

SPECIFICATIONS

B-94-HH-K

003775 CONVEYOR, STAINLESS STEEL 24-INCHES x 70-FEET, SALT, TOWABLEINDEXI. GENERAL UNIT SPECIFICATIONS:

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SPECIFICATIONS

I. GENERAL UNIT SPECIFICATIONS:

A. INTENT STATEMENT:

The purpose of these specifications is to describe a **stainless steel** portable 24-inch by 70-foot self-contained diesel engine with hydraulic drive, radial stacking salt conveyor and hopper. Shall be capable of being loaded with a Department owned 3 cu. yd. front end loader. Conveyor shall be used to fill various Department salt stockpile structures. The unit shall meet this specification, be a current production model, new and complete ready to use. Ref Kimco 2470SS

The unit shall be complete with all equipment required for immediate operation to function as listed below and the unit must meet all applicable codes and standards.

All units must be delivered within **90** days after receipt of the purchase order by the successful bidder. Shipping shall be in accordance with normal industry standards and at FOB Destination terms.

Pursuant to Executive Order 2021-06, Worker Protection and Investment (October 21, 2021), the Commonwealth is responsible for ensuring that every Pennsylvania worker has a safe and healthy work environment and the protections afforded them through labor laws. To that end, contractors and grantees of the Commonwealth must certify that they are in compliance with all applicable Pennsylvania state labor and workforce safety laws. Such certification shall be made through the Worker Protection and Investment Certification Form (BOP-2201) and submitted with the bid, proposal or quote.

B. SPECIFICATIONS:

All references to stainless steel shall be 304 stainless steel.

Unit shall be capable of moving commercial grade road salt at a minimum rate of 300 Tons per Hour. Approximately 900-1200 FPM able to cast salt 10-12 feet past discharge point. Approximately 24 inch wide and 70-foot length to provide minimum 35-40 feet set up height.

Unit shall not exceed 12' 6" in height when hooked to Department dump truck, 3-inch 50ton Pintle eye hitch, approximately 26-28 inches from ground level. Maximum travel length not to exceed 75 feet in length.

1. AXLE, BRAKES & UNDERCARRIAGE: (Road Portable)

Single axle shall be minimum 10,000 LB. with oil hubs with 5/8-inch wheel studs. Brakes shall be hydraulic surge with stainless steel disc. All brake lines shall be stainless steel from brake actuator.

Undercarriage shall be a minimum of structural stainless steel 3-inch x 6-inch 3/16-stainless steel tube for arms and cross members. 2-inch x 2-inch x 1/4-inch structural stainless-steel tube for support stands. 5-inch x 5-inch x 1/4-inch stainless steel for cylinder support.

Tires & Rims: minimum 215/75R x 17.5 radials. 17.5 x 6.75 8 stud heavy duty steel rims. Rims shall be galvanized if unavailable powder coated will be accepted.

2. BELTING:

Minimum 24-inch-wide PVC 200# crescent top, heavy duty. With #3 mechanical stainless steel lace.

3. BELT TRACK & TENSIONER ROLLER:

Belt track roller shall be minimum 6-inch x 26-inch with minimum 1 7/16-inch shaft and pillow block bearings. Tensioner roller shall be minimum 8-inch x 26-inch with minimum 1 7/16-inch shaft and pillow block bearings.

B. SPECIFICATIONS: (continued)

4. CONVEYOR FRAME:

Sides and bracing minimum 10-gauge stainless steel 2-inch x 2-inch x 1/4-inch angle.
 Webbing minimum 1 1/2-inch x 1 1/2-inch x 3/16-inch stainless steel.
 Under truss stainless steel minimum 2-inch x 6-inch x 3/16-inch formed angle with 3/16-inch plate reinforcement at cylinder support. All joints shall be fully welded by engineering design.
 All safety chains, cables, hooks and shackles shall be installed for setup and transport functions.

5. DRIVE ROLLER:

Stainless Steel approximately 14-inch diameter and 26-inch length with a vulcanized rubber lagging and a minimum 1 15/16-inch shaft, and 1 15/16-inch pillow block bearings.

