GRIZZLY

OPERATOR'S INSTRUCTION MANUAL

ENGINE MODEL: ______ ENGINE SERIAL: _____

DATE OF PURCHASE: ______
PURCHASED FROM: _____

WARNING: THIS PRODUCT IS DESIGNED AND MANUFACTURED TO PROVIDE SAFE AND DEPENDABLE SERVICE IF OPERATED ACCORDING TO INSTRUCTIONS. THE MANUFACTURER PROVIDES THE FOLLOWING INSTRUCTIONS FOR USE AND CARE OF THIS EQUIPMENT AND RELIES UPON THE PURCHASER TO SEE TO IT THAT THESE INSTRUCTIONS ARE MADE CLEAR TO THE PERSONS WHO WILL ACTUALLY BE USING THE EQUIPMENT. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE.

GRIZZLY EQUIPMENT

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INDEX

INTRODUCTION	3
PREPARATION	4
OPERATOR;	4
WEAR PROPER ATTIRE	4
ROOF PREPARATION	4
INSPECT ROOF DECK	4
WARNING LINE SYSTEM	4
HOISTING TO ROOF	5
INSPECT THE HOIST	5
CONNECTING TO LIFT RINGS	5
SAFETY PRECAUTIONS	6
OPERATION	7
Before Operation	7
Engine Start-Up Operation	7
The Controls	8
MAINTENANCE	9
Carbide Block Removal and Installation	9
Engine Service	10
Lubrication	10
Belt Adjustment	10
SAFETY HAZARDS	11
Falls	11
Burns	11
Heavy Lifting	11
Fire/Explosion	11
Electrocution	12
Falling Objects	12
Flying Objects	12
Unguarded Machinery	12
BLOW OUT	13

INTRODUCTION

350 000 ROOF PLANER

Thank you for purchasing this quality **GRIZZLY** product. With proper use and care the Roof Planer will provide many years of reliable service. For the safety of all job-site personnel it is mandatory that the instructions provided for the use and handling of the equipment be read and thoroughly understood by the operators.



CAUTION

INTENDED USE; THIS MACHINE IS INTENDED TO BE USED ON FLAT, LEVEL ROOFS ONLY FOR THE SOLE PURPOSE OF LOSSENING EMBEDDED GRAVEL. 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.

PREPARATION

OPERATOR;

START BY READING AND FULLY UNDERSTANDING OPERATING INSTRUCTIONS. IF SOMETHING IS NOT UNDERSTOOD, HAVE SOMEONE ELSE READ AND EXPLAIN THE INSTRUCTIONS TO THE OPERATOR OR CALL THE MANUFACTURER FOR INFORMATION. AN UNINFORMED OPERATOR CAN SUBJECT HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

WEAR PROPER ATTIRE

Safety glasses are recommended and must be worn if any roof cutting or scraping is being done in the vicinity. Safety glasses and or face shield are also necessary when working with hot stuff.

Wear properly fitting clothes. Tight clothing can restrict movement and slow down reaction time in a dangerous situation. Loose fitting clothing can be dangerous and cause serious injury if it gets caught in moving mechanical parts. Wear a long-sleeved shirt, buttoned at the cuffs, safety shoes, and pants without cuffs, and knit wrist type gloves.

A hard hat must be worn by operator when working on a job site.

ROOF PREPARATION

INSPECT ROOF DECK

Before allowing equipment and personnel access to roof, make certain roof is strong enough to support the weight. Check load limits of deck with owner, builder or architect. Clear the work area of all potentially dangerous obstacles that could cause personal injury to the operator or others. Keep unauthorized people away from construction area. Check to see that all roof openings are guarded to protect against falls.

WARNING LINE SYSTEM

When operating parallel to roof edge warning line system must be at least six feet from edge. When operating perpendicular to edge warning line must be ten feet from roof edge.

WARNING; ALWAYS CHECK DECK LOAD LIMITS WITH BUILDER, OWNER, OR ARCHITECT BEFORE DECIDING TO USE ON THE ROOF.

INSPECT THE HOIST

Make certain hoist is in safe operating condition, to be operated by trained personnel. The hoist should be clear of ground objects and overhead obstacles, such as power lines; it should be secure and properly counterbalanced. Hoist should be inspected for frayed cables, bent frame members of faulty mechanical parts. Make sure everyone on the ground is completely clear of the hoisting area. Do not exceed the weight and size capacity of your hoist. Do not use if you are in doubt.

CONNECTING TO LIFT RINGS

There is one centered lift ring on the machine (see Fig. 2) Always lift machine by this ring using the proper hook and cable. Do not attempt to lift the machine by any other part. Always inspect ring for wear or damage and make sure the hoist, cable, hook etc. are in good running order or damage or injury may result.





