



Sales Rentals

Sales Service

Parts & Service





Operator's And Parts Manual

Model: SC18

Forward:

Congratulations on the purchase of your new BlueBird equipment!

Your purchase demonstrates trust in the BlueBird name and exemplifies your desire to own durable equipment which is easy to operate and easy to maintain.

To get the full benefit of your purchase, you will need to understand how to use the controls and many features of your machine. This operator's guide has been prepared to assist you in this process.

Please read this guide carefully and familiarize yourself with the basic safety procedures, operating tips, and maintenance information. Close consideration of the recommendations contained in this manual will save time, money, and provide years of productivity from your unit.

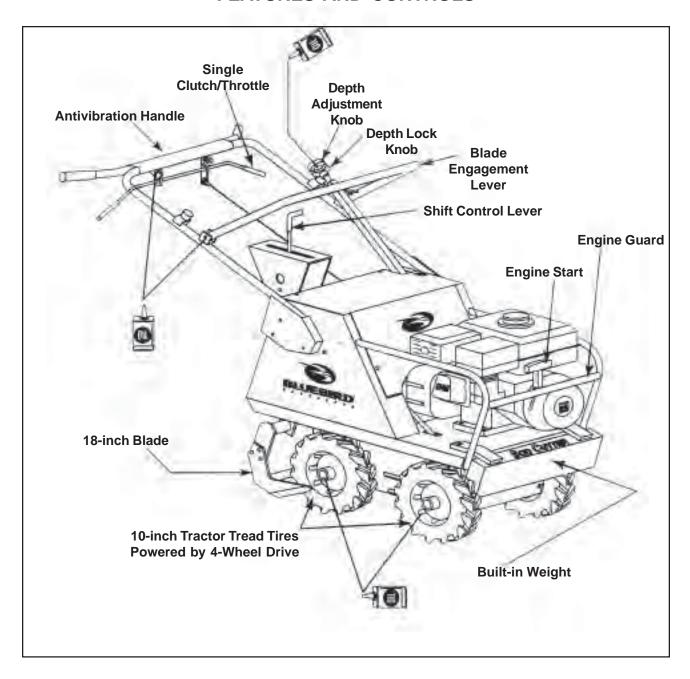
As we hope to meet your future needs, please take the time to record your model and serial number on the back cover of this manual. This will greatly assist in identification of your model and for future parts ordering.

CONTENTS

Index

Operator's Guide Page				
Specifications		3		
Features and Controls				
General Operating Instructions				
Warnings				
Operating Instructions Page				
Operating instructions rage				
Operator's Tips		6		
Operating on Hills		6		
Before You Start				
Transporting		6		
Sod Cutting		7		
Maintenance and Service Instructions Page				
_				
Safety and Maintenance				
Safety				
Engine Service and Warranty				
Lubrication Schedule				
Inspection Schedule				
Blade Wear				
Cleaning				
Adjusting Chain Tension				
	Storage9			
	Parts - Main Frame			
	Parts - Power Train			
Parts - Blade Drive				
Parts - Blade Depth Control				
Trouble Shooting Guide17				
General Product Information				
Warranty		21		
•				
SPECIFICATIONS				
	U.S.	Metric		
Engine - Honda:	5.5 hp	3.8 kw		
Net Weight:	328 lbs	149 kg		
Shipping Weight:	360 lbs	164 kg		
Width:	24 in	61 cm		
Height:	36 in	91 cm		
Length:	54 in	137 cm		
Cutting Depth (max): 2.5 in 6.3 cm				
Cutting Width:	18 in	46 cm		

FEATURES AND CONTROLS



Oil used in the engine (gray cap) 1. Refer to your engine manual for oil type, viscosity, weight and capacity.

