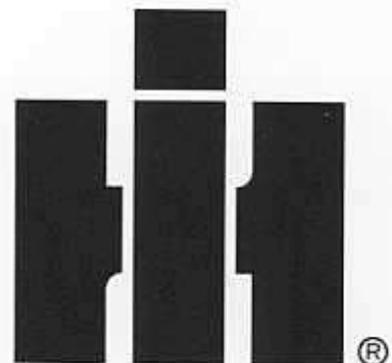


**INTERNATIONAL®
CADET®
80
Lawn Tractor**

INTERNATIONAL®

OPERATOR'S MANUAL



To The Owner

Your new International® Cadet® 80 Lawn Tractor is designed to meet today's exacting operating requirements. It is built for efficient, economical performance, ease of operation, and with the ability to adjust to various conditions. These features lighten your work and shorten your hours on the job.

You are urged to consult your International Harvester dealer concerning unusual conditions or special applications. Let the experience of your dealer and the organization associated with him serve you.

Be sure to read the instructions for Adjusting and Operating in this manual. Check each item referred to and acquaint yourself with the adjustments required to obtain efficient operation and maximum trouble-free service. Remember, a lawn tractor which is properly lubricated and adjusted saves time and labor.

After the cutting season, thoroughly clean your lawn tractor and inspect it. Preventative maintenance pays dividends. Your dealer has original-equipment parts which assure proper fit and best performance. He is able to recondition your equipment to a like new condition.

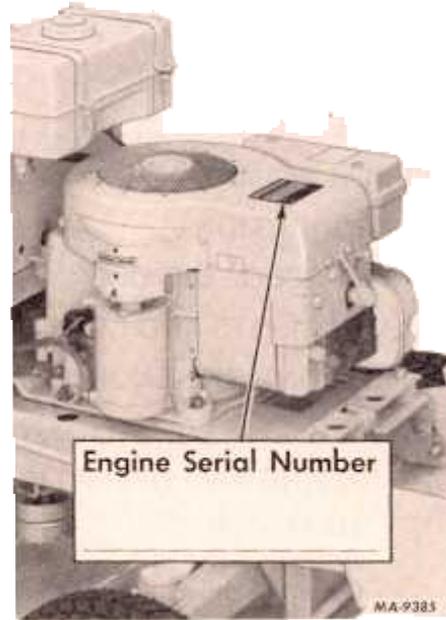
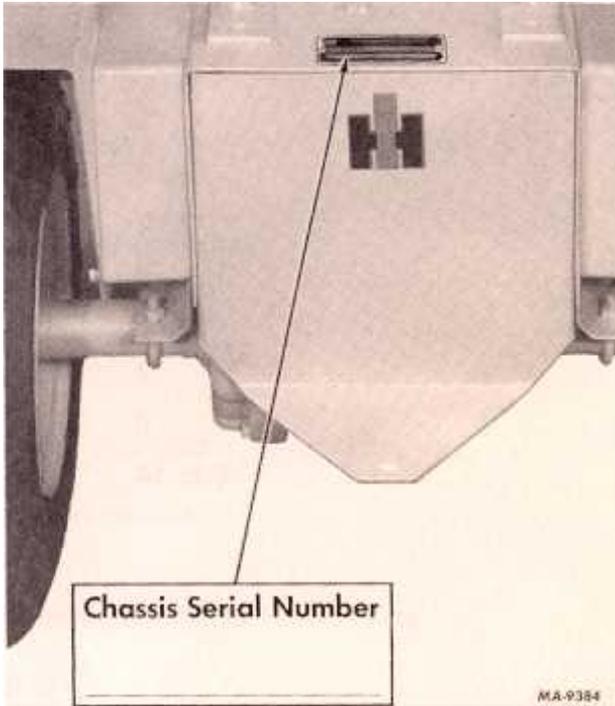
When in need of parts, always specify the chassis and engine serial numbers, including any prefix or suffix letters. Write these serial numbers in the spaces provided. See page 2.

Additional copies of this manual may be ordered from your International Harvester dealer at a nominal price.

CONTENTS

Description	Page
CONTENTS	1
SERIAL NO. LOCATION	2
INTRODUCTION	2
SAFETY SUGGESTIONS	3
INSTRUMENTS AND CONTROLS	4 to 6
OPERATING THE ENGINE	7
DRIVING THE LAWN TRACTOR	8
ADJUSTING AND OPERATING	8 to 14
Lubrication	
Adjusting the seat	
Cleaning the mower	
Height of cut	
Attaching and detaching the mower	
Leveling the mower	
Mower drive V-belt	
Crankshaft main drive and hydrostatic final drive belts	
FUEL SYSTEM	15
ELECTRICAL SYSTEM	15 and 16
ENGINE COOLING AND AIR CLEANER	16 and 17
ADJUSTING THE BRAKES	17
STORING THE LAWN TRACTOR	17
LUBRICATION	18
LUBRICATION GUIDE	19 to 22
LUBRICATION TABLE	23
MAINTENANCE GUIDE	23
TROUBLE SHOOTING	24 and 25
SPECIFICATIONS	26

SERIAL NUMBER LOCATION



DELIVERY DATE: _____

INTRODUCTION

Assembled in this manual are operating, maintenance and lubrication instructions for the International® Cadet® 80 Lawn Tractor. This material has been prepared in detail in the hope that it will help you to better understand the correct care and

efficient operation of the tractor.

LEFT and RIGHT indicate the left and right sides of the lawn tractor when facing forward in the driver's seat.

WORK SAFELY – FOLLOW THESE RULES



This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.

Know the controls and how to stop quickly.
READ THE OPERATOR'S MANUAL.

To avoid injury or a possible accident, whenever the operator dismounts from lawn tractor or leaves the machine unattended, disengage the mower, shut off the engine, and remove the ignition key.

Handle gasoline with care, as it is highly flammable, A. Use approved gasoline container. B. Never remove the fuel tank cap or fill tank when the engine is running, is hot, or indoors. Also, do not smoke when working around flammable fuel. Wipe up spilled gasoline. C. Replace fuel tank cap securely.

Never place hands or feet under the mower, in the discharge chute, or near any moving parts while the mower is running. Do not work on the mower with the engine running, as mower could accidentally be engaged and cause injury.

Never leave the engine running unattended or permit the lawn tractor to be operated by persons not acquainted with its use and the rules for safe operation.

Be sure all stones, branches, or other objects that might be picked up and thrown by the mower blades are removed before starting to mow.

Never look into the discharge opening while the blades are in motion as a serious accident and/or injury could result.

Stay alert for holes in terrain and other hidden hazards which could cause loss of control or upset.

Children should not be allowed to operate the lawn tractor unless properly supervised, and are physically and mentally capable of safe operation or injury may occur.

Disengage power to the mower when transporting or not in use.

Before backing the lawn tractor always look for obstacles or bystanders in the area where the lawn tractor will move.

No one should operate this machine while under the influence of intoxicants or drugs that impair the senses or reactions.

Do not allow anyone in the area parallel to the discharge opening while moving. Although the area has been supposedly cleared of foreign objects, small objects may have been overlooked and may be discharged by the mower causing serious injury.

Watch out for traffic when crossing or near roadways.

When making any adjustments to your lawn tractor, always disconnect the high tension wire to the spark plug, otherwise the engine may start causing serious injury.

Be sure the mower clutch control is "DIS-ENGAGED" and the transmission is in neutral before starting the engine.

It is recommended that the machine be stopped and inspected for damage after striking a foreign object and that any damage be repaired before restarting and operating the machine, as broken pieces could be thrown causing injury.

Until you become familiar with the lawn tractor it is recommended that quick starts, stops, and rapid engagement of the mower be avoided.

Keep the machine in good operating condition and keep safety devices in place. Use guards or shields as instructed to avoid injury.

