

# 1 INTRODUCTION

Congratulations on your choice of an AgriMetal Portable Bench Saw to complement your operation. This equipment has been designed and manufactured to meet the needs of a discerning wood lot industry.

Safe, efficient and trouble free operation of your AgriMetal Portable Bench Saw requires that you and anyone else who will be operating or maintaining the machine, read and understand the Safety, Operation, Maintenance and Troubleshooting information contained within the Operator's Manual.



This manual covers the Models MBS516,716,620 and 720 Portable Bench Saw. Use the Table of Contents or Index as a guide to locate required information.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your AgriMetal Dealer or Distributor if you need assistance, information or additional copies of the manuals.

**OPERATOR ORIENTATION** - The directions left, right, front and rear, as mentioned throughout this manual, are as seen from the tow unit driver's seat and facing in the direction of travel.

## 2 SAFETY

### SAFETY ALERT SYMBOL

This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



The Safety Alert symbol identifies important safety messages on the AgriMetal Portable Bench Saw and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

#### 3 Big Reasons

**Accidents Disable and Kill**

**Accidents Cost**

**Accidents Can Be Avoided**

#### SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guide-lines:

**SI NO LEE INGLES, PIDA AYUDA  
A AIGUIEN QUE SI LO LEA PARA  
QUE LE TRADUZCA LAS  
MIDIDAS DE SEGURIDAD.**

**DANGER** - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

**WARNING** - Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

**CAUTION** - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or AgriMetal Inc., 1006 Rue Principale, Wickham, Quebec, Canada, J0C 1S0. Phone (819) 398-6883 or fax (819) 398-5311.

## SAFETY

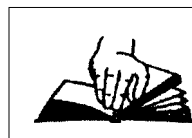
**YOU** are responsible for the SAFE operation and maintenance of your AgriMetal Portable Bench Saw. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Bench Saw be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating the Bench Saw.

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

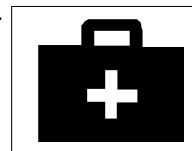
- Bench Saw owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter.
- The most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. Most accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think SAFETY! Work SAFELY!

## 2.1 GENERAL SAFETY

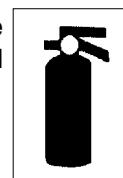
1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the Bench Saw.



2. Have a first-aid kit available for use should the need arise and know how to use it.



3. Have a fire extinguisher available for use should the need arise and know how to use it.



4. Do not allow riders.

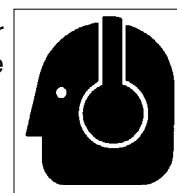
5. Wear appropriate protective gear. This list includes but is not limited to:

- A hard hat
- Protective shoes with slip resistant soles
- Protective glasses or goggles
- Heavy gloves
- Wet weather gear
- Hearing protection
- Respirator or filter mask



6. Install and secure all guards before starting.

7. Wear suitable ear protection for prolonged exposure to excessive noise.




8. Place all controls in neutral, stop engine, set park brake, turn ignition switch off and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
9. Clear the area of people, especially small children, before starting the unit.
10. Review safety related items annually with all personnel who will operating or maintaining the Bench Saw.

## 2.2 EQUIPMENT SAFETY GUIDELINES

1. Safety of the operator and bystanders is one of the main concerns in designing and developing a machine. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you, follow them.
2. In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.
3. Replace any safety sign or instruction sign that is not readable or is missing. Location of such safety signs is indicated in this manual.
4. Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
5. **Under no circumstances should young children be allowed to work with this equipment. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.** Review the safety instructions with all users annually.
6. This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained and physically able person familiar with machinery and trained in this equipment's operations. If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
7. Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**
8. Do not modify the equipment in any way. Unauthorized modification result in serious injury or death and may impair the function and life of the equipment.
9. In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the tow vehicle, engine and machine Manuals. Pay close attention to the Safety Signs affixed to the tow vehicle and the machine.

## 2.3 SAFETY TRAINING

1. Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.
2. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of this equipment.
3. It has been said, "The best safety feature is an informed, careful operator." We ask you to be that kind of an operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. Accidents can be avoided.
4. **Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tow vehicle, before assembly or operating, to acquaint yourself with the machines. If this machine is used by any person other than yourself, or is loaned or rented, it is the machine owner's responsibility to make certain that the operator, prior to operating:**
  - a. **Reads and understands the operator's manuals.**
  - b. **Is instructed in safe and proper use.**
5. Know your controls and how to stop tow vehicle, engine, and machine quickly in an emergency. Read this manual and the one provided with your tow vehicle.
6. Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will operate the machinery. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death. If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.

## 2.4 SAFETY SIGNS

1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety signs are available from your authorized Distributor or Dealer Parts Department or the factory.

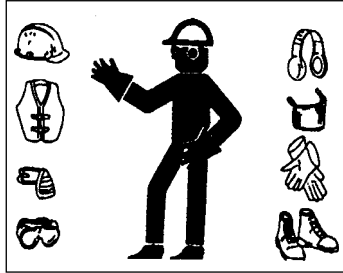
### How to Install Safety Signs:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Determine exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.

## 2.5 PREPARATION

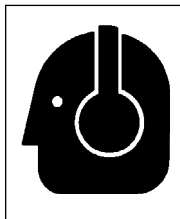
1. Never operate the tow vehicle and machine until you have read and completely understand this manual, the Tow Vehicle Operator's Manual, and each of the Safety Messages found on the safety signs on the tow vehicle and machine.

2. Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, ad-



justment, maintaining, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing or jewelry to be around equipment.

3. **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!**



Tow Vehicles with or without equipment attached can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the Operator's position exceeds 80db. Noise over 85db on a long-term basis can cause severe hearing loss. Noise over 90db adjacent to the Operator over a long-term basis may cause permanent, total hearing loss. **NOTE:** Hearing loss from loud noise (from tractors, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime without hope of natural recovery.

4. Clear working area of stones, branches or hidden obstacles that might be hooked or snagged, causing injury or damage.

5. Operate only in daylight or good artificial light.
6. Be sure machine is properly mounted, adjusted and in good operating condition.
7. Ensure that all safety shielding and safety signs are properly installed and in good condition.

## 2.6 OPERATING SAFETY

1. Please remember it is important that you read and heed the safety signs on the Saw. Clean or replace all safety signs if they cannot be clearly read and understood. They are there for your safety, as well as the safety of others. The safe use of this machine is strictly up to you, the operator.
2. All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows reasonable safety practices. The manufacturer has designed this Portable Bench Saw to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.
3. If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.
4. When the use of hand tools is required to perform any part of assembly, installation, adjustment, maintaining, repairing, removal, or moving, be sure the tools used are designed and recommended by the tool manufacturer for that specific task.
5. Personal protection equipment including hearing protection, hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving. Do not allow long hair, loose fitting clothing, or jewelry to be around moving parts.
6. Always support frame on rear stand for added stability before operating.
7. Place all controls in neutral, stop engine, set park brake, turn ignition switch off and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
8. Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
9. Before you operate the machine, check over all pins, bolts, and connections to be sure all are securely in place. Replace any damaged or worn parts immediately.
10. Do not allow anyone who is not familiar with the safety rules and operation instructions to use this machine.
11. Do not smoke when refueling.
12. Never allow children to operate or be around this machine.
13. Do not place hands into wood intake or exit openings or sawdust outlet when engine is running. Keep others away.
14. Do not operate when saw blade is exposed.
15. Clear the work area of objects which might be picked up and snagged or entangled in the machine.
16. Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.
17. Do not run engine in an enclosed area. Exhaust fumes contain carbon monoxide, an odorless and deadly poison.

## 2.7 TRANSPORT SAFETY

1. The machine is not designed or equipped to travel on public roads. Do not drive or transport on public roads.
2. Use a trailer when moving from place to place.
3. Do not exceed 8 kph (5 mph) when moving.
4. Plan your route to avoid rough terrain.
5. Do not drink and drive.
6. Turn into curves and go up hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the machine's weight is on the rear wheels to maintain safe steering. Slow down on rough or uneven surfaces.
7. Never allow riders on the machine.

## 2.8 STORAGE SAFETY

1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.
3. Store the unit in a dry, level area. Support the frame with planks if required.

## 2.9 REFUELLING SAFETY

1. Handle fuel with care. It is highly flammable.
2. Allow engine to cool for 5 minutes before refuelling. Clean up spilled fuel before restarting engine.
3. Do not refuel the machine while smoking or when near open flame or sparks.
4. Fill fuel tank outdoors.
5. Prevent fires by keeping machine clean of accumulated trash, grease and debris.



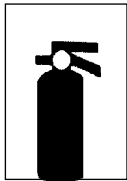
## 2.10 TIRE SAFETY

1. Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death.
2. Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
3. Have a qualified tire dealer or repair service perform required tire maintenance.
4. When replacing worn tires, make sure they meet the original tire specifications. Never under size.



## 2.11 MAINTENANCE SAFETY

1. Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
2. Follow good shop practices.
  - Keep service area clean and dry.
  - Be sure electrical outlets and tools are properly grounded.
  - Use adequate light for the job at hand.
3. Make sure there is plenty of ventilation. Never operate an engine in a closed building. The exhaust fumes may cause asphyxiation.
4. Before working on this machine, shut off the engine, set the brakes, and remove the ignition keys.
6. Never work under equipment unless it is blocked securely.
7. Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance work. Always wear leather or heavy gloves when handling saw blade.
8. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.
9. A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.
10. Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
11. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.



## 2.12 GAS MOTOR SAFETY

**BEFORE STARTING ENGINE, READ AND UNDERSTAND THE OPERATING AND MAINTENANCE INSTRUCTIONS THAT CAME WITH YOUR ENGINE.**

### **WARNING: DO NOT**

1. DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odorless and deadly poison.
2. DO NOT place hands or feet near moving or rotating parts.
3. DO NOT store, spill, or use gasoline near an open flame, or devices such as a stove, furnace, or water heater which use a pilot light or devices which can create a spark.
4. DO NOT refuel indoors where area is not well ventilated. Outdoor refuelling is preferred.
5. DO NOT fill fuel tank while engine is running. Allow engine to cool for 5 minutes before refueling. Store fuel in approved safety containers.
6. DO NOT remove fuel tank cap while engine is running.
7. DO NOT operate engine if gasoline is spilled. Move machine away from the spill and avoid creating any ignition until the gasoline has evaporated.
8. DO NOT smoke when filling fuel tank.
9. DO NOT choke carburetor to stop engine. Whenever possible, gradually reduce engine speed before stopping.
10. DO NOT run engine above rated speeds. This may result in injury.
11. DO NOT tamper with governor springs, governor links or other parts which may increase the governed engine speed.
12. DO NOT tamper with the engine speed selected by the original equipment manufacturer.
13. DO NOT check for spark with spark plug or spark plug wire removed. Use an approved tester.
14. DO NOT crank engine with spark plug removed. If engine is flooded, place throttle in "FAST" position and crank until engine starts.
15. DO NOT strike flywheel with a hard object or metal tool as this may cause flywheel to shatter in operation. Use proper tools to service engine.
16. DO NOT operate engine without a muffler. Inspect periodically and replace, if necessary. If engine is equipped with muffler deflector, inspect periodically and replace, if necessary with correct deflector.
17. DO NOT operate engine with an accumulation of grass, leaves, dirt or other combustible materials in the muffler area.
18. DO NOT use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on the muffler. The arrester must be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.
19. DO NOT touch hot muffler, cylinder or fins because contact may cause burns.
20. DO NOT run engine with air cleaner or air cleaner cover removed.

