To The Owner

Your new International Harvester tractor is designed to meet today's exacting operating requirements. The ease and comfort of operation, the ability to match ground speeds to engine power and work requirement, and the effort less versatility of the hydraulic system are intended to lighten your work and shorten your hours on the job.

Your local International Harvester dealer is interested in the performance you receive from this tractor. He has factory trained servicemen, informed in the latest method of servicing tractors, and modern tools, and original-equipment IH service parts which assure proper fit and good performance.

To obtain top performance and assure economical operation the tractor should be inspected, depending on its use, periodically, or at least once a year, by your International Harvester Dealer.

Before you operate the tractor, study this manual carefully. It has been prepared to help you operate and maintain your tractor with utmost efficiency. New copies may be ordered from your dealer at a nominal price.

When in need of parts, always specify the tractor and engine serial numbers, including prefix and suffix letters. Write these serial numbers in the spaces provided below.

METRIC (SI) MEASUREMENTS

A standard of measurement known as International System of Units (SI) has been adopted for world-wide use. English Units followed by Metric Equivalents are used throughout this manual. (Metric Equivalents are given in parentheses.) A conversion list of commonly used measurements are listed on page 73 for your reference.

1. Engine serial number
2. Tractor serial number
This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery.

Delivered to ________________________ Dealer ______________________
Street Address ________________________
City ________________________ Serial No. ________________________
State ________________________ Zip ________________________
Engine Serial No. ________________________

I have thoroughly instructed the buyer on the above described equipment which review included the Operator’s Manual content, equipment care, adjustments, and safe operation. The warranty policy provisions were also explained and reviewed.

DEALER’S SIGNATURE

Above equipment and Operator’s Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

DATE ________________________

OWNER’S SIGNATURE

FOLD BACK HERE AND ADD CARBON
DELIVERY SERVICE FOR 274 TRACTOR

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery.

Delivered to ___________________________________ Dealer ___________________________________
Street Address ____________________________________________
City __________________________ Serial No. __________________________
State ____________ Zip ____________ Engine Serial No. __________________________

I have thoroughly instructed the buyer on the above described equipment which review included the Operator’s Manual content, equipment care, adjustments, and safe operation. The warranty policy provisions were also explained and reviewed.

_________________________________ DEALER’S SIGNATURE

Above equipment and Operator’s Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

_________________________________ DATE ___________________________________

_________________________________ OWNER’S SIGNATURE ___________________________________
Your International Harvester Dealer and his factory trained servicemen are best qualified to service your equipment. Up-to-date instructions and adequate special tools are also a part of your Dealer's service facilities.

This Operator's Manual was prepared to instruct you in proper operation and maintenance of your equipment. If you desire additional information you may purchase Parts Catalog. Additional copies of the Operator's Manual are also available.

Fill out the order blank and forward together with your check or money order in the appropriate amount (U.S. Funds) to:

International Harvester Company

PRINTED AND DISTRIBUTION SERVICES

807 Blackhawk Drive
Westmont, Illinois 60559

Attention: Cashier

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TOTAL

Please Print

Name
Street Address
City
State
Zip Code
Date
Signed

Do not send cash or stamps

Prices subject to change without notice.
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INTRODUCTION

CAUTION! For your protection in the event of accidental upset, International Harvester Company recommends the use of a protective frame.

Assembled in this manual are operation, lubrication and maintenance instructions for International 274 Tractors. This material has been prepared in detail in the hope that it will help you to better understand the correct care, efficient and safe operation of the tractor.

Throughout this manual the use of the terms LEFT, RIGHT, FRONT, and REAR must be understood when following instructions to avoid confusion. LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the driver's seat. FRONT indicates the radiator end of the tractor; REAR indicates the hitch end.

CAUTION
Read the Operator’s Manual. Learn to operate the machine SAFELY. Be alert! Observe All Safety Precautions. Machines can be hazardous in the hands of an UNFAMILIAR, UNTRAINED or COMPLACENT operator. Don’t risk INJURY or DEATH.
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.

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT

SERVICING AND BEFORE STARTING.

Carefully supervise inexperienced operators.

Be sure that the fuel tank cap is fully tightened against the stop before starting the engine.

Check coolant and engine oil levels, and perform any other necessary services, before starting the engine.

Turn the radiator cap slowly counterclockwise to the pressure release point to allow the pressure or any steam to escape; then press down on the cap and continue to turn until the cap is free to be removed.

