



## Ocean County Board of Commissioners

OFFICE OF THE  
OCEAN COUNTY COMMISSIONERS

Director Joseph H. Vicari  
Deputy Director Gary Quinn  
Commissioner Barbara Jo Crea  
Commissioner Virginia E. Haines  
Commissioner John P. Kelly

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Toms River, New Jersey  
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### Board Meeting Agenda

Date: January 18, 2023 - 4:00 PM  
Location: Administration Building  
Room 119  
101 Hooper Avenue  
Toms River, NJ 08754

Agenda: Awarding a Contract for the furnishing and delivery of MOTOR VEHICLES: DUMP TRUCKS to Robert H. Hoover and Sons, Inc., the lowest qualified bidder. (B2023-07)

<b>Official Resolution#</b>		<b>2023000039</b>					
Meeting Date		01/18/2023					
Introduced Date		01/18/2023					
Adopted Date		01/18/2023					
Agenda Item		n-5					
CAF #							
Purchase Req. #		B2023-07					
Result		Adopted					
COUNTY COMMISSIONER	PRES.	ABS.	MOVE	SEC	AYE	NAY	ABST.
Joseph H.	✓				✓		
Gary	✓				✓		
Barbara Jo	✓				✓		
Virginia E.	✓			✓	✓		
John P.	✓		✓		✓		

I HEREBY CERTIFY THAT THIS DOCUMENT IS A TRUE, COMPLETE AND ACCURATE COPY OF THIS RESOLUTION, ADOPTED BY OCEAN COUNTY BOARD OF COMMISSIONERS, NJ AT THE MEETING REFERENCED THEREON

*Michelle I. Gunther*

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Clerk Of The Board

CONTRACT NO. MUST BE ON ALL PAPERS, DOCUMENTS, INVOICES, VOUCHERS	
NO.	B2023-07

## RESOLUTION

January 18, 2023

WHEREAS, on December 13, 2022, pursuant to legal advertisements therefor, sealed bids were received for the furnishing and delivery of MOTOR VEHICLES: DUMP TRUCKS for the County of Ocean; and

WHEREAS, at the advertised time, responses were received from the following bidders:

Name and Address of Bidder

Robert H. Hoover and Sons, Inc.  
149 Gold Mine Road  
Flanders, NJ 07836  
(973) 347-4210

Name and Address of Bidder

Gabrielli Kenworth of NJ LLC  
2306 US Highway 130 N  
Dayton, NJ 08810  
(732) 997-08810

; and

WHEREAS, after the receipt and examination of same, the County Purchasing Agent has now recommended to this Board that the lowest qualified bid, according to specifications, namely that of, ROBERT H. HOOVER AND SONS, INC. be accepted.

NOW, THEREFORE, BE IT RESOLVED by the BOARD OF COMMISSIONERS of the COUNTY OF OCEAN, STATE OF NEW JERSEY, as follows:

1. The Director and Clerk of this Board are hereby authorized and directed to enter into a contract accepting the bid for the furnishing and delivery of Motor Vehicles: Dump Trucks, for the County of Ocean, for the contract period from date of award through January 17, 2024, a period of one (1) year or until delivery is complete unless otherwise stated. The County reserves the right to extend the term of the contract pursuant to N.J.S.A. 40A:11-15, as follows:

ROBERT H. HOOVER AND SONS, INC. for twenty three (23) items, to wit:

ITEM NOS. 1, 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I, 2, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2I, 2J, 2K and 2L.

For a Total Lump Sum Award (Item #s 1 - 1I) of \$1,436,067.00.

For a Total Lump Sum Award (Item #s 2 - 2L) of \$2,680,179.00.

This vendor has extended this contract to County Cooperative Contract System Participants.

2. Payments for the equipment to be acquired by this contract shall be made upon the approval of vouchers submitted by the successful bidders in accordance with the requirements of the Board of Commissioners and subject to the Board of Commissioners customary procedures. Delivery shall be made upon receipt of a Purchase Order issued by the Ocean County Department of Purchase, upon which delivery locations and needed quantities shall be indicated.

3. Funds for the equipment shall be available within the following funding Sources: Roads, Solid Waste Management and Vehicle Services O.E.

4. The contract number must be placed on all papers, documents, invoices and vouchers pertaining to said contract, the number being B2023-07.

5. BE IT FURTHER RESOLVED that certified copies of this Resolution shall be made available to the County Auditor, County Department of Purchasing, Department of Finance, Roads, Solid Waste Management, Vehicle Services and Robert H. Hoover and Sons Inc., the successful bidder.

PROPOSAL DOCUMENT REPORT

Bid No. TBD

MOTOR VEHICLES: DUMP TRUCKS

PRICE TABLES

ITEM #1 - MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL

Line Item	Description	Qty	Unit of Measure	Unit Cost	Total Cost	No Bid	Comments
✓ 1	ITEM #1 - Model Year 2023, or Newer, 6 Yard Dump Truck with Plow and Spreader, As Specified, or Equal	6	EA	\$208,274.00	\$1,249,644.00		
OPTIONS							
✓ 1A	52" Tall Moldboard in Lieu of 42" Standard, As Specified	6	EA	\$1,500.00	\$9,000.00		
✓ 1B	Freedom 2.2 Spreader Control, As Specified	6	EA	\$1,429.00	\$8,574.00		
✓ 1C	Larger Dump Body, As Specified	6	EA	\$375.00	\$2,250.00		
✓ 1D	Paint for Dump Body, As Specified	6	EA	\$2,892.00	\$17,352.00		
✓ 1E	Road Department Paint Color Scheme, As Specified	6	EA	\$1,426.00	\$8,556.00		
✓ 1F	Diagnostic Tools / Test Equipment, As Specified	3	SET	\$20,417.00	\$61,251.00		
✓ 1G	Two-Way Radio Power and Wiring Requirements for New Vehicles, As Specified	6	EA	\$500.00	\$3,000.00		
✓ 1H	Installation of County Supplied Two Way Radio and Accessories, As Specified	6	EA	\$740.00	\$4,440.00		
✓ 1I	Technical Support, As Specified	180	HR	\$400.00	\$72,000.00		
TOTAL					\$1,436,067.00		

ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL

Introduced on: January 18, 2023

Adopted on: January 18, 2023

Official Report #: 202300039

Bid - MOTOR VEHICLES: DUMP TRUCKS

PROPOSAL DOCUMENT REPORT

Bid No. TBD

MOTOR VEHICLES: DUMP TRUCKS

Line Item	Description	Qty	Unit of Measure	Unit Cost	Total Cost	No Bid	Comments
2	ITEM #2 - Model Year 2023 Western Star 49X SF Specialized Dump Truck with Plow and Spreader, As Specified, or Equal	6	EA	\$349,381.00	\$2,096,286.00		
OPTIONS							
2A	52" Tall Moldboard in Lieu of the 42" Standard, As Specified	6	EA	\$1,500.00	\$9,000.00		
2B	Heavy Duty Heated Crossmemberless Stainless Steel Dump Body Under Options, As Specified	6	EA	\$3,750.00	\$22,500.00		
2C	Freedom 2.2 Spreader Control in Lieu of Manual Specifications, As Specified	6	EA	\$2,882.00	\$17,292.00		
2D	Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) in Lieu of Manual Controls, As Specified	6	EA	\$38,206.00	\$229,236.00		
2E	Paint for Dump Body, As Specified	6	EA	\$5,625.00	\$33,750.00		
2F	Road Department Paint Color Scheme, As Specified	6	EA	\$1,426.00	\$8,556.00		
2G	Spreader Leg Stands, As Specified	6	EA	\$5,478.00	\$32,868.00		
2H	One-Way Plow with QCP, As Specified	6	EA	\$15,000.00	\$90,000.00		
2I	Diagnostic Tools / Test Equipment, As Specified	3	SET	\$20,417.00	\$61,251.00		
2J	Two-Way Radio Power and Wiring Requirements for New Vehicles, As Specified	6	EA	\$500.00	\$3,000.00		
2K	Installation of County Supplied Two Way Radio and Accessories, As Specified	6	EA	\$740.00	\$4,440.00		
2L	Technical Support, As Specified	180	HR	\$400.00	\$72,000.00		
TOTAL					\$2,680,179.00		

Introduced on: January 18, 2023

Adopted on: January 18, 2023

Official RECORDING REPORT

Bid - MOTOR VEHICLES: DUMP TRUCKS

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL**

*Year, Mfr., Model:* 2023 Freightliner 114SD

*Engine:* Cummins

*Transmission:* Allison

*Delivery, A.R.O.:* 300 days

*Warranty:* Per Spec

**STAINLESS STEEL DUMP BODY**

*Mfr., Model:* Galion 433U

*Warranty:* 5 year hoist and body

**PLOW SYSTEM**

*Mfr., Model:* ARM SPX-050

*Warranty:* 1 year

**UNDER TAILGATE SPREADER**

*Mfr., Model:* Meyer BL-960

*Warranty:* 1 year

**HYDRAULIC SYSTEM**

*Mfr., Model:* Certified Parker V-20

*Warranty:* 1 year

**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.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, 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

                    

Introduced on: January 18, 2023  
Accepted on: January 18, 2023  
Noted on: aluminum diamond plate diesel exhaust fluid tank cover

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy-duty coolant: -34 degrees Fahrenheit extended life with coolant filter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Constant-torque clamps: constant torque for coolant hoses 1-3" diameter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine Heater: Phillips 1,000W/115V	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chrome heater receptacle: mounted under driver's door	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flywheel housing: Aluminum	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air intake warmer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Starter: Delco 12V 39 MT HD with OCP and magnetic switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vehicle interface wiring, Magnetic engine drain, transmission and rear axle fill and drain plugs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vehicle interface wiring with body builder connector mounted back of cab	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electronic transmission customer access connector	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Underslung or overslung frame cross-member at transmission mount	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trans oil check and fill with electronic oil level check	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transmission cooler: heavy-duty water-to oil in radiator end tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTO mounting LH side of transmission	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Front Axle and Equipment**