### **WARNING: DO**

1. ALWAYS DO remove the wire from the spark plug when servicing the engine or equipment TO PREVENT ACCIDENTAL STARTING or disconnect the negative wire from the battery terminal.
2. DO keep cylinder fins and governor parts free of grass and other debris which can affect engine speed.
3. DO examine muffler periodically to be sure it is functioning effectively. A worn or leaking muffler should be repaired or replaced as necessary.
4. DO use fresh super unleaded gasoline. Stale fuel can gum carburetor and cause leakage.
5. DO check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.

AgriMetal follows the general Safety Standards specified by the American Society of Agricultural Engineers (ASAE) and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and/or maintaining the Portable Bench Saw must read and clearly understand ALL Safety, Operating and Maintenance information presented in this manual.

Make these periodic reviews of SAFETY and OPERATION a standard practice for all of your equipment. We feel that an untrained operator is unqualified to operate this machine.

## SIGN-OFF FORM

[illegible]



### 3 SAFETY SIGN LOCATIONS

The types of safety signs and locations on the equipment are shown in the illustrations that follow. Good safety requires that you familiarize yourself with the various safety signs, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.

- Think SAFETY! Work SAFELY!



**A**

 <b>CAUTION</b>	 <b>ATTENTION</b>
<ol style="list-style-type: none"><li>1. Read Operator's Manual before starting.</li><li>2. Keep guards and shields in place and access doors closed.</li><li>3. Do not place hands into wood intake or exit openings or sawdust outlet when engine is running.</li><li>4. Place all controls in neutral, stop engine, set park brake, turn ignition switch off and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging machine.</li><li>5. Do not operate when saw blade is exposed.</li></ol>	<ol style="list-style-type: none"><li>1. Lire attentivement le manuel d'opération avant la mise en marche.</li><li>2. Garder tous les écrans protecteurs en place.</li><li>3. Ne pas mettre vos mains dans l'orifice d'entrée du bois ou de la lame lorsque le moteur est en marche.</li><li>4. Arrêter le moteur, placer tous les contrôles à la position "neutre", enlever la clé du contact et attendre que toutes les pièces soient au point mort avant de faire tout ajustement, réparation ou de débloquer la machine.</li><li>5. Ne pas mettre en marche lorsque la lame est exposée.</li></ol>

NC13-33-0172



**REMEMBER** - If safety signs have been damaged, removed, become illegible or parts replaced without safety signs, new signs must be applied. New safety signs are available from your authorized dealer.

The types of safety signs and locations on the equipment are shown in the illustrations that follow. Good safety requires that you familiarize yourself with the various safety signs, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.

- Think SAFETY! Work SAFELY!



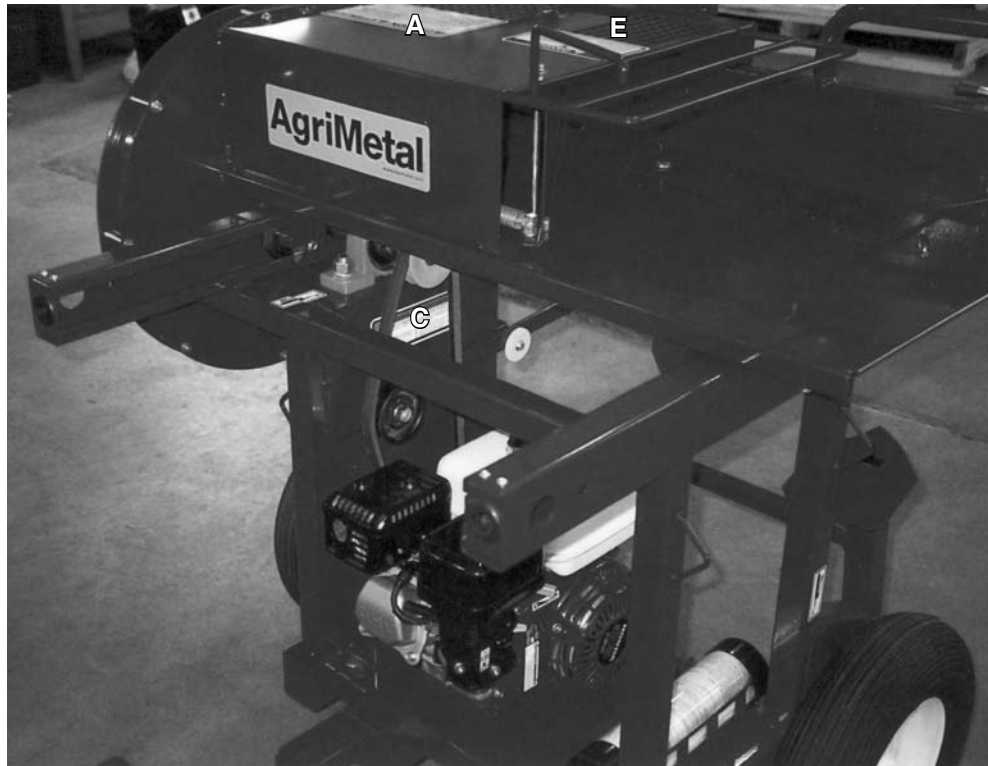
**B**

 <b>DANGER</b>	
	
<b>FIRE HAZARD NO SMOKING</b> <b>To prevent serious injury or death from fire:</b> <ol style="list-style-type: none"><li>1. Do not smoke when refueling.</li><li>2. Keep sparks, flames and hot material away from flammable substances.</li><li>3. Stop engine five minutes before refueling.</li></ol>	<b>RISQUE D'INCENDIE DEFENSE DE FUMÉ</b> <b>À défaut de suivre ces instructions, cela pourrait entraîner de sérieuses blessures ou même la mort.</b> <ol style="list-style-type: none"><li>1. Ne pas fumer lors du remplissage.</li><li>2. Garder les flammes et toute matière inflammable hors de portée.</li><li>3. Arrêter le moteur cinq minutes avant de refaire le plein.</li></ol> <p style="text-align: right;">NC13-33-0109</p>



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- Think SAFETY! Work SAFELY!



C

 <b>WARNING</b>  <b>AVERTISSEMENT</b>	
<b>MISSING SHIELD HAZARD</b>	<b>GARDE ABSENT</b>
<p><b>To prevent serious injury or death from exposed hazard:</b></p> <ol style="list-style-type: none"> <li>1. Install and secure shields before operating.</li> <li>2. Keep hands, feet, hair and clothing away from moving parts.</li> </ol>	<p><b>À défaut de suivre ces instructions, cela pourrait entraîner de sérieuses blessures ou même la mort.</b></p> <ol style="list-style-type: none"> <li>1. Installer les gardes de façon sécuritaire avant la mise en marche de la machine.</li> <li>2. Garder les mains, pieds, cheveux et vêtements éloignés des éléments mobiles.</li> </ol>
<small>NC13-33-0113</small>	





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- Think SAFETY! Work SAFELY!



D



 <b>WARNING</b>  <b>AVERTISSEMENT</b>	
	
<p align="center"><b>ROTATING PART HAZARD KEEP AWAY</b></p> <p><b>To prevent serious injury or death from rotating parts:</b></p> <ol style="list-style-type: none"> <li>1. Place all controls in neutral or off, stop engine or motor, set park brake, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.</li> <li>2. Install and secure all guards before operating.</li> <li>3. Do not operate with rotating parts exposed.</li> </ol>	<p align="center"><b>PIÈCES EN MOUVEMENT RESTER ÉLOIGNÉ</b></p> <p><b>À défaut de suivre ces instructions, cela pourrait entraîner de sérieuses blessures ou même la mort.</b></p> <ol style="list-style-type: none"> <li>1. Arrêter le moteur, placer tous les contrôles à la position "neutre" enlever la clé du contact et attendre que toutes les pièces soient au point mort avant de faire tout ajustement, réparation ou de débloquer la machine.</li> <li>2. Installer tous les écrans protecteurs avant de mettre la machine en fonction.</li> <li>3. Ne jamais opérer la machine sans écran protecteur.</li> </ol> <p align="right">01-60-0115</p>

**REMEMBER** - If safety signs have been damaged, removed, become illegible or parts replaced without safety signs, new signs must be applied. New safety signs are available from your authorized dealer.

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- Think SAFETY! Work SAFELY!

E

 <b>DANGER</b>		
<b>SAW BLADE HAZARD</b>		
	1. Read Operator's Manual before starting.	1. Lire attentivement le manuel d'opération avant la mise en marche.
	2. Keep guards and shields in place and access doors closed.	2. Garder tous les écrans protecteurs en place.
	3. Do not place hands into wood intake or exit openings or sawdust outlet when engine is running.	3. Ne pas mettre vos mains dans l'orifice d'entrée du bois ou de la lame lorsque le moteur est en marche.
	4. Place all controls in neutral, stop engine, set park brake, turn ignition switch off and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging machine,	4. Arrêter le moteur, placer tous les contrôles à la position ``neutre``, enlever la clé du contact et attendre que toutes les pièces soient au point mort avant de faire tout ajustement, réparation ou de débloquer la machine.
	5. Do not operate when saw blade is exposed.	5. Ne pas mettre en marche lorsque la lame est exposée.
		NC13-33-0173

**REMEMBER** - If safety signs have been damaged, removed, become illegible or parts replaced without safety signs, new signs must be applied. New safety signs are available from your authorized dealer.



