

DIESEL FUEL PRO



SERIES

www.fuelpro-x.com



ADVANTAGE
ENGINEERING



DIESEL FUEL PRO

X SERIES

OPERATIONS MANUAL



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I. INTRODUCTION

DIESEL FUEL PRO X-SERIES

Congratulations on the purchase of your DIESEL FUEL PRO system.

The DIESEL FUEL PRO system presents a convenient and efficient for cleaning harmful fuel system contaminants from diesel internal combustion engines. Due to the large internal solution/fuel reservoir, virtually all small and large "commercial" engines can be serviced.

Using specially formulated Advantage Engineering Diesel Fuel System Cleaning Solution and Filters, the DIESEL FUEL PRO system provides a safe, easy to use, quick, and comprehensive way of maintaining optimum fuel system, vehicle performance, fuel delivery, while reducing exhaust emissions, and "out of service" times. The control panel provides clear indicators for prime pressure adjustment and service time. An easily read vacuum/pressure gauge can also identify potential fuel system deficiencies.

When properly connected to a diesel engine, the DIESEL FUEL PRO system becomes the vehicle's fuel supply. The system circulates a mixture of fuel and Advantage Engineering Premium Diesel Fuel System Cleaning Solution with the engine off and while running. These procedures loosen and dissolve accumulated deposits and contaminants, passing them through the exhaust system as they are combusted or filtered through the DIESEL FUEL PRO's fuel filter. Combustion chamber and pintle valve deposits are significantly reduced in the process.

Improvements in horsepower, fuel economy, and reduced exhaust emissions are commonly realized as a result of periodic comprehensive fuel system cleaning. It is recommended that you perform this service every 30,000 to 50,000 miles dependent on vehicle usage and driving conditions to maintain the highest level of fuel system efficiency.

II. SAFETY INFORMATION

1.01 IMPORTANT SAFETY NOTICE

For your safety, read this manual thoroughly before operating your DIESEL FUEL PRO system. Your DIESEL FUEL PRO system is intended for use by properly trained, skilled professional automotive technicians. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise care when using this unit. Before using your DIESEL FUEL PRO system, always refer to and follow the safety messages and applicable service procedures provided by the manufacturer of the vehicle being serviced.

- **Read All Safety Instructions**

Read, understand and follow all safety messages and instructions in this manual. Safety messages in this section of the manual contain a signal word with a three-part message and, in some instances, an icon.

- **Signal Words**

The signal word indicates the level of the hazard in a situation:



DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.



WARNING

Indicates a potentially hazardous situation which, if not avoided, may result in death or serious injury to the operator or to bystanders.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

IMPORTANT

Indicates a situation which, if not avoided, may result in damage to the DIESEL FUEL PRO system or the vehicle being serviced.

- **Safety Messages**

Safety messages in this section contain three different type styles:

- Normal type states the hazard.
- **Bold type** states how to avoid the hazard.
- *Italic type* states the possible consequences of not avoiding the hazard.

• Safety Symbols

A safety symbol, when present, gives a graphical description of the potential hazard, and how to avoid the hazard:



Risk of Fire



Read Instructions Before Use



Risk of Explosion



Mandatory Eye Protection



Risk of Entanglement



Mandatory Protective Gloves



Dangerous Fumes



Mandatory Protective Clothing



Do Not Pull or Move

1.02 IMPORTANT SAFETY INSTRUCTIONS

DANGER



Vehicle gases contain Carbon Monoxide, which is a colorless & odorless lethal gas.

- Only run engines in well ventilated areas and avoid breathing exhaust gases. Extended breathing of exhaust gases will cause serious injury or death.

WARNING



Improper use and operation.

- Read, understand and follow all safety messages and operational procedures in this manual before operating the DIESEL FUEL PRO system.
- This equipment should be operated only by qualified personnel.
- Use this equipment only as described in this manual.

Improper use and operation of this product can result in injury.

WARNING



Exhaust gases, moving parts, hot surfaces, and potent chemicals may be present during use of the fuel system equipment.

- When using chemicals always refer to the MSDS sheets and manufacturer's instructions for the proper procedure to handle emergency medical treatment, cleanup, handling, and storage requirements.

Improper use of the fuel system equipment or exposure to exhaust gases, moving parts, hot surfaces, or moving parts may cause injury.

WARNING



Flammable fuel chemical and vapors can ignite.

