



1490 Tractor Operators Manual

Pub.9-9323

Written in *Clear
And
Simple
English*

J I Case

A Tenneco Company



SAFETY



THIS SAFETY ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY OR DEATH.

IMPORTANT

If This Machine Is Used By an Employee Or is Loaned Or Rented, Make Certain That The Operator (s), Prior To Operating:

- 1. Is Instructed In Safe And Proper Use.**
- 2. Reviews And Understands The Manual (s) Pertaining To The Machine.**



SAFE OPERATING INSTRUCTIONS

- | | |
|--|--|
| 1. SECURELY FASTEN YOUR SEAT BELT IF THE TRACTOR HAS A ROPS. | ESPECIALLY AT ROW ENDS. ON ROADS, AND AROUND TREES. |
| 2. WHERE POSSIBLE, AVOID OPERATING THE TRACTOR NEAR DITCHES, ENBANKMENTS AND HOLES. | 6. DO NOT PERMIT OTHERS TO RIDE. |
| 3. REDUCE SPEED WHEN TURNING, CROSSING SLOPES, AND ON ROUGH, SLICK, OR MUDDY SURFACES. | 7. OPERATE THE TRACTOR SMOOTHLY, NO JERKY TURNS, STARTS OR STOPS. |
| 4. STAY OFF SLOPES TOO STEEP FOR SAFE OPERATION. | 8. HITCH ONLY TO THE DRAWBAR AND HITCH POINTS RECOMMENDED BY TRACTOR MANUFACTURER. |
| 5. WATCH WHERE YOU ARE GOING. | 9. WHEN TRACTOR IS STOPPED, SET BRAKES SECURELY AND USE PARK LOCK IF AVAILABLE. |

PER OSHA 1928.51.

EMPLOYER SHALL NOTIFY EMPLOYEES WHO OPERATE AGRICULTURAL TRACTORS OF THESE INSTRUCTIONS AT INITIAL ASSIGNMENT AND ANNUALLY THEREAFTER.

CONTENTS

	Page		Page
TO THE OWNER	3	AIR CONDITIONER	
SAFETY		OPERATION	81
Safety Rules	4	CAB DOOR LOCK	81
HAND SIGNALS	20	TOOL COMPARTMENT	81
DECALS	22	REAR VIEW MIRRORS	82
TRACTOR IDENTIFICATION ..	26	CAB WINDOW LEVER	82
SPECIFICATIONS		SEAT BELTS	83
Diesel Engine	28	AMBER WARNING LAMPS,	
General Specifications	30	DIRECTION TURN SIGNALS	
APPROXIMATE TRACTOR		AND SMV SYMBOL	
SPEEDS	35	High Platform Tractor	84
APPROXIMATE		Low Profile Tractor	86
MEASUREMENTS	36	IMPLEMENT WARNING	
TIRE PRESSURES	38	LAMPS—SMV SYMBOL	88
TIRE ARRANGEMENTS: MFD	39	DIESEL ENGINE	
TREAD POSITIONS		Before Starting the Engine ...	89
Front Axle: 2 Wheel Drive	40	Starting the Engine	90
Front Wheels: MFD	41	Before Stopping the Engine .	91
Rear Wheels: Manual Adjust .	42	Stopping the Engine	91
Rear Wheels: Power Adjust ..	43	TRANSMISSION	
FUEL SPECIFICATIONS	44	Power Shift Transmission ...	92
LUBRICANTS	46	Synchromesh Transmission .	94
Recommendations and		BALLAST	96
Capacities	47	MEASURING WHEEL SLIP ...	97
OPERATING INSTRUMENTS .	48	POWER TAKE OFF	
OPERATING: HIGH PLATFORM		Reversible Shaft	98
TRACTOR		TREAD ADJUSTMENT	
Operating Controls	52	Front Axle: Standard	99
Cab Controls	56	Rear Wheels:	
Control Levers	58	Power Adjusted	100
Operator's Seat	65	HITCH	101
OPERATING: LOW PROFILE		Telescopic Stabilizer	102
TRACTOR		Mechanical Flotation	103
Operating Controls	66	DRAWBAR	104
Operating Pedals	68	Changing Positions	104
Control Levers	69	DRAFT CONTROL	106
Operator's Seat	76	POSITION CONTROL	108
CAB AIR FLOW		DOUBLE ACTING REMOTE	
ARRANGEMENTS	77	VALVES	110
CAB AIR FLOW CONTROL ...	78	SINGLE ACTING AND	
		EXTERNAL EQUIPMENT ...	111

CONTENTS

	Page		Page
HOSE AND COUPLERS	112	Fuel Filters	140
MAINTENANCE		Steering Hydraulic Oil Filter	141
Introduction	113	Removing Air from the	
Service Chart: High Platform		Fuel System	142
Tractor	114	Air Cleaner Elements	144
Service Chart: Low Profile		External Nuts and Bolts	145
Tractor	118	Operators Seat Belt	145
Service Chart: MFD Tractor	122	Operators Seat	146
DAILY INSPECTION	123	Roll Over Protective	
50 HOUR SERVICE	124	Structure	148
Lubrication Fittings	124	800 HOUR SERVICE	
Power Steering	124	Hydraulic System	150
Brakes	124	Brake and Clutch Fluid	150
Transmission Clutch:		Final Drives	150
High Platform	125	Cooling System	151
PTO Clutch High Platform	125	Power Shift Oil Pressure	151
Transmission Clutch:		Differential and Reduction	
Low Profile	126	Hubs: MFD	152
PTO Clutch Low Profile	126	Front Hub Bearings:	
Brake and Clutch Fluid	128	NOT MFD	152
Fuel Water Trap	129	COMPRESSOR BELT	
Transmission	130	REPLACEMENT	153
Controls	131	AIR CONDITIONING	
Coolant	131	Receiver-Drier	156
Battery	131	Headliner	156
Tires	131	Blower	156
Wheel Nuts	131	Refrigerant Check	157
100 HOUR SERVICE	132	Compressor Belt	159
Engine Oil Change	132	Compressor	159
Final Drives	132	Condenser	159
Front Axle: MFD	132	Evaporator	159
Cab Air Filter	133	DOMELIGHT	160
200 HOUR SERVICE		FUSE PANEL (CAB)	160
Engine Oil Filter	136	ALTERNATOR	161
Compressor Belt	137	BATTERY	162
400 HOUR SERVICE		AUXILIARY BATTERY	163
Transmission Oil Filter	138	HOOD	164
Injectors	139	HOOD SIDE PANELS	164
Valve Clearances	139	FUSES (TRACTOR)	165
Fan Belt	140		

TO THE OWNER OF A CASE TRACTOR

Use this manual as your guide. If you follow the instructions given in this manual, your Case Tractor will work well for many years.

Your Authorized Case Dealer can give you assistance with J I Case Company made parts and persons with special training that know the best methods of repair and maintenance for your tractor.

Call your Authorized Case Dealer if you need any assistance or information.

Your Authorized Case Dealer



79 0361

NOTE: When you are in the tractor seat looking forward, the right hand and left hand of the tractor are the same as your right hand and left hand.

SAFETY RULES

Understand that your safety and the safety of other persons is measured by how you service, and operate this machine. Know the positions and operations of all controls before you try to operate. **MAKE SURE YOU CHECK ALL CONTROLS IN A SAFE AREA BEFORE STARTING YOUR WORK.**

READ THIS MANUAL COMPLETELY and make sure you understand the controls. All equipment has a limit. Make sure you understand the speed, brakes, steering, stability, and load characteristics of this machine before you start to operate.

The safety information given in this manual does not replace safety codes, insurance needs, federal, state and local laws. Make sure your machine has the correct equipment needed by the local laws and regulations.

J I Case is continuing to work for your safety: by making tractors with better protection and by giving these rules for safe operation.

BEFORE STARTING



CAUTION: *Provide a first aid kit for use in case of accident.*



CAUTION: *It is good practice to carry a fire extinguisher on the tractor. Be sure that the extinguisher is properly maintained and be familiar with its proper use.*



80-019

WARNING: Before starting engine study Operator's Manual safety messages.

Read all safety signs on machine.

Clear the area of other persons.

Learn and practice safe use of controls before operating.

It is your responsibility to understand and follow manufacturer's instructions on machine operation, service, and to observe pertinent laws and regulations.

Operator and Service Manuals may be obtained from your equipment dealer.



WARNING: Before starting engine be sure all operating controls are in neutral.

Operate controls only when seated in Operator's seat.

On roads, use flasher/lights according to local laws.

Keep SMV emblem visible.

Shields help protect from injury, keep in place.

Stop engine before working on PTO driven machine or PTO shaft, or doing any maintenance.

Before leaving tractor unattended, lower hydraulically raised equipment to ground.



WARNING: Before starting the engine be sure all operating controls are in neutral. This will ease starting loads on the starter and batteries and will prevent the accidental start up of PTO Driven equipment.





WARNING: Before leaving the tractor, stop the engine, place all controls in neutral, and apply the parking brake.



WARNING: Operate controls only when seated in the Operator's seat.

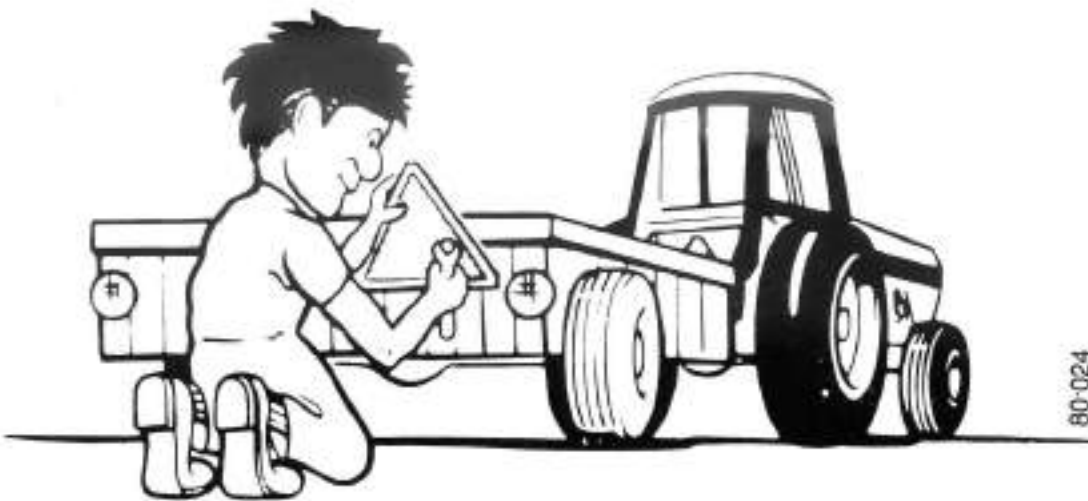


DANGER: Before towing a trailer or operating the machine on a road, fasten the brake pedals together with the lock bar. If this is not done the machine will turn suddenly when only one brake is applied and this could result in an accident.



80-023

⚠ WARNING: *On roads, use flasher/lights according to local laws. Keep SMV emblem visible.*



80-024



CAUTION: *Stop, look and listen before entering a highway, stay on your side of the road and pull over to let faster traffic pass. Slow down and signal as you turn off.*

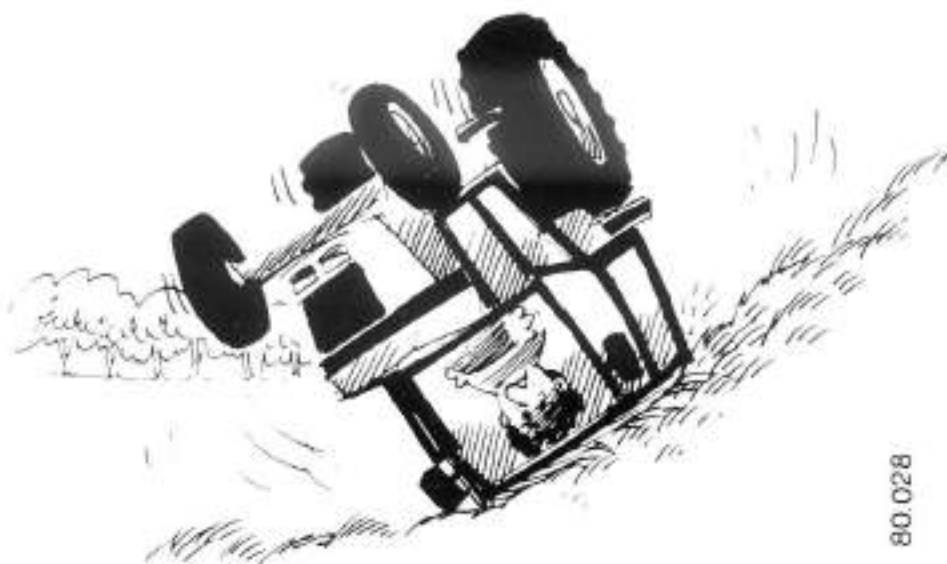


WARNING: *Do not permit others to ride. Only one person — the operator — must be on a tractor when it is in operation.*





WARNING: Engage a low gear when going down difficult grades. **DO NOT** go down any grade with the transmission in the neutral position. If you do, there is no control and the result could be an accident. Keep away from grades that are too steep for safe operation.





WARNING: Extra weight increases your braking distance. Remember that liquid in the tires, weights on the tractor or wheels, tanks filled with fertilizer, herbicides or insecticides — all these add weight and increase the distance you need in which to stop.



WARNING: When the differential lock is engaged, the tractor will not steer normally. Use the differential lock as an aid to traction only. Before you operate on any road, make sure the differential lock is disengaged. Failure to do this can cause an accident.





WARNING: *Rear upset can result if pulling from wrong location on tractor. Hitch only to the drawbar. Use 3 point hitch only with the implements designed for its use — not as a drawbar.*



DANGER: *Excess tractor speed is the big killer. Only experienced drivers should be permitted on highways.*





WARNING: Extreme care must be exercised when adjusting and checking hitch and control levers when the engine is running and when hitch is under hydraulic or mechanical load. Study the hitch travel — keep the hands, arms, legs and feet out of the travel arc of the hitch.



CAUTION: Do not try to make any repairs that you do not understand.



WARNING: Engine can start with transmission in gear when neutral safety switch is by-passed:

1. Do not connect across terminals on starter.
2. Attach booster batteries according to safe method in Operator's Manual. Then use recommended starting procedure from Operator's seat.

Machine run-away can cause injury or death to operator and bystanders.



WARNING: Rotating machinery can cause serious injury. Always remove any loose clothing when you work near moving parts of the tractor or implements.