Oil used in the Clutch/Gear Box

1. Refer to your engine manual for oil type, viscosity, weight and capacity. Reducer (yellow cap).

Transmission grease used

- 1. You should not need to service the transmission. Call Tecumseh or your servicing dealer if needed.
- 2. Transmission is located directly behind the front axle underneath the engine.
- 3. There is no dipstick for transmission.
- 4. Tecumseh Bentonite Grease part #788067B or equivalent.

OPERATING INSTRUCTIONS

GENERAL INFORMATION

This manual will assist you in the safe operation and proper maintenance of your BlueBird equipment. Read it thoroughly before attempting to operate the machine. Do not hesitate to call your dealer or BlueBird if additional information is required.

The following safety symbols are used throughout the manual to alert you to information about unsafe actions or situations:



DANGER: indicates immediate hazards that may result in severe injury or death.



WARNING: indicates unsafe actions or situations that may cause severe injury, death and or major equipment or property damage.



CAUTION: indicates unsafe actions or situations that may cause injury and/or minor equipment or property damage.

This equipment should not be modified without the manufacturer's prior written authorization. Doing so without our written permission may not only affect the equipments performance and durability, but also create safety hazards for the operator and the surroundings. Warranty will be void if changes are made to the equipment without the manufacturer's prior written authorization.

SAFETY PROCEDURES



- Only start with shift lever in neutral.
- Read all maintenance and service instructions before attempting work.
- Follow engine manufacturer operating and maintenance instructions.
- Inspect area to be cut and remove rocks, wire, string and other objects that might present a hazard before starting.
- Identify and mark all in ground objects to be avoided, such as sprinkler heads, stakes, water valves, clothes line anchors, etc.
- This machine was designed for sod cutting only. It is not intended for any other use.

DO NOT:



- Do not start in gear.
- Do not cut at high transport speeds.
- Do not use on any surface other than grass.
- Do not operate on slopes exceeding 35% grade.
- Do not place hands or feet near moving or rotating parts.
- Do not run engine in an unventilated area.
- Do not shift with throttle engaged.
- Do not run engine while servicing. Remove spark plug wire before servicing.
- Do not remove guards when operating.
- Do not lift this 330 lb, machine.

OPERATING INSTRUCTIONS

OPERATOR'S TIPS

- To engage reverse gear you may have to push the machine back and forth while pulling the shift lever.
- Stop before shifting gears.
- Cut going down hill on unlevel ground.
- End cuts by pushing the blade engagement lever forward while still holding the throttle to cut the end of the sod strip as the blade rises.
- Soil conditions will effect cutting depth. Readjusting the blade depth may be required as you move from hard soil to soft or moist soil conditions.
- Do not attempt sharp turns while cutting.
- Should I water before cutting?

It is usually not necessary to water before cutting. In extreme conditions, such as clay soil that is very compacted, a simple test as follows will determine if you need to water before cutting. Use a garden hand spade, weed tool, or even a large screwdriver to test the ground's hardness. You should be able to push the tool into the ground 2 to 3 inches with little effort.

If you are unable to do so, then watering may be advisable. Watering the day before should give sufficient time for the soil to absorb the moisture. Use your hand tool to gauge the effectiveness of your watering. Allow the grass to dry before cutting to provide adequate traction for sod cutting.

OPERATING ON HILLS



WARNING - DO NOT operate on hills exceeding 35% grade to prevent machine from rolling over.

Please be aware that when operating on hills, you may experience:

- The need to exert greater effort to steer and maintain the balance of the machine.
- Uneven cutting depth, when operating across a hill. The shifted center of gravity may cause the downhill side of the blade to penetrate to the maximum depth, while the uphill side may not.

With these factors in mind, you may find it more effective to:

- Operate the machine cutting down rather than across hills. You will achieve even cutting depth, and enhance stability.
- Avoid hill side turns. Back up hills in reverse gear, then cut, going down.

BEFORE YOU START

- Read and understand this manual.
- Be sure engine oil is at engine manufacturer's recommended level. (Refer to engine manufacturer's manual.)
- Put the sod cutter into neutral before starting.
- Place blade in transport position before starting.

