Town of Falmouth, Maine

BID SPECIFICATIONS

2023/2024 CABLE ROLL-OFF OR HOOK-LIFT TRUCK

DUAL AXLE CAB/CHASSIS

(64,000 GVW)

GENERAL - It is the intent and purpose of these specifications to describe a standard production model heavy duty diesel powered 8 X 2 64,000 GVW cab and chassis truck. This vehicle will be equipped with a **cable roll-off or hook-lift system** and will be utilized during operations conducted by a municipal public works department. The bidder shall supply equipment that has been in production for one (1) year or greater in full compliance with these specifications.

All equipment furnished under this contract shall be new, unused and the same as the manufacturer's most current production model. Accessories not specifically mentioned herein, but necessary to furnish a complete unit ready for use, shall be all inclusive. The unit shall conform to the highest quality standards in overall design, quality of workmanship and materials. All assemblies, sub-assemblies and component parts shall be standard and interchangeable throughout the entire quantity of units as is specified in these bid specifications.

ENGINE - 375 H.P. or equivalent, generating minimum @ 2100 RPM with 1450 FTLB torque

1.) Inside/Outside air intake manifold

2.) Silicone cooling hoses with steel tube connectors

3.) On/off fan clutch

4.) Delco Remy© or equivalent 12V 42MT OCP starter

5.) Delco Remy© or equivalent 12V 145AMP 22SI HD Alternator

6.) Magnetic crankcase drain plug

7.) Two position engine brake with exhaust brake (or equivalent)

8.) Spin on secondary fuel filter

9.) Spin on water filter or with water conditioner

10.) Wabco© or equivalent 31.8 CFM air compressor

11.) Phillips© 120V 1500W or equivalent engine block heater.

12.) Electric heated manifold

13.) Engine mounted oil check and fill reservoir

14.) Front drive flange for PTO.

EXHAUST

1.) Single outboard type vertical exhaust

2.) Single stainless exhaust shield

3.) Deflector cap

4.) HD mounting brackets, elbows, piping and expansion joint

EMISSIONS - Engine and exhaust emissions system shall meet current EPA standards and will employ EGR or SCR technology, if applicable, compliant with these standards.

TRANSMISSION - ALLISON AUTOMATIC RDS 4500-6 Speed

1.) Synthetic based lubrication

2.) Air to oil type transmission cooler 4

3.) Spicer 1810HD or equivalent life driveline with XL U-joints.

4.) Magnetic drain plug

POWER DIVIDER -

1.) Torque proportioning type with driver actuated lock-out mechanism

2.) Magnetic drain plug

FRONT AXLE -

1.) Certified 20,000 LB minimum capacity

2.) 20,800 LB minimum flat leaf suspension

3.) Unitized front oil seals preferred

4.) Lifetime sealed wheel bearings preferred

5.) 2000 LB RH build up spring system (No air bag)

REAR AXLE -

1.) Certified 46,000 LB minimum capacity

2.) Main assembly to be Rockwell RT46-160P or equivalent

3.) 4.89 rear drive axle ratio

4.) Manual activated anti-spin full locking front and rear wheel differential

5.) Inter-axle differential lock

6.) Synthetic based lubrication

7.) Hendrickson© RT/RT2 460 or 46K T-Ride equivalent rear suspension

8.) Minimum 54" HD steel suspension beams

9.) Rubber bushed longitudinal torque rods

10.) Factory balanced HD drive line

11.) Positive axle alignment

12.) Off-highway articulation and oscillation characteristics

13.) Duplicate final drive ratio

14.) Single and dual tire chain clearance, minimum 2"

15.) Chicago Rawhide© or equivalent oil seals

16.) Oil lubricated and/or Uni-Hub Lifetime greased wheel bearings

17.) Magnetic drain plugs

AXLE DRIVELINE EQUIPMENT -

1.) Full activation main differential lockout

2.) Greased and sealed drag link and tie rod assemblies

CHASSIS -

1.) Set Back Axle with cab to axle and wheel-base to be coordinated by

Dealer and Body Company.

2.) 7/16" straight steel frame rails, single channel bolted construction

3.) Heat treated components, minimum strength rating 120,000 PSI

4.) Front reinforcement with under slung gusseted cross members

5.) 3,100,000 RBM rating with single frame rail desired

6.) Flange bolted frame fasteners

7.) Minimum 56" rear frame overhang with straight rear frame cut off

8.) Push/Pull type brake valves

9.) Manual pull-cord drain valves on all air tanks 5

10.) Minimum 75-gallon LH aluminum fuel tank with factory installed Webb or equivalent fuel pre-heater

11.) SAE J844 nylon tube fuel lines

12.) RH mounted steel (3 batteries @ 2850 CCA) - box with aluminum lid.

