

REPLACEMENT PARTS SECTION

Depending on what replacement parts you are ordering
the following information will be needed:

CHIPPER COMPONENTS

Serial Number
Model Number of Chipper

ENGINE COMPONENTS

Brand
Engine Serial Number
Engine Spec. Number

CLUTCH COMPONENTS

Brand
Serial Number
Assembly Number of Clutch

NOTICE

When ordering any replacement parts you should have the serial number (S/N) and model of the machine to ensure that you receive the correct replacement part. See page 6 for typical serial number & work order number locations.

NOTICE

All nuts, bolts, washers, and many other components can be ordered by physical description.

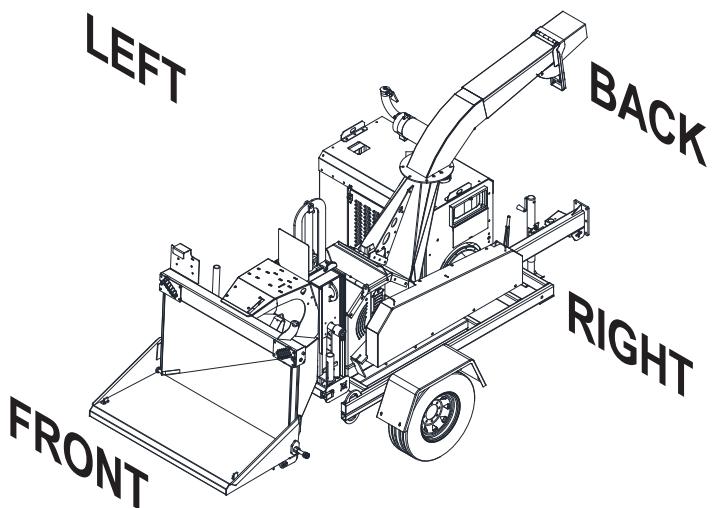
NOTICE

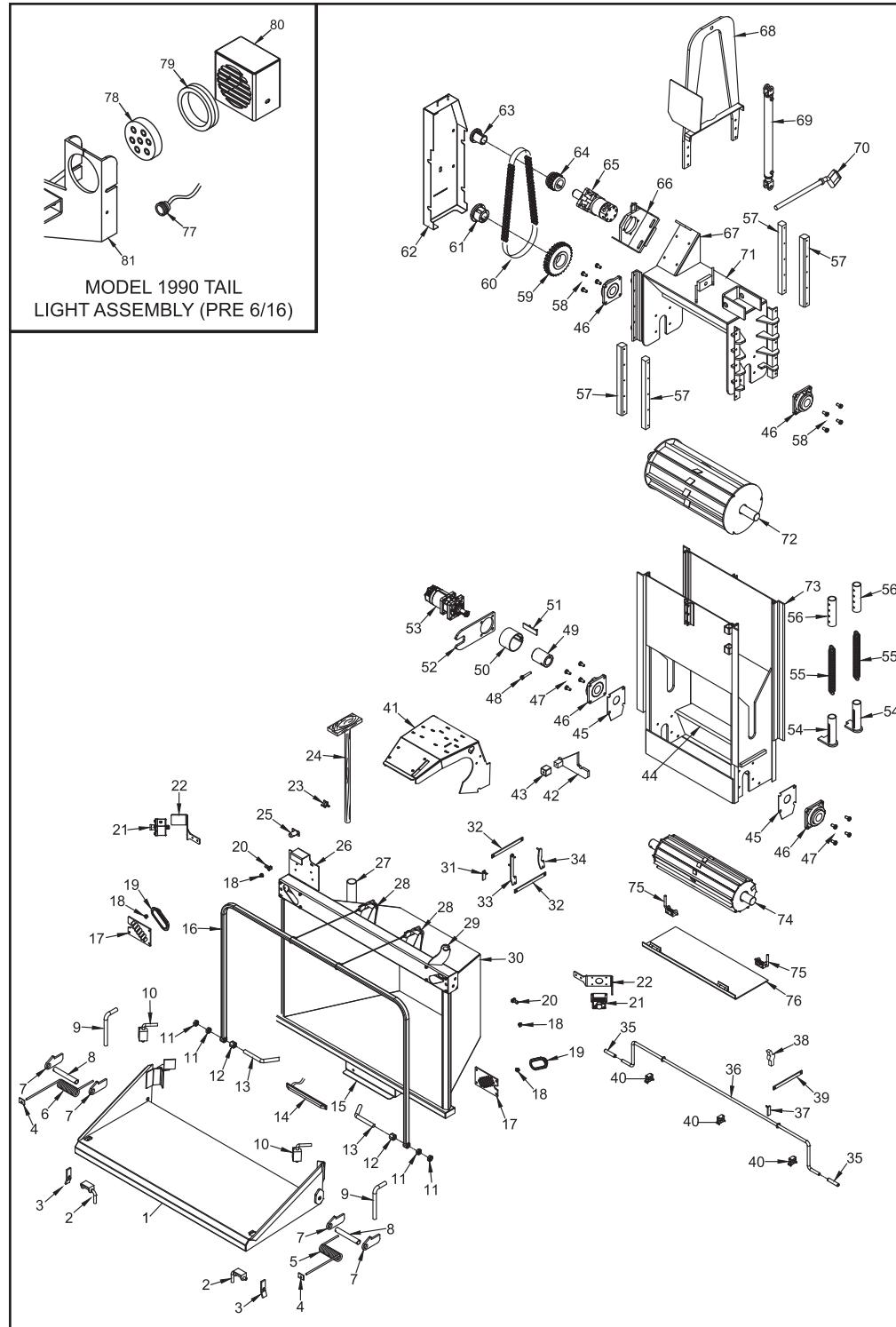
Some of the components shown in this section are for optional equipment and may not apply to every machine.

NOTICE

Bandit Industries Inc. reserves the right to make changes in models, size, design, installations and applications on any part without notification.

MACHINE ORIENTATION REFERENCE



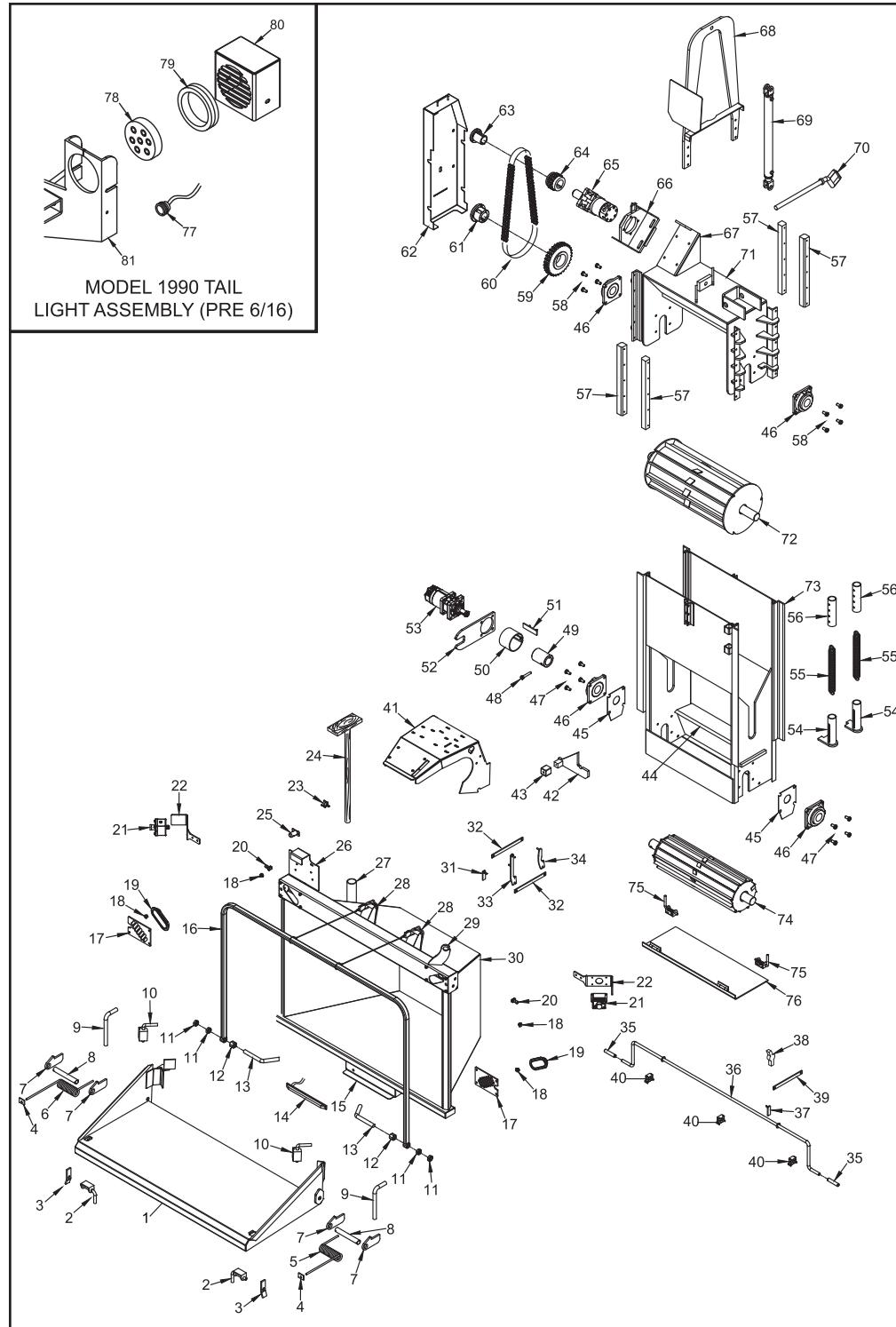


NOTICE Parts may not be exactly as shown.

LOCATION	PART NUMBER	DESCRIPTION
1. a.	955-1019-26	Folding Tray for Infeed Hopper Assembly (Includes 1 - 7 & 9)
b.	955-200022	Folding Tray for Infeed Hopper
c.	955-0501-15	Weld-On Tray for Infeed Hopper
2. a.	900-4904-90	Folding Tray Spring Lock - 3/4" Diameter Pin
b.	900-7900-96	Rubber Cap for Spring Lock - 3/4" Diameter (Not Shown)
3. a.	911-3004-83	Folding Tray Lock Tab for 3/4" Diameter Pin (Start 4/14)
b.	980-300302	Folding Tray Lock Tab for 3/4" Diameter Pin (Pre 4/14)
4.	980-0133-34	Top Spring Block (Specify Length 1 1/2" or 2 1/2")
5. a.	900-4917-77	Right Spring for Spring Assist (Start 12/14)
b.	900-4905-40	Right Spring for Spring Assist (Pre 12/14)
c.	911-100003	Spring Assist Kit (Includes 3 - 7)
6. a.	900-4917-76	Left Spring for Spring Assist (Start 12/14)
b.	900-4905-39	Left Spring for Spring Assist (Pre 12/14)
c.	911-100003	Spring Assist Kit (Includes 3 - 7)
7. a.	980-300320	Spring Mount for Spring Assist - 2" x 3" Rim
b.	980-0129-66	Spring Mount for Spring Assist - 1" x 2" Rim
8. a.	980-3011-43	Spring Tube for Spring Assist
b.	980-0129-86	Spring Tube for Spring Assist
c.	900-4905-45	Cotter Pin for Spring Tube (Not Shown)
9. a.	955-300086	Folding Tray Lock Pin (Pre 5/13)
b.	900-7900-96	Rubber Cap for Lock Pin (Not Shown)
10. a.	900-4908-27	Infeed Tray Spring Lock Only
b.	980-2003-53	Infeed Tray Slam Latch Kit
11.	900-4900-44	Pivot Pin Jam Nut
12.	981-1008-93	Pivot Tube
13.	981-300151	Pivot Pin
14.	900-2909-93	LED 3-Light Bar
15.	980-300118	Mount for LED 3-Light Bar
16.	937-2001-44	Control Bar
17.	937-3014-82	Oval Tail Light Cover
18.	900-2927-85	LED Red Marker Light - 3/4" Round
19.	900-2910-43	Oval Tail Light
20.	905-8000-06	Fuel Saver Kit
21. a.	900-2914-64	Optional Shut Down Switch Assembly w/ Rear Wiring
b.	900-2914-65	Optional Shut Down Switch Assembly w/ Side Wiring
22.	905-3005-22	Optional Shut Down Switch Mount
23.	900-4914-18	Plastic Knob
24.	981-1005-30	Wooden Push Paddle
25.	900-2927-84	License Plate Light
26.	980-300290	License Plate and Light Mount
27.	980-0122-55	Wooden Push Paddle Mount
28. a.	980-0509-25	Last Chance Cable Kit - Pulleys, Cables, Clamps
b.	900-4904-29	Last Chance Orange Cable With Clamp
c.	980-0508-64	Last Chance Cable Assembly Kit
29.	955-3010-97	Winch Line Hook Mount
30.	937-2001-55	Infeed Hopper Assembly
31.	980-100142	Feedwheel Control Bar Tab
32.	955-1000-18	Hydraulic Control Arm - 12 1/2"
33.	937-1014-12	Valve to Valve Handle
34.	980-100141	Valve Handle
35.	900-7900-96	Rubber Cap - Dual Yoke Lift Control Bar
36. a.	904-0006-91	Dual Yoke Lift Control Bar Kit
b.	980-300065	Dual Yoke Lift Control Bar
37.	980-100157	Dual Yoke Lift Control Bar Tab
38.	900-3930-96	Short Valve Handle - Lift Cylinder Control Linkage

NOTICE The top feedwheel bearing bolts need to be ground off flush with inside of yoke, if replaced.

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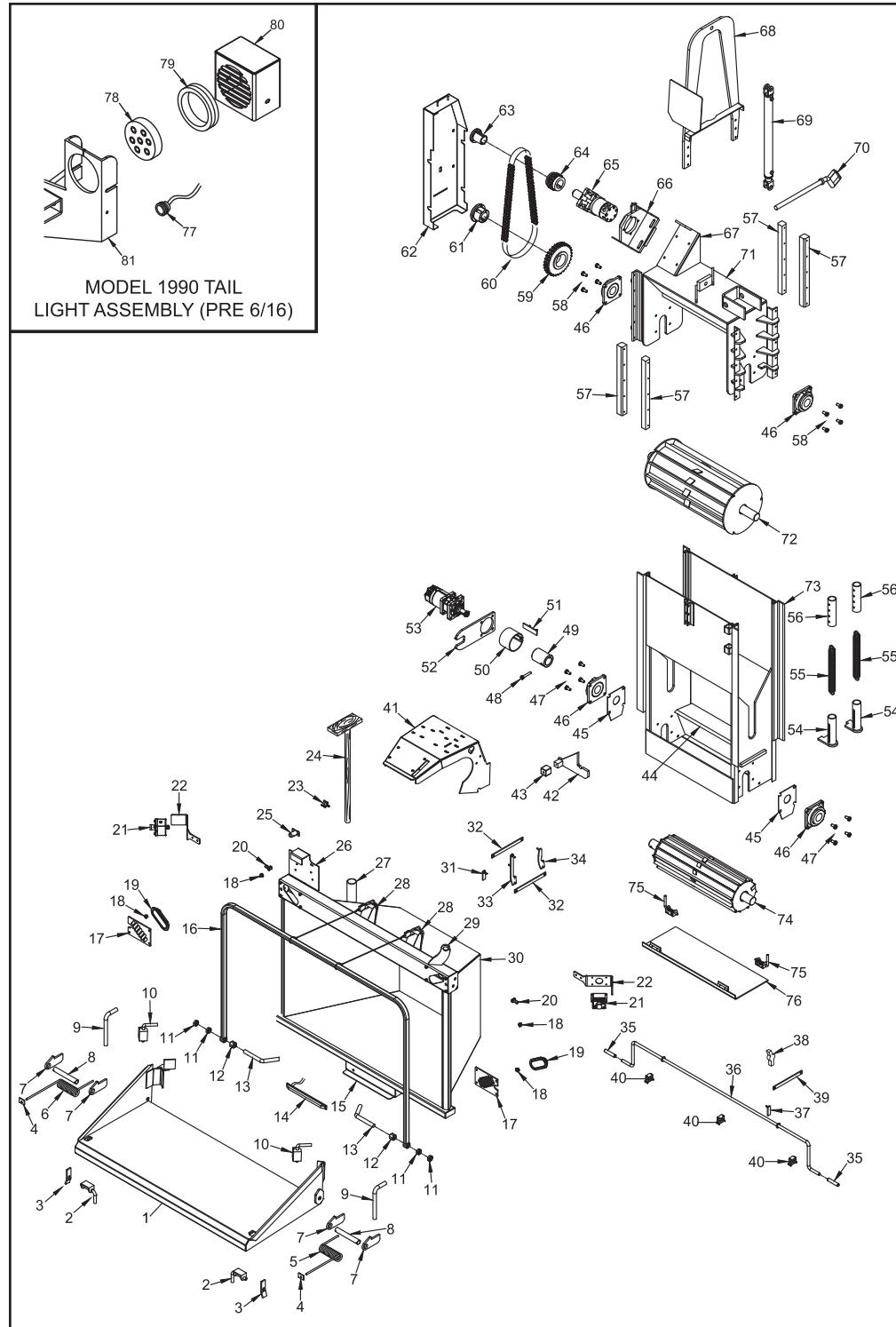


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LOCATION	PART NUMBER	DESCRIPTION
39.	980-100158	Control Arm - Dual Yoke Lift - 12 1/2"
40.	900-3914-02	Clamp - Lift Control Bar
41.	937-2001-45	Winch and Valve Mount
42. a.	955-300119	Bottom Torque Arm Stop
b.	937-300316	Bottom Torque Arm Cushion Mount
43.	937-900009	Torque Arm Cushion
44.	937-1009-29	Bottom Feedwheel Scraper Bar
45.	955-1002-14	Bearing Backer Plate
46.	900-1904-07	Feedwheel Bearing - Set Screw Style
47.	900-4900-19	Bottom Feedwheel Bearing Bolt
48.	900-4909-21	Taper Pin With Nut
49. a.	981-300140	Coupler With Motor Nut & Taper Pin With Nut (Includes 48) (Start 5/05)
b.	981-1006-45	Coupler With Motor Nut & Taper Pin (Includes 48) (Pre 5/05)
50.	937-1004-97	Rubber Coupler Guard
51.	937-1009-94	Coupler Guard Mount
52.	955-300103	Torque Arm
53.	900-3908-68	Bottom Feedwheel Hydraulic Motor
54. a.	981-300031	Bottom Mount for Easy Climb System
b.	900-4905-79	Clevis Pin (Not Shown)
c.	900-4905-80	Cotter Pin for Clevis Pin (Not Shown)
d.	900-4906-90	Flat Washer (Not Shown)
55.	900-4905-18	Yoke Spring
56. a.	981-300030	Top Mount for Easy Climb System
b.	900-4905-14	Clevis Pin (Not Shown)
c.	900-4905-19	Hair Pin for Clevis Pin (Not Shown)
57. a.	937-300285	Yoke Slide - 2" x 2" x 24" (Start 9/13)
b.	955-300405	Yoke Slide - 1" x 1" x 23" (Pre 9/13)
58.	900-4900-19	Top Feedwheel Bolt
59.	900-1901-37	Top Feedwheel Sprocket
60. a.	900-1901-39	Top Feedwheel Drive Chain (80-2)
b.	900-1905-62	Master Link
c.	900-1905-61	Half Link
61.	900-1900-08	Top Feedwheel Bushing
62. a.	937-2002-46	Top Feedwheel Chain Guard (Start 9/13)
b.	937-0502-45	Top Feedwheel Chain Guard (Pre 9/13)
63.	900-1901-36	Top Feedwheel Hydraulic Motor Sprocket Bushing
64.	900-1901-35	Top Feedwheel Hydraulic Motor Sprocket
65.	900-3908-67	Top Feedwheel Hydraulic Motor
66.	955-2001-68	Mount for Top Feedwheel Hydraulic Motor
67.	955-2002-24	Top Drive Motor Mount
68. a.	937-0502-01	Yoke Lift Assembly
b.	980-0132-68	Decal Plate Only
69. a.	900-3925-07	Yoke Lift Cylinder-Welded
b.	904-0007-14	Pin for Welded Cylinder (Not Shown)
c.	900-4913-23	Rubber Washer - Top Of Cylinder (Not Shown)
70.	955-2002-11	Yoke Lock Pin
71.	937-0501-89	Top Yoke Assembly
72. a.	937-0501-10	Top Feedwheel Assembly
b.	937-1007-63	Top Feedwheel Tooth
c.	937-1007-41	Top Feedwheel Shaft
73.	937-0501-90	Feedwheel Slide Box Assembly
74. a.	937-0501-09	Bottom Feedwheel Assembly
b.	937-1007-50	Bottom Feedwheel Tooth
c.	937-0501-57	Bottom Feedwheel Shaft & Coupler Assembly

NOTICE The top feedwheel bearing bolts need to be ground off flush with inside of yoke, if replaced.

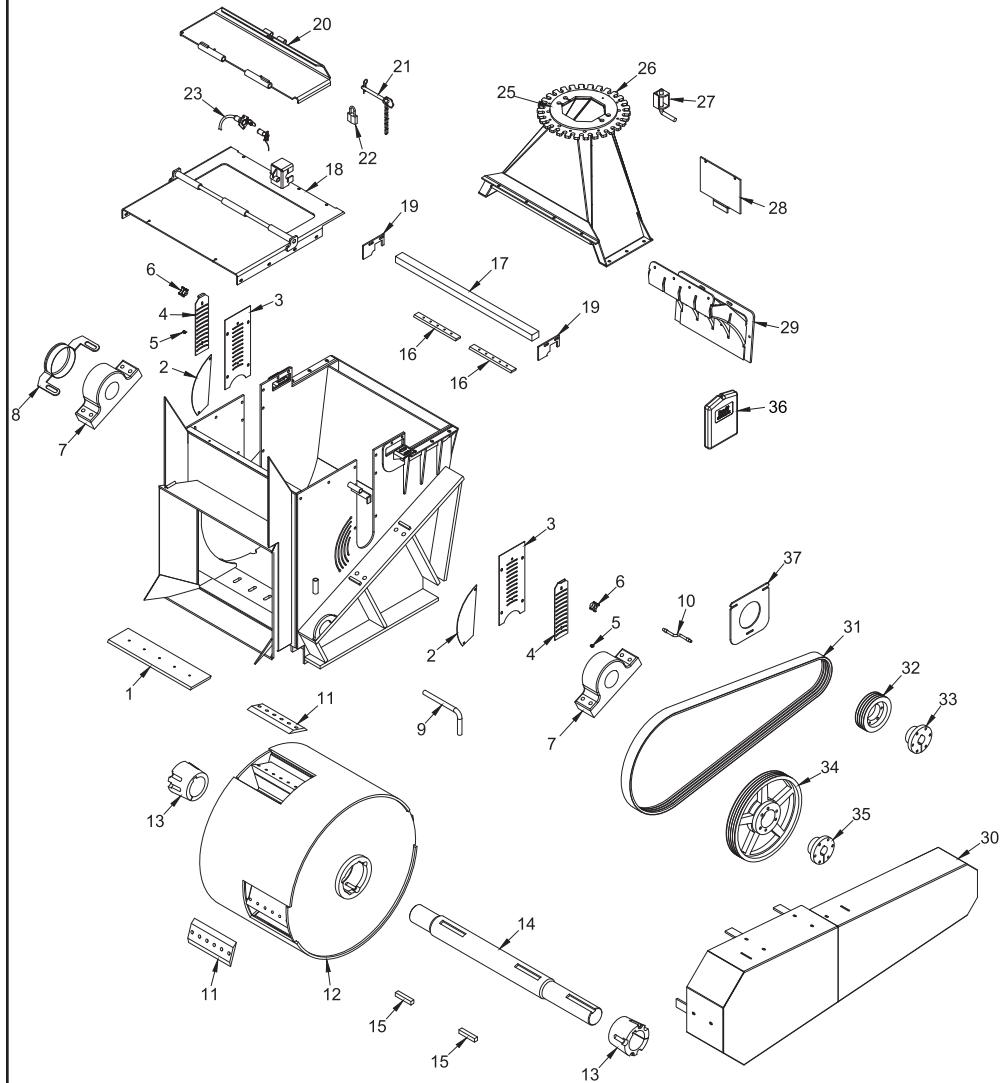
NOTICE Nuts, bolts, washers, and all other components can be ordered by physical description.



