

# PARTS LIST INDEX

## ROW UNIT

15" Seed Opener Disc Blade/Bearing Assembly And Scrapers .....	P11
Brush-Type Seed Meter .....	P21
Coulter Mounted Residue Wheels .....	P34
Covering Discs/Single Press Wheel .....	P13
Drag Closing Attachment .....	P15
Finger Pickup Seed Meter .....	P20
Frame Mounted Coulter W/Residue Wheels .....	P36
Gauge Wheels .....	P12
Granular Chemical Banding Options .....	P25
Granular Chemical Hopper And Hopper Panel Extension .....	P22
Granular Chemical Meter And Meter Drive .....	P24
Hopper Support And Meter Drive .....	P18
Parallel Arms, Mounting Support Plate And Pneumatic Down Pressure Package Option .....	P4
Parallel Arms, Mounting Support Plate And Quick Adjustable Down Force Springs Option .....	P10
Pneumatic Down Pressure Control Box, Sending Unit And Harnesses .....	P6
Pneumatic Down Pressure Air Compressor, Dual Solenoid Assembly, Tubing And Fittings .....	P8
Row Unit Mounted Bed Leveler .....	P28
Row Unit Mounted Disc Furrower .....	P30
Row Unit Mounted No Till Coulter .....	P27
Row Unit Mounted Residue Wheel .....	P32
Seed Hopper And Lid .....	P19
Shank Assembly, Seed Tube And Depth Adjustment .....	P2
Spring Tooth Incorporator .....	P26
"V" Closing Wheels .....	P14

## BASE MACHINE

2-Point Hitch Option .....	P42
Axle Assembly .....	P56
Bolt-On Wheel Module/Transport Latch Catch .....	P66
Center Frame .....	P50
Center Pivot .....	P54
Contact Wheel And Drive Shaft(s) .....	P60
Cylinders .....	P80
Electrical Components .....	P100
Ground Drive Wheel .....	P63
Hose Take-Up .....	P48
Hydraulic Hoses And Fittings .....	P94
Inner Hitch .....	P44
Inner Module Drive .....	P67
Outer Hitch .....	P40
Point Row Clutch .....	P68
Row Marker Assemblies .....	P76
Row Marker Spindle/Hub/Blade .....	P75
Safety Chain .....	P34
Seed Rate Transmission And Row Unit Drill Shafts .....	P64
Transport Wheels/Rock Guards .....	P58
Two-Speed Point Row Clutch .....	P70
Two-Speed Point Row Clutch Wheel Module Extension .....	P72
Valve And Junction Blocks .....	P88
Valves (Solenoid, Flow Control, Pressure Relief, Check) .....	P92
Wing Frame .....	P52

## ELECTRONIC SEED MONITOR

KPM I Electronic Seed Monitor .....	P102
KPM II Stack-Mode Electronic Seed Monitor .....	P104
KPM III Electronic Seed Monitor .....	P106
Planter Monitor Module .....	P108

## INTERPLANT® SYSTEM

Interplant® Push Row Unit .....	P38
Interplant® Push Row Unit Drive .....	P110

## FERTILIZER

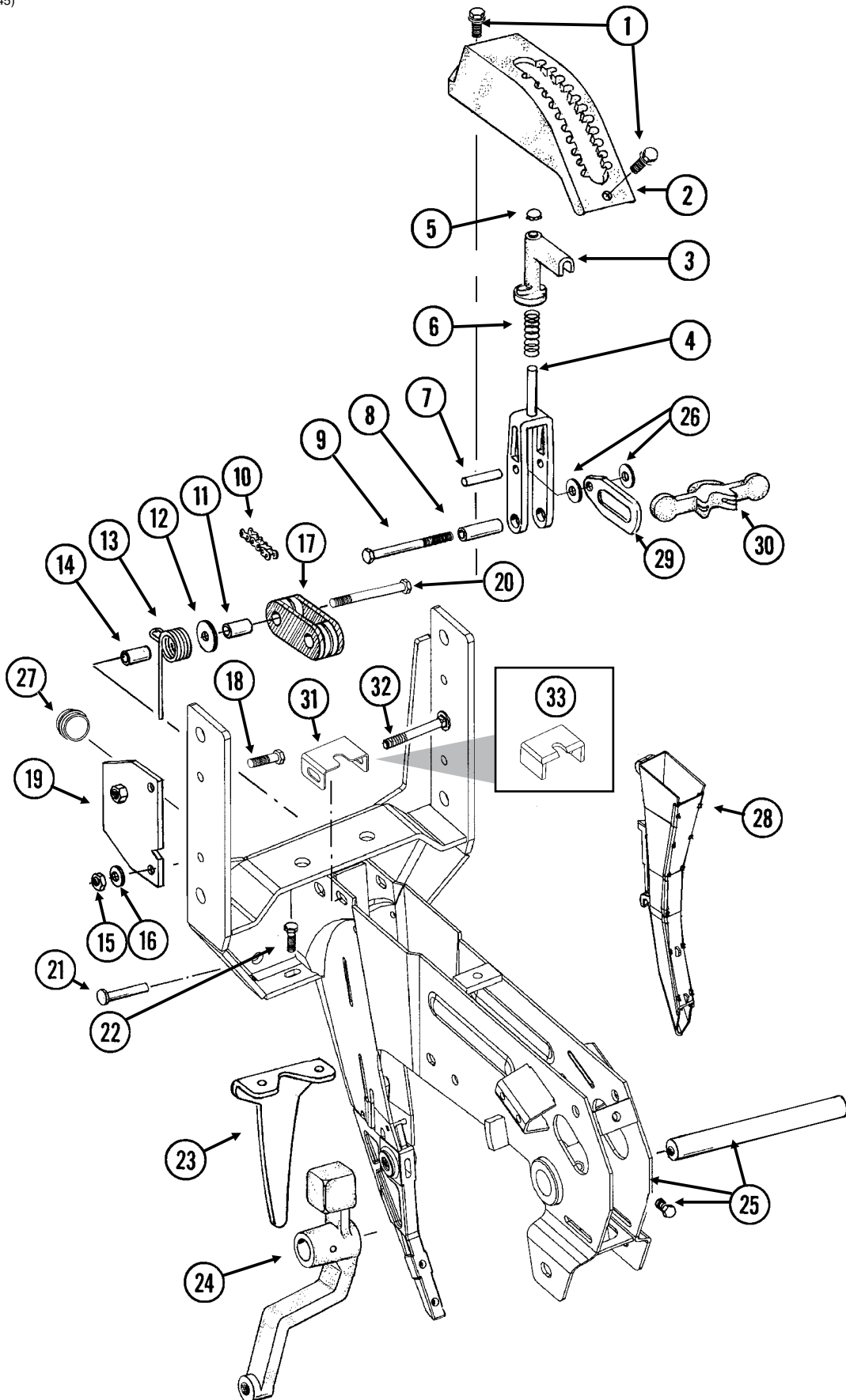
Dry Fertilizer .....	P126
Fertilizer Openers, Mounts And Attachments .....	P114
Liquid Fertilizer .....	P132
Rear Trailer Hitch .....	P152

Decals, Paint And Miscellaneous .....	P154
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Numerical Index .....	P157
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# SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

(METR29cc/D16245)



# SHANK ASSEMBLY, SEED TUBE AND DEPTH ADJUSTMENT

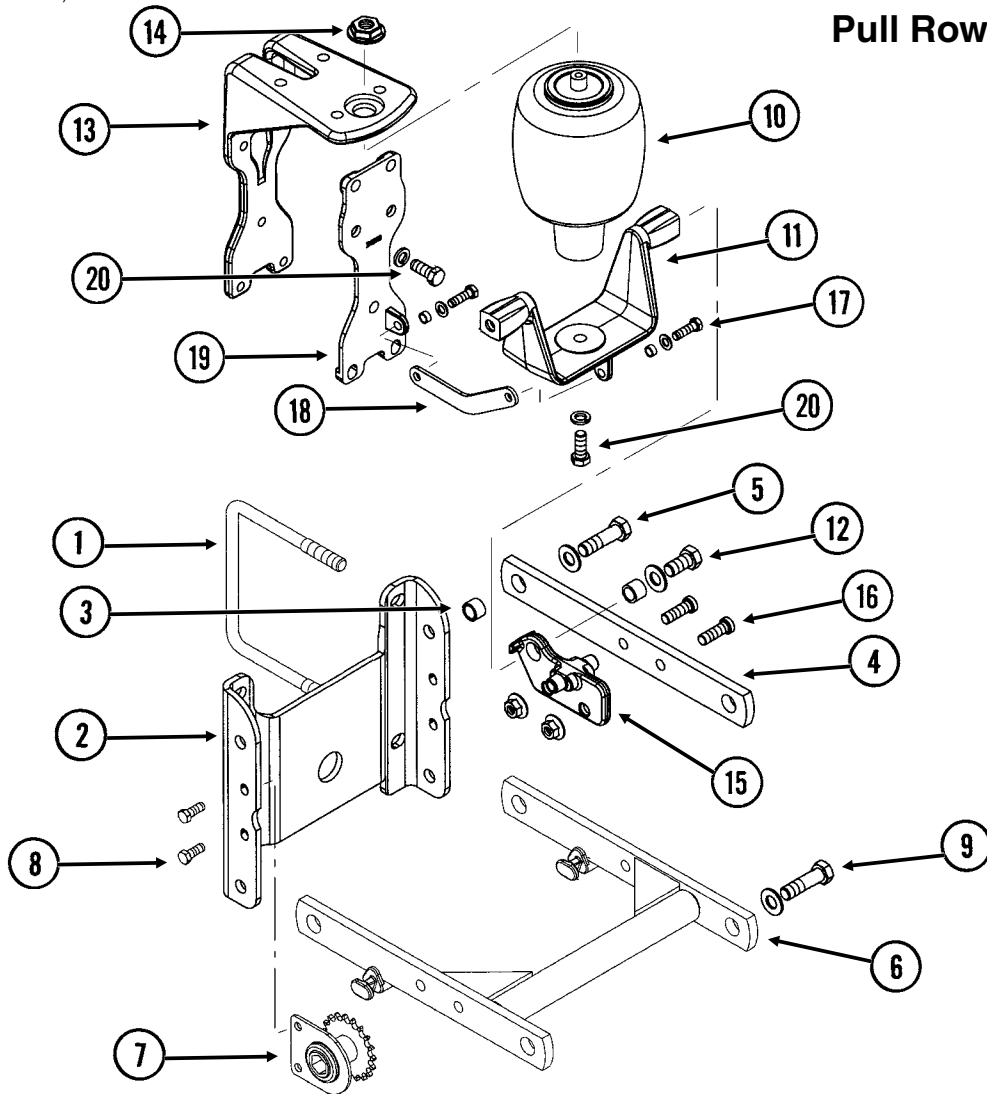
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ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G11015	2	Hex Washer Head Cap Screw, 3/8"-16 x 1 1/4"
2.	GB0274	1	Cover, Depth Adjustment
3.	GB0266	1	Handle, Depth Adjustment
4.	GB0267	1	Lever, Depth Adjustment
5.	GD3612	1	Cap Plug
6.	GD10993	1	Spring
7.	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 I Electronic Seed Monitor", "KPM II Stack-Mode Electronic Seed Monitor", "KPM III Electronic Seed Monitor" And "Planter Monitor Module", Pages P102-P109
29.	GB0285	1	Collar, Depth Adjustment
30.	GB0265	1	Pivot Link, Depth Adjustment
31.	GD15970	1	Sun Shade
32.	G10304	1	Carriage Bolt, 3/8"-16 x 3"
	G10108	1	Lock Nut, 3/8"-16
33.	GD16245	-	Sun Shade (Rubber)

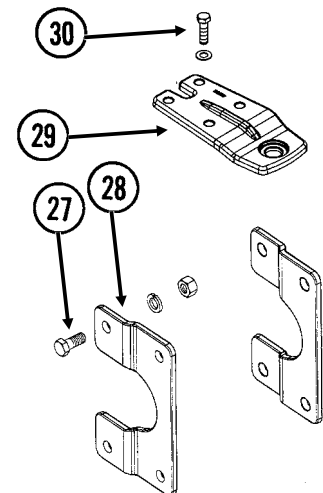
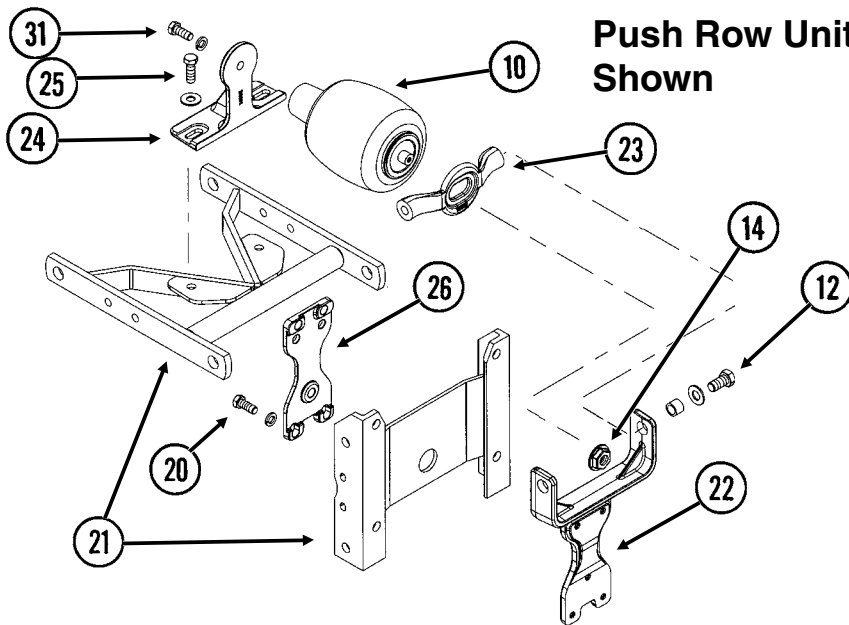
# PARALLEL ARMS, MOUNTING SUPPORT PLATE AND PNEUMATIC DOWN PRESSURE PACKAGE OPTION

(RU157a/RU159/RU157aa)

Pull Row Unit Shown



Push Row Unit Shown

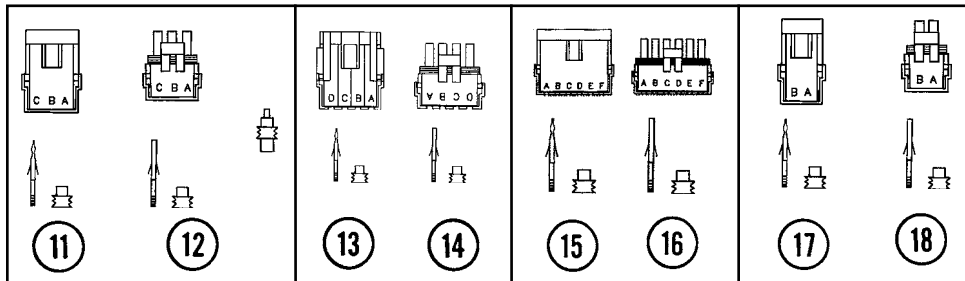
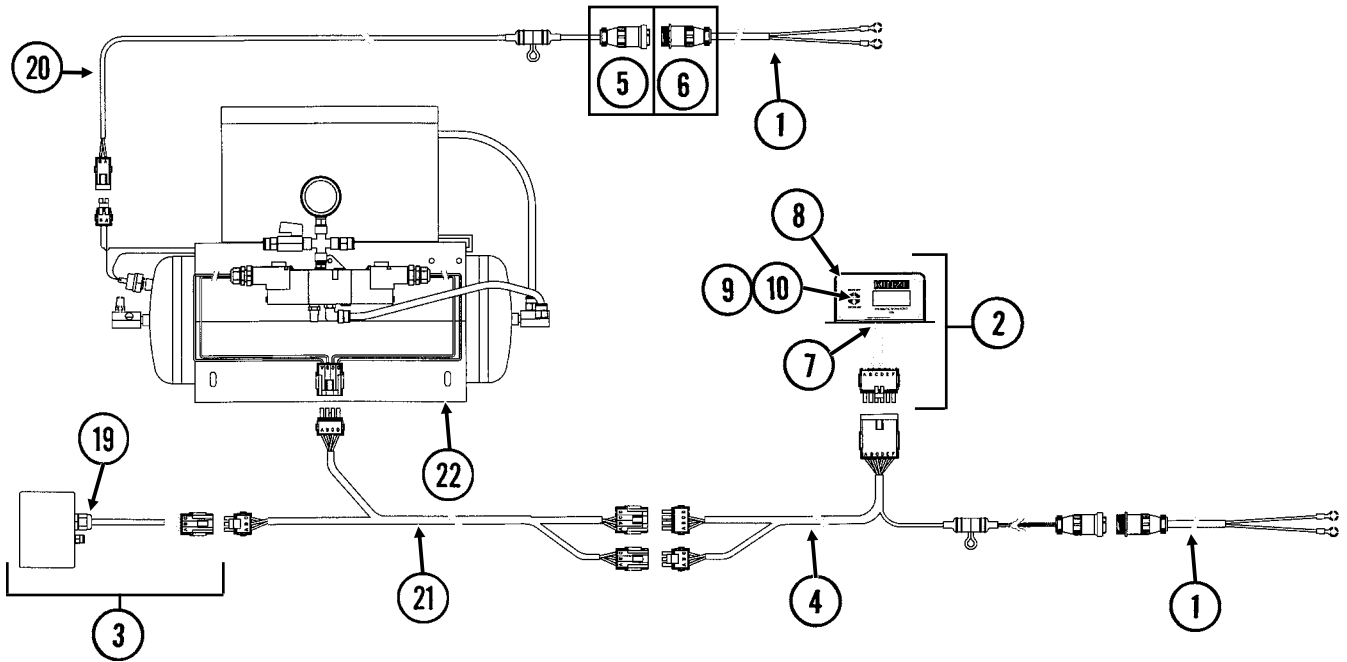


# PARALLEL ARMS, MOUNTING SUPPORT PLATE AND PNEUMATIC DOWN PRESSURE PACKAGE OPTION

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.	GA5651	1	Lower Parallel Arm
7.	GA1720	1	Bearing/Sprocket, 7/8" Hex Bore
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.		-	See "Hopper Support And Meter Drive", Page P18
10.	GA11982	1	Air Spring Assembly
11.	GB0394	1	Saddle
12.	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"
13.	GB0396	1	Head Mount
14.	GB0397	1	Shoulder Nut, 3/4"-16
15.	GB0395	2	Bracket
16.	G11220	4	Hex Socket Cap Screw, 1/2"-13 x 1 1/2"
	G10071	4	Serrated Flange Nut, 1/2"-13
17.	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
18.	GD17794	1	Link
19.	GB0393	1	Plate
20.	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"
21.		-	See "Interplant Push Row Unit", Pages P38 And P39
22.	GB0390	1	Yoke Mount
23.	GB0392	1	Yoke
24.	GB0391	1	Mount
25.	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"-11
26.	GB0389	1	Plate
27.	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
28.	GB0366	2	Extension Bracket
29.	GB0398	1	Extension
30.	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
31.	G10037	1	Hex Head Cap Screw, 1/2"-13 x 1 1/4"
	G10228	1	Lock Washer, 1/2"
A.	G6325X	-	U-Bolt Package For 5" x 7" Toolbar, Includes: (2) GD1113, (4) G10230, (4) G10104

# PNEUMATIC DOWN PRESSURE CONTROL BOX, SENDING UNIT AND HARNESSES

(PNE01/MTR27a/ELC27b/MTR45/MTR27t)

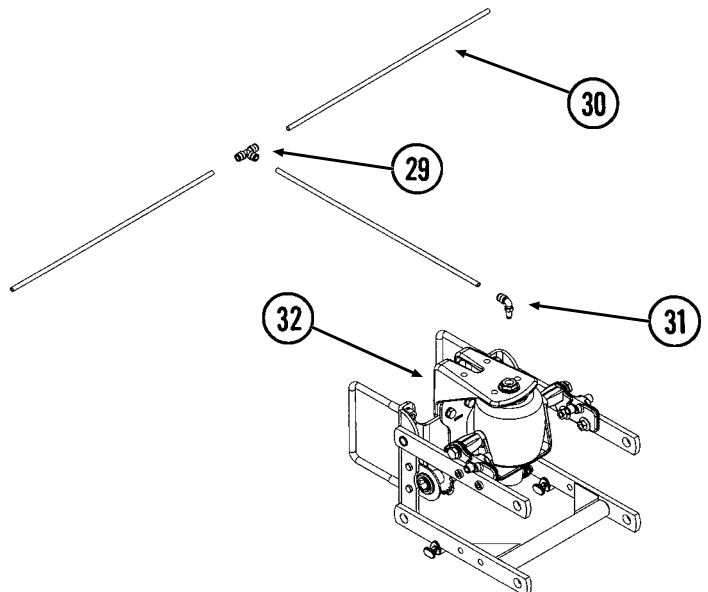
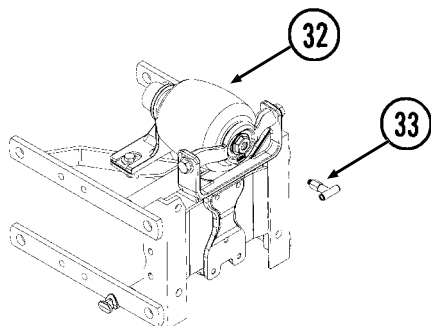
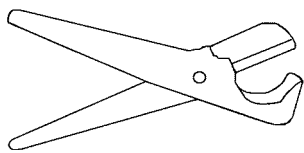
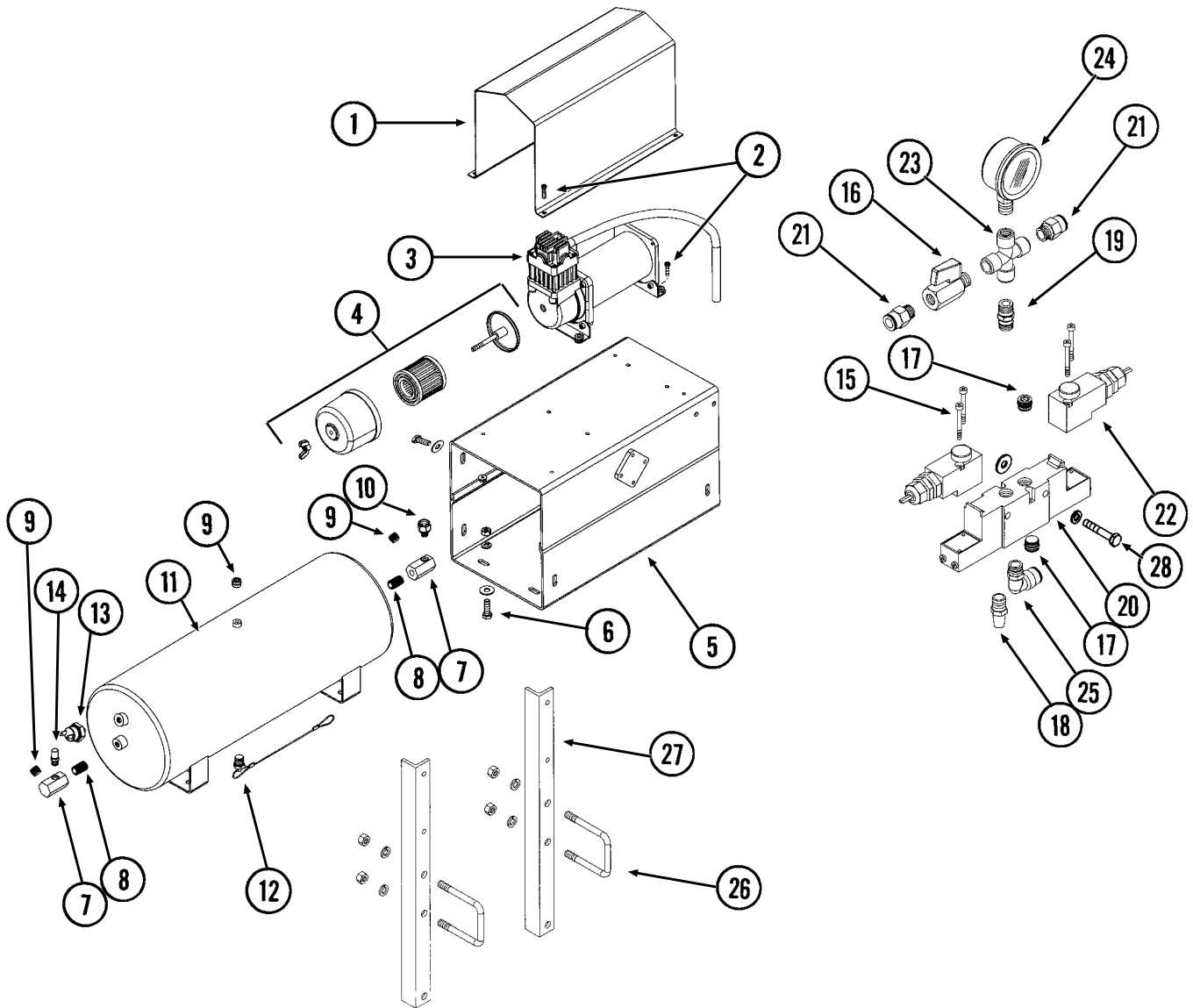


# PNEUMATIC DOWN PRESSURE CONTROL BOX, SENDING UNIT AND HARNESSSES

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7856	2	Power Lead Adapter
2.	GA12644	1	Control Box Assembly
3.	GA12646	1	Sending Unit
4.	GA12645	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.	GA9963	1	Strain Relief
8.	GR1292	4	Pan Head Screw, No. 8-32 x 1/2"
9.	GR1363	1	Hex Face Nut, 15/32"-32
10.	GA6978	1	Switch, 3 Position Toggle, ON-OFF-ON
11.	G1K248	-	3-Pin Female Connector Kit (Black), Includes: (3) 3-Pin Female Housings, (9) Pin Contacts, (9) Seals
12.	G1K252	-	3-Pin Male Connector Kit (Black), Includes: (3) 3-Pin Male Housings, (9) Socket Contacts, (9) Seals
13.	GA8328	-	4-Pin Female Connector Kit, Includes: (1) 4-Pin Female Housing, (4) Pin Contacts, (4) Seals
14.	GA8329	-	4-Pin Male Connector Kit, Includes: (1) 4-Pin Male Housing, (4) Socket Contacts, (4) Seals
15.	G1K396	-	6-Pin Female Connector Kit (Black), Includes: (3) 6-Pin Female Housings, (18) Pin Contacts, (18) Seals
16.	G1K395	-	6-Pin Male Connector Kit (Black), Includes: (3) 6-Pin Male Housings, (18) Socket Contacts, (18) Seals
17.	G1K321	-	2-Pin Female Connector Kit (Black), Includes: (3) 2-Pin Female Housings, (6) Pin Contacts, (6) Seals
18.	G1K320	-	2-Pin Male Connector Kit (Black), Includes: (3) 2-Pin Male Housings, (6) Socket Contacts, (6) Seals
19.	GA9964	2	Strain Relief
20.	GA12684	1	Wiring Harness W/Fuse Holder And Fuse, 60'
	GD14258	-	Fuse Holder
	GD18275	-	Fuse, 20 Amp
21.	GA12674	1	Wiring Harness, 60'
22.		-	See "Pneumatic Down Pressure Air Compressor, Dual Solenoid Assembly, Tubing And Fittings", Pages P8 And P9

# PNEUMATIC DOWN PRESSURE AIR COMPRESSOR, DUAL SOLENOID ASSEMBLY, TUBING AND FITTINGS

(PNE06/PNE02/PNE05/A13169/PNE09/PNE08)



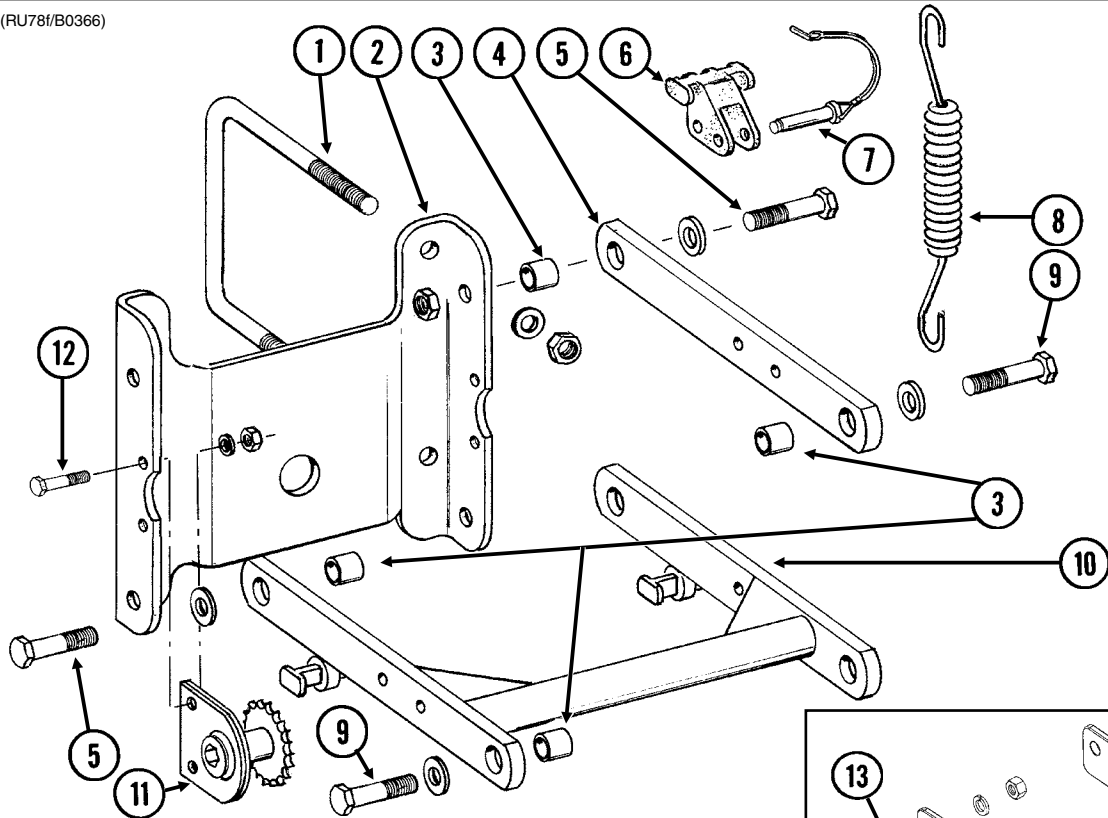
# PNEUMATIC DOWN PRESSURE AIR COMPRESSOR, DUAL SOLENOID ASSEMBLY, TUBING AND FITTINGS

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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	Mount
6.	G10019	8	Hex Head Cap Screw, 5/16"-18 x 1"
	G10219	8	Washer, 5/16" USS
	G10232	8	Lock Washer, 5/16"
	G10106	8	Hex Nut, 5/16"-18
7.	GD17298	2	Manifold, 1/4" NPT
8.	GD18081	2	Close Nipple, 1/4" NPT
9.	GD17156	3	Plug, 1/4" NPT
10.	GD17144	1	Reducer, 1/8" Male To 1/4" Female
11.	GA11988	1	Tank, 3 Gallon
12.	GA11991	1	Drain, 1/4" NPT
13.	GR1778	1	Pressure Switch
14.	GA11989	1	Valve Stem, 1/8" NPT
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
20.	GA11993	1	Block
21.	GD17141	3	Connector, 1/4" Male
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	Bracket
28.	G10021	2	Hex Head Cap Screw, 1/4"-20 x 1 1/2"
	G10227	2	Lock Washer, 1/4"
	G10209	2	Washer, 1/4" USS
29.	GD18010	-	Tee, 3/8" Tube Union
30.	GD17150-02	-	Nylon Tubing, 3/8" O.D. x 44', 8 Row Pull Row Units
	GD17150-03	-	Nylon Tubing, 3/8" O.D. x 64', 12 Row Pull Row Units
	GD17150-04	-	Nylon Tubing, 3/8" O.D. x 86', 16 Row Pull Row Units
	GD17150-10	-	Nylon Tubing, 3/8" O.D. x 40', 7 Row Push Row Units
	GD17150-08	-	Nylon Tubing, 3/8" O.D. x 60', 11 Row Push Row Units
	GD17150-09	-	Nylon Tubing, 3/8" O.D. x 82', 15 Row Push Row Units
	GD17150-12	-	Nylon Tubing, 3/8" O.D. x 5', Even-Row Push Row Unit
31.	GD18011	-	Elbow, 3/8" x 1/8" NPT Extended
32.		-	See "Parallel Arms, Mounting Support Plate And Pneumatic Down Pressure Package Option", Pages P4 And P5
33.	GD18274	-	Tee, 3/8" x 1/8" NPT Extended, Push Row Unit
34.	GA13169	1	Tube Cutter W/Blade
	GR1843	-	Blade
A.	GA12626	-	Air Compressor Assembly (Items 1-14)
B.	GA11995	-	Dual Solenoid Assembly (Items 15-25)

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

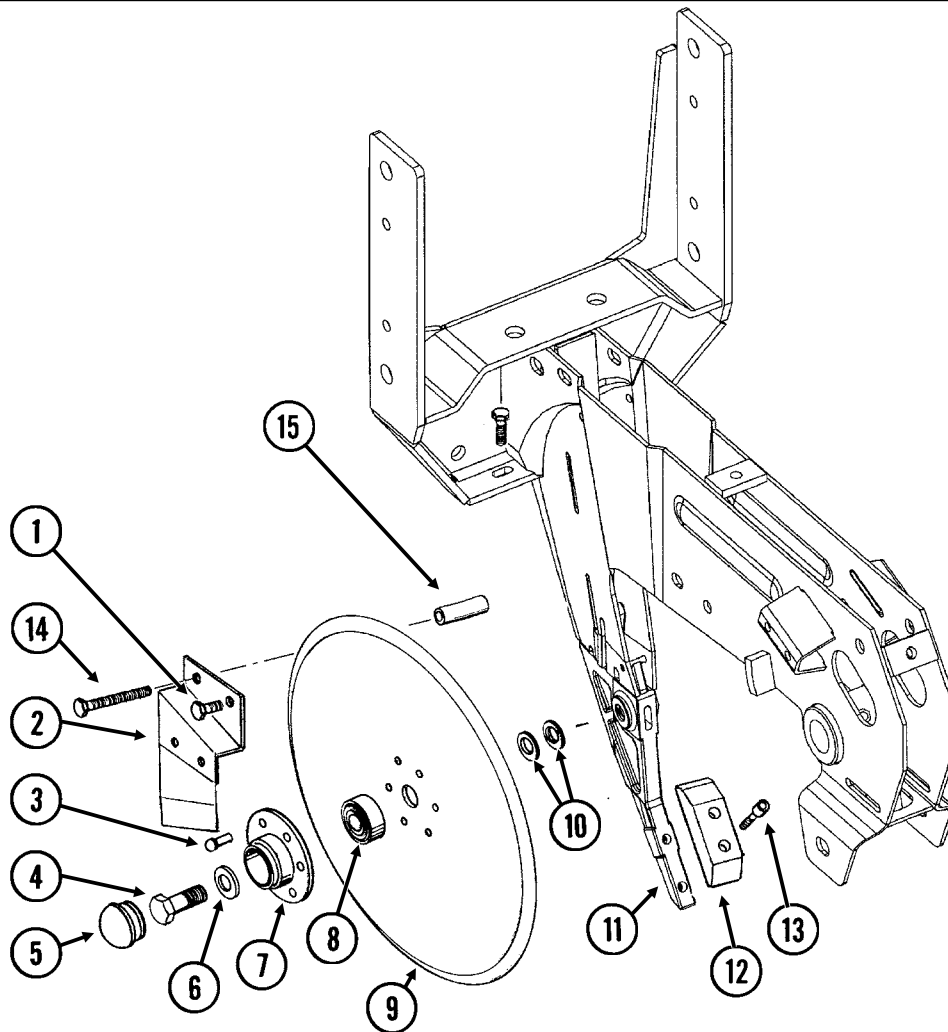
RUB021/RUB022(RU78f/B0366)



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
	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.	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

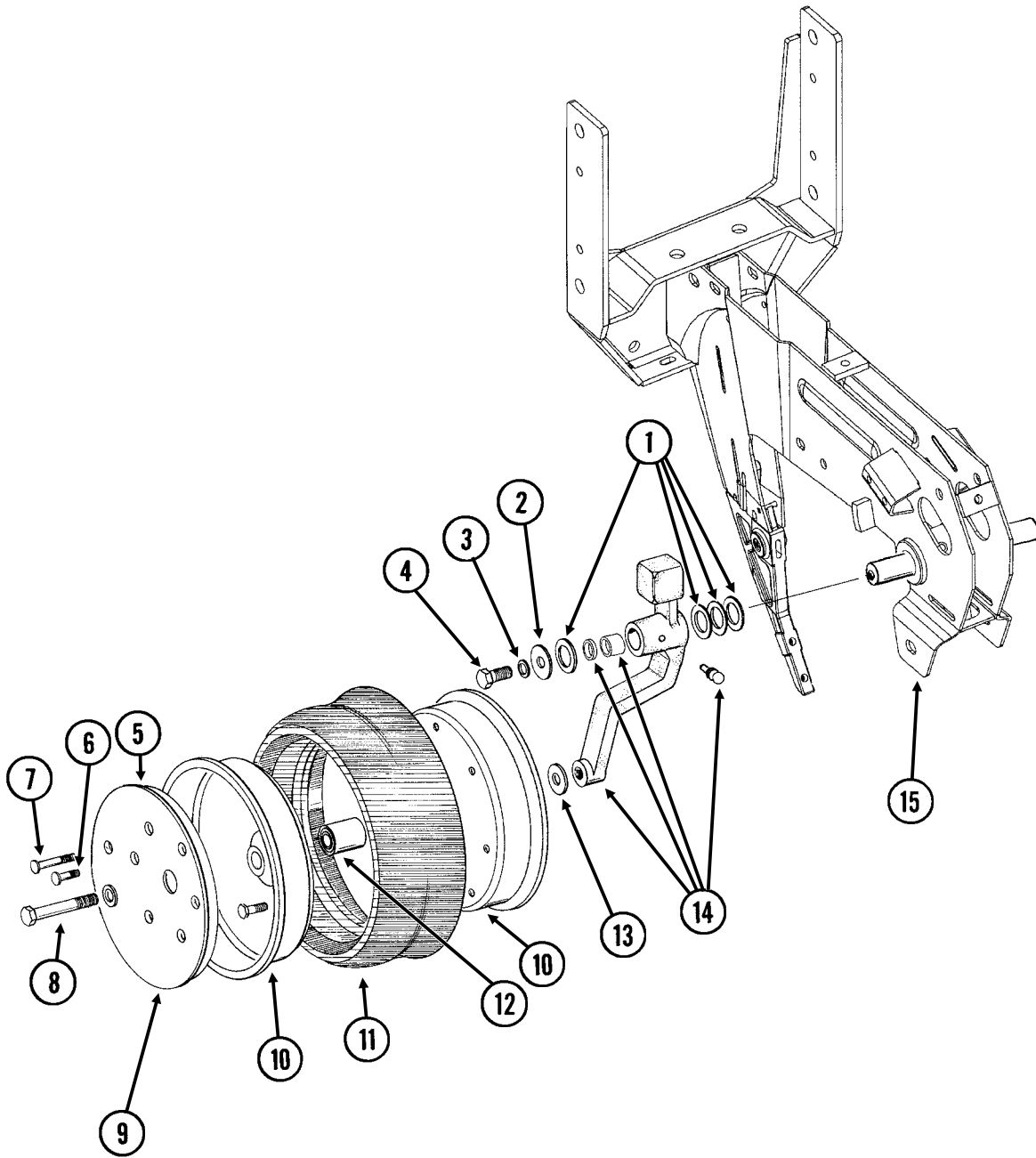
(RU139)



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)

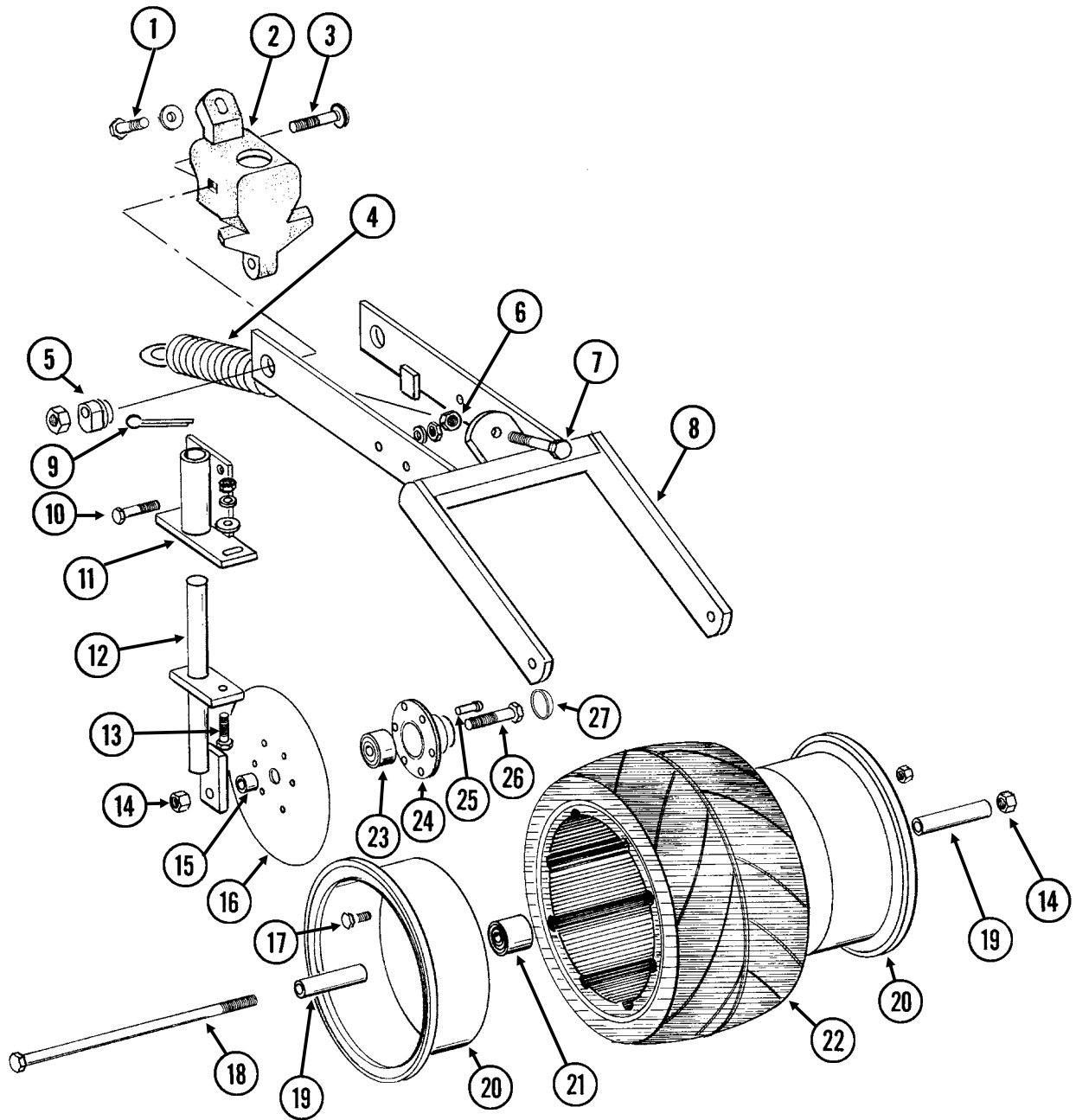


# GAUGE WHEELS

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

RUA054/RUB026(RU94d)

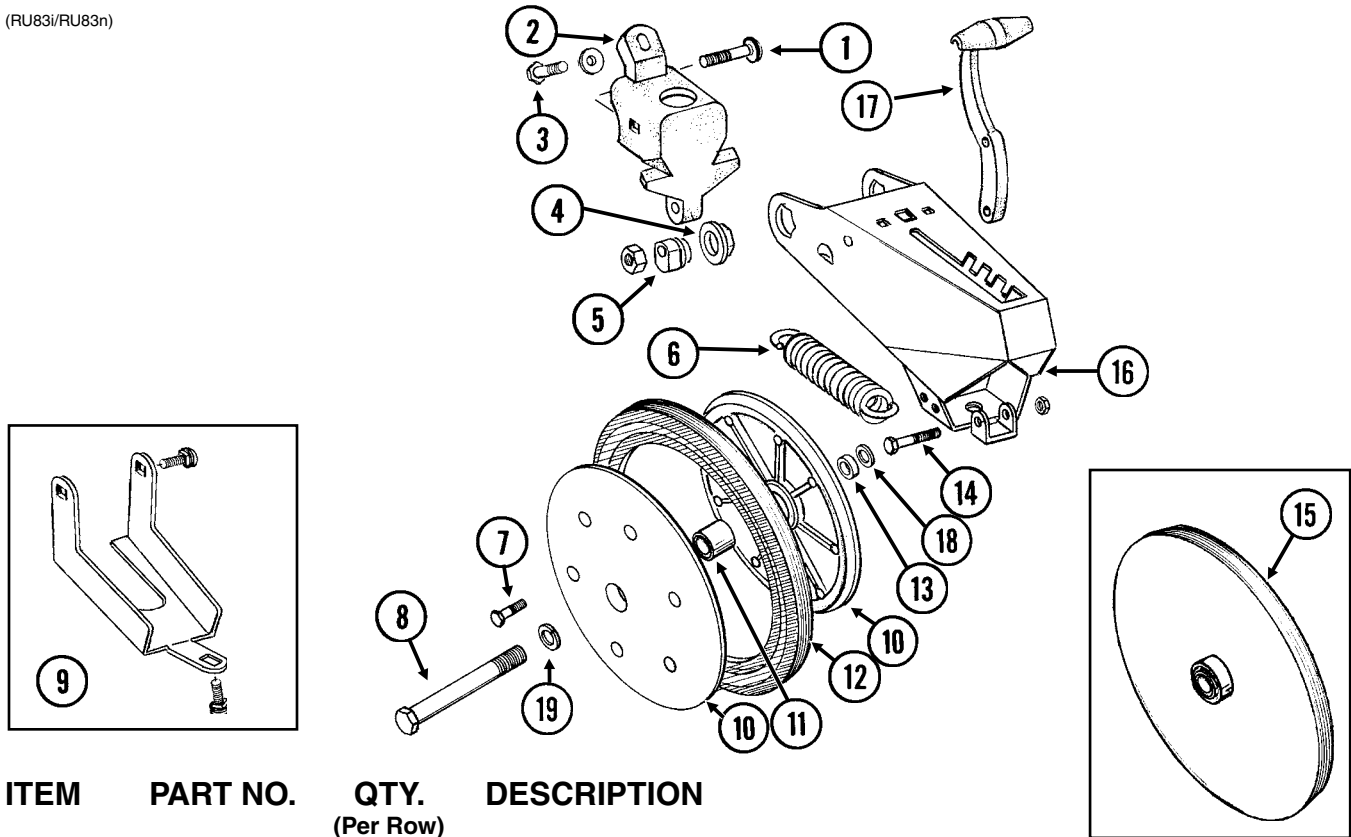


# COVERING DISCS/SINGLE PRESS WHEEL

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

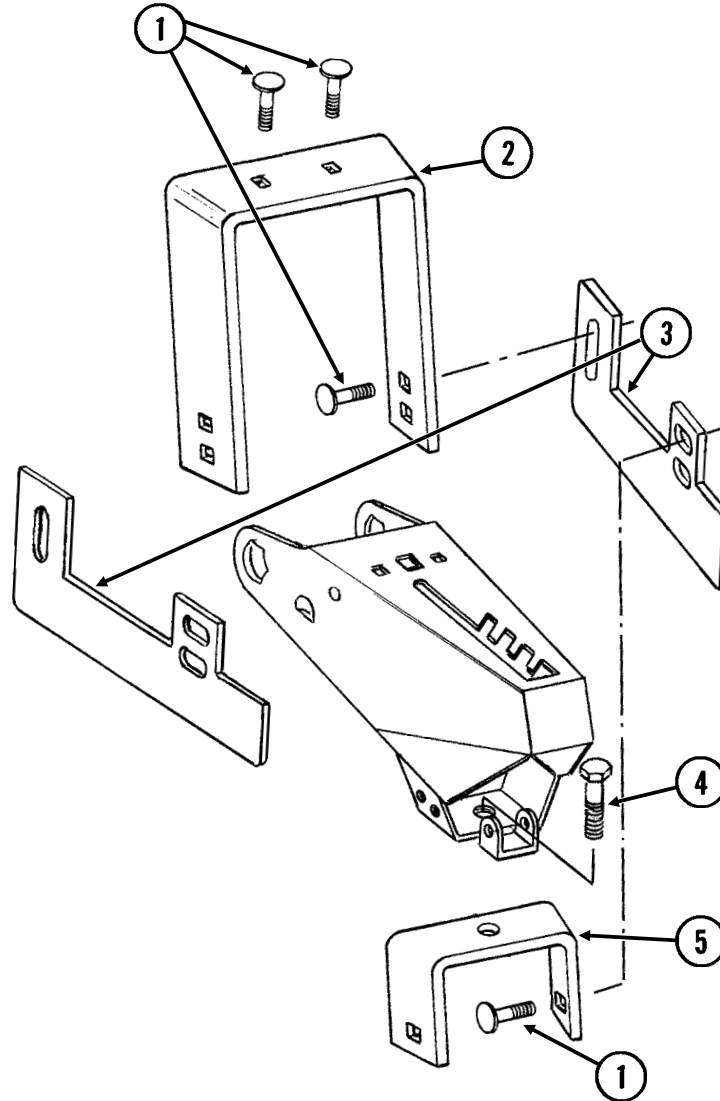
(RU83i/RU83n)



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	1	Hex Head Cap Screw, 3/8"-16 x 1"
	G10210	1	Washer, 3/8" USS
4.	GB0282	2	Stepped Bushing
5.	GB0239	2	Eccentric Bushing
6.	GD8460	1	Spring
7.	G10064	6	Hex Head Cap Screw, 1/4"-20 x 1"
8.	G10013	2	Hex Head Cap Screw, 5/8"-11 x 3 1/2"
	G10107	2	Lock Nut, 5/8"-11
9.	G1K345	-	Closing Wheel Shield Kit W/Hardware And Instruction
	G10308	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, 4 1/4" I.D. x 7/8" O.D. x 1/4" Long
14.	G10133	1	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	1	Lock Nut, 5/16"-18, Grade 8
15.	GA6597	-	Cast Iron Closing Wheel W/Bearing
	GA6171	-	Bearing
16.	GA8322	1	Arm
17.	GB0254	1	Lever
18.	GD7805	2	Special Washer, 5/8", Hardened
19.	G10230	2	Lock Washer, 5/8"
A.	GA6434	-	Rubber Closing Wheel Complete W/Bearing (Items 7 And 10-12)

# DRAG CLOSING ATTACHMENT

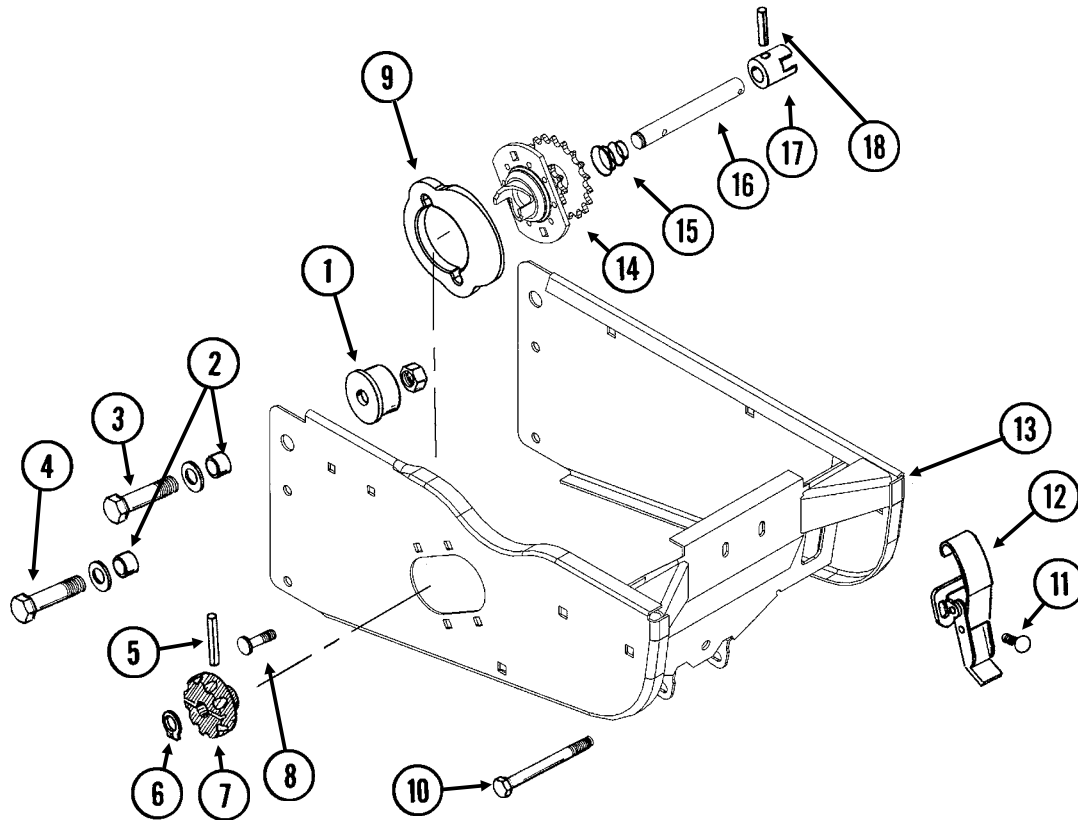
RUB050(RU90c)



ITEM	PART NO.	QTY. (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

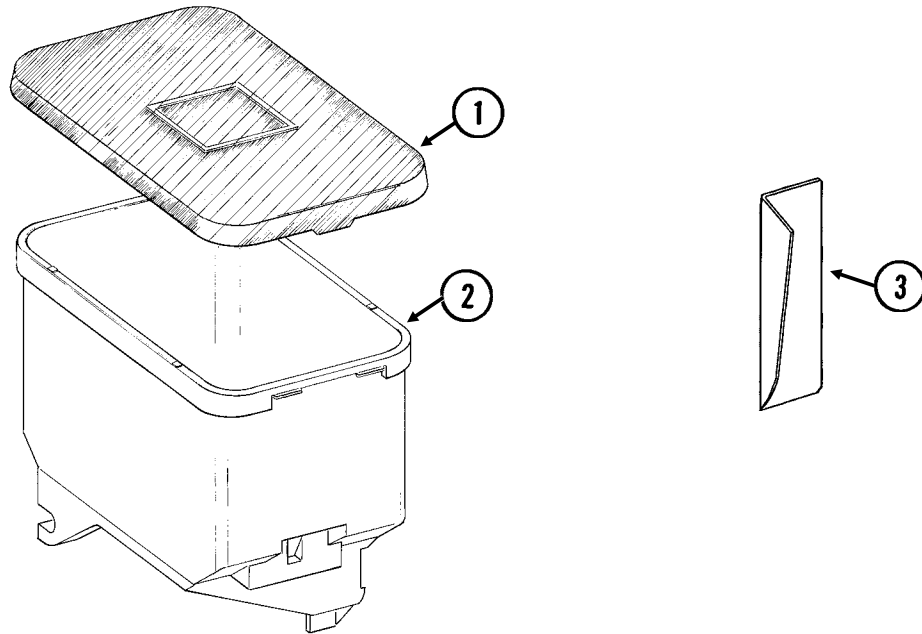
(METR22d)



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 <sup>7</sup> / <sub>8</sub> " O.D. x 1 <sup>19</sup> / <sub>32</sub> " Long
3.	G10752	2	Hex Head Cap Screw, 5 <sup>8</sup> / <sub>16</sub> "-18 x 2 1 <sup>1</sup> / <sub>4</sub> "
	GD7805	2	Special Washer, 5 <sup>8</sup> / <sub>16</sub> ", Hardened
	G10412	2	Lock Nut, 5 <sup>8</sup> / <sub>16</sub> "-18
4.	G10751	2	Hex Head Cap Screw, 5 <sup>8</sup> / <sub>16</sub> "-18 x 1 3 <sup>3</sup> / <sub>4</sub> "
	GD7805	2	Special Washer, 5 <sup>8</sup> / <sub>16</sub> ", Hardened
	G10412	2	Lock Nut, 5 <sup>8</sup> / <sub>16</sub> "-18
5.	G10602	1	Spring Pin, 1 <sup>1</sup> / <sub>4</sub> " x 1 1 <sup>1</sup> / <sub>2</sub> "
6.	G10567	1	External Retaining Ring, 5 <sup>8</sup> / <sub>16</sub> "
7.	GD11239	1	Knob
8.	G10338	2	Carriage Bolt, 5 <sup>16</sup> / <sub>16</sub> "-18 x 1 1 <sup>1</sup> / <sub>4</sub> "
	G10620	2	Serrated Flange Nut, 5 <sup>16</sup> / <sub>16</sub> "-18
9.	GB0331	1	Clutch Adapter Plate
10.	G10061	1	Hex Head Cap Screw, 3 <sup>8</sup> / <sub>16</sub> "-16 x 3 1 <sup>1</sup> / <sub>2</sub> "
	G10210	2	Washer, 3 <sup>8</sup> / <sub>16</sub> " USS
	G10108	1	Lock Nut, 3 <sup>8</sup> / <sub>16</sub> "-16
11.	G10309	2	Carriage Bolt, 1 <sup>1</sup> / <sub>4</sub> "-20 x 5 <sup>8</sup> / <sub>16</sub> ", Grade 2
	G10621	2	Serrated Flange Nut, 1 <sup>1</sup> / <sub>4</sub> "-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 <sup>16</sup> / <sub>16</sub> " x 1 1 <sup>1</sup> / <sub>4</sub> "
A.	GA10151	-	Meter Drive Assembly Complete, 11/19 Tooth (Items 5-7 And 14-18)

