CITY OF NEWTON, MASSACHUSETTS

PURCHASING DEPARTMENT
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September 24, 2014

ADDENDUM #1

INVITATION FOR BID #15-30

SUPPLY & DELIVER EXTRA LARGE CONSTRUCTION TRUCK FOR HIGHWAY DEPARTMENT

THIS ADDENDUM IS TO: CORRECT THE VEHICLE SPECIFICATION AS FOLLOWS:

PAGES 8 THROUGH 33 OF INVITATION FOR BIDS #15-30 (IFB) ARE HEREBY DELETED AND ATTACHED 18 PAGES OF THIS ADDENDUM ARE SUBSTITUTED THEREFOR. ANY REFERENCES IN THE IFB TO THE DELETED PAGES ARE DEEMED CHANGED TO REFERENCES CONSISTENT WITH THE ATTACHED SPECIFICATIONS.

All other terms and conditions of this bid remain unchanged.

PLEASE ENSURE THAT YOU ACKNOWLEDGE ALL ADDENDA ON YOUR BID FORM. FAILURE TO ACKNOWLEDGE ALL ADDENDA COULD RESULT IN REJECTION OF YOUR BID AS NONRESPONSIVE.

Thank you.

Nicholas Read
Chief Procurement Officer
Model Profile
2015 7500 SFA 6X4 (SF637)

APPLICATION: Front Plow and Wing with Spreader

MISSION: Requested GVWR: 80000. Calc. GVWR: 64000
Calc. Start / Grade Ability: 10.97% / 2.11% @ 55 MPH
Calc. Gearspeed Speed: 85.6 MPH

FUEL ECONOMY: 7.4 MPG @ 55 MPH

DIMENSION: Wheelbase: 187.00, CA: 112.00, Axle to Frame: 63.00

ENGINE, DIESEL: (Navistar N10) EPA 10, SCR, 350 HP @ 2000 RPM, 1150 lb-ft Torque @ 1200 RPM
Governor Speed: 350 Peak HP (Max)

TRANSMISSION, AUTOMATIC: (Allison 3000, RDS, P) 5th Generation Controls; Close Ratio, 6-Speed, With Double Overdrive;
On/Off Hvy, Includes Oil Level Sensor, With PTO Provision, Less Retarder, With 80,000-lb GVWR
& GCW Max.

CLUTCH: Omit Item (Clutch & Control)

AXLE, FRONT NON-DRIVING: (Mentor MFS-18-133A) Wide Track, I-Beam Type, 18,000-lb Capacity
AXLE, REAR, TANDEM: (Mentor RT-46-164EH) Single Reduction, Standard Width, 46,000-lb Capacity, With Driver
Controlled Locking Differential in Forward Rear and Rear-Rear Axle and 200 Wheel Ends Gear Ratio: 6.14

CAB: Conventional

TIRE, FRONT: (2) 315/80R22.5 G751 MSA DURASEAL (GOODYEAR) 484 rews/mile, load range L, 20 ply
TIRE, REAR: (6) 12R22.5 0022 RSD (GOODYEAR) 482 rews/mile, load range H, 16 ply
SUSPENSION, REAR, TANDEM: (Hendrickson HMX-400-54) Walking Beam Type 54° Axle Spacing, 46,000-lb Capacity, With
Rubber End Bushings, Transverse Torque Rods, Less Shock Absorbers

PAINT: Cab schematic 100GM
Location 1: 0311, Omaha Orange (Std)
Chassis schematic N/A

Proposal: 9268-01
INTERNATIONAL®

Vehicle Specifications
2016 7500 SFA 6X4 (SF537)

July 22, 2014

Description
Base Chassis, Model 7500 SFA 6X4 with 187.00 Wheelbase, 112.00 CA, and 63.00 Axle to Frame.
FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.866" x 3.622" x 0.433" (276.0mm x 92.0mm x 11.1mm); 456.0" (11582mm)
Maximum OAL
BUMPER, FRONT Steel, Swept Back

Includes
: BUMPER, FRONT Powder Coated Gray (Argent) Color
FRAME EXTENSION, FRONT Integral; 20" In Front of Grille
WHEELBASE RANGE 177" (450cm) Through and Including 228" (578cm)
CROSSMEMBER, INTERMEDIATE (1) Additional; 5 Piece, Located 9" Back of Cab
AXLE, FRONT NON-DRIVING (Meritor MFS-16-133A) Wide Track, I-Beam Type, 18,000-lb Capacity

Notes
: The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
SHOCK ABSORBERS, FRONT
SUSPENSION, FRONT, SPRING Multileaf, Shackle Type; 18,000-lb Capacity; Less Shock Absorbers

Includes
: SPRING PINS Rubber Bushings, Maintenance-Free

Notes
: The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
SPRINGS, FRONT AUXILIARY Air Bag, Right Side Only, Driver Control

BRAKE SYSTEM, AIR Dual System for Straight Truck Applications

Includes
: BRAKE LINES Color and Size Coded Nylon
: DRAIN VALVE Twist-Type
: DUST SHIELDS, FRONT BRAKE
: DUST SHIELDS, REAR BRAKE
: GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster
: PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel
: PARKING BRAKE VALVE For Truck
: QUICK RELEASE VALVE Bendix On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4
: SLACK ADJUSTERS, FRONT Automatic
: SLACK ADJUSTERS, REAR Automatic
: SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4

Notes
: Rear Axle is Limited to 46,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Standard Rear Air Cam Brakes Regardless of Axle/Suspension Ordered.

BRAKES, FRONT, AIR CAM 16.5" x 6", Includes 24 Sqn Long Stroke Brake Chambers

Notes
: The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.

TRAILER CONNECTIONS Four-Wheel, With Hand Control Valve and Tractor Protection Valve, for Straight Truck

DRAIN VALVE (Bendix DV-2) Automatic; With Heater; for Air Tank

Includes

Proposal: 9289-01
INTERNATIONAL Vehicle Specifications 2016 7600 SFA 6X4 (SF637) July 22, 2014

Description
: DRAIN VALVE Mounted In Wet Tank

BRAKE SHOES, REAR Cast

Notes
: Provides Rear Axle GAWR Up to 52,000-Lb.
: The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.

