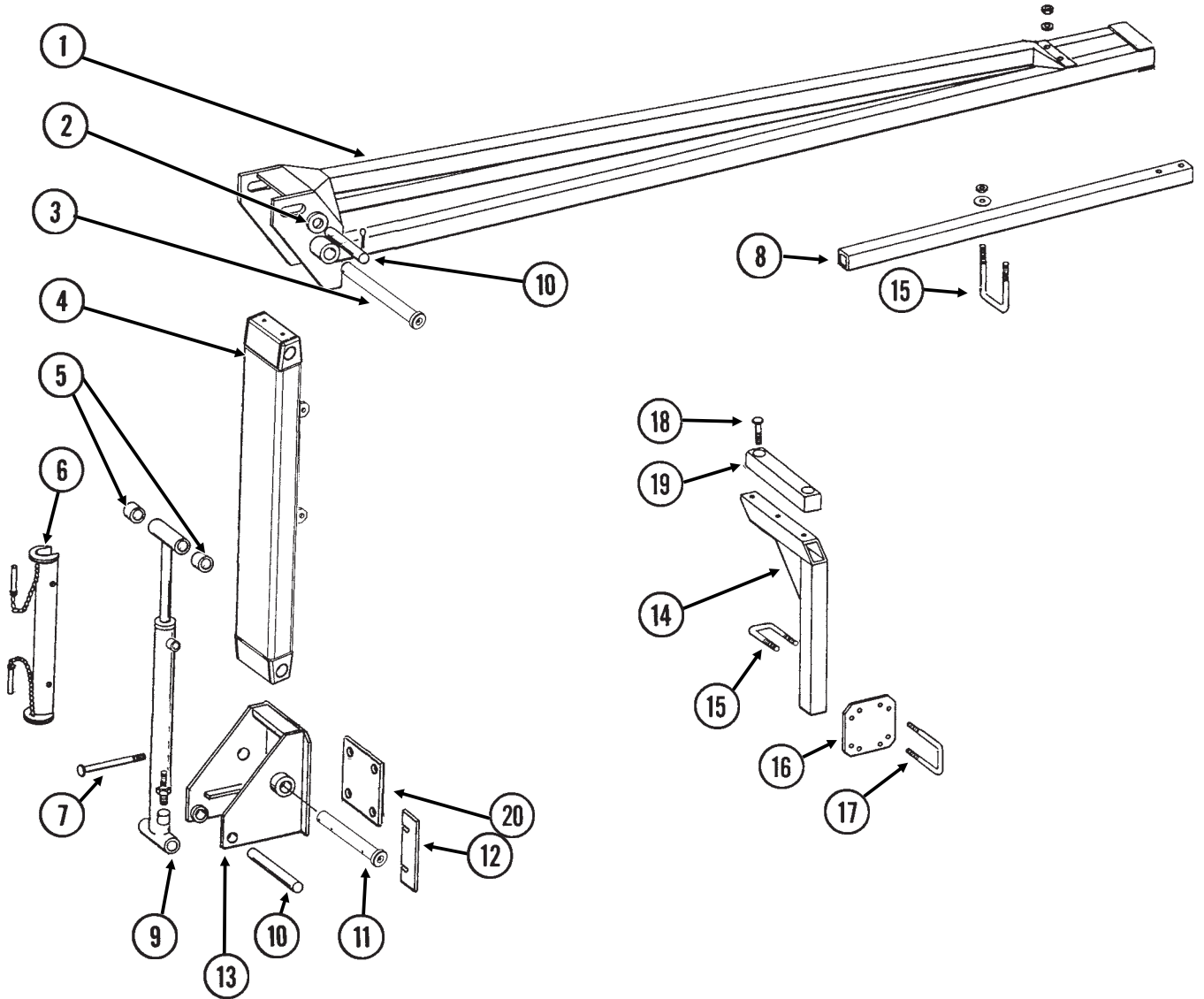
IP1035a



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GA5853	1	Depth Band
2.	GD0746	1	Disc Blade, Solid, 16" (Shown)
	GD10283	-	Disc Blade, Notched, 16" (Optional)
3.	G10019	4	Hex Head Cap Screw, 5/16"-18 x 1"
	G10109	4	Lock Nut, 5/16"-18, Grade 8
4.	GA0167	1	Hub W/Cups, 4 Bolt (Includes Items 5 and 6)
5.	GR0150	1	Inner Cup
6.	GR0151	1	Outer Cup
7.	GA0243	1	Grease Seal
8.	GA0245	1	Bearing
9.	GA0257	1	Bearing
10.	GA0899	1	Rubber Seal
11.	GD2597	1	Retainer
12.	GD0840	1	Dust Cap
13.	G10722	4	Hex Head Cap Screw, 1/2"-20 x 1"
	G10228	4	Lock Washer, 1/2"
14.	G10544	1	Cotter Pin, 5/32" x 1"
15.	G10725	1	Slotted Hex Nut, 5/8"-18
16.	G10724	1	Washer, 5/8" SAE
17.	GA13695	1	Spindle
18.	G10844	1	Carriage Bolt, 1/2"-13 x 3 1/2"
	G10168	1	Machine Bushing, 1/2", 7 Gauge
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
19.	G10045	1	Hex Head Cap Screw, 1/2"-13 x 4 1/2"
	G10168	1	Machine Bushing, 1/2", 7 Gauge
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex Nut, 1/2"-13
A.	GA13719	-	Hub And Spindle Assembly, (Items 11-17)

# ROW MARKER ASSEMBLY, 8 ROW 36"/38" AND 12 ROW 30"

MKR019/MKR027(MKR14/A11590)

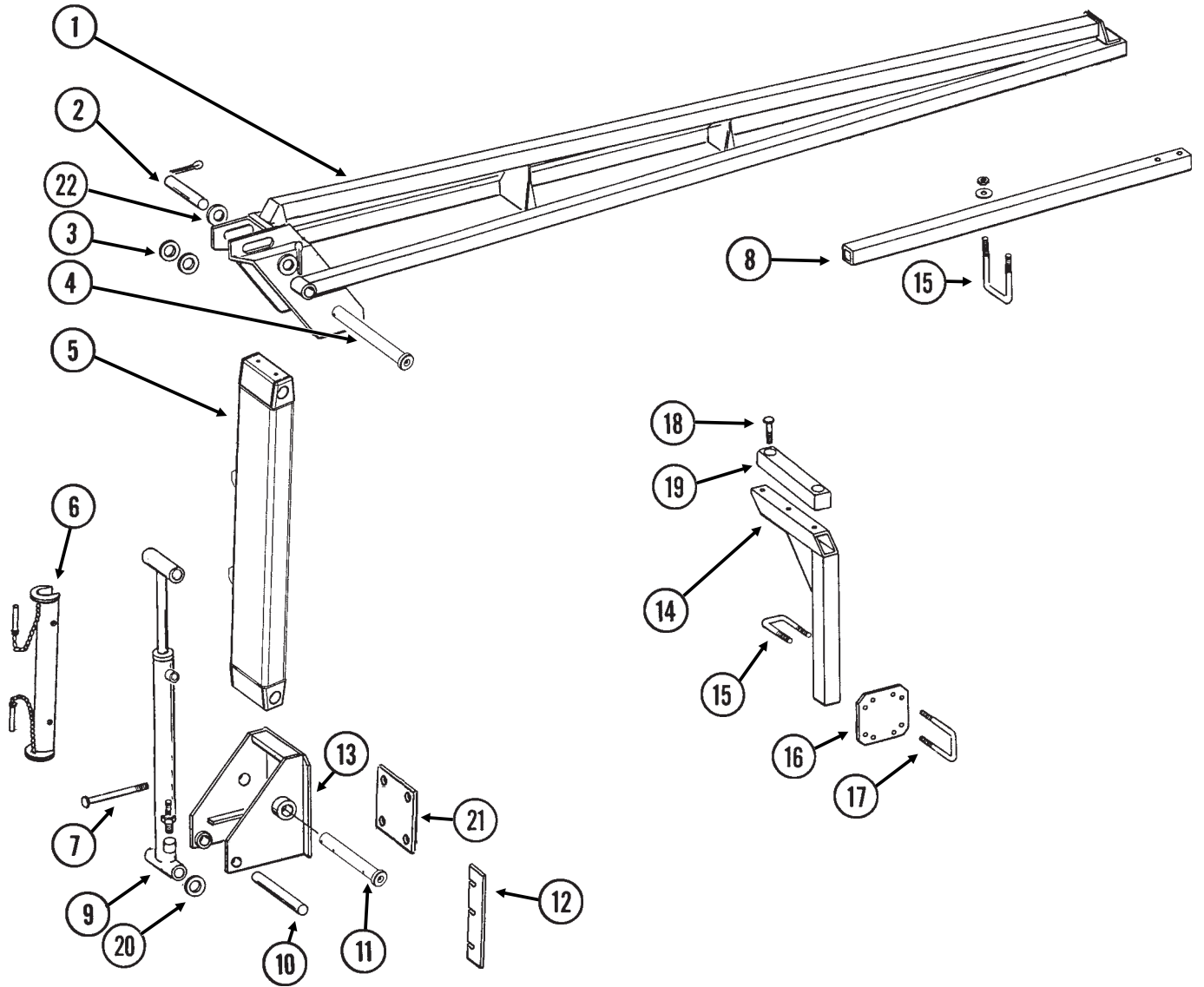


# ROW MARKER ASSEMBLY, 8 ROW 36"/38" 12 ROW 30"

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GA4353	1	Arm W/Grease Fittings, Second Stage, 110", 12 Row 30"
	G10641	-	Grease Fitting, 1/8" NPT
	GA5192	-	Arm W/Grease Fittings, Second Stage, 67", 8 Row 36"/38"
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.	GA11766	-	Pin W/Grease Fitting, 1 1/4" x 11 13/16"
	G10640	-	Grease Fitting, 1/4"-28
	G10463	-	Cotter Pin, 1/4" x 1 1/2"
4.	GA11590	-	Arm, First Stage
5.	GD0752-41	4	Sleeve, 1"
6.	GA8170	1	Safety Lockup W/Detent Pins, 19 3/8"
	G10536	-	Detent Pin, 1/2" x 2 1/2" Grip
7.	G10011	4	Hex Head Cap Screw, 5/8"-11 x 5 1/2" (If Applicable)
	G10046	-	Hex Head Cap Screw, 5/8"-11 x 5" (If Applicable)
	G10008	-	Hex Head Cap Screw, 5/8"-11 x 2" (If Applicable)
	GD7805	8	Special Washer, 5/8", Hardened
	G10205	-	Washer, 5/8" SAE
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
8.	GD0453-07	1	Extension Tube, 45", 12 Row 30"
	GD0453-04	-	Extension Tube, 60", 12 Row 30" (L.H. Even-Row Marker) (If Applicable)
	GD0453-08	-	Extension Tube, 65", 8 Row 36"/38"
9.		-	See "Row Marker (Cushion) Cylinder", Page P91
10.	GD2161	2	Pin, 1 1/4" x 8 1/4"
	G10460	4	Cotter Pin, 1/4" x 2"
11.	GA11767	-	Pin W/Grease Fitting, 1 1/4" x 9 1/2"
	G10640	-	Grease Fitting, 1/4"-28
	G10463	-	Cotter Pin, 1/4" x 1 1/2"
12.	GD10792	-	Shim, 2 1/2" x 7 1/4", 16 Gauge (As Required)
13.	GA5130	1	Mount
14.	GA7042	1	Stand, 20" (12 Row 30" Only)
15.	GD2721	3	U-Bolt, 2" x 2" x 1/2"-13
	G10228	6	Lock Washer, 1/2"
	G10102	6	Hex Nut, 1/2"-13
16.	GD9981	1	Bar
17.	GD4743	2	U-Bolt, 3" x 3" x 1/2"-13
	G10216	4	Washer, 1/2" USS
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
18.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10206	2	Washer, 1/2" SAE
	G10111	2	Lock Nut, 1/2"-13
19.	GA9088	-	Molded Stop, 12 1/4" Long
20.	GD13360	2	Plate, 6" x 6"

# ROW MARKER ASSEMBLY, 12 ROW 36"/38" AND 16 ROW 30"

MKR019/MKR023MKR027(MKR15j/A11569)

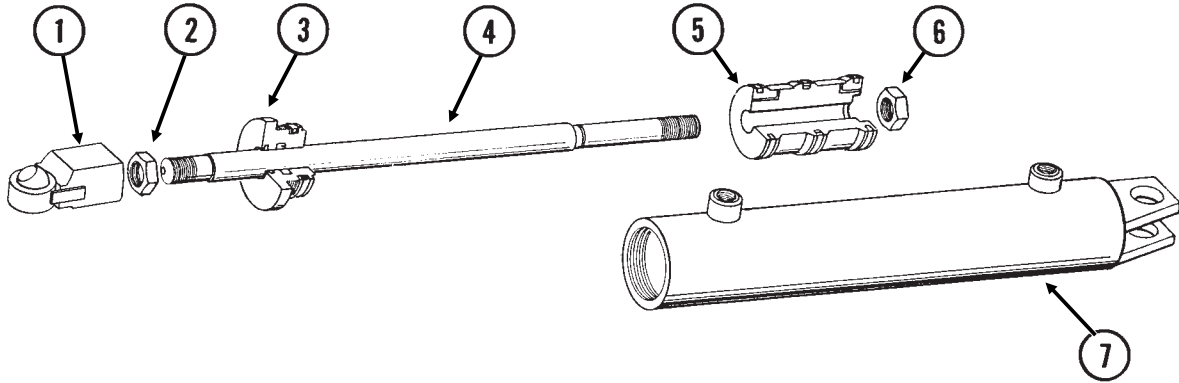


# ROW MARKER ASSEMBLY, 12 ROW 36"/38" AND 16 ROW 30"

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GA7116	1	Arm, Second Stage, 138 1/4", 12 Row 36"/38"
	GA7118	-	Arm, Second Stage, 172 1/4", 16 Row 30"
2.	GD1701	1	Pin, 1 1/4" x 6 1/2"
	G10460	2	Cotter Pin, 1/4" x 2"
3.	G10979	4	Special Washer, 1 1/4" (As Required)
	G10159	-	Machine Bushing, 1 1/4", 10 Gauge (As Required)
	G10322	-	Machine Bushing, 1 1/4", 18 Gauge (As Required)
4.	GA11768	-	Pin W/Grease Fitting, 1 1/4" x 13"
	G10640	-	Grease Fitting, 1/4"-28
	G10463	-	Cotter Pin, 1/4" x 1 1/2"
5.	GA13759	-	Arm, First Stage
6.	GA8170	1	Safety Lockup W/Detent Pins, 19 3/8"
	G10536	-	Detent Pin, 1/2" x 2 1/2" Grip
7.	G10012	-	Hex Head Cap Screw, 5/8"-11 x 6 1/2" (If Applicable)
	G10068	-	Hex Head Cap Screw, 5/8"-11 x 6" (If Applicable)
	G10006	-	Hex Head Cap Screw, 5/8"-11 x 2 1/4" (If Applicable)
	GD7805	8	Special Washer, 5/8", Hardened
	G10205	-	Washer, 5/8" SAE
	G10230	8	Lock Washer, 5/8"
	G10104	8	Hex Nut, 5/8"-11
8.	GD0453-09	1	Extension Tube, 75", 12 Row 36"/38" And 16 Row 30" (L.H. Even-Row Marker) (If Applicable)
	GD0453-03	-	Extension Tube, 50", 16 Row 30"
9.		-	See "Row Marker (Cushion) Cylinder", Page P91
10.	GD0652	1	Pin, 1 1/4" x 9 1/2"
	G10460	2	Cotter Pin, 1/4" x 2"
11.	GA11769	-	Pin W/Grease Fitting, 1 1/4" x 11 1/2"
	G10640	-	Grease Fitting, 1/4"-28
	G10463	-	Cotter Pin, 1/4" x 1 1/2"
12.	GD10793	-	Shim, 2 1/2" x 12 1/2", 16 Gauge (As Required) (Shown)
	GD11791	-	Shim, 2 1/2" x 8 1/4", 16 Gauge (As Required)
13.	GA4877	1	Mount
14.	GA13721	1	Stand, 30"
15.	GD2721	3	U-Bolt, 2" x 2" x 1/2"-13
	G10228	6	Lock Washer, 1/2"
	G10102	6	Hex Nut, 1/2"-13
16.	GD9981	1	Bar
17.	GD4743	2	U-Bolt, 3" x 3" x 1/2"-13
	G10216	4	Washer, 1/2" USS
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
18.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10206	2	Washer, 1/2" SAE
	G10111	2	Lock Nut, 1/2"-13
19.	GA9088	-	Molded Stop, 12 1/4" Long
20.	G10979	4	Special Washer, 1 1/4" (As Required)
21.	GD13359	2	Plate, 7" x 7"
22.	G10226	2	Washer, 1 1/4" SAE
	G10322	2	Machine Bushing, 1 1/4", 18 Gauge

# ROTATION CYLINDER, ALL SIZES

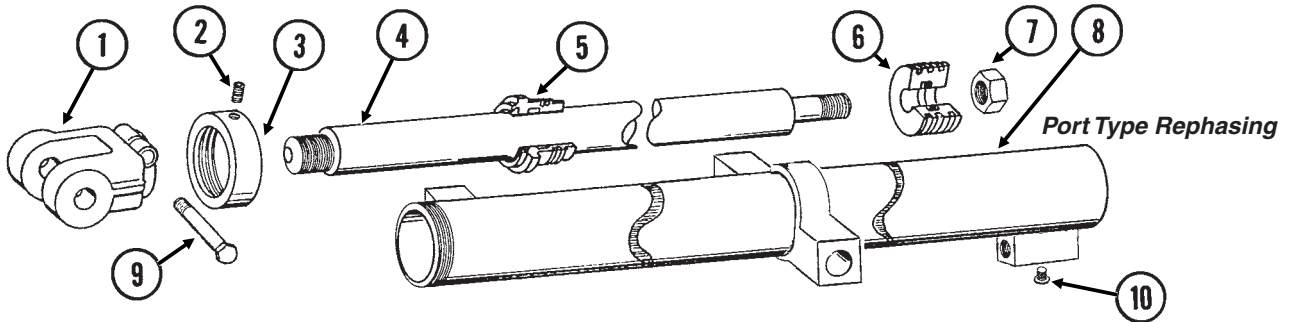
(CYL11i)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7221	1	Threaded Ball Joint End
2.	G10509	1	Hex Jam Nut, 1 1/4"-12, Grade 2
3.	GD11988	1	Gland
4.	GD11991	1	Rod
5.	GD11992	1	Piston
6.	G10972	1	Lock Nut, 1 1/4"-12
7.	A7220	1	Barrel <b>(Non-Stock Item)</b>
A.	GA8904	-	Cylinder Complete, 4" x 16" <i>(Part Number Stamped On Barrel)</i>
B.	GR1524	-	Seal Kit, Includes: (2) O-Rings, (1) U-Cup, (1) Wiper, (1) Seal, (2) Cast Iron Rings, (1) BU Ring, (1) Expander

# CENTER LIFT CYLINDER, ALL SIZES

(CYL39c)

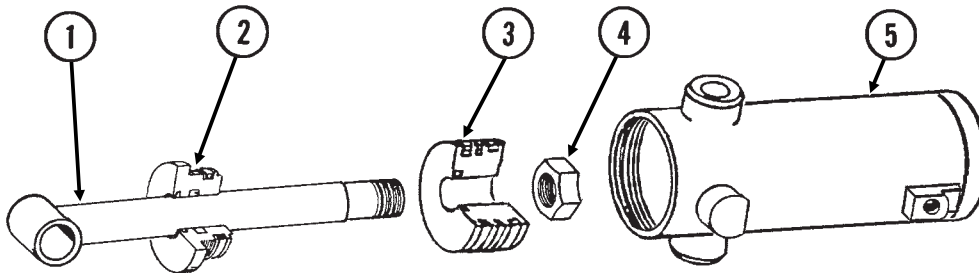


ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD11951	1	Clevis
2.	G10907	1	Set Screw, 1/4"-20 x 1/4"
3.	GD11193	1	Cap
4.	GD10936	1	Rod
5.	GD10211	1	Gland
6.	GD11253	1	Piston
7.	G10958	1	Lock Nut, 1"-14
8.	GA8149	1	Barrel
9.	G10939	1	Hex Head Cap Screw, 3/8"-16 x 2 1/4"
	G10108	1	Lock Nut, 3/8"-16
10.	G6408-H04-O	1	Hex Socket Head Plug W/O-Ring, 7/16"-20 O-Ring
	GR1465	1	O-Ring
A.	GA8908	-	Cylinder Complete, 3" x 48" <i>(Part Number Stamped On Barrel)</i>
B.	GR1428	-	Seal Kit, Includes: (2) O-Rings, (2) BU Rings, (1) Wiper, (1) U-Cup, (1) Piston Seal, (2) Cast Iron Rings, (1) Expander



# WING LIFT CYLINDER, 8 AND 12 ROW

CYL031/CYL011(CYL45d)

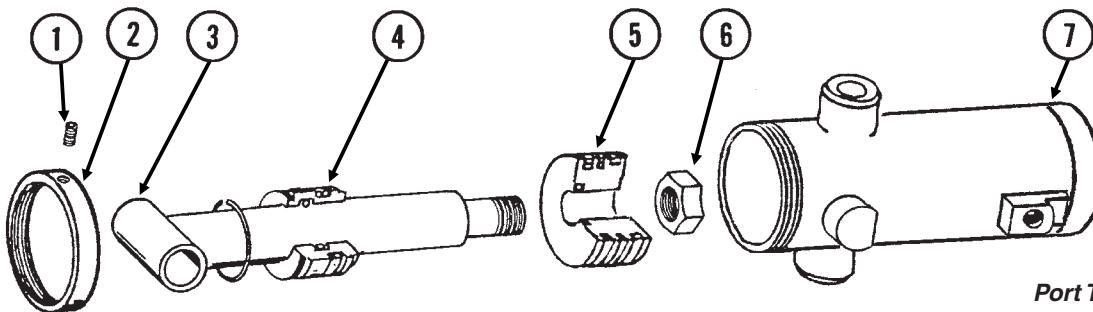


*Port Type  
Rephasing*

ITEM	PART NO.	QTY	DESCRIPTION
1.	GA8320	1	Rod Assembly W/Grease Fitting
	G10640	-	Grease Fitting, 1/4"-28
2.	GD11995	1	Gland
3.	GD11994	1	Piston
4.	G10958	1	Lock Nut, 1"-14
5.	A8797	1	Barrel ( <b>Non-Stock Item</b> )
A.	GA8909	-	Cylinder Complete, 4 1/4" x 6" ( <i>Part Number Stamped On Barrel</i> )
B.	GR1523	-	Seal Kit, Includes: (1) Wiper, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Seal, (2) Cast Iron Rings, (1) Expander

# WING LIFT CYLINDER, 16 ROW

CYL031/CYL011(CYL41c)

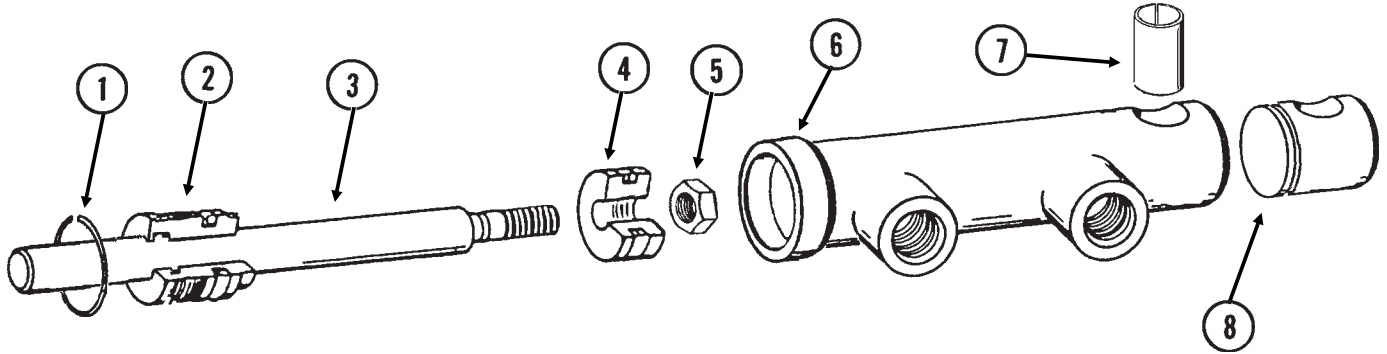


*Port Type  
Rephasing*

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10907	1	Set Screw, 1/4"-20 x 1/4"
2.	GD11193	1	Cap
3.	GA8157	1	Rod Assembly W/Grease Fitting
	G10449	-	Grease Fitting, 3/16", Drive-In
4.	GD11194	1	Gland
5.	GD11253	1	Piston
6.	G10958	1	Lock Nut, 1"-14
7.	A8873	1	Barrel ( <b>Non-Stock Item</b> )
A.	GA8874	-	Cylinder Complete, 3" x 6" ( <i>Part Number Stamped On Barrel</i> )
B.	GR1417	-	Seal Kit, Includes: (2) O-Rings, (2) BU Rings, (1) Expander, (1) Wiper, (1) U-Cup, (1) Piston Seal, (2) Cast Iron Rings

# TRANSPORT LATCH CYLINDER, ALL SIZES

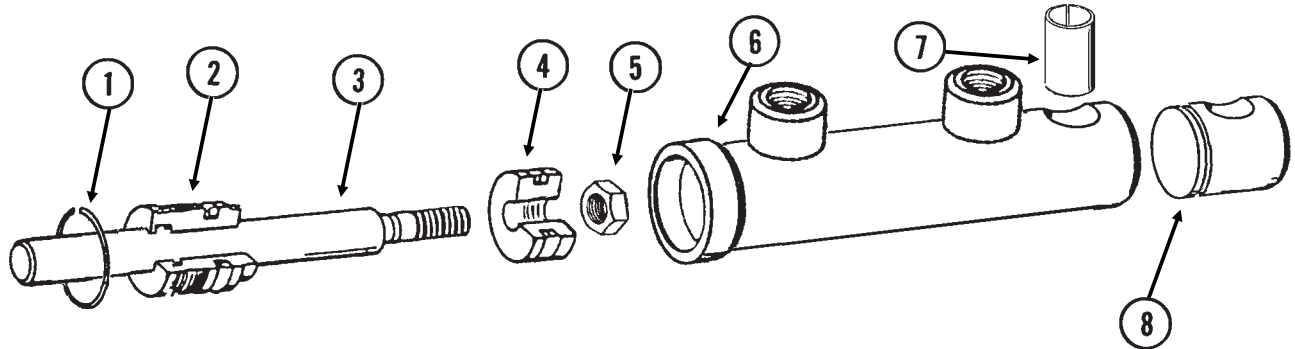
CYL035/CYL050(CYL9c)



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

# TONGUE LOCK CYLINDER, ALL SIZES

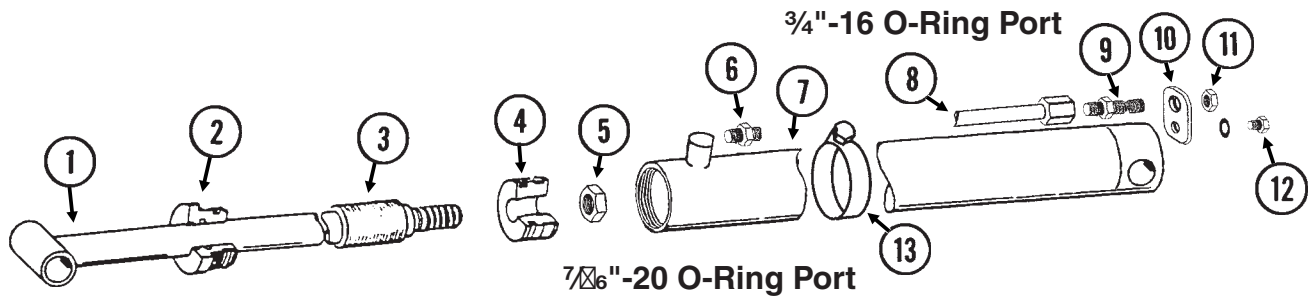
CYL035(CYL9d)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10770	1	Internal Retaining Ring, 1 1/16"
2.	GD13170	1	Gland
3.	GD13171	1	Rod
4.	GD13172	1	Piston
5.	G11016	1	Lock Nut, 1/2"-20
6.	D13169	1	Barrel ( <b>Non-Stock Item</b> )
7.	GD13400	1	Tension Bushing, 1" x 2" Long
8.	GD13173	1	End Cap
A.	GA9205	-	Cylinder Complete, 1 1/2" x 2 1/2" ( <i>Part Number Stamped On Barrel</i> )
B.	GR1598	-	Seal Kit, Includes: (3) O-Rings, (2) BU Rings, (1) Wiper, (1) T-Seal, (1) Bronze Bushing, (1) Seal, (1) U-Cup

# TONGUE CYLINDER, 8 ROW 36"/38" WITH "Y" HITCH

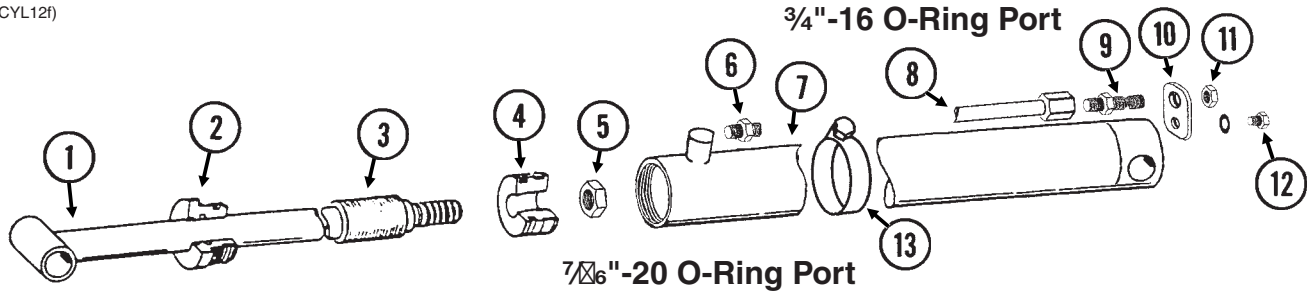
(CYL12f)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8867	1	Rod Assembly
2.	GD11984	1	Gland
3.	GD7147	1	Spacer
4.	GD11970	1	Piston
5.	G10972	1	Lock Nut, 1 1/4"-12
6.	G6400-08-04	1	Connector W/O-Ring, 3/4"-16 Male JIC To 7/8"-20 O-Ring
	GR1465	-	O-Ring
7.	A8869	1	Barrel ( <b>Non-Stock Item</b> )
8.	GA8981	1	Steel Hydraulic Line, 44 1 1/8"
9.	G2700-08	1	Bulkhead Tube Union, 3/4"-16 Male JIC
10.	GD12597	1	Bracket
11.	G306-08	1	Lock Nut, 3/4"-16
12.	G10328	1	Hex Head Cap Screw, 3/8"-16 x 5/8"
	G10229	1	Lock Washer, 3/8"
13.	G10990	1	Hose Clamp, No. 52
A.	GA8870	-	Cylinder Complete, 3" x 36" ( <i>Part Number Stamped On Barrel</i> )
B.	GR1519	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring, (1) Wear Ring, (1) Wiper, (1) U-Cup, (1) T-Seal