80-034

WARNING: PTO driven machinery can cause serious injury if it is not used correctly. Make sure that you do the following.



Use the correct speed of PTO shaft for the implement.

Keep the guards fastened correctly at all times.

Before working on or near the PTO shaft or driven machine, put the PTO clutch lever in the disengaged position, the PTO selector lever in the neutral position, and STOP the tractor engine.



WARNING: Hot coolant can spray out if cap is removed suddenly. Remove cap by turning to first notch. Wait until pressure is released, then continue removal. Scalding can result from fast cap removal.



WARNING: Replace fan if it has been bent, modified or damaged in any way. Stop and make corrections if the fan strikes any part of the tractor.



DANGER: Exhaust gases can cause death. Do not run an engine in a closed building.



WARNING: Do not put fuel in the machine when you are smoking, near a fire or when the engine is running.



CAUTION: Never smoke while refueling the machine, servicing the fuel system, checking the batteries or using cold weather starting aids.



CAUTION: Never use gasoline, naphtha or any other volatile material for any cleaning purposes. These materials may be toxic and/or flammable.



CAUTION: When you dismount from the machine, do not jump to the ground. Prevent possible injury by facing the cab and using the steps.



CAUTION: Check the machine for leaks and broken or missing parts. Make sure that all caps, dipsticks, battery covers, etc., are correctly fastened. A failure during operation can cause injury.



CAUTION: Make sure that the implement does not make contact with the cab in the operating or fully raised position.



CAUTION: A machine that is not operating correctly can cause an accident. Before each operating period, check the brakes, steering and controls. If necessary, make any adjustments or repairs before operating.



WARNING: *Lower hydraulically or mechanically raised implements to the ground before servicing or when leaving the equipment.*



CAUTION: *The implement must be lowered to the ground before uncoupling of the remote hydraulic hoses.*



CAUTION: *Liquid refrigerants can cause severe and painful frostbite. Do not try to service the air conditioning system unless you understand the system and know the safety rules for handling liquid refrigerant. See your Authorized Case Dealer who is experienced in servicing air conditioning systems and handling liquid refrigerants.*



WARNING: *Operate the machine at a speed that is correct for the conditions and the work area. Be careful when you are operating in dust or smoke. When you cannot see clearly, go slower. If you do not, the result can be an accident.*

DANGER: BATTERY ACID CAUSES SEVERE BURNS. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing.

Antidote: EXTERNAL — Flush with water. **INTERNAL —** Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately. **EYES —** Flush with water for 15 minutes and get prompt medical attention.

BATTERIES PRODUCE EXPLOSIVE GASES. Keep sparks, flame and cigarettes away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries. **KEEP OUT OF REACH OF CHILDREN.**



WARNING: When working around storage batteries, remember that all of the exposed metal parts are "live". Never put a metal object across the terminals because a spark or short circuit will result.



WARNING: Battery explosion and/or damage to electrical components can result from improper connection of booster batteries or charger. Connect positive to positive and negative to negative. Externally, battery acid can cause burns and blindness, and taken internally is poison.



CAUTION: Do not try to make electrical system connections with the engine running.



CAUTION: When you remove a battery always disconnect the negative (—) terminal first. When installing a battery always connect the negative (—) terminal last.



WARNING: Stopping distance increases with speed and the weight of the load. Make sure that the total weight of a trailed vehicle not equipped with brakes is not greater than the weight of the machine that is towing it.



WARNING: The seat belt is for your protection. Use it at all times when operating the machine. Fasten the belt correctly and make sure it is not loose or twisted. If the machine starts to turn over, hold the steering wheel and stay seated. DO NOT try to get out of the cab.



CAUTION: Do not drill or weld the safety cab. Any parts that are damaged must be replaced with new parts. Replacement bolts must be of the correct tensile strength. Do not lift the tractor with the cab lifting hooks. If the cab is damaged in this way, your future safety will be reduced.



WARNING: If the engine stops or there is a failure of the power steering system, stop the machine as quickly as possible. A failure of this type will make the tractor difficult to steer and could result in an accident.



80.040



DANGER: Engage low gear *BEFORE* you go down a slope. **DO NOT** travel at any time with the transmission in the neutral position.



WARNING: Hydraulic systems operate with high pressures. Oil leaking from a hydraulic system can penetrate the skin and damage body tissues. Use a piece of wood or cardboard, not your hands when looking for a hydraulic oil leak.



WARNING: The fuel system of this tractor operates at a very high pressure. Fuel at very high pressure can go through the skin and destroy tissue. This can cause serious injury. Always use a guard when making adjustments to injection equipment. Use a piece of thick card or wood to check for leaks. Never use your hands.

HAND SIGNALS

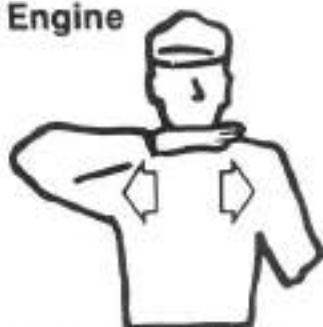
For communication under noise conditions and special operations the American Society of Agricultural Engineers has made standard agricultural hand signals. You will find that the hand signals can decrease time loss and prevent accidents.

Start the Engine



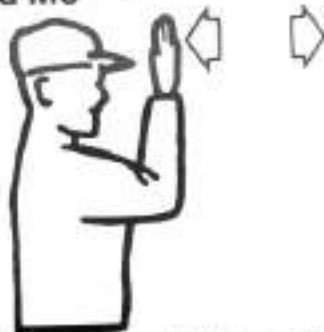
Start the engine. Move arm in a circle at waist level.

Stop the Engine



Stop the engine. Move your right arm across your neck from left to right.

Move Toward Me — Follow Me



Move toward me or follow me. Look toward person or vehicle you need to move. Hold one hand in front of you with the back of the hand toward the machine and move your arm from the elbow to the fingers backward and forward.

This Far To Go



This far to go. Put your hands in front of your face with the back of your hands outward. Move your hands in or out as an indication how far to go.

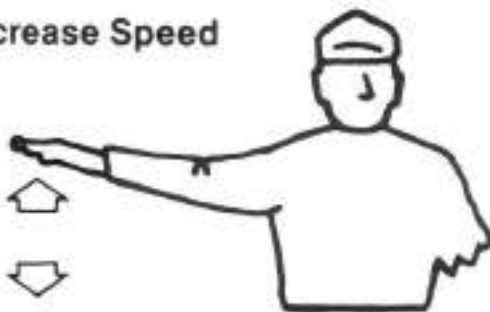
Move Out



Move out. Face in the needed direction of movement. Put your arm straight out behind you. Then, swing your arm over your head and forward until your arm is straight out in front of you with the back of your hand up.

HAND SIGNALS**Come to Me**

Come to me (Can also be come to me because I need assistance) Lift your arm vertically over your head with the back of your hand to the rear and turn your arm in large horizontal circles.

Decrease Speed

Decrease speed. Put your arm out horizontally with the back of your hand up and then move your arm down about 45 degrees minimum many times. Keep your arm straight and do not move your arm above your shoulder.

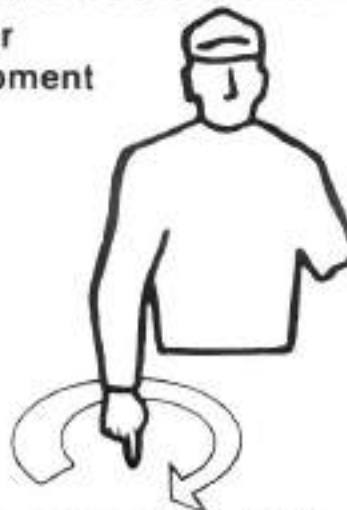
Increase Speed

Increase speed. Lift your hand to shoulder level with your fingers

closed. Move your closed hand fully up and then return to shoulder level. Do this fast, many times.

Raise Equipment

Raise equipment. Point up with one finger and at the same time, move your hand in a circle at head level.

Lower Equipment

Lower equipment. Point to the ground with one finger and at the same time, move your hand in a circle.

Stop

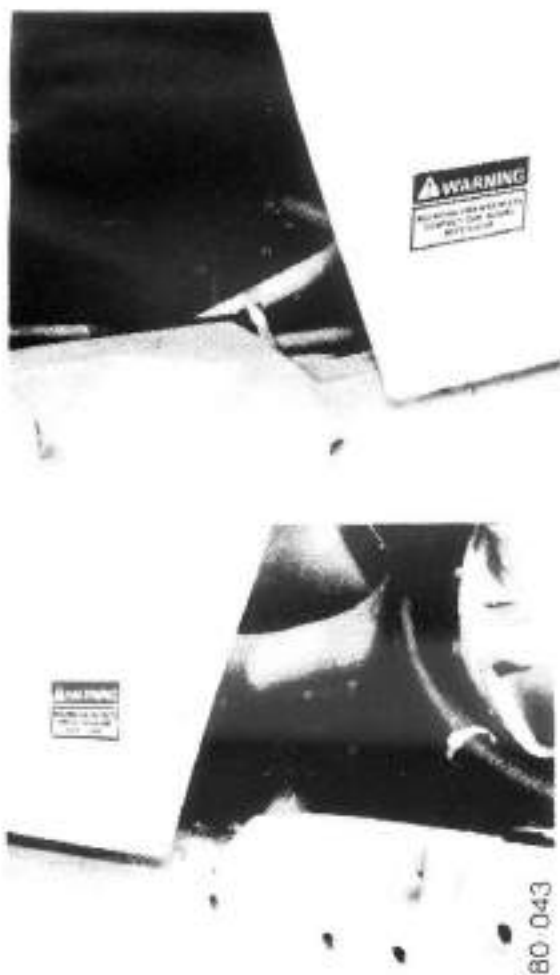
Stop. Raise your arm fully up with the back of your hand to the rear. Keep this position until the signal

DECALS

IMPORTANT: *Install new decals if the old decals are destroyed, lost, painted over or can not be read. When parts are replaced that have decals, make sure you install a new decal with each new part.*

NOTE: *New decals are available from your Authorized Case Dealer or write to:*

*J I Case Company
Agricultural Equipment Division
25th and Mead Street
Racine, Wisconsin 53403*





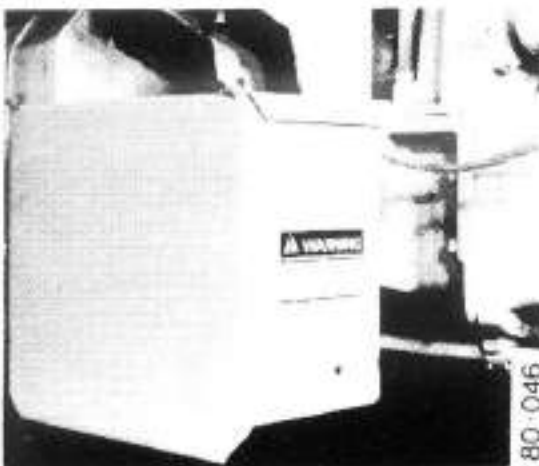
! WARNING

HOT COOLANT CAN SPRAY OUT IF CAP IS REMOVED SUDDENLY. REMOVE CAP BY TURNING TO FIRST NOTCH. WAIT UNTIL PRESSURE IS RELEASED. THEN CONTINUE REMOVAL. SCALDING CAN RESULT FROM FAST CAP REMOVAL.



! WARNING

ENGINE CAN START WITH TRANSMISSION IN GEAR WHEN NEUTRAL SAFETY SWITCH IS BY-PASSED.
1. DO NOT CONNECT ACROSS TERMINALS ON STARTER.
2. ATTACH BOOSTER BATTERIES ACCORDING TO SAFE METHOD IN OPERATORS MANUAL. THEN USE RECOMMENDED STARTING PROCEDURE FROM OPERATORS SEAT. MACHINE RUN AWAY CAN CAUSE INJURY OR DEATH TO OPERATOR AND BYSTANDERS.



! POISON / DANGER

BATTERY ACID CAUSES SEVERE BURNS

Battery acid is highly corrosive. Avoid contact with skin, eyes or clothing. If contact occurs, flush with water. BATTERY STRENGTH DECREASES IF EXPOSED TO HEAT. Follow with full charge and recheck. If acid is spilled, immediately flush with water for 15 minutes and get proper medical attention.

BATTERIES PRODUCE EXPLOSIVE GASES

Keep sparks, flames and cigarettes away from batteries. Do not smoke while working near batteries. Always shield eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN

! WARNING

BATTERY EXPLOSION AND OR DAMAGE TO ELECTRICAL COMPONENTS CAN RESULT FROM IMPROPER CONNECTION OF BOOSTER BATTERIES OR CHARGER. CONNECT POSITIVE TO POSITIVE AND NEGATIVE TO NEGATIVE.

EXTERNALLY BATTERY ACID CAN CAUSE BURNS AND BLINDNESS. AND TAKEN INTERNALLY IS POISON.



WARNING

TO PREVENT POSSIBLE PERSONAL INJURY DUE TO P.T.O. DRIVEN MACHINE SHAFT BOTTOMING OR SEPARATING, DRAWBAR FRONT PIN MUST BE PROPERLY POSITIONED IN PIVOT BRACKET.

P.T.O. SHAFT	P.T.O. SHAFT END TO HITCH PIN HOLE
540 RPM 6 SPLINE — 14.00 IN. (355mm)	
1000 RPM 21 SPLINE — 16.00 IN. (407mm)	

321 - 8459

WARNING

THIS TRACTOR IS EQUIPPED WITH A DUAL SPEED P.T.O. —

6 SPLINE



540 R P M

21 SPLINE

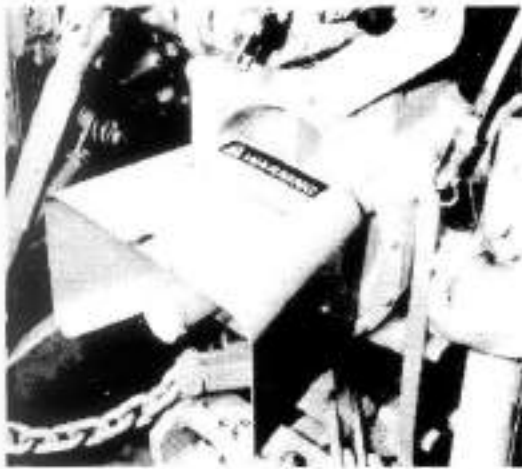


1000 R P M

BE SURE IMPLEMENTS ARE MATCHED FOR THE PROPER DRIVE SPEEDS CENTER AND LOCK DRAWBAR WHEN USING P.T.O.

