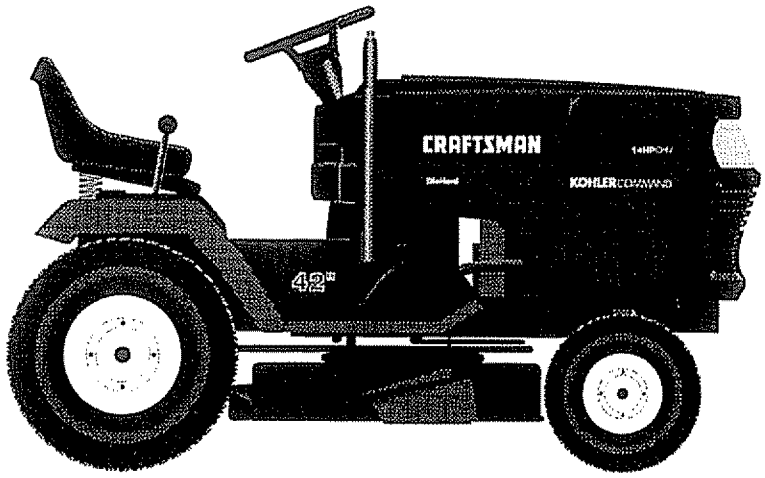
SEARS

CRAFTSMAN®

MODEL NUMBER 917.255462 OWNER'S MANUAL

- Assembly
- Operation
- Customer Responsibilities
- Service and Adjustments
- Repair Parts

5One™ Convertible



CAUTION: Read and follow all safety rules and instructions before operating this equipment.

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.

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, well-trained technicians and the proper tools to service or repair this unit.

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

MODEL NUMBER 917.255462

SERIAL NUMBER _____

DATE OF PURCHASE _____

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 unit.
- Follow the instructions under "Customer Responsibilities" and "Storage" sections of this owner's manual.

PRODUCT SPECIFICATIONS

HORSEPOWER:	14.0
GASOLINE CAPACITY AND TYPE:	5 GUARTS UNLEADED REGULAR
OIL TYPE (API-SG):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	W/ FILTER: 4.0 PINTS W/O FILTER: 3.5 PINTS
SPARK PLUG: (GAP: .030")	CHAMPION RC12YC
VALVE CLEARANCE:	INTAKE: .0015" - .0030" EXHAUST: .0020" - .0035"
GROUND SPEED (MPH):	FORWARD: 0-5.5 REVERSE: 0-2.2
TIRE PRESSURE:	FRONT: 14 PSI REAR: 12 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BLADE BOLT TORQUE:	30-35 FT. LBS.

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 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 ELECTRIC START RIDING EQUIPMENT

For two (2) years from the date of purchase, if this 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 and belts.
- 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.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE RIDING EQUIPMENT TO THE NEAREST SEARS SERVICE CENTER/DEPARTMENT 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, ILLINOIS 60179

TABLE OF CONTENTS

SAFETY RULES 2
PRODUCT SPECIFICATIONS 3
CUSTOMER RESPONSIBILITIES 3, 15-19
WARRANTY 3
TRACTOR ACCESSORIES 5
ASSEMBLY 7-10
OPERATION 11-14
MAINTENANCE SCHEDULE 15
SERVICE AND ADJUSTMENTS 20-25
STORAGE 27
TROUBLESHOOTING 28-29
REPAIR PARTS - TRACTOR 32-48
REPAIR PARTS - ENGINE 51-56
PARTS ORDERING/SERVICE ..... BACK COVER

INDEX

A

Accessories 5
Adjustments:
- Brake 22
- Carburetor 25
- Mower
  - Front-To-Back 22
  - Side-To-Side 22
- Throttle Control Cable 25

Air Filter, Engine 18
Air Screen, Engine 18
Assembly 7-10

B

Battery:
- Charging 8
- Cleaning 19
- Installation 9
- Levels 8,16
- Preparation 8
- Starting with Weak Battery 24
- Storage 27
- Terminals 16

Belt:
- Motion Drive
  - Removal/Replacement 23
- Mower Belt(s3
  - Removal/Replacement 22

Blade:
- Sharpening 16
- Replacement 16

Brake Adjustment 22

C

Carburetor Adjustment 25
Controls, Tractor 11
Customer Responsibilities 15-19
- Engine:
  - Air Filter 18
  - Air Screen 18
  - Cooling Fins 18
  - Engine Oil 13,18
  - Fuel Filter 19
  - Spark Plug(s) 19
- Tractor:
  - Battery 16
  - Blade 16
  - Lubrication Chart 15
  - Maintenance Schedule 15
  - Tire Care 8,16,24
  - Transaxle 17

Cutting Height, Mower 12

E

Electrical:
- Interlocks and Relays 25
- Schematic 31
- Wiring Diagram 32

Engine:
- Air Filter 18
- Air Screen 18
- Cooling Fins 18
- Oil Change 18
- Oil Level 13
- Oil Type 13,17
- Preparation 13
- Repair Parts 51-56
- Starting 14
- Storage 27

F

Filter:
- Air Filter 18
- Fuel 19

Fuel:
- Type 13
- Storage 27

Fuse 25

H

Hood Removal/Installation 25

L

Leveling Mower Deck 21
Lubrication:
- Chart 15
- Engine 17

M

Maintenance Schedule 15
Mower:
- Adjustment, Front-to-Back 21
- Adjustment, Side-to-Side 21
- Blade Replacement 16
- Blade Sharpening 16
- Cutting Height 12
- Installation 20
- Operation 13
- Removal 20

Mowing Tips 14
Muffler 19
- Spark Arrester 3,40

O

Oil:
- Cold Weather Conditions 13,17
- Engine 17
- Storage 27

Operation 11-14
Operating Mower 13
Options:
- Accessories 5
- Spark Arrester 3,40

P

Parking Brake 12
Parts Bag 6
Parts, Replacement/Repair 32-48
Product Specifications 3

R

Repair Parts 32-48

S

Safety Rules 2
Seat 8
Service and Adjustments 20-25
- Carburetor 25
- Fuse 25
- Hood Removal/Installation 25
- Motion Drive Belt
  - Removal/Replacement 23
- Mower Belt(s)
  - Removal/Replacement 23
- Mower Adjustment
  - Front-to-Back 22
  - Side-to-Side 22
- Mower Removal/Installation 20
- Tire Care 8,16,24

Slope Guide Sheet 59
Spark Plug(s) 19
Specifications 3
Starting the Engine 13-14
Steering Wheel 7,24
Stopping the Tractor 12
Storage 27

T

Throttle Control Cable Adjustment 25
Tires 8,16,24
Troubleshooting Chart 28-29
Transaxle 17

W

Warranty 3
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.

ENGINE

SPARK PLUG	GAS CAN	ENGINE OIL	FUEL STABILIZER
			

MAINTENANCE

BLADES	BELTS
	

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.

BAGGER lets you collect grass clippings and leaves for a healthier, neater looking lawn. Two Permanex containers hold 30-gallon plastic bags.

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.

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).

GAUGE WHEELS on both sides of the mower deck reduce chances of "scalping" on uneven terrain. For mower decks not so equipped.

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.

MULCHING CLOSE-OUT PLATE KIT, once installed, lets you mulch, discharge or bag clippings (bagger optional) without changing blades. For models not equipped as 3-in-1 Convertible mowers. See "MOWER" in the Repair Parts section of this manual.

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

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.

SNOW BLADE for snow removal only. 14-inch high, 42-inch wide blade clears 38-inch path when angled left or right. Raises, lowers with side lever. Adjustable skids; replaceable, reversible scraper bar. (Use with tire chains and wheel weights and/or rear drawbar weight.)

SNOWTHROWER has 40-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 deicers and sand.

SWEEPERS let you collect grass clippings and leaves.

TILLER has 5 hp engine and 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 go! **Optional accessories** 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.

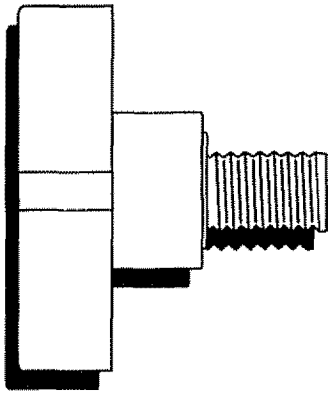
VACS for powerful collection of heavy grass clippings and leaves. **Optional wand attachment** to pick up debris in hard-to-reach places. **VAC/CHIPPER** includes a chipper-shredder.

WEIGHT BRACKET for drawbar for snow removal applications. Uses (1) 55 lb. weight.

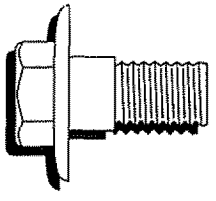
WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials.

CONTENTS OF HARDWARE PACK

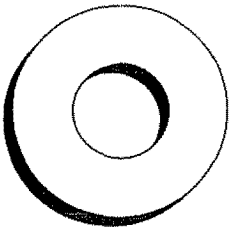
Parts Bag contents shown full size



(1) Knob



(1) Shoulder Bolt
5/16-18

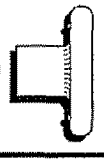


(1) Washer
17/32 x 1-3/16 x 12 Ga.

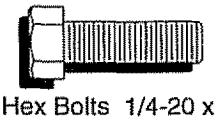
(2) Screws #10 x 5/8

(2) Lock Washers #10

(2) Washers 3/16 x 3/4 x 16 Gauge



(2) Weld Nuts #10



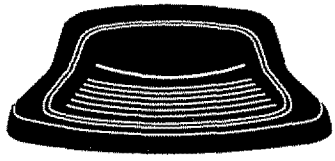
(2) Hex Bolts 1/4-20 x 3/4

(2) Hex Nuts 1/4-20

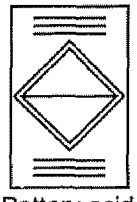
(2) Washers
9/32 x 5/8 x 16 Ga.

(2) Lock Washers 1/4

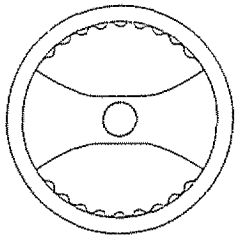
Parts packed separately in carton



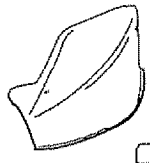
Seat



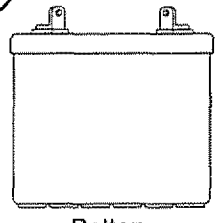
Battery acid



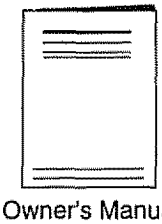
Steering
Wheel



Mulcher
Plate



Battery

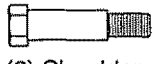


Owner's Manual

Steering
Sleeve

Parts Bag

Parts bag contents not shown full size



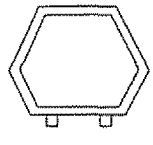
(2) Shoulder
Bolts

(2) Washers 3/8
x 7/8 x 14 Gauge

(2) Center-
lock Nuts

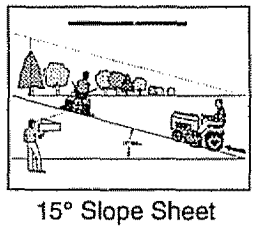
(2) Gauge
Wheels

(2) Latch Hook
Assemblies

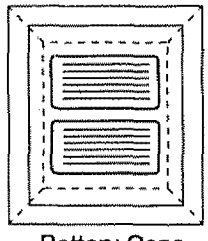


Steering
Wheel
Insert

(2) Keys



15° Slope Sheet



Battery Caps
and Instructions

ASSEMBLY

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

TOOLS REQUIRED FOR ASSEMBLY

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

(2) 7/16" wrenches	3/4" Socket w/drive ratchet
(1) 1/2" wrench	Tire pressure gauge
(1) 9/16" wrench	Phillips Screwdriver

Utility knife

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.
- Check for any additional loose parts or cartons and remove.

BEFORE ROLLING TRACTOR OFF SKID

ATTACH STEERING WHEEL (See Fig. 1)

- Remove locknut 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 adapter.
- Secure steering wheel to steering shaft with locknut 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.

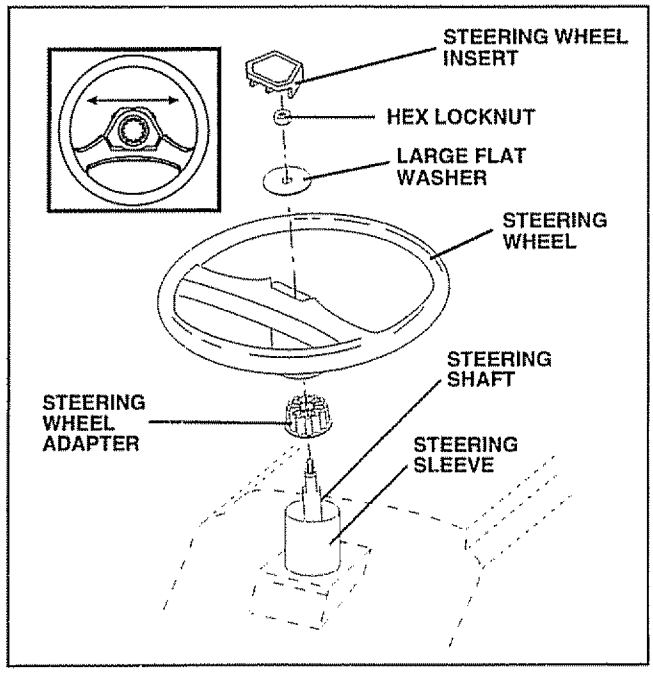


FIG. 1

TO ROLL TRACTOR OFF SKID (See Fig. 8)

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission.
- Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

ASSEMBLY

HOW TO SET UP YOUR TRACTOR

PREPARE BATTERY (See Fig. 2)

CAUTION: Wear eye and face shield.

Wash hands or clothing immediately if accidentally in contact with battery acid.

Do not smoke. Fumes from charged battery acid are explosive.

Read the instructions included with the battery vent caps. Always wear gloves, clothing and goggles to protect your hands, skin and eyes.

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.

- See instructions packed with vent caps in parts bag.
- Fill battery with acid. Fill each cell until it reaches the bottom of the vent wells. Do not overfill.
- Allow battery to stand and settle for at least thirty minutes. After standing, check the battery cell acid level. If below the vent wells, add more acid until the correct level is reached.

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of tractor.

IMPORTANT: TO MAXIMIZE THE LIFE OF YOUR BATTERY, IT IS NECESSARY THAT THE BATTERY BE CHARGED BEFORE USE. FAILURE TO CHARGE BATTERY CAN RESULT IN A SHORTENED BATTERY LIFE.

- Charge battery at a rate of 6 amperes for 1 hour. Use a 12 volt battery charger. Observe all safety precautions required for battery charging.
- Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled or iron free water.
- Install the vent caps to cover the vent wells. Wash the top of the battery with water to remove any acid, then wipe dry.
- Check battery case for leakage to make sure that no damage has occurred in handling.
- Dispose of excess battery acid. Neutralize acid for disposal by adding it to two gallons of water in a five gallon plastic container. Stir with a wooden or plastic paddle while adding baking soda until the addition of more soda causes no more foaming.
- Follow instructions on how to install battery.

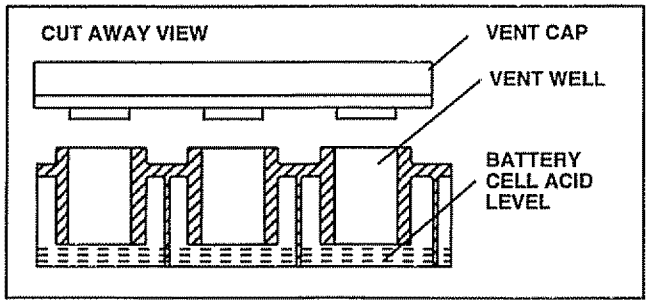


FIG. 2

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.

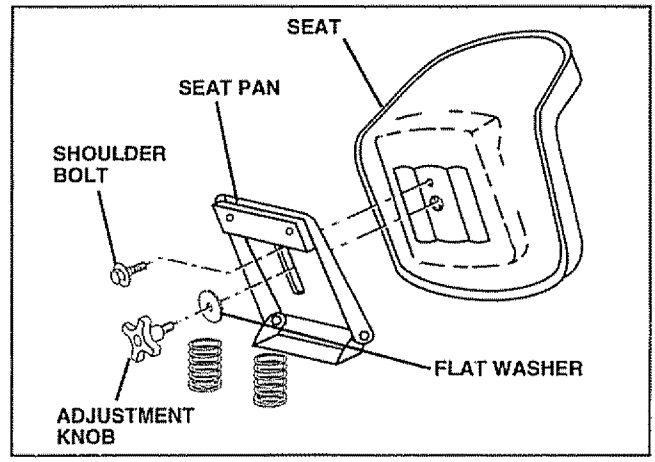


FIG. 3

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 DECK LEVELNESS

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

CHECK BRAKE SYSTEM

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

ASSEMBLY

INSTALL BATTERY (See Figs. 4 and 5)

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

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

- Lift seat to raised position.
- Open battery box door.
- Be sure battery drain tube is attached to battery box.
- Lower battery into battery box with battery terminals toward front of tractor.
- First connect RED battery cable to positive (+) terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- Close battery box door.

Open battery box door for:

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

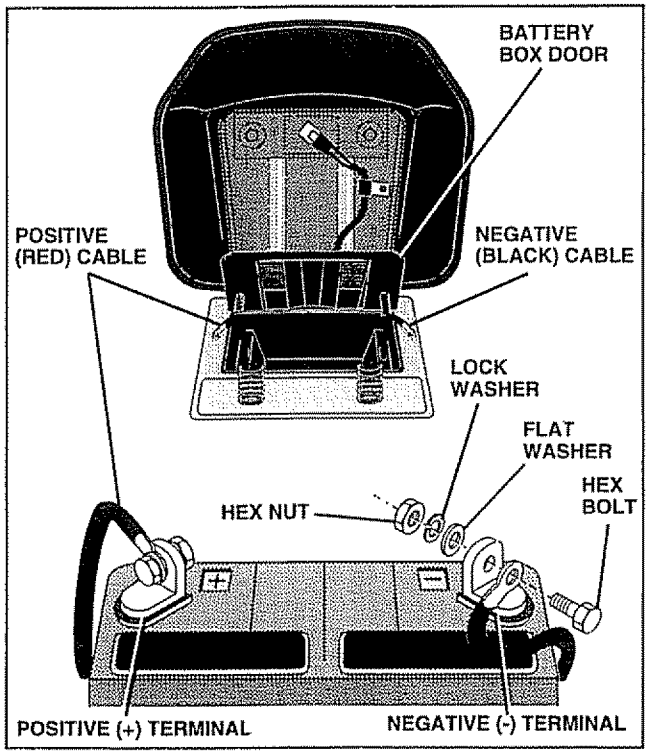


FIG. 4

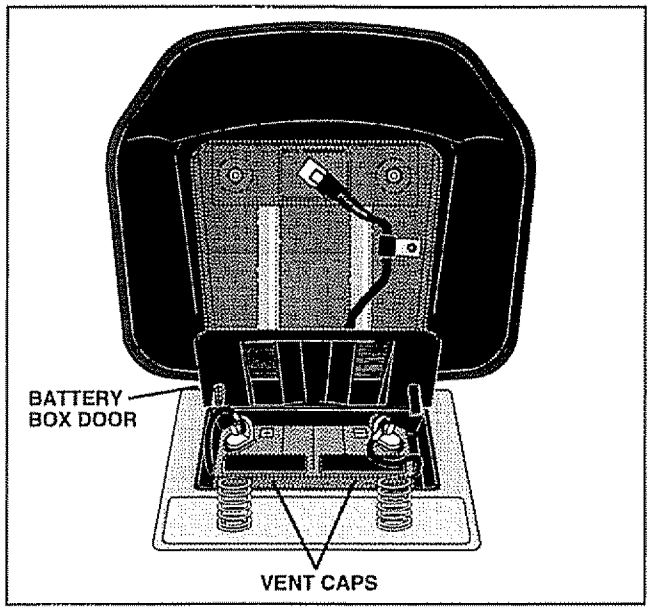


FIG. 5

ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 6)

Assemble gauge wheels with tractor on a flat level surface.

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

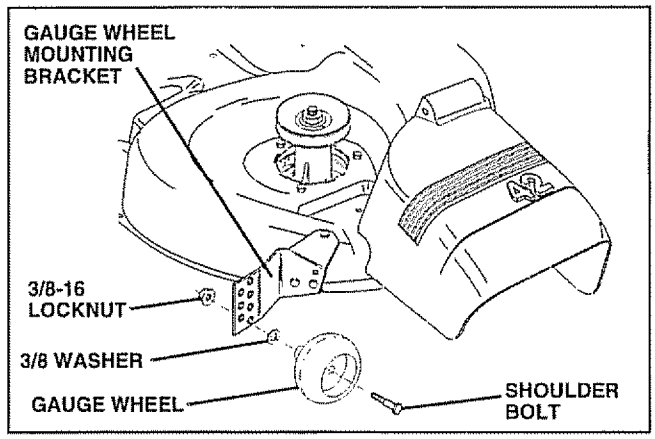


FIG. 6

ASSEMBLY

INSTALL MULCHER PLATE (See Figs.7A & 7B)

- 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.