Detroit DA-FS-16.0-572KPI/3.74 drop, minimum capacity @ ground of 16,000 lbs.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Set Back Front Axle Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front brakes: Meritor cam 16.5 x 6" Q+ cast spider cam with dust shields	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front brake lining: non-asbestos	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front brake drums: Conmet outboard-mounted cast-iron	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front oil seals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Synthetic 75W-90 front axle lube	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front hubcap: Vented oil-type with window center and side plugs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front axle adjuster	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduced on: January 18, 2023  
 Adopted on: January 18, 2023  
 Official Resolution#: 2023000039



COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 - MODEL YEAR 2023, 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

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Enforcement: 2023000039

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Brake System and Equipment (Cont'd)</u></b>		
Chassis air lines: reinforced nylon, fabric braid and wire braid depending on location	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Brake relay valve with 5-8 PSI crack pressure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air dryer: Bendix AD9SI heated air dryer mounted inboard on LH rail	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air reservoirs: Aluminum	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air tank drain valves: Pull cables on all air tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Clear frame rails BOC to front of rear suspension both rails outboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Quick disconnect fitting w/50' of 200 PSI hose for tire inflation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trailer airbrake package with airlines to back of truck	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b><u>Frame and Wheelbase</u></b>		
Wheelbase: 150"	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cab-to-Axle: 84"	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
End of frame: Square-cut	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rear Suspension Cross Member: Standard heavy-duty C-channel	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b><u>Chassis Equipment</u></b>		
Front bumper: 14" steel 3/8" or Custom for snow plow mounting	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front tow hooks: Two (2) frame mounted	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fender and front of hood mounted front mud flaps	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front license plate bracket included	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chassis Fasteners: Grade 8 threaded Hex	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b><u>Fuel Tanks and Equipment</u></b>		
Left hand fuel tank: 60-gallon, must be constructed of aluminum to preclude exterior corrosion and interior fuel contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel tank: 25" diameter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel tank and band finish: Polished stainless steel bands with plain aluminum tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel tank orientation: Forward mounted under cab	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel tank cap: Standard, non-locking	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel/water separator. With heated bowl and primer pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, 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

    

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Electronic horn # 2020000039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, 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	☒	☐

Adopted on: January 18, 2023  
Official Resolution # 202300039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 - MODEL YEAR 2023, 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cab Insulation Package: Standard	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12V negative ground electrical system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Interior lights: Dome door activated LH & RH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cab door locks: Electric	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Driver seat cover: Vinyl	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Seat belts: 3-point adjustable D-ring retractor for outboard seating positions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Steering column: Tilt	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Interior sun visors: Standard driver and passenger	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First Aid kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 lb. Fire extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Triangular Reflector kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Instrument Panel and Controls**

Gauge package: Electronic	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gauge finish: Black bezels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Low air pressure warning: Light and buzzer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air system pressure gauge with primary and secondary gauges	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cruise control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Starter control: key-controlled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LCD odometer, trip odometer, hour meter and voltmeter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Diagnostic Interface connector: Located below dash	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel level gauge: Electric	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cabin temperature gauge: Electric	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduced on: January 18, 2023  
 Adopted on: January 18, 2023  
 Official Resolution#: 2023000039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Instrument Panel and Controls (Cont'd)</u></b>		
Transmission temperature gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hour meter: Integral with driver display	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine oil pressure gauge: Electric	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTO switch with indicator lamp	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radio: AM/FM WB with front auxiliary input	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radio speakers: Two (2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radio antenna	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Speedometer: Electronic, MPH scale	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tachometer: Electronic, 3000 RPM	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Digital Voltage Display: Integral with driver display	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Windshield wiper control: Electric 2-speed with variable intermittent settings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Snow plow light must be activated through OEM chassis wiring	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Six (6) on/off rocker switches in the dash with indicator lights	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parking brake system: 2-valve system with warning indicator	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turn signal switch: Self-cancelling with brake overriding stop lamps	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b><u>Paint</u></b>		
Paint type and color: Basecoat clear coat paint; color to be selected from standard color chart at time of order	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paint design: Standard	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chassis color: Black Polyurethane	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bumper color: Black	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front and Rear wheel color: Powder-coated black	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b><u>Undercoating</u></b>		
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b><u>Accessories</u></b>		
One (1) complete set of filters for cab/chassis, drive train and upfit	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Five (5) gallons of recommended-use hydraulic fluid	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**ITEM #1 – MODEL YEAR 2023, 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 gauge 304-2B side board pockets for 4” wood

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**ITEM #1 – MODEL YEAR 2023, 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 1/4" 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.	☒	☐



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**ITEM #1 – MODEL YEAR 2023, 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trunnion mounted to the body with the largest diameter of the cylinder at the bottom for increased stability	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All tubing sections of the cylinder shall be salt bath nitrided for superior corrosion resistance, increased hardness and durability	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
When the tubes retract, they shall be surrounded by oil below the U-cup seals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
An outer cover shall enclose the cylinder while not in use	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cylinder first moving stage, 4 ½” O.D.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Three (3) stages with 100” stroke	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Operating pressure, 2,000 PSI	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One (1) body prop	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Miscellaneous**

Tailgate spreader chain kit	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One (1) oval Stop/Tail/Turn light cutouts in rear corner post	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wiring for standard dump body lights enclosed in a sealed waterproof wiring harness. Split loom not acceptable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Body and hoist shall come complete with manufacturer’s safety decals and operating instructions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One (1) stainless steel grab handle, driver side front	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stainless steel side ladder; slide out; 2 step. Location to be determined by County.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3M reflective tape on both sides of body and on 6-panel tailgate	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**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 3/4" 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: 1/4" H.R.S.

Bearings: Flange Mounted Sealed Ball Bearings

Roll Mounting Angles: 1 1/2" x 2" x 1/4" Steel Angle

Direct Drive Gear Motor: Mounted directly to left side roller

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	<b><u>COMPLIANCE</u></b>	
	<b><u>YES</u></b>	<b><u>NO</u></b>
<b><u>PIONEER MODEL EDD 1500D 8/15' TARP SPECIFICATIONS (CONT'D)</u></b>		
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. 3/4" O.D. output shaft. Motor is thermally protected by automatic resetting circuit breaker.	☒	☐
<b><u>Pivot Arm Framework</u></b>		
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: 1/4" H.R.S.	☒	☐
Mounting Hub: 4" O.D. steel tube	☒	☐
Spring: Reverse wound torsion spring – 1/2" diameter wire	☒	☐
Wire per ASTM A229 Class I	☒	☐
<b><u>Fabric</u></b>		
100% Polyester, 1000 Denier, Black HD mesh, 13 oz. per square yard	☒	☐
<b><u>Construction</u></b>		
Seamless front to rear, rectangular in shape, 85" wide, grommets on front & sides, pocket at rear	☒	☐
<b><u>Wiring and Electrical</u></b>		
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 2023, 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. 1/2" JIC Bulkhead fittings shall be drilled through frame rail to accommodate a short jumper hose with quick disconnects mounted to body.

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**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 SPECIFICATIONS**

**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

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**ITEM #1 – MODEL YEAR 2023, 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 SPECIFICATIONS (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 1/2" x 2 1/2" x 3/8" angle iron.                      

Bottom of moldboard shall be reinforced by 4 x 4 x 3/4" 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 1/2" 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 1/2" 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 1/4" 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 3/4" wire with a coil OD of 5 9/16", consisting of 16 full coils.                      

Bottom angle shall be reinforced by eleven (11) 1/2" 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.

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**ITEM #1 – MODEL YEAR 2023, 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 SPECIFICATIONS (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.

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**COMPLIANCE**  
**YES**                      **NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFICATIONS (CONT'D)**

**Semi-Circle Construction (Cont'd)**

Tabs shall be welded on the push frame to accept 1/2" screw type chain shackles. These tabs shall be made from 1/2" plate steel 5 1/4" long and 2 1/2" 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 1/4" 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 3/4" to accept a single 1/2" moldboard rib. Three sets of the moldboard mounting ears (the center sets) shall have an outside spacing of 2 3/4" 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 1/4" 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 1/2" 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 shoe housing and allow up and down movement of the shoe via threaded screw ☒                      ☐

A 1 1/4" 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, 3/4" square holes and is 10.625" in diameter and 2.34 inches thick. ☒                      ☐

Grade 8 hardware shall be used throughout ☒                      ☐

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**COMPLIANCE**  
**YES NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFICATIONS (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.

Introduced on: January 18, 2023  
Approved on: January 18, 2023  
Official Resolution#: 2023000039

**ITEM #1 – MODEL YEAR 2023, 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 1/2" x 3 1/2" x 1/2" angle fully welded to both vertical supports. The two cylinder mounting tabs shall be 1/2" 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 1/2" 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 1/2" x 9 3/4" plate and drilled to accept 1 1/4" pins. ☒                      ☐

Fully welded to the vertical supports shall be two C 8 x 18.75 channels with 1/2" 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 1/2" 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 1/2" 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. ☒                      ☐

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, 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 1/2" 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 1/2" plate with notches to accept standard 1/2" 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                      

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Mounting Method: Under Tailgate

**ITEM #1 – MODEL YEAR 2023, 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 sensed 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 1/2" 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.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, 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 1/2" 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 1/4" 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.