TRANSPORTING

- Push the blade engagement lever forward to raise the blade.
- Select the desired gear (slow-fast-reverse).
- Pull the throttle while maintaining a firm grip on the handlebar.
- To make turns, push down on the handlebar to do "a wheelie," then turn.
- Load into truck or trailer by driving up ramps in low gear. DO NOT LIFT! This 330lb machine is not intended to be lifted by hand.

OPERATING INSTRUCTIONS

SOD CUTTING See Figure - Page 4

- 1. Position the sod cutter at your starting point with the blade out of the ground.
- 2. Pull the blade engagement lever toward you with one hand while lifting the handlebar with the other hand.
- 3. Place the shift lever in slow gear (turtle icon).
- 4. Pull the throttle while maintaining a slight down pressure on the handlebar and cut a short distance, then stop. Put shift lever in neutral.
- 5. Lift the edge of the sod to check the cut depth.
- 6. To change the depth, push the blade engagement lever forward, unlock the depth lock knob (red knob), and turn the depth adjustment knob clockwise for less depth, or counterclockwise for more depth; then lock the depth lock knob.
- 7. Repeat steps 2 through 6 as necessary to set depth of cut.
- 8. End cuts by pushing the blade engagement lever forward while holding the throttle to cut the end of the sod strip as the blade exits the ground.

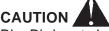
SAFTEY AND MAINTENANCE



Any modifications or additions to this equipment without written authorization from the manufacturer will void all manufacturer's warranties.

Do not operate this machine without first reading owners manual.

CAUTION



BlueBird parts have been designed and specified to meet commercial operating standards for strength and durability. For reliability and preservation of design safety standards, replacements should only be made with genuine BlueBird parts or material of equivalent type and strength.



TWO MINUTE WARNING

Sod Cutters may be tipped on their engine guard for cleaning and access for **no more than** 2 minutes. Engine damage may result from gasoline draining into the crankcase if prolonged. See engine manufacturer's operating and maintenance instructions.

ENGINE SERVICE AND WARRANTY

Contact your nearest engine manufacturers authorized servicing dealer for engine service and warranty questions. Follow the engine manufacturers maintenance instructions. Should any malfunction occur with the engine during the warranty period, take it to an Authorized Service Dealer. DO NOT tear down the engine, as this may void the Engine Manufacturer's Warranty.

PREVENTATIVE MAINTENANCE SCHEDULE

A) Inspection Schedule

Item	Each Use	Every 20 hrs	
 Engine Oil (see engine manual) 	Χ		
Clutch Tension	Χ		
Chain Tension	Χ		
 Decals and Warnings 	Χ		
 Fasteners and fittings 	Χ		
Throttle cable		X	
 Blade condition and wear 	Χ		
 Frame condition (rust, cracks, etc.) 		X	
 Clutch and cable 		X	
 Excessive vibration 	Χ		
Engine air cleaner (see engine manual)	X		<u> </u>
Depth adjuster	Χ		

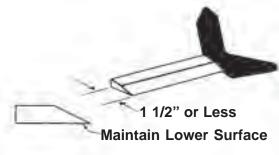
B) Lubrication Schedule

Item	Lubricant	Every 20 hrs	Every 60 hrs	As Required	Storage
• Engine	Oil, see engine		Х	Х	Х
	owner's manual				
Chain	30W Motor oil or	Χ	X	X	X
	Chain lubricant				
Linkage	30W oil	Χ			
• Grease	depth	Χ		Х	
adjust so	crew				

SAFTEY AND MAINTENANCE

BLADE WEAR

Sod cutter blades may wear quickly depending on soil condition. Replace blade when worn to 1 1/2" (3.8cm) or less. Maintain lower blade surface.



CLEANING AND WASHING

Regular cleaning and washing will prolong the service of your machine.

