

BID ISSUED TO:



**Jefferson  
Parish**

**Bid Number 50-00140562**

**One Time Purchase of a Portable Pump for the  
Department of Sewerage**

**Bid Due: January 5, 2022 AT 2:00 PM**

**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](http://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: Mark Buttery**

**Buyer Email: [MButtery@jeffparish.net](mailto:MButtery@jeffparish.net)**

**Buyer Phone: 504-364-2810**

FROM: INDUSTRIAL EQPT. SALES & SERVICE CO.  
P.O. BOX 73424  
METAIRIE, LA 70033  
RAYMOND ARCHAMBAULT  
TEL: (504) 454-0991

*Raymond J. Archambault*



**SPECIFICATIONS**  
**4 INCH PORTABLE PUMP**  
**JEFFERSON PARISH**  
**DEPARTMENT OF SEWERAGE**  
**BRIDGE CITY WASTEWATER TREATMENT PLANT**

• **GENERAL:**

- Vendor shall furnish one (1) Amco Pump Manufacturing, Inc. Model No. APCD10044T 4x4 Auto Prime Trailer Mounted pump, or approved equal. The pump shall be supplied by the factory authorized pump agent for Jefferson Parish, Louisiana, or for the brand they are bidding. Any bids submitted for other pump manufacturers must include in their bid all information needed to fully demonstrate complete compliance with the requirements of these specifications. It will be the bidder's responsibility to provide adequate information necessary for complete evaluation of their proposed equipment. Jefferson Parish shall be the sole judge as to the equality of the alternate manufacturer's offering. Jefferson Parish reserves the right to cancel any bids that are incomplete or do not demonstrate that they are equal to the requirement of these specifications.

• **GENERAL DESCRIPTION:**

- The unit shall be a 4x4 trailer mounted pump, with 4-inch flanged suction/discharge.
- Max flow 1010 GPM, max head 125 feet.
- 1.75-inch solids
- Oil bath Mechanical Seal
- Run/Dry Indefinitely
- 49 HP Perkins, Tier 4 Engine

• **Trailer:**

- Single Removable Axial with Leaf spring Suspension
- Lashing Rings
- "On-top" Wind Swivel
- 15-inch Retractable Height Tongue
- Mounted Jack Stand
- Two (2) front & Rear Stabilizing Stands
- Two (2) 15-inch Tires
- DOT Light Package, Including Stop/Turn, Tail and Side Marker, Lights and License Bracket included.



**SERVICE:**

- The pump vendor shall have an authorized factory service center capable of completely servicing the proposed pump within one (1) hour travel time of the project site. The pump vendor shall have a direct factory service center/stocking facility capable of completely servicing and spare parts for the proposed pump, within one (1) hour travel time of project site.

- **WARRANTY:**

- The manufacturer of the pump shall warrant for a period of one (1) year from the date of shipment, that the entire pump shall be free from defects in design, material, and workmanship.



DATE: 12/07/2022  
BID NO.: 50-00140562

INVITATION TO BID  
THIS IS NOT AN ORDER

Page: 1

## JEFFERSON PARISH

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

BUYER: MBUTTERY@jeffparish.net

BIDS WILL BE RECEIVED ONLINE VIA [WWW.JEFFPARISHBIDS.NET](http://WWW.JEFFPARISHBIDS.NET) UNTIL 2:00 PM, 1/05/2023 AND PUBLICLY OPENED THEREAFTER IN THE WEST BANK PURCHASING DEPT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETN, LA 70053. At no charge, bidders are to submit via Jefferson Parish's electronic procurement page by visiting [www.jeffparishbids.net](http://www.jeffparishbids.net) to register for this free site. Additional instructions are included in the text box highlighting electronic procurement.

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. 9:2620(8) ARE ACCEPTABLE. SIGNATURE MUST BE A SECURED DIGITAL SIGNATURE.

### INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

#### THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS

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.

Jefferson Parish adheres to the Louisiana Code of Governmental Ethics, contained in Louisiana Revised Statutes Annotated, R.S. 42:1101, et seq. Vendor/Proposer by this submission, warrants that there are no "conflicts of interest" related to this procurement that would violate applicable Louisiana Law. Violation of the Louisiana Code of Governmental Ethics may result in rescission of contract, permit or licenses, and the imposition of fines and/or penalties, without contractual liability to the public in accordance with applicable law.

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.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

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.

Bidders should submit all questions in writing via email to the buyer's email address as indicated above, no later than Five (5) working days prior to the bid opening. Bid numbers should be mentioned in all requests. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

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. Please note that all official communication will be expressed in the form of an addendum.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)



All formal Addenda require written acknowledgement 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.

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. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

A corporate resolution or written evidence of the individual signing the bid having such authority must be submitted with the bid. Failure to comply will cause bid to be rejected. For corporate entities, such written evidence may be a printout of the Louisiana Secretary of State's website listing the signatory as an officer. Such printout shall be included with the bid submission. Bids submitted by Owners or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. This documentation must be submitted with the bid. Failure to do so will result in bid rejection.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

### INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: 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. SPLIT AWARDS MADE TO SEVERAL VENDORS WILL ONLY BE GRANTED TO THOSE DEEMED RESPONSIVE AND RESPONSIBLE.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

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.)

PREFERENCE: Unless federal funding is directly spent by Jefferson Parish for this purchase, preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA - R.S. 38:2251-2261"

B. 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.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part 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 any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: 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.

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 A17.1-1961).



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.

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

**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](http://www.jeffparishbids.net) to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 as amended. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy 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 <http://purchasing.jeffparish.net> and clicking on Online Forms.

**ADDITIONAL REQUIREMENTS FOR THIS BID**

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

13,15

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(I), 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.



**INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS**

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.
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 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. 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 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 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.



## INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

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.

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 JPCO 2-155.10(19). By signing this document, every corporation, partnership, or person contracting with PARISH, whether by cooperative endeavor, intergovernmental agreement, bid, proposal, application or solicitation for a parish contract, and every application for certification of eligibility for a parish contract or program, attests that it understands and will abide by all provisions of JPCO 2-155.10.



DATE: 12/07/2022

Page: 6

BID NO.: 50-00140562

## BID FORM

Non Public Works

All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES \_\_\_\_\_ NO XX

MAXIMUM ESCALATION PERCENTAGE REQUESTED N/A %

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF Feb. 5, 2023

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

### DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

6-8 wks ARO

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

N/A

### THIS SECTION MUST BE COMPLETED BY BIDDER:

FIRM NAME: Industrial Eqpt. Sales & Service Co., Inc.

ADDRESS: P.O. Box 73424

CITY, STATE: Metairie, LA

ZIP: 70033

TELEPHONE: (504) 454-0991

FAX: (504) 885-0478

EMAIL ADDRESS: iesscol@att.net

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: none

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

TOTAL PRICE OF ALL BID ITEMS: \$ 36,300.00

AUTHORIZED

SIGNATURE: Raymond J. Archambault

Raymond J. Archambault

Printed Name

TITLE: President

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.



DATE: 12/07/2022

## INVITATION TO BID FROM JEFFERSON PARISH - continued

Page 7

BID NO.: 50-00140562

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	1.00	EA	<p>One Time Purchase of a Portable Pump for the Department of Sewerage</p> <p>0010 - 4x4 Auto Prime Trailer Mounted Pump Package, 4 inch Flanged Suction/ Discharge. Max Flow 1010 GPM, Max Head 125 foot, 1.75 inch Solids Oil Bath Mechanical Seal, Run/Dry Indefinitely. 49 HP Perkins, Tier 4 Engine, Trailer: Single Removable Axle with Leaf Spring Suspension, Lashing Rings, On-Top Wind Swivel, 15 inch Retractable height Tongue, Mounted Jack Stand, Two (2) Front and Rear Stabilizing Stands, Two (2), 15 inch Tires. DOT Light Package, Including Stop/Turn, Tail and Side Marker, Lights and License Bracket all included, Item No. APCD10044T01DE for the Bridge City Wastewater Treatment Plant</p> <p>We attach a copy of the AMCO pump specs on complete description and source of evaluation as to design package besides what is being required for any mfg. equivalency for bidding this project to AMCO Pump spec. Supporting data also included as complete data on this pump package offering.</p>	\$36,300.00	\$36,300.00



## **Non-Public Works Bid Affidavit Instructions**

- Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and parish laws.
- Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.
- Affidavit must be notarized or the affidavit will not be accepted.
- Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.
- Affiant **MUST** select either A or B when required or the affidavit will not be accepted.
- Affiants who select choice A must include an attachment or the affidavit will not be accepted.
- If both choice A and B are selected, the affidavit will not be accepted.
- Affidavit marked N/A will not be accepted.
- It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the council acts on the matter.

*Instruction sheet may be omitted when submitting the affidavit*



**Non-Public Works Bid**

**AFFIDAVIT**

STATE OF Louisiana

PARISH/COUNTY OF Jefferson

BEFORE ME, the undersigned authority, personally came and appeared: Raymond J. Archambault, (Affiant) who after being by me duly sworn, deposed and said that he/she is the fully authorized representative of Industrial Eqpt. (Entity), the party who submitted a bid in response to Bid Number 50-00140562 the Parish of Jefferson.

Affiant further said:

Campaign Contribution Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

Choice A           

Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B ✓

there are **NO** campaign contributions made which would require disclosure under Choice A of this section.



Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A \_\_\_\_\_ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B ✓ \_\_\_\_\_ There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

*[The remainder of this page is intentionally left blank.]*



That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

*Raymond J. Archambault*

Signature of Affiant

Raymond J. Archambault

Printed Name of Affiant

LA 061 332 3502

SWORN AND SUBSCRIBED TO BEFORE ME

ON THE 28th DAY OF December, 2022

Notary Public

*James M. McCaffery*

Printed Name of Notary

17310

Notary/Bar Roll Number

My commission expires

*at Death*



JAMES M. MCCAFFERY  
ATTORNEY / NOTARY PUBLIC  
STATE OF LOUISIANA  
LA. BAR NO. 17310  
LIFETIME COMMISSION

CLEARVIEW AUTO TITLE AND NOTARY  
2122 Clearview Pkwy.  
Metairie, LA 70001  
504-885-4444



## CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF  
Industrial Eqpt. Sales & Service Co.  
INCORPORATED.

AT THE MEETING OF DIRECTORS OF Industrial Eqpt. Sales and Service Co.  
INCORPORATED, DULY NOTICED AND HELD ON December 28, 2022,  
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT  
WAS:

RESOLVED THAT Raymond J. Archambault, BE AND IS HEREBY  
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-  
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON  
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS  
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,  
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE  
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,  
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES  
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS  
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING  
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-  
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE  
A TRUE AND CORRECT COPY OF AN  
EXCERPT OF THE MINUTES OF THE ABOVE  
DATED MEETING OF THE BOARD OF  
DIRECTORS OF SAID CORPORATION, AND  
THE SAME HAS NOT BEEN REVOKED OR  
RESCINDED.

Gabriele Archambault  
SECRETARY-TREASURER

December 28, 2022

DATE



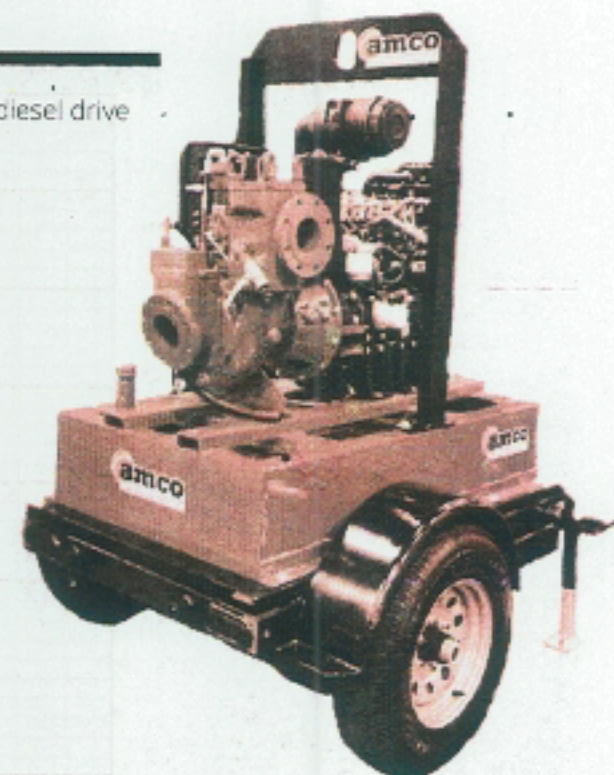
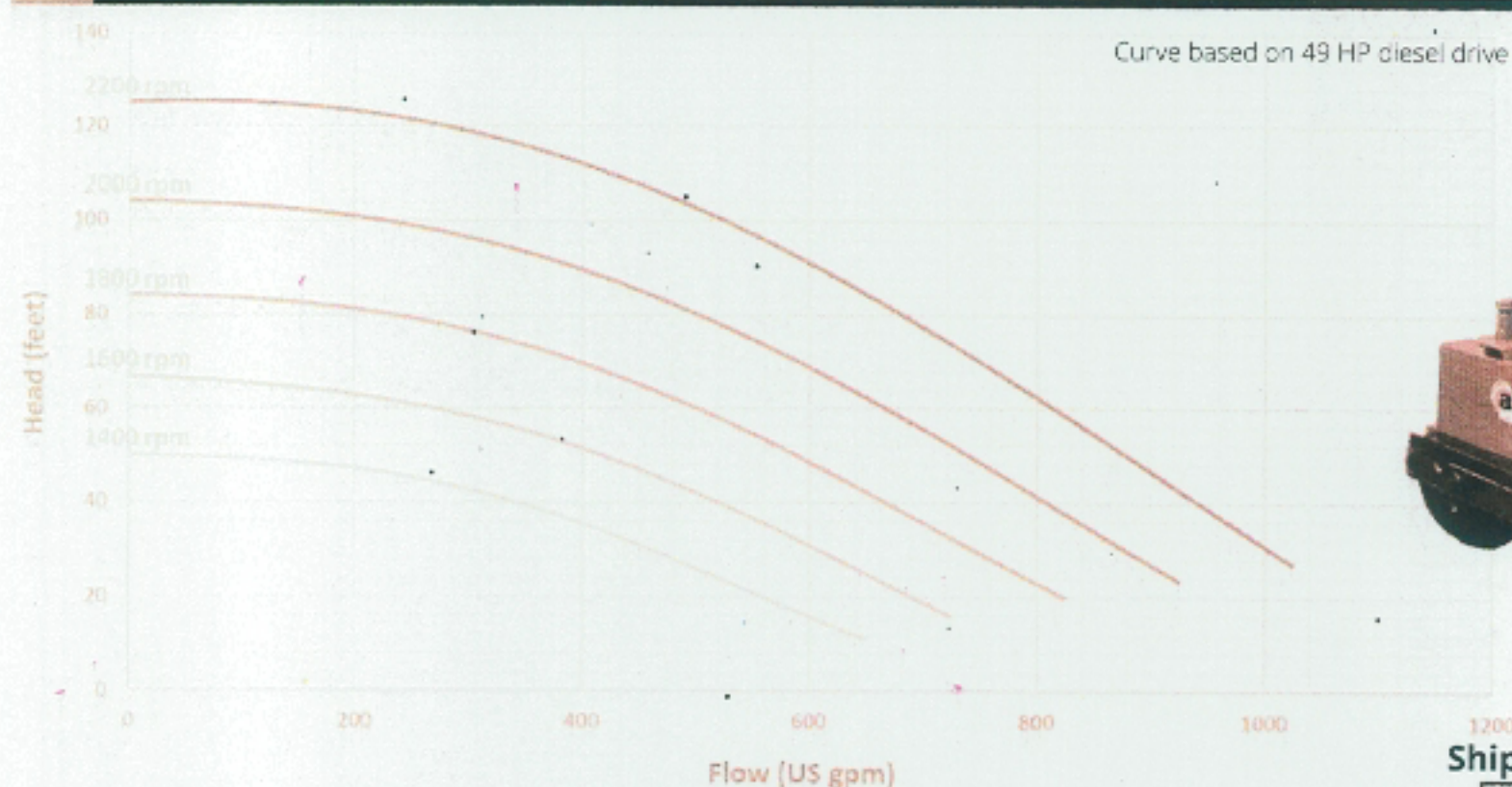


