



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

5000115058 VARIOUS LUBE ITEMS
Jefferson Parish Government

Project documents obtained from www.CentralBidding.com
19-Nov-2015 08:16:06 AM

DATE: 11/13/2015

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

BID NO.: 50-00115058

JEFFERSON PARISH

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

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: DMEVANS

Bids will be received until 11:00 AM, 11/19/2015 via fax: 504-364-2693 or via online at www.jeffparish.net

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. 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 www.purchasing.jeffparish.net and clicking on On-line forms.

All vendors submitting bids must register as a Jefferson Parish vendor if not already yet registered. Bidders may be required to furnish current W-9 Forms and respective Tax Identification Numbers within 10 days after bid opening if such information is not on file or not up to date. Registration forms may be downloaded from www.purchasing.jeffparish.net and clicking on Vendor Information.

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. 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

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 guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

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. 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.

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 A117.1-1961).

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

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.

Please visit the Purchasing Department webpage at <http://purchasing.jeffparish.net> to register and review Jefferson Parish solicitations.

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 pre-bid conference in relation to this bid; attendance is mandatory. Failure to attend will prohibit a company from submitting a bid. Vendors are hereby noticed that any vendor arriving after the mandatory pre-bid conference begins will not be allowed to sign in as evidence of attendance.
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 envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then 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.
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. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

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 state 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. Unless otherwise stated in the bid specifications, the successful bidder will be required to procure standard insurance policies evidencing Parish-mandated insurance requirements as indicted on the attached sheet. The current certificate of insurance must be submitted by low bidder within 10 days after bid opening to the Purchasing Department. Failure to comply will cause bid to be rejected. JEFFERSON PARISH reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
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. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies). If 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 a requirements contract to be provided on an as needed basis. 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 (in Original Format) required;** Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit and E-Verify Affidavit must be completed, signed, notarized and submitted by low bidder within 10 days after bid opening to the Purchasing Department on all solicitations for construction, alteration or demolition of public building or project, including but not limited to requirements found in LSA-RS 38:2212.9; LSA-RS 38:2212.10; LSA-RS 38:2224; Code of Ordinances, Jefferson Parish, Louisiana, Sec 2-923.1. Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. 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 for the bid to be considered responsive.
15. **NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits (in Original Format) required;** Non-Collusion Affidavit, and Campaign Contribution Affidavit must be completed, signed, notarized and submitted by low bidder within 10 days after bid opening to the Purchasing Department. See LSA-RS 38:2212.10; LSA-RS 38:2224; Code of Ordinances, Jefferson Parish, Louisiana, Sec 2-923.1 Failure to comply will cause bid to be rejected; the Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event. 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 for the bid to be considered responsive.
16. Since a bid surety is required, bid response may not be faxed. Bid submission will only be accepted online or as delivered to the Purchasing Department, 200 Derbigny Street, Suite 4400, Gretna, LA 70053 by 11am on the bid due date. All sureties must be in original format (no copies).

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: 11/13/2015

INVITATION TO BID
THIS IS NOT AN ORDER

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BID NO.: 50-00115058

JEFFERSON PARISH

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

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: DMEVANS

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JEFFERSON PARISH is expecting all products to be new and all work is to be done in a workman-like manner, according to standard practices. Any deviations or alterations from the specifications must be indicated and backup documentation supplied with your quotation.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

7-10 DAYS, ARO

INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK

INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK

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 as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: _____

NUMBER: _____

NUMBER: _____

NUMBER: _____

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

| | |
|--|--------------------------------|
| *** ALL BIDDERS MUST COMPLETE SECTION BELOW *** | |
| FIRM NAME: RETIF OIL AND FUEL | |
| SIGNATURE: (Must be signed here) <i>Bob Gaudet</i> | TITLE: VICE PRESIDENT SALES |
| PRINT OR TYPE NAME: BOB GAUDET | |
| ADDRESS: 1840 JUTLAND DR | |
| CITY, STATE: HARVEY, LA | ZIP: 70058 |
| TELEPHONE: (504) 349-9000 | FAX: (504) 684-1459 |
| EMAIL ADDRESS: ORDERS@RETIF.COM | |