Note: Use care with power washers to avoid damage to Warning Decals, Operator Instruction Labels, Bearings, Chain and Engine. Avoid direct spray on these items. DO NOT EXCEED 1000 PSI WATER PRESSURE FOR CLEANING.

ADJUSTING CHAIN TENSION

Upper Chain

No adjustment is required

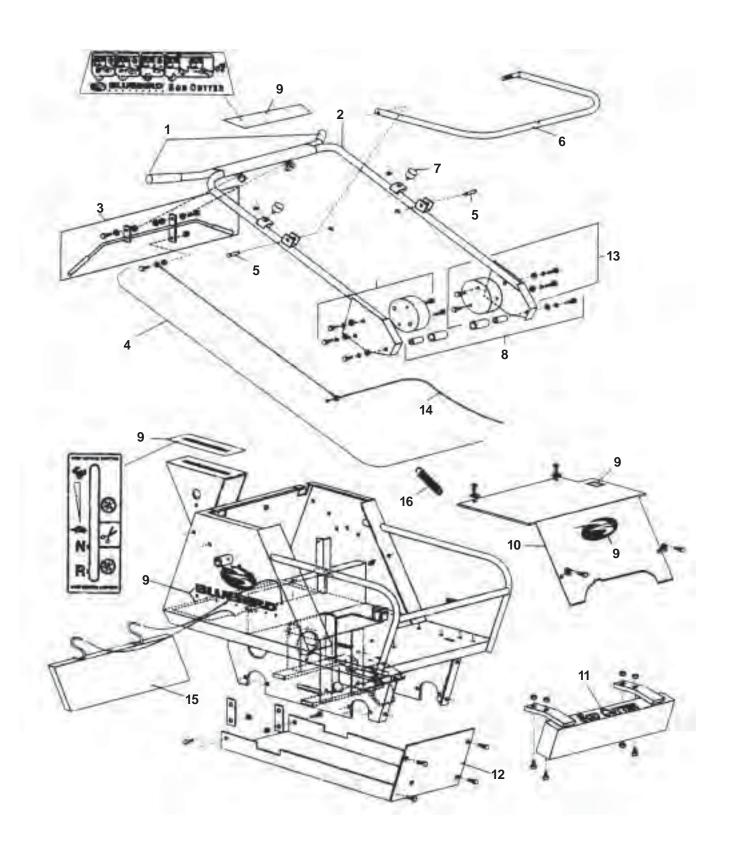
Lower Chain

- Remove chain guard
- Tilt the sod cutter forward onto the front weight.
- Tighten the 1/2" lock nut on the chain idler until the #40 chain flexes approximately 1/4" (6mm) at mid span.
- Install chain guard.
- Set sod cutter back to level.

STORAGE

- 1. Refer to engine manufacturer's instructions for engine storage information.
- 2. Clean machine.
- 3. Cover all scratches with touch up paint.
- 4. Lubricate according to Lubrication Schedule (see page 8).
- 5. Lightly oil or mil board paint blade to inhibit rust.
- 6. Covered or indoor storage is recommended.

PARTS - MAIN FRAME



PARTS - MAIN FRAME

ITEM PART NO.

17191 Grips pair 23142 Handle kit, complete with grips and hardware 37149 Clutch/throttle control kit, with grips and hardware 43139 Cable, throttle cable kit 53140 Pins, depth handle with clip 63141 Blade engagement lever 73143 Bumpers, handle (complete) 83145 Stand off kit 93172 Decal kit, SC18 103155 Shield cover kit, upper housing with hardware

