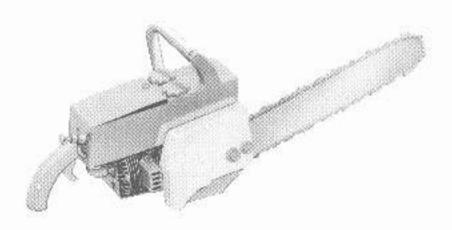
MODELS

44 AND 49

OWNERS MANUAL

YOUR
CHAIN SAW



#### TOPS IN PERFORMANCE

"Tops in performance" — that's what you will get from your new Chain Saw if the instructions torein written are followed very carefully Read the chain saw manual and the engine manual completely before attempting to assemble the saw. Your chain saw is a precision engineered instrument designed as ruggedly as a fine instrument can be designed and built. Normal care, use and maintenance should give you a dependable and rugged 'friend' for many years.

## Unpacking Your Chain Saw

Your Chain Saw is shipped in one package. This package contains the power head and the chain and guide bar. It should be opened immediately and the contents carefully examined for possible damage. If any damage is noted, notify the carrier immediately, since they are liable for all concessed damage. To assemble saw, follow the instructions found in this manual under the heading "To Prepare Saw for Use."

In order that you may be protected under the terms of our warranty, be sure that you fill in and return to us the enclosed warranty card which is the record of your purchase.

## To Prepare Saw For Use

- 1. Remove sprocket guard from power head.
- 2. Place chain guide bar over the two bolts in power head.
- Assemble the chain to sprocket and chain guide bar. The cutting teeth on top of guide bar must face away from the power head,
- Engage chain adjustment pin to hole in guide bar and clamp in place with sprocket guard, but do not completely tighten nuts on the bolts.
- Tighten chain to proper tension with tension screw in front, at the same time holding up on end of bar to insure proper seating of chain,
- Clamp chain guide and sprocket guard firmly in place by tightening nuts on two bolts.
- Chain Ol Use a good grade of SAE 20 or 30 Motor Oil. The oil may be diluted with kerosene, especially in extreme cold weather or certain types of wood which cause a deposit to build up on chain.

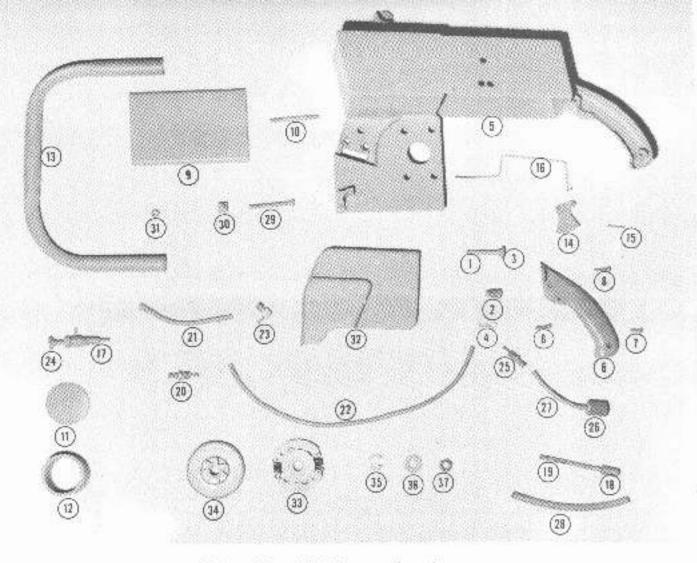
Refer to starting instructions in engine manual.

8. Fuel Mixture—Thoroughly mix 1 pint of SAE 30 non-detergent oil with two (2) gallons of regular gasoline in a clean container. Do not attempt to mix oil and gasoline in saw fuel tank. Mix 1½ pints oil to 2 gallons gasoline for first 5 hours as a break-in period.

When pouring fuel mixture into chain saw tank, always use a funnel having a fine screen to strain the fuel.

The Root Manufacturing Company, Inc.

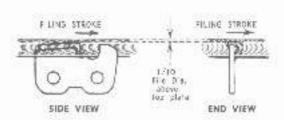
127 EAST ELEVENTH STREET BAXTER SPRINGS, KANSAS 66713

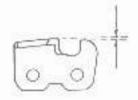


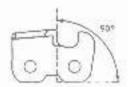
#### Models 44 and 49 Owners Manual

Part.	Til.		er.	Pater	Part III. Description	No. Req	Price
10.70	4	Librice Control Rod		40	11111 Throlle Lock Pin	1	267
11371	graff)	Lhoke Cratrol Wiley	-77	.27	131.2 Throstic Lark Pre Xu.	- 1	230
11375		I hose Control Suite Nut.	- 71	.80	11978 Through Lock Pin Spring	136	200
11306	3	Unite Control Reg bands	- 23	45	175 Though Lock Pin Kont	14	46
11212		Tholes I united Blod Decent Clip	- 9	43	THOR Got Tack Cop.	53	44
13874	- 4	Hun Frans	÷	27.70	551100 Of Tech Car	01	.48
11858	1	Flandle Half	- 1	1.35	HIII Cap Graket C O' Ring)	- 9	21
27270	4	Handle Half Mechani Serey 2-16 s - 8	- 10	.10	11100 Cup Chaik Valves	- 6	21
393	4	Bande Helf Machine Serve 1 16 : 1 4	- 6	.10	11115 1) Oil Pura	3.5	-11
2372	200	Hantle Half Locktowher J. 78 SP	23	-100	18118 # Cil Pickus Weight	13	1.29
1,374	-11	Carincette Caver Plate	1	1280	1949 IF OIL Photog Works Tube		21
111777		Cover Plate Stud Fair	- 1	50	11362 20 Oil Think to Pemp Rev.	24	0.18
10.6	100	Corer Plate Nut 1 4-25 Lock	Ť	.10	(188) E. Oil Ima to Purp Lute	1	22
\$21.0		Engine to Pretty Cap Scient 5:14-18 s. 1/1	'n	10	11384 St. Oil Punja to Gook Br. Turis	1.2	- 57
5541		Engine in France Lockweeter 5-3:8P	1	.10	11121 23 Tande (for 14) 17hay	1	.23
15251		Marker	i	77	11206 24 Oil Pump Knek	11.	- 1
117		Martler Bolt 5/4 x 3/3 R4, B4	9	11	11128 2) four Park or Hose Filtring.	1	1.11
221		Martier Waster Lt SP		30	titise 88 Gas Tunk Pirkup Waget	OY.	1.17
12220	u	Air Film Laver	1	-77	11124 Et Gra Tark Pickup Wright Tabe	1	27
11221	12	Air Filler Karners	1	1.12	11185 St. Ges Tark Fig. to carbicetor, July	-1	.15
31,522		Air File: Bracket	7	3.0	1030 9 Chain Tension Advanting Bull 1/4 x 2/1 a	1	2.1
1.223		Sir Filter Base	1	24	11cd 11 Chain Trender Adjecting Law	1	.01
147		Sir Piller Cover Screen 2/18 x 1-1-4	1	-11	200 B. Chain Yessian Adjusting Nat 1 (20) Lock.	1	.10
2518		tir Filter Cover Lockmander 3-16 SP	- 60	.10	1537 12 Grede Bar Comp Plate Model 41 Sax	1	8.74
11109		Hase to Corbur eter Mirch, Screw 2:19 a 1/2	2	28	11510 Ngi III.		
25%		Base to Carboretor Leckwooler #16.8P	2		Gittle Far (June Plate Mode 18 See	1	8.77
11.03	12	Wrap Around Bandle	1.5	3.00	2207 Gerny Rev Flying Roll, LV 21 v. F.S. S.	2	1.10
14055		Handle to Stratte Uap Series, (Unper,			11127 Grade Har Croop Nar	2	.00
		1 4-21 × 11-3	10		2004 Grine Hay Comp Wester	3	.00
522		Handle to Frame Cap Scree (Lower)			11816 II Ciulet T Thywaded Box		4,90
		5 18-21 x 1-1/2	1.1	.00	11824 34 Louis & Spiritual Avenua year Street	1	1.37
387		Hardle to Prame Not Clareer) 5 (3-2) book	1	410	11882 Nextla Bearing - 1888	1	3.00
250		flandle to France Waster 11 part 1 if SP	1.	Jri.	11851 3) Culm Sparer	1	191
11880	44	Thereile Control Trigger	1	45	No. 1) Spirelat Warbay	-1	100
11001	44	Through Control Phy	1	16	5563 Tr. Lock Nat.		
1188		Thiotick flaming Wire	1	.80	1899 17 1 2" Holle: See that 351	1	16.55
111123	C.	Throttle Feek Assembly	1	1,45	1386) It 1.2 Welded Neer 1857 473	T	D.55
11118		Theattic Loca Pin	1	281	11007 15 S. Chair 3/8 Profestyr	1	15,00
177874		Threatt's Lord, Phys. Nat.	9	7.00			









#### DEPTH GAUGE SETTING

Correct depth gauge settings are as important as cutter filling for efficient cutting and long chain life. If depth gauges are too low, chain will grab, jerk, hang up and everload motor. If they are too high cutters will not be able to bits into wood, and cutting is slow. Every time you file outers, check depth gauges and file them if needed.

