



# CITY OF LODI

## COUNCIL COMMUNICATION

AGENDA TITLE: Specifications and Advertisement for Bids for High-speed Rotary-type Mower

MEETING DATE: September 7, 1994

PREPARED BY: Parks and Recreation Director

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RECOMMENDED ACTION: That the City Council approve the specifications and authorize advertisement for bids for the financed purchase of one Toro 580-D high-speed rotary mower for the Parks Department.

BACKGROUND INFORMATION: The Parks Department's 1994-95 Budget includes funding for the first-year payment on the lease-purchase of a new, high-speed rotary mower, for use in maintaining the City's parks.

The Department's oldest flail-type mower, a seven-year-old Jacobsen, has over 6,000 operational hours on it, and must be replaced. While the Jacobsen mowers are slow, and equipment design hasn't changed significantly over the past few years, the new Toro 580-D is a more advanced unit, has fewer moving parts and is significantly easier to service than the Jacobsen. Additionally, the Toro 580-D mows at a rate nearly 75% faster than the Jacobsen, a critical factor considering the recent reduction in staffing of the mowing crew.

Because of the need to finance this lease-purchase arrangement, the City will first solicit bids for the purchase price of the mower, then, after identifying the low bid, request proposals for the financing of the purchase. The estimated total cost of this purchase is \$70,000.

FUNDING: 1994-95 Budget: 10.0-752.03: \$15,000

BID OPENING: September 28, 1994

FINANCING PROPOSALS DUE: October 18, 1994

Scott Essin, Parks Superintendent  
for Ronald Williamson, Parks & Recreation Director

APPROVED

THOMAS A. PETERSON  
City Manager



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## GROUNDMASTER 580-D

**ENGINE** Four (4) cylinder diesel engine, 75 horsepower minimum.

**ENGINE COVER** Easy removable side panels for engine access, lined with sound reduction material.

**COOLING SYSTEM** Heavy-duty liquid cooling system.

**LUBRICATION** Oil, forced feed lubrication, with an eight (8) quart minimum capacity.

**OIL FILTER** Spin-on type.

**FUEL SYSTEM** Diesel with replaceable type fuel filter and water separator.

**FUEL TYPE** Number two (2) diesel fuel.

**FUEL CAPACITY** Minimum 25 gallons.

**FRAME** Equipped with transporting tie down loops for hauling.

**BRAKES** Fully enclosed multiple front disc brakes. Hydraulic service brake via a brake pedal operated by the right foot. Mechanical steering brakes via two pedals which lock together for parking brake function. Dynamic braking through closed-loop hydrostatic drive.

**TRACTION SYSTEM** Hydrostatic closed loop system, with bypass valve for towing, driving industrial planetary gear reduction wheel drives. Hydraulically assisted single foot operated traction pedal with adjustable speed stop controls forward/reverse ground speed. Electromagnetic cruise control actuated from console by push button switch. Cruise speed can be changed without disengaging.

**GROUND SPEED AND CLEARANCE** Forward speeds, infinitely variable  
0 to 7.5 miles per hour; mowing  
0 to 20 miles per hour; transport  
Reverse speeds, infinitely variable  
0 to 3 miles per hour; mowing  
0 to 8 miles per hour; transport

**CONTROLS** Individual deck lift levers, transport to now switch, power-take off switch, hand operated throttle, cruise control on/off switch, cruise

## GROUNDMASTER 580-D (CONT.)

engage button and ignition switch. Single implement shut-off control. Steering tower and wheel tilt lever. Service brake pedal, steering brake pedals with parking brake latch, foot operated traction pedal.

### GAUGES AND DIAGNOSTICS

Electronic gauge, package includes liquid crystal display (LCD) fuel gauge, hydraulic temperature gauge, digital read out of engine speed, engine water temperature, engine hours, engine oil pressure, and voltage, An indicator light and audible warning of low oil pressure, high water temperature, low voltage, water in fuel, air cleaner service, hydraulic oil temperature. Indicator lights on steering tower to show parking brake on, cruise control engaged, and transport mode. Eight hydraulic test ports easily accessible without removing covers to diagnose system pressures.

### INTERLOCK SYSTEM

Prevents starting of engine if traction pedal is out of neutral. Stops engine if operator leaves seat or parking brake on with traction pedal out of neutral. Prevents engaging of power-take-off (PTO) and traction interlock system.

### ELECTRICAL FEATURES

12 volt automotive type electrical system. Dual maintenance free batteries, cold cranking 1060 amperes at 0 degrees fahrenheit 35 amperes alternator with internal circuit regulator/rectifier. Seat switch, power-take-off (PTO) and traction interlock system.

### SEAT AND STORAGE

Deluxe seat with armrests, backrests and suspension. Adjustable for weight, fore/aft travel and height. Large tool tray storage locked under hinged floor plate. Small storage and tray beside control panel.

### IMPLEMENT DRIVE

Hydraulic implement drive to all cutter decks.

### CUTTING UNIT CONFIGURATION

Consists of one 92-inch front center triflex cutting unit and two 57-inch cutting outboard cutting units.

### MOWING RATE/ WIDTH

Mows up to 14.5 acres per hour at 7.5 mile per hour with use of all cutting units.

**GROUNDMASTER 580-D (CONT.)**

**HEIGHT OF CUT RANGE** Low Range - 1 to 4 inches  
High Range - 2.5 to 5.5 inches

**CUTTING UNIT CONSTRUCTION** 10 gauge steel, 5.5 inches welded construction reinforced with 7 gauge plates and 10 gauge channels. Leading edge constructed in closed triangular cross section to provide additional reinforcement.