- Avoid exposure to flames, sparks, hot engine parts, and other ignition sources.
- Keep a fully charged fire extinguisher nearby. The extinguisher should have a class B rating and be suitable for gasoline, chemical, and electrical fires.
- Clean up any fuel or chemical spills immediately. Refer to MSDS sheets and manufacturer's instructions for clean up requirements
- Dispose of contaminated clean up materials according to governing environmental laws.
- Never look directly into the air induction plenum or carburetor throat when the engine is operating.
- Plug or cap open fuel lines during service.
- Keep Fuel System Cleaning Solution container closed except when filling reservoir.

Explosion or flame or exposure to flammable liquids and vapors can cause injury.



WARNING



Many fuel systems maintain residual pressure in fuel lines after the engine has been turned off.

- Wear safety glasses, chemical resistant gloves, and protective clothing when connecting and disconnecting fuel lines and adapters.
 - Confirm ZERO pressure before connecting and disconnecting fuel lines and adapters.
- Explosion or flame or exposure to flammable liquids and vapors can cause injury.*



WARNING



Risk of expelling pressurized fluids.

- Verify that engine and machine are off before connecting or disconnecting lines and adapter hoses.
- Keep the service hoses away from hot or moving engine parts. Hoses can split or burst causing fluid to be expelled.
- Tighten all connections properly.

Chemicals may cause respiratory tract and/or skin and eye irritation.

- Use only approved chemicals (refer to operator's manual).
- Use safety glasses and protective clothing when handling chemicals.
- Do not ingest chemicals or breathe vapors
- Treatment methods are as follows:

Eyes: Flush eyes with plenty of water.

Skin: Wash with soap and water.

Inhalation: Move to uncontaminated area.

Ingestion: If large amount, get medical attention.

If any irritation persists, get medical attention.

- Dispose of used fluid according to environmental laws and regulations.

Although motor oil and engine flush solution pose no significant health hazards, some individuals may experience adverse reactions upon contact. Pressurized fluid can cause serious injury.



WARNING



Batteries produce explosive gases and can explode.

- Keep sparks and flames away from the battery.
- Do not lay tools, equipment, or other conductive items on the battery.
- Connect the positive lead of the equipment to the positive lead of the battery first.
- Connect the negative lead of the equipment to vehicle ground as far away from the battery as leads will allow to prevent sparking and igniting of battery gases.
- Keep battery acid away from skin and eyes. In case of eye contact, flush with clean water for 15 minutes and get medical attention.

Battery explosion and ignited gases can cause injury.

 **WARNING**

Risk of unexpected vehicle movement.

- Block drive wheels before starting vehicle's engine to begin an exchange.
- Unless instructed otherwise, set parking brake and put gear selector in park.
- Do not leave a running vehicle unattended.

A moving vehicle can cause injury.

 **WARNING**

Engine has moving parts. Risk of entanglement.

- Do not place tools on fenders or other places in engine compartment.
- Keep yourself, clothing, adapters and service hoses clear of moving parts such as fan blades, belts and pulleys.
- Wear safety goggles (user and bystanders).

Moving components can cause injury.

 **WARNING**

Risk of burns.

- Wear gloves when working near hot engine components.
- Do not touch hot exhaust systems, manifolds, engines, radiators, etc.

Hot components can cause injury or discomfort.

 **WARNING**

Risk of injury.

- This equipment should be operated by qualified personnel only.
- Use this equipment only as described in this manual.
- Loop the power cord loosely in its proper location when machine is not in use.
- Do not operate equipment with a damaged power cord or hoses, or if the equipment has been dropped or damaged, until it has been examined by a qualified service representative.
- Care should be taken to arrange the power cord and service hoses so that they will not be tripped over or pulled.
- Never pull on the power cord or service hoses to transport the DIESEL FUEL PRO system. Damage may occur to these components, or machine may tip over.
- Keep area of operation clear of unnecessary tools and equipment. Utilize storage area on the top of the machine and drawers.
- Never leave the machine running unattended.
- The DIESEL FUEL PRO system is not designed for any other purpose than the cleaning of the fuel delivery system.

Operation of your DIESEL FUEL PRO system by anyone other than qualified personnel may result in injury.

 **CAUTION**

Risk of equipment damage.

- Servicing, transporting, or storing this machine in an attitude other than the normal operating position can result in fluid spillage and/or component damage.
- Use only the manufacturer's recommended attachments.
- The DIESEL FUEL PRO system is fully automatic. Refer to your control panel at all times.
- Never pull on the power cord or service hoses to transport the DIESEL FUEL PRO system. Damage may occur to these components, or machine may tip over.
- Periodically clean the machine by wiping down with a clean, soft, dry cloth.

