



GROUNDS MOWERS

**Model
G2018D**

**Instruction Manual
and
Parts List**

Warning

Use this manual for safety instructions and operating instructions.
Save for future reference.

Make sure that everyone who operates this machine has read this manual completely!



Manual No. 8-58030

Grazer Division, Ingersoll Equipment Company
200 Ingersoll Road - Winneconne, WI 54986

CONGRATULATIONS

When you purchased this mower, you acquired one of the finest grounds mowers available in today's industry.

This mower will reduce your mowing time by at least 35% over conventional tractors with center-mounted decks of equal horsepower and mowing width. You'll eliminate time normally wasted by backing for turns and corners or mowing over grass already mowed. This mower will save time, fuel, maintenance and operator fatigue.

We feel that we manufacture the most efficient and productive mower your money can buy. We build machines to keep mowing and doing a better job of it.

INTRODUCTION

Your Operator's Manual will assist you in the operation and servicing of your mower. The manual will acquaint you with your machine and outline how you affect performance and longevity of your mower.

Please read the manual carefully and thoroughly. Give close attention to all Safety Alert Symbols, Warnings and Cautions (See page 2) - Safety is always a priority!

Decals have been placed on the tractor to instruct the operator and to warn of safety hazards. It is very important that they be in place and visible at all times. Replace damaged or missing decals immediately!

Separate operating and maintenance instructions are included for your engine. Use these instructions along with your mower operator's manual for complete care of your machine.

NOTE: Major engine repair and warranty must be obtained from your local Perkins dealer (Detroit Diesel).

Always use original equipment parts available from your factory authorized dealer.

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Enter model and serial numbers here for future reference.

TRACTOR:	Model Number _____
	Serial Number _____
DECK:	Model Number _____
	Serial Number _____
ENGINE:	Make <u>Perkins</u>
	Model Number <u>103.07</u>
	Code Number <u>KL70264</u>

SAFETY ALERT SYMBOL AND NOTATIONS

The following safety notations are used throughout this manual to call attention to special information or operating procedures. Understand the message in each notation. Be alert to unsafe conditions and the possibility of personal injury.

NOTE: A NOTE points out general reference information regarding proper operation and maintenance practices.

IMPORTANT



An IMPORTANT statement indicates specific procedures or information that is required to prevent damage to the machine or its attachments.

This safety alert symbol is used to attract your attention! PERSONAL SAFETY IS INVOLVED! When you see this symbol - BECOME ALERT - HEED ITS MESSAGE.



CAUTION

CAUTION identifies safe operating practices or indicates unsafe conditions that could result in personal injury.



WARNING

A WARNING describes a condition where failure to follow the instructions could result in severe personal injury.



DANGER

A DANGER designates a condition where failure to follow instructions or heed warning will most likely result in serious personal injury or death.

SAFETY FIRST

NOTE: DO NOT ATTEMPT TO START THE ENGINE UNTIL YOU HAVE READ THE ENGINE MANUAL.



THIS IS A SAFETY ALERT SYMBOL USED TO ALERT YOU TO POSSIBLE DANGER TO YOUR OR SOMEONE ELSE'S PERSONAL SAFETY. WHEN YOU SEE THIS SYMBOL, BE ALERT TO THE ACCOMPANYING MESSAGES IN THIS MANUAL.



CAUTION

Your mower is equipped with an ignition interlock safety system. This system is designed to protect the operator and others in the immediate area by preventing the engine from starting when the PTO switch is ON or the lever lock is not in the locked position. This system should always be operative.

Listed below are a common set of rules you should read and follow, remember, your safety and the safety of others depends on the operator's awareness and adherence to these basic rules.

1. Remove all debris from area to be mowed. Keep persons and pets away from mowing area. Although area has been supposedly cleared of all debris, small objects may have been overlooked and may be discharged or thrown by mowing parts—causing injury to people, pets, property or to the mower.
2. To start the engine (A) lock steering levers in neutral (B) disengage PTO switch.
3. Never place hands or feet under deck while engine is running.
4. Never fill the fuel tank while the engine is hot. Wipe off any fuel that might have spilled. Replace fuel cap on tank.
5. Only persons thoroughly acquainted with rules of safety operation should be permitted to use of mower. Never allow a small child to operate, or be in the operating area of power equipment.
6. DO NOT attempt to get off or on mower when mower deck is engaged and engine is running. Wait until mower blades stop turning before getting on or off mower. Make sure the PTO is disengaged before parking mower.
7. Keep blades sharp and properly balanced. If your equipment should start vibrating, stop the engine and check for damaged or loose parts. Vibration is generally a warning of trouble.
8. When putting on new blades, make sure they are tight.
9. DO NOT attempt to clean deck housing, or to otherwise clean, adjust or repair machine before stopping mower engine. FOR YOUR OWN SAFETY, remove ignition key and disengage PTO switch.
10. Always keep all shields and guards in place. Mower must never be operated with any shields or guards removed.
11. Never leave machine running unattended. Remove key from ignition switch to prevent children from starting the mower.
12. Never run engine inside a building without proper ventilation.
13. ALWAYS operate the machine with the deck in the lowered position.
14. Always drive slowly over varied terrain to prevent tipping the mower.
15. DO NOT operate the mower at high speed going downhill and DO NOT TURN SHARP CORNERS WHILE GOING DOWNHILL. NOTE: The hydraulic pumps produce braking action when steering levers are moved toward neutral; this procedure is recommended for braking action.
16. DO NOT operate mower on inclines greater than 25%.
17. Always observe traffic laws while driving machine from one location to another.
18. Always stop the engine and inspect the machine after striking a foreign object. If damage is found, repair the machine immediately.
19. Keep all caution and safety decals legible at all times. Replace any that are damaged.
20. Do not operate the machine while under the influence of alcohol or drugs.

In addition to the above safety procedures for operation of the mower, the following precaution should be observed when using fuel. Its improper use, handling and storage can be dangerous:

ALWAYS USE AN APPROVED CONTAINER. PLACE CONTAINER OUT OF REACH OF CHILDREN.

NEVER ADD FUEL TO A RUNNING OR HOT ENGINE.

FILL TANK OUT OF DOORS AND WIPE UP ANY SPILLED FUEL.

POSITIVELY NO SMOKING.

DEALER PREPARATION FOR OPERATION

CUSTOMER NOTE: Your dealer is expected to complete these preparation steps and review important information, including this manual, with you before or upon delivery of this unit.

The preparation information is included here so that you and your dealer may review it together.

NOTE: All reference to "Left", "Right", "Front" and "Rear" are from operator seated on seat.

SET UP

Install front and rear wheels.

Install seat and connect seat switch wires.

Install grab bar to tower.

BATTERY

Battery is shipped without electrolyte. After removing battery from tractor, fill each cell with electrolyte to level indicator.

PERFORM ALL STEPS outlined in the Machine Check List.

IGNITION INTERLOCK SAFETY SYSTEM



DANGER

Failure of Ignition Interlock Safety System, together with improper operation of unit, could result in severe personal injury.

Check Interlock Safety System to make sure it is functioning properly. Engine must not start unless steering lever lock is locked and PTO switch is off. Engine must stop if operator leaves the seat when lever lock is unlocked.

INSTALL DECK

Refer to Installation of Deck to Tractor Section of operator's manual for instructions.

REGISTRATION

Complete Mower Delivery Report.

Warranty is registered under model and serial number found under rear lid, by fuel tank.

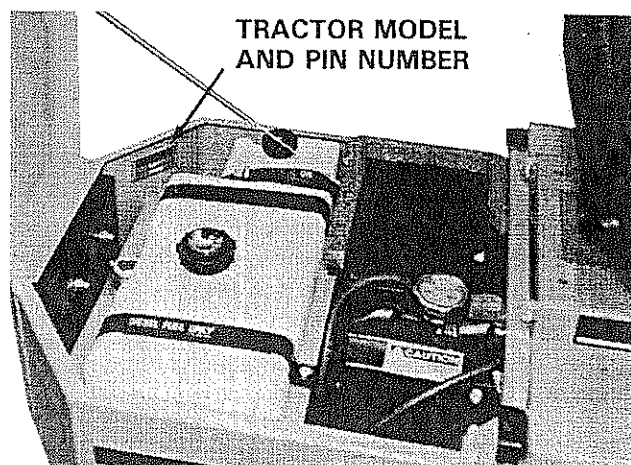


FIGURE 1

Deck model and serial number is found on back left corner of pulley box.

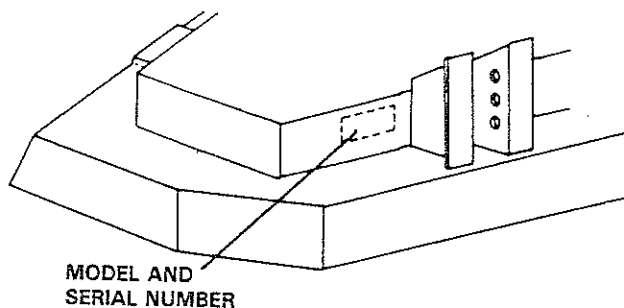


FIGURE 2

DELIVERY

Use the operator's manual, instruct customer on controls and operation of unit. Emphasize safety and discuss Safety Precautions.

IMPORTANT

Remind customer to change oil in engine crankcase and engine oil filter after first 20 to 50 hours. Adjust deck belts and deck drive belt after 2 hours of operation.

MACHINE CHECK LIST

The following list should be acknowledged before a new machine is put into service:

1. Check engine oil level (See engine manual for recommendation).
2. Check oil level in hydraulic system. Oil level should be 4" below top of oil tank when cold.
3. Fill fuel tank with #2 diesel fuel only.
4. Check tension on deck drive belt and deck belts. These belts should have a 1/2" deflection on longest span when 5 pounds of pressure is applied.
5. Check pump drive belt idler to see that it operates freely and applies tension on belt.
6. Check pressure on all tires (See Tire Pressure Chart, Fig. 2A). Tire pressure must be equal in each drive wheel. This also applies to deck gauge wheels.

IMPORTANT: Make sure tire air valve is in the top position before you check tire pressure. Tire sealant will plug valve if valve is at bottom.

TIRE	PRESSURE PSI
Drive Wheels	14 to 18
Tail Wheel	14 to 18
Gauge Wheels	10 to 18

FIGURE 2A

7. Check radiator coolant level. When adding liquid to radiator, always use a 50/50 solution of antifreeze and water.
8. Make sure that all hoses and clamps are secure.
9. Check all hydraulic hoses and fittings for leaks.

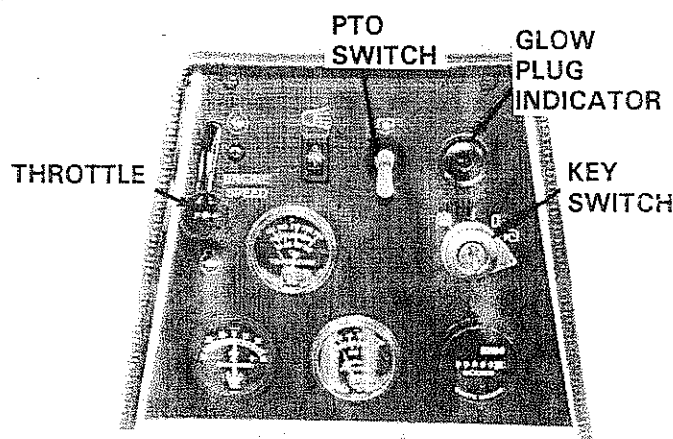


FIGURE 3 - Controls

MACHINE OPERATION

STARTING AND STOPPING THE ENGINE

NOTE: Engine starter will not engage unless steering levers are LOCKED in neutral and PTO switch is in OFF position. This is identified as the IGNITION INTERLOCK SAFETY SYSTEM



WARNING

Never operate machine with Ignition Interlock Safety System disconnected, bypassed or malfunctioning.



CAUTION

Always start engine with the park brake ON. This will keep the tractor from creeping upon start-up.



WARNING

Engine exhaust gases contain poisonous carbon monoxide. Avoid inhaling fumes and never run engine in a closed building or confined area.



CAUTION

Do not use ether or starting fluid in the intake air of engine, or severe damage will occur.

1. Open throttle completely.
2. Turn the ignition switch counter-clockwise to PREHEAT to allow glow plug indicator lamp to turn red. Below shows the standard preheating times for various temperatures. This operation is not required when the engine is warmed up.

TEMPERATURE	PREHEATING TIME
Over 32° F	15 Seconds
Under 32° F	30 Seconds

FIGURE 4

3. Turn key to START. Return key to ON when engine starts.
4. If engine does not start within 20 seconds allow starter to cool for 60 seconds. Repeat steps 2 and 3.
5. Warm-up the engine at medium speed (even in warm weather) before operating equipment. An insufficiently warmed engine can shorten its service life.

TO STOP ENGINE

1. Run the engine at half throttle for a minimum of 15 seconds under no load to cool down.
2. Turn ignition key to OFF and remove key.

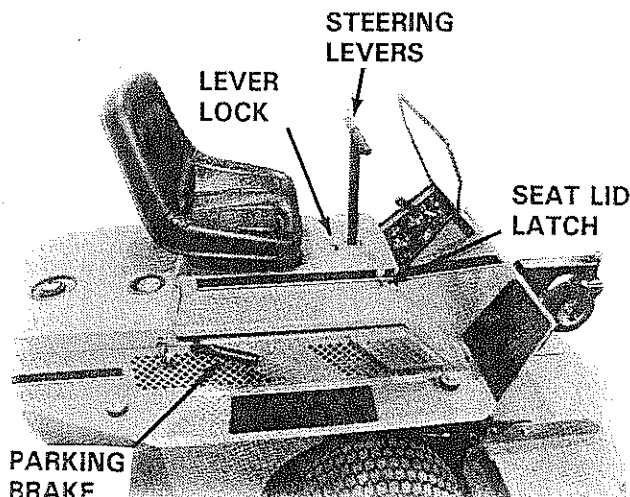


FIGURE 4

DRIVING

After starting engine, put parking brake in run and unlock lever lock. If the lever lock is unlocked while the parking brake is on. The engine will stop. Steering levers control forward and reverse movement as well as turning and braking. Each lever controls the direction of the corresponding drive wheel. To turn the machine to the right move the right lever back and/or left lever forward. To turn the machine to the left, move the left lever back and/or the right lever forward.

CAUTION

Any sudden movement of levers will result in sudden braking or opposite direction of travel.

BRAKING

Forward or reverse movement is slowed or stopped by returning steering levers toward neutral position.

ENGAGING PTO

The PTO switch, at upper center of dash panel, activates electric clutch. To engage, set engine throttle to 1/3 speed and pull out and up on PTO switch.

WARNING

Operator must be in seat for PTO to activate. When rotary mower is being used, extreme care must be taken not to direct discharge in direction of persons or pets.

The PTO will only activate if seated in operator's seat and deck safety switch is plugged in.

LIFTING THE ATTACHMENTS

WARNING

Never travel at road speeds with attachment in raised position.

WARNING

When operating this machine hydraulic valve must be in FLOAT or lowest position.

Attachments for tractor are raised and lowered by a hydraulic valve located on left side of operator's seat. Raising lever to upmost position raises attachment. The next notch down will hold attachment at a set position. Lowest position will lower attachment and allow it to float with terrain.

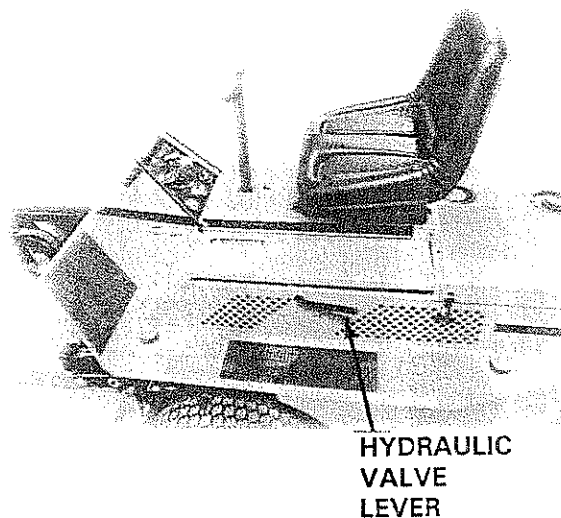


FIGURE 4A

TILTING DECK FOR SERVICE

Raise the deck approximately 6 inches off the ground, SHUT THE ENGINE OFF and remove the key.



WARNING

Never handle the deck while the tractor engine is running.

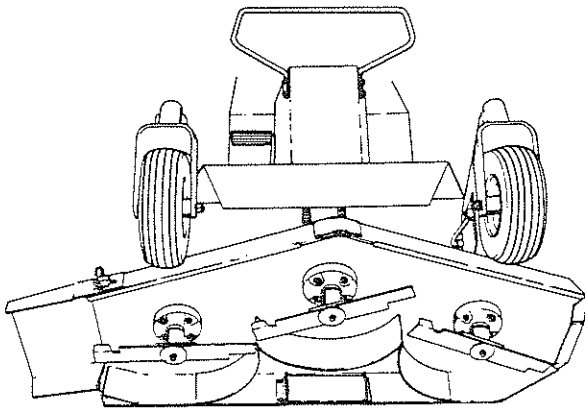


FIGURE 5

Remove the 2 deck pins (Fig. 6) and lift up on the front of the deck until the deck pin can be placed in the hole (Fig. 6) to lock deck up. Place the hydraulic valve lever in the lowest or float position to lower deck to the ground.

To lower deck, start engine and raise deck approximately 6 inches off ground. SHUT ENGINE OFF and remove key. Remove deck pin and lower deck. Replace deck pins at desired cutting height.

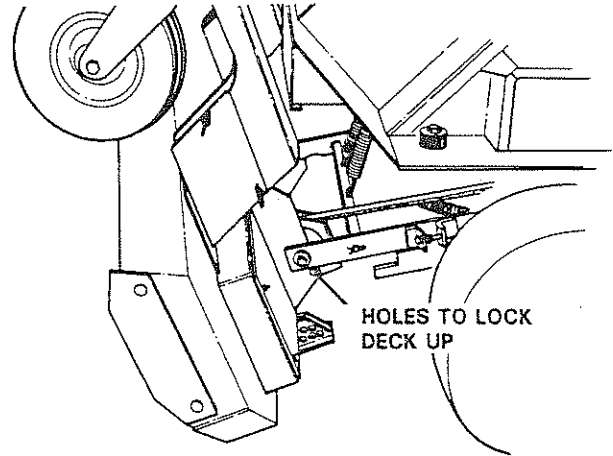


FIGURE 6

**WARNING**

When servicing machine, stop engine, remove key and engage lever lock and parking brake.

Routine lubrication and maintenance is the most important step toward low upkeep, long machine life, satisfactory service and a quality mowing.

Also see engine manual.

QUICK REFERENCE MAINTENANCE SCHEDULE

REF	SERVICE AT INTERVALS INDICATED	DAILY PRESTART	EVERY		WEEKLY OR EVERY 40 HR.	MONTHLY OR EVERY 100 HR.	3 MONTHS OR EVERY 100 HR.	ANNUALLY OR EVERY			
			4 HR.	8 HR.				200 HR.	400 HR.	500 HR.	600 HR.
A	Verify Ignition Interlock Safety System	X									
A	Check Engine Oil Level	X	X								
A	Check Radiator Coolant Level	X									
A	Visually Inspect Tractor	X									
A	Visually Inspect Tires	X									
A	Check Air Cleaner	X									
A	Clean Cooling System Air Intake Screen	X	X								
A	Clean Radiator Core	X									
A	Lube Spindle Bearings			X							
A	Lube Deck Gauge Wheels			X							
A	Check Battery Connections				X						
C	Check Fuel Filter For Water				X						
A	Lube Rear Tail Wheel				X						
C	Clean Fuel Filter					X					
A	Check Hydraulic Oil Level	X									
A	Tighten Hub Bolts on Wheels					X					
C	Service Air Cleaner Filter Element (1)					X					
A	Check Tire Pressure with Gauge (3)					X					
C	Check Alternator Belt Tension					X					
A	Check Lift Arm Pivot Bolts					X					
A	Check Deck Gearbox Lube Level					X					
C	Replace Engine Oil (2)						X				
C	Change Engine Oil Filter (2)						X				
A	Clean Engine Cooling Shrouds						X				
C	Change Fuel Filter Element								X		
A	Clean Hydraulic Oil Filler Cap									X	
B	Clean Radiator & Change Coolant										X
A	Replace Hydraulic Filter and Oil (1)										X
C	Replace Air Filter Element (1)								X		

NOTES:

- (1) More often under dusty or dirty conditions
 (2) Initial oil and filter change is at 20-50 hours.
 (3) Air valve must be in up position.

REFERENCE:

- A—See Owner's Manual
 B—See Engine Manual
 C—See Both Owner's and Engine Manuals.

IGNITION SAFETY SYSTEM

Check tractor Ignition Interlock Safety System daily, prior to operation. This system is important to safety of persons in the area. It should be repaired immediately if malfunctioning. To check system follow these steps:

1. Begin with parking brake engaged, PTO switch off and lever lock engaged.
2. Disengage lever lock and turn the ignition key to start position. The starter motor should not respond.
3. Lock the lever lock and turn PTO switch on and turn ignition key to start position. Starter motor should not respond.

If starter responds to either of these tests, turn off ignition and make corrections immediately. Otherwise, proceed with other preoperative checks.

SEAT SWITCH

Check seat switch before each operation. the machine should not be operated with an inoperative switch. To check seat switch:

1. Start engine while seated in operator's seat. Unlock lever lock and raise from seat—engine should quit. Parking brake must be disengaged before this check.
2. Return lever lock to lock position and restart engine. Engage PTO switch and raise from seat—engine should quit.

If engine fails to quit turn off ignition switch and correct immediately.

BREAK-IN SERVICES

A new engine requires special break-in maintenance services. Read appropriate section of owner's manual. Engine oil and filter should be changed after first 20-50 hours of operation.

ENGINE OIL SYSTEM

Check engine oil level at the start of each day and again after 4 hours of operation. Oil must always be between marks on the dipstick.

Change engine oil after first 20-50 hours of operation. Refer to engine manual for oil change intervals after initial change.

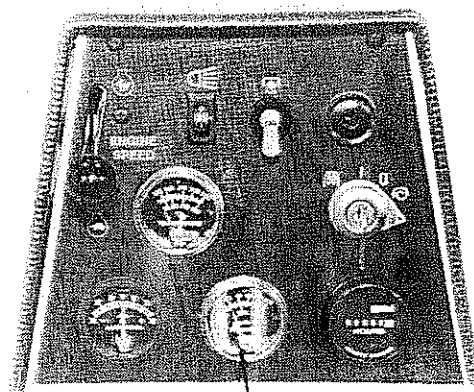
To change oil, park tractor on level surface, remove ignition key, lock the lever lock and apply parking brake. Remove drain plug from bottom of engine. Drain oil into pan that holds 3 quarts. Dispose of oil in accordance with local laws. Remove oil filter (which is located to rear of engine). Lubricate gasket on new filter with new engine oil and install. Tighten filter by hand only. Replace oil drain plug.

Add new oil through filler port. When adding new oil, check level with dipstick (DO NOT OVERFILL). See engine manual for oil capacity, API service class and viscosity.



WARNING

During normal operation oil heats to a level that may cause severe burns. Allow engine to cool before servicing.



OIL
PRESSURE
GAUGE

FIGURE 8

LOW OIL PRESSURE

Turn key off and check oil level first. If oil level is normal, contact your dealer. If the engine oil is low, add oil to the proper level and check for leaks at oil filter, drain plug and oil line from engine to oil gauge. Any oil leak must be corrected immediately.

HYDRAULIC SYSTEM



CAUTION

Care must be taken to keep any dirt or moisture from entering the hydraulic system. Small amounts of either will greatly reduce the life of the components.

The hydraulic system reservoir is located under the back cover.

Check hydraulic oil level daily. Oil level should be 4" below top of tank.

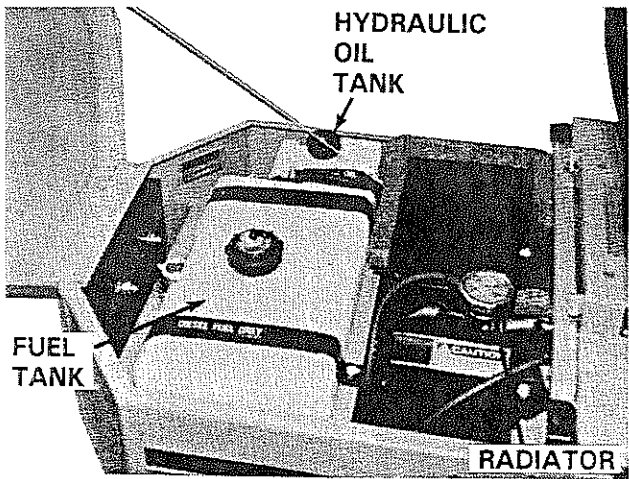


FIGURE 9



CAUTION

Use only 20W special oil (Part No. C38443).

NORMALLY replace hydraulic oil and filter every 600 hours. First drain oil by removing hose between oil tank and hydraulic motor.

NOTE: If tractor drive performance becomes sluggish it is recommended that the filter be changed. Great care must be taken to insure that ALL PARTICLES that may cause contamination to system be removed from around filter and housing before removal.

To clean around filter before removal, use a solvent and brush to remove soil and dirt. Then use compressed air to final clean the area.

Only original equipment parts should be used as they have been precleaned.

When a leak is detected in hydraulic system, stop the machine at once and repair the leak. Once repaired, refill hydraulic reservoir.



WARNING

Hydraulic oil escaping under pressure can penetrate skin. Before applying pressure to hydraulic system, make sure all connections are tight and all hoses and lines are in good condition. To find a leak under pressure, use a piece of cardboard or wood—NEVER use your hands. Lower all attachments, shut engine off and remove key before opening any hydraulic lines. Eye protection should be worn; when servicing hydraulic system.

It is important to keep the transmission pump's fins and cooling fans clean at all times. If a cooling fan becomes damaged it should be replaced with a new one.

LUBRICATION

Use a SAE multi-purpose gun grease on all zerks. Do not use more than one or two pumps from grease gun each time.

LUBRICATION REFERENCE GUIDE

1 — Gauge Wheel Axle Bearing	8 Hrs.
2 — Gauge Wheel Fork Bearing	40 Hrs.
3 — Spindle Bearings	8 Hrs.
4 — Tail Wheel Fork Bearings	40 Hrs.
5 — Tail Wheel Axle Bearings	8 Hrs.

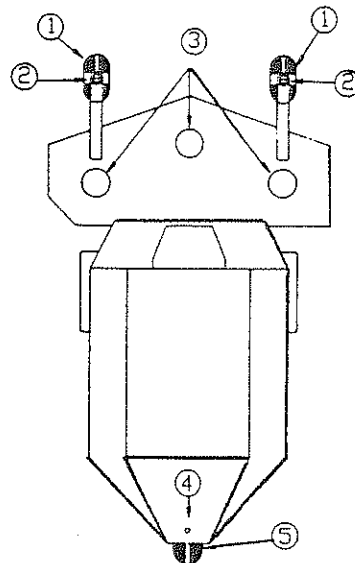


FIGURE 10

DECK GEARBOX CURTIS—MODEL

The gearbox is shipped filled with synthetic grease. Keep it full at all times. If grease should be needed, use Mobil Mobilith SHC 460 synthetic lubricating grease or its equivalent. Use a grease gun to fill box until grease appears from vent plug.