Check brakes and clutch pedal for correct adjustments.

Reduce tipping hazards by spreading wheels as far as your work program permits.

Be sure muffler and exhaust pipe are in place so exhaust gases are discharged above the operator.

Always keep the operators compartment clean. Keep dirt, trash, and grease from the pedals, steps, mounting handles, steering wheel, and controls.

Always carry a “Charged” fire extinguisher and a first aid kit.

Avoid loose-fitting clothing, which could catch on moving parts.

STARTING

Starting Fluid (Ether) must not be used to aid in starting the engine.

WARNING!
EXPLOSION HAZARD
DO NOT use starting aid such as gasoline or ether in the air intake.

Know how to use the controls and how to stop the tractor and/or implements quickly. Read the tractor and implement operator’s manuals thoroughly. Be in the operators seat and fasten seat belt if supplied with a ROPS frame.

Set the parking brake lever and place the transmission gear shift lever in the neutral position before starting the engine.

Be sure the power take-off rod is in the “OFF” disengaged position before starting the engine.

Make sure that the helpers or observers stand clear of the equipment.

Never operate vehicle in an enclosed area.

Make sure the area is well ventilated.

DURING OPERATION

Carefully supervise inexperienced operators. Hydraulic fluid escaping under pressure can have enough force to penetrate the skin. Hydraulic fluid may also infect a minor cut or opening in the skin. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. Make sure all connections are tight and that hoses and lines are in good condition before applying pressure to the
• Work Safely—Follow These Rules

System. Relieve all pressure before disconnecting the lines or performing other work on the hydraulic system. To find a leak under pressure use a small piece of cardboard or wood. Never use hands.

Power take-off master shield must always be in place on the tractor.

Stop the engine, set the parking brake lever and place the transmission gear shift lever in the neutral position before dismounting from the tractor for any reason.

Always keep shields in place. Disengage PTO, shut off the engine, and remove the key before adjusting or unclogging power driven machinery.

No riders allowed. Make certain that everyone is clear of machinery before starting the engine or operation.

IH strongly recommends a rollover protective frame (ROPS). It is available for this tractor.

Use care when pulling loads or using heavy equipment:
A. Use only approved hitch points.
B. Limit loads to those you can safely control.
C. Don’t turn too sharp, and use care when backing.
D. Use counterweight or wheel weights when suggested in Operator’s Manual

With trail-behind PTO driven implements the hitching point on the fixed drawbar must be in line with the PTO shaft. If it is not, the driveline may pull apart or create excessive angles when turning the tractor.

Check overhead clearance carefully before driving under power lines, guy wires, bridges, low hanging tree branches, entering or leaving buildings, etc.

One standard wheel weight must remain on the right rear wheel to help maintain proper weight distribution of the tractor and to decrease the chance of an overturn.

Always avoid sudden starts, excessive speed, and sudden stops.

To assure the protection provided by design, the protective frame must not be altered by welding, cutting, drilling, or in any other manner.

Transporting

Use warning devices (i.e. flags, S.M.V. emblem, lights, etc.) which are approved for use by your local government agencies, when moving equipment on public roads. Keep these devices clean and in good working condition.

Before moving on public roads, or from field to field, lock the brake pedals together for simultaneous operation.

Reduce speed when traveling on rough roads, sharp turns, and down steep hills.

For your safety, avoid heavily-traveled roads when moving equipment.

Be sure hitches and/or drawbars are properly stabilized before towing equipment. Be courteous, have consideration for other traffic using the road.

CAUTION! Never allow unauthorized riders.

MA-16868

Keep others, especially children, from riding on steps, fenders, or drawbar, and away from tractor equipment.

Use the drawbar when hitching to a heavy load.

Pull only from drawbar; never hitch to axle housing.

Always keep the tractor in gear when going down hills. A towed vehicle having a gross weight greater than the weight of the towing tractor must be equipped with its own brakes.

Stay alert for holes, rocks, tree stumps and other hazards in terrain which could cause an upset or loss of control which could result in injury.
WORK SAFELY - FOLLOW THESE RULES

When transporting on the highway, use a safety chain with a 10,500 pound (4767 kg) gross load capacity be used with tractor and trailed implement.

CAUTION! Always engage park, lower equipment and shut-off engine before dismounting. Never start engine from ground.

MA-16882

AFTER AN UPSET

No attempt should be made to straighten, weld, or otherwise repair the protective frame for further service. It must be replaced in its entirety.

