

City of Morgan Hill

Standard Operating Procedure



Sullivan/ Palatek D210Q

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Compressor Operation	13
Jackhammer Operation	20

Specifications

Equipment Name	Sullivan/Palatec D210Q
Specifications	<ul style="list-style-type: none"> • 210 CFM Output • 1700 RPM (No Load) / 2500 RPM (Full Load) • 12VDC • Weight: 2600 lbs (With fuel) • Length: 11 feet • Width: 5.6 feet • Fuel: Diesel
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Gloves • Ear protection • Eye protection • Safety shoes • Class II/III safety clothing
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Traffic • Excessive noise • High Pressure Air
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Discharged air can contain carbon monoxide, do not breath this air • Use caution when refueling • High pressure air can cause serious injury, check for damaged hose • Disconnected hoses will whip around, check connections prior to each use • Collapsed jack stand can cause serious injury and equipment damage, verify the stand is in the proper position prior to use
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

AIR COMPRESSOR CHECKLIST

Check prior to each use

- Check tongue, toe ring, break light wire, safety chains, and tow bar
- Check oil level
- Check tire thread depth/air pressure
- Check hubs for loose bolts or leaks
- Check battery
- Check all brake lights and wiring harness
- Check that all tools and accessories are securely fastened to the vehicle
- Check air, oil, and compressor filters
- Check fluid levels (oil/gas)
- Check all hoses and belts on engine
- Check radiator, fan, and coolant reserve tank
- Check air hoses and quick connects (cracks, leaks, damage)
- Check valves for proper operation
- Start and stop compressor
- Report all damages to a supervisor
- Fill out a daily driver's vehicle inspection report after inspection is complete

Use the following checklist to annotate results of the inspection.

Next

Pre-Trip Inspection - Continued

	DATE	MILEAGE	VEHICLE NO.
DAILY VEHICLE CONDITION REPORT			
As required by the D.O.T. Federal Motor Carrier Safety Regulations and the California Code of Regulations, I submit the following:			
Inspect items listed — Press Hard 3 Copies			
<input checked="" type="checkbox"/> Check if defective and describe in "Remarks".			
ENGINE COMPARTMENT		AIR SYSTEM	
40 <input type="checkbox"/> Fluid leaks under vehicle	13 <input type="checkbox"/> Low air warning device	13 <input type="checkbox"/> Air pressure loss/static max. pressure _____	
40 <input type="checkbox"/> Oil level	13 <input type="checkbox"/> Air leaks/applied (max. loss, 3 lbs/min.)	13 <input type="checkbox"/> Adjustment needed? _____ Yes _____ No	
42 <input type="checkbox"/> Coolant level			
35 <input type="checkbox"/> Battery			
26 <input type="checkbox"/> Transmission			
43 <input type="checkbox"/> Exhaust system			
42 <input type="checkbox"/> Belts and hoses			
INSIDE CAB		OUTSIDE	
02 <input type="checkbox"/> Glass and mirrors	17 <input type="checkbox"/> Tires	18 <input type="checkbox"/> Wheels	
02 <input type="checkbox"/> Seat belts	34 <input type="checkbox"/> Reflectors	53 <input type="checkbox"/> Mud flaps	
03 <input type="checkbox"/> Gauges and horn	15 <input type="checkbox"/> Steering	44 <input type="checkbox"/> Fuel cap/tank/mounting	
02 <input type="checkbox"/> Windshield wipers	95 <input type="checkbox"/> New body damage	34 <input type="checkbox"/> Parking lamps	
98 <input type="checkbox"/> Fire extinguisher	34 <input type="checkbox"/> Head lamps, high_low_	34 <input type="checkbox"/> Turn signals	
53 <input type="checkbox"/> Safety flares/triangles	34 <input type="checkbox"/> Emergency flashers/lamps	59 <input type="checkbox"/> Trailer coupling devices	
91 <input type="checkbox"/> Registration and permits			
91 <input type="checkbox"/> Insurance and fuel cards			
13 <input type="checkbox"/> Brakes			
21 <input type="checkbox"/> Clutch			
PM <input type="checkbox"/> Service due _____			
<input type="checkbox"/> Other _____			
Remarks _____			
CONDITION OF THIS VEHICLE IS:			
<input type="checkbox"/> Satisfactory		<input type="checkbox"/> Unsatisfactory	
Driver's Signature _____			
Employee No. _____			
AUTOMOTIVE SERVICES USE ONLY			
<input type="checkbox"/> Above defects corrected		<input type="checkbox"/> Above defects need not be corrected for safe operation	
Mechanic's Signature _____		Date _____	
Reviewed by _____		Date _____	
WHITE-Auto Svcs (file 30 days) * YELLOW-keep in vehicle 7 days * PINK-Dept./Division (file 30 days)			

Be sure to note that you've completed the Compressor checklist (pg. 4) in the remarks section on the DOT Driver's Vehicle Inspection Report

Next

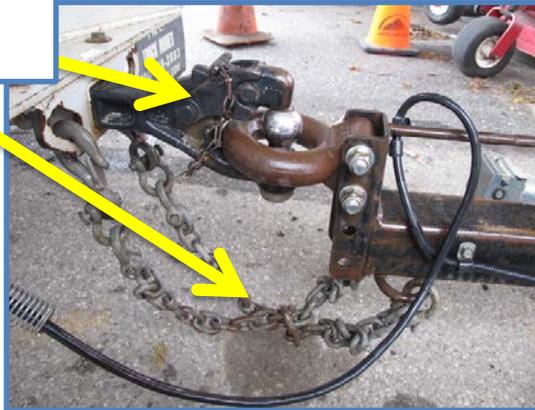
Pre-Trip Inspection

Check general appearance: “Does it look right?”

Look for leaks, scratches, dents or other visible damage around the compressor



Connect tow bar and chains to tow vehicle



Verify tow ball is secure in pintle hitch



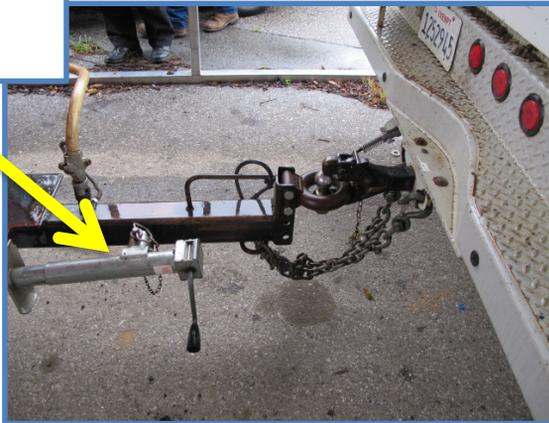
Next

Pre-Trip Inspection

Attach lighting power cord to tow vehicle



Ensure the Outrigger jack is in the STOWED position for travel



Inspect tires and wheels
Check wheels for damage and that lug nuts are in place
Check the tires for inflation and damage



Next

Pre-Trip Inspection

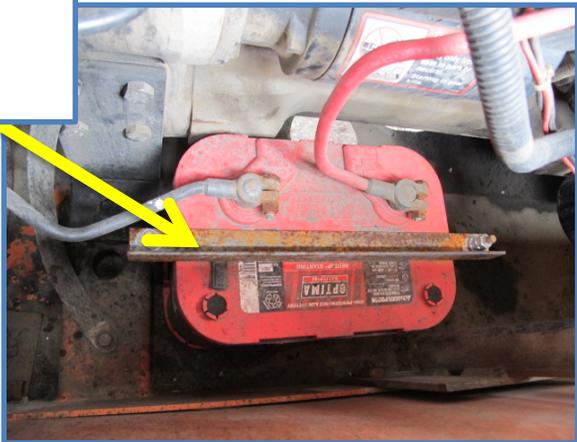
Secure access panels
With latching pins



Check the diesel fuel tank
Left side of compressor



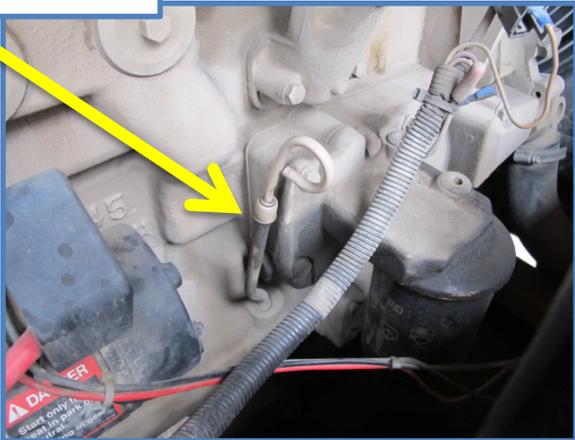
Check the battery
Verify connections are secure
Check the battery hold down bar



Next

Pre-Trip Inspection

Check the oil level



Check fuel tank, cap and gauge



Check fuel/water separator



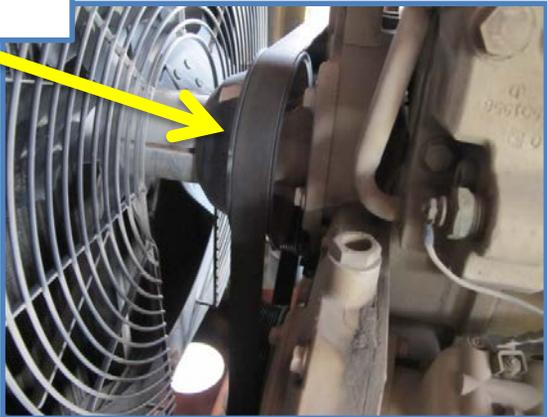
Next

Pre-Trip Inspection

Inspect radiator, fan, and hoses



Inspect cooling fan drive belt



Inspect coolant reservoir



Next

Pre-Trip Inspection

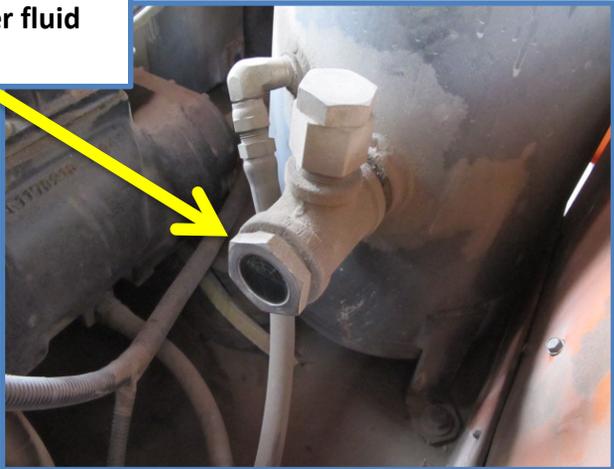
Check radiator coolant level and cap



Check the hydraulic reservoir and associated piping for leaks



Check hydraulic reservoir for proper fluid level



Next

Pre-Trip Inspection

Inspect hydraulic fluid filter



Close both inspection panels



Done

Compressor Operation

Before starting the compressor, ensure proper PPE is worn.

- Gloves
- Eye protection
- Hearing protection
- Safety shoes
- Metal boot covers
- Hard hat
- Class II/III safety clothing (when traffic is present)
- Mask (If necessary)

City of Morgan Hill requires two operators with operating the compressor and jack hammer

Always operate the compressor in a well ventilated area

Next

Compressor Operation

Ensure discharge valve is CLOSED



Review operating instructions
Located on the inside of the operating panel



Turn CONTROL UNLOADER valve to START



Next

Compressor Operation

Turn start switch to ON
Press and hold by-pass button and turn
start switch to START
Do not release by-pass button when
compressor starts



Verify at least ¼ scale oil pressure
If ¼ scale pressure is present, release by-
pass button



Turn control unloader valve to RUN
After compressor is warmed up



Next

Compressor Operation

The compressor is ready for FULL LOAD operation



Tender will communicate visually and verbally with the Jack Hammer operator compressor status



Jack Hammer operator will get in position with Jack Hammer



jack Hammer operator will Visually confirm READY to tender



Tender will OPEN discharge valve slowly until FULL OPEN



Next

Compressor Operation

After completing the task using the compressor, begin the following steps to shut down and stow all equipment.

Close discharge valve

When Tender and Jack Hammer operator will VISUALLY acknowledge work is complete



Turn CONTROL UNLOADING switch to START

Let compressor cool down for 3 to five minutes



Turn engine switch to OFF

After cool down period



Next

Compressor Operation

OPEN bleed valve to verify NO air pressure



OPEN discharge valve
Verifies no air pressure in system



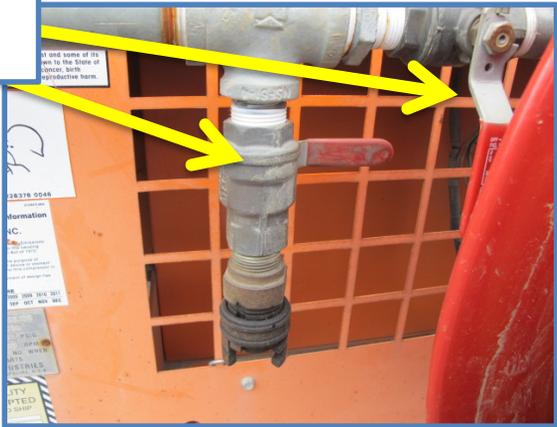
PRESS control lever on the Jack Hammer
Verifies no air pressure to the tool



Next

Compressor Operation

CLOSE bleed valve and CLOSE discharge valve



After completing the task using the compressor, disconnect the Jack Hammer as shown in the following section.

Done

Jackhammer Operation

When using the jackhammer:

- Wear proper PPE: Eye protection, safety shoes, hearing protection, leather gloves, steel boot protectors and mask (if necessary)
- Rotate workers, whenever possible, when jackhammering for extended periods of time

Inspect the jackhammer

Quick connect fitting

Actuator lever

Handle grips



Inspect the jackhammer springs



Inspect the jackhammer lock lever

Ensure locks are CLOSED



Next

Jackhammer Operation

Select desired tool BIT



Move Jack Hammer attaching lever to OPEN
To receive the tool



Insert the tool bit into Jack Hammer



Next

Jackhammer Operation

Move lever to the closed/locked position



Payout pressure hose



Attach safety cable to jack hammer



Next

Jackhammer Operation

Attach quick connect coupling
Pressure hose to jack hammer



Visually/verbally instruct tender to start compressor



Tender and Jack Hammer operator acknowledge working pressure at the tool one verified START the cut



Next

Jackhammer Operation

Lift the jackhammer properly by using the legs. This helps you avoid back strain or injury.

Once job is complete, Jack Hammer operator will communicate with tender to shut compressor OFF

SHUT OFF air supply
See Compressor Operation Section

Disconnect Jack Hammer from air supply hose
See Compressor Operating Section

After completing the task using the compressor, and Jack Hammer begin the steps to stow all equipment.

Done

City of Morgan Hill

Standard Operating Procedure



BYPASS PUMPING

Table of Contents	
Specifications	3
Pre-Trip Inspection (Pump)	4
Pre-Trip Inspection (Trailer)	10
Bypass Pumping	15
Bypass Pump Flushing	29

Specifications

Equipment Name	Godwin Dri-Prim Automatic Self Priming centrifugal Pump CD 150 Series
Specifications	<ul style="list-style-type: none"> • Self-Priming • 6"X6" • Max. Cap. 2277 USGPM • Max. Solids 3" • Max. RPM 2200 • Diesel fuel • Fuel Cap. 60 Gal. • Max Wt. 3,614 Wet
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Safety Shoes • Gloves (work gloves) • Eye protection • Hearing Protection • Class II/III Safety Vest
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Slips, trips and falls • Noise • Traffic • Hazardous Material • Heavy lifting
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Covered in Operator training

Pre-Trip Inspection (Pump)

Godwin CD 150 centrifugal Pump

Check before each use

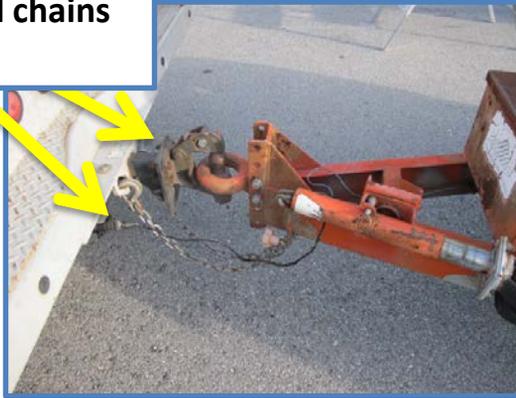
- Check fuel level (USE ONLY DIESEL FUEL)
- Check fuel cap
- Check oil level
- Check coolant level
- Check battery for security
- Check all nuts, bolts, and fasteners for tightness
- Check central lifting point
- Check tires for damage and loose or missing lugs
- Check Cam-Lock fittings for damage and rubber gaskets
- Start the pump to ensure it runs before leaving the yard

Next

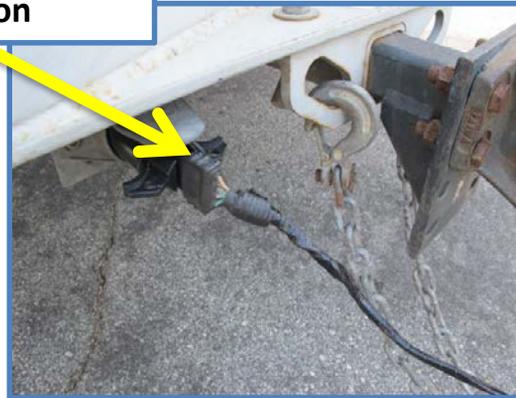
Pre-Trip Inspection (Pump)

Diesel is flammable and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible material.
NEVER fuel the pump while the engine is running or hot. Do not overfill the tank.
Always allow the engine to cool before performing maintenance. Components are very hot after use.

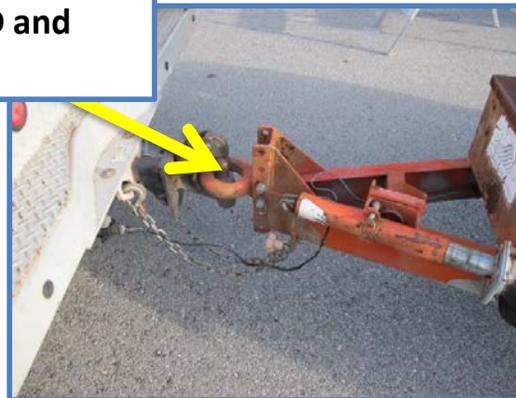
Check pump pintel hitch and chains for security



Check trailer lights connection



Check trailer jack is **STOWED** and pinned for transit



Next

Pre-Trip Inspection (Pump)

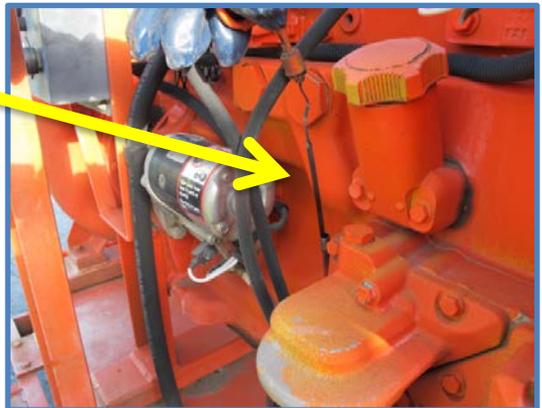
Low levels of oil may result in engine seizure due to high levels of consumption during operation.

Do not overfill when replenishing oil. Too much oil can cause damage to the engine

Check trailer brake and turn signal lights operation



Check pump oil level with dip stick



Check pump engine coolant level
Before start up



Next

Pre-Trip Inspection (Pump)

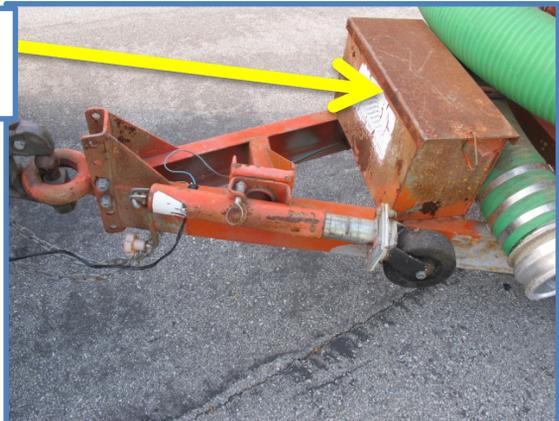
Check pump fuel level and cap security



Check pump battery connections for security



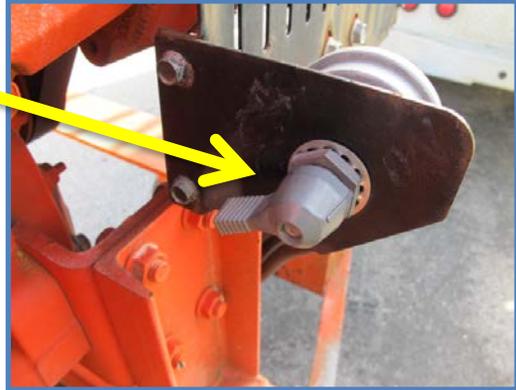
Replace and secure battery box cover



Next

Pre-Trip Inspection (Pump)

Turn MASTER switch to ON



Turn throttle control to IDLE



PUSH MURPHY switch IN and TURN ignition switch to START simultaneously ,
once engine starts, release the key switch
Wait 3-5 seconds to release MURPHY switch



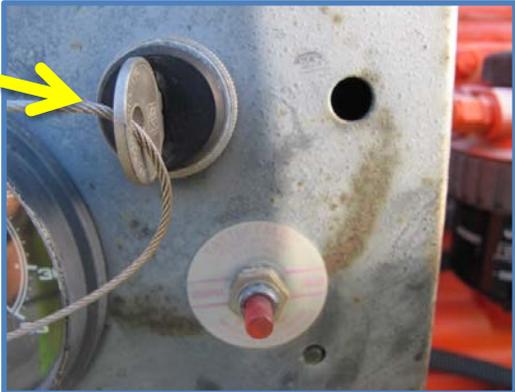
Next

Pre-Trip Inspection (Pump)

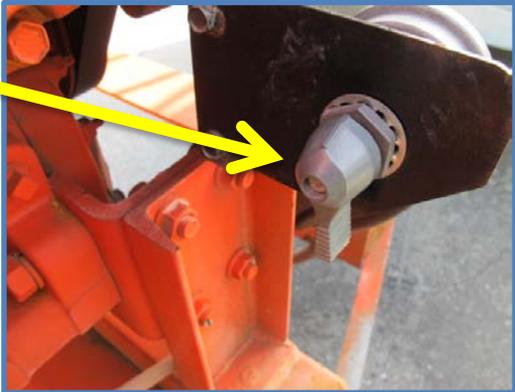
Verify good oil pressure on gage
*Allow engine to warm up
3-5 minutes*



Turn ignition key to OFF



Turn MASTER switch to OFF



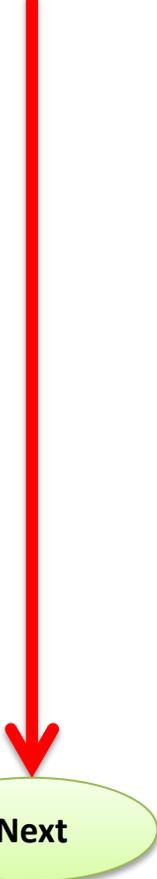
Done

Pre-Trip Inspection (Trailer)

By-Pass Trailer

Check before each use

- Inventory the trailer for contents before leaving yard
- Ensure all tarps are secured and will NOT detach during transit
- Check Cam-Lock fittings for damage and for extra rubber gaskets
- Check trailer Landing gear for security
- Check trailer lights wire harness condition
- Check trailer for wheel chocks on board
- Check all nuts, bolts, and fasteners for tightness
- Check tires for damage and loose or missing lugs
- Ensure ALL equipment is stowed and secured for transit
- Check all tie down straps are secured and tight before transit



Next

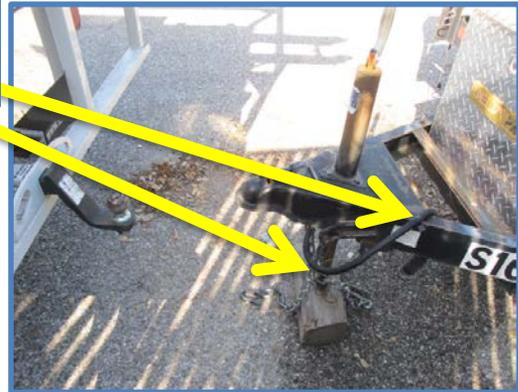
Pre-Trip Inspection (Trailer)

Check trailer jack and adjust for towing hook up

Ensure trailer jack is cranked UP before being towed to prevent damage to trailer jack



Check trailer safety chains and light harness for condition



Check all trailer tires for condition and for loose or missing lugs



Next

Pre-Trip Inspection (Trailer)

OPEN tool box of trailer



Inventory tool box:

- *Extra 4" - 6" gaskets*
- *Two hammers*
- *4" to 6" Cam-lock adapter*
- *6" 90 Cam-lock*
- *Saddle Support/backflow*
- *Tie-downs*
- *Straps*



Use inventory list to inventory the bypass trailer contents



Next

Pre-Trip Inspection (Trailer)

Bypass Trailer Inventory:

- Twelve 20' rolls of 4" lay flat discharge hose
- Thirty 20' rolls of 6" lay flat discharge hose
- Two 20' rolls of 2 - 1/2" fire hose
- One "lazy Susan"
- Four sets of yellow saddle ramps
- Two manhole discharge gages
- One backflow preventer with meter 4"
- One suction hose strainer for 6" hose



Next

Pre-Trip Inspection (Trailer)

After the bypass pumping trailer has been inventoried, the equipment must then be covered with tarps and strapped down with ratcheting straps secured and ready for travel to next job site



Done

Bypass Pumping

Set up adequate traffic control for the task



Position the bypass pump
As close to the pumping point as needed



Check suction hose cam-lock is in good condition
Ensure cam-lock has gasket



Next

Bypass Pumping - Continued

Connect the suction hose to the pump



Attach the suction strainer to the hose
Lube with W-D 40 if needed



Strainer attached to hose



Next

Bypass Pumping

Place five gallon bucket at the foot of the dri - prime hose to catch effluent

Check every thirty minutes and empty into man hole as need



Remove manhole cover



Insert the suction hose into man hole

With strainer attached



Next

Bypass Pumping

Ensure strainer is clear of the inlet that is to be plugged



Remove manhole cover to the point bypassed
Down stream



Attach 6" 90 cam-lock to fabricated discharge cage



Next

Bypass Pumping

Insert discharge cage into the next down stream manhole



Position 6" 90 cam-lock fitting towards the pump discharge cam-lock fitting



Attach first length of 6" lay flat discharge hose to the 6" 90 cam-lock fitting on the discharge cage



Next

Bypass Pumping

Once connected to discharge cage, un-roll hose toward the bypass pump



Un-roll complete length of roll



Un roll and connect additional lengths of hose as needed to reach pump



Next

Bypass Pumping

Allow enough discharge hose to avoid kinking the hose when hooked up to pump



Connect discharge hose to pump outlet cam-lock fitting



Secure discharge hose to cam-lock fitting
Use W-D 40 if needed



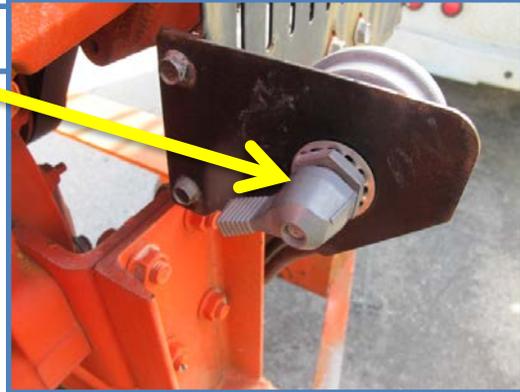
Next

Bypass Pumping

Once the pipeline plugging is complete by-pass pumping is ready to start.

Start the pump

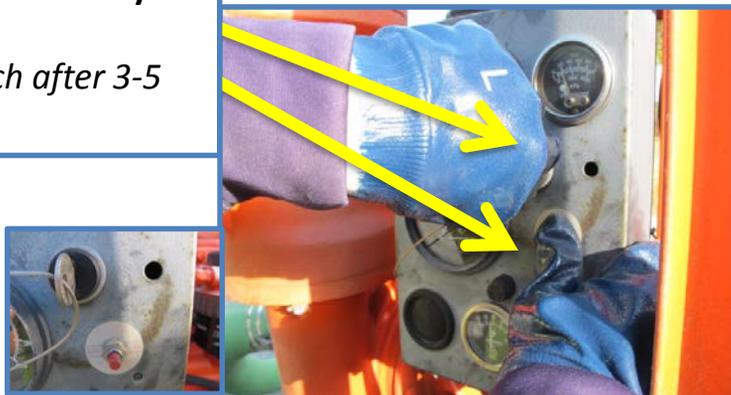
Turn the master switch to ON



Turn the throttle control to IDLE



PRESS the Murphy switch and **TURN** the ignition switch simultaneously until engine starts
Release the Murphy switch after 3-5 seconds



Next

Bypass Pumping

Verify good engine oil press at the gage



Allow engine to warm up for 3-5 minutes before ramping RPM up



Man hole being pumped is to be monitored at all times during plugging operation, five gallon bucket is to be monitored and emptied every 30 min.

Continue with procedure when Bypass is completed.

Next

Bypass Pumping

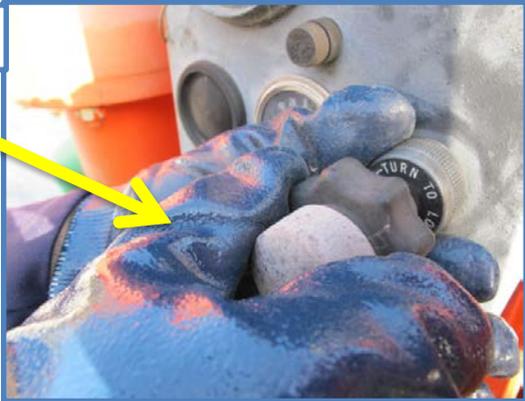
Ensure pipe plugging operation is complete and plug is OUT before pumping operation is to stop

To STOP the pumping:

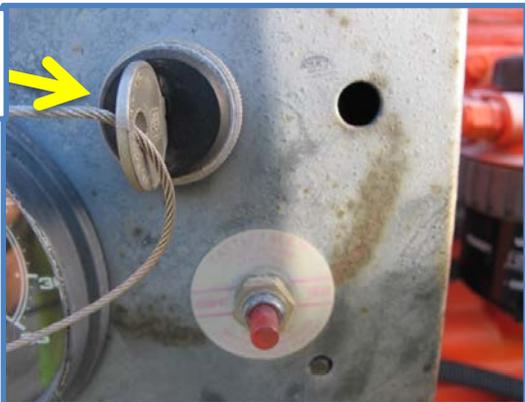
Ensure manhole well level is pumped DOWN and plug is removed from pipe line



Turn pump throttle to IDLE



Turn pump ignition switch (key) to OFF



Next

Bypass Pumping

“WALK DOWN” residual effluent in the discharge hose from the pump



DISCONNECT hose from pump outlet cam-lock fitting



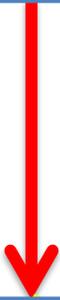
“WALK DOWN” residual effluent from the first disconnected length of discharge hose



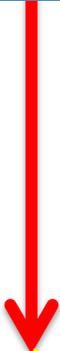
Next

Bypass Pumping

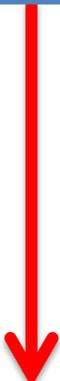
Lay the discharge hose flat and roll it up from the male fitting to female fitting



DISCONNECT hose when rolled up to the cam-lock connection



Once hose is disconnected stow all hose on by pass trailer



Next

Bypass Pumping

Ensure ALL lay flat discharge hose is stowed in same location on the by pass trailer



REMOVE the discharge cage from the down stream man hole



STOW discharge cage in same location on by pass trailer



Next

Bypass Pumping

REPLACE manhole cover to down stream manhole



Suction hose is left connected until pump and hose are flushed with hydrant water

Done

Bypass Pump Flushing

Pump flushing is done to purge the pump of remaining residual effluent in the pump, suction hose and strainer

Remove the backflow with meter assembly from the bypass trailer



Remove the 4" fire hose to 6" cam lock adapter from the tool box on the bypass trailer



Remove the saddle support for the backflow from the bypass trailer



Next

Bypass Pump Flushing

Locate nearest fire plug and stage flushing equipment near



Remove fire plug discharge cap with the fire plug wrench



Attach backflow preventer to the fire plug



Next

Bypass Pump Flushing

Tighten the backflow preventer to the fire plug using plug wrench



Attach 6"camlock to 4" fire hose adapter to the pump



Secure adapter to the pump
Ensure rubber gasket in place



Next

Bypass Pump Flushing

Thread and tighten 4" fire hose to the backflow preventer at the fire plug
Use plug wrench



Thread and tighten 4" fire hose to the adapter at the pump
Use plug wrench



OPEN fire plug when it's safe to do so



Next

Bypass Pump Flushing

Inspect for clear flow at strainer



SHUT down fire plug water to the pump when clear flow is verified



Remove the 4" fire hose from the adapter and the adapter from the pump



Next

Bypass Pump Flushing

Remove 4" fire hose from the backflow preventer at the fire plug



Remove backflow preventer from the fire plug



Replace the fire plug cap



Next

Bypass Pump Flushing

Tighten fire plug cap with plug wrench



Remove the bypass pump suction hose from the manhole



Disconnect the strainer from the suction hose



Next

Bypass Pump Flushing

Replace the manhole cover



Disconnect the suction hose from the pump



Wrap the suction hose around the pump



Next

Bypass Pump Flushing

Tie off the suction hose securely around the pump with the rope provided



Stow all equipment used for bypass pumping back onto trailer for inventory



Once trailer is inventoried cover the trailer with the tarp provided and securely strap them down for transit



Next

Bypass Pump Flushing

Pick up traffic control



Done

City of Morgan Hill

Standard Operating Procedure



CCTV

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Televis a Sewer Line	19
Televis a Sewer Line (Push Camera)	44

Specifications

Equipment Name	Morgan Hill CCTV TRAILER
Specifications	WELL CARGO enclosed trailer
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 2 • 2 (Push Camera) 2 (Easement)
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Gloves (Non-Permeable) • Eye protection • Safety toe work boots • Class II or III safety clothing
Required License	<ul style="list-style-type: none"> • Certifications – PCAP/MACP/LACP
Common Hazards	<ul style="list-style-type: none"> • Hazardous Material • Traffic • Slips, trips and falls
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Be aware of toxic/hazardous material • Be aware of traffic conditions
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

CCTV Trailer Pre-Trip Inspection

Always follow the Morgan Hill Vehicle Inspection checklists during the pre-trip inspection.

