



SPRAY RIG OPERATING MANUAL 150 to 500 MODELS



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CONTENTS

Welcome	2	Operation of Machine.....	5
Unpacking Your Rig	2	Component Descriptions.....	10
Hooking Up the Trailer.....	2	Trouble Shooting.....	13
Reporting Safety Defects.....	3	Rig Maintenance Schedule.....	16
Safety Topics.....	3	Warranty.....	17

WELCOME TO AST

Thank you for purchasing an **American Spray Technologies** Spray Rig. We have been improving hydraulic-control spray systems for over forty years and we welcome you to the AST family. Your rig has been designed to deliver powerful, consistent results and will continue to perform reliably, with minimal care and maintenance on your part. Please read through this manual to familiarize yourself with the basic setup and operation of your machine before using or towing the trailer.

If you have any questions, please contact our factory: **Toll Free 877-833-4342**

Phone support hours are Monday through Friday, 7:30am to 4:00pm PST
or leave a voicemail after hours

You also may email questions to: **info@sprayrig.com**

AST Model No: _____

VIN or S/N: _____

Engine: _____

Compressor: _____

UNPACKING YOUR RIG

Immediately upon receiving your rig, inspect for damage that may have occurred during shipment. Any damage must be noted in detail on the Bill of Lading and faxed to AST at 253-833-4329, within 24 hours of delivery. It is shipped with battery disconnected—Immediately connect battery.

IMPORTANT ! — BEFORE HOOKING UP YOUR TRAILER

If your rig is trailer-mounted the **wiring will need to be connected to the positive battery terminal on the rig, before towing.** A break-away switch, located on the trailer tongue, is wired to the battery and brakes. This switch is a critical safety feature that will engage the brakes if the trailer becomes separated from the tow vehicle. (See Fig. 2) Always keep this connected, except to hitch and unhitch your rig.

If this cable is disconnected for an extended period of time, the rig battery may become drained.

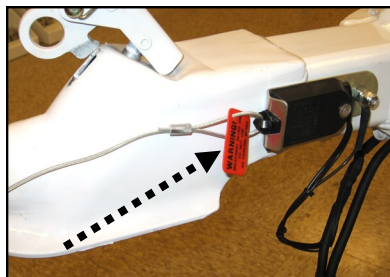


Fig. 2 Trailer Breakaway Switch



WARNING

An improperly coupled trailer can result in serious injury or death

Do not move the trailer until:

- Coupler is secured, locked to the hitch and safety pin in place
- Safety chains are secured to the tow vehicle
- Trailer jack is fully retracted
- Lid is closed and latched

Do not tow the trailer on the road until:

- Breakaway switch is connected to vehicle
- Trailer brakes re-checked
- Trailer lights connected and checked
- Tires and wheels checked
- **Battery is connected—it supports your break away braking system!**

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying MED-CO LLC dba American Spray Technologies.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or MED-CO LLC dba American Spray Technologies.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://nhtsa.safercar.gov>; or write to: Administrator, NHTSA, 1200 New Jersey Avenue SE, Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>

To contact MED-CO LLC dba American Spray Technologies call 1-877-833-4342

IMPORTANT SAFETY TOPICS FOR YOUR NEW TEXTURE MACHINE

Your new machine has stood the test of time. Originally designed in the late 1960's it has performed well and safely for over 50 years. This does not mean that accidents can't occur. Safely operating your machine is YOUR RESPONSIBILITY. Below are a list of topics that will help you to operate this machine safely and profitably for years to come. Please take the time to read fully. If you have any question please call our technical support line at 1-877-833-4342. This is a toll free number and support calls are free.

Rotating Paddle System

To perform the function of mixing mud your spray rig has a rotating paddle system. This is a powerful system and it is important to operate with caution. Inappropriate use of this machine can cause serious injury or death.

Always:

1. Use caution when operating the system. Respect the paddle system and keep the safety grating in place.
2. Turn off engine before servicing any part of this machine.
3. Keep others away from your machine when you are operating the system.
4. Keep all foreign objects out of the mixing tank, including your arms and hands.
5. Keep the key in your pocket when the system is not in use to prevent others from accidentally starting the system at an inappropriate time, for example when you are servicing the machine.
6. If an object falls in the mixing tank turn the system off, including shutting down the motor and removing the key before attempting to retrieve the item.

Never:

1. Never wear loose clothing when operating the machine. Loose clothing can get caught up in the mixing system and cause serious injury or death.
2. Never put your hands in the mixing tank when the engine is running.
3. Never allow un-trained staff to operate the machine.
4. Never remove safety labels on your machine
5. Never remove safety grating from your machine

IMPORTANT SAFETY TOPICS FOR YOUR NEW TEXTURE MACHINE (CONTINUED)

Engine and Compressor Compartment

The engine and compressor compartment has safety shields installed to prevent serious injury. Use caution at all times when engine is running.

Always:

1. Turn engine off and remove the key when servicing any part or component in the engine and compressor compartment and elsewhere on the machine.
2. Keep the safety shields in place and inspect periodically to make sure they are in good condition and secure.
3. This machine vibrates from the operation of the engine and compressor. Check the bolts securing the components and shields before operating the machine. Make a habit of inspecting the machine and looking specifically for any nuts or bolts that are loose and can cause damage or injury to the operator.

Never

1. Never reach around the safety shields or put your hands on any moving part as it can cause serious injury or death.
2. Never touch the exhaust muffler or pipe as they are extremely hot and can cause serious burns.

