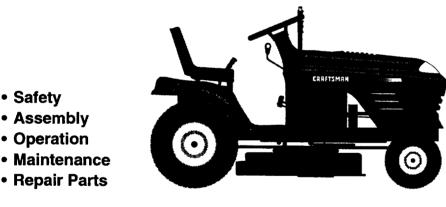
Owner's Manual CRAFTSMAN°

16.5 HP **ELECTRIC START** 42" MOWER **6 SPEED TRANSAXLE** LAWN TRACTOR



Model No. 917.271110



Assembly

- Operation
- Maintenance
- Repair Parts

CAUTION:

Read and follow all Safety Rules and Instructions before operating this equipment.

For answers to your questions about this product, Call:

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1-800-659-5917 Sears Craftsman Help Line 5 am - 5 pm, Mon - Sat

Sears, Roebuck and Co., Hoffman Estates, IL 60179

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WARRANTY

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LIMITED TWO YEAR WARRANTY ON CRAFTSMAN RIDING EQUIPMENT

For two (2) years from the date of purchase, if this Craftsman Riding Equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship.

This Warranty does not cover:

- · Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners, belts, etc.
- Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, negligence, improper storage or accident or the failure to maintain the equipment according to the instructions contained in the owner's manual.
- · Riding equipment used for commercial or rental purposes.

LIMITED 90 DAY WARRANTY ON BATTERY

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge. In-home warranty service on your Craftsman riding equipment is available at no charge for 30 days from the date of purchase. Please contact your nearest service center. After 30 days from the date of purchase, warranty service is available by taking your Craftsman riding equipment to your nearest Sears Service Center. (In-home warranty service will still be available after 30 days from the date of purchase but a standard trip charge will apply). This warranty applies only while this product is in the United States. This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

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SAFETY RULES

GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.

- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.

SAFETY RULES

- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under
- the influence of alcohol or drugs.Watch for traffic when operating near or
- crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.

SLOPE OPERATION

Slopes are a major factor related to lossof-control and tipover accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

DO:

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments. These can change the stability of the machine.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

DO NOT:

- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.

- Do not try to stabilize the machine by
- putting your foot on the ground.
- Do not use grass catcher on steep slopes.

CHILDREN

- Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
 - Use only an approved container.
 - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
 - Never refuel the machine indoors.
 - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices.
- Check their proper operation regularly. • Keep machine free of grass, leaves, or
- other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary,

SAFETY RULES

before restarting.

- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with

manufacturer's recommended parts, when necessary.

- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently.
- Adjust and service as required.





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- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.

A Look for this symbol to point out important safety precautions. It means CAU-TION!!! BECOME AWARE!!! YOUR SAFE-TY IS INVOLVED.

CAUTION: In order to prevent accidental starting when setting up, transporting, adjusting or making repairs always disconnect spark plug wire and place wire where it cannot contact spark plug.

- Mow up and down slopes (15° Max), not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

AWARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

PRODUCT SPECIFICATIONS

GASOLINE	1.25 GALLONS
CAPACITY AND TYPE:	UNLEADED REGULAR
OIL TYPE	SAE 30
(API-SF/SG/SH):	(above 32°F) SAE 10W-30
	(below 32°F)
OIL CAPACITY:	W/FILTER: 4.0 PINTS W/O FILTER: 3.5 PINTS
SPARK PLUG: (GAP: .030")	Champion J19LM STD361458-
GROUND SPEED (MPH):	FORWARD: 1 ST 1.1 2 ND 1.4 3 RD 2.3 4 TH 3.5 5 TH 4.5 6 TH 6.0 REVERSE: 1.7
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BATTERY:	AMP/HR: 20 MIN. CCA:240 CASE SIZE: U1R
BLADE BOLT TORQUE:	27-35 FT. LBS.

CONGRATULATIONS on your purchase of a Craftsman Tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance. Should you experience any problem you cannot easily remedy, please contact your nearest Sears Authorized Service Center. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES".

MAINTENANCE AGREEMENT

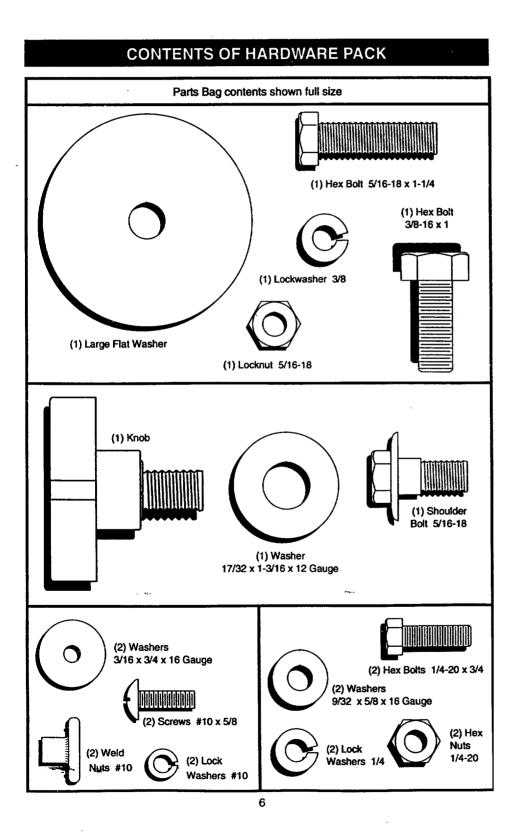
A Sears Maintenance Agreement is available on this product. Contact your nearest Sears store for details.

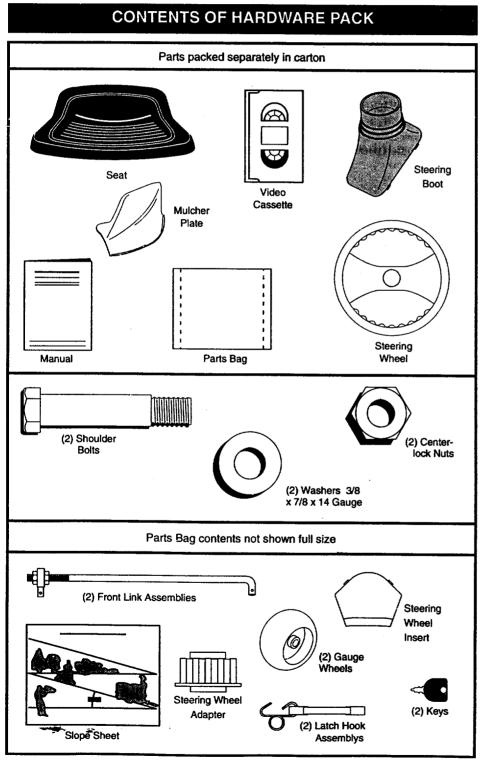
CUSTOMER RESPONSIBILITIES

- · Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "Maintenance" and "Storage" sections of this owner's manual.

AWARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest Sears Authorized Service Center (See REPAIR PARTS section of this manual).





ASSEMBLY

Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness. Review the video cassette before you begin.

TOOLS REQUIRED FOR ASSEMBLY

A socket wrench set will make assembly easier. Standard wrench sizes you need are listed below.

(1) 9/16" wrench	(1) 3/4" Socket w/
(2) 7/16" wrenches	drive rachet
(2) 1/2" wrench	(1) Phillips Screw-
(1) 3/4" wrench	driver
(1) Utility knife	(1) Tire pressure
(1)Pliers	gauge
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When right or left hand is mentioned in this manual, it means, from your point of view, when you are in the operating position (seated behind the steering wheel).

TO REMOVE TRACTOR FROM CARTON

UNPACK CARTON

- Remove all accessible loose parts and parts boxes from shipping carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of shipping carton, and lay panels flat.
- Remove mower and package materials.
- Check for any additional loose parts or boxes and remove.

BEFORE ROLLING TRACTOR OFF SKID

ATTACH STEERING WHEEL

ASSEMBLE EXTENSION SHAFT AND BOOT

• Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 5/16 hex bolt and locknut. Tighten securely.

IMPORTANT: Tighten bolt and nut securely to 18-22 ft. lbs. torque.

 Place tabs of steering boot over tab slots in dash and push down to secure.

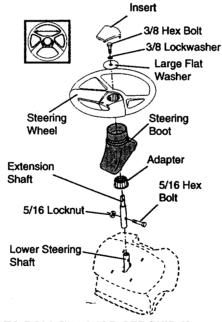
INSTALL STEERING WHEEL

- Position front wheels of the tractor so they are pointing straight forward.
- Slide steering wheel adapter onto steering shaft extension.
- Position steering wheel so cross bars

are horizontal (left to right) and slide inside boot and onto adapter.

- Assemble large flat washer, 3/8 lock
- washer, 3/8 hex bolt and tighten securely.
 Snap steering wheel insert into center
- of steering wheel.
- Remove protective materials from tractor hood and grill.

IMPORTANT: Check for and remove any staples in skid that may puncture tires where tractor is to roll off skid.



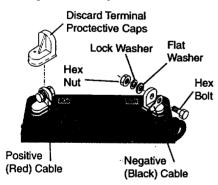
TO ROLL TRACTOR OFF SKID (See Operation section for location and function of controls)

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

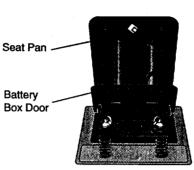
HOW TO SET UP YOUR TRACTOR CONNECT BATTERY

CAUTION: Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc. Positive terminal must be connected first to prevent sparking from accidental grounding.

- Remove cardboard packing from seat pan and lift seat pan to raised position.
- Open battery box door and remove protective plastic.
- Remove terminal protective caps and discard.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps.
- First connect RED battery cable to positive (+) terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.



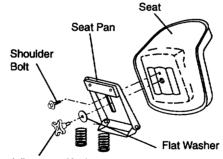
- Close battery box door. Open battery box door for:
 - Inspection for secure connections (to tighten hardware).
 - Inspection for corrosion.
 - Testing battery.
 - Jumping (if required).
 - · Periodic charging.



INSTALL SEAT

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt. Tighten shoulder bolt securely.
- Assemble adjustment knob and flat washer loosely. Do not tighten.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.



Adjustment Knob

CHECK TIRE PRESSURE

The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.

 Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" on page 5 of this manual.

CHECK DECK LEVELNESS

For best cutting results, mower housing should be property leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

CHECK FOR PROPER POSITION OF ALL BELTS

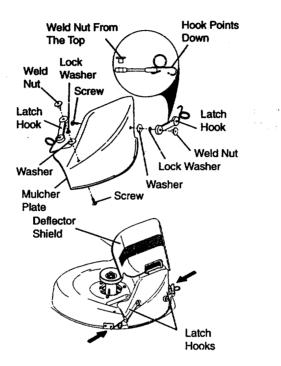
See the figures that are shown for replacing motion and mower blade drive belts in the Service and Adjustments sectoin of this manual. Verify that the belts are routed correctly.

CHECK BRAKE SYSTEM

After you learn how to operate your tractor, check to see that the brake is properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

INSTALL MULCHER PLATE

- Install two latch hooks to mulcher plate using screw, washer, lock washer, and weld nut as shown.
- NOTE: Pre-assemble weld nut to latch hook by inserting weld nut from the top
- with hook pointing down.Tighten hardware securely.
- Raise and hold deflector shield in upright position.
- Place front of mulcher plate over front of mower deck opening and slide into place, as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.



CAUTION: Do not remove discharge guard from mower. Raise and hold guard when attaching mulcher plate and allow it to rest on plate while in operation. TO CONVERT TO BAGGING OR DISCHARGING

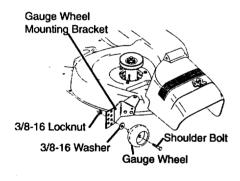
Simply remove mulcher plate and store in a safe place. Your mower is now ready for discharging or installation of optional grass catcher accessory.