AIR BRAKE ABS (Bendix AntiLock Brake System) Full Vehicle Wheel Control System (4-Channel)

AIR DRYER (Bendix AD-8) With Heater

Includes
: AIR DRYER LOCATION Inside Left Rail, Back of Cab

BRAKE CHAMBERS, FRONT AXLE (Haldex GC3039LHDHO) 30/30 Spring Brake

Includes
: BRAKE CHAMBERS, SPRING (2) Rear Parking; WITH TRUCK BRAKES: All 4x2, 4x4; WITH TRACTOR BRAKES: All 4x2, 4x4; 6x4 & 6x6 with Rear Tandem Axles Less Than 45,000-lb. or GAWR Less Than 54,000-lb.
: BRAKE CHAMBERS, SPRING (4) Rear Parking; WITH TRUCK BRAKES: All 6x4, 6x6; WITH TRACTOR BRAKES: 6x4 & 6x6 with Rear Tandem Axles 45,000-lb. or Greater or GAWR of 54,000-lb. or Greater

BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0", Includes 30/30 Sq.In. Long Stroke Brake Chamber and Spring Actuated Parking Brake

Notes
: The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.

AIR COMPRESSOR (Bendix Tu-Fl 550) 13.2 CFM Capacity

STEERING COLUMN Tipping

STEERING WHEEL 2-Spoke, 18" Diam., Black

STEERING GEAR (2) (Shepperd M-100/M-80) Dual Power

EXHAUST SYSTEM Switchback Horizontal Aftertreatment Device, Frame Mounted Right Side Under Cab; Includes Single Vertical Tail Pipe, Frame Mounted Right Side Back of Cab

ELECTRICAL SYSTEM 12-Volt, Standard Equipment

Includes
: BATTERY BOX Steel with Plastic Lid
: DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab
: FUSES, ELECTRICAL SAE Blade-Type
: HAZARD SWITCH Push On/Off, Located on Top of Steering Column Cover
: HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever
: HEADLIGHTS (2) Sealed Beam, Round, with Chrome Plated Bezels
: JUMP START STUD Located on Positive Terminal of Outernost Battery
: PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light
: RUNNING LIGHT (2) Daytime, Included With Headlights
: STARTER SWITCH Electric, Key Operated
: STOP, TURNS, TAIL & BUS LIGHTS Dust, Rear, Combination with Reflector
: TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature
: TURN SIGNALS, FRONT Includes Reflectors and Auxiliary Side Turn Signals, Solid State Flashers; Flush Mounted
: WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever
: WINDSHIELD WIPERS Single Motor; Electric, Cowl Mounted
: WRING, CHASSIS Color Coded and Continuously Numbered

CIGAR LIGHTER Includes Ash Cup

Proposal: 9289-01
INTERNATIONAL®

Vehicle Specifications
2010 7500 SFA 6X4 (SF537)

July 22, 2014

**Description**

- **ALTERNATOR** (Leece-Neville AV180P2013) Brush Type; 12 Volt 180 Amp. Capacity, Pad Mount, With Remote Sense
- **BODY BUILDER WIRING** Back of Standard Cab at Left Frame or Under Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Lamp/Brake/ turn/Marker/Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
- **BATTERY SYSTEM** (International) Maintenance-Free, (3) 12-Volt 1950CCA Total
- **2-WAY RADIO Wiring Effects:** Wiring With 20 Amp Fuse Protection. Includes Ignition Wire With 5 Amp Fuse, Wire Ends Heat Shrink and 10' Collar Taped to Base Harness
- **RADIO AM/FM/CD/WB/Clock/3MM Auxiliary Input,** with Multiple Speakers
- **AUXILIARY HARNESS 3.0' for Auxiliary Front Head Lights and Turn Signals for Front Plow Applications**
- **TRAILER CONNECTION SOCKET 7-Way:** Mounted at rear of Frame, Wired for Turn Signals Combined With Stop, Compatible With Trailers That Use Combined Stop, Tail, Turn Lamps
- **SWITCH, AUXILIARY Accessory Control:** for Wiring in Roof, With Maximum of 20 amp Load With Switches In Instrument Panel
- **HORN, ELECTRIC Disc Style**
- **BATTERY BOX** Steel With Plastic Cover, 18” Wide, 2, 3, or 4 Battery Capacity, Mounted Left Side Back of Cab
- **SWITCH, BODY CIRCUITS, MID for Bodybuilder, 6 Momentary Switches In Instrument Panel:** One Power Module with 6 Channels, 20 Amp Max. Per Channel, 80 Amp Max Output, Switches Control Power Module Through Multiplex Wiring, Mounted in Cab Behind Driver Seat
- **HORN, AIR Block, Single Trumpet, Air Solenoid Operated**
- **WINDSHIELD WIPER SPD CONTROL** Force Wipers to Slowest Intermittent Speed When Park Brake Set and Wipers Left on for a Predetermined Time
- **TURN SIGNALS, FRONT Dual Face, Amber/Red,** Mounted on Top of Fender, Used With Standard Flush Mounted Front Turn Signal, Side Marker Lights, Parking Lights and Reflectors
- **CLEARANCE/MARKER LIGHTS (6)** (Truck Lite) Amber LED Lights, Flush Mounted on Cab or Sunshades
- **ENGINE SHUTDOWN Automatic With 30 Second Delay,** With International Engines
- **TEST EXTERIOR LIGHTS Pre-Trip Inspection will Cycle all Exterior Lamps Except Back-up Lights**
- **HEADLIGHTS On WWIPERS Headlights Will Automatically Turn On if Windshield Wipers are turned on**
- **STARTING MOTOR** (Delco Remy 38MT Type 300) 12 Volt; less Thermal Over-Crank Protection
- **INDICATOR, LOW COOLANT LEVEL With Audible Alarm**
- **ALARM, PARKING BRAKE** Electric Horn Sounds in Repetitive Manner When Vehicle Park Brake is "NOT" Set, With Ignition "OFF" and any Door Opened
- **CIRCUIT BREAKERS Manual-Reset (Main Panel): SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses**
- **HOOD, HATCH (01) for Servicing**
- **INSULATION, UNDER HOOD for Sound Abatement**
- **GRILLE Stationary, Chrome**
- **INSULATION, SPLASH PANELS for Sound Abatement**
- **FRONT END Tulting, Fiberglass, With Three Piece Construction; for 2007 & 2010 Emissions**
- **CHASSIS COATING** Corrosion Resistant Primer Coating for Single Frame Rails
- **PAINT SCHEMATIC, PT-1 Single Color, Design 100**
- **Includes:** PAINT SCHEMATIC ID LETTERS "GM"
INTERNATIONAL®

Vehicle Specifications
2016 7500 SFA 6X4 (SF537)

