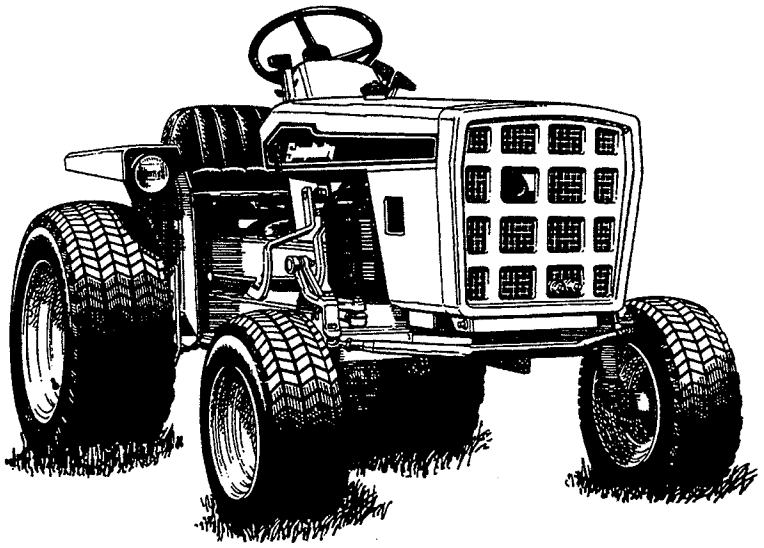
Simplicity®

Operator's Manual

POW'RMAX - 4041
& ALLIS CHALMERS 620 SERIES
AGRICULTURAL & INDUSTRIAL TRACTORS



POW'RMAX 4041 SERIES

Mfg. No.	Description
990953	Pow'rMax 4041 Tractor
990954	Pow'rMax 4041 Tractor

ALLIS-CHALMERS 620 SERIES

Mfg. No.	Description
2020303	620 Tractor
2020304	620 Tractor

Rev. 9/1998
TP 100-1369-01-PM-SA

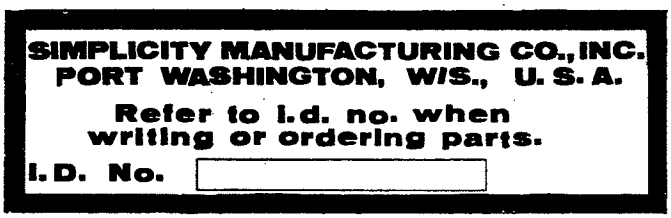
TO THE OWNER

Congratulations on your purchase of the Simplicity 4041 tractor. It has been designed with emphasis on the ability to do your most important jobs quickly and efficiently with the least operator effort. The versatile hydrostatic transmission allows you to shift from forward to reverse without stopping to change gears. With it you can also select exactly the right ground speed for any condition without changing engine speed and decreasing attachment efficiency. Simplicity has provided you with a large selection of quality engineered attachments specifically designed for the 4041 to make it truly a tractor for all seasons. We have shown some in this manual — many others are available from your Simplicity dealer.

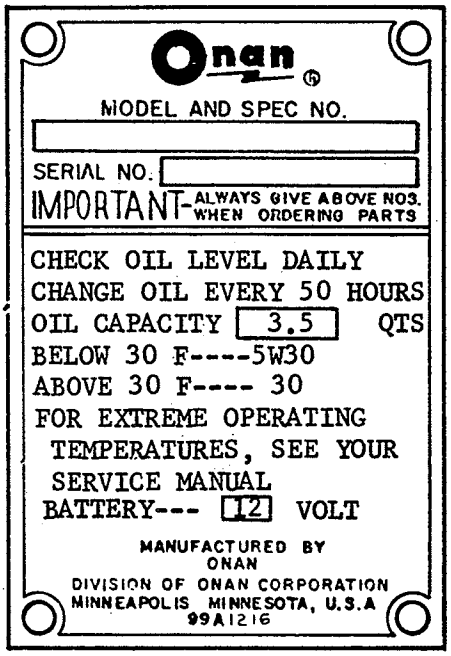
So that you can get the very most from your purchase, you and anyone else who may operate the tractor should study this manual and the owners manual for your attachments before using the 4041 tractor. It will help us add you to our long list of satisfied Simplicity customers. Throughout the manual, we will refer to directions as left, right, front and rear. These directions are as the operator sits on the tractor seat, with the clutch pedal on the left side of the tractor, the brake pedals on the right, the engine toward the front, and the tractor draw bar at the rear.

For your own safety, and that of your family and friends, periodically review the safety tips. You will find the table of contents and alphabetized index very useful in referring to this manual when questions arise in the future. We have provided you with information to perform most service jobs quickly and easily, but your Simplicity dealer will be happy to help you with any service or repair work.

When ordering replacement parts for your 4041 tractor, be prepared to give your Simplicity dealer the identification numbers found on the tractor and engine identification plates shown below. The identification plate for the tractor is found on the right side of the frame below the tractor seat. The one for the engine is located on the left side of the engine blower housing (side opposite the engine oil filter). Locate the numbers and record them below for easy reference.



TRACTOR IDENTIFICATION PLATE



ENGINE IDENTIFICATION PLATE

PERIODICALLY REVIEW THE SAFETY PRECAUTIONS FOUND IN THE SAFETY SECTION OF THIS MANUAL

TABLE OF CONTENTS

SIMPLICITY NEW EQUIPMENT WARRANTY

The Company warrants Simplicity products to be free from defects in material and workmanship, except the Company makes no warranty, express or implied, with respect to tires, engines, generators and voltage regulators, which are warranted by their respective manufacturers. Any part covered by this warranty which is proven defective within one year (6 months for equipment used for rental, municipal or commercial purposes) under normal use, from date of purchase, will be replaced without charge, provided such part is returned to the factory, (if requested), and is found to be defective upon examination at the factory. This warranty does not apply to any Simplicity products altered outside of the Simplicity factory. **THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE.** The Company's obligation under its warranty is strictly and exclusively limited to the replacement of such parts, and in no event shall the Company be liable for any other damages, whether direct, immediate, incidental, special, or consequential. Simplicity Manufacturing Company, Inc., reserves the right to modify or change specifications without prior notification. There are no warranties which extend beyond the description of any Simplicity product.

SAFETY PRECAUTIONS TO
PROTECT YOURSELF AND OTHERS

OPERATION
Know the controls and how to stop quickly - **READ THE OWNER'S MANUAL.**

Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.

Do not carry passengers. **KEEP CHILDREN AND PETS A SAFE DISTANCE AWAY.**

Clear work area of objects which might be picked up and thrown.

Take all possible precautions when leaving vehicle unattended; such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.

Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes; never across the face.

Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

Stay alert for holes in terrain and other hidden hazards.

Use care when pulling loads or using heavy equipment.
- A. Use only approved drawbar hitch points.
- B. Limit loads to those you can safely control.
- C. Do not turn sharply. Use care when backing.
- D. Use counterweight (s) or wheel weights when suggested in owner's manual.

Watch out for traffic when crossing or near roadways.

Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.

Do not alter basic engine governor settings or overspeed engine.

Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.

FUEL & FIRE HAZARDS
Handle gasoline with care -- it is highly flammable.
- A. Use approved gasoline container.
- B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
- C. Open doors if engine is run in garage -- exhaust fumes are dangerous. Do not run engine indoors.

Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark.

Allow engine to cool before storing in any enclosure.

To reduce fire hazard keep engine free of grass, leaves or excessive grease.

ATTACHMENTS
Disengage all attachment clutches and shift into neutral before attempting to start engine.

Disengage power to attachments and stop engine before leaving operator position.

Disengage power to attachment (s) and stop engine before making any repairs or adjustments.

Disengage power to attachments when transporting or not in use.

When using any attachments never direct discharge of material toward bystanders or allow anyone near vehicle while in operation.

Keep vehicle and attachments in good operating condition and keep safety devices in place. Use guards as instructed in owner's manual.

Vehicle and attachments should be stopped and inspected for damage after striking a foreign object and the damage should be repaired before restarting and operating the equipment.

When using vehicle with mower:
- (1) Mow only in daylight or in good artificial light.
- (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
- (3) Shut engine off when unclogging chute.
- (4) Check blade mounting bolts for proper tightness at frequent intervals.

Stop blades when crossing gravel drives, walks or roads.

If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.

SIMPLICITY OFFERS YOU

The Simplicity 4041. It's a new concept, a new size in tractors . . . designed from the ground up to do its jobs better and faster than any tractor before it. Integrated design matches tractor, attachments, and function for optimum performance. Not an overgrown garden tractor, not a stripped-down ag or industrial model, the 4041 is specifically engineered to fill the gap that has existed between these categories. It's designed to deliver high performance on a host of rugged jobs . . . small-acreage farming and utility chores, industrial and institutional groundskeeping, club maintenance, suburban estate care and similar work.

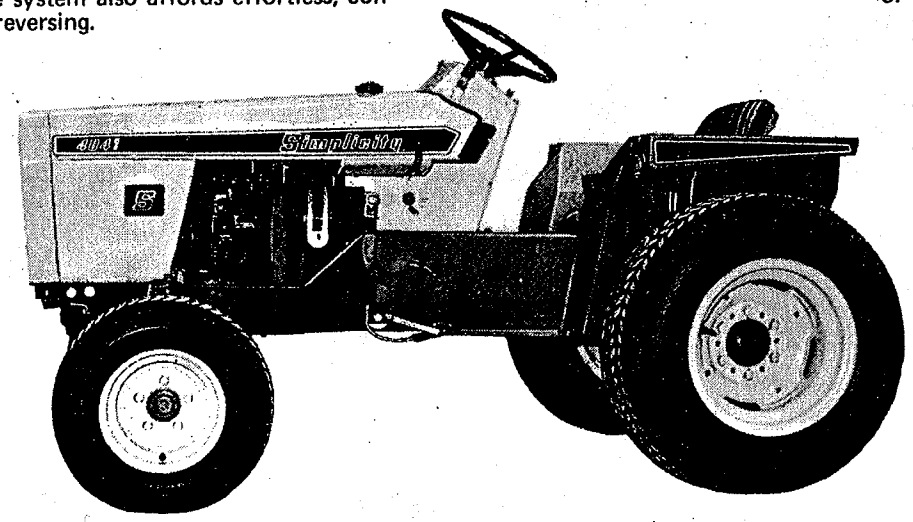
You'll find feature after feature on the Simplicity 4041 that other tractors simply don't offer. Features that tailor it ideally to the jobs it's meant to do. Like the unique combination of hydrostatic drive and 3-speed transmission, that permits selection of precisely the right combination of power and speed for any job, while attachments run at peak efficiency. This drive system also affords effortless, convenient clutchless ground speed changing and reversing.

The 4041 also offers power take offs that operate independently of the tractor transmission. Driven directly off the engine through an electromagnetic clutch or electrical switch the PTOs deliver continuous power to attachments, so work gets done quickly and efficiently.

The rugged, fast-acting hydraulic lift system on the 4041 also helps speed up work and reduce effort. It lets the operator position any attachments quickly, precisely, with just the touch of a finger.

Hydrostatic drive and 3-speed transmission. Only the 4041 offers this combination. Hydrostatic drive gives an infinite selection of speeds -- to 10.4 mph forward, 6.2 mph in reverse -- controlled by one simple lever, with no need to de-clutch even when changing direction. Three-speed gearbox lets you select the efficient power range for any job. Limited-slip differential . . . reduces wheel-spin under slippery conditions.

Reliable 19-1/2 H.P. Onan Engine. It's demonstrated amazing dependability in hundreds of thousands of hours. Air-cooled, to end radiator problems. No oil mixing, thanks to 4-cycle design. Full-pressure lubrication with oil filter. Steel alloy valves with positive rotation.



High ground clearance. The 4041 is a full 15" above the ground, to clear row crops easily and work better in snow or soft soil. Even with removable drawbar in place, clearance is still 13".

Big disc brakes. Plenty of stopping power from two independent disc brakes on rear wheels. Can be operated independently to aid in steering or controlling slippage, or simultaneously for safe, sure stops.

Operators convenience. Comfortable, convenient, easy to get on or off. Controls all located within easy reach. Instrument panel is easy to read. Seat adjusts to suit any operator. Footrests and pedals are non-skid for safety.

3-point hitch (optional). A must for farm work, or any job requiring rear-mounted implements. Designed for Category "O" tools. Adjusting screws control attachment tilt.

Tires. Choose the type that fits the job. Agricultural tires are standard, with offset wheels that can be reversed to vary tread according to crop spacing. Optional tires offered include turf type, or high-flotation, or heavy-duty front tires for use with end loader.

TURF TIRES SHOWN ARE OPTIONAL

Simplicity®
POWER EQUIPMENT

OPERATION

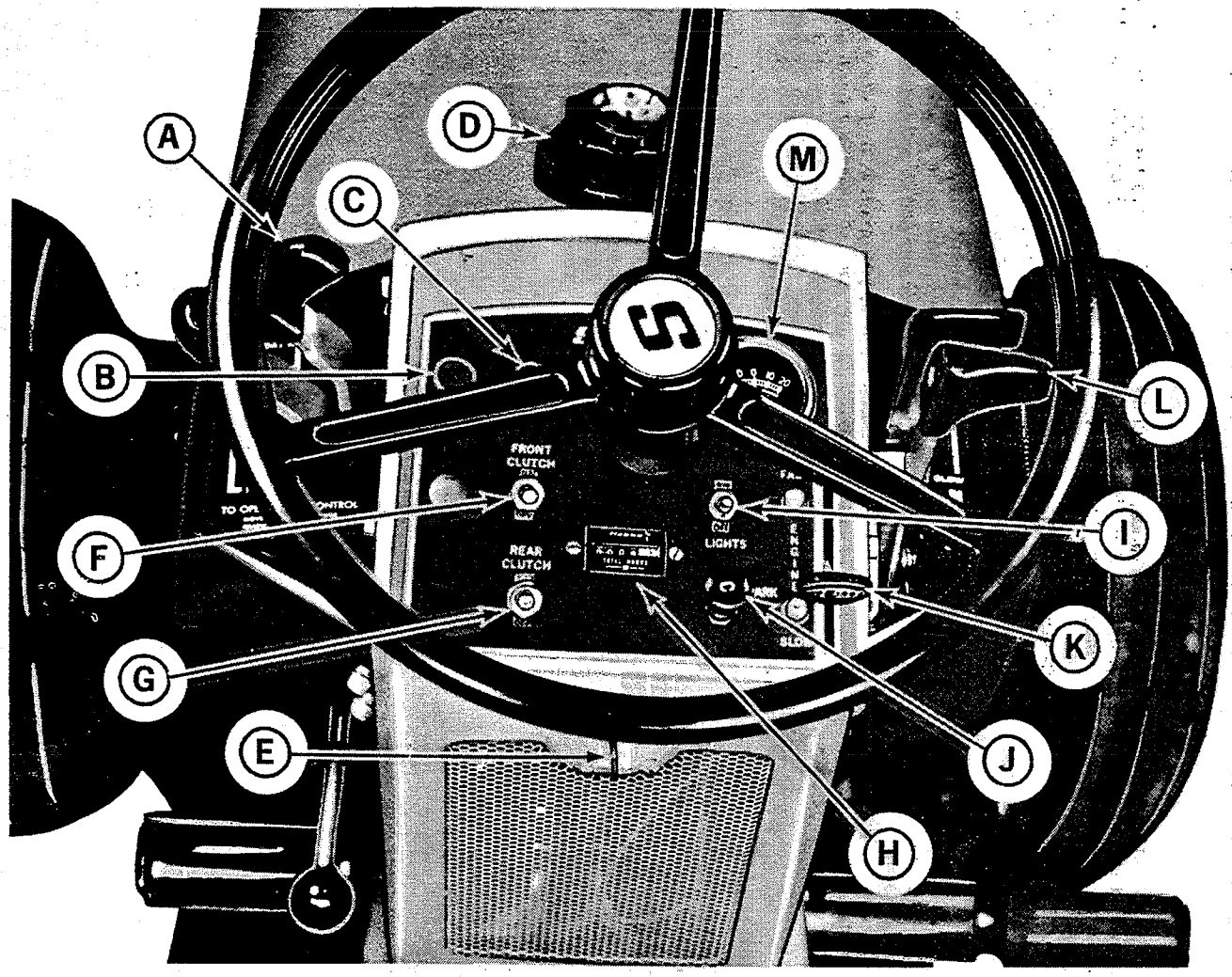


Figure 1. Tractor instrument panel.

INSTRUMENTS AND CONTROLS-HOW TO UNDERSTAND AND USE THEM

Picture yourself seated on your Simplicity 4041 tractor. Before starting the engine, lets learn how to understand and use the instruments and controls. The paragraphs referring to the instruments and controls are illustrated on figures 1 through 4.

IGNITION SWITCH: (Figure 1, item E) To actuate the ignition switch first insert the ignition key as shown. When the key is turned clockwise to the first position, the ignition is **ON.** In the **ON** position the lights, etc. will operate. Turn the key clockwise past the **ON** position to the **START** position to actuate the starter. **THE HYDROSTATIC TRANSMISSION CONTROL LEVER MUST BE IN THE NEUTRAL POSITION AND THE FRONT AND REAR (OPTIONAL) ELECTRIC CLUTCH SWITCHES IN THE "OFF" POSITION BEFORE THE STARTER WILL ACTUATE.** Release the key as soon as the engine starts. Return the key to the vertical position to stop the engine. **CAUTION: ALWAYS REMOVE THE IGNITION KEY WHEN CLEANING, ADJUSTING OR SERVICING THE TRACTOR OR ANY ATTACHMENT OR WHEN LEAVING THE VEHICLE UNATTENDED.**

CHOKE CONTROL KNOB: (Figure 1, item J) The choke control knob may be pulled out to increase the amount of fuel entering the engine for starting and cold weather warmup. When starting a cold engine in cold weather pull the choke knob all the way out. Little or no choke is normally required to start the engine when the air temperature is above 70° F or while the engine is still warm from being recently run. After the engine has started, push the choke in slowly. In cold weather, it may be necessary to leave the choke pulled out slightly for 3 or 4 minutes while the engine warms up. **NEVER OPERATE THE ENGINE WITH THE CHOKE OUT AFTER IT HAS HAD SUFFICIENT TIME TO WARM UP – ABOUT 5 MINUTES SHOULD BE SUFFICIENT EVEN IN COLD WEATHER.**

ENGINE SPEED CONTROL LEVER: (Figure 1, item K) The engine speed control lever is used to set the desired engine speed. The speed control lever should be moved forward away from the operator to increase engine speed and back toward the operator to reduce engine speed. Con-

sult the appropriate section of this manual for specific information on suggested settings of the engine speed control lever.

ENGINE OIL PRESSURE WARNING LIGHT: (Figure 1, item C) The engine oil pressure warning light marked **OIL** will glow red when the oil pressure to the moving parts of the engine is low. You can insure the light is functioning properly each time you use the tractor by noting that the light will come on when the ignition switch is turned to the **ON** position. If the red **OIL** light comes on when the engine is running, **STOP THE ENGINE IMMEDIATELY.** Check the oil level in the engine crankcase to insure it is full. Also insure that you are using the proper grade and weight of oil for the weather conditions. See Maintenance section of this manual for instructions on checking the oil level and selecting the proper grade and weight of oil. After insuring the crankcase is filled with the correct oil, start the engine. If the oil light does not go out after the engine has run for 10 seconds, stop the engine immediately and call your Simplicity dealer. **NEVER OPERATE THE ENGINE WHEN THE OIL PRESSURE WARNING LIGHT IS LIT.**

TRANSMISSION OIL (FLUID) TEMPERATURE WARNING LIGHT: (Figure 1, item B) The transmission oil temperature warning light marked **HOT** will glow red when the transmission oil reaches an unsafe temperature. **IF THE LIGHT COMES ON – STOP THE TRACTOR IMMEDIATELY.** The **HOT** light may have come on because the transmission oil cooler, located behind the engine, is dirty or you are operating with the transmission in too high a gear. See Maintenance section of this manual for instructions on cleaning the oil cooler. After insuring the oil cooler is clean, allow the oil to cool until the light goes out before operating the tractor. The oil will cool fastest if the hydrostatic transmission control lever is placed in the neutral position and the tractor engine run at full speed. If the oil cooler was quite dirty you may be able to proceed with your work in the same gear as before after the **HOT** light has gone out. If, however, the cooler was relatively clean when the light went on, you should shift to the next lower gear before continuing. Figure 5 will give you a good idea of which gear should be used for most operations.

AMMETER: (Figure 1, item M) The ammeter indicates the number of amperes of electricity being added to or drawn from the battery. The dial indicator will move right to the (+) charging position when electrical energy is being added to the battery and left to the (–) discharge position when electrical energy is being drawn from the battery. The indicator will normally fluctuate around the dial center or to the (+) side of the dial. It is normal for the indicator to show some discharge when the engine is idling; however, it should move to the center or to the charge position as the engine speed is increased. If the ammeter remains in the discharge position with the engine at full speed, the alternator or regulator may not be functioning properly. Check the fuse located at the right front corner of the engine. A blown fuse is only a symptom of a more serious electrical problem. Check circuit out thoroughly before replacing the blown fuse. See your Simplicity dealer if replacing the fuse does not correct the problem.