Improper operation of equipment may result in damage to machine or components.

SAVE AND FOLLOW THESE INSTRUCTIONS!

III. SYSTEM FEATURES & SPECIFICATIONS

2.01 FEATURES

Application

- DIESEL FUEL PRO system becomes the vehicle's fuel supply during the service procedure
- Circulates a mixture of fuel and Advantage Engineering Diesel Fuel System Cleaning Solution with the engine off and while running
- Cleans soft carbon build up in the combustion chamber and on the pintle valves.
- Restores power delivery and emissions, improves fuel economy, and maximizes transmission service life.

Functions

- On/Off switch – timer actuated
- Prime pressure adjustment
- Vacuum/Pressure gauge
- Timer (0 – 60 minutes)
- Audible alarm to indicate END service
- Solution/fuel tank level and ratio indicator

Cabinet Features

- Composite cabinet
- Ergonomically correct working height
- 9" rigid rear wheels
- 4" swivel casters with brakes
- Large 6 U.S. gallon (approx.) reservoir with unique ratio calculator to maintain sufficient and properly mixed solution ratio
- 10' external nylon reinforced Hytron hoses
- High flow rate pump
- Adapter storage drawer and convenient work top surface

2.02 DIMENSIONS & TECHNICAL SPECIFICATIONS

Specifications

- Six (6) U.S. gallon (approx.) solution/fuel tank
- 10' external nylon reinforced Hytron hoses
- 9" rigid rear wheels
- 4" swivel caster with brakes
- Electrical requirement: 12.0 VDC
- Weight (uncrated): 95 lbs. (kgs) including adapters
- Dimensions: 18" (46 cm) wide
24" (61 cm) deep
60" (24 cm) high
- One (1) year limited warranty

Standard Accessories

- DIESEL FUEL PRO adapters

Optional Accessories

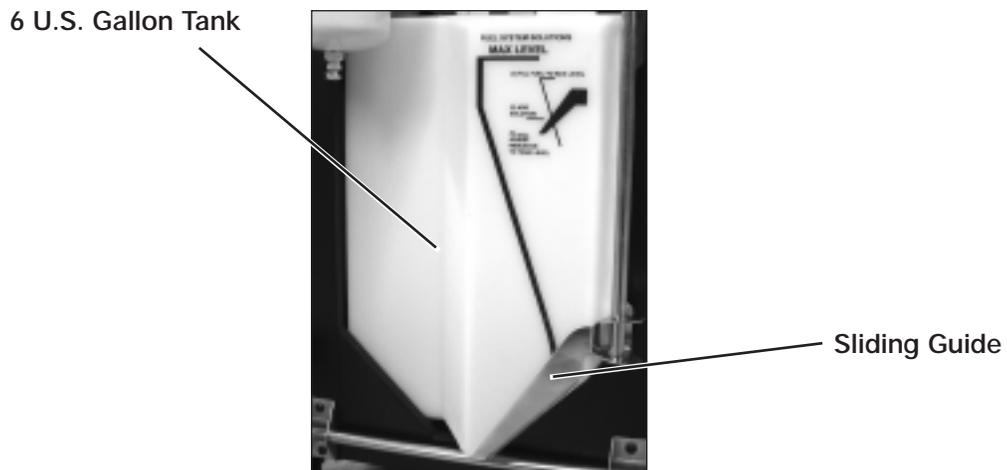
- Advantage Engineering Diesel Fuel System Cleaning Solution:
2 @ 1 Gallon Tins - PN EEDD300AC2
- Filters - PN EEFS308A5 (2 pcs.)

Specifications subject to change without notice.

