FEB 75

Electric Chain Saw STIHL E10

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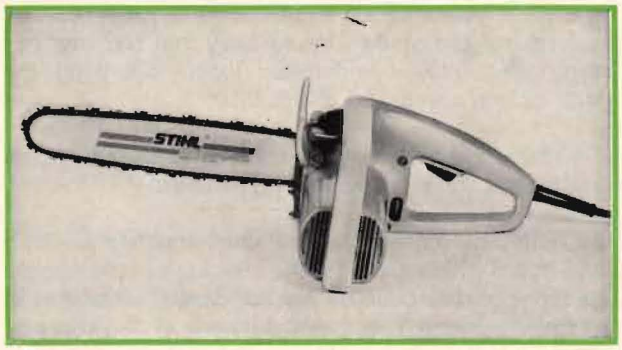
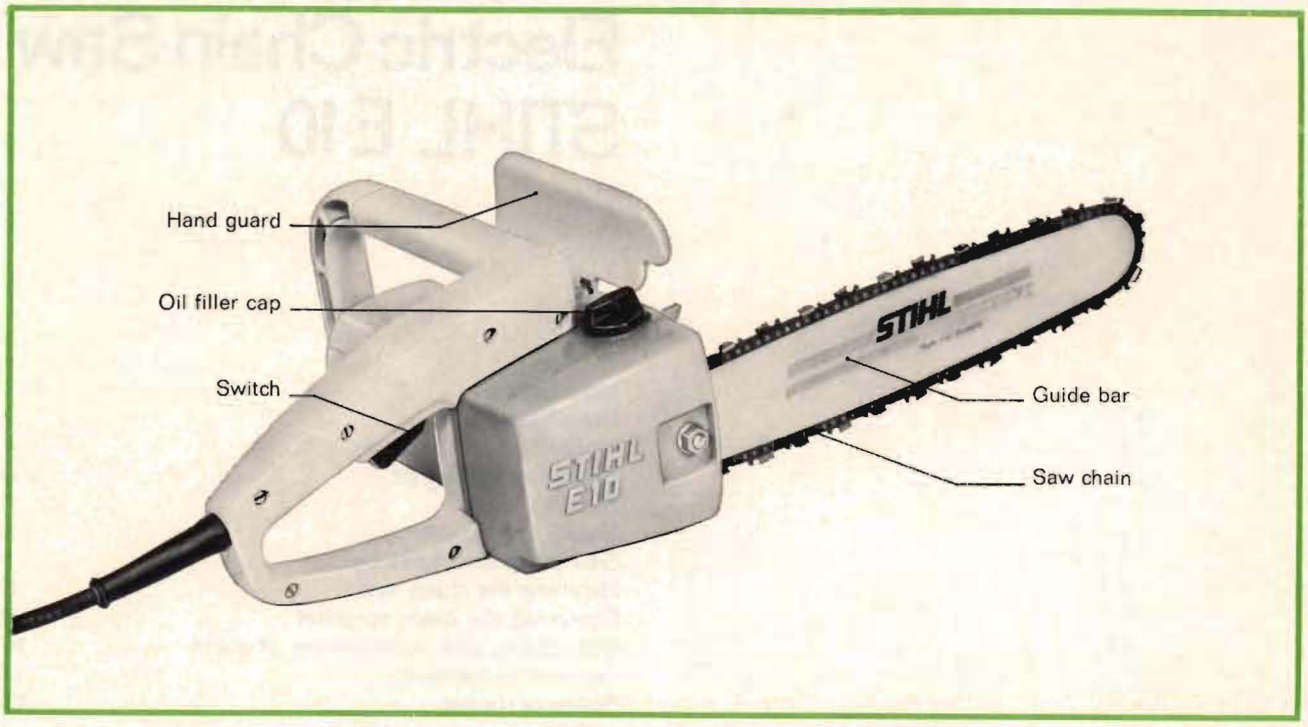
Instruction Manual
and
Spare Parts List

Electric Chain Saw STIHL E 10



Preface



Our many years of experience in the production of professional chain saws for forestry and farming, has been taken into consideration when designing the electric chain saw model STIHL E 10.

This saw incorporates all advantages of a professional saw, except that it is smaller and handier.

The STIHL E 10 comes as standard equipment with a hand guard which prevents the slipping of a hand onto the running chain due to an accidential kick-back of the saw.

On the following pages of this instruction booklet you will find valuable hints for the maintenance and service of your electric saw.

The second part of this booklet contains a detailed spare parts list which is meant to help you to repair and to order spare parts properly.

Before you start to work with your saw please read this instruction manual carefully. You will find in it valuable hints and instructions on how to operate your STIHL E 10 correctly.

Specifications

Engine

At 220 volts operating current:

Amperage rating	5,3 amp.
Frequency	50 cycles
Motor output	1,1 kW (1,5 DIN PS)
Speed (chain sprocket)	approx. 4000 U/min (r.p.m.)
Fuse	16 amp.

At 115 volts operating current:

Amperage rating	10 amp.
Frequency	60 cycles
Motor output	1,1 kW (1,5 DIN-PS)
Speed (chain sprocket)	approx. 4000 U/min. (r.p.m.)
Fuse	20 amp.

Cutting attachment

Guide bars:	Induction hardened bar rails with and without stellite tipping at the bar nose.
Cutting lengths:	25 cm (10 in.) guide bar without stellite tipping at the bar nose. 30 cm (12 in.) Duromatic guide bar with stellite tipping at the bar nose. 30 cm (12 in.) Rollomatic guide bar with star shaped roller nose.
Chain:	1/4"-oilomatic-S-safety chain STIHL chain model 3849 1/4"-oilomatic-S-safety chain STIHL chain model 3831
Chain lubrication:	Fully automatic oil pump with pump plunger governed by engine speed, pumps only when chain is rotating
Oil tank capacity:	0,23 l (0.48 pts.) = 230 cm^3 (14.03 cu. in.)
Chain sprocket:	8 teeth for 1/4" chain
Chain lubricating oil:	The chain lubricants recommended by STIHL have a viscosity of 49 cSt at +50 (and a solidifying point of approx. —40 °C).

