



Marlow Series 2AM32-P

PETROLEUM PUMP

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

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Owner's Information

Please fill in data from your pump nameplate.
Warranty information is on page 8.

Pump Model: _____

Serial Number: _____

Dealer: _____

Dealer's Phone Number: _____

Date of Purchase: _____

Installation Date: _____

Congratulations

You are now the owner of a Goulds pump. This pump was carefully inspected and subjected to final tests before releasing for shipment. In order to assure maximum performance please follow the simple instructions in this manual.

⚠ WARNING PUMPING OF VOLATILE PETROLEUM PRODUCTS CAN BE HAZARDOUS.

FOR THIS REASON, EXTREME CARE MUST BE EXERCISED AND ALL OPERATING AND SAFETY INSTRUCTIONS STRICTLY ADHERED TO. FAILURE TO DO THIS CAN RESULT IN A FIRE OR EXPLOSION.

APPLICATION: This pump is designed to pump petroleum products such as diesel fuel, jet fuel or gasoline in well-ventilated areas that do not contain potentially explosive fumes.

This equipment should be operated only by personnel who have been thoroughly instructed as to the hazards involved and who are familiar with the following operating and safety instructions.

OPERATING AND SAFETY INSTRUCTIONS

1. Use non-sparking tools when making pump connections.
2. Always securely connect the ground wire to a good ground on the tank being filled, before operating the pump.
3. Do not operate the engine while filling the pump tank with its initial priming liquid.
4. Do not refill engine if running or hot.
5. Do not pump liquids other than water or petroleum products.
6. Do not operate with leaky seal or piping, closed suction or discharge valve or with a fill plug removed.
7. Operate pump only with guard in place.

MAINTENANCE INSTRUCTIONS

1. If engine is hard to start, or runs rough, move unit to a safe area and check out on water.
2. This engine must be maintained in original condition throughout its use. Prior to each use, inspect the air cleaner, spark arresting muffler, shielded spark plug, shielded spark plug wire, and the enclosed run-stop switch, to make certain that these are not worn or damaged in any way.
3. Use only original replacement parts - this is critical since each part was selected for its safety and high quality.

RECOMMENDED PRECAUTIONS

1. **APPLICATION:** This pump is designed to pump petroleum products such as diesel fuel, jet fuel or gasoline in well-ventilated areas that do not contain potentially explosive fumes. Primarily intended for fuel transfer or refueling construction equipment at remote open air sites where the lack of electricity

makes it impossible to use pumps driven by explosion-proof electric motors.

Pumping of volatile petroleum products can be hazardous. For this reason, extreme care must be exercised and all operating and safety instructions strictly adhered to.

2. As with all self-priming centrifugal pumps, the pump tank must be initially filled with the liquid being pumped. **DO NOT** run the engine while filling the pump tank. Failure to follow this precaution could result in a fire or explosion.
3. This pump is designed primarily for water and petroleum products use. Before pumping other liquids, carefully read the special note below.
4. Do not subject the pump to a pressure in excess of 75 psi.
5. Should the fluid temperature rise more than 50°F. ambient, expansion joints must be installed on both the suction and discharge ports to relieve any stress on the pump casing.
6. No modifications, additions or deletions should be made to the pump.
7. Prime movers powering the pumps may operate at high temperatures. Keep hands off mufflers and manifolds to avoid burns.
8. In systems where shock wave pressures may be generated, protective devices (check valve/gate valve, etc.) must be installed on discharge line to prevent shock wave pressures from entering casing. A discharge check valve is required when operating against high static heads.
9. Do not refill engine fuel tank while power unit is running or while hot. Prevent splashing of gasoline or other fuel while filling supply tank.
10. Do not use in a combustible atmosphere.
11. Make daily checks of the tightness of suction and discharge pipe, drain, filler plug and pump gaskets. Check tightness of gasoline tank filler cap each time tank is filled. Operation should not proceed until all of the above items have been checked and are tight.

