

3 Carbon Steel Tanks - Neepawa



7288

Proposal # / Order #: S14235
 Date: 7-14-2012
 SENTINEL TRANSPORTATION, LLC
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FINANCE COMPANY (IF APPLICABLE)

COMPANY NAME:

NAME:	PHONE/FAX:	EMAIL:
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PRICING (prices subject to review and revision at time of order acceptance)

	QTY	UNIT \$	EXT \$
PRICE WITH FEDERAL EXCISE TAX:	3	\$330,000.00	\$990,000.00
		\$	\$
TRADE (if applicable)		\$	\$
FREIGHT, IF APPLICABLE VIA:	TRUCK:	RAIL:	WA: X
		\$	\$
TOTAL PRICE:	FOB: Fond du Lac, WI	\$330,000.00	\$990,000.00

COMPLETION (subject to review and revision upon acceptance of order)

SCHEDULE:

PRICE ADJUSTMENT

BUYER'S ATTENTION IS DIRECTED TO PARAGRAPH 2 OF BRENNER'S GENERAL TERMS AND CONDITIONS OF SALE AND TO THE PRICE ADJUSTMENT CLAUSE INCLUDED IN THIS PROPOSAL.

PAYMENT TERMS

DUE DATE (CHECK ONE)		METHOD OF PAYMENT (CHECK ONE)		DOWN PAYMENT	
UNIT COMPLETION DATE	X	CHECK	X	AMOUNT TO BE PAID AT TIME OF ORDER (EACH UNIT)	\$30%
NET DAYS TO PAY (INSERT NO. OF DAYS)		CASHIER'S CHECK		BALANCE DUE UPON COMPLETION (EACH UNIT)	\$70%
OTHER		WIRE TRANSFER			
IF BLANK, PAYMENT DUE ON COMPLETION		IRREVOCABLE LETTER OF CREDIT			\$

AGREEMENT

I AGREE TO THE ABOVE TERMS WHICH ARE FURTHER DEFINED IN THE GENERAL TERMS AND CONDITIONS OF SALE ATTACHED TO THIS ORDER. I FURTHER AGREE THAT THE SPECIFICATIONS PROVIDED WITH THIS ORDER ACCURATELY DESCRIBE THE PRODUCT INTENDED FOR PURCHASE.

CUSTOMER NAME: SENTINEL TRANSPORTATION, LLC

CUSTOMER PURCHASE ORDER: CONTACT: ORVILLE WHITE

BRENNER TANK LLC PROPOSAL PREPARED BY: Pamela Hardee on behalf of Kevin Bradley DATE: 7-14-2012

CUSTOMER SIGNATURE: DATE:

BRENNER TANK LLC ACCEPTED BY: DATE:

This quote is valid for 15 days and subject to the price adjustment clause.



450 Arlington Avenue
 Fond du Lac, WI 54935
 www.brennertank.com
 Toll Free: 800-558-9750
 Fax: 920-922-3303

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Proposal to
SENTINEL TRANSPORTATION, LLC

:: CUSTOMER INFORMATION			
NAME: SENTINEL TRANSPORTATION, LLC		CONTACT: ORVILLE WHITE	
ADDRESS: 3521 SILVERSIDE ROAD, QULLEN WEST-2A		E-MAIL: o.white@sentineltrans.com	
CITY: WILMINGTON		STATE: DE	ZIP: 19810
PHONE: (302) 477-1640	FAX: (302) 477-1652		MOBILE:

:: PROPOSAL / ORDER DATA			
DATE: 7-14-2012	PROPOSAL: S14235	ORDER:	REFERENCE ORDER: B6263-64

:: ORDER TRACKING DATA (FOR OFFICE USE ONLY)	
GP ORDER NO:	GP ITEM NO:

:: SALES MANAGER			
NAME: Kevin Bradley	PHONE: 302-559-2774	FAX: 302-475-5307	EMAIL: kjbradley@brennertank.com

:: INSIDE SALES CONTACT			
NAME: Pamela Hardee	PHONE: 920-322-1053	FAX: 920-922-3303	EMAIL: pahardee@brennertank.com

