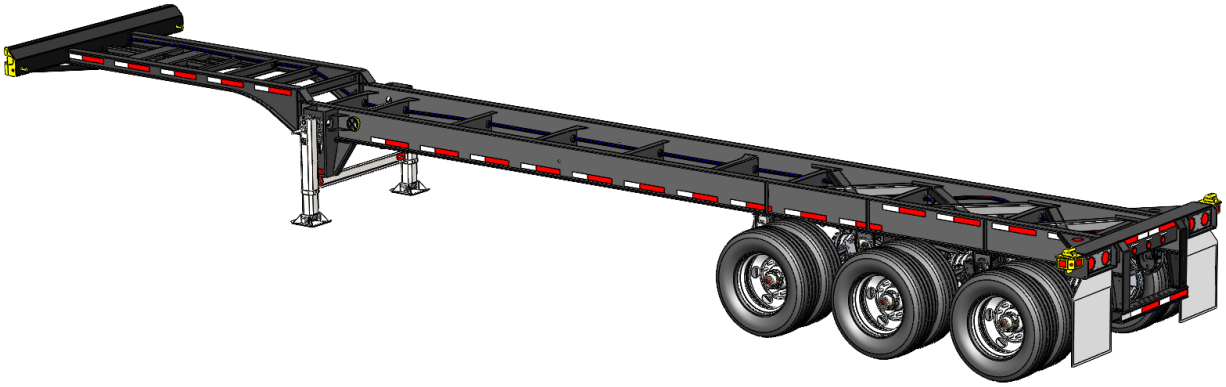
40’ GOOSENECK 3-AXLE CHASSIS

project: JANSTEEL-JR77040-A3



FUNCTION

Container chassis designed for repeated use in stevedoring and transporting of a 40 ft ISO type cargo container.
Meets all AAR, FMVSS, ISO, ANSI, DOT, ABS, SAE and TTMA.
The 40’ gooseneck container chassis is capable of hauling a 40’ ISO container.
This model fits the standard of carriage fleets across the United States.

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DIMENSIONS & Weight		
Overall Length	40’-8”	excluding dock bumpers
Overall Width	96"	
Fifth Wheel Height	48"±1"	
Rear Deck Height	48"±1"	
Kingpin Location	30"	from rear face of front bolster
Landing Gear location	130”	from the rear face of the front bolster
Axle Spread	49"	
TRIDEM CENTER Location	78.5"	from rear face of rear bolster
Tare Weight	8,500 Lbs	±2%
Gross Vehicle Weight Rating	85,000 Lbs	

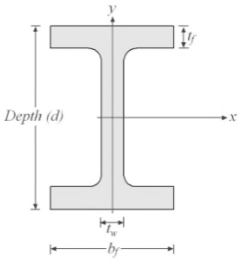
Material:

All structural steel is ASTM-A572, Grade 50 or better.

All structural fasteners are Grade 5 or better and are zinc coated.

Main Beam:

W12-19lb/ft hot-rolled I-beam,
ASTM-A572, Grade 50

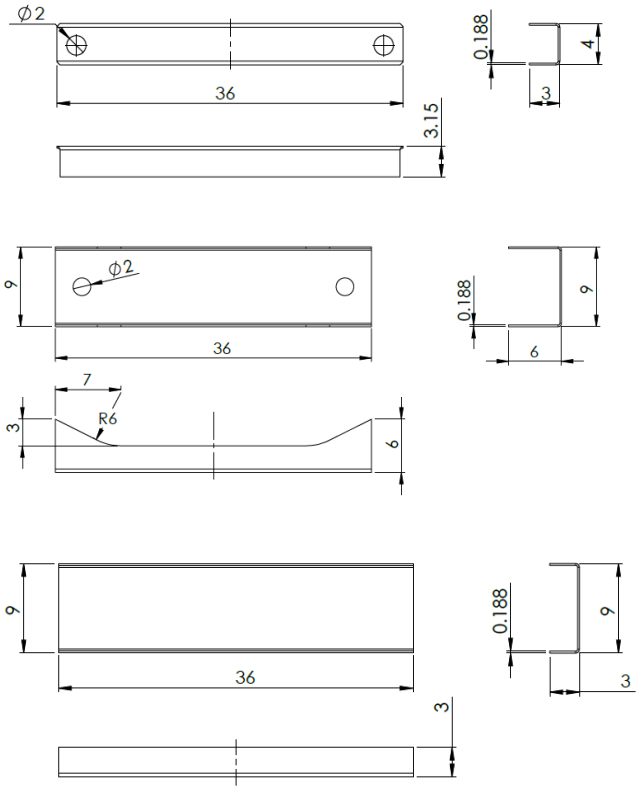


in × lbf/ft	Area (in²)	d (in)	b_f (in)	t_f (in)	t_w (in)	Ixx (in⁴)	Zxx (in³)	kxx (in)	Iyy (in⁴)	Zyy (in³)	kyy (in)
W12 × 19	5.57	12.16	4.005	0.350	0.235	130	21.3	4.82	3.76	1.88	0.822

GN Beam:
5-1/4" deep x 4" wide I-beam, 1/2inch thick flange and 1/4inch thick web.
ASTM A572 Grade 50

Crossmember:
3/16inch thick x 3" wide x 9" deep channel.
3/16inch thick channel with integrated triangular for GN beam and landing gear area.
Material: ASTM-A572, Grade 50

Diagonal cross members:
4"x2" C channel in X shape in between straight cross members in the axle area.