BEFORE DISMOUNTING

Install clevis as shown leaving some chain slack at the tractor drawbar plate.

After attaching the hitch safety chain, make a trial run by driving the tractor to the right and to the left for a short distance to check the safety chain adjustment. If necessary, readjust to eliminate tight or loose chain.

CAUTION! Always engage park, lower equipment and shut-off engine before dismounting. Never start engine from ground.

MA-16858

CAUTION! Avoid tipping hazards. Spread wheels as wide as operation permits and do not drive close to ditches.

USE SEAT BELTS with ROPS and safety enclosures.

NOTE: Do not operate the tractor or run the engine until a thorough inspection has been made to determine that all components, controls, etc. are operating correctly. The tractor must be inspected for other damage, preferably, by your International Harvester dealer, and all necessary corrections made.

Misuse or modification of this machine can cause mechanical breakdown, property damage, injury or death. Always use proper safety precautions. Tell your workers how to work safely.
Before attempting to start or operate the tractor, be sure to review all the instructions for the new tractor and thoroughly familiarize yourself with the instruments and controls.

1 - Brake pedal
2 - Brake pedal latch
3 - Park brake lever
4 - Clutch pedal
5 - Auxiliary hydraulic control lever
6 - Drop control knob
7 - Three-point hitch position control lever
8 - Starting key switch
9 - Engine speed control lever
10 - Fuel shut-off knob
11 - Glow plug signal
12 - Low fuel indicator lamp
13 - Fuse block
14 - Flashing warning light
15 - Flashing warning light switch
16 - Head and taillight switch
17 - Taillight
18 - Gear shift lever
19 - Power take-off lever
20 - Transmission range lever
21 - Instrument cluster
   (Tachometer, speedometer, hour meter, water temperature tellite, oil pressure tellite and charge indicator tellite)
The brake pedals are used to aid in turning the tractor. Depress the right brake pedal to slow or stop the right rear tractor wheel, depress the left brake pedal to slow or stop the left rear tractor wheel. The tractor will turn in the direction of the wheel that is slowed or stopped.

**BRAKE PEDAL LATCH**

The brake pedal latch is located in the top edge of the left brake pedal and is used to latch the two pedals together to provide simultaneous braking to both rear wheels when the brake pedals are depressed. To latch the pedals together, pivot the latch and engage it in the slot in the right pedal. For individual brake action, pivot the latch into the storage slot in the left brake pedal.

**PARK BRAKE LEVER**

The park brake must be on to prevent movement of the tractor during stationary power take-off work or when the tractor is parked. The park brake is on when the lever is pulled up. Depress the button on the end of the lever and move the lever down to release the park brake.

**NOTE:** The transmission and park brake lock may be damaged if the tractor is moved with the park brake on. Do not put the park brake on with the tractor in motion.

**CLUTCH PEDAL**

The clutch must be released when stopping the tractor, turning on the power take-off, operating the gearshift lever, or operating the transmission range lever. To release the clutch, press the pedal all the way down. Let the clutch pedal up slowly to start the tractor in motion.
AUXILIARY HYDRAULIC CONTROL LEVER

This lever is used to raise and lower the mid-mounted cultivator.

To raise, move the lever to the rear and hold it. To lower, move the lever forward and hold it.

The lever returns to the neutral position automatically when it is released.

DROP CONTROL KNOB

Turn the knob clockwise to slow the rate at which the three-point hitch lowers. Turn the knob counterclockwise to increase the lowering rate.

THREE POINT HITCH POSITION CONTROL LEVER

Move the position control lever forward to lower the three-point hitch. Move the lever to the rear to raise the hitch.

A latch is provided to lock the lever in raised position. Make sure this latch is engaged whenever hitch is to be left in raised position while operating tractor.

STARTING KEY SWITCH

The starting switch key can be removed with the switch in the "OFF" position. Always insert the key in the position shown. The key must be in the position "ON" while operating the engine.
**INSTRUMENTS AND CONTROLS**

**ENGINE SPEED CONTROL LEVER**

Move the knob end of the engine speed control lever to the rear to increase engine speed. Move the knob end of the engine speed control lever forward to decrease engine speed.

**GLOW PLUG SIGNAL**

This signal indicates the correct functioning of the glowplug circuit. When the signal reaches maximum brilliance, the glowplugs have reached the correct temperature for engine starting.