Check daily before operation

- Check tow vehicle lights and strobes for operation
- Check trailer tires/wheels condition for loose or missing lugs
- Check trailer lighting, turn , brake, and parking
- Check trailer beacons, strobes and arrow boards
- Check that all covers are closed and secure before towing
- Check Honda generators oil and fuel levels
- Check that reel drum brake is set
- Check water level is tank is at least $\frac{3}{4}$ full
- Check Push Camera
- Check crawler Camera
- Check that chair in data collecting room is secured with tie downs provided
- Fill out a daily vehicle inspection report after inspection is complete

Use the following checklist to annotate results of the inspection.

Next

Pre-Trip Inspection - Continued

	DATE	MILEAGE	VEHICLE NO.
DAILY VEHICLE CONDITION REPORT			
As required by the D.O.T. Federal Motor Carrier Safety Regulations and the California Code of Regulations, I submit the following:			
Inspect items listed — Press Hard 3 Copies			
<input checked="" type="checkbox"/> Check if defective and describe in "Remarks".			
ENGINE COMPARTMENT		AIR SYSTEM	
40 <input type="checkbox"/> Fluid leaks under vehicle	13 <input type="checkbox"/> Low air warning device	13 <input type="checkbox"/> Air pressure loss/static max. pressure _____	13 <input type="checkbox"/> Air leaks/applied (max. loss, 3 lbs/min.)
40 <input type="checkbox"/> Oil level	13 <input type="checkbox"/> Adjustment needed? _____ Yes _____ No		
42 <input type="checkbox"/> Coolant level			
35 <input type="checkbox"/> Battery			
26 <input type="checkbox"/> Transmission			
43 <input type="checkbox"/> Exhaust system			
42 <input type="checkbox"/> Belts and hoses			
INSIDE CAB		OUTSIDE	
02 <input type="checkbox"/> Glass and mirrors	17 <input type="checkbox"/> Tires	18 <input type="checkbox"/> Wheels	34 <input type="checkbox"/> Reflectors
02 <input type="checkbox"/> Seat belts	15 <input type="checkbox"/> Steering	53 <input type="checkbox"/> Mud flaps	44 <input type="checkbox"/> Fuel cap/tank/mounting
03 <input type="checkbox"/> Gauges and horn	53 <input type="checkbox"/> Safety flares/triangles	95 <input type="checkbox"/> New body damage	34 <input type="checkbox"/> Parking lamps
02 <input type="checkbox"/> Windshield wipers	91 <input type="checkbox"/> Registration and permits	34 <input type="checkbox"/> Head lamps, high_low_	34 <input type="checkbox"/> Turn signals
98 <input type="checkbox"/> Fire extinguisher	91 <input type="checkbox"/> Insurance and fuel cards	34 <input type="checkbox"/> Emergency flashers/lamps	59 <input type="checkbox"/> Trailer coupling devices
53 <input type="checkbox"/> Safety flares/triangles	13 <input type="checkbox"/> Brakes		
91 <input type="checkbox"/> Registration and permits	21 <input type="checkbox"/> Clutch		
91 <input type="checkbox"/> Insurance and fuel cards	PM <input type="checkbox"/> Service due _____		
13 <input type="checkbox"/> Brakes	<input type="checkbox"/> Other _____		
21 <input type="checkbox"/> Clutch			
PM <input type="checkbox"/> Service due _____			
<input type="checkbox"/> Other _____			
Remarks _____			

CONDITION OF THIS VEHICLE IS:			
<input type="checkbox"/> Satisfactory		<input type="checkbox"/> Unsatisfactory	
Driver's Signature _____			
Employee No. _____			
AUTOMOTIVE SERVICES USE ONLY			
<input type="checkbox"/> Above defects corrected		<input type="checkbox"/> Above defects need not be corrected for safe operation	
Mechanic's Signature _____		Date _____	
Reviewed by _____		Date _____	
WHITE-Auto Svcs (file 30 days) • YELLOW-keep in vehicle 7 days • PINK-Dept./Division (file 30 days)			

Next

Pre-Trip Inspection - Continued

Check general appearance: “Does it look right?” Look for leaks, scratches, dents or other visible damage around and in the trailer.

Check tow vehicle beacon light



START the PRE-TRIP at the trailer hook up and work in a (systematic) way from drivers side toward the rear then up the passengers side

Verify trailer is properly connected to tow vehicle

Power connection, chains, pintle hook, landing jack is stowed



Check the Trailer lights and back up camera are connected to the truck



Next

Pre-Trip Inspection - Continued

Check Honda generators security, loose mounts etc.
NOTE: both generators are similar



Check generators fuel level at the cap



Check the generators oil level



Next

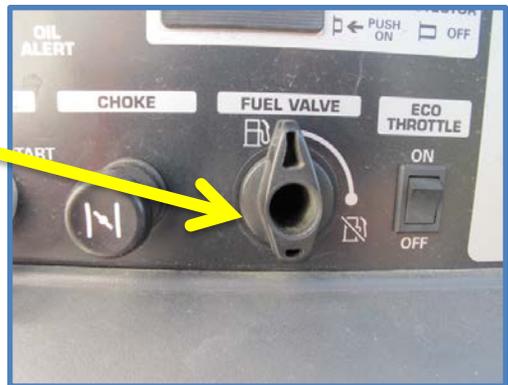
Pre-Trip Inspection - *Continued*

CAUTION: ENSURE ALL DATA CAPTURE EQUIPMENT is OFF before generators are started

Access data collection station and verify all circuits are **UNLOADED**
Light bar, strobe, computer, camera



Turn fuel valve **OPEN**



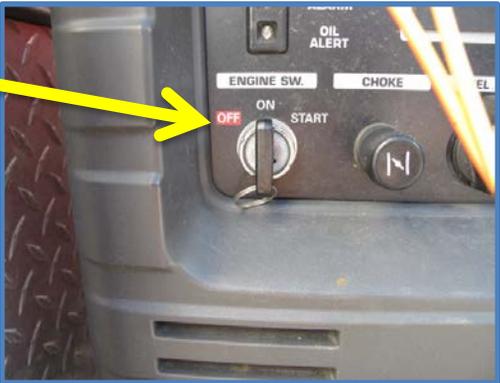
PULL choke knob **OUT** 3/4



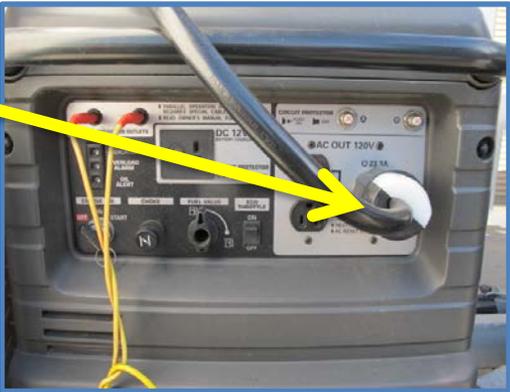
Next

Pre-Trip Inspection - Continued

START engine
When engine starts, PUSH choke knob IN



Ensure the OUTPUT cable is plugged IN at the generator



Ensure the INPUT cable is plugged IN at the trailer



Next

Pre-Trip Inspection - Continued

Check RIGHT side tires and wheels for damage or missing hardware



Check BACK lights, door locks



Check LEFT side wheels and tires for damaged or missing hardware



Next

Pre-Trip Inspection - Continued

Turn all lights ON
Light Bar, Strobe, Flood lights running



Check all lights
Light Bar, Strobe, Flood lights running



Turn all lights OFF



Next

Pre-Trip Inspection - *Continued*

Secure computer tech. chair with straps provided



CLOSE and LOCK data collection station door before travel



Turn OFF generators ignition switch



Next

Pre-Trip Inspection - Continued

UNLOCK and OPEN rear trailer doors and inventory trailer



LEFT SIDE

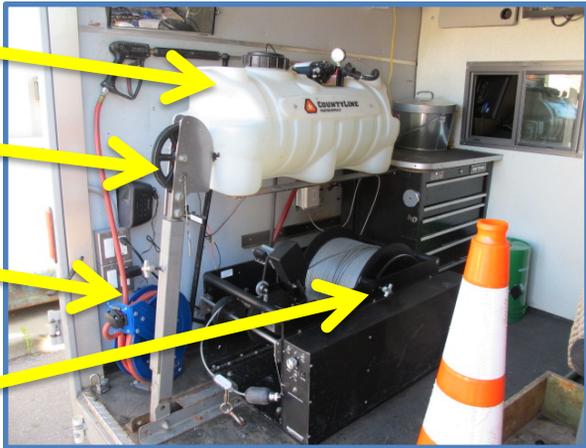


Check water tank is at least ¾ FULL

Check boom and wheel condition

Check hose reel and wand for leaks

Check main line cable reel
Ensure the drum brake is ON before moving from one location to another



Check tool box for tools needed to adjust camera and parts needed to complete the task



Next

Pre-Trip Inspection - Continued

RIGHT SIDE

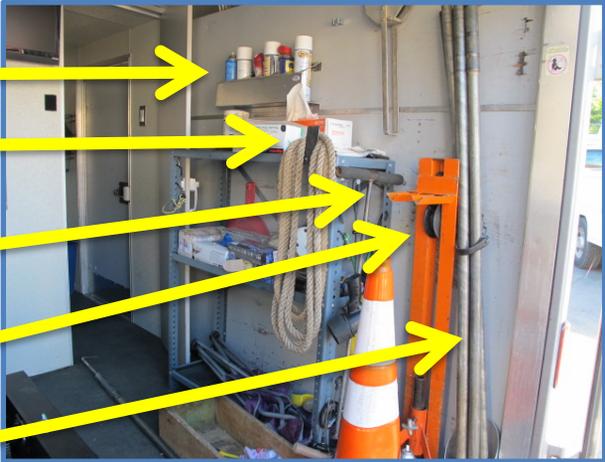
Check for supplies cleaner, gloves etc..

Check for DROP rope

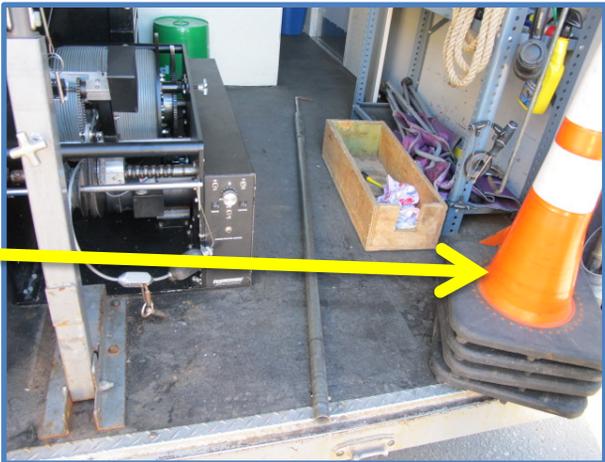
Check manhole cover lift device (hook)

Check for manhole roller

DROP poles



Traffic control cones x 4



Disinfectant, nylon gloves, WD40 5gal. bucket



Next

Pre-Trip Inspection - *Continued*

Pick up the cameras from the under ground equipment Storage room



Roll the camera cases on the cart to the CCTV trailer



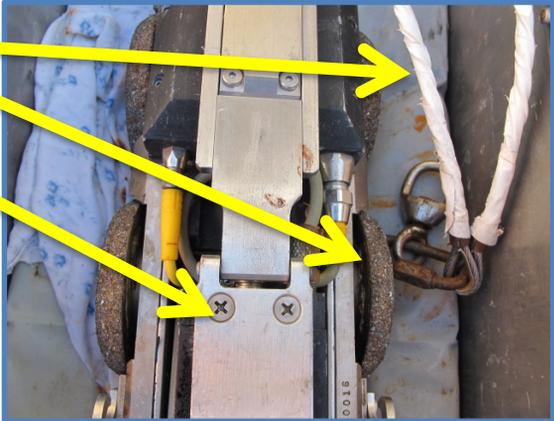
OPEN the camera case and inspect the cameras one at a time
Len s, wheels , tractor



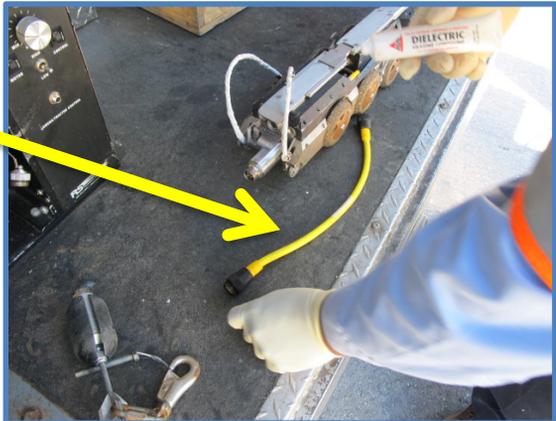
Next

Pre-Trip Inspection - *Continued*

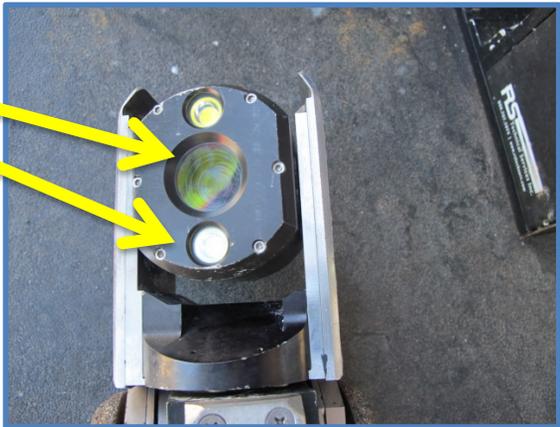
Inspect camera, tractor, wheels, bridle
Frayed cable, loose screw, loose wheel



Inspect , Pig tail



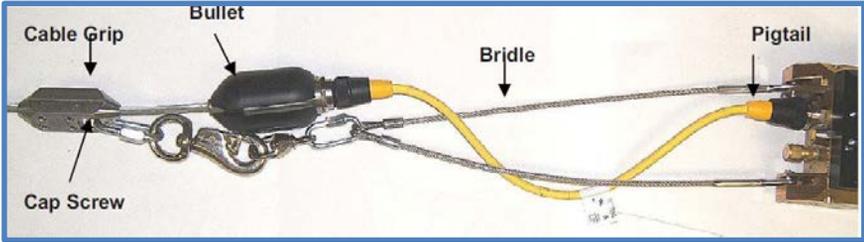
Check condition of camera lens and lights



Next

Pre-Trip Inspection - *Continued*

Inspect the connections for proper security



Stow cameras back in the cases



CLOSE cases and LATCH



Next

Pre-Trip Inspection - *Continued*

LIFT the camera cases and load them into the trailer



STOW both camera cases in the trailer for traveling



CLOSE and **LOCK** the rear doors of the CCTV trailer



Done

Televising a Pipe Line

NOTE : When televising a pipeline on an incline, GRAVITY must be considered.

It is best to televise pipeline that is level but this is not always possible.

When televising a pipeline that is on a grade always START from the highest point so that you feed the camera down hill. This makes it easier to retrieve the camera because you can use gravity to counter the energy used to retrieve the camera with the winch.

If ever the situation should present itself where the grade is not considered and the camera is UP hill in the pipeline, the retrieval process must be altered. To do this , the camera operator MUST put the camera in REVERSE and NOT freewheel.

Should this occur, the camera operator and the winch operator MUST work in concert to retrieve the camera without bird nesting the cable inside the pipeline..

The winch operator and the camera operator will coordinate the process and work together.

As the camera operator starts the camera in reverse the winch operator begins the winch operation to reel the cable IN and keep a positive pull on the camera as it makes it way to the opening of the pipeline and the manhole.

Televising a Pipe line

Once at job site, turn ON rotating beacon of the truck



OPEN rear trailer doors and guide the trailer to align cable boom with the pipeline being videoed



Remove safety cones from truck bed



Next

Televising a Pipe Line

Set the traffic control Buffer zone behind the trailer



Set the traffic control cones out on the street side of the trailer



Set the traffic control cones out in front of truck



Next

Televising a Pipe Line

OPEN the data collection room and ensure **ALL** power equipment is **UNLOADED**



START the generator



VERIFY all lights are **ON**
Strobes, light bar



Next

Televising a Pipe Line

Guide trailer to line boom with manhole



STOP when trailer is lined up



SET up buffer zone with caution cones



Next

Televising a Pipe Line

REMOVE the manhole cover with the hook provided in the trailer



ENSURE the boom is lined up with pipeline



Select the camera to be used



Next

Televising a Pipe Line

Turn speed control to MIN



Move ON/OFF toggle switch to ON



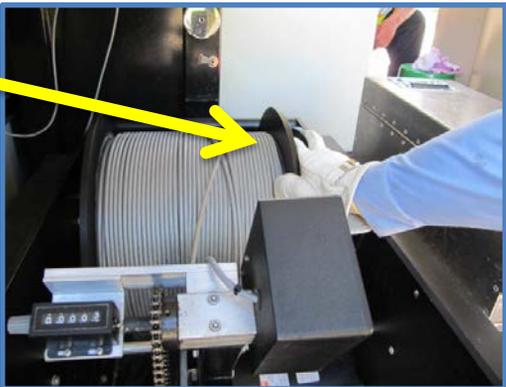
Move IN/OUT toggle to NEUTRAL



Next

Televising a Pipe Line

**UNLOCK drum brake and set drag brake
pull enough cable to hook the camera**



UNCAP the BULLET



**APPLY DIELECTRIC grease to the bullet
point of connection**



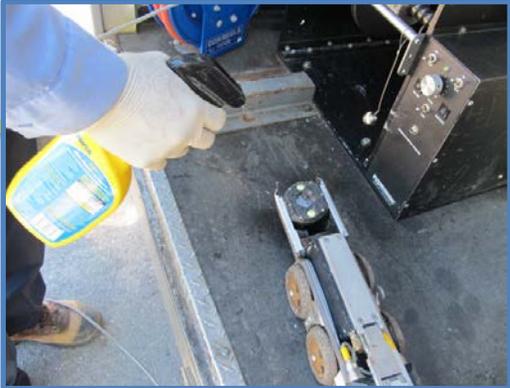
Next

Televising a Pipe Line

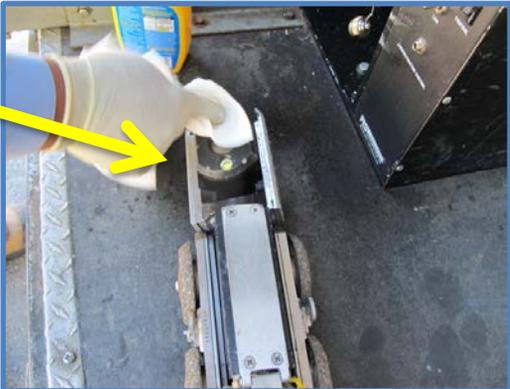
ENSURE the PIG-TAIL is tight on the bullet



Spray lens cleaner to the lens and lights of camera



Wipe lens and lights dry



Next

Televise a Pipe Line

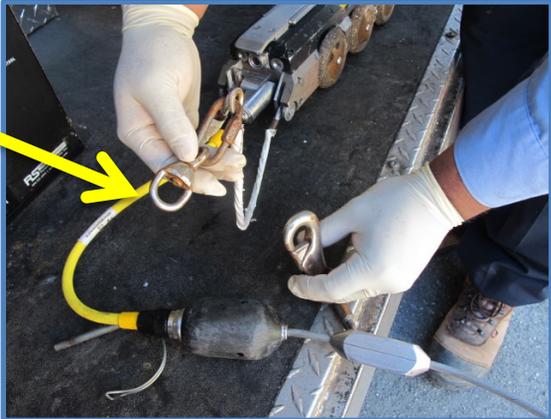
Ensure camera lens and lights are cleaned



Connect Pig _ Tail with dielectric to camera



Connect bridle to cable winch reel with snap connector



Next

Televising a Pipe Line

ENSURE proper bridle to PIG-TAIL length is present
Adjust as necessary to avoid strain on PIG-TAIL



Plug small fan heater in and heat the camera lens about 3-5 minutes



Check camera operation



Next

Televising a Pipe Line

Power up camera /controller



Power up camera



Power up video equipment



Next

Televising a Pipe Line

Push ON button on video remote control



Observe camera image on trailer monitor



Clean lens as needed



Next

Televising a Pipe Line

Adjust the lens for best image



Lift camera and place it by manhole



Place camera with lens facing the direction to be televised



Next

Televising a Pipe Line

CONNECT drop down rope to opposite end of the PIG-TAIL



RAISE the camera evenly and lower it **DOWN** to pipeline



Once the camera is resting on the pipeline **DISCONNECT** the rope and bring it **UP**



Next

Televising a Pipe Line

Instruct camera operator to drive tractor forward till that rear of tractor is fully inside the pipeline



Lower the boom and feed the cable through the boom idler pulley



INSERT two keeper pins in the pulley guard

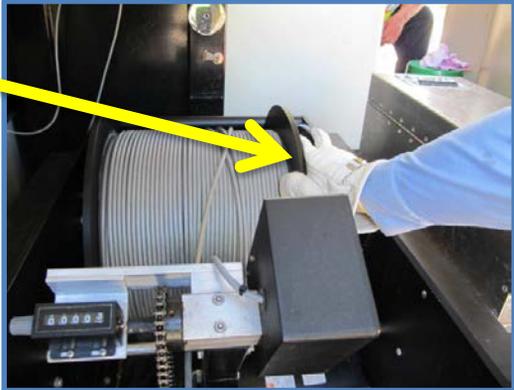


Next

Televising a Pipe Line

A mechanical brake is provided to prevent back lash of cable while reel is in NEUTRAL Brake should be adjusted to be loose enough for free movement of cable drum but STOP the drum when cable is no longer being pulled

Turn reel by hand to remove slack



Check for proper tension on cable



Set footage counter to ZERO



Next

Televising a Pipe Line

A mechanical brake is provided to prevent back lash of cable while reel is in NEUTRAL

Brake should be adjusted to be loose enough for free movement of cable drum but STOP the drum when cable is no longer being pulled

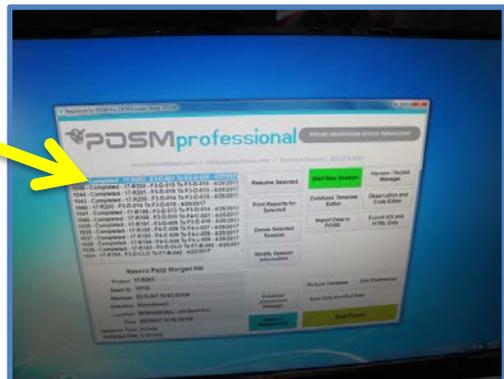
Data collection operator has full control/tractor



Data collection operator has full control of camera



Record conditions of pipeline and move slowly, take notes when passing obstacles and NEVER force the camera passed debris



Next

Televising a Pipe Line

When televising video task is complete STOP recording

Camera operator will PRESS and HOLD STOP button for 3 Seconds and put camera in FREEWHEEL



Verify cable is in FREEWHEEL by PULLING on cable by hand



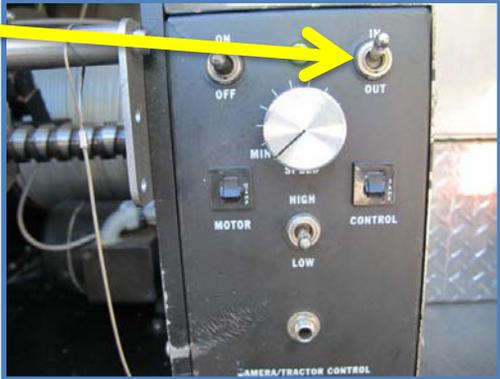
Winch operator verify speed control knob is in MIN



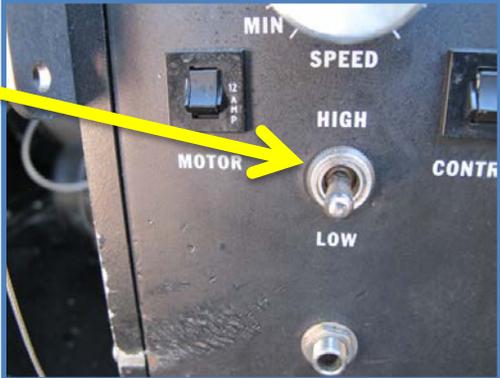
Next

Televising a Pipe Line

Winch operator will FLIP IN/OUT toggle to IN



FLIP winch gear ratio to desired speed High or LOW



Move speed control to appropriate speed



Next

Televising a Pipe Line

Wipe cable with disinfectant soaked rag as cable is being reeled IN



STOP winch operation when camera is at opening of manhole



Wash down camera with chlorinated water stored in the trailer
ENSURE wash down is IN manhole opening



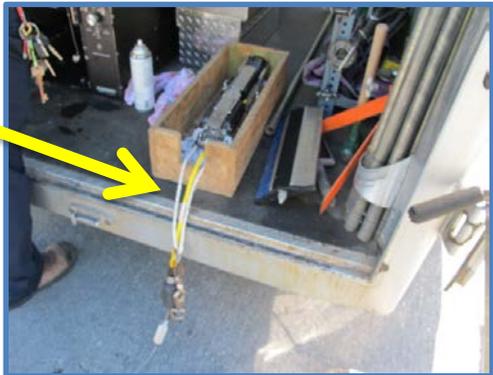
Next

Televising a Pipe Line

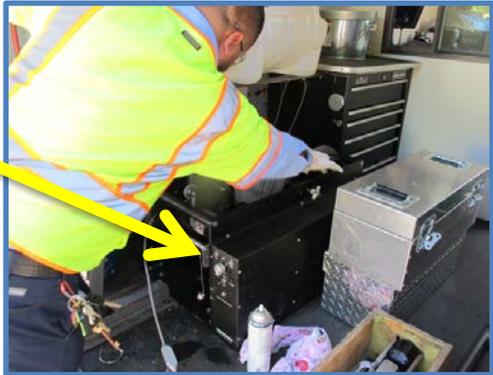
Replace manhole cover



Store camera in wooden cradle for transit to next job



Take up slack on cable reel, Turn OFF power and SET drum brake to main line winch



Next

Televising a Pipe Line

Stow equipment for transit



Power OFF computer



Turn OFF camera



Next

Televising a Pipe Line

Secure data operators seat to the trailer



CLOSE and lock rear doors of CCTV trailer



Close and lock data operators door



Next

Televising a Pipe Line

Secure generators Turn ignition switch OFF



Pick up all traffic control equipment and stow in truck bed



Done

Televising A Sewer Line (Push Camera)

Power and video for the Push Camera is obtained from the Main Line Cable Reel located on the CCTV trailer. Use CCTV trailer Pre-trip, Set up and Start Up procedures for the Push Camera operation

NOTE

Make NO connections with power on

UNLOAD Manual Push Camera Cable Reel form CCTV trailer and inspect



Locate Manual Push Reel to pipeline to be televised **REMOVE** manhole cover



OPEN push camera case



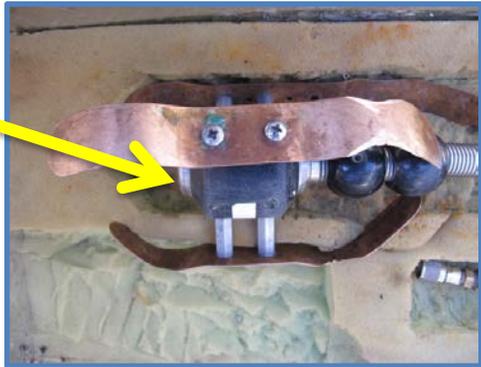
Next

Televising A Sewer Line (Push Camera)

Remove camera and inspect skids
Replace if broken or missing



Spray cleaner and wipe the lens and lights on camera



Connect Camera to manual reel cable
Use dielectric grease



Next

Televising A Sewer Line (Push Camera)

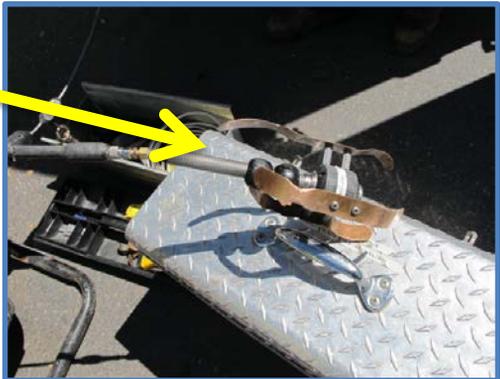
Connect Pigtail to push camera reel
Use dielectric grease



Connect pigtail to main line cable bullet on the trailer



TEST camera operation and insert in line



Next

Televising A Sewer Line (Push Camera)

When televising is complete, continue with this procedure.

Rinse camera with water in the manhole opening



Remove camera from line



Disconnect camera from video/power cable



DISCONNECT main line video/power cable from manual push camera reel

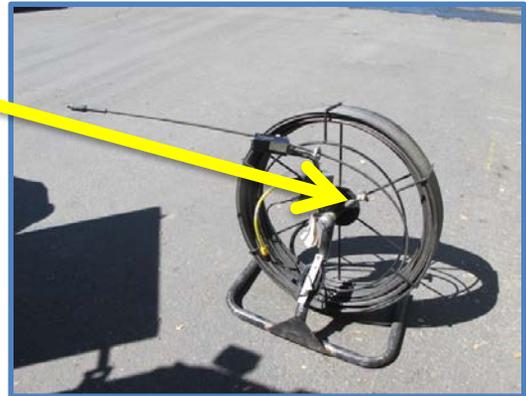


Next

Televising A Sewer Line (Push Camera)

When televising is complete, continue with this procedure.

SET brake on manual push camera reel



STOW push camera reel in the trailer

Done

City of Morgan Hill

Standard Operating Procedure



EDCO DS16-11H CONCRETE SAW

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Control System Overview	9
DS16-11H Operation	11
DS16-11H Maintenance	22

Specifications

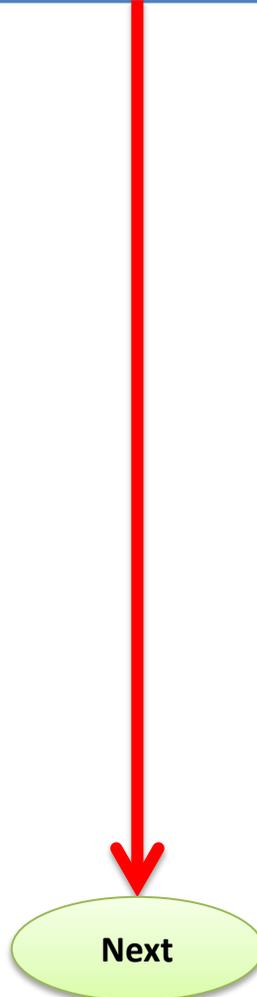
Equipment Name	EDCO DS16-11H CONCRETE SAW
Specifications	<ul style="list-style-type: none"> • Belt Size AX36 • Honda GX340 engine • 11.0 HP • Unleaded Regular Fuel • Minimum water Supply 2 GPM • MAX RPM 3600,(3000 under load) • Push Behind (NOT SELF PROPELED) • S/N 14899 • Blades are DIRECTIONAL
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Safety Shoes • Gloves (work gloves) • Eye protection • Hearing Protection • Dust Masks (canister type)
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Slips, trips and falls • Noise • Operate in well ventilated area • Dust
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Covered in Operator training

Pre-Trip Inspection

EDCO DS 16-11H

Check before each use

- Check fuel level (USE Unleaded Fuel Only)
- Check engine oil level (SAE10-30)
- Check all nuts, bolts, and fasteners for tightness
- Check all guards in place and security
- Check blades for cracks, warps, wear
- Check fuel lines for leaks or cracks
- Check that blade is tight
- Check the Arbor for OUT OF ROUND condition



Next

Pre-Trip Inspection

Unleaded Fuel is flammable and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible material.

NEVER fuel the concrete saw while it is in the bed of a truck.

NEVER fuel the saw while the engine is running or hot. Do not overfill the tank.

Lifting, lowering, and raising the saw for storage requires two people. Never attempt this by yourself.

NOT RECOMMENDED to use abrasive blade on this saw

Locate the concrete saw in the storage location



Visually inspect saw
*Does it look right?
Check for loose bolts, cracks in the guards, leaking fuel lines etc.*



Next

Pre-Trip Inspection - *Continued*

Low levels of oil may result in engine stoppage during operation due to **LOW OIL SAFETY** switch.
Do not overfill when replenishing oil. Too much oil can cause damage to the engine .