WARNING

REAR UPSET CAN RESULT IF PULLING FROM WRONG LOCATION ON TRACTOR. **HITCH ONLY TO THE DRAWBAR.** USE 3 POINT HITCH ONLY WITH IMPLEMENTS DESIGNED FOR ITS USE—NOT AS A DRAWBAR.



WARNING

**ROTATING MACHINE PARTS
STAY CLEAR, KEEP SHIELDS INSTALLED
TO HELP PROTECT FROM CLOTHING
ENTANGLEMENT AND INJURY.**



WARNING

**TO PREVENT PERSONAL INJURY FROM
ENTANGLEMENT IN MACHINERY-
BEFORE DOING ANY WORK ON OR
NEAR THE PTO SHAFT OR DRIVEN
MACHINE: PLACE PTO CLUTCH LEVER
IN LATCHED POSITION, PTO SHIFT
LEVER IN NEUTRAL, AND **STOP**
TRACTOR ENGINE.**

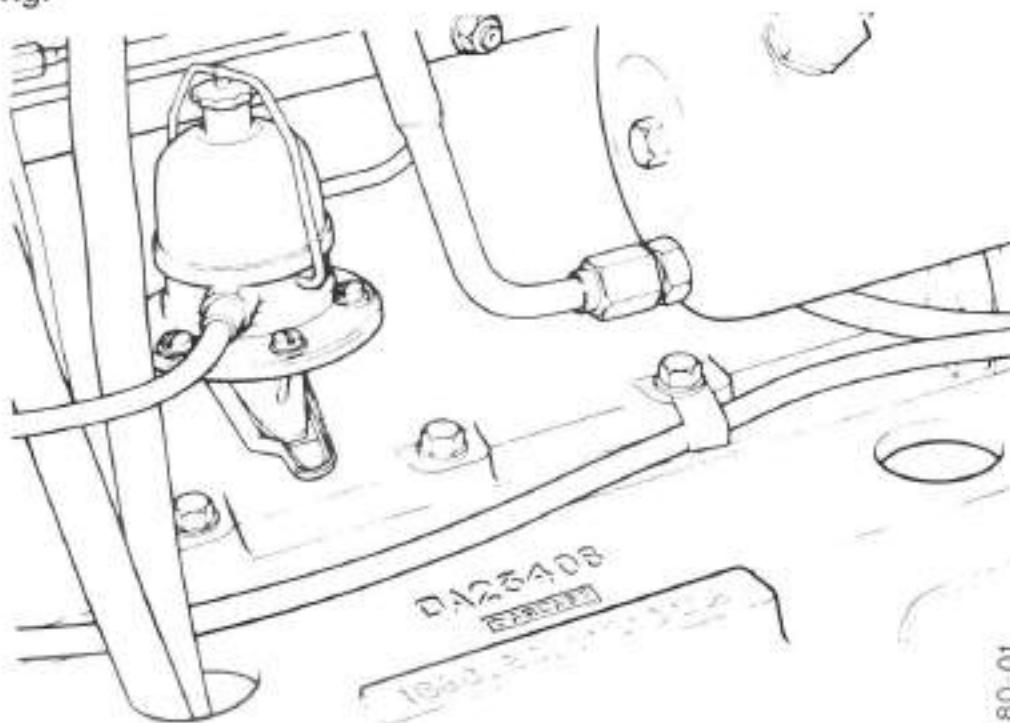
PRODUCT IDENTIFICATION NUMBER (PIN)

The product identification number is on the right-hand top face of the main frame.

The engine serial number is on the right-hand side of the cylinder block behind the starter motor.

The cab serial number is on a plate fastened inside the cab.

The PIN plate is fastened to the left-hand side of the clutch housing.
The front axle (MFD) serial number is on the right-hand front face of the axle casting.



PRODUCT IDENTIFICATION NUMBER _____

ENGINE SERIAL NUMBER _____

CAB SERIAL NUMBER _____

CAB DOOR KEY NUMBER _____

FRONT AXLE (MFD) SERIAL NUMBER _____

TRACTOR IDENTIFICATION



Case J I Case A Tenneco Company New York, New York 10017-1000 U.S.A.		Water England
Model No.		
Product Identification Number		

80.049

FIGURE 1: PIN NUMBER

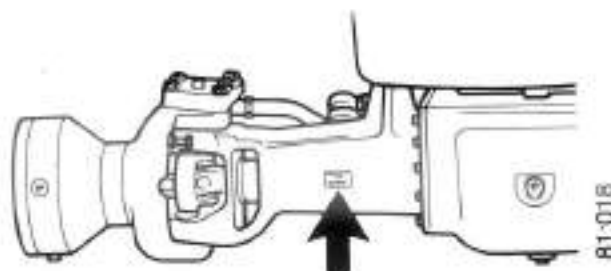
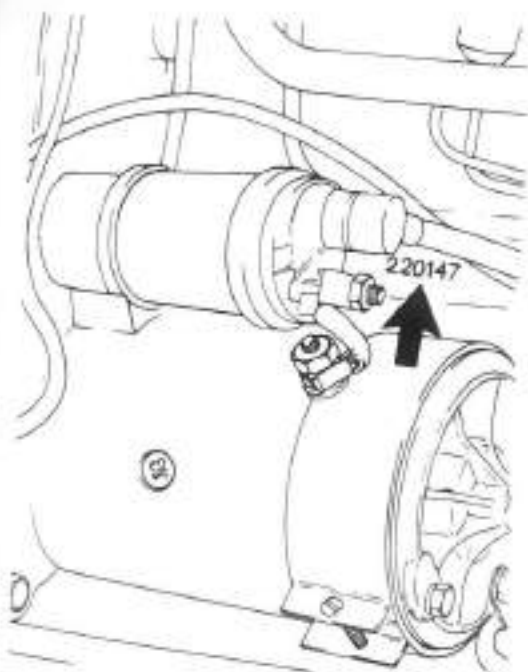


FIGURE 2: ENGINE SERIAL NUMBER AND FRONT AXLE (MFD) SERIAL NUMBER

DIESEL ENGINE SPECIFICATIONS

General

Type	4 Cylinder, Four Stroke Cycle, Valve in Cylinder Head, Cross Flow Porting
Firing Order.....	1, 2, 4, 3
Bore	3.94 in (100 mm)
Stroke.....	4.5 in (114.3 mm)
Piston Displacement	219 in ³ (3.6 liters)
Compression Ratio.....	16 to 1
Maximum Speed (Full Load)	2200 r/min
Idle Speed	750 r/min
Maximum Brake Horsepower at 2200 r/min	88 (66 kW)
* Power Rating to SAE J270	
Rocker Arm to Valve Clearance.....	0.010 in (0.25 mm)
IMPORTANT: Rocker arm to valve clearance adjustments must be made when the engine is cold.	
Piston and Connecting Rod	
Compression Rings per Piston.....	3
Scraper Rings per Piston	1
Type of Piston Pin	Full Float
Type of Bearings	Steel Back with Aluminium Alloy Liners
	Replacement Bearings Available

SPECIFICATIONS

Main Bearings

Quantity of Bearings	3
Type of Bearings	Steel Back with Aluminium Alloy Liners Replacement Bearings Available

Engine Lubrication System

Oil Pressure	40 to 55 lb/ in ² at Operating Temperature
Type of System	Pressure and Spray
Oil Pump	Gear Type
Oil Filter	Full Flow, Cartridge Type with By-pass Valve
Oil Capacity	7.8 U.S. quarts (7.4 liters)

Fuel System

Fuel Injection Pump	Distributor Type
Pump Timing	19 Degrees Before Top Dead Centre
Fuel Injectors	CAV BDLL 140S 6592
Fuel Transport Pump	Diaphragm Type, Engine Camshaft Operated
Water Trap	Part of Fuel Transport Pump
Fuel Filters	Two Stage Micronic Paper Elements
Fuel Tank Location	One at Each Side of Tractor connected by a balance pipe

Fuel Tanks Total Capacity

Low Profile Tractor	25 U.S. gallons (94.6 liters)
High Platform Tractor	36 U.S. gallons (136 liters)

GENERAL SPECIFICATIONS

Starting Aid

Thermostart Component activated by the starter switch
which injects heated fuel into the intake manifold

Air Intake System

Type Two Stage with Service Indicator
and Dust Release Valves

Filter Dry Type with Main and Safety Element

Cooling System

Type Pressure System, Thermostat Controlled
with Expansion Tank

Pump Impeller Type

Radiator Heavy Duty Fin and Tube

Fan 7 Blades, 16 in (406 mm) diameter

Thermostat Starts to Open at 174 to 181°F (79 to 83°C)
Fully Open at 199 to 205°F (93 to 96°C)

Pressure Cap Set to 7 lb in² (48 kPa)

Capacity 15 U.S. quarts (14.2 liters)

Differential Lock

Type Mechanical

Operation Engaged by Pedal, Disengaged by Spring Pressure

Electrical System

Type of System	12 Volt, Negative Ground
Battery	One 12 Volt, 128 Amp/hr
Alternator	Low Profile 28 Amp., High Platform 65 Amp.
Voltage Regulator	Inside Component of the Alternator
Starter Motor	Engaged by solenoid
Head Lights	12v 40/60W Sealed Beam
Side Lights	12V 5W
Side Direction Turn Signals	12V 21W
Rear and Stop Light	12V 5/21W
Rear Direction Turn Signals	12V 21W
Instrument Warning Lights	No. 168
Instrument Illumination Lights	No. 194
Fuses (4)	two 35A, one 25A, one 15A

Power Steering

Type	Hydrostatic, Metering Actuated by Steering Wheel
Pump	Rotor, Engine Driven
Steering Cylinder	Equal Displacement
Oil Capacity	1½ U.S. quarts (1.4 liters)

SPECIFICATIONS

Synchromesh Transmission

Type Four Speed Range Gear with a Three Forward,
One Reverse Gear Section
Gear Selection Twelve Speeds Forward, Four Speeds Reverse
Shift Control Manual with synchromesh between Second
and Third Gear

Power Shift Transmission

Type Four Speed Planetary Gearbox with a
Three Forward, One Reverse Gear Section
Gear Selection Twelve Speeds Forward, Four Speeds Reverse
Shift Control Hydraulic Controlled by Lever on the Panel

Clutch

Type Double Dry Disk, 12 in (300 mm) Diameter
Operation Transmission Clutch Hydraulic by Pedal,
PTO Clutch by Lever and Cable

Brakes

Type Wet Multiple Disk
Number and Diameter of Discs 6 at 7.0 in (178 mm)
Operation Pedal Actuated Hydraulic System with
Pressure Equalizing Valve
Park Brake Actuated by Lever and Cables

SPECIFICATIONS

Hydraulic System

Pump Type	Tandem Gear, Front Mounted, Engine Driven
Control Valve	Open center with return to neutral position
Combining Valve	Provides for hitch and remote valve operation or supplies total capacity to remote valves
Number of Remote Outlets (Standard)	One or Two
(High Platform)	Three Maximum
Maximum Oil Flow to Remote Outlets	
Combine Position	15.3 gal/min (58 liter/min)
Separate Position	8.7 gal/min (33 liter/min)
Maximum Pressure	2500 lb in ² (17,235 kPa)
Front Axle: MFD Models	Center Pivot with Planetary Reduction Hubs

Approximate Weights

Low Profile with 2 Post ROPS	6490 lb (2944 kg)
High Platform with 4 Post ROPS	7240 lb (3284 kg)
High Platform with Cab	7580 lb (3438 kg)
Maximum Operating Weight	11,500 lb (5216 kg)

SPECIFICATIONS

Power Take Off

Type Reversible Shaft Dual Speed 540 r/min 6 Spline
1000 r/min 21 Spline

Shaft Diameter 1 $\frac{1}{8}$ in (35 mm)

Rotation Clockwise when seen from the Rear

Hitch System

Type of Sensing Top Link
Control Hand Lever

Draft Arms Swinging with Fixed or Float Position on
Lift Arms. Adjustable Lift Link and Levelling Adjustment

Type of Hitch Three Point, Category II

Lifting Capacity 3690 lb (1673 kg) at 24 in (610 mm)
Load Centers

Drawbar

Type Swinging, extendable, height adjustable

Swinging Range 13 in (330 mm)

Vertical Positions 4

Height Adjustments 13 to 19 in (330 to 482 mm)

Pin Hole Diameter 1 in (25.4 mm)

APPROXIMATE TRACTOR SPEEDS IN MILES AND KILOMETERS PER HOUR AT 2200 r/min ENGINE SPEED

SYNCHROMESH TRANSMISSION

RANGE LEVER	GEAR LEVER								TIRE SIZE
	1		2		3		R		
	miles	km	miles	km	miles	km	miles	km	
1	1.1	1.8	1.8	2.9	3.0	4.9	1.8	2.9	
2	2.1	3.4	3.5	5.6	6.1	9.8	3.6	5.7	
3	2.7	4.4	4.4	7.2	7.7	12.4	4.5	7.3	18.4-30
4	5.4	8.7	8.9	14.3	15.3	24.7	9.0	14.5	
1	1.1	1.8	1.8	2.9	3.2	5.2	1.9	3.0	16.9-34
2	2.2	3.6	3.7	5.9	6.4	10.3	3.8	6.0	
3	2.8	4.6	4.7	7.5	8.1	13.0	4.8	7.7	18.4-34
4	5.7	9.4	9.3	15.9	16.1	25.9	9.5	15.3	

POWER SHIFT TRANSMISSION

RANGE LEVER	POWER SHIFT LEVER								TIRE SIZE
	1		2		3		4		
1	1.0	1.6	1.4	2.2	1.8	2.9	2.4	3.9	
2	2.6	4.3	3.6	5.8	4.7	7.6	6.4	10.3	
3	6.2	10.1	8.5	13.7	11.1	17.9	15.4	24.4	18.4-30
R	2.8	4.4	3.8	6.0	4.9	7.8	6.7	10.7	
1	1.0	1.6	1.4	2.2	1.8	2.9	2.5	4.0	16.9-34
2	2.8	4.5	3.8	6.1	5.0	8.0	6.8	10.9	
3	6.6	10.6	9.0	14.4	11.7	18.8	16.0	25.7	18.4-34
R	2.9	4.6	4.0	6.4	5.1	8.2	7.0	11.3	