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LOCATION	PART NUMBER	DESCRIPTION
75. a.	900-4901-83	Trap Door Spring Lock
b.	900-7900-93	Rubber Cap for Spring Lock - 1/2" Diameter (Not Shown)
76. a.	955-0502-18	Trap Door Assembly
b.	001-3004-00	Hinge for Trap Door
77. a.	900-2927-85	LED Red Marker Light - 3/4" Round
b.	900-2915-98	LED Red Marker Light - Oval
78. a.	900-2908-76	LED Tail Light
b.	900-2908-74	Adapter Wire for LED Tail Light (Not Shown)
79.	900-2908-75	Rubber Grommet for LED Tail Light
80.	980-2002-82	Heavy Duty Tail Light Cover
81. a.	980-200176	Tail Light Mount - Road Side (Pre 7/16)
b.	980-200177	Tail Light Mount - Curb Side (Pre 7/16)

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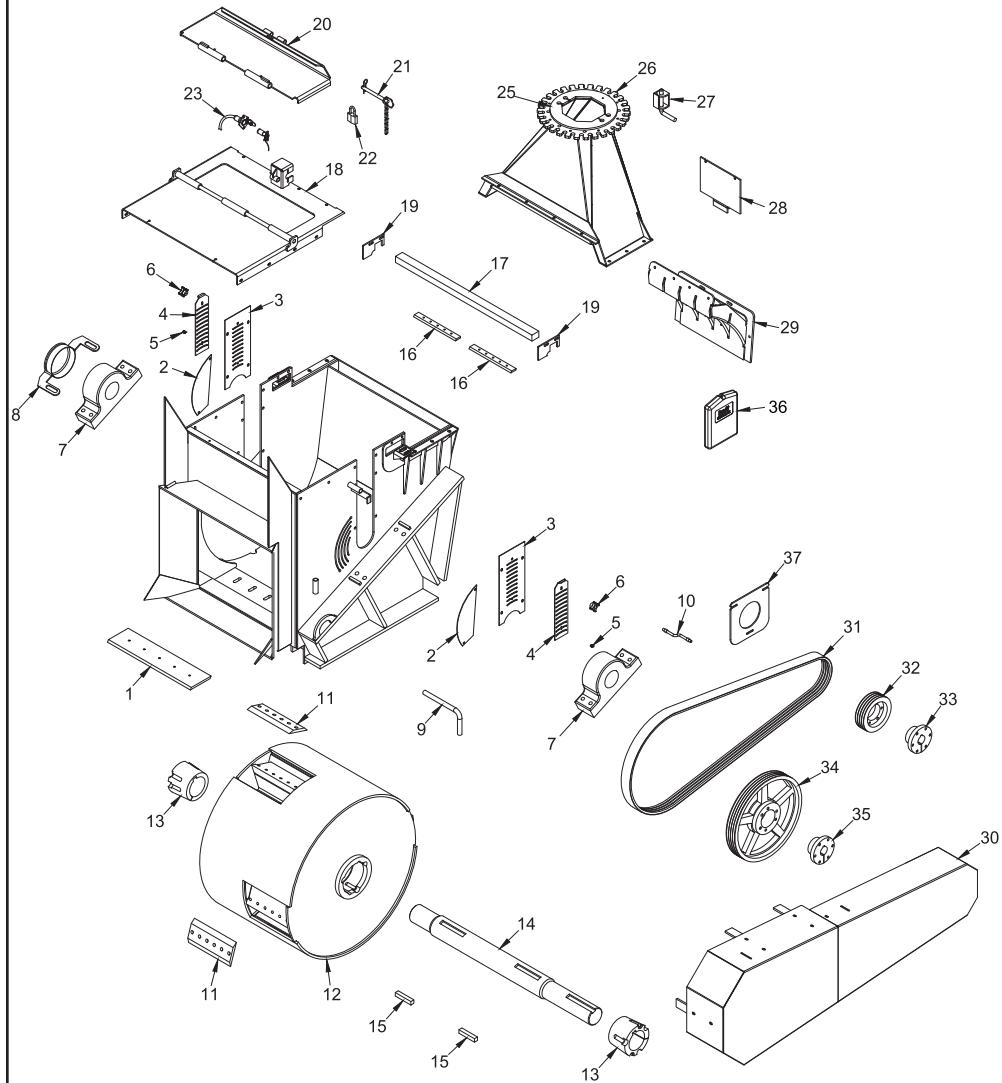


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LOCATION	PART NUMBER	DESCRIPTION
1.	See Page 111	Anvil
2.	911-1001-88	Vent cover
3.	937-1012-38	Base Slot Cover
4. a.	937-300007	Air Vent Cover - Steel
b.	937-300008	Air Vent Cover - Aluminum
c.	937-100001	Air Vent Cover Kit - Steel (Includes Two Pieces Of 4a, 5, & 6)
d.	937-100000	Air Vent Cover Kit - Aluminum (Includes Two Pieces Of 4b, 5, & 6)
5.	900-4908-33	Spring For Vent Cover
6.	900-4908-29	Plastic Knob For Vent Cover
7. a.	900-1924-92	Chipper Drum Bearing
b.	900-4910-41	Chipper Drum Bearing Bolt (3/4"-10NC x 5" Hex Head) (Left Side Only)
c.	900-4910-34	Chipper Drum Bearing Bolt (3/4"-10NC x 4 1/2" Hex Head) (Right Side Only)
d.	900-4901-47	Washer for Chipper Drum Bearing (3/4" Mill Carb)
e.	900-4910-19	Chipper Drum Bearing Jam Nut (3/4"-10NC Hex Jam Nut) (Left Side Only)
f.	900-4901-23	Chipper Drum Bearing Nut (3/4"-10NC Hex Nut) (Right Side Only)
8.	920-200033	Drum Shaft Bearing Cover
9. a.	955-1003-94	Drum Lock Pin
b.	900-7900-96	Rubber Cap (Not Shown)
10.	900-3921-02	Chipper Bearing Grease Line
11.	See Page 110	Chipper Knife & Hardware
12. a.	937-200092	Chipper Drum Head Assembly (Includes 11-15) (174 Hp - 250 Hp)
b.	937-0501-62	Chipper Drum Head Assembly (Includes 11-15) (275 Hp)
c.	920-200034	Chipper Drum Head Assembly (Includes 11-15) (300 Hp - 350 Hp)
d.	920-2001-07	Chipper Drum Head Assembly - Babbitt Style Knives
e.	920-2002-50	Chipper Drum Head Assembly - Babbitt Style Knives w/ Counter Knife
13. a.	900-1911-83	Drum Head Bushing (Start 1/15)
b.	900-1906-26	Drum Head Bushing (Pre 1/15)
c.	900-1907-17	Drum Head Bushing (275 Hp) (Pre 1/15)
14. a.	937-300193	Drum Head Shaft (174 Hp - 250 Hp)
b.	937-0501-62	Drum Head Shaft (275 Hp)
c.	920-300331	Drum Head Shaft (300 Hp - 350 Hp)
15.	920-300064	Key for Drum Head Shaft
16. a.	937-3009-24	Shear Counter Knife
b.	900-4909-86	Counter Knife Bolts (1/4"-20NC x 5/8" SHCS - 8 per)
17. a.	937-3008-50	Shear Bolt Plate
b.	937-1013-24	Shear Assembly (Includes #16)
18. a.	920-2001-63	Base Top With Door Assembly (Includes 20 & 21)
b.	937-300300	Pin for Hood Door Hinge
19.	937-3008-14	Shear Slot Cover
20. a.	920-300310	Hood Door Only
b.	900-4911-84	Grease Zerk For Hood Door Hinge
21.	900-4905-37	Hood Pin With Attaching Chain
22. a.	900-4902-20	Padlock For Hood Pin (Not Shown)
b.	900-4917-21	Key For Padlock (Not Shown)
23. a.	909-1000-01	Engine Disable Plug Kit (Includes Plug, Wiring, & Mounts)
b.	980-100083	6-Prong Male Plug With Wire Loop & Crimp Sleeves

** Components vary with engine options order by physical description or machine S/N.

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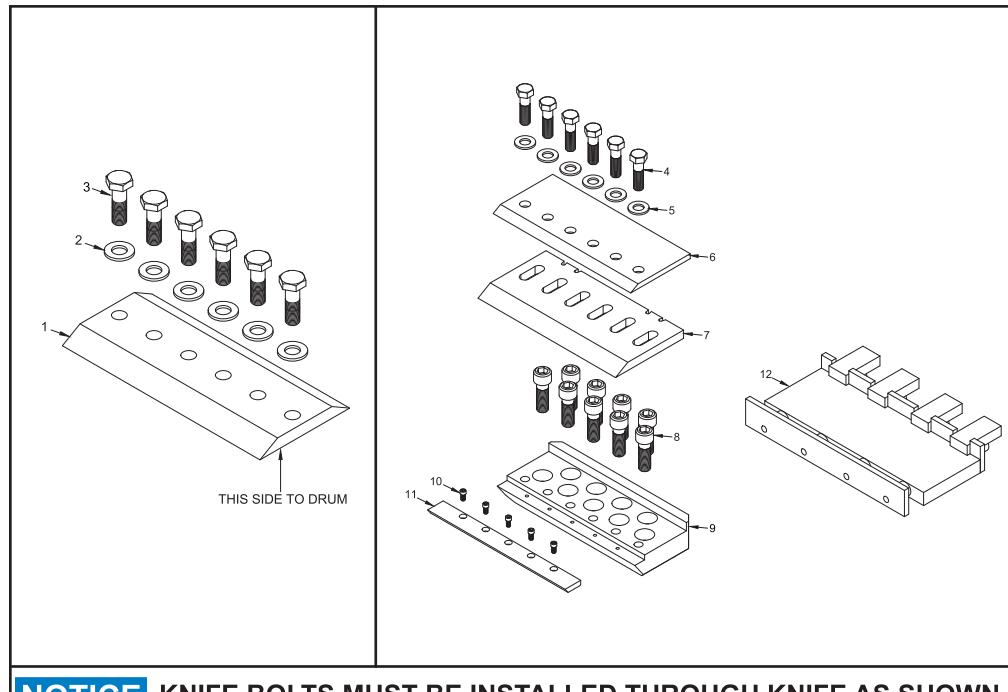


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LOCATION	PART NUMBER	DESCRIPTION
24. a.	937-2003-36	Transition Ass'y With Shear (Specify With or Without Clean-Out Door)
b.	937-200052	Transition Ass'y Without Shear (Specify With or Without Clean-Out Door)
25.	937-1005-63	Transition Flange
26.	980-3013-58	Bottom Swivel Ring
27. a.	900-4908-27	Discharge Spring Lock
b.	900-7900-96	Rubber Cap (Not Shown)
28.	937-0501-31	Optional Clean-Out Door - Specify Slide In Style (Start 1/14) or Hinged Style (Pre 1/14)
29.	937-2002-47	Optional Chip Breaker Assembly
30. a.	937-0500-53	Adjustable Beltshield Cover (1500 Belts)
b.	937-0500-59	Beltshield Engine Sheave Half - Wide (8 1/4" Wide)
c.	937-0500-58	Beltshield Chipper Half
d.	937-200027	Beltshield Assembly for Short Frame (1320 Belts)
31.	**	Chipper Belts
32.	**	Engine Sheave
33.	**	Engine Sheave Bushing
34.	**	Chipper Sheave
35.	**	Chipper Sheave Bushing
36. a.	900-9910-28	Manual Holder - 8" x 11" x 2"
b.	900-9902-07	Manual Holder - 10" x 12-1/2" x 2" (Stored In Tool Box)
37.	937-300189	Adjustable Cover - Engine PTO Sheave

** Components vary with engine options order by physical description or machine S/N.

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NOTICE KNIFE BOLTS MUST BE INSTALLED THROUGH KNIFE AS SHOWN.

DOUBLE EDGE STYLE KNIFE

LOCATION	PART NUMBER	DESCRIPTION
1.	900-9904-38	5/8" x 5 1/2" x 12" Chipper Knife
2.	900-4901-32	5/8" Mill Carb Washer
3.	900-4900-20	5/8"-11NC x 2" Knife Bolt

BABBITT STYLE KNIFE

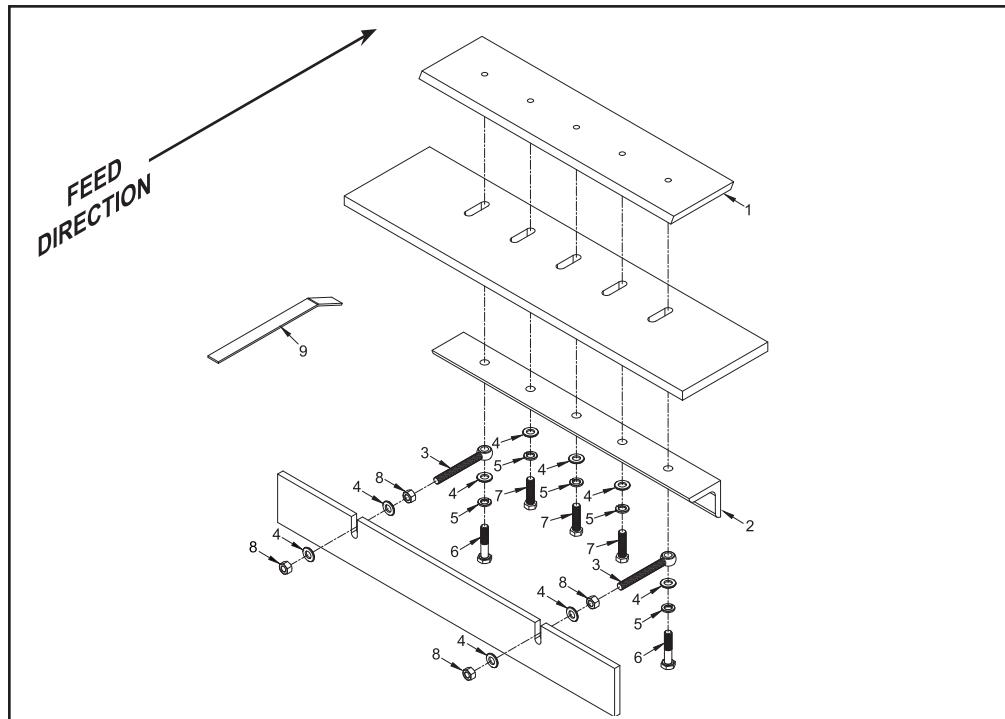
LOCATION	PART NUMBER	DESCRIPTION
4.	900-4914-27	5/8"-18NF x 2 1/4" Knife Bolt
5.	900-4901-32	5/8" Mill Carb Washer
6.	938-3013-37	Knife Clamp
7.	900-9906-73	5/8" x 6" x 12 1/8" Babbitt Knife
8.	900-4914-30	3/4" 10NC x 2 1/4" SHCS Bolt for Knife Pocket
9.	959-3003-46	Knife Pocket
10.	900-4909-76	1/4"-20NF x 1/2" Counter Knife Bolt
11.	959-3003-45	3/8" x 1 3/8" x 12 1/8" Counter Knife
12.	959-1000-02	Knife Gauge
13.	900-9906-90	Ladle (Not Shown)
14.	900-9900-60	1/2" Ball of Babbitt (Not Shown)

Torque Double Edge Knife Bolt to 180 ft.-lbs. (245 Nm)

Torque Babbitt Knife Bolt to 210 ft.-lbs. (285 Nm)

Torque Knife Holder Bolt to 250 ft.-lbs. (339 Nm)

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LOCATION	PART NUMBER	DESCRIPTION
1. a.	937-300159	Anvil Only
b.	937-300159A	"AR" Anvil Only
2.	937-300161	Anvil Clamp Plate
3. a.	900-4907-91	Anvil Eye Bolt - 1/2"-13NC x 4 1/2" (Current)
b.	900-4902-73	Anvil Eye Bolt - 1/2"-13NC x 5 1/2" (Prior)
4.	900-4909-18	1/2" Mill Carb Washer
5.	900-4902-11	1/2" Lock Washer
6.	900-4903-17	1/2"-13NC x 2 1/2" Hex Head Bolt
7.	900-4900-74	1/2"-13NC x 2" Hex Head Bolt
8.	900-4906-82	1/2"-13NC Hex Nut
9.	981-1006-25	Anvil Gauge
10.	904-0003-90	Anvil Hardware Kit Only (Includes 3 - 8)
11.	937-200031	Anvil & Hardware Kit (Includes 1a & 3 - 8)

Anvil Bolt Torque: 75 ft.-lbs. (102 Nm)

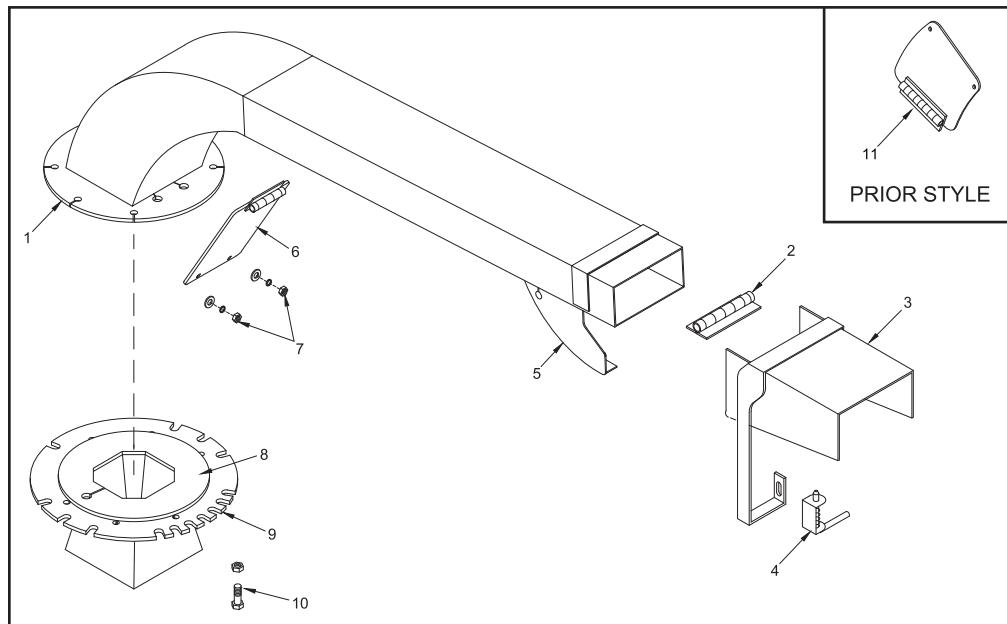
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LOCATION	PART NUMBER	DESCRIPTION
1.	900-9901-68	Knife Saver Kit
2.	900-9901-65	File For Knife Saver Kit Only
3.	900-9901-63	Replacement Blades For Knife Saver
4.	900-9901-66	Knife Changing Gloves

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MANUAL DISCHARGE



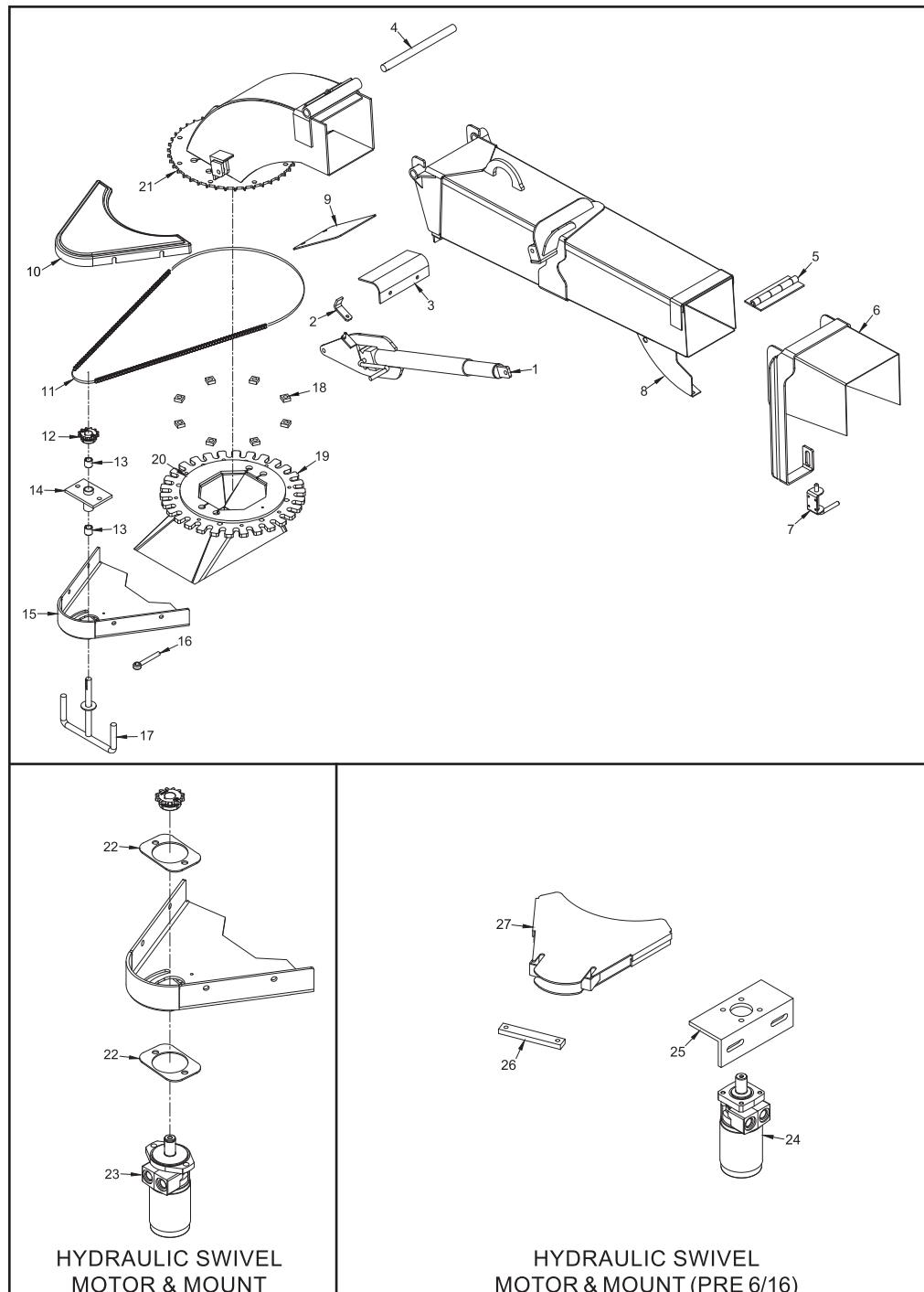
LOCATION	PART NUMBER	DESCRIPTION
1.	980-0127-33	Discharge Bottom Swivel Ring
2.	981-1001-63	Discharge Flipper Hinge
3. a.	937-1009-10	12" Discharge Flipper Assembly (Includes 2 & 4)
3. b.	937-0502-24	12" Enclosed Discharge Flipper Assembly (Includes 2 & 4)
4. a.	900-4901-83	Discharge Flipper Adjusting Spring
4. b.	900-7900-93	Black Rubber Cap (Not Shown)
5. a.	980-0510-23	Adjusting Spring Lock Plate Assembly For Standard Flipper
5. b.	980-0510-24	Adjusting Spring Lock Plate Assembly For Enclosed Flipper
6. a.	911-300129	Clean Out Door (Start 5/12)
6. b.	980-300616	Clean Out Door (Pre 5/12)
7. a.	900-4910-73	5/16"-18NC Hex Nut
7. b.	900-4906-47	5/16" Lock Washer
7. c.	900-4906-48	5/16" Flat Washer
8.	937-1005-63	Hood Flange
9.	980-300424	Bottom Swivel Ring
10. a.	900-4910-54	Discharge Transport Bolt - 3/8"-16NC x 1 1/2" (Not Shown)
10. b.	900-4906-60	Discharge Transport Nut - 3/8"-16NC (Not Shown)
11.	980-0509-94	Optional Clean Out Door Assembly (Pre 9/06)