NOTE: After refilling, grease will purge from vent plug until maximum operating temperature is reached.

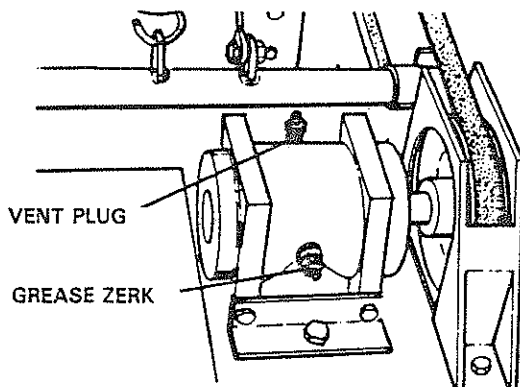


FIGURE 10A

SUPERIOR—MODEL

Gearbox is shipped with 6 oz. of gear lube. To check oil level, remove bottom plug, shown below. If oil does not appear, remove top plug, and add SAE 80-90 EP gear lube until oil appears at lower hole. Reinstall both plugs and tighten.

NOTE: DO NOT ATTEMPT TO REMOVE VENT PLUG

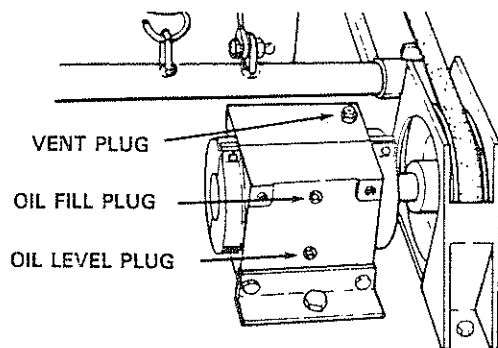


FIGURE 10B

COOLING SYSTEM



WARNING

Never attempt to clean or make adjustments on engine while it is running.

Grass, chaff or dirt may clog rotating screen and air cooling system. Yearly or every 100 hours remove cooling shrouds and clean cooling fins. Also clean dust, dirt and oil from external surfaces of engine which can cause improper cooling. In extremely dusty or dirty conditions, clean more often.

IMPORTANT

Do not operate engine without cooling shrouds installed. Operating engine without cooling shrouds will cause engine damage due to overheating.



WARNING

Never remove radiator cap while radiator is warm. Pressurized hot steam may be released, causing burns. The cooling system is assisted by a fan. Never attempt to clean radiator core or screen while engine is running. Do not add water to hot radiator, allow it to cool before adding additional coolant.

Visually inspect cooling system daily prior to operating tractor. Coolant level should be to the bottom of fill tube in radiator reservoir. A 50/50 mixture of Ethylene Glycol and water is recommended for the coolant.

A two piece radiator intake screen is used to keep large particles from entering the radiator core. This screen should be inspected and cleaned if needed every 4 hours of operation. If dirt and clippings collect inside screen, remove screen and force particles out using compressed air.

Radiator core should be cleaned daily. Core can be cleaned also by using compressed air (maximum pressure of 100 PSI) from engine side of radiator through cooling fins to the outside.

Check the alternator belt, which powers the engine fan and water pump, daily for cracks and wear. The tension should be checked every 100 hours on the alternator belt.

Coolant should be changed and radiator cleaned each 600 hours of operation. The drain plug is located on bottom, to rear of radiator.

HIGH TEMPERATURE

Turn key off and check the air intake screen. Clean if needed. When overheating does occur, the radiator core should be cleaned before operation is continued. The fan belt tension should also be checked.

ENGINE AIR FILTER

Every 100 hours paper cartridge should be removed and cleaned. Perform these procedures more often in dusty conditions. Replace cartridge yearly.

FUEL SYSTEM

Fuel tank is located under tail cover just back of the operator's seat. Capacity of fuel tank is 5 gallons. Always keep and use clean, fresh fuel. Number 2 diesel fuel is recommended.



CAUTION

Do not use ether or starting fluid in the intake air of engine, severe damage will occur.



WARNING

Observe usual fuel handling precautions. Do not smoke while refueling. Do not fill tank with engine running or while engine is hot. Allow engine to cool before storing machine inside a building. Keep fuel away from open flame or spark. Read and observe all safety precautions in this manual.

The fuel filter is mounted to left rear of engine. The element can be replaced if needed.

There is a fuel shutoff valve located on the bottom of the fuel tank. This valve should be closed to prevent fuel loss when changing filters, doing other engine work or transporting the machine.

BLEED FUEL INJECTION SYSTEM

A diesel engine must have air bled or purged from the injection system when:

- Starting a new engine.
- Tractor runs out of fuel.
- Air enters injection system.

Use the following procedure to bleed the air from the system:

1. Fill the tank with fuel and open fuel shut off valve.

2. Loosen outlet fitting at fuel pump.
3. Turn ignition switch to run to engage fuel pump.
4. Tighten fuel pump after fuel flows from fitting.
5. Open vent screw at injector pump.
6. Turn ignition switch to run to engage fuel pump.
7. Close injector vent screw after bubbles stop.
8. If engine still fails to run, loosen injector tube fittings at engine, run fuel pump to purge air from tubes and tighten fittings.
9. Repeat procedure if engine still fails to start.

ELECTRICAL SYSTEM

The electrical system is 12 volt, negative ground. Factory installed battery is a size 450 CCA. The battery is located under tail cover of the tractor.

Check battery connections every 40 hours to ensure they are clean and tight. At same time check for proper electrolyte level.



WARNING

When charging battery, keep away from open flame or sparks. Do not breathe battery fumes. Avoid skin contact with battery acid. Wear eye protection. If contact does occur, flush area with cold water and consult a physician.



WARNING

When jump starting a low or dead battery, follow these procedures to avoid sparks that could cause battery gases to explode:

1. Attach first jumper cable from positive (+) terminal of good battery to positive (+) terminal of dead battery.
2. Attach second jumper cable from negative (-) terminal of good battery to FRAME OF UNIT WITH DEAD BATTERY.

A 30 amp fuse, located under seat lid to left of tower, protects the electrical system. If there is an overload on circuit, fuse will blow. Cause of the blown fuse should be located and fixed before a new fuse is installed.

EXTERIOR SURFACE

Exterior surface of tractor should be washed regularly (a minimum of monthly) but more often in corrosive environments. Spray paint is available from your dealer to cover scrapes and chips and to protect against rust.

Mower deck should be cleaned after each cutting for best cutting results. If cleaned before clippings have dried, water pressure from a garden hose can be used to clean underside of deck housing. If clippings have dried, a putty knife may be used to remove accumulation from under deck.

Every 40 hours remove deck covers and clean debris from pulley box. Do not operate machine without covers in place. To tilt deck for cleaning, see Machine Operation Section, **TILTING DECK FOR SERVICE**.

TIRES AND WHEELS

Visually inspect tires daily. Check tire pressure with gauge every 100 hours or whenever tires appear low. Tire pressure in both drive tires should be equal and set at 14 to 18 PSI. Tail wheel tire pressure should be 14 to 18 PSI. The deck gauge wheel tire pressure may vary depending on ground conditions—a minimum of 10 PSI to a maximum of 18 PSI may be used. Always keep pressure equal in gauge wheels to maintain even cutting.

STEERING CABLE ADJUSTMENT

Tractor has been preadjusted at factory so that it will not creep forward or backward when engine is running and lever lock engaged. However, if tractor should begin to creep, correct as follows:

WARNING

Do not attempt to adjust steering cables until you have read this entire section. Stop engine while placing the tractor on blocks.

1. Block up tractor so that both drive wheels do not touch ground and are free to move. Block tail wheel and gauge wheels so that tractor will not fall from blocks.
2. Run engine and move steering levers back and forth.
3. Lock steering levers in neutral.
4. Drive wheels should not be turning. If they are, raise seat lid and adjust steering cable by loosening nuts on end of cable.

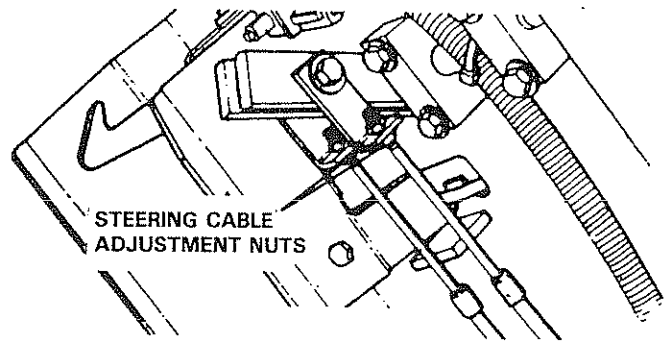


FIGURE 11

5. Adjust cable so drive wheels are not turning.
6. Lower seat lid and wiggle levers in lock position. If drive wheels do not turn, proceed with step 7. If wheels turn, repeat steps 4 and 5.
7. Shut engine off. Unlock steering levers and place levers in full forward position. Levers must rest against front edge of notch in seat lid (see Figure 11A). If levers do rest against front edge of notch, proceed to Step 9, if not, perform Step 8.

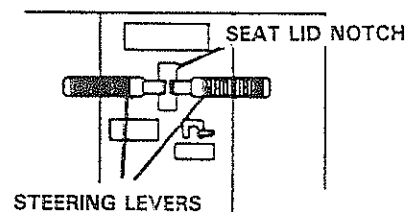


FIGURE 11A

8. If steering levers will not rest against front edge of notch in seat lid, cables must be repositioned to prevent cable breakage. To correct, loosen cable clamp at base bracket and pull cable away from the transmission arm as far as possible and retighten clamp. If steering lever still will not bottom out in notch, cable clamp holes will need to be elongated. Once cables are set where they do bottom out, repeat Steps 4 through 5 to reset neutral.
9. Unblock machine and test drive. The machine should drive in a straight line with the steering levers held even with each other. If it does, adjustments have been completed. If the machine veers to one direction, proceed to Step 10 or 11.
10. To make machine drive in a straight line, loosen bolt on the cable end at transmission arm on side that the tractor veers toward. Slide the cable end forward in arm slot 1/8 to 1/4 inch and retighten bolt (see Figure 11B). Test drive machine again to check if further adjustment is needed. Once machine is driving straight, you will need to repeat Steps 4 through 5 to reset neutral.
11. Raise seat lid and make sure cable nuts are tight. Adjustment is complete.

NOTE: If there is not enough adjustment to cables at steering levers, adjustment can also be made on steering cable at transmission arm.

BRAKE ADJUSTMENT

Occasionally test brake for proper adjustment by backing the machine onto a 25 degree incline. With engine running, engage lever lock and apply parking brake. The tractor should remain in position. If not, follow these steps and adjust brake:

1. Block up side of tractor that does not hold.
2. Adjust brake by loosening nuts on brake cable and shortening length of cable. (See Figure 13).
3. Apply parking brake and try to rotate wheel forward by hand.
4. If you can rotate wheel forward by hand, repeat steps 2 and 3. If not, unblock tractor and repeat on other side.

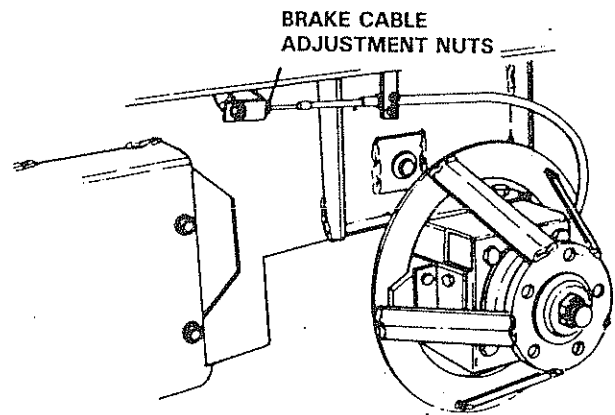


FIGURE 13

Incline test should be repeated after adjustments have been made on parking brake.

ELECTRIC CLUTCH ADJUSTMENT

Clutch clearance is too wide if clutch will engage when the tractor is cool, but will not when it is warm.

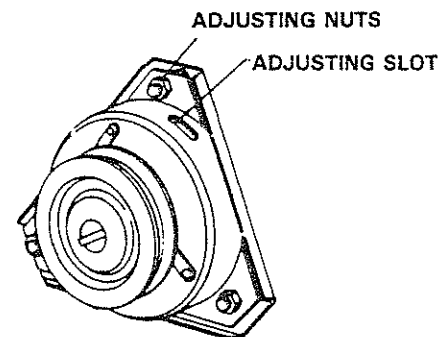


FIGURE 13A

To adjust clutch, follow these steps:

1. Unplug electrical connector to clutch.
2. Remove clutch stop so clutch body can be rotated.
3. Place a .012 feeler gauge in oblong slot by adjusting bolt. Adjust so that gauge starts to drag. Adjust all three bolts.
4. All three points should be checked again because adjusting one may change the others.
5. Reinstall clutch stop and plug in electrical connector.

DECK HEIGHT ADJUSTMENT

Cutting height of all decks is 1" to 4". Place mower on level surface. Turn ignition key off and remove key.



WARNING

Stop engine. Make sure PTO switch is off. Engage lever lock and remove ignition key before getting off machine.

Raise deck and lock in raised position. Remove gauge wheel wing bolts and move gauge wheels up or down to desired height. Replace wing bolts and tighten handle nuts. Remove rear deck pins and adjust back of deck. For best cutting results, in most condition, back of deck should be 1/8" to 1/4" higher than front.

Lower deck to ground and check cutting height.

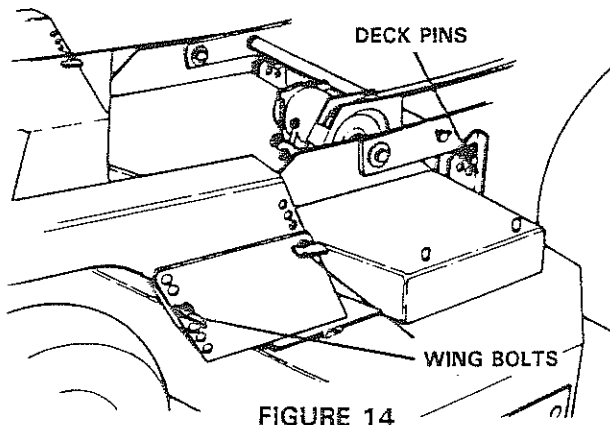


FIGURE 14

BLADE CARE

For best results, cutting blades must be kept sharp.



DANGER

Never work with blades while engine is running or PTO switch is on. Engage lever lock and remove ignition key.

To service blades, tilt and lock deck up to remove blades. Do not sharpen blades while on deck. Blades may be sharpened on a grinder or by filing. When grinding, care should be taken to maintain blade balance. A balancer should be used to check blade balance before reinstallation on mower. Unbalanced or bent blades will cause excessive vibration and decrease life of deck parts.

Remount blades, make sure convex side of spring washer is away from blade.



WARNING

Do not use any form of heat to straighten a bent blade. Do not weld a cracked or broken blade. Replace it.

BELT ADJUSTMENT



WARNING

Never check or adjust any belts with engine running or PTO switch on.

NOTE: DO NOT over tighten any belt. A belt that is tight will run hotter, create unnecessary side pressure on bearings and cause premature failure of both belt and bearings.

DECK DRIVE BELTS

Follow these steps to adjust deck drive belts:

1. Loosen two deck arm retaining bolts on both arms.
2. Turn adjusting bolt counter-clockwise to tighten belt. BOTH ARMS MUST BE KEPT AT THE SAME LENGTH. Deflection from center line should be 1/2" with 5 lbs. of pull on deck drive belts.
3. Hold deck arms so that they are straight while retightening the deck retainer bolts.

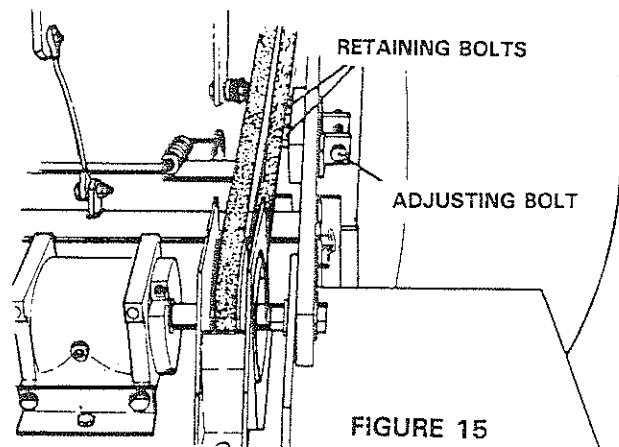


FIGURE 15

To Replace Deck Drive Belts:

1. Loosen deck arm retainer bolts on left-hand arm. Turn adjusting bolt clockwise to loosen deck drive belts.
2. Remove belt guard from gearbox mount.
3. Remove cross bar pin from left-hand arm



CAUTION

Care must be taken when removing cross bar pin as the deck springs will cause the cross bar to fly up when pin is removed.

4. Remove belts and install new.

NOTE: Replace both belts at same time for equal belt tension.

5. Reverse steps 1 through 3.
6. Adjust tension on belts (see instructions above). Tension on new belts should be checked after 2 hours of operation.

DECK BELTS

Follow these steps to adjust deck belts:

1. Remove deck covers.
2. Loosen nut on belt tightener retainer bolt.
3. Adjust tightener bolt to obtain proper tension on belt. Deflection on longest span of belt should be 1/2" to 5/8" with 5 lbs. of pull on deck belts.
4. Retighten retainer bolt and replace covers.

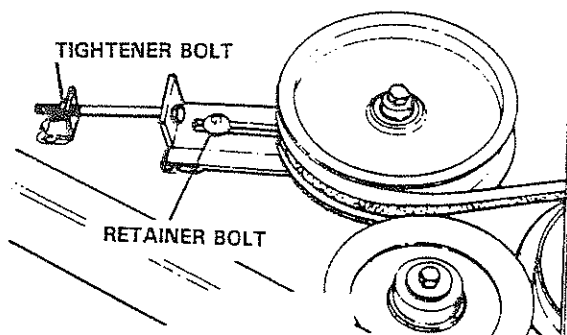


FIGURE 16

To Replace Deck Belt:

1. Loosen deck drive belts (see Deck Drive Belts Section).
2. Remove deck covers.
3. Loosen belt tightener retainer bolt and tightener adjustment bolt.
4. Unbolt gearbox mount from deck and remove belt from under gearbox pulley.
5. Remove old belt from spindle pulleys.
6. Replace with original equipment replacement belt available from your factory authorized dealer.
7. Place belt in groove on the gearbox pulley and rebolt gearbox mount.
8. Adjust belt (see instructions above). Tension on new belt should be checked after 2 hours of operation.
9. Replace deck covers.
10. Adjust deck drive belts (see Deck Drive Belts Section).

RADIATOR FAN BELT

The fan belt is kept tight by a spring loaded idler.

To replace radiator fan belt:

1. Remove baffle from bottom of radiator housing.
2. Remove 3/4" spacers from between pump pulley and pump cross shaft.
3. Release tension from fan belt idler.
4. Remove belt from fan pulley then from pump pulley.
5. Install new fan belt in reverse order.

PUMP DRIVE BELT

The pump drive belt is kept tight by a spring loaded idler. No adjusting is necessary, but the idler should be checked periodically to see that it slides properly.

To Replace Pump Drive Belt:

1. Remove baffle from bottom of radiator housing.

2. Remove 3/4" spacers from between pump pulley and pump cross shaft.
3. Apply parking brake and lock.
4. Remove belt from radiator fan.
5. Remove belt from engine pulley and then from pump pulley.
6. Install new belt over pump pulley, then engine pulley and reverse steps above.

STORAGE

End of Season Machine Care:

When storing tractor at end of season, the following steps should be taken to insure readiness for next mowing season:

1. Remove all grass, dirt and trash from tractor and deck. Wash both tractor and deck, including underside of deck.
2. Check thoroughly for any worn or damaged parts that need replacing—order them from your dealer.
3. Thoroughly lubricate machine according to lubrication instructions.
4. Lightly oil the under side of deck to prevent rusting.
5. Clean radiator core.
6. Fill fuel tank.
7. Protect battery from freezing temperatures. Occasionally recharging battery during storage will extend battery life.
8. Check radiator coolant and add antifreeze to protect for coldest temperature.
9. Perform separate engine preparations as outlined in engine owner's manual.
11. Store tractor in a dry place away from sparks or flame.

2. Remove two 1/2" bolts and bushings from deck mounts. Remove 1/2" deck pins from deck adjustment holes in back of deck.
3. Remove belt guard from deck gearbox pulley.
4. Push both arms down at same time to align holes in arms with holes in deck mounts. Once arms are down, one arm may be released while you place bolt and bushing in first arm. Push other arm back down and install bolt and bushing.

NOTE: With a hydraulic lift, lower arms by starting tractor, placing control valve in float position and pushing down on lift arms.

5. Place deck drive belts over gearbox pulley and replace belt guard.
6. Raise deck lift arms enough to install deck pins at desired cutting height.
7. Raise deck with lift arms and lock in raised position. Install front gauge wheels and mounts at desired cutting height.
8. Lower deck to ground and adjust deck drive belt (see Belt Adjustment Section).
9. Install foot guards and plug deck safety wires into deck safety switch.
10. Check blade bolts to be sure they are tight. Also remove deck belt covers and check deck belt tension.



WARNING

When running deck be sure that area is clear of persons and pets. Only operate deck while sitting in operator's seat.

INSTALLATION OF DECK

Following steps are suggested for installation of deck:

1. Remove deck from packing crate and place on level surface in front of tractor.

TRACTOR TROUBLE SHOOTING GUIDE

SYMPTOMS	PROBABLE CAUSES	SUGGESTED REMEDIES
Starter Does Not Crank	Ignition Interlock Safety System not Engaged	Engage System
	PTO Switch in ON Position	Put Switch in OFF Position
	Weak or Dead Battery	Recharge or Replace Battery
	Fuse Blown	Replace Fuse
	For Additional Causes	See Your Dealer
Engine Cranks But Does Not Start	No Fuel	Fill Tank and Bleed System
	Faulty Glow Plugs	Repair or Replace
	Fuel Shutoff Solenoid	See Your Dealer
	Numerous Other Causes	See Your Dealer
Engine Runs with Loss of Power or Excessive Black Exhaust	Restriction in Air Cleaner	Service Air Cleaner
	Poor Compression or Timing	See Your Dealer
Tractor Jerky When Starting or Tractor Operates in One Direction Only	Steering Cables Need Adjustment	Adjust Cable
	Pump or Wheel Motor Faulty	See Your Dealer
	Oil has been Contaminated with Water or Dirt	Drain Oil From System and Replace or See Your Dealer
Loss of Power Or Hydraulic System Will Not Operate In Either Direction	Hydraulic Line Blockage	See Your Dealer
	Internal Interference Or Leakage In Wheel Motor	See Your Dealer
	Insufficient Hydraulic Oil Supply	Check Level Of Oil In Reservoir Have Dealer Check Hydraulic Pump
	Steering Cables Loose	Adjust And Tighten Steering Cables
Hydraulic System Operating Hot	Damaged or Broken Fan	Replace Fan
	Cooling Fins Plugged	Clean Cooling Fins
	Hydraulic Pump Faulty	See Your Dealer
Tractor Creeps When Steering Levers are in Neutral	Steering Cables Out of Adjustment	Adjust Steering Cables
Tractor Creeps or Veers in one Direction	Steering Cables Out of Adjustment	Adjust Steering Cables
	Wheel Motor Faulty	See Your Dealer
	Hydraulic Pump Faulty	See Your Dealer
Tractor Creeps with Parking Brake on	Brake Out of Adjustment	Adjust Parking Brake
Engine Overheating	Leaks In System	Replace Or Tighten Hoses And Clamps
	Coolant Level Low	Add Coolant
	Fan Belt Slipping	Adjust Belt Tension
	Radiator Core Plugged	Clean Radiator
	Temperature Gauge Not Working	See Your Dealer
	For Additional Causes	See Engine Manual
Engine Oil Pressure Low	Low Oil Level	Add Oil
	Oil Sending Unit Faulty	See Your Dealer
	Oil Diluted or Grade Too Light	Change Oil and Check for Source of Contamination
Amp Meter Shows Discharge	Belt Slipping	Tighten Belt
	Wiring Defective	See Your Dealer
	Charging System Defective	See Your Dealer
High Oil Consumption Engine Knocks and Other Engine Noises	Numerous Causes	See Your Dealer
Electric Clutch Will Not Engage	Deck Safety Wires Not Plugged In	Plug Wires In
	Loose or Faulty Wiring	Check Wiring
	Seat Switch Faulty	Change Seat Switch
	Clutch Out of Adjustment	Adjust Clutch
Grass Cut uneven	Deck Height Adjustment Not Even on Both Sides	Adjust Height
	Tire Pressure Uneven	Check Tire Pressure
	Blade Bent	Replace Blade
Deck Lift Responds Slowly	Hydraulic Oil Level Low	Fill Reservoir
	Hydraulic Pump Faulty	See Your Dealer
	Valve Control Faulty	See Your Dealer
	Lift Cylinder Faulty	See Your Dealer
	Leak In Hydraulic System	Repair Leak
	Restriction in Hose or Fitting	Check Hoses

SPECIFICATIONS

19

Engine Make & Model, Perkins	103.07 - KL70264
Type, 4 Cycle Liquid-cooled	3 Cyl. Diesel
Horsepower	18 at 3600
Displacement	676 cc, 41.2 cu. in.
Minimum RPM	850
Maximum RPM	3600
Fuel Injection Pump	Bosch Type Pump
Governing	Centrifugal Mechanical Governor
Starting System	12 Volt with Glow Plug
Fuel Tank Capacity	5 Gallon
Battery	12 Volt, 450 CCA
Transmission	Eaton Model 1120 Pumps
Final Drive	Eaton 2000 Wheel Motors
Steering	Hand Lever Control Individual Wheel
Brake	Dynamic Braking Through Drive
Parking Brake	Disk Type
Clutch, PTO	Electric Disk
MPH	0-10.8 Forward / 0-7.3 MPH Reverse
Turning Radius	0
Drive Wheel Size	20 x 10 x 10
Tail Wheel	15 x 6.50 - 8 Tubeless 4 Ply, Rib Tread
Seat	Vinyl Adjustable with Optional Arm Rests
Wheel Base	47
Height, Tractor	50-1/2"
Width, Tractor	49-1/2"
Length, Tractor	74-5/8
Weight, Tractor (Shipping)	1010 lbs.
Available Deck Widths	52", 62"
Standard Features	Hydraulic Deck Lift Hour Meter Amp Meter Dual Headlights Oil Pressure Gage Water Temperature Safety Switch Safety Steering Interlock 60 lb. Rear Frame Weight Tilt Back Deck Direct Wheel Hydrostatic Drive

