

CHECK VALVE DISMANTLING

Disconnect the tube fitting at the check valve and remove the valve from the tank. After removing the locking ring by means of a pair of pliers, the components of the check valve can be taken out and cleaned in petrol. Be careful that the hexagonal rubber disc and corresponding seat are perfectly clean and free of foreign particles.

Reassemble the check valve in the following order: the rubber disc with the smoothest side inwards, the hexagonal washer, the spring, the circular washer, the sieve, and finally, the locking ring. Do not omit the sieve which prevents dirt from the tank from entering the check valve. Use a sealing compound in the threads for a perfect sealing.

CHAIN

The saw chain, of high-grade Swedish steel, is of a special design having good cutting properties in all kinds of wood, also when cutting along the grain. Filing of the cutters is extremely easy and is performed without removing the chain from the saw bar.

CHAIN LUBRICATION

The chain and bar are automatically lubricated by oil drawn from the crankcase when the oil cock is opened.

MAGNAPULL START

The saw is provided with magnapull start with built-in automatic-rewind starting wire.

FUEL

Oil-petrol mixture in the proportion of 1:10. Use SAE 50 or SAE 60 oil.

PROPANE BURNER

The gas contained in the saw handle yoke and frame lasts approx. 150 starts. The propane bottle shipped with the saw holds approx. 0.85 litres (50 cu.in.), which is enough for a further 1000 starts. The bottle is refilled through our representatives or by authorized propane-gas retailers.

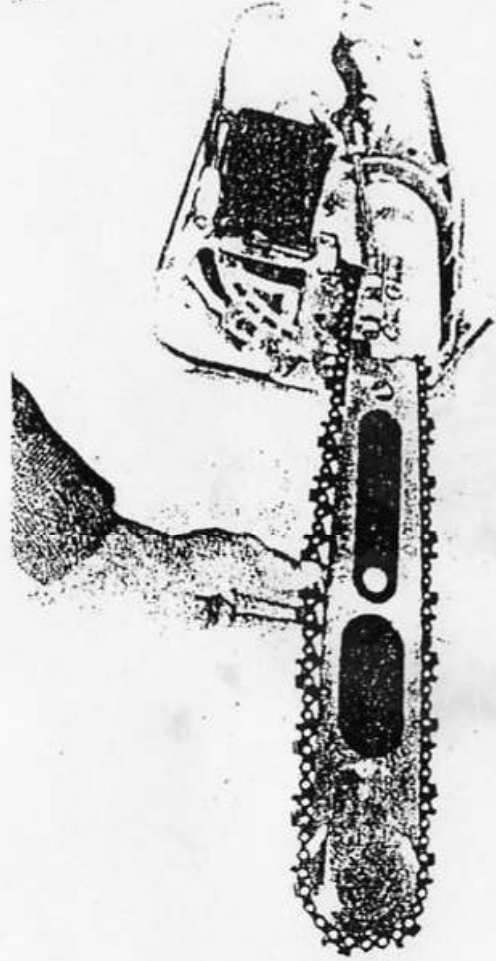
If propane is not available, use a small blow-torch to heat the ignition tube.

TOOLS AND ACCESSORIES

The following tools and accessories are shipped with model J0050EREDS chain-saw:

1 box, complete with padlock and key

(When sending in the saw, lock the box. The key need not be sent in to us, as we open the lock with a master key.)



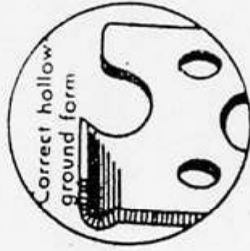
2.



1.

cutters will take too deep a bite on the chain may grab. It is extremely important that all depth gauges be set at a uniform height.

To check the depth gauge clearance, "A" and "B", place a straight edge (such as a flat file) on top of two cutters and measure with a feeler gauge.

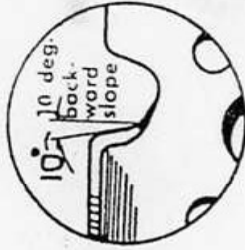


Right

File the hollow ground form shown on the leading edge. Be careful not to hold file too low, as this will result in a weak razor-sharp edge. If the file is held too high, the edge will be blunt. (See instructions above.)

Wrong

A blunt edge of the top plate is produced by holding file too high. This edge will not cut as easily as the correct hollow form.