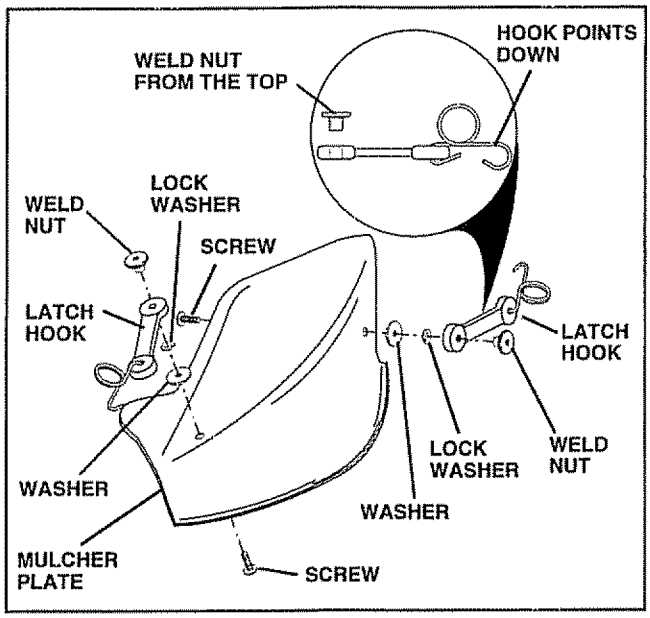


FIG. 7A

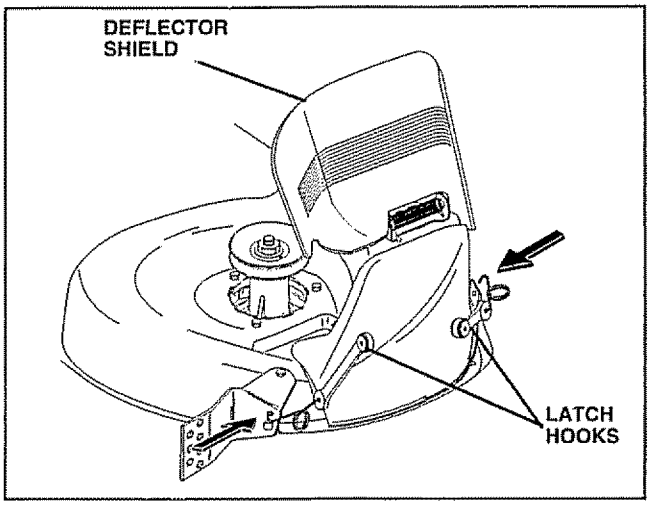


FIG. 7B

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.

✓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 IMPORTANT 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.

OPERATION

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 location of various controls and adjustments. Save this manual for future reference.

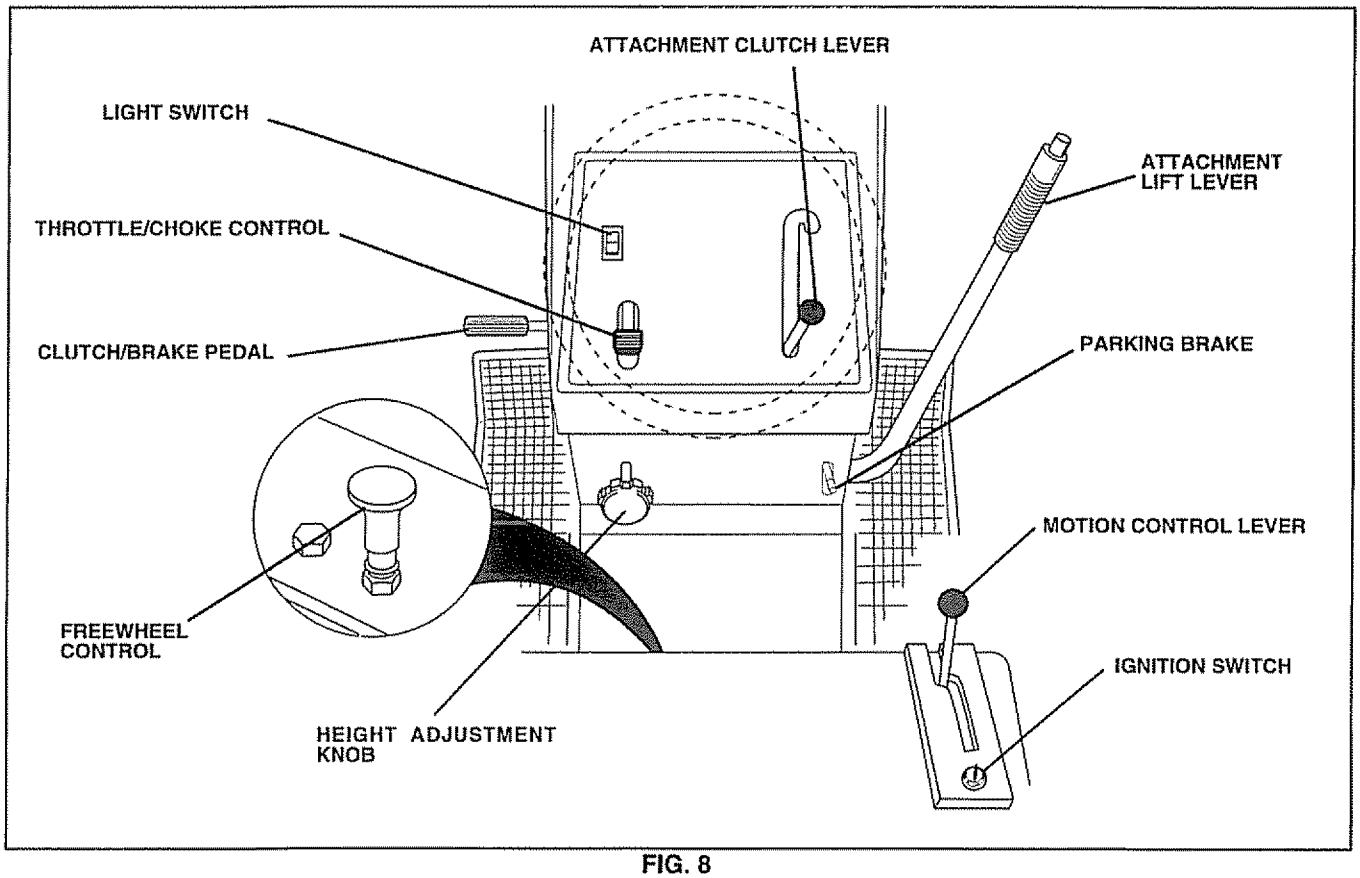


FIG. 8

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

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

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

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

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.

LIGHT SWITCH - Turns the headlights on and off.

FREEWHEEL CONTROL - Disengages transmission for pushing or slowly towing the tractor with the engine off.

MOTION CONTROL LEVER - Selects the speed and direction of the tractor.

IGNITION SWITCH - Used to start and stop the engine.

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

THROTTLE/CHOKE CONTROL - Used for starting and controling engine speed.

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

OPERATION

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 for over the spectacles or standard safety glasses.

HOW TO USE YOUR TRACTOR

TO SET PARKING BRAKE (See Fig. 9)

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.

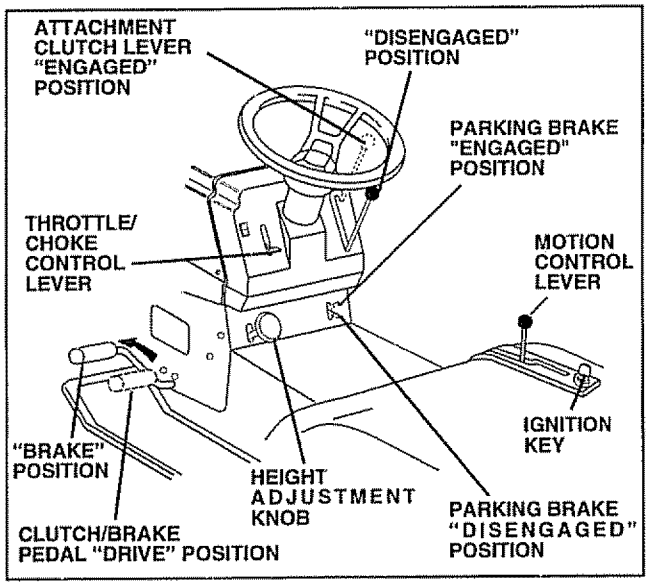


FIG. 9

STOPPING (See Fig. 9)

MOWER BLADES -

- Move attachment clutch lever to "DISENGAGED" position.

GROUND DRIVE -

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

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

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 unit 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. 9)

Always operate engine at full throttle.

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

TO MOVE FORWARD AND BACKWARD (See Fig. 9)

The direction and speed of movement is controlled by the motion control lever.

- Start tractor with motion control lever in neutral (N) position.
- Release parking brake and clutch/brake pedal.
- Slowly move motion control lever to desired position.

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 9)

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

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

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

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

OPERATION

TO OPERATE MOWER (See Fig. 10)

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.

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

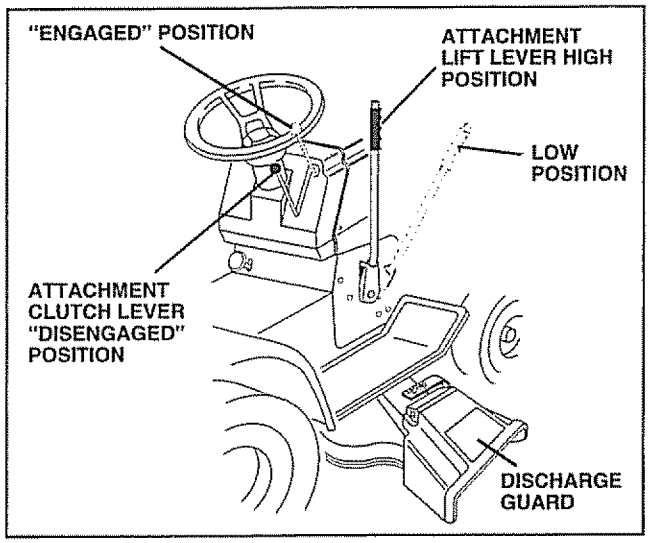


FIG. 10

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 motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

TO TRANSPORT

- Raise attachment lift to highest position with attachment lift control.
- When pushing or towing your tractor, be sure freewheel control is in freewheeling 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. 18)

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Unthread and remove oil fill cap/dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

ADD GASOLINE

- Fill fuel tank. Use fresh, clean, regular unleaded gasoline. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life).

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 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. 9)

When starting engine for the first time or if 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 motion control lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control lever to choke (|\|) position for cold engine start. For warm engine start, move throttle control to fast (🐇) position.
- 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 engine does not start after several attempts, move throttle control to fast (🐇) position, wait a few minutes and try again.
- When engine starts, slowly move throttle control lever to desired running speed.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

IMPORTANT: COLD STARTING FOR HYDRO (BELOW 40°F) - AFTER STARTING ENGINE AND BEFORE DRIVING, LET TRANSMISSION WARM UP FOR ONE (1) MINUTE BY PLACING MOTION CONTROL LEVER IN NEUTRAL (N) POSITION AND RELEASING CLUTCH/ BRAKE PEDAL.

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 unit.
- 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. 11).
- 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.

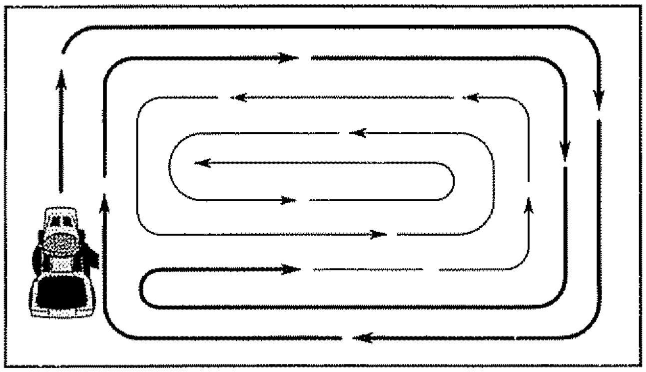


FIG. 11

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.

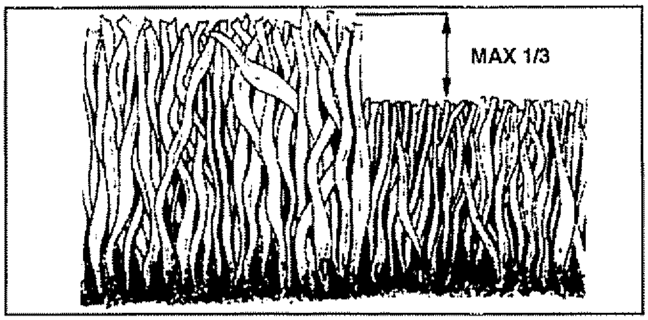


FIG. 12

CUSTOMER RESPONSIBILITIES

MAINTENANCE SCHEDULE FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		BEFORE EACH USE	FIRST 2 HOURS	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY SEASON	BEFORE STORAGE	SERVICE DATES				
TRACTOR	Check Brake Operation	✓		✓										
	Check Tire Pressure	✓		✓										
	Check for Loose Fasteners	✓							✓					
	Sharpen/Replace Mower Blades				✓4									
	Lubrication Chart				✓				✓					
	Check Battery Level/Recharge				✓									
	Clean Battery and Terminals				✓				✓					
	Check Transaxle Cooling				✓									
	Adjust Blade Belt(s) Tension						✓5							
	Adjust Motion Drive Belt(s) Tension						✓5							
ENGINE	Check Engine Oil Level	✓		✓										
	Change Engine Oil		✓		✓1,2,3				✓					
	Clean Air Filter				✓2									
	Clean Air Screen				✓2									
	Inspect Muffler/Spark Arrester					✓								
	Replace Oil Filter (If equipped)						✓1,2							
	Clean Engine Cooling Fins						✓2							
	Replace Spark Plug						✓	✓						
	Replace Air Filter Paper Cartridge						✓2							
	Replace Fuel Filter							✓						

1 - Change more often when operating under a heavy load or in high ambient temperatures
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
5 - If equipped with adjustable system

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.

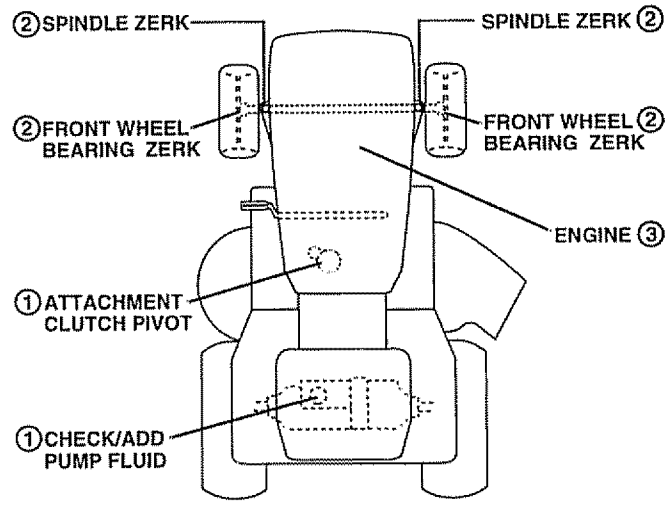
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- 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.

LUBRICATION CHART



①SAE 30 OR 10W30 MOTOR OIL API - SG
②GENERAL PURPOSE GREASE
③REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

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.

CUSTOMER RESPONSIBILITIES

TRACTOR

Always observe safety rules when performing any maintenance.

BRAKE OPERATION

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

TIRES

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" on page 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.

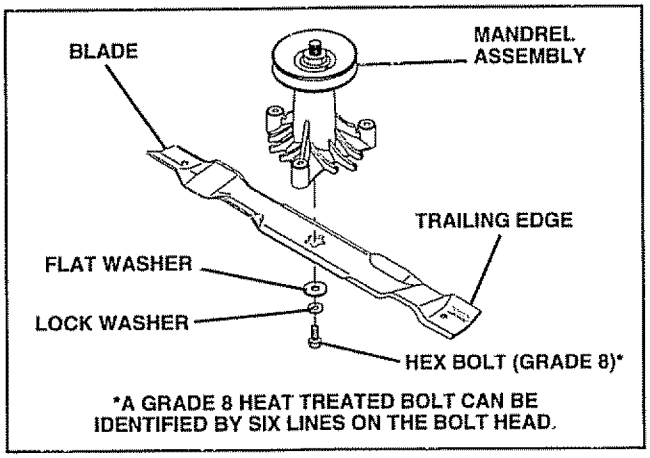


FIG. 13

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.

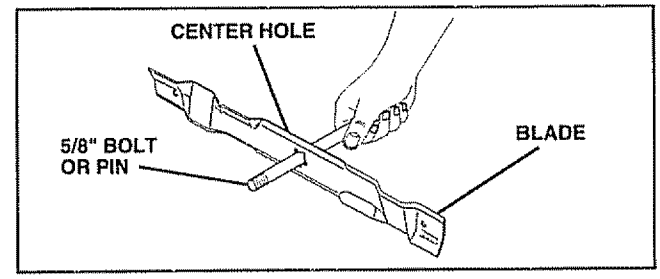


FIG. 14

BATTERY (See Fig. 15)

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.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.
- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep vent caps tight and small vent holes in caps open.
- Recharge at 6 amperes for 1 hour.

TO CLEAN BATTERY AND TERMINALS

Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- Open battery box door.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- 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 "INSTALL BATTERY" in the Assembly section of this manual).

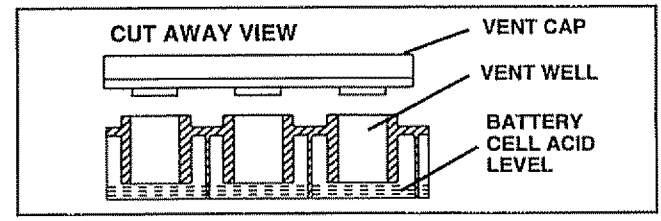


FIG. 15

CUSTOMER RESPONSIBILITIES

V-BELTS

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

TRANSAXLE COOLING (See Fig. 16)

The fan and cooling fins of transmission should be kept clean to assure proper cooling.

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot.

- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials.

TRANSAXLE PUMP FLUID LEVEL (See Figs. 16 & 17)

Check fluid level after every 25 hours of use. Rear drawbar must be removed to check fluid level.

- Remove the four (4) fasteners to remove the drawbar.
- Clean reservoir thoroughly before removing cap.
- Check for proper fluid level in reservoir (should be above the "OIL LEVEL COLD" line).
- If oil is needed, remove cap on reservoir (with a clockwise rotation), and fill to "OIL LEVEL COLD" line with SAE 10W30 oil (API - SG).
- Replace cap securely (do not overtighten).
- Reassemble drawbar and tighten fasteners securely.

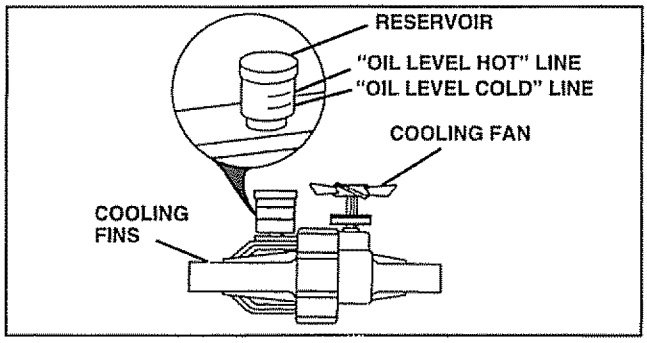


FIG. 16

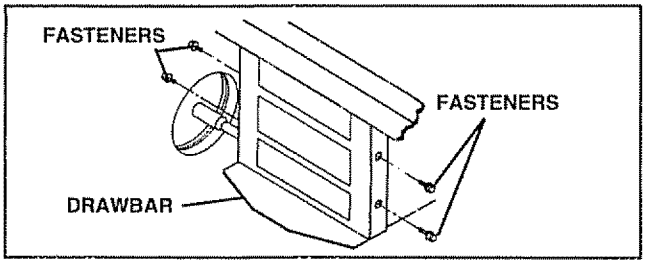
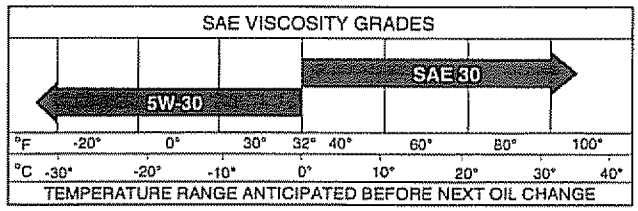


FIG. 17

ENGINE

LUBRICATION

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



NOTE: Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

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 Fig. 18)

Determine temperature range expected before oil change. All oil must meet API service classification SG.

- 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.

CUSTOMER RESPONSIBILITIES

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.

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

TO SERVICE PRE-CLEANER

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

TO SERVICE CARTRIDGE

- Gently tap the flat side of the paper cartridge to dislodge dirt. Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge. Replace a dirty, bent, or damaged cartridge.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, wing nut, cover and tighten knob securely.

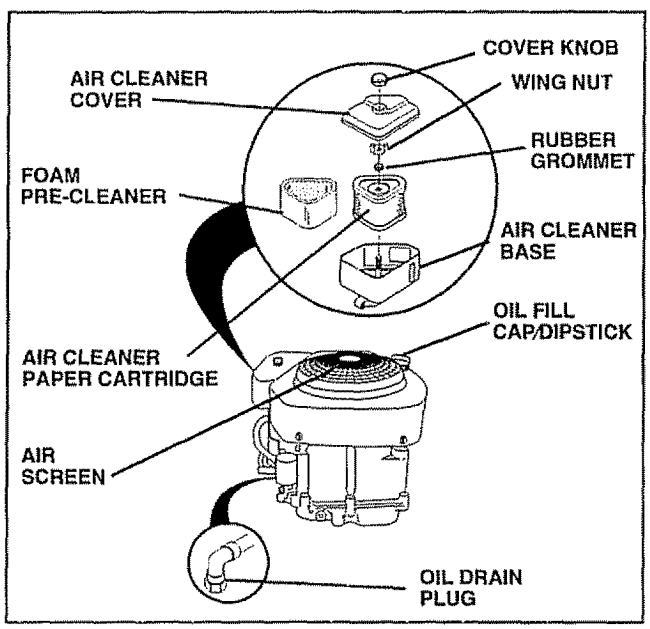


FIG. 18

CLEAN AIR SCREEN (See Fig. 18)

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.

ENGINE OIL FILTER (See Fig. 19)

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

- Drain oil from engine crankcase (See "TO CHANGE ENGINE OIL" in this section of this manual, through step remove drain plug).
- Remove oil filter and wipe off filter adapter.
- Apply a thin coating of new engine oil to the rubber gasket on replacement oil filter.
- Install replacement oil filter on filter adapter. Turn oil filter clockwise until rubber gasket contacts the filter adapter, then tighten filter an additional 1/2 turn.
- Fill crankcase with new oil (See "TO CHANGE ENGINE OIL" in this section of this manual). For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Start the engine and check for oil leaks. Correct any leaks before placing engine into full operation.