PARTS LIST

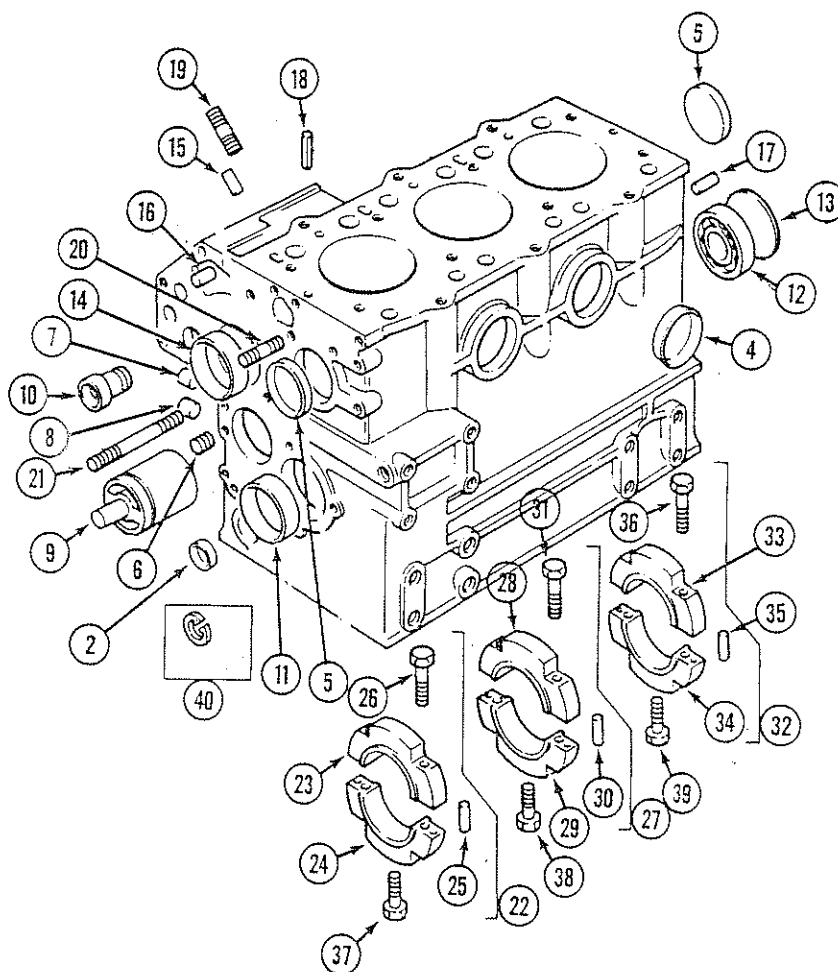
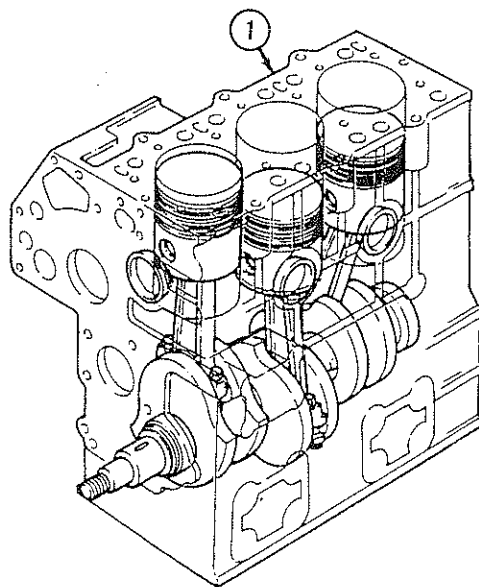
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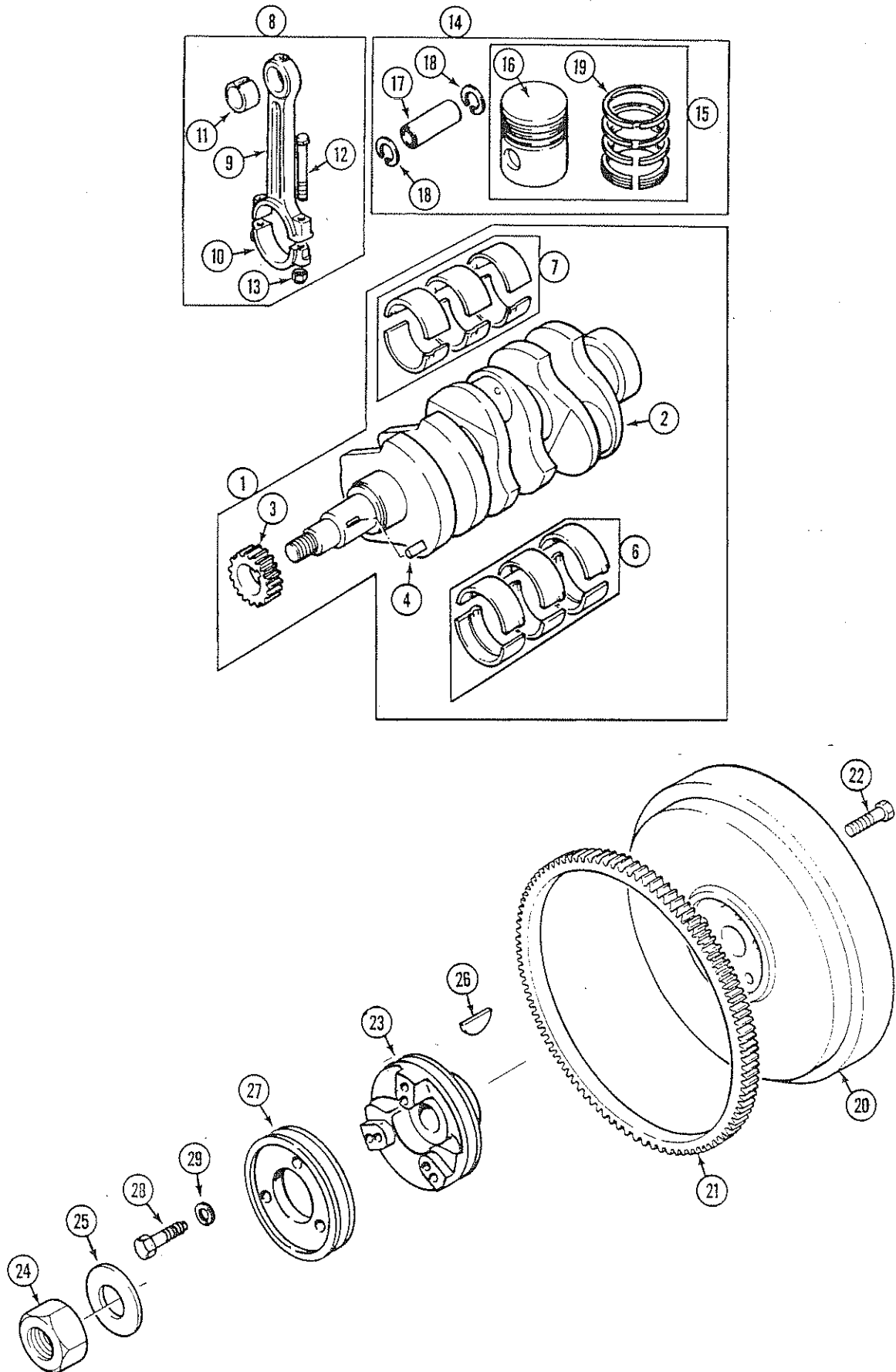
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CYLINDER BLOCK

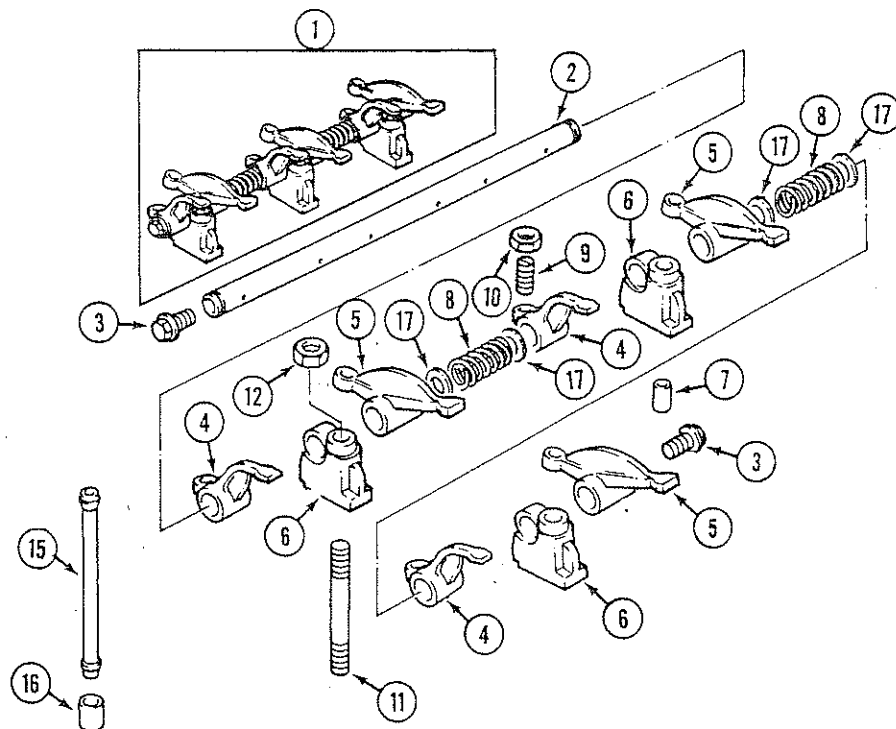
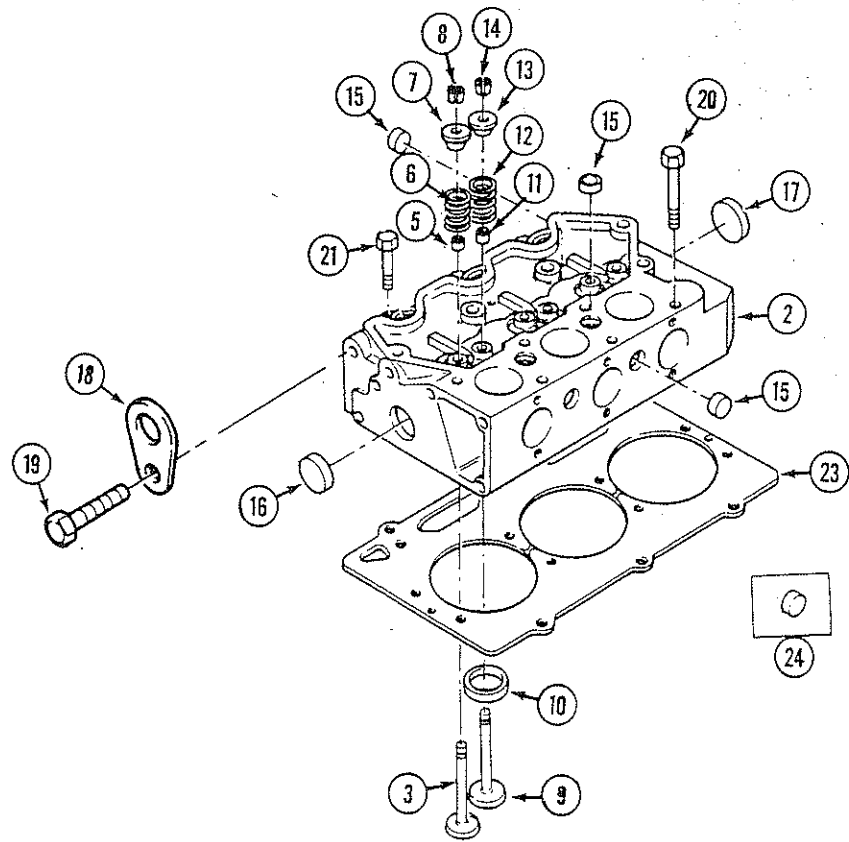
NOTE: FOR COMPLETE ENGINE ORDER C42982

REF.	PART NO.	DESCRIPTION	REQ'D
1	P110006670	BLOCK - cylinder, short	1
2	P064200015	PLUG	1
4	P064200040	PLUG	2
5	P064200040	PLUG	2
6	P198466050	PLUG	3
7	P198466010	PLUG	4
8	P198466070	PLUG	2
9	P165296160	SHAFT	1
10	P198517090	BUSHING	1
11	P198517300	BUSHING - standard	1
11	P198517304	BUSHING - 0.25 mm undersize	UAR
11	P198517307	BUSHING - 0.50 mm undersize	UAR
12	P040106203	BEARING - ball	1
13	P064100045	PLUG	1
14	P042303015	BUSHING	1
15	P030500512	DOWEL	2
16	P030500616	DOWEL	2
17	P030500820	DOWEL	2
18	P030309005	PIN	2
19	P012100620	STUD	2
20	P012100635	STUD	1
21	P012100660	STUD	1
22	P110156220	HOLDER	1
23	NSS	CAP	1
24	NSS	CAP	1
25	P030500612	DOWEL	2
26	P010810840	SCREW	2
27	P110156230	HOLDER	1
28	NSS	CAP	1
29	NSS	CAP	1
30	P030500612	DOWEL	2
31	P010810840	SCREW	2
32	P110156240	HOLDER	1
33	NSS	CAP	1
34	NSS	CAP	1
35	P030500612	DOWEL	2
36	P010810840	SCREW	2
37	P011310850	SCREW	1
38	P011310850	SCREW	1
39	P010700845	SCREW	2
40	P036509005	CIRCLIP	1
41	P064200018	PLUG	2



FLYWHEEL, CRANKSHAFT, PISTONS AND RINGS

REF.	PART NO.	DESCRIPTION	REQ'D
1	P115236020	KIT - crankshaft	1
2	NSS	CRANKSHAFT	1
3	P115276210	GEAR	1
4	P030509020	KEY	1
6	P198586030	KIT - bearing (standard)	1
6	P198586034	KIT - bearing (0.25mm undersize)	UAR
6	P198586037	KIT - bearing (0.50mm undersize)	UAR
7	P198586060	KIT - bearing (standard)	1
7	P198586064	KIT - bearing (0.25mm undersize)	UAR
7	P198586067	KIT - bearing (0.50mm undersize)	UAR
8	P115026240	ROD - connecting	3
9	NSS	ROD	1
10	NSS	CAP	1
11	P198517325	BUSHING	1
12	P115176130	SCREW	2
13	P020109103	NUT	2
14	P115017090	KIT - piston (standard)	3
14	P115017100	KIT - piston (0.50mm oversize)	UAR
15	NSS	PISTON ASSEMBLY	1
16	NSS	PISTON	1
17	P115326260	PIN	1
18	P036500019	CIRCLIP	2
19	P115107400	KIT - rings (standard)	1
19	P115107410	KIT - rings (0.50mm oversize)	1
20	P115357260	FLYWHEEL	1
21	P115376150	RING	1
22	P010109330	SCREW	4
23	C 45367	PULLEY	1
24	P020800018	NUT	1
25	P026200018	WASHER	1
26	P034100508	KEY	1
27	C 45369	PULLEY - engine	1
28	113- 104	BOLT - 5/16" - 18 x 1-1/4	3
29	192- 20	LOCKWASHER - 5/16"	3

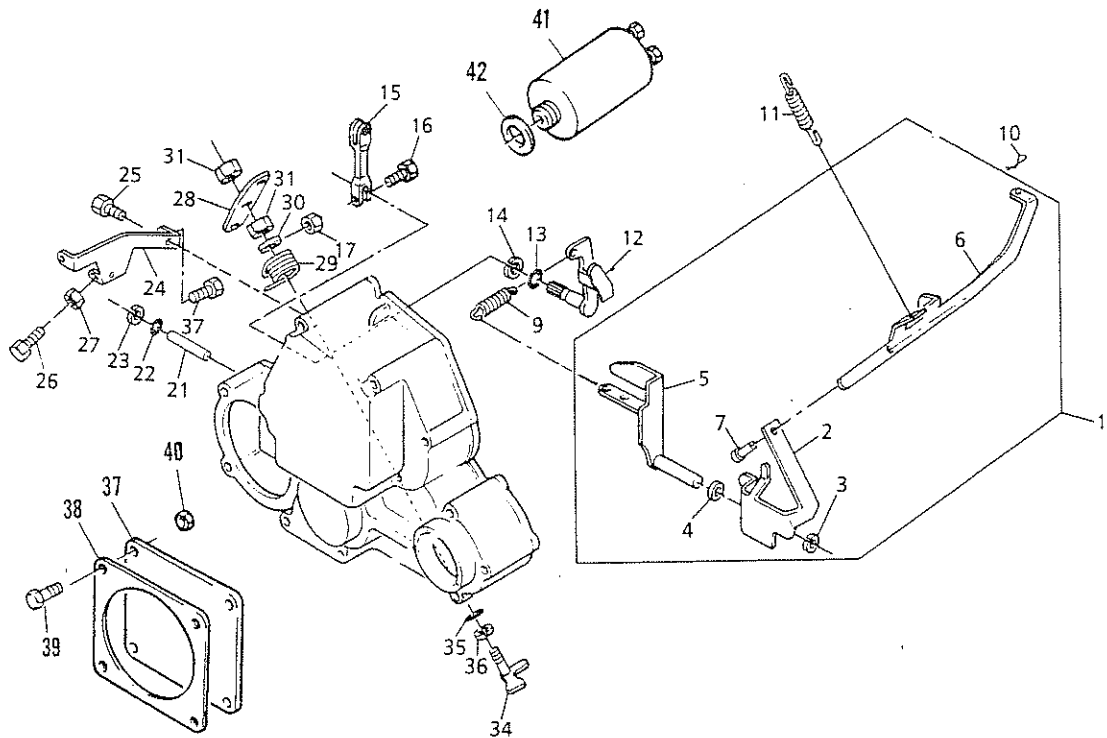
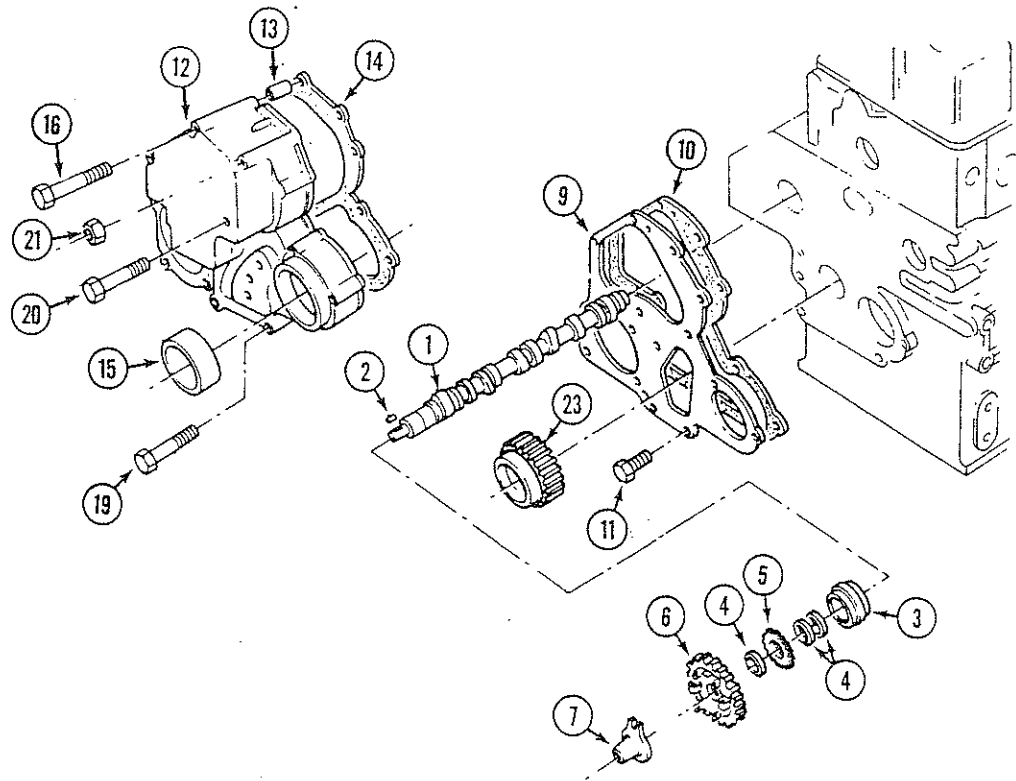


CYLINDER HEAD

REF.	PART NO.	DESCRIPTION	REQ'D
	P111016911	KIT - cylinder head	1
2	P111086030	HEAD - cylinder (includes ref. 15, 16, 17 and 24)	1
3	P120166280	VALVE - inlet	3
5	P120406080	SEAL	3
6	P198217070	SPRING	3
7	P120186100	CAP	3
8	P120226080	RETAINERS	6
9	P120176290	VALVE - exhaust	3
10	P110136290	INSERT	3
11	P120406080	SEAL	3
12	P198217070	SPRING	3
13	P120186100	CAP	3
14	P120226080	RETAINERS	6
15	P198466070	PLUG	4
16	P064200022	PLUG	3
17	P064200022	PLUG	3
18	P195816200	PLATE - lifting	2
19	P011310816	SCREW	2
20	P111136340	SCREW	11
21	P111136350	SCREW	3
23	C 43611	GASKET	1
23	P111147390	GASKET - (0.5mm oversize)	UAR
24	P064200018	PLUG - included in cylinder head kit	2

ROCKER SHAFT

1	P120036330	SHAFT ASSEMBLY - rocker	1
2	P120316190	SHAFT	1
3	P064609006	PLUG	2
4	P120356120	LEVER - L.H.	3
5	P120356110	LEVER - R.H.	3
6	P120346170	BRACKET	3
7	P030300325	PIN	1
8	P198217080	SPRING	2
9	P199486220	SCREW - adjusting	6
10	P020109076	NUT	6
11	P012109177	STUD	3
12	P023100008	NUT	3
15	P120456240	ROD	6
16	P120116100	TAPPET	6
17	P199280280	WASHER - included with shaft assembly	4

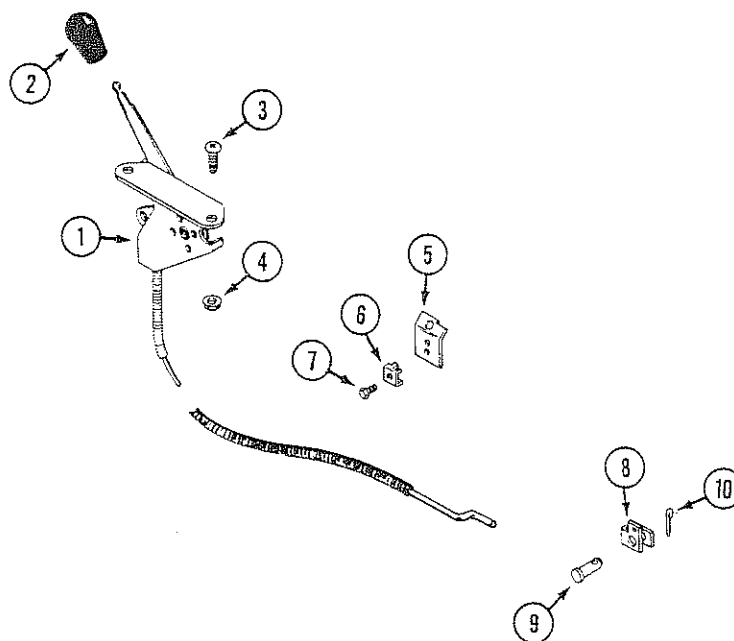
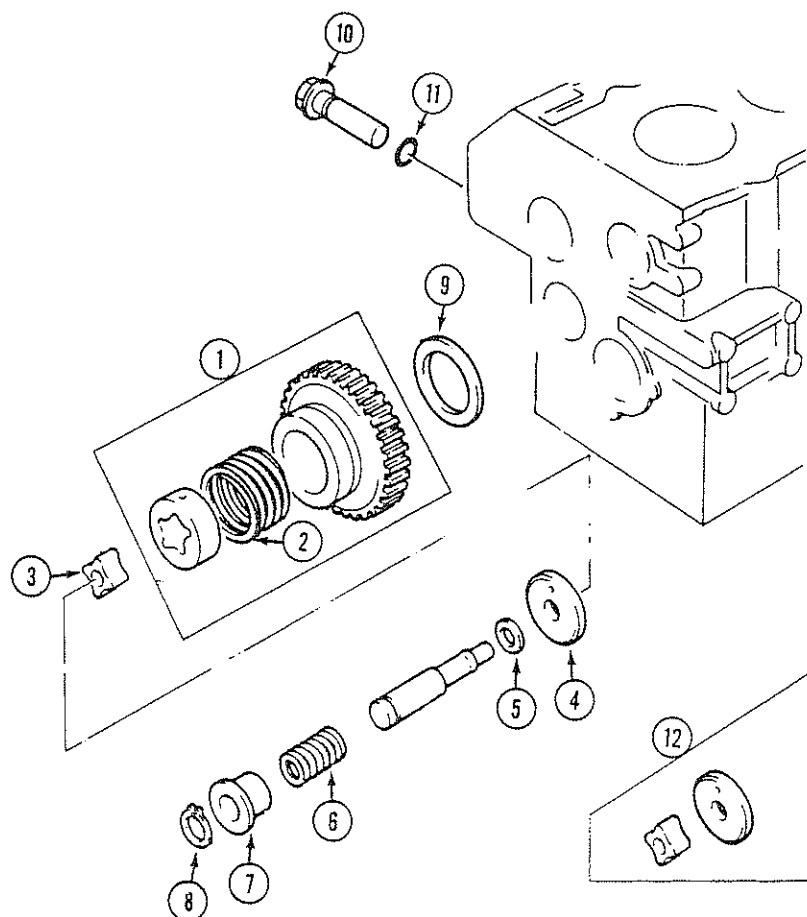


TIMING GEAR AND CAMSHAFT

REF.	PART NO.	DESCRIPTION	REQ'D
1	P120026120	CAMSHAFT	1
2	P034100508	KEY	1
3	P040109059	BEARING	1
4	P199216230	SPACER	3
5	P120736081	GEAR	1
6	P120016030	GEAR	1
7	P125256120	TAPPET	1
9	P165166260	PLATE	1
10	C 43612	GASKET	1
11	P011300612	BOLT	3
12	P165106131	CASE	1
13	P030300414	PIN	12
14	C 43613	GASKET	1
15	P198636090	SEAL	1
16	P011300680	SCREW	2
19	P011300640	SCREW	4
20	P011300660	SCREW	2
21	P023100006	NUT	1
23	NSS	GEAR - see oil pump page 31	1

CAMSHAFT CASE AND THROTTLE LINKAGE

1	P125046140	LEVER ASSEMBLY	1
2	NSS	LEVER	1
3	P036800008	CIRCLIP	1
4	P026200010	WASHER	1
5	P125406071	LEVER	1
6	NSS	LINK	1
7	NSS	PIN	1
9	P198217110	SPRING	1
10	P031100004	PIN	1
11	P198216731	SPRING	1
12	P125156170	ARM	1
13	P052100070	"O" RING	1
14	P036800008	CIRCLIP	1
15	P125416020	LEVER	1
16	P010110630	SCREW	1
17	P023100006	NUT	1
21	P125116130	SHAFT	1
22	P052100030	"O" RING	1
23	P036800005	CIRCLIP	1
24	P125976120	STAY	1
25	P011300616	SCREW	2
26	P010109264	SCREW	2
27	P023100006	NUT	2
28	P125176080	LEVER	1
29	P198216760	SPRING	1
30	P026200008	WASHER	1
31	P020300008	NUT	2
34	P125156180	ARM	1
35	P052100050	"O" RING	1
36	P036800006	CIRCLIP	1
37	P165206360	PLATE	1
38	P165996420	GASKET	1
39	P010110850	SCREW	4
40	P023100008	NUT	4
41	P185206082	SOLENOID - fuel shut off	1
42	P025100016	WASHER	1