:: TANK DESCRIPTION			
DOT412 Transport Insulated, 96"OAW, to be Heresite lined			
CAPACITY:	4300 US Gallons Nominal	COMPARTMENTS:	One
GAL. (F TO R):		PROFILE:	Straight Round
CODE / SPEC:	DOT412 & ASME	PRODUCT(S):	Isophthaloyl Chloride
PROD. WT / US GAL:	16# Max	INT. MAWP:	50 PSI
EST. WEIGHT:	Approx. 16,800#	TEST PRESSURE:	75 PSI
GCWR:	80,000#	MAX LOADING TEMP	300° F Max
MODEL#:	S41243001HCS		



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:: VESSEL	
1. SHELL MATERIAL:	.177 Manuf.SA516 grade 70 carbon steel, mill finish
2. HEAD MATERIAL:	.250 Manuf.SA516 grade 70 carbon steel, mill finish, asme dished and flanged, butt welded
3. WELD FINISH:	Snagproof with ground flush on bottom 12", 1/8" radius on all nozzles. Weld wire per customer specifications. Exterior as welded
4. BAFFLES:	None
5. MANHOLE:	(1) 14" Top front mounted, bolted 150# ANSI flanged type, with blind cover. cover to be lined on wetted side. Bolt cover to manhole with 1/8" thick solid PTFE gasket. All bolts, nuts and washers to be SS. Centerline of manhole to be within 2' of the front head seam. (1) 20" Top rear mounted, bolted 150# ANSI flanged type, with blind cover adequate for attachment of pipe nozzles. Center line of manhole to be within 2' of the rear head seam. This manhole cover and nozzles to be SB-463 alloy 20 material. Bolt cover to manhole with 1/8" thick solid PTFE gasket. All bolts, nuts and washers to be SS
6. BOLSTERS:	14"S/S
7. LONGMEMBERS:	1/4" SS U.F.W. rail welded to shell, 1/4" SS gussets above landing gear and suspension
8. CLEANOUTS:	(1) 2" alloy 20 weld neck flange with blind flange in rear manhole cover
9. RINGS:	1/4" steel 2" x 2" structural tee continuous welded
10. HEAT:	<p>STEAM HEAT SYSTEM: Provide nine (9) heat panels approx. 2' x 4' each on tank bottom in one circuit for emergency heating. approx. 70 sq. ft., T304SS strap-on type along the length of the trailer. apply approx. 1/8" thick lay of tracit #1100 non-hardening heat transfer cement between heat panel and tank. panels to operate with 150 PSIG steam. Steam inlet and outlet connections shall be camlock with inlet and outlet at curbside rear. Steam inlet line to have a 3/4" x 1" relief valve set at 75 PSIG start to open. No need to discharge steam at front of tandem; but minimize steam migration to other areas. Pipe steam to front of all heat panels and pipe condensate from rear of all heat panels. The entire heat panel and condensate outlet piping system must drain completely when the trailer is level to avoid winter freezing problems. Do not provide condensate line steam traps. Steam supply and condensate lines to be all welded T304LSS. provide T304LSS heat panel or coil assembly on lower section of the rear head around the 3" product load/unload nozzle. Provide coil assembly around 3" nozzle to provide heat directly to the nozzle. Steam "contro-heat" jackets are to be provided for the (2) 3" Jamesbury product load/unload and emergency valves. The rear bottom heat panel, the rear head panel, the nozzle coil and the two "contro-heat" bottom discharge valves to be on one circuit for normal heating during loading and unloading operations</p> <p>ELECTRICAL HEAT TRACING SYSTEM: NONE</p>
11. INSULATION:	2" thick for covered 3# density Rigidflex high temp fiberglass insulation between rings next to tank with 2 layers of 2" thick polyisocyanurate rigid foam insulation per PG 5 of DuPont Engineering specifications SN100M. Bottom 30" across heat panel to be 6" of 3/4 pound density fiberglass. The front and rear heads should be stuffed with a minimum thickness of 4" of 3/4 pound density fiberglass. The entire tank shell, rings, supports and heads must be painted per paint section of this specification before insulation is installed
12. JACKET:	20 Ga. SS #3 finish lapped seams with 18 Ga. SS #3 finish lock seam jacket heads. Seal (silicone RTV rubber) all openings around top fittings to prevent water from getting under jacket. Make sure that jacket or flashing are seal welded in around manways