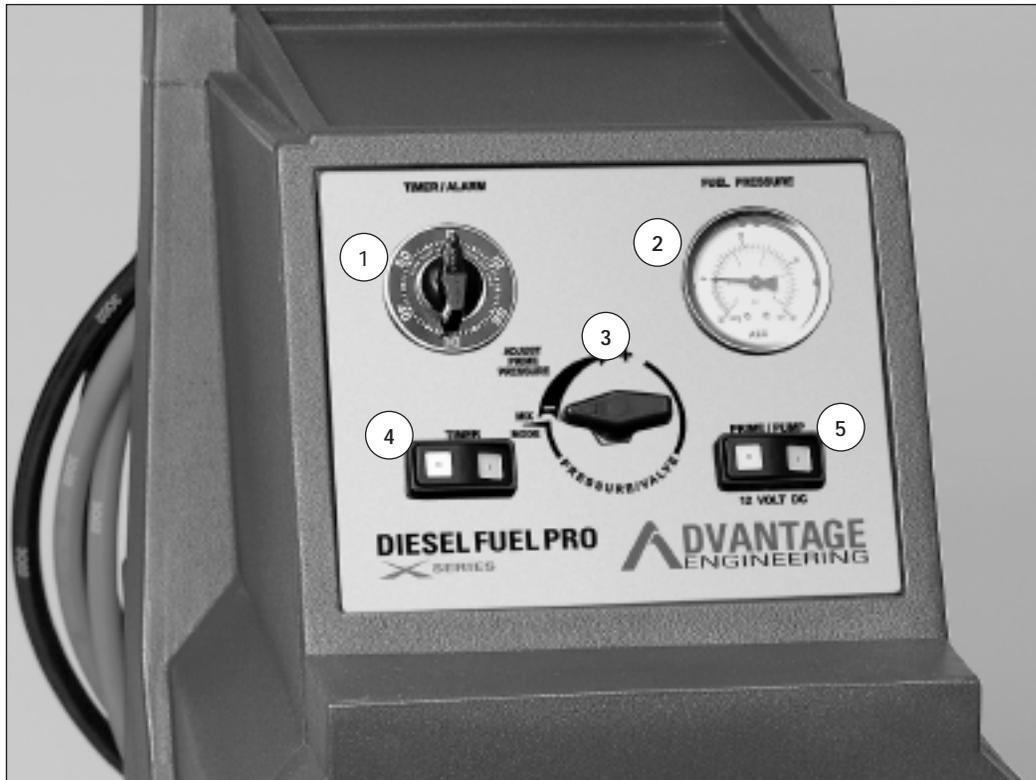
2.03 MACHINE OVERVIEW



BACK OF MACHINE



2.04 CONTROL PANEL OVERVIEW



| KEYS | NAME/FUNCTION | DETAILS |
|------|--|--|
| 1 | TIMER 0 – 60 minutes) - Analog | Measure remaining service time – switch actuated |
| 2 | GAUGE (-20 inches vacuum – 60 p.s.i.) - Analog | Indicates vacuum or pressure |
| 3 | VALVE | Adjust prime pressure to eliminate air in fuel system prior to service and mix solution/fuel in 6 U.S. gallon internal reservoir |
| 4 | SWITCH - TIMER | Actuates timer (#1) above |
| 5 | SWITCH – PRIME/PUMP | Actuates internal pump in the ON position |

IV. OPERATING PROCEDURES

3.01 TOOL USAGE

CAUTION

- Frequently inspect and clean any tools used, and lubricate all non-sealed ratchet mechanisms with light oil.
- The use of any other accessories not specified in this manual may create a hazard.
- Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels

3.02 OVERVIEW OF DIESEL FUEL PRO SERVICE

The DIESEL FUEL PRO system presents a convenient and efficient for cleaning harmful fuel system contaminants from diesel internal combustion engines, large and small.

When properly connected to a diesel engine, the DIESEL FUEL PRO system becomes the vehicle's fuel supply. The system circulates a mixture of fuel and Advantage Engineering Diesel Fuel System Cleaning Solution with the engine off and while running. These procedures loosen and dissolve accumulated deposits and contaminants, passing them through the exhaust system as they are combusted or filtered through the DIESEL FUEL PRO's fuel filter. Combustion chamber and pintle valve deposits are significantly reduced in the process.

3.03 OPERATING PROCEDURE - DIESEL FUEL PRO SERVICE

SOLUTION TANK FILLING

An effective service requires a proper solution/fuel ratio. This ratio is easily maintained at all reservoir levels, i.e. empty, half-full, etc., by utilizing the sliding guide located on the 6 U.S. gallon reservoir visible at the rear of the DIESEL FUEL PRO.

Remove reservoir cap.

Fill using Advantage Engineering Diesel Fuel System Cleaning Solution to the appropriate level on the D1 reservoir. Position the sliding "gold" guide on the D1 reservoir so that the base of the guide touches the fluid level in the reservoir. If the tank is empty, the guide should rest at the bottom of the reservoir. The fill level for Diesel Fuel System Cleaning Solution is that point where the "gold" guide bisects the black line. If the tank is partially full, move the "gold" guide to that point where it rests on the fluid level. Identify the point where the "gold" guide bisects the black line. This is the line to which the tank should be filled with Diesel Fuel System Cleaning Solution. This guide is a convenient way to assure the proper ratio of cleaning solution to diesel fuel. Note: Two (2) U.S. gallons of Diesel Fuel System Cleaning Solution is required when the tank is empty.