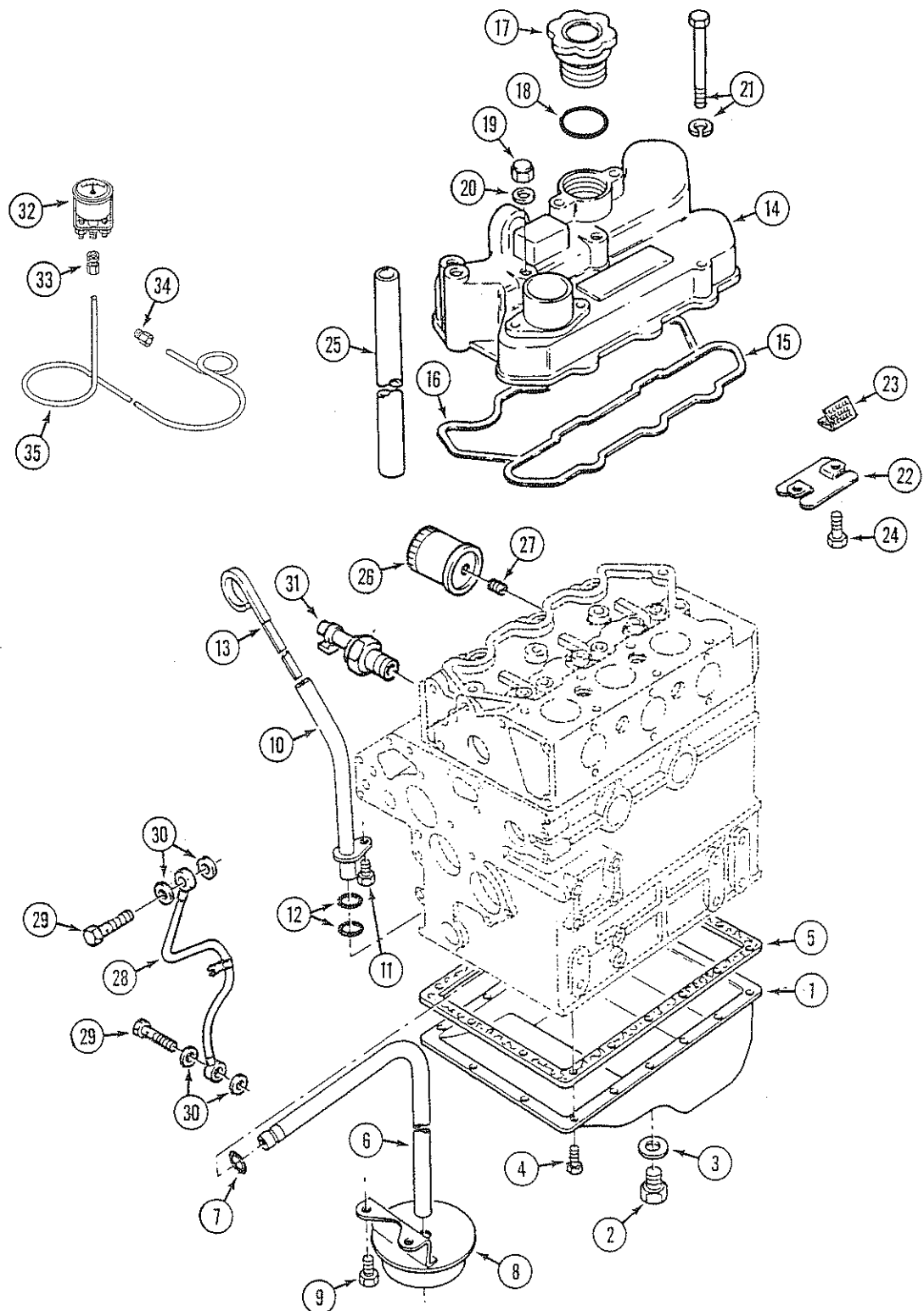


OIL PUMP

REF.	PART NO.	DESCRIPTION	REQ'D
1	P165026110	GEAR ASSEMBLY	1
2	P198216821	SPRING	1
3	P140166130	ROTOR	1
4	P140116140	COVER	1
5	P199286150	SHIM - 0.10mm	UAR
5	P199286160	SHIM - 0.15mm	UAR
5	P199286170	SHIM - 0.20mm	UAR
5	P199286180	SHIM - 0.50mm	UAR
6	P198216720	SPRING	1
7	P199236540	COLLAR	1
8	P036800010	CIRCLIP	1
9	P199266180	WASHER	1
10	P140036120	VALVE	1
11	P052100150	"O" RING	1
12	P140186010	KIT - repair	1

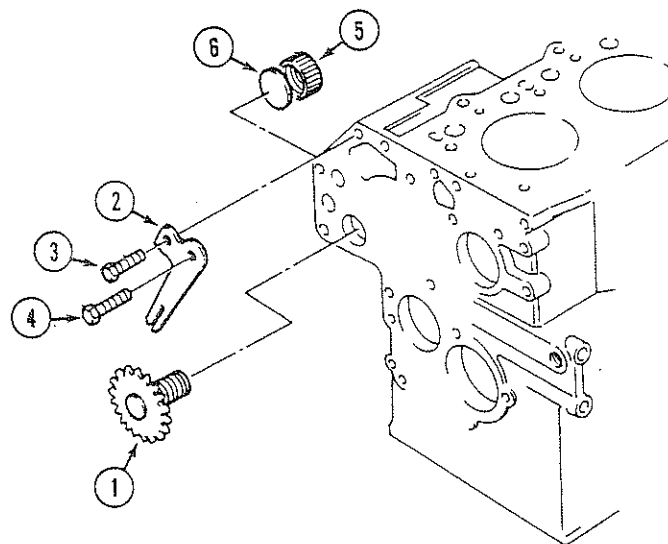
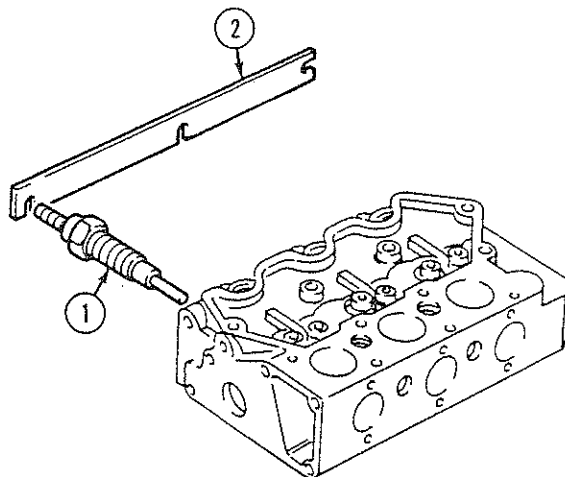
THROTTLE CONTROL

1	C	43177	THROTTLE	1
2	C	35291	KNOB - throttle	1
3	182-	559	SCREW - #10 - 24 x 3/4"	2
4	C	34117	NUT - #10 - 24 flange lock	2
5	C	45339	BRACKET - throttle	1
6	C	34273	CLAMP - casing	1
7	182-	559	SCREW - #10 - 24 x 3/4"	1
8	C	43059	CLEVIS - extension	1
9	C	45478	PIN - clevis 5/16" x 7/8"	1
10	132-	320	PIN - cotter 3/32" x 3/4"	1



LUBRICATION COMPONENTS

REF.	PART NO.	DESCRIPTION	REQ'D
1	P110706860	SUMP	1
2	C 43607	PLUG	1
3	C 43608	WASHER	1
4	P010109235	SCREW	18
5	C 43614	GASKET	1
6	P140986590	PIPE	1
7	P052109076	"O" RING	1
8	P140406310	STRAINER	1
9	P011300612	BOLT	2
10	C 43997	TUBE	1
11	P011300612	BOLT	1
12	C 43999	"O" RING	1
13	C 43207	DIPSTICK	1
14	P111026371	COVER	1
15	C 43615	GASKET	1
16	C 43616	GASKET	1
17	C 43605	CAP	1
18	C 43606	"O" RING	1
19	P024500008	NUT	3
20	P198996060	WASHER	3
21	P011300650	SCREW	2
22	P110666110	PLATE	1
23	P110666120	GAUZE	1
24	P011300612	BOLT	2
25	P068122560	HOSE	1
26	C 43443	FILTER - oil	1
27	P140546020	CONNECTOR	1
28	P140606680	PIPE	1
29	P198486780	BOLT	1
30	P198996060	WASHER	4
31	C 43601	SWITCH - oil pressure	1
32	C 38122	GAGE - pressure, oil	1
33	C 45606	FITTING - 1/8" tube	1
34	222- 681	FITTING - 1/8" x 1/8"	1
35	C 45544	TUBE - 1/8" x 58" copper	1

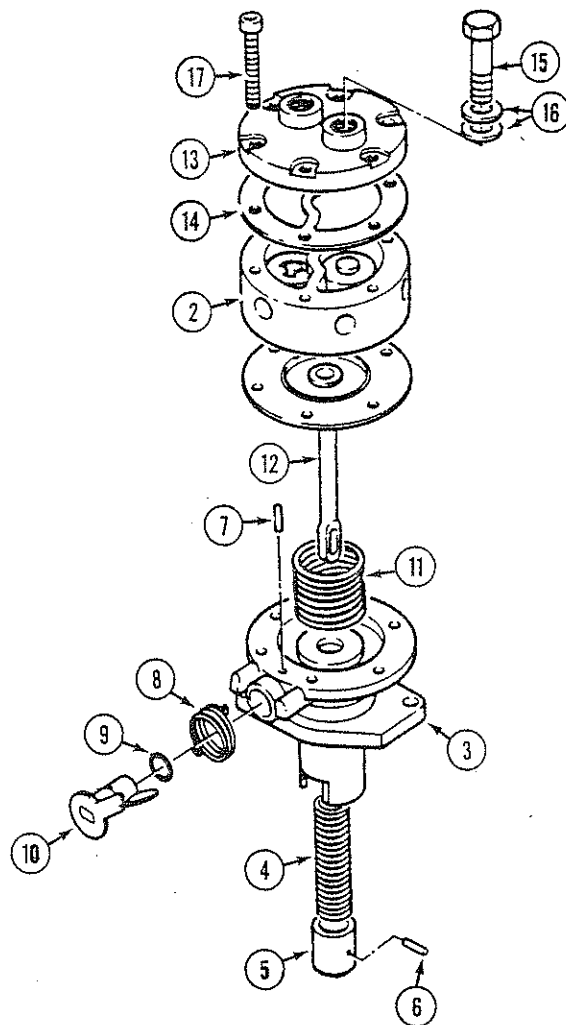
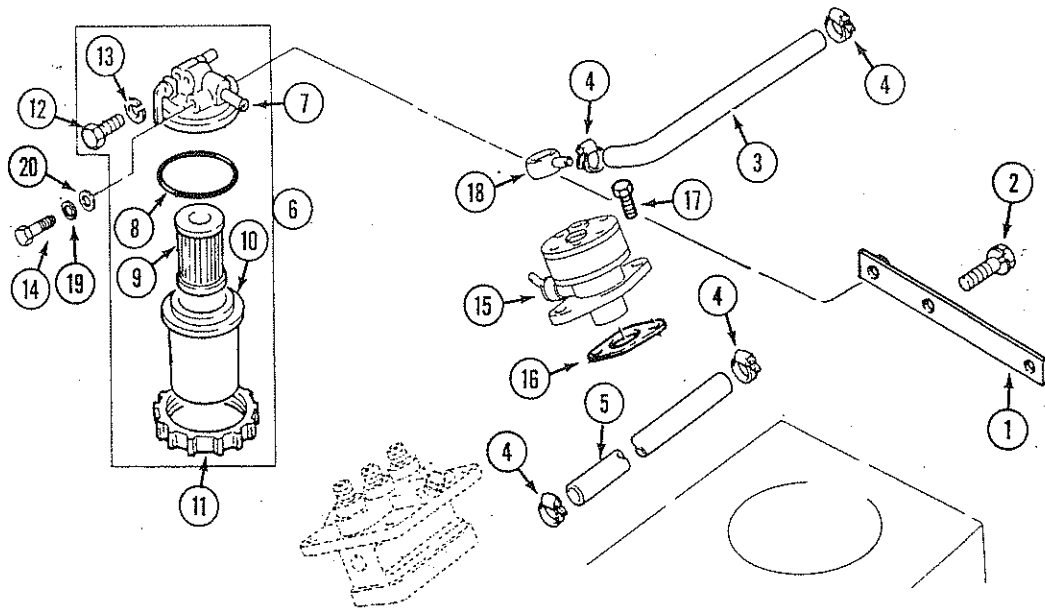


GLOW PLUGS

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 43603	HEATER - glow plugs	3
2	P185376170	BAR	1

TACHOMETER

1	P120076070	SHAFT	1
2	P199566651	PLATE	1
3	P011310612	SCREW	1
4	P010700610	SCREW	1
5	P199376230	CAP	1
6	P120996060	SEAL	1

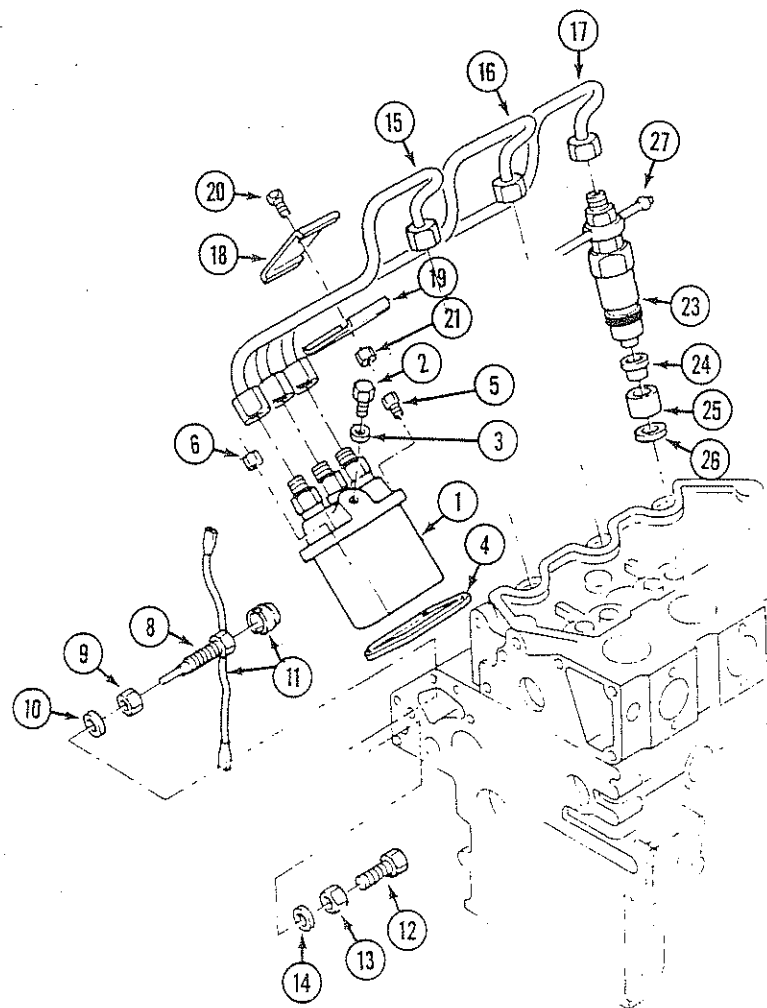


FUEL SYSTEM (ENGINE)

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45468	BRACKET - fuel filter mounting	1
2	P011310816	SCREW	2
3	C 45470	HOSE - fuel (pump to filter) 5.5"	1
4	P198346020	CLAMP - hose	4
5	C 42988	HOSE - filter to injection pump	1
6	P130306041	FILTER ASSEMBLY - fuel	1
7	NSS	HEAD	1
8	C 43597	"O" RING	1
9	C 43444	ELEMENT - fuel filter	1
10	P130336031	CONTAINER	1
11	P130446090	RING	1
12	P130446080	PLUG	2
13	P130326120	WASHER	2
14	113- 111	BOLT - 5/16" - 18 x 2-1/2"	1
15	C 43604	PUMP - fuel (repairs below)	1
16	P130996070	GASKET	1
17	P011140616	SCREW	2
18	P198486840	CONNECTOR	2
19	192- 20	LOCKWASHER - 5/16"	1
20	195- 521	WASHER - 5/16"	1

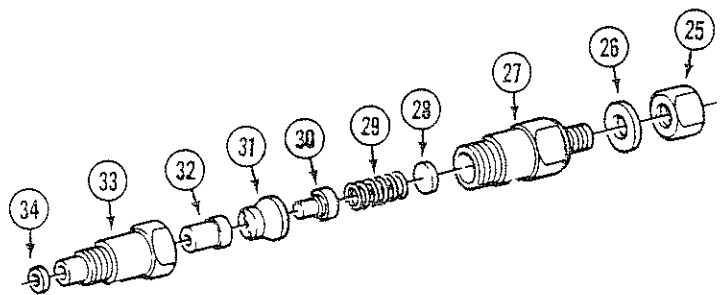
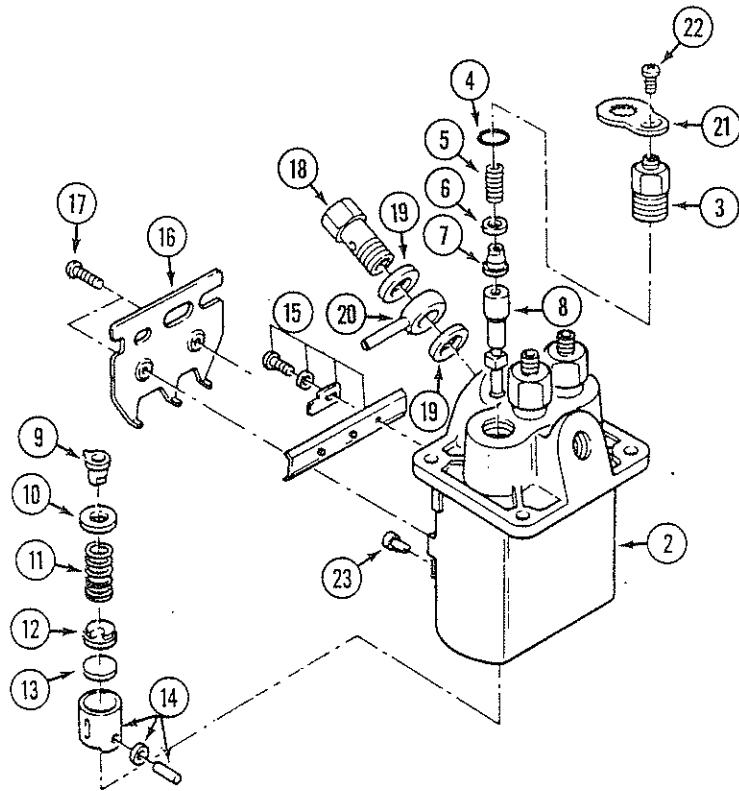
FUEL PUMP

1	C 43604	PUMP - fuel	1
2	NSS	BODY - upper	1
3	P130516080	BODY - lower	1
4	P130516081	SPRING	1
5	P130516082	PLUNGER	1
6	P130516085	PIN	1
7	P130516088	PIN	1
8	P130516083	SPRING	1
9	P131226180	"O" RING	1
10	P130516086	LEVER	1
11	P130516087	SPRING	1
12	P130516084	DIAPHRAGM	1
13	P130516090	CAP	1
14	P130516089	GASKET	1
15	P130516092	BOLT	2
16	P130516069	WASHER	4
17	P130516091	SCREW	6



FUEL INJECTION SYSTEM

REF.	PART NO.	DESCRIPTION	REQ'D
1	P131017390	PUMP - injection (repairs page 23)	1
2	P131236280	SCREW	1
3	P025100006	WASHER	1
4	P131437310	SHIM - 0.2mm	UAR
4	P131437320	SHIM - 0.3mm	UAR
4	P131437330	SHIM - 0.4mm	UAR
4	P131437340	SHIM - 0.5mm	UAR
5	P011300620	SCREW	2
6	P023100006	NUT	6
8	P131046160	SCREW	1
9	P023109002	NUT	1
10	P025100010	WASHER	1
11	P198236030	WIRE	1
12	P010109270	SCREW	1
13	P023109002	NUT	1
14	P025100010	WASHER	1
15	P131507010	PIPE - injection (No. 1 cylinder)	1
16	P131507020	PIPE - injection (No. 2 cylinder)	1
17	P131507030	PIPE - injection (No. 3 cylinder)	1
18	P199106020	DAMPER	2
19	P199106020	DAMPER	2
20	P010100625	SCREW	2
21	P023100006	NUT	2
23	P131406340	ATOMIZER - fuel (repairs page 23)	3
24	P131426200	GASKET	3
25	P111316280	INSERT	3
26	P198996090	SEAL	3
27	P131606260	PIPE	1

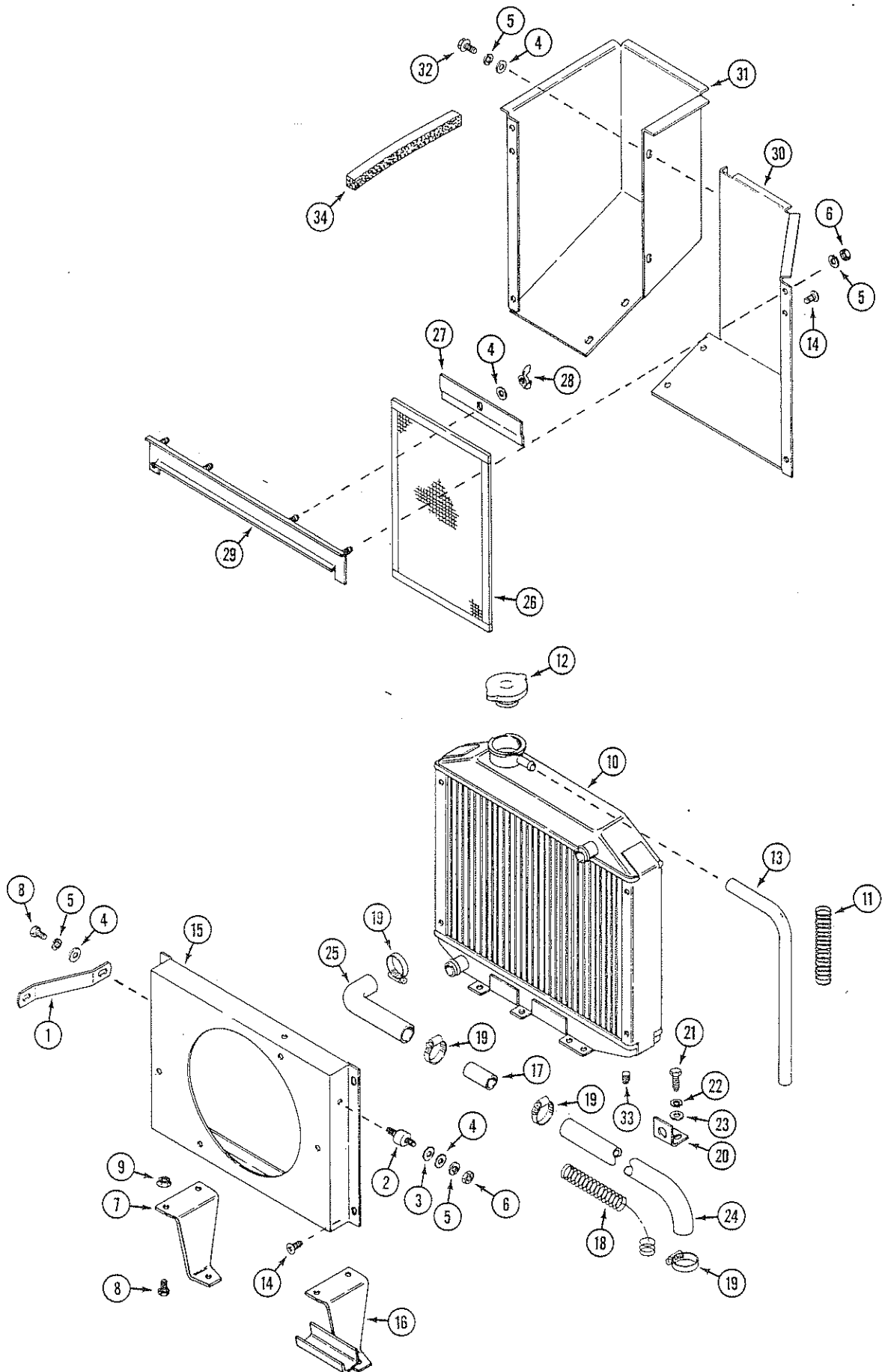


FUEL INJECTION PUMP

REF.	PART NO.	DESCRIPTION	REQ'D
	P131017390	PUMP - fuel injection	1
2	P131296665	HOUSING	1
3	P131196130	HOLDER	3
4	P131226170	"O" RING	3
5	P131176430	SPRING	3
6	P131186050	GASKET	3
7	P131156160	VALVE	3
8	P131116410	ELEMENT	3
9	P131296951	SLEEVE	3
10	P131296620	SEAT	3
11	P131176440	SPRING	3
12	P131296621	SEAT	3
13	P131296622	PLATE - shim 1.85mm	UAR
13	P131296623	PLATE - shim 1.90mm	UAR
13	P131296624	PLATE - shim 1.95mm	UAR
13	P131296625	PLATE - shim 2.00mm	UAR
13	P131296626	PLATE - shim 2.05mm	UAR
13	P131296627	PLATE - shim 2.10mm	UAR
13	P131296628	PLATE - shim 2.15mm	UAR
13	P131296629	PLATE - shim 2.20mm	UAR
13	P131296630	PLATE - shim 2.25mm	UAR
13	P131296631	PLATE - shim 2.30mm	UAR
13	P131296632	PLATE - shim 2.35mm	UAR
13	P131296633	PLATE - shim 2.40mm	UAR
13	P131296634	PLATE - shim 2.45mm	UAR
13	P131296635	PLATE - shim 2.50mm	UAR
14	P131256120	TAPPET	3
15	P131296636	RACK	1
16	P131296650	BRACKET	1
17	P131136320	SCREW	2
18	P131236190	BOLT	1
19	P131426180	WASHER	2
20	P131246130	NIPPLE	1
21	P131296662	PLATE	3
22	P131136330	SCREW	3
23	P131296651	PIN	3

