



# **GASBOY**

---

**SERIES 552A/553A**

**COMMERCIAL PUMPS**

**INSTALLATION/OPERATION/PARTS**

**MANUAL**

**035299**

**REV. 03/07/03**

**INSTALLERS - IMPORTANT**

**In addition to installation information, this manual contains warnings, safeguards and procedures on the use and care of the Series 550A pumps. Please leave this manual with the pump owner after the installation is complete.**

Copyright 2003 by Gasboy International LLC All rights reserved.  
The information in this document is confidential and proprietary. No further disclosure shall be made without permission from Gasboy International LLC. Gasboy International LLC believes that the information in this document is accurate and reliable. However, we assume no responsibility for its use, nor for any infringements of patents or other rights of third parties resulting from its use. We reserve the right to make changes at any time without notice.

**GASBOY INTERNATIONAL LLC LANSDALE, PA**

# IMPORTANT WARNINGS AND SAFEGUARDS

Gasoline and petroleum products are flammable. To avoid injury or death to persons or damage to equipment or property, follow these listed warnings and other warnings and precautions outlined in this manual when installing, using, or working around this equipment. Check with GASBOY Technical Services for compatibility of liquids with pump materials.

## TURN OFF AND LOCK OUT ALL POWER TO PUMP BEFORE PERFORMING SERVICE, MAINTENANCE OR IN THE EVENT OF A FUEL SPILL.

All products must be installed by a qualified installer and used in conformance with all building, fire, and environmental codes and other safety requirements applicable to its installation and use, including, but not limited to, NFPA 30, NFPA 30A, NFPA 395 & NFPA 70. A qualified installer is familiar with fuel systems installations under the above stated building, fire, and environmental codes and other safety requirements for the particular type of installation.

This product is only part of a fuel dispensing system and additional equipment and accessories, such as, but not limited to, breakaway connectors, shear valves, pressure regulators, flow limiters, and other safety devices may be necessary to meet the applicable codes.

For maximum safety, we recommend that all employees be trained as to the location and procedure for turning off power to the entire system. Instructions regarding proper operation of the equipment along with the appropriate safety warnings should be posted in plain view at the fuel island.

Before performing service or maintenance (including changing of fuel filters or strainers) or in the event of a fuel spill, turn off and lock out all power to the system. In battery-powered pumps, disconnect power source. In submersible pump applications, turn off and lock out power at the master panel and close any impact valves to the submersible pump and any other dispensers which use that submersible pump. AC power can feed back into a shut-off dispenser when dispensers share a common submersible pump or starter relay. Also block islands so no vehicles can pull up to the dispenser when the dispenser is being worked on.

**DO NOT** use Teflon tape for any pipe threads in the product.

**DO NOT** use consumer pumps for pumping fuel or additives into aircraft.

**DO NOT** use commercial pumps for direct fueling of aircraft without filters and separators necessary to ensure product purity.

**DO NOT** use where sanitary design is required (for food products for human consumption) or with water-based liquids.

**DO NOT** smoke near the pump or when using the pump.

**DO NOT** use near open flame or electrical equipment which may ignite fumes.

**DO NOT** permit the dispensing of gasoline or other petroleum products into a vehicle with its motor running.

**DO NOT** permit the dispensing of gasoline or other petroleum products into unapproved containers or into approved containers in or on vehicles including trucks. All containers must be filled on the ground to prevent static discharge. Always use Approved and Listed hoses and nozzles with electric pumps and dispensers.

**DO NOT** block open the nozzle in any manner. Nozzles shall conform to UL and NFPA code requirements for attended or unattended service.

**DO** ensure that the pump is equipped with proper filters based on the product being dispensed and its intended use.

**DO** wear safety goggles and protective clothes when dispensing any liquid which may be potentially harmful or hazardous.

**DO** keep all parts of body and loose clothing clear of belts, pulleys, and other exposed moving parts at all times.

**DO** require washing and changing of clothes if fuel is spilled on a person or his/her clothing. Keep away from open flames, sparks, or people smoking.

**DO** provide a receptacle for catching product from pump/meter when servicing.

**DO** clean up product spills on the driveway. Turn off and lock out all power prior to cleanup.

**DO** insure pump is properly grounded.

**DO** insure hose is compatible with fluid being dispensed.

**DO** inspect hose, nozzle, and pump on a regular basis for wear, damage, or other conditions which may create a safety or environmental hazard.

**DO** make sure all pipe threads are properly cut and the inside reamed to remove burrs. Use UL classified gasoline-resisting compound on all joints of gasoline handling piping. Sealing compound must also be resistant to Gasohol (Ethanol and Methanol). Use gasoline-resistant pipe compound on male threads only; pipe compound used on female threads can be squeezed into the supply line where it can enter the product stream and become lodged in the pump or meter.

**DO** ensure that junction box covers are in place and properly tightened. Mating surfaces between the box and cover must be free of dirt, nicks, and scratches. All unused entries into the junction box must be properly plugged.

---

# CONTENTS

---

## IMPORTANT WARNINGS AND SAFEGUARDS

<b>Section 1:</b>	<b>INTRODUCTION</b>	
	Purpose .....	1-1
	Overview .....	1-1
<b>Section 2:</b>	<b>INSTALLATION</b>	
	Before You Begin .....	2-1
	Installation Precautions .....	2-1
	Foundation .....	2-2
	Suction Pump .....	2-2
	Installation Layout .....	2-3
	Supply Line.....	2-4
	Connecting the Suction Pipe.....	2-4
	Base Layout - 011982 .....	2-5
<b>Section 3:</b>	<b>WIRING</b>	
	Wiring Precautions .....	3-1
	Grounding .....	3-1
	Circuit Breakers.....	3-2
	Pump Motor.....	3-2
	Wiring and Conduit.....	3-2
	Pump Wiring.....	3-2
	Pulser Wiring.....	3-3
	Conduit.....	3-3
	Wiring Notes.....	3-4
	Wiring Diagram - 024206 .....	3-5
<b>Section 4:</b>	<b>TESTING AND OPERATION</b>	
	Testing the Installation .....	4-1
	Operating Instructions .....	4-1
<b>Section 5:</b>	<b>MAINTENANCE AND TROUBLESHOOTING</b>	
	General .....	5-1
	Exterior Maintenance .....	5-1
	Lubricating the Pump's Components .....	5-2
	Cleaning the Strainer.....	5-3
	Calibrating the Meter .....	5-3
	Correcting Meter Drive Shaft Leak.....	5-3
	Adjusting the Belts.....	5-4
	Troubleshooting.....	5-5
	Preparing Used Pumps for Storage .....	5-6

**Section 6:**

**PARTS LIST**

General .....	6-1
Panels and Trim Diagram.....	6-2
Panels and Trim Parts.....	6-3
Chassis Assembly – Front and Rear View Diagram .....	6-4
Chassis Assembly – Front and Rear View Parts.....	6-5
Adapter Assembly .....	6-6
Dial Enclosure Assembly.....	6-7
Meter Assembly Diagram.....	6-8
Meter Assembly Parts .....	6-9
Meter Assembly Breakdown Diagram.....	6-10
Meter Assembly Breakdown Parts .....	6-11
Motor Assembly Diagram.....	6-12
Motor Assembly Parts .....	6-13
Pumping Unit Assembly Diagram.....	6-14
Pumping Unit Assembly Parts.....	6-15
Pumping Unit Assembly Breakdown Diagram.....	6-16
Pumping Unit Assembly Breakdown Parts.....	6-17
Register Assembly With Start-Stop Linkage Diagram.....	6-18
Register Assembly With Start-Stop Linkage Parts .....	6-19
Register Assembly with Interlock Diagram.....	6-20
Register Assembly with Interlock Parts .....	6-21
Hand Crank Assembly Diagram.....	6-22
Hand Crank Assembly Parts .....	6-23
Pulser Assembly Diagram.....	6-24
Pulser Assembly Parts .....	6-25
Accessories and Field Kits .....	6-26

## INTRODUCTION

---

### PURPOSE

The *GASBOY 552A/553A Commercial Pumps Installation/Operation/Parts Manual* is provided to assist the installer in installing and operating the unit. This manual should be supplied to the electrician prior to the installation of conduit and wiring to ensure the unit is installed properly. Faulty installations are the major cause of unit malfunctions. This unit **must** be installed and operated as described in the manual to ensure the reliability and proper operation of the 550A Series pumps. Be sure to leave this manual with the pump owner when the installation is complete. Customers and installers having any questions pertaining to this installation should contact their GASBOY distributor.

### OVERVIEW

The GASBOY 552A/553A pumps are UL-listed, heavy-duty, suction pumps designed for the needs of local and state governments, industrial, commercial, and private fleet operations. 550A Series pumps have the following features:

- Dimensions: Base 13-31/32" (35cm) x 18-1/16" (46cm), height 40-1/8" (102cm)
- Construction: Top and side carbon steel panels; front and back hot-dipped galvanized steel, for rust resistance.
- Cabinet: painted black with white door or color of your choice
- Motor:
  - 1/2 HP intermittent duty, dual voltage/dual frequency, 115/230VAC, 50/60 Hz (552A);
  - 3/4 HP continuous duty, dual voltage/dual frequency, 115/230 VAC, 50/60 Hz (553AMC);
  - 3/4 HP continuous duty, 380 VAC, 50 Hz (553AMC)
- Pump: Rotary gear pump with air eliminator built into pump casting, positive displacement, no priming necessary.
- Register: 4-wheel volume only, indicating up to 999.9 gallons/liters
- Totalizer: 999,999.9 gallons/liters
- Reset: manual or manual with interlock for use in retail sales
- Meter: positive displacement, Model 898-K
- Display: single-sided
- Dial Face: white with black text
- Hose: 552A - 3/4" (2cm) x 12 feet (3.6m); 553A - 1" (2.5cm) x 12 feet (3.6m)
- Suction connection: 1-1/2" NPT, unions provided
- Delivery Rate: up to 15 GPM/57 LPM (552A); up to 22 GPM/83 LPM (553A). Delivery rates are maximum test rates. Actual rates will vary depending upon installation conditions, product dispensed, and added accessories.
- Nozzle: Must be purchased separately. Automatic nozzles available.

Optional accessories include: additional hose lengths, external filter kits, vertical check valve, high speed hand attachment, Model 52 pressure regulating valve, pulsers, reset interlock, 380VAC/50 Hz. operation, imperial gallon or liter registration.

## INSTALLATION

---

### BEFORE YOU BEGIN

Before uncrating the pump, inspect the crate for damage. A damaged crate indicates possible internal damage to the dispenser, and the delivering carrier should be notified of possible concealed damage. It is recommended the original shipping crate be retained for pump re-shipment at some later date.

### INSTALLATION PRECAUTIONS

All installations must conform with all building/fire codes, all Federal, State, and Local codes, National Electrical Code, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations.

Plan your installation carefully. A pump cannot be expected to work satisfactorily unless the underground installation is correct. Dispensing troubles, which seem to be pump-related, are frequently traced to faulty installation. Review the following list of installation **DO's** and **DON'T's** to avoid potential problems:

1. **DO** read the **WARNINGS** page at the front of this manual, preceding the Table of Contents. It contains important information regarding the safe use of your dispensing equipment.
2. **DO** install an emergency power cutoff. In addition to circuit breaker requirements of NFPA 70 and NFPA 30A, a single control which simultaneously removes AC power from all site dispensing equipment is recommended. This control must be readily accessible, clearly labeled, and in accordance with all local codes.

In order to provide the highest level of safety to you, your employees, and customers, we recommend that all employees be trained as to the location and procedure for turning off power to the entire system.

3. **DO** have the pump/dispenser installed by a competent installer/electrician.
4. **DO** install breakaway coupling on discharge hose. If using a high hose retriever, install breakaway approximately 12" downstream of hose clamp on nozzle side of clamp.
5. **DO NOT** experiment with a pump if you are not sure the installation is correct.
6. **DO NOT** overload sub- or main breaker panels.
7. **DO NOT** install any underground piping without proper swing joints. (Always use shoulder nipples, never close nipples).
8. **DO NOT** cover any lines until they have been both air- and liquid-tested.
9. **DO NOT** back-fill the tank or supply line with cinders or ashes. (Back-fill with clean sand, crushed rock, or pea gravel).
10. **DO NOT** use black iron pipe or fittings for underground installations. (Use only new galvanized or fiberglass\* pipe and fittings). \*Install all fiberglass pipe and fittings according to manufacturer's specifications and requirements.

11. **DO NOT** use power line wiring of inadequate capacity. (Use gauge specified by the wiring diagram or wire chart provided in Section 3).
12. **DO NOT** use a circuit breaker of improper size. (See Section 3).
13. **DO NOT** install fill pipe to tank where it can be submerged with standing water.
14. **DO NOT** use the GASBOY fuel dispensing equipment to remove water ballast from the storage tank.
15. **DO NOT** use gaskets on covers of explosion-proof type boxes. The sealing compound found around wires at various locations within conduit is a requirement of the National Electrical Code and should not be disturbed. Ensure that mating surfaces between the box and cover are free of dirt, nicks, and scratches. Tighten junction box covers before replacing panels.
16. **DO NOT** use knock-out boxes or flexible conduit for installing this unit. All wires should be run in threaded, rigid, metal conduit. All threaded connections must be drawn up tight with five (5) threads minimum engagement. Only one opening in the AC junction box is provided with a plug at the factory. At completion of the installation, it is the installer's responsibility to ensure that any unused openings are plugged.

## **FOUNDATION**

When constructing the pump island for the dispensing equipment, be sure to extend the island excavation beyond the depth of the frost line. Leave open an area from the inside edge of the unit's base as shown on the specific base layout. Unless required by local regulations, **do not** cement the pipes and conduits into the island. The open area within the base will provide access for future servicing of the fittings and conduit assemblies. Fill in the boxed-in section with dry sand to keep condensation in the pump housing to a minimum and to help prevent fogging of the totalizer window.

Secure the pump/dispenser to the island using anchor bolts through the two mounting holes, which are indicated on each base layout by an **X**. If the dispensing unit is not securely fastened to the island, supply line leaks at unions and pipe joints may occur. Use one of two types of bolts to anchor the pump to the island. Use two (2) 1/2" x 5" (13mm x 125mm) long machine bolts imbedded in the concrete, or, to meet minimum UL and API requirements for universal interchangeability of pumps, use two 1/2" x 3 1/2" (13mm x 90mm) long lag screws with 2" (51mm) long expansion shields.