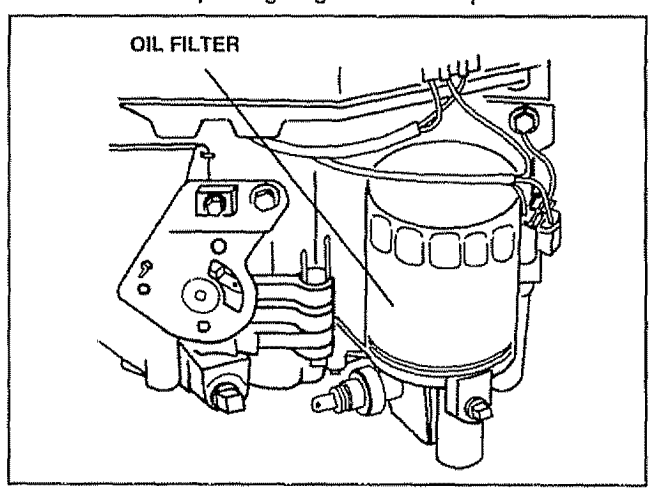


FIG. 19

CUSTOMER RESPONSIBILITIES

MUFFLER

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

SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

IN-LINE FUEL FILTER (See Fig. 20)

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.

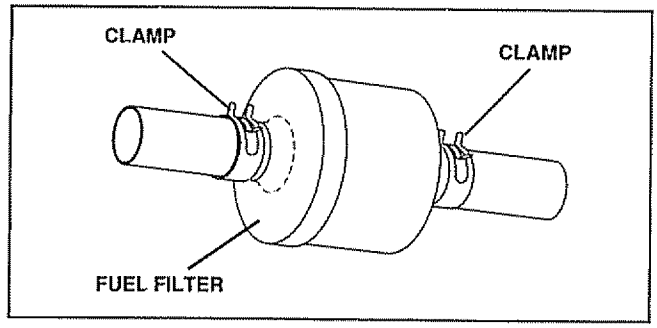


FIG. 20

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

TRACTOR

TO REMOVE MOWER (See Fig. 21)

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

- Place attachment clutch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Disconnect clutch rod from clutch lever by removing retainer spring.
- Disconnect anti-sway bar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.
- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

IMPORTANT: IF AN ATTACHMENT OTHER THAN THE MOWER IS TO BE MOUNTED TO THE TRACTOR, THE R.H. AND L.H. SUSPENSION ARMS MUST BE REMOVED FROM TRACTOR.

TO INSTALL MOWER (See Fig. 21)

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

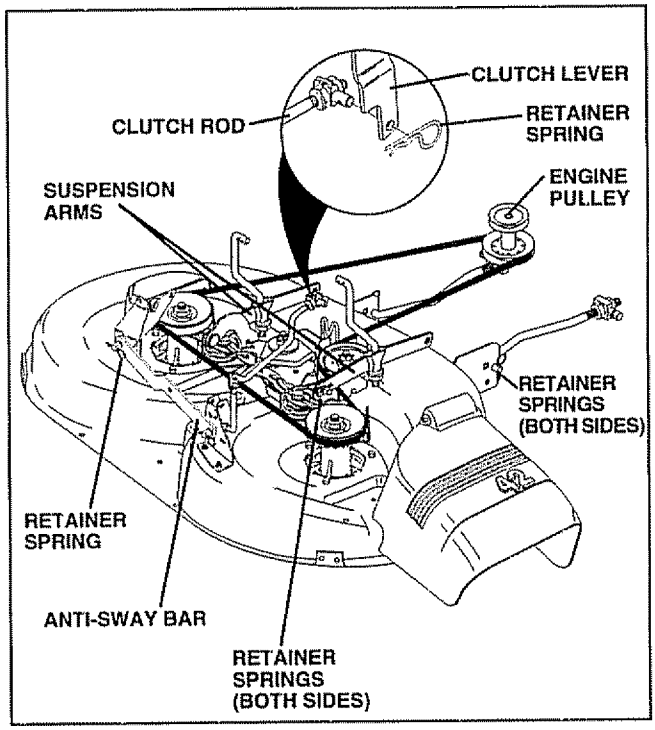


FIG. 21

SERVICE AND ADJUSTMENTS

TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "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. 22 and 23)

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

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

- Recheck measurements after adjusting.

FRONT-TO-BACK ADJUSTMENT (See Figs. 24 and 25)

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.

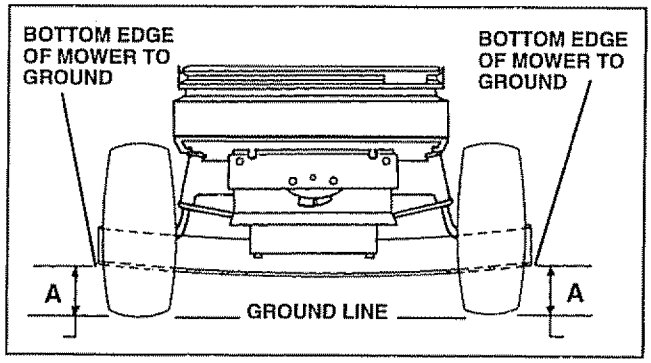


FIG. 22

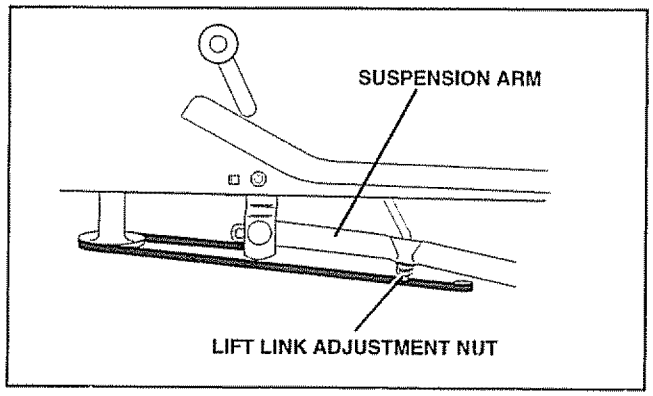


FIG. 23

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/4" to 3/4" lower than the rear when the mower is in its highest position.

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

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

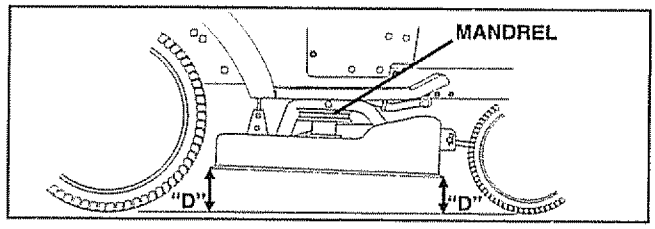


FIG. 24

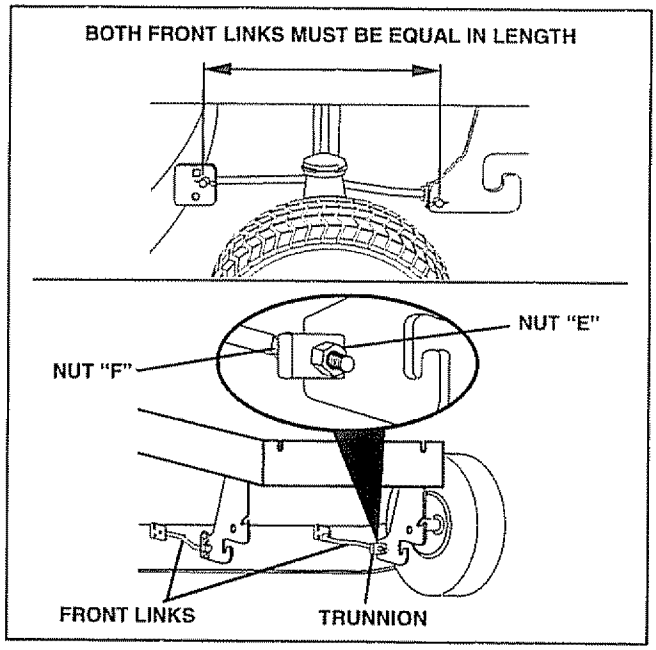


FIG. 25

SERVICE AND ADJUSTMENTS

TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 26)

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

BELT REMOVAL -

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

BELT INSTALLATION -

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

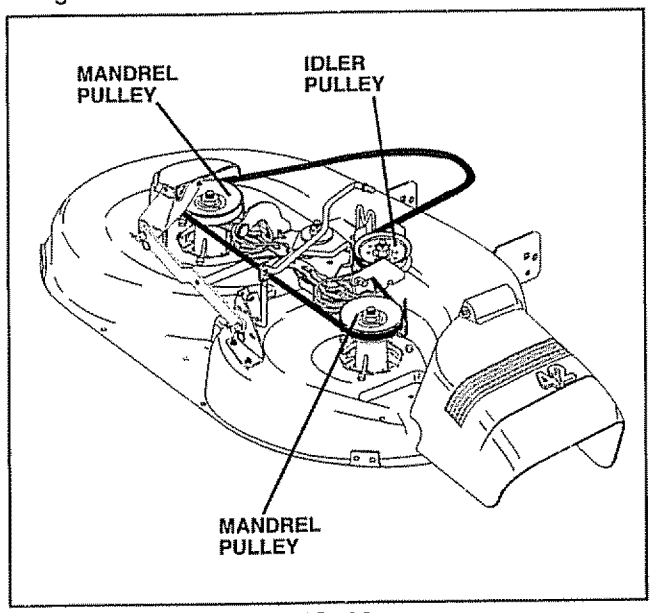


FIG. 26

TO ADJUST BRAKE (See Fig. 27)

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

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

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2", disengage parking brake, loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Engage parking brake and recheck distance.
- Road test unit 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.

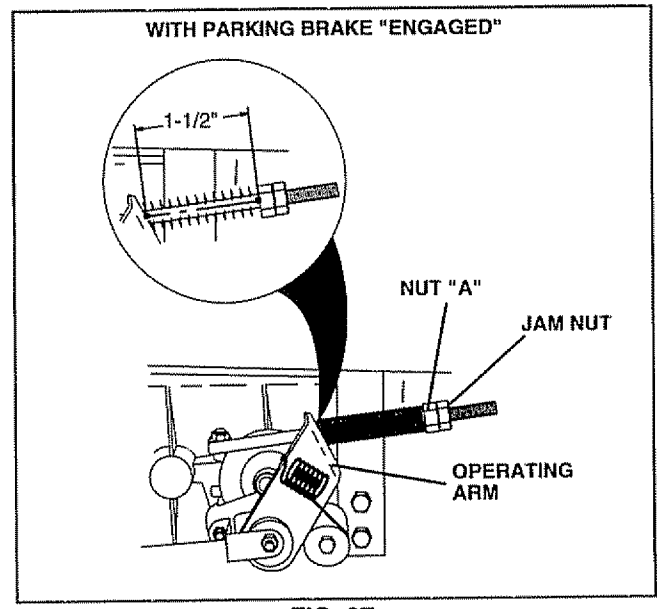


FIG. 27

SERVICE AND ADJUSTMENTS

TO REPLACE MOTION DRIVE BELT (See Figs. 28 & 29)

Park the tractor on level surface. Engage parking brake. For ease of service, remove rear drawbar from chassis and belt keeper from transmission input pulley. For assistance, there is a belt installation guide decal on bottom side of left footrest.

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downward from around engine pulley.
- Install new belt by reversing above procedure.

IMPORTANT: MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS.

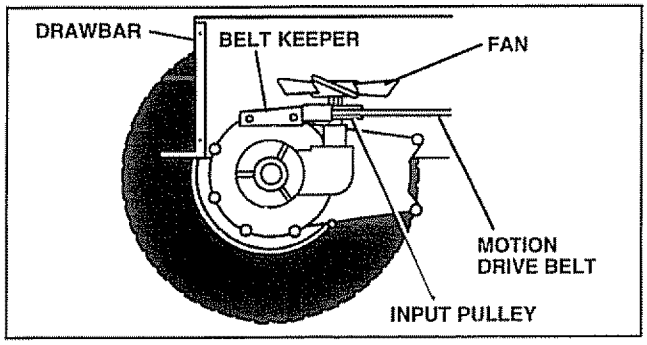


FIG. 28

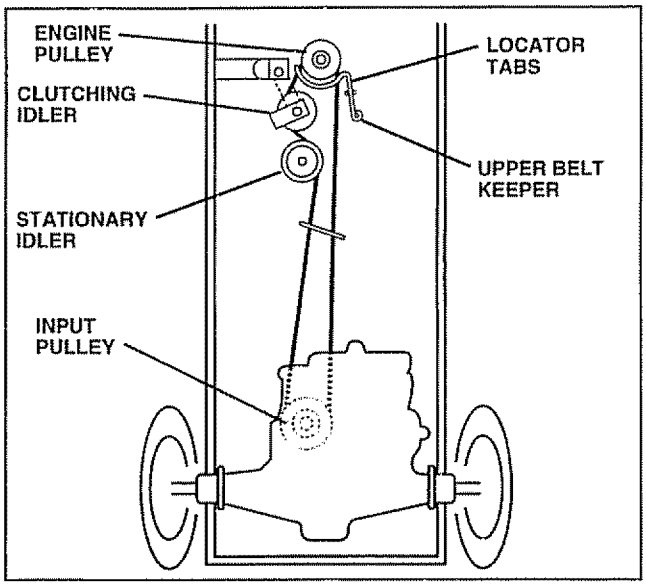


FIG. 29

TO ADJUST MOTION CONTROL LEVER (See Fig. 30)

"NEUTRAL" position of the motion control lever has been preset at the factory and adjustment should not be necessary.

If your unit tends to "creep" when the motion control lever is in "NEUTRAL" position, adjust the neutral lever position as follows:

FORWARD ADJUSTMENT-

- Drive unit forward on a level surface.
- Move motion control lever to the left and back until it stops against forward adjustment plate and release lever.
- If unit "creeps" forward or backward, turn engine off and set parking brake.
- From underside of fender, loosen the two (2) bolts securing forward adjustment plate and move plate 1/16" opposite the direction the unit "creeps":
  - Forward "creep", move plate backwards 1/16 inch.
  - Reverse "creep", move plate forward 1/16 inch.
- Retighten bolts securely.
- Repeat forward drive test and, if necessary, readjust until "creep" is eliminated.

REVERSE ADJUSTMENT-

- Drive unit in reverse on a level surface.
- Move motion control lever to the right and forward until it stops against reverse adjustment plate and release lever.
- If unit "creeps" forward or backward, turn engine off and set parking brake.
- Loosen and move reverse adjustment plate in the same manner as forward adjustment plate described above:
  - Forward "creep", move plate backwards 1/16 inch.
  - Reverse "creep", move plate forward 1/16 inch.
- Retighten bolts securely.
- Repeat reverse drive test and, if necessary, readjust until "creep" is eliminated.

If "creep" cannot be eliminated by the above adjustments, contact your nearest authorized service center.

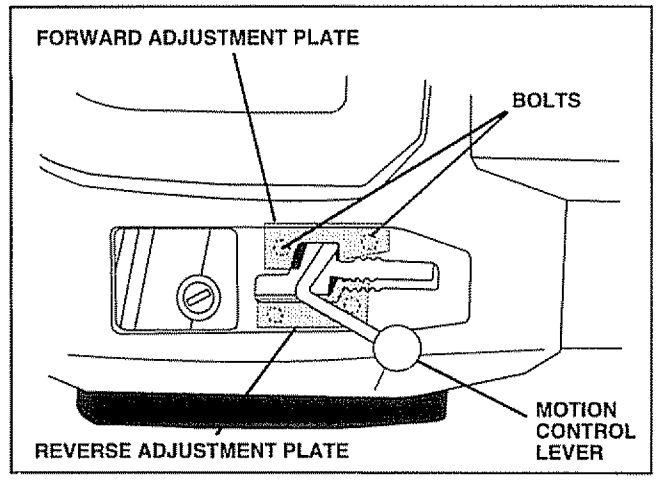


FIG. 30

SERVICE AND ADJUSTMENTS

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/CAMBER

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

TO REMOVE WHEEL FOR REPAIRS (See Fig. 31)

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

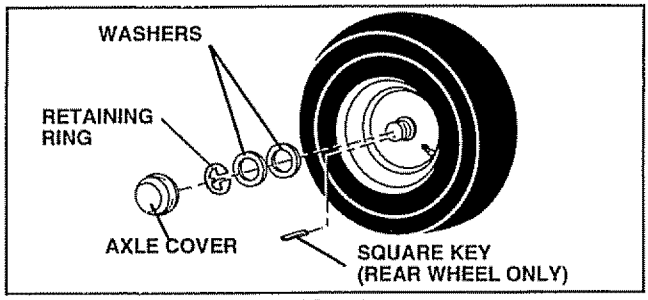


FIG. 31

TO START ENGINE WITH A WEAK BATTERY (See Fig. 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 NEGATIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to good CHASSIS GROUND, away from fuel tank and battery.

TO REMOVE CABLES, REVERSE ORDER -

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

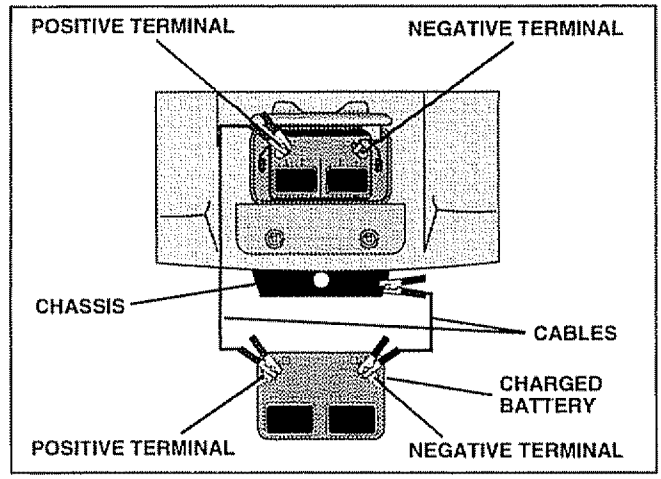


FIG. 32

SERVICE AND ADJUSTMENTS

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 the Repair Parts section of this manual.

TO REPLACE FUSE

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

TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 33)

- 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.

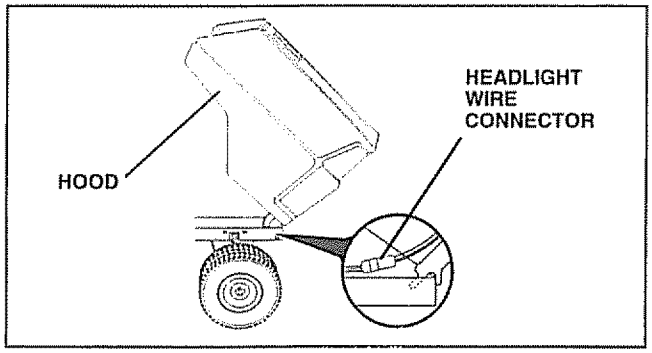


FIG. 33

ENGINE

TO ADJUST THROTTLE CONTROL CABLE (See Fig. 34)

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

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

TO ADJUST CARBURETOR (See Fig. 35)

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

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

IMPORTANT: DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF NEEDLE IS TURNED IN TOO TIGHT.

PRELIMINARY SETTING -

- Be sure you have a clean air filter and the throttle control cable is adjusted properly (see above).
- 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.
- Idle speed setting - With throttle control lever in slow (🐢) position, engine should idle at 1750 RPM. If engine idles too slow or fast, turn idle speed adjusting screw in or out until correct idle is attained.
- Idle fuel needle setting - With throttle control lever in slow (🐢) position, turn idle fuel adjusting needle **in** (clockwise) until engine begins to die and then turn **out** (counterclockwise) approximately 1/8 to 1/4 turn to obtain best low speed performance.
- Recheck idle speed. Readjust if necessary.

SERVICE AND ADJUSTMENTS

ACCELERATION TEST -

- Move throttle control lever from slow (🐢) to fast (🐇) position. If engine hesitates or dies, turn idle fuel adjusting needle **out** (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust - damage may result.

