# Owner's Manual

### **Hydra Cutter**





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### **Pre-Usage Instructions**

#### **Replacement Safety Decals**

Worn, damaged or illegible labels should be replaced. New labels may be obtained from All Seasons Equipment (1-888-308-4763) or through your local dealer.

#### **Obligations and Usage**

This product is intended to be used under the guidelines of this manual and relevant literature published by All Seasons Equipment, div ESKO Equipment MFG. It is the owner's and/or operator's obligation to ensure this product is operated only for its intended uses. Operation contrary to the guidelines set forth may cause damage or failure of the equipment and create serious safety problems.

#### Before you Operate the Hydra Cutter.

- 1. Do not operate the Hydra Cutter without first reading and understanding the entire contents of this manual.
- 2. Read, fully understand and follow the engine manufacturer's operating and safety instructions. The engine manual is included in the instruction tube with this equipment manual for your convenience.
- 3. An uninformed operator is a danger to himself and others. Familiarize yourself and any other personnel who may come into contact with the Hydra Cutter with the controls as well as its operation.
- 4. Keep the work area clean. Remove obstacles that could cause personal injury to the operator or others. Keep other persons, children and pets out of the cutting area.
- 5. Wear the proper apparel such as long sleeve shirt, buttoned at the cuffs, glasses, goggles or a face shield, hard hat, and/or properly fitted pants without cuffs.
- 6. Never operate the unit without all shields and covers in place.
- 7. Check the engine crankcase oil. Refer to the engine manufacturer's maintenance instruction section for details on how to add or change the engine oil. All engines on All Seasons Equipment come with standard "Oil Alert" or "Oil Guard" systems. If the engine will not start or run it may be low on oil.
- 8. Check the fuel supply. Fill with fresh, clean unleaded gasoline. Securely tighten all caps of the engine and gas can after filling. Clean up any spills completely and dispose into an approved storage container. Gasoline is a highly flammable substance and must be handled with extreme care. Never allow smoking anywhere around the machine, and do not allow flames or sparks near where the engine is being refueled, operated or where gasoline is stored. Do not operate or test this machine or any gasoline engine in an enclosed area. Carbon monoxide fumes from gasoline engines can cause severe illness and death.
- 9. Inspect the machine for bent frame members, broken welds or damaged components. Do not operate if the machine is damaged. Remove from service and have the machine properly repaired by a qualified mechanic before further use. Replace all damaged components.
- 10. Plan your work ahead of time to help prevent accidents. Never cut towards people, buildings, vehicles or other objects that could be damaged by flying debris. The swivel style blade cover on the Hydra Cutter is designed to prevent flying debris from escaping the cut area, however on occasion some stones may be

thrown free of the enclosure. Make people working in the immediate cutting area aware of this situation and have them wear proper safety apparel.

#### **Operation Safety**

- 1. Safety glasses must be worn at all times while operating a Roof Cutter. Dust, gravel and other debris can be blown back into the operators face if consideration is not given to the wind direction.
- 2. Keep hands, feet, hair and loose clothing away from the engine, pulleys, belts and other moving parts.
- 3. Use caution when operating in order to avoid tripping and falling.
- 4. All shields and covers must be kept in place on the unit, including the blade and the belt covers.
- 5. Never make adjustments on the unit while the engine is running. Turn off the engine and allow it to cool before performing maintenance. This includes filling the fuel tank; gasoline spilled on hot engine components can ignite.
- 6. Do not touch the engine or muffler during or immediately after use. They are hot and could cause burns.
- 7. Whenever the Roof cutter is left unattended; SHUT OFF THE ENGINE even if leaving the machine for only a few seconds. Flip the shut-off switch to the off position to shut down the engine.
- 8. Check the roof and deck for deterioration before allowing personnel or equipment access to the roof. Make certain the roof and structure is strong enough to support the weight. The contractor and/or building owner is responsible to see that the use of this machine and other roofing work does not exceed the load capacity of the roof and structure.
- 9. Check the depth of the roof system, the powerful cutting system on a Hydra Cutter can easily cut into the roof deck if the depth of cut is not set correctly. A cut roof deck presents a major safety hazard to personnel on the job.
- 10. Clear the work area of all potentially dangerous obstacles.
- 11. Properly guard and/or cover any roof openings. Use proper signs and warnings around these areas.
- 12. Do not operate the machine within 10ft of the roof edge when working perpendicular to the edge, or 6ft when working parallel to the roof edge without a proper fall protection system. Follow your local regulations for use with a Perimeter Warning Line or Guard Rail System.

