

SPECIFICATION for: Two (2) or more Case "590 Super M" Backhoe Loaders

Project: 0258

Unit: PARKS

REPLACING # 8151 & 8152

Specification

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. I M P O R T A N T .

Complete response to each item is required, responses must be written on this form. Attach any information necessary to explain or clarify your bid. Proposals failing to include specific responses may be rejected. All non-factory items must be clearly identified and described. Evaluation will be based on compliance with specifications. Non-compliant items must be clearly indicated. Acceptable abbreviations for use on this form: Standard = (STD), Not Available = (N/A), No Charge = (N/C), Comply = (CPL). All items described by attachments or addendum shall be referenced on the submitted bid in proper numerical sequence. You are encouraged to list and price any options that you feel would enhance the use of this item and/or would be desirable.

ITEMS REQUIRED

RESPONSE

GENERAL DESCRIPTION

1. This specification shall describe a Case 590M backhoe loader in the following configuration.
 - Minimum 99 (SAE 1349) net horsepower. *CPL*
 - Minimum operating weight of 15,200 lbs. *CPL*
 - Minimum ROPS enclosed cab. *CPL*
 - Minimum 4 cylinders, turbocharged, diesel engine. *CPL*

ITEMS REQUIRED

RESPONSE

- Extendable backhoe with, a minimum (2 ft) flat bottom digging depth of 21 ft with 24" HD bucket. CPL
- Transportation tie downs, on four (4) corners, required. Tie-downs to be Automotive Engineer Approved before installation. CPL

PHYSICAL REQUIREMENTS

1. This machine shall be required to lift, move, and place large steel plates and shoring. CPL
2. Steel plates include deck plates weighing approx 3,000 lbs. These plates need to be lifted off of a trailer and moved into position by the backhoe specified. This will require a backhoe boom lifting capacity (retracted) of 3,200 lbs at a distance of 10' from backhoe swing pivot to lift point, from a height of 0' to 4'. CPL
3. Shoring shall include 8' X 10' boxes weighing approximately 1,800 lbs. This shall require a boom lifting capacity of 2,000 lbs throughout the range of the boom, with the boom fully extended. CPL

ENGINE

1. Four (4) cycle, turbocharged, electronically controlled diesel engine, with a minimum 3.8 liters of displacement. State SAE net horsepower, net torque and rpm achieved, (SAE J1349). Minimum, 99 SAE net horsepower required. CPL
Net 99 H.P.
29116-ft net torque
1500 RPM
2. Meet all current state and federal emission regulations at time of delivery. CPL
3. Maximum capacity, factory available, air cleaner. Dual element, dry-type air cleaner with pre-cleaner and restriction indicator, minimum required. CPL
4. Vertical mount, spin-on engine oil filter CPL
5. Maximum capacity, factory available, engine cooling system available. State BTU/Hr. cooling capacity provided. Anti-freeze protection to - 34° F required. CPL 144480 BTU HR
6. "Raycor" or factory equivalent, fuel filter with fuel-water separator, required and/or Automotive Engineer Approved Equal. State fuel filter provided. CPL
FACTORY INSTALLED
7. Engine coolant hoses shall be heaviest duty, offered by manufacturer. CPL
8. Minimum 40-gallon side mounted fuel tank. CPL
9. Single serpentine fan/alternator belt with automatic belt tensioner. CPL

TRANSMISSION

1. Fully synchronized four (4) speed transmission, four (4) forward and reverse gears. CPL
2. Single lever, Forward-Neutral-Reverse control, with neutral safety switch interlock, required. CPL
3. Electric foreward/reverse shuttle shift. CPL
4. Clutch disconnect button on shift lever. CPL
5. Clutch disconnect button on loader control lever. CPL
6. 25 M.P.H., minimum travel speed, required. State travel speed offered, forward and reverse. CPL

	1st	2nd	3rd	4th
Forward	3.7	6.7	12.9	25.7
Reverse	4.5	8.1	15.5	31.