#### 90° SIDE PLATE ANGLE

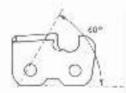
The side plate must be 96° to the bottom of the cutter. Use firm, long, even strokes, applying pressure on forward stroke away from you. If this angle is negative (back-slope) cutting will be slow as cutters try to rise out of cut, requiring more pressure to operate saw. Positive angle (book) feathers top plate which dulls fast and causes chain to grap, hang

#### Maintain These Filing Angles



#### 35 TOP PLATE FILING ANGLE

Hold the file in one position perpendicular to the side of the cutter and at 35° angle to the length of the charn if this angle is less than 35°, the cutter is blunt and cutting is slow. If greater than 35°, the cutter is feathered and will dull fast.



#### 60 TOP PLATE CUTTING ANGLE

This angle must be 80°. It is formed by the position in which you hold the file and it determines whether the cutter is dull sharp or has a feather edge. If you hold file low, you get a feather edge. Hold it too high, you get a blunt edge. Hold file well up against top plate so about 1/16 of file diameter is above top plate.

## Operation

Your Chain Saw is a direct drive type and because of its high speed cutting action, no pressure is needed to cut through the wood.

If pressure becomes necessary to make it out the chain should be sharpened.

When starting to cut, don't jam the saw into the wood, Pince the spike bumper against the timber, bring the engine to full throttle and easy the saw into its cut. Don't forget to all the chain as you are cutting.

Pump the other often while cutting and continue to do so — for the life of the chain will be considerably lengthened by this gractice. To depend on a few pumps of all between cuts for intrication is poor practice.

The clutch is fully automatic and will engage at a specific speed. Do not abuse it by overloading and release the throttle immediately if the chain becomes pinched.

## Stopping

Always stop saw between citting operations or when moving from one position to another. This climinates the danger of injury to operator or helper and reduces fuel consumption and wear on the engine.

To stop between cutting operations merely turn the ignition switch to "off" position.

## Bar and Chain Maintenance

- KEEP CHAIN SHARP Your saw will not only out essier and faster, but a properly sharpened enals will reduce west on your bar, can't and sprocket.
- 2 When in use Always maintain sufficient oil flow to chein and bar. Pump the micr with each cut while your saw is actually sawing wood. Check oil passages to be sure they are free of sawdust and dirt — make certain plenty of oil is jumped to the last and chain.
- Turn bar frequently and at regular intervals when cleaning your saw.
- 4. We stain sufficient bar grouve depth so that guide links do not ride on bottom of grouve. A snallow her grouve. Prevents links from riding properly on rails. This makes the chain run unevenly and can cause excessive chain wear.
- Keep groove clean This prolongs the chain life as well as the bar life.
- G. Attach has correctly, Maintain a close relationship between bar and approaks. The closer the end of the bar is to the approach. the amouther the chain will run.
- When installing new chain check and smooth her very carefully. If sprocket appears grooved — install new sprocket.

- I. Aiways let a hot saw cool before filling with gasoline.
- If gazoline is spilled on sew while refueling, wipe off or let dry before starting.
- Move saw several feet away from faciling spot before starting:
- Clear underbrush, low limbs and byetauders away before felling a tree.
- , 5. Always have secure footing and a safe exct path picked out before feiling a tree.
- Before starting a saw engine walk around the tree to examine its less and watch for loose and intertwined limbs or vites which may affect the direction the tree will full.
- If passible, always have spike bumper against tree or log before starting cut.

- Never altempt to sharpen or adjust charm while engine is running.
- Be firmly in control of saw at all times, and do not straddle saw when making a cut.
- 18. Rolax throttle before removing saw from cut.
- 11. Never walk backward with a running saw,
- 12. Don't saw with a dull chain or saw that needs repair.
- Never carry a saw through a dense, brushy area with engine minning.
- Do not operate a saw unless both gasoline and oil filler caps are in place.
- 15. Keep the saw clean,
- 16 Do not start the saw engine in a closed room because the exhaust firmes are deadly.

## **Warranty and Agreement**

The Root Manufacturing Co., Inc., (Manufacturer), warrants each new Chain Saw of their manufacture against defects in material and workmanship, under normal use and service, for a period of three months from date of original purchase except for products used in commercial rental or industrial operations which are not warranted in any respect, to the extent that we will furnish new parts without charge, to replace any parts, which, within said period of time, our investigation shows were defective when shipped, provided written notice has been given us immediately upon the discovery of such defect; and we reserve the right of requiring the return of the defective parts (transportation and insurance prepaid) before any claim is recognized.

Goods, or parts thereof, not manufactured by us are guaranteed only in accordance with the manufacturer's guarantee, and then only to the extent that we are able to enforce the manufacturer's guarantee. No claims for labor, transportation, special, incidental, indirect or consequential damages will be allowed. We reserve the right to incorporate design changes at any time, and to effect price changes without previous notice.

The above warranty is in lieu of all other warranties, statutory or otherwise, expressed or implied, all other representations to Purchaser, and all other obligations or liabilities with respect to such machines. No warranty or representation whatsoever has been made by the manufacturer and relied on by Purchaser, and Seller has no authority to make any such warranty or representation on behalf of such manufacturer.

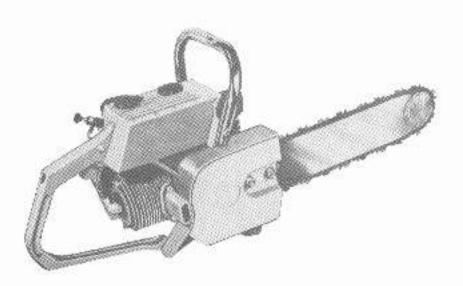
To insure warranty service, fill in, sign and return warranty cards,

HOW TO ORDER PARTS—When ordering parts, always furnish the model number and serial number of the Chain Saw, the part number and description of the parts. If the dealer where you purchased the Chain Saw cannot furnish the parts, you may order direct from Itoot Manufacturing Company, Inc., P. O. Box 191, Baxter Springs, Kansas, Zip Code 66713. If the model number, serial number and part number is not available, you may send the old part for duplication. All engine parts are carried by your local engine dealer who is listed under gasoline engines in the yellow pages of your telephone directory.

# The Root Manufacturing Company, Inc. 127 EAST ELEVENTH STREET BAXTER SPRINGS, KANSAS 66713

47 HR
OWNERS MANUAL

# YOUR CHAIN SAW



#### TOPS IN PERFORMANCE

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## Unpacking Your Chain Saw

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In order that you may be protected under the terms of our warranty, be sure that you fill in and return to us the enclosed warranty card which is the record of your purchase,

## To Prepare Saw For Use

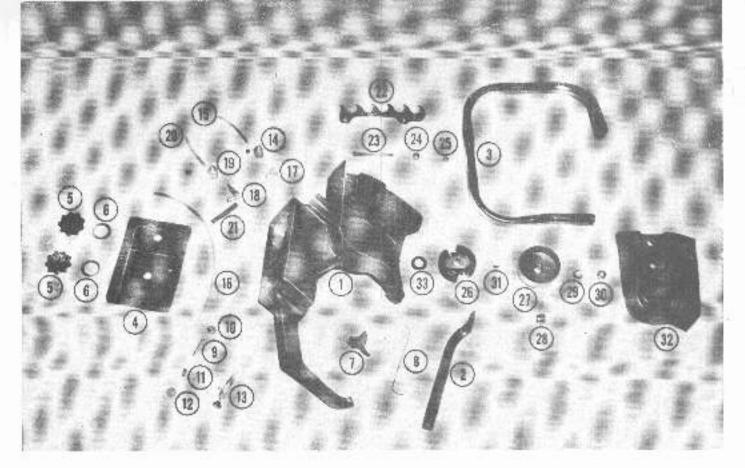
- 1. Remove sprocket guard from power head,
- 2. Pisce chain guide har over the two bolts in power head.
- Assemble the chain to sprocket and chain guide bar. The cutting teeth on top of guide bar must face away from the power head.
- Engage chain adjustment pin to hole in guide bar and clamp in place with sprockel guard, but do not completely tighten nots on the bulbs.
- 5. Tighten chain to proper tension with tension screw in front, at the same time holding up on end of her to insure proper scating of chain.
- Clamp chain guide and sprocket guard firmly in place by tightening nuts on two bolts.
- Chain Oil Use a good grade of SAE 20 or 30 Motor Oil. The oil may be disted with kerosene, especially in extreme cold weather or certain types of wood which cause a deposit to build up on chain

Refer to starting instructions in engine manual.

