

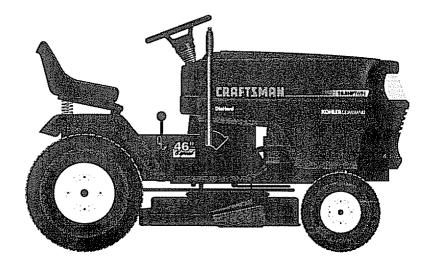


# MODEL NUMBER 917.258960 OWNER'S MANUAL

- Assembly
- <sup>o</sup> Operation
- Customer Responsibilities
- Service and Adjustments
- Repair Parts



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This product has a low emission engine which operates differently from previously built engines. Before you start the engine, read and understand this Owner's Manual.

CAUTION: Read and follow all safety rules and instructions before operating this equipment. FOR CONSUMER ASSISTANCE HOT LINE, CALL THIS TOLL FREE NUMBER: 1-800-659-5917

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

# SAFETY RULES



#### Safe Operation Practices for Ride-On Mowers (

**IMPORTANT:** THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS. FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

#### I. 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.
- 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.

#### **II. SLOPE OPERATION**

Slopes are a major factor related to loss-of-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.

#### III. 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.

#### **IV. 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, 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.



Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.



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

# \Lambda WARNING 🗚

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. **CONGRATULATIONS** on your purchase of a Sears 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/Department. We have competent, welltrained 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".

MODEL	
NUMBER	917.258960
SERIAL	
NUMBER	
DATE OF PURCHAS	SE

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A PLATE UNDER THE SEAT.

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

## 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 "Customer Responsibilities" and "Storage" sections of this owner's manual.

**WARNING:** 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

## PRODUCT SPECIFICATIONS

HORSEPOWER:	18.5	
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR	
OIL TYPE (API-SF/SG):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)	
OIL CAPACITY:	W/ FILTER: 4.2 PINTS W/O FILTER: 3.7 PINTS	
SPARK PLUG: (GAP: .025")	CHAMPION RV12YC	
VALVE CLEARANCE:	NOT ADJUSTABLE	
GROUND SPEED (MPH):	Forward         LO         HI           1st         0.7         1.7           2nd         1.4         3.3           3rd         2.3         5.4           Reverse         0.9         2.1	
TRANSAXLE OIL CAPACITY AND TYPE:	4 QUARTS SAE 30 API-SF/SG	
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI	
CHARGING SYSTEM:	15 AMPS @ 3600 RPM	
BATTERY:	AMP/HR: 35 MIN CCA: 280 CASE SIZE: U1R	
BLADE BOLT TORQUE:	30-35 FT. LBS.	

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/ Department (See REPAIR PARTS section of this manual).

## 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

#### SEARS, ROEBUCK AND CO., D/817 WA, HOFFMAN ESTATES, IL 60179

# TABLE OF CONTENTS

SAFETY RULES	
PRODUCT SPECIFICATIONS	
CUSTOMER RESPONSIBILITIES	17-20
WARRANTY	
TRACTOR ACCESSORIES	
ASSEMBLY	7-10
OPERATION	11-16

# INDEX

PL		
Accessories		
Adjustments:		
Brake		
Carburetor 27		
Clutch Pulley		
Gauge Wheels		
Mower		
Front-To-Back		
Side-To-Side		
Throttle Control Cable		
Air Filter, Engine		
Air Screen, Engine		
Assembly		

А

#### В

#### С

-	
Carburetor Adjustment	
Clutch Pulley	
Controls, Tractor	
Customer Responsibilities	
Engine:	
Ăir Filter 20	l
Air Screen	ł
Cooling Fins	ł
Engine Oil	ł
Fuel Filter 20	1
Spark Plug(s)	
Tractor:	
Battery	į
Blade	
Lubrication Chart 17	
Maintenance Schedule	
Tire Care	
Transaxle 18	
Cutting Height, Mower	į

gwer Bres Sirai		
Electrical:		
Interlocks and Relays		
Schematic		
Wiring Diagram		
Engine:		
Air Filter		
Air Screen		
Cooling Fins		
Oil Change 19		
Oil Level		
Oil Type 14,19		
Preparation 14		
Repair Parts 50-59		
Starting		
Storage		

### F

Filter:
Air Filter
Fuel
Oil
Fuel:
Storage
Туре 15
Fuse 25

#### H

Headlights	25	
Hood Removal/Installation	26	

#### L

L

Oil:

eveling Mower Deck	21
ubrication:	
Chart .	
Engine	19

#### М

Maintenance Schedule 17
Mower:
Adjustment, Front-to-Back
Adjustment, Side-to-Side
Blade Replacement
Blade Sharpening
Cutting Height
Installation 21
Operation
Removal
Mowing Tips
Muffler
Spark Arrester

#### Ο

MAINTENANCE SCHEDULE	
SERVICE AND ADJUSTMENTS	
STORAGE	
TROUBLESHOOTING	
REPAIR PARTS - TRACTOR	
REPAIR PARTS - ENGINE	
PARTS ORDERING/SERVICE	BACK COVER

Storage
Options:
Accessories 5
Spark Arrester 3,40
P
Parking Brake
Parts Bag
Parts, Replacement/Repair

#### R

#### S

Safety Rules
Seat
Service and Adjustments 21-27
Carburetor
Clutch Pulley
Fuse
Hood Removal/Installation
Motion Drive Belt
Removal/Replacement
Mower Drive Belt
Removal/Replacement
Removal/Replacement
Front-to-Back
Side-to-Side
Mower Removal/Installation
Tire Care 10,18,25
Slope Guide Sheet 63
Spark Plug(s)
Specifications
Starting the Engine
Steering Wheel
Stopping the Tractor
Storage 28

### Т

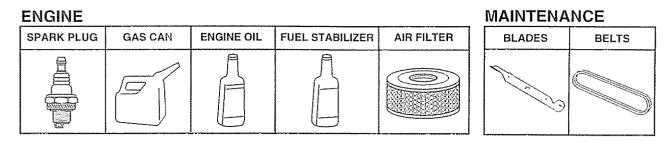
Throttle Control Cable Adjustment 27
Tires
Troubleshooting Chart
Transaxle

#### W

Warranty.	, З
Wiring Diagram	32
Wiring Schematic	31

# ACCESSORIES AND ATTACHMENTS

These accessories and attachments were available through most Sears retail outlets and service centers when the tractor was purchased. Most Sears stores can order these items for you when you provide the model number of your tractor.



#### PERFORMANCE

Sears offers a wide variety of attachments that fit your tractor. Many of these are listed below with brief explanations of how they can help you. This list was current at the time of publication; however, it may change in future years - more attachments may be added, changes may be made in these attachments, or some may no longer be available or fit your model **Contact your nearest Sears store for the accessories and attachments that are available for your tractor**.

Most of these attachments do not require additional hitches or conversion kits (those that do are indicated) and are designed for easy attaching and detaching.

AERATOR promotes deep root growth for a healthy lawn. Tapered 2.5-inch steel spikes mounted on 10-inch diameter discs puncture holes in soil at close intervals to let moisture soak in Steel weight tray for increased penetration.

BUMPER protects front end of tractor from damage

CARTS make hauling easy Variety of sizes available, plus accessories such as side panel kits, tool caddy, cart cover, protective mat and dolly.

**CORING AERATOR** takes small plugs out of soil to allow moisture and nutrients to reach grass roots. 36-inch swath. 24 hardened steel coring tips 150 lb capacity weight tray.

DISC HARROW has 2 gangs of 4 steel blades that angle from 10 to 20 degrees, 40 inches wide Can hook 2 units in tandem. (Requires sleeve hitch.)

DOZER BLADE removes snow; grades dirt, sand and gravel 48 inches wide, 17 inches high, clears 44-inch path when angled. Master lift control lever for operator ease. Spring trip for snow removal on uneven pavement; built-in float for blade to follow ground contour. Reversible, replaceable scraper bar. (Use with tire chains and wheel weights and/or rear drawbar weight.)

EASY OIL DRAIN VALVE makes oil changes easier, faster.

FRONT NOSE ROLLER canters in front of mower deck to reduce chances of "scalping" on uneven terrain

**GANG HITCH** lets you tow 2 or 3 pull-behind attachments at once, such as sweepers, dethatchers, aerators (not for use with rollers, carts or other heavy attachments)

MULCH RAKE/DETHATCHER loosens soil and flips thatch and matted leaves to lawn surface for easy pickup. Twenty spring tine teeth. Useful to prepare bare areas for seeding. Available for front or rear mounting. HIGH PERFORMANCE REEL-ACTION SPRING TINE DETHATCHER covers 36-inch wide path and tosses thatch into large hopper Mounts behind tractor

**PLOW** turns soil 6 inches deep, cuts 10-inch furrow. Crank adjustment controls depth, 3-position yoke sets width. Heavy steel landside for straight furrowing. (Requires sleeve hitch.)

RAMP TOPS AND FEET let you load and unload tractor from a pickup truck. Use with 2 x 8 or 2 x 10 lumber

**REAR GRADER BLADE** is 42 inches wide and operated from driver's seat. Reversible steel blade can be angled at 30 degrees for grading Reverses for pushing snow backwards (Requires sleeve hitch.)

ROLLER for smoother lawn surface. 36-inch wide, 18-inch diameter water-tight drum holds up to 390 lbs. of weight. Rounded edges prevent harm to turf Adjustable scraper automatically cleans drum.

SLEEVE CULTIVATOR is 43 inches wide. Prepares ground for seeding, helps weed control. Steel frame holds 5 adjustable sweeps. Adjusts vertically, horizontally. (Requires sleeve hitch) Optional accessory: steel furrow opener for wider openings for potatoes, corn, and other deep-seeded crops.

SLEEVE HITCH for use with master lift system. Single pin couples/ uncouples.

SNOWTHROWER has 42-inch swath Drum-type auger handles powdery and wet/heavy snow. Mounts easily with simple pin arrangement. Discharge chute adjusts from tractor seat. 6-inch diameter spout discharges snow 10 to 50 feet. Lift controlled at tractor seat. (Use with chains and wheel weights and/or rear drawbar weight.)

SPRAYERS use 12-volt DC electric motor that connects to the tractor battery or other 12-volt source. Includes booms for automatic spraying and hand held wand for spot spraying. Wand has adjustable spray pattern. For applying herbicides, insecticides, fungicides and liquid fertilizers.

SPREADER/SEEDERS make seeding, fertilizing, and weed killing easy Broadcast spreaders are also useful for granular de-icers and sand

SWEEPERS let you collect grass clippings and leaves

TILLER has 8 hp engine to prepare seed beds, cultivate, and compost garden residue. Chain-drive transmission Six 11-inch diameter one piece heat-treated steel tines. Tills 30-inch path. (Requires sleeve hitch) Or use 5 hp tow-behind TILLER with 36-inch swath to prepare seed beds, cultivate and compost garden residue. Tiller has its own built-in lift and depth control system and does NOT require a sleeve hitch Fits any lawn, yard or garden tractor Simply hook up to the tractor drawbar and gol **Optional accessories** for 5 hp tiller convert unit for dethatching, aerating, hilling without tools

TIRE CHAINS are heavy duty; closely spaced extra-large cross links give smooth ride, outstanding traction

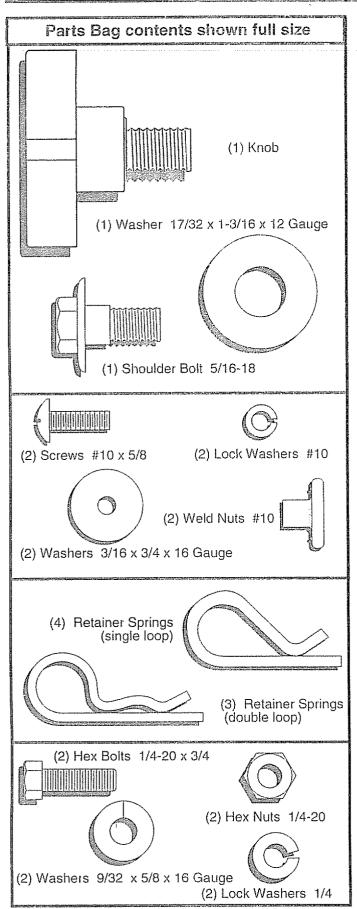
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered solid safety glass windshield with hand operated wiper; 12-volt amber caution light for mounting on cab top

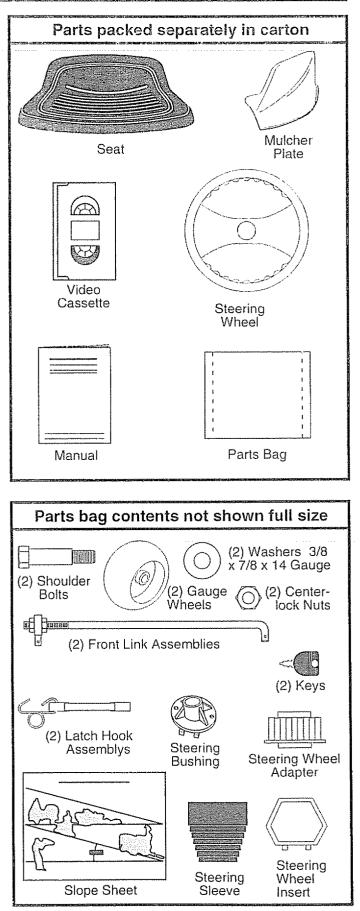
VACS for powerful collection of heavy grass clippings and leaves Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder

WEIGHT BRACKET for drawbar for snow removal applications. Can be mounted on front of tractor for plowing applications Uses (1) 55 lb. weight.

WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials.

# CONTENTS OF HARDWARE PACK





Your new tractor has been assembled at the factory with the 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.

## TOOLS REQUIRED FOR ASSEMBLY

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

- (2) 7/16" wrenches Tire pressure gauge
- (1) 1/2" wrench
- Utility knife
- (1) 9/16" wrench Phillips Screwdriver
- (1) 3/4" socket w/drive ratchet Pliers

When right or left hand is mentioned in this manual, it means 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 cartons from carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat
- Remove mower and packing materials.
- Check for any additional loose parts or cartons and remove.

## **BEFORE ROLLINGTRACTOR OFF SKID**

### ATTACH STEERING WHEEL (See Fig. 1)

- Remove hex bolt, lock washer and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- Slide the steering sleeve over the steering shaft.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto steering wheel adapter.
- Secure steering wheel to steering shaft with hex bolt, lock washer and large flat washer previously removed. Tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective plastic 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.

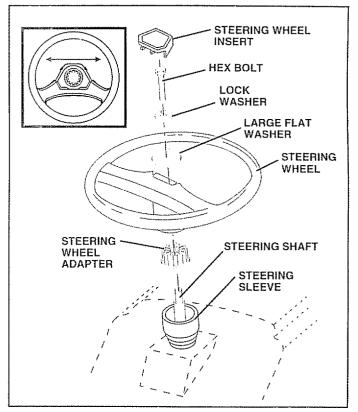


FIG. 1

#### 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 gearshift lever in neutral (N) position.
- Roll tractor backwards off skid.

### CONNECT BATTERY (See Fig. 2)



CAUTION: Do not short battery terminals. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc.

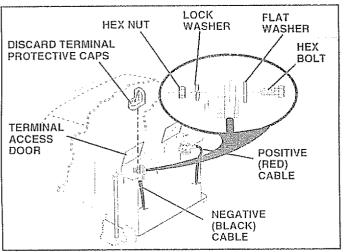
Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift hood to raised position.
- Open terminal access doors, 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 (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) baltery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.

Close terminal access doors.

Use terminal access doors for:

- Inspection for secure connections (to tighten hardware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required)
- Periodic charging.





### INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- · Place seat on seat pan and assemble shoulder bolt.
- Assemble adjustment knob and flat washer loosely. Do not tighten.
- Tighten shoulder bolt securely
- 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.

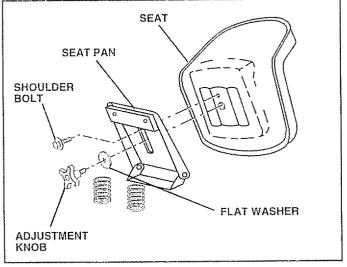


FIG. 3

#### **INSTALL MOWER AND DRIVE BELT (See** Figs. 4 and 6)

Be sure tractor is on level surface and mower suspension arms are raised with attachment lift control. Engage parking brake.

- 6 Cut and remove ties securing anti-sway bar and belts. Swing anti-sway bar to left side of mower deck.
- Slide mower under tractor with discharge guard to right side of tractor.

**IMPORTANT: CHECK BELT FOR PROPER ROUTING IN** ALL MOWER PULLEY GROOVES. INSTALL BELT INTO ELECTRIC CLUTCH PULLEY GROOVE.

- Install one front link in top hole of the R.H. front mower bracket and R.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Install second front link in L H front suspension bracket only and retain with single loop retainer spring as shown.
- Turn height adjustment knob counterclockwise until it 8 stops.
- Lower mower linkage with attachment lift control.
- Place the L.H. suspension arm on inward pointing deck pin. If necessary, rock and raise front of mower to align deck pin with the hole in suspension arm. Retain with double loop retainer spring with loops down as shown.
- Slide left side of mower back and install the unattached ۰ front link in top hole of the L.H. front mower bracket. Retain with single loop retainer spring as shown.

- Place the R.H. suspension arm on inward pointing deck pin. If necessary, rock and raise front of mower to align deck pin with the hole in suspension arm. Retain with double loop retainer spring with loops down as shown.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise mower to highest position. .
- ۰ Assemble gauge wheels (See "TO ADJUST GAUGE WHEELS" in the Operation section of this manual).

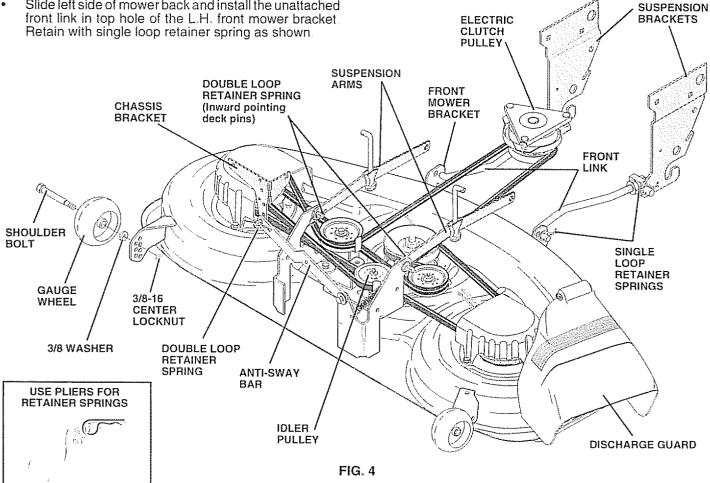
### CHECK MOWER LEVELNESS

For best cutting results, mower should be properly 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, mower drive, and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly

FRONT



### 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 3 of this manual

#### 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 (See Figs. 5A and 5B)

 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.

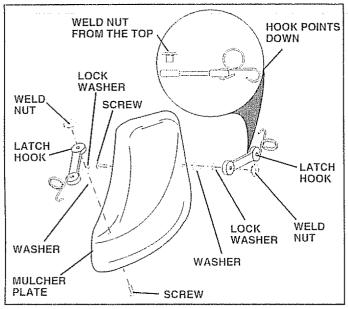


FIG. 5A

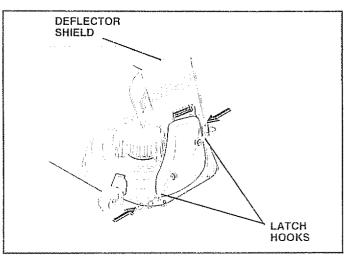


FIG. 5B

#### 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

## √ CHECKLIST

BEFORE YOU OPERATE AND ENJOY YOUR NEW TRACTOR, WE WISH TO ASSURE THAT YOU RECEIVE THE BEST PERFORMANCE AND SATISFACTION FROM THIS QUALITY PRODUCT.

