



CULLUM & BROWN

Compressed Air & Vacuum Solutions Since 1886



High Service Pump #5 Turnkey Motor Repair

City of Independence, Courtney Bend Station

ATTN: Anthony Dahl

DATE: 08/16/2023

ESTIMATE# MN08163-1

PROPOSED BY: Mike Nobles

CULLUM & BROWN

1001 NW TECHNOLOGY DR. | LEE'S SUMMIT, MO | 64086

PHONE: (816) 842-7711 | FAX: (816) 842-4580 | TOLL FREE: (800) 877-7711

Anthony,

Please see the following work scope to remove, repair and re-install (1) 1500hp, 2300V, GE pump motor. We appreciate the opportunity.

Removal

- LOTO high service pump #5 in MCC
- Disconnect t-leads at junction box.
- Disconnect RTD leads and heaters in auxiliary junction boxes.
 - Lockout heater breaker if fed from separate location
- Uncouple motor from pump.
- Remove motor hold down bolts.
- Utilize City of Independence overhead crane to lift motor from base.
- Load on Cullum and Brown flatbed for transport to repair facility.

Motor Repair (Evaluation/ mechanical overhaul)

- Dissassemble
- Mechanical inspection
- Electrical inspection
- Clean parts
- Quote/estimate job
- Wash & bake stator dry
- Post bake – clean parts
- Balance rotor
- Prepare parts for assembly
- Install bearings
- Re-assembly
- Post testing
- Paint
- Skid for shipping
- Provide QC documentation

***Allow 14-16 working days for motor repair based on straight time working hours**

***Machine work, bearing repair, core repair and additional parts or materials found necessary after inspections will be quoted separately and will be submitted for approval prior to repair.**

Motor Repair (Stator rewind/ mechanical overhaul)

- Dissassemble
- Mechanical inspection
- Electrical inspection
- Clean parts
- Quote/estimate job
- Record winding data
- Burn out and strip winding
- Core loss stator (2)
- Sandblast stator
- Rewind stator
- VPI stator
- Post bake
- Balance rotor
- Prepare parts for assembly
- Install bearings
- Re-assembly
- Post testing
- Paint
- Skid for shipping
- Provide QC documentation

***Allow 22-24 working days for motor repair based on straight time working hours**

***Machine work, bearing repair, core repair and additional parts or materials found necessary after inspections will be quoted separately and will be submitted for approval prior to repair.**

Installation

- Deliver to site.
- Set on base using City of Independence overhead crane.
- Re-connect t-leads at junction box.
- Remove LOTO.
- Bump motor for rotation.
- Replace LOTO.
- Re-connect RTD and heater leads.
- Couple motor to pump.
- Laser align.
- Remove LOTO.
- Test run.
- Return to service.

Estimated repair cost with motor evaluation/mechanical overhaul **\$29,656.88**

Estimated repair cost with stator rewind/mechanical overhaul **\$70,456.88**

Note:

Estimated price based on standard working hours M-F 8:00am- 4:30pm

Delivery

TBD

Terms & Conditions of Sale:

Prices quoted are firm for thirty (30) days from date of this proposal. Prices do not include any freight charges, permit fees or applicable taxes.

Terms: Net 15 Days after date of invoice.

All sales are expressly subject to Cullum & Brown of Kansas City, Inc standard terms and conditions of sale, copies of which are available on request. Any different standard terms and conditions set forth in buyer's purchase order or similar communications are objected to and shall not be binding on unless agreed to in writing by a Cullum & Brown of Kansas City, Inc corporate officer.

Thank you for giving Cullum & Brown the opportunity to quote your requests. If you have any questions regarding our proposal please don't hesitate to contact me.

Sincerely,

Mike Nobles | Account Manager
Cullum & Brown
Mobile: 816-377-1565
Email: mnobles@cullumandbrown.com

WE DO IT ALL...

Emergency Service: 24/7 service department w/ 20+ technicians aim for a **2hr or less** response time with a 4HR minimum charge.

Preventative Maintenance Programs: Custom annual and quarterly service programs with **reduced labor and rental rates.**

Extended Warranty Programs: Factory certified service and genuine parts for the best long-term protection and results. **We will keep you in compliance!**

Turn-key Installs: From the design to the electrical supply to the machine start up to the aluminum piping, partner with us and **let the experts handle it.**

Rental Compressors: All sizes available, electric and diesel **including Oil Free.**

Compressed Air Audits: Comprehensive reports w/ **actual flow readings** for the most accurate demand measurements.

Vibration Analysis, Laser Alignment, Field Balancing: **Increase uptime** and partner with us to utilize our reliability services on all your rotating equipment.

NEW! Electric Motors: In-shop and field repair and testing capabilities along with new electric motor options for all **your NEMA motor frame needs.**