NOTE: It is not necessary to change blades. The mulcher blades are designed for discharging and bagging also.

ASSEMBLE GAUGE WHEELS TO MOWER DECK

The gauge wheels are designed to keep the mower deck in proper position when operating mower. Be sure they are properly adjusted to ensure optimum mower performance.

- Assemble gauge wheels with tractor on a flat level surface.
- Adjust mower to desired cutting height (See "TO ADJUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.



✓ CHECKLIST

PLEASE REVIEW THE FOLLOWING CHECKLIST:

- All assembly instructions have been completed.
- No remaining loose parts in carton.
- Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- Seat is adjusted comfortably and tightened securely.
- All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- Be sure mower deck is properly leveled side-to-side/front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- Check wiring. See that all connections are still secure and wires are properly clamped.
- Before driving tractor, be sure freewheel control is in drive position.

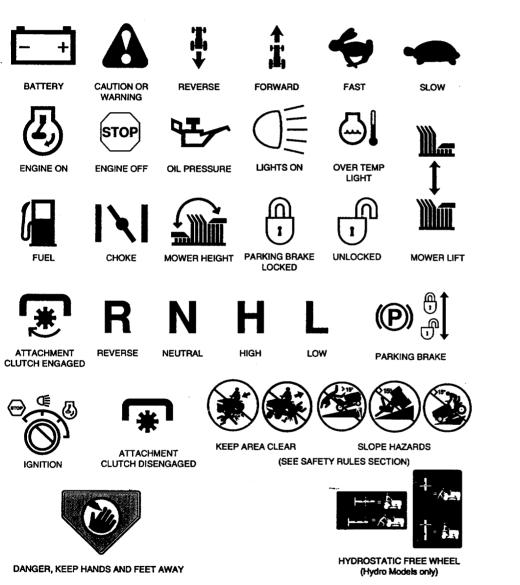
WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- Engine oil is at proper level.
- ✓ Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- Become familiar with all controls their cation and function. Operate them before you start the engine.
- Be sure brake system is in safe operating condition.
- ✓ It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMISSION" in the Operation section of this manual).

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OPERATION

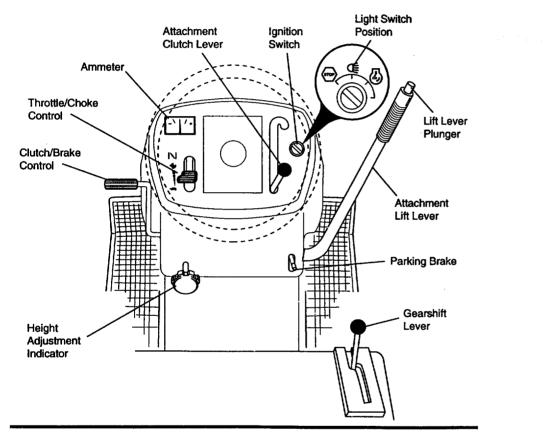
These symbols may appear on your tractor or in literature supplied with the product. Learn and understand their meaning.



KNOW YOUR TRACTOR

READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TRACTOR

Compare the illustrations with your tractor to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



Our tractors conform to the safety standards of the American National Standards Institute.

ATTACHMENT CLUTCH.LEVER: Used to engage the mower blades, or other attachments mounted to your tractor. LIGHT SWITCH: Turns the headlights on

and off.

THROTTLE/CHOKE CONTROL: Used to control engine speed.

CLUTCH/BRAKE PEDAL: Used for declutching and braking the tractor and starting the engine.

HEIGHT ADJUSTMENT KNOB: Used to adjust the mower cutting height.

GEARSHIFT LEVER: Selects the speed and direction of the tractor. ATTACHMENT LIFT LEVER: Used to raise and lower the mower deck or other attachments mounted to your tractor. LIFT LEVER PLUNGER: Used to release attachment lift lever when changing its position. IGNITION SWITCH: Used for starting and stopping the engine. AMMETER: Indicates battery charging (+) or discharging (-). PARKING BRAKE: Locks clutch/brake into the brake position.



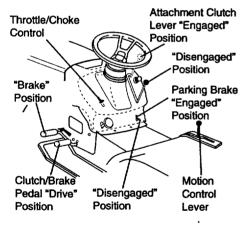
The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over the spectacles, or standard safety glasses.

HOW TO USE YOUR TRACTOR

Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

TO SET PARKING BRAKE

- Depress clutch/brake pedal into full "BRAKE" position and hold.
- Place parking brake lever in "EN-GAGED" position and release pressure from clutch/brake pedal. Pedal should remain in "BRAKE" position. Make sure parking brake will hold tractor secure.



STOPPING

MOWER BLADES -

 Move attachment clutch lever to "DIS-ENGAGED" position.

GROUND DRIVE -

- Depress clutch/brake pedal into full "BRAKE" position.
- Move gearshift lever to neutral (N) position.

ENGINE -

 Move throttle control to slow position.
 NOTE: Failure to move throttle control to slow position and allowing engine to idle before stopping may cause engine to "backfire".

• Turn ignition key to "OFF" position and

remove key. Always remove key when leaving tractor to prevent unauthorized use.

• Never use choke to stop engine. NOTE: Under certain conditions when tractor is standing idle with the engine running, hot engine exhaust gases may cause "browning" of grass. To eliminate this possibility, always stop engine when stopping tractor on grass areas.

A CAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

THROTTLE CONTROL

Always operate engine at full throttle.

- Operating engine at less than full throttle reduces the battery charging rate.
- Full throttle offers the best bagging and mower performance.

TO MOVE FORWARD AND BACKWARD The direction and speed of movement is

- controlled by the gearshift lever.Start tractor with clutch/brake pedal
- depressed and gearshift lever in neutral (N) position.
- Move gearshift lever to desired position.
- Slowly release clutch/brake pedal to start movement.

IMPORTANT: Bring tractor to a complete stop before shifting or changing gears. Failure to do so will shorten the useful life of your transaxle.

TO ADJUST MOWER CUTTING HEIGHT

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise () to raise cutting height.
- Turn knob counterclockwise () to lower cutting height.

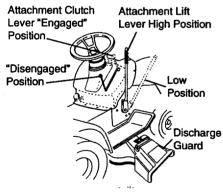
The cutting height range is approximately 1-1/2" to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut rela-
- tively high; the second to desired height. TO OPERATE MOWER

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine.

- · Select desired height of cut.
- Lower mower with attachment lift control.
- Start mower blades by engaging attachment clutch control.
- to Stop mower blades disengage attachment clutch control.

ACAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the discharge guard in place.



TO OPERATE ON HILLS

ACAUTION: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope.

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- · Move gearshift lever to 1st gear. Be

sure you have allowed room for tractor to roll slightly as you restart movement.

- To restart movement, slowly release
 partiag broke and clutch/broke and clutch/
- parking brake and clutch/brake pedal.

Make all turns slowly.

TO TRANSPORT

- Raise attachment lift to highest position with attachment lift control.
- When pushing or towing your tractor, be sure gearshift lever is in neutral (N) position.
- Do not push or tow tractor at more than five (5) MPH.

NOTE: To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).

TOWING CARTS AND OTHER ATTACHMENTS

Tow only the attachments that are recommended by and comply with specifications of the manufacturer of your tractor. Use common sense when towing. Too heavy of a load, while on a slope, is dangerous. Tires can lose traction with the ground and cause you to lose control of your tractor.

BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Unthread and remove oil fill cap/dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.
- ADD GASOLINE
- Fill fuel tank. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life). Do not

mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.

IMPORTANT: When operating in temperatures below 32°F(0°C), use fresh, clean winter grade gasoline to help insure good cold weather starting.

AWARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

ACAUTION: Fill to bottom of gas tank filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

TO START ENGINE

When starting the engine for the first time or if the engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.

- Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
- Place gear shift lever in neutral (N) position.
- Move attachment clutch to "DISEN-GAGED" position.

• Move throttle control to choke position. Note: Before starting, read the warm and cold starting procedures below.

 Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If the engine does not start after several attempts, move throttle control to fast position, wait a few minutes and try again. If engine still does not start, move the throttle control back to the choke position and retry.

WARM WEATHER STARTING (50° F AND ABOVE)

- When engine starts, move the throttle control to the fast position.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

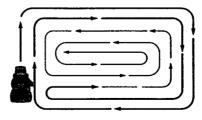
COLD WEATHER STARTING (50° F AND BELOW)

- When engine starts, allow engine to run with the throttle control in the choke position until the engine runs roughly, then move throttle control to fast position. This may require an engine warmup period from several seconds to several minutes, depending on the temperature.
- The attachments can also be used during the engine warm-up period.

NOTE: If at a high altitude (above 3000 feet) or in cold temperatures (below 32 F) the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.



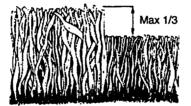
- When mowing large areas, start by tuming to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished.
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second
- to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower the best cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

MULCHING MOWING TIPS

IMPORTANT: For best performance, keep mower housing free of built-up grass and trash. Clean after each use.

 The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.

Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early



afternoon. At this time the grass has dried and the newly cut area will not be exposed to the direct sun.

- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades. For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

MAINTENANCE

CUSTOMER RESPONSIBILITIES

AS	MAINTENANCE SCHEDULE LI IN DATES YOU COMPLETE GULAR SERVICE		SEFORE	EACHUS WERY B	HOURS	VERVE	SHOUP VERY	SPHOU SPHOU WERY	EASON EASON	SEF	ROF AVICE	E DA	res
	Check Brake Operation	V	V	Í		Í			ſ	T	1		
	Check Tire Pressure	~	V								1		
т	Check Operator Presence and Interlock Systems	~											
R	Check for Loose Fasteners	~	1	T		17		1					
A	Sharpen/Replace Mower Blades			1.									
C	Lubrication Chart			~				1	1				
ö	Check Battery Level			V.		1	[1		
Ř	Clean Battery and Terminals/Recharge			V		1		V	1				
	Check Transaxle Cooling			V									
	Adjust Blade Belt(s) Tension					15							
	Adjust Motion Drive Belt(s) Tension					1,5			1				
	Check Engine Oil Level	~	~	1					Г	1			
	Change Engine Oil			V12,3			1	V					
E	Clean Air Filter			12					1				
Ñ.	Clean Air Screen			1/2							1		
G	Inspect Muffler/Spark Arrester				~				1		T		
I N	Replace Oil Filter (If equipped)		1			1.2		1			1	1	
E	Clean Engine Cooling Fins		1			1/2			1				
	Replace Spark Plug					1	~		1				
	Replace Air Filter Paper Cartridge					1/2		1	1	1	1	1	
	Replace Fuel Filter			1		1	~		1	1			

Change more often when operating under a newy load of 2 - Service more often when operating in dirty or dusty cond 3 - If equipped with oil filter, change of every 50 hours.
 4 - Replace blades more often when mowing in sandy soil.

GENERAL RECOMMENDATIONS

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual. Some adjustments will need to be made periodically to properly maintain your tractor. All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

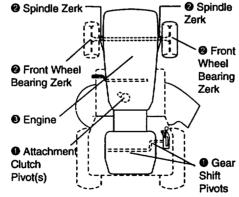
· Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

BEFORE EACH USE

- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check operator presence and interlock systems for proper operation.
- Check for loose fasteners.

6 - Not required if equipped with maintenance-free ba
 7 - Tighten front axie pivot bolt to 35 ft.-lbs. meximum. Do not overtighten.