# SEED HOPPER AND LID

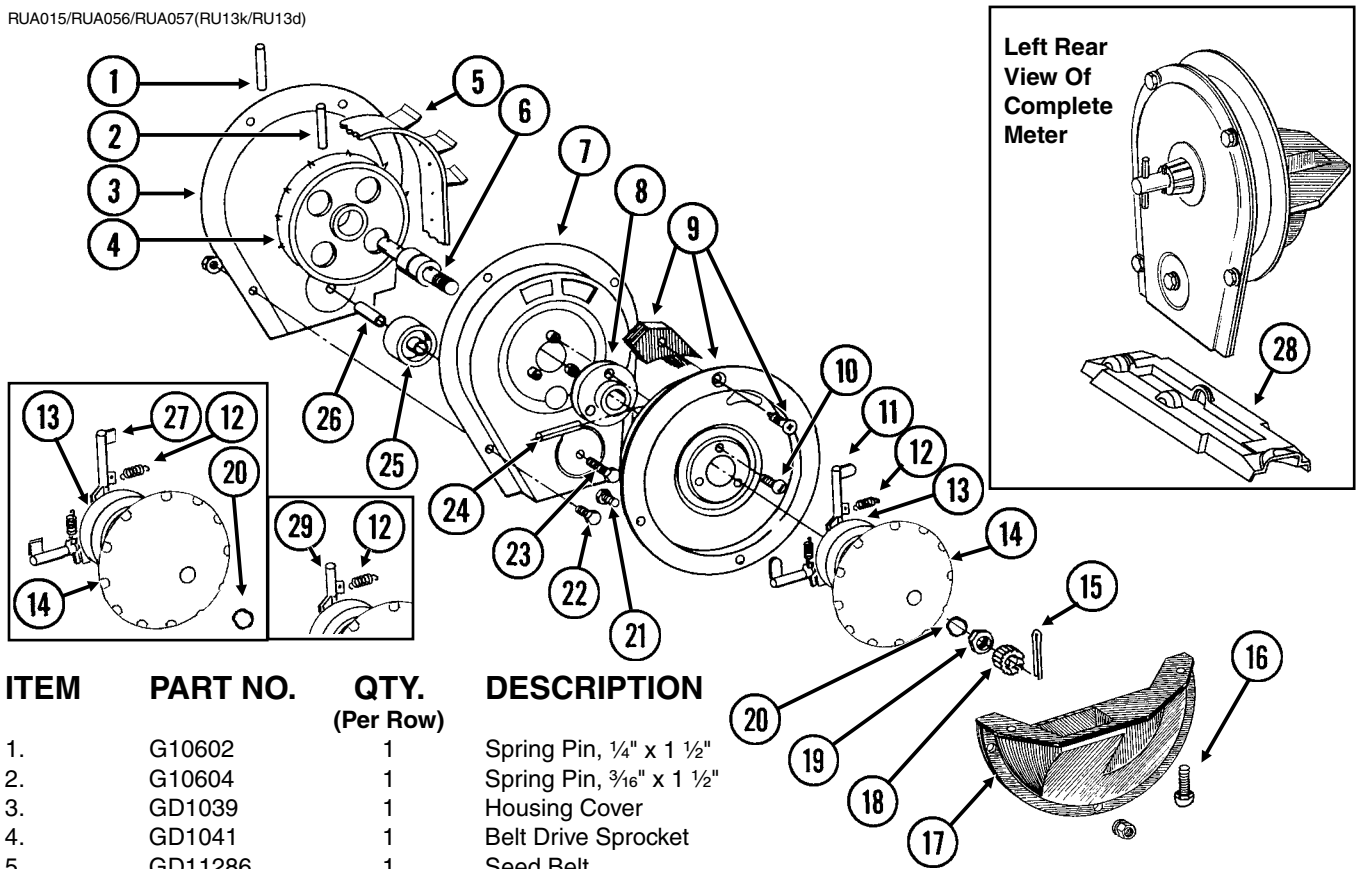
(RU87e/RU87a)



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

# FINGER PICKUP SEED METER

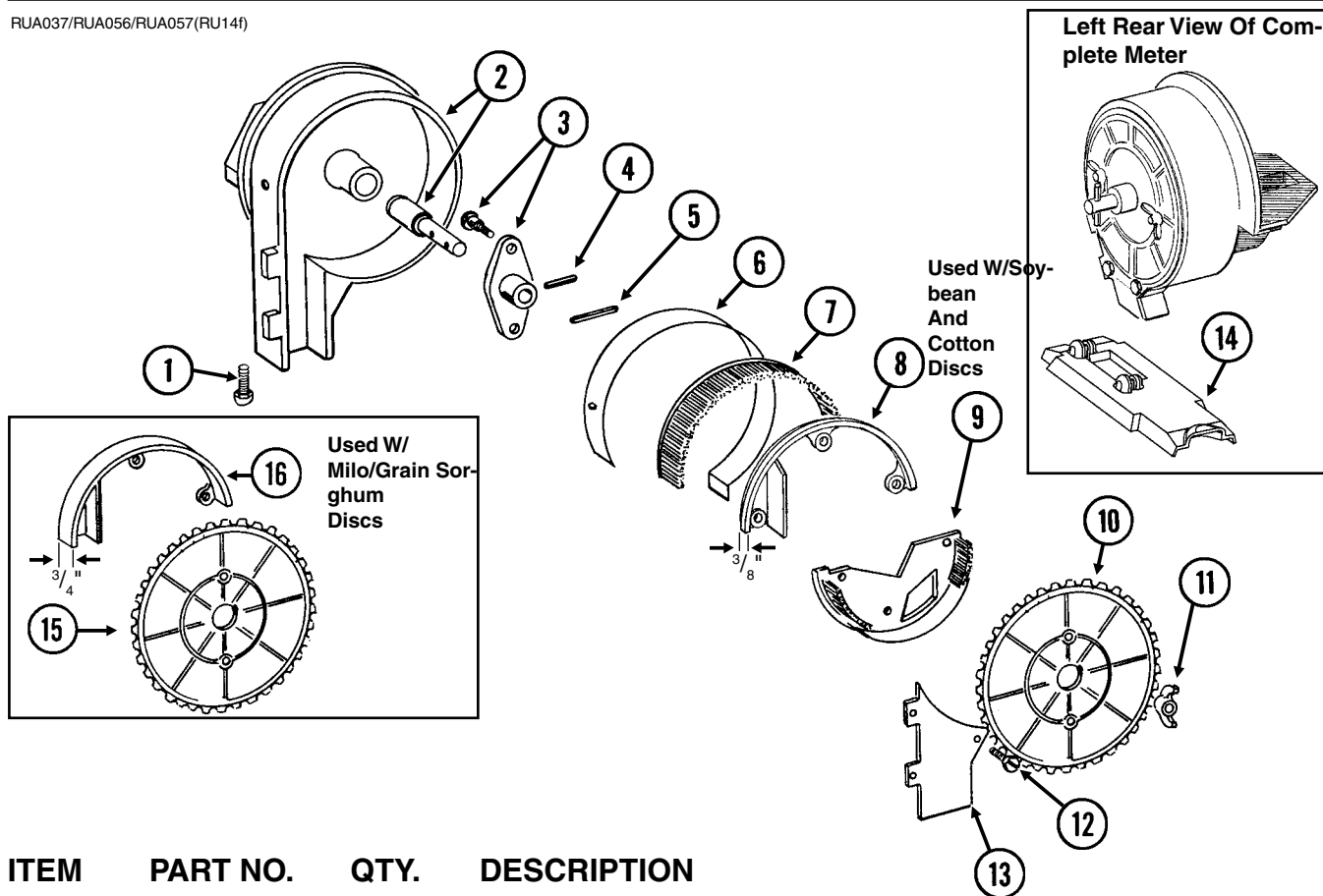
RUA015/RUA056/RUA057(RU13k/RU13d)



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

# BRUSH-TYPE SEED METER

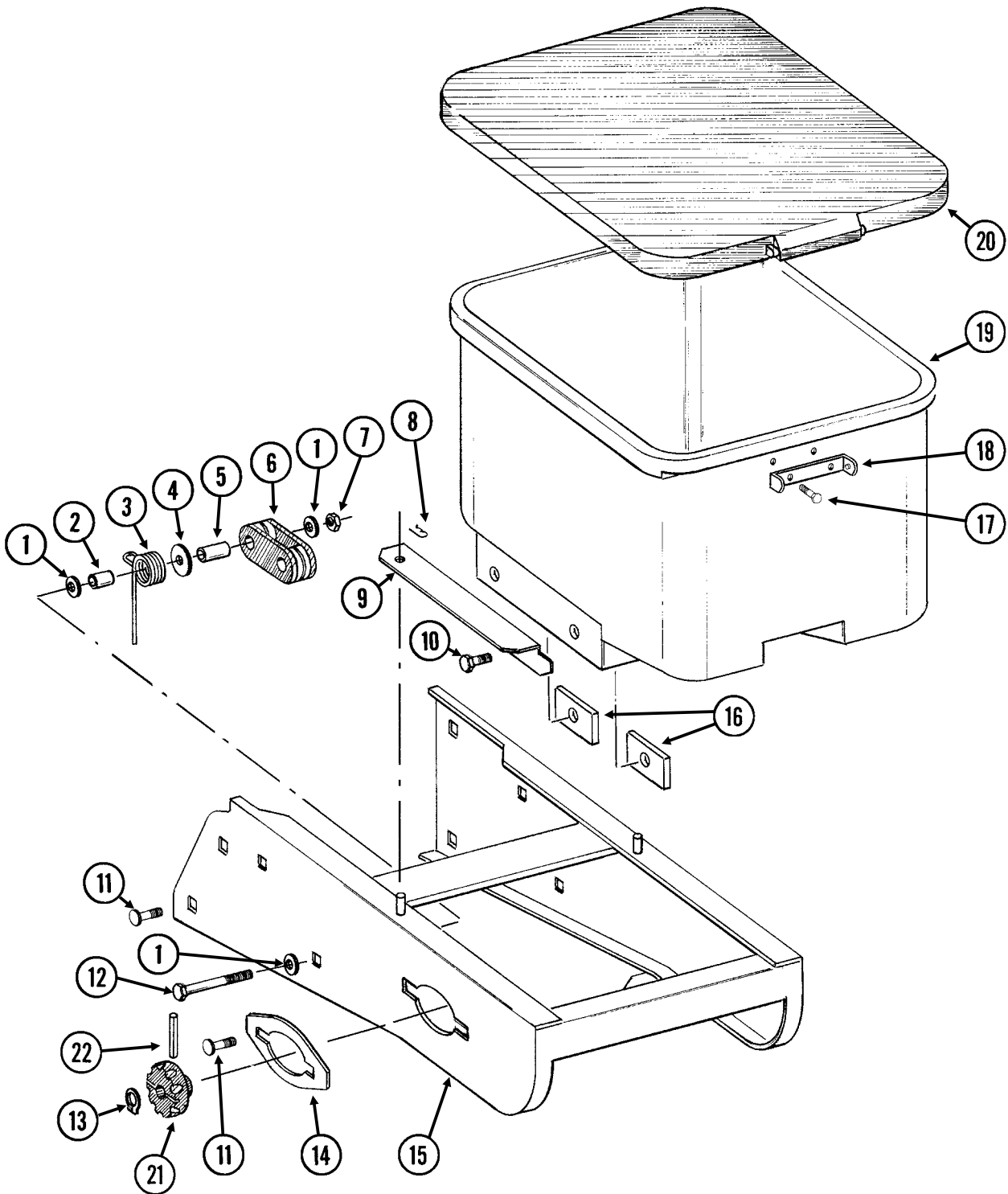
RUA037/RUA056/RUA057(RU14f)



ITEM	PART NO.	QTY. (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)



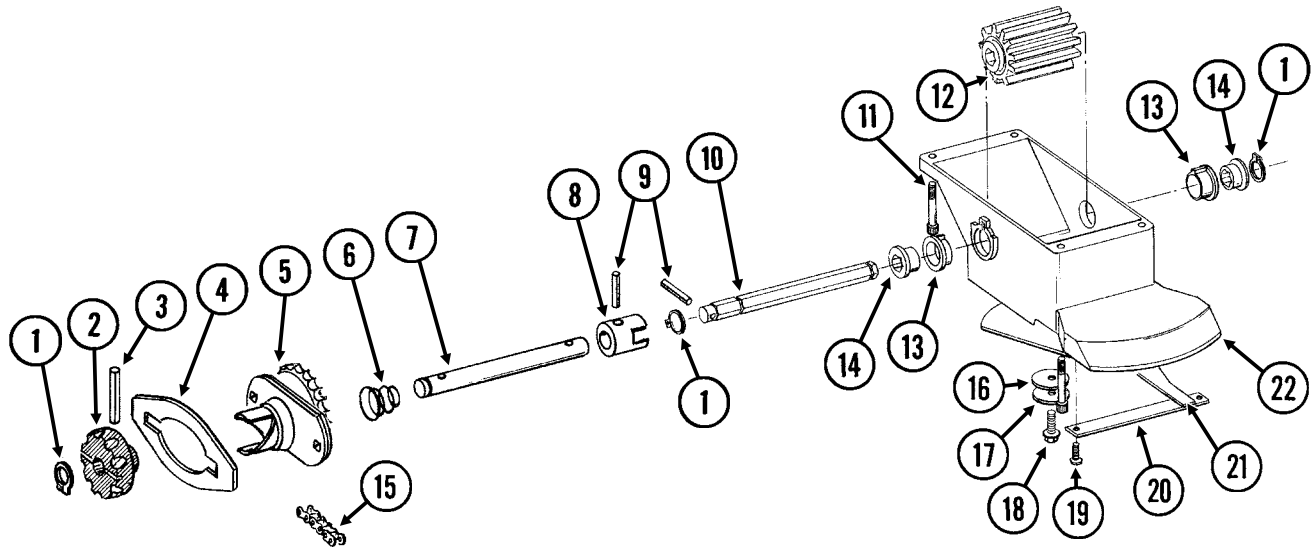
# GRANULAR CHEMICAL HOPPER AND HOPPER PANEL EXTENSION

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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

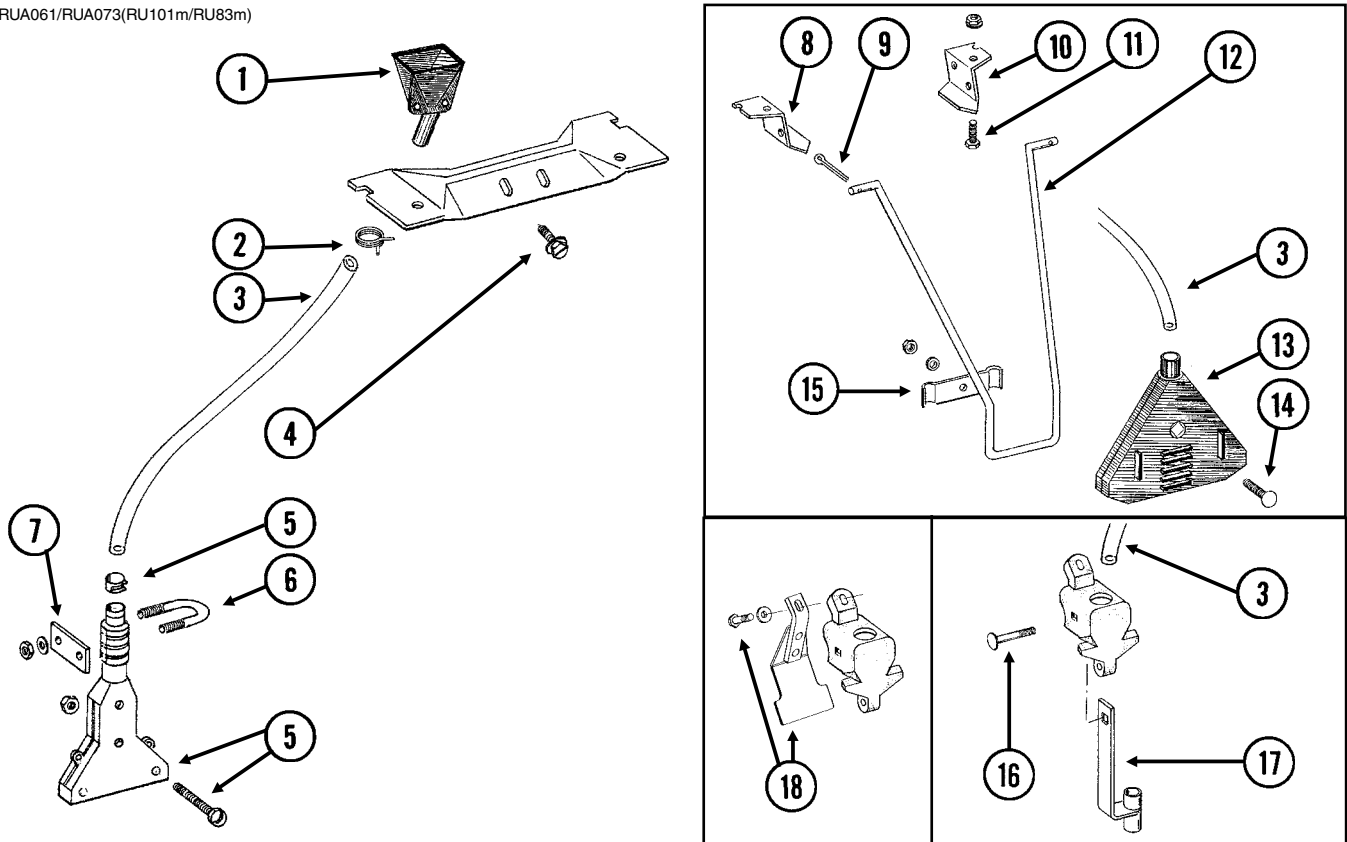
RUA051/RUB028(RU91a)



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

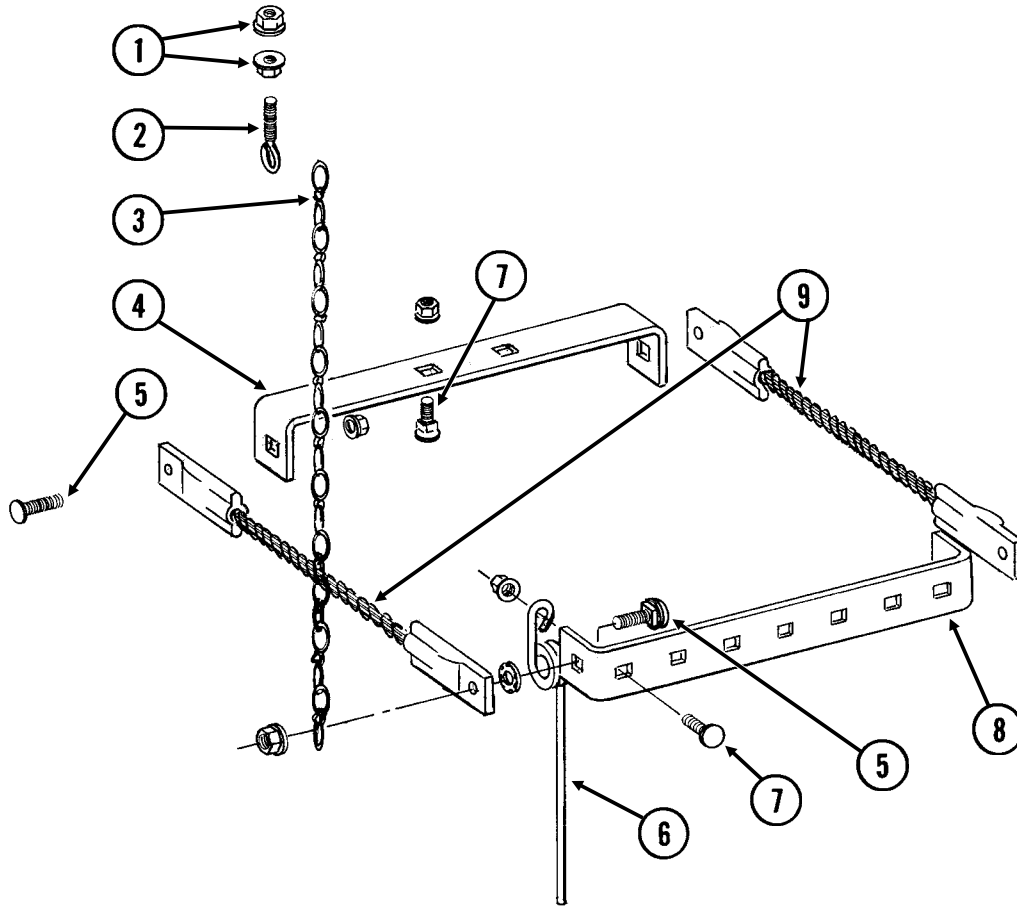
RUA061/RUA073(RU101m/RU83m)



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

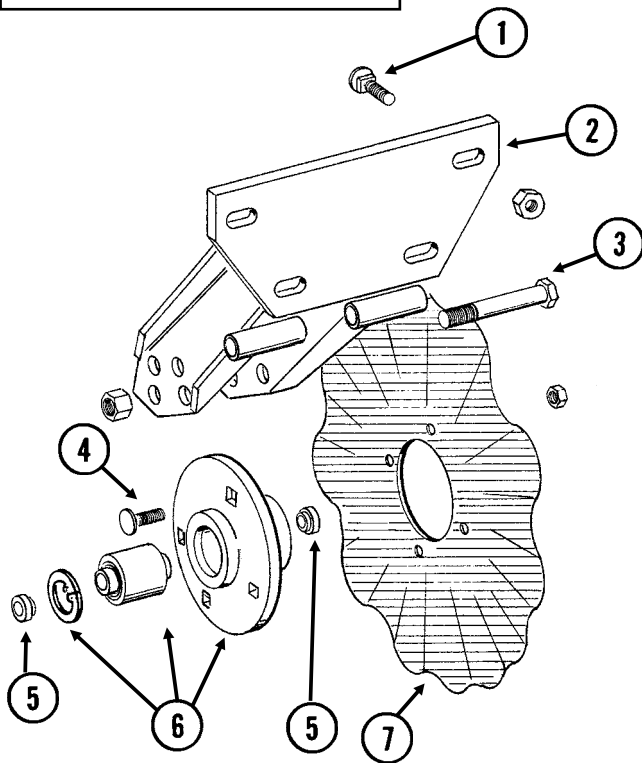
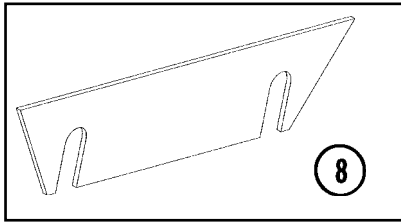
RUA055(RU95)



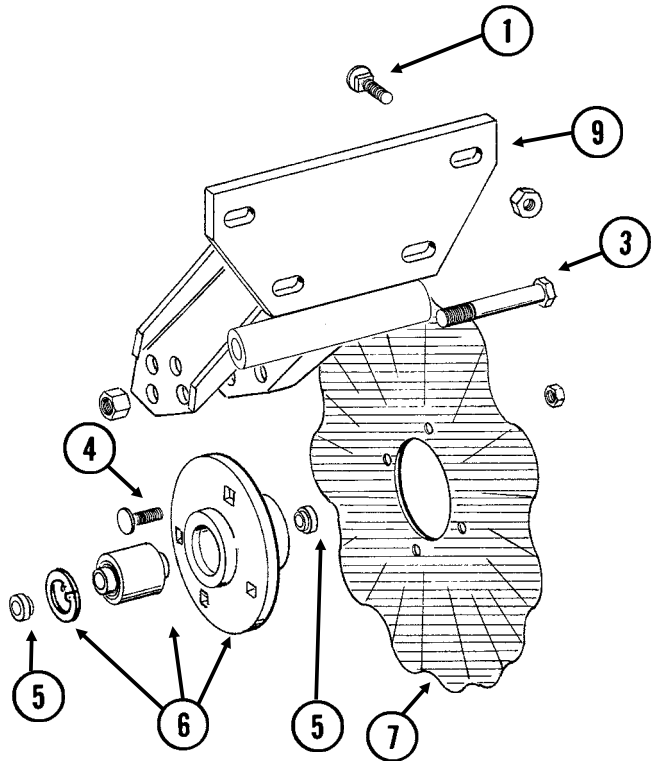
ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G10621	4	Serrated Flange Nut, 1/4"-20
2.	GD2460	2	Eyebolt, 1/4"-20
3.	G3305-01	4	Twin Loop Chain, 9 Links
4.	GD1143	1	Front Bracket
5.	G10305	4	Carriage Bolt, 3/8"-16 x 1"
	G10529	4	External Tooth Lock Washer, 3/8"
	G10622	4	Serrated Flange Nut, 3/8"-16
6.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

# ROW UNIT MOUNTED NO TILL COULTER

(D14398/RU102c/RU152)



**STYLE A**

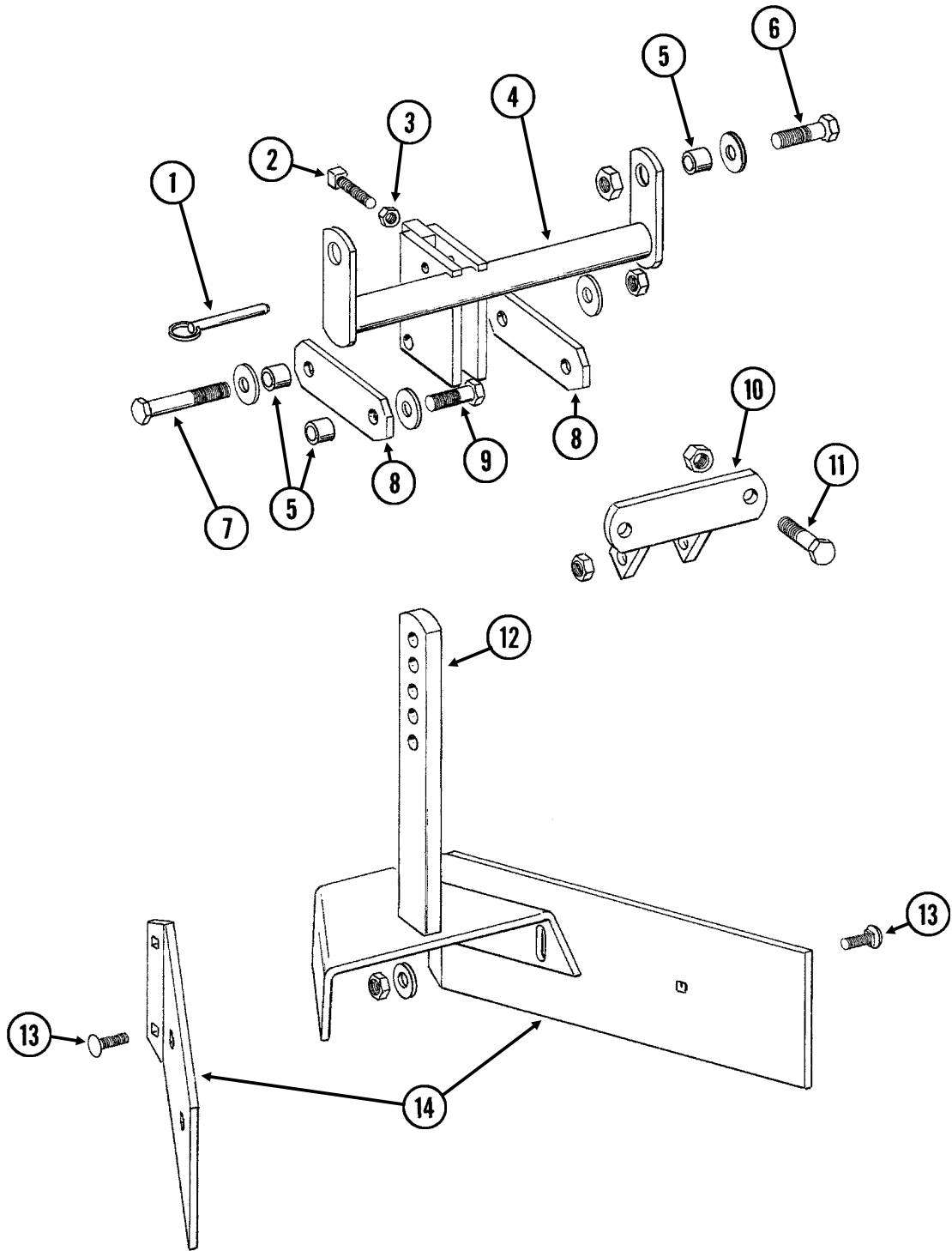


**STYLE B**

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Row)	
1.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
2.	GA5625	1	Arm (Style A)
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
9.	GA11520	1	Arm (Style B)

# ROW UNIT MOUNTED BED LEVELER

RUA059/RUA060(RU99/RU100)



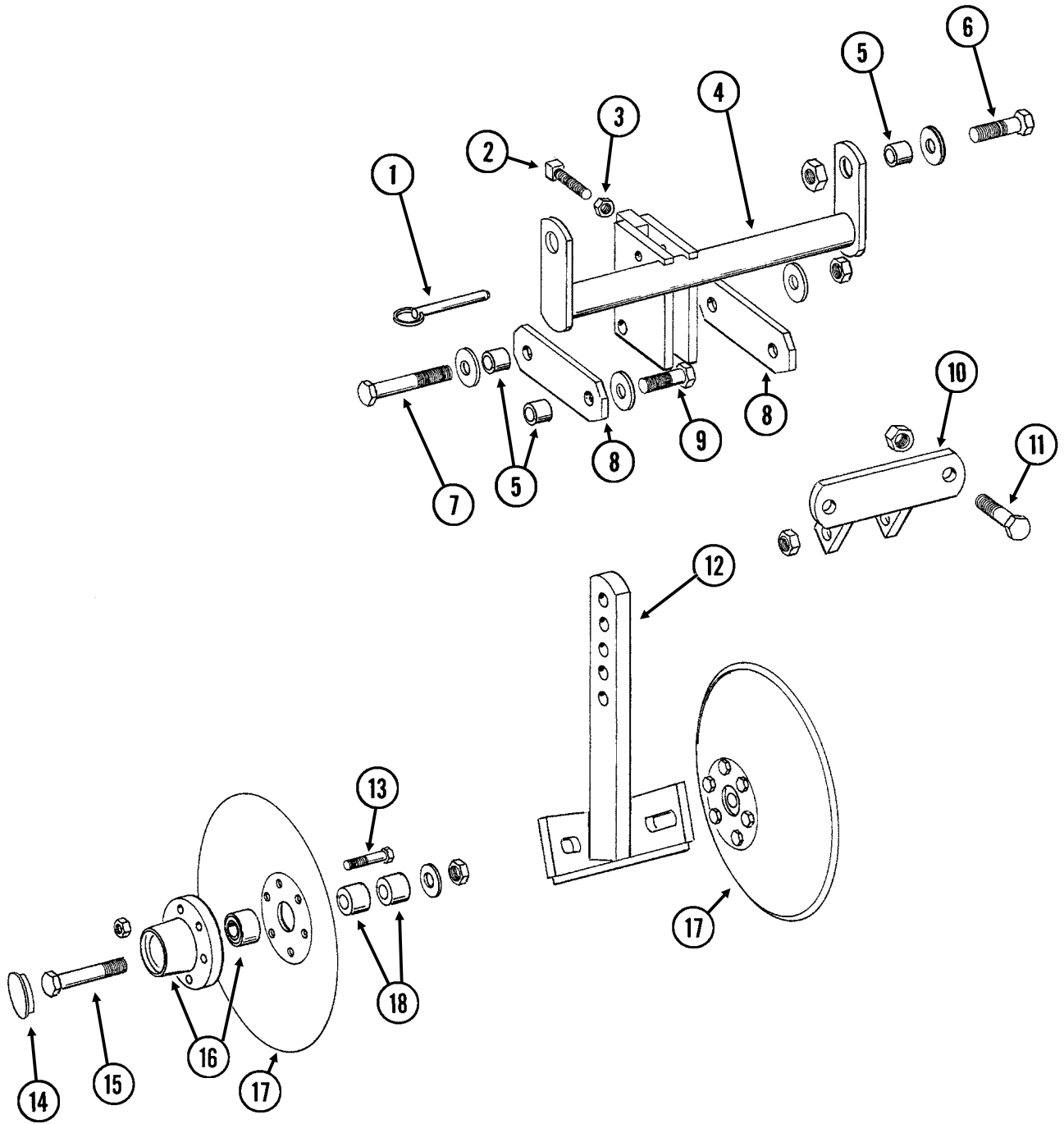
# ROW UNIT MOUNTED BED LEVELER

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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)



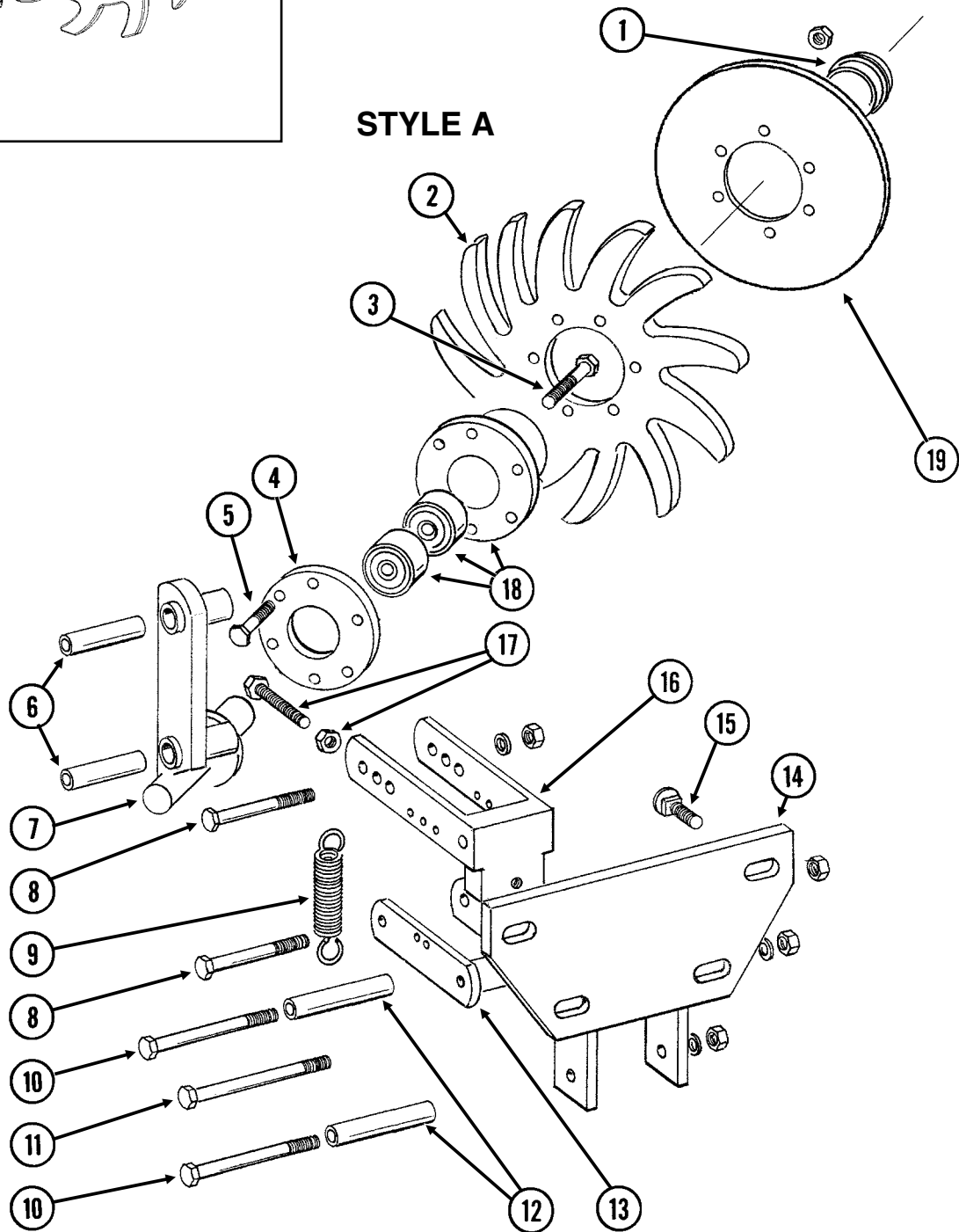
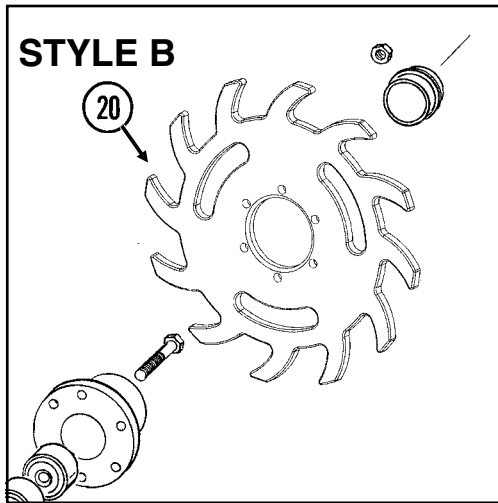
# ROW UNIT MOUNTED DISC FURROWER

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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.	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/RU103d)



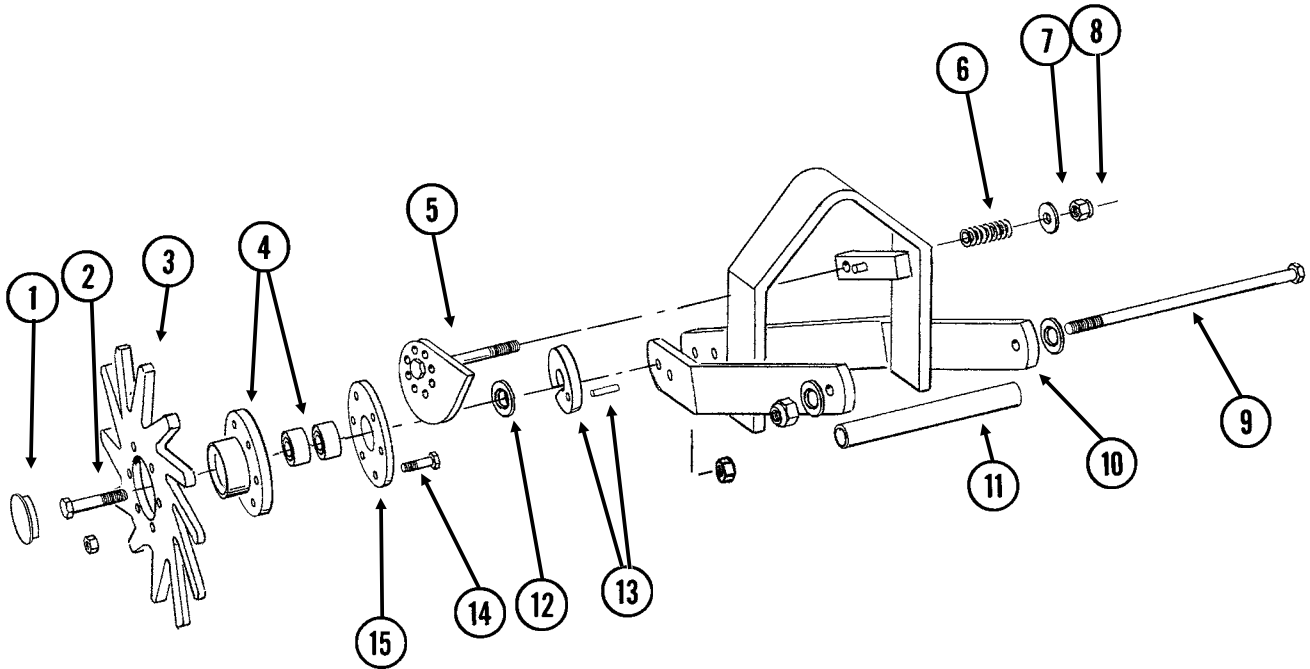
# ROW UNIT MOUNTED RESIDUE WHEEL

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	GD1132	1	Dust Cap
2.	GD10552	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
19.	GD12534	-	Cover
20.	GB0387	1	Wheel, 12 Tine, 3/8" x 12"
A.	GA7446	-	Wheel Assembly, 12 Tine (Items 2, 4, 5 And 18)
B.	GA12236	-	Wheel Assembly, 12 Tine, R.H. (Items 4, 5, 18 And 20)

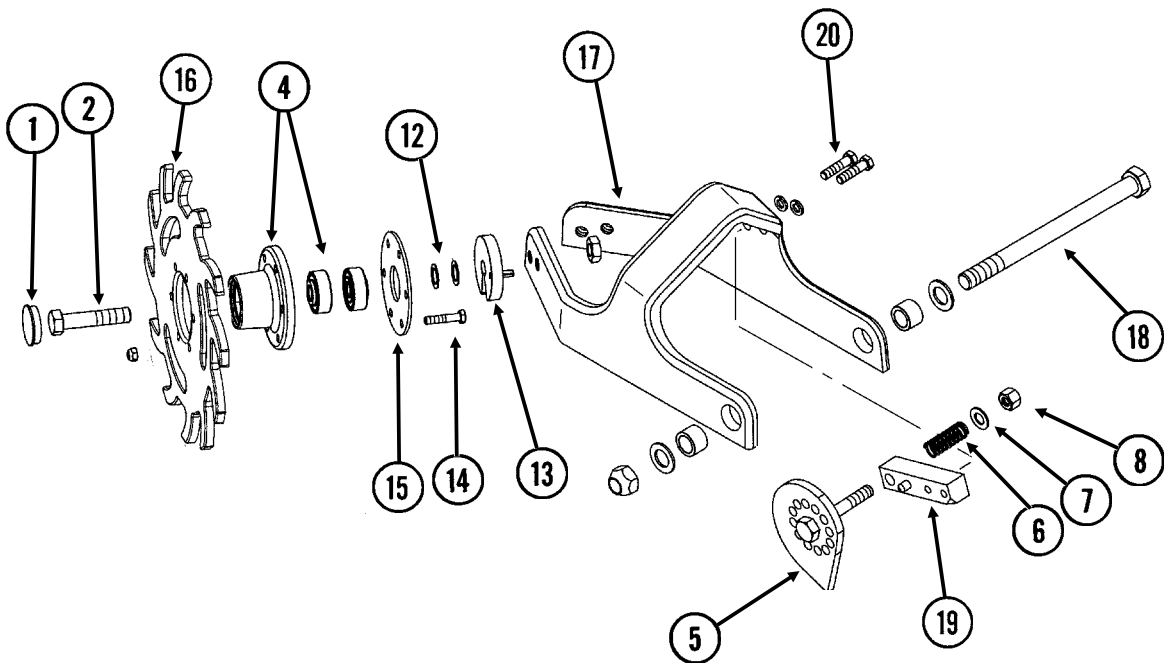
# COULTER MOUNTED RESIDUE WHEELS

(RU104uuu/RU153)

## STYLE A - Used With Style A Row Unit Mounted No Till Coulter



## STYLE B - Used With Style B Row Unit Mounted No Till Coulter

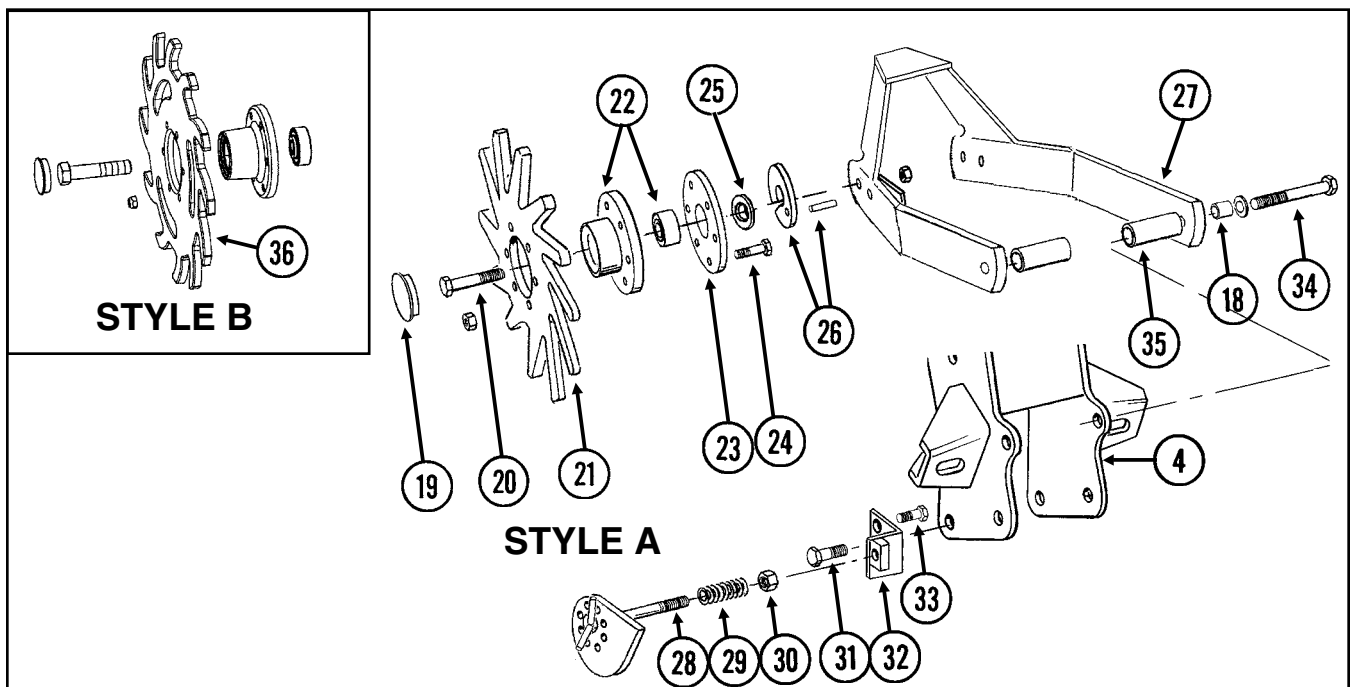
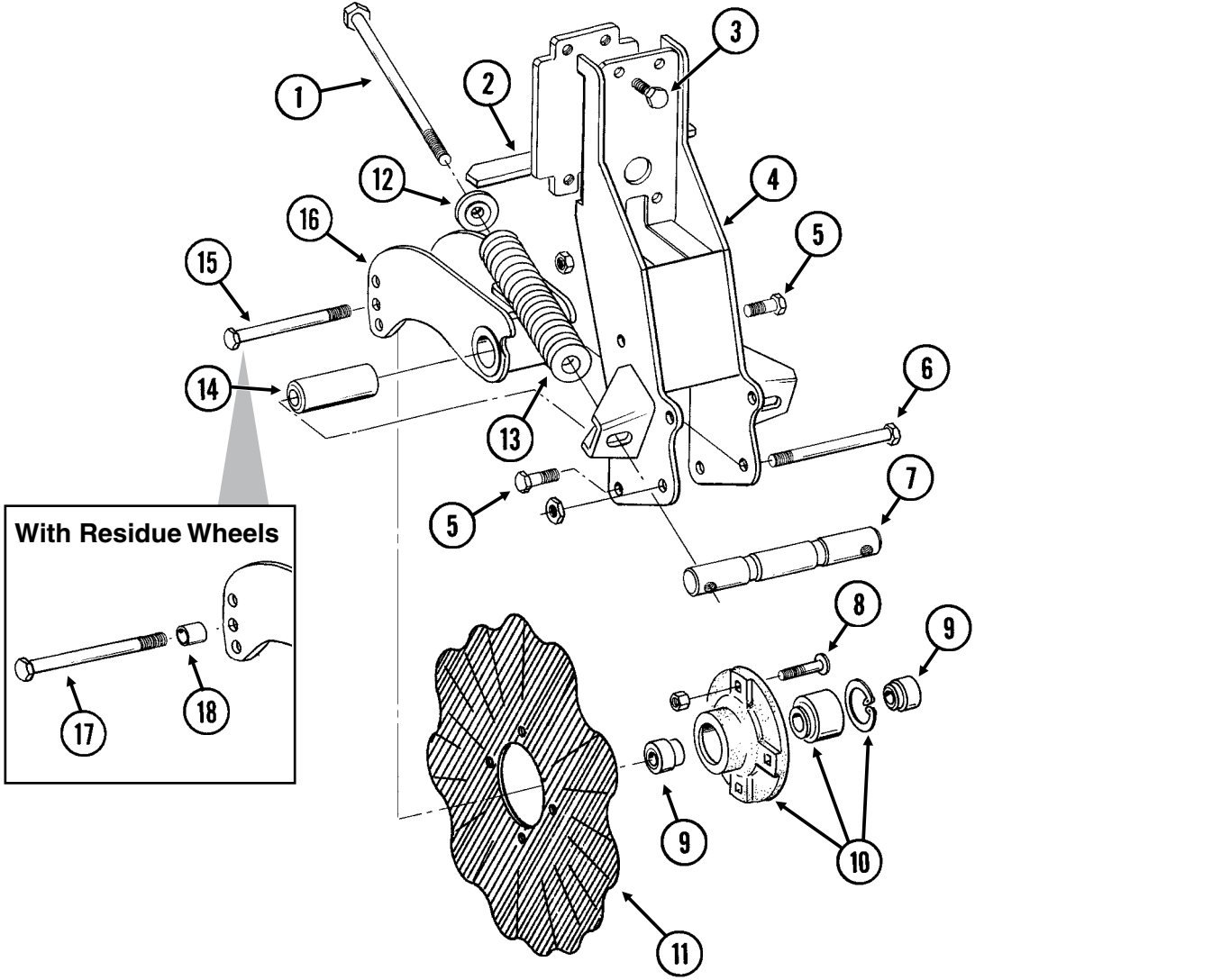


# COULTER MOUNTED RESIDUE WHEELS

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.	GD10552	2	Wheel, 12 Tine, 3/8" x 12"
4.	GA5654	2	Hub W/Bearings
	GA2014	-	Bearing
5.	GA7412	1	Cam
6.	GD10519	1	Spring
7.	G10206	1	Washer, 1/2" SAE
8.	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
9.	G11098	1	Hex Head Cap Screw, 1/2"-13 x 9 1/2", Grade 8
	GD14674	2	Special Washer, 1/2", Hardened
	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
10.	GA7271	1	Mount
11.	GD10526	1	Sleeve, 7 1/2"
12.	G10213	2-4	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"
17.	GB0401	1	Mount
18.	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
19.	GA12256	1	Locking Pin
20.	G10003	2	Hex Head Cap Screw, 3/8"-16 x 1 1/2"
	G10229	2	Lock Washer, 3/8"
A.	GA7446	-	Wheel Assembly, 12 Tine, R.H. (Items 3, 4, 14 And 15) (Shown)
	GA7445	-	Wheel Assembly, 12 Tine, L.H. (Items 3, 4, 14 And 15)
B.	GA12236	-	Wheel Assembly, 12 Tine, R.H. (Items 4, 14, 15 And 16) (Shown)
	GA12235	-	Wheel Assembly, 12 Tine, L.H. (Items 4, 14, 15 And 16)

# FRAME MOUNTED COULTER W/RESIDUE WHEELS

(RU135c/RU135g/RU135hh)



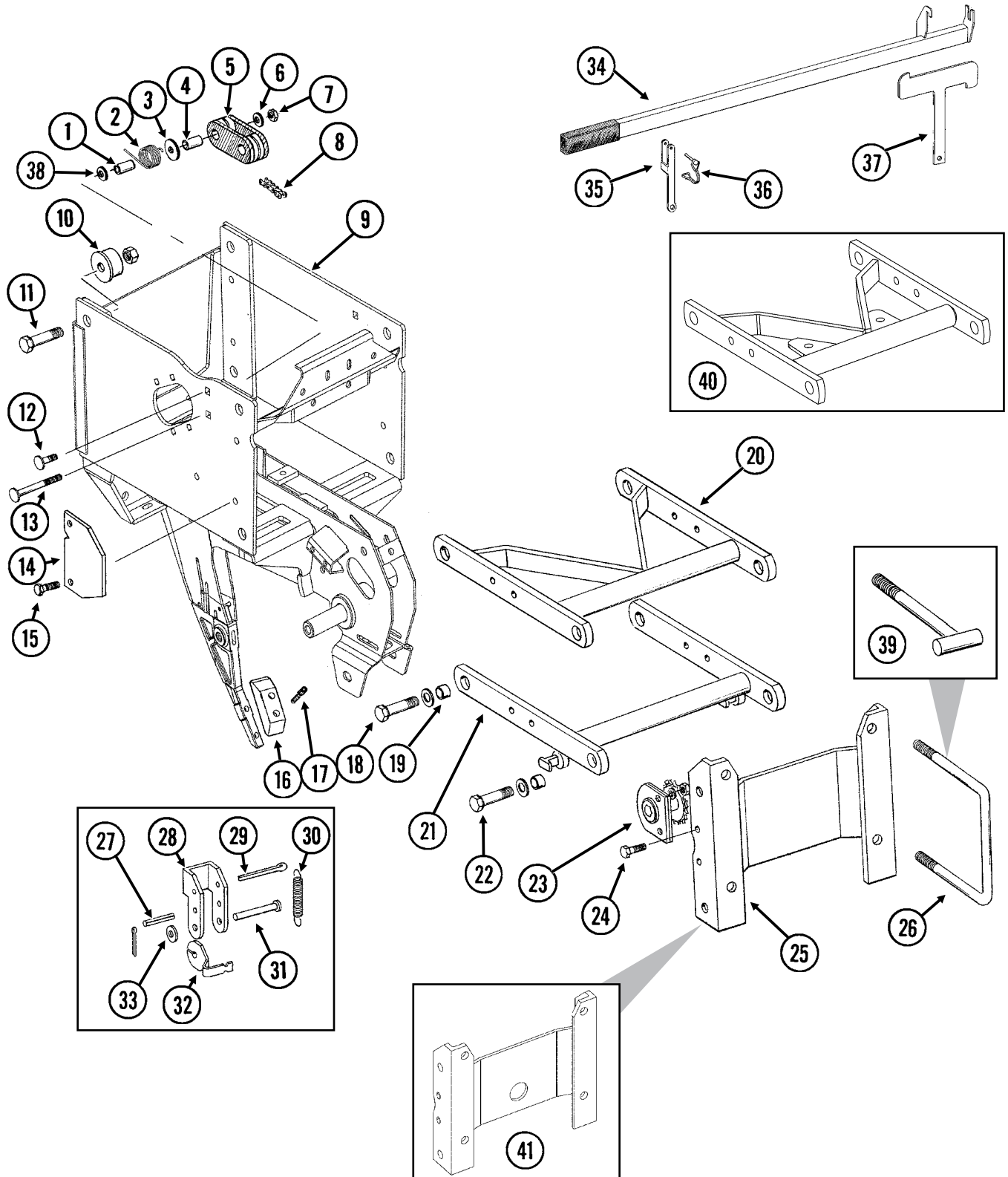
# FRAME MOUNTED COULTER W/RESIDUE WHEELS

ITEM	PART NO.	QTY. (Per Row)	DESCRIPTION
1.	G11010	2	Hex Head Cap Screw, 3/4"-10 x 12"
2.	GA9844	1	Plate W/Angle
3.	G10039	4	Hex Head Cap Screw, 1/2"-13 x 1 3/4"
4.	GA9131	1	Coulter Frame
5.	G10007	4	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10107	4	Lock Nut, 5/8"-11
6.	G10400	1	Hex Head Cap Screw, 3/4"-10 x 6 1/2"
	G10112	1	Lock Nut, 3/4"-10
7.	GD12826	1	Spring Anchor Bar
8.	G10574	4	Carriage Bolt, 1/2"-13 x 1 1/4"
	G10111	4	Lock Nut, 1/2"-13
9.	GD12827	2	Adapter
10.	GA8641	1	Hub W/Bearing And Retaining Ring
	GA8603	1	Double Row Bearing
	GD11652	1	Retaining Ring, 2 7/16"
11.	GD7803	1	Disc Blade, Fluted, 1", 8 Flutes (Shown)
	GD7804	-	Disc Blade, Bubbled, 1"
	GD9254	-	Disc Blade, Fluted, 3/4", 13 Flutes
12.	GB0213	2	Spring Seat
13.	GD12817	2	Compression Spring
14.	GD12829	1	Sleeve
15.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10107	1	Lock Nut, 5/8"-11
16.	GA9845	1	Coulter Arm W/Grease Fitting
	G10643	-	Grease Fitting, 45°, 1/4"-28
17.	G10011	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	G10107	1	Lock Nut, 5/8"-11
18.	GB0218	3	Bushing, 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.	GD10552	2	Wheel, 12 Tine, 3/8" x 12"
22.	GA5654	2	Hub W/Bearings
	GA2014	-	Bearing
23.	GD9724	2	Backing Plate
24.	G10133	12	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10109	12	Lock Nut, 5/16"-18, Grade 8
25.	G10213	2	Machine Bushing, 5/8" (.030" Thick)
26.	GA9862	2	Weed Guard W/Spring Pin
	G10765	-	Spring Pin, 1/4" x 1"
27.	GA9865	1	Mount
28.	GA9861	1	Cam
29.	GD10519	1	Spring
30.	G10974	1	Lock Nut W/Nylon Insert, 1/2"-13
31.	G10005	1	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	G10107	4	Lock Nut, 5/8"-11
32.	GA9864	1	Support
33.	G10014	1	Hex Head Cap Screw, 1/2"-13 x 1"
	G10102	1	Hex Nut, 1/2"-13
34.	G10011	2	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	G10205	2	Washer, 5/8" SAE
	G10730	2	Lock Nut W/Nylon Insert, 5/8"-11
35.	GD14170	2	Sleeve, 3"
36.	GB0386	2	Wheel, 12 Tine, 3/8" x 12"
A.	GA7446	-	Wheel Assembly, 12 Tine, R.H. (Items 21-24) (Shown)
	GA7445	-	Wheel Assembly, 12 Tine, L.H. (Items 21-24)
B.	GA12236	-	Wheel Assembly, 12 Tine, R.H. (Items 22, 23, 24 And 36) (Shown)
	GA12235	-	Wheel Assembly, 12 Tine, L.H. (Items 22, 23, 24 And 36)

