

REVISIONS NO DATE BY				ICIIVEL	S_DI IRRED		
NO.	DATE	BY SPLASH GUARD					
1	05-28-02	DWG	IRAILER & IRUCK				
2	11-28-06	CJW	S.T.	SCALE N/A	EQN-66		
3	07-20-09	TOD	11-18-87	RED	SHEET 1 OF 2		

FENDERS AND FLAPS: VEHICLES SPECIFIED UNDER THIS SUBCHAPTER SHALL BE EQUIPPED WITH FENDERS WHICH PROVIDE AT LEAST AS MUCH COVERAGE OF THE WHEEL AS THE ORIGINAL EQUIPMENT. ALL WHEELS SHALL BE SUFFICIENTLY COVERED WITH FENDERS OR FLAPS SO AS TO PREVENT LOOSE OBJECTS, RAIN, SNOW, AND THE LIKE FROM BEING THROWN ABOUT IN A MANNER WHICH MAY INTERFERE WITH OTHER PERSONS USING THE HIGHWAY.

REAR WHEEL SHIELDS: VEHICLE SPECIFIED UNDER THIS SUBCHAPTER EXCEPT TRUCK-TRACTOR WHILE TOWING A TRAILER SHALL BE CONSTRUCTED OR EQUIPPED AS FAR AS TO BAR WATER OR OTHER ROAD SURFACES THROWN FROM REAR WHEELS OF SUCH VEHICLE OR COMBINATION AT TANGENTS ESCEEDING 22.5 DEGREES, MEASURED FROM ROAD SURFACE FROM PASSING IN STRAIGHT LINE TO THE REAR OF SUCH VEHICLE. SEE 75 PA C554533 (RELATING TO REAR WHEEL SHIELDS)

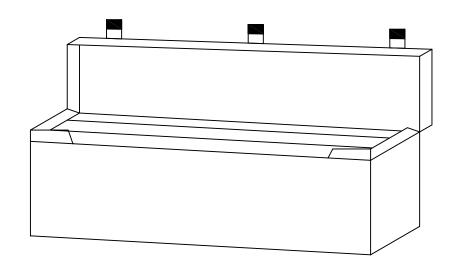
AREA 6.75"x24" ACROSS THE TOP IS ACCEPTABLE IN SOLID VIS RIBS PROVIDED IT MEASURES .225" IN THICKNESS

THE BODY OF SPLASH GUARD SHALL BE A MINIMUM OF .09375" THE TRIM AREA SHALL BE $\frac{3}{8}$ " MINIMUM THICKNESS. THE BODY AREA IS THE AREA WITHIN THE OUTSIDE DIMENSIONS OF 24"x36" TOLERANCES +/- .250" THE WEIGHT OF THE SPLASH GUARD SHALL BE 6LBS FOR 24"x30" AND 7.5lbs x 24" x 36" MINIMUM.

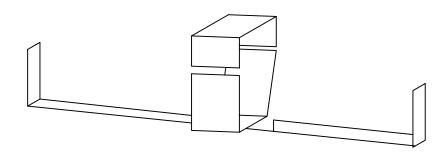
NOTE:

- 1. MATERIAL: MOLDED NATURAL OR SYNTHETIC BLACK TIRE CHORD IMPREGNATED RUBBER. OIL AND SALT RESISTANT.
- 2. ANTI-SAIL NOT ACCEPTABLE.
- 3. MANUFACTURERS STANDARD SIZE ACCEPTABLE IF ALL MINIMUM THICKNESS, DIMENSIONS, AND WEIGHT SPECIFICATIONS ARE MET.
- 4. AS PER PA VEHICLES EQUIPMENT AND INSPECTION REGULATIONS, SECTION 175-108.
- 5. DIMENSION "A" WILL BE 30" OF 36" AS NECESSARY, WHEN INSTALLED TO MEET PA MOTOR VEHICLE CODE OR AS SPECIFIED ON THE CONTRACT.

РА	PA DEPARTMENT OF TRANSPORTATION									
	REVISIONS	3	SDIVSF	SPLASH GUARDS-RUBBER						
NO.	DATE	BY	TRAILER & TRUCK							
1	05-28-02	DWG								
2	11-28-06	CJW	S.T.	SCALE N/A	EQN-66					
3	07-20-09	TOD	DATE 11-18-87	RED	SHEET 2 OF 2					

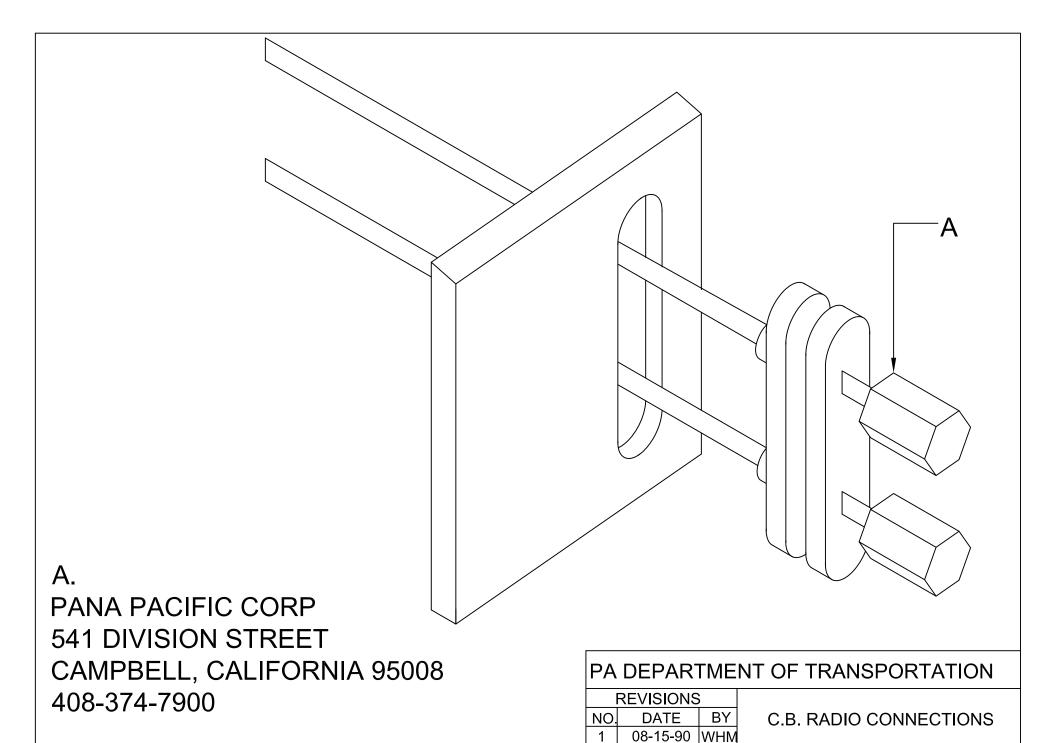


JAMES KING & CO. 1-800-824-8635 TRIANGLE PART #1005 OR APPROVED EQUAL



JAMES KING & CO. 1-800-824-8635 STEEL BRACKET PART #1005-B1 OR APPROVED EQUAL BOLTS, NUTS AND FENDER WASHERS SHALL BE USED TO SECURE METAL BRACKET.

PA DEPARTMENT OF TRANSPORTATION								
	REVISIONS			TRIANGLE STORAGE BOX AND				
	NO.	DATE	BY			BRACKET		
	1	11-28-06	CJW		DRACK			
	2	05-31-07	KNH	DRAWN BY WHM	SCALE N/A	EQN-66A		
	3	07-20-09	TOD	DATE 04-23-92	CHK'D BY RED	SHEET 1 OF 1		



07-02-97 DLW

10-27-06 CJW

WHM

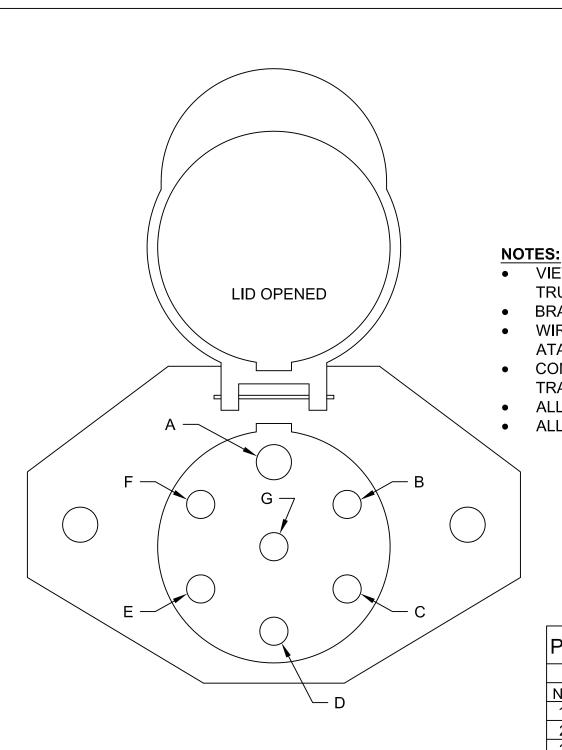
08-15-90

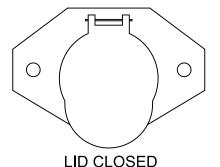
N/A

EQN-78

RED SHEET 1 OF 1

PART #531 277 C1



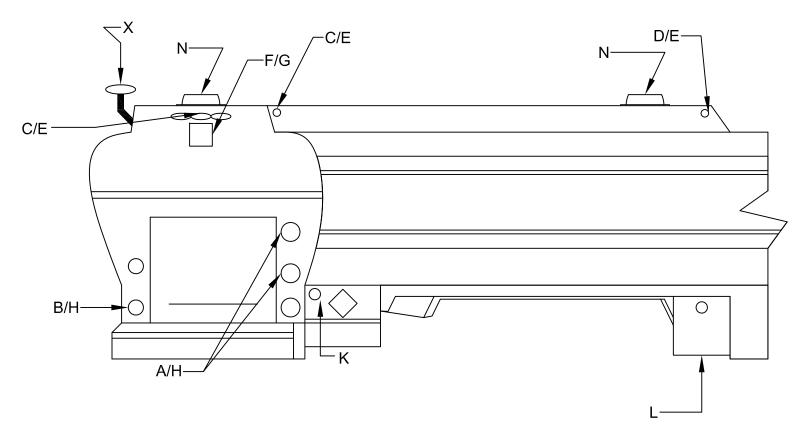


- VIEW OF FEMALE CONNECTOR, STANDING AT REAR OF TRUCK, LOOKING AT THE CONNECTOR.
- BRAKE LIGHTS SHALL FUNCTION WITH TURN SIGNALS.
- WIRE SHALL BE 7 WAY (1-10 GAUGE; 6-12 GAUGE) PER ATA COLOR CODE, CLAMPED EVERY 18" MINIMUM.
- CONNECTION SHALL BE MADE USING FACTORY OEM TRAILER WIRING HARNESS.
- ALL CONNECTIONS SHALL BE WATER TIGHT.
- ALL PINS SHALL BE ROUND STYLE.

WIRING NOTES:

- A. WHITE: GROUND 10
- B. BLACK: MARKER -12
- C. YELLOW: LEFT TURN & BRAKE 12
- D. RED: STOP / BRAKE -12
- E. GREEN: RIGHT TURN & BRAKE 12
- F. BROWN: TAIL 12
- G. BLUE: ABS -12

	REVISIONS	5	\\//IE	NING DI			
NO.	DATE	BY	WIRING DIAGRAM / 7 WAY ROUND PIN FEMALE CONNECTOR				
1							
2			DRAWN BY	JJB	SCALE N/A	EQN-80A	
3			DATE 08	-02-16	CHK'D BY	SHEET 1 OF 1	



NOTE:

LIGHTING AND WIRING LOCATIONS ARE APPOXIMATE. APPLY A SMALL AMOUNT OF DI-ELECTRIC COMPOUND TO ALL TERMINAL AREAS UPON COMPLETION OF FINAL INSPECTION.

ALL EXTERNAL CABLES MUST BE SECURED EVERY 12in.-15in. ALL CABLE DIMENSIONS ARE SUBJECT TO VARIATION DUE TO CABLE ROUTING. IN NO CASE WILL SPLICES BE ACCEPTABLE EXCEPT IN A WEATHERPROOF JUNCTION BOX.

