

**VAST-20N CONVERTER DOLLY
PARTS AND SERVICE MANUAL**

As Built for

UNITED PARCEL SERVICE



**500 GALVANIZED DOLLIES
CAR NUMBERS 93648 – 94147**



SILVER EAGLE MANUFACTURING COMPANY
5825 NE SKYPORT WAY PORTLAND, OREGON 97015
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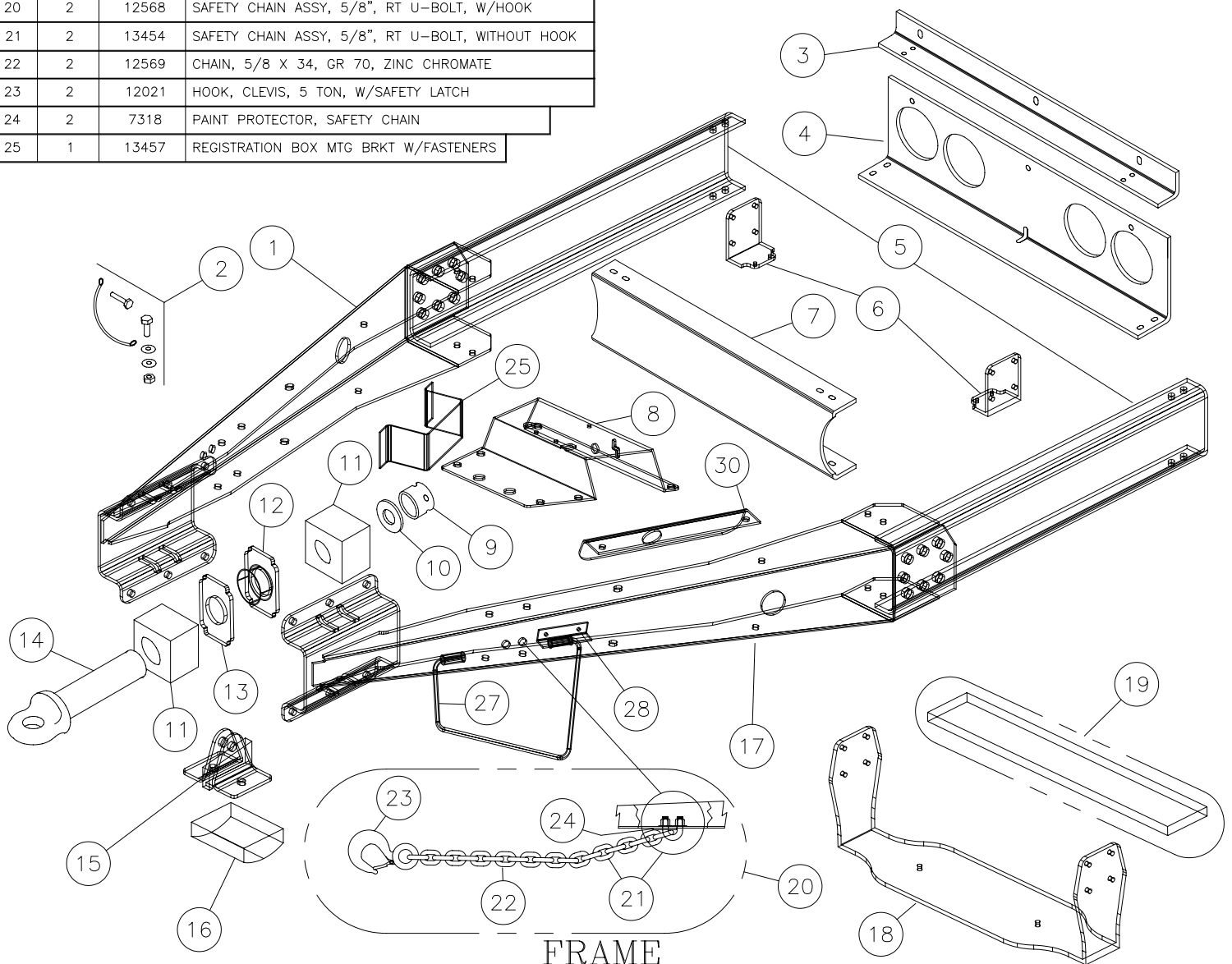
November 2000