LUBRICATION CHART



SAE 30 or 10w30 Motor OIL

 General Purpose Grease
 Refer to Maintenance "Engine" Section IMPORTANT: Do not oil or grease the pivot points which have special nylon bear-ings. Viscous lubricants will attract dust and dirt that will shorten the life of the self-lubricating bearings. If you feel they must be lubricated, use only a dry, powdered graphite type lubricant sparingly. 18

TRACTOR

Always observe safety rules when performing any maintenance.

BRAKE OPERATION

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

TIRES

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" on page 5 of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

NOTE: To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

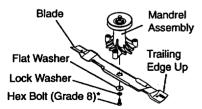
BLADE CARE

For best results mower blades must be kept sharp. Replace bent or damaged blades.

BLADE REMOVAL

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (30-35 Ft. Lbs. torque).

IMPORTANT: Blade bolt is Grade 8 heat treated.



*A Grade 8 heat treated bolt can be identified by six lines on the bolt head.

TO SHARPEN BLADE

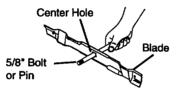
NOTE: We do not recommend sharpening blade, but if you do, be sure the blade is balanced.

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while it is on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer).

NOTE: Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

Slide blade onto an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground. If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.



BATTERY

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- · Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep small vent holes open.
- Recharge at 6-10 amperes for 1 hour.

TO CLEAN BATTERY AND TERMINALS Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- Open battery box door.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.

- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "CONNECT BAT-TERY" in the Assembly section of this manual).

V-BELTS

Check V-belts for deterioration and wear after 100 hours of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

TRANSAXLE COOLING

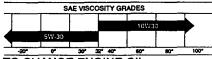
Keep transaxle free from build-up of dirt and chaff which can restrict cooling. ENGINE

LUBRICATION

Only use high quality detergent oil rated with API service classification SF, SG, or SH. Select the oil's SAE viscosity grade according to your expected operating temperature.

Change the oil after every 50 hours of operation or at least once a year if the tractor is not used for 50 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/dipstick securely each time you check the oil level.

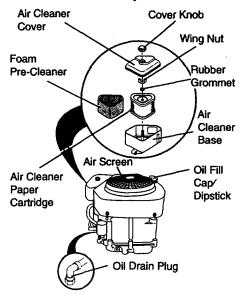


TO CHANGE ENGINE OIL

Determine temperature range expected before oil change. All oil must meet API service classification SF, SG, or SH.

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill.
 For approximate capacity see "PROD-UCT SPECIFICATIONS" on page 3 of this manual.

 Use gauge on oil fill cap/dipstick for checking level. Insert dipstick into the tube and rest the oil fill cap on the tube. Do not thread the cap onto the tube when taking reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.



CLEAN AIR SCREEN

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn dried gum fibers.

AIR FILTER

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

- Remove knob and cover.
- Remove wing nut and air cleaner from base.

TO SERVICE PRE-CLEANER

- · Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth. Allow it to dry.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

TO SERVICE CARTRIDGE

• Replace a dirty, bent, or damaged cartridge.

NOTE: Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge.

- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, wing nut, cover and tighten knob securely.

CLEAN AIR INTAKE/COOLING AREAS To insure proper cooling, make sure the grass screen, cooling fins, and other external surfaces of the engine are kept clean at all times.

Every 100 hours of operation (more often under extremely dusty, dirty conditions), remove the blower housing and other cooling shrouds. Clean the cooling fins and external surfaces as necessary. Make sure the cooling shrouds are reinstalled.

NOTE: Operating the engine with a blocked grass screen, dirty or plugged cooling fins, and/or cooling shrouds removed will cause engine damage due to overheating.

MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

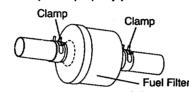
SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 5 of this manual.

IN-LINE FUEL FILTER

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line with arrow pointing towards carburetor.
- Be sure there are no fuel line leaks and clam.ps are properly positioned.



CLEANING

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.

SERVICE AND ADJUSTMENTS

ACAUTION: Before performing any service or adjustments:

- · Depress clutch/brake pedal fully and set parking brake.
- Place motion control lever in neutral (N) position.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key "OFF" and remove key.
- · Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

TO REMOVE MOWER

Mower will be easier to remove from the right side of tractor.

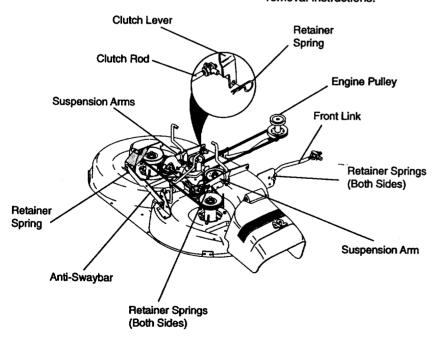
- Place attachment clutch in "DISEN-GAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Disconnect clutch rod from clutch lever by removing retainer spring.
- Disconnect anti-swaybar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.

- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

IMPORTANT: If an attachment other than the mower deck is to be mounted on the tractor, remove the front links.

TO INSTALL MOWER

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- · Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions.



TO LEVEL MOWER HOUSING

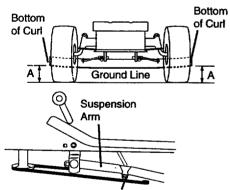
Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PROD-UCT SPECIFICATIONS"). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT

- · Raise mower to its highest position.
- At the midpoint of both sides of mower, measure height from bottom edge of mower to ground. Distance "A" on both sides of mower should be the same or within 1/4" of each other.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

NOTE: Each full turn of adjustment nut will change mower height about 1/8".

· Recheck measurements after adjusting.



Lift Link Adjustment Nut

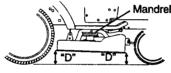
FRONT-TO-BACK ADJUSTMENT

IMPORTANT: Deck must be level side-toside. If the following front-to-back adjustment is necessary, be sure to adjust both front links equally so mower will stay level side-to-side.

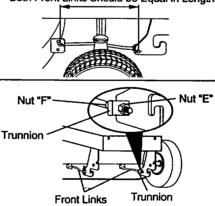
To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.



Both Front Links Should be Equal in Length



TO REPLACE MOWER BLADE DRIVE BELT

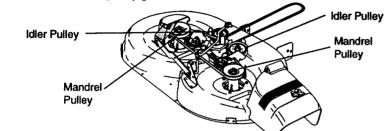
The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

BELT REMOVAL -

- Remove mower from tractor (See "TO REMOVE MOWER" in this section of this manual).
- Work belt off both mandrel pulleys and idler pulleys.
- · Pull belt away from mower.

BELT INSTALLATION -

- Install new belt in reverse order of removal.
- Make sure belt is in all pulley grooves
- and inside all belt guides.
 Install mower in reverse order of removal instructions.



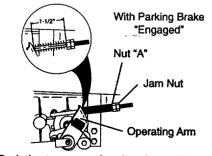
TO ADJUST BRAKE

Your tractor is equipped with an adjustable brake system which is mounted on the right side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2", loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center/department.

TO REPLACE MOTION DRIVE BELT

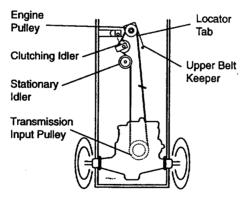


Park the tractor on level surface. Engage parking brake. For assistance, there is a belt installation guide decal on bottom side of left footrest.

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove upper belt keeper.

- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.
- Pull belt toward front of tractor and remove downwards from around engine
- pulley.
 Install new belt by reversing above procedure.

IMPORTANT: Make sure upper belt keeper is positioned properly between locator tab.



TO ADJUST STEERING WHEEL ALIGN-MENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

FRONT WHEEL TOE-IN/CAMBER

The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest authorized service center.

TO REMOVE WHEEL FOR REPAIRS

- Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal (rear wheel contains a square key - Do not lose).
- · Repair tire and reassemble.
- On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.
- Replace washers and snap retaining ring securely in axle groove.
- Replace axle cover.

NOTE: To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

Washers Retaining Ring Axle Cover

(Rear Wheel Only)

TO START ENGINE THAT HAS A WEAK BATTERY

CAUTION: Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eye protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. If "jumper cables" are used for emergency starting, follow this procedure:

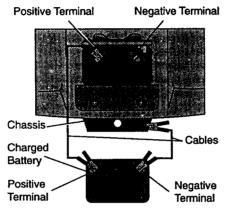
IMPORTANT: Your tractor is equipped with a 12 volt negative grounded system. The other vehicle must also be a 12 volt negative grounded system. Do not use your tractor battery to start other vehicles.

TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGATIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cablesto good CHASSIS GROUND, away from fuel tank and battery.

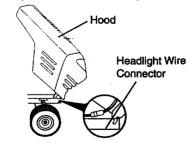
TO REMOVE CABLES, REVERSE ORDER -

- Remove BLACK cable first from chassis and then from the fully charged battery.
- Remove RED cable last from both batteries.



TO REPLACE HEADLIGHT BULB

- Raise hood.
- Pull bulb holder out of the hole in the backside of the grill.
- Replace bulb in holder and push bulb holder securely back into the hole in the backside of the grill.
 Close hood.
- TO REMOVE HOOD AND GRILL AS-
- SEMBLY
- Raise hood.
- Unsnap headlight wire connector.
- Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
- · To replace, reverse above procedures.



INTERLOCKS AND RELAYS

Loose or damaged wiring may cause your tractor to run poorly, stop running, or prevent it from starting.

 Check wiring. See electrical wiring diagram in the Repair Parts section of this manual.

TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

ENGINE

TO ADJUST THROTTLE CONTROL CABLE

The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move throttle control lever from slow to choke position. Slowly move lever from choke to fast position.
- Check to see if hole in throttle lever and hole in speed control bracket are aligned.
- If holes are not aligned, loosen cable clamp screw and align the holes by inserting a pencil or a 1/4" drill bit through both holes.
- Pull throttle cable up to remove slack and tighten cable clamp screw. Remove alignment pencil or drill bit.

TO ADJUST CARBURETOR

The carburetor has been preset at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the adjusting needles in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles out

(counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

IMPORTANT: Damage to the needles and the seats in carburetor may result if needle is turned in too tight.

NOTE: The carburetor on this engine is low emission. It is equipped with an idle fuel adjusting needle with a limiter cap, which allows some adjustment within the limits allowed by the cap. Do not attempt to remove the limiter cap. The limiter cap cannot be removed without breaking the adjusting needle.

- Be sure you have a clean air filter and the through control cable is adjusted properly (see above).
- Start engine and allow to warm for five

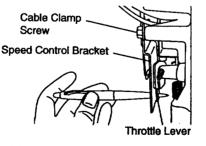
minutes. Make adjustments with engine running and shift/motion control lever in neutral (N) position.

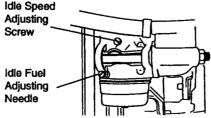
- Idle speed setting With throttle control lever in slow position, engine should idle at 1750 RPM. If engine idles too slow or fast, turn idle speed adjusting screw in or out until correct idle is attained.
- Idle fuel needle setting With throttle control lever in slow position, turn idle fuel adjustment needle in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Recheck idle speed. Readjust if necessary.

ACCELERATION TEST -

 Move throttle control lever from slow to fast position. If engine hesitates or dies, turn idle fuel adjusting needle out (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.
 High speed stop is factory adjusted. Do not adjust - damage may result.
 IMPORTANT: Never tamper with the engine governor, which is factory set for proper engine speed. Overspeeding the engine above the factory high speed setting can be dangerous. If you think the engine-governed high speed needs

adjusting, contact your nearest AUTHO-RIZED service center/department, which has proper equipment and experience to make any necessary adjustments.