123159 Skid pan, complete w/brackets and mounting hardware, deflector

11 3154 Weight weldment with hardware

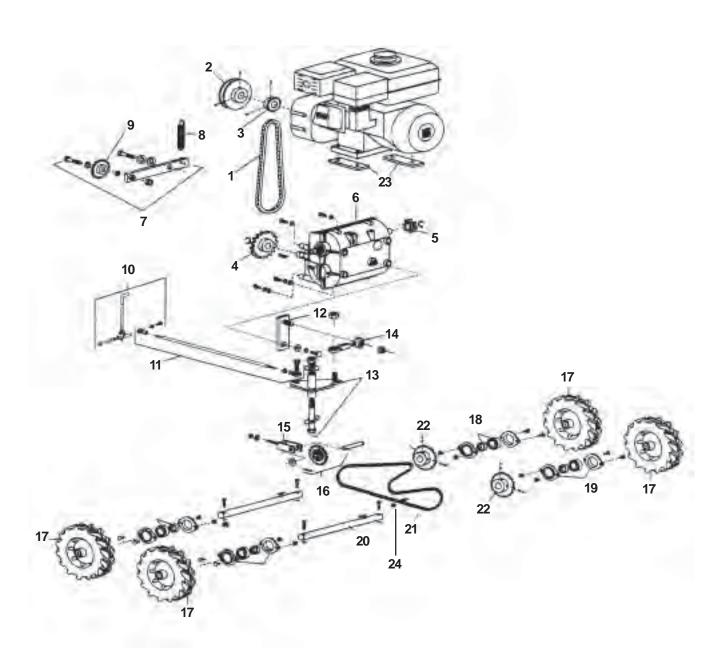
143161 Throttle cable, carb 153162 Deflector with "S" links

16 Spring

13 3144 Handle attachment hardware kit complete

DESCRIPTION

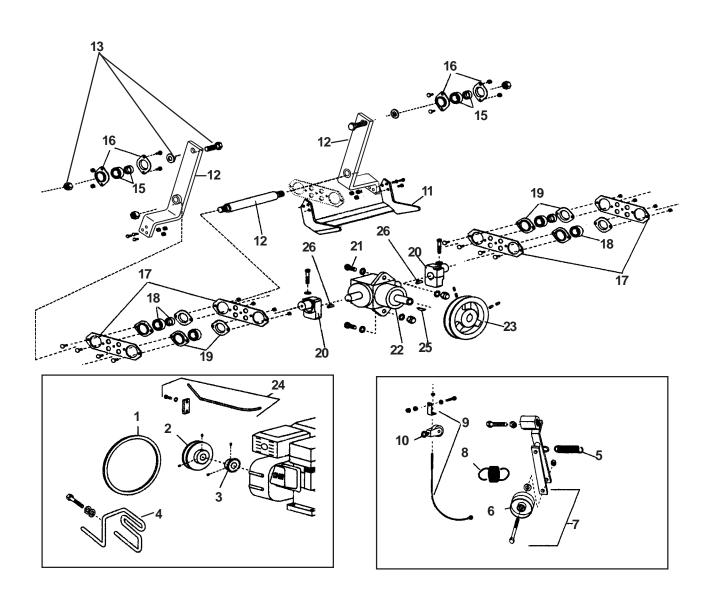
PARTS - POWER TRAIN



PARTS - POWER TRAIN

ITEM PART NO. **DESCRIPTION** 1 3107 Chain, transmission 26 5/8" length 2 3108 V-pulley 4" special, with key 3 3109 Sprocket with key 4 3148 Sprocket with key and ring 5 3149 Sprocket, transmission, 8 tooth 6 3150 Transmission with hardware 7 53171 Chain idler arm assembly 8 7195 Spring, 3 3/4" 9 Sprocket, idler arm 10 3146 Lever, shift kit 11 3147 Linkage, shift 12 3135 Arm, transmission shift with hardware 13 3136 Bell crank shift kit 14 3137 Rod end, linkage bell crank 15 3133 Tensioner assembly, drive train 16 3134 Sprocket, drive train tensioner 17 3123 Wheel, 10" with hardware 18 0317 Bearing, 1" with locking collar 19 5786 Stamping kit, with fasteners (1" bearing) 20 3153 Axle, wheel, with hardware 21 3151 Chain, 55", drive 22 0303 Sprocket, with key, rotor 23 3170 Motor space plate kit with hardware 24 0307 Master link