MODEL VAST-20N PART NUMBER 13257

FRAME ASSEMBLY			
ITEM	QTY	PART No.	DESCRIPTION
1	1	12113	DRAWBAR KIT, CURBSIDE, 18"
2	1	11309	SAFETY WIRE ASSEMBLY/FASTENERS
3	1	11092	ADAPTER, TAILPLATE
4	1	13409	TAILPLATE WELDMENT
5	2	12666	SIDE CHANNEL, 78"
6	2	13348	AIR TANK MOUNTING BRACKET
7	1	11374	CROSSMEMBER, 1-PC DWB
8	1	10996	VALVE PLATE/FASTENERS
9	1	15315	NUT, SHANK
10	1	15660	WASHER, SHANK, 1/2
11	2	9520	BUSHING, SHOCK ABS, EYE & SHANK
12	1	9714	REINFORCED DIVIDER, SHOCK HOUSING
13	1	9440	DIVIDER, SHOCK HOUSING
14	1	1171	EYE & SHANK 3/8, HRDN
15	1	13455	SUPPORT LEG BRACKET, WEDGE, & FASTENERS
16	1	9554	BOLT-ON PAD/FASTENERS FOR SUPPORT LEG
17	1	13450	DRAWBAR KIT, ROADSIDE, 18"
18	1	13456	BALLAST HANGER W/FASTENERS
19	1	13439	BALLAST/FASTENERS
20	2	12568	SAFETY CHAIN ASSY, 5/8", RT U-BOLT, W/HOOK
21	2	13454	SAFETY CHAIN ASSY, 5/8", RT U-BOLT, WITHOUT HOOK
22	2	12569	CHAIN, 5/8 X 34, GR 70, ZINC CHROMATE
23	2	12021	HOOK, CLEVIS, 5 TON, W/SAFETY LATCH
24	2	7318	PAINT PROTECTOR, SAFETY CHAIN
25	1	13457	REGISTRATION BOX MTG BRKT W/FASTENERS

FRAME ASSEMBLY			
ITEM	QTY	PART No.	DESCRIPTION
27	2	13419	DRAWBAR HANDLE (ROADSIDE) (SHOWN)
28	2	13458	DRAWBAR HANDLE MOUNTING BRACKET W/FASTENERS

FRAME ACCESSORIES			
ITEM	QTY	PART No.	DESCRIPTION
30	1	11517	GLADHAND/ELEC. PLUG HOLDER PLATE
31	1	13322	FLAP HANGER SET W/FASTENERS FOR ATTACH. & FLAPS
32	1	8050	FLAP, LH
33	1	8316	FLAP, RH

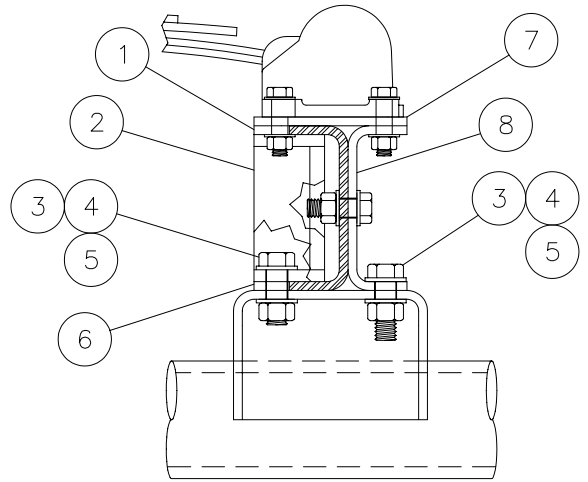


MODEL VAST-20N PART NUMBER 13257

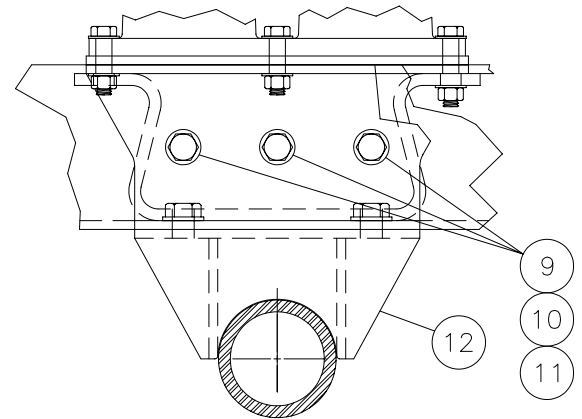
AXLE/FRAME ASSEMBLY			
ITEM	QTY	PART No.	DESCRIPTION
1	2	9437	SPACER, UPPER, SIDE SUPPORT ASSY, VA-DOLLY
2	2	10168	INNER SUPPORT, VA
3	8	9558	CAPSCREW, 7/8-14 UNF X 2 3/4, HX, GR 8, PLTD
4	8	9559	NUT, 7/8-14 UNF, HX, GR 8, PLTD
5	16	9485	WASHER, 7/8, FLAT, A325 (F436), HRDN, PLTD
6	2	10236	SPACER, LOWER, SIDE SUPPORT ASSY, VA-DOLLY
7	2	9439	SPRING PLATE, SIDE SUPPORT ASSY, VA-DOLLY
8	2	10167	OUTER SUPPORT, VA
9	6	9481	CAPSCREW, 3/4-16 UNF X 2 1/4, HX, GR 8, PLTD
10	6	9483	NUT, 3/4-16 UNF, METAL LOCK, HX, GR 8, PLTD
11	12	3367	WASHER, 3/4, FLAT, F436, HRDN, PLTD
12	2	10382	WELDMENT, AXLE SEAT, 48", VA