8. Fuel Mixture—Thoroughly mix 1 pint of SAE 30 non-detergent oil with two (2) gallons of regular gasoline in a clean container. Do not attempt to mix oil and gasoline in saw Itel tank. Mix 1½ pints oil to 2 gallons gasoline for first 5 hours as a break-in period.

When pouring fuel mixture into chain saw tank, always use a funnel having a fine screen to strain the fuel.

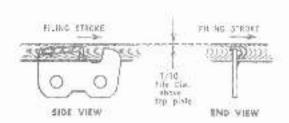
# The Root Manufacturing Company, Inc. 127 EAST ELEVENTH STREET PBAXTER SPRINGS, KANSAS 66713

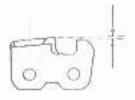


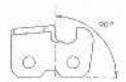
## Parts List For Chain Saw

Part No.	III.	Description	No. Reg.	List Each	Port No.	III.	Description Reg	
AH47		Power Products Engine	1	57.75	11124	(20)	Edsoline Pickup Tube 1	.25
111007	(1)	Main Frame	1	27.50	11125	(211	Gasoline Hose	.16
11104	200	Engine to Frame Balts	à	.10	11126	(22)	Spike Bumper	1.45
11105		Engine to Frame Washers	3	.10	1710	- Jan-1	Spike Bumper Bolts 2	.10
11102	(2)	Frome Bose Foot Rest	- 1	1.50	524		Spike Burnaer Lockwashers 2	.10
705	150	Frome Sase Cap Screw	- 14	.10	11044	(23)	Tension Adj. Bolt I	,10
520		Frome Bose Nut	- 1	.10	11032	(24)	Tension Adjust Lug 1	,60
11106		Frame Bose Sacket Cop Screw	1	.10	12009	(25)	Tension Adjust. Nut	.10
11107	(3)	Wrop Around Handle	12	3.00	2917	577	Guide Bor Cleme Bolts 2	
709	1000	Handle to Frame Bolts	2	.10	11127		Guide Ber Clama Nuts 2	
520		Handle to Frame Nuts	2	.10	3604		Golde Bor Clamp Washers. 7	.10
11101	141	Gos & Oil Took Cover	- 7	5.25	11103	(32)	Guide Bar Clamp 1	3.75
11108	333	Gas & Oil Tonk Cover Gasket	- 29	.40		112/2004		
11109		Gas & Oil Yank Cover Screws	1.6	.10	11129	(26)	Clurch (3")	4.95
11110	(5)	Gos & Oil Tonk Cops	2	.45	11132	(27)	Drum & Sprocket Assy, [3") 7/16" Piler I	4.95
11160	000	Gos & Cill Cop Check Volves	2	.25	11039	(28)	Drum & Sprocket Assy, [3"] ,434 Pirch 1 Needle Bearing 1	4.95
11111	(6)	Gos & Oil Cop Goskets	2	.25	5604	1291	Washer % Flat	1.10
11112	(7)	Throttle Trigger	1	.35	11040	1301	Nut 7/16 Leck	.10
11113		Thrortle Trigger Pin	- 1	.15	11041	1311	Woodruff Key	.15
11114	(8)	Throttle Trigger Wire	1	.0.0		(4)1		.15
11115A		Thrortle Lock Assembly	1	1.45	11137		16" Weltied Nose Bar	15,95
11116	(9)	Lock Pin	- 4	.85	11138		20' Welsed Nosa Bar	16.95
11072	[10]	Lack P.n. Nur		.10	11139		24' Welded Nose Bur	17.95
11073	(11)	Lock Pin Spring	1	.20	11143		Id Edler Bor	15.95
11074	1321	Lock Pin Burlan	- 1	.25	11144		20' Rollet Bor	16,95
11117	1131	O'l Fumo	- 1	4.00	11145		24 Koller Bas	17.95
11118	1141	O.T. Pickup: Wt,	- 1	1.98	11146		16" Chain 7/16" Pilch 52 Drive Links	16.45
11110	1151	O I Pickup Tube	1	.25	21147		20" Chain 7/16" Pileh 61 Drive Links	18.95
11120	1101	O'l Pump Tube	1	.85	11148		24" Chain 7/16" Pilch 70 Drive Links	22.17
11123	1171	Chain Oil Elbow	1	.65	11153		16" Chain ,404 Pitch 56 Drive Links	16.45
11122	(1.8)	Gosoline Elbow	- 1	1.10	11155		20" Chain ,404 Pitch 66 Drive Links	18.95
11123	(19)	Gospline Pickup Wt.	1	1,98	17158		24" Omin 404 Pirch 76 Drive Links	22.17









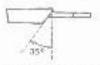
#### DEPTH GAUGE SETTING

Correct depth gauge settings are as important as cutter filling for efficient cutting and long chain life. If depth gauges are too low, chain will grab, jerk, hang up and overload motor. If they are too high, cutters will not be able to bite into wood, and cutting is slow. Every thre you file cutters, check depth gauges and file them if needed.

#### 90 ' SIDE PLATE ANGLE

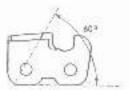
The side plate must be 90° to the bottom of the cutter. Use firm, long, even strokes, applying pressure on forward stroke away from you. If this angle is negative (back-slope) cutting will be slow as cutters try to rise out of cut, requiring more pressure to operate saw. Positive angle (host) feathers top plate which dulls lost and causes chain to grat, hang out.

#### Maintain These Filing Angles



#### 35" TOP PLATE FILING ANGLE

Held the file in one position perpendicular to the side of the cutter and at 35° angle to the length of the chain. If this angle is less than 35°, the cutter is blant and cutting is slow. If greater than 35°, the cutter is feathered and will doll fast.



#### 60" TOF PLATE CUTTING ANGLE

This angle must be 60°. It is formed by the position in which you hold the file and it determines whether the custer is dull, sharp or has a feather edge. If you hold file low, you get a feather edge, Hold it too high, you get a blunt edge. Hold file well up against top plate so about 1/10 of file diameter is above top plate.

## Operation

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The ciutch is fully automatic and will engage at a specific speed. Do not abuse it by overloading and release the throttle immediately if the chain becomes parened.

## Stopping

Always stop saw between cutting operations or when moving from one position to another. This eliminates the danger of injury to operator or helper and reduces fuel consumption and wear on the engine.

To stop between cutting operations merely turn the ignition switch to "off" position.

## Bar and Chain Maintenance

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- Always have seems footing and a safe exit path pocked out before felling a tree.
- Before starting a saw engine walk around the tree to examine its lean and watch for loose and intertwined limbs or vines which may affect the direction the tree will fall.
- If possible, always have apthe bumper against tree or log before starting cut;

- Never attempt to sharpen or adjust chain white engine is maning.
- Se firmly in control of saw at all times, and do not straidle saw when making a cut.
- 10. Relax throttle before removing saw from cut.
- 11. Never walk backward with a running saw.
- 12. Don't saw with a doll chain or saw that needs repair.
- 13. Never carry a saw through a dense, brushy area with engine running.
- Do not operate a saw unless both gasoline and oil filler caps are in place.
- 15. Keep the saw clean,
- Do not start the easy engine in a closed room because the exhaust fumes are deadly.

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Goods, or parts thereof, not manufactured by us are guaranteed only in accordance with the manufacturer's guarantee, and then only to the extent that we are able to enforce the manufacturer's guarantee. No claims for labor, transportation, special, incidental, indirect or consequential damages will be allowed. We reserve the right to incorporate design changes at any time, and to effect price changes without previous notice.

