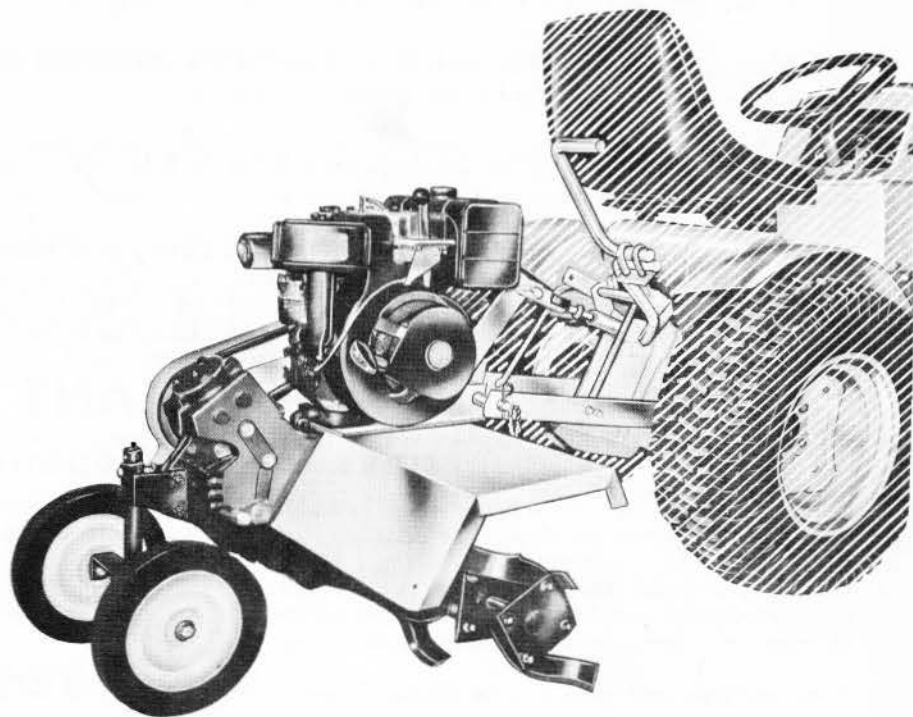


Sears
owners
manual

MODEL NO.
917.251890



SELF POWERED
ROTO-SPADER ATTACHMENT
FOR SEARS GARDEN TRACTORS

- Assembly
- Operating
- Maintenance
- Repair Parts

Sears, Roebuck and Co., Chicago, Ill. 60607 U.S.A.
and Simpsons Sears Limited, Toronto

GUARANTEE

During the first 90 days, we will repair your Roto-Spader Attachment, free of charge, if defective in material or workmanship.

In addition, during the first year, we will replace any broken tines, free of charge.

This guarantee service is available by simply contacting any of our stores or service centers throughout the United States or Canada.

If the Roto-Spader Attachment is used for commercial or rental purposes, this guarantee applies for 30 days.

SEARS ROEBUCK AND CO. – SIMPSONS-SEARS, LTD.

IMPORTANT rules for safe operation

1. Know the controls, and how to stop quickly. Read the owners manual thoroughly.
2. Do not allow children to operate your tractor and Roto-Spader attachment. Do not allow adults to operate them without proper instruction.
3. Keep children and pets a safe distance away.
4. Clear work area of objects which might be caught in tines.
5. Before starting the engine be sure clutch is disengaged, and tines are clear.
6. Make sure of your footing and stand clear of tines when starting engine.
7. Do not run engine indoors, because the engine exhaust fumes contain carbon monoxide which is a tasteless, odorless, deadly poison.
8. Check fuel supply before each use. Never remove the gas cap or fill the gasoline tank when engine is running or while it is hot. When filling the fuel tank, leave space for expansion, do not fill it to the brim and keep in mind that the heat of the sun can cause the gasoline to expand. Wipe off any spilled gasoline before starting the engine. Remember gasoline is highly flammable and must always be handled with extreme care.
9. Stop tractor, disengage Roto-Spader attachment clutch and stop Spader and tractor engines. Shift tractor to neutral position, set parking brake, and remove ignition key before leaving operators position.
10. Never stand near tines or work on tines when engine is running.
11. Watch out for traffic when crossing or near roadways.
12. Always disengage Roto-Spader clutch, and stop engine when traveling to and from field or when not tilling.
13. Lift Spader attachment out of the ground when turning corners.
14. Do not put tractor in reverse gear while spader is in the ground.
15. Keep all nuts, bolts and screws tight in order to be sure that the tractor and attachment is in safe working condition. Be sure the brake and all powered attachment controls are always in proper adjustment and repair. Check the attachment and engine mounting bolts at frequent intervals for proper tightness. Before performing any maintenance, always disengage the power to attachment, set the parking brake, shift into neutral, shut off the engine, make absolutely sure the spader attachment and all moving parts have completely stopped, remove ignition key, disconnect the spark plug wire from the spark plug and keep it away from the plug to prevent injury or accidental starting. The only exception to this rule is carburetor adjustment.
16. Keep the engine free from accumulations of grass, leaves or excessive grease as these accumulations are combustible and could result in a fire. Always keep your Roto-Spader attachment in good operating condition and make sure that all shields, guard plates and all other protective devices are in place. Give your spader attachment the regular maintenance it needs and have a competent serviceman make a thorough inspection of it at least once a year.
17. Do not store your Roto-Spader attachment for prolonged periods (more than 30 days) with gasoline in the tank. Do not store your spader attachment or a gasoline container inside a building where fumes may reach an open flame or spark, they should be stored in a cool, dry place. Be sure to let the engine cool before storing in any enclosure. Always use an approved gasoline container for storing gasoline and keep your spader attachment and gasoline container in locked storage to prevent children from playing and tampering with them.

introduction

This Product has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest Sears, or Simpsons Sears Service Department. They have well qualified, competent trained technicians and the proper tools to service or repair this unit.

It is important that the operator ALWAYS OBSERVES THE "RULES FOR SAFE OPERATION" as well as other instructions contained this in Manual.

We have provided this Manual to help you operate your Roto*Spader Attachment with utmost efficiency. We urge you to study this Manual so you will understand your new Roto-Spader Attachment thoroughly before operating it. We suggest that you take care of your Manual so that it will be available for future reference should you need it.

Your new Roto-Spader Attachment utilizes multiple sharp tines rotating about a horizontal shaft. These tines rotate at 285 revolutions per minute to till or chop the soil. This creates a very good seed bed.

The Roto-Spader Attachment has been shipped from the factory partially assembled. All parts necessary to complete assembly of the Roto-Spader Attachment have been included in a burlap bag.

The following parts are included in the burlap bag.

4	retainer springs	1	U bolt plate
1	lift link L.H.	2	U bolts
1	lift link R.H.	4	gripco crown locknut
1	lift handle ext.		

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Sears, Roebuck and Co. or Simpsons-Sears Limited in Canada reserves the right to make any changes in design or improvements without imposing any obligation to install the same upon it items heretofore manufactured.