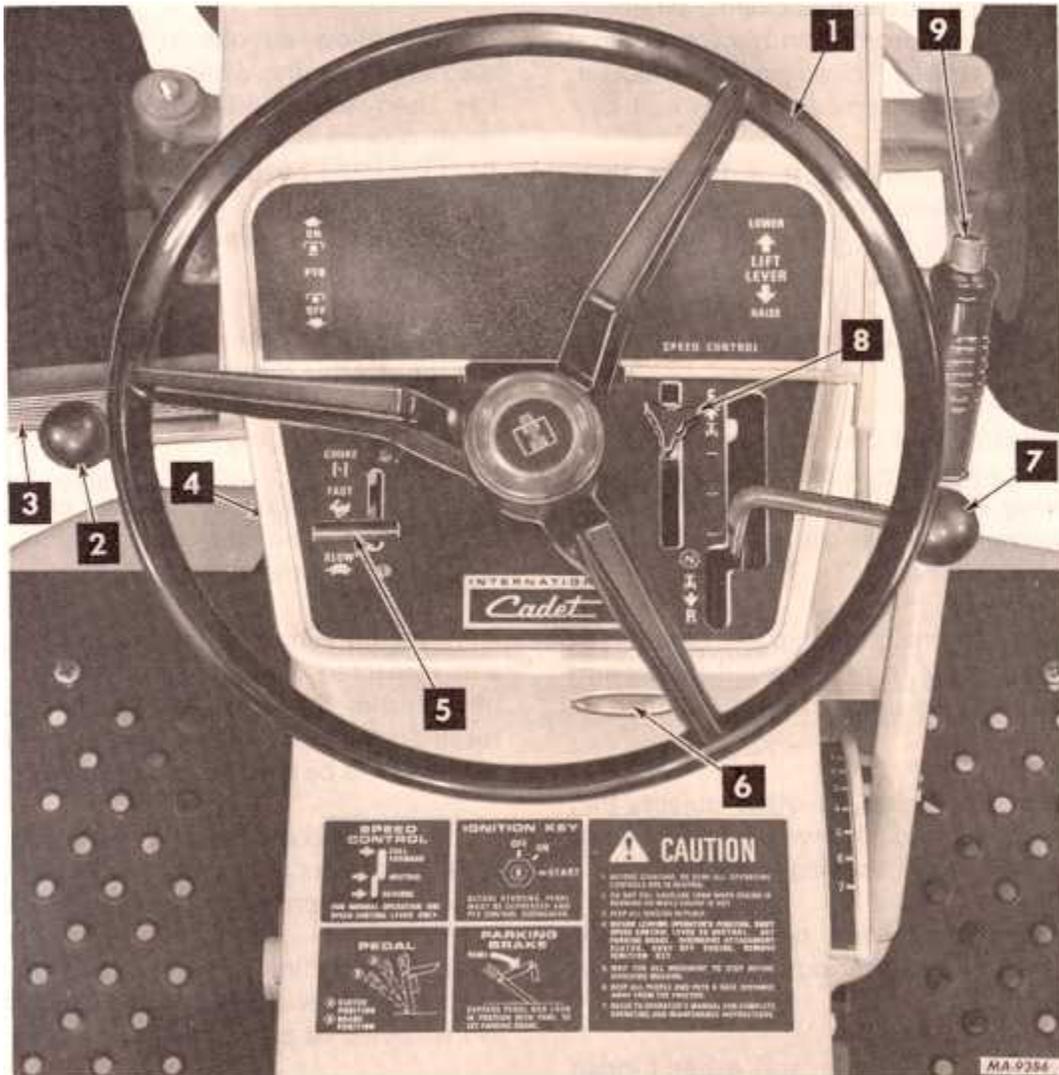
The discharge shield on the mower must be attached at all times while operating the mower.

Avoid sudden stops or starts, especially on steep slopes to avoid injury.

Do not carry passengers or give rides as serious injury may result.

INSTRUMENTS AND CONTROLS

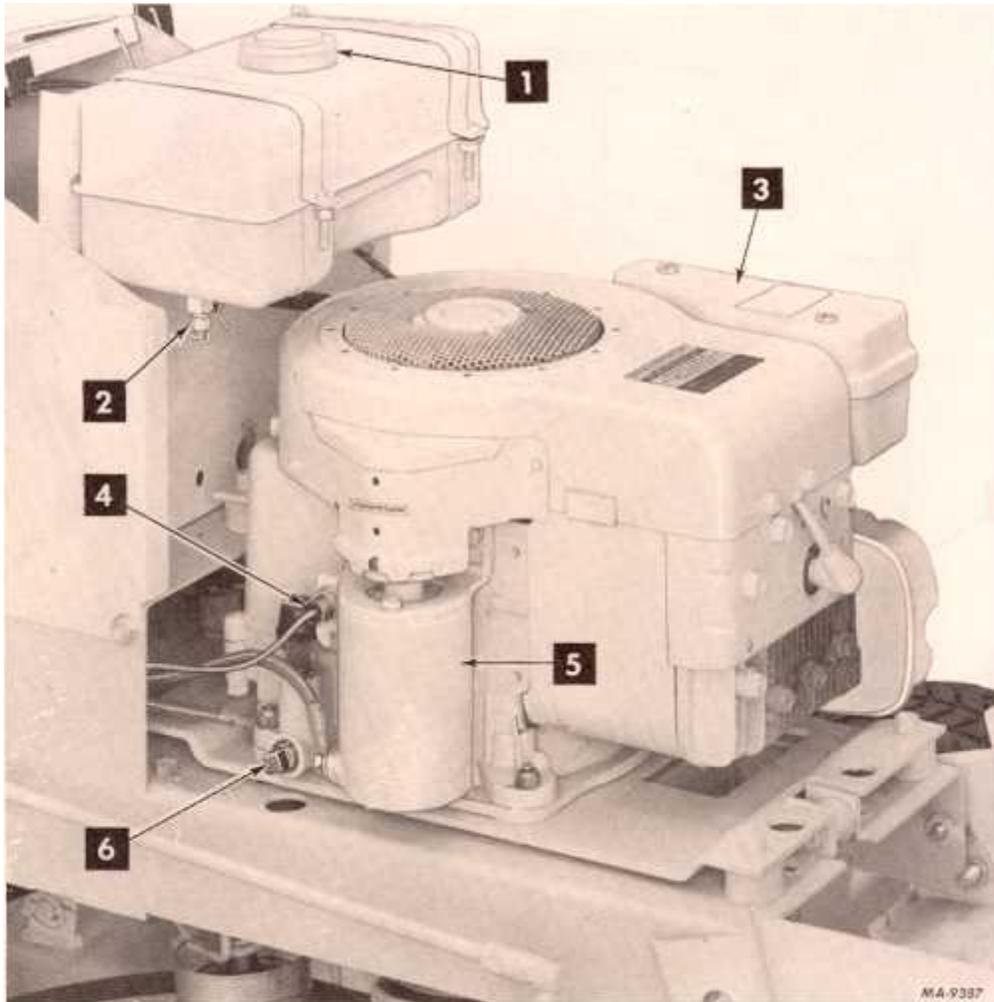
Your lawn tractor has been safety engineered. Thoroughly acquaint yourself with all the controls before attempting to start or operate the lawn tractor.



- 1 - Steering wheel
- 2 - Mower clutch lever
- 3 - Clutch brake pedal
- 4 - Clutch brake pedal lock
- 5 - Choke and throttle control

- 6 - Ignition switch
- 7 - Speed control lever
- 8 - Speed control stop
- 9 - Lift handle release button

