













Name	Husqvarna 20" Chainsaw
Recommended Use	Cutting Firewood up to 300 mm diameter

Section 1: Equipment Details	
Manufacturer	Husqvarna Construction Products Supplied by Youngman Richardson &Co. NZ www.yrco.co.nz
Emergency Contact details	Garry Bull (Upper Hutt Hire) 027 742 6583
IMPORTANT: The information contained in this Standard operating Procedure is intended as a summary only. Users <u>must</u> read the operating manual and familiarize themselves with the equipment before commencing use.	

Section 2: Hazards Identification	
 	A chain saw is a dangerous tool if used carelessly or incorrectly and can cause <u>serious, even fatal injuries</u> . It is very important that you read and understand the contents of this ESDS and the operator's manual.
	This chain saw for forest service is designed for forest work such as felling, delimiting and cutting. You MUST only use the saw with the bar and chain combinations provided.
	The chain brake must be engaged when the chain saw is started to reduce the chance of contact with the moving chain during starting. Never start a chain saw unless the bar, chain and all covers are fitted correctly. Otherwise the clutch can come loose and cause personal injuries.
	NEVER "drop start" the chainsaw. Risk of loss of control. Always start the chainsaw on the ground.
	Never use the machine if you are fatigued, while under the influence of alcohol or drugs, medication or anything that could affect your vision, alertness, coordination or judgement. Operation of the equipment must not be performed by persons under the influence of alcohol, drugs, medications or any chemical substances capable of impairing the abilities of that person.
	Fuel is highly flammable, especially on hot surfaces. HANDLE WITH CARE! Never refuel while the Engine is running.

	
	Exhaust gases are poisonous. DO NOT run the engine indoors or within a confined space. Always ensure there is adequate ventilation
	Not to be operated by a person under the age of 16 years.
	Never leave the engine running when unattended. Shut the machine down even if unattended for a short period.
	Do not operate the machine unless all people are clear of the cutting hazard zone. Never reach or bend over the chainsaw while it is running.

Section 3: Additional Information

Certification: Does this item require special licensing or certification?	No
Additional links? Worksafe NZ etc	WSNZ "Safety with Chainsaws"

Section 4: Fuel and Lubricants

Fuel / Oil	Use 91 unleaded petrol and 2-stroke oil mixed 50:1
	Use approved Chain lubricant

Section 5: Log Book

Does this equipment require a daily check and entry in the log book?	No, not applicable.
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Section 6: Personal Protective Equipment (PPE)

Appropriate personal protective equipment (PPE) is required for the operator and persons assisting with loading and unloading.

 HEARING PROTECTION MUST BE WORN	 Hand protection must be worn	 Foot protection must be worn	 Wear face shield
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In addition wear suitable protective clothing to provide protection to the leg and groin area. Husqvarna recommend leather leggings or Chaps, and garters.

Section 7: Emergency precautions

Do you have a
FIRST AID KIT?



Do you have a
FIRE EXTINGUISHER?



Can you make an
EMERGENCY CALL?



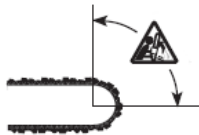
Section 8: Operating Conditions / General Safety Precautions

Chain brake and front hand guard

Your chain saw is equipped with a chain brake that is designed to stop the chain if you get a kickback. The chain brake reduces the risk of accidents, but only you can prevent them.



Take care when using your saw and make sure the kickback zone of the bar never touches any object.



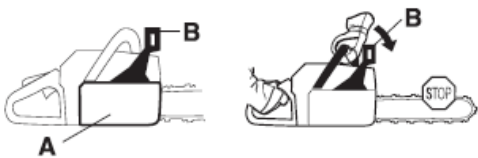
Use the chain brake as a "parking brake" when starting and when moving over short distances, to reduce the risk of moving chain accidentally hitting your leg or anyone or anything close by.



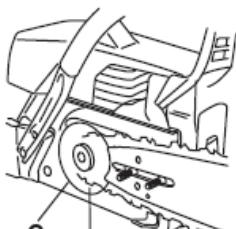
To release the chain brake pull the front hand guard backwards, towards the front handle.

The chain brake (A) can either be activated manually (by your left hand) or automatically by the inertia release mechanism.

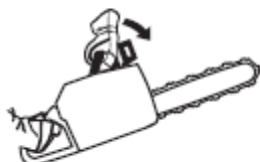
The brake is applied when the front hand guard (B) is pushed forwards.



This movement activates a spring-loaded mechanism that tightens the brake band (C) around the engine drive system (D) (clutch drum).



The front hand guard is not designed solely to activate the chain brake. Another important feature is that it reduces the risk of your left hand hitting the chain if you lose grip of the front handle.



The chain brake must be engaged when the chain saw is started to prevent the saw chain from rotating.



Kickback can be very sudden and violent. Most kickbacks are minor and do not always activate the chain brake. If this happens you should hold the chain saw firmly and not let go.



The way the chain brake is activated, either manually or automatically by the inertia release mechanism, depends on the force of the kickback and the position of the chain saw in relation to the object that the kickback zone of the bar strikes.

If you get a violent kickback while the kickback zone of the bar is farthest away from you the chain brake is designed to be activated by the inertia in the kickback direction.



If the kickback is less violent or the kickback zone of the bar is closer to you the chain brake will be activated manually by the movement of your left hand.

