

SKILSHOP

INSTRUCTION MANUAL

MODEL 1716

CHAINSAW



Your new chain saw has been through a complete factory run in, we do suggest however, that for trouble free operation the saw should be broken in gradually and that the following recommendations be followed.

PREPARING SAW FOR USE

The combination wrench and screwdriver included with the saw is designed for the purpose of fitting the bar and chain and making necessary adjustments to chain tension.

To fit bar and chain, remove the two nuts securing chain cover. Install bar — fit chain over sprocket, then bar, be sure that the chain fits into the bar groove, cutting edge of the teeth on the top of the bar must face forward, pull bar forward taking up chain slack, refit chain cover making sure chain tension pin is located in hole in bar.

The chain should "HANG" from the bar so that the widest space between the tie strap or cutter bottoms and the lower edge of the bar is no more than $\frac{1}{4}$ " or no less than $\frac{1}{8}$ ". Retighten bar nuts when correct tension is achieved and retighten adjuster screw.

Fill the chain oil tank with S.A.E. 30 or 40 Motor Oil.

Pull the chain around the bar, at the same time by means of the manual oiler, pump oil to the bar and chain. A properly adjusted chain should be tensioned to where it can be pulled around the bar easily by hand.

The chain should be thoroughly saturated with oil before the saw is started and should be kept overly well oiled for the first hour of operation. It is recommended that the same procedure be followed each time a new chain is fitted.

NOTE: Correct tension and lubrication is essential to long bar, chain and sprocket life. Make a practise of checking chain tension often and readjust.

Fill the fuel tank with THOROUGHLY MIXED fuel in the proportions: 1 part S.A.E. 30 or 40 Automotive Oil of at least M.S. Detergency rating to 16 parts regular gasoline, i.e. 1/2 pint oil to 1 gallon of gasoline. Chain oil tank should be refilled each time fuel tank is refilled.

STARTING THE SAW:

To start the engine place the saw on level ground, make sure no one is near the front of the saw. Move the ignition switch to the "ON" position, choke by pushing the choke lever forward and up, hold saw firmly and with the throttle held in the open position pull the starter cord. When engine starts return choke lever to running position. It is not necessary to choke a warm engine.

NOTE: In starting the chain saw always pull starter cord slowly until the slack is taken up (the starter is felt to engage in the starter cup) then give a fast short pull.

Run the saw at a fast idling speed until the engine is warm. The carburetor idle speed adjusting screw controls the idling speed of the saw. It should be set after the motor is warm so that the motor will idle without moving the chain around the bar. It may be necessary to slightly vary the high and low speed adjustments for peak performance. See carburetor adjustments on back page.

WARNING

The internal moving parts of the 2-cycle engine fitted to this chain saw are lubricated solely by the oil which is added to the gasoline. The proportion of oil to gasoline is 1 part S.A.E. 30 or 40 motor oil of at least M.S. detergency rating to 16 parts regular gasoline; i.e. 1/2 pint oil to 1 gallon of gasoline. The gasoline and oil **MUST BE THOROUGHLY MIXED** before being put into the fuel tank.

Do not attempt to tension chain while engine is running.

Do not run the saw at High R.P.M. when bar and chain are out of the cut, under no load.

PREVENTIVE MAINTENANCE

A system of regular inspections and tune-ups should be planned. Continued neglect eventually will mean wasted time and money through major failures and unnecessary repairs. The operator who wishes to avoid difficulties will practise preventive maintenance from the time he takes delivery of his new saw.

SERVICE AND REPAIRS

Service and repairs may be obtained through your authorized 1716 Chain Saw Service Dealer or your nearest Skill Factory Service Center.