GROUNDING TO BE ACCOMPLISHED BY USING A GROUND WIRE THROUGHOUT. GROUND TO THE BODY IS UNACCEPTABLE.

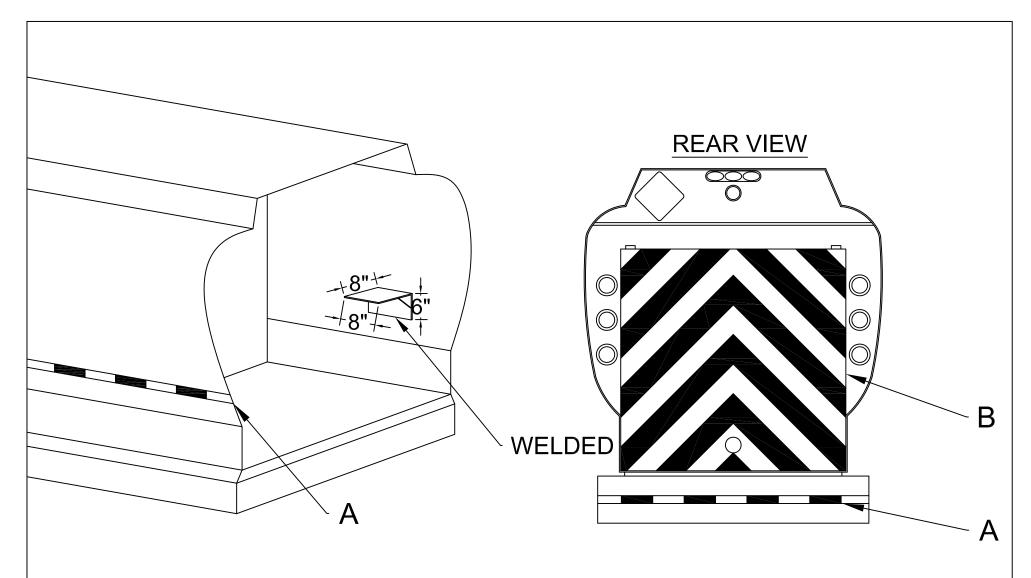
ANY AND ALL "BODY THROUGH" HOLES SHALL HAVE GROMMETS.

THE MAIN POWER CABLE (7 WIRE) SHALL CONSIST OF AT A MINIMUM 8 GAUGE GROUND WIRE.

REVISIONS			١٨/١	WIRING AND LIGHTING FUEL					
O.	DATE	BY	TRUCK						
1	03-05-07	CJW							
2	05-15-07	KNH	DRAWN BY	WHM	SCALE N/A	EQN-80XF			
3	08-07-12	MJW	DATE 10-	23-92	CHK'D BY RR	SHEET 1 OF 3			

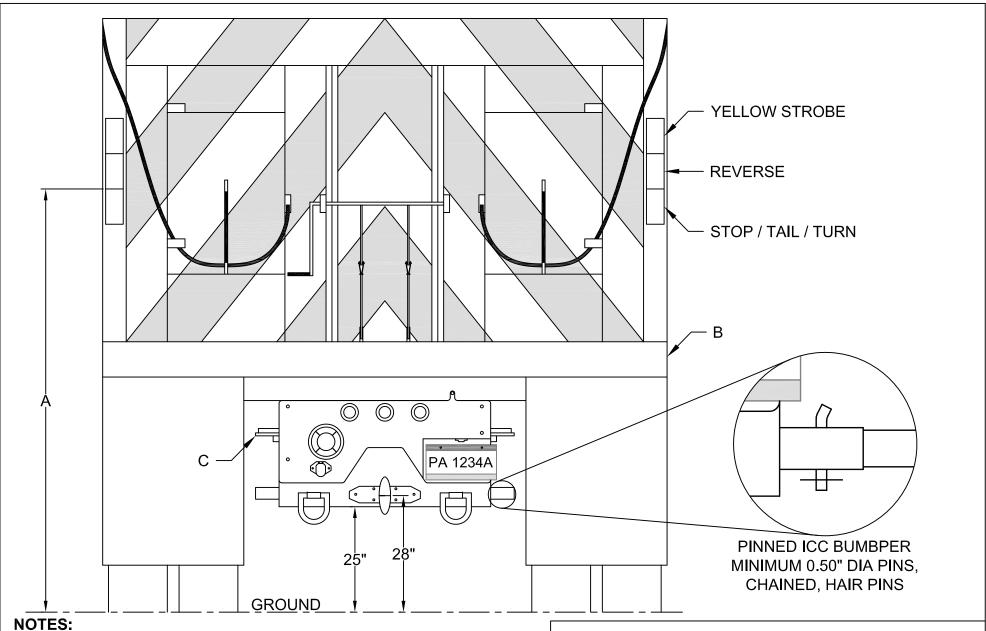
	NOUN		PART NO.	QTY.
A.	STOP, TAIL, TURN	GROTE	53102	4
В.	BACK-UP	GROTE	62211	2
C.	CLEARANCE MARKER, RED	GROTE	46742	2
D.	CLEARANCE MARKER, AMBER	GROTE	46743	2
E.	BRACKET FOR MARKER LAMP (BASE) W/PIGTAIL	GROTE	01-4399-70	7
F.	LICENSE LAMP	GROTE	60291	1
G.	BRACKET FOR LICENSE LAMP W/PIGTAIL	GROTE	01-4339-70	1
Н.	GROMMETS FOR 4 IN STT & BW LAMPS	GROTE	91740	6
I.	WIRING HARNESS	GROTE	ULTRA BLUE MALE PIN HARNESS SYSTEM	
J.	CABINET LAMP	BETTS	B57JD	2
K.	REFLECTORS	PETERSON	B489R	2
L.	REFLECTORS	PETERSON	489A	2
M.	CABINET LAMP	BETTS	B47JD	2
N.	R10 - MINI BAR WARNING LIGHT	WHELEN	R10PADOT	2
X.	SAFETY MIRROR		K-10	1

P	PA DEPARTMENT OF TRANSPORTATION									
	REVISIONS	S	WIRING AND LIGHTING FUEL							
NO.	DATE	BY	TRUCK							
1	12-16-96	WHM	IRUCK							
2	02-20-01	JLB	DRAWN BY WHM	SCALE N/A	EQN-80XF					
3	03-05-07	CJW	10-23-92	CHK'D BY RR	SHEET 2 OF 3					
4	08-07-12	MJW								
5										



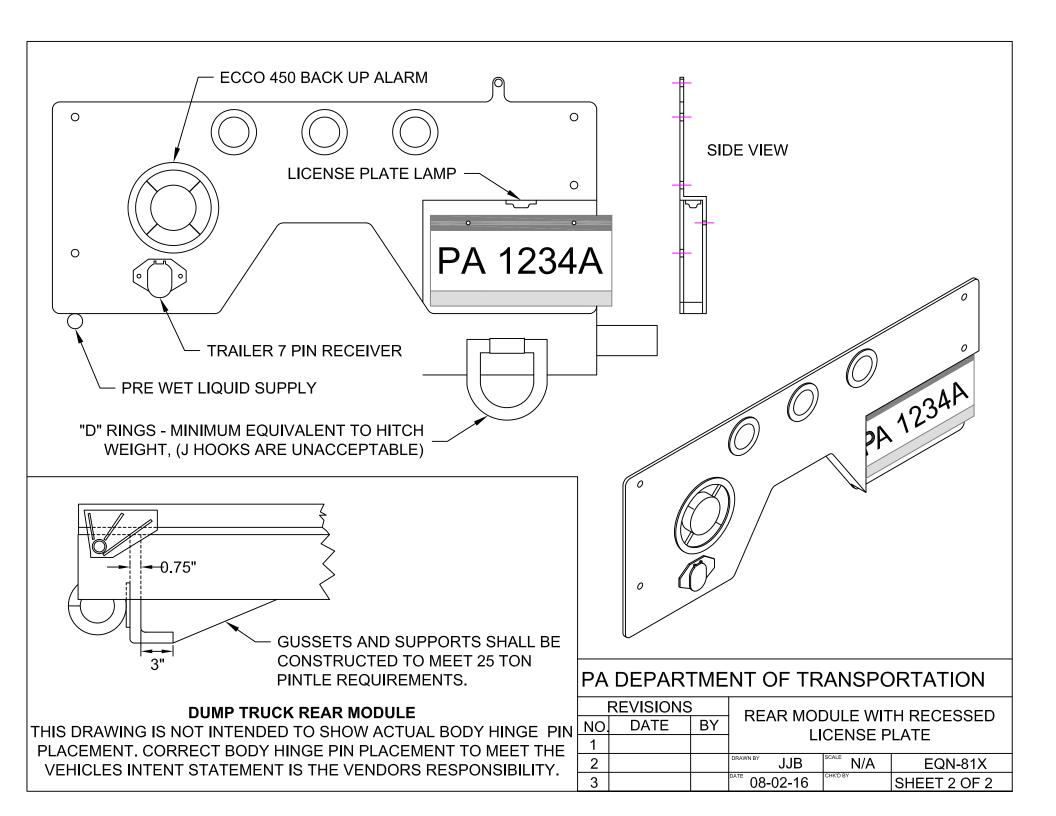
- A) Reflectorized 2" wide marking shall be applied. Material shall be red/silver continuous backing Reflexite Conspicuity II System or 3M Scotchlite Conspicuity Sheeting Series 980.
- B) Tape shall be Reflexite Daybright V92 conspicuity sheeting. Red SRHI4R, Yellow- SRHI4Y. Two 4" sheets can be combined to equal the 8" requirement.

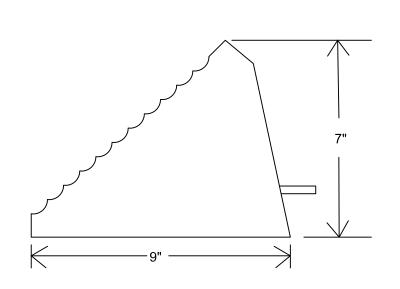
	REVISIONS	3	WIRING AND LIGHTING FUEL					
NO.	DATE	BY						
1			TRUCK					
2			MJW	SCALE N/A	EQN-80XF			
3			DATE 08-07-12	CHK'D BY	SHEET 3 OF 3			
4								
5								

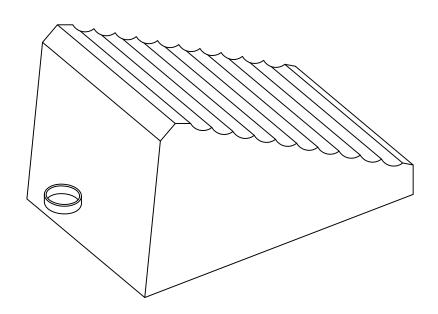


- A. HEIGHT OF LIGHTS SHLL NOT EXCEED 72". MEASURED FROM GROUND LEVEL TO TOP OF STOP / TAIL / TURN LIGHT WHEN IS BODY UNLOADED.
- B. SHALL BE ONE PIECE DESIGN, $\frac{3}{8}$ " X 6" MINIMUM 60661-T6 ALUMINUM. IT SHALL BE COMPLETELY WELDED.
- C. AIR BRAKE OPTION.