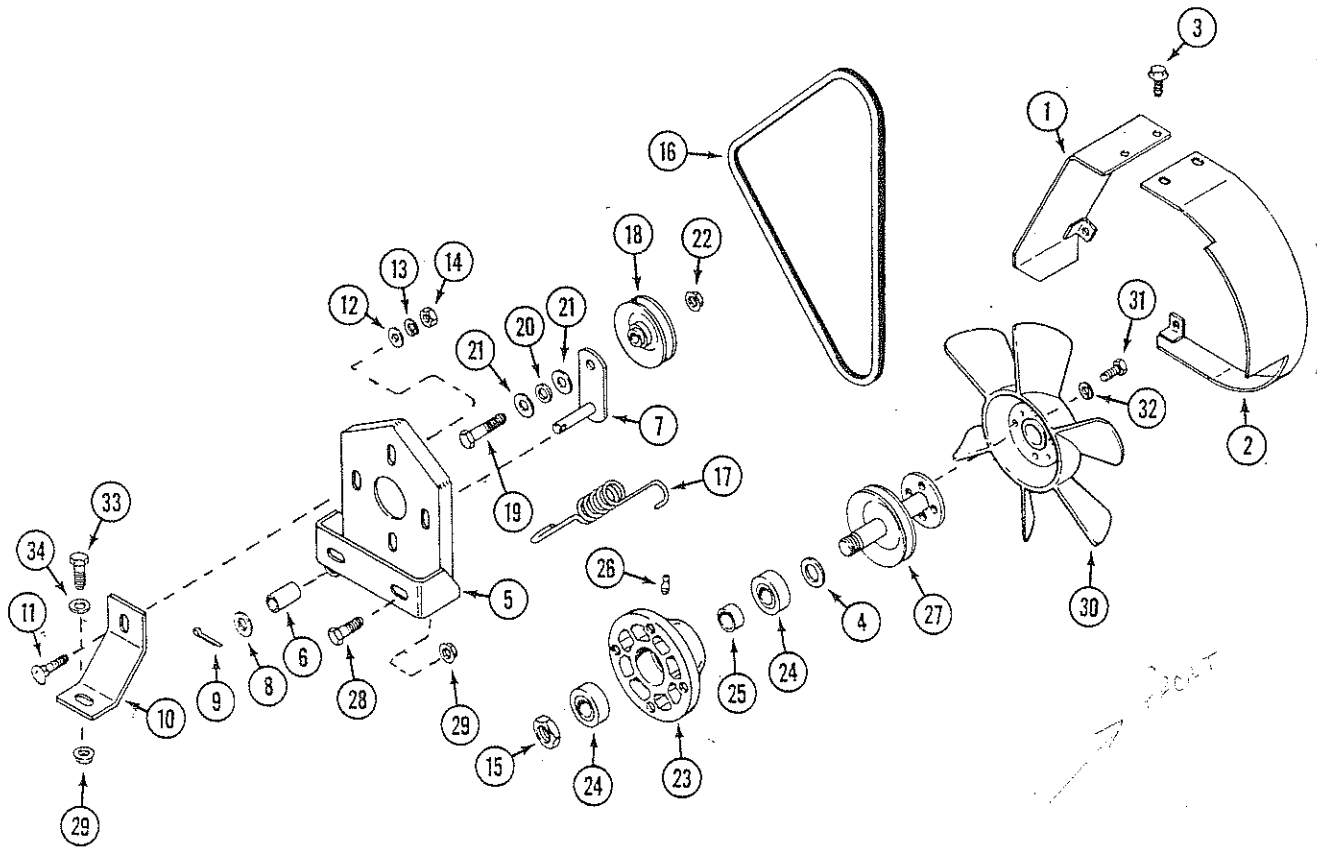
ATOMIZER

	P131406340	ATOMIZER	3
25	P131446069	NUT	1
26	P131426210	WASHER	1
27	P131446065	BODY	1
28	P131437250	SHIM - 0.90mm	UAR
28	P131437251	SHIM - 0.925mm	UAR
28	P131437252	SHIM - 0.95mm	UAR
28	P131437253	SHIM - 0.975mm	UAR
28	P131437254	SHIM - 1.00mm	UAR
28	P131437255	SHIM - 1.025mm	UAR
28	P131437256	SHIM - 1.05mm	UAR
28	P131437257	SHIM - 1.075mm	UAR
28	P131437258	SHIM - 1.10mm	UAR
28	P131437259	SHIM - 1.125mm	UAR
28	P131437260	SHIM - 1.15mm	UAR
28	P131437261	SHIM - 1.175mm	UAR
28	P131437262	SHIM - 1.20mm	UAR
28	P131437263	SHIM - 1.225mm	UAR
28	P131437264	SHIM - 1.250mm	UAR
28	P131437265	SHIM - 1.275mm	UAR
28	P131437266	SHIM - 1.30mm	UAR
28	P131437267	SHIM - 1.325mm	UAR
28	P131437268	SHIM - 1.35mm	UAR
28	P131437269	SHIM - 1.375mm	UAR
28	P131437270	SHIM - 1.40mm	UAR
28	P131437271	SHIM - 1.425mm	UAR
28	P131437272	SHIM - 1.45mm	UAR
29	P131446066	SPRING	1
30	P131446070	PIN	1
31	P131446068	SPACER	1
32	P131416150	NOZZLE	1
33	P131446067	NUT	1



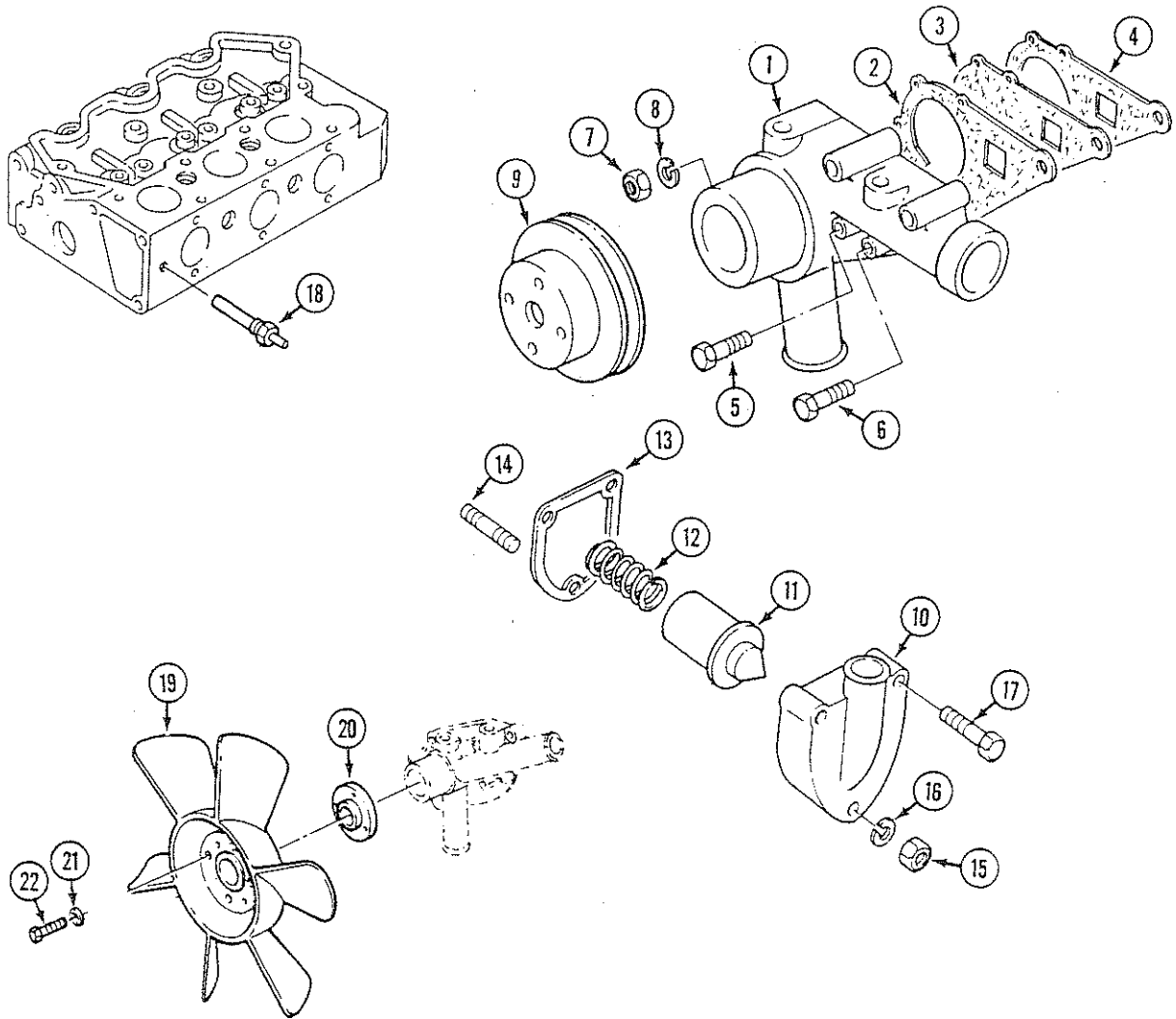
RADIATOR AND SHROUD

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45310	STRAP - radiator mount	1
2	C 43012	MOUNT - rubber	3
3	C 37704	WASHER - .33" x .69"	1
4	195- 518	WASHER - 1/4"	7
5	192- 19	LOCKWASHER - 1/4"	9
6	129- 101	NUT - 1/4"	5
7	C 45206	BRACKET - radiator - support, rear	1
8	113- 1	BOLT - 1/4" - 20 x 1/2"	4
9	131- 934	NUT - 1/4" - 20 flange lock	4
10	C 43211	RADIATOR	1
11	C 45633	SPRING - hose liner	1
12	C 43009	CAP - radiator	1
13	C 43011	HOSE - overflow	1
14	C 33576	SCREW - 1/4" - 20 x 5/16"	5
15	C 45308	SHROUD - fan	1
16	C 45464	BRACKET - radiator support, front	1
17	C 43367	TUBE - .88" x 2"	2
18	C 44567	SPRING - hose liner	2
19	214- 255	CLAMP - hose #16	9
19	214- 256	CLAMP - hose #20	2
20	C 45311	BRACKET - hose support, upper	1
20	C 44604	BRACKET - hose support, lower	1
21	814- 8016	BOLT - M8 - 1.25 x 16	3
22	192- 20	LOCKWASHER - 5/16"	3
23	195- 102	WASHER - .312" x .75"	2
24	C 43368	HOSE - .88" x 13.5" top engine	1
24	C 43369	HOSE - .88 x 32" lower engine	1
25	C 33551	HOSE - 90°	2
26	C 45447	SCREEN - radiator	2
27	C 45450	BRACKET - screen mounting	2
28	129- 409	NUT - wing 1/4" - 20	2
29	C 45451	RAIL - upper, screen mounting	1
30	C 45453	DUCT - air, front	1
31	C 45457	DUCT - air, rear	1
32	187- 1036	SCREW - 1/4" - 20 x 1/2" flange	4
33	C 43010	PLUG - drain (included with radiator)	1
34	C 42772	SEAL - air intake 13.2"	1



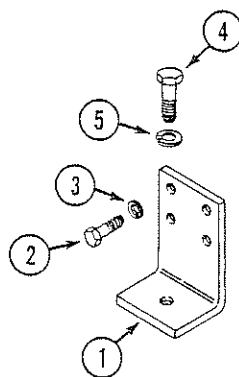
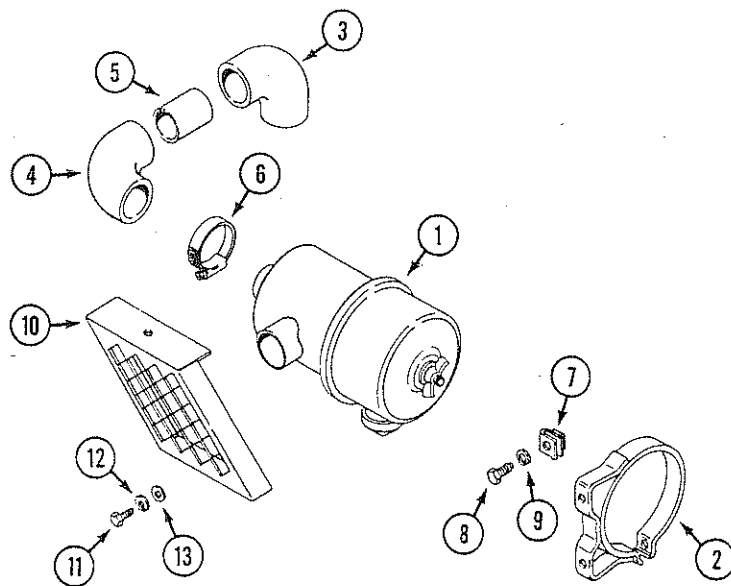
RADIATOR FAN ASSEMBLY

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45436	COWLING - fan, rear	1
2	C 45439	COWLING - fan, front	1
3	187- 1036	SCREW - 1/4" - 20 x 1/2" flange	6
4	C 12975	WASHER - 3/4" - 1-1/8"	1
5	C 45419	BRACKET - fan mounting	1
6	C 16714	BUSHING - 1/2"	1
7	C 45230	ARM - idler	1
8	195- 2067	WASHER - 1/2" x 7/8"	1
9	132- 320	PIN - cotter 3/32" x 3/4"	1
10	C 45205	BRACE - fan mount	2
11	111- 256	BOLT - 5/16" - 18 x 1-1/4" carriage	4
12	195- 521	WASHER - .344" x .688"	4
13	192- 20	LOCKWASHER - 5/16"	4
14	129- 102	NUT - 5/16" - 18	4
15	131- 1331	NUT - 3/4" - 16 lock	1
16	C 45412	BELT - 3L x 36"	1
17	C 45413	SPRING - tension	1
18	C 45338	PULLEY - idler	1
19	113- 233	BOLT - 3/8" - 16 x 1-3/4"	1
20	C 30155	WASHER - .39" x .625"	1
21	195- 525	WASHER - .40" x .81"	2
22	131- 1352	NUT - 3/8" - 16 flange lock	1
23	C 45414	HOUSING ASSEMBLY	1
24	C 28971	BEARING - ball 3/4"	2
25	C 43208	SPACER - bearing	1
26	219- 20	FITTING - 1/4" - 28 lubrication	1
27	C 45415	SPINDLE - fan mounting	1
28	113- 104	BOLT - 5/16" - 18 x 1-1/4"	2
29	131- 911	NUT - 5/16" - 18 flange lock	4
30	C 42984	FAN - 11"	1
31	131- 1	BOLT - 1/4" - 20 x 1/2"	4
32	192- 19	LOCKWASHER - 1/4"	4
33	113- 103	BOLT - 5/16" - 18 x 1"	2
34	195- 103	WASHER - .375" x .875"	2



WATER PUMP, THERMOSTAT, TEMPERATURE SENDER

REF.	PART NO.	DESCRIPTION	REQ'D
1	P145016840	PUMP - water	1
2	C 43617	GASKET	1
3	C 43618	BACKPLATE	1
4	C 43619	GASKET	1
5	P011300635	SCREW	3
6	P011300650	SCREW	4
7	P023100006	NUT	1
8	P027100006	WASHER	1
9	P145336490	PULLEY	1
10	P145216161	HOUSING	1
11	C 43598	THERMOSTAT	1
12	C 43599	SPRING	1
13	C 43600	GASKET	1
14	P012100650	STUD	1
15	P023100006	NUT	1
16	P027100006	WASHER	1
17	P011300650	SCREW	2
18	C 43602	SENDER - temperature	1
19	C 45491	FAN	1
20	C 42986	SPACER - fan	1
21	192- 19	LOCKWASHER - 1/4"	4
22	814- 6045	SCREW - M6 - 1.0 x 45	4

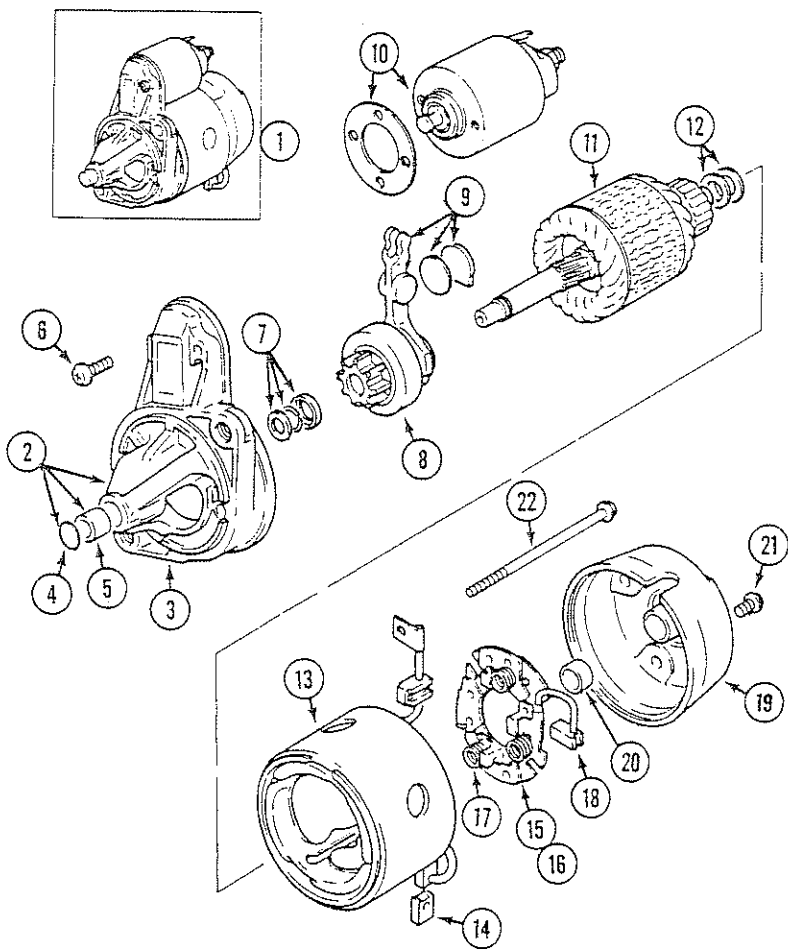
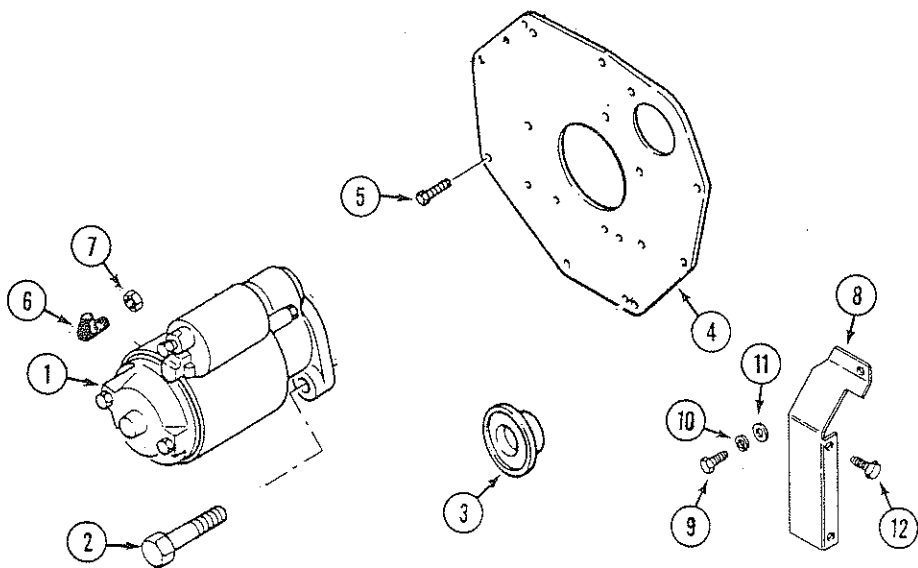


AIR CLEANER

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 43030	AIR CLEANER ASSEMBLY	1
	C 43445	ELEMENT - air cleaner	1
	C 43594	WING NUT - element	1
	C 43595	WING NUT - cup	1
	C 43596	WASHER - cup	1
2	C 43033	BRACKET - air cleaner	1
3	C 45305	HOSE - engine	1
4	C 45340	HOSE - air cleaner	1
5	C 43366	TUBE - air	1
6	214- 258	CLAMP - hose	4
7	C 31973	NUT - "J" 1/4" - 20	2
8	113- 2	BOLT - 1/4" - 20 x 5/8"	2
9	192- 19	LOCKWASHER - 1/4"	2
10	C 45306	INTAKE - air	1
11	113- 1	BOLT - 1/4" - 20 x 1/2"	2
12	192- 19	LOCKWASHER - 1/4"	2
13	195- 518	WASHER - 1/4"	1

ENGINE MOUNTS

1	C 45303	BRACKET - engine mount	2
2	814- 10025	BOLT - M10 x 1.5 x 25	16
3	192- 22	LOCKWASHER - 7/16"	16
4	113- 1	BOLT - 1/2" - 13 x 1-1/4"	4
5	192- 23	LOCKWASHER - 1/2"	4

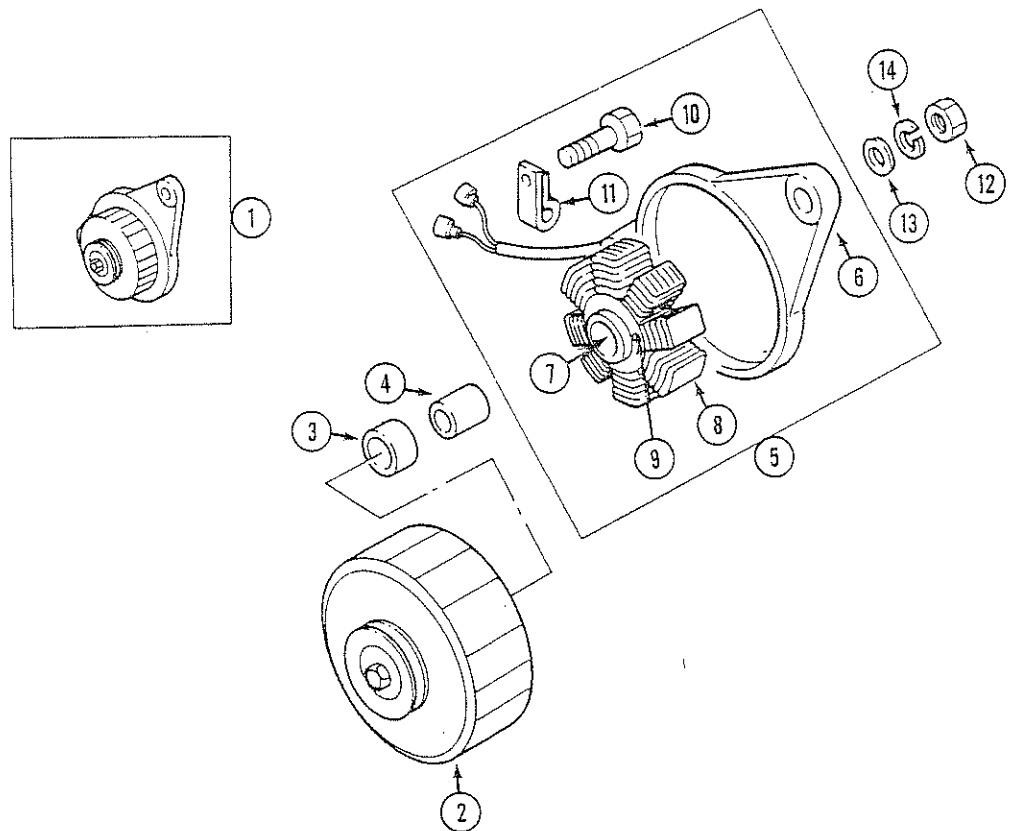
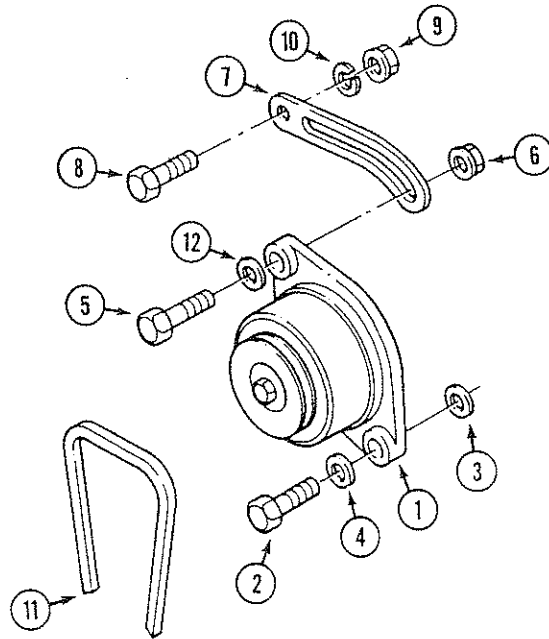


STARTER, PLATE AND FLYWHEEL SHIELD

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 43609	STARTER - repairs below	1
2	P011601020	SCREW	2
3	P198636080	SEAL - rear	1
4	P110366700	PLATE	1
5	P011310816	SCREW	10
6	C 44079	INSULATOR - terminal	1
7	C 42835	NUT - M8	1
8	C 43307	SHIELD - flywheel R.H.	1
9	814- 8016	BOLT - M8 - 1.25	1
10	192- 20	LOCKWASHER - 5/16"	1
11	195- 102	WASHER - 5/16" x 3/4"	1
12	121- 21	BOLT - 1/4" - 20 x 1/2" flange lock	2

STARTER ASSEMBLY

1	C 43609	STARTER	1
2	P185846471	COVER ASSEMBLY	1
3	NSS	COVER	1
4	NSS	RING	1
5	P185846472	BUSHING	1
6	P185846468	SCREW	2
7	P185846473	WASHER	1
8	P185866240	PINION	1
9	P185846469	LEVER	1
10	P185816220	SWITCH	1
11	P185846474	ARMATURE	1
12	P185846475	WASHER	1
13	P185846476	YOKE	1
14	P185416400	BRUSH	1
15	P185416390	HOLDER ASSEMBLY	1
16	NSS	HOLDER	1
17	P185886010	SPRING	1
18	P185416410	BRUSH	1
19	P185846477	COVER	1
20	P185846478	BUSHING	1
21	P185846468	SCREW	3
22	P185846470	SCREW	2

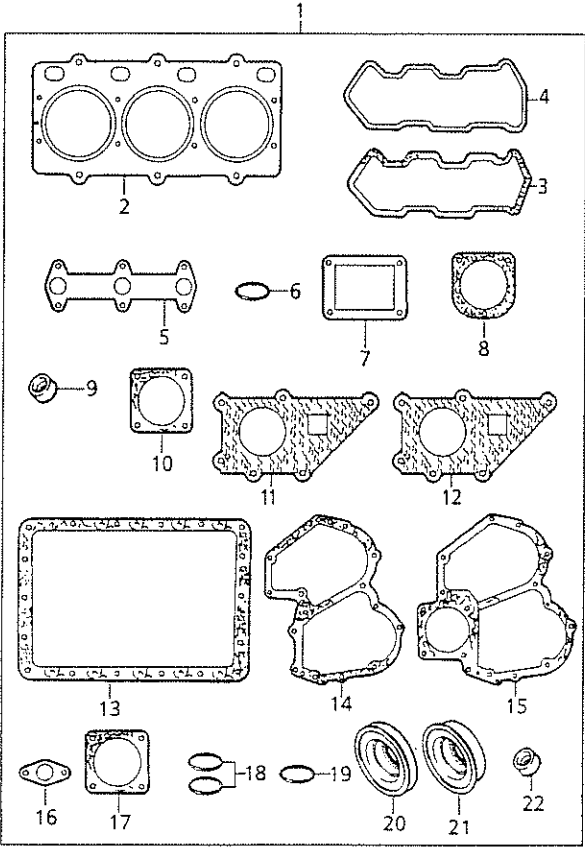


ALTERNATOR AND BELT

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 43610	ALTERNATOR - see below for service	1
2	P010110850	SCREW	1
3	P026109011	WASHER	1
4	P026200008	WASHER	1
5	P012800840	SCREW	1
6	P023100008	NUT	1
7	P185726431	LEVER	1
8	P011300816	SCREW	1
9	P023100008	NUT	1
10	P027100008	WASHER	1
11	P080109048	BELT	1
12	P026109017	WASHER	1