DISCHARGE ASSEMBLIES

LOCATION	PART NUMBER	DESCRIPTION
1.	937-0500-19	Height Adjustable Discharge Assembly With Hand Crank Swivel
2.	937-0500-18	Height Adjustable Discharge Assembly With Hydraulic Swivel
3.	937-1014-50	Forestry Discharge

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HEIGHT ADJUSTABLE HAND CRANK & HYDRAULIC SWIVEL DISCHARGE



**HYDRAULIC SWIVEL
MOTOR & MOUNT**

**HYDRAULIC SWIVEL
MOTOR & MOUNT (PRE 6/16)**

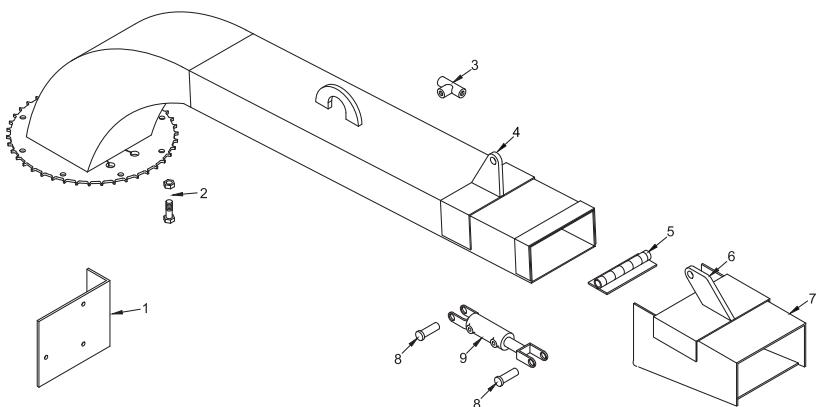
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HEIGHT ADJUSTABLE HAND CRANK & HYDRAULIC SWIVEL DISCHARGE

LOCATION	PART NUMBER	DESCRIPTION
1. a.	980-0510-86	Hand Crank For Adj. Height Discharge - Mounted On The Side
b.	912-200035	Hand Crank For Adj. Height Discharge - Mounted On The Road Side
c.	980-0508-51	Hand Crank For Adj. Height Discharge - Mounted Underneath
2. a.	955-300434	Handle Lock
b.	900-4906-60	Discharge Transport Nut - 3/8"-16NC
3.	980-0126-12	Rubber Discharge Guard
4.	980-300209	Hand Crank Adjustable Height Hinge Pin
5.	980-0101-59	Discharge Flipper Hinge
6. a.	937-0502-24	12" Discharge Flipper Assembly (Includes 5 & 7)
b.	980-0510-25	12" Enclosed Discharge Flipper Assembly (Includes 5 & 7)
7. a.	900-4901-83	Discharge Flipper Adjusting Spring
b.	900-7900-93	Black Rubber Cap (Not Shown)
8. a.	980-0510-23	Adjusting Spring Lock Plate Assembly for Standard Flipper
b.	980-0510-24	Adjusting Spring Lock Plate Assembly for Enclosed Flipper'
9.	911-300129	Clean-Out Door
10.	900-9904-64	Chain Guard
11. a.	900-1901-20	#50 Roller Chain
b.	900-1901-18	Half Link - Chain (Not Shown)
c.	900-1901-19	Master Link - Chain (Not Shown)
12.	900-1915-71	Sprocket for Swivel Discharge
13.	900-1909-36	Bushing Only
14.	980-200006	Chain Adjuster Assembly
15.	937-200018	Discharge Swivel Mount
16.	900-4905-43	Eye Bolt Adjuster
17. a.	937-200064	T-Handle Assembly
b.	900-7900-96	Rubber Cap
18.	980-0137-35	Spacer Block
19.	980-3013-58	Bottom Swivel Ring
20.	937-1005-63	Transition Flange
21.	980-3014-56	Discharge Bottom Swivel Ring
22.	905-3003-65	Hydraulic Motor Mount Plate - Bolt On
23.	900-3977-10	Hydraulic Motor for Swivel Discharge
24. a.	900-3972-06	Hydraulic Motor for Swivel Discharge - SAE O-Ring Fitting
b.	900-3973-28	Hydraulic Motor for Swivel Discharge - Pipe Fitting
25.	980-0110-66	Motor Mount for Swivel Discharge
26.	937-1005-35	Chain Guard Mount
27.	937-200061	Chain Guard

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DISCHARGE WITH HYDRAULIC FLIPPER

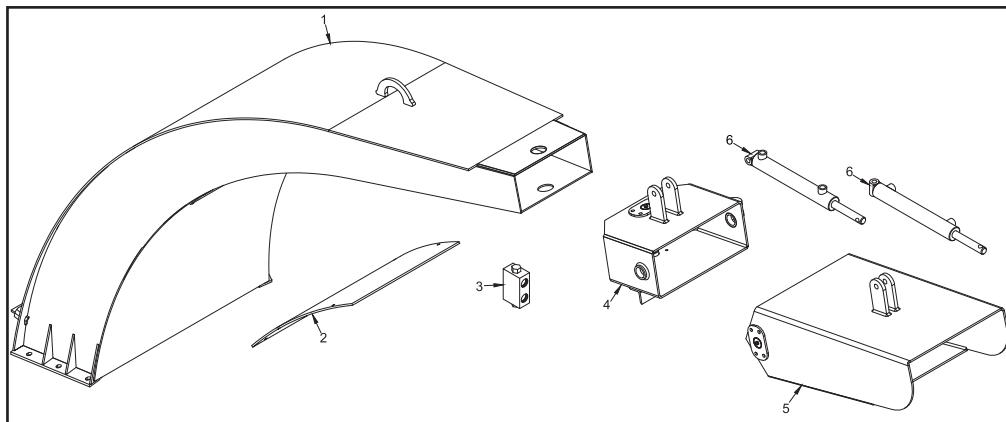


LOCATION	PART NUMBER	DESCRIPTION
1.	937-1003-30	Hydraulic Flipper Control Valve Mount Plate
2.	900-3925-18	Check Valve
3.	960-0006-42	Straight Section Cylinder Lug
4.	981-1001-63	Hydraulic Flipper Hinge
5.	980-0126-48	Flipper Lug
6.	937-0501-63	12" Hydraulic Flipper Assembly - Enclosed (Includes 4 & 5)
7.	900-3930-71	Cylinder Lug Pin - 3/4" Dia. x 2 1/2" & Cotter Pin - 1/4" x 1 1/2"
8.	900-3928-16	Hydraulic Flipper Cylinder
9.	900-3916-62	Swivel Discharge & Discharge Flipper Control Valve (Not Shown)
10. a.	900-4911-04	Discharge Transport Bolt - 5/8"-11NC x 1 1/2" (Not Shown)
b.	900-4903-25	Discharge Transport Nut - 5/8"-11NC (Not Shown)

NOTICE Nuts, bolts, washers, and all other components can be ordered by physical description.

NOTICE Parts may not be exactly as shown.

FORESTRY DISCHARGE

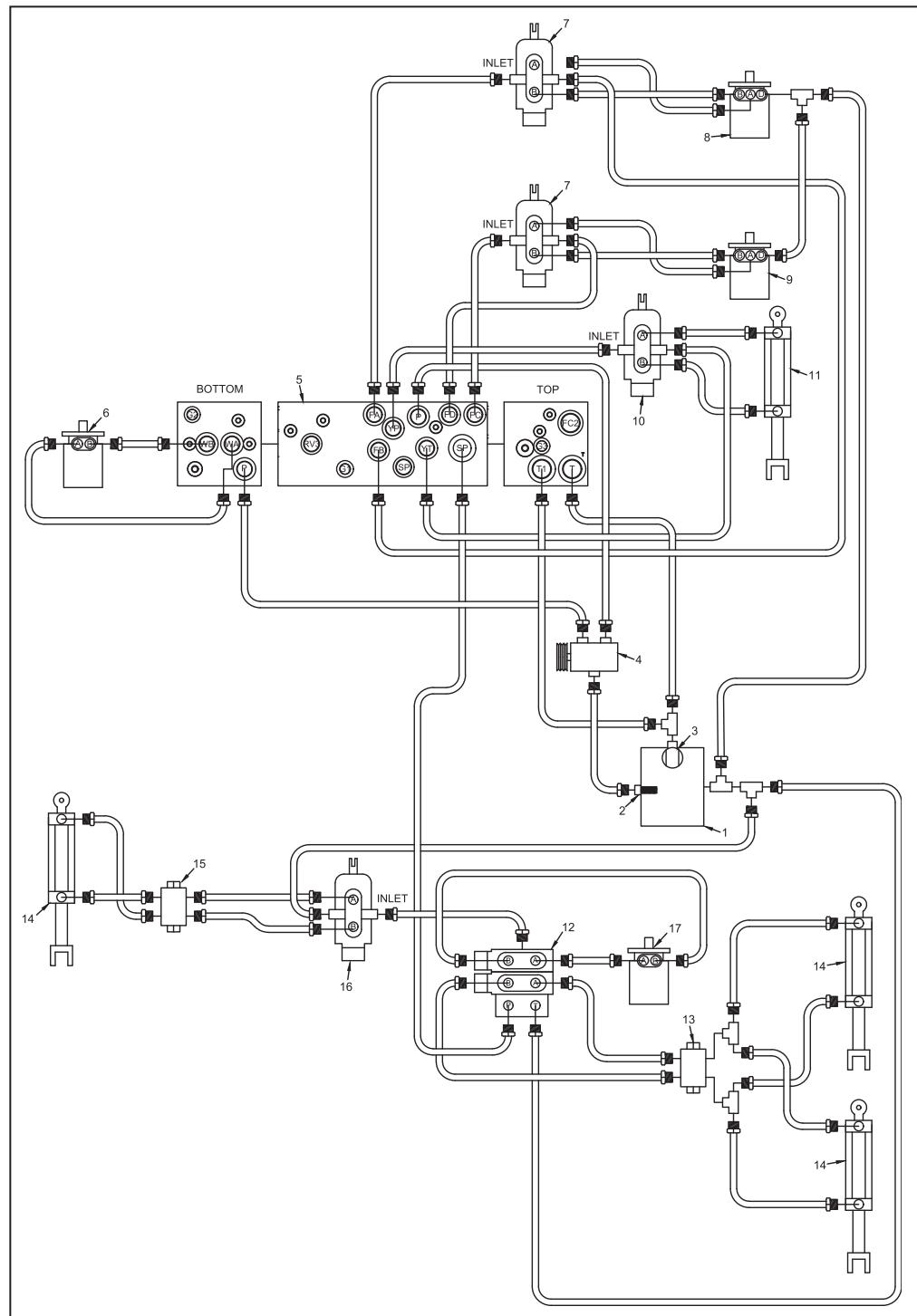


LOCATION	PART NUMBER	DESCRIPTION
1.	937-2003-66	Forestry Discharge Chute Assembly
2. a.	920-3006-05	Discharge Clean Out Door
b.	001-3004-10	Hinge - 18" (Not Shown)
3.	900-3949-09	Check Valve
4.	259-2000-56	Flipper Discharge - Inner
5.	259-2000-36	Flipper Discharge - Outer
6.	900-3943-75	Hydraulic Flipper Cylinder

NOTICE Nuts, bolts, washers, and all other components can be ordered by physical description.

NOTICE Parts may not be exactly as shown.

HYDRAULIC DIAGRAM (WITH OPTIONS)



NOTICE Parts may not be exactly as shown.

HYDRAULIC DIAGRAM (WITH OPTIONS)

LOCATION	PART NUMBER	DESCRIPTION
1.	See Pages 134 - 135	Hydraulic Tank
2.	900-3901-41	Hydraulic Tank Strainer
3.	900-3950-56	In Tank Filter
4.	**	Hydraulic Pump
5. a.	See Page 123	3-Bank Manifold Block
b.	See Page 123	2-Bank Manifold Block
6.	900-3970-62	Dinamic Winch Motor
7.	900-3920-05A	Feedwheel Valve
8.	900-3906-29	Top Feedwheel Hydraulic Motor
9.	900-3917-18	Bottom Feedwheel Hydraulic Motor
10.	900-3927-73	Yoke Control Valve
11. a.	900-3925-07	Yoke Lift Cylinder-Welded
b.	904-0007-14	Pin For Welded Cylinder (Not Shown)
c.	900-4913-23	Rubber Washer - Top Of Cylinder (Not Shown)
12. a.	900-3983-42	2 Bank Control Valve
b.	900-3983-43	3 Bank Control Valve
13.	900-3923-05	Check Valve for Rear Stabilizer
14.	900-3934-24	Tongue Jack & Rear Stabilizer Cylinder
15.	900-3949-09	Check Valve for Tongue Jack
16.	900-3920-01	Tongue Jack Control Valve

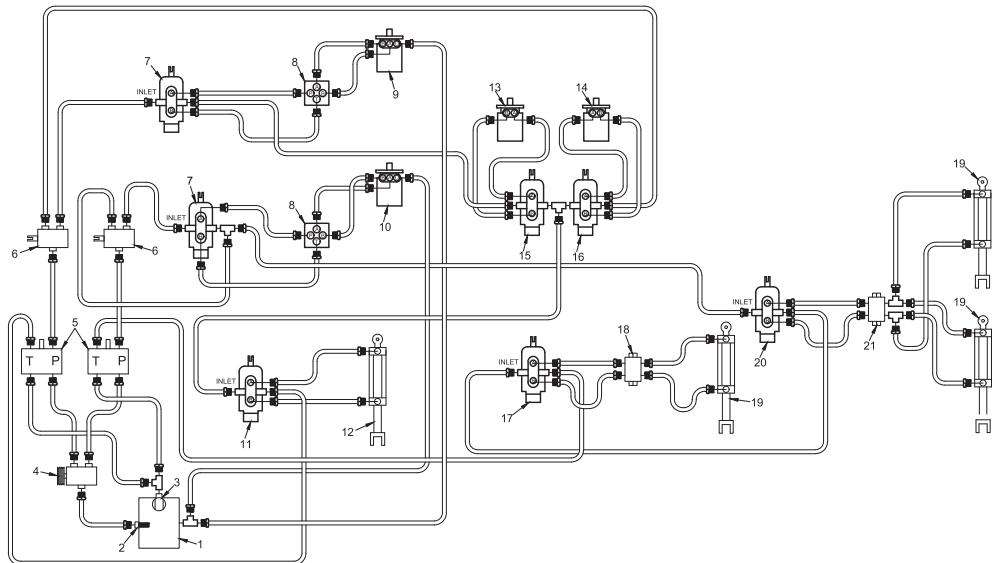
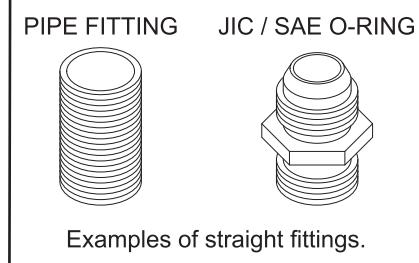
** Hydraulic components, fittings, hoses will vary depending on optional equipment.

Order by physical description.

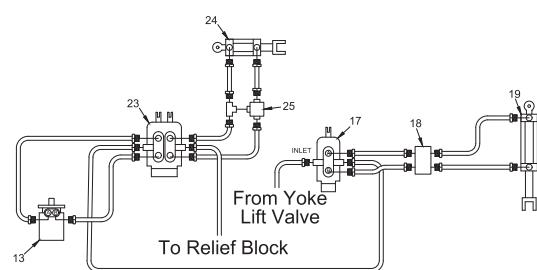
** Hydraulic pumps need to be ordered by physical description and serial number of machine.

NOTICE Make sure to order components according to fitting type, fittings may vary on all components.

HYDRAULIC SCHEMATIC (WITH OPTIONS)



INSERTHYDRAULICFLIPPER



NOTICE Parts may not be exactly as shown.

HYDRAULIC SCHEMATIC (WITH OPTIONS)

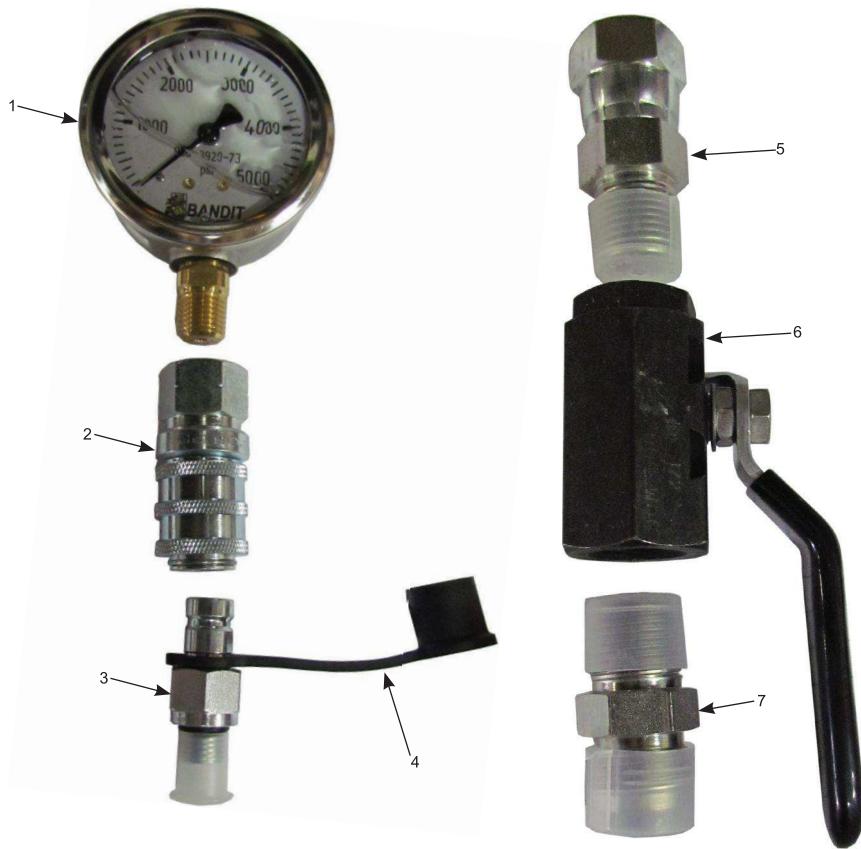
LOCATION	PART NUMBER	DESCRIPTION
1.	See Pages 134 - 135	Hydraulic Tank
2.	900-3901-41	Hydraulic Tank Strainer
3.	900-3950-56	In Tank Filter
4.	**	Hydraulic Pump
5.	See Page 124	Relief Block
6.	900-3936-39	Selector Valve
7.	900-3920-05A	Feedwheel Valve
8.	900-3918-38	Dual Solenoid Autofeed Block
9.	900-3908-67	Top Feedwheel Hydraulic Motor
10.	900-3908-68	Bottom Feedwheel Hydraulic Motor
11.	900-3927-73	Yoke Control Valve
12. a.	900-3925-07	Yoke Lift Cylinder-Welded
b.	904-0007-14	Pin For Welded Cylinder (Not Shown)
c.	900-4913-23	Rubber Washer - Top Of Cylinder (Not Shown)
13.	900-3921-57	Swivel Discharge Hydraulic Motor
14.	900-3921-57	Winch Hydraulic Motor
15.	900-3920-01A	Swivel Discharge Valve
16.	900-3920-01A	Winch Control Valve
17.	900-3920-01A	Stabilizer Control Valve
18.	900-3949-09	Check Valve for Front Stabilizer
19.	900-3926-38	Hydraulic Stabilizer Cylinder
20.	900-3920-01A	Rear Stabilizer Control Valve
21.	900-3923-05	Check Valve for Rear Stabilizers
22.	900-3926-38	Rear Hydraulic Stabilizer Cylinder
23.	900-3916-62	Swivel Discharge & Flipper Control Valve
24.	900-3928-16	Discharge Flipper Cylinder
25.	900-3925-18	Flipper Check Valve
26. a.	980-100121	In-Line Pressure Check Kit - With Autofeed (Not Shown)
b.	980-100122	In-Line Pressure Check Kit - Without Autofeed (Not Shown)

** Hydraulic components, fittings, hoses will vary depending on optional equipment.

Order by physical description.

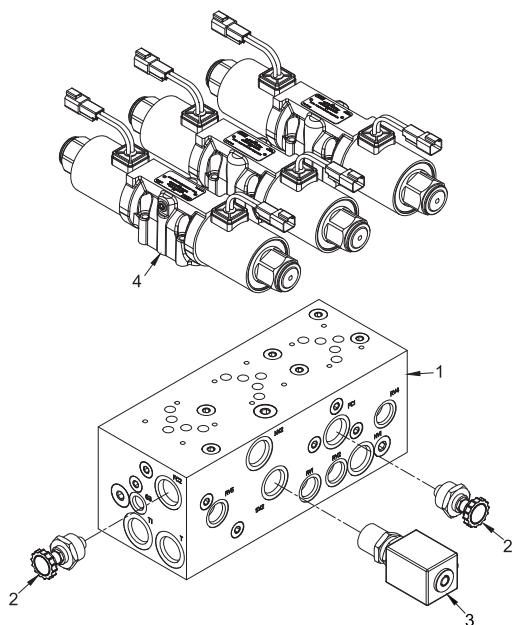
** Hydraulic pumps need to be ordered by physical description and serial number of machine.

NOTICE Make sure to order components according to fitting type, fittings may vary on all components.