Trailer Mounted Rig Towing

Towing a trailer requires detailed knowledge of your equipment.

Always:

1. Inspect your machine and trailer prior to towing.
2. Inspect your tires for wear, damage and inflation. Look at the Tire Placard next to your VIN tag located on the rear of the mixing tank on the drivers side for the tire inflation specifications.
3. Check the trailer lights, safety chain, proper coupler attachment and safety pin, and breaks if installed. You can check the brakes by pulling the wire cable attached to the break away pin and pulling out the pin. This will put power to the brakes and lock them in place. You should not be able to push or pull the trailer easily with the pin removed. If this does not engage the brakes you will need to check the battery on the rig by the motor and or service the brake system.
4. Check your lug nuts.
5. After towing for 10 miles or more you can check your wheel bearings by touching the wheel hub to feel for heat. If there is excessive heat, service your wheel bearings immediately.
6. Make sure your hoses are secured and cannot come loose while transporting the machine.

Never:

1. Never tow your machine with a fully loaded tank of material.
2. Never exceed 75% of the tank capacity while towing for two reasons.
First, mud can slosh out of the tank on bumpy roads or sharp turns. This can cause a serious road hazard.
Second, the material in the tank can vary widely on its weight per gallon. A light orange peel material may have more water in the mixture and weigh less per gallon. A heavy knockdown material may have less water and more dry mix in the mixture and weigh more per gallon. With this potential variation in your load we recommend you be on the safe side and avoid towing with more than 75% of the tank capacity.

IMPORTANT SAFETY TOPICS FOR YOUR NEW TEXTURE MACHINE (CONTINUED)

Trailer Mounted Rig Towing (continued)

Checking Your Typical Load Weight:

We recommend that you look at the axle and gross vehicle weight rating (GVWR) on your Vehicle Identification Tag (VIN Tag) located on the back of the mixing tank on the drivers side. This label lists your weight ratings. We recommend that you take your machine to a registered truckers scale to determine the weight of your load. From this information you can determine how your typical load compares to your rated load on the VIN tag. **DO NOT EXCEED YOUR GVWR.**

OPERATION OF YOUR MACHINE

Read Before Starting Your Machine

General System Operation:

Your AST spray rig uses a hydraulic control system, which provides infinite control of both mixing and pumping speeds. The rotor/stator pump provides a very reliable, high pressure output that produces a consistent spray pattern, along with the flexibility to adjust to a wide range of textures. The Material Control easily adjusts the speed of your pump to vary the material flow. The Agitation Control adjusts the speed of the hydraulic motor to vary the speed of the mixing paddles in the tank.

The heavy-duty, powder-coated frame doubles as an air tank to maximize the efficiency of the hydraulic system. Your tank, lid, hinge and mixing paddles are all fabricated from stainless steel, so rust contamination is not a worry. The stainless steel texture strainer helps filter your mud to catch lumps before they get sprayed on your wall.

Your rig comes fully equipped with high-performance material hose, rated at 3200 psi burst pressure, to withstand the daily abuse at jobsites. Our AST spray tips are fabricated from hardened steel for long-life and consistent spray results.

Operational Tips:

1. Some of this has been covered in the Safety Section of this Manual, but is worth repeating here.
2. Always shut down your machine prior to performing any maintenance or system checks.
3. For you and your co-workers safety, do not leave the key in the machine when you shut down your spray rig for any reason. Remove the key and place it in your pocket to prevent anyone from starting the motor.
4. Always close the tank grate and tank lid before turning on the Agitation Control.
5. Before turning your pump on, always check to make sure there are no foreign objects inside the tank. When dumping in your dry material, make sure parts of the bag or other objects do not get dropped into the tank. Any foreign objects could get pushed through the pump, causing damage to the rotor or stator. Also make sure there are no kinks in the material line. Do not run the pump until the blockage or kink is cleared.

OPERATION OF YOUR MACHINE (CONTINUED)

Operational Tips (continued):

6. The large ball valve (attached behind the gun on the material line) is only used to stop residual material from dripping out of the tip, AFTER the pump is shut off using the electric switch or air slide valve. **IMPORTANT:** Do not use the ball valve to adjust the flow of material or to shut off the pump. If you have accidentally started the pump with the ball valve closed, this may cause excessive pressure in the lines. Be careful when relieving this pressure by pointing the gun into the tank and slowly opening the ball valve until the pressure has been relieved.
7. If your gun is not spraying properly or seems clogged, do not look inside gun head or make any attempts to unclog the tip unless your machine is turned off and the ball valve is all the way open. Serious harm may result if pressurized material suddenly breaks free from the system. After finishing a spray job, always turn the Flow Control dial to '0' and upon every startup, check to see that the Flow Control dial is at '0' before starting the engine.
8. When removing the texture strainer for cleaning, check to make sure there is no pressure in the lines. Excessive pressure may cause an unsafe condition when removing the strainer. If there is a blockage in the system, remove the strainer with extreme caution. Wear eye protection and place a towel over the texture strainer area while you loosen the cam-lock fitting.
9. If maintenance is required inside the mixing tank, remove the key and disconnect the hydraulic line that powers the agitation system to prevent the mixer from accidentally being activated.
10. Do not operate your machine if it is situated more than 15 degrees off level. Doing so may cause damage to your engine or compressor.
11. This machine is designed to pump drywall texture materials only. Using thicker substances such as fireproofing, insulation, chinking materials could cause damage to your machine and void the warranty on components.