## 4 ASSEMBLING

### 4.1 MACHINE ASSEMBLY

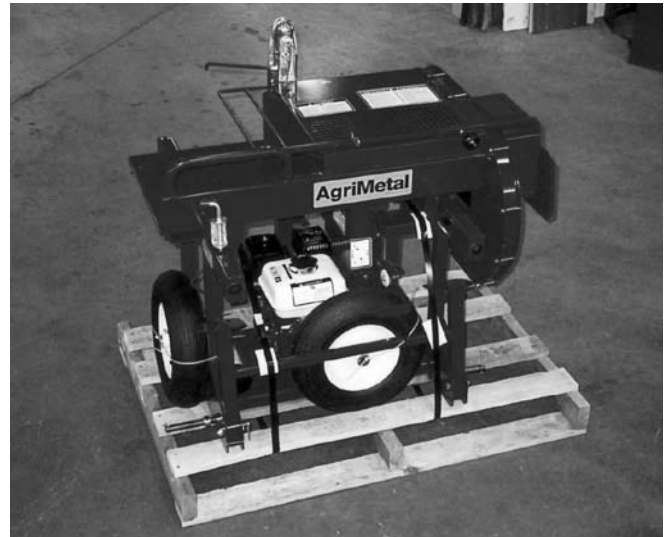
The machine is shipped from the factory in a partially disassembled configuration and attached to a pallet that provides for easy moving and handling. Always use tools, equipment and forklifts of appropriate size and capacity for the job. Always use 2 men when lifting, moving and assembling the machine.

**When the machine is shipped, follow this procedure when preparing for the customer:**

1. Clear the area of bystanders especially small children before starting.
2. Remove the pallet tie-downs.
3. Use a forklift to lift the pallet/machine from the truck. Carry the load close to the ground as it is moved to the assembly area and positioned.
4. Remove plastic wrap.
5. Cut strapping and remove screws holding components to pallet.

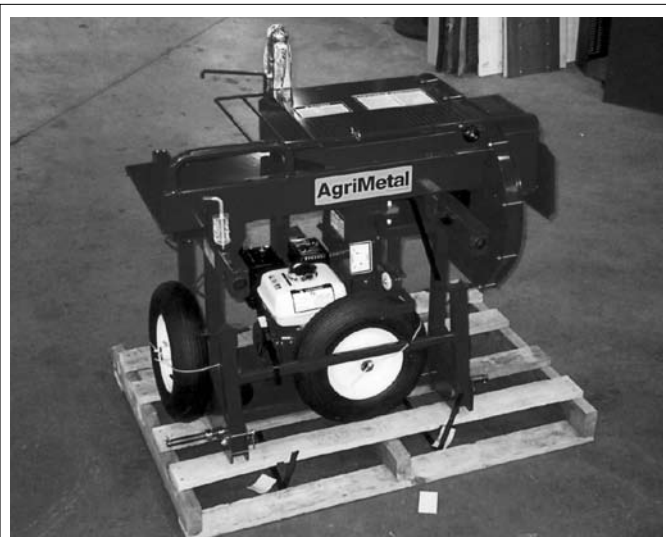


**Wrapped**



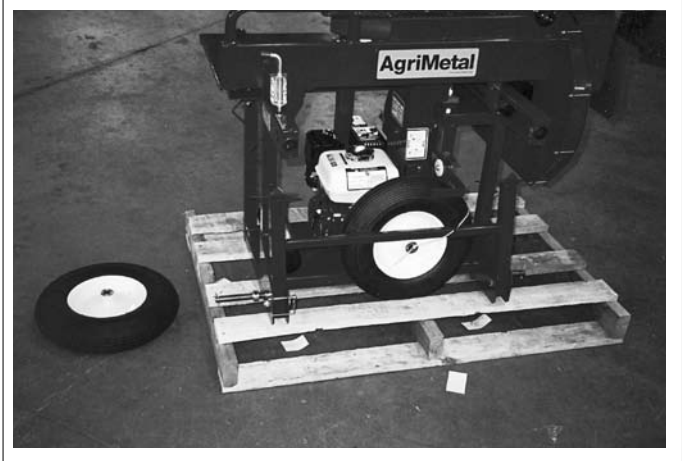
**Unwrapped**

**Fig. 1 SHIPPING CONFIGURATION**



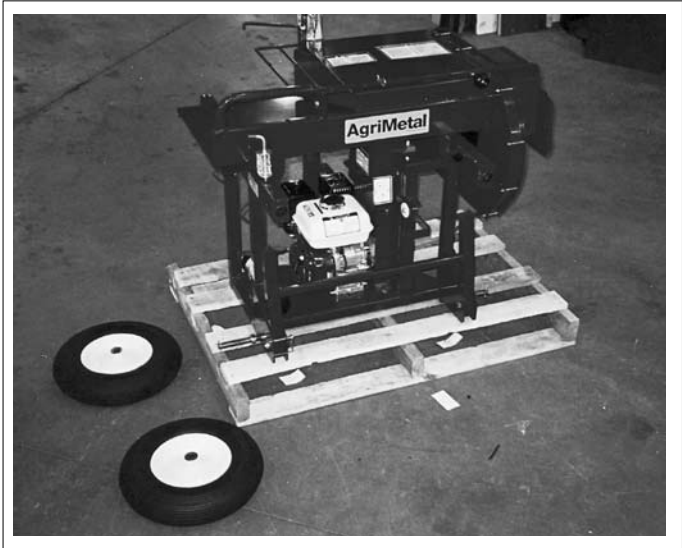
**Fig. 2 LAYOUT**

6. Remove strapping and cut ties.



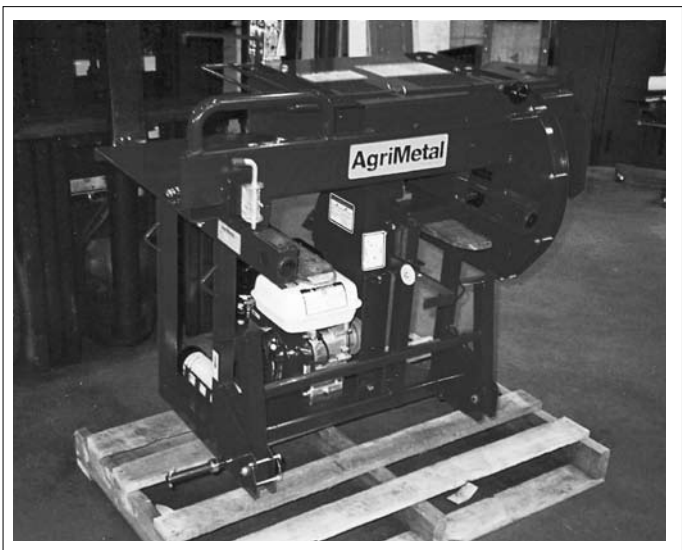
**Fig. 3 TIES**

7. Lay out components.



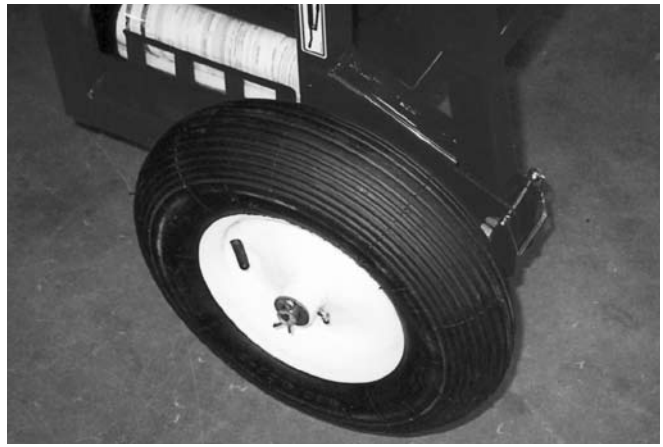
**Fig. 4 TIRES**

8. Lift frame high enough to install wheels.



**Fig. 5 LIFTED**

9. Mount the wheels to the axles.



**Left**



**Right**

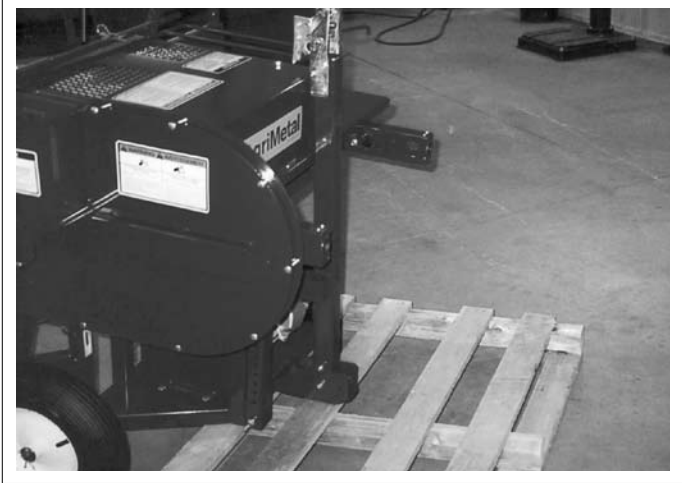
10. Install cotter pins through the axle and spread the ends.



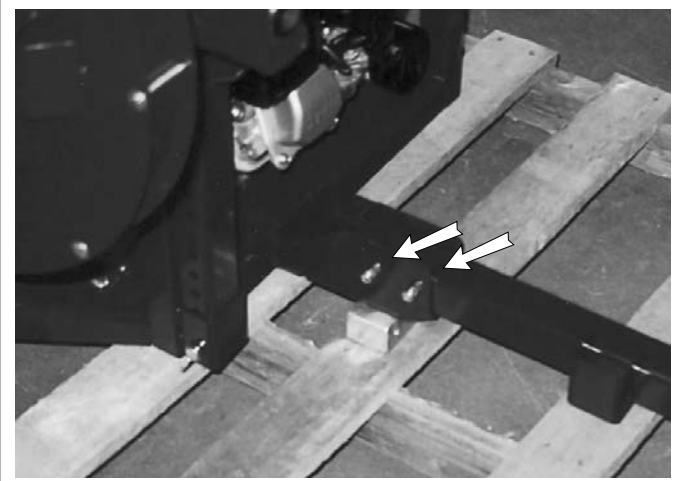
**Cotter Pin (Typical)**

**Fig. 6 WHEELS**

11. Remove bolts holding hitch in shipping configuration.
12. Lower hitch and install anchor bolts. Tighten to their specified torque.
13. Remove pallet from work area.