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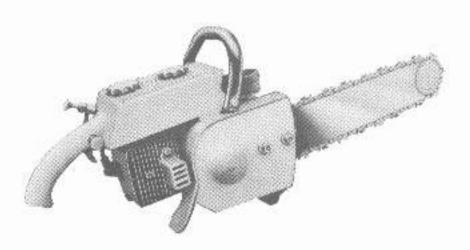
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HOW TO ORDER PARTS—When ordering parts, always furnish the model number and serial number of the Chain Saw, the part number and description of the parts. If the dealer where you purchased the Chain Saw cannot furnish the parts, you may order direct from Root Manufacturing Company, Inc., P. O. Box 191, Baxter Springs, Kansas, Zip Code 66713. If the model number, serial number and part number is not available, you may send the old part for duplication. All engine parts are carried by your local engine dealer who is listed under gasoline engines in the yellow pages of your telephone directory.

# The Root Manufacturing Company, Inc. 127 EAST ELEVENTH STREET . BAXTER SPRINGS, KANSAS 66713

MODEL OWNERS MANUAL

YOUR CHAIN SAW



#### TOPS IN PERFORMANCE

"Tops in performance" - that's what you will get from your new Chain Saw if the instructions herein written are followed very carefully. Read the chain saw manual and the engine manual completely before attempting to assemble the saw. Your chain saw is a precision engineered instrument designed as ruggedly as a fine instrument can be designed and built. Normal care, use and maintenance should give you a dependable and rugged "friend" for many years.

## Unpacking Your Chain Saw

Your Chain Saw is shipped in one package. This package contains the power head and the chain and guide bar. It should be opened immediately and the contents carefully examined for possible damage. If any damage is noted, notity the currier immediately, since they are liable for all concented damage. To assemble saw, follow the instructions found in this manual under the heading "To Prepare Saw

In order that you may be protected under the terms of our warranty, be sure that you III in and return to us the enclosed warranty card which is the record of your purchase.

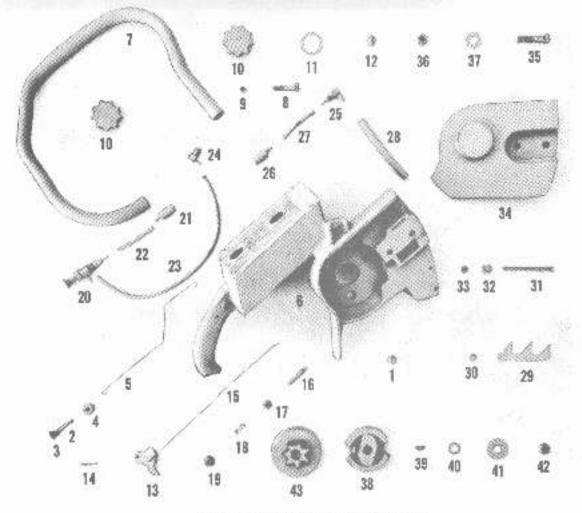
## To Prepare Saw For Use

- 1. Remove sprocket guard from power head.
- 2. Place chain guide bar over the two bolts in power head,
- 3. Assemble the chain to aprocket and chain guide bar. The cutting teeth on top of guide bur must face away from the power head
- 4 Engage chain adjustment pin to hole in guide bar and clamp in place with sprocket guard, but do not completely tighten nuts on the bolts.
- 6. Tighten chain to proper tension with tension serew in front, at the same time notding up on end of bar to insure proper scatting of chain,
- 6. Clamp chain guide and sprucket guard Ilmily in place by tightening nuts on two bolts.
- 7. Chain Oil Use a good grade of SAE 20 or 30 Motor Oil. The oil may be diluted with kerosene, especially in extreme cold wonther or certain types of wood which cause a deposit to build up on chain.

Refer to starting instructions in engine manual.

MINIMANIAMANA ROOT MANUFACTURING CO., INC.

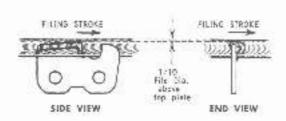
127 EAST ELEVENTH ST. BAXTER SPRINGS, KANSAS

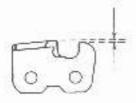


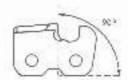
## Parts List For Chain Saw

Part No.	311. Ma.	Description	No. Req.	List Each	Part Mu,	Ht. Na.	Description	No. Req.	List
11081	(1)	Engine to Frame Bolls	3	.10	11216		Bil Pump Kneb	1	.10
11204	(2)	Choke Control Red	1	.40	11214	1291	Spike Burraer	1	1.45
11205	(3)	Chake Control Rod Knob	2	.15	1710	(30)	Salke Bumper Cap Screw	2	.10
11206	(4)	Choke Control Rod Grammet	1	.15	395		Spike Bumper Lackwasher	2	.05
11207	(5)	Choke Control Wire	3	.25	12044	(31)	Bar Tension Aci, Buit	1	.15
11208	(6)	Main Frame	1	27.50	11032	(32)	Bar Tersion Adj. Lug	1	.60
11201	440	Mulfler	1	.75	363	1331	Ber Tensian Adj. Hut	1	.10
387		Muffler Baits	2	.10	11215	(34)	Gulse Bar Clams Plate	1	3.75
395		Muffler Washer	2	.05	2917	(35)	Guire Bur Clamp Cap Screw	2	.30
11200		Carburster Elbow	1	1.50	11127	(36)	Gulde Bar Clama Nuts	2	10
11209	371	Wren Armed Handle	1	3.00	3504	(37)	Guice Bar Clamp Washers	2	.05
507	(8)	Wrap Around Handle Handle To Frame Cap Screw	2	.10	11129	(38)	Chitch 3" 9/16 Bore	1	5.60
364	191	Mandle to Frame Nuts	2	.10	11041	(35)		1	.10
11110R	(10)	Gas Tank Cap	1	.45	11035	(40)	Clutch Spacer	1	.33
331208	(10)	Oil Tank Cap	1	.45	11132	(43)	Drum & Sprocket Assy. (3") 7/16"	Pitch 1	5.00
11111	(11)	Eap Gaskets	2	.10	11133	(43)	Brum & Sprocket Assy. (3") AC4 Pi		5.00
11360	(12)	Cap Check Valve	2	.15	11039	Cocrate.	Brum Neesle Bearing	1	1.10
11211	(13)	Thrattle Trigger	1	.35	3604	(41)	Flat Washer 3/8	1	.05
11113	(14)	Throttle Trigger Pin (1/8 Spring)	1	.15	11040	(541)	Lock Mut 7/16" RM	1	.10
11212	(15)	Throttle Wire	1	.10	11137				15.95
11115A	(44)	Throttie Lock Assembly	1	1.45	22238		20" Welded Nose Bar		16.95
11116	(16)	Throttle Lock Pin	3	.80	11139		24" Wolded Nose Bar		17.95
11072	(17)	Throttle Ltck Nut	7	30	11140		15" Standard Bar		9.95
11073	(18)	Thrattle Look Spring	1	20	11141		20" Stanzare Bar		10.95
11074	(19)	Throttle Lock Knsh	- 2	.15	111142		24" Stancard Bar		11.95
11117	(20)	Oil Pamp	7	4.00	12243		16" Relie: Bar		15.95
11118	(21)	Oll Pickus Wi.	7	1.98	11144		20" Roler Bar		16.95
11119	(22)	Dil Pickup Tube	7	25	111145		24" Roller Bar		17.95
11120	(23)	Oil Pump Tube	1	.85	11146		16" Chain 7/15" Pitch 52 Drive	Links	14.68
21121	124)	Chain Dil Essow	1	.85	11147		20" Chain 7/16" Pitcs 61 Drive		17.25
11122	(25)		4	1.10	11148				20.14
11123		Gastline Elbow	*	1.20			24 Chain 7/16 Pitch 70 Drive		
11124	(26)	Gaspline Pickup Wt.			11153		26" Chain 404 Pitch 56 Drive		14.68
	(27)	Gascine Pickup Tube	- 1	.25	11155		20 Chain 404 Pitch 66 Drive		17.25
11125	(28)	Gastine Hose	- 1	.15	11156		24" Chain 404 Pitch 76 Drive	PRIMES	20.14









#### DEPTH GAUGE SETTING

Correct depth gauge settings are as important as cutter filing for efficient cutting and long chain life. If depth gauges are too low, chain will grab, jerk, hang up and overload motor. If they are too high, cutters will not be able to bite into wood, and cutting is slow. Every time you file cutters, check depth gauges and file them if needed.