To energise the glowplugs, turn the key counterclockwise from the "OFF" position and hold it.

**FUEL SHUT OFF KNOB**

The fuel shut off knob is used to stop the engine. To stop the engine, pull the knob out fully. See "OPERATING THE TRACTOR".

**LOW FUEL INDICATOR LAMP**

The low fuel indicator lamp will light to indicate that 1½ gallons (5.5 liter) of fuel remains in the fuel tank. See "STARTING THE TRACTOR" for check to determine if the tellite is functional.
INSTRUMENTS AND CONTROLS

FUSE BLOCK
Three fuse elements located under the fuse holder cover system. See "ELECTRICAL SYSTEM" for replacement instructions.

FLASHING WARNING LIGHT SWITCH
Flash warning light can be flashed by turning the switch clockwise. It is independent of key switch.

This light is for use on public highway to warn drivers of other vehicles that they are approaching a slow moving vehicle.

See "DRIVING ON PUBLIC ROAD" in "OPERATING THE TRACTOR".

HEAD AND TAILLIGHT SWITCH
The switch has four positions: "OFF" positions; "TAIL" position for the instrument panel and red taillight; "LOW" position for panel light, red taillight and dim headlights; "HIGH" position for red taillight, panel light and bright headlights.

NOTE: The switch works independently of the key switch.

TAILLIGHT
The taillight is turned on by the head and taillight switch. See "HEAD AND TAILLIGHT SWITCH".
INSTRUMENTS AND CONTROLS

GEARSHIFT LEVER

This lever is used to shift the transmission gears into reverse or any of the four forward speed ranges.

POWER TAKE-OFF LEVER

Push this lever forward for power take-off operation. Pull the lever back against the lock tab on the locking plate to turn-off the power take-off.

The lever is locked in “OFF” position to avoid inadvertent engagement of PTO.

See “POWER TAKE-OFF” under “ADJUSTING AND OPERATING”.

TRANSMISSION RANGE LEVER

Move the transmission range lever forward to place the transmission in “LOW” range. Move the lever to the rear to place the transmission in “HIGH” range. The center position places the transmission in “NEUTRAL”.
INSTRUMENTS AND CONTROLS

INSTRUMENT CLUSTER

1 - Tachometer
2 - Speedmeter
3 - Hour meter
4 - Water temperature tellite
5 - Oil pressure tellite
6 - Charge indicator tellite

TACHOMETER
The tachometer indicates engine speed in revolutions per minute (r.p.m.)

SPEEDMETER
The speedmeter indicates ground speed in miles per hour in fourth gear (High range).

HOUR METER
The hour meter indicates hours of engine operation up to 9999.9 hours. The hour meter is accurate at 1800 engine rpm.

WATER TEMPERATURE TELLITE
The water temperature tellite indicates high engine coolant temperature.

If the light comes on, remove the load and allow the engine to run at high idle until the light goes out. If the light does not go out within one minute, stop the engine and determine the cause. See “STARTING THE TRACTOR” for check to determine if the tellite is functional.

OIL PRESSURE TELLITE
The oil pressure tellite indicates low engine oil pressure. If it lights during engine operation, stop the engine immediately and determine the cause.

CHARGE INDICATOR TELLITE
The charge indicator tellite indicates the battery is being discharged. If the light comes on during operation, determine and correct the cause to avoid complete discharge of the battery and possible damage to other elements of the electrical system. See your International Harvester dealer.

HOOD OPEN LEVER
The lever is used to release the latch of front hood. Front hood can be opened by hand after releasing the latch. See “PREVENTIVE MAINTENANCE”.

Hood open lever
OPTIONAL INSTRUMENTS AND CONTROLS

DIFFERENTIAL LOCK PEDAL

Push down on the differential lock pedal with the right heel to lock the rear wheels together to prevent one wheel from spinning on a wet or slippery surface. Remove the heel from the pedal to release the differential lock.

Refer to "DIFFERENTIAL LOCK" under "OPERATING THE TRACTOR".

NOTE: Always release the differential lock before making a turn.

REAR WORK LAMP

The rear work lamp is turned on by the switch on the work lamp.

It is independent of the ignition switch.

See "OPERATING THE TRACTOR".

CAUTION! Do not turn on the rear work lamp while traveling on public road.

ENGINE COOLANT HEATER

The block type engine coolant heater is available as optional equipment.

Refer to "COLD WEATHER PRECAUTION".

