



# 12V DC FUEL TRANSFER PUMP KIT OWNER'S MANUAL



**WARNING:** Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item # 37906



## 12V DC FUEL TRANSFER PUMP KIT OWNER'S MANUAL

Thank you very much for choosing a Roughneck™ Product! For future reference, please complete the owner's record below:

Model: \_\_\_\_\_ Purchase Date: \_\_\_\_\_

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This machine is designed for certain applications only. The distributor cannot be responsible for issues arising from modification. We strongly recommend this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted distributor to determine if it can or should be performed on the product.

For technical questions, please call 1-800-222-5381.

**WARNING:** Read carefully and understand all INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury. Save these instructions in a safe place and on hand so that they can be read when required. Keep these instructions to assist in future servicing.

### INTRODUCTION

These products are positive displacement gear pumps. Depending on installation and viscosity, these pumps can deliver up to 8 GPM or 30 LPM. Their rugged design makes for a long life of dependability.

### TECHNICAL SPECIFICATIONS

- Inlet: 2in. male on tank adapter, 3/4in. female on pump
- Outlet: 3/4in. female for 8 GPM/ 30LPM
- Built-in bypass valve.
- Furnished with:
  - 13-ft./4m delivery hose
  - 1-pc. steel suction pipe
  - 1-pc. aluminum manual nozzle.
  - 1 pc. 2in. quick-change coupling
- Electrical Specifications

Model	ELECTRICAL POWER		CURRENT	Flow Rate
	Current	Voltage	Maximum (Amp)	(L/min /GPM)
37906	DC	12	25	30/8

### Fluid compatibility

If in doubt about compatibility of a specific fluid, contact supplier of fluid to check for any adverse reactions to the wetted materials.

The pump is compatible with the following fluids:

- Diesel, Kerosene, Mineral spirits

Do not use the pump with the following fluids:

- Gasoline, Water, Sulfuric acid, Naphtha, Methanol, Methyl Ethyl ketone (MEK), Acetone, Ammonia, Benzene, Bleach, Chlorine.

**WARNING:** This product should not be used for fluid transfer into aircraft. This product is not suited for use with fluids for human consumption or fluids containing water.

### OPERATING CONDITIONS

Temperature: Minimum -4°F (-20°C) / Maximum 140°F (60°C)

Relative Humidity: Maximum 90%



## GENERAL SAFETY REGULATIONS



**WARNING:** Read and understand all instructions.



**WARNING:** The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be supplied by the operator.

1. **Keep the work area clean and dry.** Damp or wet work areas can result in injury.
2. **Keep children away from work area.** Do not allow children to handle this product.
3. **Store idle equipment.** When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.
4. **Use the right tool for the job.** Do not attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. Do not modify this equipment, and do not use this equipment for a purpose for which it was not intended.
5. **Check for damaged parts.** Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace damaged or worn parts immediately.
6. **Do not overreach.** Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.
7. **DO NOT use the equipment when tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating this equipment may result in serious personal injury.
8. **Industrial applications must follow OSHA requirements.**

## SPECIFIC OPERATION WARNINGS

To ensure safe and efficient operation, it is essential to read and follow each of these warnings and precautions.

1. **DO NOT smoke near pump or use pump near an open flame.** Fire could result.
2. **Disconnect power to pump before servicing pump.**
3. **Turn off the switch before connecting power.**
4. **Take motors needing service to an authorized repair shop or return to factory to maintain.**
5. **A filter should be used on pump outlet to ensure that no foreign material is transferred to fuel tank.**
6. **Tank or barrel should be anchored to prevent tipping in both full and empty conditions.**



**WARNING:**

1. **Electrical wiring should be done by a licensed electrician in compliance with local codes.** Rigid conduit should be used and proper ground must be provided to avoid the possibility of electrical shock. Failure to comply with this warning could result in serious injury and/or loss of property.
2. **This product should not be used for fluid transfer into aircraft.** This product is not suited for use with fluids for human consumption, or fluids containing water.
3. **Extreme operating conditions with working cycles longer than 30 minutes can cause the motor temperature to rise, thus damaging the motor itself.** Each 30-minute working cycle should always be followed by a 30-minute power-off cooling phase.