assembly

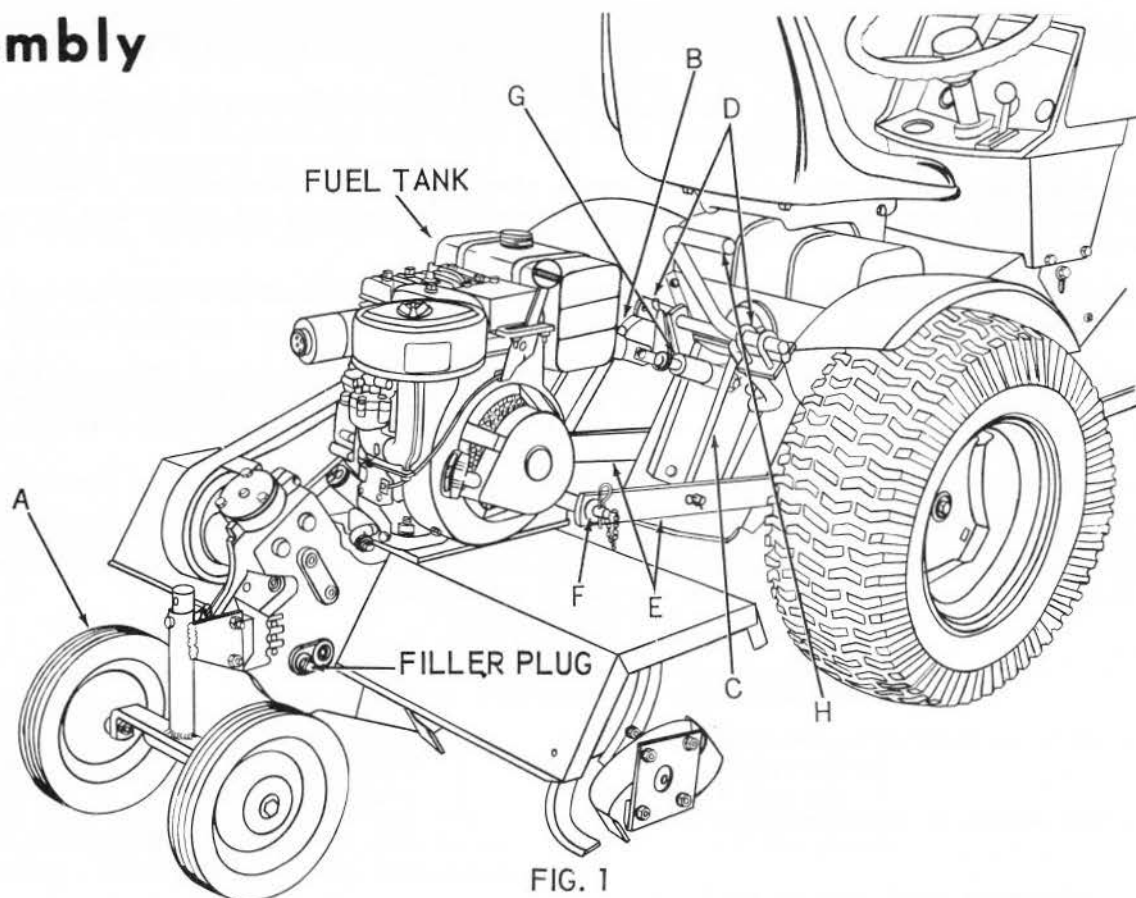


FIG. 1

1. Cut all wires which fasten Spader to wood pallet in bottom of carton. Remove Spader and all parts from carton. Open bag of parts and lay out parts for assembly.
 - A. **IMPORTANT:** Check oil level in transmission and fill to level of oil filler plug if necessary. Use S.A.E. 30 oil API rating MM or MS. Spader can be laid on its side to fill transmission. Use small neck funnel for filling transmission and engine.
 - B. Fill engine crankcase to overflowing with SAE 30 oil API rating MS, SC, SD, or SE. Because of recent changes in the classifications, the oil container may show one or a combination of these recommended classifications. Capacity about $2\frac{3}{4}$ pints.
2. Refer to Fig. 1. Place Spader on level ground where tractor can be backed up to Spader for assembly. Adjust Spader gauge wheels (A), so that engine is level.
3. Remove original L.H. lift link and R.H. lift link and turnbuckle from 3 point hitch. Tie two links together so that they will be available and paired for future reassembly to hitch for use with other attachments.
4. Refer to Fig. 1. There are two new lift links furnished with Spader. Assemble these new L.H. and R.H. lift links (B and C), to inner holes of each lever crank (D), as shown and secure with retainer springs provided. Lift links and retainer springs will be found in burlap bag. **NOTE:** Offset in links to top as shown.
5. Refer to Fig. 1. Attach lower ends of R.H. and L.H. links (B and C), to bottom links (E), as shown and secure with retainer springs.
6. Refer to Fig. 1. Back tractor up to Spader and attach rear of bottom links (E), to pin (F), on Spader and secure with retainer spring attached to bottom links.
7. Assemble adjustable top link (G), to upper hitch bar. Refer to Fig. 1. **NOTE:** It may be necessary to adjust top adjustable link (G), to assemble link to Spader, and to keep spader level. Secure with retainer spring.
8. Assemble lift handle extension (H), to lift lever with U bolts, plate and huglock nuts. Tighten nuts securely. See Fig. 1. All these parts will be found in burlap bag.

instructions before operating

9. Check oil level in gear case and engine. Gear case capacity $1\frac{1}{4}$ qts., oil should be to level of filler hole. Engine capacity, approximately $2\frac{3}{4}$ pts. Fill to overflowing. **Note:** Spader must be level. Fill fuel tank with clean fresh regular grade gasoline. Cap. 1 gal. Wipe off any spilled fuel and oil.
10. Lift Spader with 3 point hitch. Be sure clutch lever is disengaged (lever pulled down). Refer to Fig. 11.

fuel shut-off valve

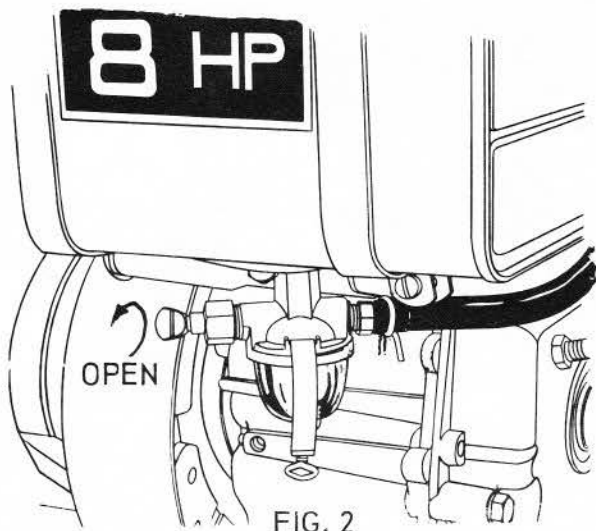


FIG. 2

11. Open fuel shut-off valve. Shut off this valve after each day's operation.

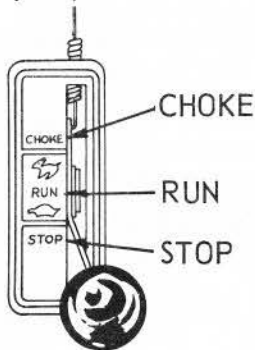


FIG. 3

12. To start a cold engine, move throttle control lever to "choke" position.

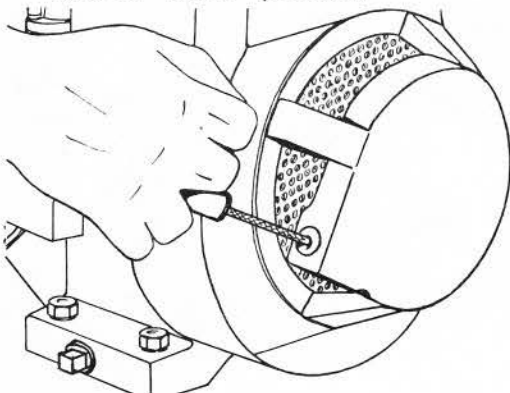


FIG. 4

13. Grasp recoil starter handle and pull sharply. Do NOT allow starter rope to snap back. Rewind slowly keeping hold of the starter handle at all times.
14. After engine starts, move throttle control lever to "run" position, refer to Fig. 3.
15. Engage clutch (lever pulled up) then disengage several times to check the clutching action of the belts. If it is not clutching properly see belt adjustment Page 7.
16. To STOP Spader and engine, release clutch control lever and move throttle control lever to "stop" position.

operating instructions

Since the Spader is run at full throttle at all times, we feel a break in period is necessary for longer Spader life. Run engine at $\frac{1}{2}$ throttle for approximately 2 hours before actual tillage.

Change oil after the first 5 hours of operation. Always drain the oil while engine is warm. Remove drain plug at rear of engine and tilt spader backward to completely drain all old oil. Replace drain plug. Refer to Page 3 for type and grade of oil. Be sure Spader is level and fill to overflowing. Oil capacity approximately $2\frac{3}{4}$ pints.

1. Start Spader engine.
2. Start tractor engine.
3. Engage clutch on Spader and move throttle lever to full throttle position. (Rabbit)
4. Place tractor in slowest forward speed with throttle at idle speed or just above and engage tractor clutch.
5. Lower Spader.

tilling depth

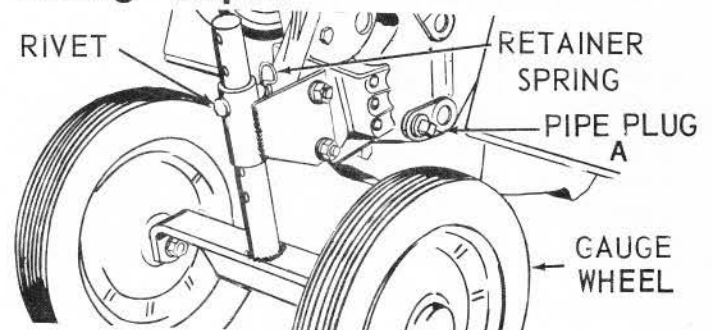


FIG. 5

The tilling depth is controlled by the gauge wheels and to some extent by the adjustable top link. When deeper tilling is required the gauge wheels must be raised. Wheels must be lowered for shallower tilling. Remove retainer spring from drilled rivet and remove drilled rivet. Adjust gauge wheels up or down as desired and replace rivet and retainer spring.