APPROXIMATE OVER ALL MEASUREMENTS

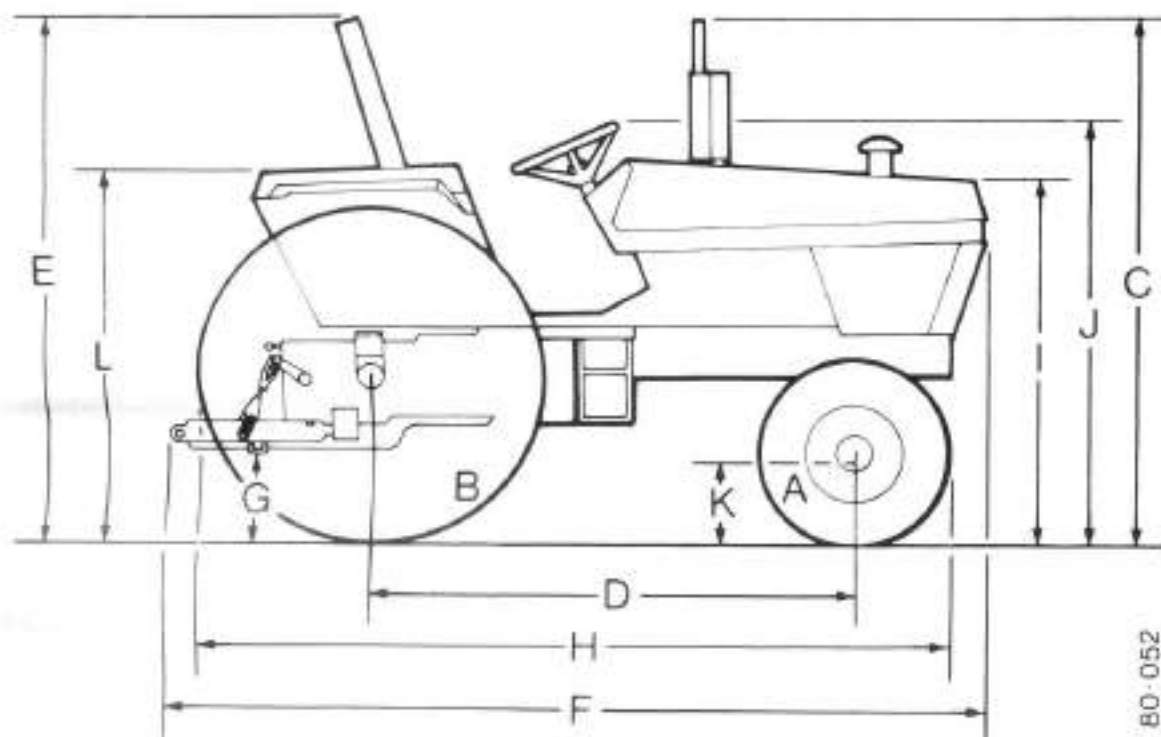
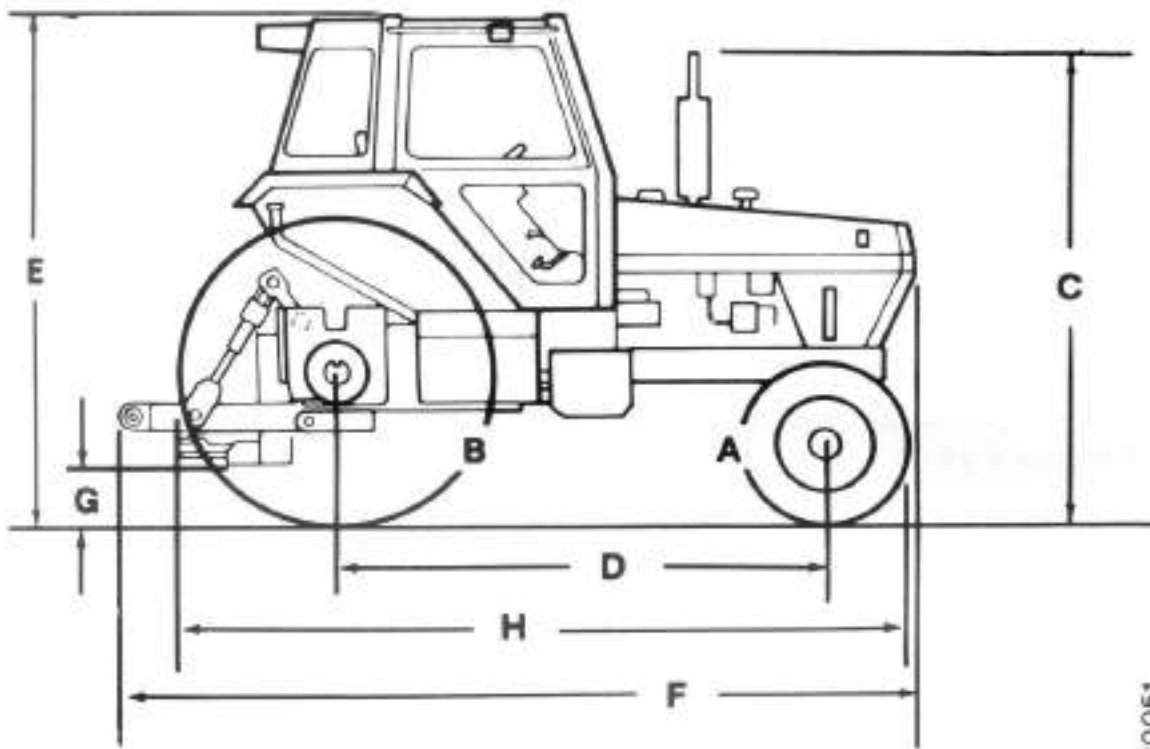


FIGURE 3. LOW PROFILE 2 POST ROPS

A	10.00-16	TIRE	B	18.4-34	TIRE
C	94 in 2387 mm	D	88 in 2235 mm	E	96 in 2435 mm
F	143 in 3652 mm	G	18 in 457 mm	H	136 in 3454 mm
I	62.5 in 1590 mm	J	71 in 1806 mm	K	22 in 566 mm
L	66 in 1677 mm				

IMPORTANT: *The total tractor weight with ballast and weights must never be more than 11,500 lb (5216 kg).*

APPROXIMATE OVER ALL MEASUREMENTS



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FIGURE 4. HIGH PLATFORM WITH CAB AND FOUR POST ROPS

A	10.00-16	TIRE	B	18.4-34	TIRE
C	109 in 2769 mm		D	88 in 2235 mm	
E	107 in 2717 mm				
F	143 in 3632 mm		G	16 in 355 mm	
			H	136 in 3454 mm	

IMPORTANT: The total tractor weight with ballast and weights must never be more than 11,500 lb (5216 kg)

OPERATOR'S CAB

This operator's cab has roll over protection as given in SAE Standard J1194 and OSHA Regulation 1926.1001.

SPECIFICATIONS

TIRE PRESSURES AND MAXIMUM LOADS

Type of Work	Tire size	Ply Rating	Maximum load on each tire at the recommended pressure		Recommended pressure		Maximum pressure	
			lb	kg	lb/in ²	bar	lb/in ²	bar
Front General Work	10-00-16	6	2130	966	20	1.4	28	1.9
	11L-15		1565	710	20	1.4	28	1.9
Front Loader Work	10-00-16	6	2130	966	20	1.4	28	1.9
	11L-15	6	1910	865	28	1.9	28	1.9
Front MFD Field Work	11-2/10-24	6	1480	670	12	0.8	24	1.7
	12-4/10-24	6	2640	1197	12	0.8	24	1.7
Front MFD Road and Loader Work	12-4/10-24	6	2640	1197	12	0.8	24	1.7
	11-2/10-24	6	2210	1000	24	1.7	24	1.7
Rear 2 and MFD Models Field Work	15-5-38	8	3160	1430	14	1.0	26	1.8
	16-9/14-34	6	4170	1890	16	1.1	18	1.2
	18-4/15-30	6	4300	1950	14	1.0	16	1.1
	18-4/15-34	6	4950	2245	16	1.1	16	1.1
Rear 2 and MFD Models Road Work	15-5-38	8	3890	1765	26	1.8	26	1.8
	16-9/14-34	6	4460	2025	18	1.2	18	1.2
	18-4/14-30	6	4650	2110	16	1.1	16	1.1
	18-4/15-34	6	4950	2245	16	1.1	16	1.1

TIRE ARRANGEMENTS: MFD TRACTORS

Front

11-2/10-24

Rear

{ 16-9/14-34
18-4/15-30

12-4/10-24

18-4 x 15-34

IMPORTANT: *The use of any other tire arrangement will cause damage to the transmission.*

Do not install dual wheels and tires.

NOTE: *Keep tires filled to given pressures. Check tire air pressure every 50 hours of operation or one time per week. Do not decrease rear tire pressure to increase traction. When using the tractor to pull a plow, increase the furrow wheel tire pressure 4 PSI (28 kPa) (0.28 bar).*

NOTE: *The given tire pressures are for normal tractor operation. If different tire pressures are needed because of special traction conditions, see your Authorized Case Dealer before you change pressures.*

IMPORTANT: *Do not remove, install or make repairs to a tractor tire on a rim. Take the tire and rim to a tire shop where persons with special training and special safety tools are available. If the tire is not in correct position on the rim, or if too full of air, the tire bead can loosen on one side and cause air to leak at high speed and with large force. Because the air leak can thrust the tire in any direction, and with much force, you will be in danger of injury.*

TREAD POSITIONS

FRONT WHEEL TREAD POSITIONS: 2 WHEEL DRIVE MODELS

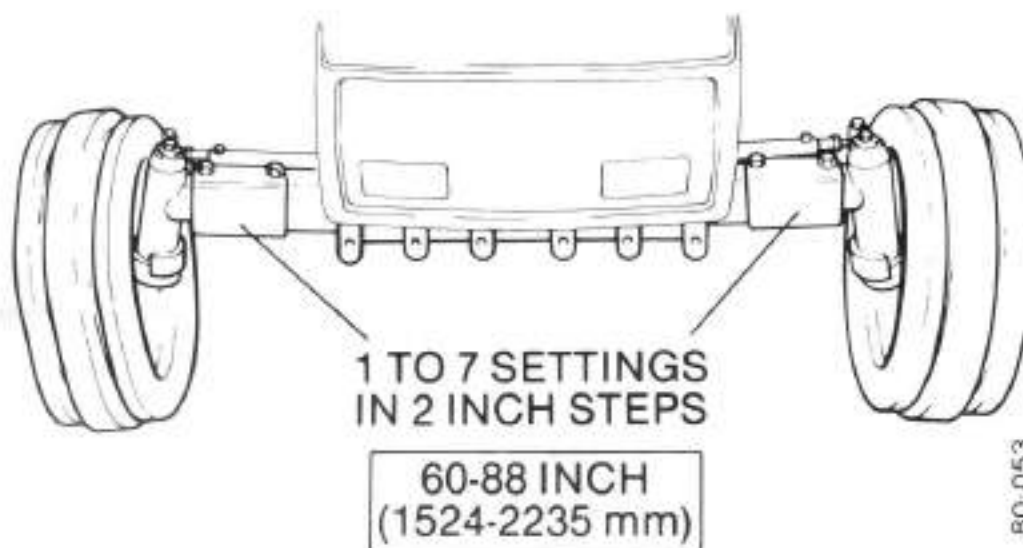


FIGURE 5. TREAD POSITIONS STANDARD FRONT AXLE

NOTE: *Tread widths are measured between the centers of each tire at a point as near the ground as possible.*

FRONT WHEEL TREAD POSITIONS: MFD

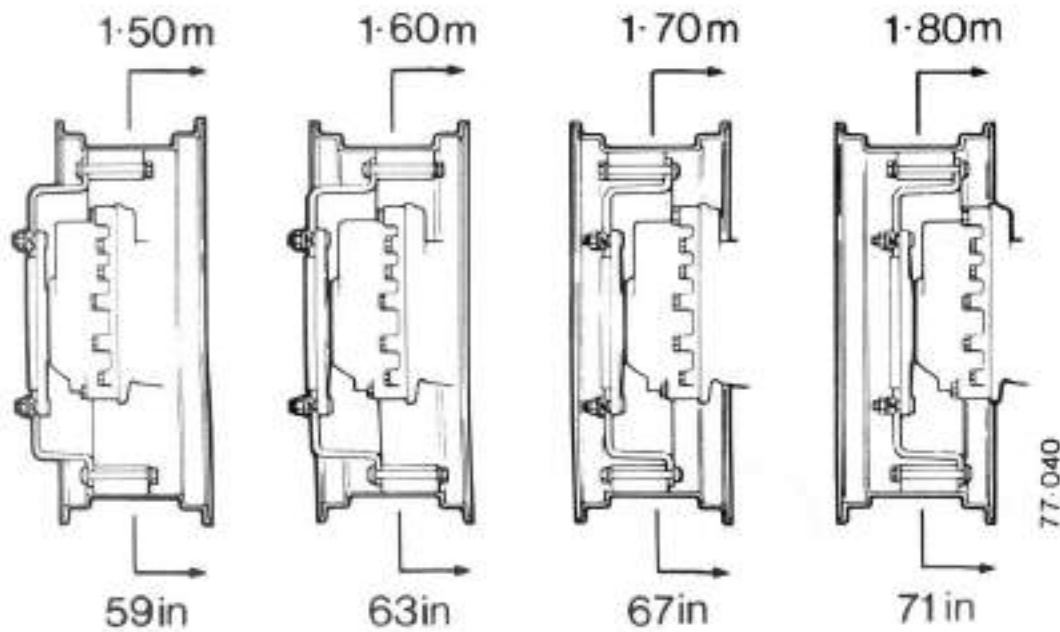


FIGURE 6. FRONT WHEEL TREAD POSITIONS: MFD

REAR WHEEL TREAD POSITIONS (18-4-34 Tires)