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/ DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

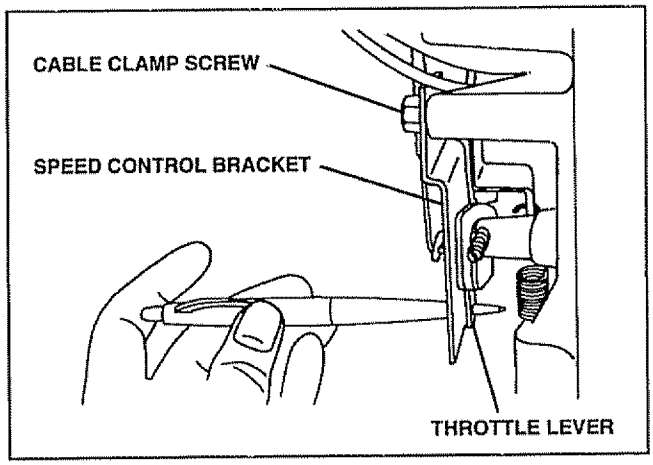


FIG. 34

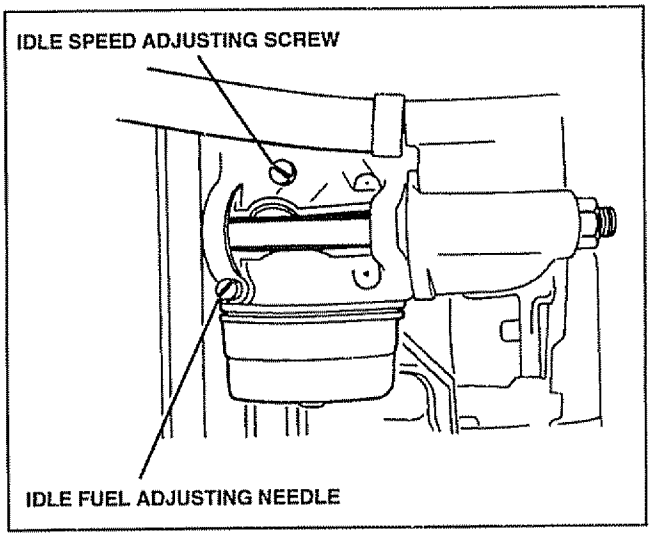


FIG. 35

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	1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring 9. Carburetor out of adjustment 10. Engine valves out of adjustment.	1. Fill fuel tank. 2. See "TO START ENGINE" in Operation section. 3. Wait several minutes before attempting to start. 4. Replace spark plug. 5. Clean/replace air filter 6. Replace fuel filter. 7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 8. Check all wiring. 9. Contact an authorized service center/department 10. Contact an authorized service center/department
Hard to start	1. Dirty air filter. 2. Bad spark plug. 3. Weak or dead battery 4. Dirty fuel filter. 5. Stale or dirty fuel. 6. Loose or damaged wiring 7. Carburetor out of adjustment 8 Engine valves out of adjustment.	1. Clean/replace air filter. 2. Replace spark plug. 3. Recharge or replace battery. 4. Replace fuel filter. 5. Drain fuel tank and refill with fresh gasoline. 6. Check all wiring. 7 Contact an authorized service center/department. 8. Contact an authorized service center/department.
Engine will not turn over	1. Clutch/brake pedal not depressed. 2 Attachment clutch is engaged. 3 Weak or dead battery. 4 Blown fuse. 5. Corroded battery terminals 6. Loose or damaged wiring 7. Faulty ignition switch. 8. Faulty solenoid or starter 9. Faulty operator presence switch(es)	1. Depress clutch/brake pedal. 2 Disengage attachment clutch. 3 Recharge or replace battery. 4 Replace fuse. 5. Clean battery terminals. 6 Check all wiring. 7 Check/replace ignition switch. 8 Check/replace solenoid or starter. 9. Contact an authorized service center/department.
Engine clicks but will not start	1. Weak or dead battery. 2 Corroded battery terminals. 3 Loose or damaged wiring 4 Faulty solenoid or starter.	1 Recharge or replace battery. 2 Clean battery terminals. 3 Check all wiring. 4. Check/replace solenoid or starter.
Loss of power	1. Cutting too much grass/too fast 2 Throttle in "CHOKE" position. 3 Build-up of grass, leaves and trash under mower 4 Dirty air filter. 5 Low oil level/dirty oil 6 Faulty spark plug. 7 Dirty fuel filter. 8 Stale or dirty fuel. 9. Water in fuel 10 Spark plug wire loose 11 Dirty engine air screen/fins 12. Dirty/clogged muffler. 13 Loose or damaged wiring. 14. Carburetor out of adjustment. 15. Engine valves out of adjustment.	1 Set in "Higher Cut" position/reduce speed. 2. Adjust throttle control. 3. Clean underside of mower housing. 4. Clean/replace air filter. 5. Check oil level/change oil. 6. Clean and regap or change spark plug. 7 Replace fuel filter. 8. Drain fuel tank and refill with fresh gasoline. 9. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 10. Connect and tighten spark plug wire. 11. Clean engine air screen/fins 12. Clean/replace muffler. 13 Check all wiring. 14. Contact an authorized service center/department. 15. Contact an authorized service center/department
Excessive vibration	1. Worn, bent or loose blade 2 Bent blade mandrel 3 Loose/damaged part(s)	1. Replace blade. Tighten blade bolt. 2. Replace blade mandrel. 3. Tighten loose part(s). Replace damaged parts.

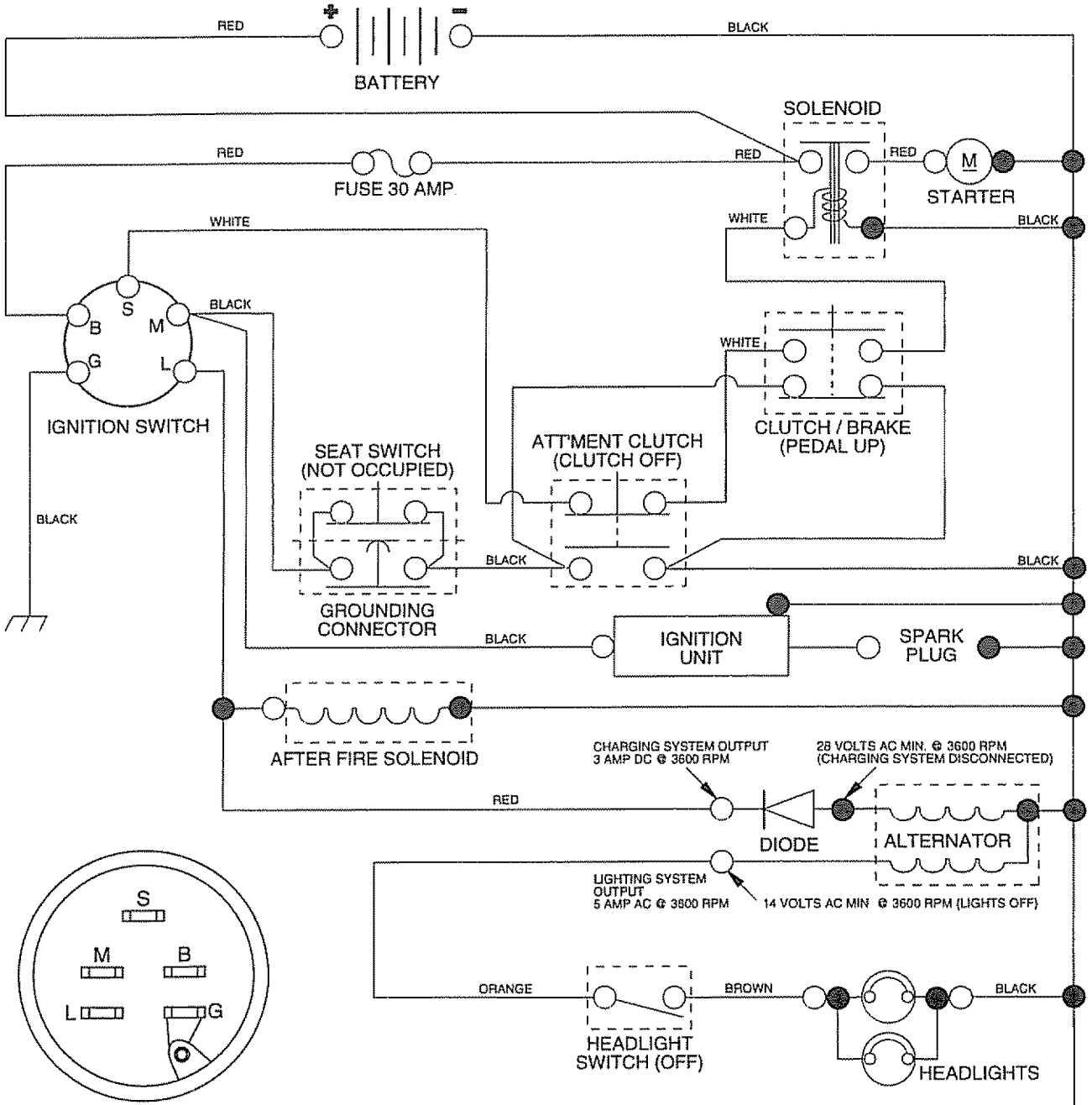
TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	1. Faulty operator-safety presence control system	1. Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.
Poor cut - uneven	1 Worn, bent or loose blade. 2 Mower deck not level 3 Buildup of grass, leaves, and trash under mower 4 Bent blade mandrel. 5 Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Replace blade. Tighten blade bolt. 2 Level mower deck. 3 Clean underside of mower housing. 4 Replace blade mandrel. 5. Clean around mandrels to open vent holes
Mower blades will not rotate	1. Obstruction in clutch mechanism. 2 Worn/damaged mower drive belt. 3. Frozen idler pulley. 4 Frozen blade mandrel.	1. Remove obstruction. 2 Replace mower drive belt. 3. Replace idler pulley. 4 Replace blade mandrel.
Poor grass discharge	1. Engine speed too slow. 2. Travel speed too fast. 3 Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure 6 Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt worn. 9 Blades improperly installed. 10 Improper blades used. 11 Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1 Place throttle control in "FAST" position. 2. Shift to slower speed. 3 Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt 7. Clean underside of mower housing. 8. Replace mower drive belt. 9. Reinstall blades sharp edge down 10 Replace with blades listed in this manual 11 Clean around mandrels to open vent holes
Headlight(s) not working (if so equipped)	1. Switch is "OFF" 2. Bulb(s) burned out 3 Faulty light switch. 4 Loose or damaged wiring. 5 Blown fuse.	1. Turn switch "ON". 2. Replace bulb(s). 3. Check/replace light switch. 4. Check wiring and connections 5. Replace fuse.
Battery will not charge	1 Bad battery cell(s). 2 Poor cable connections 3. Faulty regulator (if so equipped). 4 Faulty alternator.	1. Replace battery. 2 Check/clean all connections 3. Replace regulator. 4 Replace alternator.
Tractor "creeps" with motion control lever in "neutral" position (Fender shift models only)	1 Motion control lever is out of adjustment	1. Adjust motion control lever.
Loss of drive	1 Freewheel control in "disengaged" position.	1. Place freewheel control in "engaged" position.
Engine "backfires" when turning engine "OFF"	1 Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	1 Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

SERVICE NOTES

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

SCHEMATIC



IGNITION SWITCH

POSITION	CIRCUIT
OFF	M + G
ON	B + L
START	B + S + L

WIRING INSULATED CLIPS

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

NOTE

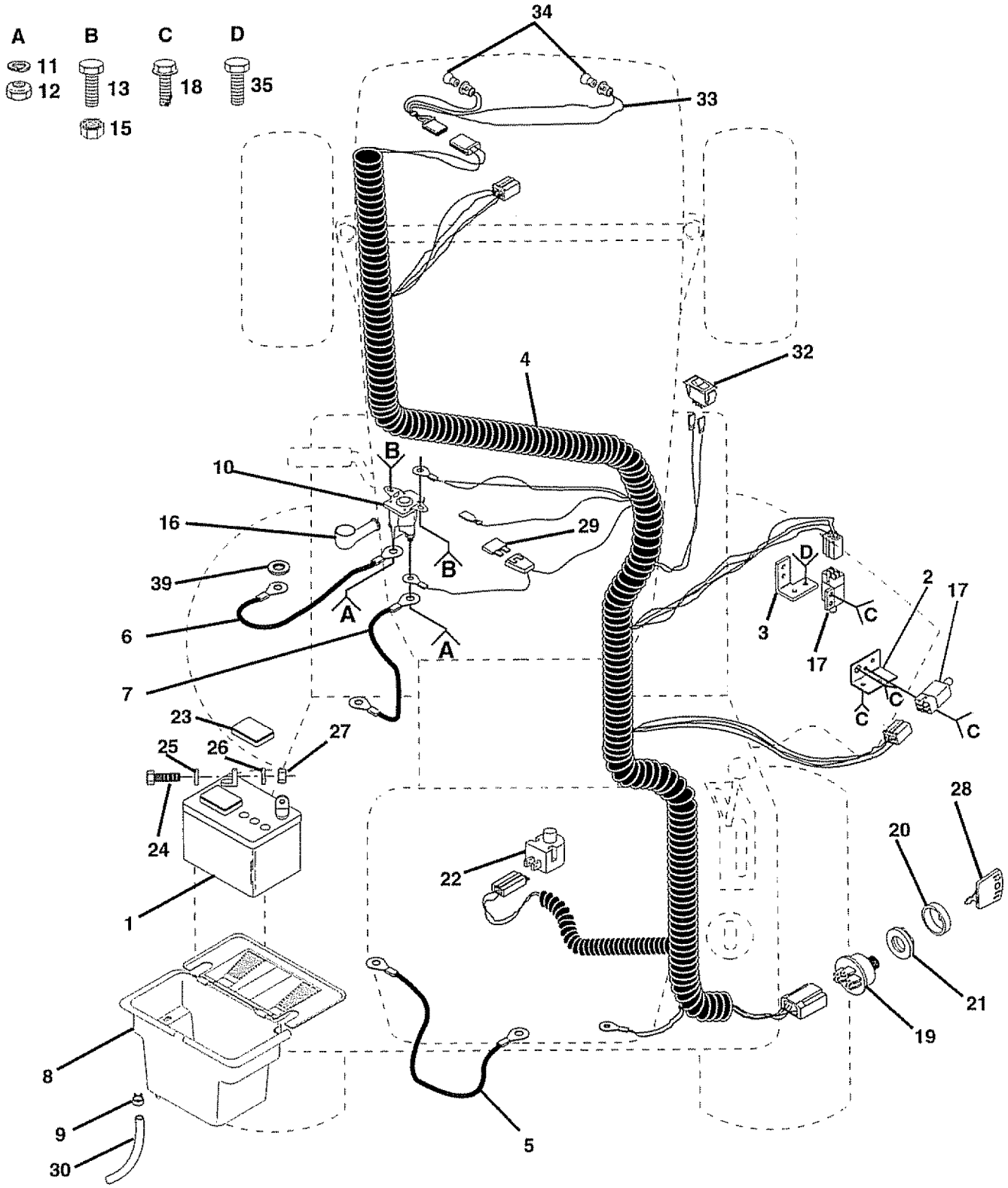
YOUR TRACTOR IS EQUIPPED WITH A SPECIAL ALTERNATOR SYSTEM. THE LIGHTS ARE NOT CONNECTED TO THE BATTERY, BUT HAVE THEIR OWN ELECTRICAL SOURCE. BECAUSE OF THIS, THE BRIGHTNESS OF THE LIGHTS WILL CHANGE WITH ENGINE SPEED. AT IDLE THE LIGHTS WILL DIM. AS THE ENGINE IS SPEEDED UP, THE LIGHTS WILL BECOME THEIR BRIGHTEST.

NON-REMOVABLE CONNECTIONS — REMOVABLE CONNECTIONS

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

ELECTRICAL



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

ELECTRICAL

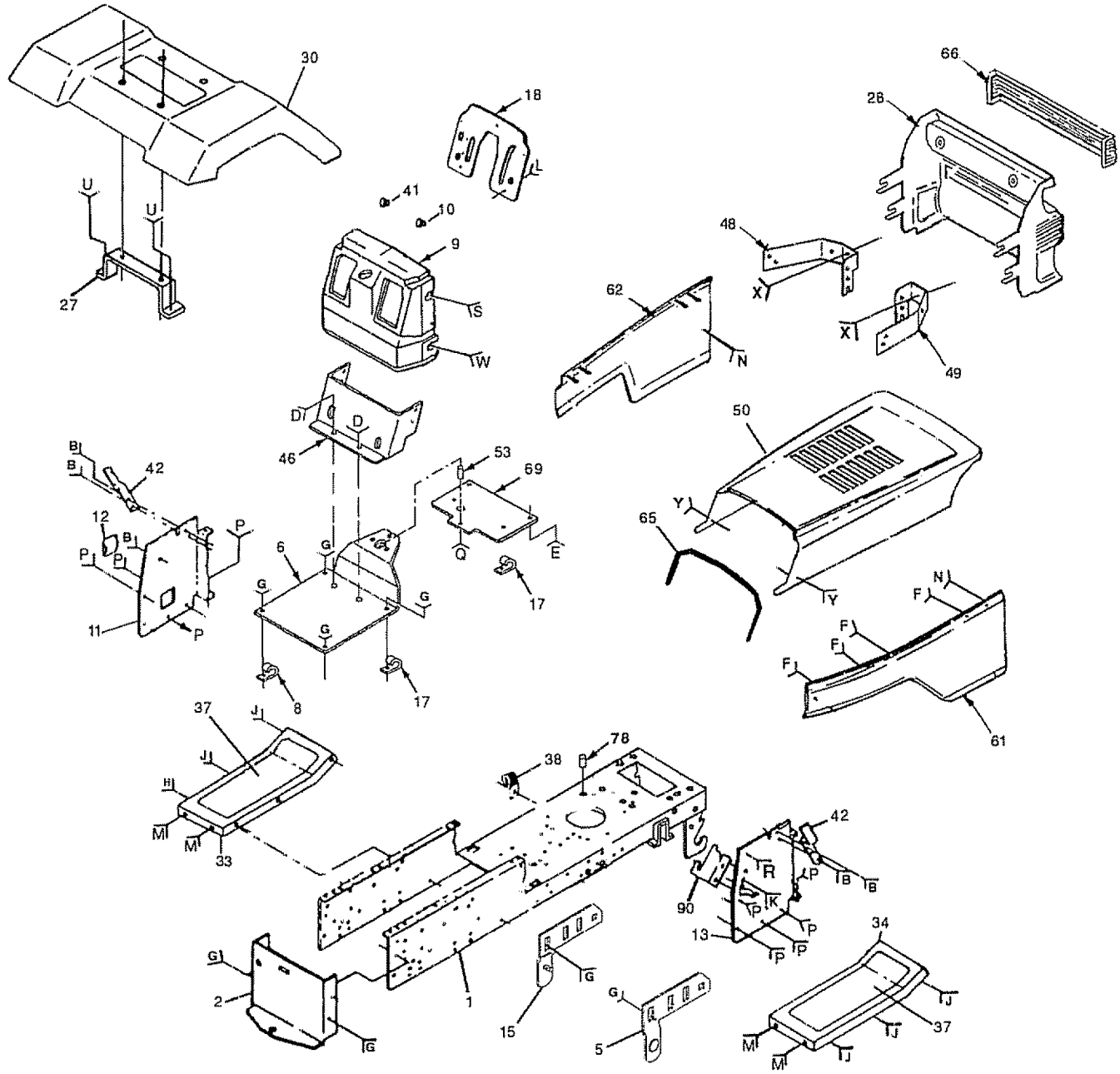
KEY NO.	PART NO.	DESCRIPTION
1	121537X	Battery
2	140336	Bracket, Interlock Switch
3	108236X	Bracket, Clutch Switch
4	140074	Harness, Ignition
5	4207J	Cable, Ground
6	4206J	Cable, Battery
7	132202	Cable, Battery
8	129965	Battery Box
9	109596X	Clamp, Hose
10	138406	Solenoid
11	STD551125	Washer, Lock
12	73350400	Nut, Hex Head, Jam 1/4-20 UNC
13	71110408	Bolt, Hex Head, Fin. 1/4-20 UNC x 1/2 Grade 5
15	STD541425	Nut
16	131563	Cover, Terminal
17	109553X	Switch, Interlock, Clutch
18	STD601005	Screw
19	102972X	Switch, Starter
20	123620X	Cover, Key Switch
21	124211X	Nut, Ignition
22	121305X	Switch, Plunger
23	121264X	Cap, Battery
24	74760412	Bolt, Hex Head 1/4-20 UNC x 3/4
25	STD551025	Washer
26	STD551125	Washer
27	STD541025	Nut
28	109310X	Key, Ignition
29	108824X	Fuse
30	109238X	Tube, Plastic
32	110712X	Switch, Light
33	136850	Harness, Light Socket
34	4152J	Light Bulb
35	STD601005	Screw
39	11150400	Washer, Lock Int. Tooth 1/4

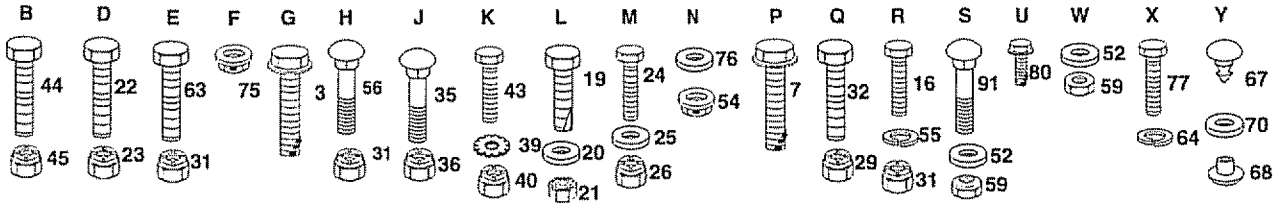
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