July 22, 2014

Description

PAINT TYPE: Base Coat/Clear Coat, 1-2 Tone

PROMOTIONAL PACKAGE: Government and Municipal Silver Package, Two Year Limited Subscription of On-Command Service Information (Formerly Fleet ISIS), and On-Command Parts Information (Formerly Fleet Parts Catalog), Requires Specific Feature Combinations

CLUTCH Omit Item (Clutch & Control)

PTO EFFECTS, ENGINE FRONT: Less PTO Unit, Includes Adapter Plate on Engine Front Mounted

ENGINE, DIESEL (Navistar N10) EPA 10, SCR, 350 HP @ 2000 RPM, 1150 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 350 Peak HP (Max)

Includes

- AIR COMPRESSOR: AIR SUPPLY LINE Naturally-Aspirated (Air Brake Chassis Only)
- ANTI-FREEZE: Red Shell Rotella Extended Life Coolant; -40 Degrees F / -40 Degrees C; for MaxxForce and Navistar Engines
- COLD STARTING EQUIPMENT: Intake Manifold Electric Grid Heater with Engine ECM Control
- CRUISE CONTROL: Electronic; Controls Integral to Steering Wheel
- ENGINE OIL: DRAIN PLUG: Magnetic
- ENGINE SHUTDOWN: Electric, Key Operated
- FUEL FILTER: Included with Fuel/Water Separator
- FUEL/WATER SEPARATOR: Fuel/Water Separator and Fuel Filter in a Single Assembly; With Water-in-Fuel Sensor; Engine Mounted
- GOVERNOR: Electronic
- OIL FILTER, ENGINE: Spin-On Type
- WET TYPE CYLINDER SLEEVES

FAN DRIVE: ( Horton Drivemaster Polar Extreme) Direct Drive Type, Two Speed, With Residual Torque Device for Disengaged Fan Speed

Includes

- FAN: Nylon

RADIATOR: Aluminum, Cross Flow, Series System; 1226 SqIn Core and 648 SqIn Charge Air Cooler and With Transmission Oil Cooler

FEDERAL EMISSIONS: EPA, OBD and GHG Certified for Calendar Year 2014; N9 & N10 Engines

AIR CLEANER: Single Element, with Integral Snow Valve and In-Cab Control

Includes

- GAUGE, AIR CLEANER RESTRICTION: Air Cleaner Mounted
- THROTTLE, HAND CONTROL: Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel

ENGINE CONTROL, REMOTE MOUNTED: Provision for; Includes Wiring for Body Builder Installation of PTO Controls; With Ignition Switch Control for MaxxForce and Navistar post 2007 Emissions Electronic Engines

- BLOCK HEATER, ENGINE (Phillips) 120 Volt/1250 Watt; With "Y" Cord From Socket in Standard Location, For a Dealer Installed Oil Pan Heater, With Extended Life Coated Metal/Metal/Metal Material Oil Pan

Includes

- BLOCK HEATER SOCKET: Receptacle Type; Mounted below Drivers Door

Notes

- MPM material is single sheet composite with two layers of sheet metal sandwiching plastic material. MPM material has electro-deposition primer coat with powder coating for the final finish coat.

EMISSION COMPLIANCE: Federal, Does Not Comply With California Clean Air Idle Regulations

TRANSMISSION, AUTOMATIC (Allison 3000_RDS_P) 5th Generation Controls; Close Ratio, 6-Speed, With Double Overdrive; On/Off Hwy; Includes Oil Level Sensor, With PTO Provision, Less Retarder, With 80,000-lb GVW & GCW Max.

TRANSMISSION OIL Synthetic; 29 thru 42 Pints

ALLISON SPARE INPUT/OUTPUT: For Rugged Duty Series (RDS); General Purpose Trucks, Construction

TRANSMISSION SHIFT CONTROL: (Allison) Bump Shifter Type; for Allison 3000 & 4000 Transmission

Proposal: 9289-01
INTERNATIONAL Vehicle Specifications 2015 7600 SFA 6X4 (SF537) July 22, 2014

Description
TRANSAXLE TCM LOCATION Located Inside Cab

SHIFT CONTROL PARAMETERS Allison Performance Program in Primary and Allison Economy Program in Secondary


Includes
- POWER DIVIDER LOCK Electric over Air Operated, Cab Control with Indicator Light
- REAR AXLE DRAIN PLUG (2) Magnetic, For Tandem Rear Axle

Notes
- The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.
- When Specifying Axle Ratio, Check Performance Guidelines and TCAFE for Stairability and Performance

SUSPENSION, REAR, TANDEM (Hendrickson HMX-400-54) Walking Beam Type 54" Axle Spacing; 46,000-lb Capacity, With Rubber End Bushings, Transverse Torque Rods, Lessor Shock Absorbers

Includes
- CROSSMEMBER, SUSPENSION Stamped Steel Double Dogbone

Notes
- The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.

SUSPENSION/REAR-AXLE IDENTITY for Meritron Tandem Rear Axles With Bar-Pin Beam Attachment Type Suspensions

FUELWATER SEPARATOR with Thermostatic Fuel Temperature Controlled Electric Heater, and Filter Restriction/Change Indicator, Includes Standard Equipment Water-in-Fuel Sensor
FUEL TANK Top Draw; D Style, Non Polished Aluminum, 50 U.S. Gal., 189 L Capacity, 16" Tank Depth, with Quick Connect Outlet, Mounted Left Side, Under Cab
DEF TANK 7 U.S. Gal. 26.5L Capacity, Frame Mounted Outside Left Rail, Under Cab

CAB Conventional

Includes
- ARM REST (2) Molded Plastic; One Each Door
- COAT HOOK, CAB Located on Rear Wall, Centered Above Rear Window
- CUP HOLDERS Two Cup Holders, Located in Lower Center of Instrument Panel
- DOME LIGHT, CAB Rectangular, Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Console, Center Mounted
- GLASS, ALL WINDOWS Tinted
- GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side
- GRAB HANDLE, CAB INTERIOR (2) Front of "B" Pillar Mounted, One Each Side
- INTERIOR SHEET METAL Upper Door (Above Window Ledge) Painted Exterior Color
- STEP (4) Two Steps Per Door

GAUGE CLUSTER English With Electronic Speedometer

Includes
- GAUGE CLUSTER (6) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter, Washer Fluid Level
- ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout
- WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)