PARTS - BLADE DRIVE

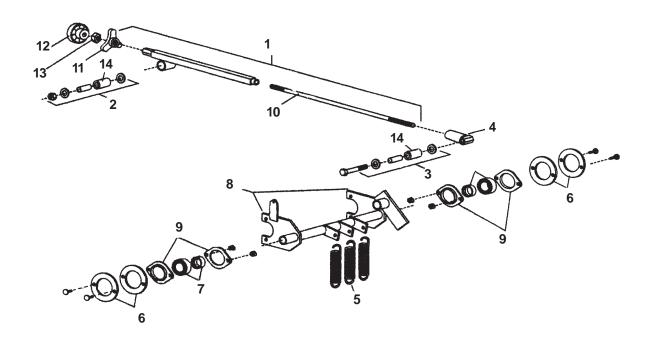


PARTS - BLADE DRIVE

ITEM	PART NO.	DESCRIPTION
1	. 3106	V-belt, A-26" special
2	. 3108	V-pulley 4" special, with key
		Sprocket with key, engine
4	. 3166	Belt keeper kit with hardware
	. 7195	
		Pulley, idler 2 3/4"
7	. 3111	Belt idler assembly
		Spring, 4", blade/clutch
		Cable, blade/clutch with hardware
		Pulley, swivel eye, clutch
		Blade with hardware
	. 30219	
		Kit, upper blade arm hardware
		Bearing, 3/4" with locking collar with fasteners
		Stamping kit, for 3/4" bearing
	. 3125	
		Bearing, 1" with locking collar
		. Stamping kit, with fasteners (1" bearing)
		Crank, eccentric kit
		Hardware kit, gear box
		Gear box, right angle "T" drive
		Pulley 5 1/4" OD, with key, gear box
		Tube, throttle cable, assembly
		Key, #6 woodruff (5/32 x 5/8)
26	. 3176	Key, #9 woodruff (3/16 x 3/4)

NOTE: Call factory for a breakdown of Gear Box Item 22

PARTS - BLADE DEPTH CONTROL



ITEM	PART NO.	DESCRIPTION
1	. 3100	. Depth adjuster assembly control
2	. 3101	. Fastener kit, upper depth, adjustment assembly
3	. 3102	. Fastener kit, lower depth, adjustment assembly
4	. 3105	. Rod end, coupler, depth control
5	. 3115	. Spring, blade lift
6	. 3116	. Spacer, bearing
7	. 0317	. Bearing, 1" with locking collar
8	. 3118	. Trunnion assembly
9	. 0318	. Stamping kit for 1" bearing
10	. 3163	. Depth adjust screw
11	. 3164	. Knob, three prong (depth lock)
12	. 3165	. Knob, depth
13	. 3174	. Nut, hex, jam, 1/2-13
14	. 3117	. Bushing, polyurethane



WARNING: Before servicing unit, engine MUST be off.