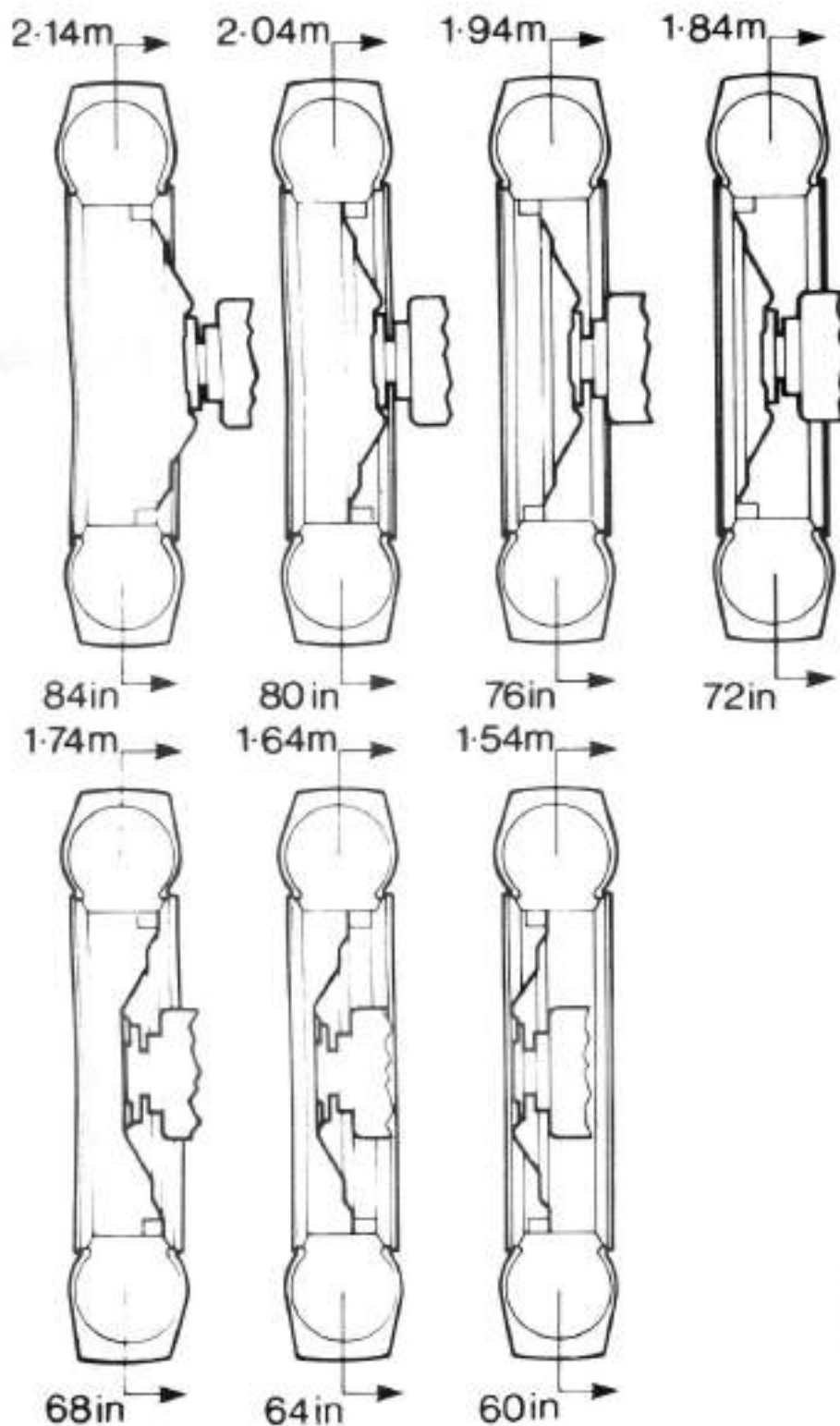


FIGURE 7. REAR WHEEL TREAD POSITIONS

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**REAR WHEEL TREAT POSITIONS: POWER
ADJUSTED WITH CAST CENTERS (18-4-34 and 18-4-38 Tires)**

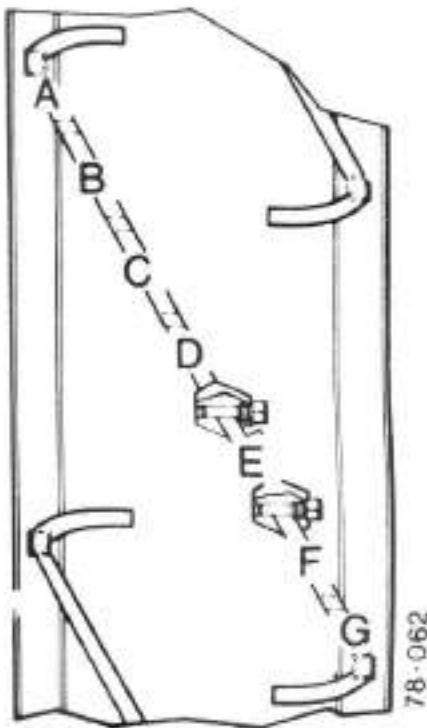


FIGURE 8. POWER ADJUSTED WHEELS

- A. 61in (1.55m)
- B. 65in (1.65m)
- C. 69in (1.75m)
- D. 73in (1.85m)
- E. 77in (1.95m)
- F. 81in (2.05m)
- G. 85in (2.15m)

FUEL SPECIFICATIONS

DIESEL

Use a good grade of Number Two Diesel Fuel in your Case Diesel Engine. Do not use other types or grades of fuel. The use of other fuels will result in loss of engine power and high fuel consumption.

NOTE: When the temperature is very cold, the use of a mixture of Number One and Number Two Diesel Fuel is permitted for a short period of time.

SPECIFICATIONS

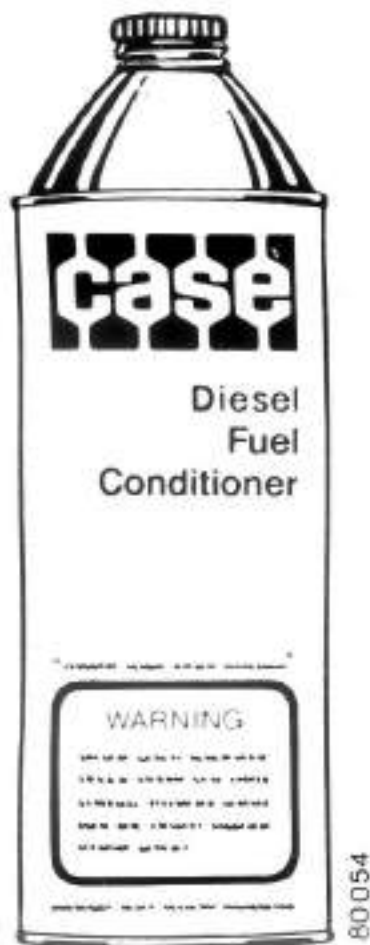
For Acceptable Number Two Diesel Fuel

A.P.I. Gravity (Min)	30
Pour Point (Max)	10°F (5°C) below ambient operating temperature
Distillation (90% Point)	540 to 625°F (282 to 329°C)
Flash Point (min)	125°F (52°C) or legal
	Kinematic Viscosity Centistokes
at 100°F (38°C)	2.0 to 4.3 Seconds*
Cetane Number (Min)	40 (45 to 55 For Cold Temperature or High Altitude use)
Water and Sediment Volume (Max)	0.05%
Ash Weight (Max)	0.01%
Sulfur Weight (Max)	0.5%
Carbon Residue or 10% Residuum (Max)	0.02%
Corrosion, Copper Strip, 3 hours at 212°F (100°C)	Number 3

(* 32 to 40 Saybolt Universal Seconds)

FUEL CONDITIONER

Case Diesel Fuel Conditioner is available from your Authorized Case Dealer. Instructions for the use of the fuel conditioner is on the container.



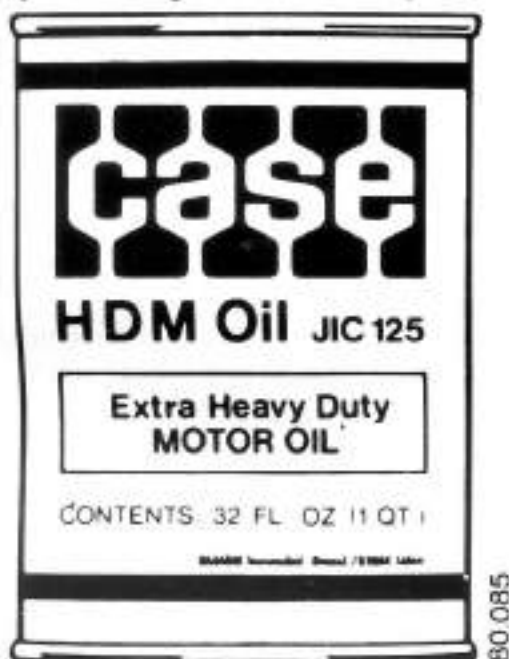
The use of Case Diesel Fuel Conditioner will:

1. Prevent deposits that can form in the fuel system.
2. Make an improvement in lubrication of the engine.
3. Prevent stopping of the fuel injector nozzles, valves and manifold.
4. Keep water in the fuel in suspension so that the water can be burned with the fuel.
5. Give better engine performance from the fuel the engine burns.

SPECIFICATIONS

LUBRICANTS

Case HDM Engine Oil is the J I Case Company recommendation for use in your Case Tractor Engine. The Case HDM oil formula will give lubrication to your engine correctly under all operating conditions.

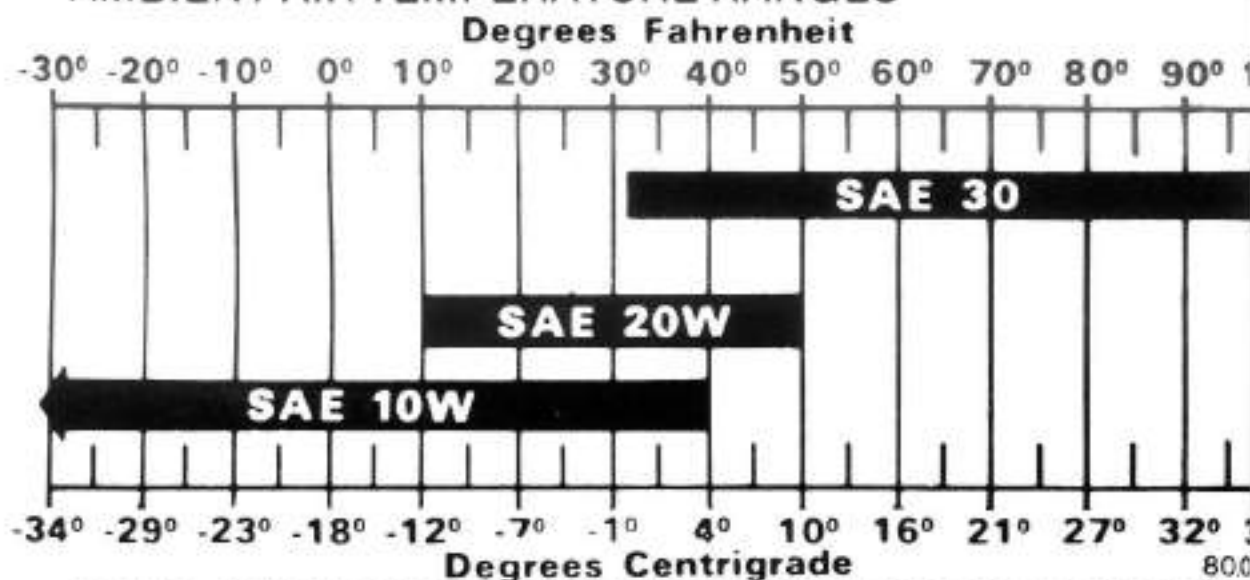


NOTE: Do not put "Performance Additives" or other oil additive products in the engine crankcase. The oil change intervals given in this manual are according to tests with Case lubricants.

When Case HDM Engine Oil is not available use only oil that is the same as API engine oil service category SE/CD and Mil-L-2104C.

Engine Lubrication Oil Viscosity

AMBIENT AIR TEMPERATURE RANGES



Use the correct viscosity oil for the ambient temperature range in which you are operating your tractor. Do not use a multi-viscosity oil.

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RECOMMENDED LUBRICANTS AND CAPACITIES

COMPONENT	SPECIFICATION	CAPACITY	
		U.S.	Metric
Engine Crankcase	30° to 100° F (-1° to 38° C) HDM SAE 30 10° to 50° F (-12° to 10° C) HDM SAE 20W -30° to 40° F (-34° to 4° C) HDM SAE 10W	7.8 qt	7.4 liters
Transmission (Power Shift and Synchromesh)	Case TFD Fluid U.S. B17445 (5 gal) B17446 (55 gal)	44 qt	42 liters
Final Drive Units (each)	Case ETHB Fluid	7 qt	6.8 liters
Power Steering	Case TFD Fluid	1½ qt	1.4 liters
Front Differential Case (MFD)	Case FDL SAE 90	8½ qt	8.0 liters
Front Hubs (MFD)	Case FDL SAE 90	1½ qt	1.4 liters
Clutch and Brake Hydraulic System	Dextron ATF AGRICASTROL FBS } *	As required	
Pressure Fittings (Oil)	Case FDL SAE 140		
Pressure Fittings (Grease)	32° F (0° C) and above Below 32° F (0° C)	No. 2 Lithium Base No. 1 Lithium Base	

* **DANGER:** Two different types of fluid have been used in the hydraulic brake and clutch systems. Later tractors have AGRICASTROL FBS in both systems. The brake and clutch reservoirs on these tractors have green coloured covers or green tape attached to the covers. Earlier tractors have DEXTRON ATF in both systems. The covers for the brake and clutch fluid reservoirs are not green and have no green tape attached.



Add fluid of the same type only. NEVER MIX THE FLUIDS. This will cause failure to both systems and can result in serious injury or death.