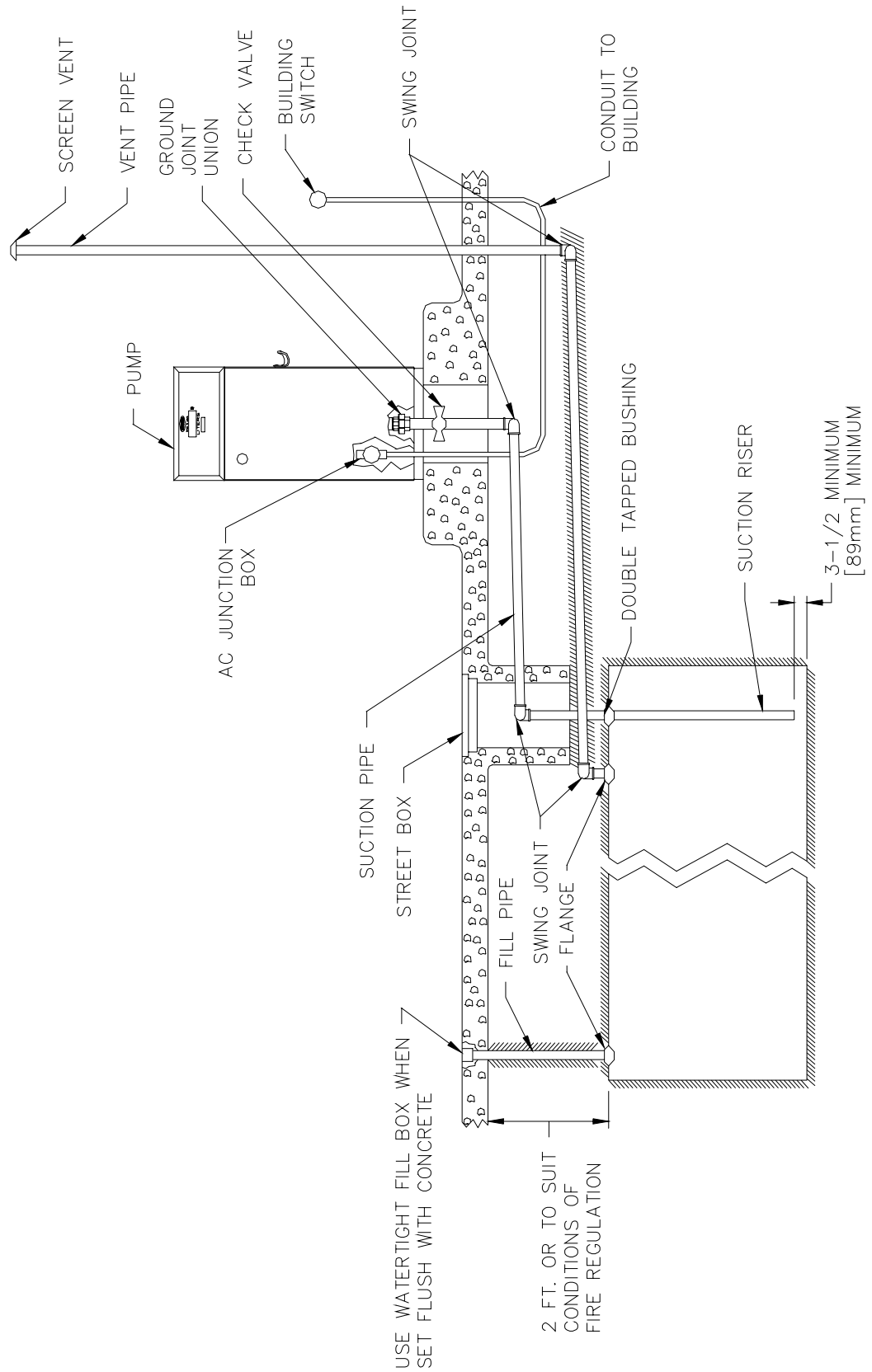
The drawing on the following page, **Installation Layout**, illustrates a recommended installation of the Model 552A & 553A power pump. In selecting a location for the pump and tank, bear in mind that a suction pump will draw liquid horizontally up to 100 feet, but on a vertical lift it is not advisable to exceed 12 feet (3.6m) for gasoline, or 13 feet (4m) for diesel.

## **SUCTION PUMP**

The pump and the tank should be located close to each other with as few changes in direction of the supply line, as possible. This reduces the possibility of vaporization (gasoline only), attains the highest possible flow rate, and results in a lower installation cost. Avoid long supply lines and excessive vertical lifts. The dynamic lift for this unit is rated at 12 feet (3.6m) for gasoline and 13 feet (4m) for diesel and can vary according to conditions of the installation and fuel temperature.



# INSTALLATION LAYOUT



## **SUPPLY LINE**

Always start at the pump and work toward the tank. Use new galvanized or fiberglass (see note) pipe, 1-1/2" minimum diameter. *(NOTE: Fiberglass pipe is to be installed according to manufacturer's specifications and requirements.)*

Be sure both the pipe and the tank are clean. Foreign matter entering the pump can cause extensive damage. Obstructions in the supply line can create pump problems and reduced flow rate.

Make sure all pipe threads are properly cut and the inside reamed to remove burrs. Use UL-listed gasoline-resistant compound on all joints of gasoline handling piping. Sealing compound must also be resistant to Gasohol (Ethanol and Methanol). **Do not** use Teflon Pipe Sealing Tape. Use gasoline-resistant pipe compound on male threads only; pipe compound used on female threads can be squeezed into the supply line where it can enter the product stream and become lodged in the pump or meter. Install swing joints under the pump and at the tank to avoid breaks in the supply line from settling or frost heave.

To avoid product delivery problems on suction pumps, be sure there are no traps in the supply line. Supply lines, for both suction pumps and submersible pumps, should go straight down beneath the pump to a point 18 inches (46cm) below the ground level and pitch at a rate of 1/8 inch per foot (1cm/m) from there down to the storage tank. The supply line should be as short and direct as possible with swing joints (two 90° elbows and one shoulder nipple) at all turns. Support the horizontal run of pipe at 10-foot (305cm) intervals to maintain pitch and prevent traps. Do not use wood as pipe supports.

New EPA regulations require that only one check valve be used per supply line and located directly below, and as close as practical to the suction pump. Do not use spring-loaded or union check valves since these will unnecessarily reduce the flow rate and contribute to the reduction of atmospheric pressure necessary to keep gasoline in a liquid state.

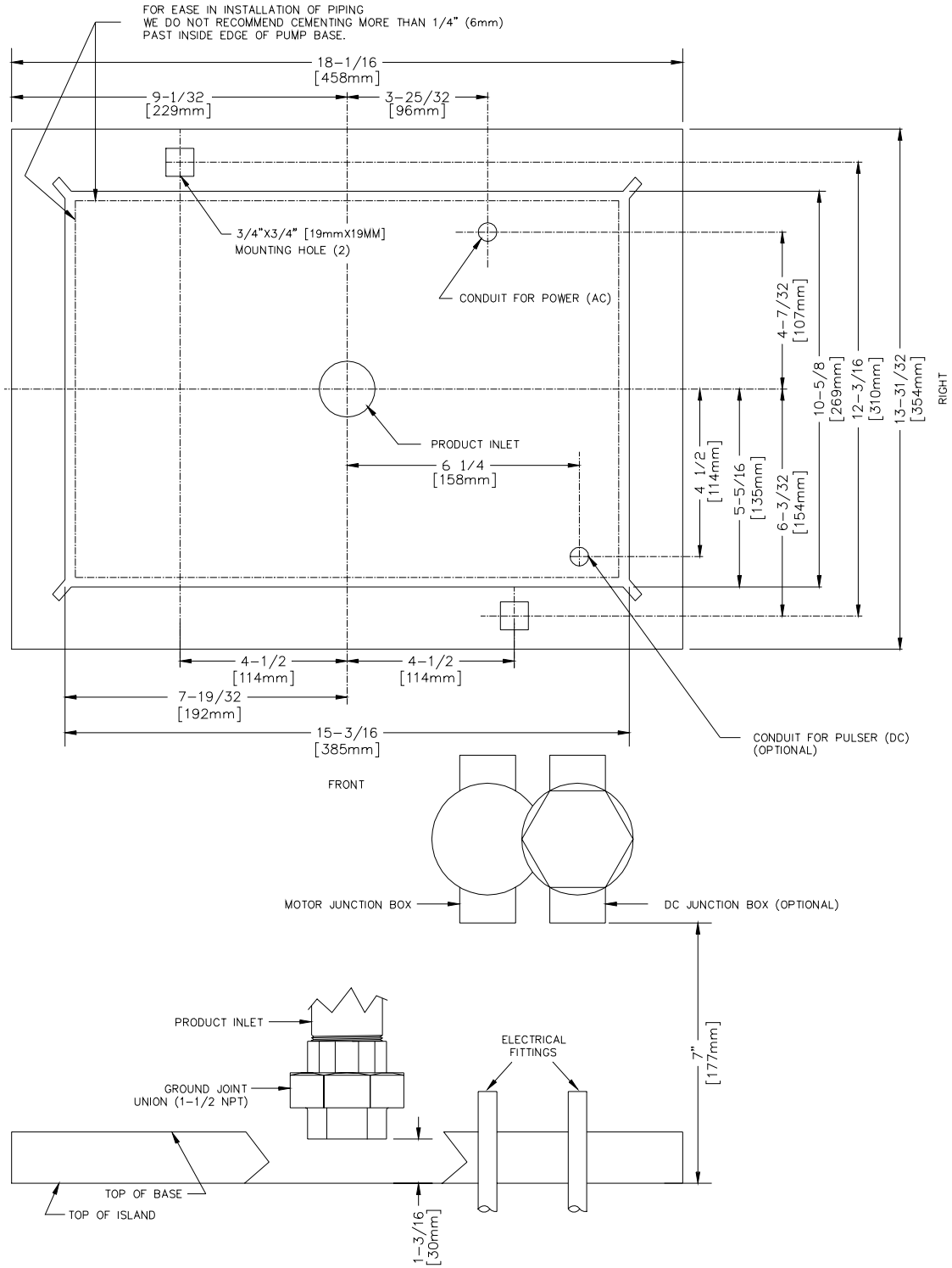
**Upon completion of installation, all liquid-carrying lines must be checked for leaks.**

### **Connecting the Suction Pipe**

To connect the suction pipe, remove the tin protector from the flange opening in storage tank. Assemble suction pipe, double tapped bushing and foot valve with suction screen. Insert into tank, and tighten in position. Starting at suction nipple at base of pump, take pipe measurements to union elbow on suction pipe riser at top of tank. Cut pipe, assembly together loosely. If measurements are correct, uncouple all pipe joints and coat them up with a good grade of gasoline-resistant sealing compound. If pipe measurements are incorrect, a new pipe must be cut.

*NOTE: Underneath pump, a high grade valve with pressure relief must be used in suction line.*

**BASE LAYOUT - 011982**





## Section 3

# WIRING

---

**Customers & installers having any questions pertaining to the installation should contact their GASBOY distributor.**

## WIRING PRECAUTIONS

The quality of the electrical installation is a major factor in maintaining proper safety levels and providing trouble-free operation of your pump. To assure a quality installation, follow these rules:

1. All wiring must be installed to conform with all building/fire codes, all Federal, State, and Local codes, National Electrical Code, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations. Canadian users must also comply with the Canadian Electrical Code.
2. Use only threaded, rigid, metal conduit.
3. Use only UL-approved insulated gasoline- and oil-resistant stranded copper wiring of the proper size.
4. Wire connections should be tightly spliced and secured with a wire nut; close off the open end of the wire nut with electrical tape.
5. The line to the motor should be on a separate circuit and installed on a 20 to 30 AMP breaker depending on the motor size and/or the voltage setting.
6. Install an emergency power cutoff. In addition to circuit breaker requirements of NFPA 70 and NFPA 30A, a single control which simultaneously removes AC power from all site dispensing equipment is recommended. This control must be readily accessible, clearly labeled, and in accordance with all local codes.

In order to provide the highest level of safety to you, your employees, and customers, we recommend that all employees be trained as to the location and procedure for turning off power to the entire system.

**WARNING:**

*To reduce the risk of electrical shock when servicing, turn off and lock out all power to the pump.*

7. Have the pump installed by a competent installer/electrician.

## GROUNDING

To ensure proper operation of the equipment and provide the necessary safety factors, this unit must be grounded. A ground wire (preferably green) must be connected between the unit's AC junction box ground lug and the main electrical service panel. One (1) earth ground connection is required per unit. The ground rod is to be a solid, corrosion-resistant conductor and must be installed at the main electrical panel in accordance with the National Electrical Code. It should be properly tied into the ground bus strip of the panel. We recommend the neutral and ground bus strips be bonded together (unless prohibited by local codes).

## CIRCUIT BREAKERS

Power to the unit must be supplied from a dedicated 20 to 30 amp breaker. No other equipment should be powered from this breaker. A tag on the motor identifies the maximum current draw of the motor. If two units are supplied from one breaker, that breaker must be capable of handling the load of both motors.

## PUMP MOTOR

Pumps are shipped from the factory with motors wired according to the specifications given on the order as to kind of current, frequency and voltage.

Very often on installation, it becomes necessary to change the original setting to suit the AC power source. To do this, locate the motor change-over plate (typically located on the shaft end of the motor) and remove the screw which secures it in place. Slide the plate so that the desired voltage, as marked on the plate, lines up with the screw hole. Reinsert the screw and secure the plate in place. 380 VAC pumps are permanently set and cannot be changed.

Many motor failures result from improper setting of the motor change-over plate. If set for 120 VAC and a 240 VAC feed is used, the motor will burn out after running only a short time. If set for 240 VAC and a 120 VAC feed is used, the motor will run very slowly and the starting field will soon burn out.

## WIRING AND CONDUIT

### Pump Wiring

The table below shows the required AC wire size based on the HP rating of the pump motor and the distance from the circuit breaker to the pump for both 115 and 230 volt units. Use this table as a guide for selecting the proper size wire for your installation. Consult local wiring requirements for wiring of 380 VAC motors.

If multiple units are powered from the same breaker through the same wires, you must increase the gauge of the wires to handle the added load according to the distance from the breaker panel and the HP rating (if applicable).

### Wire Size

115 VOLT WIRE GAUGE SIZES PER FEET/METERS OF RUN								
FEET METERS	25' 7.6m	50' 15.2m	100' 30.5m	150' 45.7m	200' 61m	250' 76.2m	300' 91.4m	OVER 300' (91.4m) USE RELAY AT MOTOR LOCATION
MOTOR HP								
1/2	14	12	10	8	8	8	8	
3/4	14	12	10	8	6	6	4	
230 VOLT								
1/2	14	12	12	12	10	10	10	
3/4	14	12	12	10	10	10	8	

## Pulser Wiring

Pulser wiring must be 18AWG. If it is run in the same conduit as the AC wiring, it must also conform to the following wiring requirements:

- Wire must be 2-wire twisted-pair Belden 88760 (C08850) or 4-wire Belden 89418 or equivalent (C08864).

Both types of cable provide superior noise immunity and are rated as follows:

### Belden 88760

Gas and oil resistant insulation & jacket  
18 AWG tinned, stranded, copper  
One twisted pair (two conductors)  
300 volt maximum operating voltage  
Aluminum/Mylar shielded w/drain wire

### Belden 89418:

Gas and oil resistant insulation & jacket  
18 AWG tinned, stranded, copper  
Stranded, four conductors  
300 volt maximum operating voltage  
Aluminum/Mylar shielded w/drain wire

*NOTE: If using 88760 cable with a 3-wire pulser, you must run two lengths of cable to attain two twisted pairs (four conductors). Cap off the unused wire.*

- Cable connections to pulser must be made in DC junction box. Pulser cables will pass through AC junction box.
- Cable drain wire must be connected to the grounding screw in the DC junction box in the pump/dispenser. The drain wire is not connected at the fuel management system end.
- Rigid metal conduit must be used to connect the AC and DC junction boxes.

## Conduit

All wiring to the Gasboy 550A Series dispensing unit must be installed in threaded, rigid, metal conduit. **PVC is not acceptable.** It is recommended that DC pulser wiring be run in separate conduit from any AC wiring; however, it is acceptable to run DC pulser wiring in the same conduit as AC wiring as long as the requirements outlined in **Pulser Wiring** are met.