# APCD100 Data Sheet

## 4" x 4" Auto Prime Pump

Pump and parts 100% interchangeable with the Godwin CD Series®

### Performance Curve



### Shipping Weights & Dimensions

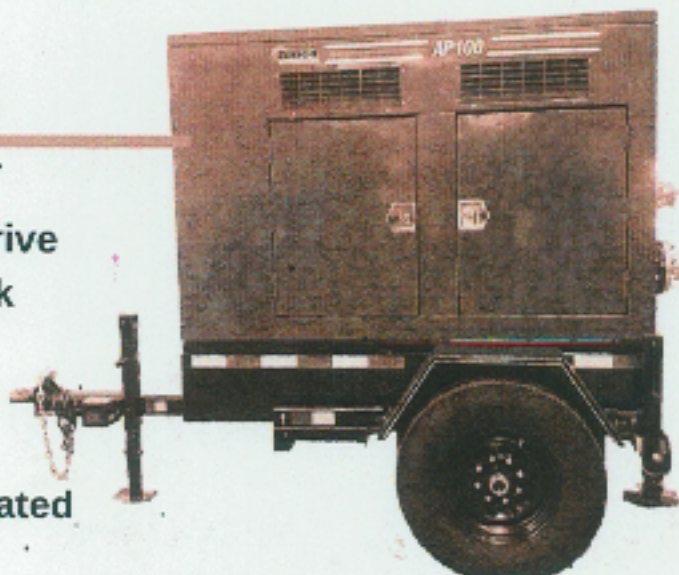
Open Unit on Trailer	85" H x 68" W x 129" L 3200 lbs
Enclosed Unit on Trailer	90" H x 68" W x 135" L 4000 lbs

### General Specifications

Suction Connection	4 in (100 mm) Flange
Delivery Connection	4 in (100 mm) Flange
Max Flow	1010 USGPM (65 L/s)*
Max Head	125 ft (38m)
Max Solids Handling	1 3/4 in (45 mm)
Fuel Capacity	100 US Gal (416 L)
Impeller Diameter	9.1 in (230 mm)

### Configurations

- Diesel or Electric Drive
- Integrated Fuel Tank
- Skid Mount
- DOT Trailer
- Quiet Pack  
sound attenuation rated  
69 dBA at 30'



### Features

- Automatically primes up to 28 ft (8.5 m) of suction lift from dry
- Liquid bath mechanical seal design  
extended dry-running time
- Durably constructed using Cast Iron, Steel and CDM4CU material
- Suitable for many applications. Industries we serve include:



### Contact Us

- 713-690-7575
- sales@amcopumps.com
- www.amcopumps.com
- 4849 Cranswick Rd.
- Houston TX 77041

**Quality Pumps, For Less!!**

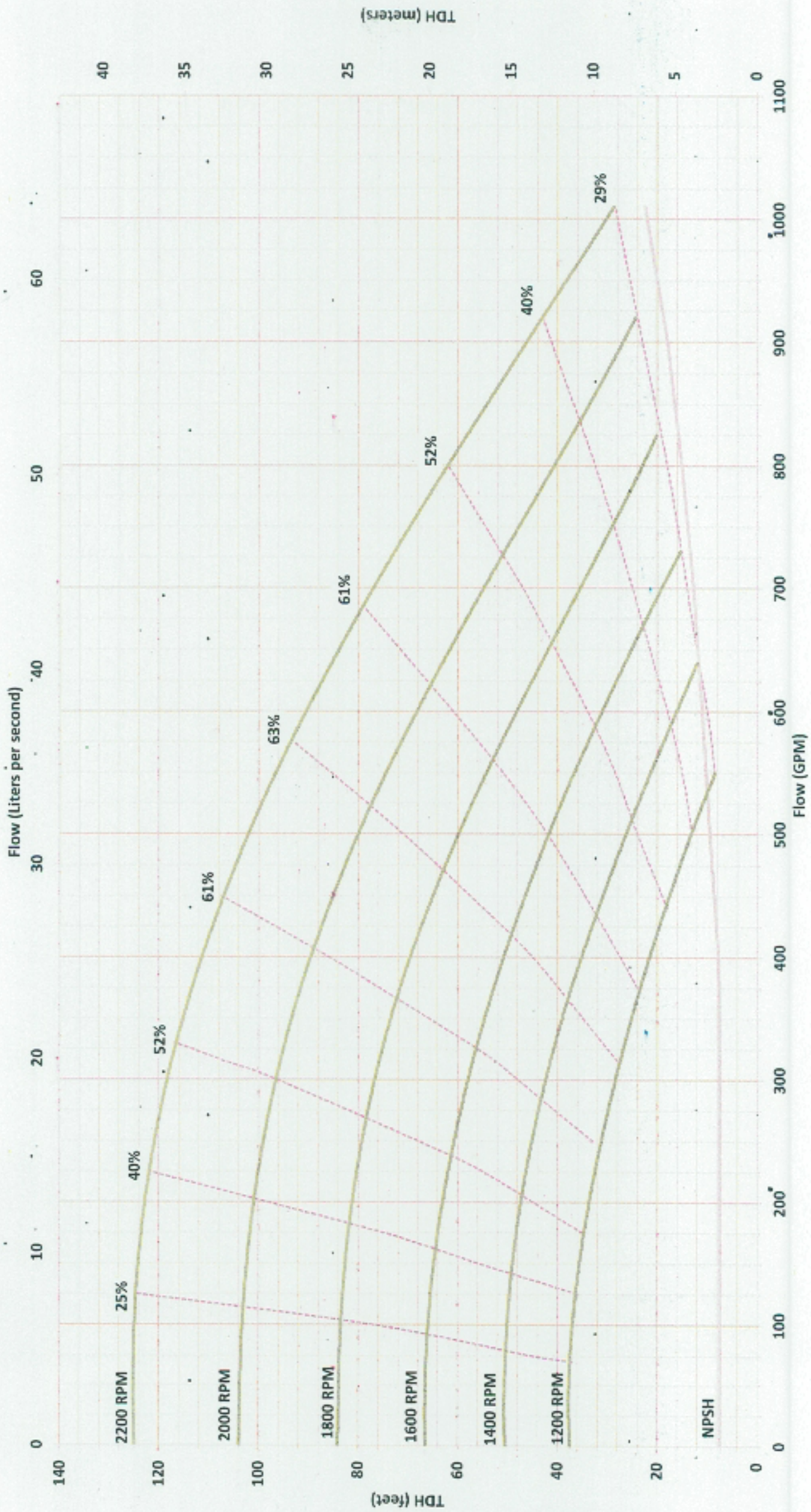




PUMP MANUFACTURING, INC.

### APCD100 Performance Curve

Model  
SIZE  
APCD100  
4" X 4" IMP. DIA. 9.1"







## STANDARD ONE YEAR MANUFACTURER LIMITED WARRANTY

**1 Year / 1000 Hours**

Customer Name \_\_\_\_\_  
\_\_\_\_\_  
SOA # \_\_\_\_\_  
Product Description \_\_\_\_\_  
Serial Number \_\_\_\_\_

AMCO Pump Manufacturing, Inc., the Company, warrants this equipment to be free from defects of material and workmanship for a period of one (1) year and/or 1000 Hours from the In Service date.

### Terms and Conditions

Subject to the Terms and Conditions hereinafter set forth, Amco Pump Manufacturing warrants products and parts sold, insofar as they are of its own manufacture, under normal commercial use and conditions. The Customer must give immediate written notice, with the serial number of the product and a complete description of the issue. The Company may at its own discretion elect to repair or replace equipment under warranty.

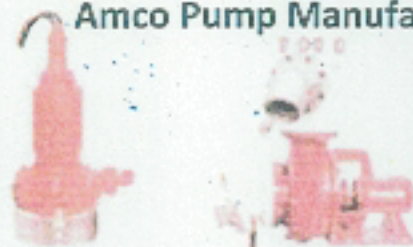
### Limitations

The Company will not assume responsibility if a product is damaged by misuse or lack of maintenance, nor if an issue is the result of normal wear and tear. The product warranty becomes null and void if a company disassembles the product without manufacturer's consent. Associated installation and transportation costs are the customer's responsibility. The Company will not assume responsibility for the warranty on any product purchased from third-party manufacturers, as their own warranty will apply.

\_\_\_\_\_  
Farouk Saleh, Owner

\_\_\_\_\_  
Date

Amco Pump Manufacturing, Inc.



4849 Cranswick Rd. • Houston, TX 77041 USA

Office: 713. 690.7575 / fax: 713. 896.9009

[www.amcopumps.com](http://www.amcopumps.com)



*A Better Pump for...Less!!!*



## Technical specifications for 4" x 4" Auto Priming Pump, Trailer Mounted

### Pump Specifications

- Casing, Suction Cover, Separation Tank
  1. Pump castings is cast iron.
  2. Pump design is incorporate a direct suction flow path that is in axial alignment with the impeller eye. There are no turns, chambers, or valves between the suction flange and the impeller eye.
- Impeller
  1. The pump impeller is an open, three-bladed type with pump-out vanes on the back shroud and fabricated from hardened cast steel (minimum Brinell Hardness 200 HB).
- Wear Plates
  1. Fully adjustable and replaceable, fabricated of cast iron.
  2. Wear plate clearances have no relationship to the ability of the pump to achieve a prime.
- Bearings and Shafts
  1. Pump is fitted with a bearing bracket to contain the shaft and bearings.
  3. Bearings are tapered roller bearings of adequate size to withstand imposed loads for sustained pumping at maximum duty points.
  4. Minimum ISO L10 bearing life to be 100,000 hours.
- Seals
  1. Seal is a high pressure, mechanical self-adjusting type with silicon carbide faces capable of withstanding suction pressures to 87 psi.
  2. The mechanical seal is cooled and lubricated in a liquid bath reservoir, requiring no maintenance or adjustment.
  3. Pump is capable of running dry, with no damage, for periods up to twenty-four hours.
  4. All metal parts are stainless steel.
  5. Elastomers are Viton.
- Pump Suction and Discharge Flanges
  1. Made of iron ANSI (B16.5) Class 150.
- Pump Gaskets
  1. Made of compressed fiber and/or Teflon.
- Pump O-Rings
  1. Buna-N
- Priming System
  1. Pump is fitted with a fully automatic priming system incorporating an air compressor and air ejector assembly.
  2. The compressor is gear driven, self-lubricated, and cooled.
  3. The priming system requires no fail-safe protection float gear or any adjusting at high or low suction lifts.
  4. The pump is capable of running totally dry for periods up to 24 hours, then re-



- priming and returning to normal pumping volumes.
  - 5. Pump and priming system are capable of priming the pump from a completely dry pump casing. It shall also be capable of operation using extended suction lines.
  - 6. Equipment acceptance shall be contingent upon the pump's ability to run continuously at full speed in a completely dry condition for an extended period of time. The Engineer may require a demonstration.
- Drive Unit
  - 1. The drive unit is a diesel water-cooled engine.
  - 2. The engine drives the pump by use of a direct connected intermediate drive plate.
  - 3. Starter shall be 12 VDC.
  - 4. A control panel consisting of a low oil pressure safety shutdown, high temperature shutdown, tachometer, and hour-meter is integrated into the engine control panel. Unit shall include a tachometer and an hour meter.
  - 5. Safety shut down switches for low oil pressure and high temperature are integral to the engine control panel.
  - 6. Engines meets current EPA emissions standards for off road diesel engines.
- Engine Control Panel
  - 1. Engine speed is adjustable to operate the pump between maximum and minimum design operation speeds in manual mode.
- Fuel Source
  - 1. Integral skid fuel tank capacity shall be a minimum of 100 gallons.
- Exhaust
  - 1. Exhaust system includes a critical grade silencer.
- Pump Base Tank
  - 1. The pump and engine shall be skid mounted with an integral fuel tank. The fuel tank shall be equipped with drain plugs. The tank assembly is to be painted with an epoxy ester primer and high-quality polyurethane enamel with total paint thickness of 3.5 mils.
- Trailer:
  - 1. The pump, and engine shall be trailer mounted with a pintle type trailer hitch. Tires and suspension shall be adequately sized for the required load range ratings. Trailers shall be equipped with, front and rear support stands, lifting bar, safety chains, side and rear reflectors and an electric braking system. Trailer design shall be in compliance with applicable D.O.T. regulations.
- Factory Painting
  - 1. Pump, engine, and base shall be shop primed and finish painted at the place of manufacturer. Materials and dry film thickness for priming and finish paint shall be in accordance with manufacturer's standards.
- Controls
  - 1. The engine shall be started, stopped, and controlled by a digital Controller as supplied by the pump supplier.
  - 2. The Controller shall be weatherproof contain an accessible 12-position keypad.
  - 3. The Controller shall be designed to start/stop the engine at a signal supplied



by high-and low-level floats or a 4-20 mA transducer. The Control Panel shall provide the following functions without modification, factory recalibration, or change of chips or boards by simply accessing the keypad.