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.  
Adopted on January 18, 2023  
Official Resolution #: 202300039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, 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.**

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Resolution#: 2023000039

ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)

COMPLIANCE  
YES                      NO

OPTIONS

✓ 1A. 52" Tall Moldboard in Lieu of 42" Standard

                    

✓ 1B. 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.

                    

Introduced on:            January 18, 2023

Adopted on:              January 18, 2023

System shall maintain up to 4 different granular material types.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)

COMPLIANCE  
YES                      NO

OPTIONS (CONT'D)

✓ 1B. 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.



COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**1B. 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.                      

**1C. 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.                      

**1D. 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).                      

**1E. 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).                      

**1F. 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).

2. All laptop computers will be of the newest available technology and have sufficient storage and memory to operate all required software.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)

COMPLIANCE  
YES                      NO

OPTIONS (CONT'D)

1F. Diagnostic Tools / Test Equipment (Cont'd)

- 3. Provide a list of all test/diagnostic/programming equipment and special tools being supplied at the time of bid.
- 4. All software installations and activations will be completed by the successful bidder at no cost to the County.
- 5. 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.
- 6. 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.
- 7. Training shall be provided on all items in this section at a County location.
- 8. This equipment shall be the OEM equipment as available by the chassis manufacturer.

1G. 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.                      

1H. 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.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**1H. 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.

                    

**1I. 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.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)

COMPLIANCE  
YES                      NO

OPTIONS (CONT'D)

II. 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.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL**

**Manufacturer/Model:** Western Star 49X

**Engine:** Cummins

**Transmission:** Allison

**Warranty:** Per Spec

**Delivery, A.R.O.:** 300 days

**COMPLIANCE**  
**YES**                      **NO**

**GENERAL**

2023 WESTERN STAR 49X SF

                    

Set forward axle

                    

Lh primary steering location

                    

**DIMENSIONS**

Front axle 20,000 lbs.

                    

Pusher axle 20,000 lbs.

                    

Rear axle 52,000 lbs.

                    

Registered gvwr 80,000 lbs.; cg tags

                    

**ENGINE**

Cummins x15 performance series 14.9l, 912 cid minimum 525v hp @ 1900rpm.

                    

Gov 1900 rpm, and 1850 lb.-ft. Torque @ 1000 rpm.

                    

Must be in line 6 cylinder of wet sleeve design utilizing hardened  
Cylinder liners, and electronics for simple service and diagnosis as needed.

                    

Minimum displacement shall be 14.9 liters.

                    

Engine must comply with latest federal mandate for diesel emissions. Should an  
Alternate power plant be offered the bidder must provide, all necessary technical  
data to show proof of equality including Maintenance schedules.

                    

**ENGINE EQUIPMENT**

Engine must have latest 50 state clean idle diesel emission certification

                    

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Oil check and fill: engine mounted  
Official Resolution#: 2023000039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>ENGINE EQUIPMENT (Cont'd)</b>		
Air intake: hood mounted air intake with precleaner integrated into hood with inside/outside air snow door.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alternator: 200 amp 28 si with remote battery volt sense	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Batteries: (4) 12-volt gnb maintenance-free 4000 CCA	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Battery box: frame-mounted stack battery box LH or RH side back of cab	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Positive load disconnect control switch mounted under dash or floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Remote jump start studs mounted on frame next to starter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Silicone heater/radiator hoses where possible	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Compressor: Cummins 18.7 CFM with internal safety valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine protection: electronic engine-integral warning system with shut down function	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine brake: Cummins intebreak compression brake with on off switch and low, med and high retardation switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Exhaust: single right-hand under cab ATD with bright finish upper 11' vertical stack cab mounted	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2-piece fan shroud and rear rock guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Exhaust shield: stainless steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fan drive: electronically controlled variable speed automatic control with dash switch and light	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13 gallon diesel exhaust fluid tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-polished aluminum cover for def tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oil filter: full-flow	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel filter/water separator: Detroit engine mounted with water in fuel Indicator	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiator: 1400 square inch severe service assembly bolted to engine	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Resolution 202300655

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>ENGINE EQUIPMENT (Cont'd)</b>		
Heavy-duty coolant: -34 oat extended life	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Coolant hoses: silicone where possible	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hose clamps: constant tension for coolant hoses and air intake system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine heater: Philips 1500w/115v	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chrome heater receptacle: mounted under driver's door	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cast iron front and rear engine supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Starter: Delco 12v 39 MT+ HD OCP	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>TRANSMISSION AND EQUIPMENT</b>		
Allison RDS 4700 automatic transmission with PTO provision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Programming for 70 mph output speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
S1 performance primary shift schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1900 rpm primary mode shift speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Performance-Table based shift schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transmission prognostics-enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTO mounting LH & RH side of main transmission	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water to oil transmission cooler	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Magnetic plugs, engine drain	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transmission drain, axle(s) fill & drain	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dash mounted push button shift control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Synthetic transmission fluid	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Introduced on: January 18, 2023		
Adopted on: January 18, 2023		
Official Resolution #: R2300939		
Transmission oil check and fill with electronic oil level check	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>FRONT AXLE AND SUSPENSION</b>		
Meritor 20000# front axle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Meritor 16.5 x 6 q+ heavy duty cast spider cam front brakes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Brakes, double anchor, fabricated shoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-asbestos front brake lining severe service	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Conmet cast iron front brake drums	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front brake dust shields	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front oil seals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stemco aluminum vented front hub caps	<input checked="" type="checkbox"/>	<input type="checkbox"/>
With window and center+side plugs – oil	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Synthetic 75w-90 front axle lube	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Haldex automatic front slack adjusters with stainless steel clevis pins	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bendix high capacity 20-23k power steering with rh auxiliary gear	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power steering pump oil air cooler	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 quart power steering see through reservoir	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23,000# flat leaf front suspension	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Threaded spring pins and bushings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front shock absorbers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>REAR AXLE AND SUSPENSION</b>		
Meritor rt-52-185 52000# tandem rear axle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Factory installed Watson/Chalin sl-2065 Tru-Track 20000# air lift	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Introduced on: January 18, 2023		
Adopted on: January 18, 2023		
Official Resolution#: 2023000039		



**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>REAR AXLE AND SUSPENSION (Cont'd)</b>		
Steerable pusher suspension with 16.5x6" brakes, dust shields and FL 1 Watson/chalin 20000# axle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pusher axle controls in cab, up/down valve, gauge and air pressure regulator	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Reverse lift axle warning with last state retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air piping for liftable pusher axle controls mounted inside cab	<input checked="" type="checkbox"/>	<input type="checkbox"/>
52" pusher axle spacing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Iron rear axle carrier housing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPL250HD XL Dana Spicer main driveline w/half round yokes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPL170 XL Dana Spicer interaxle driveline w/half round yokes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Driver control differential lockout rear/rear with indicator light for traction device	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Synthetic 75W-90W all axles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Meritor 16.5x7" P cam double anchor cast shoes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non-asbestos rear brake lining	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Webb cast iron rear brake drums	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rear brake dust shields	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Haldex automatic rear slack adjusters with stainless steel clevis pins	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rear oil seals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bendix eversure longstroke 2-drive axle spring	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forward of axle mounted parking chambers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard spindle nuts for all axles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tuf-trac 52000# inverted leaf rear suspension	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

Standard ride height

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**REAR AXLE AND SUSPENSION (Cont'd)**

55" axle spacing

Fore/aft and transverse control rods

Rear shock absorbers – two axles

**BRAKE SYSTEM EQUIPMENT**

Wabco 6S/6M ABS with traction control with ATC shut off switch

Reinforced nylon, fabric braid & wirebraid chassis air lines

Bendix brake valves where possible

Relay valve with 5.5 psi crack pressure

Air connections to end of frame with glad hands

Bw ad-9si brake line air dryer w/heater

Air dryer frame mounted RH under cab

Aluminum air brake reservoirs

Cab blow out kit with air hose and nozzle

Pull cables on all air reservoirs

**FRAME AND WHEELBASE**

242" wheelbase with 150" c/t usable

.59 x 3.5 x 12.4 steel frame with .236" inner c-channel reinforcement

120 KSI 40.42 SM, 4,849,851 RBM

58 in. Overhang

24" integral front frame extension

Square end of frame

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<b>COMPLIANCE</b>	
	<b><u>YES</u></b>	<b><u>NO</u></b>
<b>FRAME AND WHEELBASE (Cont'd)</b>		
Heavy duty ductile iron engine crossmember	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy duty steel rear closing crossmember	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy duty steel construction back of transmission crossmember	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard construction midship #1 crossmember	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard construction rear suspension forward crossmember	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard construction rear mounted suspension crossmember	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>CHASSIS EQUIPMENT/TRAILER CONNECTIONS</b>		
7-way trailer plug end of frame	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3/8" severe duty steel bumper or custom bumper for hitch mounting	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Phosphate-coated class 10.9 fine thread hex chassis fasteners, rear suspension hangar mounting to have Huck spin fasteners	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Exterior harnesses wrapped in abrasion tape, secondary covering and connector protection	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air piping and electrical independently clipped to frame	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>FUEL TANKS AND EQUIPMENT</b>		
Single 70 gallon aluminum, minimum	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LH fuel tank mounted forward	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25" diameter fuel tank(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Aluminum fuel tank bracket(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Plain aluminum fuel tank with polished stainless bands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fuel/water separator with water in fuel sensor and 12 volt preheater	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equiplo inboard fuel system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
High temperature reinforced nylon fuel hose	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduced on: January 18, 2023  
 High temperature reinforced nylon fuel hose  
 Official Resolution#: 2023000039

