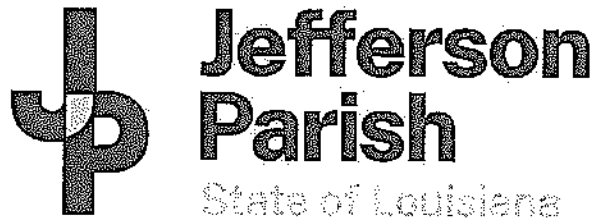




CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

**5000141251 A Purchase of Hydraulic Powered Actuators and Associated
Parts for the Ames Pump Station Warehouse
Jefferson Parish Government**

Project documents obtained from www.CentralBidding.com
02-Mar-2023 07:26:39 AM



Bid Number 50-00141251

**A Purchase of Hydraulic Powered Actuators and Associated Parts for
the Ames Pump Station Warehouse**

BID DUE: March 6, 2023 AT 11:00 A.M.

ATTENTION VENDORS!!!

**Please review all pages and respond accordingly, complying with all provisions
in the technical specifications and Jefferson Parish Instructions for Bidders and
General Terms and Conditions. All bids must be received on the Purchasing
Department's eProcurement site, www.jeffparishbids.net, by the bid due date
and time. Late bids will not be accepted.**

**Jefferson Parish Purchasing Department
200 Derbigny Street
General Government Building, Suite 4400
Gretna, LA 70053
Buyer Name: Doris Abraham
Buyer Email: DABRAHAM@jeffparish.net
Buyer Phone: 504-364-2690**

DATE: 2/28/2023

INVITATION TO BID
THIS IS NOT AN ORDER

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BID NO.: 50-00141251

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETN, LA. 70054-0009
504-364-2678

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: DABRAHAM@jeffparish.net

Bids will be received until 11:00 AM, 3/06/2023 via online at www.jeffparishbids.net.

LATE BIDS WILL NOT BE ACCEPTED

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION. HOWEVER, ELECTRONIC SIGNATURES AS DEFINED IN LSA - R.S. 9:2602(8) ARE ACCEPTABLE. SIGNATURE MUST BE A SECURED DIGITAL SIGNATURE.

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law, as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647 as amended. A copy of these resolutions may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at purchasing.jeffparish.net and clicking on On-line forms.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Vendors may experience a delay in payment if your company is not a registered vendor with Jefferson Parish.

Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and local taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail. Quotations shall be based on F.O.B. Delivered, anywhere within the Parish as designated by the Purchasing Department. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications. JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit prices shall prevail.

JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE.

PROTESTS: Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in the quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year warranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum.

All formal Addenda require written acknowledgment on the bid form by the bidder by the bidder placing the Addendum number in the appropriate section. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected; JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A1 17.1-1981).

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online.

This is a secure site and authorized personnel have limited read access only. Bidders are to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

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1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(l), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37:2150 et. seq. and such license number will be shown on the outside of the bid electronic envelope. Failure to comply will cause the bid to be rejected. When submitting the bid electronically, the license number must be entered in the appropriate field in the electronic procurement system. Failure to comply will cause the bid to be rejected.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precaution must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.
7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise stated in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Failure to comply with this instruction will result in bid rejection.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. All sureties must be in original format (no copies). When submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is an as needed basis contract. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA - RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

DATE: 2/28/2023

BID NO.: 50-00141251

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INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.

17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which is permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment"). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owed on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish to contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment, and report to Owner the amount of taxes not incurred.

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission; and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

DATE: 2/28/2023

INVITATION TO BID
THIS IS NOT AN ORDER

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BID NO.: 50-00141251

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETN, LA. 70054-0009
504-364-2678

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: DABRAHAM

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Agency warehouse or jobsite, anywhere within the Parish as designated by the Purchasing Department.