IN-LINE HYDRAULIC PRESSURE CHECK KIT

LOCATION	PART NUMBER	DESCRIPTION
1.	900-3920-73	5000 PSI Gauge
2.	900-3902-24	Quick Coupler
3.	900-3902-23	Test Nipple
4.	900-3911-47	Rubber Cap For Test Nipple
5.	900-3924-86	Fitting
6.	900-3926-11	Ball Valve
7.	900-3922-14	Fitting
8.	980-100121	In-Line Pressure Check Kit - With Autofeed (Includes 1-7)

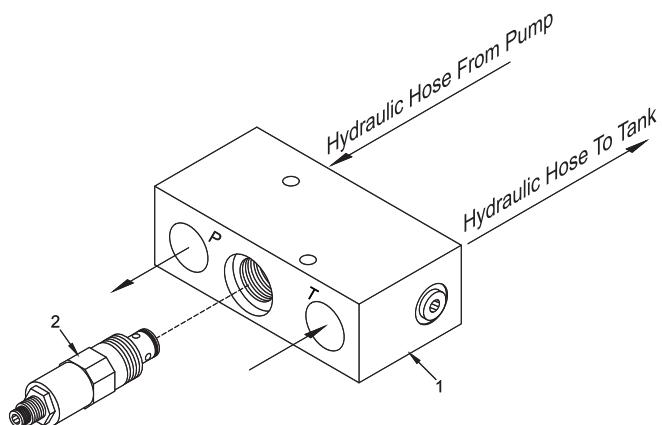
MANIFOLD BLOCK



LOCATION	PART NUMBER	DESCRIPTION
1.	a. 900-3983-22 b. 900-3987-45	3 Bank Manifold Block - Double Pump 2 Bank Manifold Block - Single Pump
2.	a. 900-3987-64 b. 900-3983-63	Optional Flow Control Adjuster Flow Control Plug
3.	900-3987-77	Dump Valve
4.	a. 900-3983-86 b. 900-3984-19 c. 900-3920-20 d. 900-3967-44 e. 900-3954-35	12V Dual Coil Solenoid Valve 24V Dual Coil Solenoid Valve Solenoid Nut Seal Kit Square Cross Section O-Ring
5.	a. 900-3983-22 b. N/A	Manifold Assembly (Excludes 4) Manifold Assembly (Excludes 2 & 4)
6.	999-8004-34	Wiring Harness for Joystick
7.	900-3988-14	Needle Valve (NV1 & NV2)
8.	900-3988-13	Relief Valve (RV1, RV2, RV3, RV4 & RV5)

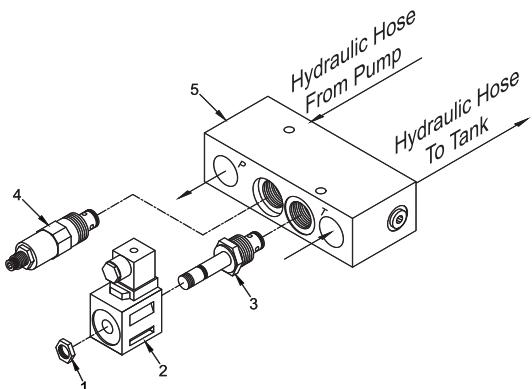
NOTICE Parts may not be exactly as shown.

MAIN RELIEF BLOCK



LOCATION	PART NUMBER	DESCRIPTION
1.	N/A	Main Relief Block Only
2.	N/A	Main Relief Only
3.	900-3923-46	Main Relief Block Assembly (Includes #'s 1 & 2)

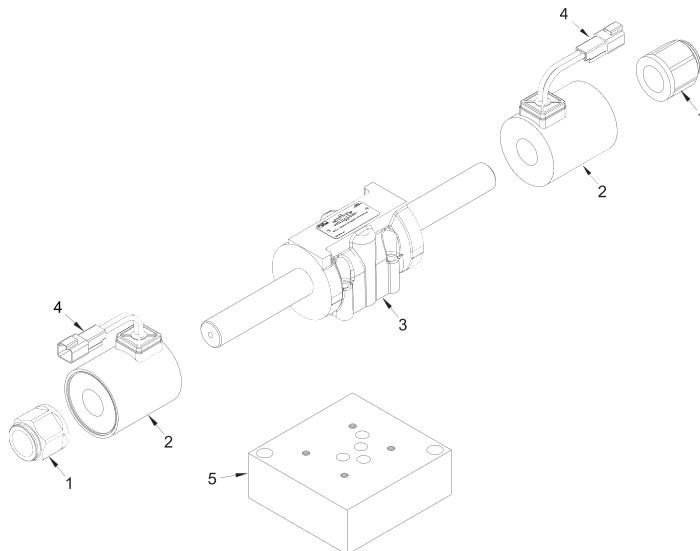
DUMP VALVE RELIEF BLOCK



Torque Autofeed Cartridge Nut to a maximum of 4 to 6 ft.-lbs. (5 to 8 Nm) and install Loctite 243. Over torque will cause damage and will also void warranty.

LOCATION	PART NUMBER	DESCRIPTION
1.	N/A	Autofeed Block Only
2.	900-3923-43	Autofeed Cartridge Only
3.	900-3923-44	12 Volt Autofeed Solenoid Only
4.	900-3919-96	Main Relief Only (Danfoss)
5. a.	900-3923-45	Autofeed Block Assembly With Relief
5. b.	900-3923-37	Autofeed Block Assembly Without Relief

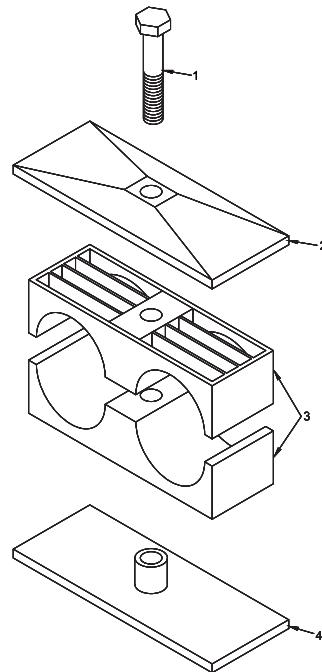
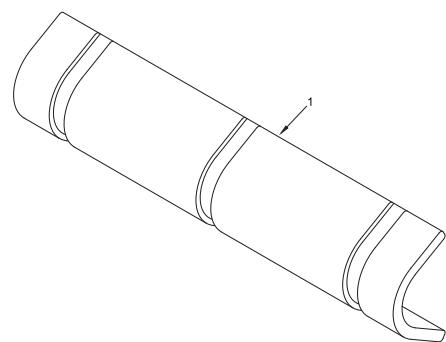
NOTICE Parts may not be exactly as shown.

"AUTOFEED PLUS" VALVE (DUAL SOLENOID)

Torque Retainer Nut to a maximum of 4 to 6 ft.-lbs. (5 to 8 Nm) and install Loctite 243.
Over torque will cause damage and will also void warranty.

LOCATION	PART NUMBER	DESCRIPTION
1. a.	900-3920-20	Retainer Nut (Danfoss)
b.	900-3915-33	Retainer Nut and Sealing Ring (Aron)
2. a.	900-3920-19	Solenoid Only - 12v (Danfoss)
b.	900-3923-58	Solenoid Only - 24v (Danfoss)
c.	900-3915-34	Solenoid Only (Aron)
3. a.	900-3919-47	Solenoid Assembly (Danfoss Includes #'s 1,3,4, & 6)
b.	900-3918-37	Solenoid Assembly (Aron Includes #'s 1,3,4, & 6)
4.	900-2909-55	Herschman Connector Only
5.	900-3918-38	Autofeed Plus Relief Block Subplate (DTS)
6.	900-3915-44	Seal Kit (Not Shown)
7. a.	900-3925-89	10' Cord and Molded Herschman Connector (Not Shown)
b.	900-3920-71	16' Cord and Molded Herschman Connector (Not Shown)
c.	900-3918-63	25' Cord and Molded Herschman Connector (Not Shown)

NOTICE Parts may not be exactly as shown.

HOSE CLAMP**HOSE GUARD**

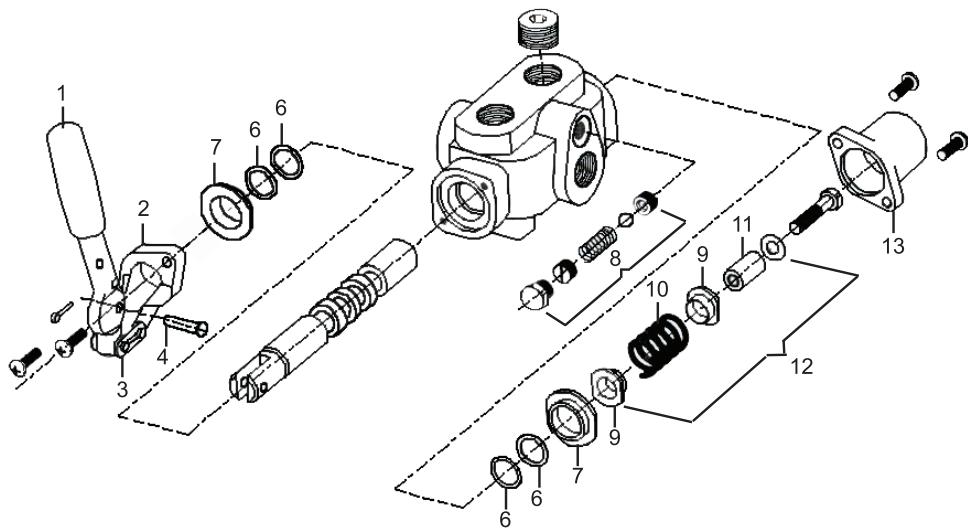
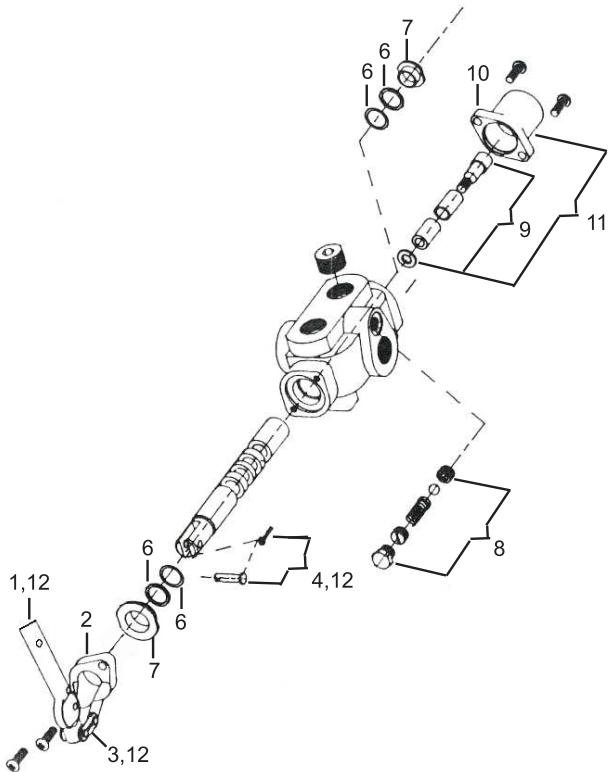
NOTICE Parts may not be exactly as shown.

HOSE CLAMP

LOCATION	PART NUMBER	DESCRIPTION
1.	N/A	Bolt
2.	N/A	Locking Plate
3.	N/A	Plastic Clamp
4 a.	900-3914-09	Weld Plate for 1/4" Double Clamp
b.	900-3914-08	Weld Plate for 1/2" Double Clamp
c.	900-3926-47	Weld Plate for 3/4" Double Clamp
5 a.	900-3917-25	1/4" Double Clamp Assembly (Includes #'s 1-4)
b.	900-3926-44	3/8" Double Clamp Assembly (Includes #'s 1-4)
c.	900-3928-19	1/2" Single Clamp Assembly (Includes #'s 1-4)
d.	900-3914-02	1/2" Single Clamp Assembly For Steel Lines (Includes #'s 1-4)
e.	900-3915-61	1/2" Double Clamp Assembly (Includes #'s 1-4)
f.	900-3913-32	1/2" Double Clamp Assembly For Steel Lines (Includes #'s 1-4)
g.	900-3914-03	3/4" Single Clamp Assembly (Includes #'s 1-4)
h.	900-3914-07	3/4" Double Clamp Assembly (Includes #'s 1-4)
i.	900-3914-04	1" Single Clamp Assembly (Includes #'s 1-4)
j.	900-3914-05	1 1/4" Single Clamp Assembly (Includes #'s 1-4)
k.	900-3914-06	1 1/2" Single Clamp Assembly (Includes #'s 1-4)
6 a.	900-3914-10	Stacking Bolt for 1/2" Double Clamp (Not Shown)
b.	900-3920-11	Stacking Bolt for 3/4" Double Clamp (Not Shown)

HOSE GUARD

LOCATION	PART NUMBER	DESCRIPTION
1 a.	900-3934-76	Hose Guard - 4" Long
b.	900-3934-77	Hose Guard - 6" Long
c.	900-3934-78	Hose Guard - 8" Long

TYPICAL SPRING LOADED CONTROL VALVE**TYPICAL FEEDWHEEL CONTROL VALVES**

NOTICE Parts may not be exactly as shown.

TYPICAL SPRING LOADED CONTROL VALVE COMPONENTS

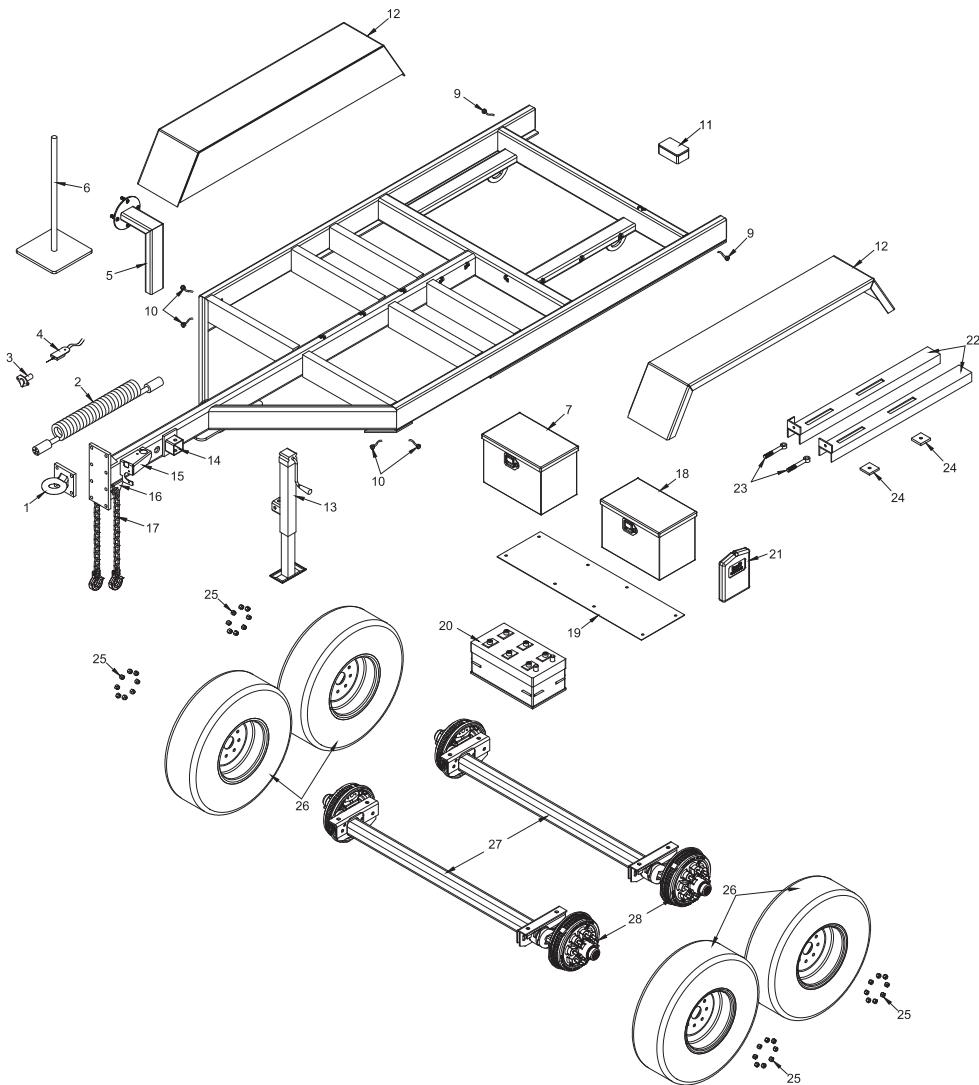
LOCATION	PART NUMBER	DESCRIPTION
1. a.	904-0003-29	Long Control Handle Kit
b.	900-7901-80	Vinyl Cap for Long Control Handle
c.	900-3963-47	Long Control Handle Only
2.	900-3905-95	Valve Bracket Only With Screws
3.	904-0003-30	Master Link Only Control Valve
4.	904-0003-31	Pin And Cotter Key For Control Valve
5.	904-0003-32	Bracket, Handle And Chain Link (Includes 1 - 4)
6.	900-3937-34	Seal Kit for Control Valve
7.	904-0003-33	Seal Retainer For Control Valve NOTE: NOT INCLUDED IN SEAL KIT
8.	900-3901-12	Relief Valve Kit - Spring, Ball, Screw NOTE: SOLD ONLY AS A KIT
9.	904-0003-34	Valve Spool Stop For Spring Loaded Valve
10.	904-0003-35	Valve Spool Spring
11.	904-0003-36	Valve Spacer For Yoke Lift Valve
12.	900-A-2941	Spring Center Kit For Spring Loaded Valve
13.	904-0003-37	Detent Cap Only For Spring Loaded Valve (Short)

TYPICAL FEEDWHEEL CONTROL VALVE COMPONENTS

LOCATION	PART NUMBER	DESCRIPTION
1.	900-3905-95H	Handle Only (Short)
2.	900-3905-95	Valve Bracket Only With Screws
3.	904-0003-30	Master Link Only Control Valve
4.	904-0003-31	Pin And Cotter Key For Control Valve
5.	904-0003-32	Bracket, Handle And Chain Link NOTE: INCLUDES #'s 1, 2, 3, 4
6.	900-3937-34	Seal Kit For Control Valve
7.	904-0003-33	Seal Retainer For Control Valve NOTE: NOT INCLUDED IN SEAL KIT
8.	900-3901-12	Relief Valve Kit - Spring, Ball, Screw NOTE: SOLD ONLY AS A KIT
9.	900-3900-71	Detent Kit For Feedwheel Control Valve NOTE: SOLD ONLY AS A KIT
10.	900-390071C	Detent Cap Only With Screws (Long)
11.	900-3900-71E	Detent Kit With Cap And Screws NOTE: INCLUDES #'s 9 & 10
12.	900-3905-59	Handle, Pin, and Link NOTE: INCLUDES #'s 1, 3, & 4

CONTROL VALVES

LOCATION	PIPE FITTING	SAE O-RING	DESCRIPTION
1.	N/A	900-3927-73	Yoke Lift Control Valve for Dual Control Yoke Lift
2.	900-3901-24	900-3920-02	Yoke Lift Control Valve Without Winch Option
3.	900-3908-62	900-3920-09A	Yoke Lift Control Valve With Winch Option
4.	900-3901-42	900-3920-01A	Winch, Hyd. Swivel Discharge, and Tongue Jack
5.	900-3909-89	900-3920-06A	Feedwheel Control Valve With Relief
6.	900-3914-47	900-3920-05A	Feedwheel Control Valve With Out Relief



NOTICE Parts may not be exactly as shown.

LOCATION	PART NUMBER	DESCRIPTION
1. a.	900-5900-13	2 1/2" Heavy Duty Pintle Ring Hitch
b.	900-5905-73	3" Heavy Duty Pintle Ring Hitch
c.	*--*	Other Hitch Options Available
2. a.	900-2916-63	Coil Cable Assembly With 6 Prong Plugs - 15'
b.	900-2904-12	6-Prong Trailer Plug Male Plug Only
3.	900-2900-17	6-Prong Trailer Plug Female Plug Only
4.	900-5900-09	Electrical Breakaway Switch
5.	980-0510-51	Optional Spare Tire Mount
6. a.	980-200202	Optional Weld-On Cone Holder
b.	980-200215	Optional Bolt-On Cone Holder (Not Shown)
c.	905-2001-03	Optional Weld-On Hoop Style Cone Holder (Not Shown)
d.	911-2001-42	Optional Bolt-On Hoop Style Cone Holder (Not Shown)
e.	900-7900-86	Cap For Cone Holder (Not Shown)
7. a.	900-7900-78	Aluminum Tool Box - 18" Wide
b.	980-0508-37	Steel Tool Box
8.	980-200205	Tool Box Mount
9. a.	900-2927-86	LED Amber Marker Light - 3/4" Round
b.	900-2915-97	LED Amber Marker Light - Oval
10. a.	900-2927-85	LED Red Marker Light - 3/4" Round
b.	900-2915-98	LED Red Marker Light - Oval
11.	911-100001	Junction Box for Wiring
12.	937-200121	Fender
13. a.	900-5907-89	8,000 Lbs. Drop Leg Jack - Zinc
b.	920-1000-17	10,000 Lbs. Drop Leg Jack
14. a.	980-0127-45	Mount For 8,000 Lbs. Drop Leg Jack
b.	980-0127-44	Pin For 8,000 Lbs. Drop Leg Jack (Not Shown)
c.	900-5905-71	Pivot Mount For 5,000 Lbs. Jack - Square Mount
15.	980-300106	Trailer Plug Receptacle Mount
16.	980-0121-31	Safety Chain Holder
17. a.	900-4912-71	Safety Chain With Hooks and Spring Latches for Standard Tongue
b.	900-4905-77	Hook For Safety Chain
18. a.	900-7901-63B	Optional Aluminum Battery Box - 18" Wide
b.	900-7900-78B	Optional Aluminum Battery Box - 19" Wide
c.	914-0501-46	Steel Battery Box for 1400 CCA Battery
19.	937-300518	Battery/Tool Box Mount Plate
20. a.	900-6915-42	1000 CCA Battery
b.	900-6907-88	1400 CCA Battery
21. a.	900-9910-28	Manual Holder - 8" x 11" x 2"
b.	900-9902-07	Manual Holder - 10" x 12-1/2" x 2" (Stored In Tool Box)
22.	*--*	Engine Rails
23. a.	900-4905-11	Engine Adjuster Rod End - 5/8"-11NC x 6"
b.	900-4902-29	Engine Adjuster Rod End - 1/2"-13NC x 6"
c.	900-4902-28	Engine Adjuster Rod End - 1/2"-13NC x 8 1/2"
24. a.	922-0003-38	Engine Mount Pad For 1/2" Engine Hold Down
b.	980-0101-33	Engine Mount Pad For 5/8" Engine Hold Down
25.	900-5904-59	5/8"-18NF Wheel Flange Nut
26. a.	900-5904-76	235/75R-17.5" Tire and Solid Gray, 8-Bolt Rim
b.	900-5908-81	235/75R-17.5" Tire and Aluminum, 8-Bolt Rim
c.	900-5904-48	235/75R-17.5" Tire Only
d.	900-5904-49	17" x 6.75" Solid Gray, 8-Bolt Rim Only
e.	900-5908-78	17" x 6.75" Aluminum, 8-Bolt Rim Only
f.	900-5904-22	16" x 6" White Spoke, 8-Bolt Rim Only