WARRANTY

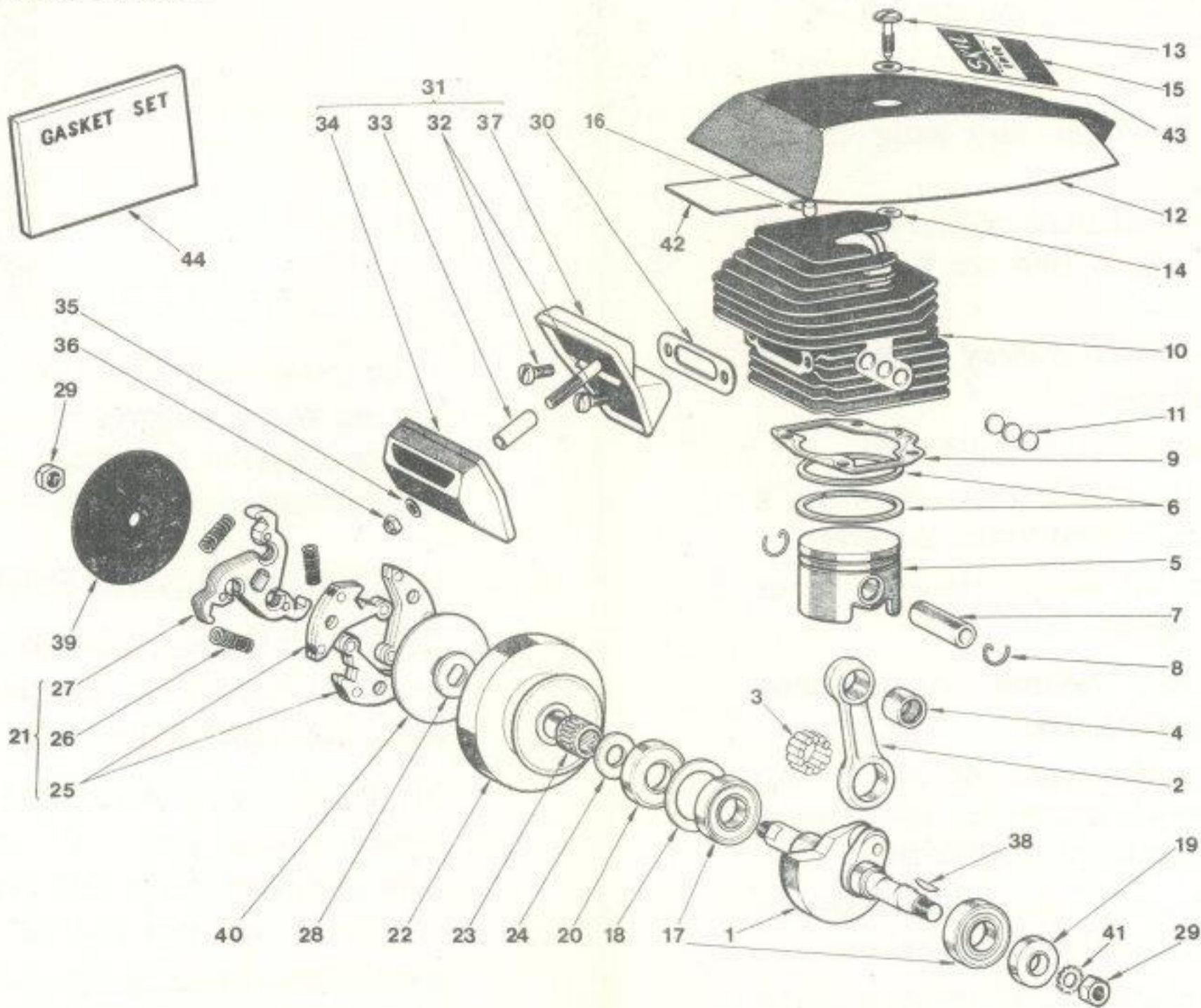
We warrant each 1716 Chain Saw Engine to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good any part or parts thereof which shall, within 30 days from date of delivery to the original purchaser, prove to have been thus defective.

This warranty shall not apply to any 1716 Chain Saw which shall have been repaired or altered by any unauthorized person in any way, so as in our judgement to affect its stability and reliability, nor to any saw which has been subject to misuse, negligence or accident.

This warranty being expressly in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part, and we neither assume, nor authorize any person to assume for us, any other liability in connection with the sale of the 1716 Chain Saw.