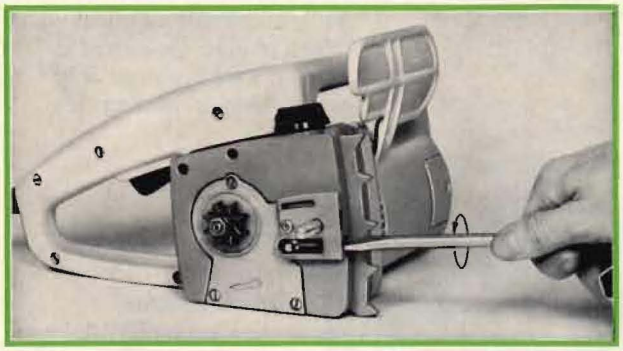
Weight of saw

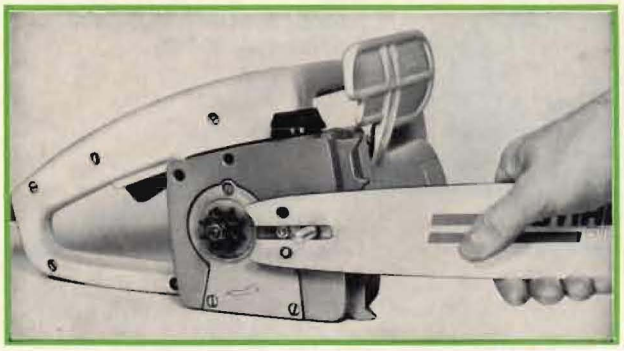
ready assembled with 25 cm (10 in.) bar and chain	4,1 kg (9.04 pds.)

We reserve the right to make changes in design whenever it is deemed necessary or an advantage.

Installation of bar and chain

Top: Positioning the bolt of the tensioning nut
Bottom: Placing the guide bar



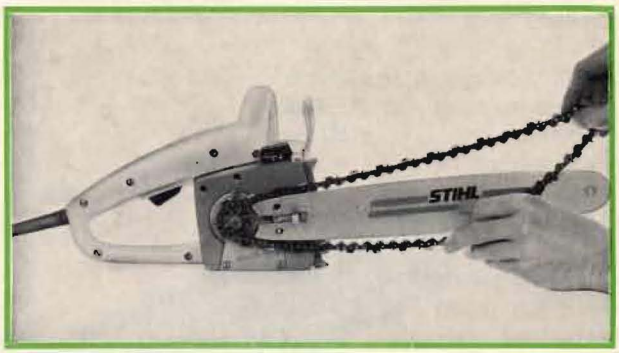


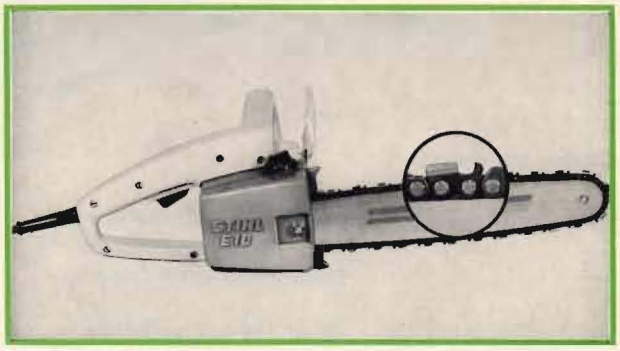
Your electric chain saw comes with bar and chain unmounted.

The assembly of bar and chain must only de done with the electric supply cable unplugged.

To install the bar and chain, unscrew the hexagonal nut at the chain sprocket cover with the combination wrench. Remove chain sprocket cover. Move cylinder head screw of chain tensioning adjustment, which is positioned in the groove under the stud, back to limit stop in the direction of chain sprocket, by turning it counter-clockwise.

Top: Placing the saw chain
Bottom: Cutting edges pointing towards guide bar nose



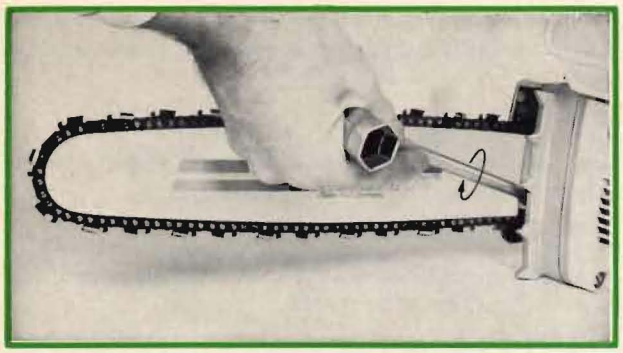


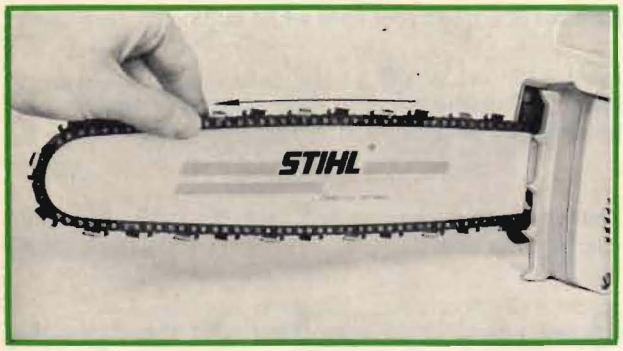
Place guide bar over stud and check to be sure that the stud of the adjusting nut extends into the bottom hole of the guide bar.

Loop the chain over the chain sprocket and fit it into the bar groove with the cutting edges of the chain, at the top of the guide bar, pointing towards the bar nose.

Put chain sprocket cover back into place and tighten the nut only finger tight for the moment. Turn the cylinder head screw of the chain tensioning adjustment clockwise with the screwdriver, while holding the

Top: **Tensioning the saw chain**
Bottom: Checking the chain tension





bar nose of the bar upward, until all slack has been removed from the chain at the bottom side of the guide bar.

