**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Year, Mfr., Model:***Click or tap here to enter text. | | | | |
| ***Engine:***Click or tap here to enter text. | | | | |
| ***Transmission:***Click or tap here to enter text. | | | | |
| ***Delivery, A.R.O.:***Click or tap here to enter text. | | | | |
| ***Warranty:***Click or tap here to enter text. | | | | |
|  |  |  |  |
| ***STAINLESS STEEL DUMP BODY*** |  |  |  |
| ***Mfr., Model:***Click or tap here to enter text. | | | |
| ***Warranty:***Click or tap here to enter text. | | | |
|  |  |  |  |
| ***PLOW SYSTEM*** |  |  |  |
| ***Mfr., Model:***Click or tap here to enter text. | | | |
| ***Warranty:***Click or tap here to enter text. | | | |
|  |  |  |  |
| ***UNDER TAILGATE SPREADER*** |  |  |  |
| ***Mfr., Model:***Click or tap here to enter text. | | | |
| ***Warranty:***Click or tap here to enter text. | | | |
|  |  |  |  |
| ***HYDRAULIC SYSTEM*** |  |  |  |
| ***Mfr., Model:***Click or tap here to enter text. | | | |
| ***Warranty:***Click or tap here to enter text. | | | |

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS**

**General**

Chassis designed for heavy-duty general use of a dump, snow plow and spreader truck

with appurtenances

Set back axle truck package with a minimum bumper-to-back-of cab measurement of

114”. Axle setback to provide the best turning radius possible.

Intended Service: Dump Truck

Cab to Body Clearance: 3 inches

Front Axle Capacity: 16,000 lbs.

Rear Axle Capacity: 25,000 lbs.

Expected GVW Capacity: 40,020 lbs.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Engine**

Cummins L9, minimum 300 HP @ 2,200 RPM and 860 lb.-ft. torque @ 1,200 RPM.

Shall be in-line 6 cylinder of wet sleeve design, and 50 State certification and electronics

for simple service and diagnosis when needed. Minimum displacement shall be 8.9 liters.

Engine must comply with latest federal mandate for diesel emissions. Should an

alternate power plant be offered, the bidder shall provide all necessary technical data to

show proof of equality.

Stainless steel oil pan and hardware

**Engine Equipment**

Engine must have latest diesel emission certification and OBD

Regen inhibit speed threshold-5 MPH

PTO engine RPM Limit 2,400 RPM

Enable regeneration in PTO mode

No PTO mode cancel vehicle speed

Oil check and fill: engine mounted

Alternator: 160 amp DR 28 SI brushless Quadra-mount with remote battery volt sense

Batteries: Two (2) 12-volt GNB Maintenance Free 2050 CCA

Battery Box: Plastic, frame-mounted, left side under cab

Positive and negative posts for jumpstart located on frame next to starter

Positive load disconnect switch mounted outboard of driver seat. Must be protected from

bottom of cab.

Compressor: 18.7 CFM

Discharge line: Teflon

Engine Protection: electronic engine-integral warning system with shut down function

Engine brake: Cummins exhaust brake

Exhaust: Single right-hand under step mounted horizontal after-treatment system with

diamond plate cover and cab access steps

Fan Drive: Horton air on/off drive automatic fan control

Oil filter: full-flow

Fuel filter

13 gallon diesel exhaust fluid tank shall be full of fluid at delivery

Non-polished aluminum diamond plate diesel exhaust fluid tank cover

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Engine Equipment (Cont’d)**

Radiator

Heavy-duty coolant: -34 degrees Fahrenheit extended life with coolant filter

Constant-torque clamps: constant torque for coolant hoses 1-3” diameter

Engine Heater: Phillips 1,000W/115V

Chrome heater receptacle: mounted under driver’s door

Flywheel housing: Aluminum

Air intake warmer  Starter: Delco 12V 39 MT HD with OCP and magnetic switch

**Transmission and Equipment**

Transmission: Allison World RDS 3500 six-speed electronic automatic with PTO

provision, six (6) forward gears and one (1) reverse gear. Six-speed transmission

programming (223) Programmed to unlimited output speed

Vehicle interface wiring, Magnetic engine drain, transmission and rear axle fill and

drain plugs

Vehicle interface wiring with body builder connector mounted back of cab

Electronic transmission customer access connector

Underslung or overslung frame cross-member at transmission mount

Trans oil check and fill with electronic oil level check

Transmission cooler: heavy-duty water-to oil in radiator end tank

PTO mounting LH side of transmission

**Front Axle and Equipment**

Detroit DA-FS-16.0-572KPI/3.74 drop, minimum capacity @ ground of 16,000 lbs.

Set Back Front Axle Design  Front brakes: Meritor cam 16.5 x 6” Q+ cast spider cam with dust shields  Front brake lining: non-asbestos

Front brake drums: Conmet outboard-mounted cast-iron

Front oil seals

Synthetic 75W-90 front axle lube

Front hubcap: Vented oil-type with window center and side plugs

Front slack adjusters: Meritor

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Front Axle and Equipment (Cont’d)**

Power steering pump: TRW TAS-85

Power steering reservoir: 4-quart

Suspension bushings: graphite bronze with seals

Front suspension: flat-leaf springs rated @ 16,000 lbs. minimum

Front shock absorbers

**Rear Axle and Equipment**

Meritor RS-25-160 series with .63 thickness housing, 25,000 lbs. with 18” ring gear

minimum

Rear axle ratio: 5.63

Rear axle carrier housing: heavy-duty iron

Main driveline: MXL176T Meritor extended lube with half-round yokes

Driver controlled traction differential with driver controlled differential lock rear valve

with dash-mounted switch and blinking indicator lamp, differential unlock with ignition

off, active @ 5 MPH

Lubrication: Synthetic 75W-90 rear axle lube

Rear Brakes: Meritor cam 16.5 x 7” P cast spider heavy duty double anchor fabricated

shoes

Rear axle brake linings: non-asbestos with dust shields

Rear brake drums: Webb HW outboard-mounted cast iron

Brake cams and chambers on forward side of drive axle

Rear axle oil seals

Parking brake chambers: Bendix Eversure Longstroke spring parking brake chambers

Rear axle Automatic slack adjusters: Haldex

Rear Suspension: 26,000 lbs. Flat leaf with helper and radius rod

Fore and aft control rods

Axle clamp: Standard U-bolt pad

**Brake System Equipment**

Brake Package: Full air

Anti-lock brake system: Wabco four-channel, 4-sensor/4 modulator, with-out traction

control enhancement

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Brake System and Equipment (Cont’d)**