NOTE: Each hole will raise or lower gauge wheels 1 inch. Spader can be leveled if necessary by turning adjustable top link. Adjustable top link also controls tilling depth. Shortening adjustable top link will increase tilling depth, and lengthening top link will decrease tilling depth. However, try to keep Spader level or nearly so.

The most efficient tillage is obtained when Spader engine is fully loaded. The sound of Spader engine can tell you when engine is loaded. When Spader engine is lightly loaded, raise gauge wheels to increase tilling depth. If engine seems to be overloaded or stalls out lower gauge wheels for shallower tilling.

Operate Spader engine at full throttle and operate tractor in slowest forward speed, with tractor engine at idle speed or just above idle. You will soon learn the proper combination of tilling depth and speed for good tillage.

Soil conditions will determine how deep Spader can penetrate on the first pass. In extremely hard ground, several passes may be necessary to till to a depth of 6 inches, while in soft ground spader may penetrate to a depth of 6 inches in the first pass.

NOTE: Tractors equipped with speed changer, it is necessary to purchase a slow speed pulley to slow down ground travel. If three point hitch does not have two holes in lever crank $\frac{3}{4}$ inch in from present hole center.

tilling in hard soil

In extremely hard soil it is suggested that the first pass be just deep enough not to overload Spader engine, and on each successive pass wheels be raised according to the capabilities of the engine. In some cases over lapping about half of the previously tilled path may be desirable. Keep tines sharp for better penetration in hard soil.

On final pass gauge wheels can be removed for a track free seed bed.

cultivating

Set gauge wheels so that Spader will penetrate soil to a depth of 2 to 3 inches. The Spader engine should be run at full throttle except when cultivating small plants a slower engine speed is necessary to prevent burying the plants.

maintenance

dusty conditions

Service engine regularly in dusty conditions. Air filter should be cleaned every day and change oil every 15 hours of operation. In extreme dusty conditions clean air filter every four hours and change oil every 10 hours of operation. The service given engine greatly effects the life of the engine.

KEEP MACHINE IN GOOD OPERATING CONDITION AND KEEP SAFETY DEVICES IN PLACE. USE GUARDS AS INSTRUCTED IN OWNERS MANUAL.

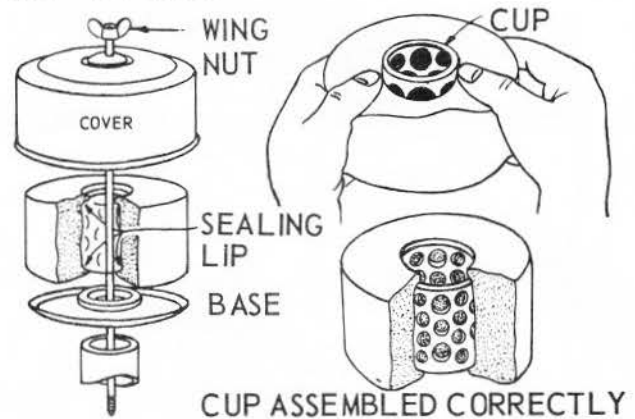
DISENGAGE POWER TO ANY ATTACHMENT, STOP ENGINE AND DISENGAGE SPARK PLUG BEFORE MAKING REPAIRS OR ADJUSTMENTS.

KNOW THE CONTROLS AND HOW TO STOP QUICKLY -- READ THE OWNERS MANUAL.

DO NOT ALLOW CHILDREN TO OPERATE MACHINE; NOR ADULTS TO OPERATE IT WITHOUT PROPER INSTRUCTION.

USE FRESH, CLEAN, REGULAR GRADE GASOLINE ONLY.

air cleaner



CUP ASSEMBLED CORRECTLY

FIG. 6

1. Remove wing nut and cover.
2. Lift off foam element from base.
3. Push down foam element as shown, and pull out cleaner cup.
4. a. Wash foam element in liquid detergent and water to remove dirt.
b. Wrap foam in cloth and squeeze dry.
c. Saturate foam in engine oil. Squeeze to remove excess oil.
d. Put air cleaner cup inside element. Be sure sealing lip is over end of cup (top and bottom).
5. Reassemble parts as shown. Screw wing nut down tight.

IMPORTANT: NEVER RUN ENGINE WITH AIR CLEANER REMOVED.

starter air screen

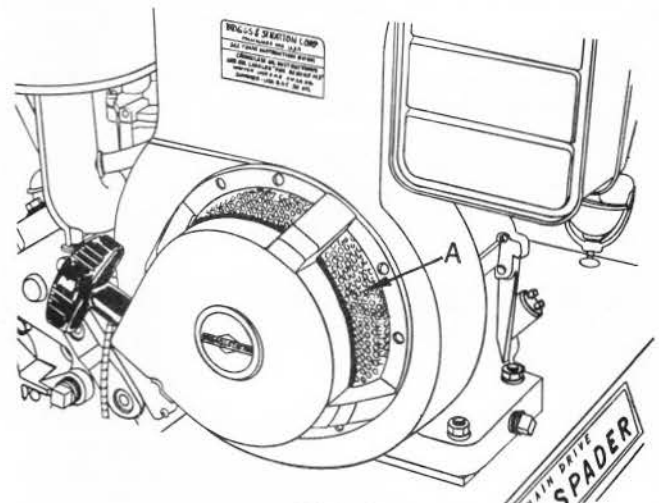


FIG. 7

Keep screen (A), around starter clean. Air is brought in through screen to cool engine. Clean with a steel brush frequently.

engine

KEEP THE ENGINE CLEAN AND FREE FROM ACCUMULATIONS OF GRASS, LEAVES, SPILLED OIL OR GASOLINE, ETC. THE PRESENCE OF SUCH COMBUSTIBLE MATERIALS MAY CAUSE FIRE.

COOLING SYSTEM

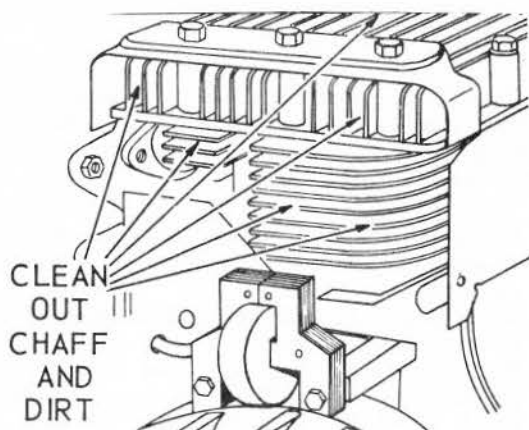


FIG. 8

Grass or chaff may clog system after prolonged service. Continued operation with a clogged cooling system causes severe overheating and possible engine damage. Remove blower housing and clean regularly.

carburetor

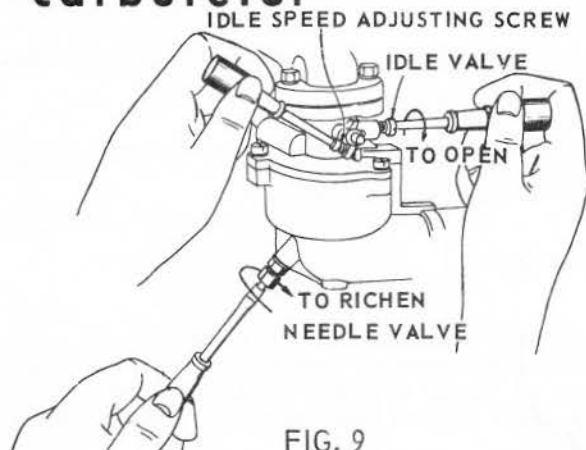


FIG. 9

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load.

TO ADJUST CARBURETOR: Turn needle valve clockwise until it just closes.

VALVE MAY BE DAMAGED BY TURNING IN TOO FAR. TIGHTEN BY HAND ONLY.

Now open needle valve 1-1/8 turns counterclockwise. Close idle valve in same manner and open 1-1/8 turns. This initial adjustment will permit the engine to be started and warmed up prior to final adjustment.