INSTRUMENTS AND CONTROLS

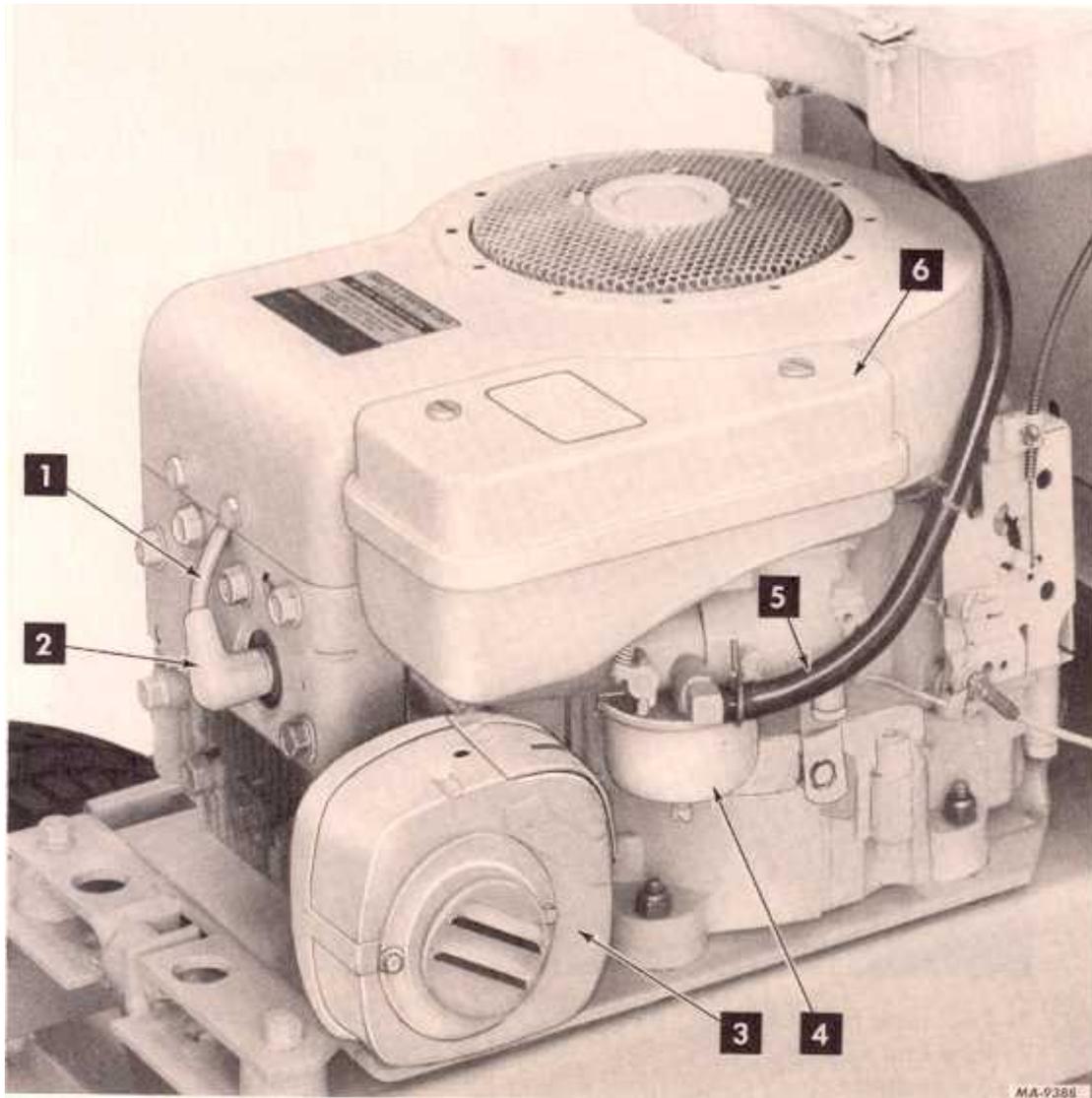


1—Fuel tank filler cap
2—Fuel line shut-off
3—Air cleaner

4—Oil gauge and filler tube
5—Alternator
6—Oil drain plug

NOTE: The tractor hood is arranged to swing up and forward in order to make the engine, fuel tank, air cleaner, etc. readily accessible.

INSTRUMENTS AND CONTROLS



1—High tension wire
2—Spark plug
3—Muffler

4—Carburetor
5—Fuel line
6—Air cleaner

BEFORE OPERATING THE ENGINE

Lubrication

See Lubrication Instructions, Pages 18 to 22.

Fuel System

This engine is designed to operate on leaded gasoline with a 93 minimum octane rating or on unleaded gasoline with a 91 minimum octane rating (Research Method).

Crankcase

Check oil level. See page 5.

OPERATING THE ENGINE

STARTING THE ENGINE

NOTE: The lawn tractor is equipped with a safety starting system that requires the mower clutch control lever to be in the disengaged position and the clutch-brake pedal depressed all the way before the starter will turn the engine.

The following steps should be taken to start the engine.

1. Be sure the speed control lever is in NEUTRAL. Speed control lever will not return to neutral when the clutch-brake pedal is depressed.
2. The clutch-brake pedal must be depressed all the way down and the mower clutch lever must be in the disengaged position to actuate the safety starting switch.
3. Move the choke and throttle control lever to the "Choke" position when the engine is cold. Little or no choking is required when the engine is warm.
4. Turn ignition key clockwise to the start position and release it as soon as the engine starts. Do not operate the starter more than 30 seconds at any one time. If engine does not start within this time,

turn the key off and wait a few minutes, then try again.

After the engine starts, slowly move the choke and throttle control lever to the "FAST" position.

Clutch-Brake Pedal

The combination clutch-brake pedal is used to disengage the engine from the hydrostatic drive and to actuate the brake to stop the tractor.

To disengage the clutch, and apply the brake, press the pedal all the way down.

STOPPING THE ENGINE

Set the speed control lever in "NEUTRAL" and set the mower clutch lever in the "OFF" position to disengage the mower. Allow the engine to idle a few minutes before turning the ignition key to the "OFF" position.



CAUTION! Remember - A careful operator is the best insurance against an accident. Know the controls and how to stop quickly. READ THE OPERATOR'S MANUAL.

DRIVING THE LAWN TRACTOR

NOTE: To obtain the best service from the lawn tractor, for the first few hours of operation avoid rapid engagement of the mower clutch and main drive clutch.

After starting the engine:

1. Depress the clutch-brake pedal and release the brake lock, then release the clutch.
2. Set the throttle control on "FAST".
3. Engage the mower blades by moving the power take-off control lever SLOWLY forward to the "ON" position. To stop the mower pull the lever back to the "OFF" position.

4. Set the lift handle at the desired cutting height.

5. To start the lawn tractor in motion, move the speed control lever forward to obtain the proper speed to control the machine, and to obtain an even cut. As conditions vary, this can best be determined after you become familiar with the tractor, type of grass, condition of the lawn, climate, and individual preference, etc.

NOTE: It is recommended that to start the tractor in motion and to change speed and direction, use ONLY the speed control handle. The clutch brake pedal can be used to stop the machine, but machine operates more effectively by engaging the clutch with the speed control in neutral and then move the speed control handle to put the machine in motion.

DRIVING THE LAWN TRACTOR



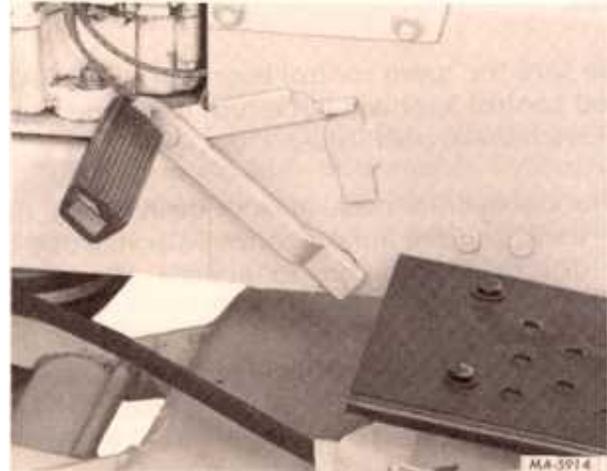
CAUTION! Until you have the feel of your lawn tractor, go slowly at first, avoid sharp turns at high speed, and on steep slopes to avoid an upset or loss of control.

An adjustable speed control stop is provided to allow the operator to return to a predetermined speed. The speed control lever can bypass the speed control stop by pushing the lever outward and sliding it past the stop.

Always lock the parking brake when the tractor is parked on a grade. To lock the brake, press down on the clutch-brake pedal and place the clutch-brake pedal in engaged position, as shown. To disengage the lock press down on the pedal, lift the lock up and place it in the disengaged position.



CAUTION! To prevent an accident, always disengage the mower, set the speed control lever in neutral position, set the parking brake, stop the engine, and remove the ignition key when leaving the machine unattended.



ADJUSTING AND OPERATING

The blade spindle bearings can be relubricated and are carefully enclosed and protected by seals.

LUBRICATION

After every 10 hours of operation lubricate the two spindles (one fitting in each spindle), using chassis lubricant (pressure gun grease). Only one or two strokes of the applicator are required.

ADJUSTING THE SEAT

Before starting the tractor, adjust the seat to the most comfortable driving position. To adjust the seat loosen the four bolts holding the seat on the springs and slide the seat forward or back to the desired position.



If further forward adjustment is desired, remove the four bolts holding the springs to the tractor frame and reset the springs in the four additional forward holes provided.

ADJUSTING AND OPERATING

CLEANING THE MOWER

Clean the underside of the mower at the end of the mowing season and when the buildup of cut material on the underside is noticed.



CAUTION! To prevent an accident or possible injury, always stop the engine, disconnect the spark plug wire, lock the brake, and place the mower clutch control lever in the disengaged position prior to cleaning or doing any work on the mower.

BLADE CARE



The cutting blades must be kept sharp at all times. The blades can be sharpened on the mower with a few strokes of a file or they can be removed from the mower and sharpened on a grinding wheel.



CAUTION! Be careful not to cut yourself when sharpening the blade or cleaning the underside of the mower.

Cutting edge should be kept at production angle (25 degrees) with bottom of blade to insure maximum cutting efficiency of blades.

NOTE: Sharpen ends evenly so that blades remain balanced. However, if the cutting edge of the blade is within 3/8-inch of the wind wing, it is recommended that new blades be installed. New blades are available at your International Harvester dealer.

Be sure blades are assembled so the cutting edges are in the direction of rotation with the wind wings pointed toward the deck.

To detach the blade, place a large wood block between the cutting edge and housing to keep the blade from rotating. Then remove the hex. head capscrews, nuts and washers.

When replacing blades use the reverse procedure, except put the wood block between the wing of the blade and the deck.

HEIGHT OF CUT

Cutting height can be adjusted from approximately 1-1/2-inches to 4-1/4-inches quickly and easily. Depress the release button on top of the lift handle to set the handle in the desired notch of the lift handle quadrant. The quadrant is marked for ease in selecting the desired height of cut.

The height of cut is approximate since operator weight and tire inflation will effect the cutting height.

The cutting blades are designed to create a suction to lift the grass for an even cut.

The mower extends beyond the driving wheels to permit cutting close to walkways, fences, buildings, trees, etc.

