

## 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.

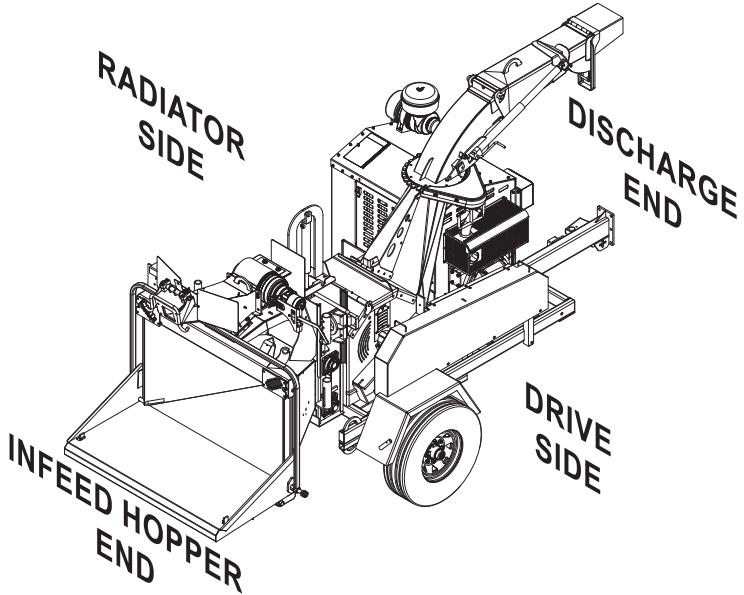
**NOTICE**

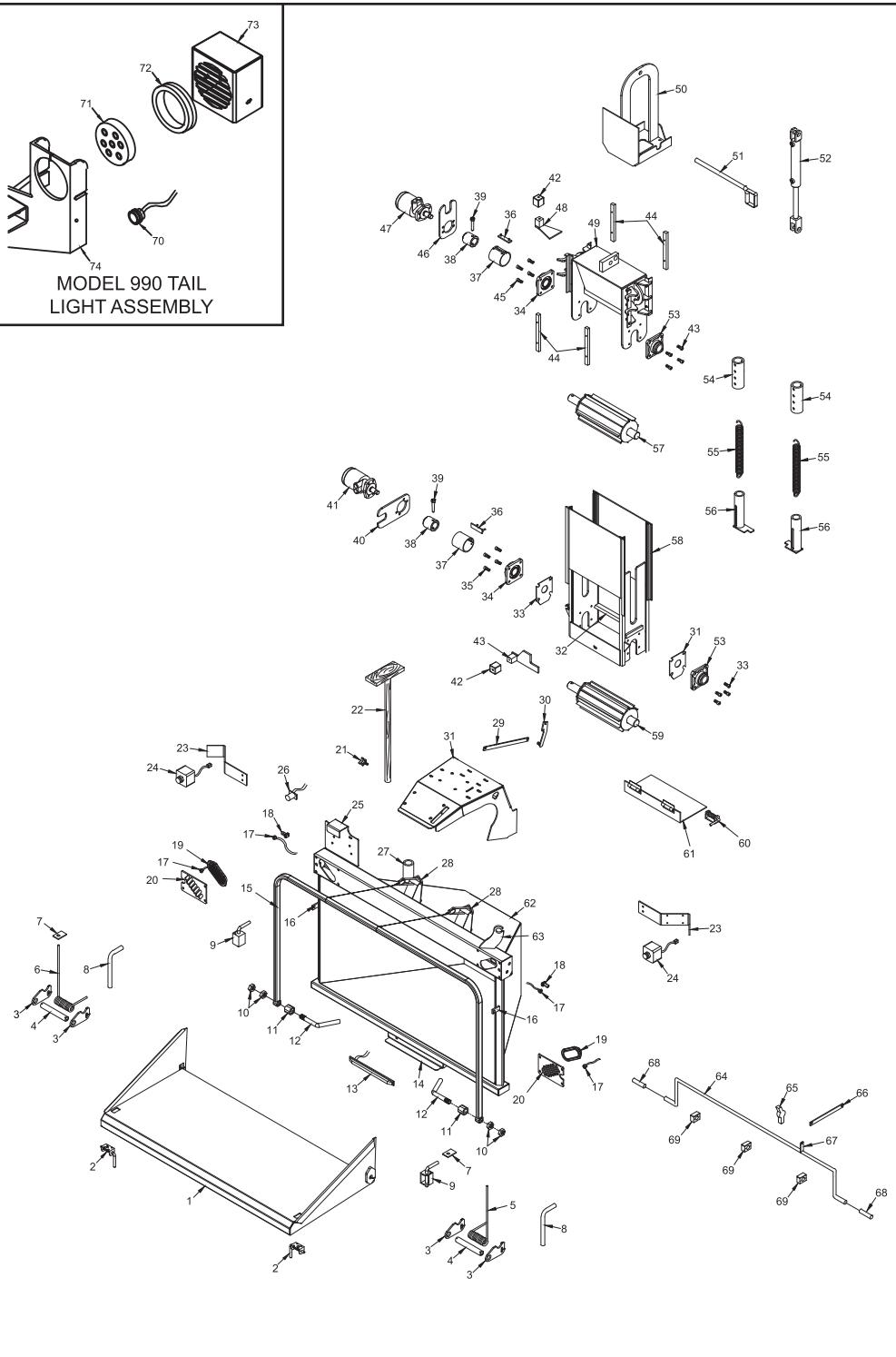
Some of the components shown in this section are for optional equipment and may not apply to every machine.

**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



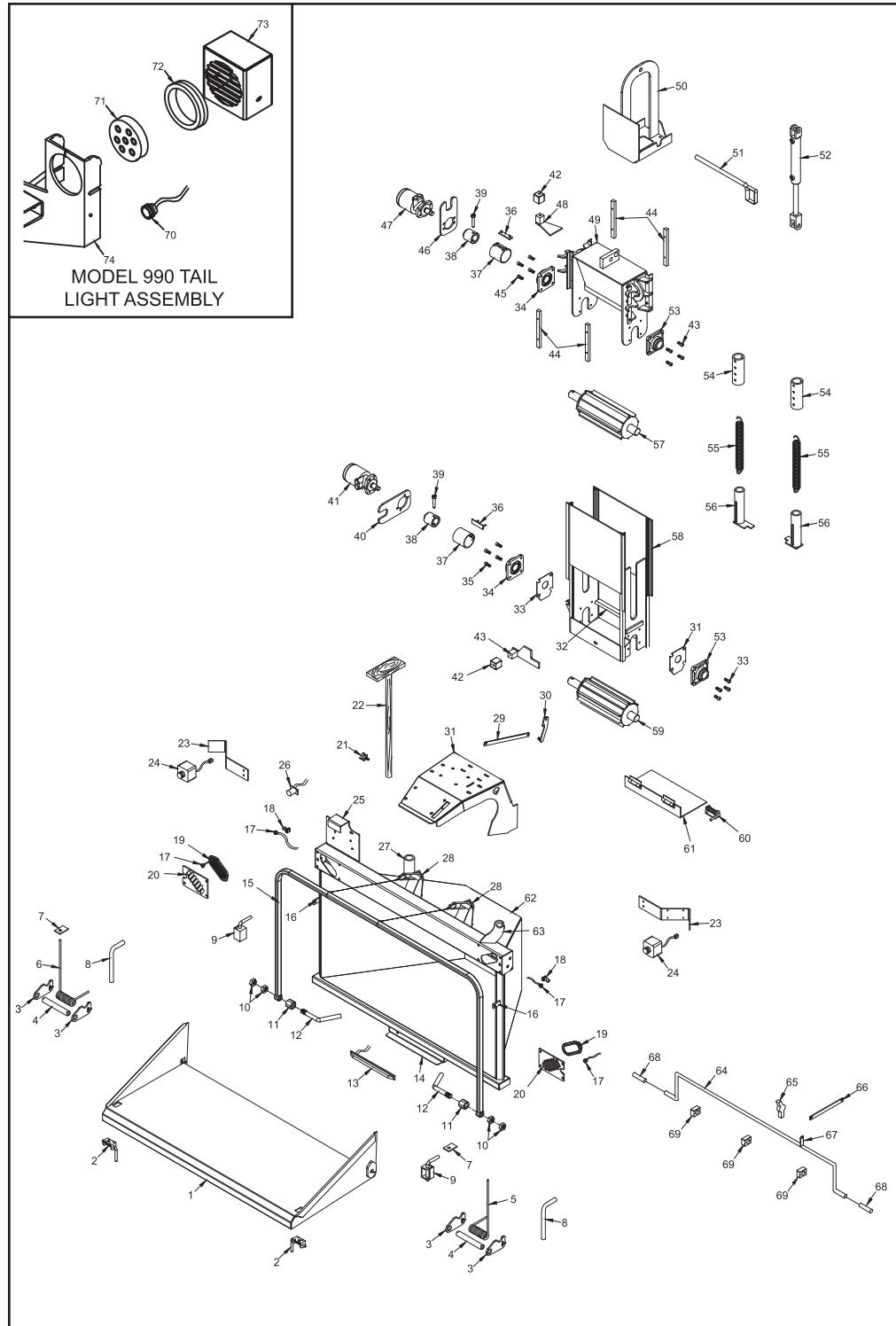


**NOTICE** Parts may not be exactly as shown.

LOCATION	PART NUMBER	DESCRIPTION
1. a.	980-1002-88	Folding Tray Assembly for 45" Wide Infeed Hopper (Includes 3 - 7 & 9 - 12)
b.	980-200054	Folding Tray for 45" Wide Infeed Hopper
c.	912-1001-42	Folding Tray Assembly for 54" Wide Infeed Hopper (Includes 3 - 7 & 9 - 12)
d.	912-200002	Folding Tray for 54" Wide 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.	980-300320	Spring Mount for Spring Assist - 2" x 3" Rim
4. a.	980-3001-43	Spring Tube for Spring Assist (Start 12/14)
b.	980-0129-86	Spring Tube for Spring Assist (Pre 12/14)
c.	900-4905-45	Cotter Pin for Spring Tube (Not Shown)
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.	980-0133-34	Top Spring Block (Specify Length 1 1/2" or 2 1/2")
8. a.	955-300086	Folding Tray Lock Pin
b.	900-7900-96	Rubber Cap for Lock Pin (Not Shown)
9. a.	900-4908-27	Infeed Tray Spring Lock Only
b.	980-2003-53	Infeed Tray Slam Latch Kit
10.	900-4900-44	Pivot Pin Jam Nut
11.	980-0133-09	Pivot Tube
12. a.	980-300576	Pivot Pin - Left Side
b.	980-300575	Pivot Pin - Right Side
13.	900-2909-93	LED 3-Light Bar
14.	980-300118	Mount For LED 3-Light Bar
15. a.	905-2001-56	Control Bar for 45" Wide Infeed Hopper
b.	905-2001-55	Control Bar for 54" Wide Infeed Hopper
16.	911-3004-83	Folding Tray Lock Tab For 1/2" Diameter Pin
17.	900-2924-49	LED Red Marker Light - 3/4" Round
18.	905-8000-06	Fuel Saver Kit
19.	900-2905-13	LED Oval Tail Light
20.	937-3014-82	Oval Tail Light Cover
21.	900-4914-18	Plastic Knob
22.	980-0507-42	Wooden Push Paddle
23.	900-2914-65	Optional Shut Down Switch Assembly
24.	980-0136-44	Optional Shut Down Switch Mount
25. a.	980-300290	License Plate and Light Mount
b.	905-3002-28	License Plate and Light Mount - Australia
26.	900-2927-84	License Plate Light
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.	980-300156	Hydraulic Control Arm - 20 1/2"
30.	980-100141	Feedwheel Control Valve Linkage
31. a.	905-2001-60	Winch and Valve Mount for 45" Wide Infeed Hopper
b.	905-2001-48	Winch and Valve Mount for 45" Wide Infeed Hopper - Australia
c.	905-2001-45	Winch and Valve Mount for 54" Wide Infeed Hopper
d.	905-2001-59	Winch and Valve Mount for 54" Wide Infeed Hopper - Australia
32.	909-3000-62	Bottom Feedwheel Scraper Bar
33.	980-300082	Bottom Feedwheel Bearing Backer Plate
34. a.	900-1909-80	Feedwheel Bearing - Grip-Tight Style (Start S/N 1008)
b.	900-1909-79	Feedwheel Bearing - Set Screw Style (S/N 1007 Only)

**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.

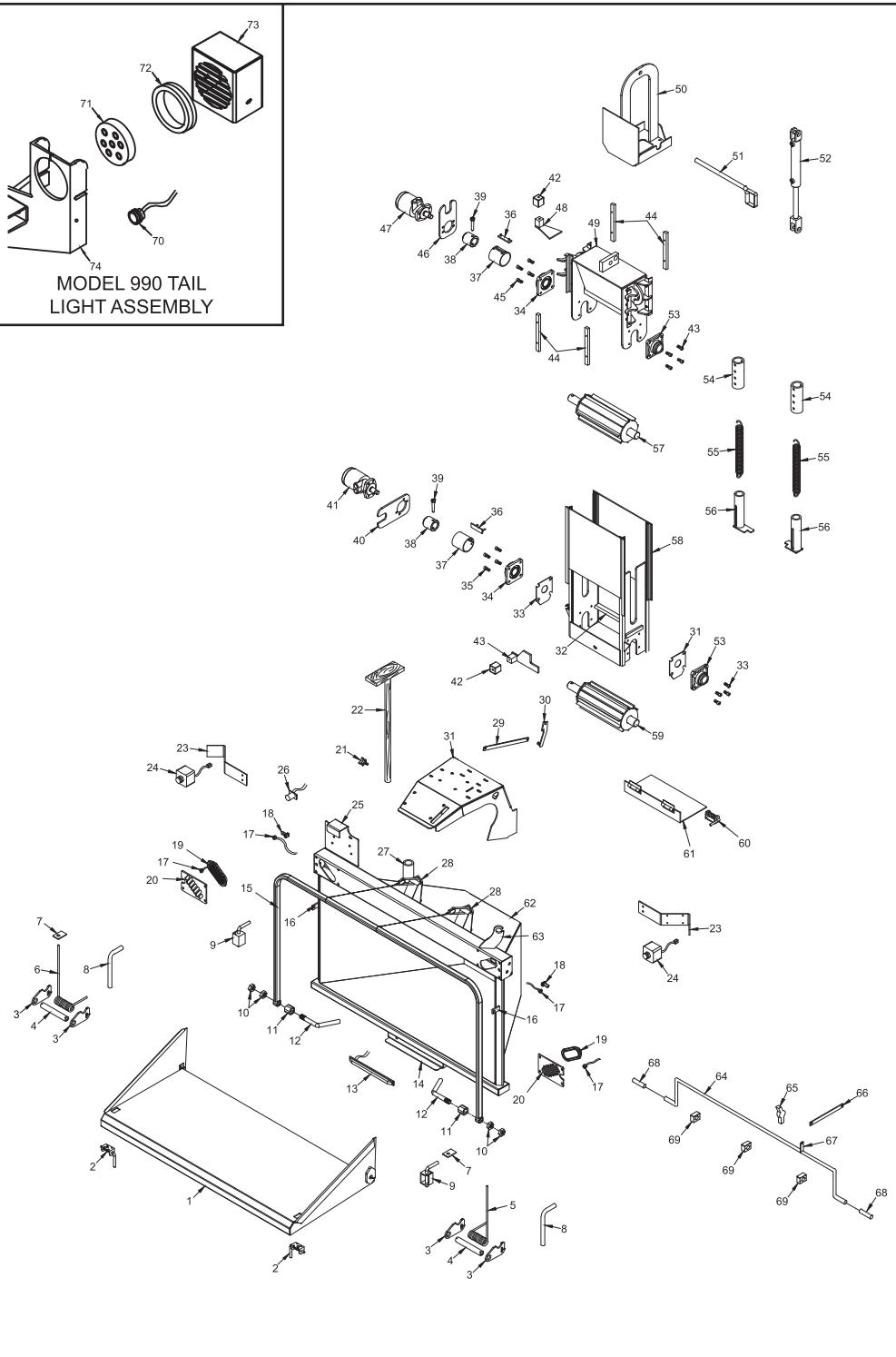


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LOCATION	PART NUMBER	DESCRIPTION
35.	900-4909-23	Bottom Feedwheel Bearing Bolt (1/2"-13NC x 1 1/4" SHCS)
36.	980-0508-57	Coupler Guard Mount
37.	900-7901-23	Rubber Coupler Guard - 17 3/4"
38.	626-0001-69	Coupler With Motor Nut and Taper Pin With Nut (Includes #39)
39.	900-4909-53	Taper Pin With Nut
40.	980-0124-98	Torque Arm
41. a.	900-3972-05	Bottom Feedwheel Hydraulic Motor - O-Ring Ports (Start S/N 1008)
b.	900-3972-04	Bottom Feedwheel Hydraulic Motor - O-Ring Ports (S/N 1007 Only)
42.	937-900009	Torque Arm Cushion
43. a.	905-3001-34	Bottom Torque Arm Stop
b.	937-300316	Torque Arm Cushion Mount
44.	980-0138-10	Yoke Slide - 1" x 1" x 11 1/2"
45.	900-4913-62	Top Feedwheel Bearing Bolt (1/2"-13NC x 1" SHCS)
46.	980-0124-98	Torque Arm
47. a.	900-3972-04	Top Feedwheel Hydraulic Motor - O-Ring Ports (Start S/N 1008)
b.	900-3972-05	Top Feedwheel Hydraulic Motor - O-Ring Ports (S/N 1007 Only)
48. a.	980-300515	Top Torque Arm Stop
b.	937-300316	Torque Arm Cushion Mount
49. a.	905-1000-51	Top Yoke Assembly (Includes 34, 36 - 39, 42 - 48 & 53 - 54)
b.	980-200078	Top Yoke Assembly
50. a.	980-200206	Top Yoke Plate Without Yoke Lift with Decal Plate
b.	980-200098	Optional Yoke Lift Assembly
c.	980-0132-68	Decal Plate Only
51.	980-200223	Yoke Lock Pin
52. a.	900-3925-04	Yoke Lift Cylinder-Welded
b.	904-0007-14	Pin for Welded Cylinder
c.	900-4913-23	Rubber Washer - Top Of Cylinder (Not Shown)
53. a.	900-1909-79	Feedwheel Bearing - Set Screw Style (Start S/N 1008)
b.	900-1909-80	Feedwheel Bearing - Grip-Tight Style (S/N 1007 Only)
54. 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)
55.	900-4900-04	Yoke Spring
56. a.	980-2004-41	Bottom Mount for Easy Climb System - Right Side (Start 9/15)
b.	980-2004-42	Bottom Mount for Easy Climb System - Left Side (Start 9/15)
c.	981-300031	Bottom Mount for Easy Climb System (Pre 9/15)
d.	900-4905-79	Clevis Pin (Not Shown)
e.	900-4905-80	Cotter Pin for Clevis Pin (Not Shown)
f.	900-4906-90	Flat Washer (Not Shown)
57. a.	980-200071	Top Feedwheel Assembly (Start S/N 1008)
b.	986-0501-74	Top Feedwheel Assembly (S/N 1007 Only)
c.	980-300207	Top Feedwheel Tooth
d.	986-0501-73	Top Feedwheel Shaft & Coupler Assembly
58. a.	905-1000-52	Feedwheel Slide Box Assembly (Includes 32 - 40, 42 - 43, 50, 53 & 59)
b.	909-2000-01	Feedwheel Slide Box Assembly
59. a.	980-200072	Bottom Feedwheel Assembly (Start S/N 1008)
b.	986-0501-75	Bottom Feedwheel Assembly (S/N 1007 Only)
c.	980-300207	Bottom Feedwheel Tooth
d.	986-0501-73	Bottom Feedwheel Shaft & Coupler Assembly
60.	900-4901-83	Trap Door Spring Lock
61. a.	905-2000-17	Trap Door Assembly
b.	001-3004-00	Hinge For Trap Door
62. a.	905-1001-35	45" Infeed Hopper Assembly (Includes 16 - 20, 25 - 27 & 31)
b.	905-2001-47	45" Infeed Hopper Assembly