CHASSIS AND ENCLOSURES





REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

CHASSIS AND ENCLOSURES

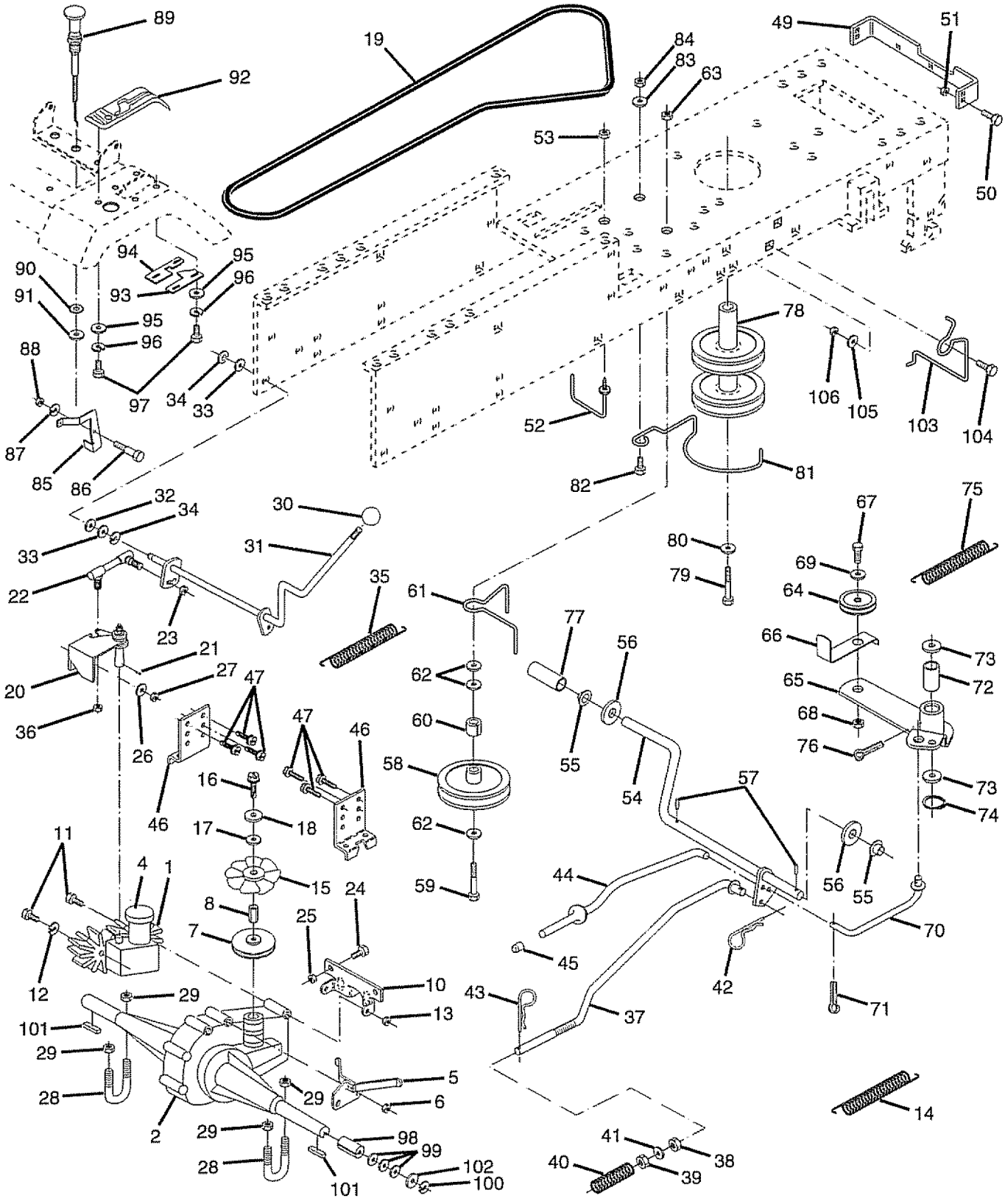
KEY NO.	PART NO.	DESCRIPTION
1	140341	Chassis
2	137275	Drawbar
3	17490612	Screw, Thd., Roll. 3/8-16 x 3/4 Type TT
5	139887	Bracket Assembly, Pivot, RH
6	127543	Saddle
7	17490612	Screw, Thd., Roll. 3/8-16 x 3/4 Type TT
8	126471X	Clip, Insulated
9	136696	Dash, Plastic
10	5479J	Plug, Button
11	136967	Panel, Dash, LH
12	121794X	Cover, Access
13	136970	Panel, Dash, RH
15	139886	Bracket Assembly, Pivot, LH
16	STD523710	Bolt
17	2751R	Clip, Fuel Line
18	129621X017	Plate, Dash
19	74180412	Screw, Machine 1/4-20 x 3/4
20	STD551025	Washer 17/64
21	STD541425	Nut
22	74180512	Screw Mach. 5/16-18 x 3/4
23	73510500	Nut Keps 5/16-18
24	STD523710	Bolt
25	19131312	Washer 13/32 x 13/16 x 12 Gauge
26	STD541437	Nut
27	136619	Bracket Assembly, Fender
28	136373X428	Grill
29	STD541431	Nut Crownlock 3/8-16
30	126599X459	Fender
31	STD541437	Nut, Crownlock 3/8-16
32	STD523120	Bolt Hex 5/16-18 x 2
33	105465X459	Footrest, LH
34	105464X459	Footrest, RH
35	STD533707	Bolt
36	STD541437	Nut
37	105466X	Pad, Footrest
38	2751R	Clip, Fuel Line
39	STD551237	Washer
40	STD541437	Nut
41	134014	Plug Dome
42	139915	Bracket, Support, Dash
43	STD523710	Bolt
44	STD523710	Bolt
45	STD541437	Nut
46	105518X	Dash Lower
48	136814	Bracket Assembly, Front Pivot Hinge, LH
49	136813	Bracket Assembly, Front Pivot Hinge, RH
50	136673X459	Hood Assembly
52	19131614	Washer 13/32 x 1 x 14 Gauge
53	121236X	Spacer
54	108067X	Nut, Pal
55	19131312	Washer 13/32 x 13/16 x 12 Ga.
56	STD533710	Bolt, Carriage 3/8-16 x 1
59	STD541437	Nut
61	136670X459	Panel Assembly, RH
62	136671X459	Panel Assembly, LH
63	STD523710	Bolt Hex 3/8-16 x 1
64	10040400	Washer, Lock
65	137304	Rod, Support Hood
66	136374	Lens, Bar, Clear
67	137270	Rivet, Rachet, Male
68	137271	Rivet, Ratchet, Female
69	140181	Plate Support Battery
70	137269	Washer, Nylon
75	108067X	Nut, Pal
76	19092016	Washer 9/32 x 1-1/4 x 16 Ga.
77	74760408	Bolt Hex 1/4 - 20 x 1/2
78	110436X	Bushing Snap Split Blk
80	17490612	Screw, Thd. Roll. 3/8-16 x 3/4 Type TT
90	110923X	Bracket, Mower Clutch
91	STD523710	Bolt

NOTE: All 2omponent dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

DRIVE



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

DRIVE

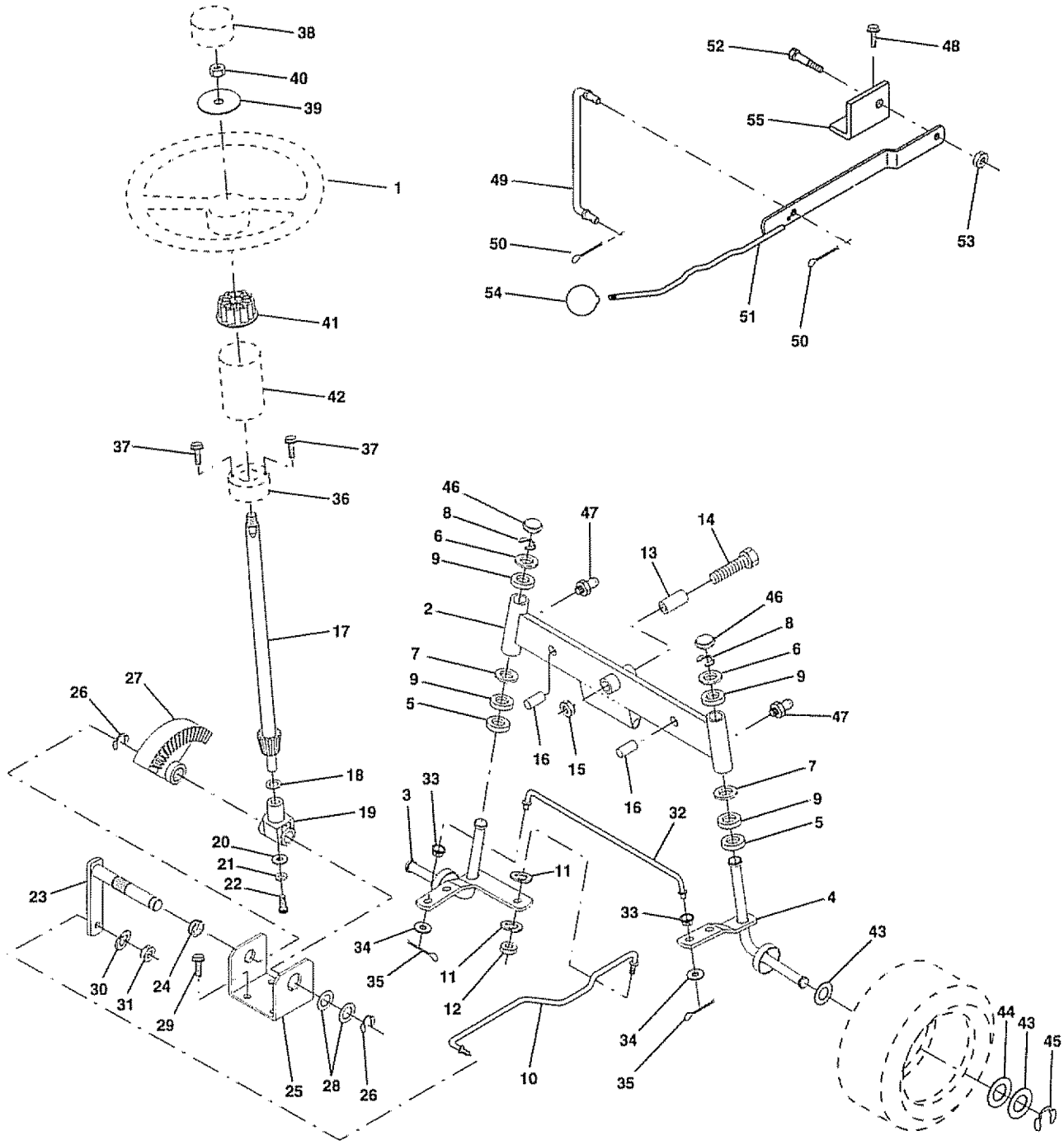
KEY NO.	PART NO.	DESCRIPTION
1	121430X	Pump, Transaxle
2	121431X	Transaxle Assembly
4	121323X	Pump Resevoir
5	126581X	Belt Keeper, Transaxle
6	73680400	Nut, Crownlock 1/4-20 UNC
7	126579X	Pulley, Transaxle
8	121211X	Spacer, Stand-off, Transaxle Fan
10	121188X	Bracket, Differential Mounting
11	74780572	Bolt
12	STD551131	Washer, Lock
13	STD541431	Nut
14	110422X	Spring, Return, Brake
15	126578X	Fan, Transaxle
16	STD522507	Screw
17	19092016	Washer 9/32 x 1-1/4 x 16 Gauge
18	STD551125	Washer
19	137589	V-Belt, Ground Drive
20	126912X	Friction Pack Assembly
21	126655X	Pin, Roll
22	137328	Rod, Tie Hydro Stretch
23	73040400	Nut, Hex, Flange 1/4-28 UNF
24	STD523707	Bolt
25	STD541437	Nut
26	STD551025	Washer
27	STD541437	Nut
28	121189X	U-Bolt 3/8-16 x 2.83
29	STD541437	Nut
30	130564	Knob, Premium
31	126592X	Control Lever Assembly
32	126590X	Bushing, Transaxle
33	126591X	Washer, Shim .53 x 1.25 x .0598
34	STD581050	E-Ring
35	126910X	Spring, Extension
36	73040400	Nut, Hex, Flange 1/4-28 UNF
37	137630	Rod, Brake
38	STD541437	Locknut
39	STD541237	Nut
40	106888X	Spring, Brake Rod
41	STD551037	Washer
42	4921H	Retainer Spring
43	STD624003	Retainer
44	133261	Rod, Parking Brake
45	124236X	Cap, Parking Brake
46	136922	Bracket, Transaxle
47	17490616	Screw, Thd., Roll. 3/8-16 x 1 Type TT
49	138307	Bracket, Mounting
50	STD533707	Bolt
51	STD541437	Nut
52	126577X	Keeper, Center Span
53	STD541437	Nut
54	122424X	Shaft, Foot Pedal
55	120183X	Bearing, Nylon
56	STD551062	Washer
57	STD571810	Pin, Roll
58	123674X	Pulley, Idler, Flat
59	STD523727	Bolt
60	4470J	Spacer, Split
61	109070X	Keeper, Belt Retainer
62	19131312	Washer 13/32 x 13/16 x 12 Gauge
63	STD541437	Nut
64	127783	Pulley, Idler, V-Groove
65	123789X	Bellcrank Assembly
66	123205X	Retainer, Belt
67	STD523715	Bolt
68	STD541437	Nut
69	STD551037	Washer
70	105710X	Link, Clutch
71	STD561210	Pin
72	105706X	Bearing, Nylon
73	110812X	Washer, Hardened
74	12000039	Ring, Klip
75	105709X	Spring, Return, Clutch
76	STD561210	Pin
77	8883R	Cover, Pedal
78	140186	Pulley, Engine
79	M747810100	Bolt, Hex
80	STD551143	Washer
81	129921	Keeper, Belt, Engine, LH
82	STD523710	Bolt
83	19131312	Washer 13/32 x 13/16 x 12 Gauge
84	STD541437	Nut
85	126575X	Arm, Control
86	7605J	Bolt, Shoulder 1/4 x 20 UNC
87	110739X	Washer, Spring, Oiled
88	73680400	Nut, Crownlock 1/4-20 UNC
89	126654X	Control, Bypass
90	STD551237	Washer
91	73610600	Nut, Hex, Fin. 3/8-24 UNF
92	126600X	Console, Shift
93	126597X	Plate, Neutral Adjust, RH
94	126598X	Plate, Neutral Adjust, LH
95	STD551025	Washer 17/64
96	STD551125	Washer
97	STD512505	Screw
98	121199X	Spacer, Split
99	121749X	Washer 25/32 x 1-1/4 x 16 Gauge
100	STD581075	E-Ring
101	123583X	Key, Square
102	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
103	134683	Belt Guide, Mower, RH
104	STD523710	Bolt
105	19132012	Washer 13/32 x 1-1/4 x 12 Gauge
106	STD541437	Nut

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

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

STEERING ASSEMBLY



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

STEERING ASSEMBLY

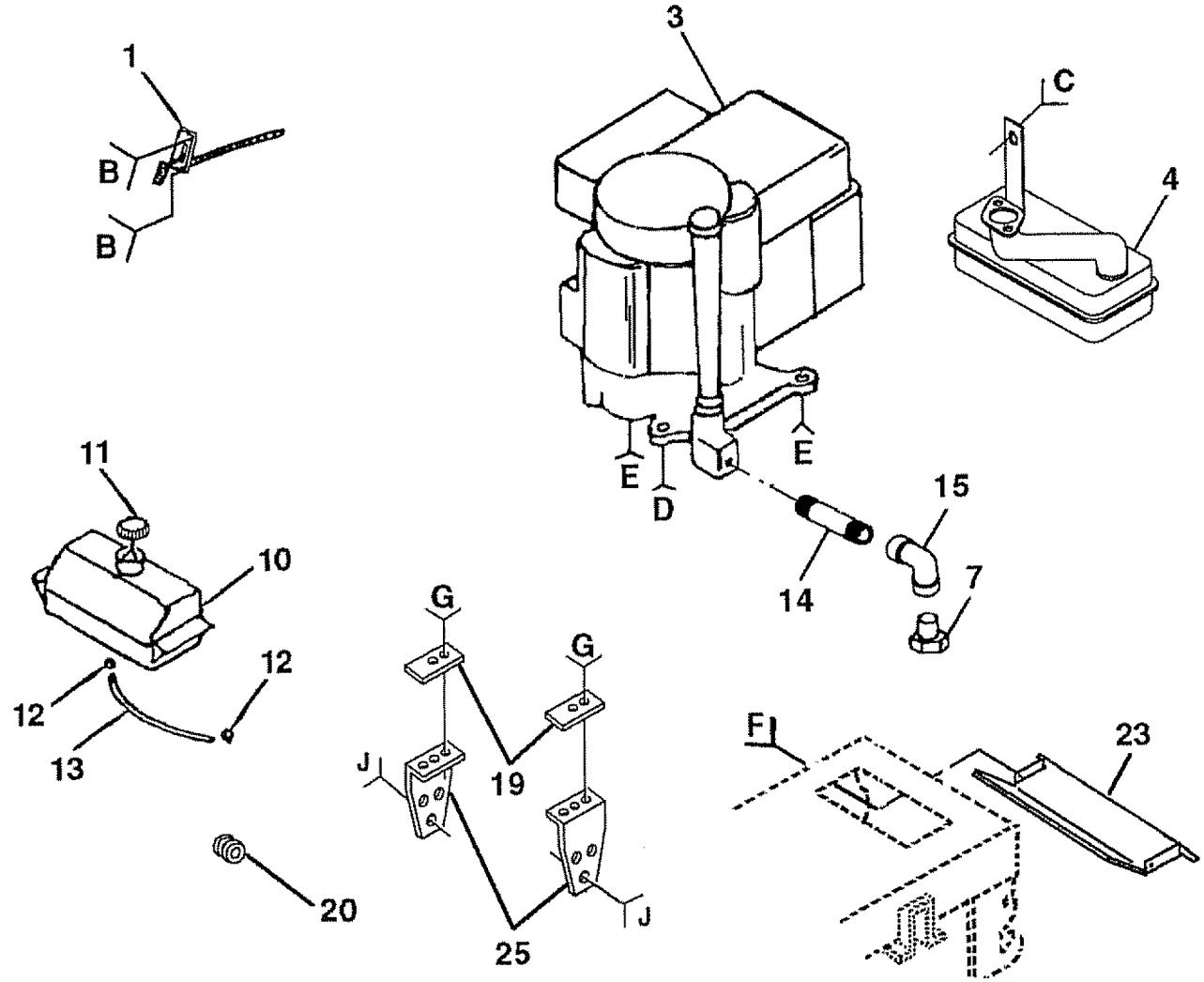
KEY NO.	PART NO.	DESCRIPTION
1	121472X	Steering Wheel
2	142033	Axle Assemby, Front
3	135227	Spindle Assemby, LH
4	135228	Spindle Assemby, RH
5	6266H	Bearing, Race, Thrust, Hardened
6	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
7	19272016	Washer 27/32 x 1-1/4 x 16 Gauge
8	12000029	Ring, Klip
9	3366R	Bearing
10	130468	Link, Drag
11	STD551137	Washer, Lock
12	73610600	Nut, Hex, Fin. 3/8-24 UNF
13	110438X	Spacer, Bearing, Front Axle
14	74011056	Bolt, Hex 5/8-11 UNC x 3-1/2
15	73901000	Locknut, Hex, Jam, with Washer Inset 5/8-11 UNC
16	132624	Pin, Axle, Large 5/8 x 1.55/1.54
17	128755	Shaft Assemby, Steering
18	57079	Washer, Thrust .515 x .750 x .033
19	124035X	Support, Shaft
20	126684X	Washer, Shim 1/4 x 5/8 x .062
21	STD551125	Washer
22	71070410	Screw, Hex Socket Head 1/4-20 x 5/8
23	127501	Shaft Assemby, Pittman
24	109816X	Nyliner, Snap-In
25	124036X	Bracket, Steering
26	12000029	Ring, Klip
27	136874	Gear, Sector
28	6266H	Bearing, Race, Thrust, Hardened
29	17490612	Screw, Thd. Roll. 3/8-16 x 3/4 Type TT
30	STD551137	Washer, Lock
31	73610600	Nut, Hex, Fin. 3/8-24 UNF
32	130465	Rod, Tie
33	126847X	Bushing, Drag Link
34	19131416	Washer 13/32 x 7/8 x 16 Gauge
35	STD561210	Pin
36	1554J	Bushing, Steering
37	STD611005	Screw #10-16 x 1/2
38	126805X	Insert, Steering Wheel
39	100712K	Washer
40	STD541350	Nut
41	100711L	Adaptor, Steering Wheel
42	110709X	Boot, Steering
43	121749X	Washer 25/32 x 1-1/4 x 16 Gauge
44	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
45	12000029	Ring, Klip
46	121232X	Cap, Spindle
47	6855M	Fitting, Grease
48	17490612	Screw, Thd. Roll 3/8-16 x 3/4
49	131291	Link, Clutch, with Nibs
50	STD561210	Pin
51	125916X	Lever Assembly, Mower Clutch
52	106451X	Bolt, Shoulder 3/8-16 UNC Grade 2
53	STD541437	Nut
54	106933X	Knob, Round
55	138171	Bracket, Pivot, Manual Clutch Lever

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

REPAIR PARTS

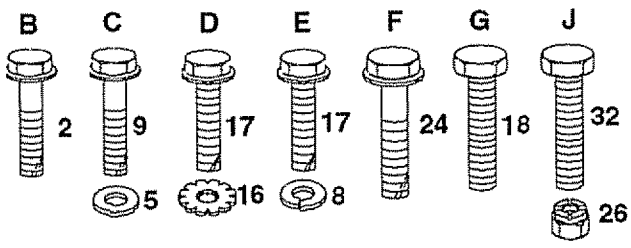
14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

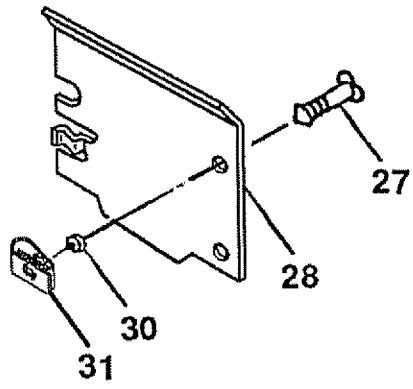
ENGINE



OPTIONAL EQUIPMENT

Spark Arrester





REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

ENGINE

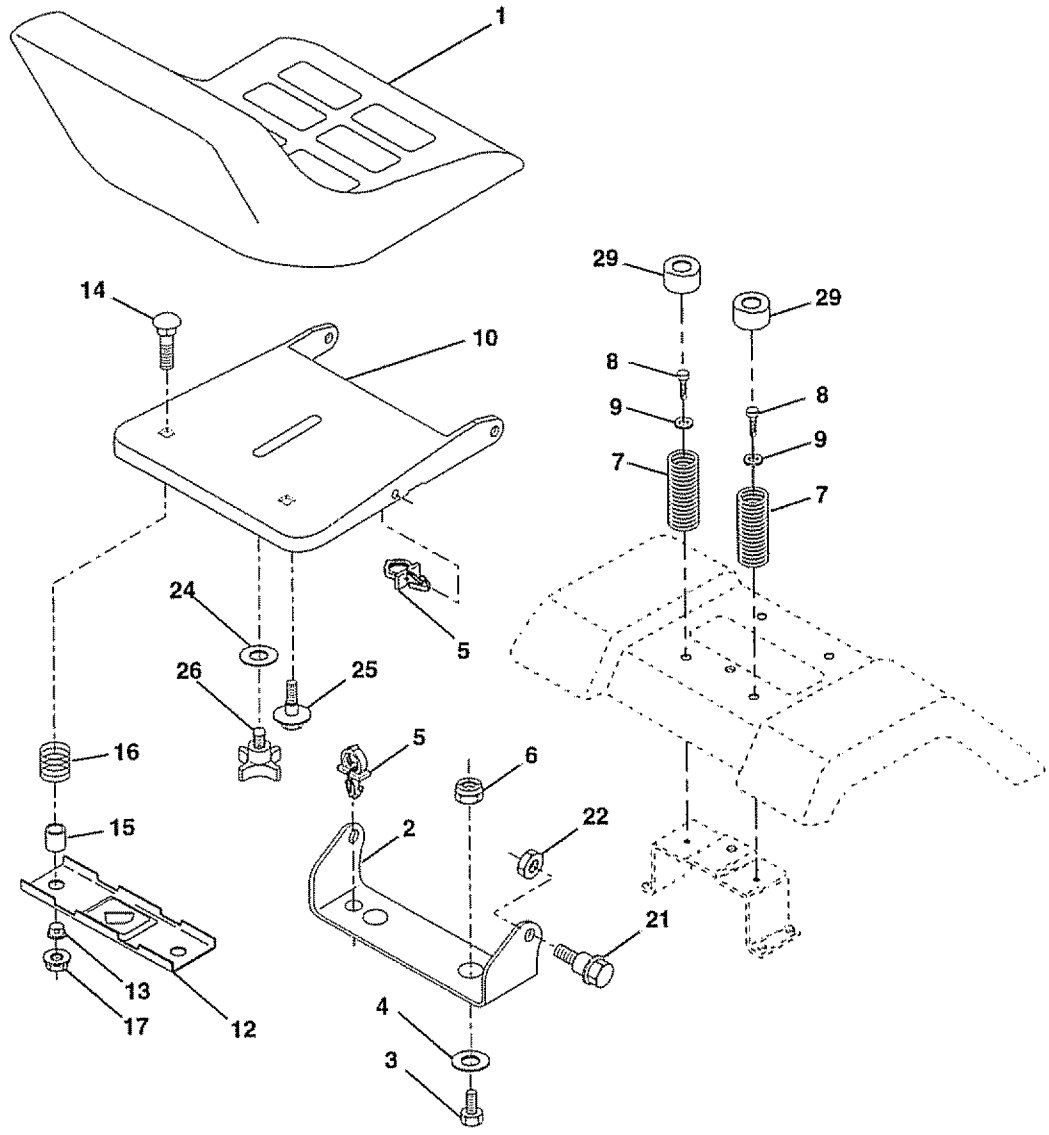
KEY NO.	PART NO.	DESCRIPTION
1	134265	Control, Throttle
2	17720410	Screw, Hex Head, Thread Cutting 1/4-20 x 5/8
3	137510	Engine, Kohler, 14 HP, Model No. CV14S, Type No. PS1452
4	137350	Muffler, Exhaust
5	STD551031	Washer 5/16 x 3/4 x 16 Ga.
7	- - -	Plug, Oil Drain (Order From Engine Manufacturer)
8	STD551131	Washer, Lock
9	74760508	Bolt
10	109202X	Tank, Fuel
11	123549X	Cap Assembly, Fuel
12	123487X	Clamp, Hose
13	101335K	Line, Fuel
14	13280328	Nipple, Pipe
15	13200300	Elbow, Standard 90°, 3/8-18 NPT
16	STD551231	Washer
17	M740108025	Hex Bolt
18	17490612	Screw, Hex Wsh Thdrol 3/8-16 x 3/4
19	128230	Strap Support Fuel Tank
20	110436X	Bushing Snap Nyl Blk Fuel Line
22	137180	Arrester, Spark
23	128953	Shield, Heat
24	STD601005	Screw
25	128229	Bracket Pnt Support Tank
26	STD541437	Nut, Crownlock 3/8-16
27	123650X	Stud 1/4 Turn
28	133747	Shield Heat Lt
30	105838X	Retainer 1/4 Turn
31	105839X	Receptacle 1/4 Turn
32	74760616	Bolt, Hex 3/8-16 x 1