Verify ignition is OFF



Check engine oil level



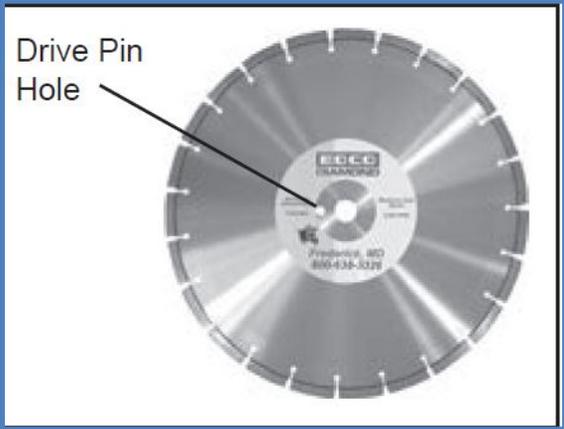
Check fuel level
Ensure tank is FULL



Next

Pre-Trip Inspection - Continued

Select blade to be used
Inspect drive pin hole for damage or out of round
Cap drive pin MUST fit TIGHT



Inspect blade

Possible Diamond Blade Problems

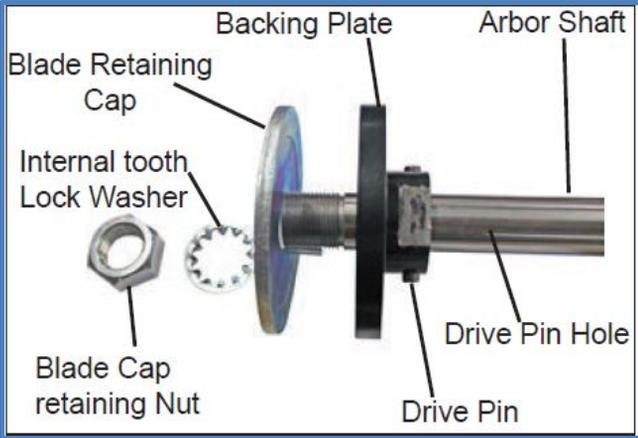
Arbor Hole Out-of-Round:
Blade not properly tightened or seated on arbor

Cracked Segments and/or Core:
Wrong blade for the job

Possible Diamond Blade Problems

The block contains two images. The left image shows a diamond blade with a distorted, non-circular arbor hole. The right image shows a diamond blade with visible cracks in the segments and the core.

Inspect arbor cap, nut, and cap drive pin for damage



Next

Pre-Trip Inspection - *Continued*

Lift blade guard UP



Install blade
Verify blade is assembled with the arrow pointed in the direction of rotation
Verify blade, arbor, nut, lock washer and cap drive pin are in proper position



Tighten retaining nut and close blade guard



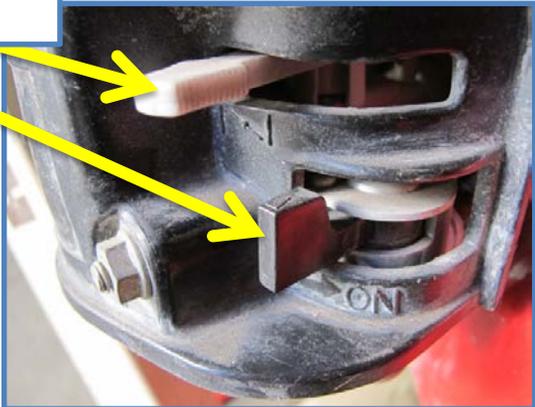
Done

EDCO DS16-11H Control System

Ignition ON/OFF switch



Fuel ON/OFF and choke levers



Blade DOWN/UP control knob



Next

EDCO DS16-11H Control System

Engine KILL button



Engine throttle lever



Water control lever

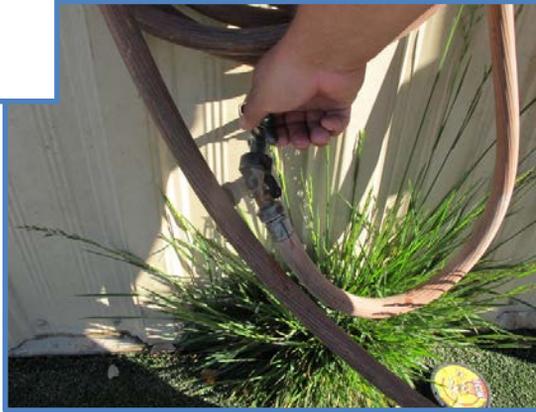


Done

EDCO DS 16-11H Operation

BEFORE STARTING, RAISE saw-blade clear of working surface

Located water source
Minimum of 2GPM



Lay out water hose and connect the hose to the cement cutter



Verify hose connection is tight



Next

EDCO DS 16 -11H Operation

CLOSE the water control valve



Turn ON water source to FULL OPEN



Verify the correct blade is selected and is TIGHT



Next

EDCO 16 -11H Operation - *Continued*

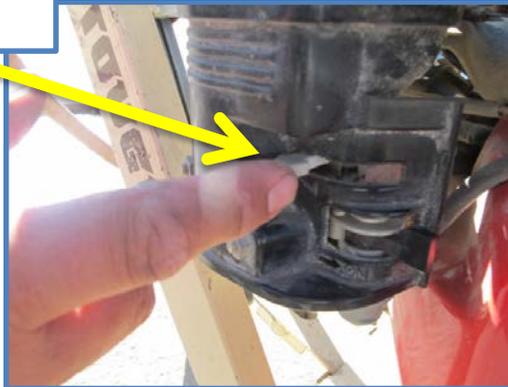
CLOSE the blade guard
Down position



Move fuel lever to ON



Move choke lever to ON



Next

EDCO 16-11H Operation - Continued

Turn the ignition switch to ON



Move the throttle lever to IDLE



BEFORE starting the engine,
ENSURE blade is clear of
working surface

Raise the saw blade
PULL black knob UP to unlock CUT CONTROL
then TURN wheel CLOCKWISE



Next

EDCO DS1611-H Operation - Continued

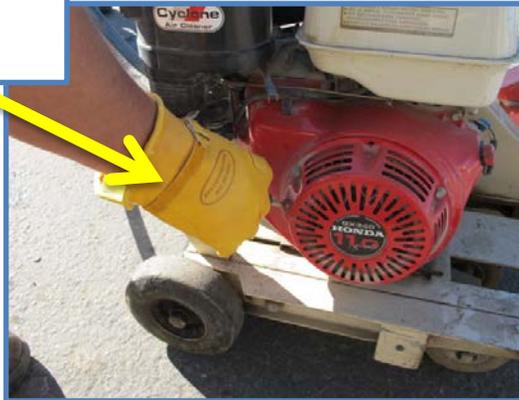
Align the blade

To desired cutting direction
Ensure it is clear of the working surface



PULL recoil cord handle

Repeat until engine starts



Move choke lever to the OFF position

After engine has warmed up



Next

EDCO DS1611-H Operation - Continued

OPEN water control valve to **FULL OPEN**



Move throttle lever to **FULL**

NOTE: NEVER allow arbor flanges to contact the surface, a 14 inch dia. blade has a 4-1/4 cut MAX once depth is reached



Lower the blade

RAISE black knob to unlock *CUT CONTROL* wheel

Turn *CUT CONTROL* wheel

COUNTERCLOCKWISE to *LOWER* the blade



Next

EDCO DS1611-H Operation - *Continued*

PUSH the Concrete Cutting saw in 1 inch increments until complete



NOTE

NEVER force the blade or bind it.

IF blade should bind and stop the engine, **RAISE** the blade turn **OFF** ignition and check nut for tightness.

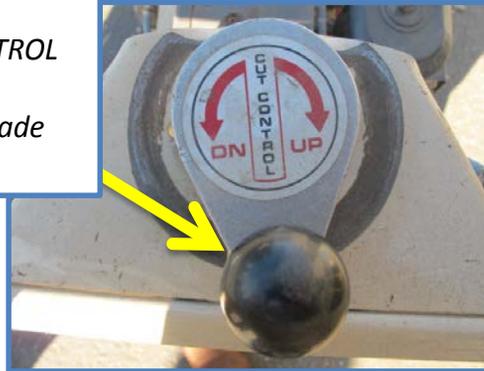
Next

EDCO DS1611-H Operation - *Continued*

To STOP cutting operation

Raise the blade

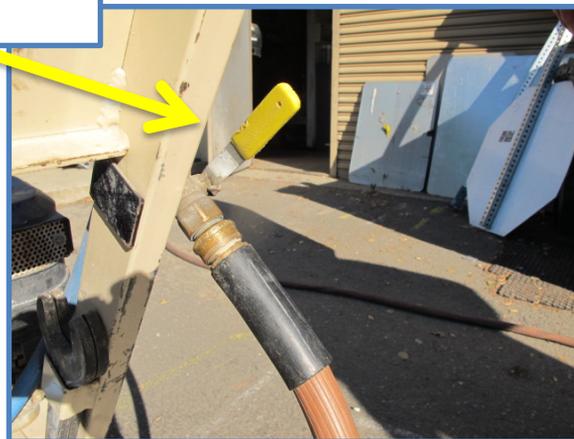
PULL black knob UP to unlock CUT CONTROL wheel
TURN wheel CLOCKWISE to RAISE the blade UP and clear the surface



Move throttle to IDLE position



CLOSE the water control lever



Next

EDCO DS1611-H Operation - *Continued*

Push the STOP button to kill the engine



Turn the ignition switch to OFF



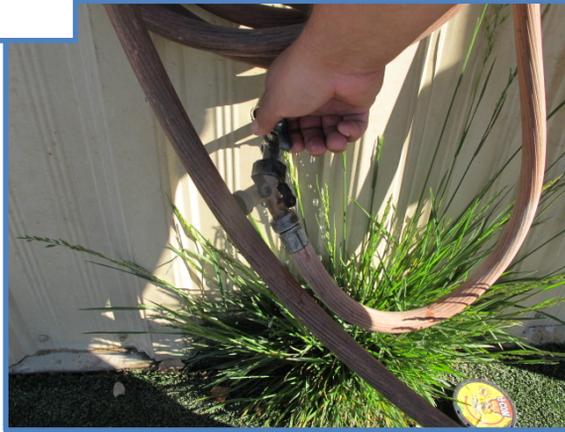
Move fuel lever to OFF



Next

EDCO DS1611-H Operation - Continued

Secure the water source OFF



Remove the hose from the Concrete Cutting Saw



Remove the blade from the saw for transporting and LOWER the guard



Next

EDCO DS1611-H Operation - *Continued*

Load the Concrete saw onto the service truck
Use the Tommy Lift Gate



Secure the Concrete saw to the truck bed with the straps provided



Done

EDCO DS 16 -11H Maintenance

Follow the Engine Manufacturer's Maintenance Instructions	Before Operation	Daily	After Operation	Every 50 Hours of Operation	As Required	Annually
Visually Inspect Entire Machine and Hardware	X					
Check Engine Oil	X					
Inspect Blade and Arbor Shaft	X					
Inspect Guards		X				
Clean and Oil Air Filter		X				
Clean Dust and Dirt Off Machine			X			
Change Engine Oil				X		
Inspect Belts					X	

Done

Morgan Hill

Standard Operating Procedure



Dump Truck

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Dump Bed Operation – Chute	21
Dump Bed Operation – Hinge Dumping	21
Dump Bed Operation – Open Gate	26

Specifications

Equipment Name	Dump Truck and Trailer
Specifications	<ul style="list-style-type: none"> • Ford F450 4x2 Truck (Dump) • 6.4 V8 Diesel • 5 Speed Auto Trans. • GVWR 16000LB
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Gloves (If necessary) • Ear protection (If necessary) • Eye protection (If necessary) • Safety shoes • Class II or III safety clothing
Required License	<ul style="list-style-type: none"> • Class B
Common Hazards	<ul style="list-style-type: none"> • Debris loading and unloading • Trailer towing • Sanitation • Traffic • Slips, trips and falls
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Be aware of falling objects when operating bed • Watch for hydraulic and water leaks • Be aware of unusual noises • Be alert while driving • Be aware of overhead clearance when lifting/raising the bed
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

Always follow the DOT & Ross Valley Vehicle Inspection checklists during the pre-trip inspection.

DUMP TRUCK CHECKLIST

Check daily before operation

- Check for fluid leaks
- Check oil level
- Check tire tread depth/air pressure
- Check hubs for loose bolts or leaks
- Check all lighting devices and reflectors
- Check all beacons, strobes and arrow boards
- Check that all tools and accessories are securely fastened to the vehicle
- Check that all cover and tool boxes are closed and secure before driving
- Check the bed for equipment or left over spoil
- Check horn
- Check fire extinguisher
- Check service brakes
- Check water level
- Check back-up warning alarm
- Fill out a daily driver's vehicle inspection report after inspection is complete

Use the following checklist to annotate results of the inspection.

Next

Pre-Trip Inspection Continued

	DATE	MILEAGE	VEHICLE NO.

DAILY VEHICLE CONDITION REPORT

As required by the D.O.T. Federal Motor Carrier Safety Regulations and the California Code of Regulations, I submit the following:

Inspect items listed — Press Hard 3 Copies
 Check if defective and describe in "Remarks".

ENGINE COMPARTMENT	AIR SYSTEM
40 <input type="checkbox"/> Fluid leaks under vehicle 40 <input type="checkbox"/> Oil level 42 <input type="checkbox"/> Coolant level 35 <input type="checkbox"/> Battery 26 <input type="checkbox"/> Transmission 43 <input type="checkbox"/> Exhaust system 42 <input type="checkbox"/> Belts and hoses	13 <input type="checkbox"/> Low air warning device 13 <input type="checkbox"/> Air pressure loss/static max. pressure _____ 13 <input type="checkbox"/> Air leaks/applied (max. loss, 3 lbs/min.) 13 <input type="checkbox"/> Adjustment needed? _____ Yes _____ No
INSIDE CAB	OUTSIDE
02 <input type="checkbox"/> Glass and mirrors 02 <input type="checkbox"/> Seat belts 03 <input type="checkbox"/> Gauges and horn 02 <input type="checkbox"/> Windshield wipers 98 <input type="checkbox"/> Fire extinguisher 53 <input type="checkbox"/> Safety flares/triangles 91 <input type="checkbox"/> Registration and permits 91 <input type="checkbox"/> Insurance and fuel cards 13 <input type="checkbox"/> Brakes 21 <input type="checkbox"/> Clutch PM <input type="checkbox"/> Service due _____ <input type="checkbox"/> Other _____	17 <input type="checkbox"/> Tires 18 <input type="checkbox"/> Wheels 34 <input type="checkbox"/> Reflectors 53 <input type="checkbox"/> Mud flaps 15 <input type="checkbox"/> Steering 44 <input type="checkbox"/> Fuel cap/tank/mounting 95 <input type="checkbox"/> New body damage 34 <input type="checkbox"/> Parking lamps 34 <input type="checkbox"/> Head lamps, high_low____ 34 <input type="checkbox"/> Turn signals 34 <input type="checkbox"/> Emergency flashers/lamps 59 <input type="checkbox"/> Trailer coupling devices

Remarks _____

CONDITION OF THIS VEHICLE IS:
 Satisfactory Unsatisfactory

Driver's Signature _____
 Employee No. _____

— AUTOMOTIVE SERVICES USE ONLY —

Above defects corrected Above defects need not be corrected for safe operation

Mechanic's Signature _____ Date _____
 Reviewed by _____ Date _____

WHITE-Auto Svcs (file 30 days) * YELLOW-keep in vehicle 7 days
 * PINK-Dept./Division (file 30 days)

Be sure to note that you've completed the Dump Truck checklist (pg. 4) in the remarks section on the DOT Driver's Vehicle Inspection Report

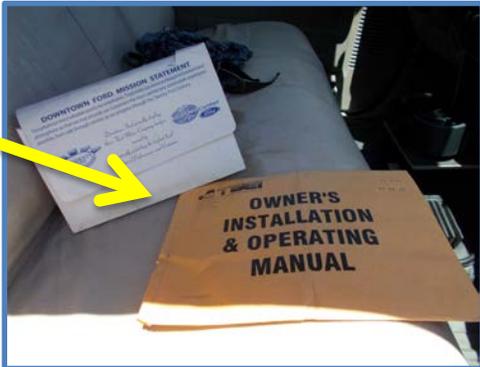
Next

Pre-Trip Inspection - Continued

Check general appearance: “Does it look right?” Look for leaks, scratches, dents or other visible damage around the truck

Always use three points of contact whenever getting in, out, or climbing on the truck.

Verify proper paper work is on truck
Pre-Trip inspection form
SSO forms
Insurance forms
Danger signs
Notification forms
Accident forms



Turn all truck lights ON
And check parking brake operation



FLIP beacon light, AUX #3 UP (on)
Walk around the complete truck



Next

Pre-Trip Inspection - Continued

Check drivers side and front of truck
Check for leaks, damage, all lights, tires and wheels etc.



Check passenger side of truck
Check for leaks, damage, all lights, tires and wheels



Check rear of truck
All lights, latches, chains, pintle hook and electrical connecting receptacle



Next

Pre-Trip Inspection - *Continued*

Check chute operation **PULL DOWN** on lever and let it drop
OPEN and CLOSE chute



Check that lower tail gate pivot locks are **LOCKED** left and right



Check that **UPPER** tailgate **EZ LATCH** locks are **LOCKED** with spring left and right



Next

Pre-Trip Inspection - *Continued*

Check pintle hook for operation
Working freely with safety latch



Check fuel cap secured



Check tool box is CLOSED and secured for transit



Next

Pre-Trip Inspection - Continued

Check safety chain is on the tail gate release lever



Verify beacon is working



FLIP beacon switch AUX. #3 DOWN (OFF)

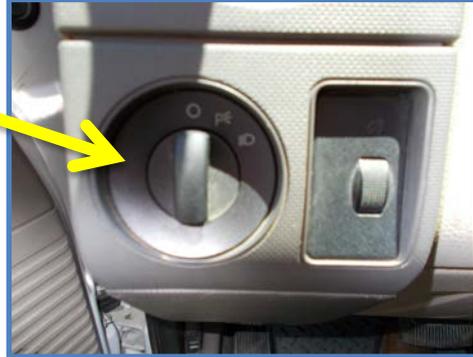


Next

Pre-Trip Inspection - Continued

Always use three points of contact whenever getting in, out, or climbing on the truck.

Turn ALL lights OFF



PULL hood latch lever



START Diesel engine, with key in the ON position, the GLOW PLUG icon will illuminate if glow plug heat is necessary. Wait for light to extinguish before starting.



Next

Pre-Trip Inspection - Continued

Ensure ALL lights OFF and OPEN the hood of the truck



Check batteries for leaks and connections for security
There are two batteries in the dump truck



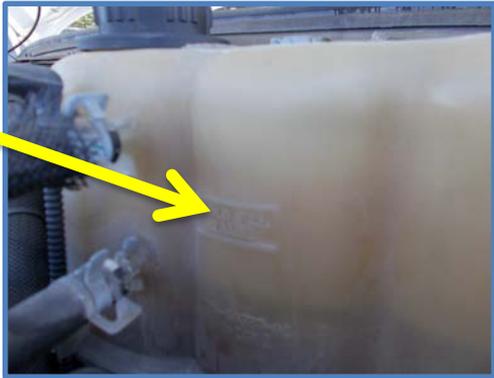
Check the oil level
Add if needed



Next

Pre-Trip Inspection - *Continued*

Check engine coolant level at indicator line on the reservoir
NEVER open a hot reservoir



Check brake fluid level through the level indicator on the reservoir



Check air filter indicator on air filter housing
PRESS to reset



Next

Pre-Trip Inspection - Continued

BE AWARE of surroundings at all time , check over head for power lines , tree branches etc. when raising the bed of the dump truck

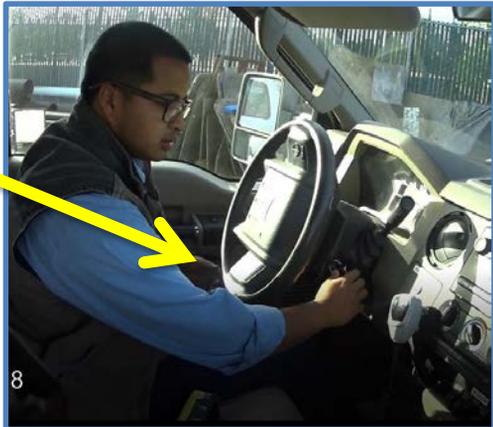
Check Power Steering fluid
Fluid At least ½ in sight glass



CLOSE hood



Turning OFF the engine,
It is important to remember if you have operated the vehicle at high speed or MAX. weight, It is recommended to let engine idle for 3-5 minutes to let turbo cool down



Next

Pre-Trip Inspection - Continued

LOCATE dump bed remote on drivers seat



PRESS UP button and Observe the bed raise up



Observe the BODY UP light illuminate



When bed is raised, Body Up light will illuminate

Next

Pre-Trip Inspection - Continued

PRESS the DOWN button



Check BODY UP indicator in the cab
Light OFF when bed is DOWN



VISUALY check bed is DOWN



Done

Dump Bed Operation – Chute Method

WARNING

Check overhead clearance **BEFORE** raising the bed.

The chains on the tailgate can be used to control how far the tailgate opens. Attach the chains as shown for the desired amount of tailgate opening

The dump truck has **THREE** options of dumping material from the bed,

1. The chute
2. The upper hinge point
3. The lower hinge point

Move the chute opening lever **DOWN** to the desired opening



Next

Dump Bed Operation – Chute Method

Chain the chute arm to the desired opening with the metal hook provided on the lever arm



FLIP beacon switch AUX #3 UP (ON)



PRESS UP on dump bed remote



Next

Dump Bed Operation – Chute Method

OBSERVE BODY UP
Light illuminated *when bed is UP*



When dumping is complete



PRESS the DOWN button on the
dump bed remote



Next

Dump Bed Operation – Chute Method

OBSERVE BODY UP
Light OFF when bed is DOWN



FLIP beacon switch AUX. #3 DOWN (OFF)



When dumping is complete CLOSE chute



Done

Dump Bed Operation – Hinge Dumping Method

UPPER hinge dumping method



REMOVE safety chain from lower pivot hinge lever



Move the lever DOWN to release latches



Next

Dump Bed Operation – Hinge Dumping Method

ENSURE both left and right latches are FREE



FLIP beacon switch AUX. #3 UP (ON)



PRESS UP Button on dump bed remote



Next

Dump Bed Operation – Hinge Dumping Method

OBSERVE BODY UP light illuminate
when bed is UP

When bed is raised, Body Up light will illuminate



When dump is complete,



PRESS DOWN button on dump bed remote



Next

Dump Bed Operation – Hinge Dumping Method

RAISE the lever for lower pivot pin latches



ATTACH safety chain to lever



VERIFY both lower latches are secured left and right



Next

Dump Bed Operation – Hinge Dumping Method

Observe BODY UP light OFF



Move beacon switch AUX. #3 DOWN (OFF)



Done

Dump Bed Operation – Open Gate Method

OPEN gate dump method



ENSURE left and right lower pivot pins are locked in place left and right



Verify tail gate lever is secured with safety chain



Next

Dump Bed Operation – Open Gate Method

Adjust length of bed chains evenly with slots provided
ENSURE left and right are even



Remove safety springs from EZ LATCH devices at the upper pivot pins
Left and right



SWING EZ LATCH lever back



Next

Dump Bed Operation – Open Gate Method

LIFT EZ LATCH lever UP to unlatch upper tailgate pivot pins
Left and right side of bed



Move the EZ LATCH lever clear of the tailgate
Left and right side of bed



LOWER the tail gate
PULL tail gate DOWN till it rests on chains



Next

Dump Bed Operation – Open Gate Method

FLIP beacon switch AUX. #3 UP (ON)



PRESS BODY UP button on dump remote



Observe BODY UP light illuminate



When bed is raised, Body Up light will illuminate

Next

Dump Bed Operation – Open Gate Method

When dumping is complete



PRESS the DOWN button on dump bed remote



Observe BODY UP light OFF



Next

Dump Bed Operation – Open Gate Method

CLOSE the tailgate
Manually LIFT UP



PULL DOWN EZ LATCHES over pins
Left and right



SWING EZ LATCH levers to the LOCK position
Left and right



Next

Dump Bed Operation – Open Gate Method

PUSH the latch pins through the holes provided
Left and right side of bed



Once latch pins are through the holes, attach the safety springs
Left and right side of bed



FLIP beacon switch AUX. #3 DOWN (OFF)



Done

Morgan Hill

Standard Operating Procedure



Generac Portable Generator MMG75D-08

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Control System Overview	8
Generator Operation	10
Disconnect/Shutdown Generator	18

Specifications

Equipment Name	Generac Portable Generator
Specifications	<ul style="list-style-type: none"> • 107 HP Engine • 3-Phase Generator • 120V/208V/240V/480V • 300A Thermal Magnetic Circuit Breaker • Fuel: Diesel
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Gloves • Ear protection • Eye protection • Safety shoes • Class II/III Safety Clothing (when necessary)
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Back-feed • Arc Flash • Shock • Excessive noise
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Proper PPE when operating • Conduct pre-trip • Proper connection of power cables • Verification of isolation from utility power
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

GENERAC PORTABLE GENERATOR

Check prior to each use

- Obtain proper PPE (Gloves and Hearing Protection)
- Check trailer body for damage
- Check tires for wear, damage, and inflation
- Check battery
- Check fuel level
- Check power cables
- Check trailer wiring harness cable and lights
- Check pintle hook and chains
- Check trailer jack
- UN-PLUG battery tender

Always complete connection to the load before closing breaker. Never connect the generator to a load with breaker in the closed position, this can cause Arc Flash.

Connection of the generator to an electrical system which is normally supplied by an electric utility requires use of a double throw transfer switch. Failure to isolate electric system from the utility distribution network while generator is operating will result in back-feed and may cause injury or death to the operator(s).

***Always wear PPE when conducting pre-trip and operating the generator.
Setup Traffic Control as needed.***

Next

Pre-Trip Inspection

DRIVER'S VEHICLE INSPECTION REPORT

AS REQUIRED BY THE D.O.T. FEDERAL MOTOR CARRIER SAFETY REGULATIONS

CARRIER: _____

ADDRESS: _____

DATE: _____ TIME: _____ A.M. _____ P.M.

CHECK ANY DEFECTIVE ITEM AND GIVE DETAILS UNDER "REMARKS"

TRACTOR/ TRUCK NO. _____ **ODOMETER READING** _____

<input type="checkbox"/> Air Compressor <input type="checkbox"/> Air Lines <input type="checkbox"/> Battery <input type="checkbox"/> Belts and Hoses <input type="checkbox"/> Body <input type="checkbox"/> Brake Accessories <input type="checkbox"/> Brakes, Parking <input type="checkbox"/> Brakes, Service <input type="checkbox"/> Clutch <input type="checkbox"/> Coupling Devices <input type="checkbox"/> Defroster/Heater <input type="checkbox"/> Drive Line <input type="checkbox"/> Engine <input type="checkbox"/> Exhaust <input type="checkbox"/> Fifth Wheel <input type="checkbox"/> Fluid Levels <input type="checkbox"/> Frame and Assembly	<input type="checkbox"/> Front Axle <input type="checkbox"/> Fuel Tanks <input type="checkbox"/> Horn <input type="checkbox"/> Lights <input type="checkbox"/> Head/Stop <input type="checkbox"/> Tail/Dash <input type="checkbox"/> Turn Indicators <input type="checkbox"/> Clearance/Marker <input type="checkbox"/> Mirrors <input type="checkbox"/> Muffler <input type="checkbox"/> Oil Pressure <input type="checkbox"/> Radiator <input type="checkbox"/> Rear End <input type="checkbox"/> Reflectors	<input type="checkbox"/> Safety Equipment <input type="checkbox"/> Fire Extinguisher <input type="checkbox"/> Flags/Flares/Fuses <input type="checkbox"/> Reflective Triangles <input type="checkbox"/> Spare Bulbs and Fuses <input type="checkbox"/> Spare Seal Beam <input type="checkbox"/> Starter <input type="checkbox"/> Steering <input type="checkbox"/> Suspension System <input type="checkbox"/> Tire Chains <input type="checkbox"/> Tires <input type="checkbox"/> Transmission <input type="checkbox"/> Trip Recorder <input type="checkbox"/> Wheels and Rims <input type="checkbox"/> Windows <input type="checkbox"/> Windshield Wipers <input type="checkbox"/> Other
---	---	---

TRAILER(S) NO.(S) _____

<input type="checkbox"/> Brake Connections <input type="checkbox"/> Brakes <input type="checkbox"/> Coupling Devices <input type="checkbox"/> Coupling (King) Pin <input type="checkbox"/> Doors	<input type="checkbox"/> Hitch <input type="checkbox"/> Landing Gear <input type="checkbox"/> Lights - All <input type="checkbox"/> Reflectors/Reflective Tape <input type="checkbox"/> Roof	<input type="checkbox"/> Suspension System <input type="checkbox"/> Tarpaulin <input type="checkbox"/> Tires <input type="checkbox"/> Wheels and Rims <input type="checkbox"/> Other
--	--	--

Remarks: _____

CONDITION OF THE ABOVE VEHICLE IS SATISFACTORY

DRIVER'S SIGNATURE: _____

ABOVE DEFECTS CORRECTED

ABOVE DEFECTS NEED NOT BE CORRECTED FOR SAFE OPERATION OF VEHICLE

MECHANIC'S SIGNATURE: _____ DATE: _____

DRIVER'S SIGNATURE: _____ DATE: _____

ORIGINAL

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Be sure to note you have completed the Class A/B air brake checks in the remarks section.

Next

Pre-Trip Inspection

Check general appearance: “Does it look right?” *Look for leaks, scratches, dents or other visible damage to the generator and trailer.*



Attach the trailer to the tow vehicle and connect trailer wiring harness

*Verify pintle hook locks in place
Cross safety chains and attach to tow vehicle*



Next

Pre-Trip Inspection

Start tow vehicle and verify lights on trailer are working

Verify Trailer Jack in the stowed position



Verify electrical head is secured to the trailer with the tie-downs provided



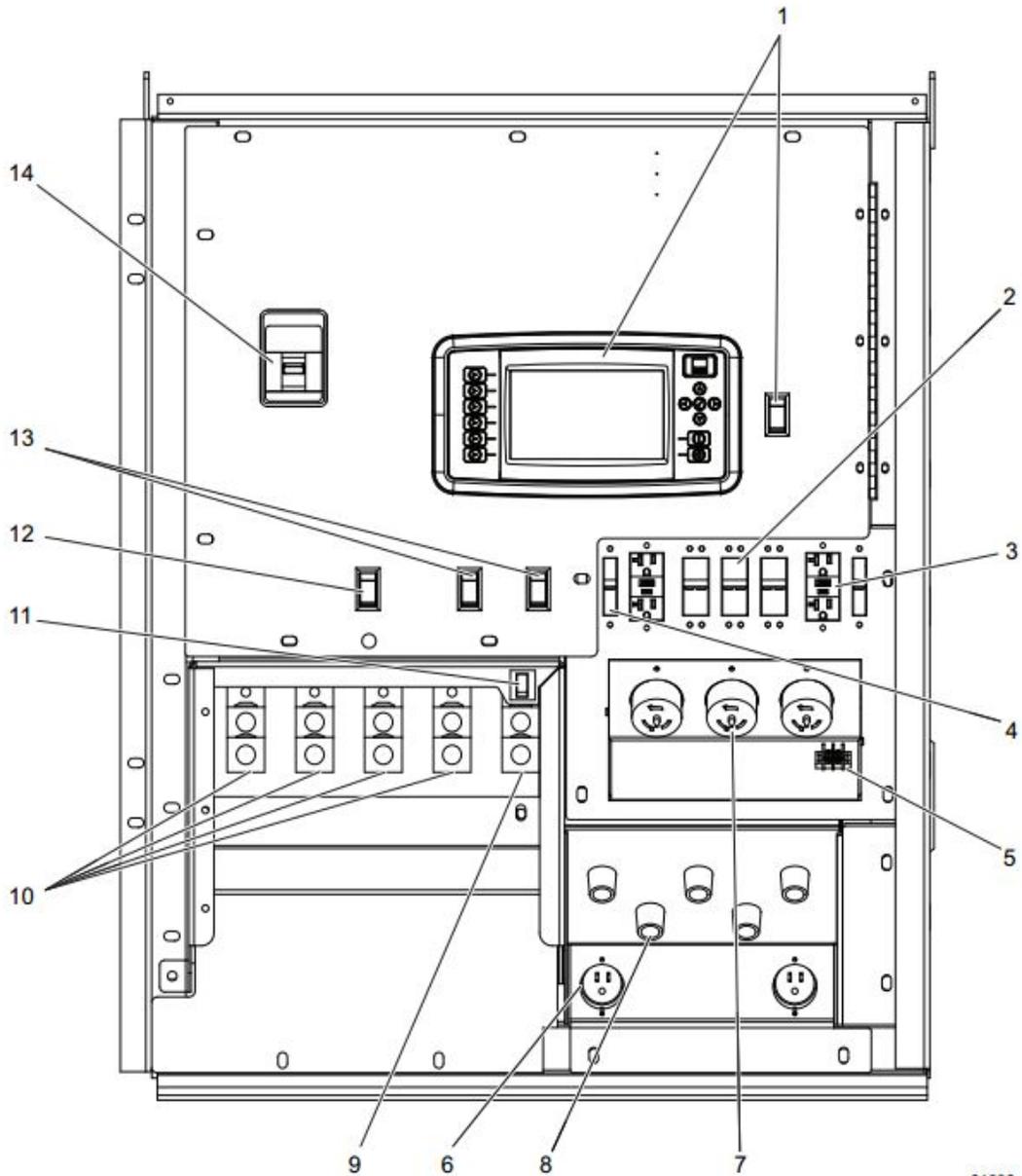
Verify electrical is UN-PLUGGED to the battery tender



Done

Control System Overview

CONTROL PANEL



01890

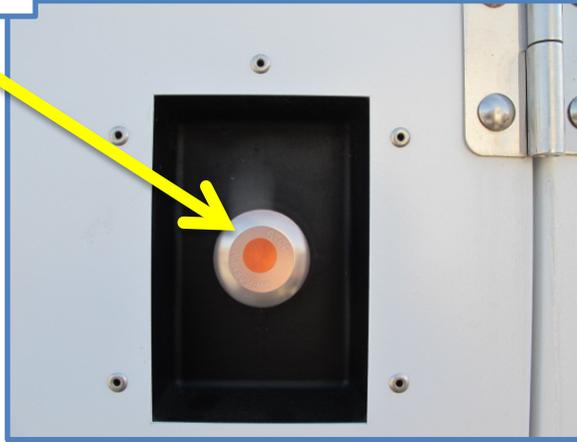
Figure 2-4. Control Panel Component Locations

- | | |
|--|---|
| 1. Power Zone™ controller | 8. Cam lock connections (5) |
| 2. 50A circuit breakers (3) | 9. Generator ground connection lug |
| 3. 120V GFCI receptacles (2) | 10. Generator output connection lugs (4) |
| 4. 20A circuit breakers (2) | 11. Door safety switches (2) |
| 5. Remote start terminal block | 12. Diesel exhaust filter cleaning switch |
| 6. Engine accessory connection (2) | 13. Auxiliary light switches (optional) |
| 7. 120/240V twist-lock receptacles (3) | 14. Main circuit breaker |

Control System Overview - *Continued*

In an EMERGENCY, PUSH EMERGENCY STOP button IN to STOP generator

EMERGENCY SHUT OFF button



Done

Generator Operation

The MMG75D-08 generator is ONLY used to supply power to a Pump Station.