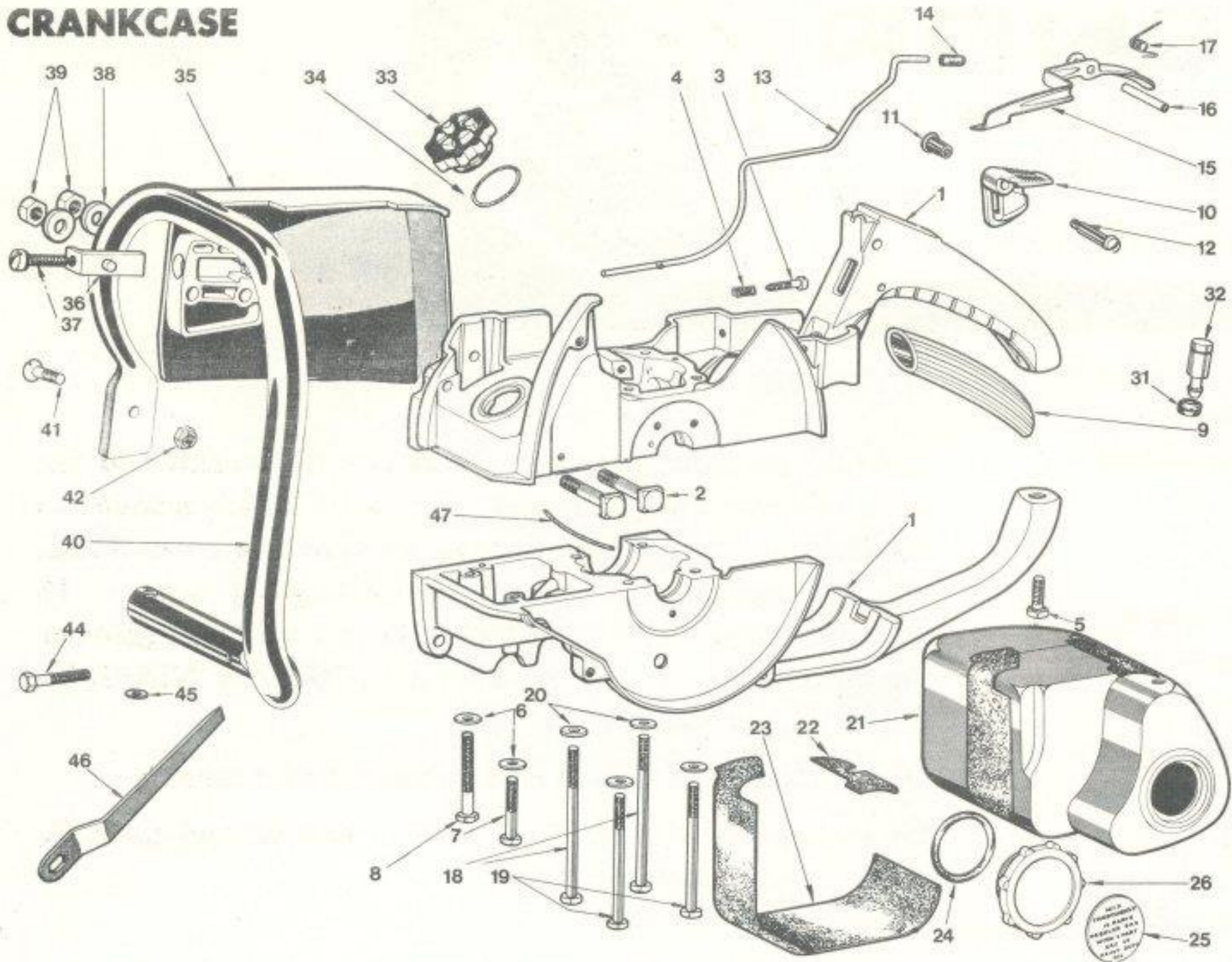
To make a claim under this warranty, return the complete product to the nearest authorized 1716 Chain Saw Service Dealer or Skill Factory Center, with transportation charges prepaid.

