

SPECIFICATIONS

022951 PLOW, TOWED, TRAILER, W/ANTI-ICING

022956 PLOW, TOWED, TRAILER, STAINLESS STEEL HOPPER, W/GRANULAR, PRE-WET
B47I. GENERAL SPECIFICATIONS:

- A. Intent Statement
- B. Components Pre-wet or Granular with Pre-wet Configuration
- C. Hitch Components
- D. Lighting Requirement
- E. Plow Blade Requirement
- F. Paint
- G. Safety
- H. Wheels & Tires

II. DRAWINGSIII. MANUALSIV. WARRANTY

July 20, 2020

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B47I. GENERAL SPECIFICATIONS:

A. Intent Statement

NOTE: Pennsylvania Department of General Services, PCID No. 1075, "*General Requirements for Bidding PennDOT Vehicles/Equipment*", most current version effective at the time and date of bid opening, is included as a part of this specification. PCID No. 1075 may be reviewed and downloaded from the Department of General Services website, <http://www.dgs.state.pa.us>. Delivery as required per Department of General Service PCID NO. 1075 Section "G". All units must be delivered at ground level within **120** days after receipt of the purchase order by the successful bidder.

The purpose of these specifications is to describe an anti-ice or granular equipped tow plow to couple to the Departments tow plow equipped dump truck capable. It must be capable of plowing a single roadway with a clearing path minimum of 14 feet while applying liquid anti-ice (salt brine) and or granular material. Tow plow shall deploy to the right side. All functions shall be controlled within the cab from the central hydraulic system. Ref. Viking Cives.

The unit shall meet this specification, be a current production model, new and complete. The unit shall be complete (less towing vehicle) with all equipment required for immediate operation to function as stated in this specification, and the unit must meet all applicable codes and standards.

Any deviations to the specification must be granted in writing by the Chief of the Specification Section. It shall be understood that any discrepancies/deviations between the specification and the completed unit(s), chassis or body up-fitter related, must be addressed and corrected prior to the delivery deadline and the Departments acceptances.

It shall be the sole responsibility of the successful vendor to ensure compatibility with the Department's tow plow equipped dump truck. The vendor shall, prior to bid, inspect the Department's dump truck to ensure this compatibility. For model of tow plow equipped dump truck and or location contact the Fleet Management Division at 717-783-2371.

It is understood that the components specified are minimum and if the unit's manufacturer's Engineering Department recommends or deems necessary, a larger component, the burden of responsibility is hereby placed upon the Manufacturer's Engineering Department to supply a unit that is totally engineered.

Each unit shall bear the manufacturer's model number, serial number and date of manufacture with a non-rusting metal tag, properly affixed.

MSO/ Certificate of Origin, and MV 1 to be supplied to the Department at time of delivery.

Paper work provided by manufacturer, vendor or carrier company at time of equipment delivery for signature will only be signed for verification of delivery. Signature will not endorse delivered equipment is free of defects or verification that equipment meets specification/quote. Acceptance of equipment is pending through inspection, with equipment meeting the specification/quote. Paper work will not be submitted for payment until all deficiencies are corrected, prior to purchase order delivery deadline.

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B47

I. GENERAL SPECIFICATIONS: (continued)

Manufacturer standard tow plow with the following requirement:

B. Tow Plow:

1. Anti-Ice Components:

Anti-icing, two (2) 1025-gallon polymer brine tanks. OEM Pump shall be driven hydraulically via a love joy connection. Hydraulic motor / pump assembly shall be housed in a NEMA enclosure large enough to facilitate servicing of unit, an electronic flow meter shall be installed to properly calibrate prewet. There shall be a low-level switch to automatically shut down the prewet motor when empty and an indicator to the operator shall be supplied. Anti-icing system shall have a flush kit, installed complete with flush tank, minimum 10 gallon and a garden hose connection.

2. Granular Components:

Hopper Sander, 304L Stainless Steel hopper construction. Any metal lines used for the hopper hydraulic plumbing shall be stainless steel, hydraulic conveyor motor with sensor. Conveyor Motor shall be White Hydraulics: Model RE (no substitution), with a 50-pulse auger motor sensor installed. Kit # W80509. 225 gal. Poly pre-wet tank installed on tow plow with OEM pump and hydraulic motor plumbing and spray nozzles. Flush kit, tank, minimum 10 gallon and a garden hose adapter.

C. Hitch Components:

Pintle eye shall be set at 26-inch from ground to center of eye, with trailer set level.

Hydraulic hoses shall extend 3 feet past pintle eye with connection to bulkhead fittings in middle of trailer tongue, Ref. EQN-1081, sheet 7 of 7 for truck coupler connections.

OEM/Up fitting vendor shall have complete wiring harness connection installed ready to hook to tow plow equipped dump truck with a Certified Cirus XDS or SpreadSmart RX controller connection. Tow plow shall be a complete turn key unit ready to operate once connection is made to dump truck. For harness and connection contact Frank Macalik 717-417-3397 at Certified Cirus.