Always complete connection to the load before closing breaker. Never connect the generator to a load with breaker in the closed position, this can cause Arc Flash.

UN-LOCK and OPEN doors to control panels of the Pump Station



TURN pump#1 HOA switch to the OFF position



TURN pump#2 HOA switch to the OFF position



Next

Generator Operation

MOVE pump #1 DISCONNECT breaker to the OFF (OPEN) position



MOVE pump #2 DISCONNECT breaker to the OFF (OPEN) position



MOVE SERVICE DISCONNECT MAIN breaker to the OFF (OPEN) position



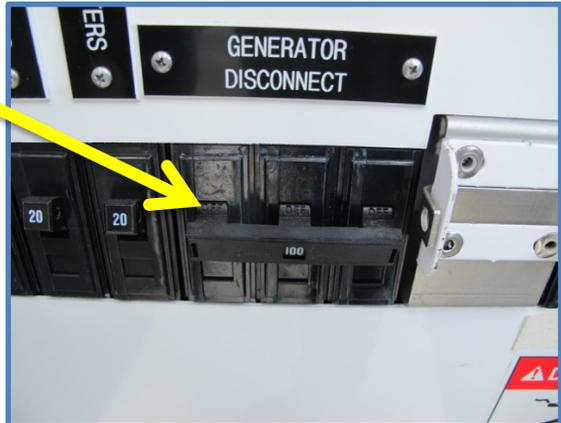
Next

Generator Operation

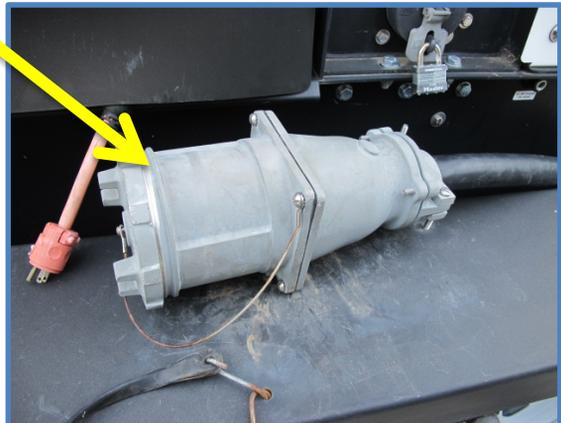
SLIDE the LOCK OUT device to secure the SERVICE DISCONNECT breaker in the OFF (OPEN) position



VERIFY GENERATOR DISCONNECT is OFF (OPEN)



UNSTRAP electrical head from the generator trailer



Next

Generator Operation- *Continued*

UN-LOAD generator power cord and lay it out enough to reach the Control Panel



UNSCREW the cover from the receptacle



REMOVE the cover from the power cord from the generator



Next

Generator Operation- *Continued*

The power connector from the generator has an index feature
It can only fit one way



ALIGN the connectors and **SLIDE** over the receptacle then twist clockwise till it stops



THREAD the retainer onto the power cord connector and tighten securely



Next

Generator Operation- *Continued*

UN-LOCK and OPEN generator control door and secure with device provided



Select CONTROL ON in the control panel



Observe all the self checks and fuel level indicator on the screen



Next

Generator Operation- *Continued*

START the generator, **PUSH** the **GREEN START** button **ONCE** and wait, generator will **AUTOMATICLY** start



OBSERVE voltage climb to **240 VAC** and stabilize



MOVE the generator **MAIN CIRCUIT BREAKER** to **ON**



Next

Generator Operation- *Continued*

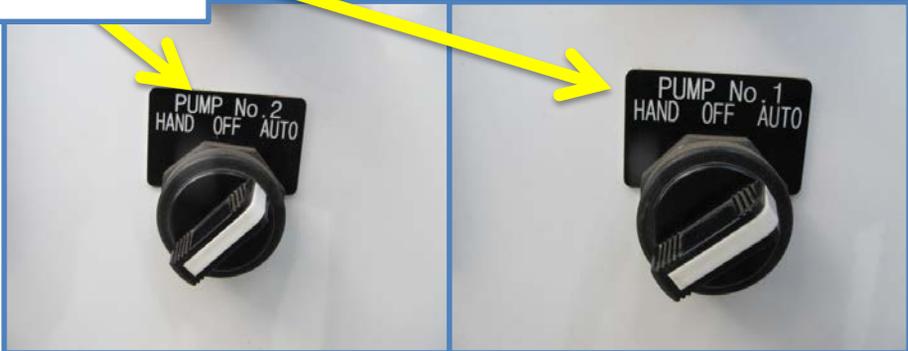
MOVE Pump Station GENERATOR DISCONNECT breaker to ON (CLOSED)



Move both pump DISCONNECT breakers to ON (CLOSED)



TURN PUMP #1 HOA switches to AUTO, Then TURN PUMP #2 HOA switch to AUTO



Done

Disconnect/Shutdown Generator

**Restore utility power to pump station before starting these steps.
Never disconnect the cables from the pump station without first opening the main breaker**

**MOVE GENERATOR DISCONNECT
breaker to OFF (OPEN)
REMOVE ALL LOADS**



**SLIDE the lock-out device over the
GENERATOR DISCONNECT breaker**



**MOVE GENERATOR MAIN CIRCUIT
breaker to OFF (OPEN)
REMOVE ALL LOADS**



Next

Disconnect/Shutdown Generator - *Continued*

AFTER 5 minute cool down period, PUSH RED OFF button on generator control panel and wait 15 seconds for shut down cycle



PUSH rocker switch to CONTROL OFF



VERIFY GENERATOR DISCONNECT breaker is OFF (OPEN)



Next

Disconnect/Shutdown Generator - *Continued*

Un screw the collar on the receptacle



PULL the generator cord from receptacle, twist and pull down



Thread the cover back onto the receptacle



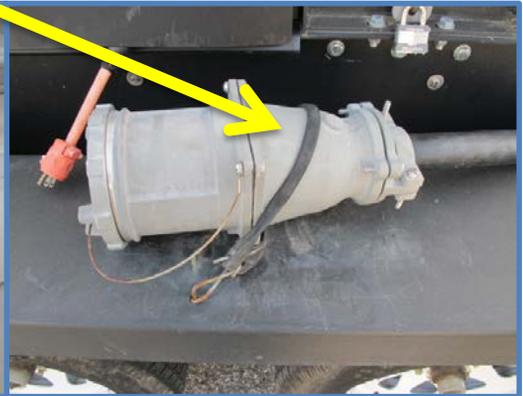
Next

Disconnect/Shutdown Generator - *Continued*

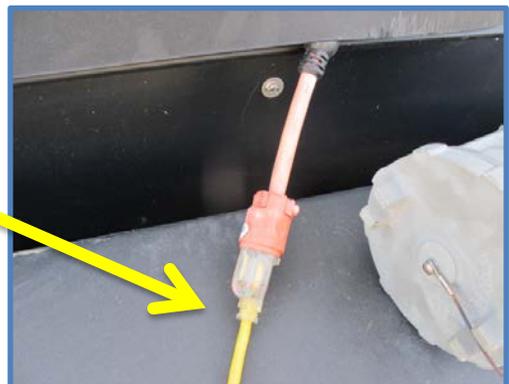
Ensure the cap is tight



THREAD the cap onto power cord and stow around generator, secure the head with the straps provided



Park the generator in the yard and plug the battery tender power cord to maintain battery charge



Done

City of Morgan Hill

Standard Operating Procedure



PLUGGING

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Plug a Sewer Line	7
Removing a Plug From a Sewer Line	13

Specifications

Equipment Name	Pneumatic Pipe Plugs
Specifications	<ul style="list-style-type: none"> Pneumatic 8-12 inch I.D. pipe plug 20-30 PSI MAX
Min # Employees Required to Operate	<ul style="list-style-type: none"> 3
Personal Protective Equipment Required	<ul style="list-style-type: none"> Gloves, leather Class II or III safety clothing Safety Shoes Eye protection
Required License	<ul style="list-style-type: none"> None
Common Hazards	<ul style="list-style-type: none"> Slips, trips and falls Hazardous material Traffic
Guidelines for Safe Operation	<ul style="list-style-type: none"> Covered in Operator training

Pre-Trip Inspection

Pneumatic Pipe Plug

- Check plug size
- Check plug P.S.I. rating
- Check plug condition
- Check air Schrader valve condition
- Check for cracks, cuts, damage
- Check loose hardware missing, or damaged
- Check metal “eye” condition, corrosion , cracks
- Check tag line cable, rope or chain for integrity
- Check tag line fastener
- Check air pressure gage for cracks , condition
- Check for adequate air pressure sources

Next

Pre-Trip Inspection

Check air supply compressor or air tank for leaks and that the gages are accurate



Check rubber plug for cuts, damage leaks



Check plug hardware loose, missing damaged



Next

Pre-Trip Inspection

Check air supply compressor or air tank for leaks and that the gages are accurate



Check tag line for condition and cracks/cuts



Done

Plug a Sewer Line

Once the need for a plug has been determined, the impact of installing a plug **MUST** be considered. Survey the location is there alternate paths for flow, elevation, drop holes, building flooding etc.
Determine plug size and pipe line condition at the plug site etc.
By Pass Pumping is closely associated with plugging that the same traffic control is used for the plugging operation unless otherwise noted

Unload the plug , air tank and hose from utility truck



Inspect the plug for condition cuts, tears, leaks , missing hardware
Never use a damaged plug



Inspect Schrader air fitting for leaks and tightness



Next

Plug a Sewer Line

Check hardware for loose or damage



Connect tag line to plug



Connect the air hose to the plug



Next

Plug a Sewer Line

Use the tag line or hook pole to lower the plug into the manhole
NEVER use the air hose to lower the plug



Secure air hose away from the danger zone



Once the plug is in the pipe line, use the hook pole to PUSH the plug in completely
NEVER allow plug to protrude from the pipeline



Next

Plug a Sewer Line

Ensure the bleed valve is **CLOSED** before charging the plug



Once the plug is in the pipe **OPEN** the red valve at the tank to charge the discharge line



INFLATE the plug with 20 P.S.I. MAX
Tape off the bleed valve to prevent accidental discharge



Next

Plug a Sewer Line

Secure area around manhole the DANGER ZONE



Check pressure at the gage after fifteen minutes to ensure NO leaks



Confirm NO leaks



Next

Plug a Sewer Line

Falling pressure could mean a leak in the hose , valve , plug , or other components. Falling pressure could lead to plug failure. Determine the cause and replace the component or the plug and re test. Monitor the plug and pressure in accordance with the schedule the lead worker has established



Done

Removing a Plug from a Sewer Line

To remove a plug from a sewer pipe line, the manhole must be pumped down completely first, verify all scheduled work on the pipe line is complete before removing the plug.

Slowly turn the bleed valve and deflate the pressure keeping a secure hold of the tag line



Stay OUT of the DANGER ZONE



Decrease pressure until completely deflated use tag line and hook pole to remove the plug



Next

Removing a Plug from a Sewer Line

Wash off the plug in the man hole



Wrap tag line and stow in utility truck



Clean and inspect the plug for next job



Done

Morgan Hill

Standard Operating Procedure



**WACKER PTS4
Portable Pump**

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Control System Overview	8
WACKER Centrifugal Pump Operation	10

Specifications

Equipment Name	WACKER PTS4 Centrifugal Portable Pump
Specifications	<ul style="list-style-type: none"> • 16 HP at 3600RPM • 4 Stroke, two Cylinder • Weight: 360 LBS • Fuel: Unleaded • Fuel Capacity: 4.5 Gallons • 4" Suction and Discharge • Max Capacity: 705 GPM • Max Lift: 25 Feet • Electric Start Option (included)
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Leather Gloves • Ear protection • Eye protection • Safety shoes • Class II or III safety clothing (if necessary)
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Traffic • Excessive noise • Gas • Exhaust Gases
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Use caution when refueling • Never use unauthorized attachments • Never pump volatile, explosive, flammable, or low flash point fluids • Never operate the pump in enclosed or narrow areas that inhibit the free flow of air
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

PORTABLE PUMP CHECKLIST

Check prior to each use

- Check oil level
- Check fuel level through cap and fuel gage
- Check throttle lever for security
- Check fuel valves and lines for leak
- Check wheels and tires for condition
- Check for oil leaks at the pump and engine connection
- Check battery for security and terminal connections
- Check for pump cover tool is stowed on pump
- Check starter grip
- Inspect suction and discharge hoses for cracks and integrity
- Report all damage to a supervisor

Use the following checklist to annotate results of the inspection.

Next

Pre-Trip Inspection

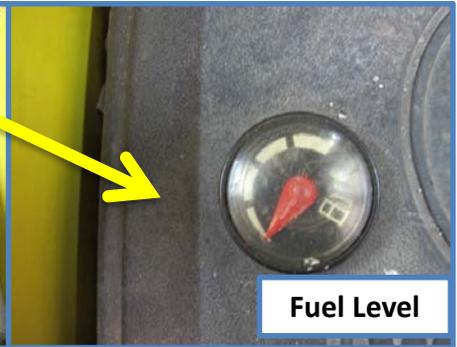
Check general appearance: “Does it look right?” Look for leaks, scratches, dents or other visible damage around the pump

WACKER PTS4 Pump

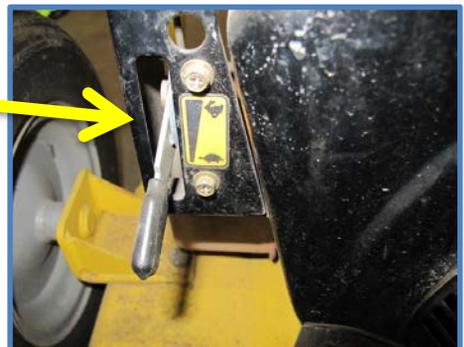
Check oil level



Check fuel level by sight and gage



Check throttle lever for loose cable



Next

Pre-Trip Inspection

Check fuel valve and lines for leaks



Check tires and wheels for condition and security



Check for oil leaks between engine and the pump housing



Next

Pre-Trip Inspection - Continued

Check battery for security and the terminals for loose connections



Check pump tool for mounting security



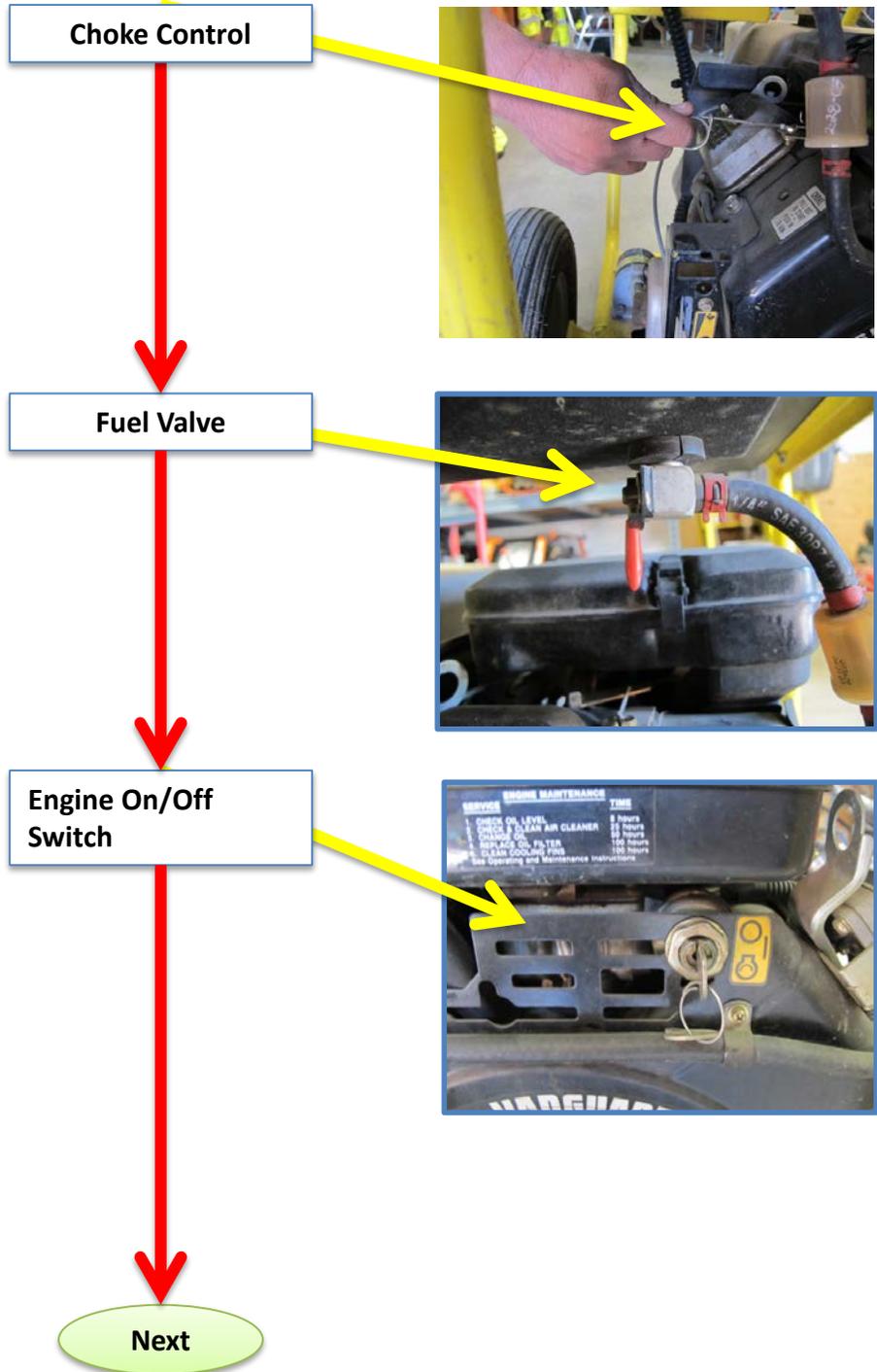
Check pull handle grip and cord for condition



Done

Control System Overview

WACKER PTS4 CENTRIFUGAL PUMP



Control System Overview

WACKER PTS4 CENTRIFUGAL PUMP

Start Grip pull cord



Throttle Lever



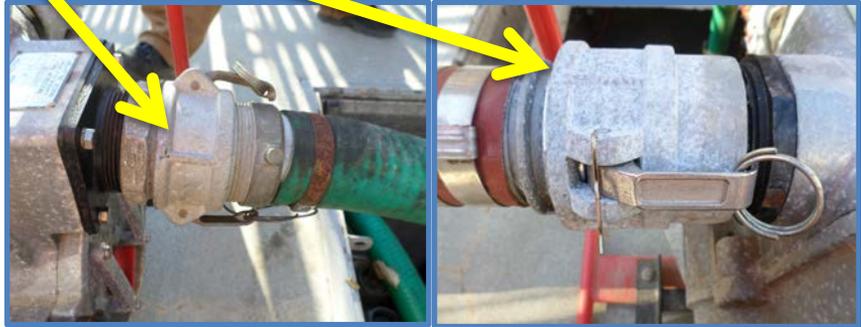
Master Switch for Battery



Done

WACKER Centrifugal Pump Operation

Connect suction and Discharge hoses



REMOVE the prime port cap and fill case with water, replace the cap



To START, TURN the MASTER switch to ON



Next

WACKER Centrifugal Pump Operation

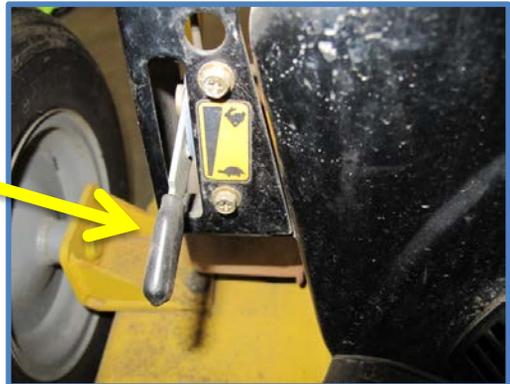
OPEN fuel valve under fuel tank



If cold, PULL the choke $\frac{3}{4}$ out
If engine is warm do not use choke



Move throttle lever to IDLE



Next

WACKER Centrifugal Pump Operation

TURN START/STOP switch until engine starts

NOTE: do not crank engine more than 15 seconds at a time to prevent starter damage

Observe engine after start. PUSH choke IN as engine warms up



Once engine is started and warmed up, MOVE throttle to FULL

Once started, observe discharge flow and ensure POSITIVE flow



Next

WACKER Centrifugal Pump Operation

To start the WACKER PTS4 Manually

Turn ON/OFF key to ON



PULL the recoil handle until engine starts



Next

WACKER Centrifugal Pump Operation

To STOP pumping operation

MOVE throttle lever to IDLE position and let the engine COOL down for 2-3 minutes



TURN ON/OFF key to OFF position



TURN fuel lever to OFF



Next

WACKER Centrifugal Pump Operation

TURN MASTER switch to OFF position



Disconnect the suction and the discharge hoses from the pump



Stow pump and hoses in the proper storage location



Done

Morgan Hill

Standard Operating Procedure



PRESSURE WASHER
Mod. 25006 HX

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Control System Overview	9
Pressure Washing	10

Specifications

Equipment Name	Pressure Washer
Specifications	<ul style="list-style-type: none"> • 6.5HP Honda OHV Engine • 3GPM 3500psi Pump • 3/8" High Pressure Hose • 2 Piece Quick dis-connect Hand-trigger
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Leather Gloves • Goggles • Safety shoes
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Pinch points • High Pressure fluids • Slips, trips and falls • Exhaust fumes
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Covered in Operator training

Pre-Trip Inspection

PRESSURE WASHER EQUIPMENT AND TOOLS

Check before each use

- Check oil level
- Check fuel level
- Check water filter screen
- Check hose connections
- Check hose and Trigger-Handle
- Check starter grip and cord
- Check air filter
- Check tires
- Check for rubber hose washer
- Oil in pump through sight glass

Next

Pre-Trip Inspection

Check general appearance: “Does it look right?” Look for leaks, scratches, dents or other visible damage to the pressure washer.

Check fuel level



Check air filter



Check Pull Handle and cord for Integrity



Next

Pre-Trip Inspection

Inspect tires and wheels for damage and condition



Check Engine oil level



Inspect Pump Oil Level through sight glass



Next

Pre-Trip Inspection

ADD oil here
If necessary



Check cleaning solution intake fitting
Takes suction from a container with cleaning solution (soap)



Inspect water and spray hose connections



Next

Pre-Trip Inspection

Inspect water inlet screen for condition



Inspect the high pressure hose



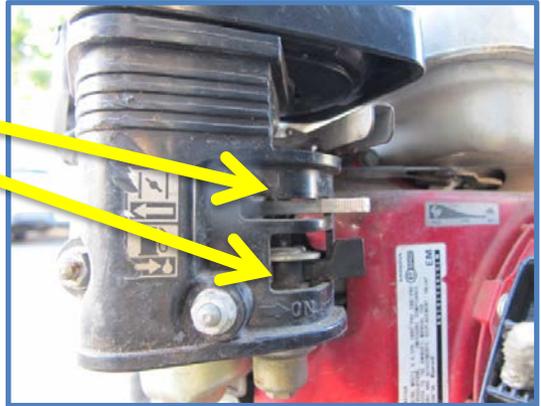
Inspect the Hose quick disconnect fittings for secure fit at the Trigger- Handle



Done

Control System Overview

Choke lever and fuel ON and OFF lever



Ignition Engine ON/OFF switch



Throttle Control lever



Done

Pressure Washing

Note:

NEVER use Bleach or Solvent based detergent as it will damage the pump
Ensure water source has adequate water supply as **LOW** water supply or **NO** water will damage the pump.
Ensure water supply hose doe's **NOT** get kinked during High Pressure Washing Operation

Connect water supply hose and High Pressure hose to pump



If detergent is to be used, add now



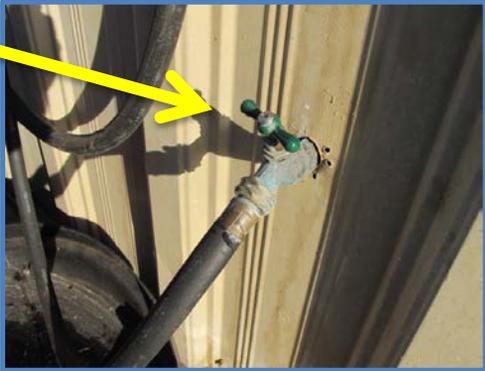
Connect high pressure hose to trigger handle and wand, ensure the connection is secure



Next

Pressure Washing

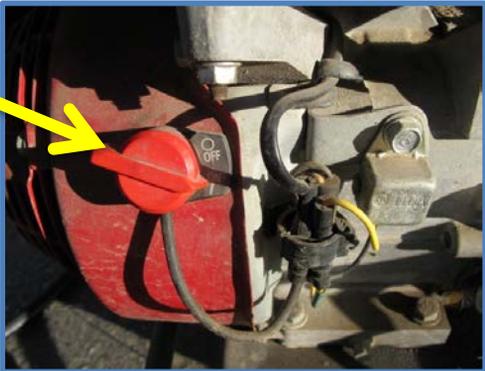
Turn water ON to FULL flow



Hold the trigger OPEN for 30 seconds to get steady flow of water



Turn engine ignition switch to ON



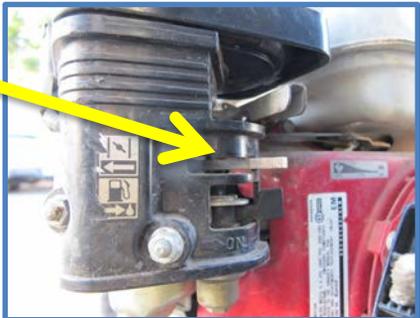
Next

Pressure Washing

Move Fuel lever to ON



Move Choke lever to $\frac{3}{4}$ ON



PULL start handle to START the engine



Next

Pressure Washing

Once engine starts, Move the choke lever to FULL OFF and adjust throttle lever to a high idle until warmed up



Once engine is warmed up, move throttle lever to ¾ throttle



Begin high pressure washing task



Next

Pressure Washing

SHUT DOWN

Turn Ignition switch to OFF



Move Fuel lever to OFF



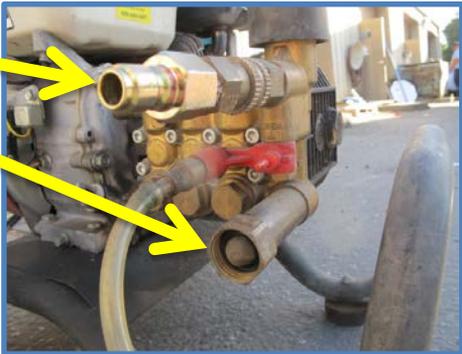
Bleed down water pressure by PULLING trigger on handle



Next

Pressure Washing

Remove Water hose and High pressure hose from pump



Disconnect the high pressure hose from the trigger handle



STOW THE HIGH PRESSURE HOSE ON THE PRESSURE WSHER



Next

Pressure Washing

Stow high pressure washer in the proper storage location and stow the trigger handle in the equipment tool room on the wall



Done

Morgan Hill

Standard Operating Procedure



BS60-4 WACKER RAMMER

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
BS60-4 Operation	8
BS60-4 Maintenance Chart	13

Specifications

Equipment Name	BS60-4 Rammer
Specifications	<ul style="list-style-type: none"> • Vibratory Rammer • Unleaded Regular Fuel • MAX RPM 4200 • FUEL Cap. 3.5 Qt. • HP 2.8 • SAE 10-30 for Engine and Tamper unit
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Safety Toe Work Boots • Gloves (work gloves) • Eye protection • Hearing Protection
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Slips, trips and falls • Noise • Operate in well ventilated area
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Covered in Operator training • Read operators manual before operating this machine

Pre-Trip Inspection

BS60-4 RAMMER

Check before each use

- Check fuel tank is FULL
- Check engine oil level
- Check Rammer lubrication level through sight glass, should be 1/2-3/4 Full
- Check all nuts, bolts, and fasteners for tightness
- Check throttle control lever
- Check control/hand bar
- Check central lifting cable for condition
- Check recoil starter grip and cord
- Check shoe mounting hardware for security

Done

Pre-Trip Inspection

Unleaded Fuel is flammable and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible material.

NEVER fuel the rammer while it is in the bed of a truck. Place it on a solid footing before refueling.

NEVER fuel the rammer while the engine is running or hot. Do not overfill the tank.

Always allow the engine to cool before performing maintenance. Components are very hot after use.

Lifting, lowering, and raising the rammer for storage requires two people. Never attempt this by yourself.

NEVER start Wacker on cement or asphalt

Remove rammer from truck

Requires two people

Use proper ergonomics to avoid injury



Check fuel level

Refuel if necessary

Refuel in a well-ventilated area



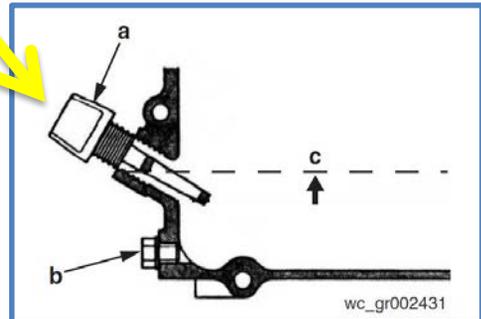
Next

Pre-Trip Inspection

Low levels of oil may result in engine stoppage during operation due to **LOW OIL SAFETY** switch (if equipped).

Do not overfill when replenishing oil. Too much oil can cause damage to the engine or rammer.

Check motor oil level with dip stick (a) to oil level (c)
ENSURE engine is level when checking oil



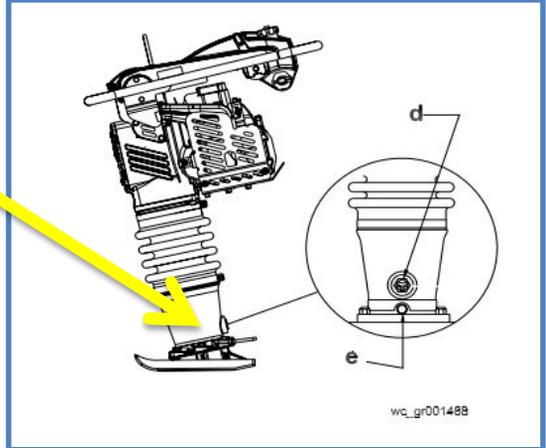
Check air filter and inspect the air cleaner
REPLACE cover when done



Next

Pre-Trip Inspection

Check rammer oil level in sight glass (d)
Refill with SAE 10-30 motor oil if necessary,



Check fuel line, cap, and fittings for cracks and leaks



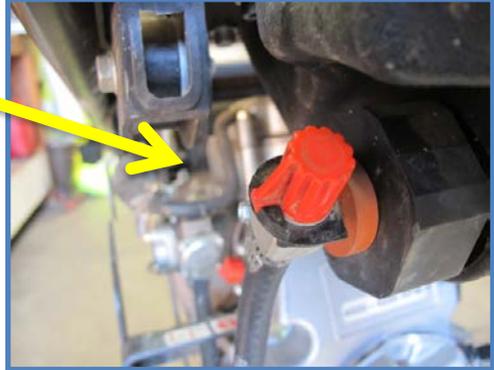
Check bellows for damage



Done

BS60-4 Rammer Operation

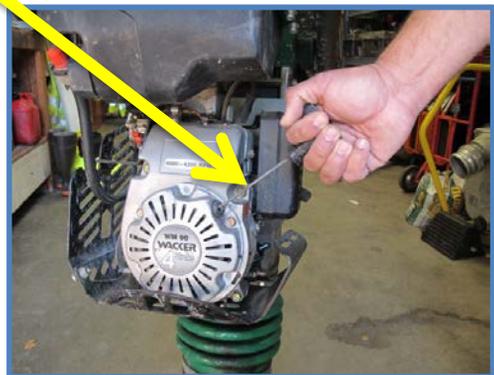
Verify fuel valve is in the OPEN position



Turn ignition switch ON
If engine is cold Choke 3/4



With throttle in Idle and choke at 3/4
PULL start cord until engine starts



Next

BS60-4 Rammer Operation

Once engine starts, MOVE choke OFF



After warm up period , run throttle at FULL for operation



Walk behind RAMMER and complete task



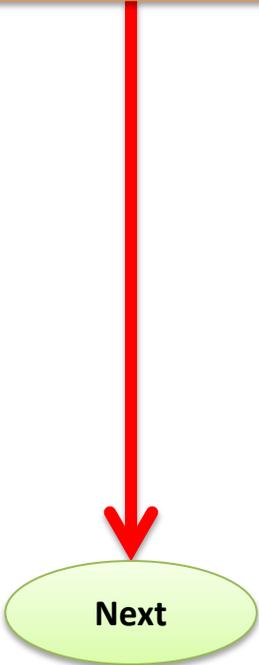
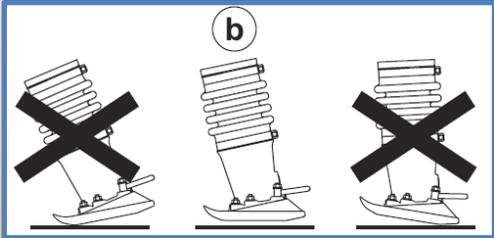
Next

BS60-4 Rammer Operation - *Continued*

Position hands as shown. Hand/arm vibration has been optimized for the this position (measured in conformance with EN 1033 and ISO 5349).