FIFTH WHEEL			
ITEM	QTY	PART No.	DESCRIPTION
15	1	14816	5TH WHEEL TABLE ASSY, LH RELEASE (ROADSIDE)
16	1	3432	TRIP BLOCK KIT, LH, W/SPRING & FASTENERS
17	2	8820	NUT, 1/2-13 UNC, TOP LOCK, JAM, HX, GR 5, PLTD
18	1	8944	JAW ASSY, HUCKED PUSHROD, LH
19	1	10056	LEVER, JAW, LH, SERIES 60
20	1	1150	WASHER, 1/2", FLAT, SAE, PLTD
21	1	1601	NUT, 1/2-13 UNC, HX, FIN, GR 5, PLTD
22	1	8368	SPRING, JAW, SERIES 10-60, E-COATED
23	1	4131	CAPSCREW, 1/2-13 UNC X 2 1/2, HX, GR 5, PLTD
24			
25	1	1342	GUIDE, PUSHROD, SEMCO TABLE, 40-60
26	1	13381	LEVER BUSHING
27	1	13460	SECURITY SPRING FOR LEVER W/ POST AND FASTENERS
28	1	13462	LEVER ADJUSTER KIT
29	1	8535	LOCK TAB WASHER

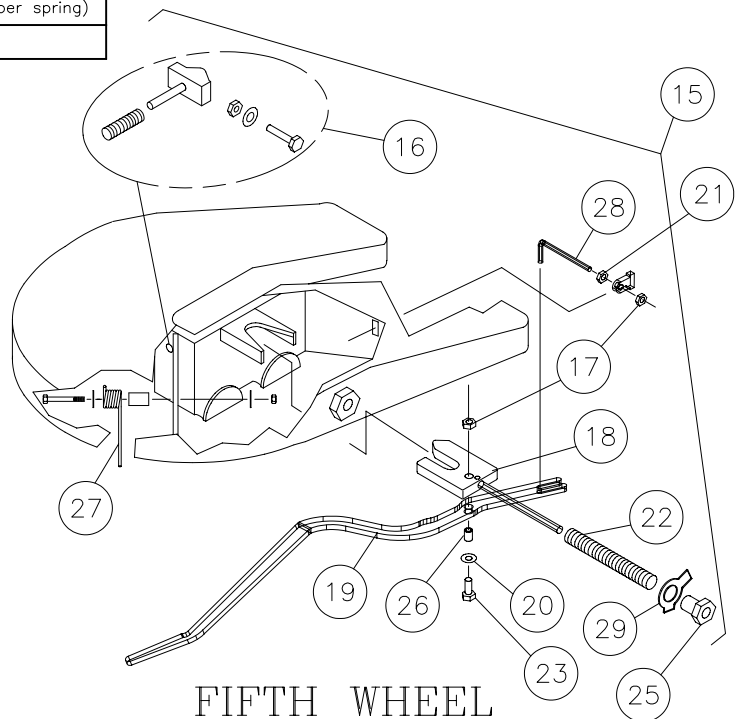
SUSPENSION			
ITEM	QTY	PART No.	DESCRIPTION
30	4	1204	RUBBERS, SPRING BOOT, PAIR
31	4	1645	U-BOLT ASSY, 1 X 4 X 8, RT, W/NUTS & WASHERS (2 per spring)
32	2	3539	SPRING ASSY, 7 LEAF W/LONG REBOUND
33	2	1553	PRESSURE PLATE, 4", MULTI-USE (1 per spring)
34	2	15398	DOUBLE BOOT HOUSING, DUCTILE IRON A536
35	12	1691	CAPSCREW, 5/8-11 UNC X 2 1/2, HX, GR 5, PLTD
36	12	1172	WASHER, 5/8, FLAT, F436, HRDN, PLTD
37	12	1164	NUT, 5/8-11 UNC, METAL LOCK, HX, GR C, PLTD
38	2	7897	SPACER, SPRING LEAF, 7-3/4, ECOATED



