

SPECIFICATIONS

**002086
PERMANENTLY MOUNTED CONE SETTER PLATFORM ATTACHMENT**

INDEX

I. GENERAL EQUIPMENT SPECIFICATIONS:

- A. Intent Statement
- B. Cone Setter Platform
 - 1. General Specifications
 - 2. Mounting Components
 - 3. Close out Plates
 - 4. Hitch
 - 5. Paint
 - 6. Basket Framing
 - 7. Labels
 - 8. Lighting

- II. Drawings
- III. Warranty

January 20 2021 JAH

SPECIFICATIONS

I. GENERAL EQUIPMENT SPECIFICATIONS:

A. INTENT STATEMENT:

NOTE: Pennsylvania Department of General Services, PCID No. 1075, "*General Requirements for Bidding PennDOT Vehicles/Equipment*", Effective 2/14/2008 is included as part of this specification, Excluding warranty section E and warranty is here by replaced with section III on page 6 of this specification (002086).

Delivery as required per Department of General Services PCID NO. 1075 Section "G". All units must be delivered within **60** days after receipt of the purchase order by the successful bidder.

This specification describes minimum requirements for cone setter platforms to be built and installed by the awarded vendor to the rear of a flat bed, utility, service, and foremen body crew cab pick up trucks, capable of holding two people (Maximum weight of 500 pounds) while manually setting or retrieving traffic cones and storing them on the bed of the pickup truck, while traveling at speeds up to 10 MPH. This unit shall also allow the use of the tow hitch while still permanently mounted to the truck, by way of a folding floor that will flip up out of the way allowing the hitch to be utilized. The unit must be adaptable to various department owned trucks; IE Ford, Chevrolet, Dodge, GMC etc. Installation shall be performed at the awarded vendors facility.

It is understood that the components specified are minimum. The burden of responsibility is hereby placed on the manufacturers engineering department to supply a unit that is totally engineered and installed.

B. CONE SETTER PLATFORM:

1. GENERAL SPECIFICATIONS:

"Cone setter Platform" is designed to replace the body builder's original rear bumper on F350 & F550 dual rear wheel crew cab work trucks. Platform designed as a standing area for workers to set and retrieve traffic cones. Workers are retained by heavy duty railing, "Man saver" safety bar, and steel closeout between platform and truck body. Platform center area shall hinge away to access the tow hitch, allowing the operators to tow items without removing the platform. The total standing area shall be (96" wide x 18" deep); center flip up standing section shall be 31" wide x 14" deep and shall utilize a latch to secure it in the vertical position. The top rail set shall be at 42" high from platform surface and mid rail at 21" high. Railing center section has two hinging sections (18" long) that fold in and latch, allowing center standing surface to fold up and latch. Ground to standing surface is 20" with underside clearance 14" Reference EQN 560 sheet 1 and 2

2. MOUNTING COMPONENTS

Truck frame cheek plates shall be made from formed 3/8" plate. The cheek plates shall be formed with a 2" leg on top edge and 2" x 6" tapered leg on bottom edge. A four bolt-hole design (9/16" hole) shall be drilled into the upper portion for frame attachment using 1/2" Grade 8 bolts and lock nuts. The cheek plate lower portion shall be fully welded to the platform base tube (4" x 6"). REF EQN drawing 560

SPECIFICATIONS

I. GENERAL EQUIPMENT SPECIFICATIONS (continued)

3. CLOSE OUT PLATES

Close out plates shall be welded to the base tube to retain the workers from the underside of the truck body behind the tires. One plate (3/16" tread plate x 24" high x 28" wide) shall be mounted to each side and shall be formed with a 1" bend along all four edges for rigidity. A serrated step (8" wide x 4" high x 2" deep) shall be provided in the center of the closeout to allow workers to access truck bed. A sight window (11.5" wide x 13" high) shall be cut in to the close out plate and covered with flattened 10x 1.5" #9 expanded metal for truck tail light and license plate visibility.

4. HITCH

Tow hitch bar shall be made from box tubing using .250 wall x 3"x 3" material. Tube shall be bolted between the two cheek plates utilizing a 5"x5" .250"thick plate with four grade 8, 1/2" bolts and lock nuts. A 2" x 8" long receiver (Ref buyers product part # RT25808) shall be centered between the cheek plates and welded to the underside of the hitch bar. Two supporting gussets made from 1/4" plate steel shall attach the receiver to the hitch bar for support. Receiver height shall be set to 20" from the ground with the truck unloaded. Two D-rings (Buyers products part# B40) are welded to the hitch bar for trailer safety chains. Rings shall be centered between the cheek plates and receiver.

5. PAINT:

All steel exterior surfaces shall be cleaned, blasted and properly prepared prior to painting. A primer coat shall also be applied prior to painting. The frame shall be painted black in color. All aluminum surfaces to be cleaned and unpainted.