⚠ CAUTION The performance of Goulds Water Technology is based upon clear, cold, fresh water with suction conditions as shown on the performance curve. If used to pump other liquids, pump performance may differ from rated performance based on the different specific gravity, temperature, viscosity, etc. of the liquid being pumped. However, a standard pump may not be safe for pumping all types of liquids, such as toxic, volatile or chemical liquids, or liquids under extreme temperatures or pressures. Please consult your Goulds Water Technology catalog as well as local codes and general references to determine the appropriate pumps for your particular application. Since it is impossible for us to anticipate every application of a Goulds pump, if you plan to use the pump for other than a water or petroleum product application, consult Goulds Water Technology beforehand to determine whether such application may be proper or safe under the circumstances. Failure to do so could result in property damage or personal harm.

OPERATING INSTRUCTIONS

GENERAL

- Our shipping container has been specifically designed to prevent transit damage. However, any indications of damage or shortage should be carefully noted on the delivery ticket and a claim filed promptly with the carrier.

PROPER LOCATION

- By placing your Goulds pump on a firm, level foundation, you reduce the chance of its falling into the liquid and damaging the engine. You also insure proper oil lubrication of the engine and obtain optimum engine performance. Best pump operation is obtained by locating the pump so as to minimize the suction lift as much as practical, keeping in mind that a pump can push liquid more effectively than it can pull or draw liquid.

CONNECTIONS

- Connections at the easily accessible suction and discharge ports can be made with either oil-resistant hose or pipe. The use of strongly reinforced suction hose will prevent collapsing of the hose during operation. New hose washers should be used at the couplings to prevent trouble-causing leaks. Pipe joint compound that will not dissolve in the liquid being pumped should be used on all pipe joints. All hose or pipe should be independently supported to eliminate excessive strain on the pump. For best results your hose should discharge higher than the pump to prevent siphoning action when the unit is shut down.
- We strongly recommend the use of extra-heavy close faced nipples on the suction and discharge ports of the 2AM32-P petroleum pump. Also, be sure to apply pipe compound on the nipples before installing. When pumping petroleum products, it is particularly important to use suitable hose, gaskets and fittings to minimize the chance of a leak occurring.
- Also, be certain that the splash guard special air cleaner and spark arresting muffler are used on every application.

STRAINER ADVISABLE

- Protect your investment, use a strainer. Strainers are attached to the suction line to prevent stones and foreign debris from damaging the impeller or diffuser, resulting in reduced performance. Stones lodged inside the pump can cause premature wear and poor performance. To keep the strainer from working into the sediment, suspend the hose from the end of a rope. If you do not have a strainer, your Goulds Water Technology dealer can supply one in the correct size.

STARTING

- Follow the engine manufacturer's instructions carefully. Fill the pump tank with liquid before starting.
- Your pump has been designed to prime itself in a few minutes with the engine running fast. High suction lifts require additional time and reduce the performance of the pump. Should you have difficulty, refer to the Troubleshooting Guide section.
- Goulds Water Technology prime and reprime themselves providing the tank is filled with liquid. Should you lose this liquid from the tank accidentally or by

draining purposely, it will be necessary to refill it with liquid before starting. **DO NOT** operate the engine while filling the pump tank with its initial priming liquid.

LUBRICATION

- The latest engineering advancements have been incorporated into our self-lubrication shaft seal. The liquid being pumped cools and lubricates the seal. Running the pump dry will damage the seal. Always keep liquid in the tank, and no further lubrication of the pump end is necessary. Refer to engine manual for proper engine lubrication.
- It is particularly important when pumping petroleum products to regularly check the condition of the seal. At the first sign of a leak in the seal, the unit should be shut down immediately and the seal replaced with a new one of the same design.

HIGH DISCHARGE

- If you have a vertical discharge line rising 30 feet or more, your pump is subject to severe back pressures when it is shut down. This back pressure can cause damage to the pump. To prevent the possibility of this damage, install a check valve on the discharge line as near to the pump as possible, and the shock will be stopped at the valve.