**Fig. 7 HITCH - SHIPPING CONFIGURATION**

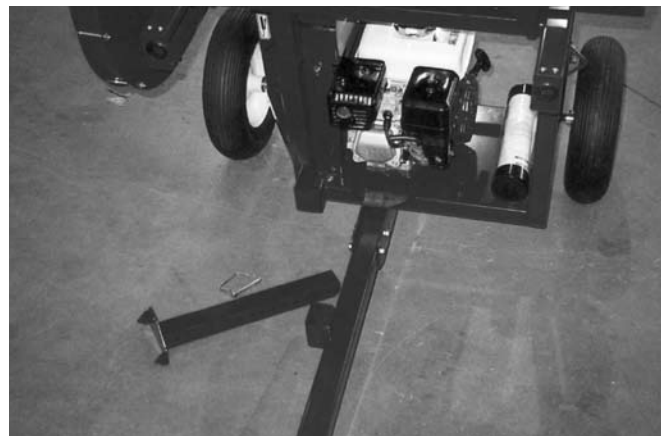


**Fig. 8 HITCH - ANCHOR BOLTS**

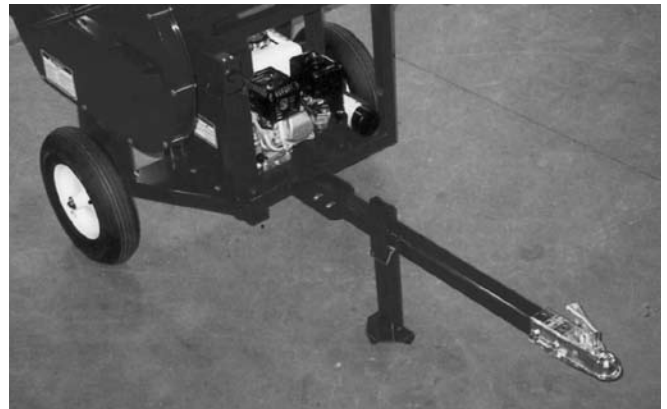


**Fig. 9 PALLET REMOVED**

14. Install and pin hitch stand.



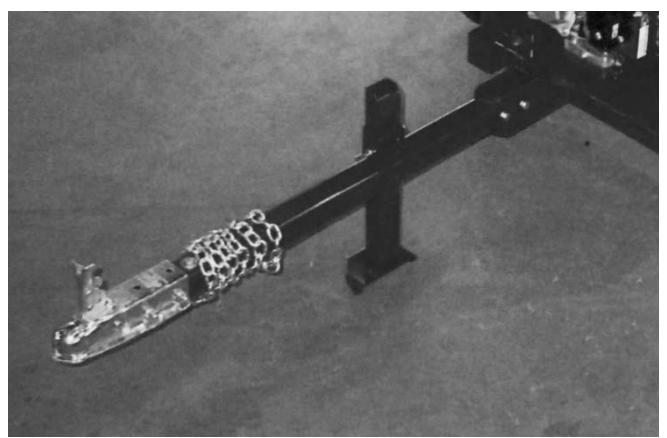
**Positioned**



**Installed**

**Fig. 10 HITCH STAND**

15. Install safety chain. Tighten anchor bolt to its specified torque.



**Fig. 11 SAFETY CHAIN**

## 5 OPERATION



### OPERATING SAFETY

- Please remember it is important that you read and heed the safety signs on the Bench Saw. Clean or replace all safety signs if they cannot be clearly read and understood.
- If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.
- Always use two people to handle heavy, unwieldy components during assembly, installation, removal or moving.
- Always support frame on rear stand for added stability.
- Place all controls in neutral, stop engine, set park brake, turn ignition off and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Do not allow anyone who is not familiar with the safety rules and operation instructions to use this machine.
- Never allow children to operate or be around this machine.
- Do not reach into Saw openings when the engine is running. Clear the work area of objects which might be picked up and snagged or entangled in the machine.
- Clear the work area of objects which might be picked up and snagged or entangled in the machine.
- Do not place hands into wood intake or exit openings or sawdust outlet when engine is running. Keep others away.
- Do not operate when saw blade is exposed.
- Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.
- Do not run engine in an enclosed area. Exhaust fumes contain carbon monoxide, an odorless and deadly poison.

### 5.1 TO THE NEW OPERATOR OR OWNER

AgriMetal Portable Bench Saws are designed to quickly and efficiently cut a variety of small trees, limbs and other wood material to length. The sliding table on top of the frame moves the wood into and through the blade for cutting.

**In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment. It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the machine.**

**Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the worksite. Untrained operators are not qualified to operate the machine.**

Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely and how to set it to provide maximum field efficiency. By following the operating instructions in conjunction with a good maintenance program, your Portable Bench Saw will provide many years of trouble-free service.

## 5.2 MACHINE COMPONENTS

The AgriMetal Portable Bench Saw is a large saw blade mounted to a frame for cutting small trees, limbs or other wood material to length. The blade is protected from all sides by a shroud. Wood is introduced to the blade by sliding it onto the sliding table and pushing it against the stop. Pull the table top to move the wood through the blade.

A gas engine mounted on the frame provides power to the saw blade through a V belt system. An idler pulley attached to the control lever engages and disengages the drive system.



Fig. 12 PRINCIPLE COMPONENTS

- A Gas Engine
- B Drive System
- C Belt Tightener
- D Idler Pulley
- E Blade
- F Blade Housing
- G Wood Stop
- H Stop Adjustment
- J Sliding Table
- K Intake Gate
- L Wood Discharge
- M Sawdust Discharge

## 5.3 BREAK-IN

Although there are no operational restrictions on the Saw when it is used for the first time, it is recommended that the following mechanical items be checked:

### A. After operating for 1 and 5 hours:

1. Torque all fasteners and hardware.
2. Check that the blade turns freely when not engaged.
3. Check the sharpness of the blade. Sharpen if required.
4. Check drive system: Belt length and pulley adjustment.
5. Check engine fluid levels. Top up as required.

### B. After operating for 10 hours:

1. Repeat steps 1 through 5 listed above. (Section A).
2. Change engine oil.
3. Go to the normal servicing and maintenance schedule as defined in the Maintenance Section.

## 5.4 PRE-OPERATION CHECKLIST

Efficient and safe operation of the AgriMetal Portable Bench Saw requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. It is important for both personal safety and for maintaining the machine in good mechanical condition that this checklist be followed.

Before operating the Saw and each time thereafter, the following areas should be checked off:

1. Lubricate the machine per the schedule outline in the Maintenance Section.
2. Check that all bearings turn freely. Replace any that are rough or seized.
3. Make sure that all guards and shields are in place, secured and functioning as designed.
4. Check that the wood gate in the table top moves freely into its protective position.
5. Check that the sliding table top moves freely.
6. Check the sharpness of the blade.
7. Check engine oil and fuel level. Top up as required.



## 5.5 CONTROLS

Before starting to work, all operators should familiarize themselves with the location and function of the controls.

### 1. Gas Engine:

A 5.5 hp Honda engine is used with the unit. Always read the engine Operator's manual supplied with the machine for the detailed operating procedures.

#### a. Ignition Switch:

This rotary switch controls the electrical power to the engine electrical system. Turn the switch clockwise to turn the electrical system ON and the engine will run. Turn counter-clockwise to stop the engine.

#### b. Fuel Shut-Off Valves:

Each engine is equipped with a valve between the fuel tank and carburetor. Slide the fuel valve toward the block to turn ON and away for OFF. Turn the fuel OFF when not in use or before transporting.

#### c. Choke:

This lever controls the position of the choke. Move the lever rearward to close the choke for starting when the engine is cold. Move the lever forward to open the choke as the engine warms. Always move the lever fully forward when operating the machine.

#### d. Throttle:

This lever, through a push-pull cable, sets the throttle position. Move the lever forward to set the engine speed at maximum RPM. Move the lever rearward to set the engine speed at low idle.

#### e. Starting Rope:

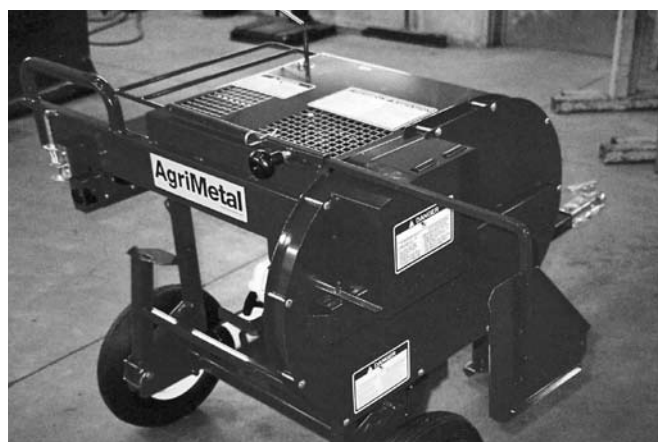
This retracting rope and T bar is used to turn the engine over for starting. Grasp the T bar firmly and pull the rope sharply to start the engine.



Fig. 13 ENGINE

2. **Wood Stop Position:**

The stop is designed with an adjustable mounting rod that can be set to give 16, 20 and 24 inch (405, 505 and 610 mm) wood cut-off length. Remove hair pin lock, turn out knob and move rod to the desired position. Tighten knob and re-install hair pin lock to secure.



16 inches (405 mm)



24 inches (610 mm)

Fig. 14 WOOD STOP POSITION

3. **Sliding Table Lock:**

This spring-loaded twist lock pin is used to anchor the top sliding table. Turn the top angled rod clockwise to release it and the compression spring will push the pin into its anchor hole. Pull up on the angled rod and turn counter-clockwise to position the roll pin on top of the peg to hold the lock up and allow the table to move freely.

Always lock the table when the machine is not being used, stored or moved/transported.



Released



Locked

Fig. 15 SLIDING TABLE LOCK

4. **Saw Blade Control:**

The sliding lever on the back of the frame moves the belt drive idler pulley into position to engage or disengage the saw blade. Pull up on the angled rod and pull it out to move idler away from belt to stop the saw blade. Push the lever in and seat it in the detent to tighten drive belt and engage/start the saw blade.



**WARNING**

Machine is shown with guard removed for the purpose of illustration only. Do not operate machine without having all guards in place.



**AVERTISSEMENT**

La machine est montrée la garde étant coupée afin de l'illustration seulement. N'actionnez pas la machine sans avoir toutes les gardes en place.



Disengaged



Engaged

Fig. 16 SAW BLADE CONTROL

## 5.6 HOOKING UP/UNHOOKING

The machine is designed to be easily and conveniently moved from location to location by towing with a 4-wheeler. Follow this procedure when hooking up or unhooking the machine:

1. Clear the area of bystanders, especially small children.
2. Align the hitch with the ball hitch while backing up to machine.