WEIGHT: 230 LBS

SAFETY PRECAUTIONS

- Do not allow other people to be near the machine during operation (except operator)
- Other workers on the job site must wear eye protection when in the vicinity of the Planer.
- Be certain all guards, shields and covers are secure and tight before starting.
- Never operate a planer that is damaged in any way. Repairs or replacement of damaged components must be made by a qualified mechanic
- Do not modify the equipment. Do not operate a modified piece of equipment.
- Never reach into the planer disc area when the engine is operating. Keep hands and feet away from planer disc.
- Wear safety footwear, eye protection and snug fit clothing.
- Operate the Planer only from the "Walk Behind" position.
- Operate on flat, level roofs only.
- Use only **GRIZZLY** planer blocks.
- Keep away from electrical lines.
- Use caution when handling fuel. Gasoline is very flammable. Shut off engine, and allow cooling before refuelling. Clean up gasoline before restarting.
- Guard all openings on the roof.
- Do not allow anyone to walk in front of the Planer.
- Do not operate within 10 feet of roof edge (or within 6 feet, if operating parallel to the edge).
- Never lilt the machine during planning.
- Do not operate this machine if you are under the influence of alcohol, marijuana, or drugs that could impair judgment and ability.
- Keep the equipment in good condition.
- Do not walk backward while operating.
- Remove loose debris before planning.
- The owner or operator must see that all warning decals are in place and legible. Write to **GRIZZLY** Equipment for replacement decals and instructions.
- Make certain the operator and others in the vicinity wear a respirator and other protective gear as conditions warrant.
- Inspect disc and block tightness before starting engine. Do not operate with damaged or worn out blocks.
- Keep away from planning disc and chain guard when starting the engine and when the engine is running.
- Keep guard chains in good working order to prevent material from flying out from underneath.

OPERATION

Before Operation

Check to see that engine is serviced properly. Read Honda operation and safety instructions. Handle gasoline with extreme caution. Make certain belt guards and blade guards are in place and secure and that there are no signs of damage or wear of these parts. Never operate machine with damaged or missing guards. Serious injury may otherwise result.

Engine Start-Up Operation

After checking the planer disc and blocks (refer to the planer block installation section), put the depth control in the idle position and make certain the control is set so that the blocks do not come in contact with the roof deck (see Fig. 3). Pushing Down on the handles will allow the depth control to slide to the idle position.



Fig. 3 Planer in idle position

At this point, after you have read through all of the instructions, the Planer should be ready for operation.

Position planer where work is to be done, start the engine and allow to warm up. (Please refer to the engine manufacturer's owner's manual). Depth adjustment must be set so that blocks do not come in contact with deck when set in idle position (Fig. 3).

The throttle is located on the right hand side (Fig. 6). To actuate choke, lever must be in fully contracted position (all the way down). Push the throttle control slightly to find full throttle position, and pull farther up for lower speed settings. To stop the engine, pull all the way up on control lever.

The Controls

The depth control (ser Fig. 4 and Fig. 5) is located on the centre of the machine, just over the engine. Fig. 4 shows the control in the idle position and Fig. 5 shows the planning position. Turning the crank clockwise adjusts the planning depth lower; counter-clockwise rotation of crank raises the planning disc. Operator must be familiar with operation of this control before using planer on the job.



Fig. 4 Depth control in idle position



Fig. 5 Depth control in operation position



Fig. 6 Throttle control

The throttle is located on the right hand side (see Fig. 6). To actuate choke, lever must be in fully contracted position (all the way down). Push the throttle control slightly to find full throttle position, and pull farther up for lower speed settings. To stop the engine, pull all the way up on control lever. Lowering control lever increases the engine speed. Raising the control lever decreases the engine speed.

Follow this procedure: while engine is running at low speed and with the planer in it's idle position, move depth control lever from it's idle position to the working position slowly. If you engage the surface, immediately put the machine back in the idle position and turn the depth control lever counter-clockwise to raise the disc. Try this procedure again until the machine is in it's working position without engaging the surface. Now set throttle to 2/3 to 3/4 of full speed and turn depth control lever clockwise to slowly engage roof to desired depth setting. Adjust it just low enough to do a clean job, no lower.

Periodic adjustments may be necessary as the blocks wear. Operator must observe quality of planning job and make adjustments accordingly.

When planning, don't push the machine faster than it is capable of working. Walk forward only, pushing the machine at a pace at which it does a clean job. At the end of the row, turn the machine without tilting it.

WARNING; NEVER TILT MACHINE TO EXPOSE DISC WHILE OPERATING. SEVERE PERSONAL INJURY COULD OTHERWISE RESULT TO OPERATOR OR OTHERS ON THE JOB SITE. SHUT MACHINE OFF WHEN NOT ATTENDED BY OPERATOR.