GAUGE, TEMPERATURE, AMBIENT Sensor Wiring with Display Unit Mounted in Cluster

GAUGE, OIL TEMP, ALLISON TRAN

IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster

GAUGE, DEF FLUID LEVEL

Proposal: 9289-01
Description
SEAT, DRIVER (National 2000) Air Suspension, High Back With Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, With 2 Position Front Cushion Adjus, -3 to +14 Degrees Angle Back Adjus
Includes
- SEAT BELT 3-Point, Lap and Shoulder Belt Type
- SEAT, PASSENGER (National) Non Suspension, High Back With Integral Headrest, Vinyl, With Fixed Back, With Under Seat Storage
- MIRRORS (2) (Lang Mekra) Rectangular, 7.44" x 14.84" & 7.44" sq. Convex Both Sides, 102° Inside Spacing, Breakaway Type, Heated Heads Thermostatic Controlled, Black Heads, Brackets and Arms
- WINDSHIELD Heated, Single Piece
- HEATER (Blend-Air) with Defroster
Includes
- HEATER HOSES Premium
- HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps
- INSTRUMENT PANEL Center Section, Flat Panel
- HVAC FRESH AIR FILTER
- STORAGE POCKET, DOOR Molded Plastic, Full Width; Mounted on Passenger Door
- CAB INTERIOR TRIM Deluxe
Includes
- "A" PILLAR COVER Molded Plastic
- CAB INTERIOR TRIM PANELS Cloth Covered Molded Plastic, Full Height; All Exposed Interior Sheet Metal is Covered Except for the Following: with a Two-Man Passenger Seat or with a Full Bench Seat the Back Panel is Completely Void of Covering
- CONSOLE, OVERHEAD Molded Plastic; With Dual Storage Pockets with Retainer Nets and CB Radio Pocket
- DOOR TRIM PANELS Molded Plastic; Driver and Passenger Doors
- FLOOR COVERING Rubber, Black
- HEADLINER Soft Padded Cloth
- INSTRUMENT PANEL TRIM Molded Plastic with Black Center Section
- STORAGE POCKET, DOOR (1) Molded Plastic, Full-Length; Driver Door
- SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console
- CAB REAR SUSPENSION Air Bag Type
- WHEEL, SPARE, DISC 22.5" Painted Steel, 10 Stud (285.75MM BC Hub Piloted) 9.00 DC Rim
- WHEELS, FRONT DISC; 22.5" Painted Steel, 5 Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 9.00 DC Rims; With .500" Thick Disc, Non-Standard Offset and Steel Hubs
Includes
- PAINT IDENTITY, FRONT WHEELS White
Notes
- Aluminum Wheels not Painted or Coated
- Compatible Tire Sizes: 12R22.5, 205/75R22.5, 205/80R22.5, 315/80R22.5
- WHEELS, REAR (Accuride) DUAL DISC; 22.5" Painted Steel, 5 Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With .472" Thick Increased Capacity Disc and Steel Hubs
Includes
- PAINT IDENTITY, REAR WHEELS White
Notes
- PAINT IDENTITY, FRONT WHEELS Disc Front Wheels; With Vendor Applied White Powder Coat Paint

Proposal: 9289-01
13' ELIPTICAL STEEL COMBINATION BODY CENTER REAR DISCHARGE

Body shall be designed to fit ten wheel chassis with 132° CT.

GENERAL:
These specifications describe an All Season Combination Dump Body and Sand/Salt Spreader. The dump box shall remain stationary on the chassis frame while spreading. Rear discharge shall be front hoist tilt action as per conventional dump bodies or controlled discharge thru rear discharge gate. The unit will be oval shaped to permit gravity flow unloading. The main conveyor will be centered and recessed along the length of the box.

The spreader body offered by the bidder under this specification shall be the manufacturers latest model standard commercial product and shall have demonstrated and proven industry acceptance by having been manufactured and sold in significant numbers to Municipalities and Contractors, and shall be proven in service for at least one year prior to issuing of this tender document.

The bidder if requested must be able to provide name and contact information of a least five Municipalities who currently own and operate the same make and model of spreader body that the bidder is offering in the tender submission.

Meets above specifications    yes no

Exceptions

DEMONSTRATION:
The bidder will arrange a working demonstration of any unit offered as an approved equivalent at the municipality's location upon request.

Meets above specifications    yes no

Exceptions

DIMENSIONS:
To provide optimum combination of legal payload and capacity all dimensions below are maximum / minimum and will be exactly as specified.

Body shall be oval shaped, permitting materials to unload by gravity flow into spreading chain. Total weight of the complete body assembly in ready to work condition including hoist, tarp, tailgate, cross conveyor, main conveyor, and all other required components is not to exceed 6800lbs. Outside length 14'. Inside length 13'. Overall width outside 90°. Overall width inside 86°. Height of sides 45° from conveyor floor. Height of tailgate 53° from conveyor floor. Height of front panel 60 inches. Water level capacity will be 9.9 cu. yd. Water level capacity with 10' sideboards will be 12.7 cu., yd.

Meets above specifications    yes no

Exceptions

CONSTRUCTION:
Body shall be from one piece head board sheet and one piece side panels. The front head of the body will be completely clean and clear of any type of recesses or protrusions into the body including hoist doghouse, bulkheads, etc. Body front panel will be designed to slope from the cab shield rearward to the conveyor floor at 22 degrees from vertical. The front panel slope will be continuous and uninterrupted for the full length from top to bottom. Top rail of body will be 4" x 4" x ⅜ square tubing. All body welds will be 100% continuous inside and outside. Body front and sides shall be 3/16" Cor-ten "A" steel. Rear vertical corner posts will be 10 ga. sheet steel, fabricated in such a way as to include provision for rear facing lighting requirements. Rear vertical corner-posts to be tied to radius side panels and horizontal top rails and welded 100 percent. Rear vertical corner-posts to be connected to main conveyor via a rear horizontal 3" x 8" x 3/6" wall HSS tube spanning the full body width. Body construction shall include integral side fenders fabricated from a minimum 10 GA Cor-ten A corrosion resistant material. Integral
fenders shall be full length from front to rear of body. One fender right side and one fender left side. Integral fenders to be sloped away from unit to prevent any excess material spilled during loading from building / piling up. An access ladder shall be provided which is 15" wide, two piece hinged and located at the rear curb side of body. Access ladder will be manufactured from safety grip strut material.

Meets above specifications  yes  no

Exceptions

HOIST:
Mailhot Nitrided top lift 3 stage telescopic hoist “C” series Model CS-130-5-3. Hoist lift cylinder to be forward mounted three (3) stage top lift telescopic. Hoist capacity shall be 30 tons @ 2,000 P.S.I. Hoist cylinder will be rod sealed. Special Mailhot coating to provide protection to hoist seals in spreading position. Cylinder stroke shall be 130’. Dump box dump angle shall be variable to 90 degrees from horizontal. There will be no hoist doghouse protruding into front head of body, hoist will be external mounted to provide flat body front head. Rear hinge diameter shall be 3 ½". Hoist control valve shall be air operated from inside cab. The body to be equipped with a positive locking support brace integral with rear dump hinge.