FRONT CLUTCH AND SWITCH: (Figure 1, item F) The front clutch switch is used to actuate the electrically controlled power take off clutch, which drives center or front mounted attachments, such as the center mounted rotary mower, sickle bar, or front mounted snow thrower. To actuate the clutch, move the switch forward to the **ON** position. Pull the switch back to the **OFF** position to stop the attachment. **THE CLUTCH SWITCH MUST BE IN THE "OFF" POSITION TO OPERATE THE ENGINE STARTER.**

REAR CLUTCH AND SWITCH: (OPTIONAL - FACTORY INSTALLED ONLY) (Figure 1, item G) The rear clutch switch is used to actuate the electric clutch which controls the power take off drive to rear mounted attachments such as the rotary tiller. To operate the rear power take off, move the switch forward to the **ON** position. To stop the power take off, pull the switch back to the **"OFF"** position. **BOTH THE FRONT AND REAR CLUTCH SWITCHES MUST BE IN THE "OFF" POSITION TO OPERATE THE ENGINE STARTER.**

LIGHT SWITCH: (Figure 1, item I) The light switch should be pushed forward to the **ON** position to turn on the tractor lights. To prevent the lights from being turned on by unauthorized persons, remove the key from the ignition switch. To turn the lights off, pull the light switch back to the **OFF** position.

HOURMETER: (OPTIONAL - FACTORY OR FIELD INSTALLED) (Figure 1, item H) The hourmeter records the number of hours the engine runs; however, since it is electrically operated it will run anytime the ignition switch is in the **ON** position even though the engine may not be running. The hourmeter is useful in keeping accurate maintenance records and also a convenient way of telling how much time the tractor has been used on a particular job.

FUEL GAUGE AND FILLER CAP: (Figure 1, item D) The fuel gauge indicates the amount of fuel in the tank. Before adding fuel, shut off the engine and allow it to cool. To remove the fuel gauge and filler cap for adding gasoline, turn the fuel filler gauge-cap counter-clockwise. The fuel tank holds approximately 3.8 gallons - enough for about 4 hours of mowing or 3 hours of plowing. **WARNING: DO NOT ALLOW LIGHTED CIGARETTES, MATCHES, ETC., AROUND ANY OPEN GASOLINE CONTAINER. DO NOT OVER FILL; WIPE UP ANY SPILLED GASOLINE.**

HYDRAULIC LIFT CONTROL LEVER: (Figure 1, item A) The hydraulic control lever controls the flow of oil used to operate the hydraulic cylinder. The hydraulic cylinder is normally connected to the lift cables which raise center mounted attachments. If the tractor is equipped with the 3-point hitch (optional - factory or field installed), the hydraulic control lever can also control rear attachments mounted on the 3-point hitch such as a rotary tiller or a moldboard plow. See Attachment section of the manual for complete information on using the 3-point hitch. The hydraulic cylinder can also be used to control front mounted attachments such as the snow thrower or dozer blade, if the front hydraulic kit (optional - factory or field

installed) is installed. If you have the front hydraulic kit or have purchased an additional cylinder as an accessory, see the Accessories section of this manual for specific instructions on how to hook up the cylinder hoses and how to use the cylinder.

When the control lever is in the center **HOLD** position, the hydraulic cylinder and any attachment connected to it will hold in its position. Move the hydraulic control lever rearward to raise an attachment. When the attachment has been raised to the desired height, release the control lever and it will return to the **HOLD** position. To lower or put down-pressure on an attachment, move the hydraulic control lever forward to the **LOWER** position and hold it there until the attachment has reached the desired position.

When using attachments such as the snow thrower or rotary tiller, it is often desirable to operate the hydraulic system in the **FLOAT** position. The **FLOAT** position allows the hydraulic cylinder to extend or retract as the attachment moves up and down following the contour of the ground surface. The hydraulic control lever may be placed in the **FLOAT** position by pushing it forward past the **LOWER** position. When the hydraulic control lever has been placed in the **FLOAT** position, it will remain there until it is pulled rearward. For specific information on controlling a particular attachment with the hydraulic system, see the Owners manual for that attachment.

HYDROSTATIC TRANSMISSION CONTROL LEVER: (Figure 1, item L) The hydrostatic transmission control lever regulates the direction and amount of oil (fluid) pumped by the hydrostatic transmission pump to drive the tractor and is used to control both the direction of travel and the ground speed of the tractor. **NEUTRAL** position for the hydrostatic transmission control lever is as shown with the back of the control lever guide resting against the notched portion of the guide. The hydrostatic transmission control lever must be in this neutral position for the engine starter to operate.

To move the tractor **FORWARD,** grip the control lever, squeezing the lock release lever toward the knob, and move the control lever forward. The 3-speed transmission must also be in gear for the tractor to drive. See Figure 5 for instructions on how to shift the 3-speed transmission. The farther forward from neutral the control lever is pushed, the faster the tractor will move forward at a given engine speed. To slow or stop the tractor when it is moving forward, squeeze the lock release lever toward the knob and pull the control lever rearward slowly toward the neutral position. You can place the hydrostatic transmission in neutral from the forward position without watching it by slightly pushing to the right on the control lever as it is moved rearward. The control lever will stop against the notched portion of the guide when it reaches neutral.

To move the tractor in **REVERSE,** squeeze the trigger of the hydrostatic control lever toward the knob, push the lever to the left and pull it back from the **NEUTRAL** position. The farther back the control lever is moved, the faster the tractor will travel in reverse. To stop the tractor while moving in reverse, squeeze the trigger toward the knob and move it forward slowly to the neutral position. In emergency situations, you may use the clutch and brakes to stop. **CAUTION: THE CLUTCH MUST BE DISENGAGED FOR THE BRAKES TO STOP THE TRACTOR EFFECTIVELY.**

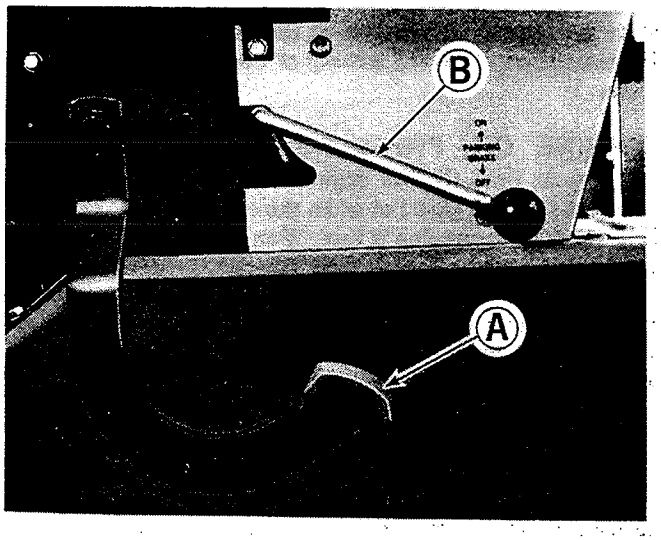


Figure 2. Clutch and parking brake lock on left side of tractor.

CLUTCH PEDAL: (Figure 2, item A) The clutch pedal is used to disconnect the tractor transmission from the engine. To disengage the clutch, press down on the clutch pedal. Release the clutch slowly to engage it. The clutch is very useful when starting a cold engine, since, when the clutch is disengaged, the starter motor is not required to turn the transmission. This provides more battery power for starting the engine. When the engine is running, the clutch pedal should be used for emergency stops only. Since the tractor is equipped with a hydrostatic transmission, the clutch is not required for starting, stopping, or shifting gears. It is not advisable to use the clutch for inching or starting forward movement of the tractor. The tractor can be inched and started more smoothly by using the hydrostatic control lever as described in this section.

THREE-SPEED TRANSMISSION SHIFT LEVER: (Figure 3, item A) The 3-speed transmission shift lever is used to select neutral or first, second or third speed range in the gear transmission. The transmission is in **NEUTRAL** when the transmission shift lever is free to slide forward and rearward about 1-1/2 inches. To place the transmission in **FIRST** gear, pull the shift lever forward all the way and then push down. The transmission is in **SECOND** gear when the shift lever is pulled all the way forward and then pulled up. **THIRD** gear is located by pushing the transmission shift lever all the way to the rear and then pushing down. To shift the transmission into or out of any gear, place the hydrostatic transmission control lever in the **NEUTRAL** position. It is not necessary and not advised to disengage the clutch. The clutch pedal should be released (clutch pedal out) to aid in meshing the gears. When shifting from **NEUTRAL** into gear, it may be necessary to move the hydrostatic control lever forward from the **NEUTRAL** position slightly (about 1/4 inch) to rotate the gears in the transmission so they mesh. As a safety precaution it is advisable to have the engine running at a slow idle when shifting the gear transmission. The table below shows the approximate speed ranges which can be obtained in each of the three gears.

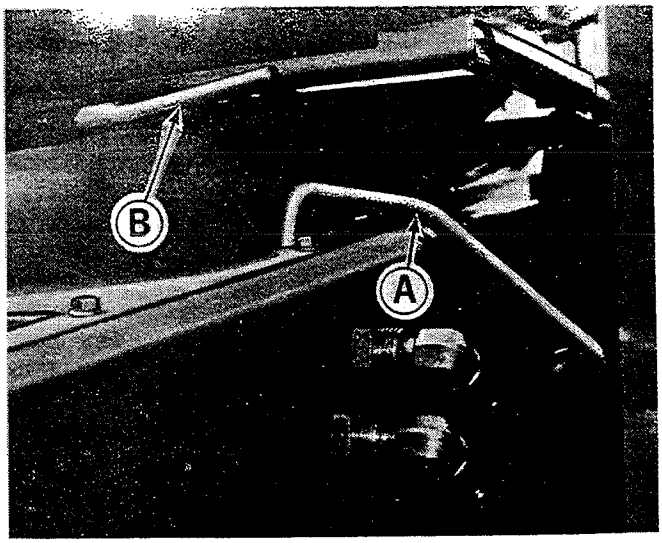


Figure 3. Transmission shift lever and optional seat adjustment as seen from above tractor seat.

GEAR	FORWARD(mph)	REVERSE (mph)
1	0 - 4.2	0 - 2.6
2	0 - 6.3	0 - 4.0
3	0 - 10.4	0 - 6.2

For more information on selecting the proper speed range see Controlling Tractor Ground Speed paragraphs of this section. If you are using an attachment, the Attachments section of this manual and the Owners manual for the attachment give additional information.

SEAT ADJUSTING LEVER: (Figure 3, item B) The seat adjusting lever is used to adjust the front to rear position of the spring mounted seat. The seat position can be adjusted while sitting on it by moving the seat adjustment lever to the left and sliding the seat forward or back as desired. The seat can be locked in several positions over the four-inch adjustment range. To lock the seat in position, simply release the adjustment lever. For instructions on adjusting the position of the standard seat, see the Adjustments section of this manual.

BRAKES: (Figure 4) **CAUTION: THE CLUTCH PEDAL MUST BE DEPRESSED TO GET EFFECTIVE BRAKING ACTION.** The tractor is equipped with individual disk-type rear wheel brakes. They should be applied simultaneously, except when required as an aid in turning. Simultaneous application may be accomplished by either placing your foot half on each brake pedal (A) and applying pressure to both at the same time, or by locking the two brakes together. To lock brakes together, move the sliding pin (B), located in the left brake pedal, to the right through the hole in the right brake pedal. The tractor should normally be operated with the brakes locked together. With the pin in place, the two brake pedals will move together to give faster and safer stopping. The brakes should also be locked together when the parking brake lock is used. See the following paragraph for information on the parking brake lock.

When the brakes are not locked together, pushing down on the right brake pedal will brake the right rear wheel and pushing down on the left brake pedal will brake the left rear wheel. Used individually, the brakes will decrease the turning radius of the tractor. To make a sharp turn to the right, turn the steering wheel all the way to the right and apply the right wheel brake. Turn the steering wheel to the left and use the left wheel brake to make a sharp turn to the left. **WARNING: DO NOT APPLY THE BRAKES INDIVIDUALLY WHEN THE TRACTOR IS MOVING OVER 6 MILES PER HOUR, AS THE OPERATOR MAY LOSE CONTROL OF THE TRACTOR.**

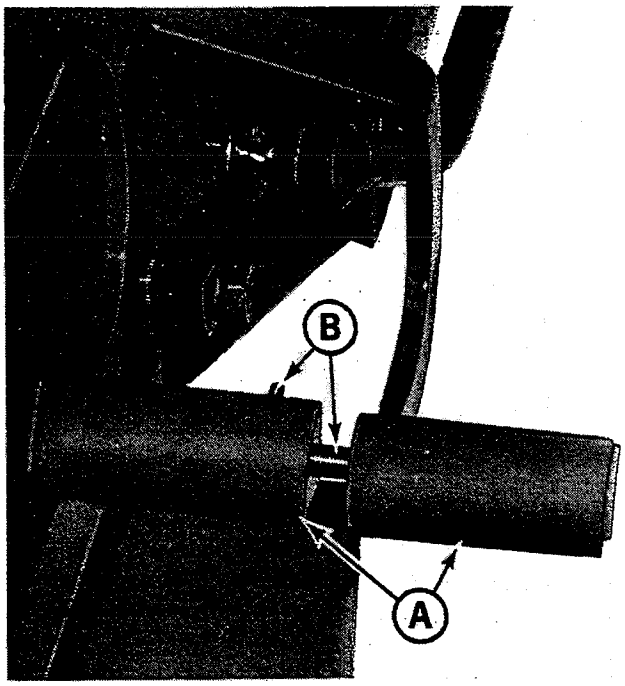


Figure 4. Brake pedals and locking pin on right side of tractor.

PARKING BRAKE LOCK: (Figure 2, item B) The parking brake lock control located on the left side of the tractor should be used to lock the brakes in position after the tractor has been brought to a stop and before the operator leaves the tractor seat. When using the parking brake, the right and left brake pedals should be locked together, (see Brakes). If the brake pedals are not locked together, only the left brake will hold when the parking brake is set. To set the parking brake, apply pressure to the brake pedals with your right foot. At the same time, push the parking brake lock down as far as possible. Release the brake pedals. After pressure has been taken off the brake pedals, the parking brake lock will stay in position. To release the parking brake, apply pressure to the brake pedals and pull the parking brake lock up to the **OFF** position. Since the parking brake lock holds the left brake pedal directly, the parking brake will hold better and release easier if pressure is applied to the left brake pedal when setting and releasing it.

BEFORE OPERATING THE TRACTOR

Though your Simplicity dealer may have performed the before starting checks listed below, we suggest you personally check each one so that you will become familiar with them and also to insure that your tractor is ready to operate the first time you use it.

TIRE INFLATION: Tires should be checked and inflated as required prior to operating. Inflate the tires according to the Maintenance section of this manual.

CRANKCASE OIL: Fill the crankcase with a good quality oil that meets the API (American Petroleum Institute) service designation SE or SE/CC. Recommended oil numbers for expected ambient temperatures are as follows:

TEMPERATURE	GRADE
Below 0° F	SAE 5W30
Below 30° F	SAE 5W30 or 10W40
Above 30° F	SAE 30

Fill to "Full" on dipstick.

CAUTION: DO NOT OVERFILL CRANKCASE. DO NOT USE SERVICE DS OIL. DO NOT MIX BRANDS NOR GRADES OF MOTOR OIL. Refer to Maintenance chart for recommended oil change intervals.

RECOMMENDED FUEL: Use clean, fresh, regular grade, automotive gasoline. Do not use highly leaded premium types.

For new engines, the most satisfactory results are obtained by using nonleaded gasoline. For older engines that have previously used leaded gasoline, heads must be taken off and all lead deposits removed from engine before switching to nonleaded gasoline.

CAUTION: IF LEAD DEPOSITS ARE NOT REMOVED FROM ENGINE BEFORE SWITCHING FROM LEADED TO NONLEADED GASOLINE, PREIGNITION COULD OCCUR, CAUSING SEVERE DAMAGE TO THE ENGINE.

WARNING: NEVER FILL THE FUEL TANK WHEN THE ENGINE IS RUNNING. GASOLINE IS HIGHLY FLAMMABLE. NEVER ALLOW ARTICLES, SUCH AS LIGHTED MATCHES OR CIGARETTES, NEAR OPEN GASOLINE CONTAINERS. DO NOT OVERFILL - WIPE UP ANY SPILLED FUEL.

INSPECTION: Inspect the engine visually before starting. Check for loose or missing parts and any damage which may have occurred in shipment.

TRANSMISSION: The transmission oil (fluid) level should be checked and the transmission filled with type A automotive transmission oil.

AIR CLEANER: Insure that the air cleaner element is in place and properly sealed. If it is dirty, clean or replace it according to the instructions in the Maintenance section of this manual.

BATTERY: Check the battery to be sure it is filled to the proper level with electrolyte and the vent holes in each of the filler caps are open. Refer to the Maintenance instructions of this manual.

DROP HOUSINGS: The two drop housings located on either side of the transmission should be filled to the check plug with 90 weight transmission oil. See the Maintenance section for the location of the check and filler plugs.

LUBRICATION: Lubricate all grease fittings shown in figures 26, 35, and 52 of this manual. Use general purpose automotive grease. A pisto-luber grease gun specially designed for this purpose is available from your Simplicity dealer.

ATTACHMENTS: Read and become familiar with the Attachments manual for any attachments you are using with your tractor.

SEAT ADJUSTMENT: The seat should be adjusted so the operator can comfortably depress the clutch and brake pedals while sitting back in the seat. See the Instruments and Controls section for instructions on adjusting.

BRAKE PEDAL PIN: Use the sliding pin in the brake pedals to lock the brakes together unless the tractor is to be used for agricultural work and the brakes are required for turning.

STARTING THE ENGINE

1. Refer to the Instruments and Controls section of this manual for the location and use of the instruments and controls. **WARNING: IT IS DANGEROUS TO START THE TRACTOR UNLESS YOU ARE SEATED IN THE TRACTOR SEAT.** Insure that the power take off clutch switches are in the **OFF** position and the hydrostatic transmission control lever is in the **NEUTRAL** position.
2. As a safety precaution, it is also advisable to place the 3-speed transmission lever in **NEUTRAL** to insure the tractor does not move forward or backward unexpectedly when the engine starts.
3. Move the engine speed control lever forward midway between slow and fast.
4. Pull the choke knob partially out. In cold weather, pull it all the way out. In warmer weather or when starting an engine which is still warm from recent operation, no choke will be required.
5. Depress the clutch pedal and hold it down to disengage the transmission drive. Although the engine may be started without disengaging the clutch; in cold weather it will start easier with the clutch disengaged, since the starting motor will not have to turn the transmission in addition to the engine.
6. Insert the ignition key and turn it to the right past the **ON** position to the **START** position to engage the starter motor. As you turn the key, check the **HOT** and **OIL** warning lights to see that they are functioning properly. The **OIL** light should light up when the key is turned to the **ON** position and the **HOT** light when the engine starting motor engages.
7. When the engine starts, release the key and allow it to return to the **ON** position. Slowly push the choke in. After the engine has run for a few minutes it should not require any choking. If the engine does not start after about 10 seconds of cranking it may be receiving too rich a fuel mixture. Push the choke in and try again. The engine may not need to be choked when starting it in warm weather or if it has been operated recently.

8. Release the clutch pedal as soon as the engine is running smoothly.

STOPPING THE ENGINE

1. Move the engine speed control lever to the **SLOW** position.
2. If the tractor has been operating under full load, allow the engine to idle for about a minute to reduce the engine temperature. Stopping a hot engine too suddenly can damage engine parts.
3. Turn the ignition key counter-clockwise to the vertical position to stop the engine.
4. Set the parking brake.
5. Remove the ignition key to prevent unauthorized use of the tractor.

BREAK-IN PROCEDURE

Controlled break-in with proper oil and a conscientiously applied maintenance program will help assure satisfactory service for many hours from the engine used in your tractor.

Break-in or ideal fitting of all internal moving metal parts can best be achieved by maintaining proper cooling and correct lubrication during the running-in period. The tractor should be run at about half load for the first three hours with intermittent periods of full load to control engine break-in. Engine parts damage can be caused by using the wrong grade and weight of oil and high engine operating temperatures during break-in.

Check the oil level at least every 5 operating hours. Add oil to keep it between the **LOW** and **FULL** marks on the dipstick, but never overfill as overfilling may cause the oil to foam and enter the breather system.

Drain the initial oil fill after 25 hours of operation while the engine is hot. After the initial oil change, change the oil every 50 operating hours.

CONTROLLING TRACTOR GROUND SPEED

Tractor ground speed can be controlled by the transmission gear selected, the position of the hydrostatic transmission control lever, and by adjusting the engine speed control.

ENGINE SPEED

Most power take off driven attachments operate best at a particular speed. Since the speed of the power take off drive is directly related to the engine speed, it is not desirable to adjust the engine speed to control the ground speed of the tractor when power take off driven attachments are being used. For pulling light loads or transporting the tractor and attachments from one area to another, adjusting the engine speed is one method of controlling tractor ground speed.

SELECTING TRANSMISSION GEAR

The best method of controlling the tractor ground speed is by setting the engine speed according to the engine load or the speed required for the attachment and then use the transmission controls to select the desired ground speed. Select a gear in the 3-speed transmission which will give you the desired speed range. See Figure 5 for proper gear selection.

For light loads and conditions where you may wish to vary the ground speed frequently, such as when mowing, second or third gear range would normally be best.

When pulling heavy drawbar loads such as a moldboard plow, the tractor will operate more efficiently if first or second gear range is used. If the red **HOT** light on the dash should light up, shift to a lower gear. See the paragraph on Transmission Oil Temperature Warning Light.

HYDROSTATIC TRANSMISSION CONTROL

After selecting the transmission gear, use the Hydrostatic Control Lever to give the exact ground speed you desire. Figure 5 should be used as a guide to use for setting the controls for performing various operations. A range or choice is given for most jobs since varying operating conditions require different settings.