FINAL ADJUSTMENT: Turn needle valve in until engine misses (lean mixture), then turn it out past smooth operating point until engine runs unevenly (rich mixture). Now turn needle valve to the midpoint between rich and lean so the engine runs smoothly. Hold throttle at idle position and set idle speed adjusting screw until fast idle is obtained (1750 RPM). Move throttle control lever to slow position and turn idle valve in (lean) and out (rich) until engine idles smoothly. Then reset idle speed adjusting screw so that engine idles at 1750 RPM. Move throttle control lever to fast position--engine should accelerate without hesitation or sputtering. If engine does not accelerate properly, the carburetor should be re-adjusted to a slightly richer mixture.

spark plug

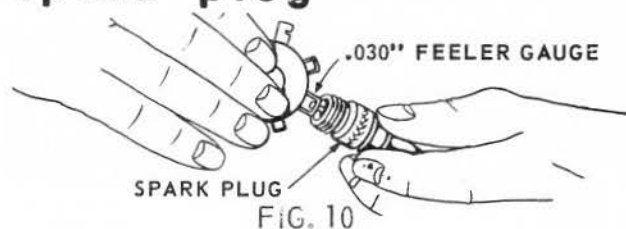


FIG. 10

Clean and reset gap at .030" every 100 hours of operation. Blast cleaning of spark plugs in machines that use abrasive grit is NOT recommended. Spark plugs should be cleaned by scraping or wire brushing and washing with a commercial solvent or gasoline. Should spark plug need replacing, use Champion CJ-8, or equivalent.

DISCONNECT SPARK PLUG WIRE AT SPARK PLUG BEFORE PERFORMING ANY MAINTENANCE TO PREVENT ACCIDENTAL STARTING OF ENGINE.

engine lubrication

CHECK OIL LEVEL REGULARLY--AFTER EACH 5 HOURS OF OPERATION. STOP ENGINE AND WAIT SEVERAL MINUTES BEFORE CHECKING OIL LEVEL. BE SURE OIL LEVEL IS MAINTAINED AND SPADER IS ON LEVEL GROUND.

1. Change oil after first 5 hours of operation. Thereafter, change oil every 25 hours of operation. Remove oil drain plug and drain oil while engine is warm. Replace oil drain plug.

NOTE: THE BEST TIME TO DRAIN OIL IS AT THE END OF A DAY'S OPERATION AT WHICH TIME THE OIL IS HOT AND ALL DIRT AND FOREIGN MATERIAL IS SUSPENDED IN THE OIL.

2. Refill engine crankcase with oil as instructed under "Engine Lubrication", page 6. Capacity 2 3/4 pints. Nothing should be added to the recommended oil. Check oil level after each 5 hours of operation and add oil, if necessary, to bring to correct level.

MAJOR REPAIRS SHOULD NOT BE ATTEMPTED UNLESS YOU HAVE THE PROPER TOOLS AND A THOROUGH KNOWLEDGE OF THIS MACHINE.

transmission lubrication

1. Check oil in transmission at the time of the initial engine oil change--after first five hours of operation. Remove pipe plug (A), located on R.H. side of transmission. Oil level must be even with bottom of plug. If necessary, add All-state S.A.E. 30 motor oil for service M.S. or equivalent. Replace pipe plug.

IMPORTANT: BE EXTREMELY CAREFUL TO PREVENT DIRT OR FOREIGN PARTICLES FROM ENTERING THE ENGINE CRANKCASE OR TRANSMISSION WHEN CHECKING OIL LEVEL.

belt adjustment

OIL DRAIN PLUG

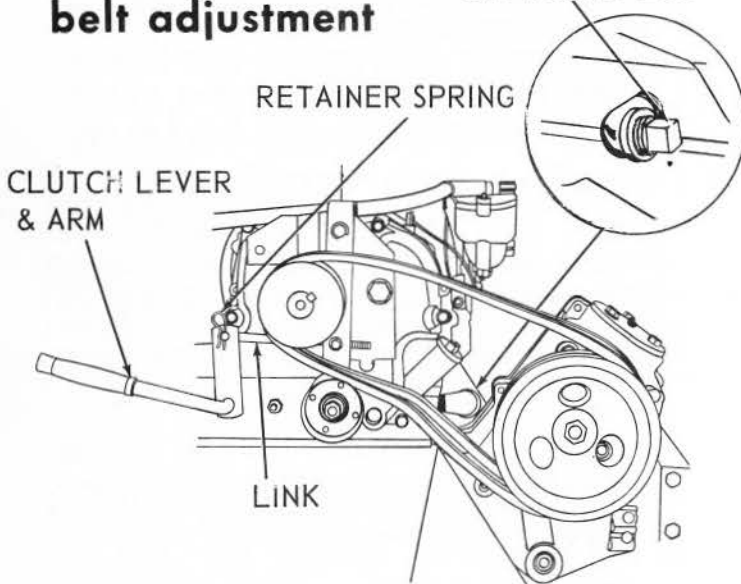


FIG. 11

The clutch is a belt tightener type. Belts should be just tight enough to prevent slipping. To tighten belts remove retainer spring securing belt tightener link to lever and arm, and turn link in a counter clockwise direction when standing in front of spader, one turn at a time until belts no longer slip. Belts that are too tight stretch, require more H.P. and put more strain on bearings.

belt replacement

1. Remove 3 bolts holding belt guard to spader.
2. Remove old belts.
3. Install new belts so that lower sides of belts are above idler as shown.
4. Replace belt guard.

NOTE: Bolt in engine at front of guard has fine threads. The other two bolts have coarse threads. Readjust belt. See Belt adjustment above.

storage

Engines to be stored over 30 days should be completely drained of fuel to prevent gum deposits forming on essential carburetor parts, fuel filter, fuel lines and tank.

1. Drain fuel tank completely and clean fuel filter.
2. Operate engine until gasoline in carburetor is completely consumed.
3. While engine is still warm, drain oil from crankcase. Refill with fresh oil.
4. Remove spark plug, pour one ounce (2 or 3 tablespoons) of SAE-30 oil into cylinder and crank slowly to distribute oil. Replace spark plug.
5. Clean dirt and chaff from cylinder head fins, blower housing and entire Spader.

IF ROTO-SPADER IS TO BE STORED FOR AN EXTENDED PERIOD, EMPTY THE GASOLINE STORAGE CONTAINER, EITHER DISCARDING THE GASOLINE IN A SAFE PLACE OR USING IT IN OTHER GASOLINE-POWERED EQUIPMENT FOR WHICH IT MAY BE SUITED.

STORE YOUR SPADER INSIDE A DRY WEATHER PROOF BUILDING.