# TONGUE CYLINDER, 8 ROW 36"/38" WITH "T" HITCH, 12 ROW 30" WITH "Y" HITCH

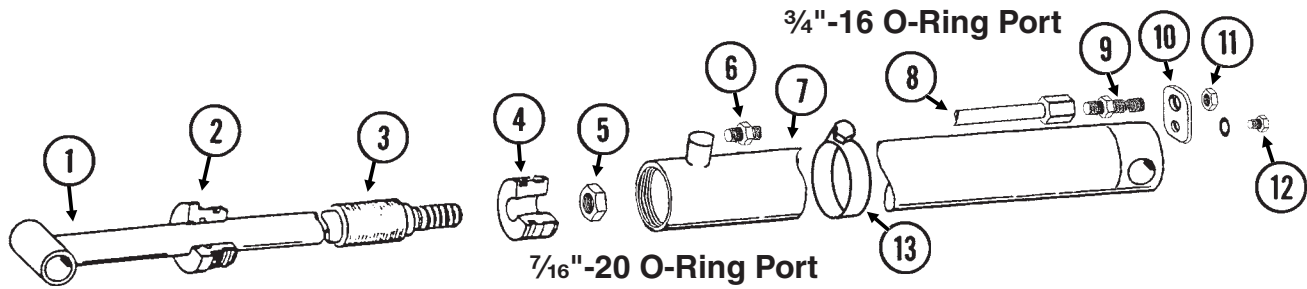
(CYL12)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8893	1	Rod Assembly
2.	GD11984	1	Gland
3.	GD7147	1	Spacer
4.	GD11970	1	Piston
5.	G10972	1	Lock Nut, 1 1/4"-12
6.	G6400-08-04	1	Connector W/O-Ring, 3/4"-16 Male JIC To 7/16"-20 O-Ring
	GR1465	-	O-Ring
7.	GA8858	1	Barrel
8.	GA8978	1	Steel Hydraulic Line, 68 11/16"
9.	G2700-08	1	Bulkhead Tube Union, 3/4"-16 Male JIC
10.	GD12597	1	Bracket
11.	G306-08	1	Lock Nut, 3/4"-16
12.	G10328	1	Hex Head Cap Screw, 3/8"-16 x 5/8"
	G10229	1	Lock Washer, 3/8"
13.	G10990	1	Hose Clamp, No. 52
A.	GA8857	-	Cylinder Complete, 3" x 60" (Part Number Stamped On Barrel)
B.	GR1519	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring, (1) Wear Ring, (1) Wiper, (1) U-Cup, (1) T-Seal

# TONGUE CYLINDER, 12 ROW 30" WITH "T" HITCH, 12 ROW 36"/38" AND 16 ROW 30" WITH "Y" HITCH

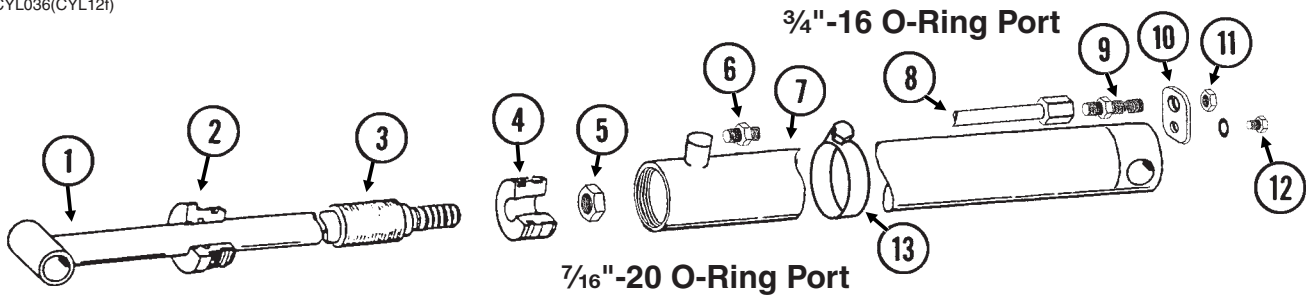
CYL036(CYL12f)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8859	1	Rod Assembly
2.	GD11984	1	Gland
3.	GD7147	1	Spacer
4.	GD11970	1	Piston
5.	G10972	1	Lock Nut, 1 1/4"-12
6.	G6400-08-04	1	Connector W/O-Ring, 3/4"-16 Male JIC To 7/16"-20 O-Ring
	GR1465	-	O-Ring
7.	GA8861	1	Barrel
8.	GA8979	1	Steel Hydraulic Line, 92 11/16"
9.	G2700-08	1	Bulkhead Tube Union, 3/4"-16 Male JIC
10.	GD12597	1	Bracket
11.	G306-08	1	Lock Nut, 3/4"-16
12.	G10328	1	Hex Head Cap Screw, 3/8"-16 x 5/8"
	G10229	1	Lock Washer, 3/8"
13.	G10990	1	Hose Clamp, No. 52
A.	GA8862	-	Cylinder Complete, 3" x 84" (Part Number Stamped On Barrel)
B.	GR1519	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring, (1) Wear Ring, (1) Wiper, (1) U-Cup, (1) T-Seal

# TONGUE CYLINDER, 12 ROW 36"/38" AND 16 ROW 30" WITH "T" HITCH

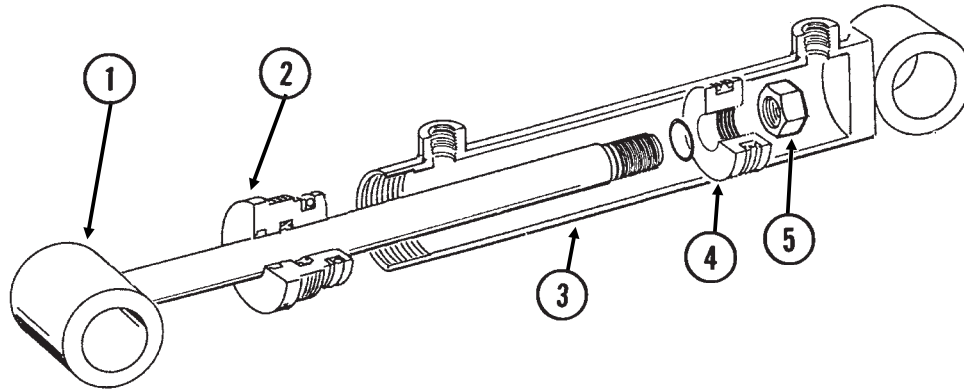
CYL036(CYL12f)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8863	1	Rod Assembly
2.	GD11984	1	Gland
3.	GD7147	1	Spacer
4.	GD11970	1	Piston
5.	G10972	1	Lock Nut, 1 1/4"-12
6.	G6400-08-04	1	Connector W/O-Ring, 3/4"-16 Male JIC To 7/16"-20 O-Ring
	GR1465	-	O-Ring
7.	GA8865	1	Barrel
8.	GA8980	1	Steel Hydraulic Line, 116 11/16"
9.	G2700-08	1	Bulkhead Tube Union, 3/4"-16 Male JIC
10.	GD12597	1	Bracket
11.	G306-08	1	Lock Nut, 3/4"-16
12.	G10328	1	Hex Head Cap Screw, 3/8"-16 x 5/8"
	G10229	1	Lock Washer, 3/8"
13.	G10990	1	Hose Clamp, No. 52
A.	GA8866	-	Cylinder Complete, 3" x 108" ( <i>Part Number Stamped On Barrel</i> )
B.	GR1519	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring, (1) Wear Ring, (1) Wiper, (1) U-Cup, (1) T-Seal

# WING LOCK CYLINDER, ALL SIZES

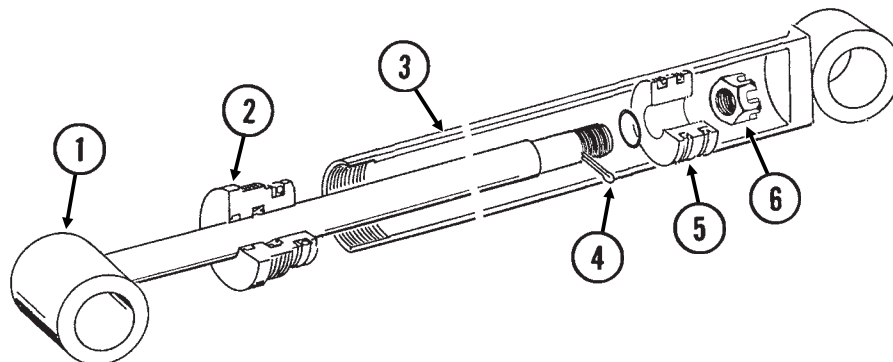
CYL032(CYL3f)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8898	1	Rod Assembly
2.	GD11985	1	Gland
3.	A8822	1	Barrel <b>(Non-Stock Item)</b>
4.	GD11986	1	Piston
5.	G10969	1	Lock Nut, 7/8"-14
A.	GA8899	-	Cylinder Complete, 2 1/2" x 20 1/16" <i>(Part Number Stamped On Barrel)</i>
B.	GR1522	-	Seal Kit, Includes: (1) T-Seal, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper

# ROW MARKER (Cushion) CYLINDER, ALL SIZES

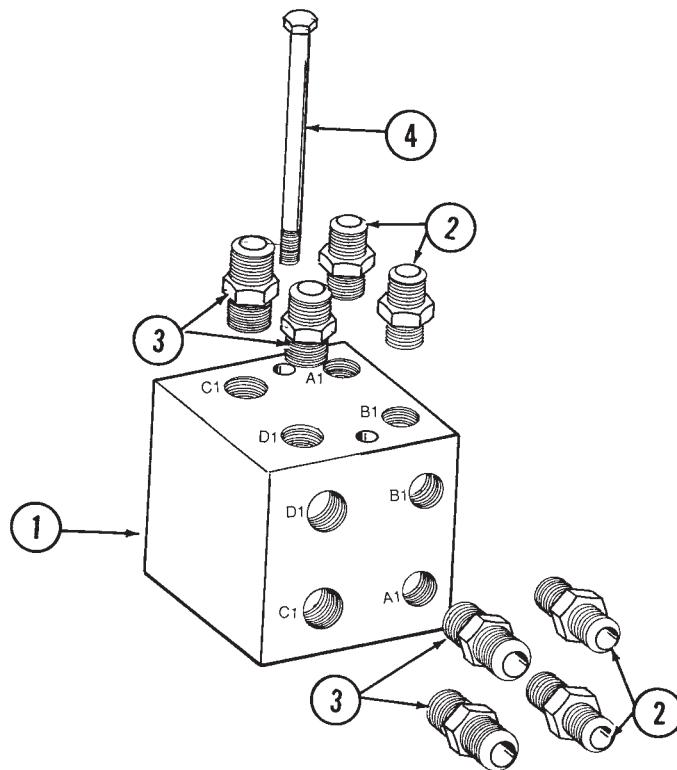
(CYL3d)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA8871	1	Rod Assembly
2.	GD10207	1	Gland
3.	A7524	1	Barrel <b>(Non-Stock Item)</b>
4.	G10827	1	Cotter Pin, 1/8" x 1 3/4"
5.	GD11983	1	Piston
6.	G10962	1	Slotted Hex Nut, 7/8"-14
A.	GA8895	-	Cylinder Complete, 2 1/2" x 20 1/16" <i>(Part Number Stamped On Barrel)</i>
B.	GR1521	-	Seal Kit, Includes: (1) T-Seal, (2) O-Rings, (1) BU Ring, (1) Cast Iron Ring, (1) Wiper, (1) U-Cup

# JUNCTION BLOCK - LOCATED ON R.H. SIDE OF CENTER PIVOT

VVB036(TWL24)

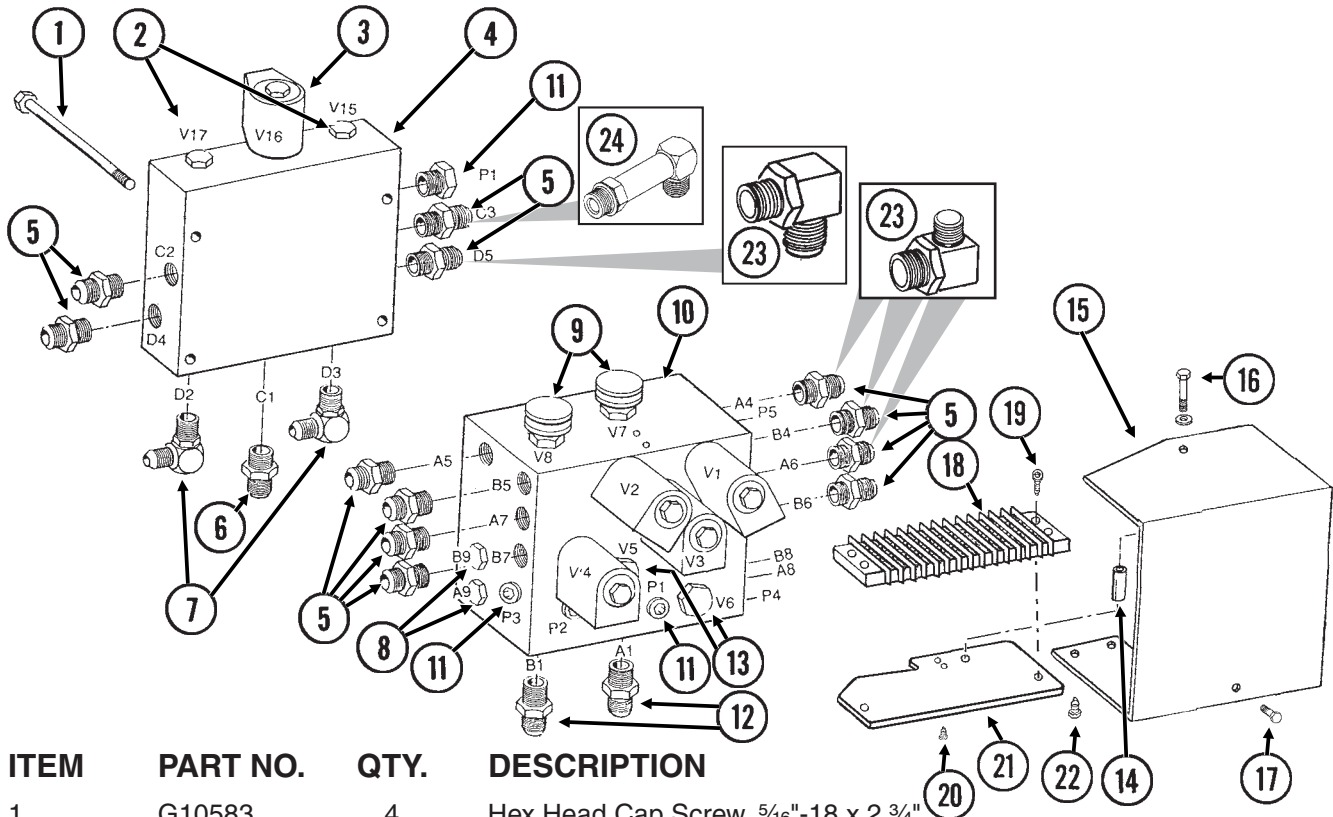


ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD9971	1	Manifold Block
2.	G6400-08	4	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
3.	G6400-10-08	4	Connector W/O-Ring, 7/8"-14 Male JIC To 3/4"-16 O-Ring
	GR1037	-	O-Ring
4.	G10172	2	Hex Head Cap Screw, 3/8"-16 x 5"
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16



# VALVE BLOCKS - LOCATED ON R.H. REAR CENTER FRAME

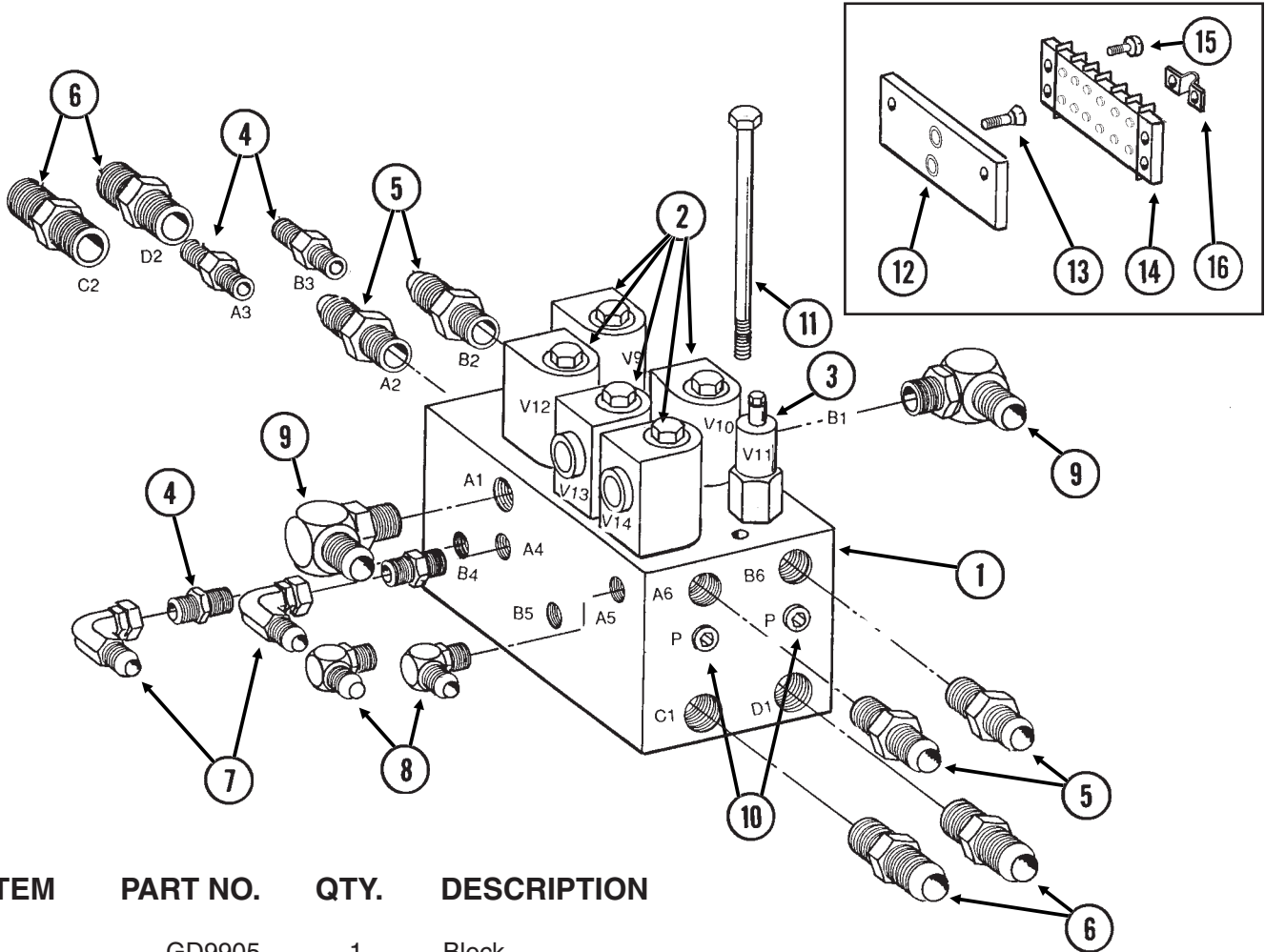
VVB034(TWL25e)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10583	4	Hex Head Cap Screw, 5/16"-18 x 2 3/4"
	G10232	4	Lock Washer, 5/16"
2.		2	See "Check Valve", Page P97
3.		5	See "Solenoid Valve", Page P96
24.	GD9977	1	Block
5.	G6400-08	12	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
6.	G6400-10	1	Connector W/O-Ring, 7/8"-14 Male JIC To O-Ring
	GR1466	-	O-Ring
7.	G6801-08-10	2	Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To 7/8"-14 O-Ring
	GR1466	-	O-Ring
8.	G6408-08	4	Plug W/O-Ring, 3/4"-16 O-Ring
	GR1037	-	O-Ring
9.		2	See "Flow Control Valve", Page P96
10.	GD9533	1	Block
11.	G6408-H06-O	6	Hex Socket Head Plug W/O-Ring, 9/16"-18 O-Ring
	GR1045	-	O-Ring
12.	G6400-08-10	2	Connector W/O-Ring, 3/4"-16 Male JIC To 7/8"-14 O-Ring
	GR1466	-	O-Ring
13.	G6408-10	2	Plug W/O-Ring, 7/8"-14 O-Ring
	GR1466	-	O-Ring
14.	GD7318	1	Sleeve, 1" Long
15.	GD13146	1	Cover
16.	G10004	1	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	1	Lock Washer, 3/8"
17.	G10003	1	Hex Head Cap Screw, 3/8"-18 x 1 1/2"
	G11091	1	Serrated Flange Nut, 3/8"-16
18.	GA9097	1	Terminal Strip W/Screws, No. 6, 14 Terminal
	GR1635	-	Screw, No. 6-32 x 1/4"
19.	G11067	2	Phillips Pan Head Machine Screw, No. 8-32 x 3/4", Stainless Steel
20.	G11066	2	Phillips Pan Head Machine Screw, No. 10-24 x 3/4", Stainless Steel
21.	GA13741	1	Terminal Strip Mount
22.	G10977	2	Phillips Pan Head Machine Screw, No. 10-24 x 1/2", Stainless Steel
23.	G6801-08	3	Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
24.	G6801-L-08	1	Long Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring

# VALVE BLOCK - LOCATED ON HITCH

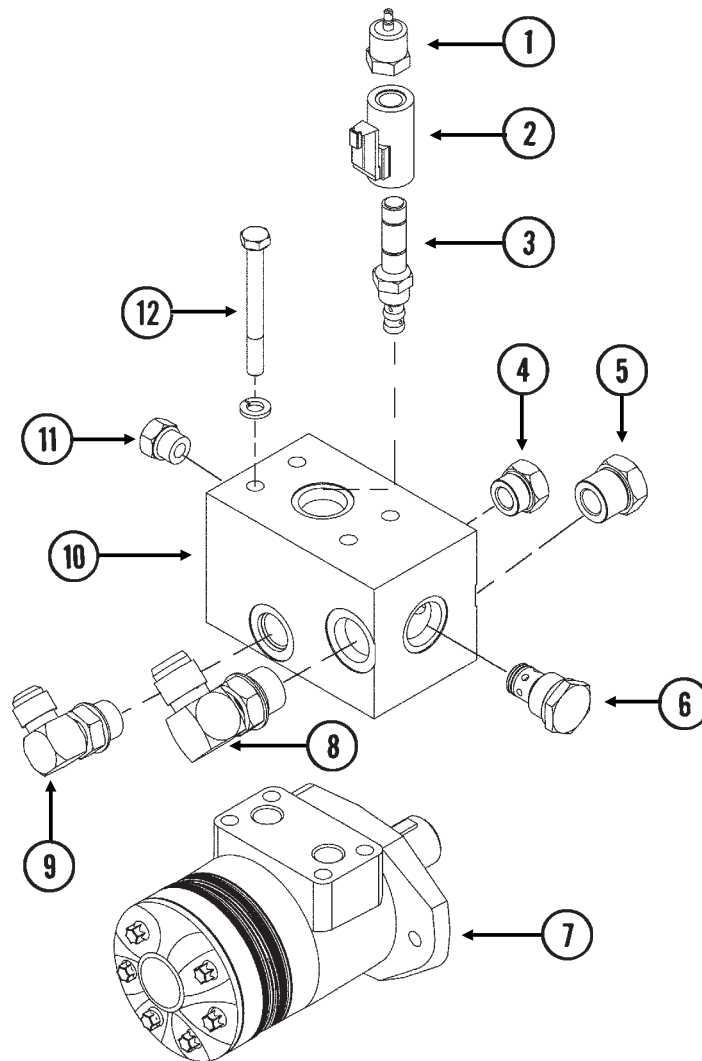
VVB035(TWL26f)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD9905	1	Block
2.	-	-	See "Solenoid Valve", Page P96
3.	-	-	See "Pressure Relief Valve", Page P97
4.	G6400-06 GR1045	4 -	Connector W/O-Ring, 1/16"-18 Male JIC To O-Ring O-Ring
5.	G6400-08 GR1037	4 -	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring O-Ring
6.	G6400-10 GR1466	4 -	Connector W/O-Ring, 7/8"-14 Male JIC To O-Ring O-Ring
7.	G6500-06	2	Swivel Elbow, 90°, 1/16"-18 Male JIC To Female
8.	G6801-06 GR1045	2 -	Elbow W/O-Ring, 90°, 1/16"-18 Male JIC To O-Ring O-Ring
9.	G6801-08 GR1037	2 -	Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To O-Ring O-Ring
10.	G6408-H06-O GR1045	2 -	Hex Socket Head Plug W/O-Ring, 1/16"-18 O-Ring O-Ring
11.	-	-	See "Hose Take-Up", Pages P50 And P51
12.	GD12818	-	Terminal Strip Mount
13.	G11068	2	Phillips Flat Head Machine Screw, No. 10-24 x 5/8", Stainless Steel
14.	GA9098 GR1635	- -	Terminal Strip W/Screws, No. 6, 8 Terminal Screw, No. 6-32 x 1/4"
15.	G11065	2	Phillips Pan Head Machine Screw, No. 8-32 x 5/8", Stainless Steel
16.	-	-	See "Electrical Components", Pages P104 And P105

# VALVE BLOCK - LOCATED ON L.H. REAR CENTER FRAME

(PNE39)

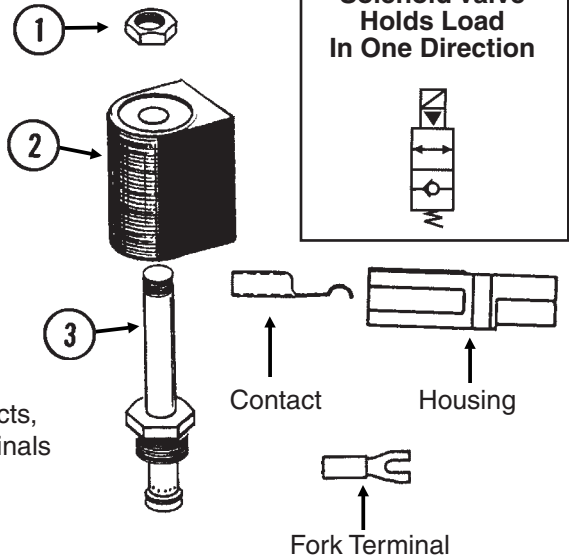


ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1846	1	Manual Override
2.	GA13079	1	Coil
3.			See "Proportional Valve", Page P97
4.	G6408-H08-O	1	Hex Socket Head Plug W/O-Ring, 3/4"-16 O-Ring
5.	G6408-H10-O		Hex Socket Head Plug W/O-Ring, 7/8"-14 O-Ring
6.			See "Check Valve", Page P97
7.	GA13219	1	Hydraulic Motor
8.	G6801-10	1	Elbow W/O-Ring, 90°, 7/8"-14 Male JIC To O-Ring
	GR1466	-	O-Ring
9.	G6801-08	1	Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
10.	GD18512	1	Valve Block
11.	G6408-H06-O	1	Hex Socket Head Plug W/O-Ring, 9/16"-18 O-Ring
12.	G10936	4	Hex Head Cap Screw, 5/16"-18 x 3 1/2"
	G10232	4	Lock Washer, 5/16"
A.	GA12659	-	Hydraulic Motor (Items 1-12)

# SOLENOID VALVE

VVB019(TWL27c/TWL18/PLTR75c/A9481)

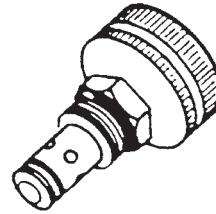
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0761	1	Special Hex Nut, 1/2"-20
2.	G1K274	1	Coil Kit W/Coil, Contacts, Housings And Fork Terminals
	GD9529	2	Housing, Black
	GD9530	2	Contact
	G10996	2	Fork Terminal
3.	GR0763	1	Cartridge
A.	G1K275	-	Solenoid Valve Kit W/Solenoid Valve, Contacts, Housings And Fork Terminals
	GD9529	2	Housing, Black
	GD9530	2	Contact
	G10996	2	Fork Terminal
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring



# FLOW CONTROL VALVE

VVB020(TWL28)

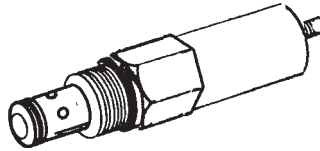
ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA3413	-	Flow Control Valve
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring



# PRESSURE RELIEF VALVE

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VVB020(TWL29)



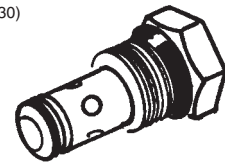
ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA3407	-	Pressure Relief Valve, 1000 PSI
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring

# CHECK VALVE

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ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA4293	-	Check Valve
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring

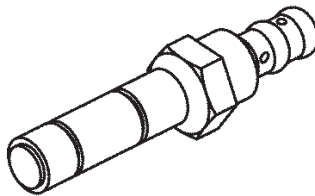
VVB020(TWL30)



