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TOPIC #10: Husqvarna K 970 Rescue Saw



This topic is intended to give the fire fighter the basic information for operation and normal maintenance of the Husqvarna K970 Rescue saw. *For more in-depth information or repair instructions see the owner's manual.*

The K970 Rescue saw will be carried by all ladder companies and both Heavy Rescue Squads. Some outlying Engine companies also be issued the Rescue saw as well. It is used to cut metal, masonry and wood, depending on the situation and blade attached.

K970 Rescue saw is a 95cc saw, with 6.1 HP. It is air cooled and of 2- stroke engine design. It weighs less than 23 lbs and will be issued with a shoulder strap. The saw is designed to operate at a maximum of 5400 rpm at full throttle.

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BLADES

There are two types of 14" saw blades used in the CFD.


1. The Piraya diamond blade is a steel core blade that is vacuum brazed with high quality diamonds. It can be used to cut numerous materials to include metal, masonry and wood. This blade should be the primary blade carried on the K12 Rescue saw. To attach this blade you will need to remove the 1" arbor.
2. The 14" Carbide Tipped Blade is a deep gullet 30 toothed blade used to cut multiple types of materials. This blade should be placed in service when extended wood cutting operations are being performed. It should be noted that this blade may have a tendency for significant kick back. Caution should be exercised with this fact in mind.

Note: Most blades are designed to rotate in one direction. You must look on the label for some indication such as a direction arrow or at the cutting teeth to tell you which way the blade should be mounted on the saw.

When installing the blade, confirm that blade is adequately tight before usage to insure the blade will not become loosened during operation.



There will be no stone fiber wheels in use with the K970. Both blades will be of steel core design with either carbide or diamond tips. The diamonds are designed to wear away as they become dull but depend on the saw being operated at full throttle. Overheating can result during long continuous cuts if done improperly. During dry cutting, lift the blade out of the cutting material every 30-60 seconds and allow to rotate in the air for about 10 seconds to encourage cooling. The carbide tip blade has each tooth covered with tungsten carbide teeth. If any of these teeth are missing or loose do not use the blade. Caution should be used with this blade due to the potential for the blade to throw material.

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Ladder companies will carry the saw with the “Multi- Purpose Diamond Blade” on the saw. This prepares them to cut locks, gates, bars on windows, roll up doors or any other metal obstacle encountered during forcible entry operations.

Heavy Rescue Companies carry two saws, one saw has the “Multi-Purpose” blade and the other saw has the “Carbide” blade attached ready for use.

STORAGE:


On all companies, this model saw is carried with the choke in the off position. This differs from how these types of saws have been historically carried. The “ready to start” position, encourages flooding with this model saw. It will be necessary on a cold start to open the choke at the time of starting the saw.

FUEL:

Each company will carry a can of pre-mix fuel for the saw. The mix will consist of 50 parts gasoline to 1 part oil (50:1) forming a 2% mix. In addition to the saw and its fuel, companies should have extra blades (both types), air filter, spark plug and a set of goggles/safety glasses. When mixing new gas/oil mix, always start with a empty can. Adding new gas/oil mix to old gas/oil mix changes the mix ratio of the final product and increases the chance of starting problems.

SAFETY PRECAUTIONS

1. Wear safety glasses, goggles or use the helmet face shield while using the saw.
NOTE: the helmet face shield provides MINIMUM eye protection when using the saw. Safety glasses or goggles have a much higher safety rating and provide a much higher level of eye protection.
2. Wear gloves and turn-out gear.
3. Always start the saw before carrying it to the place of service.
4. Never carry the saw while it is running.
5. Do not “DROP START” the saw.
6. If the saw is equipped with a carrying strap, it must be removed before operating the saw.
7. Use the proper blade for each type of material to be cut.
8. When cutting any surface covered with loose material, remove any loose debris.
9. Confirm the bolt securing the blade is tight before use to prevent it from becoming loose during operation.

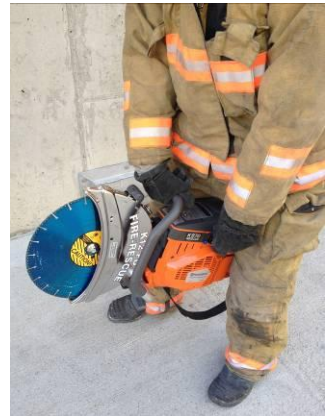
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STARTING INSTRUCTIONS

There are two approved ways to hold the saw when preparing to start.

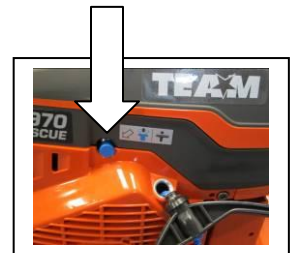
1. Place the saw on the ground, make sure you have a firm foot hold or place a knee on the back of the saw.
2. Place the rear section (air cleaner) of the saw between your legs, holding it tightly in place. Controlling the movement of the saw at all times.


Note: No one should be in the working range of the saw when you attempt to start.



STARTING PROCEDURE:

1. Ensure that the decompression valve is pressed in to reduce the pressure in the cylinder. This valve will always be pressed in before attempting to start the saw. With the saw in the hands of the operator, this valve will be blue and located on the left side of the engine housing. This valve will automatically return to its initial position when the saw starts.
2. Make sure that the stop switch is in the left position.
3. With the engine cold you will activate the choke by pulling it completely out. When the engine is warm, pull the choke out and then return it to the closed position to engage the start throttle setting
4. Press the air purge diaphragm at least 6 times to allow the diaphragm to fill with fuel. It does not need to be completely filled.



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5. When pulling the starter cord, pull slowly until you feel some resistance, then quickly and powerfully complete the pull.

6. When the engine is cold, after the initial cycle, you will need to press in the choke and the decompression valve and pull the starter handle until the saw starts. After the engine starts, quickly apply full throttle to automatically disengage the fast idle. It will be necessary to place your hand on the throttle lockout to release the throttle.

SAW FAILS TO START

If the saw fails to start, check fuel level. If it has fuel and still fails to start pull the cord multiple times. If the saw still fails to start turn the choke to the off position (leaving the throttle in the locked position) and pull the cord. After multiple attempts place the choke back in the full position and try again.

NOTE: If the saw fails to start after multiple attempts ***GET ANOTHER SAW TO COMPLETE THE TASK.***

CUTTING

Move the wheel guard around the blade to a position that allows for the cutting angle needed. Confirm the bolt holding the blade assembly is tight. When cutting always run the saw at full throttle. Allow the saw to come up to full speed before starting or continuing a cut. Listen to the engine when cutting; adjust your cut speed to allow the saw to remain at the highest RPM. Allow the saw to work at its own speed; don't try to force it to cut faster than it wants to cut, this will only slow the cutting process. Do not twist or bend the saw while cutting. Cut in as straight a line as possible. This model of saw offers a ground support assembly that can be used to decrease the work of cutting, offering support to the saw during the cut.



CARE AND MAINTAINANCE

Keep the saw clean and ready for use. Make sure the fuel is always topped off. Test the saw daily, inspect the blade, check the fuel, start and operate the saw for at least two minutes. When the saw is started allow it to run at idle speed for one minute before testing it at max throttle, this allows the internal parts to reach operating temperature and prolongs saw life. Clean the saw after each use, clean or replace.