PROBLEM		ANSWER/COMMENT
Transmission shaft broke		Ensure debris is not caught in the Transmission Chain or wrapped around the transmission output shaft. Ensure the unit has a Skid Pan installed. Contact your servicing dealer.
Drive wheels won't engage	2. 3. 4.	Ensure the Drive Chain is on all sprockets. Ensure the Transmission Chain is on all sprockets. Ensure the Chain Idler Spring is attached. Check for side play in the Transmission Output Drive Sprocket (If there is side play, the transmission could be damaged). Verifiy the Shift Linkage is attached at the Shift Lever and at the Bell Crank and Rod End is attached at Bell Crank and Transmission Arm. Check sprockets for proper alignment.
Unit jumps out of gear	1.	Adjust Shift linkage. Tighten Shift Lever Pivot Bolt to hold shift lever in place.
Bushings on depth control assembly are wearing quickly.	 3. 	
Bushings "ooze out" when installed	1.	This is normal. Trim with knife if desired.
Right Angle T-drive leaking	1.	Contact your local Tecumseh dealer or servicing dealer.
What RPM should my engine be set to?	1.	3000 RPM maximum. See Technical Bulletin "Throttle Cable Adjustment."
Chain (Transmission) wearing prematurely or coming off	sp 1.	re Transmission Input Sprocket is a fixed (non adjustable) rocket which is splined and snap-ringed in place. Align the Engine Sprocket and Chain Idler Sprocket to the Transmission Input Sprocket (fixed) Idler Sprocket position is adjusted by adding or subtracting washers between the sprocket and the idler arm. The Engine Sprocket is adjusted by sliding it on the engine output shaft.



WARNING: Before servicing unit, engine MUST be off.

PROBLEM

ANSWER/COMMENT

Chain (Drive) is coming off, drive sprocket wearing	

The Transmission Output Sprocket is a fixed (non adjustable) sprocket which is splined and snap-ringed in place.

- 1. Align the Axle Sprockets (double set screws) to the Transmission Output Sprocket. Position the Axle Sprockets the same distance from the chassis wall.
- 2. Replace the Tensioner Sprocket if it has a bent or twisted bracket or bent teeth.
- 3. Check chain tension between Axle Sprockets (1/4" 3/8" deflection at mid-span).

Pulleys not staying tight or coming off.

- 1. Inspect shaft, pulleys and keys for damage. Note:Gear box pulley has double set screws.
- 2. Replace any damaged parts.
- 3. Use blue loctite on the set screws.

Blade Replacement

- 1. Replace when worn to 1 1/2" from the cutting edge to the back edge.
- 2. Sharpen blade from top only. Maintain a flat lower surface.
- 3. Sharpen sides of blades from outside only.

- Blade doesn't move or stops cutting 1. If the operator tries to cut deeper than 2 1/2", pivoting the machine back on its rear wheels while cutting can cause machine to cut too deeply.
 - 2. Make sure the blade is sharp.
 - 3. Moisture, oil or grease on the belt will cause it to slip. Replace with a BlueBird belt.
 - 4. Tension can be increased by tightening the Cable Tension Nut. If additional adjustment is not available, add a 1/2" stack of washers between Tension Nut and Cable Bracket.
 - 5. IMPORTANT: Engine must be off before checking clearance of pulleys. Adjust tap bolt for 1/8" to 1/4" clearance between all pulleys, Belt Idler Pulley, Engine Pulley, Right Angle Drive Pulley, with the belt removed. Lock adjustment with jam nut.

Blade not cutting full depth or inconsistent depth

- 1. Replace the Depth Control Bushings when worn.
- 2. Be sure the Depth Control Rod is installed properly. See Technical Bulletin "Installation of Depth Adjuster Assembly Control.
- 3. If blade is dull or improperly sharpened, sharpen it from top only (see page 9) or replace.
- 4. Check to see if the cutting surface is uneven
- 5. Replace the Blade Lift Springs when worn or broken.



WARNING: Before servicing unit, engine MUST be off.