4. The keypad shall be a membrane keypad with stainless steel embossed domes. This provides higher reliability than capacitive touch-sensing systems. No mechanical switches will be acceptable. The keypad shall operate in extreme temperatures, through ice, snow, mud, grease, etc. and maintain complete weather-tight sealing.
5. During periods of inactivity the unit shall conserve energy and go to "sleep" (40mA parasitic battery draw).
6. The Controller shall function interchangeably from float switches, pressure switch, or transducer, as well as manual start/stop by selection at the keypad. No other equipment or hardware changes are required.
7. The Controller shall be capable of varying the engine speed to maintain a constant level in a process without a change to the panel other than via the keypad.
8. The Controller can be programmed to start and stop the pump set up to three times daily or three times a week (i.e. a start, exercise cycle on three separate times for a varying length of time all via the keypad).
9. In Manual Mode, the "Start" button starts the engine and runs until "Stop" is pressed or an emergency shutdown occurs.
10. In Automatic Mode, start/stop sequencing is initiated by either one (1) high-level N/O and one (1) low-level N/C narrow angler float switches, a 4-20mA transducer, a signal from a digital input, or a single analog 4-20mA speed reference.
11. The Controller shall integrate the engine safety shut-off for low-oil pressure and high-temperature and provide over-speed protection.
12. The Controller shall include standard, field-adjustable parameters for engine cycle crank timer, shutdown time delay, warm-up time delay, and cool-down time delay.
13. Standard components shall consist of (12) digital inputs, (11) analog inputs, magnetic pick-up input, (12) relay outputs, (1) RS485 port, (1) J1939 port, and (1) 3.12in OLED graphical display (no backlight required, better temperature rating and readability than lcd), (1) 12 position keypad, (4) LED lamps for visual indication of shutdown (red), warning (amber), regenerative action (green), and low DEF fluid (blue).
14. The industrially hardened Controller shall withstand vibration of 3g, 3 axis, frequency swept 5-2000 Hz, in an operating temperature range of -40° to 185°F (-40° to 85°C) and an operating humidity range of 0-70% non- condensing at 85°C.

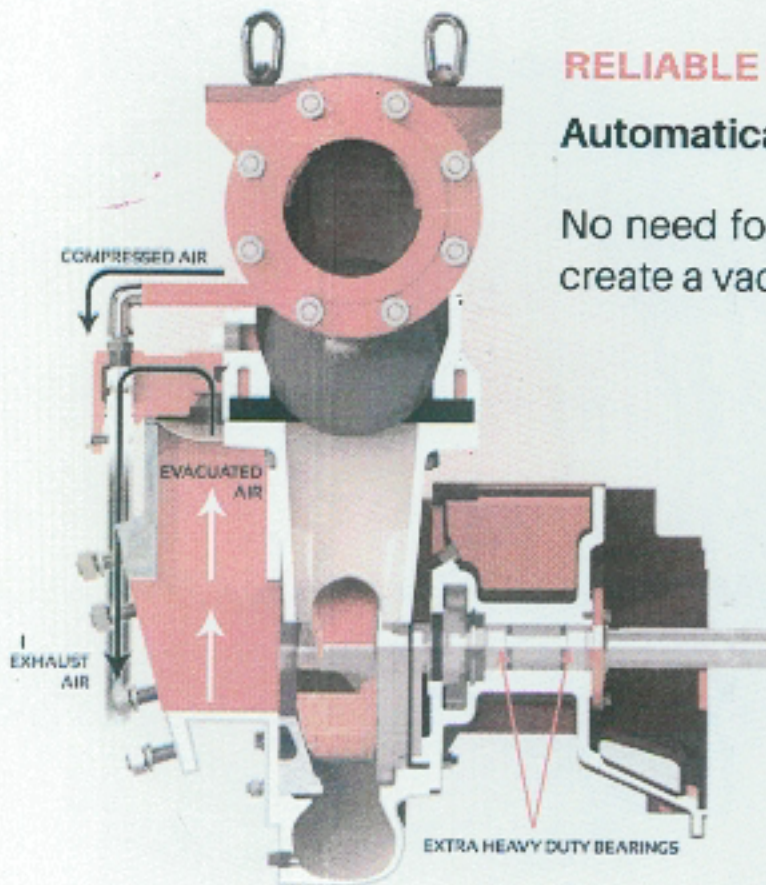
## WARRANTY

The manufacturer shall furnish the following to the City:

- A copy of the engine manufacturer's parts and labor warranty.
- A one-year Parts and Labor Warranty issued by the manufacturer on the Pump System. This warranty covers all pump parts, including the mechanical seal.



# Auto-Prime Pump Features



**Take a Closer Look!**

## RELIABLE SYSTEM

**Automatically self-primes from dry.**

No need for operator assistance; Amco auto-prime pumps use a venturi system to create a vacuum that accomplishes up to 28' suction lift and is able to re-prime.

## RELIABLE ACTION

**Keep your operation running smoothly.**

Seals in dry-run pumps often over-heat and fail. Our pumps are able to dry-run indefinitely because the mechanical shaft seal runs in a liquid oil bath. It also features silicon carbide faces, which are highly resistant to abrasion.

Furthermore, equipped with diesel engines, our pumps can run overnight without needing to refuel. Our open impeller design reduces risk of clogging and stoppages and the ductile iron build offers excellent durability.

## ABLE TO OPERATE REMOTELY

**Versatile options, to suit your needs.**

Equipped with diesel engines, our pumps can run in any location, no matter how remote. Skid-mounted pumps are designed with forklift slots for convenient handling. Trailer-mounted pumps are built for safe highway transportation.

Amco partnered with The Smart Pumper to fit our pumps with a control panel that can monitor and remotely control operations. Various other control panels are also available upon request.



## ABLE TO OPERATE QUIETLY

**Sound-sensitive operation?... Amco has you covered.**

Amco AP Series pumps can be fitted with critically-silenced enclosures and are therefore ideal for use in any application where pumping is required but sound levels must be kept to a minimum. Our enclosures will silence to approximately 69 dBA at 30 ft. Each unit is lined with 2" layers of acoustical sound-deadening material.

For ease of use, the doors are hinged, lockable, and provide convenient access to operating controls and service locations. A lifting bar in the center allows for easy installation of the enclosure. The entire skid-mounted unit may be unbolted and removed from the trailer.





## Who are we?

**amco pumps** is a Houston, U.S.A.-based manufacturer of high quality portable water pumps and parts.

We design and manufacture products that are **reliable, durable** and **efficient**, and sell them at highly competitive prices. We also offer service on all of our pumps and maintain inventory of replacement parts in stock.

Integrated with state of the art technology, our pumps have the option to be virtually monitored and controlled remotely.

The AP Auto-Prime series of 4", 6" and 8" pumps and parts are **100% interchangeable with Godwin's CD Series®**. Our pumps are exactly what your toughest dewatering jobs require!

## Why us?

Simply put, we provide a better pump for less. We can really save you money!

Our team brings over 100 years of collective pump experience. We promise to not only provide top quality value-added products, but also to provide outstanding customer service and stocked inventory to support short lead times.

Our pumps compete with the best in the market. We guarantee it.

## Our Products

### Pump Product Lines:

1. AP Series Auto-Prime pumps
2. HH Series Auto-Prime pumps
3. Submersible pumps

### Configuration Options:

- Skid-Mounted
- Trailer-Mounted
- Sound Attenuated\*

### Supplementary Items:

- Repair Kits
- Replacement Parts
- Check Valves
- Engines and Control Panels
- Hoses and Fittings

QUALITY  
first

VALUE  
pricing

AVAILABLE  
today



Custom Order  
Amco Trash Pump

## About Amco

(713) 690-7575  
sales@amcopumps.com  
www.amcopumps.com



## CX-83501-AS PANEL



### Features

- T4F and Stage V Ready
- High Visibility OLED Graphical Display
- TSC1 Throttle Control
- User Friendly Operation
- Manual and Auto Start Operation
- Engine, Pump, Generator
- Telematics and SCADA Ready
- Rugged, Sealed Electronics
- Display up to 24 Parameters
- Eight Relay Outputs
- Eight Digital Inputs
- Four Active Analog Channels
- Three Resistive Sender Inputs
- Speed Capture for MPUs and Tach
- MODBUS and CANBUS onboard

## Controls Inc. releases new Pump Control

Using technological advances in today's advanced micro processors, Controls Inc. is transforming the pumping world with the simplest, most configurable pump control panels on the market. The CX display drives the panel's extensive I/O and allows the most sophisticated, multi-ECU controlled engines to be tamed using proprietary methodology.

Whether you are looking to dewater a job site, transfer water across miles of terrain, or run a bypass and filtration job, the 83501 panel will make your operation a success. Each display has all the tools you will need to easily match the performance to the job required.

Knowing what is happening in the pump end is the key to success. The CX-83501-AS panel is equipped to monitor the inlet and outlet pressures and flow rate. Sump level can also be monitored and used to control the operation of the pump. Engine starting, stopping and speed control can be automated using a single or dual transducer configuration. Of course, single and dual floats can also be used in traditional settings with simple Drain and Fill mode selection.

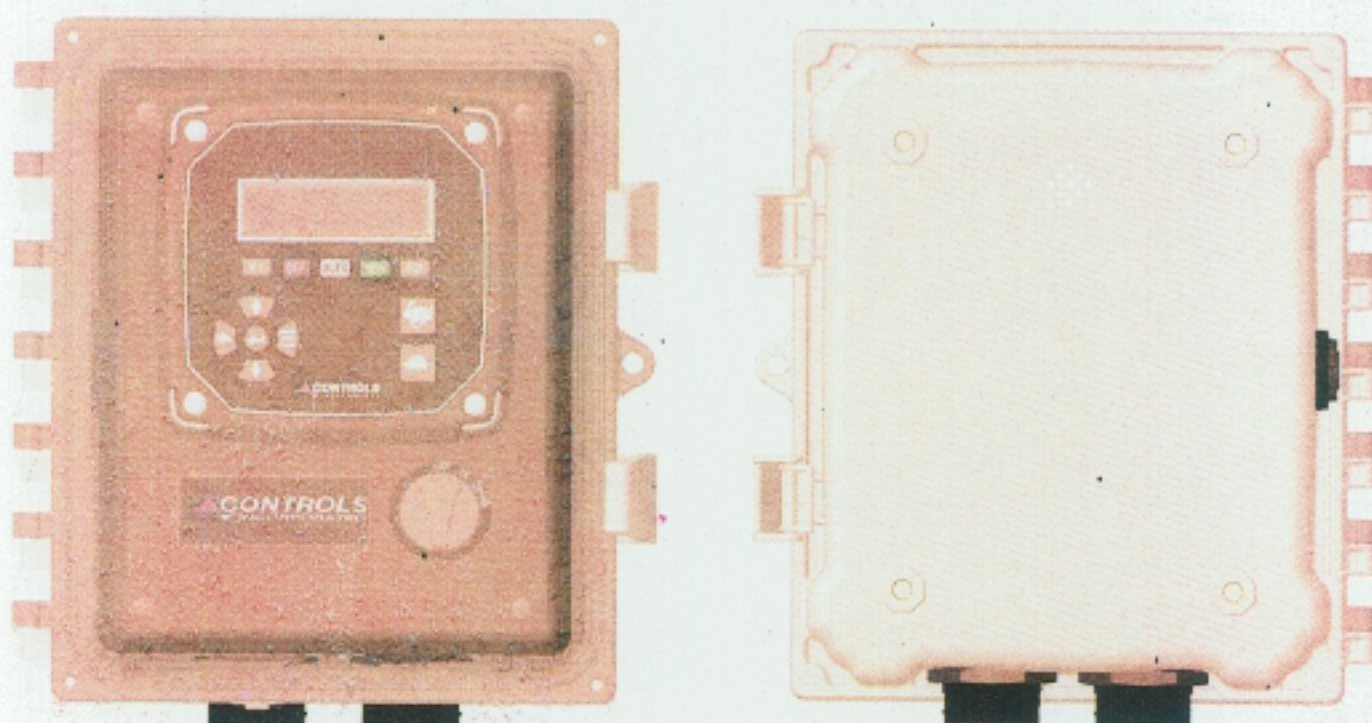
### Telemetry Ready

Each panel is equipped with a 4G/LTE plug ready connect you to your equipment. Know exactly when, where and how your equipment is being used. Perfect for remote trouble shooting and operation.