## INSTALLATION

1. **Tightly screw suction pipe into inlet coupling of pumping unit.** Extend suction pipe into truck tank or barrel to within 3in. of tank bottom.
2. **Screw inlet coupling of pump into 2in. tank or barrel opening.** Inlet coupling must be completely and securely threaded into an undamaged tank or barrel bung.
3. **During installation and maintenance, make sure that the electric supply lines are not live.**
4. **Always turn off the switch before supplying electrical power.**
5. **Check the correct rotation direction of the DC pump.** If it is inverted, check the polarity of the connection cable.
  - a) RED cable: positive pole (+)
  - b) BLACK cable: negative pole (-)
6. **Systems should be designed to require a minimum amount of suction lift.** Maximum "equivalent feet of lift" is 8 feet for diesel fuel.
7. **Tank or barrel must be properly vented.** A water separator should be used for pumping diesel fuel.
8. **Power to the unit should be supplied from a dedicated 30 Amp circuit breaker.** No other equipment should be powered from this breaker. If two pumps are supplied from one breaker, that breaker must be capable of handling the load of both motors.

## OPERATION INSTRUCTIONS

1. If using flexible tubing, attach the ends of the tubing to the tank(s). In the absence of an appropriate slot, solidly grasp the delivery tube before beginning dispensing.
2. Before starting the pump, make sure that the delivery valve is closed (dispensing nozzle or line valve).
3. Turn the ON/OFF switch to ON. The by-pass valve allows functioning with the delivery closed for only brief periods.
4. Open the delivery valve, solidly grasping the end of the tubing.
5. Close the delivery valve to stop dispensing.
6. When dispensing is finished, turn off the pump.

## MAINTAINANCE

Under normal working conditions, the noise emission from all models does not exceed the value of 80dB at a distance of three feet from the electric pump.

### Transportation

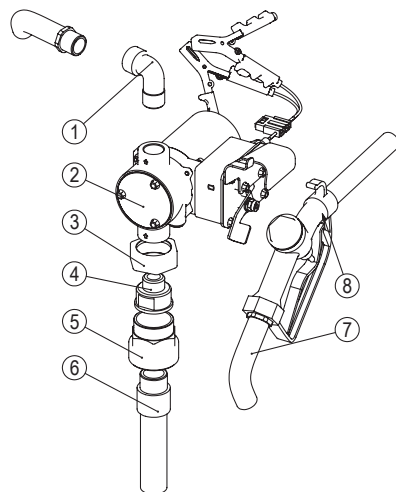
When the pump is in transit, do not expose the pump to direct sunlight and avoid rain, falling, corrosive substances, etc.