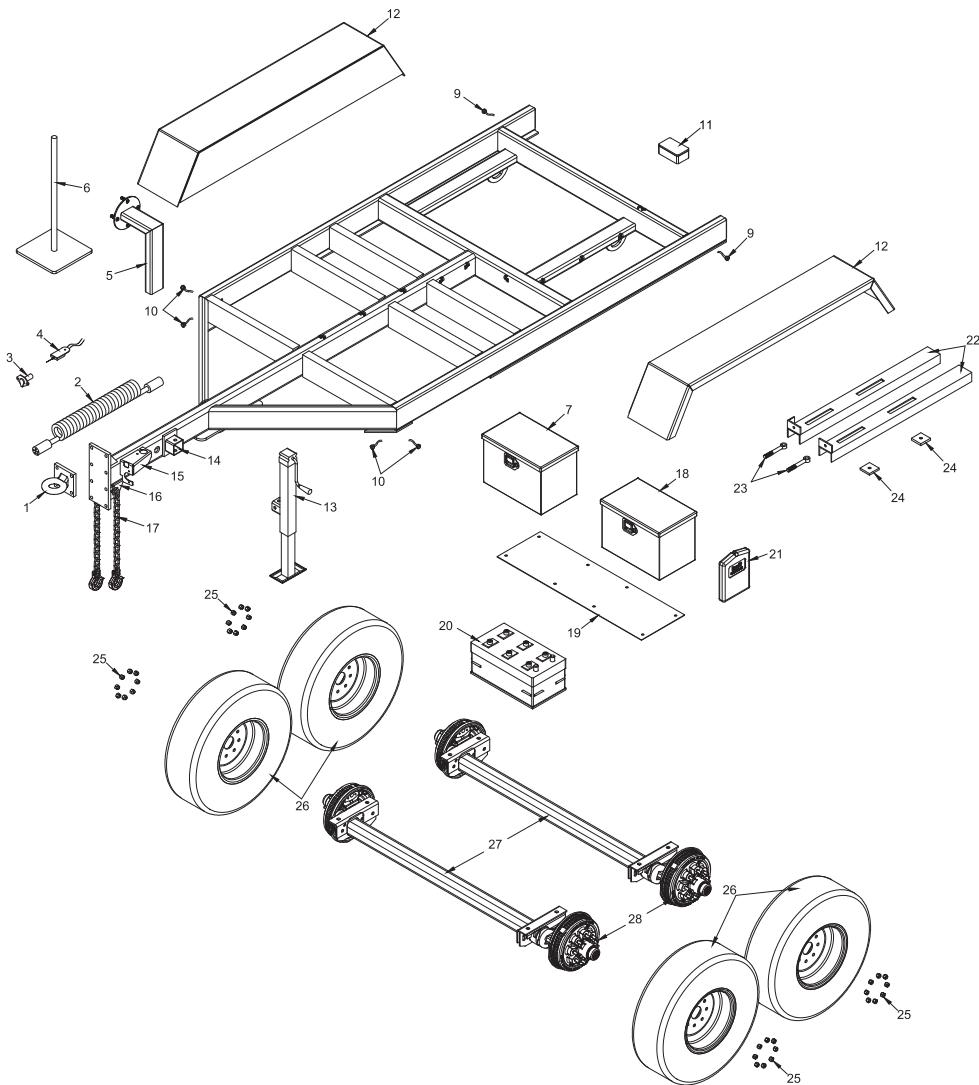
** Order Brake Hub And Drum Assembly According To Axle Type.

(Grease Type, Oil Type, Never Lube Type).

-- Engine Rails And Adjusters Will Vary Depending On Engine And Component Options.

Order By Serial Number Of Chipper Or Physical Description.

NOTICE Other fenders and fender stone shields are optional.



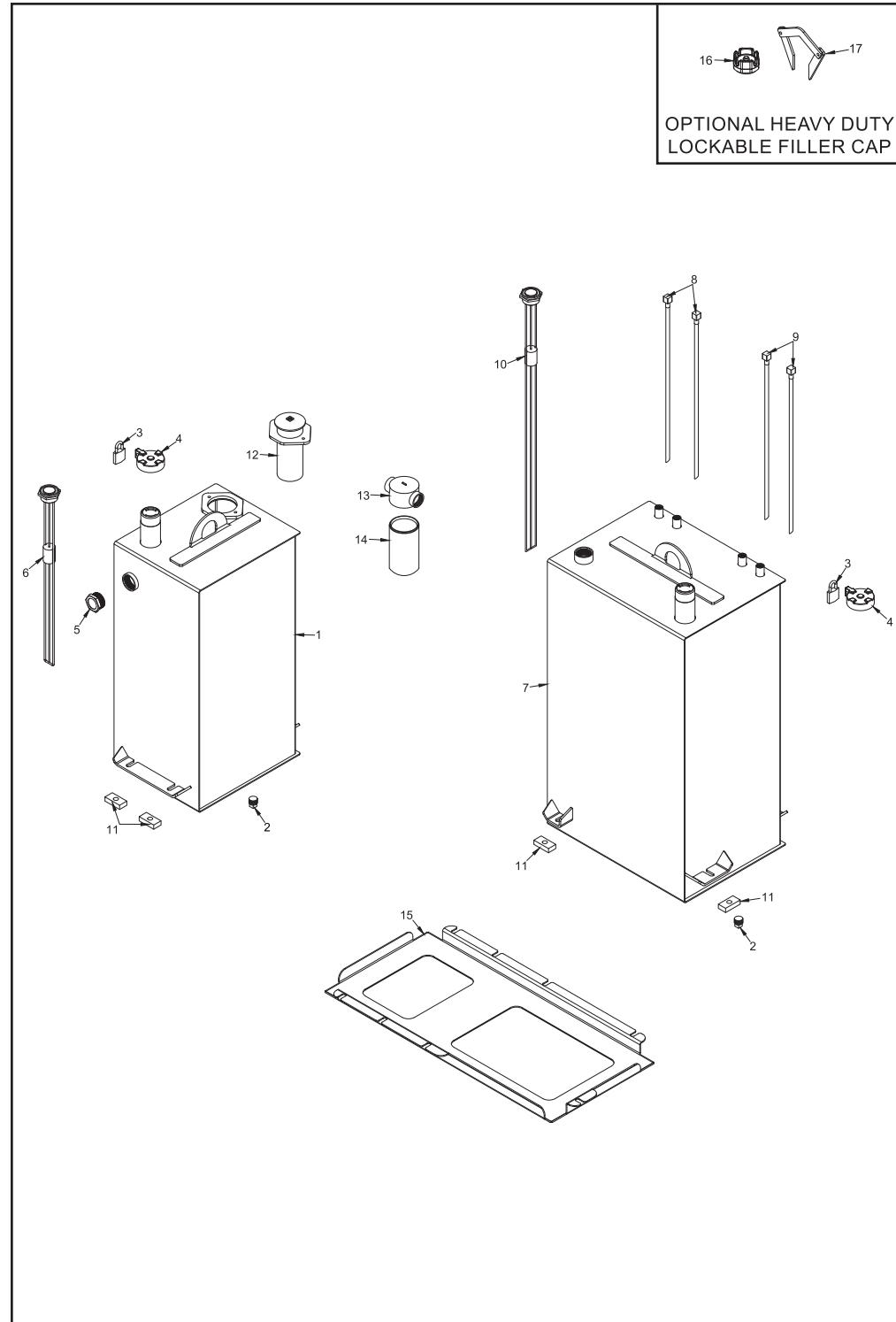
NOTICE Parts may not be exactly as shown.

LOCATION	PART NUMBER	DESCRIPTION
27. a.	900-5903-93	10,000 Lb. Torflex Axle Assembly - Electric Brake
b.	900-5909-08	10,000 Lb. Torflex Axle Assembly - Electric Brake - 0° Down Trail
c.	900-5908-83	10,000 Lb. Leaf Spring Assembly - Electric Brake
d.	900-5904-06	12,000 Lb. Leaf Spring Assembly - Electric Brake
e.	900-5904-55	8,000 Lb. Torflex Axle Assembly - Electric Brake (8/06 - 4/15)
f.	900-5905-12	8,000 Lb. Torflex Axle Assembly - Electric Brake (12/04 - 8/06)
g.	900-5902-70	7,000 Lb. Torflex Axle Assembly - Electric Brake (Pre 12/04)
28.	**	Brake Hub and Drum Assembly
29. a.	980-0508-25	Optional Wheel Chock Holders Aluminum Bolt-On (Not Shown)
b.	980-0508-26	Optional Wheel Chock Holders Metal Weld-On (Not Shown)
30.	900-5902-32	Optional Rubber Wheel Chock (Not Shown)
31.	900-5904-52	Optional Safety Marker For Fenders (Not Shown)
32.	900-7900-48	Optional Mud Flap (Not Shown)
33. a.	900-9904-94	Optional Vice (Not Shown)
b.	980-300113	Optional Weld-On Vice Mount (Not Shown)

** Order Brake Hub And Drum Assembly According To Axle Type.
(Grease Type, Oil Type, Never Lube Type).

* * Engine Rails And Adjusters Will Vary Depending On Engine And Component Options.
Order By Serial Number Of Chipper Or Physical Description.

NOTICE Other fenders and fender stone shields are optional.



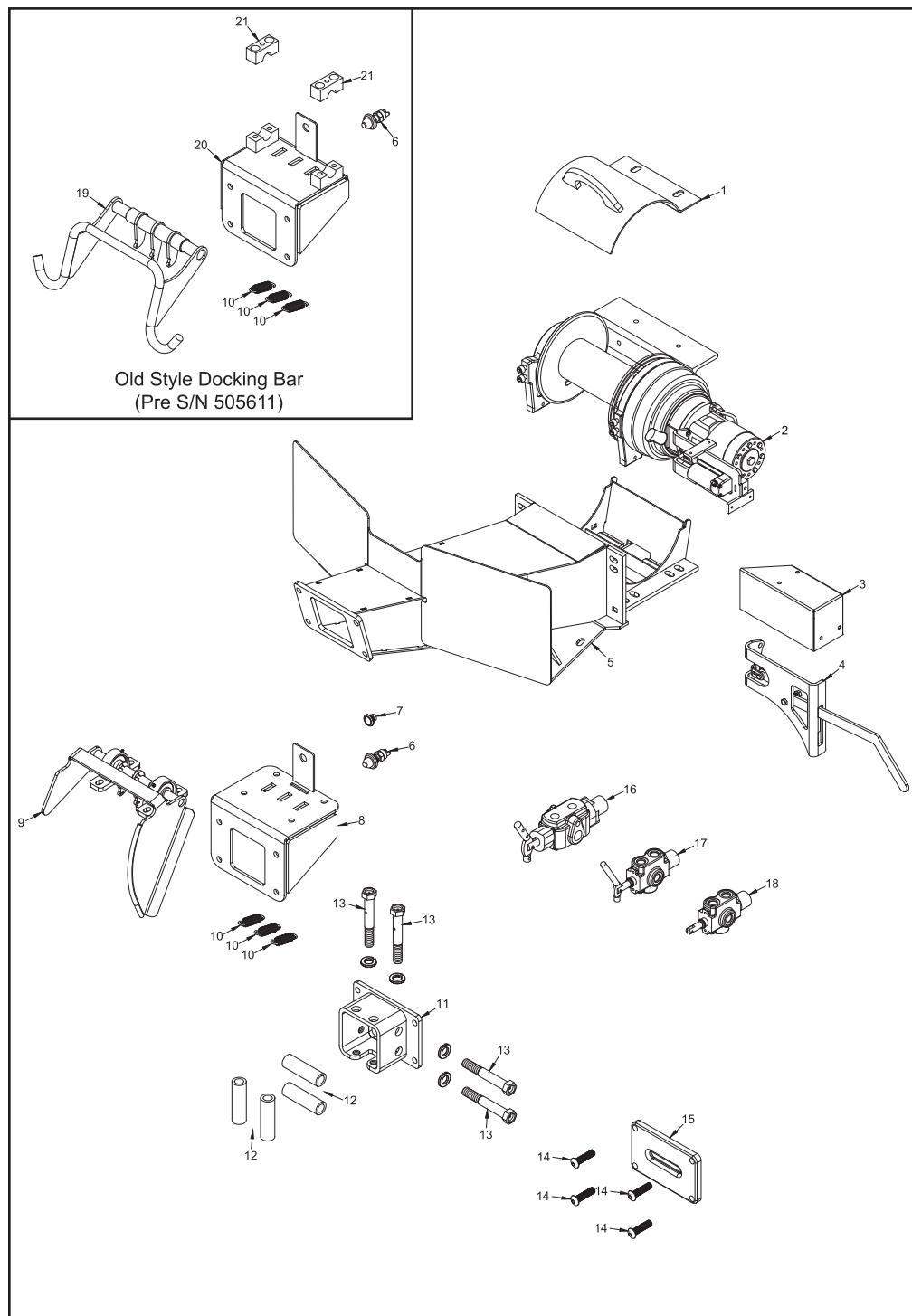
NOTICE Parts may not be exactly as shown.

LOCATION	PART NUMBER	DESCRIPTION
1. a.	937-2001-63	30 Gallon Rectangle Hydraulic Tank Assembly - In Tank Filter (Start S/N 2359)
b.	937-200011	24 Gallon Rectangle Hydraulic Tank Assembly - External Filter (Pre S/N 2359)
2.	900-3922-60	Magnetic Drain Plug
3. a.	900-4912-40	Padlock With Short Shackle For Tank With Locking Cap
b.	900-4917-21	Key For Padlock (Not Shown)
4. a.	900-3941-31	Fuel (Diesel) Locking Fill Cap - Green
b.	900-3941-30	Fuel (Gasoline) Locking Fill Cap - Black
c.	900-3941-30	Hydraulic Locking Fill Cap - Black
d.	900-3935-06	Keeper For Fuel & Hydraulic Locking Fill Cap (Not Shown)
5.	900-3975-03	SLW-24 Sight Gauge (Start 10/15)
6. a.	900-2904-14	Rochester Sight Gauge - 30 Gallon Hydraulic Tank (Start S/N 2359)
b.	900-2903-95	Rochester Sight Gauge - 24 Gallon Hydraulic Tank (Pre S/N 2359)
c.	900-2903-55	Face For Sight Gauge Only
7.	937-200029	60 Gallon Rectangle Fuel Tank Assembly
8. a.	900-3926-84	Suction Drop Pipe Ass'y Without Hose Barb (1/2" NPTF Male x 3/8" NPTF Female)
b.	900-3926-83	3/8" NPTF To 1/2" Hose Barb
c.	900-3926-82	3/8" NPTF To 3/8" Hose Barb
d.	900-3931-53	3/8" NPTF To 5/16" Hose Barb
9. a.	900-3909-00	Return Drop Pipe Ass'y Without Hose Barb (3/8" NPTF Male x 1/4" NPTF Female)
b.	900-3925-48	1/4" NPTF To 3/8" Hose Barb
c.	900-3909-01	1/4" NPTF To 5/16" Hose Barb
d.	900-3909-02	1/4" NPTF To 1/4" Hose Barb
e.	900-3943-22	3/16" NPTF To 3/16" Hose Barb
f.	900-3943-21	1/4" NPTF To 3/16" NPTF Bushing
10. a.	900-2903-95	Rochester Sight Gauge For 40 Gallon Rectangle Fuel Tank (Start 12/05)
d.	900-3923-28	Rochester Sight Gauge For Optional 60 Gallon Rectangle Fuel Tank
c.	900-2903-55	Face For Sight Gauge Only
11.	900-7900-14	Rubber Mounting Pad
12. a.	900-3950-56	In Tank Filter Assembly (Start S/N 2359)
b.	900-3950-58	In Tank Filter (Start S/N 2359)
13.	900-3910-18	Filter Head (Pre S/N 2359)
14.	900-3901-66	Filter (Pre S/N 2359)
15. a.	937-300088	Combination Tank Mount - 40 or 60 Gal. Fuel Tank & 24 or 30 Gal. Hyd. Tank
b.	900-0104-95	Rubber Tank Pad (Not Shown)
c.	900-7900-35	Tank Cushion Material (Not Shown)
16.	980-0506-85	Optional Fill Cap Lock Assembly For Steel Tank With 900-3917-71 Fill Cap
17.	900-3917-71	Optional Fill Cap Only No Dipstick (Steel Tank)

NOTICE Components vary with fuel type. Specify gas or diesel when ordering fuel tank components.

NOTICE Tank assemblies vary with options. Specify all options when ordering.

DINAMIC WINCH



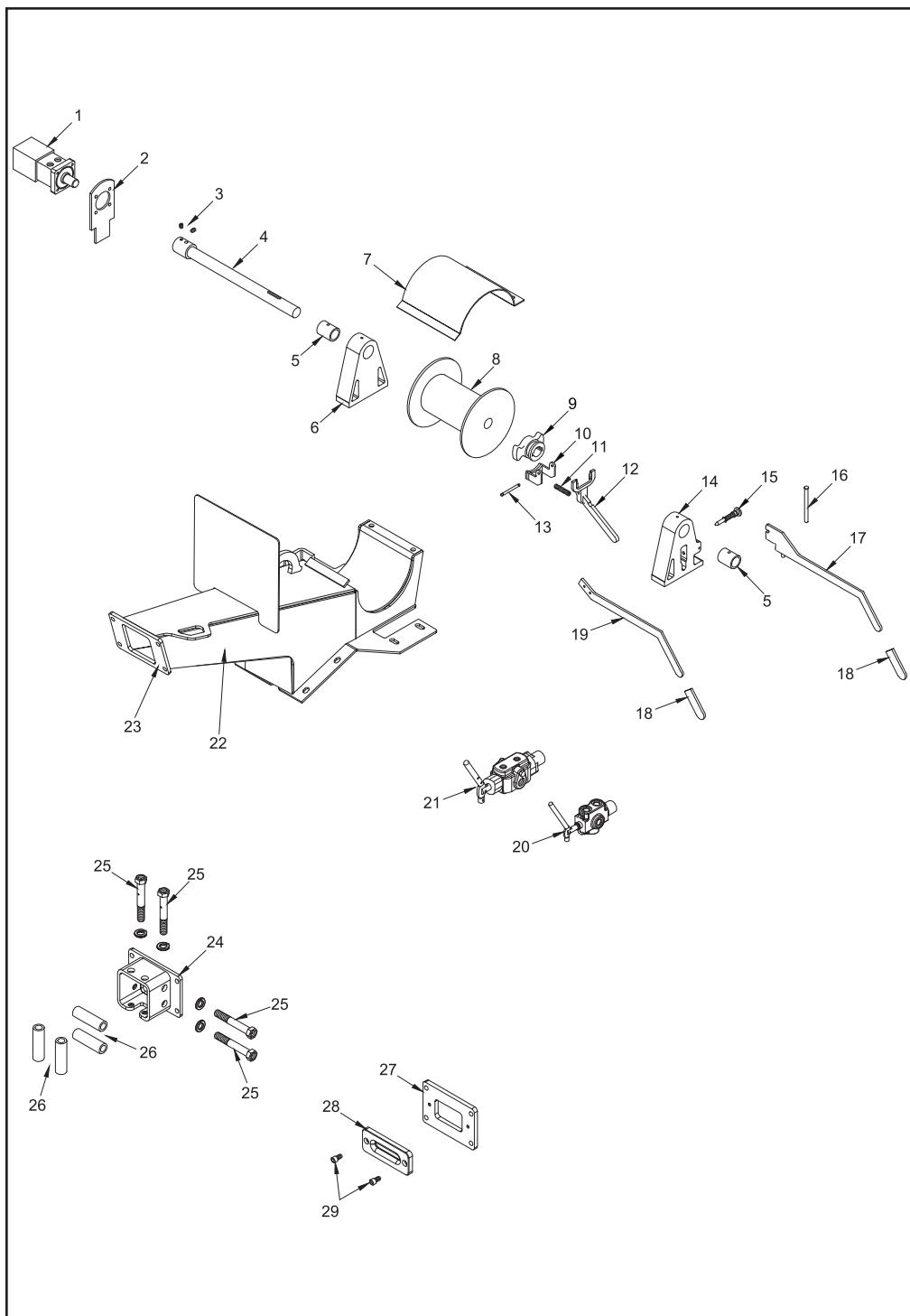
NOTICE Parts may not be exactly as shown.

DINAMIC WINCH

LOCATION	PART NUMBER	DESCRIPTION
1.	980-3012-41	Winch Spool Cover
2.	900-3974-40	Winch
3.	980-3012-51	Winch Handle Cover
4.	980-2004-90	Lock Disengagement Handle Assembly
5. a.	980-2004-14	Winch Tunnel
5. b.	911-3005-87	Decal Plate
6.	900-2903-07	Limit Switch
7.	900-2927-86	Feed Deactivate Light
8.	980-2005-14	Winch Switch Frame
9.	980-2005-35	Rope Docking Bar
10.	900-4919-82	Spring
11.	980-0505-82	Winch Roller Assembly (Includes 12 - 13)
12.	914-1004-18	Winch Roller
13. a.	900-4902-27	Winch Roller Bolt
13. b.	900-4907-17	3/4" Lock Washer
14.	900-4923-41	1/2"-13NC x 2" Plated Button Head Cap Screw
15.	980-3011-25	Fairlead
16.	900-3920-01	Winch Valve
17. a.	900-3936-39	Winch Selector Control Valve
17. b.	900-3936-40	5/16" Replacement Stud For Selector Valve
18. a.	900-3956-26	Momentary Feed Valve
18. b.	905-3002-14	Push Plate for Momentary Feed Switch (Not Shown)
18. c.	900-2903-07	Momentary Feed Push Button Switch (Not Shown)
19.	980-2004-48	Rope Docking Bar
20.	980-2004-47	Winch Switch Frame
21. a.	980-2004-51	Bearing Block
21. b.	900-4900-06	Grease Zerk

NOTICE Nuts, bolts, washers, and all other components can be ordered by physical description.

RKI WINCH



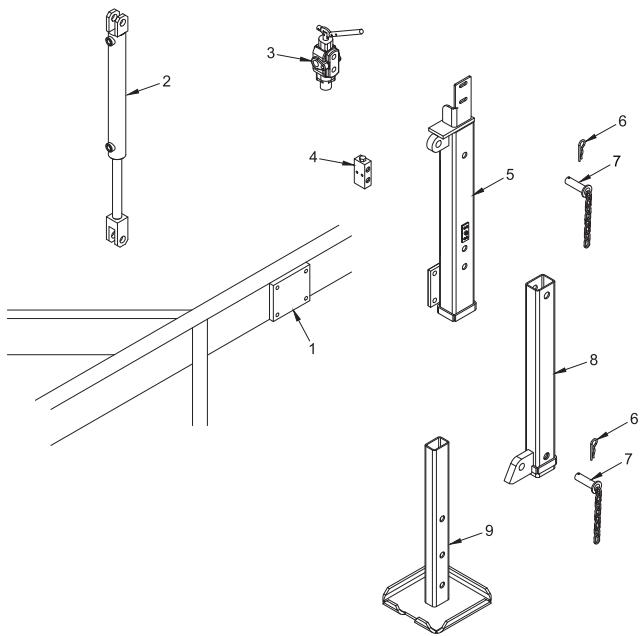
NOTICE Parts may not be exactly as shown.