OPERATING INSTRUMENTS: ALL TRACTORS

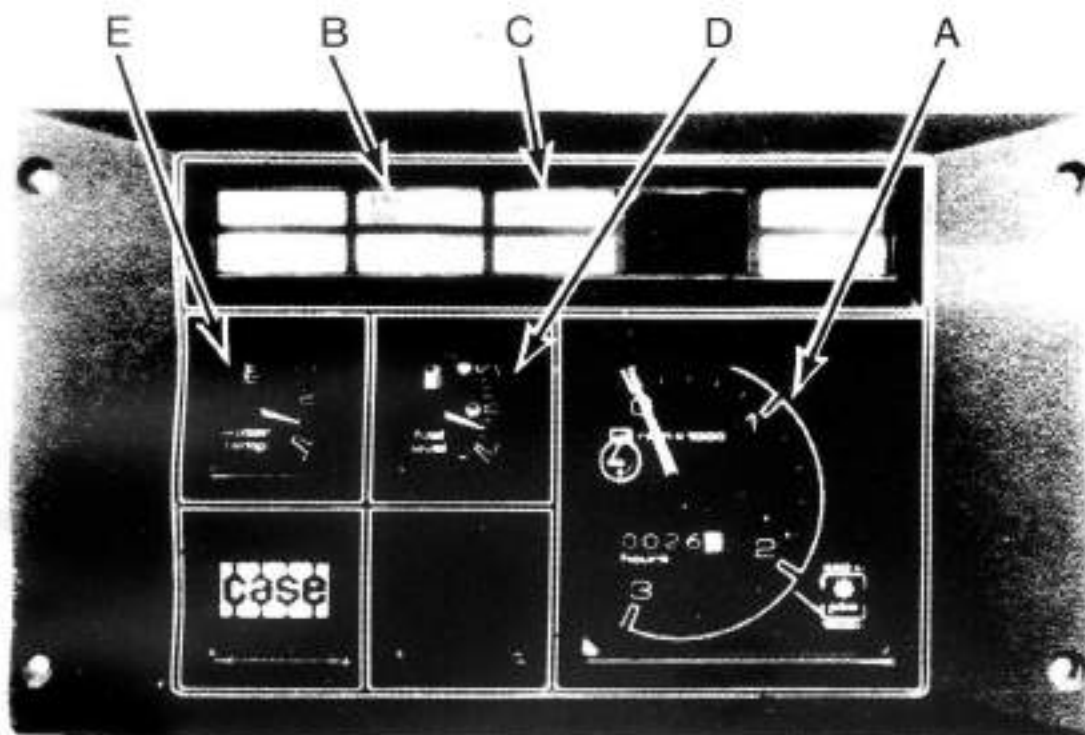


FIGURE 9.

A. Tachometer and Hourmeter

The tachometer shows the engine speed in revolutions per minute (RPM). The normal operating range of the engine must be in the green area for maximum engine life. The engine must not operate in the red area. The correct operating speed for the power takeoff is indicated by a symbol at 2050 RPM.

NOTE: *It is normal for the engine to operate for a moment in the amber area when you move the transmission controls to a slower gear while pulling a light load.*

The hourmeter shows the hours and tenths of hours that the engine has run. The hourmeter does not show clock hours. The hourmeter shows the hours that the engine runs at an average RPM.

B. Engine Oil Pressure Lamp

The engine oil pressure warning lamp will illuminate when the key switch is turned to the ACC or START position. It must stop illuminating when the engine starts to run. If the warning lamp keeps illuminating or illuminates at any time during operation, STOP THE ENGINE AND CHECK FOR THE CAUSE.

C. Alternator Warning lamp

The alternator warning lamp will illuminate when the key switch is turned to the ACC or START position. It must stop illuminating when the engine starts running. If the warning lamp is illuminating when the engine starts and runs, the batteries will discharge because the alternator is not working. If the engine is started at low idle speed, the warning lamp can be illuminated until the engine RPM is increased. When the engine speed is increased, the warning lamp must stop illuminating. If the warning lamp continues to illuminate when the engine speed is increased or the lamp illuminates at any time during operation, STOP THE ENGINE AND CHECK FOR THE CAUSE.

D. Fuel Gauge

The pointer can be in any position when the key switch is turned to OFF. To get a fuel level indication, the key switch must be turned to ACC position. The gauge shows how much fuel is in the tank. If the pointer is in the red area, the fuel tank is empty. Fuel level is shown by three balls.

1/8 black ball - fuel is needed.

1/2 black ball - fuel tank is 1/2 filled with fuel.

All black ball - fuel tank is filled with fuel.

E. Engine Water Temperature Gauge

The pointer can rest in any position when the key switch is turned to OFF position. To get a water temperature indication, turn the key switch to the ACC position. The gauge has a green area, amber area and red area.

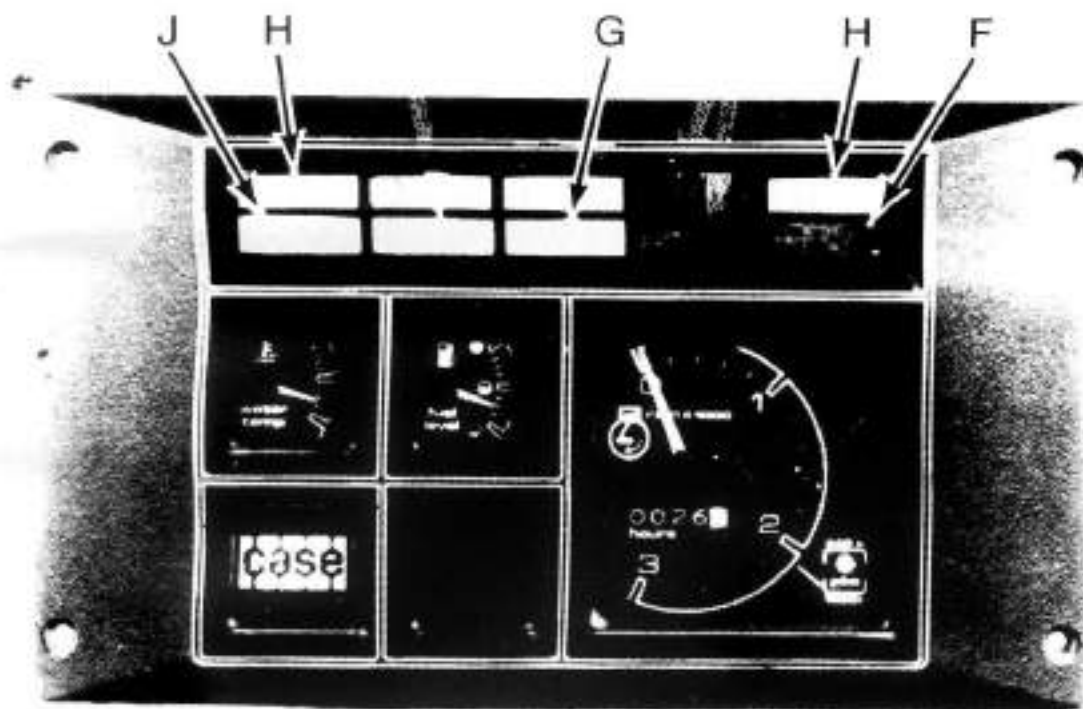
Pointer in green area - Engine operating at normal temperature.

Pointer in amber area - Engine operating below normal temperature.

Pointer in red area - STOP THE ENGINE AND CHECK FOR THE CAUSE.

OPERATING INSTRUMENTS: ALL TRACTORS

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FIGURE 10.

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F. Air Filter Warning Lamp

The warning lamp will illuminate if there is a restriction in the air filter. If the lamp illuminates when the engine is running, STOP THE ENGINE AND CHECK THE CAUSE.

G. Headlamp Main Beam Warning Lamp

The warning lamp is illuminated when the main beam of the headlamp is being used.

H. Turn Signal Indicator Lamps

When the direction turn signal switch is pushed to the left, the indicator lamp for the left hand turn signal will illuminate on and off. When the direction turn signal switch is pushed to the right, the indicator lamp for the right hand turn signal will illuminate on and off. See Operating Controls for complete instructions.

NOTE: *To clean the gauge and warning lamp windows, use a soft cloth or air under low pressure. Do not use rough material of any type which will scratch or damage the windows.*

J. Differential Lock Warning Lamp (Early Tractors)

The warning lamp will illuminate when the differential lock is engaged. It will be illuminated until the differential lock is disengaged.

OPERATING CONTROLS: HIGH PLATFORM TRACTOR

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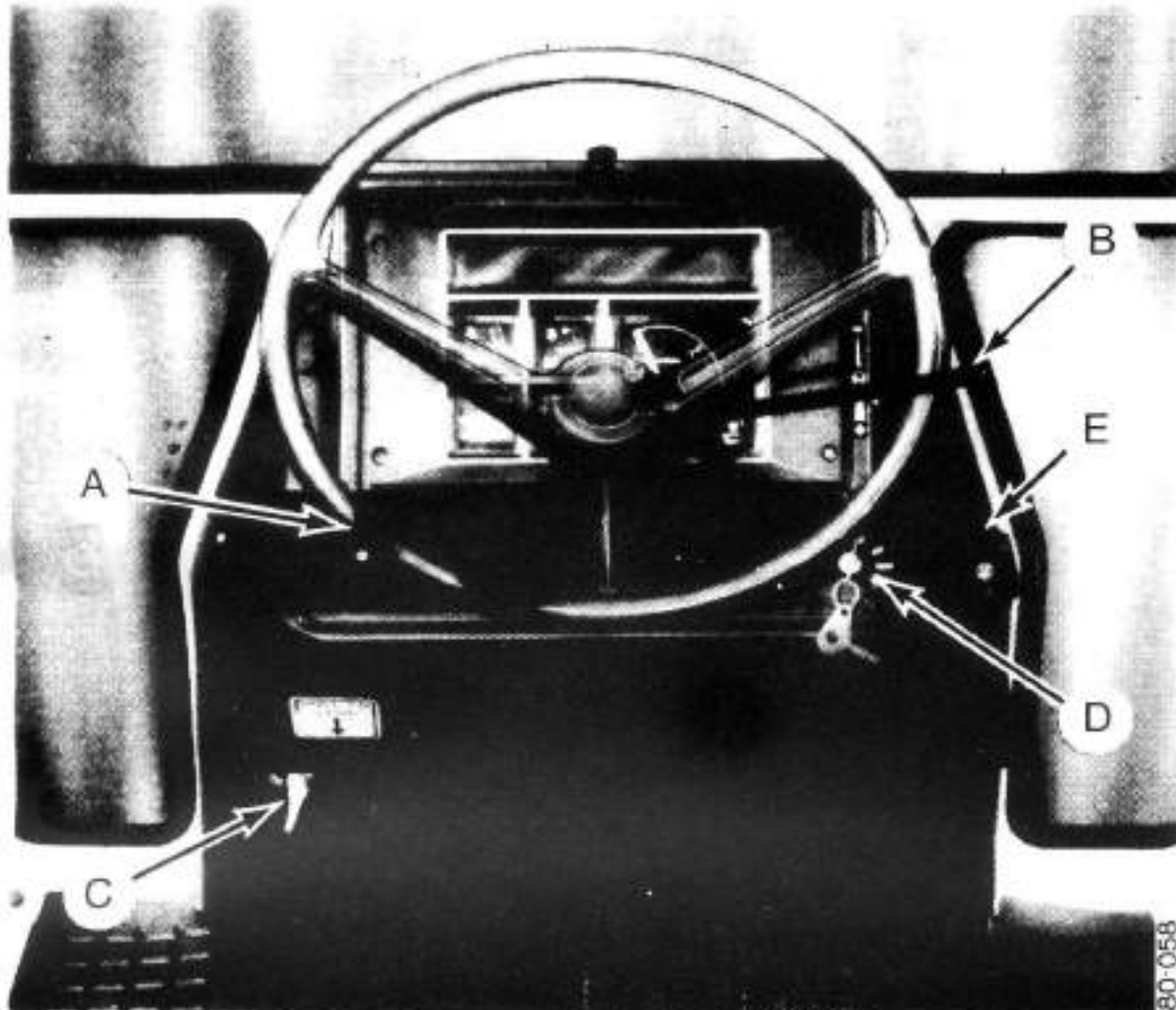


FIGURE 11.

A. Direction Turn Signal Switch

To indicate that you will turn the tractor to the right, move the turn signal switch to the right. To indicate that you will turn the tractor to the left, move the turn signal switch to the left.

B. Hand throttle Control Lever

Move the lever clockwise for maximum speed. Move the lever counterclockwise for idle speed.

C. Engine Stop Control

To start the engine, pull the stop control handle out of the safety position. Move the handle to the left and push the handle forward.

To stop the engine, pull the stop control handle to the rear. Move the handle to the right and push the handle forward into the safety position.

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D. Ignition Key Switch

Four position switch as follows:

Number 1 - OFF Position. The key is in the vertical position. The tractor can not be started without the key. You can only remove the key in this position.

Number 2 - ACCESSORY Position. First position clockwise from OFF. This position energizes the accessories and warning lamps.

Number 3 - HEAT Position. Second position clockwise from OFF. This position energizes the thermostart.

Number 4 - START Position. Third Position clockwise from OFF. This position energizes the starter motor.

NOTE: *To prevent operation by persons not authorized to operate, and discharge of batteries when you leave the tractor, remove the key.*

IMPORTANT: *While the engine is operating, keep the key switch in ACCESSORY position so that the instruments and warning lamps will function.*

IMPORTANT: *Do not keep the key switch in ACCESSORY position for long periods of time with the engine not operating. Warning lamps will be illuminated which will cause too much heat in the instrument cluster.*

E. Main Lamp Switch

Four position switch as follows:

Number 1 - OFF Position - (Full counterclockwise) - All lamps are OFF.

Number 2 - First position clockwise from OFF. Illuminates head lamps (low beam) and instrument panel lamps.

Number 3 - Second position clockwise from OFF. Illuminates head lamps (low and high beam) and instrument panel lamps.

Number 4 - Third position clockwise from OFF. Illuminates head lamps (low beam), front fender lamps, tail lamps, instrument panel lamps and amber warning lamps.