No fuel cooler

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**FUEL TANKS AND EQUIPMENT (Cont'd)**

In tank fuel level sender

**FRONT TIRES, HUBS AND WHEELS**

Michelin XZY-3 425/65R22.5 20 PLY

Conmet iron front hubs

Accuride 29807 4.75 inset 5 hand hd 22.5x12.25 10-hub pilot steel disc front wheels

**REAR DRIVE & PUSHER TIRES, HUBS, & WHEELS**

Michlein xds2 11r 24.5 16 ply rear drive axle tires

Webb iron rear hubs

Accuride 28827 2 hand 24.5x8 .25 10-hub pilot steel

Steel disc rear wheels

Michelin XZY-3 425/65R22.5 20 ply pusher tires (2)

Accuride 29807 - 22.5 x 12.25" 4.75" inset 5 hand 10 hub pilot pusher wheels

Nylon wheel guards front and rear all interfaces

Wheel-Check High Visibility Green Loose Wheel Nut Indicator on all wheels

**CAB EXTERIOR**

121" BBC conventional steel reinforced aluminum cab

Galvanized E coated sealed steel door construction

Forged steel door hinges with steel reinforced "a" pillar

Triple door seal system

Non-removable bug screen

Front cab mounts outboard of frame for stability or when taking off and applying torque from engine

Adopted on January 18, 2023  
Official Resolution#: 2023000039

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>CAB EXTERIOR (Cont'd)</b>		
Bolt on molded fender extensions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LH/RH exterior grabhandles with rubber insert and RH interior grab handle MTB to reinforced 'A' post	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stainless steel radiator mounted grille	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stainless steel radiator shell/hood bezel with tilt hood handle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Molded resin hood with isolated hood suspension mounting system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hood opening strut assist with safety lock	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Two (2) Hadley sd-978 26" rect air horns	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Single electric horn	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Horn shields	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All locks keyed the same; must have six (6) keys	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dual stage LED headlights with heated lens system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Aerodynamic LED marker lights in stainless steel visor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Individual LED stop/tail/turn/backup lights flush mounted end of frame	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Led rear facing turn signal lamps in convex mirror lens in addition to standard front turn signal lamps	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dual C bar mirror system bright finish c-bar, heated mirrors, dual remote, turn signal, stainless steel back cover with integral convex	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Door mounted mirrors with control switches on door panels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
102" equipment width	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LH/RH heated hood mounted side view mirrors, black finish	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stainless steel exterior sun visor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Introduced on: January 18, 2023		
Adopted on: January 18, 2023		
3 piece solar tinted polycarbonate resistant polycarbonate rear window		

configuration (1) 31 x 20" (2) 9 x 20"

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>CAB EXTERIOR (Cont'd)</b>		
Tinted door glass LH & RH tinted	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electric door window regulators	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1 piece tinted roped in solar green glass windshield	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 gallon windshield washer reservoir with fluid level indicator	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>CAB INTERIOR</b>		
Gray vinyl premium interior	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Black mats with added floor heat and noise insulation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12 volt power supply in dash	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dash mounted ash tray & lighter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forward roof mounted console	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Map pockets, left and right doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cab Coat hook(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wraparound wing dash with digital gauges in driver command center	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One (1) 5 lb. Fire extinguisher mounted	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heater, defroster and air conditioner	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Main HVAC with constant temp control and cosmetic cover main fresh air inlet with fresh air filter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard heater plumbing with ball shut off valves at supply lines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air conditioner compressor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiator MTD A/C condenser	<input checked="" type="checkbox"/>	<input type="checkbox"/>
R-134A refrigerant	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Premium cab insulation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>CAB INTERIOR (Cont'd)</b>		
Centralized logic controllers in main dash electrical panels, houses VPDM onboard ECU and TEM programmable modules	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Multiplexed electrical system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Color-coded and laser-etched wiring	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Premium LED cab lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cab door latches with electric door locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Triangular reflectors without flares	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Elite high back air suspension driver and passenger seats with 2 Chamber air lumbar support, integrated cushion extension, forward and rear cushion tilt, with heat and adjustable shock absorber inboard and outboard driver and passenger arm rests	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gray Moroura cloth driver and passenger seat cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3-point driver & passenger seat belts including seatbelt retractor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Adjustable tilt and telescoping steering column	<input checked="" type="checkbox"/>	<input type="checkbox"/>
450mm (18") black steering wheel with multifunction integrated controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Driver/passenger interior sun visors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>INSTRUMENT PANELS AND CONTROLS</b>		
Wrap around dash that allows gauges and driver command center with up to six (6) digital gauges	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Panel with teak color surround w/round gauges	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Teak color center access instrument panel	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Low air pressure light and buzzer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Primary & secondary air pressure gauges	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Intake mounted air restriction gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>INSTRUMENT PANELS AND CONTROLS (Cont'd)</b>		
Cruise control-electronic, controls on steering wheel	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electronic mph speedometer and 2500 rpm tachometer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Key operated ignition switch & integral	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Start position, four (4) position off/run/start	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Headlights on with wipers with daytime running lights	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electric fuel gauge		
Electrical engine coolant temp gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transmission oil temperature gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine and trip hour meters integral within driver display	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine oil pressure gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AM/FM WB world tuner cd stereo radio with Bluetooth, iPod interface	<input checked="" type="checkbox"/>	<input type="checkbox"/>
USB and auxiliary inputs, J1939	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Two (2) radio speakers (cab only)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Headliner multi-band antenna AM/FM/Weatherband, Wi-Fi/Bluetooth, GNSS/GPS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electronic outside temperature sensor display in driver message center	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTO switch and four (4) dash mounted aux.switches WTH indicator lights	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine, trip and PTO hour meter within driver display	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hand control valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Voltmeter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rotary headlamp switch, marker lights/headlights switch with pull out for optional road lamps	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Introduced on: January 18, 2023		
Adopted on: January 18, 2023		
Official Resolution#: 2023000039		



**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>INSTRUMENT PANELS AND CONTROLS (Cont'd)</b>		
Wiring and switch for customer furnished snow plow lamps with dual connections at bumper	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Switch indicator light and 10' of wire on chassis LH back of cab for customer furnished utility lights	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Two (2) valve parking brake system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Self-cancelling turn signal switch with integral head lamp dimmer headlamp flash, wash wipe intermittent	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>PAINT/FINISH</b>		
Rail black high solids	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paint shall be base coat clear coat. Colors shall come from standard color chart or Ocean County Road Department Color Scheme as found in options	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chassis frame: Polyurethane	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Wheels/Rims:</b>		
Rear/pusher wheel color: vendor powder black	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front wheel color: Vendor powder black	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>UNDERCOATING</b>		
Entire truck chassis, underside of cab and underside of body to be coated with Tectyl 2423 haps free black, which is a low VOC, high solids, emulsion corrosion preventive coating, or equal	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>WARRANTY</b>		
Basic vehicle - 1 year, 50,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Battery - 1 year, 50,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Brightwork - 6 months, unlimited	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cab corrosion/perforation - 5 years, unlimited	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cab structure - 1 year, 100,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduced on: January 18, 2023  
 Adopted on: January 18, 2023  
 Official Resolution#: 2023000039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>WARRANTY (Cont'd)</b>		
Corrosion – 6 months, unlimited	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Crossmembers – 3 years, 300,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Diesel Emission 2010 – 5 years, 100,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Greenhouse Gas 14/17 (medium heavy duty to heavy heavy duty trucks/tractors) – 5 years, 100,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Greenhouse Gas 14/17 tire (file direct) – 2 years, 24,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Frame rails – 3 years, 300,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front/steer axle: Detroit – 1 year, unlimited	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front/steer axle: non-Detroit – 1 year, 100,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paint – 1 year, 50,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paint, chassis – 6 months, unlimited	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rear axle: Detroit – 1 year, unlimited	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rear axle: non-Detroit – 1 year, 100,000 miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Towing – 5 years, unlimited miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cummins 5 year 100,000 mile engine and ATS warranty	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cummins protection plan is:		
<ul style="list-style-type: none"> <li>• Internal components, major engine systems and major components</li> <li>• Registered parts and labor</li> <li>• Covers the following, including mounting hardware and gaskets: cylinder head assembly, cylinder block assembly, Rocker level assembly, ECM, piston, rings and liners; lube oil cooler assembly, front gear cover, oil pan, connecting rod assembly, front gear cover, oil pan, connectingrod assembly, Lube pump assembly, camshaft and bushings; cam follower assemblies, crank shaft assemblies, EGR cooler, valve and mixer; Fuel injectors (excluding aftertreatment injector), turbo, water pump, fuel pump, air compressor, select engine sensors and flywheel.</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Introduced on: January 18, 2023 Adopted on: January 18, 2023 Official Resolution#: 202300039 Allison 7 year unlimited miles transmission warranty	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduced on: January 18, 2023  
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Official Resolution#: 2023000039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS STEEL DUMP BODY</b>		
Model #SSHD176066 304 acid wash, or equal	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>GENERAL</b>		
Floor ¼” 450 Brinell	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front 3/16” Stainless Steel 304	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sides 3/16” Stainless Steel 304	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tailgate 3/16” stainless steel 304	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Long sills 3/16” 250 Brinell steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Outside body width – 96”	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hoist attachment – front mount	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front design – 12” hoist recessed 90° corners	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front height including longsills – 72”	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Longsills shape – formed 10”	<input checked="" type="checkbox"/>	<input type="checkbox"/>
34” longsills outside width	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27” longsills inside width	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sandblasts and primer – glass bead blasting	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Underbody to be painted chassis black	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One (1) d-ring top of tailgate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>CABSHIELD</b>		
Cabshield type – traditional	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cabshield length – 24”	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cabshield width – 90” cabshield height – to be determined to match chassis height	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Light holes configuration 4 oval lights holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduced on: January 18, 2023  
 Adopted on: January 18, 2023  
 Official Resolution # 202300033