13.) Trailer connections mounted end of frame/Detachable trailer cable. Electrical receptacle on end of frame. Full pressure trailer brake hand control.

BRAKE SYSTEM -

1.) Full air actuation

2.) Minimum 31.8 CF compressor lubricated through engine lubrication system

3.) Filtered air inlet on compressor unit

4.) Minimum reservoir capacity 3,000 cubic inches

5.) Drain cocks on each reservoir

6.) Wabco© or equivalent air dryer system

7.) 16.5 X 6 S -CAM Eaton ES-165-6L or equivalent front brakes

8.) Rockwell© or equivalent automatic front and rear slack adjusters

9.) 16.5 X 7 S-CAM Eaton ES-165-7D tandem axle or equivalent rear brakes

10.) Bendix© or equivalent antilock brake system

11.) Front and rear brake dust shields

12.) Brakes to be equipped with pressure relief valve

13.) Low pressure alarm system with indicator located on instrument panel

FRONT TIRES -

1.) Goodyear© or equivalent 385/65R22.5J 18 ply tubeless radial

2.) 22.5 X 12.25 Accuride© or equivalent rims with hub piloted wheels

3.) Cast iron brake drums with aluminum hubs

4.) Deep inset wheel for better turning radius

5.) Matching Heavy Duty front wheel & tire

6.) Matching Heavy Duty spare front wheel & tire

REAR TIRES -

1.) Goodyear© G164 RTD or equivalent 11R22.5G 14 ply tubeless radial

2.) 22.5 X 8.25 Accuride© or equivalent rims with hub piloted wheels

3.) Cast iron brake drums

4.) Matching Heavy Duty rear wheel & tire

5.) Matching Heavy Duty spare rear wheel & tire

STEERING SYSTEM –

1.) Heavy duty design with sufficient gear reduction for off-highway operation

2.) Large capacity power steering fluid reservoir with changeable filter unit

3.) Dual power steering boxes rated for front end capacity of 20,000 LBS 6

CAB EXTERIOR -

1.) Conventional day cab with corrosion inhibitor sub-base

2.) Rubber front fender extensions

3.) Dual rectangular air horns with shields

4.) Heated mirrors equipped heated convex mirrors LH RH

5.) Down view mirror mounted over passenger door

6.) Mirror arms for 102" trailer

7.) Full fiberglass sun visor mounted over windshield

8.) Safety glass windows, rear cab glass and tinted windshield

9.) One-piece windshield

10.) Dual windshield wiper/washer with intermittent feature

11.) Back up alarm system mounted rear of chassis

12.) LH/RH cab grab handles, (Interior preferred)

13.) Driver/passenger cab access step maximum height of 21" from ground

CAB INTERIOR -

1.) Mid-tone gray color trim

2.) Metal components to be painted cab color

3.) Thermal insulation kit

4.) Standard cab heating and integral a/c system

5.) Driver & Passenger Side Power Windows

6.) Door mounted LH/RH armrest

7.) Mat floor covering with foam back

8.) LH and RH door storage pocket

9.) Driver side air bag desired for safety

10.) Fully illuminated standard instrumentation panel cluster

11.) Speedometer, tachometer, hour meter and odometer to be electronic

12.) National© or equivalent air suspension high back with lumbar and seat back adjustments (or equivalent) drivers and passenger seat

13.) Three-point retractable safety belt system.

14.) 18-inch diameter sport steering wheel with tilt and telescopic steering column

15.) LH/RH color keyed sun visors

16.) Audible/visual alarm shutdown for low oil pressure, engine overheat and low water level with automatic override.

