



MORNING SAW CHECK, CLEANING & MAINTENANCE



CHAINSAW

- PERFORM A GENERAL INSPECTION OF THE OVERALL CONDITION OF THE SAW:
 - Did the shift before use the saw?
 - Is it clean overall?
 - Is the chain on correctly (raker in front)?
 - Is the chain tensioned properly?
 - Does the chainsaw have bar oil and fuel?
 - Does the chain have all of the carbide teeth? (3 teeth in a row missing or 1/3rd of total) If so, the chain shall be placed out of service.
 - Check the air filter for cleanliness.
- STARTING THE SAW:
 - Choke out
 - Decompression pressed in
 - Chain brake engaged
 - Pull handle using short strokes until saw starts firing
 - Press decompression switch again, choke in half choke or no choke or if using a Stihl saw, move the choke up one level to "fast Idle" position.
 - Start the saw by pulling on handle until saw starts running

IT IS VERY IMPORTANT AT THIS STEP, ONCE SAW IS RUNNING, PRESS THE TRIGGER TO BRING ENGINE TO IDLE AND DISENGAGE THE CHAIN BRAKE!

- Allow saw to warm up for about one minute (This is the perfect time to check another saw and turn it on)
- Run the saw at mid-range for about thirty to forty-five seconds (This allows the oiler to properly lubricate the bar and chain.
- Check for oiler operation by aiming down and checking for a line of oil on the ground.
- Let saw idle for thirty seconds then run at full RPM for thirty seconds then back to idle for thirty seconds before shutting down.
- Once saw is shut down and cooled, make sure fuel and bar oil is topped off and chain is still properly tensioned.

***Note:** There may be some bar oil seeping out afterwards. This is normal and due to rapid expansion and retraction due to heating and cooling. If bar oil completely drains out after saw has cooled down then there is a clog or leak somewhere and saw needs to be placed out of service. The oiler

should be set to heavy due to the work and conditions saws are used in the fire service and should be refilled almost at a 1:1 ratio when refueling saw. If the saw had to be cleaned (or periodically), spray cooling fins, front metal guard, bar and chain with non-stick cooking spray (makes tar harder to stick and chainsaw easier to clean)

- CLEANING THE SAW:

Cleaning will be dictated by how dirty saw is. There is general cleaning as well as deep cleaning, latter usually done when saw was exposed to sap, tar, or heavy usage and cooling fins show signs of dirtiness.

- First, start the saw as you would do in your morning routine and run it for a few minutes, alternating in medium range, idle, and high range to warm up saw, and get a bunch of chunks of dirty particles excreted.
- Once saw is warm enough, shut it off and use air compressor to blow any visible particles off.
- Wash with soap and water, being careful of the saw's electronic components, and then dry saw.
- Take bar and chain off saw scrub off any residue. For tar, use gasoline, kerosene, or parts washer/break parts cleaner to spray bar and chain and then peel off using a scraper. Make sure you get the inside of the bar, using a flat head screwdriver or srench or using a pick.
- This is also a good time to check the bar for any burrs or deformities.
- Any burrs can be cleaned by using a bastard file. Check chain for any missing links/rakers/carbide teeth missing and repair/replace/sharpen as necessary.
- Wipe down around clutch, oiler, clutch protective housing and use compressed air.
- You may have to use picks to get in between the holes around the clutch and sprockets.
- Remove air filter cover and spark plug to expose all of the cooling fins and blow out any particles using compressed air. For tar/gummed up particles, use a 9/64" drill bit at low rpm to break away these particles.
- Spray or brush solvent to finish cleaning rest of cooling fins, being careful of intake side, then completely dry using compressed air (make sure spark plug is back on but not connected to ignition wire to keep debris out of cylinder while cleaning).
- Clean the front plate if saw has one. Both the inside and outside. You may have to take it apart to clean the back side as well as the muffler.
- Before reassembly, spray the cleaned cylinder cooling fins with non-stick cooking spray and then reassemble. Once bar and chain have been reassembled, spray with non-stick cooking spray judiciously on bar and chain.