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH is expecting all products to be new and all work to be done in workman-like manner, according to standard practices. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

October 31, 2023

INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK

N/A

INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK

N/A

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form by placing the addendum number as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: N/A
NUMBER: N/A
NUMBER: N/A
NUMBER: N/A

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) _____

*** ALL BIDDERS MUST COMPLETE SECTION BELOW ***	
FIRM NAME: Motor-Services Hugo Stamp, Inc.	
SIGNATURE: (Must be signed here)	TITLE: DIRECTOR, Sales & Marketing
PRINT OR TYPE NAME: RANDALL J. Nunmaker	
ADDRESS: 2022 Tamvest Court	
CITY, STATE: Mandeville, LA	ZIP: 70448
TELEPHONE: (985) 626-0707	FAX: ()
EMAIL ADDRESS: Eric.Mitchell@mshs.com	

TOTAL PRICE OF ALL BID ITEMS: \$ 40,660.68

DATE: 2/28/2023

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INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00141251

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
			A purchase of Hydraulic Powered Actuators and Associated Parts for the Ames Pump Station Warehouse		
1	3.00	EA	0010 2301E ENGINE, LSSC, 24 VDC INPUT ORDINARY ITEM# WOO8273-1011	\$ 3,855.00	\$ 11,565.00
2	3.00	EA	0020 UG ACT EMD MISSING SERR CW ITEM# WOO8251-724A	\$ 6,848.00	\$ 20,544.00
3	3.00	EA	0030 MPU 5/8 X 1/ X 4.5 ITEM# WOO1680-631	\$ 224.00	\$ 672.00
4	3.00	EA	0040 CABLE ASSY, 48" SHIELDED, 90 DEGREE ITEM# MISS958-0012	\$ 306.00	\$ 918.00
5	3.00	EA	0050 UG ACTUATOR HARNESS, 10', 3-PIN 3 PIN WIRE ITEM # BOME2845-0150	\$ 109,228.3	\$ 327.69
			DELIVER TO: AMES PUMP STATION WAREHOUSE 5100 ROCHESTER DR. MARRERO, LA 70072		
			** PER ATTACHED SPECIFICAIONS **		

Bid Specifications for Bid # 50-00141251

ONE TIME PURCHASE OF A HYDRAULIC POWERED ACTUATORS AND ASSOCIATED PARTS

The intent of this specification is to define the minimum requirements of the Parish of Jefferson for the purchase and delivery of the following hydraulic powered actuators and associated parts. A bid is a guarantee by the vendor of all specifications being met.

Submittals:

Any exception to this specification requires the vendor submit a letter attached to the documents listing in detail how it differs from the specifications. Mere attachment of brochures covering standard manufactured equipment when such differs from these specifications shall not be adequate to satisfy the letter of exceptions requirement. Such items may include

- A complete specification and submittal of all major components for the proposed items
- One copy of all pump "Bill of Materials" of the unit's construction, cutaway drawings, and dimensions as offered to confirm compliance with the specifications.

Any bidder not able to supply information shall be considered non-responsive and shall not be accepted.

Delivery:

Freight shall be included in base bid. The valve shall be delivered to the Ames pump station warehouse at 5100 Rochester Drive, Marrero, LA 70072. All deliveries shall be made during operating hours between 7:00 AM and 3:00 PM Monday through Friday. Deliveries will not be accepted during Jefferson parish holidays.

Specifications:

Item 0010; ITEM # W008273-1011 Woodward 2301E product specification 03404 - Engine Digital Load Sharing and Speed Control

Has four operating modes

Speed Control: Has multiple dynamics flexibility. Will work on pumps or compressors. Has capability for remote 4–20 mA speed reference through a configurable analog input.

Isochronous Load Sharing: Is compatible with most existing analog load sharing speed control systems. Now with soft load and unload capability.

Droop Base Load: Adjustable load control using discrete raise and lower contacts.

Isochronous Base Load: Provides constant load level operation against a utility bus. The load setting may be fixed, changed using discrete raise and lower inputs, or a remote 4–20 mA input

Operates from a 24 Vdc supply or equivalent

Includes:

- 1 Load Sensor Circuit
- 1 Actuator Driver, 4–20 mA, 0–20 mA, 0–200 mA, or PWM
- 1 MPU Speed Sensor
- 1 Configurable Analog Output
- 2 Configurable Analog Inputs

Bid Specifications for Bid # 50-00141251

- 8 Discrete (Switch) Inputs
- 4 Discrete (Relay Driver) Outputs

Operates within a range of -40 to +70 °C (-40 to +158 °F).

