

720 MARION DR

22702705

12/19/2007

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

pd. 85.00
ck # 0708
VW
4-29-99

MAINTENANCE INSPECTION STATEMENT

MECKLENBURG COUNTY HEALTH DEPARTMENT

PAST DUE NOTICE

Robert F. & Eva Maria Gardner
720 Marion Drive
Matthews, NC 28105

Please Make Check Payable To

Mecklenburg County Health Department
700 N. Tryon Street, Ste 211
Charlotte, NC 28202

Note: THIS COMPLETED FORM MUST ACCOMPANY PAYMENT!

DESCRIPTION OF PROPERTY

Name	Site Address	Tax Parcel	File #	# Bedroom	System Type
Robert & Eva Gardner	720 Marion Drive	227-027-05	876B	2	IIIB

Total Amount Due: $85.00

5-3-99
OSV - H2O reduction
Effluent surfacing on lowest of zone but soil is bad - needs O-Box adjustment
Homeowner has blocked off 2 of the drain lines

Please use the space below, to make any corrections to property information.

Name _____

Site Address _____

_____

Bedrooms 3

BILL INFORMATION

Current Date	Billing Date	Payment Due Date
4/20/99	3/18/99	4/19/99 *Past Due*

Direct Questions Concerning This Bill To ..... (704) 336-5102

336 5582
MS Thompson

☑ *Please check if you have a well.*

Make Check Payable To Mecklenburg County Health Department
Your Canceled Check Is Your Receipt

DO NOT SEND CASH

Mecklenburg County
Health Department

May 18, 1999

Robert F. and Eva Maria Gardner
720 Marion Drive
Matthews, NC 28105

Dear Mr. and Mrs. Gardner:

At the time of the required septic system maintenance inspection, which was performed on May 3, 1999, a water sample was collected on the property located at 720 Marion Drive, Mattthews, North Carolina.

The laboratory analysis of the well water sample was reported to be positive for coliform bacteria. The presence of bacteria indicates a source of contamination. It is recommended that the well be chlorinated and a follow up sample be taken. The procedure for chlorination of a well is enclosed.

If you have any questions concerning this matter, please contact me at 336-5568.

Sincerely,

Larry B. Thompson, Jr., R.S., Coordinator
Managed Systems Program
Individual Water and Wastewater Systems Program

Mecklenburg County Public Health Laboratory

Environmental Health Section

249 Billingsley Road • Charlotte, North Carolina 28211

227-027-05

IIIb

Microbiological Analyses

Owner, System or Establishment: Robert Gardner

Address: 720 Marion Drive

Matthews C Zip: 28105

Collected By: L. Thompson

Date Collected: 5.3.99 Time: 3:30 AM PM

Sample Source: Kitchen Sink

Date Delvd. to Lab: 5.3.99 Time: 4:00 AM PM

Delivered By: LBT ☒ Received on Ice Initials LBT

Type of Sample

Potable Water

☒ Individual Well ☐ Non-Community

☐ Community ☐ City

☐ Other (specify)

Treatment ☐ chlorinated ☒ nonchlorinated

☒ Initial Sample ☐ Recheck (chlorinated)

☐ Recheck (nonchlorinated)

☐ Other (specify) _____

Nonpotable Water

☐ Surface

☐ Storm ☐ Other (specify) _____

Analysis Requested: ☒ Total Coliform ☒ Fecal Coliform ☐ Fecal Strep ☒ Enterococcus

☐ Sulfate Reducing Bacteria ☐ Pseudomonas aeruginosa

☐ Other (specify) _____

1148

☐ Food Analysis (specify) _____

Comments: _____

Laboratory Analysis Report

Method: _____ Membrane Filter _____ Colilert _____ Multiple Tube Fermentation

Total Coliform Present /100 ml.

Fecal Coliform Absent /100 ml.

Fecal Strep _____ /100 ml.

Enterococcus _____ /100 ml.

Non-Coliform _____ /100 ml.

Plate Count _____ /gm. or ml.

Coliform Count _____ /gm. or ml.

Pseudomonas aeruginosa _____ /100 ml.

Laboratory Comments:

Date Received: 5-3-99 Date Reported: 5-4-99

Received By: JW Analyst: JW Lab #: 245

Laboratory Identification #: 37518 DEHNR Division of Laboratory Services
#: 449 DEM

L 1.14 1/92
Rev. 10/96
4319

White - Lab Report Copy Yellow - Lab File copy

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

INSPECTION OF ENGINEERED SUBSURFACE SEWAGE SYSTEM

Mecklenburg — Health Department
876B — Permit/Project No.
720 Marion Dr. — Location
residence — Name of Establishment
360 — Type of Establishment
Design Flow
Robert Gardner 720 Marion Drive, Matthews, NC — Owner/Agent Address
358-5558 — Phone
N/A — Operator
Address
Phone
Remarks IIIb