# INTERPLANT® PUSH ROW UNIT

(RU156c/R141d)

**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.

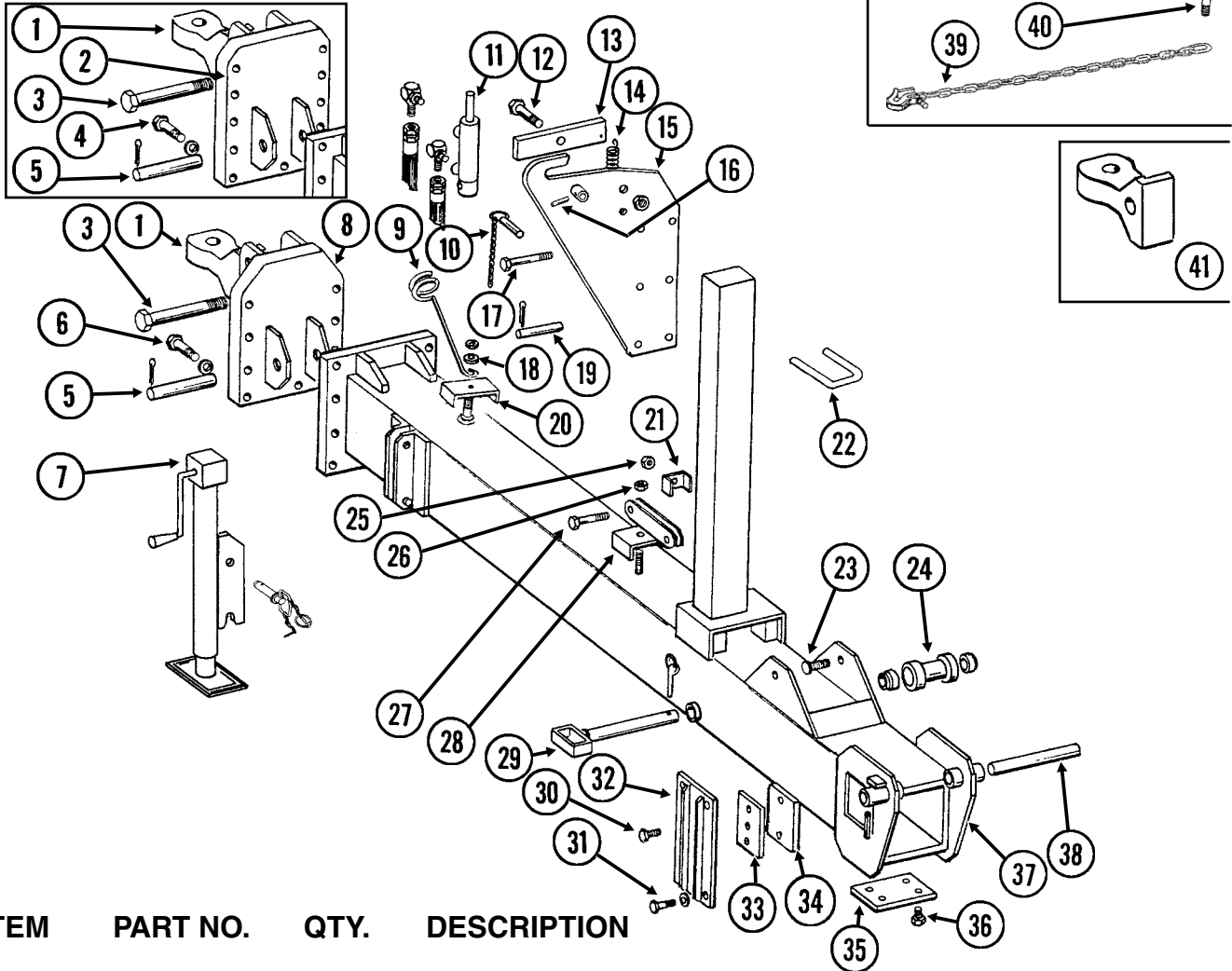


# INTERPLANT® PUSH ROW UNIT

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.	GA8930	-	Upper Arm
21.	GA5787	1	Lower Arm
22.	G10732	4	Hex Head Cap Screw, 5/8"-18 x 2"
	GD7805	4	Special Washer, 5/8", Hardened
	G10412	4	Lock Nut, 5/8"-18
23.	GA1720	1	Bearing/Sprocket, 7/8" Hex Bore
24.	G10004	2	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
25.	GA5786	1	Mounting Plate
26.	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
27.	G10718	2	Spring Pin, 5/16" x 1 1/8"
28.	GD11264	2	Lockup
29.	G10463	2	Cotter Pin, 1/4" x 1 1/2"
30.	GD11447	2	Spring
31.	G10284	2	Clevis Pin, 1/2" x 1 1/2"
	G10456	2	Cotter Pin, 1/8" x 3/4"
32.	GD11263	2	Spring Tab
33.	G10216	2	Washer, 1/2" USS
34.	GA8651	1	Lift Lever W/Boot
	GD11649	-	Boot
35.	GD18073	1	Bracket
36.	GD9695	1	Wire Lock Pin, 1/4" x 1 3/4"
37.	GD18074	1	Mount
38.	G10203	1	Washer, 3/8" SAE
39.	GA9105	-	T-Bolt, 5/8"-11 x 6"
	G10230	-	Lock Washer, 5/8"
	G10104	-	Hex Nut, 5/8"-11
40.	GA11969	1	Upper Arm
41.	GA11971	1	Mounting Plate

# OUTER HITCH/SAFETY CHAIN

PHA038/PHA025(TWL1/WGN47a/B0292)



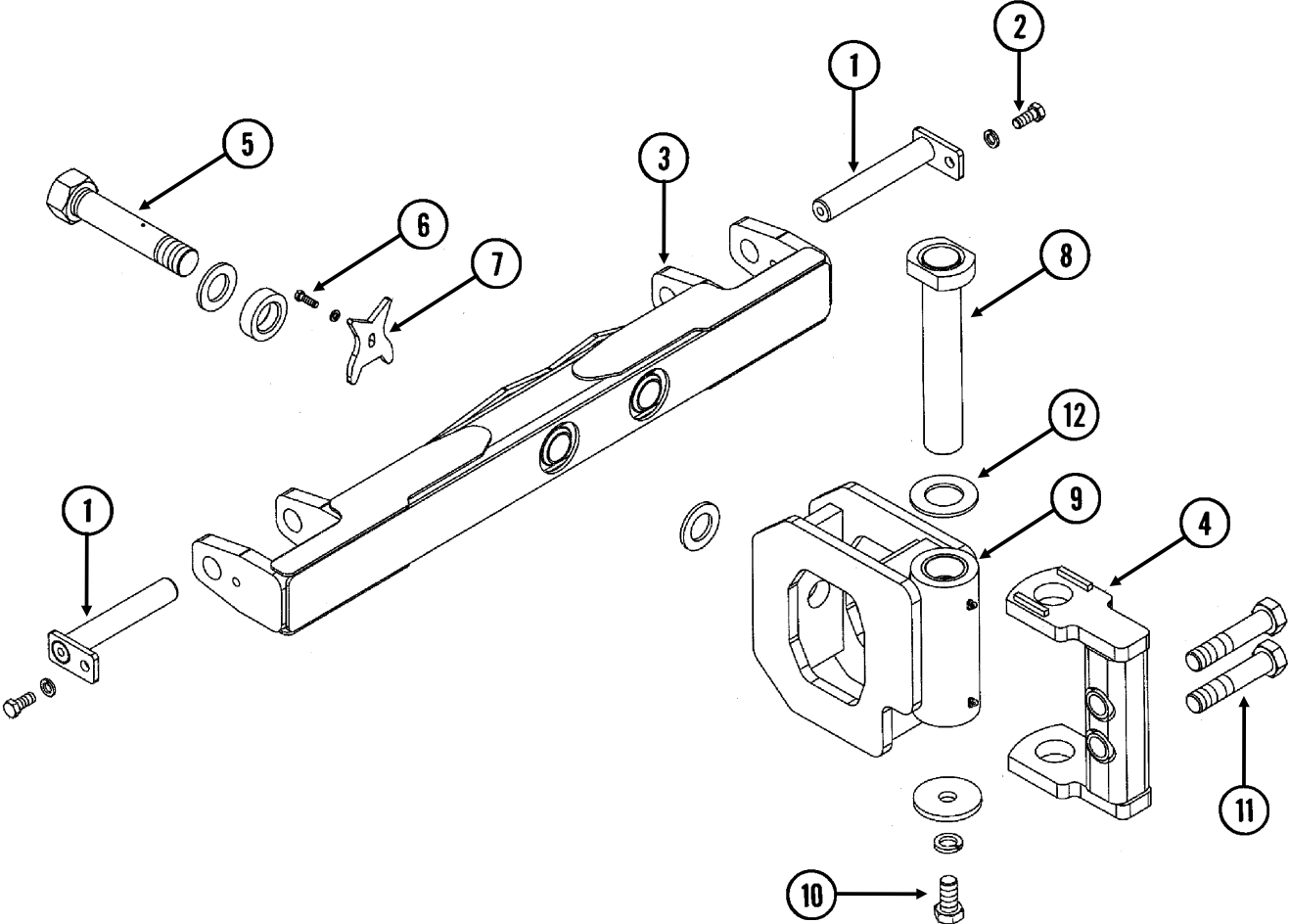
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GB0237	1	Clevis, Single
2.	GA9837	-	Hitch Mount, 12 Row 36"/38" ("T" Hitch Only) And 16 Row 30"
3.	G10169	1	Hex Head Cap Screw, 1 1/4"-7 x 6"
	G10157	1	Lock Nut, 1 1/4"-7
4.	G10802	11	Hex Head Cap Screw, 3/4"-10 x 2 3/4"
	G10231	11	Lock Washer, 3/4"
	G10105	11	Hex Nut, 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.	GA4994	1	Jack Assembly Complete
	GA4995	-	Detent Pin Assembly
	GR0517	-	Pin
	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" And 12 Row 30", 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 P82
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.	G10216	1	Washer, 1/2" USS
	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	-	Clamp, 7/8" x 3" x 5 3/8"
	GD8189	-	Rubber Pad
21.	GD5892	2	Hose Clamp, 5/8" x 1 1/2" x 1 1/2"
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 P48 And P49
24.	GA4418	1	Roller W/Bronze Bushings, 8 Row "Y" And "T" Hitch, 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 Pad
29.	GA4402	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", 12 Row 36"/38" ("T" Hitch Only) And 16 Row 30"
	GD2558	-	Lynch Pin, 1/4"
	GD2557	-	Lynch Pin, 7/16"
30.	G10014	4	Hex Head Cap Screw, 1/2"-13 x 1"
	G10228	4	Lock Washer, 1/2"
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
	G10228	8-10	Lock Washer, 1/2"
	G10102	8-10	Hex 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., 12 Row 36"/38" ("T" Hitch Only) And 16 Row 30"
	GA7085	-	Wear Mount, R.H., 12 Row 36"/38" ("T" Hitch Only) And 16 Row 30"
	GA7083	-	Wear Pad Retainer, 12 Row 36"/38" ("T" Hitch Only) And 16 Row 30"
33.	GD5154	-	Shim, 4" x 4" (As Required), All Sizes
	GD3501	-	Shim, 4" x 6" (As Required), 12 Row 36"/38" ("T" Hitch Only) And 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>
	A7836	-	Outer Hitch, "T", 97", 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>
	A7072	-	Outer Hitch, "T", 151 1/2", 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
	G10610	2	Spring Pin, 3/8" x 2"
39.	GA7533	1	Safety Chain, 1/2"
	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-POINT HITCH OPTION

(A12406)



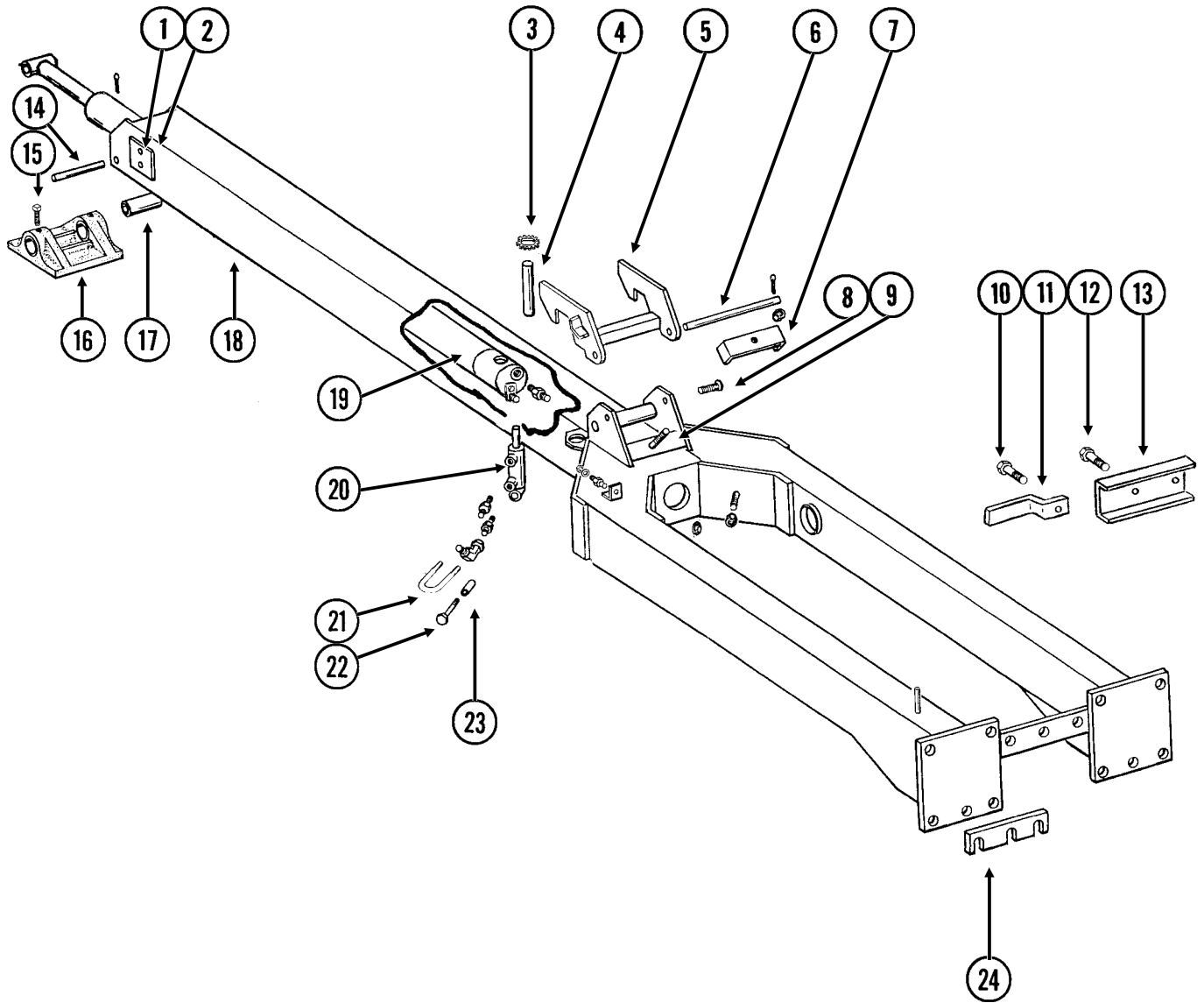
## 2-POINT HITCH OPTION

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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA11079	2	Hammer Strap, Category 3N And 3
2.	G10007	2	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	2	Lock Washer, 5/8"
3.	GA12164	1	Hitch Bar
4.	GA12165	1	Pivot Mount
5.	GA11082	1	Pivot Bolt W/Grease Fitting, 1 3/4" x 10 3/8" (Total Length)
	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
6.	G10005	1	Hex Head Cap Screw, 5/8"-11 x 1 1/4"
	G10217	1	Washer, 5/8" USS
7.	GD15100	1	Pivot Lock
8.	GA12163	1	Pin, 13 3/8"
9.	GA11083	1	Hitch Pivot W/Bushings And Grease Fittings
	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
10	G11223	1	Hex Head Cap Screw, 1"-8 x 2"
	G10118	1	Lock Washer, 1"
	GD17245	1	Washer, 4" O.D. x 1 1/32" I.D. x 3/8"
11.	G10169	2	Hex Head Cap Screw, 1 1/4"-7 x 6"
	G10157	2	Lock Nut, 1 1/4"-7
12.	GD15725	1	Washer, 4" O.D. x 2 1/4" I.D. x 1/4"

# INNER HITCH, "Y"

PHA035/PHA037(TWL2i)

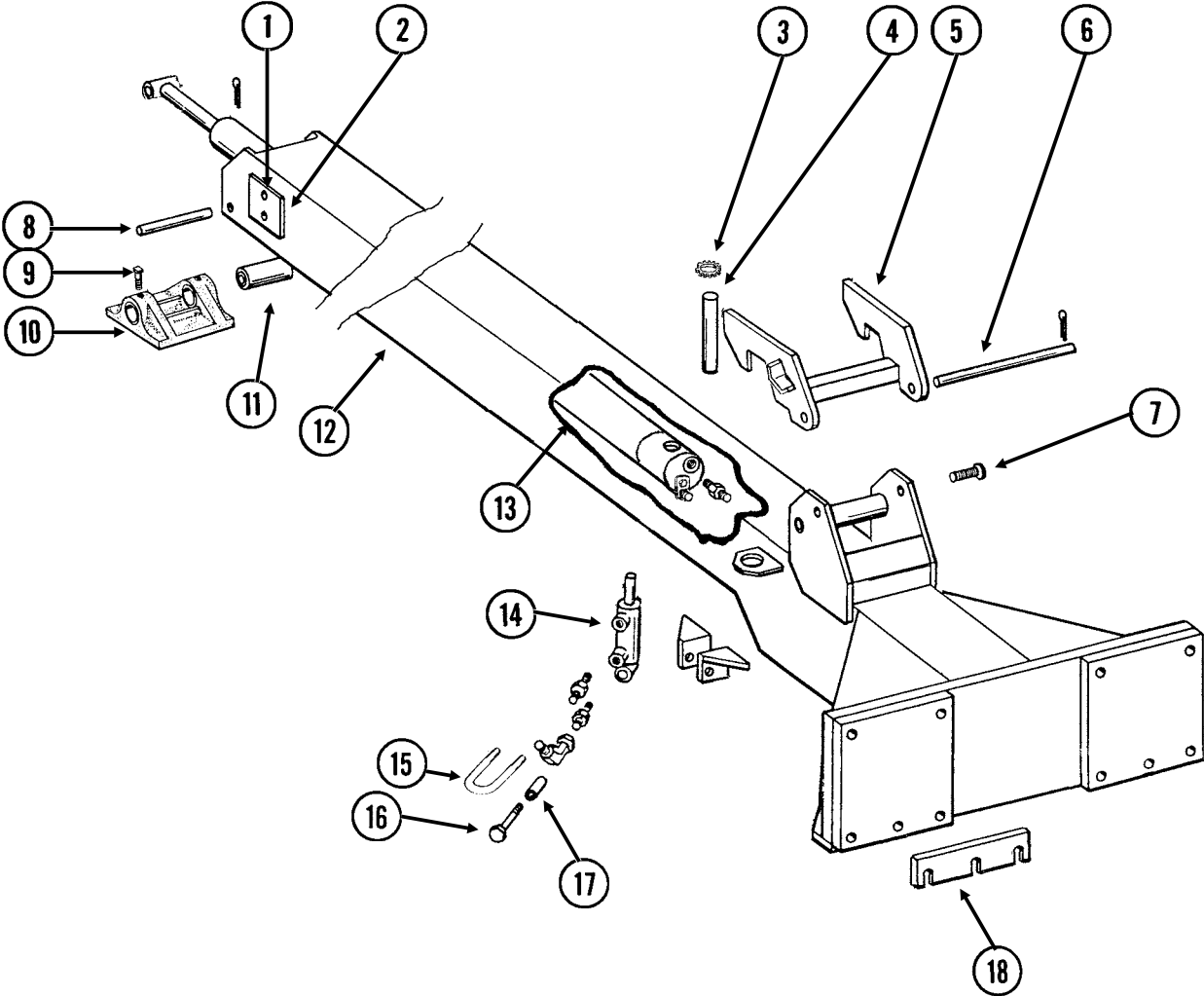


# INNER HITCH, "Y"

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	-	Clamp, 7/8" x 3" x 5 3/8"
	GD8189	-	Rubber Pad
8.			See "Hose Take-Up", Pages P48 And P49
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 P83-P86
20.		-	See "Tongue Lock Cylinder", Page P82
21.	GD10530	1	U-Bolt, 2 1/8" x 1 7/8" x 3/8"-16
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
22.	G10585	1	Hex Head Cap Screw, 1/2"-13 x 3 1/4"
	G10216	1	Washer, 1/2" USS
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex 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

# INNER HITCH, "T"

PHA035/PHA036(TWL3f)

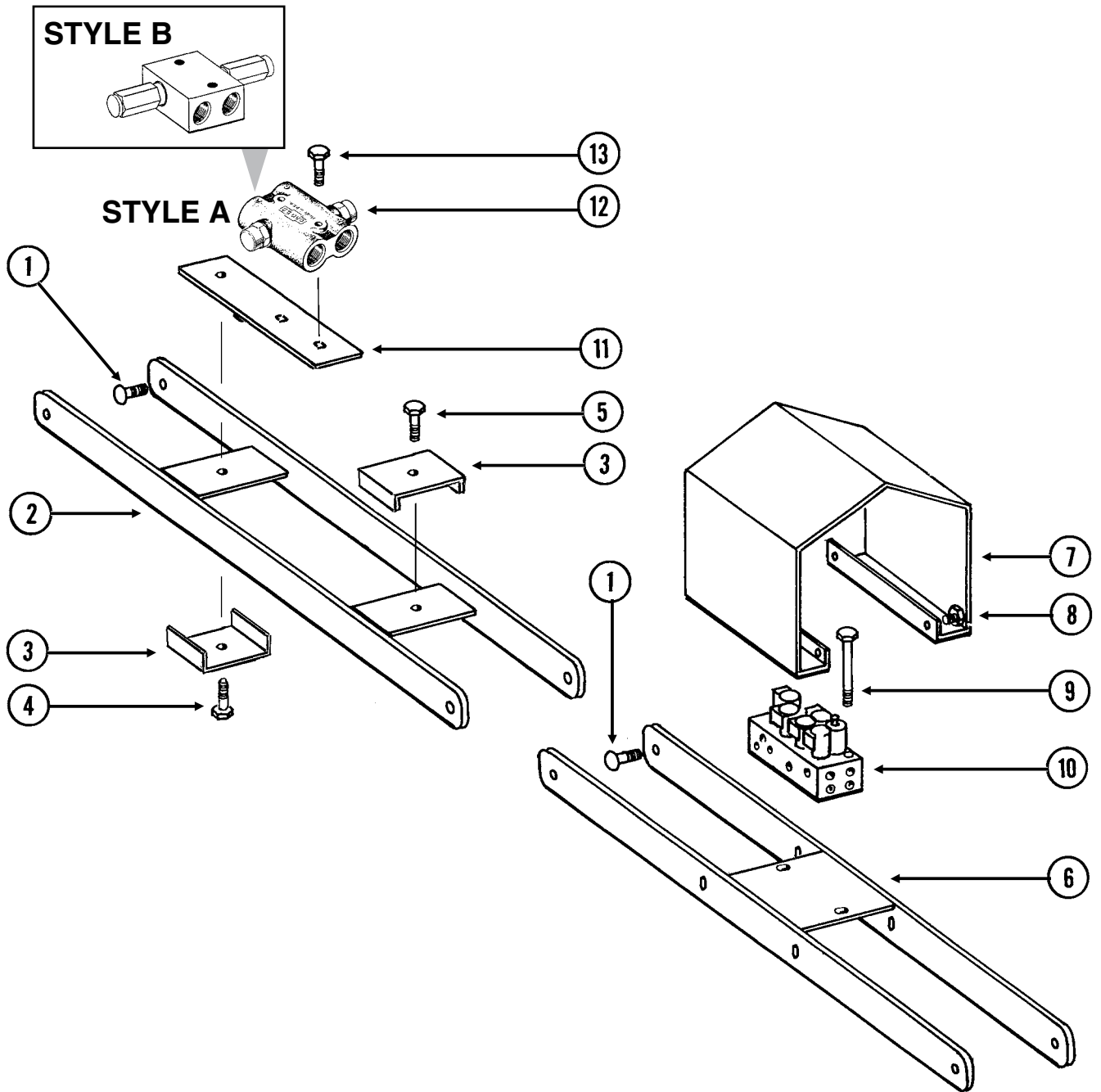


# INNER HITCH, "T"

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 P48 And P49
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 P83-P86
14.		-	See "Tongue Lock Cylinder", Page P82
15.	GD10530	1	U-Bolt, 2 1/8" x 1 7/8" x 3/8"-16
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
16.	G10585	1	Hex Head Cap Screw, 1/2"-13 x 3 1/4"
	G10216	1	Washer, 1/2" USS
	G10228	1	Lock Washer, 1/2"
	G10102	1	Hex 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(TWL137/TWL171)



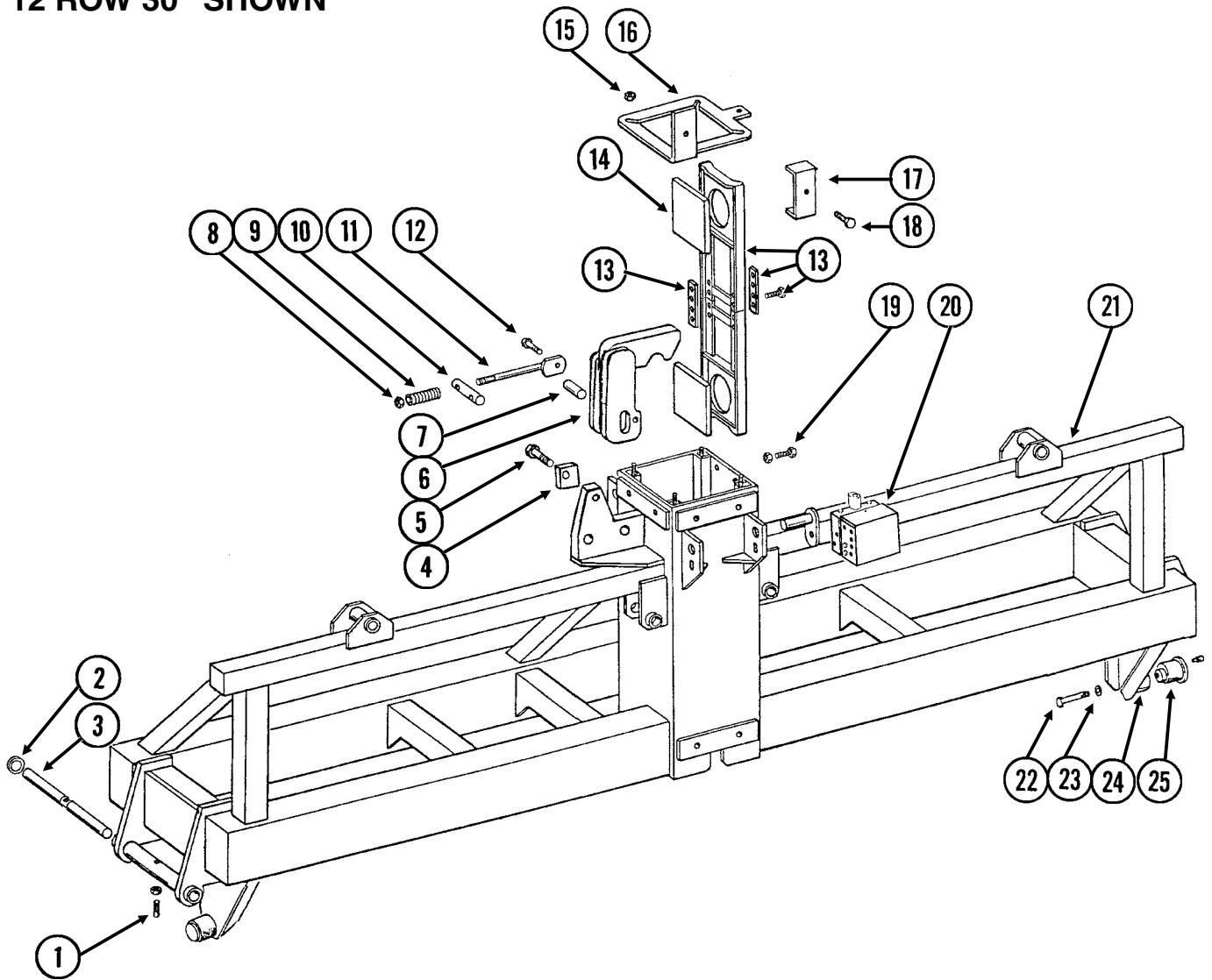
# HOSE TAKE-UP

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	Clamp, 7/8" x 3" x 5 3/8"
	GD8189	2	Rubber Pad
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.	G10581	1	Hex Head Cap Screw, 1/2"-13 x 2 1/4"
	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)
	GA7050	-	Take-Up, 56 1/4", 12 Row 30" "T" Hitch And 12 Row 36"/38" And 16 Row 30" "Y" Hitch
	GA7075	-	Take-Up, 67 5/8", 12 Row 36"/38" And 16 Row 30" "T" Hitch
7.	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)
	GD10295	-	Cover, 8 Row 36"/38" "Y" Hitch
8.	G10004	4	Hex Head Cap Screw, 3/8"-16 x 1 1/4"
	G10229	4	Lock Washer, 3/8"
	G10203	8	Washer, 3/8" SAE
	G10101	4	Hex 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 P90 And P91
11.	GA8131	1	Mount (If Applicable)
12.			See "Relief Valve - Located On Hitch", Page P93
13.	G10902	2	Carriage Bolt, 5/16"-18 x 2 1/2"
	G10232	2	Lock Washer, 5/16"
	G10106	2	Hex Nut, 5/16"-18

# CENTER FRAME

PFA070/VVB034(TWL138a)

12 ROW 30" SHOWN



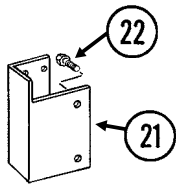
# CENTER FRAME

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" (3/8" Thick)
	G10001	-	Hex Head Cap Screw, 3/8"-16 x 1"
14.	GD10053	8	Wear Pad, 7" x 7", 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	Clamp, 7/8" x 3" x 5 3/8"
	GD8189	1	Rubber Pad
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 Rear Center Frame", Page P89
21.	A7394	1	Frame W/Cam Follower Mounts, 166", 8 Row 36"/38" And 12 Row 36"/38" <b>(Non-Stock Item)</b>
	A7393	-	Frame W/Cam Follower Mounts, 136", 12 Row 30" And 16 Row 30" <b>(Non-Stock Item)</b>
	GA6929	-	Cam Follower Mount, L.H.
	GA6928	-	Cam Follower Mount, R.H.
22.	G10025	2	Hex Head Cap Screw, 3/4"-10 x 1 1/2"
23.	GB0409	2	Spring Washer
24.	GD10532	2	Sleeve
25.	GA6497	2	Cam Follower W/Grease Fitting
	G10640	-	Grease Fitting, 1/4"-28

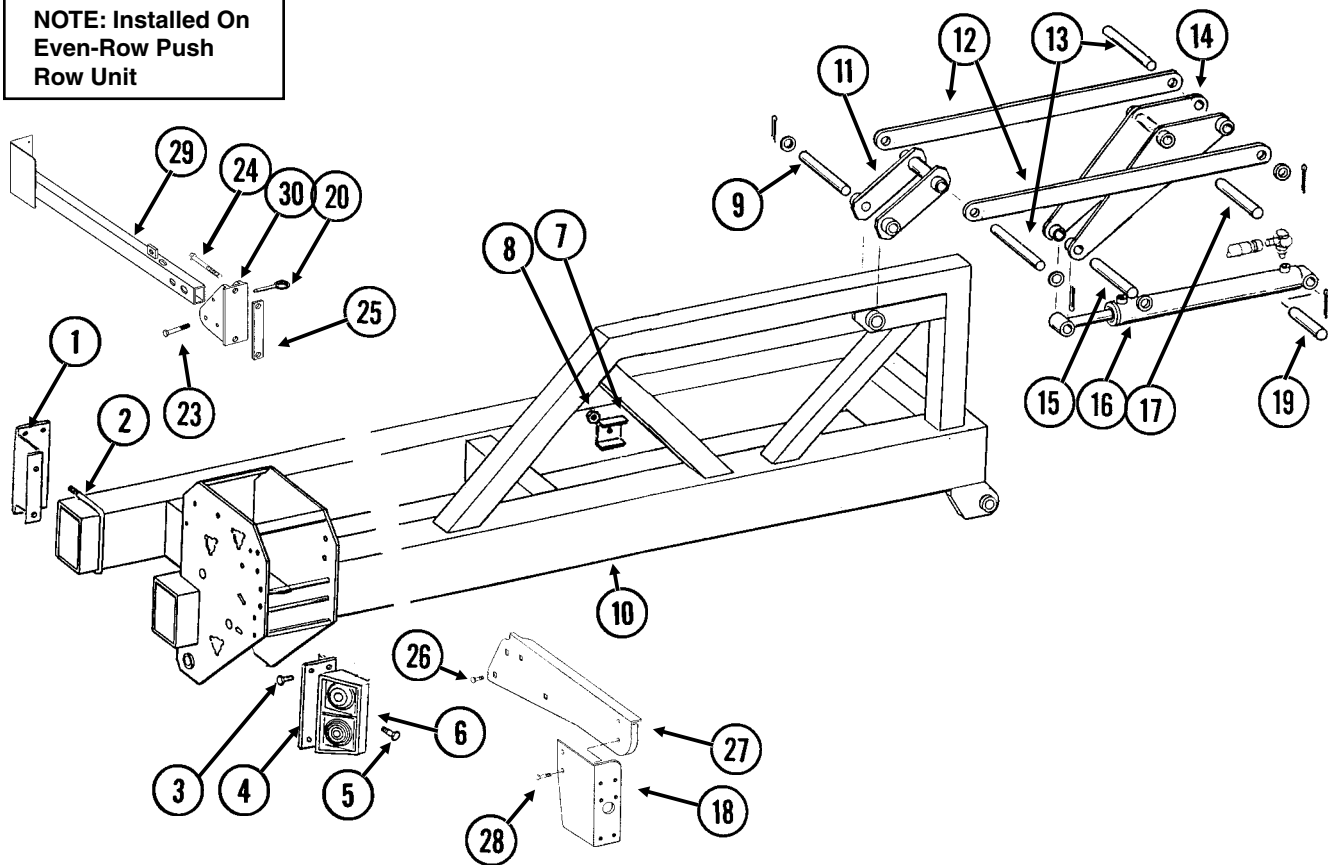
# WING FRAME

(TWL180a/TWL139g)

**WITH INTERPLANT®  
PACKAGE OPTIONS**



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



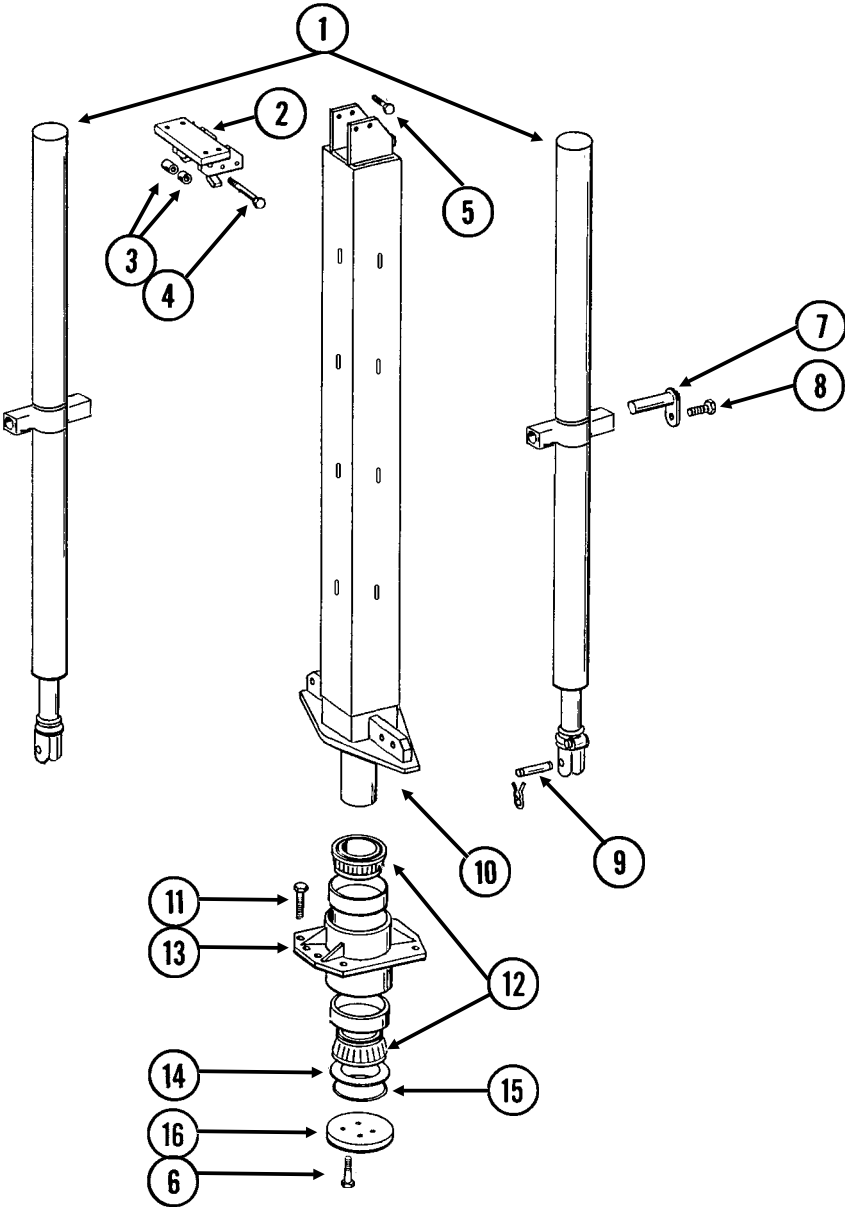
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA6792	1	Light Bracket (Wide Row Sizes Only)
2.	GD1113	1	U-Bolt, 5" x 7" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
3.	G10001	2	Hex Head Cap Screw, 3/8"-16 x 1"
	G10210	1	Washer, 3/8" USS
	G10229	2	Lock Washer, 3/8"
	G10101	2	Hex Nut, 3/8"-16
4.	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 P100 And P101

# 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.	GD4108	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 P87
17.	GD9955	1	Pin 1 1/4" x 7"
	G10606	2	Spring Pin, 1/4" x 2"
18.	GD12724	1	Bracket
19.	GD6136	2	Pin, 1 1/4" x 5"
	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"
	G10206	4	Washer, 1/2" SAE
	G10111	1	Lock Nut, 1/2"-13
24.	G10439	2	Hex Head Cap Screw, 5/8"-11 x 7"
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
25.	GD1908	1	Mounting Bracket
26.	G10312	2	Carriage Bolt, 5/16"-18 x 3/4"
	G10620	2	Serrated Flange Nut, 5/16"-18
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 P90 And P91)

# CENTER PIVOT

PFA067/PFA068(TWL7c)



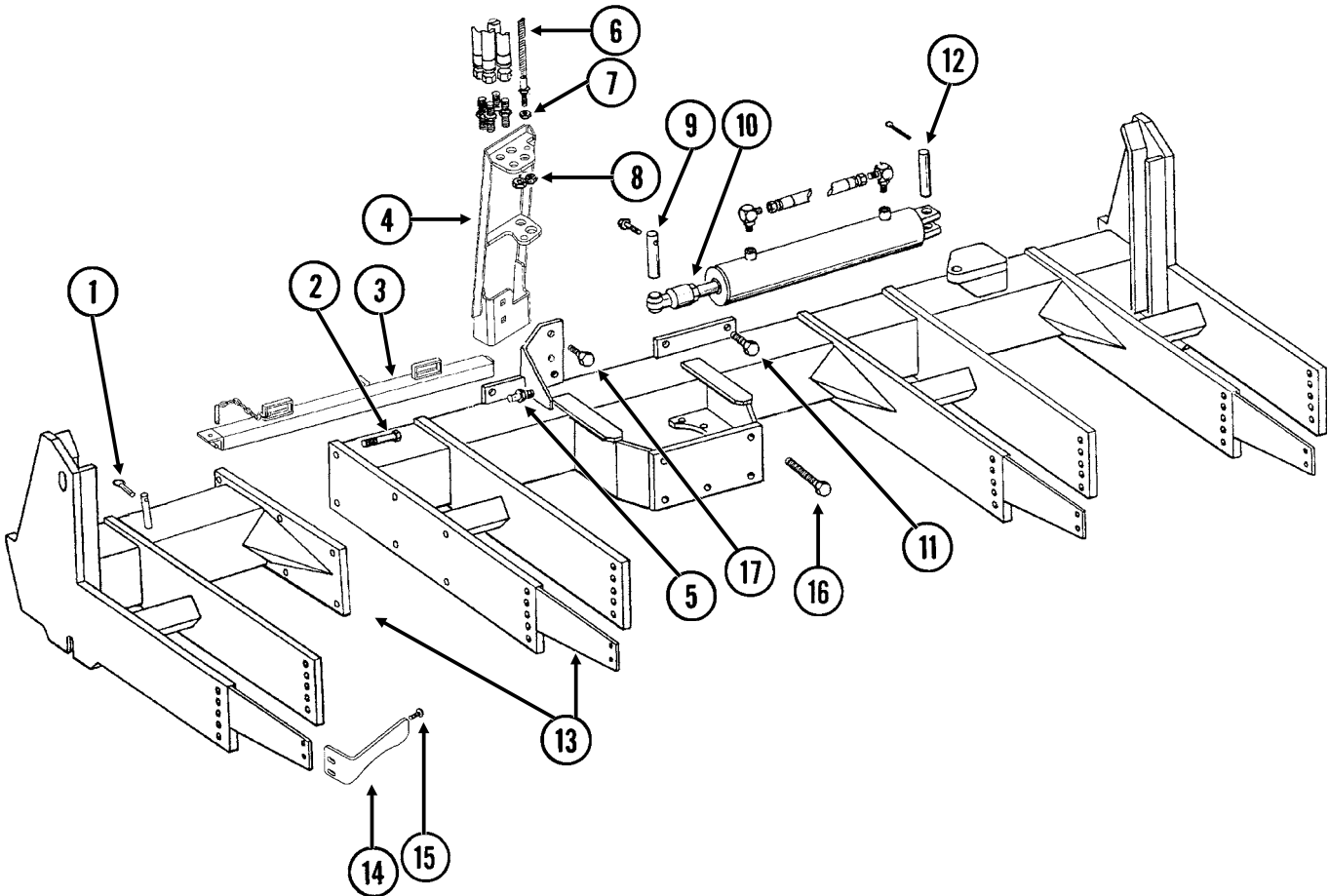
# CENTER PIVOT

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ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Center Lift Cylinder", Page P80
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"
	G10216	4	Washer, 1/2" USS
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex 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)

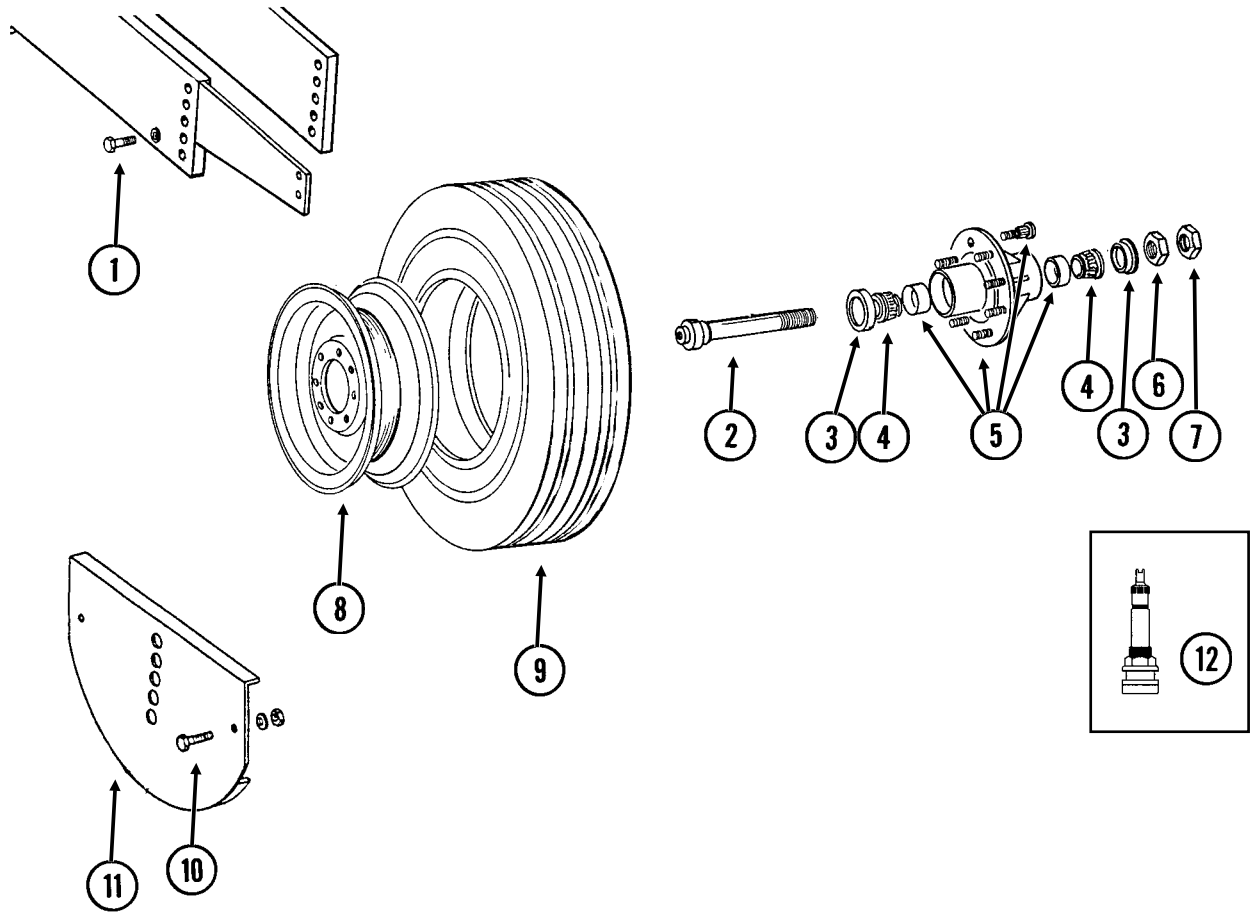


# AXLE ASSEMBLY

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.	GD8276	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"
	G10226	4	Washer, 1 1/4" SAE
	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 P80
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"
	G10216	-	Washer, 1/2" USS
	G10228	-	Lock Washer, 1/2"
	G10102	-	Hex 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

# TRANSPORT WHEELS/ROCK GUARDS

HTA032/HTA040/HTA043/HTA004(TWL141c)



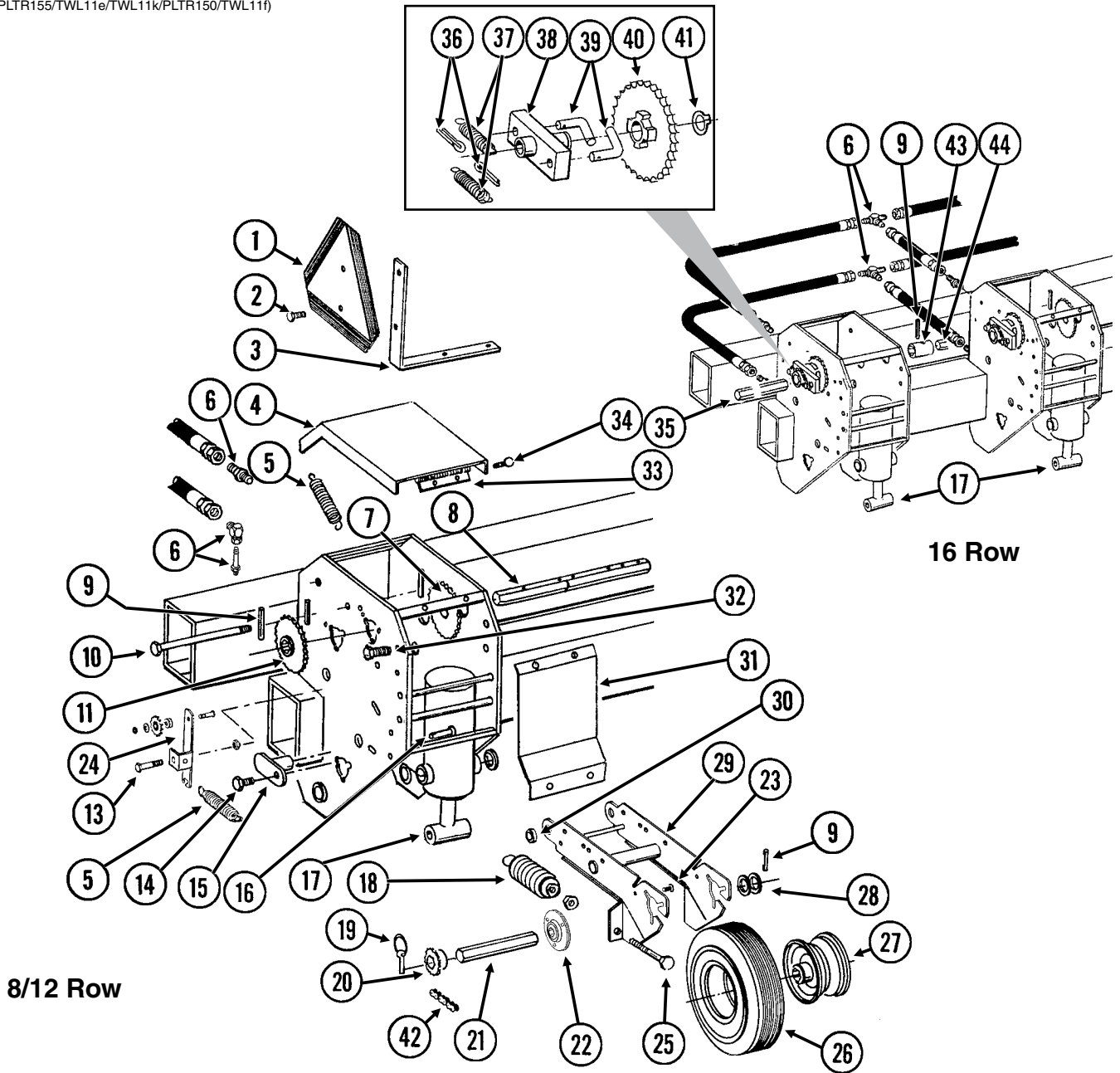
# TRANSPORT WHEELS/ROCK GUARDS

ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	G10448	2	Hex Head Cap Screw, 7/8"-9 x 2 1/2", 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	-	Lug Bolt, 5/8"-12 x 2 1/4", Grade 8
	GR0531	-	Lug Nut, 5/8"-18 UNF
	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
A.	GA9545	-	Tire And Rim Assembly (Items 8, 9 And 12) (Specify Brand*)

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

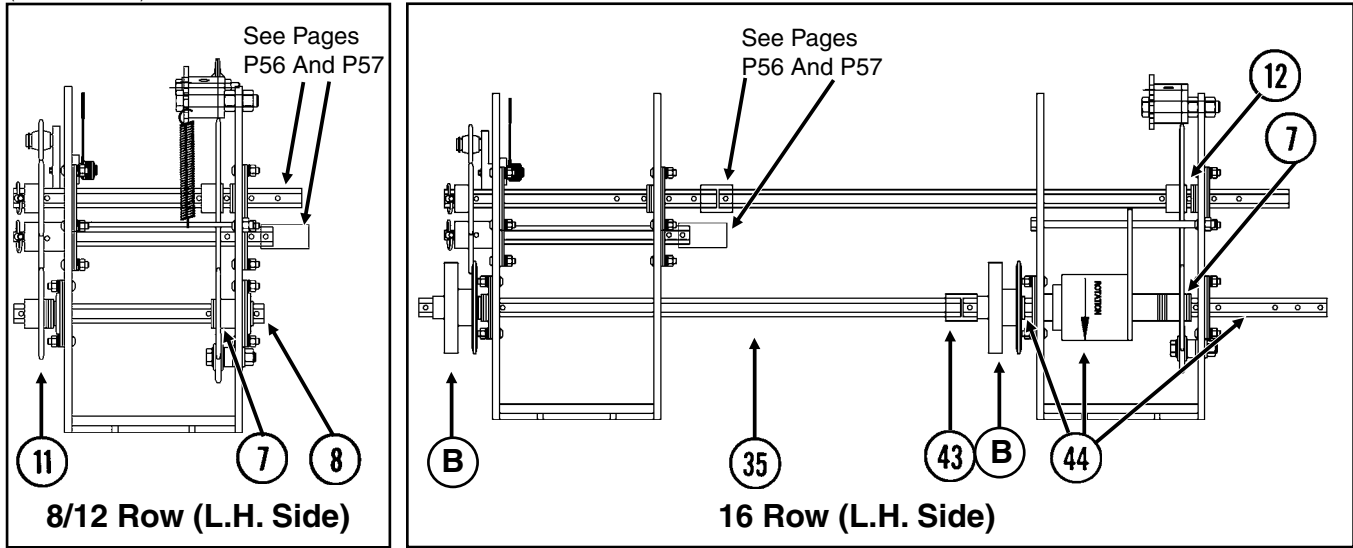
# CONTACT DRIVE WHEEL AND DRIVE SHAFT(S)

(PLTR155/TWL11e/TWL11k/PLTR150/TWL11f)



# CONTACT DRIVE WHEEL AND DRIVE SHAFT(S)

(TWL157/TWL156)



ITEM	PART NO.	QTY.	DESCRIPTION
			(Per Assy.)
1.	GD2199	1	SMV Sign
2.	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
3.	GD9969	1	Bracket
4.	GD10298	1	Cover
5.	GD5857	2	Spring
6.		-	See "Hydraulic Hoses And Fittings On Planter Frame", Pages P98 And P99
7.		-	See "Inner Module Drive", Page P67
8.	GD10543	1	Hex Shaft, 7/8" x 13", See "Point Row Clutch", Pages P68-P71 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", 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"
	G10216	2	Washer, 1/2" USS
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex 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 P81
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)

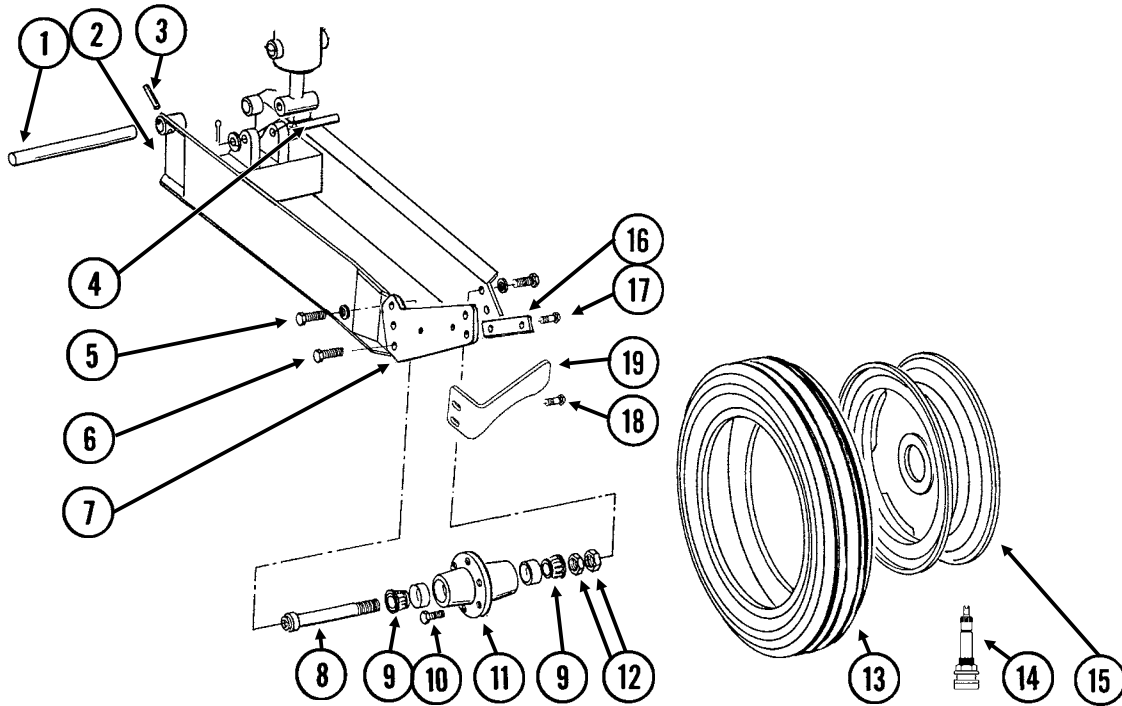
# CONTACT DRIVE WHEEL AND DRIVE SHAFT(S)