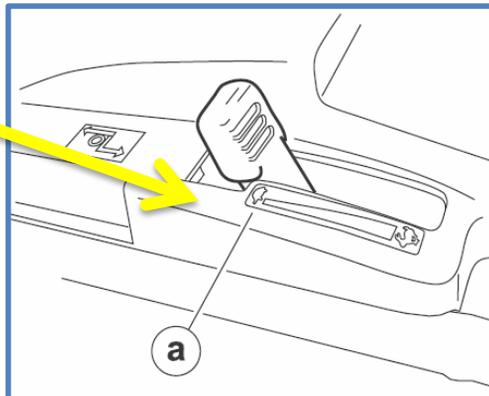
Shoe must hit the ground flat (b), not on its toe or heel.



BS60-4 Rammer Operation - *Continued*

When ramming is completed, continue with this procedure.

Move throttle control lever to the SLOW (a) position
Allow rammer to run for 30 seconds



Turn ignition switch to OFF



Turn the fuel control valve to OFF



Next

BS60-4 Rammer Operation - *Continued*

Load Rammer on truck



Secure Rammer to truck bed and transport to storage location



UNLOAD at storage location and secure



Done

BS60-4 Rammer Maintenance

	Daily before starting	After first 5 hours	Every week or 25 hours	Every month or 100 hours	Every 3 months or 300 hours	Every Year
Check fuel level. Check engine oil level.	■					
Inspect air filter. Replace as needed.	■					
Check oil level in sightglass.	■					
Check fuel line and fittings for cracks or leaks. Replace as needed.	■					
Tighten ramming shoe hardware.		■	■			
Check external hardware.		■	■			
Clean engine cooling fins.			■			
Clean and check spark plug gap.			■			
Change engine oil.				■		
Replace spark plug.				■		
Clean recoil starter.					■	
Change ramming system oil.*					■	
Inspect crane lifting cable for wear, damage, or abuse.					■	
Inspect fuel filter.						■

* Change ramming system oil after first 50 hours of operation.
Note: If engine performance is poor, check, clean, and replace air filter elements as needed.

Done

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Standard Operating Procedure



GX-2009 Personal Gas Detector

Table Of Contents	
Specifications	3
Pre-Trip Inspection	4
Control System Overview	6
Gas Detector Operation	7
Alarms	11
Calibration	12
Maintenance	14

Specifications

Equipment Name	RKI GX-2009 Gas Detector
Specifications	<ul style="list-style-type: none"> • Up to 8 hours operating time • Charge Time: 3 Hours • Case: High Impact Plastic • Weight: 4.6oz • Monitors for combustible gas, oxygen (O₂), carbon monoxide (CO), and hydrogen sulfide (H₂S)
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • None
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Lack of power • Uncalibrated detector
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Inspect the detector daily • Observe start-up for proper processes • Conduct all required maintenance
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

GX-2009 CHECKLIST

Check prior to each use

- Check for damage or wear
- Proper power-up processes
- Sufficient battery power

The GX-2009 detects oxygen deficiency and elevated levels of oxygen, combustible gases, carbon monoxide, and hydrogen sulfide, all of which can be dangerous or life threatening. When using the GX-2009, you must follow the instructions and warnings in this SOP to assure proper and safe operation of the unit and to minimize the risk of personal injury. Be sure to maintain and periodically calibrate the GX-2009 as described in this SOP.

Next

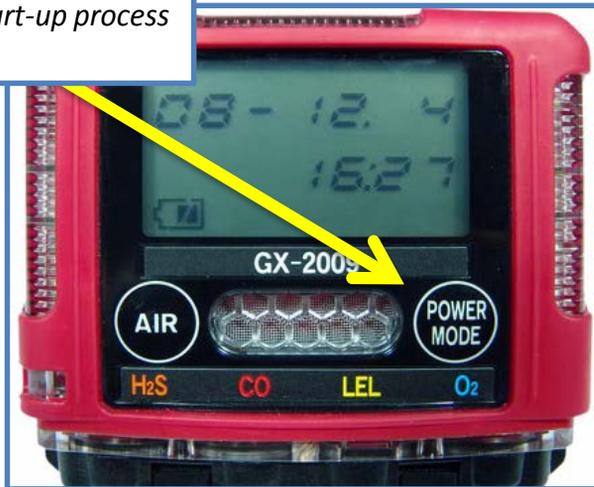
Pre-Trip Inspection

Inspect detector for damage/wear



Turn on the detector

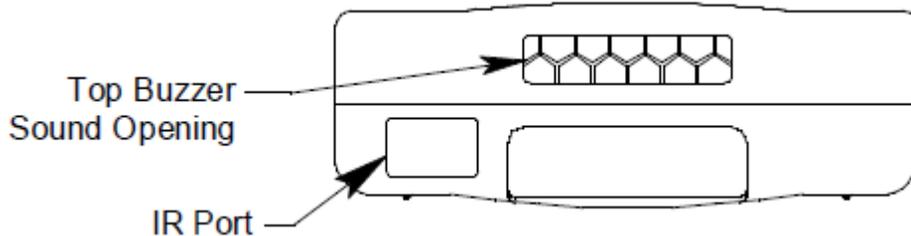
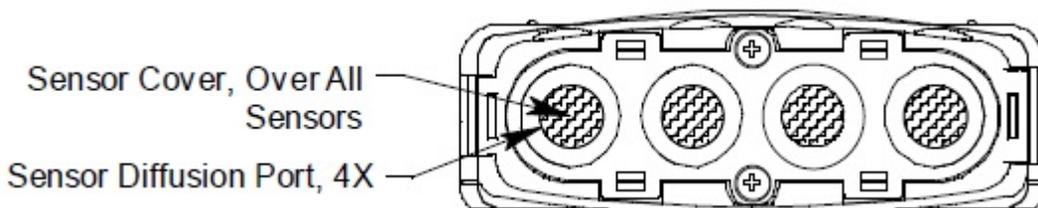
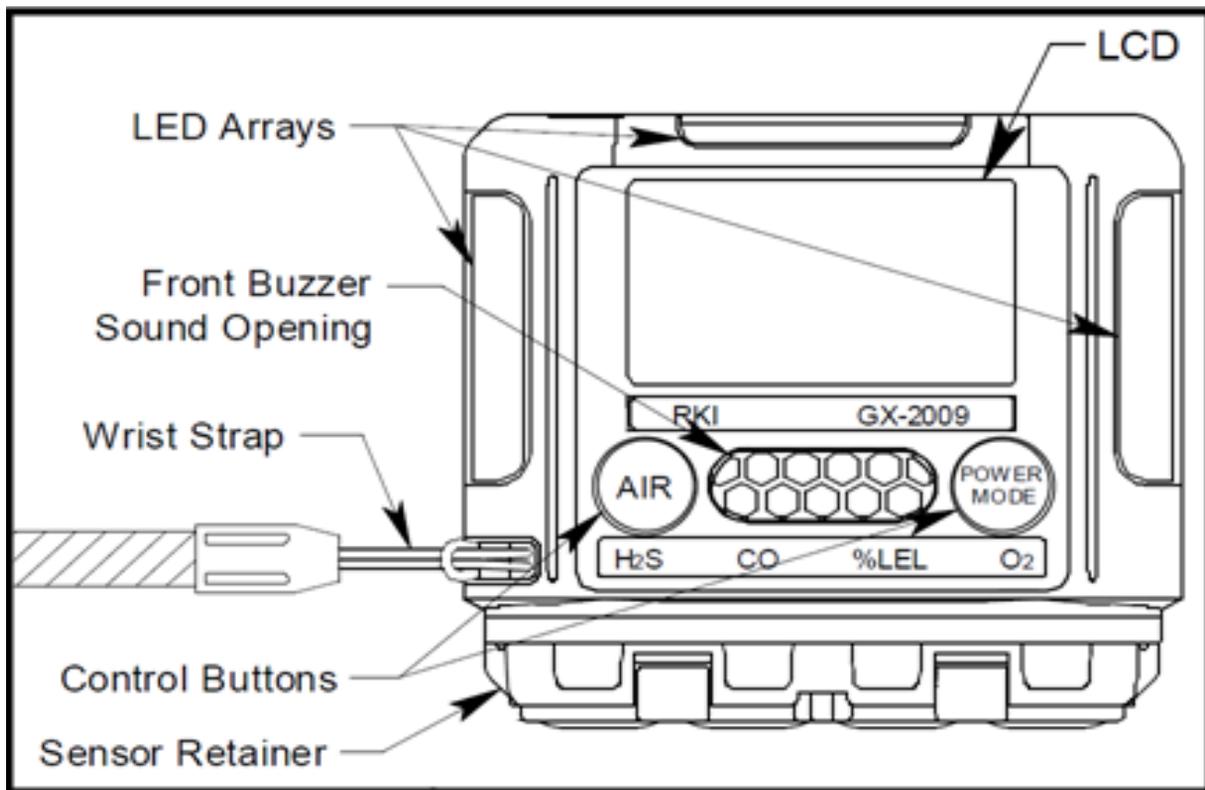
Look for unusual actions during the start-up process
Verify sufficient battery life



If the detector is damaged or fails to start properly, remove from service and inform your supervisor.

Done

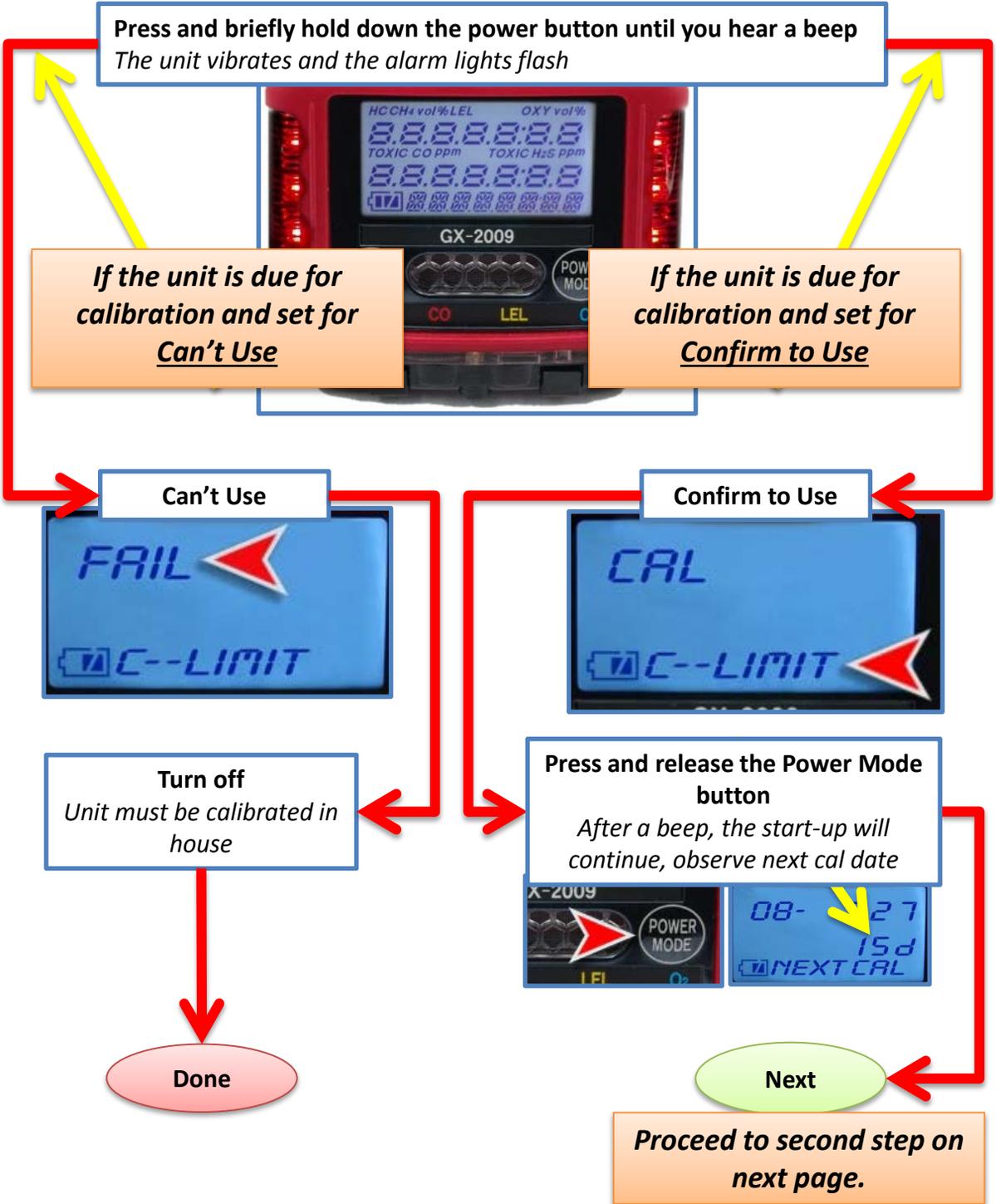
Control System Overview



Done

Gas Detector Operation

The following steps are only done if the Cal-Limit display function is turned on. If not turned on, proceed to the next page for startup steps.



Gas Detector Operation

Press and briefly hold down the power button until you hear a beep

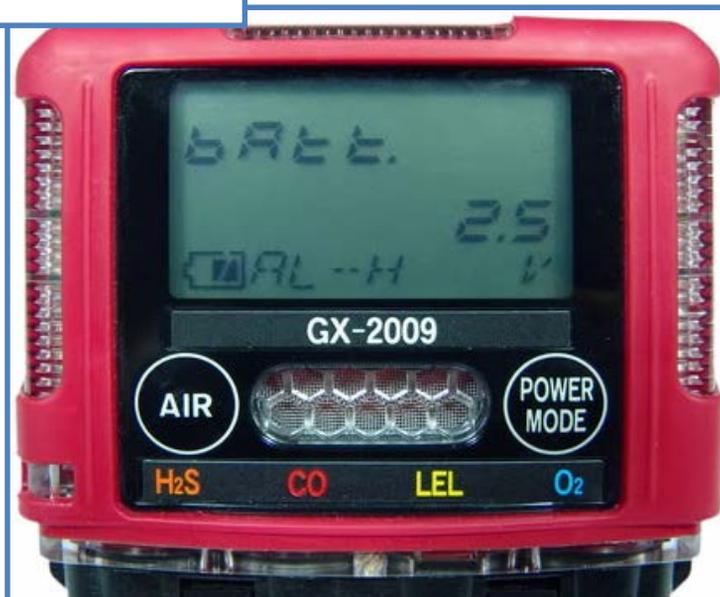
The unit vibrates and the alarm lights flash

The date/time screen appears for a few seconds

Make sure the detector is in a known fresh air environment



Observe the battery level screen
Displayed for two seconds



Next

Gas Detector Operation

The display will cycle through the following screens

Full Scale Value



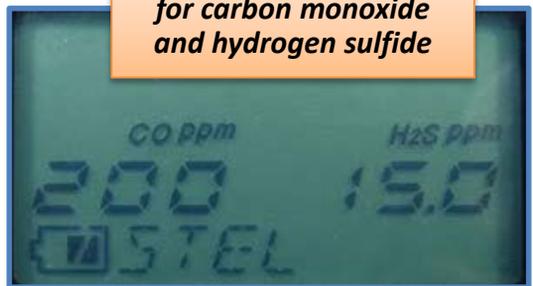
Low Alarm Point



High Alarm Point



STEL and TWA set points for carbon monoxide and hydrogen sulfide



If a sensor fails the start up test, a FAIL screen will appear
*Do not use the detector.
Take out of service until repaired.*



If the FAIL does not appear, continue

The detector will complete a fresh air adjustment



Next

Gas Detector Operation

Press and hold the AIR button

If you desire to conduct a manual fresh air adjustment



Release the AIR button

When ADJ RELEASE is displayed



The detector will proceed to normal measuring mode

Monitor for gases/air



VACATE THE SPACE if an alarm sounds. Never risk injury or death waiting to check the validity of an alarm.

Done

Alarms

Resetting Alarms

Press and release the Power Mode button



If a STEL or TWA alarms, the unit must be turned off to clear the alarm



An Over Range indicates combustible and/or toxic gas or oxygen content condition

Retest atmosphere with another gas detector



Done

Calibration

Verify bottle is connected and has a adequate supply of gas



Verify detector is OFF



Place detector in SDM-2009



Done

Calibration

Press Power Mode button

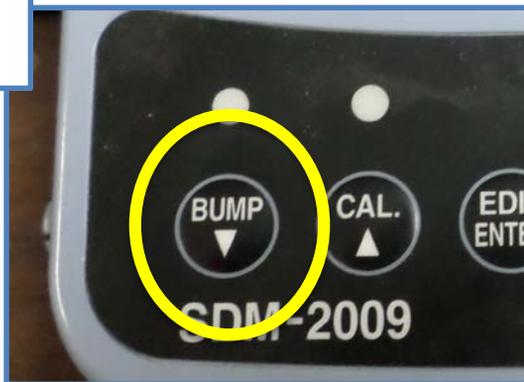
Observe unit display "Transmit" Before Continuing



Press the Bump button

Run air tests

*If units Calendar indicates unit is due for calibration, continue with next step.
If not, this task is done.*



Press the CAL button

Calibrates the detector



Done

Maintenance

Recharging NiMH Batteries

Place the detector in the charging cradle
The red light indicates charging



Remove detector when red light is off



Batteries have a typical
service life of 300 to 500
charging cycles

Done

Maintenance

Replacing NiMH Batteries

Perform this procedure in a static free workplace.

Unscrew the four screws on the back of the detector



Separate the rear and front case



Remove batteries from case



Next

Maintenance

Replacing NiMH Batteries

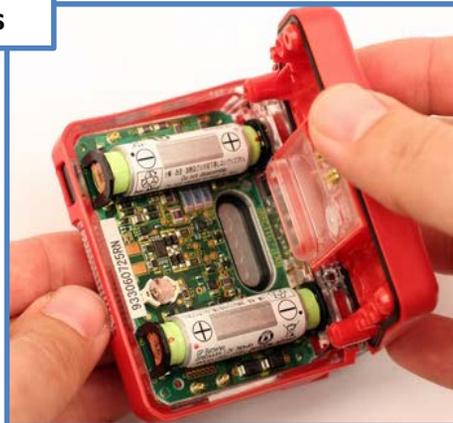
Perform this procedure in a static free workplace.

Insert new batteries

Note polarity on circuit board



Reinstall rear case and replace screws



Done

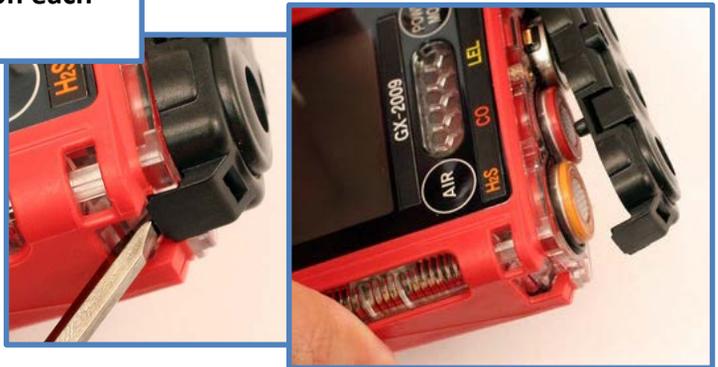
Maintenance

Replacing Filters

Unscrew the two screws on the Scrubber and Sensor cover



Gently Pry the two retaining clips on each side of the cover



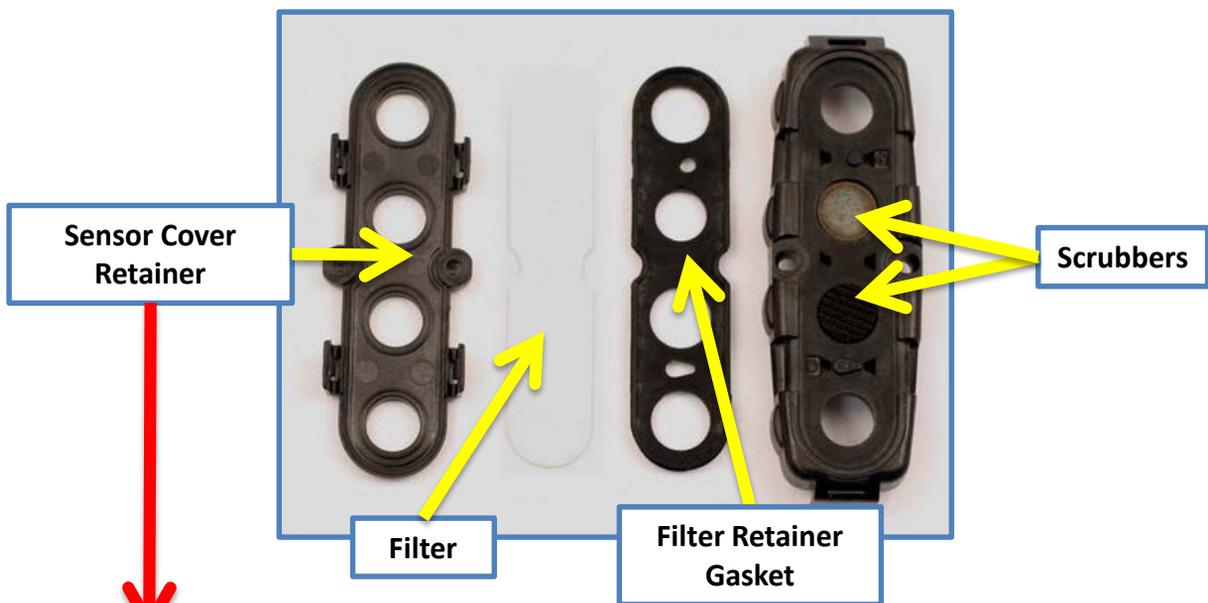
Remove the sensor cover retainer, filter, and filter retainer gasket



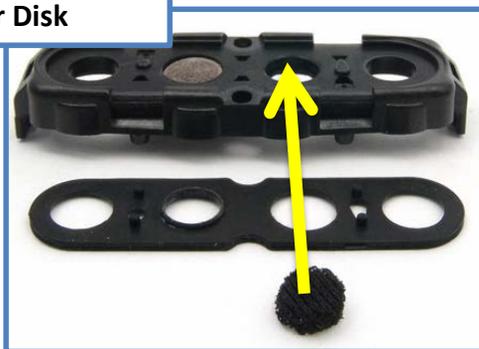
Next

Maintenance

Replacing Filters



Replace the Charcoal Filter Disk



Replace the H2S Removal Filter Disks
2 disks are used



Next

Maintenance

Replacing Filters

Reinstall Filter Retainer Gasket

Note the circle and teardrop alignment points



Reinstall or replace the Sensor Cover Filter



Reinstall the Sensor Retainer Cover

*Will snap into place
Snaps are different widths which ensures proper placement*



Next

Maintenance

Replacing Filters

Reinstall covers screws



Done

Maintenance

Replacing Sensors

Unscrew the two screws on the Scrubber and Sensor cover



Gently Pry the two retaining clips on each side of the cover



Remove the sensor cover retainer, filter, and filter retainer gasket

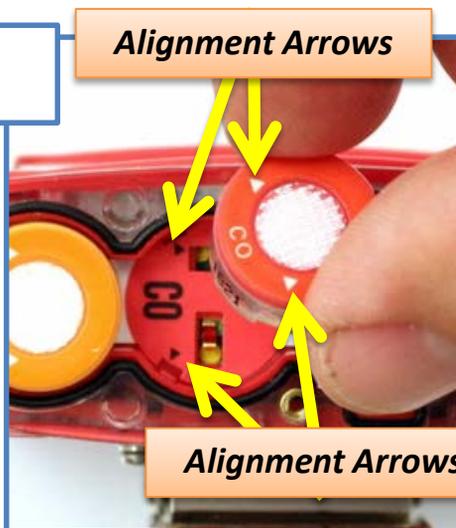


Next

Maintenance

Replacing Sensors

Insert new sensor
Align arrows with notches



Reinstall the Sensor and Scrubber cover



Reinstall covers screws



Done

Morgan Hill



Open Trench Vertical Hydraulic Shoring SOP

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Control System Overview	7
Hydraulic Vertical Shoring Installation	8
Removal of Hydraulic Shoring	15

Specifications

Equipment Name	Trenchless Pipe Repair Components
Specifications	<ul style="list-style-type: none"> • GME Hydraulic Vertical Shores • HVS-3.3-3455
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 1
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Gloves leather , mechanics, nitrile • Eye Protection (If necessary) • Safety toe work boots • Class II or III safety clothing
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Hazardous material • Traffic • High pressure hydraulics • Slips, trips and falls • Open trenches
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Be aware of pressure at all times • Read Installation Instructions • Be aware of toxic/hazardous material • Be aware of traffic conditions • Read GME Reference Manual Part 3 Sec. 1-3
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

Always follow the DOT & Morgan Hill Vehicle Inspection checklists during the pre-trip inspection.

TRUCK AND EQUIPMENT

Check daily before operation

- Check for fluid leaks
- Check oil level
- Back up alarm
- Check tire tread depth/air pressure
- Check wheel hubs for loose bolts and cracks
- Check all lighting devices and reflectors
- Check all beacons, strobes and arrow boards
- Check that all tools and accessories are securely fastened to the vehicle
- Check and refill PPE as needed
- Check that all storage bins are closed and secure
- Check all trenchless repair supplies are on the truck, refill as necessary
- Fill out a daily driver's vehicle inspection report after inspection is complete

Use the following checklist to annotate results of the inspection.

Next

Pre-Trip Inspection

Continued

	DATE	MILEAGE	VEHICLE NO.
DAILY VEHICLE CONDITION REPORT			
As required by the D.O.T. Federal Motor Carrier Safety Regulations and the California Code of Regulations, I submit the following:			
Inspect items listed — Press Hard 3 Copies			
<input checked="" type="checkbox"/> Check if defective and describe in "Remarks".			
ENGINE COMPARTMENT	AIR SYSTEM		
40 <input type="checkbox"/> Fluid leaks under vehicle	13 <input type="checkbox"/> Low air warning device		
40 <input type="checkbox"/> Oil level	13 <input type="checkbox"/> Air pressure loss/static max. pressure _____		
42 <input type="checkbox"/> Coolant level	13 <input type="checkbox"/> Air leaks/applied (max. loss, 3 lbs./min.)		
35 <input type="checkbox"/> Battery	13 <input type="checkbox"/> Adjustment needed? _____ Yes _____ No		
26 <input type="checkbox"/> Transmission			
43 <input type="checkbox"/> Exhaust system			
42 <input type="checkbox"/> Belts and hoses			
INSIDE CAB	OUTSIDE		
02 <input type="checkbox"/> Glass and mirrors	17 <input type="checkbox"/> Tires		
02 <input type="checkbox"/> Seat belts	18 <input type="checkbox"/> Wheels		
03 <input type="checkbox"/> Gauges and horn	34 <input type="checkbox"/> Reflectors		
02 <input type="checkbox"/> Windshield wipers	53 <input type="checkbox"/> Mud flaps		
98 <input type="checkbox"/> Fire extinguisher	15 <input type="checkbox"/> Steering		
53 <input type="checkbox"/> Safety flares/triangles	44 <input type="checkbox"/> Fuel cap/tank/mounting		
91 <input type="checkbox"/> Registration and permits	95 <input type="checkbox"/> New body damage		
91 <input type="checkbox"/> Insurance and fuel cards	34 <input type="checkbox"/> Parking lamps		
13 <input type="checkbox"/> Brakes	34 <input type="checkbox"/> Head lamps, high_low_____		
21 <input type="checkbox"/> Clutch	34 <input type="checkbox"/> Turn signals		
PM <input type="checkbox"/> Service due _____	34 <input type="checkbox"/> Emergency flashers/lamps		
<input type="checkbox"/> Other _____	59 <input type="checkbox"/> Trailer coupling devices		
Remarks _____			

CONDITION OF THIS VEHICLE IS:			
<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory			
Driver's Signature _____			
Employee No. _____			
AUTOMOTIVE SERVICES USE ONLY			
<input type="checkbox"/> Above defects corrected <input type="checkbox"/> Above defects need not be corrected for safe operation			
Mechanic's Signature _____ Date _____			
Reviewed by _____ Date _____			
WHITE-Auto Svcs (file 30 days) * YELLOW-keep in vehicle 7 days * PINK-Dept./Division (file 30 days)			

Be sure to note that you've completed the DOT Driver's Vehicle Inspection Report

Next

Pre-Trip Inspection - *Continued*

Verify proper paper work is in truck

Pre-Trip inspection form

SSO forms

Insurance forms

Danger signs

Notification forms

Accident forms



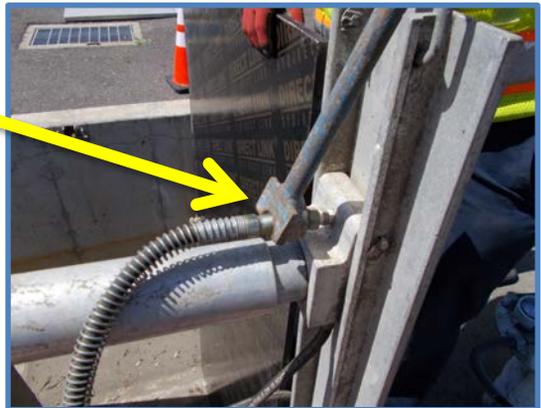
Done

Control System Overview

Pressure gage and control valve



Special tool required for removing quick disconnect hydraulic fitting and bleeding



Special tool with hook required for installing and removing Vertical shores



Done

Vertical Hydraulic Shore Installation

CAUTION

EXCAVATION PROCEDURES
MAY CAUSE INJURY OR DEATH!

A COMPETENT PERSON WHO SATISFIES THE DEFINITION AND INTENT OF THE 1926 CONSTRUCTION STANDARD SUBPART P EXCAVATIONS SHALL: ENSURE THAT ALL EMPLOYEES ARE WORKING IN SAFE CONDITIONS AND THAT ALL EMPLOYEES HAVE BEEN TRAINED IN CORRECT EXCAVATION PROCEDURES AND THE PROPER USE OF THE PROTECTIVE EQUIPMENT CHOSEN.

EXCAVATIONS AND PROTECTIVE EQUIPMENT SHALL BE INSPECTED A MINIMUM OF ONCE EACH WORKING DAY AND WHENEVER THERE IS A CHANGE IN THE SOIL CONDITIONS AND/OR OTHER CHANGES SUCH AS AN INCREASE OR DECREASE IN WATER OR VIBRATIONS.

EMPLOYEES SHALL NOT BE ALLOWED TO ENTER AN EXCAVATION THAT IS NOT PROPERLY SHORED, SHIELDED, OR SLOPED.

EMPLOYEES SHALL ALWAYS ENTER, WORK, AND EXIT WITHIN THE SHORED, SHIELDED, OR SLOPED AREAS OF THE EXCAVATION AND/OR TRENCH.

ALL LIFTING AND PULLING EQUIPMENT, INCLUDING CABLES, SLINGS, CHAINS, SHACKLES AND SAFETY HOOKS SHALL BE INSPECTED FOR DAMAGE OR DEFECTS PRIOR TO USE AND SHALL BE EVALUATED FOR SUITABILITY AND CAPACITY.