Chassis air lines: reinforced nylon, fabric braid and wire braid depending on location

Brake relay valve with 5-8 PSI crack pressure

Air dryer: Bendix AD9SI heated air dryer mounted inboard on LH rail

Air reservoirs: Aluminum

Air tank drain valves: Pull cables on all air tanks

Clear frame rails BOC to front of rear suspension both rails outboard

Quick disconnect fitting w/50’ of 200 PSI hose for tire inflation

Trailer airbrake package with airlines to back of truck

**Frame and Wheelbase**

Wheelbase: 150”

Cab-to-Axle: 84”

Frame: 2,592,000 RBM, 7/16” x 3 9/16” x 11 1/8” heat treated steel, 120,000 KSI

yield strength single channel, double frame is not acceptable due to rust perforation

of inner frame splayed frame shape at front with 24” front frame extension

End of frame: Square-cut

Rear Suspension Cross Member: Standard heavy-duty C-channel

**Chassis Equipment**

Front bumper: 14” steel 3/8” or Custom for snow plow mounting

Front tow hooks: Two (2) frame mounted

Fender and front of hood mounted front mud flaps  Front license plate bracket included

Chassis Fasteners: Grade 8 threaded Hex

**Fuel Tanks and Equipment**

Left hand fuel tank: 60-gallon, must be constructed of aluminum to preclude exterior

corrosion and interior fuel contamination

Fuel tank: 25” diameter

Fuel tank and band finish: Polished stainless steel bands with plain aluminum tank

Fuel tank orientation: Forward mounted under cab

Fuel tank cap: Standard, non-locking

Fuel/water separator: With heated bowl and primer pump

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Fuel Tanks and Equipment (Cont’d)**

Fuel hoses: Nylon high temperature reinforced

**Front Tires, Hubs and Wheels**Front Tires: Michelin XZU-S 315/80R x 22.5 20 Ply

Front Hubs: Conmet pre-set bearing iron (aluminum hubs are not acceptable)

Front Wheels: Accuride model 29039 5-hand 5.25 inset 10-bolt hub-pilot 22.5” x 9.00”

steel disc

Front wheel nuts: Hub-pilot with flat flange

**Rear Tires, Hubs and Wheels**

Rear Tires: Michelin XDS-2 11R22.5 16-ply

Rear hubs: Conmet pre-set bearing iron (aluminum hubs are not acceptable)

Rear wheels: Accuride model 28828 2-hand hole 10-bolt hub-pilot 22.5” x 8.25” steel

disc wheel

Rear wheel nuts: hub pilot with flat flange

Wheel check high visibility green loose wheel nut indicator on all wheels

**Spare Tires to be Included**

One (1) spare front tire mounted to wheel to match specified front wheels and tires

One (1) spare rear tire mounted to wheel to match specified rear wheels and tires

**Cab Exterior**

Cab: 114” BBC conventional aluminum and/or steel cab, one-piece heated windshield,

adjustable doors with concealed hinges, fiberglass hood and split fenders with splash

shields that lift away from the engine compartment when the hood is tilted. Entry and

egress shall be made via a 3-point system consisting of self-cleaning non-slip steps and

a minimum of two (2) grab handles on each side for the operator and passengers to utilize,

one on the inside of the door, and one on the cab exterior to the rear of the door. The steps

shall be a minimum of 4” wide and the grab handles must be large enough to be safely

grasped by one wearing heavy-duty work gloves.

Cab mounts: Air

Bug Screen: Non-removable mounted behind grille

Grab handles: Exterior LH/RH

Grille: Stationary Grille

Hood: Fiberglass

Air Horn under deck

Electronic horns: Dual

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Cab Exterior (Cont’d)**

Key and Lockset: All trucks and all locks keyed the same with six (6) keys per unit

Headlights: Single halogen composite with bright bezels, headlights on with wipers

Marker lights: aerodynamic LED  Stop/Tail/Turn lamps at end of frame LED integral

Primary mirrors: Dual west coast bright finish with heater LH & RH remote

Mirror Mounting: Mirrors mounted on doors

Auxiliary mirrors: 8” convex bright finish mounted under primary mirrors both sides

Rear window: Tinted safety glass

Door windows: Tinted with lowered bottom beltline for increased sideward visibility

and operating wing windows LH & RH

Door window regulators: Electric

Windshield: 1 piece tinted and heated

Windshield washer reservoir with fluid level indicator

**Cab Interior**

Interior Level: Gray vinyl interior

Interior convenience package roof mounted console with additional center compartment

with CB provision

LH upper door trim: Molded door panel

RH upper door trim: Molded door panel

Map pockets: LH door, forward roof mounted console, and upper storage compartments

Dash mounted 12 volt power supply

Smart switch expansion module

Cup Holder

Air Conditioning

Main heater/vent control: Main HVAC with recirculation switch

HVAC ducting for fresh air intake with snow shield

Heater plumbing: Standard without ball shut off valves

A/C compressor: heavy-duty

A/C condenser: Radiator mounted

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Cab Interior (Cont’d)**

A/C plumbing; binary control with R134A refrigerant

Cab Insulation Package: Standard

12V negative ground electrical system

Interior lights: Dome door activated LH & RH

Cab door locks: Electric

Driver seat: Elite high-back air suspension with 2 chamber air lumbar/heat, integrated

cushion extension forward and rear cushion tilt, adjustable shock absorber with dual

driver seat arm rest

Passenger seat: Elite high-back air suspension with 2 chamber air lumbar/heat, integrated

cushion extension forward and rear cushion tilt, adjustable shock absorber with dual arm

rest

Driver seat cover: Vinyl

Seat belts: 3-point adjustable D-ring retractor for outboard seating positions

Steering column: Tilt

Interior sun visors: Standard driver and passenger

First Aid kit

5 lb. Fire extinguisher

Triangular Reflector kit

**Instrument Panel and Controls**

Gauge package: Electronic

Gauge finish: Black bezels

Low air pressure warning: Light and buzzer

Air system pressure gauge with primary and secondary gauges

Cruise control

Starter control: key-controlled

LCD odometer, trip odometer, hour meter and voltmeter

Diagnostic Interface connector: Located below dash

Fuel level gauge: Electric

Coolant temperature gauge: Electric

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT’D)**

**Instrument Panel and Controls (Cont’d)**

Transmission temperature gauge

Hour meter: Integral with driver display

Engine oil pressure gauge: Electric  PTO switch with indicator lamp

Radio: AM/FM WB with front auxiliary input

Radio speakers: Two (2)