FIXED DRAWBAR
BEFORE OPERATING THE TRACTOR

CAREFULLY READ "WORK SAFETY - FOLLOW THESE RULES"

LUBRICATION

Check the oil levels of the engine crankcase, transmission, and all gear cases to see that they are filled to the correct levels with oil of the proper viscosity for the prevailing temperature. Refer to "LUBRICATION GUIDE".

NOTE: DO NOT operate the tractor with shipaway oil in temperatures above 90°F (32°C) or below 0°F (−18°C). See "LUBRICATION GUIDE".

Lubricate the entire tractor as described in the "LUBRICATION GUIDE".

AIR CLEANING SYSTEM

Check all rubber hoses for cracks and be sure all hose connections are tight. See "AIR CLEANING SYSTEM".

TIRES

Check the air pressure in the pneumatic tires and inflate or deflate the tires to the air pressure specified in the tables under "TIRES". Tire treads should be cleared of rocks or other foreign objects that could be thrown from the tire causing personal injury or damage to the tire.

ENGINE COOLING SYSTEM

Be sure the coolant is at the correct level. See "COOLING SYSTEM".

NOTE: Tractors shipped to destinations in the United States and Canada have the cooling system filled with antifreeze solution. Be sure the antifreeze is adequate for prevailing cold temperature conditions. See "COLD WEATHER PRECAUTIONS"

Never start or operate the engine without water or antifreeze solution in the cooling system.

FUEL

Grade 2-D diesel fuel conforming to ASTM D-975 specification must be used for proper operation of diesel tractor. Grade 1-D diesel fuel may be used at temperatures below +10°F (-12.2°C) or for operations entailing considerable idling. Use only winter grade fuel for case of starting. Winter grade diesel fuel must have a cloud point of at least +10°F (-12.2°C) below the lowest anticipated temperature to avoid plugging of the fuel circulation system, especially the fuel filters.

Use clean fuel and keep it clean. Store fuel in tanks equipped with hose and nozzle to prevent contamination of the fuel. The use of funnels, cans, and drums is not recommended because they are difficult to keep clean.

Allow space for fuel expansion when adding fuel to the tank. A tank filled to capacity may overflow if exposed to a rise in temperature or direct sunlight.

CAUTION! Do not add gasoline or alcohol to diesel fuel. This creates a vapor which is extremely explosive.
BEFORE OPERATING THE TRACTOR

ADJUSTING THE SEAT

1. Seat pivot rod
2. Q.A. pin

To adjust the seat remove the Q.A. pin and seat pivot rod. Move the seat to the desired position then install seat pivot and Q.A. pin.

ENGINE BREAK-IN PROCEDURE

Your new tractor is delivered with proper adjustment and careful inspection. However, do not operate the tractor with heavy loads during the first 20 working hours. Overloading may result in premature wear.

Warm up the tractor for at least 5 minutes. Especially in cold climates, a warm-up period is required until engine oil reaches operating temperature.

Never operate a new engine immediately under full load. Brake it in carefully as shown in the table below.

<table>
<thead>
<tr>
<th>Period</th>
<th>Engine Speed Control Lever Position</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Hour</td>
<td>1700 ~ 2000 r.p.m.</td>
<td>Light</td>
</tr>
<tr>
<td>2nd Through</td>
<td>Fully Advanced</td>
<td>Moderate</td>
</tr>
<tr>
<td>20th Hour</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

During first 50 hours of operation with shipaway oil, avoid prolonged periods of engine idling.
OPERATING THE TRACTOR

STARTING THE TRACTOR

1. Open the fuel shut off valve. See "FUEL SYSTEM".

2. Mount the tractor and fasten seat belt if the tractor has Roll Over Protective Structure.

3. Be sure the park brake is on. Press the clutch all the way down. Place the gear shift lever in the neutral position and turn off the power take off. See "INSTRUMENT AND CONTROL".

4. Push in the fuel shut off lever fully.

5. Set the fuel control lever at high idle position.

6. Insert the start switch key and turn it clockwise to the "ON" position. The oil pressure tellite, charge indicator tellite, water temperature tellite and low fuel indicator lamp will light, informing you that it is operational. If the lights do not appear, turn off the switch, remove the key and have the cause determined and corrected.

7. Turn the key fully counterclockwise and hold to energize the glowplugs for 15 to 20 seconds.

8. When the glowplugs indicator reaches the brilliance, turn the key fully clockwise to the "START" position.

NOTE: If the engine is warm the glowplugs do not need to be energized.