ATTACHING AND DETACHING THE MOWER

To facilitate changing the blades, sharpening the blades, cleaning, etc., the mower may be detached as follows:

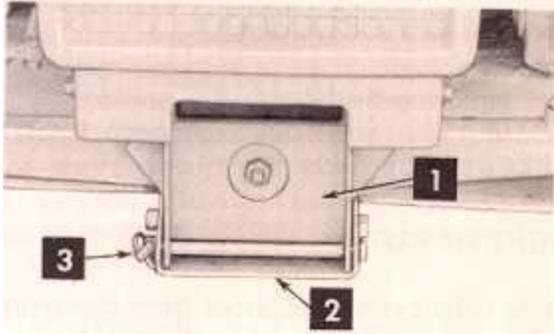
Place the mower clutch control lever in the "OFF" position. Stop the engine and disconnect the spark plug wire.

1. Disconnect the mower drive belt from the main drive pulley and clutching idler pulley. The belt guide around the main drive pulley is spring hooked for ease in removing the belt.

2. Position the mower in the lowest position.

ADJUSTING AND OPERATING

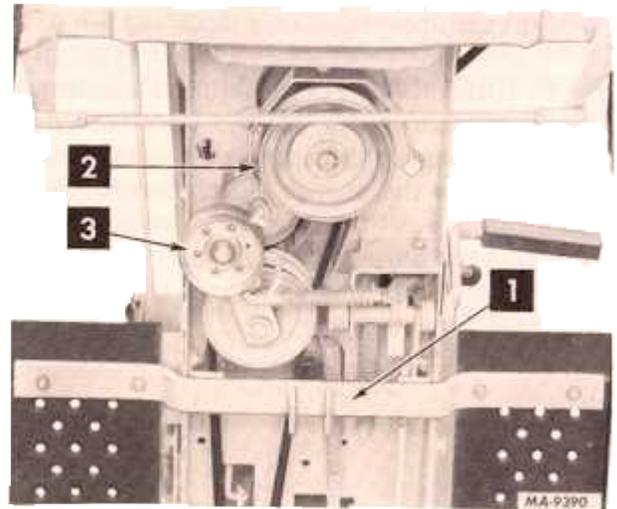
ATTACHING AND DETACHING THE MOWER – Continued



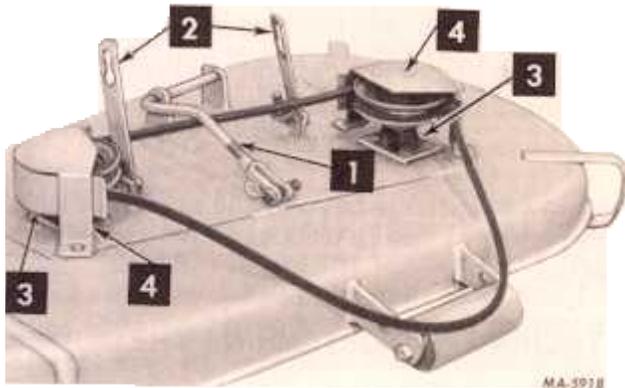
MA-5917

- 1—Front mower hanger bracket
- 2—Front mower leveling link
- 3—Klik pin

5. Raise the mower by hand, first on one side and then the other, to disconnect the mower lift links from the lift arms.



- 1—Front foot rest support bracket
- 2—Main drive pulley and belt guide
- 3—Mower drive belt idler

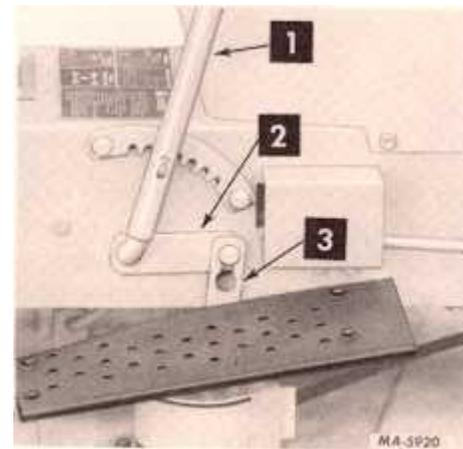


MA-5918

- 1—Mower linkage rod and clevis
- 2—Lift links
- 3—Lubrication fittings
- 4—Belt guides

3. Disconnect the mower linkage rod from the front foot rest support bracket by removing the quick attachable pin and rod pin through the clevis.

4. Detach the front mower leveling link from the front hanger bracket and the front of the mower by removing the pins which are held by klik pins.



MA-5920

- 1—Lift handle
- 2—Lift arm
- 3—Lift link (one on each side)

To attach the mower to the lawn tractor, reverse the above procedure.

ADJUSTING AND OPERATING

LEVELING THE MOWER

A properly leveled mower is one where the blades are cutting parallel to the ground. Should level adjustment be necessary due to tire variation or wear, proceed as follows:



CAUTION! To avoid possible injury, stop the engine, disconnect the high tension wire to the spark plug, and lock the brake prior to leveling the mower.

Leveling the Mower From Front to Rear

Drive the lawn tractor onto a hard flat surface.

Turn the ignition off and disconnect the high tension wire to the spark plug. Lock the tractor brake.

Measure the distance from the ground to the blades (blades parallel to centerline of tractor) front and rear in typical cutting height. Adjust the clevis on the end of the mower linkage rod either up or down, depending on which measures high.

Leveling the Mower From Side to Side

The left lift link is adjustable should the mower require side to side adjustment. Turn the adjusting bolt up or down depending on which side measures too high.

MOWER DRIVE V-BELT



CAUTION! To avoid an accident or possible injury, always stop the engine, disconnect the high tension wire to the spark plug, and lock the brake before doing any work on the machine.

The mower drive belt requires no adjusting, as proper belt tension is maintained by the spring loaded mower drive belt idler.

When the belt has worn or stretched to a point where slippage occurs, a new belt should be installed.

NOTE: Substitute belts may not be satisfactory. Use only specified replacements. See your International Harvester dealer.

Refer to the instructions for attaching and detaching the mower.

Both belt guides must be removed from the mower housing in order to replace the belt.

After replacing the belt and two belt guides, check and make sure the belt guides do not rub against the mower pulleys.

NOTE: When installing a new belt, make certain that the belt runs correctly between the pulleys and the belt guides.

CRANKSHAFT MAIN DRIVE AND HYDROSTATIC FINAL DRIVE BELTS

The drive belts are set at the factory and require no adjustment. When the belts have worn or stretched to a point where slippage occurs in forward or reverse, new belts should be installed.

Set the mower clutch lever in the "OFF" position, set the speed control lever in "NEUTRAL", and lock the parking brake.

Disconnect high tension wire to the spark plug.

Detach the mower. Refer to Attaching and Detaching instructions.

Disconnect the spring loaded mower drive belt idler from the mower clutch arm in order to reach the crankshaft drive belt idler and also in order to remove the hydrostatic final drive belt.

To disconnect the spring, pull the mower drive idler to the right of the tractor and insert a coin (a Quarter is recommended) between two coils of the spring. See page 13.