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

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

SEAT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	127438X	Seat
2	140551	Bracket, Pivot, Seat
3	STD523710	Bolt
4	19131210	Washer 13/32 x 3/4 x 10 Gauge
5	140407	Clip, Pushin .395 X .250
6	STD541437	Nut
7	124181X	Spring, Seat
8	17490616	Screw Thdrol 3/8-16 x 1
9	19131614	Washer 13/32 x 1 x 14 Gauge
10	140552	Pan, Seat
12	121246X	Bracket, Switch Mounting
13	121248X	Bushing, Snap, Nylon

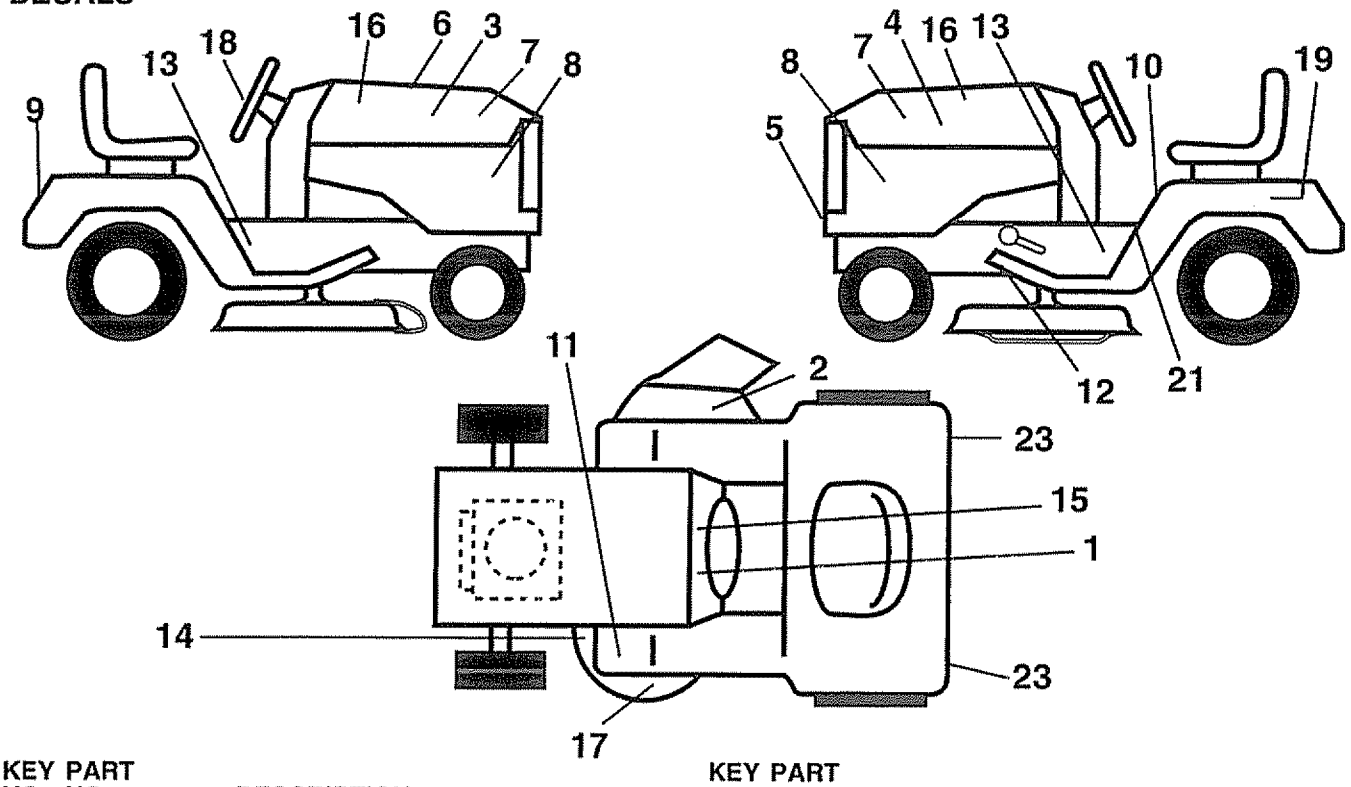
KEY NO.	PART NO.	DESCRIPTION
14	72050411	Bolt, Carriage 1/4-20 x 1-3/8
15	134300	Spacer, Split
16	121250X	Spring
17	123976X	Nut, Flangelock 1/4 Grade 5
21	139888	Bolt, Shoulder 5/16-18 UNC
22	STD541431	Nut
24	19171912	Washer 17/32 x 1-3/16 x 12 Gauge
25	127018X	Bolt, Shoulder 5/16-18 x .62
26	120068X	Knob, Seat
29	124238X	Cap, Spring, Seat

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

REPAIR PARTS

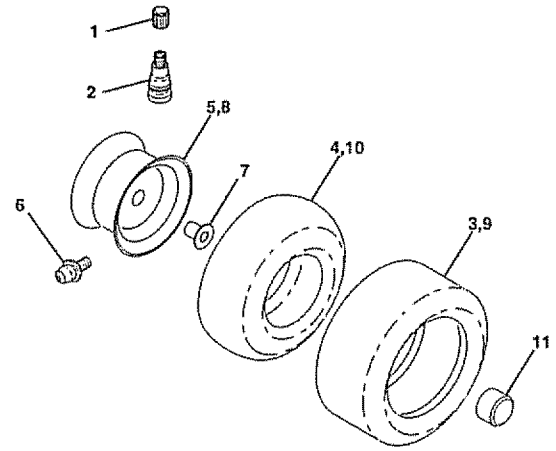
14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

DECALS



KEY NO.	PART NO.	DESCRIPTION
1	138955	Decal, Operating Instruction
2	133178	Decal, Mower, 3 In One
3	138042	Decal, Hood, Craftsman, RH
4	138043	Decal, Hood, Craftsman, LH
5	138592	Decal, Grille, Craftsman
6	133644	Decal, Maintenance
7	138048	Decal, Side Panel
8	133204	Decal, Side Panel
9	128314	Decal, Fender, Craftsman
10	137537	Decal, Caution
11	4900J	Decal, Clutch/Brake
12	121215X	Decal, V-Belt Drive Schematic
13	138145	Decal, Chassis, Hydro/42"
14	136830	Decal, V-Belt Schematic
15	138835	Decal, YT/GT Dash LT
16	138258	Decal, Hood Insert Hydro LT4000
17	133179	Decal, Mower QC System
18	132266	Decal, Insert Strg
19	138047	Decal, Battery
21	140837	Decal, Brake Parking Saddle
23	106202X	Reflector, Taillight
- -	138311	Decal, Handle Lift Height Adjust (Lift Handle)
- -	137318	Decal, Refl HI YT/GT 1 pc Srs.
- -	137319	Decal, Refl HI YT/GT 1 pc Srs.
- -	144268	Manual, Owner's (Eng)
- -	144269	Manual, Owner's (Spanish)

WHEELS & TIRES



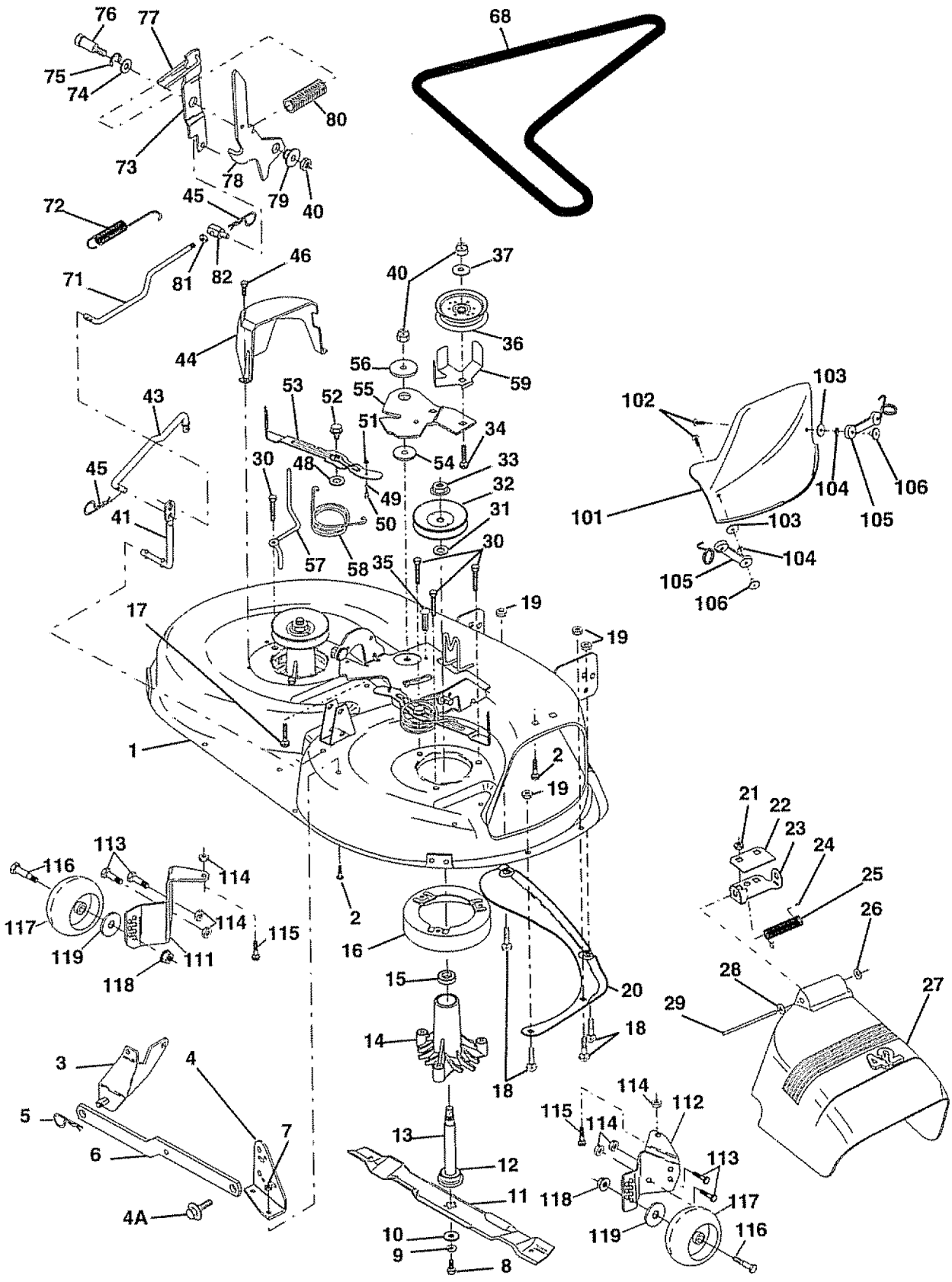
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106222X	Tire, Front
4	59904	Tube, Front (Service Item Only)
5	106732X427	Rim Assembly, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim Assembly, Rear
9	106268X	Tire, Rear
10	7152J	Tube, Rear (Service Item Only)
11	104757X	Cap, Axle

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

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

MOWER DECK



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

MOWER DECK

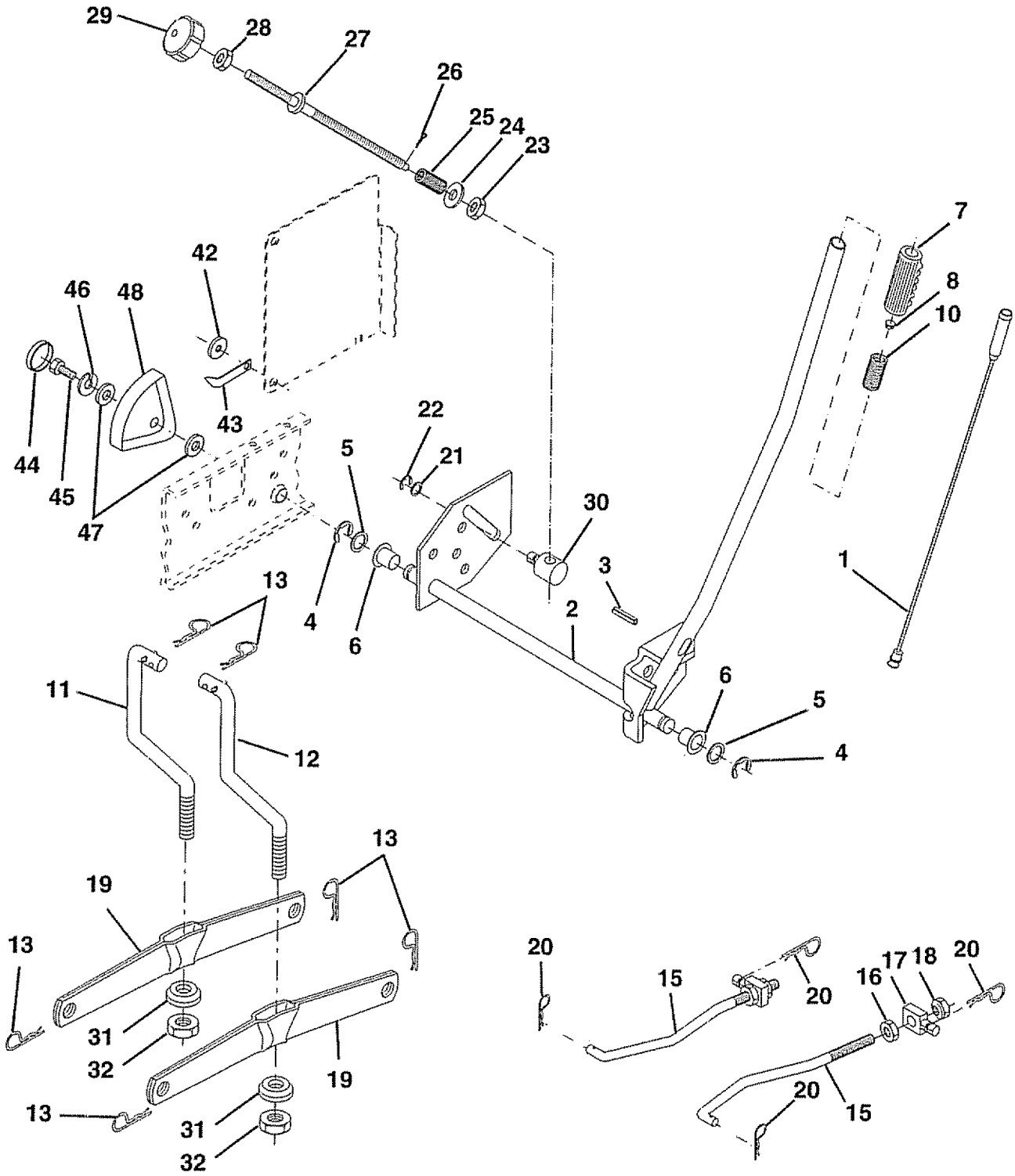
KEY NO.	PART NO.	DESCRIPTION
1	140081	Mower Deck Assembly, 42"
2	STD533107	Bolt
3	138017	Bracket Asm Fr. Sway Bar
4	138440	Bracket Asm Deck 42" Sway Bar
4A	132827	Bolt, Shoulder
5	STD624008	Retainer Spring
6	130832	Arm, Suspension, Rear
7	STD541431	Locknut 5/16-18
8	850857	Bolt 3/8-24 x 1.25 Grade 8
9	STD551137	Washer, Lock
10	140296	Washer, Hardened
11	134149	Blade, Mulching, 42" Mower Deck
12	129895	Bearing, Ball
13	137645	Shaft Assembly, Mandrel, Vented (Includes Key Number 12)
14	128774	Housing, Mandrel, Vented
15	110485X	Bearing, Ball, Mandrel
16	136929	Stripper, Vented Mower Deck
17	72110610	Bolt, Carriage 3/8-16 x 2-1/4
18	STD533106	Bolt, Carriage 5/16-18 x 5/8
19	STD541431	Locknut 5/16-18
20	136888	Baffle, Vortex
21	STD541431	Nut
22	134753	Stiffener Bracket
23	131267	Bracket, Deflector
24	105304X	Cap, Sleeve
25	123713X	Spring, Torsion, Deflector
26	110452X	Nut, Push
27	130968	Shield, Deflector
28	19111016	Washer 11/32 x 5/8 x 16 Gauge
29	131491	Rod, Hinge
30	138776	Screw Thdrol Hex Head Zinc Mwr.
31	129963	Washer, Spacer
32	129861	Pulley, Mandrel
33	137266	Nut, Toplock 9/16
34	STD533717	Bolt
35	133835	Fastner, Christmas Tree
36	131494	Pulley, Idler, Flat
37	STD551037	Washer 13/32 x 13/16 x 16 Ga.
40	STD541437	Nut
41	133551	Rod, Pivot, with Nibs
43	140083	Rod, Clutch, Secondary, with Nibs
44	140088	Guard, Mandrel, LH
45	STD624003	Retainer
46	137729	Screw, Hex Head, Thread Cutting 1/4-20 x 5/8
48	133944	Washer, Hardened
49	133940	Roller Assembly, Cam Follower
50	131340	Bolt, Shloulder #10-24 Grade 5
51	STD541410	Locknut
52	139888	Bolt, Shoulder 5/16-18 UNC
53	131845	Arm Assembly, Pad, Brake
54	133943	Washer, Hardened
55	140084	Arm, Idler
56	122052X	Spacer, Retainer
57	140090	Keeper Belt LH Front 42" 94
58	140086	Spring Torsion Brakes 42"
59	141043	Guard TUV Idler (94)
68	140067	V-Belt, 42" Mower
71	142427	Rod Primary Clutch 38/42"
72	133435	Spring, Extension, Return
73	127847	Arm, Clutch, Secondary
74	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
75	12000029	Ring, Klip
76	128903	Bolt, Shoulder 3/8-16 UNC x 1.44
77	127845	Keeper, Spring
78	140333	Arm, Clutch, Primary
79	127498	Bushing, Large, Brass
80	128759	Spring, Mower Clutch
81	STD541237	Nut Hex Jam 3/8-16 UNC
82	142028	Trunnion Adj. '94
101	136420	Mulcher Cover
102	71161010	Screw
103	19061216	Washer #10
104	STD551110	Washer, Lock
105	130758	Latch Assembly, Bagger
106	2029J	Nut, Lock
111	140353	Bracket, Gauge, Wheel LH
112	132262	Bracket, Gauge, Wheel RH
113	74760512	Bolt, Hex Head 5/16 - 18 UNC x 3/4
114	73510500	Nut, Keps 5/16 - 18 UNC
115	72110504	Bolt, Carriage 5/16 UNC x 1/2
116	137644	Bolt, Shoulder
117	133957	Wheel, Gauge, Donut
118	73930600	Nut, Centerlock 3/8 - 16
119	STD551037	Washer 3/8 x 7/8 x 14 Ga.
- -	130794	Mandrel Assembly (Includes Key Numbers 8-10, 12-15, 31 and 33)
- -	140475	Mower Deck, Complete (Std. Deck order mulcher plate and gauge wheel components separately. Key Nos. 101-106 and 111-119)