THIS GME TABULATED DATA PROVIDES A GENERAL SET OF GUIDELINES TO ASSIST THE COMPETENT PERSON IN THE SELECTION OF A PROTECTIVE SYSTEM FOR EMPLOYEE SAFETY. THE RESPONSIBILITY FOR JOB SITE SAFETY AND THE PROPER SELECTION, INSTALLATION AND REMOVAL OF THE SHORING EQUIPMENT BELONGS TO THE COMPETENT PERSON DESIGNATED FOR THAT JOBSITE. THIS TABULATED DATA IS NOT INTENDED TO BE USED AS A JOB SPECIFIC EXCAVATION/ TRENCHING SAFETY PLAN, BUT SHALL BE USED BY THE COMPETENT PERSON. TABULATED DATA IS INTENDED AS A SUPPLEMENT TO HIS/HER TRAINING, EXPERIENCE AND KNOWLEDGE OF SAFE PROCEDURES, JOB SITE CONDITIONS AND SOIL TYPES. TABULATED DATA IS INTENDED TO ASSIST HIM IN THE SELECTION OF AN APPROPRIATE PROTECTIVE SYSTEM FOR EMPLOYEE SAFETY.

Vertical Hydraulic Shore Installation

Once Hydraulic Shoring has been deemed as appropriate for the job by the designated competent person the task may begin

Arrive at job site with shoring equipment stowed in utility truck



FLIP AUX. beacon switch UP (ON)



Verify beacon is ON



Next

Vertical Hydraulic Shore Installation

Set up traffic control ROAD WORK AHEAD sign



Set up work site perimeter with cones



Remove trench sheeting from truck



Next

Vertical Hydraulic Shore Installation

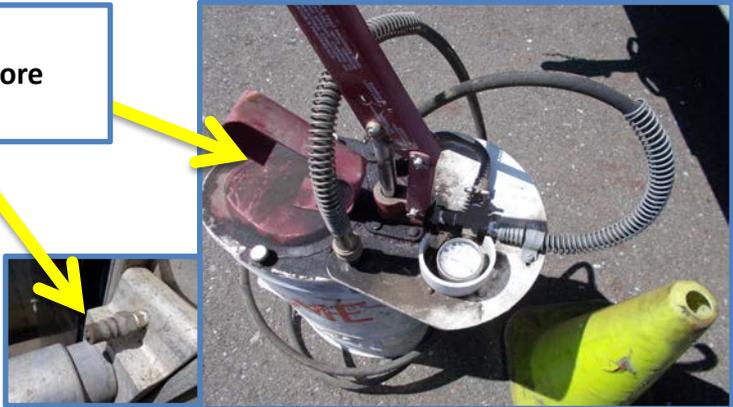
Install sheeting into both sides of trench



Unload correct dimension shoring for the task



Unload hydraulic bucket and position at trench near the shore with hydraulic fitting



Next

Vertical Hydraulic Shore Installation

ATTACH the hydraulic fitting to the vertical shore



OPEN control valve to **BLEED** shore to **MINIMUM** width for installation



Once bled **CLOSE** control valve



Next

Vertical Hydraulic Shore Installation

Use special tool to HOOK handles and LOWER shoring into trench



Position shore as required



PUMP hydraulic bucket until needle is in the GREEN area of the gage



Next



Vertical Hydraulic Shore Installation

Disconnect the hose from the shore by positioning the release tool flange behind the collar of the quick disconnect fitting. Using the hook as a pivot point, PULL the tool toward yourself causing the hose to release from the shore



Installation complete



Next

Removal of Hydraulic Vertical Shore

Once Hydraulic Shoring has been deemed ready for removal by competent person, removal process may begin

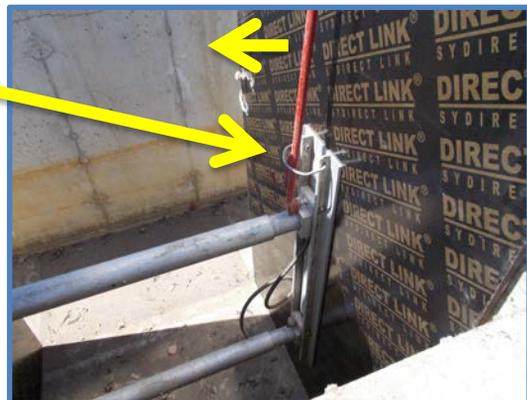
Begin by placing release tool through handle of shore. Turn tool so that hook will catch handle when released. Position cupped end of tool over the male fitting



Place the removal hook through the other handle of the shore



Begin to PUSH release handle away from you using the handle as a leverage point



Next

Removal of Hydraulic Vertical Shore

Caution: This will cause a small amount of fluid to be released from the fitting on the shore. Care should be taken to avoid being sprayed by fluid. Also, the release of pressure could cause unstable ground to begin to move. Care should be used to release the pressure in small amounts.

At the same time that you **PUSH** the release tool , start pulling the removal tool back toward yourself to hook the handle



Remove the shore from the trench by **PULLING** on the removal hook causing the shore to collapse and using the release tool to assist in **PULLING** the shore from the trench



LOAD both the ply sheeting onto the utility truck



Next

Removal of Hydraulic Vertical Shore

Load the Hydraulic Vertical Shore into the utility truck



Load the hydraulic reservoir bucket into the utility truck



Pick up and load the perimeter safety cones into the utility truck



Next

Removal of Hydraulic Vertical Shore

Break down the ROAD WORK AHEAD sign



Stow rolled up ROAD WORK AHEAD sign in PVC holder and attach nylon tie-down across the bed opening



FLIP AUX switch (DOWN) OFF



Done

City of Morgan Hill

Standard Operating Procedure



TRACTOR LOADER BACKHOE

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Operating Front Loader	20
Operating Front Loader – Clam	26
Operating Backhoe	29
Parking Tractor Loader Backhoe	43

Specifications

Equipment Name	310SE Backhoe Loader
Specifications	<p>Engine – JD 4045T Max. RPM- 2200 Cyl. – 4 Diesel Fuel Trans. 4 Speed Hydraulic System – 3825 P.S.I MAX. Op. Press.</p>
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 2
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Gloves • Ear protection • Eye protection • Safety Shoes • Class II/III safety clothing • Dust mask • Hard Hat
Required License	<ul style="list-style-type: none"> • None
Common Hazards	<ul style="list-style-type: none"> • Tipping over • Traffic • Excessive noise • Back over Accidents • Rollaway accidents • Falling • Over Head Power lines • Under Ground Power and Gas lines • High Pressure Injection injuries
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Watch water pipe under ground • Watch for hydraulic and water leaks • Be aware of unusual noises • Be alert while driving
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

Always follow the DOT Inspection checklists during the pre-trip inspection.

SE310 Backhoe CHECKLIST

Check daily before operation

- Check for fluid leaks
- Check oil level
- Check tire tread depth/air pressure
- Check hubs for loose bolts or leaks
- Check all lighting devices and reflectors
- Check all beacons, strobes and arrow boards
- Check that all tools and accessories are securely fastened to the vehicle
- Check that all cover and tool boxes are closed and secure
- Check horn
- Check service brakes
- Grease all required fittings in accordance with District policy
- Fill out a daily driver's vehicle inspection report after inspection is complete

Use the following checklist to annotate results of the inspection.

Next

Pre-Trip Inspection

	DATE	MILEAGE	VEHICLE NO.
DAILY VEHICLE CONDITION REPORT			
As required by the D.O.T. Federal Motor Carrier Safety Regulations and the California Code of Regulations, I submit the following:			
Inspect items listed — Press Hard 3 Copies			
<input checked="" type="checkbox"/> Check if defective and describe in "Remarks".			
ENGINE COMPARTMENT	AIR SYSTEM		
40 <input type="checkbox"/> Fluid leaks under vehicle	13 <input type="checkbox"/> Low air warning device	13 <input type="checkbox"/> Air pressure loss/static max. pressure _____	
40 <input type="checkbox"/> Oil level	13 <input type="checkbox"/> Air leaks/applied (max. loss, 3 lbs/min.)		
42 <input type="checkbox"/> Coolant level	13 <input type="checkbox"/> Adjustment needed? _____ Yes _____ No		
35 <input type="checkbox"/> Battery			
26 <input type="checkbox"/> Transmission			
43 <input type="checkbox"/> Exhaust system			
42 <input type="checkbox"/> Belts and hoses			
INSIDE CAB	OUTSIDE		
02 <input type="checkbox"/> Glass and mirrors	17 <input type="checkbox"/> Tires	18 <input type="checkbox"/> Wheels	
02 <input type="checkbox"/> Seat belts	34 <input type="checkbox"/> Reflectors		
03 <input type="checkbox"/> Guages and horn	53 <input type="checkbox"/> Mud flaps		
02 <input type="checkbox"/> Windshield wipers	15 <input type="checkbox"/> Steering		
98 <input type="checkbox"/> Fire extinguisher	44 <input type="checkbox"/> Fuel cap/tank/mounting		
53 <input type="checkbox"/> Safety flares/triangles	95 <input type="checkbox"/> New body damage		
91 <input type="checkbox"/> Registration and permits	34 <input type="checkbox"/> Parking lamps		
91 <input type="checkbox"/> Insurance and fuel cards	34 <input type="checkbox"/> Head lamps, high__low__		
13 <input type="checkbox"/> Brakes	34 <input type="checkbox"/> Turn signals		
21 <input type="checkbox"/> Clutch	34 <input type="checkbox"/> Emergency flashers/lamps		
PM <input type="checkbox"/> Service due _____	59 <input type="checkbox"/> Trailer coupling devices		
<input type="checkbox"/> Other _____			
Remarks _____			

CONDITION OF THIS VEHICLE IS:			
<input type="checkbox"/> Satisfactory		<input type="checkbox"/> Unsatisfactory	
Driver's Signature _____			
Employee No. _____			
AUTOMOTIVE SERVICES USE ONLY			
<input type="checkbox"/> Above defects corrected		<input type="checkbox"/> Above defects need not be corrected for safe operation	
Mechanic's Signature _____		Date _____	
Reviewed by _____		Date _____	
WHITE-Auto Svcs (file 30 days) * YELLOW-keep in vehicle 7 days * PINK-Dept./Division (file 30 days)			

Be sure that you've completed the Pre – Trip form

Next

Pre-Trip Inspection

Check general appearance: “Does it look right?” Look for leaks, scratches, dents or other visible damage around the machine

Always use three points of contact whenever getting in, out, or climbing on the machine

INSPECT MACHINE DAILY BEFORE STARTING

Perform periodic service checks in the Maintenance—10 Hours or Daily chapter.

- Check and lubricate loader pivot pins (A).
- Check engine oil level and air cleaner (B).
- Check precleaner (C).
- Check hydraulic oil level (D).
- Clean operator's station (E).
- Check and lubricate backhoe pivot pins (F).
- Check pedals and controls for freedom of movement (G).
- Check inflation pressure of tires (H) and hardware torque of wheels.
- Clean radiator fins (I).

ELECTRICAL SYSTEM: Check for worn or frayed wires and loose or corroded connections.

HYDRAULIC SYSTEM: Check for leaks, missing or loose clamps, kinked hoses, and lines or hoses in areas that rub against each other or other parts.

BACKHOE AND LOADER: Check for loose, bent, broken or missing parts and hardware.

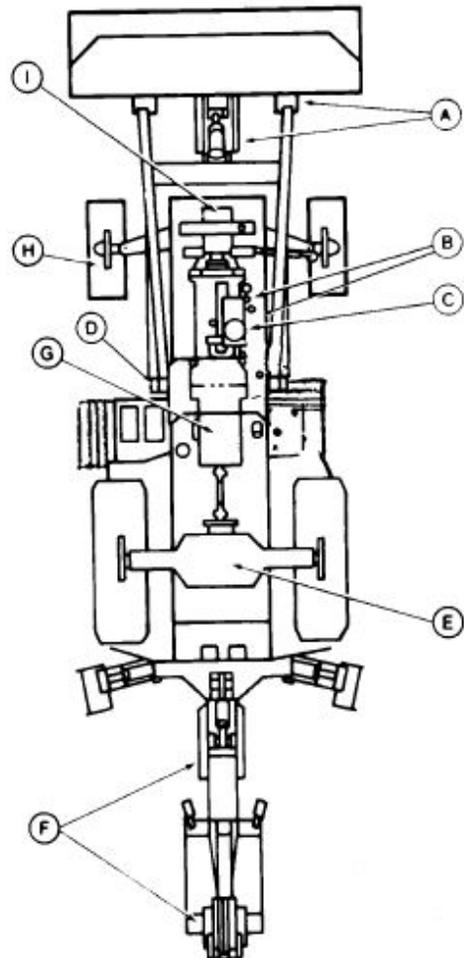
LUBRICATION: Check lubrication points shown on Periodic Maintenance Chart or in Maintenance—Every 10 Hours or Daily chapter.

PROTECTIVE DEVICES: Check ROPS, guards, shields, covers, and seat belt.

FIRE PREVENTION: Clean machine of debris.

PARK BRAKE: Check for correct operation.

SAFETY: Walk around machine to be sure all persons are clear from machine area.



310SE

Next

Pre-Trip Inspection

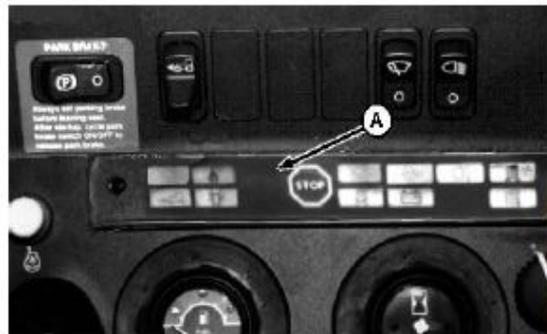
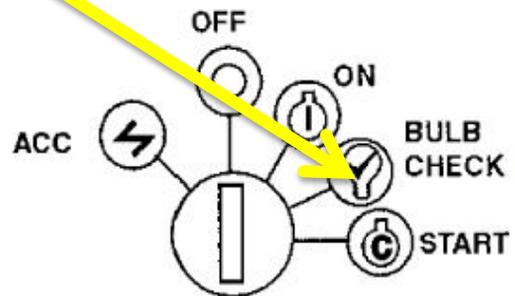
Climb into operators station
Use three points of contact

Check this function on the machine
and if any light fails, write a work
order to repair before using the
machine

CHECK INSTRUMENTS BEFORE STARTING

Turn key switch clockwise and hold in BULB CHECK position.

All indicators (A) must light. (See Operator's Station chapter for location and description of indicators.) If any fail to light, check the bulb. If bulb is good, but indicator still fails to light, see your authorized dealer.



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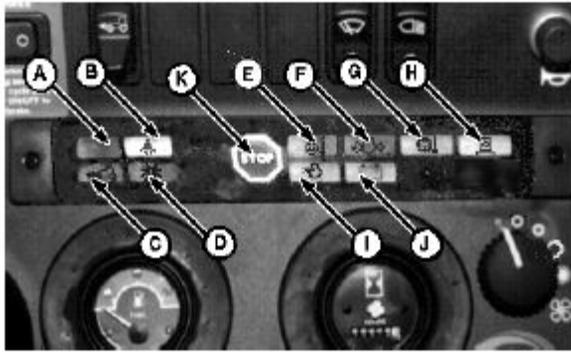
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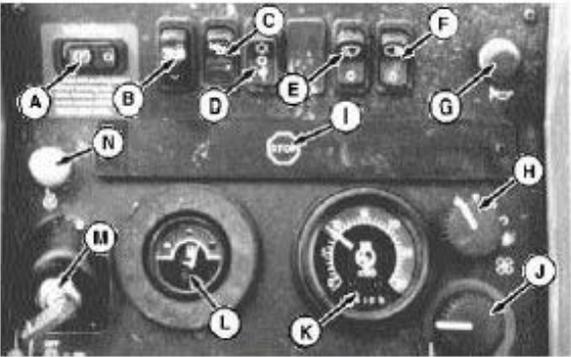
Pre-Trip Inspection

Check that all Indicator Lights are ALL functioning



A—Park Brake Indicator
 B—Seat Belt Indicator
 C—Mechanical Front Wheel Drive Indicator
 D—Beacon—If Equipped
 E—Engine Coolant Temperature Indicator
 F—Engine Oil Pressure Indicator
 G—Transmission Oil Filter Indicator
 H—Hydraulic Oil Filter Indicator
 I—Air Filter Restriction Indicator
 J—Alternator Voltage Indicator
 K—STOP-Engine Indicator

Check instrument panel condition



Optional Package

A—Park Brake Switch
 B—Mechanical Front Wheel Drive Switch—If Equipped
 C—Ride Control Switch and Indicator—If Equipped
 D—Air Conditioning/Dehumidification Switch
 E—Rear Wiper Switch
 F—Rear Lights Switch
 G—Horn Button
 H—Blower Switch
 I—STOP-Engine Indicator
 J—Temperature Switch
 K—Hour Meter/Tachometer—If Equipped
 L—Fuel Gauge
 M—Ignition Switch
 N—Start Aid Switch

Next

Pre-Trip Inspection

NOTICE: Seatbelt MUST be replaced every (3) three years regardless of condition.

Inspect the seat belt for condition before operating the machine
Check dates and replace as required

SEAT BELT

SEAT BELT INSTALLATION DATE

JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP	OCT	NOV	DEC
94	95	96	97	98	99

REPLACE SEAT BELT EVERY 3 YEARS

SEAT BELT INSTALLATION DATE

JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP	OCT	NOV	DEC
94	95	96	97	98	99

REPLACE SEAT BELT EVERY 3 YEARS

18415AA -JUN-00FEB05

TX_10_DH3548 -19-07FEB05-1/1

Seat belt and mounting hardware must be inspected for wear or damage before operating the machine. Replace the belt or mounting hardware if worn or damaged.

Replace the complete seat belt assembly every three years regardless of appearance. A date label, to determine the age of the belt, is attached to each belt.

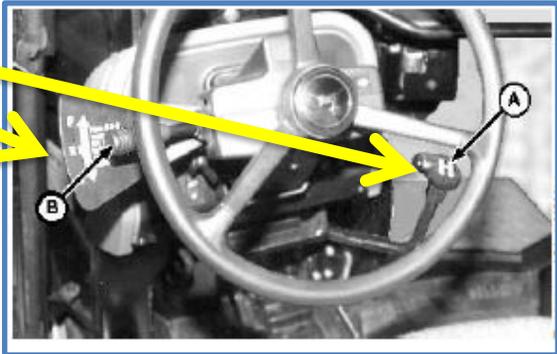
Next

Pre-Trip Inspection

PUSH IN horn button to SOUND the horn



Move F.N.R. lever (B) to REVERSE and test the WARNING alarm, then move gear shift lever (A) and F.N.R (B) to NUTREAL



Insure PARK BRAKE switch is ON



Next

Pre-Trip Inspection

Move speed control to 1/3 throttle



TURN key switch until engine starts



CHECK INSTRUMENTS AFTER STARTING
If STOP engine indicator light does not go out within (10) seconds after starting, STOP THE ENGINE and correct the problem before restarting!



Next

Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

**LIFT seat adjustment lever and
move seat back or forward**



LIFT seat swing /rotate lever



ROTATE seat to backhoe controls



Next

Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

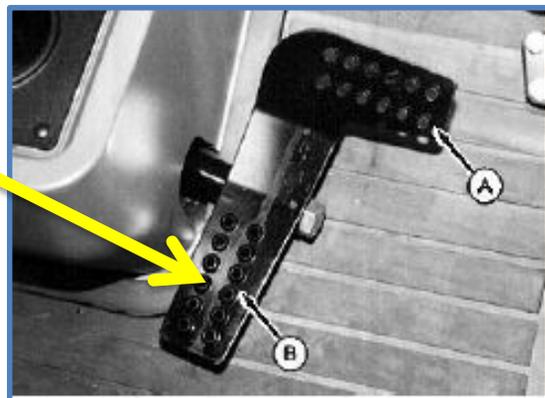
LOCK seat in to position for backhoe operation then adjust seat to suit operator



PULL Stabilizer control levers (A) and (B) **IN** toward you to **STOW** stabilizers **UP**
Stabilizers may bleed down after sitting for extended periods



PUSH (B) bottom to retract dipper stick
(A) Is for extending dipper stick
Extend dipper may bleed down after sitting extended periods



Next

Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

Extend Dipper stick fully retracted



Move bucket control lever inboard to fully stow the bucket



Bucket fully stowed



Next

Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

PULL dipper stick control lever IN toward you to fully retract



Dipper stick fully retracted



Locate the boom swing lock pin

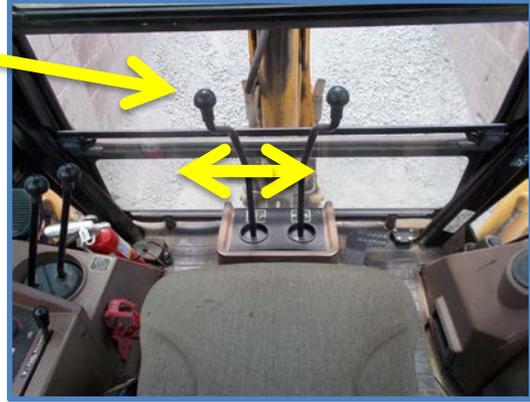


Next

Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

Move boom swing lever left and right to align the boom



INSERT the boom lock pin into the receiver as you center the boom with the control lever



INSURE the boom lock pin is fully in

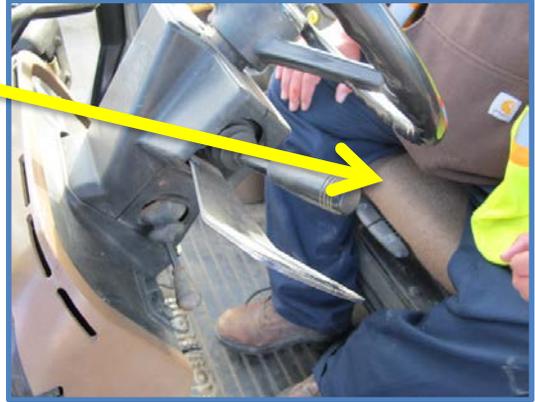


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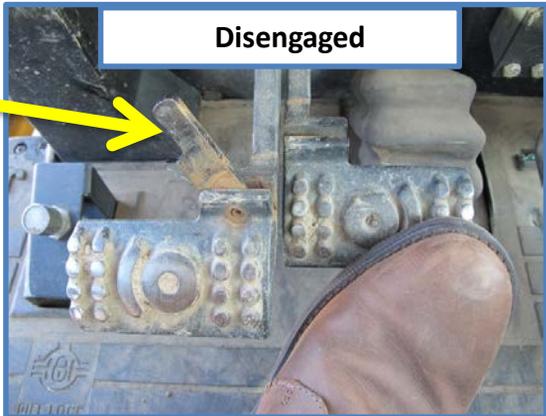
Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

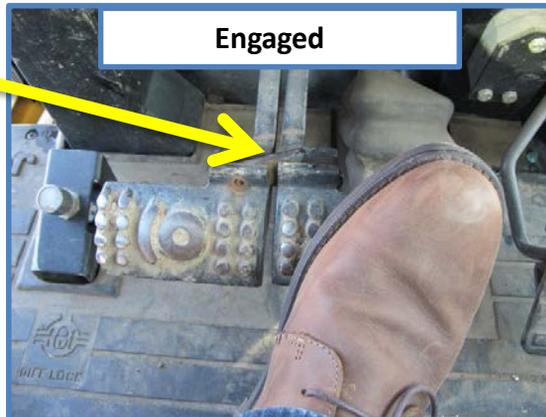
ROTATE the operators seat back to the driving position and adjust seat to suit operator



Check brake inter-locking device condition and security



Insure brake interlocking device is **ENGAGED BEFORE** driving the machine
Align both brake pedals until flat bar falls into the saddle

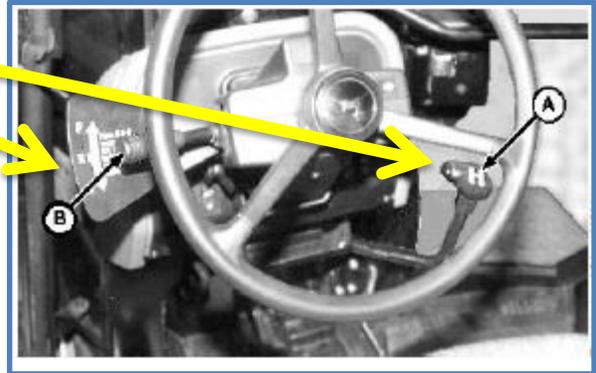


Next

Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

Insure gear shift lever (A) and F.N.R. lever (B) are in NUETRAL



Insure PARK brake switch is ON



Move speed control lever to SLOW idle



Next

Pre-Trip Inspection

Allow the engine to warm up for five minutes and check instruments regularly

TURN key OFF to STOP engine and remove key



MOVE control levers to release hydraulic pressure in the system



Done

Operating Front Loader

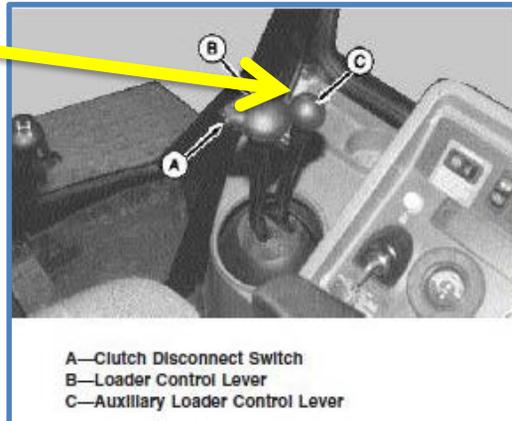
Note: Control lever (B) will return to neutral when released during normal operation !

Note: Moving control lever (B) completely forward will place the loader in FLOAT position. Lever will STAY in FLOAT position until it is manually moved !

Note: Moving lever (B) completely LEFT will hold it in position until bucket is level. Once bucket is level , lever will return to natural

Note: This machine is equipped with the “Clam Shell “ loader bucket option and utilizes the Auxiliary loader control lever (C)

Auxiliary “Clam Shell” control lever (C)



Clam Shell bucket OPEN



Next

Operating Front Loader

OPERATING FRONT LOADER

CAUTION: Prevent possible injury from unexpected machine movement. Operate loader facing forward in the operator's seat only.

NOTE: Control lever will return to neutral if released during normal loader operation.

Push lever in following directions for corresponding loader movements:

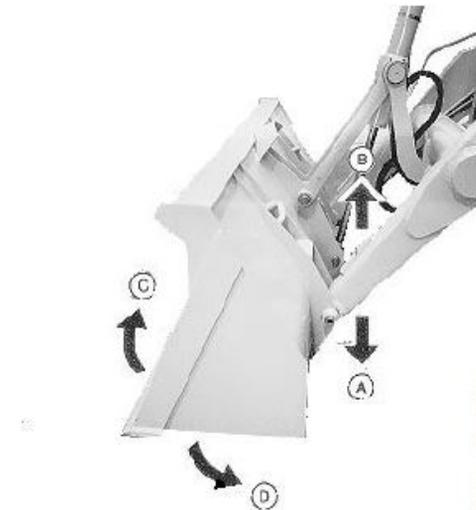
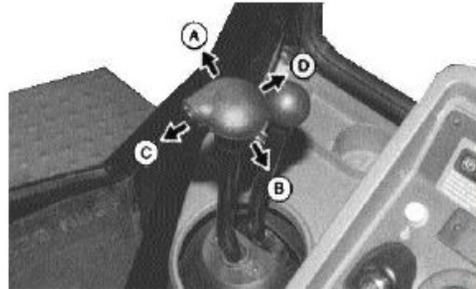
NOTE: Moving lever completely forward (A) will place loader in float position. Lever will stay in float position until it is manually moved.

- A—Lever Forward: Lower Boom
- B—Lever Rearward: Raise Boom

NOTE: Moving lever completely to the left (rollback) will hold it in position until bucket is level. Once bucket is level, lever will return to neutral.

- C—Lever Left: Roll Back Bucket
- D—Lever Right: Dump Bucket

For faster cycle times, fully extend lever in desired direction, run engine at fast idle and move boom and bucket at same time.



- A—Lower Boom
- B—Raise Boom
- C—Roll Back Bucket
- D—Dump Bucket

Next

Operating Front Loader

Move speed control to 1/3 throttle



TURN key switch until engine starts



CHECK INSTRUMENTS AFTER STARTING
If STOP engine indicator light does not go out within (10) seconds after starting, STOP THE ENGINE and correct the problem before restarting!



Next

Operating Front Loader

Note: Bucket and boom can be positioned while the machine is on-the-go!

Use the bucket control lever to place the bucket in the dig position
Pull inboard to level bucket then release



Use bucket position indicator to determine when bucket is level



When indicator bar is aligned with black stripe, bucket is level



Next

Operating Front Loader

Note: Bucket and boom can be positioned while the machine is on-the-go!

Bucket is level and in “Dig” position



Move gear shift lever to appropriate gear to dig
First or second gear is recommended



Move the machine forward into the material using speed control pedal



Next

Operating Front Loader

Note: Bucket and boom can be positioned while the machine is on-the-go!

Use loader control lever to raise and curl the bucket upward to hold the load



Use the loader control lever to slowly dump the load and lower the bucket



Done

Operating Front Loader - Clam

Note: Bucket and boom can be positioned while the machine is on-the-go!

Position bucket level and in “Dig” position



Move gear shift lever to appropriate gear to dig
First or second gear is recommended



PULL the Auxiliary control lever **BACK** to **OPEN** clam shell



Next

Operating Front Loader - Clam

Note: Bucket and boom can be positioned while the machine is on-the-go!

Move the machine forward toward the material



PUSH the auxiliary control lever forward to CLOSE the clam shell



Raise and curl the bucket to hold the load using bucket control lever



Next

Operating Front Loader - Clam

Note: Bucket and boom can be positioned while the machine is on-the-go!

Move the loader control lever **FORWARD** to position the bucket for dumping



PULL the Auxiliary lever **BACK** to **OPEN** clam shell and dump load



PUSH auxiliary control lever **FORWARD** to **CLOSE** the clam shell



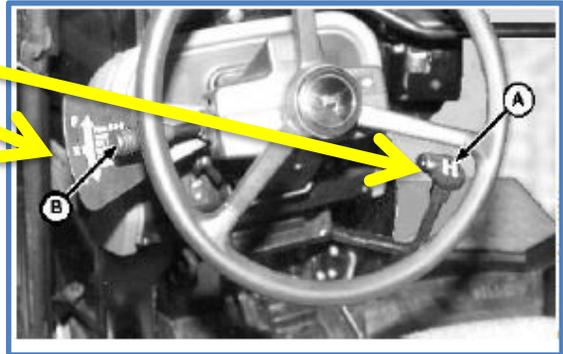
Next

Operating the Backhoe

Climb Into operators station fasten seat belt and PUSH horn button to test



Move F.N.R. lever (B) to REVERSE and test the WARNING alarm , then move gear shift lever (A) and F.N.R (B) to NUTREAL



Insure PARK BRAKE switch is ON



Next

Operating the Backhoe

Move speed control to 1/3 throttle



TURN key switch until engine starts



CHECK INSTRUMENTS AFTER STARTING
If STOP engine indicator light does not go out within (10) seconds after starting, STOP THE ENGINE and correct the problem before restarting!