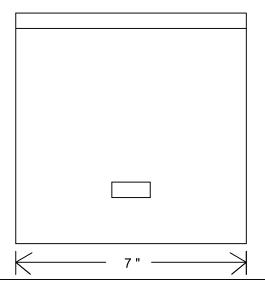
	REVISIONS				T DECESSED		
NO.	DATE	BY			R MODULE WITH RECESSED		
1			LICENSE PLATE				
2			DRAWN BY	JJB	SCALE N/A	EQN-81X	
3			DATE 08	-02-16	CHK'D BY	SHEET 1 OF 2	



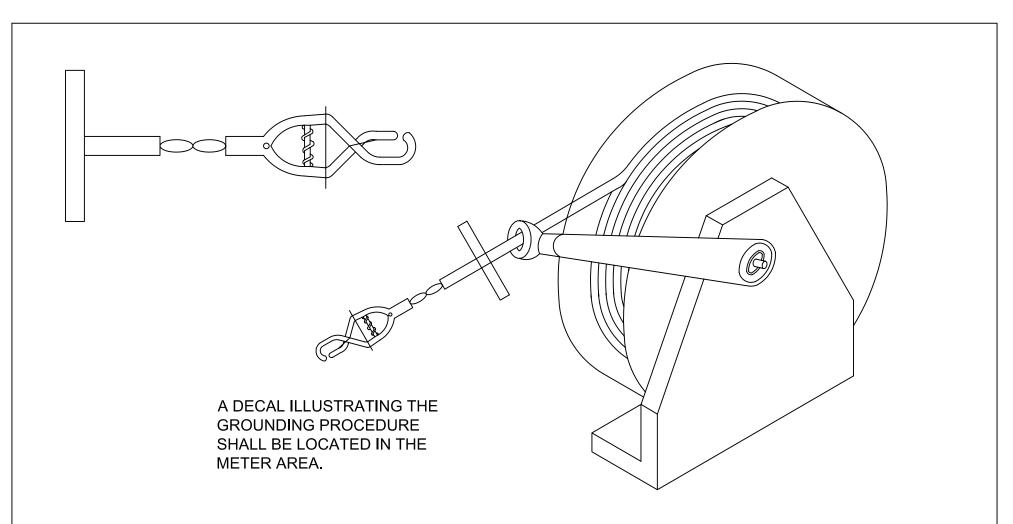




FINAL MOUNTING LOCATION SHALL BE DETERMINED AT THE PRE-BUILD MEETING. CHOCK HOLDERS SHALL BE ALUMINUM. TWO CHOCKS PER TRUCK SHALL BE SUPPLIED. CHOCKS SHALL HAVE 4 FEET OF $\frac{3}{8}$ INCH NYLON ROPE CONNECTING THE TWO CHOCKS TOGETHER.



REVISIONS						
NO.	DATE	BY	7")	X 9" X 7	" CHOCK	AND HOLDER
1						
2			DRAWN BY	JJB	SCALE N/A	EQN-82D
3			DATE 07	-22-15	CHK'D BY	SHEET 1 OF 1

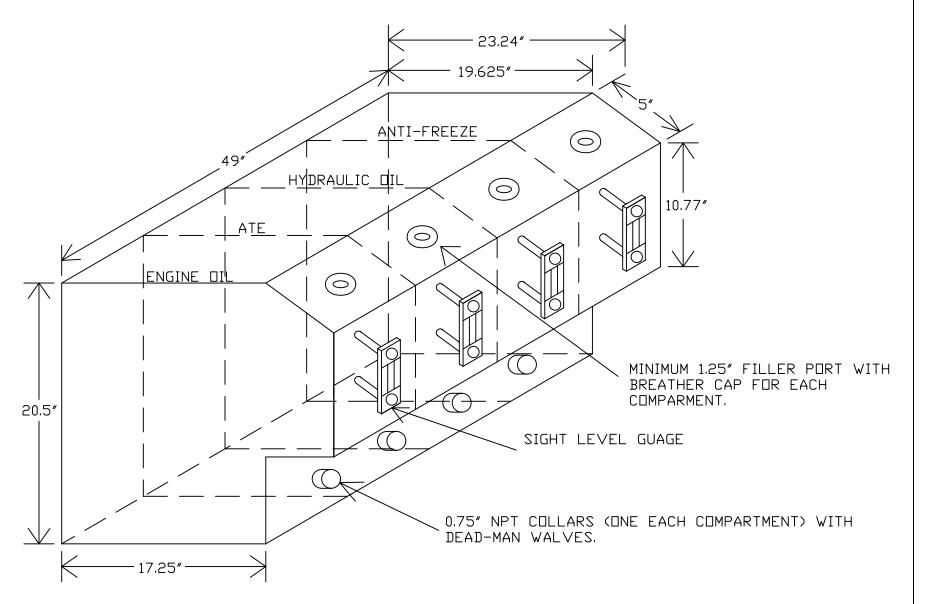


HGR 100 GROUND REEL #1 - UNREEL AND CONNECT TO ANY AVAILABLE GROUND POST

HGR 100-75-25 GROUND REEL (STATIC NEUTRALIZER) #2 - UNREEL AND CONNECT ONE CABLE TO UNIT BEING FUELED AND THE SECOND LEAD TO YOUR FUEL TRUCK.

HANNAY REELS 553 STATE ROUTE 143 P.O. BOX 159 WESTERLO, NY 12193-0159 TEL: 518-797-3791

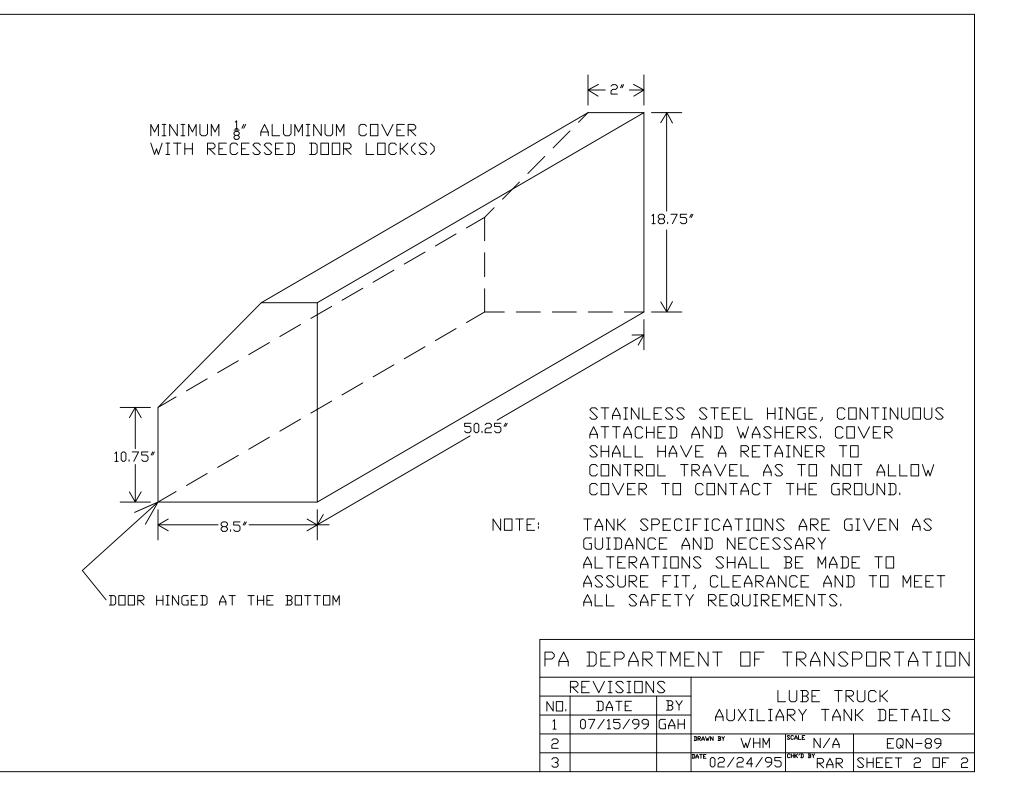
PA	PA DEPARTMENT OF TRANSPORTATION								
REVISIONS PENNDOT FUEL TRUCK									
NO.	DATE	BY	GROUNDING CABLE DIAGRAM						
1	07-18-07	KNH	GR	OUND	ING CAB	LE DIAGRAM			
2			DRAWN BY	DLW	SCALE N/A	EQN-88			
3			DATE 08-	-15-97	CHK'D BY WHM	SHEET 1 OF 1			

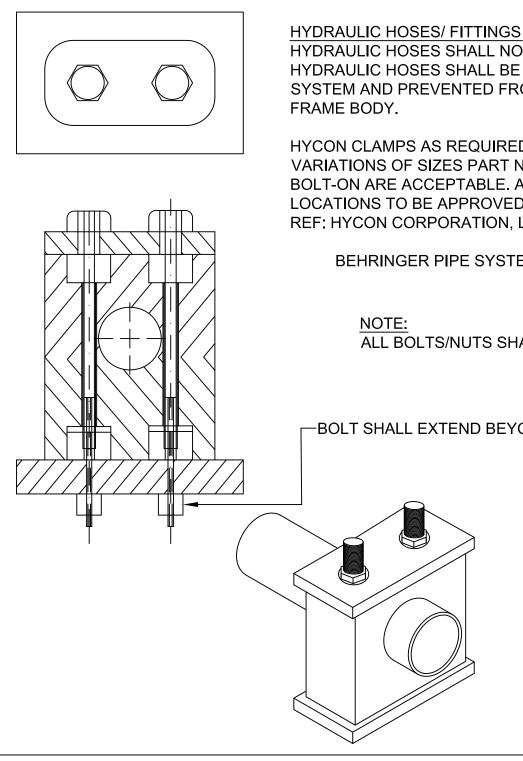


3" OD STAINLESS STEEL PIPE THROUGH THREE COMPARTMENTS FOR SUPPLY AND RETURN OF ENGINE HEATER HOSES.

EACH COMPARTMENT SHALL BE LABELED WITH A PERMANENT TYPE LABEL. STAINLESS STEEL TANK WITH MINIMUM & SIDES AND PARTITIONS. SIGHT LEVEL GUAGE SHALL BE FULL VISION, TRANSPARENT, BREAK RESISTANT NYLON SIGHT, FLUSH MOUNTED.

	REVISION	S		1	LUBE TRUCK		
N□.	DATE	BY	AUXII IARY TANK DETAILS				
1	07/15/99	GAH	AUXILIARY TANK DETAILS				
N			DRAWN BY	WHM	scale N/A	EQN-89	
3			02/	/24/95	CHK'D BY RAR	SHEET 1 DF 2	





HYDRAULIC HOSES SHALL NOT EXTEND BELOW THE TOP OF THE FRONT AXLE. ALL

HYDRAULIC HOSES SHALL BE ADEQUATELY CLAMPED, SHIELDED FROM EXHAUST SYSTEM AND PREVENTED FROM RUBBING UP AGAINST ANY PART OF THE TRUCK

HYCON CLAMPS AS REQUIRED TO PREVENT CHAFFING OR RUBBING, DUE TO THE VARIATIONS OF SIZES PART NUMBERS HAVE NOT BEEN INCLUDED. WELD-ON OR BOLT-ON ARE ACCEPTABLE, AVAILABLE IN STANDARD AND HEAVY DUTY SERIES. LOCATIONS TO BE APPROVED BY CHIEF. EQUIPMENT DIVIVSION

REF: HYCON CORPORATION, LEHIGH VALLEY, PA, PHONE: 800-755-0546

OR

BEHRINGER PIPE SYSTEM INC., TEL: 201-589-0546

ALL BOLTS/NUTS SHALL BE COATED WITH NEVER SIEZE.

-BOLT SHALL EXTEND BEYOND BASE

	REVISION	S		HUSES	VND		
NO.	DATE	BY	HOSES AND				
1	11-22-95	sww	(CLAMPS HYCO			
2	08-15-97	DLW	DRAWN BY LM	scale N/A	EQN-94		
3	04-18-13	CJW	RED	11-03-78	SHEET 1 OF 2		

SECTION 393.86 READS AS FOLLOWS:: "EVERY MOTOR VEHICLE, EXCEPT TRUCK-TRACTORS, POLE TRAILERS, AND VEHICLES IN DRIVEWAY-TOWAWAY OPERATIONS, THE DATE OF MANUFACTURE OF WHICH IS SUBSEQUENT TO DECEMBER 31, 1952, WHICH IS SO CONSTRUCTED THAT THE BODY OR THE CHASSIS ASSEMBLY IF WITHOUT A BODY HAS A CLEARANCE AT THE REAR END OF MORE THAN 30 in. FROM THE GROUND WHEN EMPTY, SHALL BE PROVIDED WITH BUMPERS OR DEVICES SERVING SIMILAR PURPOSES WHICH SHALL BE SO CONSTRUCTED AND LOCATED THAT: (A) THE CLEARANCE BETWEEN THE EFFECTED BOTTOM OF THE BUMPERS OR DEVICES AND THE GROUND SHALL NOT EXCEED 30 in. WITH VEHICLE EMPTY; (B) THE MAXIMUM DISTANCE BETWEEN THE CLOSEST POINTS BETWEEN BUMPERS, OR DEVICES, IF MORE THAN ONE IS USED, SHALL NOT EXCEED 24 in.; (C) THE MAXIMUM TRANSVERSE DISTANCE FROM THE WIDEST PART OF THE MOTOR VEHICLE AT THE REAR TO THE BUMPER OR DEVICE SHALL NOT EXCEED 18 in.; (D) THE BUMPER OR DEVICES SHALL BE LOCATED NOT MORE THAN 24 in. FORWARD OF THE EXTREME REAROF THE VEHICLE; (E) AND THE BUMPER OR DEVICES SHALL BE SUBSTANTIALLY CONSTRUCTED AND FIRMLYATTACHED. MOTOR VEHICLES CONSTRUCTED AND MAINTAINED SO THAT THE BODY, CHASSIS, OR OTHER PARTS OF THE VEHICLE AFFORD THE REAR END PROTECTION CONTEMPLATED SHALL BE DEEMED TO BE IN COMPLIANCE WITH THIS SECTION."