Radio antenna

Speedometer: Electronic, MPH scale

Tachometer: Electronic, 3000 RPM

Digital Voltage Display: Integral with driver display

Windshield wiper control: Electric 2-speed with variable intermittent settings

Snow plow light must be activated through OEM chassis wiring

Six (6) on/off rocker switches in the dash with indicator lights

Parking brake system: 2-valve system with warning indicator

Turn signal switch: Self-cancelling with brake overriding stop lamps

**Paint**

Paint type and color: Basecoat clear coat paint; color to be selected from standard color

chart at time of order

Paint design: Standard

Chassis color: Black Polyurethane

Bumper color: Black

Front and Rear wheel color: Powder-coated black

**Undercoating**

Entire truck chassis, underside of cab and underside of added body, oil pan

(dump, utility, platform) to be coated with Tectyl 2423 haps free black

Which is a low VOC, high solids, emulsion corrosion preventive coating, or equal  **Accessories**

One (1) complete set of filters for cab/chassis, drive train and upfit

Five (5) gallons of recommended-use hydraulic fluid

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-**

**LESS MODEL 433U STAINLESS DUMP BODY**

**Manuals**

The end unit shall be delivered with the following items:

One (1) fire extinguisher, interior mounted

One (1) complete set of all fluid filters, air filters and belts for engine, transmission,

final drives, mounted equipment, optional equipment, and all accessories that have

replaceable filters

Three (3) complete sets of mechanic’s “shop”, service and troubleshooting USB’s for

chassis, engine, transmission, optional equipment, mounted equipment and accessories,

including wiring diagrams. Parts manuals shall be in USB format (First ordered unit

only)

Three (3) sets of Manufacturer’s Line Setting Sheets for chassis, mounted equipment,

and optional equipment

One (1) “Build Book” per unit ordered. This Build Book shall include the brand, model,

part number and serial number for the following items/systems: Hydraulic Control Valve;

Hydraulic Control Cables; Hydraulic Reservoir; Plow; Spreader; Optional Freedom 2.2

Spreader Control (if ordered); PTO and Pump; Tarp System: Dump Body. A sample of

this build book will be available to view during pre-build meeting.

**General**

The dump body required under these specifications shall be constructed of 304-2B stainless

steel. Unit shall consist of a heavy duty body, hydraulic hoist, hydraulic pump, cab shield,

safety accessories, and all other components necessary to make up a complete operating

unit. The body and hydraulic hoist shall be manufactured by the same company. Hoist shall

be Class 50 NTEA rated telescopic.

**Minimum Body Dimensions**

Inside Length: 10’6”

Inside Width: 84”

Overall Width: 96”

Side Height: 26”

End Height: 36”

Rear Post Height: 36”

Capacity: 5.9/6.8 Cubic yards water level

Cab Shield: 10 Gauge 304-2B, ½” x 90” Integral cab shield

**Minimum Body Construction**

Sides: 7 gauge 304-2B stainless steel with formed sloping dirt shedding bottom rail

Board Pockets: 10” x 7 GA 304-2B side board pockets for 4” wood

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-**

**LESS MODEL 433U STAINLESS DUMP BODY (CONT’D)**

**Minimum Body Construction (Cont’d)**

Front/Tailgate: 7 GA 304-2B stainless steel

Floor: Hardox 3/16” AR450 180,000 PSI steel with 2” side to floor radius

Top Rail: 7 GA 304-2B stainless steel with formed in dirt shedding box top rail

Side Braces: One (1) pressed outward “V” per side

Oak Wood Side Boards: 2” x 4” side boards shall be placed on both sides of dump body

Front Corner Post: 6” wide x 7 GA 304-2B

1 ¼” x 3/8” Tarp Rail: Full length stainless both sides (round bar not acceptable)

Grip strut stainless steel rail – length of body at base

Rear Corner Post: 15” wide full depth x 7 GA 304-2B

15” Full Depth Rear Bolster: 7 GA 304-2B stainless steel

Tailgate: 7 GA 304-2B stainless steel. Full perimeter box bracing, two intermediate

vertical braces and one intermediate horizontal brace

Six (6) panel double-acting tailgate with two sets of stainless steel banjo plates and long

chains to allow tailgate to lie down horizontal with floor (Banjo eyes punched in rear

post not acceptable). Steel D-ring inside top center of tailgate for removing tailgate

Heavy duty stainless steel “tarp friendly” top hardware with grease fittings and chains

on top pins to prevent loss of them if removed. 1” overshot lower hardware

Tailgate release handle left front corner with chain & ring to lock handle closed. 5/8”

release rod down left side alongside of long sills with enough gussets to prevent sagging

3/8” spreader chains to be bright zinc plated steel covered with Naltex protection

covering

Crossmembers: None

Longsills: 10” @ 25.5# I-beam long sills

Lighting: STD FMVSS 108 LED lights/reflectors. Must have one (1) oval LED Stop/

Tail/Turn in each rear corner post. Three (3) 1” clearance lights mounted in pull plate

in back of truck

Body Up Indicator Light: As required by OSHA

Underbody: Black

Welding: Continuous exterior welding required (skip welding or caulking not

acceptable). All welds must be cleaned at factory to remove all burn marks.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-**

**LESS MODEL 433U STAINLESS DUMP BODY (CONT’D)**

**Minimum Hoist Requirements**

Hoist shall be Class 50

Trunnion mounted to the body with the largest diameter of the cylinder at the bottom

for increased stability

The front head sheet of the body shall be of one piece and be of a height sufficient for

hoist and have a dog house 10” deep by 20” wide

All tubing sections of the cylinder shall be salt bath nitrided for superior corrosion

resistance, increased hardness and durability

U-cup type seals shall be positioned in the gland nuts of each section with a wiper

installed above each seal to keep contaminants out

When the tubes retract, they shall be surrounded by oil below the U-cup seals

An outer cover shall enclose the cylinder while not in use

Through means of the oscillating collar attached to the bottom of the outer cover, the

body can be offset to one side 5 to 7 degrees without side loading the cylinder

Cylinder first moving stage, 4 ½” O.D.

Three (3) stages with 100” stroke

Operating pressure, 2,000 PSI

One (1) body prop

**Miscellaneous**

Tailgate spreader chain kit

One (1) oval Stop/Tail/Turn light cutouts in rear corner post

Wiring for standard dump body lights enclosed in a sealed waterproof wiring harness.

Split loom not acceptable

Body and hoist shall come complete with manufacturer’s safety decals and operating

Instructions

Body and hoist warranted to be free from defects in material and workmanship under

normal use and service for a period of five (5) years

One (1) stainless steel grab handle, driver side front

Stainless steel side ladder; slide out; 2 step. Location to be determined by County.