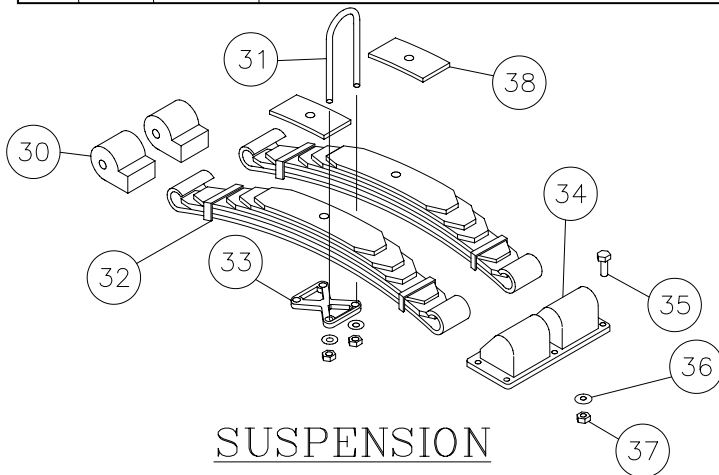
VIEW B-B



VIEW A-A

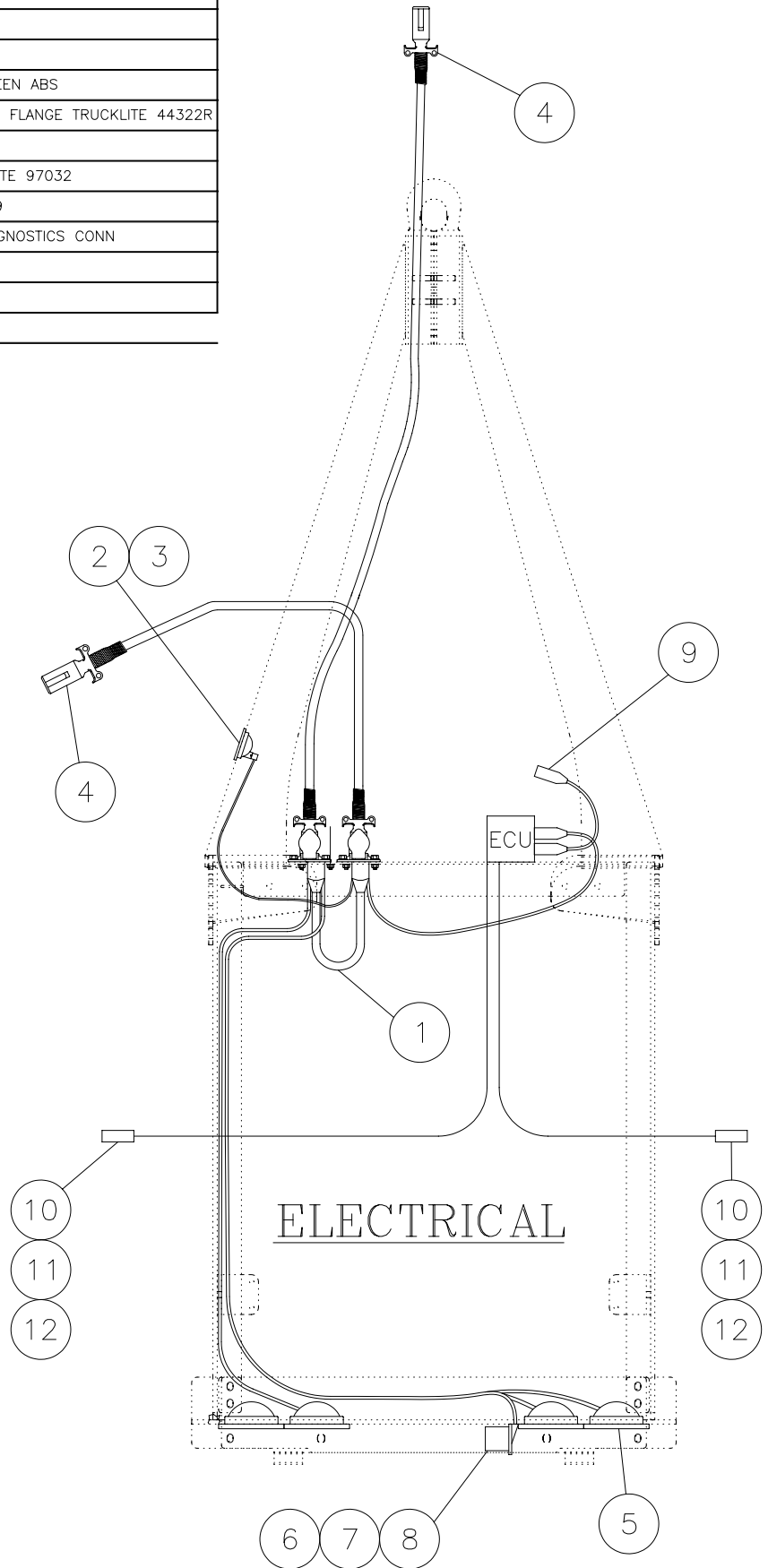


FIFTH WHEEL



SUSPENSION

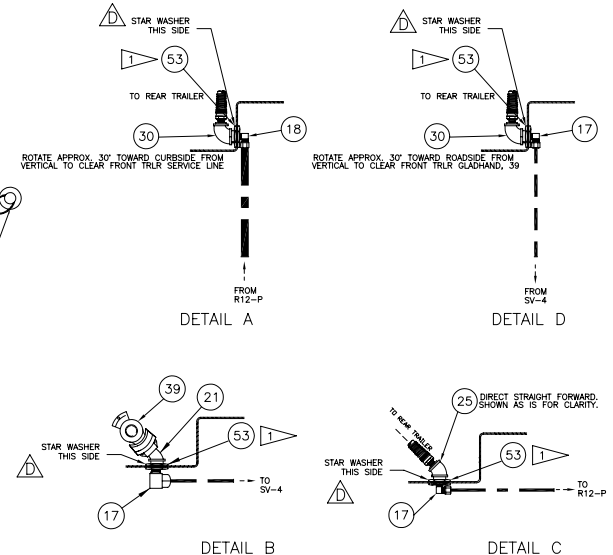
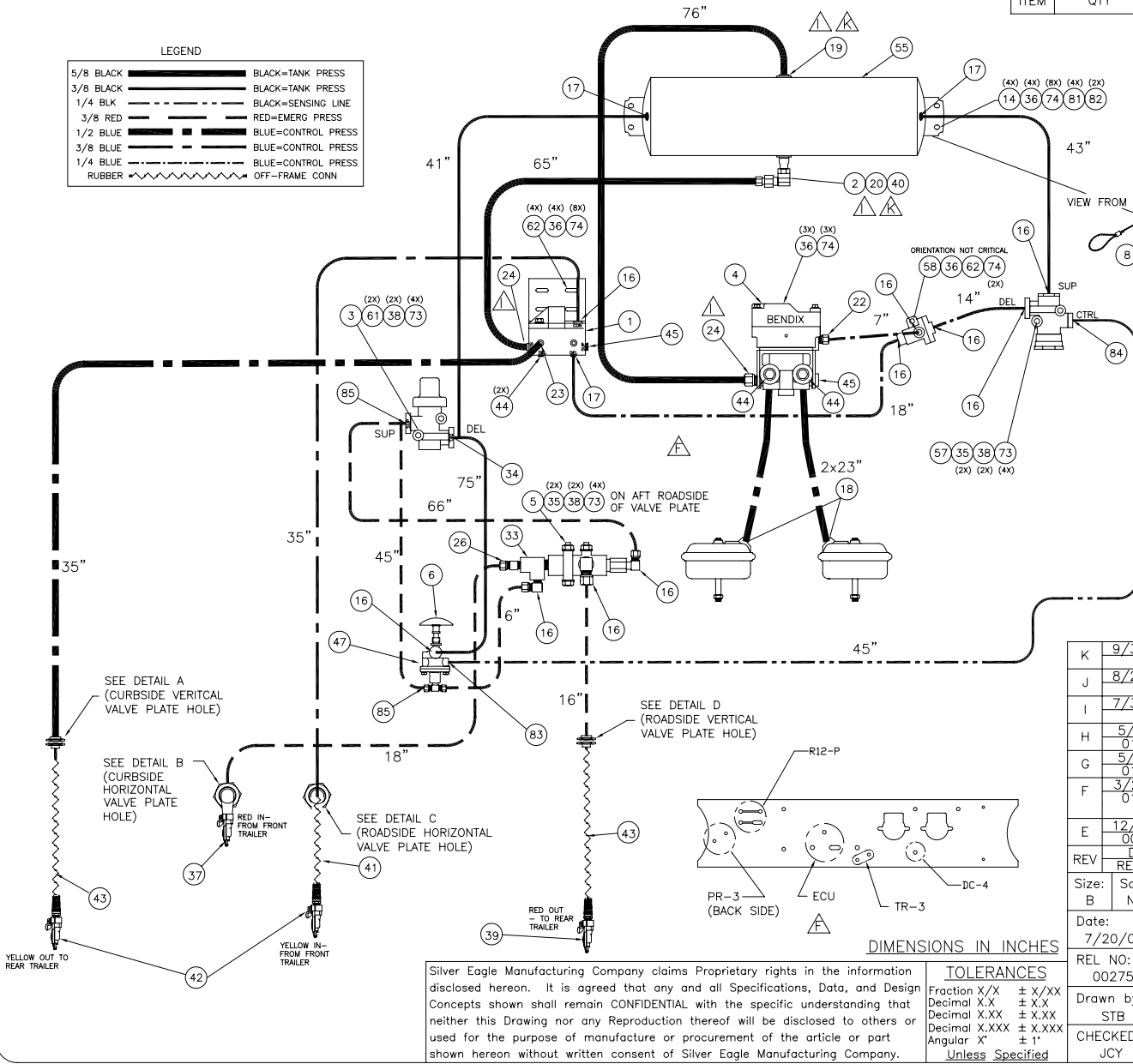
ELECTRICAL			
ITEM	QTY	PART No.	DESCRIPTION
1	1	14880	ELECTRICAL HARNESS, 2 FLANGED 7-WAY SOCKETS 4 LED TAIL LTS
2	1	13281	ABS LAMP, AMBER TRUCKLITE 30264Y
3	1	9563	GROMMET, LAMP, TRUCKLITE, MODEL 30
4	2	13285	7-WAY CABLE, STRAIGHT 7' W/PLUGS GREEN ABS
5	4	13280	STOP/TAI/TURN LAMP, RED 6-DIODE LED FLANGE TRUCKLITE 44322R
6	1	13376	LICENSE LAMP BRACKET
7	1	13377	GASKET FOR LICENSE LAMP BRKT TRUCKLITE 97032
8	1	13282	LAMP LICENSE PLATETRUCKLITE LED 15219
9	1	13344	HARNESS ECU PIGTAIL FOR MC-30 W/DIAGNOSTICS CONN
10	2	9544	ABS WHEEL SPEED SENSOR, 6 FT
N/S	2	9543	ABS SENSOR BUSHING
N/S	2	13470	ABS SENSOR GROMMET