All wiring and conduit runs must also conform with the National Electrical Code (NFPA 70) and the Automotive and Marine Service Station Code (NFPA 30A). All wiring and conduit runs must conform to local codes. Canadian users must also comply with the Canadian Electrical Code.

The table that follows shows conduit capacity for rigid, metal conduit with a 50% fill of gas- and oil-resistant wire. Use this chart as a guideline to determine the proper conduit sizes for the Gasboy 550A Series dispensing units. When planning the orientation of the wiring runs, follow the applicable wiring diagram and consider the layout of the components at the site. Long runs or a large number of bends may require you to increase conduit size over what is listed.

**Conduit Size**

CONDUIT SIZE						
	1/2" 12.7mm	3/4" 19mm	1" 25.4mm	1-1/4" 31.8mm	1-1/2" 38.1mm	2" 50.8mm
18 AWG	19 Wires	34 Wires	55 Wires	97 Wires	132 Wires	216 Wires
14 AWG	13 Wires	24 Wires	39 Wires	69 Wires	94 Wires	154 Wires
12 AWG	10 Wires	18 Wires	29 Wires	51 Wires	70 Wires	114 Wires
10 AWG	6 Wires	11 Wires	18 Wires	32 Wires	44 Wires	73 Wires
8 AWG	3 Wires	5 Wires	9 Wires	16 Wires	22 Wires	36 Wires
6 AWG	1 Wire	4 Wires	6 Wires	11 Wires	15 Wires	26 Wires
4 AWG	1 Wire	2 Wire	4 Wires	7 Wires	9 Wires	16 Wires
2 AWG	1 Wire	1 Wire	3 Wires	5 Wires	7 Wires	11 Wires

To connect the rigid conduit for the motor, start at the electrical connection box in pedestal of pump, and take necessary measurements for pipe between motor and switchboard in building. The conduit must be connected to make it water-and vapor-tight. Do not use flexible conduit.

When pulling wires through conduits, be careful not to damage insulation or break wires. To connect wires, ends of wires must have insulation removed. Splice them tightly together, apply solder, and follow with an application of electrical tape equal in thickness to insulation of wire leads.

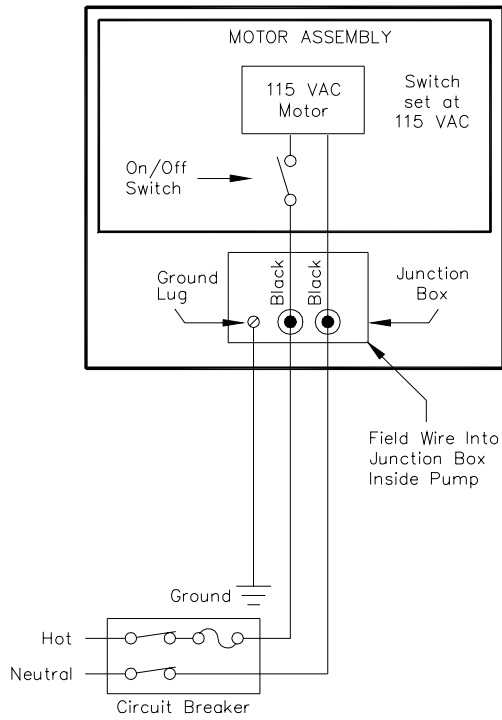
**WIRING NOTES**

1. All wiring and conduit runs must conform with all building/fire codes, all Federal, State, and Local codes, National Electrical Code, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations.
2. The brown wire (Switch Detect) is shipped capped from the factory. When used, it connects to a solenoid valve or fuel management system. Do not connect this wire without first checking the ON voltage of this line to ascertain compatibility with the equipment being connected.
3. All wiring must be installed according to the requirements outlined in this section.

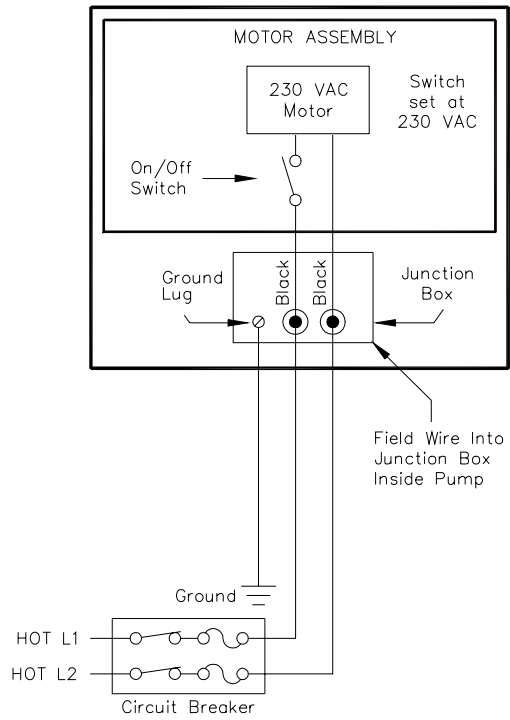


## WIRING DIAGRAM - 024206

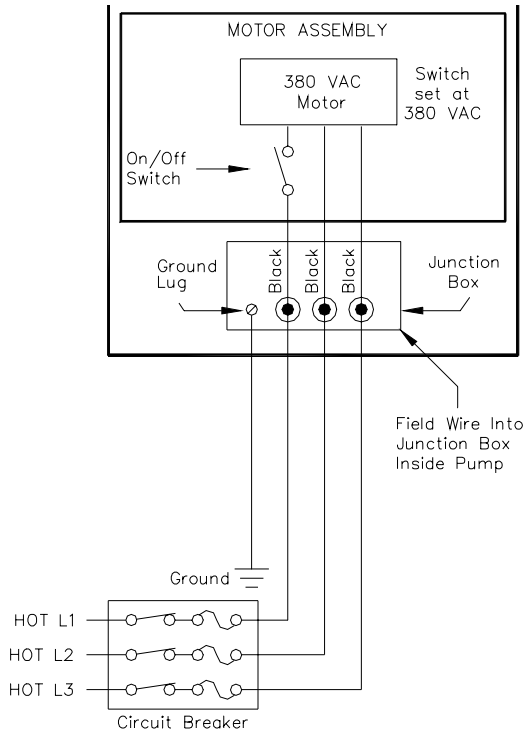
### 115 VAC Wiring



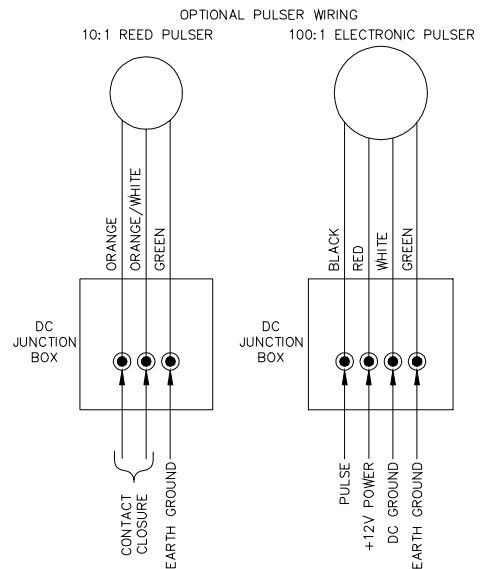
### 230 VAC Wiring



### 380 VAC Wiring



### Pulser Wiring





---

## TESTING AND OPERATION

---

### TESTING THE INSTALLATION

Before placing the pump into full operation, you should first test the installation.

1. Place a small quantity of product in storage tank, but do not cover tank or pipe line connections until pump is operated several times to make certain the system is fully primed with product.
2. Operate pump several times, following instructions below, until gasoline is discharged from hose nozzle. This will fill suction line and pump with gasoline.
3. Make a final inspection of all pipe lines to insure that connections are absolutely tight.

*NOTE: If necessary for more than one pump to be connected to a single outlet from storage tank, it is imperative that high grade check valves be used in each line to pumps, and must be placed as close as possible to the connection into main supply line from tank. This is to prevent a partial vacuum being created in suction lines, causing pumps to operate in a pulsating manner.*

### OPERATING INSTRUCTIONS

1. Reset register assembly to zero by turning instrument knob (located on left side panel) in a counterclockwise direction.

*CAUTION: On units equipped with a built-in interlock, failure to reset register before attempting to turn dispenser on may result in damage to reset mechanism.*

2. Remove nozzle from nozzle hook.
3. Pull out switch rod and knob assembly (on right side panel). This will turn on motor and activate the pump.
4. Place nozzle into receiving vehicle and dispense desired quantity of product into vehicle.  
*NOTE: Nozzle must be manually held open at all times.*
5. Upon completion of delivery, push switch rod and knob assembly in. This will turn the motor and pump off.
6. Replace nozzle on nozzle hook.



## Section 5

---

# MAINTENANCE AND TROUBLESHOOTING

---

## GENERAL

GASBOY pumps are designed and constructed to give many years of uninterrupted service. In fact, hundreds of operators report years of trouble-free operation with absolutely no service expense. Yet, certain parts of a pump are bound to wear, and GASBOY therefore recommends a periodic inspection, at least twice a year, for such things as fuel leaks, belt tension and condition, lubrication and strainer cleanliness. If such a procedure is followed, any small adjustments that are necessary can be made before expensive, annoying breakdowns occur. The result of this sound approach is continuous, profitable service from all of your GASBOY equipment.

**Procedures requiring disassembly of portions of the pump should be performed by qualified service personnel.**

**WARNING:**

*To reduce the risk of electrical shock when servicing, turn off and lock out all power to the pump. Always turn off and lock out all power to the pump at the master panel before performing any maintenance or service, including the changing of any fuel filters or strainers. Also block islands so no vehicles can pull up to the pump while it is being worked on.*

**Where to Get Help:** If your pump should stop or fail to operate properly, GASBOY has a distributor network which services fuel dispensing and management systems in every section of the country.

**Use Authorized Parts:** Parts needing replacement should be replaced only with GASBOY new authorized service parts. This will ensure the best results and the continuity of the Underwriters' Label on your pump. Incorrect or substandard parts can result in unsatisfactory pump operation. Always use new gaskets or seals when servicing or rebuilding GASBOY equipment; do not re-use old ones.

## EXTERIOR MAINTENANCE

The urethane finish on GASBOY pump housings is similar to that used on automobiles. Keep your pump looking like new by thoroughly cleaning its exterior with a high grade automobile polish and then protecting it with a coat of paste wax. Do not use abrasive cleaners or polish. Do not use high pressure spraying equipment.

## LUBRICATING THE PUMP'S COMPONENTS

The following illustration shows the lubrication locations for your 550A Series pump.

**Linkage** Apply one drop of oil (SAE 10) at each pivot point of linkage every six months.

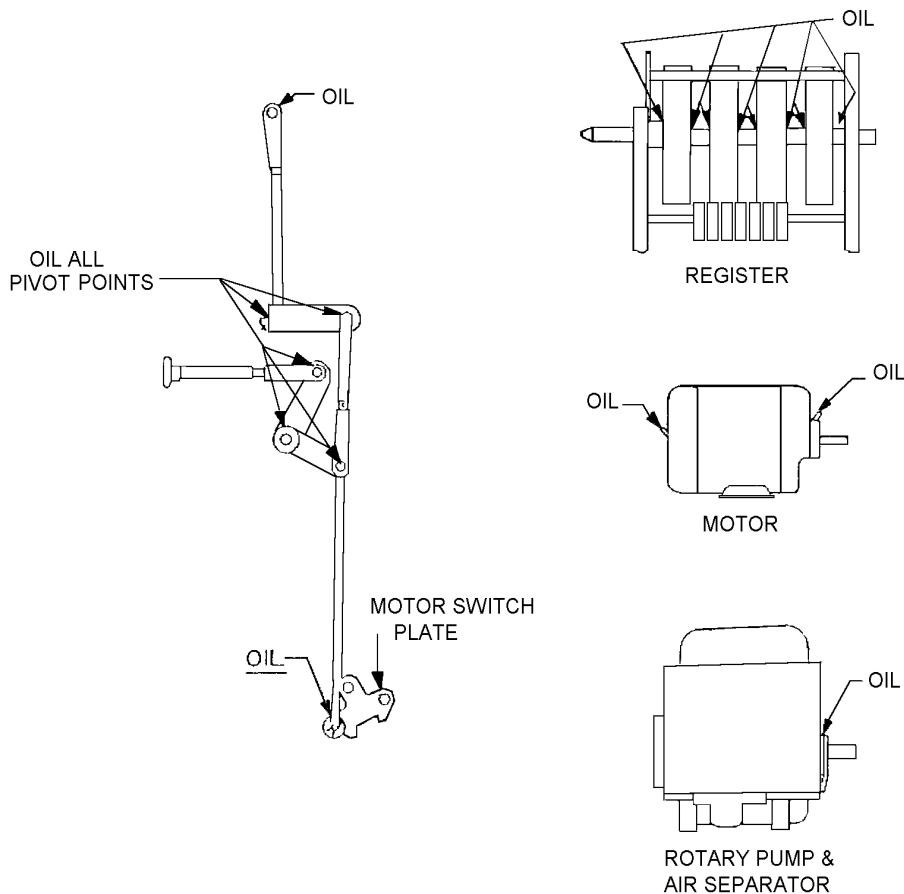
**Register** Every six months, or after each 100,000 gallons delivered, clean the register with compressed air, and wipe all accessible parts (such as figure wheels) with a clean cloth. Use a light, non-acid type oil (SAE 10), applying one drop between each figure wheel. *Never use solvents such as gasoline or kerosene, as they can become trapped in many of the inaccessible bearings and dissolve the new lubricant when applied.*

**Motor** Every three months, oil the motor with 3 drops of high grade light oil (SAE 10). Avoid over-lubrication; more motors are damaged by too much, rather than too little, oil.

**Rotary Pump & Air Separator Assembly** Once every six months, lubricate the felt with 1 oz. of high grade light oil (SAE 10).

**Meter** Do not disassemble the meter for lubrication.

**Gear Train** Do not lubricate the gear train. It is permanently lubricated at the time of manufacture.



## CLEANING THE STRAINER

Once every three months, remove strainer cap using the correct wrench and turning in counterclockwise direction. Remove the strainer screen and clean it with compressed air or by rinsing in solvent.

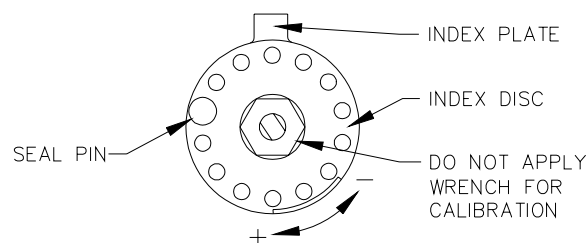
**NOTE:** Always wear protective safety goggles or glasses when using compressed air.

Replace the gasket after cleaning the strainer screen and before reinstalling strainer cap. Be sure strainer cap is drawn up tight after reinstalling, as a leak will prevent proper operation of pump.

## CALIBRATING THE METER

All GASBOY pumps and dispensers are adjusted for accurate measure at the factory. However, since the conditions of the installation can affect pump accuracy, it is the responsibility of the installer to check the pump for accuracy and make any needed adjustments. *Where required*, it is the owner's responsibility to report this device to the local Weights and Measures officials for their inspection before the unit is put into service. Calibration methods are given in gallons. When calibrating liter pumps, use the same procedure, but convert gallons to liters (1 gallon = 3.78 liters).