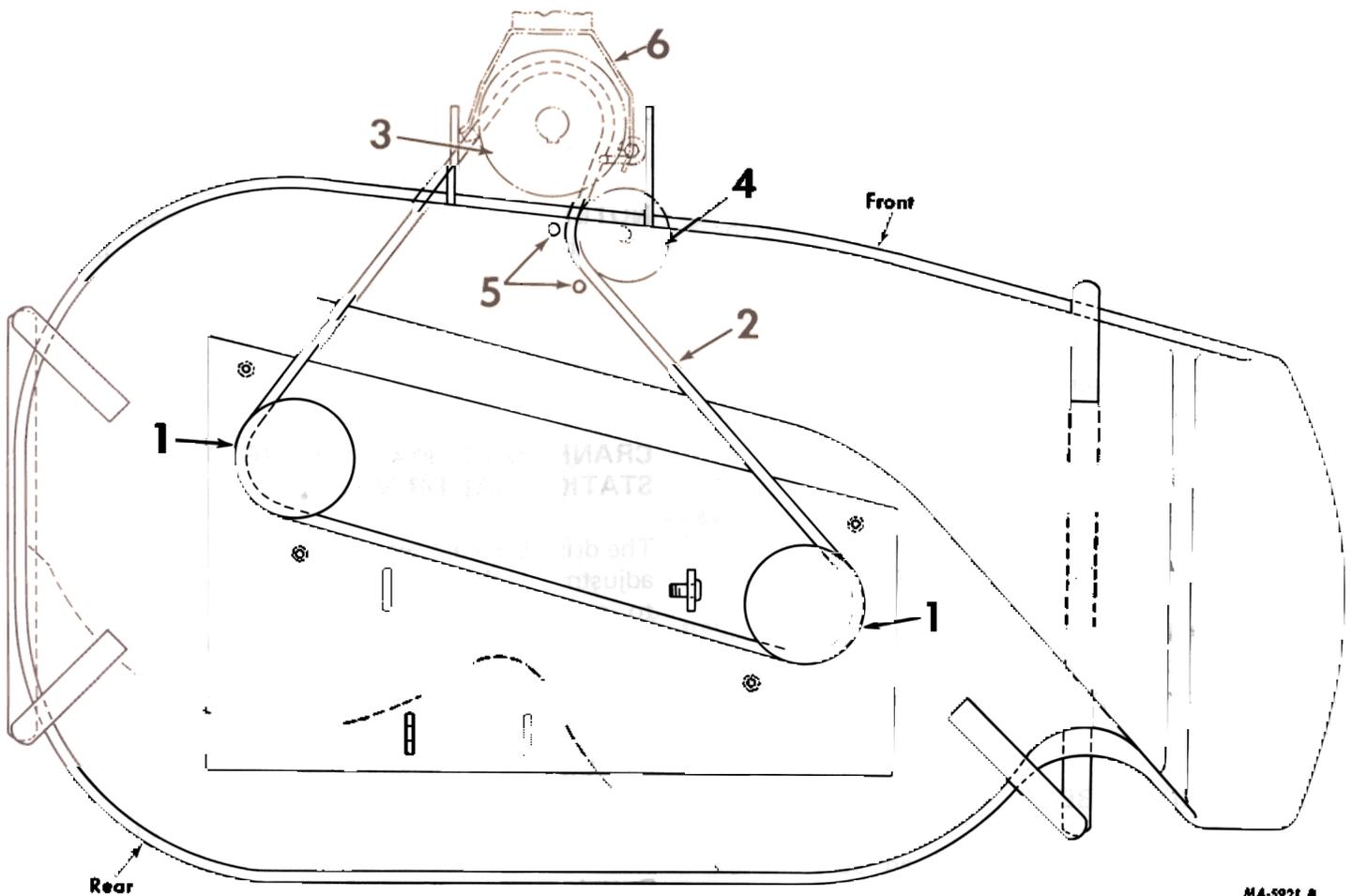
ADJUSTING AND OPERATING

CRANKSHAFT MAIN DRIVE AND HYDROSTATIC FINAL DRIVE BELTS – Continued

Push up on the hydrostatic final drive belt idler pulley in order to remove the hydrostatic belt. Belt must be removed from the intermediate pulley first. It may also be necessary to turn the engine crankshaft by hand in order to slip the belt over the intermediate pulley.

After removing the hydrostatic belt, remove the crankshaft main drive belt.

When installing new belts reverse the above procedure.