:: OUTLET	
1. REAR LOAD/UNLOAD:	3" 150# Steam jacketed ANSI sch. 40 flanged nozzle 5" long at the bottom center of the rear head. It must be flush at the bottom of the tank. This nozzle must be heavily reinforced at the tank outlet to provide maximum support. Install (2) Jamesbury 3" type 7150 ANSI class 150 flanged ball valves with glass filled "Teflon PTFE" seats and seals and Alloy 20 body, insert, ball and stem in series

	on the nozzle. Provide a 3" SS 316L male "camlock" fitting with dust cap on the end of the second manually operated ball valve. All fastener hardware to be SS. Provide support under the second ball valve to firmly support the weight and overhung load of the two ball valves. Provide an air operated emergency closure mechanism to close the shutoff valve next to the tank from a point at curbside of trailer. Both these valves are equipped with "contro-heat" steam jackets
2. EMERGENCY VALVE:	See Rear Load/Unload
3. VALVE OPERATOR:	Air switch with SS engraved "open-close indicator" mounted to rear of cabinet on curbside rear fender. Emergency switch located at front of trailer on roadside
4. REAR LOAD/UNLOAD ENCLOSURE:	Provide a SS 316L enclosure extending from the rear jacket head completely around the two ball valves. Pack the interior of the enclosure with compressed fiberglass insulation. The minimum width of the enclosure should be 21" to provide sufficient insulation and maintenance space around the two ball valves. The enclosure is to be fabricated to permit easy removal for maintenance. It should be constructed with continuous or skip welded (not spot welds) and fastened together with 3/8" minimum size SS bolts, nuts and washer hardware
5. GASKET:	All gaskets, unless otherwise specified, shall be 1/16" thick Gylon, fawn colored, #37719 ring or #35104 sheet, as manuf. by Garlock Inc. Manhole gaskets shall be 1/8" Teflon PTFE
6. OUTLET VALVE:	See Rear Load/Unload
7. FITTINGS:	3" flanged nozzle with 3" SS cam style adapter & dust cap
8. PUMP OFF LINE:	None
9. SEAL TABS:	Provisions for seals on all openings
10. CABLES:	Plastic coated on all caps in the outlet and piping area

:: VENTING	
1. PRESSURE RELIEF:	(1) 4" flanged Girard #DOT-407LAFTL Teflon lined pressure relief vent, 50 PSI MAWP, rated at a test pressure of 75 PSI, complete with a Teflon encapsulated o-ring, located on 4" flanged pipe with rupture disc below vent near center of tank. Relief valve to meet requirements of DOT412. Rupture disc to be Hastelloy C, BS&B B type "JRS", with holder. Disc burst pressure to be 60 PSIG with a nominal +/- 5% tolerance at 72 °F. Relief vent nozzle to be steam jacketed. Provide 5 spare rupture discs for future testing and maintenance
2. VACUUM RELIEF:	None -designed for full vacuum
3. NITROGEN/VENT LINE:	(1) 2" Flanged steam jacketed nozzle on rear manhole cover offset to curbside rear. 2" Sch 40 alloy 20 N2/vent line to run from top nozzle down the rear head to an area next to rear valve enclosure approx. 4' above the ground. Line to be insulated and jacketed from rear spilldam down to enclosure box. Provide (2) Jamesbury 2" type 7150 ANSI class 150 flanged ball valves with Alloy 20 body, inset, ball, stem and PTFE seats and seals at both ends of this line. Top valve to have air to open / spring to close actuator. Bottom valve to have manual operator. Provide an air switch with SS engraved "open-close" indicator mounted to rear of cabinet on curbside rear fender. Use SS nuts, bolts and washer hardware. Provide a 2" SS 316L male "camlock" fitting with dust cap on the discharge side of the ball valve. Both valves are equipped with "Contro-Heat" bolt on steam heat jacket.
4. AIR LINE:	None

:: CHASSIS	
1. KINGPIN PLATE:	WGH Super bolt-on 4" increments, 2" adjustments. Upper coupler to ground clearance to be 49" when trailer is loaded and in towing position
2. LANDING GEAR:	Holland Mark V, 2-speed with sand shoes, curbside crank, SS frame
3. SUSPENSION:	Hendrickson Intraax AAT25K air ride (49" spread) with shock straps, manual and automatic dump kits and 5-year extended service option, SS frame
	Provide an external air line to the suspension air system at the rear of the trailer. This line will permit an off-trailer independent air supply to the bags. Provide an air regulator and filter to protect the air tank supply delivered from a plant air