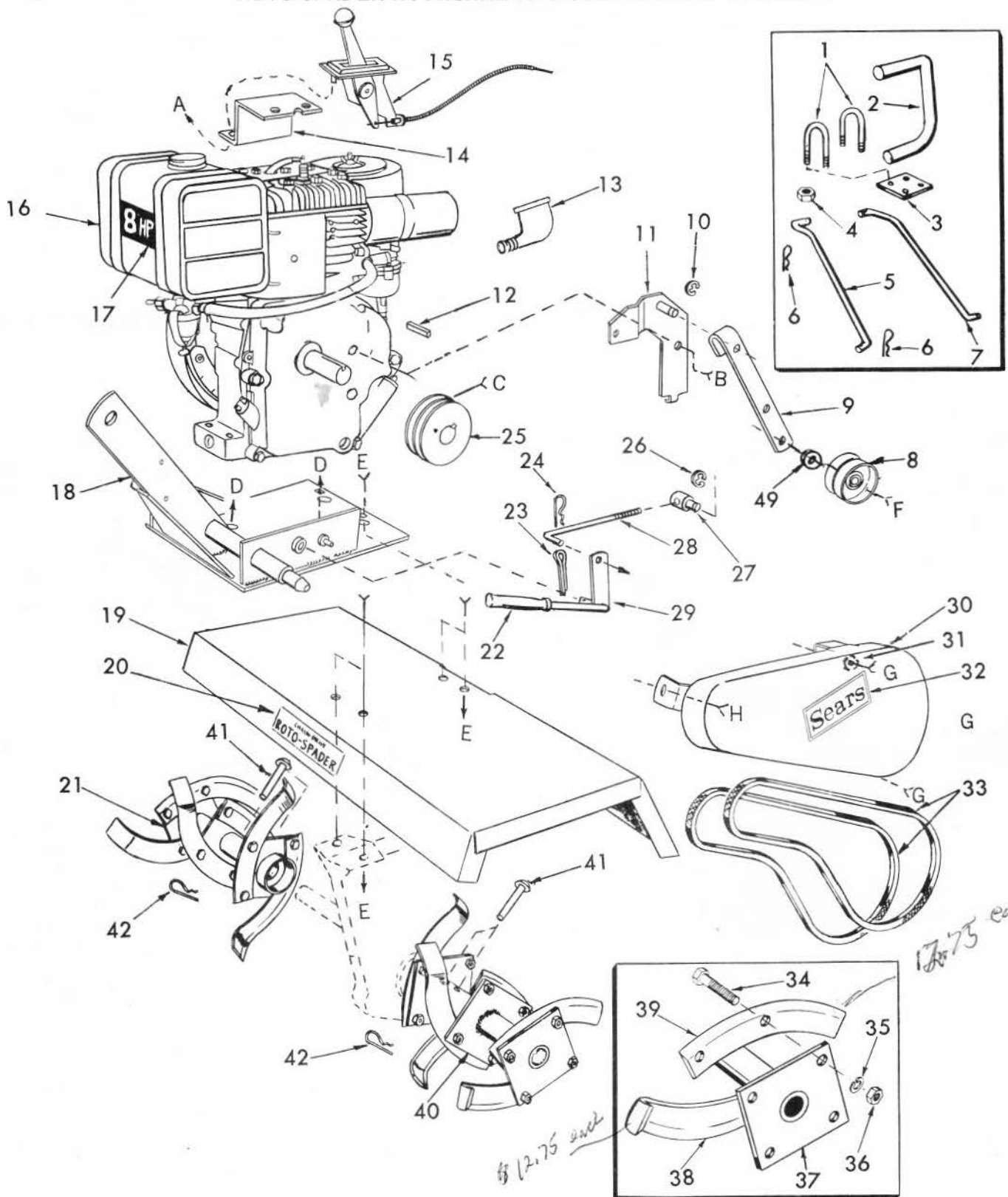
general

1. Just as your automobile needs professional mechanical maintenance from time to time, so does your air cooled engine. Periodic replacement of the spark plug is made necessary by NORMAL use.
2. Professional air cooled engine service is as close as your nearest Sears Service Dept.
3. A yearly check-up or tune-up by Sears Service Dept. is a good idea to avoid breakdowns or delays--Do it each fall, then you're ready for spring. We even prepare it for storage for you.

notes

repair parts ROTO-SPADER ATTACHMENT--MODEL NUMBER 917.251890

another free manual from www.searstractormaterials.com



17.75 each

\$12.75 each

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repair parts

ROTO-SPADER ATTACHMENT--MODEL NUMBER 917.251890

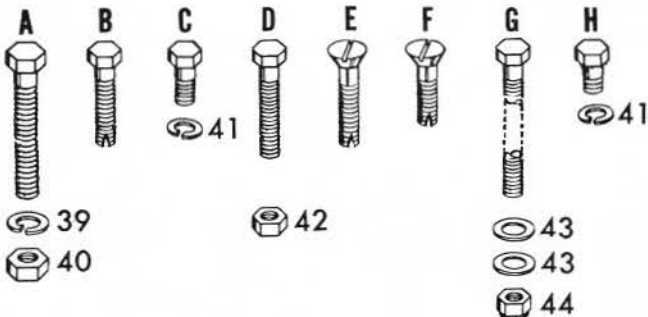
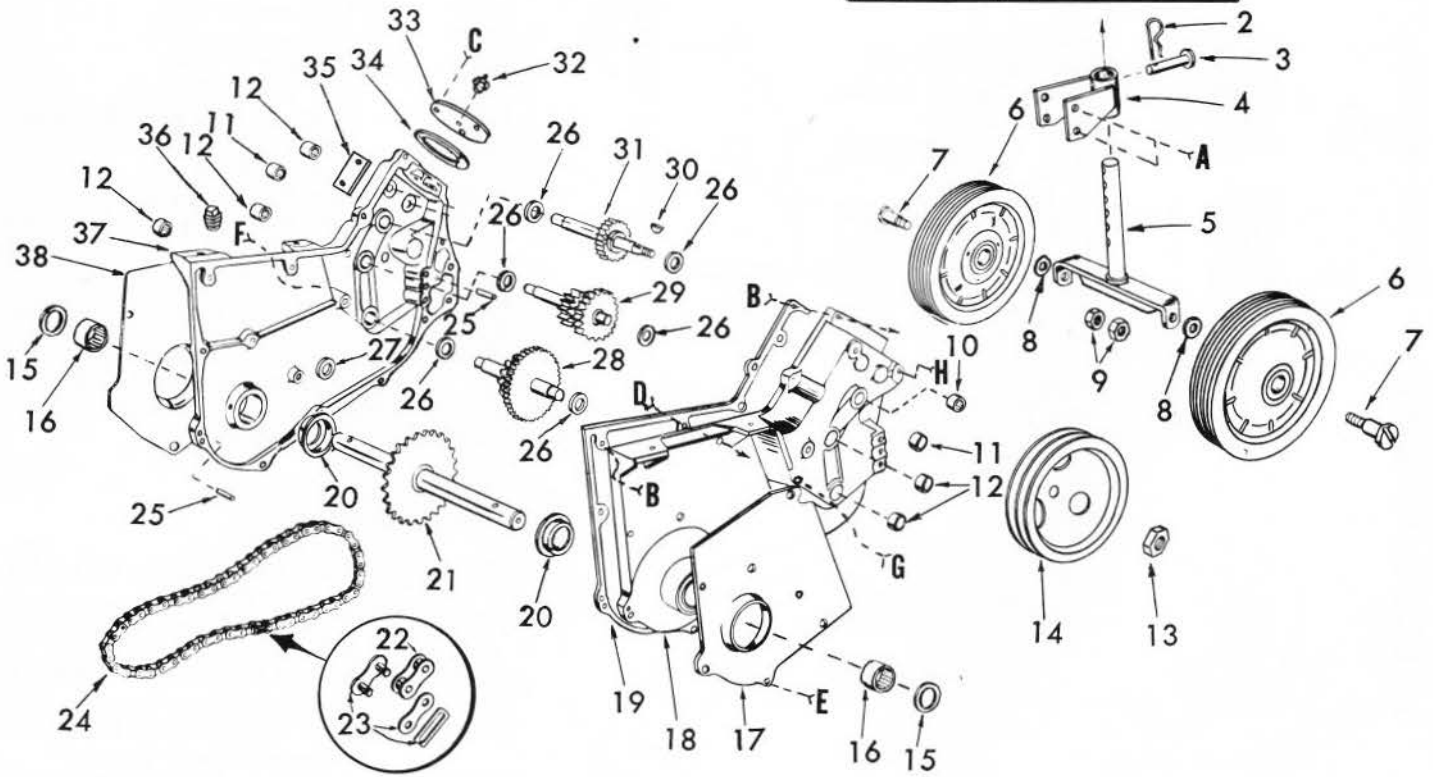
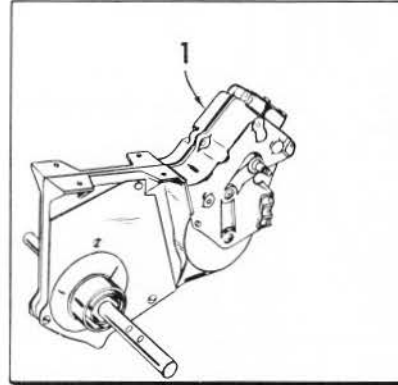
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	6678H	U Bolt	35	1004P	Lockwasher 3/8
2	3457R	Lift Handle Extension	36	501P	Hex Nut 3/8-16
3	6665H	U Bolt Plate	37	634A558	Tine Shaft-Outer & Plate
4	545P	Gripco Crown Locknut 3/8-16	38	6712H	Tine L.H.
5	6654H1	Lift Link L.H.	39	6713H	Tine R.H.
6	4939M	Retainer Spring	40	634A556	Tine Plate & Hub L.H. (Less Tines)
7	6655H1	Lift Link R.H.	41	4929H	Drilled Pan Hd. Rivet 3/8 x 1 3/4
8	3475R	Idler Pulley	42	3146R	Retainer Spring
9	9401H	Idler Arm	43	1002P	Lockwasher 1/4
10	4927H	E-Ring	44	1000P	Lockwasher 1/2
11	624A38	Idler Arm Support & Pivot	45	1003P	Lockwasher 5/16
12	4914H	Square Key 1/4 sq.	46	504P	Hex Nut 5/16-18
13	4012P	Street Elbow-Std. 90°	47	508P	Hex Jam Nut 3/8-16
14	3468R	Throttle Control Bracket	48	1537P	Washer 11/32 x 11/16 x 16 Ga.
15	3473R	Throttle Control	49	1517P	Washer 7/16 x 1 x 14 Ga.
16	634A552	Engine 8 H.P. Briggs & Stratton 190402	A	503P	Hex Nut 1/4-20
17	823R	Scotchcal 8 H.P.	B	3234P	Hex Bolt 1/2-20 x 3/4
18	634A561	Hitch Plate Weldment	C	4531P	Hex Socket Hdless. Set Screw 5/16-18 x 3/8
19	3467R	Tine Shield	D	46P	Plow Bolt 5/16-18 x 1 3/4
20	8268H	Scotchcal (Chain Drive Roto-Spader)	E	44P	Plow Bolt 3/8-16 x 1 1/4
21	634A557	Tine Plate & Hub R.H. (Less Tines)	F	3028P	Hex Bolt 3/8-16 x 1 3/4
22	4379H	Handle Grip	G	6024P	Hex Bolt w/ext. Tooth Lockwasher 5/16-18 x 3/4
23	2501P	Cotter Pin 5/32 x 1	H	3010P	Hex Bolt 5/16-18 x 3/4
24	4497H	Retainer Spring	---	3482R	Owners Manual
25	3471R	Engine Sheave			
26	6683H	E-Ring			
27	6656H	Adjusting Pin			
28	6652H	Belt Retainer Link			
29	634A60	Léver and Arm			
30	634A560	Belt Guard & Brackets			
31	1556P	Washer 13/32 x 7/8 x 14 Ga.			
32	5708H	Scotchcal (Sears)			
33	634A563	Set of 2 Matched V-Belts			
34	3091P	Hex Bolt 3/8-16 x 1 H.T. Grade 5			