STORAGE

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.

ACAUTION: Never store the tractor with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

TRACTOR

Remove mower from tractor for winter storage. This will allow you to clean it thoroughly. Remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Maintenance section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Maintenance section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

BATTERY

- Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see **"TO CLEAN BATTERY AND TERMI-**NALS" in the Maintenance section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

ENGINE

FUEL SYSTEM

IMPORTANT: It is important to prevent gum deposits from forming in essential fuel system parts such as carburetor, fuel filter, fuer hose, or tank during storage. Also, experience indicates that alcohol

blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

- · Drain the fuel tank.
- . Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

ENGINE OIL

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Maintenance section of this manual).

CYLINDERS

- Remove spark plug(s).
- Pour one ounce of oil through spark •
- plug hole(s) into cylinder(s). Turn ignition key to "START" position for a few seconds to distribute oil.
- Replace with new spark plug(s).

OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if it starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your tractor indoors and cover it to give protection from dust and dirt.
- Cover your tractor with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe, which allows condensation to form and cause your tractor to rust. **IMPORTANT:** Never cover tractor while

engine and exhaust areas are still warm.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
Will not start	 Out of fuel. Engine not "CHOKED" property. Engine flooded. Bad spark plug. Dirty air filter. Dirty fuel filter. Water in fuel. Loose or damaged wiring. Carburetor out of adjustment. Engine valves out of adjustment. 	 Fill fuel tank. See "TO START ENGINE" in Operation section. Wait several minutes before attempting to start. Replace spark plug. Clean/replace air filter. Replace fuel filter. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. Check all wiring. See "To Adjust Carburetor" in Service and Adjustments section. Contact an authorized service center.
Hard to start	 Dirty air filter. Bad spark plug. Weak or dead battery. Dirty fuel filter. Stale or dirty fuel. Loose or damaged wiring. Carburetor out of adjustment. Engine valves out of adjustment. 	 Clean/replace air filter. Replace spark plug. Recharge or replace battery. Replace fuel filter. Drain fuel tank and refill with fresh gasoline. Check all wiring. See "To Adjust Carburetor" in Service and Adjustments section. Contact an authorized service center.
Engine will not turn over	 Clutch/brake pedal not depressed. Attachment clutch is engaged. Weak or dead battery. Blown fuse. Corroded battery terminals. Loose or damaged wiring. Faulty ignition switch. Faulty solenoid or starter. Faulty operator presence switch(es). 	 Depress clutch/brake pedal. Disengage attachment clutch. Recharge or replace battery. Replace fuse. Clean battery terminals. Check all wiring. Check/replace ignition switch. Check/replace solenoid or starter. Contact an authorized service center.
Engine clicks but will not start	 Weak or dead battery. Corroded battery terminals. Loose or damaged wiring. Faulty solenoid or starter. 	 Recharge or replace battery. Clean battery terminals. Check all wiring. Check/replace solenoid or starter.
Loss of power	 Cutting too much grass/too fast. Throttle in "CHOKE" position. 	 Set in "Higher Cut" position/reduce speed. Adjust throttle control.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
Loss of power (cont'd)	Build-up of grass, leaves and	Clean underside of mower hous-
	trash under mower.	ing.
	Dirty air filter.	Clean/replace air filter.
	Low oil level/dirty cil.	 Check oil level/change oil.
	 Faulty spark plug. 	Clean and regap or change
		spark plug.
	Dirty fuel filter.	Replace fuel filter.
	Stale or dirty fuel.	Drain fuel tank and refill with
		fresh gasoline.
	Water in fuel.	Drain fuel tank and carburetor,
		refill tank with fresh gasoline and
		replace fuel filter.
	Spark plug wire loose.	Connect and tighten spark plug
		wire.
	Dirty engine air screen/fins.	Clean engine air screen/fins.
	Dirty/clogged muffler.	Clean/replace muffler.
	Loose or damaged wiring.	Check all wiring.
	Carburetor out of adjustment.	See "To Adjust Carburetor" in
		Service and Adjustments
		section.
	Engine valves out of adjust-	Contact an authorized service
	ment.	center.
Excessive vibration	Worn, bent or loose blade.	Replace blade. Tighten blade
		bolt.
	Bent blade mandrel.	Replace blade mandrel.
	Loose/damaged part(s).	Tighten loose part(s). Replace
	Ecosorialitaged part(c).	Jamaged parts.
Engine continues to	Faulty operator-safety pres-	Check wiring, switches and con-
run when operator	ence control system.	nections. If not
leaves seat with at-		corrected, contact an authorized
tachment clutch		service center/
engaged		department.
Poor cut - uneven	Worn, bent or loose blade.	Replace blade. Tighten blade
		bolt.
	Mower deck not level.	Level mower deck.
	Buildup of grass, leaves, and	Clean underside of mower hous-
	trash under mower.	ing.
Poor cut - uneven	Bent blade mandrel.	Replace blade mandrel.
(cont'd)	Clogged mower deck vent	Clean around mandrels to open
	holes from buildup of	vent holes.
	grass, leaves, and trash	
	around mandrels.	
Mower blades will not	Obstruction in clutch mecha-	Remove obstruction.
rotate	nism.	
	Worn/damaged mower drive	Replace mower drive belt.
	belt.	
	Frozen idler pulley.	Replace idler pulley.
	 Frozen blade mandrei. 	Replace blade mandrel.
Poor grass discharge	Engine speed too slow.	Place throttle control in "FAST"
, ou grass discharge	- Engine speed too slow.	position.
	Travel speed too fast.	 Shift to slower speed.
	Wet grass.	 Allow grass to dry before mow-
	- ++++++++++++++++++++++++++++++++++++	ing.
l		y.

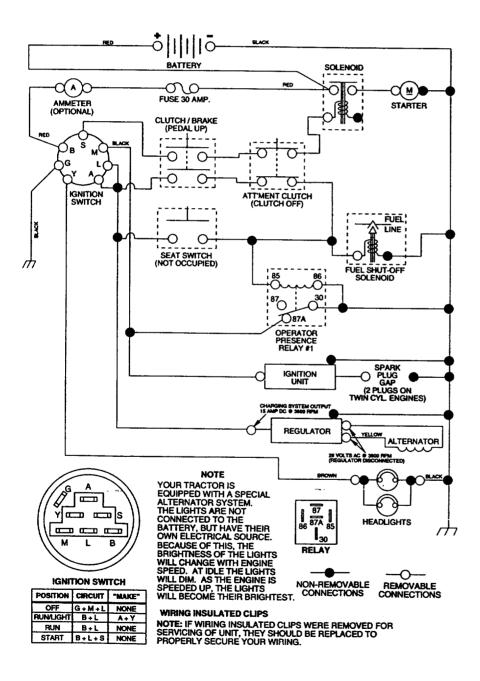
TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
Poor grass discharge	Mower deck not level.	Level mower deck.
(cont'd)	Low/uneven tire air pressure.	Check tires for proper air pres-
	• Worn, bent or loose blade.	sure. Replace/sharpen blade. Tighten blade bolt.
	Buildup of grass, leaves and trash under mower.	Clean underside of mower hous- ing.
	Mower drive belt worn.	 Replace mower drive belt.
	Blades improperly installed.	 Reinstall blades sharp edge down.
	Improper blades used.	 Replace with blades listed in this manual.
	Clogged mower deck vent holes from buildup of	 Clean around mandrels to open vent holes.
	grass, leaves, and trash around mandrels.	
Headlight(s) not	Switch is "OFF".	Turn switch "ON".
working (if so	 Bulb(s) burned out. 	 Replace bulb(s).
equipped)	 Faulty light switch. 	 Check/replace light switch.
	Loose or damaged wiring.	 Check wiring and connections.
	Blown fuse.	Replace fuse.
Battery will not	 Bad battery cell(s). 	Replace battery.
charge	Poor cable connections.	 Check/clean all connections.
	 Faulty regulator (if so equipped). 	Replace regulator.
	Faulty alternator.	 Replace alternator.
Loss of drive	Freewheel control in "disen-	Place freewheel control in
	gaged" position.	"engaged" position.
	 Motion drive belt worn, dam- aged or broken. 	Replace motion drive belt.
	Air trapped in transmission	Purge transmission.
	during shipment or servicing.	
Engine "backfires"	Engine throttle control not set	 Move throttle control to "SLOW"
when turning	at "SLOW" position for 30	position and allow to idle for 30
engine "OFF"	seconds before stopping engine.	seconds before stopping engine.
L		

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TRACTOR - - MODEL NUMBER 917.270720

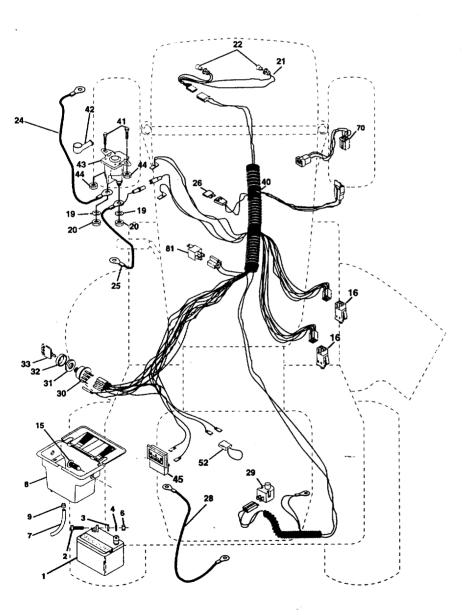
SCHEMATIC



REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.271110

ELECTRICAL



TRACTOR - - MODEL NUMBER 917.271110

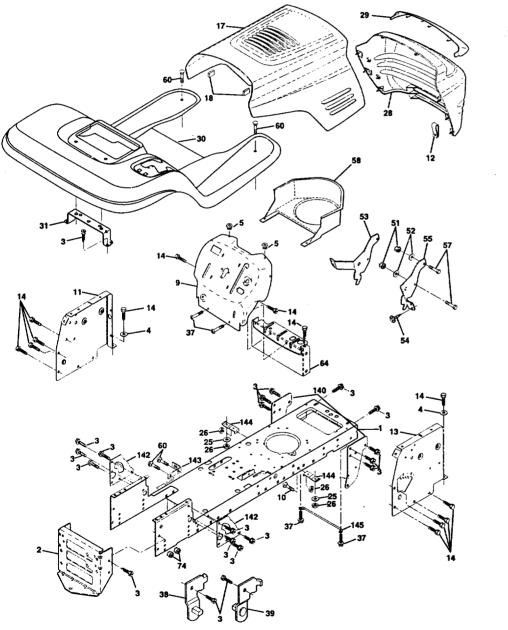
ELECTRICAL

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KEY NO.	PART	DESCRIPTION
1	163465	Battery, 12 Volt 28 Amp
2	74760412	Bolt, Hex 1/4-20 x 3/4
3	STD551025	Washer 9/32 x 5/8 x 16 Gauge
4	0.0001120	Washer, Lock 1/4
6	STD541025	Nut, Hex 1/4-20
8	156417	Case, Battery Mech Hinge
	161343	Switch, Interlock N. OPN./N.OPN
19	STD551125	Washer, Lock 1/4
20	73350400	Nut, Hex, Jam 1/4-20 UNC
21	147430	Harness, Light Socket (w/4152J)
22	4152J	Light Bulb
24	4799J	Cable, Battery, 6 Gauge, Red, 11"
25	146147	Cable, Battery, 6 Gauge, Red, W16 Wire
26	108824X	Fuse, 30 Amp
28	4207J	Cable, Ground, 6 Gauge, Black, 12"
29	160784	Switch, Plunger Normal OP Olive
30	140301	Switch, Ignition 4 Position
31	124211X	Nut, Ignition
32	141226	Cover, Ignition Switch
33		Key, Molded, Craftsman
40	161351	Harness, Ignition
41	71110408	Bolt Bik Fin Hex 1/4-20 UNC x 1/2
42	131563	Cover, Terminal
43	145673	Solenoid
44	73640400	Nut,Keps Blk Hex 1/4-20 UNC
45	122822X	Ammeter, Rectangular 15 Amp
52141940		Protection Wire Loop (Hour Meter)
70	140426	Harness, Engine Kohl Cmd-L 15AR
81	109748X	Relay Asm.