3M reflective tape on both sides of body and on 6-panel tailgate

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-**

**LESS MODEL 433U STAINLESS DUMP BODY (CONT’D)**

**Miscellaneous (Cont’d)**

Safety lock pins at lower tailgate hardware

**Accessories**

Back-up Alarm: Electric with minimum decibel level 97 DBA, 12-volt

Safety Lighting: Six (6) LED amber strobe lights. Two (2) recessed into rear post,

two (2) sides of cab shield and two (2) front of cab shield

All body lights shall be LED

Spreader light at rear mounted to body, not spreader

30-ton pintle hook ¾” pull plate with 5/8” D-rings

7-way round trailer Pollak type plug with a removable end

One (1) set of Meyer Saber plow lights mounted on hood of chassis with stainless steel

mounts. Location to be determined by County.

Two (2) forward facing strobe lights mounted on snow plow lights bracket to be powered

by its own switch

Electric brake controller to control 7-way flat trailer Pollak type plug with a removable

end

Glad hand at rear of pintle hook. Location to be determined by County.

**PIONEER MODEL EDD 1500D 8/15’ TARP SPECIFICATIONS**

Side Mount- Steel Framework

Roller Assembly – Telescopic – 3-piece

Left Roller Tube: 2.140 O.D. x 2.000 I.D. 6105-T6 aluminum extrusion with

bushing and stainless steel roll pin to accept motor shaft

Right Roller Tube: 2.140 O.D. x 2.000 I.D. 6105-T6 aluminum extrusion with

bushing. 1” O.D. 6061-T6 aluminum shaft and stainless steel roll pin

Center Section: 1.960” O.D. x 1.820 I.D. 6105-T6 aluminum extrusion

Bearing Plates: ¼” H.R.S.

Bearings: Flange Mounted Sealed Ball Bearings

Roll Mounting Angles: 1 ½” x 2” x ¼” Steel Angle

Direct Drive Gear Motor: Mounted directly to left side roller

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**PIONEER MODEL EDD 1500D 8/15’ TARP SPECIFICATIONS (CONT’D)**

Worm & Wheel Configuration: Permanently lubricated sealed gearbox. 90 to 1 Ratio

Output shaft shall be supported by ball bearings on both ends. Output shaft shall be

directly coupled to left side roller. Electric motor is .85 horsepower. Aluminum

gearbox housing. Plastic protective cover. ¾” O.D. output shaft. Motor is thermally

protected by automatic resetting circuit breaker.

**Pivot Arm Framework**

Pivot Arms: 1.745” O.D. x 1.405” I.D. 6105-T6 Aluminum Extrusion with

.250 W X .94 L reinforcing fin on one side and .75 W x .50 L reinforcing

block on other side. Overall height to be 3.185”

Rear Section: 1 3/4” O.D. x 170 wall 6061-T6 Aluminum Extrusion

Bows: 1 3/8” O.D. x .125 wall 6105-T4 Aluminum Extrusion

Arm Mounting Brackets: Steel Weldment

Base Plate: ¼” H.R.S.

Mounting Hub: 4” O.D. steel tube

Spring: Reverse wound torsion spring – ½” diameter wire

Wire per ASTM A229 Class I

**Fabric**

100% Polyester, 1000 Denier, Black HD mesh, 13 oz. per square yard

**Construction**

Seamless front to rear, rectangular in shape, 85” wide, grommets on front & sides,

pocket at rear

**Wiring and Electrical**

All wire shall be 8 gauge stranded cable, all connectors shall be ring type. High amperage

self-centering rotary switch (Momentary On/Off – Momentary On). Thermal reset circuit

breaker (Auto Reset).

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE**

**PTO**

**CHELSEA RESE MTCA 3301000175 MTCA3301**

The PTO shall be of a hot shift design driven off the Allison automatic transmission.

The PTO shall have a direct mount rotatable pump flange. There shall be a console

mounted rocker switch to engage and disengage the PTO.

**Pump**

**PARKER P20A346JEAL17-25**

The pump shall be a cast iron, positive displacement, gear type pump. The pump shall

feature pressure balanced, bronze wear plates and Teflon bushings. Pump shaft shall

be a 7/8’ 13 spline shaft to couple with PTO. Pump size shall be 3.44 cubic inches of

displacement.

**Control Valve**

The control valve shall be a cast iron, sectional type spool valve. Valve shall have a

priority inlet with adjustable flow control and adjustable main relief. The hoist section

shall incorporate an auxiliary relief for the dump hoist down function. The Priority flow

from inlet shall run to a combined flow section upstream of spreader section to ensure

seamless operation of spreader during winter operations. The valve shall have a nominal

flow rating of 20 GPM with flows to 30 GPM available with a pressure drop not to exceed

140 PSI.

Valve shall be a Parker-Gresen model V-20. Use of external flow dividers is

unacceptable.

Valve shall be arranged as follows: 1 – Priority flow inlet; 2 – DA Hoist with 500 down

side relief; 3 – DA Plow Raise; 4 – DA Plow Angle; 5 – Combined flow section; 6 –

Spreader with detent and reverse

**Spreader Control**

The spreader control shall be a dual knob valve with on/off handle.

The spreader valve shall have individual flow adjustment knobs for the spinner and auger.

Spreader valve shall include a relief cartridge to protect the motors in the event of a

material jam. Valve shall feature spinner priority to reduce material pile up from the auger

at low flow conditions. ½” JIC Bulkhead fittings shall be drilled through frame rail to

accommodate a short jumper hose with quick disconnects mounted to body.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE**

**(CONT’D)**

**Cable Controls**

The control valve shall be shifted via sealed cable assemblies. The cable assembly shall

feature a polyethylene conduit with armor over braid and Teflon liner. Cable assembly

shall be rated for a minimum of 100 lbs. pull and 80 lbs. push. Cables shall be attached

to the hydraulic valve by a bonnet type connection with clevis pin and locking clips.

Cable shall be attached to an in cab handle. The handle shall be mounted in a location

convenient to the operator. The handle shall feature cast base construction with steel

internal parts and be rated for 80 lbs. of output force. A knob with identification label

shall be attached to the end of the handle.