POWER HEAD



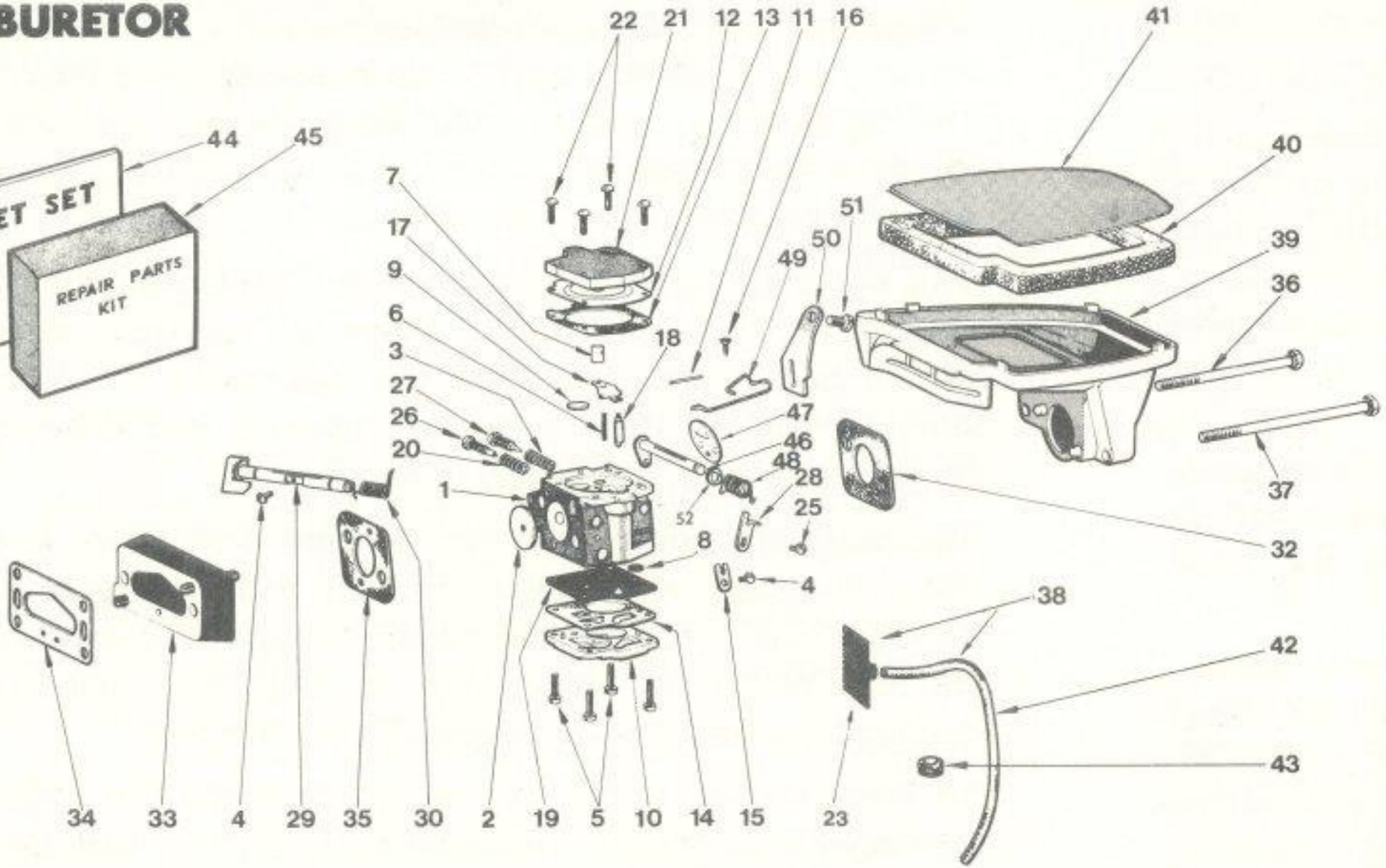
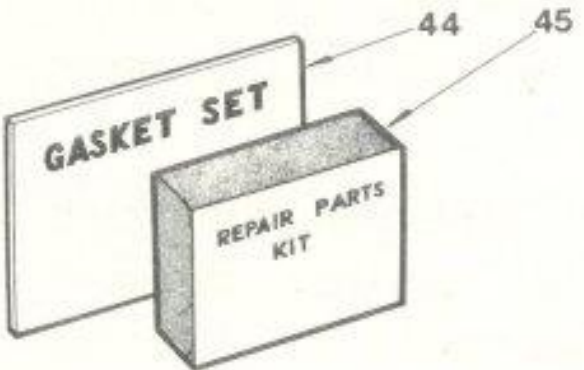
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	179025	Crankshaft Assembly	22	178653	Clutch Drum Assy.
2	178606	Connect'g Rod Assy. (comp w/bearing)	23	178348	Sprocket Bearing
3	178040	Rollers (Big End) (13 used)	24	276379	Inside Thrust Washer
4	270353	Wrist Pin Bearing	25	178654	†Clutch Shoe Assembly (3 used)
5	178045	Piston	26	270363	†Clutch Spring (3 used)
6	178050	Piston Ring (2 used)	27	178643	†Clutch Driver Assembly
7	178017	Wrist Pin	28	276378	Outside Thrust Washer
8	178047	Retaining Clips (2 used)	29	850466	Nut (2 used)
9	178058	Cylinder Block Gasket	30	178140	Muffler Gasket
10	178612	Cylinder Block Assy. (includes *)	31	178631	Muffler Assembly (includes **)
11	178061	*Core Plugs	32	735814	Screw-Muffler to Cylinder Blk. (2 used)
12	185640	Outer Shroud Assembly (includes	33	178141	**Spacer Tube
13	177301	††Shroud Screw ††)	34	178136	**Muffler Cover
14	178309	††Washer	35	275069	**Flat Washer
15	304577	1716 Decal	36	850464	**Muffler Cover Nut
16	178302	Insulator Pad	37	178617	**Muffler Body
17	178030	Main Bearing (2 used)	38	856303	Flywheel Key
18	178166	Retaining Ring	39	178364	Clutch Side Plate Outer
19	178032	Crankshaft Seal (Flywheel Side)	40	178362	Clutch Side Plate Inner
20	178033	Crankshaft Seal (Drive Side)	41	854116	Shake Proof Washer
21	178647	Clutch Assembly (includes †)	42	178307	††Instruction Decal
			43	270026	††Washer
			44	178710	Gasket Set