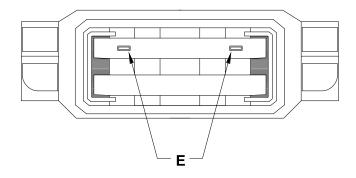
THE REGULATIONS ALSO REQUIRE ALL MOTOR VEHICLES TRANSPORTING HAZARDOUS MATERIALS REQUIRING PLACARDING BE EQUIPPED WITH REAR END PROTECTION (REFERANCE 49CFR PART 397, 49 CFR SECTION 177.823, 49 CFR PART 172, AND 49 CFR SECTION 171.12A).

ALTHOUGH SECTION 393.86 DOES NOT SET FORTH SPECIFIC PERFORMANCE REQUIREMENTS FOR THE REAR END PROTECTION STRUCTURE, SUBPART J - SPECIFICATIONS FOR CONTAINERS FOR MOTOR VEHICLE TRANSPORTATION OF PART 178 - SHIPPING CONTAINER SPECIFICATIONS OF SUBCHAPTER C - HAZARDOUS MATERIAL REGULATIONS OF CHAPTER I - RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION DOES CONTAIN SPECIFIC PERFORMANCE REQUIREMENTS FOR REAR END PROTECTION ON CARGO TANK MOTOR VEHICLES (REFERENCE SECTIONS 178.337-10(D), 178.338-10(C), 178.345-8(D), 178.346-8, 178.347-8, AND 178.348-8). PENNSYLVANIA HAS ADOPTED 49 CFR 393.86 REAR END PROTECTION FOR COMMERCIAL MOTOR VEHICLES WITH A GVW OF 17,000 lbs. / 7711.07 kg. OR MORE OPERATED IN INTRASTATE COMMERCE, AND ANY SIZE VEHICLE HAULING HAZARDOUS MATERIALS REQUIRING PLACARDS WITH AN ADDITIONAL REQUIREMENT: "SOME PART OF THE HORIZONTAL BUMPER BAR SHALL FALL WITHIN 16-30in. / 40.64-76.2cm. ABOVE GROUND LEVEL." SEE TITLE 67 CHAPTER 175 OF THE PENNSYLVANIA CODE FOR THE SPECIFIC REQUIREMENTS FOR REAR END PROTECTION ON COMMERCIAL MOTOR VEHICLES WITH A GVW OF 10,001-17,000 lbs. / 4536.38-7711.07 kg. OPERATED IN INTRASTATE COMMERCE.

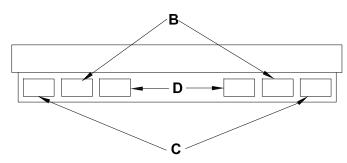
ANY / ALL REVISIONS SHALL SUPERSEDE THE ABOVE

CC	COMMONWEALTH OF PENNSYLVANIA							
DEPARTMENT OF TRANSPORTATION								
I	REVISIONS							
NO.	DATE	BY	UNDERR	IDE PR	ROTECTION			
1	07/08/97	DLW						
2	07/01/03	KGK	DLW DLW	N/A	EQN -118			
3	06/26/09	TOD	02-04-92	CHK'D BY RR	SHFFT 1 OF 1			

FRONT VIEW



REAR VIEW

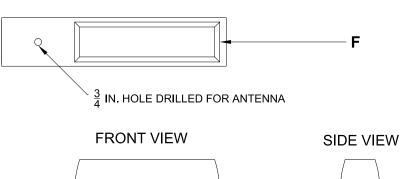


The purpose of this drawing is to show locations for Body Lighting, Whelen part # PADOTSY8.

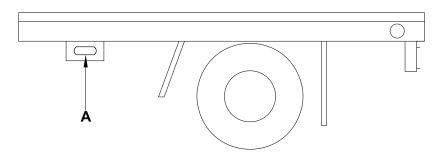
- A. LINZ6AD Amber Warning Light, grommet (flush) mounted, one each side.
- B. M6BUD Back up Lights with Brush Guards.
- C. M5BTTD Stop / Tail / Turn Lights with Brush Guards.
- D. M6AD Amber Warning Lights with Brush Guards.
- E. LINZ6AD Amber Warning Light, both grommet mounted (flush with Front Grill).
- F. R10PADOT, R10-Mini Bar Warning Light.

PLATFORM MOUNTED LED LIGHT BAR & ANTENNA HOLE

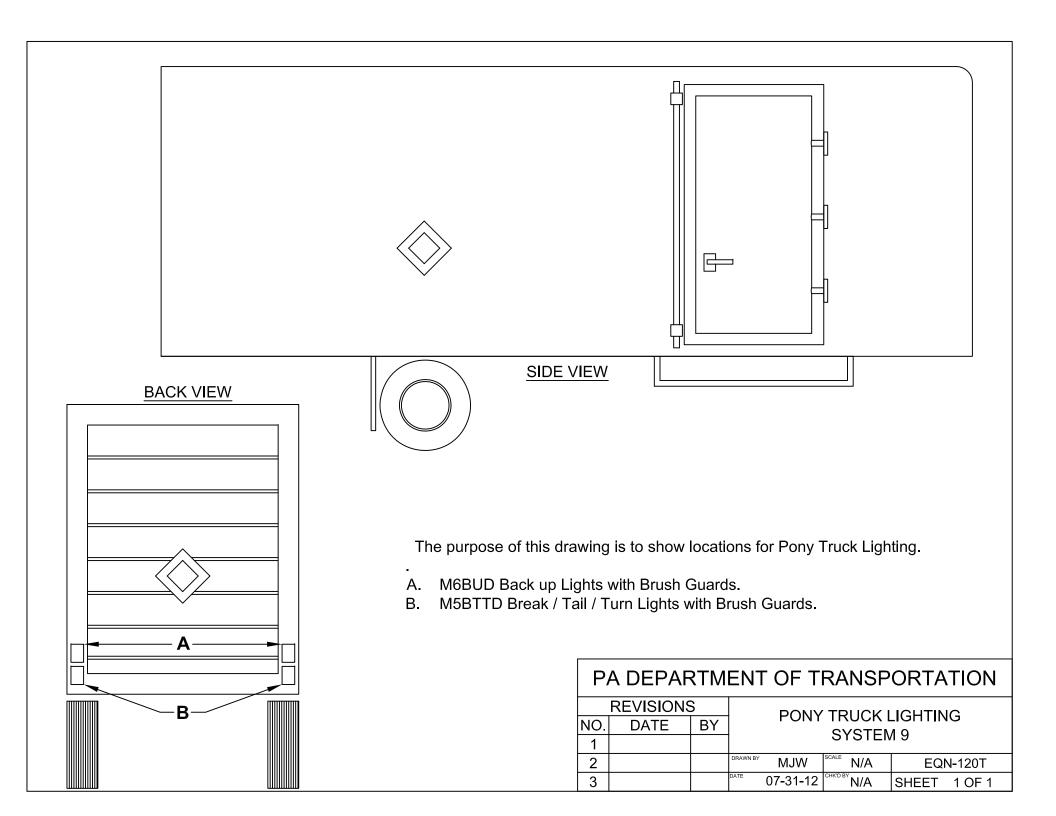
TOP VIEW

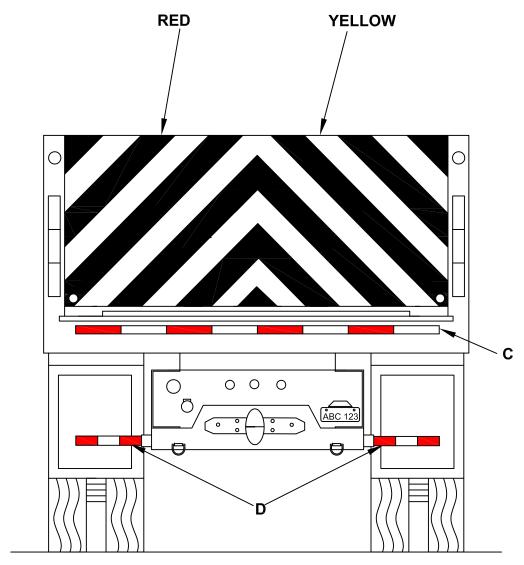


SIDE VIEW



	REVISIONS	;		UNIVERSAL			
NO.	DATE	BY					
1	08-06-12	MJW	TRUCK LIGHTING				
2			DRAWN BY TOD SCALE N/A EQN-120Q				
3			CHICD BY TOD SHEET 1 OF 1				



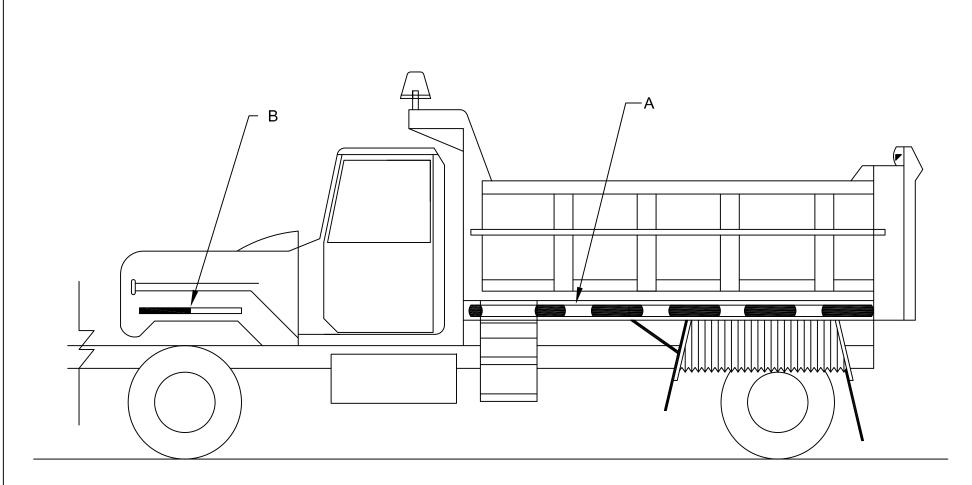


THIS DRAWING SHALL BE FOR CONSPICUITY REFERENCE ONLY, NOT TAILGATE CONSTRUCTION.

THIS VEHICLE SHALL COMPLY WITH THE RULES OF THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA). THE MOST CURRENT REGULATIONS SHALL BE ADHERED TO.

- A THE ALUMINUM TAILGATE SHALL BE UNPAINTED.
 THE TAILGATE SHALL BE STRIPED AS SHOWN WITH
 8" WIDE ALTERNATING RED/YELLOW BANDS
 CREATING A CHEVRON (INVERTED V) AT 45
 DEGREE ANGLES, ACROSS THE GATE TO SERVE
 AS A SAFETY WARNING SYSTEM.
- B TAPE SHALL BE REFLEXITE DAYBRIGHT V92 CONSPICUITY SHEETING. RED - SRHI4R PN# 18716, LIME - SRHI4Y PN# 18836 VC 312. TWO 4" SHEETS CAN BE COMBINED TO EQUAL THE 8" REQUIREMENT.
- C THE ENTIRE WIDTH DIRECTLY UNDER THE TAILGATE SHALL BE COVERED WITH 1 1/2" WIDE SCOTCHLITE CONSPICUITY SHEETING SERIES 980 OR REFLEXITE CONSPICUITY II SYSTEM. MATERIAL SHALL BE RED/SILVER, CONTINUOUS BACKING.
- D THE ENTIRE LENGTH OF BOTH ICC BARS SHALL BE COVERED WITH 1 1/2" WIDE SCOTCHLITE CONSPICUITY SHEETING SERIES 980 OR REFLEXITE CONSPICUITY II SYSTEM. MATERIAL SHALL BE RED/SILVER, CONTINUOUS BACKING.