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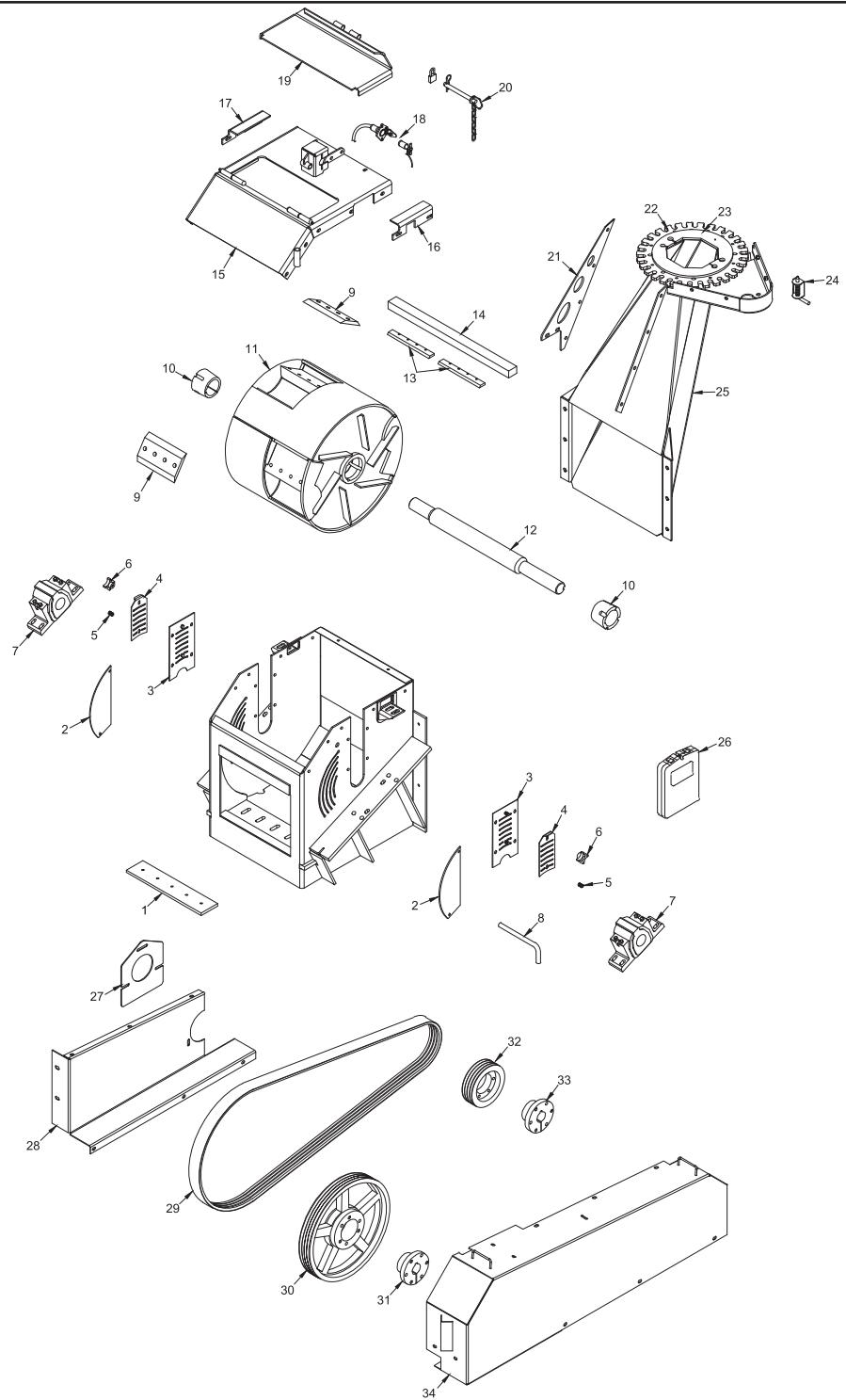
**NOTICE** Nuts, bolts, washers, and all other components can be ordered by physical description.



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LOCATION	PART NUMBER	DESCRIPTION
c.	905-1001-34	54" Infeed Hopper Assembly (Includes 16 - 20, 25 - 27 & 31)
d.	905-2001-46	54" Infeed Hopper Assembly
63.	955-3010-97	Winch Line Hook Mount
64. a.	904-0006-91	Dual Yoke Lift Control Bar Kit
b.	905-2000-83	Dual Yoke Lift Control Bar - 45" Wide Infeed Hopper
c.	905-2000-82	Dual Yoke Lift Control Bar - 54" Wide Infeed Hopper
65.	900-3930-96	Short Valve Handle - Lift Cylinder Control Linkage
66.	980-100158	Control Arm - Dual Yoke Lift - 12 1/2"
67.	980-100157	Dual Yoke Lift Control Bar Tab
68.	900-7900-96	Rubber Cap - Dual Yoke Lift Control Bar
69.	900-3914-02	Clamp - Lift Control Bar
70. a.	900-2927-85	LED Red Marker Light - 3/4" Round
b.	900-2915-98	LED Red Marker Light - Oval
71. a.	900-2908-76	LED Tail Light
b.	900-2908-74	Adapter Wire for LED Tail Light (Not Shown)
72.	900-2908-75	Rubber Grommet for LED Tail Light
73.	980-2002-82	Heavy Duty Tail Light Cover
74. a.	980-200176	Tail Light Mount - Left Side
b.	980-200177	Tail Light Mount - Right Side

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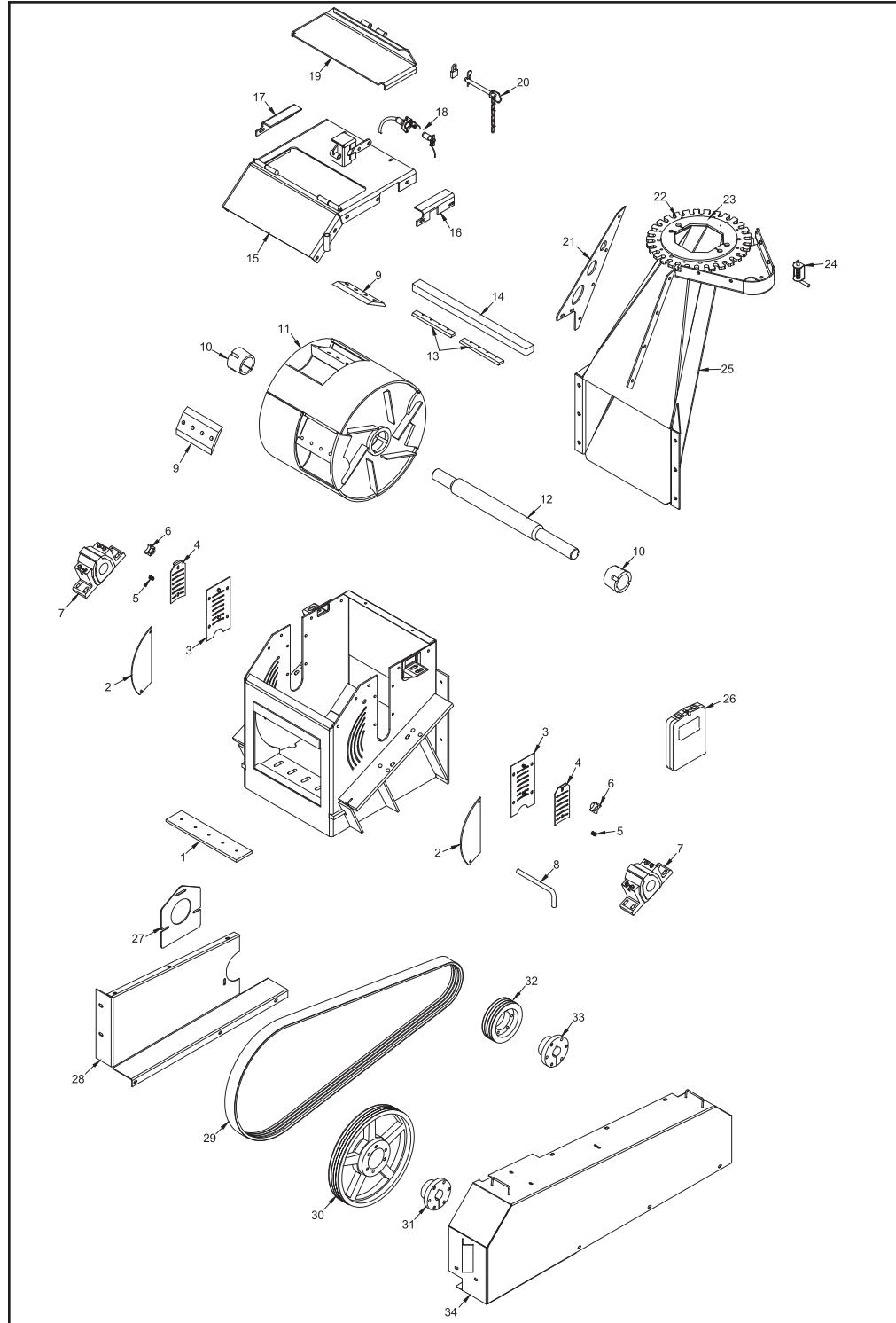


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LOCATION	PART NUMBER	DESCRIPTION
1.	See Page 103	Anvil
2.	911-1001-88	Vent cover
3.	905-3000-29	Base Slot Cover
4. a.	905-3000-30	Air Vent Cover - Steel
b.	905-1000-00	Air Vent Cover Kit - Steel (Includes Two Pieces of 4a, 5 & 6)
5.	900-4908-33	Spring For Vent Cover
6.	900-4908-29	Plastic Knob For Vent Cover
7.	900-1916-68	Chipper Drum Bearing
8. a.	955-300086	Drum Lock Pin
b.	900-7900-96	Rubber Cap (Not Shown)
9.	See Page 102	Chipper Knife & Hardware
10.	900-1904-47	Drum Head Bushing
11. a.	905-2000-14	Chipper Drum Head Assembly (Includes 8, 9 & 11) (Start S/N 1020)
b.	905-2000-00	Chipper Drum Head Assembly (Includes 8, 9 & 11) (S/N 1007 - 1019)
12. a.	905-3000-82	Drum Head Shaft (Start S/N 1020)
b.	905-3000-59	Drum Head Shaft (S/N 1008 - 1019)
c.	905-3000-11	Drum Head Shaft (S/N 1007 Only)
13. a.	937-3009-23	Shear Bar Knife
b.	900-4909-86	Shear Bar Knife Bolts (1/4"-20NC x 5/8" SHCS - 8 per)
14. a.	905-3001-76	Shear Bolt Plate
b.	905-1000-24	Shear Assembly (Includes #12)
15. a.	905-2001-04	Base Top With Door Assembly (Start 2/12)
b.	905-2000-08	Base Top With Door Assembly (Includes 17 & 18) (S/N 1008 - 2/12)
c.	905-2000-03	Base Top With Door Assembly (Includes 17 & 18) (S/N 1007 Only)
d.	905-3000-50	Pin For Hood Door Hinge (Start S/N 1008)
e.	905-3000-26	Pin For Hood Door Hinge (S/N 1007 Only)
f.	900-4911-84	Grease Zerk For Hood Door Hinge
16. a.	905-3003-60	Shear Slot Cover - Curb Side (Starting WO#55239)
b.	905-3001-87	Shear Slot Cover - Curb Side (Pre 11/15)
17. a.	905-3003-61	Shear Slot Cover - Road Side (Starting WO#55239)
b.	905-3001-83	Shear Slot Cover - Road Side (Pre 11/15)
18. a.	909-1000-01	Engine Disable Plug Kit (Includes Plug, Wiring, & Mounts)
b.	900-2904-13	6-Prong Female Plug Only
c.	980-100083	6-Prong Male Plug With Wire Loop & Crimp Sleeves
19. a.	905-3000-48	Hood Door Only (Start S/N 1008)
b.	905-3000-22	Hood Door Only (S/N 1007 Only)
20. a.	911-100000	Hood Pin With Attaching Chain
b.	900-4902-20	Padlock For Hood Pin (Not Shown)
c.	900-4917-21	Key For Padlock (Not Shown)
21. a.	905-3001-84	Transition Support (Start 2/12)
b.	905-3000-26	Transition Support (Pre 2/12)
22.	980-3014-56	Transition Flange
23.	980-3013-58	Bottom Swivel Ring
24. a.	900-4908-27	Discharge Spring Lock
b.	900-7900-96	Rubber Cap (Not Shown)
25. a.	905-1001-08	Transition Assembly (Includes 20 - 23)
b.	905-2000-09	Transition Assembly (Start S/N 1008)
c.	905-2000-60	Transition Assembly With Clean-Out Door (Start S/N 1008)
d.	905-2000-02	Transition Assembly (S/N 1007 Only)

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

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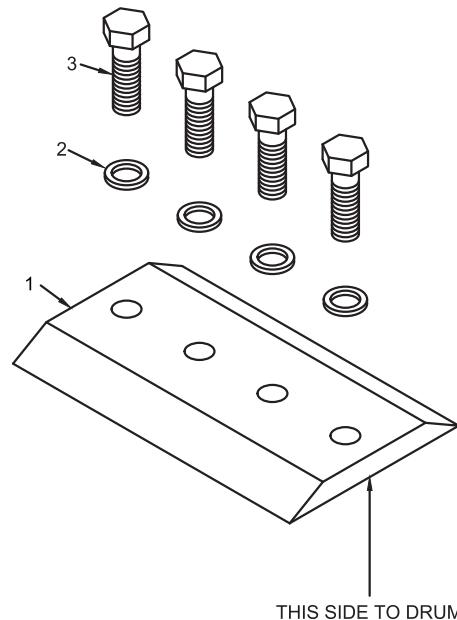


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LOCATION	PART NUMBER	DESCRIPTION
26.	900-9910-28	Manual Holder - 8" x 11" x 2"
27. a.	980-300413	Adjustable Beltshield Cover - Auto Clutch
b.	980-300295	Adjustable Beltshield Cover - Twin Disc Clutch SP211 / NACD Clutch
28. a.	905-3000-36	Beltshield Back
b.	905-3002-35	Beltshield Back - Long Frame Option
29.	**	Chipper Belts
30.	**	Engine Sheave
31.	**	Engine Sheave Bushing
32.	**	Chipper Sheave
33.	**	Chipper Sheave Bushing
34. a.	905-2001-25	Beltshield Assembly (Includes 26) (Start 1/16)
b.	905-2000-69	Beltshield Assembly - Long Frame Option (Includes 26)
c.	905-2000-05	Beltshield Assembly (Includes 26) (Pre 1/16)

\*\* 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

#### Part Numbers For Knives & Hardware

LOCATION	PART NUMBER	DESCRIPTION
1.	912-3001-47	5/8" x 5 1/2" x 9" Chipper Knife
2.	900-4901-32	5/8" Mill Carb Washer
3.	900-4900-20	5/8"-11NC x 2" Knife Bolt

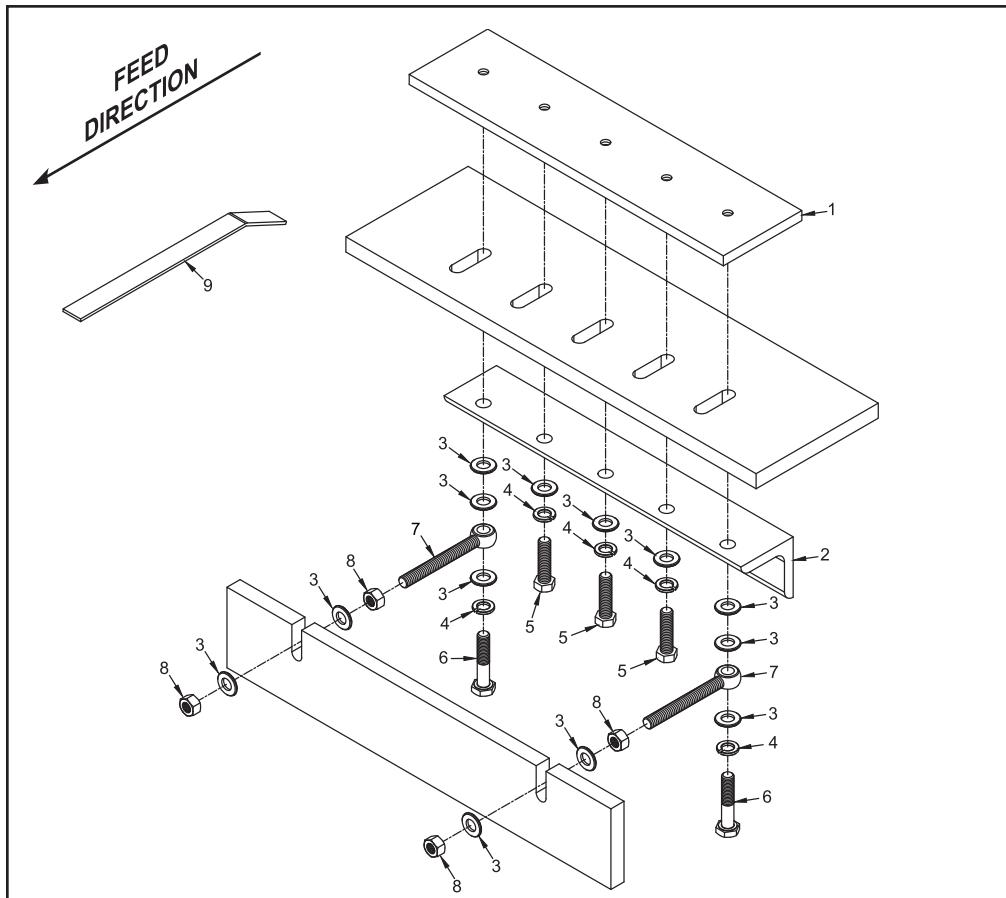
Knife Bolt Torque: 180 ft.-lbs. (245 Nm)