#### 90' SIDE PLATE ANGLE

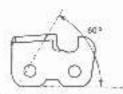
The side plate must be 90° to the bottom of the curter. Use firm, long, even strokes, applying pressure on forward stroke away from you. If this angle is negative (back-slope) cutting will be allow as cutters try to rise out of cut, requiring more pressure to operate saw. Positive angle (book) feathers top plate which dulls fast, and causes chain to grat, hang

#### Maintain These Filing Angles



#### 35' TOP PLATE FILING ANGLE

Hold the file in one position perpendicular to the side of the cutter and at 35° angle to the length of the chain. If this angle is less than 35°, the cutter is blant and cutting is slow. If greater than 35°, the cutter is leathered and will dull fast.



#### 60' TOP PLATE CUTTING ANGLE

This angle must be 80°. It is formed by the position in which you hold the file and it determines whether the cutter is dull sharp or has a feather edge. If you hold file low, you get a feather edge. Hold it too high, you get a built edge. Hold file well up against top plate so about 1/10 of file diumeter is above top plate.

## Operation

Your Chain Saw is a direct drive type and because of its high speed cutting action, no pressure is needed to cut through the wood.

If pressure becomes necessary to make it out, the chain should be sampened.

When starting to cut, don't jam the saw into the west, Place the spike number against the timber bring the angine to full throttle and easy the saw into its cut Don't forget to oil the chain as you are cutting.

Pump the oiler often while cutting and continue to do so for the life of the chain will be considerably tengthened by this practice. To depend on a few pumps of oil between cuts for labrication is poor practice.

The clutch is (ally antematic and will engage at a specific speed. Do not abuse it by overloading and release the throttle immediately if the chain becomes punched

## Stopping

Always stop saw between Citing Operations or when moving from one position to another. This eliminates the danger of injury to operator or helper and reduces fuel consumption and wear on the engine.

To stop between cutting operations merely turn the ignition switch to "off" position.

## Bar and Chain Maintenance

- KERP CHAIN SHARP Your saw will not only out easier and faster, but a properly sharpened chain will reduce were on your bar, chain and aproxitet.
- 2. When it has Always maintain sufficient oil flow to chain and has Pump the oiler with each out while your saw is actually sawing wood. Check oil passages to be supported as they are free of sawdust and dirt make certain plenty of all is pumped to the bar and chain.
- Turn bur frequently and at regular intervals when cleaning your saw
- Mummin sufficient has groove depth so that guide links do not ride on bottom of groove. A shakaw has groove prevents links from riding property on rails. This makes the chain run uneventy and can cause excessive chain wear.
- Knop groove clean This prolongs the chain life as well as fac bar life.
- 5. Attach har correctly. Maintain a close relationship beliween bar and approchet. The closer the end of the bar is to the sprocket the smoother the chain will run,
- When installing new chain check and smooth bar very carefully. If sprocket appears grooved — install new sprocket

- 1. Always let a hot saw cool before filling with gasoline.
- If gasuline is spilled on saw while refueling, wipe off or let day before starting.
- More saw several feet away from fueling spot before starting.
- Clear underbrush, low limbs and bystanders away before felling a tree.
- Always have secure footing and a sale exit path picked out before felling a tree.
- Before starting a saw engine walk around the tree to examine its lean and watch for loose and intertwined limbs or vines which may affect the direction the tree will fall.
- If possible, always have spike bumper against tree or log before starting out.

- Never altempt to sharpon or adjust chain while engine is running.
- B. Be firmly in control of any at all times, and do not straddle saw when making n out:
- 16. Rolax throttle before removing saw from out.
- 11. Never walk backward with a running saw,
- 12. Don't saw with a dull chain or saw that needs repair.
- Never carry a saw through a dense, brushy area with engine running.
- Do not operate a saw unless both guapline and oil filler caps are in place.
- 15. Keep the saw clean.
- Do not start the saw engine in a closed room because the exhaust fumes are deadly.

# **Warranty and Agreement**

The Root Manufacturing Co., Inc., (Manufacturer), warrants each new Chain Saw of their manufacture against defects in material and workmanship, under normal use and service, for a period of three months from date of original purchase except for products used in commercial rental or industrial operations which are not warranted in any respect, to the extent that we will furnish new parts without charge, to replace any parts, which, within said period of time, our investigation shows were defective when shipped, provided written notice has been given us immediately upon the discovery of such defect; and we reserve the right of requiring the return of the defective parts (transportation and insurance prepaid) before any claim is recognized.

Goods, or parts thereof, not manufactured by us are guaranteed only in accordance with the manufacturer's guarantee, and then only to the extent that we are able to enforce the manufacturer's guarantee. No claims for labor, transportation, special, incidental, indirect or consequential damages will be allowed. We reserve the right to incorporate design changes at any time, and to effect price changes without previous notice.

The above warranty is in licu of all other warranties, statutory or otherwise, expressed or implied, all other representations to Purchaser, and all other obligations or liabilities with respect to such machines. No warranty or representation whatsoever has been made by the manufacturer and relied on by Purchaser, and Seller has no authority to make any such warranty or representation on behalf of such manufacturer.

To insure warranty service, fill in, sign and return warranty cards.

HOW TO ORDER PARTS—When ordering parts, always furnish the model number and serial number of the Chain Saw, the part number and description of the parts. If the dealer where you purchased the Chain Saw cannot furnish the parts, you may order direct from Root Manufacturing Company, Inc., P. O. Box 191, Baxter Springs, Kansas, Zip Code 66713. If the model number, serial number and part number is not available, you may send the old part for duplication. All engine parts are carried by your local engine dealer who is listed under gasoline engines in the yellow pages of your telephone directory.

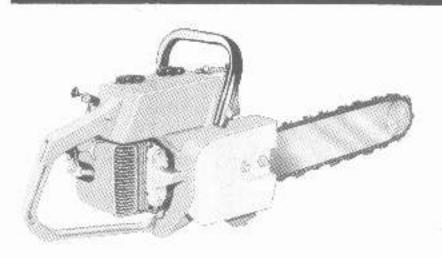
# The Root Manufacturing Company, Inc. 127 EAST ELEVENTH STREET BAXTER SPRINGS, KANSAS 66713

MODEL

58

OWNERS MANUAL

YOUR
CHAIN SAW



#### TOPS IN PERFORMANCE

"Tops in performance"—that's what you will get from your new Chain Saw if the instructions herein written are followed very carefully. Read the chain saw manual and the engine manual completely before attempting to assemble the saw. Your chain saw is a precision engineered instrument designed as ruggedly as a fine instrument can be designed and built. Normal care, use and maintenance should give you a dependable and rugged "friend" for many years.

## Unpacking Your Chain Saw

Your Chain Saw is shipped in one package. This package contains the power head and the chain and guide har. It should be opened immediately and the contents carefully examined for possible damage. If any damage is noted, notify the carrier immediately, since they are liable for all concealed damage. To assemble saw, follow the instructions found in this manual under the heading "To Prepare Saw for Use."

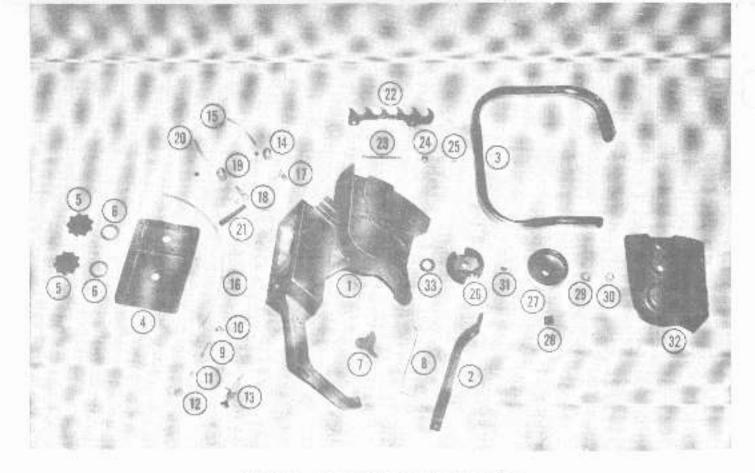
In order that you may be protected under the terms of our warranty, be sure that you fill in and return to us the enclosed warranty card which is the record of your purchase.