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", 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.	G10005	2	Hex Head Cap Screw, 5/8"-11 x 1 3/4"
	G10235	4	Machine Bushing, 7/8", 14 Gauge
	GD7805	2	Special Washer, 5/8", Hardened
	G10205	2	Washer, 5/8" SAE
	G10107	2	Lock Nut, 5/8"-11
33.	GD5789	1	Hinge, Female
	GD5790	1	Hinge W/Pins, Male
34.	G10064	6	Hex Head Cap Screw, 1/4"-20 x 1"
	G10209	4	Washer, 1/4" USS
	G10227	6	Lock Washer, 1/4"
	G10103	6	Hex 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 P68-P71
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)

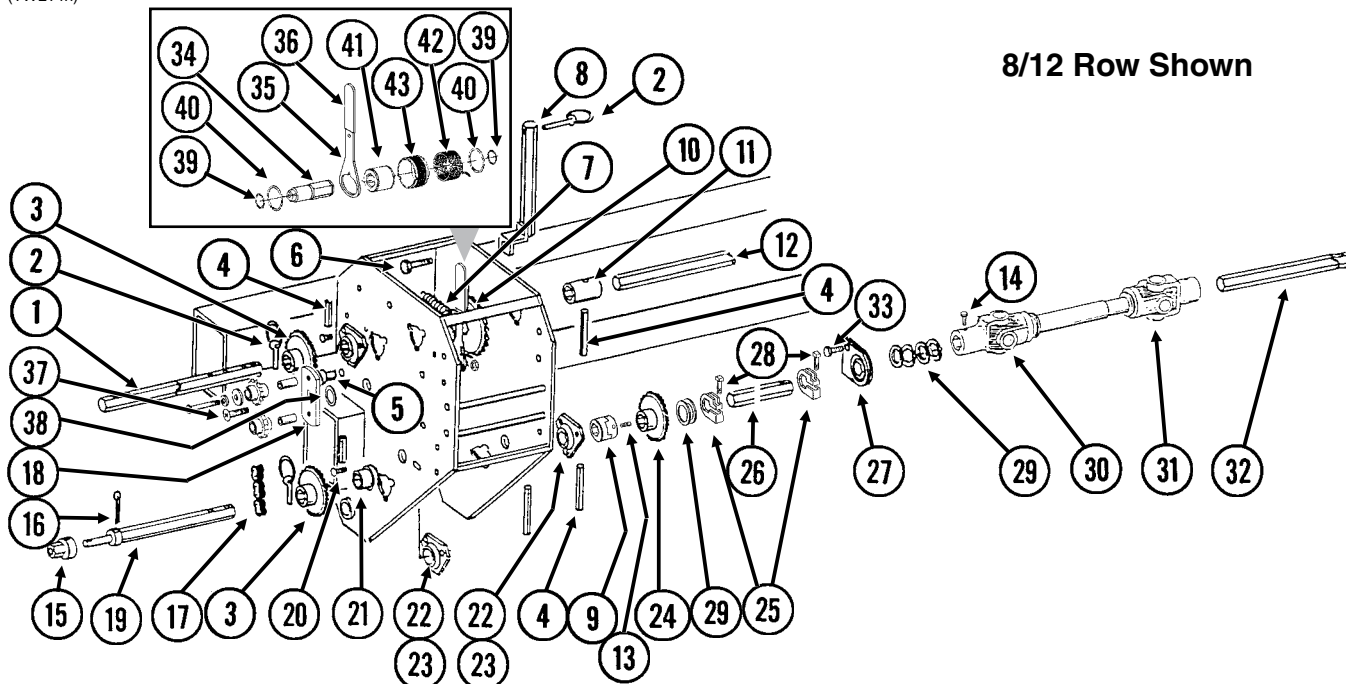


ITEM	PART NO.	QTY. (Per Assy.)	DESCRIPTION
1.	GD11695	-	Pin, 1 1/4" x 13 1/4"
2.	GA8677	1	Wheel Module
3.	G10610	-	Spring Pin, 3/8" x 2"
4.	GD5841	1	Pin, 1 1/4" x 5 5/8"
	G10226	2	Washer, 1 1/4" SAE
	G10460	2	Cotter Pin, 1/4" x 2"
5.	G10026	2	Hex Head Cap Screw, 3/4"-10 x 2"
	G10231	2	Lock Washer, 3/4"
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
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
17.	G10017	2	Hex Head Cap Screw, 1/2"-13 x 1 1/2"
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
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
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

(TWL14n)



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.	G10581	1	Hex Head Cap Screw, 1/2"-13 x 2 1/4"
	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 P67
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"

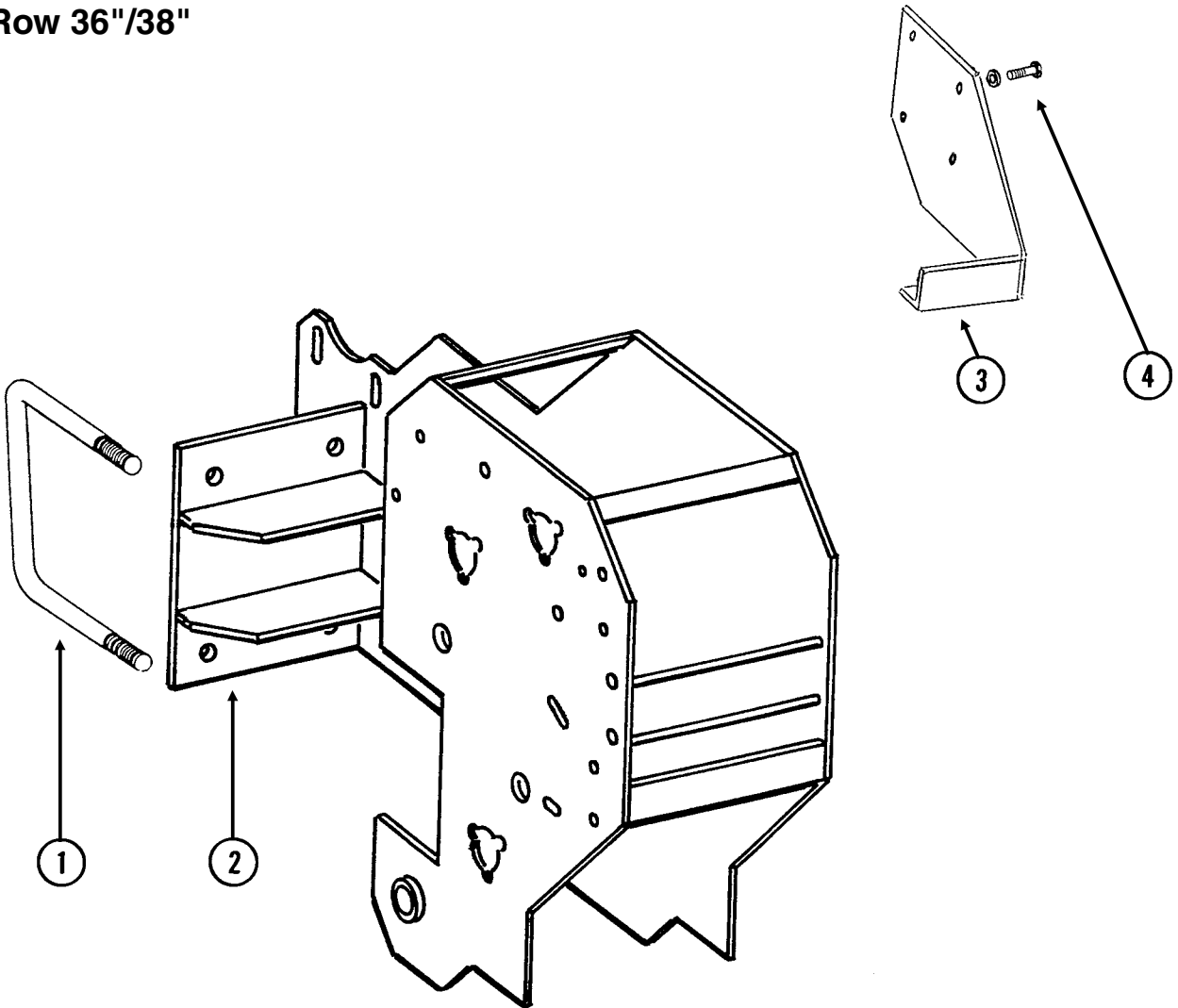
# SEED RATE TRANSMISSION AND ROW UNIT DRILL SHAFTS

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", 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	1	Hex Shaft, 7/8" x 53" (No Holes), R.H. Main Frame, 8 Row 36"/38" And 12 Row 36"/38"
	GD0914-44	1	Hex Shaft, 7/8" x 44" (No Holes), L.H. Main Frame, 8 Row 36"/38" And 12 Row 36"/38"
	GD0914-45	1	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"
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	Internal Inverted Snap Ring, 7/8"
41.	GD14432	1	Sleeve, 1 1/4"
42.	GD14414	1	Torsion Spring, R.H. (Used In L.H. Wrap Spring Wrench)(Shown)
	GD14413	-	Torsion Spring, L.H. (Used In R.H. Wrap Spring Wrench)
43.	GD14429	-	Release Collar, Silver, L.H. (Shown)
	GD14430	1	Release Collar, Gold, 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"**

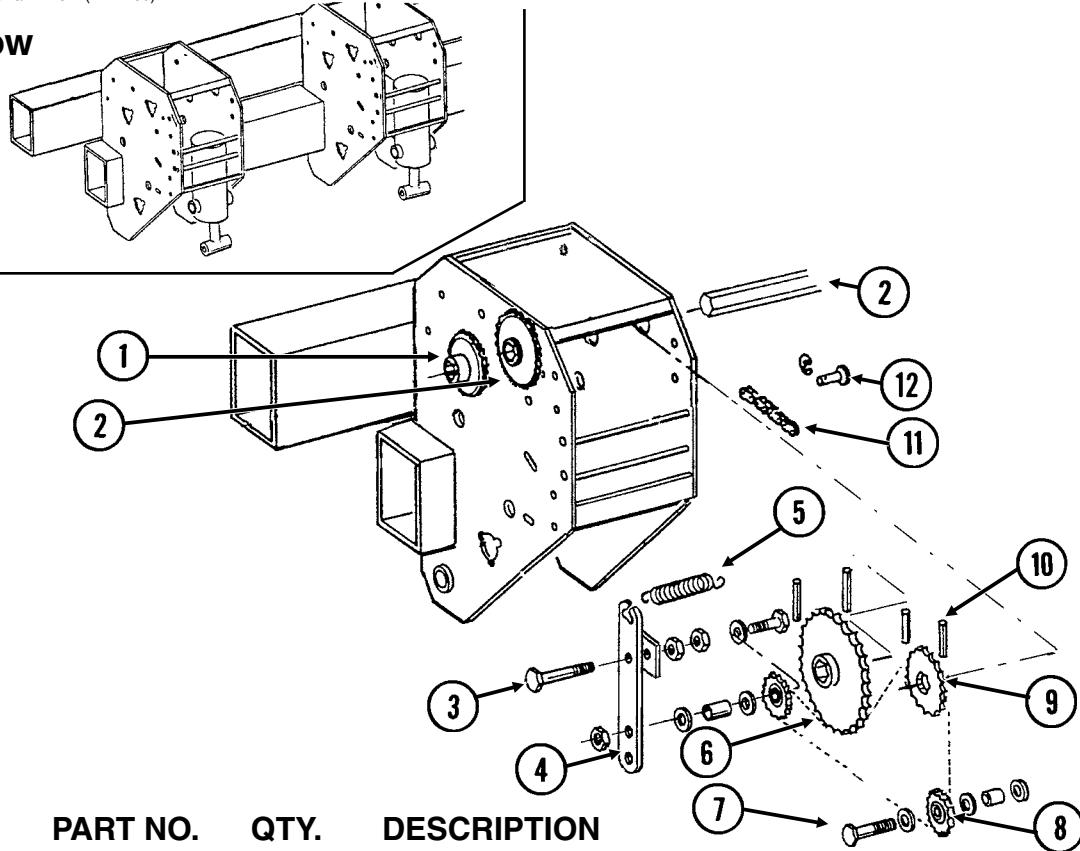


ITEM	PART NO.	QTY. (Per Side)	DESCRIPTION
1.	GD1747	5	U-Bolt, 5" x 7" x 3/4"-10
	G10231	10	Lock Washer, 3/4"
	G10105	10	Hex Nut, 3/4"-10
2.	GA8071	1	Wheel Tower W/Grease Fitting, L.H.
	GA8070	-	Wheel Tower W/Grease Fitting, R.H.
	G10640	-	Grease Fitting, 1/4"-28
3.	GA7108	1	Transport Latch Catch
4.	G10007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

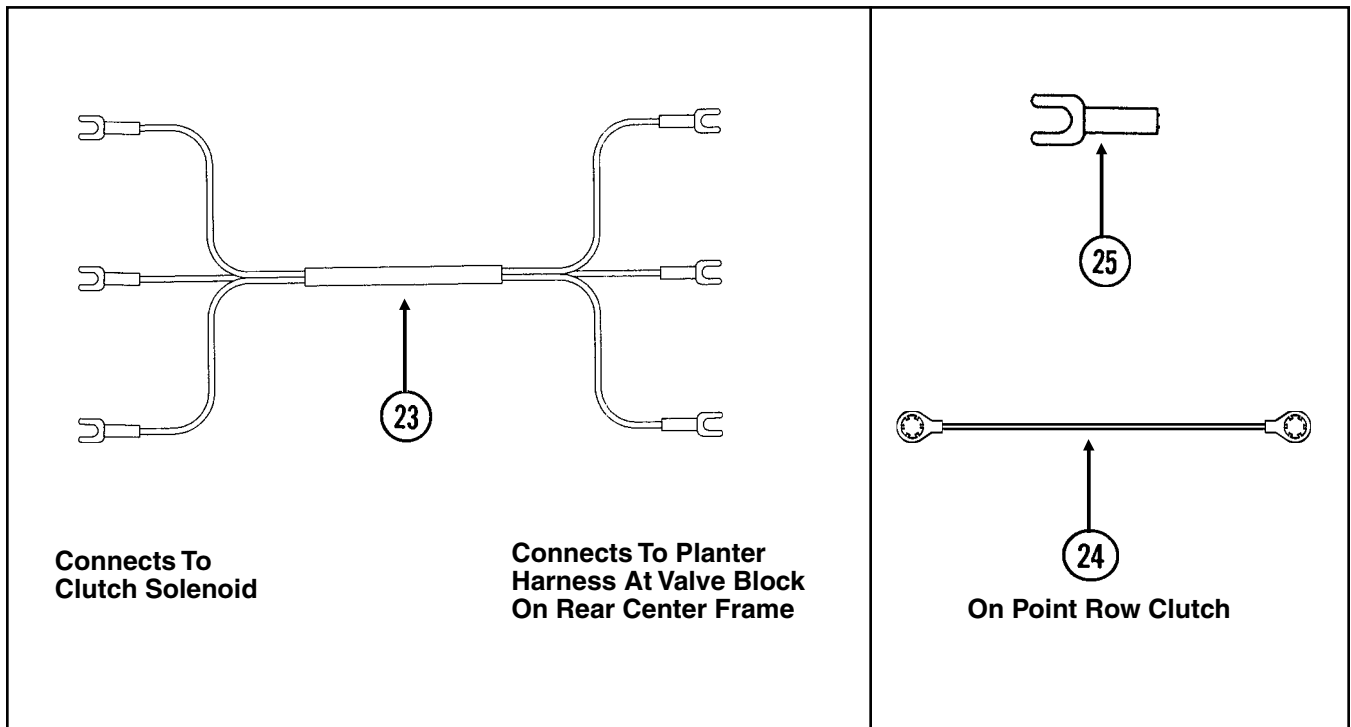
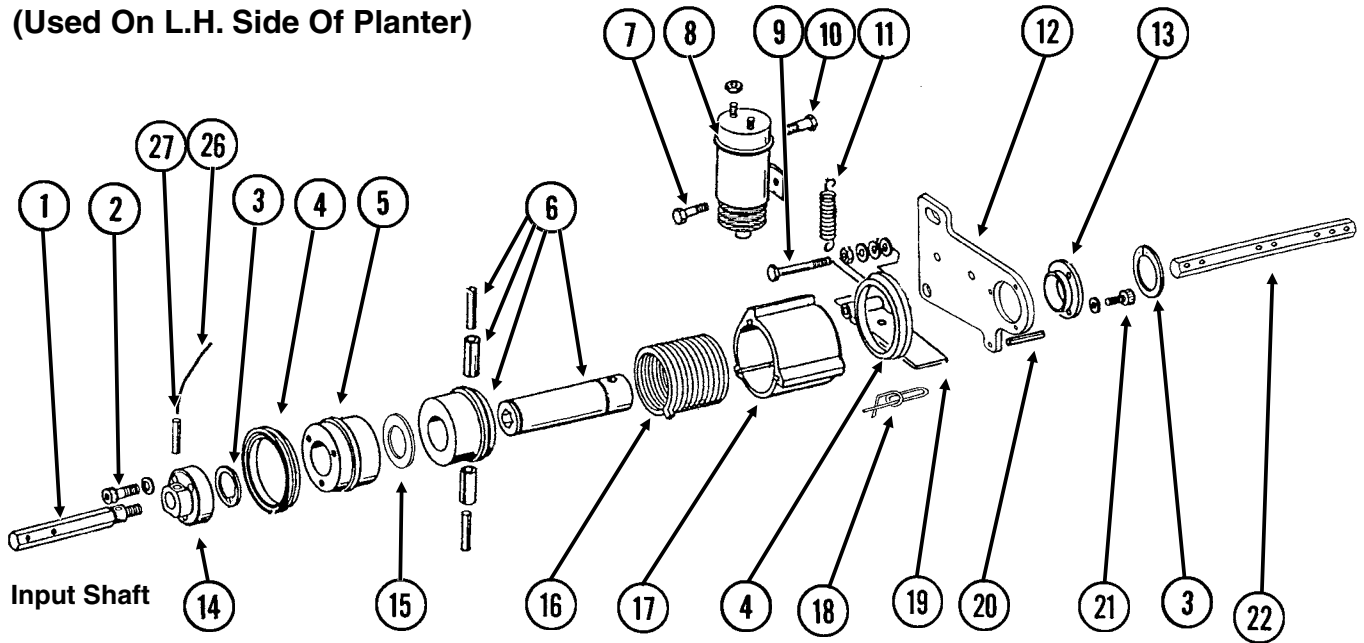


ITEM	PART NO.	QTY. (Per Module)	DESCRIPTION
1.		-	See "Seed Rate Transmission And Row Unit Drill Shafts", Pages P64 And P65
2.		-	See "Contact Drive Wheel And Drive Shaft(s)", Pages P60-P62
3.	G10743	1	Hex Head Cap Screw, 5/8"-11 x 3 3/4"
	G10918	3	Machine Bushing, 5/8", 14 Gauge (As Required)
	G10104	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"
	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/

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



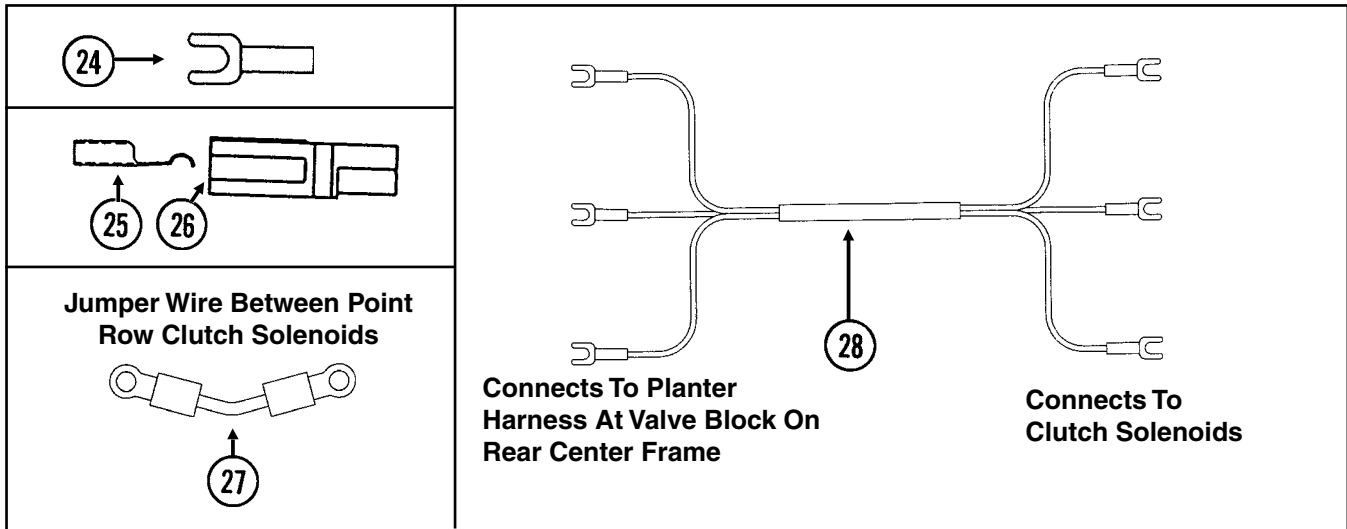
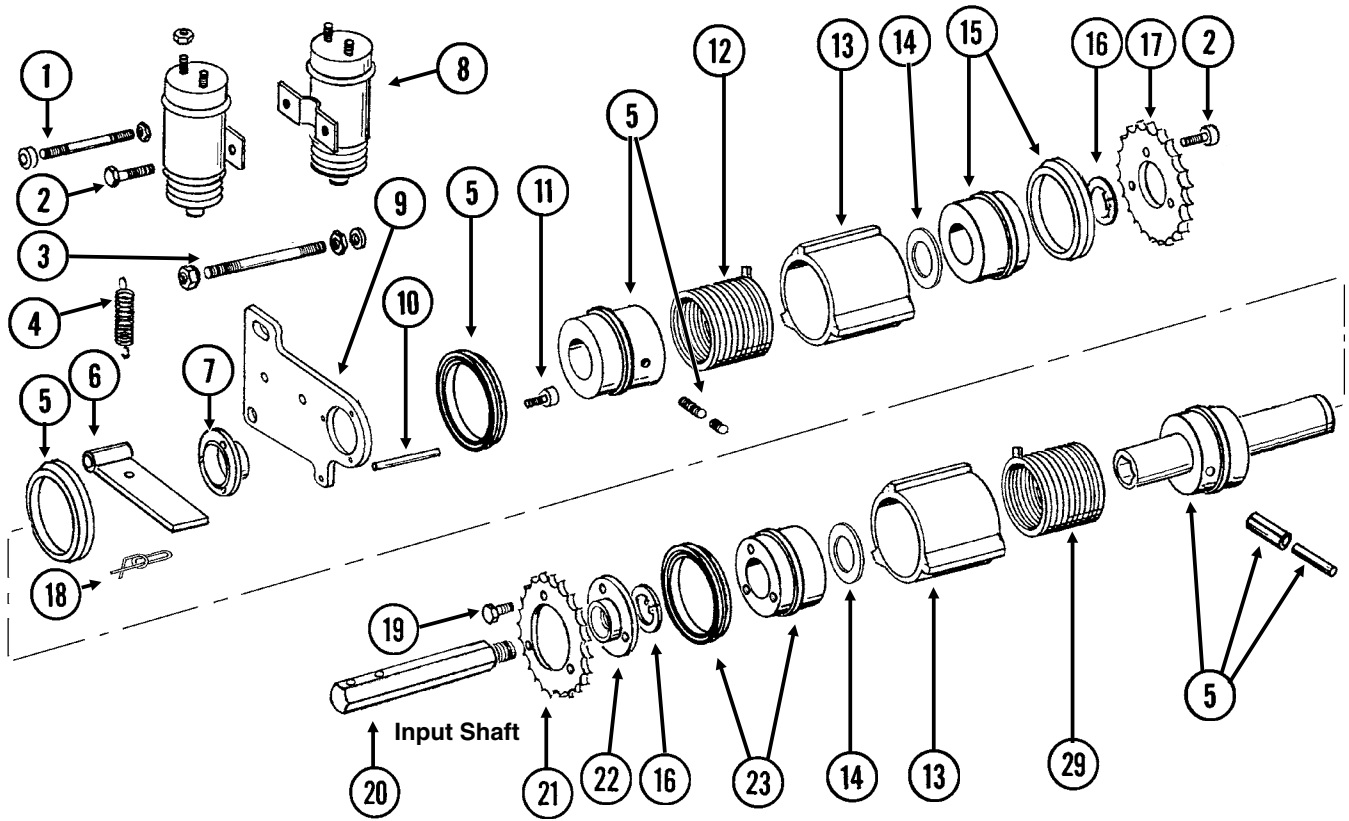
# POINT ROW CLUTCH

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 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)**

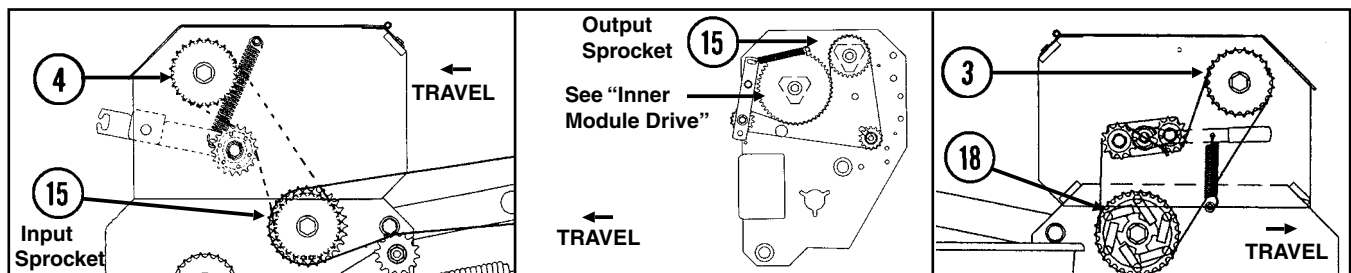
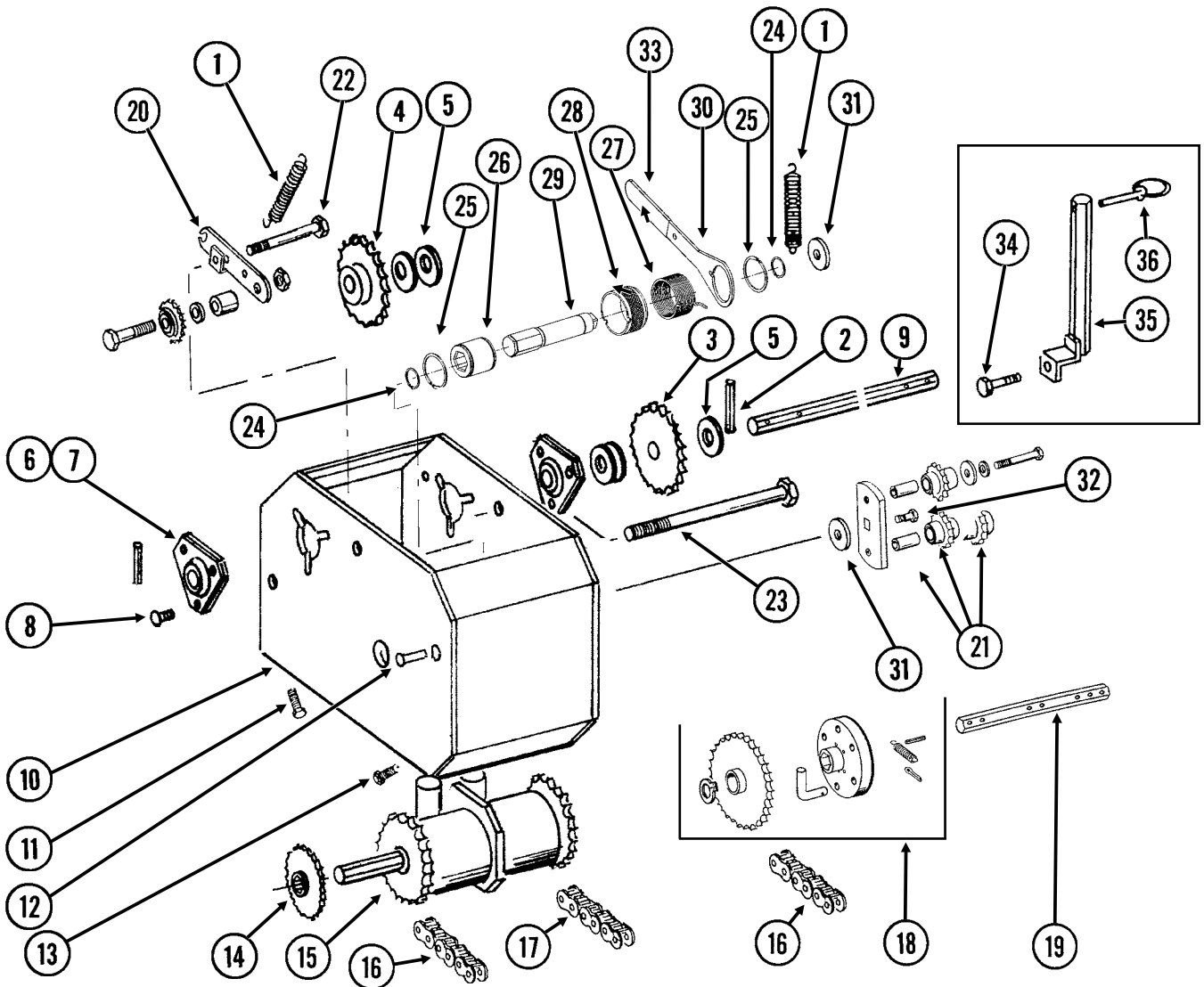


# TWO-SPEED POINT ROW CLUTCH

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

(TWL77g/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", 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 Drive Wheel And Drive Shaft(s)", Pages P60-P624
15.		-	See "Two-Speed Point Row Clutch", Pages P70 And P71
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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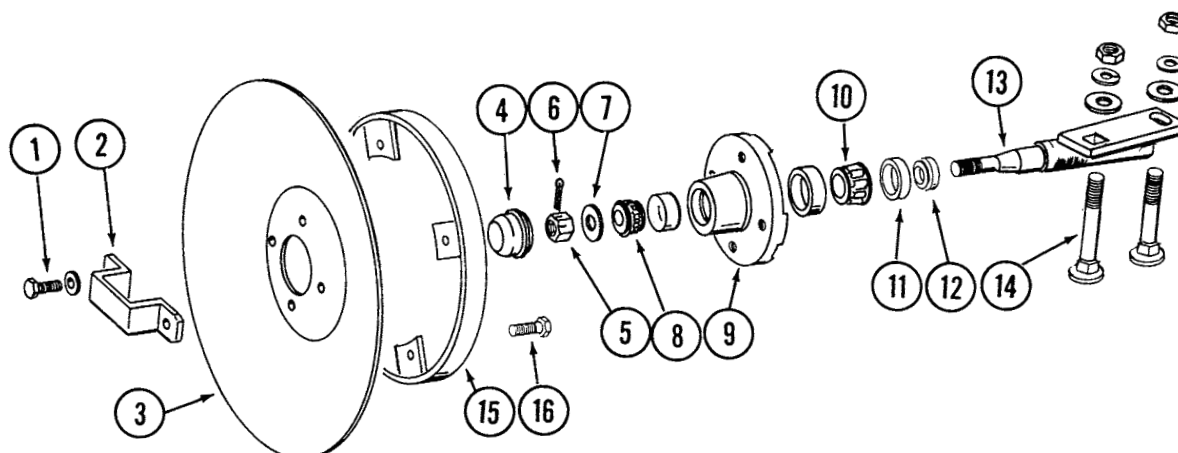
# TWO-SPEED POINT ROW CLUTCH WHEEL MODULE EXTENSION

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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	Internal 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.	GD14429	-	Release Collar, Silver, L.H. (Shown)
	GD14430	1	Release Collar, Gold, 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

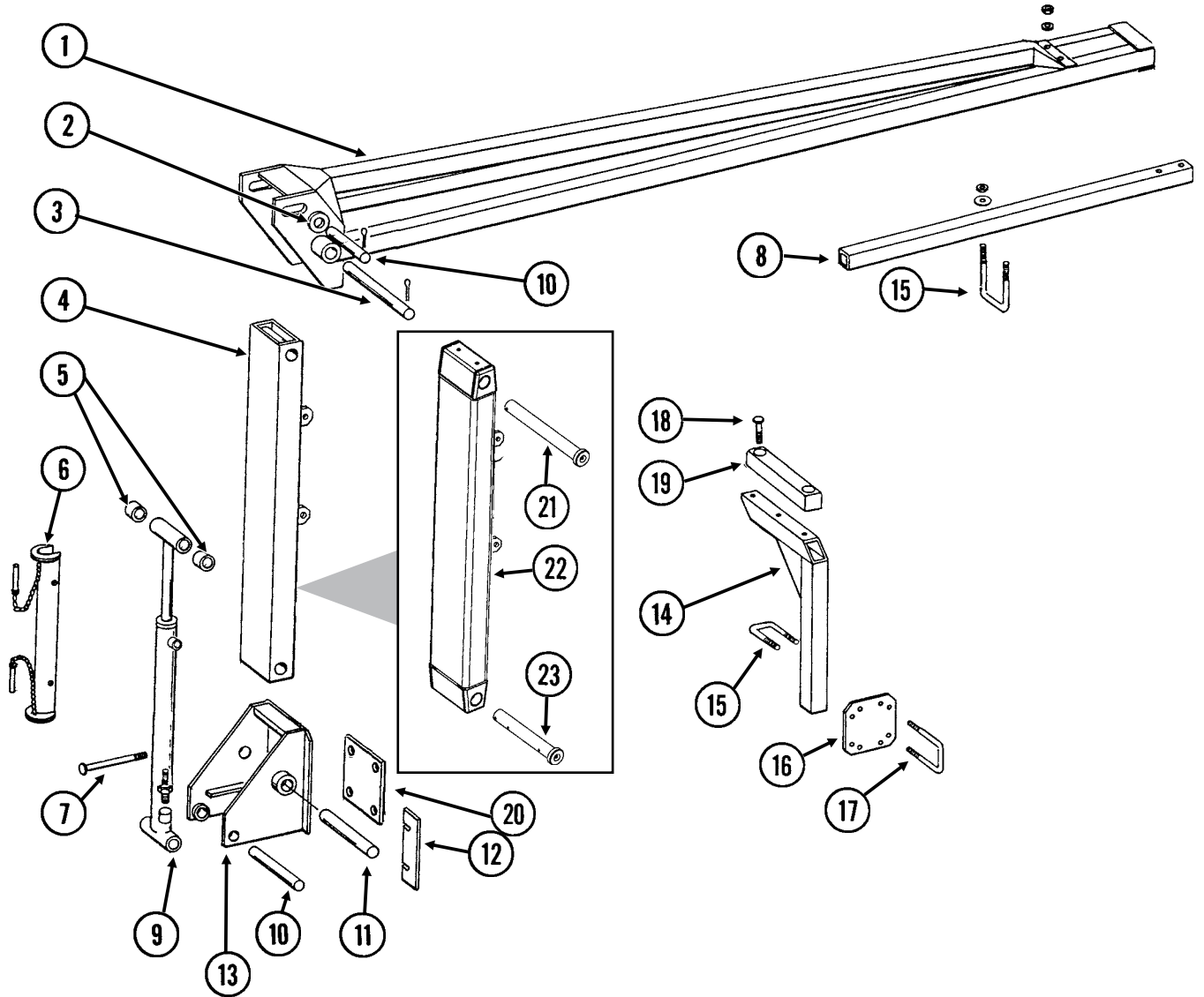
MKR020(MKR4)



ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	G10722	4	Hex Head Cap Screw, 1/2"-20 x 1"
	G10228	4	Lock Washer, 1/2"
2.	GD2597	1	Retainer
3.	GD0746	1	Disc Blade, Solid, 16" (Shown)
	GD10283	-	Disc Blade, Notched, 16" (Optional)
4.	GD0840	1	Dust Cap
5.	G10725	1	Slotted Hex Nut, 5/8"-18
6.	G10544	1	Cotter Pin, 5/32" x 1"
7.	G10724	1	Washer, 5/8" SAE
8.	GA0257	1	Bearing
9.	GA0167	1	Hub W/Cups, 4 Bolt
	GR0151	-	Outer Cup
	GR0150	-	Inner Cup
10.	GA0245	1	Bearing
11.	GA0243	1	Grease Seal
12.	GA0899	1	Rubber Seal
13.	GA1676	1	Spindle, R.H.
	GA1677	-	Spindle, L.H. (Shown)
14.	G10844	2	Carriage Bolt, 1/2"-13 x 3 1/2"
	G10168	2	Machine Bushing, 1/2", 7 Gauge
	G10228	2	Lock Washer, 1/2"
	G10102	2	Hex Nut, 1/2"-13
15.	GA5853	1	Depth Band
16.	G10019	4	Hex Head Cap Screw, 5/16"-18 x 1"
	G10109	4	Lock Nut, 5/16"-18, Grade 8
A.	GA1679	-	Hub And Spindle Assembly, L.H. (Items 1, 2 And 4-13)
	GA1678	-	Hub And Spindle Assembly, R.H. (Items 1, 2 And 4-13)

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

MKR019/MKR027(MKR14i/A11590)

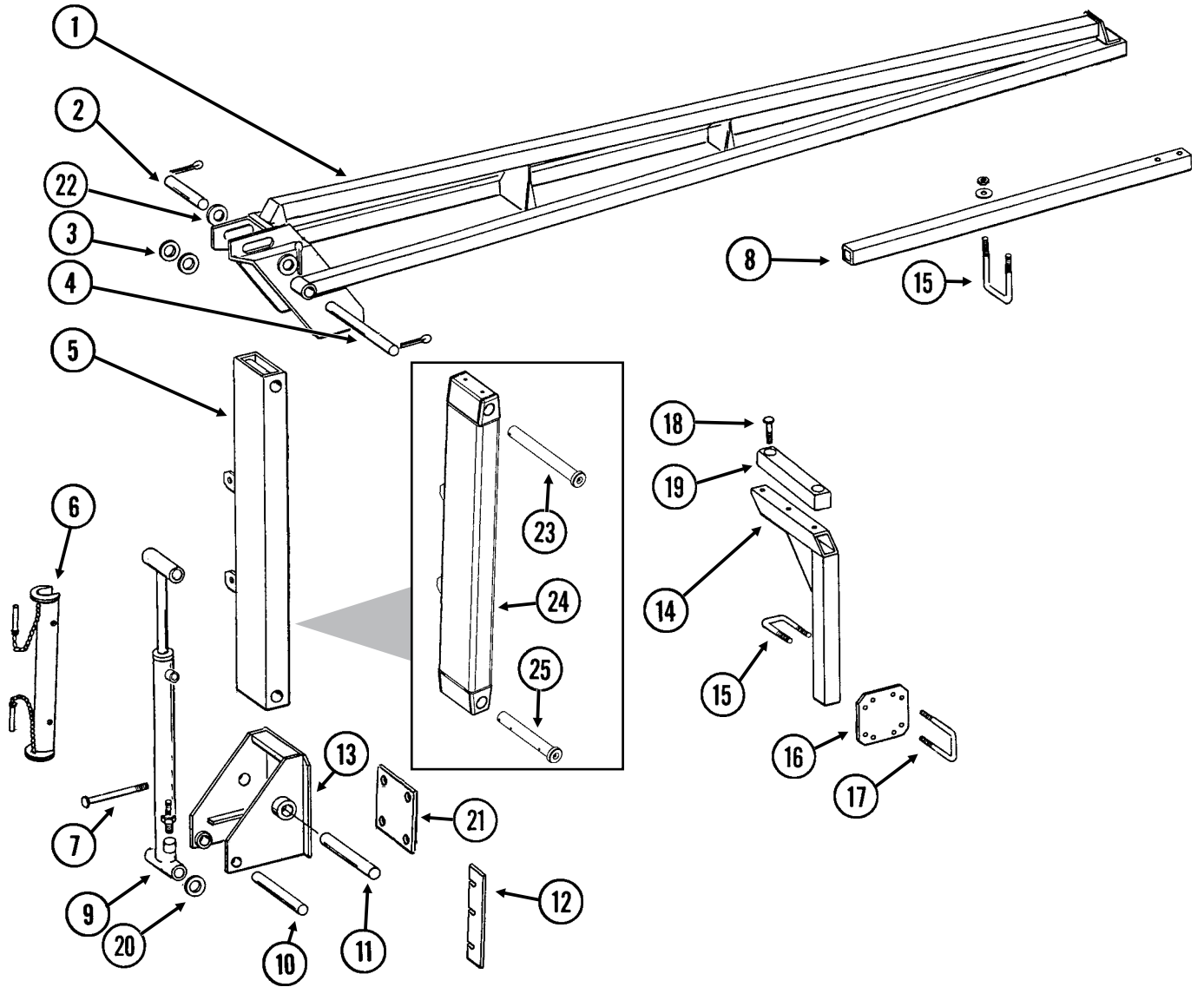


# ROW MARKER ASSEMBLY, 8 ROW 36"/38" AND 12 ROW 30"

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, 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.	GD3214	1	Pin, 1 1/4" x 12 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
4.	GA4611	1	Arm W/Grease Fittings, First Stage
	G10641	-	Grease Fitting, 1/8" NPT
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"
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 P87
10.	GD2161	2	Pin, 1 1/4" x 8 1/4"
	G10460	4	Cotter Pin, 1/4" x 2"
11.	GD0652	1	Pin, 1 1/4" x 9 1/2"
	G10460	2	Cotter Pin, 1/4" x 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"
21.	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"
22.	GA11590	-	Arm, First Stage
23.	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"

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

MKR019/MKR023MKR027(MKR15j/A11569)

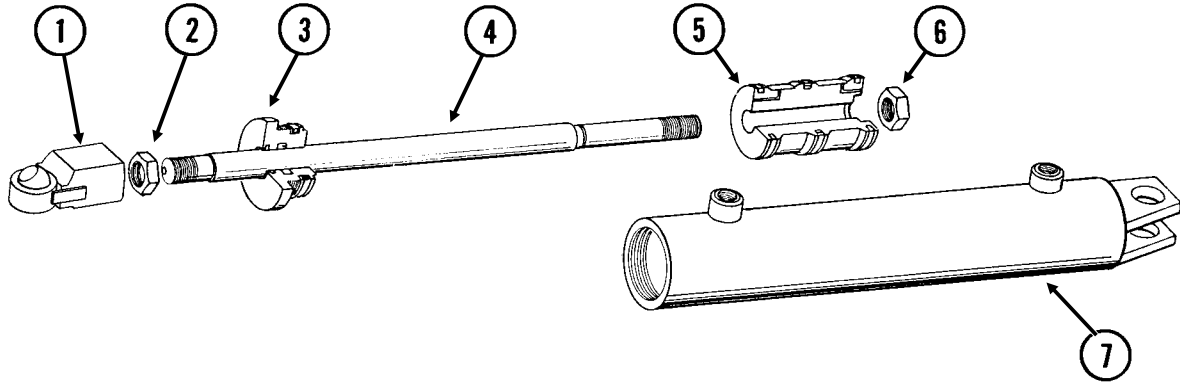


# ROW MARKER ASSEMBLY, 12 ROW 36"/38" AND 16 ROW 30"

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.	GD0737	1	Pin, 1 1/4" x 13 1/4"
	G10460	2	Cotter Pin, 1/4" x 2"
5.	GA4878	1	Arm W/Grease Fittings, First Stage, R.H.
	GA4983	-	Arm W/Grease Fittings, First Stage, L.H.
	G10641	-	Grease Fitting, 1/8" NPT
6.	GA8170	1	Safety Lockup W/Detent Pins, 19 3/8"
	G10536	-	Detent Pin, 1/2" x 2 1/2"
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)
	G10009	-	Hex Head Cap Screw, 5/8"-11 x 2 1/2" (If Applicable)
	GD7805	8	Special Washer, 5/8", Hardened
	G10205	-	Washer, 5/8" SAE
	G10230	6	Lock Washer, 5/8"
	G10104	6	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 P87
10.	GD0652	1	Pin, 1 1/4" x 9 1/2"
	G10460	2	Cotter Pin, 1/4" x 2"
11.	GD7209	1	Pin, 1 1/4" x 11 1/2"
	G10049	1	Hex Head Cap Screw, 3/8"-16 x 2 1/2"
	G10108	1	Lock Nut, 3/8"-16
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.	GA7043	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
23.	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"
24.	GA11569	-	Arm, First Stage, L.H. (Shown)
	GA11568	-	Arm, First Stage, R.H.
25.	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"

# ROTATION CYLINDER, ALL SIZES

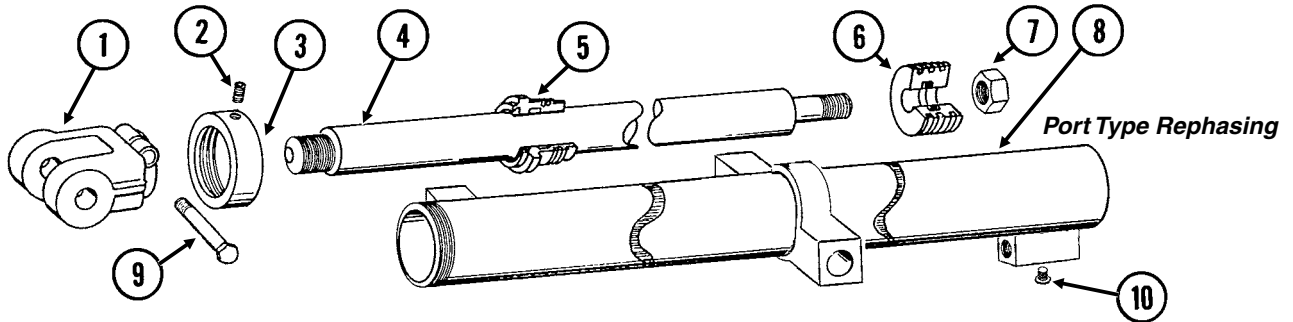
(CYL11i)



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

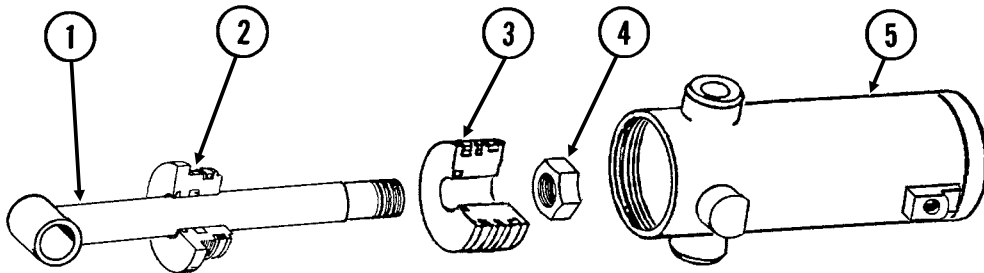
(CYL39c)



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)



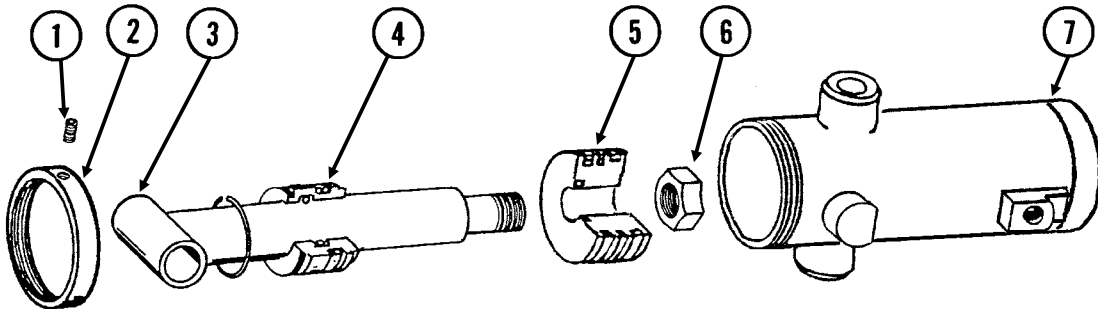
**ITEM PART NO. QTY DESCRIPTION**

*Port Type Re-phasing*

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" (Part Number Stamped On Barrel)
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)



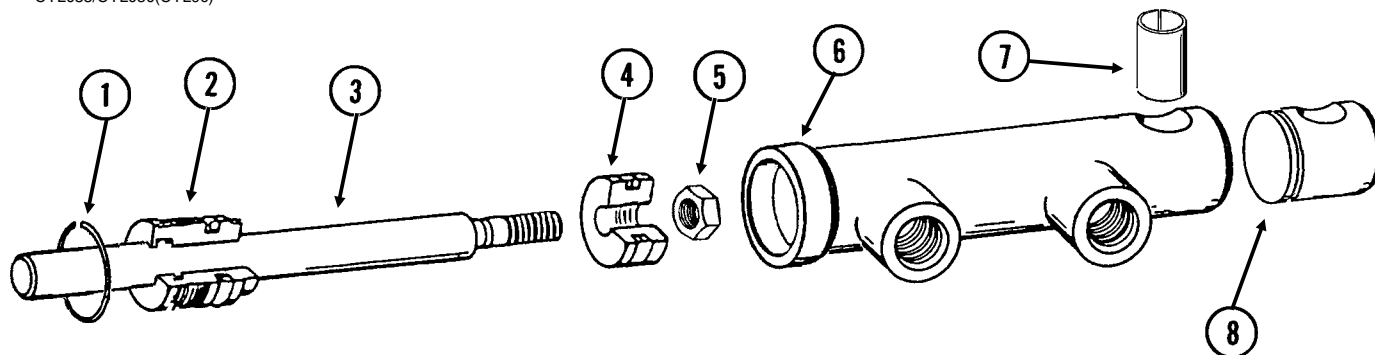
*ie Re-*

**ITE**

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" (Part Number Stamped On Barrel)
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

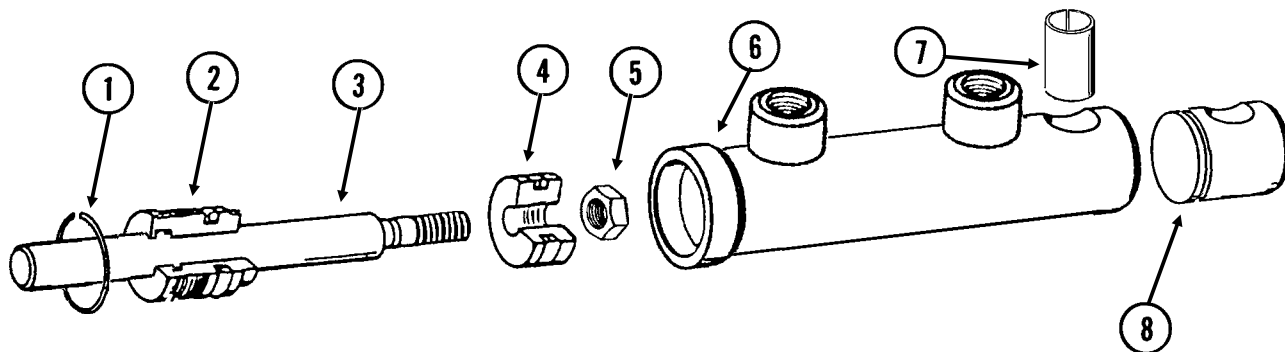
CYL035/CYL050(CYL9c)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10770	1	Internal Retaining Ring, 1 11/16"
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

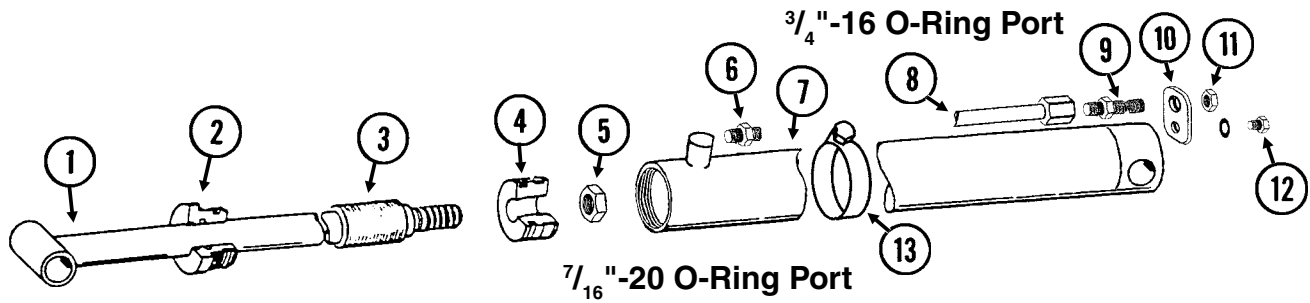
CYL035(CYL9d)



ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10770	1	Internal Retaining Ring, 1 11/16"
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

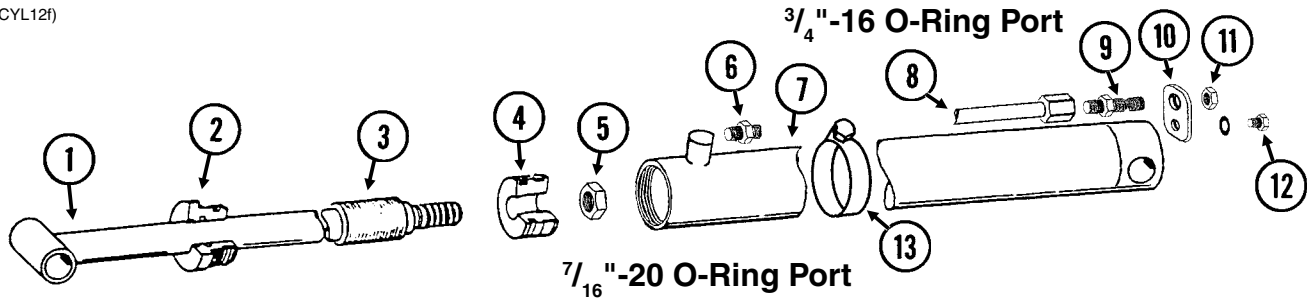
(CYL128)



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 7/16"-20 O-Ring
	GR1465	-	O-Ring
7.	A8869	1	Barrel ( <b>Non-Stock Item</b> )
8.	GA8981	1	Steel Hydraulic Line, 44 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.	GA8870	-	Cylinder Complete, 3" x 36" (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, 8 ROW 36"/38" WITH "T" HITCH, 12 ROW 30" WITH "Y" HITCH

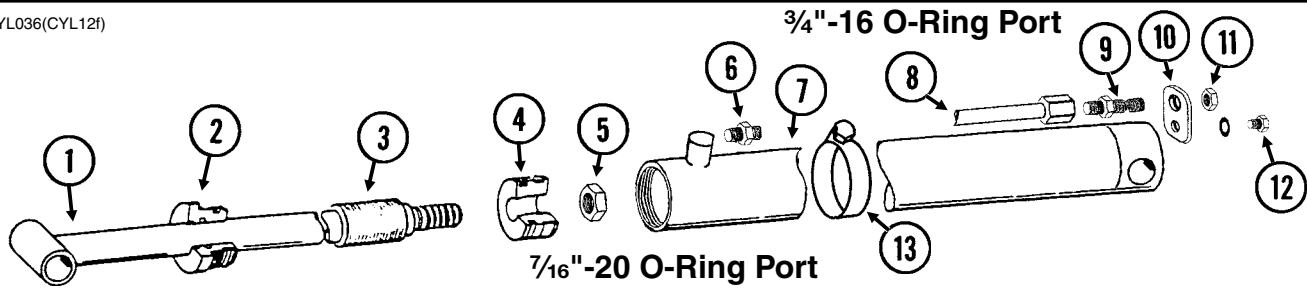
(CYL121)



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

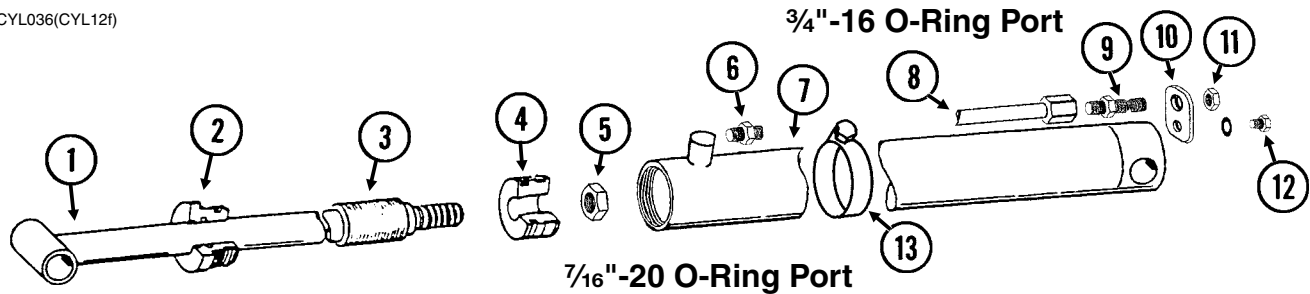
CYL036(CYL12f)