Then tighten hexagonal nut also holding the nose of the guide bar upward.

The chain has the proper tension when it can be pulled easily around the bar by hand.

Chain lubricating oil

Oil inspection window

The chain-and guide bar life largely depend on the quality of the chain lubricating oil. Use only the chain lubricating oil recommended by your STIHL dealer or by the STIHL factory.

The chain lubricating oils recommended by STIHL have a viscosity of 49 cSt at +50 °C and have a solidifying point of approx. —40 °C.

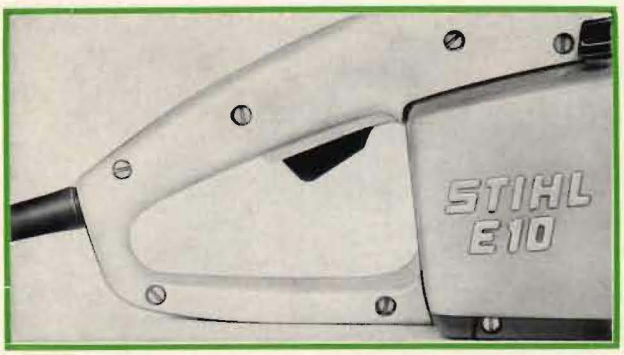
The STIHL chain oil or a chain oil of SAE 30 grade which you can supply from your STIHL dealer meets all these specifications. Never use waste oils.

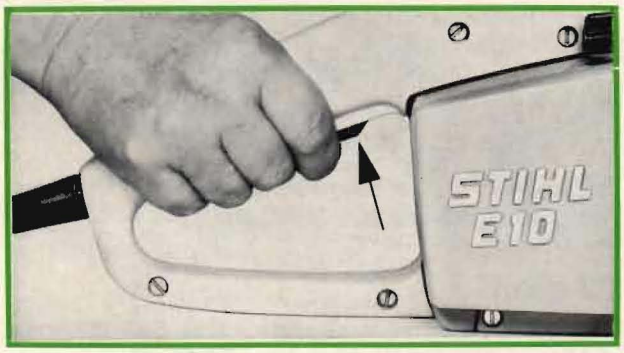
Check oil level through oil inspection window. Make it a rule to refill the oil tank every time you intend to use the saw and also to refill in time during operation.

Clean the area around the oil filler cap before removing the cap and be careful not to let dirt fall into the tank.

Starting

Top: Switch
Bottom: Switch depressed





Before putting the saw into operation make sure that all bystanders are at a safe distance. Look for good footing and take care that the chain does not touch any objects.

The switching on is done by depressing the trigger which is installed in the rear handle. Depress switch tightly with your hand until it touches the handle and hold in this position during operation.

The switching off is done by releasing the switch which then snaps back into its original position.

Safety Precautions

Keep your safety in mind all the time you are working with your electric saw and observe all safety precautions.

Never use damaged cables, couplings, plugs or none-approved connecting wires.

Arrange the cable so that it cannot be damaged and so nobody will be endangered.

Be sure of a good foot hold while cutting.

When using the electric saw always keep the wire behind the operator.

Always place a chain guard over the guide bar when carrying the saw.

Do not adjust chain tensioning with the connecting cable plugged in. Retension new saw chain after short cutting period.

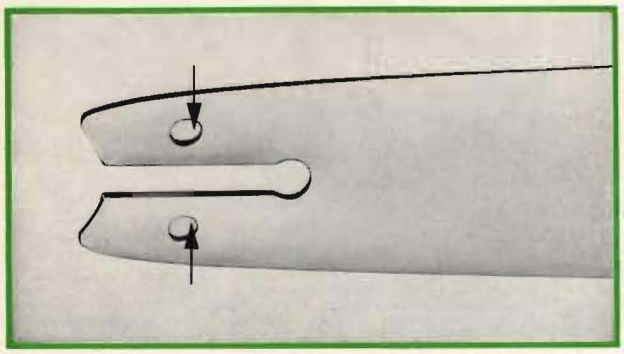
No bystanders should be allowed in the area of the electric saw.

Always hold your electric saw firmly with both hands to keep saw under control at all times.

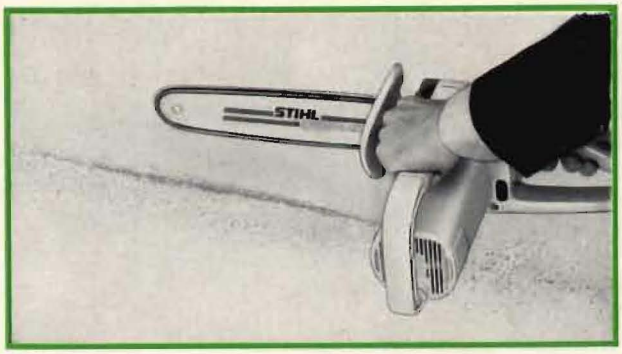
Beware of flying splinters when cutting split timber.

Cutting attachment

Guide bar with oil inlet boring



Checking the chain lubrication



Guide bar

Avoid a one-sided wear of the guide bar. Therefore reverse guide bar every time you sharpen the chain. Moreover, regularly clean oil inlet hole and guide bar groove.

Chain lubrication

Never work without chain lubrication. Always check chain lubrication for proper function, before you start cutting. To do so, hold electric saw, with cutting attachment, over a clear spot. The chain lubrication functions properly when the running chain shows an increasing oil spill off the bar nose. Attention Don't let saw chain touch the ground.

Breaking in the saw chain

Break in the saw chain, of your saw and later any new spare chain, for a short time (2—3 minutes). An ample lubrication during this time is very important. Check chain tension after break in:

Checking the chain tension

Make it a rule to check the chain tension — with an unplugged connecting cable — every time you start cutting. The chain has the proper tension when the cold chain has a snug fit all around the bar and will easily pull around the bar by hand.

Attention: Don't get injured by the sharp cutters. A warm chain must be retensioned if it is sagging at the bottom side of the bar. A new chain must, of course, be retensioned more often than a chain that has been used for some time.