Meets above specifications  yes  no

Exceptions

TAILGATE:
Tailgate shall be double acting. Tailgate height shall be 53" from conveyor floor. Upper hinge plates to be offset design flame cut from 1" steel plate. Tailgate shall be rectangle shaped to allow use of asphalt or stone chip spreader. Construction shall be of 3/16” Cor-Ten “A” steel with 3/16” formed cross bracing. Exterior vertical side support tubes to be 3 1/2” x 3 1/2” x .125” wall HSS tubing. Latch mechanism for the tailgate shall be air trip using two air pot chambers actuated from inside cab. Screw adjustable gate located at the bottom center of tailgate for controlled rear discharge of material. Interior measurement of the asphalt gate will be 25’ wide by 14’ high. Summer insert shall be a bolt on steel cover plate. Brake chambers directly coupled to 1/2” thick flame cut latches. Spreader chains and brackets shall be supplied on tailgate and rear post. Chain shall be grade 70 coil proof 3/8” minimum.

Meets above specifications  yes  no

Exceptions

MAIN CONVEYOR:
The main conveyor shall be centered and recessed along the length of dump box floor. Three-piece formed construction minimum 25’ wide. Constructed of 1/2” Cor-Ten “A”. Conveyor floor to be 3/4” Hardox 460. Permanent non-removable built in protective main conveyor chain link covers. The protective covers will run from the front to the rear of the body right and left side of the main conveyor. The protective non removable main conveyor link covers will cover and protect the main conveyor chain links from damage by impact at all times in all operation modes. In addition to the permanent non-removable main conveyor chain link covers a removable conveyor chain rubber cover will be supplied. The removable cover will protect the main conveyor floor and conveyor chain cross flights from damage by impact when installed. The removable main conveyor cover will be manufactured from 3/8” 2 ply high temperature rubber. The removable main conveyor will self-feed into place to allow fast and simple installation and removal. Self-feeding will be achieved by simply attaching the conveyor cover to a main conveyor chain cross flight at the tailgate (idler end), starting the main conveyor will pull the cover into place under the permanent non removable protective steel chain link covers.
Removal of the rubber conveyor cover from the body will be accomplished by starting the main conveyor, which will then feed the cover out through the front material discharge gate. Installation and removable of the rubber main conveyor cover into or out of the spreader body will be a one person operation. Conveyor chain to be self-cleaning D667 pin type with an average tensile strength of 21,700 PSI, spaced apart 21” on center with 3/8” x 1 ½” cross flights welded to every 2nd link (approx. 4.5” spacing). Drive and idler
shafts to be two (2) inches diameter. Drive and idler shafts manufactured from high-resistance stress proofed SAMSON 100. Drive and idler sprockets to be minimum eight-tooth cast steel. All drive and idler sprockets to be minimum C1030 cast steel. Main conveyor drive shall be 25:1 high efficiency planetary drive with high torque low speed motor. The planetary drive shall deliver 50,000 IN/LB peak torque with 34,960 IN/LB continuous. Planetary drive close coupled to main conveyor shaft at rear. Connection of the planetary drive shaft to the main conveyor shaft shall be accomplished via a split two piece rectangular shaped coupler assembly. The upper and lower half of the coupler assembly will be bolted together by (4) 5/8” x 4 1/2” N.C. Grade 8 Hex Head bolts. Removal of the (4) coupling bolts will allow simple disassembly of the planetary drive shaft from the main conveyor shaft, for ease of maintenance. The two main conveyor drive shaft flange bearings will be bolted directly to the body long sill weldments. Each of the two body long sill weldment will be vertical slotted to simplify removing the drive shaft flange bearings and uncoupling the planetary and main conveyor drive shafts. The entire conveyor drive shaft assembly will drop out through the vertical long sill slots providing easy access and simple maintenance. The main conveyor flow control gate, will be flush and even with front of the body, without any type of recess. Underside of main conveyor to be complete with full length poly guard to prevent material spillage on to chassis components and frame rails.

Meets above specifications yes no

Exceptions

CONVEYOR CHAIN TENSIONER:

Conveyor chain tension to be regulated via an automatic chain tensioning system. This tensioning system will provide appropriate chain tension for the main conveyor chain at all times and under all normal operating conditions. The fully automated chain tensioner will eliminate the requirement for any manual chain tension adjusting mechanisms such as conventional threaded rod and nut tensioners or hydraulic grease ram tensioners which will not be accepted. Automated chain tensioning system to be centrally located between main conveyor drive and idler shafts. Access to automated conveyor chain tensioning system shall be from the side(s) of the body via removable service panels.

Meets above specifications yes no

Exceptions

SPINNER:

A 3.0 cubic inch hydraulic motor shall drive the spinner assembly. Rear spinner shall have provision to mount from rear pintle plate. Rear spinner disc shall be 22” diameter polymer construction. Hydraulic hoses to the spinner motor are to be complete with quick disconnect automatic sealing breakaway couplers and are to be assembled so that the male end may plug into the female end on the spinner motor and the hoist frame when the spinner assembly is disconnected.

Meets above specifications yes no

Exceptions

LIGHTING:

For improved rear visibility, LED rear lamps, stop/tail/turn, back up and amber flashing lights to be mounted in rear corner posts within 3’ of the outside of the tailgate shall be provided. 3 in a row light cluster shall be supplied with mounting plate integral with dump hinge. 2” round red clearance lights provide in lower rear side corner posts. A single roof mounted LED beacon with branch guard shall be provided and installed.

Meets above specifications yes no

Exceptions
LOAD COVER:
An electric automatic loadcover with aluminum arms and vinyl asphalt tarp will be installed.

Meets above specifications   yes  no

Exceptions

AUTOMATIC LUBE SYSTEM:
An automatic grease dispensing system shall be supplied and installed to maintain the proper level of lubrication to greaseable points on the body.

Meets above specifications   yes  no

Exceptions

PROTOTYPES:
Prototype units will not be acceptable. The bidder must be able to demonstrate a solid history of use of the combination U-body/spreader offered in this tender by Municipalities, for a minimum of one year, and references must be supplied as specified below.