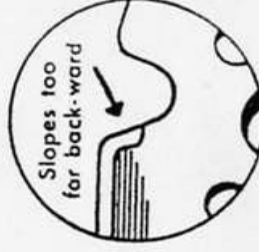


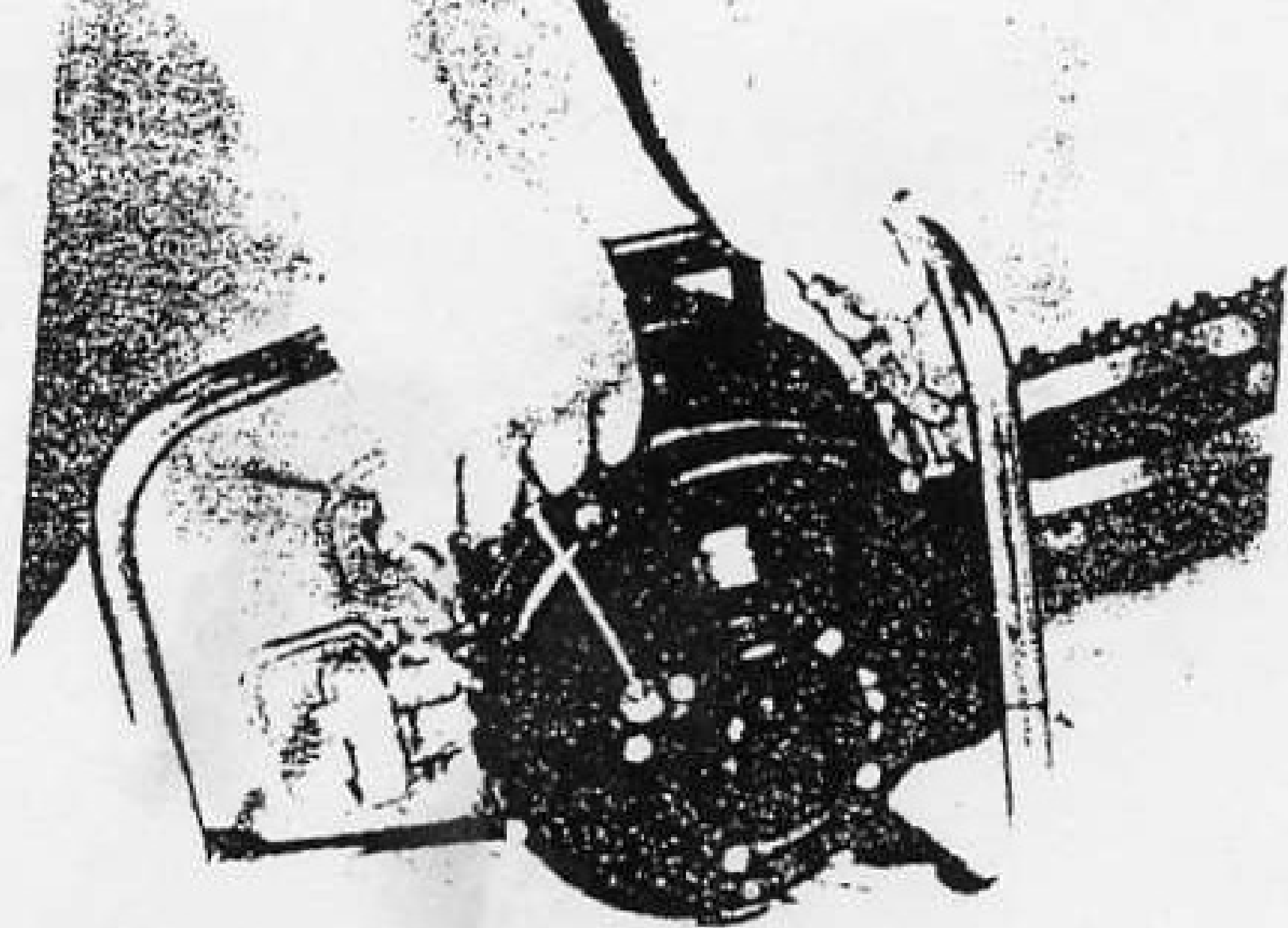
Right

For hardwood and frozen timber a 10 deg. backward slope of the side edge may prove advantageous. To obtain this form, hold file a little high. This edge will give a smoother cut, but requires more feed pressure.

Wrong

Side cutting edge slopes too far backward, caused by holding file too high or not level. The chain dulls quickly and requires undue pressure.





1. GUARANTEE.

The JONSEREDS power chain-saw is guaranteed for a period of time of ~~12~~ ² months from the day of leaving our works.

The guarantee covers all defects arising out of inferior-quality materials and imperfect machining.

The guarantee does not cover defects which are occasioned by abuse, carelessness, accident, neglected maintenance, or failure to comply with lubricating instructions given, etc., or any other cause outside our control and also does not apply for normal wear.

Exempt from the guarantee are also all such small parts which normally wear rapidly, for instance, gaskets, hoses, fittings, and the ignition tube which compares with the spark plugs of conventional engines. Cleaning and general overhaul in connection with repairs under the guarantee are not included in the guarantee.

During the guarantee period, a defect should occur which is believed to be covered by the guarantee, the saw shall be returned, freight paid, to our works for repairs. If our inspection proves that the defect is covered by the guarantee, the defective parts will be replaced, but the customer is required to pay for the work performed and for the return freight. In the event that the defect is not covered by the guarantee, the saw is repaired and returned at cost, unless the owner has stipulated otherwise when sending in the saw.

If agreed on beforehand, defects under the guarantee may be repaired by workshops authorized by us. Spare parts ordered for such repair are charged at normal cost, but the amount paid is credited on the part being received by us and on our inspection having proved the defect in question to be covered by our guarantee.

The guarantee is given to the original owner only, and is void if the saw passes to a new owner.

WHEN ORDERING SPARES ALWAYS STATE THE SERIAL NUMBER
OF YOUR JONSEREDS SAW

cooled engine with ignition system entirely lacks electric system. The cubic content is 59 (1.9/16"), and the stroke is 1.9 (1.9/16"). It is equipped with cast iron cylinder liner and a let-a-habit-let-a-habit head; the crankshaft, of nickel-chrome steel, is carried in three main bearings. The connecting-rod big-end runs on a roller bearing. Fuel feed is controlled by a rotary flat slide valve. For starting the ignition tube is preheated by a built-in propane-gas burner. All other parts of the saw are made of high-grade aluminium or nickel-silicon alloys.

CLUTCH:

A friction clutch of centrifugal type running in oil, disengages chain drive when idling. This means that the engine does not stop if the chain seizes, but only drops to idling speed.

FUEL SUPPLY

An injection pump injects fuel into the intake pipe of the engine, which explains why the JOMSEPFF works equally well in all positions without resetting of any kind. It is so set that the fuel tank shall be emptied completely irrespective of working position, the fuel is maintained under pressure and is fed into the crankcase. The fuel pump furnishes the engine with the correct amount of fuel at all speeds, keeping it from stalling when idling.

FUEL PUMP-DISMANTLING

Disconnect the fuel feed hose and remove the four screws holding the pump to the crankcase. Remove pump gaskets and packing washer, and pull out pump piston. Unscrew the primer button, fuel-control lever and fuel-line filter. Mark the hole in the adjusting nut where the control lever is attached.

Unscrew the adjusting nut and pull out the pump liner toward the air-filter side. The spring at the nozzle can now be reached for cleaning. Carefully clean all parts in petrol before remounting.

When reassembling, take care that the spring is placed exactly over the pump nozzle. Push the pump liner into place, screw on the adjusting nut and primer button. When remounting the air filter, take care that the idling screw is correctly placed behind, and on the axis of, the pump liner.

Mount pump piston and piston spring. Replace the gaskets, and screw the pump onto the crankcase. Push the control lever to "full", and pull round the engine a few turns while working on the pump piston through the filter opening.

Then set the adjusting nut to allow the pump piston to travel approx. 1 mm (0.04 in.) out of the range of the intake port facing the air filter. Now check that the adjusting nut agrees with the marking, and after a few turns of lever. Replace the filter housing, reconnect the fuel hose, and it is as usual.

A. DELIVERY PACKING

The JONSEREDS power chain-saw is shipped packed in a padlocked wooden box complete with dismantled chain and 19" saw-bar, and with a propane-gas bottle and the necessary complement of tools.

The saw has been properly tested and is guaranteed in perfect working order when packed. On unpacking, reassemble saw-bar and chain, fill fuel and propane, check that there is oil in the gear compartment and in the chain-lubrication chamber, and the saw is ready for immediate use (fig. 4, nr 11 and 12).

MOUNTING SAW-BAR AND CHAIN

The saw bar is clamped to the saw proper by means of a special locking plate attached to the sprocket cover. The bar is first positioned over two studs set into the engine casing, and the locking-plate mounted, the correct position being ensured by means of two spigots in the locking-plate which engage two corresponding holes in the saw-bar. Two hexagon lock nuts are finally placed on the studs and screwed tight (fig. 4, nr 14).