OPTIONAL EQUIPMENT (NOT ILLUSTRATED)

3567H	Slow Speed Engine Pulley for 1" dia. shaft
6109H	Slow Speed Engine Pulley for 1-1/8" dia. shaft
3568H	V Belt for 3567H or 6109H slow speed engine pulleys
5352H1	Slow Speed Engine Pulley for 3 Speed Custom Tractor
5559H	V Belt for 5352H1 Engine Pulley

repair parts

ROTO-SPADER ATTACHMENT--MODEL NUMBER 917.251890



another free manual from www.searstractormanuals.com

repair parts

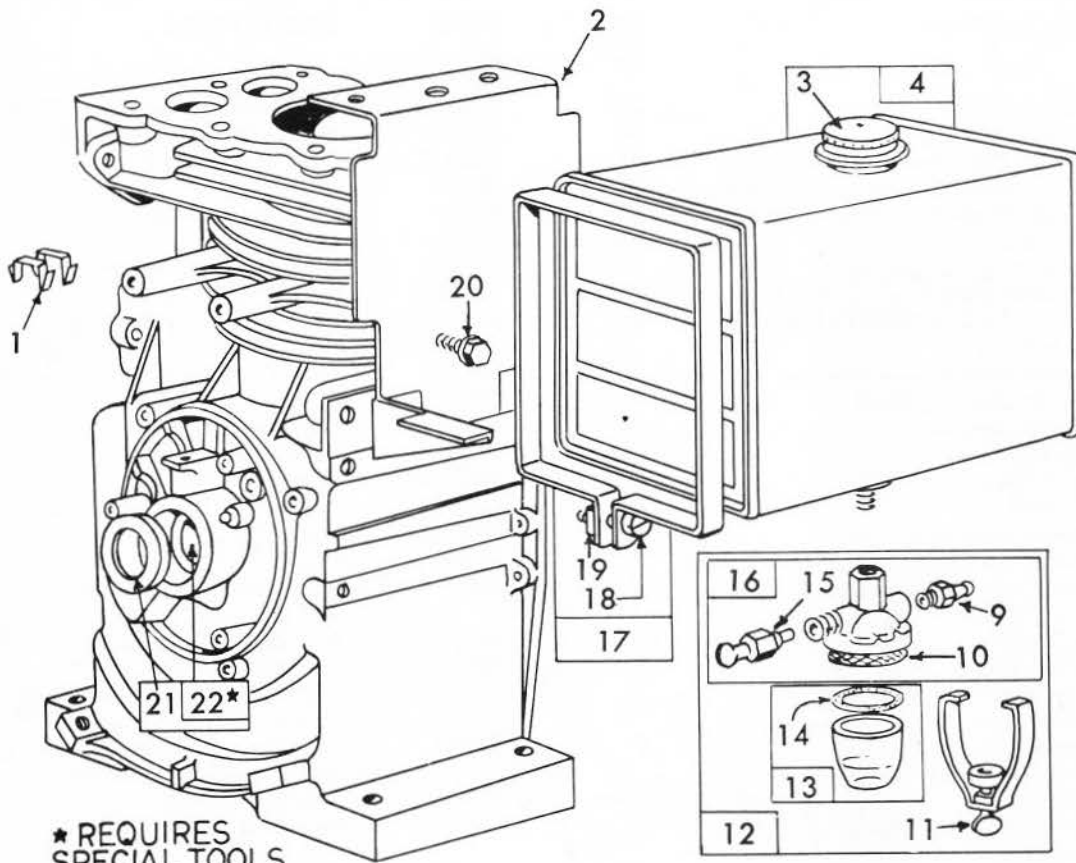
ROTO-SPADER ATTACHMENT--MODEL NUMBER 917.251890

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	634A562	Transmission	29	634A58	1st Reduction Shaft and Gears
2	4939M	Retainer Spring	30	9858M1	Woodruff Key 3/16 x 5/8
3	4929H	Drilled Pan Head Rivet 3/8 x 3/4	31	634A57	Input Shaft and Pinion
4	634A61	Gauge Wheel Sleeve and Brackets	32	5855H	Relief Valve
5	634A559	Gauge Wheel Adjusting Shaft and Brackets	33	6672H	Gear Shift Cover
6	3148R	Wheel	34	4913H	Gasket
7	4898H	Shoulder Bolt	35	3470R	Model Number Plate
8	1557P	Washer 13/32 x 13/16 x 11 Ga.	36	4002P	Pipe Plug 1/2 14 N.P.T.
9	514P	Lock Nut	37	624A57	Gear Case and Bearings R.H. Half
10	3136R	Needle Bearing	38	4878H1	Gear Case Shield R.H. <i>4-388</i>
11	6677H	Needle Bearing Shell	39	1004P	Lockwasher 3/8
12	4895H	Needle Bearing	40	501P	Hex Nut 3/8-16
13	9204H	Hex Nut 1/2-20	41	1003P	Lockwasher 5/16
14	3472R	Input Sheave	42	504P	Hex Nut 5/16-18
15	4910H	Oil Seal	43	1574P	Washer 3/8 x 7/8 x 10 Ga.
16	4896H	Needle Bearing	44	1685H	Lock Nut 5/16-18
17	4877H1	Gear Case Shield L.H.	A	3030P	Hex Bolt 3/8-16 x 2 1/4
18	624A56	Gear Case and Bearings L.H. Half	B	5521P	Hex Head Tapping Screw 5/16-18 x 1 1/2, Type T
19	2601R	Gasket	C	3010P	Hex Bolt 5/16-18 x 3/4
20	4870H	Thrust Cap	D	3015P	Hex Bolt 5/16-18 x 2
21	634A555	Tine Shaft and Sprocket	E	5520P	Flat Head Slotted Tapping Screw 5/16-18 x 1 1/2 Type T
22	4950H	Roller Link	F	5519P	Flat Head Slotted Tapping Screw 5/16-18 x 1 1/4 Type T
23	4949H	Connecting Link	G	3018P	Hex Bolt 5/16-18 x 6
24	2600R	Roller Chain	H	3008P	Hex Bolt 5/16-18 x 1/2
25	9880M	Dowel Pin			
26	1370H	Thrust Bearing Race			
27	4912H	Gasket			
28	634A59	2nd Reduction Shaft and Gears			

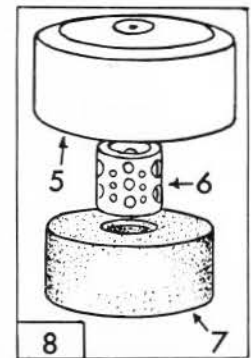
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8 H.P. ENGINE MODEL NUMBER 190402

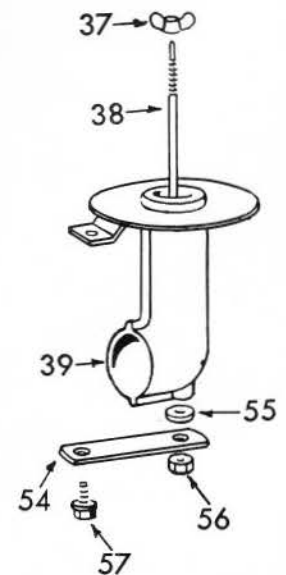
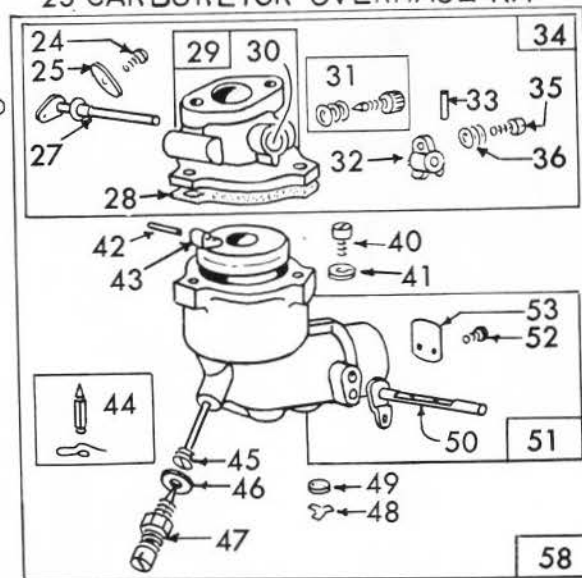
TYPE NUMBER 0780-01



