Open fuel shut-off valve, if engine is equipped. Move choke control to CHOKE or START position. Note: Choke

must fully close. Move throttle control to RUN or

FAST position. If engine is equipped with rocker style stop switch, push RUN or I (I = Ignition) before starting. Typical Throttle & Choke Controls

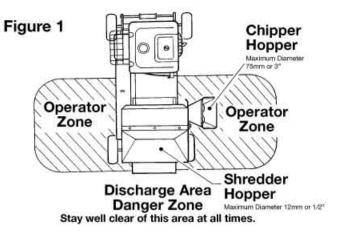


rope handle and pull slowly until resistance is felt to prevent kickback. Then pull cord rapidly to overcome compression and start engine. Repeat if necessary with choke off and throttle control in FAST position. Operate engine in FAST position.

- MULCHER/SHREDDER HOPPER (See Figure 1) As the engine ignition begins, the engine shaft operates freely until approximately 1400-1600 rpm at which speed the centrifugal clutch engages and begins driving the rotor. Proper rotor rpm is 2900 rpm with a plus or minus tolerance of 100 rpm. In this condition you have four rows of hammers literally cutting or beating material until it reaches such fractional size as, to allow it to pass through the grinding screen. The grinding screen retains the material within the grinding chamber for several seconds until the freeswinging hammers have rotated several times. The number of cuts by the hammers and, of course, retention time within the chamber varies with each organic material.
- **CHIPPER HOPPER** (See Figure 1) Branches are fed into the side hopper for chipping. One at a time if they are thicker than 50mm, several together if of small diameter. The throat opening is approximately 80 mm square, side shoots or side branches may have to be trimmed from the main stalk before the chipping process occurs. Short stubs of branches may be pushed through the chipper section with the next branch. Never assume to know the location of the blades and try to push short branches in by hand. BE SAFE, KEEP YOUR HANDS AWAY FROM THE CHIPPING BLADE.
- 7)

**CAUTION: IF MULCHER/SHREDDER** CHUTE CLOGGS WITH MATERIAL, STOP THE ENGINE IMMEDIATELY TO PREVENT CLUTCH DAMAGE.

Do not allow an accumulation of processed material to build up under the discharge of the shredder as this can prevent following shredded material to discharge and will result in clogging. Operate the machine at maximum rpm's.



- NEVER ALLOW YOUR HANDS OR ANY PART OF YOUR BODY OR **CLOTHING INSIDE THE FEED** HOPPER OR DISCHARGE AREA OF THE MULCHER/SHREDDER.
- 10) Always stand clear of the discharge area when the shredder is running. (See Figure 1)
- 11) Keep your face and body back from the feed hopper to avoid being struck by any material that may bounce back. Do not over-reach, keep proper balance and footing.
- 12) Stop Engine: Do not move choke control to CHOKE position to stop engine. Backfire or engine damage may occur. Move throttle control to SLOW position, then push rocker switch to 0 (STOP). **Typical Stop Switches**

#### **AFTER USE**

- Turn fuel tap to "OFF" position.
- Allow machine to cool down.
- Clean with warm soapy water. Ensure no water enters the carburettor.





## SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS



# **CMS 80 CHIPPER MULCHER SHREDDER**



### SAFETY PRECAUTIONS FOR CMS 80 USERS



- DO NOT allow any person to operate the chipper mulcher shredder without first reading and understanding the safety precautions and operating instructions. KNOW THE CONTROLS AND HOW TO STOP THE CHIPPER MULCHER SHREDDER QUICKLY IN AN EMERGENCY.
- **NEVER** allow children or untrained adults to operate the chipper mulcher shredder.
- 3) ALWAYS wear protective clothing when operating the chipper mulcher shredder. This includes, but is not limited to; safety glasses, loose fitting gloves, steel capped boots and hearing protection. NEVER wear loose fitting clothing or jewellery when operating the chipper mulcher shredder. Keep all clothing away from moving parts. Items could become caught in the machine, resulting in injury.
- 4) ALWAYS operate the chipper mulcher shredder in a well lighted area.
- 5) ALWAYS operate chipper mulcher shredder on level ground only. Keep your work area clear and free of debris. Never attempt to move a trailer mounted chipper mulcher shredder over uneven or hilly ground without a tow vehicle or adequate help.
- **NEVER** operate the chipper mulcher shredder when fatiqued. ALWAYS BE ALERT! If you get tired while operating the chipper mulcher shredder, take a break. If you have any type of physical or mental condition that may be aggravated by strenuous work, consult with your physician before you operate this equipment. **NEVER** operate the chipper mulcher shredder under the influence of medication, alcohol or drugs.

DO NOT allow other persons near chipper mulcher shredder. It is up to the operator to keep bystanders and animals a minimum of 6 metres (18ft) away

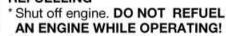
**NEVER PUT YOUR HANDS, FEET,** FACE OR ANY OTHER PART OF YOUR BODY INTO EITHER OF THE FEED HOPPERS. Use a stick, not hands, to push limbs into the shredding and chipper hopper.

from the machine while in operation.

- NEVER remove the guarding attached to the shredding hopper. This protective device minimises material flyback and must be in place at all times during operation. NEVER use the chipper with the chipper hopper removed.
- 10) DO NOT leave the machine unattended while the engine is running.
- 11) DO NOT overspeed the engine or alter the governor settings. Excessive speed is dangerous and will shorten engine life.
- NEVER operate the chipper mulcher shredder in an enclosed area. Engine exhaust contains carbon monoxide, an odourless and tasteless poison.

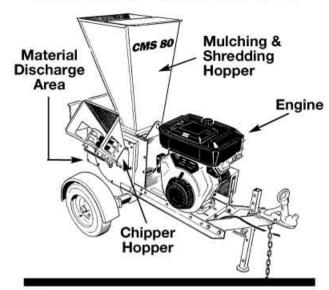
STOP the engine and disconnect the 13) spark plug lead(s) and allow engine to cool before inspecting or performing maintenance.

REFUELLING 14)



- \* Allow engine to cool, Minimum 5 mins.
- USE UNLEADED FUEL ONLY. Use clean, fresh unleaded fuel.
- Do not mix oil with unleaded fuel.
- Do not over-fill fuel tank. Allow space for fuel expansion.
- \* Do not smoke.
- \* Allow no naked flame or hot material in refuelling area.
- \* Use only approved fuel containers and funnels. Remember, fuel is a potential hazard.

#### "STAY ALERT - DON'T GET HURT"





#### TRANSPORT

1) DO NOT exceed 60kms per hour (45mph) when towing this product



#### **BEFORE USE**

WARNING: Before starting engine, inspect the chipper and mulcher shredder hoppers and remove any foreign debris or branches. Perform a thorough visual inspection of the chipper mulcher shredder and the chipper disc drive system.

#### **OPERATION**

- 1) Familiarize yourself with the chipper mulcher shredder and its controls.
- Wear safety glasses, or helmet and visor combination. loose fitting gloves, and hearing protection.
- No foreign objects such as stones, steel, cans, glass, wire, rope or nails should be fed into the machine, as damage will occur.