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

TRACTOR - - MODEL NUMBER 917.271110 CHASSIS AND ENCLOSURES



TRACTOR - - MODEL NUMBER 917.271110 CHASSIS AND ENCLOSURES

.

KEY PART

NO. NO. DESCRIPTION

1	160392	Chassis Assembly				
2	140356	Drawbar				
3	17490612	Screw, Thd., Roll, 3/8-16 x 3/4				
4	19131216	Washer 13/32 x 3/4 x 16 Gauge				
5	155272	Bumper Hood/Dash				
9	161917X013	Dash				
10	STD533710	Bolt, Carriage 3/8-16 x 3/4				
11	155927	Panel, Dash, LH				
12		Clip Tinnerman Grille P/L				
13	155936	Panel, Dash, RH				
14	17490608	Screw, Thd., Roll, 3/8-16 x 1/2				
17	144983X558	Hood Assembly				
18	126938X	Bumber Hood				
25		Washer 13/32 x 13/16 x 12 Gauge				
26	STD541437	Locknut				
28	145198X558	Grille w/Clips MS-558				
29	155217	Lens, Grille				
30	151287X558	Fender/Footrest Pnt STLT N Hold 558				
31	139976	Bracket, Fender/Support				
37		Screw Thdrol 5/16-18 x 1/2				
38	139886	Pivot Bracket Assembly, LH,				
39	139887	Pivot Bracket Assembly, RH.				
51	73800400	Nut Lock w/insert 1/4 - 20 UNC				
52	19091416	Washer, 9/32 x 7/8 x 16 Gauge				
53	145201	Bracket, Grille Pickoff LH				
54	161464	Screw, Hex Wshd #8-18 x 7/8				
55	145202	Bracket, Grille Pickoff RH				
57	STD552507	Bolt, FinHex 1/4 -20 UNC x .75				
58	150127	Duct, Air Engine PL/LT				
60	STD533707	Bolt, Rdhd Sank 3/8-16 UNC x 3/4				
64	154798	Dash, Lower STLT				
74	STD541437	Nut, Crownlock 3/8-16 UNC				
140	158418	Bracket, Suspension Front				
142	156095	Plate, Reinforcement STLT				
143	154966	Backrest, Swaybar Chassis				
144	154207	Bracket, Footrest STLT				
145	156524	Rod Pivot Chassis/Hood				
 ·	-5479J	Plug, Button				
NOTE: All component dimensions given in U.S. inches						
11	1 inch = 25.4 mm					

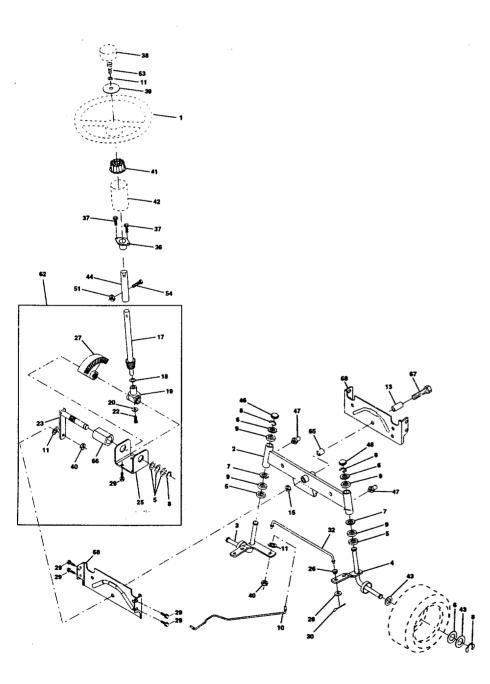
TRACTOR - - MODEL NUMBER 917.271110 GROUND DRIVE

GROUND DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	161451	Transaxle(See Breakdown)	52	STD541431	Nut Crown Lock 5/16-18 UNC
-		Dana, Model Number 4360-122	53	105710X	Link, Clutch
. 2	146682	Spring, Return, Brake	55	105709X	Spring, Clutch Return
3	123666X	Pulley, Transaxle	56	STD523712	Bolt Fin Hex 3/8-16 x 1-1/4
4	12000028	Ring, Retainer	57	160855	V-Belt, Ground Drive
5	121520X	Strap, Torque	58	127274X	Keeper, Beit, R.H.
6	17490512	Screw, Thd., Roll. 5/16-18 x 3/4	59	140312	Keeper, Belt, Center Span
8	154792	Rod Shifter Fender STLT	61	17490612	Screw, Thd., Roll. 3/8-16 x 3/4
10	STD561210	Pin, Cotter	62	8883R	Cover, Pedal
11	105701X	Washer, Shift Plate	63	140186	Pulley, Engine
13	74550412	Bolt 1/4-28 UNF W/Patch Grade 8	64	71170764	Bolt, Hex Head, Fin.
14	STD551125	Washer	~~	070554440	7/16-20 x 4 Grade 5
15	74490544	Bolt, Hex Fighd 5/16-18 Grade	65	STD551143	Washer
		5	66	154778	Keeper, Belt, Engine, Fool-
18	STD523710	Bolt Fin Hex 3/8-16 UNC x 1.	70	134683	Guide, Mower Drive Belt, R.H.
19	STD541437	Gr 5 Nut	72	19132012	Washer 13/32 x 1-1/4 x 12
21	106933X	Knob	74	109502X	Gauge
22	130804	Rod, Brake	74		Spacer, Split
24	STD541237	Nut	75	121749X	Washer 25/32 x 1-1/4 x 16 Gauge
25	106888X	Spring, Brake Rod	76	STD581075	E-Ring
26	STD551037	Washer	77	123583X	Key, Square 2.0 x .1845/.1865
27	STD561210	Pin	78	121748X	Washer 25/32 x 1-5/8 x 16
28	145204	Rod, Parking Brake			Gauge
29	124236X	Cap, Parking Brake, Red	80	160783	Arm, Shift
30	130807	Bracket, Transaxle	81	161077	Shaft Assembly
31	127275X	Keeper, Belt, L.H.	82	123782X	Spring, Torsion
32	STD523107	Bolt	83	19171216	Washer 17/32 x 3/4 x 16
34	155071	Shaft Assembly, Foot Pedal			Gauge
35	120183X	Bearing, Nylon	84	145643	Tie Rod
36	STD551062	Washer	85	150360	Nut, Nylock
37	STD571810	Roll Pin	86	157480	Bushing
38	123674X	Pulley, idler, Flat	87	19212016	Washer
39	STD523727	Bolt	88	12000008	E-Ring
40	4470J	Spacer, Split .395 x .59	89	158391	Console, Shift, STLT
41	154777	Keeper, Belt, Idler Fool-Proof	90	124346X	Nut, Self-Threading, Washer Hd
42	19131312	Washer 13/32 x 13/16 x 12	112	19091210	1/4
47	127783	Gauge Bulloy Idlar V Crasus, Blastia	116	72110610	Washer 9/32 x 3/4 x 10 Gauge
		Pulley, Idler, V-Groove, Plastic	148		Bolt Rdhd Sqneck 3/8-16 x 1.25
48 49	154407	Belicrank Clutch Grnd Drv Sti	140	159103 - 122052X	- Spacer
49 50	123205X	Retainer, Belt	149	1220528	Spacer Retainer Pm Mower
	STD523715	Bolt	150		Bushing Nylon Collered
51	STD541437	Nut Crown Lock 3/8-16 UNC		19133210	Washer 13/32 x 2 x 10 Ga.
			NOTE:	All component d	imensions given in U.S. inches

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm





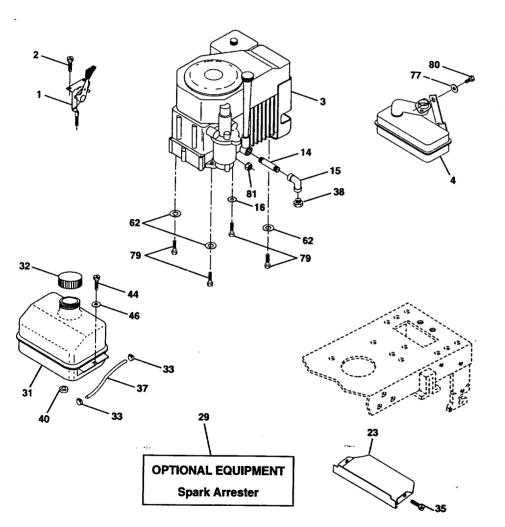
STEERING ASSEMBLY

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KEY NO.	PART NO.	DESCRIPTION
1	139768	Wheel, Steering
2	154427	Axle, Asm Front
3	156483	Spindle, Asm Lh
4	157473	Spindle, Asm Rh
5	6266H	Bearing, Race Thrust Harden
6	121748X	Washer, 25/32 x 1 5/8 x 16ga
7	19272016	Washer, 27/32 x 1 1/4 x 16 Ga
8	12000029	Ring, Klip #t5304-75
9	3366R	Bearing, Col Strg Blk
10	156438	Draglink, Extended Stamped
11	STD551137	Washer, Lock Hvy Hicl Spr 3/8
13	154779	Bearing, Axle STLT/GT
15	73901000	Locknut, Flange 5/8-11 UNC
17	156546	Shaft, Asm Strg Private Label
18	57079	Washer, Thrust 515 x 750 x 033
19	124035X	Support, Shaft
20	126684X	Washer,Shim 1/4 x 5/8 x 062
22	71200410	Screw, Hex Socket Hd 1/4-20 x 5/8
23	127501	Shaft, Asm Pittman
25	154406	Bracket, Steering
26	126847X	Bushing, Rod Tie Bik Lt
27	136874	Gear, Sector
28	19131416	Washer, 13/32 x 7/8 x 16ga
29	17490612	Screw, Thdrol 3/8-16x3/4 Ty-tt
30	STD561210	Pin, Cotter 1/8 x 3/4 Cad
32	130465	Rod, Tie Wire Form 19 75 Mech
36	155099	Bushing, Strg 5/8 ld Dash
37	152927	Screw, TT #10-32 x 5 x 3/8 Flange
38	139769	Insert, Steering Wheel
39	19133808	Washer, 13/32 x 2-3/8 x 8 Gauge
40	STD541537	Gripco Nut
41	100711L	Adaptor, Wheel Strg
42	145054	Boot Shaft Steering
43	121749X	Washer, 25/32 x 1-1/4 x 16 Gauge
44	153720	Extension, Steering Non-Adjust
46	121232X	Cap, Spindle Fr Top Blk
47	6855M	Fitting, Grease
51	STD541431	Nut Lock Hex w/Ins 5/16 -18 UNC
54	74780520	Bolt Fin Hex 5/16 - 18 UNC x 1 -1/4
62	156594	Kit, Steering Assembly
63	STD523710	Bolt, Fin Hex 3/8-16 UNC x 1 Gr. 5
65	154780	Spacer, Axle
66	154404	Bearing, Arm Pittman
67	74781044	Bolt, Fin Hex 5/8-11 UNC x 2-3/4
68	154429	Axle, Brace