REVISIONS			DUMP BODY			
NO.	DATE	BY				
1	12-23-09	PMK	REFLECTIVE SHEETING			
2	05-20-13	JFM	DRAWN BY GRL SCALE N/A EQN-122			
3	06-30-14	ACT	10-11-94	RED	SHEET 1 OF 2	



NOTE:

REFLECTORIZED 2" WIDE MARKING SHALL BE APPLIED. MATERIAL SHALL BE RED/SILVER CONTINUOUS BACKING REFLEXITE CONSPICUITY II SYSTEM OR 3m SCOTCHLITE CONSPICUITY SHEETING SERIES 980, OR GROTE CONSPICUITY TAPE.

ITEM A SHALL BE STRIPPED FULL LENGTH ITEM B SHALL BE STRIPPED IF A STRAIGHT CANBE USED IN CONJUNCTION WITH A.

P	PA DEPARTMENT OF TRANSPORTATION								
REVISIONS CONSPICUITY TAPE &									
NO.	DATE	BY	REDFLECTIVITY ENHANCEMENT						
1	02-28-00	GAH							
2	05-16-02	DWG	DRAWN BY	GRL	SCALE N/A	EQN-127			
3	03-01-07	CJW	DATE 12-0	02-94	RED	SHEET 1 OF 1			

THIS VEHICLE SHALL COMPLY WITH THE RULES OF THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA) IN THAT:

THE MOUNTING HEIGHT OF THE HORIZONTAL STRIPES ARE RESTRICTED TO THE SAME HEIGHT AS OTHER RETROFLECTIVE DEVICES CURRENTLY REQUIRED BY STANDARD NUMBER 108. THE CENTER OF THE MATERIAL MUST NOT BE LESS THAN 15in. ABOVE THE ROAD SURFACE, AND THE UPPER EDGE NOT MORE THAN 60in. ABOVE IT.

REFLECTIVE MATERIAL SHALL BE APPLIED TO THE HORIZONTAL BAR OF THE REAR UNDERRIDE DEVICE IN ADDITION TO THE FLOOR LEVEL HORIZONTAL STRIPE. THE UPPER CORNERS ARE TO BE MARKED BY TWO 90 DEGREE ANGLE BRACKETS OF WHITE STRIPES 12in. BY TWO INCHES WIDE, INDICATING THE WIDTH AND HEIGHT OF THE TRAILER.

THE CONFIGURATION SHALL IDENTIFY THE VEHICLE AS TO ITS ESTIMATED SIZE AND THE CLOSEING DISTANCE TO IT. THE DISTRIBUTION OF SPACES AND MATERIALS SHALL BE AS UNIFORM AS PRACTICAL AND INDICATE THE FULL LENGTH AND WIDTH OF THE VEHICLE. THE COLORS SHALL BE PLACED IN ALTERNATING SEQUENCE WITH MORE THAN TWO-THIRDS OF THE MATERIAL IN COLOR.

CONSPICUITY TAPE SHALL BE REFLECTORIZED. 2in. WIDE, MATERIAL SHALL BE APPLIED.

MATERIAL SHALL BE RED/SILVER CONTINUOUS

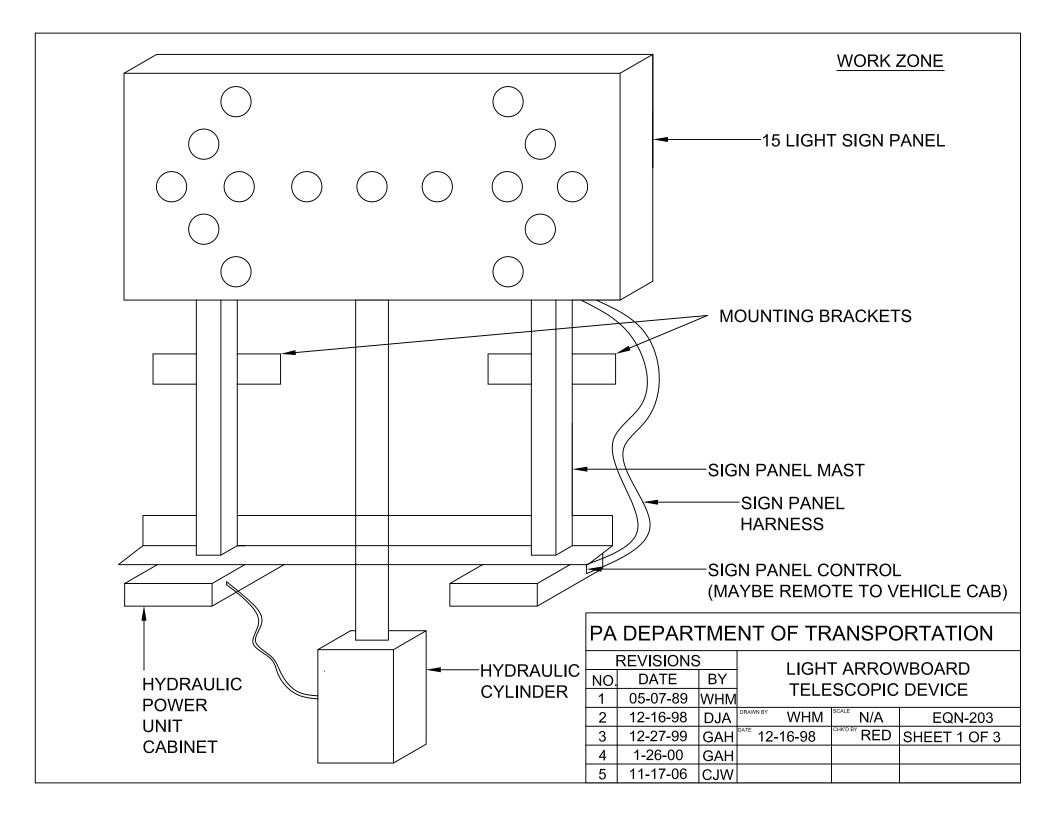
BACKING REFLEXITE CONSPICUITY II SYSTEM

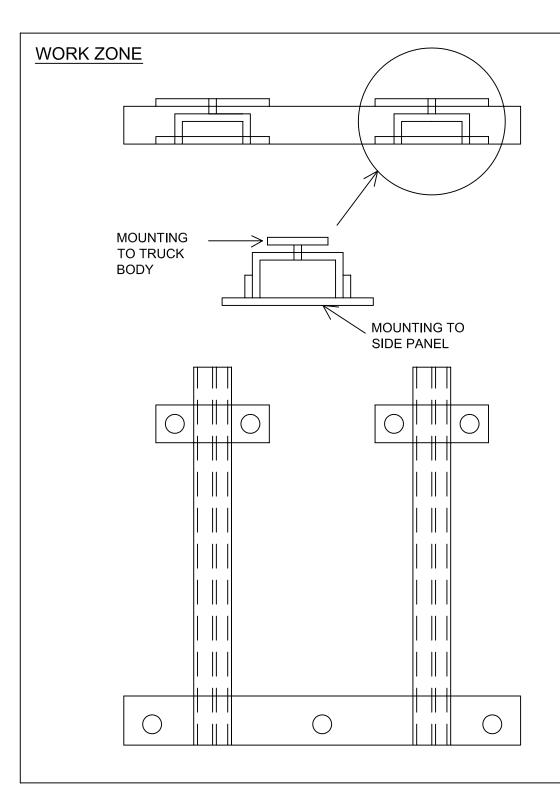
OR 3M SCOTCHLITE CONSPICUITY SHEETING

SERIES 980.

THE MOST CURRENT REGULATIONS SHALL BE ADHERED TO.

РА	PA DEPARTMENT OF TRANSPORTATION								
REVISIONS CONSPICUITY TAPE									
NO.	DATE	BY	9	STRIPING REQIREMENTS					
1	05-16-02	DWG							
2	11-03-06	CJW	DRAWN BY	DLW	SCALE N/A	EQN-127A			
3	01-02-09	МНН	DATE 11-	07-97	CHK'D BY DMA	SHEET 1 OF 1			





STRUCTURAL NOTES

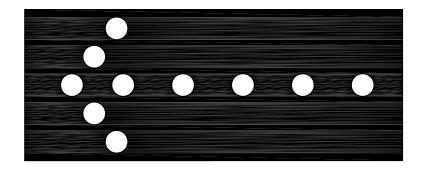
- 1. BASE 4"X2"X³/₁₆" STRUCTURAL ANGLE
- 2. OUTER TUBES $2"X2"\frac{21}{8}"$ SEAMLESS STEEL TUBES
- 3. INNER TUBES $1\frac{3}{4}$ "X $1\frac{3}{4}$ "X $\frac{1}{8}$ " SEAMLESS STEEL TUBE
- 4. $\frac{3}{4}$ " SLOT CUT IN OUTER TUBE FOR SLIDE
- 5. ½"X1" BAR WELDED TO INNER TUBE AS A GUIDE
- 6. MTG BRACKETS WELDED TO INNER AND OUTER TUBES FOR MTG AS NECESSARY
- 7. INNER TUBE IS STATIONARY OUTER TUBES FOR MTG AS NECESSARY
- 8. OUTER TUBE IS MOUNTED TO SIGN

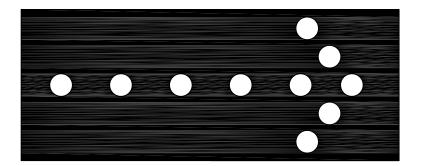
HYDRAULIC SYSTEM NOTES

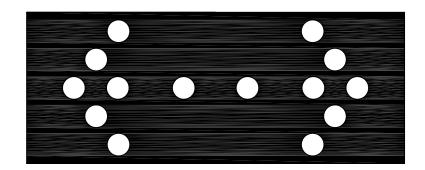
- 1. 500 LB LIFTING FORCE
- 2. SYSTEM PRESSURE 400 PSI
- 3. FLOW 2 GPM
- 4. CYLINDER 1¹/₂" BORE
- 5. STROKE 48"
- 6. TRAVEL TIME 15 SECONDS
- 7. CYLINDER ACTIVATED VIZ 12V TOGGLE SWITCH MOUNTED IN SIGN PANEL CONTROL UNIT
- 8. SYSTEM FEATURES- OVER CENTER VALVE PIPED DIRECTLY INTO CYLINDER CAP END PORT TO LOCK CYLINDER INTO POSITION UNTIL PRESSURE IS APPLIED TO RED END PORT. VALVE ALSO ACTS TO RELIEVE THERMAL EXPANSION IN CYLINDER.

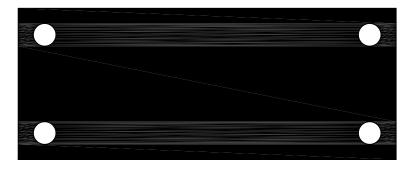
REVISIONS			LIGHT ARROWBOARD			
NO.	DATE	BY	TELESCOPIC DEVICE			
1	05-07-89	WHM				
2	12-16-98	DJA	DRAWN BY WHM	SCALE N/A	EQN-203	
3	12-27-99	GAH	12-16-98	CHK'D BY RED	SHEET 2 OF 3	
4	1-26-00	GAH				
5	11-17-06	CJW				

WORK ZONE



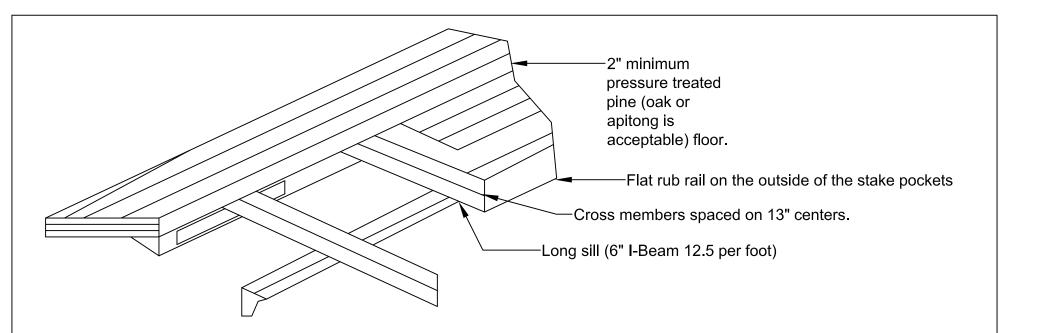






РΑ	DEPAR	ГМЕ	NT OF TRANSPORTATION
	REVISIONS	,	LIGHT ARROWBOARD
NO.	DATE	BY	
4	05 07 00	\ A / L L B / A	TELESCOPIC DEVICE

LINO.	DAIL	וטן	TELESCOPIC DEVICE				
1	05-07-89	WHM					
2	12-16-98	DJA	DRAWN BY WHM	SCALE N/A	EQN-203		
3	12-27-99	GAH	12-16-98	CHK'D BY RED	SHEET 3 OF 3		
4	1-26-00	GAH					
5	11-17-06	CJW					



All markers and lights shall be installed in accordance with the PA State motor vehicle laws.