# PROPORTIONAL VALVE

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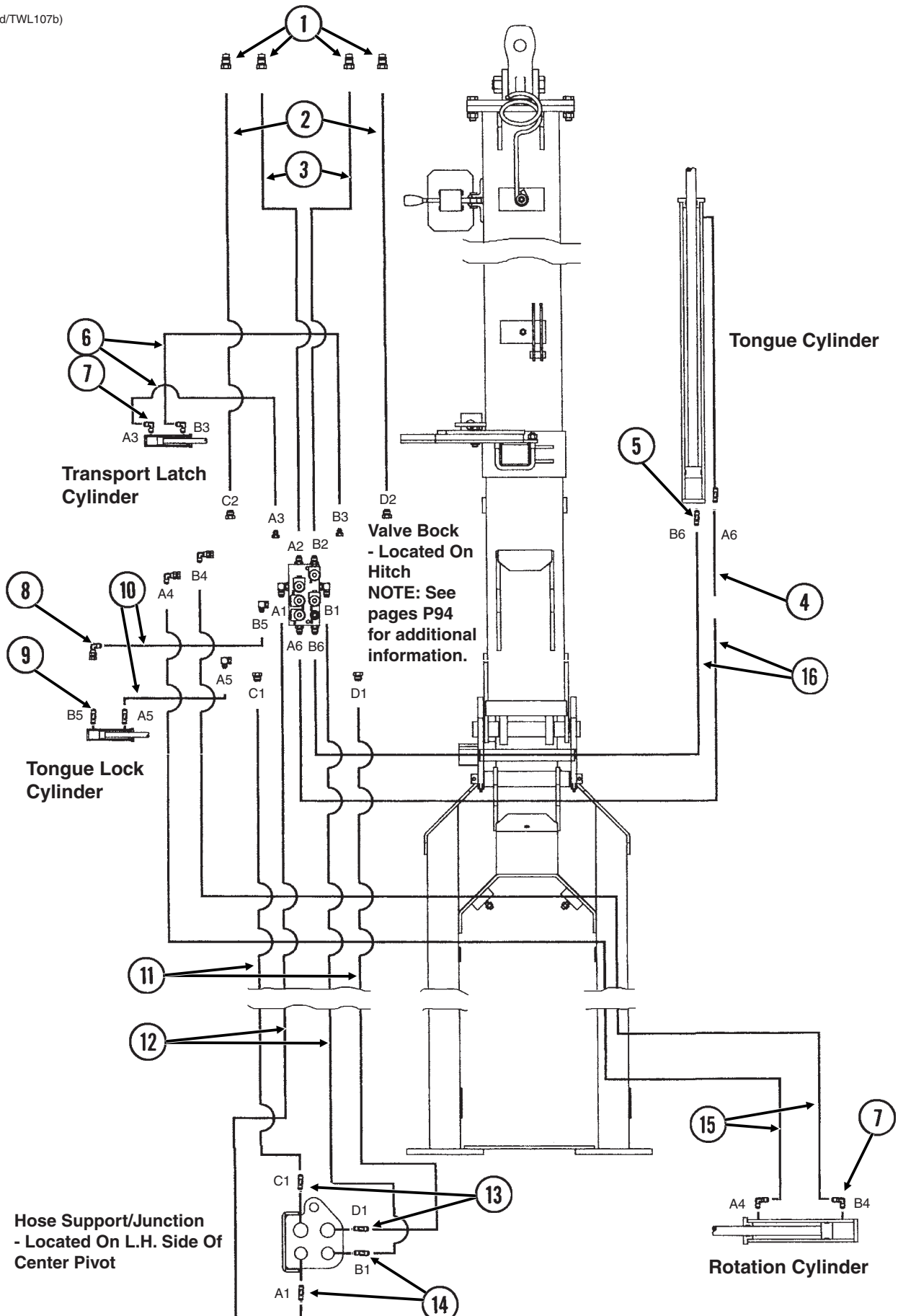
(TWL322)



ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA13078	-	Proportional Valve
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring

# HYDRAULIC HOSES AND FITTINGS ON HITCH

(TWL107d/TWL107b)



# HYDRAULIC HOSES AND FITTINGS ON HITCH

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD4086	4	ISO Coupler
2.	*A1466	2	Hose Assembly, 1/2" x 156", 8 Row 36"/38" "Y" Hitch
	*A1489	2	Hose Assembly, 1/2" x 191", 12 Row 30" "Y" Hitch
	*A1444	2	Hose Assembly, 1/2" x 250", 12 Row 30" "T" Hitch
	*A1491	2	Hose Assembly, 1/2" x 246", 12 Row 36"/38" And 16 Row 30" "Y" Hitch
	*A1447	2	Hose Assembly, 1/2" x 300", 16 Row 30" "T" Hitch
3.	*A1075	2	Hose Assembly, 3/8" x 156", 8 Row 36"/38" "Y" Hitch
	*A3133	2	Hose Assembly, 3/8" x 191", 12 Row 30" "Y" Hitch
	*A1032	2	Hose Assembly, 3/8" x 240", 12 Row 30" "T" Hitch
	*A3183	2	Hose Assembly, 3/8" x 246", 12 Row 36"/38" And 16 Row 30" "Y" Hitch
	*A3184	2	Hose Assembly, 3/8" x 300", 16 Row 30" "T" Hitch
4.	*A1072	1	Hose Assembly, 3/8" x 48", 8 Row 36"/38" "Y" Hitch (If Applicable)
	*A3215	1	Hose Assembly, 3/8" x 72", 12 Row 30" "Y" Hitch (If Applicable)
	*A3216	1	Hose Assembly, 3/8" x 96", 12 Row 36"/38" "Y" Hitch, 12 Row 30" "T" Hitch And 16 Row 30" "Y" Hitch (If Applicable)
5.	G6400-08	1	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
6.	*A1170	2	Hose Assembly, 1/4" x 90", 8 Row 36"/38" "Y" Hitch
	*A1103	2	Hose Assembly, 1/4" x 110", 12 Row 30" "Y" Hitch
	*A1183	2	Hose Assembly, 1/4" x 157", 12 Row 30" "T" Hitch And 12 Row 36"/38" "Y" Hitch
	*A1129	2	Hose Assembly, 1/4" x 168", 16 Row 30" "Y" Hitch
	*A1119	2	Hose Assembly, 1/4" x 216", 16 Row 30" "T" Hitch
7.	G6801-06-08	4	Elbow W/O-Ring, 90°, 9/16"-18 Male JIC To 3/4"-16 O-Ring
	GR1037	-	O-Ring
8.	G6502-06	1	Swivel Elbow, 45°, 9/16"-18 Male JIC To Female
9.	G6400-06-08	2	Connector W/O-Ring, 9/16"-18 Male JIC To 3/4"-16 O-Ring
	GR1037	-	O-Ring
10.	*A1181	2	Hose Assembly, 1/4" x 32", 8 Row 36"/38" "Y" Hitch
	*A1139	2	Hose Assembly, 1/4" x 40", 12 Row 30" "Y"/"T" Hitch, 12 Row 36"/38" "Y" Hitch And 16 Row 30" "Y"/"T" Hitch
11.	*A1494	2	Hose Assembly, 1/2" x 112", 8 Row 36"/38" "Y" Hitch
	*A1464	2	Hose Assembly, 1/2" x 72", 12 Row 30" "T" Hitch
	*A1467	2	Hose Assembly, 1/2" x 120", 12 Row 30"/36"/38" "Y" Hitch
	*A1462	2	Hose Assembly, 1/2" x 78", 12 Row 36"/38" And 16 Row 30" "T" Hitch
	*A1478	2	Hose Assembly, 1/2" x 128", 16 Row 30" "Y" Hitch
12.	*A1024	2	Hose Assembly, 3/8" x 116", 8 Row 36"/38" "Y" Hitch
	*A3129	2	Hose Assembly, 3/8" x 79", 12 Row 30" "T" Hitch
	*A1011	2	Hose Assembly, 3/8" x 125", 12 Row 30"/36"/38" "Y" Hitch
	*A3113	2	Hose Assembly, 3/8" x 84", 12 Row 36"/38" And 16 Row 30" "T" Hitch
	*A1041	2	Hose Assembly, 3/8" x 130", 16 Row 30" "Y" Hitch
13.	G2700-10	2	Bulkhead Tube Union, 7/8"-14 Male JIC
14.	G2700-08	2	Bulkhead Tube Union, 3/4"-16 Male JIC
15.	*A1105	2	Hose Assembly, 1/4" x 125", 8 Row 36"/38" "Y" Hitch
	*A1114	2	Hose Assembly, 1/4" x 85", 12 Row 30" "T" Hitch
	*A1106	2	Hose Assembly, 1/4" x 130", 12 Row 30"/36"/38" "Y" Hitch
	*A1102	2	Hose Assembly, 1/4" x 95", 16 Row 30" "T" Hitch
	*A1116	2	Hose Assembly, 1/4" x 136", 16 Row 30" "Y" Hitch
16.	*A1022	2	Hose Assembly, 3/8" x 60", 8 Row 36"/38" "Y" Hitch
	*A3156	2	Hose Assembly, 3/8" x 68", 12 Row 30"/36"/38" "Y" Hitch
	*A3159	2	Hose Assembly, 3/8" x 97", 16 Row 30" "T" Hitch
	*A3129	2	Hose Assembly, 3/8" x 79", 12 Row 30" "T" Hitch
	*A3118	2	Hose Assembly, 3/8" x 80", 16 Row 30" "Y" Hitch

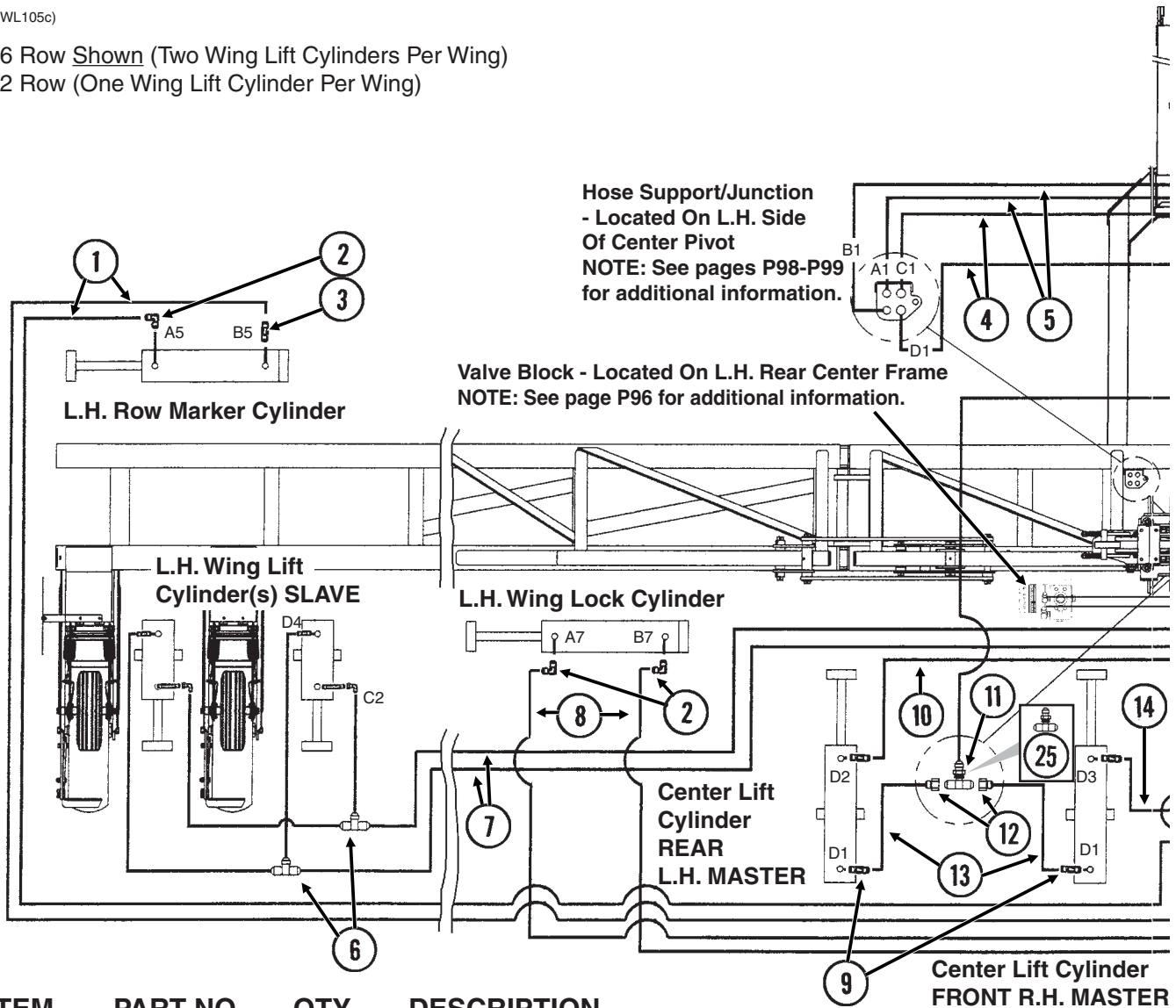
\* Hydraulic hose is not stocked by KINZE® Repair Parts, but can be made available on a special order basis. Call for quote.



# HYDRAULIC HOSES AND FITTINGS ON PLANTER FRAME

(TWL105c)

16 Row Shown (Two Wing Lift Cylinders Per Wing)  
 12 Row (One Wing Lift Cylinder Per Wing)

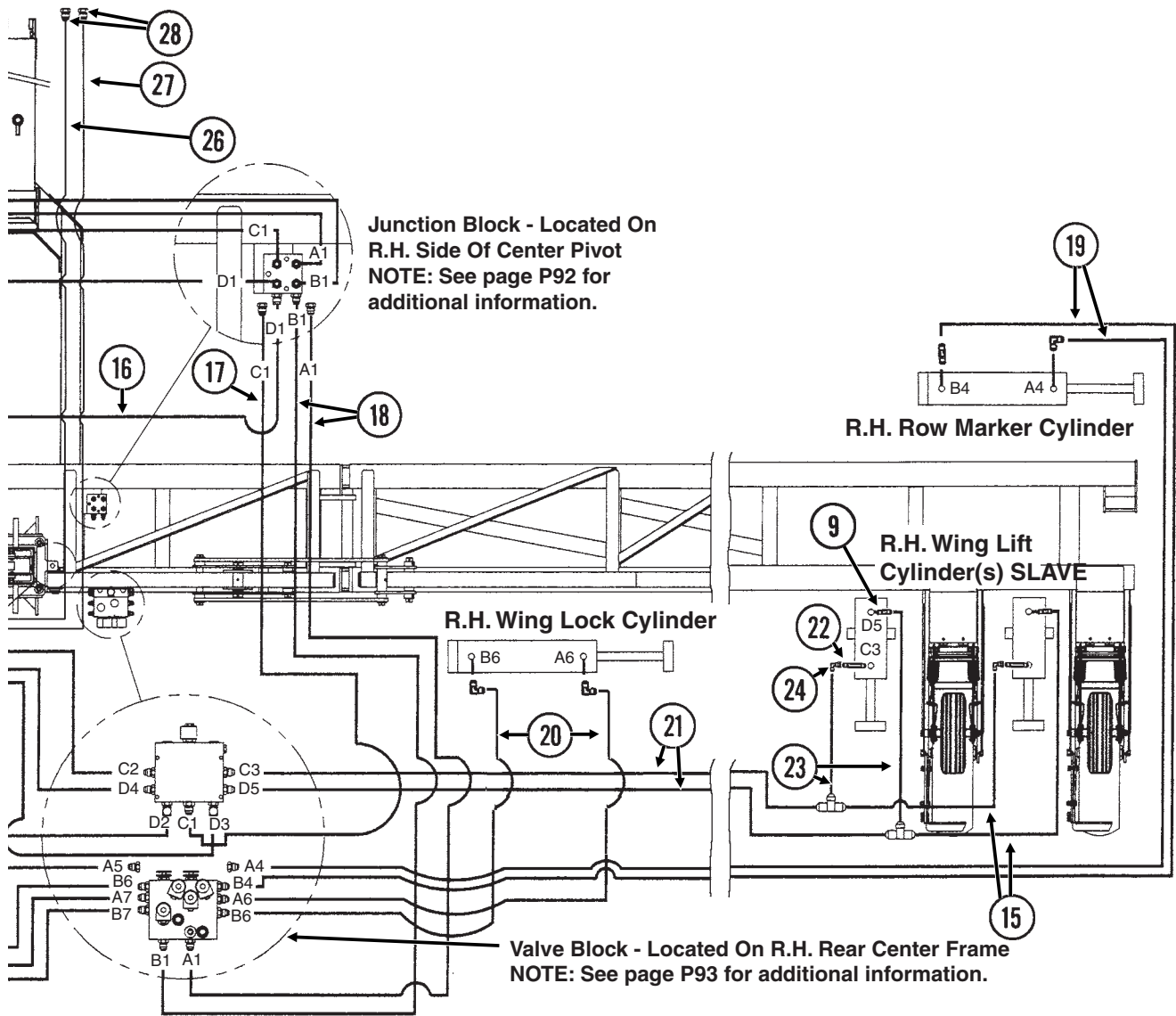


ITEM	PART NO.	QTY.	DESCRIPTION
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1.	*A3141	2	Hose Assembly, 3/8" x 260", 8 Row 36"/38"
	*A1034	2	Hose Assembly, 3/8" x 272", 12 Row 30"
	*A3106	2	Hose Assembly, 3/8" x 318", 12 Row 36"/38"
	*A3181	2	Hose Assembly, 3/8" x 332", 16 Row 30"
2.	G6801-08	6	Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
3.	G6400-08-04	2	Connector W/O-Ring, 3/4"-16 Male JIC To 7/16"-20 O-Ring
	GR1465	-	O-Ring
4.	*A1460	2	Hose Assembly, 1/2" x 62", 8 Row 36"/38" And 12 Row 36"/38"
	*A8267	2	Hose Assembly, 1/2" x 58", 12 Row 30" And 16 Row 30"
5.	*A3152	2	Hose Assembly, 3/8" x 62", 8 Row 36"/38" And 12 Row 36"/38"
	*A3127	2	Hose Assembly, 3/8" x 58", 12 Row 30" And 16 Row 30"
6.	G2603-08	4	Tee, 3/4"-16 Male JIC, 16 Row 30"
7.	*A1093	2	Hose Assembly, 3/8" x 230", 8 Row 36"/38"
	*A1033	2	Hose Assembly, 3/8" x 250", 12 Row 30"
	*A3185	2	Hose Assembly, 3/8" x 284", 12 Row 36"/38"
	*A1034	2	Hose Assembly, 3/8" x 272", 16 Row 30"
8.	*A1055	2	Hose Assembly, 3/8" x 66"
9.	G6400-08	8	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
10.	*A3131	1	Hose Assembly, 3/8" x 42"
11.	G2703-10	1	Bulkhead Tee, 7/8"-14 Male JIC
12.	G2406-10-08	2	Reducer, 7/8"-14 Female JIC To 3/4"-16 Male JIC
13.	*A1076	2	Hose Assembly, 3/8" x 30"
14.	*A3128	1	Hose Assembly, 3/8" x 52"
15.	*A1018	4	Hose Assembly, 3/8" x 40", 16 Row 30"



# HYDRAULIC HOSES AND FITTINGS ON PLANTER FRAME

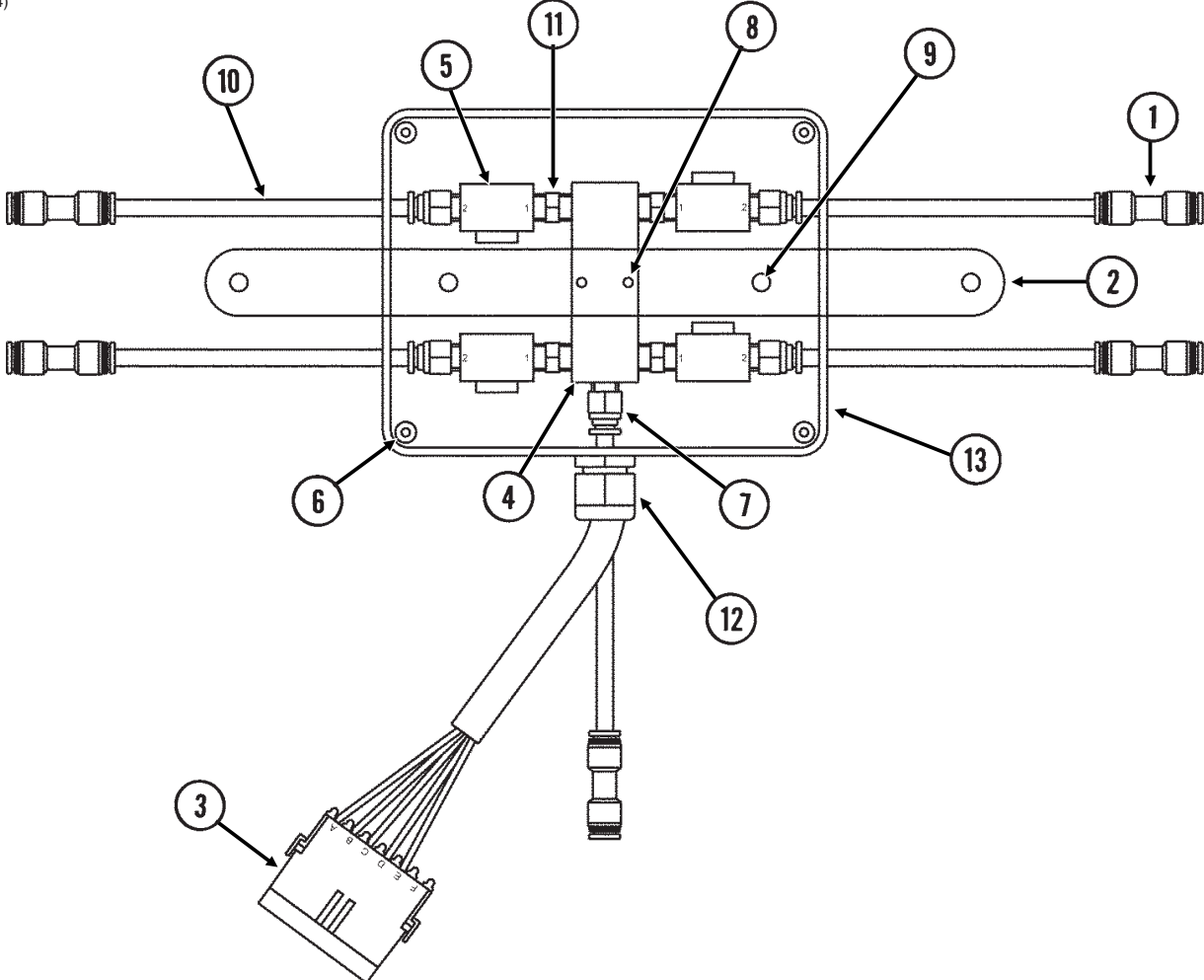


ITEM	PART NO.	QTY.	DESCRIPTION
16.	*A1404	1	Hose Assembly, 1/2" x 41"
17.	*A1424	1	Hose Assembly, 1/2" x 30"
18.	*A1076	2	Hose Assembly, 3/8" x 30"
19.	*A1054	2	Hose Assembly, 3/8" x 204", 8 Row 36"/38"
	*A3163	2	Hose Assembly, 3/8" x 225", 12 Row 30"
	*A1036	2	Hose Assembly, 3/8" x 280", 12 Row 36"/38"
	*A1097	2	Hose Assembly, 3/8" x 288", 16 Row 30"
20.	*A1076	2	Hose Assembly, 3/8" x 30"
21.	*A3101	2	Hose Assembly, 3/8" x 168", 8 Row 36"/38"
	*A1028	2	Hose Assembly, 3/8" x 186", 12 Row 30"
	*A1031	2	Hose Assembly, 3/8" x 234", 12 Row 36"/38"
	*A1057	2	Hose Assembly, 3/8" x 216", 16 Row 30"
22.	G6400-L-08	-	Long Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
23.	*A3122	4	Hose Assembly, 3/8" x 10 1/2", 16 Row 30"
24.	G6500-08	-	Swivel Elbow, 90°, 3/4"-16 Male JIC To Female
25.	G2703-08-08-10	1	Bulkhead Tee 7/8"-14 Male JIC To 3/4"-16 JIC
26.	GA12044	1	Hose Assembly, 3/8" x 510", 12 Row 30" (If Applicable)
	GA12045	1	Hose Assembly, 3/8" x 570", 16 Row 30" (If Applicable)
27.	GA8286	1	Hose Assembly, 1/2" x 510", 12 Row 30" (If Applicable)
	GA8298	1	Hose Assembly, 1/2" x 570", 16 Row 30" (If Applicable)
28.	GD4086	2	ISO Coupler (If Applicable)

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

# VALVE BOX MODULE

(A12554)



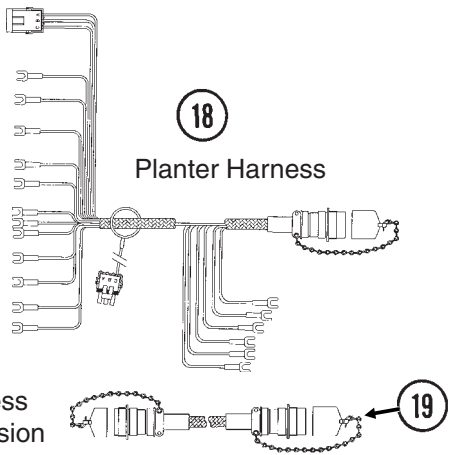
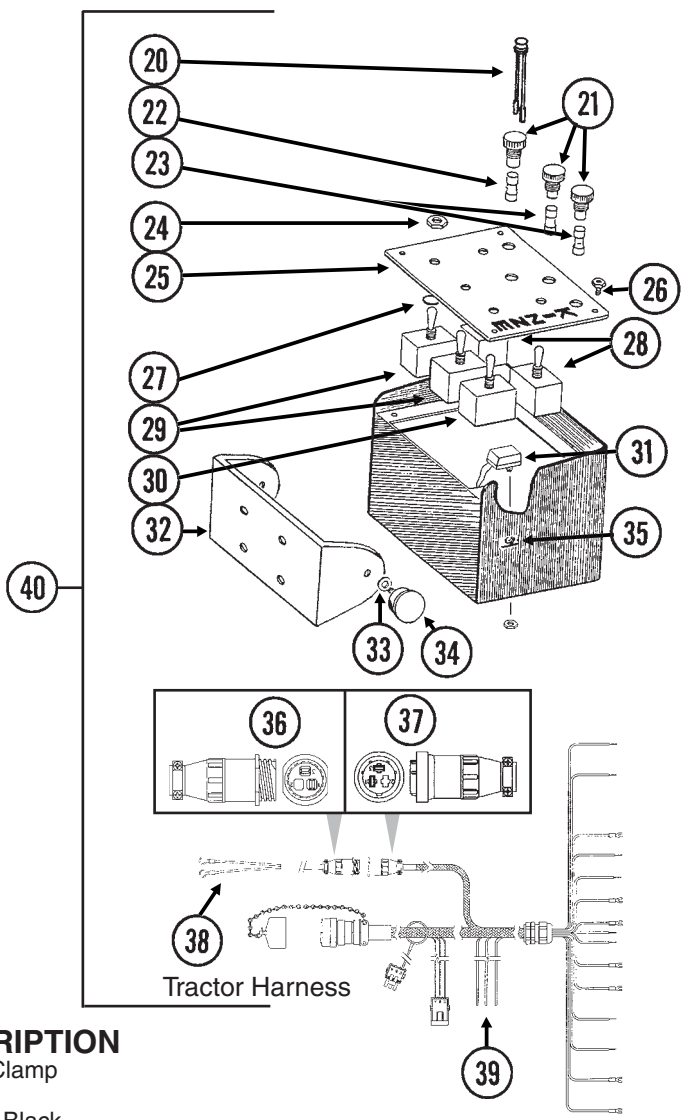
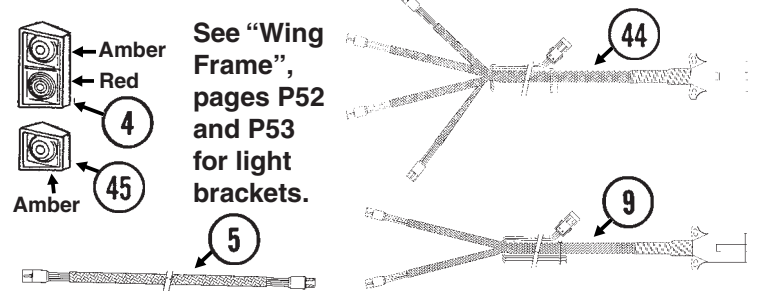
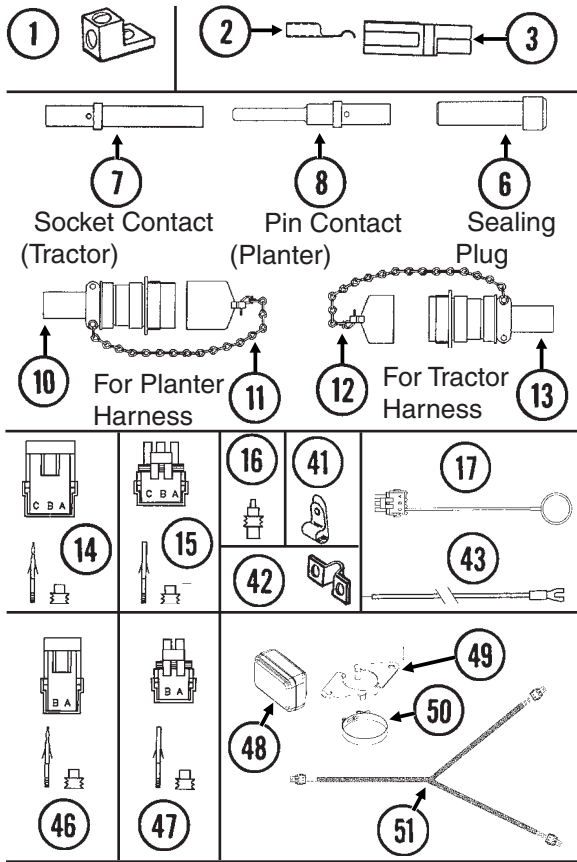
# VALVE BOX MODULE

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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD18395	5	Straight Union, 1/4"
2.	GD18389	1	Strap
3.	GA12861	1	Valve Box Harness
4.	GA12865	1	Manifold
5.	GA12866	4	Valve
6.	G11243	4	Slotted Flat Head Machine Screw, No. 8-32 x 1/2", Stainless Steel
7.	GD18085	5	Male Connector, 1/4"
8.	G11244	2	Slotted Flat Head Machine Screw, No. 10-24 x 1 1/2", Stainless Steel
	G10395	2	Hex Nut, No. 10-24
9.	G10022	2	Hex Head Cap Screw, 1/4"-20 x 1/2"
	G10110	2	Lock Nut, 1/4"-20, Grade B
10.	GD17151-05	5	Nylon Tube, 1/4" O.D. x 5" Long
11.	GD18398	5	Hex Nipple, 1/8" Pipe
12.	GA9963	1	Strain Relief
13.	GD18437	1	Valve Box Cover
A.	GA12554	-	Valve Box Module Assembly, (Items 1-13)

# ELECTRICAL COMPONENTS

(TWL19a/TWL18/ELC14/ELC3a/ELC5c/MTR27a/ELC39/TWL26e/ELC8/A9481/ELC12b/MTR27i/A9689b/A10924ELC4/FF27b/FF27c/ELC38/A9201a/A9202a/TWL20g/ELC34/ELC35/ELC10c)