RKI WINCH

LOCATION	PART NUMBER	DESCRIPTION
1. a.	900-3972-06	Winch Hydraulic Motor (SAE O-ring) "RS" - Square
b.	900-3973-28	Winch Hydraulic Motor (Pipe Fitting) "RS" - Square
c.	900-3973-39	Winch Hydraulic Motor (SAE O-ring) "RE" - Round
2. a.	981-1001-01	Winch Motor Torque Arm For "RS" Motor
b.	955-1011-71	Winch Motor Torque Arm For "RE" Motor
3.	900-4910-65	3/8"-16NC x 3/8" Cup Point Socket Set Screw
4. a.	980-900002	Winch Shaft Only
b.	900-3905-22	Winch Shaft With Keys
5.	900-1915-24	Bronze Bushing For A Frame Arm
6.	910-1000-08	Steel Winch A Frame Arm (Also Includes # 5)
7.	980-300260	Winch Drum Cover
8. a.	900-3905-19	Winch Drum (Includes Bushings)
b.	900-3963-28	Bushing Only For Winch Drum (Not Shown)
9.	900-3905-17	Winch Clutch
10.	900-3964-49	Winch Brake Shoe Only
11.	900-3958-61	Winch Spring
12. a.	900-3959-59	Winch Shift Lever Only
b.	900-3905-16	Winch Shift Lever With #'s 10 & 11
13. a.	900-3961-21	Winch Pin For Brake Assembly
b.	900-3958-59	Winch Snap Ring For Winch Pin
14.	910-1000-07	Steel Winch A Frame Arm (Includes # 5)
15.	900-3905-14	Winch Release Lever Pin Assembly
16.	900-4913-00	Pivot Pin For Winch Handle Extension (If Applicable)
17.	955-300377	Lock Pin Handle Extension (If Applicable)
18.	900-9906-75	Vinyl Cap For Handle Extension (If Applicable)
19.	955-300376	Winch Shift Lever Extension (If Applicable)
20. a.	900-3936-39	Winch Selector Control Valve (Replaces 900-3920-58) (SAE O-ring)
b.	900-3913-41	Winch Selector Control Valve (Pipe Fitting)
c.	900-3936-40	5/16" Replacement Stud For Selector Valve (900-3936-39)
d.	900-3924-48	1/4" Replacement Stud For Selector Valve (900-3920-58 & 900-3913-41)
21. a.	900-3920-01	Winch Valve (SAE O-rings)
b.	900-3901-42	Winch Valve (Pipe Fittings)
22.	980-200162	Winch Tunnel Assembly (Includes # 23)
23.	980-3009-01	Mount Plate
24.	980-0505-82	Winch Roller Assembly (Includes #'s 25 - 26)
25. a.	900-4902-27	Winch Roller Bolt
b.	900-4907-17	3/4" Lock Washer
26.	914-1004-18	Winch Roller
27. a.	980-3009-31	Adapter Plate For Fairlead
b.	980-2003-10	Fairlead Kit (Includes #'s 23, 27 - 29)
28.	980-3009-03	Fairlead
29.	900-4915-96	7/16"-14NC x 3/4" Socket Head Cap Screw
30.	904-0002-60	Winch Kit (Includes #'s 1 - 15, 20 - 26)

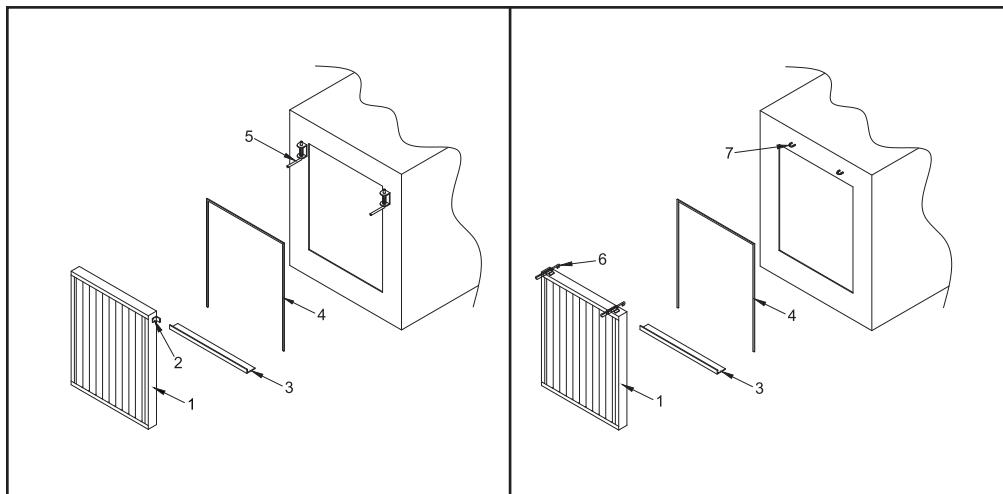
NOTICE Nuts, bolts, washers, and all other components can be ordered by physical description.

HYDRAULIC TONGUE JACK



LOCATION	PART NUMBER	DESCRIPTION
1.	920-300340	Tongue Jack Mount Plate
2. a.	900-3934-24	Tongue Jack Cylinder - Welded
b.	904-0007-14	Pin For Welded Cylinder (Not Shown)
3. a.	900-3920-01	Tongue Jack Valve (SAE O-rings)
b.	900-3901-42	Tongue Jack Valve (Pipe Fittings)
4.	900-3949-09	Check Valve
5.	955-2002-81	Outside Tube Assembly
6.	900-4907-60	Cotter Hair Pin
7.	914-1000-38	Lock Pin
8.	955-2002-80	Inside Tube Assembly
9.	955-2002-79	Drop Leg Foot Pad Assembly
10.	955-2001-93	Bolt-On Hydraulic Tongue Jack Kit (Includes 1 - 9)

NOTICE Parts may not be exactly as shown.

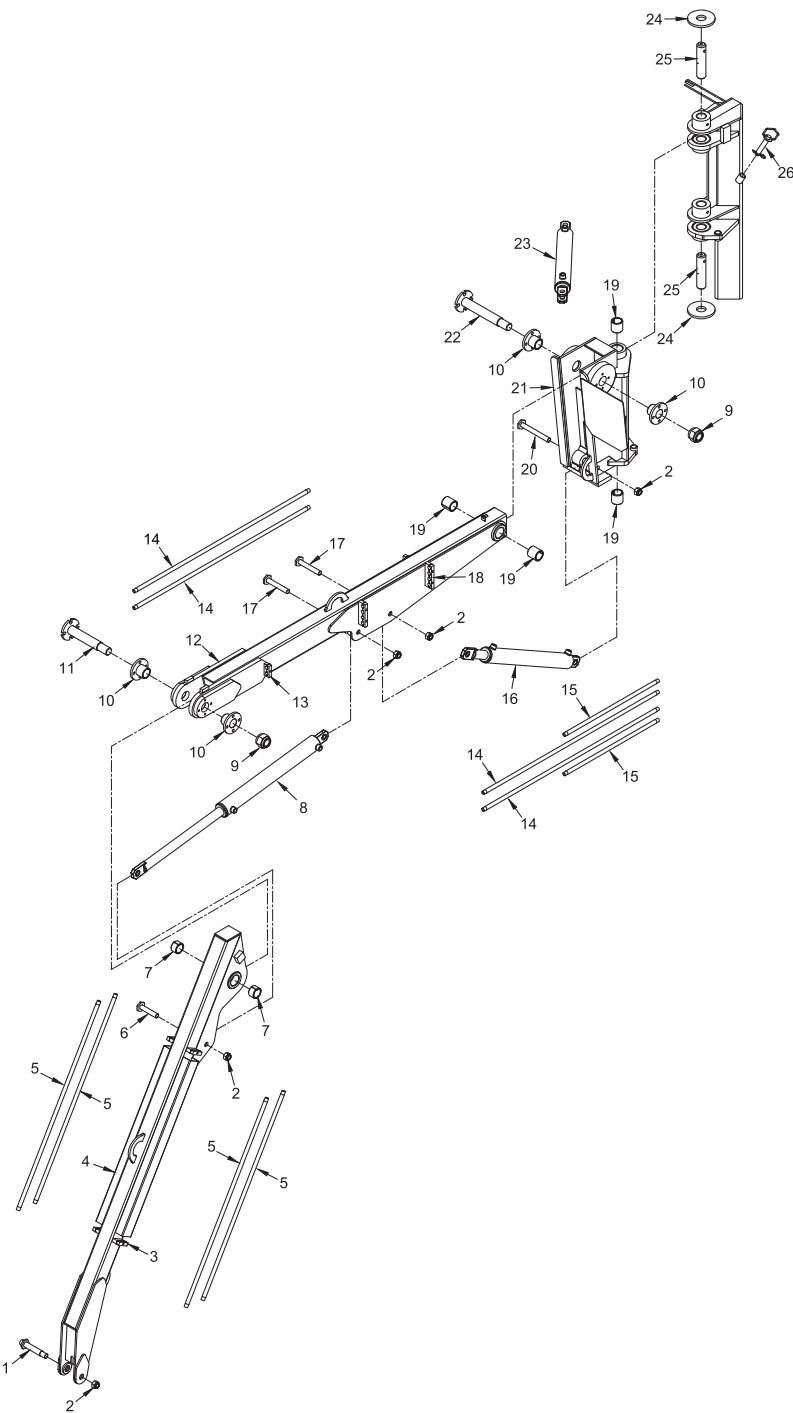
BANDIT H.D. FOLDAWAY RADIATOR SCREEN

LOCATION	PART NUMBER	DESCRIPTION
1.	980-0508-17	Bandit H.D. Foldaway Radiator Screen Ass'y (specify latch type)
2.	980-0122-86	Spring Lock Tab Foldaway Radiator Screen
3.	*_*	Mount Tray For Foldaway Radiator Screen
4.	900-7900-57	Weather Strip
5. a.	900-4901-83	Spring Lock Plunger
b.	900-7900-93	Rubber Cap For Spring Lock - 1/2" Diameter
6.	900-4901-61	Hook Pull Clamp
7.	980-0128-77	Lock Tab For Hook

***-* Will Vary Depending On Engine And Component Options. Order By
Serial Number Of Chipper Or Physical Description.**

NOTICE Parts may not be exactly as shown.

MODEL 75 LOADER

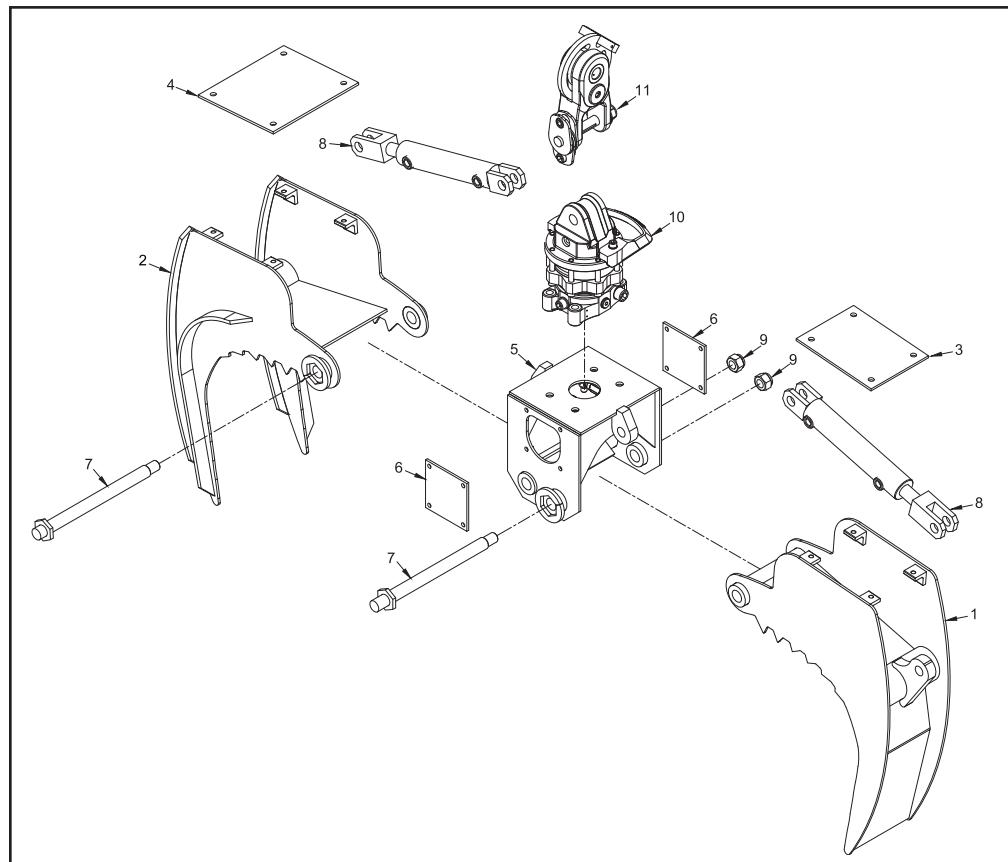


NOTICE Parts may not be exactly as shown.

MODEL 75 LOADER

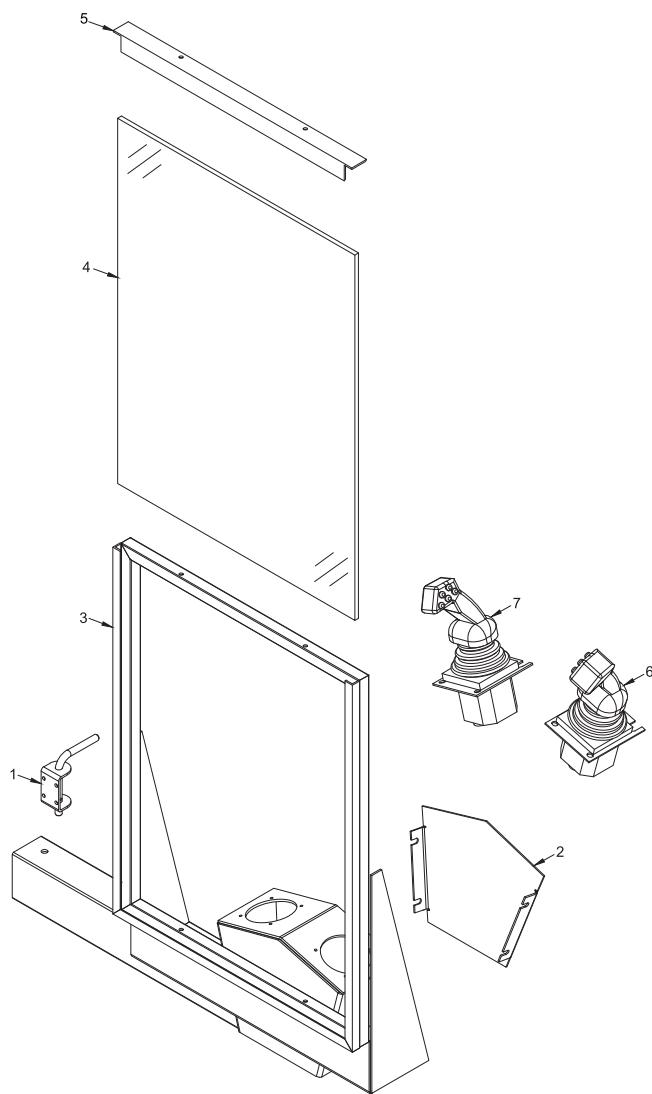
LOCATION	PART NUMBER	DESCRIPTION
1. a.	914-1017-14	Pivot Pin for Swing Brake - 7 5/8"
b.	955-1010-72	Pivot Pin Keeper - Weld On
2.	900-4900-80	Nylon Lock Nut for Main Boom Pin
3.	955-1016-01	Clamp for Jib Boom Pipe
4.	914-0502-97	Jib Boom Assembly
5.	914-1018-24	Pipe for Jib Boom
6. a.	914-1017-13	Cylinder Pin - 5 1/2"
b.	955-1010-72	Cylinder Pin Keeper - Weld On
7.	900-1905-35	Split Steel Bushing - 2 1/2" OD x 2" ID x 1 1/2"
8.	900-3924-07	Hydraulic Cylinder - 3" x 24"
9.	955-3006-85	Loader Pin Lock Nut - 1 3/4"
10.	960-0011-67	Bushing for Pivot Pin
11. a.	914-1017-16	Main to Jib Pivot Pin
b.	960-0013-47	End Cap for Pivot Pin - Weld On
12.	914-0502-96	Main Boom Assembly
13.	955-1010-62	Pipe Clamp for Main Boom
14.	914-1018-22	Pipe for Main Boom - SCH 40 x 29"
15.	914-1018-23	Pipe for Main Boom - SCH 40 x 54"
16.	900-3924-06	Hydraulic Cylinder - 3" x 24" with a 4" Stop
17. a.	914-1017-15	Cylinder Pin - 7"
b.	955-1010-72	Pivot Pin Keeper - Weld On
18.	916-0006-21	Pipe Clamp for Main Boom
19.	900-9900-35	Split Steel Bushing - 2 1/2" x 2" x 2 1/2"
20. a.	914-1016-98	Cylinder Pin - 9"
b.	955-1010-72	Pivot Pin Keeper - Weld On
21.	914-0503-10	Pedestal Assembly
22. a.	914-1017-17	Pivot Pin - 14 5/8"
b.	960-0013-47	End Cap for Pivot Pin - Weld On
23.	900-3903-01	Hydraulic Cylinder - 3" x 16"
24.	914-1017-86	Pad Support
25.	914-1016-40	Pivot Pin
26.	900-4902-35	Pin - 1" x 4 1/4"

MODEL 75 LOADER GRAPPLE



LOCATION	PART NUMBER	DESCRIPTION
1.	914-2000-94	Narrow Jaw Assembly (Includes 3)
2.	914-2000-93	Wide Jaw Assembly (Includes 4)
3.	955-1011-66	Cylinder Cover - Narrow Jaw
4.	955-1011-67	Cylinder Cover - Wide Jaw
5.	914-2000-95	Grapple Head Assembly (Includes 6)
6.	955-3009-15	Grapple Fitting Bolt On Cover
7. a.	955-1012-61	Pivot Pin
b.	955-1010-72	Pivot Pin Keeper
8.	900-3933-18	Hydraulic Cylinder - 2 x 8
9.	900-4900-80	Lock Nut for Grapple Pin
10.	900-3910-19	Grapple Rotator
11.	900-4905-69	Swing Brake

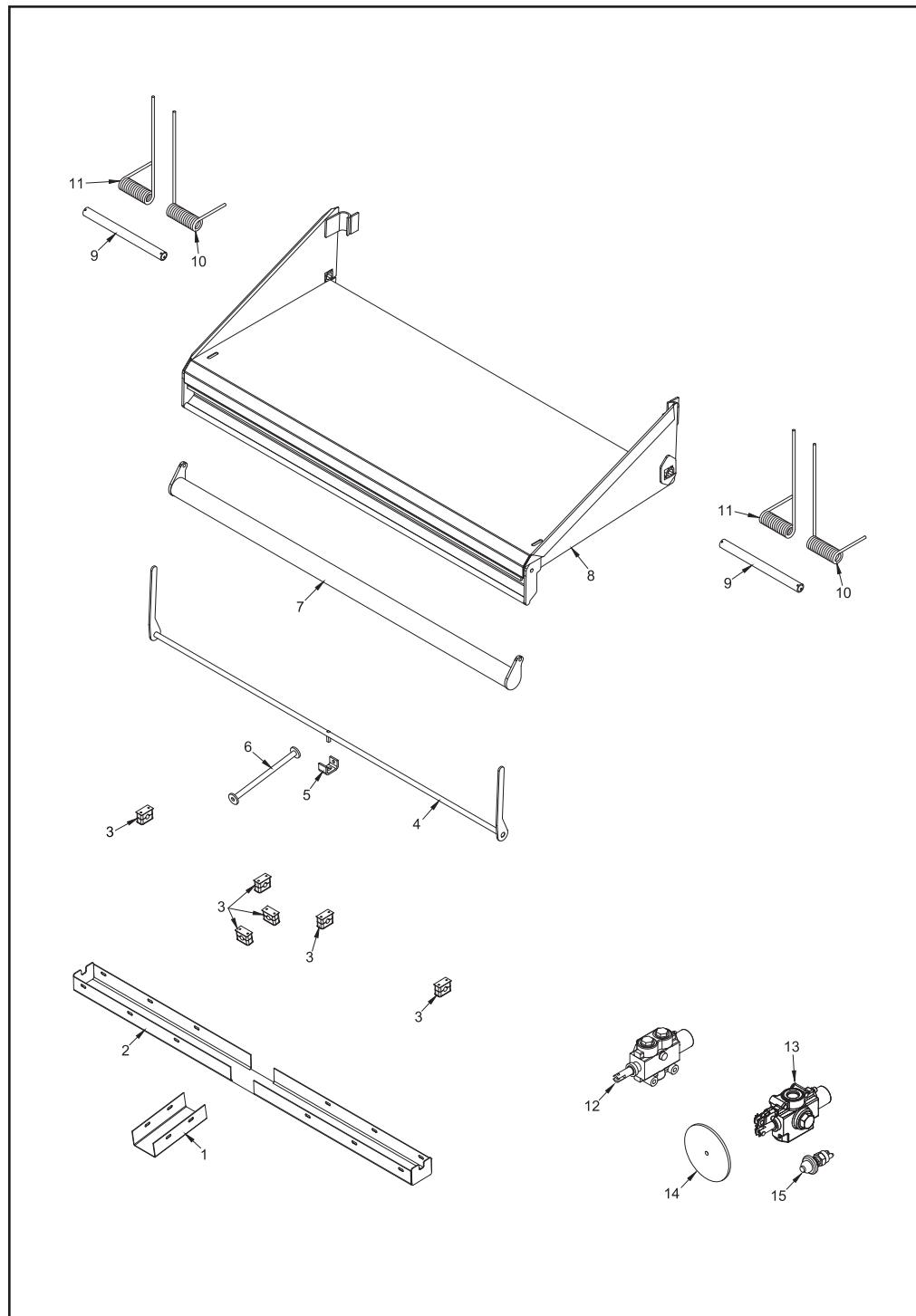
NOTICE Parts may not be exactly as shown.

MODEL 75 LOADER SWING OUT ARM

LOCATION	PART NUMBER	DESCRIPTION
1.	900-4901-83	Spring Loaded Pin - 1/2"
2.	937-1009-70	Joy Stick Cover
3.	955-0503-06	Swing Out Arm Assembly (Includes 1 through 5)
4.	900-8900-05	Swing Out Window
5.	914-1018-14	Glass Mount Shield
6.	900-3934-35	Joystick - Left Hand (Not Shown)
7.	900-3934-36	Joystick - Right Hand (Not Shown)

NOTICE Parts may not be exactly as shown.

HYDRAULIC BUMP BAR



NOTICE Parts may not be exactly as shown.