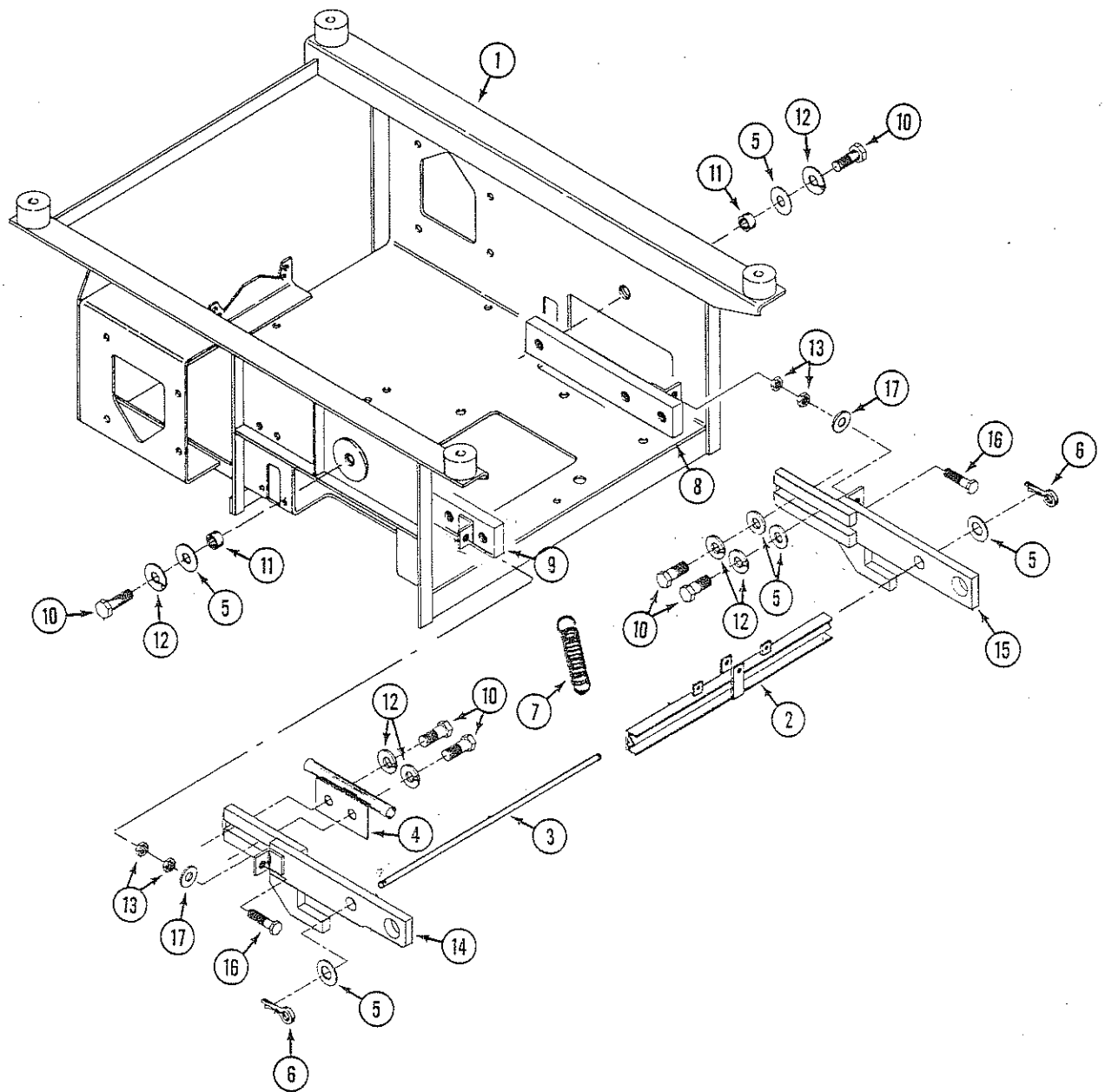
ALTERNATOR ASSEMBLY

1	C 43610	ALTERNATOR	1
2	P185446219	PULLEY	1
3	P040126201	BEARING	1
4	P199236510	COLLAR	1
5	P185446217	PLATE ASSEMBLY	1
6	P185716200	PLATE	1
7	P040126201	BEARING	1
8	P185446218	STATOR	1
9	P015140425	SCREW	2
10	P015140408	SCREW	1
11	P185446220	CLIP	5
12	P020210010	NUT	1
13	P026100010	WASHER	1
14	P027100010	WASHER	1



GASKET KIT

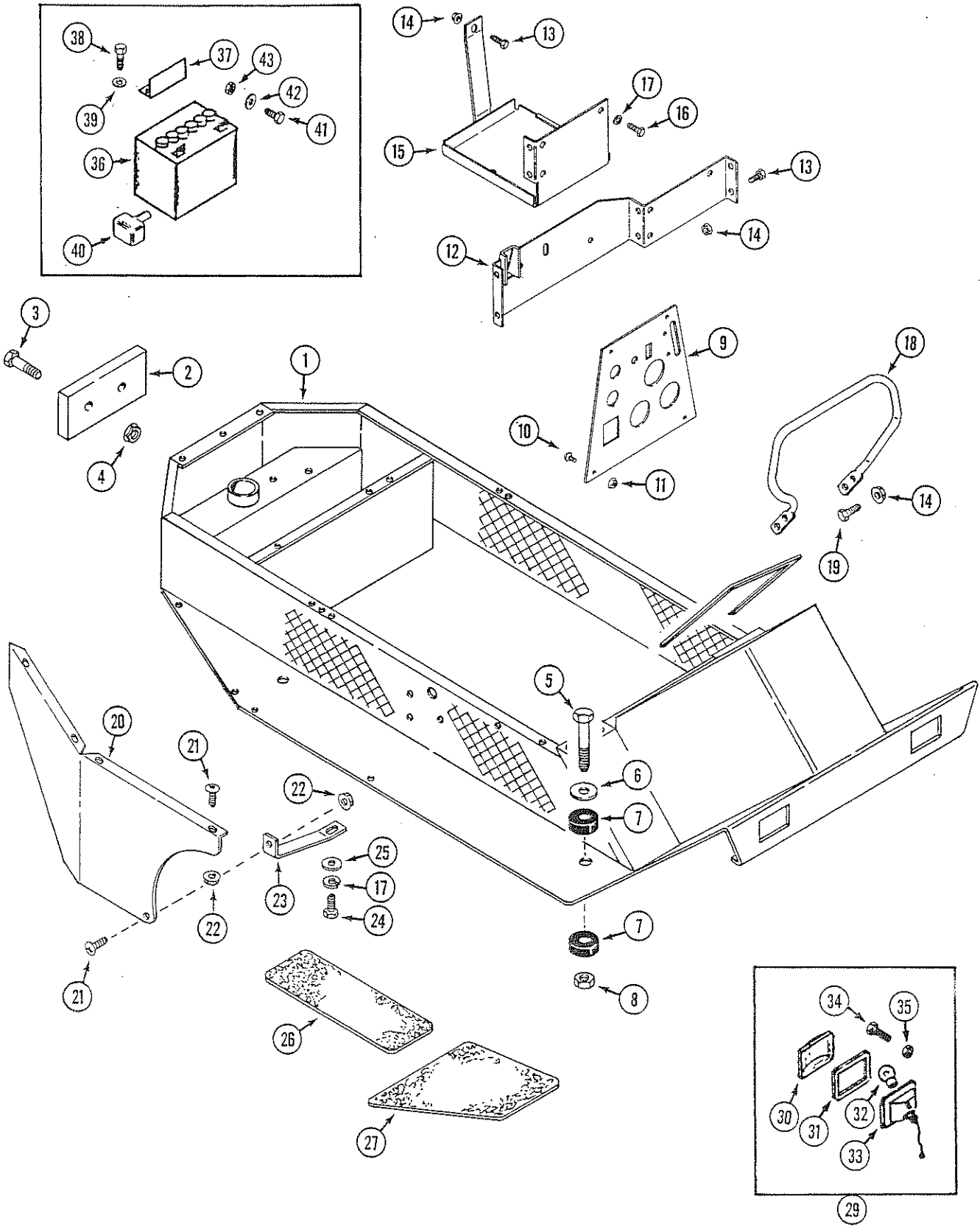
REF.	PART NO.	DESCRIPTION	REQ'D
1	P195906840	KIT - gasket, complete	1
2	P111147390	GASKET - head	1
3	C 43615	GASKET - cover	1
4	C 43616	GASKET - cover	1
5	C 43988	GASKET - exhaust	1
6	C 43606	"O" RING - cap	1
7	P130996070	GASKET - fuel pump	1
8	C 43600	GASKET - thermostat	1
9	P120406080	SEAL - valve stem	3
10	P314990013	GASKET - (not used)	1
11	C 43619	GASKET - water pump	1
12	C 43617	GASKET - water pump	1
13	C 43614	GASKET - sump, oil	1
14	C 43612	GASKET - case	1
15	C 43613	GASKET - plate	1
16	P130996070	GASKET - fuel pump	1
17	P165996420	GASKET - plate	1
18	C 43999	"O" RING - oil tube	2
19	P052109076	"O" RING - oil pipe	1
20	P198636090	SEAL - case	1
21	P198636080	SEAL - plate, rear	1
22	P131426200	GASKET - atomizer	3



BASE AND LIFT ARMS

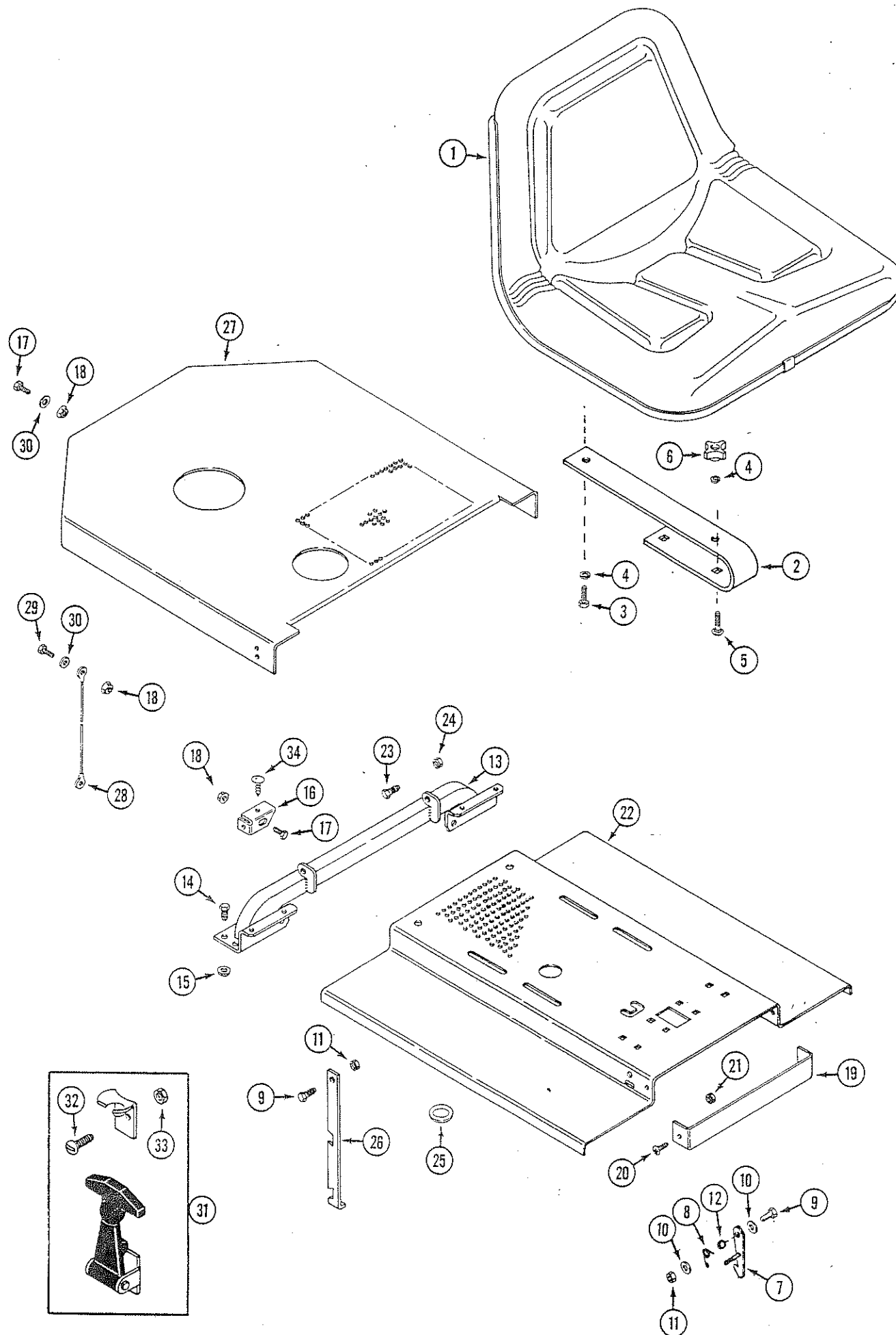
59

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45207	BASE	1
2	C 37600	BAR - lift	1
3	C 37578	PIN - lift bar	1
4	C 37577	TUBE - wire	1
5	195- 106	WASHER - .56" x 1.38"	6
6	132- 310	PIN - cotter	2
7	C 37815	SPRING - deck lift	2
8	C 38996	ARM - deck lift, rear L.H.	1
9	C 39006	ARM - deck lift, rear R.H.	1
10	113- 417	BOLT - 1/2" - 13 x 1-1/4"	6
1	C 37576	BUSHING - .38"	2
12	192- 23	LOCKWASHER - 1/2"	6
13	129- 103	NUT - 3/8" - 16	4
14	C 37573	ARM - deck lift, front R.H.	1
15	C 37574	ARM - deck lift, front, L.H.	1
16	113- 241	BOLT - 3/8" - 16 x 3"	2
17	195- 104	WASHER - 3/8"	2



BODY AND ATTACHING PARTS

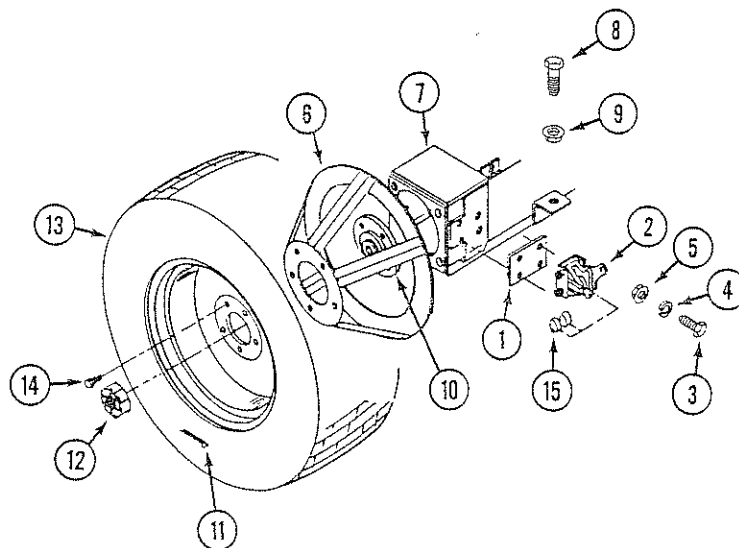
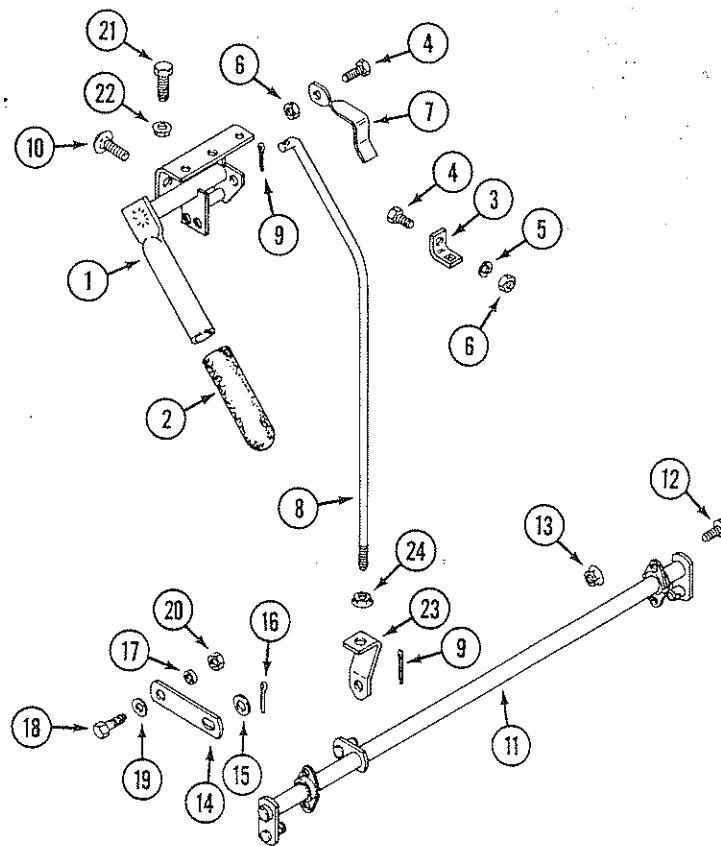
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45252	BODY	1
2	C 45299	PLATE - weight	4
3	113- 248	BOLT - 3/8" - 16 x 2-3/4"	4
4	131- 1352	NUT - 3/8" - 16 flange lock	4
5	113- 429	BOLT - 1/2" - 13 x 5"	4
6	C 37581	WASHER - 1/2" x 2"	4
7	C 37818	MOUNT - rubber, body	8
8	131- 70	NUT - 1/2" - 13 lock	4
9	C 45164	PANEL - instrument	1
10	182- 573	SCREW - #10 - 24 x 1/2"	4
11	C 34117	NUT - #10 - 24 flange lock	2
12	C 45354	CROSSMEMBER - body	1
13	113- 118	BOLT - 5/16" - 18 x 5/8"	5
14	131- 911	NUT - 5/16" - 18 flange lock	9
15	C 45349	TRAY - battery	1
16	113- 101	BOLT - 5/16" - 18 x 1/2"	5
17	192- 20	LOCKWASHER - 5/16"	7
18	C 44844	RAIL - guard	1
19	113- 102	BOLT - 5/16" - 18 x 3/4"	4
20	C 45346	SKIRT - fender L.H.	1
20	C 45347	SKIRT - fender R.H. (shown)	1
21	182- 547	SCREW - 1/4" - 20 x 1/2"	10
22	131- 934	NUT - 1/4" - 20 flange lock	10
23	C 45348	BRACE - fender	2
24	113- 103	BOLT - 5/16" - 18 x 1"	2
25	195- 103	WASHER - 3/8" x 7/8"	2
26	C 43382	PAD - footrest, side	2
27	C 43419	PAD - foot, front L.H.	1
27	C 43420	PAD - foot, front R.H. (shown)	1
28	C 44035	TRIM - instrument panel	1
29	C 32178	HEADLIGHT	2
30	C 22573	LENS	1
31	C 14304	GASKET	1
32	C 28932	BULB	1
33	NSS	REFLECTOR	1
34	113- 4	BOLT - 1/4" - 20 x 1"	2
35	129- 101	NUT - 1/4" - 20	2
36	C 44071	BATTERY - 12V, 450 CCA	1
37	C 44004	RETAINER - battery	1
38	113- 17	BOLT - 1/4" - 20 x 1-1/4"	1
39	195- 518	WASHER - .28" x .62"	1
40	C 43046	INSULATOR - post	1
41	113- 3	BOLT - 1/4" - 20 x 3/4"	2
42	195- 102	WASHER - 1/4"	2
43	131- 71	NUT - 1/4" - 20 lock	2



SEAT, LID AND REAR COVER

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REF.	PART NO.	DESCRIPTION	REQ'D
1	C 43202	SEAT	1
2	C 43137	SPRING - seat	2
3	113- 102	BOLT - 5/16" - 18 x 3/4"	4
4	192- 20	LOCKWASHER - 5/16"	8
5	111- 204	BOLT - carriage 5/16" - 18 x 1-1/4"	4
6	C 43438	KNOB - seat adjust	4
7	C 44481	LATCH - lid	1
8	C 37851	SPRING - latch	1
9	113- 4	BOLT - 1/4" - 20 x 1"	2
10	195- 102	WASHER - 1/4"	2
11	131- 71	NUT - 1/4" - 20 lock	2
12	C 44498	SPACER - latch	1
13	C 45318	TUBE - seat support	1
14	113- 118	BOLT - 5/16" - 18 x 5/8"	4
15	131- 911	NUT - 5/16" - 18 flange lock	4
16	C 45336	BRACKET - retainer R.H. (shown)	1
16	C 45337	BRACKET - retainer L.H.	1
17	113- 1	BOLT - 1/4" - 20 x 1/2"	4
18	131- 934	NUT - 1/4" - 20 flange lock	4
19	C 37826	PLATE - filler	1
20	182- 528	SCREW - #10 - 32 x 1/2"	2
21	193- 1000	NUT - #10 - 32 lock	2
22	C 45352	LID - seat	1
23	113- 103	BOLT - 5/16" - 18 x 1"	2
24	131- 69	NUT - lock	2
25	C 25165	GROMMET - 1" x 1-3/4"	1
26	C 45471	PROP - seat lid	1
27	C 45300	COVER - rear	1
28	C 45472	LANYARD	1
29	113- 3	BOLT - 1/4" - 20 x 3/4"	1
30	195- 518	WASHER - .281" x .625	3
31	C 43326	LATCH - "T" handle	2
32	182- 571	SCREW - #6 - 32 x 1/2"	8
33	193- 1003	NUT - #6 - 32 lock	8
34	C 35067	RETAINER - plastic	12

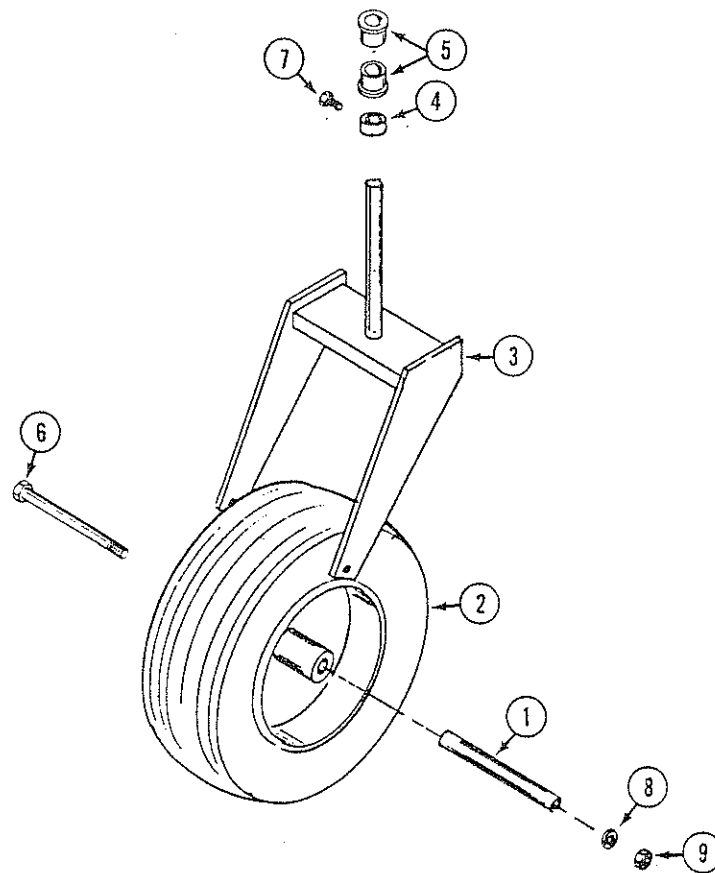


PARKING BRAKE

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45370	LEVER - brake	1
2	C 37631	GRIP - handle	1
3	C 45387	STOP - lever	1
4	113- 3	BOLT - 1/4" - 20 x 3/4"	2
5	192- 19	LOCKWASHER - 1/4"	2
6	129- 101	NUT - 1/4" - 20	3
7	C 45432	ARM - actuator	1
8	C 45375	ROD - brake	1
9	132- 310	PIN - cotter 1/8" x 1"	2
10	111- 111	BOLT - 1/4" - 20 x 1" carriage	1
11	C 45324	SHAFT - cross	1
12	187- 1036	BOLT - 1/4" - 20 x 1/2" flange	4
13	131- 934	NUT - 1/4" - 20 flange lock	4
14	C 45503	BAR - brake link	2
15	195- 525	WASHER - .40" x .81"	2
16	132- 321	PIN - cotter 1/8" - 1"	2
17	C 42895	BUSHING	2
18	113- 4	BOLT - 1/4" - 20 x 1"	2
19	195- 102	WASHER - .31" x .75"	2
20	131- 71	NUT - 1/4" - 20 lock	2
21	113- 118	BOLT - 5/16" - 18 x 5/8"	1
22	131- 911	NUT - 5/16" - 18 flange lock	1
23	C 45501	CLEVIS - brake	1
24	131- 938	NUT - 3/8" - 18 flange lock	1