CRANKCASE



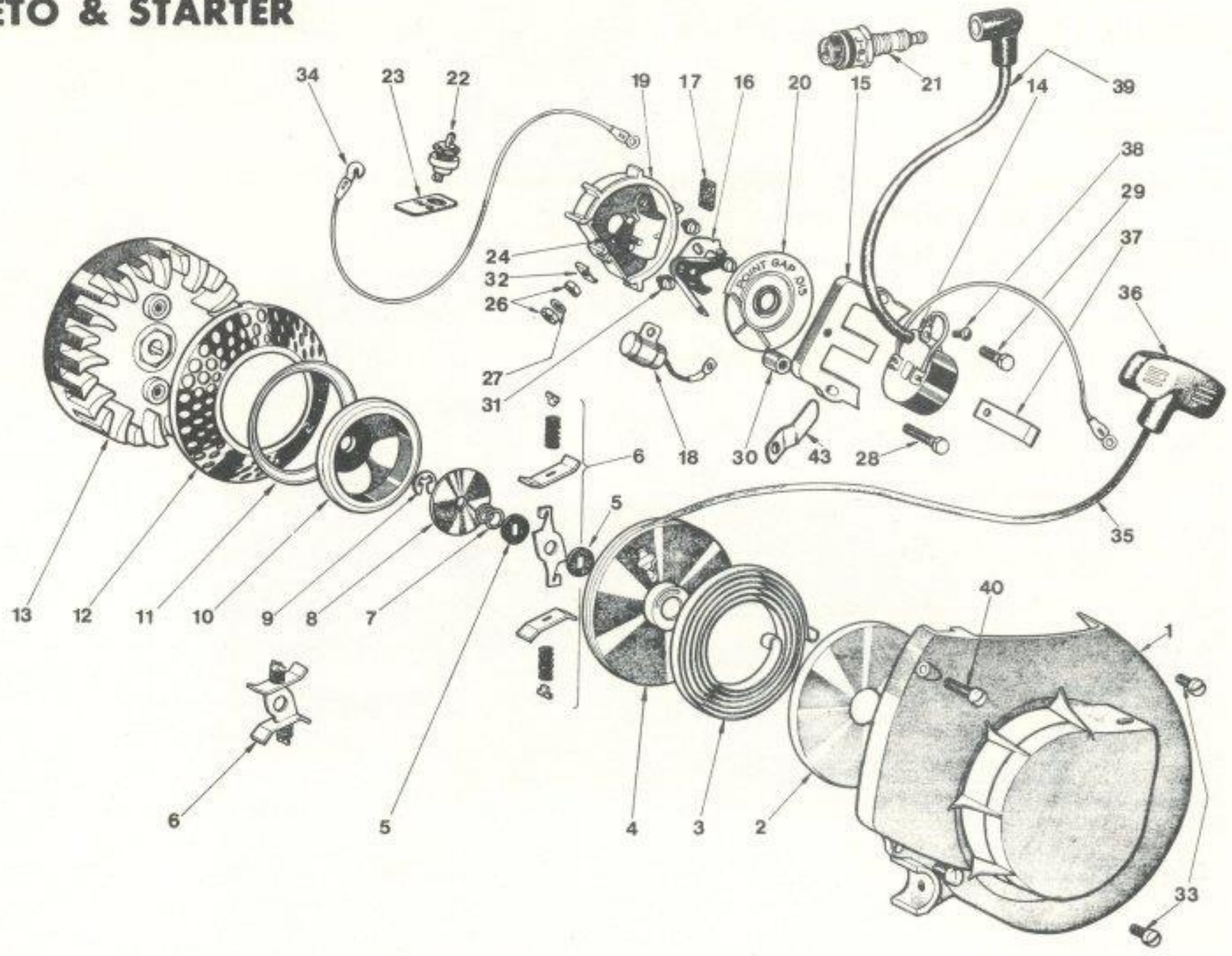
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	181602	Crankcase Assembly (Includes*)	24	270186	Fuel Cap O Ring
2	178013	*Bar Bolt (2 used)	25	178201	Fuel Cap Decal
3	731208	*Screw — Idle Speed Adjusting	26	270675	Fuel Cap Assembly
4	178368	*Spring — Adjusting Screw	31	177229	Grommet — Tank Vent
5	706214	*Screw — Rear Handle Mounting	32	177634	Tank Vent Assembly
6	275069	*Washer (2 used)	33	275638	Oil Cap Assembly
7	702014	*Screw — Oil Tank Mounting Short	34	271258	Oil Cap O Ring
8	703214	*Screw — Oil Tank Mounting Long	35	178648	Chain Cover Assembly (includes***)
9	178169	*Handle Grip	36	178649	***Adjuster Assembly (includes †)
10	178290	Oiler Lever	37	737814	***†Adjuster Screw
11	178294	Oiler Lever Pivot Bush	38	178359	Washer Bar Bolt (2 used)
12	178291	Oiler Lever Screw	39	850065	Nut — Bar Bolt (2 used)
13	179295	Oiler Push Rod	40	178655	Handle Bar Assembly
14	178288	Oiler Push Rod End Cap	41	741264	Screw — Handle/Bar Pad Mount
15	178230	Throttle Trigger	42	850364	Nut
16	175231	Roll Pin — Throttle Trigger Pivot	44	702414	Screw Handle/Crk/Case —
17	178220	Spring — Throttle Trigger Return			Handle/Fan Housing
18	705614	Bolt Long — Crk/Case to Cylinder Block (2 used)	45	275069	Washer
19	704814	Bolt Short — Crk/Case to Cylinder Block (2 used)	46	177521	Bar Wrench
20	275069	Washer (4 used)	47	179062	*Seal Crk/Case Joint
21	179766	Fuel Tank Assembly (Comp. W/Grommets) (includes **)			
22	178225	**Fuel Tank Mounting Damper(Small)			
23	178224	**Fuel Tank Mounting Damper(Large)			