#### KNIFE SAVER KIT



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

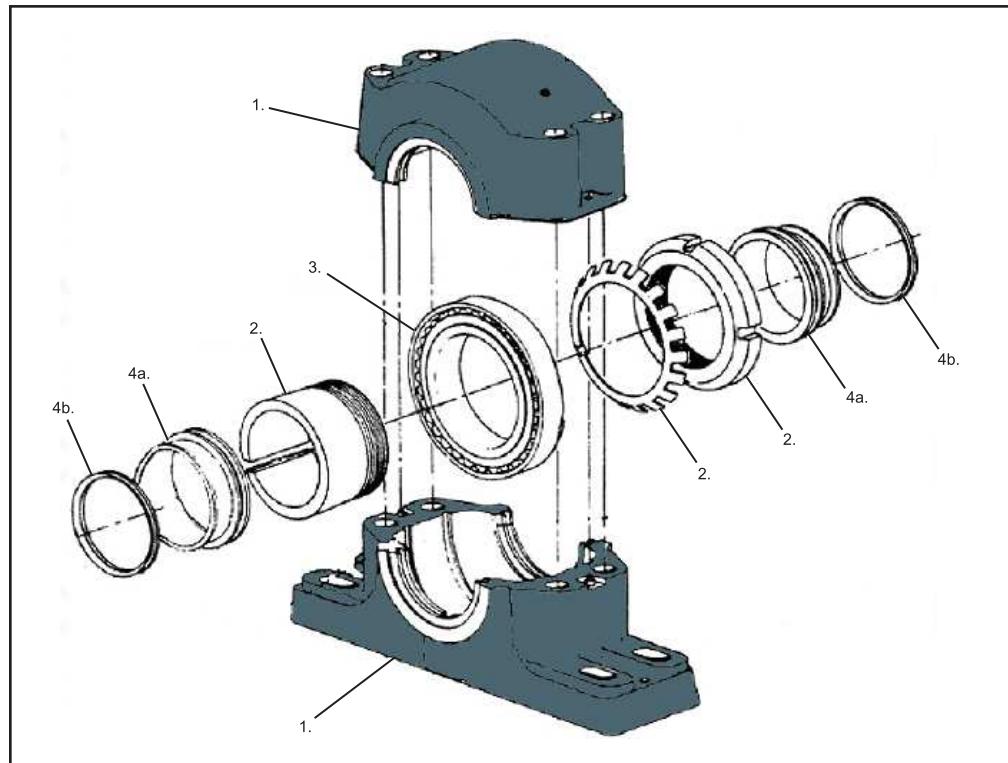
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LOCATION	PART NUMBER	DESCRIPTION
1. a.	905-3000-43	Anvil Only - 4 1/2" Wide (Start 3/10)
b.	905-3001-64	Anvil Only - 4" Wide (Pre 3/10)
2.	905-3000-67	Anvil Clamp Plate
3.	900-4909-18	1/2" Mill Carb Washer
4.	900-4906-86	1/2" Lock Washer
5.	900-4900-74	1/2"-13NC x 2" Hex Head Bolt
6.	900-4909-28	1/2"-13NC x 2 3/4" Hex Head Bolt
7.	900-4907-91	Anvil Eye Bolt - 1/2"-13NC x 4 1/2"
8.	900-4900-45	1/2"-13NC Hex Nut
9.	955-300193	Anvil Gauge
10.	904-0003-90	Anvil Hardware Kit Only (Includes 3 - 8)
11.	905-1000-03	Anvil & Hardware Kit (Includes 1 & 3 - 8)

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

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LOCATION	PART NUMBER	DESCRIPTION
1.	--	Bearing Housing
2.	--	Bearing Adapter - Includes Lock Washer & Lock Nut
3.	--	Bearing Insert
4. a.	--	Grease Seal Ring (1 per on Road Side Bearing)
b.	--	Seal not used on this bearing application
5.	--	Bearing End Cap - Road Side Bearing Only (Not Shown)
6. a.	--	1/2"-13NC x 3 1/2" Bearing Housing Cap Bolt (Not Shown) (Start S/N 1020)
b.	--	1/2"-13NC x 7" Bearing Housing Cap Bolt (Not Shown) (Start S/N 1020)
c.	--	7/16"-14NC x 3 1/4" Bearing Housing Cap Bolt (Not Shown) (S/N 1007 - 1019)
d.	--	7/16"-14NC x 6 1/2" Bearing Housing Cap Bolt (Not Shown) (S/N 1007 - 1019)
7. a.	900-4906-98	5/8"-11NC x 3 1/2" Bearing Mounting Bolt (Not Shown) (Start S/N 1020)
b.	900-4907-04	5/8"-11NC Hex Nut (Not Shown) (Start S/N 1020)
c.	900-4901-32	5/8" Mill Carb Washer (Not Shown) (Start S/N 1020)
d.	900-4909-31	1/2"-13NC x 3" Bearing Mounting Bolt (Not Shown) (S/N 1007 - 1019)
e.	900-4906-82	1/2"-13NC Hex Nut (Not Shown) (S/N 1007 - 1019)
f.	900-4909-18	1/2" Mill Carb Washer (Not Shown) (S/N 1007 - 1019)
8. a.	900-1918-53	Bearing Assembly (Includes 1 - 4) (Start S/N 1020)
b.	900-1918-52	Bearing Assembly (Includes 1 - 4) (S/N 1007 - 1019)

Torque Bearing Housing Cap Bolt to 65-75 ft.-lbs. (88-102 Nm) - Start S/N 1020

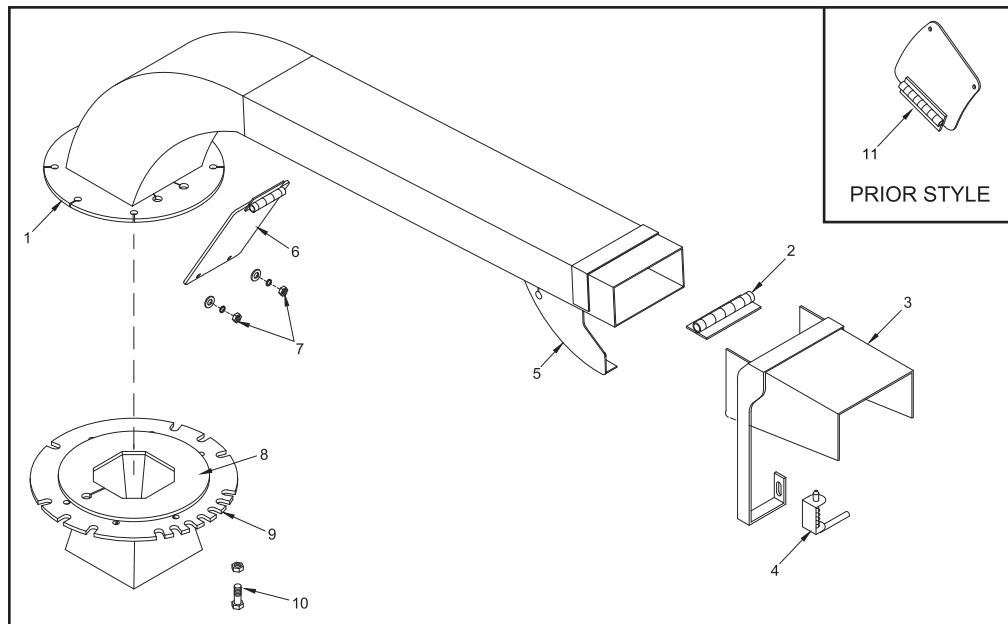
Torque Bearing Housing Cap Bolt to 40-50 ft.-lbs. (55-67 Nm) - S/N 1007 - 1019

Torque Bearing Mounting Bolt to 220 ft.-lbs. (298 Nm) - Start S/N 1020

Torque Bearing Mounting Bolt to 110 ft.-lbs. (149 Nm) - Pre S/N 1007 - 1019

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## STANDARD DISCHARGE (PRE 2/16)



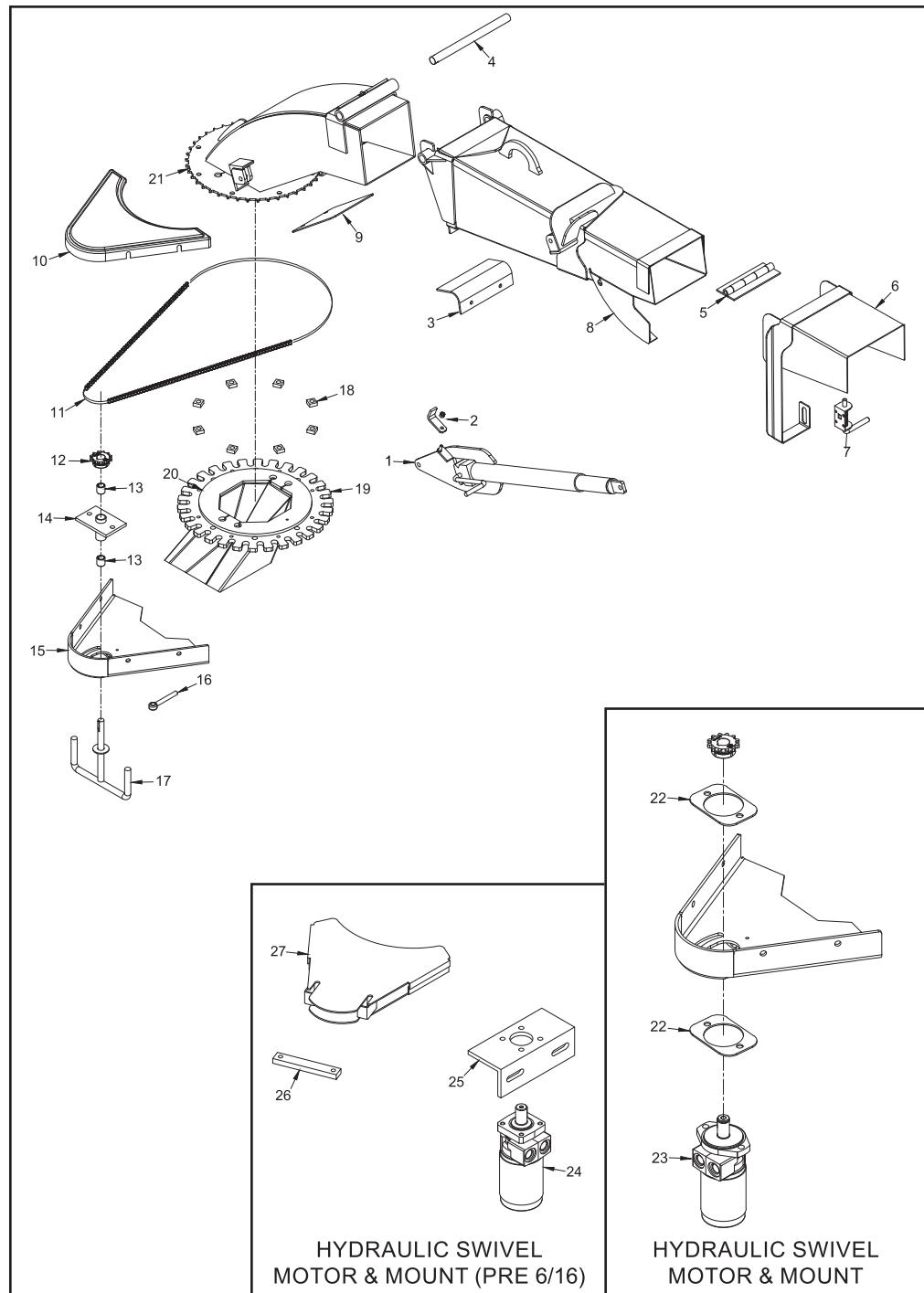
LOCATION	PART NUMBER	DESCRIPTION
1.	980-0127-33	Discharge Bottom Swivel Ring
2.	981-1001-63	Discharge Flipper Hinge
3. a.	937-1009-10	12" Discharge Flipper Assembly (Includes 2 & 4)
3. b.	937-0502-24	12" Enclosed Discharge Flipper Assembly (Includes 2 & 4)
4. a.	900-4901-83	Discharge Flipper Adjusting 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.	905-2000-06	Manual Discharge Assembly
2.	905-2000-23	Adjustable Height Discharge Assembly with Hand Crank Swivel
3.	905-2000-11	Adjustable Height Discharge Assembly with Manual Swivel
4.	905-2001-18	Adjustable Height Discharge Assembly with Hydraulic Swivel

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## HEIGHT ADJUSTABLE HAND CRANK & HYDRAULIC SWIVEL DISCHARGE



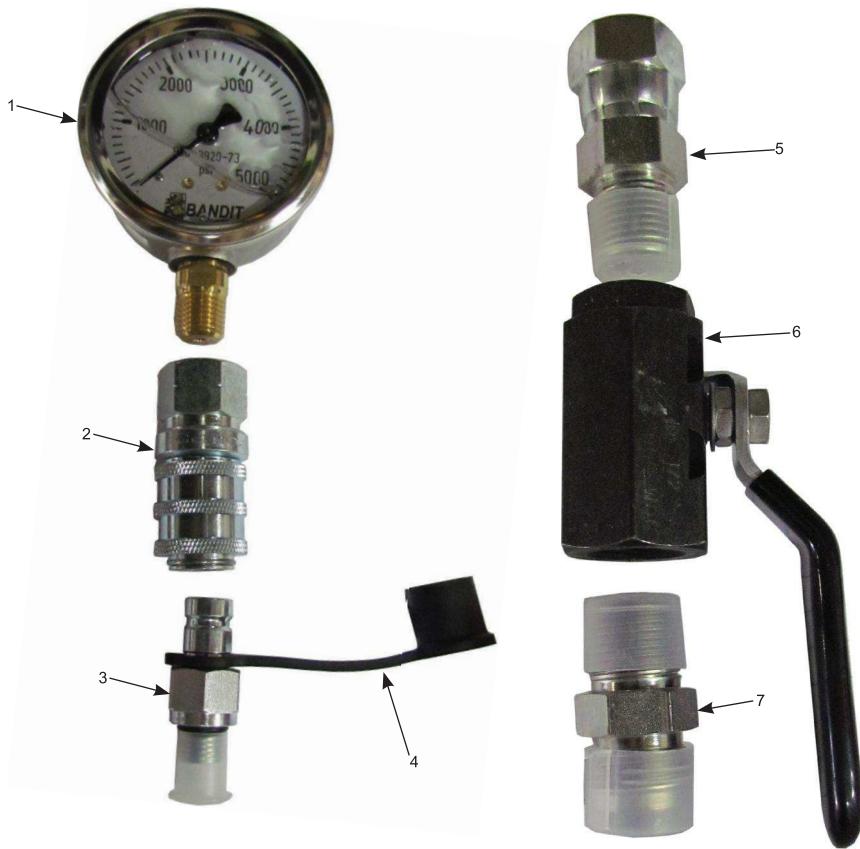
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## HEIGHT ADJUSTABLE HAND CRANK & HYDRAULIC SWIVEL DISCHARGE

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.	980-0509-26	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

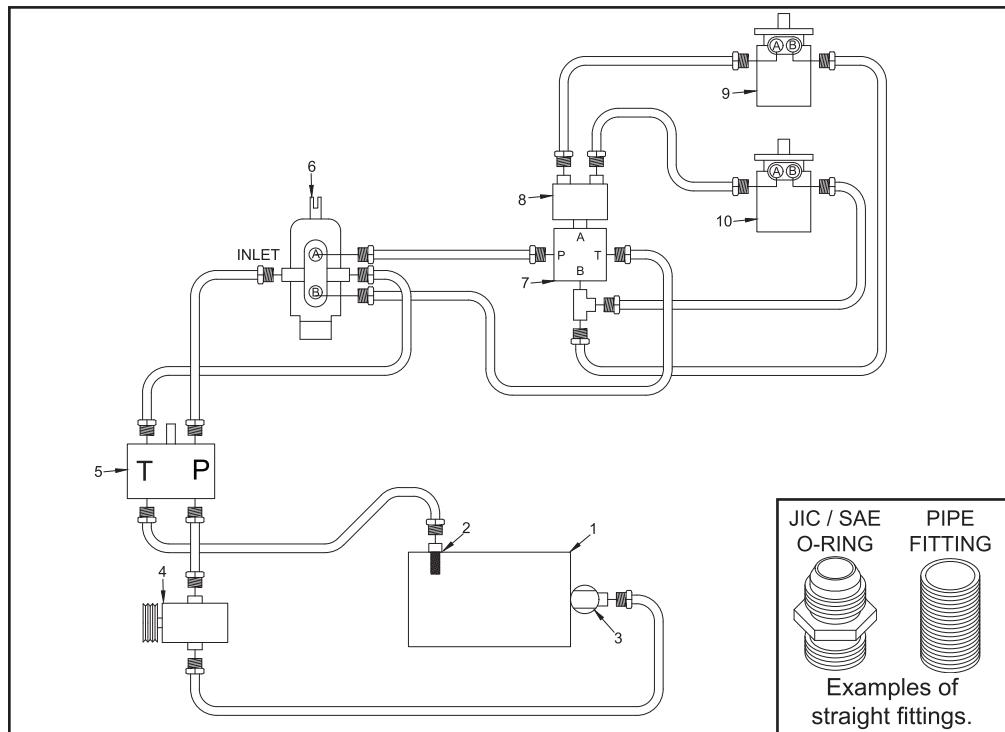
**NOTICE** Nuts, bolts, washers, and all other components can be ordered by physical description.