### **Operating Instructions**

#### **Operation**



1. First turn the speed control dial (C) to the slowest position and ensure that the depth adjustment handle (D) is in the idle position (Refer to Cutting Depth Adjustment) so that the cutting blades are raised.



#### WARNING:

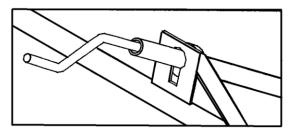
Never start the Hydra Cutter or activate the wheel control levers (A) or (B) before first turning the speed control dial (C) to the slowest possible position AND putting the depth adjustment handle in an idle position (Refer to Cutting Depth Adjustment).

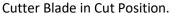
- 2. Push down on the Hydra Cutter handles; after approximately 5 inches, the top of the depth adjustment handle will drop down into the idle position.
- 3. Turn the Hydra Cutter to face the desired direction of the cut.
- 4. Turn the on/off switch on the engine to the on position and start the engine. Follow the engine instructions in the enclosed Honda Manual for complete engine operation instructions.
- 5. With the speed control dial (C) set to the minimum speed, squeeze the wheel control lever (B) against the right handle. The machine should not move.
- 6. Slowly turn the speed control dial (C) towards the FAST position; the tractor should slowly accelerate. When the machine gets to the desired speed, stop turning the speed control dial.
- 7. Use the speed control dial to reduce the wheel speed to idle.
- 8. Lift the Cutting Depth Handle (D) and slowly lower the Roof Cutter back onto the roof. Before moving forward, ensure that you are cutting into the roof only, and not the decking material.
- 9. Squeeze the reverse lever (A) against the right handle to activate the Hydra Cutter in the reverse direction.

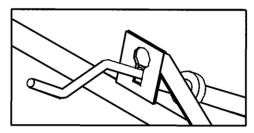
10. Use the speed control dial (C) to start and stop the machine. Only change between forward and reverse movement when the speed control dial is set to a minimum. The power of the Hydra Cutter can damage the machine if it is engaged through the forward/reverse lever while the speed control is set to a high velocity.

#### **Cutting Depth Adjustment**

- 1. The depth control bar is located on the right hand side of the machine.
- 2. By pushing down on the handle bars of the machine the depth control will slide into the idle position.
- 3. Turning the depth control handle clockwise will increase the cutting depth. A counter clockwise rotation will raise the cutter blade.







Cutter Blade in Idle Position.

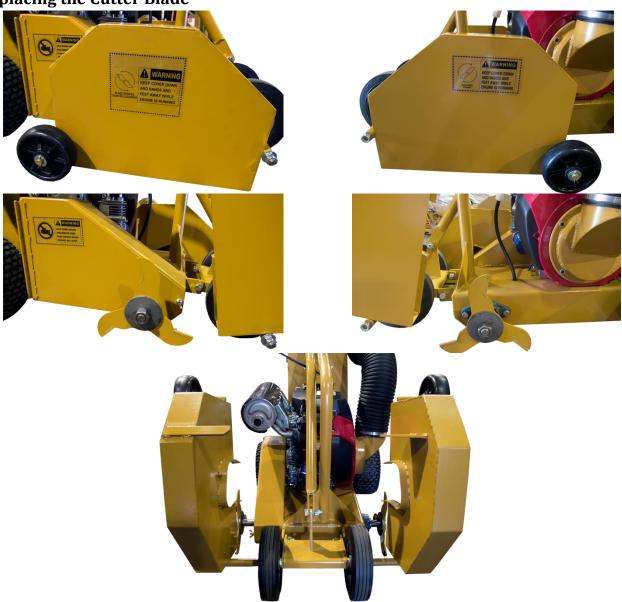
#### **Turning the Roof Cutter**

The Hydra Cutter is designed to be operated in a straight line, DO NOT attempt to turn the machine while the blade is in the cutting position in the roof, this can result in serious injury to the operator and others in the vicinity. In addition, it can cause significant damage to the machine.