Things To Check Before Starting Your Engine.

1. Check the engine and compressor oil levels. Your system came with separate manuals for the engine and compressor. Review these manuals to learn how to check the oil levels in your engine and compressor.
2. Check the air filters for the engine and compressor daily. The use of dry powder can clog the filters if you are mixing in a confined area.
3. Open the air drain valve on your air frame to relieve pressure before starting the engine.
4. Be sure no person is near the mixing tank.
5. Check to make sure the flow controls on the front of the tank are in the off position.

Detailed procedures are on the following pages.

OPERATION OF YOUR MACHINE (CONTINUED) PRIOR TO MIXING

Fill the gas tank. Connect the hose set to the cam-lock beneath the tank, located at the end of the pump and strainer housing.



Fig. 1 Drain Valve

System Check

1. Open the Drain Valve on the bottom rear of the frame by turning it counter clockwise so the handle points down (See Fig. 1)
2. Set both Flow Controls at the '0' (off) dial position (See Fig. 2)
3. Turn the pump OFF using the switch or valve on the gun (See Fig. 3a and 3b)
4. Close the engine choke and pull throttle to $\frac{1}{2}$, then start the engine
5. Open engine choke and throttle to 3,000 rpm (gas engine) or 2,200 rpm (diesel).
6. Close drain valve and check that the compressor pilot valve is in the DOWN position. (See Fig. 4)

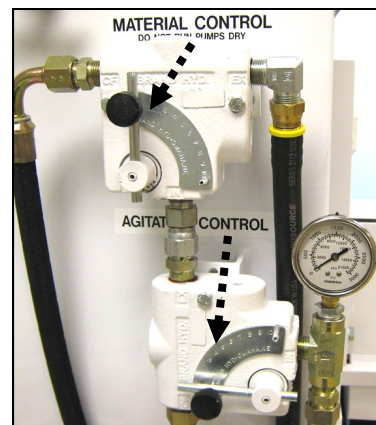


Fig. 2 Material & Agitation Controls

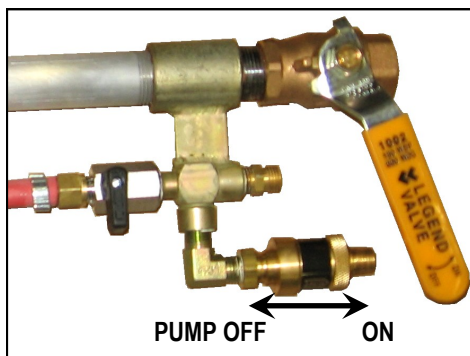


Fig. 3a Air-Switch Gun
Uses a slide valve to turn the pump on

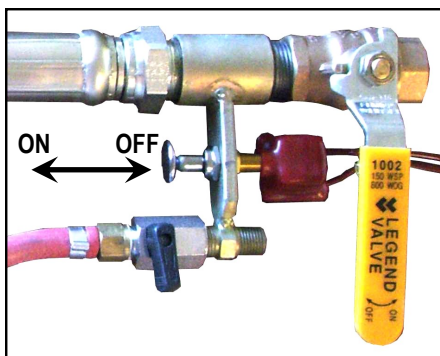


Fig. 3b Electric-Switch Gun

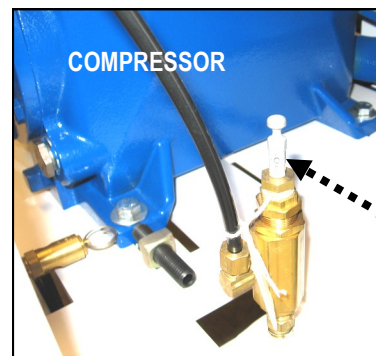


Fig. 4 Compressor Pilot Valve
Shown in the UP position (off)
Should be DOWN when spraying

Priming the Pump

We recommend you prime the pump before mixing the first batch of mud, or if your machine has not been used recently:

1. Set the MATERIAL CONTROL dial to '5', leaving the Agitation at '0'.
2. Point the gun into the tank and briefly turn on pump for **2 SECONDS** to check if the drive link (con rod) is spinning. This can be viewed from a distance on the inside of the tank at the bottom cavity. (See Fig 5). Keep the safety grating in place at all times.
3. If the drive link is not spinning, move the MATERIAL CONTROL to '10'. Cycle the pump using the switch or slide valve on the gun, by turning it on and off, in 3 sec. intervals. If the drive link still does not spin, refer to the Troubleshooting Instructions "Free Up Rotor".
4. If the drive link is spinning, turn off the pump, using the gun switch or slide valve. Do not run dry!
5. To prevent dry-packing the pump, pre-mix one or two gallons of texture slurry to fill the pump body cavity. Open the strainer assembly by releasing the cam-locks (See Fig. 6)
6. Allow a small amount of slurry to pump out, then shut off the pump.
7. Make sure the large ball valve on the gun is OPEN, reconnect the hose.....now you're ready to mix a batch of mud!