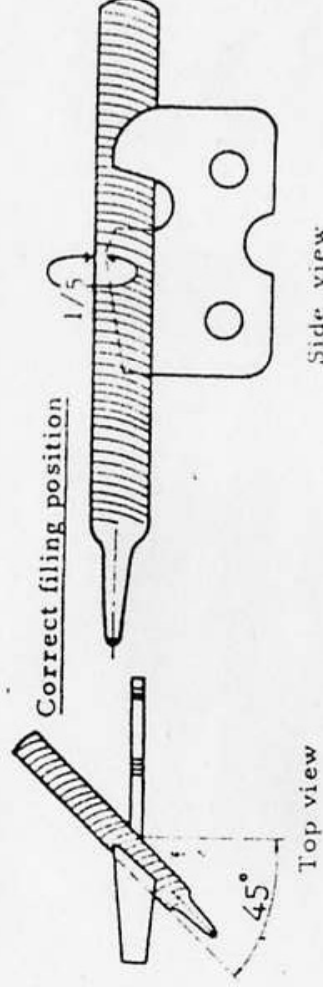
The chain tension is set to the proper value with the adjusting screw, visible in figs. 1 and 2. A new chain always stretches perceptibly during the first few hours of use, and continues to lengthen, though on a lesser scale, for some time to follow, calling for occasional retightening during the first time of operation.

To mount the bar and chain, proceed in the following manner:

1. Unscrew the lock nuts from the studs and remove the locking-plate.
2. Place the chain with the driving links in the groove of the sheave at the front end of the bar.
3. Place the opposite end of the chain round the sprocket and stretch the chain by holding the bar as shown in fig. 1; then push the back of the saw-bar onto the studs.
4. Shift the driving links of the chain into the grooves along the sides of the saw-bar.
5. Place the locking-plate over the studs, taking care that the spigots enter their respective holes in the bar. Then tighten the nuts sufficiently to hold the bar but not more than that the chain-tension adjusting screw moves easily.
6. Now adjust the chain tension by means of the adjusting screw (fig. 2); the chain is correctly tensioned if it can be pulled out some 5 - 6 mm ($3/16 - 1/4$ in.) at the middle of the bar. - Pull the nuts perfectly tight.

N.B. - The chain must not be stretched too taut, as this will cause damage to both chain and saw-bar. - Check that the chain is laid on the correct way: with the saw in starting position, the teeth along the upper side of the bar shall point toward the saw.

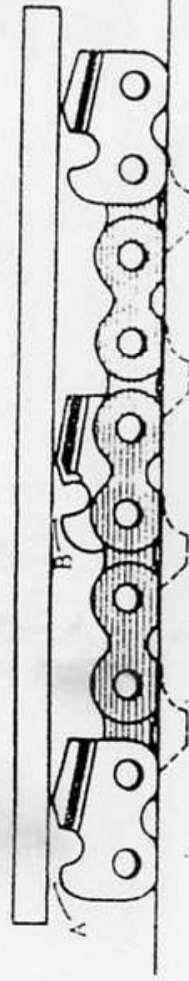
1. Always hold the file in one position, that is, horizontal (level with the cutter plate) and at a 45 deg. angle to the chain.
2. Use firm, long strokes, applying pressure on the forward stroke away from you.
3. Always keep the file well up against the cutter plate (see side view). Low filing undercuts side of cutter, causing chain to grab. About 1/5 of file diameter should show above cutter plate.
4. Use only a 6-mm or 1/4-inch round straight (not rat-tail) file for a chain with 1/2-inch pitch.