Secure reservoir cap.

To fill utilizing vehicle's fuel supply

Locate vehicle fuel tank and injector pump and fuel rail.

Disconnect the return line from the fuel rail. Attach the appropriate adapter to the fuel rail.

Attach the adapter from the fuel rail to the black line of the D1.

Start vehicle. Monitor fill of diesel fuel in the D1 reservoir. Turn vehicle off when the D1 reservoir is full. The D1 reservoir should now have proper ratio of Fuel System Cleaning Solution and diesel fuel for the fuel service.

To fill utilizing external fuel source

Remove reservoir cap.

Fill reservoir using Advantage Engineering Diesel Fuel System Cleaning Solution to the appropriate level on the D1 reservoir. Position the sliding "gold" guide on the D1 reservoir so that

the base of the guide touches the fluid level in the reservoir. If the tank is empty, the guide should rest at the bottom of the reservoir. The fill level for Diesel Fuel System Cleaning Solution is that point where the "gold" guide bisects the black line. If the tank is partially full, move the "gold" guide to that point where it rests on the fluid level. Identify the point where the "gold" guide bisects the black line. This is the line to which the tank should be filled with Diesel Fuel System Cleaning Solution. This guide is a convenient way to assure the proper ratio of cleaning solution to diesel fuel. Note: Two (2) U.S. gallons of Diesel Fuel System Cleaning Solution is required when the tank is empty.

Top off with clean diesel fuel to the "upper" black mark.
Secure reservoir cap.

DIESEL FUEL PRO SERVICE

Locate vehicle fuel tank and injector pump and fuel rail.

Disconnect the fuel line to the injector pump that feeds the fuel rail (preferably after the fuel filter(s)).

Attach adapter to the open line to the injector pump.

Attach the red line of the D1 to the adapter to the injector pump.

Pump is activated by timer. Turn timer clockwise past 0. Starting at 0 psi, adjust prime pressure to 4 – 10 psi. Avoid excessive pressure that may cause damage to the injector pump. Turn pump switch on. D1 pump will start solution/detergent flow through the fuel rail purging any air out of the fuel lines.

Wait a minute or two to confirm there is no air in the fuel system. Start engine.

The engine should run smoothly without air in the fuel system. Increase to fast idle (1200 rpm) and hold this engine speed throughout the cleaning process. D1 prime pressure can now be reduced to 0 psi as injector pump "pulls," or siphons, the fuel cleaning solution/diesel fuel mixture during the service.

Shut off engine after 30 to 45 minutes of cleaning time.

Disconnect red and black hoses from the injector pump and fuel rail adapters. Remove adapters. Reconnect fuel supply line to the injector pump and fuel return line to the fuel rail.

Start engine. Check for leaks.

V. TROUBLESHOOTING GUIDE

4.01 TROUBLESHOOTING GUIDE

PROBLEM: The unit will not power up.

SOLUTION: Check for proper connection on power leads. Verify voltage at battery is 12.0 VDC.

NOTE: If voltage was incorrect disconnect leads and reconnect to proper power source.

PROBLEM: Pump is running but unit will not build pressure.

SOLUTION: Check for proper connection on power leads. Verify voltage at battery is 12.0 VDC.

PROBLEM: Unit performs poorly.

SOLUTION:

- Check hoses for damage.
- Check power leads for cuts or frays.
- Check Maintenance Log for filter life. If there are more than 50 services on filter, replace filter and log filter change date in Maintenance Log.

ADDITIONAL HELP

Please verify that items 1-3 above have been reviewed before calling of additional assistance.

In the unlikely event that problems persist with the unit call Technical Support, have you model and serial numbers available before you call.

Remember to send in your warranty card, otherwise service will delayed.