OPERATING CONTROLS: HIGH PLATFORM TRACTOR

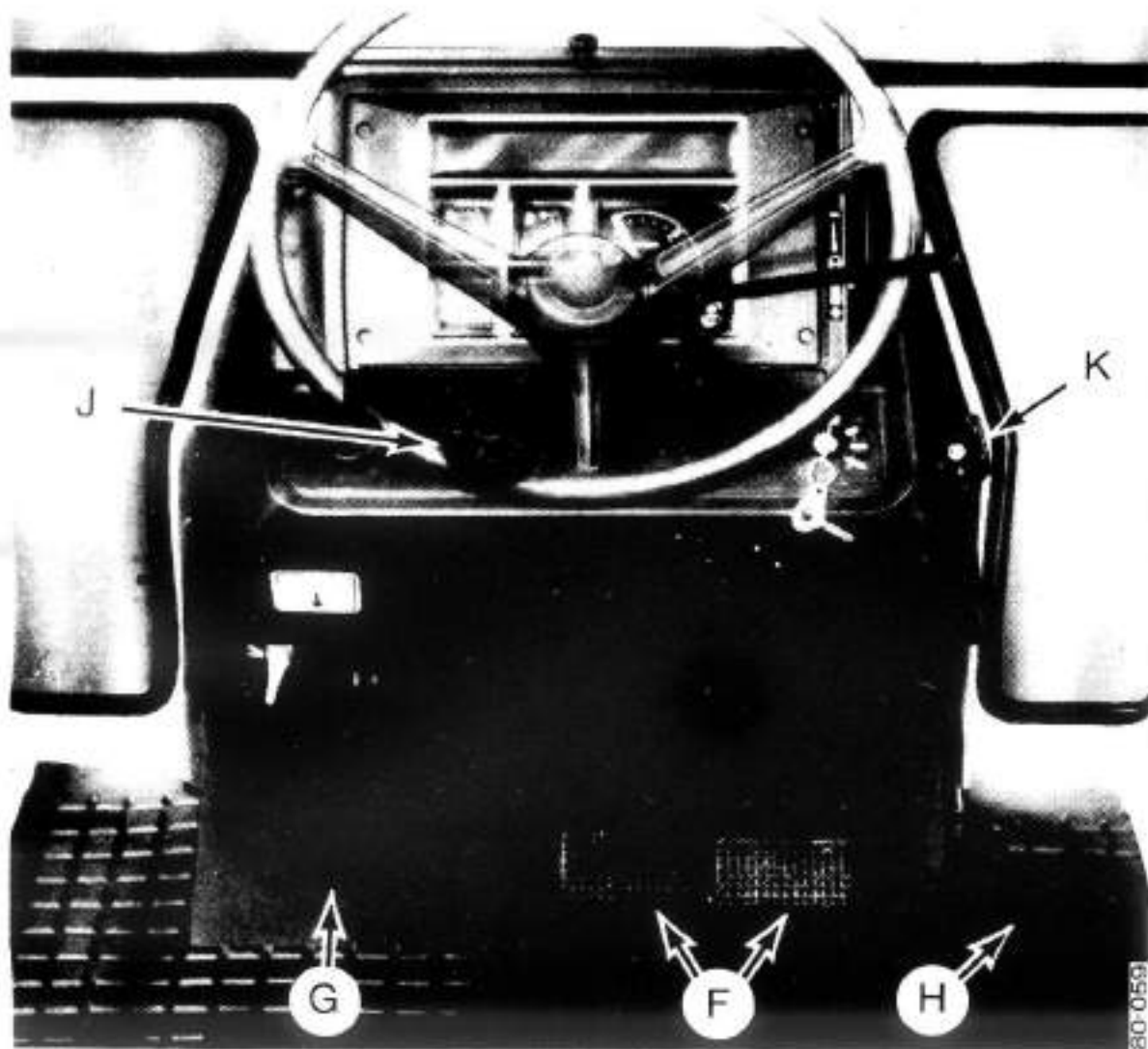


FIGURE 12.

F. Brake Pedals

The LH pedal stops the LH tractor wheel and the RH pedal stops the RH tractor wheel. For LH or RH turning assistance

use the pedals separately. For safe operation on roads lock the pedals together with the interlock lever so that both brakes are applied together.

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G. Transmission Clutch Pedal

Push the pedal down to disengage the clutch. Engage the clutch smoothly using the available gears and the throttle to control the tractor speed. "Slipping" the clutch to reduce forward speed is detrimental to clutch life.

Remove your foot from the pedal until it is necessary to stop the tractor or select a different gear.

IMPORTANT: *The clutch must have the correct amount of clearance at all times. Check the clutch clearance at least every 50 hours and adjust if necessary.*

DO NOT use an operating procedure which will decrease the life of the clutch. For example: DO NOT operate the tractor with no clearance.

DO NOT keep your foot on the pedal after the clutch is engaged.

DO NOT try to move the tractor with a heavy load in a high gear.

DO NOT select a high gear and then use the clutch to control the speed of the tractor.

DO NOT operate the tractor at any time with the clutch not fully engaged.

DO NOT disengage the clutch when operating down a slope.

H. Foot Throttle Pedal

This pedal is in addition to the hand throttle and makes it easier to operate the tractor on road work.

J. Flood Lamp Switch

Four position switch as follows:

Number 1 - OFF position (fully counterclockwise) - All lamps are OFF.

Number 2 - First position clockwise from OFF. Illuminates front fender mounted flood lamps (if fitted) or front cab mounted flood lamps (if fitted).

Number 3 - Second position clockwise from OFF. Illuminates all fender mounted flood lamps and all cab mounted floor lamps.

Number 4 - Third position clockwise from OFF. Illuminates rear fender mounted flood lamps or rear cab mounted flood lamps.

K. Horn Switch

The horn switch is in the center of the main lamp switch. Push the center to energize the horn.

CAB CONTROLS: HIGH PLATFORM TRACTOR

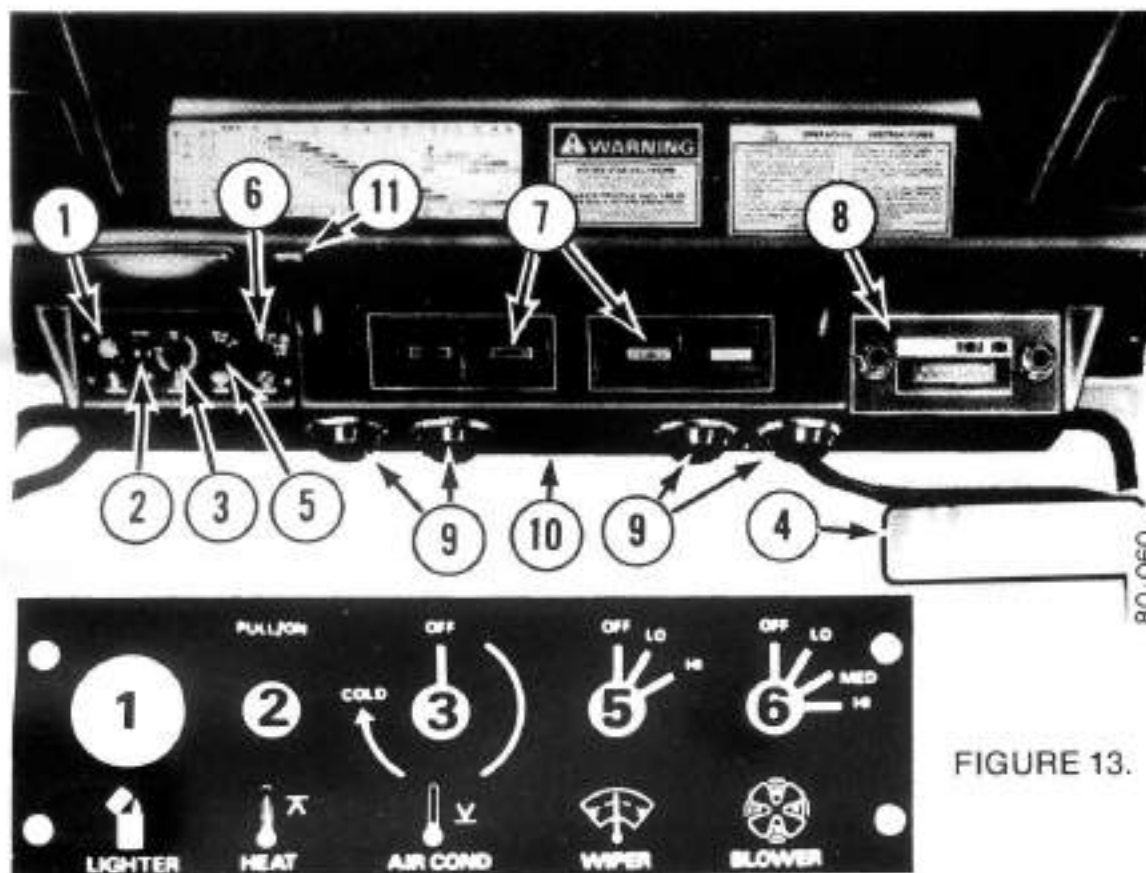


FIGURE 13.

1. Cigarette Lighter

To start the lighter, push the cigarette lighter in. The cigarette lighter will extend and be ready to use.

2. Heat Temperature Control

Pull the heat temperature control out to the needed heat temperature. To stop the heated air flow, push the control in.

3. Air Conditioner Temperature Control

Turn the air conditioner temperature control clockwise to the needed air temperature.

4. Rear View Mirror

You can adjust the mirror for view as needed.

5. Windshield Wiper Control

To select the speed of the wiper, turn the switch knob clockwise. For OFF position, turn the switch knob counter-clockwise.

6. Blower Switch

To get the needed blower speed, turn the knob clockwise to Low, Medium or High.

7. Air Louvers

To control the air flow direction, adjust the air louvers up or down and left or right.

8. Radio

Radios for your Case cab are available from your Authorized Case Dealer.

9. Air Deflectors

To adjust the air flow for cooling and for heat, the air deflectors can swivel and turn. The deflectors can either be open or closed.

10. Defroster Control

The defroster control air louvers can be moved up and down and to the left and right to control the direction of air flow. Turn the adjusting wheel to close the air louvers and stop the air flow to the windshield.

11. Cab Light Switch

Three position switch to control the cab dome light.

Push on LH side of switch - Dome light illuminates when the cab door is open and will stop illuminating when cab door is closed.

Center Position - OFF - Dome light will not illuminate.

Push on RH side of switch - Dome light will illuminate with door open or closed and keep illuminating until switch is turned OFF.

VENTILATION CONTROL SETTINGS

Type Condition Needed	CONTROL SETTINGS						Flow Control
	(6) Blower	(7) Louvers	(9) Deflectors	(10) Defroster	(3) Air Con.**	(2) Heater	
Max Pressure	HI	Open	Open	Open	ON or OFF	ON or OFF	Closed
Max Air Flow	HI	Open	Open	Open	ON or OFF	ON or OFF	Open
Max Cool	HI	Open	Open	Open	ON Max Cold	OFF	Open
Cool	MED	Open	Open	Open	ON Center Range	OFF	Open
Max Heat	HI	Open	Open	Open	OFF	ON Max	Open
Heat	MED to LO	Open	Open	Open	OFF	Adjust to Need	Open
Inside Window Moisture Removal*	HI	Open	Open	Open	ON Center Range	ON Max.	Open

*With Low Ambient Temperature.

**Air Conditioner

CONTROL LEVERS: HIGH PLATFORM TRACTOR

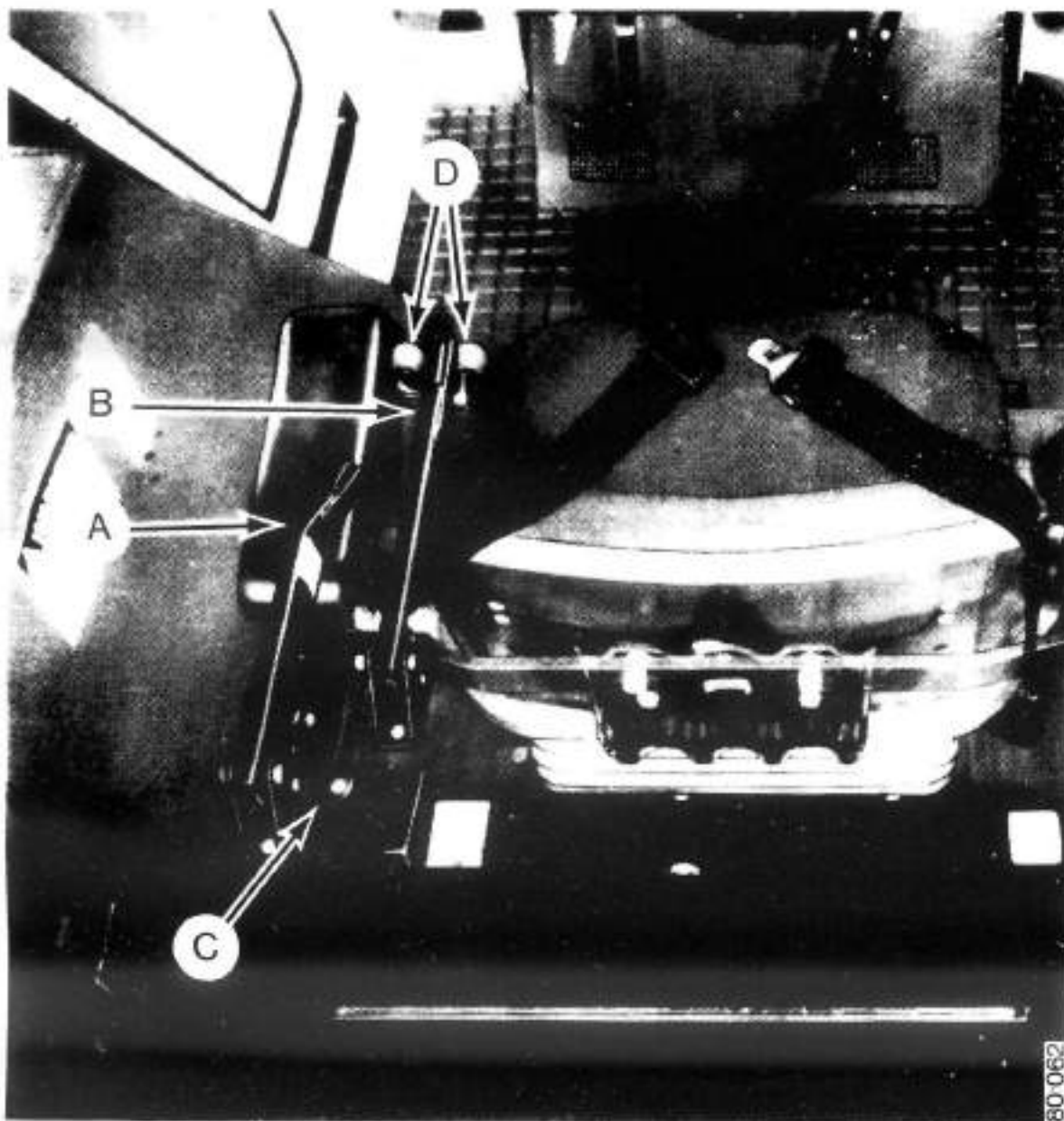


FIGURE 14.

A. Power Take-Off Clutch Lever

The PTO clutch is operated by a lever at the left-hand side of the operator's seat. When the lever is in the down position, the PTO clutch is engaged.

To disengage the PTO clutch, pull the lever up until the ratchet is engaged.

To engage the PTO clutch, pull the lever up, press the ratchet lever inwards and lower the hand lever slowly.

B. Parking Brake Lever

Pull the brake lever up to apply the parking brake. To release the parking brake, pull the brake lever up and press the ratchet inwards. Then push the brake lever down.

C. Front Wheel Drive Selector -

MFD Tractors To engage the front wheel drive, move the control lever to the rear. To disengage, move the control lever forward.

