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T300

## The Stallion® by SRECO-FLEXIBLE

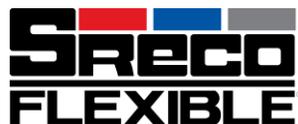
The Stallion is a trailer mounted sewer jet manufactured by SRECO Flexible. This machine has been tested to operate up to 20 GPM at 4,000 PSI with 1/2" sewer cleaning hose. The following manual provides instructions for the operation of the Stallion in gravity flow sewer collection systems and drainage pipes. This sewer jet can be furnished with additional features and accessories which may not have been purchased with your specific machine. The Stallion must be operated with care and under safe conditions to ensure satisfactory service life of the machine.

SRECO Flexible Stallion Trailer Jets are distributed and serviced by Shamrock Pipe Tools, LLC. For questions or information about the Stallion, the contact information is:

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

Serial Number: \_\_\_\_\_





## General Safety Warnings

The following safety and operating instructions should be reviewed before using the Stallion Trailer Jet. Drain and sewer cleaning can be dangerous if proper procedures and appropriate safety gear is not utilized.

- All operators of the machine must be familiar with the Stallion and must be properly trained. The warning and operation labels on the machine must be understood and all safety procedures must be followed. All OSHA (Occupational Safety and Health Administration) regulations covering the operator's personal protective equipment must be followed.
- The rated capacity of the high-pressure water system (20 GPM at 4,000 PSI) should never be exceeded. The machine has been tested and rated for the above capacity. Any operation exceeding the rated capacity will cause stress and strain beyond its design. This can result in component failure or premature wear and tear which could cause personal injury to the operators.
- Diesel is extremely flammable and is explosive under certain conditions.
  - Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames in the area where the engine is refueled.
  - Do not over flow the fuel tank. After refueling, make sure the tank cap is closed properly and securely.
- Before starting the unit, be sure to wear personal protective equipment.
- Carbon monoxide exhaust and diesel fumes from this equipment can create a hazardous atmosphere in confined spaces. Excess fumes can create an explosion hazard. Such hazardous atmospheres can cause death or severe injury. Only operate this equipment only when located outdoors or in an open, well-ventilated area.
- Always ensure the jet hose has been placed in the pipe at least 6 feet before engaging the water pressure. This will prevent the hose from coming out of the pipe prematurely and causing injury.
- Always shut the water pressure off before pulling the hose out of the pipe.
  - Portions of the system can still be under pressure even if the unit is not operating.
- Never point the jet hose at anyone while operating the unit. Injury may result.
- Drains and sewers can carry bacteria and other infectious micro-organisms or materials which can cause severe illness or death. Avoid exposing eyes, nose, mouth, ears, hands, and cuts to waste water or other potentially infectious materials during cleaning operations. To further help protect against exposure to infectious materials, wash hands, arms, and other areas of the body with hot soapy water. If necessary, flush mucous membranes with water. Also, disinfect potentially contaminated equipment by washing it with hot, soapy water and a strong detergent.

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## T300 Stallion Specifications

General Information	
Pipe Sizes	Up to 18"
Maximum Water Delivery	20 gpm
Maximum Pressure Delivery	4,000 psi

Trailer Information	
Gross Vehicle Weight Rating (GVWR)	7,000 lbs.
Gross Axle Weight Rating (GAWR)	3, 150 lbs.
Trailer Length	156 in.
Trailer Width	88 in.
Trailer Height	59.5 in.
Hitch	2 5/16" Adjustable Height (Class III)
Water Tank Capacity	300 Gal.
Tires	285/80R16
Max Load on Tires	3520 lbs. (each)
Cold Inflation Pressure	80 psi

Yanmar Diesel Engine Information	
Make	Yanmar Diesel Engine
Horsepower	55.2 hp
Fuel	Diesel
Fuel Tank Capacity	18.0 Gal.
Cooling	Water Cooled
Oil Capacity with filter	7.8 US qt.
Recommended Engine Coolant	Havoline Extended Life
Starter	Electric
Alternator	15 Amp
Battery	12 VDC

Direct-Drive Dominator Pump Information	
Maximum Pressure	4, 000 psi
Maximum Water Output	25 GPM
RPM	900
Plungers	3