17.) Graduated air restriction gauge with dash warning indicator light

18.) Main transmission gauge with dash warning indicator light

LIGHTING -

1.) Blade fuse circuit protection

2.) Daytime running lights

3.) SAE Class A front turn signal lights

4.) Five (5) amber marker lights

5.) Parking lights integral with front turn signal lights

6.) Dual stop and taillights with integral back up lights

7.) SAE Class A rear turn signals integral with taillight system

8.) Self-canceling turn signal switch with motorized flasher 7

MISCELLANEOUS EQUIPMENT -

1.) AM/FM stereo radio

2.) Two dual cone speakers

3.) Power and ground connections for two-way radio units

4.) Roof mounted strobe lights – Class A DOT

5.) Dry type ABC 5 LB rechargeable fire extinguisher mounted in cab

6.) Three (3) pack emergency triangular reflector kit mounted in cab

7.) Common door/ignition key

8.) Outside temperature gauge

9.) Operators & Maintenance Manuals

10.) Floor Mats

11.) Rain Guards on both doors

12.) Filters for first service

13.) Back Up Camera Zone Defense with 5" Monitor W/LCD Camera - LZD3221

ACCESSORIES -

Mud flaps (4 – 36") for each unit

Rear corner, high intensity safety lights & reflectors

Cab mounted "Body Raised" indicator light

Hoist control lever lock-out system

Safety body props

8" apron to keep rear lights free of materials/debris

Automatic rear load tarping system with gantry and extendable arm

TRAINING - Bidder shall supply a minimum of four (4) hours on-site training.

FINISH -

1.) Chassis color - Red - primed and undercoat protection

Accessory Equipment

ROLL OFF OR HOOK LIFT TRANSFER SYSTEM

EQUIPPED WITH OFF LOAD CONTAINERS

(Furnished and Installed)

It is the intent and purpose of these specifications to describe (1) one standard production model multi-purpose **Roll Off or Hook Lift System** for meeting the department's highway, snow removal and other construction activities. All equipment furnished under this contract shall be new, unused and the same as the manufacturer's current production model. Accessories not specifically mentioned herein, but necessary to furnish and install complete unit(s) ready for use, shall be included. Equipment construction shall conform to the best practices known to the body trade in design, quality of material and workmanship. Assemblies, sub-assemblies and component parts shall be standard and interchangeable throughout the entire quantity of units produced and supplied by the manufacturer.

For all intents and purposes, systems proposed can be equivalent to Viking Roller-Pro, Swaploader, Palfinger, Galbreath, Stellar Industries or similar. The department will examine each proposal to determine which one best meets its overall needs and requirements.

General:

The system will be a hydraulic roll off or hook lift unit with multiple optional body designs capable of transferring minimum 40,000 lb. loads off and on the main frame. The main frame must be capable of accepting a RH wing brace without affecting the minimum CA required for the main frame. All electrical and hydraulic connections must be made at the front driver's side corner of tipping frame. Frame / body must be able to be raised without disconnection of electrical and hydraulics. 1 ½" lock pins on each side to prevent horizontal movement of the body on the tipping frame. Lock operated manually from front driver's side, with the actuation locking both sides

Dimensions:

The complete assembly will be designed to fit a chassis CA of 138"

Reinforced main frame will be 4" x 8" x 3/8" x 187.5".

A hydraulically extendable tail will be 3" x 7" x 3/8" x 96".

The frame will be equipped with 4, 4" outside rollers

The front stop blocks will be 2” 44W plate 13 5/8” x 3 11/16” welded 100% to main frame.

The tilt hinge will be a P250 model.

The saddle weldment will be ½” 44W formed plate reinforced with 3/4” x 4” flat bar, if so required. 9

Hydraulics:

There will be two single stage double acting lift cylinders located outboard of LH and RH chassis frame rails, complete with flange mounted counterbalance valves. Hydraulic valve requirements are 2700 psi 32 gpm motor spool.

A hydraulic stinger cylinder (cable lift systems) must be 2” x 50” double acting. Hydraulic valve requirements are 2700 psi 10 gpm motor spool.

All hydraulic cylinder rods will be hyper-chromed 200 treated.

All hydraulic body functions will be hard plumbed using 304 stainless tubing through the tipping frame and along the chassis.

Safety Prop:

Dual LH and RH safety prop stored on main frame rails and must clip onto cylinder rod to act as positive cylinder locks.

Lighting:

A basic light kit complying with FMVSS/CMVSS 108 lighting requirements shall be supplied as standard equipment with each unit.

There will be a rear LH and RH light cluster in a 304L stainless steel enclosure with stop, tail & turn and backup lights on each side as well as two 5” work flood lights on a separate single switch.

There will be clearance lights mounted mid body both left and right side on the standard supplied chassis frame mounted aluminum fenders.

The lights and wiring will be completely sealed with corrosion and vapor proof lamps and junction box.

Warranty:

Minimum one-year parts and labor on all components from date of delivery of completed unit.

SPECIAL CONDITIONS - Bidder to furnish all OEM Parts, Service and Operators manual for each product.

WARRANTY - Manufacturer's standard.

INSTALLATION OF ALL ACCESSORY EQUIPMENT - To be coordinated by bidder. To commence upon delivery of truck chassis by dealership and returned to Waterville Public Works Department upon completion. 10