The adjustment of measurement is accomplished by breaking the seal wire and removing the Seal Pin. This will permit the Index Disc, to be turned either counterclockwise (-), decreasing the measurement, or clockwise (+), increasing the measurement. A variation of approximately one cubic inch in measurement is obtained by turning the Index Disc five holes. After measurement has been properly adjusted, the Seal Pin and seal wire should be replaced.



## CORRECTING METER DRIVE SHAFT LEAK

If a leak develops around the meter drive shaft, it can be corrected as follows:

1. Remove screws and lockwashers securing gear train assembly and remove gear train assembly.
2. Remove following items by lifting from meter cover packing cavity: upper bearing assembly, washer, seal, o-ring, seal retaining ring, seal, o-ring, and seal retaining ring.
3. Reseal meter drive shaft by using the following new parts: seal, o-ring, seal retaining ring, seal, o-ring, and seal retaining ring.

**NOTE:** Seals are to be formed to meter shaft size by rotating seals on a smooth 3/8" dia. tapered punch or pencil. Be careful not to damage the seals in the forming process or when inserting into packing cavity.

4. Reinstall parts in reverse order of disassembly.

**Replacement of meter is recommended if the above procedures do not correct the problem.**

## **ADJUSTING THE BELTS**

A loose belt reduces pump output due to slippage, and results in excessive wear. Once every six months, check for proper V-belt tension. V-belt tension is proper when the back side of the belt can be depressed approximately 3/8" (9.5mm). If adjustment is required, loosen cap screws and pivot idler arm either upward or downward to obtain proper tension. Cap screws must be re-tightened before belt tension can be checked.



**TROUBLESHOOTING**

<b>Possible Cause</b>	<b>Checks</b>	<b>Corrective Action</b>
Failure of bypass valve causes pump to stall completely	Presence of foreign material in pump may cause bypass valve to become stuck in its seat or valve cylinder. Condition may develop when a pump has been idle for some time; when water is present; or when ice has formed.	Remove by-pass valve, clean all parts, and reinstall the valve.
Failure of regulating valve to open prevents gasoline from flowing to meter.	<p>Foreign matter may be lodged in valve cylinder.</p> <p>Insufficient pressure in supply chamber due to break in suction pipe, empty underground storage tank, clogged strainer screen, stuck foot valve, needle valve, extreme wear of parts or excessive end play in rotary pump head assembly, or ice formation during cold weather, if water is present in gasoline.</p>	<p>Clean all parts and reinstall valve.</p> <p>Check list of possible causes and perform appropriate remedy.</p>
Failure of regulating valve to close.	Valve may be held off its seat by small particles of foreign matter. Effect on normal pump operation is not noticeable; however, when the pump is standing idle, even a slight leak will permit gasoline to drop down in the system.	<p>Remove regulating valve and clean dirt from poppet and seat; reinstall.</p> <p>If cork disc of regulating valve is badly pitted or worn, replace it with a new regulating valve.</p>
Failure of float needle valve to open causes gasoline to be discharged from air vent tube.	<p>May be caused by float being clogged with gasoline, or by corrosion of small pins (float lever and valve pin) of needle valve mechanism.</p> <p>Float may be filled with product caused by leak or puncture in float.</p>	<p>Replace a damaged float with a new one. Clean or replace corroded parts.</p> <p>Replace with new float assembly.</p>

## PREPARING USED PUMPS FOR STORAGE

Special care should be taken when pumps are removed from service prior to storage. Gasoline, moisture, and foreign material that is left in the pumps will do extensive damage to the internal working parts. This damage can be prevented, if entire pump is drained of gasoline, moisture, and foreign material before it is put into storage.

1. Remove drain plugs in rotary pump and separator body and in the top of meter cover. Then lay pump on its side and elevate bottom of pump.
2. Apply compressed air (no greater than 50 pounds [3.5barr]) through suction inlet to force out all gasoline, moisture, and foreign material that may be trapped in the inaccessible cavities. **Be sure to wear safety glasses when using compressed air.**
3. Oil interior working parts by using a spray gun filled with light oil (free from gum content). The oil may be blown in through the suction inlet.
4. Shellac drain plugs and reinstate them in their proper positions. Use a cloth bag or wooden plug to cover the suction inlet and discharge outlet to prevent dirt from entering interior.

## **PARTS LIST**

---

### **GENERAL**

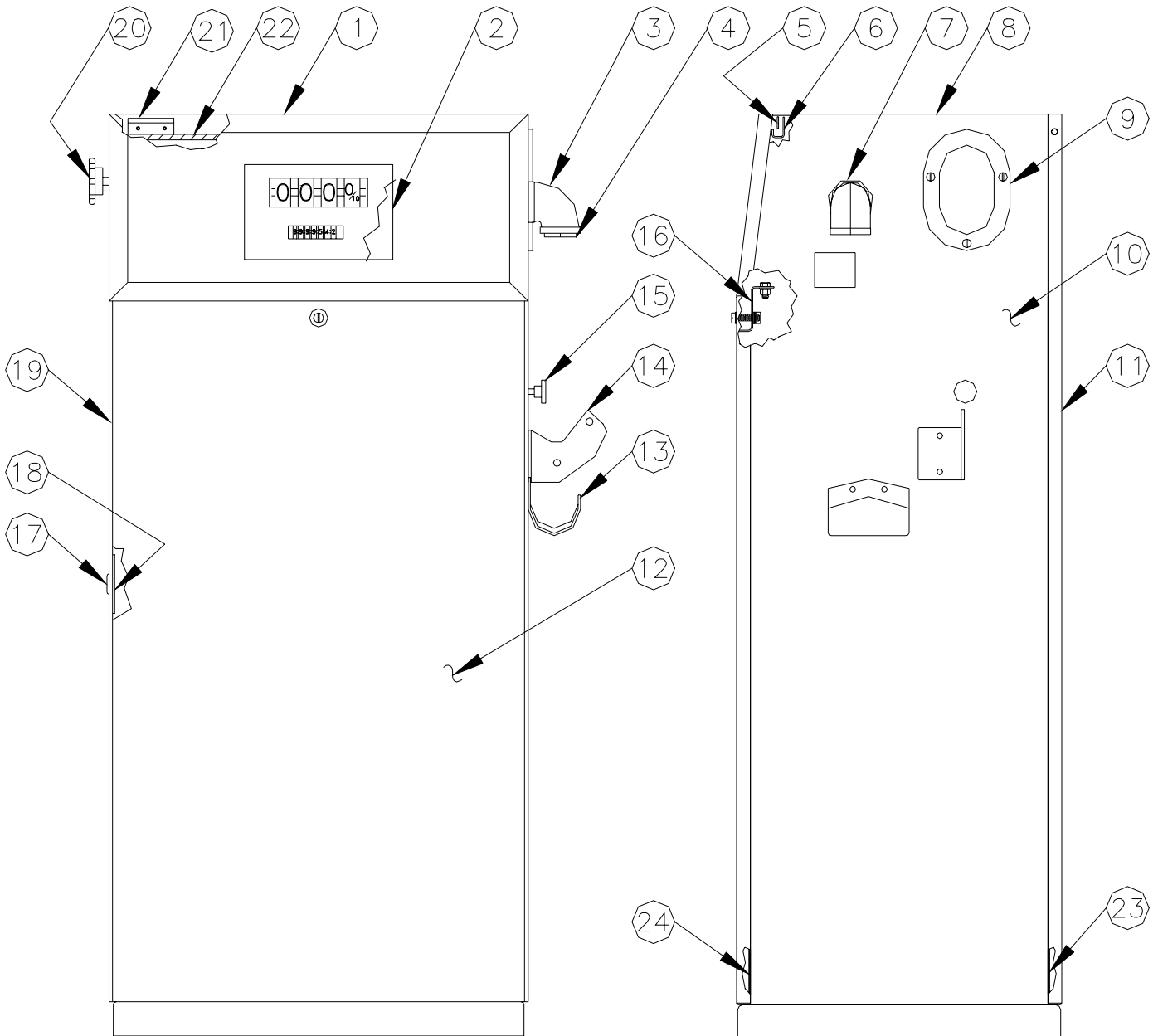
This section lists parts information for the 550A Series pumps. Using part numbers when ordering will expedite your order and reduce the possibility of the wrong parts being shipped.

Procedures requiring disassembly of portions of the pump should be performed by competent service personnel. Do not depend upon the repair service of a general mechanic unless he is thoroughly familiar with the mechanism. GASBOY has a distributor network which services fuel dispensing and management systems in every section of the country.

**WARNING:**

*To reduce the risk of electrical shock when servicing, turn off and lock out all power to the pump. Always turn off and lock out all power to the pumps at the master panel before performing maintenance or service, including the changing of any fuel filters or strainers. Also block islands so no vehicles can pull up to the pump while it is being worked on.*

### PANELS AND TRIM DIAGRAM

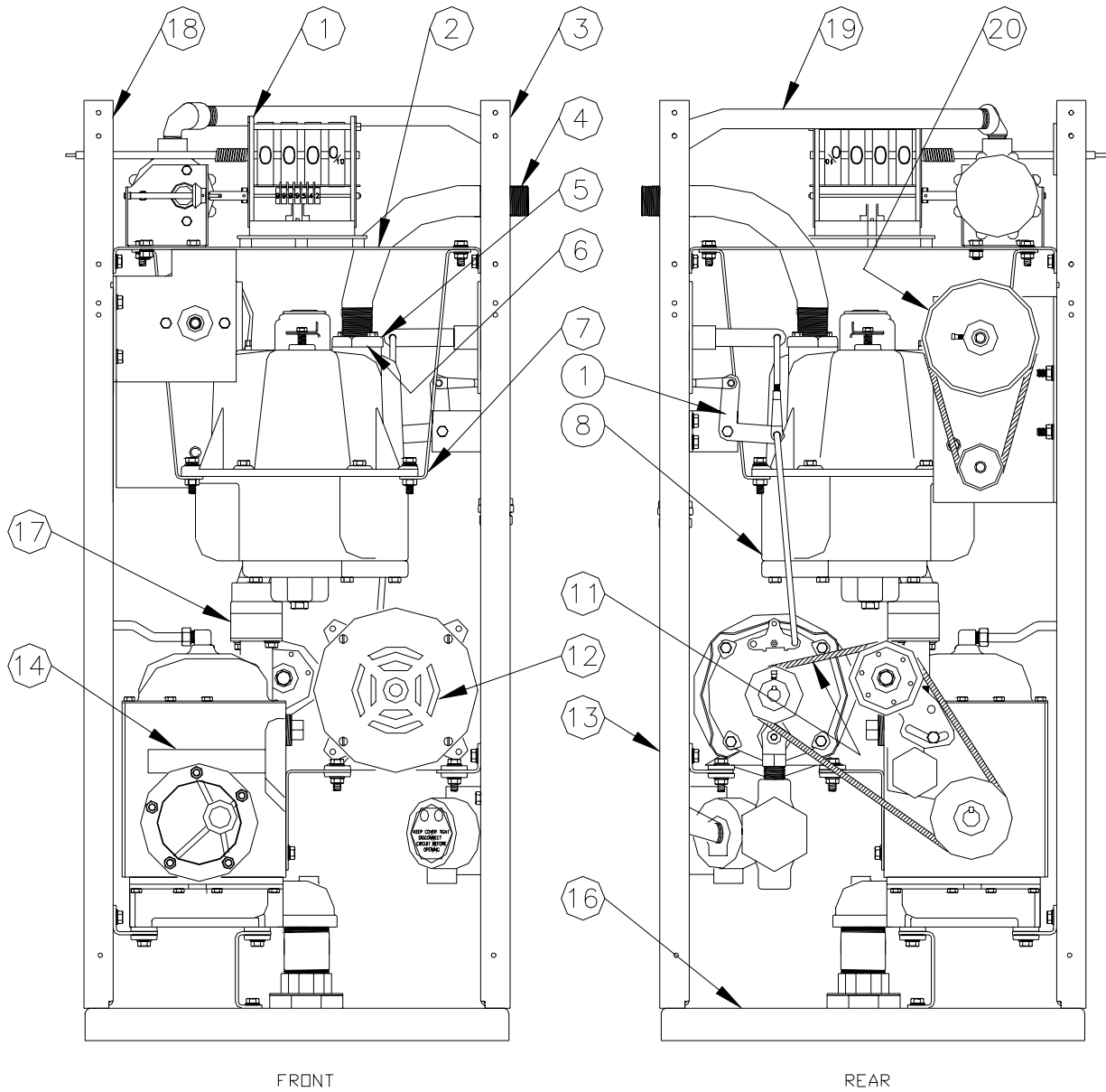


## PANELS AND TRIM PARTS

Item	Part No.	Description
1		Dial Enclosure Assembly ( <i>See Dial Enclosure breakdown</i> )
2	035903	Dial Mask
3	024895	Elbow, 1" x 90°
4	017278	Bushing, reducer, ¾ x 1 (552A)
5	056913	Spacer
6	015104	Deflector
7	028960	Grommet, 1"
8	024544	Dome Assembly
9	038550	Nozzle Boot
10	035000	Right Side Panel ( <i>See Note</i> )
11	030847	Rear Panel ( <i>See Note</i> )
12	024518	Front Door Panel ( <i>See Note</i> )
	024563	Front Door Panel for units with Hand Crank Option ( <i>See Note</i> )
13	015890	Hose Support Hook
14	017005	Nozzle Hook
15	033007	Switch Rod and Knob Assembly
16	045805	Latch Plate
17	058021	Grommet
18	045804	Plate
19	035002	Left Side Panel ( <i>See Note</i> )
20	032714	Reset Knob
21	057402	Spring Clip
22	027073	Gasket, 2"
23	027073	Cushion, 38-3/8
24	027072	Cushion, 30-1/2

**NOTE:** Specify standard color (*black, white, red*). If not a standard color, specify serial number of pump/dispenser.