TOTAL PRICE OF ALL BID ITEMS: \$ 2815.25

DATE: 11/13/2015

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INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00115058

SEALED BID

| ITEM NUMBER | QUANTITY | U/M | DESCRIPTION OF ARTICLES | UNIT PRICE QUOTED | TOTALS |
|----------------|----------|------|---|----------------------|-----------|
| | | | VARIOUS LUBE ITEMS | | |
| 1 | 1.00 | CS | MOBILGREASE XHP 222 0010 - 105 H1 PLUS GREASE, NLGI NO. 2 (30 TUBES PER CASE) | \$97.20 | \$97.20 |
| 2 | 1.00 | CS | 0020 - 123 ULTRA EP MULTI-SERVICE GREASE, NLGI NO. 2 (30 TUBES PER CASE) | NO BID | THIS ITEM |
| 3 | 1.00 | DRUM | MOBILGEAR 600 XP 680 0030 - 201 MULTI-PURPOSE GEAR LUBE ISO 680 (410 LB. DRUM) | \$908.00 | \$908.00 |
| 4 | 1.00 | DRUM | MOBIL DTE 10 EXCEL ISO 32,46,68 0040 - 704 SYNTHETIC AW HYDRAULIC OIL (1-GRADE) (55 GALLON DRUM) | \$1019.70 | \$1019.70 |
| 5 | 1.00 | DRUM | MOBIL DTE LIGHT 0050 - 708 PREMIUM R AND O INDUSTRIAL/ TURBINE OIL,10/ISO 32 (55 GALLON DRUM) | \$790.35 | \$790.35 |

Mobilgrease XHP 220 Series

Product Description

Mobilgrease XHP 220 greases are extended service lithium complex greases intended for a wide variety of applications and severe operating conditions. These greases were designed to outperform conventional products by applying cutting edge, proprietary, lithium complex manufacturing technology. They are formulated to provide excellent high temperature performance with superb adhesion, structural stability and resistance to water contamination. These greases have a high level of chemical stability and offer excellent protection against rust and corrosion. These greases feature high dropping points and maximum recommended operating temperature of 140° C (284°F). Mobilgrease XHP 220 greases are available in NLGI grades 00, 0, 1, 2 and 3 with an ISO VG 220 base oil viscosity.

Mobilgrease XHP 220 greases are designed for a wide range of applications including the industrial, automotive, construction and marine sectors. Their performance features make them ideal choices for operating conditions including high temperature, water contamination, shock loading and extended re-lubrication operations. Mobilgrease XHP 222 Special is an extreme pressure grease containing molybdenum disulfide that provides protection from wear under conditions pivoting and other conditions that lead to loss of oil film.

Features and Benefits

Mobilgrease XHP 220 greases are leading members of the Mobilgrease brand of products, which have gained a reputation world-wide for innovation and performance excellence. Mobilgrease XHP 220 greases are state-of-the-art products designed by our formulation technologists and backed by our world-wide technical support staff.

A key factor in the excellent adhesion and cohesion properties and high drop point of Mobilgrease XHP 220 greases is the proprietary manufacturing technology developed at our research facilities and adopted by our modern manufacturing facilities. These products use specially selected additives to provide excellent oxidation stability, rust and corrosion control, resistance to water contamination as well as anti-wear and EP protection. Mobilgrease XHP 220 Series products offer the following features and potential benefits:

| Features | Advantages and Potential Benefits |
|---|--|
| Superb resistance to water washout and spray-off | Assures proper lubrication and protection even in the most severe water exposure conditions |
| Highly adhesive and cohesive structure | Excellent grease tenacity, reduced leakage and extended re-lubrication intervals for reduced maintenance requirements. |
| Excellent rust and corrosion resistance | Protection of lubricated parts even in hostile aqueous environments. |
| Very good resistance to thermal, oxidative and structural degradation at high temperature | Extended grease life and enhanced bearing protection in high temperature applications offers reduced maintenance and replacement cost benefits. |
| Very good anti-wear and EP performance | Reliable protection of lubricated equipment, even under conditions of high sliding and shock loading with potential for extended equipment life and reduced unanticipated downtime |



| Features | Advantages and Potential Benefits |
|---------------------------------|--|
| Broad multi-purpose application | Provides potential for inventory rationalization and reduced inventory costs |