6. GUARDS/SHIELDS:

All OEM safety guards/ shields shall be constructed of 304 stainless steel, installed to protect personnel from injury. Example Roller guards, take up roller guards, tail roller and belt guards.

7. HEAD & TAIL ROLLER:

Head and tail rollers, approximately 8-inch W x 26-inch L roller shall be a trapezoidal wing design to improve tracking. Roller shaft and bearings shall be a minimum 1 7/16-inch complete assembly shall be 304 stainless steel.

8. HITCH:

Hitch shall be 3-inch ID Pintle eye rated for a minimum of 22,000 Lbs. and a minimum vertical tongue weight of 4,500 Lbs. hitch frame shall be with a minimum 2-inch x 6-inch x 1/4-inch stainless steel with provisions for the surge brake actuator. Department truck hitches are set 26-inches to 28-inches in height from ground level to center of eye, hitch/conveyor shall be positioned to allow a maximum overall height of 12-feet 6-inch while in transit. Trailer breakaway protection shall be installed.

Two (2), minimum non-rusting, coil-proof, high tensile. Each chain shall have a minimum breaking strength rated equal or above the GVWR. Each chain shall extend 3 feet beyond the Pintle eye. Forged steel hooks with safety hasp to fit a minimum 5/8-inch up to and including a 3/4-inch D-ring (from tow vehicle) at the end of chain and the other end of the chain shall be permanently mounted to trailer.

Two (2) heavy duty drop leg jacks with solid caster swivel wheels, one (1) to each side with a minimum weight rating of 10,000 LBS.

9. HOPPERS:

Conveyor charge hopper 304 stainless steel shall be approximately 36-inches W x 32-inches L x 30-inches high.

304 stainless steel portable hopper shall be designed to be loaded with a minimum 3 cu. yd. loader with a "heaped" bucket, minimum 105 inches wide. Hopper design shall be pre-approved. Minimum 4 ton hopper shall be built to fit department owned single axle dump truck with dump bed dimension of approximately 81-inches wide and 106-inches long. Overall height of hopper shall not exceed 12-feet 6-inches when standing in truck dump bed with an approximate bed height from ground level of 53-inches. Hopper shall have stainless steel grating to prevent large objects from entering. Hopper shall have centered or 4 corner lifting points installed.

B. SPECIFICATIONS: (continued)

10. LIGHTS:

Lighting shall be a 12-volt system. All lights shall be L.E.D.; conveyor shall be furnished with shock proof running lights, directional signals reflectors and sealed wiring harness fully complying with ICC minimum requirements, and with the Motor Vehicle Laws and Regulations of the Commonwealth of Pennsylvania. All lights shall be recessed or otherwise provided with adequate guards to prevent accidental damage. A 7-way "pin type" receptacle shall be provided Ref. EQN-80A for guidance. Manufacture to provide marker and ICC lighting, wiring shall be Grote, Trucklite or preapproved equal. Power cord shall extend 2-3 feet in length beyond pintle. All harness pass-through locations shall be protected by a grommet.

All wiring shall be of adequate capacity and protected within a frame-rail, metal enclosure or conduit, and secured every two (2) feet of run. Wiring shall not be exposed within a wheel-well. There shall be no connections outside of a sealed box, unless connections are soldered and properly sealed with heat shrink. **3M type (Scotch Lock) crimp connectors are unacceptable.** All electrical connection shall be coated with dielectric grease. A color-coded electric wiring chart and schematic shall be provided.

11. PAINT:

All non-stainless steel shall be painted black. Shall be primed (with hardener) low VOC. All bare metal surfaces shall be coated using etching primer prior to paint. All surfaces shall be properly cleaned and prepared prior to painting, with all weld splatter and debris removed.

12. POWER UNIT & HYDRAULIC SYSTEM:

Engine shall be diesel powered, minimum of 74 horsepower, non-DEF with auxiliary drive block, PTO clutch and HTD style sheaves and drive belts. Engine block heater shall be provided.

Protective weather cover, yet accessible to check fluid levels and removable for servicing.

Lockable and weather tight control panel shall include:

All necessary gauges, tachometer, oil pressure, hour meter and fuel gauge

Emergency stop

Minimum 40-gallon fuel tank.