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	source to the trailer suspension. Brakes to be locked when manual dump switch is activated. Automatic dump should be part of the service line on the front of the trailer so that when the driver drops the trailer it automatically drops the trailer. The manual valve needs to go on the front left frame (i.e. cross member in front of the tandems left side - not on the side of the "J" rail
4. AXLES:	(2) HP spindles (ABS ready) 5" round, (25,000# rating) integral with suspension, 7 1/2" track with same inner and outer bearings
5. BRAKES:	Bendix air disc brake with removable rotors and dust shields (20,000# rating)
6. ABS SYSTEM:	Bendix Full Roll Stability Brake System 4S/2M with in cab warning light feature and blue wire powered and amber warning light at front face of rear roadside fender. Diagnostic box located at front of suspension frame
7. SLACK ADJUSTERS:	None-disc brakes
8. SPRING BRAKE CHAMBERS:	None-disc brakes
9. RESERVOIRS:	Aluminum air tank system meeting FMVSS 121 requirements. Provide an external air line with regulator and filter on curbside rear to refill the suspension air tanks for opening air operated valves
10. HUBS:	Conmet Preset aluminum 10 stud, hub piloted
11. HUB ODOMETER:	Stemco data trac mounted on front roadside axle
12. DRUMS:	None
13. SEALS:	Chicago Rawhide furnished with preset hubs. Hubs filled with Mobil 007 semi-fluid
14. WHEELS:	(4) 14.00 x 22.5 10 hole hub piloted Alcoa Durabright aluminum disc. Use 1 1/4" wheel nuts with 2" offset
15. TIRES:	(4)-455/55R 22.5 (G) Michelin X one XTE 20 ply radials
16. TIRE INFLATION SYSTEM:	None
17. TIRE CARRIER:	None
18. FENDERS:	Aluminum contour front and rear with SS braces
19. MUDFLAPS:	(2) Pair Brenner black plastic anti-sail
20. BUMPER:	(1) 4" X 8" SS rect. tube, 60" wide, per DOT PHMSA specs, and (1) 4" x 4" SS sq. tube, 88" wide, per DOT NHTSA rules
21. PAINT:	Tank Exterior Paint: Paint the complete exterior of the tank, nozzles, manhole covers, rings, longmembers, bolsters and other structural support members to be painted with Zinc Primer Trailer Paint: All carbon steel parts not painted to above spec to be painted with #N6943
22. SPLASHPAN	Add SS splash pan at rear outlet area

:: ELECTRICAL

1. NOSE BOX:	7 Way A.T.A. connector mount on lower roadside of front head. ISO 3731 connector for ABS power to be wired to #7 pin in nose box
2. WIRING:	Harness exposed with (1) Betts junction box (#M351045-01-0404) ahead of suspension
3. LIGHTS:	12-Volt Truck-Lite LED style with security rings. Rear lights and wide turn markers in SS boxes with remainder in SS brackets. Side markers tied into turn signals Provide (4) Truck-Lite LED wide turn arrows, located on rear of rear fenders curbside and roadside and rear of front fenders curbside and roadside. Side markers, wide turn arrows and rear light box clearance lights tied into turn signals. Provide (1) additional stop light centered at rear of tank. Led turn signals, front marker lights, mid turn lights and ABS lights to be enclosed in SS box