## 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)
9.	500-0000-43	Gauge & Quick Coupler Only (Includes 1 & 2)

## HYDRAULIC SCHEMATIC (WITH NO OPTIONS)



LOCATION	PART NUMBER	DESCRIPTION
1.	See Pages 122 - 123	Hydraulic Tank
2.	900-3901-41	Hydraulic Tank Strainer
3. a.	900-3900-09	Filter Head
b.	900-3900-10	Filter
4.	**	Hydraulic Pump
5.	See Page 112	Relief Block
6.	900-3920-05A	Feedwheel Control Valve Without Relief - SAE O-ring
7.	See Page 113	Reversing "Autofeed Plus"
8.	See Page 114 - 115	Flow Divider
9. a.	900-3972-05	Top Feedwheel Hydraulic Motor (Start S/N 1008)
b.	900-3972-04	Top Feedwheel Hydraulic Motor (S/N 1007 Only)
10. a.	900-3972-04	Bottom Feedwheel Hydraulic Motor (Start S/N 1008)
b.	900-3972-05	Bottom Feedwheel Hydraulic Motor (Start S/N 1007)
11. a.	980-100121	In-Line Pressure Check Kit - With Autofeed (Not Shown)
b.	980-100122	In-Line Pressure Check Kit - Without Autofeed (Not Shown)

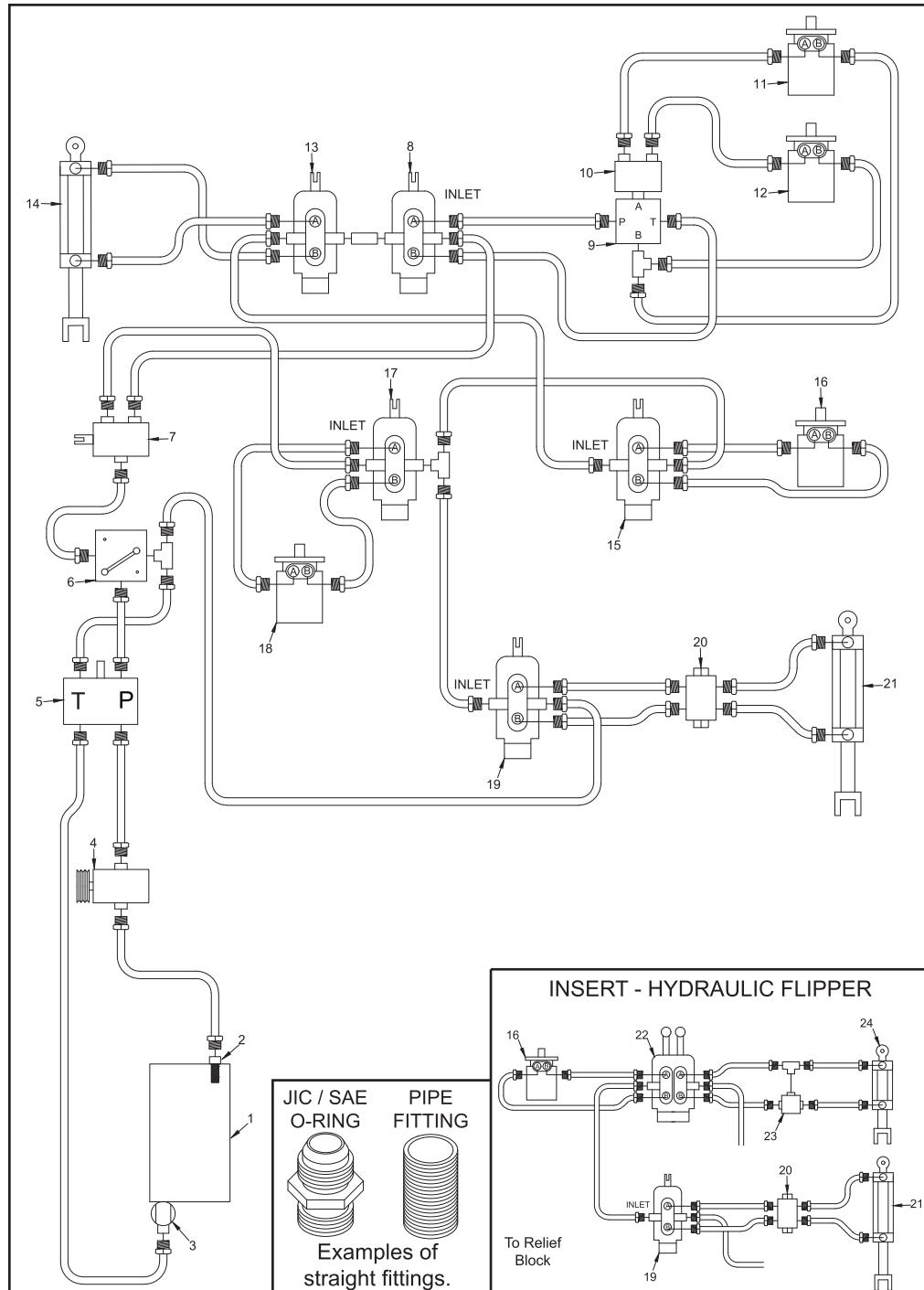
\*\* Hydraulic components, fittings, hoses will vary depending on optional equipment. Order by physical description.

\*\* 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.

**NOTICE** Parts may not be exactly as shown.

## HYDRAULIC SCHEMATIC (WITH OPTIONS)



**NOTICE** Parts may not be exactly as shown.

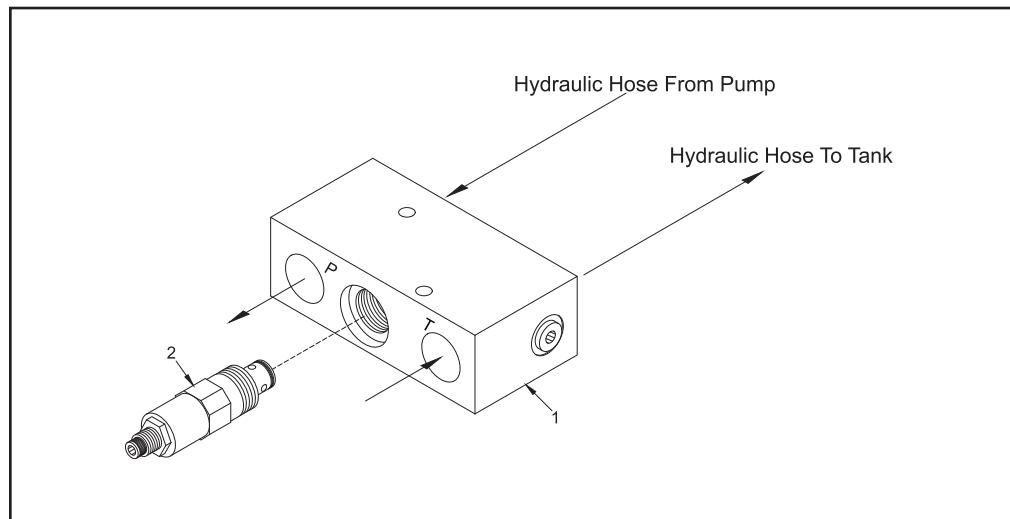
## HYDRAULIC SCHEMATIC (WITH OPTIONS)

LOCATION	PART NUMBER	DESCRIPTION
1.	See Pages 122 - 123	Hydraulic Tank
2.	900-3901-41	Hydraulic Tank Strainer
3. a.	900-3900-09	Filter Head
b.	900-3900-10	Filter
4.	**	Hydraulic Pump
5.	See Page 112	Relief Block
6.	900-3924-55	Variable Speed Flow Control Valve - SAE O-ring
7.	900-3936-39	Winch Selector Valve
8.	900-3920-05A	Feedwheel Control Valve Without Relief - SAE O-ring
9.	See Page 113	Reversing "Autofeed Plus"
10.	See Page 114 - 115	Flow Divider
11. a.	900-3972-05	Top Feedwheel Hydraulic Motor (Start S/N 1008)
b.	900-3972-04	Top Feedwheel Hydraulic Motor (S/N 1007 Only)
12. a.	900-3972-04	Bottom Feedwheel Hydraulic Motor (Start S/N 1008)
b.	900-3972-05	Bottom Feedwheel Hydraulic Motor (S/N 1007 Only)
13.	900-3927-73	Yoke Lift Control Valve For Dual Control Yoke Lift
14. a.	900-3925-04	Yoke Lift Cylinder - Welded
b.	904-0007-14	Pin For Welded Cylinder (Not Shown)
c.	904-0006-90	Seal Kit - Welded Lift Cylinder (Not Shown)
15. a.	900-3920-01	Swivel Discharge Control Valve Only
b.	900-3923-86	Restrictor Fitting - .062"
16.	900-3972-06	Swivel Discharge Hydraulic Motor
17.	900-3920-01	Winch Control Valve Only
18.	900-3972-06	Winch Hydraulic Motor
19.	900-3920-01	Tongue Jack Control Valve
20.	900-3977-42	Tongue Jack Check Valve
21.	900-3934-24	Tongue Jack Cylinder - Welded
22.	900-3916-62	Swivel Discharge & Discharge Flipper Control Valve
23.	900-3925-18	Flipper Check Valve
24.	900-3928-16	Discharge Flipper Cylinder
25. 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.

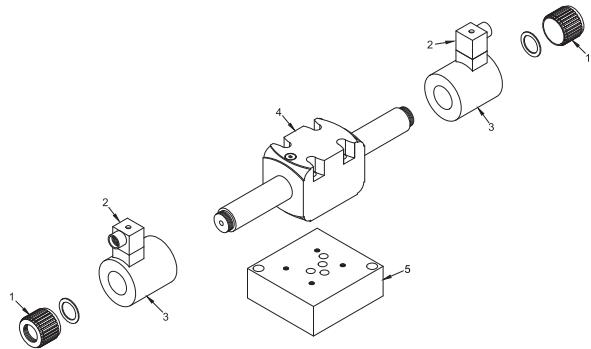
\*\* Hydraulic pumps need to be ordered by physical description and serial number of machine.

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

**MAIN RELIEF BLOCK**

LOCATION	PART NUMBER	DESCRIPTION
1.	N/A	Main Relief Block Only
2.	900-3919-96	Main Relief Only
3.	900-3923-48	Main Relief Block Assembly (Includes #'s 1 & 2)

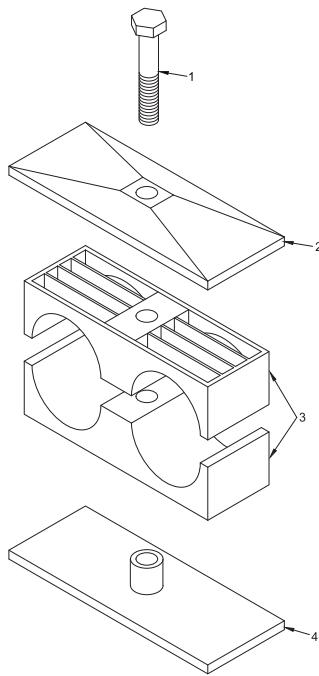
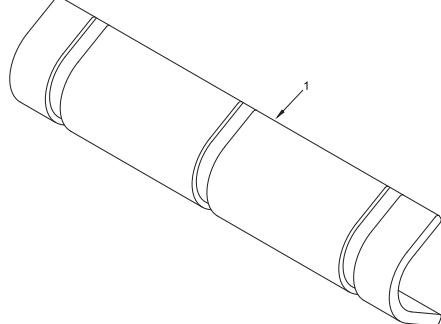
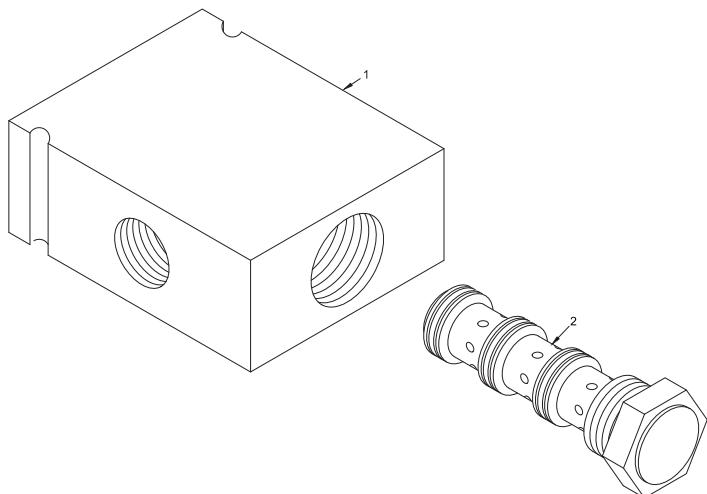
**NOTICE** Parts may not be exactly as shown.

**"AUTOFEED PLUS" VALVE (DUAL SOLENOID)**

Torque Retainer Nut to a maximum of 4 to 6 ft.-lbs. (5 to 8 Nm) and install Loc-Tite 242.  
Over torque will cause damage and will also void warranty.

LOCATION	PART NUMBER	DESCRIPTION
1.	900-3920-20	Retainer Nut and Sealing Ring (Danfoss)
2.	900-2909-55	Herschman Connector Only
3.	900-3920-19	Solenoid Only (Danfoss)
4.	900-3919-47	Dual Solenoid Assembly (Includes #'s 1,3,4, & 6)
5.	900-3931-30	Autofeed Plus Subplate
6.	900-3915-44	Seal Kit For Danfoss Valve (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****FLOW DIVIDER**

**NOTICE** Parts may not be exactly as shown.

**HOSE CLAMP**

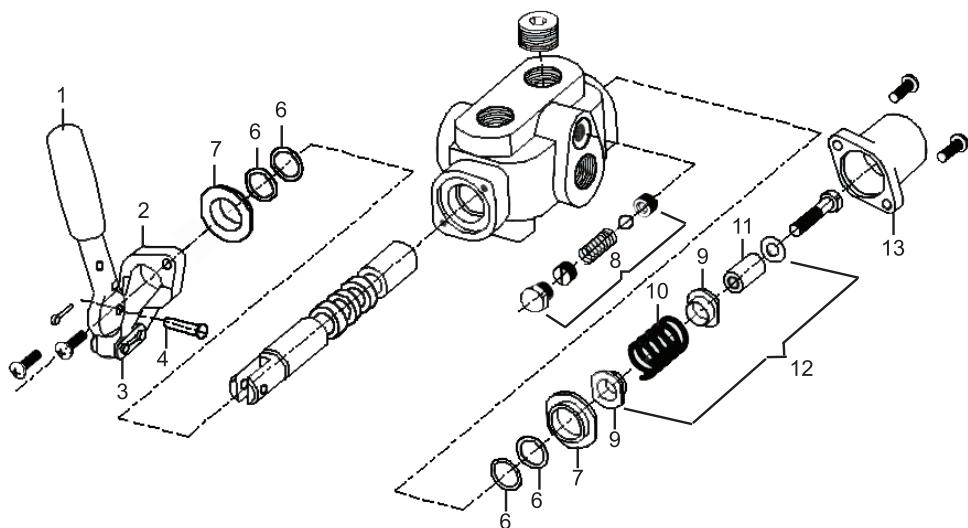
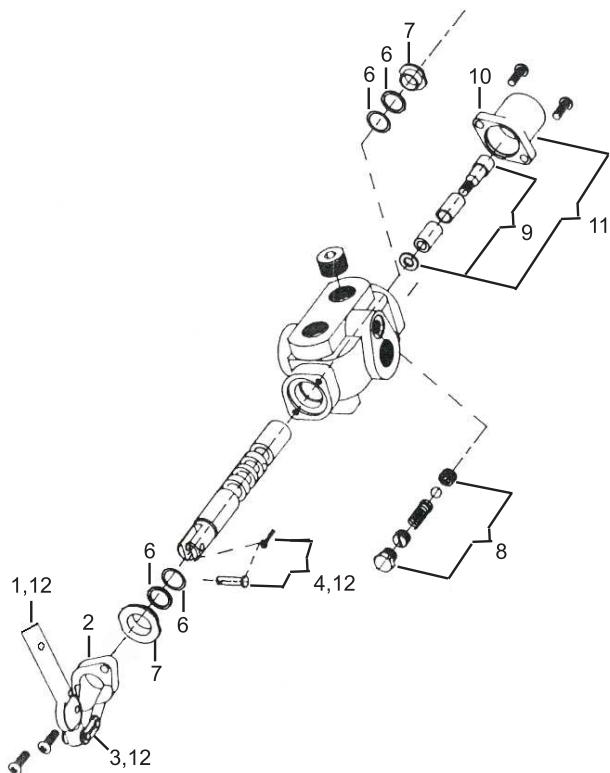
LOCATION	PART NUMBER	DESCRIPTION
1.	900-3914-10	Bolt for 1/2" Clamp
2.	900-3914-11	Locking Plate for 1/2" Double Clamp
3.	900-3926-46	Plastic Clamp for 1/2" Double Clamp
4. a.	900-3914-09	Weld Plate for 1/4" Double Clamp
b.	900-3914-08	Weld Plate for 1/2" Double Clamp
c.	900-3926-47	Weld Plate for 3/4" 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

**FLOW DIVIDER**

LOCATION	PART NUMBER	DESCRIPTION
1.	900-3977-41	Flow Divider Body Only
2.	900-3934-30	Flow Divider Cartridge Only