**Reservoir/Valve Enclosure**

Reservoir must be constructed of 7 GA stainless steel. Reservoir/valve enclosure must

be 30-gallon capacity with an integrated covered mounting area for the valve. All

plumbing for the hydraulic valve inside the enclosure shall be SAE rated stainless steel

tubing and terminate on the front of the reservoir with JIC bulkhead connectors. The

breather cap shall be mounted to an inspection lid. Inspection lid shall also provide for

an in-tank mounted return line filter. The filter assembly shall incorporate a 10 micron

50 GPM filter element with a 25 PSI bypass. The reservoir shall include a twist off filler/

breather assembly with 40 micron vent filter and a fill screen. Reservoir shall be complete

with a sight temperature gauge and a magnetic drain plug. Suction port shall allow for

installation of a 2” NPT 50 GPM suction screen. Suction screen shall have a 3 to 5 PSI

by-pass spring. A 2” full flow ball valve shall be installed in the suction line. Removing

of a lid to access the filter and breather cap is not acceptable. The reservoir shall have a

float switch to control PTO operation in the event of low oil.

**SPX 050 AMERICAN ROADS TRITON SNOW PLOW**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFCATIONS**

**Moldboard Specifications**

Moldboard length of 11 feet

Moldboard height of 42 inches

Moldboard material shall be 10 gauge carbon steel smooth rolled profile providing

ultra-smooth surface for snow deflection

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFCATIONS (CONT’D)**

**Moldboard Specifications (Cont’d)**

Overhang from cutting edge shall have minimum 12” overhang with 10 degree attack

angle

Top of moldboard shall be reinforced by 2 ½” x 2 ½” x 3/8” angle iron

Bottom of moldboard shall be reinforced by 4 x 4 x ¾” angle iron and drilled to

accommodate AASHTO standards

Ribs shall be reinforced with 2 x 2 x 3/8 angle as well as the upper and lower

reinforcement angles. Ribs shall be 5” at the trip edge and 3” tall at the top edge by ½”

wide. Ribs shall be spaced to match support arm locations as well as provide adequate

support of the moldboard. A total of 12 ribs shall be used per moldboard assembly.

Three sets of double ribs and 6 single ribs.

Each rib shall have a ½” relief at the corners where they attach to the reinforcement

angles. This allows water to drain off the back of the moldboard during storage.

At the bottom of each rib there shall be three 1 5/16” holes spaced at 1 7/8” center to

center to allow for semi-circle height adjustment

Two sets of double ribs shall have three 1 5/16” holes spaced at 2 ¼” center to center to

allow for attack angle adjustment

Weldments on the moldboard shall be continuous

Outer rigs of moldboard shall be drilled for marker installation

Two (2) curb guards mounted each side of moldboard

**Trip Mechanism Construction**

Plow shall be full trip design consisting of two (2) coil springs

Springs shall be ¾” wire with a coil OD of 5 9/16”, consisting of 16 full coils

Bottom angle shall be reinforced by eleven (11) ½” thick gussets spaced evenly to

avoid interference with cutting edge attachment hardware

Cutting edge shall be 6” x 5/8” x 11’ long and is drilled to AASHTO standards

Cutting edge shall be secured using 5/8” grade 8 carriage bolts

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFCATIONS (CONT’D)**

**Push Frame**

Push frame shall be designed to hydraulically reverse the moldboard in an arc at any angle

from 35 degrees left to 35 degrees right from a centered position

Push frame shall be constructed from a ½” plate

Push frame shall be supported above and below the semi-circle with 2 x 4 x 3/16” tubing

Push frame shall be drilled to accept 1 ½” bolt at the semi-circle connection. At this

connection, welded to the push frame is the female portion of the socket connection.

This connection distributes the pushing load directly from the push frame to semi-circle

and moldboard relieving stress on the bolted connection. The female socket connection

is made from 1” plate steel and contoured to match the male portion on the semi-circle.

Rear of push frame shall be drilled to accept a removable QCP adapter. Three sets of

1 3/16” holes shall be drilled on 2” centers to allow for installation on a variety of trucks

and hitches

Two holes shall be located on the top and bottom push frame plates drilled to accept

1 ½” bolts for hydraulic cylinder attachment.

All welds must be continuously welded, no exceptions.

**Semi-Circle Construction**

Semi-circle shall be constructed from 5 x 5 x 3/16” tubing. The main tube or “push

beam 5 x 5 x 5 1/16” is 120” long spanning the entire width of the moldboard. This tube

shall be constructed from one continuous piece.

There shall be two stops placed appropriately to prevent the plow from turning past

35° left or right.

Crank style jackleg (part #0091215) to be mounted on backside of semi-circle  Hydraulic cylinder mounting points shall be ½” plates welded to the top and bottom of

the semi-circle. Plates shall be drilled to accept 1 ½” bolts for hydraulic cylinder

attachment. These plates also serve as locators for support arm shackles and gussets to

provide additional support from the “push beam” to the rest of the semi-circle.

In the center of the semi-circle, a hole shall be drilled to accept the 1 ½” Grade 8 bolt

that acts as the pivot point for the push frame. Also, at this point above and below the

semi-circle shall be the male portion of the socket that relieves stress from the bolted

connection. This shall be made from 1” plate steel and contoured to match the female

portion on the push frame.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFCATIONS (CONT’D)**

**Semi-Circle Construction (Cont’d)**

Tabs shall be welded on the push frame to accept ½” screw type chain shackles. These

tabs shall be made from ½” plate steel 5 ¼” long and 2 ½” wide. They shall be welded

to the back side of the 5” tubular push beam to increase the weld surface area. They

shall be welded at 55 degrees from the bottom of the semi-circle to match the chain

angle going to the lift arm on the hitch.

There shall be seven sets of 3/4” thick moldboard mounting ears installed along the push

beam for attachment of the moldboard. Moldboard shall pivot at these points on 1 ¼”

diameter rivet pins with a washer and cotter pin on the opposite side of the rivet head.

Four sets of the moldboard mounting ears (two outer sets on either side of the push beam)

shall have an inside spacing of ¾” to accept a single ½” moldboard rib. Three sets of the

moldboard mounting ears (the center sets) shall have an outside spacing of 2 ¾” to fit

inside double moldboard ribs.

Moldboard attachment ears shall be gusseted with 4” triangular steel gussets. The push

frame shall connect to upper portion of the moldboard using two support arms. The center

of the support arm shall be made from 2 x 2 x ¼” square box tube. Actual mounting

points are 1” schedule 40 pipe fully welded through the box tubing. The box tubing

shall be drilled through to accept the pipe, the actual connection point is a 7/8” bolt.

**Adjustable Cast Mushroom Shoes**

Plow to be fitted with adjustable cast steel mushroom shoes mounted left and right on rear

of semi-circle

A ½” steel plate to be welded onto the semi-circle rear with five (5) adjusting holes for

overall height

Adjusting handle crank to be stowable against the show housing and allow up and down

movement of the shoe via threaded screw

A 1 ¼” screw with adjusting nut are housed in a 3” square shoe housing with a welded

on 5-hole mounting plate

Cast steel mushroom plow shoe has 6” bolt centers, ¾” square holes and is 10.625” in

diameter and 2.34 inches thick.