Chain sprocket

The chain sprocket must stand a lot of stress. If the sprocket teeth show considerable wear, the sprocket must be replaced because a worn sprocket will shorten the life-span of the saw chain. One sprocket is good for two saw chains. **The most economical way is to use two new chains alternately on a new chain sprocket.**

Handling the chain saw

Top: How to hold the electric saw
Center: How to begin the cut
Bottom: Controlling the saw during the cut

Handling when plunge cutting

Be sure of good footing when operating your electric saw and hold saw firmly with both hands to have it under control all the time. Never let a running chain touch the ground. It will become dull immediately.

The most common chain saw cutting techniques

Place spiked bumper, cast into the housing, against log to buck a thick round or square log correctly. But don't let chain touch the timber. Switch on the engine and cut, with running saw chain, through wood by pulling up on piston grip with one hand (spiked bumper = pivot point) and guiding the saw with the other hand holding the front handle.

In very rare cases one cut will be sufficient, that means that the saw must be brought to new positions for further cuts: Continue cutting with full throttle by exerting a slight pressure on the handle bar, while drawing the chain saw out of the cut a bit. Then push spiked bumper down to a new position, continue pivoting, and switch off the engine when you have finished the cut.

Cutting a branch on a live tree

With the electric saw it is possible to cut exact angles. You can also bore into the wood with the nose of the guide bar to cut out notches.

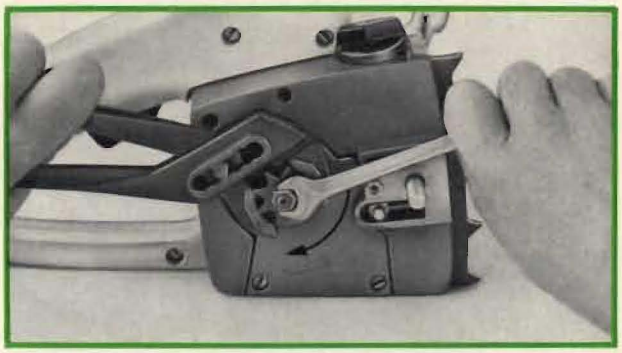
To plunge cut place the electric saw, with its chain running, with the bottom side of the guide bar nose near the wood and start to cut by applying a slight pressure on the front handle.

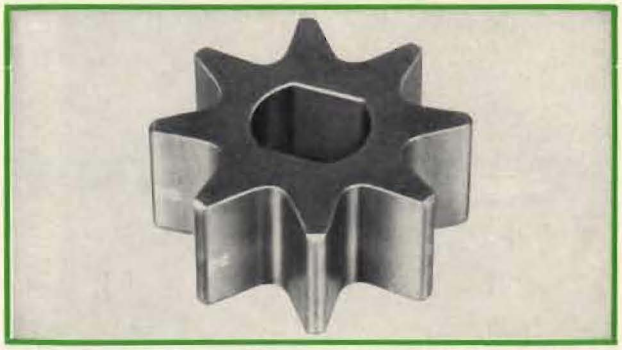
With your STIHL E 10 you can also prune smaller garden trees. To cut a branch, on a living tree, start the cut from top, to allow the branch to brake downward. However, to prevent the branch or the bark from splittering first make an undercut.

Attention: When using the electric saw always keep the wire behind the operator.

Replacing the chain sprocket

Top: Taking off the chain sprocket
Bottom: Chain sprocket





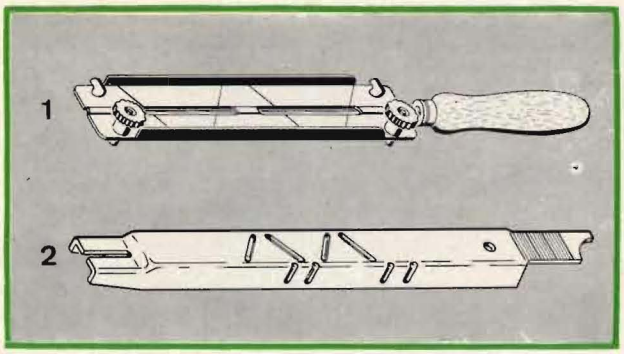
Take off chain sprocket cover and cutting attachment. Hold sprocket with pipe tongs and unscrew hex. nut with a fork spanner (SW 10).

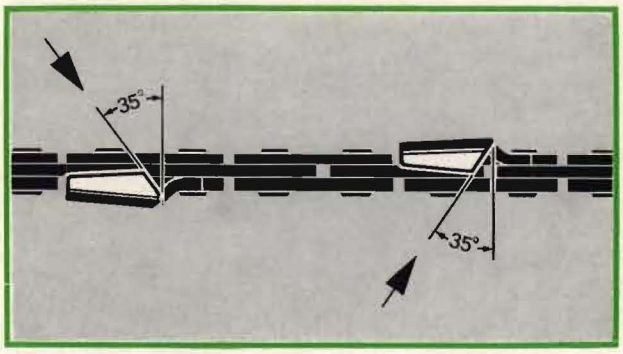
Attention: The hex. nut for the fixation of the sprocket is provided with a left hand thread! Turn clockwise to loosen.

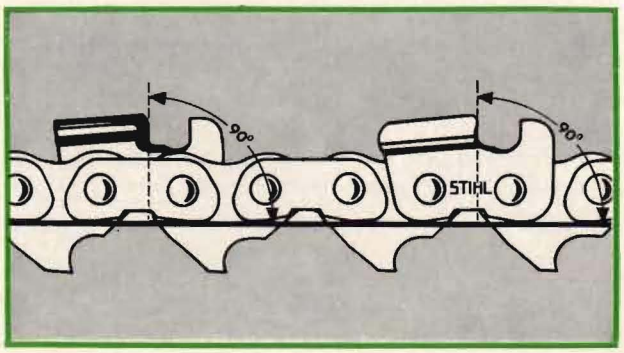
Pull sprocket from driving shaft, replace it and tighten it again.