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS STEEL DUMP BODY (Cont'd)**

**CABSHIELD (Cont'd)**

Cabshield installation

**SIDE**

Two (2) triangle steps evenly spaced with grab handles located at front of body driver's side

Side shape – formed side

Top rail section – formed

6" board pocket and intermediate bracket

Double walking rail; stainless steel

3/8" stainless steel upper tarp rail

8" apron shall pin on at rear of body

**REAR**

Double acting tailgate (lays flat or dumps through)

Lock positioning – end point latch system

Bolster shape – standard flat rear bolster

Tailgate angle- straight

Locking system – air cylinder size 2.5"; push/pull air controls

Tailgate panel – Two (2) panels

**HOIST**

Mailhot cs 160-6.5-4 da, or equal

**ACCESSORIES TO BE INCLUDED**

One (1) Complete Set of Filters For Cab/Chassis, Drive Train And Upfit

5 Gallons of Recommended-Use Hydraulic Fluid

Introduced on: January 18, 2023

Adopted on: January 18, 2023

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One (1) spare front tire and wheel and one (1) spare rear wheel and tire

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**      **NO**

**SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS STEEL DUMP BODY (Cont'd)**

**INSTALLATION PARTS**

40 ton cradle

40 ton hoist bracket

40-50 ton upper cylinder blocks (2)

**MISCELLANEOUS**

One (1) oval stop/tail/turn light in each rear corner post

Wiring for standard dump body lights enclosed in a sealed waterproof  
Wiring harness (split loom **NOT ACCEPTABLE**)

One (1) set stainless steel stone guards – mounted on frame

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

3M reflective tape on both sides of body and on 9-panel tailgate

Two (2) shovel holders – one front, one rear

**ACCESSORIES TO BE INCLUDED**

Safety lighting – six (6) oval led amber strobe lights with amber lenses

Two (2) recessed into rear post, two (2) at sides of cabshield and two (2) in front  
of cab shield

All body lights shall be LED and Heated

One (1) set of Meyer Saber heated and LED plow lights mounted on hood of chassis  
With stainless steel mounts. Location to be determined by county at time of build

Two (2) forward facing Whelen strobe lights mounted on snow plow lights bracket  
to be powered by its own switch, part # RSA03ZCR

Introduced on: January 18, 2023  
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Official Resolution#: 2023000039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**            **NO**

**SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS STEEL DUMP BODY (Cont'd)**

**ACCESSORIES TO BE INCLUDED**

Four (4) step double fold stainless steel folding ladder with grab handle; stainless Steps above ladder on outside and inside of body with stainless steel steps on side Of body            

2" x 6" oak wood side boards            

**SPECIFICATIONS FOR PIONEER MODEL EDD 1500A-A TARP, OR EQUAL**

Side mount – steel framework            

Roller assembly – telescopic 3 piece            

Left roller tube – 2.140" OD X 2" ID 6105-T6 aluminum extrusion with bushing and stainless steel roll pin to accept motor shaft            

Right roller tube – 2.140" OD X 2" ID 6105-T6 aluminum extrusion with bushing. 1" OD 6061-T6 aluminum shaft and stainless steel oil pin            

Center section – 1.960" OD X 1.820" ID 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 gearmotor: mounted directly to left side roller. Worm and wheel Configuration. Permanently lubricated, sealed gearbox. 90 to 1 ratio. Output shaft Is supported by ball bearings on both ends. Output shaft is directly coupled to Left side roller. Electric motor is .85 horsepower. Aluminum gearbox housing. Plastic protective cover. ¾" od output shaft. Motor is thermally protected By automatic resetting circuit breaker.            

**PIVOT ARM: FRAMEWORK**

Pivot arms: 1 5/8" OD X 11 gauge aluminum tubing; 2 piece construction            

Rear section: 1 5/8" OD X 11 gauge aluminum tubing            

Bows: 1 5/16" OD X 11 gauge aluminum tubing            

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Arm mounting brackets steel weldment

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES NO**

**SPECIFICATIONS FOR PIONEER MODEL EDD 1500A-A TARP, OR EQUAL (Cont'd)**

**PIVOT ARM: FRAMEWORK (Cont'd)**

Base plate: 1/4" H.R.S

Mounting hub: 4" OD steel tube

Spring: reverse wound torsion spring – 1/2" diameter wire

Wire PER ASTM A229 Class I

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE**

**FABRIC**

Asphalt tarp

**CONSTRUCTION**

Seamless front to rear rectangular in shape, 85" wide, grommets on front  
And sides, pocket at rear

**WIRING AND ELECTRICAL**

All wire shall be 8 gauge stranded cable. All connectors are ring type, high  
Amperage self-centering rotary switch (momentary on – of – momentary on),  
Thermal reset circuit breaker (auto reset)

**PTO**

PTO shall be of a hot shift design driven off the Allison automatic transmission.  
PTO shall have a direct mount rotatable pump flange. There shall be a console  
Mounted rocker switch to engage and disengage the PTO. Must be Chelsea.

**HYDRAULIC PUMP WITH PTO**

Shall be on an open circuit axial piston design with adjustable compensator.

Pump operating pressure must adjust to the actual load pressure plus a pressure  
Differential required for the controlled action.

When the system is not demanding power, the load sense control will operate  
In an energy-saving stand-by mode.

Minimum pump displacement is 80cc/ 4.9 cubic inches, delivering 42 GPM  
at 2,000 rpm.

Pump minimum displacement shall be 90 cubic centimeters continuously rate at  
360 bar (5,000 psi). Standby pressure shall be 350 psi.



COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES NO**

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE (Cont'd)**

**HYDRAULIC PUMP WITH PTO**

Mounting is an SAE C 4-bolt flange

Shaft is 1.25” diameter, 14 tooth splined

Rpm is rated to 2300 (continuous) with pressure and flow compensator control

Rear ported, flange mounted suction port shall meet the following requirements:

- Suction port minimum 2.5”
- Must use (4) m8 x 16-8.8 mounting bolts

The rear SAE ported pressure port shall meet the following requirements:

- Pressure port minimum 1” sae-16 O-ring boss

**MOUNT**

Pump must mount directly to a PTO on ALLISON 4500 series transmissions Without requiring bent axis or external mounting hardware.

Pump must offer mounting flanges N SAE and ISO configurations, and ports are Offered in SAE and ISO tube and flange versions.

Side or end-ported models must be available to facilitate plumbing and help fit The pump to your space.

Multiple drain ports allow many mounting orientations - must be standard.

**PUMP**

The hydraulic system must include a low oil shutdown with momentary override. The system shall disengage the PTO is a low oil scenario should occur. The operator Will have the ability to temporarily override the shutdown to park all hydraulic Implements for travel.

**CONTROL VALVE GRENSON VALVE WITH PRIORITY FLOW INLET**

Central hydraulic valve system shall be a mobile design to withstand exposure to Deicing chemicals and severe weather conditions

System shall provide hydraulic fluid to operate the dump body hoist, front plow, And granular spreader system

Hydraulic system can run all hydraulic functions simultaneously without Inhibiting the action of the others

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**      **NO**

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE (Cont'd)**

**CONTROL VALVE GRENSON VALVE WITH PRIORITY FLOW INLET (Cont'd)**

Valve sections shall be of cast iron, horizontally stackable, and Serviceable without disassembly      

Directional control valves shall be pre-compensated, proportional, And load independent      

Valve system shall be closed center for variable displacement pump      

Valve sections must be adjustable for pressure up to 5,500 psi and flow ratings up to 40 GPM.      

Each valve must be laminar flow design for minimal pressure drop. Where Required, each section must be able to limit the operating speed for the implement.      

Each section must be manually activated with manual push/pull cables      

There shall be a main pressure relieve set at 2,400 psi to protect against System over-pressurization      

Hoist section must be a PVG 100, 40 GPM 4-way section for double Acting hoist      

Plow lift and angle sections are also 4-way for double acting cylinders With crossover relief      

Spreader section shall have detent on one side of valve and self-centering on reverse

Side of valve.

***Note: Please Refer To the 'Modular Granular and Liquid Valve' Section Of Option 1B. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications.***      

All hydraulic hoses must be bulkhead mounted with metal tube style connectors. all tubes shall be labeled with the hydraulic operation      

Manufacturer must be authorized to perform warranty repairs and periodic Maintenance on hydraulic valve sections      

**SPREADER CONTROL**

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

Introduced on: January 18, 2023  
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COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE (Cont'd)**

**SPREADER CONTROL (Cont'd)**

Shall have individual flow adjustment knobs for the spinner and auger.                      

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                      

**CABLE CONTROLS**

Control valve shall be shifted via sealed cable assemblies                      

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 of pull and 80 lbs of push                      

Cables shall be attached to the hydraulic valve with clevis pin and locking clips                      

Cable to be attached to an in cab handle. Handle will 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 will be attached to the end of the handle                      

**RESERVOIR/VALVE ENCLOSURE**

Reservoir must be constructed of 10 gauge stainless steel. Reservoir/valve enclosure shall be 40 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 will 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 will allow for installation of a 2” NPT 50 GPM suction screen. Suction screen shall have a 3 to 5 psi bypass 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.

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**WARRANTY FOR A CERTIFIED CENTRAL HYDRAULIC SECTIONAL VALVE GROUP FOR PLOW, AUGER AND SPINNER**

Warranty coverage runs for a period of one year from the date of Initial installation (or 13 months from day of shipment from certified Cirus control systems), or whichever occurs first.