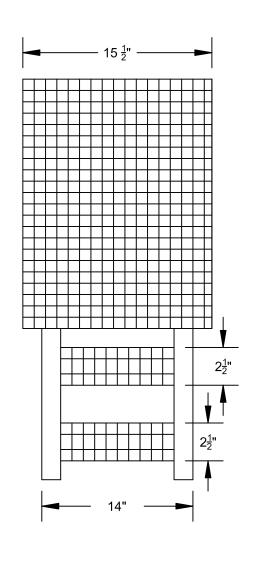
The front bulkhead shall have a screened window equal to the window of the truck chasis.

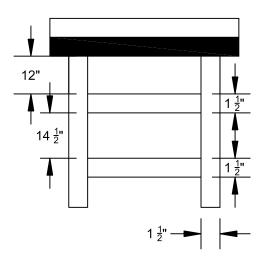
The truck frame AF shall incorporate a horizontal bumper and step reinforced with (2) vertical 6" underride channels and braced with (2) 4" channels back to the frame.

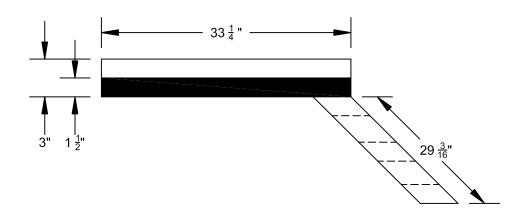
The platform body shall be attached to the truck frame with minimum $6\frac{5}{8}$ " U-bolts per side and self-locking nuts shall be utilized.

The platform body length shall be per invitation to bid.

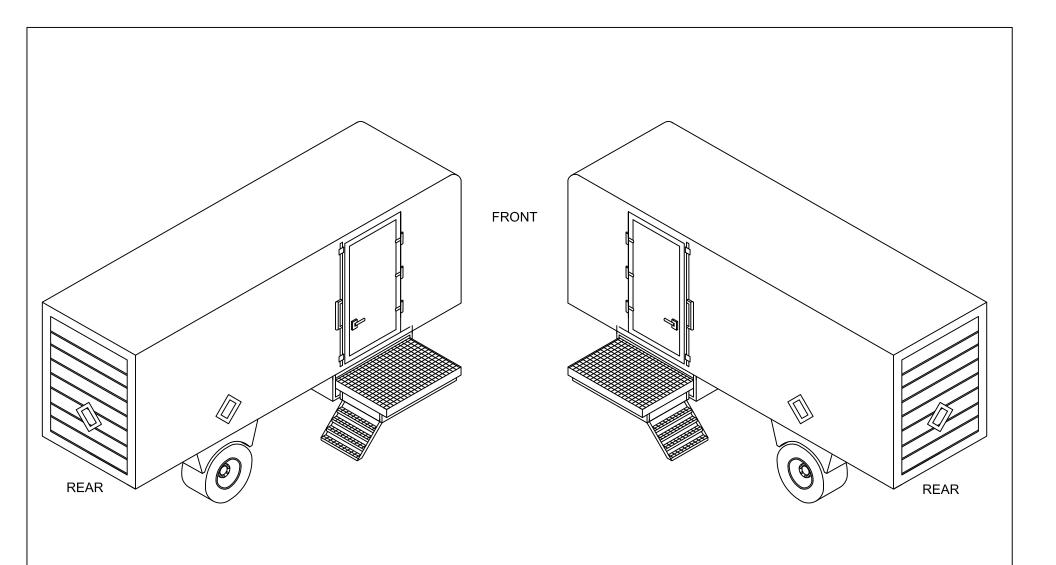
	PA	DEPAR	ТМЕ	NT OF TR	ANSPO	RTATION		
	REVISIONS							
	NO.	DATE	BY	PLATFORM BODY DETAILS				
	1	05-21-02	DWG					
	2	03-31-04	BLD	DRAWN BY RAR	SCALE N/A	EQN-225A		
Ī	3	01-16-07	CJW	01-17-90	CHK'D BY WHM	SHEET 1 OF 1		







	REVISIONS	3	ENCLOSE!	ENCLOSED LUBE & PONY TRUCK				
O.	DATE	BY	SIDE ENTRY STEP - PLATFORM					
1	08-12-98	DJA	SIDE ENT	ENITY SIEF - PLATFORM				
2	05-23-07	KNH	DRAWN BY AAD	SCALE N/A	EQ1	\- 229		
3	06-11-14	ACT	DATE 06-16-89	RED	SHEET	1 OF 2		



NOTES:

ALL DIMENSIONS ARE IN INCHES.

NOTE THIS REFERENCE FOR STEP AND PLATFORM: THE MATERIAL IS ALUMINUM. BUSTIN No. JAX119SG4 SERRATED SWAGE LOCK, WITH END BAND. THE SIZE AND STRENGTH SHALL BE IN ACCORDANCE WITH THE TRUCK MANUFACTURER'S STEP DESIGN BUT THE MATERIAL SHALL BE AS NOTED ABOVE. THE OUTER STEP EDGE MUST BE SERRATED IN LIEU OF PLAIN SMOOTH METAL EDGE. ALL EDGES SHALL BE BANDED (SKIRTING) ON THE OUTER PERIMETER. OVERLAY NOT ACCEPTABLE.

	REVISIONS	3	ENCLOSED LUBE & PONY TRUCK SIDE ENTRY STEP - PLATFORM			
NO.	DATE	BY				
1	08-12-98	DJA				
2	05-23-07	KNH	DRAWN BY AAD	EQN-229		
3	06-11-14	ACT	DATE 06-16-89	CHK'D BY RED	SHEET 2 OF 2	

SPECIFICATIONS

FUEL TANK CATWALK AND OPERATOR PLATFORM

LOCATION: DRIVER'S SIDE ONLY SHALL BE POSITIONED TO PERMIT AN

AVERAGE HEIGHT MAN TO REACH AND SERVICE THE TWO (2) FUEL

MANHOLES IN THE STANDING POSITION.

DIMENSIONS: FULL TANK LENGTH, APPROXIMATLEY 9" TO 10" WIDE, BUT SHALL

NOT INCREASE THE LEGAL OVERALL VEHICLE WIDTH OF 96".

SAFETY" THE TANK MANUFACTURER SHALL WELD A PLATE TO THE TANK

STRAP SO A SAFE AND LEGAL INSTALLATION OF THE REFERENCED SAFETY - STEPS CAN BE OBTAINED. WELDING TO THE TANK SAFETY

OUTER LINER IS ACCEPTABLE.

HELPS: THE TANK MANUFACTURER SHALL SUPPLY THE STEP

MANUFACTURER A DRAWING OF THE TANK TO ENSURE THE

DEPARTMENT A TOTALLY ENGINEERED PRODUCT.

MATERIAL: ALUMINUM.

THE PICTURE BELOW OF THE PROPOSED CATWALK MATERIAL IS A GUIDE. DEPARTMENT DESIRES THE ATTACHING BRACKET TO BE

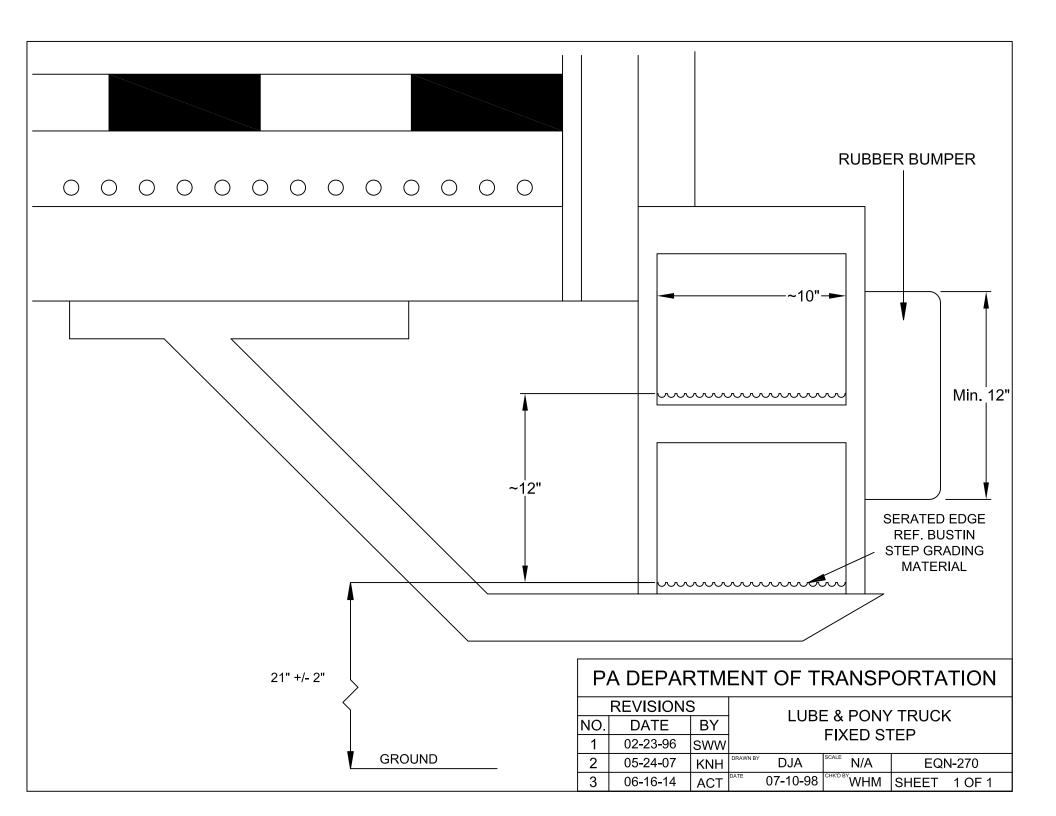
ONE PIECE. FULL LENGTH TO PERMIT UPPER AND LOWER

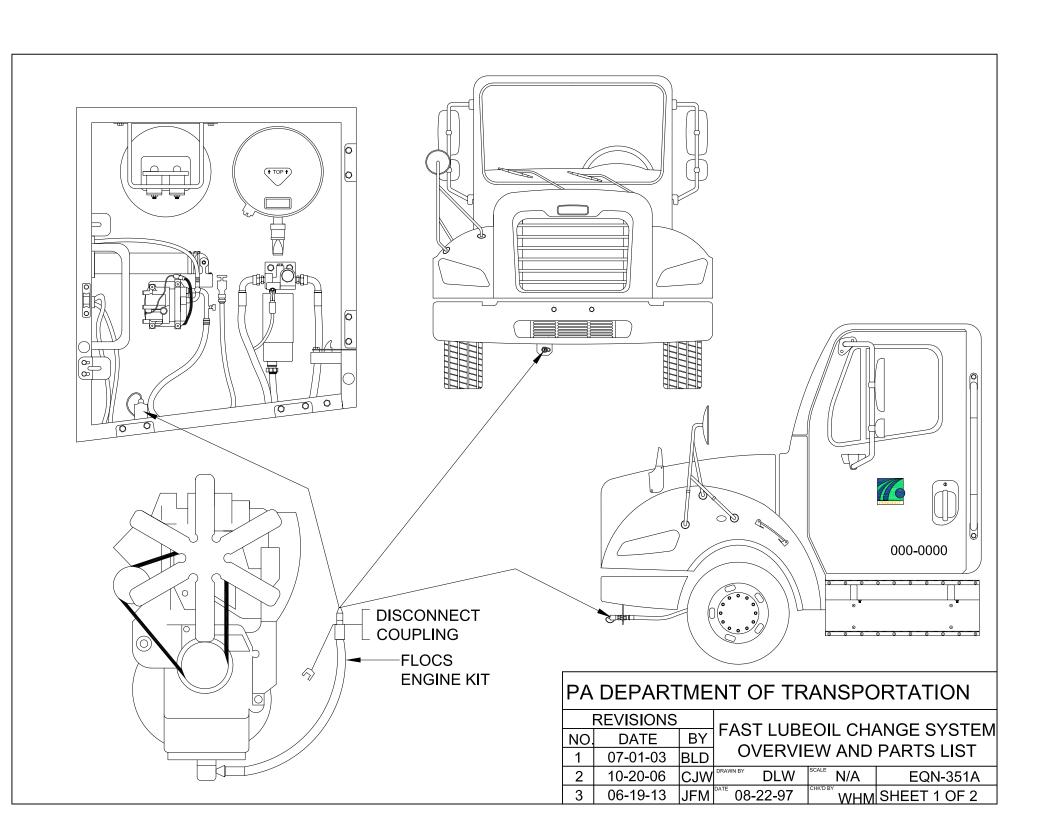
WELDING TO THE TANK GUSSET PLATE.