**GENERAL SPECIFICATIONS**

CONTROLLER	CX-83501-AS
OPERATING VOLTAGE	6-32 VDC
POWER CONSUMPTION	300mA Nominal; 40mA Standby.
OPERATING AND STORAGE TEMP	-40C to +85C; Fully visible and readable with no degradation.
DISPLAY	OLED 3.12" 256x64 Graphical, up to 24 parameters displayed across 3 screens. Custom Logo at power up available.
ENCLOSURE	Polycarbonate, Lockable, Tinted Cover, Vented 11.4"H x 9.4"W x 6.1"D
ENGINE HARNESS INTERFACE	HDP26-24-21SE, Engine Power, Control and Signal circuits.
AUXILIARY I/O INTERFACE	HDP26-24-31SE; Suction and Discharge Pressure, Modbus and I/O.
SINGLE/DUAL FLOAT INTERFACE	Deutsch 4 Pin, Drain or Fill Modes.
LEVEL AND FLOW INTERFACE	Located in the Auxiliary I/O interface

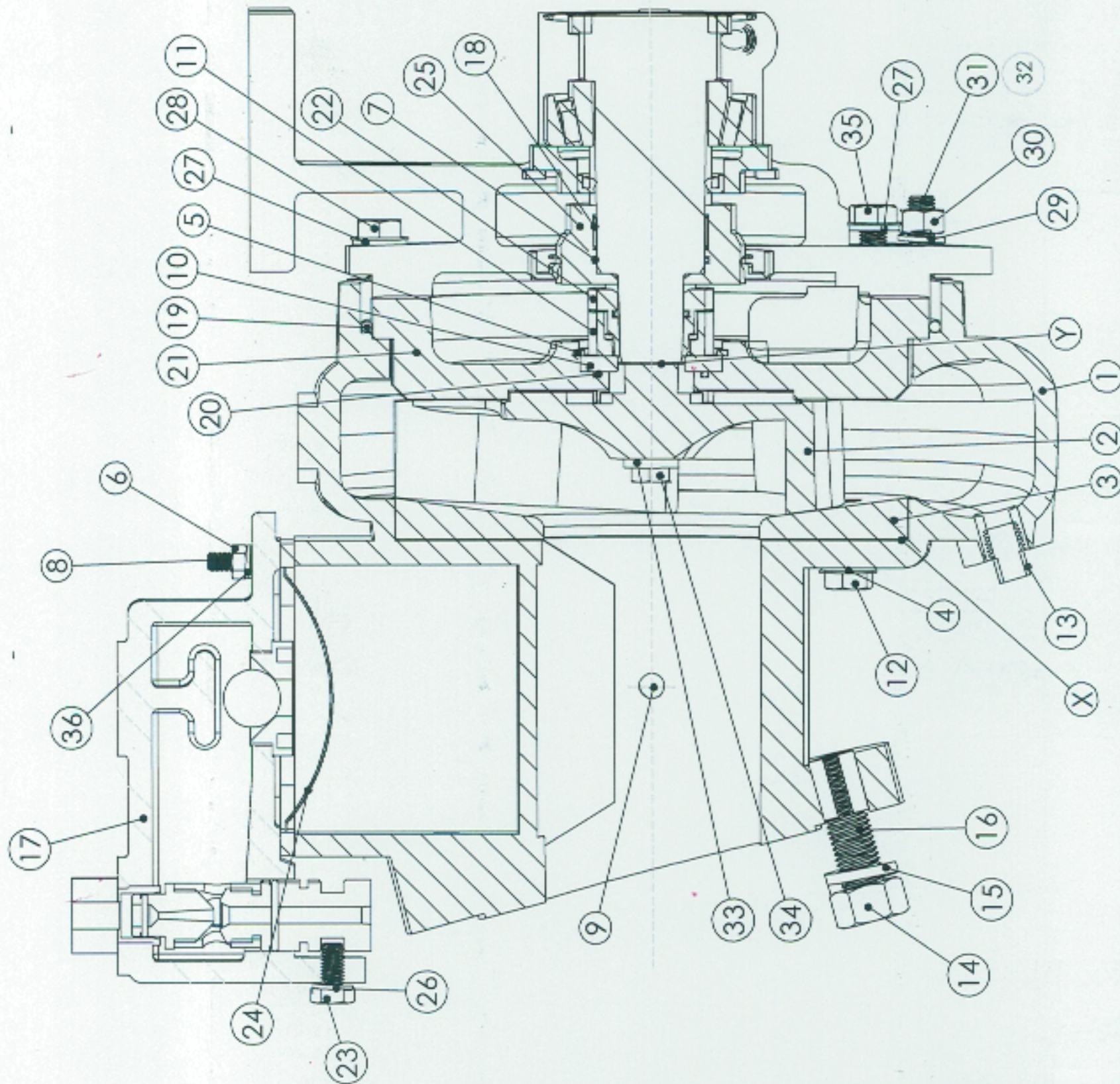


CAN BUS	(1) J1939 2.0B, 250 kbps	TELEMETRY INTERFACE	12 Pin Deutsch
MOD BUS	(1) RS485, Configurable	EXPANDABLE I/O	XCAN-IO-644
INPUTS	(3) Resistive, (8) Digital, (4) 4-20mA, (1) Speed Capture	ALARM AND EVENT LOGS	32 Events with time and date stamp
OUTPUTS	(2) 10 Amp, (6) 5 Amp	KEYPAD	(12) Rubberized, Stainless Steel Domed, Buttons
REAL TIME CLOCK	YES	WEATHER INGRESS	IP67 Electronics
LED INDICATORS	Red, Yellow, Blue, Green	AUTOMATION	Start/Stop and Speed



\*Mechanical Seal Kit available\*

S.No	Qty	Part No	Description
1	1	M-11-0240-0125	Body Pump
2	1	M-12-0265-3045	Impeller
3	1	M-12-0266-0115	Wearplate
4	3	M-38-0763-4412	Seal Nylite
5	1	M-41-0586-9911	Circclip
6	4	M-35-0201-8182	Nut Hex Full
7	1	M-38-1036-4112A	O Ring
8	4	M-35-0240-8132A	Stud
9	2	M-43-1506-8112	Plug
10	1	M-38-0620-9913	Seat Seal
11	1	M-38-1446-9912	Face Seal
12	3	M-35-0220-8412A	Screw Hex Head
13	1	M-54-1130-9915	Plug
14	8	M-33-0501-8182A	Nut Hex Full
15	8	M-35-0501-8762	Washer Spring
16	8	M-33-0540-8132A	Stud
17	1	M-21-0230-0115	Cover Separation Tank
18	1	M-41-0241-6112	Ring Tolerance
19	1	M-38-1004-4112A	O Ring
20	1	M-38-0700-4112A	O Ring
21	1	M-12-0267-0115	Wearplate
22	1	M-38-1445-9912	Seal Mechanical
23	1	M-35-0320-8412A	Screw Hex Head
24	1	M-23-0586-9923	Filter
25	1	M-28-0255-8011	Collar
26	1	M-35-0301-8762	Washer Spring
27	6	M-43-0763-9912	Seal Bonded Rubber
28	2	M-35-0420-8412	Screw Hex Head
29	6	M-35-0401-8762	Washer Spring
30	6	M-35-0401-8182A	Nut Hex Full
31	4	M-35-0445-8132A	Stud
32	2	M-35-0455-8132A	Stud
33	1	M-35-0301-8172	Washer Plain
34	1	M-35-0330-8418	Screw Hex Head Stiff
35	4	M-35-0430-8412	Screw Hex Head
36	4	M-35-0201-8762	Washer Spring
37	1	M-36-0648-9913	Shim Wearplate
38	1	M-36-0648-9923	Shim Wearplate
39	1	M-36-0648-9933	Shim Wearplate
40	1	M-36-0647-6513	Shim Impeller
41	1	M-36-0647-6523	Shim Impeller
42	1	M-36-0647-6533	Shim Impeller



A denotes recommended spares after 2000 running hours.  
B denotes recommended spares after 5000 running hours.

Notes

- Item 'X' (40,41,42), Shims: added to attain a clearance of 0.50mm to 0.63mm (0.020" to 0.025") between the rear of the impeller and the wearplate.
- Item 'Y' (37,38,39), Shims: added to attain a clearance of 0.50mm to 0.63mm (0.020" to 0.025") between the front of the impeller and the wearplate.
- All Plugs to be inserted with PTFE tape to facilitate removal.

 <b>Amco Pump Manufacturing, Inc.</b> 4849 Crenshaw Rd. Houston, Texas 77041 Phone: (713) 690-7575 www.amcopumps.com		<b>HYDRAULIC END</b> <b>AM100 (4") Auto-Prime Pump</b>	
DRAWN <b>RAM</b>	DATE 03/18/2015	MODEL NUMBER <b>AMCD10014</b>	Dwg No <b>0</b>
CHECK 	DATE 	SCALE NONE	SHEET 1/1
DESIGNED 		TOLERANCES (Unless otherwise stated) FRACTIONS ± 3mm	



MECHANICAL SEAL KIT IS AVAILABLE FOR THIS MODEL

DESCRIPTION: **MECHANICAL SEAL KIT** for AMCD10044

PART NUMBER: **M-GPCD100MSK03**

KIT INCLUDES:

QTY	PART NUMBER	DESCRIPTION
6	M-43-1947-9912	SEAL BONDED RUBBER
5	M-38-0763-4412	SEAL NYLTITE
1	M-38-1004-1112A	O RING
1	M-38-0620-9913	SEAL SEAT
1	M-38-0700-1112A	O RING
1	M-41-0586-9911	CIRCLIP
1	M-38-1445-9912	MECHANICAL SEAL
1	M-38-1446-9912	SEAL FACE
1	M-38-1036-1112A	O RING
1	M-36-0647-6513	SHIM IMPELLER
1	M-36-0647-6523	SHIM IMPELLER
1	M-36-0647-6533	SHIM IMPELLER
1	M-36-0648-9913	SHIM WEARPLATE
1	M-36-0648-9923	SHIM WEARPLATE
1	M-36-0648-9933	SHIM WEARPLATE
1	M-38-1033-4112A	LIP SEAL
1	M-35-0330-3618	SCREW HEX HEAD STIFF
1	M-35-0301-6172A	PLAIN WASHER
1	M-38-1033-SLEEVE	LIP SEAL SLEEVE
1	M-43-0733-9912	SEAL BONDED RUBBER
2	M-38-0809-4112A	LIP SEAL
1	M-38-0809-SLEEVE	LIP SEAL SLEEVE
1	M-38-1007-4112A	LIP SEAL

Parts included in Seal Kit are applicable for C/I or SS builds.  
Use previous drawing if individual pieces are required.



# ASSEMBLY INSTRUCTIONS

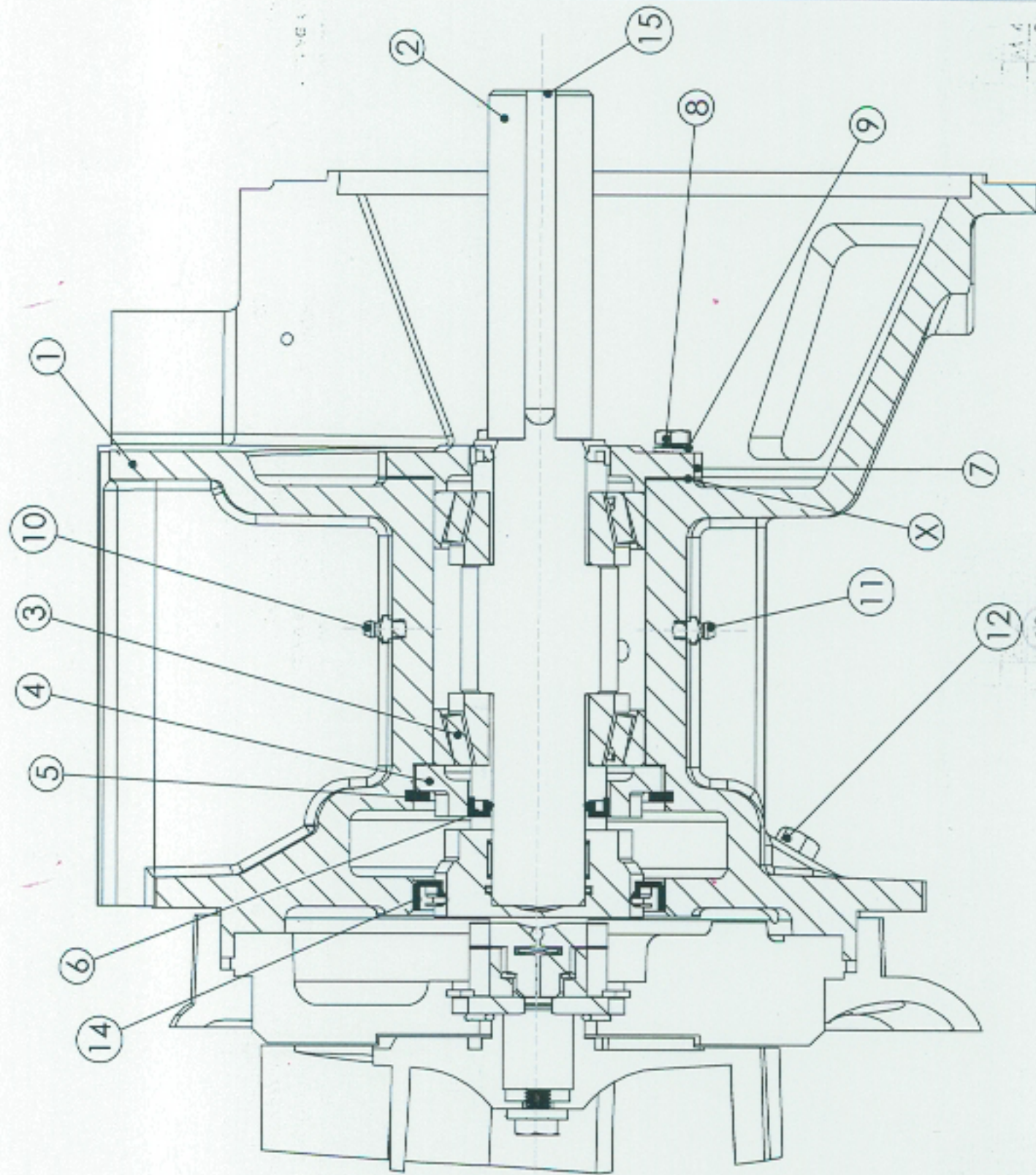
1. Ensure all parts are clean and free from burrs.
2. Heat both bearing inner races and fit to shaft. Hold hard against shaft shoulders for 30 secs minimum.
3. Fill space between races with grease.
4. Lightly grease bearing rollers and inner races.
5. Fit pump end bearing cover and circlip. Press cover hard against circlip.
6. Fill pump end bearing outer race into housing. Press home hard against the cover.
7. Position adaptor with shaft axis vertical (pump end down). Lower shaft/bearing assy into place.
8. Press drive end bearing outer race into housing.
9. Fit drive end bearing cap. Hand tighten retaining screws.
10. Shim (Items 16/17/18/19/20) under the drive end bearing cap at 'X' until 0.05/0.075 (0.002"-0.003") shaft end float is obtained.
11. Remove drive end bearing cover and shims.
12. Grease the assembly through nipple until a continuous ring of grease is witnessed from both bearings.
13. Grease the drive end lip seal and press into the bearing cover. Partially fill cover cavity with grease and refit.
14. Grease the pump end lip seal and press into the bearing cover (seal lip facing out).
15. Fit plugs etc.
16. Fit key and retain with tape if required.
17. Protect external surfaces with rust inhibitor (shell ensis fluid K or castrol tarp) if unit is to be stored or shipped.

M8 screw torque 21Nm (15.5 lb.ft.)


S.No	Qty	Part No	Description
1	1	M-13-0174-0215	Bearing Bracket
2	1	M-16-0776-8821	Shaft
3	2	M-39-0069-9912A	Bearing Taper Roller
4	1	M-13-0172-8811	Bearing Cover
5	1	M-41-0232-9912A	Circlip
6	2	M-38-0809-4112A	Lip Seal
7	1	M-13-0173-0115	Bearing Cover
8	3	M-35-0225-8412A	Screw Hex Head
9	3	M-35-0201-8762	Spring Washer
10	1	M-51-0003-9912	Grease Nipple
11	1	M-51-0010-9912	Grease Relief Valve
12	1	M-43-1048-9912	Plug
13	1	M-43-1788-9912	Plug
14	1	M-38-1033-4112A	Lip Seal
15	1	M-45-0273-8812/145	Keysteel
16	1	M-36-0650-9913	Shim Bearing Cover
17	1	M-36-0650-9923	Shim Bearing Cover
18	1	M-36-0650-9933	Shim Bearing Cover
19	2	M-36-0650-9943	Shim Bearing Cover
20	1	M-36-0650-9953	Shim Bearing Cover
21	1	M-43-0733-9912	Seal Banded Rubber

X

X



Item 12 to be used in seal chamber fill point which is diametrically opposite drain point.