HYDRAULIC BUMP BAR

LOCATION	PART NUMBER	DESCRIPTION
1.	905-3001-99	Valve Push Bar Cover
2. a.	980-2003-42	Reset Pivot Handle Cover Assembly - 35"
b.	626-2001-29	Reset Pivot Handle Cover Assembly - 42"
c.	905-2000-57	Reset Pivot Handle Cover Assembly - 45"
d.	917-2000-22	Reset Pivot Handle Cover Assembly - 54"
e.	911-2001-18	Reset Pivot Handle Cover Assembly - 64"
3.	900-3914-02	Clamp
4. a.	980-2003-41	Reset Pivot Handle Assembly - 35"
b.	626-2001-30	Reset Pivot Handle Assembly - 42"
c.	905-2000-58	Reset Pivot Handle Assembly - 45"
d.	917-2000-23	Reset Pivot Handle Assembly - 44"
e.	911-2001-17	Reset Pivot Handle Assembly - 64"
5.	905-3002-08	Bump Bar Trip Bracket
6.	905-2000-59	Valve Push Bar Assembly
7. a.	980-2003-40	Hydraulic Bump Bar Assembly - 35"
b.	626-2001-28	Hydraulic Bump Bar Assembly - 42"
c.	905-2000-50	Hydraulic Bump Bar Assembly - 45"
d.	917-2000-19	Hydraulic Bump Bar Assembly - 54"
e.	911-2000-99	Hydraulic Bump Bar Assembly - 64"
8. a.	980-2003-37	Bump Bar Infeed Tray Assembly - 35"
b.	626-2001-26	Bump Bar Infeed Tray Assembly - 42"
c.	905-2000-56	Bump Bar Infeed Tray Assembly - 45"
d.	917-2000-20	Bump Bar Infeed Tray Assembly - 54"
e.	911-2001-13	Bump Bar Infeed Tray Assembly - 64"
9. a.	980-3011-43	Spring Tube for Spring Assist - Single Spring (Start 4/14)
b.	980-0129-86	Spring Tube for Spring Assist - Single Spring (Pre 4/14)
c.	937-3009-68	Spring Tube for Spring Assist - Double Springs (Start 4/14)
d.	980-3010-34	Spring Tube for Spring Assist - Double Springs (Pre 4/14)
10. a.	900-4917-76	Left Spring for Spring Assist (Start 4/14)
b.	900-4905-39	Left Spring for Spring Assist (Pre 4/14)
c.	900-4908-70	"HD" Left Spring for Spring Assist (Pre 4/14)
11. a.	900-4917-77	Right Spring for Spring Assist (Start 4/14)
b.	900-4905-40	Right Spring for Spring Assist (Pre 4/14)
c.	900-4908-71	"HD" Right Spring for Spring Assist (Pre 4/14)
12.	900-3956-74	Bump Bar Valve (Not Shown)
13.	900-3956-26	Momentary Override Valve (Not Shown)
14.	905-3002-14	Push Plate for Momentary Override Switch (Not Shown)
15. a.	900-2903-07	Momentary Override Push Button Switch (Not Shown)
b.	999-8001-88	Momentary Override Timer (Not Shown)

SERVICE RECORD

HAND FED

BANDIT CONTROLS

(FUEL SAVER)

(RADIO)

(WINCH w/ FEED ASSIST)

(DUMP VALVE)

(BUMP BAR)

Main Page



To Start, turn key to ON position. In cold weather the engine may pre heat glow plugs or heater grid and the WAIT TO START symbol will appear on the splash screen. When pre heat is complete the Display will continue to Main Page.

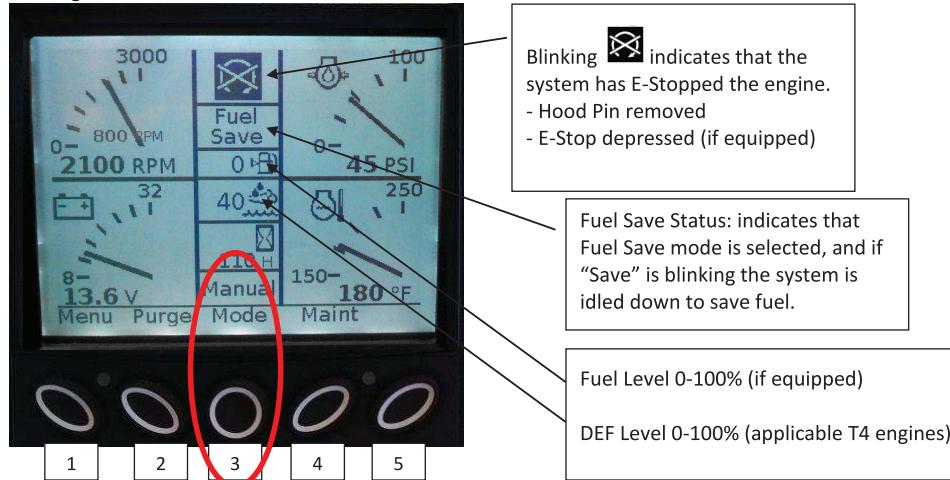
The fuse box may have a foam retainer under the cover to help hold the relays in place. The fuse decal is located under the foam.

The control panel is equipped with an Anti-Restart key switch to prevent grinding the starter while the engine is running. If the engine does not start immediately, it may be necessary to cycle the key back to the OFF position, wait 15-20sec (allow engine ECU time to shut down), and then go through the starting sequence again.

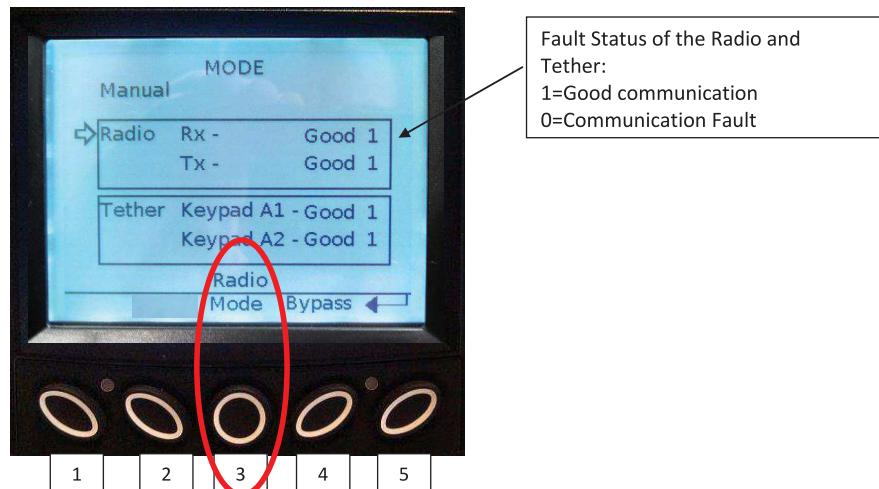
To turn off AutoFeed and run auxiliary functions at startup, navigate to the Mode page on the display and see instructions below on pages 3 and 4.



Main Page



2. Press 'Purge' button to trigger a reverse cycle on the radiator fan (if equipped).
3. Press this button to Navigate to the Mode page and select Radio or Tether operating mode.
(On Displays with software version 57193_D1 (19Jun2015) and later, the Display automatically returns to this Main Engine page 60sec after last button press).

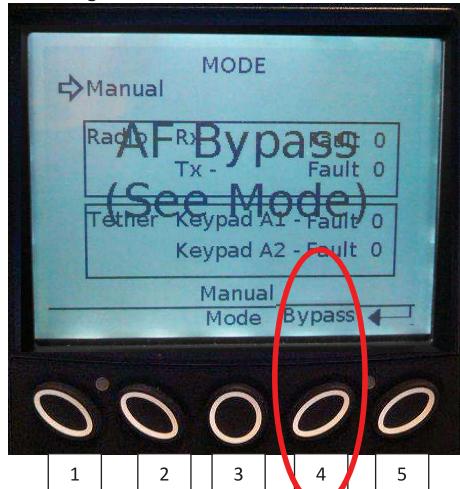


Press the Mode button to select between Manual, Radio, or Tether operating mode.

Lost Communication:

If Controller 1 (C1) loses communication with the Display, C1 will default to Radio mode.
If C1 loses comm with the Display AND the radio receiver, it will default to Tether Mode.
If C1 loses comm with display and receiver and tether, it will remain in Manual mode internally. Manual Mode still allows the operator to at least start and idle and override valves manually.

Mode Page



4. Press the "Bypass" button to manually run Feed Fwd at low Eng RPM and bypass the AutoFeed control. This will allow auxiliary functions to be operated on certain machines equipped with dump valve hydraulics. To turn AutoFeed back on, press the same "Bypass" button again. At startup, the machine always defaults to AutoFeed ON when the key is first turned on.

(A popup alert indicating the controls are in Bypass will blink on every screen because certain control features are disabled while in Bypass).

(While feeding fwd when *not* in Bypass, when you throttle down Feed Fwd will drop out and AutoRev will fire one time. However, if you are in Manual Bypass, AutoRev will momentarily fire every time the engine is throttled down past the AutoFeed Low RPM setting. This is to give the operator a chance to observe the AutoRev settings).

5. Go back.

BANDIT CONTROLS

Main Page



Press the Maint button to navigate to the Maintenance Pages.

57744 D1 MAINT1 INPUTS		57744 C1
C1 to Disp (CAN comm)	0	0
Eng to C1 (CAN comm)	0	0
FS On/Off Sw (C1-C3)	0	0
Key Start (C1-C2)	0	
Hood Pin (C1-B3)	0	0
Throttle Up/Dn (C1-C6,C7)	00	
Wnch-Stow-FA (C1-B7r,A3,A7)	00	0 0
FS Throttle Up Sw (C1-B2)	0	
Bump Bar Override Sw (C1-A6)	0	
E-Stop (C1-B6)	0	0
Tether E-Stop Sw (C1-A2)	0	0
Chip Time	0 : 0 : 0	Maint2 ←

(Software Serial Numbers)

Function Status

Error Counts

MAINT1 INPUTS

Shows the status of communication between devices and various inputs to Controller1 (C1).

1=Good/Active

0=Bad/Inactive

The number behind many of the device status is an error count. Each time communication is lost or the status is bad this number will count up to a maximum of 15 until keyswitch is cycled and that memory is cleared.

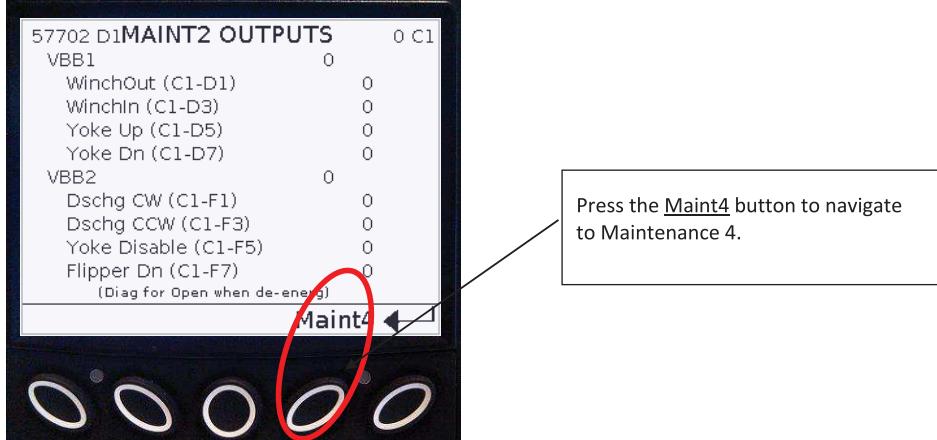
This is to provide a limited history of errors in case an operator is unable to watch this screen continuously and likely miss a status value momentarily showing 0.

(The Tether E-Stop error counter will only watch for E-Stops while in Tether Mode).

Chip Time is a measure of time accumulated when engine load is above FuelSave Load and Feeding Fwd.

57744 is 21Dec2016

Maint Pages



MAINT2 OUTPUTS

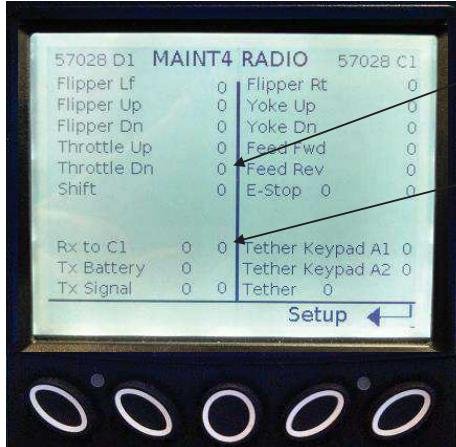
Shows the status of Controller1 (C1) outputs that are able to be diagnosed.

Observe the note on the screen that output wiring can only be diagnosed for open/broken connection while the output is **de-energized**.

The Outputs in Controller1 (C1) are organized into 2 groups, each group has a supply fuse. The status of each fuse is shown at the top of each group. If multiple outputs from the same group have bad (0) status, check the supply fuse for that group as well as the individual wires to each coil.

BANDIT CONTROLS

Maint Pages



Input values change from 0 to 1 when that Radio function is active.

Error counts for how many times the controller has lost comm with the receiver or transmitter.

MAINT4 RADIO

The radio and tether systems (optional on some machines) send all of their signals via CAN messages and therefore cannot be checked physically at the receivers with a voltmeter. This Maintenance screen is a tool used to function check all inputs coming from the radio and tether keypads to ensure they are working properly. With the ignition ON but ENGINE NOT RUNNING, work through each button on the radio and tether and make sure the corresponding values change. The numbers shown are raw values that the program translates into commands.

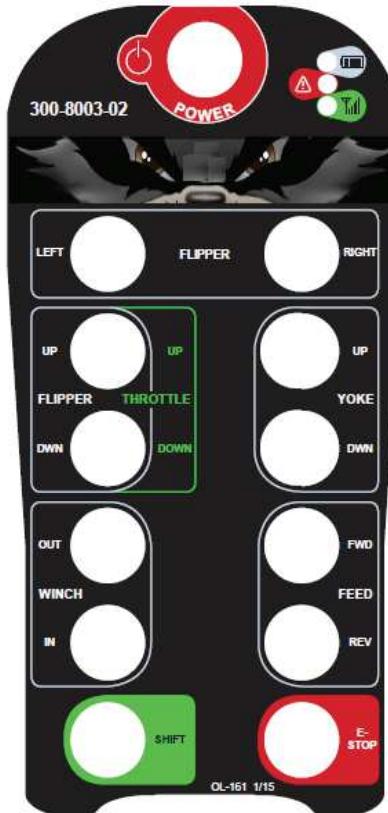
The number close behind E-Stop, Rx to C1, and Tether descriptions is an error count.

(If Fuel Saver mode is turned on and the machine idles down due to light load conditions, simply press Throttle Up and then press Feed Fwd to resume feeding).

(If the Winch Stow Switch indicates that the winch is out, Feed Fwd will stop automatically and the Radio Winch functions will be enabled. The Radio Feed Fwd button then can be used to Feed Assist on Electric Feed Assist machines. Once the Winch is properly stowed, Radio winch functions will be disabled and Feed Fwd will operate as normal to resume chipping).

The Yoke/Lift is disabled while winch is deployed. Except, Yoke/Lift can momentarily operate with Feed-Assist-Fwd. Yoke/Lift is fully enabled again once the winch is properly stowed tight on the stow bar.

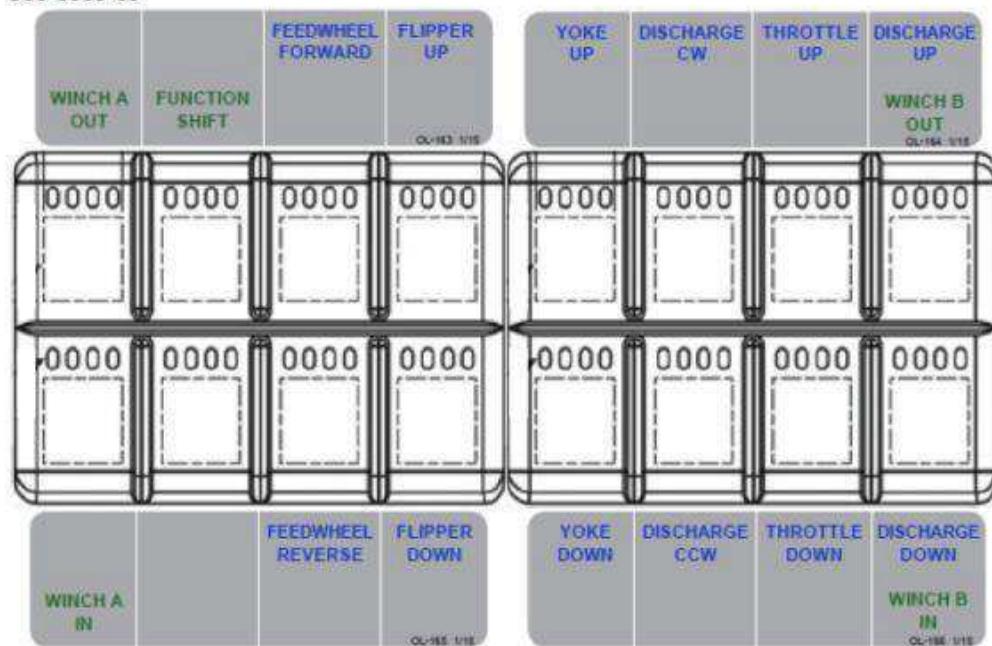
When the mechanical control bar is in the reverse position a switch interrupts the FeedRev coils to prevent a double reverse which would then feed forward.



BANDIT CONTROLS

Notes

300-8003-09



The tether is a back-up tool in case the radio fails. The tether has 2 (8) button keypads that communicate with the main controller via CAN messages. The machine must be in Tether mode in order to activate the Tether.
Note: If Controller 1 (C1) loses communication with both the Display and the Radio receiver, C1 will default to Tether mode internally.

There is a hardwired E-Stop switch to ground in the tether box. If the machine is in Tether mode and this switch is open (or the tether cable broken), the system will E-Stop the engine.

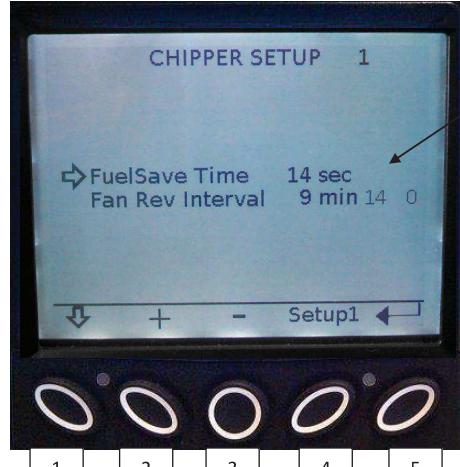
(If Fuel Saver mode is turned on and the machine idles down due to light load conditions, simply press Throttle Up and then press Feed Fwd to resume feeding).

(If the Winch Stow Switch indicates that the winch is out, Feed Fwd will stop automatically and the Tether Winch functions will be enabled. The Tether Feed Fwd button then can be used to Feed Assist on Electric Feed Assist machines. Once the Winch is properly stowed, Tether winch functions will be disabled and Feed Fwd will operate as normal to resume chipping).

The Yoke/Lift is disabled while winch is deployed. Except, Yoke/Lift can momentarily operate with Feed-Assist-Fwd. Yoke/Lift is fully enabled again once the winch is properly stowed tight on the stow bar.

When the mechanical control bar is in the reverse position a switch interrupts the FeedRev coils to prevent a double reverse which would then feed forward.

Setup Page



FuelSave Time: this is the amount of time the machine will wait at "no load" until it idles down.

Fan Reverse Interval is optional on some machines. It is the time between fan reversing cycles to purge debris from the radiator.

The numbers behind the Fan Rev Interval is engine fan state and communication error count.

1. Select down to the parameter you wish to adjust.

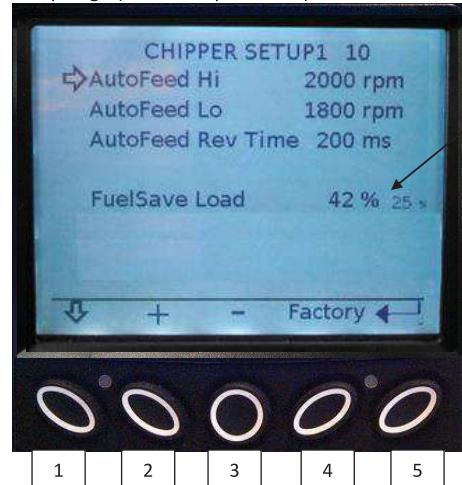
2. & 3. Increase or decrease the value of the selected parameter, or select through various options.

4. Go to more Settings (password protected).

5. Go back.

Fan Reverse Interval is optional on some machines. It is the time between fan reversing cycles to purge debris from the radiator. The reverse cycle typically lasts between 20-30 seconds. The first number behind the 'Fan Rev Interval' time setting is the engine fan state (0=neutral, 1=pulling forward, 14=reversing purge). The second number behind the time setting is an error count of how many times the main controller (C1) has lost communication with the fan control module since the last key cycle.

Setup Page (Password protected)



Fuel Saver - Behind the FuelSave Load setting (42% as shown) is the actual Load on the engine (25% as shown). The setting is typically 5-10% higher than actual load at high idle with clutch engaged.

In this case we would have seen between 30-35% engine load when clutch is engaged and engine at full speed, no material being fed. And so 42% was selected as the FuelSave Load setting; this assumes that loads above 42% indicate material is being fed.

1. Select down to the parameter you wish to adjust.
2. & 3. Increase or decrease the value of the selected parameter, or select through various options.
4. Go to Factory Settings (password protected).
5. Go back.

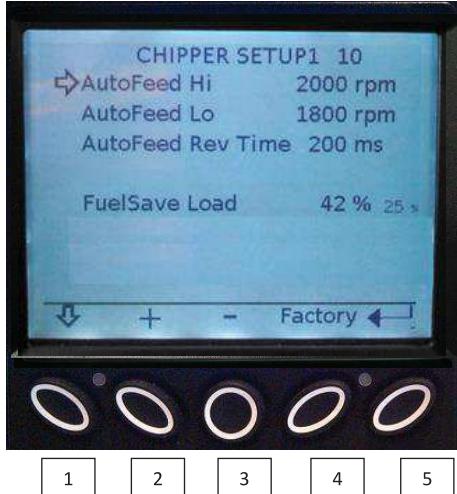
AutoFeed

During normal operation the feed system will reverse, stop, and resume based on the AutoFeed Engine Speed settings. In the example screen shot above,

when Eng RPM falls below AutoFeed Lo 1800rpm,
the feed wheels will briefly reverse for AutoFeed Rev Time 200ms and then stop.
The system will wait for Eng RPM to recover above AutoFeed Hi 2000rpm
and then Feed Fwd will resume.

(Note: if AutoFeed Hi setting value is mistakenly set higher than the engine can run, the Feed system will not Feed Fwd because it is waiting for the engine to reach a speed it cannot attain. Correct the AutoFeed Hi setting to approx 100-200rpm lower than max engine speed).

Setup Page



FuelSaver

If Fuel Saver Mode is turned on, the machine will throttle down on its own to 200 RPM above low idle if it runs too long with no load. Two settings affect Fuel Saver mode.