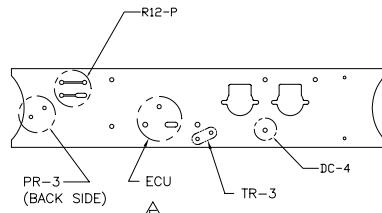
ITEM	QTY	PART No.	DWG No.	DESCRIPTION
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LEGEND

5/8 BLACK	BLACK=TANK PRESS
3/8 BLACK	BLACK=TANK PRESS
1/4 BLK	BLACK=SENSING LINE
3/8 RED	RED=EMERG PRESS
1/2 BLUE	BLUE=CONTROL PRESS
3/8 BLUE	BLUE=CONTROL PRESS
1/4 BLUE	BLUE=CONTROL PRESS
RUBBER	OFF-FRAME CONN



NOTES: 1 USE LOG-TITE COMPOUND OR EQUIVALENT ON BULKHEAD NUTS. HOLD STAR WASHER SIDE AND TIGHTEN NUT.



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TOLERANCES

Fraction X/X	± X/XX
Decimal X.X	± X.X
Decimal X.XX	± X.XX
Decimal X.XXX	± X.XXX
Angular X°	± 1'

Unless Specified

K	9/30/02	WAY	WAY	1824 WAS 2858; DELETED 1838
J	8/21/02	WAY	WAY	13675 WAS 1786
I	7/30/02	WAY	WAY	REMOVED (2) 2846's & ADDED (2) 4495's; 1027 WAS 1807; 14865 WAS 9145; 1027 WAS 1812; 13742 WAS 1820
H	5/3/01	JMF	JMF	REMOVED 65, 75, 77, 30. ADJUSTED QTY ON 23, 74, 36. ADJUSTED HOSE LENGTHS.
G	5/1/01	JMF	JMF	CHANGED ITEM 16 AT ECU TO ITEM 22. CHANGED 26 TO 16. REMOVED DELAY CHAMBER PARTS FROM DRAWING
F	3/21/01	STB	STB	REMOVED 1803, 4713, 1826, 1800, 2652, 5981, 1217; 1805 QTY 6 WAS 5; 1646 QTY 9 WAS 11; 1454 QTY 18 WAS 22; 3276 QTY 106 WAS 84. REVISED XMEMBER VIEW
E	12/7/00	STB	STB	ADDED 7901; 1842 QTY 2 WAS 1; 2652 QTY 2 WAS 6; UPDATED ILLUSTRATION OF ECU.
REV	DATE	BY	CHK'D	REVISION

Size: B Scale: NTS

Date: 7/20/00

REL NO: 00275

Drawn by: STB

CHECKED: JCY

SILVER EAGLE MANUFACTURING CO., INC.
5825 NE SKYPORT WAY Portland, Oregon 97218

TITLE: AIR SYS ASSY BENDIX ABS W/MC-30 ECU UPS VA

Sheets: 1 OF 2 Drawing #: 00-308 Rev: K

ITEM	QTY	PART No.	DWG No.	DESCRIPTION
104	---	---	---	---
105	---	---	---	---
106	---	---	---	---
107	---	---	---	---
108	---	---	---	---
109	---	---	---	---
110	---	---	---	---
111	1	13344	---	HARNESS ECU PIGTAIL FOR MC-30 W/DIAGNOSTICS CONN
112	---	---	---	---
113	---	---	---	---
114	1	5373	---	DECAL, HOSTLING VALVE, FOR DOLLIES
115	---	---	---	---
116	---	---	---	---
117	---	---	---	---

* NOT SHOWN

TUBING

QTY	PART No.	DWG No.	DESCRIPTION
159	1785	---	TUBING, NYLON, AIRBRAKE, 3/8", BLACK
143	13675	---	TUBING, NYLON, AIRBRAKE, 5/8", BLACK
96	3276	---	TUBING, NYLON, AIRBRAKE, 3/8", BLUE
81	2394	---	TUBING, NYLON, AIRBRAKE, 1/2", BLUE
---	---	---	---
147	2393	---	TUBING, NYLON, AIRBRAKE, 3/8", RED
---	---	---	---
45	1784	---	TUBING, NYLON, AIRBRAKE, 1/4", BLACK

ITEM	QTY	PART No.	DWG No.	DESCRIPTION
49	---	---	---	---
50	---	---	---	---
51	---	---	---	---
52	---	---	---	---
53	4	1181	---	FITTING, BULKHEAD, BR
54	---	---	---	---
55	1	13390	---	AIR RES, SIDE DRN UNPAINTED MIDWEST 1425 CI
56	---	---	---	---
57	1	13345	---	VALVE, INVERSION, BENDIX
58	1	13346	---	VALVE, CHECK, DOUBLE, BENDIX
59	---	---	---	---
60	---	---	---	---
61	2	8311	---	CAPSCREW, 1/4-20 UNC X 2.75, HX, GR5, PLTD
62	5	1322	---	CAPSCREW, 5/16-18 UNC X 1, HX, GR5, PLTD
63	---	---	---	---
64	---	---	---	---
65	---	---	---	---
66	---	---	---	---
67	---	---	---	---
68	---	---	---	---
69	---	---	---	---
70	---	---	---	---
71	---	---	---	---
72	---	---	---	---
73	---	---	---	---
74	21	1454	---	WASHER, 5/16, SAE, PLTD
75	---	---	---	---
76	2	1273	---	WASHER, 3/8, SAE, PLTD
77	---	---	---	---
78	---	---	---	---
79	---	---	---	---
80	---	---	---	---
81	4	7419	---	ISO-PAD, AIR RESERVOIR
82	2	7420	---	RETAINING PLATE, ISO-PAD, AIR RESERVOIR
83	1	1814	---	CONNECTOR, 1/4T X 1/4 NPT-M, BR.
84	1	2843	---	CONNECTOR, 1/4T X 1/8 NPT-M, BR.
85	2	5856	---	TEE, MALE BRANCH, 3/8T X 1/4 NPT-M, BR