:: ACCESSORIES

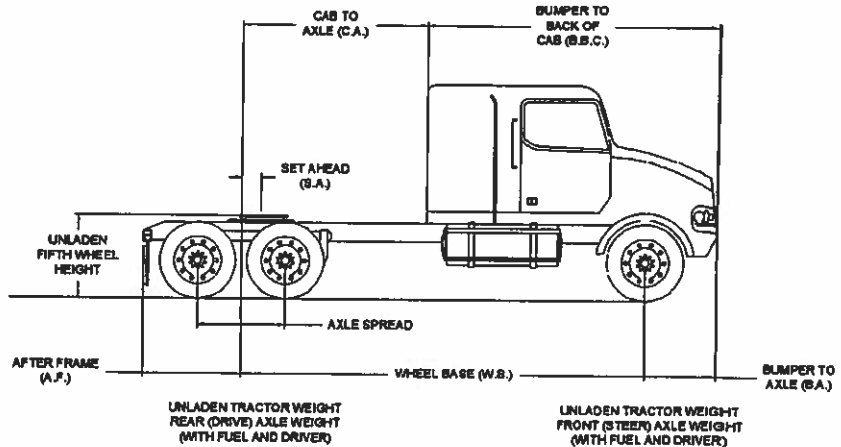
1. SPILLDAM:	Manholes and center vent area are to be completely enclosed with a lightweight enclosure of all T304SS construction. Enclosures are to be completely filled with compressed fiberglass insulation. The enclosure cover is to be removable one piece horizontal type fastened to each enclosure with rubber hold down assemblies. A minimum of three hold downs on each side, two in the front and
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	two at the rear of each lid is required. Provide two safety chains to restrain each lid in the event the hold downs should fail while the trailer is operating over the road. Provide two 2" steel drain pipe drains at the bottom of each enclosure that extend through the jacket
	OVERTURNS: D.O.T. overturn protection at each spilldam and vent area
2. LADDER:	(2) SS Ladders with dimpled channel rungs both located rear of trailer, one each side up to each walkway integral with hand rail. 7" clearance behind the ladder is required
3. WALKWAY & HANDRAIL:	12" Wide aluminum non-skid walkway at both sides of the rear manhole enclosure extending to the ladders Hand Rail: Provide 1" SS sch. 40 pipe hand rail on outside of walkway each side to enclose the rear manhole area. Handrail to be 34" high minimum. All bolts and mechanical fasteners to be SS. No access ladder, walkway or hand rail is required at the front manhole enclosure
4. HOSE CARRIER:	None
5. CAPACITY INDICATOR:	None
6. CABINET:	None
7. CONSPICUITY MARKING:	2" wide retro-reflective tape in accordance with US DOT NHTSA rules
8. DOT SIGN HOLDERS:	(8) SS sign holders with sides mounted on jacket approx. 60" from ground near center of tank, front and rear mounted on jacket heads, locate in pairs at each location
9. CERTIFICATE HOLDER:	(1) Betts PS-1 mounted curbside on landing gear frame
10. THERMOMETER:	(1) 50-400 degree F probe type with 9" stem and Alloy 20 well mounted in 3" Alloy 20 blind flange, bolted to 3" ANSI weld neck flange with welded nuts on back side welded directly into barrel. Locate curbside eye level forward of suspension
11. GREASE SYSTEM:	None

:: OTHER	
1. CALIBRATION:	Paper chart, theoretical computer printout in 1/4" increments. Provide SS outage plate mounted near the curbside ladder
2. RADIOGRAPHY:	All vessel welds shall be 100% x-rayed. Included are all longitudinal and circumferential seams, manhole assemblies and all nozzles. Butt welds in accordance with ASME standards. All welds to be x-rayed per ASME code
3. HARDNESS TEST:	None
4. LINING:	Heresite lining is not included. Brenner Tank LLC assumes no responsibility for the design, installation and performance of any lining which may be applied to this tank trailer (or these tank trailers) in the future
5. DRAWINGS:	(3) Sets of drawings for approval prior to production
6. VALVE TAGS:	VALVE TAGS: Weld permanent SS "open" and closed" indicator tags at all product load/unload lines and nitrogen/vent pipeline ball valves
7. GASKETS:	GASKETS: All gaskets, unless otherwise specified, shall be 1/16" thick Gylon, fawn colored, #37719 ring or #35104 sheet, as manuf. by Garlock Inc. manhole gaskets shall be 1/8" Teflon PTFE
8. STRESS RELIEVING:	STRESS RELIEVING: After the barrel is completed and acceptable radiographs are obtained, the tank will be stress relieved at 1100°F, +50°F, -0°F for a minimum of one hour. The heating rate will not exceed 400° per hour from 500° F. To 1100° F. The cooling rate shall not exceed 300 per hour to 500°F. Below 500° F. The tank may be air cooled. After heat treatment, the weld and heat-affected zone hardness should be less than Rockwell C 20 or Vickers equivalent. Stress relieving, testing and documentation to be done per ASME Code UW-40 and UCS-56.
9. PIPING:	All piping to be seamless SA-106-8
10. FLANGES:	All flanges to be 150# ANSI SA-105-8
11. WARRANTY PERIOD:	1-Year