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

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

MOWER LIFT



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

MOWER LIFT

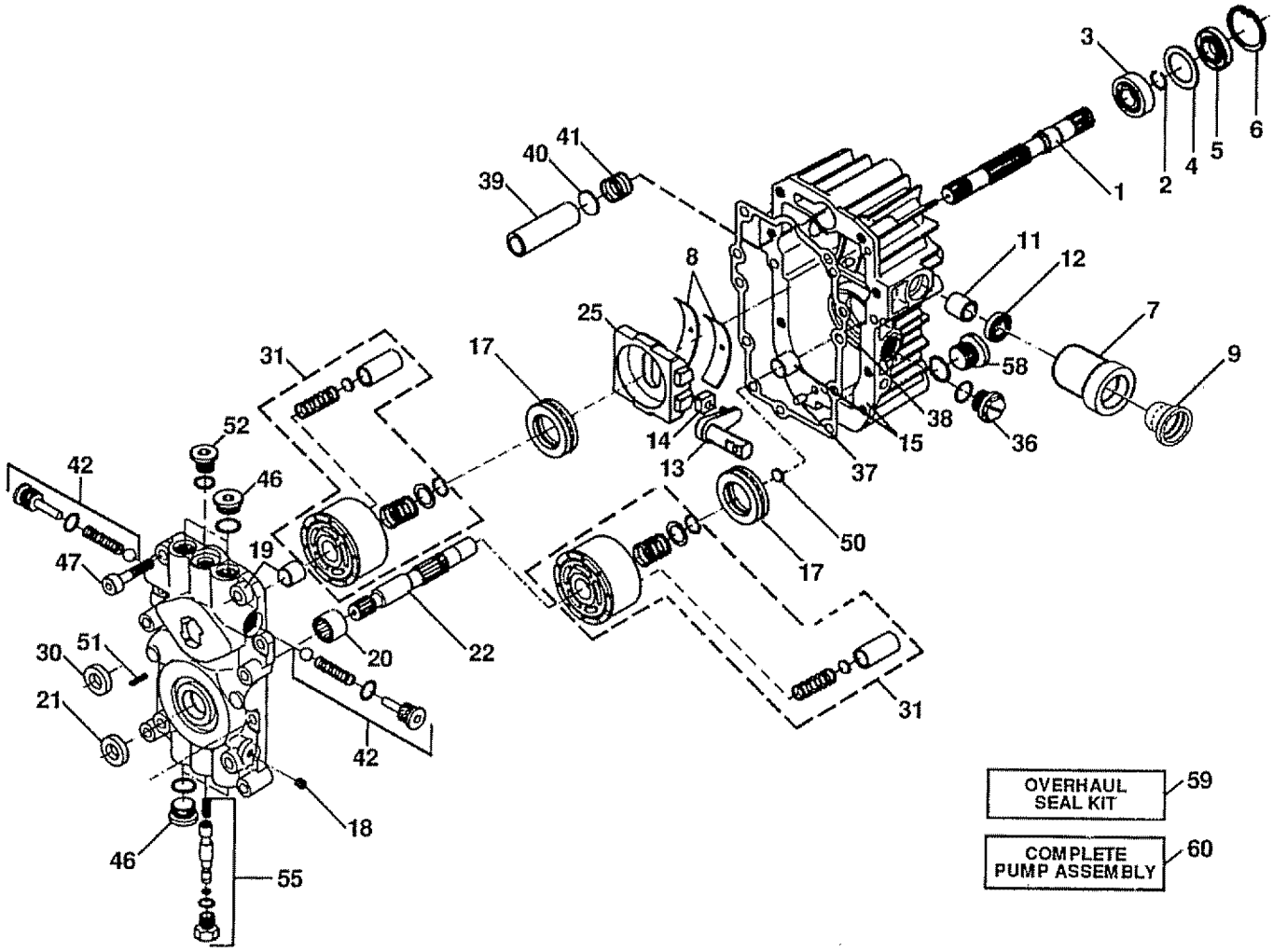
KEY NO.	PART NO.	DESCRIPTION
1	136971	Wire Asm., Inner w/plunger
2	136968	Shaft Asm Lift
3	138284	Pin Groove
4	12000002	E Ring #5133-62
5	19211621	Washer 21/32 X 1 X 21 Ga
6	120183X	Bearing Nylon
7	125631X	Grip Handle Fluted
8	122365X	Button, Plunger
10	122512X	Spring Cprsn
11	139865	Link Lift Lh
12	139866	Link Lift Rh
13	STD624008	Retainer Spring
15	127218	Link Front
16	73350800	Nut Jam Hex 1/2-13 Unc
17	130171	Trunnion Blk Zinc
18	STD541450	Nut Lock W/Wsh 1/2-13 Unc
19	139868	Arm Suspension Rear
20	STD624008	Retainer Spring
21	19151216	Washer 15/32 X 3/4 X 16 Ga
22	12000037	Ring Klip #T5304-37
23	110807X	Nut Special
24	STD551037	Washer 13/32 X 5/8 X 16 Ga
25	2876H	Spring 2-1/8"
26	76020308	Pin Cotter 3/32 x 1/2
27	110729X	Rod Adjust Lift
28	73350600	Nut Hex Jam 3/8-16 Unc
29	138057	Knob Infinite 3/8-16 Unc Black
30	110810X	Trunnion Dp Stop Dbl Thds Plt
31	140302	Bearing Pvt. Lift Spherical
32	73810600	Nylock Nut 3/8-24
42	120529X	Washer, Nylon .44 x .75 x .032
43	123933X505	Pointer, Height Indicator
44	123935X	Plug, Hole
45	74780516	Bolt, Hex, Fin. 5/16-18 UNC x 1
46	STD551131	Washer, Lock
47	19112410	Washer 11/32 x 1-1/2 x 10 Gauge
48	123934X	Scale, Height Indicator

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

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

HYDRO-GEAR PUMP ASSEMBLY - MODEL NUMBER BDU-10S



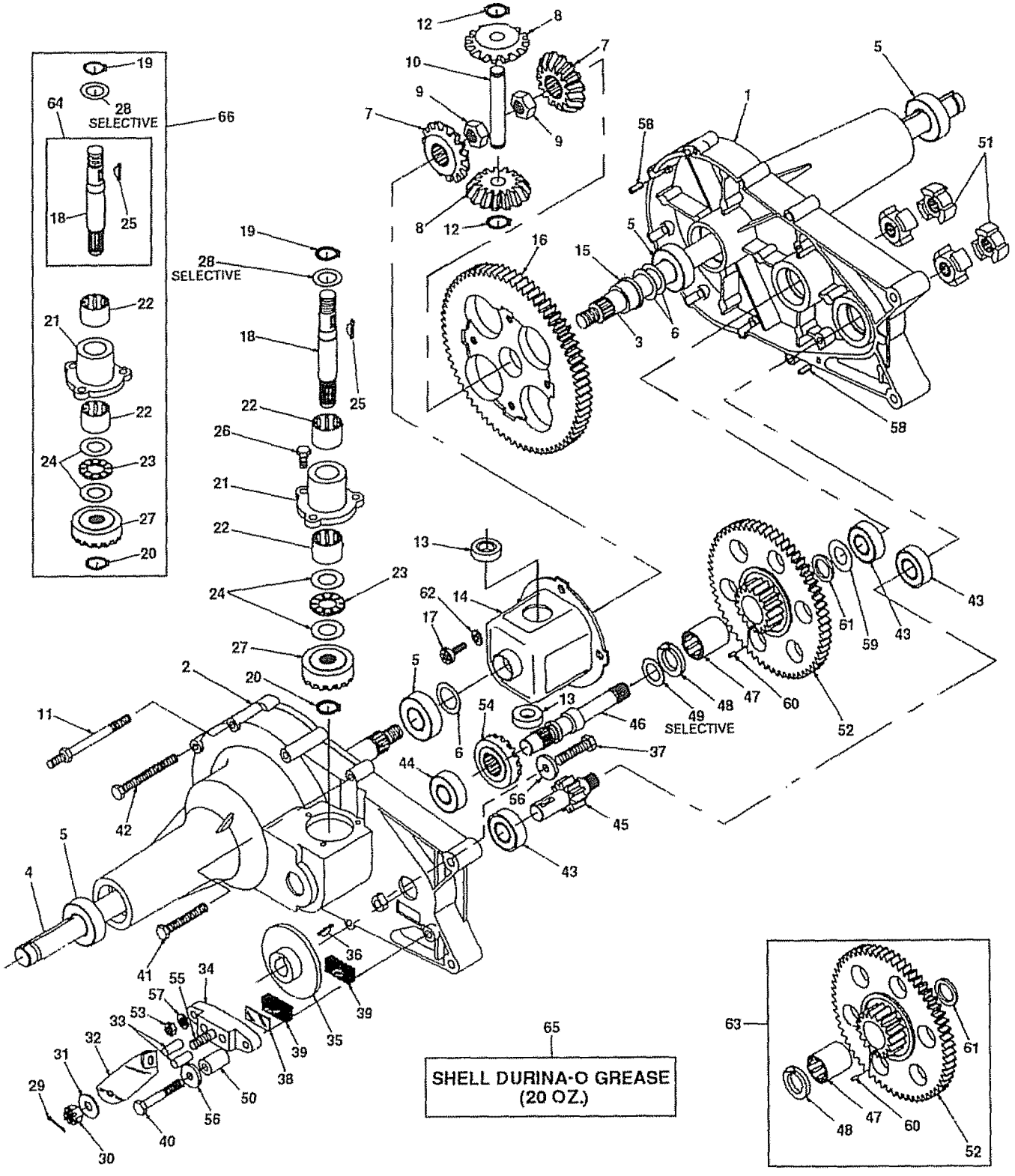
KEY NO.	PART NO.	DESCRIPTION
1	122756X	Shaft, Pump
2	122716X	* Ring, Retaining
3	122745X	Bearing, Ball
4	122715X	* Spacer
5	122700X	* Seal, Lip
6	122699X	* Ring, Retaining
7	121323X	Reservoir, Oil
8	122767X	Bearing, Cradle
9	139794	Diaphragm, Oil Reservoir
11	122747X	Bearing, Journal
12	122717X	* Seal, Lip
13	122748X	Arm, Trunnion
14	122749X	Guide, Slot
15	127146X	Housing Kit, Transmission
17	122770X	Bearing, Thrust, Ball
18	122771X	Plug, Pipe
19	127147X	Center Section Kit
20	122773X	Bearing, Needle
21	122722X	* Seal, Lip
22	122750X	Shaft, Motor
25	127148X	Swashplate, Variable

KEY NO.	PART NO.	DESCRIPTION
30	122723X	* Seal, Lip
31	127149X	Block Kit, Cylinder
36	127151X	Plug, Plastic
37	122786X	Pin, Stainless, Headless
38	122718X	* Gasket, Center Section
39	122731X	Filter
40	122730X	Washer, Thrust
41	122728X	Spring, Helical, Compression
42	127152X	Check Valve Kit
46	122787X	Plug, Stainless, Threaded
47	122752X	Screw, Socket Head, Cap
50	122788X	Washer, Thrust
51	122789X	Pin, Spiral
52	122754X	Plug, Stainless, Threaded
55	127153X	Bypass Valve Kit
58	122790X	Plug, Stainless, Threaded
59	127154X	Overhaul Seal Kit, BDU-10 **Includes:** Items marked with an asterisk (*); O-Rings for Check Valves and Bypass Valve
60	121430X	Pump Assembly, Complete

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

AGRI-FAB TRANSAXLE - MODEL NUMBER 121431X



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

AGRI-FAB TRANSAXLE - MODEL NUMBER 121431X

KEY NO.	PART NO.	DESCRIPTION
1	122614X	Housing, Half L.H.
2	122615X	Housing, Half R.H.
3	122616X	Axle L.H.
4	122620X	Axle R.H.
5	122621X	Bearing, Ball
6	122622X	Washer, Flat 3/4 x 1-1/8 x .030
7	122623X	Gear, Miter
8	122624X	Gear, Miter
9	122625X	Nut, Hex Jam w/Patch 1/2-20
10	122626X	Shaft, Cross
11	122688X	Screw, Stud
12	122629X	Snap, Ring
13	122631X	Bearing, Thrust
14	122633X	Housing Assembly, Differential
15	122634X	Bearing, Flange
16	122640X	Gear, Differential 72 Tooth
17	122641X	Bolt, Torx Head 1/4-28 x 5/8"
18	122642X	Shaft, Input
19	122643X	Snap, Ring
20	122644X	Retaining Ring 7/16"
21	122645X	Housing, Input Bearing
22	122646X	Bearing, Needle
23	122647X	Bearing, Thrust
24	122648X	Washer, Flat 5/8 x 1-1/8 x .030
25	122649X	Key, Hi-Pro 3/32 x 5/8
26	122650X	Screw, Hex W/Patch 1/4-20 x 3/4
27	122651X	Gear, Input Pinion 17 Tooth
28	123061X	Washer, Flat .62 x 1 x .05
- -	122678X	Washer, Flat .62 x 1.125 x .060
- -	122654X	Washer, Flat .62 x 1 x .040
29	122656X	Pin, Cotter
30	122653X	Nut, Castle 5/16-24
31	122659X	Washer, Flat .343 x .88 x .062
32	122660X	Arm, Brake Actuator
33	122662X	Pin, Brake Actuating
34	122663X	Brake, Yoke
35	122664X	Disc, Brake
36	123065X	Key, Hi-Pro 3/16 x 5/8"
37	122666X	Screw, Hex 1/4-20 x 1.50
38	122667X	Plate, Puck
39	122668X	Puck, Brake
40	123066X	Screw, Hex w/Patch 1/4-20 x 2.00
41	122670X	Screw, Hex Self-Tap 1/4-20 x 2.00
42	122671X	Screw, Hex Self-Tap 1/4-20 x 3.00
43	126982X	Bearing, Ball
44	122673X	Bearing, Ball
45	122674X	Shaft, Pinion W/11 Tooth Gear
46	122675X	Shaft, Drive
47	123059X	Bearing, Needle
48	123060X	Bronze Thrust Brg. 5/8 x 1-1/4 x 7/64
49	123061X	Washer, Flat .62 x 1.0 x .050
- -	122654X	Washer, Flat .62 x 1.0 x .040
50	122689X	Spacer
51	121839X	Coupling
52	126975X	Gear, 60 and 17 Tooth
53	122682X	Nut, Hex 1/4-20
54	122683X	Gear, Drive Pinion 17 Tooth
55	122684X	Bolt, Square Head
56	122685X	Washer 15/16 x .265 x .125
57	122686X	Washer, Spring Lock 1/4"
58	122687X	Pin, Roll 3/16" x 1/2"
59	122652X	Washer, Flat .62 x 1.0 x .030
60	123062X	Pin, Dowel 3/32 x 1/4
61	123063X	Seal, Grease
62	126977X	Washer, Head Spring Lock 1/4"
63	126980X	Assembly, Gear, Reduction
64	126981X	Assembly, Shaft, Input
65	126976X	Shell Durina-O Grease (20 oz.)
66	137195	Kit, Input Shaft
- -	121431X	Transaxle Assembly Complete

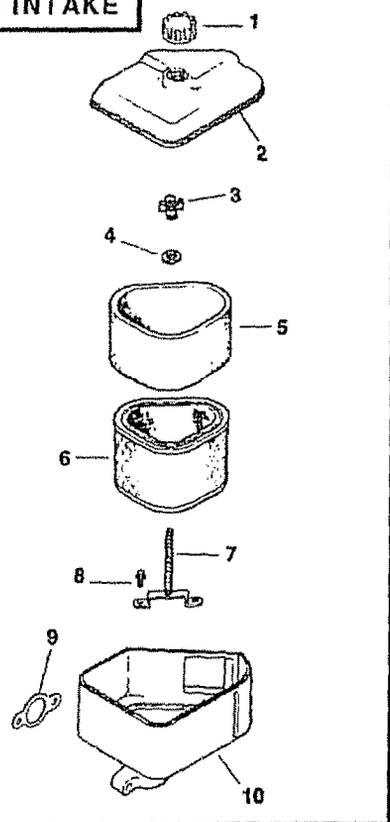
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

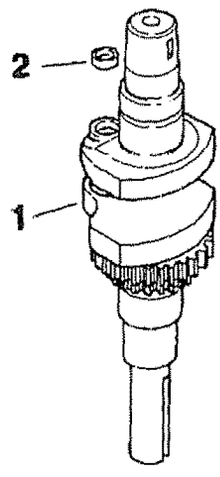
14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

KOHLER ENGINE MODEL NUMBER CV14S, TYPE NUMBER PS 1452

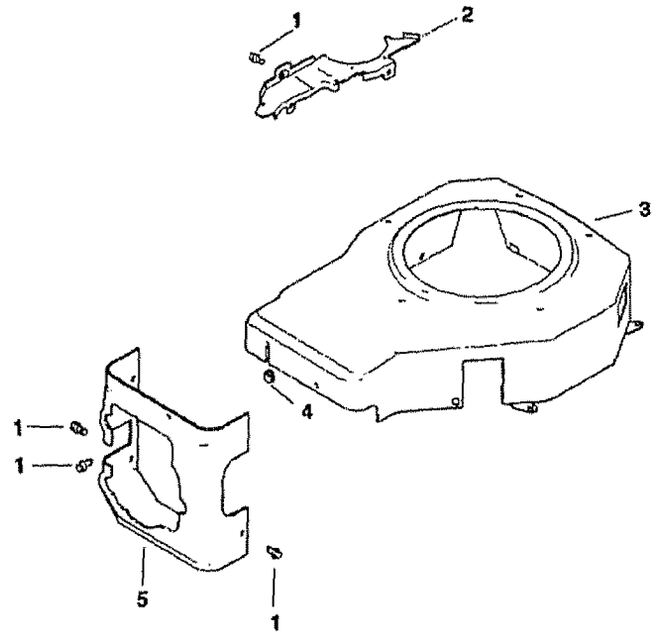
AIR INTAKE



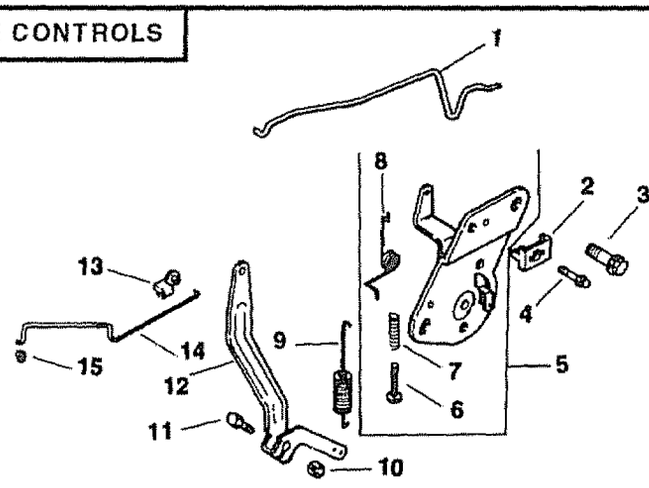
CRANKSHAFT



BLOWER HOUSING AND BAFFLES



ENGINE CONTROLS



EXHAUST

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462
KOHLER ENGINE MODEL NUMBER CV14S, TYPE NUMBER PS 1452

AIR INTAKE

KEY NO.	PART NO.	DESCRIPTION
1	12 341 01	Knob, Air Cleaner Cover
2	12 096 06	Cover, Air Cleaner
3	12 100 01	Wing Nut
4	X-25-63	Washer, Plain 1/4
5	12 083 08	Precleaner Element
6	12 083 05	Element, Air Cleaner
7	12 072 03	Stud, Mounting Plate
8	12 086 01	Screw, Mounting Plate Stud
9	12 041 02	Gasket, Air Cleaner
10	12 094 01	Base, Air Cleaner
NOT ILLUSTRATED		
- -	12 113 27	Decal, Air Cleaner

EXHAUST

KEY NO.	PART NO.	DESCRIPTION
1	M-0829033	Stud, Exhaust Manifold M8 x 1.25 x 20 (2)
2	12 041 03	Gasket, Exhaust Manifold
3	M-0841080	Nut, Muffler Mounting M8 x 1.25 (2)
4	12 126 11	Bracket, Muffler
5	12 445 01	Strap, Lifting
6	M-0645025	Screw, Lifting Strap M6 x 1.0 x 25 (2)
- -	12 522 01	Short Block
- -	12 755 01	Gasket Set

CRANKSHAFT

KEY NO.	PART NO.	DESCRIPTION
1	12 014 02	Crankshaft
2	12 139 01	Plug, Cup

BLOWER HOUSING AND BAFFLES

KEY NO.	PART NO.	DESCRIPTION
1	SM-0545010	Screw, Mounting M5 x 0.8 x 10 (12)
2	12 146 07	Plate, Blower Housing
3	12 027 14	Housing, Blower
4	12 313 03	Grommet, Blower Housing
5	12 063 08	Baffle, Cylinder Head
NOT ILLUSTRATED		
- -	12 113 28	Decal, Horsepower

ENGINE CONTROLS

KEY NO.	PART NO.	DESCRIPTION
1	12 079 07	Linkage, Choke
2	12 237 01	Clamp, Cable
3	SM-0645016	Screw, Hex Head M6 x 1.0 x 16 (2)
4	SM-0545016	Screw, Cable Clamp
5	12 536 01	Control, Speed Assembly (Includes Key Numbers 6 through 8)
6	SM-0443025	Screw
7	12 089 11	Spring, Choke Adjust
8	12 089 04	Spring, Choke Return
9	12 089 19	Spring, Governor
10	SM-0641060	Nut, Governor Arm M6 x 1.0
11	SM-0642025	Screw, Governor Arm M6 x 1.0 x 25
12	12 090 05	Lever, Governor
13	25 158 11	Bushing
14	12 079 01	Linkage, Throttle
15	25 158 08	Bushing