                    

**WARRANTY FOR BUMPER-TO-FRAME PLOW HITCH (SPH-A0000152)**

One year from date of delivery

                    

**SPECIFICATIONS FOR V-BOX SPREADER**

**GENERAL**

147 series v-box hopper style salt and sand spreader. Spreader shall be capable Of hauling and spreading free flowing granular materials. Unit shall consist of a 304 stainless steel body, rear discharge conveyor, spinner disk, power drive and All components necessary to make a complete operating unit. Unit shall be Manufactured in the usa by an iso 9001:2008 certified company.

Specifications on the unit must accompany the bid.

                    

**BODY REQUIREMENTS**

14 yard capacity

                    

Inside length of hopper shall be 15' at top and 12' at bottom

                    

Inside top width shall be 84"

                    

Side slope to be 45° minimum

                    

Front panel slopes shall be a minimum of 18°

                    

Hopper seams shall be continuous welded on inside

                    

Sides, ends and side supports shall be 10 gauge 304 stainless steel

                    

Top edge of hopper is formed "J" channel 2" x 1 1/2"

                    

Auger trough shall be 10 gauge 304 stainless steel

                    

Longsills shall be 10 gauge 304 stainless steel

                    

Cross sills shall be formed 7 gauge 304 stainless steel welded to side supports

                    

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Resolution#: 2023000039  
Lit. notes on each item are 578" stainless steel round bar

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR V-BOX SPREADER (Cont'd)**

**BODY REQUIREMENTS (Cont'd)**

All hardware is stainless steel                      

3/8" rod on 3/8" rod top grate screens with anti-freeze hinges are required equipment  
With auger conveyor v-box units                      

**AUGER REQUIREMENTS**

Twin 7" diameter hard faced variable pitch augers                      

64 cir direct drive hydraulic motor                      

Motor is directly coupled to end of auger shafts                      

Auger shafts connect at front with a 2" 4 bolt flange bearing                      

Rear auger drive has no motor guard bolted to rear                      

One (1) led spreader light mounted to spreader box                      

Four (4) 6" oval amber strobe lights with amber lenses mounted in stainless  
Steel tissue box                      

**SPINNER CHUTE ASSEMBLY**

10 gauge 304 stainless steel                      

Four (4) position telescopic adjustment                      

Four (4) bottom spinner deflectors shall be overlapping to prevent loss of granular  
material when the deflectors are raised.                      

Front deflector shall be fixed.                      

Bottom overlapping spinner deflectors shall have four (4) positions of rod and pin  
adjustment without tools. Chain adjustable deflectors are **NOT ACCEPTABLE**.                      

Poly 20" diameter spinner disc shall have replaceable machined hub                      

Spinner hydraulic motor shall mount directly on bottom of spinner disc                      

Introduced on: January 18, 2023

Adopted on: January 18, 2023

Official Res. # 20230003  
All metal surfaces shall be high pressure cleaned with a phosphate solution to

**PAINT**

Remove slag, splatter, oxide, and oil residue.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR V-BOX SPREADER (Cont'd)**

**PAINT (Cont'd)**

Non-stainless steel parts shall be painted or powder coated black

304 stainless steel components unpainted

**TAILGATE LOCK KIT**

Main latch bar shall be 3" x 4.1 lb structural channel 84" wide

Two (2) 3" x 4.1 lb x 8" structural channel with two (2) 1/2" x 1 1/2" mounting hole shall be welded to main channel to bolt on spreader

Two (2) 1 1/4" x 7" round stock tailgate latches to be welded to main channel

**TIE DOWN KIT**

Shall consist of four (4) chain style tie down assemblies

Chains shall be grade 30 3/8" x 29 links

Top plate shall be 1/4" x 4 triple broke a1011 powder coated steel  
With banjo eye to accept 3/8" chain

Tie down bracket shall be 1/4" x 4" x triple broke a1011 powder coated steel  
With 3/8" double link clevis to attach chain

3/4" zinc plated turnbuckle to have grease fitting

1/4" turnbuckle shall have 1/2" - 13 nut welded to center to secure turnbuckle

**WARRANTY FOR 145-20 SERIES V-BOX SPREADER - 304 STAINLESS STEEL CONSTRUCTION**

All parts of the product to be free from defects in material and workmanship for a period of one (1) year

**SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS**

42" H x 11' L

10 gauge carbon steel smooth rolled profile providing ultra-smooth surface for snow deflection

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Resolution #: 2023-0003  
Overhang from cutting edge to have minimum 12" overhang with 10° attack angle

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS (Cont'd)**

Top of moldboard shall be reinforced by 2 1/2" x 2 1/2" x 3/8" angle iron. Bottom of Moldboard is reinforced by 4 x 4 x 3/4" angle iron and is drilled to accommodate Aashto standards.                      

Ribs are reinforced with 2 x 2 x 3/8 angle as well as the upper and lower Reinforcement angels.                      

Ribs are 5" at the trip edge and 3" tall at the top edge by 1/2" wide                      

Ribs are 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 (3) sets of double ribs and six (6) single ribs                      

Each rib shall have a 1/2" relief at the corners where they attach to the reinforcement Angles. This will allow water to drain off the back of the moldboard during storage                      

At the bottom of each rib there shall be three (3) 1 5/16" holes spaced at 1 7/8" Center to center to allow for semi-circle height adjustments                      

Two (2) sets of double ribs shall have three (3) 1 5/16" holes spaced at 2 1/4" center to Center to allow for attack angle adjustment                      

Weldments on the moldboard shall be continuous                      

Outer ribs of moldboard will 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 are 3/4" wire with a coil od of 5 9/16" consisting of 16 full coils                      

Bottom angle is reinforced by eleven (11) 1/2" thick gussets spaced evenly to avoid Interference with cutting edge attachment hardware                      

Cutting edge shall be 6" x 5/8" x 11' long and shall be drilled to AASHTO standards

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

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**

**YES**

**NO**

**SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS (Cont'd)**

**PUSH FRAME**

Designed to hydraulically reverse the moldboard in an arc at any angle from 35° left to 35° right from a centered position

Shall be constructed of 1/2" plate

Supported above and below the semi-circle with 2 x4 x 3/16" tubing

Shall be drilled to accept 1 1/2" 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 the semi-circle and moldboard Relieving stress on the bolted connection. The female socket connection is made from 1" Plate steel and is contoured to match the male portion on the semi-circle

Rear of push frame shall be drilled to accept a removable QCP adapter. Three (3) 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 at the top and bottom push frame plates drilled to accept 1 1/2" bolts for hydraulic cylinder attachment

All welds are to 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, is 5" x 5" x 5/16" at 120 inches long spanning the entire width Of the moldboard. This tube is constructed from one continuous piece

There 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 are 1/2" plates welded to the top and bottom Of the semi-circle. Plates shall be drilled to accept 1 1/2" 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.



**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES                      NO**

**SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS (Cont'd)**

**SEMI-CIRCLE CONSTRUCTION (Cont'd)**

In the center of the semi-circle a hole shall be drilled to accept the 1 1/2" grade 8 bolt That acts as the pivot point for the push frame. Also, at this point above and below The semi-circle is the male portion of the socket that relieves stress from the bolted Connection. This is made from 1" plate steel and is contoured to match the female Portion of the push frame.

                    

Tabs shall be welded on the push frame to accept 1/2" screw type chain shackles. These tabs shall be made from 1/2" plate steel 5 1/4" long and 2 1/2" wide. They are welded to the backside of the 5" tubular push beam to increase the Weld surface area at 55° from the bottom of the semi-circle to match the chain Angel going to the lift arm on the hitch

                    

                    

There are seven set 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 1/4" diameter rivet pins with a washer and cotter pin on the opposite Side of the rivet head.

                    

Four (4) sets of the moldboard mounting ears (two outer on either side of the push beam) Shall have an inside spacing of 3/4" to accept a single 1/2" moldboard rib. Three (3) sets of moldboard mounting ears (the center sets) shall have an outside spacing of 2 3/4" to fit inside double moldboard ribs.

                    

Moldboard attachment ears to be gusseted with 4" triangular steel gussets

                    

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 1/4" 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 1/2" 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

                    

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
A doge crew with adjusting nut are housed in a 3" square shoe housing with a welded  
Official Resolution#: 2023000039

On 5-hole mounting plate

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES** **NO**

**SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS (Cont'd)**

**ADJUSTABLE CAST MUSHROOM SHOES (Cont'd)**

Cast steel mushroom plow show has 6" bolt centers, 3/4" square holes and is 10.625" in Diameter and 2.34 inches thick.

Grade 8 hardware shall be used throughout

**HYDRAULICS**

Plow angle shall be controlled by two double acting hydraulics cylinders

Each cylinder shall have a 4" bore with an 8" rod diameter with a maximum Operating pressure of 3,000 psi.

Retracted cylinder length is 21" with both the rod and cylinder ends accepting 1 1/2" Bolts/pins for connecting to the semi-circle and push frame

**QCP**

Push frame is equipped with a removable QCP adapter for quick hitch applications

QCP side plates shall be 1/2" formed plate

QCP loop diameter shall be 2"

**PAINT**

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

Standard paint type will be epoxy

Standard paint color shall be safety orange for the moldboard and black for the frame

**BUMPER TO FRAME PLOW HITCH SPECIFICATIONS**

**FRONT HITCH FRAME**

Snow plow hitch must clear hood when open

Frame is heavy duty, low profile, front frame mounted style. It is designed for use with Trucks equipped with a tilt hood and stationary grill

Frame is capable of self-storing the hydraulic front lift arm cylinder when not in operation,    
Allowing the lift arm to fold down parallel to the rest of the frame

Vertical supports of the hitch are constructed from 4" x 4" x 3/8" square tubing

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES** **NO**

**BUMPER TO FRAME PLOW HITCH SPECIFICATIONS (Cont'd)**

**FRONT HITCH FRAME (Cont'd)**

Cylinder support bracket on the hitch is constructed a 3" X 2" rectangular tube. The two cylinder mounting tabs are 1/2" steel placed in the center of support bracket and spaced at 2 1/8" apart. Each tab is drilled to accept A 1" pin.