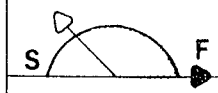
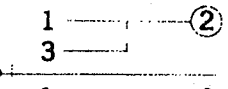
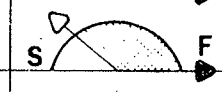
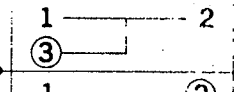
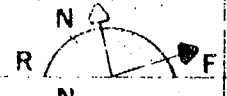
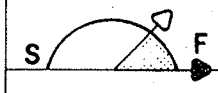
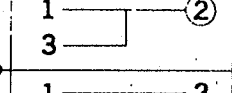
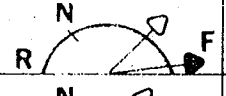
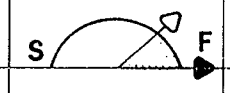
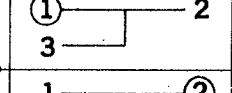
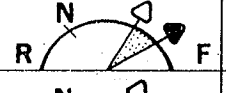
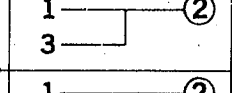
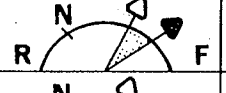
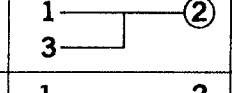
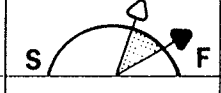
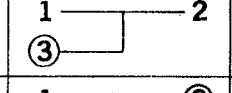
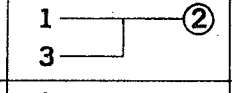
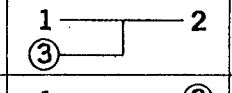
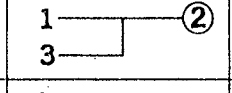
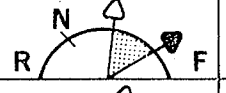
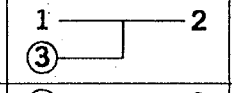
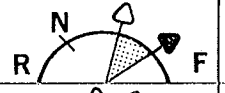
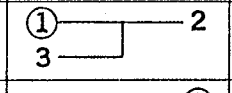
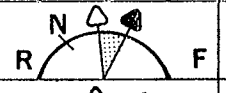
STARTING TRACTOR TRAVEL: Assure yourself that the area you are going to drive the tractor in is free of obstructions. After you have selected the desired transmission gear, release the parking brake and look around to insure there are no obstructions in your path. To start the tractor in motion, squeeze the trigger of the hydrostatic control lever with your right hand and move it forward or back from the **NEUTRAL** position slowly until you have reached the desired speed. **DO NOT USE THE CLUTCH TO BEGIN MOTION AS IT IS DESIGNED FOR USE WHEN STARTING THE ENGINE AND EMERGENCY STOPS ONLY.** Always move the hydrostatic control lever slowly to prevent abrupt and dangerous speed changes. **WARNING: DO NOT STOP OR START SUDDENLY WHEN GOING UPHILL OR DOWNHILL. MOW UP AND DOWN THE FACE OF STEEP SLOPES; NEVER ACROSS THE FACE. REDUCE SPEED ON SLOPES AND IN SHARP TURNS TO PREVENT TIPPING OR LOSS OF CONTROL. EXERCISE EXTREME CAUTION WHEN CHANGING DIRECTION ON SLOPES.**

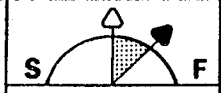
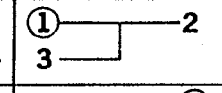
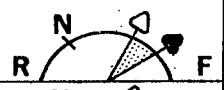
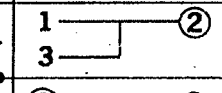
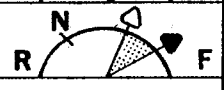
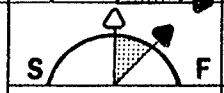
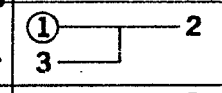
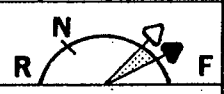
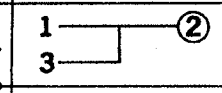
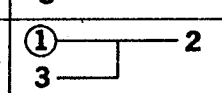
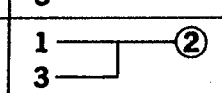
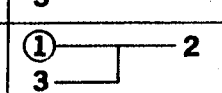
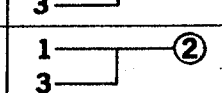
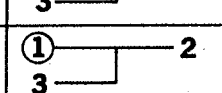
STOPPING TRACTOR TRAVEL: To stop the tractor squeeze the trigger toward the hydrostatic transmission control lever and move the lever slowly toward the **NEUTRAL** position. In emergencies or if both hands are required on the steering wheel, you may depress the clutch and brake pedals to stop the tractor. Before leaving the tractor seat, shut off the engine, set the parking brake, and remove the ignition key.

HOT WEATHER OPERATION

When operating the tractor in temperatures above 75° F pay particular attention to the following items to prevent damage.

1. Keep the engine cooling fins clean and free of obstruction, which would decrease air flow to and from the engine. See Maintenance section for cleaning instructions.
2. Keep the transmission oil (fluid) cooler clean and free of dirt and chaff which would restrict air flow. Also keep the cooler free of oil. An oil film on the outside of the cooler greatly reduces its cooling ability. See Maintenance section for instructions on cleaning the fluid cooler.

Attachment	Engine Speed Control	Transmission Gear Selection	Hydrostatic Lever Position	Approx. Ground Speed (MPH)	Required Accessories and Options	Recommended Accessories and Options
Transporting Tractor				[illegible]		
				5 - 10		
60" Center Mounted Rotary Mower (Normal terrain - normal grass)				4 - 6	Hitch assembly for mid-mounted attachments	Front turf tires and wheels Rear turf or high flotation tires and wheels
				6 - 8		
60" Center Mounted Rotary Mower (Rough terrain - heavy or wet grass)				2 - 3	Hitch assembly for mid-mounted attachments.	Front turf tires and wheels Rear turf or high flotation tires and wheels Rear wheel weights
				3 - 4		
57" Sickle Bar				2 - 4	Hitch assembly for mid-mounted attachments.	Rear wheel weights for side hill mowing
				4 - 6		
48" Rear Mounted Mower				3 - 4	Rear Power take off Three point hitch	Front weight Front bumper
				4 - 6		
52" Snow Thrower (Light snow)				3 - 4	Hitch assembly for front mounted attachments Front hydraulic kit.	Tire chains Rear wheel weights Front and rear agricultural tires and wheels
				4 - 5		
52" Snow Thrower (Heavy or wet snow)				1 - 2	Hitch assembly for front mounted attachments Front hydraulic kit	Tire chains Rear wheel weights Front and rear agricultural tires and wheels
				3 - 4		

Attachment	Engine Speed Control	Transmission Gear Selection	Hydrostatic Lever Position	Approx. Ground Speed (MPH)	Required Accessories and Options	Recommended Accessories and Options
60" Snow Plow and Dozer Blade				2 - 3	Hitch assembly for front mounted attachments. Front hydraulic kit	Tire chains Rear wheel weights
				3 - 5		
60" Rear Mounted Grader Blade				2 - 3	Three point hitch	Tire chains Rear wheel weights Front weight Front bumper
				3 - 5		
48" Rotary Tiller				1	Three point hitch Rear power take off	Front weight Front bumper
				1 - 2		
12" Mounted Plow				1 - 2	Three point hitch	Front agricultural tires and wheels Rear agricultural tires and wheels Front weight Rear wheel weights (2 sets) Front bumper
				2 - 3		
Cultivator or Planter				2 - 3	Three point hitch	Front agricultural tires and wheels Rear agricultural tires and wheels Rear wheel weights
				3 - 5		
Front End Loader (400 lb. capacity)				1 - 3	Front high capacity tires and wheels	Tire chains Rear wheel weights
				3 - 5		

REFER TO YOUR ATTACHMENT OWNERS MANUALS FOR ADDITIONAL INFORMATION.

Figure 5. Operation Chart

3. Insure that you are using the proper grade and weight of oil in the engine for the temperature the tractor is being used in. Check the oil level each time you fill the fuel tank.
4. Check the battery water level more frequently than every 25 hours, which is recommended under normal conditions. High temperatures cause faster evaporation.

COLD WEATHER OPERATION

When the tractor is being used in temperatures below 30° F, check the following items closely:
1. Use the correct grade and weight of oil for the temperature conditions. Change the oil only when the engine is warm. If an unexpected temperature drop occurs when the engine is filled with summer oil, before starting the engine, move the tractor to a warm location until the oil will flow freely.
2. Use fresh fuel. Fill the fuel tank after each days use to protect against moisture condensation.
3. Disengage the clutch when starting the engine.
4. If you have added calcium chloride solution to the tires to give added traction, insure that the calcium chloride to water ratio is high enough to prevent the solution from freezing. See the chart in Adjustments section of this manual.
5. Keep battery in charged condition.

DUSTY OPERATING CONDITIONS

When the tractor is operated in dusty or dirty conditions check the following items closely:
1. Keep the engine and transmission oil cooler fins clean and free of materials which will decrease air flow.
2. Service the air cleaner more frequently. Clean and replace it as often as necessary to allow air to flow to the carburetor freely. Cleaning may be required as often as every 8 hours under extremely dusty operating conditions.
3. Change the engine oil and oil filter more frequently. The oil should be changed more often than every 50 hours as is recommended under normal conditions. Change the oil filter every 100 hours of operation.
4. Check the engine governor linkage more often than every 200 hours as is recommended under normal operating conditions.

STORAGE

When the tractor is to be stored without use for three months or longer, the following precautions should be taken to insure your tractor will be ready to go when you need it:
1. Unless you wish to run the tractor until the fuel tank is empty, add a good brand of gasoline stabilizer. This additive, Stabil, available from your Simplicity dealer, prevents formation of gum and varnish for up to one year, providing easier starting and a cleaner fuel system.
2. Drain and refill the engine crankcase while the engine is warm. Tie a tag on the tractor indicating what grade and weight of oil was used.
3. Remove the spark plugs and pour one ounce (two tablespoons) of SAE 50 oil (SAE 50 is not available) into each cylinder. Engage the starter to turn the engine over a few times and reinstall the spark plugs.
4. Clean the air cleaner element.
5. Clean the governor linkage.
6. Plug the exhaust outlet to prevent the entrance of moisture, dirt, bugs, etc.
7. Insure the battery is filled to the proper level with water and is fully charged. Battery life will be increased if it is removed and put in a cool, dry place and fully charged about once a month.
8. Grease all grease fittings and put oil on the lubrication points shown in the Maintenance section.
9. If the tractor is to be stored 6 months or longer, block the tractor up off the wheels to relieve weight and keep the tires off a damp floor. Protect the tires from prolonged exposure to direct sunlight.
10. Store the tractor in a dry place indoors.

STARTING TRACTOR AFTER STORAGE

Before starting the tractor after it has been stored, do the following:
1. Remove the blocks from under the tractor.
2. Replace the battery.
3. Unplug the exhaust outlet.
4. Perform the "Before Operating the Tractor" instructions found in the Operation section of this manual.

TROUBLESHOOTING GUIDE

PROBLEM OR SYMPTOM	POSSIBLE CAUSES	CHECKS AND CORRECTIONS *Refer to Adjustments section. **Refer to Maintenance section.
Starter will not turn engine over.	Hydrostatic control lever not in NEUTRAL position.	Move hydrostatic control lever to NEUTRAL.
	Front or rear clutch switch not in OFF position.	Move switches to OFF position.
	Battery discharged or dead.	Check the battery - charge or replace as necessary.
	Neutral safety start switch not	Adjust the safety switch.*
	Wiring loose or broken.	Visually check wiring, replace any broken or frayed wires, tighten loose connections.
Engine turns – will not start.	Out of fuel.	Fill fuel tank.
	Engine flooded.	Push choke in, attempt to start.
	Crankcase oil too heavy.	Change oil as recommended.**
	Fuel filter plugged.	Replace fuel filter.**
	Water in gasoline.	Remove fuel tank and clean, replace fuel filter.
	Breaker points or spark plugs worn or dirty.	Check and replace or set.**
	Engine timing incorrect.	Set timing.**
Engine starts hard or runs poorly.	Fuel mixture too rich.	Push choke in. Clean air filter element. Set idle needle.* **
	Fuel mixture too lean.	Set idle needle.*
	Breaker points or spark plugs worn or dirty.	Check and replace or set.**
	Engine timing incorrect.	Set timing.**
Engine knocks.	Not enough oil in crankcase.	Add oil as required.**
	Using wrong weight of oil.	Change oil, use weight recommended for weather conditions.**
	Using wrong grade of gasoline.	Use regular grade automotive gasoline.
	Timing incorrect.	Set timing.**
Electric clutch won't engage.	Wire loose or unplugged.	Check wires and see if the wires are plugged together.
	Circuit breaker open.	Allow circuit to cool.
Tractor drive clutch will not disengage.	Too much clutch free travel.	Adjust clutch pedal free travel.*
	Belt stop not properly adjusted.	Adjust belt stop.*

TROUBLESHOOTING GUIDE

PROBLEM OR SYMPTOM	POSSIBLE CAUSES	CHECKS AND CORRECTIONS *Refer to Adjustments section. **Refer to Maintenance section.
Engine speed too high or too low.	Incorrect governor setting Governor linkage dirty or binding.	Adjust governor.* Clean and inspect governor linkage.**
Engine will not idle smoothly.	Air Cleaner dirty.	Clean or replace air cleaner.**
	Water in fuel tank.	Remove fuel tank to drain, replace fuel filter.
	Carburetor idle mixture set incorrectly.	Set idle mixture.*
	Points and plugs worn or not set properly.	Adjust or replace.**
	Governor incorrectly adjusted.	Adjust governor settings.*
Excessive oil consumption.	Engine running too hot.	Clean engine fins.** Clean transmission oil cooler.**
	Using wrong weight of oil.	Change to correct weight oil.**
	Too much oil in crankcase.	Check oil level according to instructions.**
OIL light comes on.	Low oil supply.	Add oil to full mark.**
	Crankcase oil too light or diluted.	Change oil, use correct grade and weight.**
Exhaust is black or smoky.	Air filter elements dirty.	Clean or replace filter elements.
	Fuel mixture too rich.	Be sure choke opens fully when it is pushed way in. Set carburetor idle adjustment.*
Alternator does not charge.	Alternator or regulator defective.	Have your Simplicity dealer replace.
Engine runs, tractor will not drive with full power.	3-speed transmission not in gear.	Put 3-speed transmission in gear.
	Parking brake ON.	Release parking brake.
	Transmission fluid cold.	Allow 5-10 minutes to warm up.
	Transmission low on fluid.	Add transmission fluid.**
	Main drive belts are slipping.	Adjust clutch belt tension and free travel.*
	Transmission filter plugged.	Replace filter.**
Tractor creeps forward or back with hydrostatic control in Neutral.	Hydrostatic control out of adjustment.	Adjust hydrostatic neutral setting.*
Brake will not hold.	Brakes need adjusting.	Adjust brake linkage.*
	Worn brake linings.	Have your Simplicity dealer replace linings.
Transmission HOT light comes on.	Transmissions fluid cooler may be plugged or dirty.	Clean fluid cooler.**
	Operating tractor in too high a gear.	Shift to next lower gear and wait for light to go out.
Tractor drive clutch will not engage.	Too little clutch free travel.	Adjust clutch free travel.*

ADJUSTMENTS

Most of the adjustments described here are easy to perform. Some of the adjustments require a little mechanical know-how and some special tools to do them well. You may wish to have your Simplicity dealer make some or all of the adjustments as they are required; however, we have given instructions for them here as a convenience to you should you wish to make them yourself. Adjustments which are suggested as part of Scheduled Maintenance are explained under the appropriate heading in the Maintenance section.

CARBURETOR

The carburetor has an idle jet and a main jet. The idle jet which is adjustable, affects engine operation at low speed. The main jet usually affects operation under load (high speed). Under normal circumstances, factory carburetor adjustments should not be disturbed. If the idle adjustment has been disturbed, turn the needle (counter-clockwise) off its seat 1 to 1-1/2 turns to permit starting the engine, then readjust as follows:

CAUTION: SINCE THE CARBURETOR ADJUSTMENT MUST BE MADE WITH THE ENGINE RUNNING, BE SURE THE HYDROSTATIC TRANSMISSION CONTROL LEVER AND THE 3-SPEED GEAR TRANSMISSION LEVER ARE IN NEUTRAL BEFORE LEAVING THE TRACTOR SEAT. SET THE PARKING BRAKE AND INSURE ALL CLUTCH SWITCHES ARE IN THE "OFF" POSITION. KEEP YOUR HANDS AND ANY CLOTHING AWAY FROM THE FRONT POWER TAKE OFF PULLEY.

CARBURETOR IDLE ADJUSTMENT:

1. Allow the engine to run at least 10 minutes to warm it up.
2. Move engine speed control to **SLOW** position. The engine should run at about 1300 rpm.
3. Turn the idle needle out (counter-clockwise) until engine begins to slow down or run unevenly. Remember this position.

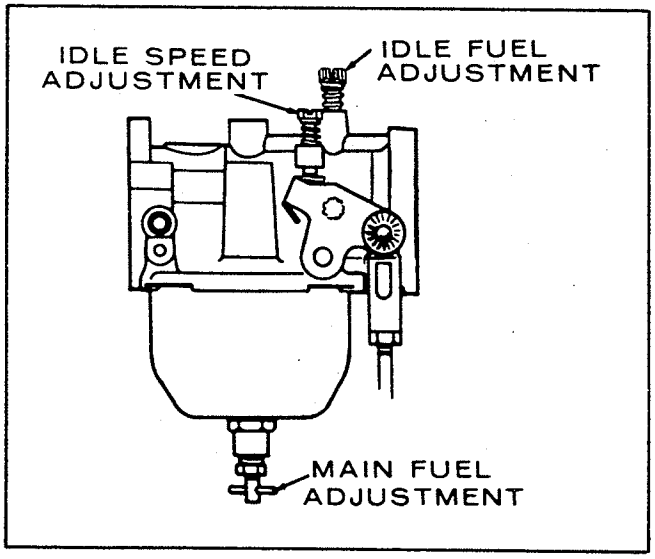


Figure 6. Carburetor adjustments.

4. Turn needle in (clockwise) past the position where the engine runs smoothly until it begins to slow down or run unevenly.

CAUTION: DO NOT FORCE THE NEEDLE AGAINST ITS SEAT; DOING SO WILL DAMAGE IT.

5. Back the needle out to a position approximately halfway between the two positions. This should provide a smooth running idle.

CARBURETOR MAIN (LOAD) ADJUSTMENT:

If engine runs unevenly at half or full load due to faulty carburetion, the main adjusting needle needs readjustment. For initial start-up, turn main adjustment 1 to 1-1/2 turns (counter-clockwise) off its seat.

1. Start engine and allow it to warm up.
2. Push in on the governor mechanism to slow the unit down to about 400-500 rpm.
3. Set idle adjustment so engine runs smoothly.
4. Release governor machanism to allow engine to accelerate. If engine accelerates evenly and without hesitation, main adjustment is correct. If not, turn needle outward about 1/2 turn and again slow the engine down and release the mechanism. Continue until the engine accelerates evenly and without a hesitation after releasing the governor.
5. If engine tends to hunt (alternate increase and decrease of speed), open the main adjusting needle a little more. Do not open more than 1/2 turn beyond the maximum power point.

GOVERNOR ADJUSTMENT

Figure 7. A tachometer is required to set the governor correctly. **CAUTION: SINCE THE GOVERNOR ADJUSTMENT MUST BE MADE WITH THE ENGINE RUNNING, BE SURE THE HYDROSTATIC TRANSMISSION CONTROL LEVER AND THE 3-SPEED GEAR TRANSMIS-**

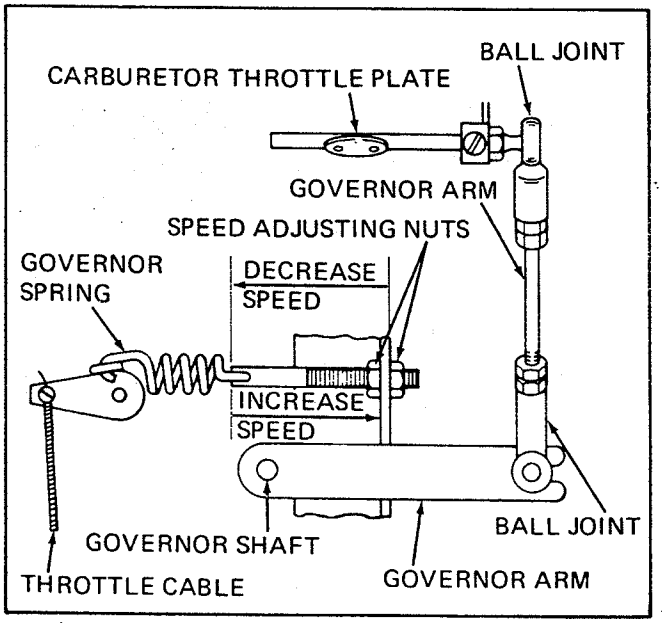


Figure 7. Variable speed governor.