DRIVE WHEELS

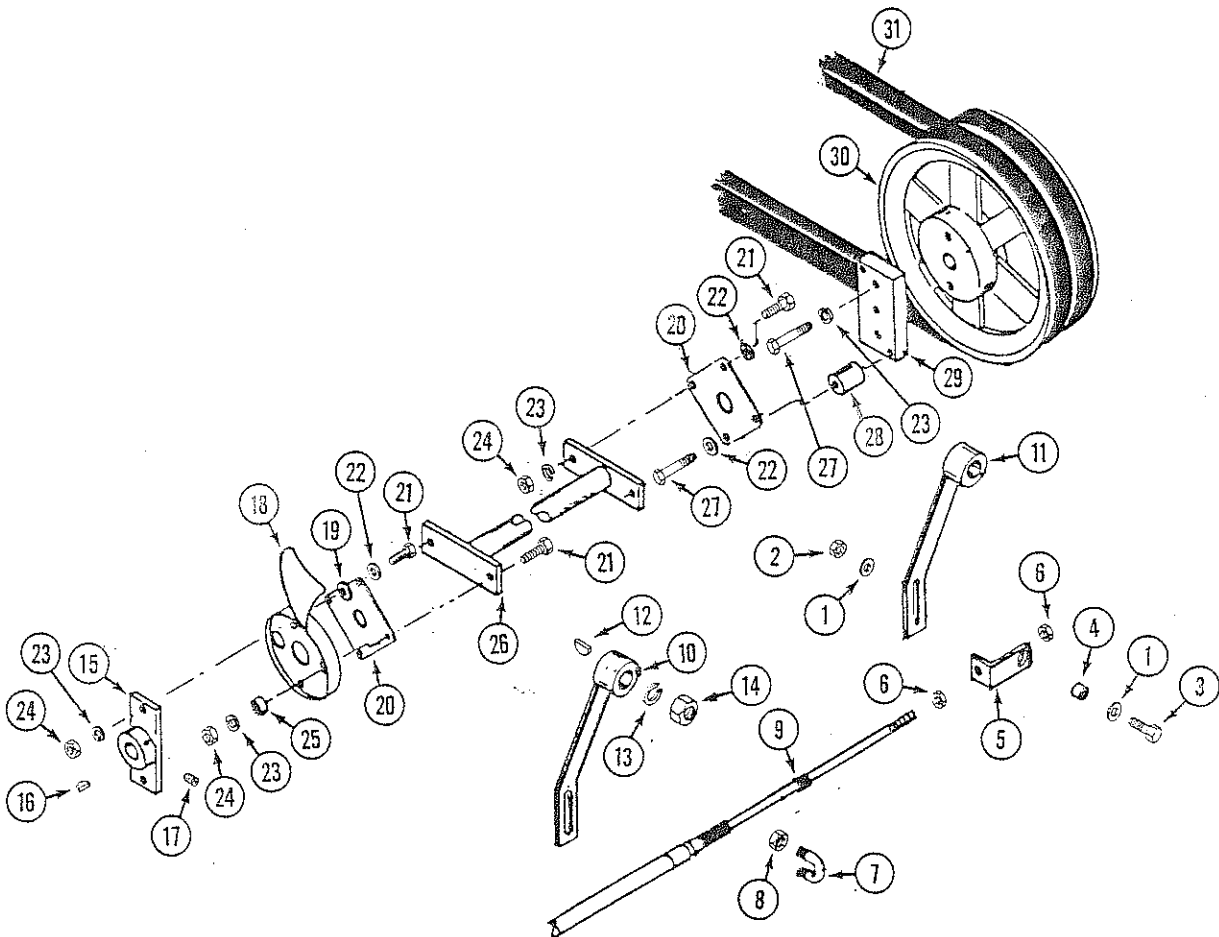
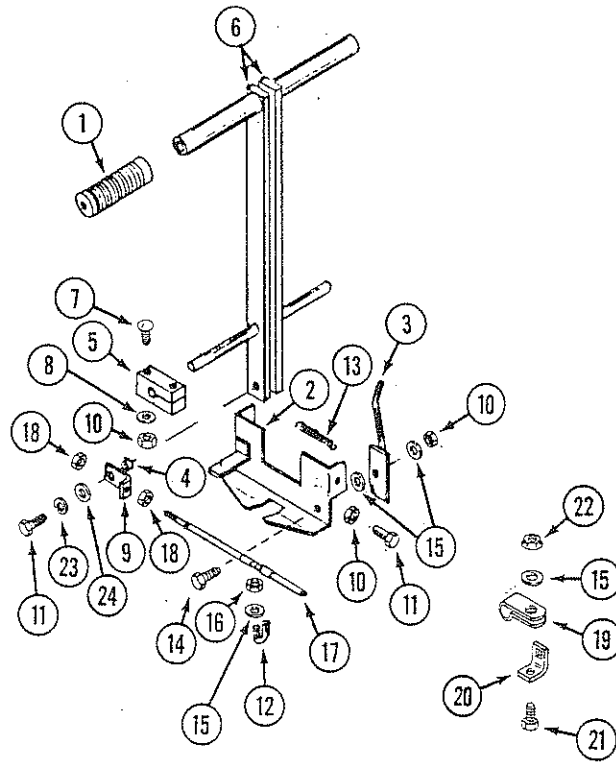
1	C 45277	MOUNT - caliper	2
2	C 45485	BRAKE - caliper L.H.	1
2	C 45486	BRAKE - caliper R.H.	1
3	113- 102	BOLT - 5/16" - 18 x 3/4"	8
4	192- 20	LOCKWASHER - 5/16"	4
5	131- 911	NUT - 5/16" - 18 flange lock	4
6	C 37611	DISC - brake	2
7	C 45274	AXLE - drive	1
8	113- 417	BOLT - 1/2" - 13 x 1-1/4" (axle mounting)	6
9	131- 930	NUT - 1/2" - 13 flange lock (axle mounting)	6
10	C 44847	HUB - mounting	2
11	132- 337	PIN - cotter 1/8" x 1-3/4"	2
12	C 37628	NUT - hub	2
13	NSS	WHEEL ASSEMBLY - 20 x 10-10	2
	C 44850	RIM	1
14	C 44848	BOLT - lug 1/2" - 20 x 1"	10
15	C 37627	PUCKS - brake (1 pair)	2



SINGLE TAIL WHEEL

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REF.	PART NO.	DESCRIPTION	REQ'D
1	C 37854	AXLE - wheel	1
2	C 37855	WHEEL ASSEMBLY - tail	1
	C 37856	BEARING - wheel	2
	C 37857	TIRE - 15 x 6.50 - 8	8
	C 37858	RIM - 8"	1
3	C 45297	FORK - tail wheel	1
4	C 37860	COLLAR - set 1"	1
5	C 37861	SPACER - tail wheel fork	1
6	113- 452	BOLT - 1/2" - 13 x 9-1/2"	1
7	85- 58	SCREW -set 5/16" - 18 x 1/2" square head	1
8	192- 23	LOCKWASHER - 1/2"	1
9	129- 105	NUT - 1/2" - 13	1
10	C 37824	BEARING - ball 1"	2
	219- 20	FITTING - grease 1/4" - 28 (caster pivot)	1



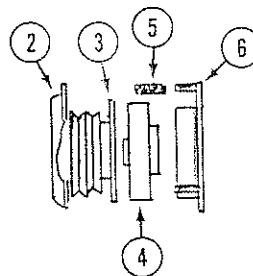
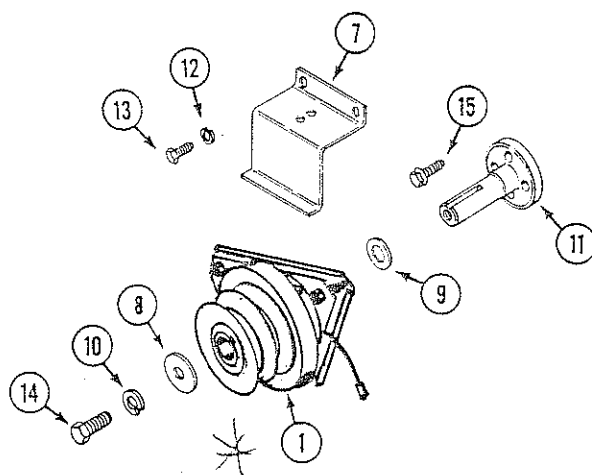
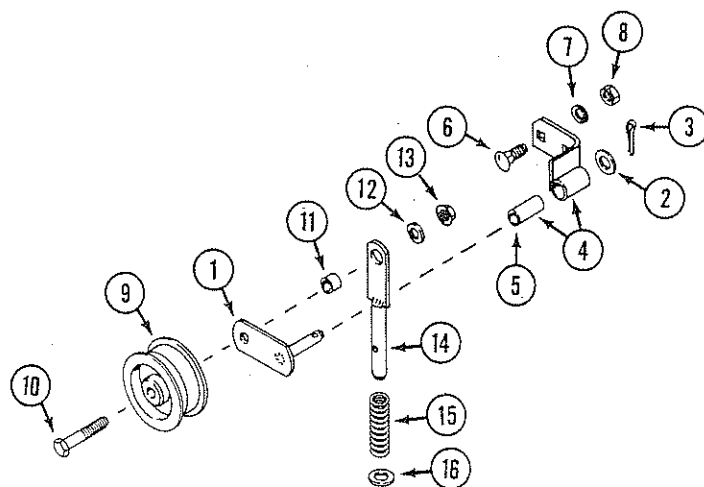
STEERING

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REF.	PART NO.	DESCRIPTION	REQ'D
1	C 37631	GRIP - handle	2
2	C 37840	BRACKET - lever lock	1
3	C 37841	LATCH - lever lock	1
4	C 42895	BUSHING - steering cable	2
5	C 37842	BLOCK - bearing	2
6	C 44915	LEVER - steering	2
7	111- 114	BOLT - 1/4" - 20 x 1-1/2" carriage	8
8	195- 102	WASHER - 1/4"	8
9	C 37713	BRACKET - steering cable end	2
10	131- 71	NUT - 1/4" - 20 lock	11
11	113- 3	BOLT - 1/4" - 20 x 3/4"	4
12	C 37718	CLAMP - cable	2
13	C 37837	SPRING - lever lock	1
14	C 42359	BOLT - 1/4" - 20 x 2"	1
15	195- 102	WASHER - 1/4"	7
16	131- 69	NUT - 5/16" - 18 lock	4
17	C 43180	CABLE - steering	2
18	193- 1001	NUT - 1/4" - 28"	4
19	C 33218	CLAMP	2
20	C 45387	STOP - brake lever	1
21	113- 1	BOLT - 1/4" - 20 x 1/2"	1
22	131- 934	NUT - 1/4" - 20 flange lock	1
23	192- 19	LOCKWASHER - 1/4"	2
24	195- 520	WASHER - 1/4"	2

TRANSMISSION CONTROLS AND CROSS SHAFT

1	195- 520	WASHER - 1/4"	4
2	131- 71	NUT - 1/4" - 20 lock	2
3	113- 4	BOLT - 1/4" - 20 x 1"	2
4	C 42895	BUSHING - steering cable	2
5	C 37713	BRACKET - steering cable end	2
6	193- 1001	NUT - 1/4" - 20 lock	4
7	C 37718	CLAMP - cable	2
8	131- 69	NUT - 5/16" - 18 lock	4
9	C 43180	CABLE - steering	2
10	C 45233	ARM - control L.H.	1
11	C 45234	ARM - control R.H.	1
12	126- 11	KEY - 1/8" x 5/8" woodruff	2
13	192- 23	LOCKWASHER - 1/2"	2
14	129- 105	NUT - 1/2" - 13	2
15	C 37708	HUB - drive	1
16	126- 16	KEY - 3/16" x 3/4" woodruff	2
17	83- 55	SETSCREW - 5/16" - 18 x 5/16"	2
18	C 37696	FAN	1
19	C 37704	WASHER - .33" x .69" x .13"	2
20	C 37700	PLATE - drive	2
21	113- 103	BOLT - 5/16" - 18 x 1"	6
22	195- 102	WASHER - .312" x .75"	6
23	192- 20	LOCKWASHER - 5/16"	8
24	129- 102	NUT - 5/16" - 18	6
25	C 37702	SPACER - 1/4"	2
26	C 38015	SHAFT - cross	1
27	113- 104	BOLT - 5/16" - 18 x 1-1/4"	4
28	C 45378	SPACER - 3/4"	2
29	C 37710	BLOCK - cross shaft	1
30	C 45154	PULLEY - pump drive	1
31	C 37716	BELT - engine to transmission	1



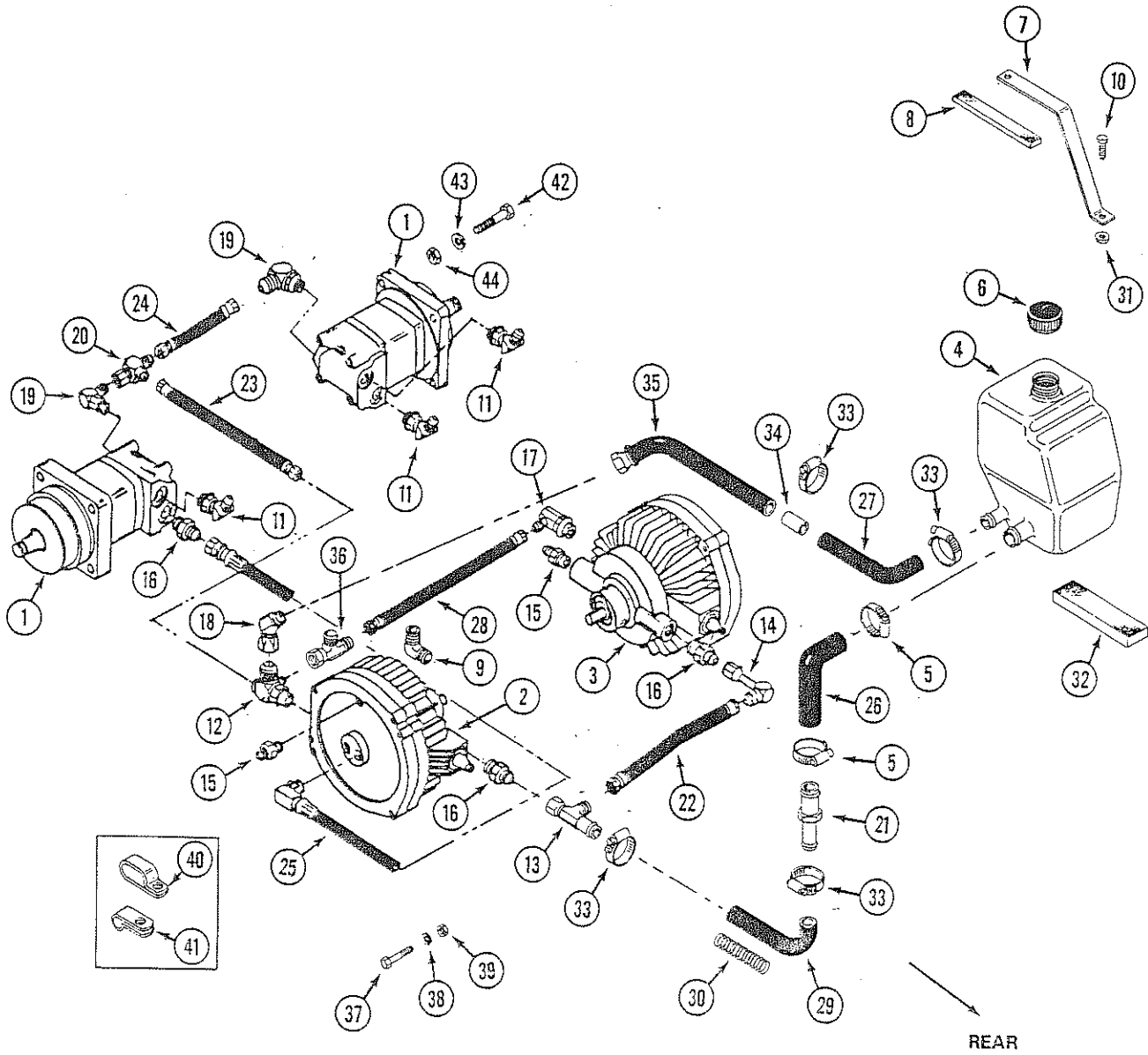
DRIVE IDLER

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45230	ARM - idler	1
2	195- 2067	WASHER - 1/2" x 7/8"	1
3	132- 320	PIN - cotter 3/32" x 3/4"	1
4	C 45400	BRACKET - pivot (includes bushing)	1
5	C 16714	BUSHING - .50" x .62" x 1.5"	1
6	111- 342	BOLT - carriage 3/8" - 16 x 1"	2
7	192- 21	LOCKWASHER - 3/8"	2
8	129- 103	NUT - 3/8" - 16	2
9	C 38445	PULLEY - 3.25" x 1.38"	1
10	113- 213	BOLT - 3/8" - 16 x 2-1/4"	1
11	C 16573	SPACER - .38" x .62" x .41"	1
12	195- 525	WASHER - 3/8"	2
13	131- 1352	NUT - 3/8" - 16 flange lock	1
14	C 45403	GUIDE - spring	1
15	C 45407	SPRING - compression	1
16	C 44383	WASHER - thrust	1

ELECTRIC CLUTCH (PTO)

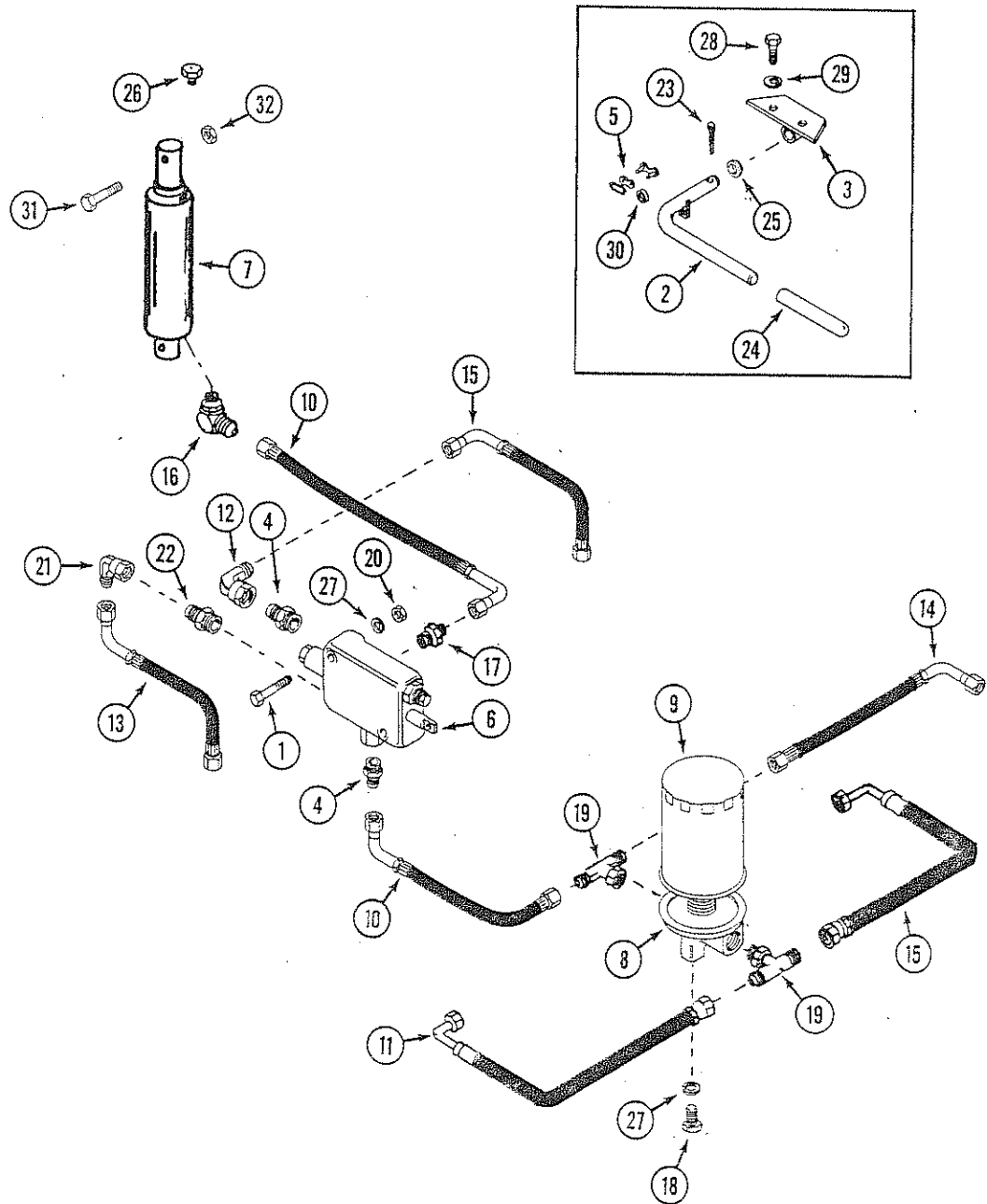
*1	C 37569	CLUTCH - electric	1
2	C 37549	BRAKE - clutch	1
3	C 37570	ARMATURE - clutch	1
4	C 37551	ROTOR - clutch	1
5	C 37552	KIT - spring and nut (3 each)	1
6	C 37553	COIL - clutch	1
7	C 45357	BRACKET - clutch stop	1
8	C 31615	WASHER - .47" x 1.75" x 1/4"	1
9	C 13716	WASHER - thrust 1" x 1.5"	1
10	192- 21	LOCKWASHER - 3/8"	1
11	C 44009	ADAPTER - clutch	1
12	192- 20	LOCKWASHER - 5/16"	2
13	814- 8016	BOLT - M8 - 1.25 x 16	2
14	114- 201	BOLT - 3/8" - 24 x 1-1/4"	1
15	C 42828	SCREW - M10 - 1.25 x 34	4

* MAG STOP SUBSTITUTION CLUTCH IS WARNER'S # S219-27



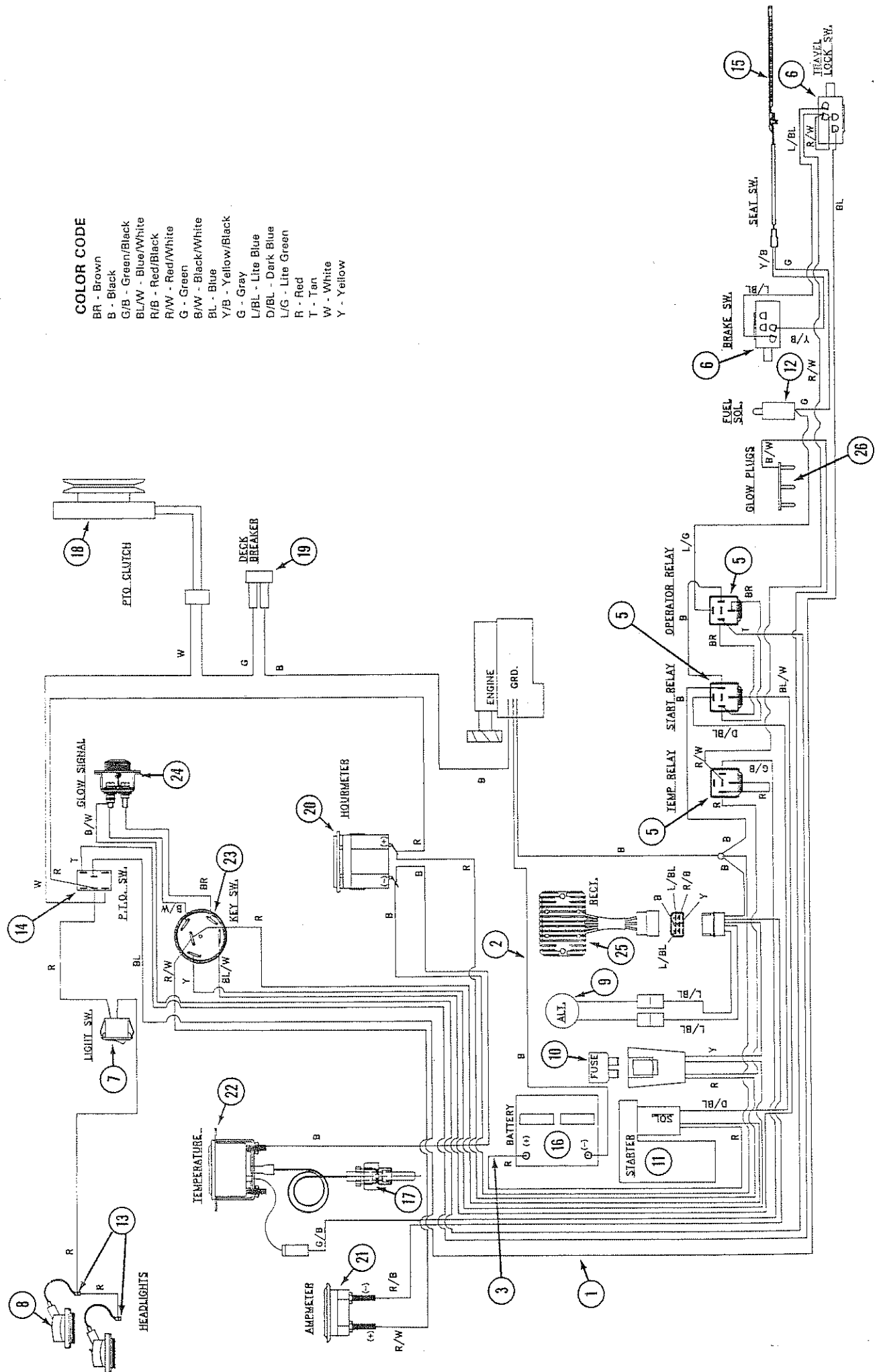
HYDRAULIC SYSTEM (DRIVE)

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 37667	WHEEL MOTOR	2
2	C 44376	PUMP - L.H. CW (Eaton No. 1120-016)	1
3	C 44375	PUMP - R.H. CCW (Eaton No. 1120-017)	1
4	C 37228	TANK - hydraulic oil	1
5	214- 255	HOSE CLAMP - #16 (for 1" hose)	2
6	C 37093	CAP ASSEMBLY - tank	1
7	C 45317	BRACKET - hold down	1
8	C 34189	CUSHION - tank	3
9	218- 5105	FITTING - 90° 9/16"	1
10	113- 3	BOLT - 1/4" - 20 x 3/4"	2
11	218- 5146	FITTING - male tube, 45° male o-ring adapter	3
12	C 37678	FITTING - special cross	1
13	C 45284	FITTING - tee	1
14	C 37680	FITTING - male tube, 90° female swivel adapter	1
15	218- 5057	FITTING - male tube, male o-ring adapter	4
16	218- 5060	FITTING - male tube, male o-ring adapter	3
17	218- 5121	FITTING - male tube, 90° male o-ring adapter	1
18	218- 5175	FITTING - male tube, 45° female swivel adapter	1
19	218- 5103	FITTING - male tube, 90° male o-ring adapter	2
20	218- 5478	FITTING - male tube, female swivel tee	1
21	C 45283	CONNECTOR - 3/4" x 1"	1
22	C 45290	HOSE - 3/4" x 18" long	1
23	C 45295	HOSE - 1/4" ID x 14" long, easy couple	1
24	C 45293	HOSE - 7/16" x 18" long	1
25	C 44465	HOSE - 1/2" ID x 36-1/2" long (L.H. pump)	2
25	C 45286	HOSE - 1/2" ID x 26-1/2" long (R.H. pump)	2
26	C 33551	HOSE - suction 90° x 1"	1
27	C 43372	HOSE - 90° x 3/4"	1
28	C 37693	HOSE - 1/2" ID x 20" long, easy couple	1
29	C 44286	HOSE - 3/4" x 9"	1
30	C 15564	SPRING - hose liner	1
31	131- 934	NUT - 1/4" - 20 flange lock	2
32	C 44584	FOAM - cushion	3
33	214- 254	CLAMP - hose #12 (for 3/4" hose)	5
34	C 43377	TUBE - connector 3/4" x 1-1/2"	1
35	C 45289	HOSE - 3/4" x 14-1/4"	1
36	218- 845	FITTING - tee 3/4"	1
37	113- 257	BOLT - 3/8" - 16 x 2-1/2"	1
38	192- 21	LOCKWASHER - 3/8"	8
39	129- 103	NUT - 3/8" - 16	8
40	C 33213	CLAMP - double tube	2
41	C 33218	CLAMP - single tube	1
42	113- 421	BOLT - 1/2" - 13 x 2"	8
43	192- 23	LOCKWASHER - 1/2"	8
44	129- 105	NUT - 1/2" - 13	8