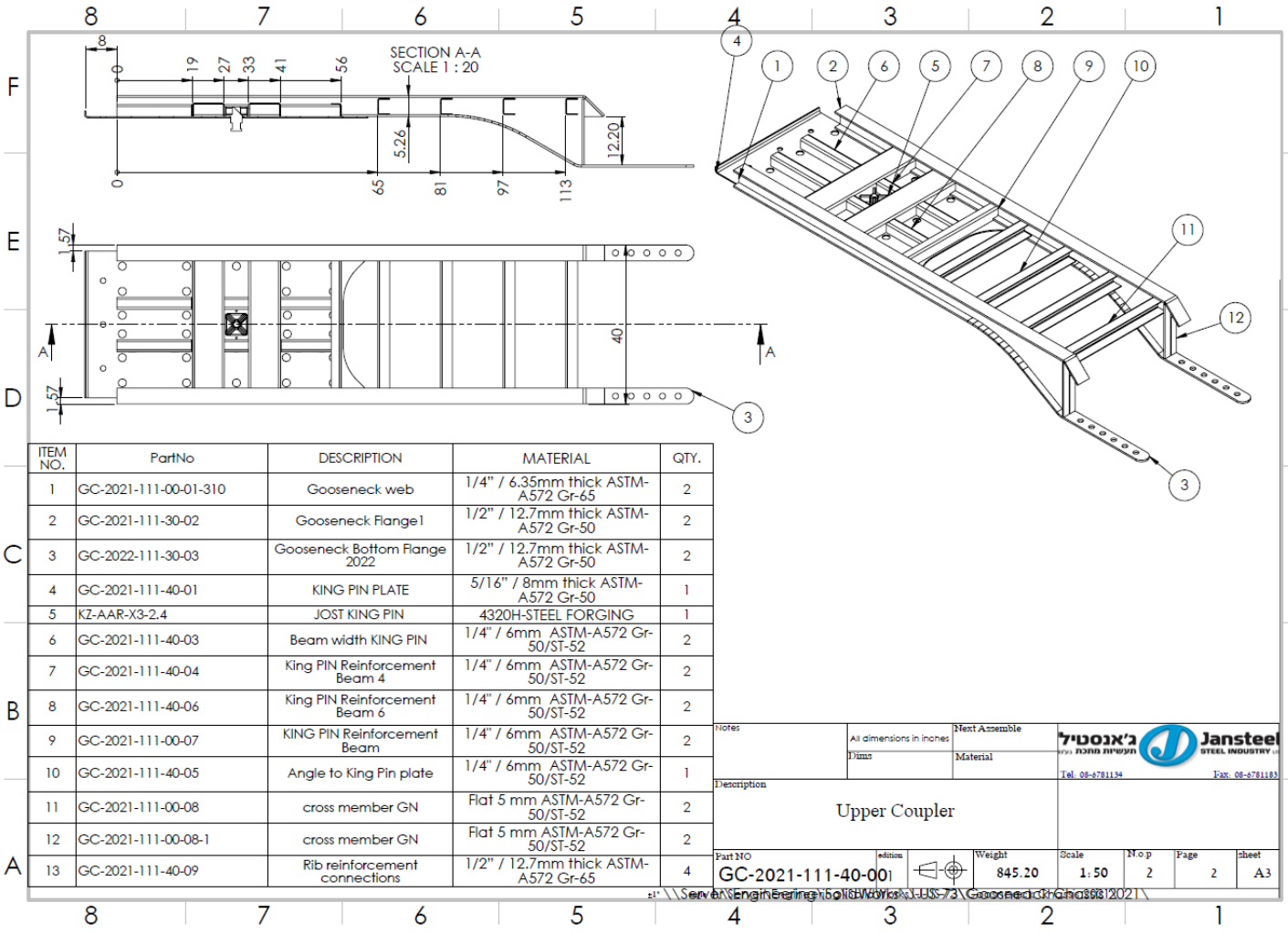


Upper Coupler:

5/16 inch thick, ASTM-A572, Grade 50

2” diameter water drain holes

reinforced by 1/4inch thick channel type kingpin supports.



ITEM NO.	PartNo	DESCRIPTION	MATERIAL	QTY.
1	GC-2021-111-00-01-310	Gooseneck web	1/4" / 6.35mm thick ASTM-A572 Gr-65	2
2	GC-2021-111-30-02	Gooseneck Flange1	1/2" / 12.7mm thick ASTM-A572 Gr-50	2
3	GC-2022-111-30-03	Gooseneck Bottom Flange 2022	1/2" / 12.7mm thick ASTM-A572 Gr-50	2
4	GC-2021-111-40-01	KING PIN PLATE	5/16" / 8mm thick ASTM-A572 Gr-50	1
5	KZ-AAR-X3-2.4	JOST KING PIN	4320H-STEEL FORGING	1
6	GC-2021-111-40-03	Beam width KING PIN	1/4" / 6mm ASTM-A572 Gr-50/ST-52	2
7	GC-2021-111-40-04	King PIN Reinforcement Beam 4	1/4" / 6mm ASTM-A572 Gr-50/ST-52	2
8	GC-2021-111-40-06	King PIN Reinforcement Beam 6	1/4" / 6mm ASTM-A572 Gr-50/ST-52	2
9	GC-2021-111-00-07	KING PIN Reinforcement Beam	1/4" / 6mm ASTM-A572 Gr-50/ST-52	2
10	GC-2021-111-40-05	Angle to King Pin plate	1/4" / 6mm ASTM-A572 Gr-50/ST-52	1
11	GC-2021-111-00-08	cross member GN	Flat 5 mm ASTM-A572 Gr-50/ST-52	2
12	GC-2021-111-00-08-1	cross member GN	Flat 5 mm ASTM-A572 Gr-50/ST-52	2
13	GC-2021-111-40-09	Rib reinforcement connections	1/2" / 12.7mm thick ASTM-A572 Gr-65	4

Notes | All dimensions in inches | Next Assemble

Dims | Material

ג'אנסטיל תעשיית מתכת בע"מ Jansteel STEEL INDUSTRY LTD

Tel. 08-6781134 Fax. 08-6781183

Description: Upper Coupler

Part NO	edition	Weight	Scale	N.o.p	Page	sheet
GC-2021-111-40-001		845.20	1:50	2	2	A3

\\Server\Engineering\Solidworks\3-US-73\Gooseneck Chassis\2021\

King pin: JOST

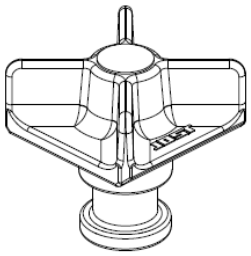
The King Pin is 2” diameter square type S.A.E. Standard J700B and certified per AAR.

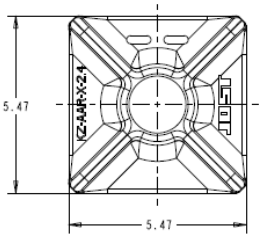
PART NUMBER	DIM "A" UPPER COUPLER	DIM "B"	DIM "C"	DIM "D"
KZ-AAR-X1-2.4	.19	1.496	2.950	3.512
KZ-AAR-X2-2.4	.25	1.558	3.012	3.574
KZ-AAR-X3-2.4	.31	1.620	3.074	3.636
KZ-AAR-X4-2.4	.38	1.683	3.137	3.699
KZ-AAR-X5-2.4	.50	1.803	3.257	3.819

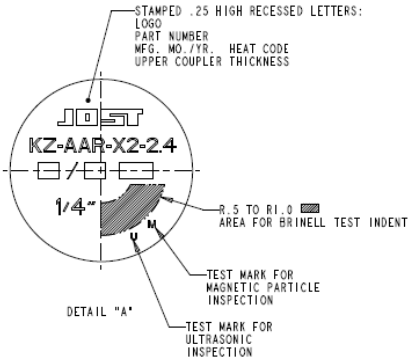
REV.	DESCRIPTION	NAME	CHK.	APPR.	PRO#	DATE
A	RELEASED	HART	JRM	JRM	176-KP17	10-26-17

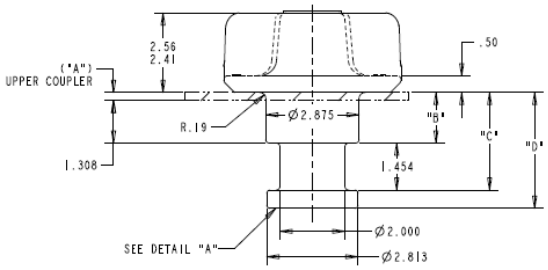
NOTES:

1. MAT'L: 4320H STEEL FORGING
2. HEAT TREAT: 380-420 BHN
   .062 MIN. DEPTH
   STARTING FROM THE UPPER PORTION OF THE
   SHOULDER TO THE BOTTOM OF THE LIP.
3. INSPECTED 100% FOR SURFACE HARDNESS AND FOR
   DEFECTS BY ULTRASONIC AND MAG PARTICLE METHODS.