- 1. Lower the engine RPM to an idle.
- 2. Push down on the Hydra Cutter handles, after approximately 5 inches the top of the handle will drop down into the idle position (As shown).
- 3. Turn the Hydra Cutter to face the desired direction for the next cut.
- 4. Turn up the engine RPM to full cutting speed.
- 5. Lift the handle and slowly lower the roof cutter blades back into the roof, before moving forward ensure that you are cutting into the roof only, and not the decking material.

### **Maintenance**

**Replacing the Cutter Blade** 

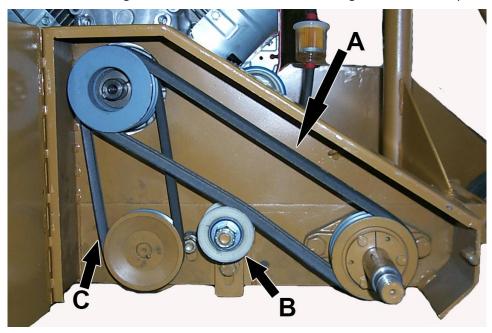


The cutting blade is attached to the Hydra Cutter by a 1" diameter shaft and retained in place using a 4" washer and 1" left thread nut.

- Remove the old blade:
   Unscrew the 1" left thread nut freeing up the 4" washer and old blade for removal.
- 2. Replace with new blade: Place the new blade in place, paying particular attention to the direction of the cutting (Blade spins clockwise on the Hydra Cutter). Make sure that the blade carbide is facing into the cut, otherwise the blade life and cutting ability will be considerably reduced. ASE Blades have stickers posted on the side, showing the proper direction of blade rotation.

#### **Changing the Belts**

Turn the engine OFF. Locate the hinged belt cover lid and remove the wing nut in order to open it.



There are two belts (A) used to drive the cutting blades. Loosen the bolt on the bracket that holds the nylon idler (B) against the machine body. The idler can now drop down to loosen the belt tension. Now that the belts are loose, they can be removed from the pulleys by carefully rotating the cutter shaft back and forth using one hand, while pulling the belt off the pulley with the other.

To install new cutter belts, keep the idler down as before. Place the first belt around the top pulley, then work it around the cutter shaft pulley with one hand while rotating the cutter shaft back and forth with the other hand. Move this belt to the inside groove of the pulleys so that the second belt can then be mounted on the outside groove. Mount the second belt in a similar way by placing it around the top pulley, then working it around the cutter shaft pulley with one hand while rotating the cutter shaft back and forth with the other hand. Once both belts are mounted tighten the idler bolt finger tight. Raise the idler to tighten the belts by tapping the bottom of the idler bracket with a hammer. Once the belts are sufficiently tight, tighten the idler bracket bolt further in order to secure the idler. The roof cutter is now ready to function again. Close the lid of the belt cover and secure it tightly with the wing nut and lock washer.

**NOTE:** Since an older belt will have stretched during operation, it is recommended that both belts be replaced at the same time to ensure that both handle the same amount of load.

To change the wheel drive belt, the cutter belts must be first removed as above. The bottom pulley is mounted on the shaft of a hydraulic pump. Loosen the two mounting bolts on the pump in order to facilitate the removal and installation of belts. In order to better angle the pulley, it may be necessary to turn the pump upside down. Unscrew the two hydraulic hoses and fittings so that there is room to turn the pump upside down. Once the new belt is around the bottom pulley, right the pump, reattach the hoses, and tighten the pump mounting bolts again. Then reinstall the cutter belts as above.

#### **Maintenance Chart**

	Each	8	25	50	100	200	400
	Use	Hours	Hours	Hours	Hours	Hours	Hours
Check Hydraulic Fluid Level	Initial		✓				
Change Hydraulic Fluid							✓
Change Hydraulic Oil Filter			✓				
Check Hydraulic Lines					✓		
Check Engine Oil Level	✓						
Change Engine Oil			✓				
Change Engine Oil Filter			✓				
Grease Frame	✓						
Service Air Cleaner				✓			
Replace Air Filter						✓	
Check Spark Plugs					✓		
Replace Spark Plugs						✓	
Check Battery Electrolyte (Electric Start)			✓				
Charge Battery (Electric Start)	Initial						