Sharpening and maintenance of saw chain

Top: 1 = STIHL file holder, 2 = STIHL filing gauge
Center: Top plate angle
Bottom: Side plate angle







A properly sharpened chain guarantees many advantages: Smooth cuts, higher cutting efficiency and therefore less power required for cutting and less wear on chain, sprocket and guide bar.

Sharpening the saw chain

If you wish to sharpen a dull saw chain yourself, you must use a special chain file which you can get as an extra from your STIHL dealer.

First look for the shortest cutter which you may find with a sliding gauge. Sharpen this cutter first and then all the other cutters must be filed back to the same length which this cutter has.

Top plate angle

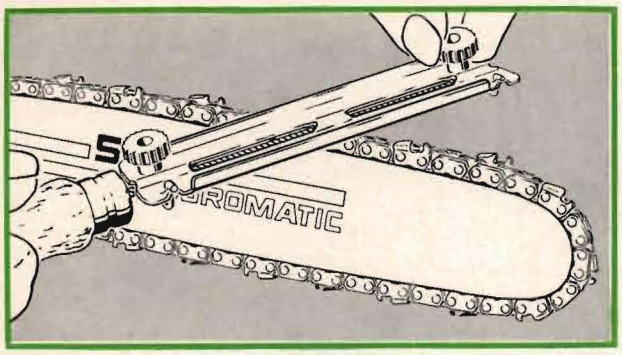
Your saw chain — a chipper chain — has a top plate angle of 35 degrees. This angle must be maintained on all cutters because different top plate angles will cause chain chatter and undue wear, or even chain breakage.

Side plate angle

The cutters of the chipper chain have a side plate angle of 90 degrees. To obtain this side plate angle of 90, hold the file in a STIHL file holder to sharpen the cutters.

File the cutters only from the inside to the outside!

Guiding the file



Hold file parallel to the top plate of the cutter and at a 90° angle to the side plate of the cutter.

Use firm, long, even strokes applying pressure on the forward stroke away from you, excessive filing pressure results in undue wear of file and a weak razor tooth edge. Knock off burrs, at the cutting edge, with a piece of hard wood.

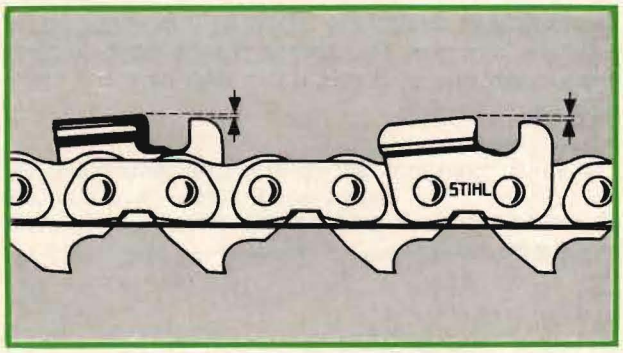
Depth gauge

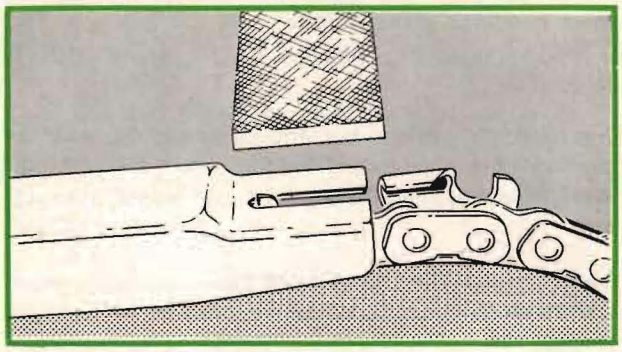
The depth gauge controls the depth of cutter bite. The depth gauge setting is changed after the cutter is filed back. Therefore, check depth gauge setting every time you sharpen the chain.

Check the depth gauge setting with the STIHL filing gauge!

Place filing gauge on saw chain. File projecting depth gauge level using filing gauge and round off leading edge of depth gauge, which points in the direction of chain rotation.

Top: Depth gauge setting
Bottom: Checking the depth gauge setting





Installing new chain links

Broken, damaged, or worn chain links must be replaced. Besides the routine maintenance, like cleaning the chain in gasoline then in kerosene and lubricating it in an oil bath, it is better not to repair your saw yourself.

Replacing the chain links should be done by your nearest STIHL dealer.

General maintenance

Because of its design the STIHL E 10 is very easy to maintain. However, to increase the life-span of your electric saw you must give it thorough care and maintenance.

At the end of each working day clean the saw dust and dirt from the saw.

Moreover, clean the guide bar and saw chain and check condition of these parts.

The lubrication of the bar and chain should never be interrupted. If this should happen clean oil inlet hole at guide bar.

Also clean out bar groove if clogged.

Store the saw in a dry place.

Except for routine maintenance, repairs should be done by your nearest STIHL dealer.

Take advantage of our world wide service organisation. STIHL service centers and repair shops, with all the necessary tools and trained personell, are available everywhere to help our customers.

Spare Parts List

Your guarantee claims can only be recognized when using genuine STIHL spare parts.

The illustrated parts list on the following pages will help you when ordering spare parts.