Adjustable load control using discrete raise and lower contacts

The control is housed in a sheet-metal chassis for ordinary and hazardous locations, and consists of a single printed circuit board.

The 2301E is configured using a computer with Control Assistant software or a Woodward Tool Kit service tool. The configuration software may be downloaded from the Woodward website (www.woodward.com). The computer connects to the 2301E through a 9-pin connector (RS-232 port). Modbus control can be operated through the second serial port (RS-422) or equal.

Item 0020: ITEM # WOO8251-724A Woodward product specification 37511C - UG-Actuator Hydraulic Powered Electric Actuator for Engine or Turbine Control

Must include self-contained oil sump with a capacity of <1.4L or equivalent

Produces at least 15ft-lb of work or equivalent

Maximum Work Capacity (based on the full 42 degree travel of the output shaft)

- Standard UG-ACTUATOR: 19.4 J (14.3 ft-lb) in the increase direction;
- 23.3 J (17.2 ft-lb) in the decrease direction or equal
- 20 ft-lb UG-ACTUATOR: 27.2 J (20 ft-lb) in both directions or equal
- Remote UG-ACTUATOR: 27.2 J (20 ft-lb) when supplied with 2760 kPa (400 psi); pressurized oil must be supplied to the actuator or equal
- Rated Work Capacity: 2/3 of maximum work capacity or equal

Drive/Hydraulic Specifications

- Drive Speed and Rotation: High Speed Pump: 600–1500 rpm
 - Low Speed Pump: 375–1100 rpm
 - Drive operates in one direction only.
- Drive Power Requirement: 375 W (0.5 hp) max or
- Hydraulic Supply: Self-contained sump, 1.4 L (1.5 qt) capacity

Control Qualities

- Hysteresis: Within 3% of max. travel when measured over full 42 degrees of travel;
- Within 0.5% of max. travel when measured over 4% of full travel at 1 Hz
- Temperature Drift: Nominally ±1 degree per 38 °C (100 °F)
- Time Constant: 70–90 ms for ±50 mA step with 1172 kPa (170 psi) actuator oil pressure
- Linearity: Within 2.5% of full 42-degree output travel or equal

Electrical Specifications

- Electrical Connector: 3 pin: US MIL-STD 3102E-14S-7P
 - 10 pin: US MIL-STD 3102E-18-1P (LVDT model)
- Coil Resistance: 23–26 (at 20 °C (68 °F))
- Calibration: 1–2 degrees at 20 mA

Bid Specifications for Bid # 50-00141251

- 37 ± 2 degrees from 20–160 mA
- Reaches maximum fuel at <200 mA

Construction

- Pump: Gerotor 3161 pump; relief valve set at 1172 kPa (170 psi) or equal
- Weight: 16 kg (36 lbs)
- Output Shaft: Standard: (2) 0.500-36 inch serrated
- Available: 0.625-36 serrated, or smooth shaft with a flat
- Drive Shaft: Standard: 0.625-36 serrated
- Available: 0.625 keyed drive shaft with 0.625-18 threads
- 1.125-48 shaft with adapter that fits PG base mounting hole pattern

Temperature Ranges

- Ambient Operating Temperature: -29 to $+93$ °C (-20 to $+200$ °F)
- Storage Temperature: -29 to $+93$ °C (-20 to $+200$ °F)

Compliance

- CSA: Class I, Division 2, Groups A, B, C, D (models available)
- Vibration Resistance: Tested to US MIL-STD 810C, Curve D

Item 0030: ITEM # WOO1680-631 Magnetic Pickups 5/8 x 18 x 4.5

Item 0040: ITEM # MIS5958-0012 Cable Assembly 48" Shielded 90 Degree

Item 0050: ITEM # MIS5958-0012 UG Actuator Harness 10' 3 Pin Wire