MAINTENANCE

1. The pump is fitted with a mechanical shaft seal which requires no other lubrication than the liquid in which it operates.
2. On occasion, the mechanical shaft seal may become worn and must be replaced. Follow the replacement instructions enclosed with each seal assembly. Do not operate with a leaky seal.
3. When pump is not in use for several days, or for winter storage, drain all the liquid from the tank.
4. Follow the engine manufacturer's manual for periodic maintenance and adjustment. Also follow their procedure for winterizing the engine as set forth in the manual.
5. Storage of engine requires rotation of engine shaft to the compression stroke, thus inhibiting rust on the engine valves.
6. Maintenance and functional problems relating to the engine should be referred directly to the manufacturer's service station.
7. This engine is modified by:
 - a. An Air Maze air cleaner, with oil-wetted metallic element. A small amount of engine oil should be added per instruction label on the outside of the air cleaner.
 - b. A spark arresting muffler, centrifugal type. It must be mounted with the clean-out plug at the bottom. Carbon particles should be removed through the clean-out hole on a regular basis. Do this only when engine is cold and in a well-ventilated area free from petroleum vapors.
 - c. A shielded spark plug and shielded spark plug wire.
 - d. An enclosed run-stop switch on the side of the engine shroud.

TROUBLESHOOTING GUIDE

The following are some common causes of problems that may arise.

SYMPTOMS	PROBABLE CAUSE	RECOMMENDED ACTION
Will Not Prime	No liquid Air leak in suction line Blocked suction line Worn seal	Fill tank with liquid. Tighten all joints or remake using new compound. Clean strainer or suction line. Install new seal.
Stops Pumping Until Engine is Stopped and Restarted	Collapsing suction hose lining	Replace hose.
Suddenly Stops Pumping	Clogged strainer or hose	Clean hose and strainer.
Slowly Stops Pumping	Clogged impeller, diffuser or lines	Clean out debris and use strainer.
Leakage Around Pump Shaft While Operating	Worn seal	Replace seal.
Performance Poor	Worn impeller or seal Engine not up to speed Suction lift too high Suction hose too small	Replace with new impeller or seal. Refer to engine manual. Relocate pump closer to supply. Use larger size hose.