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

**NOTICE** Parts may not be exactly as shown.

**TYPICAL SPRING LOADED CONTROL VALVE COMPONENTS**

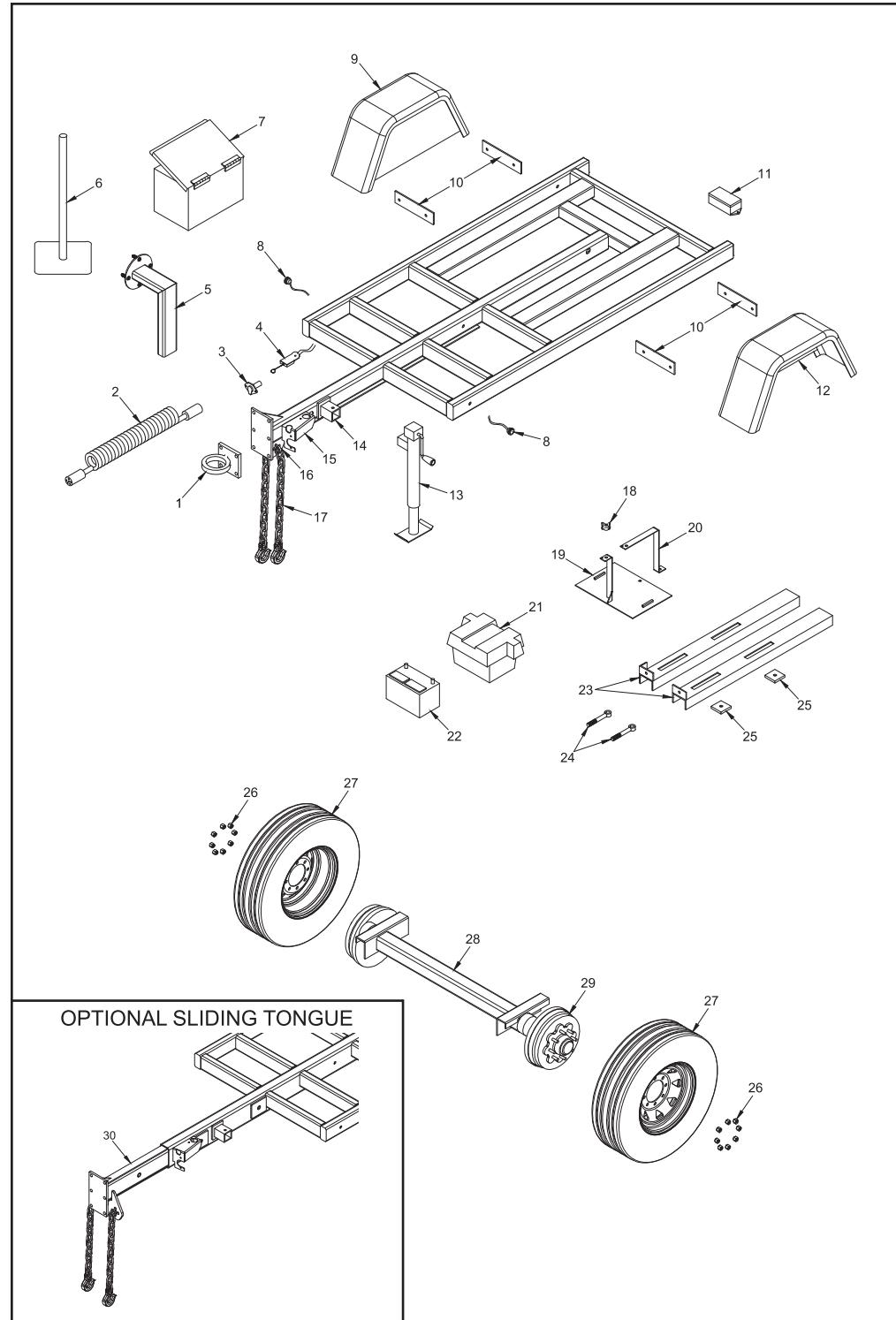
LOCATION	PART NUMBER	DESCRIPTION
1.	904-0003-29	Handle Only (Long)
2.	900-3905-95	Valve Bracket Only With Screws
3.	904-0003-30	Master Link Only Control Valve
4.	904-0003-31	Pin And Cotter Key For Control Valve
5.	904-0003-32	Bracket, Handle And Chain Link <b>NOTE:</b> INCLUDES #'s 1, 2, 3, 4
6.	900-3937-34	Seal Kit For Control Valve
7.	904-0003-33	Seal Retainer For Control Valve <b>NOTE:</b> NOT INCLUDED IN SEAL KIT
8.	900-3901-12	Relief Valve Kit - Spring, Ball, Screw <b>NOTE:</b> 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 <b>NOTE:</b> INCLUDES #'s 1, 2, 3, 4
6.	900-3937-34	Seal Kit For Control Valve
7.	904-0003-33	Seal Retainer For Control Valve <b>NOTE:</b> NOT INCLUDED IN SEAL KIT
8.	900-3901-12	Relief Valve Kit - Spring, Ball, Screw <b>NOTE:</b> SOLD ONLY AS A KIT
9.	900-3900-71	Detent Kit For Feedwheel Control Valve <b>NOTE:</b> SOLD ONLY AS A KIT
10.	900-390071C	Detent Cap Only With Screws (Long)
11.	900-3900-71E	Detent Kit With Cap And Screws <b>NOTE:</b> INCLUDES #'s 9 & 10
12.	900-3905-59	Handle, Pin, and Link <b>NOTE:</b> INCLUDES #'s 1, 3, & 4

**CONTROL VALVES**

LOCATION	PART NUMBER	DESCRIPTION
1.	900-3927-73	Yoke Lift Control Valve for Dual Control Yoke Lift
2.	900-3920-01	Winch, Hyd. Swivel Discharge, and Tongue Jack
3.	900-3920-06A	Feedwheel Control Valve With Relief
4.	900-3920-05A	Feedwheel Control Valve With Out Relief



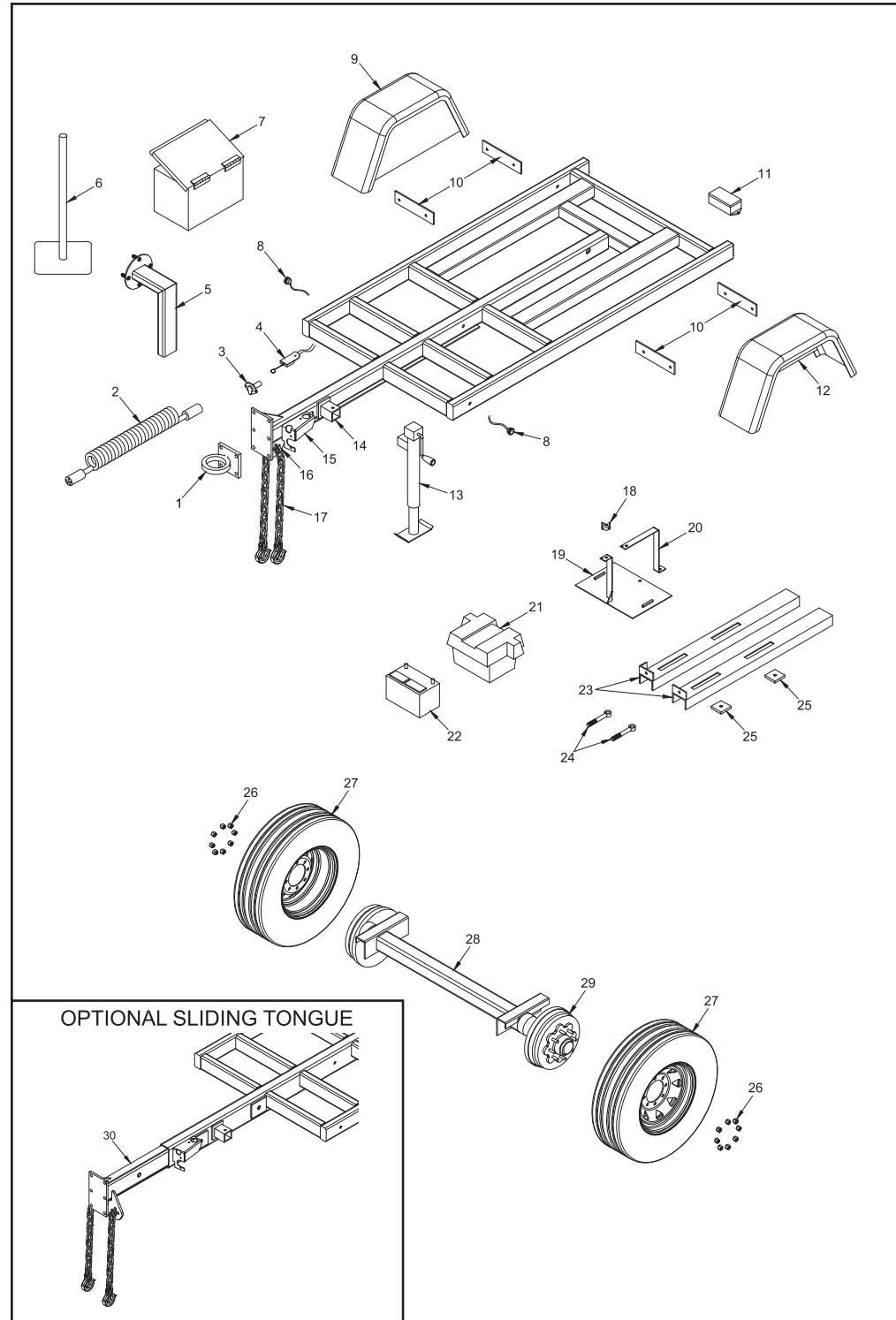
**NOTICE** Parts may not be exactly as shown.

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.	980-0505-33	2 5/16" Ball Coupler Assembly
d.	980-0501-47	2" Ball Coupler Assembly
e.	*--*	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.	900-7901-63	Aluminum Tool Box - 19" Wide
c.	980-0508-37	Steel Tool Box
8. a.	900-2927-86	LED Amber Marker Light - 3/4" Round
b.	900-2915-97	LED Amber Marker Light - Oval
9. a.	900-5904-43	Aluminum Fender
b.	980-0122-61	Right Hand Heavy Duty Aluminum Fender
c.	980-0506-81	Right Hand Heavy Duty Steel Weld-On Fender
d.	900-2003-68	Bolt On Steel Fender
10.	911-3002-22	Aluminum Fender Mount
11.	900-2902-41	Junction Box for Wiring
12. a.	900-5904-43	Aluminum Fender
b.	980-0132-25	Left Hand Heavy Duty Aluminum Fender
c.	980-0509-23	Left Hand Heavy Duty Steel Weld-On Fender
d.	900-2003-68	Bolt On Steel Fender
13. a.	900-5908-17	8,000 Lbs. Drop Leg Jack - Zinc (Start 6/16)
b.	980-1002-12	8,000 Lbs. Jack With HD Castor Wheel - Zinc
c.	900-5908-44	5,000 Lbs. Side Crank Jack - Zinc - Square Mount (Pre 6/16)
d.	980-1002-11	5,000 Lbs. Jack With HD Castor Wheel - Zinc - Square Mount
14. a.	900-5905-71	Pivot Mount For 5,000 Lbs. Jack - Square Mount
b.	900-5905-71	Mount For 8,000 Lbs. Drop Leg Jack
c.	980-0127-44	Pin For 8,000 Lbs. Drop Leg Jack (Not Shown)
15.	980-300106	Trailer Plug Receptacle Mount
16.	980-0121-31	Safety Chain Holder
17. a.	900-4912-70	Safety Chain With Hooks and Spring Latches for Standard Tongue
b.	900-4908-01	Safety Chain With Hooks and Spring Latches for Telescopic Tongue
c.	900-4905-77	Hook For Safety Chain
18.	900-4914-18	Battery Strap Knob
19.	905-2000-12	Battery Box Mount Assembly (Includes 20)
20.	905-3000-74	Battery Strap Only
21. a.	900-7900-08	Plastic Battery Liner Box for 1000 CCA Battery
b.	900-7900-78B	Optional Aluminum Battery Box - 18" Wide
c.	900-7901-63B	Optional Aluminum Battery Box - 19" Wide
d.	980-0509-79	Optional Steel Battery Box
e.	914-0501-46	Steel Battery Box for 1400 CCA Battery

\*\* 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.



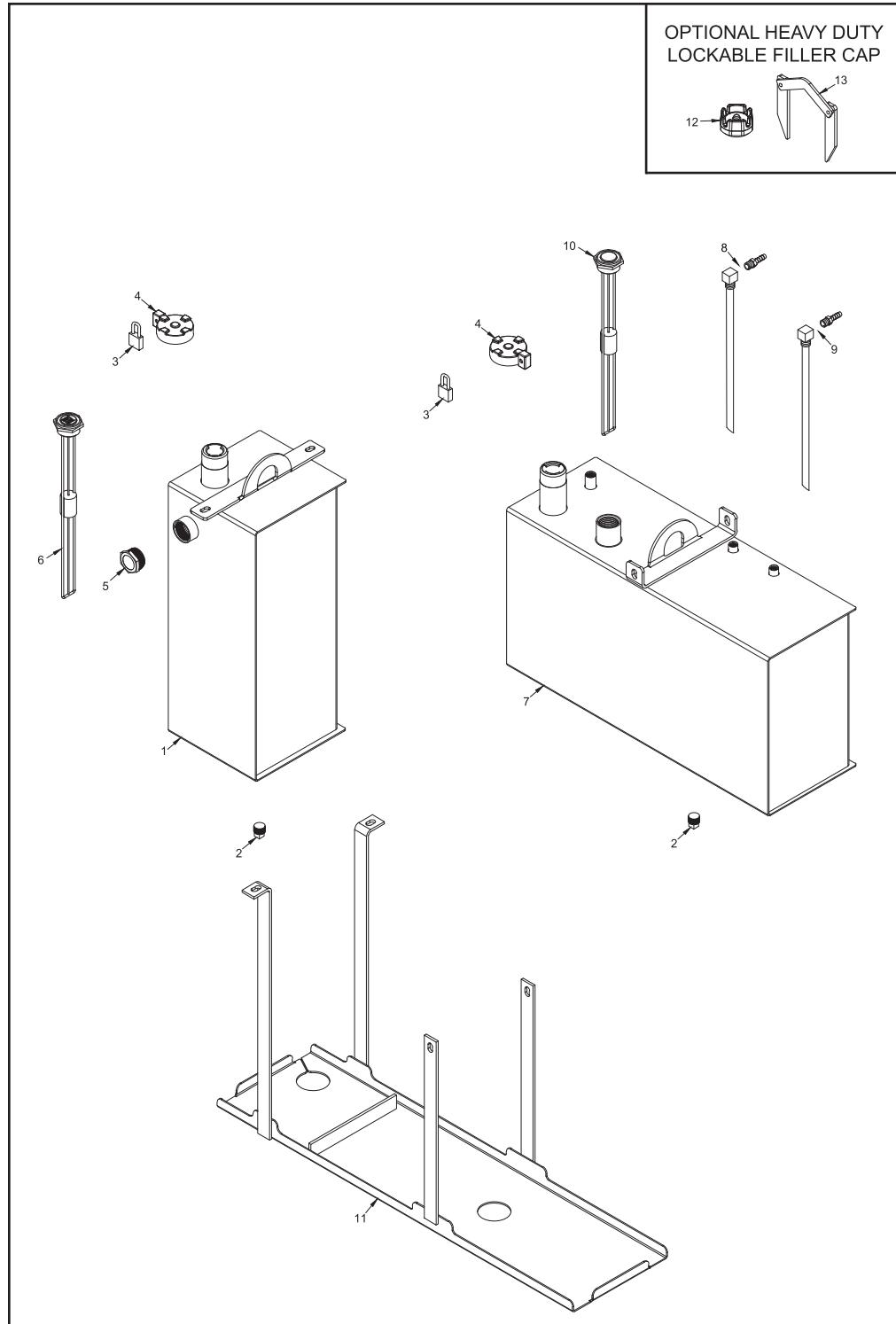
**NOTICE** Parts may not be exactly as shown.

LOCATION	PART NUMBER	DESCRIPTION
22. a.	900-6915-42	1000 CCA Battery
b.	900-6907-88	1400 CCA Battery
23.	*_*	Engine Rails
24. 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"
25. 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
26.	900-5910-82	9/16"-18NF Cone Nut
27. a.	900-5904-48	265/75R-16" Tire and 8-Bolt Rim (Start 8/13)
b.	900-5904-20	245/75R-16" Tire and White Spoke, 8-Bolt Rim (Pre 8/13)
c.	900-5904-63	245/75R-16" Tire and Aluminum, 8-Bolt Rim
d.	900-5904-18	245/75R-16" Tire Only
e.	900-5904-22	16" x 6" White Spoke, 8-Bolt Rim Only
f.	900-5907-54	16" x 6" Aluminum, 8-Bolt Rim Only
g.	900-5913-90	235/80R-16" Tire and White Spoke, 8-Bolt Rim
h.	900-5905-47	235/80R-16" Tire Only
28. a.	900-5910-04	7,000 Lb. Torflex Axle Assembly - Electric Brake
b.	900-5909-75	7,000 Lb. Leaf Spring Axle Assembly - Electric Brake (Start S/N 1008)
c.	900-5910-53	7,000 Lb. Leaf Spring Axle Assembly (8K Rubber Bushed) - Electric Brake
d.	900-5909-40	8,000 Lb. Torflex Axle Assembly - Electric Brake (S/N 1007 Only)
29.	**	Brake Hub and Drum Assembly
30.	981-0501-18	Sliding Tongue Assembly - 20" Adjustment
31.	900-2915-98	LED Red Marker Light - Oval (Not Shown)
32. a.	980-0508-25	Optional Wheel Chock Holders Aluminum Bolt-On (Not Shown)
b.	980-0118-61	Optional Wheel Chock Holders Metal Weld-On (Not Shown)
33.	900-5902-32	Optional Rubber Wheel Chock (Not Shown)
34.	900-5904-52	Optional Safety Marker For Fenders (Not Shown)
35.	900-7900-48	Optional Mud Flap (Not Shown)
36. 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.



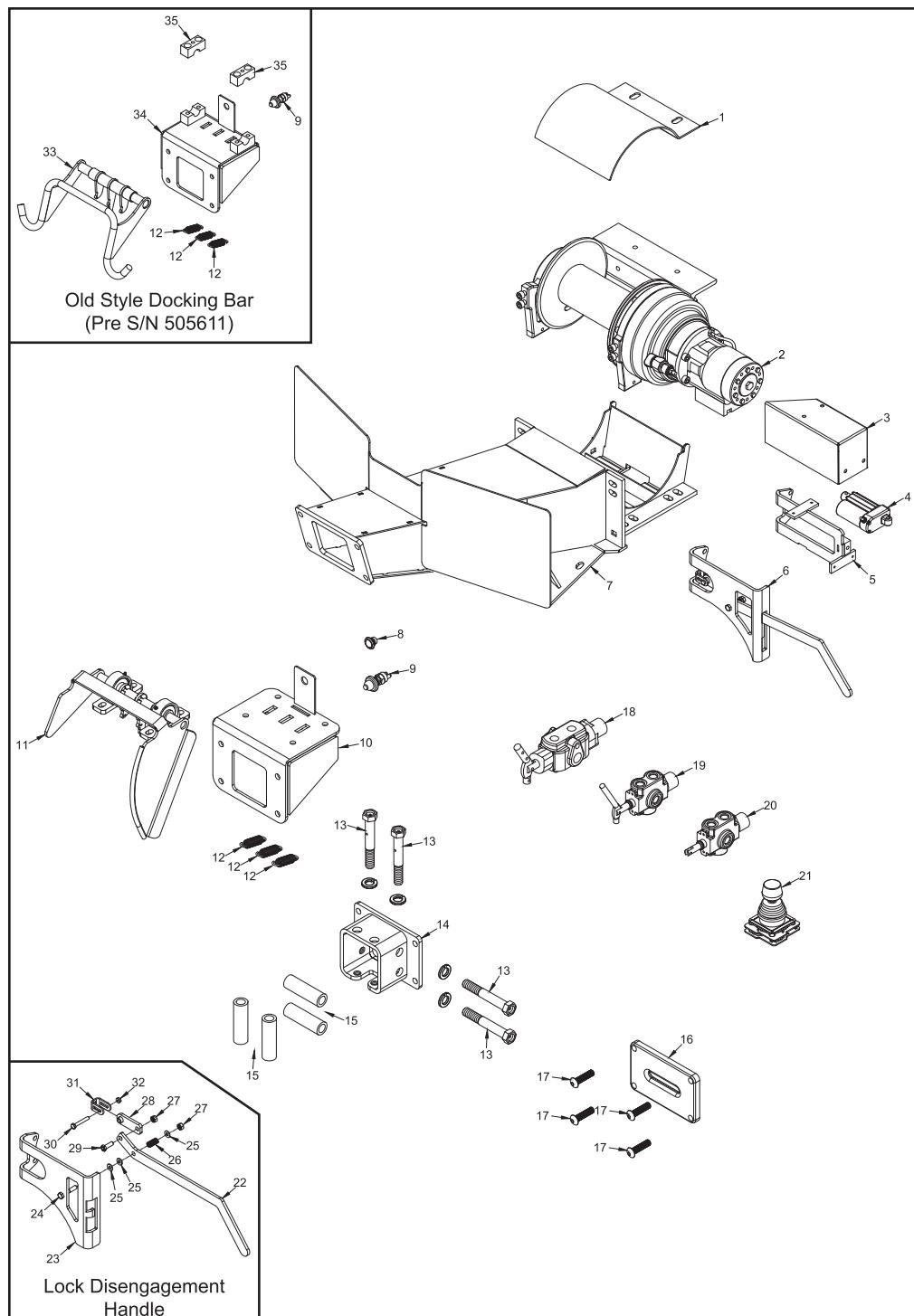
**NOTICE** Parts may not be exactly as shown.