**Fig. 17 ALIGNING**

3. Place the jaws over the ball on the hitch.



**Over**

4. Close the jaws.
5. Install a retainer through the ball hitch assembly mechanism.



**Retainer**

**Fig. 18 JAWS**

6. Attach the safety chain around the 4-wheeler axle to prevent unexpected separation.
7. Unpin hitch stand, raise into its stowed position and re-pin.
8. Reverse the above procedure when unhooking the machine.



**Fig. 19 SAFETY CHAIN**

## 5.7 MACHINE SET-UP

The machine can be set-up or operated in two different ways. Each operator must select the method that works best for their application. Follow this procedure when preparing the machine at the work site:

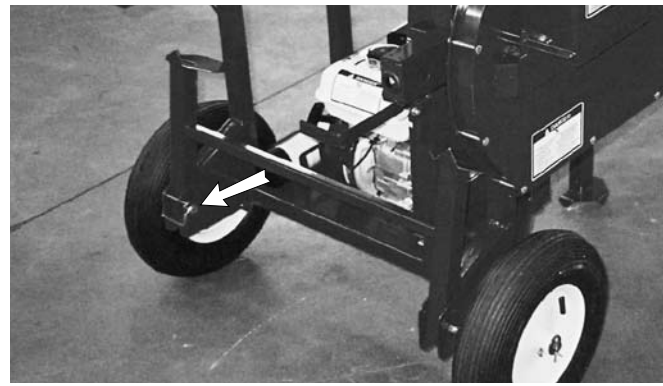
1. Position the machine at the work site with the tow unit or by hand.

### IMPORTANT

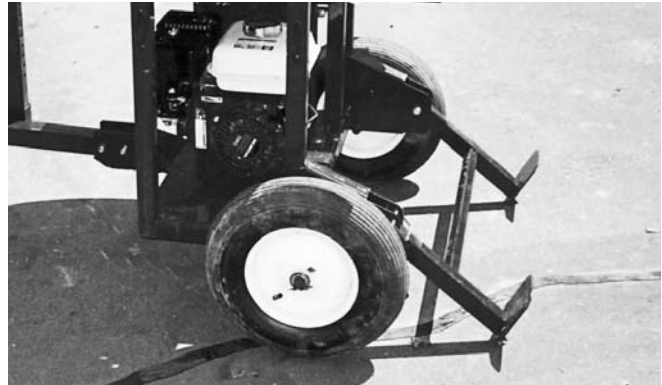
Always select the saw position so the hitch is slightly higher than the rear so the sliding table top moves to the rear of the machine when the sawing operation is completed.

2. If moving with a tow unit, stop engine, set park brake and remove ignition key before dismounting.
3. Remove rear stand anchor bolt.
4. Lower rear stand.

5. Move machine back until the machine lifts up on the stand and the stand goes over center.

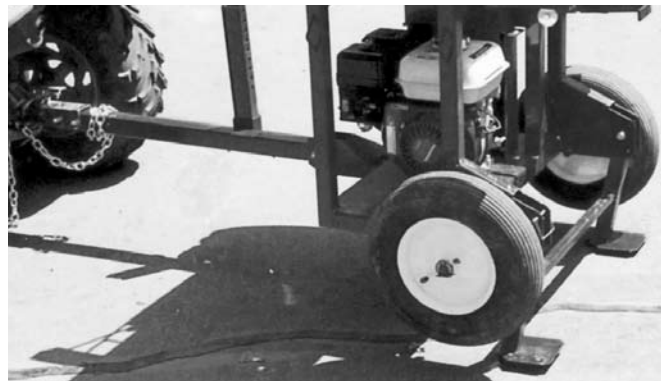


**Anchor Bolt**



**Lowered**

**Fig. 20 REAR STAND**



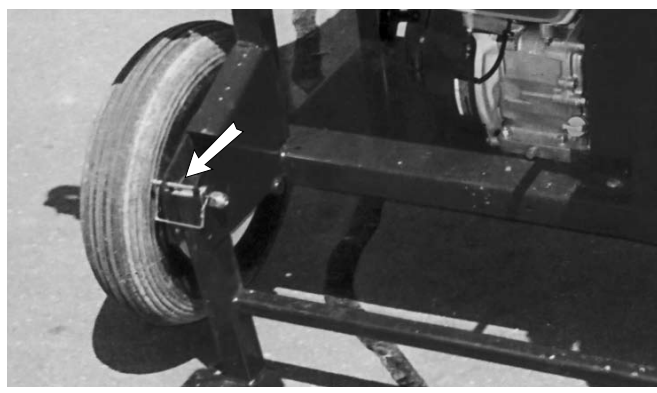
**Attached**



**Unhooked**

**Fig. 21 STAND OVER-CENTRE**

6. Install anchor pin through the rear stand frame to lock it in position.
7. When the tow unit is attached to the hitch, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before working with saw.

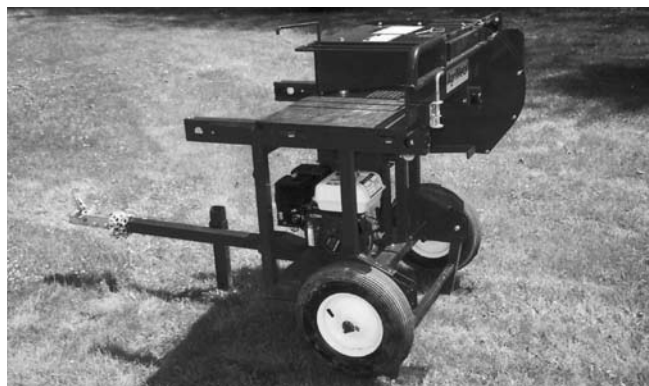


**Fig. 22 ANCHOR PIN**



**Tow Unit**

8. When the tow unit is not hooked to the hitch, lower the hitch stand and pin.
9. Select the position for the stand that will make the front of the machine slightly higher so the table top always moves to the rear of the machine and covers the blade.



**Stand**

**Fig. 23 HITCH STAND**

## 5.8 FIELD OPERATION

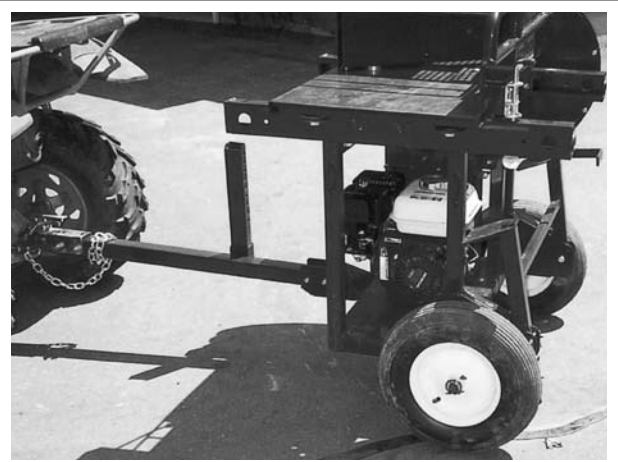


# OPERATING SAFETY

- Please remember it is important that you read and heed the safety signs on the Bench Saw. Clean or replace all safety signs if they cannot be clearly read and understood.
- If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.
- Always use two people to handle heavy, unwieldy components during assembly, installation, removal or moving.
- Always support frame on rear stand for added stability.
- Place all controls in neutral, stop engine, set park brake, turn ignition off and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Do not allow anyone who is not familiar with the safety rules and operation instructions to use this machine.
- Never allow children to operate or be around this machine.
- Do not reach into Saw openings when the engine is running. Clear the work area of objects which might be picked up and snagged or entangled in the machine.
- Clear the work area of objects which might be picked up and snagged or entangled in the machine.
- Do not place hands into wood intake or exit openings or sawdust outlet when engine is running. Keep others away.
- Do not operate when saw blade is exposed.
- Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.
- Do not run engine in an enclosed area. Exhaust fumes contain carbon monoxide, an odorless and deadly poison.

Although the Portable Bench Saw is easy to use, each operator should review this section to familiarize himself with the detailed safety and operating procedures. When using the machine, follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Review and follow the Pre-Operation Checklist (see Section 5.4).
3. Move to the working area (refer to Section 5.7).
4. Stop the tow unit engine, set park brake, remove ignition key and wait for all moving parts to stop before dismounting and starting to work with the saw.
5. **Work Site:**
  - a. Always position the machine with the hitch higher than the rear so the sliding table top always moves to cover the blade when not in use.

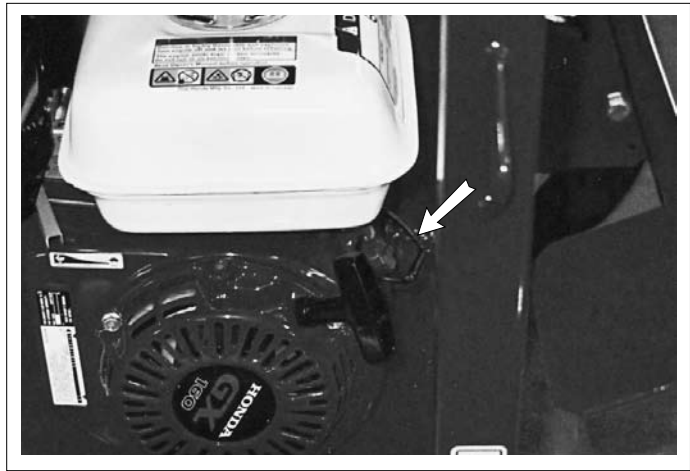


**Fig. 24 MOVING**

- b. Position the rear of the machine close to the wood to be sawed to minimize the gathering cycle.
- c. Keep the work area clean and neat to prevent slipping, tripping and getting hooked on objects.
- d. Use extra care when working in wet, icy, slippery or on an uneven surface. A firm, level area with good footing gives the best results.

6. **Starting Machine:**

- a. Close the choke if the engine is cold.
- b. Move the throttle to its 1/4 throttle position.
- c. Turn ignition switch on.
- d. Pull sharply on the T bar to start the engine.
- e. Run the engine for a few minutes to allow it to warm.
- f. Gradually open the choke
- g. Push control lever in and place in detent.
- h. Increase throttle setting to 3/4 or maximum speed for operation.
- j. Proceed with work.



**Fig. 25 IGNITION SWITCH**

7. **Stopping:**

- a. Be sure all wood is through the machine.
- b. Pull control lever out to disengage saw.
- c. Slow engine RPM.
- d. Stop engine.



**Fig. 26 STARTING/STOPPING**

8. **Emergency Stopping:**

Turn engine off to stop machine if an emergency arises. Correct emergency condition before resuming work.