D. Lighting Requirement:

There shall be a Truck-Lite Model# 36140C LED license plate light with light bracket PN# 36710 installed with license plate bracket.

All lighting shall be Whelen L.E.D.'s:

Amber markers 2-inch round PN# 01-02634898A90

Red markers 2-inch round PN# 01-02634898R90

1 - Flood light PAR36 PN# 01-066C579-30C

3 - Round L.E.D. Beacon PN# 01-0685953-AFG

2 - M6AD Amber warning 01-066A797-A1J, rear bumper

4 - M6AD Amber warning 01-066A797-A2J left side rear

2 - M6BTDD PN# 01-066B1866R1J

Whelen light package, (2) M6BTDD on rear (stop turn tail), (2) Amber Warning PN# 01-066A797-A1J on rear (yellow warning) and (4) Amber Warning PN# 01-066A797-A2J strategically placed on left side to face rearward when in plowing mode. Manufacture to provide wiring harness, shall be Grote, Trucklite, or pre-approved equal. Ref. EQN-1081

The above Whelen lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

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I. GENERAL SPECIFICATIONS: (continued)D. Lighting Requirement: (continued)

Light plugs shall be seven (7) round pin type and seven (7) round pin type with holders Ref. EQN-80B & EQN-1081, sheet 7 of 7 for location of truck plug connections.

There shall be no splices outside of a sealed box or fixture. 3M Scotch-Lok type connectors will not be accepted.

A color-coded electrical wiring chart and schematic shall accompany each unit.

E. Plow Blade Components:

Plow cutting edge shall be supplied with Joma 6000 blades with JOMA 6000 attachment components including clamp bar, with Winter Equipment Company style backer blade equipped with carbide inserts.

F. Paint:

Tow plow shall be galvanized, entire unit except for glass, plastic, rubber and metallic accessories or fixtures constructed of rust-resistant or plated material not normally painted.

Conspicuity Reflective Sheeting required on the rear bumper, Orafol America Inc. Red SRHI4R PN# 18716 and Yellow SRHI4Y PN# 18836 VC 312. Ref. EQN-1081.

Unit shall have reflective enhancement per EQN-127A.

G. Safety:

Manufactures standard safety devices required for transport/operation shall be supplied.

Manufactures standard safety decals displayed on the attachment.

H. Wheels & Tires:

Wheels: 22.5 x 12.25, 10 hole - 285.75mm bolt circle with 220mm bore, tubeless steel disc wheel rated at 10,500 LBS at a maximum inflation pressure of 120 PSIG. Accuride part number 29807. **(No substitute, standardization).**

Wheel-Guard Separators: The wheel ends shall be equipped with the Accuride part number 5903 Wheel Guard Separator, between the wheel and the brake drum.

Paint: The wheels shall be topcoat painted with TGIC Polyester Powder Paint MLD-82008 High Gloss Gray or equal applied over Cathodic Electro-Disposition Gray Primer.

Tires: 385/65R22.5 (Load Range J) shall be mud/snow tread. All tires shall be radials and have minimum 25/32 thread depth. Acceptable tire manufacturers Goodyear, Michelin and Bridgestone.

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I. GENERAL SPECIFICATIONS: (continued)II. DRAWINGS:

EQN-80B	dated	Rev. 05-16-18	1 sheet	7 WAY POUND PIN MALE CONNECTOR
EQN-122A	dated	Rev. 04-09-12	1 sheets	REAR BUMPER REFLECTIVE SHEETING
EQN-127A	dated	Rev. 01-02-09	1 sheet	CONSPICUITY TAPE STRIPING REQUIREMENT
EQN-1081A	dated	Rev. 08-02-19	3 sheets	TOW PLOW GENERAL REQUIREMENTS
EQN-1081B	dated	Rev. 07-26-18	1 sheet	TOW PLOW TRUCK

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 line setting ticket meeting between the vendor and the Fleet Management Division Specifications Chief, or the pre-production inspection of the unit.

III. MANUALS:

The successful vendor shall furnish all applicable manuals per unit:

- 1 Operators
- 1 Parts
- 1 Service
- 1 Body and Sub-frame (Parts and Service)
- 1 Complete set of manuals for any additional items/equipment added to a piece of equipment.

The manuals listed shall be official O.E.M. publications supplemented with technical manuals for all components as published by sub-vendors/manufacturers.

Parts Manual presented must be relative to "all" items utilized to build this unit(s), with appropriate part numbers.

Delivery of these paper manuals shall be completed at time of delivery of each unit along with an electronic form of each manual on a USB thumb drive in Adobe PDF format.

IV. WARRANTY: Per **PCID No. 1075**

Warranty period shall begin with the date the receiving county takes possession of the completed unit.