LOCATION	PART NUMBER	DESCRIPTION
1. a.	909-1000-25	12 Gallon Rectangle Hydraulic Tank Assembly (Includes 2 - 5)
b.	909-2000-08	12 Gallon Rectangle Hydraulic Tank Assembly
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.	900-3934-55	Hydraulic Locking Fill Cap - Black
b.	900-3934-56	Fuel (Diesel) Locking Fill Cap - Green
c.	900-3966-01	Fuel (Gasoline) Locking Fill Cap - Red
d.	900-3935-06	Keeper for Locking Fill Cap (Not Shown)
5.	900-3975-03	SLW-24 Sight Gauge (Start 10/15)
6. a.	900-2903-93	Rochester Sight Gauge (Pre 10/15)
b.	900-2903-55	Face For Sight Gauge Only
7. a.	980-1003-13	24 1/2 Gallon Fuel Tank (Includes 2 - 4, 8 - 10)
b.	980-0509-58	24 1/2 Gallon Fuel Tank
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 24 1/2 Gallon Rectangle Fuel Tank
b.	900-0104-95	Rubber Tank Pad (Not Shown)
c.	900-7900-35	Tank Cushion Material (Not Shown)
11.	911-200011	Tank Tray Assembly
12.	980-0506-85	Optional Fill Cap Lock Assembly For Steel Tank With 900-3917-71 Fill Cap
13.	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



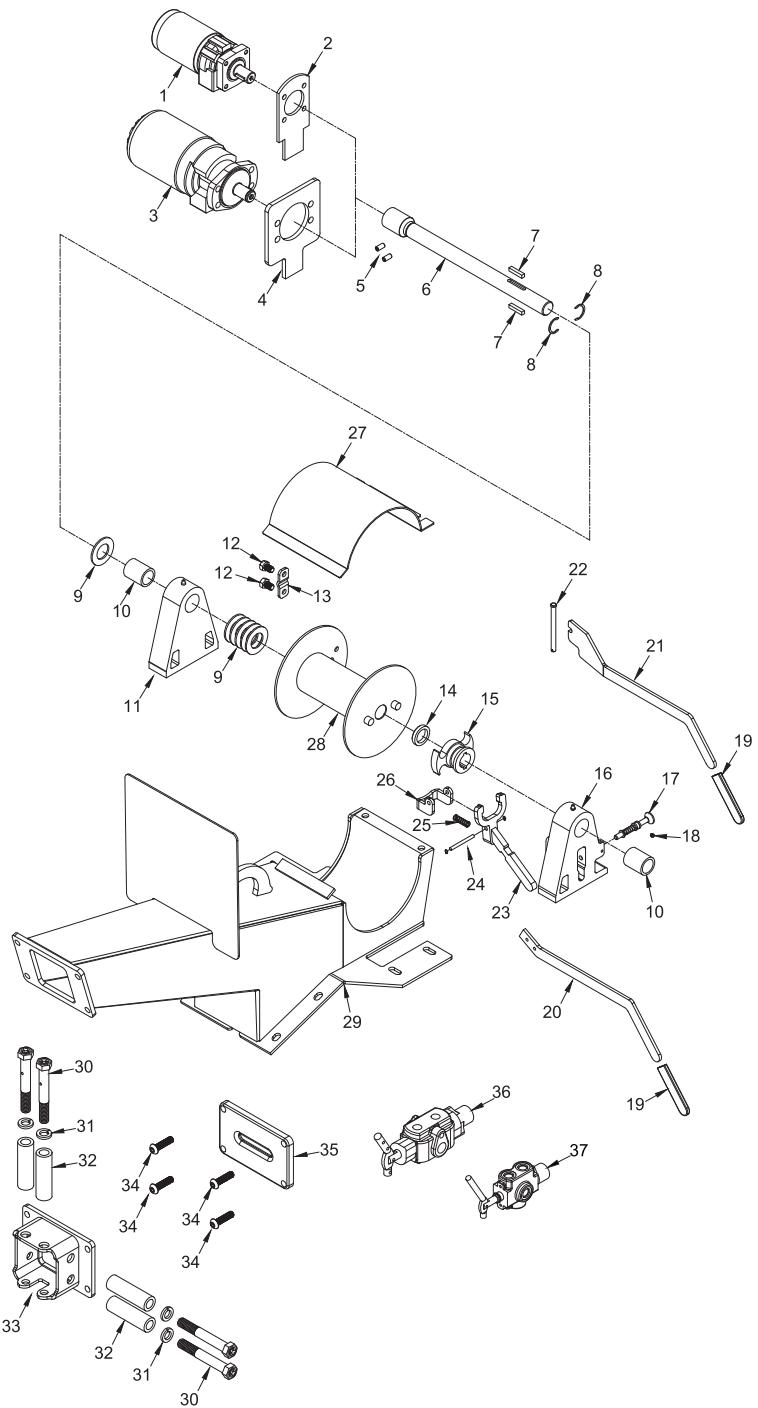
**NOTICE** Parts may not be exactly as shown.

**DINAMIC WINCH**

LOCATION	PART NUMBER	DESCRIPTION
1.	980-3012-41	Winch Spool Cover
2.	900-3974-40	Winch
3.	980-3012-51	Electric Actuator Cover
4.	900-2930-89	Electric Actuator
5.	980-2004-22	Electric Actuator Mount
6.	980-2004-90	Lock Disengagement Handle Assembly
7. a.	980-2004-14	Winch Tunnel
b.	911-3005-87	Decal Plate
8.	900-2927-86	Feed Deactivate Light
9.	900-2903-07	Limit Switch
10.	980-2005-14	Winch Switch Frame
11.	980-2005-35	Winch Line Docking Bar
12.	900-4919-82	Spring
13. a.	900-4902-27	Winch Roller Bolt
b.	900-4907-17	3/4" Lock Washer
14.	980-0505-82	Winch Roller Assembly (Includes 12 - 13)
15.	914-1004-18	Winch Roller
16.	980-3011-25	Fairlead
17.	900-4923-41	1/2"-13NC x 2" Plated Button Head Cap Screw
18.	900-3920-01	Winch Valve
19. a.	900-3936-39	Winch Selector Control Valve
b.	900-3936-40	5/16" Replacement Stud For Selector Valve
20. a.	900-3956-26	Momentary Feed Valve
b.	905-3002-14	Push Plate for Momentary Feed Switch (Not Shown)
c.	900-2903-07	Momentary Feed Push Button Switch (Not Shown)
21.	900-2931-26	Feed Assist Joystick
22.	900-3014-34	Lock Disengagement Handle
23.	980-3014-33	Lock Disengagement Handle Mount
24.	900-4910-78	5/16"-18NC x 1 3/4" Hex Head Bolt
25.	900-4903-59	1/4" Flat Washer
26.	900-4921-85	Spring
27.	900-4906-45	5/16"-18NC Nut
28. a.	980-3014-35	Lock Disengagement Linkage
b.	980-3014-36	Linkage Bushing
29.	900-4906-37	5/16"-18 x 1" Hex Head Bolt
30.	900-4913-36	1/4"-20NC x 1 3/4" Hex Head Bolt
31.	980-3012-62	Lock Disengagement Clevis
32.	900-4906-32	1/4"-20NC Nut
33.	980-2004-48	Winch Line Docking Bar
34.	980-2004-47	Winch Switch Frame
35. a.	980-2004-51	Bearing Block
b.	900-4900-06	Grease Zerk

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

## RKI WINCH



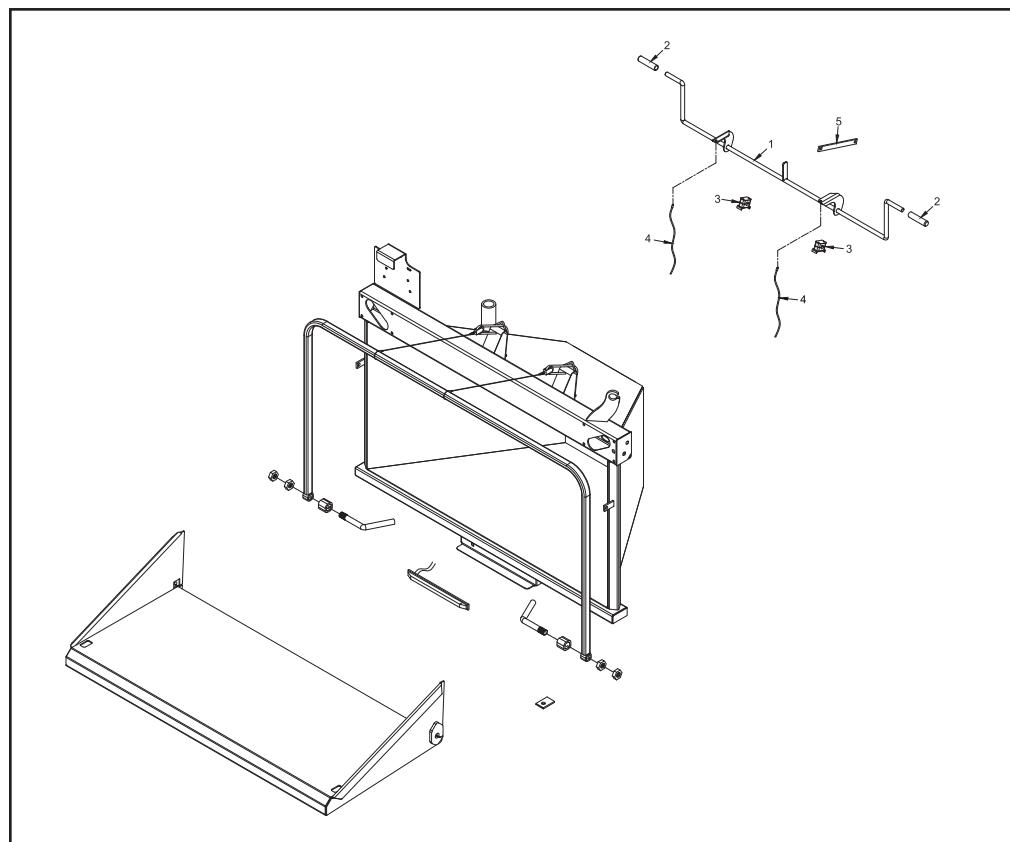
**NOTICE** Parts may not be exactly as shown.

**RKI WINCH**

LOCATION	PART NUMBER	DESCRIPTION
1. a.	900-3972-06	Winch Hydraulic Motor (SAE O-ring) "TE" - Square
b.	900-3973-28	Winch Hydraulic Motor (Pipe Fitting) "TE" - Square
2.	981-1001-01	Winch Motor Torque Arm For "RS/TE" Motor
3.	900-3973-39	Winch Hydraulic Motor (SAE O-ring) "TG" - Round
4.	955-1011-71	Winch Motor Torque Arm For "RE/TG" Motor
5.	900-4910-65	3/8"-16NC x 3/8" Cup Point Socket Set Screw
6. a.	980-900002	Winch Shaft Only
b.	900-3905-22	Winch Shaft With Keys
7.	900-3962-42	Winch Shaft Key
8.	900-3963-08	Retaining Ring
9.	900-3963-29	Thrust Washer
10.	900-1915-24	Bronze Bushing For A Frame Arm
11.	910-1000-08	Steel Winch A Frame Arm (Includes 10)
12.	900-3965-33	Rope/Line Clamp Bolt - 1/2"-13NC x 3/4" Hex Head Bolt
13.	900-3965-32	Rope/Line Clamp
14.	900-3966-71	Clutch Spacer
15.	900-3905-17	Winch Clutch
16.	910-1000-07	Steel Winch A Frame Arm (Includes 10)
17.	900-3905-14	Winch Release Lever Pin Assembly
18.	900-3970-52	Set Screw for Winch Release Lever Pin
19.	900-9904-59	Vinyl Cap for Handle Extension (If Applicable)
20.	955-300376	Winch Shift Lever Extension (If Applicable)
21.	955-300377	Lock Pin Handle Extension (If Applicable)
22.	900-4913-00	Pivot Pin For Winch Handle Extension (If Applicable)
23. a.	900-3959-59	Winch Shift Lever Only
b.	900-3905-16	Winch Shift Lever (Includes 25 & 26)
24. a.	900-3961-21	Winch Pin for Brake Assembly
b.	900-3958-59	Snap Ring for Winch Pin
25.	900-3958-61	Winch Spring
26.	900-3964-49	Winch Brake Shoe Only
27.	980-300260	Winch Drum Cover
28. a.	900-3905-19	Winch Drum (Includes Bushings)
b.	900-3963-28	Bushing Only For Winch Drum (Not Shown)
29. a.	980-200162	Winch Tunnel Assembly
b.	980-3009-01	Mount Plate
c.	980-0137-82	Decal Plate
30.	900-4902-27	Winch Roller Bolt
31.	900-4907-17	3/4" Lock Washer
32.	914-1004-18	Winch Roller
33.	980-0505-82	Winch Roller Assembly (Includes 30 - 32)
34.	900-4923-41	1/2"-13NC x 2" Plated Button Head Cap Screw
35.	980-3011-25	Fairlead
36. a.	900-3920-01A	Winch Valve (SAE O-rings)
b.	900-3901-42	Winch Valve (Pipe Fittings)
37. 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)
38.	904-0002-60	Winch Kit - Specify Fairlead or Rollers (Includes 1 - 18, 23 - 29)

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

## HYDRAULIC ACTIVATED LAST CHANCE

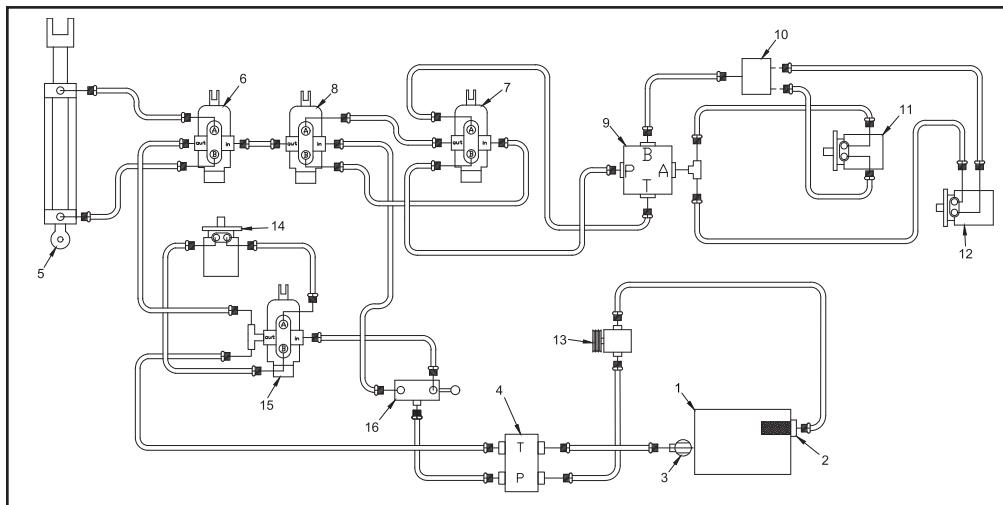


LOCATION	PART NUMBER	DESCRIPTION
1.	980-300185	Hydraulic Last Chance Control Bar
2. a.	900-7900-96	Vinyl Grip - Black
b.	900-7901-41	Vinyl Grip - Yellow
3.	900-3914-02	Control Bar Pivot Bracket
4.	900-4907-43	Cables
5.	955-300054	Linkage

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

**NOTICE** Parts may not be exactly as shown.

## HYDRAULIC ACTIVATED LAST CHANCE



LOCATION	PART NUMBER	DESCRIPTION
1.	See Pages 122 - 123	Hydraulic Tank
2.	900-3901-41	Hydraulic Tank Strainer
3. a.	900-3900-09	Filter Head
b.	900-3900-10	Filter
4.	See Page 112	Relief Block
5. a.	900-3925-04	Yoke Lift Cylinder - Welded
b.	904-0007-14	Pin For Welded Cylinder (Not Shown)
c.	904-0006-90	Seal Kit - Welded Lift Cylinder (Not Shown)
6.	900-3927-73	Yoke Lift Control Valve For Dual Control Yoke Lift
7.	900-3954-43	Hydraulic Activated Last Chance Valve
8.	900-3920-05A	Feedwheel Control Valve Without Relief - SAE O-ring
9.	See Page 113	Reversing "Autofeed Plus"
10.	See Page 114 - 115	Flow Divider
11. a.	900-3972-05	Top Feedwheel Hydraulic Motor (Start S/N 1008)
b.	900-3972-04	Top Feedwheel Hydraulic Motor (S/N 1007 Only)
12. a.	900-3973-16	Bottom Feedwheel Hydraulic Motor (Start S/N 1008)
b.	900-3972-05	Bottom Feedwheel Hydraulic Motor (S/N 1007 Only)
13.	**	Hydraulic Pump
14.	900-3921-57	Winch Motor (Optional)
15.	900-3920-01	Winch Control Valve (Optional)
16.	900-3936-39	Winch Selector Control Valve (Optional)

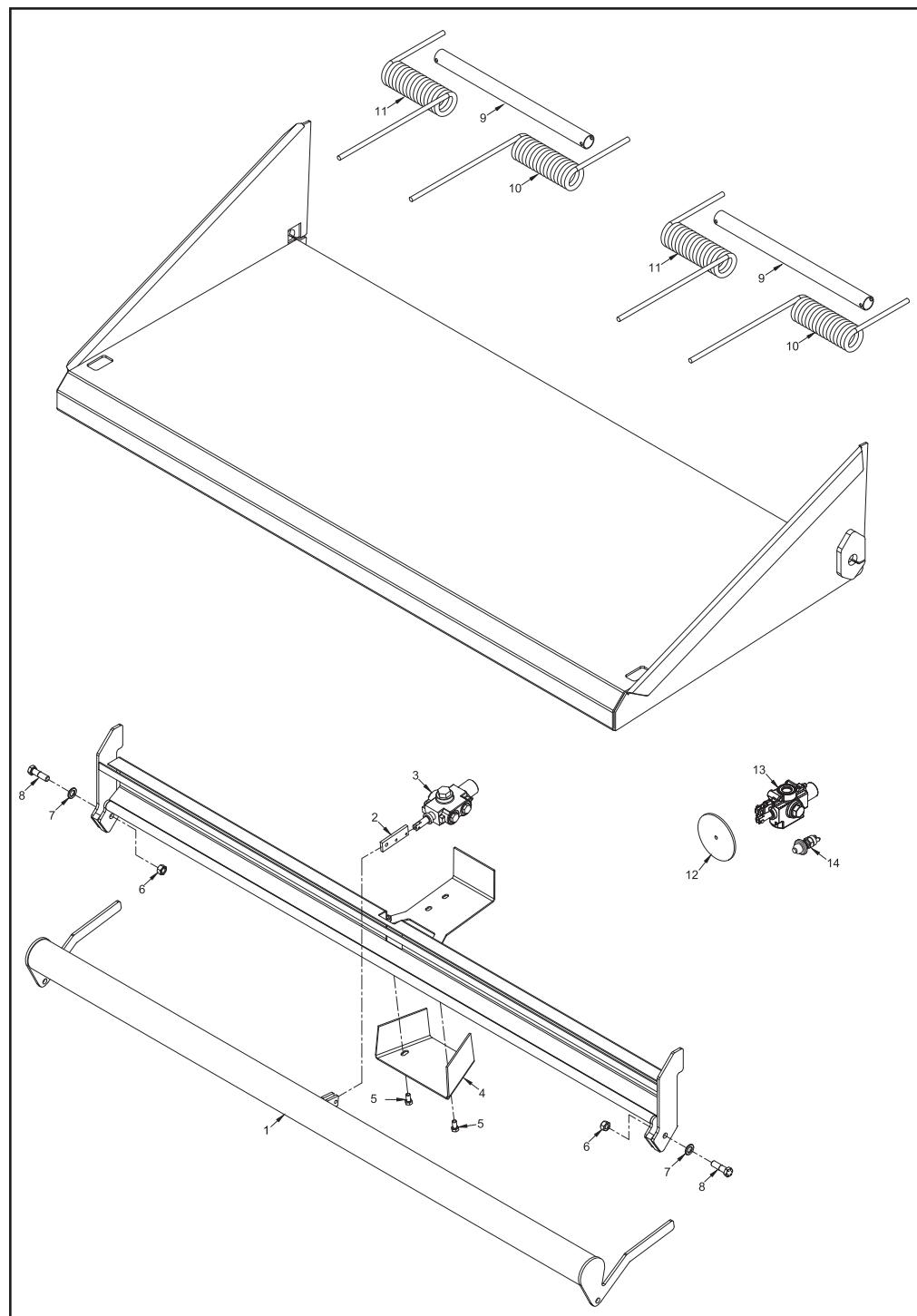
\*\* Hydraulic components, fittings, hoses will vary depending on optional equipment. Order by physical description.