	Yes	No	REMARKS
1. ESTABLISHMENT:			
Type, size, and sewage flow in accordance with permit?	☑	☐	
2. COLLECTION SYSTEM:			
No evidence of leaks into or out from sewer lines/manholes?	☐	☐	
Free of blockages/solids buildup in lines or manholes?	☐	☐	
3. TANKAGE (Grease Traps/Lift Stations/Septic/Dosing Tanks):			
Tank risers accessible and surface water diverted?	☑	☐	
Tanks and access manholes structurally sound, watertight?	☑	☐	
Sanitary tee(s) in good working condition?	☐	☐	
Tanks pumped, cleaned out as needed?	☐	☐	Recommended pumping septic tank
4. RAW SEWAGE LIFT STATION (If Present):			
Required pumps present, operating, and cycling properly?	☐	☐	
High-water alarm present and operating properly?	☐	☐	
Floats/pipe/valves/disconnects in good working condition?	☐	☐	
Control panel enclosure/components in good condition?	☐	☐	
5. EFFLUENT DOSING SYSTEM:			
Effluent appears clear, free of excess solids?	☐	☐	
PUMP SYSTEMS:			
Required pumps present, operating, and cycling properly?	☑	☐	
High-water alarm present and operating properly?	☑	☐	
Floats/pipe/valves/disconnects in good working condition?	☑	☐	
Control panel enclosure/components in good condition?	☑	☐	
Elapsed time readings: _____ _____ _____ _____			
SIPHON SYSTEMS:			
No evidence of overflow or siphon leakage?	☐	☐	
Siphon(s) appear to be working/alternating properly?	☐	☐	
Bells and vents free of debris and in good condition?	☐	☐	
6. GROUND ABSORPTION FIELDS:			
No evidence of effluent surfacing/reaching surface waters?	☐	☑	Sewage surfacing in lowest of two beds in back left corner of yard - D-Box revealed that two drain lines have been cut completely off by blocking with trash bags. Recommend leveling D-Box with speed levels.
Minimal ponding in subsurface trenches?	☐	☑	
Surface water being effectively diverted away?	☑	☐	
Diversions/ditches/swales/tile drains properly maintained?	☑	☐	
Line cover/vegetation adequate/maintained as needed?	☑	☐	
Protected from traffic, destructive uses?	☑	☐	
Distribution devices in good condition, working properly?	☐	☑	
Repair area properly reserved, maintained?	☑	☐	
LOW-PRESSURE PIPE DRAIN FIELDS:			
Turnups/cleanouts/valves intact and accessible?	☐	☐	
No effluent standing in lower laterals?	☐	☐	
Laterals free of excess solids, cleaned out as needed?	☐	☐	
Pressure head is properly adjusted?	☐	☐	

OVERALL CONDITION AND OPERATION OF SYSTEM: _____

SUMMARY OF IMPROVEMENTS NEEDED:

Improvement	Repair Within (Days)

DATE: 5-3-99 SIGNED: Larry R. Thompson, Jr., R.S. AGENT
Division of Environmental Health

DEHNR 3702 (Revised 9/91)
Environmental Health Services Section (Review 9/95)

SUMMARY OF IMPROVEMENTS NEEDED (*Continued*)

Improvement	Repair Within (Days)

INTENT TO SUSPEND OR REVOKE PERMIT

This is to notify you of intent to suspend/revoke *(circle one)* your operation permit/certificate of completion *(circle one)* 60 days from this date for the following violations:

_____
[Law or Rule(s)]

If suspended, the operation permit or certificate of completion remains suspended until violations are corrected. A hearing will be held prior to suspension or revocation if you file a petition for a hearing with the Office of Administrative Hearings, P. O. Drawer 27447, Raleigh, NC 27611-7447, in writing within the number of days specified above of your intent to attend the hearing. If you do not petition the Office of Administrative Hearings, the operation permit or certificate of completion will be suspended or revoked.

IMMEDIATE SUSPENSION OR REVOCATION OF PERMIT

This is to notify you of immediate suspension/revocation *(circle one)* of your operation permit/certificate of completion *(circle one)* for the following violations: _____
[Law or Rule(s)]

If suspended, the permit or certificate remains suspended until the violations are corrected. You will be notified of the day and location of a hearing on this suspension or revocation by a hearing officer from the Office of Administrative Hearings.

This the _____ day of _____, 19 ____

_____ Agent
DIVISION OF ENVIRONMENTAL HEALTH

INSTRUCTIONS

Purpose: Article 11 of Chapter 130A requires the Commission for Health Services to adopt rules governing the design, construction, and operation of sanitary sewage systems. 15A NCAC 18A .1937 specifies that the local health department shall determine whether systems with an Operation Permit are operating properly at a frequency specified in Rule .1961, Table V(a), and that systems which exceed 3,000 gallons per day and other systems which are required to be designed by a professional engineer shall be reinspected annually. This form is developed to be used in making inspections of engineered subsurface sewage systems.

Preparation: Local environmental health specialists shall complete the form every time they conduct an inspection. Prepare an original and two copies for:

1. Original to be left with the responsible person.
2. Copy for the local health department.
3. Copy for the Environmental Health Services Section, Division of Environmental Health.

In the event the permit is suspended or revoked, complete the portion above.

Disposition: This form may be destroyed in accordance with Standard 7, Inspection Records, of the *Records Disposition Schedule* published by the N. C. Division of Archives and History.

Additional forms may be ordered from:
Environmental Health Services Section
Division of Environmental Health
P. O. Box 27687
Raleigh, NC 27611-7687
(Courier 52-01-00)

D400

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR PERMIT

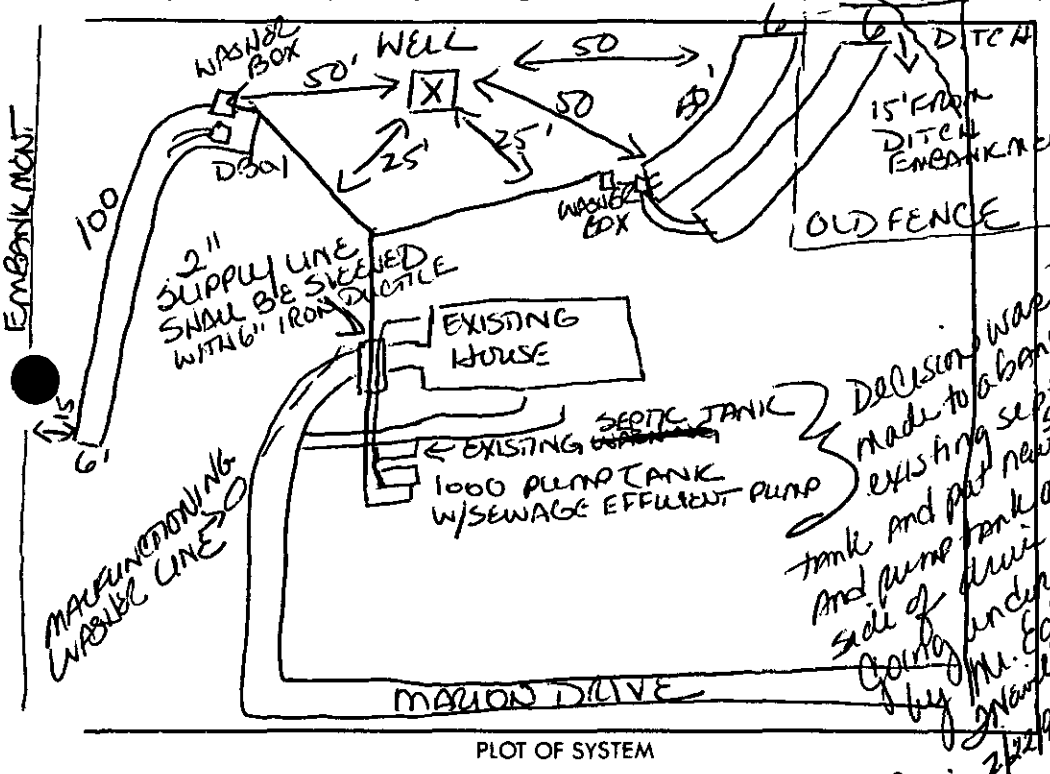
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: 8768/8747A DATE: 2/19/93