MAINTENANCE

Carbide Block Removal and Installation

CAUTION; Disconnect spark plug wire before working on machine.

There are four carbide blocks installed on the planning disc. The blocks are each held in place by an allen screw. Eventually the blocks will become worn and replacement will be necessary. When the carbide has worn from the blocks, it is time to replace with new blocks. Make certain you disconnect spark plug wire before working on machine.

To remove the blocks, use a long arm allen wrench. The blocks do not drop off the disc after screws have been turned out, you may need to tap them out with a block of wood. It is best to replace screws at the same time you replace the blocks.

When installing new blocks, countersink side of block faces out. Use care to align screw properly and turn evenly; damage to threads could otherwise result. Make certain the blocks are tightened securely. See Fig. 7, illustration of blocks installed on the planning disc.



Fig. 7 Carbide blocks on disc planer

Engine Service

CAUTION; Disconnect spark plug wire before working on machine.

For the engine, read "Honda Owner's Manual". Engine oil should be changed in conformity with "Honda Owner's Manual". Keep the cylinder head clean so that it can cool the engine properly. Frequent oil changes will significantly prolong life of engine. SAW 10W30 is recommended by Honda (see Honda Engines Owner's manual). Unleaded gasoline is also recommended to increase valve life.

If service or repair of engine is needed, contact an authorized Honda Centre,

GRIZZLY equipment warranty does not cover the engine, which is covered by a separate warranty from Honda.

Lubrication

Lubrication recommendations are as follows: Roller bearings on wheels are pre-lubricated and require no greasing. Flange bearings (item 17 on part list) that support planer disc are pre-lubricated and require greasing only about every 100 hours operation. In extremely severe conditions greasing may be required more frequently. A high-quality lithium based multipurpose grease is proper lubricant. Use extreme care when pumping grease into bearing not to push too hard. Destruction of bearing seal will otherwise result. Removal of belt guard is necessary for access t upper flange bearing. Treaded rod on depth control requires a spray lubricant (such as WD40) to keep it turning freely.

Belt Adjustment

Belt adjustment may be necessary at times. To inspect belt remove dust plate on back of motor mount (see Fig. 8). Push down on the belt with your thumb midway between pulley with about 20 lbs. pressure. When properly adjusted you should get a deflection of nearly 3/4". To adjust belt, loosen 4 bolts on engine mount (item 101 on parts list). Then loosen locknut on belt adjustment bolt, shown in Fig. 9. Turn bolt clockwise to tighten belt, counter clockwise to loosen. When desired tension is set, re-tighten the locknut and also the four engine mount bolts. If belt replacement is necessary, remove belt cover (item 4 on parts list) by removing two bolts. Replace belt cover after changing belt. Tighten bolts securely.



Fig. 8 Dust plate



Fig. 9 Belt adjustment: A- adjustment bolt

SAFETY HAZARDS

Safety hazards are not always obvious to workers. Unlike exposure to health hazards, where illness or injury develop slowly, safety hazards usually result in immediate injury or death.

Broken bones, cuts bruises, sprains, burns and loss of limbs, eyesight and hearing are the kinds of injuries caused by safety hazards.

The rate of occupational injuries in roofing, in fact, ranks in the top ten of all major occupational groups.

<u>Falls</u>

Falls are the number one cause of serious injury and death to roofers. An estimated 10 percent of all roofing accidents result from falls off roof edges, through roofing openings or off ladders, more than half of the non-fatal accidents result in serious injury.

Unprotected and unguarded roof edges and roof openings create extremely hazardous conditions.

Ladders with cracked, loose or missing steps: with side rails broken or cracked and not attached firmly to the steps; with broken, loose or missing locks, or coated with grease, oils or hardened bitumen can lead to serious injury. Ladders should always be inspected to make sure they're properly maintained and constructed and that they're long enough to extend three feet above the roof's surface.

Improperly balanced or unstable hoists overturn and will often carry the worker along. Rolls of roofing felt should never be used as counterweight. Workers should know the load capacity; it should be posted.

<u>Burns</u>

Skin contact with hot asphalt and hot coal tar pitch usually results in second and third degree burns. They usually involve deeper portions of the skin and are easily infected.

An estimated 16 percent of all injuries are burns from hot stuff. The major causes of burns have been from:

Kettle flashes

- < Kettle splashes from dropping pieces of coal pitch or asphalt into the kettle
- < Slips and trips while carrying hot bitumen in open containers
- < Splashes involving transfer operations like from the hot pipe outlet to a hot lugger, from a hot lugger to a mop cart or a pail, or from the kettle to a pail.

Heavy Lifting

Sprains and strains, a majority of which involve the back, are the most common roofing injury and one of the most severe. Almost 30 percent of these injuries result in 10 or more days away from work.