\*\* 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.

**NOTICE** Parts may not be exactly as shown.

## HYDRAULIC BUMP BAR Version 2

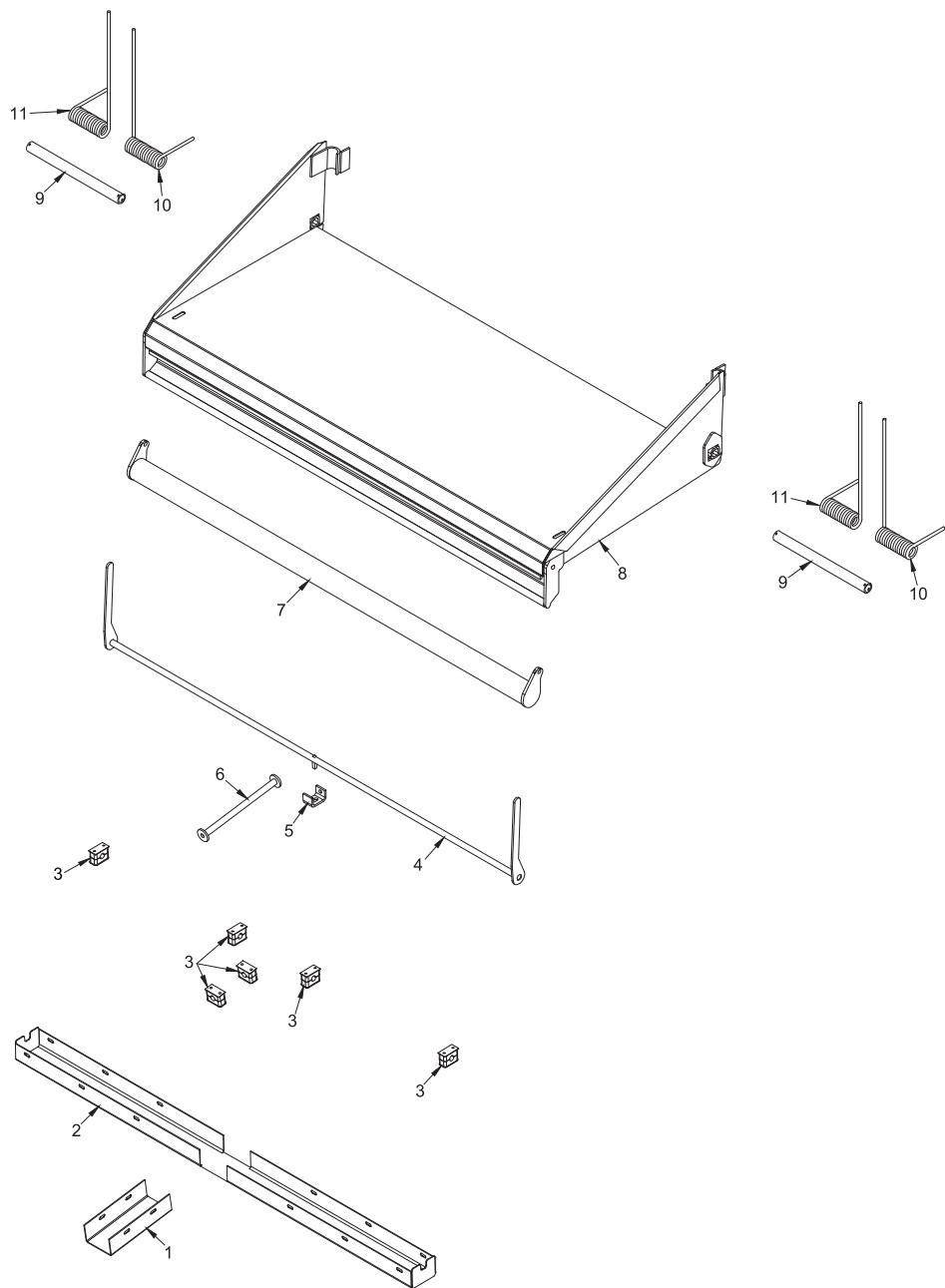


**NOTICE** Parts may not be exactly as shown.

**HYDRAULIC BUMP BAR Version 2**

LOCATION	PART NUMBER	DESCRIPTION
1. a.	980-2005-44	Hydraulic Bump Bar Assembly - 35"
b.	626-2002-07	Hydraulic Bump Bar Assembly - 42"
c.	980-2005-39	Hydraulic Bump Bar Assembly - 45"
d.	915-2000-73	Hydraulic Bump Bar Assembly - 54"
e.	911-2002-52	Hydraulic Bump Bar Assembly - 64"
2.	911-3003-66	Bump Bar Valve Linkage
3.	900-3956-74	Bump Bar Valve
4.	915-3002-17	Bump Bar Valve Cover
5.	900-4906-54	3/8"-16NC x 3/4" Bolt
6.	900-4906-84	1/2"-13NC Lock Nut
7.	900-4906-88	1/2" Flat Washer
8.	900-4906-73	1/2"-13 x 1 3/4" Bolt
9. a.	980-3011-43	Spring Tube for Spring Assist - Single Springs
b.	937-3009-68	Spring Tube for Spring Assist - Double Springs (64" Infeed Tray Only)
10.	900-4917-76	Left Spring for Spring Assist
11.	900-4917-77	Right Spring for Spring Assist
12.	905-3002-14	Push Plate for Momentary Override Switch
13.	900-3956-26	Momentary Override Valve
14. a.	900-2903-07	Momentary Override Push Button Switch
b.	999-8001-88	Momentary Override Timer (Not Shown)

## HYDRAULIC BUMP BAR

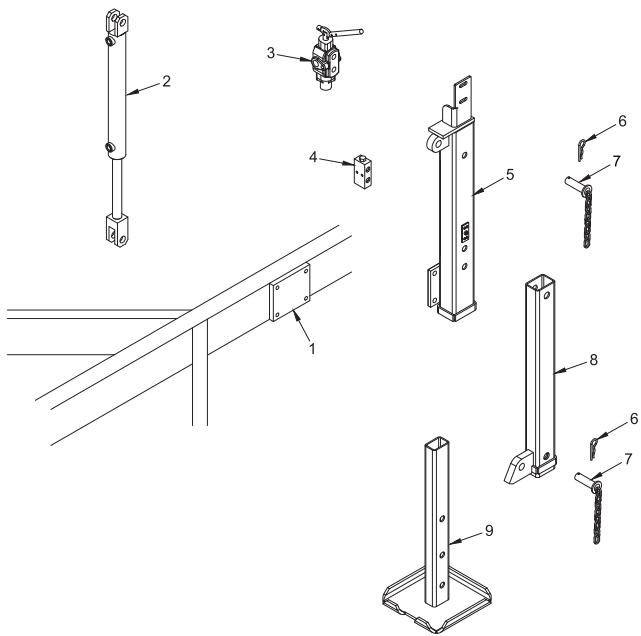


**NOTICE** Parts may not be exactly as shown.

**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. a.	900-3956-26	Momentary Override Valve (Not Shown)
b.	905-3002-14	Push Plate for Momentary Override Switch (Not Shown)
c.	900-2903-07	Momentary Override Push Button Switch (Not Shown)
d.	999-8001-88	Momentary Override Timer (Not Shown)

## HYDRAULIC TONGUE JACK



LOCATION	PART NUMBER	DESCRIPTION
1.	920-300340	Tongue Jack Mount Plate
2	a. 900-3934-24 b. 904-0007-14	Tongue Jack Cylinder - Welded Pin For Welded Cylinder (Not Shown)
3	a. 900-3920-01 b. 900-3901-42	Tongue Jack Valve (SAE O-rings) Tongue Jack Valve (Pipe Fittings)
4.	900-3949-09	Check Valve
5.	--	Outside Tube Assembly
6.	900-4907-60	Cotter Hair Pin
7.	914-1000-38	Lock Pin
8.	980-0131-50	Inside Tube Assembly
9.	980-0509-53	Drop Leg Foot Pad Assembly
10.	980-0509-00	Bolt-On Hydraulic Tongue Jack Kit (Includes #'s 1 - 9)

**NOTICE** Parts may not be exactly as shown.

# SERVICE RECORD

## **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.

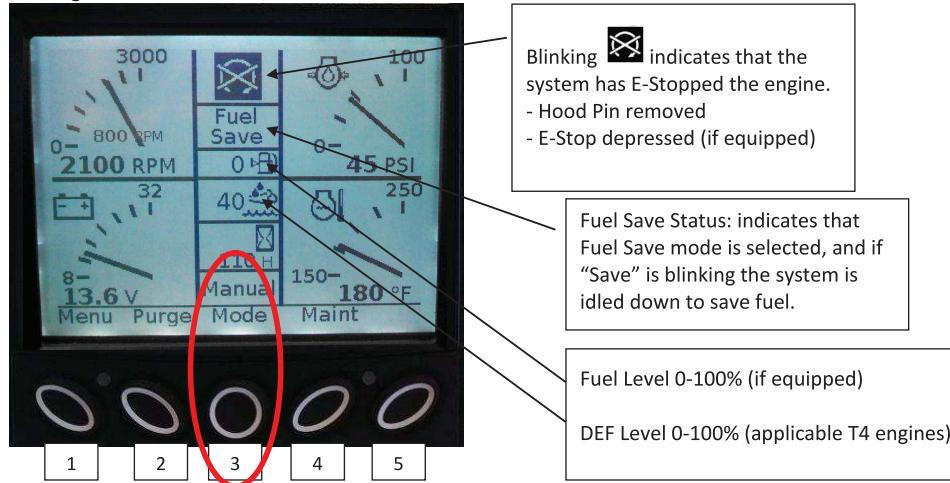
The fuse box may have a foam retainer under the cover to help hold the relays in place. The fuse decal is located under the foam.

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.

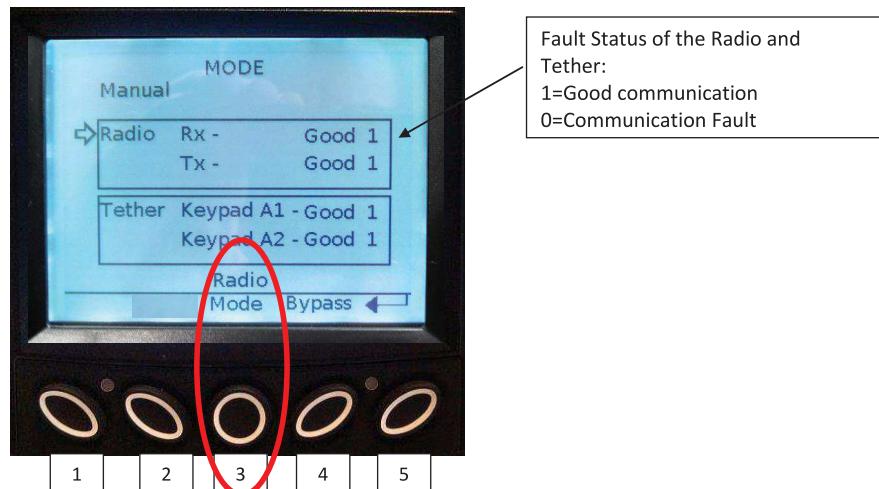
To turn off AutoFeed and run auxiliary functions at startup, navigate to the Mode page on the display and see instructions below on pages 3 and 4.



## 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).

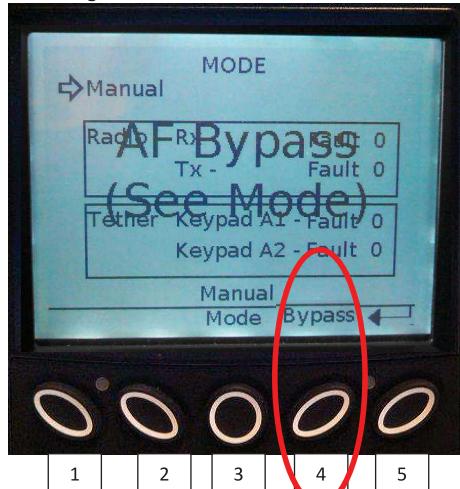


Press the Mode button to select between Manual, Radio, or Tether operating mode.

### 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

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### 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	0
Hood Pin (C1-B3)	0	0
Throttle Up/Dn (C1-C6,C7)	00	00
Wnch-Stow-FA (C1-B7r,A3,A7)	00	00
FS Throttle Up Sw (C1-B2)	0	0
Bump Bar Override Sw (C1-A6)	0	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.

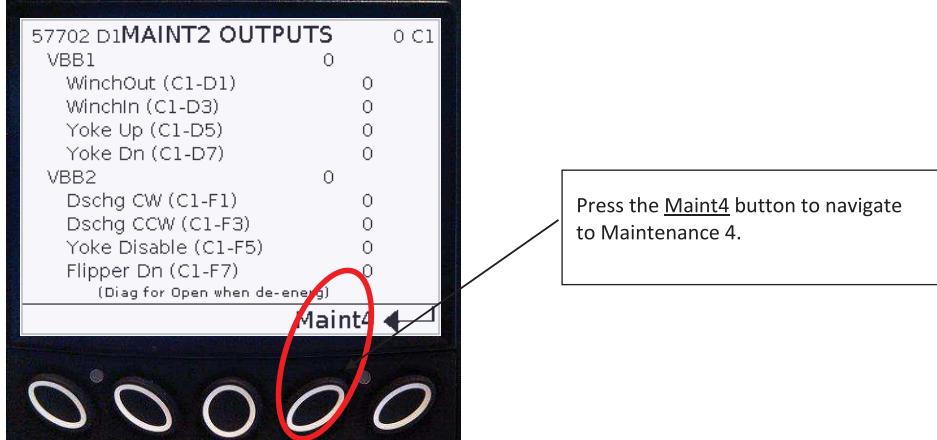
This is to provide a limited history of errors in case an operator is unable to watch this screen continuously and likely miss a status value momentarily showing 0.

(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.

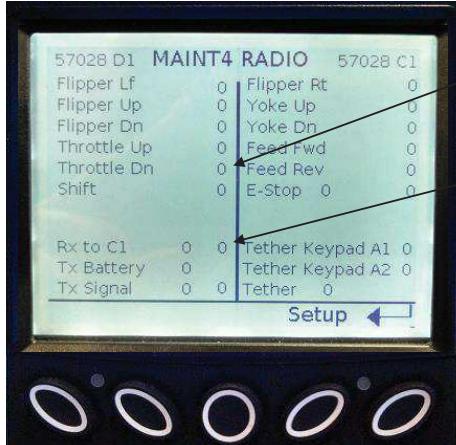
Observe the note on the screen that output wiring can only be diagnosed for open/broken connection while the output is **de-energized**.

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

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### 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.

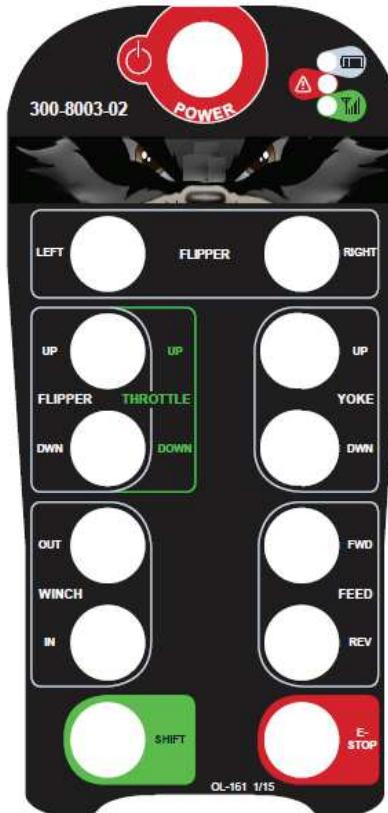
The number close behind E-Stop, Rx to C1, and Tether descriptions is an error count.

(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.