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

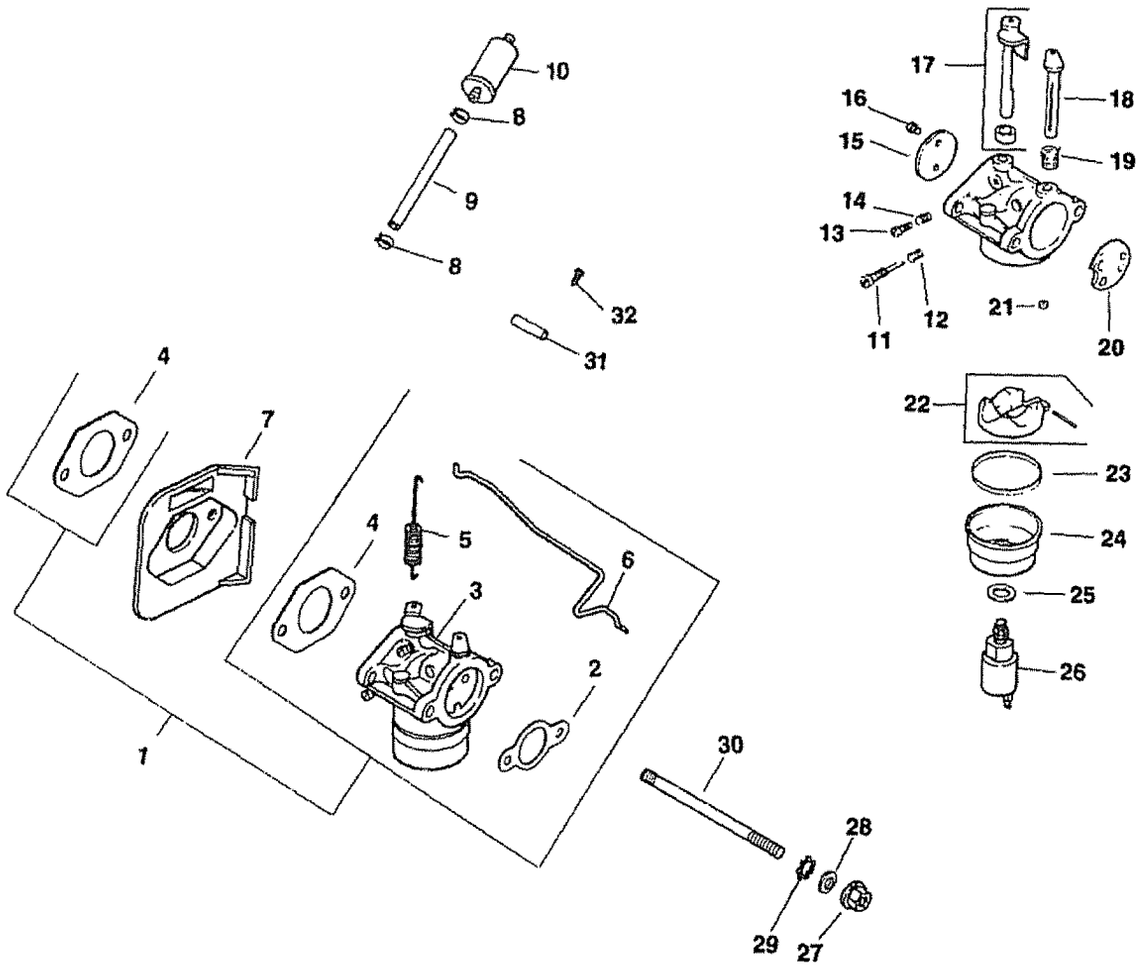
RPM Settings: Low Speed 1500 - 2000
High Speed 3200 - 3400

REPAIR PARTS

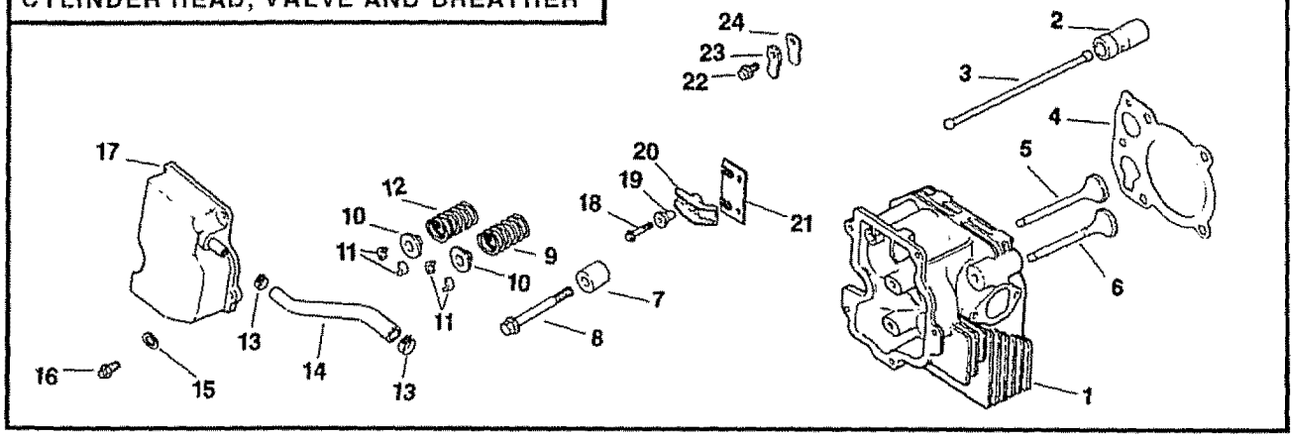
14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

KOHLER ENGINE MODEL NUMBER CV14S, TYPE NUMBER PS 1452

FUEL SYSTEM



CYLINDER HEAD, VALVE AND BREATHER



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

KOHLER ENGINE MODEL NUMBER CV14S, TYPE NUMBER PS 1452

FUEL SYSTEM

KEY NO.	PART NO.	DESCRIPTION
1	12 853 26	Kit, Carburetor (Includes Key Numbers 2 thru 6)
2	12 041 02	Gasket, Air Cleaner
3	12 053 32	Carburetor Assembly (For Information Only - Not Available Separately) (Includes Key Numbers 11 thru 26)
4	12 041 01	Gasket, Carburetor (2)
5	12 089 04	Spring, Choke Return
6	12 079 07	Linkage, Choke
7	12 265 01	Deflector, Heat
8	X-426-9	Clamp, Hose (2)
9	25 353 02	Fuel Line, 3"
10	25 050 02	Filter, Fuel
11	12 368 01	Needle, Idle, Fuel Adjust
12	12 089 09	Spring, Idle Fuel
13	12 086 04	Screw, Idle Speed Adjust
14	12 089 09	Spring, Idle Speed
15	12 146 03	Plate, Throttle
16	25 086 27	Screw, Throttle Plate (2)
17	12 144 09	Shaft, Throttle with Lever and Seal
18	12 144 08	Shaft, Choke
19	12 089 10	Spring, Choke Return
20	12 146 02	Plate, Choke
21	12 337 01	Jet, Main
22	12 757 02	Kit, Float
23	12 041 05	Gasket, Bowl
24	12 104 01	Bowl, Fuel
25	12 041 06	Gasket, Bowl Retainer Screw
26	12 757 09	Kit, Solenoid Assembly
27	SM-0641060	Nut, Carburetor M6 x 1.0 (2)
28	X-25-63	Washer, Plain 1/4
29	X-22-11	Washer, Internal Tooth 1/4
30	M-0629122	Stud, Carburetor M6 x 1.0 x 110 (2)
31	12 431 01	Sleeve, Insulating
32	12 086 07	Screw, Ground Wire

NOT ILLUSTRATED

- -	12 757 03	Kit, Carburetor Repair
- -	12 755 09	Kit, High Altitude Jet
- -	12 518 05	Lead, Solenoid, Black, 5", 14 Gauge, Uninsulated Push-On Tabs
- -	41 518 34	Lead, Ground, Green, 5", 18 Gauge Insulated Grip Barrel Eyelets

CYLINDER HEAD, VALVE AND BREATHER

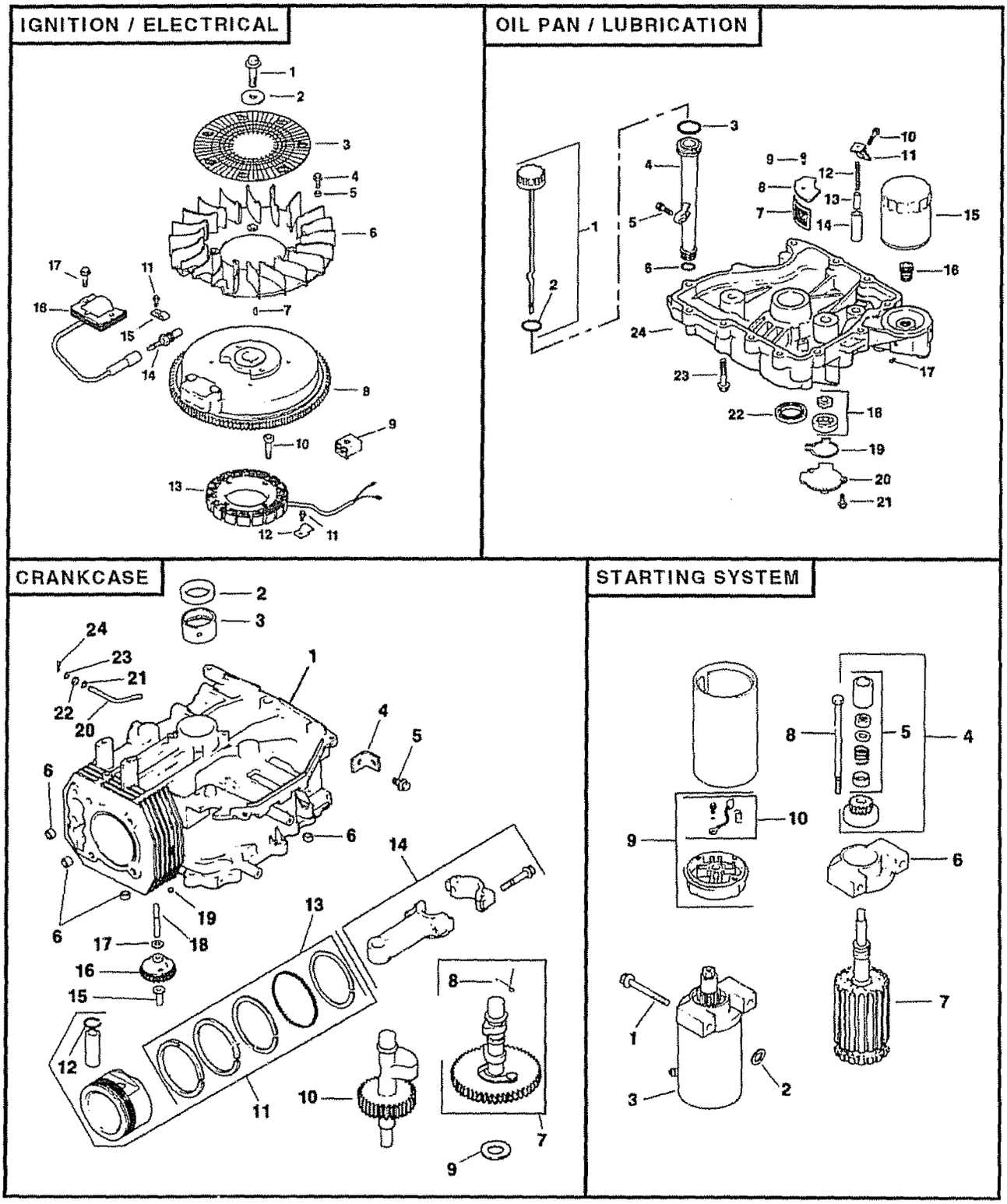
KEY NO.	PART NO.	DESCRIPTION
1	12 318 02	Head, Cylinder
2	12 351 01	Lifter, Valve (2)
3	12 411 01	Rod, Push (2)
4	12 041 08	Gasket, Cylinder Head
5	12 017 01	Valve, Intake, Standard Size
	12 017 02	Valve, Intake, .25" Oversize
6	12 016 01	Valve, Exhaust, Standard Size
	12 016 02	Valve, Exhaust, .25" Oversize
7	12 112 13	Spacer, Head Bolt Exhaust Port
8	12 086 15	Screw, Cylinder Head M10 x 1.5 x 80 (5)
9	12 089 15	Spring, Exhaust Valve
10	12 173 01	Cap, Valve Spring (2)
11	12 755 03	Kit, Retainer (2)
12	12 089 01	Spring, Intake Valve
13	X-426-9	Clamp, Hose (2)
14	12 326 03	Hose, Breather
15	12 468 05	Washer, Flat
16	SM-0645020	Screw, Valve Cover M6 x 1.0 x 20 (5)
17	12 096 07	Cover, Valve with Nipple
18	M-0640034	Screw, Rocker Arm M6 x 1 x 34 (2)
19	24 194 01	Ball, Rocker Pivot (2)
20	24 186 01	Arm, Rocker (2)
21	12 146 13	Plate, Guide
22	SM-0545010	Screw, Breather Reed Retainer M5 x 0.8 x 10
23	12 018 01	Retainer, Breather Reed
24	12 402 01	Reed, Breather

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

REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

KOHLER ENGINE MODEL NUMBER CV14S, TYPE NUMBER PS 1452



REPAIR PARTS

14 HP 42" TRACTOR - - MODEL NUMBER 917.255462

KOHLER ENGINE MODEL NUMBER CV14S, TYPE NUMBER PS 1452

IGNITION / ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
1	12 086 14	Screw, Flywheel M10 x 1.5 x 45.8
2	12 468 03	Washer, Flywheel
3	12 162 01	Screen, Grass
4	M-0639016	Screw, Fan M6 x 1 x 13 (4)
5	12 112 01	Spacer, Fan (4)
6	12 157 02	Fan
7	X-42-15	Key
8	12 025 25	Flywheel Assembly
9	41 155 02	Connector
10	M-0548025	Screw, Stator Mounting M5 x 0.8 x 25 (4)
11	SM-0545010	Screw, Stator Harness Clip M5 x 0.8 x 10 (2)
12	12 154 02	Clip, Stator Harness
13	12 085 03	Stator Assembly, 15 Amp
14	12 132 02	Spark Plug
15	X-728-1	Clip, Cable
16	12 584 01	Module, Ignition
17	SM-0545020	Screw, Ignition Module M5 x 0.8 x 20 (2)
NOT ILLUSTRATED		
- -	12 518 01	Lead, White, Ground To Kill (19", 18 Gauge, Fully Insulated Push-on Tab and Uninsulated Push-on Tab Terminals)
- -	55 755 01	Kit, Diode

OIL PAN / LUBRICATION

KEY NO.	PART NO.	DESCRIPTION
1	12 038 01	Dipstick Assembly (Includes #2)
2	12 153 03	O-Ring, Dipstick
3	12 153 02	O-Ring, Upper Oil Fill Tube
4	12 123 04	Tube, Oil Fill
5	SM-0545020	Screw, Oil Fill Tube M5 x 0.8 x 20
6	12 153 01	O-Ring, Lower Oil Fill Tube
7	12 162 02	Screen, Oil Pickup
8	12 096 03	Cover, Oil Pickup Screen
9	SM-0545016	Screw, Screen Cover
10	M-1051025	Screw, Oil Pump Relief Valve Bracket M10 x 1.5 x 25
11	12 126 02	Bracket, Oil Pump Relief Valve
12	12 089 03	Spring, Oil Pump Relief Valve
13	12 462 01	Piston, Oil Pump Relief Valve
14	12 208 01	Body, Oil Pump Relief Valve
15	12 050 01	Filter, Oil
16	12 136 01	Adapter, Oil Filter
17	X-75-10	Plug, Square Head, Solid 3/8 NPTF
18	12 393 01	Oil Pump Assembly
19	12 032 04	O-Ring, Oil Pump Cover
20	12 096 02	Cover, Oil Pump
21	SM-0545016	Screw, Oil Pump Cover M5 x 0.8 x 16 (3)
22	12 032 03	Seal, Oil (P.T.O. End)
23	SM-0839045	Screw, Oil Pan M8 x 1.25 x 45 (12)
24	12 199 33	Pan, Oil

CRANKCASE

KEY NO.	PART NO.	DESCRIPTION
1	- - -	Block, Cylinder (Use Short Block, Part Number 12 522 01)
2	12 032 03	Seal, Crankshaft
3	12 030 01	Bearing, Crankshaft, Standard (Flywheel End)
	12 030 02	Bearing, Crankshaft .25" oversize
	12 030 03	Bearing, Crankshaft .50" oversize
4	12 445 02	Strap, Lifting
5	M-0839025	Screw, Lifting Strap M8 x 1.25 x 22
6	12 380 03	Dowel, Locating (4)
7	12 010 04	Camshaft Assembly (Includes #8)
8	12 089 18	Spring, Actuating
9	12 422 08	Shim, Camshaft
	12 422 09	Shim, Camshaft (as required)
	12 422 10	Shim, Camshaft (as required)
	12 422 11	Shim, Camshaft (as required)
	12 422 12	Shim, Camshaft (as required)
	12 422 13	Shim, Camshaft (as required)
	12 422 07	Shim, Camshaft (as required)
10	12 144 04	Shaft, Balance
11	12 874 01	Piston w/Ring Set, Standard
	12 874 02	Piston w/Ring Set .25" oversize
	12 874 03	Piston w/Ring Set .50" oversize
12	12 018 02	Retainer, Piston Pin (2)
13	12 108 01	Ring Set, Standard
	12 108 02	Ring Set .25" oversize
	12 108 03	Ring Set .50" oversize
14	12 067 01	Connecting Rod, Standard
	12 067 02	Connecting Rod .25" oversize
15	12 380 01	Pin, Governor Regulating
16	12 043 05	Gear, Governor Assembly
17	SM-0631005	Washer, Governor Gear Thrust
18	12 144 02	Shaft, Governor Gear
19	52 139 09	Plug, Cup
20	12 144 01	Shaft, Governor Cross
21	SM-0631015	Washer, Governor Shaft
22	12 032 01	Seal, Governor Cross Shaft
23	X-25-102	Washer, Plain 1/4
24	12 380 04	Pin, Governor Hitch

STARTING SYSTEM

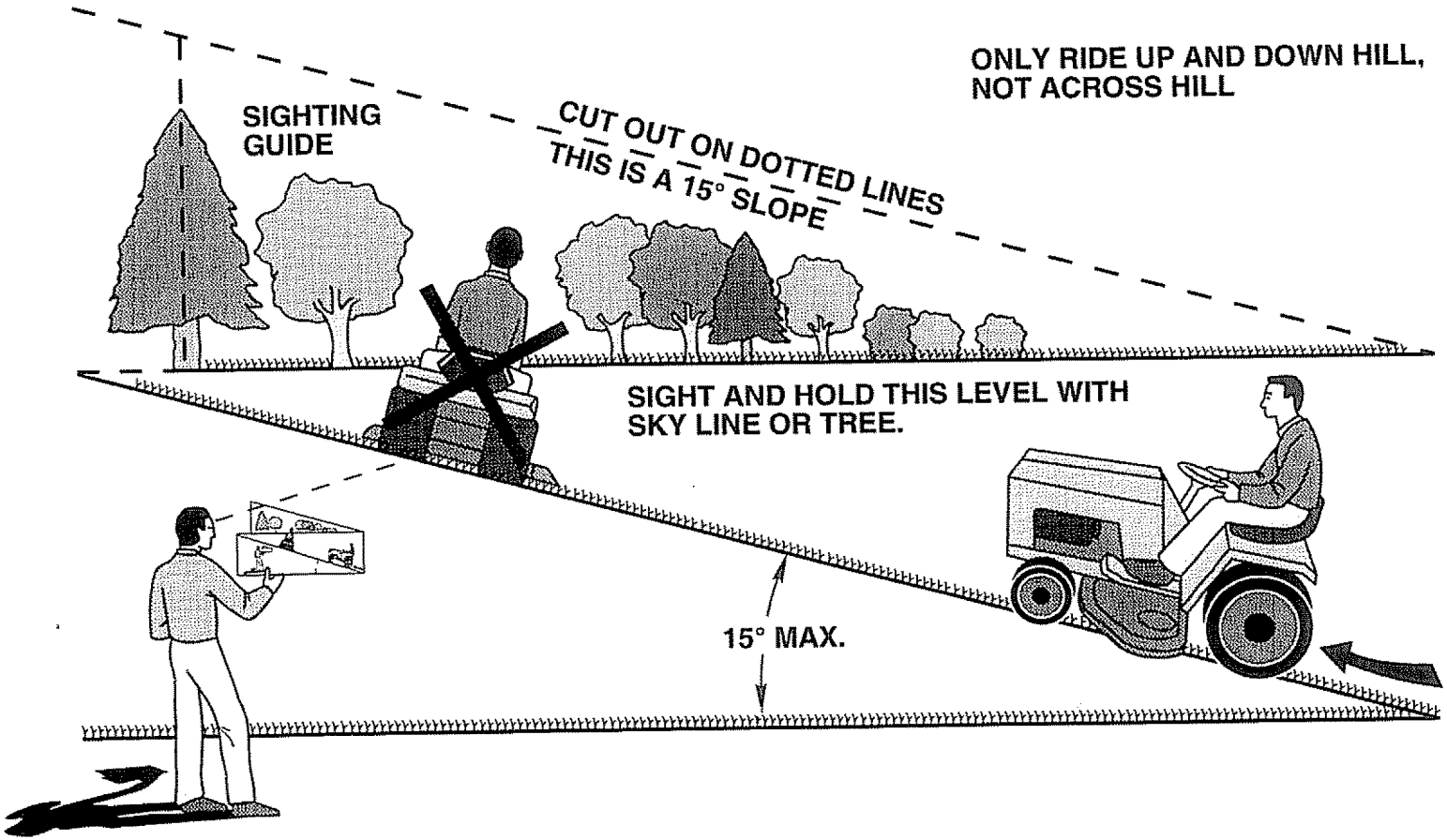
KEY NO.	PART NO.	DESCRIPTION
1	M-0839070	Screw, Bendix Starter M8 x 1.25 x 70 (2)
2	12 468 01	Washer (2)
3	12 098 05	Starter Bendix (Includes #4-10)
4	12 755 12	Kit, Drive (Includes Key Number 5)
5	12 755 06	Kit, Drive Parts
6	12 227 01	Cap, Drive End
7	12 170 02	Armature
8	12 086 02	Screw, Hex Flange
9	12 243 01	Cap, Commutator End (Includes Key Number 10)
10	52 755 15	Kit, Brush
NOT ILLUSTRATED		
- -	52 357 01	Lubricant, Starter

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

SERVICE NOTES

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.

SEARS

OWNER'S MANUAL

MODEL NO. 917.255462

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)

CRAFTSMAN®

14 HP ELECTRIC START 3 in One Convertible 42" MOWER AUTOMATIC TRANSAXLE (HYDROSTATIC) LAWN 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 - 917.255462**
- **ENGINE MODEL NO. - CV14S, TYPE NO. - 1452**
- **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.

144268 1.06.94

Printed in U.S.A.

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