Meets above specifications   yes  no

Exceptions

SCREENS: Body must have material screens to protect the conveyor chain for winter use. The material screen assembly must be removable as a single unit by means of 2 grab loops. The four section painted steel screens shall be fabricated from 1-1/4"x1-1/4" flats with 1-1/2"x1-1/2"x1-1/4" angle frame. The screens shall be supported by three (3) lateral 4" structural steel I-Beams which are in turn carried by one (1) 6" structural steel I-Beam set longitudinally. The screens shall be elevated at the center to reduce material build up.

Meets above specifications   yes  no

Exceptions

PINTLE PLATE:
A 3/4" thick steel pintle plate shall be installed at the rear of the chassis. A 24.5-ton capacity spring mounted swivel type pintle hook is to be provided and installed in the plate along with 3/4" D-Rings and 7-pin round trailer light socket. Chassis manufacturer supplied glad hands shall be installed in the pintle plate.

Meets above specifications   yes  no

Exceptions

PAINT:
Factory shot blasted and epoxy primed. Finish coat to be painted black single stage urethane. Underbody and chassis frame to be painted black.

Meets above specifications   yes  no

Exceptions

CENTRAL HYDRAULIC SYSTEM:
The central hydraulic system shall consist of a front mounted pump and chassis mounted valve. The pump shall be driven directly by the engine crankshaft of the chassis. There shall be a low hydraulic oil shutoff system which ceases the flow of oil to the valve and sets off an audible and visual alarm in the cab when a low oil situation occurs. A momentary override switch temporarily returns the hydraulic system.
to operation for equipment stowing and fault finding. The control valve shall be of mobile design to withstand exposure to de-icing chemicals and severe weather conditions. It shall be of cast iron construction horizontally stackable and serviceable without disassembly. Sections for hoist, front plow and wing shall be operated via in-cab controls with marine grade stainless steel cables. The electric spinner and auger sections must be incorporated into the main valve assembly. The valve shall be assembled as a single unit and mounted in a sealed stainless steel enclosure. Multiple valve assemblies are unacceptable.

Valve Section Functions are to be as follows:
DA Plow raise/lower
DA Plow reverse (designed for locking pin plow)
DA Hoist w/500 PSI Relief on Down Side
DA Wing front mast
DA Wing rear mast
DA Wing slow
Electric Conveyor
Electric Spinner
A 35-gallon chassis mounted hydraulic oil reservoir shall be provided including internal return line filter and sight/level gauge.

Pump, Valve, Spreader Control and Pre-Wet System must all be made by the same manufacturer to ensure complete system compatibility.

Meets above specifications  yes  no

Exceptions

SPREADER CONTROL:
The CAN Bus spreader control system shall be ground speed orientated to maintain a predetermined application rate regardless of vehicle speed. Control shall be by microprocessor for high control accuracy with the outputs being current compensated. The controller must be modular in design to allow flexibility in mounting. The display will be a glass/foil/glass design and have on screen touch controls. The screen will offer an adjustable brightness. The display must include a 1.5 watt speaker that announces rate change, pause and blast. The controller must be capable of operating in Manual, Automatic (Closed Loop), Open Loop, Ground Speed Triggered and 12V triggered. The controller must be capable of operating Auger/Conveyor, Spinner, Pre-Wet and Anti-Ice. The Operation selection is key coded USB drive. The Controller is to offer 4 different Granular, Pre-Wet, Anti-Ice Materials each with 9 programmable rates. It must be capable of operating the Spinner, Auger/Conveyor, Pre-Wet, and Anti-Ice all at the same time.

THE CONTROLLER MUST OFFER THE FOLLOWING FEATURES:
TEMPERATURE READ BACK AND PRE-WET TEMPERATURE COMPENSATION:
The controller must be capable of reading and logging road temperature via an external sensor (Control Products or Sprague Road Watch) and Temperature Compensation for Pre-Wet Control.

GPS COMPATIBLE:
The controller must be capable of supplying logging information to an external GPS system.

ONBOARD WI-FI AND GPS INFO:
System must offer onboard wi-fi for optional data downloading and uploading from optional Desktop Software

AUTO NULLING:
When in closed loop granular or liquid the controller must be capable of doing an Auto Null for the auger/conveyor and the liquid hydraulic valve sections. Manual Nulling must also be available for all circuits.

SYSTEM PROGRAMMING:
Programming of the spreader control must be able to be done on screen with easy menus or through the desktop/laptop computer and transferred via keyed USB Drive.

TRIP SUMMARY INFORMATION:
The driver must be able to access a trip summary screen that will show miles traveled and material spread quantities.

ON SCREEN ERROR CODE LOG:
An on screen error log must be available without any external devices such as keys or computers.

DATA LOGGING:
The controller must be able to provide information that is event based such as: Event time, Date, Material set-point and usage amounts, Spreader set-point, Pre-Wet set-point and usage amounts, Blast distance and amount used, Pause distance, Gate Setting, and Road Temperature. All the information will be transferred from the spreader control to a desktop/laptop computer USB drive. All data logging information must be capable of being customized and exported. Summation reports are not acceptable.

SOFTWARE UPDATES:
The spreader control software must be able to be upgraded via desktop/laptop computer. EPROM changes are not acceptable.

The spreader control must be made by the same manufacturer as the pump and valve to insure complete system compatibility.

Meets above specifications yes no

Exceptions

CUSTOM TRUCK/PLOW AND WING MOUNT ATTACHMENT HITCH:
The custom truck/plow attachment shall be manufactured by a recognized snow plow manufacturer and shall include 1/2” thick side plates reinforced and bolted as far back on the truck frame as feasible. All vertical risers shall be from a minimum of 4” x 4” x 1/2” angle, the horizontal member to which the base of the lift cylinder pins shall be from a minimum of 4” x 4” x 1/2” angle boxed in with a 1/4” x 4” flat bar. The top horizontal member shall be from a minimum of 4” x 3” x 1/2” angle. The attachment shall be supported across the bottom by a 6” x 6” x 3/4” angle. The cross member which will support the wing post shall be made of 7” x 4” x 3/8” wall structural tubing and 1/2” plate.

Meets above specifications yes no

Exceptions

LIFT CYLINDER:
The lift cylinder shall be 4” x 10” DA (double acting).

Meets above specifications yes no

Exceptions

SAE “B” 2-BOLT BRACKET:
The pump mounting bracket shall be from not less than 3/8” and 1/2” plate steel. It shall span the width of the truck frame/hitch, and shall be fabricated to accommodate an SAE “B” 2 bolt pump flange.

Meets above specifications yes no

Exceptions

PUSH CENTERS 21” and 30-1/2”:
The bottom horizontal member shall be fitted with eight (8) 1/2” thick plow attaching lugs, which offer two push height selections on 21” and 30-1/2” centers via two (2) 1-1/4” pins.