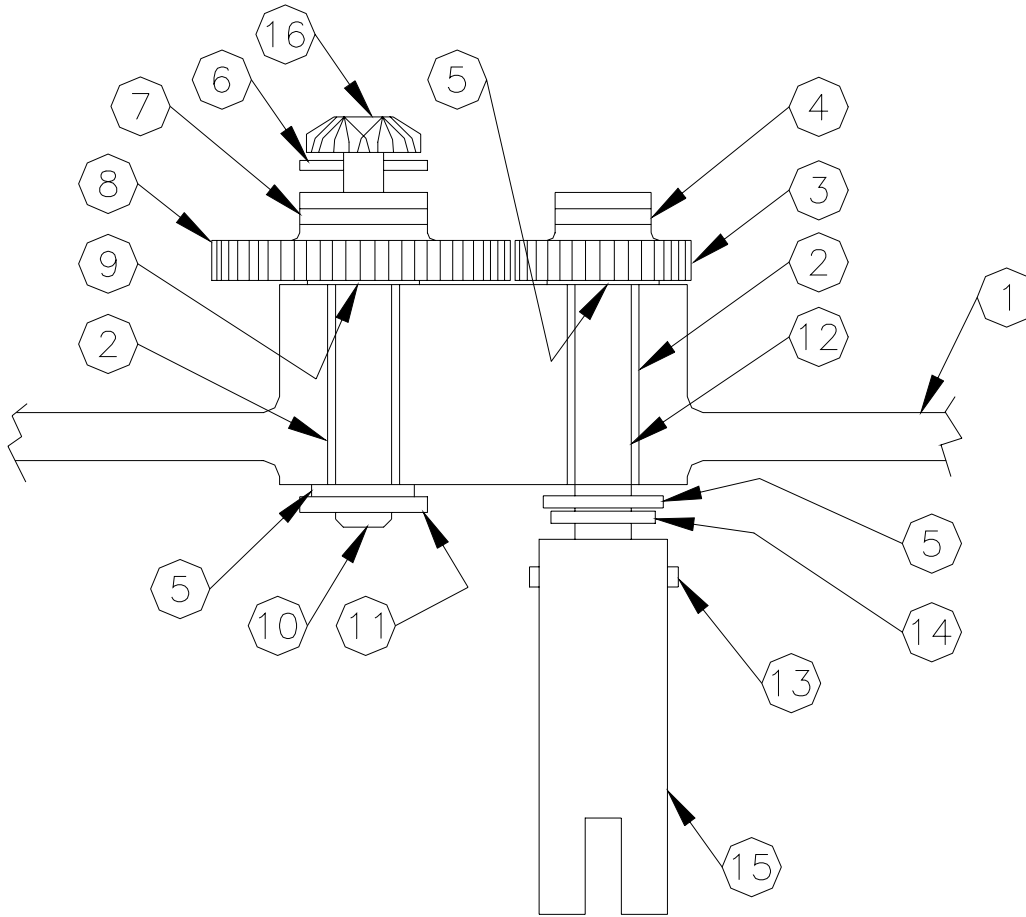
### CHASSIS ASSEMBLY - FRONT AND REAR VIEW DIAGRAM



**CHASSIS ASSEMBLY - FRONT AND REAR VIEW PARTS**

Item	Part No.	Description
1		Register Assy. w/start-stop linkage Register Assy. w/Interlock (See <i>breakdown for your model</i> )
2	045774	Counter Support Plate
3	047511	Corner Post, Right Front
4	044016	Discharge Pipe
5	026071	Meter flange
6	027004	O-Ring
7	063969	Meter Support
8		Meter Assembly (See <i>breakdown for your model</i> )
11	012148	V-Belt 4L330
12		Motor Assembly (See <i>breakdown for your model</i> )
13	047510	Corner Post, Rear
14		Pump Assembly (See <i>breakdown for your model</i> )
16	011902	Base
17		Flange Assembly (See <b>Meter Assembly</b> <i>breakdown</i> )
18	047512	Corner Post, Left Front
19		Pulser Assembly (See <b>Pulser Assembly</b> <i>breakdown</i> )
20		Hand Crank Assembly (See <b>Hand Crank</b> <i>breakdown</i> )

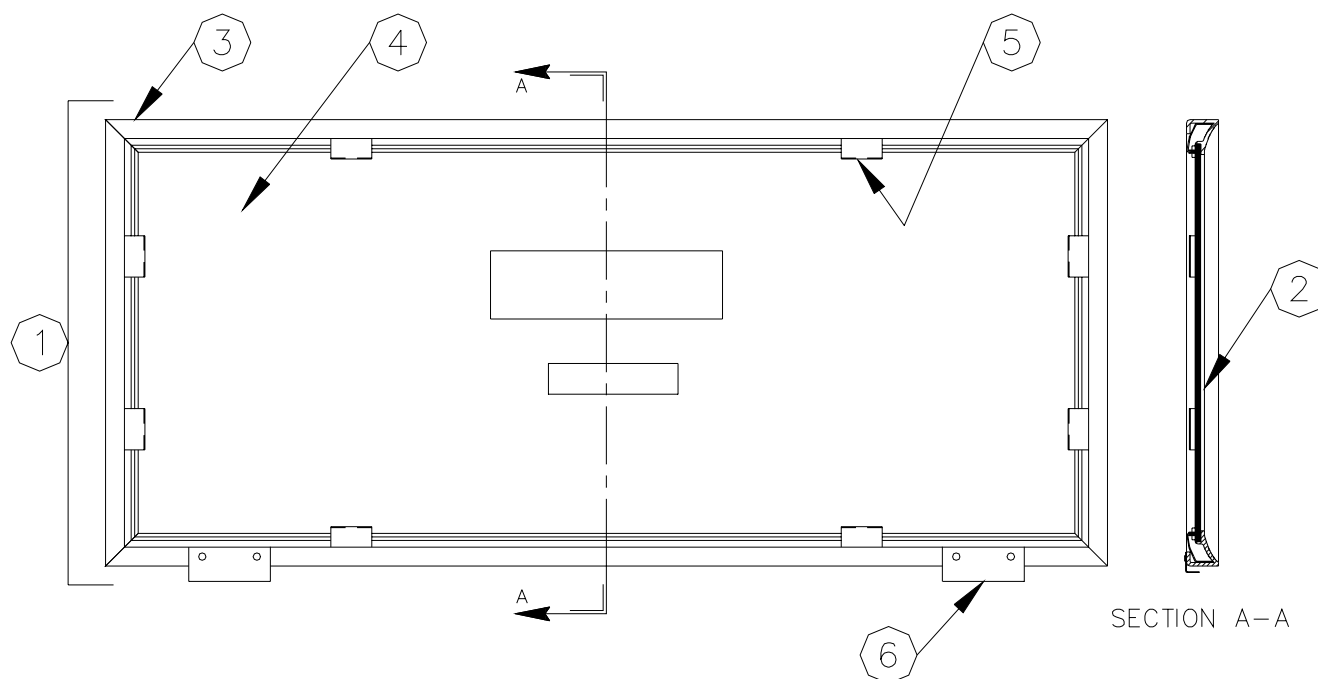
**ADAPTER ASSEMBLY**



Item	Part No.	Description
1	003612	Adapter
2	011065	Bearing Insert
3	027447	Drive Gear
4	043031	Roll Pin, 1/16 Dia x 3/8 Lg.
5	068041	Washer
6	043246	Spirol Pin, .039 x 1/2 Lg.
7	043032	Roll Pin, 1/16 Dia. X 1/2 Lg.
8	027446	Driven Gear
9	068016	Thrust Washer
10	054437	Shaft
11	048629	Truarc Retaining Ring
12	054444	Shaft
13	043227	Spirol Pin, 3/32 Dia. X 3/4 Lg.
14	049406	Retaining Ring
15	054829	Shaft, Drive
16	S00146	Bevel Drive Gear

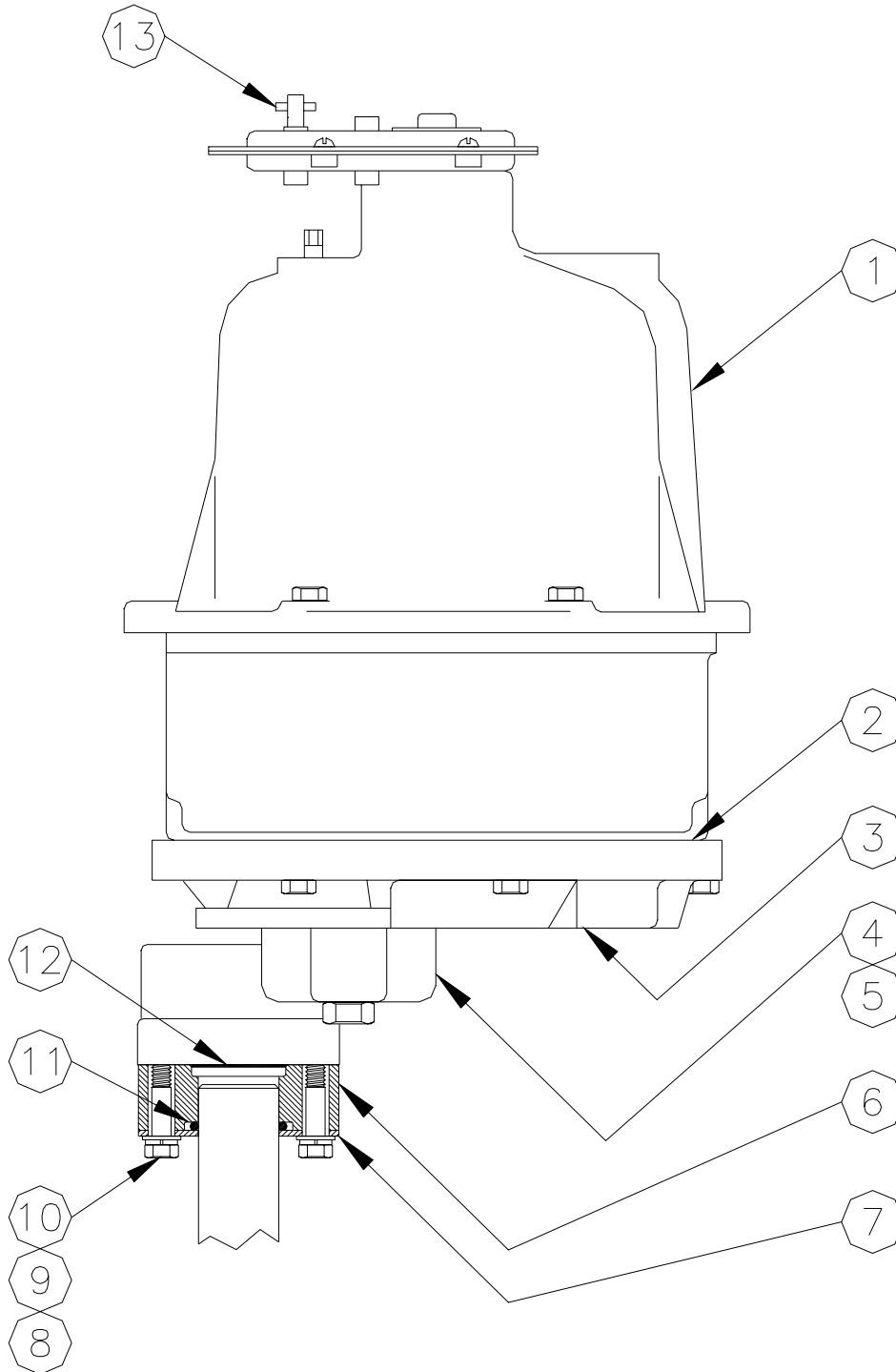


## DIAL ENCLOSURE ASSEMBLY



Item	Part No.	Description
1	026333	Dial Enclosure Assembly, Complete This assembly includes all items listed below. When ordering a complete dial enclosure assembly, you must also specify either 025689 ( <b>Gallons</b> silkscreen) or 026161 ( <b>Litres</b> silkscreen). For other customized silkscreens, include the serial number of your dispenser with your order. Standard silkscreens have a white background with black text.
2	025689	Dial Glass, Gallons
	026161	Dial Glass, Litres
		For all other applications, specify the serial number of the pump.
3	025935	Frame, Dial
4	023871	Dial Enclosure
5	057403	Spring Clip
6	020819	Clip Dial Glass Assembly

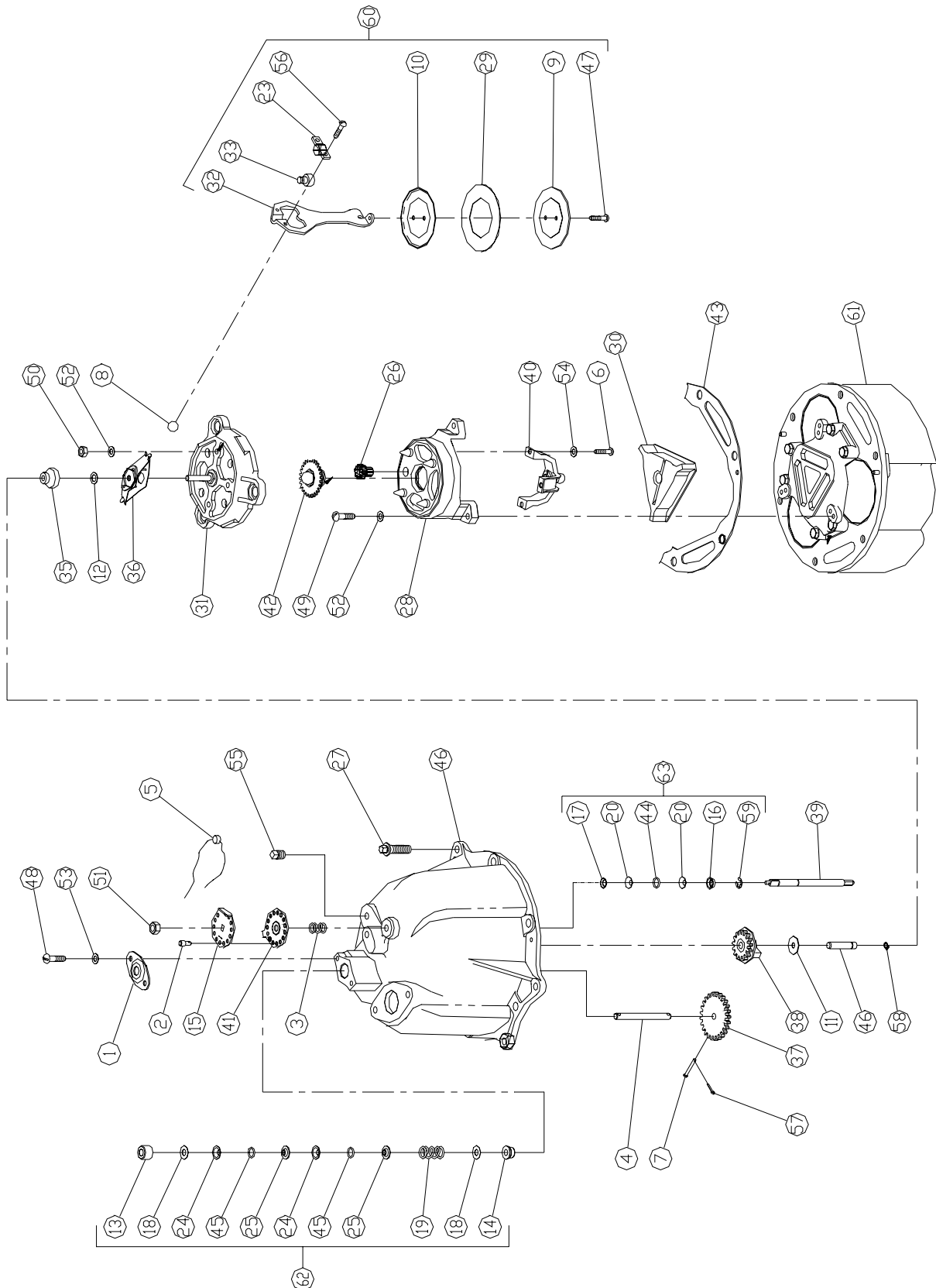
**METER ASSEMBLY DIAGRAM**



## METER ASSEMBLY PARTS

Item	Part No.	Description
1	035589	Meter Assembly, Gallons
	035588	Meter Assembly, Imperial Gallons
	035556	Meter Assembly, Liters
2	027038	Meter Transfer Body Gasket
3	035514	Meter Transfer Body
4	003613	Inlet Connection
5	S00162	Gasket
6	021950	Coupling
7	026079	Flange
8	051950	Screw, HHC, 5/16-18 x 1-3/4
9	068005	Washer, 1/4
10	068875	Lockwasher, 5/16
11	049014	O-Ring
	M49014	O-Ring, Methanol
12	027797	Gasket
13	042130	Pin