PLEASE REVIEW THE FOLLOWING CHECKLIST

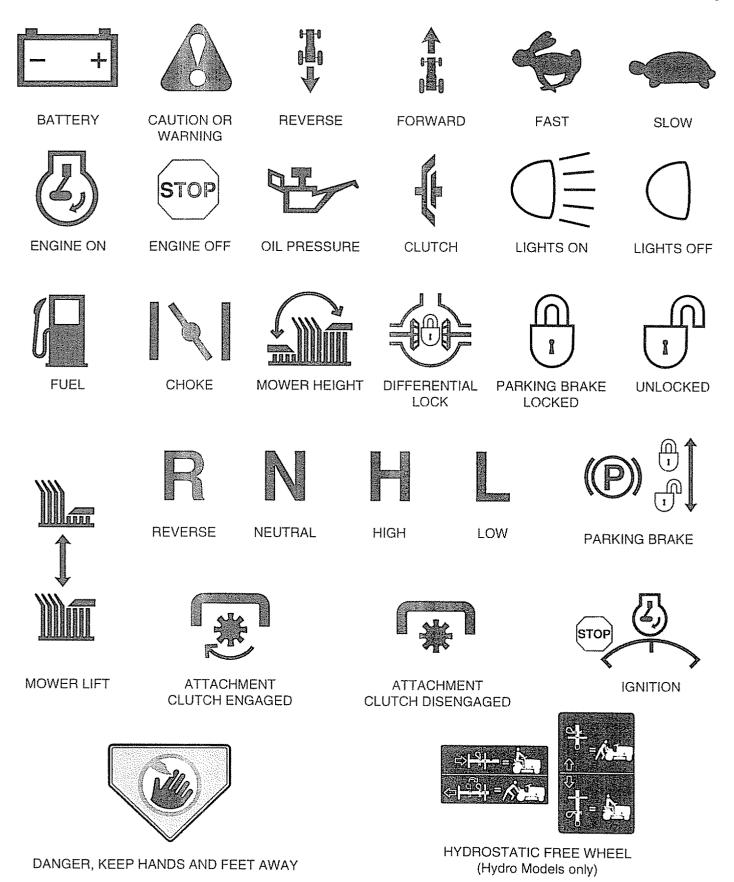
- ✓ All assembly instructions have been completed.
- No remaining loose parts in carton.
- Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- Seat is adjusted comfortably and tightened securely.
- All tires are properly inflated. (For shipping purposes, the tires were overinflated 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.

WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPOR-TANT ITEMS

- Engine oil is at proper level.
- Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- Become familiar with all controls their location and function. Operate them before you start the engine.
- Be sure brake system is in safe operating condition.

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These symbols may appear on your product 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.

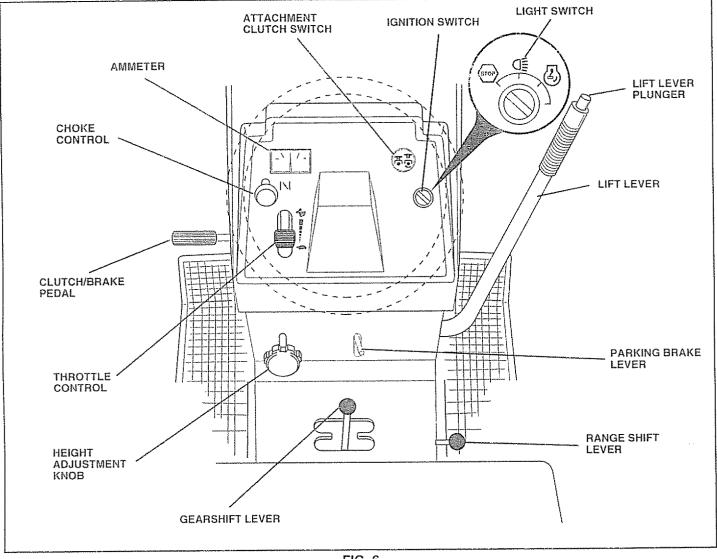


FIG. 6

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

ATTACHMENT CLUTCH SWITCH - Used to engage mower blades or other attachments mounted to your tractor.

LIFT LEVER - Used to raise and lower mower deck or other attachments mounted to your tractor.

LIFT LEVER PLUNGER - Used to release attachement lift lever when changing its position.

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

GEARSHIFT LEVER - Selects the speed and direction of tractor

THROTTLE CONTROL - Used to control engine speed.

**RANGE SHIFT LEVER** - Allows high (H) or low (L) speed for all forward and reverse gears.

IGNITION SWITCH - Used to start and stop the engine.

AMMETER - Indicates battery charging (+) or discharging (-).

LIGHT SWITCH - Turns the headlights on and off.

**PARKING BRAKE LEVER** - Locks clutch/brake pedal into the brake position.

**CHOKE CONTROL** - Used when starting a cold engine. **HEIGHT ADJUSTMENT KNOB** - Used to adjust the mower height.

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111	NINOE	

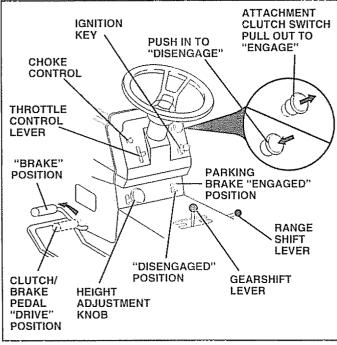
The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over the spectacles or standard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

# HOW TO USE YOUR TRACTOR

### TO SET PARKING BRAKE (See Fig. 7)

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

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



**FIG**. 7

### STOPPING (See Fig. 7)

MOWER BLADES -

Move attachment clutch switch to "DISENGAGED" 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.



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

### TO USE THROTTLE CONTROL (See Fig. 7)

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 USE CHOKE CONTROL (See Fig. 7)

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

• To engage choke control, pull knob out. Slowly push knob in to disengage.

# TO MOVE FORWARD AND BACKWARD (See Fig. 7)

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 and range shift levers 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 (See Fig. 7)

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

- Turn knob clockwise ( $\frown$ ) to raise cutting height.
- Turn knob counterclockwise (𝑘) to lower cutting height.

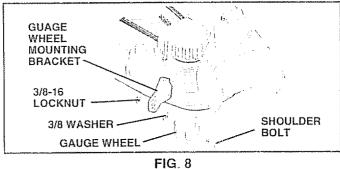
The cutting height range is approximately 1-1/2" to 4-1/2". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- 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 relatively high; the second to desired height.

### TO ADJUST GAUGE WHEELS (See Fig. 8)

Adjust gauge wheels with tractor on a flat level surface.

- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HE!GHT" 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.



### TO OPERATE MOWER (See Figs. 6 and 7)

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.

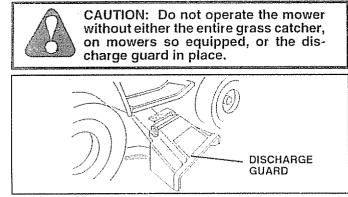


FIG. 9

#### TO OPERATE ON HILLS



CAUTION: 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 and range shift lever to low (L) position. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release 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.).

## **BEFORE STARTING THE ENGINE**

#### CHECK ENGINE OIL LEVEL (See Fig. 10)

- 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.

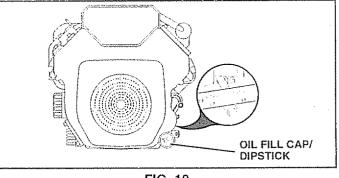


FIG. 10

#### 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.

**WARNING:** 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

14

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.



CAUTION: 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 (See Fig. 7)

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

- Depress clutch/brake pedal and set parking brake.
- Place gear shift lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to fast (-) position
- Pull choke control out for a cold engine start attempt. For a warm engine start attempt the choke control may not be needed.

**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, push choke control in, wait a few minutes and try again. If engine still does not start, pull the choke control out and retry.

WARM WEATHER STARTING (50° F and above)

- When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly.
- 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, slowly push choke control in until the engine begins to run smoothly. Continue to push the choke control in small steps allowing the engine to accept small changes in speed and load, until the choke control is fully in. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.
- The attachments can be used during the engine warmup period and may require the choke control be pulled out slightly.

**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 machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning 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 (See Fig. 10).
- 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 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.

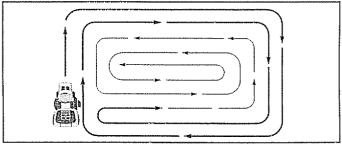


FIG. 11

#### **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 (See Fig. 12). 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.

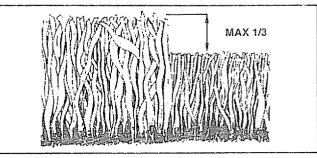


FIG. 12

MAINTENANCE SCHEDULE     HSE       FILL IN DATES     FILL IN DATES       AS YOU COMPLETE     BEFORE FACHUSE       REGULAR SERVICE     BEFORE FILST 2 HOURS												
	Check Brake Operation	Bar	l	6/	1						1	
	Check Tire Pressure	61		6	-				1	1		[
Τ	Check for Loose Fasteners	6/					1/7		V		1	
R A	Sharpen/Replace Mower Blades				W4					1		
ĉ	Lubrication Chart			1	V				V			
Ť	Check Battery Level/Recharge				<b>b</b>							
0	Clean Battery and Terminals				V				V			1
R	Check Transaxle Cooling				bee							
	Adjust Blade Belt(s) Tension						6/5					1
	Adjust Motion Drive Bell(s) Tension	, ,					₩s					
	Check Engine Oil Level	BA		V								
	Change Engine Oil		B/		612.3				~	<b></b>		 
E	Clean Air Filter				<b>V</b> 2							
Ň	Clean Air Screen				<b>V</b> 2		<b>_</b>			1		
G	Inspect Muliler/Spark Arrester					0,000						
	Replace Oil Filter (If equipped)		]				1.2					 
N E	Clean Engine Cooling Fins				1		<b>b</b> /2					]
E	Replace Spark Plug				1		C.	V				
	Replace Air Filter Paper Cartridge						<b>V</b> 2					
	Replace Fuel Filter							Br				

1 - Change more often when operating under a heavy load or in high ambient temperatures 5 - II equippe

2 - Service more often when operating in dirty or dusty conditions

3 - If equipped with oil filter, change oil 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**

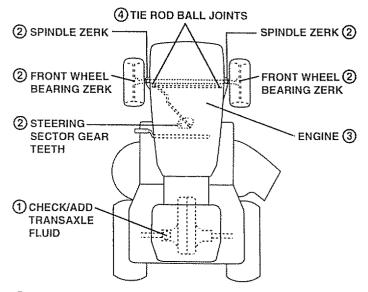
- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.

**IMPORTANT:** DO NOT OIL OR GREASE THE PIVOT POINTS WHICH HAVE SPECIAL NYLON BEARINGS. 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 5 - Il equipped with adjustable system

6 - Not required if equipped with maintenance-free ballery

7 - Tighten front axle pivot bolt to 35 ft -lbs maximum Do not overtighten

## LUBRICATION CHART



() SAE 30 MOTOR OIL API - SF/SG

② GENERAL PURPOSE GREASE

③ REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION
 ④ SPRAY SILICONE LUBRICANT (MOVE BOOTS TO LUBRICATE)

## TRACTOR

Always observe safety rules when performing any maintenance.

### BRAKE OPERATION

If unit 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 "PROD-UCT SPECIFICATIONS" on page 3 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.

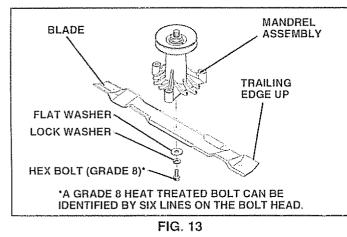
#### **BLADE CARE**

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

### **BLADE REMOVAL (See Fig. 13)**

- 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.

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



### TO SHARPEN BLADE (See Fig. 14)

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 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).
- Slide blade on to 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

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

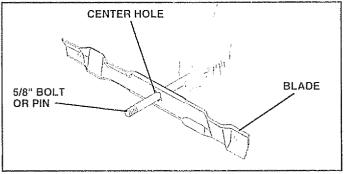


FIG. 14

### V-BELTS

Check V-belts for deterioration and wear after 100 hours 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.

#### CHECK TRANSAXLE OIL LEVEL. (See Fig. 15)

- Block up rear axle securely.
- · Remove left rear wheel by removing hub bolts.
- Remove filler plug from transaxle. Oil level must be even with plug threads. If necessary, fill with SAE 30 motor oil, API-SF or SG. Replace filler plug.
- Reassemble wheel to hub
- For approximate capacity see "PRODUCT SPECIFI-CATIONS" on page 3 of this manual.

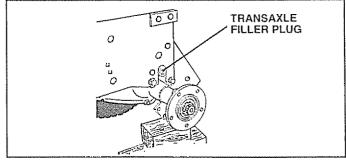


FIG. 15

### 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.

- Remove terminal guard.
- 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 BATTERY" in the Assembly section of this manual).

## 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.

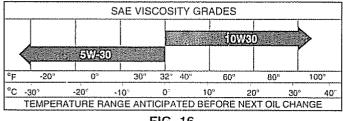


FIG. 16

Change the oil after the first two hours of operation and every 50 hours thereafter 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 (See Figs 16 and 17)

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 "PRODUCT 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.

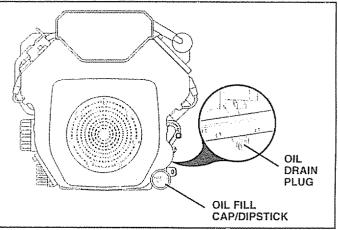


FIG. 17

### CLEAN AIR SCREEN (See Fig. 17)

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.

### **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.

### AIR FILTER (See Fig. 18)

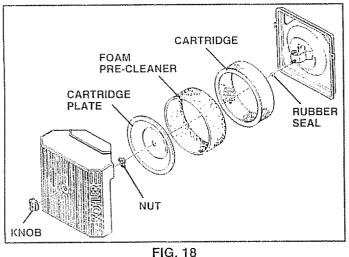
Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season Service paper cartridge every 100 hours of operation or every season, whichever occurs first. Service air cleaner more often under dusty conditions

Loosen knob and remove cover.

- 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.

- Remove nut and cartridge plate.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Check rubber seal for damage and proper position around stud. Replace if necessary.
- · Reassemble air cleaner, cartridge plate, and nut.
- Reinstall air cleaner cover and secure by tightening knob.



### 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 comes first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

#### ENGINE OIL FILTER

Replace the engine oil filter every season or every other oil change if the tractor is used more than 100 hours in one year.

### IN-LINE FUEL FILTER (See Fig. 19)

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 clamps are properly positioned
- Immediately wipe up any spilled gasoline.

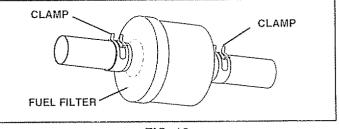


FIG. 19

## 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

#### CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

- Depress clutch/brake pedal fully and set parking brake.
  - Place gearshift 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 (See Fig. 20)

- Place attachment clutch in "DISENGAGED" position.
- Turn height adjustment knob to lowest setting
- Lower mower to its lowest position.
- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove retainer springs from suspension arms at deck and disengage arms from deck.
- Raise attachment lift to its highest position.
- Remove two retainer springs from each front link and remove links.
- Slide mower forward and remove belt from electric clutch pulley.
- Slide mower out from under right side of tractor.

**IMPORTANT: IF AN ATTACHMENT OTHER THAN THE** MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, **REMOVE THE FRONT LINKS** 

### TO INSTALL MOWER

Follow procedure described in "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual.

#### **TO LEVEL MOWER HOUSING**

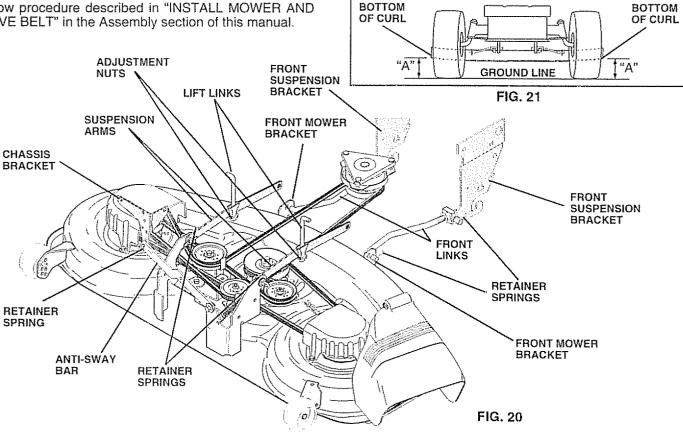
Adjust the mower while tractor is parked on level ground or Make sure tires are properly inflated (See driveway. "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 20 and 21)

- ø Raise mower to its highest position.
- Measure height from bottom of deck curl to ground level at front corners of mower. Distance "A" on both sides of mower should be the same.
- 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 3/16".

Recheck measurements after adjusting ¢



# SERVICE AND ADJUSTMENTS

FRONT-TO-BACK ADJUSTMENT (See Figs. 22 and 23) -IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE 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 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 "F" directly in front of 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.
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower housing, loosen nut "G" on both front links an equal number of turns.
- When distance "F" is 1/8" to 1/2" lower at front than rear, tighten nut "H" against trunnion on both front links.
- To raise front of mower housing, loosen nut "H" from trunnion on both front links. Tighten nut "G" on both front links an equal number of turns.
- front links an equal number of turns.
  When distance "F" is 1/8" to 1/2" lower at front than rear, tighten nut "H" against trunnion on both front links.

NOTE: Each full turn of nut "G" will change dim. "F" by approximately 3/8".

Recheck side-to-side adjustment

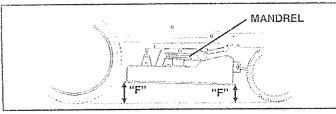
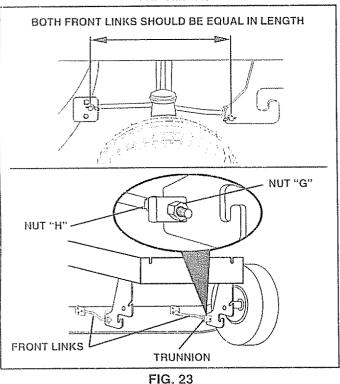


FIG. 22



### TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 24) -

· Park tractor on a level surface. Engage parking brake.

- Remove four screws from L.H. mandrel cover and remove cover.
- Roll belt over the top of L.H. mandrel pulley.
- Remove belt from electric clutch pulley.
- Remove belt from idler pulleys.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Check primary idler arm and two idlers to see that they rotate freely.
- Be sure spring is securely hooked to primary idler arm and bolt in mower housing.

MOWER DRIVE BELT INSTALLATION (See Fig. 24) -

- Install belt in both idlers. Make sure belt is in both belt keepers at the idlers as shown.
- Install new belt onto electric clutch pulley.
- Roll belt into upper groove of L.H. mandrel pulley.
- Carefully check belt routing making sure belt is in the grooves correctly and inside belt keepers.

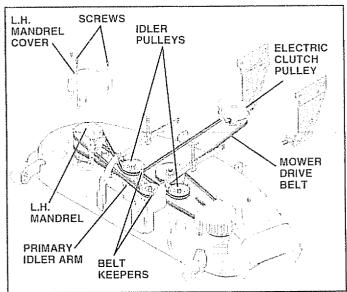


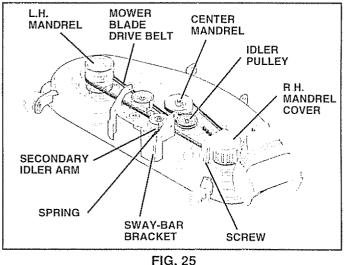
FIG. 24

Reassemble L.H. mandrel cover

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 25)

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- Remove four screws from R.H. mandrel cover and remove cover. Unhook spring from bolt on mower housing.
- Carefully roll belt off R.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and L.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.
- Check secondary idler arm and idler to see that they rotate freely.
- Be sure spring is hooked in secondary idler arm and sway-bar bracket.
- Install new belt in lower groove of L.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Roll belt over R.H. mandrel pulley. Make sure belt is in all grooves properly.
- Reconnect spring to bolt in mower housing and reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "TO INSTALL MOWER" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).



# TO ADJUST ATTACHMENT CLUTCH (See Fig. 26)

The electric clutch should provide years of service. The clutch has a built-in brake that stops the pulley within 5 seconds. Eventually, the internal brake will wear which may cause the mower blades to not engage, or, to not stop as required. Adjustments should be made by your nearest authorized service center/department.

- Make sure attachment clutch and ignition switches are in "OFF" position.
- Adjust the three nylon locknuts until space between clutch plate and rotor measures .012" at all three slot locations cut inside of brake plate.

**NOTE:** After installing a new electric clutch, run tractor at full throttle and engage and disengage electric clutch 10 cycles to wear in clutch plate.

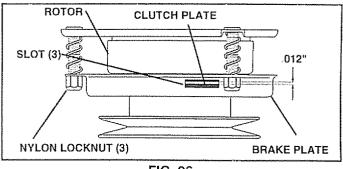


FIG. 26

## TO ADJUST BRAKE (See Fig. 27)

Your tractor is equipped with an adjustable brake system which is mounted on the left 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 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". 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.