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

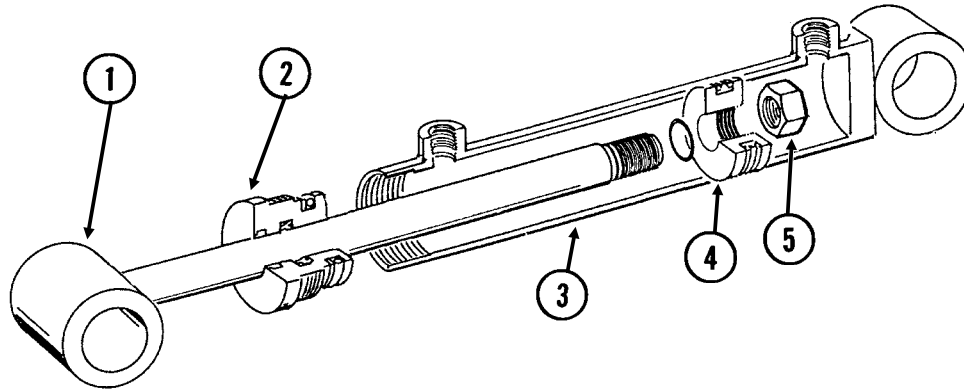
CYL036(CYL12f)



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, 1 1/16"
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

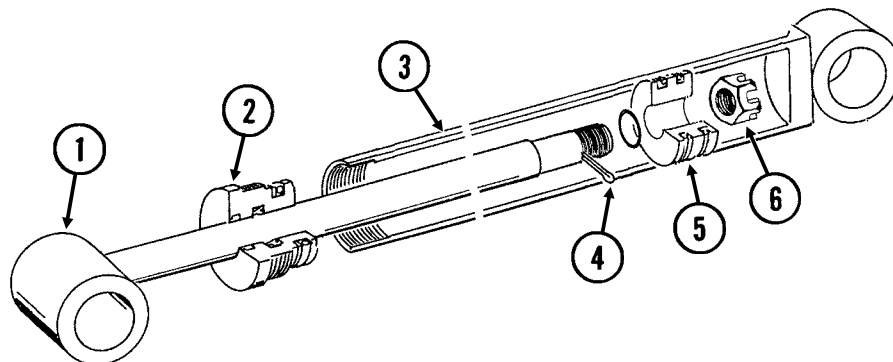
CYL032(CYL3f)



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, $\frac{7}{8}$ "-14
A.	GA8899	-	Cylinder Complete, $2\frac{1}{2}$ " x $20\frac{1}{16}$ " (Part Number Stamped On Barrel)
B.	GR1522	-	Seal Kit, Includes: (1) T-Seal, (2) O-Rings, (1) BU Ring, (1) U-Cup, (1) Wiper

# MARKER (Cushion) CYLINDER, ALL SIZES

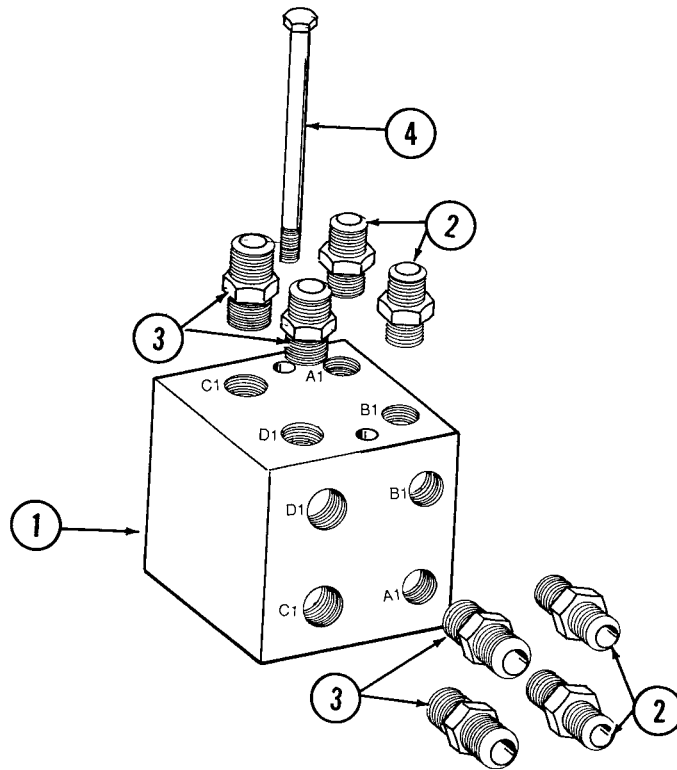
(CYL3d)



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, $\frac{1}{8}$ " x $1\frac{3}{4}$ "
5.	GD11983	1	Piston
6.	G10962	1	Slotted Hex Nut, $\frac{7}{8}$ "-14
A.	GA8895	-	Cylinder Complete, $2\frac{1}{2}$ " x $20\frac{1}{16}$ " (Part Number Stamped On Barrel)
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

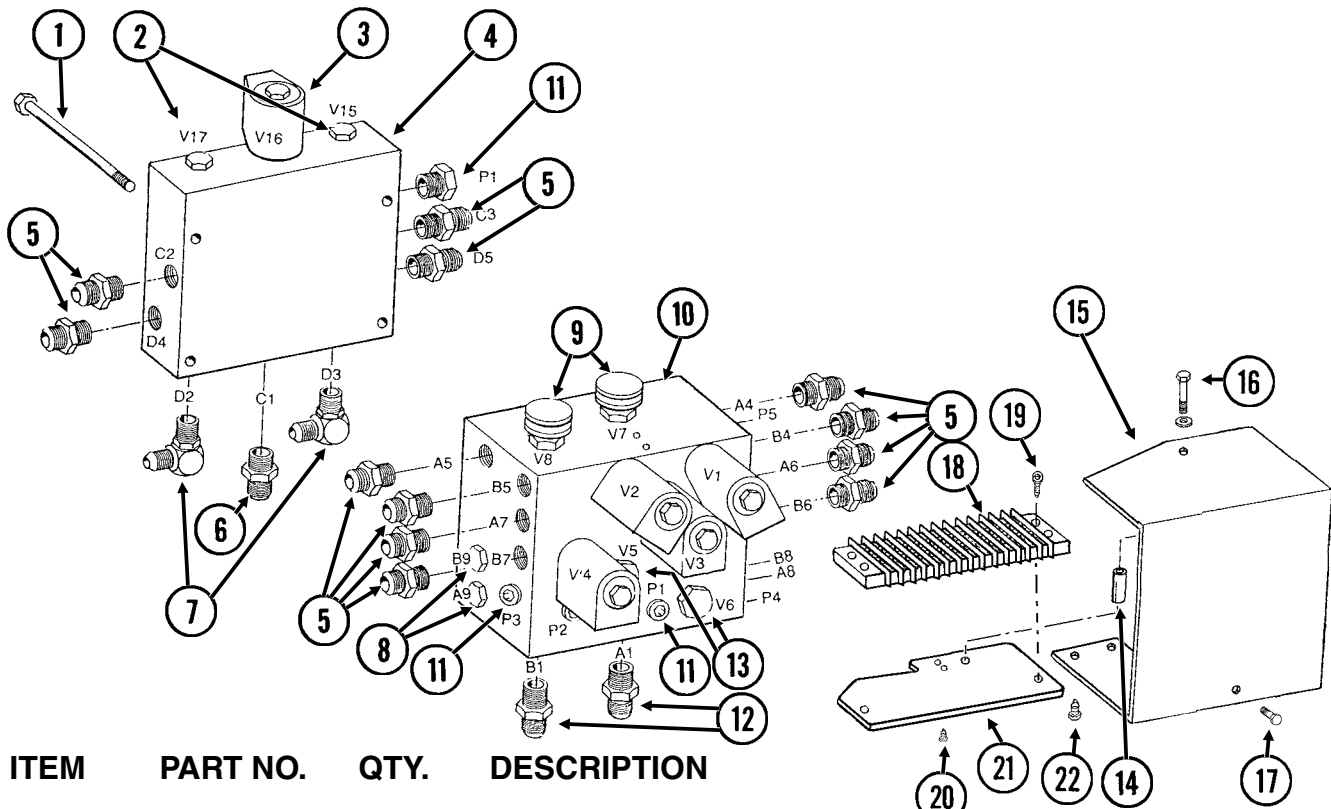
VVB036(TWL24)



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 REAR CENTER FRAME

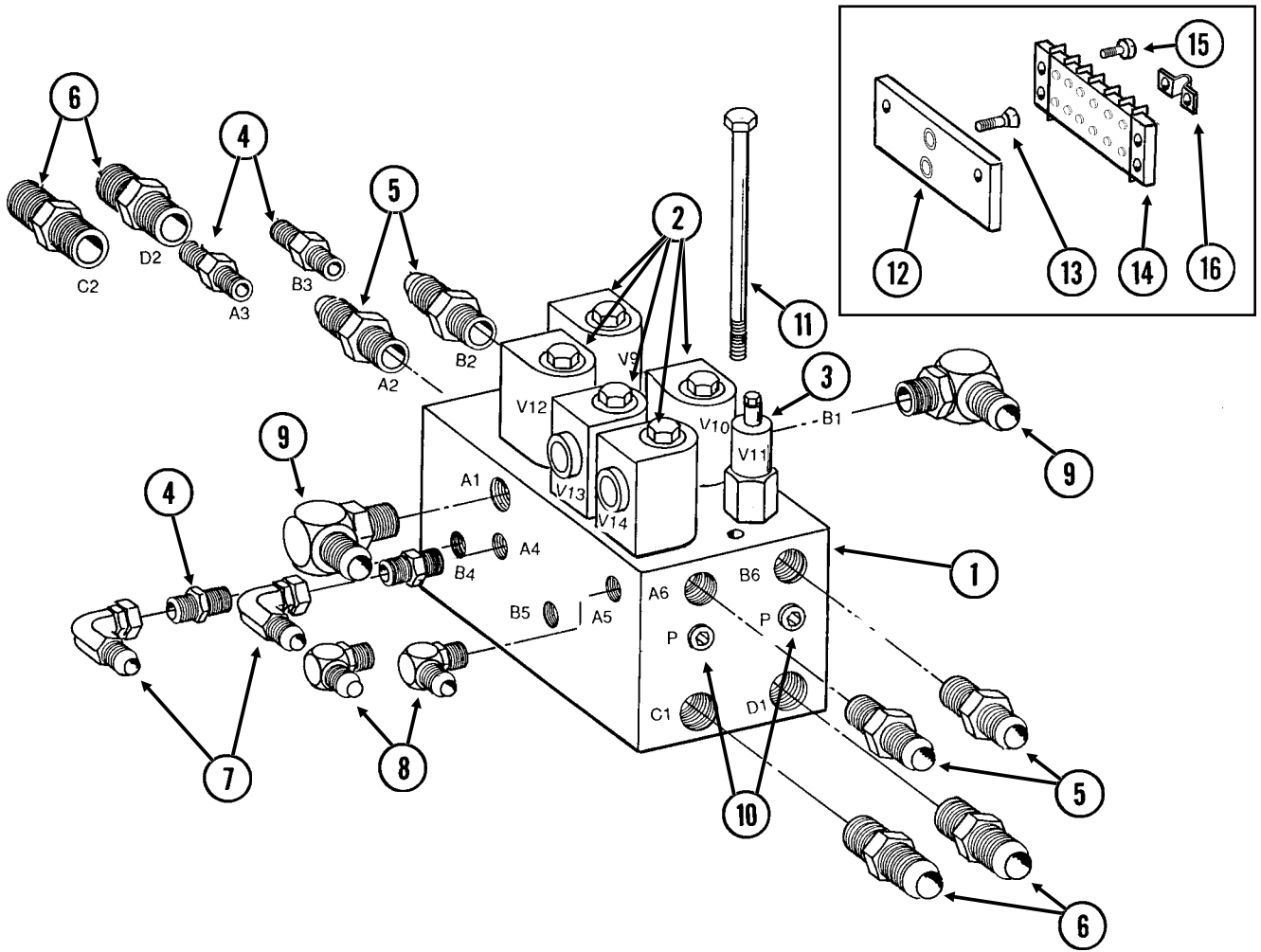
VVB034(TWL25e)



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 P93
3.		5	See "Solenoid Valve", Page P92
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 P92
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.	GD8066-02	1	Sleeve, 1" Long
15.	GD13146	1	Cover
16.	G10133	1	Hex Head Cap Screw, 5/16"-18 x 1 1/2"
	G10232	1	Lock Washer, 5/16"
17.	G10054	1	Hex Head Cap Screw, 5/16"-18 x 1/2"
	G10232	1	Lock Washer, 5/16"
	G10106	1	Hex Nut, 5/16"-18
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.	GA9095	1	Terminal Strip Mount
22.	G10977	2	Phillips Pan Head Machine Screw, No. 10-24 x 1/2", Stainless Steel

# VALVE BLOCK - LOCATED ON HITCH

VVB035(TWL26f)



# VALVE BLOCK - LOCATED ON HITCH

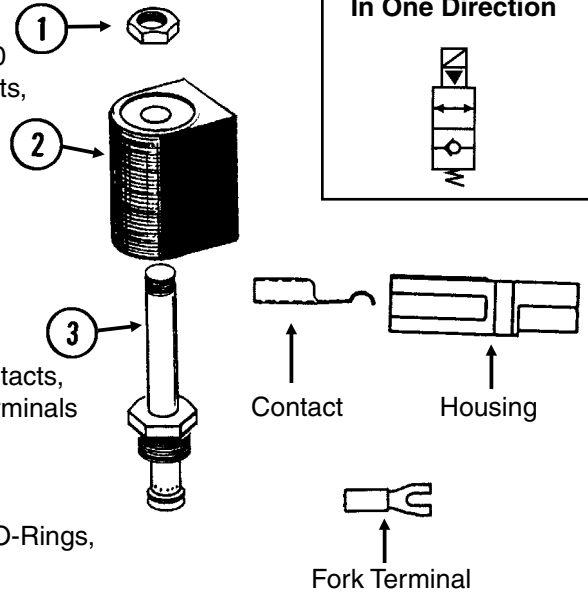
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD9905	1	Block
2.		-	See "Solenoid Valve", Page P92
3.		-	See "Pressure Relief Valve", Page P92
4.	G6400-06	4	Connector W/O-Ring, 9/16"-18 Male JIC To O-Ring
	GR1045	-	O-Ring
5.	G6400-08	4	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
6.	G6400-10	4	Connector W/O-Ring, 7/8"-14 Male JIC To O-Ring
	GR1466	-	O-Ring
7.	G6500-06	2	Swivel Elbow, 90°, 9/16"-18 Male JIC To Female
8.	G6801-06	2	Elbow W/O-Ring, 90°, 9/16"-18 Male JIC To O-Ring
	GR1045	-	O-Ring
9.	G6801-08	2	Elbow W/O-Ring, 90°, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
10.	G6408-H06-O	2	Hex Socket Head Plug W/O-Ring, 9/16"-18 O-Ring
	GR1045	-	O-Ring
11.		-	See "Hose Take-Up", Pages P48 And P49
12.	GD12818	-	Terminal Strip Mount
13.	G11068	2	Phillips Flat Head Machine Screw, No. 10-24 x 5/8", Stainless Steel
14.	GA9098	-	Terminal Strip W/Screws, No. 6, 8 Terminal
	GR1635	-	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 P100 And P101

# SOLENOID VALVE

VVB019(TWL27c/TWL18/PLTR75c/A9481)

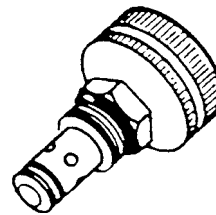
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR0761	1	Special Hex Nut, 1/2"-20
2.	G1K274	1	Coil Kit W/Coil, Contacts, Housings And Fork Terminals
	GD9529	2	Housing, Black
	GD9530	2	Contact
	G10996	2	Fork Terminal
3.	GR0763	1	Cartridge
A.	G1K275	-	Solenoid Valve Kit W/Solenoid Valve, Contacts, Housings And Fork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

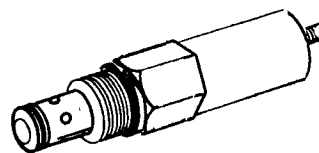
ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA3413	-	Flow Control Valve
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring



# PRESSURE RELIEF VALVE

VVB020(TWL29)

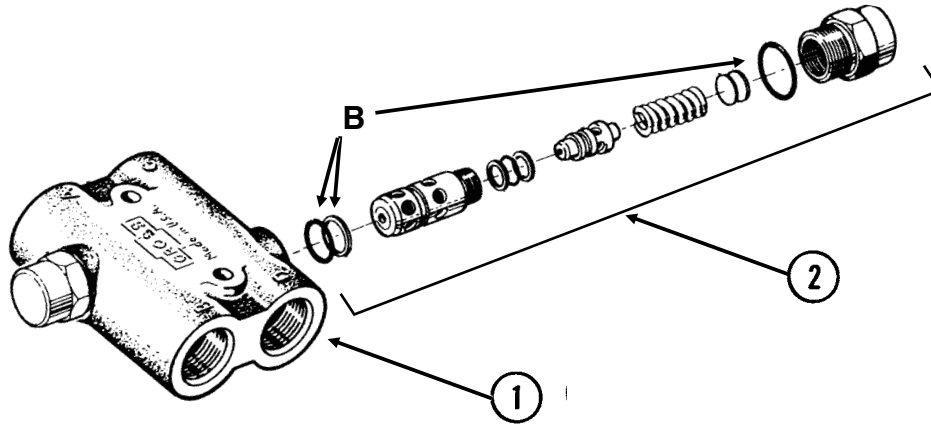
ITEM	PART NO.	QTY.	DESCRIPTION
A.	GA3407	-	Pressure Relief Valve, 1000 PSI
B.	GR0764	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring



# RELIEF VALVE (LOCATED ON HITCH), 8 AND 12 ROW (Prior To Serial Number 620296)

(TWL147)

## STYLE A

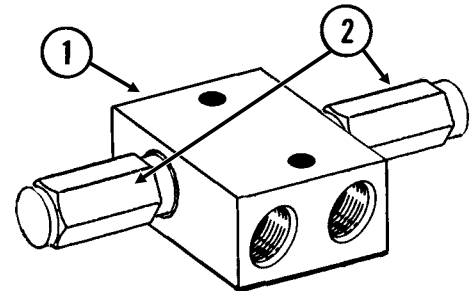


ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1402	1	Body
2.	GR1403	2	Cartridge
A.	GA8129A	-	Relief Valve Complete
B.	GR1404	-	Seal Kit, Includes: (2) O-Rings, (1) BU Ring

## STYLE B

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1513	1	Body
2.	GR1514	2	Cartridge
A.	GA8129B	-	Relief Valve Complete
B.	GR1515	-	Seal Kit, Includes: (2) O-Rings, (2) BU Rings

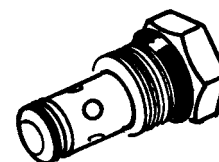
(TWL171)



# CHECK VALVE

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

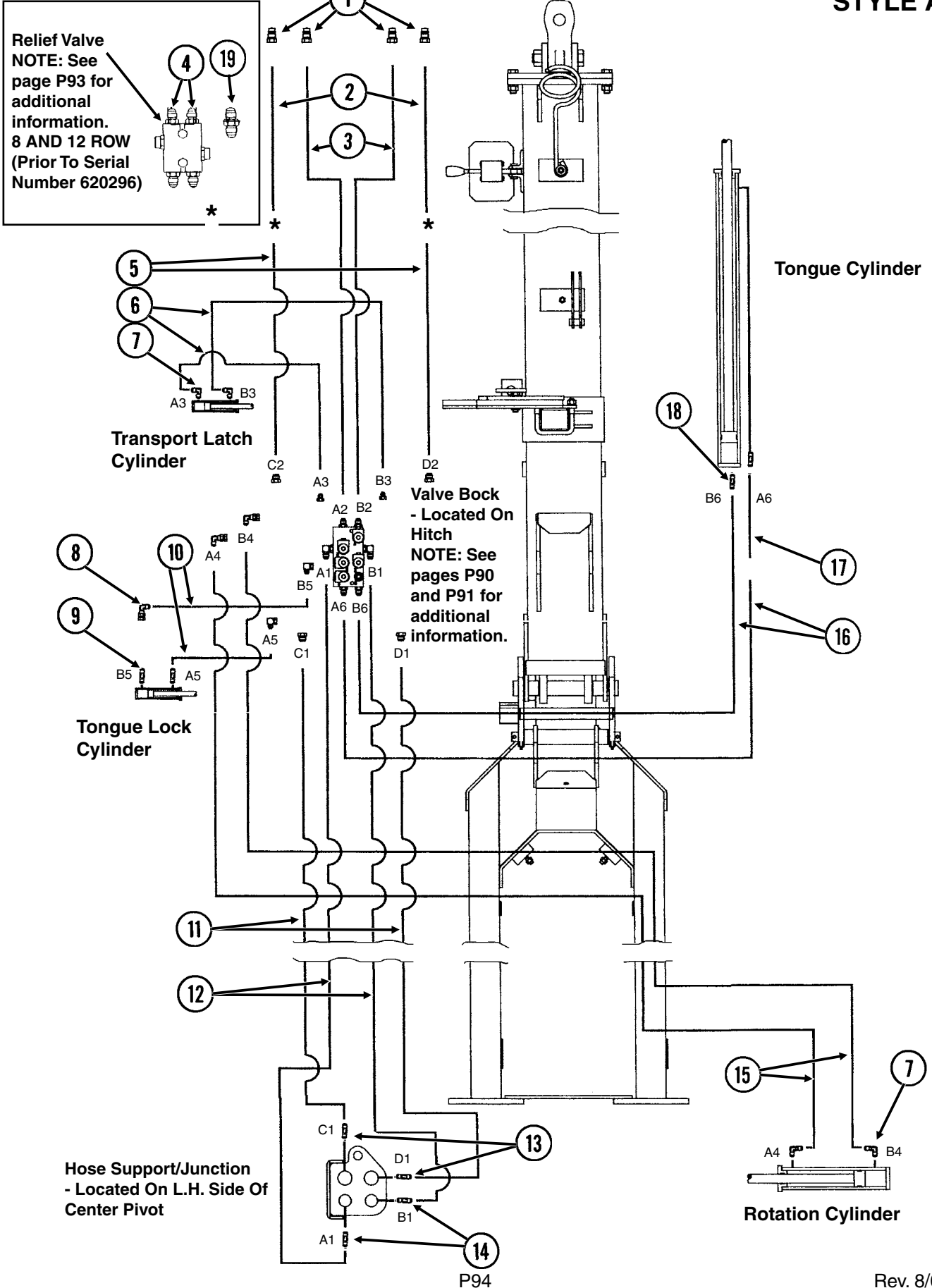
VVB020(TWL30)



# HYDRAULIC HOSES AND FITTINGS ON HITCH

(TWL107c/TWL107b)

STYLE A



# HYDRAULIC HOSES AND FITTINGS ON HITCH

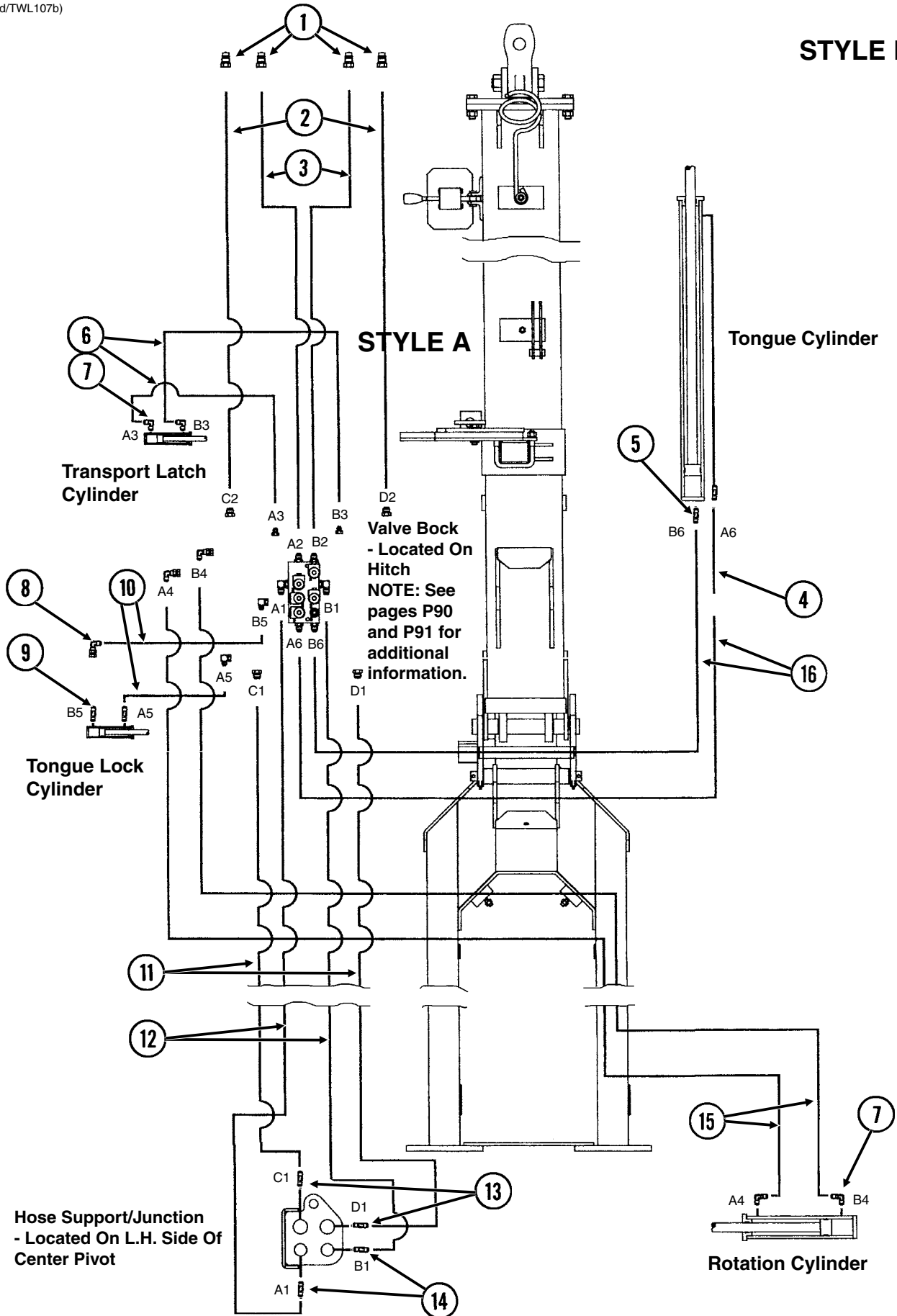
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD4086	4	ISO Coupler
2.	*A1417	2	Hose Assembly, 1/2" x 138", 8 Row 36"/38" "Y" Hitch
	*A8204	2	Hose Assembly, 1/2" x 159", 8 Row 36"/38" "T" Hitch
	*A8206	2	Hose Assembly, 1/2" x 147", 12 Row 30" "Y" Hitch
	*A8205	2	Hose Assembly, 1/2" x 182", 12 Row 30" "T" Hitch
	*A8200	2	Hose Assembly, 1/2" x 178", 12 Row 36"/38" And 16 Row 30" "Y" Hitch
	*A8207	2	Hose Assembly, 1/2" x 209", 12 Row 36"/38" And 16 Row 30" "T" Hitch
3.	*A1075	2	Hose Assembly, 3/8" x 156", 8 Row 36"/38" "Y" Hitch
	*A3182	2	Hose Assembly, 3/8" x 203", 8 Row 36"/38" "T" 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", 12 Row 36"/38" And 16 Row 30" "T" Hitch
4.	G6400-10	4	Connector W/O-Ring, 7/8"-14 Male JIC To O-Ring
	GR1466	-	O-Ring
5.	*A8202	2	Hose Assembly, 1/2" x 17", 8 Row 36"/38" "Y" Hitch
	*A8203	2	Hose Assembly, 1/2" x 43", 8 Row 36"/38" "T" And 12 Row 30" "Y" Hitch
	*A1463	2	Hose Assembly, 1/2" x 68", 12 Row 30" "T" Hitch, 12 Row 36"/38" "Y" Hitch And 16 Row 30" "Y" Hitch
	*A8201	2	Hose Assembly, 1/2" x 90", 12 Row 36"/38" "T" Hitch And 16 Row 30" "T" Hitch
6.	*A1170	2	Hose Assembly, 1/4" x 90", 8 Row 36"/38" "Y" Hitch
	*A1106	2	Hose Assembly, 1/4" x 130", 8 Row 36"/38" "T" 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
	*A1156	2	Hose Assembly, 1/4" x 204", 12 Row 36"/38" "T" 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", 8 Row 36"/38" "T" Hitch, 12 Row 30" "Y"/"T" Hitch, 12 Row 36"/38" "Y"/"T" Hitch And 16 Row 30" "Y"/"T" Hitch
11.	*A1494	2	Hose Assembly, 1/2" x 112", 8 Row 36"/38" "Y" Hitch
	*A1463	2	Hose Assembly, 1/2" x 68", 8 Row 36"/38" "T" 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
	*A1039	2	Hose Assembly, 3/8" x 76", 8 Row 36"/38" "T" 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", 8 Row 36"/38" And 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", 12 Row 36"/38" "T" Hitch And 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
	*A1087	2	Hose Assembly, 3/8" x 74", 8 Row 36"/38" "T" Hitch
	*A3156	2	Hose Assembly, 3/8" x 68", 12 Row 30"/36"/38" "Y" Hitch
	*A3159	2	Hose Assembly, 3/8" x 97", 12 Row 36"/38" And 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
17.	*A1072	1	Hose Assembly, 3/8" x 48", 8 Row 36"/38" "Y" Hitch (If Applicable)
	*A3215	1	Hose Assembly, 3/8" x 72", 8 Row 36"/38" "T" And 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)
18.	G6400-08	1	Connector W/O-Ring, 3/4"-16 Male JIC To O-Ring
	GR1037	-	O-Ring
19.	G2403-10	2	Union, 7/8"-14 Male JIC

\* 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 HITCH

(TWL107d/TWL107b)

STYLE B



# HYDRAULIC HOSES AND FITTINGS ON HITCH

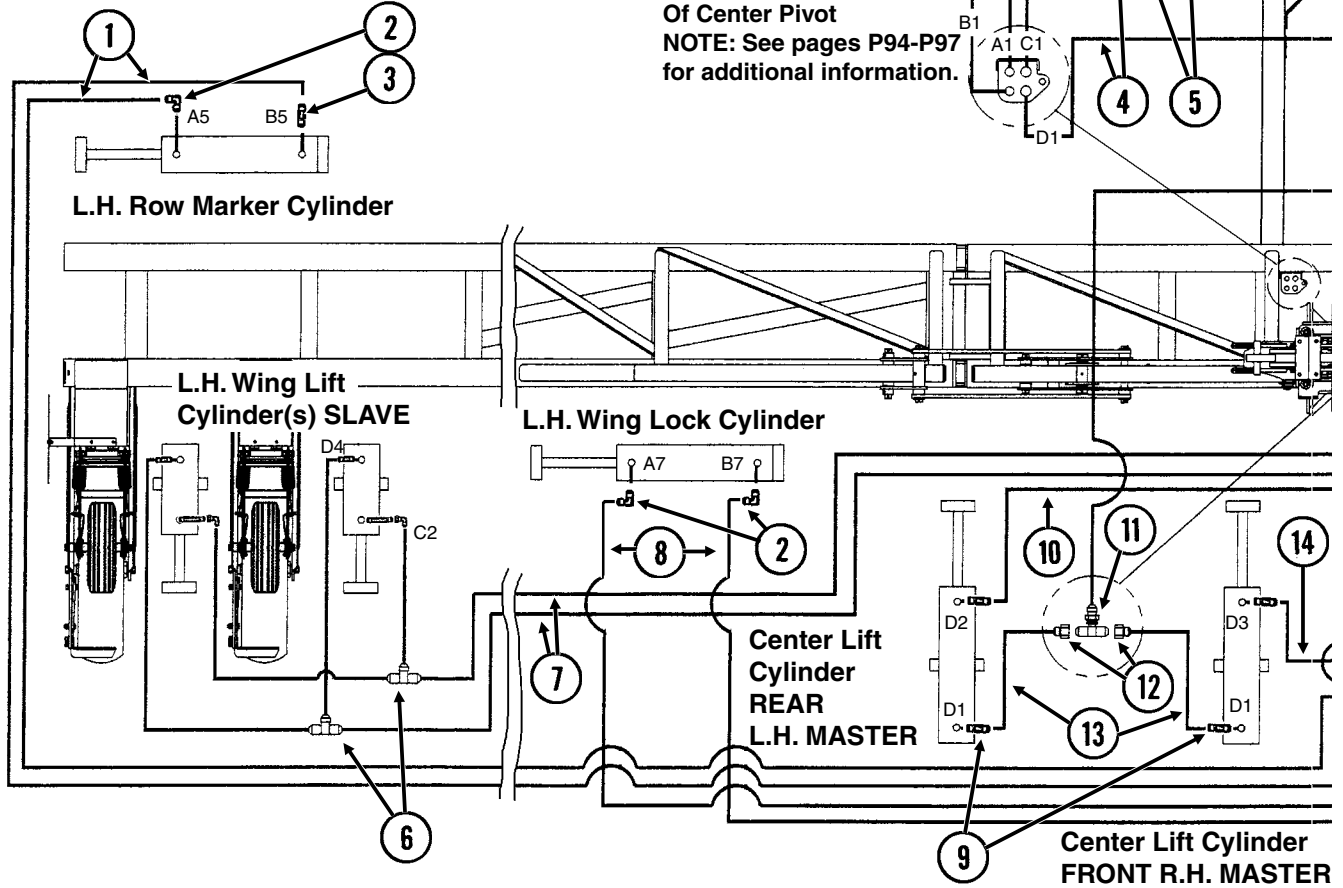
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GD4086	4	ISO Coupler
2.	*A1466	2	Hose Assembly, 1/2" x 156", 8 Row 36"/38" "Y" Hitch
	*A1492	2	Hose Assembly, 1/2" x 203", 8 Row 36"/38" "T" Hitch
	*A1489	2	Hose Assembly, 1/2" x 191", 12 Row 30" "Y" Hitch
	*A1444	2	Hose Assembly, 1/2" x 250", 12 Row 30" "T" Hitch
	*A1491	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", 12 Row 36"/38" And 16 Row 30" "T" Hitch
3.	*A1075	2	Hose Assembly, " x 156", 8 Row 36"/38" "Y" Hitch
	*A3182	2	Hose Assembly, " x 203", 8 Row 36"/38" "T" Hitch
	*A3133	2	Hose Assembly, " x 191", 12 Row 30" "Y" Hitch
	*A1032	2	Hose Assembly, " x 240", 12 Row 30" "T" Hitch
	*A3183	2	Hose Assembly, " x 246", 12 Row 36"/38" And 16 Row 30" "Y" Hitch
	*A3184	2	Hose Assembly, " x 300", 12 Row 36"/38" And 16 Row 30" "T" Hitch
4.	*A1072	1	Hose Assembly, " x 48", 8 Row 36"/38" "Y" Hitch (If Applicable)
	*A3215	1	Hose Assembly, " x 72", 8 Row 36"/38" "T" And 12 Row 30" "Y" Hitch (If Applicable)
	*A3216	1	Hose Assembly, " 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
	*A1106	2	Hose Assembly, 1/4" x 130", 8 Row 36"/38" "T" 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
	*A1156	2	Hose Assembly, 1/4" x 204", 12 Row 36"/38" "T" 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", 8 Row 36"/38" "T" Hitch, 12 Row 30" "Y"/"T" Hitch, 12 Row 36"/38" "Y"/"T" Hitch And 16 Row 30" "Y"/"T" Hitch
11.	*A1494	2	Hose Assembly, 1/2" x 112", 8 Row 36"/38" "Y" Hitch
	*A1463	2	Hose Assembly, 1/2" x 68", 8 Row 36"/38" "T" 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, " x 116", 8 Row 36"/38" "Y" Hitch
	*A1039	2	Hose Assembly, " x 76", 8 Row 36"/38" "T" Hitch
	*A3129	2	Hose Assembly, " x 79", 12 Row 30" "T" Hitch
	*A1011	2	Hose Assembly, " x 125", 12 Row 30"/36"/38" "Y" Hitch
	*A3113	2	Hose Assembly, " x 84", 12 Row 36"/38" And 16 Row 30" "T" Hitch
	*A1041	2	Hose Assembly, " x 130", 16 Row 30" "Y" Hitch
13.	G2700-10	2	Bulkhead Tube Union, "-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", 8 Row 36"/38" And 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", 12 Row 36"/38" "T" Hitch And 16 Row 30" "T" Hitch
	*A1116	2	Hose Assembly, 1/4" x 136", 16 Row 30" "Y" Hitch
16.	*A1022	2	Hose Assembly, " x 60", 8 Row 36"/38" "Y" Hitch
	*A1087	2	Hose Assembly, " x 74", 8 Row 36"/38" "T" Hitch
	*A3156	2	Hose Assembly, " x 68", 12 Row 30"/36"/38" "Y" Hitch
	*A3159	2	Hose Assembly, " x 97", 12 Row 36"/38" And 16 Row 30" "T" Hitch
	*A3129	2	Hose Assembly, " x 79", 12 Row 30" "T" Hitch
	*A3118	2	Hose Assembly, " 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

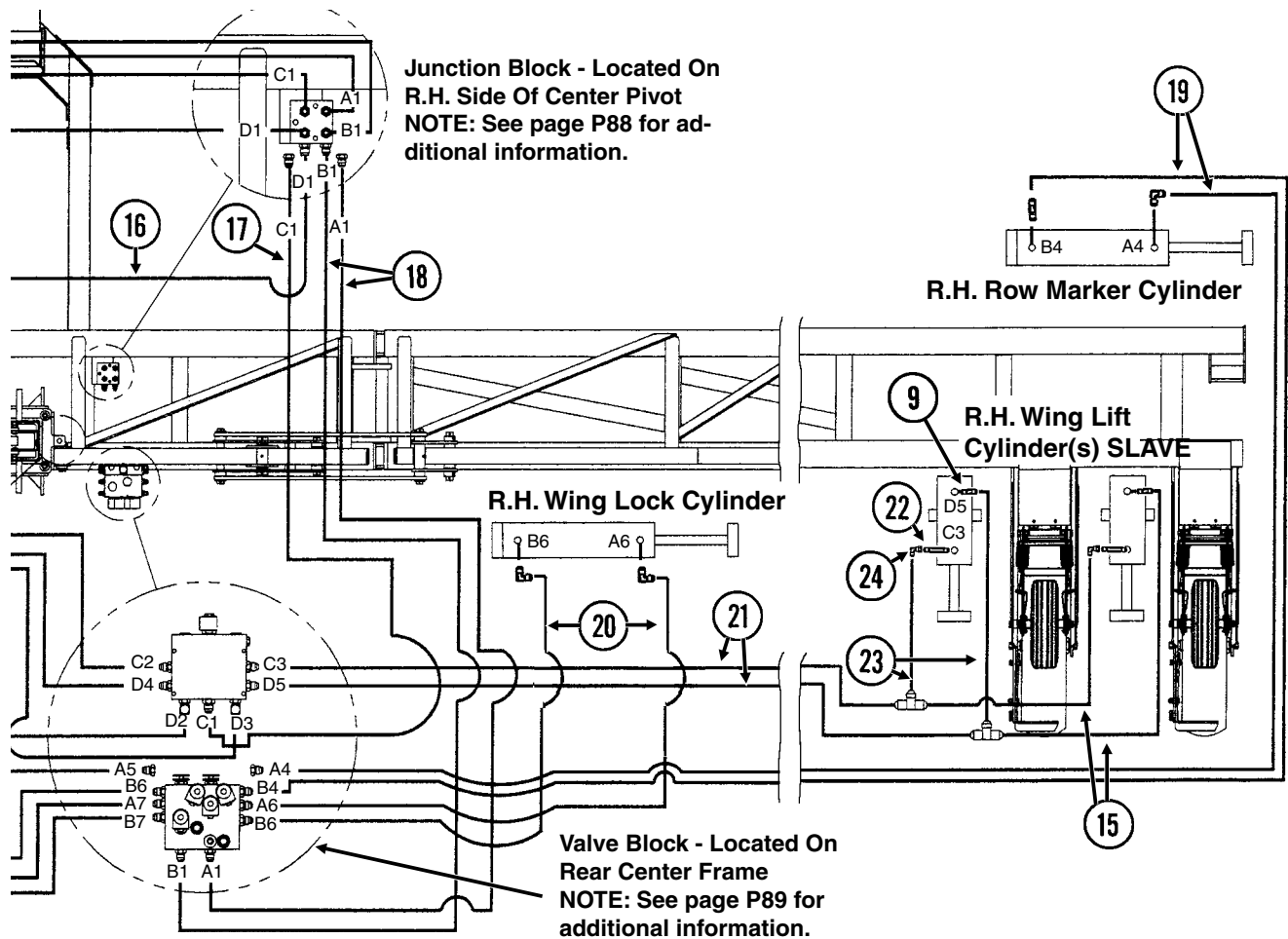
(TWL105b)

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



ITEM	PART NO.	QTY.	DESCRIPTION
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"

# HYDRAULIC HOSES AND FITTINGS ON PLANTER FRAME

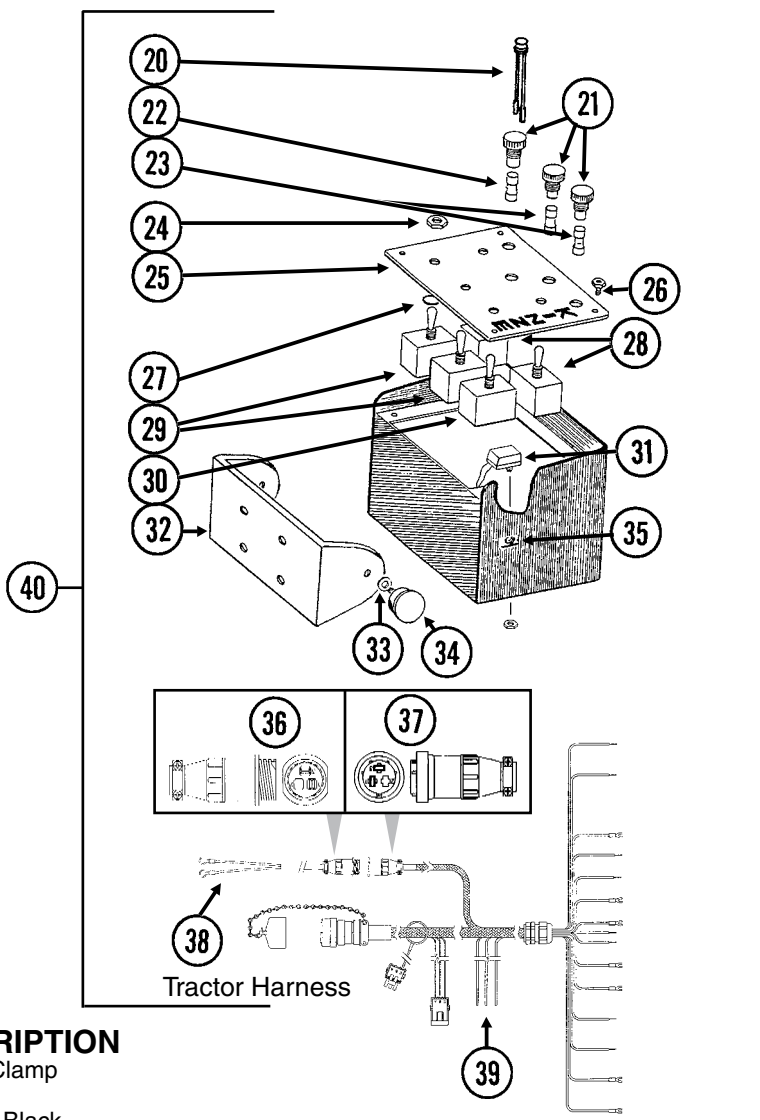
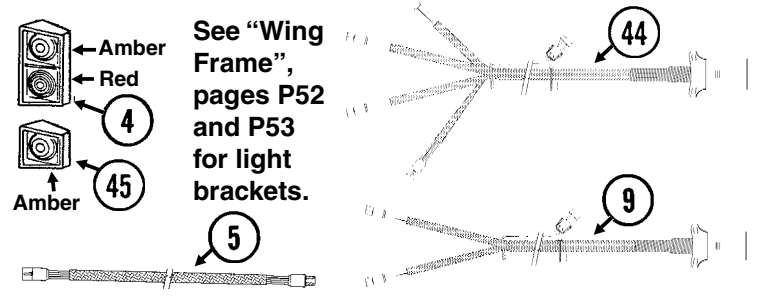
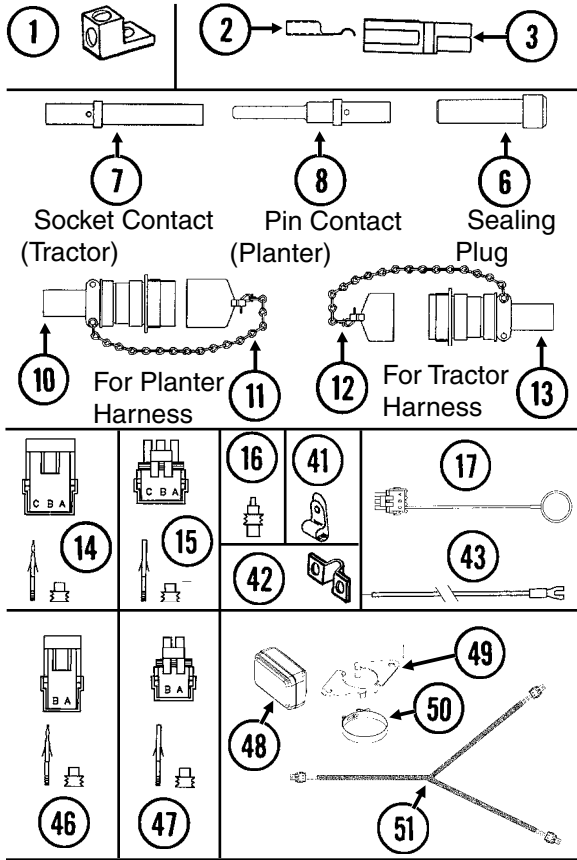


ITEM	PART NO.	QTY.	DESCRIPTION
14.	*A3128	1	Hose Assembly, 3/8" x 52"
15.	*A1018	4	Hose Assembly, 3/8" x 40", 16 Row 30"
16.	*A1404	1	Hose Assembly, 1/2" x 41"
17.	*A1424	1	Hose Assembly, 1/2" x 30"
18.	*A1076	2	Hose Assembly, 3/8" x 30"
19.	*A1054	2	Hose Assembly, 3/8" x 204", 8 Row 36"/38"
	*A3163	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

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

# ELECTRICAL COMPONENTS

(TWL19a/TWL18/ELC14/ELC3a/ELC5c/MTR27a/ELC39/TWL26e/ELC8/A9481/ELC12b/MTR27/A9689b/A10924ELC4/FF27b/FF27c/ELC38/A9201a/A9202a/TWL20g/ELC34/ELC35/



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

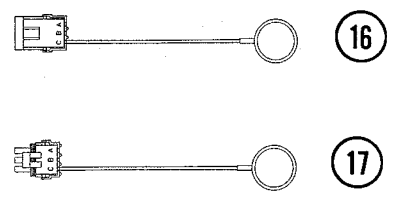
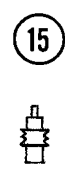
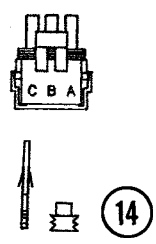
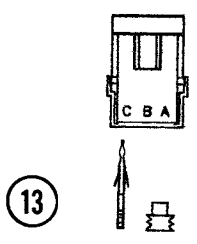
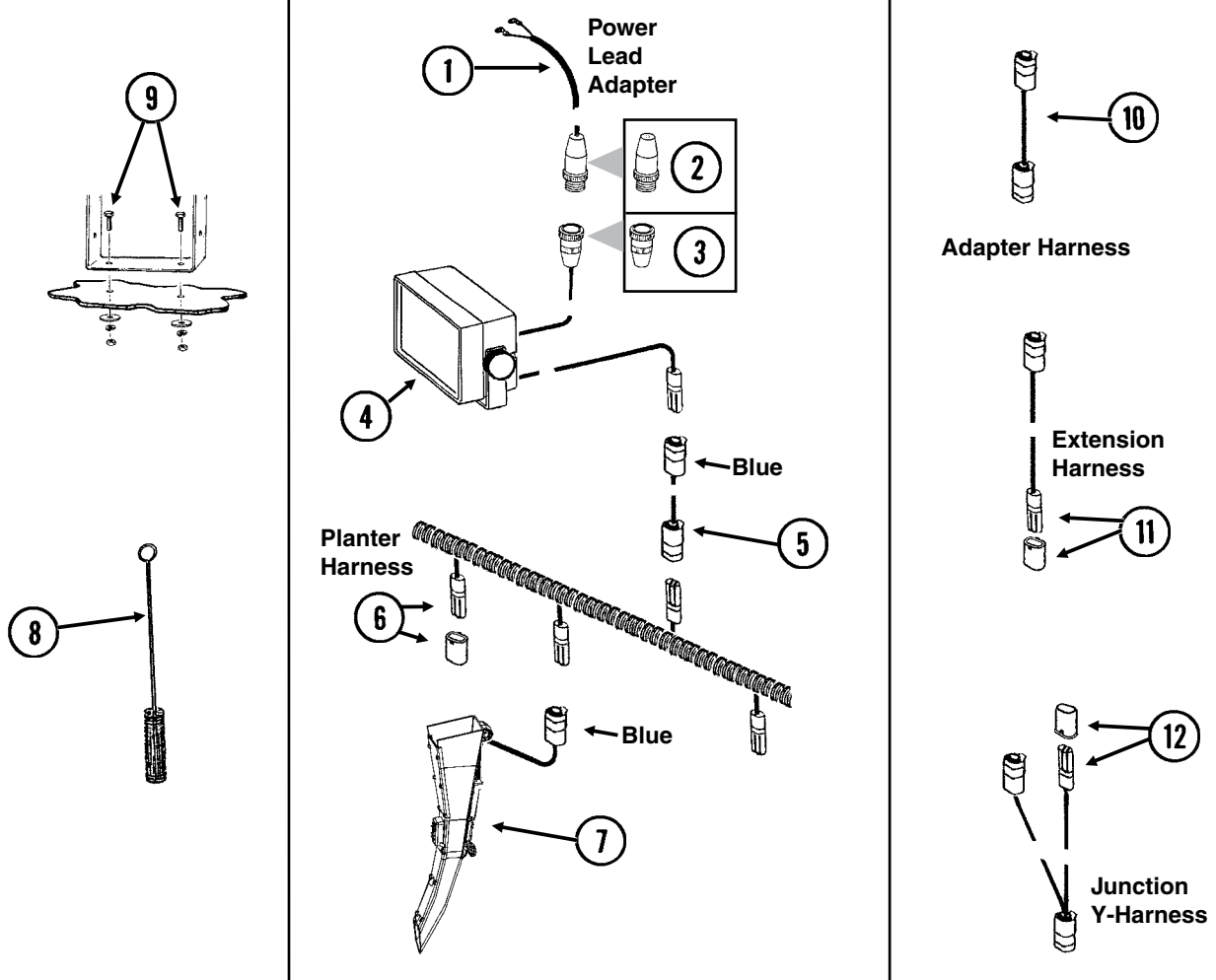
# ELECTRICAL COMPONENTS

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, 516", 8 Row 36"/38" And 12 Row 30"
	GA9113	-	Wiring Harness W/Dust Cap, 636", 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>60</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 Clutches
26.	GR1292	4	Pan Head Screw, No. 8-32 x 1/2"
27.	GD3860	-	O-Ring (If Applicable)
28.	GA2528	2	Switch, 3 Position Toggle, On-Off-On
29.	GA6978	2	Switch, 3 Position Toggle, Momentary On-Off-Momentary On
30.	GA6977	1-2	Switch, 2 Position Toggle, On-Off
31.	GA8731	1	Switch, Push Button W/Transformer
32.	GD9896	1	Mounting Bracket
33.	G10211	4	Washer, 1/4" SAE
34.	GA6975	2	Knob
35.	GR1290	2	Cage Nut, 1/4"-20
36.	G1K267	-	Power Lead Adapter Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (3) Male Terminal Pins
37.	G1K268	-	Console Cable Connector Kit, Includes: (1) 3-Pin Connector, (1) Cable Clamp, (1) Lock Ring, (3) Female Terminal Pins
38.	GA7856	1	Power Lead Adapter
39.	GA8729	1	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, 1 1/16"
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
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 I ELECTRONIC SEED MONITOR

(MTR46b)



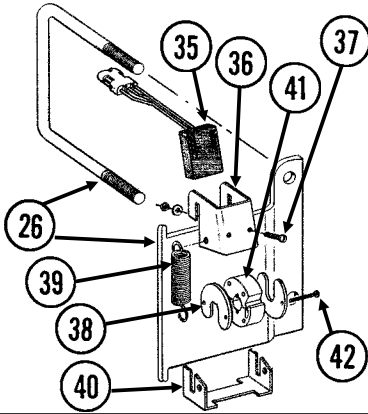
# KPM I ELECTRONIC SEED MONITOR

ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7856	1	Power Lead Adapter
2.	G1K267	-	Power Lead Adapter Connector Kit, Includes: (1) Cable Clamp, (1) 3-Pin Connector, (3) Male Terminal Pins
3.	G1K268	-	Console Cable Connector Kit, Includes: (1) Cable Clamp, (1) 3-Pin Connector, (1) Lock Ring, (3) Female Terminal Pins
4.	GA10570	1	KPM I Backlit Console W/Mounting Bracket, Fuse Holder And Fuse, Power Lead Adapter (Item 1), Brush (Item 8) And Dust Plug (Item 16)
	GR1390	-	Mounting Bracket, KPM I
	GR1392	-	Console Mounting Bracket Hardware Package (Includes 2 Knobs And 1/4" Hardware)
	GA10601	-	Fuse Holder
	GD7639	-	Fuse
5.		-	Included In Tractor/Planter Wiring Harness, See Items 18 And 39, Pages P100 And P101
6.	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
7.	GA10901	-	Seed Tube W/Computerized Sensor
	GR1629	-	Sensor Only
	GA10940	-	Seed Tube (With Holes For Sensor Installation)
8.	GR0594	-	Brush
9.	G10022	2	Hex Head Cap Screw, 1/4"-20 x 1/2"
	G10211	2	Washer, 1/4" SAE
	G10227	2	Lock Washer, 1/4"
	G10103	2	Hex Nut, 1/4"-20
10.	GA7857	-	Adapter Harness, 1'
11.	GA7854	-	Extension Harness W/Dust Cap, 15'
	GA7855	-	Extension Harness W/Dust Cap, 30'
	GD11993	-	Dust Cap
12.	GA7853	-	Junction Y-Harness W/Dust Cap
	GD11993	-	Dust Cap
13.	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
14.	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
15.	GD11089	-	Sealing Plug
16.	GA8046	-	Dust Plug (Black)
	GA9978	-	Dust Plug (Blue)
17.	GA8047	-	Dust Plug (Black)
	GA9979	-	Dust Plug (Blue)

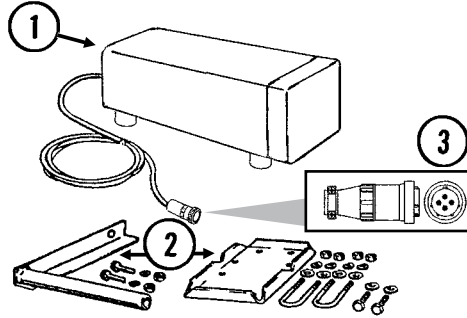
# KPM II STACK-MODE ELECTRONIC SEED MONITOR

(MTR43ss/A10901a)

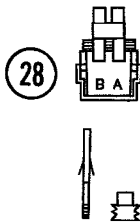
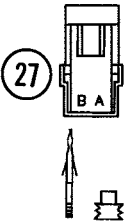
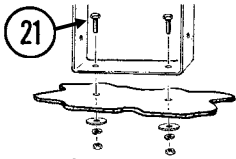
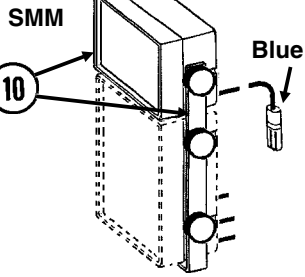
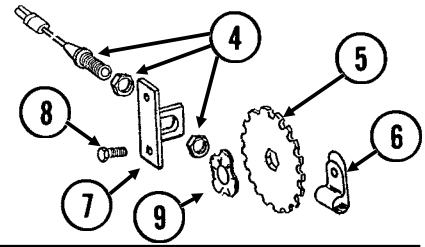
## Shaft Rotation Sensor



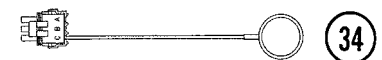
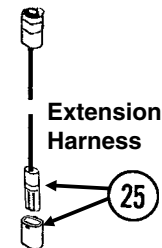
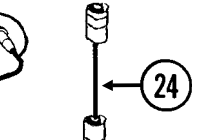
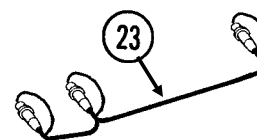
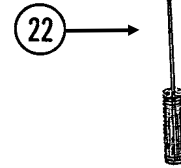
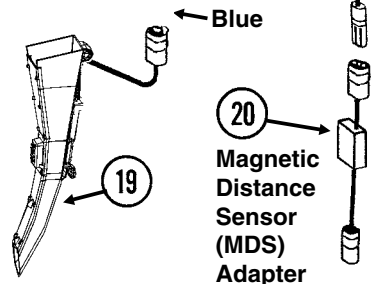
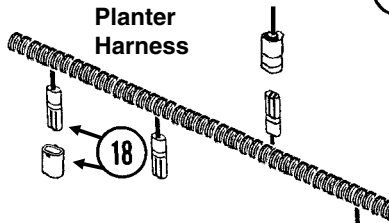
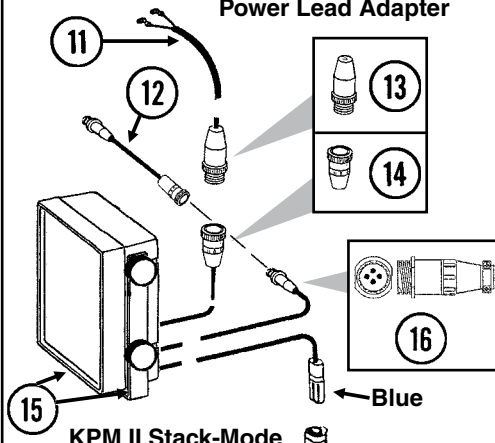
## Radar Distance Sensor