Applications

Mobilgrease XHP 220 greases are used in a wide range of equipment including industrial, automotive, construction and marine applications. Their blue color enables easy verification of application:

Mobilgrease XHP 005 and 220 are softer, high-temperature greases recommended for centralized grease application systems, gear lubrication, and where extreme-cold-temperature pumpability is important.

Mobilgrease XHP 221 is recommended for use in industrial and marine applications, chassis components and farm equipment. It provides excellent low temperature performance.

Mobilgrease XHP 222 is recommended for industrial and marine applications, chassis components and farm equipment. Its sticky formulation stays in applications longer.

Mobilgrease XHP 223 is recommended for applications where good high temperature and anti-leakage properties are required. It is particularly recommended for severe truck wheel bearing applications or for rolling element bearings subject to vibration, or where higher speeds require a grease with higher consistency to provide channeling characteristics.

Mobilgrease XHP 222 Special contains moly, is grey in color and is recommended for moderate duty service in industrial applications, chassis components and farm equipment. It also finds application in king pins, U-joints, fifth wheels and bucket pins

Specifications and Approvals

| Mobilgrease XHP 220 Series meets the following industry specification: | 005 | 220 | 221 | 222 | 223 | 222 Special |
|--|-----|-----|---------|---------|-----|-------------|
| DIN 51825: (2004-06) | | | KP1N-20 | KP2N-20 | | |

Typical Properties

| Mobilgrease XHP | 005 | 220 | 221 | 222 | 223 | 222 Special |
|---|------------|------------|------------|------------|------------|-------------|
| NLGI Grade | 00 | 0 | 1 | 2 | 3 | 2 |
| Thickener Type | Li-Complex | Li-Complex | Li-Complex | Li-Complex | Li-Complex | Li-Complex |
| Color, Visual | Dark Blue | Dark Blue | Dark Blue | Dark Blue | Dark Blue | Grey-Black |
| Penetration, Worked, 25° C, ASTM D 217 | 415 | 370 | 325 | 280 | 235 | 280 |
| Dropping Point, °C, ASTM D 2265 | ----- | 270 | 280 | 280 | 280 | 280 |
| Viscosity of Oil, ASTM D 445 | | | | | | |
| cSt @ 40° C | 220 | 220 | 220 | 220 | 220 | 220 |
| 4-Ball Wear Test, ASTM D 2266, scar, mm | 0.50 | 0.50 | 0.5 | 0.5 | 0.5 | 0.5 |
| 4-Ball Weld Load, ASTM D 2596, kg | 315 | 315 | 315 | 315 | 315 | 315 |

| Mobilgrease XHP | 005 | 220 | 221 | 222 | 223 | 222 Special |
|---|--------|--------|--------|--------|--------|---|
| Timken OK Load, ASTM D 2509, lb | 40 | 40 | 40 | 40 | 40 | STM 404040 D 2509, lb |
| Bomb Oxidation, ASTM D 942, Pressure drop at 100 hrs, kPa (psig) | 35 (5) | 35 (5) | 35 (5) | 35 (5) | 35 (5) | ion, 35 35 35 ASTM D (5)(5)(5) 942, Pressure drop at 100 hrs, kPa (psiz) |
| Corrosion Prevention, ASTM D 1743 | Pass | Pass | Pass | Pass | Pass | Pass |
| Rust Protection, IP 220-mod., Distilled Water Washout | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | IP 0,00,00,0 220-mod., Distilled Water Washout |
| Copper Strip Corrosion, ASTM D 4048 | 1B | 1B | 1B | 1B | 1B | 1B |

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

The Mobil logotype, the Pegasus design and Mobilgrease XHP are trademarks of Exxon Mobil Corporation, or one of its subsidiaries.