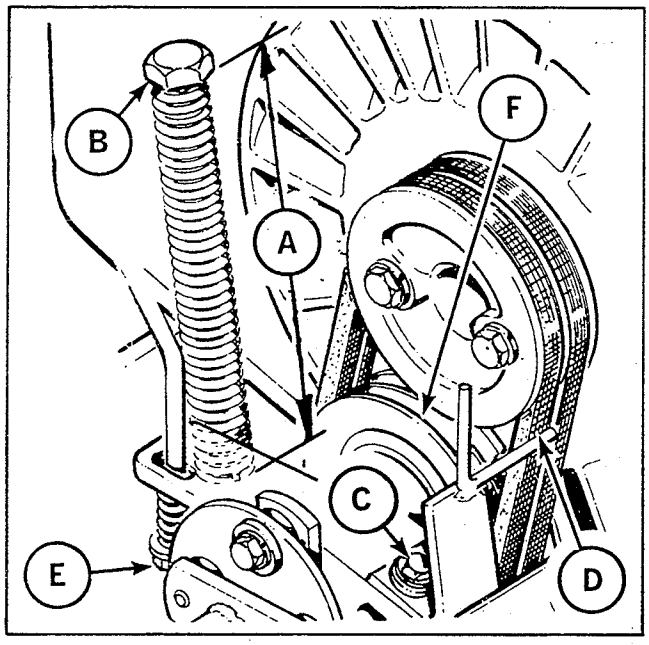


Figure 8. Tractor clutch belts and clutch pedal adjustments.

SION LEVER ARE IN NEUTRAL BEFORE LEAVING THE TRACTOR SEAT. SET THE PARKING BRAKE AND INSURE ALL CLUTCH SWITCHES ARE IN THE "OFF" POSITION. KEEP YOUR HANDS AND ANY CLOTHING AWAY FROM THE FRONT POWER TAKE OFF PULLEY.

SPEED ADJUSTMENT: The speed at which the engine operates is determined by the tension applied to the governor spring. Increasing spring tension increases engine speed. Decreasing spring tension decreases engine speed. The no-load speed of the engine should be slightly higher than the speed requirements of the connected load. For example, if the connected load is to turn at 2310 rpm, set the no-load speed of the engine at about 2400 rpm. Check speed with a tachometer. If a speed adjustment is needed, turn the speed adjusting nut in to increase the speed or out to decrease the speed (Figure 7).

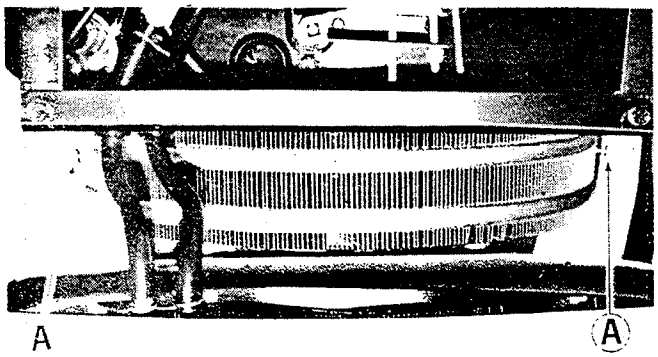


Figure 9. Transmission oil cooler as seen from above tractor.

TRACTION CLUTCH BELT TENSION

See figure 8. The clutch (drive belt) tension is determined by the distance from the casting at the base of the clutch tension spring to the top of the spring. This distance (A) shown in figure 8 should be 8 inches. As the belts wear, this distance may increase, causing tension on the belts to decrease and allowing them to slip. To adjust the main drive belt tension, proceed as follows:

1. Raise the tractor hood.
2. See figure 9. Remove the screws (A) at each end of the transmission oil cooler and raise the left end of it to expose the main drive belt tension adjustment.
3. Be sure the clutch is released and has fully returned to the engaged (pedal out) position.
4. See figure 8. Use a ruler or tape graduated in inches to measure the distance (A) from the casting surface to the top of the spring as shown. See Chart for Tolerances.

	Clutch Pedal Position	Before Running Engine (in.)	After Running Engine (in.)
Spring Height (A)	out	7-3/4	8
Belt Stop Clearance (D)	out	1/4	1/16-1/8
Pulley Clearance (F)	in	1/16	1/16

5. If the spring height is greater than specified in the chart, turn the hexagon nut (B) above the spring clockwise until spring height (A) and pulley clearance (F) is as specified. If the height is less, turn hexagon nut counter-clockwise.
6. If clutch belt tension is adjusted or the clutch does not disengage completely when the clutch pedal is depressed, loosen capscrew (C) and adjust the clearance between the belt stop and the belt to that specified in the chart above. Tighten capscrew securely.
7. Replace oil cooler and secure it in place with washers and screws.

CLUTCH PEDAL FREE TRAVEL

Clutch pedal free travel is the distance which the clutch pedal can be easily pushed downward with finger pressure. This distance should be 1-1/4 to 2-1/4 inches before running engine or 1 to 2 inches after running as shown in figure 10. Readjust clutch pedal as follows:

1. See figure 11. Remove 10 capscrews (A) holding dust shield (B) to underside of tractor frame.
2. See figure 8. Turn lock nut counter-clockwise to increase amount of free travel or clockwise to decrease free travel. Alternately check amount of free travel and turn lock nut until amount of free travel measures as specified above.
3. Secure dust shield on bottom of tractor with 10 capscrews.

HYDROSTATIC TRANSMISSION NEUTRAL ADJUSTMENT

If the tractor has a tendency to move forward or rearward when the hydrostatic transmission control lever is in the NEUTRAL position, the Neutral adjustment should be made. All clockwise and counter-clockwise directions given

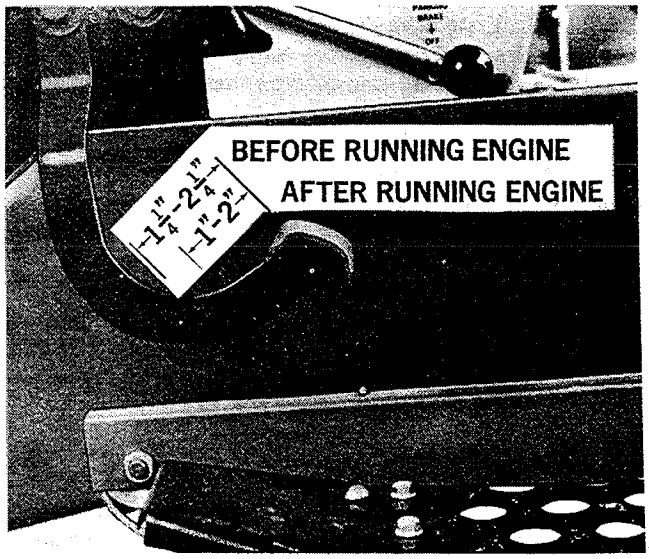


Figure 10. Clutch pedal free travel.

are as you look down on the turnbuckle when seated above the tractor frame. Proceed as follows:

1. See figure 12. Remove the six capscrews (A) and cover plate (B) from the top of the frame in front of the tractor seat.
2. See figure 11. It is not necessary to remove the dust shield (B), but the locking nuts on the ends of the turnbuckle are more easily reached from below. Remove the 10 capscrews (A) holding the dust shield to the underside of the tractor frame.
3. See figure 13. Loosen the locking nuts (A) on either side of turnbuckle (B). To loosen the lock nuts hold the turnbuckle stationary with one wrench and use the other to turn the locking nuts counter-clockwise to loosen them.

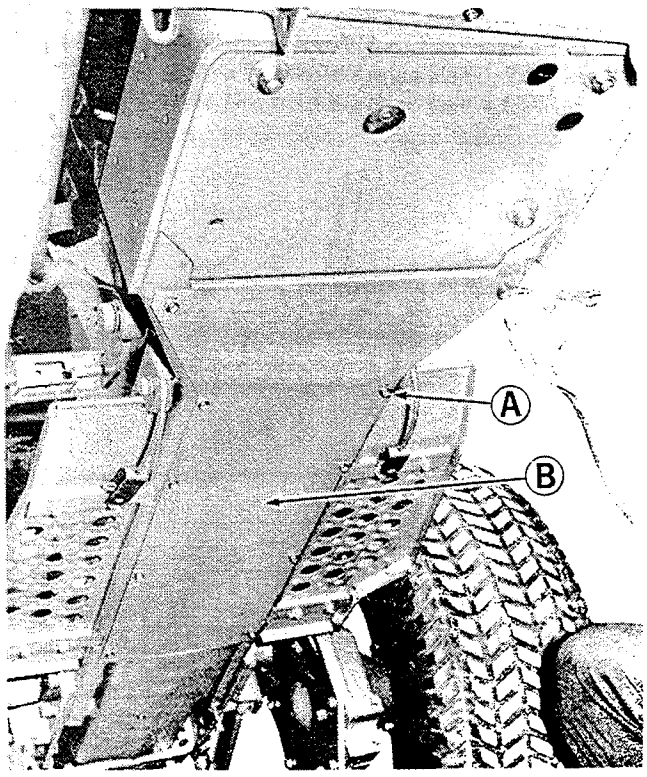


Figure 11. Dust shield on underside of tractor frame.

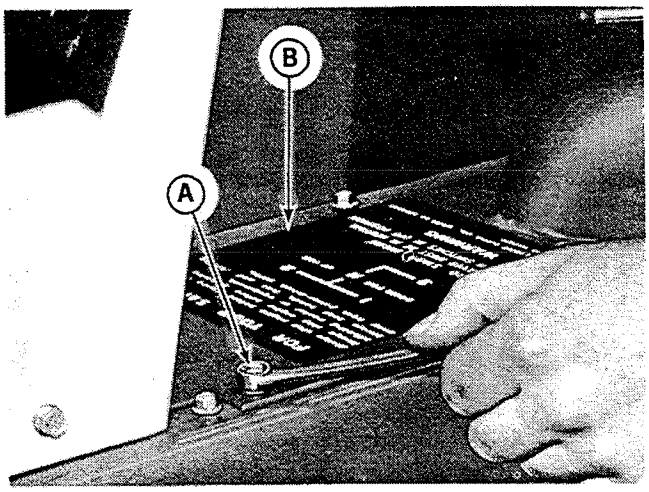


Figure 12. Cover plate over frame.

4. While sitting on the tractor seat start the engine and let it run at a slow idle.
5. Place the gear transmission in first gear.
6. Place the hydrostatic transmission control lever against the **NEUTRAL** stop.
7. If the tractor does not move, increase the engine speed until it does.
8. Stop the engine. **CAUTION: DO NOT ATTEMPT TO MAKE ANY ADJUSTMENT OF THE TURNBUCKLE WHILE THE ENGINE IS RUNNING. THE REAR POWER TAKE OFF SHAFT AND MAIN DRIVE SHAFT ARE TURNING AT HIGH SPEED NEAR THE TURNBUCKLE.**
9. If the tractor moved forward, with the hydrostatic control lever in the notched neutral position, turn the turnbuckle counter-clockwise (as viewed from above) about 1/2 turn. If the tractor moved rearward, turn the turnbuckle clockwise.
10. Alternately run the engine and adjust the turnbuckle until the tractor does not move at all when the engine is running at full speed.
11. Shut off the engine. Use one wrench to prevent the turnbuckle from turning while tightening the two locking nuts at either end against it with another wrench.

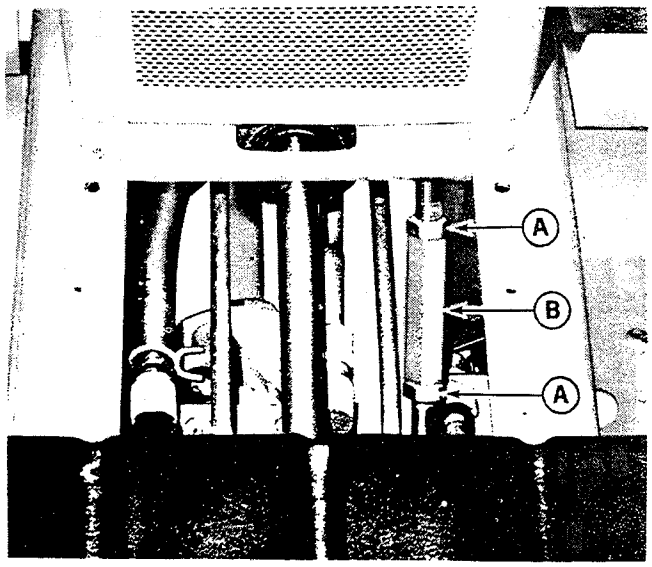


Figure 13. Hydrostatic transmission neutral adjustment.

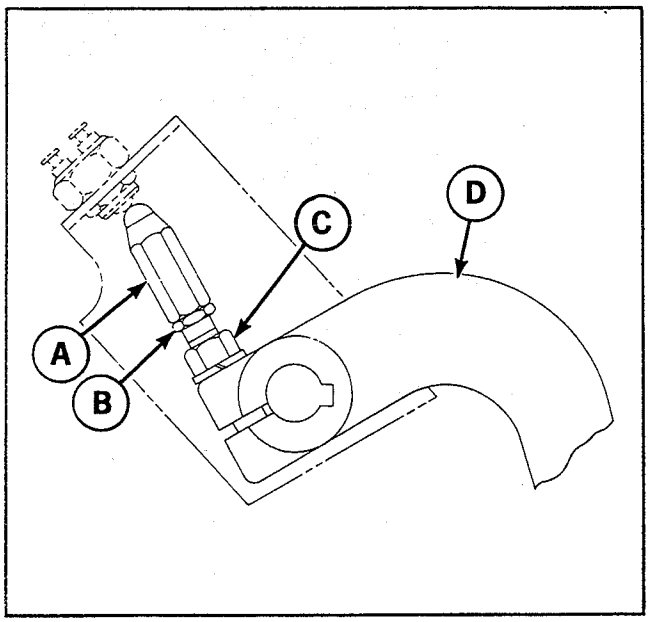


Figure 14. Neutral start safety switch.

12. Check adjustment once again by running the engine to make sure the adjustment did not change while tightening the locking nuts.
13. Replace the cover plate and tighten the six capscrews securely in place.
14. Replace the dust shield and 10 capscrews, if it was removed (Step 2).

NEUTRAL SAFETY STARTING SWITCH

If the engine starter will not actuate or will actuate when the hydrostatic transmission control lever is not in the **NEUTRAL** position, the neutral safety starting switch may need adjusting. Adjust it as follows:

Figure 15. Brake pedal free travel.

1. See figure 11. Remove the 10 capscrews and dust shield from the underside of the tractor frame.
2. Place the hydrostatic transmission control lever in the notched **NEUTRAL** position.
3. See figure 14. Turn detent (A) until switch closes, then advance detent 1/4 to 1/2 turn more.
4. Tighten the detent lock nut (B) against detent. Insure that stud capscrew (C) is secure against speed control lever (D).
5. Check the adjustment by starting the tractor.
6. Replace dust shield and 10 hex capscrews and tighten capscrews securely.

BRAKE ADJUSTMENT

See figure 15. You should adjust the brakes if they become ineffective or if the travel of the two brakes becomes different preventing them from braking the two wheels simultaneously when the brake pedals are locked together. To adjust the brakes, proceed as follows:
1. See figure 12. Remove the six screws from the frame cover and remove the cover from the tractor.
2. Be sure the brake pedal locking pin is moved to the left, so the brakes can be applied individually.
3. See figure 16. Adjust the left brake first. You will need two open end wrenches. Use one wrench to hold the turnbuckle (A), the other to loosen the lock nuts (B) at either end of the turnbuckle. Turn the turnbuckle counterclockwise (as you stand behind it looking toward the front of the tractor) to tighten the brake. Alternately turn the turnbuckle and check the brake travel until the brake travel as measured in figure 15 is 1-1/4 inches. While holding the turnbuckle (A) with one wrench, tighten the two nuts (B) at either end of the turnbuckle against the turnbuckle to lock it in place.
4. Depress the left brake pedal and lock it in place with the parking brake lock. If the parking brake will not lock in place you may have to increase the amount of brake pedal free travel by turning the turnbuckle clockwise. With the parking brake lock set to hold the left brake pedal down,

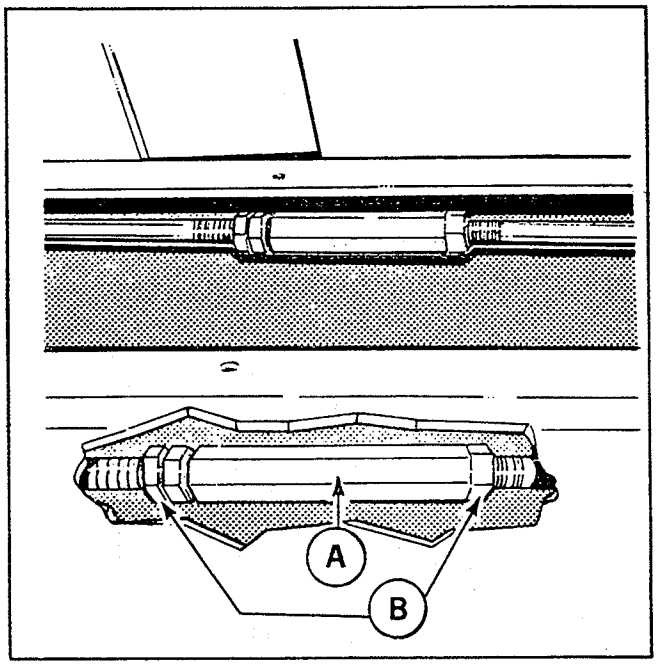


Figure 16. Brake adjustment turnbuckles.

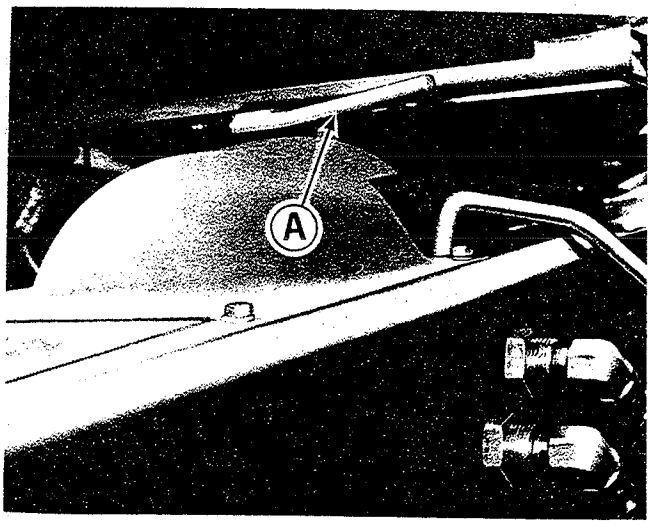


Figure 17. Seat adjustment.

follow the procedure described in step (3) to adjust the right brake pedal. Alternately depress and tighten it until it is even with the left brake pedal when depressed. Checking the adjustment of the right brake pedal in this manner will not only give it the required 1-1/4 inches of free travel, but also insure that the two brakes will be activated at the same time when they are locked together. Tighten the locking nuts in place on either side of the turnbuckle.

5. Replace the cover over the frame and tighten the six screws securely in place.

SEAT ADJUSTMENT

See figure 17. Pull seat adjustment lever (A) under front seat out and reposition seat as required.

WHEEL TREAD ADJUSTMENT

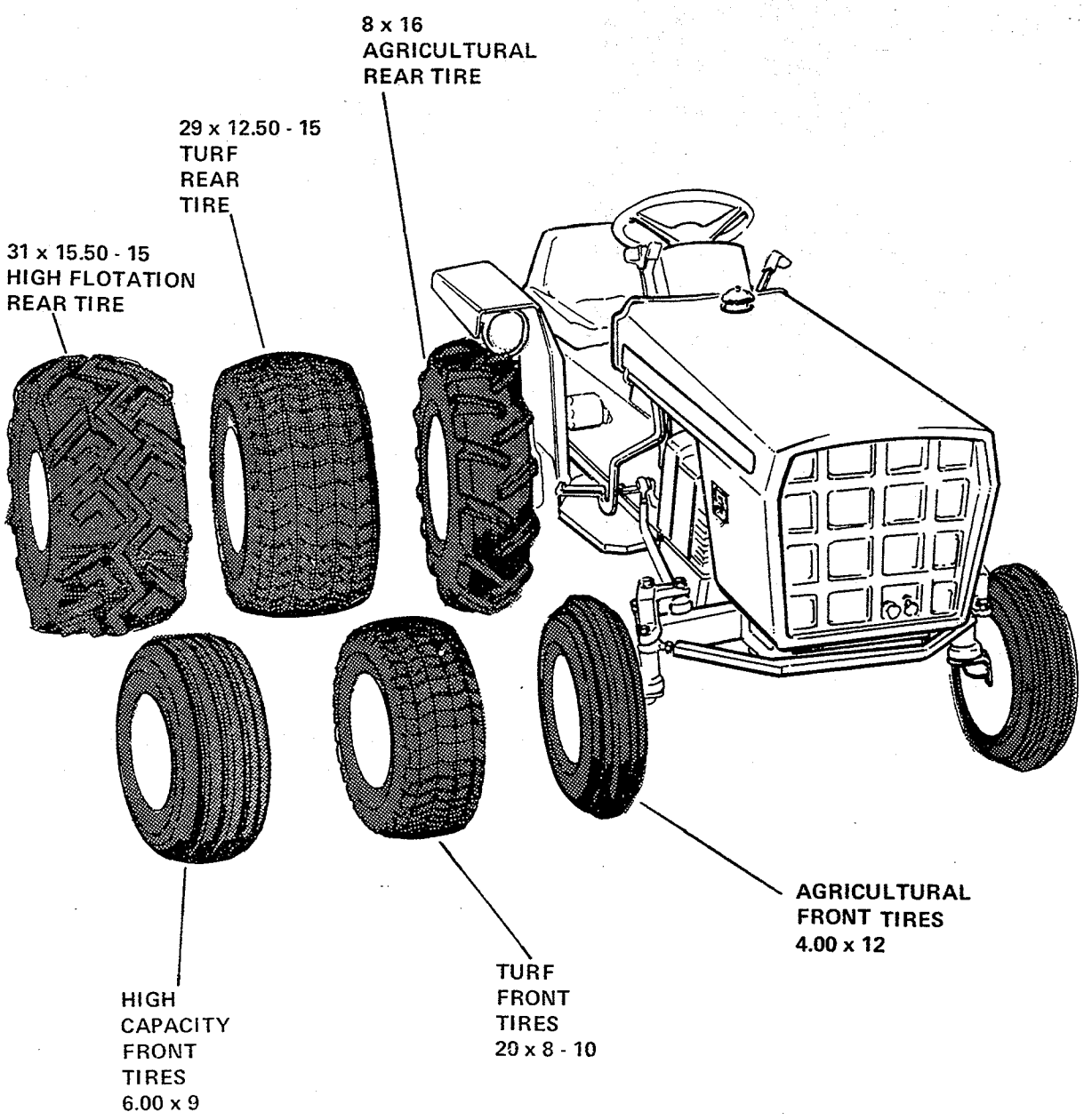
The Simplicity 4041 can be equipped with several different tire combinations. Figures 18 and 19 show the tire combinations and the widths as installed on the tractor. The Agricultural tires can be installed with either the rim in or out to vary tread width. **NOTE: WHEN CHANGING THE RIM POSITION OF THE REAR AGRICULTURAL TIRES TO ADJUST THE TREAD WIDTH, THE LEFT TIRE MUST BE PUT ON THE RIGHT AND THE RIGHT TIRE ON THE LEFT SO THE TIRE TREADS GRIP IN THE PROPER DIRECTION.** Check the arrow on the outside of the tire which indicates the proper rotation of the tire during forward travel.