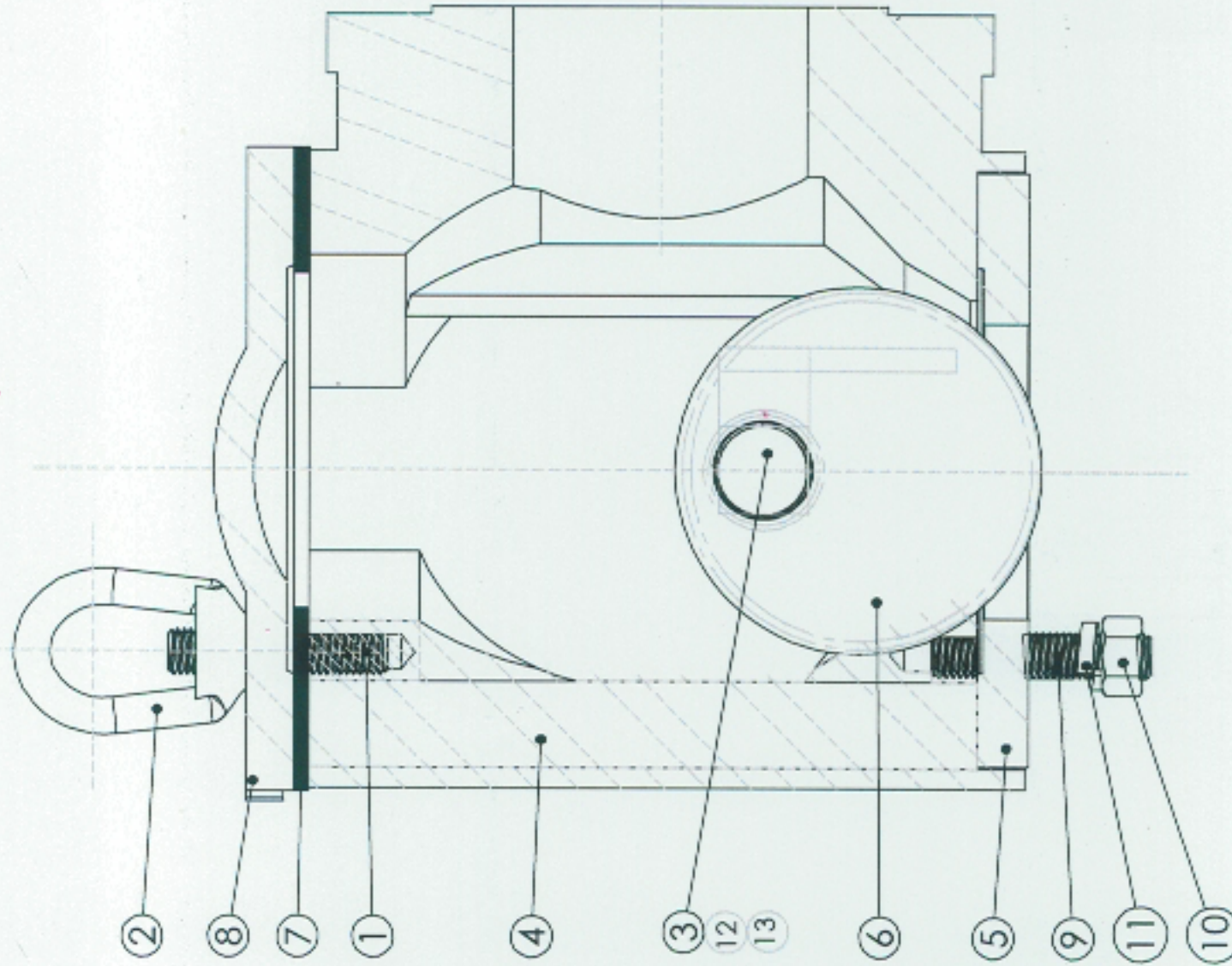
		Amco Pump Manufacturing, Inc. 4848 Cranwick Rd. Houston, Texas 77041 Phone: (713) 690-7575 www.amcopumps.com	
DRAWN RAM		DATE 03/12/2019	
CHECKED		DATE	
TOLERANCES ± 3mm (Unless otherwise stated)		SCALE NONE	
MODEL NUMBER A AMCD10044		REV 0	
SHEET 1/1		SHEET 1/1	

X denotes recommended spares after 2000 running hours.



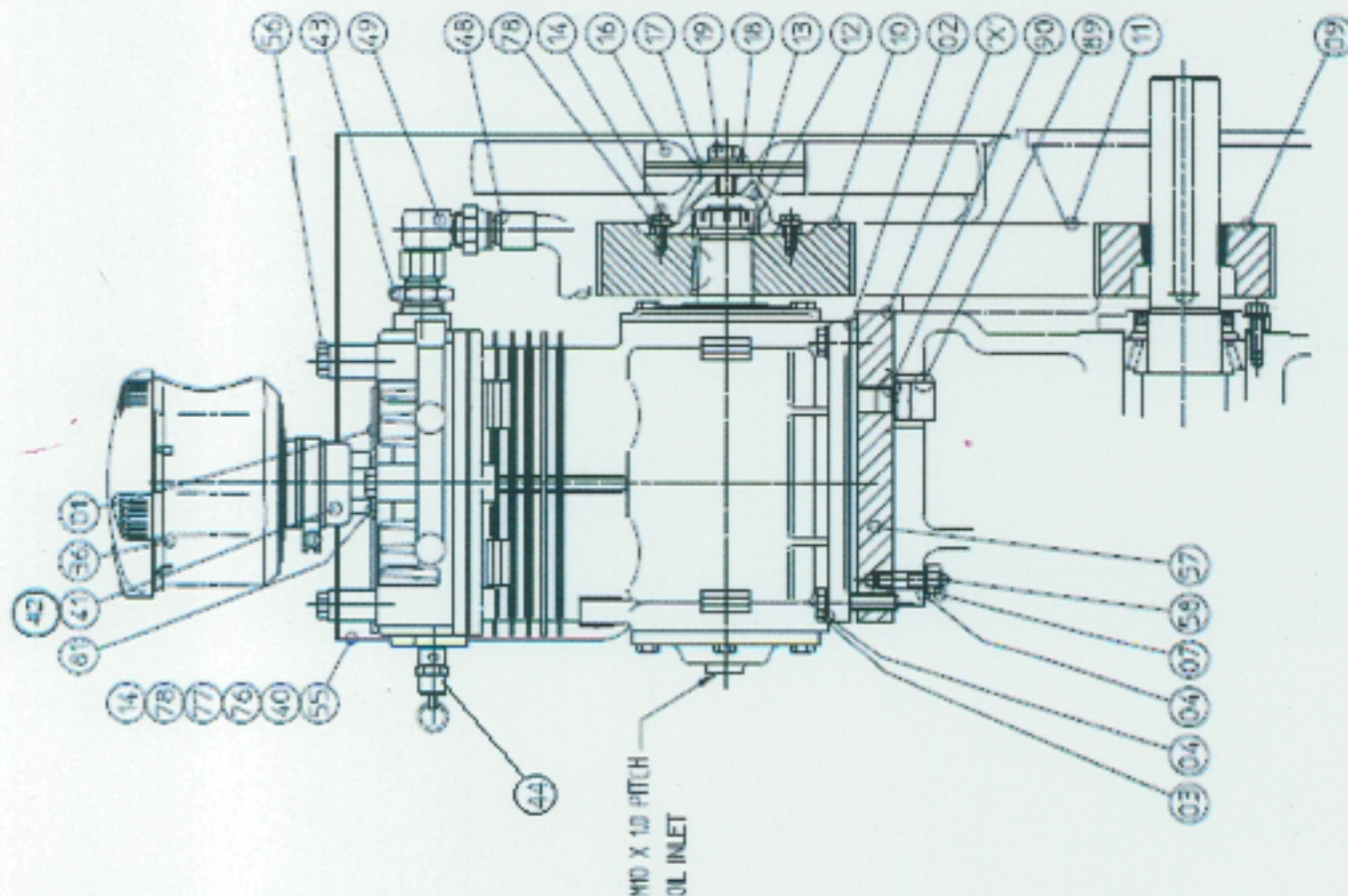
Items marked 'X' recommended spares after 5000 hours running

S.No	Qty	Part No	Description	
1	4	M-33-0540-8132A	Stud	
2	4	M-28-0130-8512A	Nut Bow	
3	1	M-VLBL010PTB02	Valve	X
4	1	M-23-0572-0125	Body NRV	
5	1	M-23-0243-4113A	Seat NRV	X
6	1	M-39-0651-4113A	Ball NRV	X
7	1	M-38-1015-1313	Gasket	
8	1	M-23-0573-0115	Cover NRV	
9	4	M-33-9552-8132	Stud	
10	4	M-33-0501-8182	Nut Hex Full	
11	4	M-35-0501-8762	Washer Spring	
12	1	M-43-1048-2012	Pipe Nipple	X
13	1	M-FFT-ES100	Street L	X



DESIGN RAM	DATE 03/18/2015	 <b>Amco Pump Manufacturing, Inc.</b> 4848 Cranswick Rd. Houston, Texas 77041 Phone: (713) 690-7575 www.amcopumps.com
CHECK	DATE	
ISSUED	DATE	
Tolerances $\pm 3\text{mm}$ (Unless otherwise stated)		<b>NON RETURN VALVE</b> <b>AM100 (4") Auto-Prime Pump</b>
SIZE A	MODEL NUMBER AMCD10044	QTY NO 0 REV 0
SCALE NONE	WEIGHT SHEET	SHEET 1/1





Notes:  
 Item 'X': Shims added to attain correct timing belt tension-  
 Shim item numbers 83,84,85.  
 Item 80: Plug to be fitting prior to despatch and  
 discarded prior to operation.  
 Cylinder head bolt (56) torque: 40.7Nm (58lbf ft).

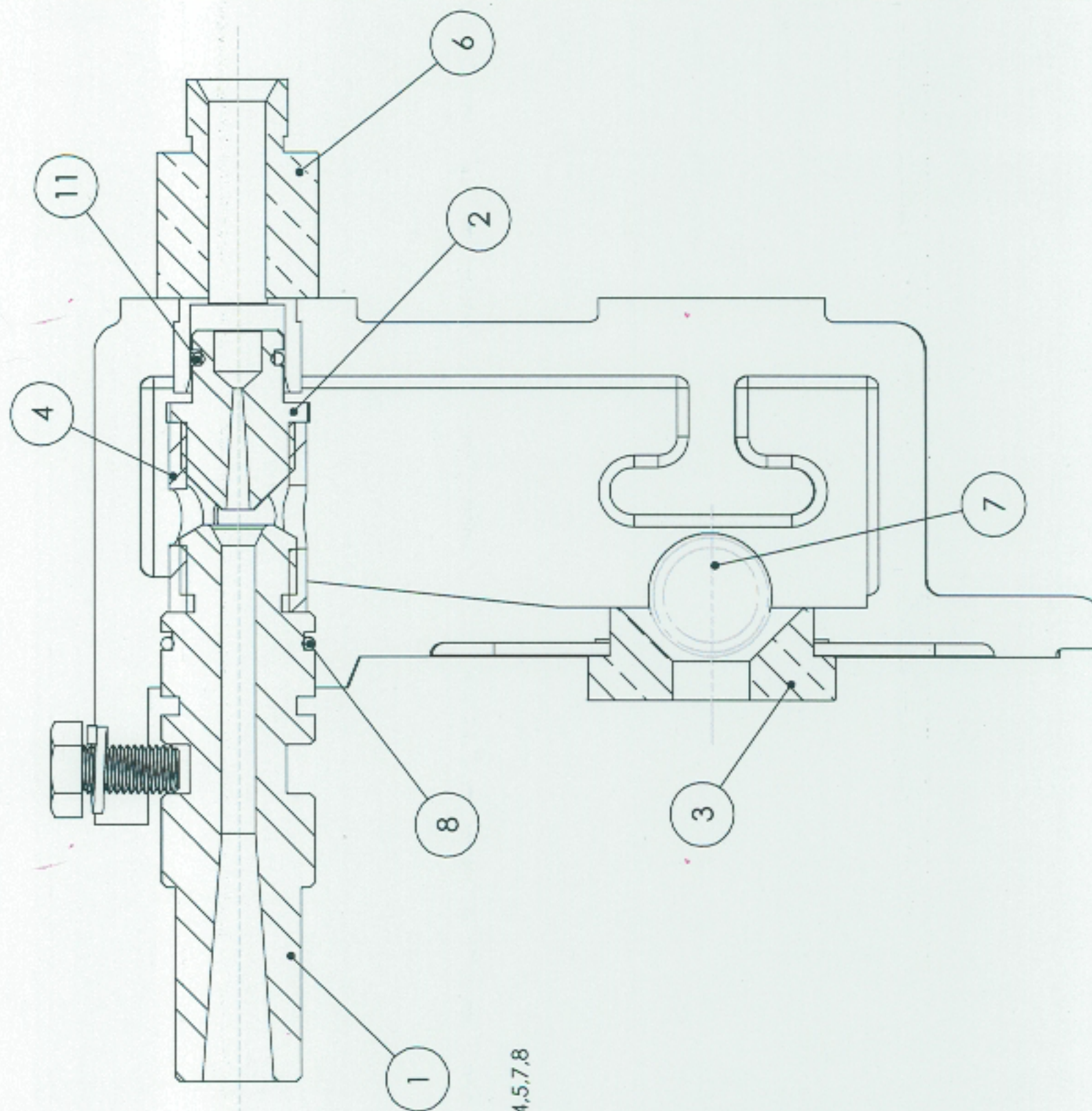
Pos	Qty	Part No	Description	2500hrs	5000hrs
44	1	M-48-0086-9912A	RELIEF VALVE		
42	1	M-43-1204-7025/2	Hex Coupling		
90	1	M-43-0733-9912	SEAL BONDED RUBBER		
89	1	M-43-1473-8112	ADAPTOR		
85	1	M-27-3613-8533	SHIM COMPRESSOR		
84	1	M-27-3613-8523	SHIM COMPRESSOR		
83	1	M-27-3613-8513	SHIM COMPRESSOR		
81	1	M-43-0686-9912	SEAL BONDED RUBBER		
80	1	M-54-0823-9912	PLUG-CAP TAPERED		
78	6	M-35-0101-8762	SPRING WASHER		
77	1	M-35-0101-8182	NUT HEX FULL		
76	1	M-35-0112-8412	SCREW HEX HEAD		
58	4	M-35-0345-8132A	STUD		
57	1	M-27-2775-8515	COMPRESSOR BASE		
56	4	M-35-0399-8402/110	BOLT HEX HEAD		
55	1	M-27-2805-9821	PULLEY GUARD		
49	1	M-43-1632-8112	STUD ADAPTOR		
48	1	M-43-0718-9913A	PIPE COMPRESSOR		
43	1	M-43-1482-8112	STUD ADAPTOR		
41	1	M-43-1204-7025/1	Hex Nipple		
40	1	M-27-2806-8211	BRACKET		
36	1	M-54-2371-9912	AIR CLEANER		
19	1	M-35-0420-8412	SCREW HEX HEAD		
18	1	M-35-0401-8762	SPRING WASHER		
17	1	M-35-0556-8111	WASHER		
16	1	M-54-0237-9912	FAN		
14	5	M-35-0116-8412	SCREW HEX HEAD		
13	1	M-17-0206-7015	FAN ADAPTOR		
12	1	M-33-0701-8762	SPRING WASHER		
11	1	M-390H150	TIMING-BELT		
10	1	M-26-0830-0243	TIMING PULLEY (USES A TAPERLOCK 25.17 TAPERBORE)		
9	1	M-26-0850-9912	TIMING PULLEY (USES A TAPERLOCK 10.0 X 42MM)		
7	4	M-35-0301-8182	NUT HEX FULL		
4	8	M-35-0301-8762	SPRING WASHER		
3	4	M-35-0330-8412A	SCREW HEX HEAD		
2	1	M-38-1071-5613	GASKET		
1	1	M-49-0523-9912A	AIR COMPRESSOR		
			Description	2500hrs	5000hrs

AIR CLEANER ELEMENT RENEWAL DEPENDANT ON APPLICATION.