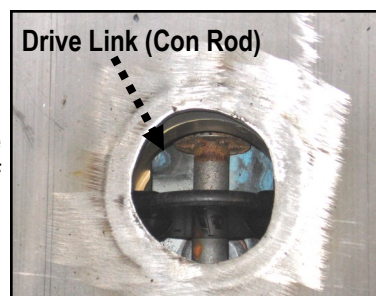


Fig. 5 Inside Tank at Bottom Cavity

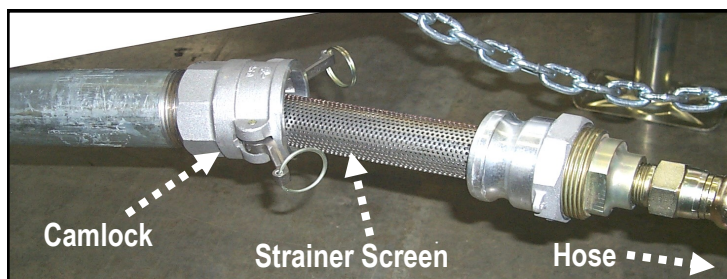


Fig. 6 Texture Strainer Assembly (between pump and hose)

OPERATION OF YOUR MACHINE (CONTINUED)

MIXING PROCEDURE

IMPORTANT: If your rig has not been used recently, or the tank is dry, go back to the previous section “Prior to Mixing” and prime the pump to ensure that your first batch will mix easily and quickly.

When preparing your mixture, we recommend to mix at a slow Agitation Control speed and alternately add the water and texture, or both at the same time, in order to get the best material mix. DO NOT dump all your dry material in the tank first—this may cause a dry-pack situation which could overload your mixing system. If this happens, the agitation assembly may stutter or stop altogether and you must manually break up the material at the bottom of the tank. Take care to use something that will not have pieces break off or contaminate your material and turn your motor off and keep the key in your pocket.

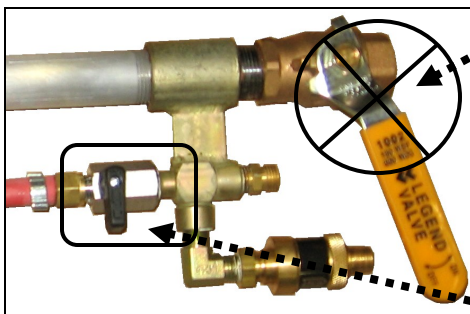
Anytime you turn your pump on, always check to make sure there are no foreign objects inside the tank. When dumping in your dry material, make sure parts of the bag or other foreign objects do not get dropped into the tank. If any objects accidentally get pushed through the pump, this could damage the stator tube and reduce your spraying performance. See Warnings & Precautions section for safety procedures prior to working near the agitation and pump area.

ADJUSTING YOUR SPRAY

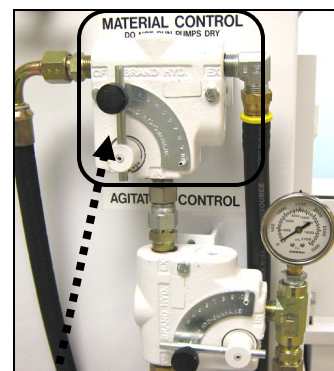
Your spray pattern will vary due to:

1. Air flow
2. Material flow
3. Tip size and shape
4. Type of material and manufacturer of material
5. Material thickness and ambient temperature

The table below describes typical spray patterns. However, variations in material composition may change from batch to batch or between manufacturers, causing your spray results to vary. To compensate for these variables, always do a test pattern first and adjust the airflow at the gun, material flow on the dial, or change tip size to achieve the best results.



IMPORTANT: Do not use the large ball valve to adjust the material flow or to shut off the pump. This valve is only used to stop residual material from dripping out of the tip after the pump is shut off.



<u>Application</u>	<u>Tip Size</u>	<u>Air Flow</u>	<u>Material Control *</u>
Very light orange peel or fog	3/16"	High	1 to 5
Light to medium orange peel	1/4"	High	1 to 5
Heavy orange peel or light knockdown	5/16"	Medium	3 to 7
Medium to heavy knockdown or acoustic	3/8"	Medium	3 to 7
Heavy knockdown or fire proofing	7/16"	Low	5 to 9
Very heavy knockdown or fire proofing	1/2"	Low	5 to 9

* As the stator tube wears or becomes damaged by debris, the material flow will decrease. To compensate, the Material Control setting can be adjusted higher in order to maintain your typical spray results. However, we recommend to replace the stator tube as soon as possible to restore your pumping power back to normal.

OPERATION OF YOUR MACHINE CLEANING & STORING

Depending on the time between jobs, your clean up procedures may vary:

If you plan on spraying within a few days:

Leave the batch of mud in the hopper with the lid closed.

If your rig will sit idle for a week or more:

To prevent problems on your next startup, a thorough cleaning is recommended. Flush a soapy water solution through the tank, pump and hose set. Use clear-liquid dish soap like Dawn or Joy. **Never use petroleum based cleaner on the pump.** It will destroy the rubber pump parts. After storing your rig for more than a month, the rotor may need to be freed—see Troubleshooting section.

Cold Weather Conditions:

If the temperature in your area goes below freezing, we recommend you store the rig inside where the temperature is above freezing. If that is not possible, the hose should be drained of all mud or water. Also release the cam-lock fitting that attaches the hose to the texture strainer. **Warning: do not put auto antifreeze inside your system!** An alternative (but not preferred) is to use RV Water Tank antifreeze.