## To Prepare Saw For Use

- 1. Remove sprocket guard from power hand,
- 2. Place chain guide bar over the two bolts in power head-
- Assemble the chain to sprocket and chain guide bar. The cutting tenth on top of guide bar must face away from the power head.
- Engage chain adjustment pin to note in guide bar and clamp in place with appositet guard, but do not completety tighten nuts on the botts.
- 5. Tighten chain to proper tension with tension screw in front, at the same time holding up on end of bar to insure proper scating of chain.
- Clamp chain guide and sprocket guard firmly in place by tightening note on two bolts.
- 7. Chain Oil Use a good grade of SAE 20 or 30 Motor Oil. The oil may be diluted with kerosenc especially in extreme cold weather or certain types of wood which cause a deposit to build up on chain.
  Refer to starting instructions in engine manual.
- 8. Fuel Mixture—Thoroughly mix 1 pint of SAE 30 non-detergent oil with two (2) gallons of regular gasoline in a clean container. Do not attempt to mix oil and gasoline in saw fuel tank. Mix 1½ pints oil to 2 gallons gasoline for first 5 hours as a break-in period.
  When pouring fuel mixture into chain saw tank, always

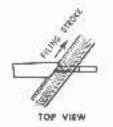
use a funnel having a fine screen to strain the fuel.

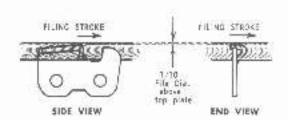
# The Root Manufacturing Company, Inc. 127 EAST ELEVENTH STREET & BAXTER SPRINGS, KANSAS 66713

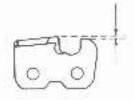


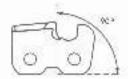
## MODEL 58 OWNERS MANUAL Parts List for Model 58 Chain Saw

Part No.	III. No.	Description	No. Req.	Price Each	Part No.	TII. No.	Description	No. Req.	Price Each
AH58		Power Products Engine	1	62.57	11122	(18)	Gasaline Elbow	1	L10
111001	(1)	Main Frame	1	27.50	11123	(19)	Casaline Pickup Weight	1	1.98
9716	1000	Engine to Frame Butts 5/18"-18x3	747 3	.10	11121	(20)	Gusoline Pickup Tube	1	.25
8521		Engine to Frame Washers 5/16 SI		.10	11125	(21)	Gumline Hose	1	.15
11102	(2)	Frame Base (Foot Rest)	1	1.50	11126	(22)	Spike Bumper	- 1	1.45
705		Frame Iluse Cap Screw	1	-1.0	1710	37.75	Spike Bumper Bolts	2	.10
367		Finme Base Nut	1	.10	321		Spike Bumper Lockwasher	2	.10
11106		Frame Base Screw	1	.10	11044	(23)	Tension Adjust Butt	1	.10
11107	(3)	Wrap Around Handle	1	8.00	11032	(24)	Tension Adjust, Lug	0.0	.60
709		Hamile to Frame Bolts	2	.10	12008	(25)	Tension Adjust. Nut	- 1	.10
361		Handle to Frame Nuts	2	.20	2917		Guide Bay Clamp Bults	2	.15
11101	(4)	Gas & Oil Tank Cover	1	5.25	11127		Guide Bar Clamp Nuts	2	.10
11188		Gas & Oil Tank Cover Gasket	1	.40	3604		Guide Bar Clamp Washers	2	.10
11109		Gas & Oil Tunk Cover Serews	16	-3.0	11103	(33)	Guide Bar Clamp Place	1	3,75
11110	(5)	Gas & Oil Tanh Caps	2	.43	11129	(26)	Clutch (2")	1	4.95
11111	(6)	Gas & Oil Cap Gaskets	2	.25	11133	(27)	Drum & Sprucket Assy. (3") .404	- 1	4.95
11112	(7)	Throttle Trigger	1	_35	11039	(29)	Needle Bearing	1	1.10
11113		Throttle Trigger Pin	1	.25	3604	(29)	Washer 3/8 Fint	1	.10
11114	(8)	Throttle Trigger Wire	1	-10	11040	(30)	Nut 7/16 Lock	1	.15
11115A		Throttle Lock Assembly	1	1,46	11041	(31)	Woodruff Key	1	.15
11116	(9)	Lock Pin	1	.80	11035	(33)	Clutch Spacer	1	.33
11072	(10)	Lock Pin Nut	1	.10	11137		16" Welded Bar		15,95
11073	(11)	Lock Pin Spring	1	.29	11138		20" Welded Bar		16,95
11074	(12)	Lock Pin Button	1	.25	11189		21" Welded Bur		17.95
11117	(13)	Oil Pump	7	4.00	11143		16" Roller Bar		15.95
111113	(14)	Oll Pickup Weight	4	1,98	11114		20" Ruller Bar		16.90
111119	(15)	Oil Pickup Tube	1	.25	11135		21" Roller Bar		17.95
11120	(16)	Oil Pump Tube	1	-85	11153		16" Chain A04 P (56E)		16.45
11121	(17)	Chain Oil Ethow	1	.55	11155		20" Chain A04 P (66E)		18.95
					11156		24" Chain .404 P (76E)		22.17









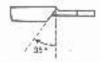
#### DEPTH GAUGE SETTING

Correct depth gauge settings are as important as cutter filing for efficient cutting and long chain life. If depth gauges are too low, chain will grab, jork, hang up and overload motor. If they are too high, nutters will not be able to bite into wood, and cutting is slow. Every time you file cutters, check hepth gauges and file them if needed

#### 90 - SIDE PLATE ANGLE

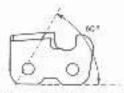
The side plate must be 80° to the bottom of the cutter. Use firm, long, even strokes, applying pressure on forward stroke away from you. If this angle is regative (back-suge) cutting will be slow as cuttors try to rise out of cut, requiring more pressure to operate saw. Positive angle (book) feathers top plate which fulls fast and causes chain to grab, bang

#### Maintain These Filing Angles



#### 35 TOP PLATE FILING ANGLE

Hold the file in one position perpendicular to the side of the cutter and at 35° angle to the length of the chain. If this angle is less than 35°, the nutter is blunt and cutting is slow. If greater than 35°, the nutter is leathered and will dull fast.



#### **60 TOP PLATE CUTTING ANGLE**

This angle must be 60°. It is formed by the position in which you hold the file and it determines whether the cutter is dull, sharp or has a feather edge. If you hold life low, you get a leather edge, Hold it too high, you get a blant edge. Hold file well up against top plate so about 1/10 of the diameter is above top plate.

## Operation

Your Chain Haw is a direct drive type and because of its high speed mitting action, no pressure is needed to out through the wood.

If pressure becomes necessary to make it out, the coaln should be sharpened.

When starting to cut, don't jam the saw min the word. Place the spike humper against the timber, bring the angine to full throttle and ease the saw into its cut. Don't forget to cut the chain as you are cutting.

Fump the often often while cutting and continue to do so — for the life of the chain will be considerably lengthened by this practice. To depend on a few pumps of all between cuts for intrication is poor practice.

The clutch is fully automatic and will engage at a specific speed. Do not abuse it by overloading and release the throttle immediately if the chain becomes pinched

## Stopping

Always stop saw between cutting operations or when moving from one position to another. This eliminates the danger of injury to operator or helper and reduces fuel consumption and wear on the engine.

To stop between cutting operations merely turn the ignition switch to "off" position.

## Bar and Chain Maintenance

- KEEP CHAIN SHARP Your saw will not only cut easier and faster, but a properly sharpened chain will excite wear on your say, chain and spencket.
- 2. When in the Always maintain sufficient of flow to chain and bay. Primp the offer with each cut while your saw is actually sawing wood. Check all passages to be mire they are free of sawdust and dirt make certain plenty of oil is pumped to the bar and chain.
- Turn her frequently and at regular intervals when cleaning your saw.
- 4 Maintain sufficient bar groove depth so that guide links do not ride on bottom of groove. A shallow bar groove prevents links from riding properly on rolls. This makes the chain run unevenly and can cause excessive chain was:
- 5 Reep groove clean This prolongs the chain life as well as the nor life.
- 6 Attach bar correctly. Maintain a close relationship between bar and aprocket. The closer the end of the bar is to the sprocket, the smoother the chain will run.
- When installing new chain check and smooth bar Very carefully. If sprocket appears grooved — install new sprocket.