On the 3 different illustrations you will find the parts for:

A) Housing, Armature with winding and fan rotor, Hand guard

B) Gear housing, Oil pump, Chain sprocket cover

C) Guide bars, Saw chains and Tools

The text pages are containing 5 columns which are devided as follows:

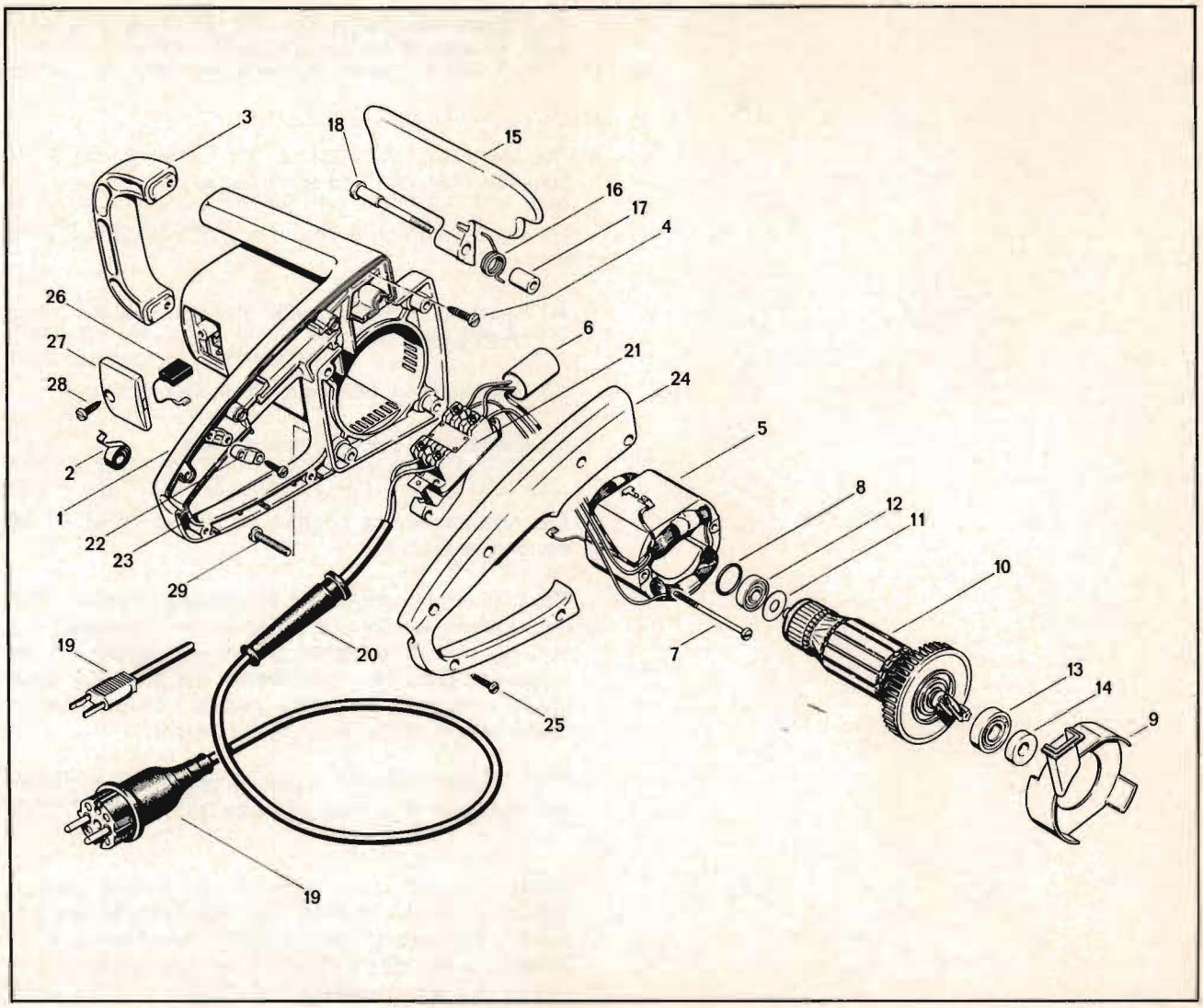
The first column shows the index number under which the required item can be found on the illustration. The second column contains the order number of the respective part. The third coulmn indicates the quantity of how many times the part is needed, and the fourth column shows the name of the part.

The column "Notes" contains figures which are refering to the foot notes on same text pages.

When ordering spare parts please always mention the order number, the required quantity and the part name. Furthermore, don't forget to mention also the model and the machine number of your power saw as well as your exact address.