**BLADES** 20 inches long, 0.25 inches thick, 2.5 inches wide, heat treated steel blades. Triflex cutting unit: 5 blades. Outboard cutting units: 3 blades each. All blades and spindles are interchangeable.

**ANTI-SCALP DEVICES** Each cutting unit equipped with adjustable skids. Anti-scalp cup located on each blade.

**CUTTING UNIT COVERS** Impact resistant molded plastic covers. Four covers per triflex and two per outboard cutting unit. Easy to remove and replace without tools. Held down with high strength permanent magnet.

**AUTOMATIC WEIGHT TRANSFER** Automatic hydraulic counterbalance transfers weight from the decks to the traction unit for improved traction and better deck flotation. Under demanding traction situations the system automatically transfers additional weight from the decks to the traction unit.

**CERTIFICATION** Federal/State OSHA for complete unit; ANSI Specification B71.4-1994 for traction unit and B71.4b-1984 for cutting units.

**HYDRAULIC SYSTEM** Cutting unit Drive System. High efficiency pressure balanced tandem output gear pump. Filtration and cooling of the full cutting circuit flow for cool running and long life. Easily accessible hydraulic manifold block controls on/off, braking and relief functions for high efficiency and ease of service. Cutting drive initially engaged with electric switch; shut/off engage individually as decks are raised or lowered.

Hydraulic Oil Reservoir. Hydraulic system capacity of 40 gallons with reservoir capacity of 32 gallons. Sight glass level indicator. Water collector/drain plugs. 100 mesh suction protection/shut-down system.

**GROUNDMASTER 580-D (CONT.)**

Hydraulic Fittings and Filtration. Hydraulic system utilized O-ring face seals. A single large spin-on 5 micron hydraulic oil filter element.

**TRIFLEX CUTTING  
UNIT (FRONT)**

Type. Triflex type 92 inches in width of cut, five spindle, front mounted rotary cutting unit. Outside spindle on each side of cutting unit will flex up to 15 degrees maximum for enhanced ground following capabilities. Rear discharge with even dispersion over entire width of cut. By removing two pins, the front deck tips vertically exposing all spindles and blades for ease of service.

Trimming Ability. Trims to both sides. Cutting unit offset from outside of wheel to trim side of front cutting unit 8 inches on either side.

Height of Cut Adjustment. Adjustable 1/2-inch increments with spacers of front castor shafts and clevis pins on rear wheel forks.

Cutter Drive. High pressure, all cast iron body, high efficiency, pressure balanced hydraulic gear motor. Belt driven. All triflex and outboard cutting unit drive belts are interchangeable except on triflex front cutting unit belt.

Belt Idlers. Self tensioning, permanently lubricated steel idlers.

Castor Wheels. Two 13 x 5.00 heavy duty semi-pneumatic front castor wheels and two 10.50 x 3.50 heavy duty semi-pneumatic rear castor wheels. All same size castors are interchangeable.

Overall Width. 95 inches.

**OUTBOARD CUTTING**

Type. 57 inches in width of cutting, three spindle, side mounted rotary cutting unit. Rear discharge with even dispersion over entire width of cut.

Trimming Ability. Trims to both sides. 18 inches or less uncut diameter at maximum turn. Cutting unit offset from outside of wheel to trim side of side cutting unit 58 inches on

**GROUNDMASTER 580-D (CONT.)**

either side. Trim side of cutting unit in line with traction axle centerline, forward of operator for ease of operation visibility and control.

**Height of Cut Adjustment.** Adjustable in 1/2-inch increments with spacers of all castor shafts.

**Cutting Unit Suspension.** Outboard cutting unit arms of 0.38 inch to 0.25 inch plate closed box construction. Inner arm, 4 inches by 6 inches; outer, 3.5 inches by 5 inches. Built in two parts pivoting from the center to:

- A. sweep cutting units forward in now, and
- B. lift and rotate cutting units down and back into transport to enhance visibility and transport stability. Cutting units attached to arm with patented rubber mount design to absorb shock vibration and increase flotation. Adjustable spring loaded breakaway arms release and rotate outboard cutting unit upon accidental impact. Resets automatically when cutting unit is raised. Cam lock links secure outboard cutting units in transport position.

**Cutter Drive.** High pressure, all cast iron body, high efficiency, pressure balanced hydraulic gear motor. Three belts to spindles. All belts are interchangeable with other cutting units except for front cutting unit wing belts.

**Castor Wheels.** Four 10.50 x 3.50 heavy duty semi-pneumatic castor wheels; all interchangeable.

**WEIGHT AND DIMENSIONS**

**Width.** Transport - 7 feet, 11 inches. mowing - 16 feet, 3 inches.

**Overall Length.** 14 feet.

**Total Weight.** 6,540 pounds (with fluids)

**ACCESSORIES**

Canopy, 2 post roll over protection system. Road light package consisting of a front shroud, horn, directional lights with 4-way flasher, headlights, stop lights taillights, slow moving vehicle lights with flasher, light switch, socket for SMV sign with bracket and

**GRUNDSMASTER 580-D (CONT.)**

reflectors. Road package also will meet specifications of American National Standard ANSI B71.4-1984

<b>WARRANTY</b>	Two (2) years or 1500 hrs, parts and labor.
<b>YEAR MODEL</b>	Most current year model. 1994 or 1995.
<b>MANUELS</b>	Supply with parts and repair manuels.