SYMBOL	CLASS	EXISTING
01	CRITICAL FEATURE	0x
02	MAIN FEATURE	0x
03	UNMARKED DATA ARE MINOR FEATURES	

JOST INTERNATIONAL
1770 Bayes Street
Grand Haven, Michigan 49417

CRUCIFORM KINGPIN

NAME	DATE
HART	10-25-17
CHK	APPR
JRM	JRM

SIZE C | DWG NO KZ-AAR-X-TAB-24_SALES | SCALE: 0.500 | SHEET 1 OF 1

PROPRIETARY
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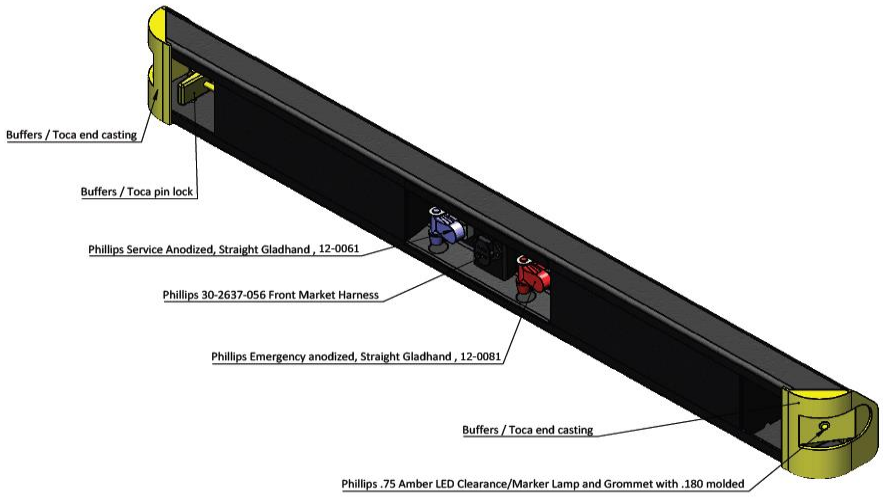
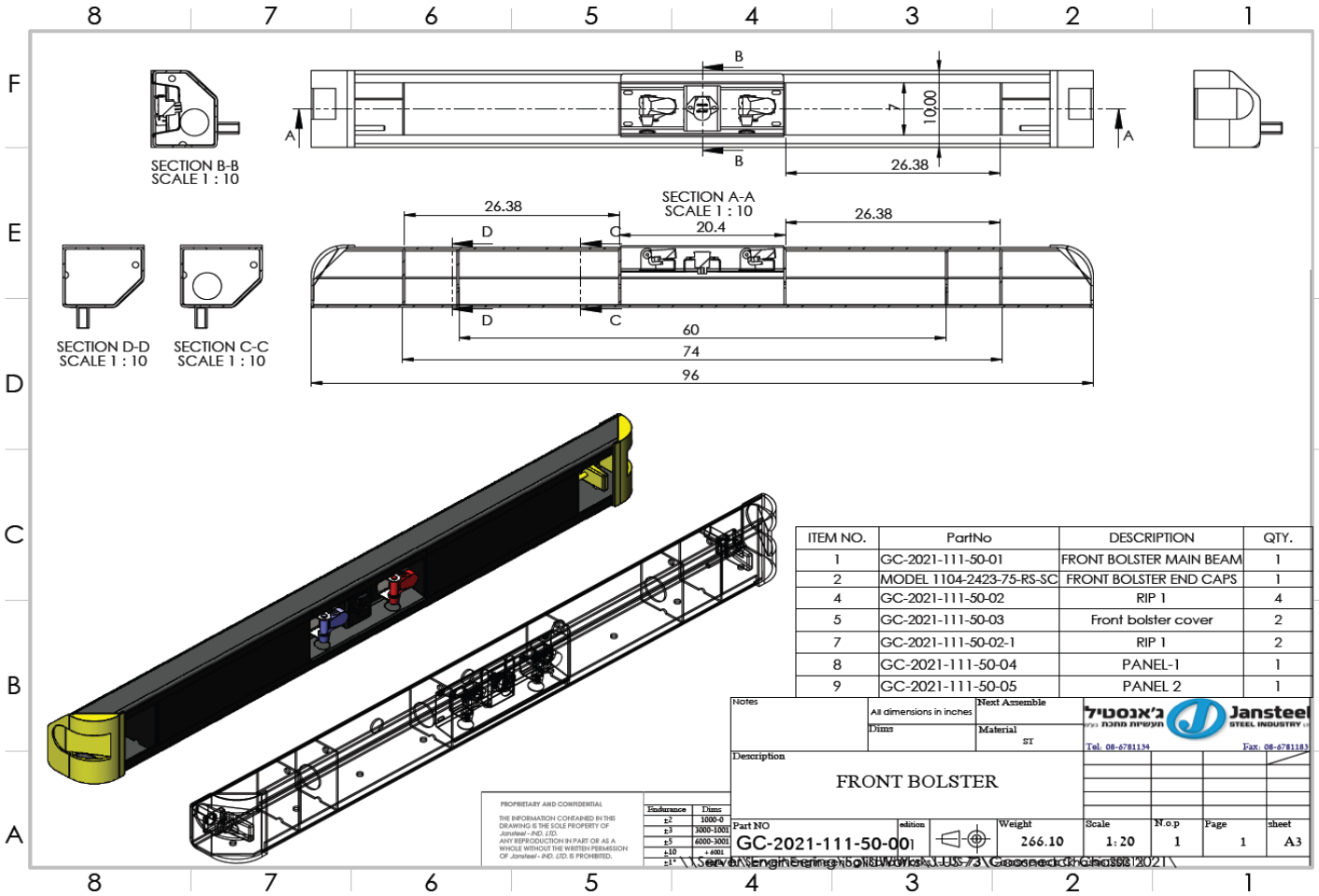
Released production USA

Front Bolster:

8" wide x 10" high, 1/4inch thick open section, with 3-1/2" chamfer in full length.
Accommodate installed Buffers 1104-2423-75 (RS & CS) end caps.
Front bolster provides full recessing of lights, and air and electrical connectors.
7-way receptacle and glad hands.