## T300 Stallion Features

- Unitary, harmonically-isolated frame with vibration dampeners
- Metal cowling over engine
- Dual locking tool boxes
- Variable speed, electric over hydraulic powered hose reel (with both pay out and retract)
- Fully enclosed level wind system
- ½" x 500 ft. high pressure Dominator® jetting hose
- Manhole hose protection
- 2 ½" x 25 ft. fill hose with female cam lock quick connection
- Water fill system with stainless-steel plumbing
- Narrow hydraulic reel with 360 degrees pivoting base with Delrin guide
- 300 gallon, Poly blue water tanks with UV Ray Protection
- 18-gallon aluminum fuel tank
- 10-gallon hydraulic tank
- 7,000 lbs. torsion single-axle suspension system with electric brakes
- Rear mounted operator's control
- Digital diesel engine controls with fuel level indicator
- Switched LED control panel light
- Joystick control for reel speed
- Emergency shut off switch
- Manual 3-way ball valve
- Unloader pressure control
- Direct-coupled transmission which reduces the need for pulleys and sheaves
- Run dry water pump with stainless-steel water end
- Easily accessible pump inlet filter assembly
- Low engine oil pressure shut off
- High engine temperature shut off
- 4 in. water pressure gauge
- 12-volt accessory plug with two additional USB port
- Loomed, DOT-compliant lighting system
- Pre-wired lighting with standard 7-pole plug
- 47 in. LED caution light with traffic control
- Reel mounted floodlight



## Towing Instructions



Before hitching and towing on public roads, check that the tow vehicle uses a 2 5/16" ball on a hitch rated class III minimum, make sure keeper engages ball to secure hitch. Adjust if necessary.

The following rules may limit your vehicle's towing capacity and the tank fill when towed. Determine towing capacity as described below and follow guidelines in using the lowest value from the rules.

### A. Vehicle GCWR (Gross Combined Weight Rating)

- Towing Capacity = GCWR - Vehicle Weight - Cargo Weight - Passenger Weight.
- GCWR is provided on your vehicle or in vehicle manual.

### B. Vehicle Towing Capacity

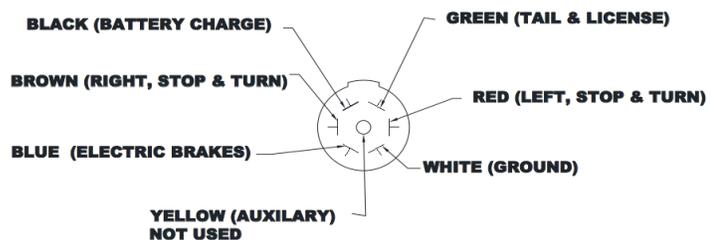
- Refer to the Vehicle Owner's Manual for listed trailer towing capacity.
- Trailer towing capacity should equal GCWR minus Vehicle Weight, Cargo Weight, People Weight, and (Vehicle) Fluids Weight.
- Check axle load ratings.

Wire the plug receptacle to your vehicle as shown below.

**Note:** The wire colors used on the jet running lights are also indicated in the figure below for re-wiring to a different plug design.



- ❖ Always use safety chains.
- ❖ Always use trailer lights.



## Towing Instructions Continued...

### Connecting the Towing Tongue

1. Check that the ball size is same as the coupler.
2. Check that the ball load rating is the same or greater than the coupler load rating.
3. Open the clamp on the hitch coupler
4. Position the hitch coupler above the trailer hitch ball.
5. Lower the trailer tongue until the ball rests in the ball socket.
6. Close the hitch coupler clamp and secure it with a pin or padlock.
7. Cross safety chains underneath the coupler (Allow slack for the trailer to turn.) and attach chain hooks securely to the tow vehicle frame.



**Caution:** Always use safety chains. Chains will hold the trailer if the connection fails.

8. Fully retract the hitch jack and remove the caster wheel. This will provide adequate ground clearance for transport.
9. Return high pressure reel to towing position, engage the transit lock, and confirm reel lock is engaged.
10. You are now ready to tow your trailer.



**Caution:** Avoid sharp turns. This could bend, create extreme stress or fracture either the actuator or trailer tongue.

## Water Tank Filling

Fill the water tank from a clean water source. Always flush rust out of water supply before connecting the fill hose (with garden hose fitting) to the top fill valve. The Stallion trailer jet can be filled using a garden hose or using a fire hydrant fill. Fire hydrant fill requires a fire hose with a 2" cam lock female quick coupler.



**Note:** If the next 4 items are not followed, cavitation of the pump could occur and reduce operating efficiency and severely damage the pump.

- Use water temperatures below 140°F.
- Ensure the water strainer is clean.
- Make sure the strainer valve (between the tank and the pump) is fully open during operation. This valve stops tank flow to allow strainer service.
- The pump drain valve must be closed. It must not drip when the engine is off and the strainer valve is open.

