South Hadley Electric Light
DEPARTMENT

INVITATION TO BID

The Electric Light Department, Town of South Hadley, MA

ONE CORNER MOUNT ROTATING DIGGER DERRICK

Sealed bids are being accepted on or before 1:00 P.M., **Thursday, December 12, 2019** at the Office of the Manager, South Hadley Electric Light Department, 85 Main Street, South Hadley, MA, at which time the proposals will be publicly opened.

Bidders are to submit **two (2) copies** of each sealed bid. The signed "Certification of Signature Sheet" must be included.

Please state net delivered price and approximate delivery date. Delivery time will be a factor in awarding the contract.

The right is hereby reserved to reject any and all proposals that in the opinion of the Municipal Light Board may not be in the best interest of the Light Department.

For any technical questions or concerns regarding the corner mount rotating digger derrick RFP, please call Ed Morrin (413) 341-8958 or e-mail him at emorrin@sheld.org . The Invitation to Bid is also available on our website: www.sheld.org , under "About", "RFP and Specifications". If you would prefer to have the information emailed to you, please contact kmendoza@sheld.org .

Please indicate "**Proposal for Digger Derrick**" on the outside of a sealed envelope and send or deliver, in duplicate, to:

Sean Fitzgerald, Manager
South Hadley Electric Light Department
85 Main Street
South Hadley, MA 01075

No fax or electronic bids will be accepted. All bids must be clear and legible in order to be considered.

SOUTH HADLEY ELECTRIC LIGHT DEPARTMENT

SPECIFICATIONS

Corner Mount Rotating Digger Derrick

The intent of this specification is to supply one new Heavy-Duty All Steel Body for use with a Hydraulic Rotating Digger Derrick painted and mounted on a conventional chassis with a cab axle (CA) of 118", AE-83", dual rear tires, a minimum G.V.W.R. of 33,000 lbs., a frame with a minimum section modulus of 18 and a transmission with a pitch line velocity of 500 FPM.

A. **Body:**
164" long x 96" wide with Platform Extension. Platform Extension -42"

B. **Floor:**
3/16", 4-Way Diamond Safety Floor Plate thru-welded to 6" 8# structural steel cross members spaced at approximately 15".

1. Floor height approx. 9" over top of chassis frame.
2. Floor to be flat, no wheel wells.
3. 3 – Removable Steel Racks, approximately 39" long x 12" high, mounted on left side of platform, full-length. Sockets for rack to be recessed in floor to provide for flat floor.
4. Provide three (3) 2" x 6" composite boards bolted to bottom of rack to prevent items from falling out.
5. 1 – Thru Box 20" long, at rear of platform extension equipped with door opening to right side. Must be able to fit 7' drive wrench.

C. **Cabinet Equipment:**

1. Side Cabinets (Stainless Steel) - Right side 66" long, 55" high x 18" deep complete with vertical doors equipped with door locks, end type hinges with nylon inserts, spring loaded door holders and stainless steel hinge pins.
2. Right Front Vertical (A) 33" long.
    a. Equipped with 7 (1-5-1) material hooks (hooks must be made with ½" material).
    b. Modify cabinet for winch shaft extension.
3. Right Front Vertical (B) 33" long
    a. Equipped with three removable shelves, with 2" lip up.
4. Lower Box – left side. Heavy-duty 12 ga. Steel complete with double vertical doors equipped with recessed door lock. Box to be installed under bed and to include drain hole plugged. Box – 60" long x 20" high x 18" deep equipped with one (1) removable full length shelf with 2" lip, 10" down.
5. Weatherproof Doors equipped Stainless Steel recessed door locks all keyed alike – individual key locking; end type hinges with nylon inserts, all cabinet doors to be vertically hinged for easy access to materials and tools.
6. Spring loaded door holders.
7. Access Stairway into body – left rear.
8. 2 – Grip Strut Steps; Upper Step approximately 13" wide x 7" deep, recessed into platform extension 14".
9. Upper Step, 14" wide x 7" deep, mounted on 1 ½" cable approximately 13" below step.
10. Recessed area around top step to be covered with 14 ga. smooth steel on 3 sides.
11. Grab Handles, two at left rear and one at right rear.

12. Steel Edges on fenders.
13. Paint body inside and outside, inside of cabinets, tower and boom, White
14. Non Skid black entire deck, Black
15. Rustproof Body with Anchor Tuflex, RP 785.