### METER ASSEMBLY BREAKDOWN DIAGRAM

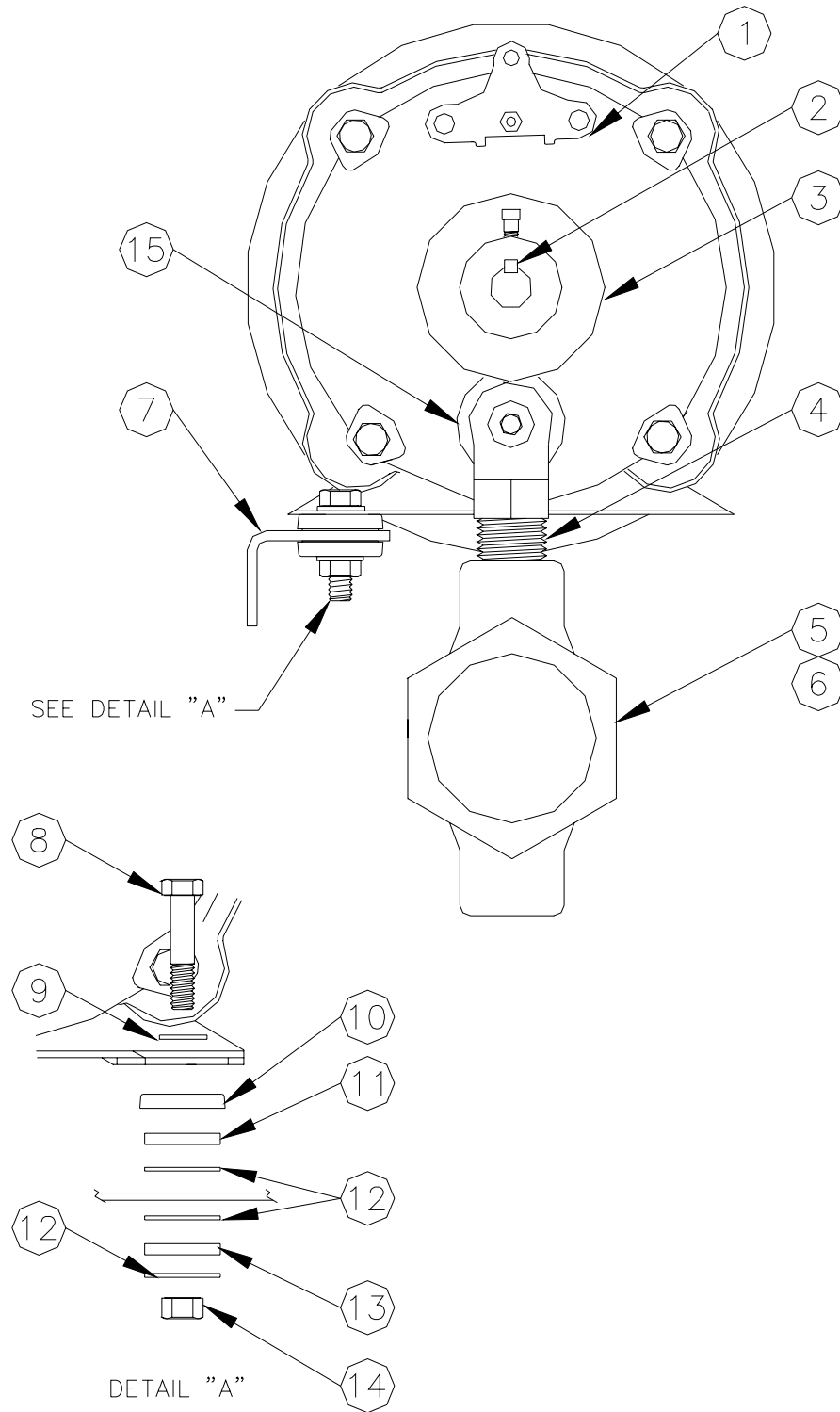


**METER ASSEMBLY BREAKDOWN PARTS**

035589 Meter Assy., Gallon  
 035588 Meter Assy., Imp. Gallon  
 035556 Meter Assy., Liter

Item	Part No.	Description	Item	Part No.	Description
1	S00466	Packing Gland Plate	38	S00499	Counter Drive Gear Complete - Gal
2	S00467	Seal Pin		S00114	Counter Drive Gear Complete - Ltr
3	S00469	Compensator Screw Spring	39	S00497	Compensator Shaft
4	S00473	Drive Shaft	40	S00500	Bracket & Pin Assembly
5	069080	Seal & Seal Wire	41	S00468	Index Plate
6	S00475	Special Screw	42	S00479	Pivot & Ball Assembly
7	S00476	Drive Shaft Pin	43	S00470	Meter Body Gasket
8	S00477	1/2" Ball	44	S00471	O-Ring (.362 Dia.)
9	S00480	Plunger Cup Support	45	S00472	O-Ring (.487 Dia.)
10	S00481	Plunger Disc	46	S00486	Meter Cover w/ Center Gear Post, Index Plate, Pipe Plug & Retaining Ring
11	S00482	Washer	47	S00509	Mach. Screw, 10-32 x 3/8 Lg. Rd. Hd.
12	S00483	Washer	48	S00507	Mach. Screw, #12-24 x 1/2 Lg. Rd. Hd.
13	S00484	Upper Bearing Assembly	49	S00508	Mach. Screw, 1/4-20 x 3/4 Lg. Rd. Hd.
14	S00485	Bearing Assembly	50	S00511	Hex Nut, 1/4-20
15	S00487	Compensator Index Disc	51	S00510	Hex Nut, 5/16-18
16	S00488	Seal Half	52	S00520	Lockwasher, 1/4
17	S00489	Seal Wedge	53	S00513	Lockwasher, #1212
18	S00490	Washer	54	S00514	Lockwasher, #1114
19	S00492	Packing Spring	55	S00515	Pipe Plug, 1/8 Sq. Hd.
20	S00493	Seal	56	S00516	Sems Fastener, #10-32 x 3/8 Lg. Rd. Hd.
23	S00494	Bearing Retainer	57	S00517	Cotter Pin, 1/16 x 1/4 Lg.
24	S00495	Seal (black)	58	S00518	Truarc Retaining Ring
25	S00491	Seal Retaining Ring	59	S00519	Truarc "E" Retaining Ring
26	S00478	Compensator Pinion	60	S00521	Plunger Assy. w/ Bearing Retainer, Bearing Seat & Sems Fastener
27	S00512	Screw	61	S00522	Body & Seat Assembly w/Pins
28	S00498	Main Pivot Bracket Assembly w/ Pins	62	S00523	Meter Drive Shaft Kit
29	S00032	Plunger Cup Kit (Set of 3 Cups)	63	S00130	Shaft-Seal Kit
30	S00501	Valve			
31	S00502	Wobble Plate w/ Slack Roller Post			
32	S00503	Connector			
33	S00504	Bearing Seat			
35	S00505	Slack Roller Assembly			
36	S00506	Slack Spring Assembly			
37	S00496	Drive Shaft Gear - Gal			
	S00115	Drive Shaft Gear - Ltr			

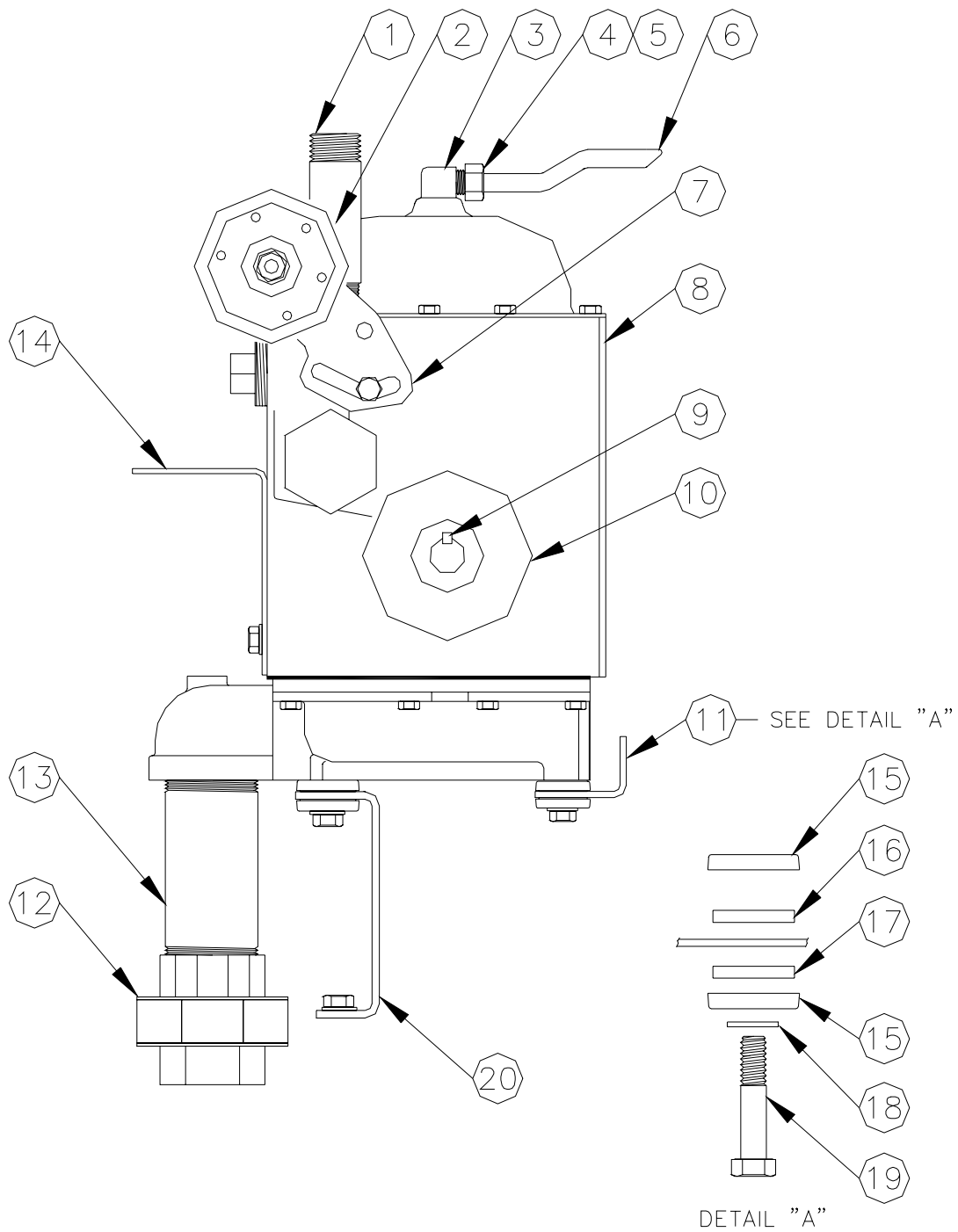
### MOTOR ASSEMBLY DIAGRAM



**MOTOR ASSEMBLY PARTS**

Item	Part No.	Description
1	F37630	Motor, ½ HP, 552A, 115V/230V, 50Hz./60Hz.
	F37609	Motor, ¾ HP, 553AMC, 115V/230V, 50Hz./60Hz.
	F37320	Motor, ¾ HP, 553AMC, 380V/50Hz., 3 Ph
	F37323	Motor, ¾ HP, 553AMC, 115V/230V, 50Hz./60Hz. For tropical environments.
2	031315	Key
3	047005	Pulley, 5/8 Bore 2.4, 552A
	047023	Pulley, 5/8 Bore, 3-1/4, 553AMC
4	038050	Pipe TBE, 1/2 x 1-1/8
5	014165	J-Box, 550
6	014164	Conn. Box Cover
7	063967	Bracket, Motor Right
8	051925	Screw, 5/16-18 x 1-1/4 HHC PI
9	068080	Washer, 5/16 Pltd.
10	067735	Washer, Cup
11	037884	Mount, Rubber
12	068620	Washer, 5/16 x 1 x 3/64
13	037885	Mount, Rubber
14	038920	Nut, Lock, 5/16-18 Hex
15	021030	Conduit Conn.

### PUMPING UNIT ASSEMBLY DIAGRAM

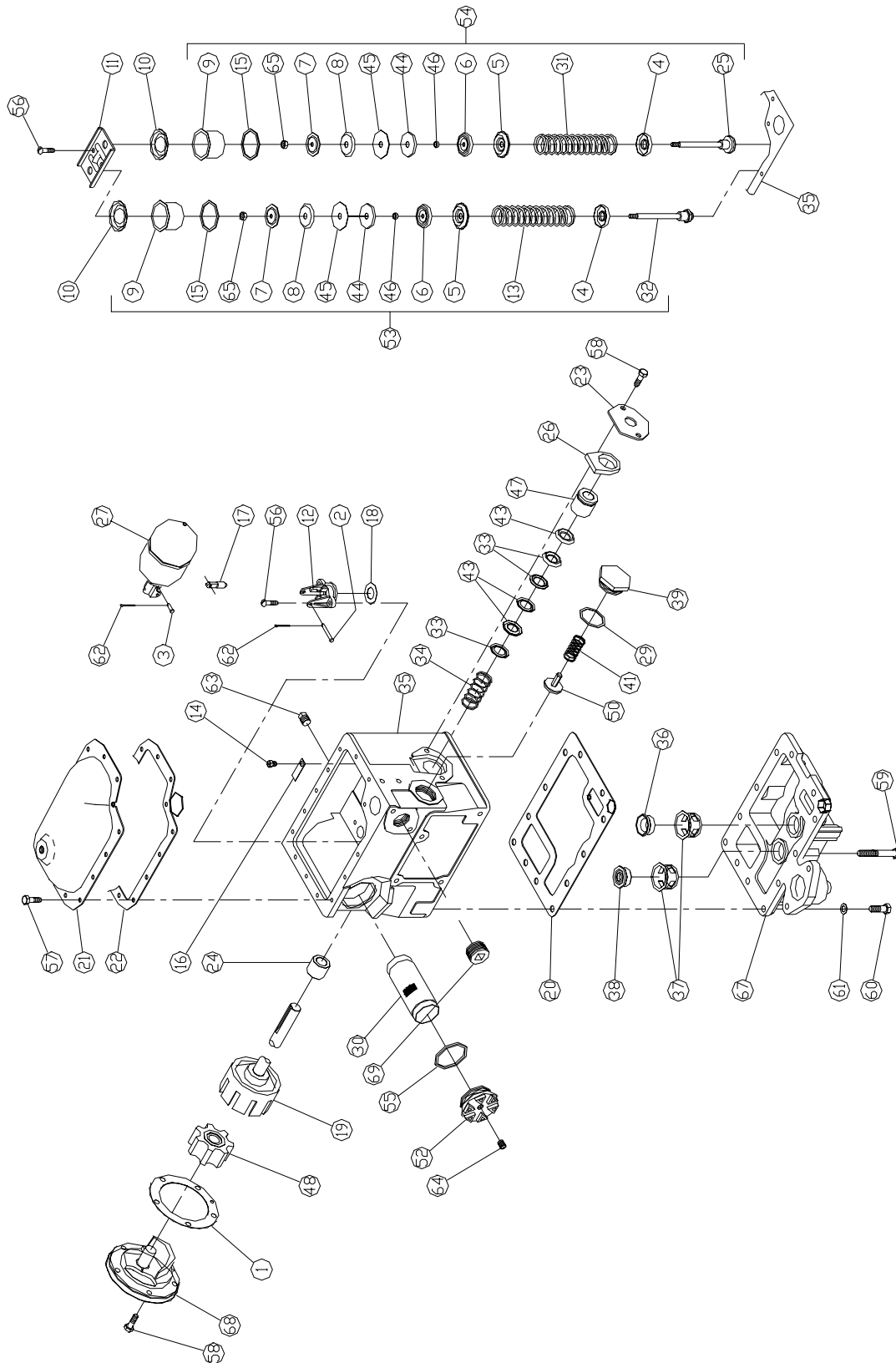




**PUMPING UNIT ASSEMBLY PARTS**

Item	Part No.	Description
1	021935	Coupling, Nipple
2	047009	Pulley, Idler
3	026038	Fitting, Ell, ¼ x 3/8
4	056605	Sleeve, Compression
5	038555	Nut, Compression
6	063633	Tube, Vent
7	047029	Idler Arm
8	048424	Pumping Unit, 553AMC
	048227	Pumping Unit, 552A
9	031315	Key
10	047598	Pulley, 3/4 bore, 4, 553AMC, 60Hz.
	047597	Pulley, 3/4 bore, 3-1/2, 553AMC, 50 Hz.
	047015	Pulley, 3/4 bore, 5-1/4, 552A, 50 Hz./60Hz.
11	063968	Bracket, Pump Left
12	066385	Union, 1-1/2 #150 Stockham
13	044907	Pipe TBE, 1-1/2 x 2-1/4
14	063966	Bracket, Motor Left
15	067735	Washer, Cup
16	037884	Mount, Rubber
17	037885	Mount, Rubber
18	068875	Washer, Std. Spring Lock, 5/16
19	051925	Screw, 5/16-18 x 1-1/4 HHC
20	063965	Pump Support, Right