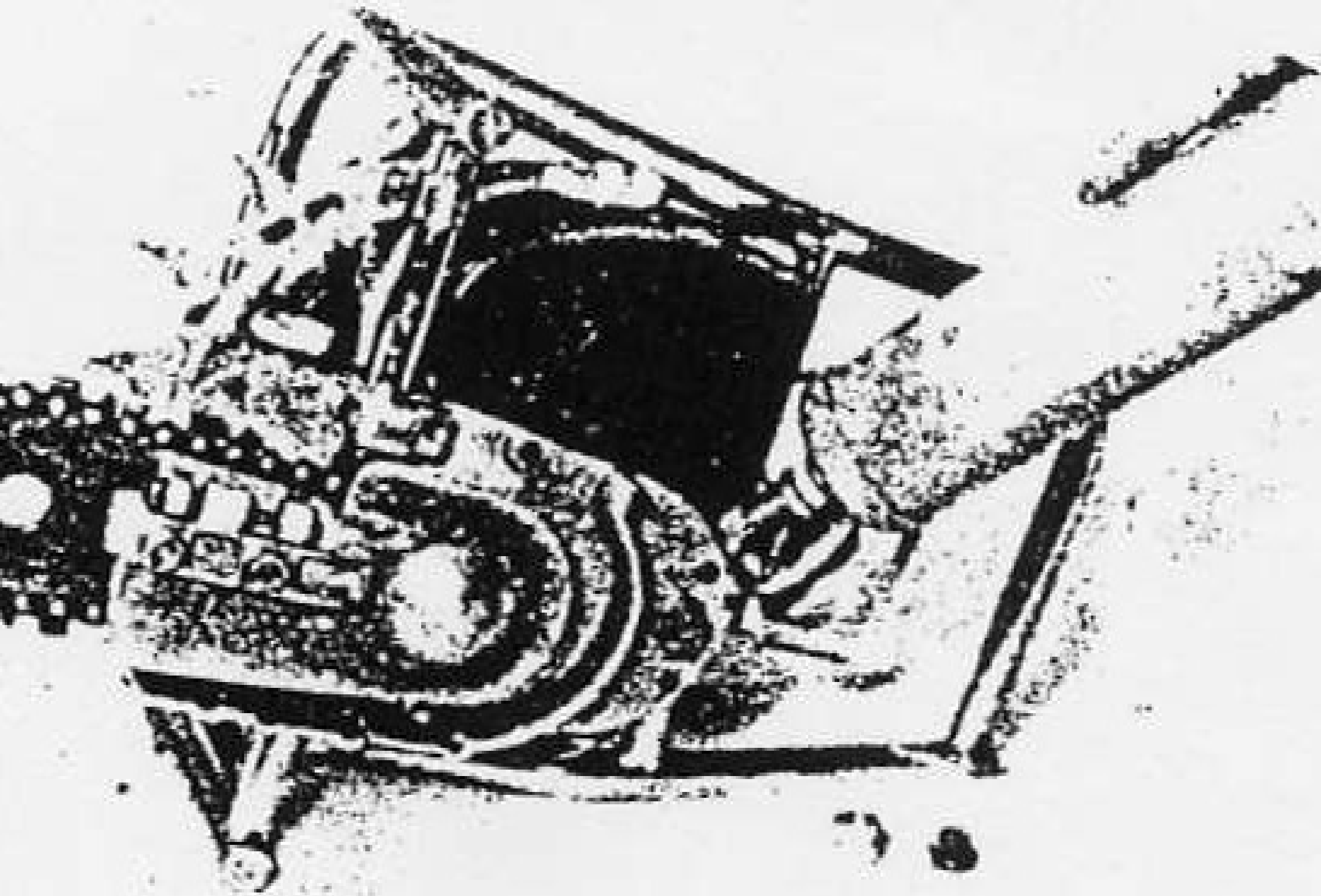


N. B. - The height of the cam, "rider" or "depth gauge" preceding the cutter determines the depth of cut, i.e. the size of the chips removed. The lower the depth gauge, the larger the chips. - For a 1/2-inch chain, the clearance should be between 0.7 and 0.8 mm (0.028-0.032 in.).

When cutting very hard wood, a depth gauge clearance of 0.60 mm (0.024 in.) has been proved to give very satisfactory results.

Depth gauges which are too high prevent the chain from functioning properly, as the cutters cannot get at the wood to take a bite and the chain will get a very low cutting speed. If the gauges are too low, the





Indication	Cause	Remedy
Engine stops when saw is turned over	1/ Fuel line cut or pinched or defective	1/ Replace hose
Clutch slips too much	1/ Linings worn	1/ Replace linings
Clutch does not disengage chain when idling	1/ Oil too thick	1/ Flush out clutch housing and fill lighter oil SAE 20 (SAE 10 in winter). When engine cold, chain often is not disengaged until crankcase oil is warm
	2/ Springs damaged	2/ Replace
	3/ Clutch mechanism damaged	3/ Replace
Bar and chain overheating	1/ Chain too tight	1/ Slacken chain
	2/ Unsatisfactory lubrication	2/ Verify oil supply to see if oil arrives when cock is opened
Saw stays when cutting	1/ Cutters unevenly filed on one side	1/ Correct by filing
Chain grabs or seizes in hard wood, or does not disengage at the sheave	1/ Cutters filed with a hook	1/ File chain anew, holding file higher to obtain 10 deg. backward slope of side cutter

N. B. - Frequently lubricate chain and sheave at front end of saw-bar (oil-hole at centre). Place saw-bar tip in oil sump.

The best and easiest method of filing the chain is to use a JONSEREDS file-holder (det. nr 9161). When filing, press the flat side of the file-holder against the top of the cutter, thereby automatically obtaining the correct depth if the file-holder is only held perfectly level and at 45 deg.

To adjust the riders to uniform height, use a JONSEREDS depth gauge jointer (det. nr 9153).

G. CUTTING DIRECTIONS

Without resetting on any part, the JONSEREDS saw is capable of cutting irrespective of position.

Do not use undue pressure on the saw. The result will be that you tire unnecessarily, that the saw loses speed and power, and that the cut may possibly stray from the desired direction.

The saw shall be allowed to work itself into the cut, using only guiding force on the part of the operator. It is the saw that is going to do the work, not the operator.

Grip the rear end of the saw frame with your right hand, with the throttle lever within easy reach, and hold the upright frame with the left hand.

For normal cutting and felling, place the bark guard against the tree, and let the saw work itself into the tree with the teeth as the centre of rotation, as shown in fig. 9 (fanning).

When felling trees whose diameter is larger than the length of the saw-bar, proceed as illustrated in fig. 10. Take care that the last cut and the initial cut coincide at the remaining felling cut.

Note. - When felling very heavy timber, always lubricate chain properly before beginning each new cut. If necessary, use a felling wedge.

Always keep in mind that petrol and propane are highly inflammable, so handle with care. Propane is non-poisonous.

H. GENERAL DESCRIPTION OF SAW ENGINE

The JONSEREDS is powered by a single-cylinder, two-stroke air-

OPERATORS MANUAL **and** **SPARE PARTS LIST** **for** **JONSEREDS** **POWER CHAIN-SAW** **Type: XA-19**

	Page
A. Delivery Packing - Assembling Chain and Saw-Bar	2
B. Engine Controls and Filler Caps	5
C. Running-In	5
D. Fuel and Lubrication	5
E. Starting	9
F. Chain and Saw-Bar - Filing of Teeth	10
G. Cutting Directions	15
H. General Description of Saw	15
I. Trouble - Shooting	18
J. Guarantee	22

Printed matter nr 116
 Issue nr 1

Should the engine become stalled, it will fail to start. Close the fuel cock, pull the engine stop handle it starts up (generally after two or three pulls), and then open the fuel cock immediately. To stop the engine, close the fuel cock to cut off fuel supply. The fuel shall always be closed when the engine is not used, as the fuel tank is under pressure.

11. Adjusting the full-speed fuel supply.
To reduce the fuel supply, push the full-speed fuel control lever (fig. 3, pos. 3) downward to increase, push upward. On delivery, the fuel pump is set to furnish the optimum amount of fuel to the engine, within the adjusting range of the lever. If the pump has been dismantled, or the mounting screws retightened, the adjusting range may need resetting by unscrewing the lever and shifting it into another position. The adjusting nut, on which the lever is mounted, has six threaded holes to provide for this contingency.

12. Adjusting the idling fuel and air supply.
This is done by means of the fuel idling screw (4) and the air idling screw (5), respectively. Screwing the fuel idling screw inward increases the fuel supply, and the idling speed drops, which may cause the engine to be "wet". The best means to increase the idling speed is by screwing the air idling screw clockwise inward. The idling speed shall be adjusted for smooth and dependable running, and must not be too high, as the clutch will then fail to disengage the chain drive during idling.

F. CHAIN AND SAW-BAR

The chain must always be perfectly sharp in order to cut efficiently. Always keep the chain well lubricated and well tensioned, but not taut. To clean from dirt and resin, immerse the chain overnight, at intervals, in a bath of kerosene and lubricating oil. The bar should also be regularly cleaned, particularly the lubricating hole at the tip.

Burrs developing along the bar edges are filed off, while taking care to file the edges only, not the groove.

The sheave should always be kept well lubricated. If worn, the sheave, complete with side-plates, is replaced. The five rivets holding the side-plates are driven out by means of a punch, and a new sheave and side-plates are riveted in place. The rivet heads are filed flush with the surface of the side-plates.

After finishing work, lubricate bar and chain to provide against corrosion.