Illustration A

Housing, Armature with Fan Rotor, Guard



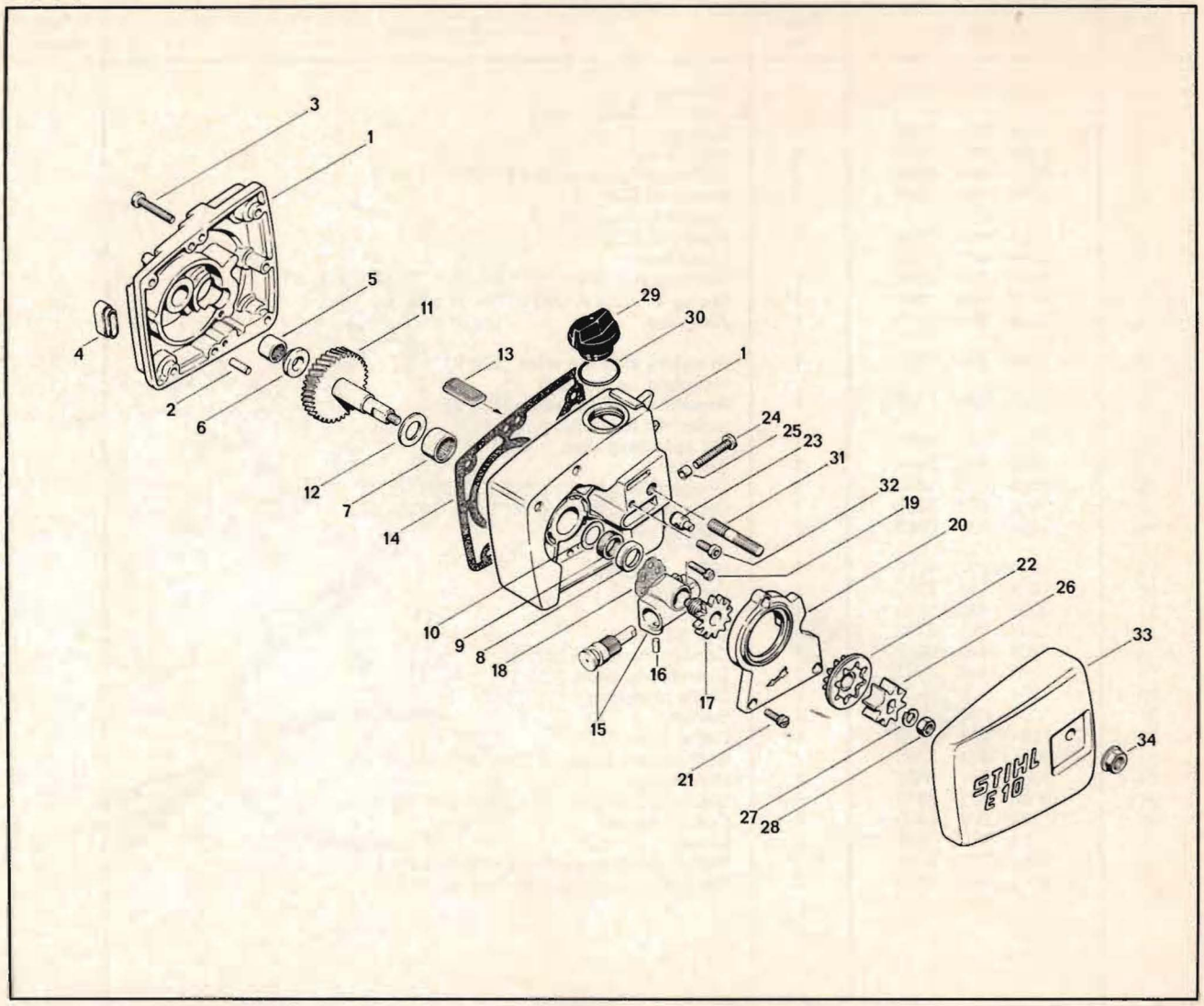
Text to Illustration A

Housing, Armature with Fan Rotor, Guard

Index-No.	Order No.	Quantity	Part Name	Remarks
1	1204 600 0800	1	**Housing** including illustration 2	
2	1204 608 3300	2	Spring	
3	1204 791 1500	1	Handle bar	
4	9099 021 0850	2	Self-tapping screw B 4,8×22 DIN 7971	
5	1204 600 2000	1	Field coil (220 V) including illustration 6	
5	1204 600 2005	1	Field coil (115 V)	
6	1204 605 1000	1	Condenser	
7	9100 021 3450	2	Self-tapping screw BZ 4,2×65×20 DIN 7971	
8	9645 945 1820	1	O-ring 17×2,5 A DIN 3770—N 8.85	
9	1204 084 1800	1	Air guide	
10	1204 600 1800	1	**Armature with fan rotor (220 V)** including index-no. 0	
10	1204 600 1805	1	**Armature with fan rotor (115 V)** including index-no. 0	
0	1204 607 8500	1	Oil splashing disc	
11	1204 642 7800	1	Washer	
12	9503 003 9660	1	Grooved ball bearing 608 Z C 3 DIN 625	
13	9503 003 5180	1	Grooved ball bearing 6001 Z C 3 DIN 625	
14	1204 649 0205	1	Sealing ring	
15	1204 792 9100	1	Hand guard	
16	1204 791 8200	1	Leg spring	
17	0000 963 1010	1	Bushing	
18	1204 791 6200	1	Cyl. hd. screw	
19	1204 440 2002	1	Connecting cable (220 V)	
19	1204 440 2007	1	Connecting cable (115 V)	
20	1204 431 2400	1	Cable protector	
21	1204 430 0500	1	Switch	
22	1204 431 2500	1	Cable clamp	
23	9099 021 2790	2	Self-tapping screw B 3,9×16 DIN 7971	
24	1204 791 0600	1	Handle part	
25	9099 021 2810	6	Self-tapping screw B 3,9×19 DIN 7971	
26	1204 007 1000	2	Carbon brush	
27	1204 602 0900	2	Cover	
28	9099 021 2790	2	Self-tapping screw B 3,9×16 DIN 7971	
29	9078 319 1070	3	Flat. hd. screw M 5×30 DIN 85—8.8	