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NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm



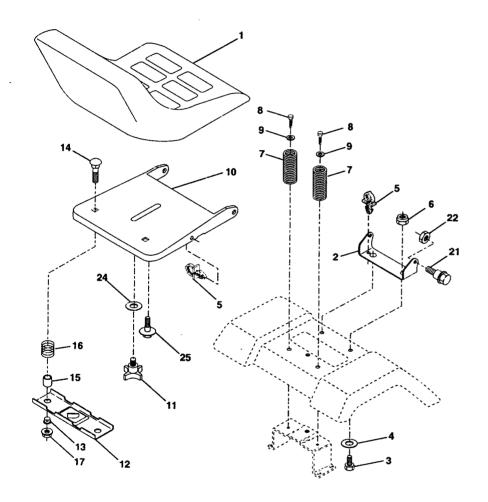
ENGINE

ENGINE

KEY NO.	PART NO.	DESCRIPTION
1	162156	Control, Throt 1 Ch
2	17720410	Screw, Hex Thd Cut 1/4-20x5/8 T
3		Engine (See Breakdown) Kohler Model No. CV16-43513
4	159420	Muffler
14	13280328	Nipple, Pipe 3/8 NPT x 3-1/2
15	13200300	Elbow, Std 90 Degree 3/8-18 Npt
16	STD551231	Washer
23	159880	Shield, BRN/DBR Guard
29	137180	Arrestor, Spark
31	109202X	Tank, Fuel
32	158990	Cap Assembly, Fuel Tank, Vented
33	123487X	Clamp, Hose Blk
	17490512	Screw, Thdroi 5/16-18 x 3/4 TYT
	137040	Line Fuel
38	• • • • • • • •	Plug Oil Drain (Order From Engine Manufacturer)
	124028X	Bushing, Snap, Fuel Line
44	17490412	Screw, Hex Washer Head, Thd. Roll. 1/4-20 x 3/4
46	19091416	Washer, 9/32 x 7/8 x 16 Gauge
62	STD551131	Washer, Lock
77	19101216	Washer 5/16 x 3/4 x 16 Gauge
79	M740108025	Bolt, Hex
80	74760508	Bolt, Hex Hd 5/16-18 UNC x 1/2
81	128861	Nut, Flange 1/4-20 Starter Nut

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

SEAT ASSEMBLY

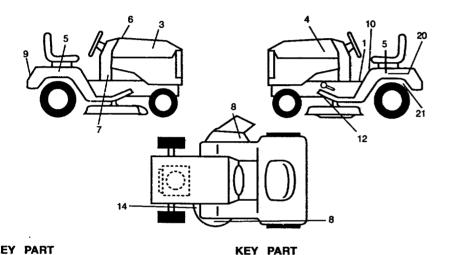


KEY NO.	PART NO.	DESCRIPTION	KI NG
1	140122	Seat 3350 Bik/bik Craftsman	
2	140551	Bracket Pnt Pivot Seat (blk)	
Э	STD523710	Bolt Fin Hex 3/8-16unc X 1	
4	19131610	Washer 13/32 X 3/4 X 10 Ga	
5	145006	Clip Push In Hinged	
6	STD541437	Nut Hex Lock w/ins 3/8-16 Unc	
7	124181X	Spring Seat Cprsn 2 250 Blk Zi	:
8	17490616	Screw Thdrol 3/8-16 X 1 Ty-tt	
9	19131614	Washer 13/32 X 1 X 14 Ga	
10	155925	Pan Pnt Seat (blk)	
11	120068X	Knob Seat 1/2-13 Unc Blk	NO

KEY	PART	
NO.	NO.	DESCRIPTION
12	121246X	Bracket Pnt Mounting Switch
13	121248X	Bushing Snap Blk Nyl 50 ld
14	72050412	Bolt Rohd Sht Nk 1/4-20x1-1/2
15	134300	Spacer Split 28 X 96 Zinc
16	121250X	Spring Oprsn 1 27 Blk Pnt
17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
21	153236	Bolt Shoulder 5/16-18 Unc-2A
22	STD541431	Nut Hex Lock w/ins 5/16-18
24	19171912	Washer 17/32 X 1-3/16 X 12 Ga.
25	127018X	Bolt Shoulder 5/16-18 X 62

NOTE: All component dimensions given in U.S. inches1 inch = 25.4 mm

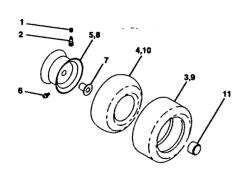
DECALS



 $(x_{i}, y_{i}) \in \{x_{i}, y_{i}\}$

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	156368	Decal, Oper. Instr.	10	156439	Decal, Fender Danger
3	163200	Decal, Hood, R.H.	12	146046	Decal, V-Belt Drive Schematic
4	163202	Decal, Hood, L.H.	14	160396	Decal, V-Belt Schematic
5	163207	Decal, Fender Sd White Rad/6sp 42*	20 21	149516 138047	Decal Battery Dngr/Psn Eng Decal, Battery Diehard Sears
6	133644	Decal, Customer Maintenance		138311	Decal, Lift Handle
7	163263	Decal, Dash Pnl Kohler 16.5 Ohv	••	154515	Pad Footrest LH STLT Pad Footrest RH STLT
8 9	163203 163204	Decal, Deck EZ3/Mulch Srs Decal, Fender, Craftsman		163484 163485	Owner's Manual, English Owner's Manual, Spanish

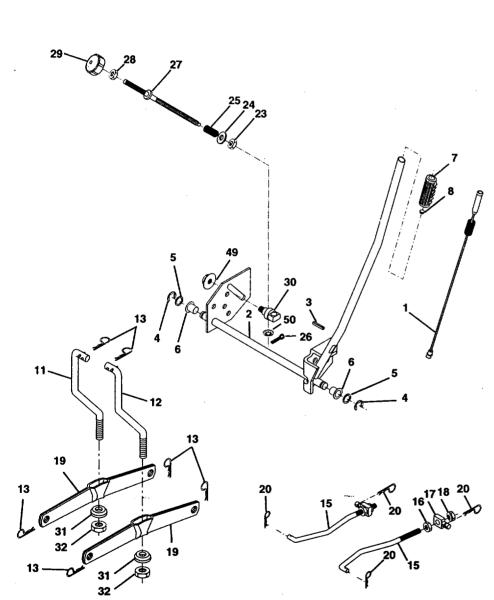
WHEELS & TIRES



KEY	PART	
NO.	NO.	DESCRIPTION
1	59192	Cap Value Tire
2	65139 ~~	Stem Value
3	106222X	Tire Front
4	59904	Tube Front Tire (Not Provided, Service Item Only
5	106732X427	Rim Front
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X427	Rim Rear
9	122082X	Tire Rear
10	7152J	Tube Rear Tire (Not Provided, Sercie Item Only
11	104757X	Cap Axie
	144334	Sealant, Tire (10 oz. tube)
NOTE		dimensions sives in LLC inches

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm



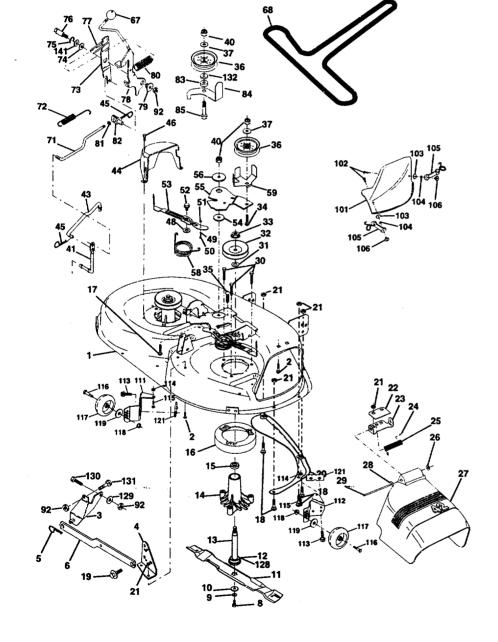


LIFT ASSEMBLY

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KEY NO.	PART NO.	DESCRIPTION
1	159460	Wire Asm Inner/Sprg w/Plunger LT
2	159471	Shaft Asm. Lift
3	105767X	Pin Groove
4	12000002	E Ring #5133-62
5	19211621	Washer 21/32 x 1 x 21 Ga.
6	120183X	Bearing Nylon
7	125631X	Grip Handle Fluted
8	122365X	Button Plunger Red
11	139865	Link Lift Lh Fixed Length
12	139866	Link Lift Rh Fixed Length
13	STD624008	Retainer Spring
15	127218	Link Front
16	73350800	Nut Jam Hex 1/2-13 Unc
17	130171	Trunnion Blk Zinc
18	73800800	LockNut, Hex, with Washer Insert 1/2-13 UNC
19	139868	Arm, Suspension Rear
20	STD624008	Retainer Spring
23	110807X	Nut Special
24	19131016	Washer 13/32 x 5/8 x 16 Ga.
25	2876H	Spring 2-1/8"
26	76020308	Pin Cotter 3/32 x 1/2
27	126971X	Rod Adjust Lift Zinc 7.49 Wrk
28	73350600	Nut Hex Jam 3/8-16unc
29	138057	Knob Inf 3/8-16unc Bik W/Syn
30	150233	Trunnion Infin Height
	140302	Bearing, Pivot, Lift Spherical
32	73540600	Nut, Crownlock 3/8-24
49	145212	Nut Hex Flange Lock
50	110452X	Nut Push Phos & Oil