FILING INSTRUCTIONS

-One of the most important features of the scoop-toothed chipper chain is the ease and speed with which it can be filed while still on the saw-bar.

The oil and petrol should be thoroughly mixed before filling into the fuel tank through the stopper equipped funnel. - Do not fill the tank to capacity, but leave a small volume of air.

Screw the fuel-tank cap, with rubber gasket attached, up tight to seal perfectly without using such force that the gasket is damaged.

N.B. - When the saw is turned over with the fuel tanks empty, a rattling noise is produced by the fuel plumb striking the tank wall.

GEAR CASING: The gear is filled with SAE 20 oil (see fig. 4 nr 11). Never run the saw without oil in the gear case. To fill, park saw horizontally and fill to the level of the opening which also acts as a level gauge.

CHAIN: Fill the oil chamber located in the front end of the crankcase, with SAE 20 oil (SAE 50 in summer), (see fig. 4, nr 12) and tighten filler cup.

During operation, the chain needs oiling at least twice an hour by opening the oil cock (nr 13) for about 30 seconds at a time with the engine and chain running. *Alternatively*, the oil cock may be left slightly open during operation to provide continuous lubrication.

The oil chamber operates under pressure from the crankcase via a line equipped with a check valve. Take care to shut cock 13 properly at the end of operation.

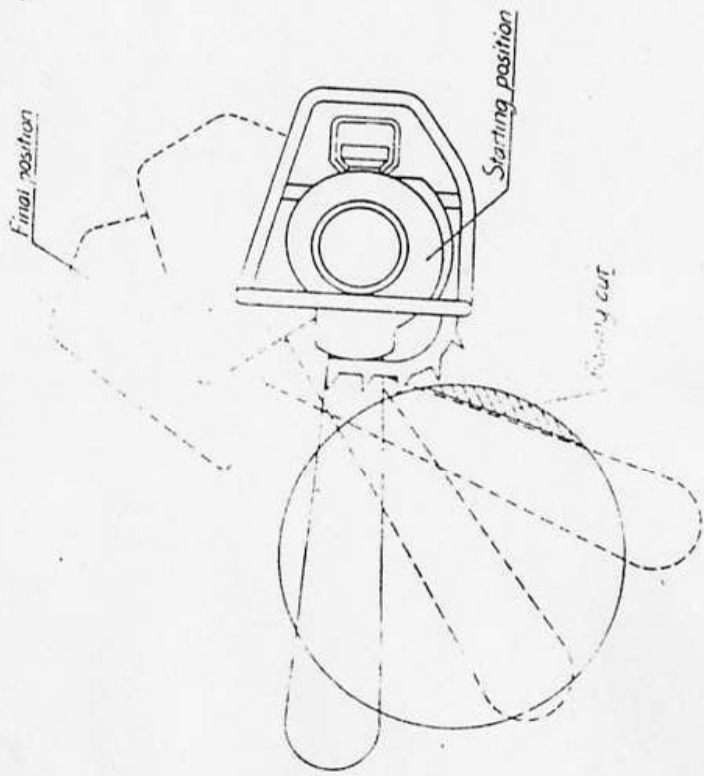
SAW-BAR: The sheave journals are lubricated with SAE 140 gearbox oil by means of a grease gun, or are dipped in oil approx. every 4 hours of operation.

PROPANE FILLING: Fill propane from bottle into engine frame (fig. 5). This shall be done out-of-doors and well away from unprotected fire.

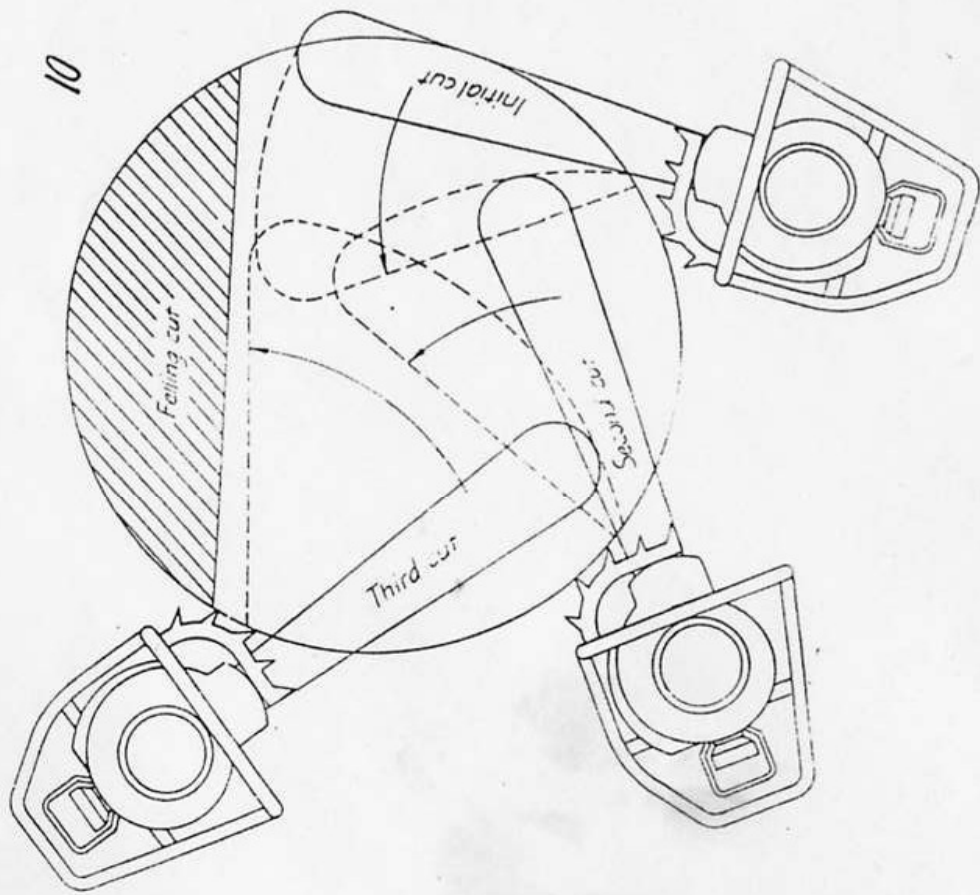
Unscrew the stopper on the bottle and the cap of the filler valve on the engine frame, and at once connect the bottle to the filler valve which then opens automatically. While filling, the burner valve shall be open to allow gaseous propane to escape. As soon as liquid propane begins to trickle from the burner (generally in about a minute) indicating that the frame is filled with liquid propane, close burner valve tightly and detach propane bottle. Put cap back on filler valve and stopper on propane bottle.