The upper horizontal support of the hitch is constructed of two (2) 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 store as Well as one of two points the lift arms connection tabs are welded.
- The second horizontal support is a 1/2" contoured plate that allows the lift cylinder To be stored and provides a second mounting point for the lift arm connection Tabs

There are two (2) pairs of lift arm support shackles. Each pair is made from 1/2" x 9 3/4" Plate and are drilled to accept t 1/4" pins

Fully welded to the vertical supports are two c 8" x 18.75" channels with 1/2" thick end Plates. The end plates are drilled to accept six (6) 5/8" grade 8 bolts for attaching the hitch Between the frame rails

Support of the lower portion of the hitch is provided by left and right weldments bolted to The tapered portion of the frame. Weldments are drilled with four (4) 5/8" holes for Mounting to the exterior of the truck frame.

A 12-volt electric over hydraulic pump to operate the front hitch wing post slide located Behind cab

**FRONT HITCH PIN LOCK QCP**

Front plow attachment is made by a pin lock QCP assembly

Top and bottom of the assembly are made from 1/2" contoured plate. Both plates are Drilled to accept the 2" lock pin

Welded to the bottom plate is 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 plate is 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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES NO**

**BUMPER TO FRAME PLOW HITCH SPECIFICATIONS (Cont'd)**

**FRONT HITCH PIN LOCK QCP (Cont'd)**

In the front of the QCP assembly are two (2) 1/2" thick formed bumpers. These bumpers are the resting/pushing point for the plow. They are curved to allow the plow to raise and lower smoothly.

Lock pin is 2" tapered at one end for ease in guiding into position and has tabs welded to the other for the lift bar attachment

**HEAVY DUTY ARM LIFT ASSEMBLY**

Heavy duty lift arm is extendable style with seven (7) different extendable positions

Frame of the lift arm is constructed from 1/2" x 4" steel plate that is formed to contour the outer tube of the extendable arm. The frame is also the connection point to the hitch and hydraulic cylinder

The external tube is constructed of 4" heavy wall square tubing. On each end of the tube are 1" wide bushings ground to fit the inner tube. This shall ensure a long lasting fit.

Top plate on the lift arm is 3/16" and is used to prevent "racking" of the frame. Inner tube is constructed of 3" heavy wall square tubing. Tubing is drilled to allow for the seven (7) extendable positions

Welded to the front of the inner tube is a formed 1/2" plate with notches to accept standard 1/2" link chain. When required this plate can be changed to match different level systems.

**HYDRAULIC LIFT CYLINDER**

Hitch is provided with a single acting 4" x 10" hydraulic cylinder. A double acting cylinder can be provided for applications where plow "float" hydraulic controllers are used.

**WARRANTY FOR STEEL MOLDBOARD TUBE TABLE, POWER INFINITE REVERSING FULL PLOW (SPX-00000050)**

One year from date of delivery

**OPTIONS**

**2A. 52" Tall Moldboard in Lieu of the 42" Standard**

**2B. Heavy Duty Heated Crossmemberless Stainless Steel Dump Body Under Options**

Body shall be heated through diverter box with thermos-switch for activation with

Stainless steel piping

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Resolution#: 2023000039

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2C. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications**

**General**

Controller shall have 3 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 will offer a manual mode lock out option.                      

The spreader controller will 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.                      

AVL data transfer is available with an additional modem.                      

System shall offer spinner configurable mph shut off, storm totals on screen or With USB.                      

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

There shall be 9 independent programmable feeder outputs channels for actuate

Lbs. Per mile output.



**ITEM # 2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH FLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2C. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications (Cont'd)**

**General (Cont'd)**

The spinner shall also offer 9 programmable speeds for the spinner.



System will maintain up to 4 different granular material types.



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 programing and calibration shall be accomplished using the touch screen of The controller.



Detachable key board for programming is **NOT ACCEPTABLE**.



**Modular Granular and Liquid Valve**

*\*If the freedom 2.2 spreader control is chosen, spreader with detent and reverse on under Control valve on page 42 will need to be removed, and replaced with the following:*

The modular manifold must be constructed of 6061 anodized aluminum.



Modular manifold must have an adjustable pressure of up to 3500psi with multiple flow, Pressure, performance, and function configurations.



Each function will be equipped with screw adjustable manual overrides protected by jacketed Debris covers.



The modular manifold can operate in either open center (fixed displacement) or Closed center (variable displacement) hydraulic circuits.



The auger / conveyor must be rated at 15 GPM and features 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 are also available as a 10 GPM hydraulic circuits

if necessary.



**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2C. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications (Cont'd)**

These functions are proportional controlled, pulse width modulated, pressure and flow Compensated, with heavy duty 12vdc coils.



Spreader control "outside the cab" harnessing shall meet ip 68 standards.



The modular manifold can operate in either open center (fixed displacement) or Closed center (variable displacement) hydraulic circuits.



The auger / conveyor must be rated at 15 GPM and features 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 are also available as a 10 GPM hydraulic circuits If necessary.



These functions are proportional controlled, pulse width modulated, pressure and flow Compensated, with heavy duty 12vdc coils.



Spreader control "outside the cab" harnessing shall meet IP 68 standards.



Connections must be Nema x6 standards for dust protection.



Outside the cab connections shall be rated as Nema "x8" – protected against The effects of permanent submersion in water as well as able to show no corrosion After 500 hours in a 35° 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 will be mounted in a weather resistant enclosure.



Enclosures shall be vented to reduce moisture and finished with 304 stainless steel.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls**

The in-cab control system shall be an integrated proportional multi-axis (x, y) (3) joystick Console with circuit panel and spreader control.

0 – 5000 gauge

Dump body hoist, front plow, and wing plow shall be controlled by three individual Joysticks capable of proportionally controlling up to 5 bi-directional valves.

Dump body lever must have safety trigger protection.

Controller must include integrated protection and diagnostic systems with safety features Incorporated.

System must have user settable speed control for all hydraulic functions.

Unit shall be designed for floor mount pedestal with armrest

System will integrate with the freedom 2 granular / liquid control systems in The housing

System must supply pulsed voltage to each individual valve coil.

All connections inside the valve enclosure shall be ip68 rated.

All connections will be labeled with appropriate descriptions for each connection To individual solenoids of the hydraulic actuating cylinders.

System must also have integrated accessory control switches: the system Will include up to six (6) switches and up to six (6) warning indicator lights Mounted in the controller.

Each switch will handle 12v up to 10amp load and can be operated as on/off, Momentary or on/off/on as needed.

Installing dealer must be authorized to preform warranty repairs and periodic Maintenance on certified products.



✓ **ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

✓ **2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd)**

**Reservoir/Valve Enclosure**

Reservoir must be constructed of 7ga stainless steel. Reservoir/valve enclosure must Be 40-gallon capacity with an integrated covered mounting area for the valve. All Plumbing for the hydraulic valve inside the enclosure will 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 50GPM filter element with a 25 psi bypass. The reservoir will 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 Will allow for installation of a 2" npt 50 GPM suction screen. Suction screen will 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 low oil.

                    

**Freedom 2.2 Spreader Control**

Controller shall have 3 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 garming 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.

                    

Introduced on: January 18, 2023  
 The system will offer a manual mode lock out option.  
 Official Resolution#: 2023000039

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

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



**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd)**

**Freedom 2.2 Spreader Control (Cont'd)**

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.



AVL data transfer is available with an additional modem.



System shall offer spinner configurable mph shut off, storm totals on screen or With USB.



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



There shall be 9 independently programmable feeder outputs channels for actuate lbs. per mile output.



The spinner shall also offer 9 programmable speeds for the spinner.



System will maintain up to 4 different granular material types.



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 programing and calibration shall be accomplished using the touch Screen of the controller.



Detachable key board for programming is **NOT ACCEPTABLE**



Adopted on: January 18, 2023  
Official Resolution#: 2023000039  
**Modular Granular and Liquid Valve**

The central hydraulic valve system shall be a mobile design to withstand exposure

To de-icing chemicals and severe weather conditions.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH FLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Flow / Granular Controls Specifications)**

**In Lieu Of Manual Controls (Cont'd)**

**Modular Granular and Liquid Valve (Cont'd)**

System shall provide hydraulic fluid to operate the dump body hoist, front plow,  
And granular spreader system.

Hydraulic system can run all hydraulic functions simultaneously without inhibiting  
The action of the others.

Valve sections shall be of cast iron, horizontally stackable, and serviceable without  
Disassembly.

Directional control valves shall be pre-compensated, proportional, and load  
Independent.

Valve system shall be closed center for variable displacement pump.

Valve sections must be adjustable for pressures up to 5000psi and flow ratings  
Up to 40 GPM. Each valve must be laminar flow design for minimal pressure drop.

Where required each section must be able to limit the operating speed for the implement.

Each directional valve section must have a built-in check valve prevents the oil  
From flowing via the pressure adjustment spool to tank.

There shall be main pressure relieve set at 2400psi to protect against system  
Over-pressurization.

Hoist section must be a PVG 100, 40 GPM 4-way section for double acting hoist  
With flow control.