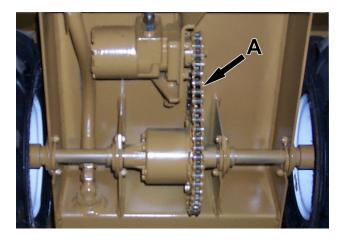
	4 Hours	10 Hours	30 Hours	Daily
Check Blade for Wear	✓			
Check Nylon Idler for Wear			✓	
Check "V" Belt Alignment		✓		
Check "V" Belt for Wear	✓			
Lubricate Bearings				✓
Engine Air Cover		<b>√</b>		
- Clean, replace as required				
Engine Oil				<b>\</b>
- Check and replace as required				•
Check and tighten chassis nuts and bolts		✓		
Oil Threads on Depth Control System		✓		
*Check engine fins for dirt buildup		✓		

#### **Keep in mind**

\* Dirt buildup in the engine fins can reduce the amount of air being directed into the engine for cooling. Overheating of the engine is the most common cause of engine failure on Roof Cutters. The engine fins should be checked approximately every 10 hours of machine use, however in particularly dusty situations they should be checked more frequently.

#### Lubrication

The Hydra Cutter operates in extremely dirty conditions which can get into moving parts, resulting in accelerated part wear. It is very important to keep all moving parts properly lubricated to prevent machine failure on the job. Check the individual attachment sections for required lubrication points on each individual attachment



- 1. A → Hydra Cutter Drive Chain
  - Lubricate with oil daily.

#### Check the Hydraulic Fuel Level

The hydraulic tank is an integral part of the unit's main frame. Fluid levels are monitored with an oil level gauge. This level gauge is located on the rear of the hydraulic tank, near the operator's feet.

Before the engine is first started, and after 25 hours of operation, check the hydraulic fluid level.

This machine is designed to use high quality 10W40 oil. In high temperature situation 20W50 oil can be used to increase machine performance.

Hydraulic Tank Capacity is: 20 Gallons (75.7 Litres)
Before checking the oil level, ensure that the unit is parked on a level surface with the lift arms lowered, the engine off and the key removed.

#### **Change Hydraulic Filters**

The Hydra Cutter oil return filter element should be replaced after 100 hours of operation. There is also a steel suction strainer that should be blown out with compressed air, or washed with light oil every 100 hours of operation.

#### Changing the Hydraulic Oil

Change the Hydraulic Oil after 400 operating hours.

- The Unit should be parked on a level surface, unloaded, with the engine off and the key removed.
- 2. Place a drain pan under the drain plug that will hold the oil.
- 3. Remove the drain plug. Allow the fluid to completely drain out.
- 4. Reinstall the drain plug.
- Fill the hydraulic tank with approximately 2.1 gallons (8 liters) of 10W30 oil. It is very important to use a high quality oil with few impurities.

NOTE: Dispose of used oil at a certified recycling centre.

#### **Check Hydraulic Lines**

Check the hydraulic lines after every 100 hours of operation. Inspect for wear, cracks, loose connections, leaks, etc. If hydraulic component requires service, stop the engine, and move all hydraulic controls in both directions to release any hydraulic pressure before any disassembly. Repair hoses as needed. Hydraulic hoses should be replaced as wear dictates.



WARNING: HYDRAULIC FLUID UNDER PRESSURE CAN PENETRATE SKIN AND CAUSE SEVERE BURNS THAT CAN RESULT IN DEATH OR SERIOUS ENJURY.

ALWAYS keep body and hands away from the pin holes or nozzles which eject hydraulic fluid under pressure. ALWAYS use paper or cardboard and not hands to search for leaks.

KNOW that all hydraulic fluid connections and all hydraulic hoses and lines are in good condition BEFORE applying pressure to the system.

Foreign fluid injected into skin must be surgically removed within a few hours by a doctor familiar with this form

of injury or gangrene may result.

#### **Check Engine Oil Level**

Check engine oil level before each use. See engine manual for detailed instructions.

#### **Change Engine Oil Filter**

instructions.

attached to the engine.

#### **Check Battery Electrolyte (Gasoline** Model Only)

External Contact, flush with water.

time.

**EYES:** Flush with water for at least 15 minutes and get medical attention immediately.

**WARNING:** ELECTRICAL SHOCK may result in

DO NOT allow tools or other objects to

injury and/or damage to the unit.

come into contact with both terminals at the same

ALWAYS remove the Negative (-) cable first to reduce

INTERNAL CONTACT: Drink large quantities of water. Follow with beaten egg or vegetable oil.