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm



TRACTOR - - MODEL NUMBER 917.271110 MOWER DECK

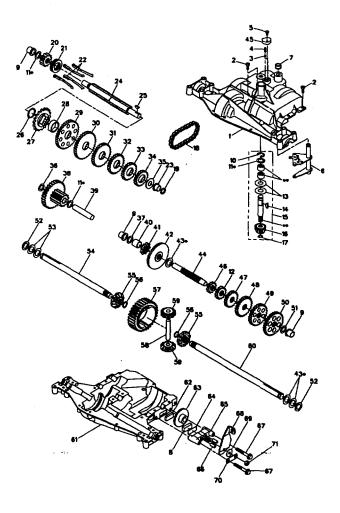
MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	NO.	PART NO.	DESCRIPTION
			55	155046	Arm, kller
1	144393	Mower Housing	56	122052X	Spacer, Retainer
2	STD533107	Bolt	58	140086	Spring, Torsion Brakes
3	138017	Bracket Assembly, Sway Bar,	59	141043	Guard, TUV Idler
4	100440	Front	67	162113	Knob Custom Oval
4 5	138440 STD624008	Bracket Assembly, Sway Bar	68	144200	V-Belt
5 6	130832	Retainer Spring	71	142427	Rod, Clutch, Primary, with Nibs
8	850857	Arm, Suspension, Rear	72	131870	Spring, Return
0	030037	Bolt, Hex 3/8-24 x 1.25 Grade	73	127847	Arm, Clutch, Secondary
9	STD551137	Washer, Lock	74	121748X	Washer 25/32 x 1-5/8 x 16
10	140296	Washer, Hardened	75	12000029	Gauge Bing Klip
11	134149	Blade, Mulching	76	128903	Ring, Klip Rolt, Shoulder, 2/8, 16, UNC y
12	129895	Bearing, Ball	70	120903	Bolt, Shoulder 3/8-16 UNC x 1.44
13	137645	Shaft Assembly, Mandrel,	77	127845	Keeper, Spring
		Vented (Includes Key Number 6)	78	160570	Lever Asm. Clutch Pri Plm STLT
14	128774	Housing, Mandrel, Vented	79	127498	Bushing, Large, Brass
15	110485X	Bearing, Ball, Mandrel	80	153701	Spring, Mower Clutch
16	140329	Stripper, Vented Mower Deck	81	STD541237	Nut, Hex Jam 3/8-16 Unc
17	72110610	Bolt, Carriage 3/8-16 x 1-1/4	82	142028	Trunnion, Adj.
18	STD533106	Bolt, Carriage 5/16-18 x 5/8	83	120958X	Washer Sintered
19	132827	Bolt, Shoulder	84	156084	Keeper Belt Idler
20	159770	Baffle, Vortex	85	72140618	Bolt Carriage 3/8-16 x 2-1/4
21	STD541431	Nut Crownlock 5/16-18 UNC	92	STD541437	Nut
22	134753	Stiffener Bracket	101	136420	Mulcher Covar
23	131267	Bracket, Deflector	102	71161010	Screw
24	105304X	Cap, Sleeve	103	19061216	Washer #10
25 26	123713X	Spring, Torsion, Deflector	104	STD551110	Washer, Lock
26 27	110452X 130968	Nut, Push Shield, Deflector	105	160793	Latch Assembly, Bagger
28	19111016	Washer 11/32 x 5/8 x 16	106	2029J	Nut, Weld
20	19111010	Gauge	111	155197	Bracket, Gauge, Wheel L.H.
29	131491	Rod, Hinge	112	155198	Bracket, Gauge, Wheel R.H.
30	157722	Screw Thdrol Washer Head	113	17490512	Screw Thdrol 5/16-18 x 3/4
31	129963	Washer, Spacer	114	STD541431	Nut, Hex, Keps 5/16-18 UNC
32	153535	Pulley, Mandrel	115 116	72110504 137644	Bolt, Carriage 5/16 UNC x 1/2
33	137266	Nut, Toplock, Flanged	117	133957	Bolt, Shoulder
34	STD533717	Bolt	118	73930600	Wheel, Gauge
35	133835	Fastner, Christmas Tree	119	STD551037	Nut, Centerlock 3/8-16 Washer 3/8 x 7/8 x 14 Gauge
36	131494	Pulley, Idler, Flat	121	143723	Bracket
37	STD551037	Washer 13/32 x 13/16 x 16	128		- Washer Felt
		Gauge	129	19131312	Washer 13/32 x 13/16 x 12 Ga.
40	STD541437	Nut Crownlock 3/8-16 UNC	130	STD523710	Bolt. Fin Hex 3/8-16 UNC x 1
41	133551	Rod, Pivot, with Nibs		010020110	Gr. 5
43	140083	Rod, Clutch, Secondary, with Nibs	131	STD533710	Bolt, RDHD SQNK 3/8-16 UNC
44	140088	Guard, Mandrel, L.H.	132	19132203	Spacer, Washer 13/32 I.D. x 1-
45	STD624003	Retainer			3/8 O.D. x 1/4
46	137729	Screw, Thd. Roll 1/4-20 x 5/8	141	6266H	Washer Thrust .75 x 1.230
48	133944	Washer, Hardened	••	130794	Mandrel Assembly (Includes
49	155066	Roller Assembly, Cam Follower			Key Numbers 8-10, 12-15, 31
50	131340	Bolt, Shoulder #10-24 Grade 5			and 32)
51	STD541410	Locknut		145411	Mower Deck, Complete
52	139888	Bolt, Shoulder 5/16-18 UNC		•	(Standard Deck, Order Separately Mulcher Plate and
53 54	131845X900 133943	Arm Assembly, Pad, Brake Washer, Hardened			Separately Mulcher Plate and Gauge Wheel Components, Key Nos. 101-106 and 111-121)

NOTE: All component dimensions given in U.S.inches 1 inch = 25.4 mm

TRACTOR - - MODEL NUMBER 917.271110 DANA TRANSAXLE - - MODEL NUMBER D4360-122

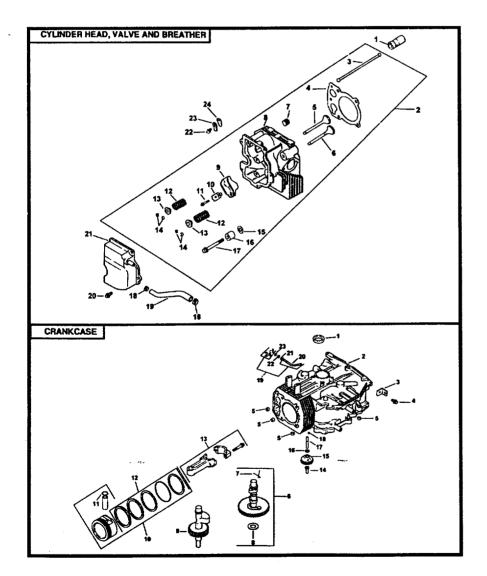
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TRACTOR - - MODEL NUMBER 917.271110 DANA TRANSAXLE - - MODEL NUMBER D4360-122

KEYPART		DECODIDEION	KEYP		
NO.NO.		DESCRIPTION	NO.NO.		DESCRIPTION
1 2	160955 2274J	Housing, Upper Screw, Tapping, 1/4-20 X .734	37	2231J	Washer, Plain, .632 X 1.00 X .031
3	134400	Ball, Detent	38	160944	Assy, Gear, Comb., 12T & 30T
4	105904X	Spring, Detent	39	124639X	Shaft, Idler
5	160940	Screw, Tapping, No. 10-24 X	40	120472X	Spacer, .633 X .87 X .755
Ũ	100040	.482	41	105928X	Sprocket, 9T
6	134788	Assy, Kit, Shifter	42	161565	Gear, Bevel, 36T
7	108727X	V-Ring	43	134394	Assy, Kit, Shim, .750 Shaft
8	120951X	Puck, Friction	44	120473X	Shaft, Drive
9	148266	Bearing, Flange	45	160942	Cover, Detent
10	2225J	Ring, Retaining	46	142678	Gear, Spur, 12T
11	134793	Assy, Kit, Shim, .625 Shaft	47	124641X	Gear, Spur, 20T
12	143697	Gear, Spur, 15T	48	106589X	Gear, Spur, 25T
13	120415X	Washer, Plain, .632 X 1.38 X	49	120408X	Gear, Spur, 28T
		.046	50	105937X	Gear, Spur, 31T
14	142674	Key, Woodruff, No. 9	51	2226J	Washer, Plain, .632 X 1.00 X
15	161563	Assy, Kit, Input Shaft			.060
16	161564	Pinion, Bevel, 12T	52	134401	Washer, Neoprene
17	105909X	Ring, Retaining	53	2264J	Washer, Plain, .758 X 1.25 X
18	105910X	Chain, 24 Pitches			.031
19	148269	Seal, Oil	54	160940	Axle, LH
20	160943	Gear, Spur, 12T	55	160947	Gear, Miter, 12T, Splined
21	138246	Collar, Clutch	56	160948	Ring, Retaining
22	138238	Assy, Kit, Clutch Keys	57	110071X	Gear, Spur, 32T
23	148268	Bearing, Flange	58	120952X	Shaft, Cross
24	143673	Shaft, Intermediate	59	160949	Gear, Miter, 12T, Idler
25	2244J	Key, Woodruff, No. 61	60	160950	Axle, RH
26	105916X	Ring, Retaining	61	160951	Housing, Lower
27	120470X	Sprocket, 18T	62	120961X	Puck, Friction
28	110070X	Spacer, 1.131 X 1.45 X .494	63	7294J	Disc, Brake
29	142677	Gear, Spur, 37T	64	108989X	Spacer, Brake Puck
30	142681	Gear, Spur, 35T	65	160952	Jaw, Brake
31	124644X	Gear, Spur, 30T	66	120954X	Pin, Dowel
32	108980X	Gear, Spur, 25T	67	160953	Screw, Tapping, 5/16-18 X 2.35
33	120406X	Gear, Spur, 22T	68	138244	~ Lever, Actuating
34	134796	Gear, Spur, 19T	69	108996X	Washer, Plain, .321 X 1.00 X
35	105925X	Washer, Plain, .640 X 1.37 X	-	100051	.055
		.061	70	160954	Bracket, Anti-Rotation
36	2228J	Washer, Plain, .632 X 1.00 X	71	73810500	Nut, Lock, 5/16-24
		.046	72	120416X	Grease

NOTE: All component dimensions given in U.S. Inches 1 inch = 25.4 mm



CYLINDER HEAD/VALVE/BREATHER

CRANKCASE

(Includes 20,24) Shaft, governor cross

 21
 X-25-102
 washer, plain 1/4

 22
 12-032-01~
 Seal, governor cross shaft

 23
 SM-0631015
 Washer, plain 6mm

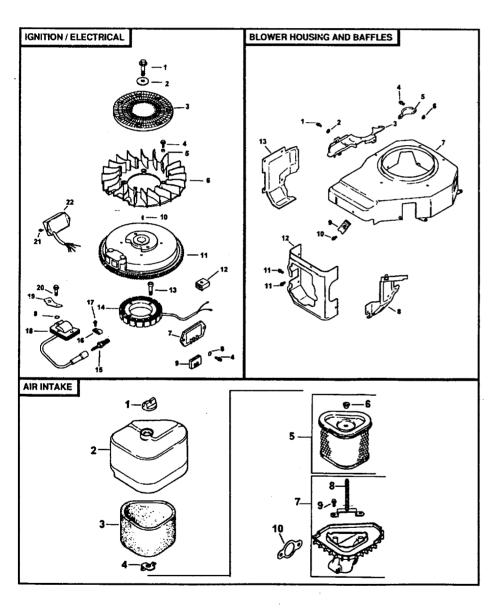
 24
 12-154-05
 Clip, hitch pin

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20 12-144-24

KEYP/	ART		KEYP	ART	
NO.NO.		DESCRIPTION	NO.NO.		DESCRIPTION
1	12-351-02	Lifter, valve (2)	1	12-032-03	Seal, crankshaft
2	12-755-63	Kit, cylinder head (Includes 3-17)	2	Block, cylinder	(Use Short Block 12 522 18)
3	12-411-01	Rod, push (2)	3	12-445-02	Strap, lifting
4	12-041-10	Gasket, cylinder head	4	M-0839025	Screw, hex. fiange M8x1.25x25
5	12-017-01	Valve, intake (Std.)	5	12-380-17	Dowel, locating (4)
	12-017-02	Valve, intake (.25)	6	12-755-49	Kit, camshaft (Includes 7-8)
6	12-016-01	Valve, exhaust (Std.)	7	12-089-18	Spring, actuating
	12-016-02	Valve, exhaust (.25)	8	12-422-08	Shim, camshaft - blue
7	X-75-23	Plug, allen hd. pipe 1/8		12-422-09	Shim, camshaft (A.R.) red
8	12-318-19	Cylinder Head		12-422-10	Shim, camshaft (A.R.) yellow
9	25-186-01	Arm, rocker (2)		12-422-11	Shim, camshaft (A.R.) green
10	12-599-03	Pivot, rocker arm (2)		12-422-12	Shim, camshaft (A.R.) gray
11	M-0640034	Screw, hex. flange M6xI.0x34 (2)		12-422-13	Shim, camshaft (A.R.) black
12	12-089-01	Spring, valve (2)		12-422-07	Shim, camshaft (A.R.) white
13	12-173-01	Cap, valve spring (2)	9	12-144-19	Shaft, balance
14	12-755-03	Kit, retainer (2)	10	12-874-07	Piston w/Ring Set (Std.)
15	12-468-05	Washer, plain 13/32			(Includes 11-12)
16	12-112-13	Spacer, head bolt exhaust port		12-874-08	Piston w/Ring Set (.25)
17	12-086-15	Screw, hex. flange M10x1.5x81 (5)		12-874-09	Piston w/Hing Set (.50)
18	X-426-9	Clamp, hose (2)	11	12-018-02	Retainer, piston pin (2)
19	12-326-03	Hose, breather	12	12-108-07	Ring Set (Std.)
20	M-0645020	Screw, hex. flange M6x1.0x20 (5)		12-108-08	Ring Set (.25)
21	12-096-07	Cover, valve w/nipple		12-108-09	Ring Set (.50)
22	M-0545010	Screw, hex. flange M5x0.8x10	13	12-067-05	Connecting Rod (Std.)
23	12-018-01	Retainer, breather reed		12-067-06	Connecting Rod (.25)
24	12-402-02	Reed, breather	14	12-380-01	Pin, governor regulating
			15	12-043-05	Gear, governor assembly
			16	M-0631005	Washer, plain 6mm
			17	12-144-02	Shaft, governor gear
			18	52-139-09	Plug, cup
			19	12-755-64	Kit, gov. cross shaft w/clip