CARBURETOR



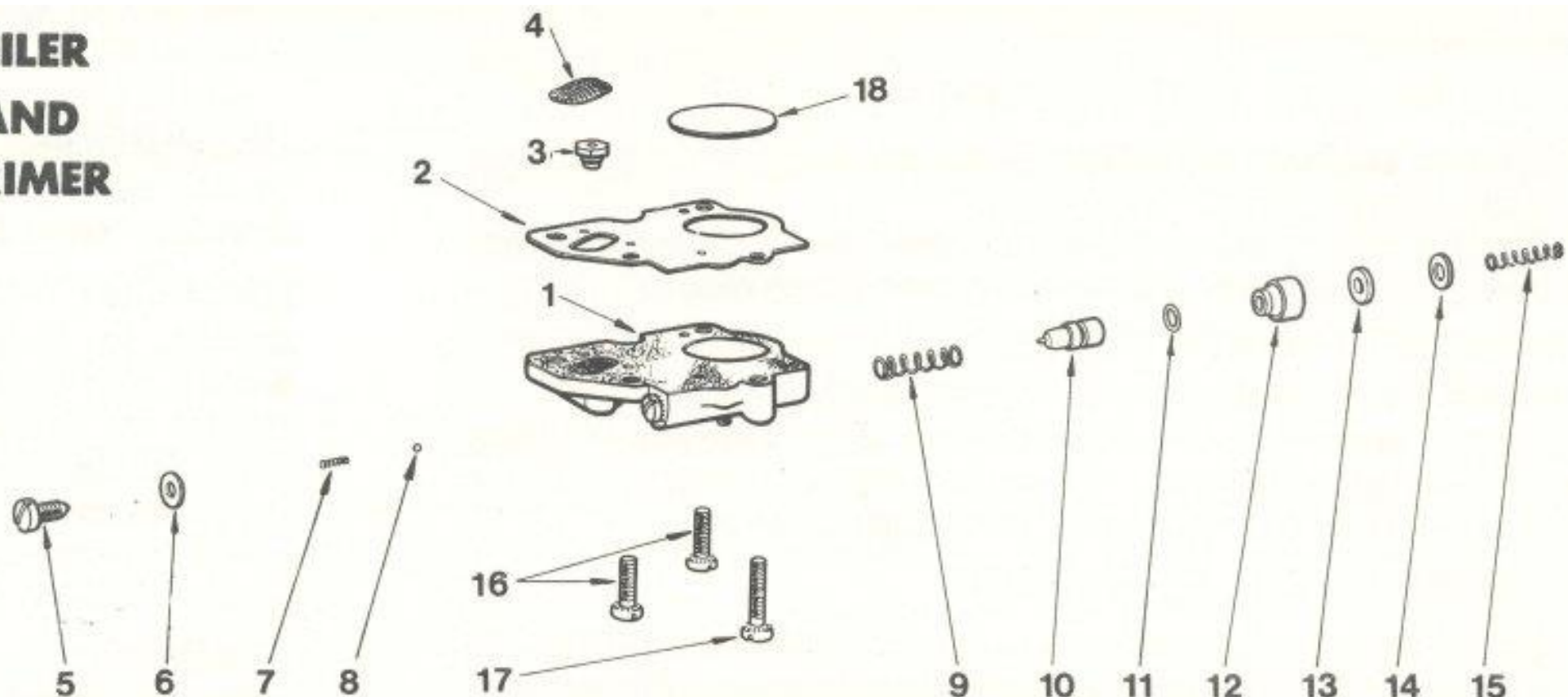
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	185095	Carburetor Complete	27	178122	Main Adjustment Screw
2	183129	Throttle Shutter	28	178124	Throttle Lever
3	275143	Main Adjusting Screw Spring	29	178693	Throttle Shaft Assembly
4	715304	Screw & Lockwasher	30	178142	Throttle Return Spring
5	735606	Screw & Lockwasher	32	177079	Gasket (Carburetor to Aircleaner)
6	183136	Tension Spring	33	178096	Insulator Block
7	178123	Check Valve Nozzle	34	178097	Gasket
8	178102	Screen	35	177098	Carburetor Gasket (Insulator to Carb)
9	178053	Welch Plug 11/32" Dia.	36	705210	Screw (short)
10	183157	Pump Cover	37	705810	Screw (long)
11	183150	Fulcrum Pin	38	180635	Fuel Pick Up Assembly (includes Fuel Hose & Fuel Pick Up)
12	178153	Diaphragm (Metering)	39	185750	Air Cleaner Body
13	178110	Metering Diaphragm Gasket	40	178172	Foam Gasket
14	178111	Fuel Pump Gasket	41	185174	Air Cleaner Element
15	178125	Throttle Shaft Clip	42	180206	Fuel Hose
16	178149	Screw	43	177229	Grommet
17	178155	Inlet Control Lever	44	178778	Carburetor Gasket Set
18	178151	Inlet Needle	45	178777	Carburetor Repair Parts Kit
19	178154	Fuel Pump Diaphragm	46	185615	Choke Shaft Assembly
20	178120	Idle Adjusting Screw Spring	47	185126	Choke Shutter
21	178134	Diaphragm Cover	48	185125	Choke Return Spring
22	715604	Screw & Lockwasher (4 used)	49	185234	Choke Link
23	180134	Fuel Pick Up	50	185236	Choke Guide Plate
25	725403	Screw & Lockwasher	51	725610	Screw Pan Hd. Sems.
26	178121	Idle Adjustment Screw	52	185237	"E" Ring