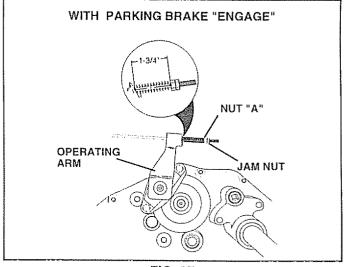


FIG. 27

# SERVICE AND ADJUSTMENTS

#### TO REPLACE MOTION DRIVE BELT (See Fig. 28)

Park the tractor on level surface. Engage parking brake. For ease of service there is a belt installation guide decal on bottom of left footrest. It is not necessary to remove mower

BELT REMOVAL -

- Engage parking brake (creates slack in belt)
- Remove mower drive belt from electric clutch pulley only (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Roll motion drive belt off transaxle pulley.
- Roll belt off clutching idler pulleys, then off engine pulley and front V-idler pulley.
- Pull beit out of all belt keepers.

**BELT INSTALLATION -**

- Place V part of belt into grooves on engine pulley and front V-idler, making sure to route belt inside of belt keepers
- Put belt coming from V-idler above midspan belt keeper, then onto clutching idler pulleys as shown.
- Make sure V part of belt engages V-idler.
- Place belt around transaxle pulley, beginning at top.
   V part of belt should engage transaxle pulley
- Place long lower section of belt through loop in midspan belt keeper.
- Check to be sure belt is on proper side of all belt keepers.
- Reinstall mower drive belt onto electric clutch pulley

IMPORTANT: CHECK BRAKE ADJUSTMENT

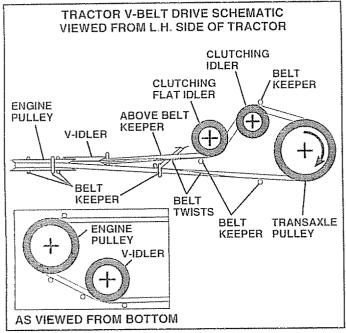


FIG. 28

### TO ADJUST STEERING WHEEL ALIGNMENT

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 ADJUSTMENT

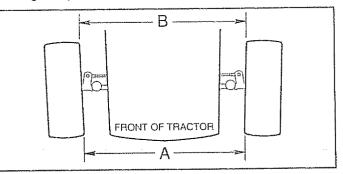
Front wheel toe-in is required for proper steering operation. Toe-in was set at the factory and adjustment should not be necessary. If parts in the front axle or steering mechanism have been replaced or damaged, check toe-in and adjust if necessary.

TO CHECK TOE-IN (See Fig. 29) -

- Position front wheels straight ahead.
- Measure distance between wheels at front and rear of tires (dimensions "A" and "B").
- Front dimension "A" should be 1/8" to 1/4" less than rear dimension "B"

TO ADJUST TOE-IN (See Figs. 29 and 30) -

- Loosen jam nuts at adjustment sleeves on tie rod
- Adjust tie rod until dimension "A" is 1/8" to 1/4" less than dimension "B".
- Tighten jam nuts securely.





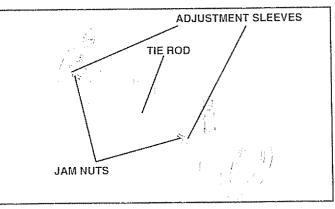


FIG. 30

#### FRONT WHEEL CAMBER

The front wheel camber is not adjustable on your tractor. If damage has occurred to affect the front wheel camber, contact your nearest authorized service center/department.

## TO REMOVE WHEEL FOR REPAIRS

FRONT WHEEL (See Fig. 31) -

- Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal.
- Repair tire and reassemble.
- Replace washers and snap retaining ring securely in axle groove.
- Replace axle cover.

#### REAR WHEEL -

- Block rear axle securely.
- Remove five (5) hub bolts to allow wheel removal.
- Repair tire and reassemble. Replace and tighten hub bolts securely.

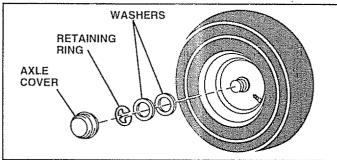


FIG. 31

# TO START ENGINE WITH A WEAK BATTERY (See Figs. 32)



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 NEGA-TIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to a panel bolt on the left side of the tractor, away from fuel tank and battery.

#### TO REMOVE CABLES, REVERSE ORDER -

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

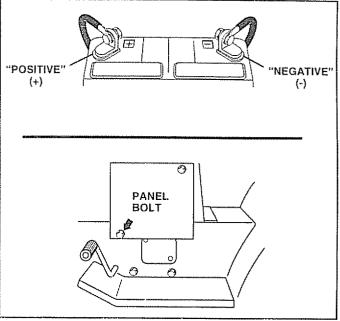


FIG. 32

### 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.

### 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 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.

# SERVICE AND ADJUSTMENTS

# TO ADJUST ATTACHMENT LIFT SPRING (See Fig. 33)

- While holding spring bushing with wrench, loosen jam nut.
- Turn adjustment bolt clockwise to extend spring and reduce lift effort (for heavier attachments)
- Turn adjustment bolt counterclockwise for lighter attachments
- Retighten jam nut against spring bushing

IMPORTANT: DO NOT ADJUST FOR MAXIMUM SPRING TENSION WHEN USING LIGHT ATTACHMENTS SUCH AS A MOWER ADJUST LIFT LEVER SPRING TO AID IN LIFTING ATTACHMENT. DO NOT OVERPOWER SPRING. WHEN REMOVING ATTACHMENT, ALWAYS ADJUST SPRING TENSION TO ITS LOWEST POSITION

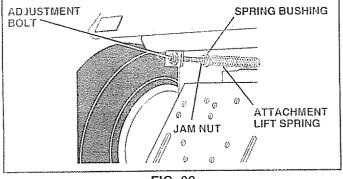


FIG. 33

# TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 34)

- 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 procedure.

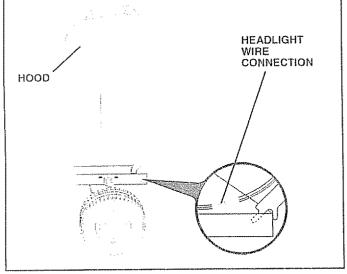


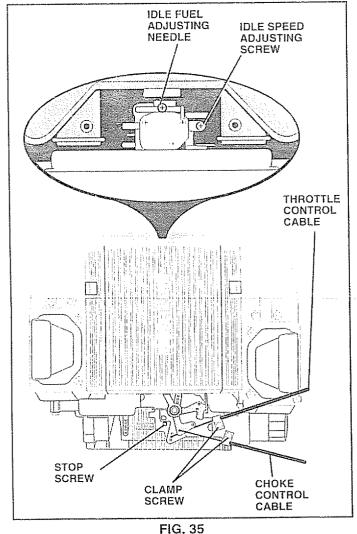
FIG. 34

## ENGINE

# TO ADJUST THROTTLE CONTROL CABLE (See Fig. 35)

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:

- Check that speed control lever is against stop screw. If it is not, loosen casing clamp screw and pull throttle cable until lever is against screw. Tighten clamp screw securely.



#### TO ADJUST CHOKE CONTROL (See Figs. 35 and 36)

The choke 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 choke control (located on dash panel) to full choke (|\u03c8|) position.
- Remove air cleaner cover, filter and cartridge plate to expose carburetor choke (See "AIR FILTER" in the Customer Responsibilities section of this manual)
- Choke should be closed. If it is not, loosen casing clamp screw and move choke cable until choke is completely closed. Tighten casing clamp screw securely.
- Reassemble air cleaner.

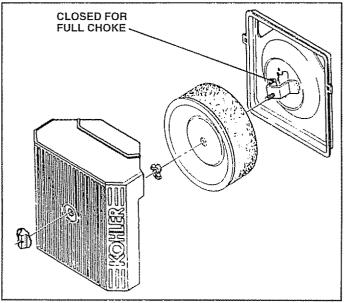


FIG. 36

### TO ADJUST CARBURETOR (See Fig. 35)

The carburetor has been present 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 SCREW IS TURNED IN TOO TIGHT.

PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable is adjusted properly (see "TO ADJUST THROTTLE CONTROL CABLE" in the Service and Adjustments section of this manual).
- With engine off turn idle fuel adjusting needle in (clockwise) closing it finger tight and then turn out (counterclockwise) 1 turn.

FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (N) position.
- The high idle is set at the factory and cannot be adjusted.
- Idle speed setting With throttle control lever in slow (->) position, engine should idle at 1200 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 adjusting needle in (clockwise) until engine speed decreases and then turn out (counterclockwise) approximately 3/4 turn to obtain the best low speed performance.
- · 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.</li>

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 AUTHORIZED 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.



CAUTION: 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. When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Customer Responsibilities 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 Customer Responsibilities 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 TERMINALS" in the Customer Responsibilities section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- Be sure battery drain tube is securely attached.
- 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, FUEL 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 Customer Responsibilities 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 your can 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 will cause your tractor to rust.

IMPORTANT: NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

# **TROUBLESHOOTING POINTS**

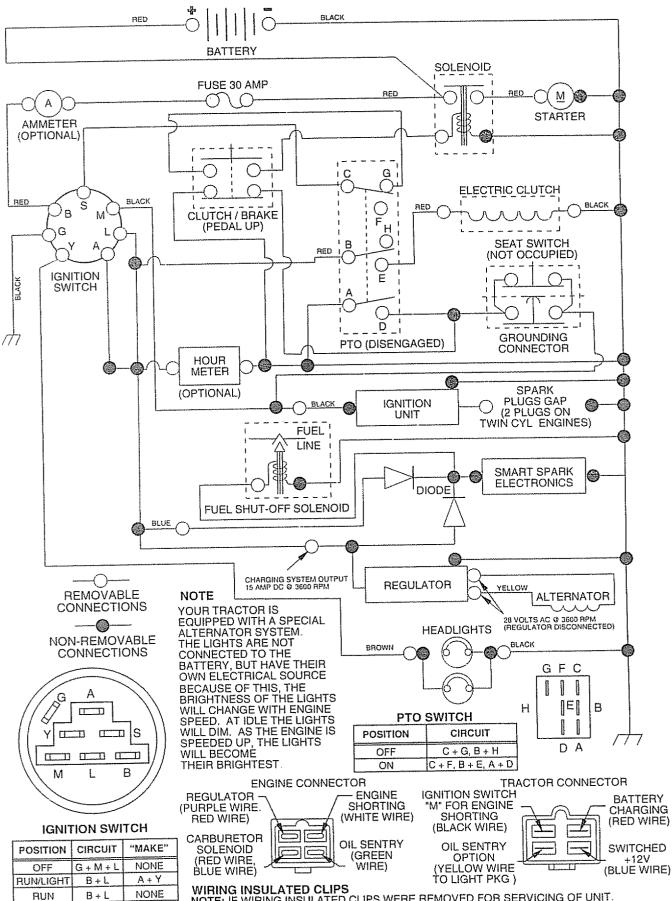
PROBLEM	CAUSE	CORRECTION				
Will not start	<ol> <li>Out of fuel</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded</li> <li>Bad spark plug</li> <li>Dirty air filter</li> <li>Dirty fuel filter</li> <li>Water in fuel</li> <li>Loose or damaged wiring</li> <li>Carburetor out of adjustment</li> <li>Engine valves out of adjustment</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start</li> <li>Replace spark plug</li> <li>Clean/replace air filter</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Check all wiring</li> <li>See "To Adjust Carburetor" in Service Adjustments section</li> <li>Contact an authorized service center/department</li> </ol>				
Hard to start	<ol> <li>Dirty air filter</li> <li>Bad spark plug</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel</li> <li>Loose or damaged wiring</li> <li>Carburetor out of adjustment</li> <li>Engine valves out of adjustment</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug</li> <li>Recharge or replace battery</li> <li>Replace fuel filter</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact an authorized service center/department.</li> </ol>				
Engine will not turn over	<ol> <li>Clutch/brake pedal not depressed.</li> <li>Attachment clutch is engaged.</li> <li>Weak or dead battery</li> <li>Blown fuse.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring</li> <li>Faulty ignition switch.</li> <li>Faulty solenoid or starter</li> <li>Faulty operator presence switch(es)</li> </ol>	<ol> <li>Depress clutch/brake pedal</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery</li> <li>Replace fuse</li> <li>Clean battery terminals</li> <li>Check all wiring</li> <li>Check/replace ignition switch</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center/department.</li> </ol>				
Engine clicks but will not start	<ol> <li>Weak or dead battery.</li> <li>Corroded battery terminals</li> <li>Loose or damaged wiring.</li> <li>Faulty solenoid or starter</li> </ol>	<ol> <li>Recharge or replace battery</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ol>				
Loss of power	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position</li> <li>Build-up of grass, leaves and trash under mower</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter</li> <li>Stale or dirty fuel</li> <li>Water in fuel.</li> <li>Spark plug wire loose</li> <li>Dirty engine air screen/lins.</li> <li>Dirty/clogged muffler</li> <li>Lose or damaged wiring</li> <li>Carburetor out of adjustment.</li> </ol>	<ol> <li>Set in "Higher Cut" position/reduce speed</li> <li>Adjust throttle control</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter</li> <li>Connect and lighten spark plug wire.</li> <li>Clean engine air screen/fins</li> <li>Clean/replace muffler.</li> <li>Check all wiring</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact an authorized service center/department</li> </ol>				
Excessive vibration	<ol> <li>Worn, bent or loose blade</li> <li>Bent blade mandrel.</li> <li>Loose/damaged part(s)</li> </ol>	<ol> <li>Replace blade Tighten blade bolt</li> <li>Replace blade mandrel.</li> <li>Tighten loose part(s) Replace damaged parts</li> </ol>				

# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION				
ngine continues to run vhen operator leaves seat vith attachment clutch engaged	1 Faulty operator-safety presence control system	<ol> <li>Check wiring, switches and connections. If not corrected, contact an authorized service center/ department</li> </ol>				
<sup>3</sup> oor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level</li> <li>Buildup of grass, leaves, and trash under mower</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels</li> </ol>	<ol> <li>Replace blade Tighten blade bolt</li> <li>Level mower deck</li> <li>Clean underside of mower housing</li> <li>Replace blade mandrel</li> <li>Clean around mandrels to open vent holes</li> </ol>				
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism</li> <li>Worn/damaged mower drive belt</li> <li>Frozen idler pulley</li> <li>Frozen blade mandrel</li> </ol>	<ol> <li>Remove obstruction.</li> <li>Replace mower drive belt</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel</li> </ol>				
Poor grass discharge	<ol> <li>Engine speed too slow</li> <li>Travel speed too fast</li> <li>Wet grass</li> <li>Mower deck not level</li> <li>Low/uneven tire air pressure</li> <li>Worn, bent or loose blade</li> <li>Buildup of grass, leaves and trash under mower</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels</li> </ol>	<ol> <li>Place throttle control in "FAST" position</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing</li> <li>Level mower deck.</li> <li>Check lires for proper air pressure</li> <li>Replace/sharpen blade. Tighten blade bolt</li> <li>Clean underside of mower housing</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual</li> <li>Clean around mandrels to open vent holes</li> </ol>				
Headlight(s) not working (if so equipped)	<ol> <li>Switch is "OFF"</li> <li>Bulb(s) burned out.</li> <li>Faulty light switch</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	<ol> <li>Turn switch "ON"</li> <li>Replace bulb(s)</li> <li>Check/replace light switch</li> <li>Check wiring and connections</li> <li>Replace fuse.</li> </ol>				
Battery will not charge	<ol> <li>Bad battery cell(s).</li> <li>Poor cable connections</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	<ol> <li>Replace battery</li> <li>Check/clean all connections</li> <li>Replace regulator</li> <li>Replace alternator</li> </ol>				
Engine "backfires" when turning engine "OFF"	<ol> <li>Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine</li> </ol>	1 Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine				

## **TRACTOR - MODEL NUMBER 917.258960**

#### SCHEMATIC



NOTE: IF WIRING INSULATED CLIPS WERE REMOVED FOR SERVICING OF UNIT. THEY SHOULD BE REPLACED TO PROPERLY SECURE YOUR WIRING

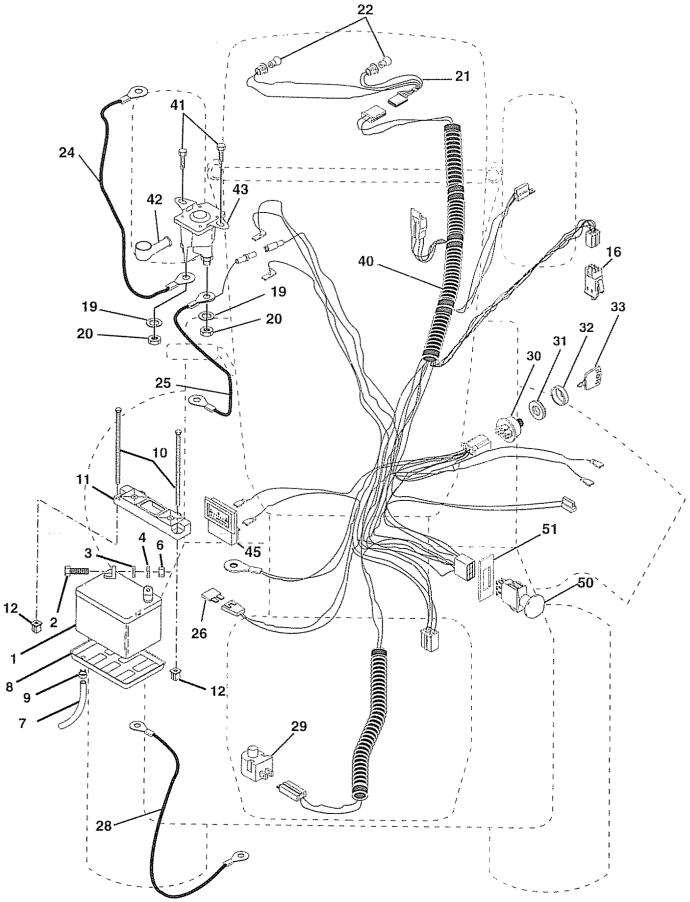
NONE

B+L+S

START

# TRACTOR - - MODEL NUMBER 917.258960

### ELECTRICAL



# TRACTOR - - MODEL NUMBER 917.258960

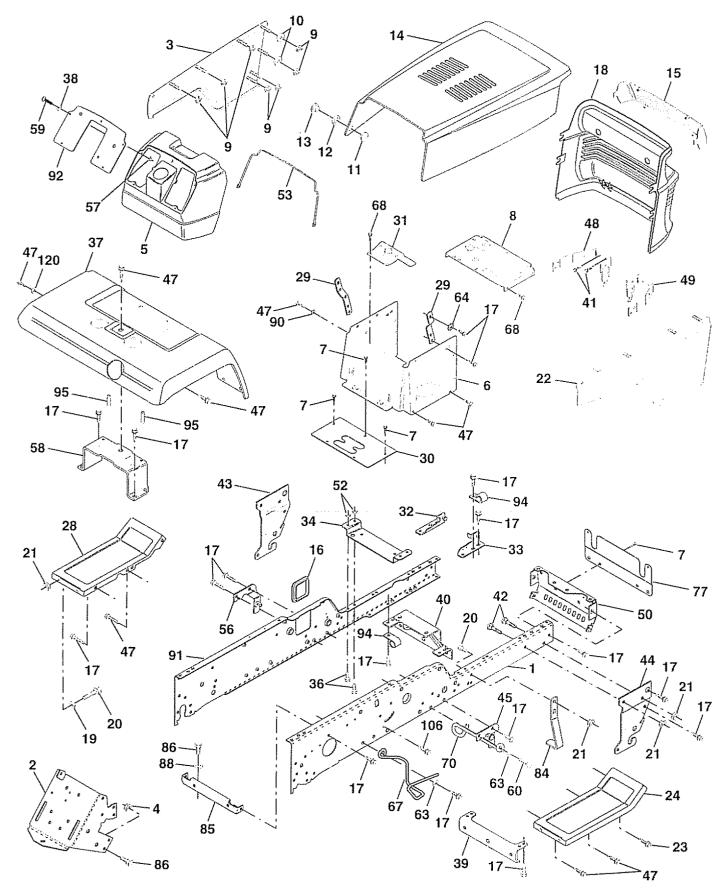
ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
8 9 10 11 12 16 19 20 21 22 22 22 22 22 22 22 22 22 22 22 22	153664 STD551125 73350400 136850 4152J 4014J 146686 108824X 157899 121305X 140301 124211X 141226 109310X	Battery Boit Hex Head 1/4-20 x 3/4 Washer, Lock 1/4 Washer 9/32 x 5/8 x 16 Ga Nut Fin Hex 1/4-20 Tube Plastic Tray, Battery Clamp, Hose Bolt 1/4-20 x 7.5 Zinc Hold down Battery Dash Mount Nut Push Nylon 1/4" Switch Interlock Push-In Washer, Lock 1/4 Nut, Jam Hex 1/4-20 Harness Socket Light W/4152J Bulb Light Cable, Battery Cable, Battery Fuse Cable, Ground Switch, Plunger Switch, Ign Nut, Ignition Switch Cover Switch Key Key, Ignition Harness Ign. Screw 1/4-20 x 1/2 Cover, Terminal Solenoid Ammeter Switch, PTO Ring Retainer PTO