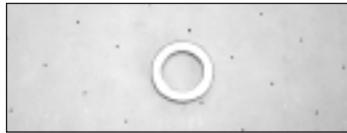
TEL: 1-800-225-5786 (U.S.) 1-800-661-1786 (Canada)

APPENDIX A - ADAPTERS

5.01 DIESEL ADAPTER KIT - PN EEDD300A1



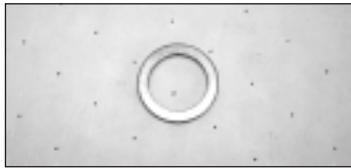
1602-10-00-2
Copper washer 10MM
Qty. 4



1602-12-00-2
Copper washer 12MM
Qty. 4



1602-14-00-2
Copper washer 14MM
Qty. 4



1602-16-00-2
Copper washer 16MM
Qty. 4



2153-54-54-1
1/4" X 1/4" NPTF connector
Qty. 2



2156-06-06-1
#6 X #6 union
Qty. 2



2156-10-08-1
#10 X #8 union
Qty. 2



2356-70-13-1
#6 X 1/4" union
Qty. 2



6002-06-01-3
M6 barb
Qty. 2



6002-08-01-3
5/16" M barb
Qty. 2



6002-10-01-3
3/8" M barb
Qty. 2



6003-06-01-7
1/4" open
Qty. 2



6003-08-01-7
5/16" open
Qty. 2



6003-10-01-7
3/8" open
Qty. 2



6006-03-01-0
5/16" F X 90 X snap lock
Qty. 2



6006-04-01-3
5/16" M snap lock
Qty. 2



6006-05-01-0
3/8" F X 90 X snap lock
Qty. 2



6006-06-01-3
3/8" M snap lock
Qty. 2



6008-10-21-3
10MM banjo
Qty. 2



6008-12-21-3
12MM banjo
Qty. 2



6008-14-21-3
14MM banjo
Qty. 2



6008-16-21-3
16MM banjo
Qty. 2



6020-06-01-1
Fuel #6F
Qty. 2



6020-08-01-1
Fuel #8F
Qty. 1



6020-10-01-1
Fuel #10F
Qty. 1



6021-08-21-1
1/2" OD F
Qty. 2



6022-08-21-1
1/2" OD female compression
Qty. 2

APPENDIX B - REPLACEMENT PARTS

6.01 REPLACEMENT PARTS



0901-54-90-1
Hose, 10' Return



0901-54-90-2
Hose, 10' Pressure



1624-30-01-2
Tray, Upper - DIESEL FUEL PRO



1624-31-12-3
Drawer Assy. -
DIESEL FUEL PRO



1631-09-61-2
Wheel, 9' OD



1635-44-40-4
Wheel, Swivel Locking
Caster 4" OD



2245-21-10-3
Pump Assy. - DIESEL FUEL PRO

6.01 REPLACEMENT PARTS DIAGRAM



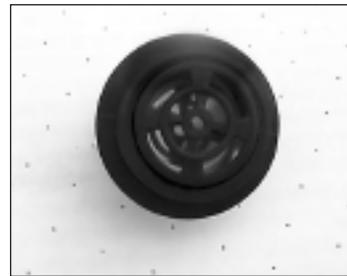
3073-10-22-3
Cord/Clamp Assembly, 10'



5120-11-00-2
Axle, 18



EEFS308A5
Spin-on filter (2 pcs.)



3160-68-12-1
Audio Signal
3-28VDC

ORDERING ADAPTERS AND REPLACEMENT PARTS
TEL: 1-800-225-5786 (U.S.) 1-800-661-1786 (Canada)

APPENDIX C - MAINTENANCE



CAUTION



- Frequently inspect and clean any tools used, and lubricate all non-sealed ratchet mechanisms with light oil.
- The use of any other accessories not specified in this manual may create a hazard.
- Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels.

7.01 MAINTENANCE PROCEDURES

The following maintenance procedures should be performed on a routine basis:

1. Replace the fuel filter after every 50 cleaning services as described in the next section.
2. Clean the exterior with a plastics cleaning agent or similar product to keep the cabinet looking new.
3. Check all hoses and wires for cuts or frays.
4. Check O-rings and condition of adapters.

REPLACE THE FUEL FILTER

1. Unscrew the old fuel filter from the mounting station on the front of the unit's cabinet.
2. Lightly grease the seal of the new filter and hand-tighten it onto the mounting head.
3. Dispose of used filter properly.
4. Enter your initials, the date and a check mark in the appropriate boxes of the Maintenance Log.
5. Check the filter for leaks when starting next service.

The unit is now ready for the next cleaning service.