Mobilgear 600 XP Series

Gear Oil

Product Description

The Mobilgear 600 XP Series are extra high performance gear oils having outstanding extreme pressure characteristics and load-carrying properties, intended for use in all types of enclosed gear drives with circulation or splash lubrication systems. Mobilgear 600 XP Series is designed to stay ahead of the changing needs of gearbox technology. Gearbox technology design trends are towards smaller units with similar power throughput. This increase in power density places increased demands on gear oils. Mobilgear 600 XP Series oils are formulated to meet the stress by providing extra protection for gears, bearings and seals.

Mobilgear 600 XP Series is formulated to protect gear teeth from wear at its earliest stages. Microscopic wear, called micropitting, can lead to significant gear tooth damage. Mobilgear 600 XP Series exceeds the industry requirement for bearing wear protection. In fact, Mobilgear 600 XP Series provides up to 15 times the wear protection as measured by the industry standard FAG FE 8 test. Mobilgear 600 XP Series' balanced formulation is able to provide maximum wear and corrosion protection while maintaining compatibility with common gearbox seal materials. Mobilgear 600 XP helps to maintain gearbox seal integrity thereby preventing oil leaks and keeping contamination out. By protecting the gears, bearings and seals, Mobilgear 600 XP can improve equipment reliability and increase productivity.

Mobilgear 600 XP Series oils are recommended for industrial spur, helical and bevel enclosed gears with circulation or splash lubrication, operating at bulk oil temperatures up to 100°C. They are particularly suitable for gear sets working under heavy or shock loads. Mobilgear 600 XP oils also find broad application in marine gearing applications. They may also be used in non-gear applications include highly loaded and slow speed plain and rolling contact bearings.

Features and Benefits

Mobilgear 600 XP Series products are a leading member of the Mobil brand of industrial lubricants that enjoy a reputation for innovation and high performance capability. These mineral-based products are designed to provide high quality industrial gear oils, meeting the latest industry standards and with high versatility to lubricate a broad range of industrial and marine equipment.

Mobilgear 600 XP Series products offer the following features and potential benefits:

| Features | Advantages and Potential Benefits |
|--|--|
| Enhanced gear wear protection from micropitting | Less gear and bearing wear resulting in less unexpected downtime |
| Reduced debris denting from generated wear particles | Up to 22% improvement in bearing life reducing bearing replacement costs and improving productivity |
| Improved bearing wear protection | Improved bearing life resulting in higher productivity |
| Outstanding compatibility with a range of seal materials | Reduced leakage, oil consumption and contamination ingress helping to reduce maintenance, extend gearbox reliability and higher productivity |



| Features | Advantages and Potential Benefits |
|---|---|
| Excellent resistance to oil oxidation and thermal degradation | Helps extend lubricant life with lower lubricant and lubrication costs and reduced scheduled downtime. |
| High resistance to sludge and deposit formation | Cleaner systems and reduced maintenance |
| Wide range of applications | Fewer grades of lubricant required because of wide range of application, leading to lower purchase and storage costs and less danger of using wrong lubricant |
| Optimised resistance to rust and corrosion of steel and corrosion of copper and soft metal alloys | Excellent protection of machine parts, with reduced maintenance and repair costs |
| Resistance to foaming and emulsion formation | Effective lubrication and problem free operation in the presence of water contamination or in equipment prone to oil foaming |

Applications

Mobilgear 600 XP lubricants are used in a wide range of industrial and marine applications, especially spur, helical, bevel and worm gearing. Specific applications include:

- Industrial gearing for conveyers, agitators, dryers, extruders, fans, mixers, presses, pulpers, pumps (including oil well pumps), screens, extruders and other heavy duty applications
- Marine gearing including main propulsion, centrifuges, deck machinery such as winches, windlasses, cranes, turning gears, pumps, elevators and rudder carriers
- Non-gear applications include shaft couplings, screws and heavily loaded plain and rolling contact bearings operating at slow speeds.