#### GET MEDICAL ATTENTION IMMEDIATELY.

**WARNING:** In case of internal contact, do **NOT** induce vomiting.

Change oil after every 25 operating hours. Change more frequently when operating conditions are extremely dusty. See engine manual for detailed

**NOTE:** The engine has a drain hose permanently

**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the state

of California to cause cancer and reproductive harm.

the risk of sparks when removing the battery.

connect the Negative (-) cable.

Wash hands after handling.

ALWAYS connect the Positive (+) cable first, then

WARNING: EXPLOSIVE GASES can result in serious injury or death. ALWAYS keep open flames, sparks, or smoking materials

away from the battery.

POISONOUS BATTERY FLUID contains sulfuric acid and its contact with skin, eyes or clothing can cause severe chemical burns. ALWAYS wear safety glasses and protective gear near the battery.

DO NOT TIP any battery beyond 45 angle in any direction.

ALWAYS KEEP BATTERIES OUT OF REACH OF CHILDREN.

**WARNING: RESERSE CONNECTIONS may** result in sparks which may cause injury. ALWAYS connect. Disconnect cables in the

proper order.

#### Service Air Cleaner

The foam element should be cleaned after every 50 operating hours.

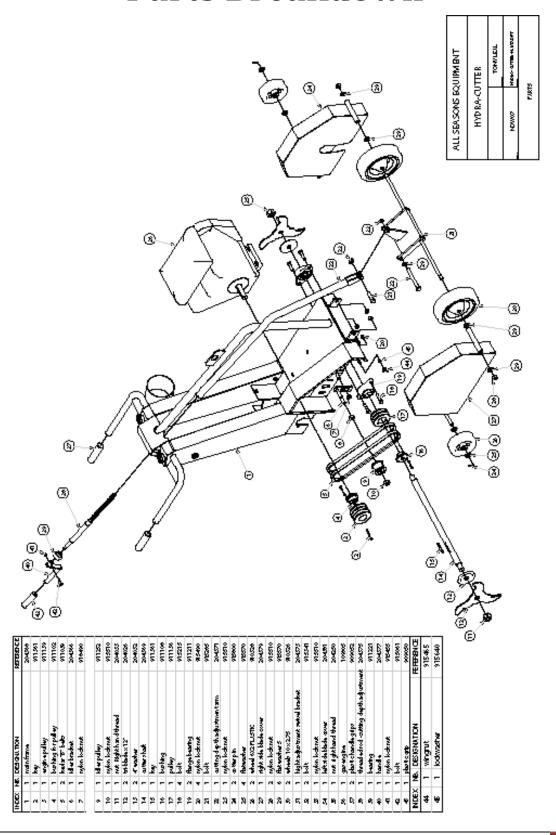
The paper element should be replaced after every 200 operating hours.

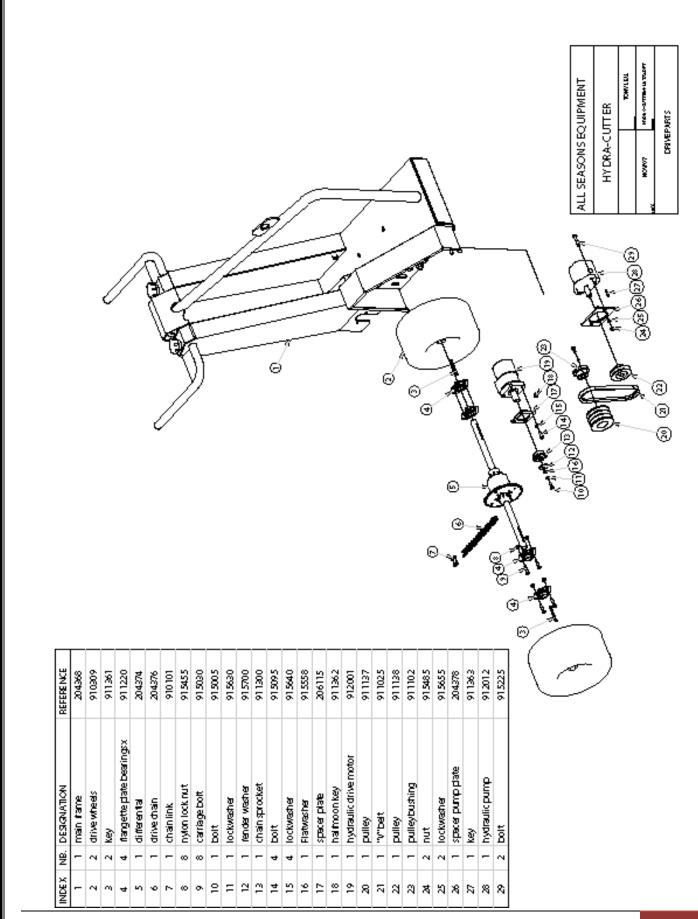
Under extremely dusty or sandy conditions, the elements should be serviced several times a day, see the engine manual for detailed instructions.