Meets above specifications yes no

Exceptions
LIFT GROUP:
The lift group consists of a grab loop which is secured to the lift yoke with no less than a 5/8" round pin anchor shackle.

Meets above specifications  yes  no

Exceptions

HOSE CONNECTING BRACKET WITH RESTRICTOR:
The hose connecting bracket shall consist of a mounting plate cut from 8 gauge steel sheet with (2) holes for attaching the hose adapters, flow restrictor and quick disconnects. Rubber dust covers shall be provided to protect the quick disconnects when not in use.

Meets above specifications  yes  no

Exceptions

FRONT WING MAST:
The front mast shall be fabricated from an 8" beam of 18.4#/ft. Built into the top of the beam shall be a sheave housing which shall incorporate a 5" outside diameter cast steel (ASTM A27 GR 1025) sheave turning on a 1" cold rolled steel pin with grease fitting. The sheave shall be equipped with a bronze (SAE 660/ASTM B505) bushing. The front mast shall be bolted to, and supported by a lower cross member from not less than 7" x 4" x 3/8" wall rectangular tubing extending from the bottom of the truck attachment. Intelligently located, at the inside of the beam be not less than a 3" x 20" stroke double acting cylinder. It shall be reved with 1/2" diameter fiber core (6 x 19 IPS) wire rope cable over 5" outside diameter cast steel (ASTM A27 GR 1025) sheaves, which include bronze bushings turning on 1-3/8" cold rolled steel pins fitted with grease fittings. Sheave heads bolt to the piston rods. Heads which weld to the piston rod are not acceptable. The travel of the slide on the front mast shall be 40".

Meets above specifications  yes  no

Exceptions

TRIP HINGE:
The hinge shall connect the wing to the front mast slide. The hinge shall be an assembly of two fabricated parts designed to swivel around a 1-5/8" pin. The pin shall pass through a 3-3/4" x 5-1/4" torsion spring which holds the wing upright until tripped. The hinge shall be equipped with lock-out pins to provide a rigid wing when shelving operations so dictate. Attached to one side of the hinge shall be two lugs of 3/4" plate. The hinge shall connect to the wing with not less than a 1-1/2" grade 5 bolt, washer, slotted hex nut and cotter pin.

Meets above specifications  yes  no

Exceptions

REAR MAST:
The rear mast unit shall consist of hydraulic cylinders, rear support mast, and all necessary hose lines and fittings for operating the rear wing functions. The rear mast unit shall be located within a clear space behind the cab and in front of the dump body. The vertical mast shall be fabricated from 10" x 20#/ft structural steel channel. Additional stability of the vertical beam shall be provided by (2) 1/2" thick steel bars, which connect the top of the vertical member to a point mid-way across the horizontal member. There shall be two (2) cylinders provided to control the rear of the wing. The rear of the wing lift cylinder shall be not less than 3" x 14 7/8" stroke double acting type. It shall attach between the rear mast slide and a sliding collar at the upper stand-off arm. Adjustable flow restrictors shall be installed between the hydraulic control valve and this cylinder to provide for variation of speed. The cylinder shall be fitted with an integral counter-balance valve at its base to protect against impact load and the possibility of the wing
dropping due to pressure line failure. The rear slide cylinder shall not be less than 3" x 33" stroke double acting type which shall be located outside of the rear mast vertical support channel. It shall have a stationary barrel, which attaches to the bottom of the rear of the mast. Drive ribs at the rear mast shall be so positioned that they make it possible to place the wing arms at a 90° angle to the rear of the wing.

Meets above specifications  yes  no

Exceptions

WING MOLDBOARD SPECIFICATIONS RH:
The wing shall have an overall length of 11 feet, a nose height of 26", and a discharge height of 36". The moldboard shall be fabricated from 8 gauge H.R.M.S. sheet, the top of which shall incorporate an integral channel shaped continuation of the same so to enhance rigidity. The bottom cutting edge reinforcement shall be from not less than 6" x 4" x 3/4" structural angle with not less than (7) 1/2" reinforcing gussets welded along its entire length. The moldboard shall be provided with not less than (5) vertical reinforcing ribs from 1/2" thick plate. Located between the two (2) outside vertical ribs, at the discharge end of the moldboard, shall be four (4) horizontal ribs also from 1/2" thick plate (two (2) upper and two (2) lower); all with a series of vertically punched holes to provide a selection of attachment points for the upper and lower stand-off arms. Additionally, the front nose portion of the wing shall include a selection of two (2) 1-9/16" diameter holes through a 1" thick steel plate for attachment to the hinge. Included at the discharge end shall be a moldboard shoe. The wear plate shall be of 1-1/2" steel plate. A mounting plate and gussets from 1/2" plate steel shall be welded to the top of the wear plate to allow a 10° attack angle when the shoe is flat on the ground.

Meets above specifications  yes  no

Exceptions

AR CUTTING EDGE (12" PUNCHED):
The cutting edge shall be 1/2" x 6" x 120" from SAE/AISI C1085 steel, and be top punched with 11/16" square holes on 12" centers to AASHTO standards. It shall attach to the moldboard with not less than 5/8" grade 5 carriage bolts with locknuts.

Meets above specifications  yes  no

Exceptions

STANDOFF ARMS FULL TRIP HYDRAULIC WITH CUSHION SPRING:
The stand-off arms shall be of the full moldboard tripping style with the inner arms fabricated from 2-1/8" solid bar stock, and the outer arms fabricated from 2-1/2" schedule 80 pipe. Both upper and lower arms shall be equipped with a swivel with a grease fitting so to prevent damage to the arms when the wing is lifted to the carry position. Both arms shall be adjustable in length from 81" to 78", offering four (4) positions of adjustment with 5/8" cold rolled steel pins. The lower arm shall be equipped with a compression spring so to provide a shock absorber. The upper arm shall be fitted with a suspension spring not less than 3-3/16" O.D. x 29" long from 19/32" diameter alloy wire. This suspension spring will allow for spring loaded telescopic action of the top arm, whenever the wings cutting edge encounters surface obstructions, and when used in conjunction with a 7/8" diameter wire x 3-3/4" O.D. alloy torsion spring loaded hinge at the front mast full tripping capability of the wing moldboard is possible. The upper arm shall also have a connecting collar for attaching the hydraulic cylinder used for lifting and lowering the wing. Both the rear suspension spring and the front torsion spring shall be load adjustable, and shall be equipped with lock-out pins so to provide a rigid wing when shelving operations do dictate. The arms shall attach to the rear mast and to the wing with 1-1/4" grade 5 bolts and locknuts.