APPENDIX D

MATERIAL DATA SAFETY SHEET

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



| | |
|--|---|
| IDENTITY (As Used on Label and List) SNAP-ON PREMIUM DIESEL FUEL SYSTEM CLEANING SOLUTION | Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that. |
|--|---|

Section I

| | |
|---|--|
| Manufacturer's Name AEC GROUP | Emergency Telephone Number 714/444-1395 |
| Address (Number, Street, City, State, and ZIP Code) 17308 MT. WYNNIE CIRCLE FOUNTAIN VALLEY, CA 92708 | Telephone Number for Information 714/444-1395 |
| | Date Prepared 01/01/04 |
| | Signature of Preparer (optional) |

Section II - Hazardous Ingredients/Identify Information

| Hazardous Components (Specific Chemical Identity; Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits Recommended | % (optional) |
|---|----------|-----------|--------------------------|--------------|
| CLEAMER, FUEL ADDITIVE, ORGANIC SOLVENT BASED DETERGENT | | | | |
| CAS#: Mixture, no single CAS number applies. | | | | |
| This chemical is subject to the trade secret reporting requirements of Section 313 of Sara Title III. | | | | |
| Additive mixture proprietary 100 100-gpm | | | | |
| SYNONYMS: N/A | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Section III - Physical/Chemical Characteristics

| | | | |
|-------------------------|--------------------------|---|----------------------|
| Boiling Point | 250-300° F | Specific Gravity (H ₂ O = 1) | .90 @ 15° C |
| Vapor Pressure (mm Hg.) | ND | Melting Point | NA |
| Vapor Density (AIR = 1) | >1 | Evaporation Rate (Butyl Acetate = 1) | .1 |
| Solubility in Water | not soluble | pH | NA, No water present |
| Appearance and Odor | Amber, Ammoniacal Liquid | Percent Volatile | 50% |
| VOC (G/L) | 711.3 | | |

Section IV - Fire and Explosion Hazard Data

| | | | | | | |
|------------------------------------|--|-------------------------------------|-----|----|-----|----|
| Flash Point (Method Used) | 162° F (COC) | Flammable Limits (estimated values) | LEL | ND | UEL | ND |
| Extinguishing Media | Use water, fog foam, dry chemical or CO2. Do not use a direct stream of water; product will float and possibly re-ignite. | | | | | |
| Special Fire Fighting Procedures | Do not enter fire area without a NIOSH approved full-face self-contained breathing apparatus. | | | | | |
| Unusual Fire and Explosion Hazards | containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up, which could result in container rupture. | | | | | |

(Reproduce locally)

788

OSHA 174, Sept. 1985

SNAP-ON PREMIUM FUEL SYSTEM CLEANING SOLUTION

Section V - Reactivity Data

| | | | |
|---|----------------|----------------------------------|----------------------------|
| Stability | Unstable | | Conditions to Avoid |
| | Stable | X | |
| Incompatibility (Materials to Avoid) | | May react with strong oxidizers. | Reactivity Will not occur. |
| Hazardous Decomposition or Byproducts Carbon monoxide and unidentified organic compounds may be formed during combustion. | | | |
| Hazardous Polymerization | May Occur | | Conditions to Avoid |
| | Will Not Occur | X | |

Section VI - Health Hazard Data

| | | | |
|--|----------------------|----------------------------------|---------------------------------|
| Route(s) of Entry: | Inhalation? X | Skin? X | Ingestion? X |
| Health Hazards (Acute and Chronic) EYES: Liquid or vapor contact may cause irritation. SKIN: Prolonged and repeated contact can cause defatting and drying of the skin which may result in skin irritation and dermatitis. INHALATION: May be slightly irritating to mucous membranes. INGESTION: May result in vomiting. Aspiration of vomitus into lungs may result in chemical pneumonitis and pulmonary edema/hemorrhage. HMIS HAZARD CLASS: Health = 1, Flammability = 2, Reactivity = 0, Other = none Ranking: 0 = Least, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme | | | |
| Carcinogenicity: | NTP? None present | IARC Monographs? None present | OSHA Regulated? None present |
| Signs and Symptoms of Exposure Inhalation: Respiratory tract irritation. Skin: Smarting, redness, and irritation. | | | |
| Medical Conditions Generally Aggravated by Exposure Many petroleum hydrocarbons and synthetic lubricants pose potential health risks which vary from person to person. As a precaution, exposure to liquids, fumes, mists and vapors should be minimized. | | | |
| Emergency and First Aid Procedures EYE CONTACT: Flush with water for 15 minutes while holding eyelids open. Call physician. SKIN CONTACT: Remove contaminated clothing/shoes and wash skin with soap and water. Do not reuse clothing until cleaned. If irritation persists, call physician. INHALATION: Remove victim to fresh air and provide oxygen, if breathing is difficult. Give artificial respiration if breathing has stopped. INGESTION: Do not induce vomiting. If vomiting occurs, keep head below knees to prevent aspiration of liquid into lungs. Get medical attention. | | | |