ITEM	QTY	PART No.	DWG No.	DESCRIPTION
---	---	13343	00-308	AIR SYS ASSY UPS VA SV-4 PP-1 QR-N DELAY
1	1	6688	---	VALVE, RELAY, R-12P W/BRACKET
2	1	1772	---	VALVE, CHECK, SC-3, 1/2 NPT, BENDIX
3	1	6294	---	VALVE, PRESSURE PROTECTION, PR-3, BENDIX
4	1	13342	---	MCE-30 ANTILOCK ASSY (ECU) BENDIX
5	1	6302	---	VALVE, SYNCHRO, SV-4, W/BRTHR & CHCK VLV
6	1	1278	---	VALVE, PUSH-PULL, PP-1
7	---	---	---	---
8	1	1771	---	VALVE, CABLE DRAIN, W/1/4" NPT-M
9	---	---	---	---
10	---	---	---	---
11	---	---	---	---
12	---	---	---	---
13	---	---	---	---
14	---	---	---	---
15	4	7901	---	CAPSCREW, 5/16-18 UNC X 1 3/4, HX, GR 5, PLTD
16	11	1804	---	ELBOW, 90, 3/8T X 1/4 NPT-M, BR
17	6	1805	---	ELBOW, 90, 3/8T X 3/8 NPT-M, BR
18	3	1806	---	ELBOW, 90, 1/2T X 3/8 NPT-M, BR
19	1	13668	---	ELBOW, 90, 5/8T X 1/2 NPT-M, BR.
20	1	14865	---	ELBOW, 90, 5/8T X 1/2 NPT-F, BR.
21	1	4523	---	ELBOW, ST, 45, 1/2 NPT-M X 1/2 NPT-F, GALV
22	1	1809	---	ELBOW, 45, 3/8T X 1/4 NPT-M, BR
23	3	1811	---	ELBOW, 45, 1/2T X 3/8 NPT-M, BR
24	2	1027	---	ELBOW, 45, 5/8T X 1/2 NPT-M, BR
25	3	2846	---	ELBOW, 45, 1/2 NPT-F, GALV
26	1	1816	---	CONNECTOR, 3/8T X 1/4 NPT-M, BR.
27	---	---	---	---
28	---	13742	---	CONNECTOR, 5/8T X 1/2 NPT-M, BR.
29	---	---	---	---
30	2	4495	---	ELBOW, 90, 1/2 NPT-F, GALV
31	---	---	---	---
32	---	---	---	---
33	1	3064	---	TEE, ST, 1/4 NPT, BR
34	1	1808	---	TEE, MALE RUN, 3/8T X 1/4 NPT-M, BR
35	4	5491	---	CAPSCREW, 1/4-20 UNC X 2-1/4, HX, GR 5 PLTD.
36	12	1646	---	NUT, 5/16-18 UNC, NYL INS, HX, PLTD
37	1	8089	---	GLADHAND, W/FULL-FACE SEAL, TRAMAC, P-RED
38	6	1401	---	NUT, 1/4-20 UNC, METAL LOCK, HX, GR C, PLTD
39	1	8090	---	GLADHAND, W/COMP SEAL, TRAMEC, P. RED
40	1	2858	---	NIPPLE, HX RED, 1/2 NPT-M X 1/2 NPT-M, BR
41	1	1753	---	HOSE, AIR, 3/8 X 36, RUBBER, 1/2 X 1/2 CONN
42	2	8100	---	GLADHAND, COMPRESSION SEAL, TRAMEC, P-YELLOW
43	2	7894	---	HOSE, AIR, 3/8x96, RUBBER, 1/2 X 1/2 CONN
44	5	1840	---	PLUG, CSK HX, 3/8 NPT-M, STL, GALV OR BLACK OXIDE.
45	2	1842	---	PLUG, CSK HX, 1/2 NPT-M, STL, GALV
46	1	1922	---	OVAL SLEEVE, 1/8, ALUM, FOR 1/8 WIRE ROPE.
47	3	1839	---	PLUG, CSK HX, 1/4 NPT-M, STL, GALV.
48	---	---	---	---

SEE SHEET 1 FOR REVISIONS

Rev	Date	By	Chk'd	Revision
1	7/20/00	STB	JCY	

Size: B Scale: NTS

Date: 7/20/00

REL NO: 00275

Drawn By: STB

Checked: JCY

SILVER EAGLE MANUFACTURING CO., INC.
5825 NE SKYPORT WAY Portland, Oregon 97218

TITLE: AIR SYS ASSY BENDIX ABS W/MC-30 ECU UPS VA

Sheets: 2 OF 2 Drawing #: 00-308 Rev: K

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TOLERANCES
Fraction X/X ±1/16
Decimal X.X ±0.1
Decimal X.XX ±0.06
Decimal X.XXX ±0.030
Angular ° ±1 DEG
Unless Specified