Meets above specifications  yes  no

Exceptions
FRONT PLOW MOLDBOARD:
The moldboard shall be 10' long overall and not less than 42" high at inside of top radius. The moldboard shall have an integral snow deflector that extends a minimum of 12" fore of the cutting edge. The moldboard shall be brake formed (not rolled) from not less than 8 gauge H.R.M.S. steel. It shall include an integral formed channel at the leading top edge of the snow deflector to provide rigidity. The moldboard shall be supported by not less than (2) 1/2" thick vertical ribs, (6) of which serve as pushframe connection points. Additional moldboard support shall be provided by a lower horizontal member from not less than 5" x 5" x 1/2" structural angle. This angle shall also have hinge lugs welded to it and serve as the trip edge attachment member. The trip edge shall be fabricated from not less than 4" x 4" x 3/4" structural angle and shall be punched with 11/16" diameter holes to AASHTO standards, to accommodate either single or multiple cutting edges. The trip edge angle shall be reinforced with a minimum of (6) 1/2" triangular gussets and have hinge lugs welded to the top of it. The trip edge shall attach to the moldboard with not less than 1-1/2" diameter hot rolled steel bar. The steel bar shall slide through the hinge lugs and through (5) 7/8" diameter x 3-3/4" x 17-3/8" torsion springs. Each torsion spring shall be capable of preload adjustment.

Meets above specifications  yes  no

Exceptions

AR CUTTING EDGE (12" PUNCHED):
The cutting edge shall be 12' x 6' x 120" from SAE/ AISI C1085 steel, and be center punched with 11/16" square holes on 12" centers to AASHTO standards. It shall attach to the moldboard with not less than 5/8" grade 5 carriage bolts with locknuts.

Meets above specifications  yes  no

Exceptions

TWIN CYLINDER LOCKING PIN POWER REVERSING PUSHFRAME:
The reversing pushframe shall consist mainly of (2) truss members and a main drive frame angle. The truss members shall be from 4" x 3" x 3/8" angle and the main drive angle shall be from 6" x 4" x 1/2" angle. Four (4) additional pieces of 4" x 3" x 1/2" angle shall be welded perpendicular to the main drive angle connecting with the truss members so as to form a rigid structure, two (2) of which serve as support for the trip mechanism. Three (3) sets of 1/2" thick lugs shall be provided for pinning the moldboard to the pushframe over an 80" span. Three (3) 1-1/4" cold rolled steel pins shall connect the moldboard to the pushframe. A locking plate cut from 1/2" steel plate indexed with seven (7) total locking positions shall be welded to the two (2) truss members. The pushframe shall be capable of being locked into any of these positions, (0 to 35 degrees to right or left of center).

The pivot frame shall consist of a main drive member of 7" x 4" x 3/8" structural tube with two full length gussets of 3/8" plate on each side. Locking and unlocking is accomplished by a sliding drive member of 6" x 3" x 1/4" tube fitted inside the 7" x 4" x 3/8" structural tube retained by a 1" cold rolled steel pin. A 9/16" diameter alloy wire extension spring is used to pull the main drive member, containing a 1-1/4" x 2" Nicoloy removable locking pin, into any one of seven (7) index positions cut into the aforementioned index guide with the above reversing frame. Additional locking force is applied by the pushing action of the plow. Both unlocking and reversing functions are provided by two (2) 3" x 16" stroke single acting hydraulic cylinders. A swivel support plate from 3/4" steel plate shall be welded at the rear of the main drive member tube. The pivot frame shall pin to the reversing frame with a 1-15/16" cold rolled steel pin through a 3-1/2" OD x 3/4" wall tube. Provisions shall be made for oscillation so as to allow the plow to follow the contour of the road without exceeding 20° to the left or to the right.

Meets above specifications  yes  no

Exceptions
BRACE ARMS:
The arm assemblies are pin connected under double shear load via a 1/2” thick connecting rib at
the moldboard, and (1) 1/2” thick connecting lug at the reversing frame. Each arm assembly shall be
connected to the moldboard with no less than a 3/4” bolt and to the pushframe with no less than a 3/4” pin.
Brace arms shall be constructed from no less than the following: (2) 1/2” thick bars and (1) 5/8” thick bar.
The arms shall also serve the dual purpose of allowing adjustment of the moldboard cutting edge angle
from 25° from vertical to 10° from vertical.

Meets above specifications  yes  no

Exceptions

LIFT LEVELING DEVICE (DEAD SHEAVE):
The lift leveling device shall consist of a wire rope assembly that is secured to the pushframe.
The 1/2” diameter stainless steel wire rope shall be wrapped one time around a dead sheave assembly
and be pre-stretched prior to fabrication. The dead sheave assembly shall attach to the lifting chain with
no less than a 3/8” midlink and to the pushframe with 1/2” round pin anchor shackles.

Meets above specifications  yes  no

Exceptions

30 1/2” SWIVEL:
The rear of the plow drive frame shall be fitted with a swivel bar. It shall oscillate about a 1-1/2”
grade 5 bolt allowing the plow to follow the contour of the plowing surface. It shall consist of a 3/4” thick
horizontal plate equipped with two (2) drive ears fabricated from 1-1/4” thick plate on 30-1/2” centers,
which include 1-5/16” diameter drive pin holes. The drive ears are constructed to pin to corresponding
attaching lugs at the bottom of the truck mounted attachment hitch.

Meets above specifications  yes  no

Exceptions

MOLDBOARD SHOE (10”):
Moldboard shoe shall be manufactured from a wear plate of 1-1/2” steel plate. A mounting plate
and gussets from 1/2” plate steel shall be welded to the top of the wear plate to allow a 10° attack angle
when the shoe is flat on the ground. Moldboard shoe shall be secured with (2) 5/8” grade 5 carriage bolts
and locknuts. Two (2) moldboard shoes shall be provided.

Meets above specifications  yes  no

Exceptions

CURB SHOE:
Curb shoe manufactured from 5/8” steel plate welded to a piece of 2-1/8” cold rolled steel. Curb
shoe shall be secured with (2) 6/8” grade 5 bolts, washers and locknuts. Two (2) curb shoes shall be
provided.

Meets above specifications  yes  no

Exceptions

WARRANTY:
The equipment being bid will be warranted from defects in components, materials and workmanship for a
period of one year from the date the truck is put into service. The successful bidder shall have a factory
authorized service and parts facility within 30 miles of the end user's garage. The distributor’s facility must
have an adequate stock of parts and technicians trained to perform work on the equipment bid.
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