9. **Saw Off Length:**

The machine is designed with an adjustable arm that is/is can be used to set the length of the wood being cut. Remove the hair pin anchor, loosen the selector knob and slide the arm to the desired position. The arm has detents at 16, 20 and 24 inches (405, 505 and 610 mm). Always install hair pin to prevent arm from moving.



16 Inches (405 mm)



24 Inches (610 mm)

Fig. 27 STOP POSITIONS

10. **Table Top Slides:**

The machine is designed with a table top that is mounted on wheels that move in channels on each side of the frame. Each channel must be clean to allow the table top to move freely. Do not allow twigs, branches, sawdust or other debris to accumulate in the channels and prevent the table top from moving freely.



Right



Left

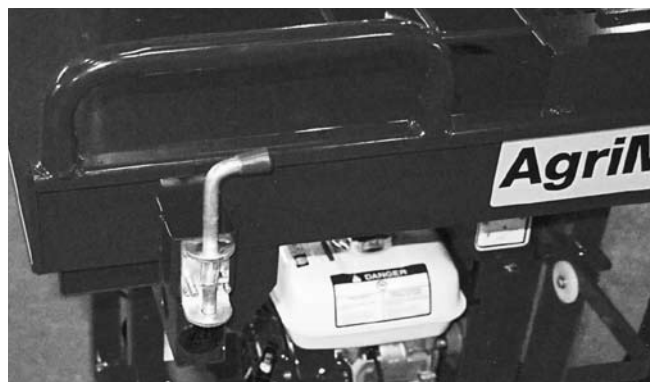
Fig. 28 TABLE TOP SLIDES

**11. Table Top Stop:**

The machine is designed with a stop on the left side of the table top. Engage the lock to prevent the top from moving when the saw is not being used or the unit is being moved or transported.



**Engaged/Stopped**



**Disengaged/Moves Freely**

**Fig. 29 TABLE TOP STOP**

**12. Spring-Loaded Gate:**

The table top is designed with a spring-loaded gate that holds the guard in place between the saw blade and the wood entry area. It prevents splinters and pieces of wood from coming back out of the wood entry opening. Be sure that it hinges freely against the rear of the table top.



**No Wood**



**Wood**

**Fig. 30 SPRING-LOADED GATE**

### 13. Engine Speed:

Running the engine between 1/2 and full throttle works well. The blade inertia itself will almost cut any piece of wood during operation. At lower RPM, the engine gets better fuel economy and produces less noise.



Fig. 31 RUNNING

### 14. Personal Protective Gear:

Every operator should always wear at least the following protective gear:

- Hearing protection
- Face shield
- Protective shoes with slip resistant soles
- Heavy gloves
- Protective clothing

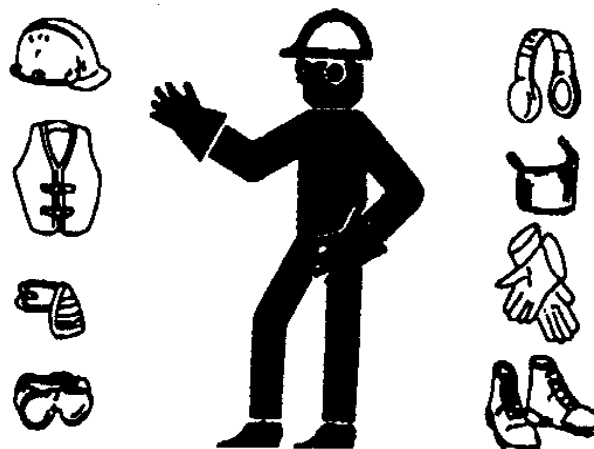


Fig. 32 PERSONAL PROTECTIVE GEAR

### 15. Exit Flapper:

The table top is designed with a hinged flap over the wood exit opening. Be sure it hinges freely at all times. Do not prop it open during operation. The flap minimizes the chance of chips, sawdust or debris from coming out the exit opening.

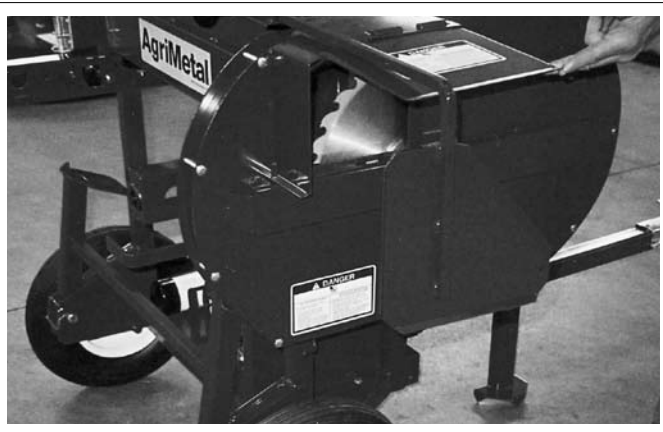
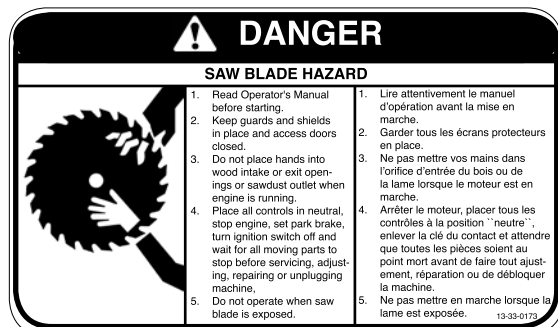


Fig. 33 EXIT FLAPPER



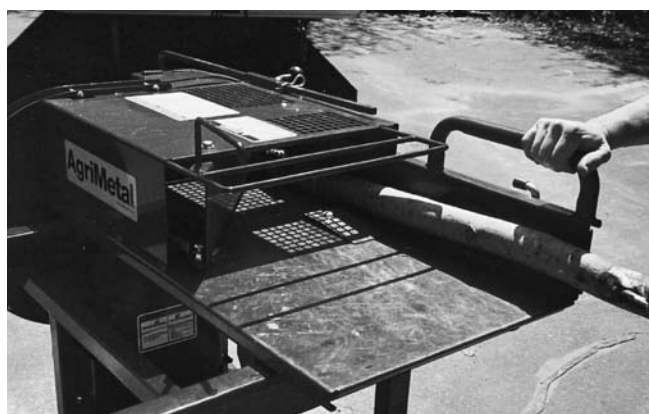
#### 16. Feeding Wood:

- a. Slide the wood, small tree limbs or other wood material into the left side of the table until it butts up against the stop.
- b. Push the table top away from you and cut the wood.
- c. Release the table top and it will roll back toward you.

#### NOTE

Be sure the front of the frame is slightly higher than the rear at all times when operating.

- d. The wood will drop to the ground after being cut.



Feeding



Stop



Sawing

Fig. 34 OPERATING

#### 17. Sawdust:

Sawdust exits the blade shroud at the lower left corner. Do not obstruct the flow of sawdust to prevent plugging of the blade housing. Do not reach into the opening while the saw is running as the blade is very sharp.

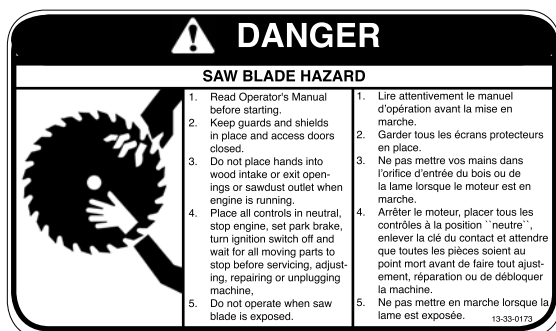


Fig. 35 SAWDUST OUTLET

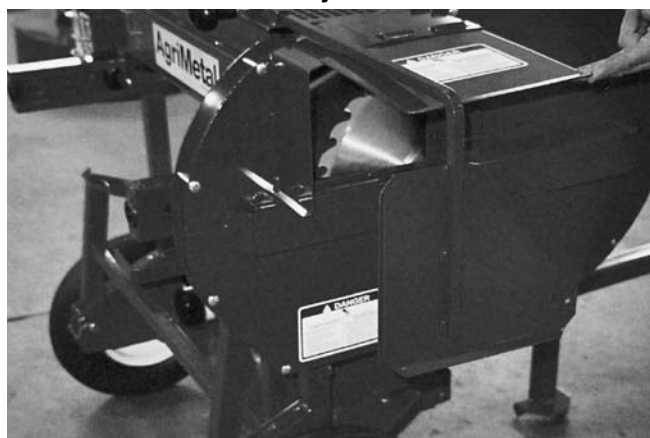
### 18. Unplugging:

The saw is designed with lots of capacity to minimize the chance of plugging. However, if it does plug, follow this procedure when unplugging:

- a. Disengage saw drive control.
- b. Stop and disable engine and wait for all moving parts to stop.
- c. Push back entry gate and remove any material. Release gate.
- d. Lift exit flap and remove any material from around the blade and through sawdust outlet. Release flap.



**Entry Gate**



**Exit Flap**

**Fig. 36 UNPLUGGING**

### 19. Short Piece Feeding:

When the small tree, limb or other piece of wood material is coming to the end, it is recommended that the operator use another piece of wood to push the last short piece into position for sawing. Do not push with your hand to stay away from turning saw blade.



**Fig. 37 SHORT PIECE FEEDING**

**20. Operating Hints:**

- a. Always position the front of the machine slightly higher than the rear so the table top rolls back when released.



**Fig. 38 POSITIONING**

- b. Always support frame on the rear stand when operating for added stability.



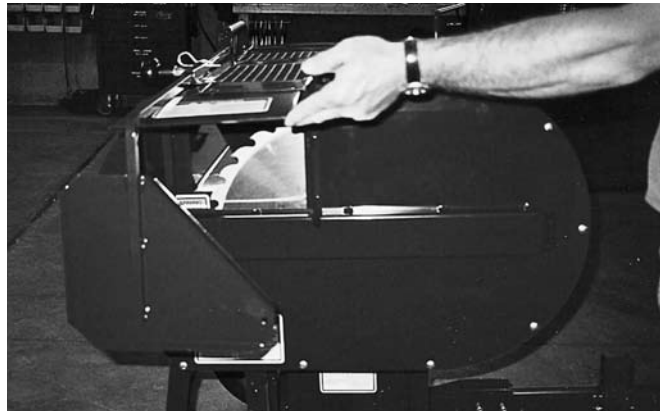
**Fig. 39 REAR STAND**

- c. Be sure the spring on input gate moves freely against rear frame when opening is clear.



**Fig. 40 INPUT GATE**

- d. Be sure exit flap swings freely over the wood exit opening. Do not prop or hold it open during operation.