NOTE: The engine can only be started when the safety starting switch is activated by depressing the clutch pedal all the way down. Do not operate the starter for more than 30 seconds at any one time. If the engine does not start within this time, turn the key "OFF", wait a few minutes, then try again.

CAUTION! Starting fluid (ether or gasoline) must not be used when glowplugs are used to aid in starting the engine.

AFTER THE ENGINE STARTS

NOTE: Never operate the starter while the engine is running.

1. As soon as the engine starts, push the engine speed control lever to moderate speed position to warm up the engine.

Immediately after the engine starts, the oil pressure tellite should go out. If the light stays on, turn off the engine immediately, remove the key, determine and correct the cause. Operation without oil pressure will cause severe damage to the engine.

CAUTION! Do not run the engine in confined areas such as storage buildings any longer than is necessary for the immediate moving of the tractor out of or into the area. Exhaust gases are toxic. Opening doors and windows may not provide adequate ventilation.

2. Release the park brake before moving the tractor to avoid possible damage to the brake and transmission. See "INSTRUMENTS AND CONTROLS".

3. Turn front wheels in desired direction.

4. Adjust throttle to desired engine speed. The throttle setting should be 1/3 or less of the full speed setting when moving the tractor in a confined area such as a garage or storage building.

5. Select the desired gear range for moving the tractor. See "DRIVING THE TRACTOR".

CAUTION! Check overhead clearance carefully before entering or leaving buildings, driving under power lines, guy wires, bridges, low hanging tree branches, or other situations where the operator may be struck or pulled from the tractor resulting in serious injury.
OPERATING THE TRACTOR

DRIVING THE TRACTOR

To Shift Gears

NOTE: Do not shift gears while the tractor is in motion.

Depress the clutch pedal.

Place the gearshift lever and transmission range lever in the desired positions.

Slowly release the clutch pedal.

For ground speed, see "SPECIFICATIONS".

NOTE: Driving speed depends on the load applied.

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

NOTE: Do not "ride" the clutch or brake pedals by resting the feet on the pedals while driving the tractor because this will result in excessive wear.

CAUTION! Use the brakes as turning brakes only at low speeds to maintain control of the tractor.

CAUTION! Pedals must be latched together when operating the tractor in third or fourth gear, in high range.

When moving on public roads, or from field to field, latch brake pedals together for simultaneous operation when making a stop to reduce the possibility of loss of control and upset or collision.

DRIVING ON SLOPES

Before operating the tractor on any slope, walk the slope to look for possible hazards such as rocks, mounds, ruts, stumps or other surface irregularities which could cause an upset.

Drive up or down the face of a slope.

Back the tractor with front or mid-mounted implements up the steepest portion of each slope you intend to work. If the tractor can not negotiate the slope in reverse, the slope is too steep to be worked.

CAUTION! This Off-Set, Hi-Clear Tractor is more susceptible to tipping to the left than conventional tractor.

Use first gear in low range when driving on a steep slope. The tractor must always be in gear to take advantage of engine braking during operation on a slope.

Avoid turns when driving on a slope. If a turn must be made, turn down the slope. Turning up a slope greatly increases the chance of a roll over.

Avoid stopping when driving up a slope. If it is necessary to stop while driving up a slope, start up smoothly and carefully to reduce the possibility of flipping the tractor over backward.

TOWING THE TRACTOR

When towing is necessary, use a tow rope, chain, or cable and have an operator steer the tractor and operate the brakes.

When towing a tractor out of a stuck condition, the power of both tractors should be used. A steady, even pull must be kept on the tractor all the time.

Before towing the tractor, to transport it from one place to another, check the local laws. It is not recommended that a tractor be towed for great distances because of safety hazards, but when it becomes necessary the following procedure should be followed.
TOWING THE TRACTOR - Continued

1. Make sure the parking brake is in the released position.
2. A driver must be in the tractor seat to steer the tractor and apply the brakes.
3. Do not tow over 9.3 miles per hour (15 kilometers per hour).

DRIVING ON PUBLIC ROAD

When travelling on public road, use the SMV (Slow Moving Vehicle) emblem, flashing warning lights and other warning devices which are approved for use by your local government agencies.

Keep these devices clean and in good working condition.

CAUTION! Do not use the rear work lamp while travelling on public road. The light may confuse and blind the motorist and cause an accident.