COMPONENT DESCRIPTIONS

Material Pump

SR-model rigs have a Direct Drive style pump body (See Fig. 7). HD-model rigs have a Butterfly Valve style pump body (See Fig. 8)



Fig. 7
Direct Drive Model Pump



Fig. 8
HD Model Butterfly Valve Pump

Rotor/Stator (See Fig. 9)

The rotor is driven by the connecting rod to deliver consistent, high pressure material flow to the gun. If foreign objects from the tank or pump pass through the rotor/stator assembly, the stator tube will likely be damaged. If your stator tube is damaged or worn, it will result in a lower pressure at the gun head and require a higher Flow Control setting than before. If the rig has not been used for a while, the rotor may become stuck inside the stator tube. If a high-pitched whine is heard when the pump is activated, refer to the Troubleshooting section: “How to Free Up Stuck Rotor”.



Fig. 9
Rotor/Stator Pump System

Drain Valve (see Fig. 10)

The drain valve is located at the rear of the trailer frame on the drivers side facing down. It allows trapped air and moisture to escape from the airframe and should be open when the engine is started. To open the drain valve, turn it CCW so the handle points downward. Having this closed upon startup will bog down the engine. After the engine is running, shut the drain valve and leave it closed until shut down.



Fig. 10 Drain Valve

Texture Strainer (See Fig. 11)

The texture strainer assembly traps material lumps and debris before it reaches the hose and gun. The cam-lock fitting makes it easy to disconnect the hose in order to check and clean the strainer screen.

Always relieve pressure in hose before opening cam-loc.

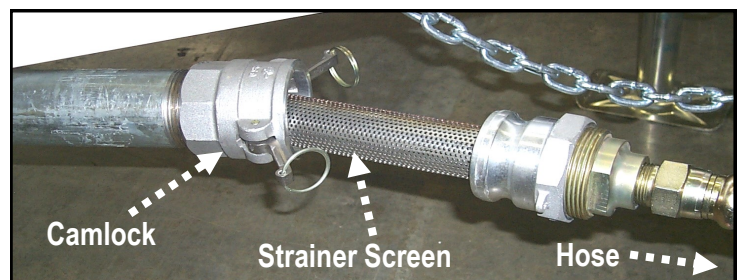


Fig. 11 Texture Strainer Assembly (between pump and hose)

COMPONENT DESCRIPTIONS (CONTINUED)

Engine - refer to the manufacturer's operation manual

Standard gas engine runs at 2800-3200 rpm

Standard diesel engine runs at 1900-2400 rpm

Always run engine with the air drain valve slightly open. Operating your rig on a slanted surface may cause a lubrication failure in the engine or compressor.

Electric Motor (Electric Power) - refer to the electric motor manufacturer's operation manual.

Air Compressor - refer to the manufacturer's operation manual

Air filters should be changed regularly. Check the compressor oil level when the rig is on level ground. Remove the fill plug at the side of the compressor and add specified oil as required. See fluids in the maintenance schedule at the back of this manual.

Hydraulic Motor

The hydraulic motor drives the material pump and the agitation system. These items do not require routine service.

Hydraulic Components

If the tank is filled to capacity, a small amount of hydraulic fluid may vent out of the breather cap and this is normal. Regularly check the hydraulic fluid level gauge located on the side of the hydraulic tanks and fill to the middle of the sight glass. DO NOT OVERFILL. The hydraulic filter should be replaced once a year or every 500 hrs., whichever comes first. Regularly inspect the hydraulic fittings and hoses, specially for wear and abrasion. Due to the high pressure in hydraulic systems, it is recommended that any hose or fitting replacement be performed by a qualified repair mechanic.

Typical operating pressures, as shown on the hydraulic pressure gauge:

0 to 200 psi > Agitation and Flow Control are at '0' (off)

300 to 1000 psi > Material is pumping, but varies due to material thickness

1000 to 1600 psi > Mixing a batch of material

Trailer Hitch Coupler

2" ball couplers are installed on 150-200 gallon trailer rigs

2-⁵/₁₆" ball couplers are installed on 270 gallon and larger, trailer rigs

Trailer Brakes & Battery

Electric trailer brakes are standard on all trailer rigs. The battery terminals should be regularly checked, cleaned and tightened.

Trailer Axle, Bearing & Tires

During maintenance, grease wheel bearings until grease is visibly squeezing out of the bearing inside the axle cap. Check the wheel bearings frequently to make sure they are rotating smoothly. After towing your vehicle for some distance, immediately put your hand on the wheel hub and if is hot to the touch, that indicates a problem and it should be checked by a qualified mechanic as soon as possible. Regularly check tire pressure as specified on the Tire Placard located on the rear of the mixing tank on the drivers side.