HYDRAULICS

1. Hydraulic pump capacity shall be a minimum of 35 gallons/minute. CPL
2. The loader backhoe hydraulics shall be Open-center and allow for smooth loader and backhoe operation. CPL
3. 10-micron maximum, spin-on, full-flow, replaceable cartridge filter required, filter to be connected to system return. CPL
4. US standard, SAE/JIC, steel hydraulic fittings required except for quick couplers. CPL
5. Minimum, 30 gallon, hydraulic system capacity. State hydraulic system capacity provided. CPL 35.75
6. Hydraulic fluid shall be "Chevron Clarity" biodegradable oil. N/A CASE APPROVED
7. Minimum 14 gallon side mounted hydraulic oil tank with sight gauge. Install identification tags on the hyd. tank to show type of hyd. oil installed. Type and size of tag must be Automotive Engineer Approved. CPL
8. All hose connections, for external hydraulic systems shall be equipped with Automotive Engineer approved "Parker" FF fittings, approval required prior to installation. CPL CASE
9. All hydraulic hoses shall be Parker "Super Tough" hose. N/A CASE STD
10. Heaviest duty hydraulic cooler available. CPL

AXLES

1. Front axle supplied shall exceed 10,000 lbs. per SAE J43 static load rating. State SAE J43 static load rating of front axle supplied. CPL 12,070 Approx.

ITEMS REQUIRED

RESPONSE

- Dynamic Operating front axle rating shall be at least 39,000 lb. State Dynamic operating front axle rating provided. *CPL 40,894*
- 2. Rear axle supplied shall exceed 14,000 lbs. per SAE J43 static load rating. State SAE J43 static load rating of rear axle supplied. *CPL 14322*
 - Dynamic Operating rear axle rating shall be at least 39,000 lb. State Dynamic operating rear axle rating provided. *CPL 39,342*
- 3. Minimum 20° front axle oscillation required. *CPL*
- 4. On the go, electro hydraulic rear differential lock engagement is required. *CPL*

BRAKES

1. The loader backhoe brakes shall be a fully hydraulic, multiple wet disk brakes, located inboard. *CPL*
2. Oil cooled brakes required. *CPL*
3. Brakes to be operated by 2 (two) suspended pedals. *CPL*
4. Self adjusting brakes are required. *CPL*

STEERING

1. Hydrostatic power-assist steering required. *CPL*
2. Steering system shall meet SAE J1151 requirements for "secondary steering". *CPL*
3. Steering cylinder(s) shall be located behind the axle. *CPL*

WHEELS AND TIRES

1. Maximum capacity tires and wheels available from the factory for this unit. 10 ply-rating, minimum, on front and rear tires. Completely describe tires and wheels offered. *CPL Front 14.5/75x16, 10PR Rear 21Lx24 10R(R4)*
2. Rear tires shall be supplied with an R-4 Lug directional tread design, or Automotive Engineer approved substitute.
3. Include one (1) front and one (1) rear spare tire ea. *CPL*

CAB

1. Minimum, ROPS enclosed cab, required. *CPL*
2. Cab shall be furnished with a pressurized heating/Air conditioning ventilation system, with a minimum of three (3) speed selection available. *CPL*
3. Heavy duty, suspension seat. Minimum, two-inch wide retractable seat belt required. *CPL*

4. Ride control – hydraulic dampening loader bucket system for smooth ride while traveling with full bucket. CPL
5. Hand and foot throttle controls are required. CPL
6. Suspended accelerator pedal is required. CPL
7. Stainless mirrors, 6" X 9" minimum, with stainless steel brackets; are required. CPL
8. Tinted safety glass, windshield wipers front and rear required. CPL
9. Full size, windowed door, both sides of cab required. CPL
10. Door activated interior dome light required. CPL
11. Grab handles for cab entry, both sides required, Grip strut entry steps, required. CPL
12. Heavy duty rubber floor mat. CPL
13. Noise level measured at operators ear to be less than 77 dB (A). CPL
14. Case™ style control arrangement or Automotive Engineer Approved Equal. CPL
15. Full cab width rear view mirror, must be Automotive Engineer Approved. CPL
16. Factory supplied horn. CPL
17. Built in molded cup holder. CPL
18. Coat hook with tether strap CPL

INSTRUMENTATION

1. Instrument panel shall be lighted and include the following indicators:
 - Engine Hour meter CPL
 - Engine Tachometer CPL
 - Coolant temperature CPL
 - Fuel quantity CPL
 - Voltmeter / Charge indicator CPL
2. Audible and visual, low oil/high coolant temperature warning shall be included. CPL