Specifications and Approvals

| Mobilgear 600 XP Series meets or exceeds the following industry specifications: | Mobilgear 600 XP 68 | Mobilgear 600 XP 100 | Mobilgear 600 XP 150 | Mobilgear 600 XP 220 | Mobilgear 600 XP 320 | Mobilgear 600 XP 460 | Mobilgear 600 XP 680 |
|---|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Flender BA 7300 Table A | | Approved | Approved | Approved | Approved | Approved | Approved |
| AGMA 9005-E02 | 2 EP | 3 EP | 4 EP | 5 EP | 6 EP | 7 EP | - |
| DIN 51517 Part 3 | CLP 68 | CLP 100 | CLP 150 | CLP 220 | CLP 320 | CLP 460 | CLP 680 |
| ISO 12925-1 Type | CKD 68 | CKD 100 | CKD 150 | CKD 220 | CKD 320 | CKC 460 | CKC 680 |
| Textron Power Transmission Grade | E2 | E3 | E4 | E5 | E6 | E7 | E8 |
| Mueller Weingarten DT 55 005 | | CLP 100 Approved | CLP 150 Approved | CLP 220 Approved | CLP 320 Approved | CLP 460 Approved | |

Typical Properties

| Mobilgear 600 XP | 68 | 100 | 150 | 220 | 320 | 460 | 680 |
|----------------------------|-----|------|------|------|------|------|------|
| ISO Viscosity Grade | 68 | 100 | 150 | 220 | 320 | 460 | 680 |
| Viscosity, ASTM D 445 | | | | | | | |
| mm ² /s @ 40°C | 68 | 100 | 150 | 220 | 320 | 460 | 680 |
| mm ² /s @ 100°C | 8.8 | 11.2 | 14.7 | 19.0 | 24.1 | 30.6 | 39.2 |

| Mobilgear 600 XP | 68 | 100 | 150 | 220 | 320 | 460 | 680 |
|--|-----------|------------|------------|------------|------------|------------|------------|
| Viscosity Index, ASTM D 2270 | 101 | 97 | 97 | 97 | 97 | 96 | 90 |
| Pour Point, °C, ASTM D 97 | -27 | -24 | -24 | -24 | -24 | -15 | -9 |
| Flash Point, °C, ASTM D 92 | 230 | 230 | 230 | 240 | 240 | 240 | 285 |
| Density @15.6 °C, ASTM D 4052, kg/l | 0.88 | 0.88 | 0.89 | 0.89 | 0.90 | 0.90 | 0.91 |
| FZG Micropitting, FVA 54, Fail Stage / Rating | | 10 / High | 10 / High | 10 / High | 10 / High | 10 / High | 10 / High |
| FE 8 wear test, DIN 51819-3, D7,5/80-80. Roller wear, mg | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Timken OK Load, ASTM D 2782, lb | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| 4-Ball EP test, ASTM D 2783, | | | | | | | |
| Weld Load, kg | 200 | 200 | 250 | 250 | 250 | 250 | 250 |
| Load Wear Index, kgf | 47 | 47 | 47 | 48 | 48 | 48 | 48 |
| FZG Scuffing, Fail Stage | | | | | | | |
| A/8.3/90 | 12+ | 12+ | 12+ | 12+ | 12+ | 12+ | 12+ |
| A/16.6/90 | | 12+ | 12+ | 12+ | 12+ | 12+ | 12+ |
| Rust protection, ASTM D 665, Sea Water | Pass | Pass | Pass | Pass | Pass | Pass | Pass |
| Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100°C | 1B | 1B | 1B | 1B | 1B | 1B | 1B |
| Demulsibility, ASTM D 1401, Time to 3ml emulsion, minutes @ 82°C | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Foam Test, ASTM D 892, Tendency/Stability, ml/ml Sequence 1 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 |
| Sequence 2 | 30/0 | 30/0 | 30/0 | 30/0 | 30/0 | 30/0 | 30/0 |