## Water Tank Filling Continued...



**Note:** A gallon of water weighs approximately 8.34 lbs. Therefore, a full tank of water (300 gal.) adds **2,502 lbs.** to the trailer weight. A half-full tank (150 gal.) adds **1,251 lbs.** If the trailer must be taken where weight would be a hindrance to safe movement of the trailer, consider filling the water tank after the trailer is in place at the job site.

## Setting Up For Operation

The Stallion Trailer Jet is mounted on a single axle trailer frame with an extended hitch length for proper towing, balance on the axle and correct tongue weight. The trailer should be towed and operated level with the ground. Towing the trailer off horizontal level can cause damage to the undercarriage due to either end being too close to the ground. Curbs, road debris, uneven curb gutters, driveway entrances, and off road usage can cause very hard strikes against the trailer frame and components, causing expensive repairs and down time.



**Note:** The water suction line to the pump is located on the hitch side of the water tank. If the unit is not leveled properly, less water will be available for operation.

Before operating the Stallion, the following checks should be done:

1. Check the fuel level on the digital display engine control module. The fuel fill is located on the street-side of the trailer.
2. Check the hydraulic oil tank. The fill neck for the hydraulic tank is in the curbside tool box. Unless oil has leaked out of the hydraulic system, oil should not be added regularly.
3. Adjust the hydraulic system speed adjustment, flow valve. There is a manual control valve concealed in the curbside tool box that may be fine-tuned to adjust the rotation speed of the hose reel. It is affected by the engine RPM, so it is best to adjust it with one person at the valve and one person at the joystick control for the sewer hose reel.
4. Check the Dominator® water pump suction line from the water tank.
  - There is a ball valve outside the water tank which controls the water flow from the tank. It can be set to send water directly to the water pump, shut-off flow to the water pump, flow water out the T-fitting of the ball valve, or shut-off all flow of water from the tank. This is a prime feature to have when performing maintenance on the water pump, cleaning out the screen strainer, etc.
  - The in-line screen strainer is easy to inspect and clean out. It must be checked regularly. The water pump cannot be rotated if the screen strainer has not been checked before starting the engine.
5. Check the Dominator® water pump. The pump is protected by a pressure regulator which will bypass water back to the water tank if 4,000 psi is reached in the water system. The Stallion should never be operated with the pressure regulator in bypass mode. It is easy to tell by the pulsation in the water system as water is “dumped” off

## Setting Up For Operation Continued...

back to the water tank. Reduce engine RPM immediately if the water pressure gauge shows a spike then fall, spike then fall, etc. of the water pressure.

6. Check the water pump gear-end lubricating oil level regularly.
7. Check the engine oil level.

## Engine Operating Procedure

### A. Engine Start Up

1. Check water tank level.
2. Check fuel level.
3. Check engine and pump oil levels per manufacturer specifications.
4. Turn high pressure water control valve to tank.
5. Push the green startup, the engine will perform a 10 second warmup cycle and will automatically start.



**Note:** Engine will remain in warm up mode for 30 seconds after starting before allowing engine speed changes.

### B. Engine Shut Down

1. Turn high pressure water control valve to tank.



**Note:** Engine automatically goes into idle for 30 seconds upon shutdown.

2. After this 30 second period, turn the engine key switch to the leftmost position until the panel is no longer illuminated to avoid battery drainage.

## Stallion T300 Design Features

### 1. Hitch-End A Frame with Crank Style Leveling Jack

The A Frame is an important structural design of the Stallion and includes a crank style leveling jack, an electrical pigtail and an adjustable hitch.

The crank style leveling jack is used to install/remove the trailer onto the towing vehicle's receiver hitch. The crank should be positioned at its highest position when towing to prevent the crank leg from striking the ground or uneven obstacles on the road. Do not try to remove the trailer from the towing vehicle without using the crank leveling leg.



## Stallion T300 Design Features Continued...



**Note:** This jack must hold the weight of the trailer and a full tank of water safely.

The electrical pigtail is a connector which plugs into the receiving socket on the towing vehicle. It powers running, clearance, stop, directional turn, 4-way flashing and license plate lights. The electric brakes are also wired into the socket and can be preset/controlled by a box available to the vehicle driver.

The adjustable hitch is a 2 5/16" ball which can be moved upwards and downwards. This adjustment is used to assist with towing the trailer at near level position. The towing vehicle receiver hitch may also have to be adjusted in height if the vehicle hitch sits high.

### 2. Anti-Vibration Stallion Trailer Frame

The hitch-end (front end) of the Stallion is designed to be isolated from the trailer frame to reduce vibration. This vibration reduction is possible by using dampeners to reduce the transfer of vibration within the framing system.