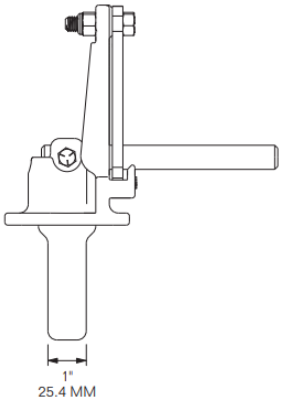


ITEM NO.	PartNo	DESCRIPTION	QTY.
1	GC-2021-111-50-01	FRONT BOLSTER MAIN BEAM	1
2	MODEL 1104-2423-75-RS-SC	FRONT BOLSTER END CAPS	1
4	GC-2021-111-50-02	RIP 1	4
5	GC-2021-111-50-03	Front bolster cover	2
7	GC-2021-111-50-02-1	RIP 1	2
8	GC-2021-111-50-04	PANEL-1	1
9	GC-2021-111-50-05	PANEL 2	1

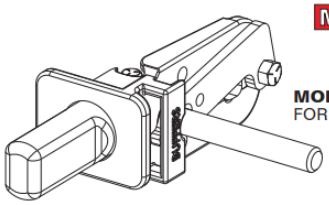
Notes: All dimensions in inches
Dims
Next Assemble
Material: ST
Description: FRONT BOLSTER
Part NO: GC-2021-111-50-001
edition
Weight: 266.10
Scale: 1:20
N.o.p: 1
Page: 1
sheet: A3

Front Locking Pin:

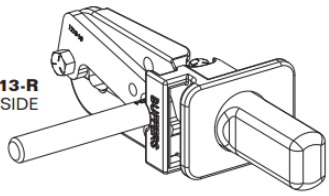
MODEL **1103-1213-L** SHOWN DIMENSIONED.
MODEL **1103-1213-R** IS THE MIRROR OPPOSITE.



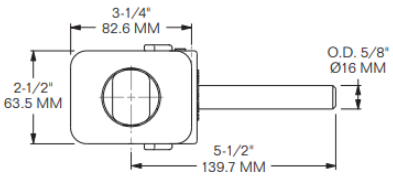
MODEL 1103-1213-L
MODEL 1103-1213-R

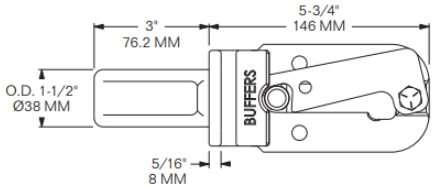


MODEL 1103-1213-L
FOR FRONT ROADSIDE



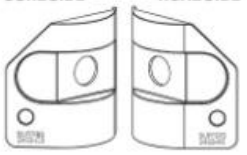
MODEL 1103-1213-R
FOR FRONT CURBSIDE





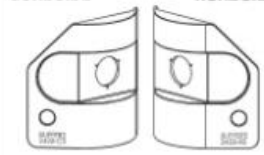
Front bolster end caps :

MODEL 1104-2423-CS-P
MODEL 1104-2423-CS-SC
MODEL 1104-2423-RS-P
MODEL 1104-2423-RS-SC

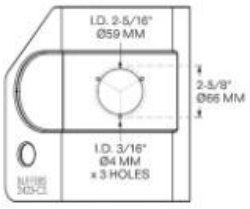


45° CORNER VIEW

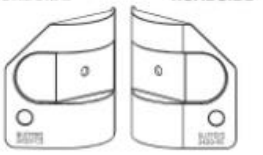
MODEL 1104-2423-CS-D1-P
MODEL 1104-2423-CS-D1-SC
MODEL 1104-2423-RS-D1-P
MODEL 1104-2423-RS-D1-SC



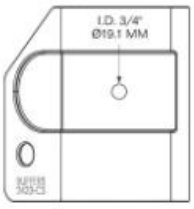
45° CORNER VIEW



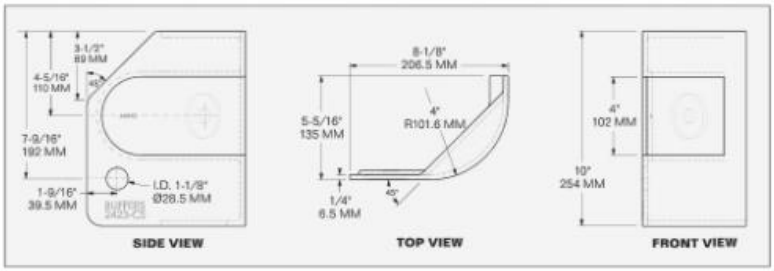
MODEL 1104-2423-75-CS-P
MODEL 1104-2423-75-CS-SC
MODEL 1104-2423-75-RS-P
MODEL 1104-2423-75-RS-SC



45° CORNER VIEW



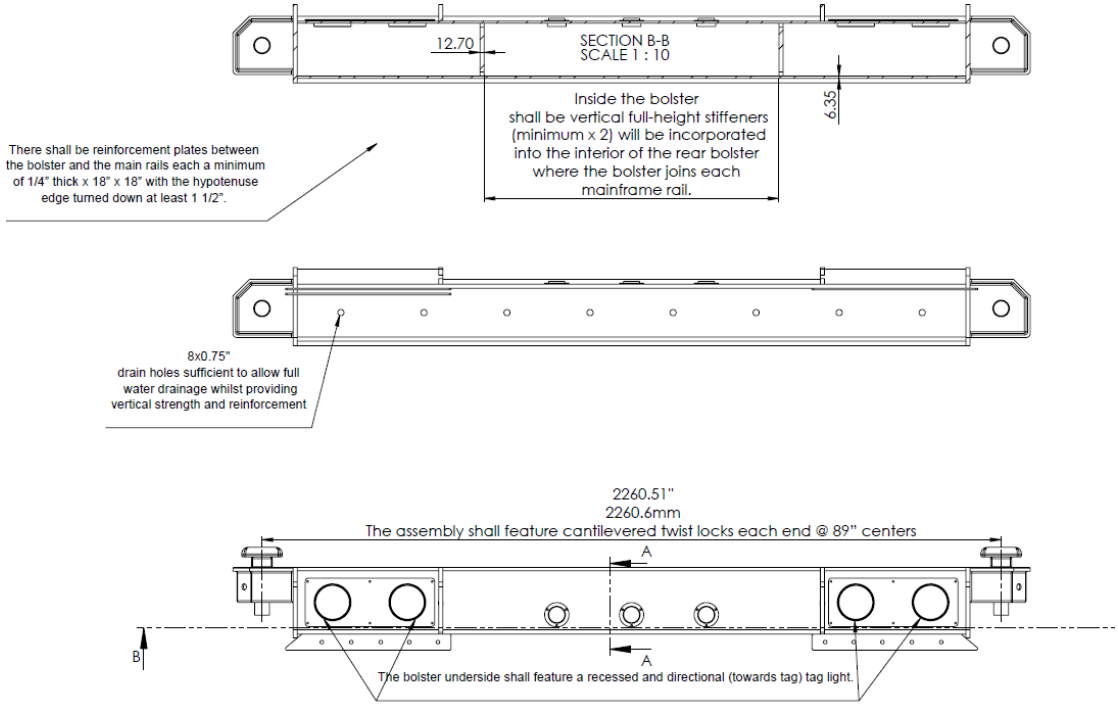
PRIMARY DIMENSIONS for all 2423-CS models; -RS models are mirror opposite