Be sure hitches and/or drawbars are properly stabilized before towing equipment to reduce possibility of loss of control and upset or collision.

Shut off power to any attachment when transporting or not in use.

For your safety avoid heavily-traveled roads when moving equipment, if at all possible.

When moving on public roads, or from field to field, lock brake pedals together for simultaneous operation when making a stop to reduce the possibility of loss of control and upset or collision.

Reduce speed when traveling on rough roads to avoid loss of control and upset or collision.

Be courteous, have consideration for other traffic using the road. Drive defensively.

STOPPING THE TRACTOR

1. Push engine speed control lever all the way forward.
2. Depress the clutch pedal.
3. Depress the brake pedal to stop and hold the tractor.

NOTE: The brakes are not intended for use in parking, or other stationary jobs since normal fluid seepage tends to release the brake. The park brake is provided for this purpose.

4. Place the PTO control in the "off" position.
5. Place the gearshift lever in the neutral position.
6. Slowly release the clutch pedal.
7. Put the park brake on.

NOTE: Do not rely on having tractor in gear. It may cause the possibility of coasting down a slope.

8. Lower equipment to ground before leaving tractor to avoid the possibility of the equipment dropping and causing injury.
9. Turn off lights.
10. Pull the fuel shut off lever
11. Turn the key to the "OFF" position.

NOTE: If the engine has just operated under heavy load, allow the engine to idle at 1500 r.p.m. until temperature is reduced, then push the engine speed control lever all the way forward and stop the engine.
OPERATING THE TRACTOR

STOPPING THE TRACTOR - Continued

12. Remove the key.

13. Dismount from the tractor only after all rotating implements have stopped.

NOTE: It is advisable to close the fuel shut-off valve if the engine is to be stopped for any length of time. See "FUEL SHUT VALVE" under "PREVENTIVE MAINTENANCE".

DIFFERENTIAL LOCK (OPTIONAL)

The differential lock equalizes drive wheel slip when one wheel is operating under poorer traction conditions than the other. Continual engagement of the differential lock is not harmful to the wearing parts and may improve performance of the tractor even when excessively unequal slip is not apparent. However, the differential lock must be disengaged before attempting turns.

The pedal may be depressed to engage the differential lock under wheel slip or when the tractor is still in motion. If one wheel is spinning too rapidly for the differential lock to engage, a clicking noise will be heard. If this continues for more than a few seconds, depress the engine clutch pedal momentarily and the differential lock will come into operation immediately.

If the differential lock does not disengage when the foot is taken off the differential lock pedal as evidenced by the pedal remaining in the depressed position, quick pressure on one of the brake pedals or the clutch pedal will release the differential lock.

REAR WORK LAMP (OPTIONAL)

The rear work lamp is turned on by the switch on the lamp.

The lamp should be used only when the tractor is operated in the field.

CAUTION! Do not use the rear work lamp while traveling on public road.

TRANSPORTING

CAUTION! When road transporting, lock brakes together, use lighting and making devices consistent with local law enforcement agencies. Use SAFETY CHAINS on towed equipment.

MA-16857
POWER TAKE-OFF

GENERAL

The power take-off is powered by the same engine clutch as the tractor. Be sure to disengage the engine clutch before moving the power take-off lever.

The power take-off on this tractor has the 540 r.p.m. shaft setting at 2160 engine r.p.m. The power take-off shaft conforms to American Society of Agricultural Engineering (A.S.A.E.) and Society of Automotive Engineers (S.A.E.) standards for 540 r.p.m. drawbar pulled power take-off equipment. Engine speed can be changed as PTO load varies in order to maintain a 540 rpm PTO speed. For PTO operation do not exceed 2500 engine rpm.

OPERATING THE POWER TAKE-OFF

CAUTION! The power take-off lever must always be in "OFF" position and locked with the latch when the power take-off is not used.

Illustration shows the power take-off disengaged position.

1. The transmission gearshift lever must be in neutral position.
2. Move the engine speed control lever to the low idle speed position.
3. Depress the clutch pedal to release the engine clutch.
4. Move the power take-off lever forward to engage the power take-off.
5. Select the desired transmission speed.

For stationary power take-off equipment leave the transmission in neutral and engage the park brake.

6. Slowly release the clutch.
7. Advance the speed control to desired engine speed (rated PTO speed) slowly to make sure rotating equipment is running properly before engaging load.