:: TRACTOR INFORMATION

MAKE: KW
MODEL: 600 Conv w/sleeper
*W.B.: 225"
C.A.: 97"
B.A.: 46"
A.F.:
REQUIRED S.A. (IF FIXED):
*FIFTH WHEEL HT: 49"
*AXLE WEIGHT REAR: 8200#
*AXLE WEIGHT FRONT: 10,600#
*LIFT AXLE LOCATION (IF APPLICABLE):
*REQUIRED INFORMATION



:: PRICE ADJUSTMENT CLAUSE – STAINLESS STEEL

STAINLESS STEEL COSTS CONTINUE TO FLUCTUATE DRAMATICALLY, AND LEAD TIMES FOR STAINLESS STEEL TANKS HAVE INCREASED TO A POINT WHERE ESTIMATED DELIVERY DATES ARE WELL BEYOND THE WINDOW FOR ACCURATELY PREDICTING THE COSTS OF MATERIALS. ACCORDINGLY, FINAL PRICING SHALL BE ADJUSTED:

1. TO REFLECT CHANGES (UPWARD OR DOWNWARD) OF **STAINLESS STEEL SURCHARGES** BETWEEN ORDER PLACEMENT AND START OF PRODUCTION, **AND**
2. CAPTURE **OTHER COST INCREASES** IN PURCHASED MATERIALS AND COMPONENTS. THESE COST INCREASES MAY INCLUDE, BUT ARE NOT LIMITED TO, ESCALATION IN METAL BASE PRICES, INSULATION, SUSPENSION, VALVES, ETC., AS APPLICABLE.

A **STAINLESS STEEL SURCHARGE ADJUSTMENT** WILL BE ADDED TO THE QUOTED PRICE OF EACH TRAILER, CALCULATED AS FOLLOWS:

- ACTUAL TYPE 316 STAINLESS STEEL SURCHARGE PER POUND IN EFFECT THE MONTH PREVIOUS TO PRODUCTION START DATE AS PUBLISHED BY NORTH AMERICAN STAINLESS (SEE [HTTP://WWW.NORTHAMERICANSTAINLESS.COM/NAS_APP/SURCHARGE1?LANGUAGE=E&TYPE=F](http://www.northamericanstainless.com/nas_app/surcharge1?language=e&type=f)), LESS JULY TYPE 316 STAINLESS STEEL SURCHARGE OF \$1.1601 PER POUND, TIMES
- TBD LBS ESTIMATED WEIGHT OF TYPE 316 STAINLESS STEEL, PLUS 12% FET (IF APPLICABLE), EQUALS
- RAW MATERIAL SURCHARGE ADJUSTMENT – TYPE 316 STAINLESS STEEL
- ACTUAL TYPE 304 STAINLESS STEEL SURCHARGE PER POUND IN EFFECT THE MONTH PREVIOUS TO PRODUCTION START DATE AS PUBLISHED BY NORTH AMERICAN STAINLESS (SEE [HTTP://WWW.NORTHAMERICANSTAINLESS.COM/NAS_APP/SURCHARGE1?LANGUAGE=E&TYPE=F](http://www.northamericanstainless.com/nas_app/surcharge1?language=e&type=f)), LESS JULY TYPE 304 STAINLESS STEEL SURCHARGE OF \$.7971 PER POUND, TIMES
- TBD LBS ESTIMATED WEIGHT OF TYPE 304 STAINLESS STEEL, PLUS 12% FET (IF APPLICABLE), EQUALS
- RAW MATERIAL SURCHARGE ADJUSTMENT – TYPE 304 STAINLESS STEEL
- ACTUAL TYPE 201LN STAINLESS STEEL SURCHARGE PER POUND IN EFFECT THE MONTH PREVIOUS TO PRODUCTION START DATE AS PUBLISHED BY ALLEGHENY LUDLUM (SEE [HTTP://WWW.ALLEGHENYLUDLUM.COM/UDLUM/PAGES/SURCHARGE/CALCULATOR/SURCHARGEFRONT.ASP?TYPE=STAINLESS%20STEEL](http://www.allegHENYLUDLUM.COM/UDLUM/PAGES/SURCHARGE/CALCULATOR/SURCHARGEFRONT.ASP?TYPE=STAINLESS%20STEEL))
- LESS JULY TYPE 201LN STAINLESS STEEL SURCHARGE OF \$.5293 PER POUND, TIMES
- TBD LBS ESTIMATED WEIGHT OF TYPE 201LN STAINLESS STEEL, PLUS 12% FET (IF APPLICABLE), EQUALS
- RAW MATERIAL SURCHARGE ADJUSTMENT – TYPE 201LN STAINLESS STEEL

THE TOTAL PRICE ADJUSTMENT WILL BE THE SUM OF THE **STAINLESS STEEL SURCHARGE ADJUSTMENT** AND THE **OTHER COST INCREASES**. WEIGHTS TO BE DETERMINED AT TIME OF ORDER.