MAGNETO & STARTER



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	185674	Fan Housing & Starter Assembly including Starter	21	270523	Spark Plug J.6J.
1	185675	Fan & Starter Housing Assembly	22	270238	Switch
2	178287	Spring Retainer	23	183269	Switch Plate
3	178317	Spring	24	178163	Screw
4	178297	Rotor	26	850008	Nut (2 used)
5	178100	Fibre Washer (2 used)	27	854208	Spring Lock Washer
6	178676	Friction Shoe Assembly	28	707210	Coil Mounting Screw—Long
7	178319	Brake Spring	29	706410	Coil Mounting Screw—Short
8	178323	Brake Retaining Washer	30	178144	Coil Screw Spacer
9	178324	"E" Clip	31	735508	Fixed Contact Clamp Screw (3 used)
10	178126	Starter Cup	32	178453	Channel Washer
11	178128	Starter Snow Shield	33	726010	Fan Housing Mounting Screw (3 used)
12	178127	Starter Screen	34	178087	Stop Switch Lead
13	178658	Flywheel	35	178600	Starter Cord Assembly
14	178145	Coil	36	178639	Tee Handle Assembly
15	178146	Core	37	178147	Coil Clip
16	178663	Breaker Assembly	38	178148	Coil Clip Screw
17	178452	Cam Wiper Felt	39	178666	High Tension Lead Assy.
18	178664	Condenser	40	726810	Fan Housing Mounting Screw
19	179450	Contact Breaker Housing			
20	178451	Breaker Housing Cover	43	179076	Retainer Coil & Condenser Leads

OILER AND PRIMER



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	181729	Manual Oiler and Tank Cover Kit (Includes*) Also includes 178288 End Cap Push Rod Ref. 14 - Page 17	9	177198	Spring—Oiler Piston Return
1	181629	*Manual Oiler & Tank Cover Assy. (Includes †)	10	179197	Piston—Oiler (Includes **)
2	179246	*Gasket	11	183155	**O Ring—Oiler Piston
3	179627	†Ball Valve Assembly	12	179298	*Bush—Oiler Push Rod
4	179264	*Screen—Oil Pick Up	13	185296	*Felt—Push Rod
5	179199	†Screw—Manual Oiler Spring Retaining	14	179083	*Washer—Felt Retaining
6	177196	†Washer—Fibre	15	179217	Spring—Push Rod Return
7	270284	†Spring—Manual Oiler Ball Return	16	726010	Screw—Oil Cover Mounting (2 used)
8	271267	†Ball—Steel	17	726410	Screw—Oil Cover Mounting
			18	181245	†Gasket—Diaphragm Cavity

ADJUSTMENTS and PREVENTATIVE MAINTENANCE

CARBURETOR

Note: Before making any carburetor adjustments, clean the air filter and filter chamber.