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

TRACTOR - - MODEL NUMBER 917.258960

CHASSIS AND ENCLOSURES



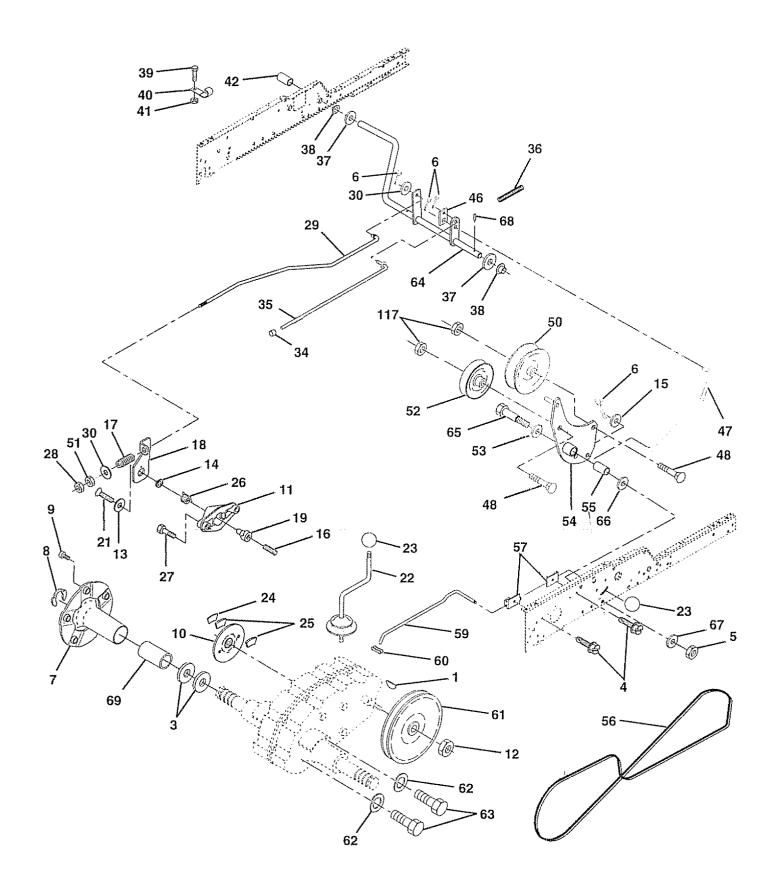
# TRACTOR - - MODEL NUMBER 917.258960

## CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 0 1 1 2 3 3 4 5 6 7 8 9 0 1 1 2 3 3 4 5 6 7 8 9 0 1 1 2 3 3 4 5 6 7 8 9 0 1 1 2 3 3 4 5 6 7 8 9 0 1 1 2 3 3 4 5 6 7 8 9 0 1 1 2 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 3 4 5 6 7 8 9 0 1 1 2 3 3 3 3 4 6 7 8 9 0 1 1 2 3 3 3 3 3 4 6 7 8 9 0 1 1 2 3 3 3 3 3 4 6 7 8 9 0 1 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	150253 140506 136671X558 73680700 145203 157882 17720408 145166 108067X 19092016 137270 137269 137271 136673X558 136374 121794X 17490612 136373x428 19131312 STD523710 STD541437 136670X558 17490616 145243X558 17490616 145243X558 145349 145051 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 141315 141314 145183 145349	Rail, Frame RH Drawbar, Gt Panel Asm., Side LH Nut, Crown Lock Hex 7/16-14 Unc Dash, Plastic Black Dash Lower VGT One-Piece Screw, Thd Cut 1/4-20 x 1/2 Support, Dash 1-Pc. Battery Nut, Pal Washer 9/32 x 1-1/4 x 16 Ga. Rivet, Ratchet Male Washer, Nylon Rivet, Ratchet Female Hood Asm., Pnt Lens, Bar Clear Cover, Access Screw, Thdrol 3/8-16 x 3/4 Grille Washer 13/32 x 13/16 x 12 Ga. Bolt, Fin Hex 3/8-16 x 1 Nut, Crownlock 3/8-16 Unc Panel Asm., Side RH Screw, Thd. Roll 3/8-16 x 1 Ty-TT Footrest, RH Footrest, LH Bracket, Support 1-Pc Steering VGT Bracket Asm., Frame Pivot Lh Bracket, Support 1-Pc Steering VGT Bracket Asm., Frame Pivot Rh Bracket, Engine Support Rear Bolt, Fin Hex 5/16-18 x 3/4 Fender, Pnt. Washer 9/32 x 3/4 x 16 Ga. Bracket, Axle Front Bracket, Support Axle/Engine Screw Tap Tite 1/4-20 x 1/2	120	) 138776 ) 19131616 8022J	Clip, Fuel Line Push Nut, Nylon Screw, Thdrol Hex Head Zinc Mwr Washer 13/32 x 1 x 16 Ga. Plug, Hole nent dimensions given in U.S. inches
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1 HIGH - C	

## TRACTOR - - MODEL NUMBER 917.258960

**GROUND DRIVE** 



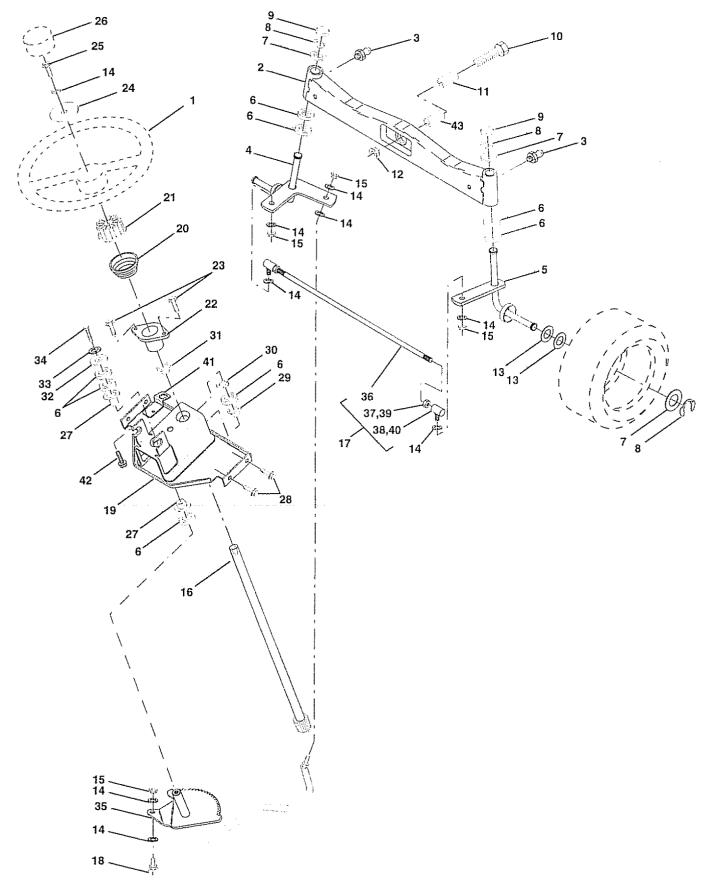
### TRACTOR - - MODEL NUMBER 917.258960

#### **GROUND DRIVE**

KEY NO.	PART NO	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
$\begin{array}{c}1&3&4&5&6\\&&&9&0\\&&1&1&2&3&4\\&&&&9&0\\&&1&1&2&2&3&4\\&&&&&&&&\\&&&&&&&&&\\&&&&&&&&&&\\&&&&&&&$	9858M1 7563R 17490508 STD541437 STD561210 149176 1200034 140080 142509 136927 9204H 139419 138901 STD551037 143012 126909X 137104 136926 23260412 633A109 106932X 136925 136923 137552 17490528 STD541237 137213 19131616 124236X 137648	Key, Woodruff Washer, Thrust, Axle Screw, Thdrol 5/16-18 x 1/2 Tyt Nut, Crownlock 3/8-16 Pin, Cotter Hub Asm. Wheel Rear Klip, Ring Bolt, Hub Disc, Brake Yoke, Brake Disc Locknut 1/2-20 Washer, Special Bushing Washer, Special Bushing Washer 13/32 x 13/16 x 16 Ga. Set, Screw 1/4-28 x 3/4 Spring Lever, Brake Cam, Brake Disc Screw, Flat Head 1/4-28 x 3/4 Gearshift, Lever Assembly Knob Support, Puck Brake Puck, Brake Top Spring, Return Screw, Hex Wsh Thd. 5/16-18 x 1- 3/4 Nut, Hex Jam 3/8-16 Brake, Rod Washer 13/32 x 1 x 16 Ga. Cap, Plunger Rod, Parking Brake	37 38 39 40 41 42 46 47 48 50 51 52 53 54 55 56 57 59 60 61 62 63 66 66 67 68 69 117 NO	5142H 136327 73900600	Washer 25/32 x 1-1/4 x 16 Ga. Nyliner Screw, Fin. #10-24 x 1 Actuator, Interlock Switch Locknut #10-24 Cover, Pedal Retainer, Spring Clutch Rod Bolt, Carriage 3/8-16 x 1-1/2 Gr. 5 Pulley, Idler, Flat Locknut, Hex 3/8-16 Pulley, Idler, Grooved Washer, Hardened Clutch, Arm Assembly Bearing, Idler V-Belt Bracket, Shift Rod, Hi-Lo Shift Rod, Hi-Lo Spring Clip, Connecting Link Pulley, Transaxle Washer, Lock 7/16 Bolt, Fin Hex 7/16-14 x 1-1/4 Shaft, Clutch/Brake Pedal Bolt, Shoulder Washer, Hardened Washer, Flat Pin, Roll Hub, Cover Nut Lock Flg. 3/8-16 Unc
36	149412	Spring, Drive Ground		1  inch = 25	5.4 mm

TRACTOR - - MODEL NUMBER 917.258960

STEERING ASSEMBLY



#### TRACTOR - - MODEL NUMBER 917.258960

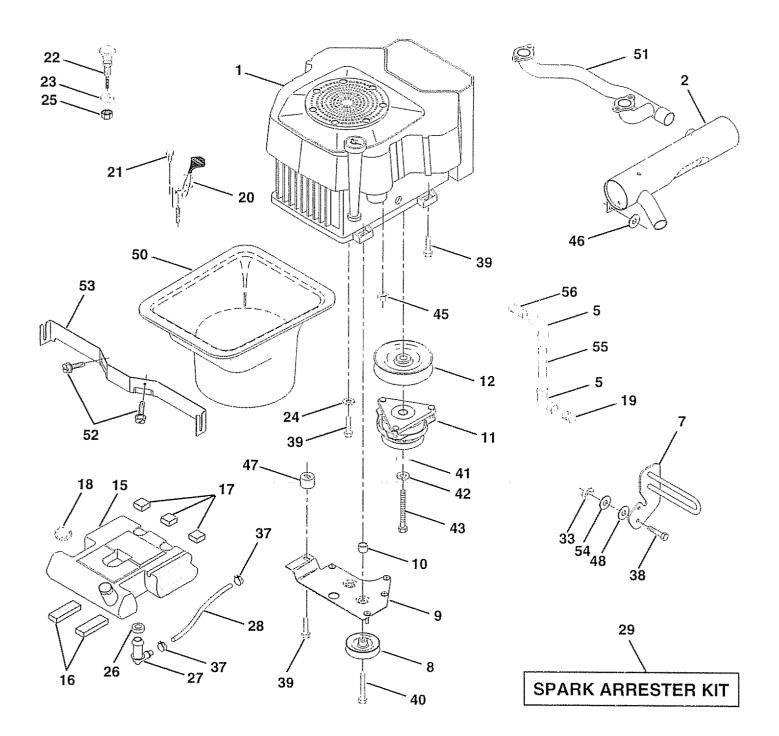
STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
NO. 1 2 3 4 5 6 7 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11	NO. 121472X 137094 6855M 136960 136959 6266H 121748X 12000029 121232X 74781044 136518 73901000 121749X STD551137 STD541537 145103 137347 137155 156011 145182 100711L 155105 152927 19133808 STD523710 126805X 3366R 17490612	DESCRIPTION Wheel, Steering Axle Asm., Front Fitting, Grease Spindle Asm, LH Spindle Asm., RH Bearing, Race Thrust Harden Washer 25/32 x 1-5/8 x 16 Ga. Ring, Klip #T5304-75 Cap, Spindle Bolt, Fin Hex 5/8-11 x 2-3/4 Spacer, Brg. Axle Front Nut, Lock Flange 5/8-11 Unc Washer, Eock Hvy Hicl Spr 3/8 Nut, Lock Center 3/8-24 Unf Shaft Asm., Steering Rod Asm., Tie Ball J Ball Vgt (Inc. Key No. 36-40) Draglink, Ball Joint Solid Vgt Support Asm., Steering Vgt Column, Steering Bushing, Strg. Blk Screw Washer 13/32 x 2-3/8 x 8 Ga. Bolt, Fin Hex 3/8-16 x 1 Gr. 5 Cap, Wheel Steering Bearing, Col. Strg. Screw, Thdrol 3/8-16 x 3/4 Bearing, Flange Ring, Klip Truarc #5304-75 Bushing, Nyliner Snap Washer 11/32 x 1 x 10 Ga. Washer, Lock Hvy Hicl Spr 5/16 Bolt, Hex Hd 5/16-18 x 3/4 Gear, Sector Steering Tie Rod Jam Nut RH Thread Joint Asm. Ball RH Thread Joint Asm. Ball LH Thread
41 42	155246 17490508	Bracket, Switch Interlock VGT97 Screw, Thrd. Roll 5/16-18 x 1/2 TYT

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

### TRACTOR - - MODEL NUMBER 917.258960

ENGINE



#### TRACTOR - - MODEL NUMBER 917.258960

ENGINE

KEY NO.	PART NO.	DESCRIPTION
1	add that was been been been too	Engine (See Breakdown) Kohler CV20S-65538
2 5 7 8	152947 13200300 151396 121361X	Muffler Asm Elbow STD 90 Degree 3/8 - 18 NPT Muffler Asm Guard Pulley V-Idler
9 10	150828 105432X	Belt Keeper Asm VGT Bushing
11 12	140923 143996	Clutch Electric Pulley Engine VGT Elect Clutch
15 16	151346 109227X	Tank Fuel Rear 3.50 YT/GT 96 Pad Spacer
17	106082X	Pad Spacer
18 19	152334 13290300	Cap Asm Fuel W/Gauge Plug Oil Drain (Order From Engine Manufacturer)
20 21	132755 17720410	Control Throttle Screw Hex Thd Cut 1/4-20 X 5/8
22 23	132779 19132616	Control Choke Washer 13/32 X 1-5/8 X 16 Ga
24 25	STD551237	Lockwasher Ext Tooth 3/8 Nut Keps 3/8-24 UNF
26	73920600 3645J	Bushing
27 28	139277 7834R	Stem Tank Fuel Fuel Line
29 33	132920 STD541437	Spark Arrester Kit Nut Lock Hex w/Ins. 3/8 - 16
37 38	123487X	Clamp Hose Bolt Fin Hex 3/8 - 16 x 1-1/2
39	17490636	Screw TT 3/8-16 x 2-1/4 Unc
40 41	17490664 126197X	Screw TT 3/8-16 x 4 Washer 1-1/2 OD X 15/32 ID X 250
42 43	STD551143 150280	Washer Lock 7/16 Bolt Hex 7/16 - 20 X 4 - 1/4 Ga 5
45 46	128861 19131616	Nut Flange 1/4-20 Starter Nut Washer 13/32 x 1 x 16 Ga.
47	142040	Spacer Engine Washer 13/32 x 1-1/4 x 7 Ga.
48 50	143020	Duct Air
51 52	17580408	Pipe Crossover Screw Tap 1/4 - 20 x 1/2
53 54		Bracket Duct Air Rear Sup Washer Flat 13/32 x 7/8 x 14 Ga.
55 56	13090336 13090308	Nipple Pipe 3/8NPT X 4-1/2 Elbow Nipple Pipe 3/8 x 1
NO <sup>-</sup>		nent dimensions given in U.S. inches

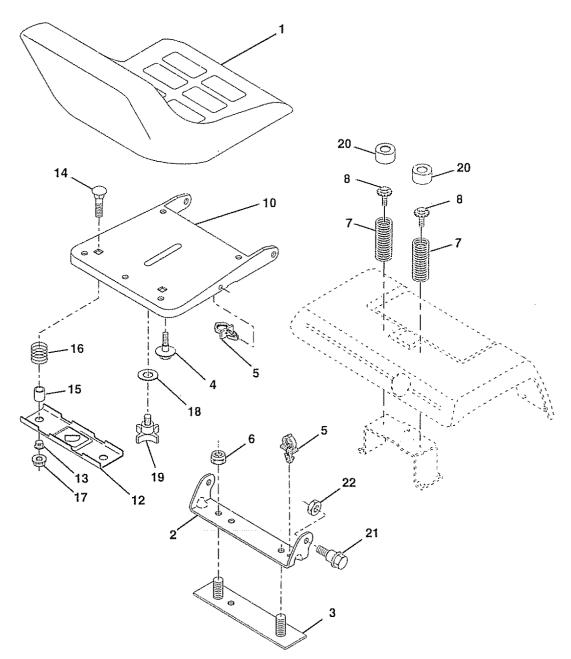
1 inch = 25.4 mm

### TRACTOR - - MODEL NUMBER 917.258960

SEAT ASSEMBLY

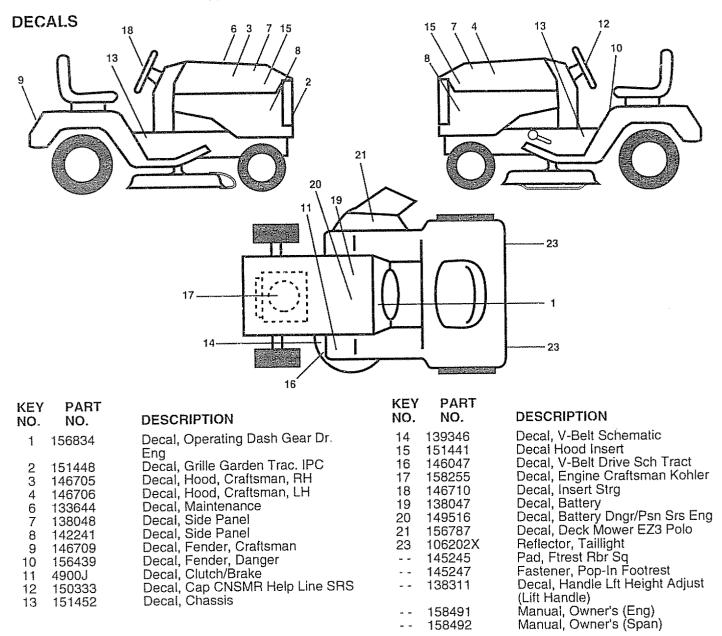
VEV

DADT

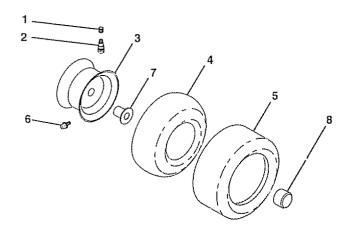


NO.	NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 10 12 13	140124 140551 140675 127018X 145006 STD541437 124181X 150176 155925 121246X 121248X	Seat Bracket, Pivot Seat Strap, Fender Bolt, Shoulder 5/16-18 x .62 Clip, Push In Hinged Nut, Crownlock 3/8-16 Unc Spring, Seat Cprsn Bolt 5/16-18unc X 3/4 W/Sems Pan, Seat Bracket, Mounting Switch Bushing, Snap	14 15 16 17 18 19 20 21 22 NOT	72050411 121249X 123740X 123976X 19171912 120068X 124238X 153236 STD541431 E: All composi 1 inch = 25	Bolt, Carriage 1/4-20 X 1-3/8 Spacer, Split Spring, Cprsn Nut, Lock 1/4 Lge Flg Gr. 5 Washer 17/32 x 1-3/16 x 12 Ga. Knob, Seat 1/2-13 Unc Cap, Spring Seat Bolt, Shoulder 5/16-18 Nut, Crownlock 5/16-18 Unc
				, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