TC: 227-027-05 ☐ L

SERIAL Nº 15389

Permission is hereby given to ____ Install or Construct, ✓ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in the application dated 2/18/93. All work shall be completed on or before 3/18/93, after which date this permit shall be null and void. The system shall meet all of the construction requirements of 10 NCAC 10A .1900 which are in effect on the date of the granting of this permit. A Certificate of Completion or an Operation Permit must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now or hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.



PLOT OF SYSTEM

Liquid Capacity of Septic Tank ____ gallons

Liquid Capacity of Dosing Tank 1000 gallons

Tank Construction ____

Absorption and/or Nitrification Lines:

Trench Width 6 feet

Trench Line Length 400 feet

Number of Lines 6

Depth of Stone 12" inches

Distance from House 15 feet

Distance from Property Line 10 feet

Distance from Well ~~100~~ 50 feet

Decision was made to abandon existing septic tank and put new tank and pump on opposite side of house under driveway. Agreed by Mr. Ed Bigger 2/22/93

15' FROM EMBANKMENTS

SUPPLY LINE FROM WELL = 25'

NAME OF OWNER KATHRYN & KEENA BIGGERS

LOCATION OF PROPERTY 720 MARION DRIVE

Comments: (1) WASHER LINE & EXISTING SEPTIC SYSTEM MALFUNCTIONING AND SOILS WHICH WOULD BE PROVISIONALLY SUITABLE WERE EVENLY LIMITED AS TO SPACE AND DEPTH.
(2) WASHER LINE DISCONNECTED AND PLUMBED INTO TANK. PUMP
(3) SUPPLY LINE SHALL BE SLEEVED UNDER DRIVEWAY.
(4) PUMP CYCLE SHALL BE NECESSARY TO DETERMINE TOTAL DYNAMIC HEAD CYCLE.
(5) CHECK VALVE SHALL BE NECESSARY
(6) 6X100X12" = TRENCH DEPTH WITHIN TOP 20" - 12" ADEQUATE SOIL COVER
(7) 2 - 6X50X12" = 24" TRENCH DEPTH

Division or Section Head

Environmentalist

If this permit is for the installation or construction of a new system, it must be signed by the division or a section head of the Mecklenburg County Health Department in order to be valid. Only the signature of the Environmentalist is required where an existing system is being altered or repaired.

WHITE - HEALTH DEPARTMENT'S COPY • CANARY - ENVIRONMENTALIST'S COPY • PINK - OWNER OR AGENT'S COPY

CERTIFICATE OF COMPLETION/OPERATION PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: 8746B/8747A DATE: 2/25/93

TC: 227-027-05 ☐ L ☐ CRT

SERIAL Nº 15616

Name of Owner Kathryn & Kenna Boggus Juris.:

Address of Property 720 Marin Drive

Inspection Data:

Tank Material 1500 Gal - PCC

Total Length of Drainfield 400 4 @ 50'

Number of Lines 2 @ 100'

Cover Depth min. 12"

Water Supply Source well

Distance to Water Source ~~50' supply line~~ 50' drainfield

Excavation Inspected 2/24/93 / 2/25/93

Tank(s) Inspected 2/24/93

Wash Line Inspected Plumbed into new septic tank system

High Water Alarm Inspected 2/25/93

Post-it® Fax Note 7671	Date 6-22	# of pages ▶ 2
To Tri-County	From L. Thompson	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 545-1765	Fax #	

PLOT

Design: 1993 repair, 1500 ST, 1000 PT, 1200 sq ft., 12"G, CTR# 56

The undersigned has inspected the Septic Tank System described above, and certifies it has been

☐ installed or constructed ☑ altered or repaired

☑ in accordance with the permit issued ☐ as detailed in the plot above

and meets the provisions of 10 NCAC 10A .1900, "Laws And Rules For Sanitary Sewage Collection, Treatment, And Disposal" in effect on the date of issuance of the permit. The issuance of this

☑ Certificate of Completion ☑ Operation Permit

does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 10 NCAC 10A .1900 in addition to those listed below under "COMMENTS." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

COMMENTS: Existing 1970 septic system. Soil evaluations by Bill Marlin of this office revealed some soil limitations as to depth of ~~drainage~~ limited areas of shallow acid loam soils where beds were installed. Mr. Marlin informed property owner & realtor, Lesley Dalls, to inform future property owner to utilize water conservation. Septic tank & pump tank were moved to upper side of asphalt drive to alleviate having to go under asphalt drive. Existing septic tank was abandoned.