**Fig. 41 EXIT FLAP**

- e. Always lock table top when the saw is not being used or when it is move or transported.



**Fig. 42 TABLE TOP LOCK**

## 5.9 TRANSPORTING



### TRANSPORT SAFETY

- The machine is not designed or equipped to travel on public roads. Do not drive or transport on public roads.
- Use a trailer when moving from place to place.
- Do not exceed 8 kph (5 mph) when moving.
- Plan your route to avoid rough terrain.
- Do not drink and drive.
- Turn into curves and go up hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the machine's weight is on the rear wheels to maintain safe steering. Slow down on rough or uneven surfaces.
- Never allow riders on the machine.

When transporting the machine, review and follow these instructions:

1. Clear the area of bystanders, especially small children.
2. Engage table top lock before moving or transporting.

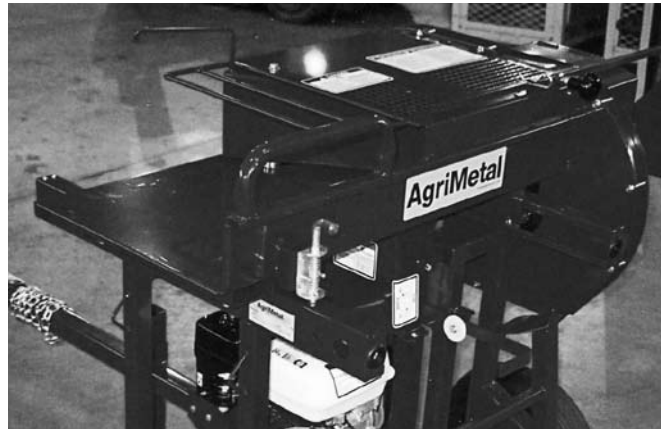


Fig. 43 TABLE TOP LOCK

3. Insure that the machine is securely attached to the tow unit or trailer when transporting from work site to work site.
4. Do not allow riders.
5. Never exceed a safe travel speed. Never travel faster than 8 kph (5 mph).
6. Do not drink and drive.
7. Plan your route to avoid rough terrain.



Fig. 44 MOVING



## 5.10 STORAGE



### STORAGE SAFETY

- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored machine.
- Store the unit in a dry, level area. Support the frame with planks if required.

At the end of the season, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent any unnecessary down time at the beginning of the next season. Follow this procedure:

1. Thoroughly wash the machine with a pressure washer or water hose to remove all dirt, mud, debris or residue.
2. Make sure all the water drains out of the saw blade compartment.
3. Lubricate all grease points to remove any water residue from washing.
4. Remove any material that has become entangled around any moving part.
5. Run the machine for a couple of minutes at low RPM to dry the inside of the saw blade housing.
6. Touch up all paint nicks and scratches to prevent rusting.
7. Move the machine to its storage area.
8. Store in a dry, level spot.
9. Store in an enclosed building if possible. If space is not available, cover with a water-proof tarpaulin and tie down securely.
11. Place planks under the tires and hitch stand for added support if required.
12. Store in an area away from human activity.
13. Do not allow children to play around the stored unit.



**Fig. 45 STORED**

## 6 SERVICE AND MAINTENANCE



### MAINTENANCE SAFETY

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Follow good shop practices.
  - Keep service area clean and dry.
  - Be sure electrical outlets and tools are properly grounded.
  - Use adequate light for the job at hand.
- Make sure there is plenty of ventilation. Never operate an engine in a closed building. The exhaust fumes may cause asphyxiation.
- Before working on this machine, shut off the engine, set the brakes, and remove the ignition keys.
- Never work under equipment unless it is blocked securely.
- Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance work.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.
- Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
- When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.

### 6.1 SERVICE

#### 6.1.1 FLUIDS AND LUBRICANTS

1. **Grease:**  
Use an SAE multipurpose high temperature grease with extreme pressure (EP) performance. Also acceptable is an SAE multipurpose lithium base grease.
2. **Gasoline:**  
Use a super unleaded gasoline for all operating conditions. Do not use gasoline with an ethanol blend.

Capacity: 8 litres (2.0 gal).

3. **Engine Oil:**  
Use an SAE 10W30 multi-viscosity oil meeting the American Petroleum Institute (API) classification of SF or SG for normal operating temperatures. Consult the engine manual for unusual operating conditions. Do not mix oil types or viscosities.

**Crankcase Capacity:**  
1.1 liters (1.0 US qt).

4. **Storing Lubricants:**  
Your machine can operate at top efficiency only if clean lubricants are used. Use clean containers to handle all lubricants. Store them in an area protected from dust, moisture and other contaminants.

#### 6.1.2 GREASING

Use the Maintenance Checklist provided to keep a record of all scheduled maintenance.

1. Use a hand-held grease gun for all greasing.
2. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
3. Replace and repair broken fittings immediately.
4. If fittings will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

### 6.1.3 SERVICING INTERVALS

The period recommended is based on normal operating conditions. Severe or unusual conditions may require more frequent lubrication or oil changes.

#### 8 Hours or Daily

1. Check engine oil level.
2. Check fuel level.



Fig. 46 ENGINE

3. Clean air cleaner.

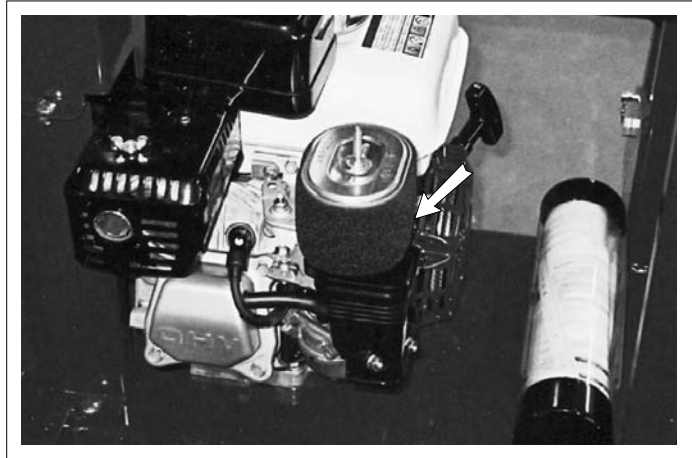


Fig. 47 AIR CLEANER

#### 50 Hours

1. Change engine oil.



Fig. 48 ENGINE DRAIN PLUG

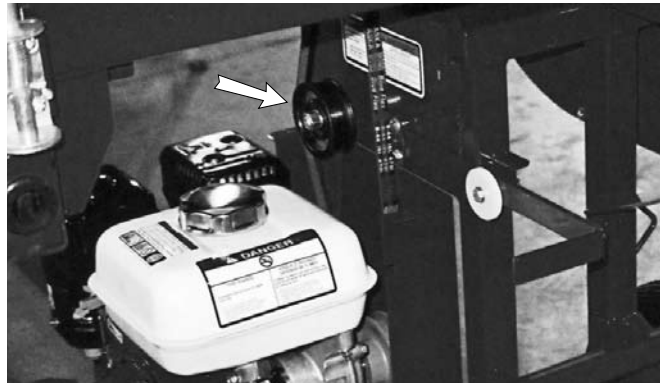
### 50 Hours (cont...)

2. Check tire pressure. Pressurize to 25 psi maximum.

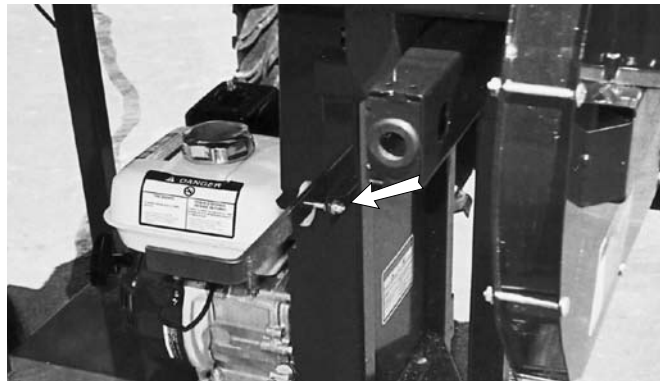


**Fig. 49 TIRES**

3. Check saw blade drive belt tension and pulley alignment.



**Idler**



**Adjuster**

**Fig. 50 DRIVE BELT**

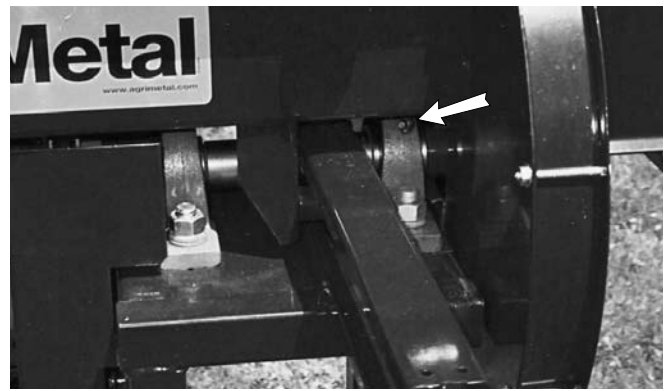


## **WARNING**

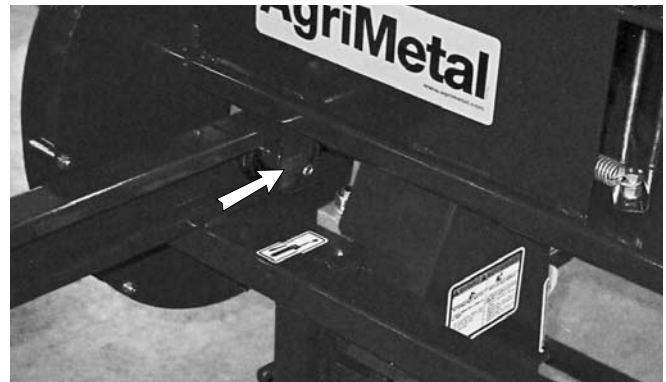
Machine is shown with guard removed for illustrative purposes only. Do not operate machine with guard removed.

### 50 Hours (cont...)

4. Grease bearings on saw blade shaft.



Rear



Front

Fig. 51 SAW BLADE SHAFT BEARINGS

### Annually

1. Clean machine.



Fig. 52 MACHINE

#### 6.1.4 SERVICE RECORD

See Lubrication and Maintenance sections for details of service. Copy this page to continue record.