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.	GA9096	-	Harness Extension, 42"
6.	GD8739	-	Sealing Plug, No. 12
7.	GD8740	-	Socket Contact, No. 14
8.	GD8741	-	Pin Contact, No. 14

# ELECTRICAL COMPONENTS

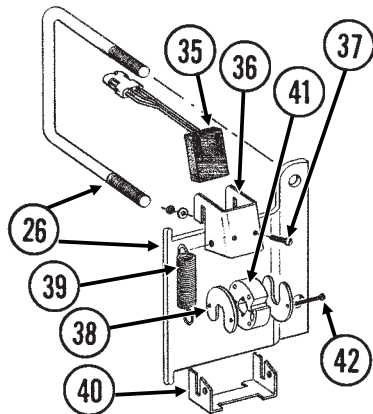
ITEM	PART NO.	QTY.	DESCRIPTION
9.	GA9202	-	Wiring Harness W/7 Terminal Female Connector, 786" (2 Light Connections), 12 Row 30"
	GA9204	-	Wiring Harness W/7 Terminal Female Connector, 882" (2 Light Connections), 16 Row 30"
	GA5385	-	7 Terminal Female Connector
10.	GA6109	1	Connector W/Cable Clamp, 23 Pin Capacity
11.	GA7862	-	Dust Cap W/Chain
12.	GA7863	-	Dust Cap W/Chain
13.	GA6108	1	Connector W/Cable Clamp, 23 Socket Capacity
14.	G1K248	-	3-Pin Female Connector Kit (Black), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
15.	G1K252	-	3-Pin Male Connector Kit (Black), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
16.	GD11089	-	Sealing Plug
17.	GA8047	-	Dust Plug (Black)
18.	GA9112	1	Wiring Harness W/Dust Cap, 500", 8 Row 36"/38" And 12 Row 30"
	GA9113	-	Wiring Harness W/Dust Cap, 612", 12 Row 36"/38" And 16 Row 30"
19.	GA7399	-	Harness Extension W/Dust Caps, 180"
20.	GA7077	1-4	Indicator Light
21.	GA2612	3-5	Fuse Holder W/Spade, 1 <sup>33</sup> / <sub>50</sub> "
22.	GD2829	1-2	Fuse, 15 Amp, Type AGC
23.	GD10243	2-6	Fuse, MDL 10 Amp Delay Action
24.	GR1363	5	Hex Face Nut, <sup>15</sup> / <sub>32</sub> "-32
	GR1364	5	Internal Tooth Lock Washer, <sup>15</sup> / <sub>32</sub> "
25.	GA8734	1	Cover Plate (Shown)
	GA8735	-	Cover Plate, Planters Equipped With Two-Speed Point Row Clutch
26.	GR1292	4	Hex Socket Button Head Cap 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	-	Console Cable 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	Wiring Harness W/Dust Cap And Power Cable
40.	G7633X	-	Backlit Control Console Assembly W/Mounting Brackets, Short Harness W/Dust Cap And Power Cable
	G7639X	-	Backlit Control Console Assembly W/Mounting Brackets, Short Harness W/Dust Cap And Power Cable, Planters Equipped With Two-Speed Point Row Clutches
41.	GD6291	-	Insulated Clamp, 3/8"
	GD13348	-	Insulated Clamp, <sup>11</sup> / <sub>16</sub> "
42.	GD13310	-	Jumper, 7/16"
43.	GA9481	-	Jumper Wire W/Fork Terminal, 13"
	G10996	-	Fork Terminal
44.	GA9201	1	Wiring Harness W/7 Terminal Female Connector, 714" (4 Light Connections), 8 Row 36"/38"
	GA9203	-	Wiring Harness W/7 Terminal Female Connector, 870" (4 Light Connections), 12 Row 36"/38"
	GA5385	-	7 Terminal Female Connector
45.	GA6701	1	Single Amber Light Assembly
	GR1204	-	Amber Lens
	GR1206	-	Rubber Grommet (2)
	GR1207	-	Lamp Unit
	GR1208	-	Bulb
46.	G1K321	-	2-Pin Female Connector Kit (Black), Includes: (3) 2-Pin Female Housings, (6) Pin Contacts, (6) Seals
47.	G1K320	-	2-Pin Male Connector Kit (Black), Includes: (3) 2-Pin Male Housings, (6) Socket Contacts, (6) Seals
48.	GA9689	2	Work Light Assembly
49.	GD16046	2	Bracket, 4 1/4" x 4"
50.	G11159	1-2	T-Bolt Clamp, 3 1/2", Stainless Steel
51.	GA10924	1	Wiring Harness, 348"

NOTE: See "Point Row Clutch" or "Two-Speed Point Row Clutch" for R.H. and L.H. Wiring Harness for the point row clutches.

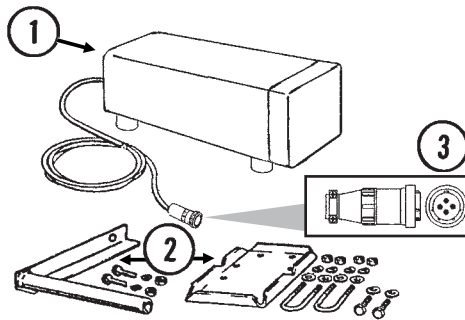
# KPM III ELECTRONIC SEED MONITOR

(MTR59)

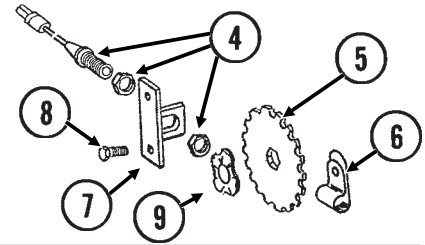
## Shaft Rotation Sensor



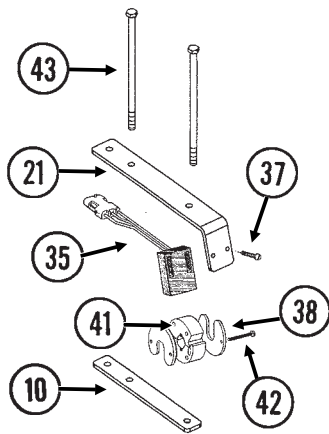
## Radar Distance Sensor



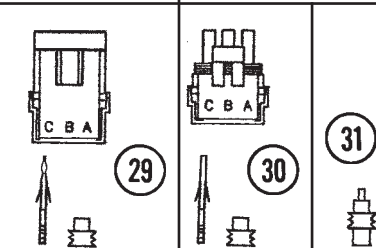
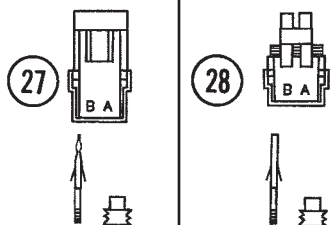
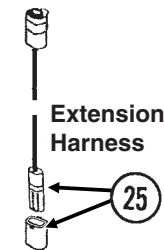
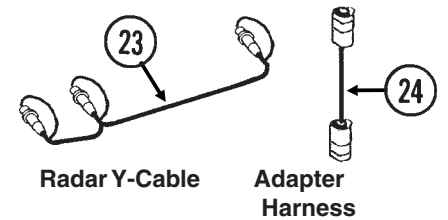
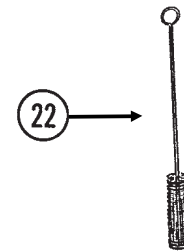
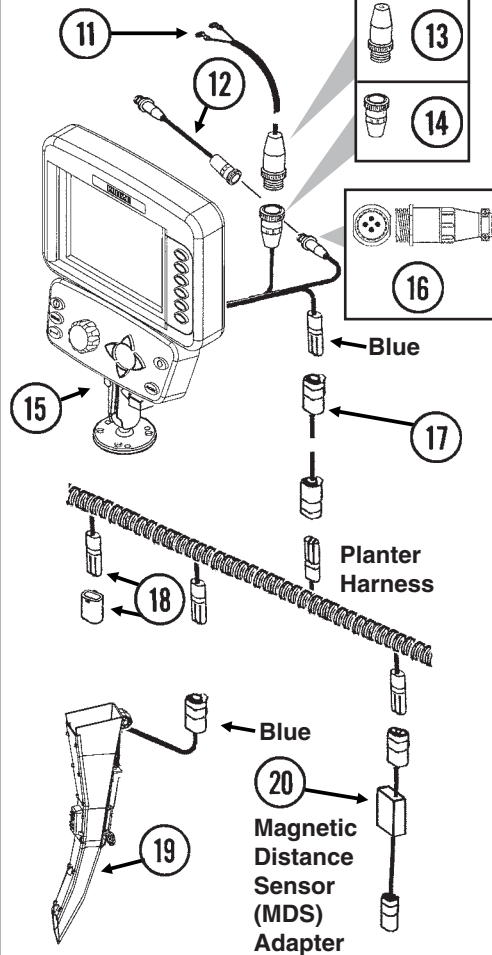
## Magnetic Distance Sensor (MDS)



## Shaft Rotation Sensor



## Power Lead Adapter



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

P106

Rev. 7/09

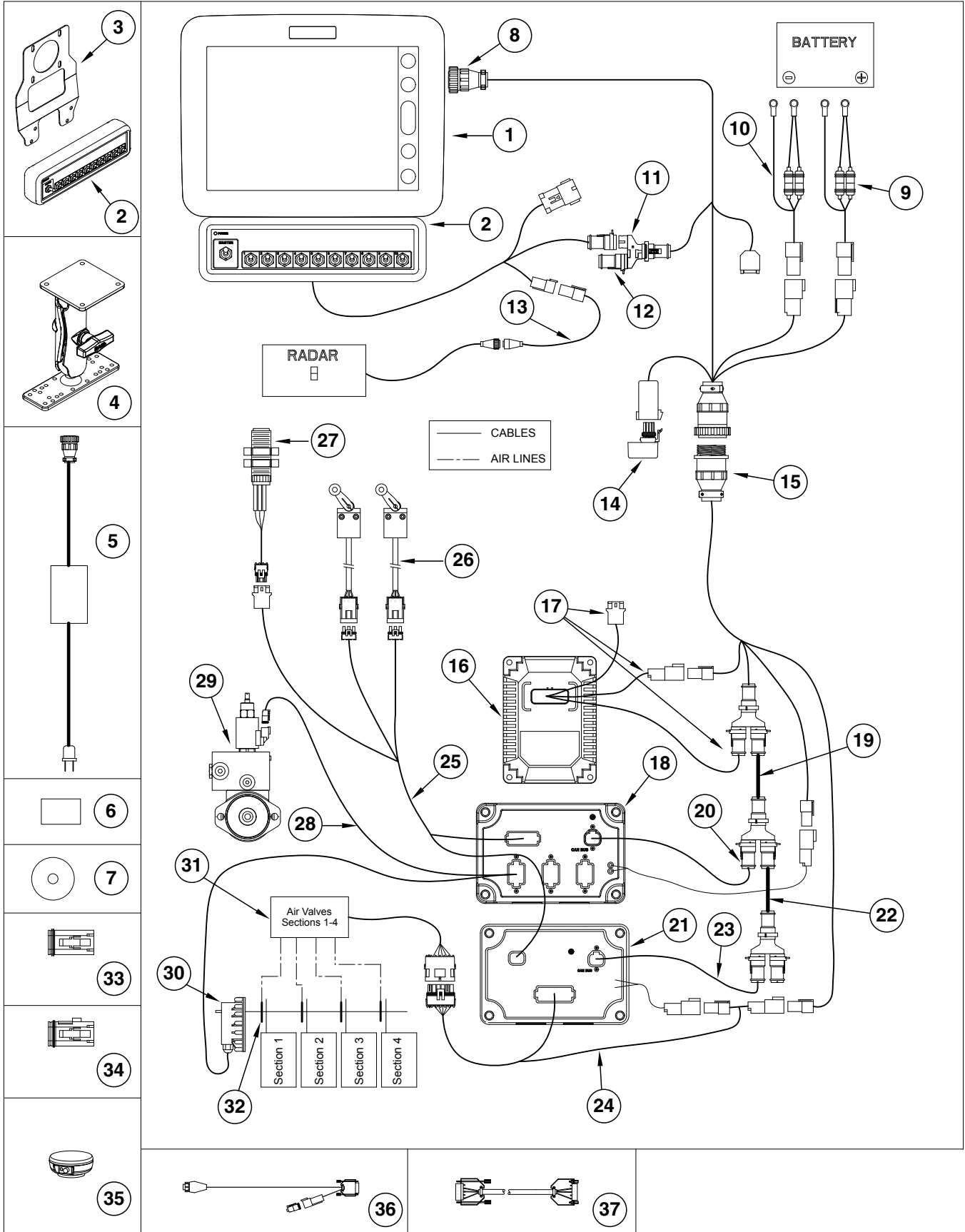


# KPM III ELECTRONIC SEED MONITOR

ITEM	PART NO.	QTY.	DESCRIPTION
10.	GD18168	2	Mount
11.	GA7856	1	Power Lead Adapter
12.	GA9144	-	Monitor/Radar Adapter Cable, 10"
13.	G1K267	-	Console Cable Connector Kit, Includes: (1) Cable Clamp, (1) 3-Pin Connector, (3) Male Terminal Pins
14.	G1K268	-	Console Cable Connector Kit, Includes: (1) Cable Clamp, (1) 3-Pin Connector, (1) Lock Ring, (3) Female Terminal Pins
15.	GA11039	-	KPM III Backlit Console W/Brush (Item 22), Dust Plug (Item 33), Mounting Bracket Assembly, Console Mounting Bracket Hardware And Power Harness
	GA12403	-	Mounting Bracket Assembly, Includes: (2) Mounting Brackets, (2) Connector Halves, (1) Compression Spring, (1) Tension Knob, (1) 1/4"-20 x 1 3/4" Hex Head Cap Screw, (1) 1/4" Plastic Washer, (1) 1/4" Steel Washer
	GR1762	-	Console Mounting Bracket Hardware Package, Includes: (3) No. 10-32 x 5/8" Hex Socket Pan Head Screws, (3) No. 10 Lock Washers
	GR1764	-	Power Harness
16.	G1K322	-	4-Pin Connector Kit W/Male Housing, Includes: (4) Female Socket Contacts And (1) Cable Clamp
17.		-	See Tractor/Planter Wiring Harness, Items 18 And 39 On Pages P104 And P105
18.	GA8022	-	Planter Harness W/Dust Caps, 6 Row (9 Connectors)
	GA7850	-	Planter Harness W/Dust Caps, 8 Row (12 Connectors)
	GA7851	-	Planter Harness W/Dust Caps, 12 Row (16 Connectors)
	GA7852	-	Planter Harness W/Dust Caps, 16 Row (20 Connectors)
	GD11993	-	Dust Cap
19.	GA10901	-	Seed Tube W/Computerized Sensor
	GR1629	-	Sensor Only
	GA10940	-	Seed Tube (With Holes For Sensor Installation)
20.	GA7859	1	Magnetic Distance Sensor Adapter (Analog To Digital)
21.	GD18118	2	Shaft Sensor Mount
22.	GR0594	-	Brush
23.	GR0586	1	Radar Y-Cable (Used To Connect Radar Distance Sensor For Multiple Functions)
24.	GA7857	-	Adapter Harness, 1'
25.	GA7854	-	Extension Harness W/Dust Cap, 15'
	GA7855	-	Extension Harness W/Dust Cap, 30'
	GD11993	-	Dust Cap
26.	G1K364	-	Rotation Sensor Mount Kit, Includes: (2) Mounts, (2) GD11721 5" x 7" U-Bolts, (4) G10228 Lock Washers, (4) G10102 Hex Nuts, (1) Instruction
27.	G1K321	-	2-Pin Female Connector Kit (Black), Includes: (3) 2-Pin Female Housings, (6) Pin Contacts, (6) Seals
28.	G1K320	-	2-Pin Male Connector Kit (Black), Includes: (3) 2-Pin Male Housings, (6) Socket Contacts, (6) Seals
29.	G1K248	-	3-Pin Female Connector Kit (Black), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
	G1K362	-	3-Pin Female Connector Kit (Blue), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
30.	G1K252	-	3-Pin Male Connector Kit (Black), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
	G1K363	-	3-Pin Male Connector Kit (Blue), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
31.	GD11089	-	Sealing Plug
32.	G1K249	-	Acre Counter Switch Kit
33.	GA8046	-	Dust Plug (Black)
	GA9978	-	Dust Plug (Blue)
34.	GA8047	-	Dust Plug (Black)
	GA9979	-	Dust Plug (Blue)
35.	GR1415	1	Rotation Sensor
36.	GD11169	1	Mount
37.	G10757	2	Pan Head Screw, No. 10-32 x 1 1/4"
	G10243	2	Washer, No. 10 SAE
	G10758	2	Hex Nut, No. 10-32
38.	GD11474	2	Cover
39.	GD5857	2	Spring
40.	GD11170	1	Spring Mount
41.	GR1414	1	Actuator
42.	G10927	2	Pan Head Machine Screw, No. 8-32 x 1 1/4", Stainless Steel
	G10931	2	Lock Washer, No. 8, Internal/External, Stainless Steel
	G10928	2	Hex Nut, No. 8-32, Stainless Steel
43.	G10686	4	Hex Head Cap Screw, 3/8"-16 x 8"
	G10229	4	Lock Washer, 3/8"
	G10101	4	Hex Nut, 3/8"-16
A.	GA6147	-	Magnetic Distance Sensor And Mounting Package (Items 4-9)

# KINZE VISION® DISPLAY

(IP1046)





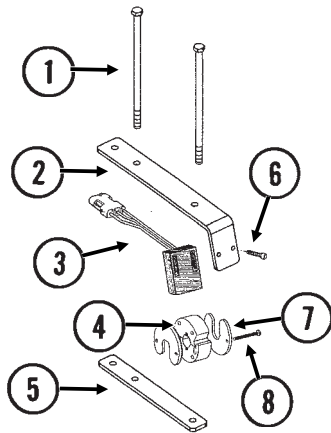
# KINZE VISION® DISPLAY

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA12536	1	Vision Loaner (Display Only)
2.	GA12539	1	Switch Box Module
3.	GR1916	1	Switch Box Bracket
4.	GA12868	1	Mounting Bracket Assembly
	GD18407	1	Ram Base
	GD18408	1	Ram Vesa Base
5.	GA12852	1	Power Supply
6.	GR1835	1	Flash Card
7.	GR1836	1	SMS CD
8.	GA12551	1	Display Cable
9.	GA12562	1	Power Cable
10.	GA12598	1	Seed Rate Power Cable
11.	GD18176	3	Y-Splice Connector
12.	GD18177	2	Terminator
13.	GA12596	1	Radar Adapter Cable
14.	GA12540	1	Power Control Relay
15.	GA12655	1	Implement Cable, 16 Row
	GA12555	1	Implement Cable, 12 Row
16.	GA12538	1	Planter Monitor Module
17.	GA12557	1	Planter Monitor Module Cable
18.	GA12564	1	Seed Rate Control Module
19.	GA12567	1	Can Extension Cable, 4" (Hydraulic Drive)
20.	GA12566	1	Can Stub Cable, 6" (Hydraulic Drive)
21.	GA12537	1	Clutch Control Module
22.	GA12559	1	Can Extension Cable, 5"
23.	GA12558	1	Can Stub Cable, 8"
24.	GA12556	1	Seed Command Cable
25.	GA12560	1	Implement Switch Extension Cable
26.	GA13593		See "Shank Assembly, Seed Tube and Depth Adjustment", Pages P4 and P5
27.	GA13204	1	Hall Effect Sensor
28.	GA12568	1	Seed Rate Cable
29.			See "Valve Block - Located On R.H. Rear Center Frame (Mechanical)" Page P114, Or "Valve Block Located On R.H. Rear Center Frame (EdgeVac®)", Page 115
30.	GA12565	1	Encoder Module
31.			See "Clutch Valve Assembly", Page P119
32.			See "Pneumatic Down Pressure and Pull Row Unit Air Clutch", Pages P6 and P7
33.	GR1838	1	Dust Plug
34.	GR1839	1	Dust Plug
35.	GA12552	1	GPS Antenna
36.	GA12553	1	GPS Cable
37.	GA12853	1	Null Modem Cable
A.	G8266x	-	Vision Display Package (Items 1-5)

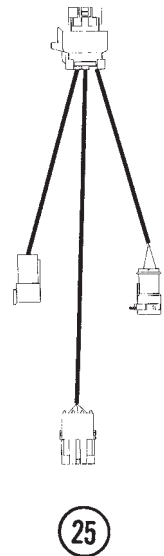
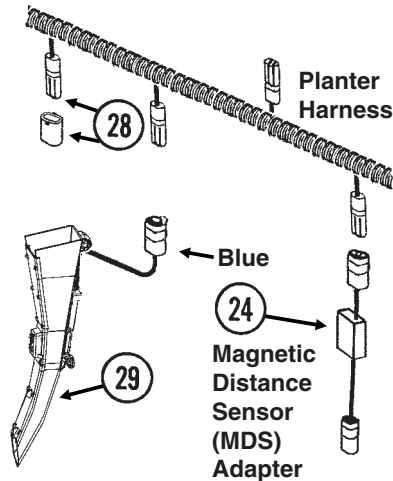
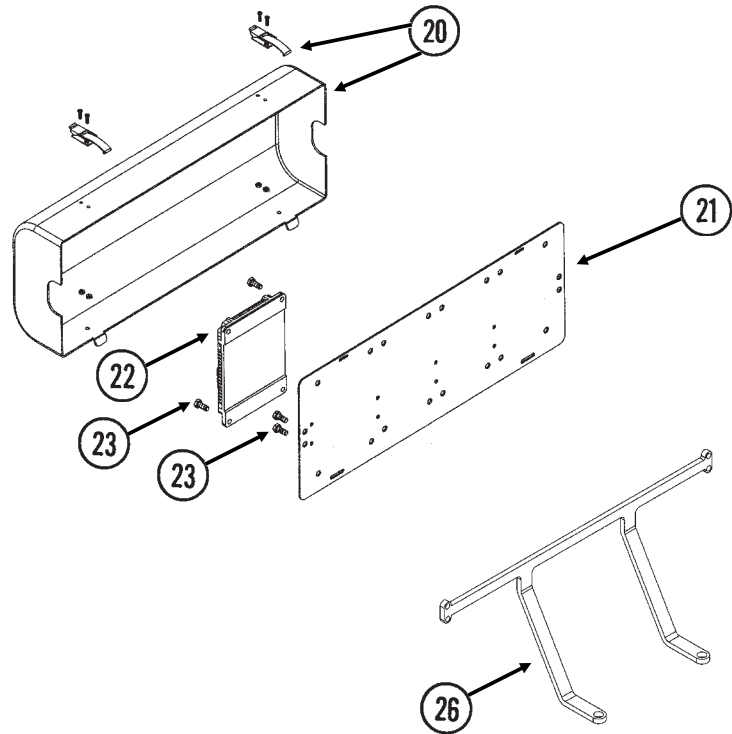
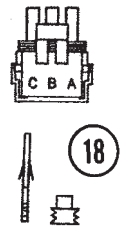
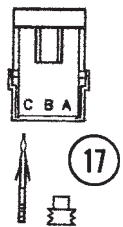
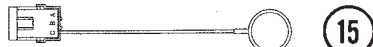
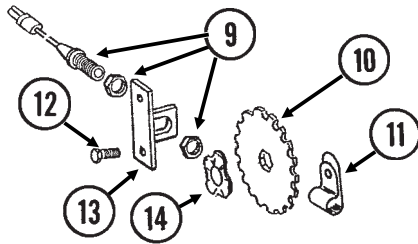
# PLANTER MONITOR MODULE (PMM)

(MTR60/MTR63/PMM01/MTR65/MTR61/MTR64/MTR62/PMM03)

## Shaft Rotation Sensor



## Magnetic Distance Sensor (MDS)



ITEM	PART NO.	QTY.	DESCRIPTION
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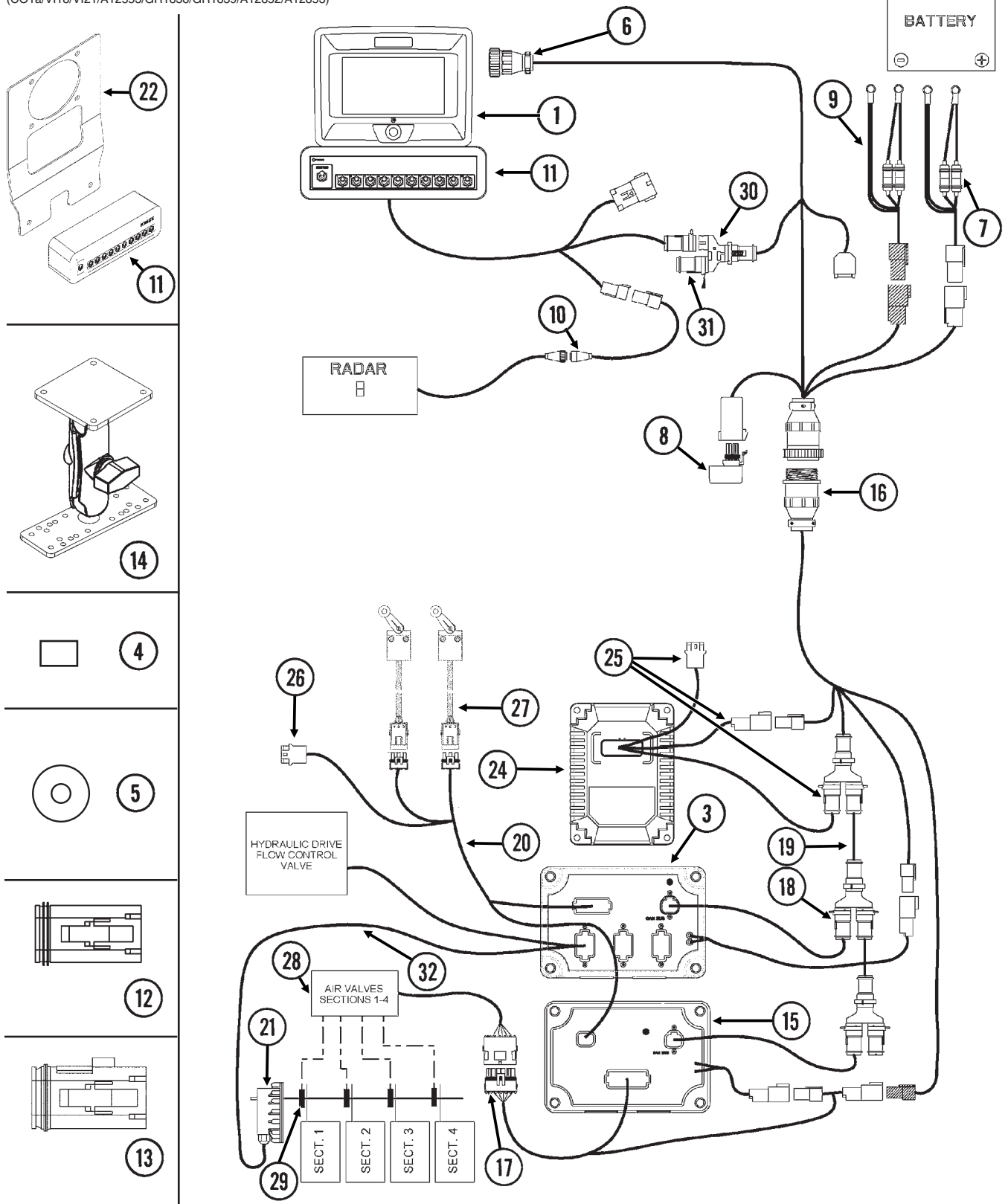
1.	G10686	4	Hex Head Cap Screw, 3/8"-16 x 8"
	G11091	4	Serrated Flange Nut, 3/8"-16
2.	GD18118	2	Shaft Sensor Mount
3.	GR1415	1	Rotation Sensor
4.	GR1414	1	Actuator
5.	GD18168	2	Mount

# PLANTER MONITOR MODULE (PMM)

ITEM	PART NO.	QTY.	DESCRIPTION
6.	G11288	2	Pan Head Screw, No. 10-32 x 1 1/2"
	G10243	2	Washer, No. 10 SAE
	G10758	2	Hex Nut, No. 10-32
7.	GD11474	2	Cover
8.	G10927	2	Pan Head Machine Screw, No. 8-32 x 1 1/4", Stainless Steel
	G10931	2	Lock Washer, No. 8, Internal/External, Stainless Steel
	G10928	2	Hex Nut, No. 8-32, Stainless Steel
9.	GA5600	1	Magnetic Distance Sensor
10.	GD8751	-	Magnetic Distance Sensor Pulse Wheel
11.	GD6291	-	Insulated Clamp, 3/8"
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
13.	GD8770	1	Bracket
14.	GD8771	1	Spring Wave Washer
15.	GA8046	-	Dust Plug (Black)
	GA9978	-	Dust Plug (Blue)
16.	GA8047	-	Dust Plug (Black)
	GA9979	-	Dust Plug (Blue)
17.	G1K248	-	3-Pin Female Connector Kit (Black), Includes: (3) 3-Pin Female Housings,, (9) Pin Contacts, (9) Seals
	G1K362	-	3-Pin Female Connector Kit (Blue), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
18.	G1K252	-	3-Pin Male Connector Kit (Black), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
	G1K363	-	3-Pin Male Connector Kit (Blue), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
19.	GD11089	-	Sealing Plug
20.	GA12563	1	Module Cover Assembly W/Lock Clamps
	GD18642	1	Module Cover
	GA12641	-	Lock Clamp
	G11065	-	Phillips Pan Head Machine Screw, No. 8-32 x 5/8", Stainless Steel
	G11241	-	Serrated Flange Nut
21.	GD18013	1	Bracket
22.	GA12538	1	Planter Monitor Module
23.	G10043	6	Hex Head Cap Screw, 5/16"-18 x 3/4"
	G10232	6	Lock Washer, 5/16"
	G10106	6	Hex Nut, 5/16"-18
24.	GA7859	1	Magnetic Distance Sensor Adapter (Analog To Digital)
25.	GA12557	1	Planter Monitor Module Cable
26.	GD19295	2	Support
	G10019	6	Hex Head Cap Screw, 5/16"-18 x 1"
	G10232	6	Lock Washer, 5/16"
	G10106	6	Hex Nut, 5/16"-18
27.	GR0594	-	Brush
28.	GA8022	-	Planter Harness W/Dust Caps, 6 Row (9 Connectors)
	GA7850	-	Planter Harness W/Dust Caps, 8 Row (12 Connectors)
	GA7852	-	Planter Harness W/Dust Caps, 12 Row (20 Connectors)
	GA8050	-	Planter Harness W/Dust Caps, 16 Row (22 Connectors)
	GD11993	-	Dust Cap
29.	GA10901	-	Seed Tube W/Computerized Sensor
	GR1629	-	Sensor Only
	GA10940	-	Seed Tube (With Holes For Sensor Installation)
A.	GA6147	-	Magnetic Distance Sensor And Mounting Package (Items 9-14)

