

# **PRODUCT UPGRADES**

Annex D of NFPA 1901 Standard for Automotive Fire Apparatus addresses fire trucks built prior to today's standards. Waterous has products available for upgrading or refurbishing fire apparatus to improve safety and performance.

## SAFETY ITEM

#### Dual Shift Alarm Increase pump status awareness

For fire trucks built prior to 1991 with red and green in-cab indicating lights, a pump shift indicator light/audible alarm kit is available to heighten operator awareness of pump shift status. The kit provides a combination red light/audible alarm device that can be installed directly in the existing indicator light system and will alert the operator when the shift to "pump" is not complete.

## SAFETY ITEM

#### Overheat Protection Manager Prevent overheating and costly repairs



Acts as a safety device by releasing hot water from the discharge area of the pump to the ground or back to the water tank, preventing costly pump repairs due to overheating.

## **SAFETY ITEM**

#### Large Diameter Slow Close Valves Slow down actuation to meet requirements



3-1/2-inch discharge valves with a manual or electric rotary actuator to comply with NFPA 1901 requirements for slow actuation. May be

retrofitted on existing Waterous discharge valves. Both actuators have a compact control panel with bright LEDs for accurate, easy to read valve position.

## **SAFETY ITEM**

#### Intake Relief Valve Ensure maximum pump performance



Adjustable, automatic pressure relief device to bleed off excess pressure from a hose connected to a pump intake or the supply side of a valved intake as required by the current edition of NFPA 1901. Features pilot valve

operation to ensure full main-valve opening when intake pressure exceeds pilot valve set point to provide performance that exceeds NFPA requirements.

#### ENVIRONMENTAL AND PERFORMANCE UPGRADES

## VPO Primer (Oil-Free) Deliver rapid priming without oil or lubrication

A combination of high capacity and vacuum assures rapid priming. Requires no lubricant to operate. VPO components are made of corrosion-resistant anodized aluminum, stainless steel and composite materials to provide a long operating life.

## Monarch<sup>™</sup> Butterfly Valve Save pump panel space with behind the panel valve mounting



A package that includes a 6inch intake butterfly valve with an integral intake relief valve, mounting pad and designed to fit behind the pump panel.

## Prime Safe<sup>™</sup> Prime with non-toxic lubricant

A 100%, non-toxic and rapidly biodegradable priming lubricant. Meets current NFPA requirements.

#### Mechanical Seal Cooling Line Conversion Kit Extend the life of mechanical seals

Kit reroutes mechanical seal cooling line hoses on midship pumps built prior to 1994, to extend life of mechanical seals.

# Rotary Transfer Valve Actuator Secure smoother transfers



Permits a smooth changing of the transfer valve position to either pressure or volume. Available in either electric or manual.

## Anodes Add corrosion resistance to your pump

A replaceable zinc element that is installed directly on the pump intake piping and into the pump waterway. These anodes sacrifice the zinc element to galvanic corrosion.

#### Panel Plates Switch to more durable panel plates



The panel plates are faderesistant and more durable. Warning labels and other items are colored. Indicators are LEDs instead of light bulbs.

## Electric Discharge Valve Actuator w/Illuminated Position Indicator A bright idea for simplifying valve openings and closings



The electric actuator is designed for easy opening and closing of valves with a panel mounted switch. The compact control panel has

bright LEDs for accurate, easy-to-read valve position. May be retrofitted on existing Waterous discharge valves.

## CAFS UPGRADES

#### Pump/Compressor Systems Enhance pump versatility



Waterous offers three models of PTO-Driven Air Compressor Systems and three models of PTO-Driven Integrated Pump/ Compressor Systems. All systems are designed to

be retrofitted in an inservice vehicle. They are designed to discharge water, foam solution or compressed air foam.

#### FOAM UPGRADES

#### ADVANTUS<sup>™</sup> Foam System Get consistent foam



## performance

Features a Hydra-Cell foam pump and stainless steel process manifold available in 500 or 1000 GPM.

#### AQUIS<sup>™</sup> Foam Proportioner Affordability with durability

Complete aspirated foam system with stainless steel paddlewheel flow meter. Available in 1.5 or 2.5 GPM.



## Waterous Innovations Since 1886

- 1886 Steam Powered Horse Drawn Fire Pump
- 1898 Gasoline Powered Horse Drawn Fire Pump
- 1906 Gasoline Powered Self-Propelled Pumper (one engine to propel the vehicle, one engine to run the pump)
- 1907 Gasoline Powered Self-Propelled Pumper (one engine for both the vehicle and the pump)
- 1929 Last Completely Built Waterous Fire Truck
- 1955 CM Electro-Matic Fire Pump
  - (1st pushbutton fire pump Two-Stage Mid-Ship Pump)
- 1955 Flame Plated Impellers
- 1968 Floto-Pump
- 1972 CS Series Fire Pump (Single-Stage Mid-Ship)
- 1977 Ball Transfer Valve
- 1977 Silent Chain Drive Transmission
- 1981 Series 500 Resilient Seated Gate Valve
- 1981 PB18 Portable Pump
- 1987 Self-Adjusting Mechanical Seal
- 1992 Light-Weight Ductile Iron Resilient Seated Gate Valve
- 1994 CM'93 and CS'93 Mid-Ship Pump
- 1995 E200 Series Motor Pump
- 1996 E300 Series Motor Pump
- 1996 Ductile Iron Pacer Hydrant
- 1997 Foam Manager
- 1997 E500 Series Motor Pump
- 1998 Monarch Intake Valve
- 1999 Eclipse CAFSystem
- 1999 VPO Oil-Free Primer
- 2000 Overheat Protection Manager
- 2000 S100 Series Fire Pump
- 2000 C10 Transmission
- 2001 21st Century Manifold
- 2002 E600 Series Motor Pump
- 2002 Eclipse ES (S100)
- 2003 HL Series Fire Pump
- 2004 Eclipse ES (CX)
- 2004 TC10 Power Take-off
- 2005 TC10 Eclipse ES
- 2007 Advantus Foam System
- 2007 Aquis Foam Proportioner



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