Indication	Cause	Remedy
Starting difficult, or engine lacking power	1/ Incorrect fuel supply	1/ Adjust high speed adjusting screw
	2/ Poor compression in cylinder or crankcase	a/ Tighten cylinder-head nuts
	a/ Cylinder head insufficiently tightened	b/ Replace
	b/ Ignition tube damaged	c/ Replace
	c/ Piston rings worn	d/ Tighten mounting screws, replace damaged baskets
Engine stalls when idling (runs well at speed)	d/ Leakage at pump mounting	3/ Clean filter
	3/ Air filter clogged	4/ Clean thoroughly. Ports and pipe should be kept free of soot.
	4/ Exhaust ports or pipe clogged	5/ Adjust valve
	5/ Check valve leaks	1/ Adjust idling screws
	1/ Wrong idling adjustment	2/ Open up engine, press primer button several times, though short of choking engine, so as to flush out impurities with petrol. - If not effective, dismantle and clean pump.
Engine overheats (kerosene gives warmer engine than petrol)	2/ Leakage at pump nozzle spring	1/ Increase fuel supply
	1/ Fuel mixture too lean	2/ Clean cylinder fins and fan housing
	2/ Cooling insufficient	3/ Do not buy ready-mixed fuel - mix yourself!
Engine stops suddenly	3/ Too little oil in fuel	1/ Fill tanks. When fuel runs low, air bubbles visible in plastic hose
	1/ No fuel in tanks	

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E. STARTING

1. Check that fuel, oil and propane are filled, and that the chain is properly tensioned, in accordance with instructions given above under A-D, and place the saw in parking position.
2. Open fuel cock (nr 6).
3. Pull the motor round a few turns with the rewind starter to build up pressure in the fuel tank (fig 6).
4. Open gas burner valve (nr 7) approx. one turn and light the gas a short distance in front of the nozzle. The burner should give a blast flame; adjust the burner valve, if a proper blast is not obtained when the frame is newly filled with propane. If required, dismantle and clear the burner nozzle using a piece of 0.1 mm diameter music-wire. The flame should not burn close to the nozzle.
5. Verify the fuel supply and flood (fig 7) by pressing primer button until fuel issues from the air filter. Release button.
6. Depress throttle lever to open throttle; the lever is later raised to idling position.
7. The ignition tube by now glows a faint red, i.e. it has reached operating temperature. Pulling the starting handle two or three times will make engine start.
8. Turn off burner by closing burner valve properly. When the engine is running, the ignition tube is maintained at operating temperature by the heat developed in combustion.
9. Lubricate chain by keeping oil cock open for a short time.
10. General directions for fuel-supply adjustment. If given a too lean fuel mixture, the engine will race, if the fuel supply is too rich, the speed goes down and the engine chokes - in both cases the power developed by the engine will be small.
Final adjustment of the full-speed fuel supply to the engine shall be made on load, i.e. when the saw is cutting, so that the engine will receive the quantity of fuel that gives the maximum cutting power.

This adjustment of the full-speed supply is very important in order to achieve full engine power and cutting capacity.

You will soon learn by experience to judge by cutting speed and engine hum when the fuel supply is correctly set and the engine running at the proper speed for optimum cutting capacity. Never race the engine on no-load. With full throttle and no load, correct adjustment of the fuel supply will make the engine lose speed slightly (engine does not run perfectly smooth), whereas a too low supply rate will cause a rough start of the engine.

B. ENGINE CONTROLS AND FILLER CAPS (figs. 3 and 4)

Throttle lever; fully open when lever is pushed down.
Praimer button; on the right-hand side of the fuel pump button to flood pump.

Fuel control lever for setting full flow, on the right-hand side of the pump nearest engine. Depress lever to reduce fuel supply.

Idling fuel adjusting screw, on the outside of the air filter. Screw inward (clockwise) to increase fuel supply.

Idling air adjusting screw, on bell crank from throttle lever. Screw inward (clockwise) to increase air.

Petrol cock, open when arm parallel to petrol line.

Gas burner valve, on front of engine frame.

Magnapull, with starting handle.

Propane filler valve, on frame below fuel pump.

Fuel tank filler cap.

Oil filler plug, on rear end of crankcase.

Oil filler cap, on front of crankcase, for chain-lubricating oil.

Oil cock, on front of crankcase, for chain lubrication.

Saw-bar locking-plate, with nuts.

C. RUNNING-IN

The CONSERVEDS chain-saw can be used at once for cutting and felling, although the proportion of oil in the fuel should be somewhat higher than normal during an initial running-in period of 6 hours.

1 part of lubricating oil, viscosity SAE 60 or SAE 50,
to 7 parts petrol.

During running-in the engine does not develop its full power - take care not to overload the saw.

After 6 hours, switch to normal fuel mixture (see below).

D. FUEL AND LUBRICATION

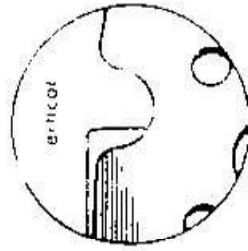
ENGINE: Fill fuel tanks with 1.3 litres (61 cu.in.) of a mixture of

1 part of oil to 10 parts petrol.

The oil should be a high-grade, non-detergent lubrication oil, suitable for two-stroke engines, of viscosity SAE 60 or SAE 50.

If petrol is not available, heavier fuel such as motor petrol may be used.

Indication	Cause	Remedy
Tank pressure impossible to achieve or leaks off	1/ Leaky filler cap or crankcase fitting 2/ Pressure line to crankcase clogged 3/ Leaky check valve on fuel tank	1/ Tighten at leak, replace defective gaskets 2/ Clean out line 3/ Dismantle valve and clean valve seat and disc. Replace disc if damaged.
No fuel issues from pump when flooding (i.e. tilted backward)	1/ No tank pressure 2/ Fuel tanks empty 3/ Fuel cock closed 4/ Fuel-line filter clogged	1/ Pull round engine with magnapull starter 2/ Fill fuel 3/ Open cock 4/ Disconnect fuel line to find out if fuel passes cock. If so, clean filter below pump. If not, clean fuel cock filter and plumb filter, and check that plumb line is undamaged.
Fuel jet does not stop when releasing primer button	1/ Dirt in pump nozzle 2/ Nozzle spring damaged	1/ Clean out nozzle and rubber covering of spring 2/ Replace spring (see under H. General Description of Saw)
Engine does not start, despite fuel arriving	1/ Ignition tube not sufficiently hot 2/ Fuel supply too weak 3/ Engine flooded	1/ Heat to incandescence 2/ Flood pump with throttle on "full" 3/ Close fuel cock and pull engine a few times until it starts up. Then immediately open fuel cock.