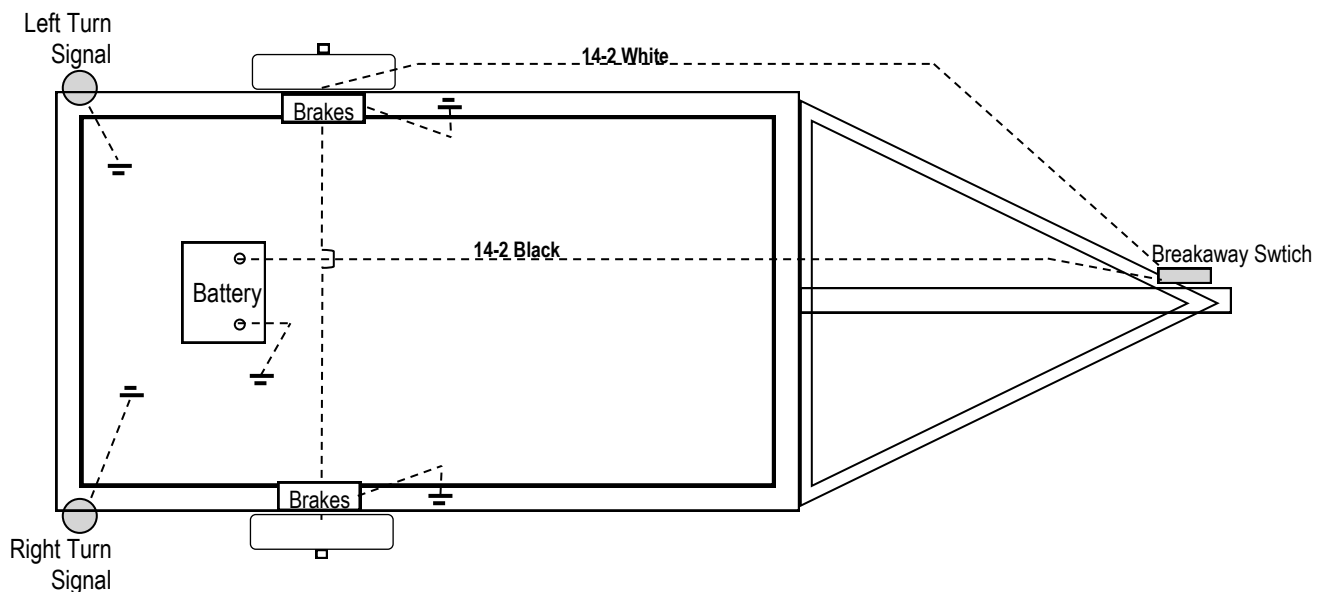
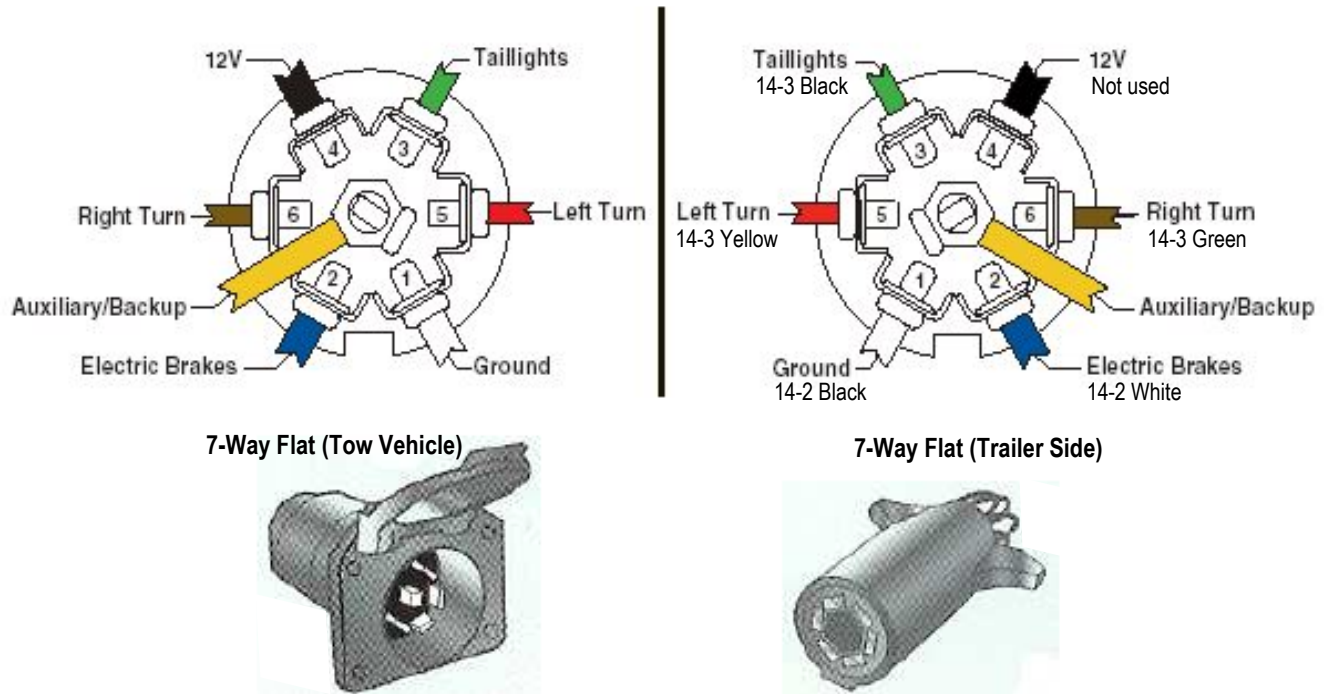
Mixing Tank Bearing

Your tank will have one or two mixing tank bearings. Service these bearings every several months.

COMPONENT DESCRIPTIONS (CONTINUED)

Trailer Brake Wiring Diagram

All trailer mounted rigs have electric brakes installed. A 7-way round connector with flat pins is installed on your trailer. The wiring will need to be connected to the positive battery terminal on the rig, before towing. A break-away switch, located on the trailer tongue, is wired to the battery and brakes. This switch is a critical safety feature that will engage the brakes if the trailer becomes separated from the tow vehicle. (See Fig. 2) Always keep this connected, except to hitch and unhitch your rig. **If this cable is disconnected for an extended period of time, the rig battery may become drained.**



TROUBLESHOOTING

Preventative maintenance is critical in keeping your spray rig in proper working condition. Please refer to the back of this manual for the recommended service schedule to inspect and replace wear parts as required.