# KINZE COBALT™ DISPLAY

(CO1a/VI18/VI21/A12553/GR1838/GR1839/A12852/A12853)



# KINZE COBALT™ DISPLAY

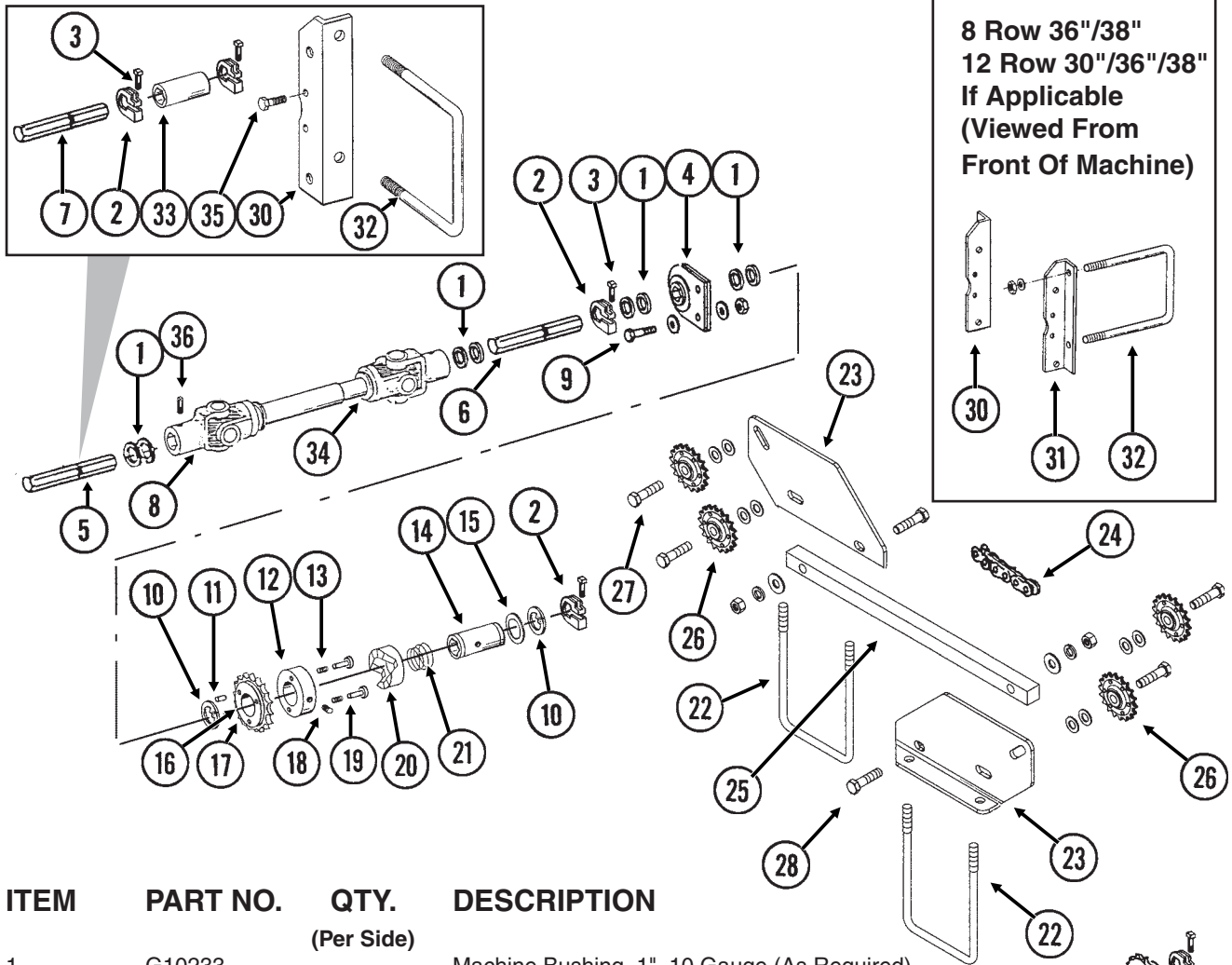
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	*GA13554	1	Cobalt Display
2.	GA12852	1	Power Supply
3.	GA12564	1	Seed Rate Module
4.	GR1835	1	Flash Card
5.	GR1836	1	SMS CD
6.	GA12551	1	Display Cable
7.	GA12562	1	Power Cable
8.	GA12540	1	Power Control Relay
9.	GA12598	1	Seed Rate Power Cable
10.	GA12596	1	Radar Adapter Cable
11.	GA12539	1	Switch Box Module
12.	GR1838	1	Dust Plug
13.	GR1839	1	Dust Plug
14.	GA12868	1	Mounting Bracket Assembly
	GD18407	1	Ram Base
	GD18408	1	Ram Vesa Base
15.	GA12537	1	Clutch Control Module
16.	GA12555	1	Implement Cable (12 Row)
	GA12655	-	Implement Cable (16 Row)
17.	GA12556	1	Seed Command Cable
18.	GA12558	1	Can Stub Cable, 8"
19.	GA12559	1	Can Extension Cable, 5"
20.	GA12560	1	Implement Switch Extension Cable
21.	GA12565	1	Encoder Module
22.	GR1916	1	Switch Box Bracket
24.		-	See "Planter Monitor Module (PMM)", Pages P110 And P111
25.		-	See "Planter Monitor Module (PMM)", Pages P110 And P111
26.	GA13204	1	Hall Effect Sensor
27.	GA13580	2	See "Shank Assembly, Seed Tube And Depth Adjustment", Pages P2 And P3
28.			See "Center Frame", Pages P52 And P53
29.			See "Pneumatic Down Pressure Package Option", Pages P4 And P5 And "Interplant Push Row Unit, Air Clutch Package", Pages P40 And P41
30.	GD18176	-	Y-Splice Connector
31.	GD18177	-	Terminator
32.	GA12568	1	Seed Rate Cable

\*See alternate view for mounting bracket.

# INTERPLANT® PUSH ROW UNIT DRIVE

(RU134/TWL516)



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Side)	
1.	G10233	-	Machine Bushing, 1", 10 Gauge (As Required)
2.	GD11045	-	Lock Clamp
3.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
4.	GA2180	-	Hanger Bearing, 7/8" Hex Bore
5.	GD0914-55	1	Hex Shaft, 7/8" x 55" (No Holes), R.H. Side, 8 Row 36"/38"
	GD0914-84	1	Hex Shaft, 7/8" x 84" (No Holes), L.H. Side, 8 Row 36"/38"
	GD0914-48	-	Hex Shaft, 7/8" x 48" (No Holes), R.H. Side, 12 Row 30" And 16 Row 30"
	GD0914-66	-	Hex Shaft, 7/8" x 66" (No Holes), L.H. Side, 12 Row 30" And 16 Row 30"
	GD0914-55	-	Hex Shaft, 7/8" x 55" (No Holes), R.H. Side, 12 Row 36"/38"
	GD0914-84	-	Hex Shaft, 7/8" x 84" (No Holes), L.H. Side, 12 Row 36"/38"
6.	GD0914-49	1	Hex Shaft, 7/8" x 49" (No Holes), Both Sides, 8 Row 36"/38"
	GD0914-90	-	Hex Shaft, 7/8" x 90" (No Holes), Both Sides, 12 Row 30"
	GD0914-108	-	Hex Shaft, 7/8" x 108" (No Holes), Both Sides, 12 Row 36"/38"
	GD0914-124	-	Hex Shaft, 7/8" x 124" (No Holes), R.H. Side, 16 Row 30"
	GD0914-138	-	Hex Shaft, 7/8" x 138" (No Holes), L.H. Side, 16 Row 30"
7.	GD0914-24	-	Hex Shaft, 7/8" x 24" (No Holes), 12 Row 30" W/Even-Row Push Row Unit
	GD0914-33	-	Hex Shaft, 7/8" x 33" (No Holes), 16 Row 30" W/Even-Row Push Row Unit
8.	GA7053	1	U-Joint W/Grease Fitting, Female, 18 1/8" Long, 8 Row 36"/38" And 12 Row 36"/38"
	GA7052	-	U-Joint W/Grease Fitting, Female, 10 1/4" Long, 12 Row 30" And 16 Row 30"
	GR1557	-	Grease Fitting, 45°, Metric
	GR1297	-	Inboard Yoke And Outer Profile (10 1/4" U-Joint)
	GR1298	-	Inboard Yoke And Outer Profile (18 1/8" U-Joint)
	GR1294	-	Cross And Bearing Kit
	GR1293	-	Yoke, 7/8" Hex

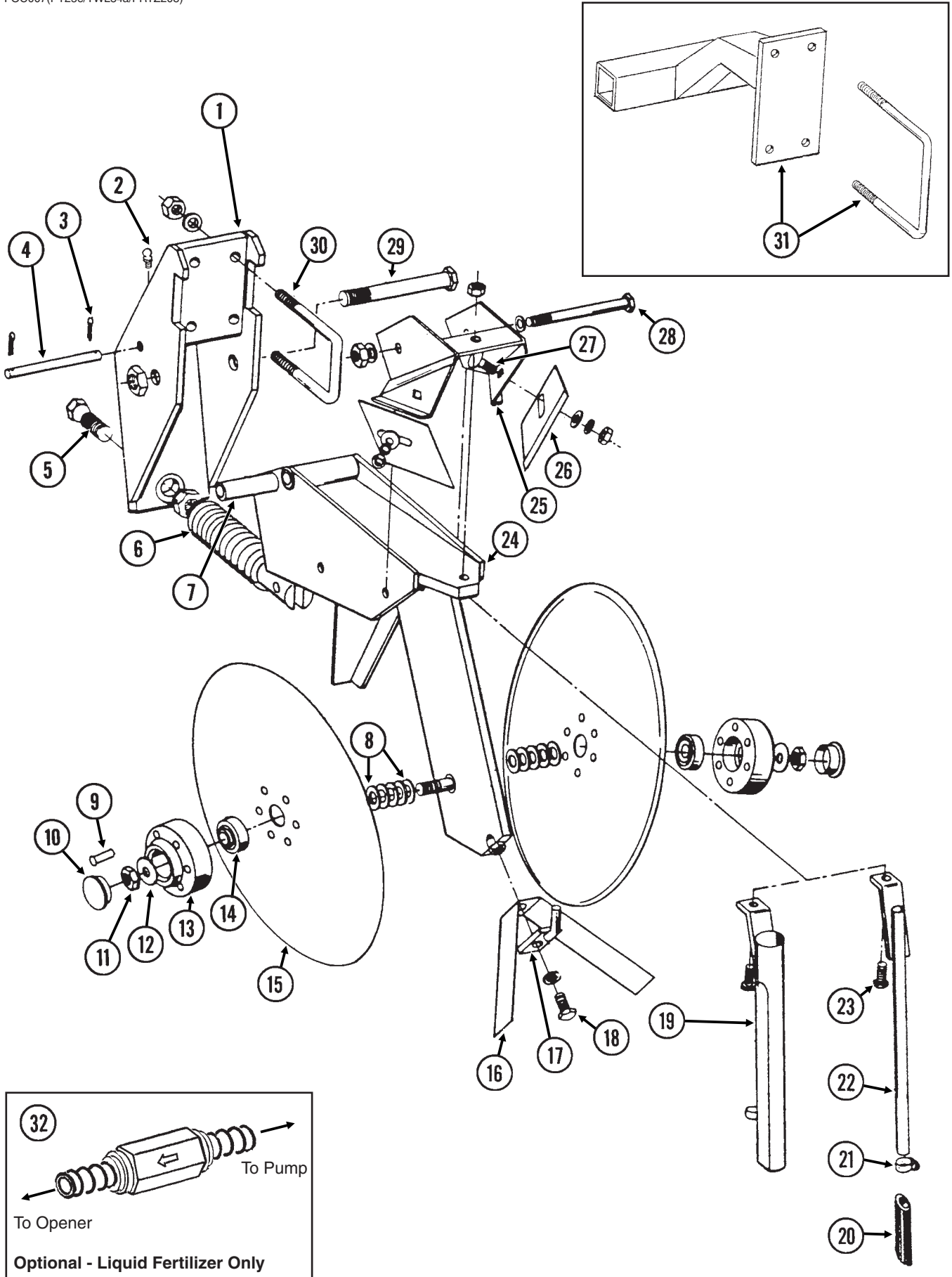
# INTERPLANT® PUSH ROW UNIT DRIVE

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Side)	
9.	G10004	-	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"
	G10101	-	Hex Nut, 3/8"-16
10.	G10496	2	External Inverted Snap Ring, 1 1/2"
11.	G10968	1	Spring Pin, 5/32" x 7/16"
12.	GR1405	1	Lock Collar
13.	GR1413	1	Spring
14.	GR1407	1	Drive Shaft
15.	GR1411	1	Shim
16.	GR1406	1	Bushing
17.	GR1412	1	Sprocket, 19 Tooth
18.	G10535	1	Hex Socket Set Screw, 3/8"-16 x 3/4"
19.	GR1410	1	Pin
20.	GR1409	1	Knurled Collar
21.	GR1408	1	Compression Spring
22.	GD8306	2	U-Bolt, 7" x 5" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
23.	GD18094	2	Plate, R.H Side (Shown)
	GD18066	-	Plate
24.	G3310-226	1	Chain, No. 40, 226 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
25.	GD18067	1	Brace
26.	GA7154	4	Sprocket W/Bearing, 18 Tooth
27.	G10016	4	Hex Head Cap Screw, 1/2"-13 x 2"
	G10206	8	Washer, 1/2" SAE
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
28.	G10016	2	Hex Head Cap Screw, 1/2"-13 x 2"
	G10216	2	Washer, 1/2" USS
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
29.	GA5107	2	Sprocket, 19 Tooth
30.	GD11972	-	Support Angle, R.H.
31.	GD11973	-	Support Angle, L.H.
32.	GD1113	-	U-Bolt, 5" x 7" x 5/8"-11
	G10230	-	Lock Washer, 5/8"
	G10104	-	Hex Nut, 5/8"-11
33.	GD1719	-	Coupler, 4"
34.	GA7051	1	U-Joint W/Grease Fitting, Male, 12 1/4" Long
	GR1557	-	Grease Fitting, 45°, Metric
	GR1296	-	Inner Profile
	GR1295	-	Inboard Yoke
	GR1301	-	Spring Pin, 8mm x 50mm
	GR1294	-	Cross And Bearing Kit
	GR1293	-	Yoke, 7/8" Hex
35.	G10752	-	Hex Head Cap Screw, 5/8"-18 x 2 1/4"
	GD7805	-	Special Washer, 5/8", Hardened
	G10412	-	Lock Nut, 5/8"-18
36.	G10688	-	Square Head Set Screw, 3/8"-16 x 5/8"
A.	GA8092	-	Clutch Sprocket Assembly, 19 Tooth (Items 10-21)
B.	G1K269	-	Lock Clamp Kit (Items 2 And 3)
C.	G1K331	-	Clutch Sprocket Kit (Items 11, 16 And 17)



# DOUBLE DISC FERTILIZER OPENER AND MOUNT

FOC007(PT25e/TWL34a/FRTZ208)



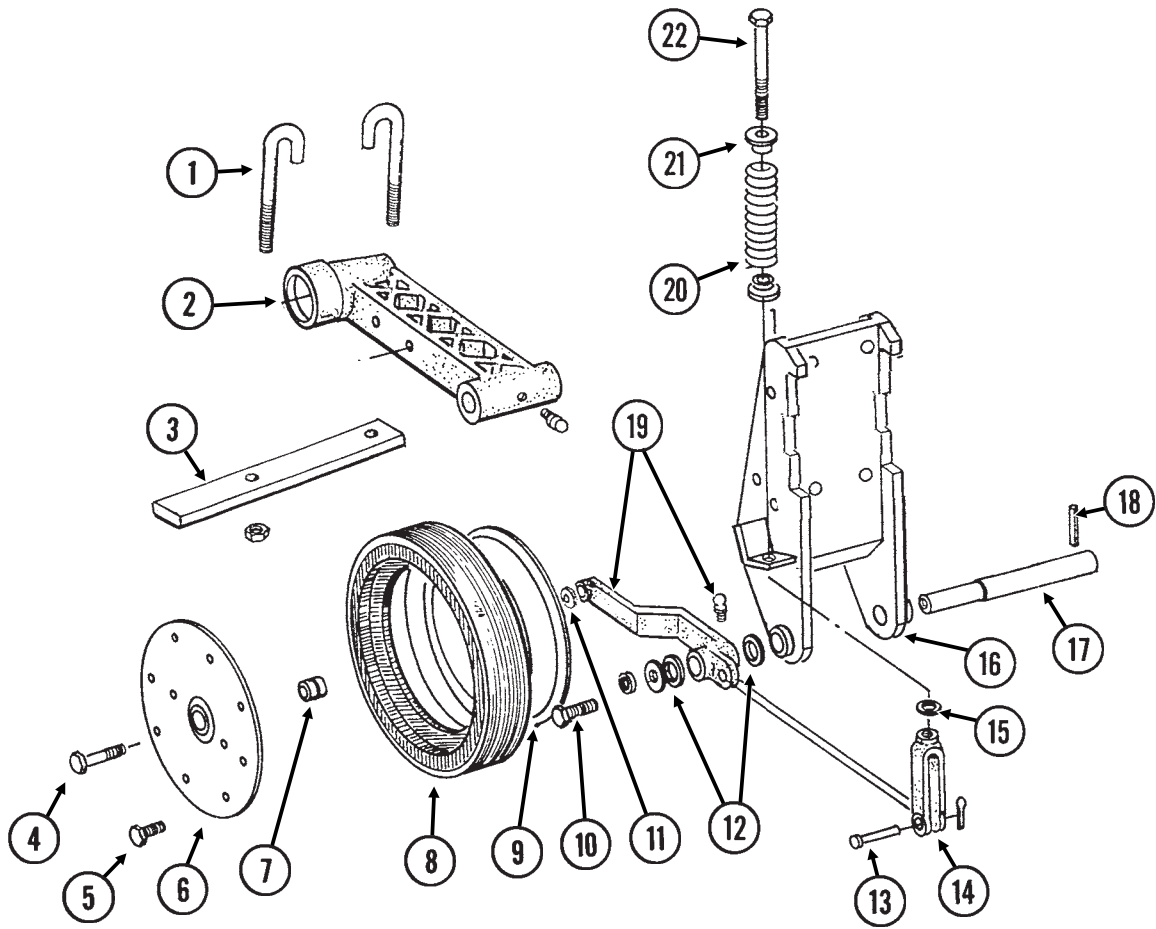


# DOUBLE DISC FERTILIZER OPENER AND MOUNT

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

# HD SINGLE DISC FERTILIZER OPENER (Soil Press Wheel)

(TWL35d/TWL35b)

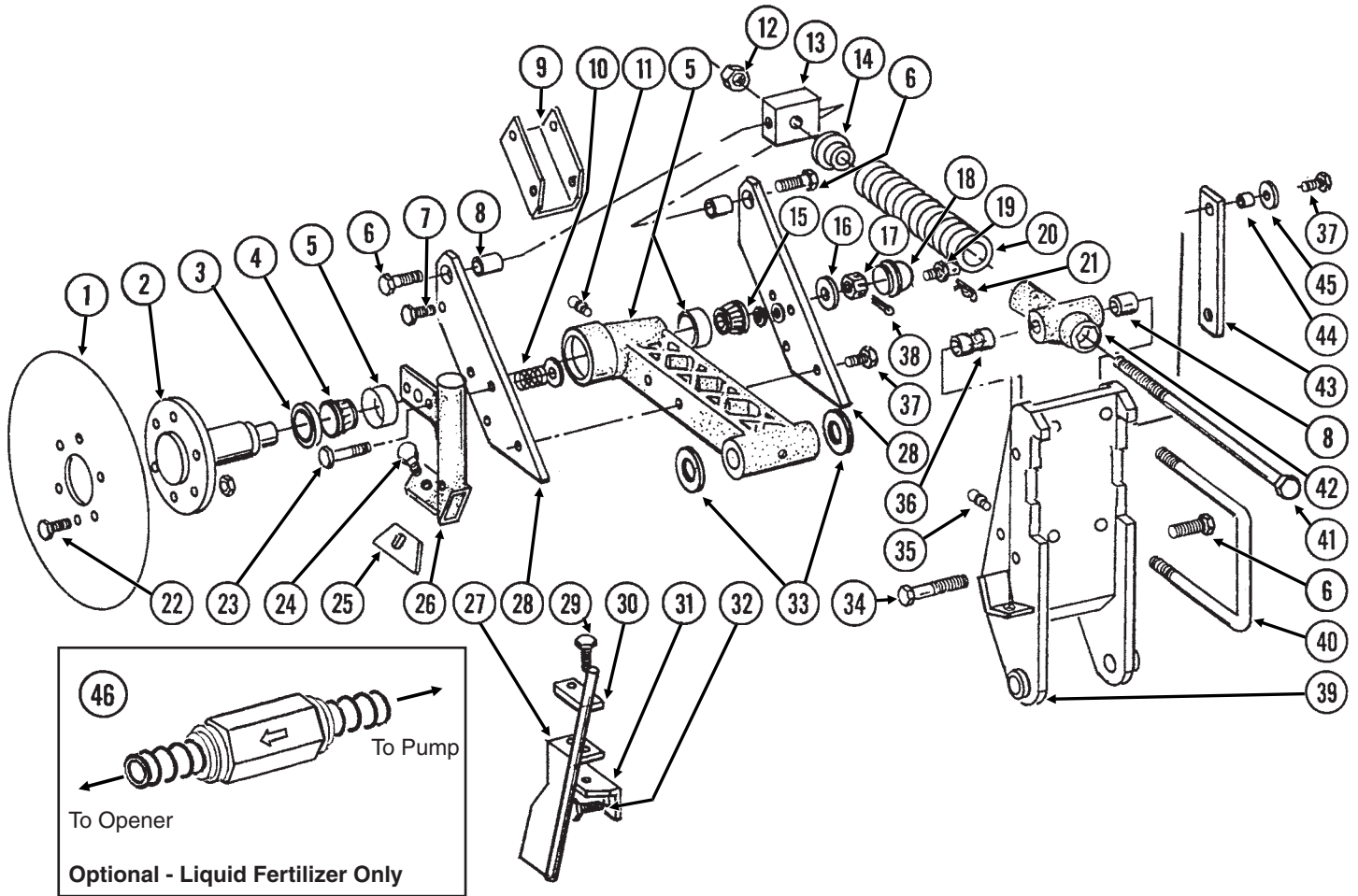


# HD SINGLE DISC FERTILIZER OPENER (Soil Press Wheel)

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GD9705	2	J-Bolt, 1/2"-13
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
2.		-	See "HD Single Disc Fertilizer Opener (Blade And Drop Tube)", Pages P120 And P121
3.	GD9706	1	Lockup Bar
4.	G10010	1	Hex Head Cap Screw, 5/8"-11 x 3"
5.	G10961	11	Flanged Whiz Lock Screw, 5/16"-18 x 5/8", No Serration
	G10620	11	Serrated Flange Nut, 5/16"-18
6.	GD11954	1	Half Wheel Cover, Nylon
7.	GA6171	1	Bearing
8.	GD11953	1	Offset Tire
9.	GD11423	1	Half Wheel
10.	G10438	1	Hex Head Cap Screw, 1/2"-13 x 3/4"
	G10228	1	Lock Washer, 1/2"
	G10216	1	Washer, 1/2" USS
11.	G10230	1	Lock Washer, 5/8"
12.	G10526	10	Machine Bushing, 1" (.048" Thick)
13.	G10560	1	Clevis Pin, 1/2" x 1 3/4"
	G10456	1	Cotter Pin, 1/8" x 3/4"
14.	GD8218	1	Yoke
15.	G10205	1	Washer, 5/8" SAE
16.		-	See "HD Single Disc Fertilizer Opener (Blade And Drop Tube)", Pages P120 And P121
17.	GD7911	1	Pivot Pin
18.	G10610	1	Spring Pin, 3/8" x 2"
19.	GA8306	-	Wheel Arm W/Grease Fitting, R.H.
	GA8305	1	Wheel Arm W/Grease Fitting, L.H. (Shown)
	G10640	1	Grease Fitting, 1/4"-28
20.	GD8308	1	Spring
21.	GB0212	2	Spring Washer
22.	GD9709	1	Special Bolt
A.	G1K215	-	Lockup Kit (Items 1 And 3)
B.	GA8877	-	Gauge Wheel Complete (Items 5-9)

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

FOC016/FOC007/FOC019(PT27c/FRTZ208)



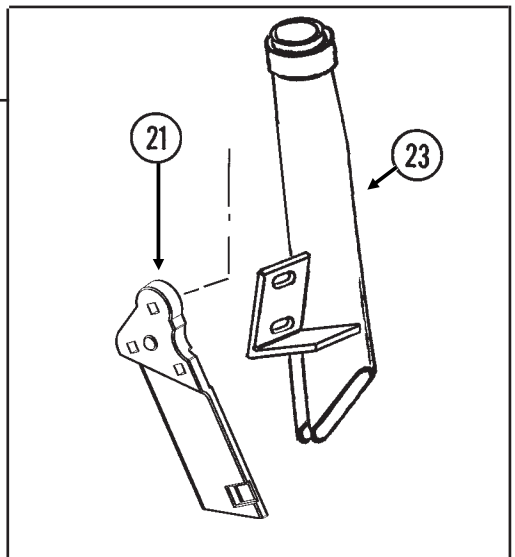
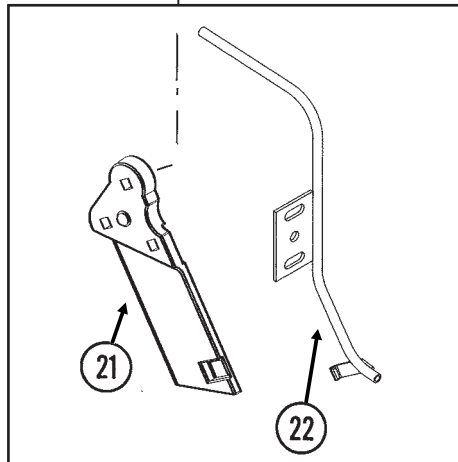
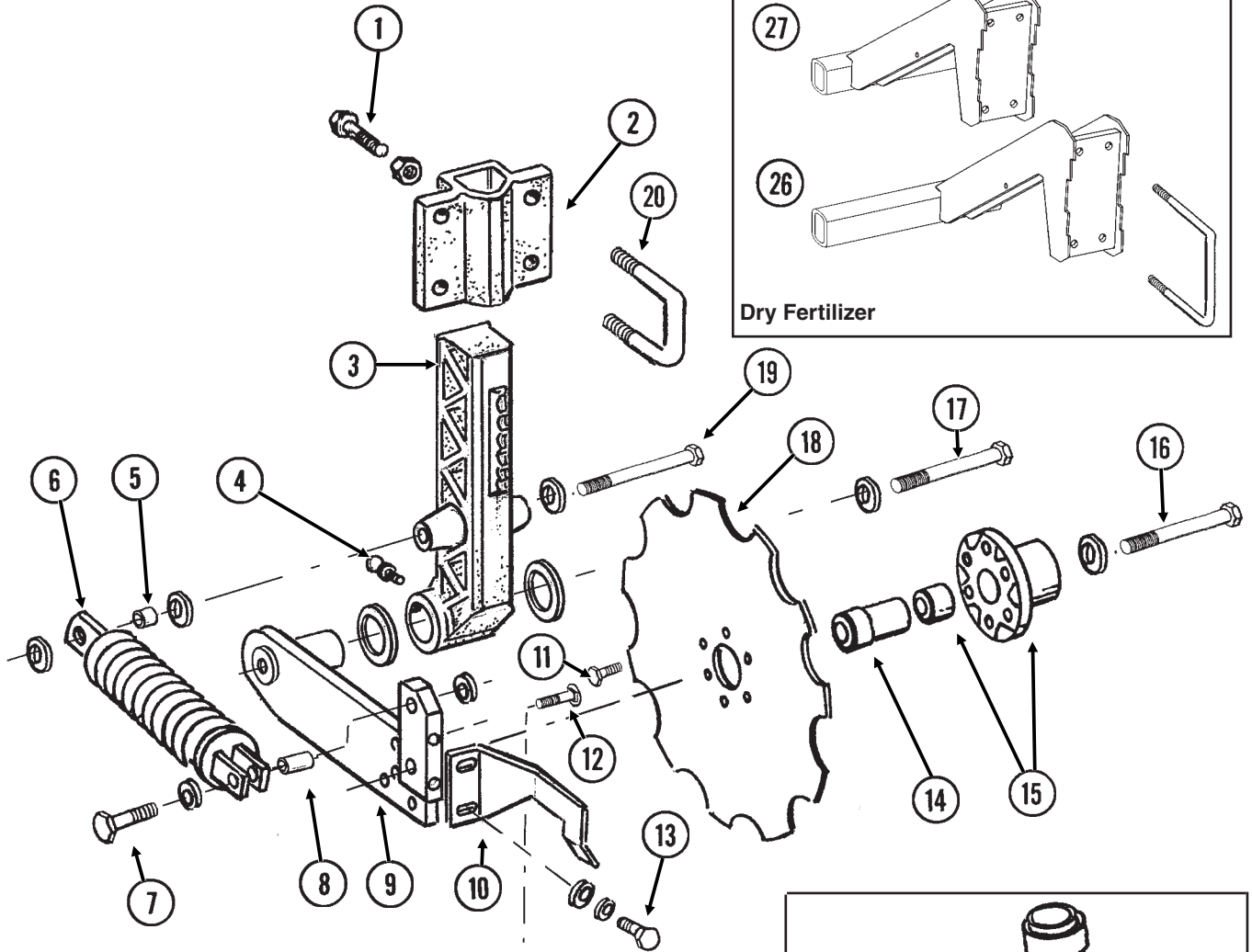
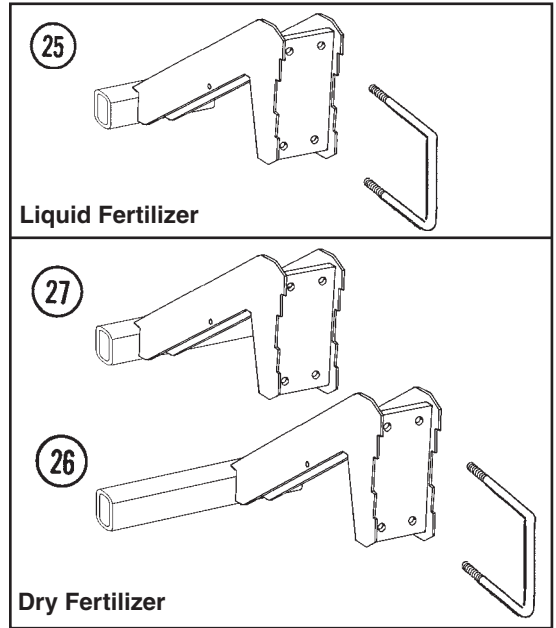
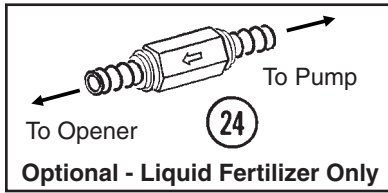
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GD7900	1	Disc Blade, 18"
	GD8247	-	Disc Blade, 20" (Optional)
2.	GB0205	1	Spindle
3.	GA4286	1	Seal
4.	GA4287	1	Bearing
5.	GA5887	1	Arm W/Cups And Washers
	GD6553	-	Inner Cup
	GR0188	-	Outer Cup
	G10205	3	Washer, 5/8" SAE
6.	G10007	3	Hex Head Cap Screw,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