\*M-54-2371-9912 supersedes the previous air cleaner assembly M-57033740/M-54-0925-9912.  
 \*Air cleaner filter is part number M-54-2371-9912/2.  
 \*Timing Pulley M-26-0830-0243 uses M-26-0830-0243A Bushing.

 Amco Pump Manufacturing, Inc. 4849 Grassfield Rd. Houston, Texas 77041 Phone (713) 690-7575 www.amcopumps.com		<b>AIR COMPRESSOR</b> <b>AM100 (4'') Auto-Prime Pump</b>	
DATE 09/10/2019 CHECK DATE	TOLERANCES ± 3mm (unless otherwise stated)	SIZE A	MODEL NUMBER AM10010044
SCALE NONE	WEIGHT 5.000kg	SHEET 1/1	REV 0






\*Part Number M-GPEK34 (Ejector Kit) includes Reference #s 1,2,4,5,7,8 and 2-Separation tank filter gaskets p/n M-38-0163-1313A

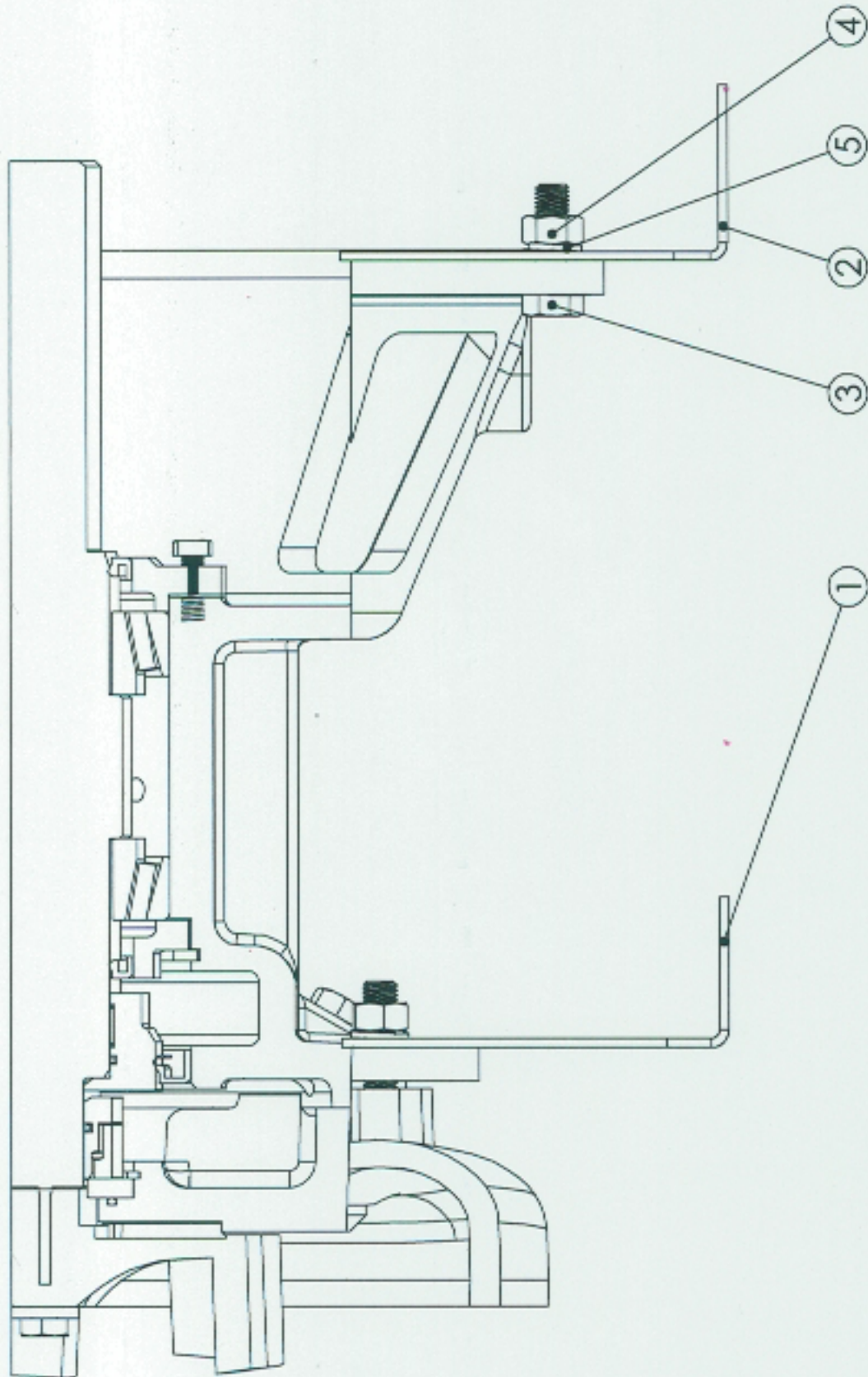
S.No	Qty	Part No	Description	
1	1	M--23-0569-2016	NOZZLE EJECTOR	Y
2	1	M-23-0568-2016	JET EJECTOR	Y
3	1	M-23-0412-2011	SEAT NRV	X
4	1	M-23-0570-2011	COLLAR EJECTOR	Y
5	1	M-38-1013-4112A	O RING	Y
6	1	M-23-0567-2011	SLEEVE JET	
7	1	M-39-0641-4113A	BALL NRV	X
8	1	M-38-104-4112A	O RING	Y

X Denotes recommended spares after running 2000 hours

Y Denotes recommended spares after running 5000 hours

		Amco Pump Manufacturing, Inc. 4849 Cranwick Rd. Houston, Texas 77041 Phone: (713) 690-7575 www.amcopumps.com	
DATE 6/16/2019		DATE	
CHECKED		DATE	
ISSUED		DATE	
Tolerances $\pm 3mm$ (unless otherwise stated)			
SIZE A		MODEL NUMBER AMCD10044	
SCALE NONE		WEIGHT NONE	
REV 0		SHEET 1/1	





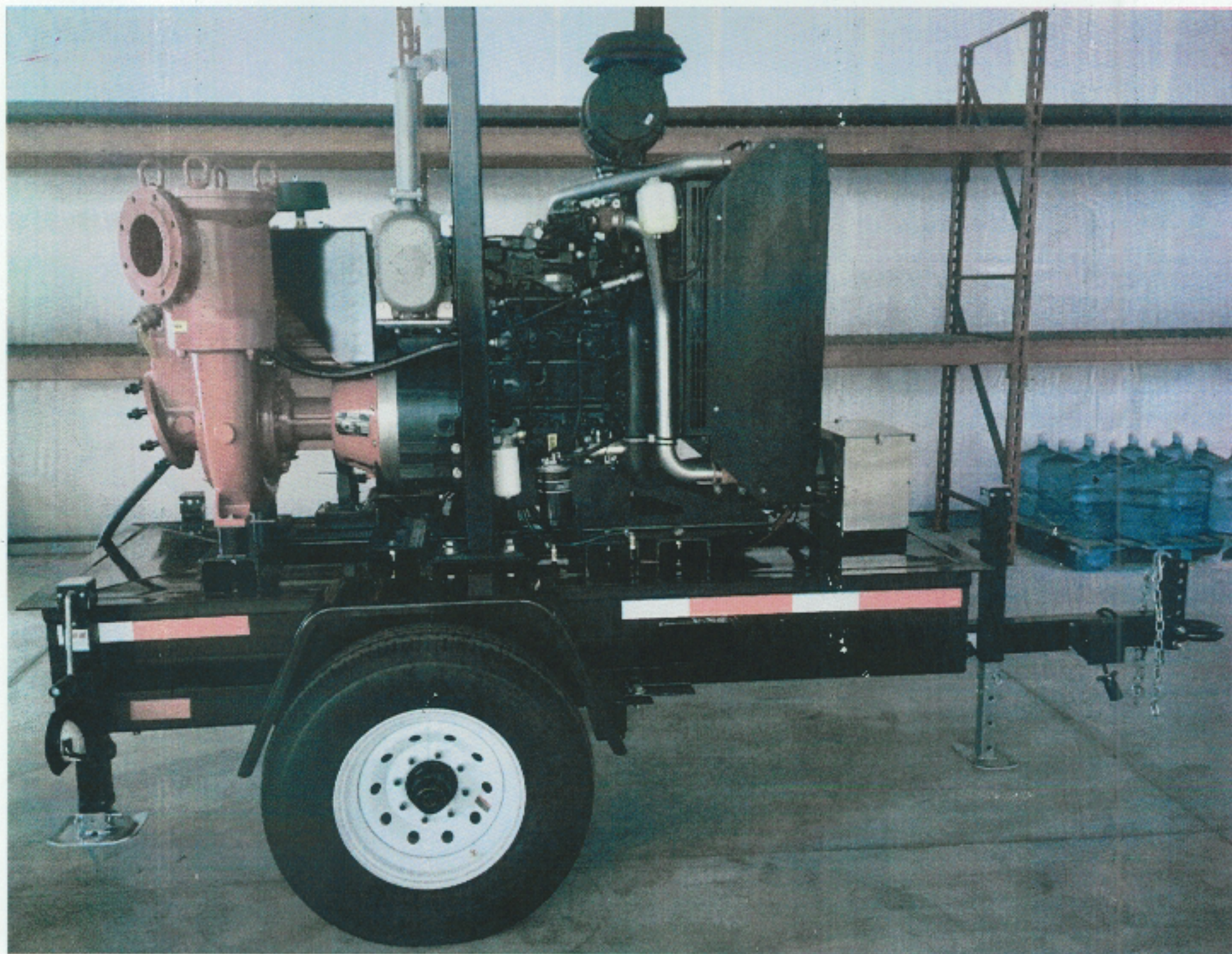
S.No	Qty	Part No	Description
1	1	M-27-4587-8523	Support Pump
2	1	M-27-2677-8221	Support Pump
3	2	M-35-0335-8412	Screw Hex Head
4	2	M-35-0301-8182	Nut Hex Full
5	2	M-35-0301-8762	Washer Spring

 <b>Amco Pump Manufacturing, Inc.</b> 4849 Crenshaw Rd. Houston, Texas 77041 Phone: (713) 690-7575 www.amcopumps.com		<b>PUMP SUPPORT</b> <b>AM100 (4'') Auto-Prime Pump</b>	
DRAWN <b>RAM</b>	DATE 03/21/2019	MODEL NUMBER <b>AMCD10044</b>	DWG NO <b>0</b>
CHECK 	DATE 	SCALE <b>NONE</b>	WEIGHT 
DESIGNED 	DATE 	Tolerances $\pm 3\text{mm}$ (Unless otherwise stated)	
		SHEET <b>1/1</b>	SHEET <b>1/1</b>











# 404F-E22T

36.4 kW @ 2800 rpm

Perkins®  
**SYNCHRO**

2.2 litre

## IOPU

### Basic technical data

Number of cylinders .....	4
Cylinder arrangement .....	Vertical inline
Cycle .....	4 stroke
Induction system .....	Turbocharged after-cooled
Compression ratio .....	18:1
Bore .....	84 mm
Stroke .....	100 mm
Displacement .....	2.22 litres
Direction of rotation when viewed from flywheel .....	Anticlockwise
Firing order .....	1, 3, 4, 2

### Weight of IOPU

Dry <sup>(1)</sup> .....	282.5 kg
Wet <sup>(1)</sup> .....	299.4 kg

1. With Flywheel DD002 & flywheel housing CD003.

### Overall dimensions of IOPU

Height .....	972.6 mm
Length .....	922.2 mm
Width .....	598.2 mm

### Moments of inertia (mk<sup>2</sup>)

Engine rotational components .....	0.044 kgm <sup>2</sup>
Flywheel [DD002] .....	1.07 kgm <sup>2</sup>

### Centre of gravity

LHS of crank centre from rear of engine .....	8.7 mm
Above centre line of block .....	120.9 mm
Forward from rear of block .....	156.3 mm

### Performance

#### Sound level

Average sound pressure level for bare engine  
(without inlet and exhaust) at 1 metre

@ 1800 rpm .....	83.3 dB(A)
@ 2800 rpm .....	90.8 dB(A)