WEIGHTING WITH CALCIUM CHLORIDE

A convenient means of adding weight to the rear wheels of the 4041 tractor is to put a calcium chloride solution in the tires. The data given below will give a solution having 3.5 pounds of calcium chloride per gallon of water which will be slush free to -12° F and will freeze solid at -52°F. The amounts given will fill one Agricultural 8-16 tire to 75% of its capacity.

GALS. WATER	POUNDS $CHCL^2$	TOTAL WEIGHT
9.5	33	111 pounds

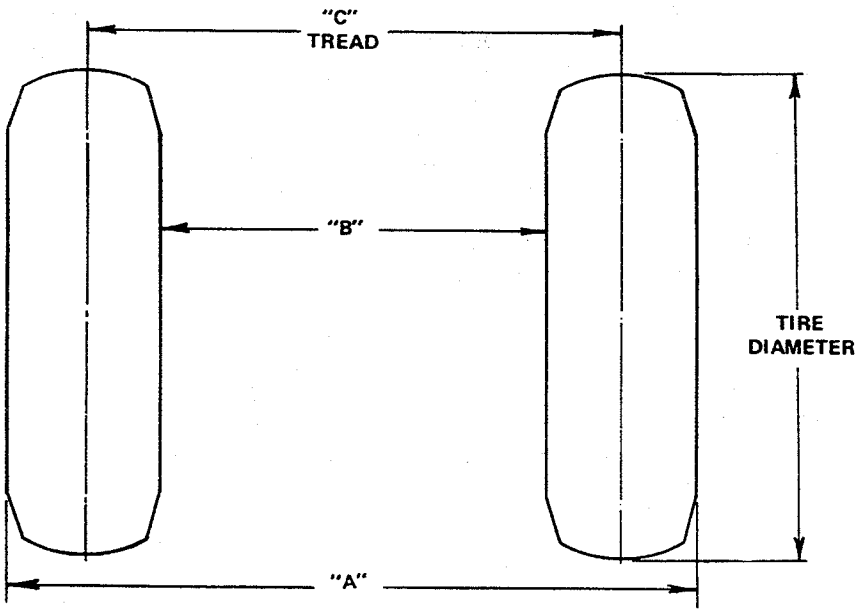
Calcium Chloride solution of the proportions shown here can also be added to the Turf and High Flotation tires; however, it is not normally practical as weighting these tires lessens the flotation capability for which they are designed. Wheel weights for adding weight to the tractor are also available from your Simplicity dealer as an accessory. See page 31.



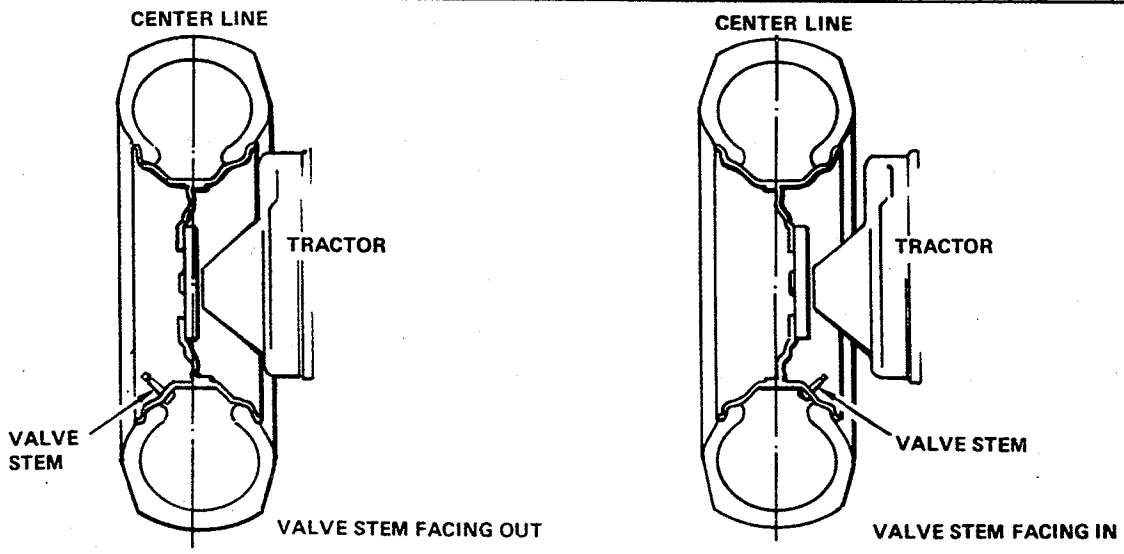
WHEEL & TIRE ASSEMBLIES

AGRICULTURAL REAR	TUBELESS
TURF REAR	TUBELESS
HIGH FLOTATION REAR	TUBELESS
AGRICULTURAL FRONT	TUBELESS
TURF FRONT	TUBELESS
HIGH CAPACITY FRONT	TUBE TYPE

Figure 18. Wheel and tire option available for 4041.



TIRE			TIRE DIAMETER	VALVE STEM FACING OUT			VALVE STEM FACING IN		
NAME, SIZE AND LOCATION				A	B	C	A	B	C
AGRICULTURAL	8 x 16	REAR	31-3/4"	43-1/4"	24-3/8"	33-13/16"	48"	29-1/8"	38-1/2"
AGRICULTURAL	4 x 12	FRONT	21-1/4"	41-1/2"	32-3/16"	36- 7/8"	47-3/16"	37-13/16"	42-1/2"
TURF	29 x 12-15	REAR	29"	50-1/2"	26-3/16"	38-5/16"			
TURF	20 x 10-8	FRONT	19-1/2"	47-1/4"	31-7/8"	39-1/2"			
HIGH FLOTATION	31 x 15.5-15	REAR	31-3/4"	56-1/2"	26-5/8"	41-1/2"			
HIGH CAPACITY	6 x 9	FRONT	21-1/4"	46"	33"	39-1/2"			



When changing the position of the rear agricultural tires to adjust the tread width, the left tire must be put on the right and the right tire on the left so the tire treads grip in the proper direction. Check the arrow on the outside of the tire for correct rotation of the tire.

Figure 19. Table of tire tread widths.

MAINTENANCE

Your Simplicity 4041 has been designed and manufactured to give you many years of dependable operation. In order for it to give you efficient, trouble free service over a long period of time, the maintenance operations listed here must be performed on a regular basis. The optional hourmeter which may be either factory of field installed provides an accurate method of determining when these services need to be performed. A wide variety of attachments and accessories permit use of your tractor throughout the year. **BECAUSE YOUR TRACTOR IS A MULTI-SEASON TOOL, IT IS VERY IMPORTANT TO SERVICE THE ENGINE FOR THE SEASON IN WHICH IT WILL BE OPERATED.** Be sure to change to winter grade oil before making cold weather starts. Whenever you are checking fluid levels in any area of the tractor, the readings will be much more accurate if the tractor is setting on level ground. We have provided the Scheduled Maintenance Chart (Figure 20) as a convenient means for you to know which services should be performed at various times. You should, of course, refer to the detailed explanation of how to perform each maintenance task until you are familiar enough with it to perform it correctly from memory.

ORDERING REPLACEMENT PARTS

Replacement parts required for performing maintenance services or for repair work should be purchased from your Simplicity dealer. When ordering parts be prepared to give him the tractor and engine identification numbers. If you have not already recorded these numbers on the inside front cover of this manual, we suggest that you do so now for convenient future reference.

EVERY 5 HOURS OF OPERATION

INSPECT THE TRACTOR AND ENGINE: Make a general inspection of the tractor and engine looking for loose bolts, oil leaks, low tire pressures, etc. A few minutes spent correcting a small problem could prevent a costly breakdown later.

CHECK ENGINE CRANKCASE OIL LEVEL:

See figure 21. If the engine has been running, allow a minute or two for the oil to drain down into the crankcase before checking the oil level. Proceed as follows:

1. Turn the engine oil filler cap-dipstick to the left and lift it out.
2. Wipe the oil from the dipstick with a clean cloth.
3. Replace the filler cap-dipstick in the filler pipe and turn the cap to the right locking it in position.
4. Remove the filler cap-dipstick and check the oil level on the dipstick.
5. If the oil is below the 1 quart line shown in figure 21 add enough oil to bring the oil level up to the **FULL** mark on the dipstick. Use SD/CC, MS, MS/DG, or MS/DM designations at viscosities SAE 30 above 30° F and SAE 5W30 below 30° F.
6. Peplace the filler cap-dipstick and tighten it securely.

CHECK TRANSMISSION OIL (FLUID) LEVEL: See figure 22. The hydrostatic transmission, the tractor hydraulic system and the 3-speed gear transmission all use oil from the 3-speed transmission case. To check the oil level, turn the check cock (A) shown in figure 22 counterclockwise two turns or until oil runs out. If no oil runs out of the open check cock, remove the oil filler plug (B) and add type A, type F, or Dexron automatic transmission oil until oil drips from the check cock. Tighten the check cock finger tight.

CLEAN TRANSMISSION OIL (FLUID) COOLER: See figure 23. Inspect the oil cooler and if necessary remove any dirt, chaff, or oil which may decrease the efficiency of the cooler. Dirt and chaff collected on the outside of the cooler can usually be brushed off after the engine has stopped. Be careful not to bend the cooler fins. If grass, chaff, or dirt collect between the fins, it may be necessary to remove the capscrews at each end of the cooler and raise the left side of the cooler. Air or water pressure can be used to blow the dirt out. A non-flammable solvent should be used to remove any oil which may collect on the outside of the cooler. In warm or dusty operating conditions or when mowing dry grass, the cooler may need to be cleaned more often to prevent foreign material from restricting air flow through it.

EVERY 25 HOURS OF OPERATION

CHECK THE BATTERY WATER LEVEL: See figure 24. The battery water level may be checked by looking through the cover hole (A) at the Delco eye (B). When the battery is low on water, the Delco eye will light up. The Delco eye must be kept clean and installed in the second cell from the positive battery terminal. The battery cover may be removed to check each cell individually and for adding water. When the battery is in use water evaporates from it. **NEVER ALLOW THE WATER LEVEL IN THE BATTERY TO GET BELOW THE TOP OF THE PLATES.** Fill the battery to the marking ring with distilled water. If distilled water is not available, clean tap water may be used. Water evaporates faster under high operating temperatures. Check the battery more often in warm weather.

CHECK TIRE PRESSURE: Tires will last longer and perform better if they are kept properly inflated. Required pressures vary depending on the tire size. Use the chart below for determining the correct inflation pressure in pounds per square inch for the tires on your tractor.

TIRE SIZE	PRESSURE
FRONT	
Turf – 20 - 8.00 - 10	10 PSI
Agricultural – 4.00 - 12	28 PSI
High Capacity – 6.00 - 9	40 PSI
REAR	
Turf – 29 x 12 - 15	8 PSI
Agricultural – 8 x 16	10 PSI
High Flotation – 31 x 15.50 - 15	6 PSI

SCHEDULED MAINTENANCE CHART

Service Required	Page	After each cycle of indicated hours					
		5	25	50	100	200	400
Inspect the tractor and engine	22	●					
Check Engine crankcase oil level	22	●					
Check transmission oil level	22	●					
Clean transmission oil cooler *	22	●					
Check battery water level *	22		●				
Check tire pressure	22		●				
Lubricate grease fittings *	24			●			
Clean engine air filter *	24		●				
Change engine oil * (First change 25 hours)	24			●			
Replace engine oil filter *	25				●		
Check traction clutch belt tension	25				●		
Change spark plugs	25				●		
Check drop housing oil level	26					●	
Replace fuel filter *	26					●	
Change breaker points	26					●	
Clean crankcase breather valve *	27					●	
Clean governor linkage *	27					●	
Clean engine fins *	27					●	
Replace air cleaner element *	27					●	
Change transmission oil	27						●
Replace transmission oil filter (First change 50 hours)	28						●
Repack front wheel bearings	28						●
Remove carbon and lead deposits	29						●
Set engine valve tappet clearance	29						●

* More often under dusty and/or hot weather operating conditions.

Figure 20. Scheduled maintenance chart.

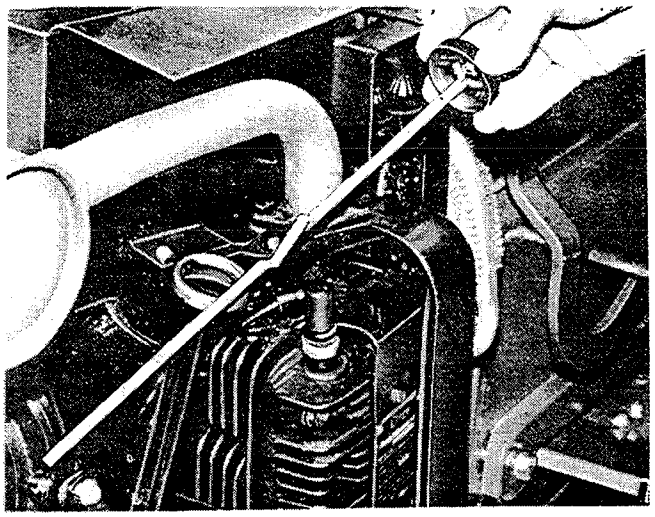


Figure 21. Engine oil filler cap-dipstick removed.

EVERY 50 HOURS OF OPERATION

LUBRICATE GREASE FITTINGS: The basic tractor has three grease fittings which require lubrication. One is located on each of the two front wheel spindles and one is on the front axle pivot (Figure 26, item B). There are two grease fittings on the optional 3-point hitch. Lubricate each grease fittings with five shots of general purpose automotive grease every 50 operating hours. When operating under extremely wet or dusty conditions, lubricate more often.

CLEAN ENGINE AIR FILTER: See figure 25. The air filter element should be removed and cleaned every 50 hours or more under dusty operating conditions. Proceed as follows:

1. Raise tractor hood.
2. On right side of engine, loosen clamp attaching air cleaner cover to bowl and move clamp aside.
3. Carefully slide cover from bowl and remove dry air filter element. **CAUTION: NEVER OPERATE ENGINE WITHOUT AIR FILTER ELEMENT SEALED IN PLACE.**
4. Element should be cleaned with compressed air or mild detergent and warm water.
5. Install filter element as directed by arrow on element.
6. Install cover and secure to bowl with clamp. Tighten clamp finger tight.
7. Lower and secure tractor hood.

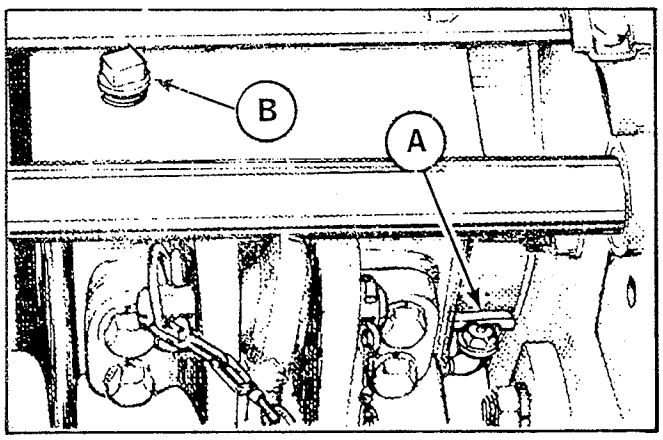


Figure 22. Transmission check cock and filler plug as seen from behind tractor.

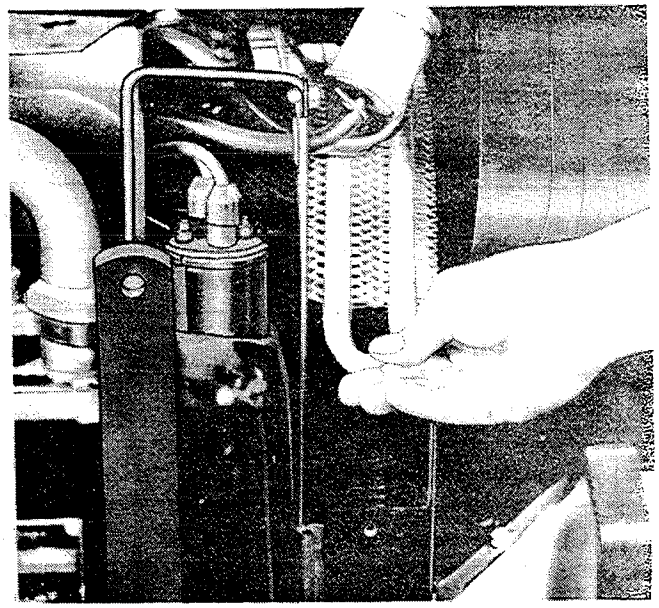


Figure 23. Transmission oil cooler raised for cleaning.

CHANGE ENGINE OIL: Every 50 hours or more often under dusty operating conditions change the engine oil using an oil with a designation of SD/CC, MS, MS/DG or MS/DM.

TEMPERATURE	GRADE
Below 30° F	SAE 5 W30
Above 30° F	SAE 30

1. Operate the engine at least 10 minutes or until it is warm so the oil will drain freely.
2. See figure 26. Remove the drain plug (A) from the bottom of the engine base and allow the oil to drain.
3. After the oil has completely drained from the engine, replace the drain plug and tighten it securely.
4. See figure 21. Pour 3-1/2 quarts of SD/CC, MS, MS/DG

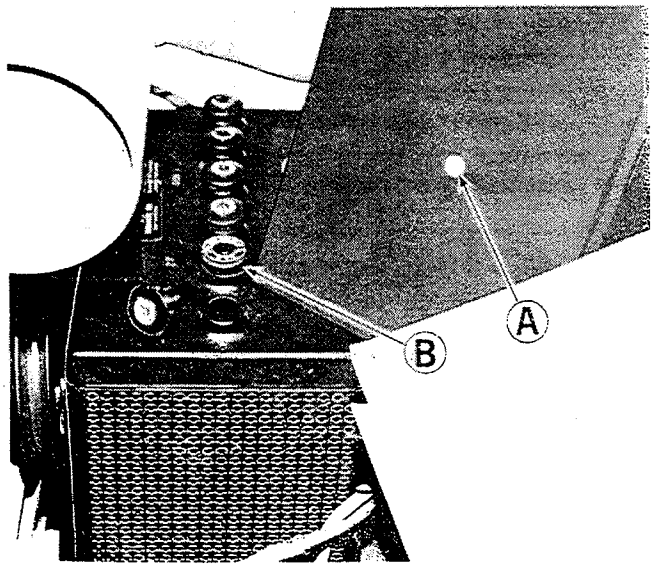


Figure 24. Battery service.

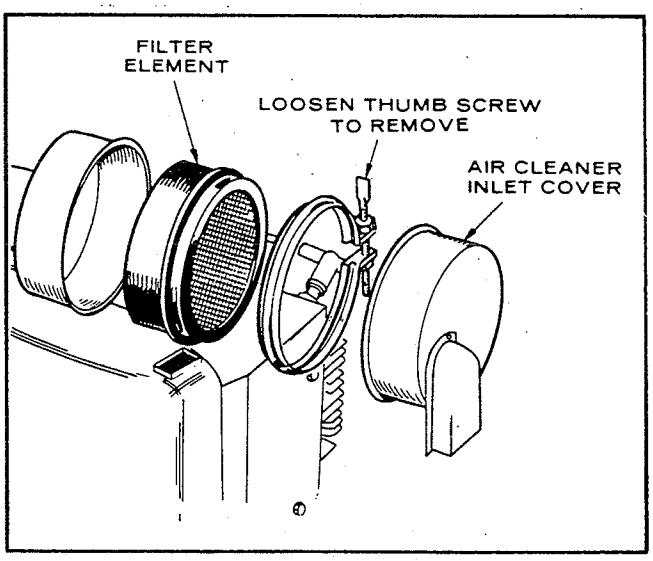


Figure 25. Air filter removal.

or MS/DM oil (4 quarts if the oil filter has been changed) into the engine through the oil filler pipe, being careful not to allow any dirt or foreign material to contaminate the oil. Use SAE 30 above 30° F and SAE 5W30 below 30° F.
5. Check the oil level. It should show up to the **FULL** mark on the dipstick.
6. Fully insert the oil filler cap-dipstick, start the engine, and check for leaks.