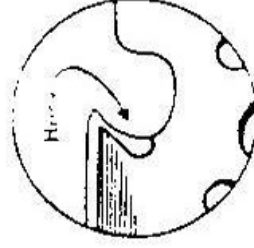


Right

Keep side of cutting edge vertical by holding file level and with one-fifth of the file diameter showing above the top plate.

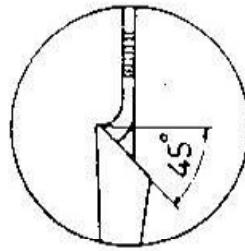
Wrong

Side cutting edge filed with a hook caused by holding file too low. This causes the chain to grab, cut rough and dull quickly.



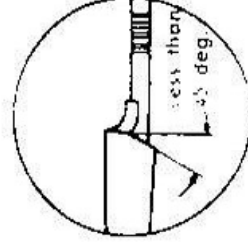
Right

Keep top plate angle at 45 deg. Be sure to maintain this angle on both left-hand and right-hand cutters; otherwise the saw will lead off to one side.



Wrong

A top angle less than 45 deg. is caused by not holding file level or at 45 deg. The chain dulls quickly and cuts rough.



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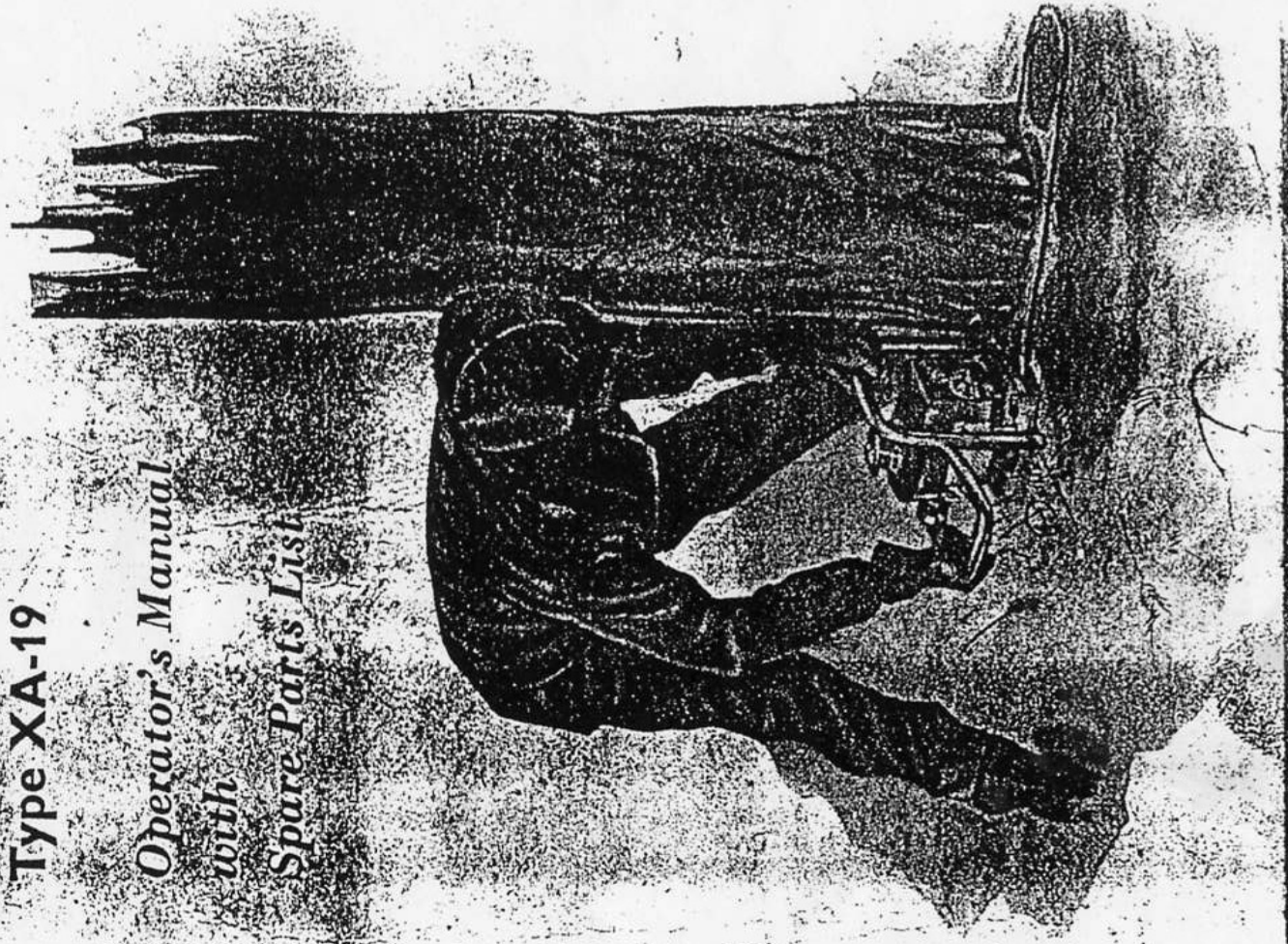
ONEMAN CHAIN SAW