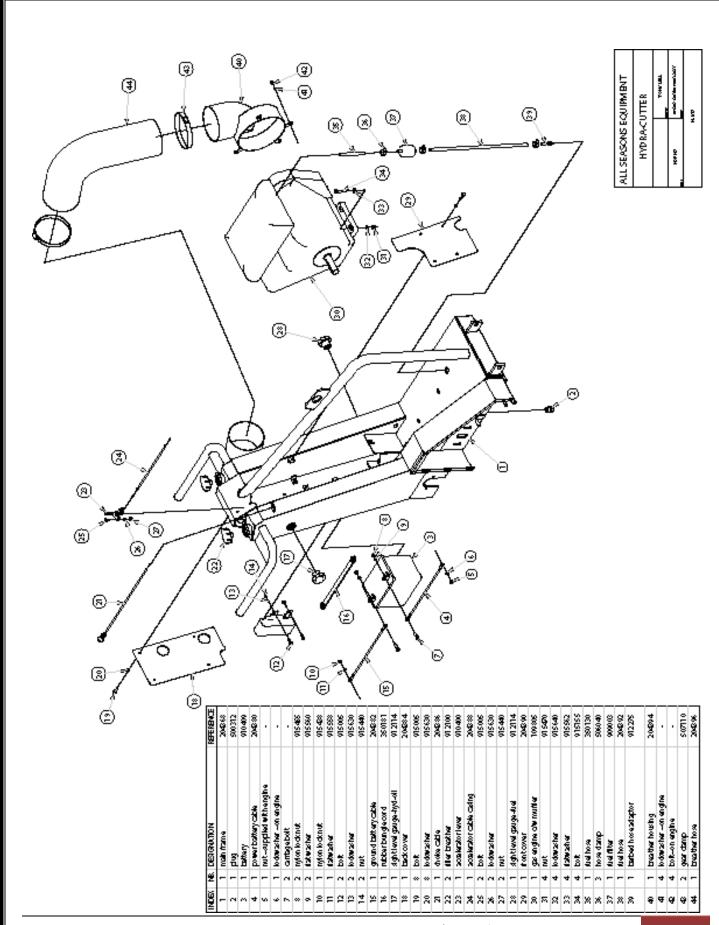
#### **Check the Spark Plugs**

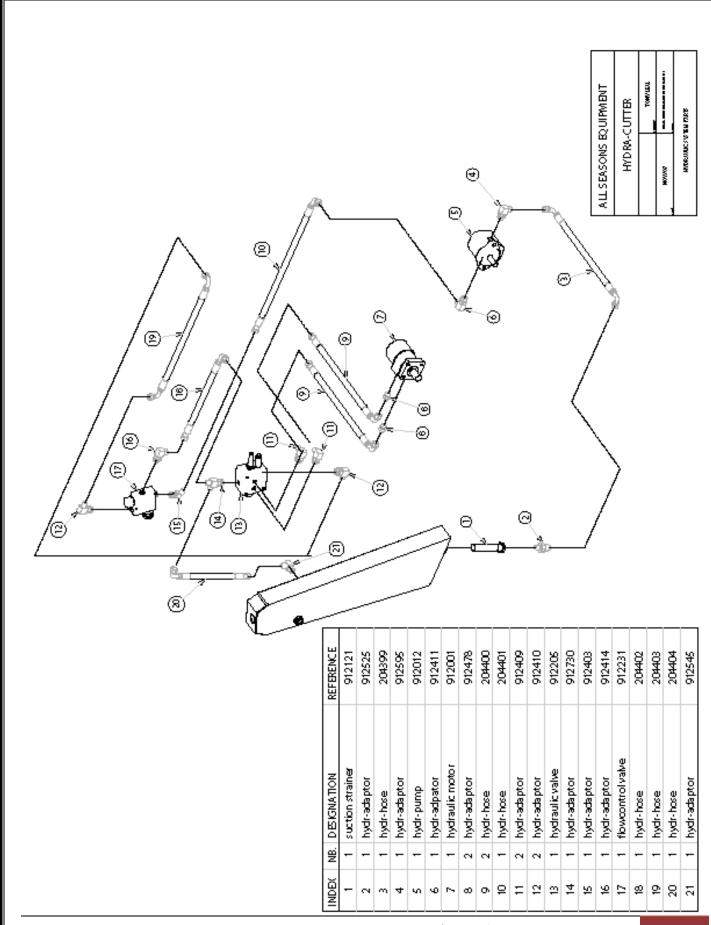
Inspect the spark plugs after every 100 operating hours. Refer to the engine manual for spark plug service.