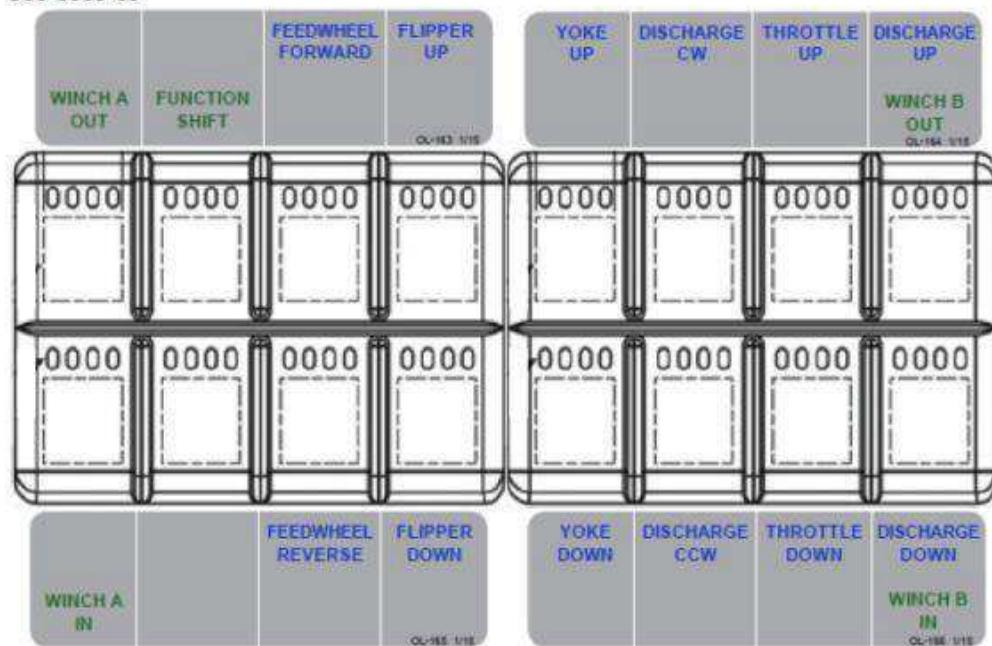


## BANDIT CONTROLS

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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.

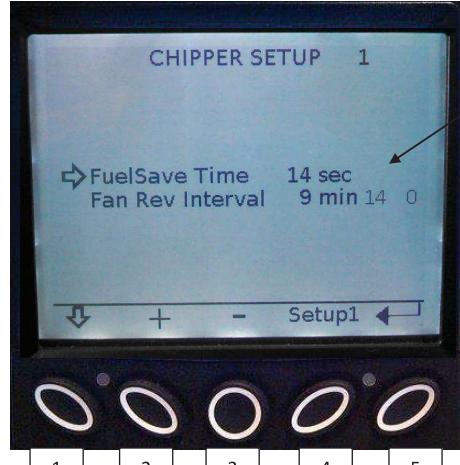
(If Fuel Saver mode is turned on and the machine idles down due to light load conditions, simply press Throttle Up and then press Feed Fwd to resume feeding).

(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.

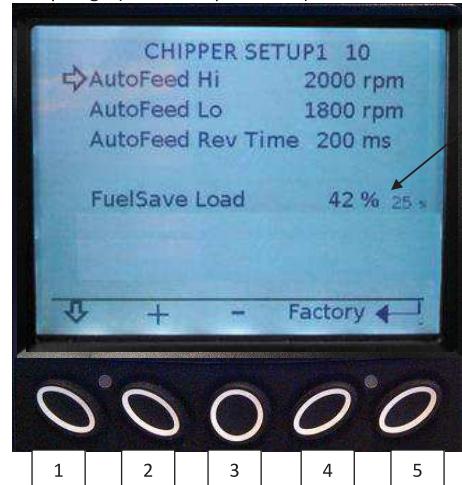
2. & 3. Increase or decrease the value of the selected parameter, or select through various options.

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.

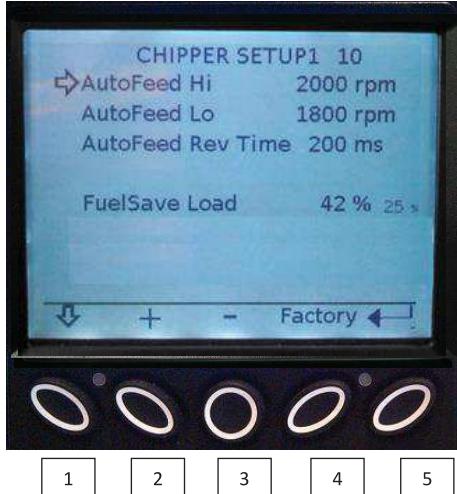
#### AutoFeed

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.



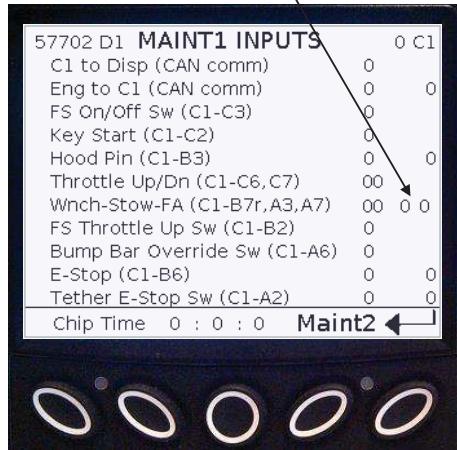
When you turn Fuel Saver OFF, the machine will throttle down to idle (approx 800rpm), EXCEPT if engine RPM is above AutoFeed Hi setting. In this case, the controller assumes the operator is at full engine speed and wants to keep working.

Push Button Feed Assist

Stow Switch,  
Feed Assist Switch



Push Button Feed Assist Valve and 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

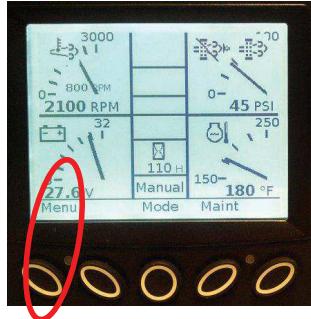
When the operator is finished with winch operations, the winch rope must be stowed properly to tighten down on the Stow Bar. The Stow Switch will now indicate that the winch is no longer deployed, winch functions will be disabled, and normal chipper functions can resume feed fwd, etc.

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.

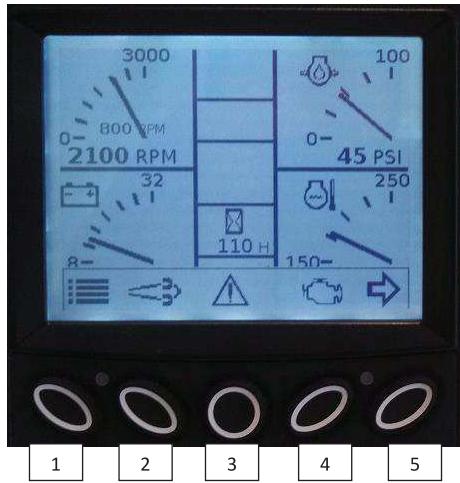
If the Feed Assist Joystick is disconnected a 0V signal will be sent to the control system. The Feed Assist will then time out and prevent Feeding until the switch is reconnected to a 12V signal.

(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



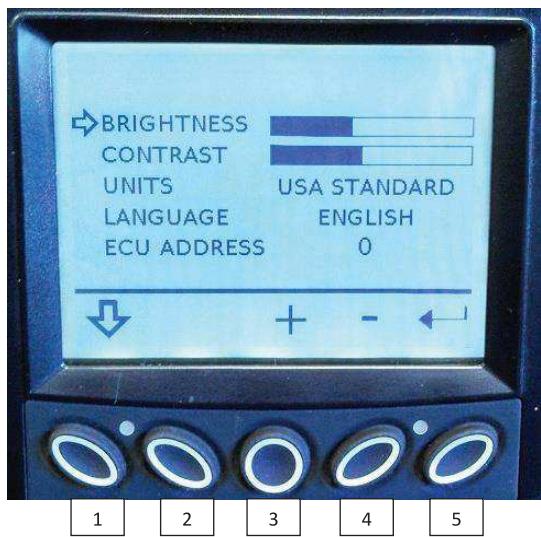
Press this button for the popup menu (Popup menu disappears after 5sec).



#### 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.

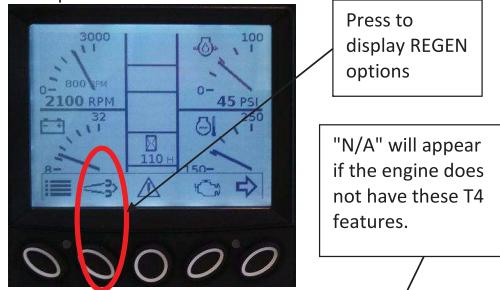
### Display Menu



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



(Main Page will show DPF icons as well)



(DPF options are only applicable on T4 engine).

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.

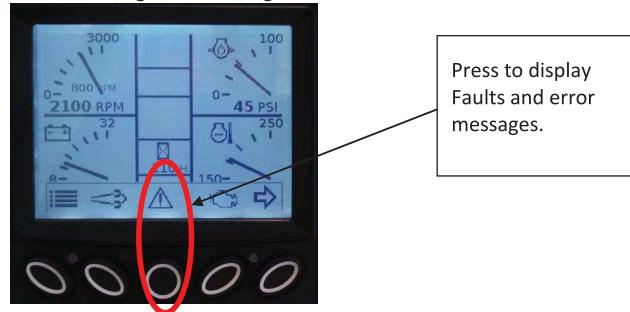


Diesel Exhaust Fluid (DEF) tank level. Indicator will blink at low level, for ex: less than 12%



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

### Faults and Diagnostic Messages

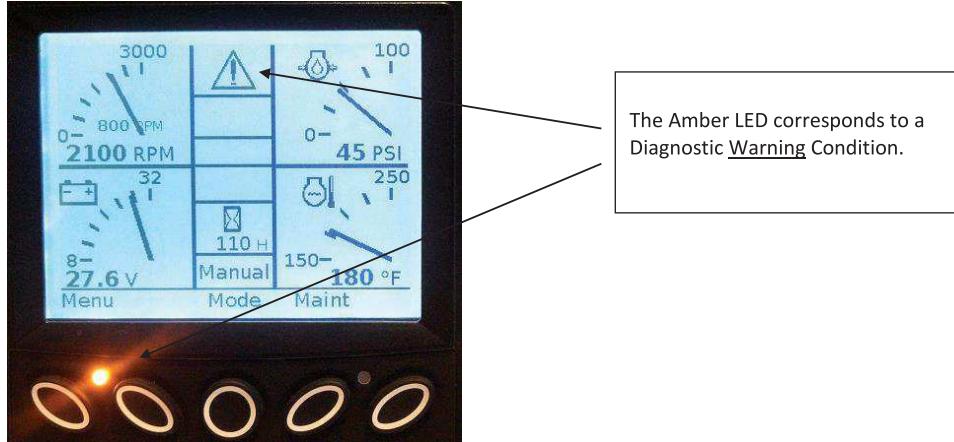


1. & 2. Select the parameter you wish to select.
3. Enter OK to view those faults. If there are no active or stored faults, none will be available to scroll through.
5. Go back.

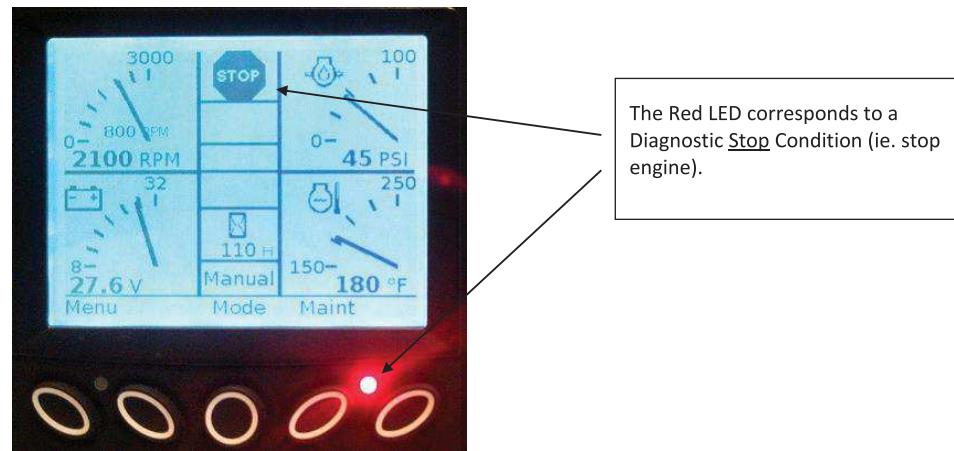
If the engine or other system controller sends a diagnostic message (as shown at right), it will appear as a popup error with applicable details. The popup message can be hidden (press button 5) while still being active. The LED's on the face of the display will remain lit indicating an error is still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

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

### Faults and Diagnostic Messages

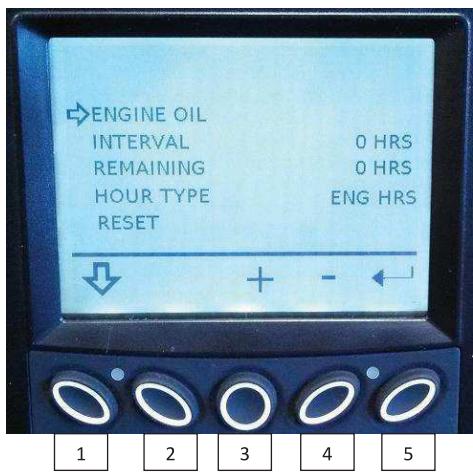
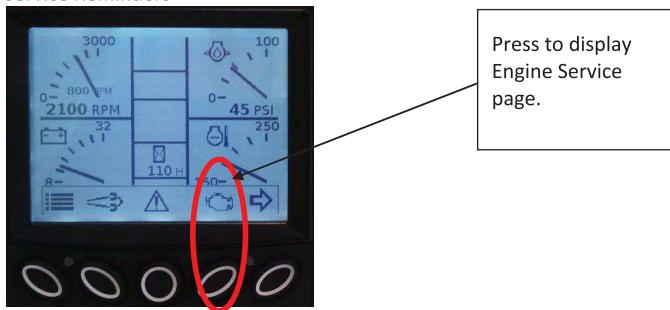


The Amber LED corresponds to a Diagnostic Warning Condition.



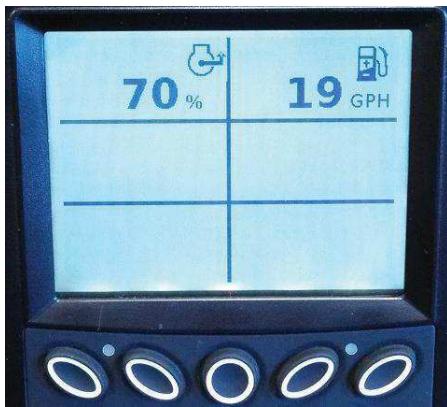
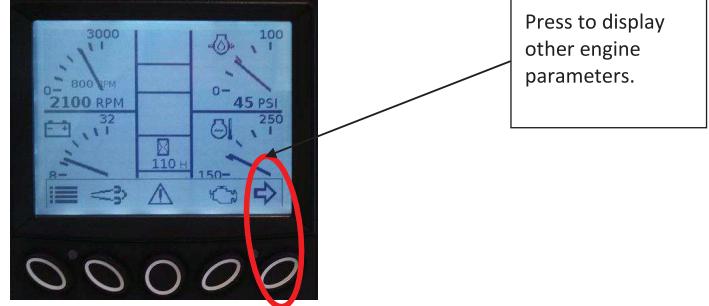
The Red LED corresponds to a Diagnostic Stop Condition (ie. stop engine).

### Service Reminders



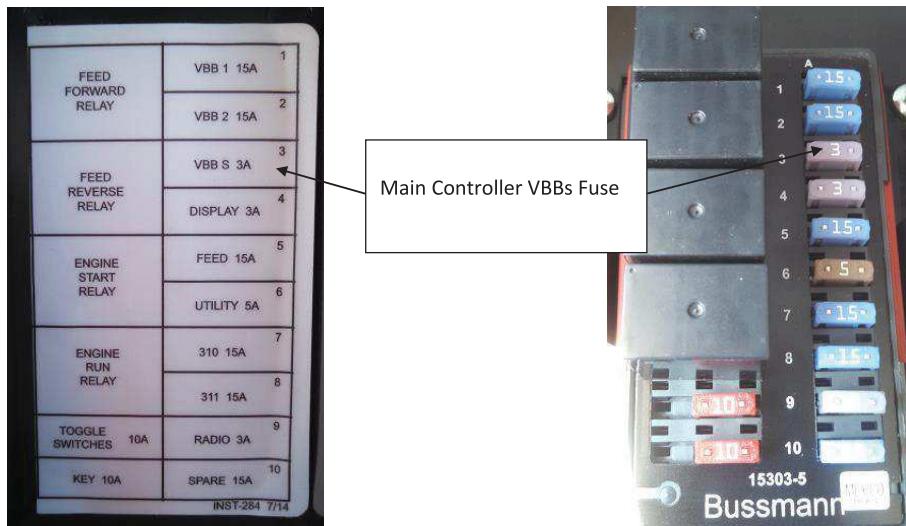
1. Select down to the parameter you wish to adjust.
3. & 4. Increase or decrease the value of the selected parameter, or select through various options.
5. Go back.

### 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



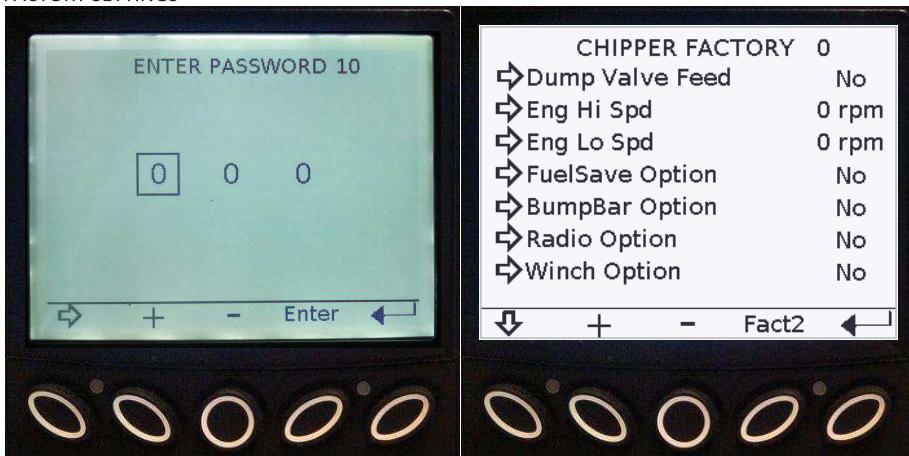
When connecting a laptop to the engine with certain engine service tools (ex CAT-ET, etc) it may be necessary to disconnect the main Controller by unplugging the 3amp VBBs fuse in station 3. The engine can still Key ON, start, and idle with the main Controller OFF.

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

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### 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