* REQUIRES
SPECIAL TOOLS
FOR INSTALLING



23 CARBURETOR OVERHAUL KIT



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TYPE NUMBER 0780-01

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	221907	Clip-Wire	31	† 292681	Valve Assembly-Carburetor
2	221935	Bracket- Fuel Tank			Idle
3	69221	Cap-Fuel Tank	32	61967	Stop-Throttle
4	290816	Tank Assy.-Fuel	33	93043	Pin-Throttle Stop
5	221468	Cover-Air Cleaner	34	390404	Body Assembly-Upper
6	280001	Cup-Air Cleaner			Carburetor
7	270093	Element-Air Cleaner	35	91920	Screw-Mach. Fil. Hd.
8	390400	Cleaner Assy.-Air			#8-32 x 5/8
9	230318	Connector-Fuel Pipe	36	26157	Spring-Throttle
10	22547	Screen-Fuel Filter	37	93453	Nut-Wing
11	99665	Yoke-Fuel Filter	38	230768	Stud-Air Cleaner
12	295984	Filter Assembly-Fuel	39	390311	Pipe Assy.-Air Cleaner
13	298683	Bowl-Fuel Filter	40	90746	Screw-Mach., Fil. Hd.
14	*68477	Gasket-Fuel Filter			#10-32 x 5/8
15	295913	Valve-Fuel Shut-off	41	92290	Washer-Lock-No. 10 x
16	296005	Cover Assembly-Fuel			1/16 x 3/64
17	291367	Strap Assy.-Fuel Tank	42	† 230896	Pin-Float Hinge
18	91257	Screw-Mach. Fil. Hd.	43	99333	Float-Carburetor
		1/4-20 x 1 1/2	44	299096	Valve-Fuel Inlet
19	90970	Nut-Square 1/4-20	45	† 390395	Nozzle-Carburetor
20	93535	Screw-Sems	46	† 68667	Gasket-Nozzle
21	294606	Seal-Oil	47	† 99525	Valve Assembly-Needle
22	295962	Bushing- Cylinder	48	220521	Retainer-Carburetor
		Note: Requires special			Drain Filter
		tools for installation	49	27590	Filter-Carburetor Drain
23	295938	Carburetor Over Haul	50	390669	Shaft and Lever-Choke
		Kit	51	390781	Body Assy.-Lever
24	93038	Screw-Throttle and Choke			Carburetor
		Valve Mtg. Sem	52	93038	Screw-Throttle and Choke
25	62940	Valve-Throttle			Valve Mtg. Sem
26	67218	Connector-Fuel Pipe	53	62872	Valve-Choke
27	298826	Shaft and Lever-Throttle	54	222150	Strap-Air Cleaner Pipe
28	† 27918	Gasket-Carburetor Body	55	66648	Gasket-Air Cleaner Stud
29	390503	Body-Upper Carburetor	56	92129	Nut-Hex 1/4-28
30	23108	Bushing-Throttle Shaft	57	93158	Screw-Sem
			58	390680	Carburetor Assy.
			59	93053	Clamp-Fuel Pipe
			60	299942	Pipe-Fuel