### PUMPING UNIT ASSEMBLY BREAKDOWN DIAGRAM



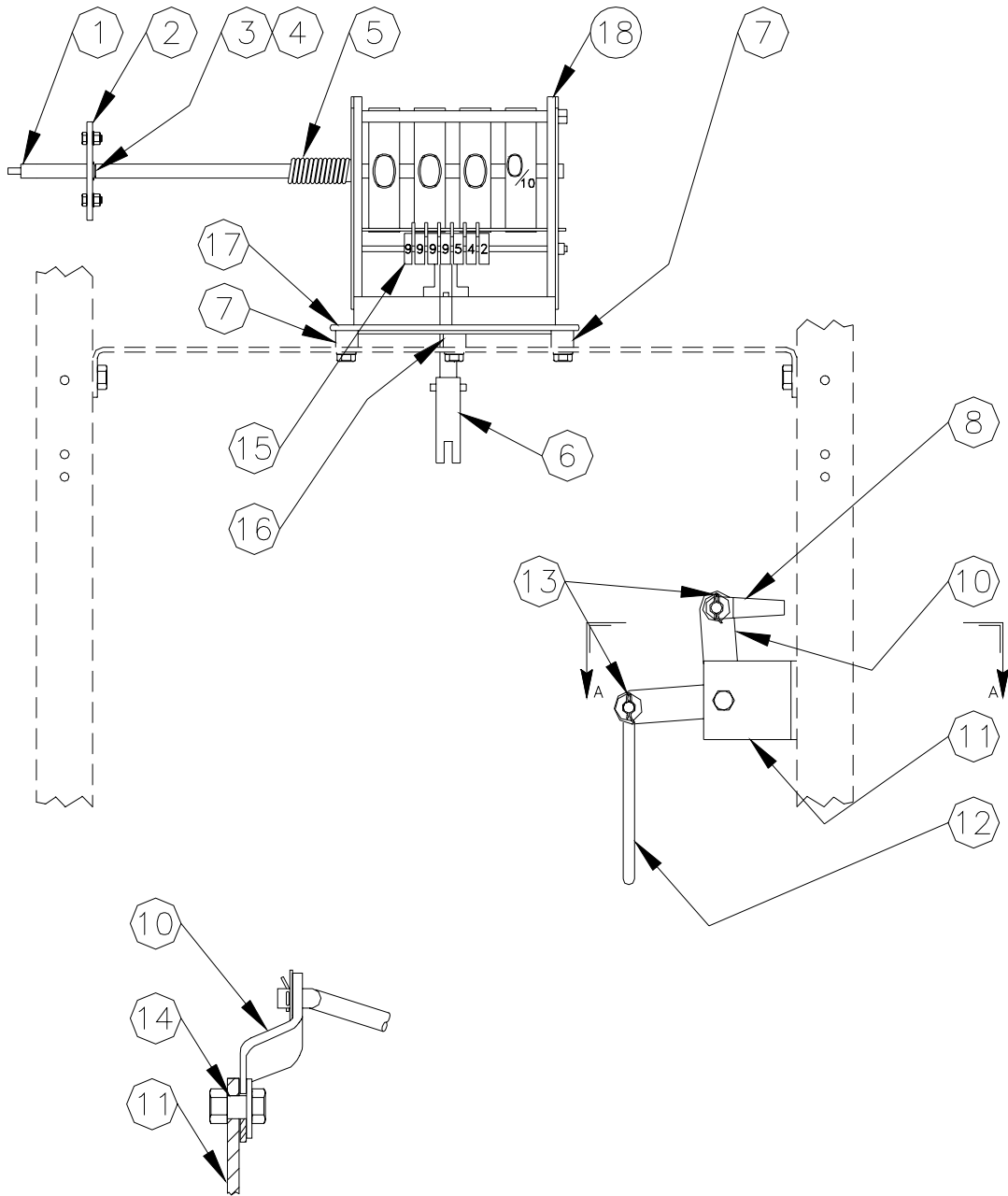
## PUMPING UNIT ASSEMBLY BREAKDOWN PARTS

048227 Pumping Unit Assy., 552A

048424 Pumping Unit Assy., 553AMC

Item	Part No.	Description	Item	Part No.	Description
1	S00117	Gasket	45	S00096	Plunger Disc
2	S00456	Float Lever Pin	46	S00097	Plunger Spacer
3	S00066	Valve Pin	47	S00122	Drive Shaft Bearing
4	S00067	Guide Plate	48	S00129	Rotary Pump Idler
5	S00068	Spring Plate	50	S00098	Poppet Disc. & Relief Valve Assy
6	S00069	Plunger Head	52	S00427	Suction Strainer Cap
7	S00072	Plunger Plate	53	S00125	By-pass Valve Assembly (34# to 35-1/2# spring), 552A
8	S00073	Plunger Follower		S00126	By-pass Valve Assembly (44-1/2# spring), 553AMC
9	S00074	Valve Cylinder			
10	S00075	Cylinder Head	54	S00127	Regulating Valve Assembly
11	S00076	Clamp Plate	55	S00123	Gasket
12	S00077	Float Valve Body	56	S00451	1/4-20 x 7/8 Lg. Rd. Hd. Mach Screw
13	S00078	By-Pass Valve Spring (#34 to 35-1/2# spring)	57	S00452	1/4-20 x 1/2 Lg. Hex Hd. Cap Screw
	S00079	By-Pass Valve Spring (44-1/2# Spring)	58	S00453	5/16-18 x 7/8 Lg. Hex. Hd. Cap Screw
14	S00080	Vent Screw	59	S00454	3/8-16 x 2-3/4 Lg. Hex. Hd. Cap Screw
15	S00062	Valve Cylinder Gasket	60	S00455	3/8-16 x 1-1/8 Lg. Hex. Hd. Cap Screw.
16	S00081	Vent Screw Guard	61	S00458	3/8 Lockwasher
17	S00082	Float Valve Needle	62	S00457	1/16 x 1/2 Lg. Cotter Pin
18	S00083	Float Valve Gasket	63	S00459	1/4 Sq. Hd. Pipe Plug
19	S00128	Pump Rotor Shaft Assembly	64	S00460	1/4 Countersunk Pipe Plug
20	S00119	Bottom Head Gasket	65	S00461	1/4 - 28 Hex. Nut
21	S00084	Separator Cover	67	S00462	Lower Pump Head w/Valve Seat Guides, Regulating Valve Seat & By-pass Valve Seat
22	S00120	Cover Gasket	68	S00057	Rotary Pump Head Assembly
23	S00085	Retainer			
24	S00121	Bearing			
25	S00086	Regulating Poppet Assy			
26	S00124	Oil Well Felt			
27	S00061	Float Assembly			
29	S00087	Gasket			
30	063312	Suction Screen (Gasoline)			
	063313	Suction Screen (Diesel)			
31	S00088	Regulating Valve Spring			
32	S00089	By-pass Valve Poppet			
33	S00056	Packing Gland			
34	S00090	Packing Spring			
35	S00091	Rotary Pump & Separator Body w/Gasket, Bearing, Screws & Spring			
36	S00092	Regulating Valve Seat			
37	S00093	Valve Seat Guide			
38	S00094	By-pass Valve Seat			
39	S00448	Check Valve Cap			
41	S00447	Poppet Spring			
43	S00116	"V" Packing			
44	S00095	Plunger Guide			

**REGISTER ASSEMBLY WITH START-STOP LINKAGE DIAGRAM**

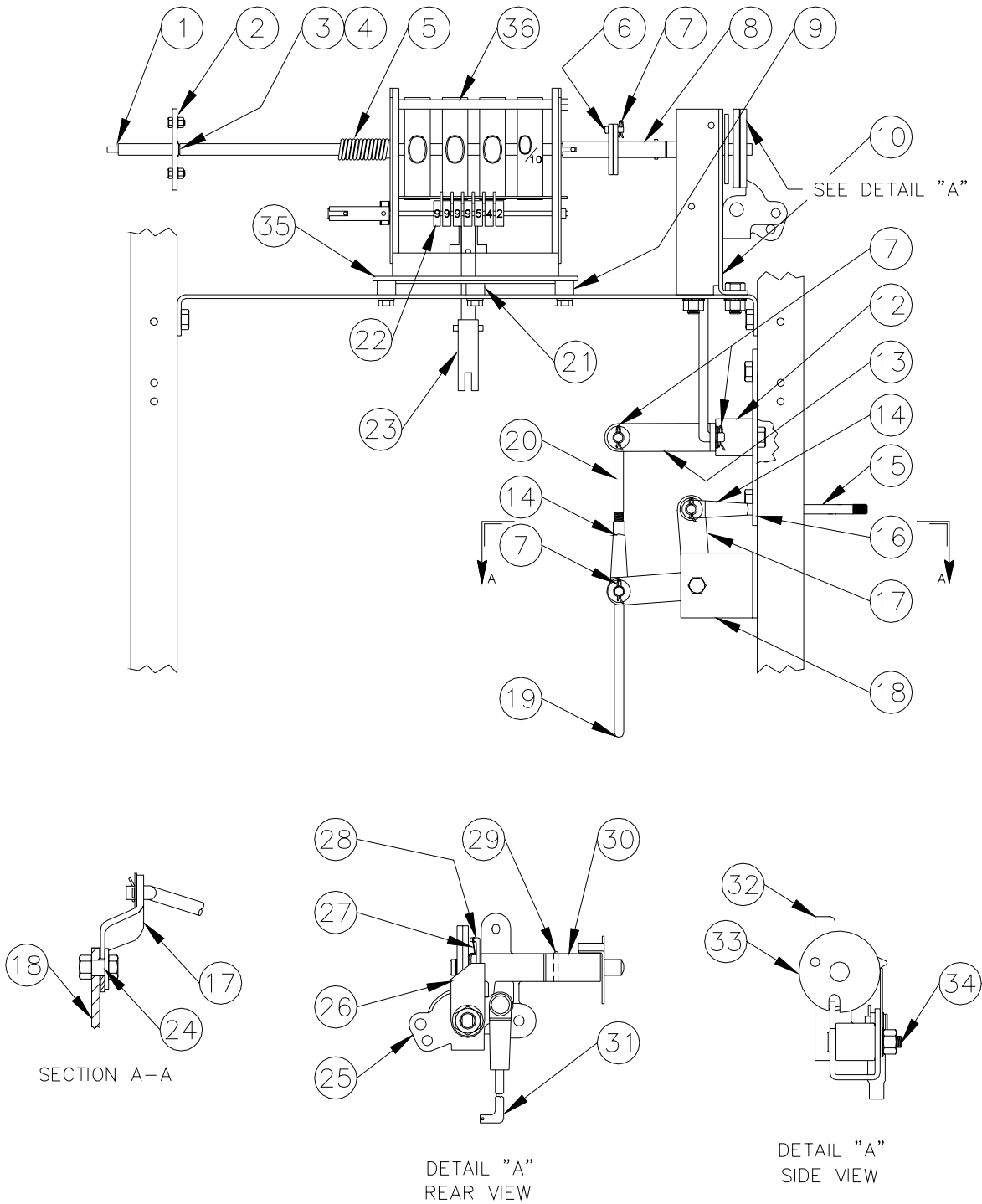


SECTION A-A

**REGISTER ASSEMBLY WITH START-STOP LINKAGE PARTS**

Item	Part No.	Description
1	051211	Reset Rod
2	063964	Support Rod
3	049425	E-Ring
4	068042	Thrust Washer, 9/16OD x .382ID
5	022011	Coupling, Reset
6	022997	Coupling Kit
7	056917	Spacer, 7/32ID x 1/2OD x 13/32
8	050250	Rod End
10	017002	Switch, Arm
11	017001	Bracket, Support
12	051215	Rod, Switch
13	042430	Pin, Cotter, 1/16 x 1/2
14	056915	Spacer, .314ID x .434 OD x .145
15	S00173	Totalizer Assembly
16	056916	Spacer, 7/32ID x 1/2OD x 3/16
17	010070	Adapter Assembly ( <i>See breakdown</i> )
18	048456	Register and adapter assembly (includes item 15, totalizer assembly)
	*048456	Register (subcomponent of 048456)