EVERY 100 HOURS OF OPERATION

REPLACE ENGINE OIL FILTER: (See figure 27) Every 100 hours or every other time the engine oil is changed, the oil filter (A) should be replaced. Replace the oil filter after the oil has been drained during an oil change, but before adding the new oil. Proceed as follows:
1. Remove the filter by turning it counter-clockwise using a filter wrench.
2. Wipe the drip pan located below the filter dry.
3. Install the foam strip over the new filter (Figure 27, item B) to prevent loss of cooling air.
4. Place a coating of oil on the filter sealing gasket.
5. Install the new oil filter finger tight plus 1/4 to 1/2 turn.
6. After replacing the engine oil, start the engine and run at idle speed until the oil light goes out.

Figure 26. Engine oil drain plug and axle zerk.

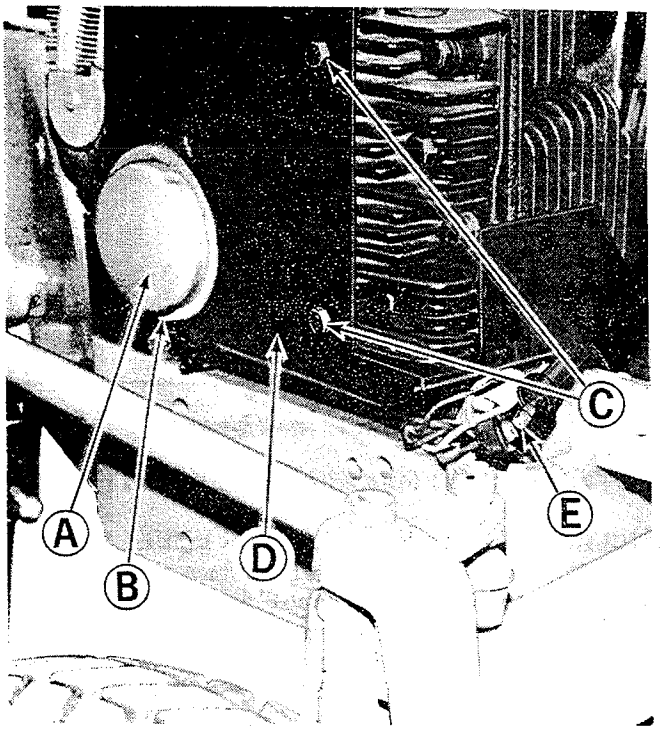


Figure 27. Right front cover of engine.

Check around the oil filter for leaks. Any oil coming from the drain tube below the filter probably indicates a poor seal between the engine and the filter base. If leakage is detected, loosen the filter and retighten as instructed in Step 5. If the leak does not stop, remove the filter and inspect the filter seat. Replace the filter with a new one if the seal shows any damage. If oil becomes so dirty markings on cap-dipstick cannot be seen, change the filter and shorten the filler service period.

CHECK TRACTION CLUTCH BELT TENSION: See figure 8. Every 100 hours or anytime you suspect the clutch (drive belts) may be slipping, the height of the belt tension spring should be checked as shown in figure 8. If the distance from the casting at the base of the spring to the top of the spring is not as specified with the clutch disengaged (pedal released), readjust the belt tension as described in the Adjustment section of this manual. The clutch free travel should be checked each time the traction clutch belt tension is adjusted.

CHANGE SPARK PLUGS: See figure 28. Remove the two spark plugs from the engine and install new ones every 100 hours. Use Champion H-8 or equivalent. Before installing new plugs, set the gap at 0.025 inch.

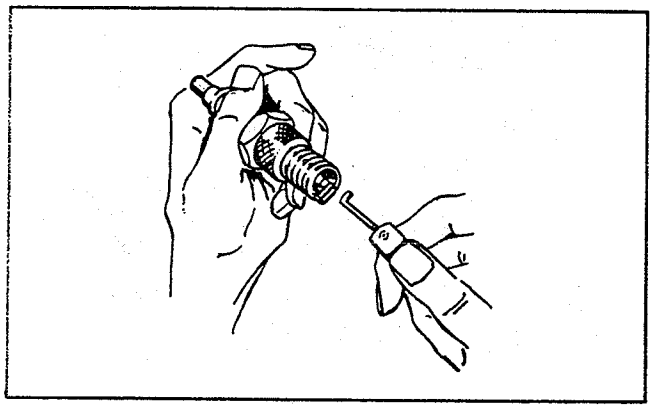


Figure 28. Setting spark plug gap.

EVERY 200 HOURS OF OPERATION

CHECK DROP HOUSING OIL LEVEL: See figure 29. Remove the oil level plug (A) from each of the two drop housings to check the oil level. The oil should be even with the lower threads in the plug hole. If oil must be added to bring the oil level up to the threads, add SAE 90 transmission grease through the check plug hole. If it should be necessary to drain the drop housings the drain plug (B) may be removed.

REPLACE FUEL FILTER: The fuel filter is located in the fuel suction line between the fuel tank and fuel pump. **CAUTION: DO NOT REMOVE THE FUEL LINES FROM THE FUEL FILTER WHEN THE ENGINE IS HOT.** After determining that the engine is cool, squeeze the spring clamps on each side of the filter and remove the fuel filter. Install the new filter, fastening the hoses at each end with the spring clips.

CHANGE BREAKER POINTS: To maintain maximum efficiency, the ignition breaker points should be changed every 200 operating hours. Proceed as follows:

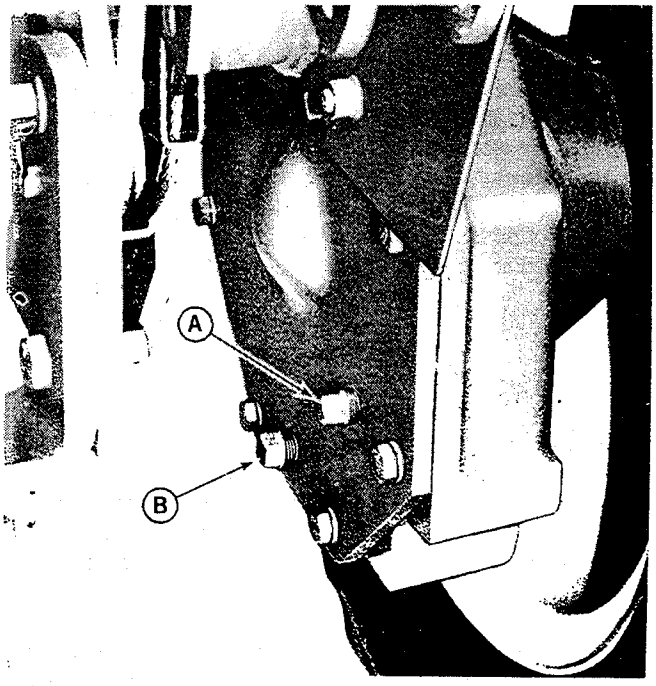


Figure 29. Drop housing drain and fill plugs.

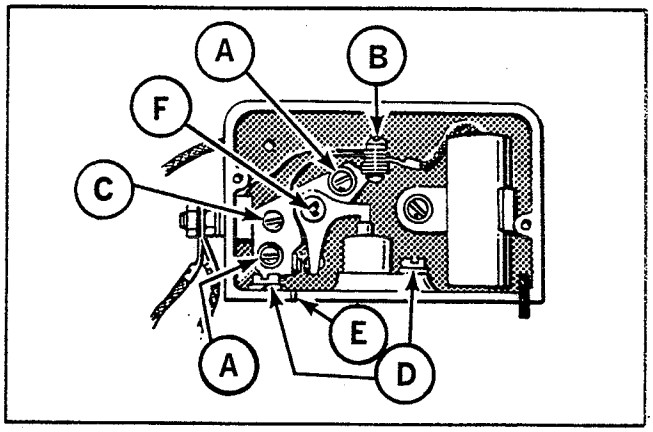


Figure 30. Breaker point box.

1. To help prevent injury, remove the ignition key from the tractor.
2. Remove the four screws and lift the heat shield off the engine.
3. Remove the two screws and remove the cover from the breaker point box.
4. Remove the two spark plugs so the engine can be easily rotated by hand as required in a later step. If the spark plugs have not been changed within the last 100 hours of operation, replace them with new ones after the breaker points and ignition timing have been set.
5. See figure 30. Remove the two mounting screws marked (A) and pull the points out of the box just far enough so screw (B) can be removed.
6. After removing screw (B) replace the points with a new set. Replace, but do not tighten the two mounting screws (A).
7. Rotate the engine clockwise (as viewed from the rear) by turning the engine cooling fan by hand until the points open. The flywheel should be about 1/4 turn after top center. Turn the screw (C) until the distance between the points measure 0.020 inch with a flat thickness gauge.
8. Tighten the mounting screws securely and recheck the distance between the points to be sure it is 0.020 inch.
9. Set the ignition timing as outlined in the following section. **NOTE: EACH TIME NEW BREAKER POINTS INSTALLED, PLACE A DROP OF OIL ON POINTS PIVOT POINT (F).**
10. Replace the breaker point cover, heat shield and oil cooler and tighten all screws securely.

SETTING IGNITION TIMING: The engine is equipped with an automotive type battery ignition system. Both spark plugs fire simultaneously, thus the need for a distributor is eliminated. Spark advance should be maintained for best performance. Ignition timing should be checked after point replacement or if poor engine performance is noticed. Proceed as follows:

1. To accurately check the ignition timing, use a timing light when the engine is running. Connect the timing light according to its manufacturers instructions. Either spark plug may be used as they fire simultaneously.
2. Locate arrow mounted on camshaft on left side of engine and timing lines and mark TAC on electric clutch. **CAUTION: BEFORE STARTING ENGINE, BE SURE**

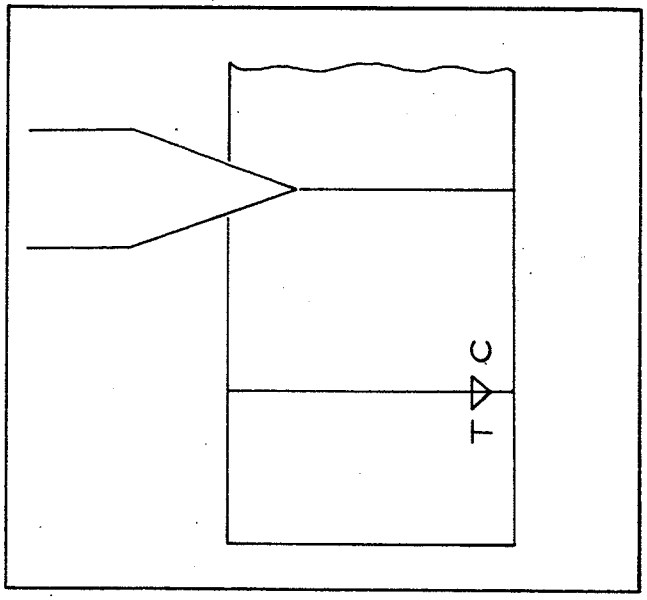


Figure 31. Timing marks.

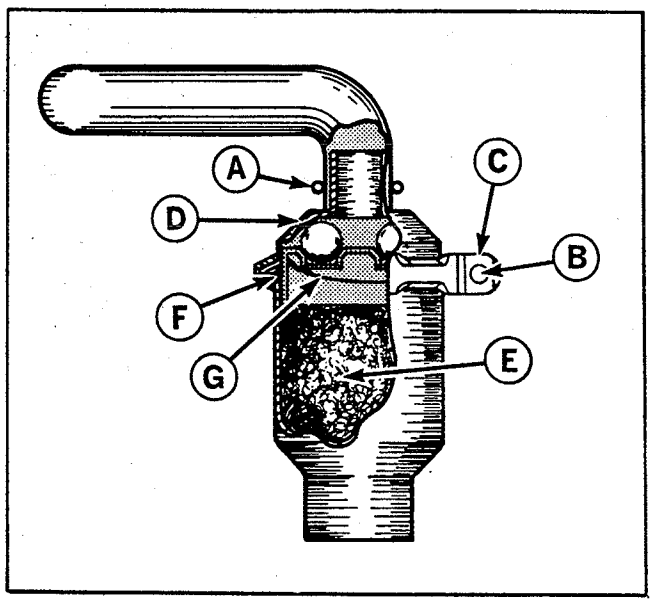


Figure 32. Crankcase breather.

TRANSMISSION IS IN NEUTRAL AND PARKING BRAKE SET.

3. Start engine and allow it to come to a smooth idle.
4. Check timing arrow and marks. If arrow is not aligned as seen on figure 31, adjust timing using the following procedure.
5. If adjustment is required, remove heat shield and breaker box cover.
6. See figure 30. Attain an approximate setting by loosening mounting screws (D) and shift breaker box (and spacer if used) to align reference marks (E) on crankcase and breaker box (or spacer).
7. Turn engine over slowly in direction of crankshaft rotation until timing marks and arrow aligned as seen in figure 31.
8. Slightly loosen two mounting screws (A) in figure 30 to adjust point gap to 0.020 inch.
9. Start engine and check timing. With two screws (D) slightly loose, breaker point box can be moved left to advance spark and right to retard spark (as you face breaker point box from front of engine).
10. Securely tighten all screws, and replace breaker point cover, heat shield, etc.

CLEAN CRANKCASE BREATHER VALVE: See figure 32. The crankcase breather valve should be removed and cleaned every 200 hours or more often under dusty operating conditions. Proceed as follows:

1. Remove the hose clamp (A) and hose from the breather.
2. Turn the clamp screw (B) counter-clockwise to loosen the clamp.
3. Remove the clamp (C), breather cover (D), O-ring (F), screen (G), and breather filter mesh (E).
4. Wash the breather cover assembly, screen, and filter mesh in a non-flammable solvent. Replace O-ring.
5. Assemble the filter mesh, screen, breather cover, clamp and screw. Tighten the screw securely.
6. Install the hose and hose clamp.

CLEAN GOVERNOR LINKAGE: See figure 7. Every 200 hours or more often under dusty operating conditions, the governor linkage should be cleaned. Wait until the engine cools to work on the linkage. An air hose may be used to blow dust and dirt away from the linkage. If the linkage is coated with grease or oil, a non-flammable solvent and soft brush should be used.

CLEAN ENGINE FINS: See figure 27. The engine cooling fins should be cleaned every 200 hours or more often if material accumulates in them. Proceed as follows:

1. Remove the capscrews (C) from the air shrouds (D) on each side of the engine.
2. Remove the air shrouds from each side of the engine.
3. Use air pressure or a brush to remove all foreign material from between the cooling fins.
4. Replace the air shrouds and tighten the capscrews securely in place.

REPLACE THE AIR CLEANER ELEMENT: See figure 25. The air cleaner element should be replaced every 200 hours or more often if dusty operation conditions cause it to become too dirty to be cleaned effectively.

EVERY 400 HOURS OF OPERATION

CHANGE THE TRANSMISSION OIL (FLUID): See figure 33. **DO NOT RUN THE ENGINE WITHOUT OIL IN THE TRANSMISSION.** The transmission case is divided into two compartments. Both the oil temperature sending unit (A) and the pipe fitting (B) on the front of the transmission must be removed to drain the transmission completely. Warm oil will drain best. The tractor should be operated at least 1/2 hour to warm the oil before draining the transmission. Proceed as follows:

1. Park the tractor on a level surface, stop the engine and set the parking brake.
2. Remove the wire from the oil temperature sending unit (A).
3. Remove the oil temperature sending unit.
4. Remove the spring clamp and hose from the pipe fitting (B).
5. Remove the pipe fitting from the transmission.

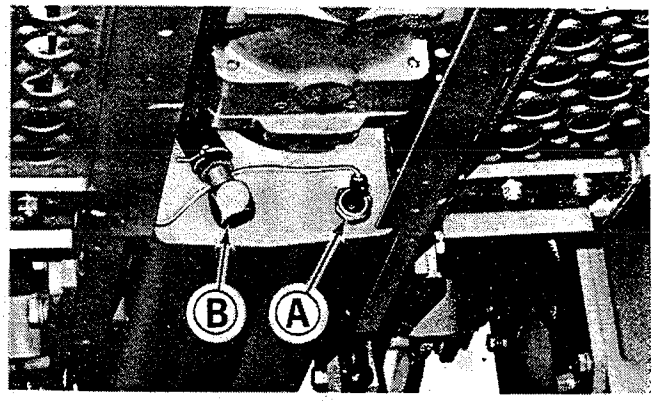


Figure 33. Front of transmission from beneath tractor.

6. After the oil has drained completely, replace the pipe fitting, hose and spring clamp and the oil temperature sending unit and wire.
7. See figure 22. Remove the transmission filler plug (B) and fill the transmission with type A, type F, or Dexron automatic transmission oil to the check cock. About 6 quarts of oil will be required to fill the transmission.

CHANGE THE TRANSMISSION OIL FILTER: Change the transmission oil filter after the first 25 hours of operation. After the first change, the filter need only be changed every 400 hours or whenever the transmission oil is changed.
1. See figure 34. Remove the oil filter (A) by turning it counter-clockwise.
2. Wipe the sealing surface of the mounting bracket clean.
3. Place a film of transmission oil on the filter sealing gasket.
4. Install the new filter by turning it clockwise until hand tight.
5. When the transmission has been filled with oil, start the engine and check for leaks.
6. Stop the engine and recheck the transmission oil level to be sure it is full.

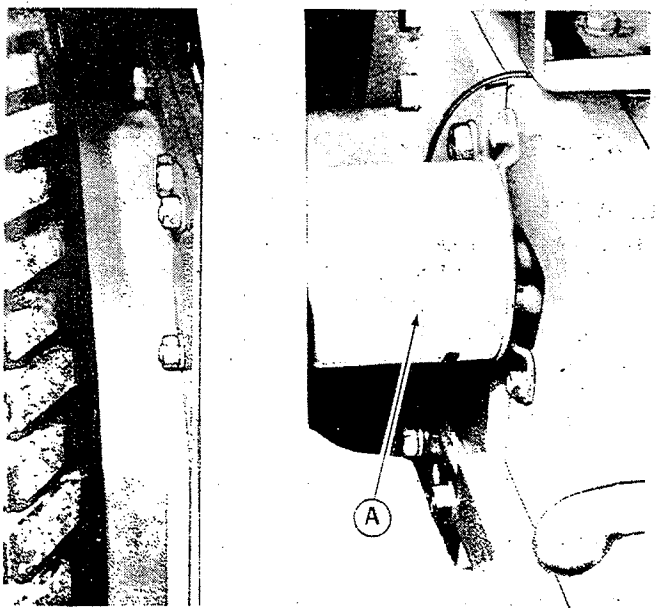


Figure 34. Transmission oil filter on right side of tractor frame.

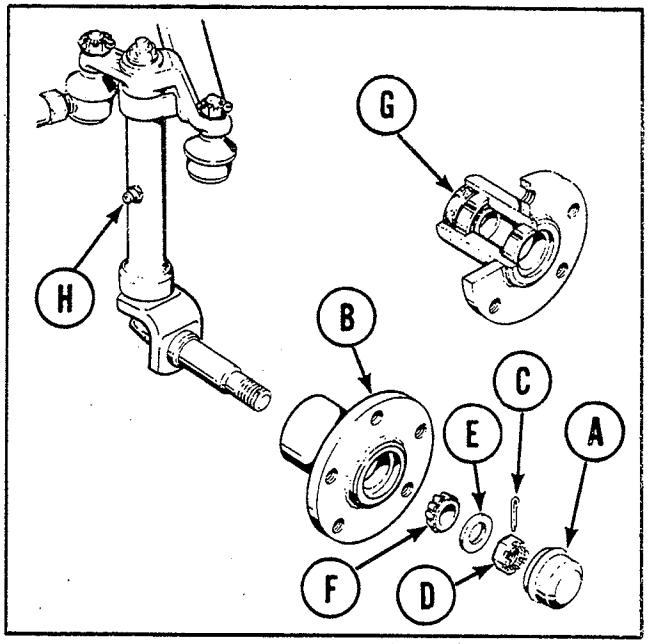


Figure 35. Right front spindle and axle assembly.

REPACK FRONT WHEEL BEARINGS: Before disassembling the front wheel bearings, you should purchase new grease seals for them from your Simplicity dealer.
1. See figure 35. Block up the front axle of the tractor so the wheel you are to work on is not supporting the tractor.
2. Use a pliers or claw hammer to remove the dust cover (A) from the wheel hub (B). The dust cover will be easier to get off if the wheel is removed.
3. Remove the cotter pin (C).
4. Use a 1-1/8 inch wrench to remove the nut (D) by turning it counter-clockwise.
5. Remove the washer (E) and outer bearing (F) and pull the hub off the axle.
6. Use a large drift punch to push the seal (G) out of the hub. You should keep the two bearings separate so you can put them back in their original place.
7. Wash the bearings, axle and bearing housing with a non-flammable solvent and wipe dry.
8. Using the palm of your hand, force a good quality wheel bearing grease into each of the bearings.