REFERENCE:

BUSTIN NO. NST4 FULL SIZE OHIO GRATING NO. JA2119SG4 SERRATED OR IKG INDUSTRIES TYPE BS4 SERRATED SWAGE LOCK, WITH END BAND. THE SIZE AND STRENGTH SHALL BE IN ACCORDANCE WITH THE TRUCK MANUFACTURER'S STEP DESIGN, BUT THE MATERIAL SHALL BE AS NOTED ABOVE. THE OUTER STEP EDGE MUST BE SERRATED IN LIEU OF PLAIN, SMOOTH METAL EDGE. ALL EDGES SHALL BE BANDED (SKIRTING) ON THE OUTER PERIMETER. OVERLAY NOT ACCEPTABLE.

P	A DEPAF	RTM	ENT	OF T	RANSP	ORTA	TION	
	REVISIONS	6			TANK CA	TMALK	ρ	
NO.	DATE	BY						
1	08-13-98	DJA		OPERATOR PLATFORM				
2	05-21-02	DWG	DRAWN BY	PRAWN BY SGT SCALE N/A EQN-231				
3	06-12-07	KNH	DATE 03-	-12-90	RED	SHEET	1 OF 1	





1. CONTACT AEROQUIP WITH YOUR DRAIN PAN PLUG SIZE

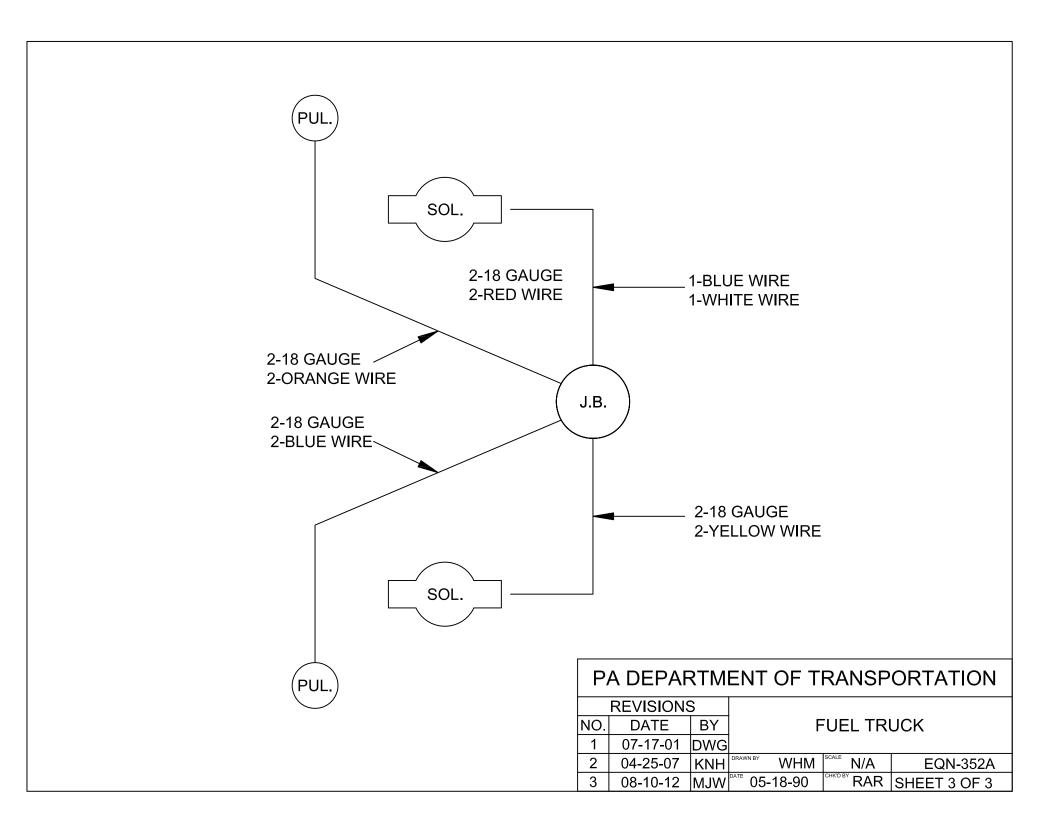
2. AEROQUIP DEALER TELEPHONE NUMBERS:

ADVANCED FLUID CONNECTORS	717-757-1068
AIR BRAKE & POWER EQUIPMENT CO	0717-622-6188
AMERICAN BEARING & POWER	717-569-3291
GOODALL RUBBER COMPANY	610-534-2100
POWER DRIVES INC	814-833-8181
R L MILLER INC	412-833-6800
R L MILLER INC	814-456-8900
SRG/BEVCO	610-358-3100
VOTO MANUFACTURERS SALES CO	814-226-7101

FLOCS SHALL INCLUDE, BUT NOT LIMITED TO:

- A. DUST CAP 5657-12
- B. HOSE TO SUIT LENGTH
- C. HOSE FITTING TO SUIT
- D. ADAPTER TO SUIT
- E. HOSE CLAMP #900729-6
- F. BRACKET TO SUIT
- G. COUPLING 5602-12-12S

РА	DEPART	ME	NT OF TR	ANSPO	RTATION
	REVISIONS		EACT LUDE		ANGE SYSTEM
NO.	DATE	BY			
1	07-01-03	BLD	OVERVII	=W AND	PARTS LIST
2	10-20-06	CJW	DLW DLW	SCALE N/A	EQN-351A
3	06-19-13	JFM	DATE 08-22-97	CHK'D BY	SHEET 2 OF 2



PENNDOT FUEL TANK TRUCK TANK CATWALK

LOCATION: DRIVER'S SIDE ONLY AND SHALL BE POSITIONED TO PERMIT AN AVERAGE HEIGHT

MAN TO REACH AND SERVICE THE TWO(2) FUEL MANHOLES IN THE STANDING

POSITION.

DIMENSIONS: FULL TANK LENGTH, APPROX. 9 TO 10 INCHES WIDE, BUT SHALL NOT EXCEED THE

LEGAL OVERALL VEHICLE WIDTH OF 96 INCHES.

SAFETY: THE TANK MFG, SHALL WELD A PLATE TO THE TANK SO A SAFE AND LEGAL

INSTALLATION OF THE REFERENCED SAFETY STEPS CAN BE OBTAINED BY MEANS OF

WELDING TO THIS AFORMENTIONED TANK OUTER LINER.

THE TANK MFG. SHALL SUPPLY THE REFERENCED STEP MFG. A DRAWING OF THE

SUCESSFUL TANK MFGS, RADIUS, TO INSURE THE DEPARTMENT A TOTALLY ENGINEERED

PRODUCT.

ATTACHMENT: THE PICTURE BELOW OF THE PROPOSED CATWALK MATERIAL IS A GUIDE. THE DEPT.

DESIRES THE ATTACHING BRACKET TO BE ONE PIECE, FULL LENGTH, TO PERMIT

UPPER AND LOWER WELDING TO THE TANK GUSSETT PLATE.

AS MFG. BY: Bustin Industrial Products Inc.

P.D. Box 826

Dover, New Jersey 07801 Phone: (201)-366-8800

IKG

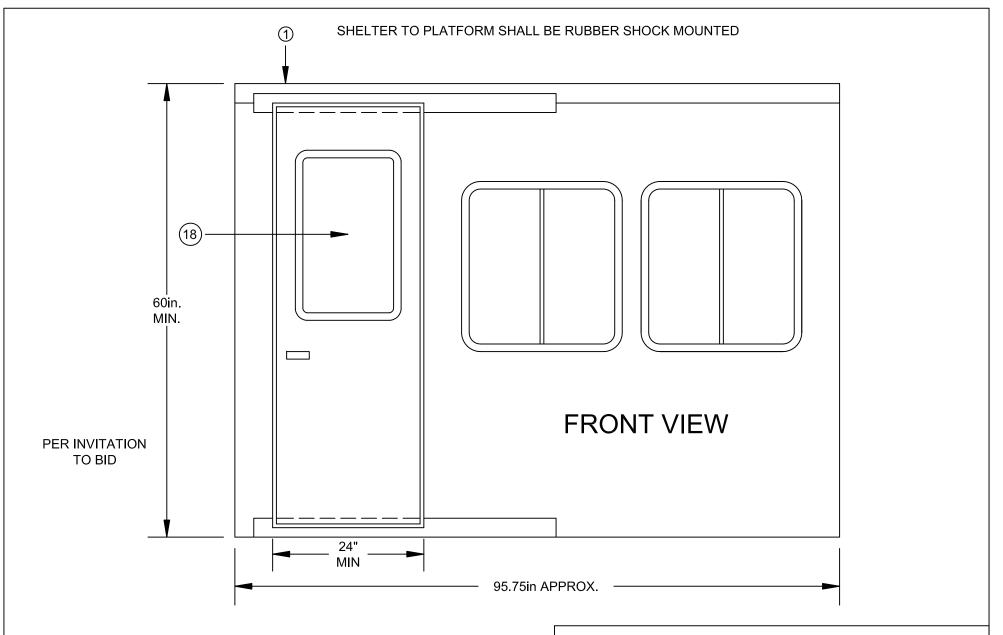
R.D. #2 Route 910 Cheswick, PA 15024 Phone: (412)-828-2223

Dhio Grating Inc.5299 Southway SW

Canton, Ohio 44706-1992 Phone: (216)-477-6707

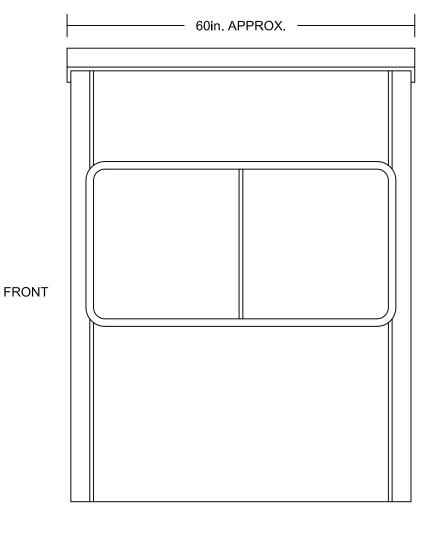
PA	DEPARTME	NT	OF.	TRA	NSPO	RTATION
R	F/\ISINNS		DEVIN	лппт	EHEL	TPLICK

	VF A 12101A	<u> </u>		PEININ	ו שעו	LL IK	UUK	
Νロ.	DATE	BY	T	ANK C	CATWALK	(LOCA	10174	1
1	07/02/01	ALD	DRAWN BY	DJA	SCALE N/A	EQI	N-352	В
٧	04-11-06	KNH	DATE N.S.	/19/98	CHK'D BY WHM	SHEET	2 DF	2



WINDOW TRACKS SHALL BE ON THE OUTSIDE OR CONSTRUCTED IN SUCH A WAY AS TO NOT ALLOW WATER TO DRIP OR FLOW INTO THE INSIDE OF THE CAB. SIDE BUBBLE WINDOWS SHALL BE INSTALLED BY THE SUCCESSFUL VENDOR.