TRACTOR - - MODEL NUMBER 917.258960



#### WHEELS & TIRES

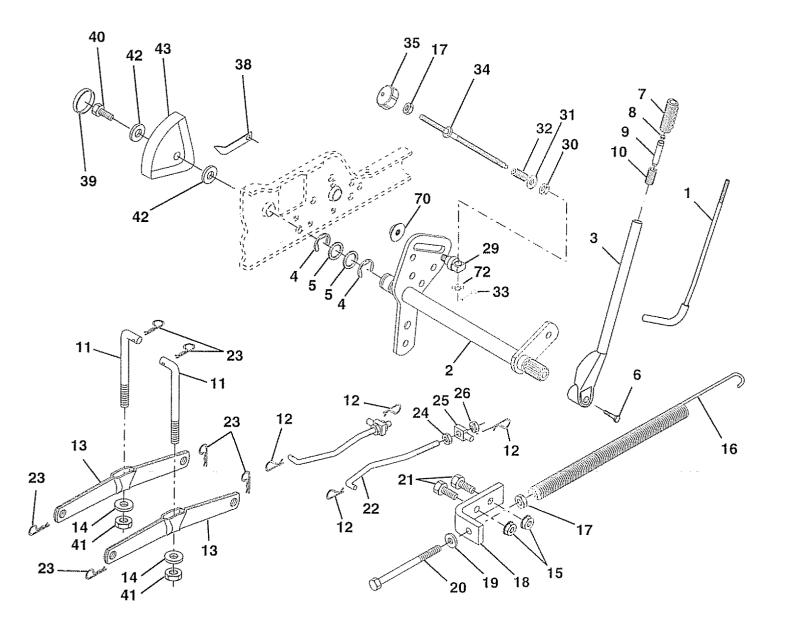


KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106228X427	Rim Assembly, Front
2 3 3	106277X427	Rim Assembly, Rear
	8134H	Tube, Front (Service Item Only)
	7154J 106230X	Tube, Rear (Service Item Only)
5	106230X	Tire, Front
5	105588X	Tire, Rear
6	278H	Fitting, Grease (Front Wheel Only)
	6856M	Fitting, Grease
7	9040H	Bearing, Flange (Front Wheel Only)
8	104757X	Cap, Axle (Front Wheel Only)
	144334	Sealant, Tire (10 oz. Tube)

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

### TRACTOR - - MODEL NUMBER 917.258960

LIFT ASSEMBLY



#### TRACTOR - - MODEL NUMBER 917.258960

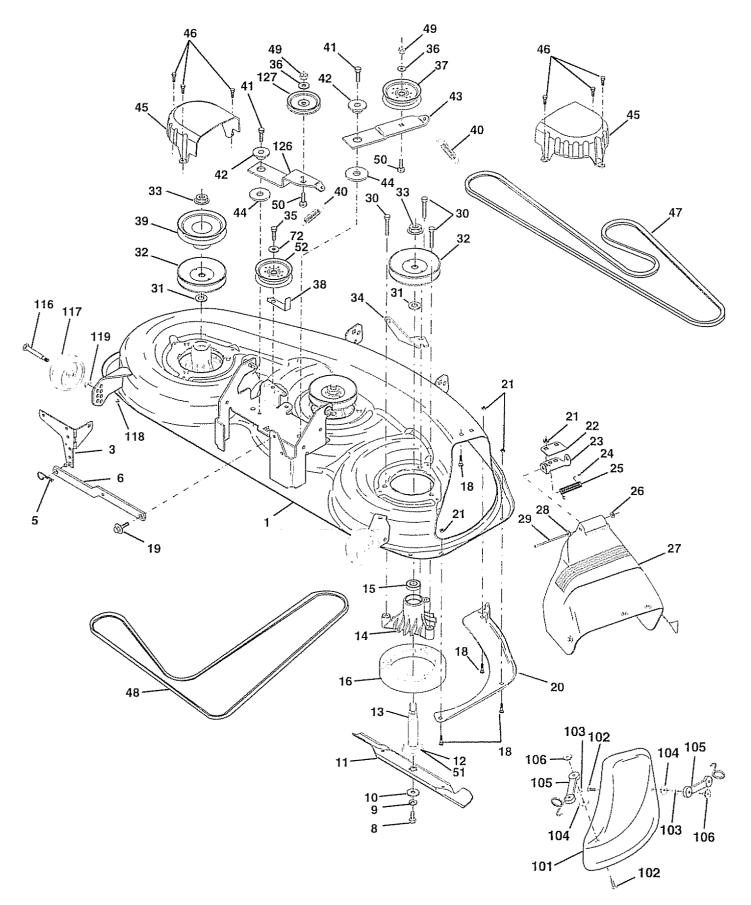
LIFT ASSEMBLY

KEY		DESCRIPTION
<b>NO</b> . 123456789011234567890112314567890012223456933333333333333333333333333333333333	140302 STD541437 674A247 STD541237 143363 STD551037 5328J STD523710	DESCRIPTION Rod Asm., Lever Shaft Asm., Lift Vgt Lever Asm., Lift Rh E-Ring Truarc #5133-87 Washer 29/32 x 1-1/4 x 16 Ga. Bolt, Fin Hex 3/8-16 x 1-1/2 Grip, Handle Fluted Button, Plunger Plunger, Lever Lift Spring 2-1/8" Link Lift Retainer, Spring Arm, Suspension Vgt Bearing Nut, Crownlock 3/8-16 Unc Spring Asm., Assist Lift Nut, Hex Jam 3/8-16 Unc Bracket, Spring Assist Washer 13/32 x 13/16 x 16 Ga. Bolt, Adjust Spring Assist Bolt, Fin Hex 3/8-16 x 1 Link, Front Retainer, Spring Nut, Jam Hex 1/2-13 Unc Trunnion Nut, Lock W/Wsh 1/2-13 Unc Trunnion Infin. Height Nut, Special Washer 13/32 x 5/8 x 16 Ga. Spring, Compression Inf Hgt Pin, Cotter 3/32 x 1/2 Rod, Adj Lift Knob, Inf 3/8-16 Unc Pointer, Height Indicator Plug, Hole Screw, Thdrol 5/16-18 x 3/4 Tyt Nut, Crownlock 3/8-24 Washer 11/32 x 1-1/2 x 10 Ga. Scale, Indicator Height Nut, Hex Flange Lock Nut, Push Phos. & Oil

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

### TRACTOR - - MODEL NUMBER 917.258960

**MOWER DECK** 



#### TRACTOR - - MODEL NUMBER 917.258960

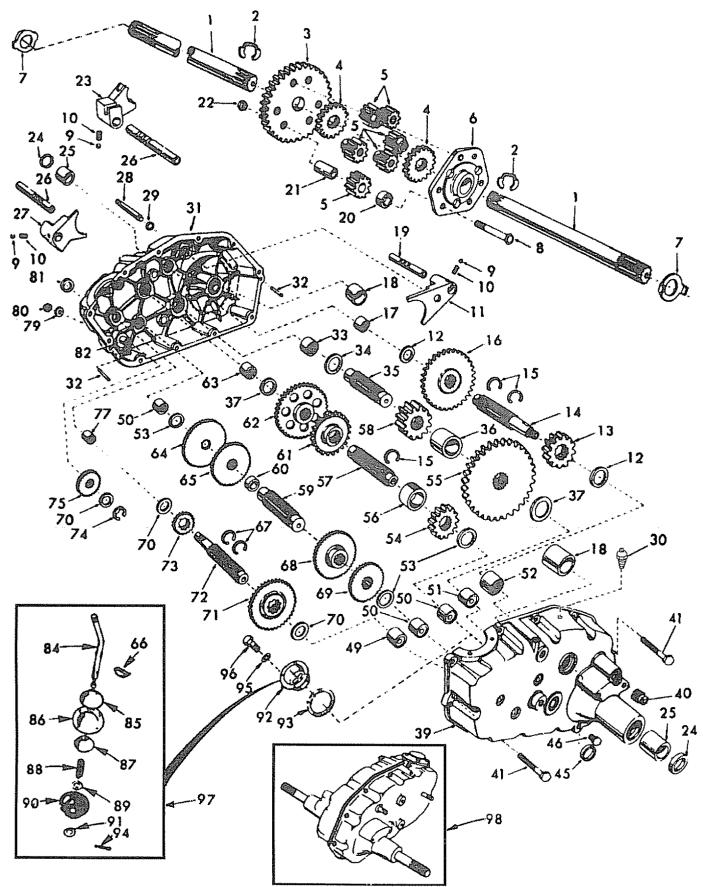
#### MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
		DESCRIPTION Deck Asm., Mower 46" Bracket Asm., Sway Bar Retainer Spring Arm, Suspension, Rear (Sway Bar) Bolt, Patched 3/8-24 x 1-1/4 Gr. 8 Washer, Lock Hvy., Unplated 3/8 Washer, Hard Blade, Mower Vented Blade, 46" Mower Deck. Bearing, Ball, Mandrel #6204 Shaft Asm. w/Lower Bearing (Includes Key No. 12) Housing, Mandrel Bearing, Ball, Mandrel Stripper, Mower Round Bolt, Carriage 5/16-18 x 5/8 Bolt, Hex Head, Shoulder 5/16-18 Baffle, Vortex Mower 46" Nut, Crownlock 5/16-18 UNC Stiffener, Bracket Bracket, Deflector Cap, Sleeve Spring, Torsion, Deflector Nut, Push Shield, Deflector Mower Washer 11/32 x 5/8 x 16 Ga. Rod, Hinge Screw, Hex Head, Thdroll Washer, Spacer Mower Vented Pulley, Mandrel	NO. 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 2103 104 105 106 117 118 126		Pulley, Idler, Flat Keeper, Belt, Idler Pulley, Idler, Driven Spring, Secondary 44/46/50 Vent Screw, Thdroll 3/8-16 x 1-1/4 Tytt Spacer, Retainer Arm, Idler Secondary Washer, Hardened Cover, Mandrel Deck Screw, Thdroll. 1/4-20 x 5/8 V-Belt, Mower, Secondary V-Belt, Mower, Secondary V-Belt, Mower, Primary Nut, Crownlock 3/8-16 UNC Bolt, Carriage 3/8-16 x 1-1/2 Gr. 5 Washer Felt Pulley Idler Flat Cover, Mulching Screw Washer, Lock #10 Washer Latch Asm. Bagger Nut, Weld Bolt, Shoulder Gauge Wheel Nut, Centerlock 3/8-16 UNC Washer 3/8 x 7/8 x 14 Ga. Arm, Idler, Primary Deck 46" Pulley, Idler, V-Groove Dim. 4.25 Mower Service STD Deck - Order separately Mulcher and Gauge
33 34 35 36	137266 144945 17490628 STD551037	Nut, Fig. Top Lock Cntr. 9/16 Anchor, Spring Deck 46" Screw, Thdroll 3/8-16 x 1-3/4 Tytt Washer 13/32 x 13/16 x 16 Ga.		143651	Wheel components, Key No.s 101- 106 and 116-119) Mandrel Asm. 44/50" Service (Includes Key No.'s 8-10, 12-15, 31 and 33)

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

TRACTOR - - MODEL NUMBER 917.258960

TRANSAXLE



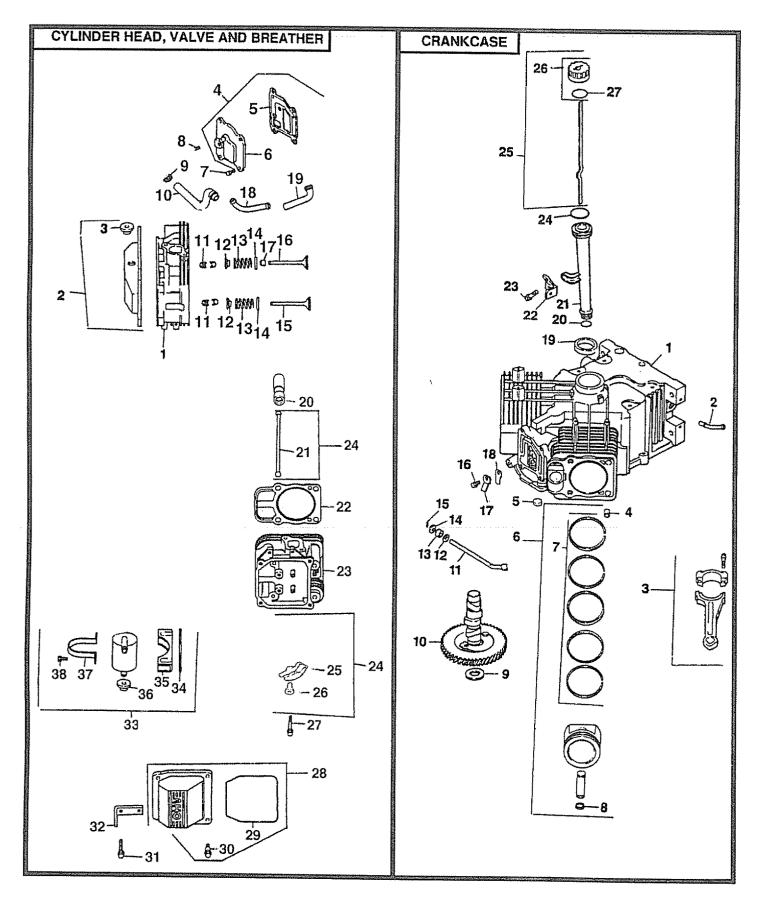
### TRACTOR - - MODEL NUMBER 917.258960

#### TRANSAXLE

KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9	4197R 12000034 4199R 4216R 4215R 4215R 4217R 6256H 74020652 7392M	Axle Shaft Retaining Ring Final Drive Gear Differential Gear Differential Pinion Differential Carrier Axle Thrust Washer Bolt, Hex Head 3/8-24 x 3-1/4 (1" Thread Length) Steel Ball	60 61	8119M 4220R 4209R 4213R 4442R 4195R 4214R 4194R 7528R 4208R 4207R	Needle Bearing Thrust Bearing Race 3rd Reduction Pinion, Low 4th Reduction Gear 3rd Reduction Pinion Spacer 2nd Reduction Gear Shaft Final Drive Pinion 1st Reduction Gear Shaft 1st Reduction Shaft Spacer 3rd Reduction Pinion High 2nd Reduction Gear
10 11 12 13	137261 4985R 6266H 4212R	Spring Shift Fork Detent Shift Fork, High-Low Range Thrust Bearing Race 4th Reduction Pinion	63 64	4207R 7398H 4203R 4204R	Needle Bearing Low Speed Gear and 2nd Reduction Pinion Cluster Reverse Gear
14 15 16 17 18 19	137125 6276H 633A63 8118M 8740H1 122238X	Shaft, Brake Snap Ring, Crescent Type High-Low Range Gears Needle Bearing Sintered Iron Bearing Shift Fork Shaft, High-Low Range	69 70	2898J 12000033 4205R 4206R 1370H	Key, Hi-Pro 1/8 x 17/32 Klip Ring Intermediate Speed Gear High Speed Gear Thrust Bearing Race
20 21 22 23 24 25	4218R 6252H1 7810H 6262H 7393R 992R1	Differential Pinion Spacer Differential Pinion Bushing Gripco Centerlock Nut 3/8-24 Shift Fork, R.H. Oil Seal Sintered Iron Bearing	71 72 73 74 75	633A69 139120 4201R 12000008 1153R	Intermediate and High Speed Cluster Pinions Input Shaft Low Speed Pinion E-Ring Reverse Idler Gear
26 27 28 29 30 31	139111 4986R 122254X 6269H 5855H 139538	Shift Fork Shaft Shift Fork, L.H. Shift Shaft, High-Low Range Oil Seal Pressure Relief Valve Gearcase, Reverse Idler Shaft and	77 79 80 81 82 84	1167R 73360700 6270H 136984 5384J	Needle Bearing Sealing Washer Nut, Hex, Jam 7/16-20 Oil Seal Reverse Idler Shaft Gearshift Lever, Bent
32 33 34 35 36 37 39	6277H 4225R 7396H 4198R 4200R 7395H	Bearings, R.H. (Includes Key No.'s 17,18, 25, 33, 50, 63, 77 and 82) Dowel Pin Needle Bearing Thrust Bearing Race 4th Reduction Gear Shaft 4th Reduction Gear Spacer Thrust Bearing Race Gearcase and Bearings, L.H. (Includes Key Numbers 18, 25, 49,	87 88 90 91 92 93 93	19181511 75J 6274H 76020412	Gearshift Cap Gearshift Ball Cover and Pin Shift Lever Guide Ball, Keyed Spring Washer 15/32 x 15/16 x 16 Gauge Shift Mechanism Seal Washer 9/16 x 15/16 x 12 Gauge Gearshift Gate and Reinforcement Shift Ball Cover Gasket Cotter Pin 1/8 x 3/4 Washer Jack 5/16
40 41 45 46 49 50 51	13320400 17580520 6271H 13060200 4895H 4222R 1529R	50 (2), 51 and 52) Pipe Plug 1/2-14 N.P.T. Bolt, Hex 5/16-18 UNC x 1-1/4 Oil Seal Pipe Plug 1/4-18 N.P.T. Needle Bearing Needle Bearing Needle Bearing	95 96 97 98 NO	74760514 633A109 140332	Washer, Lock 5/16 Bolt, Hex Head 5/16-18 UNC x 7/8 Gearshift Lever Assembly Transaxle, 6 Speed, Complete Assembly nent dimensions given in U.S. inches 5.4 mm