Next

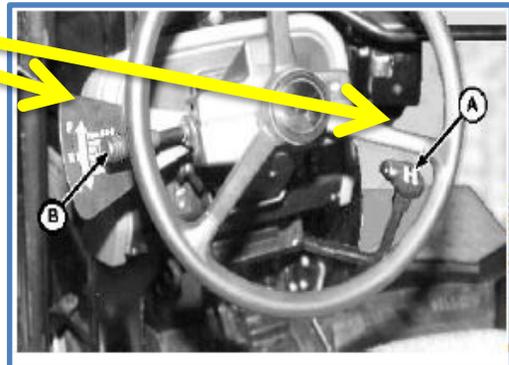
Operating the Backhoe

Once engine is warmed up prepare To Operate The Backhoe

Drive and park machine close to desired digging location on flat ground



Move F.N.R. lever (B) and gear shift lever (A) to NUTREAL and engage PARK brake



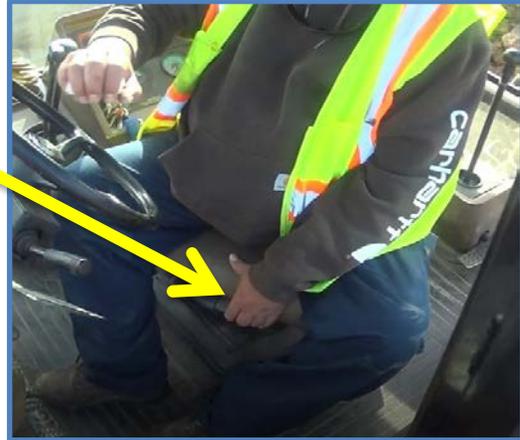
Position loader bucket on the ground until front wheels are just off the ground



Next

Operating the Backhoe

Lift seat rotate lever and turn seat to face backhoe



Move the speed control lever to operating RPM, around 2200 RPM



PUSH stabilizer lever (A and B) away from you to LOWER BOTH simultaneously
Adjust as necessary to level machine



Next

Operating the Backhoe

Stabilizers lowered



Remove swing lock device



Place swing lock device in storage



Next

Operating the Backhoe

IMPORTANT: To prevent possible machine damage, **UNLOCK** boom before operating backhoe

PULL boom lever to raise boom back against stops to **RELEASE** tension between hooks and locks



PULL boom lock lever toward operator to raise locks away from boom hooks



UNLOCKED position



Next

Operating the Backhoe

PUSH boom control lever forward to release boom from locks



Boom **UNLOCKED**



RELEASE boom lock lever

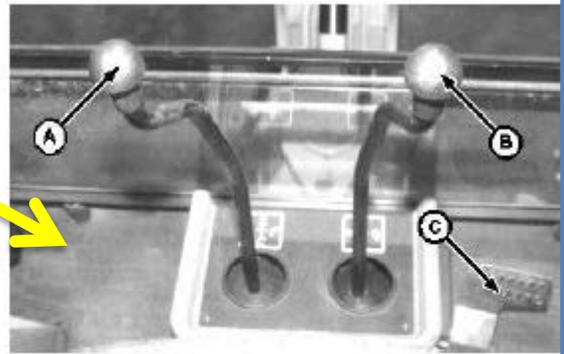


Next

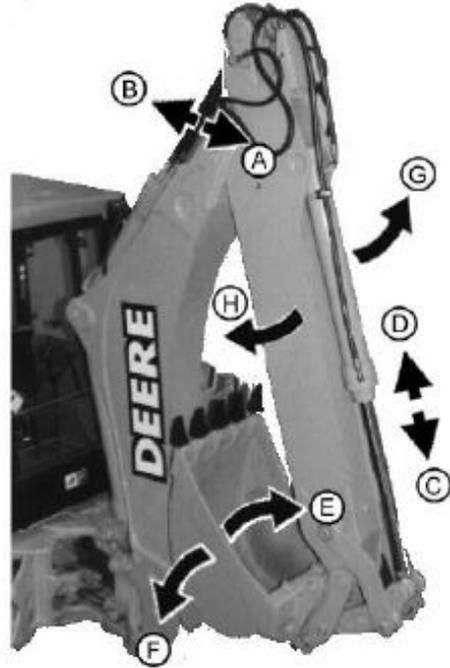
Operating the Backhoe

Operating controls for the JD SE310

- (A) Boom control
- (B) Dipper stick control
- (C) Extendible Dipper stick



- A—Boom and Swing Lever
- B—Dipperstick and Bucket Lever
- C—Extendible Dipperstick Control Pedal—If Equipped

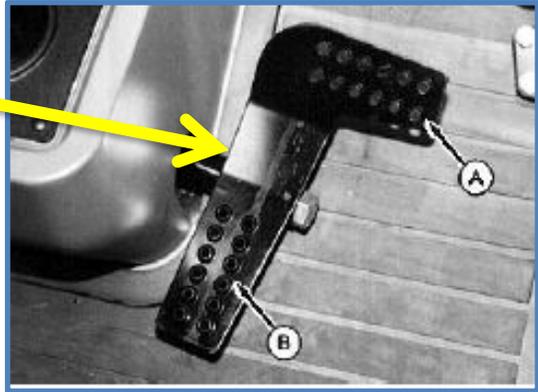


- A—Lower Boom
- B—Raise Boom
- C—Extend Dipperstick
- D—Retract Dipperstick
- E—Load Bucket
- F—Dump Bucket
- G—Boom Swing Left
- H—Boom Swing Right

Next

Operating the Backhoe

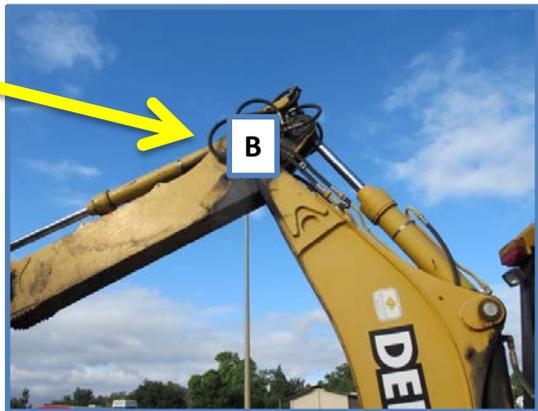
Extend-A-Hoe foot control pedal
A to Extend
B to Retract



Extend-A-Hoe Extended



Extend-A-Hoe Retracted



Next

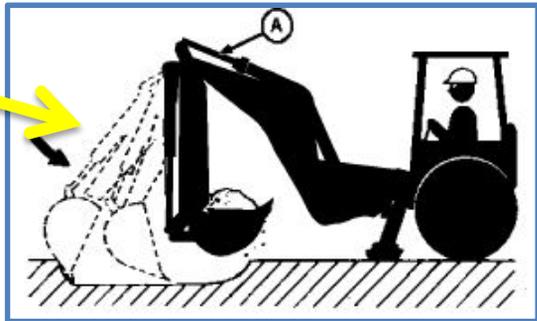
Operating the Backhoe

Use the type of digging suited for your specific job

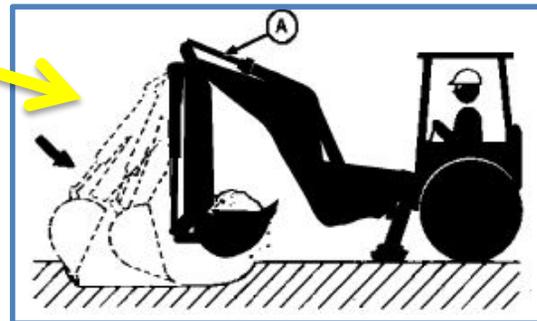
For most general excavating ,
leveling material and digging
trenches
*Crowd digging utilizes the crowd
cylinder for majority of movement*



Position dipper stick in vertical
position and then move away from
machine approximately (2) feet



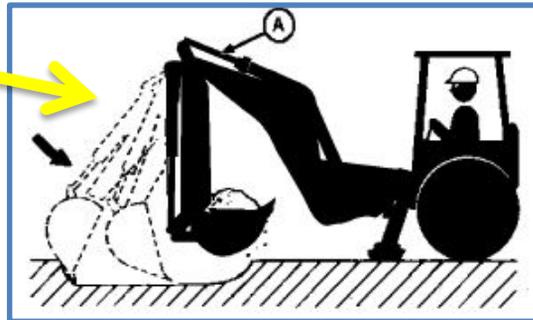
Retract the dipper and curl bucket
simultaneously to make first cut
First cut should be about (4) feet long



Next

Operating the Backhoe

Repeat steps (1) and (2) for remainder of cuts and increase depth to (4) to (6) inches deep



Curl the bucket in
When job is complete



Retract the Extend-A-Hoe
If extended



Next

Operating the Backhoe

Lock the boom



Insert the boom swing pin



Move speed control lever to idle



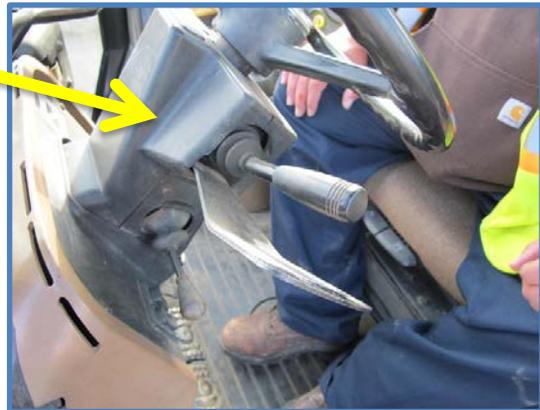
Next

Operating the Backhoe

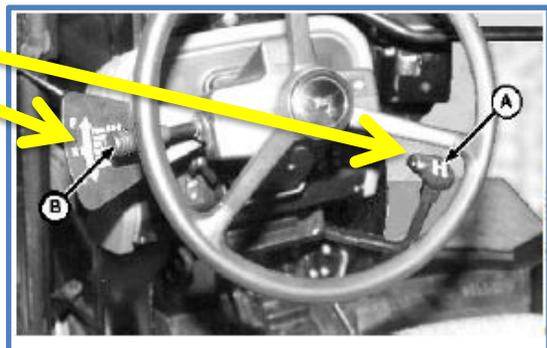
Lift seat rotate control lever and position the seat in driving position



Move the machine to clear and flat location and park it



Move the F.N.R. lever (B) and gear shift lever (A) to NEUTRAL



Next

Operating the Backhoe

PRESS the park brake ON



Allow engine to idle for 3-5 minutes to cool turbo-charger then turn ignition switch OFF and remove the key



Done

Parking The Tractor Loader Backhoe

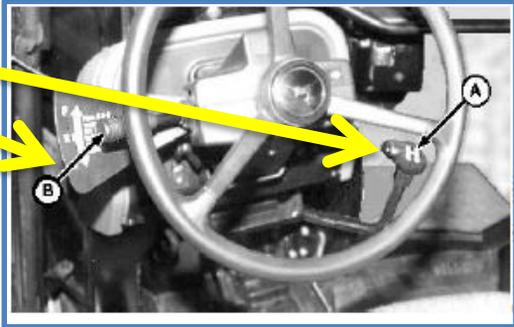
Note: When loader operation is complete the machine must be parked

PARK the machine on level ground



LOWER the bucket

Move gear shifter (A) and F.N.R. (B) to natural position



Engage **PARK** brake with switch



Next

Parking The Tractor Loader Backhoe

Allow the engine to warm up for five minutes and check instruments regularly

IMPORTANT: To avoid damage to engine, run engine at idle for two minutes before shut down

Move speed control lever to slow idle



Turn key OFF and remove from switch



Move loader control levers to release hydraulic system pressure completely



Done

Morgan Hill

Standard Operating Procedure



UNDERGROUND LOCATING

Table of Contents	
Specifications	3
Pre-Trip Inspection	5
Control System Overview	9
Underground Locating	11
Underground Locating Completed	17

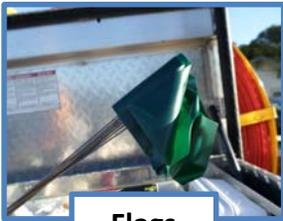
Specifications

Equipment Name	RD 7000 Plus Receiver and Transmitter
Specifications	<ul style="list-style-type: none"> Frequency range : 380Hz to 640Hz Transmitter Power: D cell batteries Locator : Dcell batteries Complies with part 15 of FCC Rules MAX Depth with Sonde : 50 feet Max depth Line : 20 feet
Min # Employees Required to Operate	<ul style="list-style-type: none"> 2
Personal Protective Equipment Required	<ul style="list-style-type: none"> Gloves (work gloves) Class II/III safety clothing Safety Shoes Eye protection
Required License	<ul style="list-style-type: none"> None
Common Hazards	<ul style="list-style-type: none"> Slips, trips and falls Traffic control Electric shock Hazardous waste contact Hazardous Gas Explosion
Guidelines for Safe Operation	<ul style="list-style-type: none"> Covered in Operator training Read the operators manual WWW.radiodetection.com

Specifications

Marking

There are several methods for marking the location of the pipe/line depending on the terrain.



Flags



Shiners



Whiskers

Pre-Trip Inspection

UNDERGROUND LOCATING EQUIPMENT AND TOOLS

Check general appearance: “Does it look right?” *Look for cracks, or other visible damage*

Inspect the push cable reel for condition



OPEN the locator case and inspect the contents



Locator (1) Transmitter(3) and Sonde (3)



Next

Pre-Trip Inspection

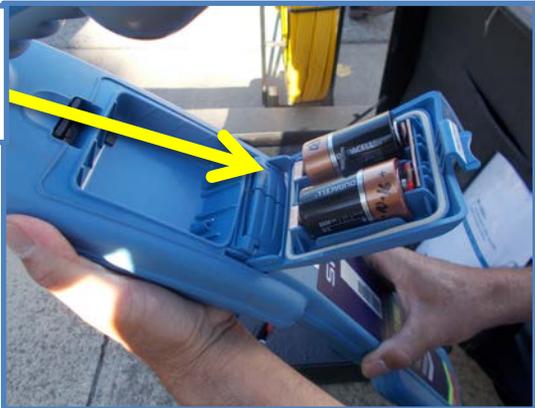
Check removable accessory tray for contents



Check transmitter battery pack for leaking batteries, new batteries should be used before each new job



Check locator battery pack for leaking batteries, new batteries should be used before each new job



Next

Pre-Trip Inspection

Locate push cable to Sonde adapter, in the case



Insure all three will thread together before going to job site



CLOSE locator case



Next

Pre-Trip Inspection

Load the push reel onto the utility truck



Load the locator case into the utility truck

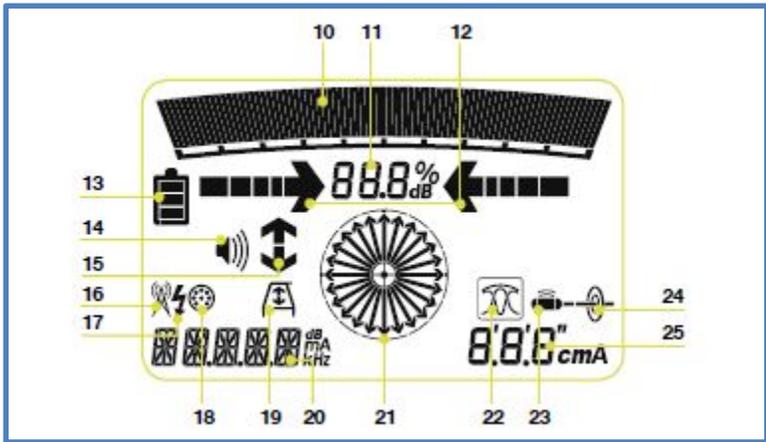
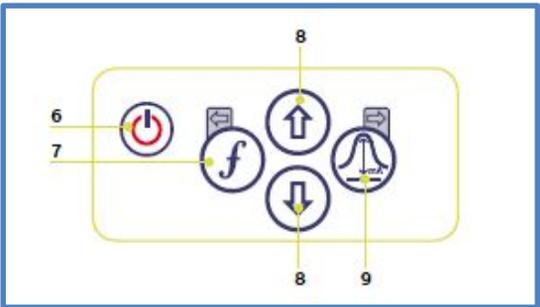


CLOSE truck tailgate and secure equipment for travel



Done

Control System Overview



Next

Control System Overview - *Continued*

Locator features

1. Keypad.
2. LCD screen.
3. Battery compartment (USB connector inside).
4. Accessory socket.
5. Headphone jack.
18. Accessory indicator: Indicates when an accessory is connected and in use.
19. A-Frame icon: Indicates when the A-Frame is connected and in use.
20. Operating mode indicator.
21. Compass:

Locator keypad

6. Power key: Switches the unit on and off. Opens the locator menu.
7. *f* key: Selects frequency/Closes submenu.
8. Up and down arrows: Adjusts the signal gain/Scrolls through menu options.
9. Antenna key: Toggle between antenna modes/Open submenu: Prolonged key press toggles between depth and current display on the LCD.
22. Indicates antenna selection.
23. Sonde icon: Indicates that the unit is set to receive signals from sondes*.
24. Line icon: Indicates that the unit is set to receive signals from lines*.
25. Depth or current indicator.

When detecting lines – shows the direction of the located cable or pipe relative to the locator.

When detecting sondes – shows the direction of the longitudinal axis of the located sonde relative to the locator.

*Take care to set Line/Sonde appropriately, otherwise the Compass display and depth display will be incorrect.

Locator display icons

10. Bargraph: Indicates strength of locate signal and peak marker.
11. Signal strength: Numerical indication of signal strength and dB reading when using Fault Find mode.
12. (Proportional) Left/Right arrows: Indicates the location of the line relative to the locator.
13. Battery icon: Indicates the battery level.
14. Volume icon: Displays the volume level.
15. Fault-Find arrows (PL and TL models only).
16. Radio Mode: Indicates when Radio Mode is selected.
17. Power Mode: Indicates when Power Mode is selected.

Done

Underground Locating with Sonde

Identify entry point to use under ground locater



Set up traffic control



OPEN manhole



Next

Underground Locating with Sonde

PRESS the power button to check battery level



Check battery in Sonde, a new battery should be used at the beginning of each day and preferably at the beginning of each job



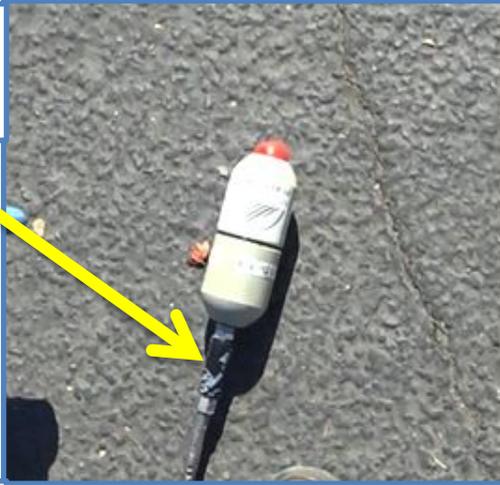
Before inserting the Sonde, check that the Sonde and the locator are on the same frequency and working correctly



Next

Underground Locating with Sonde

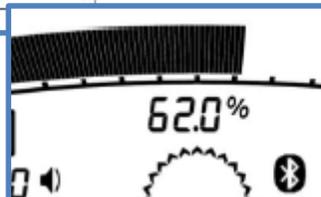
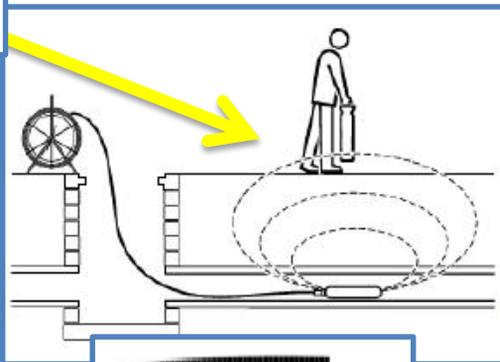
Connect the Sonde to the flexible reel by threading the Sonde to the adapter suitable wrench



Insert the Sonde into the non – metallic pipe and set the reel counter to zero



Locate the Sonde just inside the pipe adjust the locator sensitivity so bar graph reads between 60% and 80%



Next

Underground Locating with Sonde

Propel the cable and Sonde about three paces then LOCK the flex cable reel
Place the locator over the supposed position of the Sonde
DO NOT adjust sensitivity



Step (1) Move the locator back and forth and STOP when the bar graph indicates a peak
You can use the LCD compass to orient the blade of the locator with the direction of the Sonde



Step (2) Rotate the locator as if the blade is a pivot
STOP when the bar graph indicates a peak



Next

Underground Locating with Sonde

Step (3) Move the locator from side to side until bar graph indicates a peak



Bar graph at peak



Repeat steps 1, 2, and 3, with the antenna in the vertical and resting on the ground
The locator should then be directly over the Sonde with the antenna in line with it
MARK the position of the Sonde and the direction

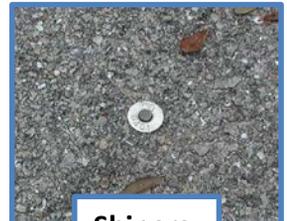
Next

Underground Locating with Sonde

Unlock the cable reel



Flags



Shiners



Whiskers

Propel the Sonde another 1 to 2 meters, pinpoint, and mark the position
Repeat this pinpoint procedure at similar intervals along the line of the pipe until the survey is completed



Done

Underground Locating Completed

Reel in the cable
Clean cable using a rag soaked in a disinfectant



Lock cable reel



Disconnect Sonde and adapter from the flex cable



Next

Underground Locating Completed

Replace manhole cover



Pick up traffic control and store on utility truck



Store all locator equipment in case



Next

Underground Locating Completed

Store all equipment on utility truck



CLOSE tailgate



Done

City of Morgan Hill

Standard Operating Procedure



Vaccon Jetter

Table of Contents	
Specifications	3
Pre-Trip Inspection	4
Control System Overview	18
Diesel Particulate Filter (DPF)	19
Filling the Water Tank	20
Jetting a Line	23
Handgun Operation	35

Specifications

Equipment Name	Vaccon Jetter
Specifications	<ul style="list-style-type: none"> • 1500 gallon water tank
Min # Employees Required to Operate	<ul style="list-style-type: none"> • 2
Personal Protective Equipment Required	<ul style="list-style-type: none"> • Gloves • Ear protection • Eye protection • Safety shoes • Class II or III safety clothing
Required License	<ul style="list-style-type: none"> • Class A/B, with air brake and tanker endorsements
Common Hazards	<ul style="list-style-type: none"> • Sanitation • Traffic • Excessive noise • High Pressure Water • Slips, trips and falls
Guidelines for Safe Operation	<ul style="list-style-type: none"> • Watch water level • Be aware of the location of the nozzle at all times • Watch for hydraulic and water leaks • Be aware of unusual noises • Be alert while driving
Emergency Procedures	<ul style="list-style-type: none"> • Covered in operator training

Pre-Trip Inspection

Always follow the DOT Vehicle Inspection checklist during the pre-trip inspection.

JETTER CHECKLIST

Check daily before operation

- Check for fluid leaks
- Check oil level
- Check tire thread depth/air pressure
- Check hubs for loose bolts or leaks
- Check all lighting devices and reflectors
- Check all beacons, strobes and arrow boards
- Check that all tools and accessories are securely fastened to the vehicle
- Check and refill gloves as needed
- Check that all cover and tool boxes are closed and secure before driving
- Check horn/air horn
- Check service brakes
- Check air pressure gauge that it is working properly
- Check PTO
- Check water level
- Grease all required fittings in accordance with City policy
- Fill out a daily driver's vehicle inspection report after inspection is complete
 - Include engine hours in comment section of the form

Use the following checklist to annotate results of the inspection.

Next

Pre-Trip Inspection

	DATE	MILEAGE	VEHICLE NO.
DAILY VEHICLE CONDITION REPORT			
As required by the D.O.T. Federal Motor Carrier Safety Regulations and the California Code of Regulations, I submit the following:			
Inspect items listed — Press Hard 3 Copies			
<input checked="" type="checkbox"/> Check if defective and describe in "Remarks".			
ENGINE COMPARTMENT		AIR SYSTEM	
40 <input type="checkbox"/> Fluid leaks under vehicle	40 <input type="checkbox"/> Oil level	42 <input type="checkbox"/> Coolant level	35 <input type="checkbox"/> Battery
26 <input type="checkbox"/> Transmission	43 <input type="checkbox"/> Exhaust system	42 <input type="checkbox"/> Belts and hoses	
		13 <input type="checkbox"/> Low air warning device	13 <input type="checkbox"/> Air pressure loss/static max. pressure _____
		13 <input type="checkbox"/> Air leaks/applied (max. loss, 3 lbs/min.)	13 <input type="checkbox"/> Adjustment needed? _____ Yes _____ No
INSIDE CAB		OUTSIDE	
02 <input type="checkbox"/> Glass and mirrors	02 <input type="checkbox"/> Seat belts	03 <input type="checkbox"/> Gauges and horn	02 <input type="checkbox"/> Windshield wipers
98 <input type="checkbox"/> Fire extinguisher	53 <input type="checkbox"/> Safety flares/triangles	91 <input type="checkbox"/> Registration and permits	91 <input type="checkbox"/> Insurance and fuel cards
13 <input type="checkbox"/> Brakes	21 <input type="checkbox"/> Clutch	PM <input type="checkbox"/> Service due _____	<input type="checkbox"/> Other _____
		17 <input type="checkbox"/> Tires	18 <input type="checkbox"/> Wheels
		34 <input type="checkbox"/> Reflectors	53 <input type="checkbox"/> Mud flaps
		15 <input type="checkbox"/> Steering	44 <input type="checkbox"/> Fuel cap/tank/mounting
		95 <input type="checkbox"/> New body damage	34 <input type="checkbox"/> Parking lamps
		34 <input type="checkbox"/> Head lamps, high_low_	34 <input type="checkbox"/> Turn signals
		34 <input type="checkbox"/> Emergency flashers/lamps	59 <input type="checkbox"/> Trailer coupling devices
Remarks _____			

CONDITION OF THIS VEHICLE IS:			
<input type="checkbox"/> Satisfactory		<input type="checkbox"/> Unsatisfactory	
Driver's Signature _____			
Employee No. _____			
AUTOMOTIVE SERVICES USE ONLY			
<input type="checkbox"/> Above defects corrected		<input type="checkbox"/> Above defects need not be corrected for safe operation	
Mechanic's Signature _____		Date _____	
Reviewed by _____		Date _____	
WHITE-Auto Svcs (file 30 days) • YELLOW-keep in vehicle 7 days • PINK-Dept./Division (file 30 days)			

Next

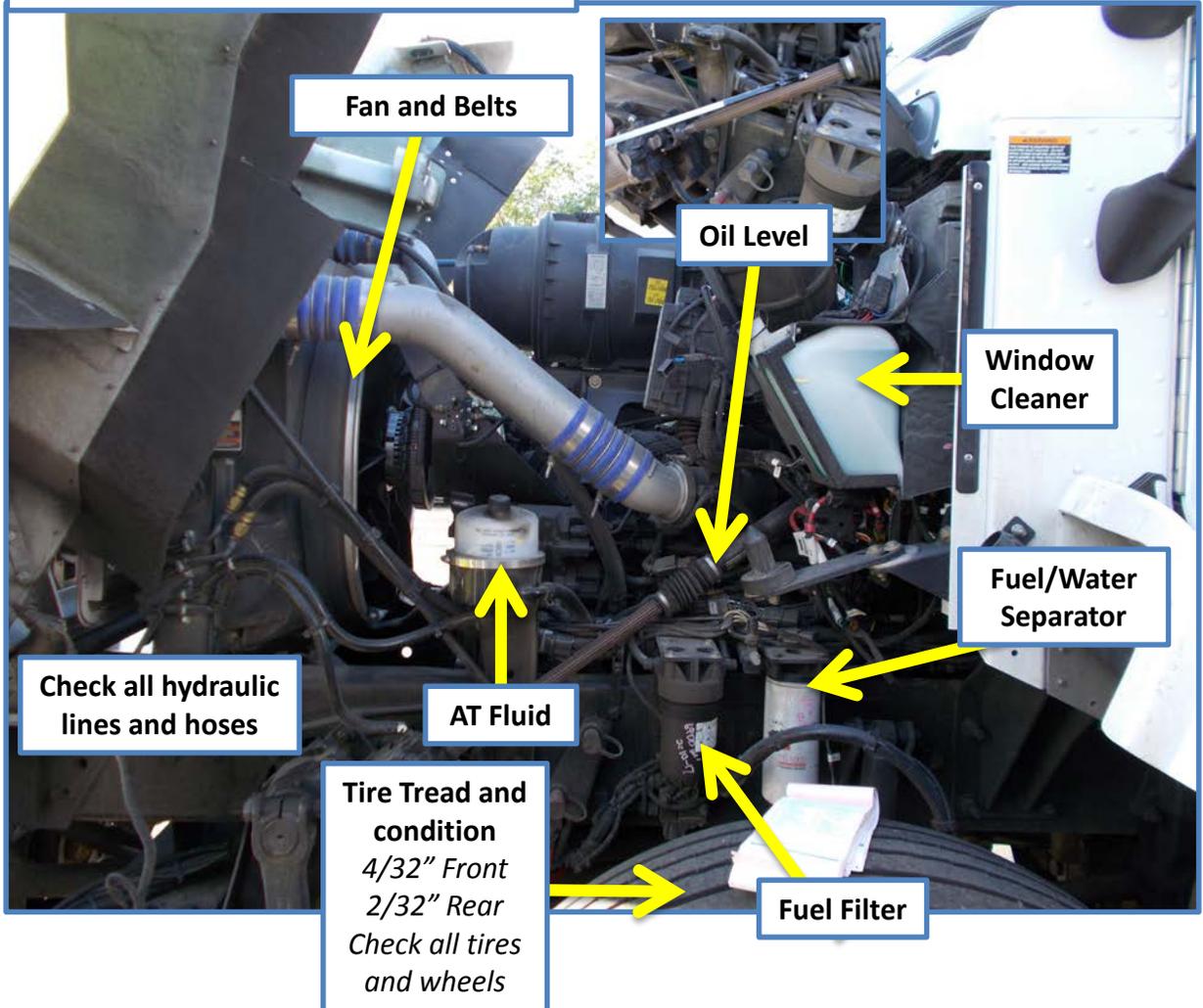
Pre-Trip Inspection

Check general appearance: “Does it look right?” Look for leaks, scratches, dents or other visible damage around the truck

Always use three points of contact whenever getting in, out, or climbing on the truck.



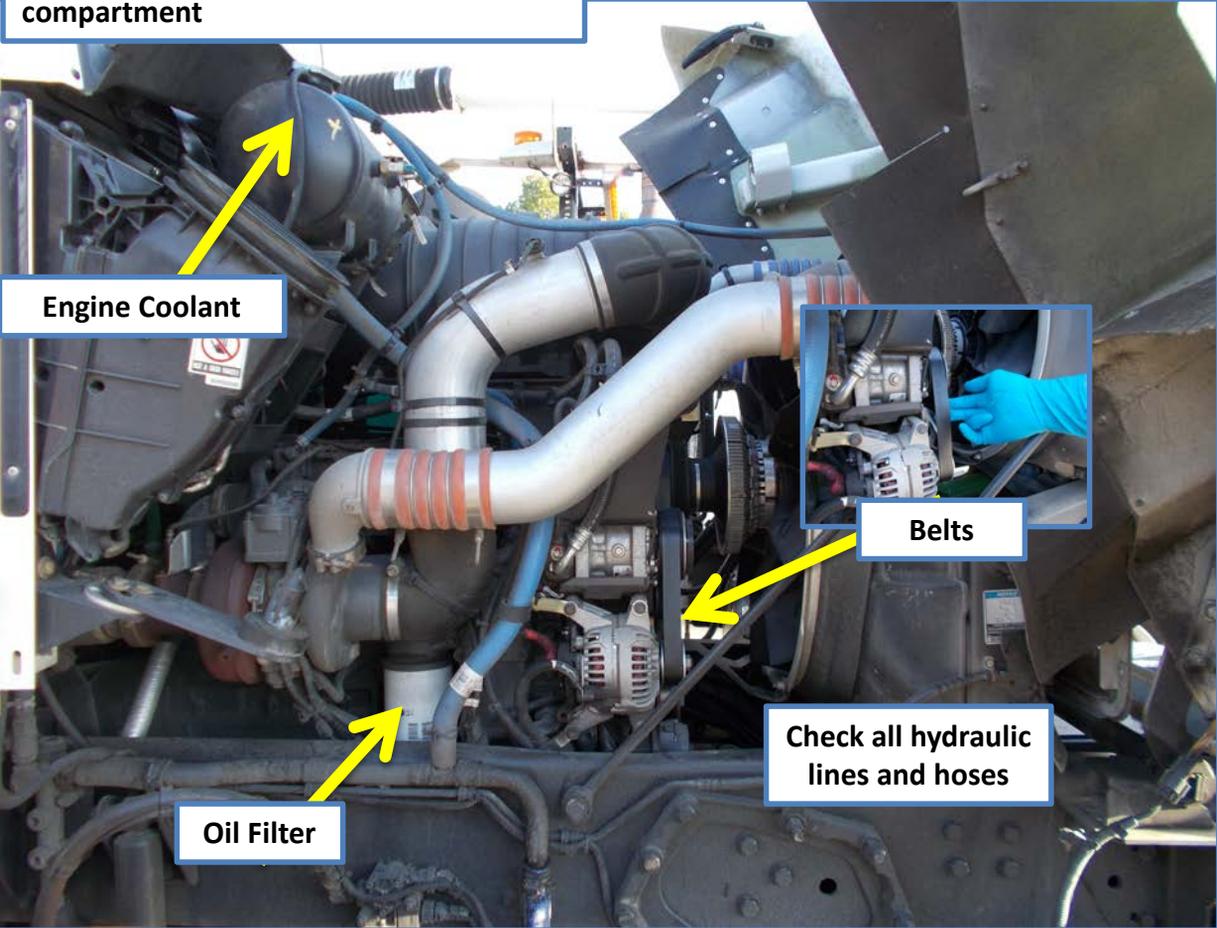
Check drivers side engine compartment



Next

Pre-Trip Inspection

Check passenger side engine compartment



Check air brakes

Next

Pre-Trip Inspection

Secure hood latches when engine checks are completed



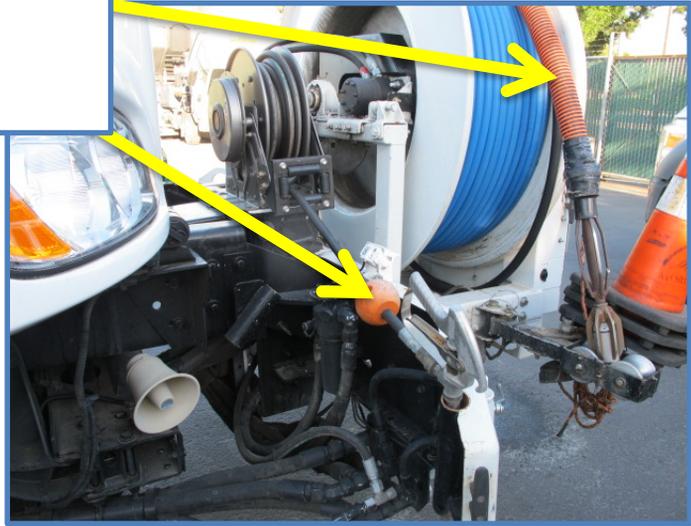
Check hose reel
Verify valves are OFF
Check hoses for leaks or damage
Verify OMNIBUS is secured for travel
Check cones