Plow lift and angle sections are also 4-way for double acting cylinders with crossover  
Relief and flow control.

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

Installing dealer must be certified to perform warranty repairs and periodic  
Maintenance on hydraulic valve sections.

The spreader manifold must be constructed of 6061 anodized aluminum.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH FLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Flow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd)**

**Modular Granular and Liquid Valve (Cont'd)**

Spreader manifold must have an adjustable pressure of up to 3500psi with multiple flow, Pressure, performance, and function configurations.                      

Each function will be equipped with screw adjustable manual overrides protected By jacketed debris covers.                      

The spreader manifold can operate in either open center (fixed displacement) or Closed center (variable displacement) hydraulic circuits.                      

The auger / conveyor must be rated at 15 GPM and features 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 are also available as a 10 GPM hydraulic circuits If necessary.                      

These functions are proportional controlled, pulse width modulated, pressure and flow Compensated, with heavy duty 12vdc coils.                      

Spreader control "outside the cab" harnessing shall meet ip 68 standards.                      

Connections must be Nema x6 standards for dust protection.                      

Outside the cab connections shall be rated as Nema "x8" – protected against the Effects of permanent submersion in water as well as able to show no corrosion After 500 hours in a 35°c 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 will be mounted in a weather resistant enclosure.

✓ **ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

✓ **2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications)**

**In Lieu Of Manual Controls (Cont'd)**

**Modular Granular and Liquid Valve (Cont'd)**

Enclosure shall be vented to reduce moisture and finished with black powder coat Or stainless steel.

                    

**Specifications for Patrol Wing - Wing Post**

Front wing post shall be removable for summer operation

                    

The front hitch shall be constructed so that the wing post mount will be able to slide in An out to allow the tilt hood to move forward without obstruction for maintenance and Daily fluid checks.

                    

The front wing post slide function will be accomplished using a hydraulic cylinder Controlled by an in-cab push button and driven by an independent electric hydraulic Pump

                    

**Front Hitch**

The plow lift hinge shall be flame cut from 3/4" steel plate and shall have a full plate Gusset at the top.

                    

The plow lift cylinder shall be 4" x 10" double acting and shall have O-ring seals.

                    

QCP hitch with 2" tapered pin;

                    

There shall be a 10-gauge break formed bumper extension left side.

                    

**Front Post**

There shall be provisions for a minimum of 8" of float for the front of the wing.

                    

The cylinder shall have O-ring seals and wipers.

                    

There shall be a 1-1/4" x 12" wing slide to wing hinge pin and a 1-1/4" wing Hinge to wing bolt.

                    

**Arm Wing**

Enables the chassis hood to open for maintenance and regular fluid checks.

                    

**Trip Wing Hinge**

The wing shall be attached to the front wing post with a trip hinge.

                    

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Resolution#: 2023000039

The hinge shall be designed to allow the wing to trip and reset automatically

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications)**

**In Lieu Of Manual Controls (Cont'd)**

**Specifications for Patrol Wing (Cont'd)**

**Trip Wing Hinge (Cont'd)**

When hitting an obstruction.

The reset shall be with a rubber compression not with coil spring.

The hinge shall have two offset hinges to lift the wing as it trips.

**Side Wing Moldboard**

The wing shall be designed for the right side of the truck and shall be heavy duty.

Wing shall have an overall length of 132" and shall have a 120" x 8" 2' cutting edge.

The nose height shall be 32" and the discharge height shall be 39.2"

The cutting edge backer shall be 4" x 6" x 5/8" with gussets and shall be punched to Accept 8" or 3" x 3" x 12" punch cutting edge.

Welded to this backer shall be a minimum of five (5) 3/8" ribs

The leader shall be a minimum of 1" plate steel and shall have two (2) holes to accept A 1 1/4" wing bolt

Sliding post shall be as follows:

- Steel support sliding pivot weldment when in operation the Tubes will run from frame rail to frame rail
- Two (2) 1" quick release hitch pins in easy to reach location to lock the pivot Weldment into place during operation mode
- Hydraulic cylinder mounted to the hitch to allow the pivot point to slide Out 12" and allow the hood to open for maintenance
- Slide cylinder will be actuated using an electric hydraulic pump unit mounted in A stainless steel protective box in the frame rails of the chassis behind the cab
- 3" x 12" toe cylinder to allow front edge of plow to raise 12" off the ground

There shall be several places longitudinally at the back of the wing to allow the push Arms to be attached at proper angles.

Introduced on: January 18, 2023  
Adopted on: January 18, 2023

The steel on the side wing will be sandblasted and primed. The plow shall be painted

Orange on the front and black on the back.

✓ **ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

COMPLIANCE  
YES NO

**OPTIONS (CONT'D)**

✓ **2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd)**

**Specifications for Patrol Wing (Cont'd)**

**Rear Wing Post Mount**

The rear wind mount will be removable for summer paving operation using a bolt  
On steel plate

The rear post mount shall be as follows:

- ½" plate permanent mounted weldment bolted to the frame with a cross member Under the frame to support channel on driver's side. The frame will not be mounted To the lift axle cross member
- Removable forward portion rear ½" plate mounting weldment bolted to the Permanent section support to allow to forward mount to be removed during the summer
- 4" round torque arm with dampening spring to support rear pf plow board

✓ **2E. 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)

✓ **2F. 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 windsheild to a pont 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)

✓ **2G. Spreader Leg Stands**

Main channels to be constructed of 2" x 6" x 7ga tubing

Galvanized tubing is done to ASTM a123 grade 100 – 3.9 mil minimum thickness

Crossmembers to be 3" structural channel

Telescoping rear legs to be constructed of 3 ½" x 3 ½" x 3/16" tubing

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official Resolution#: 2023000039

Adjustable front legs to pivot, constructed of 4" x 4" x 3/16" tubing

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2G. Spreader Leg Stands (Cont'd)**

4" adjustable steel front roller wheels

Body guide wheels front and rear of stand

**2H. One-Way Plow with QCP**

The one-way plow shall be designed to be heavy duty and shall be of a high Speed design.

It shall have a clearing path of 9' with an 11' 3" cutting edge length including The nose shoe.

The cutting edge shall be 132" x 8" x 2" and shall be replaceable.

The plow shall have a nose height of 29" and a discharge height of 55".

The moldboard shall be manufactured with a 2" x 2" x 1/4" angle leader welded To the 5 - 3/8" ribs and the steel nose plate.

The bottom cutting edge backer shall be 4" x 6" x 5/8" angle with gussets.

This angle shall be punched to allow the use of both 8" and 3"-3"-12" punched Cutting edges.

There shall be a 3" x 3" angle mid-way of the ribs from the discharge end to the Nose end.

The moldboard shall be roll formed of 10 gauge steel.

The moldboard shall pin to the push frame with 3 Au≅ shaped connectors.

Two of the connectors shall have a heavy duty coil spring to allow the moldboard To trip and assist in absorbing road shock.

The push frame shall have a 4" x 6" x 5/8" plated angle front with two (2) 4" x 4" x 3/8" tubular steel push arms and there shall be three diagonal Braces with in the push arms.

There shall be a safety chain to prevent the moldboard from tipping over when

inscribed on January 18, 2023  
Adopted on January 18, 2023  
A copy of this is removed  
Official Resolution#: 2023000039



The plow shall have two adjustable push frame shoes and two moldboard shoes.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES** **NO**

**OPTIONS (CONT'D)**

**2H. One-Way Plow with QCP (Cont'd)**

The plow shall be manufactured to accept carbide edges and adjust to 55 degrees To 60 degrees attack angle.

The entire steel structure will be sandblasted and primed. The plow shall be Painted orange on the front and black on the back.

Plow shall have QCP loop installed with 2" diameter loop

**2I. 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 shall be required to supply between one (1) and three (3) Complete sets of testing/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)
2. All laptop computers will be of the newest available technology and have sufficient storage and memory to operate all required software
3. Provide a list of all test/diagnostic/programming equipment and special tools being supplied at the time of bid
4. All software installations and activations will be completed by the successful bidder at no cost to the county
5. 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
6. 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
7. Training shall be provided on all items in this section at a specified county location

**2J. 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:

- #12 AWG red wire connected to 12VDC battery source rated at 20 amps
- #12 AWG black wire connected to chassis ground
- #16 AWG yellow wire connected to 12VDC ignition sense rated at 5 amps
- Wire shall be on a 2023 100 plastic wire loom and routed from their source into the

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Wires shall be on a 2023 100

COMPLIANCE PAGES - MOTOR VEHICLE: DUMP TRUCKS

Cab of the vehicle and secured in the vicinity of the operator. Wiring harness shall be clearly labeled "TWO-WAY RADIO". Wires shall be unterminated. 12VDC sources

shall be protected from making contact with grounded metal surfaces

ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)

COMPLIANCE  
YES NO

OPTIONS (CONT'D)

2K. 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.

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.

2L. Technical Support

Technical support is to be provided by factory authorized technical representatives and is to be the original equipment manufacturer's 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:

- Engine (cooling, fuel, ignition, lubrication systems) – 1 day at each location.
- Transmission – 1 day at each location
- Electrical – 1 day at each location
- Brakes – 1 day at each location
- Hydraulic system (dump body, spreader, snow plow) – 1 day at each location
- 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

Introduced on: January 18, 2023  
Adopted on: January 18, 2023  
Official class size: 10/23/0003

classes are scheduled.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**      **NO**

**OPTIONS (CONT'D)**

**2L. Technical Support (Cont'd)**

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.

Technical support for vehicle services may be provided at the following fleet Maintenance facility location as scheduled by a vehicle services department Representative:

- 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)
- 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.