Grade 8 hardware shall be used throughout

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFCATIONS (CONT’D)**

**Hydraulics**

Plow angle shall be controlled by two double acting hydraulic cylinders

Each cylinder shall have a 4” bore with an 8” rod diameter with a maximum operating

pressure of 3000 PSI

Retracted cylinder length shall be 21” with both the rod and cylinder ends accepting

1 ½” bolts/pins for connecting to the semi-circle and push frame.

Plow shall be equipped with one crossover relief valve. Valve shall use ½” ports and

be set to a relief pressure of 1000 PSI.

**QCP**

Push frame shall be equipped with a removable QCP adapter for quick hitch

applications

The side of the removable QCP shall be drilled to allow for three different mounting

heights

Base of the QCP shall be made from MC4 x 13.8# channel

QCP side plate shall be ½” formed plate

QCP loop diameter shall be 2”

**Paint**

Paint shall be of high quality, free of runs, overspray, and defects

Standard paint type shall be epoxy

Standard paint color shall be safety orange

**SPH A-152 ARM**

**BUMPER-TO-FRAME PLOW HITCH SPECIFICATIONS**

**Hitch Frame**

Frame shall be heavy duty, low profile, front frame mounted style, designed for use with

trucks equipped with a tilt hood and stationary grille - snow plow hitch must clear hood

when open

The frame shall be capable of self-storing the hydraulic cylinder when not in operation

thus allowing the lift arm to fold down parallel to the rest of the frame.

Vertical supports of the hitch shall be constructed from 4 x 4 x 3/8” square tubing.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**SPH A-152 ARM**

**BUMPER-TO-FRAME PLOW HITCH SPECIFICATIONS (Cont’d)**

**Hitch Frame (Cont’d)**

Cylinder support bracket on the hitch shall be constructed from 3 ½” x 3 ½” x ½” angle

fully welded to both vertical supports. The two cylinder mounting tabs shall be ½” steel

placed in the center of support bracket and spaced at 2 1/8” apart. Each tab shall be drilled

to accept a 1” pin.

The upper horizontal support of the hitch shall be constructed of two pieces. The first is

a formed 3/8” plate that wraps the top and upper back portion of the vertical supports.

This plate also acts as a stop when the lift cylinder is stored as well as one of two points

the lift arms connection tabs are welded. The second horizontal support is a ½” contoured

plate that allows the lift cylinder to be stored and provides a second mounting point for the

lift arm connection tabs.

There shall be two pairs of lift arm support shackles. Each pair shall be made from ½” x

9 ¾” plate and drilled to accept 1 ¼” pins.

Fully welded to the vertical supports shall be two C 8 x 18.75 channels with ½” thick

end plates. The end plates shall be drilled to accept six 5/8” grade 8 bolts for attaching

the hitch between the frame rails.

Support of the lower portion of the hitch shall be provided by left and right hitch side

plates constructed of 5/8” plate and securely bolted to the truck frame where appropriate.

**Pin Lock QCP**

Plow attachment shall be made by a pin lock QCP assembly

Top and bottom of the assembly shall be made from ½” contoured plate. Both plates

shall be drilled to accept the 2” lock pin.

Welded to the bottom plate shall be a 5/8” chamfered plate that both provides support

to the lock pin and helps to guide the QCP loop into the hitch

Welded to the top of the top plate shall be a formed 3/8” plate drilled for the 2” lock

pin that both provides support and protects the pin in the event a plow is set too high

while hitching

In front of the QCP assembly shall be two ½ thick form bumpers. These bumpers are

the resting/pushing point for the plow. They shall be curved to allow the plow to raise

and lower smoothly.

Lock pin shall be 2”, tapered at one end for ease in guiding into position, and has tabs

welded to the other for the lift bar attachment.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**SPH A-152 ARM**

**BUMPER-TO-FRAME PLOW HITCH SPECIFICATIONS (Cont’d)**

**Heavy Duty Lift Arm Assembly**

Heavy duty lift arm shall be an extendable style with seven different extended positions.

Frame of the lift arm shall be constructed from ½” x 4” steel plate that is formed to

contour the outer tube of the extendable arm. This frame is also the connection point to

the hitch and hydraulic cylinder.

The external tube shall be constructed of 4” heavy wall square tubing. On each end

of the tube are 1” wide bushings ground to fit the inner tube. This ensures a tight long

lasting fit

Top plate on the lift arm shall be 3/16” and is used to prevent “racking” of the frame.

The inner tube shall be constructed of 3” heavy wall square tubing. Tubing is drilled to

allow for the seven different extended positions.

Lift arm assembly shall be welded to the square tubing. Tubing shall be drilled to allow

for the seven different extended positions.

Welded to the front of the inner tube shall be a formed ½” plate with notches to accept

standard ½” link chain. When required this plate can be changed to match different level

lift systems.

**STAINLESS STEEL 8’ UNDER TAILGATE SPREADER SPECIFICATIONS**

**MEYER BL-960**

**Specifications**

Body Width: 96”

Hopper Height: 19”

Hopper Width: 96”

Hopper Depth: 18”

Spread Width: 4’-40’

Empty Weight: 450 lbs.

Spinner Diameter: 18”

Material Movement: Auger

Mounting Method: Under Tailgate

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**STAINLESS STEEL 8’ UNDER TAILGATE SPREADER SPECIFICATIONS (Cont’d)**

**MEYER BL-960**

**Specifications (Cont’d)**

Hopper Material: Stainless Steel

Spreader Material: Salt or Salt/Sand Mix

**General**

This under tailgate shall be of the bottom opening design

The spreader shall fasten to the corner posts of the dump body using spreader

manufacturers’ brackets and quick disconnect pins for quick mounting and removal

without the use of special tools

This mounting shall allow the dumping of materials without interference from the

Spreader

This unit shall spread free flowing granular materials, abrasives and chemicals

This unit shall be factory adapted to accept automatic control systems (only with a

sensored motor)

All stainless steel used in the production of this unit shall be corrosion resistant, non-

magnetic stainless steel

The manufacturing and production of this unit shall be of the best commercial practices,

and only materials of the finest quality shall be used

**Trough**

Rigid 10 GA stainless steel one piece end plates shall be continuously welded to a 10

gauge stainless steel auger trough & 3” x 1 ½” formed channel stainless steel rear

member

The unit shall have a 10 gauge stainless steel three point hinged bottom door that when

released, exposes the entire length of the auger for easy cleanout

This hinged bottom shall be held in place by two replaceable heavy duty cam locks with

a lift handle for convenient one man operation

The anti-flow cover over the discharge opening shall be manufactured of 10 gauge

stainless steel and removable without the use of tools

The 10 GA stainless steel trough cover/backplate shall be one piece hinged integral part

of the unit that may be raised when spreading and lowered for dumping operations

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**STAINLESS STEEL 8’ UNDER TAILGATE SPREADER SPECIFICATIONS (Cont’d)**