6. BASKET FRAMING

- A The platform shall be constructed using box tubing as the main structural members; the front base member tube shall utilize a .375 wall thickness x 4"x 6" tube. Side and rear tubes shall be .188 wall thickness x 2"x 6". The center hinging section tube shall be .188 x 2" x 2"
- B. There shall be floor grating used as the floor of the platform (188 wall x 1") serrated for traction. Grating shall be supported by (.188x 1.5"x 1.5") angle iron on all sides including center flip up flooring.
- C. Railing shall be constructed using 1.5" x 1.5" .125" wall box tubing as the main structural members.
- D. Railing shall be constructed to a height of 42" and a mid-rail shall be placed at 21".
- E. All railing shall be drilled or open ended to prevent freezing and breaking.
- F. Sides (2) of unit shall have adjustable height, "Man Saver" 18" detainment bars PN# MSA 110-A18YNS1 **NO SUBSTITUTE STANDARIZATION**. Shall be adjustable height from top of the platform floor, minimum height of 28" to max height of 42" Ref EQN drawing 560 sheet 2.

SPECIFICATIONS

I. GENERAL EQUIPMENT SPECIFICATIONS: (Continued)

6. BASKET FRAMING Continued

- G. Unit shall have two 18" wide access doors located at the center, rear side of the basket. Doors shall be hinged to the right on the right side and left on the left side with two stainless steel hinges per door. Doors shall be held in the "closed" position using three (3) spring loaded latches (buyers' product PN# B2595LKB NO SUBSTITUTE STANDARDIZATION). One latch shall be mounted to bottom of each door to hold the doors to the floor of the platform and one latch shall be mounted on the right side door to latch the doors together along the top railing. REF EQN drawing 560 sheet 2
- H. Both doors shall pivot inward towards the vehicle and lock to the platform floor utilizing the lower spring loaded latches to hold the doors at a 90 degree angle from their closed railing position to the platform floor.
- I. By latching the center doors "open" the center floor section shall be able to lift up and hinge left. Hinged floor shall be held in a vertical position utilizing a Buyers spring loaded latch welded to outside of the hand railing (P/N# B259LkB, Ref EQN drawing 560 sheet 2) allowing the 2" receiver hitch to be utilized for towing.

7. LABELS:

- a. Each unit shall have a metal label or non-removable decal affixed to the unit containing the manufacturer's name, date of manufacture, weight capacity and serial number.
- b. Each unit shall have the following labels. Reference EQN 560 , Sheet 1
 - 1. Weight Capacity 500 lbs. One on each side of the rear access doors at the platform floor height. One additional label shall be supplied with each unit to be installed in the cab of truck.
 - 2. Maximum Speed Limit 10 MPH when Occupied. One on each side of the rear access doors at the platform floor height. One additional label shall be supplied with each unit to be installed in the cab of truck.
 - 3. There shall be conspicuity tape installed horizontally along the bottom rail of the platform on each outer edge and one piece on each outer side also along platform bottom rail placed horizontally. Tape shall meet Federal DOT regulations for placement.

SPECIFICATIONS

I. GENERAL EQUIPMENT SPECIFICATIONS: (Continued)

8. LIGHTING:

All lights shall be LED.

Connection shall be made with the trucks electrical system via a 7-way cable making connections to the trucks lighting junction block located at the rear of the truck

The platform shall include brake lights, taillights, turns signals and four way flashers by use of a Whelen STT light Whelen part# 40BTT. Lights shall be flush mounted on an enclosure in the upper corners of the hand railing. Enclosures shall fully house the wiring and back of lights, sealing all areas to prevent water from entering. Grommet mounted recessed mounting of the lights is acceptable. Two ¼" in holes shall be drilled at the lowest point of the enclosure to allow any water that does enter to self-drain. Lights shall work in conjunction with the truck STT lights. Ref EQN-560 Sheet 1

Two Hazard warning lights (Whelen IONAD Part# 01-066C747-13G) shall also be placed in the upper corners of the platform hand railings in the same enclosure. Flashing warning lights shall be flush mounted towards the center of the truck next to the STT lights, recessed grommet mounting is also acceptable. Lights shall be hard wired to one of the cab mounted Aux wiring switches in the cab and shall have a label applied describing the designation of the switch as such. Ref EQN-560 Sheet 1

All wiring on the platform shall be encased in steel tubing and or wire loom for protection. No wires shall protrude from or be hung from the bottom of the platform to prevent rubbing or smashing of the wires if the platform were to "bottom out" or rub on the ground while in motion.

In the case of wiring protruding through the platform, it shall be protected by a rubber grommet.

All electrical connections shall be protected with dielectric grease.

All electrical connections shall be sealed.

SPECIFICATIONS

II. DRAWINGS:

EQN-560 Rev. 01/13/2014 sheet 1 CONE SETTER PLATFORM FINAL FOLDED UP

EQN-560 Rev. 01/13/2014 sheet 2 CONE SETTER PLATFORM FINAL FOLDED DOWN

The above referenced drawings shall become part of these specifications.

These drawings reflect the intent of the Department and any discrepancies shall be resolved at the meeting between the vendor and the Equipment Chief, or the pre-production inspection of the unit.

III. WARRANTY:

The vendor shall repair or replace, free of charge within one (1) year from date of acceptance, any platform which in the judgment of the manufacturer has failed because of defective material or workmanship, provided it is shown to be properly mounted, and not subject to abuse in operation or assembly.