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

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

# NOTCHED SINGLE DISC FERTILIZER OPENER

(FRTZ208/B0405/TWL34e/TWL34g/FRTZ268/A12108)

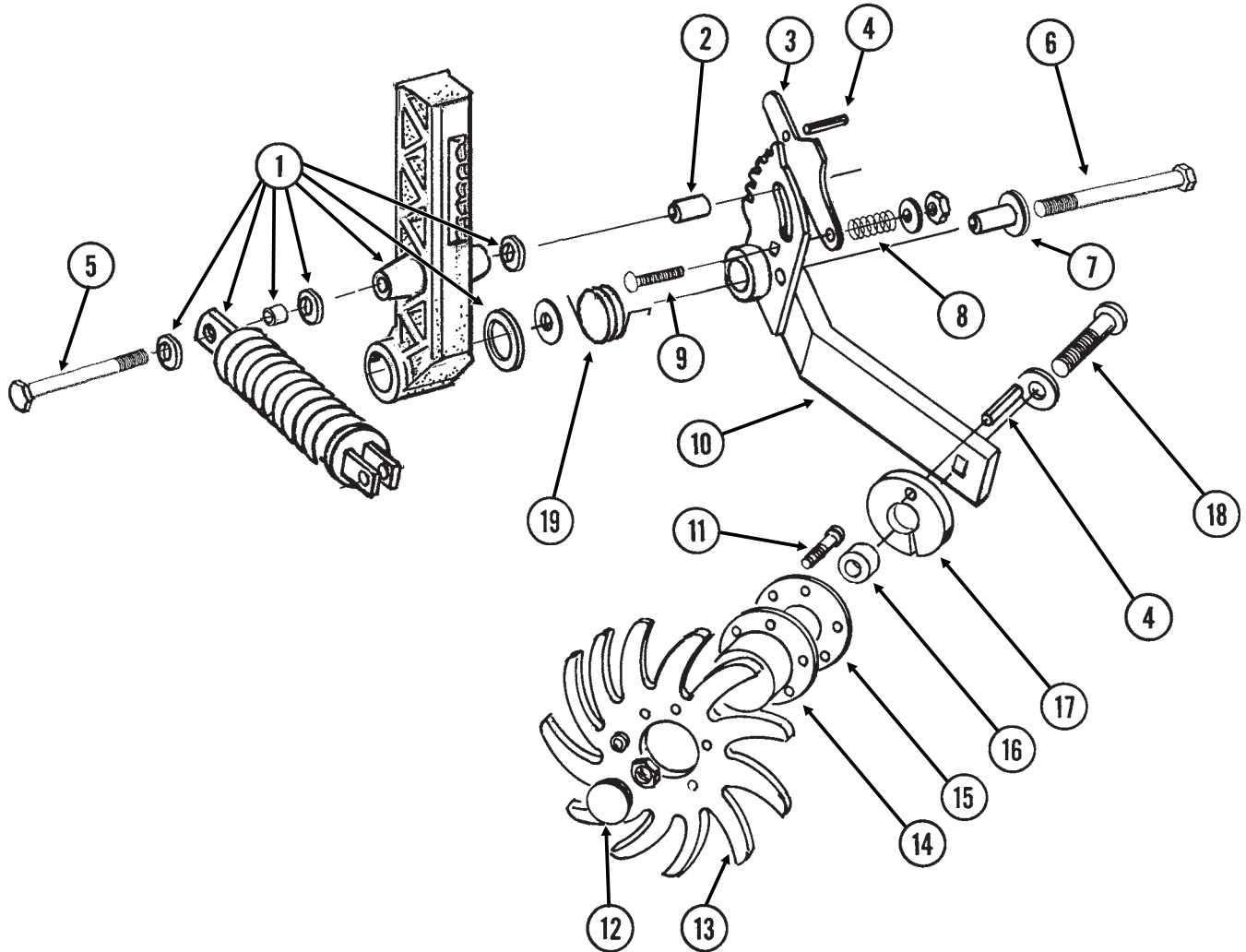


# NOTCHED SINGLE DISC FERTILIZER OPENER

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	G10017	3	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10102	3	Hex Nut, 1/2"-13
2.	GB0405	1	Mount, L.H. (Shown)
	GB0400	-	Mount, R.H.
3.	GB0296	1	Arm, 13 1/2"
4.	G10640	1	Grease Fitting, 1/4"-28
5.	GD12685	1	Bushing, 3/4" O.D. x 1/2" Long
6.	GA6966	1	Compression Spring Assembly
7.	G10047	1	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
	G10210	2	Washer, 3/8" USS
	G10108	1	Lock Nut, 3/8"-16
8.	GD1026	1	Sleeve, 1 3/16" Long
9.	GA9433	1	Pivot Arm, L.H.
	GA9434	-	Pivot Arm, R.H. (Shown)
10.	GD11557	1	Scraper, L.H.
	GD11558	-	Scraper, R.H. (Shown)
11.	G10002	6	Hex Head Cap Screw, 3/8"-16 x 3/4"
12.	G10306	3	Carriage Bolt, 3/8"-16 x 2"
	G10108	3	Lock Nut, 3/8"-16
13.	G10991	2	Hex Head Cap Screw, 5/16"-18 x 7/8"
	G10232	2	Lock Washer, 5/16"
	G10219	6	Washer, 5/16" USS
14.	GD12679	1	Stepped Spacer, 3" Long
15.	GA9437	1	Hub W/Bearing
	GA8603	-	Bearing, Double Row
16.	G10011	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	GD12677	1	Washer, 1 1/2" O.D., 7 Gauge, Hardened
	G10107	1	Lock Nut, 5/8"-11
17.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10217	1	Washer, 5/8" USS
	G10450	2	Machine Bushing, 1 1/2", 18 Gauge (As Required)
	G10107	1	Lock Nut, 5/8"-11
18.	GD12676	1	Disc Blade, Notched, 16 3/4"
19.	G10871	1	Hex Head Cap Screw, 1/2"-13 x 6"
	G10206	3	Washer, 1/2" SAE
	G10111	1	Lock Nut, 1/2"-13
20.	GD13287	2	U-Bolt, 1 1/2" x 2 1/2" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
21.	GB0323	1	Knife, L.H.
	GB0322	-	Knife, R.H. (Shown)
22.	GA12108	1	Drop Tube, Liquid Fertilizer
	GA12109	-	Drop Tube, Liquid Fertilizer (Shown)
23.	GA10047	-	Drop Tube, L.H., Dry Fertilizer
	GA10048	1	Drop Tube, R.H., Dry Fertilizer (Shown)
24.	GA8983	-	Check Valve, Low Rate
25.	GA9565	1	Mount W/U-Bolts, Liquid Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
26.	GA9821	-	Mount W/U-Bolts, L.H., Dry Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
27.	GA9822	-	Mount W/U-Bolts, R.H., Dry Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11

# RESIDUE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

DFC024(FRTZ165)





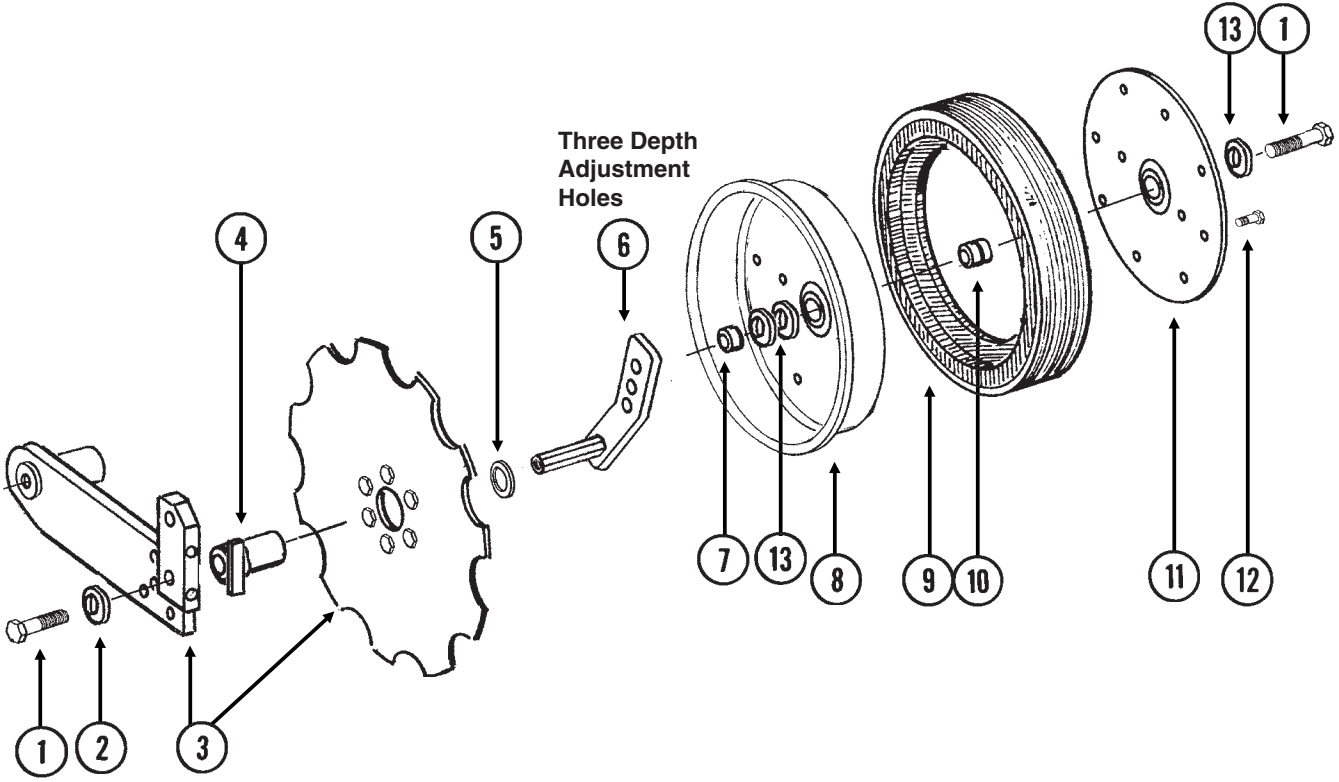
# RESIDUE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

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ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.		-	See "Notched Single Disc Fertilizer Opener", Pages P122 And P123
2.	GD12684	1	Bushing, 1 1/3" Long
3.	GD11178	1	Adjustment Lever
4.	G10603	2	Spring Pin, 1/4" x 1 1/4"
5.	G11034	1	Hex Head Cap Screw, 1/2"-13 x 7"
	G10111	1	Lock Nut, 1/2"-13
6.	G10830	1	Hex Head Cap Screw, 5/8"-11 x 7 1/2"
	GD7805	1	Special Washer, 5/8", Hardened
	G10107	1	Lock Nut, 5/8"-11
7.	GD11836	1	Sleeve, 2 1/8" Long
8.	GD7962	1	Spring
9.	G10306	1	Carriage Bolt, 3/8"-16 x 2"
	G10203	1	Washer, 3/8" SAE
	G10108	1	Lock Nut, 3/8"-16
10.	GA7999	1	Mount W/Grease Fitting, L.H. (Shown)
	GA7998	-	Mount W/Grease Fitting, R.H.
	G10640	-	Grease Fitting, 1/4"-28
11.	G10133	6	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	6	Lock Nut, 5/16"-18, Grade 8
12.	GD1132	2	Dust Cap
13.	GD10552	2	Wheel, 12 Tine, 3/8" x 12"
14.	GA5654	1	Hub W/Bearings
	GA2014	-	Bearing
15.	GD9724	1	Backing Plate
16.	GD7817-04	1	Spacer, 1 1/16" I.D. x 1/2" Long
17.	GD11188	1	Spacer
18.	G10908	1	Carriage Bolt, 5/8"-11 x 3"
	G10503	1	Hex Jam Nut, 5/8"-11, Grade 2
19.	GD11265	1	Spring, L.H. (Shown)
	GD11266	-	Spring, R.H.
A.	GA7445	-	Wheel Assembly, 12 Tine, L.H. (Items 11 And 13-15)(Shown)
	GA7446	-	Wheel Assembly, 12 Tine, R.H. (Items 11 And 13-15)

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

(FRTZ256)



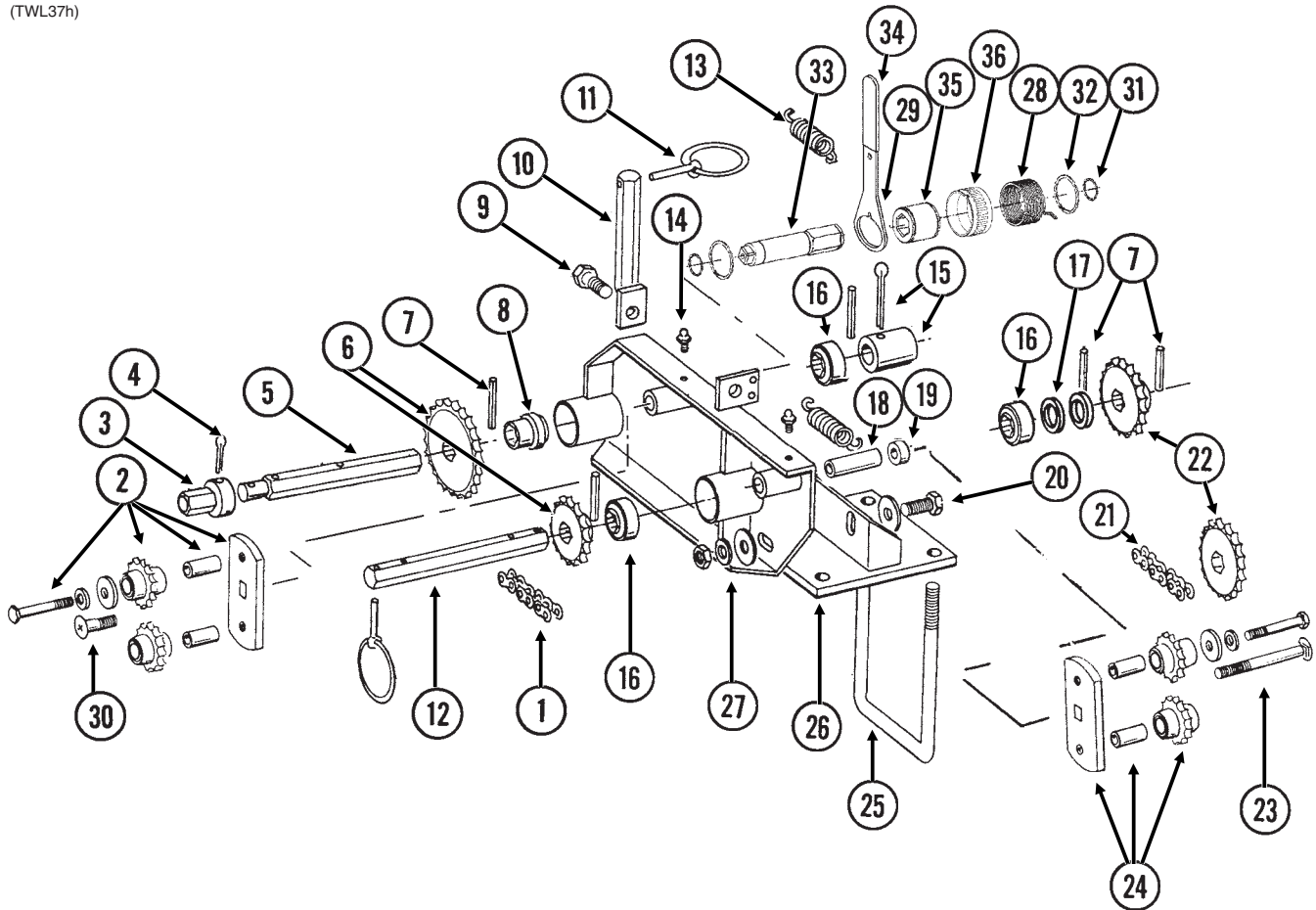
# DEPTH/GAUGE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

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ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	G10010	2	Hex Head Cap Screw, 5/8"-11 x 3"
2.	GD7805	1	Special Washer, 5/8", Hardened
3.		-	See "Notched Single Disc Fertilizer Opener", Pages P122 And P123
4.	GA9472	1	Blade Mount
5.	G10233	1	Machine Bushing, 1 1/2" x 1/32", 10 Gauge
6.	GA10037	1	Wheel Mount, L.H. (Shown)
	GA10036	1	Wheel Mount, R.H.
7.	GD13309	1	Spacer
8.	GD11423	1	Half Wheel
9.	GD11953	1	Offset Tire
10.	GA6171	1	Bearing
11.	GD11954	1	Half Wheel Cover, Nylon
12.	G10961	11	Flanged Whiz Lock Screw, 5/16"-18 x 3/4", No Serration
	G10620	11	Serrated Flange Nut, 5/16"-18
13.	G10204	-	Special Machine Bushing, 5/8" x 1" O.D. (As Required)
A.	GA8877	-	Gauge Wheel Complete (Items 8-12)

# DRY FERTILIZER DRIVE

(TWL37h)



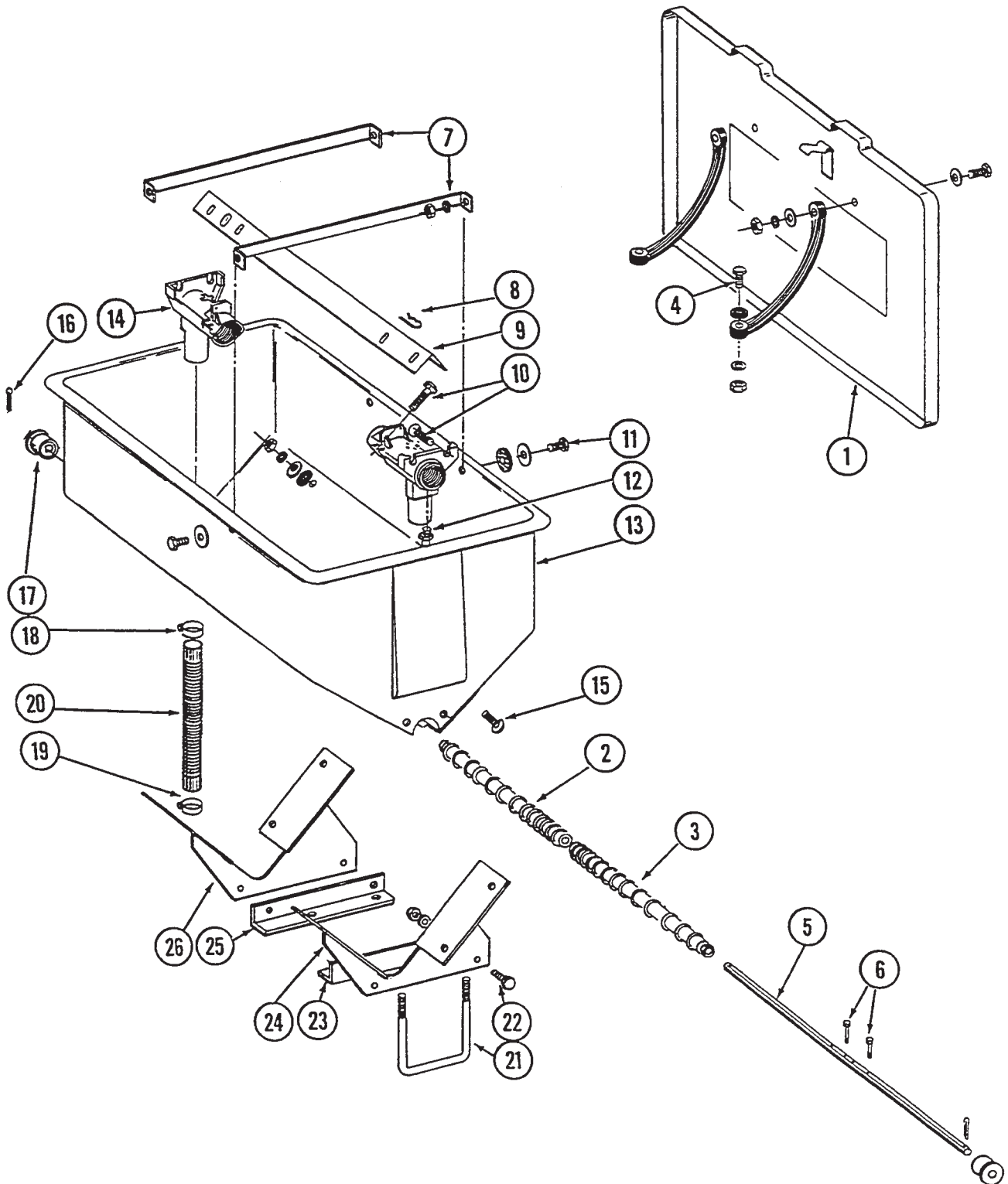
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Side)	
1.	G3310-88	1	Chain, No. 40, 88 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
2.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	GD1026	-	Sleeve, 1 3/16" Long
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"
	G10047	-	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
3.	GD7127	1	Shear Coupler
4.	G10462	1	Cotter Pin, 3/16" x 2"
5.	GD7866	1	Shaft, 7/8" x 7 1/2"
6.	GA5105	1	Sprocket, 15 Tooth
	GA5107	1	Sprocket, 19 Tooth
	GA5114	1	Sprocket, 30 Tooth
	GA5115	1	Sprocket, 33 Tooth
	GA6337	1	Sprocket, 35 Tooth
7.	G10602	6	Spring Pin, 1/4" x 1 1/2"
8.	GA5624	1	Special Bearing, 7/8" Hex Bore x 1.6"
9.	G10037	1	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10111	1	Lock Nut, 1/2"-13

# DRY FERTILIZER DRIVE

ITEM	PART NO.	QTY. (Per Side)	DESCRIPTION
10.	GA5229	1	Sprocket Storage Rod
11.	GD2558	3	Lynch Pin, 1/4"
12.	GD10119	1	Shaft, 7/8" x 7 7/16"
13.	GD5857	2	Spring
14.	G10640	2	Grease Fitting, 1/4"-28
15.		-	See "Dry Fertilizer Couplers/Shafts", Pages P132 And P133
16.	GA5116	3	Bearing, 7/8" Hex Bore, Cylindrical
17.	G10233	2	Machine Bushing, 1 1/2" x 1/32", 10 Gauge
18.	GD3180-10	1	Sleeve, 5/8" I.D. x 7/8" O.D. x 3 1/4" Long
19.	GD2734-08	1	Sleeve, 1 1/4" O.D. x 5/8" Long
20.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10206	4	Washer, 1/2" SAE
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
21.	G3310-130	1	Chain, No. 40, 130 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
22.	GA5109	2	Sprocket, 24 Tooth
23.	G10419	1	Carriage Bolt, 1/2"-13 x 4 1/2"
	G10206	1	Washer, 1/2" SAE
	G10111	1	Lock Nut, 1/2"-13
24.	GA7396	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"
	G10049	-	Hex Head Cap Screw, 3/8"-16 x 2 1/2"
	G10108	-	Lock Nut, 3/8"-16
25.	GD1134	2	U-Bolt, 7" x 5" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
26.	GA7129	1	Mount, L.H. (Shown)
	GA7130	-	Mount, R.H.
27.	GA5671	1	Transmission Plate, L.H. (Shown)
	GA5672	-	Transmission Plate, R.H.
28.	GD14413	-	Torsion Spring, L.H. (Used On R.H. Wrap Spring Wrench) (Shown)
	GD14414	1	Torsion Spring, R.H. (Used On L.H. Wrap Spring Wrench)
29.	GD14431	1	Handle
30.	G11100	1	Hex Socket Button Head Screw, 1/4"-20 x 1/2", Grade 8
	G10227	1	Lock Washer, 1/4"
	G10209	1	Washer, 1/4" USS
31.	G11075	2	External Inverted Snap Ring, 7/8"
32.	G10496	2	External Inverted Snap Ring, 1 1/2"
33.	GD14427	1	Tightener Shaft, 4 7/8"
34.	G11078	1	Vinyl Cap
35.	GD14432	1	Sleeve, 1 1/4"
36.	GD19343	1	Release Collar, R.H. (Shown)
	GD19344	-	Release Collar, L.H.
A.	G1K378	1	Wrap Spring Wrench Replacement Kit, Gold Collar, R.H. (Items 28-36) (Shown)
	G1K379	-	Wrap Spring Wrench Replacement Kit, Silver Collar, L.H. (Items 28-36)

# DRY FERTILIZER HOPPER AND MOUNTS

DFC009/DFC018(TWL36)

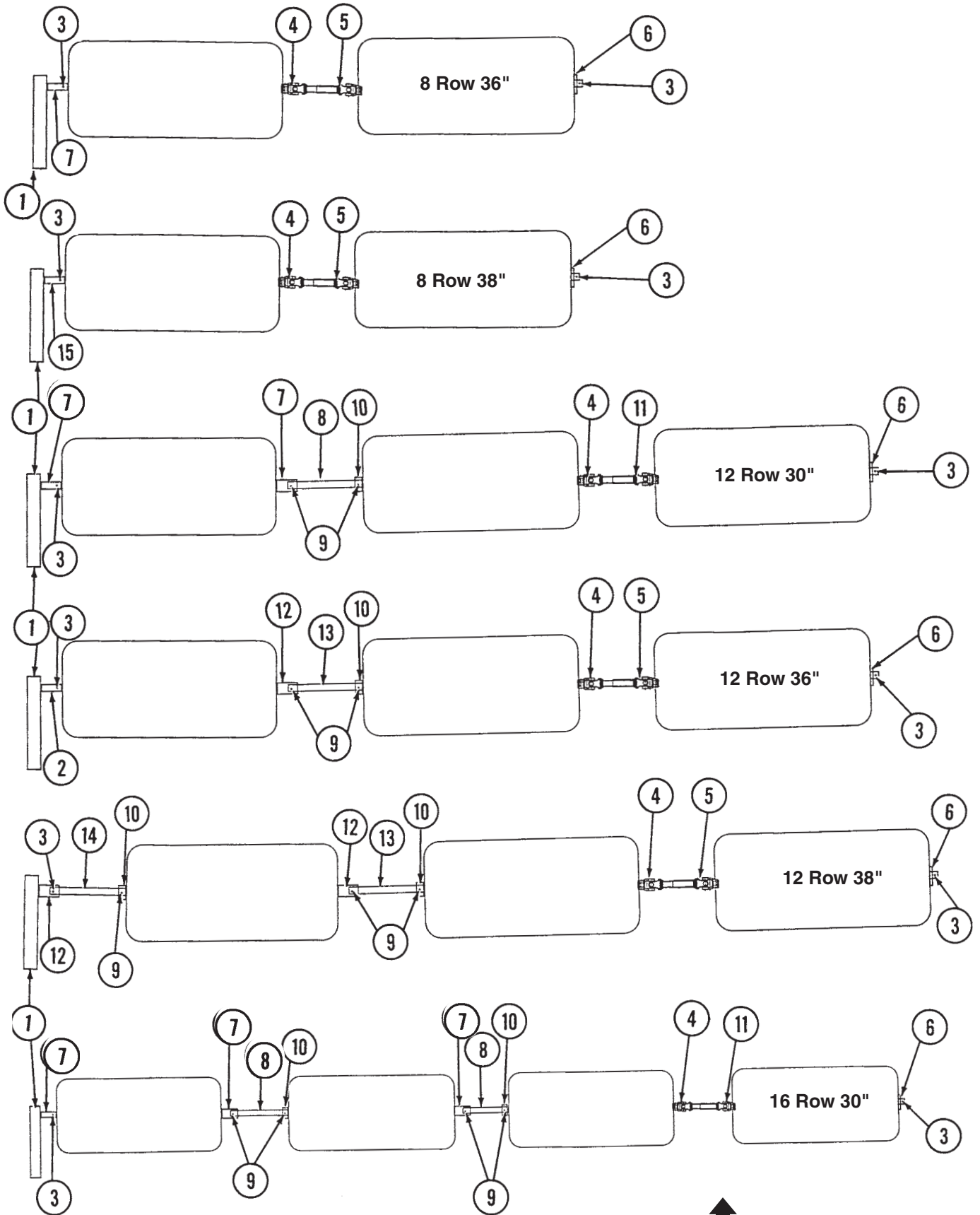


# DRY FERTILIZER HOPPER AND MOUNTS

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

# DRY FERTILIZER COUPLERS/SHAFTS

RH100594(TWL38a)