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application, following the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request through your sales contract office, or via the Internet on <http://www.exxonmobil.com>. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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Mobil DTE Excel Series

Hydraulic Oil

Product Description

Mobil DTE Excel Series oils are supreme performance hydraulic oils developed for use in high-speed, high-pressure piston, vane and gear pumps. They are formulated from high quality base stocks and specially selected super-stabilised additives. Their advanced technology ashless anti-wear additive system was developed to give exceptional corrosion protection for copper-based alloys in severe hydraulic applications such as high-pressure axial piston pumps. This unique additive system also gives the Mobil DTE Excel Series excellent compatibility with coolants used in metal working applications.

The Mobil DTE Excel Series oils exhibit excellent oxidation and thermal stability properties which results in extended oil and filter life while providing optimum equipment protection reducing both maintenance and product disposal costs. They were developed in conjunction with the major OEMs to meet the stringent requirements of severe hydraulic systems using high pressure, high output pumps as well as handling the critical requirements of other hydraulic system components such as close clearance servo-valves and the high accuracy numerically controlled (NC) machine tools. They are designed to work with systems operating under moderate to severe conditions where high levels of anti-wear and film strength protection are needed, yet they are formulated to work where non-anti-wear hydraulic oils are generally recommended.

Features and Benefits

The Mobil DTE Excel Series hydraulic oils exhibit outstanding high temperature performance providing an extra margin of equipment protection. Their excellent oxidation resistance and thermal stability characteristics allow extension of oil and filter change intervals while assuring exceptionally clean systems and trouble-free operation. Their high level of anti-wear properties and excellent film strength characteristics result in exceptional equipment performance that not only results in fewer breakdowns but helps improve production capacity. Their controlled demulsibility permits the oils to work well in systems contaminated with small amounts of water yet readily separate large amounts of water readily.

| Features | Advantages and Potential Benefits |
|--|--|
| Unique Ashless Anti-wear Additives | Reduced wear Improved coolant compatibility Protects systems using various metallurgy |
| Outstanding Thermal and Oxidation Stability | Provides long oil and equipment life Reduced deposits and sludge formation Extends filter life |
| Excellent Corrosion Protection | Prevents internal hydraulic system corrosion Reduces negative effects of moisture in systems Provides corrosion protection of multi-metallurgy component designs |
| Very Good Multi-metal Compatibility | Assures excellent performance of various components Reduces requirements for additional products |
| Meets a Wide Range of Equipment Requirements | One product can replace several Minimises inventory requirements Reduced potential for product misapplication |



| Features | Advantages and Potential Benefits |
|--------------------------------|--|
| Controlled Demulsibility | Protects systems where small quantities of moisture are present Readily separates larger quantities of water |
| Very Good Coolant Separability | Improved coolant batch life Reduced maintenance costs |

Applications

- Hydraulic systems critical to deposit build-up such as sophisticated Numerically Controlled (NC) machines, particularly where close clearance servo-valves are used
- Systems employing multi-metal designs in pumps and other system components
- Applications where cross-contamination of hydraulic fluids and coolants can occur
- High pressure vane, piston and gear pumps
- Systems where very high operating temperatures are typical
- Where small amounts of water are unavoidable
- In systems containing gears and bearings
- Systems requiring a high degree of load-carrying capability and anti-wear protection
- Applications where thin oil-film corrosion protection is an asset such as in systems containing moisture

Specifications and Approvals

| Mobil DTE Excel Series meets the following industry specifications | 32 | 46 | 68 | 100 |
|--|----|----|----|-----|
| DIN 51524 Part 2 (2006) | X | X | X | X |
| ISO 11158 L-HM (2006) | X | X | X | X |

| Mobil DTE Excel Series has the following builder approvals: | 22 | 32 | 46 | 68 | 100 |
|---|----|----|----|----|-----|
| Cincinnati Machine | | | | | |
| P-68 | | X | | | |
| P-69 | | | | X | |
| P-70 | | | X | | |
| Denison HF-0 | | X | X | X | |
| Vickers I-286-S | | X | X | X | |
| Vickers M-2950-S | | X | X | X | |