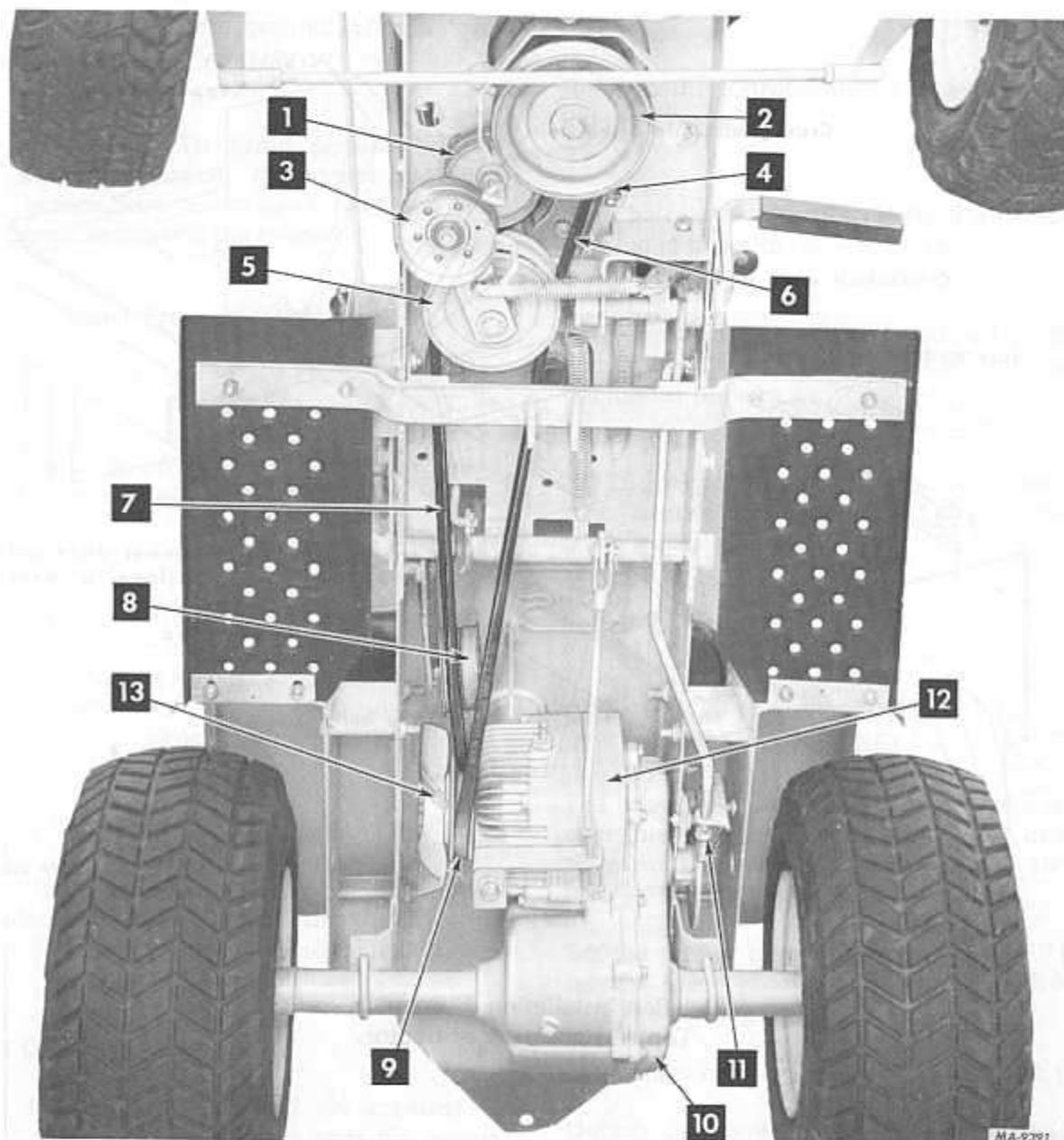
MA-5921 8

1—Mower blade spindles
2—Mower drive belt
3—Mower drive pulley

4—Mover drive belt pulley idler
5—Belt guides
6—Belt guide

ADJUSTING AND OPERATING

CRANKSHAFT MAIN DRIVE AND HYDROSTATIC FINAL DRIVE BELTS — Continued

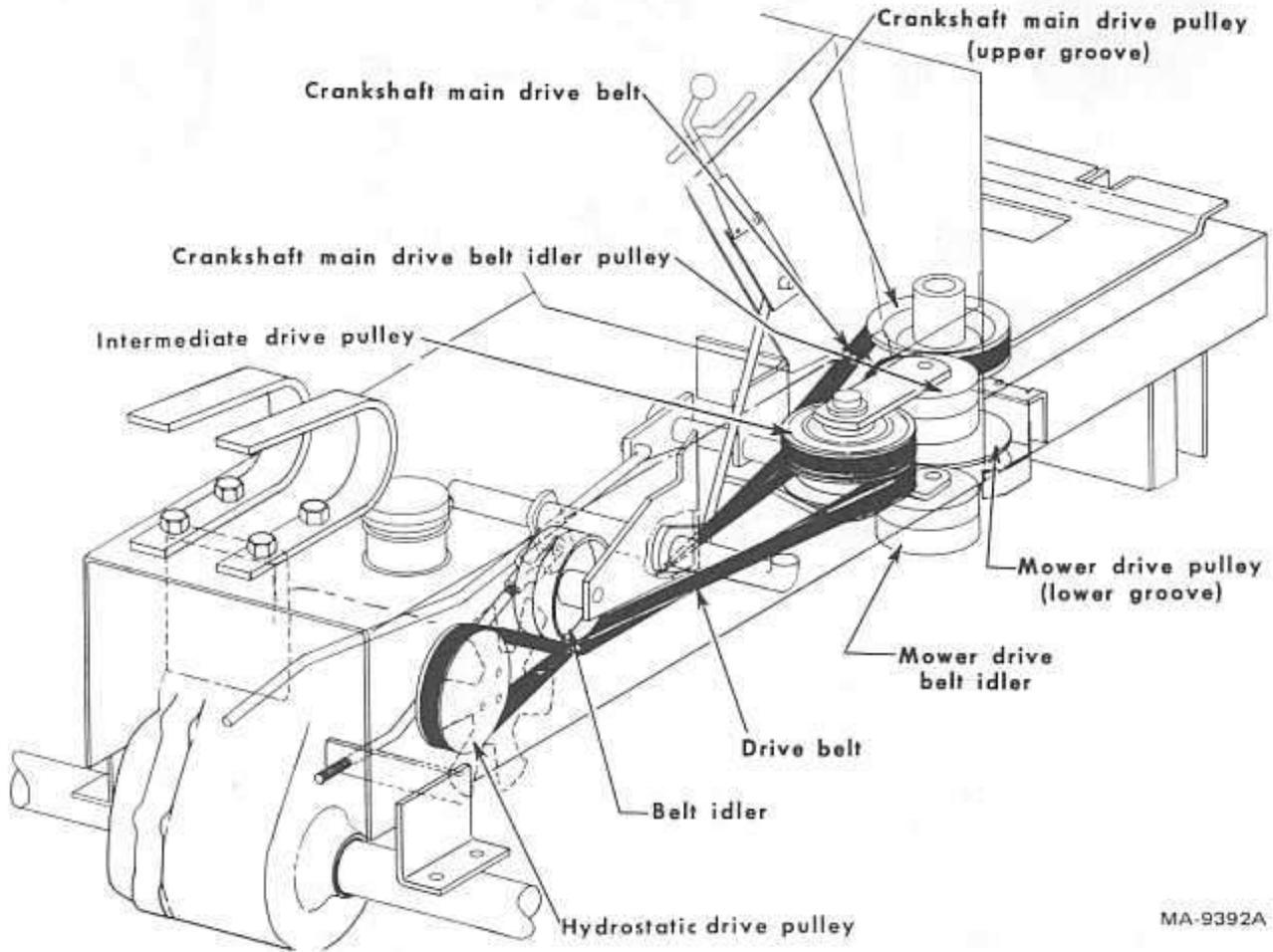


- 1—Crankshaft main drive belt idler
- 2—Mower drive pulley
- 3—Mower drive belt idler
- 4—Crankshaft main drive pulley (Not seen — behind mower drive pulley.)
- 5—Intermediate drive pulley
- 6—Crankshaft main drive belt

- 7—Hydrostatic final drive belt
- 8—Hydrostatic belt idler pulley
- 9—Hydrostatic pulley
- 10—Gear reduction unit
- 11—Brake adjusting nut
- 12—Hydrostatic unit
- 13—Hydrostatic fan

ADJUSTING AND OPERATING

CRANKSHAFT MAIN DRIVE AND HYDRO-STATIC FINAL DRIVE BELTS – Continued

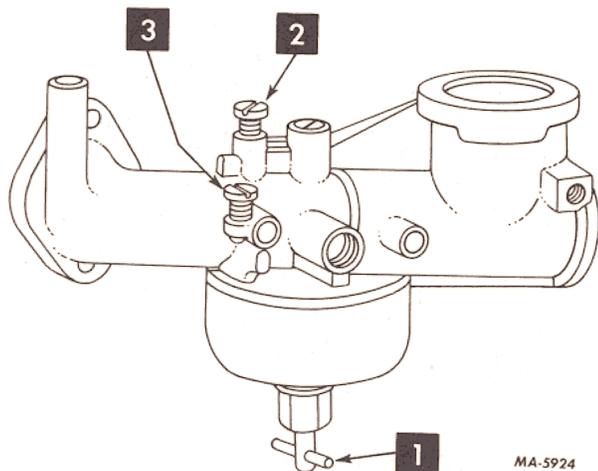


MA-9392A

Belt installation diagram.
Top and side view of tractor.

FUEL SYSTEM

CARBURETOR ADJUSTMENTS



- 1—Needle valve
- 2—Idle valve
- 3—Idle speed adjusting screw



CAUTION! During operation do not run the engine in confined areas such as storage building any longer than is necessary for immediate moving of the machine outside into the air. Exhaust gases are toxic. Opening doors and windows may not provide adequate ventilation.

The carburetor is adjusted at the factory. Do not make adjustments unless absolutely necessary. Factory settings are correct for normal operating conditions. If adjustments are necessary, proceed as follows:

Start the engine and allow it to warm up at 3000 RPM. Turn needle valve in until engine misses (lean mixture) then turn it out past smooth operating point until engine runs unevenly (rich mixture).

Turn needle valve to the mid-point between rich and lean so engine runs smoothly. Hold throttle at idle position and set idle speed, adjusting screw until engine idle speed is 1800 RPM. Hold throttle at idle position and turn idle valve in (lean) and out (rich) until engine idles smoothly. If necessary, correct idle speed. Release the throttle — engine should accelerate without hesitation or sputtering. If engine does not accelerate properly, the carburetor should be readjusted, usually to a slightly richer mixture of needle valve.

Recommended Fuel

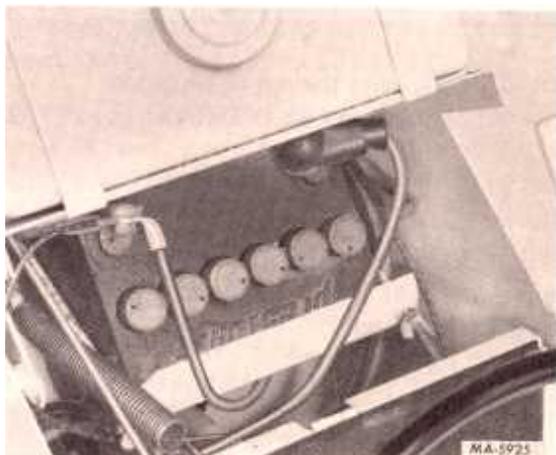
This engine is designed to operate on leaded gasoline with a 93 minimum octane rating or on unleaded or low lead gasoline with a 91 minimum octane rating (Research Method).

The use of unleaded gasoline will lengthen spark plug and valve life, maintain engine performance longer, and reduce rust and corrosion of engine while stored.



CAUTION! Handle gasoline with care, as it is highly flammable. A. Use approved gasoline container. B. Never remove the fuel tank cap or fill tank when the engine is running, is hot, or indoors. Also, do not smoke when working around flammable fuel. Wipe up spilled gasoline. C. Replace fuel tank cap securely.

ELECTRICAL SYSTEM



The battery is located under the hood and in back of the fuel tank.

A charging circuit built into the engine provides a charging circuit output from 2 amperes at 2400 RPM to 3 amperes at 3600 RPM and uses less than .2 horsepower.

Check the battery level at least once a month. Keeping the battery fully charged not only adds to its life but makes it available for instant use when needed.

ELECTRICAL SYSTEM



CAUTION! Electrical storage batteries give off highly inflammable hydrogen gas when charging and continue to do so for some time after receiving a steady charge. Do not under any circumstances allow an electric spark or an open flame near the battery. Do not lay tools across battery terminals as this may result in a spark or short circuit which may cause an explosion. Be careful to avoid spilling any electrolyte on hands or clothing.



CAUTION! Acid or electrolyte should never be added except by a skilled battery man. Under no circumstances add any special battery "dopes", solutions, or powders.

Occasionally remove the battery cables and brighten the terminal contact surfaces with wire wool, and reassemble. Apply a light coat of vaseline or chassis lubricant. Be sure terminals are clamped tightly, the rubber cover is slid over the positive terminal, and that battery is fastened securely in the battery box. Replace defective cable, and keep vent holes in battery filler caps open.



CAUTION! When removing the battery cables, remove the white cable (ground) first and then the red cable from the positive side of battery. Otherwise, sparks may result causing an accident. When reattaching or reinstalling the battery reverse the above procedure.

SPARK PLUG

NOTE: Remove all dirt from base of spark plug before removing.

Remove the spark plug after every 100 hours of operation for cleaning and checking the gap. When adjusting the gap, always bend the outer electrode. Never bend the insulator. If gap between the electrodes is too great, the engine will misfire and be hard to start.

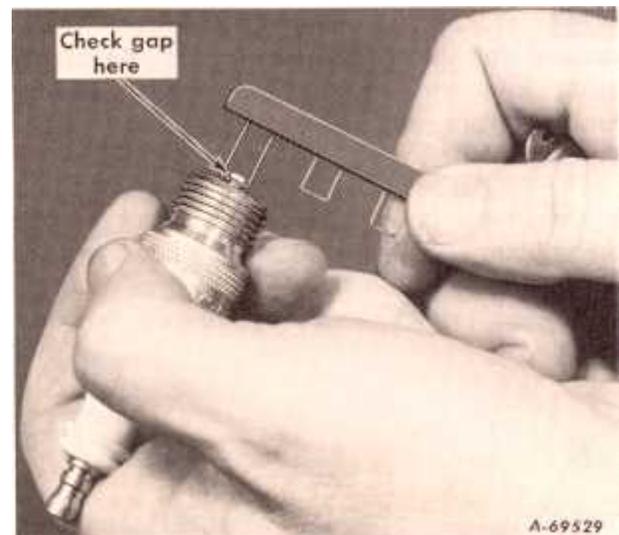
Always use a spark plug wrench when removing or reinstalling the plug.

Be sure the gasket is in good condition, and screw plug in tightly. Do not tighten more than enough to compress the gasket to seal the plug and assure a good heat transfer between the plug and cylinder head.

Replace defective plug with new plug. See your International Harvester dealer for a correct replacement plug.

Cleaning Spark Plug

Clean spark plug with a pen knife or wire brush and solvent. If electrode is burned away or the porcelain is cracked, replace with new plug.



Checking the spark plug gap.
Set gap at .030-inch.