### TRACTOR - - MODEL NUMBER 917.258960

KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538



#### TRACTOR - - MODEL NUMBER 917.258960

### KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538

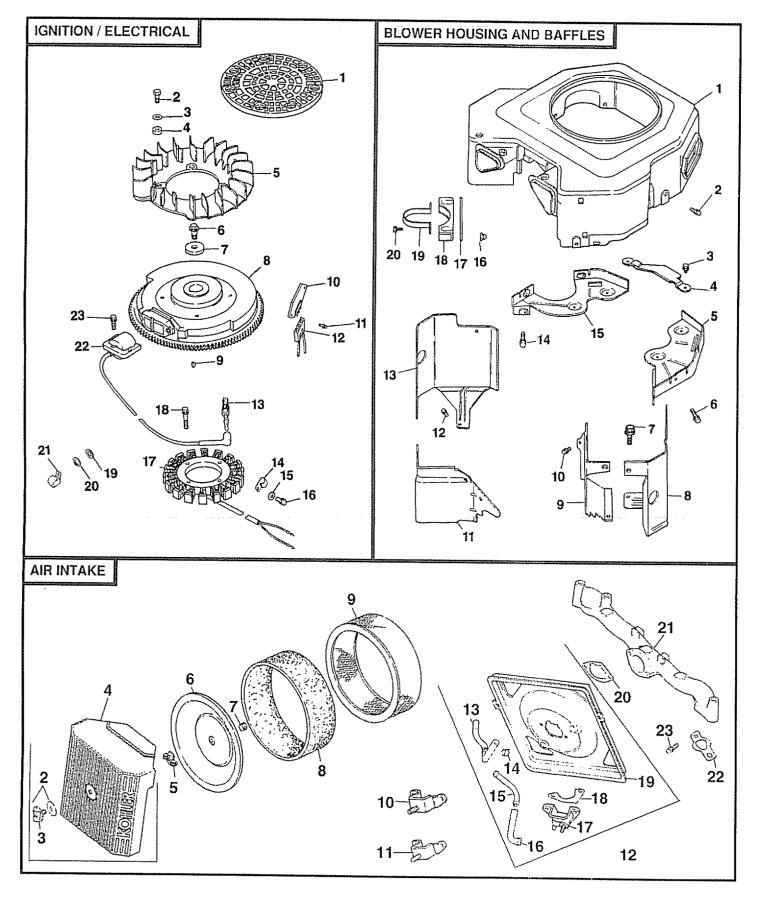
#### CYLINDER HEAD/VALVE/BREATHER

#### CRANKCASE

1       24-318-11 2       Head Assembly, #1 Cylinder (Includes Key #3, 29 thru 30) 3       1       24-755-76 (Includes Key #3, 29 thru 30) 3       1       24-755-76 (Includes Key #3, 29 thru 30) 3       24-087-05 24-087-05       Cylinder Block (Use Mini Block) 4         2       24-085-10 24-087-05       Casket, Breather Convert, Breather Cover,	KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
2         24.755.76         Kit, Valve Cover, Breather (Includes Key #3, 29 thru 30)         24.067.05         Connecting Pod (Standard) (2)           3         25.313.02         Grommet, Rubber         24.083.03         Filt, Breather Cover with Gasket (Includes Key Numbers 5 and 6)         24.083.03         Filt, Dueg Cup           4         24.033.03         Kit, Breather Cover with Gasket (Includes Key Numbers 5 and 6)         52.139.09         Pilt, Duwith Ring Set (Standard) (2)           5         24.041.23         Gasket, Breather (Includes Key Numbers 5 and 6)         52.139.09         Pilton with Ring Set (Standard) (2)           7         M-064502         Cover, Breather (As Required)         24.474.03         Pilton with Ring Set (Standard) (2)           8         X-75.23         Pilug, Allen head, 1/8 Pipe         24.108-03         Filing Set (Standard) (2)           9         X-426-9         Clamp, Hose (2)         84.010-00         Ring Set (Standard) (2)           12         24.756.03         Kit, Relainer (4)         12.4222.00         Shim, Camshalt, Red           12         24.016-01         Valve, Exhaust, 25 Oversize (2)         12.4222.01         Shim, Camshalt, Black           24.016-02         Valve, Intake, 25 Oversize (2)         12.4222.01         Shim, Camshalt, Blue           24.426-13         Hose, Breather         12.4222.0	1	24-318-11	Head Assembly, #1 Cylinder			
3         25-313-02         Growmet, Hubber         Carbon entring Fud (25) (2)           4         24-033-03         Kit, Breather Cover with Gasket         4         12-360-03         Pin, Dowel Locating (6)           5         24-041-23         Gasket, Breather         6         24-874-02         Piston with Ring Set (Standard) (2)           7         M-0645020         Screw Hex Flange M6 x 1 0 x 20         7         24-874-02         Piston with Ring Set (Standard) (2)           8         X-75-23         Plug, Allen head, 1/8 Pipe         24-874-02         Piston with Ring Set (Standard) (2)           12         X-425-6         Clamp, Hose (2)         8         24-108-03         Ring Set (Standard) (2)           12         X-425-70         Cap, Valve Spring (4)         12-422-10         Shim, Camshatl, Hed           12         12-173-01         Cap, Walve Standard Size (2)         12-422-09         Shim, Camshatl, Hed           24-016-01         Valve, Exhaust, 25 Oversize (2)         12-422-09         Shim, Camshatl, Black         (As Required)           12         24-31-05         Rot, Valve (4)         12-422-03         Shim, Camshatl, Green           12-32-31-01         Lifter, Valve (A)         12-422-03         Shim, Camshatl, Green           24-32-10         Use, Breather				2		
424-030-03Kit. Breather Cover with Gasket (Includes Key Numbers 5 and 6) (actional cover, Breather 24-096-15 Cover, Breather412-380-03 5Pin, Dowel Locating (6) Plug, Cup Pluston with Ring Set (Standard) (2) 24-874-02624-096-15 Cover, Breather (Actional cover, Breather (Actional cover, Breather (Actional cover, Breather) (Actional cover, Breather (Actional cover, Breather (Actional cover, Breather)42-380-03 5Pin, Dowel Locating (6) Plug, Cup Pluston with Ring Set (25) (2) (2)7M-0645020 (4)X-75-23 (4)Piug, Allen head, 1/8 Pipe (24-07-0124-074-03 (24-07-02Piston with Ring Set (50) (2) (2)2X-75-23 (21-70-11Cave, Breather (21-70-11824-018-01 (24-016-01Heatiner, Spring (4) (24-017-0212-422-10 (21-422-09Shim, Camshati, Vellow (As Required)1224-016-01 (24-017-02Valve, Exhaust, Standard Size (2) (24-017-0212-422-09 (24-017-02Shim, Camshati, Black (As Required)1224-17-01 (24-017-02Valve, Itake, Standard Size (2) (24-017-0212-422-10 (24-017-02Shim, Camshati, Green (As Required)1224-174-03 (24-017-02Filting (24-017-02Filting (24-017-0212-422-10 (24-017-021224-184-01 (24-017-02Lifter, Valve (4) (24-017-0212-422-10 (24-017-02Shim, Camshati, Green (As Required)1224-174-03 (24-017-02Filting (24-017-0212-422-10Shim, Camshati, Green (As Required)1224-184-01 (24-017-02Kit, Valve				3		
100000       1000000000000000000000000000000000000			Grommet, Rubber	4		
5 $24-041-23$ Gasket, Breather Cover, Breather $6$ $24-874-02$ Piston with Ring Set (Standard) (2) $24-874-02$ 6 $24-096-15$ Cover, Breather $24-874-02$ Piston with Ring Set (25) (2)7 $M-0645020$ Screw Hex Flange M6 x 1 0 x 20 (4)7 $24-874-02$ Piston with Ring Set (25) (2)8 $X.75-23$ Pilug, Allen head, 1/8 Pipe 24-108-02Piston with Ring Set (25) (2)Piston with Ring Set (25) (2)9 $X.426-9$ Clamp, Hose (2) 24-108-03Piston with Ring Set (25) (2)Piston with Ring Set (25) (2)12 $24-378-63$ Kit, Retainer (4)9 $12-422-10$ Stim, Camshaft, Red (As Required)12 $24-17-01$ Valve, Exhaust, Standard Size (2) 24-017-01Valve, Intake, 25 Oversize (2) $12-422-09$ Shim, Camshaft, Black (As Required)16 $24-07-02$ Valve, Intake, 25 Oversize (2) $12-422-10$ Shim, Camshaft, Black (As Required)16 $24-02-05$ Seal, Valve Standard Size (2) 24-017-01Valve, Intake, 25 Oversize (2) $12-422-10$ 17 $24-4755-66$ Kit, Valve (4) $12-422-10$ Shim, Camshaft, Black (As Required)18 $24-292-05$ Seal, Valve Standard Size (2) $12-422-10$ 19 $24-326-13$ Hose, Breather $12-422-10$ 19 $24-326-13$ Hose, Breather $12-422-10$ 10 $24-4755-66$ Kit, Valve (4) $12-422-10$ 12 $24-108-04$ Filt nuch (Includes Key Numbers 21, 12-52-6) $12-422-10$ 12 $24-755-76$	4	24-033-03				
5         24-096-15         Cover. Breather         24-674-02         Piston with Ring Set (25) (2)           7         M-0645020         Screw Hex Flange M6 x 1 0 x 20         7         24-674-02         Piston with Ring Set (25) (2)           8         X-75-23         Piug, Allen head, 1/8 Pipe         24-674-02         Piston with Ring Set (25) (2)           8         X-75-23         Piug, Allen head, 1/8 Pipe         24-674-02         Piston with Ring Set (25) (2)           10         24-326-14         Hose, Breather         8         24-018-01         Ring Set (25) (2)           11         12-755-03         Kit, Retainer (4)         9         12-422-10         Shim, Camshati, Yellow           12         12-173-01         Cap, Valve, Exhaust, Standard Size (2)         12-422-13         Shim, Camshati, Black           24-016-01         Valve, Intake, S0 Versize (2)         12-422-10         Shim, Camshati, Blue (A Bequired)           24-017-02         Valve, Intake, S0 Versize (2)         12-422-12         Shim, Camshati, Blue (A Bequired)           12         24-014-05         Redu, Pied)         12-422-12         Shim, Camshati, Blue (A Bequired)           12         24-016-01         Valve, Intake, S2 Oversize (2)         12-422-12         Shim, Camshati, Blue (A Bequired)           12         24	-	04.044.00				Piston with Ring Set (Standard) (2)
0       24-074-03       Piston with Plin5 Set (550) (2)         7       M-0645020       Screw Hex Flange M6 x 1 0 x 20 (4)       7       24-108-01       Ring Set (Standard) (2)         9       X-425-9       Clamp, Hose (2)       24-108-01       Ring Set (Standard) (2)         9       X-425-9       Clamp, Hose (2)       24-108-01       Ring Set (Standard) (2)         11       12-755-03       Kit, Retainer (4)       9       12-422-10       Shim, Camshaft, Red (As Required)         12       24-016-01       Valve, Exhaust, Standard Size (2)       24-016-02       Valve, Intake, Standard Size (2)         24-017-02       Valve, Intake, Standard Size (2)       12-422-10       Shim, Camshaft, Black (As Required)         24-294-06       Fitting       12-422-11       Shim, Camshaft, Green (As Required)         12       24-318-12       Head Assembly, #2 Cylinder       12-422-12       Shim, Camshaft, Green (As Required)         12       24-318-12       Head Assembly, #2 Cylinder       11       24-114-01       Shaft, Governor Cross         12       24-55-66       Kit, Valve Train (Includes Key Numbers 21, 25-26)       13       12-238-04       Washer, Plain 6mm         24-755-74       Kit, Valve Cover, Plain (Includes Key Numbers 22 thru 30)       16       24-018-03       Seed, Governor Cro				Ŭ		
			Screw Hex Flange M6 x 1.0 x 20			Piston with Ring Set (.50) (2)
6X-75-23Plug, Allen head, 1% Pipe24-108-03Filing Set (25) (2)9X-426-9Clamp, Hose (2)24-108-03Retainer, Piston Pin (4)1112-755-03Kit, Retainer (4)912-422-10Shim, Camshaft, Yellow1212-173-01Cap, Valve Spring (4)12-422-09Shim, Camshaft, Red1224-018-01Valve, Exhaust, Standard Size (2)12-422-09Shim, Camshaft, Black24-016-01Valve, Exhaust, 25 Oversize (2)12-422-07Shim, Camshaft, Blue24-017-01Valve, Intake, Standard Size (2)12-422-11Shim, Camshaft, Blue24-017-02Valve, Intake, Standard Size (2)12-422-11Shim, Camshaft, Blue24-012-05Seal, Valve Stem (2)12-422-11Shim, Camshaft, Green1824-294-06Fitting12-422-12Shim, Camshaft, Green1924-326-13Hose, Breather12-422-12Shim, Camshaft, Grey2012-351-01Lifter, Valve (4)12-422-12Shim, Camshaft, Grey2224-041-08Gasket, Cylinder Head (2)1024-010-03Camshaft2424-755-66Kit, Valve Train1124-144-01Staft, Governor Cross2424-755-74Kit, Valve Cover, Plain1724-018-04Pin, Hitch2624-755-74Kit, Valve Cover, Plain1724-018-04Pin, Hitch2624-755-77Kit, Valve Cover, Plain1724-018-04Pin, Hitch2124-122-10Screw, Hex Flange M6 x 1.0 x 34Mo53450	'	W 0040020		7		
9X-426-9Clamp, Hose (2)24-108-03Hing Set (30) (2)1024-286-14Hose, Breather824-018-01Retainer, Piston Pin (4)1112-755-03Kit, Retainer (4)912-422-10Shim, Camshaft, Red1212-173-01Cap, Valve Spring, Valve (4)12-422-09Shim, Camshaft, Black1224-016-02Valve, Exhaust, Standard Size (2)24-017-02Valve, Intake, Standard Size (2)24-017-02Valve, Intake, Standard Size (2)12-422-08Shim, Camshaft, Bluek24-017-02Valve, Intake, 25 Oversize (2)12-422-08Shim, Camshaft, Blue1224-017-02Valve, Intake, 25 Oversize (2)12-422-08Shim, Camshaft, Blue1224-017-02Valve, Intake, 25 Oversize (2)12-422-01Shim, Camshaft, Blue1224-017-02Valve, Intake, 25 Oversize (2)12-422-01Shim, Camshaft, Green1224-017-02Valve, Intake, 25 Oversize (2)12-422-11Shim, Camshaft, Green1224-017-05Seal, Valve Train12-422-11Shim, Camshaft, Green1224-118-10Head Assembly. #2 Cylinder1124-114-01Shaft, Governor Cross1224-112-10Gasket, Cylinder Head (2)1024-010-03Camshaft1224-112-11Shcker Arm (4)1512-380-04Pin, Hitch1224-112-12Shcker Arm (4)1512-320-01Serew, Flain 6mm1312-086-16Screw Hex Flange M10 x 1 5 x 901224-402-05Reed, ICI </td <td>8</td> <td>X-75-23</td> <td>Plug, Allen head, 1/8 Pipe</td> <td></td> <td></td> <td></td>	8	X-75-23	Plug, Allen head, 1/8 Pipe			
11       12:755-03       Kii, Retainer (4)       9       12:422-10       Shim, Camshaft, Yellow         12       12:173-01       Cap, Valve Spring (4)       12:422-09       Shim, Camshaft, Red         13       24:089-02       Spring, Valve (4)       12:422-09       Shim, Camshaft, Black         14       235011       Retainer, Spring (4)       12:422-07       Shim, Camshaft, Black         14       24:016-02       Valve, Exhaust, 25 Oversize (2)       12:422-07       Shim, Camshaft, Black         15       24:017-01       Valve, Intake, Standard Size (2)       12:422-07       Shim, Camshaft, Blue         24:017-02       Valve, Intake, Standard Size (2)       12:422-08       Shim, Camshaft, Green         16       24:017-02       Valve, Intake, 25 Oversize (2)       12:422-10       Shim, Camshaft, Green         17       24:032-05       Seal, Valve Stem (2)       12:422-11       Shim, Camshaft, Green         18       24:294-06       Fitting       12:422-12       Shim, Camshaft, Green         24:318-12       Head Assembly. #2 Cylinder       11       12:4144-01       Shaft, Governor Cross         24       24:55-66       Kit, Valve Cover, Plain       12       24:010-03       Camshaft         25       25-186-01       Arm, Rocker Arm (		X-426-9	Clamp, Hose (2)	0		
11       12-173-01       Cap, Valve Spring (4)       12-422-09       Shim, Camshaft, Red (As Required)         13       24-089-02       Spring, Valve (4)       12-422-13       Shim, Camshaft, Black (As Required)         14       235011       Retainer, Spring (4)       12-422-13       Shim, Camshaft, Black (As Required)         24-016-01       Valve, Exhaust, Standard Size (2)       12-422-07       Shim, Camshaft, White (As Required)         24-017-02       Valve, Intake, Standard Size (2)       12-422-08       Shim, Camshaft, White (As Required)         24-017-02       Valve, Intake, 25 Oversize (2)       12-422-08       Shim, Camshaft, Blue (As Required)         24-236-13       Hose, Breather       (As Required)       Shim, Camshaft, Green (As Required)         12       24-318-12       Head Assembly, #2 Cylinder       11       24-422-12       Shim, Camshaft, Green (As Required)         24       24-755-66       Kit, Valve Train       12       Mo631005       Washer, Plain 6mm         24       24-755-66       Kit, Valve Train       12       Mo631005       Washer, Plain 6mm         25       25-186-01       Arm, Rocker (4)       15       12-380-04       Pin, Hitch         26       24-755-74       Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)       18       24-402-05 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
12 <td></td> <td></td> <td></td> <td>9</td> <td></td> <td></td>				9		
11       223011       Retainer, Spring (4)       12-422-13       Shim, Camshaft, Black (As Required)         15       24-016-01       Valve, Exhaust, Stoversize (2)       12-422-07       Shim, Camshaft, White (As Required)         16       24-017-01       Valve, Intake, Standard Size (2)       12-422-08       Shim, Camshaft, Blue (As Required)         17       24-032-05       Seal, Valve Stem (2)       12-422-13       Shim, Camshaft, Blue (As Required)         18       24-294-06       Fitting       12-422-13       Shim, Camshaft, Green (As Required)         19       24-326-13       Hose, Breather       Shim, Camshaft, Green (As Required)       Shim, Camshaft, Grey (As Required)         21       24-411-05       Rod, Push (4)       12-422-12       Shim, Camshaft, Grey (As Required)         22       24-041-08       Gasket, Cylinder Head (2)       10       24-010-03       Camshaft         23       24-318-12       Head Assembly. #2 Cylinder       11       24-144-01       Shaft, Governor Cross         24       24-755-66       Kit, Valve Cover, Arm (4)       15       12-380-04       Pin, Hitch         26       24-599-01       Pivot, Rocker Arm (4)       15       12-380-04       Pin, Hitch         26       24-755-74       Kit, Valve Cover, Plain (Includes Key Numbers					12-462-00	
1524-016-01Valve, Exhaust, Standard Size (2) 24-016-02(As Required)1624-016-02Valve, Exhaust, 25 Oversize (2)12-422-07Shim, Camshaft, White (As Required)1624-017-02Valve, Intake, Standard Size (2) 24-017-0212-422-08Shim, Camshaft, Blue (As Required)1724-032-05Seal, Valve Stem (2)12-422-11Shim, Camshaft, Green (As Required)1824-326-13Hose, Breather12-422-12Shim, Camshaft, Green (As Required)2012-351-01Lifter, Valve (4)12-422-12Shim, Camshaft, Green (As Required)2124-11-05Rod, Push (4)12-422-12Shim, Camshaft, Green (As Required)2224-041-08Gasket, Cylinder Head (2)1024-010-03Camshaft2324-318-12Head Assembly, #2 Cylinder1124-144-01Shaft, Governor Cross2424-755-66Kit, Valve Train (Includes Key Numbers 21, 25-26)1312-032-01Seal, Governor Cross2525-186-01Arm, Rocker (4)1512-380-04Pin, Hitch2624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch2624-755-74Kit, Valve Cover, Plain1724-018-04Retainer, Reed (2)2924-153-12O-Ring1924-020-05Reed, Breather (2)2924-155-57Kit, Breather Separator (Includes Key Numbers 34 thru 38)2412-153-02O-Ring, Liper Oil Fill Tube3024-445-04Strap, Lifting23					12-422-13	
1024-016-02Valve, Exhaust, 25 Oversize (2)12-422-07Shim, Camshaft, White (As Required)1624-017-01Valve, Intake, 25 Oversize (2)12-422-07Shim, Camshaft, Blue (As Required)1724-032-05Seal, Valve Stem (2)12-422-10Shim, Camshaft, Blue (As Required)1824-294-06Fitting12-422-11Shim, Camshaft, Green (As Required)1924-326-13Hose, Breather12-422-12Shim, Camshaft, Green (As Required)2012-351-01Lifter, Valve (4)12-422-12Shim, Camshaft, Grey (As Required)2124-411-05Rod, Push (4)12-422-12Shim, Camshaft, Grey (As Required)2224-041-08Gasket, Cylinder Head (2)1024-010-03Camshaft2324-318-12Head Assembly, #2 Cylinder1124-144-01Shaft, Governor Cross2424-755-66Kit, Valve Train (Includes Key Numbers 21, 25-26)1312-032-01Seal, Governor Cross Shaft2525-186-01Arm, Rocker (4)141512-380-04Pin, Hitch2624-595-74Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)1824-402-05Reed, Breather (2)2924-153-12O-Ring (Includes Key Numbers 29 thru 30)1824-402-05Reed, Breather (2)2112-086-16Screw, Hex Flange (Includes Key Numbers 34 thru 38)24-125-10O-Ring, Lower Oil Fill Tube3112-086-16Strap, Lifting23M-0545016Screw, Hex Flange M5 x			Valve Exhaust Standard Size (2)			
16 $24-017-01$ Valve, Intake, Standard Size (2) Valve, Intake, 25 Oversize (2)(As Required)7 $24-032-05$ Seal, Valve Siem (2) $12-422-08$ Shim, Camshaft, Blue (As Required)18 $24-294-06$ Fitting $12-422-11$ Shim, Camshaft, Green (As Required)19 $24-326-13$ Hose, Breather $12-422-12$ Shim, Camshaft, Green (As Required)21 $24-411-05$ Rod, Push (4) $12-422-12$ Shim, Camshaft, Grey (As Required)22 $24-041-08$ Gasket, Cylinder Head (2)10 $24-010-03$ Camshaft23 $24-318-12$ Head Assembly. $\#2$ Cylinder11 $24-144-01$ Shaft, Governor Cross24 $24-755-66$ Kit, Valve Train (Includes Key Numbers 21, 25-26)13 $12-032-01$ Seal, Governor Cross Shaft25 $25-186-01$ Arm, Rocker (4)15 $12-380-04$ Pin, Hitch26 $24-599-01$ Pivot, Rocker Arm (4)15 $12-380-04$ Pin, Hitch27M-0640034Screw Hex Flange M6 x 1.0 x 3416M-0545010Screw, Hex Flange30 $24-086-32$ Screw, Shoulder (4)20 $12-123-01$ O-Ring, Lower Oil Fill Tube31 $12-086-16$ Screw Hex Flange M10 x 1.5 x 9021 $12-125-02$ O-Ring, Lower Oil Fill Tube32 $24-445-01$ Strap, Lifting23M-0545016Screw, Hex Flange34 $24-112-12$ Spacer24 $24-126-19$ Bracket, Oil Fill Tube34 $24-112-12$ Spacer26 $24-$	10		Valve, Exhaust, 25 Oversize (2)		12-422-07	Shim, Camshaft, White