D. Standard Misc Equipment:

1. Extend body platform 20" and build in 20" underbody thru box with door for storage of long equipment, door opening to the right side, forward section to be full width. No door on left.
2. 2 – Loops for safety chains at rear of body.
3. 6 – Tie downs mounted in bed.
4. 1 – Rope rail with 9 material hooks and chains, mounted full-length right side of body.
5. 1 – Double Chock Block Carrier mounted at rear of body, left side.
6. 2 – Rubber Wheel Chocks.
7. Reinforce rear end of chassis; supply and install Type BP 100A, or equal, Automotive Type Rear Pintle Hook.
8. Pair Mud Flaps on chain links.
9. Folding operator's platform at right rear of body.
10. 2 – Folding Cone holders on the front bumper.
11. Underbody box between chassis frame rails for digging bars, scoops and shovels approx. 33" wide; rear section 21" long x 9 ¾" high equipped with drop-down door with recessed handle; front section approx. 140" long x 3 ½" high divided into two sections – one section equipped with stop 86" from end.
12. 4 – Wooden Outrigger pads, 24" x 24", with rope handles.
13. 2 – Outrigger pad holders to store under body, one each side, must hold 2 pads.
14. Under-ride protection installed under tialshelf at rear.
15. 1 - Vise mounted on a plate, to be removable socket-style.
16. 1 - End board and holder from Derrick to left side rail.
17. Boom Rest is to extend the width of the truck, install a saddle on streetside side of rest, to handle one 45 ft. pole, and a removable stand at rear of truck for base of pole. Include two ratchet straps and D rings at front and rear, accessible from the ground.
18. 1 - Kelly bar adapter storage position located forward of tower curbside.
19. Additional derrick riding position on the right side of body.

E. Electrical Equipment mounted and wired in fused circuits:

1. Riding Lights, Signal Lights and Reflectors to meet F.M.V.S.S. 108.2.
2. Lights:
    a. 2-Red Rear Reflectors
    b. 2-Red Side Reflectors
    c. 2-Red Rear Riding Lights
    d. 2-Red Side Riding Lights
    e. 2-Amber Front Riding Lights
    f. 3-Bar Lights
3. All Marker lights to be LED
4. 2-Engine Start/Stop at rear console & at winch shaft extension.
5. 2-Junction Box, all lighting and electrical functions should be through this junction box.
6. 2-4" LED stop tail turn Lights, recessed into rear channel one each side.
7. 2-4" LED backup lights, recessed into rear channel.
8. 1-Trailer socket at rear, 6 prong

9. 1-Backup Alarm
10. 2-LED Oval strobes under tailshelf, one right one left. Controlled from a switch in the cab.
11. 1-Brake Controller installed in cab, wired to outlet at rear.
12. 2-LED, Strobe mounted on angle to the left & right side of the boom rest.
13. 2-LED Work Lights mounted: one mounted off boom rest to illuminate bed, one mounted on top of diagonal brace aimed into bed area, switch in cab.
14. 2-LED Work lights mounted on chassis rails underbody, to act as work lights, switch on dash.
15. Supply LED light - stored curbside on top of compartment with plugs located at front curbside and rear curbside. Switch in cab. 2 - 12 Volt outlets for LED light.
16. LED ROPE Lights in each compartment with switch in the cab.
17. Must use Chassis provided switches to PTO and all lights.

F. Hydraulic Derrick and Digger Equipment:

1. Hydraulic rotating derrick to be mounted at right rear of body, as close to the rear axle as possible. State dimension from centerline rotation to the centerline of rear axle. Tower must not rely on body for support. Reinforce chassis frame from rear spring shackle to end of frame where/as needed.
2. 360 degrees unlimited continuous ball bearing rotation in either direction, with no hose twisting.
3. Minimum 46.8' Sheave Height @ 80 degrees elevation.
4. Minimum boom travel minus 20 degrees to 80 degrees.
5. Horizontal reach: 18.8 ft. @ end main boom. 27.6 ft. @ end 2nd section, 37 ft @ end of fiberglass 3rd section.
6. 9 ft. Fiberglass hydraulic third extension.
7. Capacity with PG (Boom mounted) Winch.
   Ratings @ 80 degrees.
   20,350 lbs. @ end main boom.
   14,700 lbs. @ end hydraulic extension.
   12,650 lbs. @ end fiberglass roll-out.
   Ratings @ 45 degrees
   8,050 lb. @ end main boom
   5,150 lbs. @ end hydraulic extension
   3,900 lbs. @ end fiberglass roll-out.
   Ratings @ 0 degrees
   5,200 lbs. @ end main boom.
   3,050 lbs. @ end hydraulic extension
   2,200 lbs. @ end fiberglass roll-out.
   Ratings @ -20 degrees
   3,300 lbs. @ end main boom.
   1,700 lbs. @ end hydraulic extension.
   1,150 lbs. @ end fiberglass roll-out.
8. Derrick to be elevated by **twin lift cylinders**, either cylinder capable of supporting the entire load; both cylinders equipped with holding valves.
9. Both ends of lift cylinders equipped with self-aligning steel ball bushing.
10. Boom to mast attachment points equipped with self-aligning steel ball bushings.
11. Hydraulic Outrigger on right. Slanting Jack on left minimum spread – 151" at ground level both outrigger cylinders equipped with holding valves.