LOADER

1. Minimum, 10,000 lbs. breakout force (SAE J732) required. CPL
2. Minimum, 7,000 lbs. lifting capacity (SAE J732), at full height, required. CPL
3. One (1.2) yd³ capacity (SAE J742), four-in-one bucket, with Kenco Engineering Inc. Thungsten Carbide cutting edge required. CPL
4. Single lever control with top mounted clutch cut-out button required. CPL
5. Bucket position indicator required. CPL
6. Automatic, self-leveling, bucket required. CPL

ITEMS REQUIRED

RESPONSE

- 7. Return to dig mode required. CPL
- 8. Full bucket rollover for dozing is required. CPL
- 9. Full bucket rollover for stability in backhoe operation is required. CPL
- 10. Parking brake lever located within easy reach to the right of the driver is required. CPL
- 11. Operator warning system that alerts the operator with an audible alarm when the parking brake is applied and the operator engages the forward/reverse lever. CPL

BACKHOE

- 1. Extendable backhoe with, a minimum (2 ft) flat bottom digging depth of 20' ft, per SAE J49. CPL
- 2. Minimum, 14,000 lb. bucket digging force, bucket cylinder, with heavy duty bucket, and coupler, per SAE J49. CPL
- 3. Minimum, 8,000 lb. bucket digging force, dipper cylinder. Backhoe retracted, per SAE J49. CPL
- 4. Heaviest duty, highest capacity, 24-inch wide trenching bucket, required. CPL
- 5. Easy-to-swing seat to access backhoe controls, required. CPL
- 6. Audible alarm to alert operator of transmission engagement when swinging seat. CPL
- 7. Foot pedals for backhoe swing. CPL
- 8. Maximum factory allowed additional front counter weight, for backhoe configuration required. CPL
- 9. Maximum transport height not to exceed 12 feet. CPL
- 10. Stabilizers being fully retractable within the width of the tires required. CPL
- 11. Replaceable bushings in the swing tower to boom base mounting pins are required. CASE STD CPL
- 12. Engine throttle control located within easy reach to the left of the operator. CPL

OUTRIGGERS

- 1. Individual outrigger controls, required. CPL
- 2. Stabilizer controls located together to permit one hand operation. CPL
- 3. 8-foot retracted width, maximum. CPL
- 4. Combination outrigger pads or Automotive Engineer approved equivalent. CPL

ELECTRICAL

1. Minimum, 12 Volt, 65 Amp alternator, required. State alternator provided. *CPL 65AMP*
2. Minimum, 650 CCA, 12 Volt, AGM Drycell battery required. (Optima, Odyssey, Concord) or Automotive Engineer approved equal. *CPL*
3. A "Cole Hersee" #75908 master battery disconnect switch will be installed at the battery box or Automotive Engineer Approved Equal. *CPL*
4. Lighting:
 - a) Minimum, lighting must conform to SAE J95, J1029, J99 standards. *CPL*
 - b) Factory installed, Halogen headlights, required. *CPL*
 - c) Factory installed, Cab mounted turn signals, front and rear, required. *CPL*
 - d) Maximum, factory available worklight option. State worklights and configuration offered. *CPL 4F/4REAR*
 - e) "Whelen" RX6DX permanent mount, on cab roof. Dash mounted switch shall be "Wired Rite" or Automotive Engineer approved equal. Switch installation shall require Automotive Engineer approval prior to installation. *CPL CASE APPROVED*
 - f) Factory provided backup alarm or "Pollak" model 41-242 or Automotive approved equivalent, required. *CPL MFG. STD*
- Electrical Standards: Any dealer added electrical runs shall use the following mil-spec wire: "Alpha" part number 7046, 14 gauge minimum, MIL-W-16878D Type D or Automotive Engineer approved equal. *CPL Meeting CASE STD*
 - a) Added runs shall use dual crimped (insulator crimp and conductor crimp) mil-spec ring terminals, using the crimping tool designed for the specific wire. *CPL CASE STD APPROVED*
 - b) Full length wire runs only will be accepted. Connections shall be made at junction box, lamp housing or appliance only. *CPL CASE STD APPROVED*
 - c) Terminal boards conforming to MIL-T-5516412 are required. *CPL CASE STD APPROVED*
 - d) All switches for added accessories shall be "Wired-Rite", or Automotive Engineer approved equal. *CPL CASE STD APPROVED*
 - e) Continuous duty relay "Essex" 100 ampere connected to ignition accessory is required to power "Wired-Rite" panels. *CPL CASE STD APPROVED*
 - f) All wiring harnesses shall be "Kellems" PVC jacketed loom, or Automotive Engineer Approved Equal. *CPL CASE STD APPROVED*