NOTE: Do not use abrasive cleaning machine; because any grit introduced into the engine could cause severe damage.

ENGINE COOLING AND AIR CLEANER

ENGINE COOLING

This is an air cooled engine. Air must circulate freely around the engine. Keep the cooling fins and housing area free of accumulated dirt and trash or engine will overheat and result in damage to moving parts.

OIL FOAM AIR CLEANER

Clean and re-oil the air cleaner element every 25 hours under normal operating conditions. Under extremely dusty conditions, clean the element every few hours.

To clean the element, proceed as follows:

Remove the cover screws, lift the air cleaner cover and carefully remove the element to prevent dirt from entering the carburetor.

Wash the foam element in kerosene or liquid detergent and water to remove all dirt. Also clean the air cleaner body and cover.

Wrap the foam element in a cloth and squeeze dry. Then, saturate the element in engine oil (SAE-30). Squeeze the element to remove excess oil and reassemble and fasten to carburetor with screw.

NOTE: Replace air cleaner gaskets and mounting gaskets that are worn or damaged, to prevent dirt or dust entering engine through improper sealing.

ADJUSTING THE BRAKES

When the brakes require adjustment, proceed as follows:

Turn the brake adjusting nut one to two turns clockwise. Start the tractor and check the brake engagement. Adjust further if necessary.

STORING THE LAWN TRACTOR

At the end of the mowing season or in the event the lawn tractor is to be stored for any length of time (30 days or more) proceed as follows:

Drain the fuel tank and run the engine until the fuel is exhausted from the fuel system.



CAUTION! Drain the fuel tank outside and into a clean container.

Remove spark plug and pour one ounce of I.H. No. 1® Engine Oil through spark plug hole into the cylinder. Crank engine several times to distribute oil over cylinder walls. Replace the spark plug.



CAUTION! During operation do not run the engine in confined areas such as storage building any longer than is necessary for immediate moving of the machine outside into the air. Exhaust gases are toxic. Opening doors and windows may not provide adequate ventilation.



CAUTION! Handle gasoline with care, it is highly flammable. A. Use approved gasoline container. B. Never remove the fuel tank cap or fill tank when engine is running, is hot, or indoors. Also, do not smoke when working around flammable fuel. Wipe up spilled gasoline. C. Replace fuel tank cap securely.

STORING THE LAWN TRACTOR

Wash or clean and completely lubricate the lawn tractor. See "Lubrication Guide". This tractor has a fiberglass hood and grille. Use only a mild soap or detergent. Do not use ammonia base or abrasive cleansers.

Remove the battery and place it in a cool, dry place above freezing (+32°F.). Check the battery at least once a month for water level and amount of charge.



CAUTION! To avoid possible injury, when removing battery avoid spilling the electrolyte. Battery electrolyte is poisonous and can be injurious to eyes, skin, and clothing. If electrolyte is spilled, flush immediately with water, followed by a solution of one part baking soda and four parts water.

Store your riding mower in a dry and protected place. Leaving the lawn tractor outdoors, exposed to the elements, will result in materially shortening its life.



CAUTION! Electrical storage batteries give off high inflammable hydrogen gas when charging and continue to do so for some time after receiving a steady charge. Do not under any circumstances allow an electric spark or an open flame near the battery. Do not lay tools across battery terminals as this may result in a spark or short circuit which may cause an explosion. Be careful to avoid spilling any electrolyte on hands or clothing.

LUBRICATION

ENGINE OIL

After the first five hours of operation, change the oil as directed in Lubrication Table. The engine oil must be drained and replaced with new oil every 25 hours of engine operation thereafter, or a minimum of once a year, and sooner if the equipment is operated under extremely dusty conditions.

We recommend I.H. No. 1[®] Engine Oil. If other than I.H. No. 1[®] Engine Oil is used, it must be designated "For Service MS". In new API Code these oils are usually designated as meeting either SD or SE requirements.

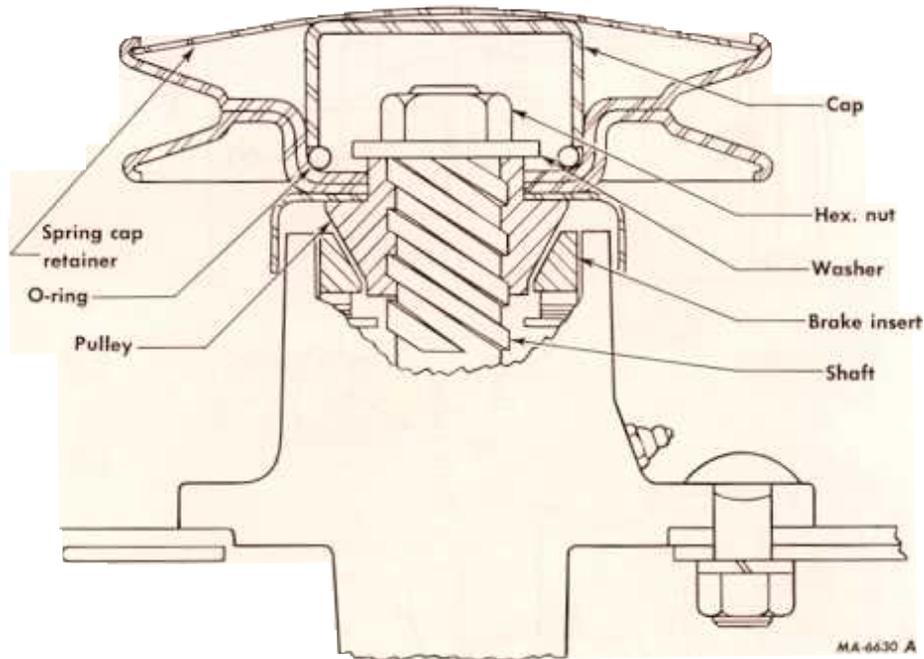
To aid starting, the selection of crankcase lubricating oils should be based on the lowest anticipated temperature until the next drain period.

Check the oil level of the engine crankcase every five hours to see that it is filled to the correct level. Check the oil level only while the engine is stopped.

The crankcase oil filler cap has the oil level gauge attached to it. To check the oil level, press down on the rubber plunger and release. If any oil is visible in the clear tube of the gauge, the oil level is "OK".

NOTE: The gauge does not have to fill completely.

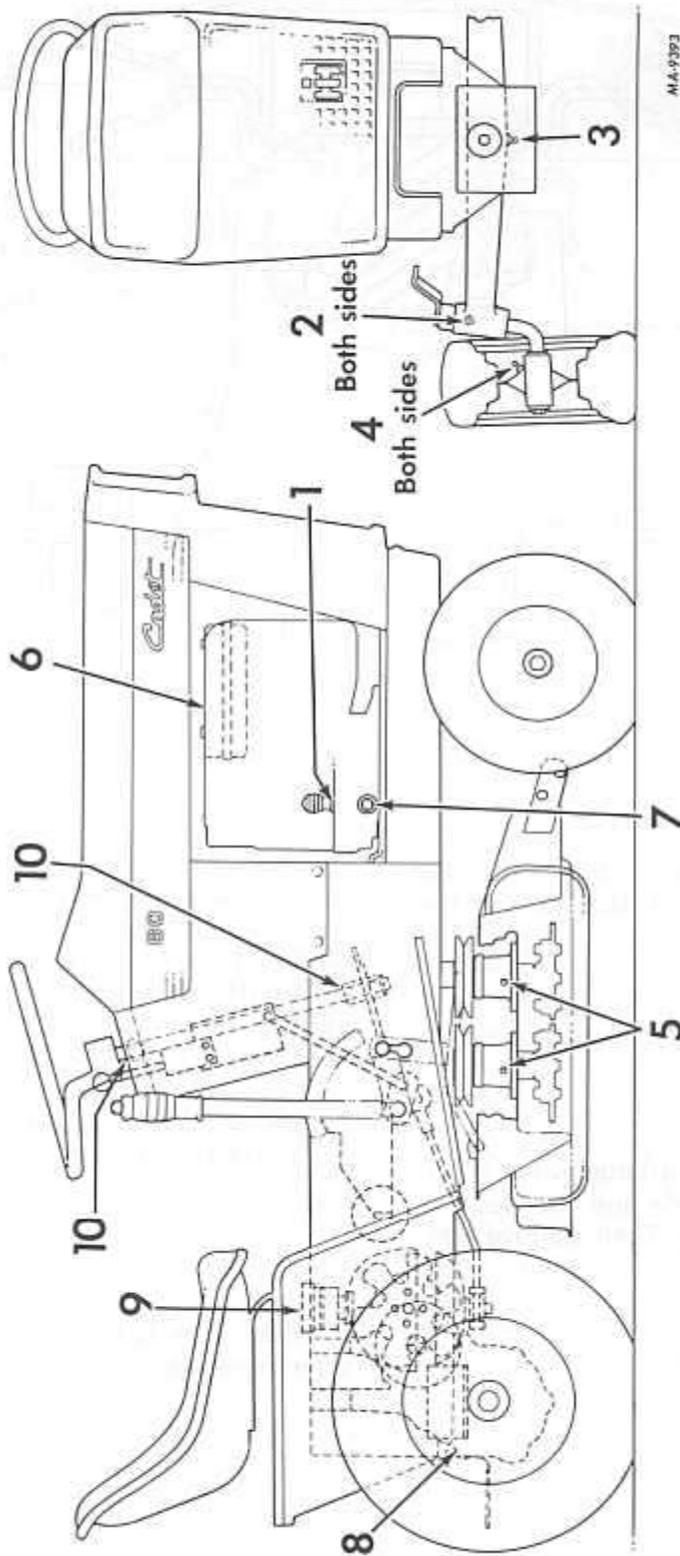
LUBRICATION GUIDE



NOTE: At least once a year or before storage lubricate the threaded shafts in the hub of the mower pulleys as follows:

1. Pry off the spring cap retainer and cap using a screw driver.
2. To detach hex. nut, place a large wood block between the wing of the blade and the deck to keep the blade from rotating. Then remove hex. nut and washer.
3. Unscrew pulley from threads.
4. Lubricate the entire length of the threaded shaft, the threads in the hub of the pulleys, the outer surface of the hub and the brake insert with IH 251H EP grease or equivalent No. 2 multi-purpose lithium grease.
5. Reassemble in reverse order, making sure the cap is 3/4 full of grease.
6. Make sure belt shields do not rub on pulley after reassembly.

LUBRICATION GUIDE



LUBRICATION GUIDE

Before Each Use and Every 5 Hours Thereafter

1. **Oil filler cap and oil minder** Check the oil (with the engine stopped) and add sufficient new oil to bring the oil level up to where it is visible in the clear tube of the gauge. **Note:** As long as oil is visible in the clear tube of the gauge, the level is "OK".

After Every 10 Hours of Operation

2. **Steering knuckles (2)**
 3. **Front axle pivot pin**
 4. **Front wheels**
 5. **Mower spindle bearings (2)**
- Lubricate with IH 251H EP grease or equivalent No. 2 multi-purpose lithium grease and apply three strokes of the lubricator or sufficient grease to flush out old grease and dirt.

After Every 25 Hours or Twice a Season Whichever Comes First

6. **Air cleaner** When operating under extremely dusty conditions, check and service the element if necessary. Otherwise, after every 25 hours or twice a season wash the element in soap and water. Then, wrap the foam element in a cloth and squeeze dry. Saturate the element in engine oil (SAE-30). Squeeze the element to remove the excess oil and reassemble and fasten to the carburetor. **Note:** Replace air cleaner gaskets and mounting gaskets that are worn or damaged, to prevent dirt or dust entering engine through improper sealing.
7. **Engine crankcase drain plug** While the engine is warm remove the drain plug and drain all the oil from the crankcase. After draining, replace the drain plug. Remove the oil filler cap and refill the crankcase. Refer to the "Lubrication Table".

LUBRICATION GUIDE

Once a Year or After Every 100 Hours of Operation

8. Gear reduction drive

Check the oil level and add IH Hy-Tran® Fluid if necessary.

Oil level should be no more than 5-inches from the bottom of the plug.

9. Hydrostatic drive

Check the oil level and add IH Hy-Tran Fluid if necessary.
NOTE: When cold 2-inches from top, when hot 3/4-inches from top.

NOTE: If fluid is used which does not meet requirements of IH B-6 Specification, International Harvester Company will not be responsible for substandard performance of the transaxle. Failures due to use of improper fluid are not covered by warranty. FOR MAXIMUM PROTECTION USE IH HY-TRAN® FLUID'

10. Steering wheel bushings (2)

Apply two or three drops of light oil and rotate the steering wheel to distribute the oil.

Mower pulleys (2) (threaded shafts) (See page 19)

Lubricate the entire length of the threaded shafts in the hub of the pulleys, the outer surface of the hub and the brake insert with IH 251H EP grease or equivalent No. 2 multi-purpose lithium grease.

LUBRICATION TABLE

Point of lubrication	Check at Hours	Change at Hours	Capacity	Anticipated Air Temperature		
				Above +32° F.	-32° to 0° F.	Below 0° F.
Engine Crankcase	5	25	1 qt.	I.H. No. 1® Engine Oil SAE-30 Engine Oil	I.H. No. 1® Engine Oil SAE-10 Engine Oil	SAE-5W or SAE-5W-20
Hydrostatic Drive Gear Reduction Drive	Check oil level once a year and add IH Hy-Tran® Fluid if necessary.					

Note: Do not substitute 10W-30 or 10W-40.

MAINTENANCE GUIDE

Operation to be performed.	Before each use.	10 hours or once a month	25 hours or twice a season	Before Storage
Check engine oil, pages 6 and 18.	X			
Fill gas tank, page 6.	X			
Grease front wheels.		X		
Grease mower spindle bearings, page 8.		X		
Service air cleaner, pages 16 and 17.			X	
Check belt guides and belt tension, pages 11 and 12.			X	
Check spark plug, page 16.			X	
Service battery, pages 15 and 16.		X		
Change oil, page 18.	After first 5 hours		X	
Clean mower, page 9.			X	X
Sharpen mower blades, page 9.			X	
Drain fuel tank, page 17.				X
Hydrostatic fan, page 25.				X

TROUBLE SHOOTING

Possible Cause	Possible Remedy
HARD TO START OR WILL NOT START	
No gasoline in fuel tank or carburetor	Fill the fuel tank with non-leaded or regular gasoline and check the carburetor, and fuel shut-off valve.
Engine will not crank	The Lawn Tractor has an interlock safety starting system. The mower clutch control must be fully disengaged and the clutch pedal fully depressed. Charge the battery.
Choked improperly, flooded engine	Follow starting instructions.
Water in gasoline	Drain the fuel tank and carburetor. Use new fuel and dry the spark plug.
Defective ignition or loose wiring	Check the wiring and spark plug. See page 16.
No spark	Check the high tension wire. See page 16. Charge the battery.
Spark plug dirty or improper gap	Clean, adjust the gap to .030 inch, or replace the plug.

ENGINE OPERATES IRREGULARLY, KNOCKS, OR SMOKES

Spark plug dirty, wrong gap, or wrong type	Clean, reset the gap to .030 inch, or replace.
Restricted air cleaner	Clean or replace the element.
Running on choke position	Move throttle control to fast position.
Carburetor improperly adjusted	Adjust carburetor. See page 15.
Poor or weak spark	Check spark plug and wiring. *
Engine smokes	Check combination oil filler cap and oil level gauge and be sure cap is securely tightened.
Engine incorrectly timed	*

* See your International Harvester dealer.

TROUBLE SHOOTING

Possible Cause

Possible Remedy

LACK OF POWER

Choke partially closed	Open choke.
Restricted air filter element	Clean or replace element.
Carburetor improperly adjusted	Adjust carburetor. See page 15.
Faulty ignition	Check spark plug. *

ENGINE OVERHEATS

Excessive load on engine	Reduce excessive load.
Lack of lubrication	Fill crankcase to proper level.
Carburetor improperly adjusted	Adjust carburetor. See page 15.
Engine cooling fins plugged	Clean out trash.
Engine improperly timed	*

FREQUENT BATTERY DISCHARGE

Wiring	Check all wire terminals for looseness.
Battery	Replace battery if necessary. *

HYDROSTATIC UNIT OVERHEATS

Fan blades broken	Replace fan. *
Fan blades excessive wear	*

* See your International Harvester dealer.

SPECIFICATIONS

International
Cadet 80
Lawn Tractor

CAPACITIES (APPROXIMATE U.S. MEASURE)

Fuel tank	4 qt.
Crankcase	1 qt.

GROUND SPEEDS, MPH, AT 3600 RPM ENGINE SPEED

Speed: Forward	0 to 4.7 mph
Reverse	0 to 2 mph

ENGINE

Make and Model	Briggs & Stratton 190707
Cylinders	1
Bore	3 in.
Stroke	2-3/4 in.
Displacement	19.44 cu. in.
Engine Speed (governed)	
Rated maximum full load speed	3600 rpm
Minimum speed	1800 rpm
Maximum no load speed (high idle)	3600 rpm
Valve clearance (engine cold)	
Intake007
Exhaust011

ELECTRICAL SYSTEM

Ignition	Magneto
Spark plug gap (14mm plug) (Champion CJ-8 or equivalent)030 in. gap
Breaker points020 in. gap
Battery terminal grounded	Negative
Type cutter bar	Suction lift
Width of cut	36 in.
Adjustable cutting height (Approximate)	1-1/2 to 4-1/4 in. (approximate)
Mower drive	V-belt w/clutch
Tire sizes:	
Front	13 x 5.00 - 6
2-ply tubeless	2-ply tubeless
Rear	18 x 8.50 - 8
	2-ply tubeless
Tire inflation pressure	12 lbs./sq. in.