Section VII - Precautions for Safe Handling and Use

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| Steps to Be Taken in Case Material is Released or Spilled SMALL SPILLS: Take up with absorbent material and place in non-leaking container for proper disposal. LARGE SPILLS: Eliminate potential sources of ignition. Wear appropriate respirator and other protective clothing. Shut off source of leak only if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking containers, and seal tightly for proper disposal. Flush area with water to remove trace residue; dispose of flush solution as above. | |
| Waste Disposable Method Place in a disposal facility approved under RCRA regulations for hazardous waste. | |
| Precautions to Be Taken in Handling and Storing Storage: Combustible. Keep liquid and vapor away from heat, sparks or flame. Vapors may accumulate and travel to ignition sources distant from the handling site. Handling: May cause eye and skin irritation. Avoid prolonged breathing or skin exposure. Wash thoroughly after handling. | |
| Other Precautions: Keep away from extreme heat or open flame. Do not reuse soiled clothing without laundering. | |
| Transportation: ROAD: | Petroleum Distillates, Naptha Formulation N.O.S., Class 3, UN1268, Packaging Group III. If shipped in bulk quantities (100 gal. or 454 L or greater), product is considered a Dangerous Good. Not regulated in less than bulk quantities. |
| MARINE: | Not regulated. |
| AIR: | Not regulated. |

Section VIII - Control Measures

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| Respiratory Protection (Specify Type) Use a NIOSH approved respirator for organic vapors. | | | |
| Ventilation | Local Exhaust | Use explosion proof ventilation to control vapor concentration. | Special Use supplied air respirator during fire. |
| | Mechanical (General) | | Other |
| Protective Gloves | Nitrile, polyvinyl or polyethylene | | Eye Protection Wear safety glasses or goggles to avoid eye contact. |
| Other Protective Clothing or Equipment Oil resistant or protective garment if needed. | | | |
| Work/Hygienic Practices Wash exposed skin with soap and water or waterless skin cleaner. | | | |

LIMITED ONE (1) YEAR WARRANTY DIESEL FUEL PRO X-SERIES

AEC GROUP INC. warrants only to the original Purchaser that under normal use, care and service, the Equipment (except as otherwise provided herein) shall be free from defects in material and workmanship for one year from the date of original invoice. External hoses, remote control modules, adapters and all other attachments, supplies and consumables (except as otherwise provided herein) are warranted for 90 calendar days from the date of original invoice. Filter elements are not warranted.

SELLER'S OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED SOLELY TO THE REPAIR OR, AT SELLER'S OPTION, REPLACEMENT OF EQUIPMENT OR PARTS WHICH TO SELLER'S SATISFACTION ARE DETERMINED TO BE DEFECTIVE AND WHICH ARE NECESSARY, IN SELLER'S JUDGEMENT, TO RETURN THE EQUIPMENT TO GOOD OPERATING CONDITION. NO OTHER WARRANTIES EXPRESS OR IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY AND ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

This warranty does not cover (and separate charges for parts, labor and related expenses shall apply to) any damage to, malfunctioning, inoperability or improper operation of the Equipment caused by, resulting from or attributable to (A) abuse, misuse or tampering; (B) alteration, modification or adjustment of the Equipment by anyone other than Seller's authorized representatives; (D) improper or negligent use, application, operation, care, cleaning, storage or handling; (E) fire, water, wind, lightning or other natural causes; (F) adverse environmental conditions, including, without limitation, excessive heat, moisture, corrosive elements, or dust or other air contaminants, radio frequency interference, electric power failure, power line voltages beyond those specified for the equipment, unusual physical, electrical or electromagnetic stress, and/or any other condition outside of Seller's environmental specifications; (G) use of the Equipment in combination or connection with other equipment, attachments, supplies or consumables not manufactured or supplied by Seller; or (H) failure to comply with any applicable federal, state or local regulation.

Repairs or replacements qualifying under this Warranty will be performed on regular business days during Seller's normal working hours within a reasonable time following Purchaser's request. All requests for Warranty service must be made during the stated Warranty period. This warranty is non-transferable.

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