Problem	Possible Cause	Corrective Action
Pump delays before starting	This is normal operation	1. None
Mixer works, but gun is not spraying	Flow Control setting is not high enough	2. Verify that Flow Control setting is set at '4' min. If Flow Control is set at 'O', the pump is OFF.
	Plugged texture strainer screen, damaged stator tube or plugged hose. Check by disconnecting hose at texture strainer, activate switch and verify mud is coming out of strainer. If mud is NOT coming out, proceed to next step below	
	Con rod (drive shaft), rotor end or rigid coupling is worn.	
	Solenoid magnet or pin is faulty	
Mixer works, but gun is not spraying & high pitched whine is coming from the hydraulic relief valve	Rotor is stuck	3. See instructions to "Free Up Rotor"
Material Control setting is high (6 or 7), but spray volume from gun is low	Damaged stator tube Plugged hose or texture strainer screen Mud is too thick	Replace stator tube Clean texture strainer Do not use joint compound or materials with a high clay content
Material pump won't turn off	Electric switch: switch is defective or the electric wire is damaged somewhere along the length of the material hose	Replace failed parts
	Air switch: airline is pinched somewhere along the length of the material hose	Straighten out hose to allow air flow
	Solenoid valve is stuck closed	Replace valve

TROUBLESHOOTING (CONTINUED)

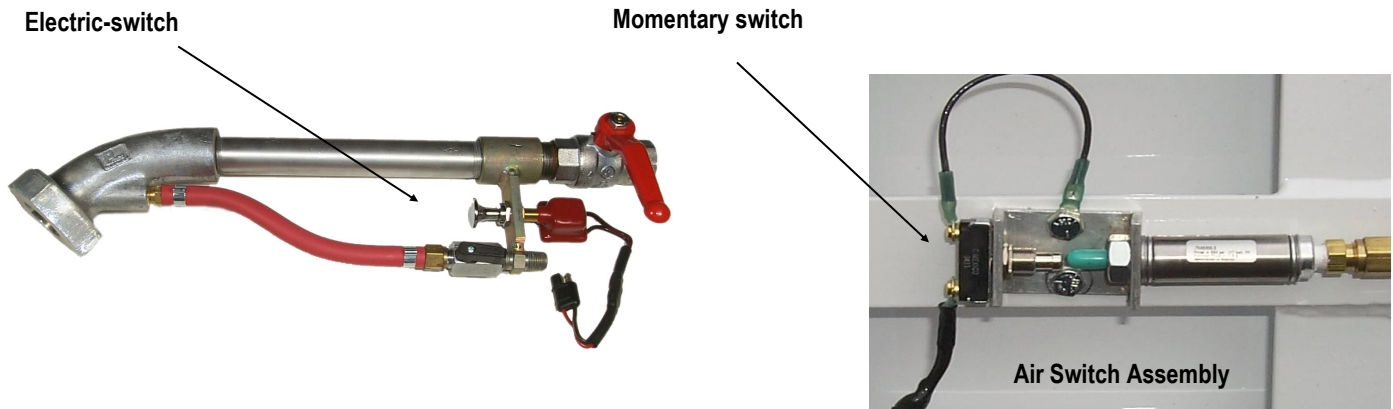
Problem	Possible Cause	Corrective Action
Engine will not start or turn over. No lights are lit on engine panel.	Loose or corroded battery terminals or dead battery	Clean terminals
	Blown in-line fuse (next to starter on gas engines)	Replace fuse
	Faulty ignition switch	Replace switch
	Loose spark plug wires or loose ground wire connection	Clean and tighten wires
	Faulty circuit board (diesel engines only)	Replace board
Engine turns over, but will not start	Fuel level is low	Refill fuel tank as needed
	Drain valve is closed	Check that air drain valve is open and Flow Control is at '0'
	Electric fuel pump is not working (diesel rigs and gas skids only). Verify by turning key ON and place hand on fuel pump to feel if it is pumping.	Replace faulty parts as needed
	Engine oil level is low	Top off engine oil as needed

TROUBLESHOOTING (CONTINUED)

HOW TO FREE UP STUCK ROTOR

If you notice that there is no slurry pumping out of the strainer assembly or if you are hearing a whining sound from the hydraulic relief valve, it's a good indication that your stator tube is stuck. Also you will notice that the hydraulic gauge is reading approximately 1800PSI when the pump is activated. Occasionally this will happen with a new spray rig, a newly installed stator tube, or if your machine has not been used for an extended period of time. Follow the steps below to safely free up the rotor/stator pump.