24-017-02       Valve, Intake, .25 Oversize (2)       12-422-08       Shim, Camshaft, Bille         17       24-032-05       Seal, Valve Stem (2)       12-422-08       Shim, Camshaft, Bille         18       24-294-06       Fitting       12-422-08       Shim, Camshaft, Green         19       24-326-13       Hose, Breather       12-422-12       Shim, Camshaft, Green         20       12-351-01       Lifter, Valve (4)       12-422-12       Shim, Camshaft, Grey         21       24-411-05       Rod, Push (4)       12-422-12       Shim, Camshaft, Grey         23       24-318-12       Head Assembly. #2 Cylinder       11       24-144-01       Shaft, Governor Cross         24       24-755-66       Kit, Valve Train       12       Mo631005       Washer, Plain 6mm         25       25-186-01       Arm, Rocker (4)       15       12-380-04       Pin, Hitch         27       M-0640034       Screw Hex Flange M6 x 1.0 x 34       16       Mo5545010       Screw, Hex Flange         29       24-155-74       Kit, Valve Cover, Plain       17       24-018-04       Retainer, Reed (2)         20       12-153-12       O-Ring       0       12-123-04       Tube, Oil Fill         30       24-086-16       Screw, Shoulder (	16		Valve, Intake, Standard Size (2)			
1112-422-11Shim, Camshaft, Green (As Required)1224-326-13Hose, Breather(As Required)2012-351-01Lifter, Valve (4)12-422-12Shim, Camshaft, Green (As Required)2124-411-05Rod, Push (4)12-422-12Shim, Camshaft, Green (As Required)2224-041-08Gasket, Cylinder Head (2)1024-010-03Camshaft2324-318-12Head Assembly, #2 Cylinder1124-144-01Shaft, Governor Cross2424-755-66Kit, Valve Train12M0631005Washer, Plain 6mm2525-186-01Arm, Rocker (4)14X-25-102Washer, Plain 1/42624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch27M-0640034Screw Hex Flange M6 x 1.0 x 3416M-0545010Screw, Hex Flange M5 x 0.8 x 10 (2)2824-755-74Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)1724-018-04Retainer, Reed (2) M5 x 0.8 x 10 (2)2924-153-12O-Ring (B)2112-123-04Tube, Oil Fill Tube3112-086-16Screw, Shoulder (4)23M-0545016Screw, Hex Flange M5 x 0.8 x 163224-445-01Strap, Lifting (Includes Key Numbers 34 thru 38)2412-153-02O-Ring, upper Oil Fill Tube3224-112-12Spacer (Includes Key Numbers 34 thru 38)2412-153-03O-Ring, upper Oil Fill Tube3324-126-44Bracket, Breather Separator (Includes Key Numbers 34 th			Valve, Intake, .25 Oversize (2)		12-422-08	
1024+23+03Hose, Breather(As Fequired)2012-351-01Lifter, Valve (4)12-422-12Shim, Camshaft, Grey (As Required)2124-411-05Rod, Push (4)1024-010-03Camshaft2224-041-08Gasket, Cylinder Head (2)1024-010-03Camshaft2324-318-12Head Assembly. #2 Cylinder1124-144-01Shaft, Governor Cross2424-755-66Kit, Valve Train12M0631005Washer, Plain 6mm2525-186-01Arm, Rocker (4)1312-032-01Seal, Governor Cross Shaft2624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch27M-0640034Screw Hex FlangeM6 x 1.0 x 3416M-0545010Screw, Hex Flange2824-755-74Kit, Valve Cover, Plain1724-018-04Retainer, Reed (2)2924-153-12O-Ring1924-032-01Seal, Oil, Front3024-086-32Screw, Hex Flange10 x 1.5 x 902112-123-043112-086-16Screw Hex Flange M10 x 1.5 x 902112-123-04Tube, Oil Fill3224-445-01Strap, Lifting23M-0545016Screw, Hex Flange3324-755-57Kit, Breather Separator2412-153-02O-Ring, upper Oil Fill Tube3424-112-12SpacerSpacer2624-755-46Kit, Oil Fill Cap (Includes 26-27)3524-126-44Breather Separator2724-453-03O-Ring, u					10 100 11	(As Required)
1012-351-01Lifter, Valve (4) $12-422-12$ Shim, Camshaft, Grey (As Required)2124-411-05Rod, Push (4)1024-010-03Camshaft2224-041-08Gasket, Cylinder Head (2)1024-010-03Camshaft2324-318-12Head Assembly, #2 Cylinder1124-144-01Shaft, Governor Cross2424-755-66Kit, Valve Train12M0631005Washer, Plain 6mm2525-186-01Arm, Rocker (4)14X-25-102Washer, Plain 1/42624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch27M-0640034Screw Hex Flange M6 x 1.0 x 3416M-0545010Screw, Hex Flange2824-755-74Kit, Valve Cover, Plain1724-018-04Retainer, Reed (2)2924-153-12O-Ring1924-02-05Reed, Breather (2)2924-153-12O-Ring1924-02-05Reed, Breather (2)2022-445-01Screw Hex Flange M10 x 1.5 x 902112-123-01O-Ring, Lower Oil Fill Tube3112-086-16Screw Hex Flange M10 x 1.5 x 902112-153-02O-Ring, upper Oil Fill Tube3224-445-01Strap, Lifting23M-0545016Screw, Hex Flange3324-755-57Kit, Breather Separator (Includes Key Numbers 34 thru 38)2412-153-02O-Ring, upper Oil Fill Tube3424-112-12Spacer2524-038-04Dipstick Assembly (Includes 27)3524-126-44 </td <td></td> <td></td> <td></td> <td></td> <td>12-422-11</td> <td></td>					12-422-11	
201224-411-05Rod, Push (4)(As Required)2224-041-08Gasket, Cylinder Head (2)1024-010-03Camshaft2324-318-12Head Assembly. #2 Cylinder1124-144-01Shaft, Governor Cross2424-755-66Kit, Valve Train12M0631005Washer, Plain 6mm2525-186-01Arm, Rocker (4)14X-25-102Washer, Plain 1/42624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch27M-0640034Screw Hex Flange M6 x 1.0 x 3416M-0545010Screw, Hex Flange2824-755-74Kit, Valve Cover, Plain1724-018-04Retainer, Reed (2)2924-153-12O-Ring1924-032-01Seal, Oil, Front3024-086-32Screw, Shoulder (4)2012-153-01O-Ring, Lower Oil Fill Tube3112-086-16Screw Hex Flange M10 x 1.5 x 902112-123-04Tube, Oil Fill Tube3224-445-01Strap, Lifting23M-0545016Screw, Hex Flange3424-112-12SpacerSpacer240-Ring, upper Oil Fill Tube3424-112-12Spacer24-038-04Dipstick Assembly (Includes 26-27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick<					12-422-12	
21       24-041-08       Gasket, Cylinder Head (2)       10       24-010-03       Camshaft         23       24-318-12       Head Assembly. #2 Cylinder       11       24-144-01       Shaft, Governor Cross         24       24-755-66       Kit, Valve Train       12       24-144-01       Shaft, Governor Cross         25       25-186-01       Arm, Rocker (4)       14       X-25-102       Washer, Plain 6mm         26       24-599-01       Pivot, Rocker Arm (4)       15       12-380-04       Pin, Hitch         26       24-599-01       Pivot, Rocker Arm (4)       16       M-0545010       Screw, Hex Flange         27       M-0640034       Screw Hex Flange M6 x 1.0 x 34       16       M-0545010       Screw, Hex Flange         28       24-755-74       Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)       18       24-402-05       Reed, Breather (2)         29       24-153-12       O-Ring       20       12-153-01       O-Ring, Lower Oil Fill Tube         31       12-086-16       Screw, Shoulder (4)       20       12-123-04       Tube, Oil Fill         32       24-445-01       Strap, Lifting       23       M-0545016       Screw, Hex Flange         32       24-112-12       Spacer       Mo54501					t has than two t type	
2324-318-12Head Assembly, #2 Cylinder11 $24-144-01$ Shaft, Governor Cross2424-755-66Kit, Valve Train12M0631005Washer, Plain 6mm2525-186-01Arm, Rocker (4)14X-25-102Washer, Plain 1/42624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch27M-0640034Screw Hex Flange M6 x 1.0 x 3416M-0545010Screw, Hex Flange2824-755-74Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)1724-018-04Retainer, Reed (2)2924-153-12O-Ring1924-032-01Seal, Oil, Front3024-086-32Screw, Hex Flange M10 x 1.5 x 90 (Includes Key Numbers 34 thru 38)2412-153-01O-Ring, Lower Oil Fill3224-445-01Strap, Lifting (Includes Key Numbers 34 thru 38)2412-153-02 (Includes 27)O-Ring, upper Oil Fill Tube (Includes 26-27)3424-112-12SpacerSpacer2624-755-46 (Xit, Oil Fill Cap (Includes 26-27))3625-313-02Grommet, Rubber Screw Hex Flange M5 x 0.8 x 16 (2)2712-153-03O-Ring, Dipstick38M-0545016Screw Hex Flange M5 x 0.8 x 16 (2)MOTE: All component dimensions given in U.S. inchesNOTE: All component dimensions given in U.S.				10	24-010-03	Camshaft
24       24-755-66       Kit, Valve Train (Includes Key Numbers 21, 25-26)       12       M0631005       Washer, Plain 6mm         25       25-186-01       Arm, Rocker (4)       13       12-032-01       Seal, Governor Cross Shaft         26       24-599-01       Pivot, Rocker Arm (4)       15       12-380-04       Pin, Hitch         27       M-0640034       Screw Hex Flange M6 x 1.0 x 34 (4)       16       M-0545010       Screw, Hex Flange M5 x 0.8 x 10 (2)         28       24-755-74       Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)       17       24-018-04       Retainer, Reed (2)         29       24-153-12       O-Ring       19       24-032-01       Seal, Oil, Front         30       24-086-32       Screw, Shoulder (4)       20       12-153-01       O-Ring, Lower Oil Fill Tube         31       12-086-16       Screw Hex Flange M10 x 1.5 x 90 (8)       21       12-123-04       Tube, Oil Fill       Tube         32       24-755-57       Kit, Breather Separator (Includes Key Numbers 34 thru 38)       24       12-153-02       O-Ring, Upper Oil Fill Tube         34       24-112-12       Spacer       Spacer       25       24-038-04       Dipstick Assembly (Includes 26-27)         36       25-313-02       Grommet, Rubber       27						
2525-186-01Arm, Rocker (4)14X-25-102Washer, Plain 1/42624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch27M-0640034Screw Hex Flange M6 x 1.0 x 3416M-0545010Screw, Hex Flange2824-755-74Kit, Valve Cover, Plain1724-018-04Retainer, Reed (2)2924-153-12O-Ring1924-032-01Seal, Oil, Front3024-086-32Screw, Shoulder (4)2012-153-01O-Ring, Lower Oil Fill3112-086-16Screw Hex Flange M10 x 1.5 x 902112-123-04Tube, Oil Fill3224-445-01Strap, Lifting23M-0545016Screw, Hex Flange3324-755-57Kit, Breather Separator(Includes Key Numbers 34 thru 38)2412-153-02O-Ring, upper Oil Fill Tube3424-112-12Spacer2524-038-04Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)38M-0545016Screw Hex FlangeNOTE: All component dimensions given in U.S.38M-0545016Screw Hex FlangeInches			Kit, Valve Train			Washer, Plain 6mm
2624-599-01Pivot, Rocker Arm (4)1512-380-04Pin, Hitch27M-0640034Screw Hex Flange M6 x 1.0 x 34 (4)16M-0545010Screw, Hex Flange M5 x 0.8 x 10 (2)2824-755-74Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)1724-018-04Retainer, Reed (2) Reed, Breather (2)2924-153-12 (Includes Key Numbers 29 thru 30)0-Ring (Includes Key Numbers 29 thru 30)1824-402-05Reed, Breather (2)3024-086-32 (Includes Key Numbers 29 thru 30)1924-032-01 (20Seal, Oil, Front3112-086-16Screw, Hex Flange M10 x 1.5 x 90 (8)2112-123-04 (20Tube, Oil Fill (213224-445-01Strap, Lifting (Includes Key Numbers 34 thru 38)2412-153-02 (25O-Ring, upper Oil Fill Tube (M5 x 0.8 x 163424-112-12 (S 24-126-44Spacer (Includes Key Numbers 34 thru 38)2412-153-02 (25O-Ring, upper Oil Fill Tube (Distick Assembly (Includes 26-27))3524-126-44 (Includes Key Reather Separator (S 25-313-02Grommet, Rubber (S rew, Hex Flange (S 24-445-02Strap, Breather Separator (S rew Hex Flange (S x 0.8 x 16 (2))2738M-0545016Screw Hex Flange (S x 0.8 x 16 (2))NOTE: All component dimensions given in U.S. inches						
27M-0640034Screw Hex Flange M6 x 1.0 x 34 (4)16M-0545010Screw, Hex Flange M5 x 0.8 x 10 (2)2824-755-74Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)1724-018-04Retainer, Reed (2) Reed, Breather (2)2924-153-12O-Ring (Includes Key Numbers 29 thru 30)1824-402-05Reed, Breather (2) Seal, Oil, Front3024-086-32Screw, Shoulder (4)2012-153-01O-Ring, Lower Oil Fill Tube3112-086-16Screw Hex Flange M10 x 1.5 x 90 (8)2112-123-04Tube, Oil Fill3224-445-01Strap, Lifting (Includes Key Numbers 34 thru 38)23M-0545016Screw, Hex Flange M5 x 0.8 x 163424-112-12Spacer (Includes Key Numbers 34 thru 38)2412-153-02 25O-Ring, upper Oil Fill Tube Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator (Includes Xey Rubber2624-755-46 27Kit, Oil Fill Cap (Includes 27) 273625-313-02Grommet, Rubber Screw Hex Flange M5 x 0.8 x 16 (2)Strap, Breather Separator 24-445-02O-Ring, Dipstick38M-0545016Screw Hex Flange M5 x 0.8 x 16 (2)NOTE: All component dimensions given in U.S. inches			Arm, Rocker (4)			
$27$ Mi bortooriM5 x 0.8 x 10 (2) $28$ $24-755-74$ Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30) $17$ $24-018-04$ Retainer, Reed (2) $29$ $24-153-12$ O-Ring $0$ $18$ $24-402-05$ Reed, Breather (2) $30$ $24-086-32$ Screw, Shoulder (4) $20$ $12-153-01$ $0$ -Ring, Lower Oil Fill Tube $31$ $12-086-16$ Screw Hex Flange M10 x $1.5 \times 90$ (8) $21$ $12-123-04$ Tube, Oil Fill $32$ $24-445-01$ Strap, Lifting $23$ $M-0545016$ Screw, Hex Flange M5 x $0.8 \times 16$ $34$ $24-112-12$ Spacer $24$ $12-153-02$ O-Ring, upper Oil Fill Tube $34$ $24-112-12$ Spacer $25$ $24-038-04$ Dipstick Assembly (Includes 26-27) $35$ $24-126-44$ Bracket, Breather Separator (Includes Key Numbers $34$ thru $38$ ) $24$ $12-153-03$ O-Ring, upper Oil Fill Tube $35$ $24-126-44$ Bracket, Breather Separator (Includes Key Numbers $34$ thru $38$ ) $24$ $12-153-03$ O-Ring, upper Oil Fill Cap (Includes $26-27$ ) $36$ $25-313-02$ Grommet, Rubber $27$ $12-153-03$ O-Ring, Dipstick $37$ $24-445-02$ Strap, Breather Separator Screw Hex Flange M5 x $0.8 \times 16$ $0$ -Ring, Dipstick $38$ $M-0545016$ Screw Hex Flange M5 x $0.8 \times 16$ $0$ -Ring, Dipstick $38$ $M-0545016$ Screw Hex Flange M5 x $0.8 \times 16$ $0$ -Ring, Dipstick $38$ $M-0545016$ Screw Hex Flange M5 x $0.8 \times 16$ <t< td=""><td></td><td></td><td>Pivot, Hocker Arm (4)</td><td></td><td></td><td></td></t<>			Pivot, Hocker Arm (4)			
28       24-755-74       Kit, Valve Cover, Plain (Includes Key Numbers 29 thru 30)       17       24-018-04       Retainer, Reed (2)         29       24-153-12       O-Ring       18       24-402-05       Reed, Breather (2)         30       24-086-32       Screw, Shoulder (4)       20       12-153-01       O-Ring, Lower Oil Fill Tube         31       12-086-16       Screw Hex Flange M10 x 1.5 x 90 (8)       21       12-123-04       Tube, Oil Fill         32       24-445-01       Strap, Lifting       23       M-0545016       Screw, Hex Flange         33       24-755-57       Kit, Breather Separator (Includes Key Numbers 34 thru 38)       24       12-153-02       O-Ring, upper Oil Fill Tube         34       24-112-12       Spacer       25       24-038-04       Dipstick Assembly (Includes 26-27)         35       24-126-44       Bracket, Breather Separator       26       24-755-46       Kit, Oil Fill Cap (Includes 26-27)         36       25-313-02       Grommet, Rubber       27       12-153-03       O-Ring, Dipstick         37       24-445-02       Strap, Breather Separator       26       24-755-46       Kit, Oil Fill Cap (Includes 27)         38       M-0545016       Screw Hex Flange       M5 x 0.8 x 16 (2)       NOTE: All component dimensions given in	27	M-0640034		10	WI 00-0010	
2024 765 74(Includes Key Numbers 29 thru 30) (Includes Key Numbers 29 thru 30)1824-402-05Reed, Breather (2)2924-153-12O-Ring Screw, Shoulder (4)1924-032-01Seal, Oil, Front3112-086-16Screw Hex Flange M10 x 1.5 x 90 (8)2112-123-04Tube, Oil Fill3224-445-01Strap, Lifting (Includes Key Numbers 34 thru 38)23M-0545016Screw, Hex Flange M5 x 0.8 x 163424-112-12 SpacerSpacer Grommet, Rubber2524-038-04 Strap, Breather Separator (Includes 27)O-Ring, upper Oil Fill Tube 	28	24.755.74		17	24-018-04	
2924-153-12Ó-Ring1924-032-01Seal, Oil, Front3024-086-32Screw, Shoulder (4)2012-153-01O-Ring, Lower Oil Fill Tube3112-086-16Screw Hex Flange M10 x 1.5 x 902112-123-04Tube, Oil Fill3224-445-01Strap, Lifting23M-0545016Screw, Hex Flange3324-755-57Kit, Breather SeparatorM5 x 0.8 x 16O-Ring, upper Oil Fill Tube3424-112-12Spacer2524-038-04Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)38M-0545016Screw Hex FlangeMOTE: All component dimensions given in U.S.38M-0545016Screw Hex FlangeM5 x 0.8 x 16 (2)NOTE: All component dimensions given in U.S.	20	2410014				
3024-086-32Screw, Shoulder (4)2012-153-01O-Ring, Lower Oil Fill Tube3112-086-16Screw Hex Flange M10 x 1.5 x 90 (8)2112-123-04Tube, Oil FillTube, Oil Fill3224-445-01Strap, Lifting23M-0545016Screw, Hex Flange M5 x 0.8 x 163324-755-57Kit, Breather Separator (Includes Key Numbers 34 thru 38)2412-153-02 25O-Ring, upper Oil Fill Tube3424-112-12Spacer2524-038-04 25Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator Grommet, Rubber2624-755-46 27Kit, Oil Fill Cap (Includes 27)3625-313-02 37Grommet, Rubber Screw Hex Flange M5 x 0.8 x 16 (2)Strap, Breather Separator Screw in U.S.0-Ring, Dipstick38M-0545016Screw Hex Flange M5 x 0.8 x 16 (2)NOTE: All component dimensions given in U.S.	29	24-153-12				Seal, Oil, Front
3112 000 10(8)2224-126-19Bracket, Oil Fill Tube3224-445-01Strap, Lifting23M-0545016Screw, Hex Flange3324-755-57Kit, Breather Separator(Includes Key Numbers 34 thru 38)2412-153-02O-Ring, upper Oil Fill Tube3424-112-12Spacer2524-038-04Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2712-153-03O-Ring, Dipstick38M-0545016Screw Hex FlangeMOTE: All component dimensions given in U.S.Note: All component dimensions given in U.S.			Screw, Shoulder (4)			O-Ring, Lower Oil Fill Tube
3224-445-01Crap, Lifting23M-0545016Screw, Hex Flange M5 x 0.8 x 163324-755-57Kit, Breather Separator (Includes Key Numbers 34 thru 38)2412-153-02O-Ring, upper Oil Fill Tube3424-112-12Spacer2524-038-04Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2712-153-03O-Ring, Dipstick38M-0545016Screw Hex Flange M5 x 0.8 x 16 (2)NOTE: All component dimensions given in U.S. inches	31	12-086-16				
3224-755-57Kit, Breather Separator (Includes Key Numbers 34 thru 38)M5 x 0.8 x 163424-112-12Spacer2412-153-02O-Ring, upper Oil Fill Tube3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 26-27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2712-153-03O-Ring, Dipstick38M-0545016Screw Hex FlangeMOTE: All component dimensions given in U.S.Note: All component dimensions given in U.S.						
3624-765-07(Includes Key Numbers 34 thru 38)2412-153-02O-Ring, upper Oil Fill Tube3424-112-12Spacer2524-038-04Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2712-153-03O-Ring, Dipstick38M-0545016Screw Hex FlangeMOTE: All component dimensions given in U.S.Includes 27			Strap, Lifting Kit, Broother Constator	23	W-0545010	M5 x 0.8 x 16
3424-112-12Spacer2524-038-04Dipstick Assembly (Includes 26-27)3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2712-153-03O-Ring, Dipstick38M-0545016Screw Hex FlangeMOTE: All component dimensions given in U.S.inches	33	24-755-57		24	12-153-02	
3524-126-44Bracket, Breather Separator2624-755-46Kit, Oil Fill Cap (Includes 27)3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator2712-153-03O-Ring, Dipstick38M-0545016Screw Hex FlangeNOTE: All component dimensions given in U.S.M5 x 0.8 x 16 (2)inches	34	24-112-12				
3625-313-02Grommet, Rubber2712-153-03O-Ring, Dipstick3724-445-02Strap, Breather Separator38M-0545016Screw Hex FlangeNOTE: All component dimensions given in U.S.38M-0545016M5 x 0.8 x 16 (2)inches						
3724-445-02Strap, Breather Separator38M-0545016Screw Hex FlangeNOTE: All component dimensions given in U.S.M5 x 0.8 x 16 (2)inches				27	12-153-03	
38 M-0545016 Screw Hex Flange NOTE: All component dimensions given in U.S. M5 x 0.8 x 16 (2) inches			Strap, Breather Separator			
		M-0545016				inent dimensions given in U.S.
			M5 x 0.8 x 16 (2)	Incl		5.4 ppm