L.H. Side Of Machine Shown

Direction Of Travel



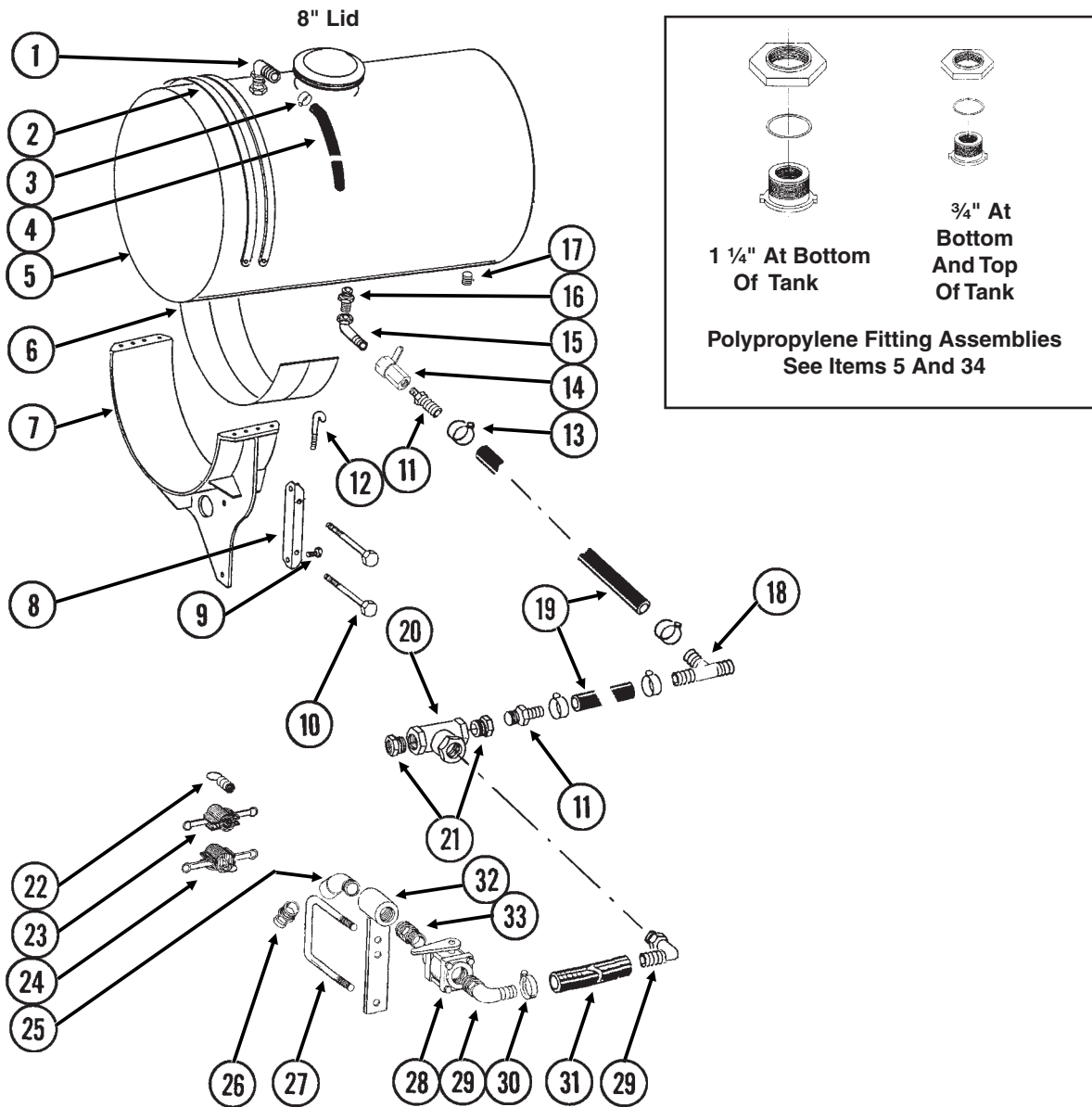
# DRY FERTILIZER COUPLERS/SHAFTS

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ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Dry Fertilizer Drive", Pages P128 And P129
2.	GD10109	-	Coupler, 6"
3.	G10460	-	Cotter Pin, 1/4" x 2"
4.	GA7051	-	U-Joint W/Grease Fitting, Male, 12 1/4" Long
	GR1293	-	Yoke, 7/8" Hex
	GR1294	-	Cross And Bearing Kit
	GR1295	-	Inboard Yoke
	GR1296	-	Inner Profile
	GR1557	-	Grease Fitting, 45°, Metric
	GR1301	-	Spring Pin, 8mm x 50mm
5.	GA7146	-	U-Joint W/Grease Fitting, Female, 22 1/16" Long
	GR1293	-	Yoke, 7/8" Hex
	GR1294	-	Cross And Bearing Kit
	GR1299	-	Inboard Yoke And Outer Profile
	GR1557	-	Grease Fitting, 45°, Metric
6.	G10233	-	Machine Bushing, 1 1/2" x 1/32", 10 Gauge
7.	GD7867	-	Coupler, 3"
8.	GD2548-15.5	-	Hex Shaft, 7/8" x 15 1/2" (1 Hole)
9.	G10602	-	Spring Pin, 1/4" x 1 1/2"
10.	GD5886	-	Coupler, 1 3/4"
11.	GA7052	-	U-Joint W/Grease Fitting, Female, 10 1/4" Long
	GR1293	-	Yoke, 7/8" Hex
	GR1294	-	Cross And Bearing Kit
	GR1297	-	Inboard Yoke And Outer Profile
	GR1557	-	Grease Fitting, 45°, Metric
12.	GD10126	-	Coupler, 4"
13.	GD2548-24.5	-	Hex Shaft, 7/8" x 24 1/2" (1 Hole)
14.	GD2548-13.5	-	Hex Shaft, 7/8" x 13 1/2" (1 Hole)
15.	GD10773	-	Coupler, 10 3/4"
16.	G10688	-	Square Head Set Screw, 3/8"-16 x 5/8"

# LIQUID FERTILIZER TANKS, SADDLES, SADDLE MOUNTS AND HOSES

LFC021/LFC023/LFC030/LFC012(FRTZ201g)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10917	2	Elbow, 90°, 3/4" NPT To Barb
2.	GD1520	-	Band, 30" (4 Per Tank)
3.	G10278	2	Hose Clamp, No. 16
4.	G4205-11	-	Hose, 3/4" x 72" (One Per Tank)
5.	GA9905	-	Tank W/Lid And Fittings, 30" x 150 Gallon, 8 Row Sizes (Qty. 2), 12/16 Row Sizes (Qty. 4)
	GR1678	-	Lid W/Vent, 8" (Top Of Tank)
	GR0513	-	3/4" Polypropylene Fitting Assembly (Overflow Fitting, Nut, Bushing And O-Ring) (Top And Bottom Of Tank)
	GR1397	-	Overflow Fitting
	GR0508	-	1 1/4" Polypropylene Fitting Assembly (Nut, Bushing And O-Ring) (Bottom Of Tank)

# LIQUID FERTILIZER TANKS, SADDLES, SADDLE MOUNTS AND HOSES

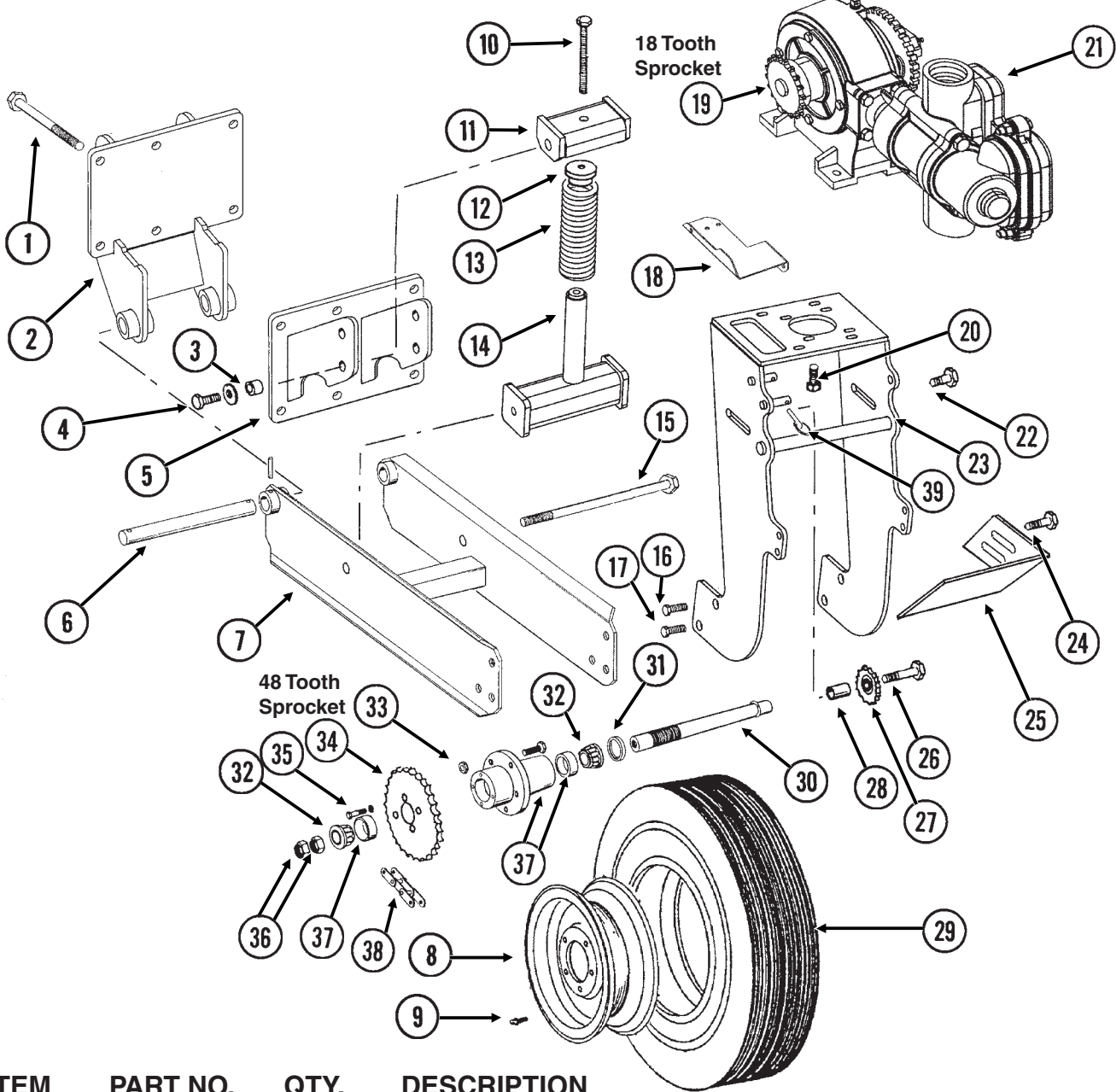
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ITEM	PART NO.	QTY.	DESCRIPTION
6.	GD1862	-	Pad, 8" x 14' (For Two 30" Tanks)
7.	GA7133	-	Tank Mount (2 Per Tank)
8.	GD10110	-	Mounting Angle (2 Per Tank)
9.	G10007	-	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	-	Lock Washer, 5/8"
	G10104	-	Hex Nut, 5/8"-11
10.	G10342	-	Hex Head Cap Screw, 3/4"-10 x 8"
	G10218	-	Washer, 3/4" USS
	G10231	-	Lock Washer, 3/4"
	G10105	-	Hex Nut, 3/4"-10
11.	G10626	-	Adapter, 1 1/4" NPT To Barb
12.	GD1337	-	J-Bolt, 5/16"-18 (8 Per Tank)
	G11182	-	Lock Nut W/Nylon Insert, 5/16"-18, Grade 8 (8 Per Tank)
13.	G10674	-	Hose Clamp, No. 24
14.	GA4976	-	Shutoff Valve, 1 1/4" NPT
	GR1015	-	Body O-Ring
	GR1016	-	Stem O-Ring
	GR1017	-	Teflon Seat
	GR1018	-	Ball
	GR1019	-	Handle
15.	G10887	-	Elbow, 90°, 1 1/4" Male NPT To Female
16.	G10619	-	Close Nipple, 1 1/4" NPT
17.	G10096	-	Pipe Plug, 3/4" NPT
18.	G10633	-	Tee, 1 1/4" Barb
19.	G4200-03	1	Hose, 1 1/4" x 32', 8 Row 36"/38" And 12 Row 30"
	G4200-06	-	Hose, 1 1/4" x 40', 12 Row 36"/38" And 16 Row 30"
20.	G10888	-	Tee, 2" Female NPT
21.	G10616	-	Reducing Bushing, 2" Male NPT To 1 1/4" Female
22.	GD10777	-	Dust Plug, 2" Male Cam Lock
23.	GD3622	-	Adapter, 2" Female NPT To Cam Lock
24.	GD3951	-	Dust Cap, 2" Cam Lock
25.	G10889	-	Elbow, 45°, 2" Male NPT To Female
26.	GD3623	-	Adapter, 2" Male NPT To Cam Lock
27.	GD1113	-	U-Bolt, 5" x 7" x 5/8"-11
	G10230	-	Lock Washer, 5/8"
	G10104	-	Hex Nut, 5/8"-11
28.	GA2660	-	Shutoff Valve, 2" NPT
29.	G10630	-	Elbow, 90°, 2" NPT To Barb
30.	G10676	-	Hose Clamp, No. 36, Stainless Steel
31.	G4201-02	-	Hose, 2" x 12', 8 Row
	G4201-03	-	Hose, 2" x 18', 12/16 Row
32.	GA7845	-	Quick Fill Mount, 2"
33.	G10623	-	Close Nipple, 2" NPT

# LIQUID FERTILIZER PISTON PUMP MOUNT AND GROUND DRIVE WHEEL

(TWL219rr)

## 48 Tooth Drive Sprocket And 18 Tooth Driven Sprocket



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10830	6	Hex Head Cap Screw, 5/8"-11 x 7 1/2"
	G10230	6	Lock Washer, 5/8"
	G10104	6	Hex Nut, 5/8"-11
2.	GA10624	1	Wheel Arm Mount
3.	GB0218	2	Bushing, 2 1/32" I.D. x 7/8" O.D. x 1 9/32" Long
4.	G10005	2	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	GD7805	2	Special Washer, 5/8", Hardened
	G10107	2	Lock Nut, 5/8"-11
5.	GA10622	1	Spring Mount
6.	GD2681	1	Pin, 1 1/4" x 13 1/2"
	G10460	2	Cotter Pin, 1/4" x 2"
7.	GA10621	1	Arm W/Grease Fittings
	G10641	2	Grease Fitting, 1/8" NPT
8.	GA0241	1	Wheel, 5" x 15"
9.	GD1166	1	Valve Stem

# LIQUID FERTILIZER PISTON PUMP MOUNT AND GROUND DRIVE WHEEL

ITEM	PART NO.	QTY.	DESCRIPTION
10.	G10012	1	Hex Head Cap Screw, 5/8"-11 x 6 1/2"
	GD7805	1	Special Washer, 5/8", Hardened
11.	GA10908	1	Spring Mount
12.	GB0196	1	Washer
13.	GD7831	1	Compression Spring
14.	GA10907	1	Spring Guide
15.	G11122	1	Hex Head Cap Screw, 5/8"-11 x 12"
	G10107	1	Lock Nut, 5/8"-11
16.	G10026	2	Hex Head Cap Screw, 3/4"-10 x 2"
	G10231	2	Lock Washer, 3/4"
17.	G11042	2	Hex Head Cap Screw, 3/4"-10 x 1 3/4"
	G10231	2	Lock Washer, 3/4"
	G10105	2	Hex Nut, 3/4"-10
18.	GD13744	1	Hose Holder
19.	GR1146	1	Sprocket, 18 Tooth
20.	G10003	4	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	GR1122	4	Mounting Pad
	G10210	8	Washer, 3/8" USS
	G10229	4	Lock Washer, 3/8"
	G10101	4	Hex Nut, 3/8"-16
	GR0200	1	Offset Link, No. 2050
21.		-	See "Liquid Fertilizer Piston Pump", Pages P140 And P141
22.	G10007	2	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10217	2	Washer, 5/8" USS
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
23.	GA10894	1	Pump Mount
24.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10216	2	Washer, 1/2" USS
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
25.	GD13328	1	Scraper
26.	G10013	1	Hex Head Cap Screw, 5/8"-11 x 3 1/2"
	G10205	1	Washer, 5/8" SAE
	G10230	1	Lock Washer, 5/8"
	G10104	1	Hex Nut, 5/8"-11
27.	GA0262	1	Idler Sprocket W/Bearing, 15 Tooth
28.	GD7817-05	1	Spacer, 1 1/16" I.D. x 1 1/4" Long
29.	GD0844	1	Tire, 7.60" x 15", 8 Ply (Specify Brand*)
30.	GA2559	1	Spindle
31.	GA0252	2	Seal
32.	GA0251	2	Bearing
33.	GR0267	5	Lug Nut, 1/2"-20
34.	G2500-84	1	Sprocket, 48 Tooth
35.	G10019	4	Hex Head Cap Screw, 5/16"-18 x 1"
	G10232	4	Lock Washer, 5/16"
36.	GD0831	2	Shoulder Nut, 1 1/4"-12 UNF-2A
37.	GA0547	1	Hub W/Cups And Studs, 5 Bolt
	GR0190	2	Cup
	GR0204	5	Stud
38.	G3200-63	-	Chain, No. 2050, 63 Pitch Including Connector And Offset Link, Used With NGP-7075 Piston Pump
	GR0195	-	Connector Link, No. 2050
	GR0200	-	Offset Link, No. 2050
39.	GD2558	1	Lynch Pin, 1/4"

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



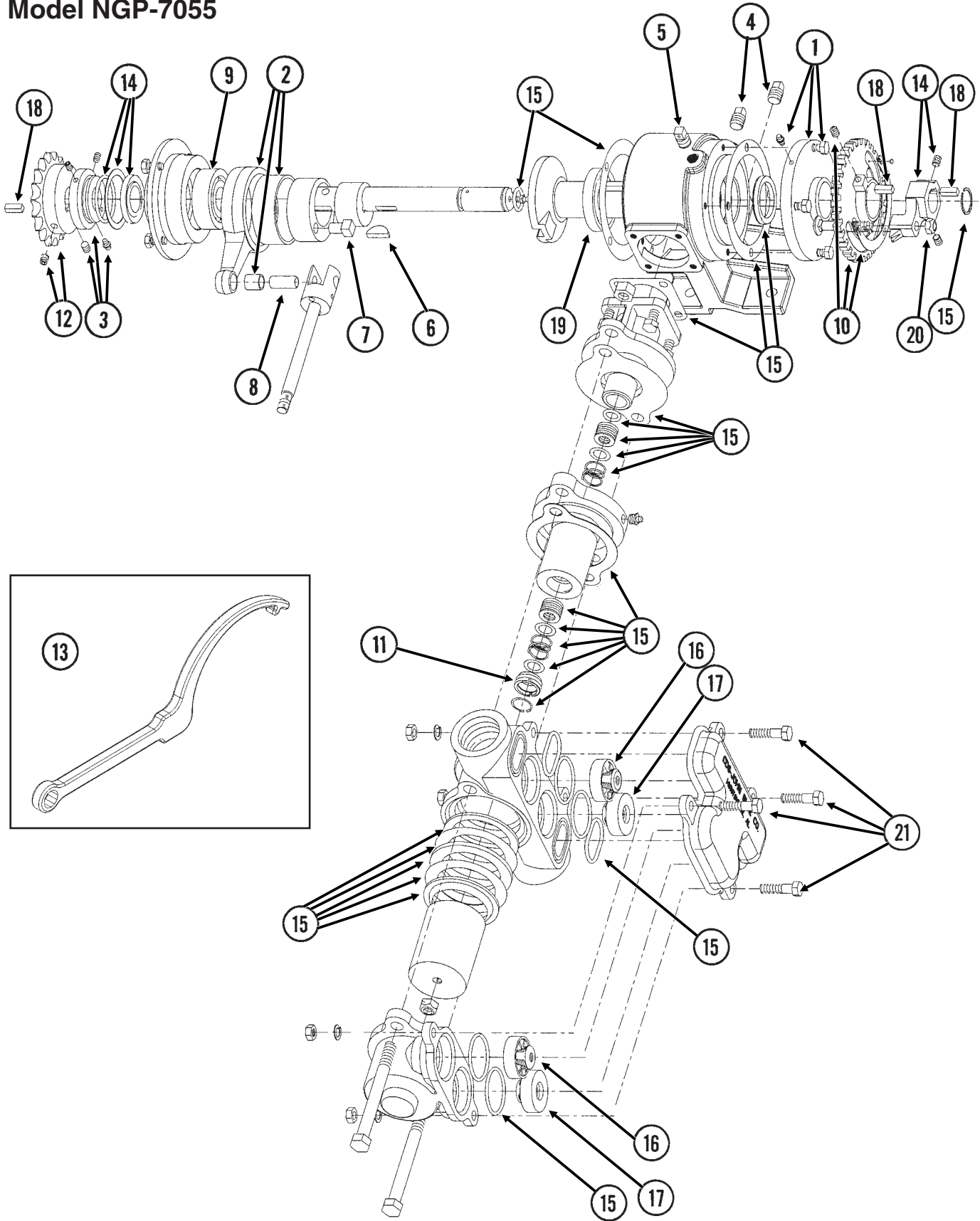
# LIQUID FERTILIZER FLOW DIVIDER MOUNT AND HOSES

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G4301-06	1	Hose, 3/8" x 160', 12 Row
	G4301-05	1-2	Hose, 3/8" x 120', 16 Row
2.	G10681	-	Hose Clamp, No. 6
3.	GD11700	-	Adapter, 1/4" NPT To 3/8" Barb
4.		-	See "Liquid Fertilizer Piston Pump Flow Divider", Pages P142 And P143
5.	G10292	-	Pipe Plug, 1/4" NPT
6.	G10995	1	Reducing Bushing, 1" Male NPT To 3/4" Female, Stainless Steel (If Applicable)
7.	GA6527	1	Mount, 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.	GA3893	1	Strainer Complete
	GR0880	-	Screen, No. 40 Mesh
	GR0881	-	Gasket
	GR0882	-	Y-Body
	GR0883	-	End Cap
10.	G10278	-	Hose Clamp, No. 16
11.	G10626	2	Adapter, 1 1/4" NPT To Barb
12.		-	See "Liquid Fertilizer Tanks, Saddles, Saddle Mounts And Hoses", Pages P134 And P135
13.	G10674	2	Hose Clamp, No. 24
14.	G11083	1	Coupler, 3/4" Female NPT
15.	G4205-10	-	Hose, 3/4" x 200"
16.	G10734	1	Adapter, 3/4" NPT To Barb
17.	G10917	1	Elbow, 90°, 3/4" NPT To Barb
18.		-	See "Liquid Fertilizer Piston Pump", Pages P140 And P141
19.	G10615	1	Reducing Bushing, 1 1/2" Male NPT To 1 1/4" Female
20.	G10619	1	Close Nipple, 1 1/4" NPT
21.	G10887	1	Elbow, 90°, 1 1/4" Male NPT To Female

# LIQUID FERTILIZER PISTON PUMP Uses 18 Tooth Sprocket

(A12335a/GR1808)

## Model NGP-7055





# LIQUID FERTILIZER PISTON PUMP

## Uses 18 Tooth Sprocket

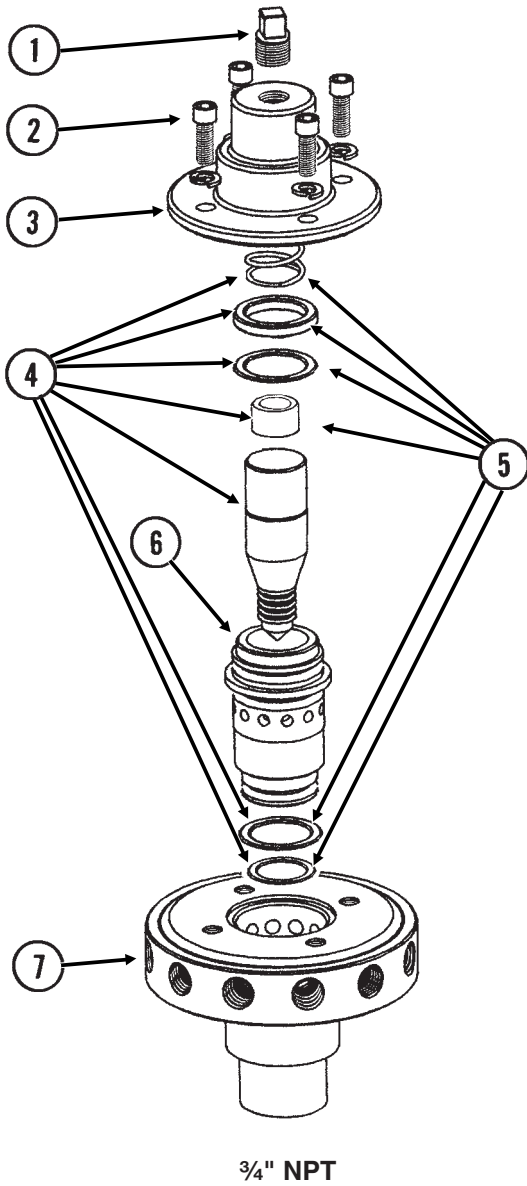
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1804	1	Flange Cover Assembly
	G10991	4	Hex Head Cap Screw, 5/16"-18 x 7/8"
2.	GR1803	1	Connecting Rod Assembly
3.	GR1801	1	Spacer Assembly
	G10693	3	Hex Socket Head Set Screw, 5/16"-18 x 3/8"
4.	GR1123	2	Plug
5.	GR1543	1	Vent Plug
6.	GR1112	1	Woodruff Key
7.	GR1120	1	Eccentric Pin
8.	GR1124	1	Pin
9.	GR1104	1	Bearing
10.	GR1805	1	Setting Hub Assembly
11.	GR1134	1	Stuffing Box Insert
12.	GR1146	1	Sprocket, 18 Tooth
13.	GR1808	1	Adjustment Wrench
14.	GR1806	1	Setting Pointer Assembly
15.	GR1796	1	Repair Kit, Includes: (6) Gaskets, (9) O-Rings, (4) Washers, (1) Retaining Ring, (2) Oil Seals, (1) Snap Ring, (1) Thrust Washer, (1) Rod Bushing, (2) Flange Plunger Packings, (2) Packing Springs, (2) Rod Vee Packing Sets
16.	GR1800	2	Discharge Valve Assembly
17.	GR1798	2	Suction Valve Assembly
18.	GR1118	3	Setting Arm Key
19.	GR1116	1	Bearing
20.	G10306	1	Carriage Bolt, 3/8"-16 x 2"
	G10108	1	Lock Nut, 3/8"-16
21.	G10003	4	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10210	4	Washer, 3/8" USS
	G10229	4	Lock Washer, 3/8"
	G10101	4	Hex Nut, 3/8"-16
A.	GA12335	-	Piston Pump Complete W/18 Tooth Sprocket (Model NGP-7055)

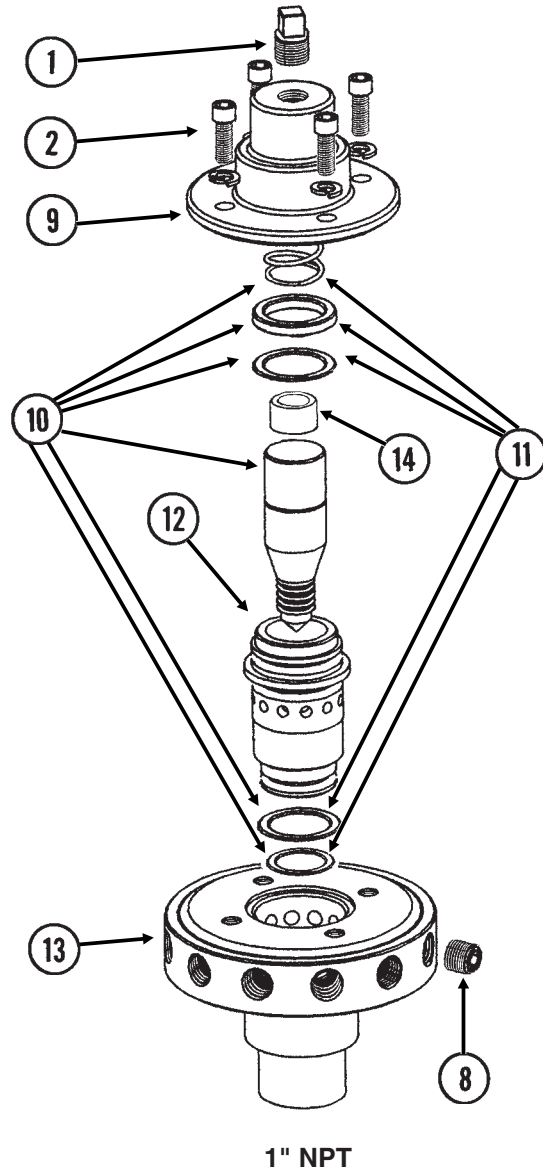
# LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

(FRTZ159/PT40a/FRTZ202c)

### Model FD-1200 Flow Divider, 12 Outlet



### Model FD-2000 Flow Divider, 20 Outlet



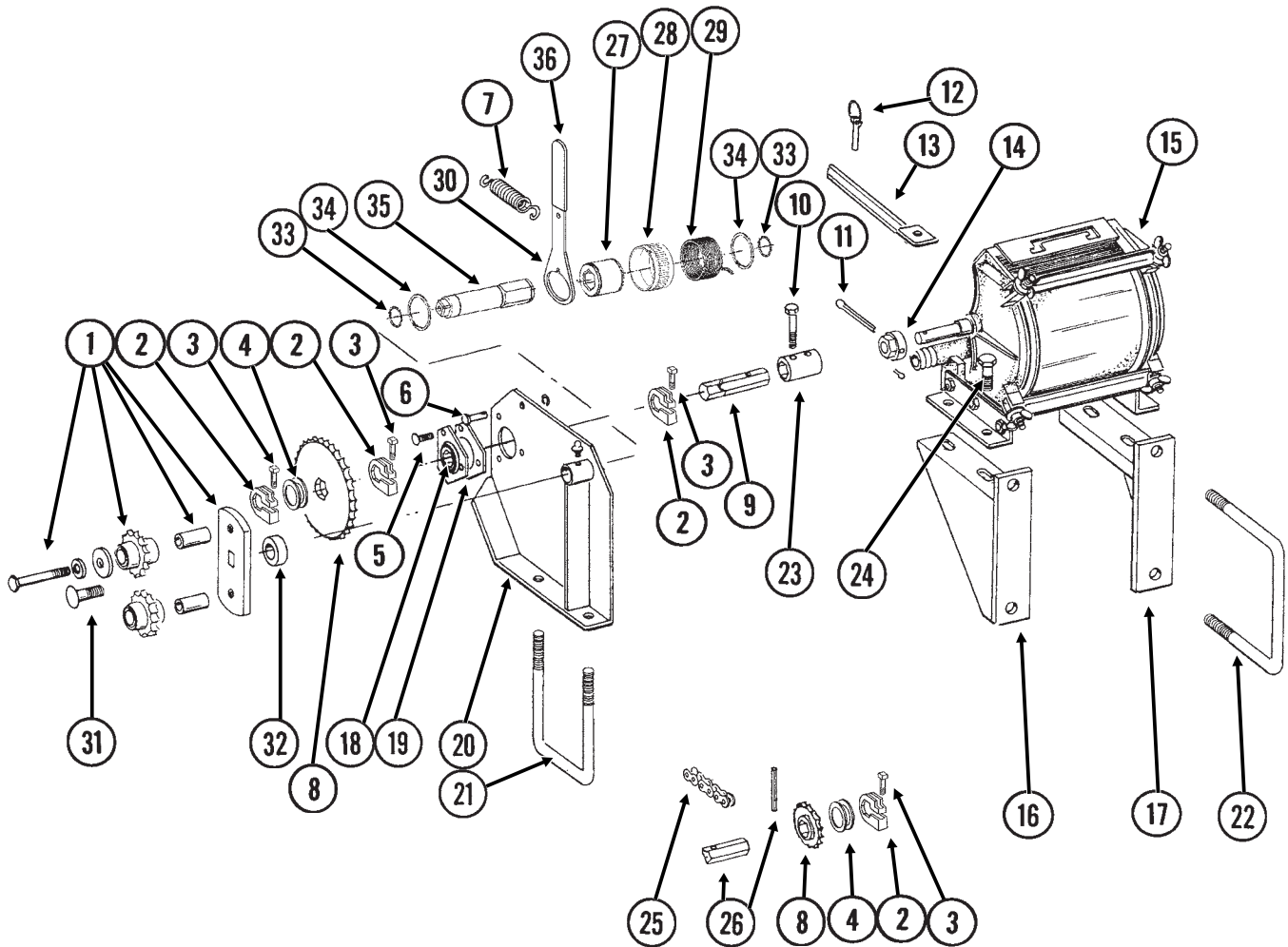
# LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1543	1	Vent Plug
2.	GR1542	4	Hex Socket Head Screw, 1/4"-20 x 3/4", Stainless Steel
	GR1541	4	Lock Washer, 1/4", Stainless Steel
3.	GR1540	1	Cap
4.	GR1544	1	Needle Assembly W/Seal Kit (Item 22)
5.	GR1545	1	Seal Kit, Includes: (3) O-Rings, (1) Seal, (1) Spring, (1) Stainless Steel Sleeve
6.	GR1535	1	Sleeve
7.	GR1533	1	Body, 12 Outlets
8.	G10350	4	Hex Socket Head Plug, 1/4" NPT, Stainless Steel
9.	GR1566	1	Cap
10.	GR1567	1	Needle Assembly W/Seal Kit (Item 22)
11.	GR1568	1	Seal Kit, Includes: (3) O-Rings, (1) Seal, (1) Spring
12.	GR1561	1	Sleeve
13.	GR1559	1	Body, 20 Outlets
14.	GR1574	1	Sleeve, 1" O.D. x 1/2" Long, Stainless Steel
A.	GA8931	1	Liquid Fertilizer Piston Pump Flow Divider Complete, 12 Outlet (Model FD-1200) (Items 1-7) (8/12 Row Planters)
B.	GA9407	1	Liquid Fertilizer Piston Pump Flow Divider Complete, 20 Outlet (Model FD-2000) (Items 1, 2 And 8-14) (16 Row Planters)