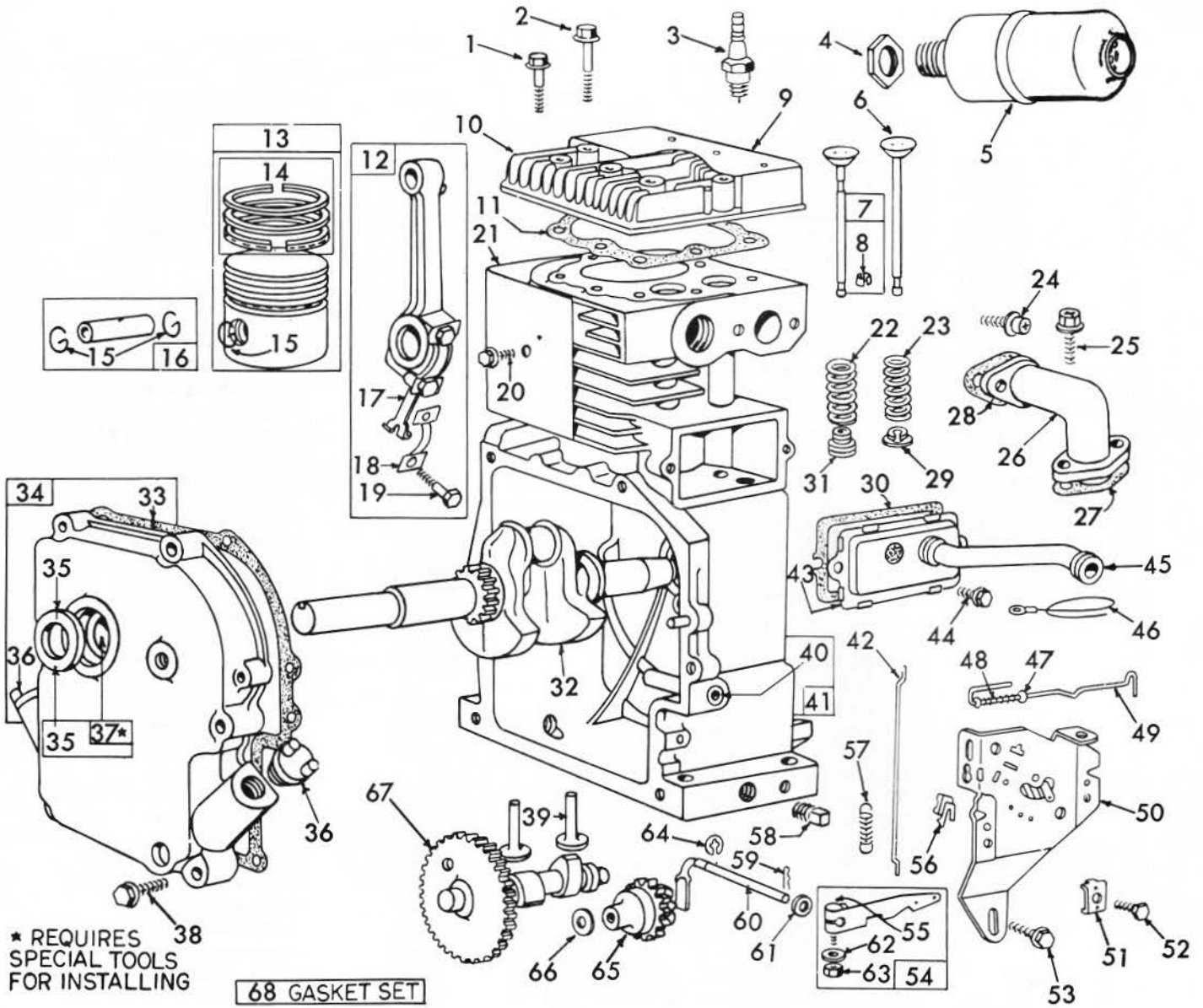
*Included in gasket set part no. 299577

† Included in carburetor overhaul kit part no. 295938

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TYPE NUMBER 0780-01



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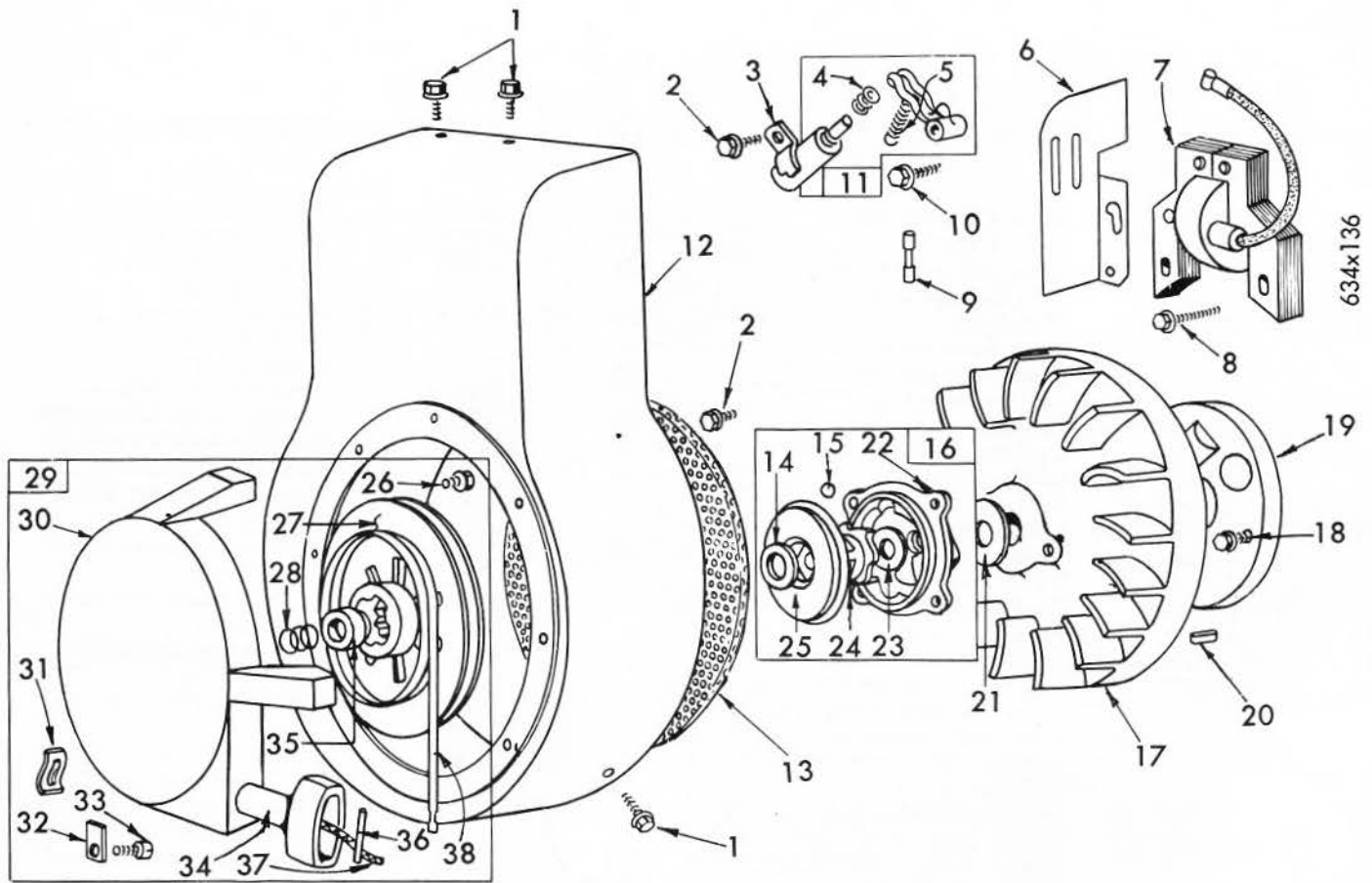
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	93210	Screw-Cylinder Head (2-9/32 long)	22	26828	Spring-Exhaust Valve
2	93211	Screw-Cylinder Head (2-9/16 long)	23	65906	Spring-Intake Valve
3	298809	Plug-Spark Note: Spark plugs 298809 use ignition cable terminal no. 221798	24	93208	Screw-Intake Elbow Mounting Sem.
4	91242	Locknut- Muffler	25	93128	Screw-Carburetor Mounting Sem.
5	390249	Muffler-Exhaust	26	211812	Elbow-Intake
6	261055	Valve-Intake	27	* 270684	Gasket-Intake Elbow
7	390419	Valve-Exhaust	28	* 27828	Gasket-Intake Elbow Mtg.
8	93630	Retainer-Exhaust Valve Rotocoil (2)	29	221596	Retainer-Intake Valve
9	221901	Cover-Cylinder Head	30	* 27803	Gasket-Valve Cover
10	211778	Head-Cylinder	31	292260	Rotocoil-Exhaust Valve
11	* 270430	Gasket-Cylinder Head	32	261077	Crankshaft
12	390401	Rod Assy.-Connecting Note: For connecting rod with .020" undersize crankpin bore-order no. 390773	33	* 27750	Gasket-Crankcase cover 1/64" thick
13	390347	Piston Assembly Std.		* 27876	Gasket- Crankcase cover .005" thick
	390348	Piston Assy. .010" O.S.	34	299167	Gasket-Crankcase cover .009" thick
	390349	Piston Assy. .020" O.S.	35	298423	Cover Assy.-Crankcase
	390350	Piston Assy. .030" O.S.	36	66768	Seal-Oil
	Piston ring sets	Note: For chrome ring set standard size order no. 299743	37	295964	Plug-Oil Filler
			38	93585	Bushing-Crankcase Cover Note: Requires special tools for installation
14	299569	Ring Set-Piston-std. Consists of 211637 piston ring comp. top std. 211636 piston ring comp. center std. 211635 piston ring oil std.	39	260933	Screw-Crankcase cover mounting sem.
	299570	Ring Set-Piston-.010" O.S. Consists of 211649 piston ring comp. top .010" O.S. 211650 piston ring comp. center .010" O.S. 211651 piston ring oil .010" O.S.	40	230843	Tappet-Valve
	299572	Ring Set-Piston-.030" O.S. Consists of 211657 piston ring comp. top .030" O.S. 211658 piston ring comp. center .030" O.S. 211659 piston ring oil .030" O.S.	41	390399	Bushing-Governor Shaft
15	68546	Lock-Piston Pin	42	260872	Cylinder Assembly
16	295840	Pin Assy.-Piston-Std.	43	390321	Link-Governor
	295841	Pin Assy.-Piston.005" O.S.	44	93536	Breather Assembly
17	222113	Dipper-Connecting Rod	45	67068	Screw-Sem
18	222114	Lock-Conn. Rod Screw	46	299500	Tube-Breather
19	92659	Screw-Connecting Rod	47	221198	Wire-Ground
20	93163	Screw-Cylinder Shield Mtg. Sem.	48	261119	Washer-Choke Link
21	221898	Shield-Cylinder	49	261122	Spring-Choke Link
			50	390670	Link-Choke
			51	221535	Plate-Governor Control
			52	93496	Clamp-Casing
			53	93535	Screw-Sem.
			54	299165	Screw-Sem.
			55	92613	Lever Assy.-Governor
			56	297472	Bolt-Governor Lever
			57	261194	Switch-Stop
			58	91084	Spring-Governor
			59	93306	Plug-Oil Drain
			60	230842	Cotter-Hair Pin
			61	221559	Crank-Governor
			62	220680	Washer-Spacer
			63	90356	Washer
			64	93307	Nut-Hex 10-24
			65	297656	Retainer-E-Ring
			66	221551	Gear-Governor
			67	210728	Washer-Thrust
			68	299577	Gear-Cam
					Gasket Set

* Included in gasket set Part no. 299577

repair parts

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TYPE NUMBER 0780-01



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	93158	Screw-Sem.	19	222117	Cover-Breaker Point
2	93042	Screw-Sem.	20	61760	Key-Flywheel
3	220477	Clamp-Condenser	21	220865	Washer-Spring
4	260374	Spring-Connector	22	221383	Housing-Rewind Starter Clutch
5	26018	Spring-Breaker Arm	23	66718	Washer-Starter Clutch Thrust
6	221760	Guide-Air	24	298799	Ratchet-Rewind Starter Clutch
7	298968	Armature Assembly	25	221653	Washer-Retainer
8	93381	Screw-Armature Mtg. Sem	26	93067	Screw-Rewind Starter Housing Mtg. Sem.
9	65704	Plunger-Breaker Point	27	295871	Pulley-Rewind Starter Spring-Ratchet
10	93381	Screw-Breaker Arm Mounting Sem	28	260414	Starter Assy.-Rewind
11	294628	Breaker points and condenser set. Note: 299061 ignition kit includes 294628 point set 65704 plunger and 61760 key-flywheel.	29	295272	Housing-Rewind Starter
12	299853	Housing-Blower	30	221014	Anchor-Spring
13	221796	Screen-Rewind Starter	31	68848	Bumper-Starter Pulley
14	68238	Washer-Ratchet Sealing	32	93254	Screw-Pulley Bumper Mounting
15	63770	Ball-Clutch	34	66728	Grip-Starter Rope
16	298798	Clutch Assy.-Rewind Starter	35	230543	Adapter-Ratchet Spring
17	298260	Flywheel-Magneto	36	230228	Pin-Starter Grip
18	93014	Screw-Sem	37	66564	Rope-Rewind Starter
			38	294303	Spring-Rewind Starter

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The Model Number will be found on a plate attached to R.H. side of transmission. Always mention the Model Number when requesting service or repair parts for your Roto-Spader.

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. or SIMPSONS-SEARS LIMITED. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER
917.291890
4. The NAME OF ITEM—
Roto-Spader.



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