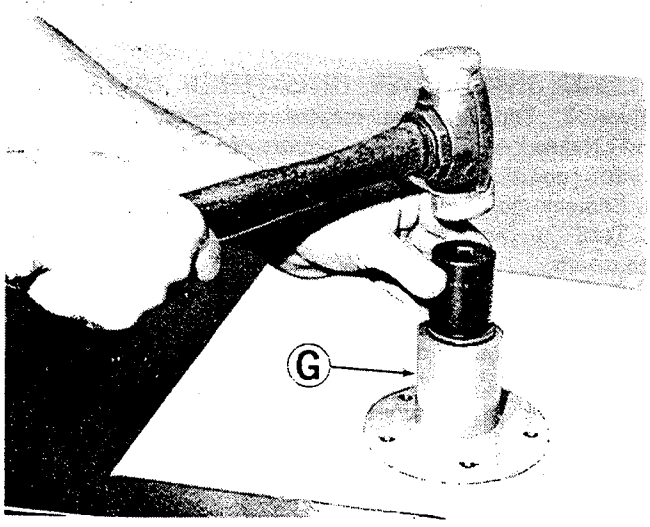


Figure 36. Pressing grease seal into front wheel hub.

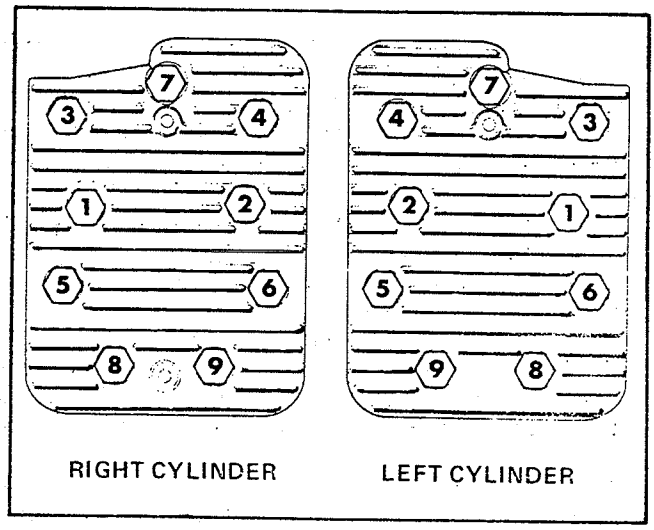


Figure 37. Cylinder head bolt tightening sequence.

9. Place a film of grease on the axle shaft.
10. Put the inner bearing in place in the bearing housing and press a new grease seal (G) in place as it is shown in figure 36.
11. Being careful not to damage the grease seal, slide the wheel hub onto the axle shaft.
12. Install the outer bearing, washer, and nut over the axle shaft.
13. Alternately tighten the nut and spin the wheel until a drag is felt on the wheel. Back the nut out until no drag is felt on the wheel. There should be no play in the wheel.
14. Install the cotter pin in the nearest slot available. Bend the ends of the cotter pin over so it will not fall out.
15. Replace the dust cover (A).

REMOVE CARBON AND LEAD DEPOSITS: To remove carbon and lead deposits, the cylinder heads must be removed. The work should be done by a competent mechanic. Remove the heads only when the engine is at room temperature, (about 70°) as they may warp if removed when hot. Proceed as follows:
1. Remove the two capscrews from each of the air shrouds over the two cylinder heads.
2. Remove the air shrouds.
3. See figure 37. Remove the cylinder head bolts. Turn them counter-clockwise to remove them.
4. After removing the cylinder heads, the carbon can be cleaned from them with a fine wire hand brush. Do not use an electric brush as too much metal could be removed. Be especially careful not to damage the outer sealing edges where the gasket fits. The heads are made of aluminum and can be damaged by careless handling.
5. Use new head gaskets and clean both the block and cylinder heads thoroughly where the gasket rests.
6. Place one head in position on the cylinder block and install the head bolts, placing the longer bolts through the holes marked 1, 2, 3, 4 and 7 in figure 37.
7. A torque wrench should be used to tighten the head bolts. This should be done when the engine is at room temperature. Use the tightening sequence shown in figure 37. Tighten number 1 bolt to 5 foot-pounds torque, then number 2, etc. After all bolts are tightened to 5 foot-pounds, repeat the sequence, tightening each bolt to 10 foot-pounds. Repeat the sequence increasing 5 foot-pounds each time until each bolt is tightened 29-31 foot-pounds. Install the other head and head gasket and tighten the head bolts as outlined in steps 6 and 7.
8. Replace the air shrouds and capscrews removed in steps 1 and 2.
9. After the engine has been run long enough to reach normal operating temperature and allowed to cool to room temperature, the head bolts should be retorqued to 29-31 foot-pounds. The retightening should be done before the engine has been run a total of fifty hours.

SET ENGINE VALVE TAPPET CLEARANCE: The engine is equipped with adjustable valve tappets. The valve tappet clearance should be checked, and adjusted if necessary, every 400 hours. Adjust the valve tappet clearance only after the engine has cooled to surrounding air temperature. A competent mechanic should do the work. Proceed as follows:
1. See figure 38. Remove ignition key to prevent accidental start.
2. Remove four capscrews mounting heat shield (A). Remove heat shield from engine.
3. Disconnect fuel line hoses (B) at carburetor and fuel pump.
4. Disconnect fuel line between carburetor and fuel pump.
5. Remove three capscrews mounting exhaust manifold (C) to intake manifold (G). (One capscrew removed at heat shield removal). Remove exhaust manifold and muffler (D).
6. Remove two capscrews (E) mounting each side of intake manifold (G) to block. Remove intake manifold exposing valve tappet covers.
7. Remove two capscrews and flat washers attaching valve tappet covers to block. Remove valve tappet covers and gaskets. Replace old gaskets with new ones.
8. To ease engine turning, remove both spark plugs.
9. Remove capscrew and flat washer attaching left side of transmission oil cooler (F). Lift left end of oil cooler back being careful not to break hose connections.
10. Manually turn engine flywheel clockwise until intake valve opens and closes. Continue turning flywheel until arrow mounted on camshaft on left side of engine is aligned with mark on electric clutch (figure 31). This should place left hand piston at the top of its compression stroke, which

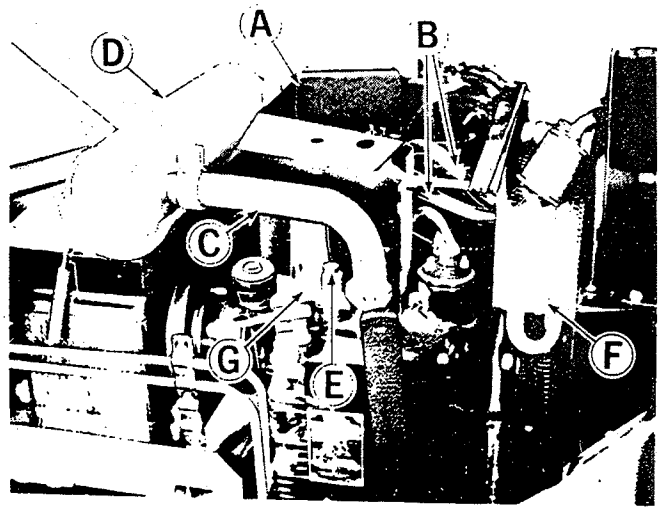


Figure 38. Engine from left side of tractor.

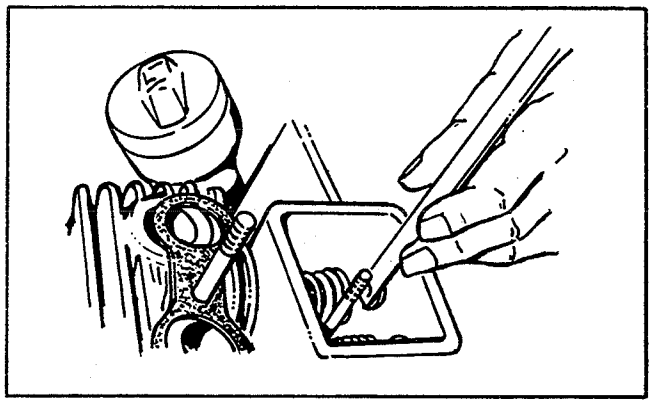


Figure 39. Adjusting engine valve tappet clearance.

must be its position to obtain proper valve adjustment of the left cylinder.

11. For each intake (closest to front of engine) valve a 0.006 inch feeler gauge should pass freely between the valve stem and tappet; a 0.008 inch gauge should not.
12. For each exhaust valve a 0.015 inch feeler gauge should pass freely between the valve stem and tappet; a 0.017 inch gauge should not.
13. To correct valve clearance, turn the adjusting screw clockwise to increase valve clearance or counter-clockwise to decrease clearance. A wrench should be used to hold the tappet while turning the adjusting screw (figure 39). The screw is self-locking and will stay where it is set.
14. To adjust right cylinder valve, turn engine over one complete revolution and again line up arrow and mark on electric clutch (figure 31). Follow same adjustment procedure as left cylinder valve.
15. Assemble all items removed in steps 1 thru 9 of this procedure. Tighten all mounting nuts securely. The manifold bolts must be tightened to 15-20 foot-pounds torque.

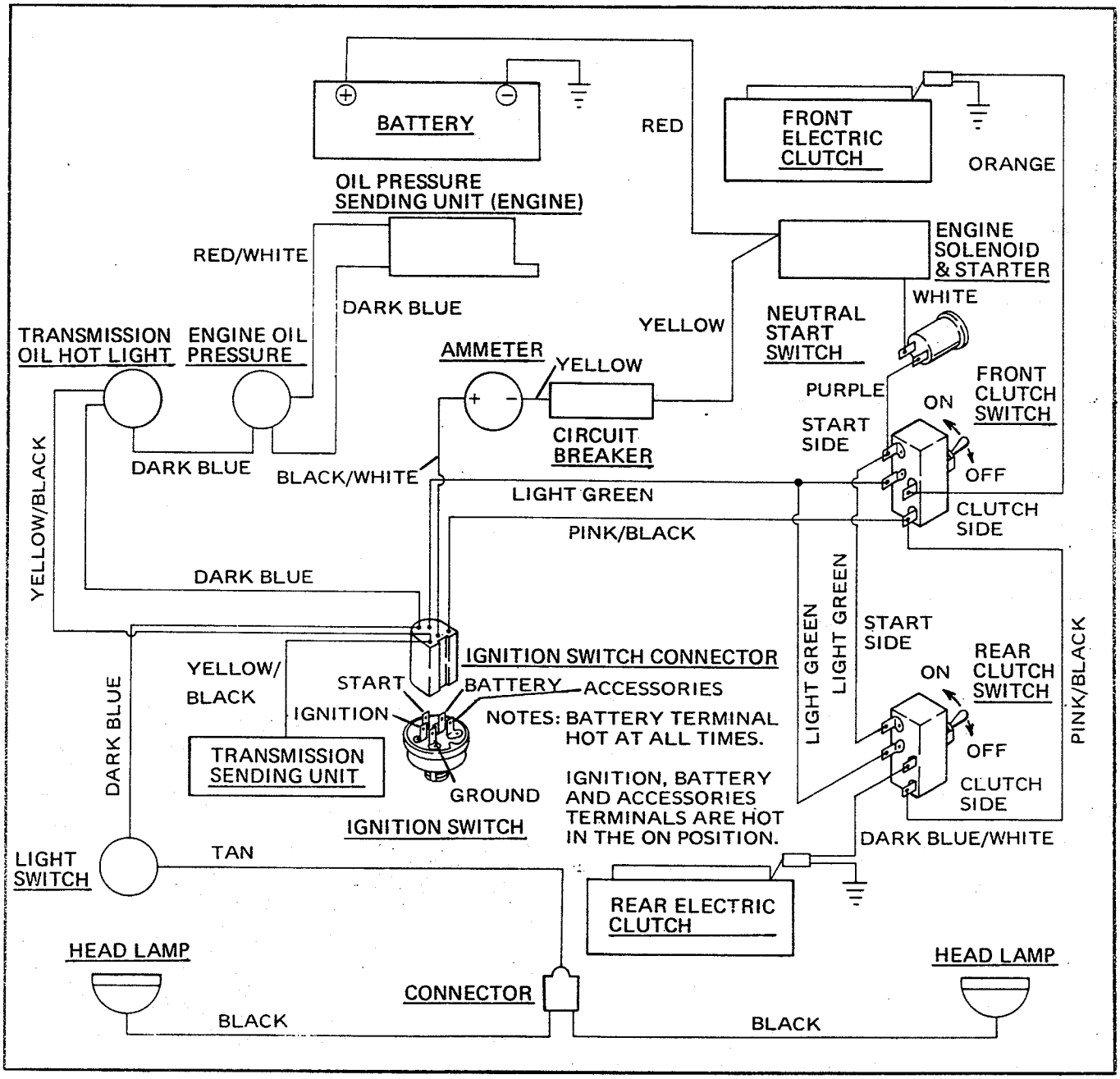


Figure 40. Vehicle wiring schematic diagram.

ACCESSORIES

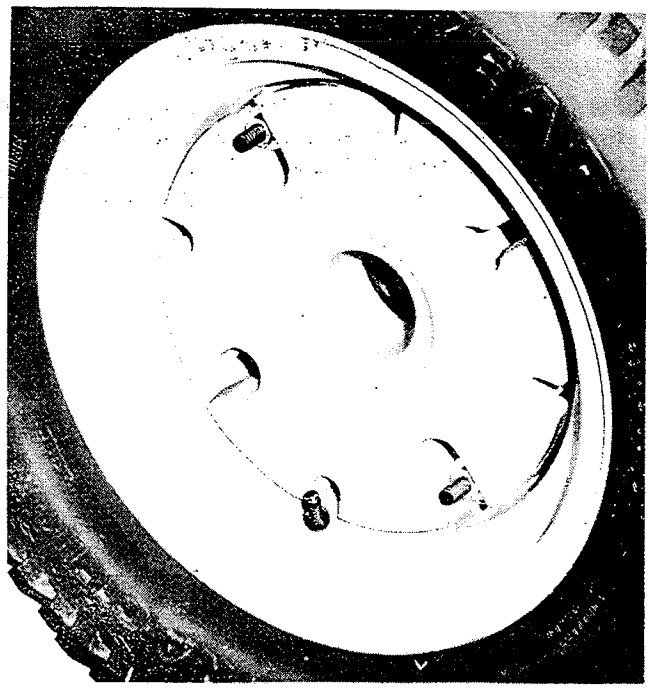


Figure 41. Rear wheel weight.

The Simplicity 4041 has been designed to do many different jobs under widely varying operating conditions. To make the tractor more effective you may need to use some accessories such as the ones shown here. Contact your Simplicity dealer if you have need for these or other accessories. The Operating Chart on page 10 will help you decide which accessories you need.

REAR WHEEL WEIGHTS

See figure 41. The rear wheel weights are useful in giving extra traction and side hill stability to the tractor. One set of weights which includes one weight for each rear wheel weighs approximately 130 pounds. Up to 3 sets of weights may be installed as shown in figure 42, except when installed on the agricultural tires with the valve stem turned out. Then the outer surface shown in figure 41 should be turned toward the rim. Two bolts, washers and capscrews are provided to attach each weight.

TIRE CHAINS

See figure 42. Tire chains give the tractor added traction, especially on ice or other slippery surfaces. Chains are available for each of the rear tire options available with the Simplicity 4041. Figure 42 shows them installed on the turf tires. **CAUTION: USE TIRE CHAINS WITH CAUTION ON ASPHALT SURFACES.** Install the tire chains as shown in figure 42. The tire pressure should be checked and the tires inflated according to the chart on page 22 before the chains are installed.

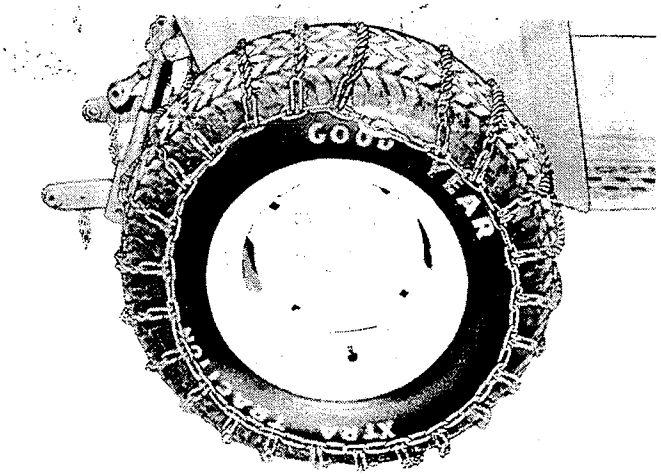


Figure 42. Tire chains.

HYDRAULIC CYLINDER

See figure 43. The hydraulic cylinder purchased as an accessory includes the hoses and quick-discount couplers. The Front Hydraulic Kit (optional - factory or field installed) is required to use the hydraulic cylinder for front mounted attachments. When connecting the hydraulic cylinder to the hydraulic lines, connect them as shown in figure 43 with the hose to the rod end of the cylinder connected at the coupling designated **ROD END (A).** The hose to the piston end of the cylinder should be connected to the coupling labeled **PISTON END (B).** When connecting or disconnecting the quick couplers, push back on the locking ring (C). When using the hydraulic cylinders only one cylinder should be used at a time. The cylinder not being used may be left in position, but the hydraulic couplers must be disconnected so only the one cylinder will move when the hydraulic lever is actuated. **NOTE: A HYDRAULIC CYLINDER DISCONNECTED UNDER PRESSURE (WHILE HOLDING AN ATTACHMENT IN THE RAISED**

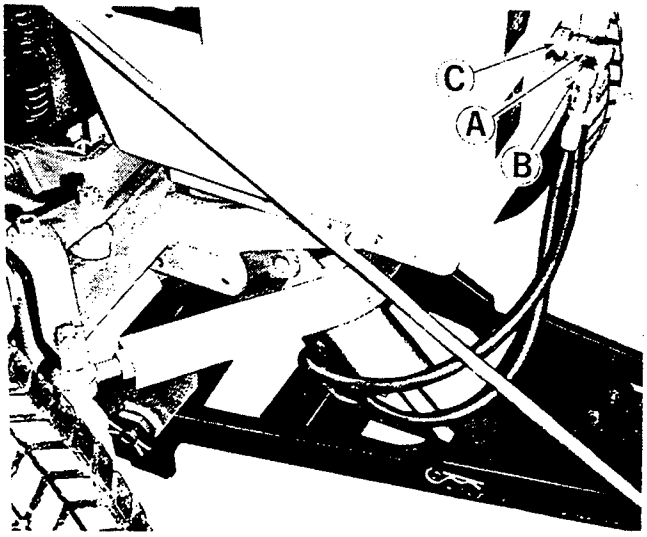


Figure 43. Hydraulic cylinder.

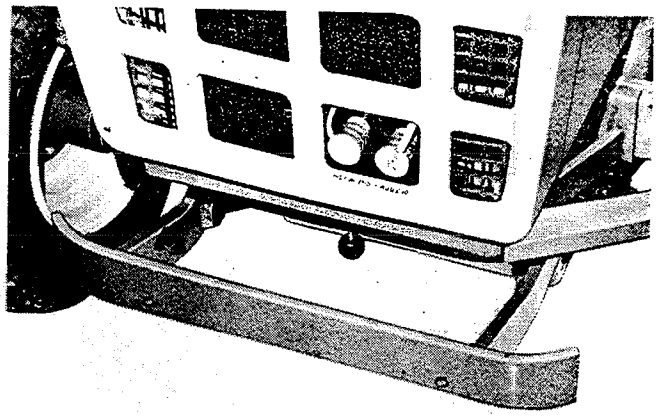


Figure 44. Front bumper.

POSITION) WILL BE DIFFICULT TO CONNECT. See Attachment instructions for the procedure of holding an attachment in the raised position when disconnecting the hydraulic lines.

FRONT BUMPER

See figure 44. The front bumper is helpful in protecting the front end of the tractor from damage. It should be installed as shown in figure 44. The front bumper is required in order to mount the front counterweight (not shown here).

ATTACHMENTS

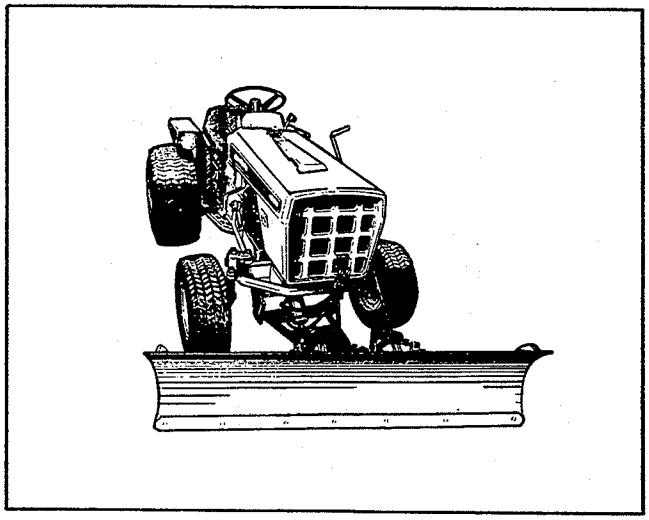


Figure 45. Snow plow and dozer blade - an example of a front mounted attachment.