# LIQUID FERTILIZER SQUEEZE PUMP DRIVE

(TWL46f)



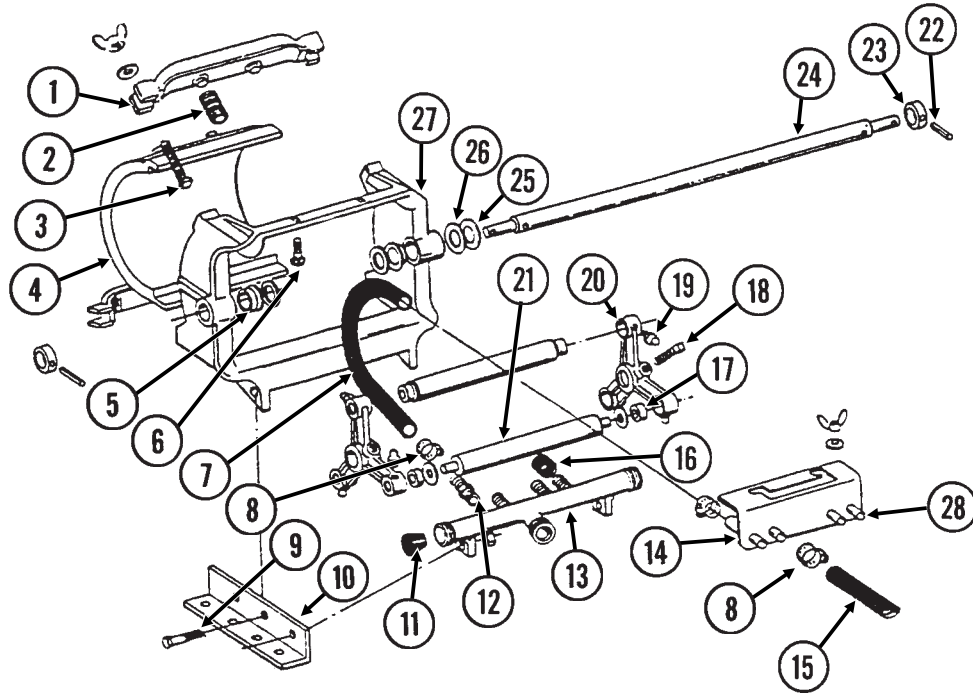
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Side)	
1.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	GD1026	-	Sleeve, 1 3/16" Long
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"
	G10047	-	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
2.	GD11045	4	Lock Clamp
3.	G10130	4	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	4	Flange Nut, 5/16"-18, No Serration
4.	G10233	-	Machine Bushing, 1 1/2" x 1/32", 10 Gauge (As Required)
5.	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
6.	G10478	1	Clevis Pin, 5/16" x 1"
	G10409	1	Retaining Ring, 5/16"
7.	GD5857	1	Spring

# LIQUID FERTILIZER SQUEEZE PUMP DRIVE

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Side)	
8.	GA5105	1	Sprocket, 15 Tooth
	GA5107	1	Sprocket, 19 Tooth
	GA6513	1	Sprocket, 32 Tooth
	GA5202	1	Sprocket, 34 Tooth
	GA6514	1	Sprocket, 46 Tooth
	GA6515	-	Sprocket, 62 Tooth (Optional)
9.	GD2548-48	1	Hex Shaft, 7/8" x 48" (1 Hole), 8 Row
	GD2548-54	-	Hex Shaft, 7/8" x 54" (1 Hole), 12/16 Row
10.	G10339	1	Hex Head Cap Screw, 5/16"-18 x 2"
	G10232	1	Lock Washer, 5/16"
	G10106	1	Hex Nut, 5/16"-18
11.	G10462	1	Cotter Pin, 3/16" x 2"
12.	GD2558	1	Lynch Pin, 1/4"
13.	GA5229	1	Sprocket Storage Rod
14.	GD7127	1	Shear Coupler
15.		-	See "Liquid Fertilizer Squeeze Pump", Pages P146-P149
16.	GA4619	1	Pump Mount, L.H.
17.	GA4620	1	Pump Mount, R.H.
18.	G2100-03	1	Bearing, 7/8" Hex Bore, Spherical
19.	G3400-01	2	Flangette
20.	GA4617	1	Drive Plate W/Grease Fitting
	GA4618	-	Drive Plate W/Grease Fitting (Shown)
	G10640	-	Grease Fitting, 1/4"-28
21.	GD1134	1	U-Bolt, 7" x 5" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
22.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
23.	GD6924	1	Coupler
24.	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10210	4	Washer, 3/8" USS
	G10229	4	Lock Washer, 3/8"
	G10101	4	Hex Nut, 3/8"-16
25.	G3310-170	1	Chain, No. 40, 170 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
26.		-	See "Seed Rate Transmission And Row Unit Drill Shafts", Pages P68 And P69
27.	GD14432	1	Sleeve, 1 1/4"
28.	GD19344	-	Release Collar, L.H. (Shown)
	GD19343	1	Release Collar, R.H.
29.	GD14414	1	Torsion Spring, R.H. (Used On L.H. Wrap Spring Wrench) (Shown)
	GD14413	-	Torsion Spring, L.H. (Used On R.H. Wrap Spring Wrench)
30.	GD14431	1	Handle
31.	G11100	1	Hex Socket Button Head Cap Screw, 1/4"-20 x 1/2", Grade 8
	G10227	1	Lock Washer, 1/4"
	G10209	1	Washer, 1/4" USS
32.	GD2734-08	1	Sleeve, 1 1/4" O.D. x 5/8" Long
33.	G11075	2	External Inverted Snap Ring, 7/8"
34.	G10496	2	External Inverted Snap Ring, 1 1/2"
35.	GD14427	1	Tightener Shaft, 4 7/8"
36.	G11078	1	Vinyl Cap
A.	G1K269	-	Lock Clamp Kit (Items 2 And 3)
B.	G1K379	-	Wrap Spring Wrench Replacement Kit, Silver Collar, L.H. (Items 27-36) (Shown)
	G1K378	1	Wrap Spring Wrench Replacement Kit, Gold Collar, R.H. (Items 27-36)

# LIQUID FERTILIZER SQUEEZE PUMP, 8 ROW SIZE

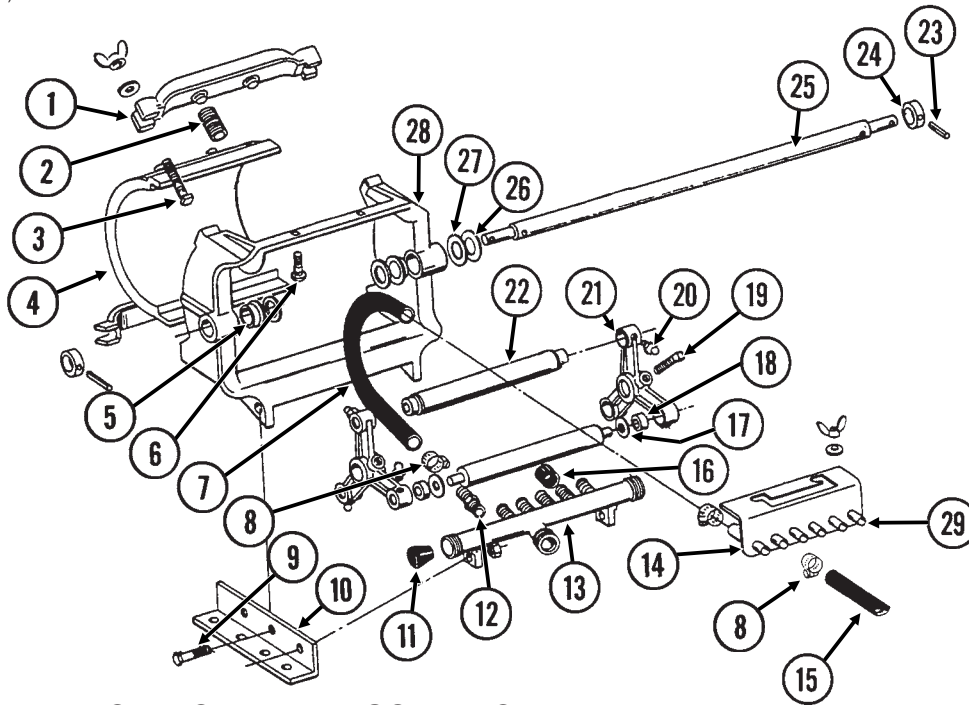
LFC011(PT46a)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0216	2	Spring Anchor Bar
2.	GR0214	4	Spring
3.	G10130	4	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10219	4	Washer, 5/16" USS
	G10144	4	Wing Nut, 5/16"-18
4.	GR0212	1	Plate
5.	GR0207	2	Nylon Bushing
6.	G10303	2	Carriage Bolt, 5/16"-18 x 1"
	G10219	2	Washer, 5/16" USS
	G10144	2	Wing Nut, 5/16"-18
7.	GR0215	4	Metering Hose, 1/2" x 13"
8.	G10681	-	Hose Clamp, No. 6
9.	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10101	4	Hex Nut, 3/8"-16
10.	GR0213	2	Angle
11.	GR0217	2	Manifold Plug
12.	GR0232	4	Adapter
13.	GR0228	1	Intake Manifold
14.	GR1484	1	Discharge Manifold Less Hose Barbs
15.	G4301-05	1	Hose, 3/8" x 120'
16.	GR0211	-	Rubber Cap
17.	GR0227	6	Nylon Washer
18.	G10131	2	Square Head Set Screw, 5/16"-18 x 3/4"
19.	G10640	2	Grease Fitting, 1/4"-28
20.	GR0223	2	Roller Arm
21.	GR0209	3	Roller
22.	G10718	2	Spring Pin, 5/16" x 1 1/8"
23.	GD9109	2	Sleeve
24.	GD9107	1	Shaft
25.	GR0226	2	Shim, 3/64"
26.	GR0225	2	Shim, 1/32"
27.	GR0208	1	Frame
28.	GR1577	4	Nylon Hose Barb, 1/2" x 3/8" (If Applicable)
A.	GA8690	2	Squeeze Pump Complete, 4 Rows (Items 1-14, 16-21 And 24-28)

# LIQUID FERTILIZER SQUEEZE PUMP, 12 ROW SIZES

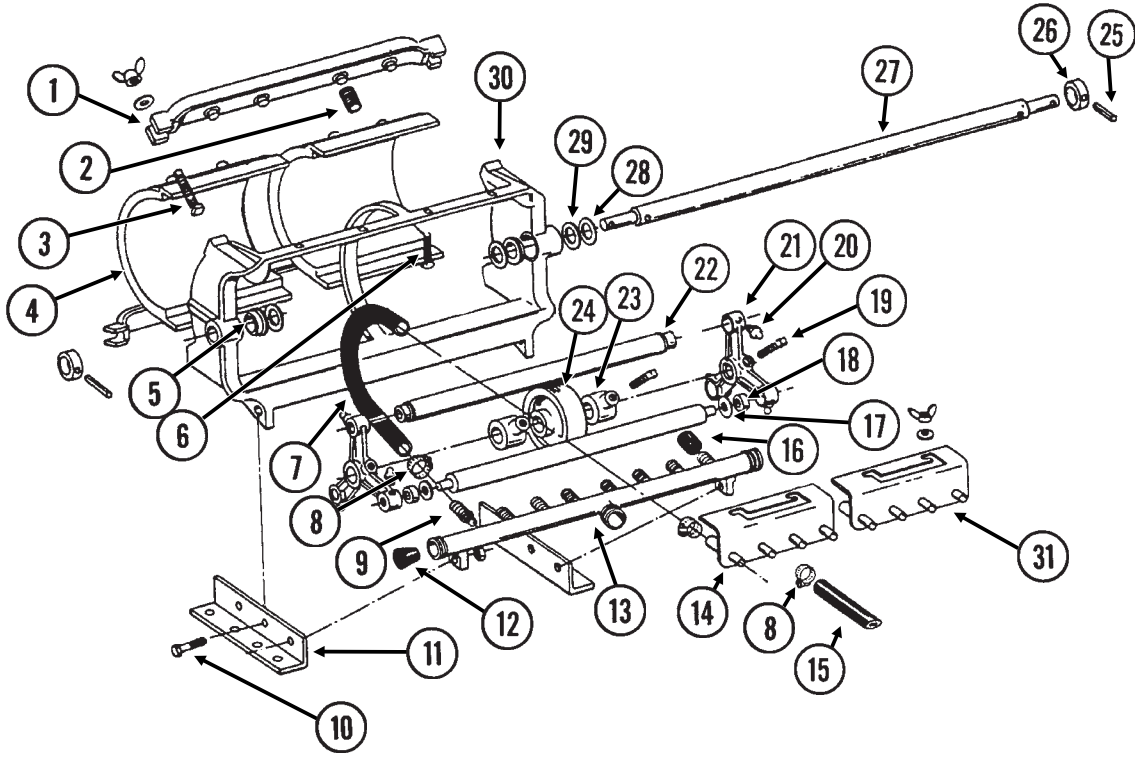
LFC011/LFC011(PT47a)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0216	2	Spring Anchor Bar
2.	GR0214	4	Spring
3.	G10130	4	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10219	4	Washer, 5/16" USS
	G10144	4	Wing Nut, 5/16"-18
4.	GR0212	1	Plate
5.	GR0207	2	Nylon Bushing
6.	G10303	2	Carriage Bolt, 5/16"-18 x 1"
	G10219	2	Washer, 5/16" USS
	G10144	2	Wing Nut, 5/16"-18
7.	GR0215	6	Metering Hose, 1/2" x 13"
8.	G10681	-	Hose Clamp, No. 6
9.	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10101	4	Hex Nut, 3/8"-16
10.	GR0213	2	Angle
11.	GR0217	2	Manifold Plug
12.	GR0232	6	Adapter
13.	GR0228	1	Intake Manifold
14.	GR1484	1	Discharge Manifold Less Hose Barbs
15.	G4301-06	1	Hose, 3/8" x 160', 12 Row 30"
	G4301-05	2	Hose, 3/8" x 120', 12 Row 36"/38"
16.	GR0211	-	Rubber Cap
17.	GR0229	6	Nylon Washer
18.	GR1626	6	Bushing
19.	G10131	2	Square Head Set Screw, 5/16"-18 x 3/4"
20.	G10640	8	Grease Fitting, 1/4"-28
21.	GR0231	2	Roller Arm
22.	GR0233	3	Roller
23.	G10718	2	Spring Pin, 5/16" x 1 1/8"
24.	GD9109	2	Sleeve
25.	GD9107	1	Shaft
26.	GR0226	2	Shim, 3/64"
27.	GR0225	2	Shim, 1/32"
28.	GR0208	1	Frame
29.	GR1577	6	Nylon Hose Barb, 1/2" x 3/8" (If Applicable)
A.	GA8691	2	Squeeze Pump Complete, 6 Rows (Items 1-13, 15-22 And 25-29)

# LIQUID FERTILIZER SQUEEZE PUMP, 16 ROW SIZE

LFC010(PT48a)





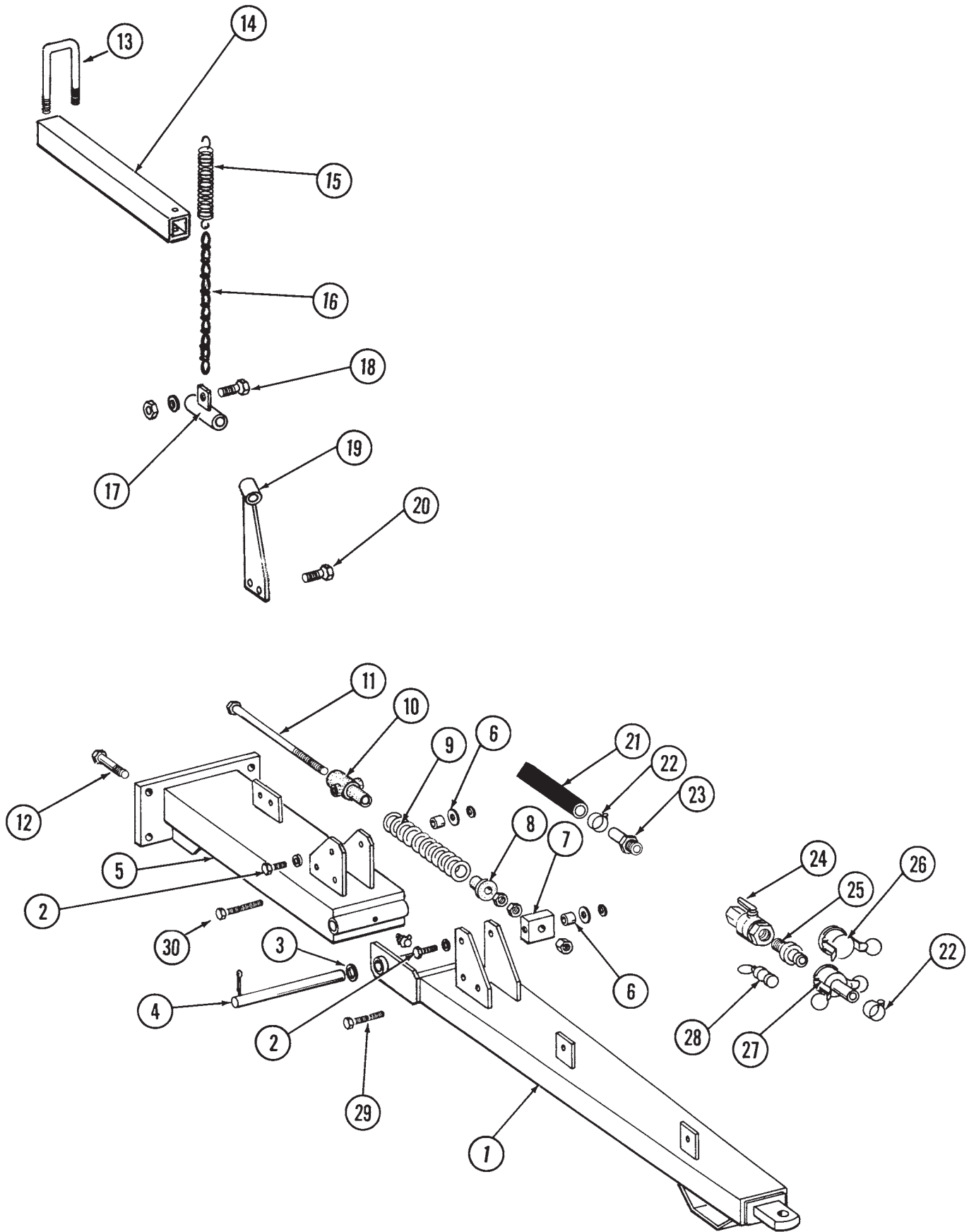
# LIQUID FERTILIZER SQUEEZE PUMP, 16 ROW SIZE

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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0221	2	Spring Anchor Bar
2.	GR0214	8	Spring
3.	G10130	4	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10219	4	Washer, 5/16" USS
	G10144	4	Wing Nut, 5/16"-18
4.	GR0212	2	Plate
5.	GR0207	2	Nylon Bushing
6.	G10303	4	Carriage Bolt, 5/16"-18 x 1"
	G10219	4	Washer, 5/16" USS
	G10144	4	Wing Nut, 5/16"-18
7.	GR0215	8	Metering Hose, 1/2" x 13"
8.	G10681	-	Hose Clamp, No. 6
9.	GR0232	8	Adapter
10.	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10101	4	Hex Nut, 3/8"-16
11.	GR0279	1	Angle, L.H.
	GR0280	1	Angle, R.H.
12.	GR0217	2	Manifold Plug
13.	GR0284	1	Intake Manifold
14.	GR1485	2	Discharge Manifold Less Hose Barbs
15.	G4301-05	1	Hose, 3/8" x 120'
16.	GR0211	-	Rubber Cap
17.	GR0229	6	Nylon Washer
18.	GR1626	6	Bushing
19.	G10131	2	Square Head Set Screw, 5/16"-18 x 3/4"
20.	G10640	8	Grease Fitting, 1/4"-28
21.	GR0231	2	Roller Arm
22.	GR0283	3	Roller
23.	GR0282	2	Set Collar
24.	GR0281	1	Back Up Roller
25.	G10718	2	Spring Pin, 5/16" x 1 1/8"
26.	GD9109	2	Sleeve
27.	GD9108	1	Shaft
28.	GR0226	4	Shim, 3/64"
29.	GR0225	4	Shim, 1/32"
30.	GR0222	1	Frame
31.	GR1577	8	Nylon Hose Barb, 1/2" x 3/8" (If Applicable)
A.	GA8692	2	Squeeze Pump Complete, 8 Rows (Items 1-14, 16-24 And 27-31)

# REAR TRAILER HITCH

PHA032/LFC003(TWL47a)



# REAR TRAILER HITCH

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

# DECALS, PAINT AND MISCELLANEOUS



1



2



3



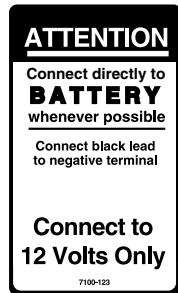
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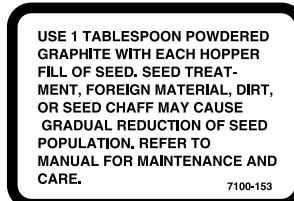
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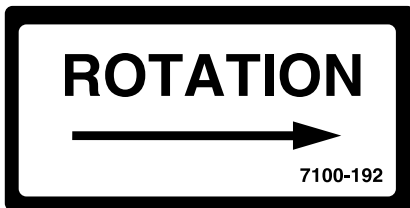
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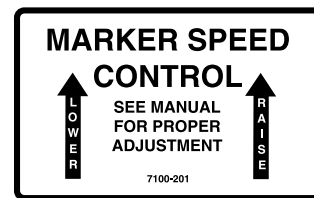
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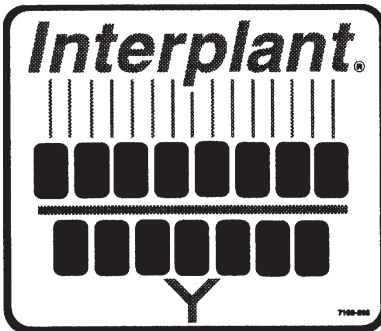
10



11



12



13

TRANSMISSION RATE REDUCTION

DRIVE	DRIVEN	% REDUCTION IN POPULATION
15	30	50
17	30	43
23*	30	23
24	30	20
25*	30	17
26*	30	13
27	30	10

\* Use sprockets off seed drive transmission

14



15

**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.

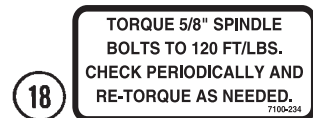
AN OPERATOR & PARTS MANUAL IS AVAILABLE FOR THIS MACHINE.

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

16



17



18

# KINZE 3600

19



20

# DECALS, PAINT AND MISCELLANEOUS

ROTATE KNURLED COLLAR  
ON WRAP SPRING TIGHTENER  
TO RELEASE SPRING  
TENSION

7100-295

21

**CAUTION**

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

7100-249

22

**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

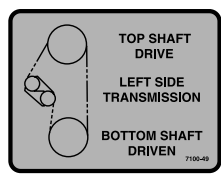
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**WARNING**

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

24



25

**WARNING**

USE SAFETY  
CHAINS PROVIDED.  
TOW ONLY WITH  
FARM TRACTOR.

7100-302

26

**CAUTION**

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

7100-63

27

**WARNING**

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

7100-48

28

**CAUTION**

AVOID UNEVEN LOADING  
OF HOPPERS, ESPECIALLY  
DURING TRANSPORT

7100-75

29

**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

30

**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

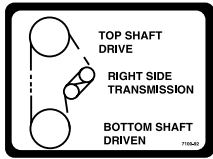
31

**WARNING**

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

7100-90

32

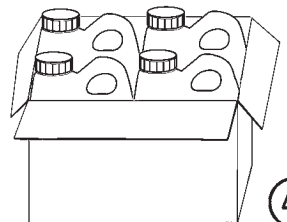
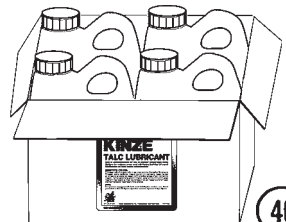
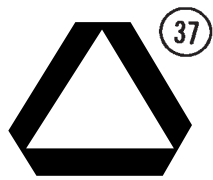
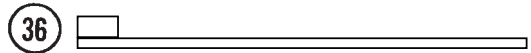


33

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34

35



DRAIN MOISTURE FROM  
AIR TANK DAILY.  
DRAIN TANK COMPLETELY  
FOR STORAGE.

7100-352

44



45

# DECALS, PAINT AND MISCELLANEOUS

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G7100-02	3	Decal, Warning
2.	G7100-110	-	Decal, Grease Weekly
3.	G7100-111	-	Decal, Oil Daily
4.	G7100-115	-	Decal, Warning (1 Per Granular Chemical Hopper)
5.	G7100-116	-	Decal, Grease Daily
6.	G7100-117	1	Decal, Danger
7.	G7100-123	1	Decal, Attention
8.	G7100-153	-	Decal, Information (1 Per Brush-Type Seed Meter)
9.	G7100-177	1	Decal, Twin-Line®, ¾" x 3"
10.	G7100-192	-	Decal, Point Row Clutch Rotation
11.	G7100-200	-	Decal, Warning
12.	G7100-201	1	Decal, Information
13.	G7100-208	-	Decal, Interplant®
14.	G7100-214	-	Decal, Two-Speed Point Row Clutch Rate Reduction
15.	G7100-215	1	Decal, Danger
16.	G7100-217	-	Decal, Note
17.	G7100-219	-	Decal, Warning
18.	G7100-234	-	Decal, Bolt Torque
19.	G7100-245	2	Decal, KINZE® 3600
20.	G7100-247	-	Decal, Logo, 4 ⅜" x 4 ½" (2 Per Row Unit)
	G7100-252	-	Decal, Logo, 3 ½" x 3 ⅝" (Hopper Panel Extension)
21.	G7100-295	-	Decal, Spring Tension Release
22.	G7100-249	-	Decal, Caution
23.	G7100-42	4	Decal, Warning
24.	G7100-46	1	Decal, Warning
25.	G7100-49	1	Decal, Left Side Transmission
26.	G7100-302	1	Decal, Warning
27.	G7100-63	2	Decal, Caution
28.	G7100-68	3	Decal, Warning
29.	G7100-75	4	Decal, Caution
30.	G7100-83	2	Decal, Warning (1 Per Marker Lockup)
31.	G7100-89	2	Decal, Danger
32.	G7100-90	1	Decal, Warning
33.	G7100-92	1	Decal, Right Side Transmission
34.	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
35.	GM0223	-	Operator & Parts Manual, Model 3600 (Mechanical Seed Metering)
36.	GD1512	-	Tie Strap, 7 ½"
	GD2117	-	Tie Strap, 14 ½"
	GD1162	-	Tie Strap, 28"
	GD2984	-	Tie Strap, 34"
37.	GD2199	1	SMV Sign
38.	GR0146	-	Powdered Graphite, 1 Pound Container
	GR0146MPP	-	Powdered Graphite, Twenty-Four 1 Pound Containers
39.	GR0155	-	Blue Paint, Aerosol Can
	GR0155MPP	-	Blue Paint, Twelve Aerosol Cans
40.	GR1570MPP	-	Talc Lubricant, Four 8 Pound Containers
	GR1828	-	Talc Lubricant, 30 Pound Containers
41.	G7100-261	-	Reflective Decal, Red, 1 ¾" x 9", Die-Cut (If Applicable)
	G7100-262	-	Reflective Decal, Amber, 1 ¾" x 9", Die-Cut (If Applicable)
	G7100-263	-	Reflective Decal, Orange, 1 ¾" x 9", Die-Cut (If Applicable)

# DECALS, PAINT AND MISCELLANEOUS

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ITEM	PART NO.	QTY.	DESCRIPTION
42.	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)
43.	GR1842MPP	-	Graphite Lubricant, Four 5 Pound Containers
44.	G7100-352	-	Decal, Tank Drain
45.	G7100-335	-	Decal, KINZE Vision®

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