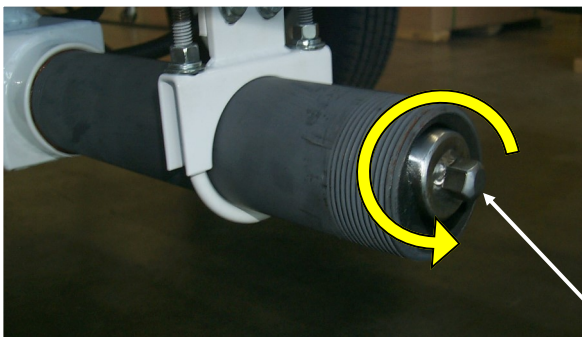
You must run up your engine RPM's in order to break free the stator tube, 3400 RPM's for gas engines and 2600 for diesel engines. Next, adjust the pump flow control to # 10 and the agitation control to the off position. Point the gun into the material tank with the ball valve open. If you have an electric switch on your spray gun use that to turn the pump on and then off in 3 second intervals. If your equipment is controlled by an air switch or slide valve then use the momentary switch on the air switch assembly, located on the side of the material tank. The reason for using the momentary switch is because the slide valve has a delay, making the 3 second pause difficult to control.



When the rotor breaks free, the hydraulic pressure will drop to 500-1000PSI, and you will no longer hear the whine of the relief valve. **Quickly turn down the material flow control to 3 or 4**, to slow the mud flow.

If you were unsuccessful after multiple attempts, trying to break free the rotor/stator pump, you can break them free manually. **CAUTION: Turn the engine off and remove the key.** Follow the instructions below.

Remove the texture strainer pipe and using a ratchet and socket (5/8" or 3/4") depending on model, turn the rotor **counter clockwise** as you are looking at the nut **shown in view below**. Once you have turned the rotor 1/2 of a turn then remove the ratchet. Start the material pump just long enough to make sure it turns freely then reassemble the strainer.



When mixing material for the first time, we recommend that you use 1 container of box texture thinned down to a slurry. This will pre-lube the rotor/stator pump and the material hose. Pump the slurry into the hose before mixing and pumping your typical spray mix.

RIG MAINTENANCE SCHEDULE

Most drywall spray rigs operate in a dusty, rugged environment and require regular maintenance to remain in good working condition. This **Maintenance Schedule** is a general recommendation for average usage, but depending on your spraying schedule and environment, it will vary. For example, if you spray daily and mix inside an enclosed truck, you will need to service your machine more often than someone who mixes outdoors and sprays twice a week. Please refer to your separate engine and compressor component manuals for additional service recommenda-

Fluids

Engine	10w30 Detergent engine oil (Kohler gas engines & Diesel engines) For extreme cold or hot environment, refer to the manufacturer's component manual.	
Compressor	Quincy	30 Weight Non-Detergent compressor oil
	Champion	20 Weight Non-Detergent compressor oil (Below 80 degrees) 30 Weight Non-Detergent compressor oil (80 degrees and higher)
	Ingersoll-Rand	All-season T30 Select compressor oil (synthetic)
Hydraulic	Chevron AW ISO 68 Hydraulic Oil , or equivalent	

Service Schedule

5-Hr Break-In	Kohler gas engines require an oil change after the first 5 hours of use
Daily Service	Check oil levels in engine, compressor and hydraulic tank
Weekly Service	Check oil levels in engine, compressor, hydraulic tank and fill as needed Clean, or replace as needed, Kohler engine air filter and compressor filter Check compressor and engine drive belts Inspect entire rig for any unsafe conditions or loose parts Clean texture strainer
25-Hr Service	Perform Weekly Service, plus inspect trailer lights, safety chains, tires and wheel bearings
50-Hr Service	Perform 25-Hr Service, plus: Kohler gas engine: Change engine oil and engine air filters Diesel engine: First break-in oil change, then every 100 hours Change compressor air filter
100-Hr Service	Perform 25-Hr & 50-Hr Service, plus: Inspect mixer chain tension and adjust as needed Inspect compressor drive belts and adjust as needed Change compressor oil Diesel engine: Change engine oil Inspect and grease wheel bearings Replace fuel filter Replace hydraulic filter and change hydraulic oil if dirty Check material hoses and hydraulic hoses for wear or fraying
200-Hr Service	Perform 25, 50 & 100-Hr Service, plus: Replace Kohler engine spark plugs
500-Hr Service	Perform 25, 50, 100 & 200-Hr Service, plus: Inspect and grease tank mixer bearings

If you have any questions about servicing your machine, please call AST at 253-833-4342



WARRANTY

Warranty and Limitation of Warranty

For a period of one year after retail purchase within the United States of America, American Spray Technologies (Seller) will, at its option, repair or replace, free of charge, Seller manufactured parts found to be defective in material or workmanship. Components not manufactured by the Seller are covered under the original manufacturer warranty. Examples include, but are not limited to electric motors; gas powered engines, hydraulic parts, gear reduction boxes, compressors, and batteries. Such components carry separate warranties. This warranty is limited to the original purchaser starting on the date of retail purchase.

The provisions as set forth in this warranty provide the sole and exclusive remedy of Seller's obligations arising out of the sale of this equipment. Seller will not be liable for incidental or consequential loss or damage. Seller's sole liability under valid warranty claims shall be limited, at Seller's option, to repair or replacement of defective parts or goods.

All other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose are hereby expressly disclaimed in their entirety. There is no warranty on equipment that has been modified, neglected, abused or improperly operated or inadequately maintained. Seller will not be responsible for expense in connection with repairs made by anyone other than a seller-authorized service station, unless prior written authorization has been obtained.

This limited warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state. Certain disclaimers are not allowed in some states and therefore they may not apply to you under all circumstances.

It is the responsibility of the purchaser to deliver or ship the equipment covered under this warranty to the factory. Freight cost, if any will be paid by the purchaser.