- 1. Always let a hot saw cool before filling with gasoline.
- If gasoline is spilled on saw while refueling, wipe off or let dry before starting.
- Move saw several feet away from Cieling spot before starting;
- Clear underbrish, low limbs and bystanders away before folling a tree,
- Always have secure footing and a safe exit path picked out before felling a tree.
- Before starting a saw engine walk around the tree to examine its lean and watch for loose and intertwined limbs or vines which may affect the direction the tree will fall.
- If possible, always have spike bumper against tree or log before starling cut.

- Never attempt to sharpen or adjust chain while engine is running.
- Be firmly in control of saw at all times, and do not straddle saw when making a cut.
- 10. Relax throttle before removing any from cut.
- 11. Never walk backward with a running saw.
- 12 Don't saw with a dull chain or saw that needs repair
- Never carry a saw through a dense, brushy area with engine running.
- Do not sperate a saw unless both gasoline and oil filler cays are in place.
- 15. Keep the saw clean
- 16 Do not start the saw engine in a closed from because the exhaust frames are deadly.

# **Warranty and Agreement**

The Root Manufacturing Co., Inc., (Manufacturer), warrants each new Chain Saw of their manufacture against defects in material and workmanship, under normal use and service, for a period of three months from date of original purchase except for products used in commercial routal or industrial operations which are not warranted in any respect, to the extent that we will furnish new parts without charge, to replace any parts, which, within said period of time, our investigation shows were defective when shipped, provided written notice has been given us immediately upon the discovery of such defect; and we reserve the right of requiring the return of the defective parts (transportation and insurance prepaid) before any claim is recognized.

Goods, or parts thereof, not manufactured by us are guaranteed only in accordance with the manufacturer's guarantee, and then only to the extent that we are able to enforce the manufacturer's guarantee. No claims for labor, transportation, special, incidental, indirect or consequential damages will be allowed. We reserve the right to incorporate design changes at any time, and to effect price changes without previous notice.

The above warranty is in lieu of all other warranties, statutory or otherwise, expressed or implied, all other representations to Purchaser, and all other obligations or liabilities with respect to such machines. No warranty or representation whatsoever has been made by the manufacturer and relied on by Purchaser, and Seller has no authority to make any such warranty or representation on behalf of such manufacturer.

To insure warranty service, fill in, sign and return warranty cards,

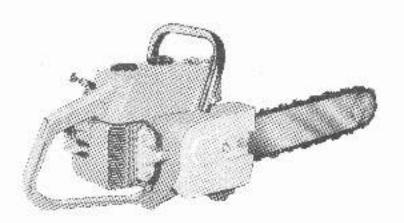
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# The Root Manufacturing Company, Inc. 127 EAST ELEVENTH STREET : BAXTER SPRINGS, KANSAS 66713

MODEL
61 HR
OWNERS MANUAL

CHAIN SAW

82 HR
OWNERS MANUAL



#### TOPS IN PERFORMANCE

"Tops in performance" - that's what you will get from your now Chain Saw if the instructions herein written are followed very carefully. Read the chain saw manual and the engine manual completely before attempting to assemble the saw. Your thain saw is a precision engineered instrument designed as nuggedly as a fine instrument can be designed and built. Normal care, use sun maintenance should give you a dependable and rugged "Friend" for many years.

## Unpacking Your Chain Saw

Your (Shift Saw is shipped in one package. This package contains the power head and the chain and guide bar. It should be opened immediately and the contents carefully examined for possible damage. If any damage is noted, notify the carrier immediately, since they are liable (or all concented damage. To assemble saw, follow the instructions found in this manual under the heading "To Prepare Saw for Use."

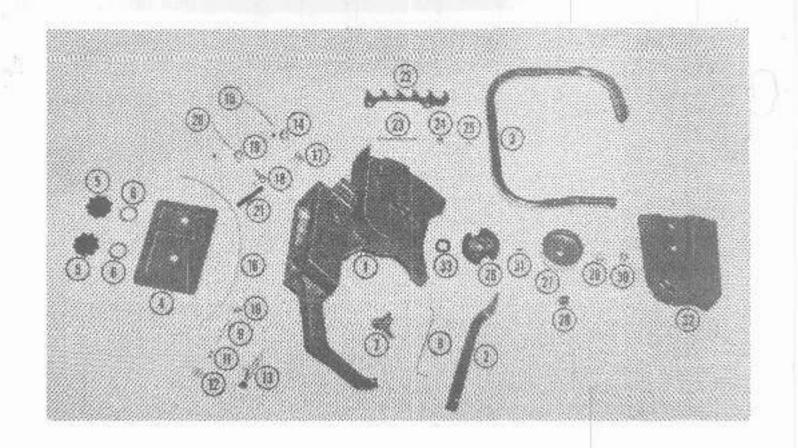
In order that you may be protected under the terms of our warmity, he sume that you fill in and return to us the enclosed warranty cand which is the record of your purchase.

## To Prepare Saw For Use

- 1. Remove aprocket guard from power head.
- 2. Place chain guide has over the two bolts in power head.
- Assemble the chain to sprocket and chain guide bar. The cutting teeth on top of guide bar must face away from the power head;
- Engage chain adjustment pin to hole in guide har and clamp in place with approachet guard, but do not completetly tighten muts on the bolts.
- Tighten chain to proper tension with tension serew in front, at the same time holding up on end of bar to insure proper seeting of chain.
- Clamp chain guide and sprocket guard firmly in place by tightening nuts on two belts.
- Chain Ol. Use a good grade of SAE 20 or 30 Motor Oli. The oil may be distinct with kerosene, especially in extrame cold weather or certain types of wood which cause a deposit to build up on chain.

Refer to starting instructions in engine manual.