ROTARY SAW

- PERFORM A GENERAL INSPECTION ON SAW:

- Pay attention to the blade itself.
- Make sure the rpm on blade matches the rpm of the saw.
- If aluminum oxide: are there any signs of degradation or cracks?
- For carbide teeth: if three in a row or a third of the total number of teeth in the blade are missing, this renders blade out of service
- For diamond blades: make sure it is the right diamond for the job (fire rescue uses vacuum bronze welded diamond blades) as well as no cracks or deformities.
- There should be no metal or tar slag inside guard.
- Arbor screw should be a little over hand tight.
- Check the bottom for the vibration springs to make sure they are not broken.
- A rotary saw is run by a belt, check the tension of the belt. (It should feel taught).
- Check the air filter (especially if saw was used to cut concrete. Some saws have two filters, one by the choke/carburetor, and one that is oil-soaked sponge like that sits right underneath protective housing shroud.
- Ensure there are no bolts missing or lose throughout entire saw.

- STARTING THE SAW:

- Almost the same as a chainsaw except there is no chain or inertia brake.
- Make sure decompression switch is pressed if saw has it and choke is all the way out.
- Start saw by pulling on pull handle using short strokes until saw starts to crank over.
- Press choke lever all the way in and press decompression switch all over again and start pulling on pull handle until saw starts running.
- Press trigger to disengage from fast idle and let saw idle for approx. one minute to let it warm up. After one minute, let saw run at medium speed for thirty seconds. At this time, you may see some blue smoke coming out (normal, burning the rich fuel or fuel that was left around cylinder/piston prior to turning saw on again)
- Let idle for thirty seconds.
- Press trigger to run saw at full speed for thirty to forty-five seconds.
- Let idle for a minute and then shut saw off.
- Make sure saw is refueled if need be.

- CLEANING SAW AFTER USE:

- Cleaning is based on the usage, the material the saw was cutting and how soiled it is.
- Make sure choke lever is fully out to block any particles from entering carburetor.
- Being careful of electronic components: Use soap and water and/or air compressor to wash exterior, being careful of electronic components.
- Pay attention to inside guard blade and knock out metal/concrete slag with long screw driver and hammer or if tar based, use a solvent such as kerosene or brake parts cleaner or gasoline to loosen and remove built up (discard waste fuel according to departmental orders or hazardous waste protocols).

- Take off pull handle cover and wash inside with soap and water.
- Inspect rope and handle to make sure it is still operational.
- Reinstall pull handle cover.
- Take apart the tensioning belt protective housing and inspect the belt for any wear/frays/tears as well as any rocks or dirt by the pulleys or through the pulleys that can damage the saw. Brush away with compressed air.
- Use degreaser as needed, making sure you wipe away and completely dry area before reinstalling protective housing.
- Lay saw on side and expose cooling fins: Blow away any particles with a compressed air. Any caked tar or product still on cooling fins may need to be taken apart using a 9/64" drill bit at low speed to break it apart, being careful not to damage the fins.
- Brush some degreaser or kerosene on fins and remove using compressed air. Fins must be completely degreaser free and dry before using saw again.
- Take spark plug out and inspect it for fouling and proper operation.
- Place a shop rag in where spark plug should be at to prevent any particles from entering piston/cylinder.
- Reinsert spark plug.
- Make sure decompression switch is not gummed up, use degreaser around area and wipe clean accordingly.
- Once saw is completely clean and dry, it is ready to be placed back in service.

CLEARING A FLOODED SAW

- Make sure choke is all the way in.
- On chain saw, make sure it is on run position, on rotaries, make sure off switch is engaged.
- Pull on handle 10-15 times.
- On chainsaw, hold throttle wide open and do not let go. Pull saw until it starts.
- Disengage the off button on rotary saw and start cranking saw again until saw starts.

BATTERY OPERATED AND CORDED SAWS

- Every battery should be marked with a number and go through a rotation of: tool, extra, charger.
- Check for operation of tool and overall cleanliness.
- Replace blades and chains as appropriate.
- Make sure blade TPI (Teeth per Inch) matches with material to be cut.
- Make sure there are no cuts on wire of corded band saws/reciprocating saws/chainsaws.
- Keep extra blades with saws.