Jan H. Newell, R.S.
Environmentalist

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

REPAIR

INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM
APPLICATION FOR SERVICES

876B/8742A

[] CRT

Mecklenburg County Health Dept.
Environmental Health Division
c/o Hal Marshall Ctr., Suite 211
700 N. Tryon St.
Charlotte, NC 28202

(704)336-5102

PERSON FILING APPLICATION:
NAME: Jordan (last) David (first) (mi)
ADDRESS: 408 E Franklin PHONE: (704) 283-5748
CITY: Monroe STATE: NC ZIPCODE: 28112

Date:

PROPERTY OWNER:
NAME: Adams (last) Ed (first) (mi)
ADDRESS: 720 Marion Dr PHONE: (__) 847-7222
CITY: Matthews STATE: NC ZIPCODE: 28270

PROPERTY INFORMATION (FROM ENGINEERING FORM):
TAX/PARCEL NUMBER: 227-092-05
STREET ADDRESS: 720 Marion Drive
ZONING:

SUBDIVISION OR MOBILE HOME PARK NAME:

Township (check one):
[] 0 Mecklenburg County [] 2 Davidson [] 4 Pineville [] 6 Huntersville
[] 1 Charlotte [] 3 Cornelius [] 5 Matthews [X] 7 Mint Hill

TYPE APPLICATION (check one):

LOT NUMBER: LOT SIZE (in acres):

[] SOIL TEST - INDIVIDUAL LOT (D)
[] NEW CONSTRUCTION ON VACANT LOT - 4 BEDROOMS OR LESS (N)
[] EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
[] ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A or M)
[] COMMERCIAL OR INDUSTRIAL (N)
[] SOIL TEST DEVELOPMENT (P)
[] ADDITION - GARAGE OR RENOVATION/NO MAJOR CHANGES (X)
[] MODIFIED /ALTERNATIVE/ OR RESIDENCE > 4 BEDROOMS (Z)
[X] REPAIR TO SYSTEM (R)

RESIDENTIAL PROPERTY (Type Building, check one):
[] SINGLE MOBILE HOME (S) [X] HOUSE (H) [] MULTIPLE FAMILY (U)
[] DOUBLE WIDE (D) [] MODULAR HOME (M) [] OTHER _____ (O)

NUMBER BEDROOMS: 2 NUMBER OCCUPANTS:

SYSTEM CLASSIFICATION:

COMMERCIAL/INDUSTRIAL PROPERTY:
Type Business _____ # Employees ___ Per Shift ___ ___ ___
Industrial Wastes (Y/N) ___
Underground Storage Tanks On Property (Y/N) ___ Type _____

WATER SUPPLY (check one): ✓
[] Community (C) [] Shared Well (S)
[] Municipal (M) [] Other 'spring' (O)
[] Private Well (P)

FUTURE ADDITIONS - ALL PLANNED ADDITIONS MUST BE ENTERED (check all that apply):
[] Swimming Pool [] Jacuzzi [] Stable/Barn [] Workshop [] None
[] Garage [] Storage Building [] Deck/Patio [] Bedrooms [] Other

The undersigned, owner, or legal agent for the owner, of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter onto the property for the purpose of processing this request.

Signed: D Jordan Date: 2-25-93

NOTICE:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws And Rules For Sanitary Sewage Collection, Treatment And Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

...No work shall be conducted on the septic tank system until an installation, Construction, Alteration and/or Repair approval is granted by this Department.

...This permit is not transferable.

...Repair permit issued.

[] IMPROVEMENT PERMIT - VALID 60 MONTHS FROM ISSUANCE
[] MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE
[] ADDITION/RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE

David H Ewell, RS 2/26/93
Environmentalist Date

Director or Authorized Section Head Date

WWATER : 122791

Mecklenburg County
Health Department

March 18, 1999

Robert F. and Eva Maria Gardner
720 Marion Drive
Matthews, NC 28105

Dear Mr. and Mrs. Gardner:

This letter is being sent to all home/business owners in Mecklenburg County with septic tank systems that utilize pumps. In 1992 the North Carolina Administrative Code governing septic tank systems was amended to require routine maintenance and inspection of certain septic tank systems. Research conducted on septic tank systems has shown that properly maintained systems perform better and protect the home/business owner's investment. These State rule changes required local health departments to perform additional inspections without additional resources. During the 1998-99 budget hearings, the Mecklenburg County Board of County Commissioners (BOCC) approved user fees to offset costs and to allow the local health department to comply with mandatory enforcement requirements in the State regulations.

Since you have a pump system, these new rules and fee requirements affect you. The fee is $85.00 and is due upon receipt of this notice. We will visit your property and make assessments and recommendations for the continued efficient operation of your septic tank system. In addition, if you have a well, a bacterial sample will be collected to help assess the quality of your water supply source. The process, including fee assessment, will be repeated every five (5) years. The fee amount may change in the future.

We are excited about the interest and support demonstrated by the BOCC. Past performance in this area was more enforcement oriented rather than supportive. One of our goals is to establish our department as a resource to you to aid and assist you with this and related public health concerns. The inspection program and the water analysis are important to the health of you and your family. This is a very important initiative intended to protect the public's health while improving and preserving our groundwater resources.

Your prompt fee payment will activate our inspection process. Your comments and questions regarding this matter are encouraged and welcomed.

Sincerely,

Larry B. Thompson, Jr., R.S.

Larry B. Thompson, Jr., R.S.
Environmental Health Specialist
Individual Water and Wastewater Systems

Enclosure

cc: Fiscal Services Manager, HMHCS

Mecklenburg County

Health Department

Betty S. Snow, R.N., M.A.
Health Director

February 26, 1993

Kathryn & Keena Biggers
720 Marion Drive
Matthews, NC 28105

Dear Mr. & Mrs. Biggers:

At your request, a well water sample was collected on the property located at 720 Marion Drive, Matthews, North Carolina, on February 24, 1993.

The laboratory analysis of the well water sample was reported to be positive for coliform bacteria. The presence of bacteria indicates a source of contamination. It is recommended that the well be chlorinated. The procedure for chlorination of a well is enclosed.

If you have any questions concerning this matter, please contact me at 336-5572.