GENERAL SAFETY PRECAUTIONS

- In the felling position the left hand is in a position that makes manual activation of the chain brake impossible. With this type of grip, that is when the left hand is placed so that it cannot affect the movement of the front hand guard, the chain brake can only be activated by the inertia action.



Will my hand always activate the chain brake during a kickback?

No. It takes a certain force to move the hand guard forward. If your hand only lightly touches the front guard or slips over it, the force may not be enough to trigger the chain brake. You should also maintain a firm grip of the chain saw handles while working. If you do and experience a kickback, your hand may never leave the front handle and will not activate the chain brake, or the chain brake will only activate after the saw has swung around a considerable distance. In such instances, the chain brake might not have enough time to stop the saw chain before it touches you.

There are also certain positions in which your hand cannot reach the front hand guard to activate the chain brake; for example, when the saw chain is held in felling position.

Will my inertia activated chain brake always activate during kickback in the event of a kickback?

No. First your brake must be in working order. Testing the brake is simple, see instructions under the heading Checking, maintaining and servicing chain saw safety equipment. We recommend you do before you begin each work session. Second the kickback must be strong enough to activate the chain brake. If the chain brake is too sensitive it would activate all the time which would be a nuisance.

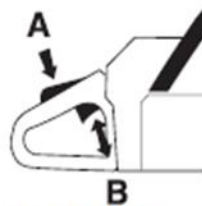
Will my chain brake always protect me from injury in the event of a kickback?

No. First, the chain brake must be in working order to provide the intended protection. Second, it must be activated during the kickback as described above to stop the saw chain. Third, the chain brake may be activated but if the bar is too close to you the brake might not have enough time to slow down and stop the chain before the chain saw hits you.

Only you and proper working technique can eliminate kickback and its danger.

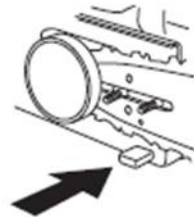
Throttle lockout

The throttle lockout is designed to prevent accidental operation of the throttle control. When you press the lock (A) (i.e. when you grasp the handle) it releases the throttle control (B). When you release the handle the throttle control and the throttle lockout both move back to their original positions. This arrangement means that the throttle control is automatically locked at the idle setting.



Chain catcher

The chain catcher is designed to catch the chain if it snaps or jumps off. This should not happen if the chain is properly tensioned (see instructions under the heading Assembly) and if the bar and chain are properly serviced and maintained (see instructions under the heading General working instructions).



Right hand guard

Apart from protecting your hand if the chain jumps or snaps, the right hand guard stops branches and twigs from interfering with your grip on the rear handle.



Section 9: Engine operation

The chain brake must be engaged when the chain saw is started. Activate the brake by moving the front hand guard forwards.

9.1 Cold Starting

- Set the choke control in the choke position by pull the choke control outwards. This automatically sets the stop switch to the start position.
- Press the Decompression valve to reduce the pressure in the cylinder and make starting easier. You should always use the decompression valve when starting the machine. Once the machine has started the valve will automatically return to its original setting.
- Pull the starter handle with your right hand and pull out the starter cord slowly until you feel a resistance (as the starter pawls engage) then pull firmly and rapidly until the engine fires. Push in the choke control as soon as the engine fires which can be heard through a "puff" sound. Keep on pulling the cord powerfully until the engine starts.

9.2 Warm Starting

- The correct choke/start throttle setting for warm starting is obtained by moving the choke control to the choke position and then pushing it in again.
- Press the air purge repeatedly (at least 6 times) until fuel begins to fill the bulb. The bulb need not be completely filled.
- Press the Decompression valve to reduce the pressure in the cylinder and make starting easier. You should always use the decompression valve when starting the machine. Once the machine has started the valve will automatically return to its original setting.
- Pull the starter handle with your right hand and pull out the starter cord slowly until you feel a resistance (as the starter pawls engage) then pull firmly and rapidly until the engine fires.
- As the chain brake is still engaged the speed of the engine must be set to idling as soon as possible, this is achieved by disengaging the throttle lock. Disengagement is done by gently touching on the throttle trigger. This prevents unnecessary wear to the clutch, clutch drum and brake band. Allow the machine to idle a few seconds before giving full throttle. CAUTION! Do not pull the starter cord all the way out and do not let go of the starter handle when the cord is fully extended. This can damage the chainsaw.
- Always hold the saw with both hands. The right hand **MUST** be on the rear handle, and the left hand **MUST** be on the front handle. All people, whether right or left handed, **MUST** use this grip. Use a firm grip with thumbs and fingers encircling the chain saw handles.

9.3 Stopping

- Stop the engine by switching off the ignition

Section 10: Additional Information

Always use common sense! It is not possible to cover every conceivable situation you can face when using our equipment.

Always exercise care and use your common sense. Avoid all situations which you consider to be beyond your capability. If you still feel uncertain about operating procedures after reading these instructions and the owner's manual, you should consult an expert before continuing.

The information contained herein is true and accurate to the best of our knowledge. No warranty or guarantee is expressed or implied regarding the accuracy of information or instructions. Users **MUST** consult the manufacturer's manual or handbook. While every effort has been made to summarise the important Health and Safety information for the safe use of this equipment, Upper Hutt Hire Ltd shall not be liable in any way for any reliance by any person or entity on the accuracy of information or data contained in this document or its attachments.

This SOP is based on information contained in the Husqvarna 455e Rancher 455 Rancher 460 Rancher operators manual reference 1153137-26 dated 2010-05-07

Revision date

June 2021