MATERIAL: CAST STEEL
FINISH OPTIONS: PRIMER (-P) or SELF-COLOR (-SC)
WEIGHT: 10.45 LBS / 4.74 Kg

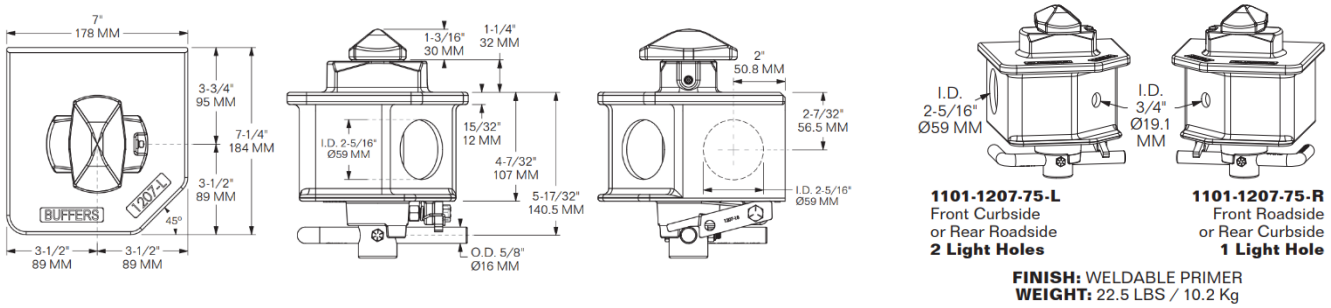
Rear Bolster:

8" wide x 12.7mm thick top plate with 6-7/8" wide x 8" deep x 6.73mm thick “U” channel.

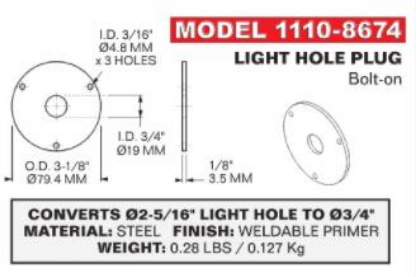


Twist Lock:

Buffers 1101-1207-75L and 1101-1207-75R twist locks

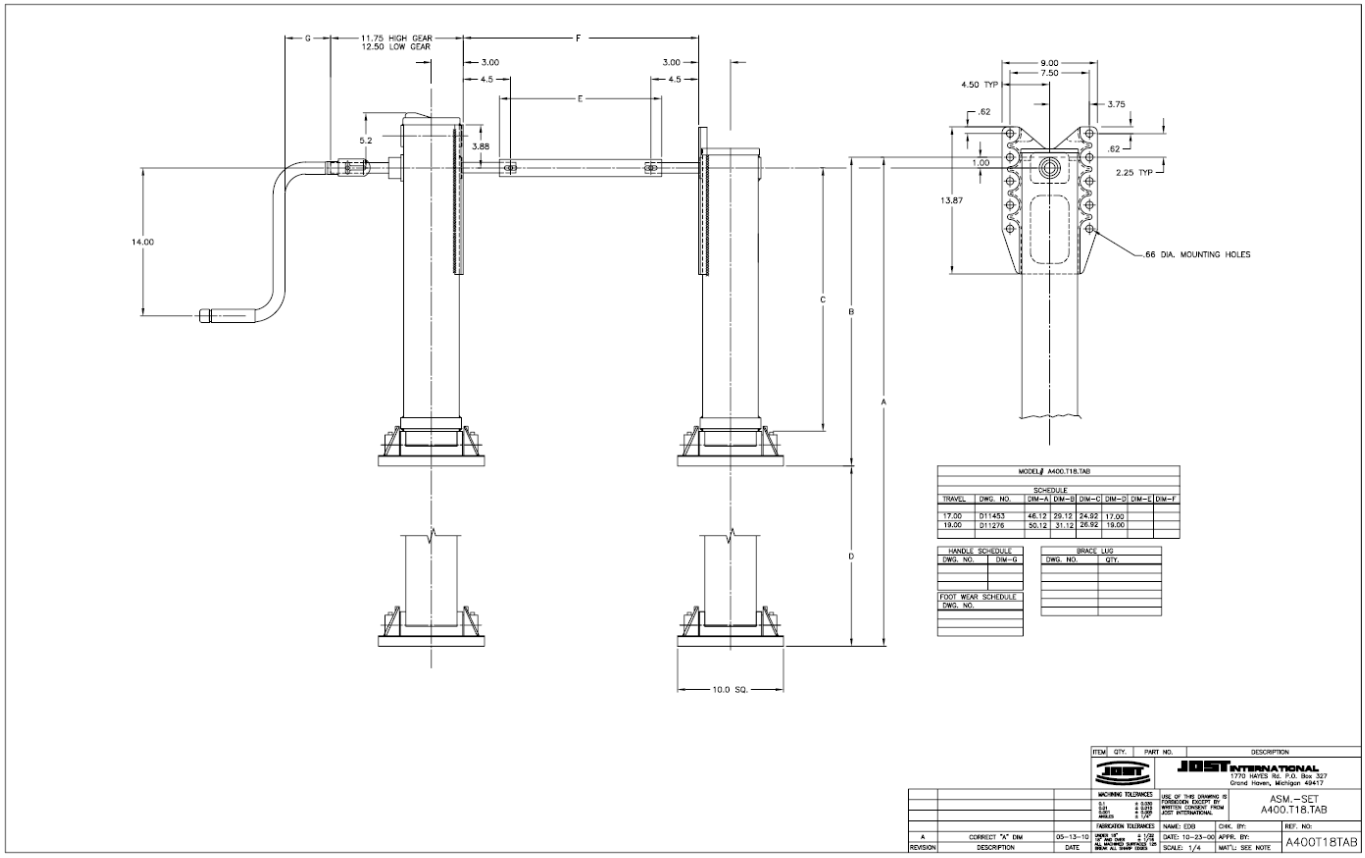


Convert plate:

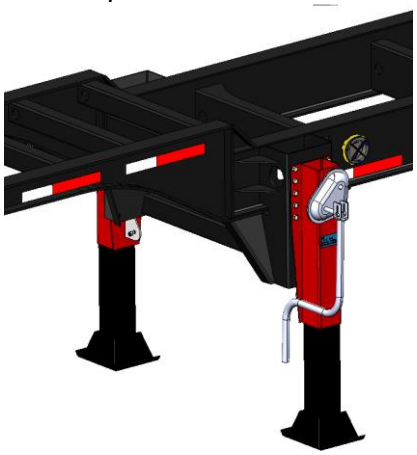


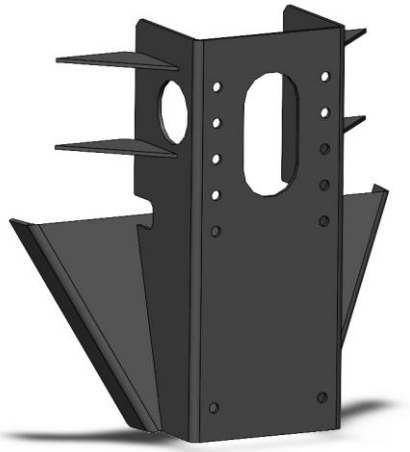
Landing Gear:

JOST: A400-T1-17

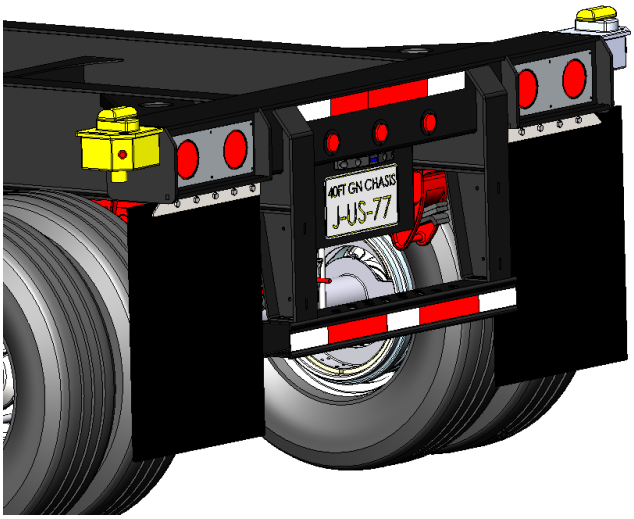


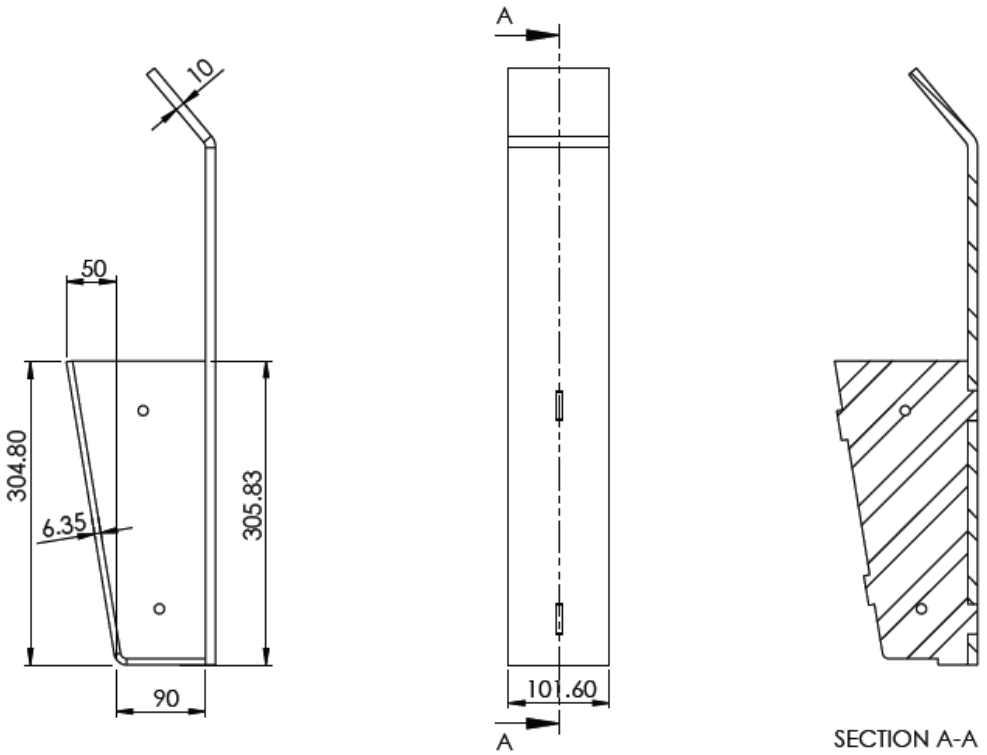
Landing Gear Support Bracket:
Fabricated of 1/4 inch thick grade 50 steel
and welded to the main frame.
Reinforced by 4 x 1/4inch thick stiffeners fore and aft of the landing gear box.
The box permits access to create 2” stitch welds inside the box.

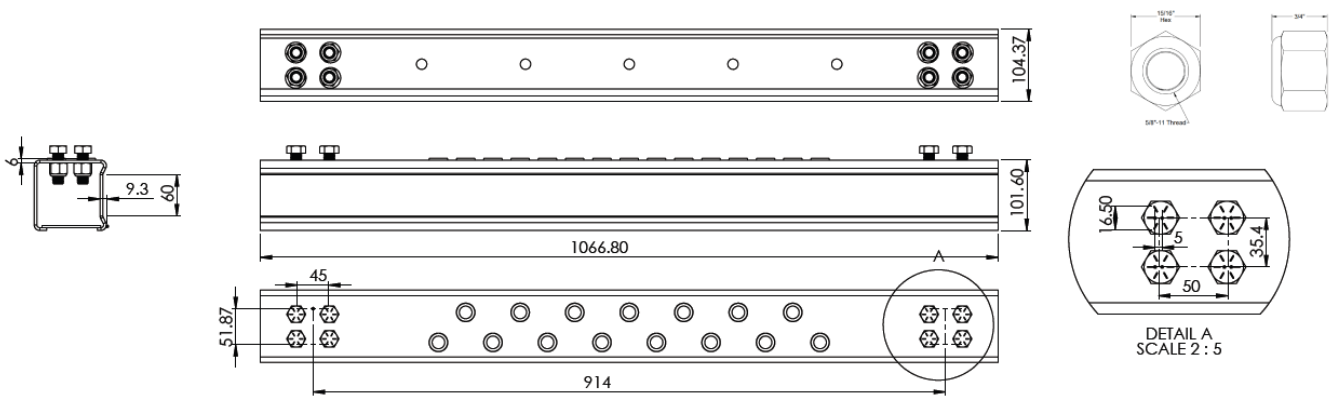




Rear Bumper:
4" x 4" square type step bar.
horizontal safety step bar 42”
wide with non-skid top surface
Material: 3mm thick ST-52





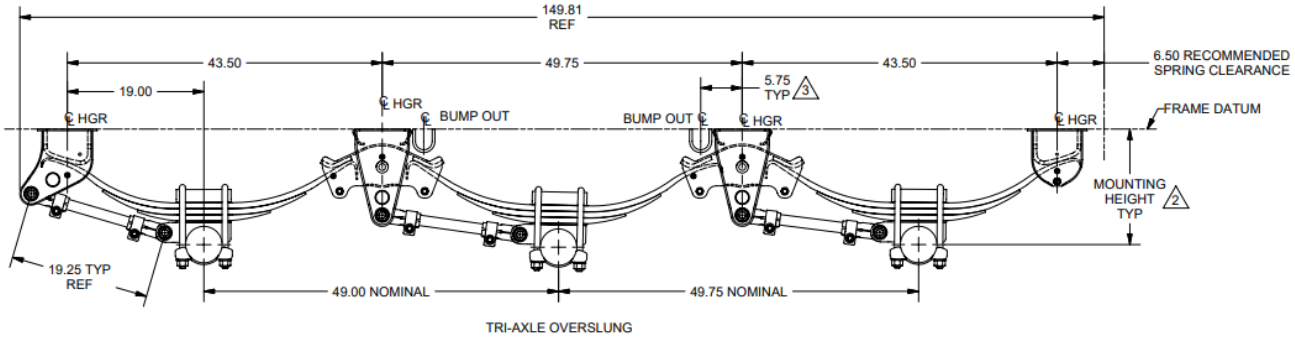


Axle:

AXN AXLE SPECIFICATION

Part Number	Description	Qty
TA225T00X7155327C	Trailer BC Axle	1
A21-6101-A	Trailer Axle ID Tag, AXN Logo	1
TSE07135SBX	ASA: TSE, 5.5", 28 Spline, Straight Arm, 10 Year Warranty	2
H30-0647FNTZ	AXN, N-series, 10-stud, 11.25" BC	2
HM212049-S	Bearing Cone Stemco, N-Series Outer	2
HM218248-S	Bearing Cone Stemco, N-Series Inner	2
CVR_Delo_SF	Lubricant: Chevron Delo SF	40
ST_342-4009	Hub Cap: Stemco, N, Dirt Exclusion	2
ST_447-4743	Pro Torq	2
ST_330-3009	Gasket: Stemco N-Series	2
ST_307-0743	Seal Stemco Guardian HP, N-Series	2
TSE_3030TL2-767	Brake Chamber: TSE Omni Type 3030 Spring, Standard Stroke	2
BB_3112SH5	5/16-18 x 0.75" w/ split lock washer	12
A15-0101	ABS Sensor 90 Degrees / 1 ft	2
A16-0101	ABS Sensor Clip: Wabco	2
WL-001	Wire loom for ABS sensor	2
ST_LS4515QCXLBL	4515 - B Lock Brake Shoes	4

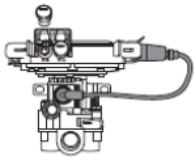
Tandem & Suspension: Hutchens or AXN Suspension.

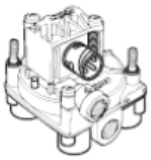


TRI-AXLE OVERSLUNG

Wabco 2S/1M ABS system

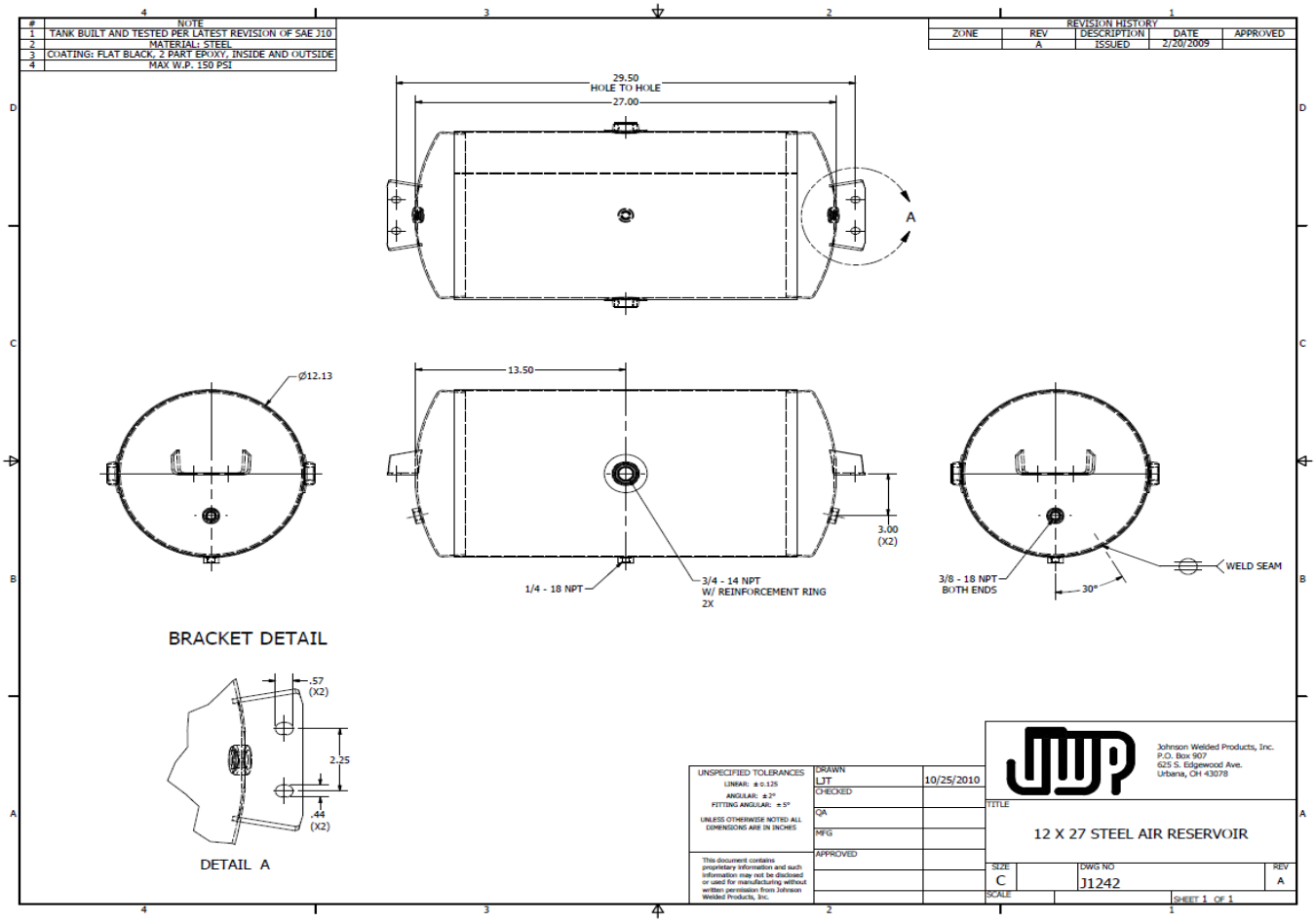
ECU/Valve Assembly	Description	Service ECU	Service Valve	Bracket
S400 500 101 0	2S/1M Trailers	S446 108 201 0	S472 195 033 0	S478 407 058 4