Sincerely,

Toni H. Newell, R.S.
Individual Water and Wastewater Systems

TN:lw

AURORA/HYDROMATIC PUMPS, INC.
800 Airport Road
North Aurora, Illinois 60542
(708) 859-7000

SSPMA Certified PUMP

A UNIT OF GENERAL SIGNAL GS

AURORA PUMP

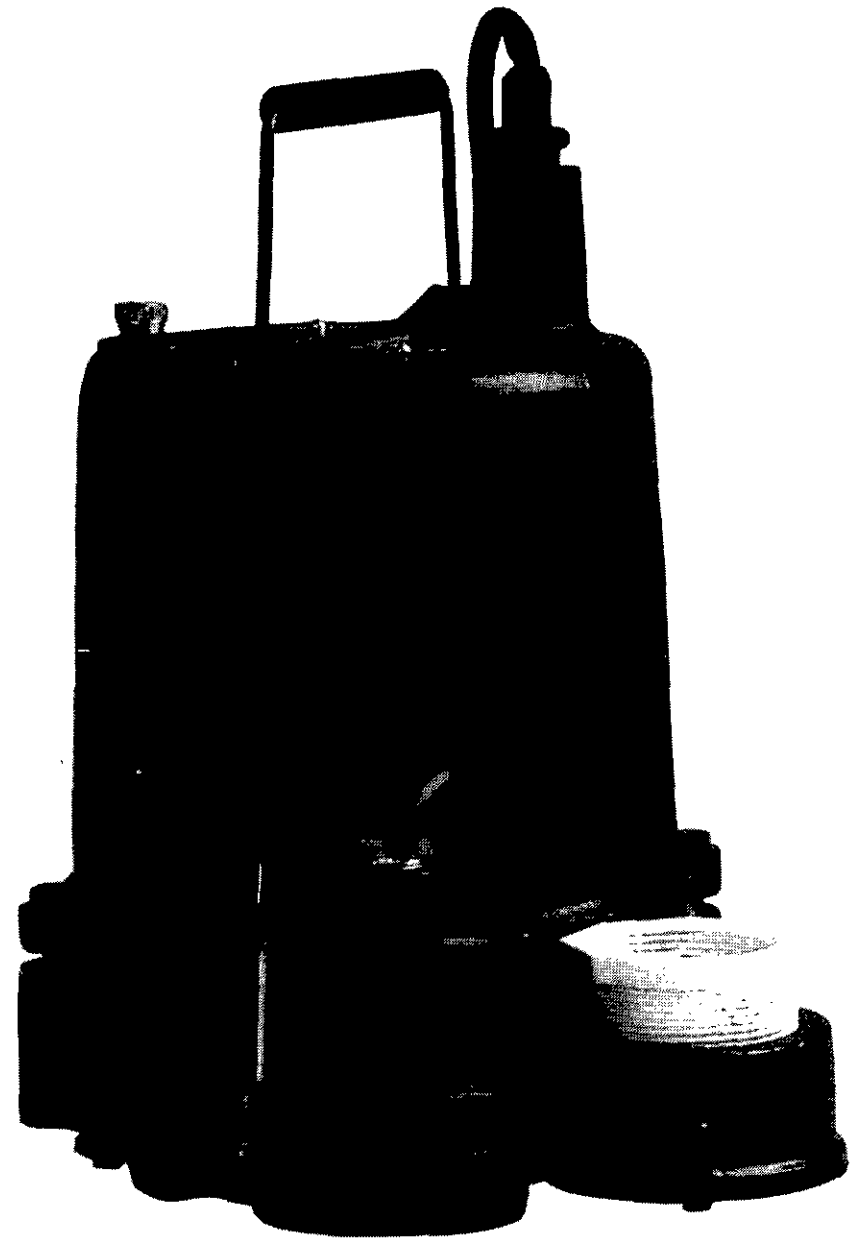
Part No. 5625-247-1

M-OSP33-1

Installation and Service Manual

HYDROMATIC OSP33

Submersible Sump/Effluent Pump



NOTE!
To the installer: Please make sure you provide this manual to the owner of the pumping equipment or to the responsible party who maintains the system.

GS **AURORA PUMP**
A UNIT OF GENERAL SIGNAL

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Application Notes

7 Application Notes

1 Introduction

Warning: Read all instructions before starting any operation on pump. Always disconnect the pump and controls from its power source before handling or making any adjustments. Always wear rubber boots when there is water on the floor and you must unplug the pump or make any adjustments.

Before operation, read the following instructions carefully. Reasonable care and safe methods should be practiced. Check local codes and requirements before installation. Servicing should be performed by knowledgeable pump service contractors or authorized service stations.

Warning:

Risk of Electrical Shock — This pump has not been investigated for use in swimming pool areas.

To Reduce Risk of Electrical Shock:

1. Connect only to a properly grounded, grounding-type receptacle.
2. Septic tank to be vented in accordance with local plumbing codes.
3. Do not smoke or use sparkable electrical devices or flame in a septic (gaseous) or possible septic sump.
4. A septic sump condition may exist and if entry into sump is necessary, then (a) provide proper safety precautions per OSHA requirements and (b) do not enter sump until these precautions are strictly adhered to.

   Do not install pump in location classified as hazardous per N.E.C., ANSI/NFPA 70 - 1984.

Failure to heed above cautions could result in injury or death.