Typical Properties

| Mobil DTE Excel Series | 22 | 32 | 46 | 68 | 100 |
|----------------------------------|--------|--------|--------|--------|--------|
| ISO Viscosity Grade | 22 | 32 | 46 | 68 | 100 |
| Viscosity, ASTM D 445 | | | | | |
| cSt @ 40° C | 22.0 | 32.0 | 46.0 | 68.0 | 100.0 |
| cSt @ 100° C | 4.09 | 5.4 | 6.7 | 8.5 | 11.10 |
| Viscosity Index, ASTM D 2270 | 97 | 97 | 97 | 97 | 97 |
| Density 15° C, ASTM D 4052, kg/L | 0.8705 | 0.8725 | 0.8765 | 0.8825 | 0.8845 |



| Mobil DTE Excel Series | 22 | 32 | 46 | 68 | 100 |
|--|-----------|-----------|-----------|-----------|------------|
| Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100° C | 1A | 1A | 1A | 1A | 1A |
| Rust Characteristics, ASTM D 665A | Pass | Pass | Pass | Pass | Pass |
| FZG Gear Test, DIN 51534, Fail Stage | - | 12 | 12 | 12 | 12 |
| Pour Point, °C, ASTM D 97 | -33 | -33 | -33 | -33 | -24 |
| Flash Point, °C, ASTM D 92 | 212 | 222 | 226 | 236 | 230 |
| Foam Sequence I, II, III, ASTM D 892 , ml | 20/0 | 20/0 | 20/0 | 20/0 | 20/0 |

Health and Safety

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Mobil DTE Oil Named Series

Premium Performance Circulating Lubricants

Product Description

The Mobil DTE Oil Named Series of lubricants are premium performance circulating lubricants designed for applications including steam and hydro turbine sets and other systems where long lubricant service life is required. Mobil DTE Oil Named Series lubricants are formulated from highly refined base stocks and an additive system which provide an extremely high level of chemical and thermal stability, rapid and complete separation from water and a high resistance to emulsification. They provide excellent protection against rust and corrosion, including resistance to salt water, and good antiwear properties. They have a high viscosity index which ensures minimum variation of film thickness with temperature and minimum power loss during the warm up period. These grades have excellent air release properties which allow entrained air to separate, thus avoiding pump cavitation and erratic operation.

Mobil DTE Oil Named are the lubricants of choice for many users because of their reputation for long life, excellent equipment protection and outstanding versatility in the wide variety of industrial applications. DTE Oil Named lubricants are used widely in steam turbines and hydroturbines with splash, bath and ring-oiling arrangements, and all other continuous circulation methods involving pumps, valves and ancillary equipment. This product series is recommended for continuous service in the lubrication of plain and rolling bearings and parallel shaft gearing. They have also been used successfully in rotary air compressor applications and reciprocating natural gas compressors as well as vacuum pumps. Their reputation is based on many decades of successful service and satisfied users.

Features and Benefits

The Mobil DTE family of products is well known and highly regarded worldwide based on their outstanding performance and the RandD expertise and the global technical support which stand behind the brand. The highly versatile performance of Mobil DTE Oil Named oils has made them the oil of choice for a multitude of industrial equipment applications around the world.

Mobil DTE Named oils enjoy an excellent reputation in the lubrication of the circulation systems of steam turbines and hydro turbines, including geared turbines, plus a wide

variety of ancillary equipment. As designs change and increase in severity, it is the challenge of our formulation scientists to understand the effect of these changes on the lubricant and to formulate these products for the broad versatility they are recognised for.