ORIGINAL

SPECIAL ENGINEERING INSTRUCTIONS



BS&B ENGINEERING, LTD.

DRAWN BY: L. Hammack NO.: EI-00-0021
 CKTD BY: SJM DATE: 8-2-1978 SHEET: 1 OF 1
 APP. BY: L. Woods REVISION: 1 RELEASE NO.: 77-7465

REV: 1 ECN NO.: A5-2316 DRAWN: P. PATRICK CKTD: SPF DATE: 8-3-2005
PROPRIETARY DATA, IS DECLARED TO THE INFORMATION DISCLOSED HEREIN AND IS THE SOLE PROPERTY OF BEAS SAFETY SYSTEMS, L.L.C. THIS INFORMATION IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEMS WITHOUT THE WRITTEN PERMISSION OF BEAS SAFETY SYSTEMS, L.L.C. US AND INTERNATIONAL PATENTS PENDING.

Standard Teflon Coating of Safety Heads

1. Comply with all notes on detail drawing.
2. Flanges must be as clean as possible (remove dirt and oil). Remove nameplates from flanges taken from stock. Remove grooved pins before sending out to be coated.
3. Supply two (2) capcrews or whichever is applicable with each flange to be coated. These are to be put in the threaded holes so that the coating vendor can lift the flange into the oven.
4. Send flanges out to be coated all over as follows:
 - 4.1 After cleaning and sandblasting the safety head, prime with Dupont 850-314 primer. Bake at 450°F for 15 min, then topcoat with Dupont 851-255 and bake at 600°F for 10 min. All intermediate coats bake at 600°F. After the components are pinhole free, cure the last coat at 725°F for 30 min.
 - 4.2 Total thickness of primer and coating to be approximately:
 .001" to .0015" coating is not pinhole free
 .0015" to .003" coating is pinhole free
5. Inspect coating visually and by spark testing.
6. Approved coating source:
 Precision Coating
 7433 East 46th Place
 Tulsa, OK 74145
7. When finished flanges are received at BS&B, remove capcrews from flanges and attach nameplates per proper documentation. Then provide additional part per release and ship to customer. (Chase all threads, also ream all pin holes). Replace grooved pins where applicable.

Doran 360 Remote Antenna Kit Part #3623

The 3623 remote antenna kit takes the place of the small antenna and 90° fitting that is included with the 360™ TPMS. The remote antenna greatly enhances the communication between the sensors and the display. This allows the Doran 360 receiver/display reception point to be closer to the transmitters and preferably outside the cab of the vehicle.

1. General Cable Routing

Determine the most practical option for routing the cable from the 360™ receiver/display to the remote antenna mounting location. Most vehicles have pre-existing holes located in the firewall that will allow for an entrance point for the cable to come into the cab. Typically it is easier to route the 90° end of the cable into the cab and then proceed with routing the remaining portion of the cable to the antenna location.

2. Remote Antenna Mounting

It is recommended that the remote antenna is located approximately at the midpoint between the front and rear most wheel locations being monitored. In the case of a tractor/trailer application the rear most location on the tractor is preferred. The orientation of the antenna needs to be vertical, either pointing up or down, not horizontal (figure 2 & 3). The included aluminum bracket can be bent to accommodate reorienting the antenna (figure 3).

3. Connections

In the cab make the connection of the 90° fitting onto the receiver/display, finger tight is sufficient. A hole slightly larger than 5/16 will allow the 90° to pass through. Use the included grommet to provide a clean entry point and also help protect the cable (figure 4).

Remove the nut and star washer from the bulkhead fitting, place it through the bracket and reinstalled the washer and nut. While holding the cable fitting with the appropriate wrench lightly tighten the nut. Note: Take care to not twist the cable while tightening the fitting onto the bracket. Install the antenna and lightly torque it using pliers or channel style pliers to complete the installation (figure 2 & 3).



Figure 1



Figure 2



Figure 3



Figure 4