## Magnetic Distance Sensor (MDS)



## Power Lead Adapter



ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7858	-	Radar Distance Sensor W/20' Cable
2.	GA8026	-	Radar Sensor Pipe/Mounting Bracket Package
3.	G1K323	-	4-Pin Connector Kit W/Female Housing, 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

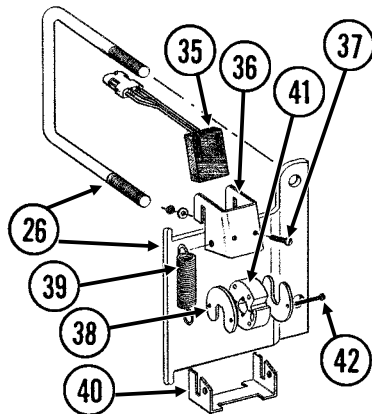
# KPM II STACK-MODE ELECTRONIC SEED MONITOR

ITEM	PART NO.	QTY.	DESCRIPTION
10.	GA9857	1	SMM Backlit Console W/Mounting Bracket And Dust Plug (Item 36)
	GR1631	-	Mounting Bracket, KPM II Stack-Mode And SMM Consoles
	GR1632	-	Console Mounting Bracket Hardware Package (Includes 2 Knobs And ¼" Hardware)
11.	GA7856	1	Power Lead Adapter
12.	GA9144	-	Monitor/Radar Adapter Cable, 10"
13.	G1K267	-	Power Lead Adapter 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.	GA10575	-	KPM II Backlit Console W/Mounting Bracket, Fuse Holder And Fuse, Power Lead Adapter (Item 11), Brush (Item 22), Dust Plug (Item 33) And Monitor/Radar Adapter Cable, 10" (Item 12)
	GR1391	-	Mounting Bracket, KPM II
	GR1393	-	Console Mounting Bracket Hardware Package (Includes 4 Knobs And ¼" Hardware)
	GA10601	-	Fuse Holder
	GD7639	-	Fuse
16.	G1K322	-	4-Pin Connector Kit W/Male Housing, (4) Female Socket Contacts And (1) Cable Clamp
17.		-	See Tractor /Planter Wiring Harness, Items 18 And 39 On Pages P100 And P101
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.	G10022	2	Hex Head Cap Screw, ¼"-20 x ½"
	G10211	2	Washer, ¼" SAE
	G10227	2	Lock Washer, ¼"
	G10103	2	Hex Nut, ¼"-20
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 ¼"
	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 ¼", Stainless Steel
	G10931	2	Lock Washer, No. 8, Internal/External, Stainless Steel
	G10928	2	Hex Nut, No. 8-32, Stainless Steel
A.	GA6147	-	Magnetic Distance Sensor And Mounting Package (Items 4-9)

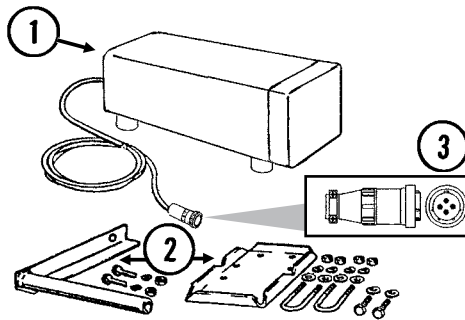
# KPM III ELECTRONIC SEED MONITOR

(MTR59)

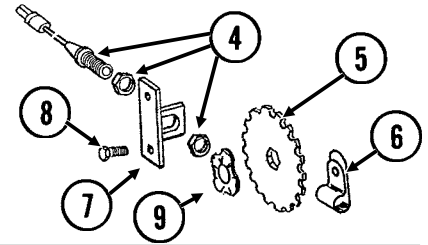
## Shaft Rotation Sensor



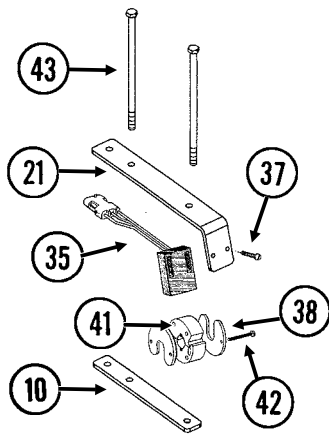
## Radar Distance Sensor



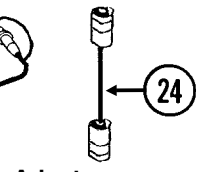
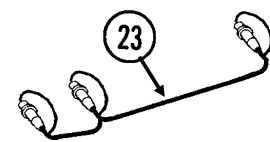
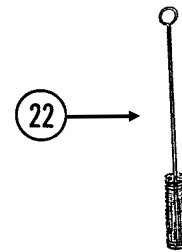
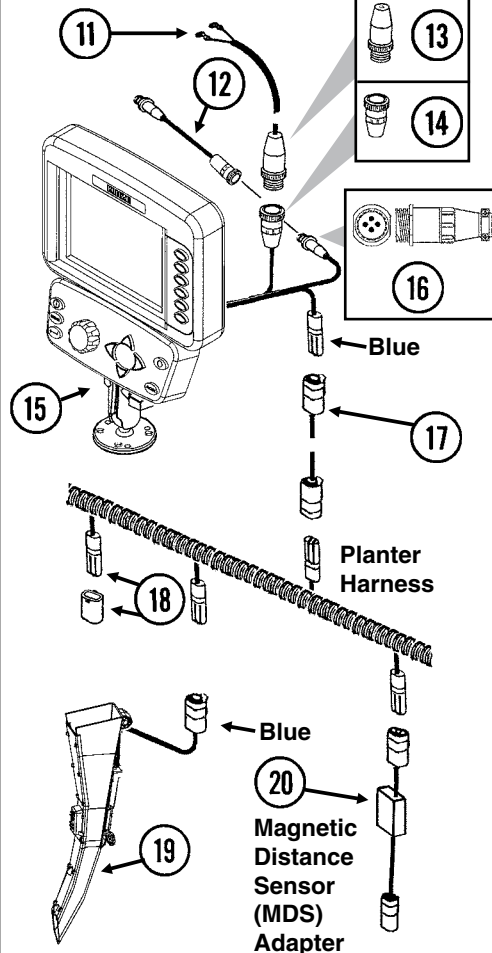
## Magnetic Distance Sensor (MDS)



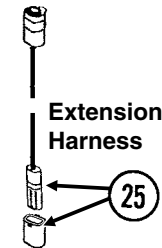
## Shaft Rotation Sensor



## Power Lead Adapter



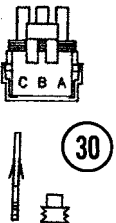
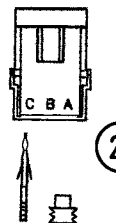
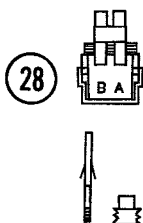
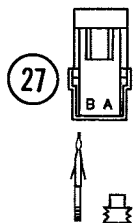
Radar Y-Cable      Adapter Harness



Extension Harness



Acre Counter Switch Kit



31

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. 8/07

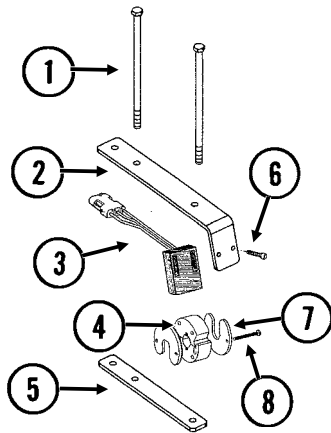
# KPM III ELECTRONIC SEED MONITOR

ITEM	PART NO.	QTY.	DESCRIPTION
10.	GD18168	2	Mount
11.	GA7856	1	Power Lead Adapter
12.	GA9144	-	Monitor/Radar Adapter Cable, 10"
13.	G1K267	-	Power Lead Adapter 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, (4) Female Socket Contacts And (1) Cable Clamp
17.		-	See Tractor /Planter Wiring Harness, Items 18 And 39 On Pages P100 And P101
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)

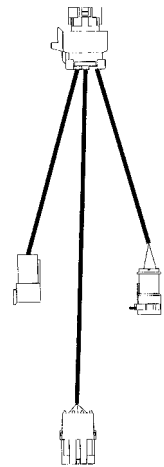
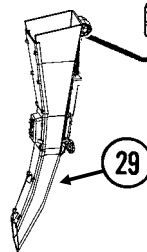
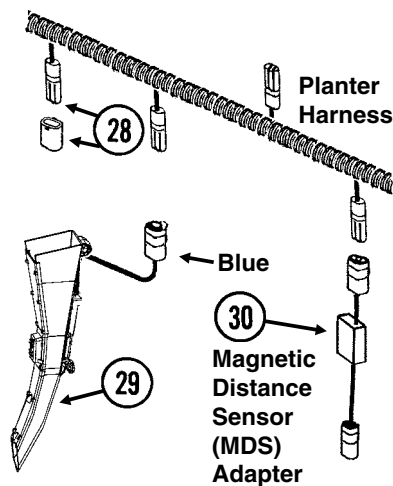
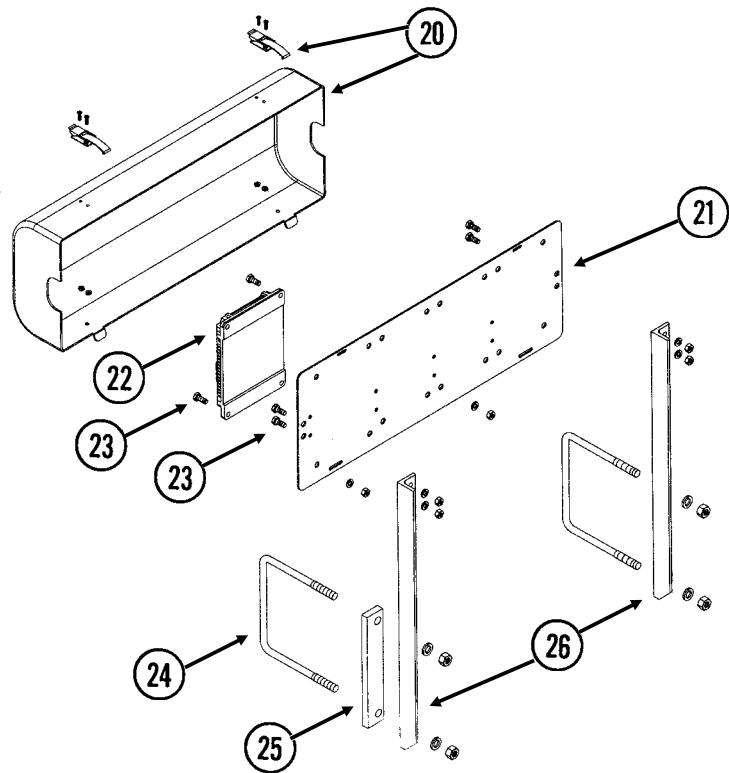
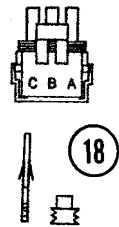
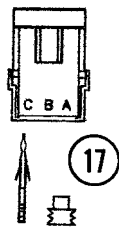
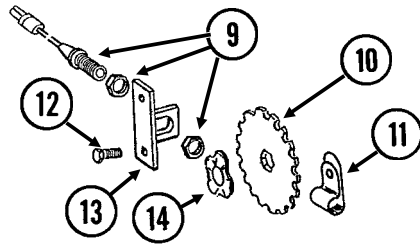
# PLANTER MONITOR MODULE (PMM)

(MTR60/MTR63/PMM01/MTR65/MTR61/MTR64/MTR62/PMM02)

## Shaft Rotation Sensor



## Magnetic Distance Sensor (MDS)



**NOTE: See Ag Leader manual for Ag Leader Insight display and associated cab harness components.**

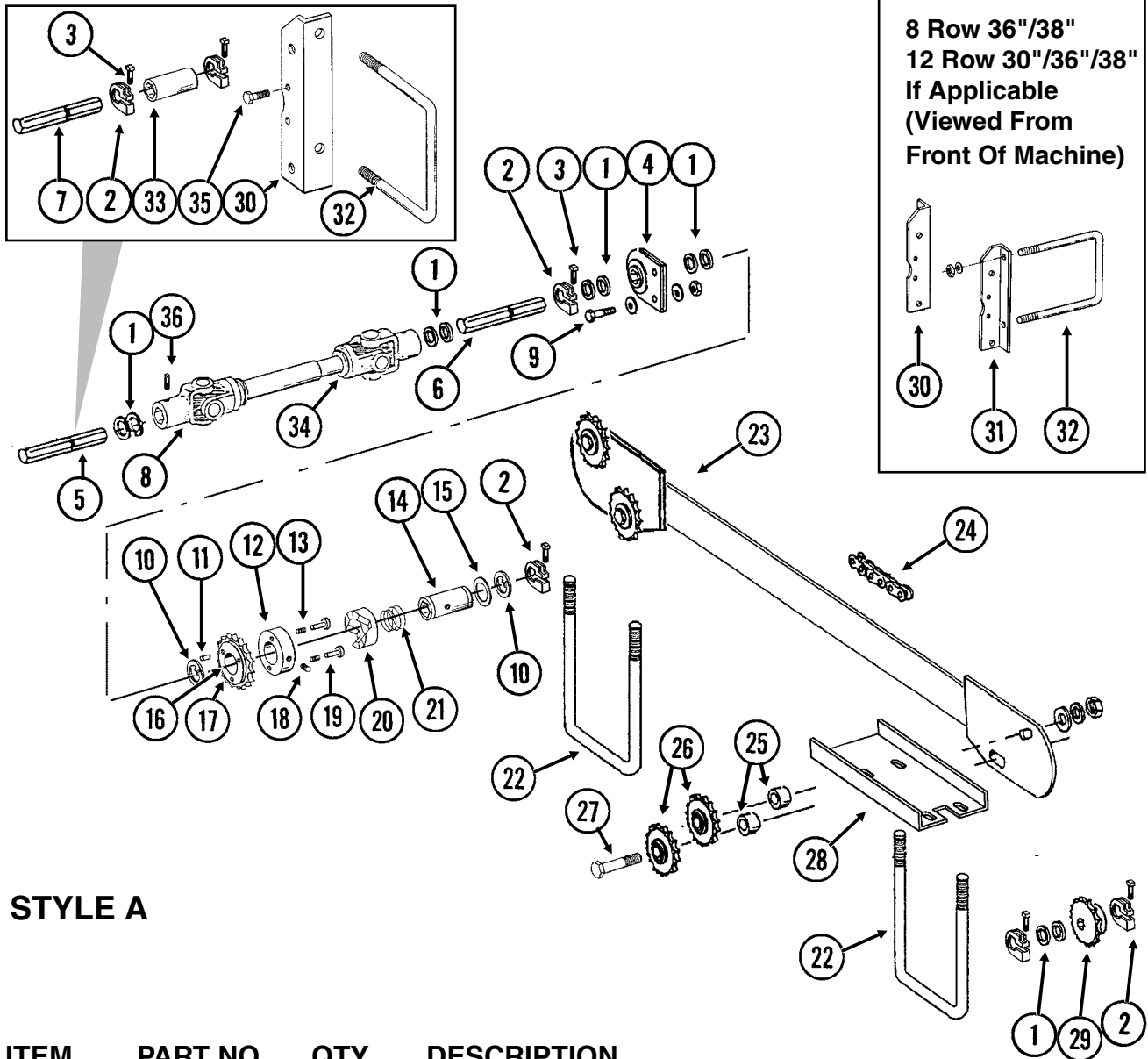
ITEM	PART NO.	QTY.	DESCRIPTION
1.	G10686	4	Hex Head Cap Screw, 3/8"-16 x 8"
	G10229	4	Lock Washer, 3/8"
	G10101	4	Hex Nut, 3/8"-16
2.	GD18118	2	Shaft Sensor Mount
3.	GR1415	1	Rotation Sensor
4.	GR1414	1	Actuator
5.	GD18168	2	Mount

# PLANTER MONITOR MODULE (PMM)

ITEM	PART NO.	QTY.	DESCRIPTION
6.	G10757	2	Pan Head Screw, No. 10-32 x 1 ¼"
	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 ¼", 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, ⅜"
12.	G10001	2	Hex Head Cap Screw, ⅜"-16 x 1"
	G10229	2	Lock Washer, ⅜"
	G10101	2	Hex Nut, ⅜"-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
	GA12641	-	Lock Clamp
	G11065	-	Phillips Pan Head Machine Screw, No. 8-32 x ⅝", Stainless Steel
	G11202	-	Lock Nut W/Nylon Insert, No. 8-32, Stainless Steel
21.	GD18013	1	Bracket
22.	GA12538	1	Planter Monitor Module
23.	G10043	6	Hex Head Cap Screw, ⅝"-18 x ¾"
	G10232	6	Lock Washer, ⅝"
	G10106	6	Hex Nut, ⅝"-18
24.	GD11721	2	U-Bolt, 5" x 7" x ½"-13
	G10228	4	Lock Washer, ½"
	G10102	4	Hex Nut, ½"-13
25.	GD16316	1	Spacer, 1½" x 9"
26.	GD16315	2	Support
27.	GR0594	-	Brush
28.	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
29.	GA10901	-	Seed Tube W/Computerized Sensor
	GR1629	-	Sensor Only
	GA10940	-	Seed Tube (With Holes For Sensor Installation)
30.	GA7859	1	Magnetic Distance Sensor Adapter (Analog To Digital)
31.	GA12557	1	Planter Monitor Cable
A.	GA6147	-	Magnetic Distance Sensor And Mounting Package (Items 9-14)

# INTERPLANT® PUSH ROW UNIT DRIVE

PTD073/PTD076(RU134/TWL33n/TWL33o)



## STYLE A

ITEM	PART NO.	QTY.	DESCRIPTION
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(Per Side)

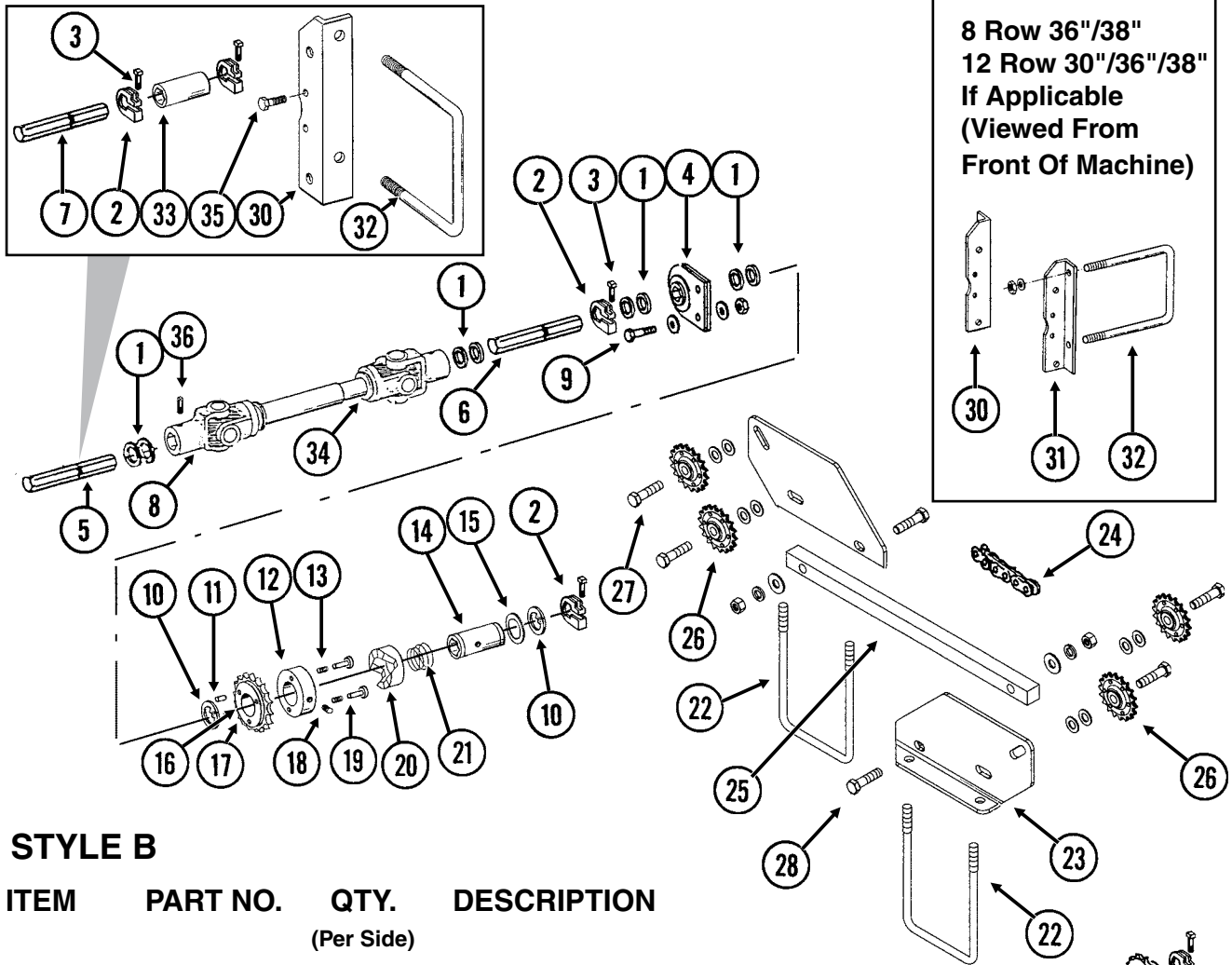
1.	G10233	-	Machine Bushing, 1", 10 Gauge (As Required)
2.	GD11045	-	Lock Clamp
3.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
4.	GA2180	-	Hanger Bearing, 7/8" Hex Bore
5.	GD0914-55	1	Hex Shaft, 7/8" x 55" (No Holes), R.H. Side, 8 Row 36"/38"
	GD0914-84	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

# INTERPLANT® PUSH ROW UNIT DRIVE

ITEM	PART NO.	QTY. (Per Side)	DESCRIPTION
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
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.	GA9138	1	Mount
24.	G3310-226	1	Chain, No. 40, 226 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
25.	GD9229	4	Spacer, 1 1/4" O.D. x 1/2" Long (If Applicable)
26.	GA7154	4	Sprocket W/Bearing, 18 Tooth
27.	G10016	4	Hex Head Cap Screw, 1/2"-13 x 2"
	G10168	4-8	Machine Bushing, 1/2", 7 Gauge
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
28.	GD14417	1	Hose Protector
29.	GA5107	2	Sprocket, 19 Tooth
30.	GD11972	-	Support Angle, R.H.
31.	GD11973	-	Support Angle, L.H.
32.	GD11113	-	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)

# INTERPLANT® PUSH ROW UNIT DRIVE

(RU134/TWL516)



## STYLE B

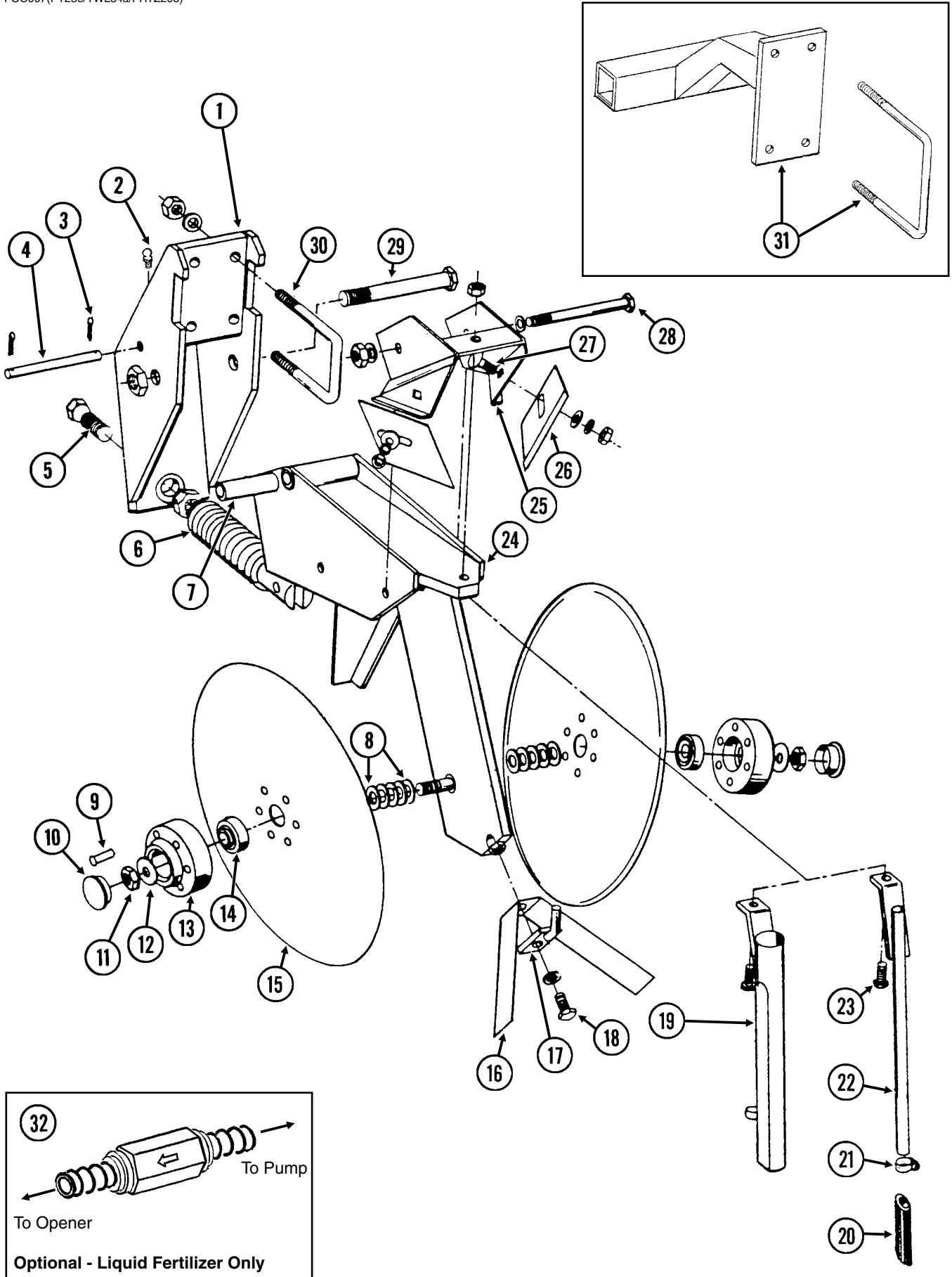
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Side)	
1.	G10233	-	Machine Bushing, 1", 10 Gauge (As Required)
2.	GD11045	-	Lock Clamp
3.	G10130	-	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	-	Flange Nut, 5/16"-18, No Serration
4.	GA2180	-	Hanger Bearing, 7/8" Hex Bore
5.	GD0914-55	1	Hex Shaft, 7/8" x 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. (Per Side)	DESCRIPTION
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 (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
35.	GR1293	-	Yoke, 7/8" Hex
	G10752	-	Hex Head Cap Screw, 5/8"-18 x 2 1/4"
	GD7805	-	Special Washer, 5/8", Hardened
36.	G10412	-	Lock Nut, 5/8"-18
	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)

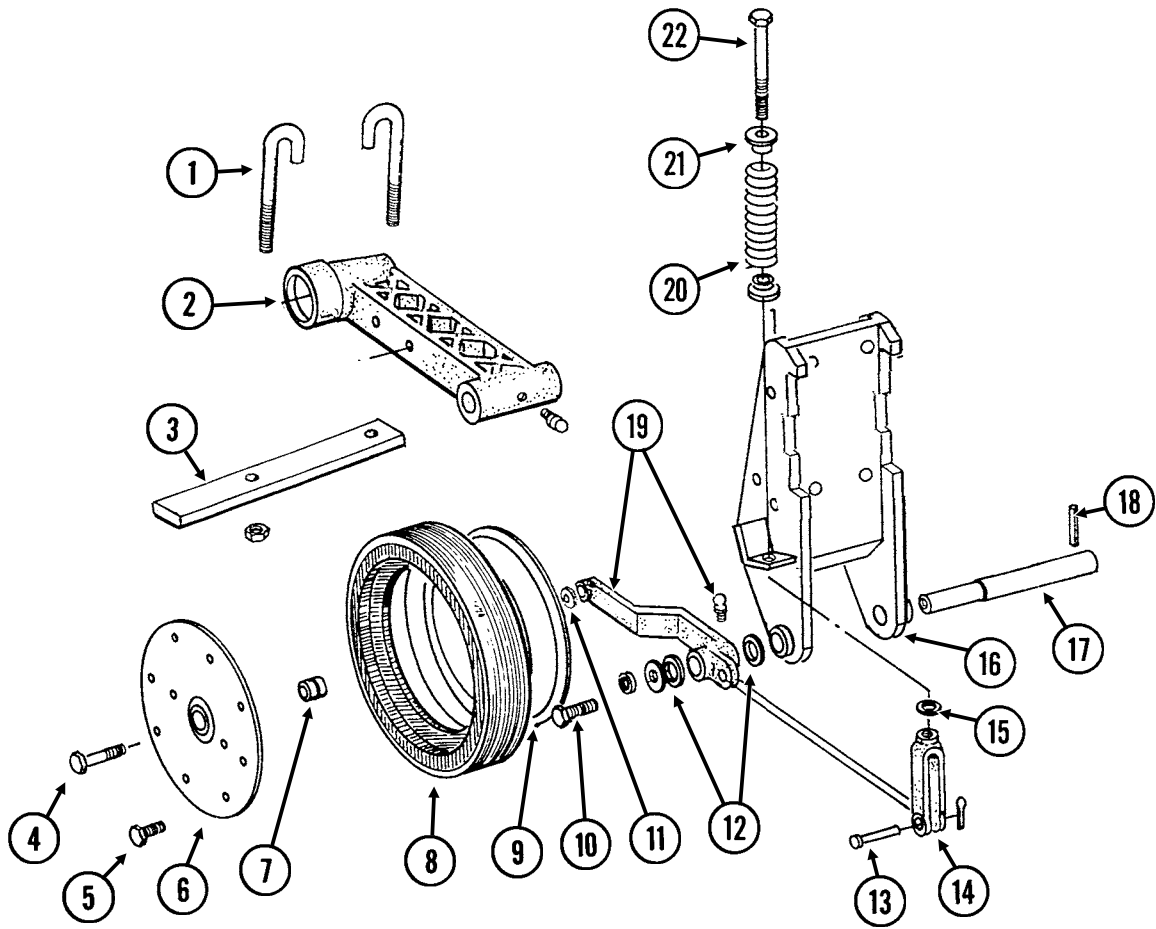


# DOUBLE DISC FERTILIZER OPENER AND MOUNT

ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GA8483	1	Bracket
2.	G10938	1	Grease Fitting, 1/4"-28, Taper Thread
3.	G10451	2	Cotter Pin, 1/8" x 1"
4.	GD1657	1	Lockup Pin
5.	GD0962	1	Hex Head Adjusting Bolt, 5/8"-18 x 3 1/4"
	G10499	1	Hex Jam Nut, 5/8"-18, Grade 2
6.	GA0328	1	Spring
7.	GD0487	1	Bushing, 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)

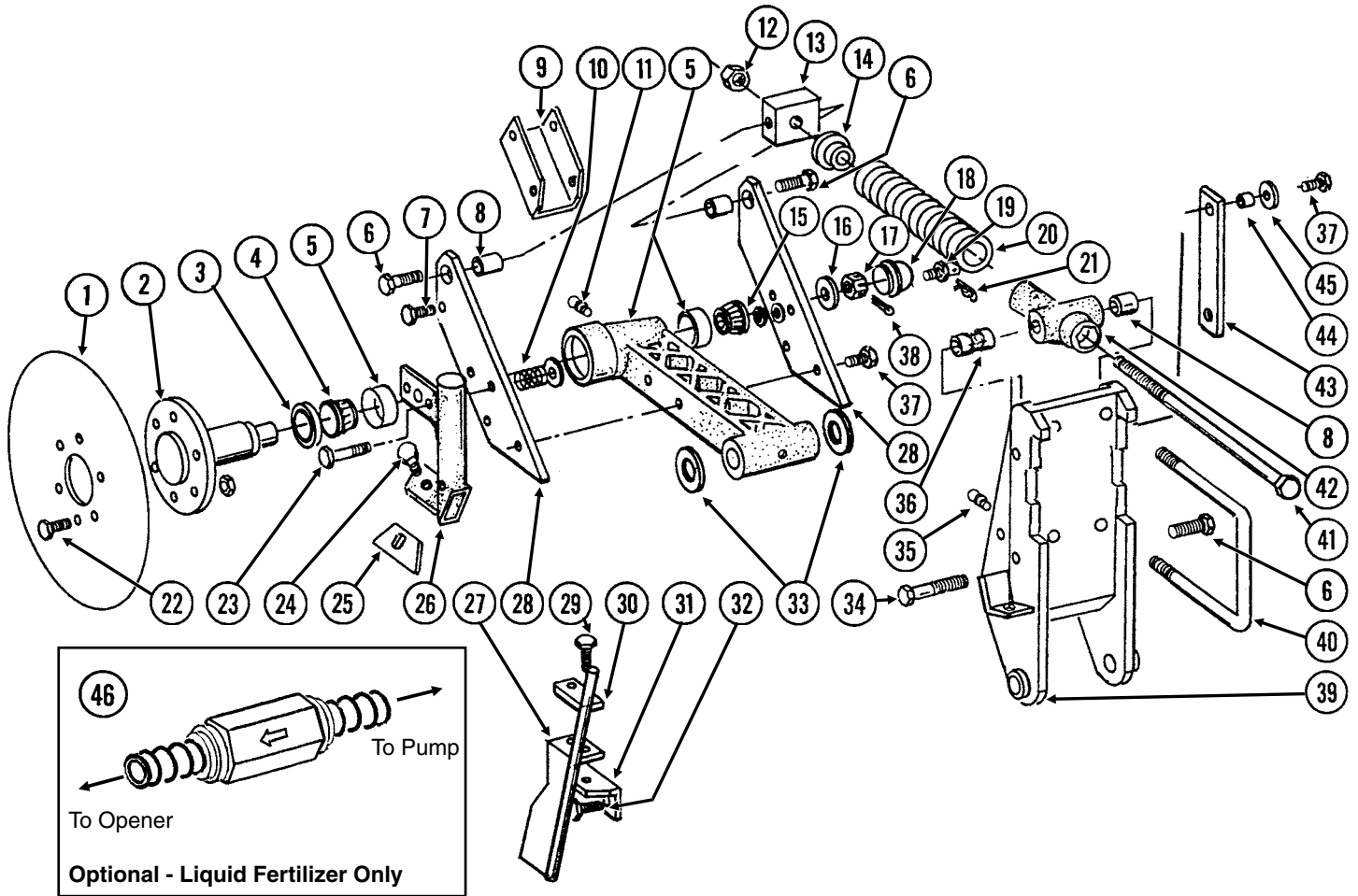


# HD SINGLE DISC FERTILIZER OPENER (Soil Press Wheel)

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 P118 And P119
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 P118 And P119
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)



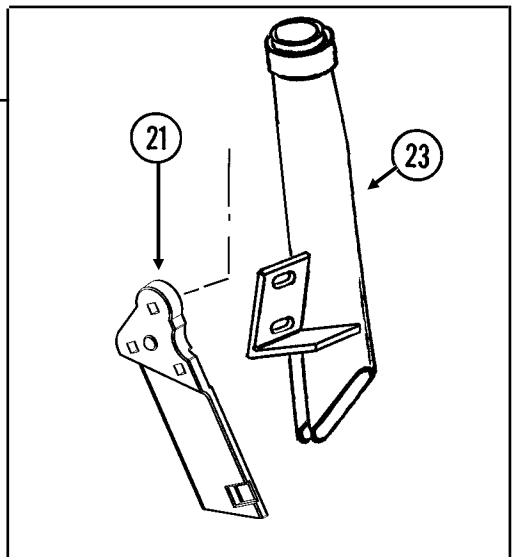
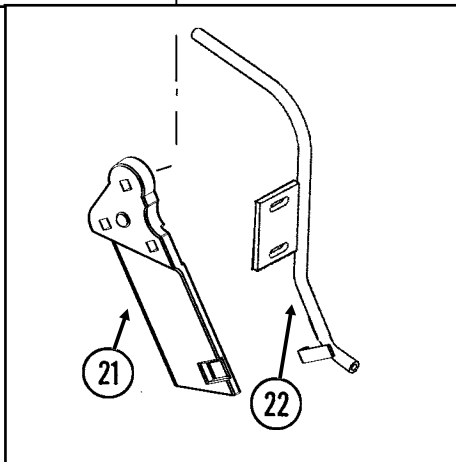
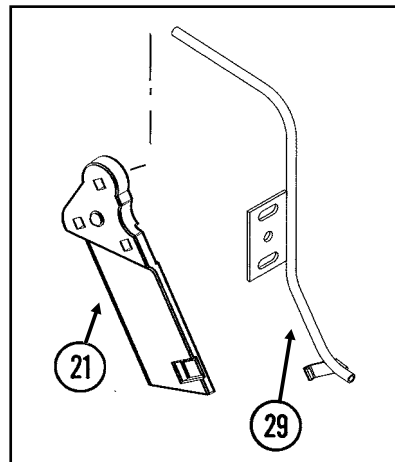
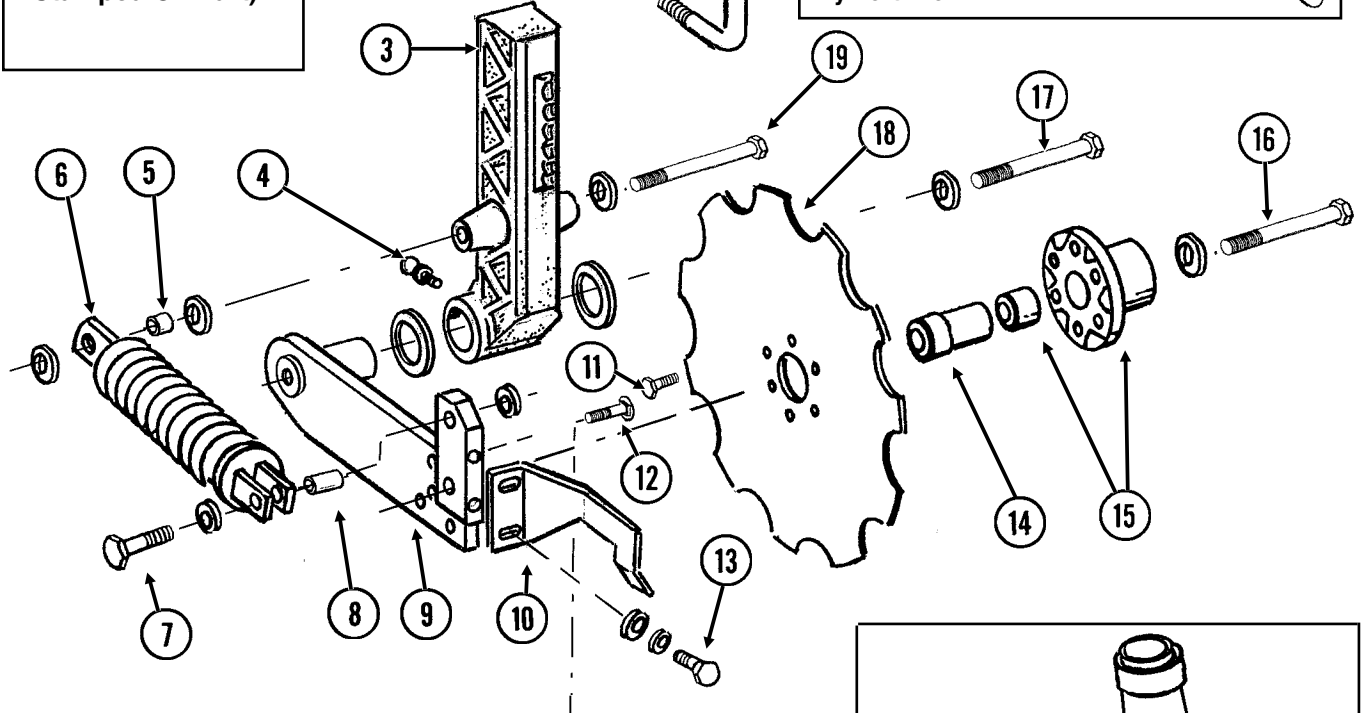
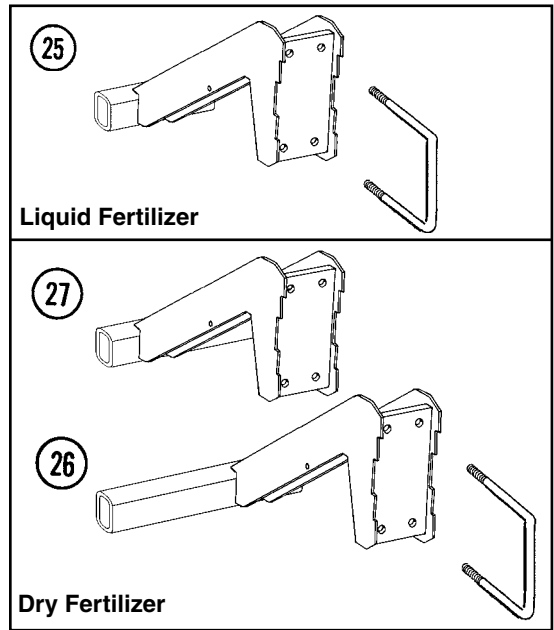
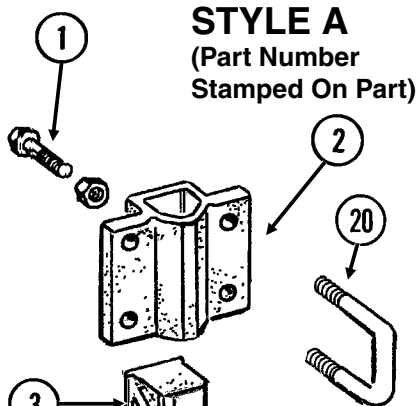
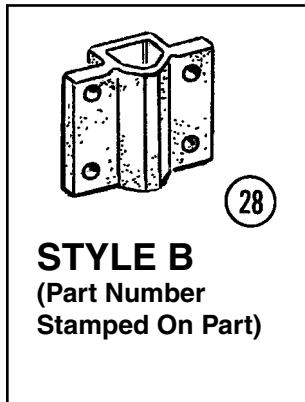
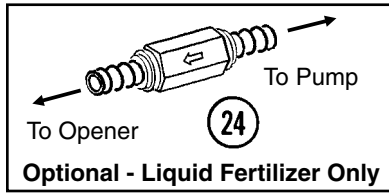
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.	GD7900	1	Disc Blade, 18"
	GD8247	-	Disc Blade, 20" (Optional)
2.	GB0205	1	Spindle
3.	GA4286	1	Seal
4.	GA4287	1	Bearing
5.	GA5887	1	Arm W/Cups And Washers
	GD6553	-	Inner Cup
	GR0188	-	Outer Cup
	G10205	3	Washer, 5/8" SAE
6.	G10007	3	Hex Head Cap Screw,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

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

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

# NOTCHED SINGLE DISC FERTILIZER OPENER

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

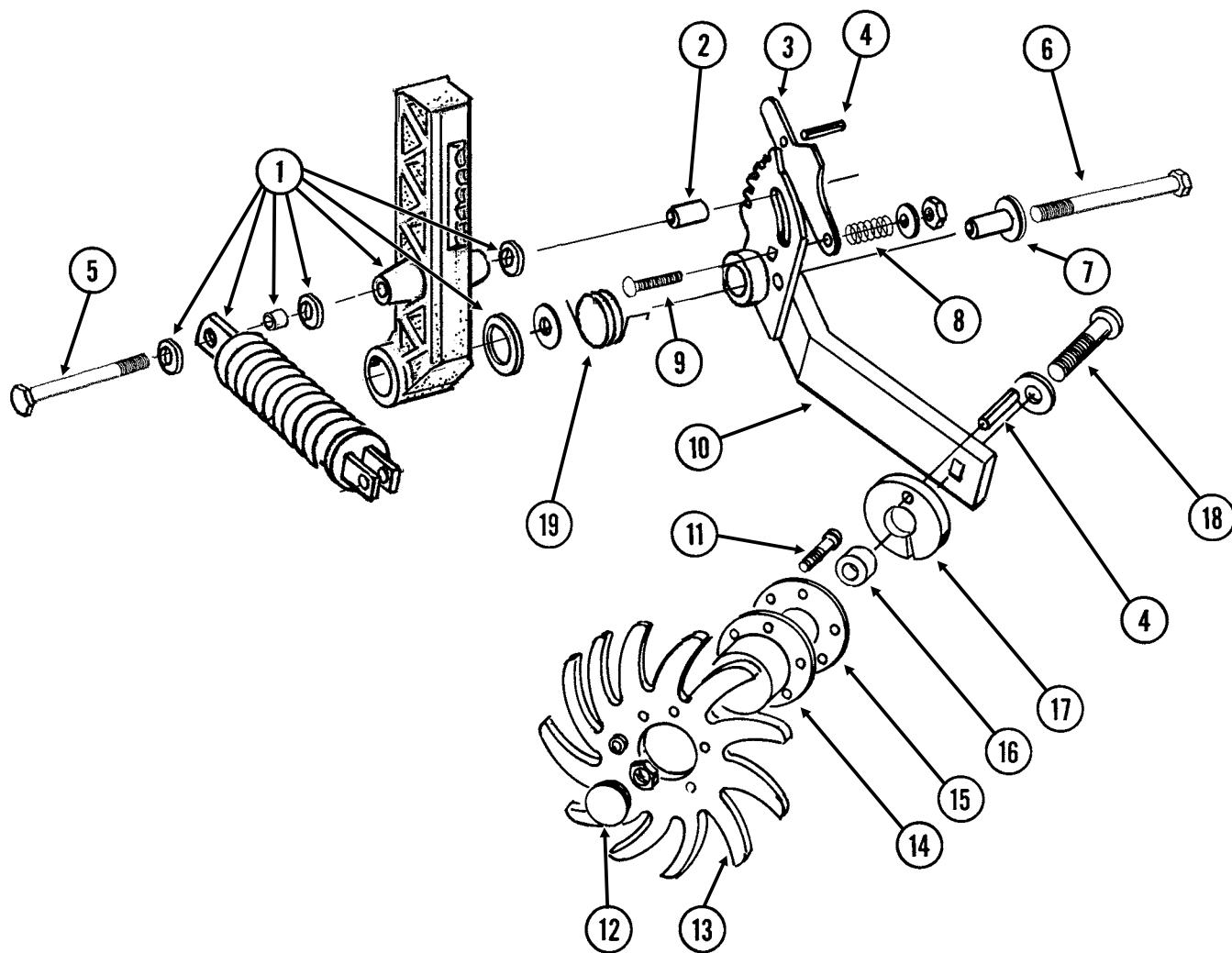


# NOTCHED SINGLE DISC FERTILIZER OPENER

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.	GB0297	1	Mount
3.	GB0296	1	Arm, 13 1/2"
4.	G10640	1	Grease Fitting, 1/4"-28
5.	GD12685	1	Bushing, 3/4" O.D. x 1/2" Long
6.	GA6966	1	Compression Spring Assembly
7.	G10047	1	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
	G10210	2	Washer, 3/8" USS
	G10108	1	Lock Nut, 3/8"-16
8.	GD1026	1	Sleeve, 1 3/16" Long
9.	GA9433	1	Pivot Arm, L.H. (Shown)
	GA9434	-	Pivot Arm, R.H.
10.	GD11557	1	Scraper, L.H. (Shown)
	GD11558	-	Scraper, R.H.
11.	G10002	6	Hex Head Cap Screw, 3/8"-16 x 3/4"
12.	G10306	3	Carriage Bolt, 3/8"-16 x 2"
	G10108	3	Lock Nut, 3/8"-16
13.	G10991	2	Hex Head Cap Screw, 5/16"-18 x 7/8"
	G10232	2	Lock Washer, 5/16"
	G10219	6	Washer, 5/16" USS
14.	GD12679	1	Stepped Spacer, 3" Long
15.	GA9437	1	Hub W/Bearing
	GA8603	-	Double Row Bearing
16.	G10011	1	Hex Head Cap Screw, 5/8"-11 x 5 1/2"
	GD12677	1	Washer, 1 1/2" O.D., 7 Gauge, Hardened
	G10107	1	Lock Nut, 5/8"-11
17.	G10046	1	Hex Head Cap Screw, 5/8"-11 x 5"
	G10217	1	Washer, 5/8" USS
	G10450	2	Machine Bushing, 1 1/2", 18 Gauge (As Required)
	G10107	1	Lock Nut, 5/8"-11
18.	GD12676	1	Disc Blade, Notched, 16 3/4"
19.	G10871	1	Hex Head Cap Screw, 1/2"-13 x 6"
	G10206	3	Washer, 1/2" SAE
	G10111	1	Lock Nut, 1/2"-13
20.	GD13287	2	U-Bolt, 1 1/2" x 2 1/2" x 1/2"-13
	G10228	4	Lock Washer, 1/2"
	G10102	4	Hex Nut, 1/2"-13
21.	GB0323	1	Knife, L.H. (Shown)
	GB0322	-	Knife, R.H.
22.	GA11397	-	Drop Tube, L.H., Liquid Fertilizer (Shown)
	GA11398	1	Drop Tube, R.H., Liquid Fertilizer
23.	GA10047	-	Drop Tube, L.H., Dry Fertilizer (Shown)
	GA10048	1	Drop Tube, R.H., Dry Fertilizer
24.	GA8983	-	Check Valve, Low Rate
25.	GA9565	1	Mount W/U-Bolts, Liquid Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
26.	GA9821	-	Mount W/U-Bolts, L.H., Dry Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
27.	GA9822	-	Mount W/U-Bolts, R.H., Dry Fertilizer
	GD1113	2	U-Bolt, 5" x 7" x 5/8"-11
	G10230	4	Lock Washer, 5/8"
	G10104	4	Hex Nut, 5/8"-11
28.	GB0405	1	Mount, L.H. (Shown)
	GB0400	-	Mount, R.H.
29.	GA12108	1	Drop Tube, Liquid Fertilizer (Shown)
	GA12109	-	Drop Tube, Liquid Fertilizer

# RESIDUE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

DFC024(FRTZ165)



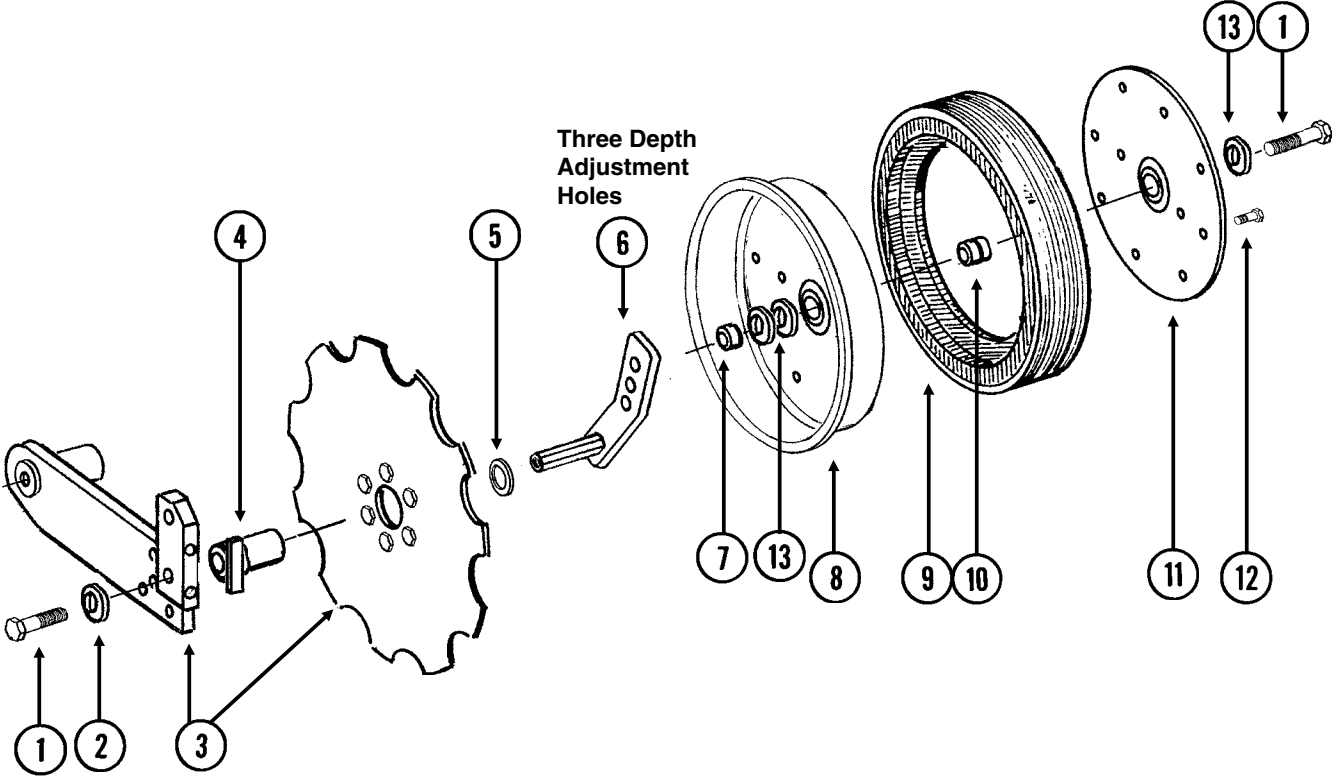
# RESIDUE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

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ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Assy.)	
1.		-	See "Notched Single Disc Fertilizer Opener", Pages P120 And P121
2.	GD12684	1	Bushing, 1 1/8" 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)



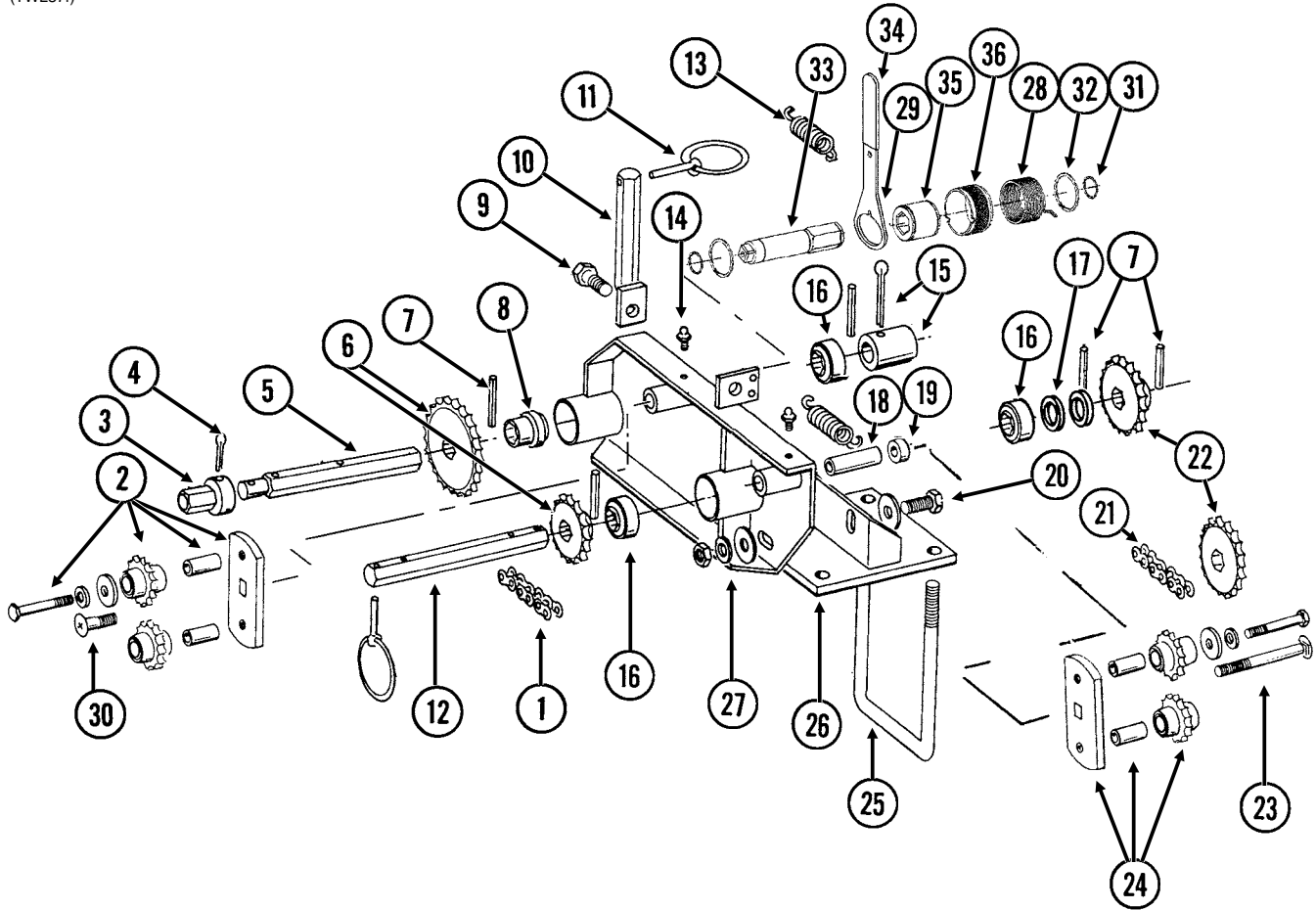
# DEPTH/GAUGE WHEEL ATTACHMENT FOR NOTCHED SINGLE DISC FERTILIZER OPENER

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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 P120 And P121
4.	GA9472	1	Blade Mount
5.	G10233	1	Machine Bushing, 1", 10 Gauge
6.	GA10037	1	Wheel Mount, L.H. (Shown)
	GA10036	1	Wheel Mount, R.H.
7.	GD13309	1	Spacer
8.	GD11423	1	Half Wheel
9.	GD11953	1	Offset Tire
10.	GA6171	1	Bearing
11.	GD11954	1	Half Wheel Cover, Nylon
12.	G10961	11	Flanged Whiz Lock Screw, 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