2 Installation

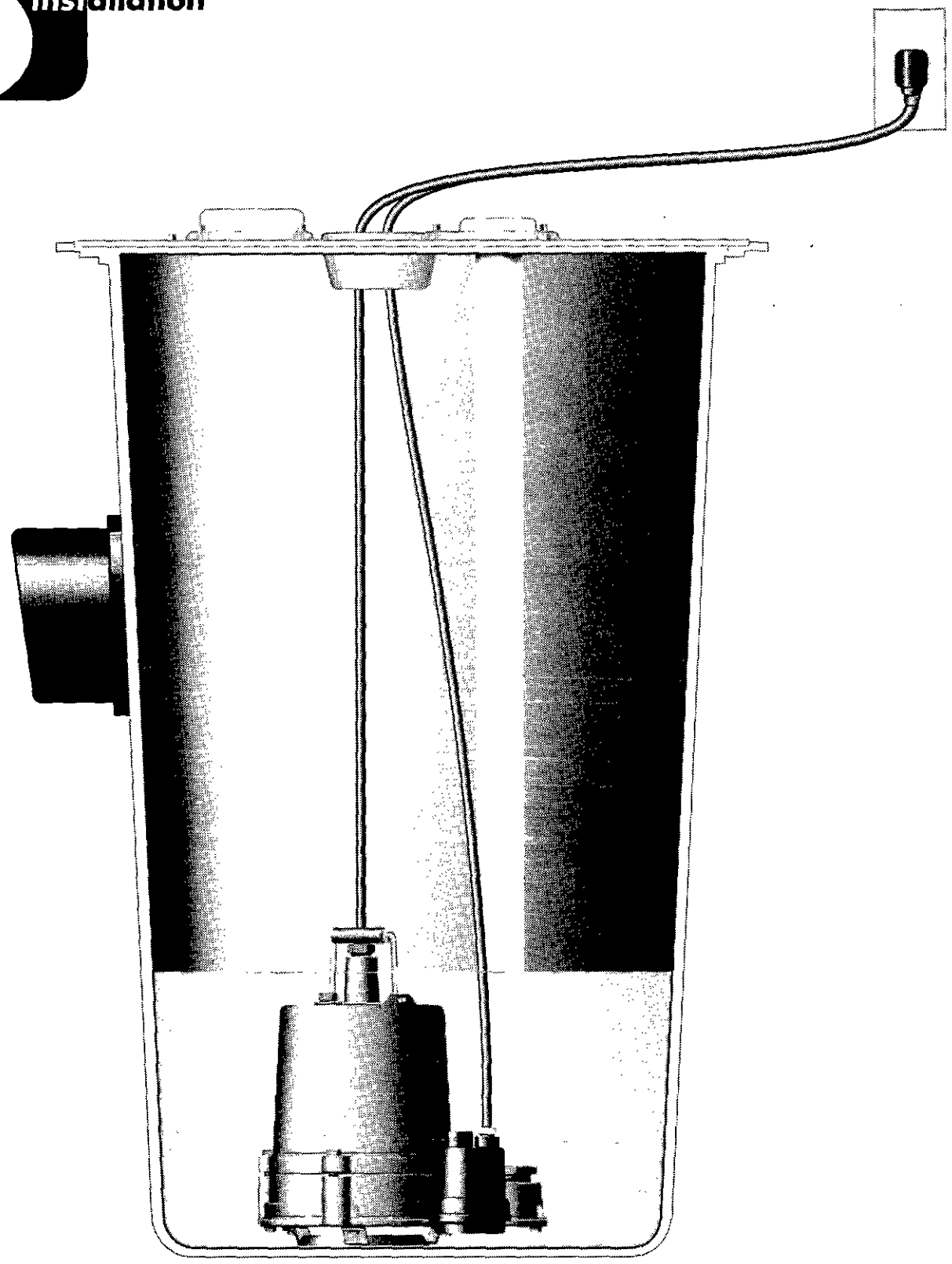
These important instructions must be followed for satisfactory performance of your pump:

1. Provide proper sump (recommended minimum sump diameter is 18").
2. Do not set pump directly on the bottom of the sump if it is not solid. Raise the pump by placing bricks or concrete blocks underneath it.
3. Make sure sump is free of string, cloth, nails, gravel, etc. before installing pump.
4. Pump to be connected to a properly grounded, grounding-type receptacle only.
5. Do not remove ground pin from electrical plug.
6. Do not use an extension cord.
7. For proper automatic operation, make sure the pump power cord is plugged into the "piggy-back" receptacle on the diaphragm switch cord.
8. Connect to separate electrical circuit taken directly from main switch.
9. Use steel or plastic pipe for all connecting lines between pump and sewer outlet.

   Note: Some city regulations do not allow installing a pump with plastic pipe. Check local regulations.
10. In applications where the pump may sit idle for months at a time, it is recommended that the pump(s) be cycled every month to insure the pumping system is working properly when needed.
11. Hydromatic check valve should be installed in discharge pipe at least 12" above the discharge outlet of the pump.
12. An audible alarm, such as the Q Alert system for high water conditions, should be installed in every pump for greater protection.

    Note: The Q Alert panel is for indoor use only. For outdoor application contact your Hydromatic distributor for additional Q panels.

3 Typical Installation



OSP33

7 Application Notes

6 Warranty

Aurora/Hydromatic, a Unit of General Signal, warrants to the original purchaser of each of Hydromatic Pump product(s) that any part thereof which proves to be defective in material or workmanship within one year from date of installation or 18 months from manufacture date, whichever comes first, will be replaced at no charge with a new or remanufactured part, F.O.B. factory. Purchaser shall assume all responsibility and expense for removal, reinstallation and freight. Any item(s) designated as manufactured by others shall be covered only by the express warranty of the manufacturer thereof. This warranty does not apply to damage resulting from accident, alteration, design misuse or abuse.

If the material furnished to the Buyer shall fail to conform to this contract or to any of the terms of this written warranty, Aurora Pump shall replace such nonconforming material at the original point of delivery and shall furnish instruction for its disposition. Any transportation charges involved in such disposition shall be for the Buyer's account. The Buyer's exclusive and sole remedy on account or in respect of the furnishing of material that does not conform to this contract, or to this written warranty, shall be to secure replacement thereof as aforesaid. Aurora Pump shall not in any event be liable for the cost of any labor expended on any such material or for any incidental or consequential damages to anyone by reason of the fact that such material does not conform to this contract or to this written warranty.

ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE SAME EXTENT AS THE EXPRESS WARRANTY CONTAINED HEREIN. Some States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

MANUFACTURER EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ARISING IN CONNECTION WITH THIS PRODUCT. INCLUDING WITHOUT LIMITATION, WHETHER IN TORT, NEGLIGENCE, STRICT LIABILITY CONTRACT OR OTHERWISE. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

NOTE:
PUMP MUST BE REPAIRED BY AUTHORIZED AURORA/ HYDROMATIC REPAIR CENTER OR WARRANTY WILL BE VOID. IF REPAIR CENTER IS NOT AVAILABLE, RETURN PUMP TO PLACE OF PURCHASE.

4 Service

Servicing should be performed only by knowledgeable pump service contractors or authorized service stations.