Adjust the carburetor in the following sequence:



1. Screw in main jet (H) lightly, then open 1 to 1¼ turns.
2. Screw in idle jet (L) lightly, then open ¼" to 1 turn.
3. Unscrew idle speed screw until it just clears throttle lever stop, then screw in 1¼ to 2¼ turns.

Further fine adjustments to high and low speed jets may be required to obtain maximum power and cutting speed, these should be made under load.

IGNITION

Spark plug gap .025".

Ignition breaker point gap .015"

FUEL PICK UP HEAD

For trouble free operation the filter element of the fuel pickup head in the fuel tank should be serviced frequently. Should filter element become hard it should be replaced.

CYLINDER AND CYLINDER HEAD FINS

Inspect and clean cylinder and cylinder head fins regularly, at the same time, remove all dirt and sawdust from around flywheel and starter screen areas.

BAR AND BAR PAD OIL HOLES

To provide adequate lubrication to the bar and chain, the bar and bar pad oil holes must be kept clean.

To inspect, remove bar and chain and clean dirt and sawdust from oil holes, the cutter bar groove must also be kept clean.

CARBURETOR AIR FILTER

The saw comes equipped with a Feutron-type filter.

To clean, remove outer shroud, wash filter element in clean gasoline or solvents daily. Never run the saw without the air filter in position. Always carry a clean spare air filter.

COLD WEATHER OPERATION

Good maintenance of your saw is doubly important during cold weather. One of the main problems encountered during cold weather operation is water in the fuel mix. Add a deicing agent or methyl hydrate to your fuel mix (1 fuel mix cap full per gallon of mix).

Completely empty and clean the fuel tank at least once every week. Clean snow off the fuel mix can and from around the tank filler hole before filling tank.

Dilute chain oil up to 50% with diesel oil or kerosene in extremely cold weather.

WARNING

Do not dilute chain oil beyond 50%, otherwise the lubricating qualities will be destroyed.

BASIC SAFETY RULES FOR THE OPERATION OF CHAIN SAWS

1. Use a safety helmet, safety footwear and snug fitting clothing.
2. Mix and handle fuels in safety containers, re-fuel over bare ground, wipe off any fuel or oil spilled on saw before starting.
3. To start the saw, place it on the ground away from fueling area and make sure no-one else is near it.
4. Keep all bystanders at a safe distance from work area.
5. Never start cutting until you have a clear place to work, a secure place to stand and a safe exit from limbs and trees.
6. Cut away from your body at all times, changing your position if necessary to work safely.
7. Do not stand on the tree when limbing, use supreme caution when cutting limbs supporting log.
8. When bucking, always stand on the high side of the log, place bumper against log, use both hands on saw, have a firm grip and keep the saw under control at all times.
9. When moving from tree to tree, stop the saw and always carry it by the handle bar with the guide bar to the rear.
10. Never operate the saw if the chain is dull or repairs are needed.
11. Never run the saw without the muffler in place.

FELLING AND BUCKING TREES:

Before felling a tree survey it carefully: consider size, shape, direction of lean and danger from other trees or snags in area where you want the tree to fall. Clear work area around tree, limb branches on tree only high enough so that under-cut can be made. Plan your escape route.



UNDERCUT: Make undercut facing direction you wish tree to fall, depth penetration should be 1/3 of tree's diameter. See Drawing. Never fell a tree without making a proper undercut.

BACKCUTTING: Make the backcut about 2" above and parallel to undercut. See Drawing.

Should your chain bind in cut, stop the saw, use wedges to free it. Do not cut through holding wood as tree may spin off the stump when falling. Keep the saw in cut until the cut opens, remove saw, stop motor and place saw on ground away from direction of fall. Retreat at least 25 feet at a 45° angle over your planned escape route.

LIMBING: Keep a firm grip on saw, always limb from the butt end of the tree toward the top, with small logs stand on side opposite limb being cut, do not overreach, always maintain full control of saw. Be on the lookout for anything that can touch the top of the bar and cause kickback.

It is the policy of SKIL Corporation to ensure continual improvement in the design, engineering and manufacturing of its product and consequently, the specification is subject to change without notice or obligation to make retroactive fitment in respect of units previously shipped from the factory.