<u>Fire/Explosion</u>

Two conditions must be met in order for fires and explosions to occur. First, there must be an ignition source, a welding arc, spark, cigarette, flame or simply a hot spot as in a kettle or tanker. Secondly, there must be the right mixture of vapours (from asphalt, pitch, solvents) and oxygen.

For kettles and tankers, fire/explosion conditions arise when:

- < oversized burners are used to fire the kettle, causing localized overheating of the heating tubes creating a hot spot
- the temperature of the bitumen is brought up to the desired operation temperature too quickly allowing the level of bitumen to drop to the level of the firing tubes, allowing excessively high surface temperatures
- < heating the bitumen to its flash point (for asphalt, about $525^{\circ}-540^{\circ}$; for pitch, about $450^{\circ}-475^{\circ}$)
- < the temperature of the bitumen is hot enough to reach the auto-ignition level
- < in tankers, the vent pipe is clogged or plugged so that flammable vapours can build up to explosive levels

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Many solvents evaporate quickly at roof temperatures. Explosive mixtures of vapours can be readily formed within confined spaces like high parapet walls, in atriums or in any space where little or no ventilation exists. And any kind of spark or flame can ignite the vapours.

Electrocution

Low voltage electricity can cause shock, muscle contractions, breathing difficulty, irregular heartbeat, severe burns and death. The route that the current takes through the body affects the degree of injury. Current flowing from one finger to another would not pass vital organ, while from one hand to another would pass through the heart and lungs.

Electrical tools should be properly grounded. The electrical cord should end in a three-prong grounding contact, or the wires should be enclosed in a metal case with a special grounding attachment.

Employers are required to provide ground fault circuit interrupters for all outlets on construction sites that are not part of the permanent wiring of the building. This is actually a fast-acting circuit breaker, which can shut off electricity in a fraction of a second.

Aluminum or other metal ladders pose a serious electrical hazard around electrical equipment and energized lines.

Falling Objects

Tools, bricks, materials, buckets, boxes, pallets or almost anything dropped from a sufficient height can cause severe damage. Head injuries, one of the highest compensated injuries to workers, often include brain damage. Workers need protective head gear when working beneath people, tools and equipment.

Flying Objects

Objects can be projected by machines, from welding or grinding operations and can be windblown. Tear-off operations, where power cutters, power brooms and power spudders are generally used, are the major source of flying substances. The part of the body most often injured is the eyes.

Unguarded Machinery

Exposed blades and chains on powered machinery like hoists and roof cutters can severely lacerate and crush parts of the body. Guards should always be fitted over moving parts to protect workers.



ITEM	NO.	QIY.	DESCRIPTION	ITEM
1 2	350001 350002	1 1	FRAME ENGINE BASE	108 109
2	350003	1	ENGINE BASE BACK PLATE	110
5	921133	1		110
6	921293	1	PULLEY	115
7	350007	i	PLANER DISC	116
8	940200	4	CARBIDE BLOCK AND BOLT	117
9	350009	1	STONE GUARD	110
10	350010	1	BACKING PLATE	110
13	350013	2	SPACER	120
14	350014	1	DEPTH ADJUSTMENT ARM	121
15	350015	1	FRONT WHEEL FORK	122
16	921515	1	BUSHING AND KEY	123
17	923123	2	BEARING	125
18	935005	1	FRONT WHEEL	126
19	935007	2	REAR WHEEL	127
20	920319	1	V-BELT	128
21	350021	1	HOLDING PLATE	131
22	940007	2	GRIP	151
23	950342	1	ENGINE	152
24	940180	1	LEVER AND CABLE, THROTTLE	
25	302004	1	DEPTH AJUSTMENT SCREW	
26	940009	2	PLASTIC CAP	
101	910152	7	BOLT, HEX.	N
102	912503	10	LOCK WASHER	
103	912003	8	WASHER	
105	913011	4	NUT, HEX.	-
106	910257	4	BOLT, HEX.	
107	910154	1	BOLT, HEX.	

		-	
89	913507 910370	1	NUT, HEX. BOLT, HEX.
1	910366	1	BOLT HEX
2	913007	ż	NUT, HEX.
5	910105	2	BOLT, HEX.
6	912002	6	WASHER
7	913005	4	NUT, HEX.
в	910127	2	BOLT, HEX.
9	912502	4	LOCK-WASHER
0	910600	2	BOLT, HEX.
1	914703	2	COTTER PIN
2	910277	4	BOLT, HEX.
3	912023	2	WASHER
5	912500	2	LOCK-WASHER
6	912000	2	WASHER
7	913001	2	NUT, HEX.
8	910515	1	BOLT, HEX.
1	912504	4	LOCK-WASHER
1	921311	1	KEY
2	921308	1	KEY

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