## General installation, 404F-E22T

Designation	Units	Speed (rpm)					
		1800	2000	2200	2400	2600	2800
Gross engine power	kWb	31.1	32.6	33.8	36.0	36.0	36.4
Cooling fan power (puller)	kW	1.1	1.5	2.0	2.6	3.3	4.2
Nett engine power <sup>(1)</sup>	kW	30.0	31.1	31.8	33.4	32.7	32.2
Gross BMEP	kPa	936	981	1017	1083	1083	1095
Mean piston speed	m/s	8.0	8.7	7.3	8.0	8.7	9.3
Radiator coolant flow against 10 kPa restriction	litres/min	45.9	51.3	56.2	61.2	66.1	71.1
Combustion air flow	m³/min	2.1	2.4	2.7	3.0	3.3	3.6
Exhaust gas flow (maximum) at atmospheric pressure	m³/min	4.8	5.2	5.9	6.6	7.2	7.8
Exhaust gas temperature (Turbine outlet)	°C	450.0	437.7	428.6	438.1	440.1	448.7
Overall thermal efficiency	%	37	37	35	35	33	32

1. Nett power is flywheel power accounting for cooling fan power consumption.

## Energy balance

Designation	Units	Speed (rpm)		
		1800	2600	2800
Energy in fuel and air	kWt	84.9	112.1	116.7
Energy in power output (gross)	kWb	31.1	36.0	36.4
Energy to cooling fan	kWm	1.1	3.3	4.2
Energy in power output (nett)	kWt	30.0	32.7	32.2
Energy to exhaust	kWt	17.1	26.8	28.3
Energy to coolant and oil	kWt	25.9	30.4	33.6
Energy to radiation	kWt	9.5	17.6	17.0
Energy to fuel (return)	kWt	1.3	1.3	1.3

## Test conditions

Air temperature ..... 25°C  
 Barometric pressure ..... 101 kPa  
 Relative humidity ..... 10.7%  
 Air inlet restriction at maximum power (nominal) ..... 5.0 kPa  
 Exhaust back pressure at maximum power (nominal) ..... 3.0 kPa  
 Fuel temperature (inlet pump) ..... 40°C  
 All ratings certified to within ..... ±5%

### Notes:

- all data based on operation to ISO 3046/1:2002 standard reference conditions
- for engines operating in ambient conditions other than the standard reference conditions stated below, a suitable derate must be applied
- derate tables for increased ambient temperature and/or altitude are available, please contact Perkins Applications Department



## Cooling system

### Radiator

Radiator face area	0.276 m <sup>2</sup>
Material	Aluminium
Number of rows	54
Fins per inch	12.7
Width of matrix	526.2 mm
Height of matrix	524.2 mm
Pressure cap setting	110 kPa

### Fan

Type	Puller/pusher
Diameter	457 mm
Number of blades	7
Material	Plastic
Drive ratio	1.25:1

### Coolant (total system capacity)

IOPU (with radiator)	7.8 litres
Bare engine (without radiator)	3.9 litres
Maximum top tank temperature	112°C
Temperature rise across engine	5 °C
Maximum permissible external system resistance	10 kPa
Thermostat fully open	82 °C

**Note:** Recommended coolant: 50% anti freeze/50% water.  
For details of recommended coolant specifications, please refer to the Operation and Maintenance Manual (OMM) for this engine model.

## Induction system

### Maximum air intake restriction of engine

Test condition	36.4 kW/2800 rpm
Clean filter	3.5 kPa
Dirty filter	6 kPa

## Exhaust system

Exhaust outlet size [OD/ID]	47/44 ±0.5 mm
Maximum back pressure (measured at DOC outlet) @ 2800 rpm and 50 kW	3 kPa

## Electrical system

Alternator	85/12 amps/volts
Starter motor	2.0/12 kW/volts
Number of teeth on flywheel	126
Number of teeth on starter pinion	9
Engine stop method	Electronic

## Cold start recommendations

Minimum starting temperature	Grade of engine lubrication oil	Battery specifications			
		BS3911 Cold start amps	SAEJ537 Cold cranking amps <sup>1)</sup>	Number of batteries required	Commercial reference number
0°C	10W-30	540	740	1.0	647
-15°C	5W-30	540	740	1.0	647
-20°C	5W-30	600	780	1.0	655

## Cooling Performance

Speed (rpm)	External duct allowance (Pa)	Ambient clearance (°C)		Radiator cooling air flow (m <sup>3</sup> /sec)	
		Puller fan	Pusher fan	Puller fan	Pusher fan
1800	0	52.0	52.0	1.69	2.53
2800	0	52.0	52.0	2.59	3.96
1800	60	48.0	48.0	1.54	2.45
2800	60	48.0	48.0	2.36	3.83

1. Ambient clearance was measured on an open engine with a rise over ambient to the air filter of 10°C for puller fan and 3°C for pusher fan.
2. Measurement was without fuel cooler, A/C cooler, hydraulic oil cooler or cab heater.
3. Ambient clearance was measured on an open engine with a 0°C rise over ambient to the radiator - up to 10°C is allowable.
4. Fan air flow measurements at 25°C.



## Fuel system

Type of injection	Direct Injection
Fuel injection pump	Common Rail
Fuel injector	Electronic
Nozzle opening pressure	≤200 mPa
Maximum particle size	4 Microns
Fuel lift pump type	Electric
Flow/hour (lift pump)	396 litres/hour
Engine return flow (from injectors and HP pump)	48 litres/hour
Maximum pressure of lift pump out	100 kPa
Maximum suction head (from minimum fuel level)	0.8 metre
Maximum static pressure head (to fuel lift pump)	0 metre
Maximum fuel temperature at lift pump inlet	60°C
Maximum fuel filter service interval	500 hours
Governor type	Electronic

## Fuel specification

USA Fed off-highway	ASTM D975
Europe off highway	EN590

**Note:** For further information on fuel specifications and restrictions, refer to the OMM fuels section for this engine model.

Fuel consumption (g/kWh)				
Speed (rpm)	Load (%)			
	100%	75%	50%	25%
1800	222.8	231.0	246.2	300.0
2000	224.2	239.3	240.4	303.9
2200	233.8	243.9	262.5	344.1
2400	239.3	246.7	272.5	351.6
2600	250.9	265.6	287.7	396.4
2800	260.3	275.0	300.5	441.9

Fuel consumption (litre/hour)				
Speed (rpm)	Load (%)			
	100%	75%	50%	25%
1800	8.3	6.5	4.6	2.8
2000	8.8	7.0	4.7	3.0
2200	9.5	7.4	5.3	3.5
2400	10.4	8.1	5.9	3.8
2600	10.9	8.6	6.2	4.3
2800	11.4	9.0	6.6	4.8

## Lubrication system

### Total system capacity

Maximum sump capacity	10.6 litres
Minimum sump capacity	8.9 litres
Maximum oil temperature (continuous operation)	125°C
Maximum oil temperature (intermittent operation)	135°C

### Lubricating oil pressure

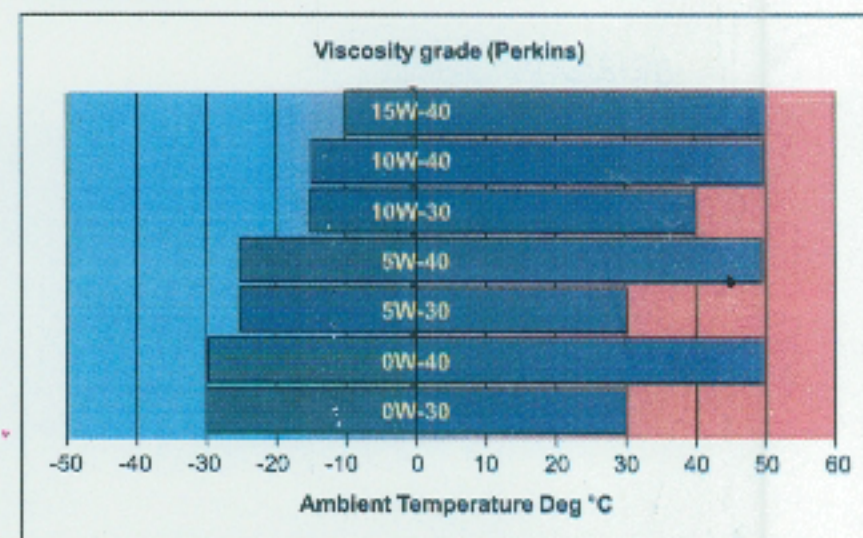
Relief valve opens	300 kPa
Minimum oil pressure	150 kPa
Oil flow at rated speed	20.4 litres/min

## Maximum operating angles

Front and rear	35°
Side	35°

## Recommended SAE viscosity

A single or multigrade oil conforming to API-CJ-4 or ACEA E5 must be used.





# Industrial

U.S. EPA Tier 4 Final  
36.4 kW / 48.8 hp

Perkins®  
**SYNCRO**

2.2 litre

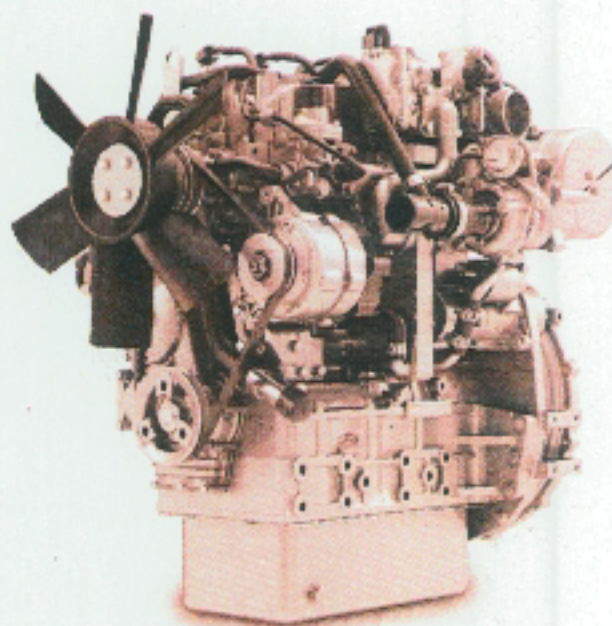
The Perkins® Syncro 2.2 engine is the newest member of the highly successful Perkins 400 Series and has been designed to help our customers meet current emissions standards in North America.

The engine is a 4-cylinder, 2.2 litre, turbocharged engine that offers supreme reliability, flexibility and an easy integration process.

Benefiting from a fully electronic fuel system, the engine further improves on the 400 Series reputation of excellent transient performance and low fuel consumption. It produces 36.4 kW (48.8 hp) and delivers excellent torque at low speeds, reduced owner and operating costs and low noise and harshness.

Commonality with other engines in the range has been built into this new engine, allowing for minimum machine change and reduced development costs for Perkins customers.

We have developed a reputation for designing and building reliable and durable engines suitable for the most demanding off-highway applications. An extensive range of options is on offer, making the 400 Series the complete solution for compact power needs.



## Emissions

U.S. EPA Tier 4 Final

Specification	404F-E22T	
Number of cylinders	4 vertical in-line	
Bore and stroke	84 x 100 mm	3.3 x 3.9 in
Displacement	2.2 litres	135 in <sup>3</sup>
Aspiration	Turbocharged	
Cycle	4 stroke	
Combustion system	Direct injection	
Compression ratio	18:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	10.6 litres	2.8 US gal
Cooling system	Liquid	
Total coolant capacity	4.2 litres	1.1 US gal

[www.perkins.com](http://www.perkins.com)

Photographs are for illustrative purposes only and may not reflect final specification.  
All information in this document is substantially correct at time of printing and may be altered subsequently.  
Final weight and dimensions will depend on completed specification.

Publication No. PN3064A/02/17 Produced in England ©2017 Perkins Engines Company Limited

 **Perkins®**

THE HEART OF EVERY GREAT MACHINE



# Industrial

U.S. EPA Tier 4 Final  
36.4 kW / 48.8 hp

Perkins®  
**SYNCRO**

2.2 litre

## Features and benefits

### Reliable, quiet, and durable power

- You are provided reliability, quiet operation, and many hours of productive life thanks to Perkins world-class manufacturing capability and processes, coupled with our proven core engine designs

### Innovative design

- A simple, cost effective solution to meet current emissions standards
- Improved performance and reduced fuel consumption levels
- Flexibility in aftertreatment mounting
- Regeneration-free aftertreatment robust in all conditions
- Turbocharged and turbocharged aftercooled versions

### Low cost of ownership

- Reduced oil consumption
- Easy maintenance and serviceability
- Improved fuel consumption
- Service-free aftertreatment system
- Regeneration-free aftertreatment system eliminates downtime
- 500-hour service intervals and two-year warranty as standard

### Local support, global coverage

- Perkins recognise that the customer relationship is important to machine manufacturers and we can offer a range of flexible solutions to help provide appropriate support, either to the OEM's network or directly to the machine customer
- With highly trained Perkins distributors in thousands of communities in over 180 countries, you are never far away from expert product knowledge, genuine parts and a range of advanced diagnostic technology for keeping your engine in peak condition
- To find your local distributor: [www.perkins.com/distributor](http://www.perkins.com/distributor)

[www.perkins.com](http://www.perkins.com)

Photographs are for illustrative purposes only and may not reflect final specification.  
All information in this document is substantially correct at time of printing and may be altered subsequently.  
Final weight and dimensions will depend on completed specification.

Publication No. PN3064A/02/17 Produced in England ©2017 Perkins Engines Company Limited

 **Perkins®**

THE HEART OF EVERY GREAT MACHINE



# Industrial

U.S. EPA Tier 4 Final  
36.4 kW / 48.8 hp

Perkins®  
**SYNCRO**

2.2 litre

## Technical information

### Core engine

- Multiple engine rating options
- Cast iron engine block
- SAE A PTO drive
- Flywheel and flywheel housing options
- Glow plug starting aid
- Engine mounting
- Block heater provision

### Fuel system

- Electronic 2000 bar common rail fuel system
- Spin on fuel filter with water detector

### Electrics

- Starter motor 12 volts
- Alternator 12 volts, 85 amp

### Air system

- Turbocharged configuration

### Cooling system

- Belt driven coolant pump
- Cooling fan options
- Fan drive options

### Lubrication system

- Oil sump options for various applications
- Spin on oil filter

### Control system

- Electronic control module – chassis mounted
- Flexible and configurable software features and well supported SAE J1939 CAN bus enables highly integrated machines
- The wiring harness connectors and sensors are waterproof and designed to withstand harsh off-highway environments

### Emissions control system

- Compact Diesel Oxidation Catalyst only aftertreatment system

### Options group

An extensive range of options are available, enabling you to prepare a specification matched precisely to your needs.

[www.perkins.com](http://www.perkins.com)

Photographs are for illustrative purposes only and may not reflect final specification.  
All information in this document is substantially correct at time of printing and may be altered subsequently.  
Final weight and dimensions will depend on completed specification.