	REVISIONS	3			DAINT TO	IOV
NO.	DATE	BY		ŗ	PAINT TRU REAR SHEI	
1	05-22-02	DWG		ı	VLAIN SI ILI	_ _ \
2	05-16-07	KNH	DRAWN BY	DLW	SCALE N/A	EQN-370
3	07-11-13	JFM	DATE	12-30-97	CHK'D BY WHM	SHEET 1 OF 3



ASTI-I-TINTED AUTOMOTIVE GLASS

THE ENTIRE INSIDE OF STRUCTURE-WALLS AND ROOF SHALL BE COVERED IN SOUND DEADENING, INSULATING MATERIAL, REF.: ALLIED INSULATION COMPANY. 1" FOAM INSULATION, TAN PERFORATED VINYL WITH POLYESTER PAD. ALL SEAMS SHALL BE SILICONE SEALED.

DOORS SHALL BE FURNISHED WITH FULL LENGTH PIANO HINGES. THE HARDWARE SHALL BE FLUSH TYPE HEAVY-DUTY AUTOMOTIVE STYLE AND LOCKABLE WITH ALL LOCKS KEYED ALIKE. THE DOOR SHALL HINGE IN SUCH A MANNER AS NOT TO OBSTUCT THE OPERATORS MOUNTING OR DISMOUNTING FROM THE DECK AREA.

REAR

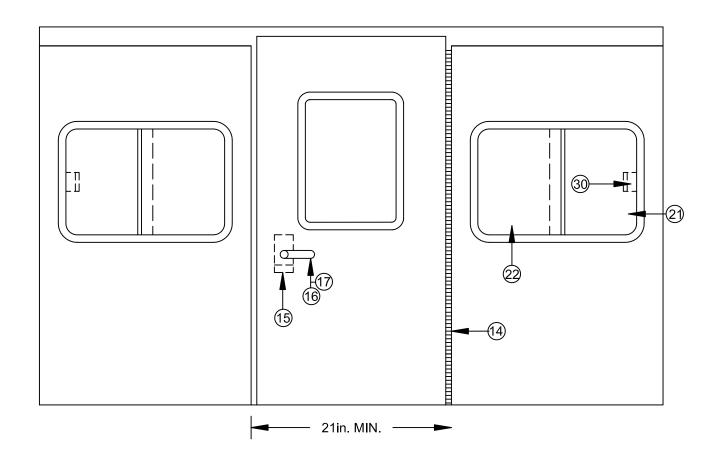
ALL WINDOW OPENING HEIGHTS IN RELATIONSHIP TO THE SEAT HEIGHTS SHALL PROVIDE A REASONABLE AND COMFORTABLE HEIGHT FOR OPTIMUM OPERATOR COMFORT.

19	PANE - SLIDING
18	PANE - DOOR
17	HANDLE - LOCK
16	LOCK - DOOR
15	BRACKET
14	HINGE - DOOR 1/8 PIN X 24"
1	PANE - SLIDING

31	WEATHER STRIP
30	LOCK - WINDOW
29	RUBBER - STRIP
28	MOLDING - WINDOW
27	CHANNEL FLEXIBLE
22	PANE - STATIONARY
21	PANE - SLIDING
20	PANE - SIDE, STATIONARY

SIDE VIEW

P	A DEPAF	RTM	ENT	ΓOFT	RANSP	ORTATION	
	REVISIONS	S			PAINT TR	LICK	
NO.	DATE	BY		-			
1	05-22-02	DWG		DLW N/A EQN-370			
2	05-16-07	KNH	DRAWN BY				
3	07-11-13	JFM	DATE				



REAR VIEW

P	A DEPAF	RTM	EN	ΓOFT	RANSP	ORTATION		
	REVISIONS	3		D	AINT TR	IICK		
NO.	DATE	BY		-				
1	05-22-02	DWG		REAR SHELTER				
2	05-16-07	KNH	DRAWN BY	DLW	SCALE N/A	EQN-370		
3	07-11-13	JFM	DATE	12-30-97	CHK'D BY WHM	SHEET 3 OF 3		

Centralized Lubrication System On Road Equipment EQN - 501

weekly, and monthly lubrication points. Only electrically controlled, #2 chassis grease systems shall be accepted. The use of pneumatic systems is unacceptable. The requirements for the lubrication system components and installation procedures are outlined below. It is the responsibility of the vendor to ensure that the automatic lubrication system There shall be an automatic centralized lubrication system professionally installed to maintain all the daily, complies with all of these requirements.

- Performance Requirements
- The system pump shall be capable of delivering NLGI #2 grease over a temperature range of minus 10 degrees Fahrenheit to 120 degrees Fahrenheit.
 - The pump shall have an integral adjustable timer to change the grease delivery intervals as needed.
- system shall use a fused electric pump, either 12 Volt DC or 24 Volt DC depending on application. Pneumatic pumps are not acceptable.
- The pump shall be equipped with a pressure relief valve device at the pump outlet to protect the pump from damage due to over pressure.
 - For ease of service, the pump shall have a pumping element located on the side that can be removed and replaced or repaired as needed without having to remove or disassemble the pump.
- The pump shall use a clear or translucent reservoir to allow for visual inspection of the grease level. Reservoir shall have a full level indicator. Bladder type reservoirs are not acceptable.
 - The grease reservoir shall be a minimum four pound capacity.
- The system shall have a cab mounted fault light that will notify the operator of a lube system fault and low grease level. If any point in the system will not take grease, the fault light shall illuminate.
 - The system shall be a positive displacement series progressive type, using primary and secondary valves.
 - All secondary valves shall be non-segmented to minimize the potential leak path and or sources of contamination.
- All valves shall be made of corrosion resistant coated carbon steel.
- The positive displacement proportioning valves shall have a tee and high back pressure grease fittings at each valve inlet for manual filling, system testing, and to fill repaired lines.
- The system shall have a manual override fitting to enable the system to be manually operated if the pump is inoperable.
 - Equipment shall have a 2 year manufacturer's warranty.

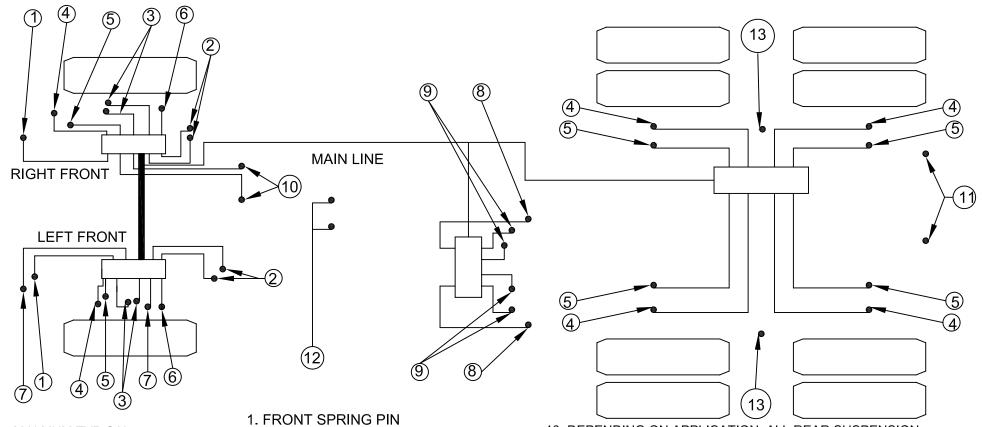
Installation Requirements - On Road ۲,

- The system shall use only high pressure hose (4,000 psig operating, 10,000 psig burst). All hoses are to be of US standard sizes (1/8" ID hose 5/16 OD) and readily available from local sources.
 - All hoses shall use a two piece re-usable hose end with quick disconnects at the valve outlet for ease of
- All lines from the secondary valves to the chassis or body inlet points shall be flexible with at least a 500 PSI working pressure. All tubing shall be standard size (1/4 inch OD) and readily available from local sources. inspection and repair.
- All line runs will be secured to the chassis or air lines via tie wraps. Protective wrap shall be used for all lines run over any edge of the chassis and especially at the termination points for front suspension including upper & lower king pins, tie rod ends and any exposed lines that are not fixed. The use of steel tubing is prohibited.
 - The pump shall be installed in a safe location on the truck chassis that is protected and easy to monitor the grease level and refill. For exact mounting location, contact PennDOT Equipment Division, Specification Unit - 717.787.212
 - Ground Level filling shall be provided for all lube systems. Remote lines are acceptable if reservoir is viewable from remote fill location.
- Installations shall be warranted for 2 years of operation.

ENT OF TRANSPORTATION	CENTRALIZED LIIBE SYSTEM
PA DEPARTMENT OF	

			CENTRALIZ	CENTRALIZED LUBE SYSTEM
	REVISIONS	0		
Q	DATE	BY		
_			SCALE N/A	EQN-501
2			DRAWNBY TOD	
က			DATE 6-8-09	SHEET 1 OF 2

MINIMUM TYPICAL LUBE POINTS TANDEM AXLE



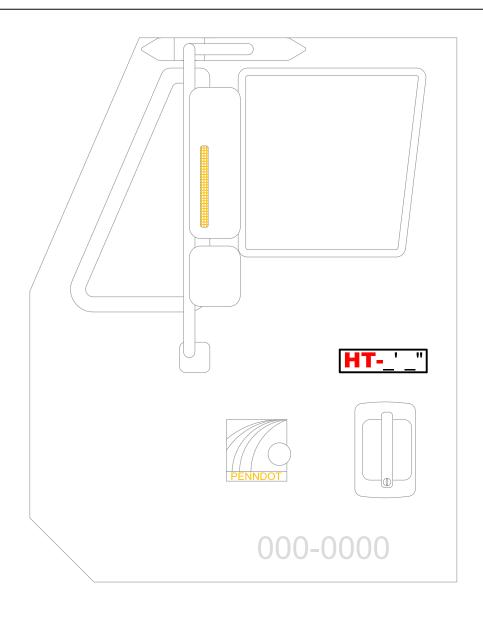
MINIMUM TYPICAL VEHICLE LUBE POINTS.

*ALL LUBRICATION
POINTS SHALL BE
INCORPORATED INTO
THE ON-BOARD GREASE
SYSTEM. INCLUDING ALL
CHASSIS AND BODY
POINTS, EXCEPT
LOCATIONS RESTRICTED
BY ROTATING DESIGN; IE:
DRIVESHAFT & PTO

- 2. FRONT SPRING SHACKLES (UPPER AND LOWER)
- 3. KING PIN (UPPER AND LOWER)
- 4. BRAKE CAM SHAFT
- 5. BRAKE SLACK ADJUSTER
- 6. TIE ROD
- 7. DRAG LINK
- 8. FIFTH WHEEL PIVOT (IF APPLICABLE)
- 9. FITH WHEEL PLATE (IF APPLICABLE)
- 10. CLUTCH CROSS SHAFT
- 11. REAR DUMP BED HINGE (1 EACH SIDE)
- 12. TOP AND BOTTOM OF HOIST CYL.

13. DEPENDING ON APPLICATION, ALL REAR SUSPENSION, TRUNIONS, LEAF SPRINGS

		REVISIONS	;	CENTRALIZED LUBE SYSTEM					
	NO.	DATE	BY	GENERIC ARRANGEMENT					
	1	12-15-00	GAH						
	2	01-02-07	CJW	GAH	SCALE N/A	EQN-501			
)	3	06-09-09	TOD	B-31-99	CHK'D BY LHA	SHEET 2 OF 2			
	4								
	5								



THERE SHALL BE A PERMANENT DECAL, 2 INCH HIGH RED LETTERS ON WHITE BACKGROUND AFFIXED BY THE DRIVER SIDE DOOR HANDLE STATING THE OVERALL MAXIMUM TRAVEL HEIGHT OF THE COMPLETED AND UNLOADED UNIT.

PA DEPARTMENT OF TRANSPORTATION								
	REVISIONS	;						
NO.	DATE	BY	MAX TRAVEL HEIGHT STICKER					
1	00-00-00	INT						
2			DRAWN BY	JFM	SCALE 2	EQN-552		
3			DATE 05-	29-13	CHK'D BY INT	SHEET 1 OF 1		



THERE SHALL BE THREE (3) PERMANENT DECALS, 4 INCH HIGH X 5 INCH WIDE, ONE EACH TO BE AFFIXED BY THE DRIVER, PASSENGER SIDE DOOR HANDLES AND THE DUMP BODY LADDER.

	REVISIONS	}	THREE POINTS OF CONTACT					
NO.	DATE	BY						
1	00-00-00	INT	STICKER					
2			DRAWN BY	GAW	SCALE N/A	EQN-552-1		
3			DATE 03-	-23-15	CHK'D BY TOD	SHEET 1 OF 1		