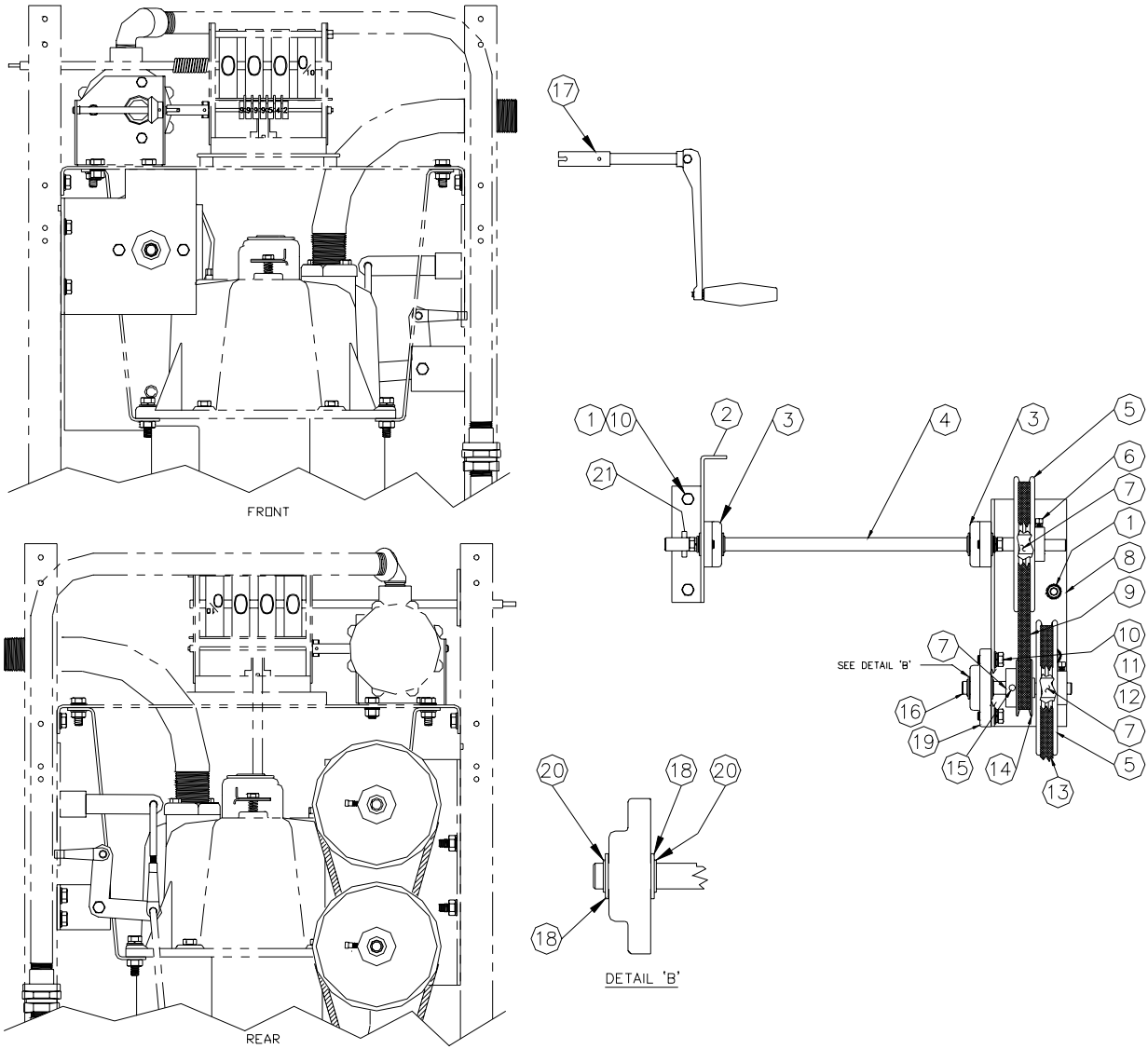
**REGISTER ASSEMBLY WITH INTERLOCK DIAGRAM**



## REGISTER ASSEMBLY WITH INTERLOCK PARTS

Item	Part No.	Description
1	051213	Rod, Reset
2	063964	Rod, Support
3	049425	E-Ring
4	068042	Washer, Thrust, 9/16OD x .382ID
5	022011	Coupling, Reset, 550
6	043016	Pin, Seal, Special
7	042430	Pin, Cotter
8	021918	Coupling and Disc Assembly
9	056917	Spacer, 7/32ID x 1/2OD x 13/32
10	017003	Bracket, Interlock Support
12	056912	Spacer, Interlock
13	017008	Arm, 550
14	050250	Rod, End
15	051209	Rod, Switch Handle
16	015748	Support Bracket
17	017002	Switch Arm
18	017001	Support Bracket
19	051215	Rod, Switch
20	050022	Rod, Interlock
21	056916	Spacer, 7/32ID x 1/2OD x 3/16
22	S00173	Totalizer Assembly
23	022997	Coupling Kit
24	056915	Spacer, .314ID x .434OD x .145
25	017519	Cam, Reset Locking
26	057132	Spring, Interlock Cam
27	057131	Spring, Blocking Cam
28	012525	Block, Switch lever
29	043035	Pin, Roll 1/8 x 3/4
30	021880	Coupling and Pin Assembly
31	050021	Rod, Interlock
32	017006	Support Interlock
33	048504	Reset and Shaft Assembly
34	054441	Shaft, Interlock
35	010070	Adapter Assembly ( <i>See breakdown</i> )
36	048454	Register and Adapter assembly (includes item 22, totalizer assembly)
	*048562	Register (subcomponent of 048454)

# HAND CRANK ASSEMBLY DIAGRAM

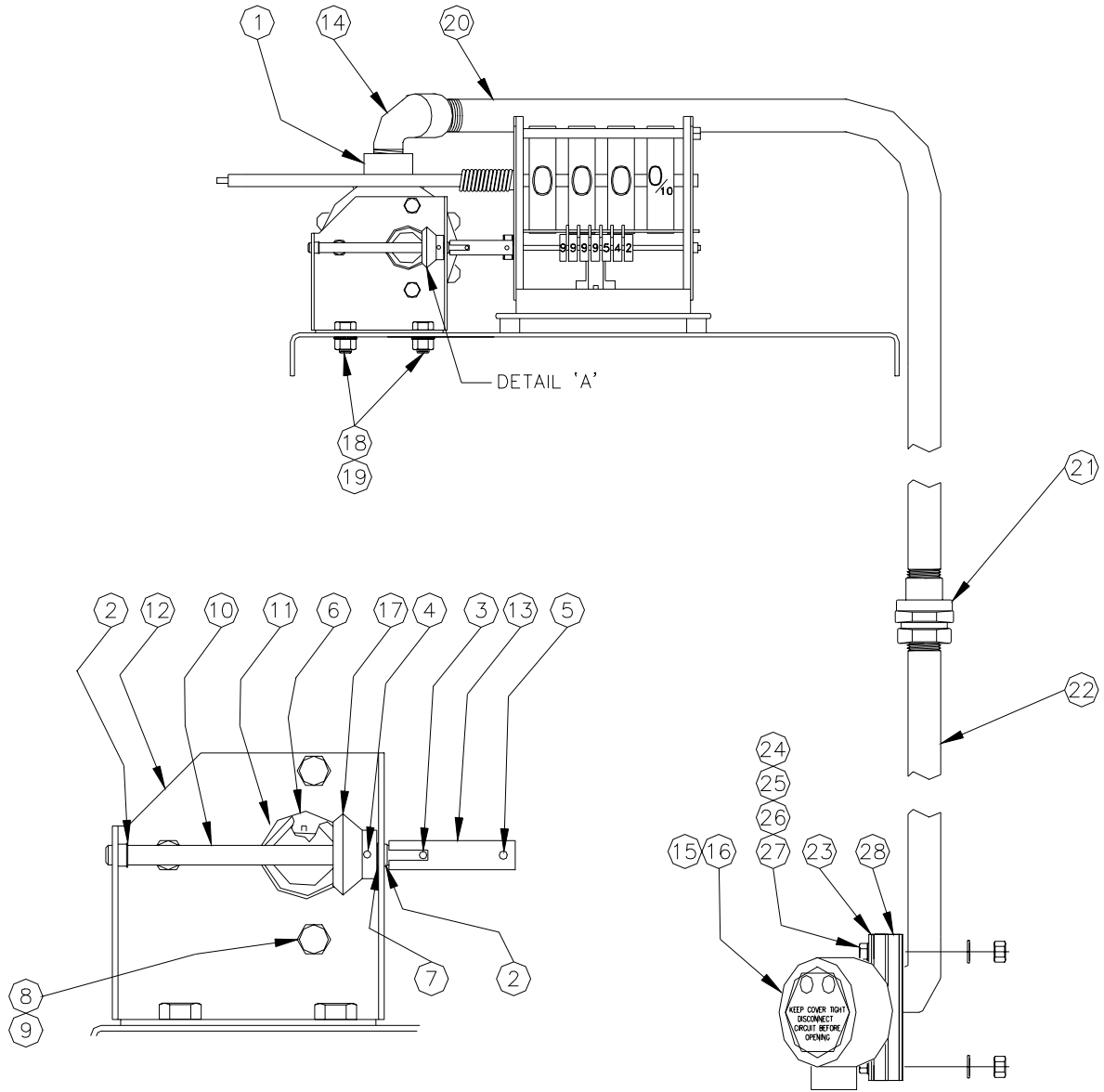




**HAND CRANK ASSEMBLY PARTS**

Item	Part No.	Description
1	038605	Nut, 5/16-18 Hex Keps
2	030803	Bearing-Pltd Assy.
3	030024	Housing/Bearing Assy.
4	055004	Shaft, Drive
5	048710	Pulley, 5-1/2 x .5 bore
6	053731	Screw, 1/4-20 x 5/8 Sq. Hd Set Cad Case Hardened
7	017130	Bushing, Hand Crank
8	014835	Bracket, Pulley
9	012166	Belt, 4L230, A21
10	051895	Screw, 5/16-18-3/4 HHC PI
11	068875	Washer, Std. Spring Lock, 5/16
12	068080	Washer, 5/16-18 x 1/2
13	012168	Belt, 4L520-A50
14	048709	Pulley, 2" x 5" Bore
15	052010	Screw, Set 5/16-18 x 1/2
16	055005	Shaft, Drive
17	023139	Handcrank Assy.
18	068040	Washer, .505ID x .880OD, .058T
19	030025	Housing/Bearing Assy. (dbl)
20	049403	Retaining Ring, .396 Dia. ( <i>units built after 3/99</i> )
	048612	Retaining Ring, Truarc, .468 Dia.
21	043030	Pin, Roll, 3/16 x 1

### PULSER ASSEMBLY DIAGRAM



**PULSER ASSEMBLY PARTS**

Item	Part No.	Description
1	021788	Pulser, 10:1
	047648	Pulser, 100:1
2	011954	Bearing, Nylon
3	042100	Pin, Driv-Lok, 3/32 x 5/8 Type E
4	042280	Pin, Driv-Lok, 3/32 x 5/8 Type A
5	053471	Screw, Set, Soc. Hd, 6-32 x 3/16
6	043221	Pin-Spirol, 1/16 x 3/4 CRS
7	068037	Washer, SS, .260 x .500 x .010
8	051790	Screw, 1/4-20 x 1/2 HHC
9	068155	Washer, 1/4' Int. Tooth
10	054551	Shaft, Pulser
11	028415	Gear, Miter Pulser
12	015917	Bracket, Pulser
13	023006	Coupling, Pulser
14	021058	Cond. Fitting, 90° MF
15	003345	Junction Box, Mchng
16	003515	Junction Box Cover, Mchng
17	028422	Gear, Miter 24T
18	052285	Screw, 5/16-18 x 5/8 HHC
19	038605	Nut, 5/16-18 Hex Keps
20	023069	Conduit, Pulser
21	C08125	Conduit Fit, 1/2' Union FF
22	023007	Conduit, Pulser, Lower
23	020745	Clamp, Junction Box
24	051805	Screw, 1/4-20 x 5/8 HHC
25	038740	Nut, 1/4-20 Hex Hd. Jam
26	068005	Washer, 1/4 Pltd
27	068860	Washer, Std. Spring-Lock
28	014641	Bracket

## **ACCESSORIES AND FIELD KITS**

### **Drip Tray**

- 011982 Directs fuel from an internal leak to the outside of the cabinet to minimize ground contamination. Installed between island and dispenser.

### **Filter Kits and Elements**

External standard speed filter kits, designed for flow up to 15 GPM. Typically used on Model 552A.

Methanol fuels require special methanol element listed below.

- 032115 External Standard Speed Filter Kit (includes adapter, standard speed particulate filter element and pipe fittings)
- 032116 External Standard Speed Hydrosorb Filter Kit (includes adapter, standard speed Hydrosorb filter element and pipe fittings)

#### **Replacement Elements**

- 026005 Standard (removes particulates only)
- 026042 Hydrosorb (removes water and particulates)
- 025909 Methanol (particulate removal in methanol and methanol blends where content exceeds 15%)

### **External High Flow Filter Kits**

Typically used on Model 553AMC. Components in high flow kits are not designed for use with Methanol or Methanol blends.

- 032754 External Single Element High Flow Kit (includes adapter, one high flow particulate filter element and pipe fittings)
- 032755 External Single Element High Flow Hydrosorb Kit (includes adapter, one high flow Hydrosorb filter element and pipe fittings)

#### **Replacement Elements**

- 025900 Standard (removes particulates only)
- 025901 Hydrosorb (removes water and particulates)

### **Pulser Kits**

- 050003 1:1 Pulser (one pulse per unit of measure)
- 050002 10:1 Pulser (10 pulses per unit of measure)
- 050004 100:1 Pulser (100 pulses per unit of measure). Recommended for most applications.

# WARRANTY

## General Statements:

Gasboy International LLC. warrants all new equipment manufactured by Gasboy against defective material and/or workmanship, for the warranty period specified below, when the equipment is installed in accordance with specifications prepared by Gasboy.

This warranty does not cover damage caused by accident, abuse, Acts of God, lack of surveillance of automatic recording systems, negligence, mis-application, faulty installation, improper or unauthorized maintenance, installation or use in violation of product manuals, instructions, or warnings. Under no circumstance shall Gasboy be liable for any indirect, special, or consequential damages, losses, or expenses to include, but not limited to, loss of product, loss of profits, litigation fees, or the use, or inability to use, our product for any for any purpose whatsoever.

Parts Only - During the warranty period, Gasboy will, at its option, repair or replace defective parts returned transportation prepaid to its factory.

On-Site Labor Included - Gasboy will also provide, within the Continental United States and during the warranty period, the services of an Authorized Service Representative (ASR) for on-site repair or replacement of defective parts.

Replacement Parts - Any system components that are not part of the original system order, including Island Card Readers, Pump Control Units, etc., are considered replacement parts.

Equipment	Term	Coverage
Commercial Pumps and Dispensers Full-Cabinet Consumer Pumps	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts and Labor.
Small Transfer Pumps, Meters, Pressure Regulators	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.- Excepting the Model 2020 Hand Pump, which has a 90-day warranty from date of GASBOY International's invoice.	Parts Only.
Keytrol	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts and Labor.
Fuel Management Systems: - CFN/ Profit Point - Series 1000/Fleetkey - TopKAT - Fuel Point Readers (sold with new systems)	One year from date of start-up or 15 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.- The basic warranty only applies to systems which have been started up by a Gasboy Authorized Service Representative (ASR).	Parts and Labor.
Additional Fuel Point Items: - Fuel Point Readers sold for retrofitting existing systems. - Fuel Point vehicle and dispenser components.	One year from date of start-up or 15 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts Only.
Encoders, Embossers, Modems, CRTs, and Logger Printers	Purchased with Fuel Management System (Encoders, Embossers only): 90 days from the date of start-up by a Gasboy ASR, or 180 days from date of Gasboy International's invoice, whichever occurs first.  Purchased with Fuel Management System (Modems, CRTs, and Logger Printers only): Matches system warranty.  Purchased Separately: 90 days from date of Gasboy International's invoice to the purchaser.	Purchased with System (Encoders, Embossers only): Parts only.  Purchased with System (Modems, CRTs, Logger Printers only): Matches system warranty.  Purchased Separately: Parts Only.
Air Diaphragm Pumps	Three years from date of purchase (for full warranty description, see Price List).	Parts Only.
Items not manufactured by Gasboy (ex. automatic nozzles, hoses, swivels, etc.)	Not warranted by Gasboy International (consult original manufacturer's warranty).	Not Applicable.
Replacement Parts	One year from date of Gasboy International's invoice to the purchaser.	Parts Only.

To the extent permitted by law, this warranty is made in lieu of all other warranties, expressed or implied, including warranties of freedom from patent infringement, or merchantability, or fitness for a particular purpose, or arising from a course of dealing or usage of trade. No one is authorized to vary the terms of the warranty nor may anyone make any warranty of representation, or assume any liability other than that herein stated, in connection with the sale described herein. The acceptance of any order by Gasboy International is expressly made subject to the purchaser's agreement to these conditions.



**GASBOY INTERNATIONAL LLC**

P.O. Box 309, Lansdale, PA 19446 ● (800) 444-5579 ● FAX: (800) 444-5569 ● www.gasboy.com