Warning: Always disconnect the pump from power source before handling or making any adjustments. Always wear rubber boots when there is water on the floor and you must unplug the pump or make any adjustments.

1. **Removing pump from sump.** Before removing pump from sump for repair, check to see if the trouble could simply be a blown fuse, tripped circuit breaker, or a power cord not completely inserted into the receptacle.

   Note: Automatic thermal overload protects the sealed-in-oil motor. Running dry may overheat the motor and activate the overload protector. This will close the circuit when the motor cools and allow pump to restart. If condition continues to exist, it may cause premature pump failure.

   Unplug the power cord and pull the pump, by the handle, from the sump. Sandblast, if possible, any dirt or trash from the outside of the pump before dismantling.

2. **Check diaphragm switch.** If the unit is being operated by the automatic diaphragm switch, unplug the pump from the "piggyback" receptacle and plug the pump directly into the power source. If the pump starts each time it is plugged directly into the receptacle and does not start each time when plugged into the piggyback switch with the diaphragm switch pressed into a start position, replace the complete piggyback switch assembly and retest with the new assembly.

3. **Check for impeller blockage.** Check for an obstruction in the impeller cavity by laying the pump on its side and inserting a screwdriver through the hole in the foot and baffle plate (28) and the bottom plate (26) and turning the rotor and shaft (16). It should turn freely. If the impeller hangs up or there is an indication of impeller blockage, the foot and baffle plate must be removed by removing the three hex head cap screws (29) and the bottom plate removed by removing the five hex head cap screws (27). Clear the impeller of its obstruction and clean the impeller, and reassemble.

4. **Check power cord.** Check the power cord (5) for brittleness or for any cuts or nicks in the insulation. Using an ohmmeter, check the continuity of the power cord. If any of these tests fail, the power cord should be replaced. To replace power cord unscrew the nut on the cord, pull cord up and discard damaged power cord. Add pipe sealant to threads and reinstall by pushing cord onto pins and tighten nut.

5. **Check for air lock.** A sump pump is said to be air locked if water traps in the pump and it cannot get out, thus preventing pump from operating.

   Hydromatic pumps have a small air vent hole in the impeller cavity to let out trapped air. If this hole becomes plugged, pump may air lock. To break the air lock, use a small screwdriver to clear hole in the impeller cavity.

   As a secondary precaution in installations of this type — 1/16" hole should be drilled in the discharge pipe below the check valve. The check valve should be 12 to 18 inches above pump discharge. Do not put check valve directly into pump discharge opening.

   Note: In sumps where the pump is operating daily, air locking rarely occurs.

6. **Check the oil.** Remove the pipe plug (4) in the top of the motor cover and drain oil into a clean, dry container. A milky appearance to the oil indicates that water has entered through either worn out or damaged seals (23, 24), seal ring (20), or cord nut.

7. **Remove the motor cover.** Remove the four hex head cap screws (22). Use a screwdriver to pry the motor cover (19) from the volute case (21) at the fastening ears, being careful not to cut the seal ring (20) with the screwdriver or crack the motor cover. Lift the motor cover until it clears the stator (15).

8. **Check for short.** Disconnect the stator leads (7, 8, 9) from the connector (6). Use an ohmmeter to check the continuity of the stator. If stator fails to pass the continuity test, it must be replaced.

9. **Remove the stator.** To remove the stator, remove the four hex head screws (12) and the stator plate (13). Lift the stator off the volute case (21) and set aside.

10. **Remove the impeller.** To remove the impeller (25), hold the rotor (16) in your hand and tap the impeller with a plastic or rubber mallet so as to turn the impeller counter clockwise.

4 Service Continued

11. **Check the seal.** Remove the rotating portion of seal (24) from shaft by inserting a screwdriver under the edge of the seal and lifting it off without damaging seal. Inspect the seal face for any nicks or an uneven seating of seal face. If any are present, replace the seal. (See Step 14.)

12. **Remove rotor and shaft.** Tap the rotor shaft (16) at the impeller end of the shaft with a plastic mallet to remove the rotor and shaft. Inspect the bearings (17). If they do not rotate freely and smoothly, they should be replaced. When new bearings are ready to be added onto the shaft, do not push on outer race of bearings. This will damage bearings. If a rotor and shaft is ordered from Hydromatic, the bearings will be supplied already pressed on the shaft.

13. **Remove seal.** Remove the old stationary portion of the seal (23) from the case (21) by inserting a screwdriver into the seal housing of the case from the top of the case and tapping lightly with a hammer. Clean the seal area of the case with a clean cloth.

14. **Reinstall the rotor and shaft assembly.** Push on outer race to seat bearing in volute case.

15. **Reinstall seal.** Apply an oil lubricant to the new stationary portion of the seal (23) and press into the case (21). Coat the new rotating portion of seal with lubricant and press into place on the rotor shaft with the rubber ring facing the impeller.

16. **Reinstall impeller.** Add a drop of Locktite 277 to the shaft and screw the impeller on hand tight. The impeller will force the rotating portion of seal into position.

17. **Replace seal ring.** Remove the old square seal ring (20) from the volute and stretch on a new ring coated with O-ring lube.

    Do not roll the ring onto the volute or improper seating and water leakage into the motor housing will result.

18. **Reinstall the stator.** Place the stator (15) in the volute case (21) so the stator bolt holes line up. Lay the stator plate (13) on the stator (15) and line up with stator bolt holes. Put in the stator bolts (12) and tighten evenly to prevent cocking of the stator. Push the connectors of the power cord onto the stator terminals.

19. **Reinstall motor housing.** Tighten down the four hex head cap screws (22) evenly to prevent cocking of motor housing and achieving an uneven seal on the seal ring (20).

20. **Oil.** Fill the motor cap with high grade transformer oil such as Sohio Factopure SE40 oil or equivalent to at least ¼" over motor windings (.38 gallon).