For the Mobil DTE Oil Named Series of lubricants, this process has resulted in the use of special base stocks for outstanding oxidation stability, plus a unique additive combination to ensure the excellent, wide-ranging performance of these oils. A review of the features, advantages and potential benefits of the product are shown below.

| Features | Advantages and Potential Benefits |
|---|---|
| Very high level of chemical and thermal stability and resistance to sludging and varnishing | Long oil charge life in circulation systems and reduced oil replacement costs |
| Excellent water release properties | Less unplanned downtime and reduced maintenance costs |
| Very good antiwear protection | Improved operating efficiency |
| Long term protection against rust and corrosion | Longer equipment life, reduced maintenance and downtime |
| High resistance to foaming and excellent air release | Longer equipment life, reduced maintenance and downtime |
| Highly versatile - multiple applications | Avoids pump cavitation, noisy and erratic operation |
| | Rationalize inventory, reduced inventory costs |

Applications

The Mobil DTE Oil Named Series of lubricants are premium performance circulating lubricants designed for applications where long lubricant service life is required. Specific applications include:

- Land-based and marine steam turbine, hydro turbine and some gas turbine circulation systems, including pumps, valves and other ancillary equipment
- Continuous service in plain and roller bearings and parallel shaft gearing
- Turbines with oil supplied by splash, bath, ring oiling or other mechanical means
- Moderate severity hydraulic pumps
- Compressors and vacuum pumps handling air, natural gas, and inert gases, and with discharge temperatures not exceeding 150C

Specifications and Approvals

| Mobil DTE Named Series meets or exceeds the requirements of: | Mobil DTE Light | Mobil DTE Medium | Mobil DTE Heavy Medium | Mobil DTE Heavy |
|--|-----------------|------------------|------------------------|-----------------|
| DIN 51515-1 L-TD (2001) | X | X | X | X |
| DIN 51517 CL (1989) | X | X | X | X |
| GE GEK 46506D | X | | | |
| GE GEK 27070 | X | | | |
| GE GEK 28143A | X | X | | |

| According to ExxonMobil, Mobil DTE Named Series is of the following quality level: | Mobil DTE Light | Mobil DTE Medium | Mobil DTE Heavy Medium | Mobil DTE Heavy |
|--|-----------------|------------------|------------------------|-----------------|
| DIN 51524 HL (1985) | X | X | X | X |

Typical Properties

| Mobil DTE Named Series | Mobil DTE Light | Mobil DTE Medium | Mobil DTE Heavy Medium | Mobil DTE Heavy |
|--|-----------------|------------------|------------------------|-----------------|
| ISO Viscosity Grade | 32 | 46 | 68 | 100 |
| Viscosity, ASTM D 445 | | | | |
| cSt @ 40° C | 31.0 | 44.5 | 65.1 | 95.1 |
| cSt @ 100° C | 5.5 | 6.9 | 8.7 | 10.9 |
| Viscosity Index, ASTM D 2270 | 102 | 98 | 95 | 92 |
| Pour Point, °C, ASTM D 97 | -18 | -15 | -15 | -15 |
| Flash Point, °C, ASTM D 92 | 218 | 221 | 223 | 237 |
| Density @15° C kg/l, ASTM D 4052 | 0.85 | 0.86 | 0.87 | 0.88 |
| TOST, ASTM D 943, Hours to 2 NN | 5000 | 4500 | 3500 | 2800 |
| FZG Scuffing, D51354, Fail Stage | 8 | 9 | 10 | 10 |
| Rust Prevention, ASTM D 665: | | | | |
| Distilled Water | Pass | Pass | Pass | Pass |
| Sea Water | Pass | Pass | Pass | Pass |
| Water Seperability, ASTM D 1401,Min. to 3 ml emulsion @15 54°C | | 15 | 20 | 30 |

| Mobil DTE Named Series | Mobil DTE Light | Mobil DTE Medium | Mobil DTE Heavy Medium | Mobil DTE Heavy |
|---|-----------------------|------------------------|---------------------------------|-----------------------|
| Copper Strip Corrosion, ASTM D 130, 3 hrs @ 121° C | 1B | 1B | 1B | 1B |
| Foam Test, ASTM D 892, Seq I Tendency/stability, ml/ml | 20/0 | 50/0 | 50/0 | 50/0 |
| Air Release, ASTM D 3427, 50° C, min. | 2 | 3 | 4 | 8 |

Health and Safety

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