### TRACTOR - - MODEL NUMBER 917.258960

KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538



#### TRACTOR - - MODEL NUMBER 917.258960

# KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538

#### IGNITION/ELECTRICAL

	PART NO.	DESCRIPTION
1 2	24-162-17 M-0403025	Screen, Grass Screw, Hex, Cap M4 x 0.7 x 24 (4)
3 4 5 6	X-25-92 24-112-04 24-157-03 M-0639016	Washer, Plain 3/16 (4) Spacer, Fan (4) Fan Screw Hex, Flange M6 x 1.0 x 16
7 8 9	12-112-01 24-025-04 X-42-15	(4) Spacer, Fan (4) Flywheel Assembly Key Bootifier Bogulator
10 11 12	25-403-03 24-086-18 236602	Rectifier-Regulator Screw, Phillips (2) Hd. 11-16 x 7/8 Connector, Rectifier-Regulator, 3 Contact
13 14 15 16	12-132-02 48-154-02 12-468-03 12-086-14	Spark Plug (2) Clip, Cable Washer, Plain 3/8 Screw, Hex, Flange M10 x 1.5 x 46
	24-085-01 M-0548025	Stator, 15 Amp Screw, Hex, Cap M5 x 0.8 x 25 (2)
20 21 22	X-25-63 X-25-92 235173 24-584-01 SM-0545020	Washer, Plain 1/4 (2) Washer, Plain 3/8 (2) Clip, Cable Module, Ignition (2) Screw, Hex, Flange M5 x 0 8 x 20 (4)
~ -	T ILLUSTRATEI 24-176-12 25-518-28 24-113-18	Harness, Wire Harness, Wire Lead, Black (4", 18 Gauge, Insulated Grip Barrel Eyelets) Decal, Grass Screen

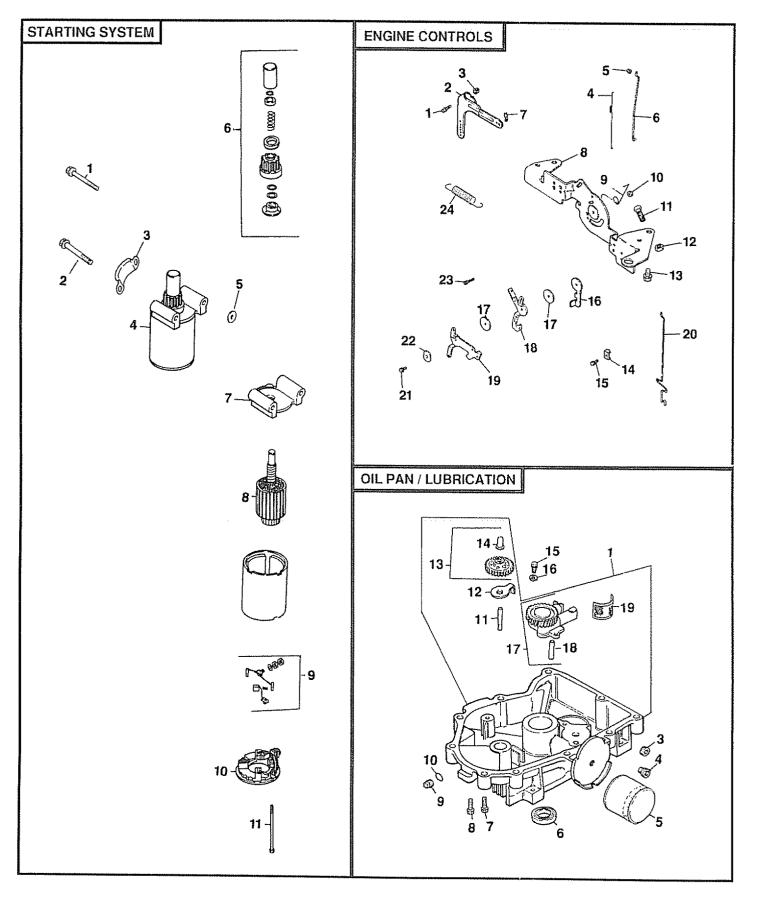
#### **BLOWER HOUSING & BAFFLES**

KEY NO.	PART NO.	DESCRIPTION
1 2	24-027-20 M-0545016	Housing, Blower Screw, Hex Flange M5 x 0.8 x 16 (3)
3	M-0645016	Screw, Hex Flange M6 x 1.0 x 16 (4)
4	24-314-05	Guard, Flywheel
5	24-146-02	Plate, Backing, # 2 Side
6	M-0545020	Screw, Hex Flange M5 x 0.8 x 20 (2)
7	M-0551016	Screw, Hex Flange M5 x 0.8 x 16
8	24-063-20	Baffle, Cylinder Barrel, # 2 Side
9	24-063-14	Baffle, Valley, # 2 Side
10	M-0545010	Screw, Hex Flange M5 x 0.8 x 10 (2)

11 12	24-063-23 M-0545016	Baffle, Valley, # 1 Side Screw, Hex Flange M5 x 0.8 x 16	
13 14	24-063-30 M-0645016	(2) Baffle, Cylinder Barrel, # 1 Side Screw, Hex Flange M6 x 1.0 x 16	
15 16 17 18 19 20 NOT	24-146-08 24-100-02 24-112-12 24-126-44 24-445-02 24-086-27 ILLUSTRATEC 24-100-01	(2) Plate, Backing, # 1 Side Nut, Plastic (2) Spacer Bracket, Breather Separator Strap, Breather Screw, Hex Caps 8-18 x 1/2 (2) Nut, Plastic (3)	
		(Included with Blower Housing) Nut, Plastic (2)	
		(Included with Blower Housing) Plug, Button 9/16	
	25-139-16 24-113-36	(Included with Blower Housing) Decal, Horsepower	
A 107	INTAKE	Decal, norsepower	
	PART NO.	DESCRIPTION	
1	24-743-05	Kit, Air Cleaner Cover (Includes	
2	24-755-91	Key Numbers 2-4, 10-11) Kit, Knob w/Gasket (Includes Key	
3 4 5 6 7 8 9 10 11 12	25-341-02 24-096-24 12-100-01 24-096-01 24-032-03 24-083-02 47-083-03 24-126-21 24-126-43 24-755-86	Number 3) Knob, Cover Cover, Air Cleaner Wing Nut Cover, Inner Air Cleaner Seal, Air Intake Element, Pre-Cleaner Element, Air Cleaner Bracket, Air Cleaner Bracket, Air Cleaner Kit, Air Cleaner Base (Includes Key Numbers 13-20)	
~ ~	M-0651055 T ILLUSTRATE 12-113-53	Hose, Breather Clamp, Hose (2) Fitting Hose, Breather Cup, Fuel Spitback Gasket, Fuel Spitback Cup Base, Air Cleaner Gasket, Air Cleaner Base Manifold, Intake Gasket, Intake Manifold (2) Screw, Hex Flange M6 x 1.0 x 55 (4) Decal, Air Cleaner	
<b>NOTE:</b> All component dimensions given in U.S. inches 1 inch = 25.4 mm			

### TRACTOR - - MODEL NUMBER 917.258960

KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538



#### TRACTOR - - MODEL NUMBER 917.258960

# KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538

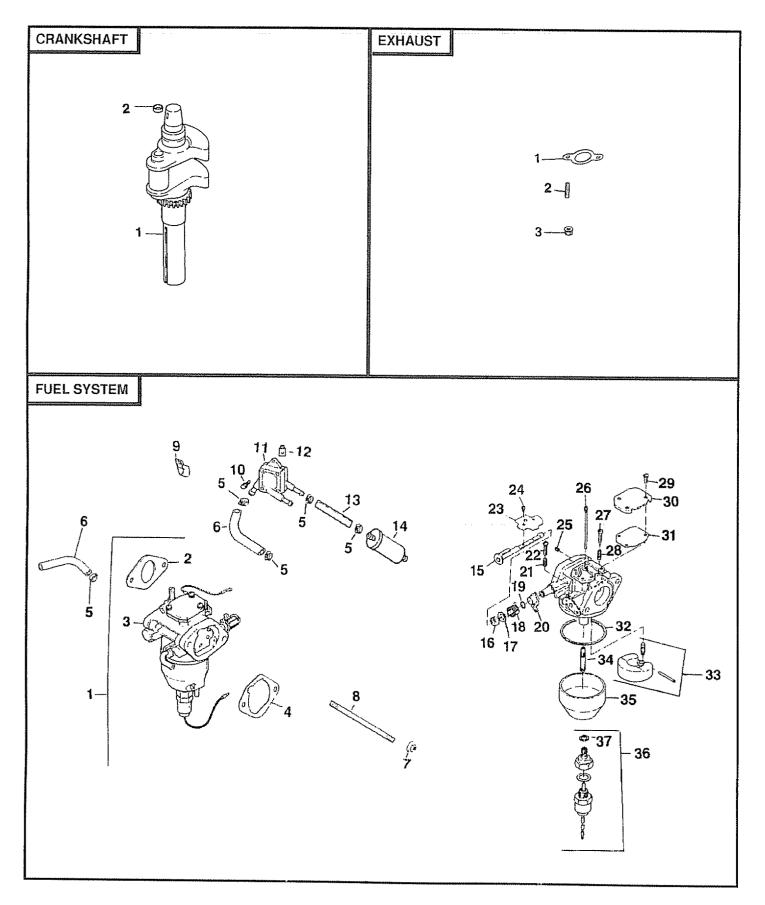
#### STARTING SYSTEM

#### ENGINE CONTROLS

KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
3 4 5 6 7 8 9 10 11 0IL	M-0839070 M-0839080 24-096-05 25-098-03 12-468-01 12-755-54 12-227-06 45-170-03 82-755-28 12-227-11 12-086-25 PAN/LUBRICA	Screw, Hex Flange M8 x 1.25 x 70 Screw, Hex Flange M8 x 1.25 x 80 Cover, Pinion Starter Assembly (Includes 6-11) Washer, Plain 11/32 (3) Kit, Drive End Cap, Drive End Armature Kit, Brush and Spring Cap, Commutator End Bolt, Hex Flange 1/4-20x4-5/8 (2)	2       24-090-14       Lever, Governor         3       M-0641060       Nut, Hex Flange M6 x 1.0         4       24-089-01       Spring, Linkage         5       25-158-08       Bushing, Linkage Retaining         6       24-079-04       Linkage, Throttle         7       25-158-11       Bushing, Throttle Linkage         8       24-126-13       Bracket, Control         9       24-089-03       Spring, Choke Return         10       M-0547050       Locknut, Hex M5 x 0.8         11       M-0545016       Screw, Hex Flange M5 x 0.8 x         12       M-0446030       Nut, Hex M4 x 0.7         13       M-0645016       Screw, Hex Flange M6x1.0 x 10         14       12-237-01       Clamp, Cable (2)         15       M-0545016       Screw, Hex Flange M5x0.8 x 1	Nut, Hex Flange M6 x 1.0 Spring, Linkage Bushing, Linkage Retaining Linkage, Throttle Bushing, Throttle Linkage Bracket, Control Spring, Choke Return Locknut, Hex M5 x 0.8 Screw, Hex Flange M5 x 0.8 x 16 Nut, Hex M4 x 0.7 Screw, Hex Flange M6x1.0 x 16 (4)	
	PART NO.	DESCRIPTION	17 18	24-468-01 24-090-13	Washer, Plain 5.5mm (3) Lever, Throttle Control
1 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 8 9	24-199-07 X-75-32 24-136-01 12-050-01 52-032-08 24-086-17 24-086-16 X-75-10 24-153-08 12-144-02 52-448-02 24-043-12 12-380-01 M-0645025 M-0631005 24-393-08 24-123-05 25-162-07	Oil Pan Assembly (Includes Key Numbers 11-14 and 17-19) Plug, Hex, Countersunk, 3/8 Nipple, Oil Filter Filter, Oil Seal, Oil (PTO End) Screw, Hex Flange M8 x 1.25 x 45 Screw, Hex Flange M8 x 1.25 x 45 Screw, Hex Flange M8 x 1.25 x 45 Screw, Hex Flange M8 x 1.25 x 45 O-Ring Shaft, Governor Gear Tab, Locking Kit, Governor Gear with Pin (Includes Key Number 14) Pin, Governor Regulating Screw,Hex Flange M6 x 1.0 x 25 (2) Washer, Plain 6mm (2) Oil Pump Assembly (Includes 17) Tube, Oil Pickup Screen, Oil	19 24-090-05 Lever, Choke 20 24-079-05 Linkage, Choke 21 M-0545020 Screw, Hex Flange M5 x 0 8 x 20 22 41-468-03 Washer, Spring 1/4 23 M-0403025 Screw, Hex Cap M4 x 0.7 x 24 24 24-089-18 Spring, Governor 25 NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm		

#### TRACTOR - - MODEL NUMBER 917.258960

KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538



#### TRACTOR - - MODEL NUMBER 917.258960

### KOHLER ENGINE - MODEL NUMBER CV20S, TYPE NUMBER 65538

#### FUEL SYSTEM

#### CRANKSHAFT

KEY PART NO. NO.

KEY NO.	PART NO.	DESCRIPTION
1	24-853-19	Kit, Carburetor with Gasket (Includes Key Numbers 2 thru 4)
2	24-041-15	Gasket, Carburetor
3	24-053-19	Carburetor Assembly (For Information Only, Not Available
		Separately) (Includes 15-37)
4	Gasket, Air Cl	eaner Base
5	24-041-14	Clamp, Hose (6)
6	X-426-9	Line, Fuel, 10-5/8" (2)
7	24-353-03	Nut Hex, Flange M6 x 1.0 (2)
8		stud M6 x 1.0 x 95 (2) Clip, Cable
9 10	M-0629095 47-154-01	Screw, Hex Cap Head
10	24-086-12	M6x1.7x18 (2)
11	24-000-12	Pump, Fuel, Pulse
12	24-393-04	Nut, Plastic (2)
	24-100-01	Line, Fuel, 13-1/2"
14	25-353-03	Filter, Fuel
	25-050-03	Shaft, Choke
16	24-144-15	Washer, Felt 5.7 mm
17	24-468-05	Collar, Ćhoke
18	24-241-01	Collar, Choke Spring, Choke Return
19	24-089-22	Rina, Choke Lever
20	24-141-04	Lever, Choke
21	24-090-10	Spring, Throttle Adjust Screw
22	24-089-24	Screw, Throttle Adjust
	24-086-19	Choke Plate
	24-146-13	Screw, Throttle and Choke Shaft (4)
25	24-086-20	Jet, Air Bleed
26	24-337-27	Jet, Slow
27	24-337-11 24-086-22	Screw, Idle Adjust
28	24-080-22	Spring, Idle Adjust Screw Screw, Sems, Pan Hd M4x0.7x8 (3)
29	24-089-23 24-086-21	Cover, Passage
	24-096-13	Gasket, Passage Cover
20	24-041-18	Gasket, Float Chamber
	24-041-19	Kit, Float Repair
34	24-757-05	Nozzle, Main
35	24-369-01	Chamber, Float
36	24-234-01	Kit, Solenoid Valve (Includes 37)
37	24-234-01 24-755-15	Gasket, Chamber Screw
NO.	T 124-041-21LL	USTRATED
	24-041-15	Gasket, Carburetor
	24-757-06	Kit, Carburetor Repair

1 2	24-014-72 52-139-09	Crankshaft Plug, Cup			
EXHAUST					
	PART NO.	DESCRIPTION			
1 2	24-041-02 M-0829033	Gasket, Exhaust (2) Stud M8 x 1.25 x 33 (4)			
3	M-0841080	Nut, Hex Flange M8 x 1.25 (4)			

DESCRIPTION

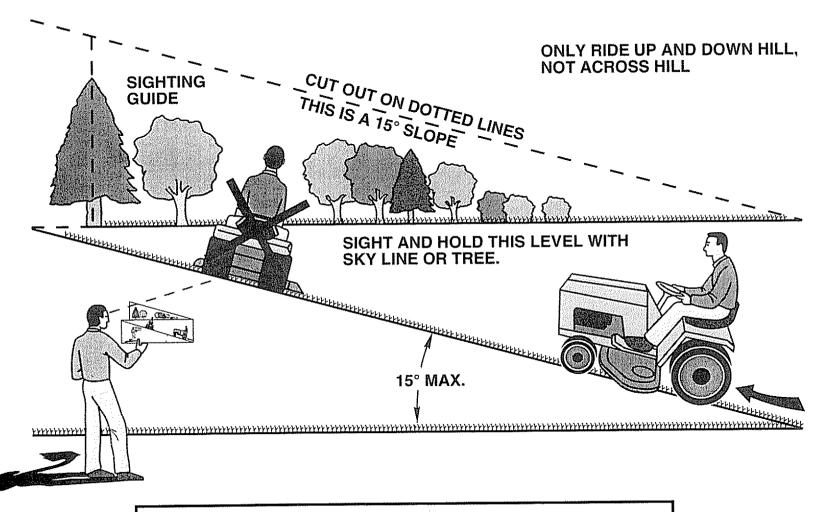
#### NOT ILLUSTRATED

NO.	PART NO. 24-522-16 24-755-03 24-782-05	DESCRIPTION Short Block Gasket Set Miniblock
	RPM Settings:	Low Speed: 1150-1650 High Speed: 3200-3400

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

# SERVICE NOTES

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



Operate your Tractor up and down the face of slopes (not greater than 15°), never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.



**OWNER'S** 

MANUAL

# MODEL NO. 917.258960

#### IF YOU NEED REPAIR SERVICE OR PARTS:

FOR REPAIR SERVICE, CALL THIS TOLL FREE NUMBER:

> 1-800-4-REPAIR (1-800-473-7247)

FOR REPLACEMENT PARTS INFORMATION AND ORDERING, CALL THIS TOLL FREE NUMBER:

1-800-FON-PART (1-800-366-7278)

FOR CONSUMER ASSISTANCE HOT LINE, CALL THIS TOLL FREE NUMBER: 1-800-659-5917



#### 18.5 HP IC ELECTRIC START 46" MOWER 6 SPEED TRANSAXLE GARDEN TRACTOR

Each tractor has its own model number. Each engine has its own model number.

The model number for your tractor will be found on the model plate located under the seat.

The model number for your engine will be found on the blower housing of the engine.

All parts listed herein may be ordered from any Sears, Roebuck and Co. Service Center/Department and most Retail Stores.

# WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PRODUCT TRACTOR
- MODEL NUMBER 917.258960
- ENGINE MODEL NO. CV20S-65538
- PART NUMBER
- PART DESCRIPTION

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians... professional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.

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