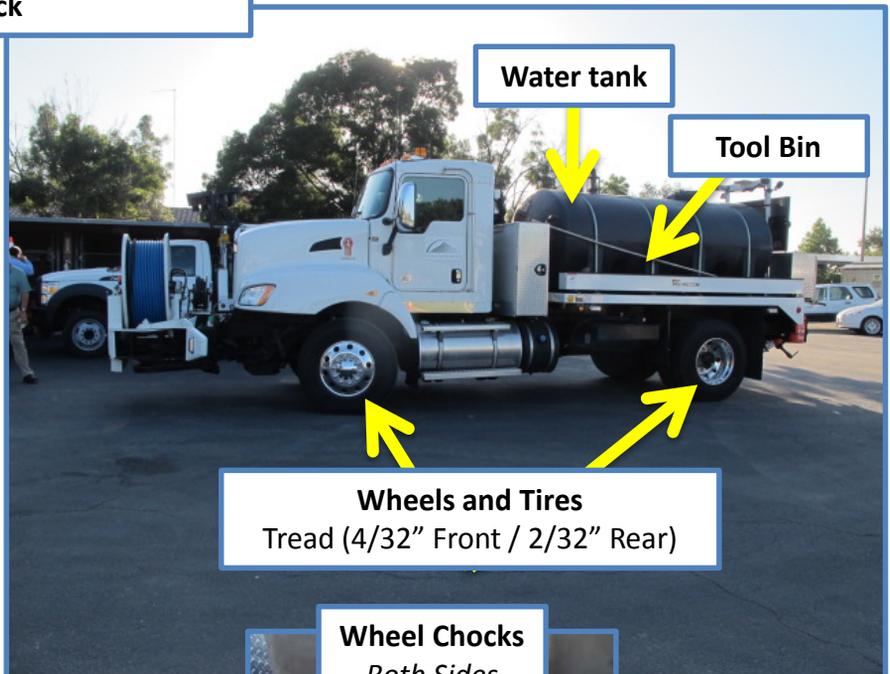
Next

Pre-Trip Inspection

Check the rodder hose, nozzle, and hand gun system are secured for travel
Check hoses for leaks or damage
Check tiger tail for damage



Check driver side of truck



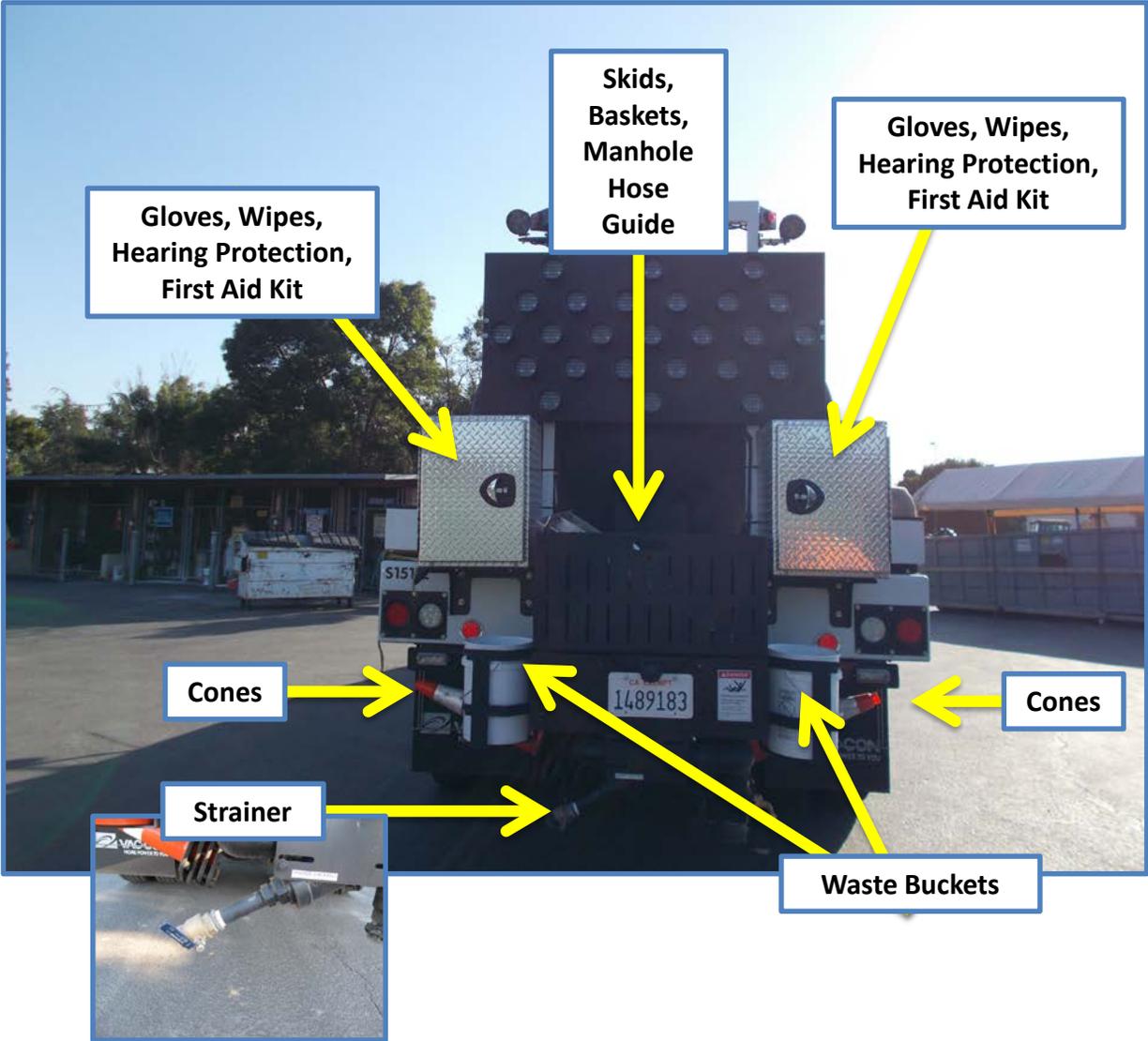
Wheels and Tires
Tread (4/32" Front / 2/32" Rear)

Wheel Chocks
Both Sides

Next

Pre-Trip Inspection

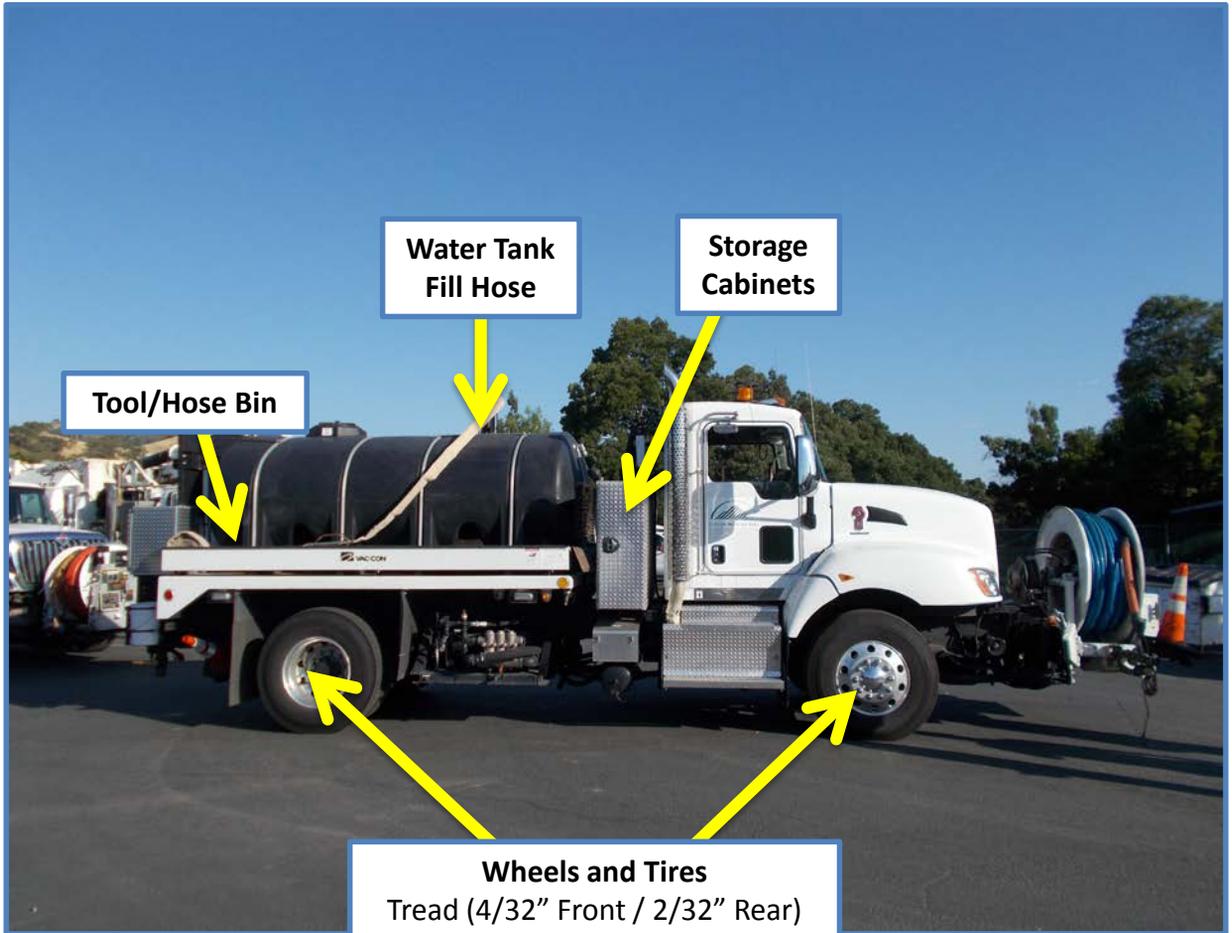
Check the rear of the truck



Next

Pre-Trip Inspection

Check passenger side of the truck



Next

Pre-Trip Inspection

Verify parking brake is engaged
In the Pulled position



Start the truck



Check manhole alignment camera



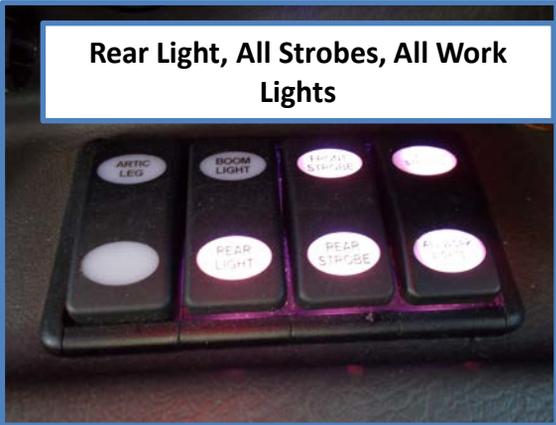
Next

Pre-Trip Inspection

Verify truck has enough fuel



Turn ON all exterior lights



Next

Pre-Trip Inspection

Check Beacons and Front Strobe Lights



Check Arrow Board, Rear Flashers, Working Lights, and Rear Strobe lights



Check side strobe lights (both sides) and wheel well fender flashing lights



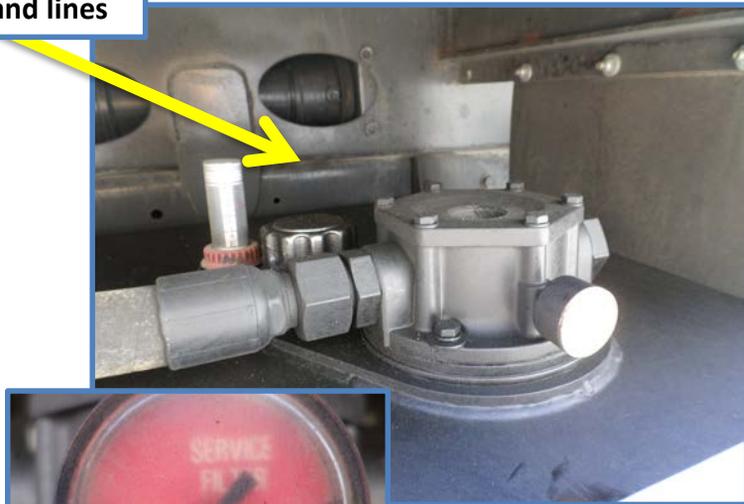
Next

Pre-Trip Inspection

Check the water strainer
Open momentarily to flush



Check hydraulic fuel level and lines



Next

Pre-Trip Inspection

Class A/B Brake Checks

Any air brake failure, in whole or in part, fails the entire vehicle. If a step/procedure fails, pull the keys and deliver them to your supervisor and report the problem.

Air Compressor Cut Out and Cut In Test

- Chock wheels
- Start engine and build up air until alarm goes off and compressor/governor cuts out
 - Air Compressor/governor must cut-out before reaching a maximum of 130psi
 - Acceptable cut-out range is 110-120psi
- Release parking brake
- Pump the brakes to decrease psi
 - Air compressor should cut-in and not allow lower than 85psi
 - Watch needle for movement in-between each pump
- Done



Static Test for Pressure Loss

- Chock wheels
- Turn engine off
- Release al brakes
- Allow system to settle
 - Air gauge needle stops moving
 - Observe pressure loss for 1 minute
 - Observe pressure loss no greater than 2psi per minute
- Done

An air loss greater than those shown above indicate a problem in the braking system and repairs are needed before operating the truck.



Next

Pre-Trip Inspection

Class A/B Brake Checks

Any air brake failure, in whole or in part, fails the entire vehicle. If a step/procedure fails, pull the keys and deliver them to your supervisor and report the problem.

Applied Test for Pressure Loss

- Chock wheels
- Turn off engine
- Push in Parking Brake air supply knob
- Allow system to settle
 - Air gauge needle stops moving
- Step on brake and hold for 1 minute
- Observe pressure loss no greater than 3psi
- Pull out Parking Brake air supply knob
- Done

An air loss greater than those shown above indicate a problem in the braking system and repairs are needed before operating the truck.



Low Pressure Warning Device

A minimum of 75psi in tanks is needed to perform this test.

- Chock wheels
- Turn key to the ON position
 - Do not start engine
- Slowly pump brake to reduce psi
 - Low pressure warning device (light/alarm) will activate between 75 and 55 psi
- Done



Next

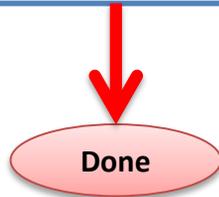
Pre-Trip Inspection

Class A/B Brake Checks

Any air brake failure, in whole or in part, fails the entire vehicle. If a step/procedure fails, pull the keys and deliver them to your supervisor and report the problem.

Parking Brake System Operation

- Verify the Parking Brake is engaged
- Remove and stow wheel chock
- Put on seat belt
- Turn engine on
- Continue to build pressure to 110 to 120 psi
- Place truck in drive
- Lightly press the accelerator
 - TRUCK SHOULD NOT MOVE
- Apply the foot brake
- Release the Parking Brake
 - Push IN
- Release the foot brake
- Lightly press the accelerator
 - TRUCK SHOULD MOVE

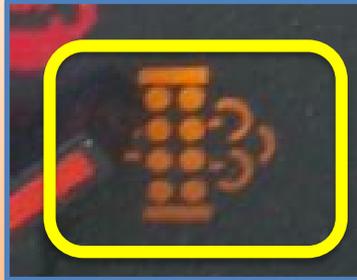


Diesel Particulate Filter (DPF)

WARNING

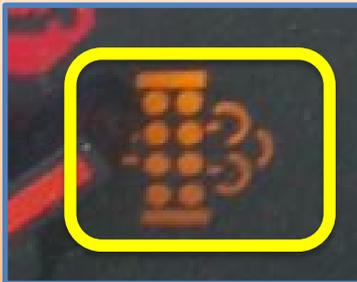
Never drive the truck in a refinery, weeds/grass, or known hazardous atmosphere with the DPF system engaged (ON). The exhaust system is very hot and can cause a fire or explosion.

If the Diesel Particulate Filter (DPF) control illuminates and is solid, carry out the following step.



Drive on highway at highway speeds OR start Parked Regeneration Below

If the Diesel Particulate Filter (DPF) control illuminates and is flashing, carry out the following step.



Pull vehicle safely off roadway and start Parked Regeneration

Turn ON the PARKD REGEN switch



Done

Filling the Water Tank

Open hydrant access cap



Open hydrant valve and flush hydrant
Until water color is clear



Close hydrant valve



Next

Filling the Water Tank

Payout fire hose and attach to hydrant access
Do not over tighten



Slowly open hydrant valve



Monitor tank level and close hydrant valve when full



Next

Filling the Water Tank

Disconnect fire hose from hydrant and replace access cap



Lift and walk out the length of fire hose to drain excess water



Roll up fire hose and store on truck



Done

Jetting a Line

Position hose reel over manhole, set parking brake and place truck in neutral



Setup Traffic Control
Signage, directional arrow board and strobe lights (as necessary per job site)



Don PPE
Class II/III Safety Vest, Gloves, Hard Hat, and Hearing Protection



Next

Jetting a Line

Remove reel locking pin

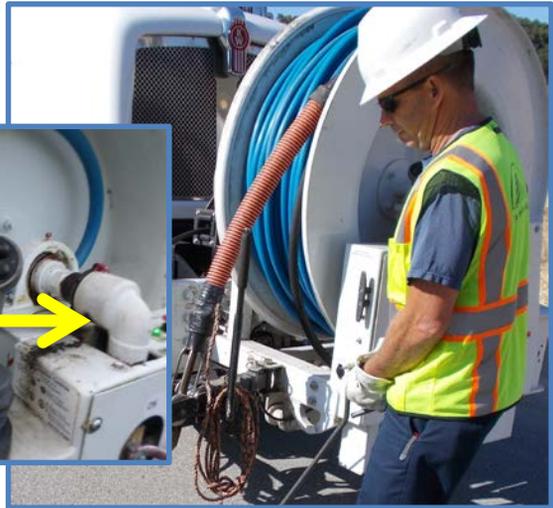
If necessary to articulate the hose reel



Articulate hose reel into desired position (if necessary)

Press Upper Left Button and push joystick to the right

Ensure nobody is standing in front of the reel



Lower Artic Leg

Press Upper Left Button and twist joystick clockwise



Next

Jetting a Line

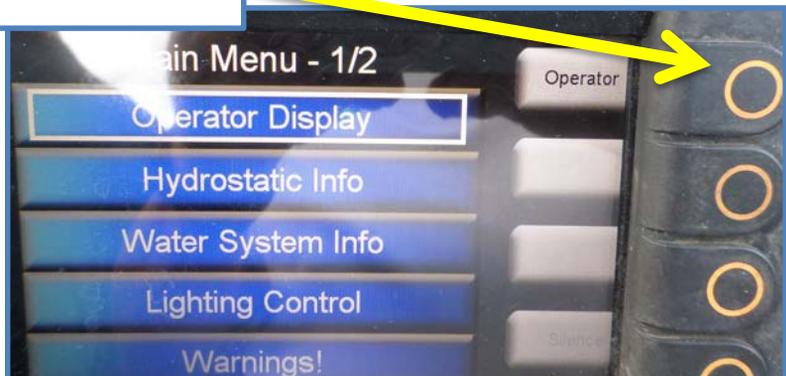
Open manhole



Verify flow direction



Verify OMNIBUS control is in Operator Display mode



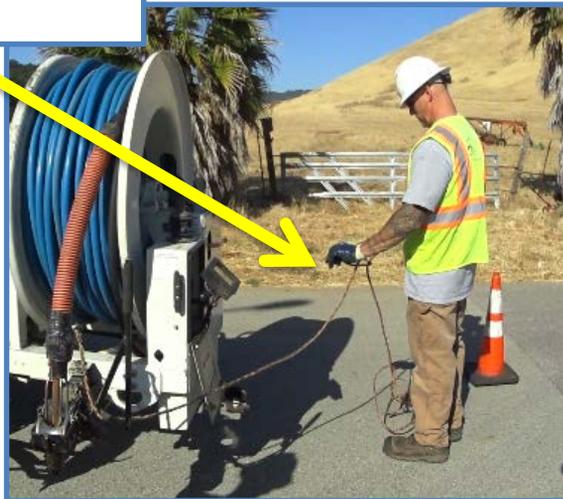
Next

Jetting a Line

Remove house roller guide pin



Uncoil Tiger Tail Tag Line



Bump Up reel speed to desired level
Use upper toggle switch on joystick



Next

Jetting a Line

**Payout hose to facilitate removal of nozzle
from hose guide**
Push joystick to the left



Remove hose guide locking pin



Lower hose and tiger tail into manhole



Next

Jetting a Line

Position hose and tiger tail in line
Run hose 10' into line



Tie off tiger tail tag line to truck



Close hose guide rollers and replace pin



Next

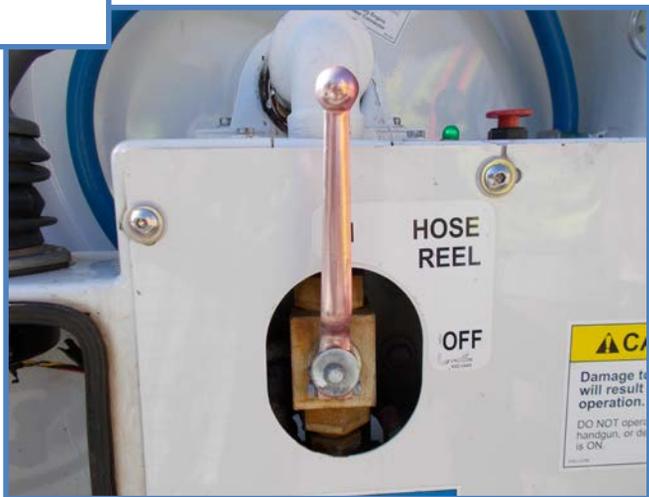
Jetting a Line

Reset counter

Press the Rest Counter button on the OMNIBUS control panel



Turn ON hose reel



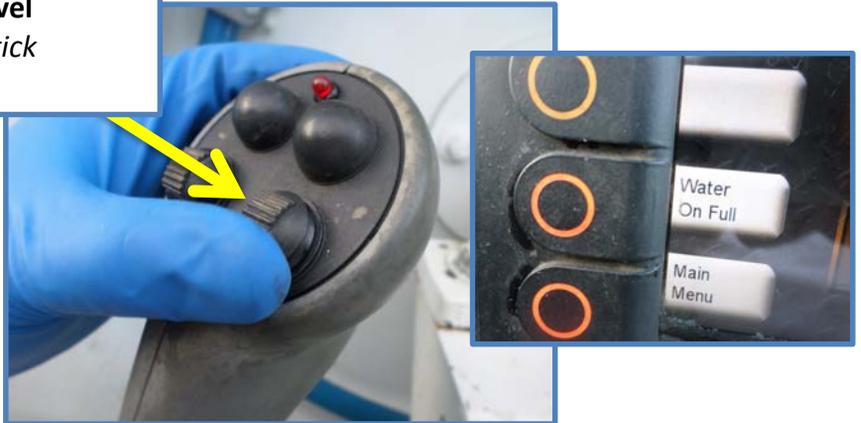
Turn ON pump control



Next

Jetting a Line

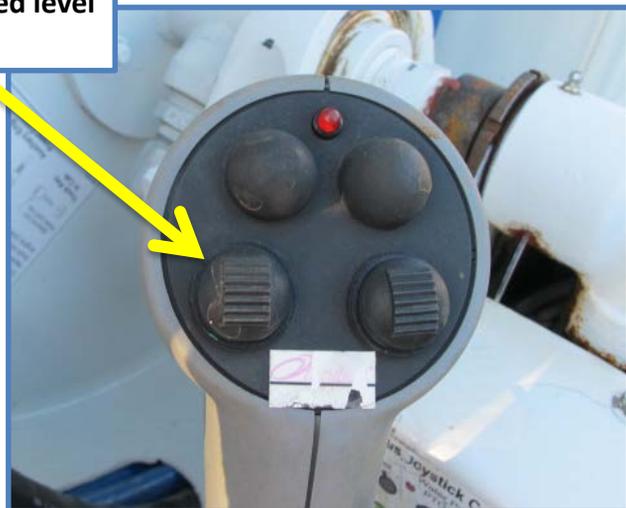
Toggle to desired water level
Lower right button on joystick
Usual setting is 100%



Place debris basket in line



Increase engine RPM to desired level
Lower left button on joystick



Next

Jetting a Line

Verify desired PSI

Normal operating PSI is 2600



Payout hose and clean the line at desired speed

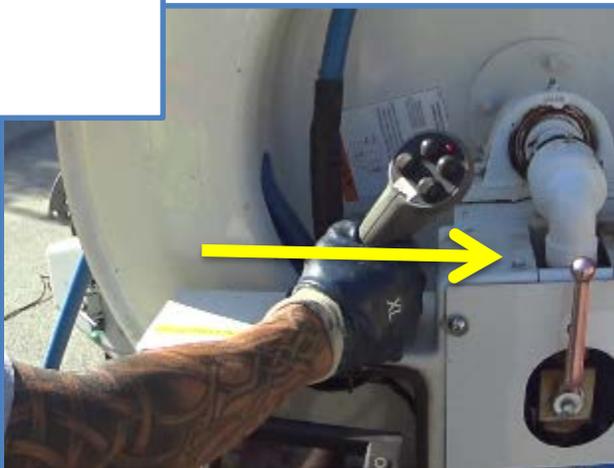
Push joystick to the left
Watch/communicate with upstream manhole CSW



Continue with procedure when jetting is completed.

Retrieve hose at desired speed

Push joystick to the right
Pull back at approximately 1500psi



Next

Jetting a Line

Turn OFF water supply

When nozzle is within 2-3 feet of line opening in the channel

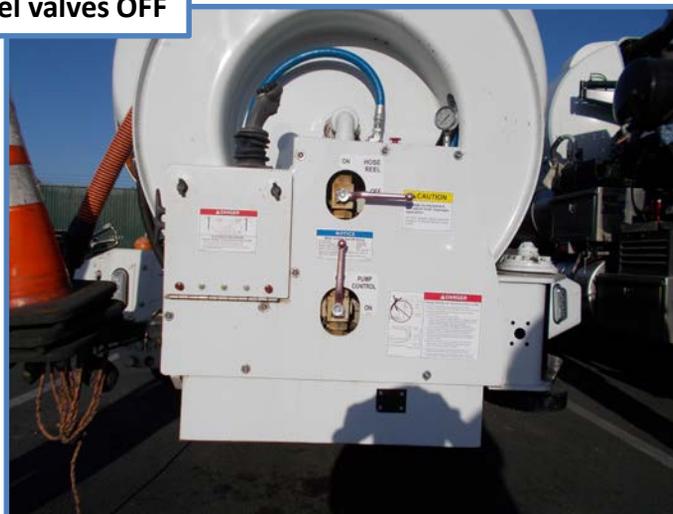


Lower engine RPM to zero

Push joystick to the left



Turn Pump Control and Hose Reel valves OFF



Next

Jetting a Line

Remove the debris basket
Place debris in a bucket



Remove hose and tiger tail and stow in hose guides
Replace hose guide pin



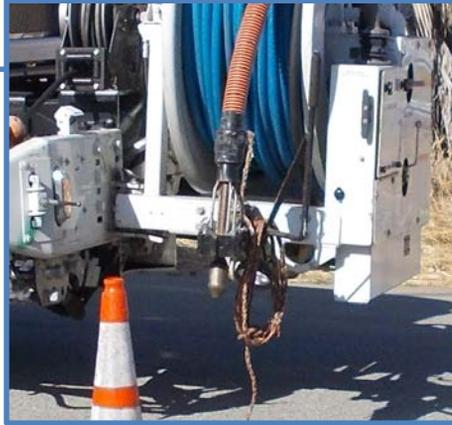
Replace articulating wheel pin
If wheel was articulated during operation



Next

Jetting a Line

Coil and store tiger tail tag line



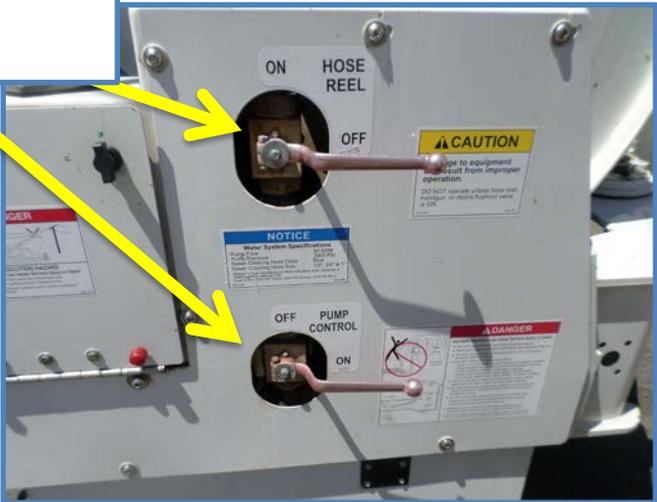
Close the manhole cover and remove traffic control



Done

Handgun Operation

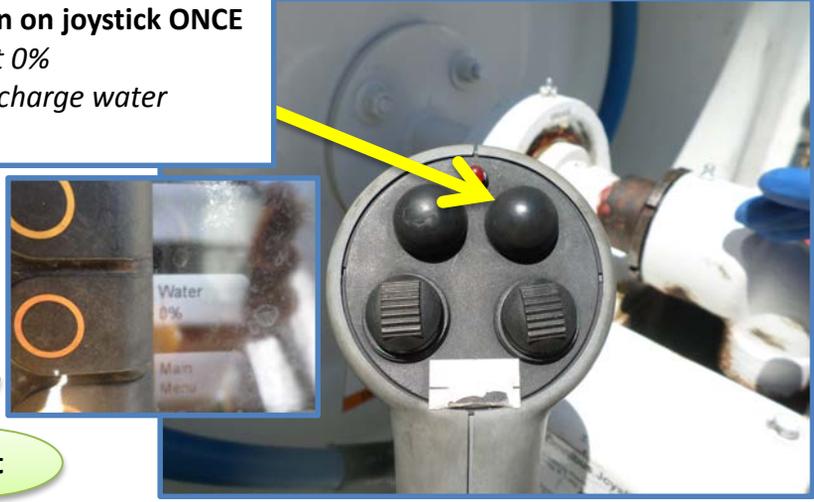
Turn Pump Control valve ON
Verify Hose Reel valve is OFF



Turn Handgun valve ON



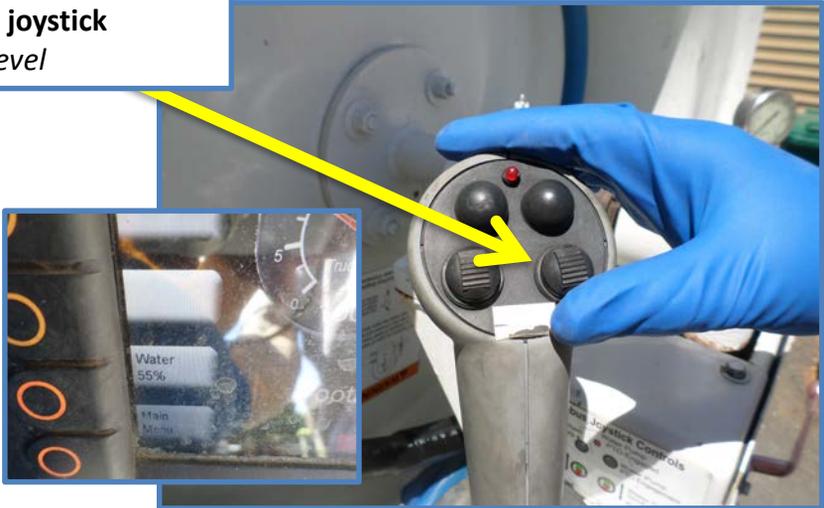
Press upper right button on joystick ONCE
Turn water supply ON at 0%
Do not press twice (will charge water supply to 100%)



Next

Handgun Operation

Bump lower left button on joystick
Bump up to desired water level



Verify maximum water pressure is 500psi
A water supply reading of 55% will provide 500psi to the handgun



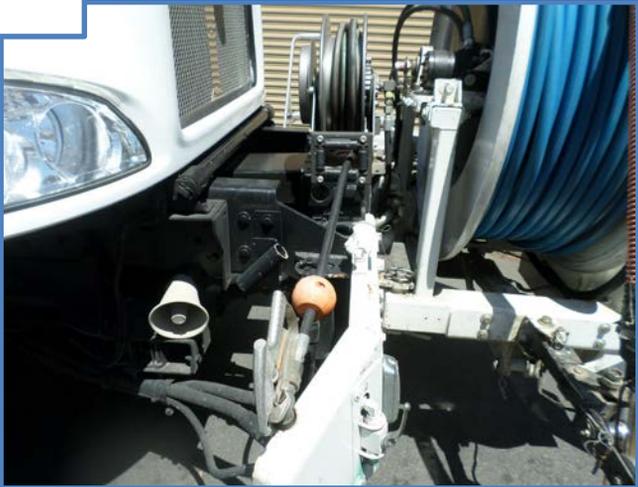
Extend hand gun hose and use trigger to spray
Always use both hand to hold the handgun when in use



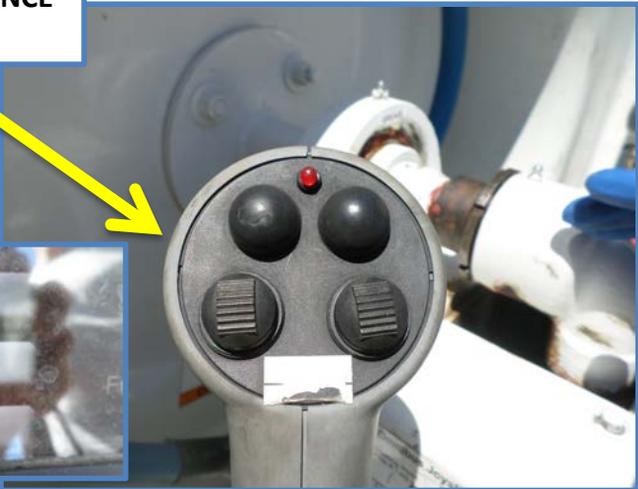
Next

Handgun Operation

Store hand gun after use



Press upper right button on joystick ONCE
Shuts off water supply



Turn Pump Control valve to OFF



Next

Handgun Operation

Turn Handgun valve OFF