12. All outriggers to be equipped with individual control valves for independent control.
13. Outrigger controls to be mounted at rear corners of platform to allow operator to observe outrigger placement. Integral Holding valves on all outriggers.
14. 1-Set of hydraulic, double-acting, modified *A* Frame auxiliary outriggers mounted directly behind the cab in front of body. Outrigger controls to be mounted at rear corners of platform to allow operator to observe outrigger placement. Outrigger to have pivot feet.
15. Outrigger Alarm to sound when outrigger is moving.
16. Left side jack must not extend above floor level.
17. Derrick front support, minimum 3" x 5" tube, fastened to chassis frame. This will act as a pole carrier also.
18. Must have two derrick riding positions.
19. The derrick controls **must be full-pressure, full-flow hydraulic**. Electric overhydraulic controls are not acceptable.
20. Full-length subframe of 6" x 6" x 3/8" tubing and 33 ½" x 3/8" top and bottom plates tied into derrick platform and front outriggers.
21. Derrick to have a horizontally movable, swing-away control console. Console attached to tower facing the rear to allow operation from fold-down operator's platform. Console capable of rotating 180 degrees to provide four (4) operating locations from truck bed.
22. All derrick control functions rotate with the control console. Functions on the console include – Lift, Stinger, Third, Rotation, PG Winch, Digger, Auger Release, Digger Shift, Engine 2 Speed. Engine Kill, Engine Start, Pressure Gauge.
23. Console must have 6" hydraulic height adjustment, mechanical adjustment unacceptable.
24. 3-Section Boom Assembly to include steel box beam main section. Steel box beam second section powered by hydraulic cylinder.
25. Fiberglass 3rd Section, 9 ft. rectangular, hydraulically operated, which stores inside second section.
26. The Fiberglass third section is to be of rectangular configuration must be certified for rated line voltage up to and including 46 KV AC. Third stage must not have any steel permanently mounted to it.
27. Extension cylinders for the second and third section mounted inside booms for minimum cross section.
28. Transferable 4-Way hydraulic tiling pole plummer with holding valve, pole claw and pole handling flanges mounted to 2nd stage, transfer to 3rd stage fiberglass by one pin transfer mechanism, claws and flanges transfer together.
29. Tiling pole plummer interlock. An interlock system must be provided, that will prevent running hydraulic third stage into lowered pole claw, but when the claws are transferred to the third stage they will be able to be extended if tilted up or down.
30. No Steel permanently mounted to 3rd Stage fiberglass
31. All covers, hoses and tubes to be on the street side of the boom.
32. Curbside of boom to be free of covers, tubes and hoses.
33. Controls for tiling pole plummer tilt and hold must be fully featherable hydraulic controls.

34. Tapered, non-metallic rollers mounted on tapered roller bearings at the end of second section support the fiberglass boom under load eliminating scratches and abrasions to the boom.
35. The sides of the fiberglass boom are supported and guided by non-metallic replaceable rollers to prevent tracking, not wear pads. Wear pads are not acceptable.
36. Derrick equipped with boom tip mounted Winch – 15,000 lb capacity – must transfer from the second section to the third section of boom with flanges for setting and piking poles. Must not be permanently mounted to fiberglass boom.
37. Zoned Derrick Load Chart on tower stating the actual lifting capacity of the unit considering the effect of all boom options, chassis, body, outriggers and all other permanently fixed equipment. Chart must read actual lifting capacity based on unit stability.
38. Folding operator's platform at right rear.
39. 2-Part Line attachment, supply 7/8" shackle.
40. 75 ft. 7/8" stable braid rope with eye spliced on each end and mounted on "PG" winch.
41. 1 - Removable extension shaft for the boom tip winch, must fit standard Capstan head. MUST be Removable
42. 2-Operation and Maintenance Manuals.
43. Dielectric Test after installation.
44. Provide an outrigger interlock system that prevents the boom from operating until all four outriggers have been lowered. Use four roller switches and one electric solenoid valve. Valve must have a Temporary manual override.

G. Hydraulic System

1. Heavy-duty hydraulic system – rated 3,000 P.S.I.
2. Hydraulic pump –50 GPM mounted directly to power take-off.
3. 50-Gallon oil reservoir with 50 gallons non-conductive anti-wear hydraulic oil
4. Valves, hoses, fittings, pressure gauge, shut-off valve.
5. Hydraulic system designed to operate within the limits of a side mounted power takeoff and a truck transmission with a pitch line velocity of 500 FPM.
6. Heavy-duty power take-off with hot shift, for automatic transmission
7. Quarter turn shut-off valve at base of reservoir in supply line.
8. 33 Micron return line filter.
9. Hydraulic tank mounted in front of body, between cab and body on top of modified frame outriggers.
10. Hydraulic filter mounted top of tank.