### Storage

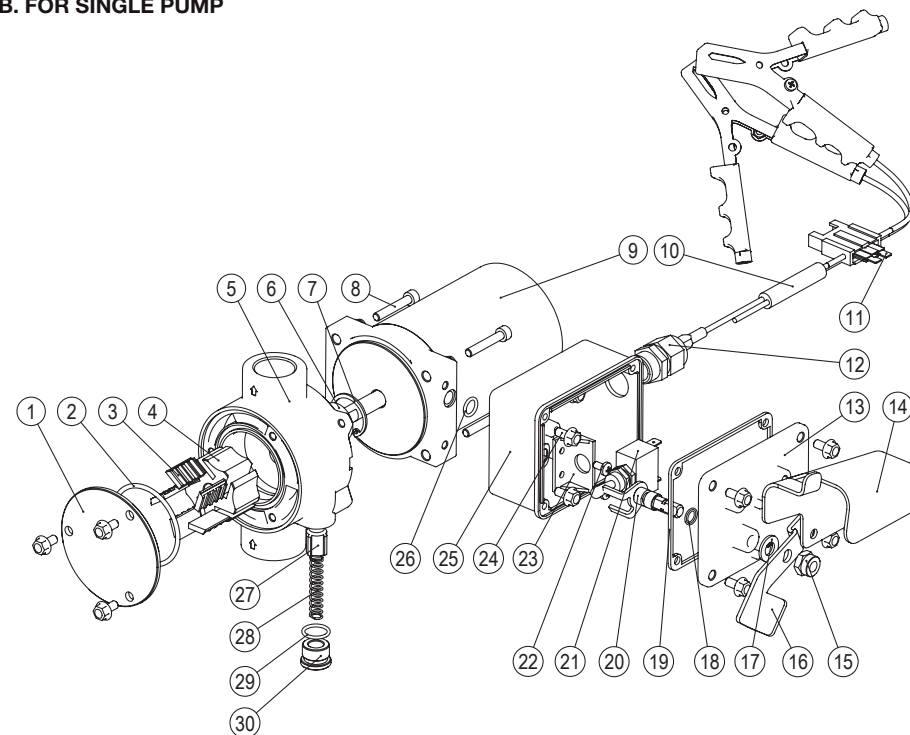
- ①. **Store the pump in a dry place with good ventilation.** Do not expose it to excessive heat, humidity or sunlight. Never let it touch any corrosive substances.
- ②. **Store it out of the reach of children.**

**TROUBLE SHOOTING**

Problem	Possible Cause	Corrective Action
The motor is not turning	Lack of electric power	Check the electrical connections and the safety systems
	Rotor jams	Check for possible damage or obstruction of the rotating components.
	Motor problems	Contact with the service department
Low or no flow rate	Low level in the suction tank	Refill the tank
	Foot valve blocked	Clean and/or replace the valve
	Filter clogged	Clean the filter
	Excessive suction pressure	Lower the pump with respect to the level
	High loss of head in the circuit (working with the by-pass open)	Use shorter tubing or of greater diameter
	By-pass valve blocked	Dismantle the valve, clean and/or replace it
	Air entering the pump or the suction tubing	Check the seals of the connections
	A narrowing in the suction Tubing	Use tubing suitable for working under suction pressure
	Low rotation speed	Check the voltage at the pump. Adjust the voltage and/or use cables of greater cross-section
	The suction tubing is resting on the bottom of the tank	Raise the tubing
Increased pump noise	Cavitations occurring	Reduce suction pressure
	Irregular functioning of the by-pass	Dispense until the air is purged from the circuit
	Air present in the diesel fuel	Verify the suction connections
Leakage from the pump body	Seal damaged	Check and replace the mechanical seal

**DIAGRAMS AND PARTS LIST**  
**A. FOR KIT**


Part No.	Description	Q'ty
1	90° Elbow	1
2	Fuel pump	1
3	Nut	1
4	Adapter	1
5	Tank Adapter	1
6	Extensible Pipe	1
7	13ft. Delivery hose	1
8	Manual nozzle	1

**B. FOR SINGLE PUMP**


Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Front cover	1	16	Switch connector	1
2	O-ring	1	17	Washer	1
3	Blade	5	18	O-ring	1
4	Rotor	1	19	Seal	1
5	Pump chamber	1	20	Fork for turning switch	1
6	Seals	1	21	Switch	1
7	Spring collar	1	22	Bolt	2
8	Hex bolt	1	23	Switch bracket	1
9	Electric Motor	1	24	Hexagon flange bolts	11
10	DC Power cable with fuse carrier	1	25	Junction box	1
11	Fuse	1	26	O-ring	1
12	Cable clip	1	27	Valve	1
13	Junction box cover	1	28	Spring	1
14	Nozzle holder	1	29	O-ring	1
15	Nylon self-locking screw	1	30	Sealed screw	1

For replacement parts and technical questions, please call 1-800-222-5381.



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**WARRANTY**

One-year limited warranty



Distributed by  
Northern Tool + Equipment Co., Inc.  
Burnsville, MN 55306  
NorthernTool.com  
Made in China