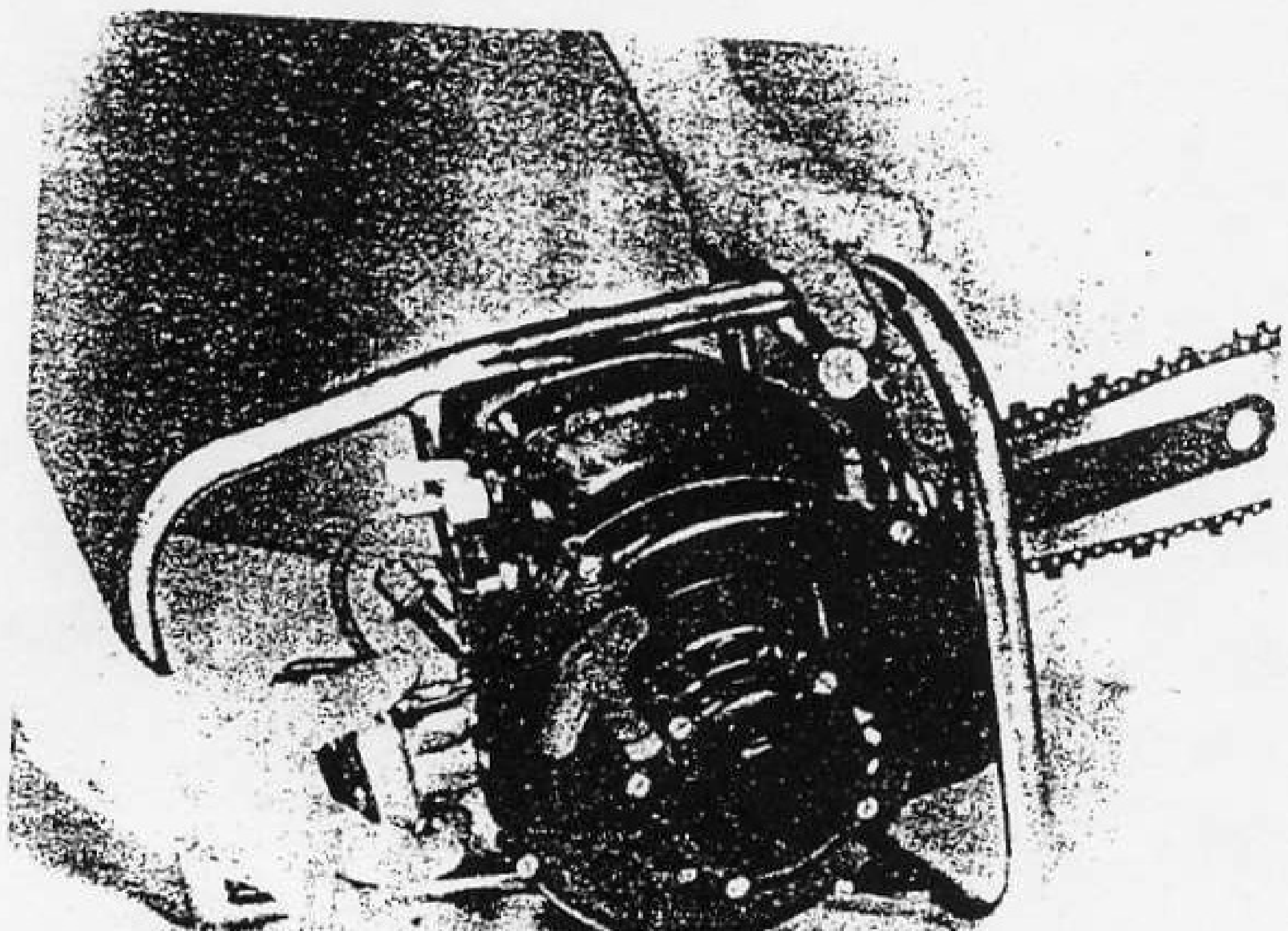
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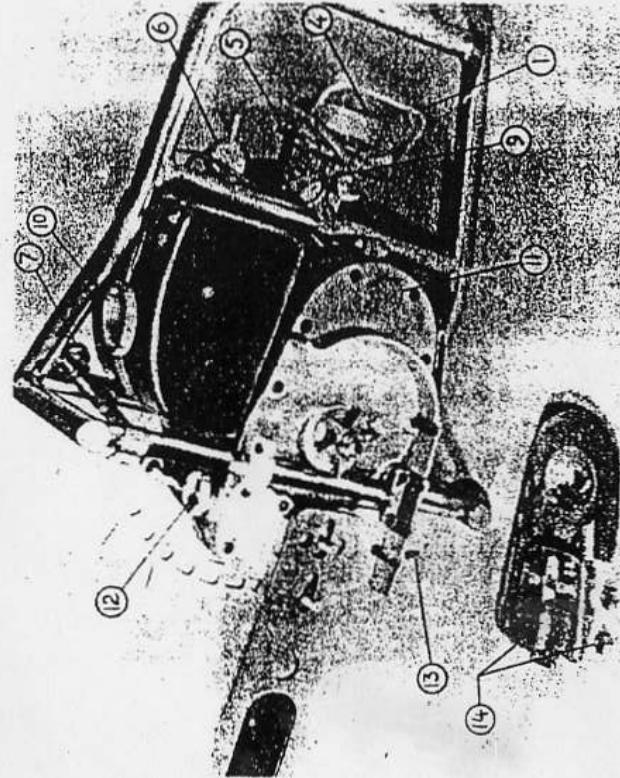
Operator's Manual

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Spare Parts List

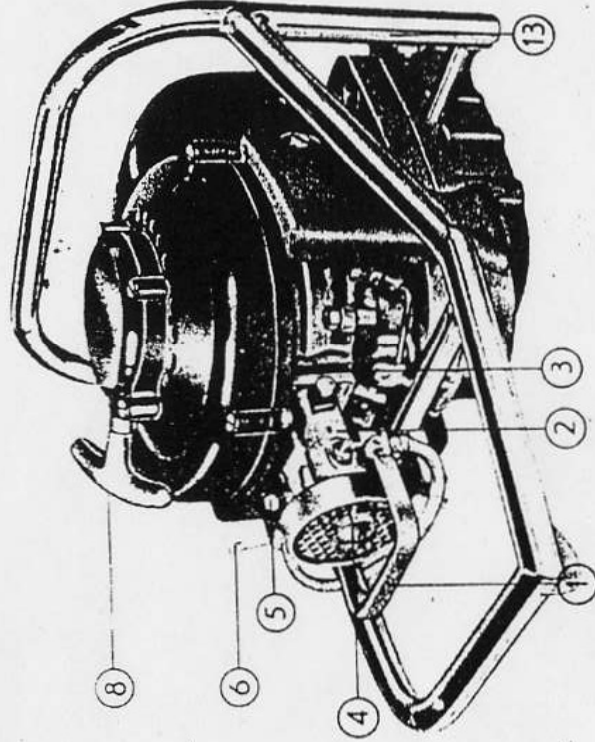






4.

3.



- 1 propane gas bottle
- 1 fly-wheel extractor
- 1 socket wrench, 17 mm, for cap and screwdriver for fly-wheel nut
- 1 screwdriver
- 1 adjustable spanner
- 1 Unbrako spanner, W 17 mm
- 1 Unbrako spanner, W 19 mm
- 1 file, 6-mm round, for sorting chain
- 1 flat file
- 1 funnel, for filling fuel
- 1 cleaning wire, for gas-burner
- 1 tool bag

I. TROUBLE-SHOOTING

Indication	Cause	Remedy
Burner does not light	1/ No gas in engine frame	1/ Fill gas
	2/ Nozzle choked	2/ Dismantle nozzle, clean filter and clear nozzle with 0.1 mm music-wire
	3/ Extreme cold -30/-40 deg. C. -20/-40 deg. F.	3/ Warm engine frame near valve with your hands or with a gentle flame in order to raise gas pressure
	4/ Dirt in lower part of burner	4/ Clean out
Burner flame unsatisfactory	1/ Nozzle partly blocked	1/ Clean out nozzle (as pos. 2 above)
	2/ Propane issues in liquid form from newly filled frame	2/ Adjust with burner valve until gaseous propane issues