PROBLEM

ANSWER/COMMENT

Blade not disengaging	 New Unit or New Belt: Run the machine with the blade engaged until the belt stretches. Used Unit or Old Belt: Adjust the Belt Keeper so each leg touches when idler pulley is not engaged and so idler pulley clears Belt Keeper when engaged. Be sure the correct BlueBird belt is being used. If not, replace with a BlueBird belt. Belt Idler Pivot Bolt may be too tight or need lubrication. Belt Idler Return Spring may be broken or came off anchors. Reattach or replace as necessary. Check to see if the Tension Cable is out of pulley. Install cable in pulley and squeeze bracket sides to minimize the gap to pulley.
Belt coming off	 RPM may be too high. Set to 3000 RPM See Technical Bulletin "Throttle Cable Adjustment." Align pulleys. See Technical Bulletin "Inspection Procedure for Belt Tension ". Replace the Belt Idler Pulley Arm if it is bent.
Belt glazed or slipping	 Limit maximum depth of cut to 2 1/2". Be sure the updated Blade Lift Springs are installed. (Springs have 1.5 inch OD.) If the Blade Lift Springs are worn they will allow the blade to cut too deeply, which causes the belt to slip. Replace if necessary. Be sure the maximum RPM is set at 3000. See Technical Bulletin "Throttle Cable Adjustment." Be sure the correct BlueBird belt is being used. If not, replace with a BlueBird belt. Check if belt is being stretched by comparing with a new belt. Check to see if the Tension Cable is out of pulley. Install cable in pulley and squeeze bracket sides to minimize the gap to pulley. If the Gear Box Pulley or the Engine Pulley is wet, oily, or damaged, clean or replace. Belt tension can be increased by tightening the Cable Tension nut. If additional adjustment is unavailable, add a 1/2" stack of washers between Tension Nut and Cable

Bracket.



WARNING: Before servicing unit, engine MUST be off.

PROBLEM

ANSWER/COMMENT

Belt glazed or slipping	 10. Be sure the Belt Idler Assembly is adjusted correctly. See Technical Bulletin "Inspection Procedure for Belt Tension." 11. Important: Engine must be off before checking clearance of pulleys. Adjust tap bolt for 1/8" to 1/4" clearance between all pulleys, Belt Idler Pulley, Engine Pulley, Right Angle Drive Pulley with belt removed. Lock adjustment with jam nut.
Depth Control Rod broke	Contact Action Center to order Depth Control Rod Assembly and two red bushings.
Depth Control Rod will not turn (frozen)	 Steam cleaning machines without lubricating threads afterwards will cause rust resulting in locked threads. Note that the Rod End is a left-handed thread. Flood frozen joints with penetrating oil.
Unit is creeping	 The transmission contains a centrifugal clutch and may creep if left in gear. Some creeping is normal because of the lubricant resistance between the clutch plates. Also, too heavy a lubricate in Gear Reducer can cause creeping. 1. Put in neutral - unit will not creep. 2. RPM at idle should be 1,400 (+200/-150). Clutch will engage at 1,800 RPMs. A high idle RPM may cause creeping. 3. If unit continues to creep, contact your local Honda dealer or servicing dealer.
Handle Stand Off Kit - how to tighten bolts	 Remove rubber bushings. Remove bolt. Apply blue loctite. Hold stand off with pliers, vice-grips, etc. and tighten bolt.
Bolts breaking	 The vibration of the machine may cause bolts to come loose. Check and tighten all bolts periodically. Use Grade 8 bolts with lock nuts to bolt wheels to axle.
Tires wearing too quickly	 Only cut in first or second gear. Tire wear is normal and to be expected. Running the machine on excessively hard or abrasive surfaces can increase wear.

ONE YEAR LIMITED WARRANTY

For one year from purchase, BlueBird, Inc. will replace for the original purchaser, free of charge, any part or parts, found upon examination by any Factory Authorized Service Center, or by the Factory at Beatrice, Nebraska, to be defective in material or workmanship or both.

All transportation charges on parts submitted for replacement under this warranty must be paid by purchaser.

THERE IS NO OTHER WARRANTY EXPRESSED OR IMPLIED.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year from purchase and to the extent permitted by law any and all implied warranties are excluded. This is the exclusion is permitted by law.

The engines on all units are warranted by the engine manufacturer. Consult Warranty shipped with each unit. BlueBird, Inc. will not be responsible for any engine claims.

BlueBird, Inc. reserves the right to make changes in design and changes or improvements upon its products without imposing any obligation upon itself to install the same upon its products theretofore manufactured.