The following equipment is mounted onto the anti-vibration frame:

- Yanmar Diesel Engine
- Direct Drive Gear Reduction between the Engine and the Water Pump
- Dominator® Water Pump
- Water Suction Line
- 12-Volt Battery

The frame also features a built-in dump design used to catch fluids which may leak from the engine, water pump, gear reduction, etc. These dump areas may be drained by removing rubber stoppers in the drain holes.

### 3. Yanmar Diesel Engine

Check the Yanmar manual provided in the Stallion documentation binder for information regarding engine features.

### 4. Dominator® Pump

Check the Dominator® manual provided in the Stallion documentation binder for information regarding pump features.

## Stallion T300 Design Features Continued...

### 5. Engine Metal Cowling

A metal cowling is built onto the Stallion Trailer Jet to cover front end components, such as the engine. This cowling can be opened to access important components such as the engine oil dipstick, engine coolant radiator cap, battery, etc.

### 6. Pivoting, Hydraulic Hose Reel

The hose reel is used when running the sewer hose off the machine to remote manholes, off road drainage pipes, etc. This reel is located at the rear of the trailer jet and is stationed on a pivoting base. The pivoting feature is used to position the hose over the opening of the pipe. The latch pins are used to lock the reel in place. A hydraulic system is used to rotate the reel in both directions. Speed control of the reel is available on the control panel through a joystick. Electric over hydraulic components work together to provide smooth operation of the reel. A separate ball-valve control is provided on the backside of the control panel for engine-off reel work. This valve can be used to lock the reel in place or allow free spool rotation.



**Note:** Avoid running the sewer hose sideways off the reel whenever possible. Hose life will be extended and less force will be required to rotate the reel when pulling the hose back to the machine.

### 7. Operator Control Panel

The operator control panel is located on the right side of the sewer hose. This panel houses the operation controls for the diesel engine, water flow, rotation of the hose reel and electrical switches and gauges.

A hydraulic system pressure gauge is one of the many components housed on the control panel. This gauge is used to monitor the force required to rotate the sewer hose reel. When pulling the hose back to the machine, a spike in pressure may indicate the cleaning nozzle may be buried in sediment or that some other problem is causing heavy friction on the sewer hose. If the pressure spikes when the hose is being fed off the reel into the pipe, this may indicate a mechanical problem.

Check the Dynagen manual provided in the Stallion documentation binder for information regarding engine features.

### 8. Liquid Tanks

The Stallion comes equipped with a 300-gallon poly blue water tank with UV Ray protection, a 10-gallon hydraulic oil tank and an 18-gallon aluminum fuel tank. These tanks are in the center on the machine, directly over the axle. The water tank on the



## Stallion T300 Design Features Continued...

Stallion has a removable lid near the center top which can be removed to inspect the inside of the tank or to insert a water supply hose for filling. Underneath the water tank are storage tanks for the hydraulic oil and the diesel fuel. The hydraulic oil is used to aid in the rotation of the reel, while the diesel fuel powers the Yanmar engine.



**Caution:** A water system pressure gauge is located on the rear of the curbside toolbox or on the control panel. This gauge displays the high-pressure water system psi before the water enters the sewer cleaning hose. The operator must monitor this pressure to properly adjust the electronic throttle control of the engine RPM. **The reading on this gauge should never exceed 4,000 psi.**

## Warranty Information

SRECO Flexible and Shamrock Pipe Tools, LLC warrants their equipment to be free from defects in material and craftsmanship for **one year from the date of purchase**. To obtain warranty service, a purchaser should notify Shamrock Pipe Tools, LLC in writing, at the address provided on the first page of this manual, within the warranty period. Shamrock Pipe Tools, LLC authorizes the right to direct where to take or send the equipment for service. If the defect is covered by the warranty, SRECO Flexible will repair or replace, at its option, the defective equipment, without charge for labor or materials. (Freight and insurance are the purchaser's responsibility.)

**This warranty is limited to the original retail purchaser and is not transferable.** SRECO Flexible and Shamrock Pipe Tools, LLC assumes zero responsibility for damage due to accident, neglect, abuse, tampering or misuse, nor damage from repairs or alterations by others. This warranty does not cover damage to the equipment resulting from the use of replacement parts other than SRECO Flexible parts.

SRECO Flexible and Shamrock Pipe Tools' sole obligation and the original retail purchaser's exclusive remedy under this warranty shall be for repair or replacement as described above. ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PURPOSE ARE DISCLAIMED.

SRECO Flexible reserves the right to make changes at any time, without notice, to specifications and models and discontinue models. The right is also reserved to change specifications or parts at any time without incurring any obligation to equip the same on models manufactured prior to the date of change.