H. Additional Winch & Derrick Equipment

1. Automatic warning system with red light on dash for hydraulic pump control.
2. Heavy-duty Power Take-Off with hot shift, for transmission.
3. 2-position throttle control, to provide 3 settings, first-engine idle, second – 1200 Rpm, third -1600-1800; all located at derrick control console.
4. Hydraulic pressure gauge at control console for testing pressure in hydraulic system.
5. Equip truck for use of hydraulic tools including hydraulic control valve with detent with quick disconnect fittings, two dust caps; at side of lower aimed curbside.
6. Live Hose Reel and two (2) 35 ft., non-conductive hoses with quick disconnect fittings, two dust caps; hose stop HS-3. Reel aimed to curbside, mounted in front of tower, aimed to curbside.
7. Include adjustable flow divider.

8. Latch on slanting jack.
9. Provide extra valve for future installation of a bed winch.

I. Hydraulic Digger and Equipment:

1. Hydraulic two speed Digger – less auger, 12,000 ft. lb. @ 20 RPM, and complete with 2-5/8" Kelly Bar, and 3,000 at 80 rpm.
2. Digger drive and auger storage bracket – digger stores on street side, digs underneath and automatically transfers to extendable boom when lowered to digging position.
3. Mechanical auger windup mechanism with automatic latch and air trip assembly at derrick controls
4. Auger must have an automatic latch for storage when digger is brought to the stored position
5. Auger torque limiter to engage auger when fully stored.
6. Minimum digging radius – 17 ft. on main boom; 26 ft. on second section.
7. 60" long extension shaft – 2 5/8" hex.
8. Terex (or equal) spiral bullet tooth auger, 18" diameter auger, long flight auger with ½" flighting, with 1" thick lowest flight, 2-5/8" hex. Dish and lug for auger, storage. Auger must have 60" of flight.

Bed Winch:

1. Bed Winch with shaft extended to right, free spooling drum; hydraulic drive with all controls to rear with removable guard over winch motor, air operated clutch control, control located at the right rear. Must engage and disengage the winch drum.
2. Provide drain hole in bed of truck.
3. 2 Speed Motor, switch at the right rear console.
4. Winch line guard on winch drum.
5. Winch line tension roller installed on forward (cab) side of winch.
6. 300 ft. 1/2", 6 X 19, improved plow steel pre-formed winch line rope with eye spliced on one end, mounted on drum.
7. Winch line holder.
8. Universal Sheave assembly, with overhanging socket mounted at rear of body.
9. Provide one shelf over winch, shelf to have 2" lip up, supported on the curbside by the cabinet and on the right side by angle.

CERTIFICATION OF SIGNATURE SHEET

The undersigned hereby certifies that under the penalties of perjury that his bid is in all respects bonafide, fair and made without collusion or fraud with any other person. As used in the subsection, the word "person" shall mean any natural person, joint venture, partnership, corporation or any other business entity.

The undersigned further certifies that under pains and penalty of perjury that to the best of my knowledge and belief, the vendor/contractor has filed all state tax returns and paid all state taxes required under law and has complied with all laws of the Commonwealth of Massachusetts relating to taxes.

COMPANY NAME AND ADDRESS: _____

_____

_____

_____

TELEPHONE AND FAX NUMBER: _____

FEDERAL I.D. NUMBER: _____

DATE: _____ _____

Signature of Corporate or Company Officer

_____

Print Name

_____

Email Address

IF THE REMIT ADDRESS IS DIFFERENT THAN THE ADDRESS TO WHERE THE PURCHASE ORDERS ARE MAILED, PLEASE ENTER BELOW:

Remit to: _____

_____

_____

_____

Approval of this contract will not be granted unless this certificate clause is signed by the applicant. This request is made under the authority of Mass. G.L. c. 62C S. 49A.

SOUTH HADLEY ELECTRIC LIGHT DEPARTMENT

DIGGER DERRICK

BID PROPOSAL FORM FOR DECEMBER 12, 2019, 1:00 PM

DIGGER DERRICK

QTY: 1

UNIT COST: _____

TOTAL COST: _____

DELIVERY TIME (weeks): _____

MANUFACTURER: _____

MODEL # : _____

VENDOR NAME: _____

PLEASE ATTACH INFORMATION ON ANY CHANGES, ADDITIONS, SUBSTITUTIONS OR IF YOU ARE UNABLE TO MEET A LINE ITEM.

ALSO ATTACH THE COMPLETED "CERTIFICATION OF SIGNATURE SHEET".