Minimum 22-gallon hydraulic oil tank with filter housing and spin type on filter.

Control panel, engine cover and tanks shall be built from minimum 10-gauge stainless steel.

Properly sized hydraulic gear pump attached to engine auxiliary drive

Nitride coated hydraulic cylinder 3 stage telescoping, minimum 120-inch stroke with safety relief valve and 3-way hydraulic control valve to lower conveyor to a minimum 12-feet 6-inches and raise to a maximum 35-feet.

It is the manufacturer's responsibility to provide an engine / hydraulic system capable of meeting the requirements.

13. SAFETY:

Overall height decal shall be located around the hitch area, stating the completed unit height in transport mode. Ref. EQN-552.

Conspicuity Tape ref. EQN-127A

Any areas designed to be walked or climbed on shall have anti-slip paint applied full length. Anti-slip tape will not be accepted. All areas designed to be climbed shall be built for "Three Points of Contact" and decal applied Ref. EQN552-1

14. WHEEL CHOCKS:

There shall be two-wheel chocks with mount per unit. Ref: EQN-82C.

B. SPECIFICATIONS: (continued)15. IDENTIFICATION:

Each unit shall bear the manufacturer's model number and shall incorporate a non-rusting metal individual serial number properly affixed.

16. DELIVERY:

Successful bidder shall be responsible for delivery of completed unit to:
One (1) unit is to be delivered to each locations below.

PENNDOT District 10-0
Engineering District 10
2550 Oakland Avenue
Indiana PA, 15701

PENNDOT District 12-0
Engineering District 12
825 North Gallatin Avenue Extension
Uniontown PA, 15401

Prior to delivery, contact shall be made with the Fleet Management Division 717-783-2371 to coordinate delivery timeframe and logistics.

II. DRAWINGS:

EQN-80B	dated	06-26-26	1 sheet	WIRING DIAGRAM / 7 WAY ROUND PIN MALE CONNECTOR
EQN-82C	dated	12-19-22	1 sheet	CHOCK AND HOLDER
EQN-127A	dated	01-02-09	1 sheet	CONSPICUITY TAPE STRIPING REQUIRMENTS
EQN-552	dated	07-30-26	1 sheet	MAX TRAVEL HEIGHT STICKER
EQN-552-1	dated	07-24-18	1 sheet	THREE POINT OF CONTACT STICKER

III. MANUALS:

The successful vendor shall furnish all applicable manuals per unit:

- 1 Operator's
- 1 Parts
- 1 Service
- 1 Wiring/Schematics
- Transmission (Automatic or Manual)
- 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 a relative to "all" items utilized to build these units, with appropriate part numbers.

All manuals shall be supplied on thumb drive in PDF format that can be loaded to a dedicated website. Paper manuals may be supplied if available from manufacture. Paper manuals do not relieve the requirement for thumb drives.

Delivery of manuals shall be completed with the delivery of each unit.

IV. TRAINING:

Mechanic:

The successful vendor shall include services of qualified factory trained technicians for not more than 1 training sessions of not more than 1.0 hours at 1 PennDOT locations to train personnel for preventive maintenance, review of the proper usage of parts and service manuals, as well as component/system adjustments that need to be monitored at specified service intervals.

Operator:

The successful vendor shall include services of qualified factory trained technicians for not more than 1 training sessions of not more than 1.5 hours at 1 PennDOT locations to train personnel in the proper operation, safety and servicing of the equipment.

All training must be completed within 60 days after the delivery date to the county location unless an extension is mutually agreed to in writing by the Chief of the Fleet Management Division.

All training shall be coordinated with the District Equipment Managers, with the exception of Asphalt related training, which must be coordinated with the Statewide Training Coordinator (717) 787-4836, Fax (717) 783-4438.

V. WARRANTY:

Warranty on all parts will be for minimum two (2) calendar years or manufacturer's standard commercial term (whichever is greater), from date of departments acceptance. If the manufacturer neglects or fails to correct defect(s) during the warranty period, their responsibility shall continue until such time as it takes to correct the defect(s). The manufacturer is expected to respond to warranty problems and administrate effective solutions in the best interest of the Commonwealth.