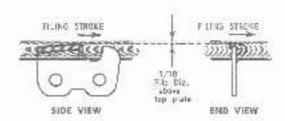
ROOT MANUFACTURING CO., INC. 127 FAST ELEVENTH ST. BAXTER SPRINGS, KANSAS

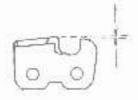


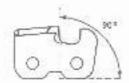
## Parts List For Chain Saw

Hers No:	111. No.	Bescription	No: Beg:	List (Bath)	Fait No.	7)). Mg.	Bestation	No. Hea	List (Each)
99996 61996		Enrysler Engine — B2 Chrysler Engine — 64 Main Frame Engine To Frame Bets Engine To Frame Bets Engine To Frame Bets Frame Base Gene Washers Frame Base Eap Screw Frame Base Mult Frame Base Socket Eap Screw Wrigh Around Handle Hanne To Frame Bets Herdin To Frame Bets Herdin To Frame Bets Herdin To Frame Bets Herdin To Frame Enver Bas & Bit Tank Enver Bas & Bit Enp Sansete Transcort Bas & Bit Enp Sansete Transcort Base Burner Holls Base Burner Holls Base Burner Holls Base Bar Elama Nutt Guide Bar Elama Baiss Buide Bar Elama Nutt Guide Bar Elama Nutt Guide Bar Elama Baiss Buide Bar Elama Ba	1	\$86,40 83.78	11115A 11119	151	Through Long Assembly	1	1.45
11 1698W	(1)	Main Frame - 12	3	27.58	11872	(38)	Lesis Pin Lesis Pin Nus	温	38
61896 11199W 11184 11195 11182 785 520 13196	348	Essine To Frame Bude	4	.19	11878 11073	111	A-REN HIR SHEIRE	ï	38 36 15 400 1.86 25 85
11199	30200	Ergine To Frame Washers	4	.19 .85 1.58	1187A 11117	(12)	Lock Bir Butten	3	.15
11188	(3)	FLERRI Best (FERE HVS.)	- 8	1.58	11117	(13)	Bi Pump	1	4.00
189		FFAME PASE EAR REPRIN	-	.18 19	11118 11119 11120	(14) (15)	Bil Bickup W:. Bil Dickup Tube		1.99
11196		France Base Socket Fac Score	- 1	30	11120	(15)	Bil Buma Tuke	3	85
11187	431	Wray Argund Hafidle	1	3.88	111131	(17)	BIL Pura Tute Etain Bil Elbow	1	.85
11187 769	1-3	Hanne Tie Frame Beits	2	19	13388	6485	Gaselina Eleow	Ī	1.10
520 11101	*******	Herdle To Frame Nuts	5	.19	11123	1191	Gassline Rickup Wil. Gassline Pickup Tube	1	1.98
11181	(4)	BES & BI TANK FRYET	4	5.25	11184	1291	Gaszline Fickup Tube	1	:25
11188		his & the Tank Enver Gasset	. 1	,nA	11129 11121 11125 11126 11126 11137	(81)	Saudine Name		
11118	453	Bas & Bil Terk Fare	18	.99 49	11835	(部)	Salke Bunger Cielra Spares		1.48
11111	(6)	Bas & flit Cap Sakstets	3	110	3313y		36" Welded News Bar	2.2	35.95
11119 11119 11111 11112	(5) (6) (7)	TREATUR TERREPE	1	.59	11139		16" Welded New Ber 25" Weldel New Ber		.99 15.95 16.85
1710		Spile Burner Balls	2	.59 .10	21137 21138 22138 22141 22141 22141 22141 22141 22141 22147 22147 22147		241. Malesa Hase Bar		47.56
584	****	Epike Burker Lackwasher	2	-65	33346		160 Steedurd Bar		9.85
11.044	(63)	Temon Asiss. But	1	119	13241		20" Mandare Bar		38.99
13009	(25)	TRANSPA ALUSE: LUB	- 1	10	11143		24º Standert Ber 16º Holler Bar		11,59
2017	1007	Buide Bar Planta Balsa	1	3.8	33344		16" Muller Bar 29" Haller Bar		16.98 16.98
11127		Build Bar Flams Nuts	3	±0 40	11146		84" Holer Bar		16.66 11.65 16.66 16.96 17.66
3800		Bulde Bar Clame Washers	ž	.65	1114#		16" Enain 7/16" Pitch	53 Brive Links	14 68 1936
11007	(32)	Beide Bar Elzap	4	4.78	41147		16" Enain 7/16" Pinch 20" Enzik Tyle" Pitch	53 Brive Links 61 Brive Links	19.36
11130	(88)	Christ 31	1	9:00	11148		Earl Ettern Trials Million	VID GEVE LIBES	20.14
11132	(27)	Bruin & Sprocket Assy, 7/18 P	7	7,80	1119) 11155		tá" Chain 404 Blith	56 BHV4 Links	14.68
11039	(89)	Mondia Bassino	- 1	1.10	11398		RR" Erain ded Pitch	86 Brive Links	17,25
2004	(35)	Washer 3/8 Flat	1	.25			24" Chain 484 Priza Muffler Gesket — Chryslei Bott 3/16" x 1" LW 5/16"	AM BELAS PIRKS	20.14
110401.	(36)	Wet 7/19 beck he M.	1	,10	11159		MUTHER AND A STATE OF THE STATE	1	1.50
11051	(31)	WoodFuff Key	3	1.0	11191		Manter gester - Epitiste		.29
11113	100	Threttle Trieger Pin	2	,18	11097		Mair 3/18, W T.	2	20
1111±W	(6)	Threshe Wire	+	.10	706		FM 8/16	2	.66









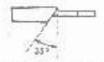
#### DEPTH GAUGE SETTING

Correct depth gauge settings are as important as cutter filling for efficient cutting and long chain life. If depth gauges are too low, chain will grab, jerk, hang up and overload motor. If they are too high, cutters will not be able to bite into wood, and cutting is slow. Every time you file cutters, check depth gauges and tile them if needed.

#### 90° SIDE PLATE ANGLE

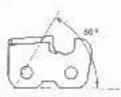
The side plate must be 90° to the bottom of the rutter. Use firm, long, even strokes, applying pressure on forward strokes away from you. If this angle is negative (back-slope) rutting will be slow as cutters by to rise out of out, requiring more pressure to operate saw. Positive angle (hook) feathers top plate which dulls flast and causes shain to grab, hang on

#### Maintain These Filing Angles



#### 35 TOP PLATE FILING ANGLE

Hold the file in one position perpondicular to the side of the custry and at 35° angle to the length of the chain. If this angle is less than 35°, the cutter is blunt and cutting is slow. If greater than 35°, the cutter is feathered and will dull fast,



#### 60° TOP PLATE CUTTING ANGLE

This angle must be 60°. It is formed by the position in which you hold the file and it determines whether the cutter is dull, sharp or has a leather edge. If you hold file low, you get a feather edge. Hold it too high, you get a blint edge. Hold file wed up against top plate so about 1/10 of file diameter is above top plate.

## Operation

Your Chain Saw is a direct drive type and because of its high speed culting action, no pressure is needed to cut through the wood.

If pressure becomes necessary to make it out, the chain should be sharpened.

When starting to cut, don't jam the saw into the wood, Place the spice humper against the timber, bring the engine to full throttle and ease the saw into its cut. Don't forget to oil the chain as you are cutting.

Fump the often while outling and continue to do so — for the life of the chain will be considerably lengthened by this practice. To depend on a few pumps of oil bebeen cuts for intrication is poor practice.

The clutch is fully automatic and will engage at a specific speed. Do not abuse it by overloading and release the throttle transducted if the chain becomes plached.

## Stopping

Always stop saw between cutting operations or when moving from one position to another. This eliminates the danger of injury to operator or helper and reduces fuel consumption and wear on the engine.

To stop between cutting operations charge turn the ignition switch to "off" position

## Bar and Chain Maintenance

- KEEP CHAIN SHARP Your saw will not only out caster and faster, but a properly sharpened chain will reduce wear on your bar, chain and approaches.
- 2. When in use Always maintain sufficient oil flow to casin and bar. Pump the otler with each cut while your saw is actually sawing wood. Check of passages to be sure they are tree of sawinst and dirt make certain plenty of oil is pumped to the bar and chain.
- Turn har frequently and at regular intervals when cleaning your saw.
- Maintain autificient bar growe depth so that guide make do not ride on buttom of growe. A shallow bar growe prevents bake from riding property on ratio. This makes the chain run inevently and our onuse excessive claim recan.
- Reep groove clean This prolongs the shafe life as well as the bar life;
- Attach har correctly Maintain a close relationship between har and approachet. The closer the end of the baris to the approachet, the approacher the chain will run.
- When nestalling new chain description and smooth bar very carefully. If appealed appears grooved — install new sprocket.

- I Always let a hot saw cool before filling with gasoline.
- If gasoline is spilled on saw while reflicting, wipe off or let dry before starting.
- Move saw several feet away from faeling spot before starting.
- Ulear underbroak, low limbs and bystanders away before felling a tree.
- Always have secure footing and a safe exit path picked out before felling a tree.
- Before starting a saw engine walk around the tree in example its lean and watch for love and intertwined limbs or vites which may affect the direction the tree will full.
- If possible always have splite bumper against tree or log before starting cut.

- Never alternot to sharpen or adjust chain while engine is running.
- Be firmly in central of any at all times, and do not straddle saw when making a cut.
- 10. Relax throttle before removing saw from cut.
- 11. Never walk backward with a running saw,
- 12. Don't saw with a duli chain or saw that needs repair
- Never energy a saw through a dense, brushy area, with engine running.
- Do not operate a saw unless both gasoline and oil filler caps are in place.
- 15. Keep the saw clean,
- 16. Do not start the saw engine in a closed room because the exhaust fumes are deadly.

#### OUR WARRANTY PROTECTS YOU

## WARRANTY

We guarantee posits of our enjoyabilite against detects in meterial and workmanship, ander normal use and scrices for a period of time months from the date of semieles first put in ejection and for not more than one year after the date of abipment from our plant, in the entiret that we will furnish her parts without charge, to replace any parts, Which within said period of time, but transligation along were detected when stapped, pro-Vides britten notice has been guest us immediately unearby discovery of such delect and we seemb the right of requiring the return of the detection parts (transportation and transactproportal), before any claim is recognised.

Gradi, or parts thereof, not manufactured by an are gramment only in eccordance with the manufacturers gramming, and then only to the extent that we are able to entorce the triangle-theory gracial, indirect or consequent and established by allowed. We reserve the right to incorporate design changes at any impound to allow price changes at any impound to allow price changes without pravious postes.

HOW TO ORDER PARTS—First, go to the dealer from which you purchased the saw. If he does not have the required parts, he will order from his nearest Root branch office, Give your model number and parts number to insure receiving correct parts, MINIMUM PARTS ORDER—One dollar.

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# THE ROOT MANUFACTURING COMPANY, INC.

Baxter Springs, Kansas

Printed in U.S.A.

ROOT MANUFACTURING CO., INC.

CALLERANCE CALLERY

127 EAST ELEVENTH ST. BAXTER SPRINGS, KANSAS