**Trough (Cont’d)**

This cover shall be capable of being locked in either the raised or lowered position by

two replaceable captivated latches

**Drive**

A direct drive coupled hydraulic motor shall be provided for driving the auger

This hydraulic motor shaft shall mount directly to the auger pipe by a non-corrosive

sleeve and a ½” grade 8 bolt

The hydraulic motor shall mount directly to the end plate

There shall be two separate hydraulic “orbital type” motors capable of delivering high

torque at low speeds to power both the auger and the spinner

The auger feed rate and spinner speed are both variable

**Feed Mechanism**

The 6” diameter (nominal) heavy duty auger shall consist of flights with outer edge at not

less than .150 thickness, which is welded to a 2 7/8” diameter ERW pipe size tube

This auger shall have continuous and reverse flighting to the discharge port for more

uniform dump body unloading, and shall be supported by 1 ¼” idler end shaft

The auger idler shaft shall be supported in sealed self-aligning precision single row

radial ball bearing with grease fitting

The discharge port shall be located on the left side of the trough, approximately 21” in

from the edge of the bottom door

The spreader shall be equipped with a safety interlock device to positively prevent power

from reaching the auger motor when the top cover and bottom door are opened beyond

the normal operation position

**Spinner**

The spinner shall consist of a disc and six (6) fins molded into a single polyurethane

unit, resulting in a flat trajectory and uniform spread pattern from 4 to 40 feet in width

The spinner assembly shall be adjustable side to side, allowing for variable spread

patterns left, right, and center of vehicle

This shall be accomplished by sliding the hinged frame sideways on the shaft so that the

point at which the material hits the spinner disc is varied

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**STAINLESS STEEL 8’ UNDER TAILGATE SPREADER SPECIFICATIONS (Cont’d)**

**Spinner (Cont’d)**

The entire spinner assembly shall be easily removed by pulling two pins, and uncoupling

two hydraulic quick disconnect hoses

The spinner disc shall be mounted directly onto the hydraulic motor shaft by means of a

cast iron spinner hub

The spinner shall be linked to the truck frame with a universally mounted parallel arm

to keep the spinner horizontal to the road surface at all dump body angles

A spinner shield shall be provided to prevent material from striking the truck

The spinner shall be adjustable in height in four positions

The entire spinner assembly shall be made of stainless steel except for the motor and

the spinner disc

**Mounting**

This spreader shall fasten to the side of the dump box using quick disconnect pins for

quick mounting and removal without the use of special tools

**Painting**

All stainless steel shall be chemically cleaned, but remain un-painted. Carbon steel

components shall be chemically cleaned and coated with a lead free rust inhibitive

primer and painted with lead free black

**WARRANTY DETAILS**

Cab and Chassis: Extended Warranty: 5 year/150,000 mile engine warranty with

unlimited hours to include turbo, injectors and ATS; 5 year transmission warranty

with unlimited mileage; 5 year towing for warrantable repairs warranty

Stainless Steel Dump Body: 5 year warranty on hoist and body structure

Tarp: 1 year warranty on motor and moving parts

Central Hydraulic Manual System: 1 year warranty parts and labor

Complete Plow System: 1 year warranty

Under Tailgate Spreader: 1 year warranty

**Warranty shall start on date of acceptance of vehicle by the County.**

**Vendor shall submit all warranty details with bid submission.**

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**OPTIONS**

**1A. Freedom 2.2 Spreader Control**

Controller shall have 3 Pulse Width Modulation (PWM) output channels for liquid and

granular spreader controller

The controller shall be a microprocessor type capable of PWM control of three hydraulic

valves

Controller must be automotive grade for durability. Any gaming type controllers are

unacceptable.

The controller must offer ground speed control from vehicle signal. No GPS antenna

can be used for ground speed signal input.

The controller must have three channels to operate an auger/conveyor and liquid system.

PWM signal must be adjustable for a wide range of implement functionality.

The controller shall be capable of ground speed oriented spreading, ground speed

triggered, and manual mode.

The system shall offer a manual mode lock out option

The spreader controller shall operate in open or closed loop configuration.

Controller shall offer remote pause, unload mode, liquid float input, test speed, and

on-screen error with alarms and message reporting

Sensor short detection with message and alarm

System must have 2 auxiliary output channels available

System shall offer spinner configurable MPH shut off, storm totals on screen or with

USB.

Operator screen shall offer knobs or touch screen to control granular and liquid outputs.

There shall be nine (9) independently programmable feeder output channels for

accurate lbs. per mile output

The system shall also offer 9 programmable speeds for the spinner

System shall maintain up to 4 different granular material types

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**OPTIONS (Cont’d)**

**1A. Freedom 2.2 Spreader Control (Cont’d)**

There shall be an integrated blast mode with instant off to stop output if necessary

Blast must be programmable for flow rate and material distance

Unit shall provide an unload mode at speeds of up to 5 MPH

A standby (pass) mode shall be provided to allow for momentary interrupt of the spreader

without changing the feeder/spinner/liquid output

All programming and calibration shall be accomplished using the touch screen of the

controller. Detachable key board is not acceptable.

**Modular Granular and Liquid Valve**

The modular manifold must be constructed of 6061 anodized aluminum

Modular manifold must have an adjustable pressure of up to 3500 PSI with multiple

flow, pressure, performance, and function configurations

Each function shall be equipped with screw adjustable manual overrides protected by

jacketed debris covers

The modular manifold shall operate in either open center (fixed displacement) or closed

center (variable displacement) hydraulic circuits

The auger/conveyor must be rated at 15 GPM and feature a cartridge valve design for

precision spreading

The spinner valve must provide 10 GPM and also feature a cartridge design valve with

manual override

Pre-wet or anti-ice implements shall be available as a 10 GPM hydraulic circuits if

necessary

Additional cartridge valve required for liquid system

These functions shall be proportional controlled, pulse width modulated, pressure and

flow compensated, with heavy duty 12 VDC coils

Spreader control “outside the cab” harnessing shall meet IP 68 standards

Connections must be NEMA x6 standards for dust protection

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**OPTIONS (Cont’d)**

**1A. Freedom 2.2 Spreader Control (Cont’d)**

Outside the cab connections shall be rated as NEMA “x8” – protected against the effects

of a permanent submersion in water as well as able to show no corrosion after 500 hours

in a 35C salt spray

The entire hydraulic system shall be completely serviceable without removing from the

enclosure or disassembling sections

The electronics and hydraulics shall be manufactured by the same company

The hydraulic system shall be pressure and flow tested before the installation process