PARTS INVENTORY

1. List dollar amount of parts inventory specific to the make and model bid. List location of parts inventory. **\$ 553,000.00**

OPTIONS

1. Quote price to provide factory installed four (4) wheel drive, On-the-Go activation, and electronically activated differential locking required. **\$ 6,900.00**
2. Quote price to provide any factory available hydraulic accessory quick connection fitting and hoses located on the backhoe. **\$ 2,977.00**
DEALER INSTL
3. Quote price to provide factory available hydraulically actuated thumb attachment for the backhoe bucket. All sizes and all models that can be offered for this back/hoe loader. **\$ 6,335.00**
DEALER INSTL
4. Quote price for any factory installed Mechanical and/or Hyd. quick coupler backhoe or loader systems. **\$ 1,045.00** **BACKHOE HYD. & COUPLER**
5. Quote price to provide any higher quality operator's seat with air suspension, and adjustable lumbar support. **\$ 1,075.00** **LOADER HYD & COUPLER**
\$ 3,095.00
6. Quote price to provide the following factory available optional accessories. To be provided loose.
- Heavy duty, 30-inch wide trenching bucket. **\$ 1,020.00**
 - Heavy duty, 12-inch wide trenching bucket. **\$ 630.00**
 - Heavy duty, 36-inch wide trenching bucket. **\$ 1,125.00**
 - Heavy duty, 18-inch wide trenching bucket. **\$ 698.00**
7. Quote price to furnish one (1) Rammer, model S 27 City and associated mounting kit, installed. **NO BID**
8. Quote price to furnish one (1) hydraulic hammer, 1,200 ft/lbs. class, or larger, installed. **OKADA \$ 19,687.00**
9. Quote price to provide a one (1) hydraulic compactor, appropriately sized for backhoe capacity, including mounting kit, furnished loose **OKADA \$ 6,979.00**
10. Quote price for one (1) front and one (1) rear spare tire ea. **INCLUDED IN BASE BID**
11. Quote price to furnish one (1) Stanley hydraulic compactor, model #HS6000, and associated mounting kit, loose. **SEE #9**
12. Quote price to provide one (1) complete set of the following: **\$ 392.00**
- Operator's manual
 - Parts manual
 - Service manual
13. Quote price for all factory available warranty packages above and beyond the base warranty specified below. **ATTACHED**

DEDUCT OPTIONS

(Please list all deduct prices as follows: (\$ #,###.##))

1. Quote price/price deduction to furnish a general purpose, 1.25 yd. Heaped capacity loader bucket, in lieu of the 4-in-1 bucket specified. NOT APPLICABLE
2. Quote price/price deduction to provide SAE standard controls in lieu of specified Case™ controls. NO CHARGE
3. Quote price/price deduction to provide factory standard cooling system and hoses in lieu of specified. NO CHARGE
4. Quote price/price deduction to provide standard backhoe configuration in lieu of the specified extendable backhoe. \$ 2,945.00
5. Quote price/price deduction to provide ROPS certified canopy in lieu of specified ROPS certified enclosed cab. \$ 3,390.00
6. Quote price/price deduction for all factory available wheel and tire options. FROM BASE BID wheel & tires F/R \$ 1,580.00 NO OPTIONS
7. Quote price/price deduction to remove A/C option. \$ 1,575.00
8. Quote price/price deduction to remove Ride Control. \$ 995.00
9. Quote price/price deduction to purchase 580 Super M in lieu of 590 Super M backhoe/Loader. \$ 6,065.00

TRAINING:

Unit price shall include a minimum of 9 hours of mechanic training and 9 hours total of operator training to be conducted in as many as 6 separate sessions.

CPL

Training may be conducted at any of the City of Seattle shops as so designated by the City of Seattle.