Illustration B

Gear Housing, Oil Pump, Chain Sprocket Cover



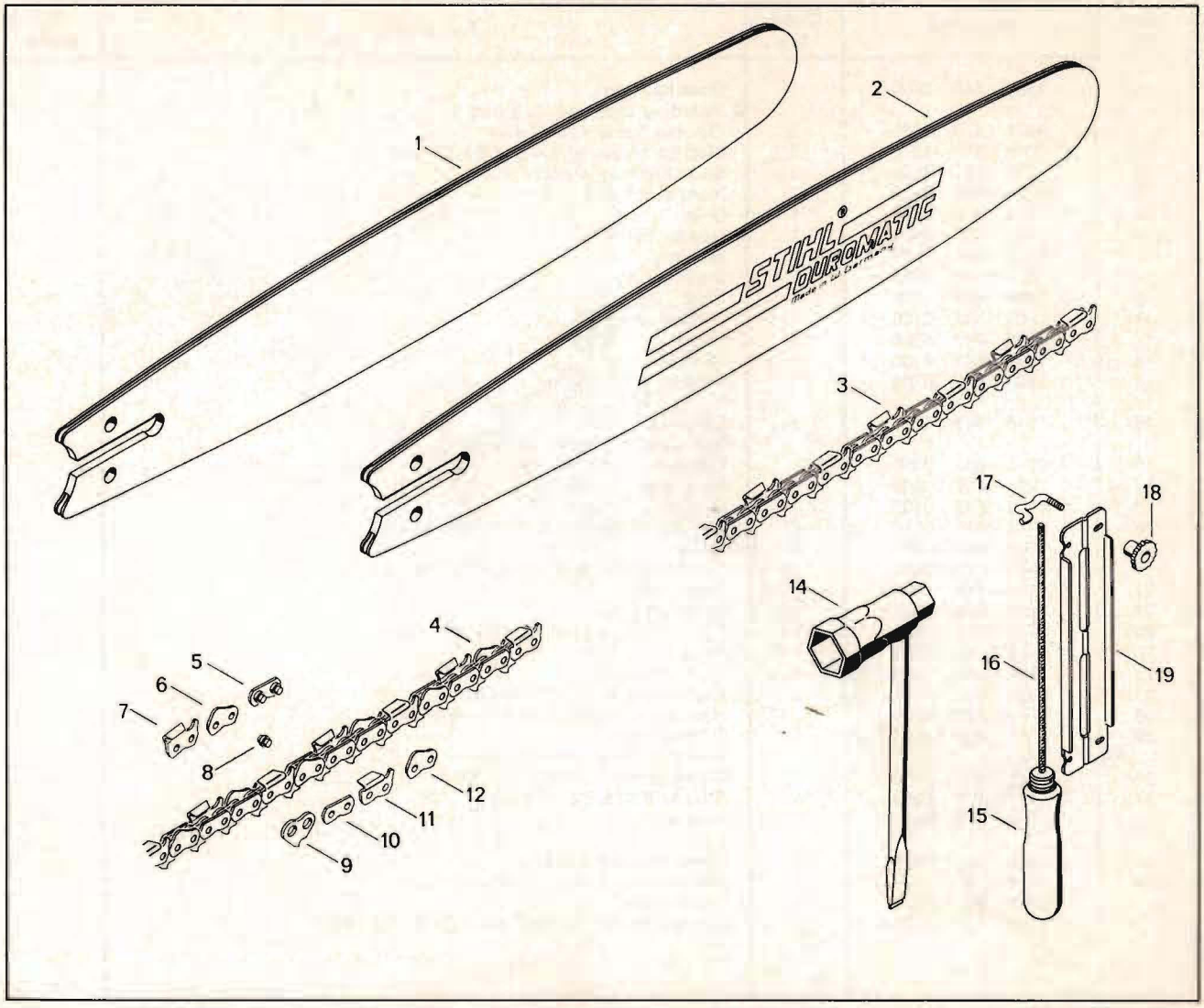
Text to Illustration B

Gear Housing, Oil Pump, Chain Sprocket Cover

Index-No.	Order No.	Quantity	Part Name	Remarks
1	1204 640 0500	1	**Gear housing** including index-no. 2, 3 and 4	
2	9371 470 2580	2	Cyl. pin 5 m 6×14 DIN 7	
3	9078 319 1070	2	Flat. hd. screw M 5×30 DIN 85—8.8	
4	1204 351 2200	1	Oil inspection window	
5	9524 003 2280	1	Needle bushing	
6	1204 642 8300	1	Shim	
7	9513 003 3400	1	Needle bushing	
8	1204 641 1000	1	Housing	
9	1204 649 0200	1	Sealing ring	
10	1204 642 7805	1	Shim	
11	1204 640 2200	1	Driving shaft	
12	1204 642 8305	1	Shim	
13	1204 646 1200	1	Strainer	
14	1204 649 0300	1	Gasket	
15	1116 640 3200	1	**Oil pump** Including Illustration 16	
16	9517 003 5050	1	Cyl. roller 4×8 DIN 5402	
17	1204 647 1800	1	Spur gear	
18	1116 649 0500	1	Gasket	
19	9048 319 0710	2	Cyl. hd. screw M 4×20 Z4 DIN 84—8.8	
20	1204 641 0900	1	Cover	
21	9048 319 0660	3	Cyl. hd. screw M 4×12 Z4 DIN 84—8.8	
22	1116 647 1800	1	Spur gear	
23	1110 664 1500	1	Tensioning nut	
24	9078 319 1070	1	Cyl. hd. screw M 5×30 DIN 85—8.8	
25	1116 664 2600	1	Hose	
26	1204 642 1300	1	Chain sprocket	
27	9333 630 0140	1	Cup spring A 12,5 DIN 2093	
28	9210 261 0910	1	Hex. nut M 6 links DIN 934—8	
29	1114 640 3600	1	Oil filler cap including Illustration No. 30	
30	9645 945 2160	1	O-ring 20×2,5 DIN 3770—70	
31	9121 319 1830	1	Stud M 8×25 DIN 835—8.8	
32	1114 652 8900	1	Lock screw	
33	1204 648 0400	1	**Chain sprocket cover**	
34	9220 260 1100	1	Nut M 8 DIN 1142	
	0000 967 1521	1	Name plate	
	9441 065 1270	2	Botton-headed grooved pin 2,6×6 DIN 1476	

Illustration C

Guide Bars, Saw Chains and Tools



Text to Illustration C

Guide bars, Saw chains and Tools

Index No.	Order No.	Quantity	Part Name	Remarks
			Guide bars	
1	3005 000 7403	1	9.8 in. (25 cm) cutting length	
2	3005 000 8605	1	11.8 in. (30 cm) cutting length	
			Chipper chain 1/4" — (6,35 mm) pitch	
3	3831 000 0056	1	9.8 in. (25 cm) cutting length	
3	3831 000 0064	1	11.8 in. (30 cm) cutting length	
			Safety chipper chain 1/4" — (6,35 mm) pitch	
4	3849 000 0056	1	9.8 in. (25 cm) cutting length	
4	3849 000 0064	1	11.8 in. (30 cm) cutting length	
			Chain spare parts	
5	3731 660 6601		Preset tie strap	
6	3849 662 4000		Left hand safety link	
7	3831 662 0601		Lefthand cutter	
8	3731 662 1600		Rivet	
9	3731 662 1000		Drive link	
10	3731 662 1201		Tie strap	
11	3831 662 0401		Right hand cutter	
12	3849 662 3900		Right hand safety link	
			Tools	
14	1114 890 3400	1	Combination wrench	
	0000 792 9100	1	Chain protection	1
			Extras	
15	0811 490 7780	1	File handle 80 DIN 395	
16	0811 411 8068	1	Round file ⌀ 0.138×5.9 in. (3,5×150 mm)	
17	5605 752 8300	2	Bracket	
18	5605 752 7700	2	Nut	
19	5605 750 4310	1	File holder complete including Index-No. 15—18	

Note 1: not illustrated

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