1. FuelSave Time: this is the amount of time the machine will wait at "no load" until it idles down (as selected on SETUP1, see page 9).

2. FuelSave Load: based on engine percent torque load; anything below this setting is considered "no load".

Ex settings: 10seconds, 42% load.

During normal operation the load on the engine might range from 50-90% while chipping. When no material is being fed into the chipper it will just run at high rpm but maybe only 35% load. With actual load being lower than the 42% setting, the controller sees "no load" and after 10 seconds will idle the machine down to approximately 1,000 RPM.

Tap Throttle Up to bring the RPM back to full speed.

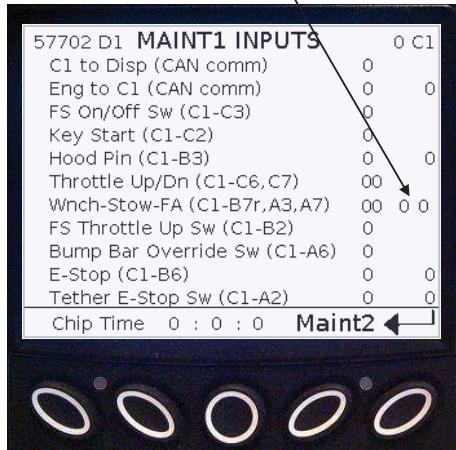
The buttons on the infeed are tied into Throttle Up when FuelSave is turned on.



When you turn Fuel Saver OFF, the machine will throttle down to idle (approx 800rpm), EXCEPT if engine RPM is above AutoFeed Hi setting. In this case, the controller assumes the operator is at full engine speed and wants to keep working.

Push Button Feed Assist

Stow Switch,
Feed Assist Switch



Manual Winch with Push Button Feed Assist

There is a switch on the winch that sends a 12V signal to enable the winch valve. The winch stow switch indicates to the control system whether the winch is stowed or deployed. The status of this switch is displayed on Maint1 as shown above right.

When the Winch is deployed away from its stow point the Stow Switch energizes the winch selector valve and now the winch can be operated using the manual winch control valve. While the winch is still out, the Feed Assist Push Button can be used to enable Feed Fwd for approx 1/2 sec, then it will timeout and stop; this can be repeated.

In order for the Feed Assist timer to work and allow oil during Feed Assist, the controller must see :

- a 12V signal from the Winch Stow Switch
- a 0V signal from Feed Assist Push Button Switch

When the operator is finished with winch operations, the winch rope must be stowed properly to tighten down on the Stow Bar. The Stow Switch will now indicate that the winch is no longer deployed and normal chipper functions can resume feed fwd, etc.

The Yoke/Lift is disabled while winch is deployed. Except, Yoke/Lift can momentarily operate with Feed-Assist-Fwd. Yoke/Lift is fully enabled again once the winch is properly stowed tight on the stow bar.

If the Push Button Switch is disconnected a 0V signal will be sent to the control system. The Feed Assist will then time out and prevent Feeding until the switch is reconnected to a 12V signal.

(If a Radio is added to the control system of a machine with Push Button Feed Assist, the Feed Assist will only work when the Push Button valve and button are pressed).

Electric Feed Assist



Winch In-Out Switches,
Stow Switch,
Feed Assist Switch

57702 D1 MAINT1 INPUTS		0 C1
C1 to Disp (CAN comm)	0	
Eng to C1 (CAN comm)	0	0
FS On/Off Sw (C1-C3)	0	
Key Start (C1-C2)	0	
Hood Pin (C1-B3)	0	0
Throttle Up/Dn (C1-C6,C7)	00	
Wnch-Stow-FA (C1-B7r,A3,A7)	00	0 0
FS Throttle Up Sw (C1-B2)	0	
Bump Bar Override Sw (C1-A6)	0	
E-Stop (C1-B6)	0	0
Tether E-Stop Sw (C1-A2)	0	0
Chip Time	0 : 0 : 0	Maint2

Electric Winch with Feed Assist

There is a switch on the winch that sends a 12V signal to enable the winch valve. The winch switch indicates to the control system whether the winch is stowed or deployed. The status of this switch is displayed on Maint1 as shown above right.

Electric Feed Assist is designed to operate both Feed and Winch functions at the same time but only for short durations. When the Winch is deployed away from its stow point and the Winch valve is enabled, moving the Feed Assist joystick to the right will also enable Feed Fwd for approx 1/2 sec, then it will timeout and stop; this can be repeated.

In order for the Feed Assist timer to work and allow oil during Feed Assist, the controller must see :

- a 12V signal from the Winch Stow Switch
- a 0V signal from Feed Assist Joystick Feed Fwd

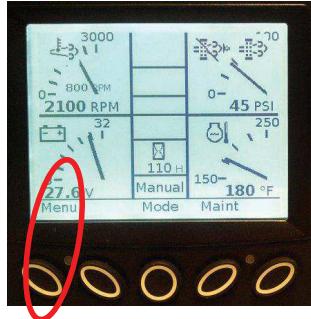
When the operator is finished with winch operations, the winch rope must be stowed properly to tighten down on the Stow Bar. The Stow Switch will now indicate that the winch is no longer deployed, winch functions will be disabled, and normal chipper functions can resume feed fwd, etc.

The Yoke/Lift is disabled while winch is deployed. Except, Yoke/Lift can momentarily operate with Feed-Assist-Fwd. Yoke/Lift is fully enabled again once the winch is properly stowed tight on the stow bar.

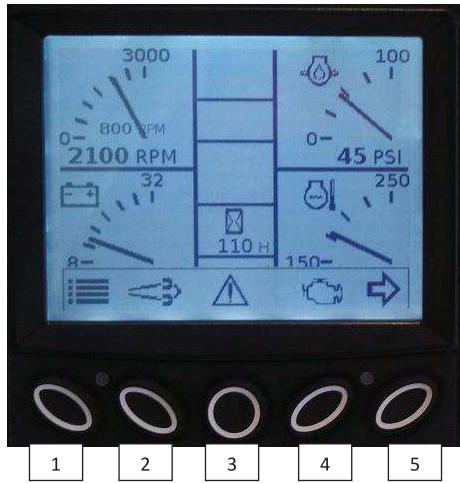
If the Feed Assist Joystick is disconnected a 0V signal will be sent to the control system. The Feed Assist will then time out and prevent Feeding until the switch is reconnected to a 12V signal.

(If a Radio is added to the control system of a machine with an Electric Winch Feed Assist, the Feed Assist will also work when the Radio/Tether Feed Fwd button is pressed. This will provide the same 1/2 sec pulse forward as the Joystick/Button feed assist).

Main Page



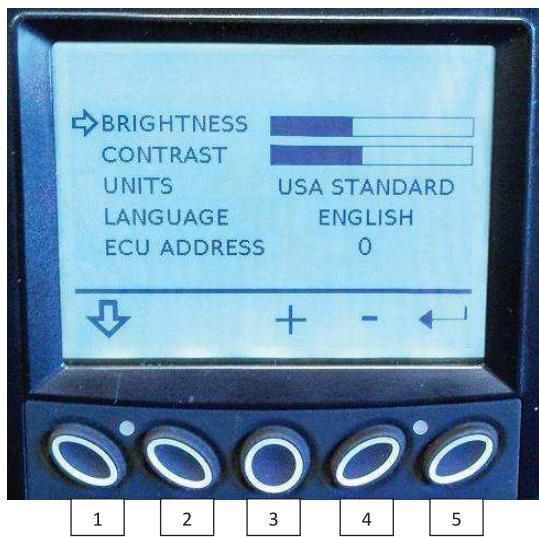
Press this button for the popup menu (Popup menu disappears after 5sec).



Popup Menu Options:

1. Press this button for Display Menu.
2. Press for DPF Options (If equipped with relevant T4 engine).
3. Press to view System Faults.
4. Press to change Service Reminder options.
5. Press to display other engine parameters.

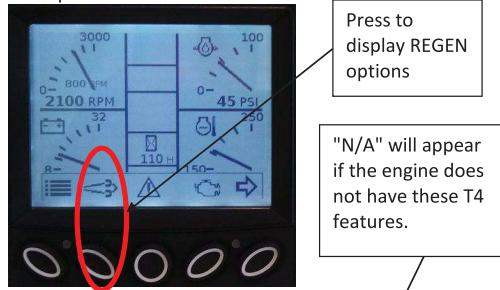
Display Menu



1. Select down to the parameter you wish to adjust.
3. & 4. Increase or decrease the value of the selected parameter, or select through various options.
5. Go back.

(Engine ECU address is default 0).

DPF Options



1. & 2. Select the parameter you wish to adjust.

3. Select the DPF Regen Mode (Auto or Inhibit) or Request/Force a Regen.

(In general, always leave the DPF system in Auto. The only time you may want to inhibit regen burn cycles is in the rare case where higher exhaust temperatures may elevate the risk of fire in the surrounding environment).



Exhaust gas temperature is high. Auto Regen is in process of burning out accumulated soot.



Soot level in the DPF indicates need for Regen (if in Auto, the engine typically conducts the regen on its own and the exhaust gas temperature indicator will come on to show it is in process). If the symbol has a crossout through it, Auto Regen cycles are Inhibited (disabled) by the operator.

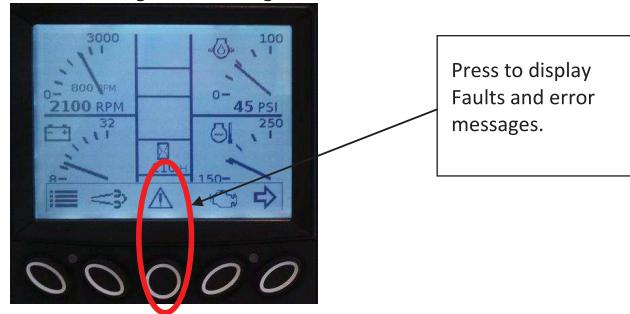


Diesel Exhaust Fluid (DEF) tank level. Indicator will blink at low level, for ex: less than 12%



On some engines this icon is used to indicate a malfunction with the emission system.

Faults and Diagnostic Messages

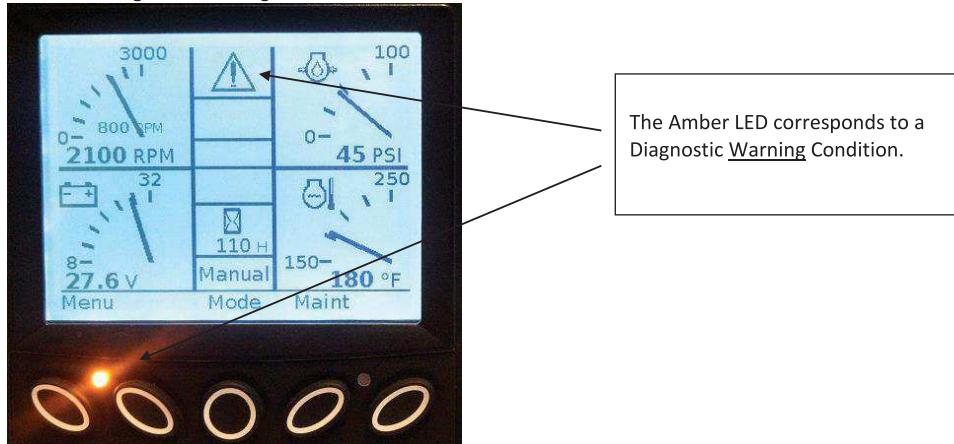


1. & 2. Select the parameter you wish to select.
3. Enter OK to view those faults. If there are no active or stored faults, none will be available to scroll through.
5. Go back.

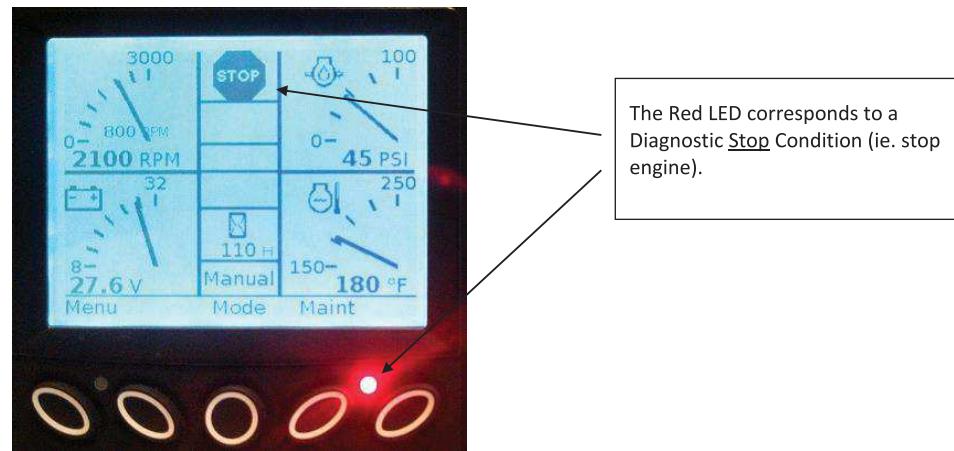
If the engine or other system controller sends a diagnostic message (as shown at right), it will appear as a popup error with applicable details. The popup message can be hidden (press button 5) while still being active. The LED's on the face of the display will remain lit indicating an error is still active.

- Yellow LED is a WARNING level error.
- Red LED is a STOP level error.

Faults and Diagnostic Messages

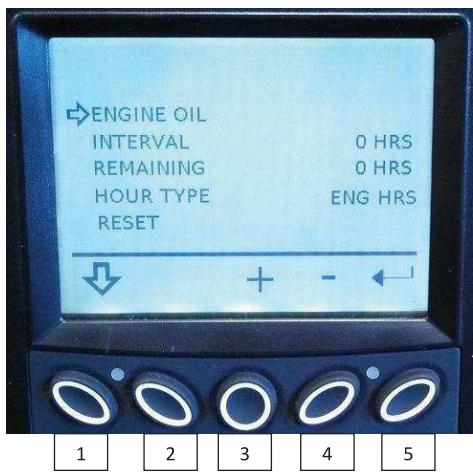
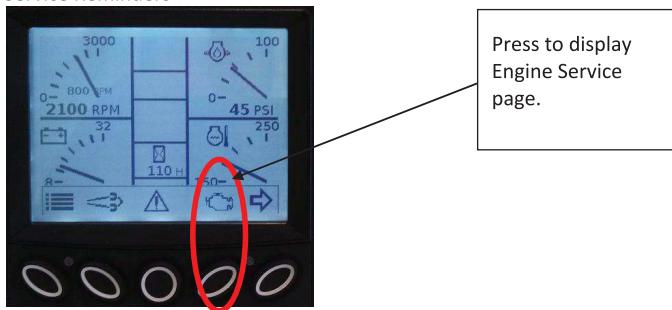


The Amber LED corresponds to a Diagnostic Warning Condition.



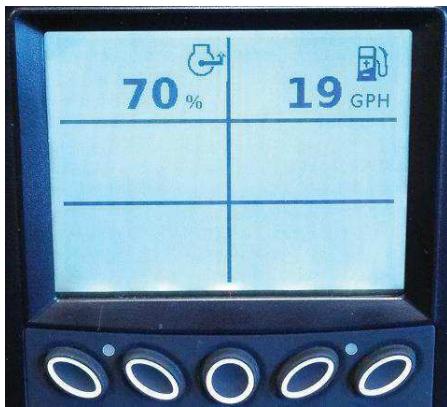
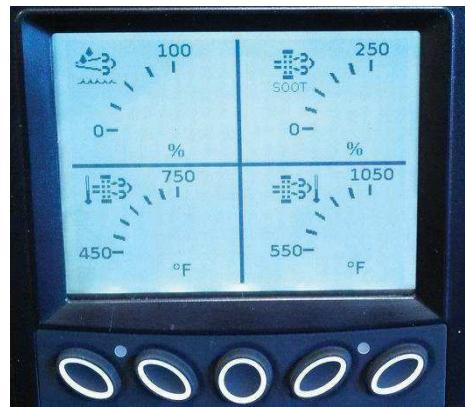
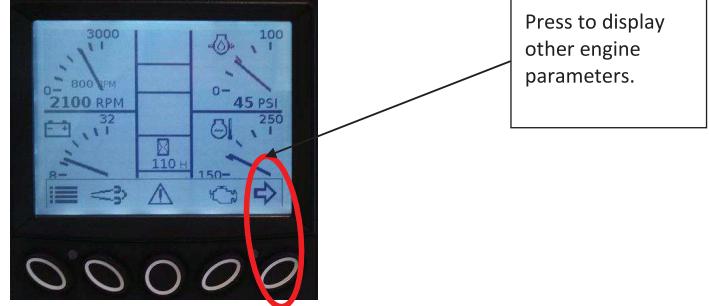
The Red LED corresponds to a Diagnostic Stop Condition (ie. stop engine).

Service Reminders



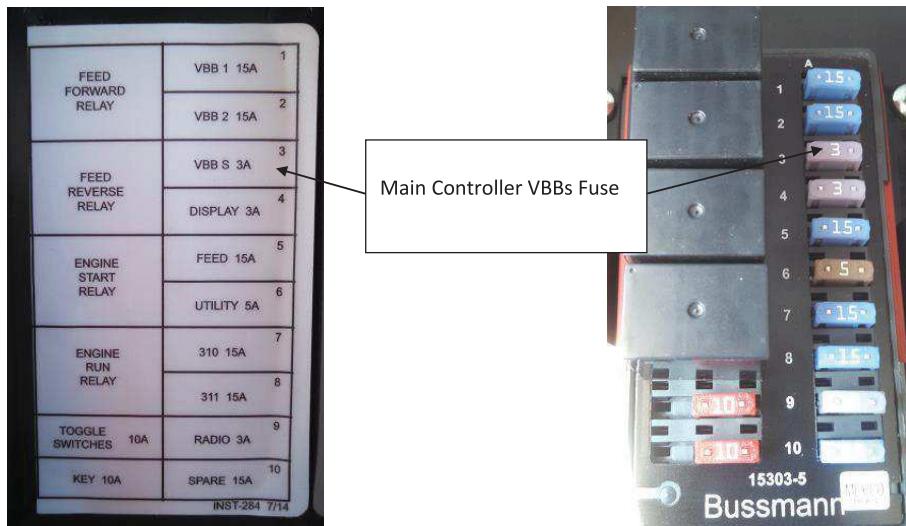
1. Select down to the parameter you wish to adjust.
3. & 4. Increase or decrease the value of the selected parameter, or select through various options.
5. Go back.

Other Engine Parameters



The engine may send information on other parameters it is monitoring. These can be read on 1 of 4 engine pages. Cycle through the engine pages to return to the Main Page.

Engine Service Tools



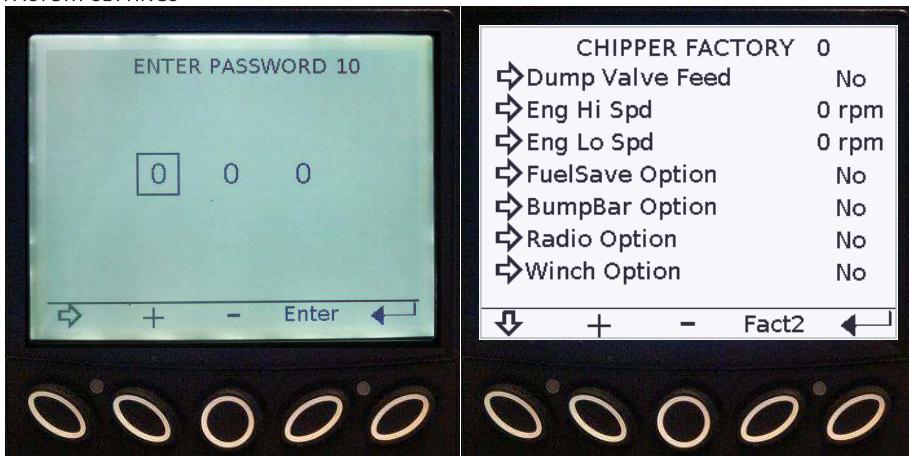
When connecting a laptop to the engine with certain engine service tools (ex CAT-ET, etc) it may be necessary to disconnect the main Controller by unplugging the 3amp VBBs fuse in station 3. The engine can still Key ON, start, and idle with the main Controller OFF.

Bump Bar Option



If the Chipper is equipped with a Bump Bar and Bump Bar Bypass valve, a Bypass Button is connected to the valve which together allow Feed Fwd for 5 seconds even if the Bump Bar has disabled the feed system.

FACTORY SETTINGS



Program Notes

Display

- If Controller 1 (C1) loses communication with the Display, C1 will default to Radio mode.
- If C1 loses comm with the Display AND the radio receiver, it will default to Tether Mode.
- If C1 loses comm with display and receiver and tether, it will remain in Manual mode internally.

Radio (Rx=receiver; Tx=Transmitter)

- If C1 loses comm with receiver, all messages zeroed/centered
- BadCount03: RadioEStop (counts only while in Radio Mode)

Tether

- In order to Feed Fwd must have RPM above AutoFeed Hi or be in AutoFeed Bypass
- Things that will automatically disengage Feed Fwd:

- Change the machine mode away from Tether to Radio or Manual
- Lose comm with either Tether keypad while in tether mode
- RPM command goes below AutoFeed Lo setting (make sure AutoFeed Hi is not set higher than Engine Hi Speed).
- Winch un-stowed will stop Feed Fwd and make it Feed Assist

Engine

- Critical engine faults related to Tier4 DPF soot levels:

- these faults will trigger the engine to idle down and request action from the operator
- engine may also derate or shutdown in severe cases

SPN	FMI	Description
3251	0	cu DPF is full of soot. Contact engine service center.
3251	16	cu DPF is nearly full of soot. Goto MENU - DPF and Force a Regen.
3703	31	ca DPF is nearly full of soot. Goto MENU - DPF and Force a Regen.
3714	31	ca DPF is nearly full of soot. Goto MENU - DPF and Force a Regen.
3715	31	ca DPF is full of soot. Contact engine service center.
3719	0	ca jd DPF is full of soot. Goto MENU - DPF and Force a Regen. Contact service center.
3719	15	jd DPF is nearly full of soot. Goto MENU - DPF and Force a Regen.
3719	16	ca jd DPF is nearly full of soot. Goto MENU - DPF and Force a Regen.

- C1 will idle Eng down for

- Key to start position
- C1 loses comm with Eng
- RadioMode and RxComm Good and TxComm Bad (Tx out of range, Tx OFF, Tx batteries low)
- RadioMode and RxComm Bad
- TetherMode and Tether Comm bad
- DPF DTC's
- Push 'Force' in Maint2-DPF
- Manual Mode and Lost Display
- FuelSaver is shut off when Eng RPM is below AF Hi setting

Feed

- When you throttle down while feeding fwd, Feed Fwd will drop out and AutoRev will fire one time (within 6sec).

BANDIT CONTROLS

Inputs

- BadCount01: Hood Pin
- BadCount02: EStop
- BadCount04: TetherEStop (counts only while in TetherMode)
- The buttons on the infeed are tied into Throttle Up when FuelSave is turned on.
- Winch In-Out Sw R to Gnd; Open=60,000; In 0Ω=0; Out 1000Ω=AtoD=12,300; compare LT 20,000

FuelSaver

- FuelSave Time has a range of 10-255sec.

Document notes
21Dec2016 – First Draft