CPL

WARRANTY:

1. In addition to any warranties offered by the backhoe/loader manufacturer and OEM suppliers, the contractor shall warrant the components and systems against all systems and component failures for a period of 3 years (including parts and labor) starting with the City of Seattle's in service date. (Doesn't apply to cutting edges and/or bucket teeth) Attach warranty offered and any extended warranty options with pricing, available.
2. Any portion of the contractor's standard warranty that exceeds the term of 3 years shall apply to this contract.

CPL

CPL

ITEMS REQUIRED

RESPONSE

- 3. The contractor's warranty shall not apply to deliberate abuse or vandalism. CPL
- 4. A full time complete parts and service facility offering factory authorized service and a parts supply adequate to perform complete repair is required. Facility shall be within a 50-mile radius of:
City of Seattle- Fleet Services Shop
805 South Charles Street
Seattle, WA 98134 CPL
- 5. Inspection of bidder's parts and service facility may be required before bid award. CPL
- 6. Warranty service, extended warranty and recall work must be performed by seller and/or seller's service station who must accept responsibility for all transportation. Contractor must respond to a call for warranty service within 24 hours. All costs of warranty repair and service shall be born by the contractor. CPL
- 7. Two (2) copies of all applicable warranties must be submitted with bid package. CPL
- 8. Successful bidder is to fill out attached **EQUIPMENT DATA ENTRY FORM.** CPL

GENERAL

- 1. Vendor is required to have been in the business of selling and repairing backhoes for a minimum of 5 years. CPL
- 2. A performance demonstration may be required before bid award. Performance demonstration will be of unit per basic specifications. CPL
- 3. All equipment and components necessary for operation and normally supplied shall be furnished, even if not called out in specifications. CPL
- 4. The equipment \ vehicle offered shall meet or exceed all applicable Federal and Washington State laws. CPL
- 5. A spare filter set shall be supplied with the completed unit. The set shall consist of all filter elements required for all filters installed as on the loader/backhoe unit. CPL
- 6. Three (3) copies of the operator's manual shall be provided for the complete backhoe unit. The operator's manual shall contain complete operating instructions for the backhoe/loader, accessories, electrical system, hydraulic system, and the pneumatic systems. CPL
- 7. In addition to the above, three (3) copies of each of the following manuals are required at time of delivery: CPL
 - (a) Operators manuals

ITEMS REQUIRED

RESPONSE

- (b) Complete service manuals, including electrical, electronic, hydraulic, and Pneumatic diagrams, to include all controllers and accessories. CPL
- (c) Complete parts list for the backhoe/loader unit as well as for the electrical, hydraulic, and pneumatic systems. CPL
- 8. Five (5) complete sets of keys for all locks shall be provided, Four (4) sets of keys shall be provided with the unit and the contractor shall keep one (1) set. CPL
- 9. All equipment shall be new. Used, demonstration, rebuilt or remanufactured equipment is unacceptable. CPL
- 10. The equipment shall have full dealer preparation and be ready for service when delivered. CPL
- 11. The equipment shall be delivered with title application and MSO made out per current State of Washington law. CPL
- 12. The loader/backhoe shall meet all OSHA and EPA requirements in effect on the date of bid opening and shall have lead free paint. CPL
- 13. Vehicle shall be delivered **F.O.B. as defined in the Revised Code of Washington RCW 62A.2-50** to the City of Seattle's Truck Shop

Attn: John Sattler
 805 S. Charles St.
 Seattle WA 98104
 Phone: 386-1153

The manufactures local representative must print their firm's name, address, phone number, and VIN number on all written warranty statements and/or manuals. Additionally, all such warranty instruments must be complete with all manufacturer/dealer responses contained therein (typewritten or neatly printed in ink, no exceptions) before acceptance of the vehicle/equipment will be made.

UNIT PRICE PER BASIC SPECIFICATION \$ 75,611.00 EA.

MANUFACTURER CASE

MODEL QUOTED 590 SM EXTENDABLE HOE

COMPANY WESTERN POWER & EQUIPMENT
 (PRINT) (PHONE) 360-561-2277

ITEMS REQUIRED

RESPONSE

NAME Kenneth E McVittie REPRESENTATIVE
(PRINT) (TITLE)

I have read and understand the above specifications.

SIGNATURE Kenneth E McVittie

Revised (October 16, 2002)