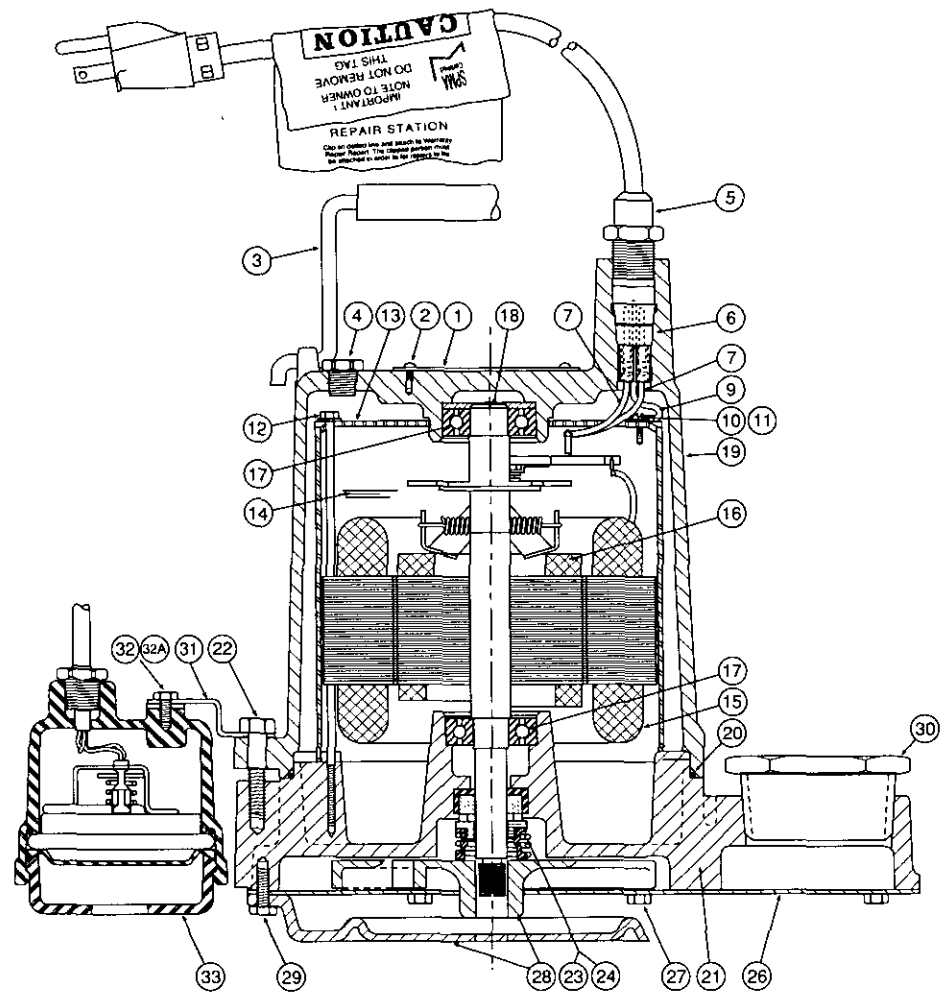
    Do not fill the motor housing completely — allow airspace for oil expansion.

21. **Reinstall oil pipe plug.** Coat pipe threads with thread sealant before installing.

22. **Check pump.** Plug the power cord into a grounded outlet and start pump by applying pressure to the switch diaphragm (automatic only — manual should start when power is applied). Motor should run smoothly, be free of vibration and stop when pressure is removed.

*Loctite 277 is a registered trademark of Loctite Corp.

5 Parts List



Ref. No.	Part No.	Description	Qty.
1		Nameplate, 115V	1
1		Nameplate, 230V	1
2	4580-001-1	Drivescrew	2
3	60-000-5	Handle	1
4	119-002-1	Pipe Plug	1
5	12585-004-5	Power Cord Assembly, 115V-10'	1
5	12585-005-5	Power Cord Assembly, 115V-20'	1
5	12585-003-5	Power Cord Assembly, 230V-20'	1
6	4209-004-5	Connector Assembly	1
7	6000-061-5	Lead Wire/Terminal Assembly (Blk, 625")	1
9	6000-060-5	Grnd Wire/Terminal Assembly (Grn, 5")	1
10	12845-001-1	Screw, 8-32 Self Tapping	1
11	995-002-1	Lockwasher, #8	1
12	145-003-1	Bolt, Stator - 8-32 x 55/8" Lg. (Prior to 11/90)	4
13	70-000-1	Plate, Stator (Prior to 11/90)	1
*14		Oil	.38 gal.
15	13348-001-1	Stator, 115V	1
	13349-000-1	Date Code 11/90	
15	9994-001-1	Stator, 230V	1
16	13348-011-5	Rotor & Shaft w/Bearings	1
	13349-010-1	Date Code 11/90	
17	65-001-1	Bearing	2
18	64-001-1	Load Spring	1
19	56-008-2	Housing, Motor	1
	56-026-2	Date Code 11/90	
20	77-003-1	Seal Ring	1
21	12328-002-2	Volute	1
22	101-007-1	Bolt, 5/16-18 x 1" Lg.	4
23	83-002-1	Seal (Stationary Seat)	1
24	83-007-1	Seal (Rotating Seat)	1
25	16-000-2	Impeller	1
26	18-002-1	Bottom Plate	1
27	19-002-1	Screw, 10-24 x 3/8" Lg.	5
28	21-000-2	Foot & Baffle Plate	1
29	19-004-1	Screw, 10-24 x 5/8" Lg.	3
30	12185-001-1	Reducer Bushing, 2" x 1-1/2"	1
		AUTOMATIC MODELS	
31	5502-004-1	Bracket	1
32	176-015-1	Screw, 1/4-20 x 3/8" Lg.	1
32A	995-008-1	Lockwasher	1
33	12752-004-5	Diaphragm Switch (6-1/2" Range), 115V-10'	1
33	12752-005-5	Diaphragm Switch (6-1/2" Range), 115V-20'	1
33	12752-006-5	Diaphragm Switch (6-1/2" Range), 230V-20'	1
33	12752-008-5	Diaphragm Switch (8-1/2" Range), 115V-20'	1
33	12752-009-5	Diaphragm Switch (8-1/2" Range), 115V-20'	1
33	12752-010-5	Diaphragm Switch (8-1/2" Range), 115V-20'	1

*Purchase locally.