(TWL37f)



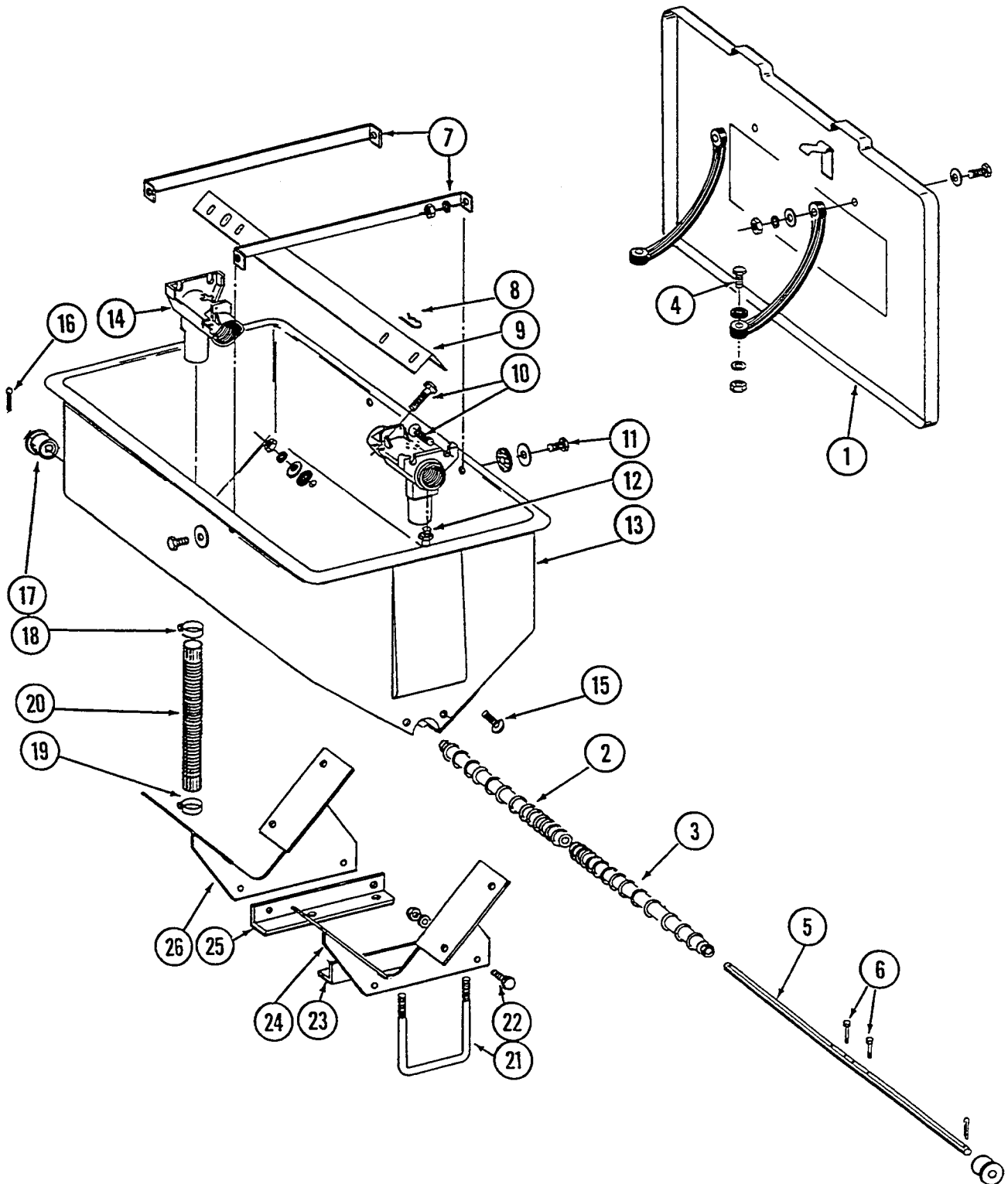
ITEM	PART NO.	QTY.	DESCRIPTION
		(Per Side)	
1.	G3310-88	1	Chain, No. 40, 88 Pitch Including Connector Link
	GR0912	-	Connector Link, No. 40
2.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	GD1026	-	Sleeve, 1 3/16" Long
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"
	G10047	-	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 P130 And P131
16.	GA5116	3	Bearing, 7/8" Hex Bore, Cylindrical
17.	G10233	2	Machine Bushing, 1", 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 In R.H. Wrap Spring Wrench) (Shown)
	GD14414	1	Torsion Spring, R.H. (Used In 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	Internal 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.	GD14430	1	Release Collar, Gold, R.H. (Shown)
	GD14429	-	Release Collar, Silver, 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)

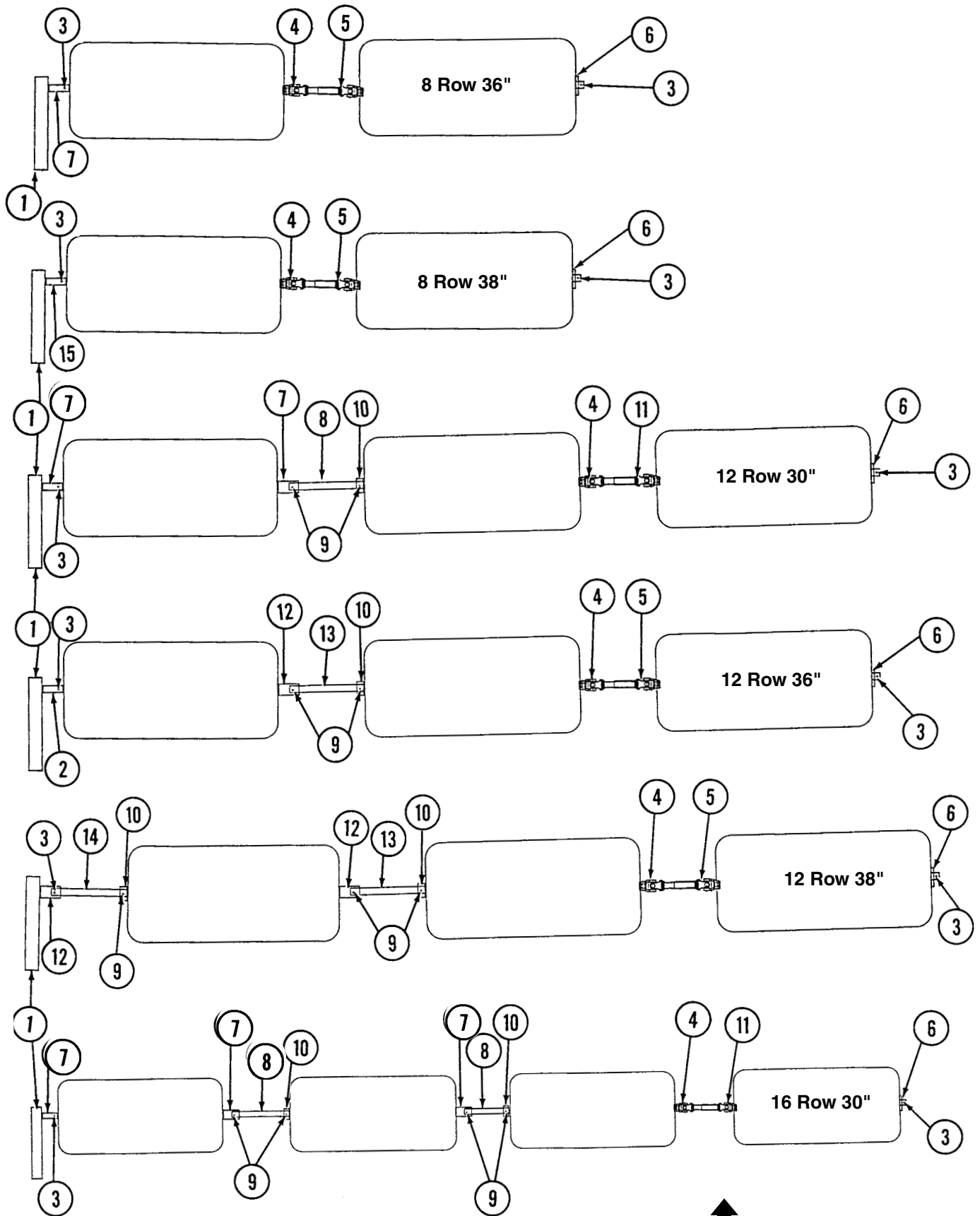


# DRY FERTILIZER HOPPER AND MOUNTS

ITEM	PART NO.	QTY. (Per Hopper)	DESCRIPTION
1.	GA0898	1	Lid W/Retainers, Clips, Rivets, Rubber Straps And Hardware
	GD1380	-	Front Clip
	GD2412	-	Rear Retainer
	G10655	-	Rivet, 3/16" x 1 3/32"
	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
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

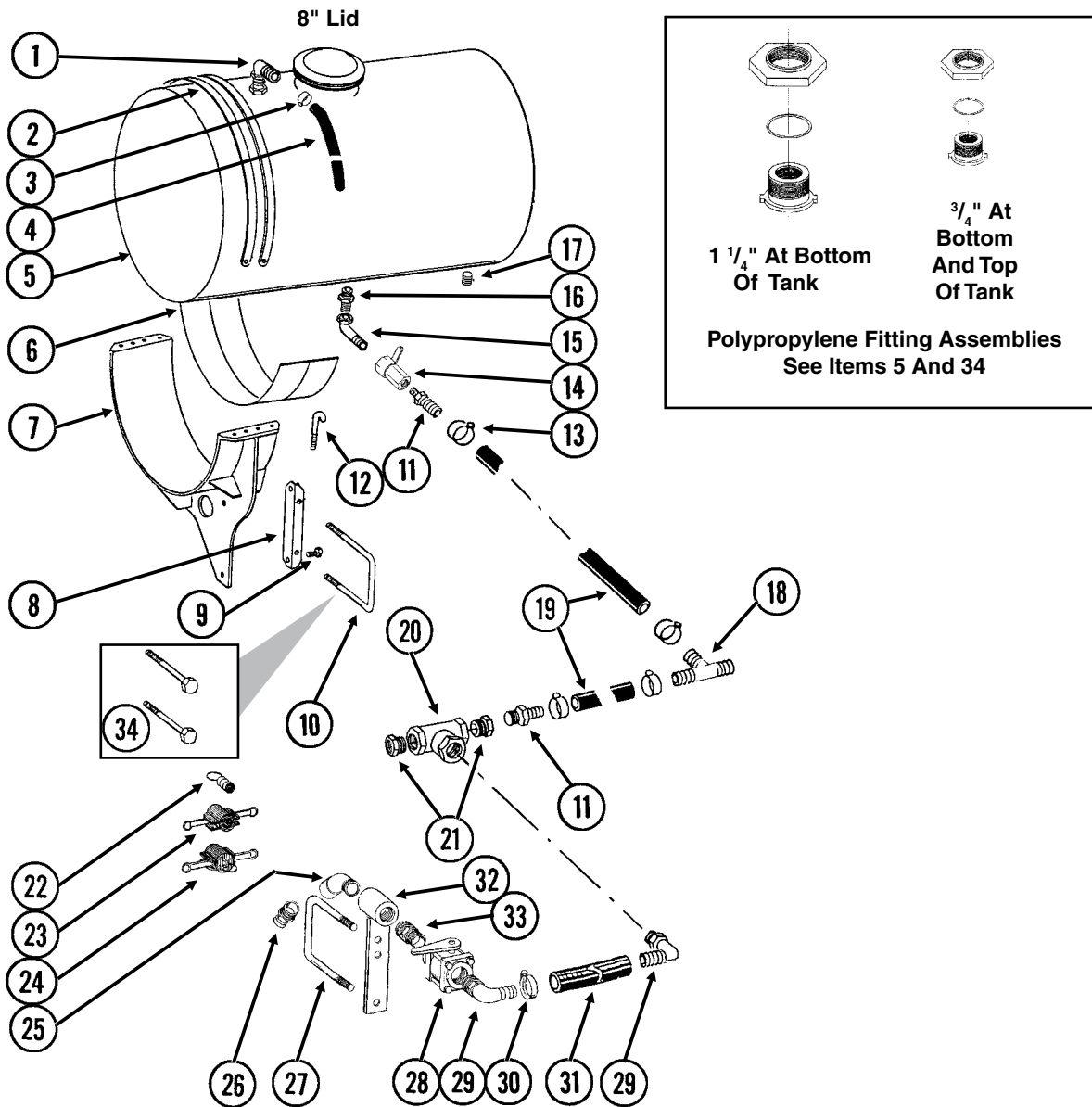
# DRY FERTILIZER COUPLERS/SHAFTS

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ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Dry Fertilizer Drive", Pages P126 And P127
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", 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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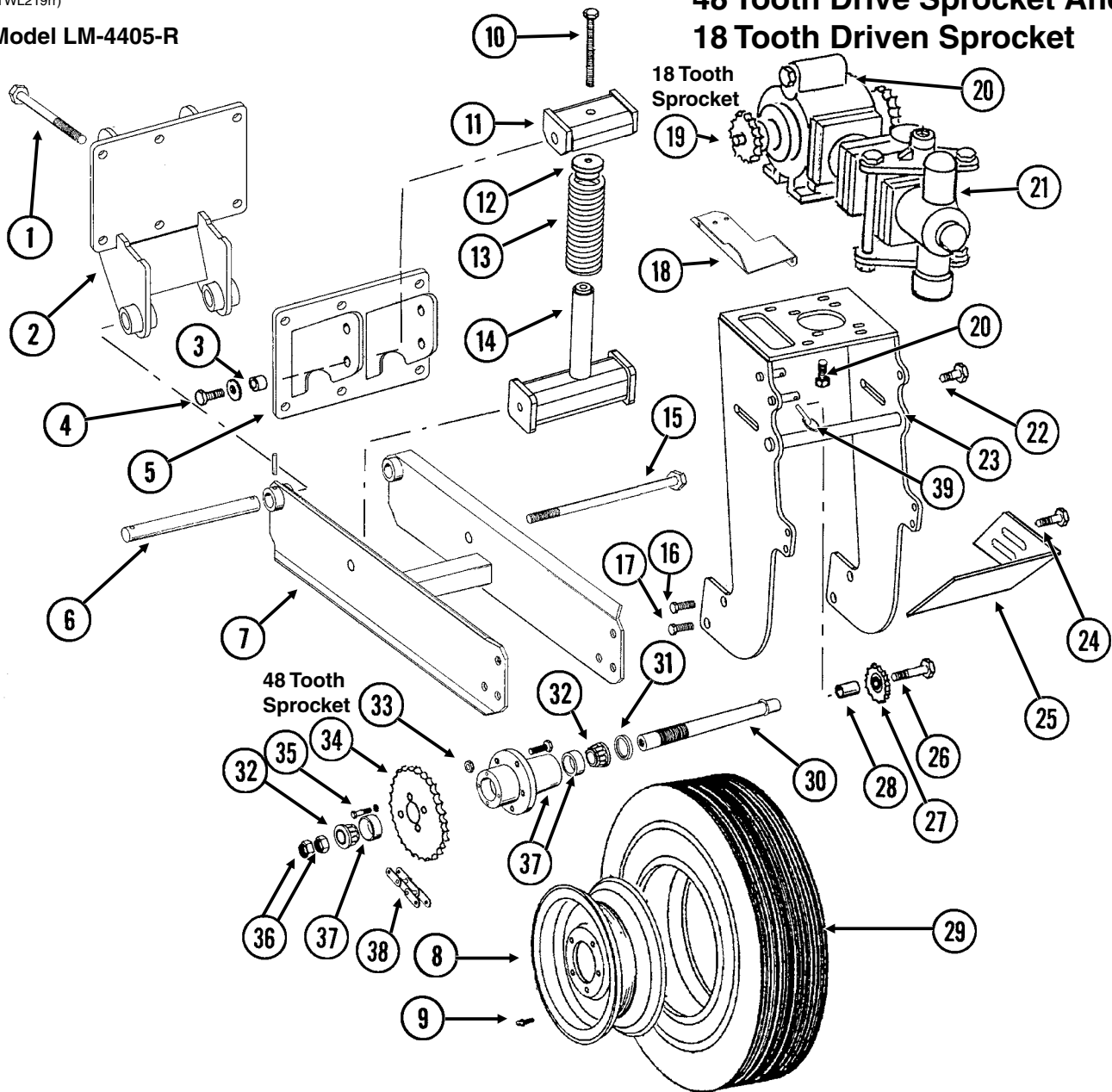
ITEM	PART NO.	QTY.	DESCRIPTION
6.	GD1862	-	Pad, 8" x 14' (For Two 30" Tanks)
7.	GA7133	-	Tank Mount (2 Per Tank)
8.	GD10110	-	Mounting Angle (2 Per Tank)
9.	G10007	-	Hex Head Cap Screw, 5/8"-11 x 1 1/2"
	G10230	-	Lock Washer, 5/8"
	G10104	-	Hex Nut, 5/8"-11
10.	GD1747	-	U-Bolt, 5" x 7" x 3/4"-10
	G10231	-	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	-	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
34.	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

# LIQUID FERTILIZER PISTON PUMP MOUNT AND GROUND DRIVE WHEEL

(TWL219r)

Model LM-4405-R

## 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

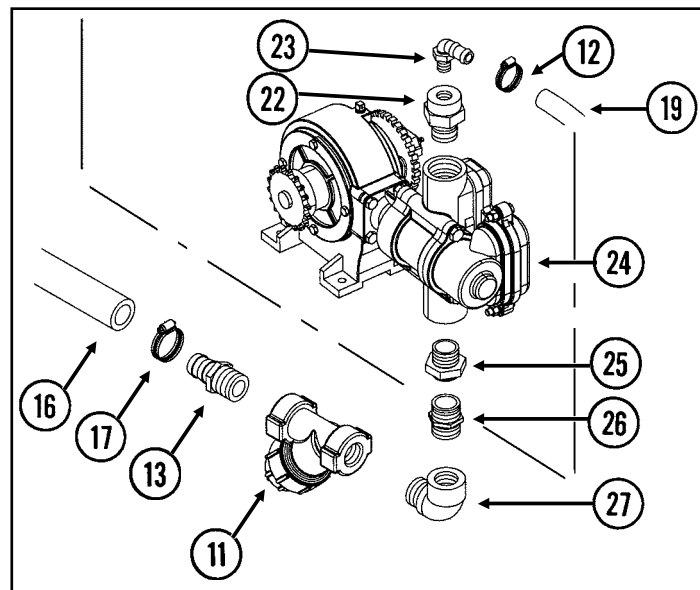
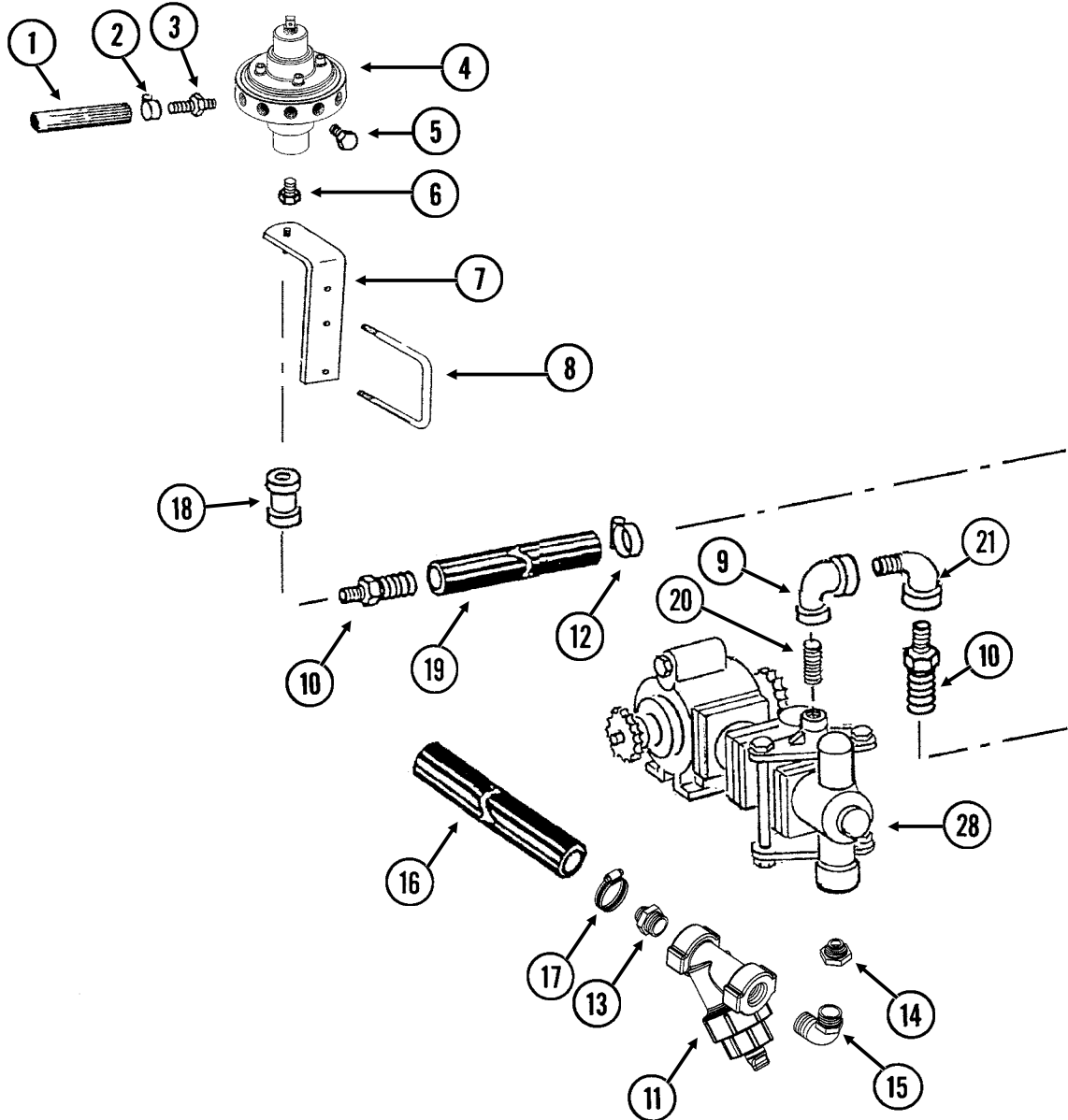
# LIQUID FERTILIZER PISTON PUMP MOUNT AND GROUND DRIVE WHEEL

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.		-	See "Liquid Fertilizer Piston Pump (Crankcase Assembly)", Pages P138 And P139
	GR0200	1	Offset Link, No. 2050
21.		-	See "Liquid Fertilizer Piston Pump (Cylinder Assembly)", 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.	G3200-62	1	Chain, No. 2050, 62 Pitch Including Connector Link, Used With L-4405 Piston Pump
	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

# LIQUID FERTILIZER FLOW DIVIDER MOUNT AND HOSES

(FRTZ280/FRTZ298)



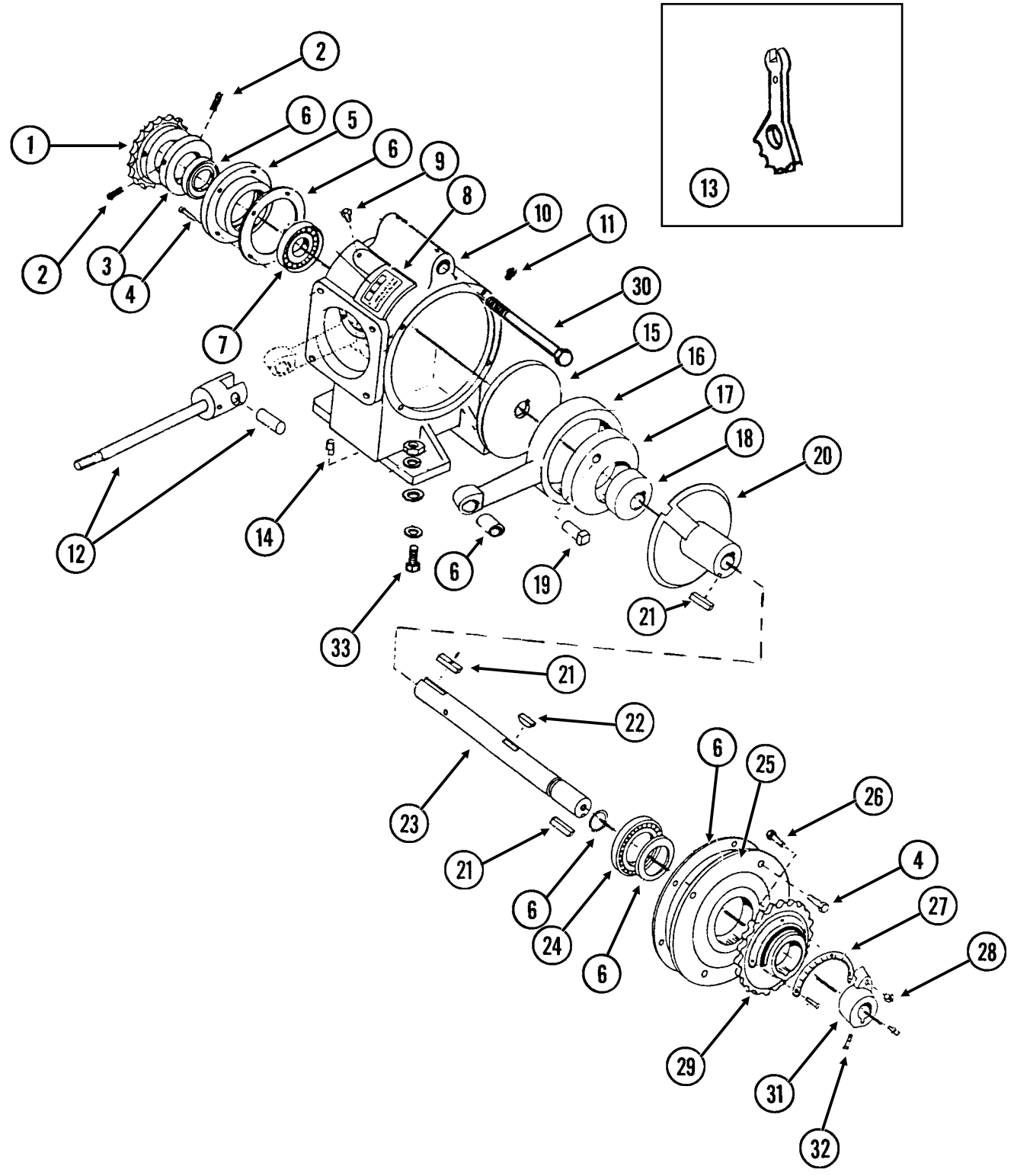
# LIQUID FERTILIZER FLOW DIVIDER MOUNT AND HOSES

ITEM	PART NO.	QTY.	DESCRIPTION
1.	G4301-06	1	Hose, 3/8" x 160', 12 Row 30"
	G4301-05	1-2	Hose, 3/8" x 120', 8 Row 36"/38", 12 Row 36"/38" And 16 Row 30"
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 P144 And P145
5.	G10292	-	Plug, 1/4" NPT
6.	G10995	1	Reducing Bushing, 1" Male NPT To 3/4" Female, Stainless Steel (If Applicable)
7.	GA6527	1	Support, 3/4" NPT
8.	GD1113	1	U-Bolt, 5" x 7" x 5/8"-11
	G10230	2	Lock Washer, 5/8"
	G10104	2	Hex Nut, 5/8"-11
9.	G10733	1	Elbow, 90°, 3/4" Female NPT
10.	G10734	-	Adapter, 3/4" NPT To Barb
11.	GA3893	1	Strainer Complete
	GR0880	-	Screen, No. 40 Mesh
	GR0881	-	Gasket
	GR0882	-	Y-Body
	GR0883	-	End Cap
12.	G10278	-	Hose Clamp, No. 16
13.	G10626	2	Adapter, 1 1/4" NPT To Barb
14.	G10615	1	Reducing Bushing, 1 1/2" Male NPT To 1 1/4" Female
15.	G10629	1	Elbow, 90°, 1 1/4" NPT To Barb
16.		-	1 1/4" Hose, See "Liquid Fertilizer Tanks, Saddles, Saddle Mounts And Hoses", Pages P132 And P133
17.	G10674	2	Hose Clamp, No. 24
18.	G11083	1	Coupler, 3/4" Female NPT
19.	G4205-10	-	Hose, 3/4" x 200"
20.	G10389	1	Pipe Nipple, 3/4" NPT x 1 1/2" Long
21.	G10735	1	Elbow, 90°, 3/4" Male NPT To Female
22.	G11237	1	Reducing Bushing, 1 1/2" Male NPT To 3/4" Female
23.	G10917	1	Elbow, 90°, 3/4" NPT To Barb
24.		-	See "Liquid Fertilizer Piston Pump", Pages P42 And P143
25.	G10615	1	Reducing Bushing, 1 1/2" Male NPT To 1 1/4" Female
26.	G10619	1	Close Nipple, 1 1/4" NPT
27.	G10887	1	Elbow, 90°, 1 1/4" Male NPT To Female
28.		-	See "Liquid Fertilizer Piston Pump", Pages P138-P141

# LIQUID FERTILIZER PISTON PUMP (Crankcase Assembly)

(PT38a/GR1100)

## Model L-4405



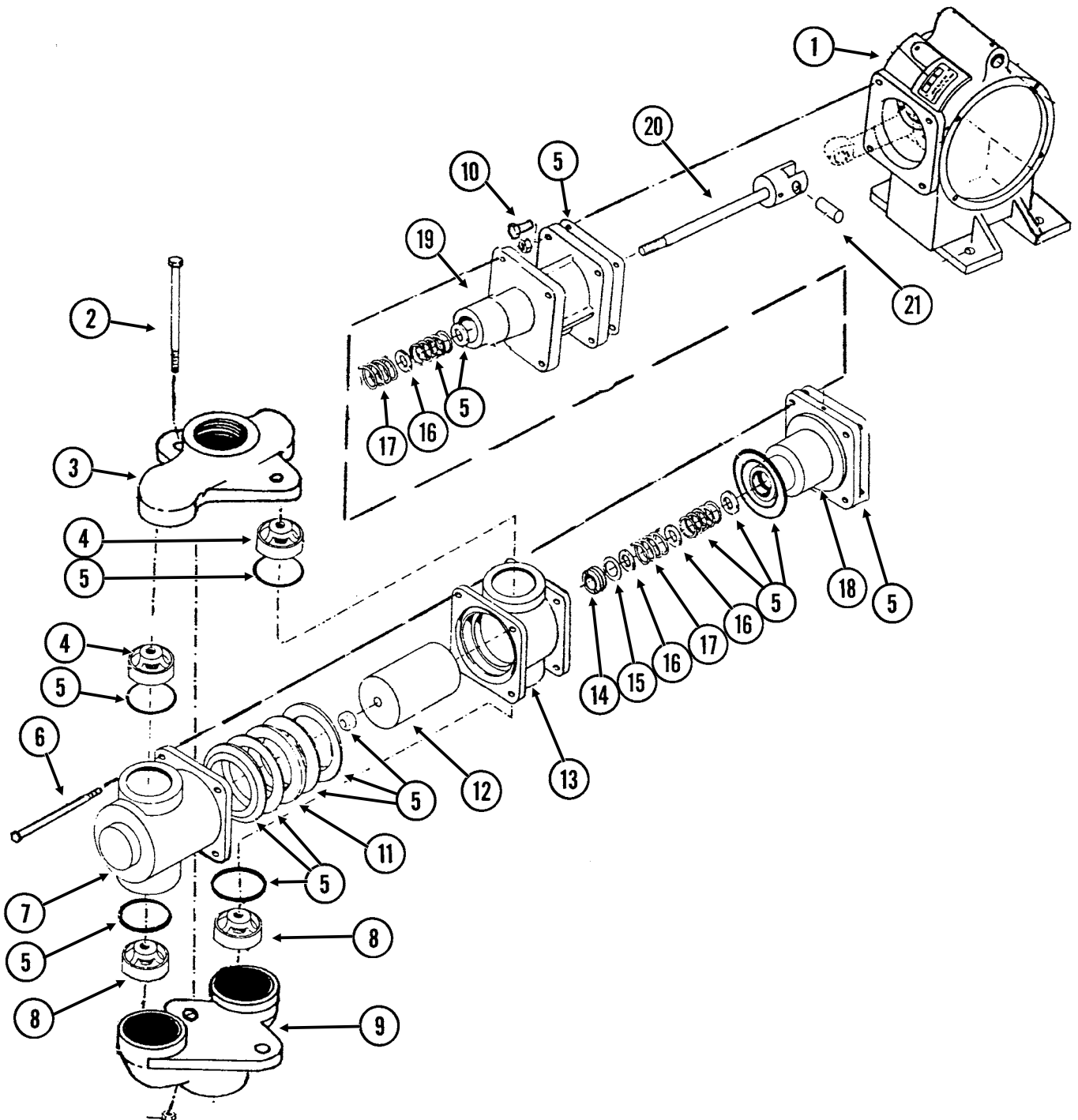
# LIQUID FERTILIZER PISTON PUMP (Crankcase Assembly)

ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Liquid Fertilizer Piston Pump Mount And Ground Drive Wheel", Pages P134 And P135
2.	G10688	2	Square Head Set Screw, $\frac{3}{8}$ "-16 x $\frac{5}{8}$ "
3.	GR1147	1	Spacer
4.	G10019	4	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x 1"
5.	GR1102	1	Housing
6.	GR1173	-	Repair Kit, Includes Item 5 On "Liquid Fertilizer Piston Pump (Cylinder Assembly)", Pages P140 And P141
7.	GR1104	1	Bearing
8.	GR1105	1	Name Plate
9.	G10054	2	Hex Head Cap Screw, $\frac{5}{16}$ "-18 x $\frac{1}{2}$ "
10.	GR1106	1	Crankcase
11.	GR1107	1	Vent Plug
12.		-	See "Liquid Fertilizer Piston Pump (Cylinder Assembly)", Pages P140 And P141
13.	GR1100	1	Adjustment Wrench
14.	GR1123	3	Plug
15.	GR1108	1	Disc
16.	GR1109	1	Connecting Rod
17.	GR1110	1	Large Eccentric
18.	GR1111	1	Small Eccentric
19.	GR1120	1	Eccentric Pin
20.	GR1119	1	Sleeve
21.	GR1118	3	Setting Arm Key
22.	GR1112	1	Woodruff Key
23.	GR1148	1	Crankshaft
24.	GR1116	1	Bearing
25.	GR1166	1	Cover Plate
26.	GR1167	1	Square Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{3}{4}$ "
27.	GR1168	1	Scale
28.	G10108	1	Lock Nut, $\frac{3}{8}$ "-16
29.	GR1114	1	Flange
30.	G10318	1	Hex Head Cap Screw, $\frac{5}{8}$ "-11 x 4 $\frac{1}{2}$ "
	G10104	1	Hex Nut, $\frac{5}{8}$ "-11
31.	GR1165	1	Arm
32.	G10693	4	Hex Socket Head Set Screw, $\frac{5}{16}$ "-18 x $\frac{3}{8}$ "
33.	G10003	4	Hex Head Cap Screw, $\frac{3}{8}$ "-16 x 1 $\frac{1}{2}$ "
	GR1122	4	Rubber Washer
	G10210	8	Washer, $\frac{3}{8}$ " USS
	G10229	4	Lock Washer, $\frac{3}{8}$ "
	G10101	4	Hex Nut, $\frac{3}{8}$ "-16
A.	GA6154	1	Piston Pump Complete Less Sprocket (Model L-4405), Includes: Crankcase Assembly (Items 2-33 On This Page) And Cylinder Assembly (Items 1-22 On Pages P140 And P141)

# LIQUID FERTILIZER PISTON PUMP (Cylinder Assembly)

(PT39a)

Model L-4405



# LIQUID FERTILIZER PISTON PUMP (Cylinder Assembly)

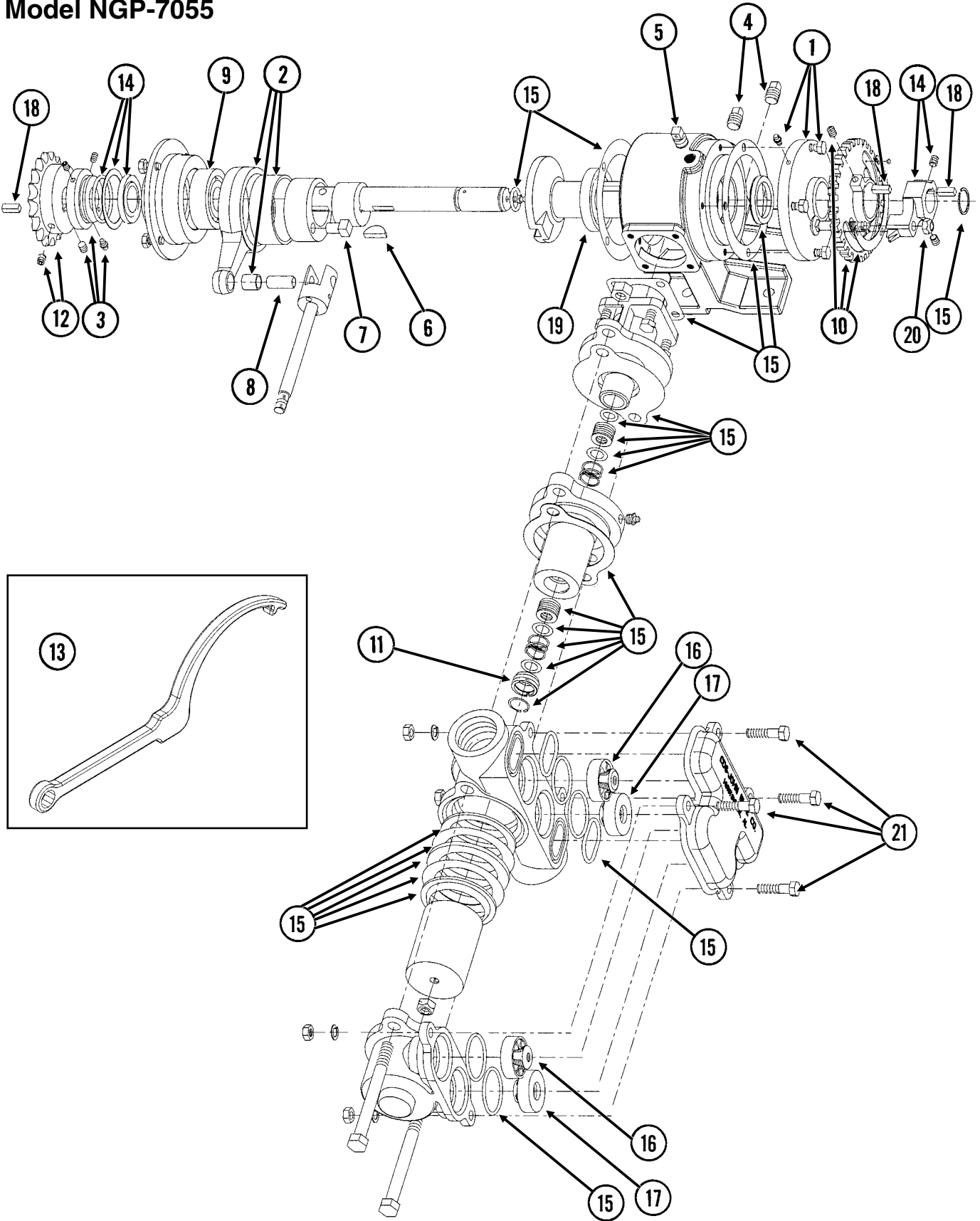
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ITEM	PART NO.	QTY.	DESCRIPTION
1.		-	See "Liquid Fertilizer Piston Pump (Crankcase Assembly)", Pages P138 And P139
2.	G10686	2	Hex Head Cap Screw, 3/8"-16 x 8"
	G10101	2	Hex Nut, 3/8"-16
3.	GR1145	1	Discharge Manifold
4.	GR1144	2	Discharge Valve
5.	GR1173	-	Repair Kit, Includes Item 6 On "Liquid Fertilizer Piston Pump (Crankcase Assembly)", Pages P138 And P139
6.	G10687	4	Hex Head Cap Screw, 3/8"-16 x 5 1/2"
	G10101	4	Hex Nut, 3/8"-16
7.	GR1143	1	Outboard Cylinder
8.	GR1142	2	Suction Valve
9.	GR1140	1	Suction Manifold
10.	G10019	4	Hex Head Cap Screw, 5/16"-18 x 1"
11.	GR1137	1	Flange Packing Washer
12.	GR1136	1	Plunger
13.	GR1135	1	Inboard Cylinder
14.	GR1134	1	Stuffing Box Insert
15.	GR1133	1	Retaining Ring
16.	GR1129	3	Washer
17.	GR1130	2	Packing Spring
18.	GR1132	1	Outboard Stuffing Box
19.	GR1127	1	Crosshead Guide
20.	GR1125	1	Piston Rod
21.	GR1124	1	Pin

# LIQUID FERTILIZER PISTON PUMP Uses 18 Tooth Sprocket

(A12335a/GR1808)

## Model NGP-7055



# LIQUID FERTILIZER PISTON PUMP

## Uses 18 Tooth Sprocket

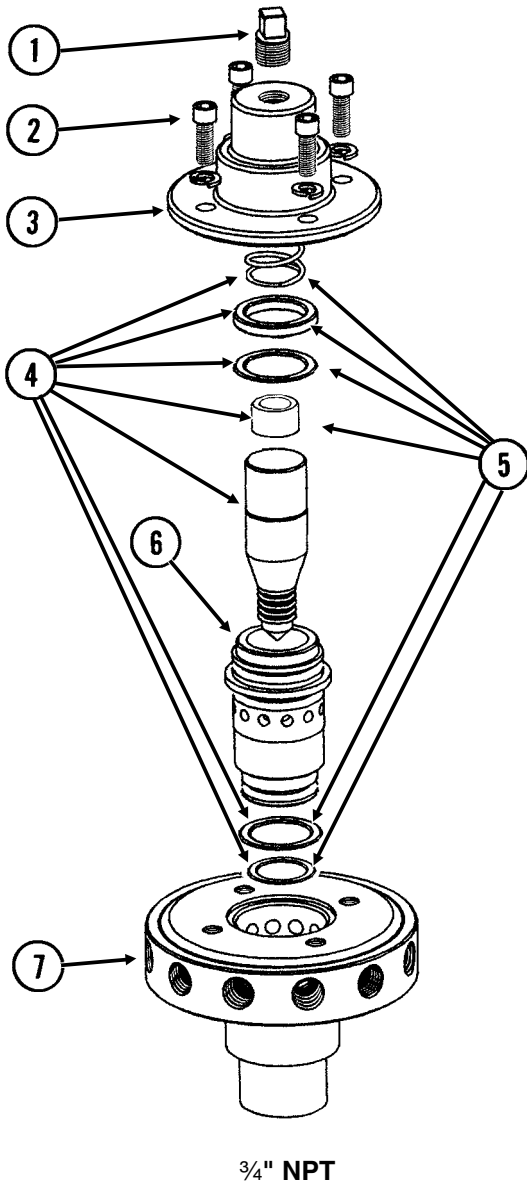
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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1804	1	Flange Cover Assembly
	G10991	4	Hex Head Cap Screw, 5/16"-18 x 7/8"
2.	GR1803	1	Connecting Rod Assembly
3.	GR1801	1	Spacer Assembly
	G10693	3	Hex Socket Head Set Screw, 5/16"-18 x 3/8"
4.	GR1123	2	Plug
5.	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 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)

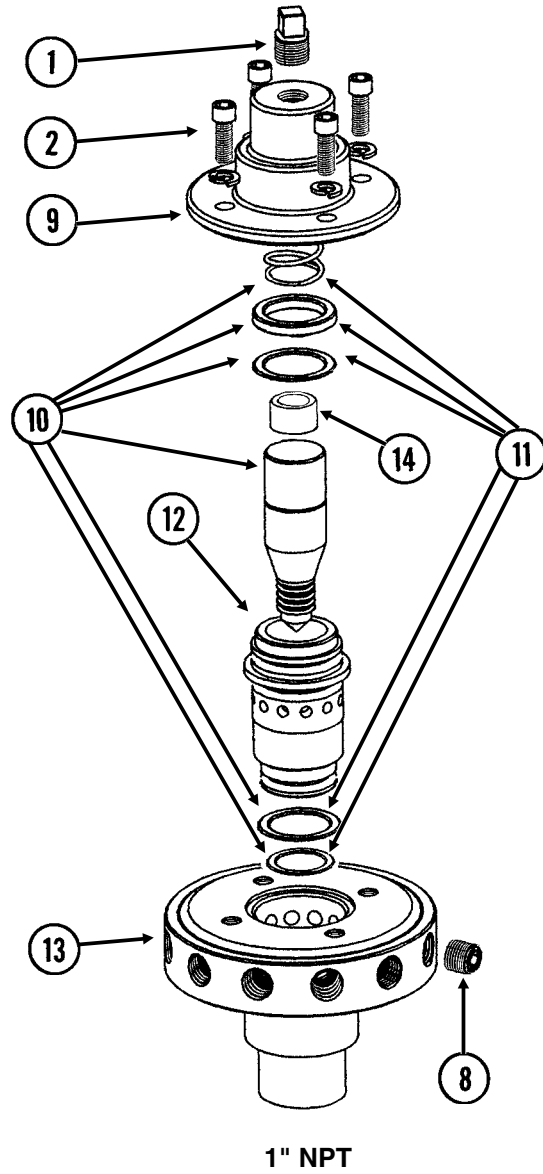
# LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

(FRTZ159/PT40a/FRTZ202c)

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



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



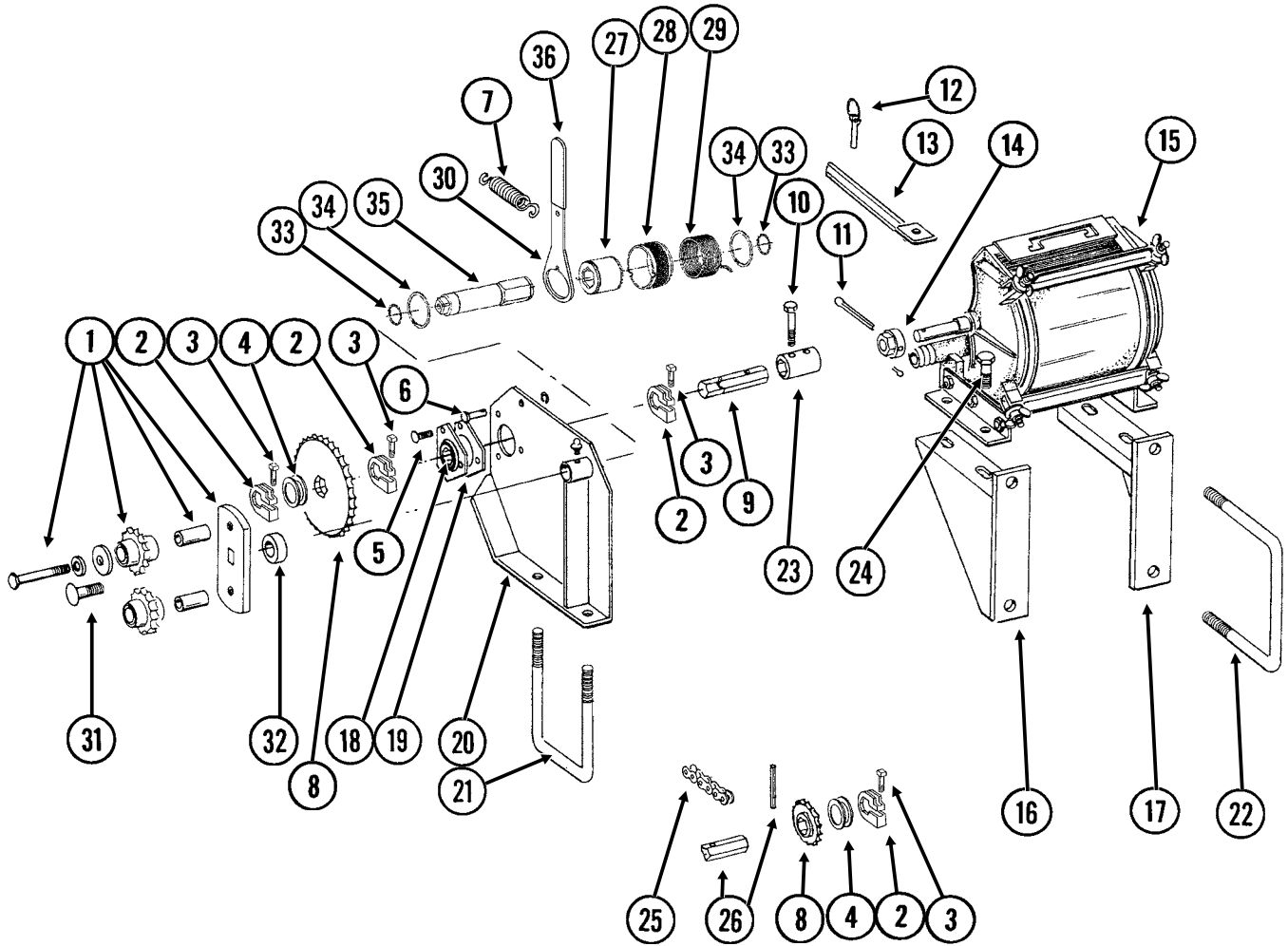
# LIQUID FERTILIZER PISTON PUMP FLOW DIVIDER

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ITEM	PART NO.	QTY.	DESCRIPTION
1.	GR1543	1	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 Outlet
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 Outlet
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

(TWL46e)



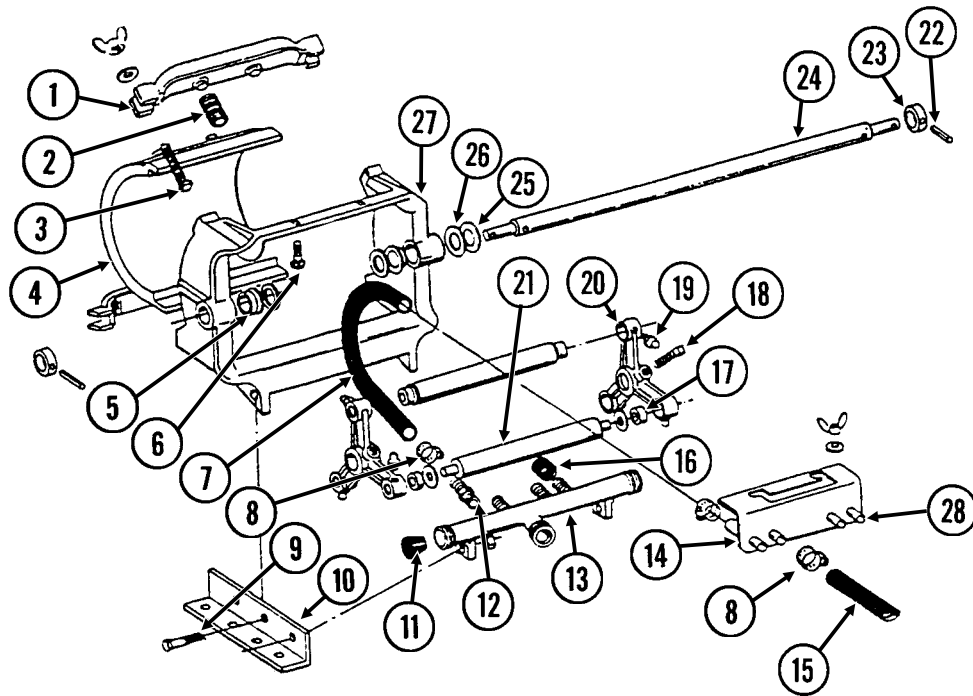
ITEM	PART NO.	QTY.	DESCRIPTION
1.	GA7336	1	Idler W/Bolt-On Sprockets
	GD7426	-	Sprocket, 12 Tooth
	GD1026	-	Sleeve, 1 3/16" Long
	G10210	-	Washer, 3/8" USS
	G10229	-	Lock Washer, 3/8"
	G10047	-	Hex Head Cap Screw, 3/8"-16 x 1 3/4"
	(Per Side)		
2.	GD11045	4	Lock Clamp
3.	G10130	4	Square Head Machine Bolt, 5/16"-18 x 1 3/4"
	G10923	4	Flange Nut, 5/16"-18, No Serration
4.	G10233	-	Machine Bushing, 1", 10 Gauge (As Required)
	G10303	3	Carriage Bolt, 5/16"-18 x 1"
5.	G10219	3	Washer, 5/16" USS
	G10232	3	Lock Washer, 5/16"
	G10106	3	Hex Nut, 5/16"-18
	G10478	1	Clevis Pin, 5/16" x 1"
6.	G10409	1	Retaining Ring, 5/16"
	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 P148-P151
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 P64 And P65
27.	GD14432	1	Sleeve, 1 1/4"
28.	GD14429	-	Release Collar, Silver, L.H. (Shown)
	GD14430	1	Release Collar, Gold, R.H.
29.	GD14414	1	Torsion Spring, R.H. (Used In L.H. Wrap Spring Wrench) (Shown)
	GD14413	-	Torsion Spring, L.H. (Used In R.H. Wrap Spring Wrench)
30.	GD14431	1	Handle
31.	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
32.	GD2734-08	1	Sleeve, 1 1/4" O.D. x 5/8" Long
33.	G11075	2	Internal 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

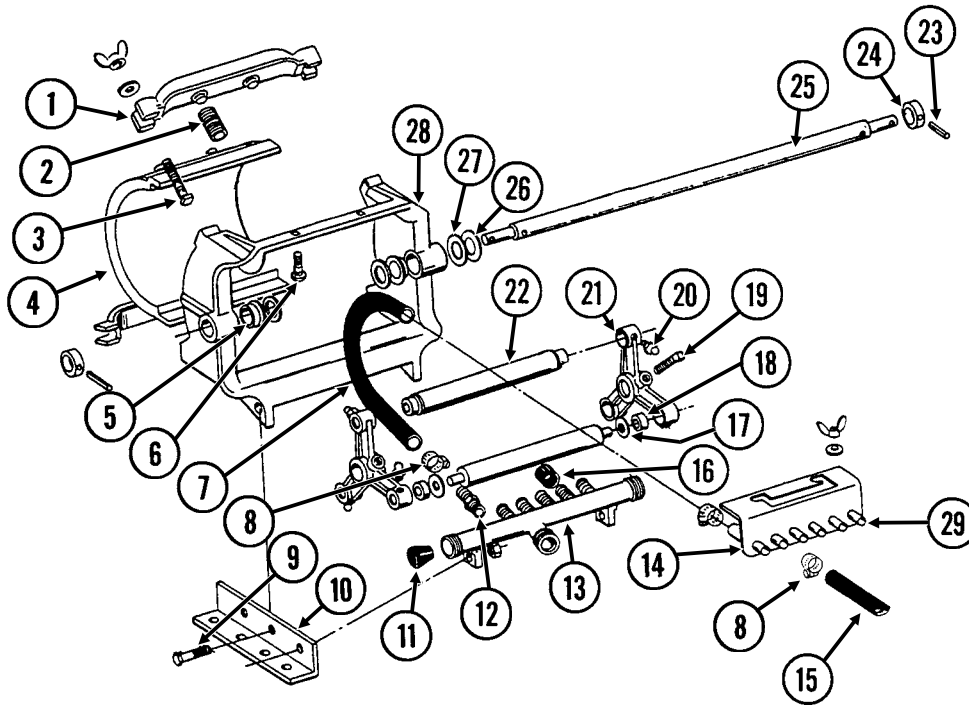
LFC011(PT46a)



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

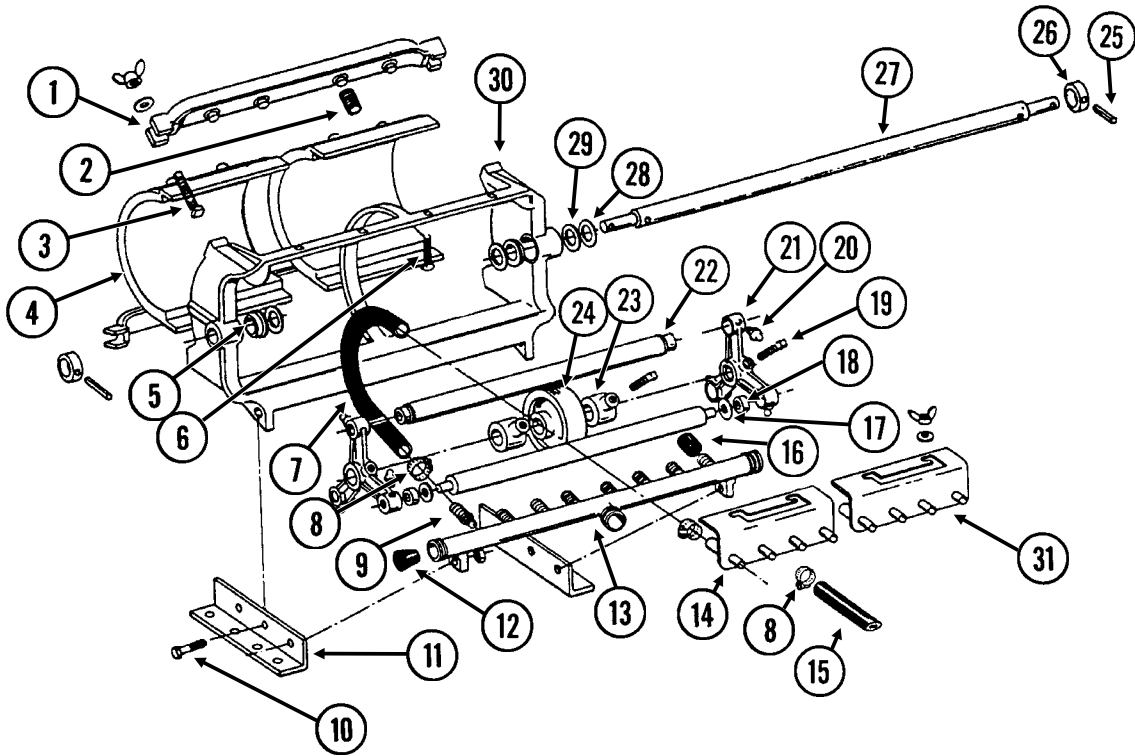
LFC011/LFC011(PT47a)



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)



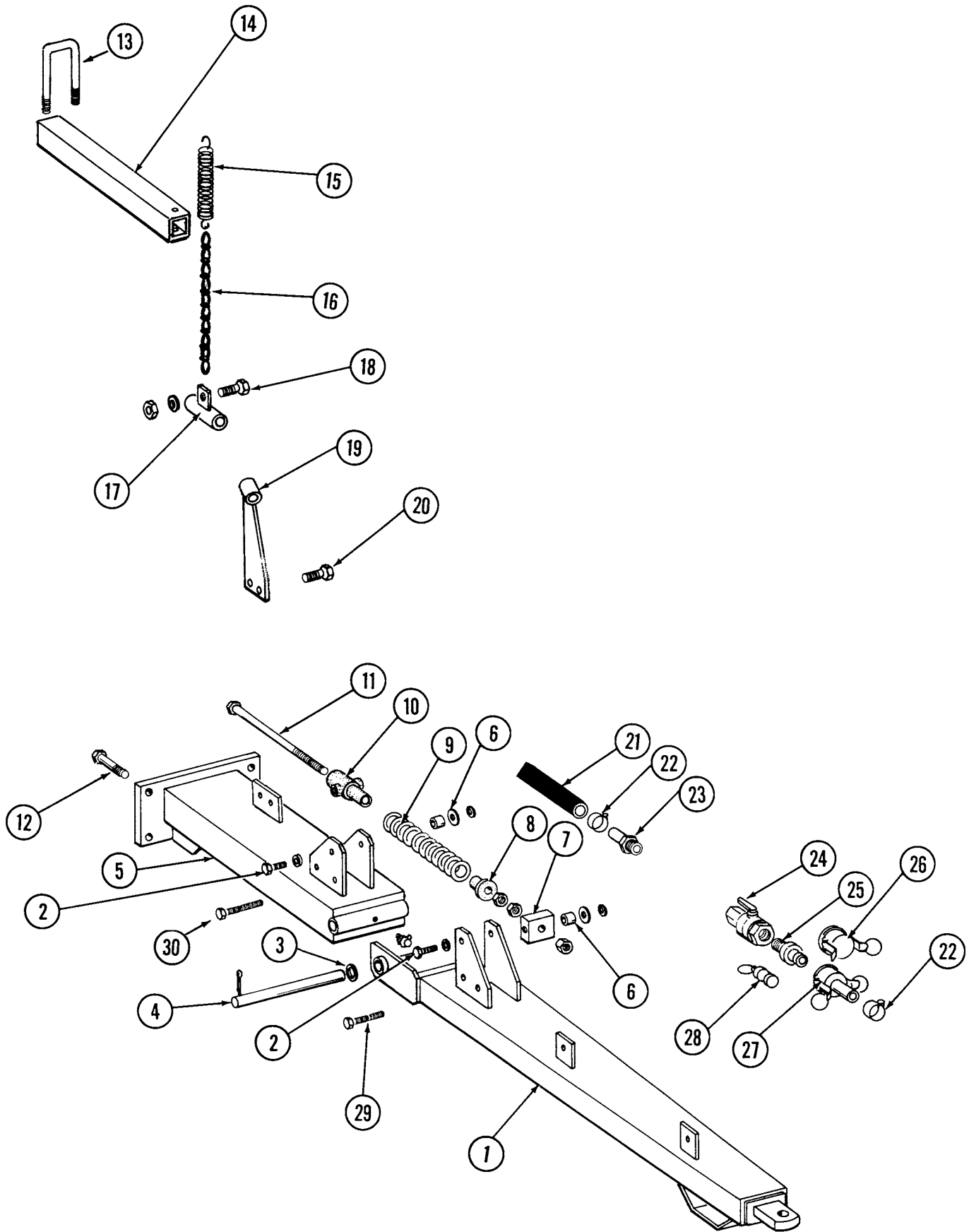
# LIQUID FERTILIZER SQUEEZE PUMP, 16 ROW SIZE

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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



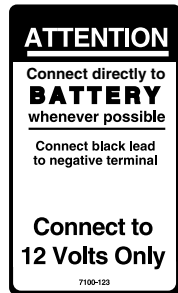
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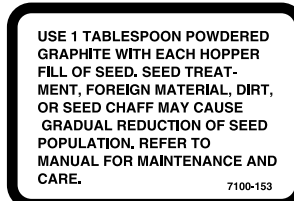
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6



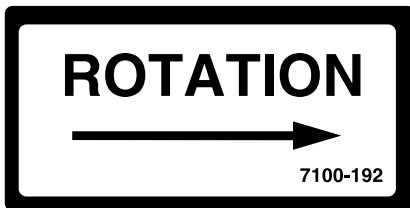
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8



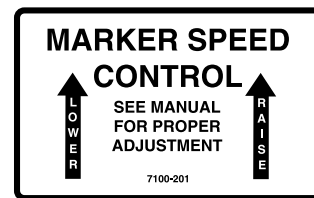
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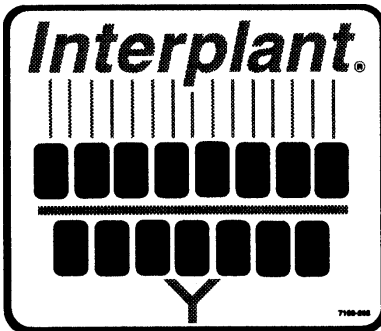
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11



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13

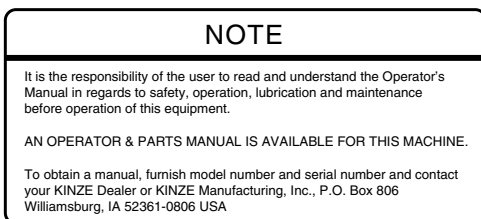
TRANSMISSION RATE REDUCTION		
DRIVE	DRIVEN	% REDUCTION IN POPULATION
15	30	50
17	30	43
23*	30	23
24	30	20
25*	30	17
26*	30	13
27	30	10

\* Use sprockets off seed drive transmission

14



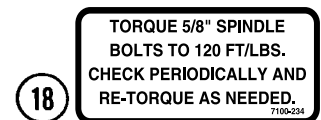
15



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

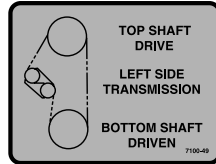
23

**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



7100-43

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.