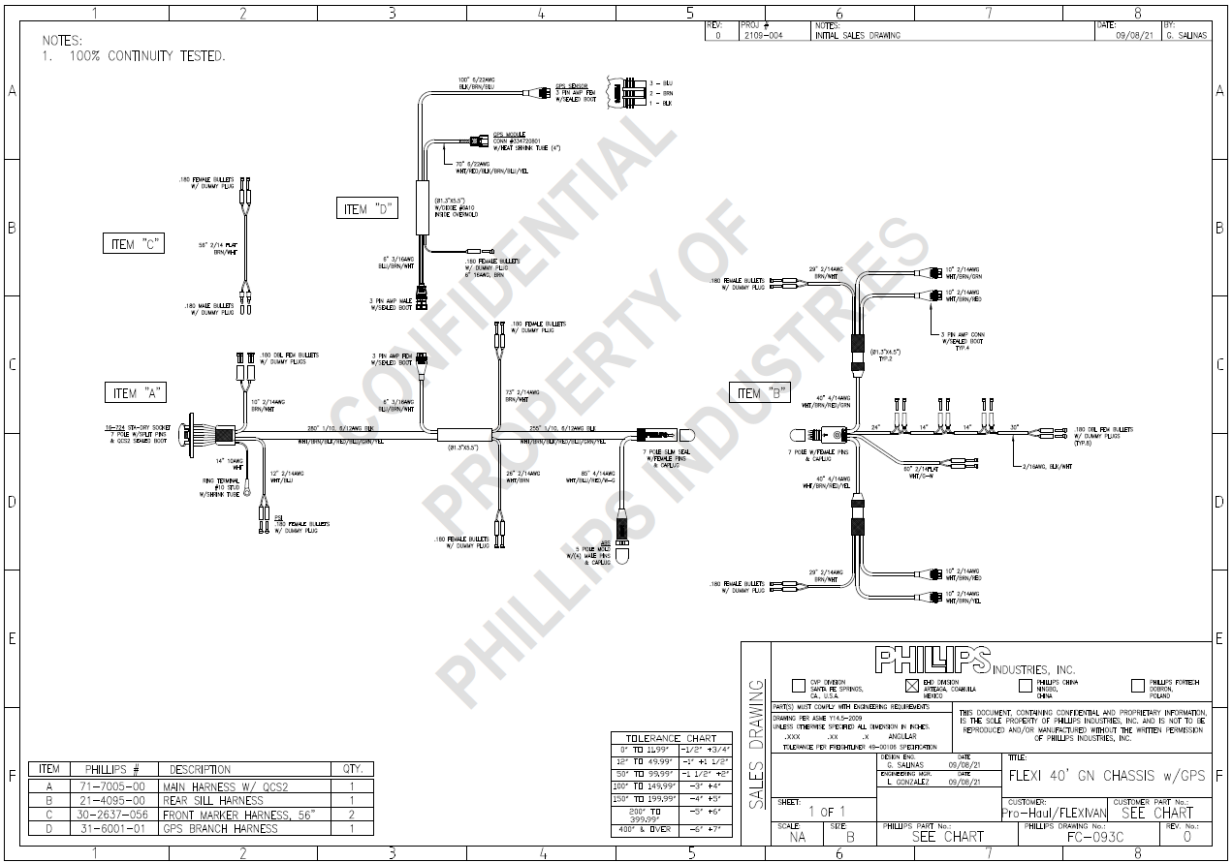
The ABS - ECU unit will be mounted on the frame separately.

B) One air tank system or AXN equivalent.



C) Air lines: 3/8” control and 3/8” for supply. Air lines will be secured to the gooseneck, main rail and bolster to avoid chaffing. Airline securement clamps will be rubber covered and adequately protected from corrosion as the means of securing them to the chassis frame so as to facilitate easy ‘in-service’ removal if needed. As needed hose separators will be used, and hoses will be routed on the top of the cross members. Rubber grommets will be provided at each location where air lines pass through cross members.

Electrical System



ITEM	PHILLIPS #	DESCRIPTION	QTY.
A	71-7005-00	MAIN HARNESS W/ QCS2	1
B	21-4095-00	REAR SILL HARNESS	1
C	30-2637-056	FRONT MARKER HARNESS, 56"	2
D	31-6001-01	GPS BRANCH HARNESS	1

71-7005-00 MAIN HARNESS W/QCS2

21-4095-00 Rear Sill Harness

30-2637-056 Front Market Harness

31-6001-01 GPS Branch Harness

4" Red LED Stop/Tail/Turm Lamp, Flange Mount with AMP connector

Clear LED License Lamp with .180 Molded Male Bullets

.75" Red LED Clearance/Marker Lamp and Grommet with .180 molded

.75 Amber LED Clearance/Marker Lamp and Grommet with .180 molded

Conspicuity tape.

Conspicuity tape, 2" x 150' continuous roll
• 2" x 150' roll, 7" (white) x 11" (red) pattern
• Complies with DOT and FMVSS 108 standards
• SAE "A" compliant
Installed per Federal regulations and AAR compliance.
Where possible, white conspicuity tape will be added to 'empty' space on the front face of the front bolster. White tape on rear face of front bolster per AAR.

Registration / Document Holder

Installed on roadside near crank handle. Supplied by Phillips.
Waterproof – documents remain dry in extreme weather
Stainless steel tether - prevents misplacement of lid
Twist-on lens with large grips – easy to use with gloves
Stainless steel hardware – keeps documents rust free
Mounts with most competitive document holders - 8 mounting holes
Large interior for multiple documents

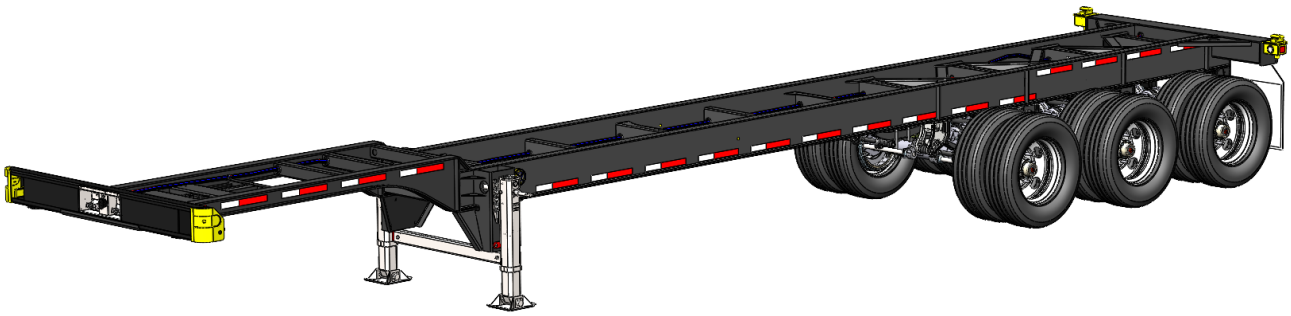
Painting

Metal preparation: abrasive blast of all metal surfaces to achieve clean bare steel per paint suppliers' specification – not less than SA-2. Surface will be coated with marine paint of minimum 70% Zinc - Rich primer (minimum d.f.t. 20 microns) and true acrylic aliphatic polyurethane topcoat (minimum d.f.t. 60 microns) color black.
The areas of the front pin locks and front bolster castings and the rear twist locks will be painted yellow for ease of location in container handling operations.

Coating supplier: **PPG**

Hardware

A) All fasteners to be minimum grade 5 zinc plated with washers / lock washers as appropriate.
B) Stainless steel fasteners will be used for electrical system.
C) License plate to be SS riveted / mono-bolted to backing plate.
D) If in the horizontal position, nuts to face outside whenever possible. If in the vertical position, nuts to be on the bottom, bolt on top.



Note: All specifications are subject to change without prior notification. All dimensions and weights are approximate. Trailers pictured in this brochure may feature optimal equipment. Axle placement and legal load rating are dependent upon federal, state, and local regulations, GAWR, and tire ratings.