HYDRAULIC LIFT ASSEMBLY

REF.	PART NO.	DESCRIPTION	REQ'D
1	113- 14	BOLT - 1/4" - 20 x 2"	2
2	C 45341	LEVER - actuator	1
3	C 45343	PIVOT - lever	1
4	218- 5058	FITTING - 9/16" x 3/4"	2
5	C 37791	CONNECTING LINK - #50	1
6	C 42937	VALVE - lift	1
7	C 44030	CYLINDER - lift	1
8	C 37636	HOUSING - oil filter	1
9	C 37637	ELEMENT - oil filter	1
10	C 37794	HOSE - 3/8" ID x 26" long	2
11	C 37795	HOSE - 3/8" ID x 31" long	1
12	218- 980	FITTING - 90° 9/16"	1
13	C 45292	HOSE - 90°, 3/4" x 19"	1
14	C 45287	HOSE - 3/8" ID x 11.5" long	1
15	C 37799	HOSE - 3/8" ID x 21" long	1
16	218- 5278	FITTING - 90° male tube adp.	2
17	218- 5057	FITTING - straight	3
18	113- 2	BOLT - 1/4" - 20 x 5/8"	2
19	218- 5182	FITTING - tee	1
20	129- 101	NUT - 1/4" - 20	2
21	218- 5230	FITTING - 90°, 3/4"	1
22	218- 5059	FITTING - straight	1
23	132- 310	PIN - cotter 1/8" x 1"	1
24	C 26020	GRIP - handle	1
25	C 37787	GROMMET - lever	1
27	192- 19	LOCKWASHER - 1/4"	4
28	113- 101	BOLT - 5/16" - 18 x 1/2"	2
29	192- 20	LOCKWASHER - 5/16"	2
30	C 42895	BUSHING	2
31	113- 422	BOLT - 1/2" - 13 x 2-1/2"	1
32	131- 70	NUT - 1/2" - 13 lock	1



ELECTRICAL SYSTEM

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 45359	HARNESS - main	1
2	C 43350	CABLE - battery (-)	1
3	C 43349	CABLE - battery (+)	1
4	C 43046	INSULATOR - battery post	1
5	C 37515	RELAY	3
	182- 573	SCREW - #10 - 24 x 1/2" (relay mount)	3
	192- 18	LOCKWASHER - #10 (relay mount)	2
6	C 37521	SWITCH - 2 circuit	1
	182- 525	SCREW - #10 - 32 x 3/8" (2 circuit switch mount)	1
	182- 528	SCREW - #10 - 32 x 1/2" (2 circuit switch mount)	2
	192- 18	LOCKWASHER - #10 (2 circuit switch mount)	2
	193- 1000	NUT - #10 - 32 lock (2 circuit switch mount)	1
7	C 43044	SWITCH - light	2
8	C 32178	HEADLIGHT - (see page 61)	1
9	C 43610	ALTERNATOR - repairs page 55	1
10	C 31947	KIT - fuse holder	1
10	C 30260	FUSE - 30 amp	1
11	C 43609	STARTER - repair page 53	1
12	P185206082	SOLENOID - fuel shut off	2
13	C 44169	CONNECTOR - headlight terminal	1
14	C 31937	SWITCH - PTO	1
	C 31620	NUT - 1/2" - 27 black (PTO switch mount)	1
	C 31619	CAP - PTO switch	1
15	C 44012	SWITCH - seat (N.O.)	1
16	C 44071	BATTERY - 12 volt, 450 CCA (see page 61)	1
17	C 43602	SENDER - temperator, water	1
18	C 37511	CLUTCH - PTO, electric	1
19	C 37505	BREAKER - circuit, 10 amp	1
20	C 42929	HOURLMETER	1
21	C 29413	AMMETER	1
22	C 45363	GAGE - temperatures	1
	C 45364	TERMINAL - temperature gage	1
	C 44169	CONNECTOR - temperature gage	1
	C 31977	CLAMP - temperature tube	1
23	C 42829	SWITCH - ignition	1
23	C 42855	KEY - ignition	1
24	C 42830	INDICATOR - glow plug	1
25	C 42831	REGULATOR - voltage	2
	113- 17	BOLT - 1/4" - 20 x 1-1/4" (regulator mount)	2
	192- 19	LOCKWASHER - 1/4" (regulator mount)	2
	129- 101	NUT - 1/4" - 20 (regulator mount)	3
26	C 43603	HEATER - glow plug	

GRAZER

G2018D

GRAZER

WARNING

READ OPERATOR'S MANUALS.
KNOW LOCATION & FUNCTION OF ALL CONTROLS.
KEEP ALL GUARDS, SHIELDS & SAFETY SWITCHES
IN PLACE & WORKING.
CLEAR WORK AREA OF THINGS THAT COULD
BE THROWN BY THE BLADES.
DO NOT MOW WHEN CHILDREN OR OTHERS ARE AROUND.
NEVER CARRY CHILDREN.
LOOK DOWN & AHEAD BEFORE AND WHILE BACKING.
GO UP AND DOWN SLOPES, NOT ACROSS.
IF MACHINE STOPS GOING UPHILL, STOP BLADES
AND BACK DOWN SLOWLY.
AVOID SLIDING TURNS.

FAILURE TO OBSERVE THESE PRECAUTIONS
COULD RESULT IN SERIOUS INJURY OR DEATH.

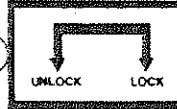


OPERATION OF CONTROLS

CAUTION! READ OPERATING
MANUAL BEFORE OPERATING
THIS MACHINE

CONTROL THE SPEED THROUGH THE
USE OF TRANSMISSION CONTROL ONLY.

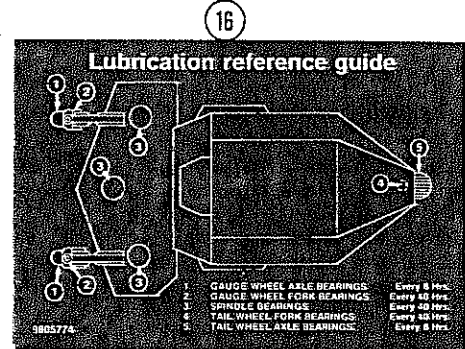
FORWARD	:	:
NEUTRAL	:	:
REVERSE	:	:



CAUTION

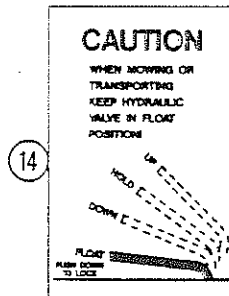
THIS MACHINE HAS AN IGNITION INTER-
LUCK SAFETY SYSTEM. ALL CONTROLS
MUST BE IN NEUTRAL BEFORE THE
ENGINE WILL START.

HYDRAULIC OIL



CAUTION

WHEN THE VACUUM BLOWER
IS REMOVED FROM THE MOWER
DECK, REPLACE IT WITH THE
DISCHARGE CHUTE.



CAUTION

WHIRLING BLADES

KEEP HANDS AND
FEET CLEAR

DO NOT OPERATE MOWER UNLESS
THIS GUARD OR ENTIRE GRASS
CATCHER IS IN ITS PROPER PLACE.

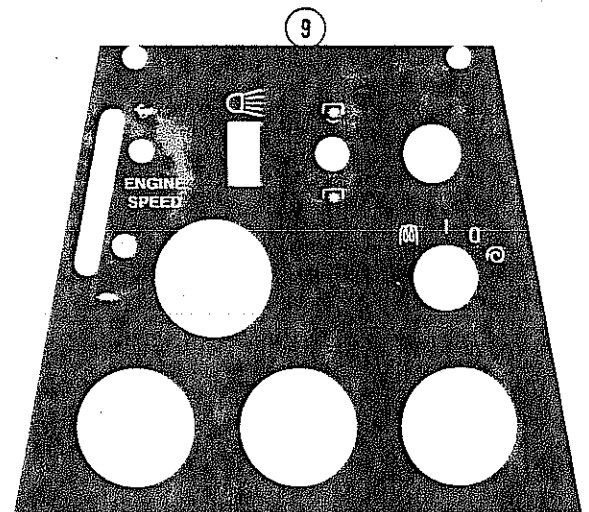
DANGER

KEEP HANDS AND FEET AWAY

CAUTION

DO NOT OPERATE THIS MACHINE
WITHOUT ENTIRE GRASS CHUTE
OR VACUUM ASSEMBLY FURNISH-
ED BY THE MANUFACTURER.

Diesel



DIESEL FUEL ONLY

CAUTION

DO NOT USE ETHER OR STARTING
FLUID. SEVERE ENGINE DAMAGE
WILL OCCUR.

CAUTION

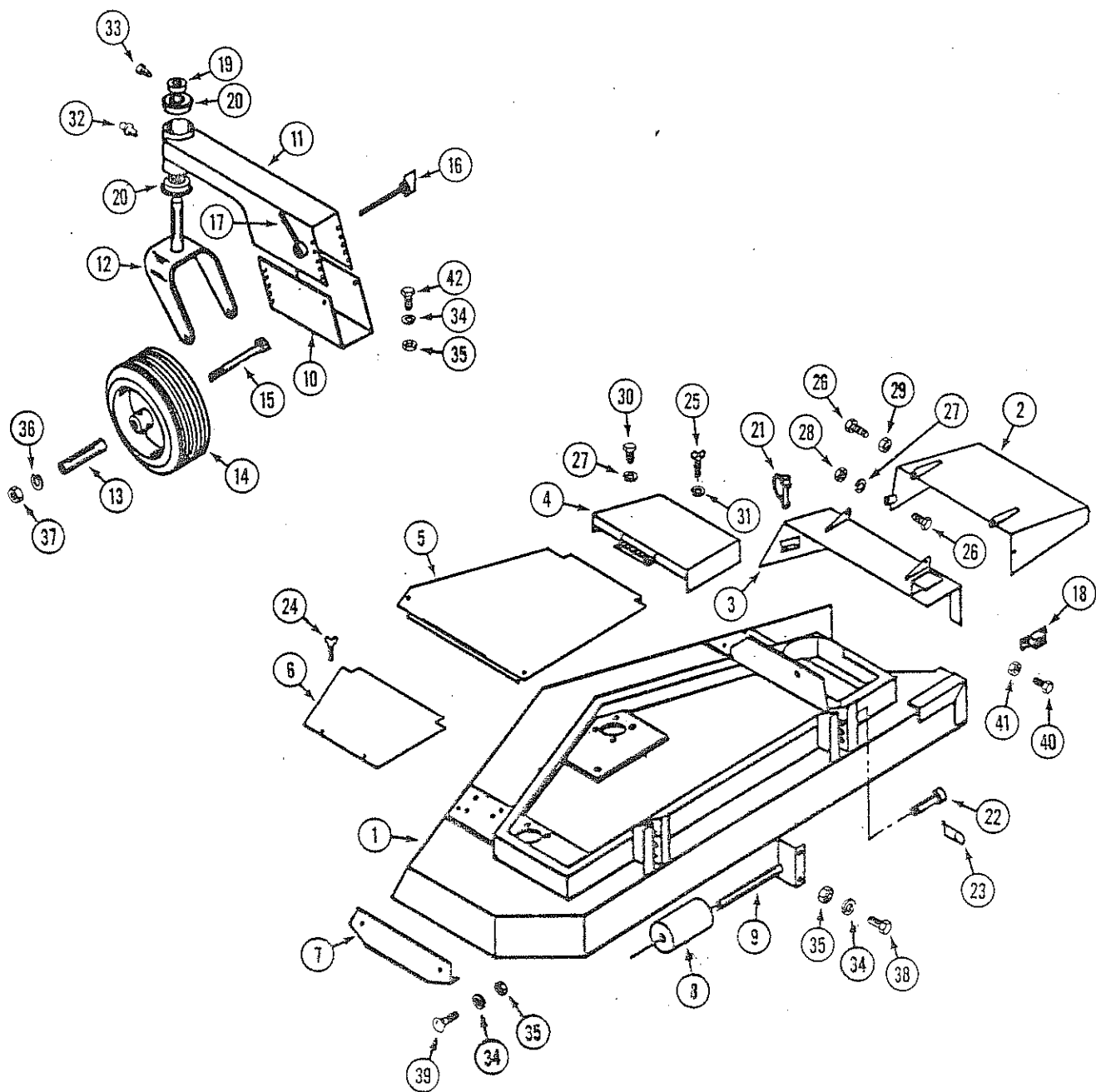
A SOLUTION OF 50% ANTI-FREEZE AND 50% WATER
MUST BE USED IN THIS ENGINE. IF FREEZING POINT
ABOUT -24°F, DO NOT USE 100% ANTI-FREEZE OR
SEVERE DAMAGE WILL OCCUR.

DANGER

ENGINES PRODUCE CARBON MONOXIDE
WHICH IS AN ODORLESS DEADLY POISON.
DO NOT OPERATE IN AN ENCLOSED AREA.

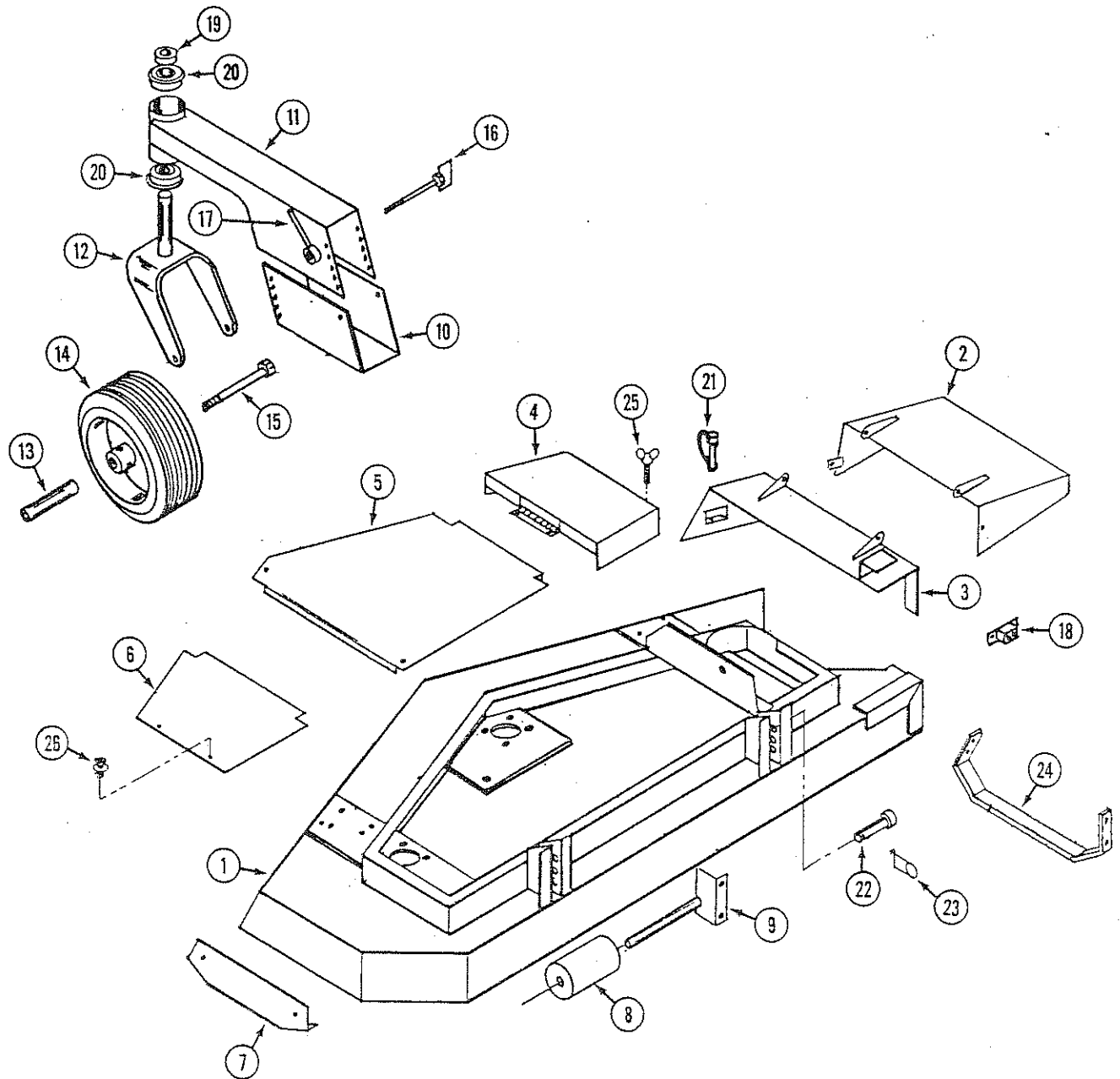
DECALS

REF.	PART NO.	DESCRIPTION	REQ'D
1	C	43220 DECAL - "G2018D" L.H.	1
1	C	43276 DECAL - "G2018D" R.H. (shown)	1
2	C	44047 DECAL - L.H. center	1
2	C	44048 DECAL - R.H. center (shown)	1
3	C	44049 DECAL - front side	1
4	C	38047 MEDALLION - "GRAZER"	1
5	C	43417 DECAL - L.H. fender	1
5	C	43418 DECAL - R.H. fender (shown)	1
6	C	44621 DECAL - "GRAZER" tower sides	2
7	C	43413 DECAL - "GRAZER" front tower	1
8	C	43410 DECAL - "DIESEL"	3
9	C	45163 DECAL - instrument panel	1
10	C	37495 DECAL - operation	1
11	C	37496 DECAL - "CAUTION" interlock	1
12	C	37502 DECAL - unlock/lock	1
13	C	37498 DECAL - run/park	1
14	C	37503 DECAL - "CAUTION" hydraulic lift	1
15	C	37500 DECAL - "DANGER" carbon monoxide	1
16	C	38807 DECAL - lubrication	1
17	C	37499 DECAL - hydraulic oil	1
18	C	37497 DECAL - diesel fuel only	2
19	C	43091 DECAL - anti-freeze	1
20	C	43092 DECAL - ether	1
21	C	44340 DECAL - "WARNING"	1
22	C	37491 DECAL - "WHIRLING BLADES"	1
23	C	37492 DECAL - "CAUTION" discharge	1
24	C	37493 DECAL - "CAUTION" grass chute	1
25	C	37494 DECAL - "DANGER"	1



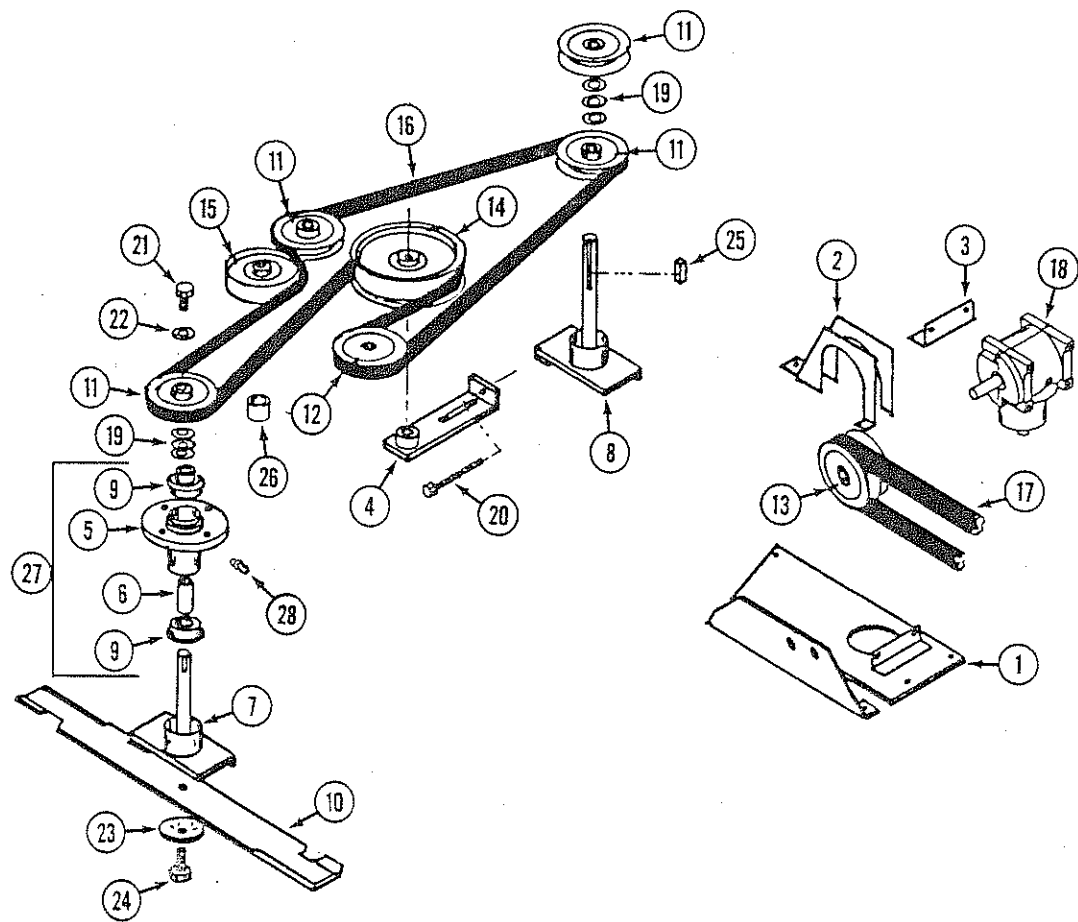
52" MOWER DECK AND ATTACHING PARTS

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 44086	DECK - 52"	1
2	C 39208	CHUTE - foot guard	1
3	C 39209	MOUNT - foot guard	1
4	C 39204	COVER - pulley	1
5	C 39203	COVER - center	1
6	C 39200	COVER - L.H.	1
7	C 37942	SHOE - skid	1
8	C 37910	ROLLER - anti-scalp	1
9	C 37911	SHAFT - roller	1
10	C 37912	BRACKET - gauge wheel mount	2
11	C 37913	MOUNT - gauge wheel	2
12	C 37914	FORK	2
13	C 37915	AXLE - wheel	2
14	C 37916	WHEEL - gauge	2
	C 37917	TIRE - 11 x 4.00 - 5	1
	C 37918	RIM - 5"	1
	C 44499	BEARING - wheel	2
15	113- 2419	BOLT - 1/2" - 13 x 6-1/2"	2
16	C 37920	BOLT - wing	4
17	C 37921	NUT - gauge wheel handle	4
18	C 37505	BREAKER - circuit, 10 amp	1
19	C 37860	COLLAR - set	2
20	C 37824	BEARING - 1"	4
21	C 37922	PIN - "fas-tatch"	1
22	C 10821	PIN - deck	1
23	C 29029	PIN - cotter, hair	2
24	NSS	SCREW - thumb 1/4" - 20 x 1/2" (use 113-3 and 192-19)	4
25	NSS	SCREW - wing 1/4" - 20 x 1" (use 113-3)	1
26	113- 3	BOLT - 1/4" - 20 x 3/4"	4
27	192- 19	LOCKWASHER - 1/4"	2
28	129- 101	NUT - 1/4" - 20	2
29	131- 71	NUT - 1/4" - 20 lock	2
30	113- 1	BOLT - 1/4" - 20 x 1"	2
31	195- 102	WASHER - 1/4"	1
32	C 37993	FITTING - grease	2
33	C 37756	SCREW - set 5/16" - 18 x 1/2" square head	2
34	192- 20	LOCKWASHER - 5/16"	6
35	129- 102	NUT - 5/16" - 18	6
36	192- 23	LOCKWASHER - 1/2"	2
37	129- 105	NUT - 1/2" - 13	2
38	113- 102	BOLT - 5/16" - 18 x 3/4"	2
39	111- 202	BOLT - 5/16" - 18 x 3/4" carriage	2
40	182- 528	SCREW - #10 - 32 x 1/2"	2
41	C 37598	NUT - #10 - 32	2
42	111- 203	BOLT - 5/16" - 18 x 1" carriage	6



62" MOWER DECK AND ATTACHING PARTS

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 44088	DECK - 62"	1
2	C 41396	CHUTE - foot guard	1
3	C 41400	MOUNT - foot guard	1
4	C 41392	COVER - pulley	1
5	C 41378	COVER - center	1
6	C 41373	COVER - L.H.	1
7	C 37956	SHOE - skid L.H.	1
8	C 37910	ROLLER - anti-skid	1
9	C 37911	SHAFT - roller	1
10	C 37912	BRACKET - gauge wheel mount	2
11	C 37913	MOUNT - gauge wheel	2
12	C 37914	FORK - gauge wheel	2
13	C 37915	AXLE - gauge wheel	2
14	C 37916	WHEEL - gauge	2
	C 37917	TIRE - 11 x 4.00 - 5	1
	C 37918	RIM - 5"	1
	C 44499	BEARING - wheel	2
15	113-2419	BOLT - 1/2" - 13 x 6-1/2"	2
16	C 37920	BOLT - wing	4
17	C 37921	NUT - gauge wheel handle	4
18	C 37505	BREAKER - circuit - 10 amp	1
19	C 37860	COLLAR - set 1"	2
20	C 37824	BEARING - 1"	4
21	C 37922	PIN - "fas-tatch"	1
22	C 10821	PIN - deck	2
23	C 29029	PIN - cotter, hair	2
24	C 37957	SHOE - skid R.H.	1
25	NSS	SCREW - thumb 1/4" - 20 x 1/2" (use 113-3 and 192-19)	4
26	NSS	SCREW - wing 1/4" - 20 x 1" (use 113-3)	1



62" MOWER DRIVE

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 41757	MOUNT - gear box	1
2	C 37876	GUARD - belt	1
3	C 37877	ANGLE - gear box mount	1
4	C 37929	TIGHTENER - belt	1
5	C 37945	HOUSING - spindle	3
6	C 37946	SPACER - spindle	3
7	C 37947*	SHAFT - spindle, short	2
7	C 44132 **	SHAFT - spindle, short	2
8	C 37948 *	SHAFT - spindle, long	1
8	C 44134 **	SHAFT - spindle, long	1
9	C 42786	BEARING - spindle	6
10	C 37949*	BLADE	3
10	C 44138 **	BLADE	3
11	C 37950	PULLEY - spindle	4
12	C 37932	PULLEY - gear box output	1
13	C 37893	PULLEY - gear box input	1
14	C 37933	PULLEY - idler, large	1
15	C 37934	PULLEY - idler, small	1
16	C 38929	BELT - deck	1
17	C 38566	BELT - drive	2
18	C 37898	GEAR BOX - angle drive (see page 85 for service) (Curtis model) . . .	1
18	C 42775	GEAR BOX - angle drive (see page 85 for service) (Superior model) .	1
19	C 37888	WASHER - spacer	12
20	C 37901	BOLT - 1/4" - 20 x 4"	1
21	C 39386	BOLT - 5/16" - 24 x 3/4"	3
22	C 37900	WASHER - 5/16", 10 ga	3
23	C 37886*	WASHER - blade	3
24	C 37557*	BOLT - 3/8" - 24 x 1-1/4"	3
24	113- 268 **	BOLT - 3/8" - 16 x 1" (also requires 131-1216 locknut)	6
25	C 29581	KEY - 3/16" x 3/16" x 1"	6
26	C 37937	SPACER - idler pulley	1
27	C 37951	HOUSING ASSEMBLY - spindle (includes ref. 5, 6, 9)	3
28	219- 20	FITTING - grease 1/4" - 28	3

*use before S/N 013306063

**use S/N 013306063 and after