7100-68

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

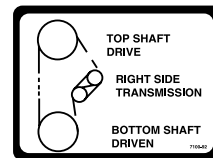
31

**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



7100-91

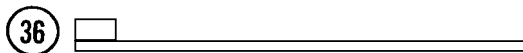
33

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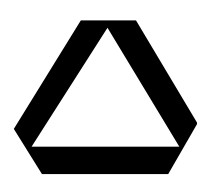
34



35



36



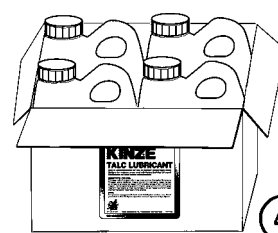
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39



40



41



42

# 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.	GM0195	-	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
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)
42.	G7100-258	-	Reflective Decal, Red, 1 ½" x 9", Rectangular (If Applicable)
	G7100-259	-	Reflective Decal, Amber, 1 ½" x 9", Rectangular (If Applicable)
	G7100-260	-	Reflective Decal, Orange, 1 ½" x 9", Rectangular (If Applicable)

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
*A1011	P95, P97	*A3128	P99	A8873	P81
*A1018	P99	*A3129	P95, P97	D13169	P82
*A1022	P95, P97	*A3131	P98	D13426	P82
*A1024	P95, P97	*A3133	P95, P97	G10001	P5, P10, P15, P16, P51, P52, P53, P104, P106, P109, P118
*A1028	P99	*A3141	P98	G10002	P23, P121
*A1031	P99	*A3152	P98	G10003	P3, P25, P35, P45, P139, P143
*A1032	P95, P97	*A3156	P95, P97	G10004	P5, P39, P45, P49, P65, P111, P113, P119, P147, P148, P149, P151, P153
*A1033	P98	*A3159	P95, P97	G10005	P37, P43, P62, P134
*A1034	P98	*A3163	P99	G10006	P15, P33, P40
*A1036	P99	*A3181	P98	G10007	P5, P10, P11, P17, P37, P43, P66, P118, P113, P135, P153
*A1039	P95, P97	*A3182	P95, P97	G10008	P77
*A1041	P95, P97	*A3183	P95, P97	G10009	P40, P79
*A1054	P99	*A3184	P95, P97	G10010	P13, P35, P37, P117, P125
*A1055	P98	*A3185	P98	G10011	P37, P55, P77, P121
*A1057	P99	*A3215	P95, P97	G10012	P79, P135
*A1072	P95, P97	*A3216	P95, P97	G10013	P16, P135
*A1075	P95, P97	*A8200	P95	G10014	P13, P37, P41, P45, P47
*A1076	P98, P99	*A8201	P95	G10015	P15
*A1087	P95, P97	*A8202	P95	G10016	P41, P111, P113, P119
*A1093	P98	*A8203	P95	G10017	P5, P29, P31, P41, P45, P47, P55, P61, P62, P63, P77, P79, P121, P127, P129, P135
*A1097	P99	*A8204	P95	G10018	P13, P15
*A1102	P95, P97	*A8205	P95	G10019	P9, P75, P115, P135, P139, P141
*A1103	P95, P97	*A8206	P95	G10020	P20
*A1105	P95, P97	*A8207	P95	G10021	P9, P20
*A1106	P95, P97	*A8267	P98	G10022	P20, P61, P103, P105
*A1114	P95, P97	A10759	P23	G10023	P23, P69, P71
*A1116	P95, P97	A6892	P53	G10025	P51
*A1119	P95, P97	A6893	P53	G10026	P41, P63, P135
*A1129	P95, P97	A6904	P53	G10027	P55
*A1139	P95, P97	A6905	P53	G10028	P57
*A1156	P95, P97	A7010	P41	G10033	P33, P53
*A1170	P95, P97	A7027	P53	G10036	P27, P61, P74
*A1181	P95, P97	A7028	P53	G10037	P5, P51, P59, P74, P126
*A1183	P95, P97	A7044	P41	G10038	P67
*A1404	P99	A7061	P41	G10039	P5, P29, P31, P37, P119
*A1417	P95	A7072	P41	G10043	P109
*A1424	P99	A7073	P41	G10045	P33, P115
*A1444	P97	A7088	P41	G10046	P37, P77, P115, P121
*A1447	P97	A7220	P80	G10047	P64, P74, P121, P126, P127, P146
*A1460	P98	A7393	P51	G10049	P57, P69, P79, P119, P127
*A1462	P95, P97	A7394	P51		
*A1463	P95, P97	A7426	P45		
*A1464	P95, P97	A7427	P45		
*A1466	P97	A7428	P45		
*A1467	P95, P97	A7429	P45		
*A1478	P95, P97	A7430	P47		
*A1489	P97	A7431	P47		
*A1491	P97	A7432	P47		
*A1492	P97	A7524	P87		
*A1494	P95, P97	A7833	P53		
*A3101	P99	A7834	P53		
*A3106	P98	A7835	P41		
*A3113	P95, P97	A7836	P41		
*A3118	P95, P97	A8797	P81		
*A3122	P99	A8822	P87		
*A3127	P98	A8869	P83		

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
G10053.....	P49, P51, P73	G10111.....	P5, P16, P27, P29,	G10219.....	P9, P15, P29,
G10054.....	P89, P139	.....	P31, P33, P37, P41,	.....	P121, P129, P146,
G10061.....	P18	.....	P45, P49, P53, P64,	.....	P148, P149, P151
G10062.....	P41	.....	P67, P77, P79,	G10220.....	P118
G10064.....	P16, P52, P53,	.....	P115, P119, P121,	G10221.....	P115
.....	P62, P73, P153	.....	P123, P126, P127	G10226.....	P41, P57, P63,
G10068.....	P79	G10112.....	P37, P41, P51	.....	P77, P79, P153
G10071.....	P5	G10118.....	P43	G10227.....	P9, P25, P53, P61,
G10085.....	P51	G10128.....	P62, P73	.....	P62, P65, P69, P71,
G10096.....	P133	G10130.....	P65, P110, P112, P146,	.....	P73, P74, P103,
G10100.....	P57, P119	.....	P148, P149, P151	.....	P105, P127, P147
G10101.....	P5, P10, P16, P17,	G10131.....	P45, P47, P64,	G10228.....	P5, P9, P13, P33,
.....	P25, P39, P45, P47,	.....	P148, P149, P151	... P41, P45, P47, P51, P55,	
.....	P49, P52, P53, P65,	G10133.....	P16, P33, P35, P37,	.....	P57, P59, P61,
.....	P69, P71, P88, P104,	.....	P89, P115, P123, P129	.....	P63, P74, P75, P77,
.....	P106, P107, P108,	G10144.....	P148, P149, P151	....	P79, P109, P111, P113,
.....	P109, P111, P113,	G10152.....	P15	.....	P115, P117, P121,
.....	P115, P119, P139,	G10157.....	P40, P41, P43	... P127, P129, P135, P153	
.....	P141, P143, P147,	G10159.....	P53, P77, P79	G10229.....	P5, P10, P16, P17,
.....	P148, P149, P151,	G10168.....	P67, P75, P111	.....	P23, P25, P35, P39,
.....	P153	G10169.....	P40, P43	.....	P45, P47, P49, P52,
G10102.....	P117, P121, P127,	G10171.....	P15, P129	.....	P53, P64, P65, P69,
.....	P129, P153	G10172.....	P49, P88, P153	.....	P71, P74, P83, P84,
G10103.....	P25, P53, P61, P62,	G10194.....	P35	.....	P85, P86, P88, P104,
.....	P69, P71, P73,	G10201.....	P3, P23, P39, P129	.....	P106, P107, P108,
.....	P103, P105	G10203.....	P5, P39, P49, P69, P123	.....	P109, P111, P113,
G10104.....	P5, P10, P17, P39,	G10204.....	P11, P13, P115, P125	.....	P115, P119, P126,
.....	P40, P41, P51, P52,	G10205.....	P37, P41, P51, P62,	.....	P127, P139, P143,
.....	P53, P61, P67, P74,	.....	P67, P77, P79,	.....	P146, P147, P153
.....	P77, P79, P111,	.....	P117, P118, P119,	G10230.....	P5, P10, P13, P16,
.....	P113, P115, P119,	.....	P135	.....	P17, P39, P40, P41,
.....	P121, P127, P129,	G10206.....	P5, P35, P51, P53,	.....	P43, P52, P53, P66,
.....	P133, P134, P135,	.....	P67, P77, P79,	.....	P77, P79, P111,
.....	P137, P139, P147	.....	P113, P121, P127	.....	P113, P115, P117,
G10105.....	P40, P51, P57, P63,	G10207.....	P3	.....	P119, P121, P127,
.....	P66, P118, P133,	G10208.....	P5	.....	P129, P113, P134,
.....	P135, P153	G10209.....	P9, P24, P25, P62,	.....	P135, P137,
G10106.....	P9, P15, P31, P49,	.....	P65, P73, P74,	.....	P147, P153
.....	P62, P65, P73, P89,	.....	P127, P147, P153	G10231.....	P40, P57, P63, P66,
....	P109, P129, P146, P147	G10210.....	P3, P15, P16, P17,	.....	P133, P135
G10107.....	P15, P16, P27, P31	.....	P18, P23, P39, P45,	G10232.....	P9, P15, P49, P62,
.....	, P37, P40, P49, P51,	.....	P49, P52, P64, P74,	.....	P65, P73, P89, P109,
.....	P55, P61, P62, P67,	.....	P111, P113, P115,	.....	P115, P121, P129,
.....	P74, P115, P121,	.....	P119, P121, P126,	.....	P135, P146, P147
.....	P123, P134, P135	.....	P127, P139, P143,	G10233.....	P61, P62, P65, P73,
G10108.....	P3, P5, P18, P23,	.....	P146, P147	.....	P110, P112, P125,
.....	P39, P41, P45, P49,	G10211.....	P101, P103, P105	.....	P127, P131, P146
.....	P53, P57, P61, P71,	G10213.....	P11, P35, P37, P115	G10234.....	P51
.....	P74, P79, P80, P118,	G10216.....	P5, P13, P29, P31,	G10235.....	P62, P65, P74
.....	P119, P121, P123,	.....	P39, P41, P45,	G10237.....	P57, P119
.....	P127, P139, P143,	.....	P47, P55,	G10243.....	P105, P107, P109
.....	P153	.....	P57, P61, P63,	G10253.....	P69
G10109.....	P13, P15, P16, P29,	.....	P74, P77, P79, P113,	G10257.....	P24, P69
.....	P33, P35, P37,	.....	P117, P119, P135	G10278.....	P132, P137
.....	P75, P115, P123	G10217.....	P43, P121, P135	G10284.....	P39
G10110.....	P25, P52, P153	G10218.....	P51, P133	G10292.....	P137

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
G10303.....	P15, P29, P62, P65, ..... P129, P146, P148, ..... P149, P151	G10460.....	P53, P57, P63, P77, ..... P79, P129, P131, ..... P134, P153	G10619.....	P133, P137
G10304.....	P3	G10462.....	P40, P45, P47, ..... P64, P126, P147	G10620.....	P3, P13, P18, P23, ..... P53, P117, P125
G10305.....	P26, P115	G10463.....	P15, P39, P77, P79	G10621.....	P18, P20, P23, P26
G10306.....	P25, P121, P123, P143	G10468.....	P45, P47	G10622.....	P11, P26, P133
G10307.....	P39	G10470.....	P20, P73	G10626.....	P133, P137, P153
G10308.....	P16, P26	G10478.....	P146	G10629.....	P137
G10309.....	P18	G10496.....	P65, P69, P71, P74, .... P111, P113, P127, P147	G10630.....	P133
G10310.....	P25	G10497.....	P69	G10633.....	P133
G10312.....	P3, P23, P53, P73	G10499.....	P115	G10634.....	P21
G10315.....	P15, P16, P25	G10500.....	P20	G10636.....	P57, P63
G10318.....	P31, P139	G10501.....	P33, P62, P73	G10640.....	P13, P43, P51, P59, ..... P66, P77, P79, P81, ..... P117, P119, P121, ..... P123, P127, P147, ..... P148, P149, P151
G10322.....	P77, P79, P119	G10503.....	P29, P31, P35, ..... P37, P115, P123	G10641.....	P45, P47, P77, P79, ..... P118, P129, P134
G10323.....	P20	G10504.....	P115	G10643.....	P37
G10325.....	P11, P23	G10507.....	P118	G10647.....	P57
G10326.....	P3	G10509.....	P80	G10655.....	P129
G10328.....	P11, P83, P84, ..... P85, P86	G10523.....	P25	G10660.....	P24
G10330.....	P59	G10526.....	P117	G10669.....	P3
G10336.....	P51	G10527.....	P64	G10670.....	P23, P129
G10338.....	P13, P18	G10529.....	P26	G10672.....	P129, P153
G10339.....	P147	G10531.....	P21	G10674.....	P133, P137
G10342.....	P133	G10535.....	P111, P113	G10676.....	P129, P133
G10345.....	P61	G10536.....	P29, P31, P77, P79	G10681.....	P115, P137, P148, ..... P149, P151
G10348.....	P33	G10542.....	P115	G10686.....	P107, P108, P141
G10350.....	P145	G10543.....	P51	G10687.....	P141
G10371.....	P33	G10544.....	P75	G10688.....	P64, P111, P113, P131, P139
G10374.....	P69, P71	G10546.....	P18, P24, P69, P73	G10689.....	P49, P55
G10389.....	P137	G10551.....	P3	G10690.....	P20
G10396.....	P153	G10560.....	P117	G10693.....	P139, P143
G10400.....	P37	G10567.....	P18, P23, P24	G10718.....	P39, P148, P149, P151
G10401.....	P20	G10570.....	P24	G10722.....	P75
G10404.....	P51	G10572.....	P31	G10724.....	P75
G10408.....	P73	G10574.....	P27, P33, P37	G10725.....	P75
G10409.....	P73	G10581.....	P49, P64, P67	G10732.....	P5, P10, P39
G10409.....	P146	G10583.....	P89	G10733.....	P137
G10412.....	P5, P10, P18, ..... P39, P111, P113	G10585.....	P29, P31, P45, P47	G10734.....	P137
G10419.....	P127	G10587.....	P129	G10735.....	P137
G10427.....	P11, P15	G10588.....	P129	G10743.....	P67
G10430.....	P62, P73	G10592.....	P119	G10751.....	P18, P39
G10436.....	P57	G10594.....	P119	G10752.....	P18, P111, P113
G10437.....	P57	G10595.....	P61, P74	G10756.....	P153
G10438.....	P3, P117	G10597.....	P29, P31	G10757.....	P25, P105, P107, P109
G10439.....	P53	G10599.....	P16, P17, P39, P119	G10758.....	P25, P105, P107, P109
G10441.....	P55	G10602.....	P18, P20, P21, P23, ..... P24, P61, P64, P67, ..... P73, P126, P131	G10765.....	P35, P37, P40, P69, P71
G10448.....	P59	G10603.....	P20, P21, P123	G10770.....	P82
G10449.....	P81	G10604.....	P20	G10779.....	P43, P55
G10450.....	P121	G10606.....	P53	G10801.....	P15, P16
G10451.....	P115	G10610.....	P41, P63, P117	G10802.....	P40, P57
G10452.....	P25	G10615.....	P137	G10804.....	P69, P71
G10453.....	P62	G10616.....	P133		
G10456.....	P39, P117				
G10457.....	P41				
G10459.....	P119				

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
G10808.....	P57	G11007.....	P3	G1K362 ....	P103, P105, P107, P109
G10810.....	P57	G11008.....	P3	G1K363 ....	P103, P105, P107, P109
G10811.....	P57	G11009.....	P20, P21	G1K364 .....	P105, P107
G10826.....	P153	G11010.....	P37	G1K378 .....	P127, P147
G10827.....	P87	G11015.....	P3	G1K379 .....	P127, P147
G10828.....	P51	G11016.....	P82	G1K380 .....	P65, P74
G10830.....	P123, P134	G11018.....	P5	G1K381 .....	P65, P74
G10844.....	P75	G11034.....	P123	G1K385 .....	P25
G10857.....	P73	G11042.....	P135	G1K395 .....	P7
G10859.....	P69, P71	G11053.....	P55	G1K396 .....	P7
G10860.....	P61, P64, P67	G11058.....	P41	G1K412 .....	P41
G10862.....	P119	G11065.....	P91, P109	G2100-03.....	P65, P73, P147
G10864.....	P25	G11066.....	P9, P89	G2403-10.....	P95
G10870.....	P61, P64, P67	G11067.....	P89	G2406-10-08 .....	P98
G10871.....	P121	G11068.....	P91	G2500-84.....	P135
G10872.....	P71	G11073.....	P24	G2603-08.....	P98
G10873.....	P71	G11075.....	P65, P74, P127, P147	G2700-08.....	P83, P84, P85,
G10874.....	P53	G11078.....	P65, P74, P127, P147	.....	P86, P95, P97
G10876.....	P71	G11081.....	P63	G2700-10.....	P95, P97, P98
G10887.....	P133, P137	G11083.....	P137	G306-08....	P57, P83, P84, P85, P86
G10888.....	P133	G11098.....	P35	G306-10.....	P57
G10889.....	P133	G11100.....	P65, P74, P127, P147	G3200-62.....	P135
G10890.....	P62	G11122.....	P135	G3200-63.....	P135
G10894.....	P45, P47	G11151.....	P21	G3303-114.....	P24
G10900.....	P69	G11159.....	P101	G3303-16.....	P3
G10902.....	P49	G11169.....	P45	G3303-96.....	P39
G10907.....	P80, P81	G11182.....	P133	G3303-98.....	P3
G10908.....	P123	G11202.....	P109	G3305-01.....	P26
G10912.....	P11, P39	G11209.....	P25	G3305-03.....	P153
G10913.....	P59	G11220.....	P5	G3310-100.....	P67, P73
G10917.....	P132, P137	G11223.....	P43	G3310-110.....	P62
G10918.....	P67	G11228.....	P35	G3310-118.....	P62
G10921.....	P24	G11236.....	P35	G3310-130.....	P127
G10923.....	P65, P110, P112, P146	G11237.....	P137	G3310-170.....	P147
G10924.....	P13	G11247.....	P9	G3310-226.....	P111, P113
G10927.....	P105, P107, P109	G1K215 .....	P117	G3310-74.....	P73
G10928.....	P105, P107, P109	G1K248 .....	P7, P101, P103,	G3310-80.....	P64
G10931.....	P105, P107, P109	.....	P105, P107, P109	G3310-88.....	P126
G10938.....	P115	G1K249 .....	P105, P107	G3400-01.....	P65, P73, P147
G10939.....	P80	G1K252 .....	P7, P101, P103,	G4200-01.....	P153
G10940.....	P13	.....	P105, P107, P109	G4200-03.....	P133
G10958.....	P80, P81	G1K267 .....	P7, P101, P103,	G4200-06.....	P133
G10961.....	P117, P125	.....	P105, P107	G4201-02.....	P133
G10962.....	P87	G1K268 .....	P7, P101, P103,	G4201-03.....	P133
G10968.....	P111, P113	.....	P105, P107	G4205-10.....	P137
G10969.....	P87	G1K269 .....	P65, P101, P113, P147	G4205-11.....	P132
G10972.....	P80, P83, P84,	G1K274 .....	P92	G4301-05.....	P137, P148, P149,
.....	P85, P86	G1K275 .....	P92	.....	P151
G10974.....	P35, P37	G1K296 .....	P13	G4301-06.....	P137, P149
G10977.....	P89	G1K320 .....	P7, P101, P105, P107	G6325X .....	P5, P10
G10979.....	P79	G1K321 .....	P7, P101, P105, P107	G6400-06.....	P91
G10990.....	P83, P84, P85, P86	G1K322 .....	P105, P107	G6400-06-08 .....	P95, P97
G10991.....	P121, P143	G1K323 .....	P104, P106	G6400-08.....	P88, P89, P91,
G10992.....	P9	G1K324 .....	P62	.....	P95, P97, P98
G10995.....	P137	G1K331 .....	P111, P113	G6400-08-04 .....	P83, P84, P85,
G10996.....	P69, P71, P92, P101	G1K345 .....	P16	.....	P86, P98

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
G6400-08-10	P89	G7633X	P101	GA11768	P79
G6400-10	P89, P91, P95	G7698X	P53	GA11769	P79
G6400-10-08	P88	GA0167	P75	GA11969	P39
G6400-L-08	P99	GA0237	P118	GA11971	P39
G6408-08	P89	GA0241	P134	GA11982	P5
G6408-10	P89	GA0243	P75	GA11988	P9
G6408-H04-O	P80	GA0245	P75	GA11989	P9
G6408-H06-O	P89, P91	GA0251	P135	GA11991	P9
G6500-06	P91	GA0252	P135	GA11992	P9
G6500-08	P99	GA0257	P75	GA11993	P9
G6502-06	P95, P97	GA0262	P135	GA11994	P9
G6801-06	P91	GA0312	P115	GA11995	P9
G6801-06-08	P95, P97	GA0328	P115	GA11997	P9
G6801-08	P91, P98	GA0378	P62	GA12102	P9
G6801-08-10	P89	GA0547	P135	GA12104	P9
G7100-02	P156	GA0810	P115	GA12108	P121
G7100-110	P156	GA0895	P63	GA12109	P121
G7100-111	P156	GA0898	P129	GA12163	P43
G7100-115	P156	GA0899	P75	GA12164	P43
G7100-116	P156	GA10036	P125	GA12165	P43
G7100-117	P156	GA10037	P125	GA12235	P35, P37
G7100-123	P156	GA10047	P121	GA12236	P33, P35, P37
G7100-153	P156	GA10048	P121	GA12256	P35
G7100-177	P156	GA10054	P69	GA12335	P143
G7100-192	P156	GA10137	P18	GA12358	P9
G7100-200	P156	GA10151	P18	GA12403	P107
G7100-201	P156	GA10155	P18	GA12404	P9
G7100-208	P156	GA10157	P3	GA12538	P109
G7100-214	P156	GA10161	P39	GA12557	P109
G7100-215	P156	GA10570	P103	GA12563	P109
G7100-217	P156	GA10575	P105	GA12626	P9
G7100-219	P156	GA10601	P103, P105	GA12641	P109
G7100-234	P156	GA10621	P134	GA12644	P7
G7100-245	P156	GA10622	P134	GA12645	P7
G7100-247	P156	GA10624	P134	GA12646	P7
G7100-249	P156	GA10894	P135	GA12674	P7
G7100-252	P156	GA10901	P103, P105, P107,	GA12684	P7
G7100-258	P156		P109	GA13169	P9
G7100-259	P156	GA10907	P135	GA1369	P115
G7100-260	P156	GA10908	P135	GA1676	P75
G7100-261	P156	GA10924	P101	GA1677	P75
G7100-262	P156	GA10940	P103, P105, P107,	GA1678	P75
G7100-263	P156		P109	GA1679	P75
G7100-295	P156	GA11039	P107	GA1720	P5, P10, P39
G7100-302	P156	GA11079	P43	GA2007	P18
G7100-42	P156	GA11082	P43	GA2012L	P11
G7100-46	P156	GA11083	P43	GA2012R	P11
G7100-49	P156	GA11200	P57	GA2014	P11, P15, P31, P33,
G7100-63	P156	GA11397	P121		P35, P37, P115, P123
G7100-68	P156	GA11398	P121	GA2018	P20
G7100-75	P156	GA11520	P27	GA2019	P20
G7100-83	P156	GA11568	P79	GA2020	P20
G7100-89	P156	GA11569	P79	GA2054	P15
G7100-90	P156	GA11590	P77	GA2068	P61
G7100-92	P156	GA11766	P77	GA2075	P25
G7566X	P17	GA11767	P77	GA2094	P26

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GA2148	P63	GA5165	P62	GA6597	P16
GA2180	P65, P110, P112	GA5192	P77	GA6608	P57
GA2528	P101	GA5194	P67	GA6618	P15
GA2559	P135	GA5202	P147	GA6619	P15
GA2612	P101	GA5229	P127, P147	GA6620	P15
GA2660	P133	GA5385	P101	GA6633	P21
GA2908	P63	GA5548	P65	GA6699	P100
GA3407	P92	GA5600	P104, P106, P109	GA6700	P100
GA3413	P92	GA5624	P126	GA6701	P101
GA3552	P62	GA5625	P27	GA6733	P15
GA3553	P62	GA5651	P5, P10	GA6741	P25
GA3584	P100	GA5654	P31, P33, P35, P37, P123	GA6792	P52
GA3893	P137	GA5667	P129	GA6801	P15
GA4286	P118	GA5671	P127	GA6832	P33
GA4287	P118	GA5672	P127	GA6833	P33
GA4293	P93	GA5698	P21	GA6834	P33
GA4353	P77	GA5699	P21	GA6838	P33
GA4376	P63	GA5715	P29, P31	GA6907	P25
GA4377	P63	GA5716	P59	GA6928	P51
GA4402	P41	GA5718	P31	GA6929	P51
GA4418	P41	GA5719	P29, P31	GA6943	P51
GA4444	P23	GA5786	P39	GA6960	P153
GA4611	P77	GA5787	P39	GA6961	P153
GA4617	P147	GA5794	P21	GA6964	P55
GA4618	P147	GA5795	P21	GA6966	P121
GA4619	P147	GA5796	P21	GA6975	P101
GA4620	P147	GA5834	P21	GA6977	P101
GA4630	P64	GA5842	P41	GA6978	P7, P101
GA4722	P59	GA5853	P75	GA7013	P49
GA4723	P59	GA5887	P118	GA7016	P40
GA4727	P59	GA5892	P29	GA7018	P53
GA4729	P59	GA5982	P21	GA7019	P53
GA4842	P41	GA6027	P21	GA7021	P49
GA4845	P41	GA6038	P21	GA7022	P40, P57
GA4877	P79	GA6108	P101	GA7029	P41
GA4878	P79	GA6109	P101	GA7042	P77
GA4976	P133, P153	GA6147	P105, P107, P109	GA7043	P79
GA4983	P79	GA6154	P139	GA7049	P49
GA4994	P40	GA6168	P21	GA7050	P49
GA4995	P40	GA6171	P13, P15, P16, P117, P125	GA7051	P65, P111, P113, P131
GA5105	P61, P73, P126, P147	GA6182	P21	GA7052	P65, P111, P112, P131
GA5106	P64, P73	GA6184	P21	GA7053	P65, P111, P112
GA5107	P64, P65, P111, P113, P126, P147	GA6187	P21	GA7057	P49
GA5108	P64, P73	GA6337	P126	GA7058	P49
GA5109	P64, P73, P127	GA6434	P16	GA7067	P55
GA5110	P64, P73	GA6436	P129	GA7074	P49
GA5111	P64, P73	GA6437	P129	GA7075	P49
GA5112	P64, P73	GA6478	P21	GA7077	P101
GA5113	P64, P67, P73	GA6497	P51	GA7083	P41
GA5114	P61, P126	GA6503	P129	GA7084	P41
GA5115	P126	GA6513	P147	GA7085	P41
GA5116	P127	GA6514	P147	GA7096	P55
GA5121	P55, P61	GA6515	P147	GA7098	P57
GA5130	P77	GA6527	P137	GA7108	P66
GA5164	P62			GA7110	P69
				GA7111	P69

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GA7116	P79	GA7975	P13	GA8865	P86
GA7118	P79	GA7976	P13	GA8866	P86
GA7120	P57	GA7997	P63	GA8867	P83
GA7129	P127	GA7998	P123	GA8870	P83
GA7130	P127	GA7999	P123	GA8871	P87
GA7133	P133	GA8022	P103, P105, P107, P109	GA8874	P81
GA7135	P115	GA8026	P104, P106	GA8877	P117, P125
GA7137	P69	GA8046	P103, P105, P107, P109	GA8893	P84
GA7146	P131	GA8047	P101, P103, P105, P107, P109	GA8895	P87
GA7154	P62, P67, P73, P111, P113	GA8062	P57	GA8898	P87
GA7208	P153	GA8063	P57	GA8899	P87
GA7209	P153	GA8070	P66	GA8904	P80
GA7221	P80	GA8071	P66	GA8908	P80
GA7239	P119	GA8092	P111, P113	GA8909	P81
GA7240	P119	GA8129A	P93	GA8930	P39
GA7255	P21	GA8129B	P93	GA8931	P145
GA7271	P35	GA8131	P49	GA8978	P84
GA7274	P71	GA8149	P80	GA8979	P85
GA7306	P73	GA8157	P81	GA8980	P86
GA7313	P74	GA8170	P77, P79	GA8981	P83
GA7317	P73	GA8305	P117	GA8983	P115, P119, P121
GA7319	P73	GA8306	P117	GA9088	P77, P79
GA7320	P73	GA8320	P81	GA9095	P89
GA7321	P73	GA8322	P16	GA9096	P100
GA7336	P64, P74, P126, P146	GA8324	P11	GA9097	P89
GA7372	P62	GA8326	P24	GA9098	P91
GA7390	P51	GA8328	P7	GA9105	P39
GA7396	P127	GA8329	P7	GA9112	P101
GA7399	P101	GA8343	P20	GA9113	P101
GA7412	P35	GA8364	P24	GA9131	P37
GA7423	P45, P47	GA8371	P23	GA9138	P111
GA7424	P45, P47	GA8393	P69, P71	GA9144	P105, P107
GA7433	P40	GA8483	P115	GA9195	P115
GA7434	P59, P63	GA8603	P27, P37, P121	GA9201	P101
GA7445	P35, P37, P123	GA8641	P27, P37	GA9202	P101
GA7446	P33, P35, P37, P123	GA8651	P39	GA9203	P101
GA7463	P71	GA8677	P63	GA9204	P101
GA7533	P41	GA8685	P115	GA9205	P82
GA7540	P55	GA8688	P119	GA9407	P145
GA7579	P51	GA8689	P119	GA9433	P121
GA7845	P133	GA8690	P148	GA9434	P121
GA7850	P103, P105, P107, P109	GA8691	P149	GA9437	P121
GA7851	P103, P105, P107, P109	GA8692	P151	GA9472	P125
GA7852	P103, P105, P107, P109	GA8729	P101	GA9479	P69, P71
GA7853	P103	GA8731	P101	GA9480	P69, P71
GA7854	P103, P105, P107	GA8734	P101	GA9481	P101
GA7855	P103, P105, P107	GA8735	P101	GA9482	P69, P71
GA7856	P7, P101, P103, P105, P107	GA8760	P35	GA9483	P69, P71
GA7857	P103, P105, P107	GA8845	P115	GA9489	P69, P71
GA7858	P104, P106	GA8857	P84	GA9490	P69
GA7859	P105, P107, P109	GA8858	P84	GA9544	P59
GA7862	P101	GA8859	P85	GA9545	P59
GA7863	P101	GA8861	P85	GA9553	P62
GA7949	P13	GA8862	P85	GA9554	P62
		GA8863	P86	GA9557	P67
				GA9558	P67

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GA9559	P82	GB0274	P3	GD0914-44	P65
GA9565	P121	GB0276	P13	GD0914-45	P65
GA9571	P71	GB0278	P18, P24	GD0914-48	P110, P112
GA9572	P71	GB0282	P16	GD0914-49	P110, P112
GA9689	P101	GB0285	P3	GD0914-53	P65
GA9714	P19	GB0287	P64	GD0914-55	P110, P112
GA9821	P121	GB0292	P41	GD0914-58.5	P65
GA9822	P121	GB0296	P121	GD0914-66	P110, P112
GA9836	P40	GB0297	P121	GD0914-84	P110, P112
GA9837	P40	GB0301	P11, P39	GD0914-90	P110, P112
GA9840	P53	GB0309	P53	GD0962	P115
GA9843	P62	GB0314	P18, P39	GD10006	P51
GA9844	P37	GB0322	P121	GD10007	P67
GA9845	P37	GB0323	P121	GD10011	P55
GA9846	P62	GB0331	P18	GD10012	P55
GA9857	P105	GB0366	P5, P10	GD10013	P55
GA9861	P37	GB0383	P35	GD10014	P55
GA9862	P37	GB0386	P37	GD10036	P5, P10
GA9864	P37	GB0387	P33, P35	GD10049	P53
GA9865	P37	GB0389	P5	GD10053	P51
GA9882	P57	GB0390	P5	GD10057-01	P156
GA9883	P57	GB0391	P5	GD10057-02	P156
GA9905	P132	GB0392	P5	GD10057-03	P156
GA9918	P73	GB0393	P5	GD10057-04	P156
GA9963	P7	GB0394	P5	GD10063	P55
GA9964	P7	GB0395	P5	GD10064	P57
GA9978	P103, P105, P107, P109	GB0396	P5	GD10068	P69, P71
GA9979	P103, P105, P107, P109	GB0397	P5	GD10069	P69, P71
GB0110	P20	GB0398	P5	GD10070	P69
GB0111	P20	GB0400	P121	GD10071	P69
GB0115	P24	GB0401	P35	GD10092	P57
GB0116	P24	GB0405	P121	GD10099	P62
GB0120	P20	GB0409	P51	GD10100	P64
GB0134	P115	GD0453-03	P79	GD10102	P69
GB0186	P10	GD0453-04	P77	GD10103	P69, P71
GB0196	P135	GD0453-07	P77	GD10104	P69
GB0198	P129	GD0453-08	P77	GD10109	P131
GB0199	P129	GD0453-09	P79	GD10110	P133
GB0200	P129	GD0487	P115	GD10119	P127
GB0205	P118	GD0652	P77, P79	GD10120	P71
GB0206	P119, P153	GD0737	P79	GD10123	P69, P71
GB0209	P119	GD0746	P75	GD10126	P131
GB0210	P119	GD0752-41	P77	GD10128	P63
GB0212	P117	GD0829	P153	GD10144	P63
GB0213	P118, P153	GD0831	P135	GD10196	P153
GB0218	P5, P10, P18, P37, P39, P40, P49, P62, P118, P134, P153	GD0840	P75	GD10207	P87
GB0237	P40	GD0844	P135	GD10211	P80
GB0239	P15, P16	GD0914-106.5	P65	GD10226	P20
GB0246	P45, P47	GD0914-108	P110, P112	GD10231	P57
GB0254	P16	GD0914-124	P110, P112	GD10242	P119
GB0265	P3	GD0914-134.5	P65	GD10243	P101
GB0266	P3	GD0914-138	P110, P112	GD1026	P3, P23, P39, P64, P74, P121, P126, P127, P146
GB0267	P3	GD0914-166.75	P65	GD10273	P119
GB0268	P15, P16	GD0914-24	P110, P112	GD10282	P71
		GD0914-33	P110, P112		
		GD0914-35	P65		

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GD10283	P75	GD10867	P39	GD11447	P39
GD10295	P49	GD10936	P80	GD1145	P26
GD10298	P61	GD10963	P25	GD11453	P13
GD10303	P119	GD10984	P25	GD11474	P105, P107, P109
GD10304	P119	GD10991	P13	GD11490	P63
GD1033	P3	GD10993	P3	GD11508	P17
GD10355	P73	GD11001	P3	GD11509	P17
GD10356	P73	GD11017	P11	GD11528	P20
GD10366	P73	GD1104	P118	GD11557	P121
GD1039	P20	GD11045	P65, P110, P112, P146	GD11558	P121
GD1041	P20	GD11089	P101, P103, P105, P107, P109	GD1162	P156
GD1042	P20	GD1109	P15, P16	GD11649	P39
GD10446	P55	GD11120	P69, P71	GD11652	P27, P37
GD10447	P55	GD11122	P21	GD1166	P134
GD10473	P11, P15	GD1113	P5, P10, P39, P52, P111, P113, P115, P119, P121, P133, P137, P147	GD11677	P27
GD10487	P119	GD1115L	P25	GD11695	P63
GD10492	P51	GD1115R	P25	GD11700	P137
GD10510	P69, P71	GD1116	P25	GD11705	P115
GD10519	P35, P37	GD11169	P105, P107	GD11721	P109
GD10526	P35	GD11170	P105, P107	GD11747	P19
GD10530	P45, P47	GD11178	P123	GD11787	P20
GD10531	P51	GD1118	P25	GD11791	P79
GD10532	P51	GD11188	P123	GD11836	P123
GD10538-01	P45, P47	GD11193	P80, P81	GD11845	P3, P11, P15
GD10543	P61, P69, P73	GD11194	P81	GD11951	P80
GD10552	P33, P35, P37, P123	GD11218	P39	GD11953	P117, P125
GD10578	P71	GD11219	P23	GD11954	P117, P125
GD10579	P71	GD11239	P18, P23, P24	GD11962	P3, P23, P39
GD10584	P71	GD11240	P24	GD11963-04	P5
GD10585	P71	GD11253	P80, P81	GD11970	P83, P84, P85, P86
GD10586	P71	GD11259	P3, P11	GD11972	P111, P113
GD10587	P71	GD11263	P39	GD11973	P111, P113
GD10588	P71	GD11264	P39	GD11983	P87
GD1059L	P23	GD11265	P123	GD11984	P83, P84, P85, P86
GD1059R	P23	GD11266	P123	GD11985	P87
GD1060	P23	GD11279	P19	GD11986	P87
GD1061	P24	GD11286	P20	GD11988	P80
GD1063	P24	GD11297	P24	GD11991	P80
GD10635	P71	GD11305	P23	GD11992	P80
GD10636	P71	GD11306	P11, P115	GD11993	P103, P105, P107, P109
GD10638	P71	GD11311	P20	GD11994	P81
GD10646	P41	GD11313	P17	GD11995	P81
GD1065	P3	GD1132	P31, P33, P35, P37, P115, P123	GD1200	P129
GD10650	P45	GD1134	P127, P129, P147	GD1207	P129
GD10664	P45	GD1138	P115	GD1209	P129
GD10706	P51	GD11413	P18, P24	GD1210	P129
GD10707	P51	GD11422	P5, P10, P13, P117, P125	GD1213	P129
GD10733	P20	GD11424	P23	GD12534	P33
GD10773	P131	GD1143	P26	GD12543	P57, P63
GD10777	P133	GD1144	P26	GD1255	P62, P73
GD10792	P77			GD1256	P62
GD10793	P79			GD12597	P83, P84, P85, P86
GD1083	P20			GD12676	P121
GD1085	P16			GD12677	P121
GD1086	P13			GD12679	P121
GD10867	P3				

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GD12684	P123	GD1512	P156	GD1908	P53
GD12685	P121	GD1514	P153	GD2115	P153
GD12703	P53	GD1515	P153	GD2117	P156
GD12724	P53	GD1516	P153	GD2161	P77
GD12726	P71, P100	GD1517	P153	GD2169	P55, P57
GD12817	P37	GD1520	P132	GD2199	P61, P156
GD12818	P91	GD15698	P20	GD2412	P129
GD12826	P37	GD15699	P21	GD2423	P25
GD12827	P37	GD15725	P43	GD2460	P26
GD12829	P37	GD15747	P18	GD2548-13.5	P131
GD13146	P89	GD15950	P53	GD2548-15.5	P131
GD13170	P82	GD15970	P3	GD2548-24.5	P131
GD13171	P82	GD16046	P101	GD2548-48	P147
GD13172	P82	GD16226	P43	GD2548-54	P147
GD13173	P82	GD16245	P3	GD2557	P41
GD13287	P121	GD16303	P43	GD2558	P41, P57, P61, P64, P74, P127, P135, P147
GD13309	P125	GD16315	P109	GD2589	P115
GD13310	P101	GD16316	P109	GD2597	P75
GD13328	P135	GD1657	P115	GD2681	P134
GD13348	P101	GD1673	P115	GD2721	P77, P79, P153
GD13359	P79	GD1701	P79	GD2734-08	P127, P147
GD13360	P77	GD17141	P9	GD2829	P101
GD13361	P3	GD17143	P9	GD2947	P25
GD1337	P133	GD17144	P9	GD2971-09	P41
GD13400	P82	GD17150-02	P9	GD2971-10	P23
GD13401	P63	GD17150-03	P9	GD2984	P156
GD13409	P59	GD17150-04	P9	GD3180-10	P127
GD13425	P82	GD17150-08	P9	GD3180-12	P15
GD13524-01	P69	GD17150-09	P9	GD3180-30	P5
GD13543	P45, P47	GD17150-10	P9	GD3214	P77
GD13544	P45, P47	GD17150-12	P9	GD3501	P41
GD13545	P45, P47	GD17154	P9	GD3537-11	P45, P47
GD13546	P45, P47	GD17156	P9	GD3537-12	P45, P47
GD13744	P135	GD1719	P111, P113	GD3537-17	P45, P47
GD1379	P129	GD17245	P43	GD3537-18	P45, P47
GD1380	P129	GD17298	P9	GD3547	P153
GD14170	P37	GD1747	P66, P133	GD3612	P3
GD14217	P10	GD1755	P21	GD3622	P133
GD14258	P7	GD17794	P5	GD3623	P133
GD14398	P27	GD18010	P9	GD3790	P129
GD14413	P65, P74, P127, P147	GD18011	P9	GD3860	P101
GD14414	P65, P74, P127, P147	GD18013	P109	GD3951	P133
GD14417	P111	GD18066	P113	GD4086	P95, P97
GD14426	P65, P74	GD18067	P113	GD4108	P53
GD14427	P127, P147	GD18073	P39	GD4700	P62
GD14429	P65, P74, P127, P147	GD18074	P39	GD4701	P62
GD14430	P65, P74, P127, P147	GD18078	P9	GD4743	P9, P77, P79
GD14431	P65, P74, P127, P147	GD18081	P9	GD4887-14	P64
GD14432	P65, P74, P127, P147	GD18094	P113	GD5154	P41, P45, P47
GD14512	P69	GD18112	P9	GD5173	P40, P45, P47
GD14513	P69, P71	GD18118	P107, P108	GD5212	P62, P64
GD14562	P43	GD18119	P9	GD5789	P62
GD14659	P25	GD18168	P107, P108	GD5790	P62
GD14660	P7	GD18274	P9	GD5804	P41, P45, P47
GD14674	P29, P31, P35	GD18275	P7	GD5841	P63
GD15100	P43	GD1862	P133		

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GD5857	P33, P40, P61, P64, P67, P73, P105, P107, P127, P146	GD7911	P117	GD9870	P51
GD5875	P53	GD7912	P119	GD9896	P101
GD5886	P131	GD7962	P118, P123	GD9898	P51
GD5892	P41	GD8066-02	P89	GD9905	P91
GD6136	P53	GD8188	P41, P45, P49, P51	GD9952	P49
GD6291	P101, P104, P106, P109	GD8189	P41, P45, P49, P51	GD9953	P41
GD6501	P20	GD8218	P117	GD9955	P53
GD6553	P118	GD8224	P119	GD9956	P53
GD6556	P41	GD8237	P21	GD9959	P41, P45, P47
GD6775	P62	GD8238	P118	GD9960	P41
GD6780	P64	GD8239	P119	GD9963	P53
GD6895	P62	GD8247	P118	GD9964	P53
GD6924	P147	GD8249	P10	GD9968	P51
GD7079	P59	GD8260	P40	GD9969	P61
GD7089	P59	GD8266	P29	GD9971	P88
GD7127	P64, P126, P147	GD8276	P57, P119	GD9977	P89
GD7137	P41	GD8306	P111, P113	GD9981	P77, P79
GD7147	P83, P84, P85, P86	GD8307	P31	GM0195	P156
GD7148	P24	GD8308	P117	GR0146	P156
GD7209	P79	GD8460	P16	GR0146MPP	P156
GD7251	P41	GD8722	P129	GR0150	P75
GD7258	P24	GD8739	P100	GR0151	P75
GD7318	P3	GD8740	P100	GR0155	P156
GD7426	P64, P74, P126, P127, P146	GD8741	P100	GR0155MPP	P156
GD7518	P41	GD8751	P104, P106, P109	GR0188	P118
GD7519	P41	GD8770	P104, P106, P109	GR0190	P135
GD7612	P65	GD8771	P104, P106, P109	GR0193	P55
GD7639	P103, P105	GD8778	P21	GR0195	P135
GD7803	P27, P137	GD8893-01	P39	GR0196	P3, P24, P39
GD7804	P27, P137	GD9107	P148, P149	GR0200	P135
GD7805	P5, P10, P16, P18, P31, P39, P40, P49, P51, P62, P77, P79, P111, P113, P123, P125, P134, P135, P153	GD9108	P151	GR0204	P135
GD7817-01	P31	GD9109	P148, P149, P151	GR0207	P148, P149, P151
GD7817-04	P31, P123	GD9120	P16	GR0208	P148, P149
GD7817-05	P135	GD9130	P55	GR0209	P148
GD7823	P31	GD9131	P129	GR0211	P148, P149, P151
GD7831	P135	GD9132	P129	GR0212	P148, P149, P151
GD7848	P129	GD9229	P111	GR0213	P148, P149
GD7864	P59	GD9254	P27, P37	GR0214	P148, P149, P151
GD7866	P126	GD9290	P15	GR0215	P148, P149, P151
GD7867	P131	GD9305	P15	GR0216	P148, P149
GD7878	P21	GD9529	P71, P92, P100	GR0217	P148, P149, P151
GD7883	P45, P47	GD9530	P71, P92, P100	GR0221	P151
GD7889	P29, P31, P67	GD9533	P89	GR0222	P151
GD7890	P29, P31	GD9562	P15	GR0223	P148
GD7900	P118	GD9636	P55	GR0225	P148, P149, P151
GD7904-02	P51, P119	GD9667	P69	GR0226	P148, P149, P151
GD7907	P119, P153	GD9671	P69, P71	GR0227	P148
GD7908	P118, P153	GD9672	P69, P71	GR0228	P148, P149
		GD9681	P52	GR0229	P149, P151
		GD9695	P39	GR0231	P149, P151
		GD9705	P117	GR0232	P148, P149, P151
		GD9706	P117	GR0233	P149
		GD9709	P117	GR0267	P135
		GD9715	P33	GR0270	P63
		GD9720	P33	GR0279	P151
		GD9724	P33, P35, P37, P123	GR0280	P151

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GR0281	P151	GR1130	P141	GR1408	P111, P113
GR0282	P151	GR1132	P141	GR1409	P111, P113
GR0283	P151	GR1133	P141	GR1410	P111, P113
GR0284	P151	GR1134	P141, P143	GR1411	P111, P113
GR0375	P55	GR1135	P141	GR1412	P111, P113
GR0434	P63	GR1136	P141	GR1413	P111, P113
GR0508	P132	GR1137	P141	GR1414	P105, P107, P108
GR0513	P132	GR1140	P141	GR1415	P105, P107, P108
GR0515	P40	GR1142	P141	GR1417	P81
GR0516	P40	GR1143	P141	GR1428	P80
GR0517	P40	GR1144	P141	GR1465	P80, P83, P84, P85, P86, P98
GR0528	P59	GR1145	P141	GR1466	P89, P91, P95
GR0531	P59	GR1146	P135, P143	GR1484	P148, P149
GR0586	P105, P107	GR1147	P139	GR1485	P151
GR0594	P103, P105, P107, P109	GR1148	P139	GR1487	P20
GR0761	P92	GR1165	P139	GR1513	P93
GR0763	P92	GR1166	P139	GR1514	P93
GR0764	P92, P93	GR1167	P139	GR1515	P93
GR0880	P137	GR1168	P139	GR1519	P83, P84, P85, P86
GR0881	P137	GR1173	P139, P141	GR1521	P87
GR0882	P137	GR1203	P100	GR1522	P87
GR0883	P137	GR1204	P100, P101	GR1523	P81
GR0912	P62, P64, P67, P73, P111, P113, P126, P127, P147	GR1205	P100	GR1524	P80
GR1015	P133, P153	GR1206	P100, P101	GR1533	P145
GR1016	P133, P153	GR1207	P100, P101	GR1535	P145
GR1017	P133, P153	GR1208	P100, P101	GR1540	P145
GR1018	P133, P153	GR1290	P101	GR1541	P145
GR1019	P133, P153	GR1292	P7, P101	GR1542	P145
GR1037	P88, P89, P91, P95, P97, P98, P99	GR1293	P65, P111, P112, P113, P131	GR1543	P143, P145
GR1045	P89, P91	GR1294	P65, P111, P112, P113, P131	GR1544	P145
GR1100	P139	GR1295	P65, P111, P113, P131	GR1545	P145
GR1102	P139	GR1296	P65, P111, P113, P131	GR1557	P65, P111, P112, P113, P131
GR1104	P139, P143	GR1297	P65, P111, P112, P131	GR1559	P145
GR1105	P139	GR1298	P65, P111, P112	GR1561	P145
GR1106	P139	GR1299	P131	GR1566	P145
GR1107	P139	GR1301	P65, P111, P113, P131	GR1567	P145
GR1108	P139	GR1303	P69, P71	GR1568	P145
GR1109	P139	GR1304	P69, P71	GR1569	P20
GR1110	P139	GR1305	P69, P71	GR1570MPP	P156
GR1111	P139	GR1306	P69, P71	GR1574	P145
GR1112	P139, P143	GR1327	P20	GR1577	P148, P149, P151
GR1114	P139	GR1363	P7, P101	GR1598	P82
GR1116	P139, P143	GR1364	P101	GR1626	P149, P151
GR1118	P139, P143	GR1390	P103	GR1629	P103, P105, P107, P109
GR1119	P139	GR1391	P105	GR1631	P105
GR1120	P139, P143	GR1392	P103	GR1632	P105
GR1122	P139	GR1393	P105	GR1635	P89, P91
GR1123	P139, P143	GR1397	P132	GR1678	P132
GR1124	P141, P143	GR1402	P93	GR1762	P107
GR1125	P141	GR1403	P93	GR1764	P107
GR1127	P141	GR1404	P93	GR1778	P9
GR1129	P141	GR1405	P111, P113	GR1796	P143
		GR1406	P111, P113	GR1798	P143
		GR1407	P111, P113	GR1800	P143

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page
GR1801 .....	P143				
GR1803 .....	P143				
GR1804 .....	P143				
GR1805 .....	P143				
GR1806 .....	P143				
GR1808 .....	P143				
GR1809 .....	P9				
GR1843 .....	P9				

# NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page