ACTION CODE:	CK	CHECK	CL	CLEAN
	G	GREASE	CH	CHANGE

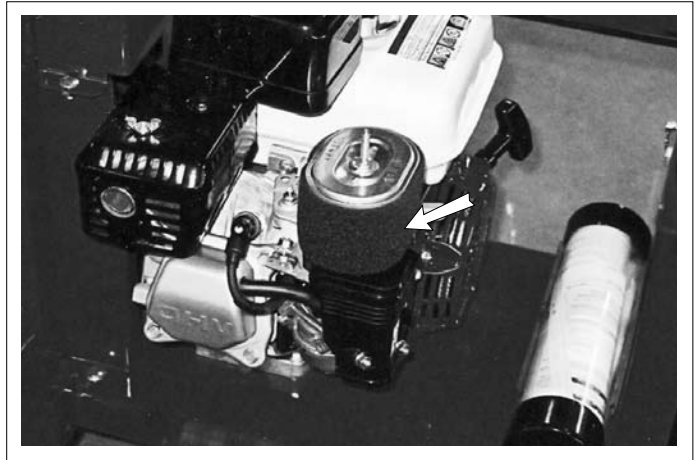
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## 6.2 MAINTENANCE

By following a careful service and maintenance program for your machine, you will enjoy many years of trouble-free operation.

### 6.2.1 CLEANING AIR CLEANER

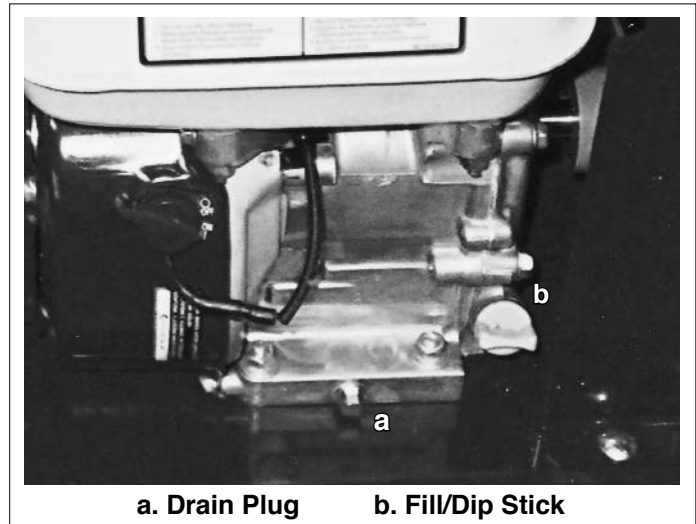
1. Review the Operator's Manual for the engine.
2. Place all controls in neutral, stop engine, set park brake, turn ignition off and wait for all moving parts to stop before maintaining.
3. Remove the cover over the air cleaner.
4. Remove the foam from the engine.
5. Use an air hose to blow the dust and debris out of the foam.
6. Install foam.
7. Install and secure the cover.



**Fig. 53 AIR CLEANER**

## 6.2.2 CHANGING ENGINE OIL

1. Review the Operator's Manual for the engine.
2. Place all controls in neutral, stop engine, set park brake, turn ignition off and wait for all moving parts to stop before maintaining.
3. Allow the engine to cool before changing the oil. Hot oil can cause burns if it contacts exposed skin. It is best to change oil while the engine is warm to keep the contaminants in suspension.
4. Place a pan under the drain plug.
5. Remove the drain and allow the oil to drain for 10 minutes.
6. Install and tighten the drain plug.
7. Dispose of the used oil in an approved container.
8. Fill the crankcase with specified oil.
9. Run the engine for 1-2 minutes and check for oil leaks.
10. If leaks are found around the drain plug, tighten slightly. Repeat step 9.
11. Check engine oil level. Top up as required.



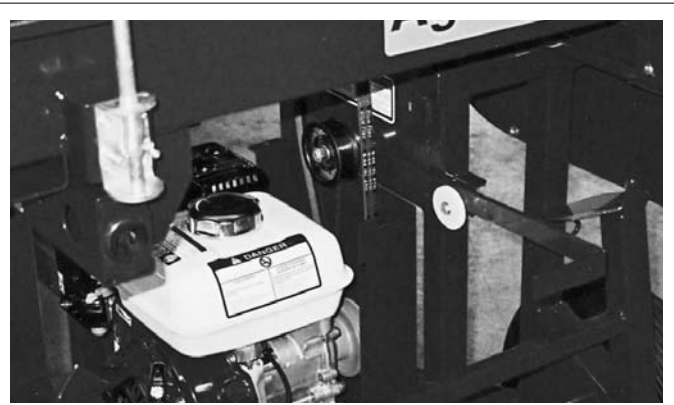
**Fig. 54 ENGINE**



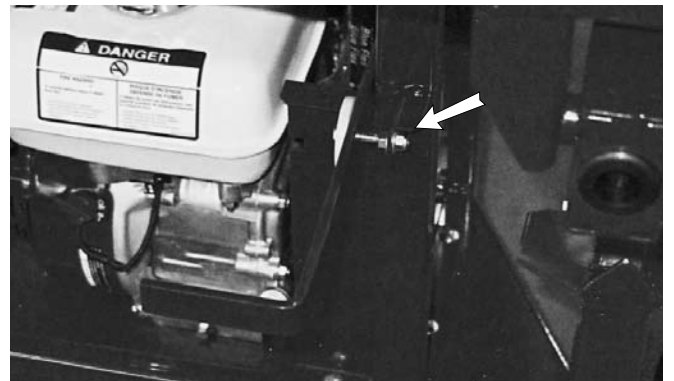
### 6.2.3 DRIVE BELT

A V belt transmits rotational power between the engine and the saw blade. It must be maintained in good condition to transmit power to the blade. To maintain the V belt, follow this procedure:

1. Place all controls in neutral, stop engine, set park brake, turn ignition off and wait for all moving parts to stop before maintaining.
2. Remove the belt drive guard mounting bolts and lay guard to the side.
3. To check belt tension:
  - a. Move control lever to move idler pulley into running position.
  - b. Belt should deflect 1/2 inch (12 mm) when loaded with a 10 lb force in the center of its long span.
  - c. Set tension so belt does not slip during operation.
4. To adjust belt tension:
  - a. Disengage belt drive.
  - b. Loosen detent anchor bolt.
  - c. Move anchor bolt over 1/4 inch (6 mm) and re-tighten.
  - d. Operate for a short time. If belt slips, repeat step "c".
5. To replace belt:
  - a. Move idler pulley into its loosest position.
  - b. Remove belt from engine pulley.
  - c. Loosen and lift saw blade bearing blocks.
  - d. Remove old belt and replace with new one.
  - e. Tighten bearing block bolts to their specified torque.
  - f. Perform belt tension adjustment.

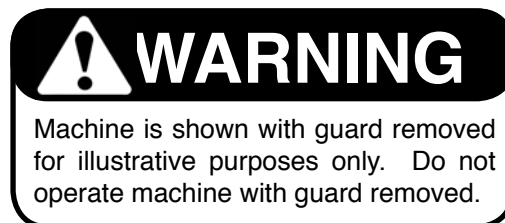


**Drive System**



**Idler Pulley Tensioner**

**Fig. 55 BELT DRIVE**



## 7 TROUBLE SHOOTING

The AgriMetal Portable Bench Saw is a large self-contained saw for cutting small trees, limbs and other types of wood material into short lengths. It is a simple system that requires minimal maintenance.

In the following Trouble Shooting section, we have listed many of the problems, causes and solutions that can help you to solve the problems that you might encounter.

If you encounter a problem that is difficult to solve, even after having read through this trouble shooting section, please call your local distributor or dealer. Before you call, please have this Operator's Manual and the serial number of your machine at hand.

PROBLEM	CAUSE	SOLUTION
Engine won't start	No fuel.	Check fuel level, add as required.
	Dirty fuel.	Drain fuel and replace.
	Ignition switch off.	Turn on ignition switch.
Table top doesn't move.	Debris in tracks.	Clean tracks.
	Lock engaged.	Release lock.
	Material jammed in throat.	Remove material.
Cuts very slowly.	Blade turning too slowly.	Increase engine RPM.
	Blade dull.	Sharpen blade.

## 8 SPECIFICATIONS

### 8.1 MECHANICAL

MAXIMUM WOOD DIAMETER	5 ½ in. (14 cm)
TOTAL LENGTH WITH DRAW BAR	64 ½ in. (164 cm)
TOTAL LENGTH WITHOUT DRAW BAR	33 in. (84 cm)
TOTAL WIDTH	42 ½ in. (108 cm)
TOTAL HEIGHT	44 ½ in. (113 cm)
WEIGHT	280 lbs (127 kg)
CARBIDE BLADE	16 in. (41 cm)
WHEEL SIZE	4 in. x 16 in. (10 x 41 cm)
ENGINE	5.5 HONDA MANUAL START
SHIPPING DIMENSION ON PALLET	34 x 48 x 45 ½ in. (86 x 122 x 116 cm)
SHIPPING WEIGHT ON PALLET	310 lbs (141 kg)

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

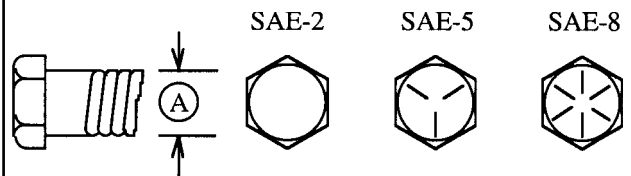
## 8.2 BOLT TORQUE

### CHECKING BOLT TORQUE

The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

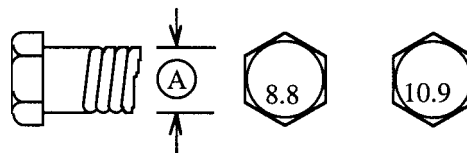
### ENGLISH TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque *					
	SAE 2		SAE 5		SAE 8	
	N.m	(lb-ft)	N.m	(lb-ft)	N.m	(lb-ft)
1/4"	8	(6)	12	(9)	17	(12)
5/16"	13	(10)	25	(19)	36	(27)
3/8"	27	(20)	45	(33)	63	(45)
7/16"	41	(30)	72	(53)	100	(75)
1/2"	61	(45)	110	(80)	155	(115)
9/16"	95	(70)	155	(115)	220	(165)
5/8"	128	(95)	215	(160)	305	(220)
3/4"	225	(165)	390	(290)	540	(400)
7/8"	230	(170)	570	(420)	880	(650)
1"	345	(225)	850	(630)	1320	(970)



### METRIC TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*			
	8.8		10.9	
	(N.m)	(lb-ft)	(N.m)	(lb-ft)
M3	.5	.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710



Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

\* Torque value for bolts and capscrews are identified by their head markings.

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