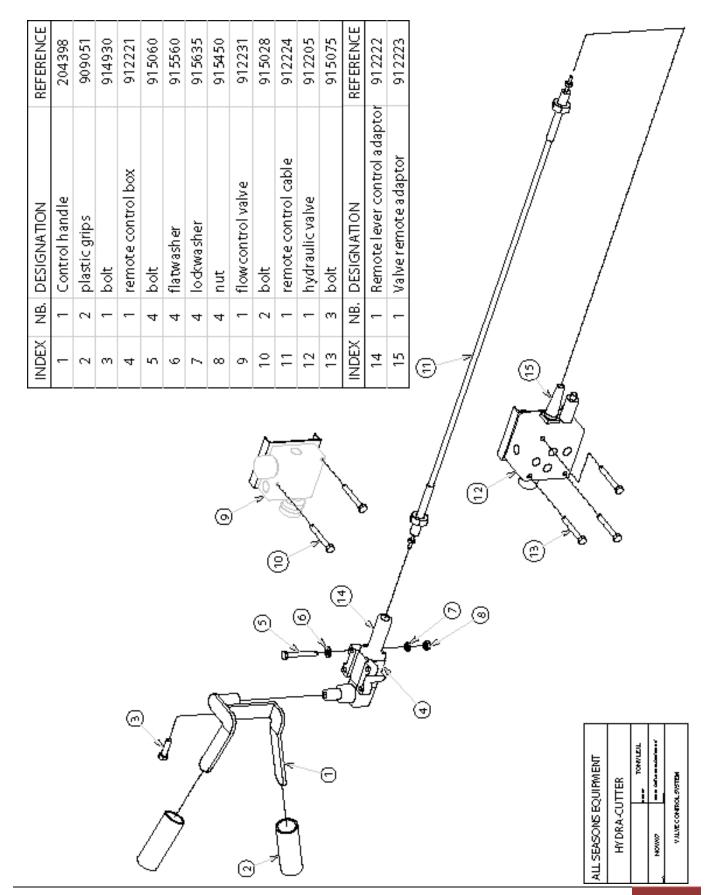
### **Parts Breakdown**











### Safety & Regulations

For rules governing the use of guard rail in the United States, please refer to:

U.S. Department of Labor Occupational Safety & Health Administration Part 1926 - Safety and Health Regulations for Construction www.osha.gov

For rules governing the use of roofing equipment in Canada, please refer to:

Canadian Centre for Occupational Health and Safety www.ccohs.ca/oshanswers/information/govt.html

#### **Contacts for Provincial Offices for Occupational Health and Safety:**

Alberta

Web Site: <a href="http://www.gov.ab.ca/hre/whs/">http://www.gov.ab.ca/hre/whs/</a>

**British Columbia** 

Worker's Compensation Board of British Columbia: http://www.worksafebc.com/

Contact List/Regional Offices: http://www.worksafebc.com/contact\_us/regional\_locations/default.asp

Manitoba

Manitoba Labour: http://www.gov.mb.ca/labour/safety/

Contact List: http://www.gov.mb.ca/labour/safety/contactus.html

**New Brunswick** 

Regional Offices: http://www.whscc.nb.ca/index e.asp

Newfoundland and Labrador

Occupational Health and Safety: <a href="http://www.gs.gov.nl.ca/ohs/">http://www.gs.gov.nl.ca/ohs/</a>