The modular spreader valve manifold shall be mounted in a weather resistant enclosure

Enclosure shall be vented to reduce moisture

Five (5) year warranty on spreader valve, Two (2) year warranty on controller

**1B. Larger Dump Body**

Larger dump body shall have same specifications as indicated in base vehicle, but with

30” sides to maintain a water capacity of 6.8 cubic yards

**1C. Paint for Dump Body**

Paint specified dump body in a single stage paint a single color (i.e. School Bus Yellow

or other paint color from color chart)

**1D. Road Department Paint Color Scheme**

School Bus Yellow from the bottom of the windows down. Bahama Blue from the

bottom of the windows up to and including cab roof and back, on hood from bottom

of windshield to a point on the hood to make a “V” and match the Road Department fleet.

Shall be base coat clear coat. (Note: Not all Vehicles will be painted this way)

**1E. Diagnostic Tools / Test Equipment**

Cummins Quickserv Unlimited Service plan, with renewals, shall be provided at no

cost to the county for a period of five (5) years from the acceptance of the equipment

1. Successful bidder may be required to supply between one (1) to three (3)

complete sets of test/diagnostic/ programming equipment (i.e. laptop,

software, cabling, and adapters) and special tools required to perform the

full range of diagnostic and maintenance actions necessary to maintain

vehicle operability. This equipment will cover the vehicle chassis, engine,

transmission, brakes, hydraulics, and all additional equipment (if applicable).

1. All laptop computers will be of the newest available technology and have

sufficient storage and memory to operate all required software.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**OPTIONS (Cont’d)**

**1E. Diagnostic Tools / Test Equipment (Cont’d)**

1. Provide a list of all test/diagnostic/programming equipment and special tools

being supplied at the time of bid.

1. All software installations and activations will be completed by the successful

bidder at no cost to the County.

1. All software updates and renewal will be provided at no cost to the County

for a period of five (5) years from the acceptance of the equipment.

1. All technical issues relating to test/diagnostic/programming equipment and

special tools shall be resolved by the successful bidder at no cost to the

County for a period of five (5) years from the acceptance of the equipment.

1. Training shall be provided on all items in this section at a County location.
2. This equipment shall be the OEM equipment as available by the chassis

manufacturer.

**1F. Two-Way Radio Power and Wiring Requirements for New Vehicles**

For the purpose of installing two-way radios into new County vehicles and equipment,

the following power and wiring components shall be included:

*1. #12 AWG RED wire connected to 12VDC Battery Source rated at 20 Amps.*

*2. #12 AWG BLACK wire connected to chassis ground.*

*3. #16 AWG YELLOW wire connected to 12VDC Ignition Sense rated at 5 Amps.*

These wires shall be encased in plastic wire loom and routed from their

source into the cab of the vehicle and secured in the vicinity of the operator.

The wiring harness shall be clearly labeled *“TWO-WAY RADIO”.* The wires

shall be unterminated. The 12VDC sources shall be protected from making

contact with grounded metal surfaces.

**1G. Installation of County Supplied Two Way Radio and Accessories**

Install is to include but not limited to antenna cable, mounts, speakers, brackets, etc.

For the purpose of installing two-way radios into new County vehicles and equipment,

the following power and wiring components shall be included:

*1. #12 AWG RED wire connected to 12VDC Battery Source rated at 20 Amps.*

*2. #12 AWG BLACK wire connected to chassis ground.*

*3. #16 AWG YELLOW wire connected to 12VDC Ignition Sense rated at 5 Amps.*

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**OPTIONS (CONT’D)**

**1G. Installation of County Supplied Two Way Radio and Accessories (Cont’d)**

These wires shall be encased in plastic wire loom and routed from their source into

the cab of the vehicle. The wiring harness shall be clearly labeled “TWO-WAY RADIO”.

The 12VDC sources shall be protected from making contact with grounded metal

surfaces.

**1H. Technical Support**

Technical Support is to be provided by factory authorized technical representatives and

is to be the original equipment Manufacturers’ industry standard technical presentation

in a classroom setting.

The support provided shall be at the journeyman/equipment technician level and should

address limited theory, fault diagnosis and repair pertaining specifically to the equipment

supplied under this specification.

Technical support may be requested in the following areas:

1. Engine (cooling, fuel, ignition, lubrication systems) – 1 day at each location.

2. Transmission – 1 day at each location

3. Electrical – 1 day at each location

4. Brakes – 1 day at each location

5. Hydraulic system (dump body, spreader, snow plow) – 1 day at each location

6. Upfitter (dump body, sweeper, etc.) – 1 day at each location

A technical representative(s) shall be made available for a total of 180 training/support

hours (anticipated to be scheduled in six (6) hour blocks). Shorter training days will be

allowed only with consent of Vehicle Services. The total training hours will be required

to be provided and no additional compensation will be considered. The actual time to be

spent on each area will be by mutual agreement of the Vehicle Services Department and

the successful bidder.

For the purposes of determining materials and other training costs, class size is

anticipated to be comprised of six (6) to ten (10) Vehicle Services Department personnel.

Actual class size will be determined by the Vehicle Services Department at the time the

classes are scheduled.

Before the training is scheduled, Vehicle Services and the contractor will agree on the

scope of the training, and the type and quantity of manuals, etc. that are necessary for

proper coverage.

**ITEM #1 – MODEL YEAR 2022, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT’D)**

**COMPLIANCE**

**YES NO**

**OPTIONS (CONT’D)**

**1H. Technical Support (Cont’d)**

Technical Support for Vehicle Services may be provided at the following fleet

maintenance facility location as scheduled by a Vehicle Services Department

representative:

a. Toms River, 152 Chestnut Street, Toms River, N.J. 08753 (Two (2) sessions

will be provided at this location. One beginning at 7 am and another beginning

at 1:30 pm)

b. Manahawkin, 379 Haywood Road, Bldg. 109, Manahawkin, N.J. 08050

Technical Support for other Departments will be held at a location within

Ocean County. The requesting Department will notify the successful bidder of

the location.

Training at the successful bidder’s site, rather than the designated locations, will

be by mutual consent only.

Technical support will be requested and scheduled on an as needed basis up to

but not exceeding the 180 hours total during a period not to exceed twelve (12)

months from the date of placing the last unit in service.