Publication No. PN3064A/02/17 Produced in England ©2017 Perkins Engines Company Limited

 **Perkins®**  
THE HEART OF EVERY GREAT MACHINE

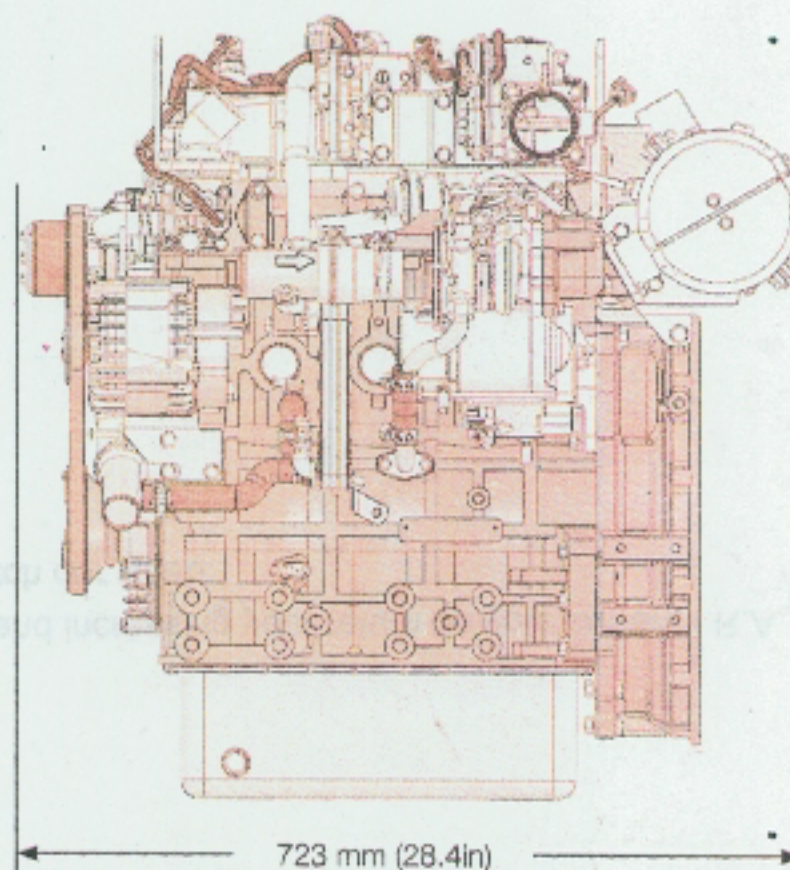
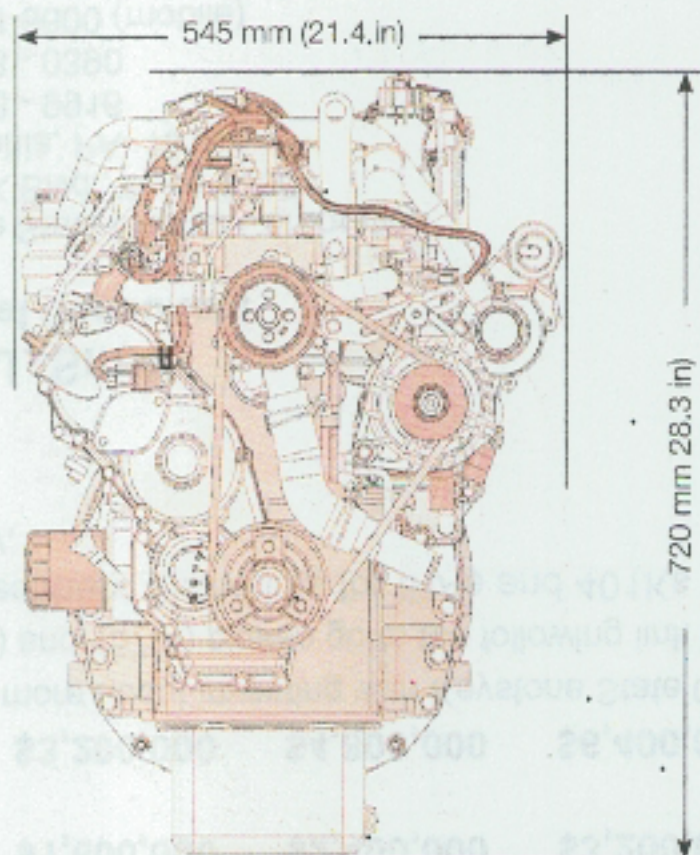


# Industrial

U.S. EPA Tier 4 Final  
36.4 kW / 48.8 hp

Perkins®  
**SYNCRO**

2.2 litre



Engine package weights and dimensions – based on rear mount

Length (including fan)	723 mm	28.4 in
Width	545 mm	21.4 in
Height	720 mm	28.3 in
Weight (dry)	230 kg	507 lb

[www.perkins.com](http://www.perkins.com)

Photographs are for illustrative purposes only and may not reflect final specification.  
All information in this document is substantially correct at time of printing and may be altered subsequently.  
Final weight and dimensions will depend on completed specification.

Publication No. PN3064A/02/17 Produced in England ©2017 Perkins Engines Company Limited

**Perkins®**

THE HEART OF EVERY GREAT MACHINE

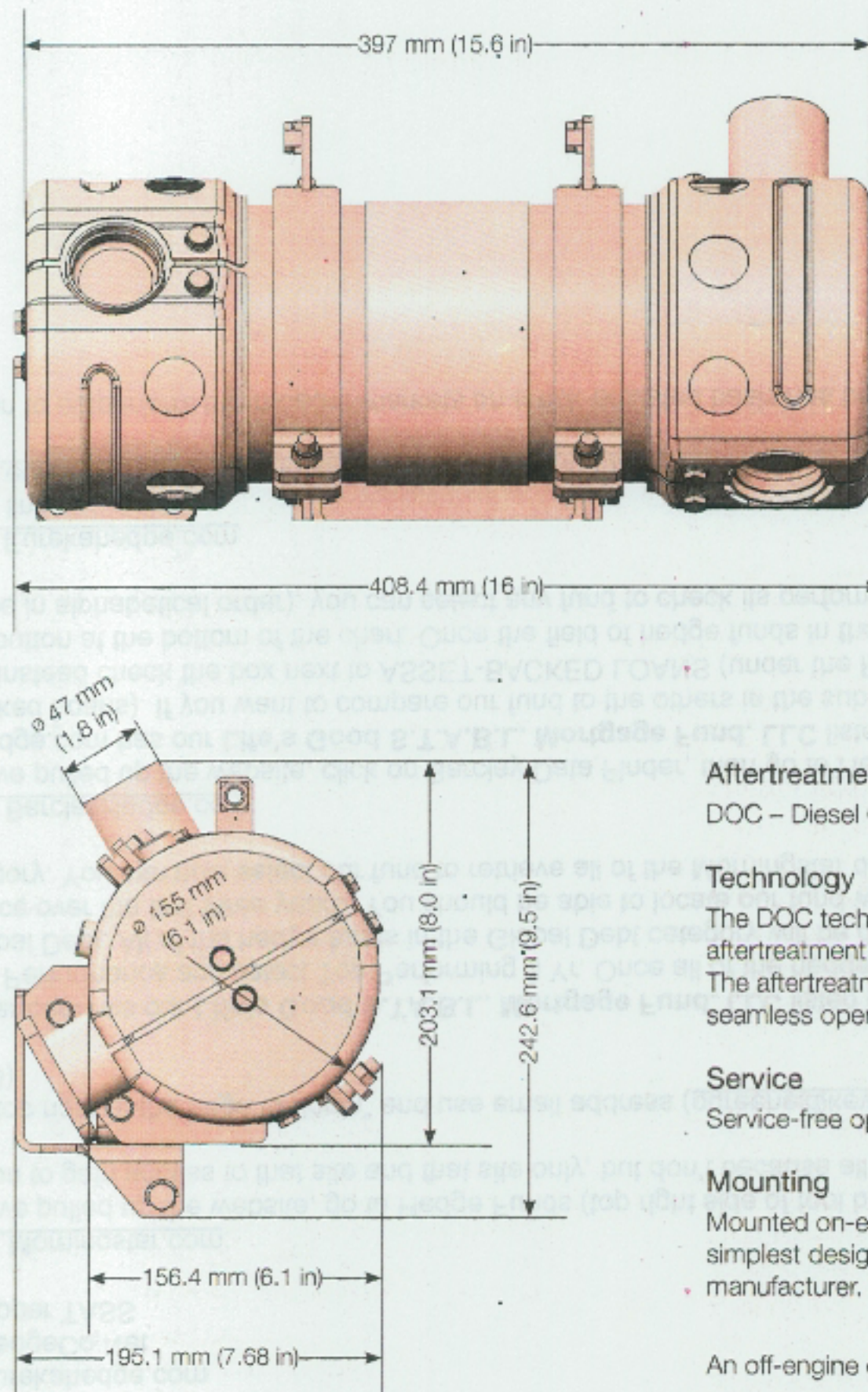


# Industrial

U.S. EPA Tier 4 Final  
36.4 kW / 48.8 hp

Perkins®  
**SYNCRO**

2.2 litre



## Aftertreatment

DOC – Diesel Oxidation Catalyst

## Technology

The DOC technology provides customers with an aftertreatment solution that is as compact as possible. The aftertreatment is regeneration free, providing a seamless operation throughout the work cycle.

## Service

Service-free operation.

## Mounting

Mounted on-engine as standard. This will provide the simplest design and lowest total cost for the machine manufacturer.

An off-engine option will be offered for some machines.

[www.perkins.com](http://www.perkins.com)

Photographs are for illustrative purposes only and may not reflect final specification.  
All information in this document is substantially correct at time of printing and may be altered subsequently.  
Final weight and dimensions will depend on completed specification.

Publication No. PN3064A/02/17 Produced in England ©2017 Perkins Engines Company Limited

**Perkins®**

THE HEART OF EVERY GREAT MACHINE

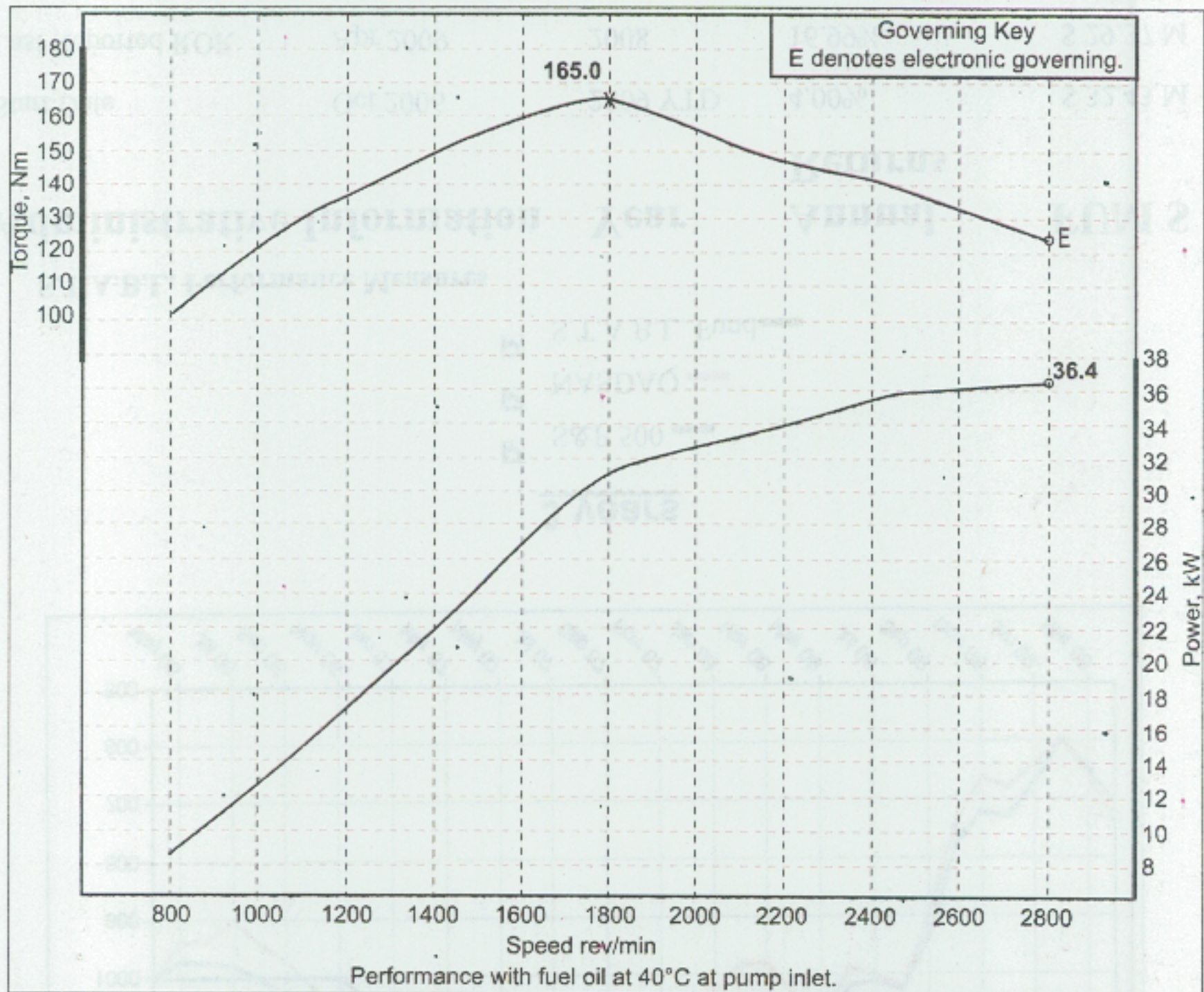


# Industrial

U.S. EPA Tier 4 Final  
36.4 kW / 48.8 hp

Perkins®  
**SYNCRO**

2.2 litre



Speed rpm	Power kW	Power hp	Torque Nm	Torque lbf·ft	Rating type
2800	36.4	48.8	165	121.7	C

## Rating definitions and conditions

IND-C (Intermittent) is the horsepower and speed capability of the engine, where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

We have a selection of ratings to match differing machine requirements and will work with you to find the best power solution.

**Rating Conditions for Diesel Engines** – up to 7.1 litres are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in. Hg), with a vapour pressure of 1 kPa (0.295 in Hg) and 25°C (77°F). Performance is measured using fuel to specification EPA 2D 89.330-96 with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

[www.perkins.com](http://www.perkins.com)

Photographs are for illustrative purposes only and may not reflect final specification.  
All information in this document is substantially correct at time of printing and may be altered subsequently.  
Final weight and dimensions will depend on completed specification.

Publication No. PN3064A/02/17 Produced in England ©2017 Perkins Engines Company Limited

**Perkins®**  
THE HEART OF EVERY GREAT MACHINE