TRACTOR - - MODEL NUMBER 917.271110 KOHLER ENGINE - MODEL NUMBER CV16, TYPE NUMBER PS-43513

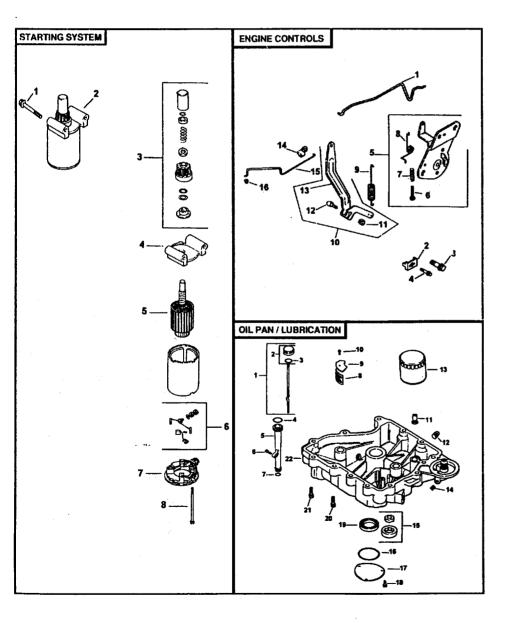


IGNITION/ELECTRICAL

BLOWER HOUSING & BAFFLES

KEYPART			KEYPART		
) .	DESCRIPTION	NO.NO.		DESCRIPTION
1 2	12-086-14 12-468-03	Screw, hex. flange MIOx1.5x46 Washer, plain 3/8	1	M-0545010	Screw, hex. flange M5x0.8x10 (8)
3	24-162-03	Screen, grass	2	24-468-10	Washer, plain 1/4
4	M-0639016	Screw, hex. flange M6x1.0x16	3	12-146-07	Plate, blower housing
-		(6)	4	M-0645020	Screw, hex. flange M6x1.0x20
5	12-112-01	Spacer, fan (4)	5	24-096-05	Cover, pinion
6	12-157-03	Fan	6	220534	Washer, plain 5/16 (2)
7	41-403-09	Regulator, rectifier	7	12-027-54	Housing, blower
8	X-22-11	Washer, lock (2)	8	12-063-05	Baffle, intake side
9	236602	Connector	9	25-154-02	Clip, mounting (3)
10	X-42-15	Кеу	10	SM-0545020	Screw, hex. flange M5x0.8x20
11	12-025-35	Flywheel			(3)
12	41-155-02	Connector (4 contact)	11	M-0645016	Screw, hex. flange M6x1.0x16
13	M-0548025	Screw, hex. cap M5x0.8x25 (2)			(2)
14	12-085-01	Stator assembly - 15 amp	12	12-063-08	Baffle, cylinder head
15	12-132-02	Spark Plug	13	12-063-01	Baffle, cylinder
16	X-728-1	Clip, cable (2)	AIR IN	TAKE/FILTRATI	ON
17	M-0545010	Screw, hex. flange M5x0.8x10			
		(2)	KEYP/		
18	1 2-584-07	Module, ignition	NO.NC) .	DESCRIPTION
19	12-452-02	Terminal			
20	12-086-35	Screw, hex. socket M5x0.8x20	1	25-341-03	Knob, air cleaner cover
		(2)	2	12-096-24	Cover, air cleaner
21	M-0461013	Screw, pan head M4.2x13 (2)	3	12-083-08	Precleaner, element
22	12-584-06	Module, speed advance	4	12-100-01	Wing Nut
NOTI	LUSTRATED		5	12-083-05	Element, air cleaner (Includes
	25-518-29	Lead	-		6)
	25-518-05	Lead	6	12-032-10	Seal
	12-176-31	Harness	7	12-094-12	Base, air cleaner (Includes 8-9)
	X-25-5	Washer, plain 5/16"	8	12-072-03	Stud M6x1.0x75
	12-155-02	Connector	9	12-086-01	Screw, hex. cap #10 Hi-Lo thread forming (2)
			10	12-041-02	Gasket, air cleaner
			NOT IL	LUSTRATED	
				10.112.52	Deept air deeper

12-113-53 Decal, air cleaner



STARTING SYSTEM

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9

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11

12

13

14

15

16

17

18

19

20

21

22

25-162-07

12-096-03

M-0545016

25-462-09

12-050-01

X-75-10

12-393-01

12-153-06

12-096-34

12-032-03

24-086-16

24-086-17

12-199-38

M-0545016

X-75-2

Screen, oil pickup

Plug, pipe

Filter, oil

(3)

Pan, oil

Cover, oil pickup screen

Valve, oil pressure relief

Plug, sq. hd. solid 3/8

O-Ring, oil pump cover Cover, oil pump Screw, hex. flange M5x0.8x16

Pump, oil assembly

Seal, oil (P.T.O. end)

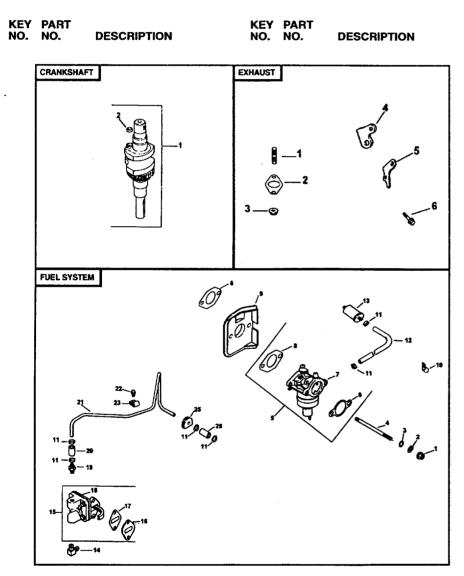
Screw, hex. flange M8x1.25x45

Screw, hex. flange M8x1.25x45 (11)

Screw, hex. flange M5x0.8x16

ENGINE CONTROLS

KEYPART			KEYPART		
NO.NO.		DESCRIPTION	NO.NO.		DESCRIPTION
1	M-0839070	Screw, hex. flange M8x1.25x70			
		(2)	1	12-079-07	Linkage, choke
2	25-098-05	Starter assembly (Includes 3-8)	2	12-237-01	Clamp, cable
3	12-755-54	Kit, drive end	3	M-0664020	Screw, lobed socket M6xI.0x20
4	12-227-06	Cap, drive end			(2)
5	12-170-05	Armature	4	M-0545016	Screw, hex. flange M5x0.8x16
6	12-221-01	Kit, brush & spring	5	12-536-10	Control, speed assembly
7	12-227-13	Cap, commutator end			(Includes 6,8,9?)
8	12-211-01	Bolt, hex. flange 1/4-20x4-5/8	6	M-0443020	Screw, pan head M4x0.7x20
		(2)	7	12-089-11	Spring, speed control (2)
			8	12-089-23	Spring, choke return
OIL PAN/LUBRICATION			9	12-089-24	Spring, governor
			10	12-755-83	Kit, governor lever (Includes 11-
KEYPART					13)
NO.NO.		DESCRIPTION	11	12-100-07	Nut, hex. flange M6x1.0
			12	52-211-04	Bolt, round head
1	12-038-01	Dipstick assembly (Includes 2-	13	12-090-26	Lever, governor
		3)	14	25-158-11	Bushing, throttle linkage
2	25-755-13	Kit, oil fill cap (Includes 3)	15	12-079-01	Linkage, throttle
3	12-153-03	O-Ring, oil fill cap	16	25-158-08	Bushing, linkage retaining
4	12-153-02	O-Ring, upper oil fill tube			
5	12-123-04	Tube, oil fill			
6	SM-0545020	Screw, hex. flange M5x0.8x20			
7	12-153-01	O-Ring, lower oil fill tube			
~	05 400 07	A second state of the seco			



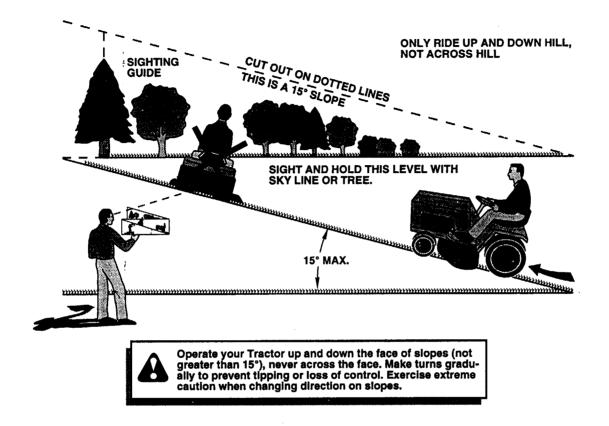
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION			
FUEL SYSTEM			CRAN	CRANKSHAFT				
KEYPART		KEYP/	NRT					
NO.NO.		DESCRIPTION	NO.NO).	DESCRIPTION			
1	M-0641060	Nut, hex. flange M6x1.0 (2)	1	12-014-37	Crankshaft (Includes 2)			
3	X-22-11	Washer, star 1/4	2	12-139-01	Plug, cup			
4	M-0629116	Stud M6x1.0x116 (2)						
5	12-853-83	Kit, carburetor w/gasket (Includes 6,7,8 qty 1)	EXHA	UST				
6	12-041-02	Gasket, air cleaner	KEYP/	ART				
7	12-053-83	Carburetor assembly (For information only not	NO.NO) .	DESCRIPTION			
		available separately)	1 25-0	72-04	Stud (2)			
8	12-041-01	Gasket, carburetor (2)	2 12-041-03		Gasket, exhaust manifold			
9	12-265-04	Deflector, heat	4 12-126-11		Bracket, muffler			
11	X-309-14	Clamp, hose (2)	5 12-445-06		Strap, lifting			
12	52-353-22	Line, fuel 12"	6 M-0645025		Screw, hex. flange M6xI.0x25			
13	25-050-02	Filter, fuel			(2)			
15	12-559-01	Kit, fuel pump w/gaskets (Includes 16-18)		12-522-18 12-755-82	Short Block Gasket Set			
24	12-431-01	Sleeve, insulating						
NOT ILLUSTRATED								
	12.757-02	Kit, float						
	12-757-03	Kit, carburetor repair						
	12-041-01	Gasket, carburetor						
	12-041-02	Gasket, air cleaner						
	12-041-05	Gasket, bowl						
	12-041-06	Gasket, bowl screw						
	12-032-06	Seal, solenoid						
	12-757-09	Kit, solenoid						
	12-041-06	Gasket, bowl screw						

SERVICE NOTES

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SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



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When requesting service or ordering parts, always provide the following information:

 Product Type Part Number Model Number
 Part Description