Contact List/Regional Offices: http://www.gov.nl.ca/gs/ohs/locations.stm

**Northwest Territories and Nunavut** 

Web Site: http://www.wcb.nt.ca/default.asp

Nova Scotia

**Occupational Health and Safety:** 

https://www.gov.ns.ca/enla/contact/default.asp?div=gen&pg=dept&bk=/enla/ohs/Default.asp

Ontario

Ministry of Labour (OHS): http://www.labour.gov.on.ca/english/hs/

Contact List/Regional Offices: http://www.labour.gov.on.ca/english/about/reg offices.html

**Prince Edward Island** 

Workers' Compensation Board: http://www.wcb.pe.ca

CSST Internet address: <a href="http://www.csst.qc.ca/portail/fr/">http://www.csst.qc.ca/portail/fr/</a>

Saskatchewan

Saskatchewan Labour: http://www.labour.gov.sk.ca

Yukon

WCHSB: http://wcb.yk.ca

### Stickers/Decals



### ALL SEASONS EQUIPMENT

1-888-308-4763 www.asequip.com

#### **A**DANGER

#### ACAUTION





ALL SEASONS EQUIPMENT, Div. of ESKO Equipment Mfg. Ltd., Ont., Canada Tel.: (905) 829-2990 · Fax: (905) 829-0992

#### \* SAFETY FIRST \*

ALWAYS READ YOUR MANUAL BEFORE OPERATING THIS MACHINERY. INJURY OR DEATH MAY RESULT IF THIS PRODUCT IS MISUSED IN ANY WAY.

ALL SEASONS EQUIPMENT, Div. of ESKO Mfg. Ltd., relies upon the purchaser to see that the manual instructions are made clear to the persons who are operating this machine.



BLADE ROTATES CLOCKWISE

### **WARNING**

KEEP COVER DOWN
AND HANDS AND
FEET AWAY WHILE
ENGINE IS RUNNING





SHUT DOWN ENGINE
AND REMOVE SPARK
PLUG CONTACT BEFORE
OPENING BELT COVER

## ROOF CUTTER CAUTION

INTENDED USE: THIS MACHINE IS INTENDED TO BE USED FOR THE SOLE PURPOSE OF CUTTING FLAT, LEVEL, BUILT-UP ROOPS FOR THE RE-ROOFING PROCESS. Any other use of this equipment voids the manufacturer's warranty and is the sole responsibility of the owner/user, should any damage or injury occur.



Before operating this piece of equipment, hat the purchaser and/or owner of same instructy on the proper use, limitations and safe operation as stated in the All Seasons Equipment operatin instructions.

#### **A WARNING**

- OPERATOR MUST WEAR GOGGLES, HARD HAT, SAFETY SHOES & GLOVES AS REQUIRED BY OSHA SAFETY ORDERS
- KEEP HANDS, FEET AND LOOSE CLOTHING AWAY FROM
- DO NOT SERVICE WHILE ENGINE IS RUNNING
- DO NOT USE WITHIN 10 FEET OF ROOF EDGE.
- GUARD ALL ROOF EDGES, OPENINGS OR OBSTRUCTIONS PER OSHA REGULATIONS BEFORE OPERATING.
- TURN MACHINE OFF WHEN NOT IN ACTUAL OPERATION BY QUALIFIED OPERATOR.
- DO NOT OPERATE UNLESS ALL OTHER PERSONS AR WELL CLEAR OF THIS MACHINE.
- SWEEP LOOSE GRAVEL OR DEBRIS OFF ROOF BEFORE
  OPERATING
- THIS MACHINE IS DESIGNED FOR USE ON FLAT LEVEL ROOFS ONLY. NEVER SET CUTTER BLADE(S) DEEP ENOUGH TO COME IN CONTACT WITH ROOF DECK.

ALL SEASONS EQUIPMENT, Div. OF ESKO Equipment Mfg. Ltd., Ont., Canada

### HYDRAULIC FLUID

Use MOTOR OIL as Hydraulic Fluid.

SUMMER - Above 32° F / 0° C Use - 10W40 Low detergent

WINTER - Below 32° F / 0° C Use - 10W30 Low detergent

DEPTH CONTROL





PUSH DOWN ON HANDLES TO SET BLADE IN IDLE POSITION.