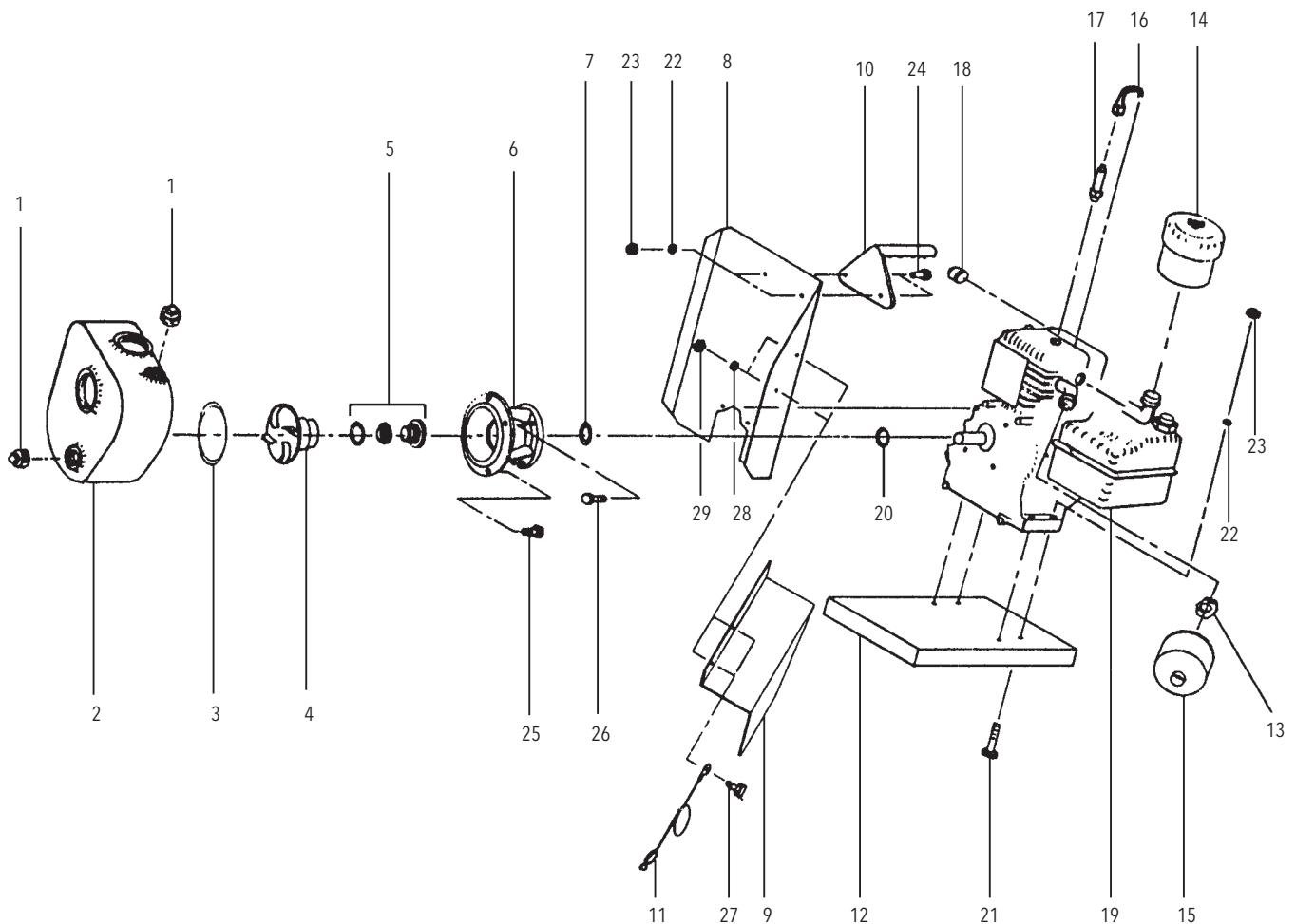
REPAIR PARTS LIST

Key	Description	Key	Description
1	Pipe plug	16	Shield, spark plug wire
2	Casing	17	Spark plug
3	Gasket, o-ring	18	Rotary ignition switch
4	Impeller, open	19	Engine assembly (includes engine plus items 14 through 18)
5	Seal assembly		
6	Bracket	20	Gasket, o-ring
7	Slinger	21	Capscrew
8	Splash deflector	22	Lockwasher
9	Muffler guard	23	Nut
10	Handle	24	Capscrew
11	Ground cable	25	Capscrew
12	Base	26	Capscrew
13	Locknut	27	Capscrew
14	Air cleaner	28	Lockwasher
15	Spark arresting muffler	29	Nut

IMPORTANT:

How to use the drawing to order parts:

The table above indicates the name of each pump part. Should you need a replacement, refer to drawings - locate the part that matches your pump part. Contact your local Goulds Water Technology dealer and supply him with the key number and description of the part required, along with your pump model number and serial number, which are located on the pump nameplate.



GOULDS WATER TECHNOLOGY LIMITED WARRANTY

This warranty applies to all water systems pumps manufactured by Goulds Water Technology.

Any part or parts found to be defective within the warranty period shall be replaced at no charge to the dealer during the warranty period. The warranty period shall exist for a period of twelve (12) months from date of installation or eighteen (18) months from date of manufacture, whichever period is shorter.

A dealer who believes that a warranty claim exists must contact the authorized Goulds Water Technology distributor from whom the pump was purchased and furnish complete details regarding the claim. The distributor is authorized to adjust any warranty claims utilizing the Goulds Water Technology Customer Service Department.

The warranty excludes:

- (a) Labor, transportation and related costs incurred by the dealer;
- (b) Reinstallation costs of repaired equipment;
- (c) Reinstallation costs of replacement equipment;
- (d) Consequential damages of any kind; and,
- (e) Reimbursement for loss caused by interruption of service.

For purposes of this warranty, the following terms have these definitions:

- (1) "Distributor" means any individual, partnership, corporation, association, or other legal relationship that stands between Goulds Water Technology and the dealer in purchases, consignments or contracts for sale of the subject pumps.
- (2) "Dealer" means any individual, partnership, corporation, association, or other legal relationship which engages in the business of selling or leasing pumps to customers.
- (3) "Customer" means any entity who buys or leases the subject pumps from a dealer. The "customer" may mean an individual, partnership, corporation, limited liability company, association or other legal entity which may engage in any type of business.

THIS WARRANTY EXTENDS TO THE DEALER ONLY.



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