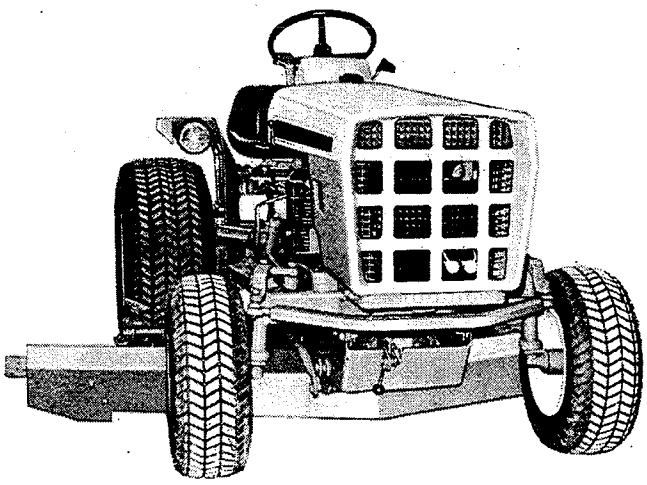


Figure 46. Rotary mower - an example of a center mounted attachment.

The Simplicity 4041 is designed to accept several front, center, and rear mounted attachments. Your Simplicity dealer will be happy to give you specific information on them. We have provided some information here to give you an idea how some of the Simplicity attachments are to be mounted and operated. Also refer to the chart on page 10 of this manual for recommended tractor speed control settings. When using such attachments, you should refer to the Attachment Owners Manual for additional information.

FRONT MOUNTED ATTACHMENTS

See figure 45. Front mounted attachments such as the dozer blade shown require the hitch assembly for front mounted attachments and the front hydraulic kit. The hydraulic cylinder may be removed from the rear lift unit and used to control the front mounted attachments or you may purchase an additional cylinder. If you purchase an additional cylinder, the hydraulic lines to only one of them should be connected at a time. If a hydraulic coupler is disconnected while it is under pressure (an attachment is being held in the raised position by the cylinder), the coupler will be difficult to reconnect. See the Attachment Manual for instructions on holding an attachment in the raised position when the cylinder lines are to be disconnected.

CENTER MOUNTED ATTACHMENTS

See figure 46. Center mounted attachments such as the rotary mower shown require the hitch assembly for center mounted attachments. They are hydraulically raised and lowered by the two lift cables connected to the rear hydraulic cylinder.

REAR MOUNTED ATTACHMENTS

See figure 47. The rotary tiller shown is an example of a rear mounted attachment. The optional three-point hitch is required to mount most rear mounted attachments. They can be attached to the rear power take off (optional - factory installed only) if required. Page 33 of this manual gives instructions for mounting attachments to the three-point hitch and attaching the power take off. If you are using a front mounted attachment with an additional hydraulic cylinder, only the hose connection to one cylinder should be connected at a time.

See figure 52. The restraining chains can be moved from the eyebolts (B) to the frame holes (C) to hold the three-point hitch in the raised position while the hydraulic couplings are being disconnected or the hydraulic cylinder removed to be used in the front.

THREE-POINT HITCH: (OPTIONAL-FACTORY OR FIELD INSTALLED)

(Figure 48 and 49) The three-point hitch provides a versatile and convenient means of mounting and controlling rear mounted attachments such as a rotary tiller or moldboard

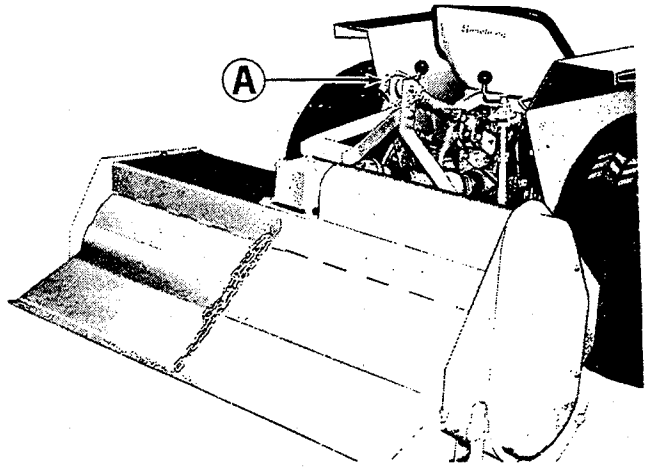


Figure 47. Rotary tiller - an example of a rear mounted attachment.

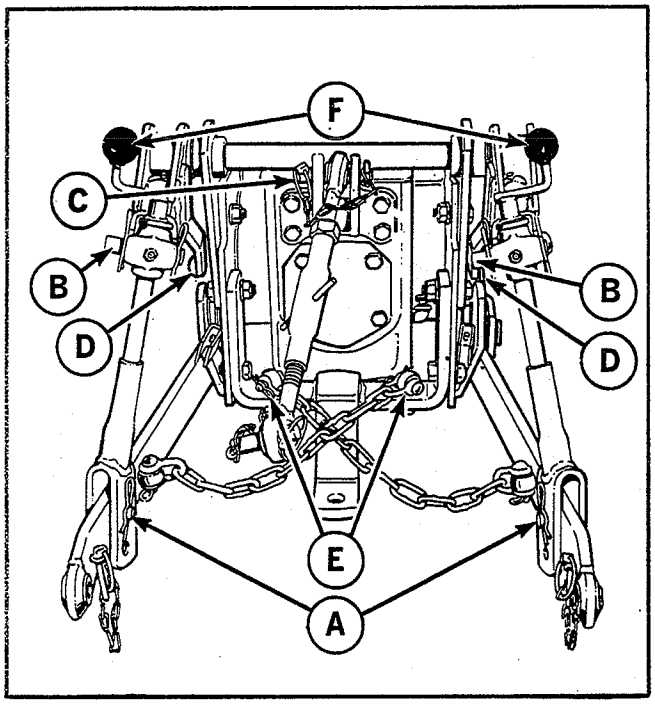


Figure 48. Three-point hitch.

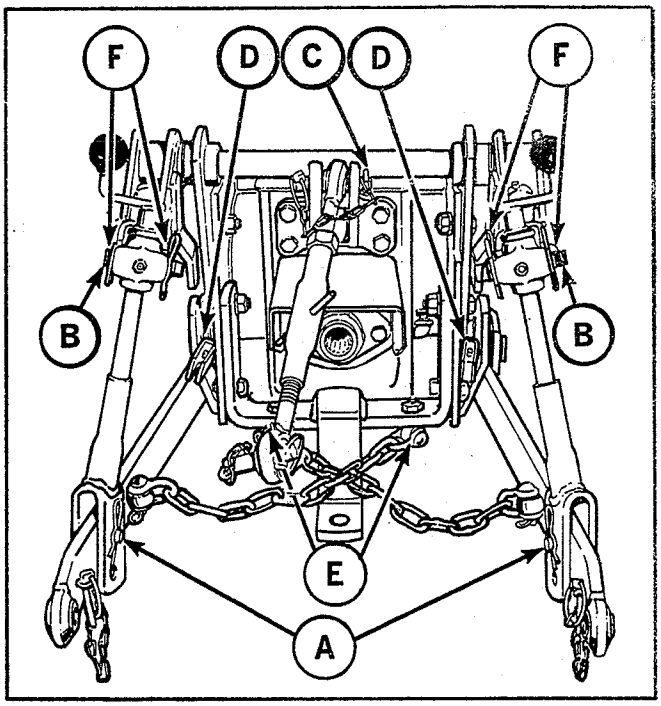


Figure 49. Three-point hitch.

plow. The three-point hitch is activated by a hydraulic cylinder controlled by the hydraulic control lever. For more information on how to use the hydraulic control lever to operate the three-point hitch, refer to Operations section of this manual.

DRAFT ARMS: The three-point hitch on the Simplicity 4041 meets category O Dimensions as set by the Society of Automotive Engineers and the American Society of Agricultural Engineers when the draft arms are fastened through the lower holes of the lower lift link (Figure 48, item A). However, because of the unique design of the 4041 tractor, a more effective line of pull to most attachments is achieved by fastening the draft arms through the upper holes of the lower lift link (Figure 49, item A). Unless the Attachment Owners Manual specifies otherwise, the upper holes of the lower lift arms should be used as shown in figure 49.

FLOAT LOCKOUT PINS: When using attachments such as a Simplicity rotary tiller which has its own depth setting device, it is desirable to allow the draft arms to float (move freely up and down). To do this, remove the two spring clips and set the lockout pins with the larger end of the pins exposed (Figure 48, item B). Figure 49, item B shows the lockout pins set so the draft arms are held rigid to the rockshaft arm.

TURNBUCKLE LINK: The turnbuckle link is used to level the attachment fore and aft when at its working depth. Hitching an attachment is made easier by adjusting the link to align the pin holes. To adjust the length of the link, turn the center turnbuckle until the desired length is obtained. The turnbuckle link is adjustable 11-1/2 to 15 inches in length. In addition, two holes are provided in the mounting bracket for attaching the upper link to the tractor. Unless the Owners Manual for an attachment specifies otherwise, use the top hole (Figure 49, item C). Figure 48, item C shows the turnbuckle attached to the lower hole of the mounting bracket.

CENTER LIFT CABLES: When a center mounted attachment such as the sickle bar or center mounted mower is used, the lift cables should be fastened to the rocker arm with the two pins and spring clips (Figure 48, item D). When no center attachment is mounted the pins and spring clips should be removed as shown at Figure 49, item (D) and used to fasten the front of the cables to the underside of the tractor foot rests (Figure 50, item A).

RESTRAINING CHAINS: The restraining chains are used to prevent an attachment mounted to the three-point hitch from swinging too far to the left or right. The length of the chains can be adjusted by removing the pin and spring clip from the U-link and placing the U-link through the desired chain link. The eyebolts which fasten the restraining

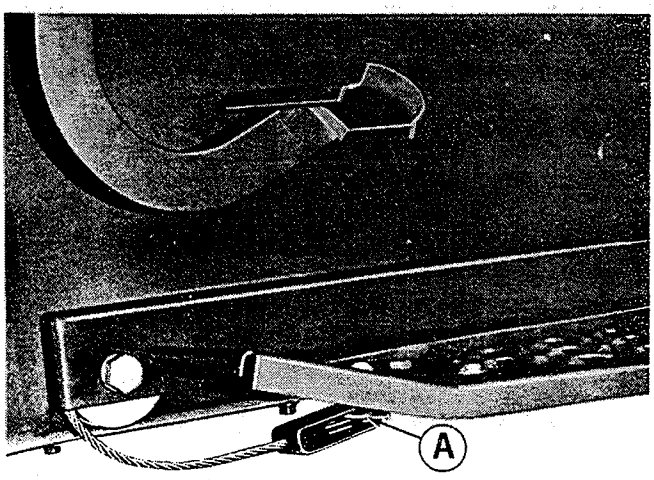


Figure 50. Center lift cable attached to footrest.

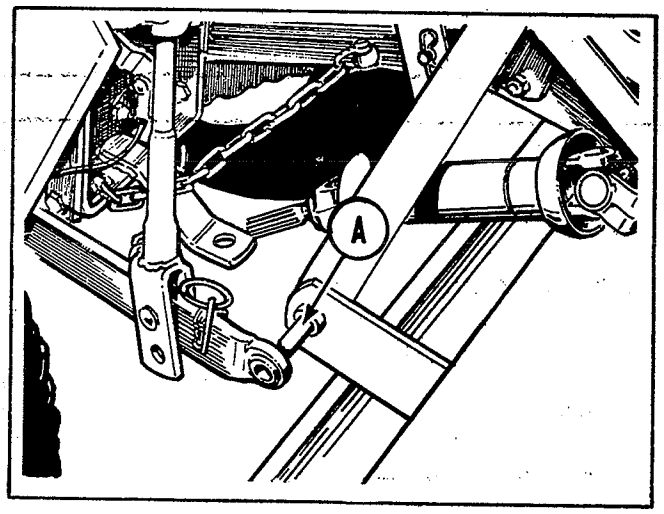


Figure 51. Mounting attachments to the three-point hitch.

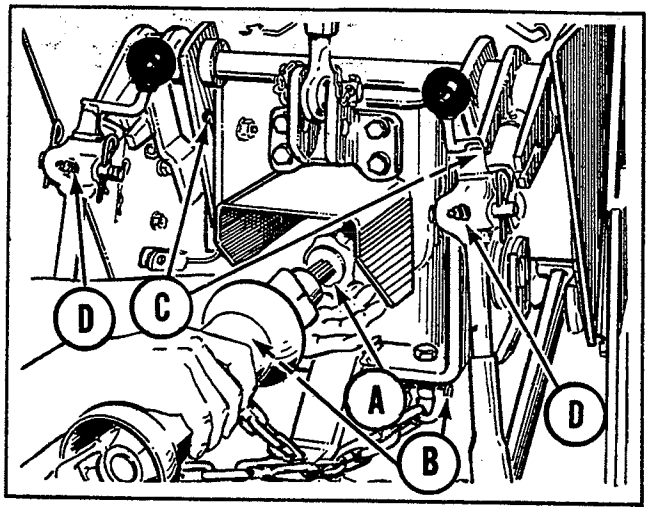


Figure 52. Attaching a power take off shaft.

chains to the drawbar should be mounted in the drawbar so the chains are fastened above the drawbar when it is desirable to restrain the attachment equally whether it is lowered or raised (Figure 48, item E). They should be attached in this manner when the rotary tiller is used. When using an attachment such as a plow where less restraint is required when it is in the lowered position and more restraint in the raised position, the eyebolts should be turned around so the chains are hooked below the drawbar (Figure 48, item E). If the drawbar has been removed to allow additional clearance such as when cultivating, the eyebolts for the restraining chains can be placed through the lower drawbar mounting holes in the frame. See the Attachment Manual for more information.

LEVELING CRANKS: (Figure 48, item F) The two leveling cranks can be used to level an attachment mounted to the three-point hitch. They can also be used to change the high and low limits of the draft arms. Turn them clockwise if you wish the hitch to raise higher and counter-clockwise to allow the hitch to be lowered closer to the ground. The leveling cranks are also convenient for adjusting the height of the draft arms when hitching an attachment.

REMOVING THE THREE-POINT HITCH: The three-point hitch may be easily removed from the tractor by removing the spring clips and pins at the seven positions marked C, E, and F in figure 49. Although the pins holding the draft arms to the tractor frame will not slide all the way out, the spacer and draft arms will slide off the end of the pin after the spring clip has been removed.

MOUNTING ATTACHMENTS TO THE THREE-POINT HITCH: (Figure 51) Mounting attachments to the three-point hitch is not difficult, but here are some helpful pointers. Mounting is easier if the attachment and tractor are on a level surface. Back the tractor straight toward the front of the attachment until the swivel sockets at the ends of the draft arms are in line with the attachment hitching pins. Use the hydraulic control lever to level the draft arms so the swivel sockets are the same height as the attachment hitch pins. Stop the tractor engine. Place the swivel sockets on the attachment lift pins (A). Turning the crank handles to align the holes will make hitching easier. Insert the safety pins through the holes in the implement hitch pin.

ATTACHING POWER TAKE OFF

(Figure 52) If the attachment is driven by the rear power take off drive, hook up the power take off drive shaft at this time before attaching the turnbuckle link. **CAUTION: BE SURE THE TRACTOR ENGINE IS STOPPED.** Start the drive shaft spline in the internally splined power take off. While holding the drive shaft in place with one hand, use the other to turn the outer locking ring (A) of the power take off drive clockwise and hold it there. Slide the power take off shaft into the drive and release the locking ring. Insure the locking pins have seated in the groove of the power take off drive by attempting to pull the drive shaft out. To remove the drive shaft, turn the locking ring clockwise and pull the drive shaft out.

Align the swivel at the end of the turnbuckle with the holes through the tower of the attachment and insert the pin and safety ring (Figure 47, item A). The turnbuckle may be adjusted to aid in aligning the holes. Level the draft arms and adjust the length of the turnbuckle link according to the Attachment Owners Manual.

SPECIFICATIONS

ENGINE	
Make	Onan
Model	CCKB-MS/2420 H
Cycle	4
Fuel	Gasoline
Cylinders	2 horizontally (opposed)
Cylinder Material	Cast Iron
Cylinder Bore	3 - 1/4 inches
Stroke	3 inches
Piston Displacement	49.8 Cubic Inches
Horsepower @ 3600 RPM	19
Compression Ratio	7.0 to 1
High Speed (No Load)	3850 RPM (Revolutions per Minute)
High Speed (Full Load)	3600 RPM
Idle Speed	1200 RPM
Valves	Positive rotating chrome-cobalt facing on exhaust valve heads
Valve Tappet Clearance	Intake .006 - .008 inch Exhaust .015 - .017 inch
Valve Seats	Replaceable, chrome-cobalt faced on exhaust seats
Cooling System	Pressure air cooled, axial flow blower
Carburetor	Downdraft, fixed main jet
Fuel Filter	In fuel line
Choke	Manually operated
Air Cleaner	Special element
Fuel Pump	Diaphram type
Governor	Cam gear driven, adjustable mechanical flyball, pressure lubricated
Breaker point gap	0.020 inch
Ignition Timing	20° before top dead center

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Spark Plug	Champion H-8 or equivalent
Spark plug gap	0.025 inch
Lubrication System	Gear type oil pump, adjustable pressure relief valve, replaceable oil filter, oil level indicator, oil pressure sending unit.
Starting Motor	12 volt electric solenoid shift starter
POWER TRAIN	
Clutch	Foot pedal operated, double V-belt drive, clutched by varying center distance between pulleys
Universal Joints	Disc type, self aligning, no moving parts
Hydrostatic Transmission	Sundstrand -- Variable delivery piston type pump with fixed stroke piston type motor. Replaceable oil filter.
Gear Transmission	3-Speed Sliding Spur gear, Cast iron transmission case, Rolling contact bearings
Differential	8 pinion, spur gear, non-adjustable limited slip. Located in transmission case.
Final Drive	Individual spur gears rolling contact bearings, cast iron case.
STEERING	
Type	Recirculating ball screw, manual operation.
Steering wheel revolutions	3.2 stop to stop
Steering wheel diameter	14 inch
SEAT	
Standard Seat	Adjustable front to rear - 5 position
Optional lever operated seat	Adjustable from operator position front to rear. Spring mounted, inclined ramp.
FRONT POWER TAKE OFF	
Clutch	12 Volt electric solenoid actuated
Speed	Equal to engine RPM
Drive	A section pulley
REAR POWER TAKE OFF (Optional)	
Clutch	12 Volt electric solenoid actuated
Speed (@ 3600 Engine rpm)	2000 rpm (55% of engine rpm)

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Drive	1 inch Internal 15 tooth involute spline
Direction of Rotation	Clockwise (viewed from the rear)
POWER LIFT SYSTEM	
Type	Hydraulic
Hydraulic Pump	2-1/4 gpm (Gallons per Minute) Hydrostatic Transmission charge pump
Relief Valve Pressure	500 psi (Pounds per Square Inch)
Control	Hand Operated
Hydraulic Cylinder	2.25 inch diameter - 4 inch stroke double acting
3 POINT HITCH	
Type	Flexible Swinging draft hubs with ball couplers
SAE & ASAE Category	Meets Category "O" Dimensions
Control	Hand operated - same as power lift system
DRAWBAR	
Type	Single position - removable
Height	13 inches
Pin Size	3/4 inch
BRAKES	
	Individual double disk type, can be locked together for simultaneous operation, parking brake is cam locking type.
ELECTRICAL SYSTEM	
Battery	45 Ampere hour 12 volt
Alternator	20 Ampere flywheel alternator with silicon diode rectifier
Regulator	Transistorized temperature compensated voltage regulator
Protection	20 ampere circuit breaker for auxilaries
Lights	Fender mounted sealed beams
WHEELS AND TIRES	
Size	Front Agricultural 4.00 x 12 (Standard) Turf 20 x 8 - 10 (optional)

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

	High Capacity 6.00 x 9 (optional)
	Rear Agricultural 8 x 16 (Standard) Turf 29 x 12.50 - 15 (optional) High Flotation 31 x 15.50 - 15 (optional)
Tread Diameter	See the chart on page 21.
Tire Pressure	See the chart on page 22.

LIQUID TYPE AND CAPACITY

Fuel Tank (Regular gasoline)	3.8 gallons
Engine Crankcase (Above 30°F - SAE 30, Below 30°F - SAE 5W-30)	3.5 quarts
Transmission and Hydraulic System (Type A, Type F, or Dexron)	5.0 quarts
Axle Housings, each (90 Wt. Trans. Oil)	2 pints

DIMENSIONS

Wheel Base	56 inches
Length (overall)	83 inches
Height (overall)	48 inches
Width (overall)	
With Agricultural tires (narrow setting)	43-1/4 inches
With Agricultural tires (wide setting)	48 inches
With Turf tires	50 - 1/2 inches
With High Flotation tires	56 - 1/2 inches
Ground Clearance (without drawbar)	15 inches

Turning Radius (With agricultural tires at wide tread setting)	OUTSIDE FRONT TIRE	INSIDE REAR TIRE
Without using brake	8 feet	3 feet
Using Steering Brakes	6 feet	1 feet

WEIGHT

Shipping weight	1300 pounds (approximate)
Operating weight With 180 lb. operator	Rear – 1000 pounds (approximate) Front – 480 pounds (approximate)

GROUND SPEED

(Approximate - Engine at 3600 rpm) Gear Range	FORWARD (mph)	REVERSE (mph)
1	0 - 4.2	0 - 2.6
2	0 - 6.3	0 - 4.0
3	0 - 10.4	0 - 6.2

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

⚠ CAUTION

1. Keep all shields in place.
2. Before leaving operator's position:
   - Shift transmission to neutral.
   - Set parking brake.
   - Disengage attachment clutch.
   - Shut off engine.
   - Remove ignition key.
3. Wait for all movement to stop before servicing machine.
4. Keep people and pets a safe distance away from machine.

Simplicity®
MANUFACTURING, INC.

500 N Spring Street / PO Box 997
Port Washington, WI 53074-0997 USA