NOTE: *To engage the front wheel drive, the tractor must be operating under conditions of little or no load.*

D. Range Levers - Synchronesh Transmission

Use these levers to select one of four ranges needed for the operating conditions. Stop the tractor then disengage the transmission clutch before moving the range levers to any of the range positions.

NOTE: *See transmission operating instructions for further details.*

CONTROL LEVERS: HIGH PLATFORM TRACTOR

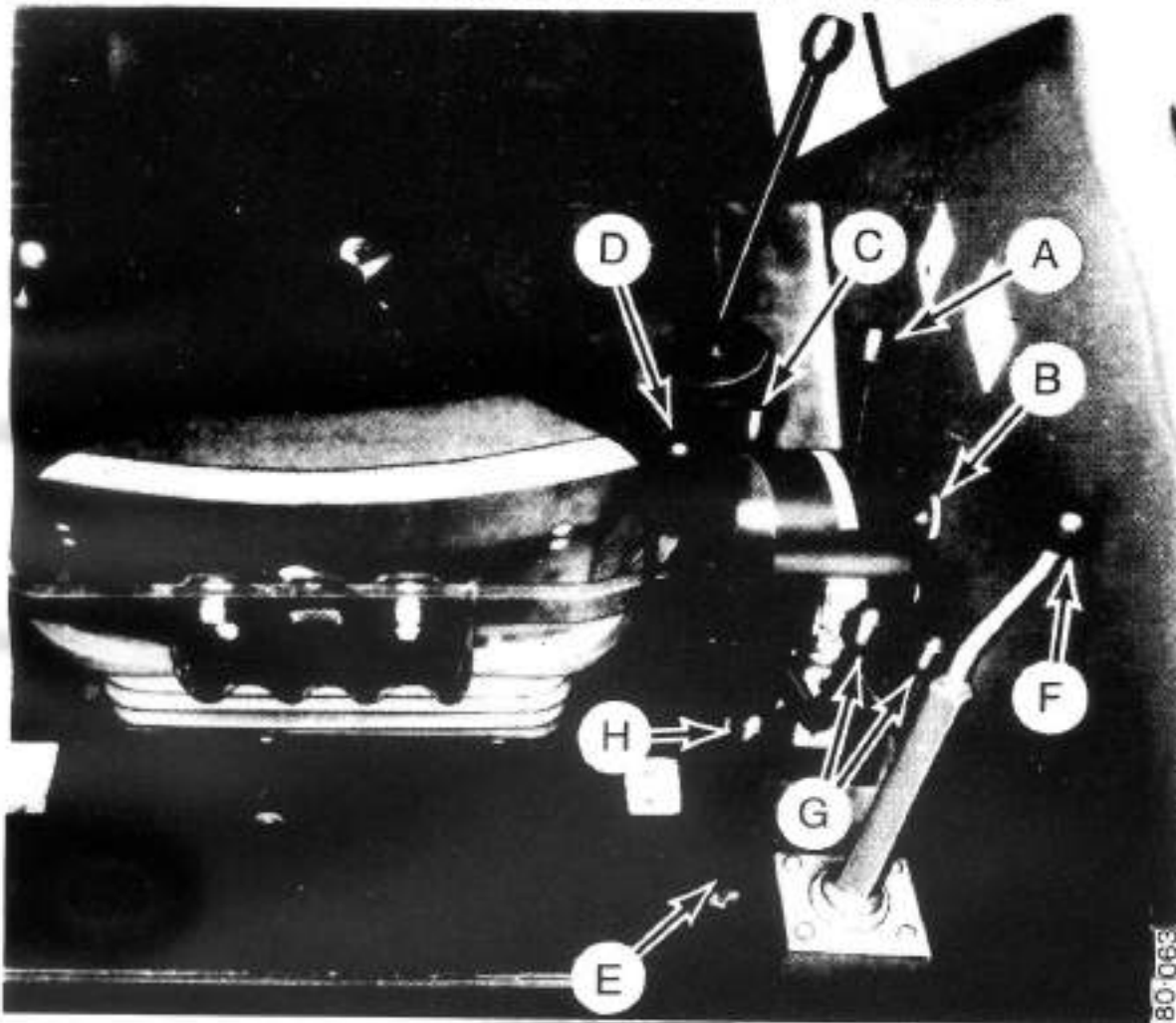


FIGURE 15.

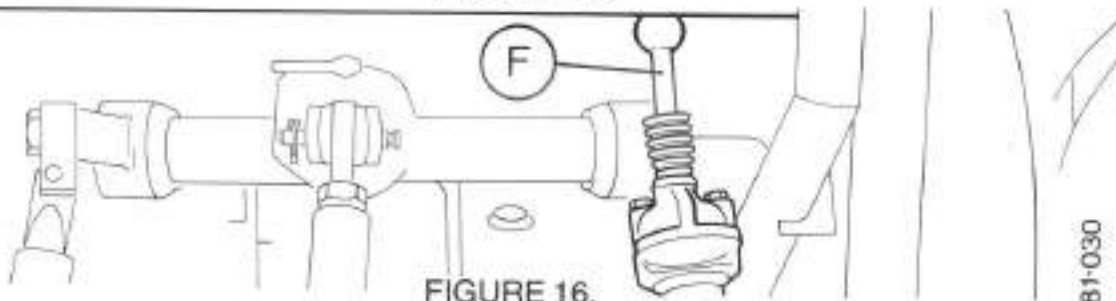


FIGURE 16.

A. Three Point Hitch Control Lever This lever controls the position of the three point hitch. Push the lever forward to lower the hitch. Move the lever rearward to raise the hitch.

B. Finger Guide

The finger guide can be moved to any position on the lever quadrant and is held by a thumb screw.

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WARNING: Do not use the dump valve when an implement is installed on the linkage. Do not use this valve when any person is near the linkage.

C. Dump Valve Control Lever

Use this lever for maximum lowering speed of the three point hitch. Pull the lever up then move the hitch control lever fully forward.

NOTE: When the hitch control lever is fully forward, the lowering speed control valve is automatically set to the maximum speed position. Release the hitch control lever to return the lowering speed control valve to its original setting.

D. Lowering Speed Control Valve

The speed of lowering the three point hitch can be adjusted with this control. Turn the knob counterclockwise to slow the lowering speed. Turn the knob clockwise to increase the lowering speed.

E. Draft/Position Control Selector

This lever is used to select either draft control or position control. Draft control is used for implements, without gauge wheels, that are used in the ground. Position control is used for implements that are used above ground. Turn the control to the left for draft control and to the right for position control.

F. Level Screw Control

This lever is used to adjust the height of the RH draft arm to level the hitch and mounted implements as required. Turn the lever counterclockwise to raise the draft arm and clockwise to lower the draft arm. On earlier tractors the lever is fitted on top of the platform as shown in Figure 15. Later tractors have the lever below the platform as shown in Figure 16.

G. Remote Valve levers

These levers operate the double acting remote valves. If remote valves are not standard equipment on your tractor, one or two remote valves can be installed by your authorized Case Dealer.

H. PTO Selector Lever

This lever is used to engage or disengage the PTO. To engage the PTO, move the lever forward. To disengage the PTO move the lever rearward.

IMPORTANT: Before engaging the drive to the PTO, disengage the PTO clutch.

CONTROL LEVERS: HIGH PLATFORM TRACTOR

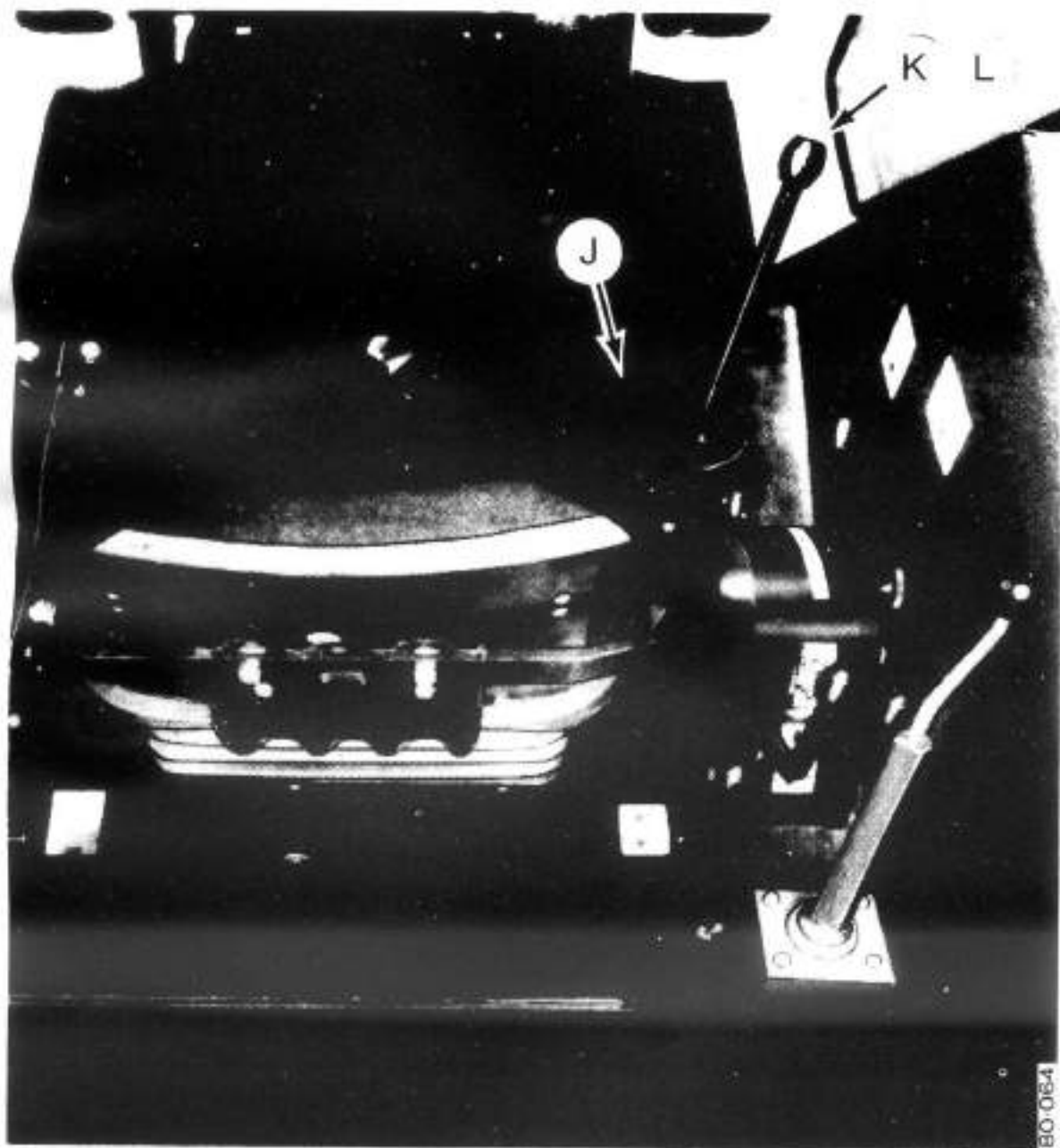


FIGURE. 17



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WARNING: *When the differential lock is engaged, the tractor will not steer correctly. Do not operate the tractor at high speeds or attempt to turn the tractor with the differential lock engaged. Use the differential lock as an aid to traction only. Before you operate on any road, make sure the differential lock is disengaged. Failure to do this can cause an accident.*

J. Differential Lock

Push the pedal down to engage the differential lock. The lock will be engaged until the pressure on the pedal is released. The differential lock is under spring pressure to push it out of engagement when the pedal is released. If the differential lock does not disengage easily, push down on either of the brake pedals. If the tractor is stopped and the differential lock is engaged, reverse the tractor for a short distance.

IMPORTANT: *Do not try to engage the differential lock unless:*

- A. Both rear wheels are turning at the same speed.*
- B. You have disengaged the transmission clutch.*

K. Range Lever - Power Shift Transmission

The range lever has a neutral position and can be used to select three forward and one reverse speed. This lever also operates a switch which prevents the starter being actuated unless the lever is in the neutral position.

NOTE: *The transmission clutch must be disengaged before selecting any range gear.*

L. Gear Shift Lever - Synchromesh Transmission

The shift lever has a neutral position and is used to select three forward speeds or reverse. There is a synchromesh hub between second and third gear which permits gear changes to be made while the tractor is moving. The transmission clutch must be disengaged when changing gear. The tractor must be stopped before selecting reverse gear. This lever also operates a safety switch which prevents the starter being activated unless the lever is in the neutral position.

CONTROL LEVERS: HIGH PLATFORM TRACTOR

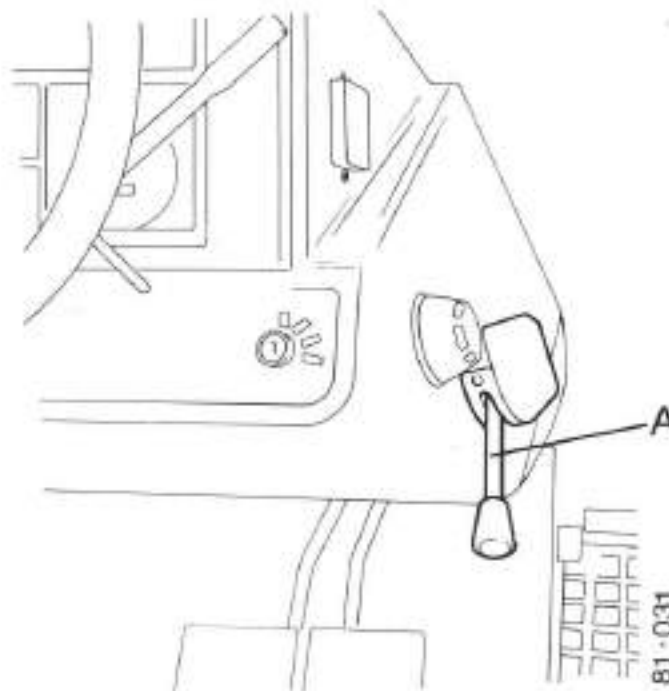


FIGURE 18

A. Power Shift Lever - Power Shift Transmission

There are four power shift positions in each of three forward and one reverse range. Each position can be selected while the tractor is moving without disengaging the transmission clutch. Always start the tractor moving with the power shift lever in the number 1 (top) position. This instruction applies in each range.

NOTE: When shifting down, make sure that the engine speed does not increase to above the safe maximum. Move the power shift lever one position at a time and wait for the speed of the tractor to decrease before moving the shift lever to the next position.

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OPERATOR'S SEAT: HIGH PLATFORM TRACTOR

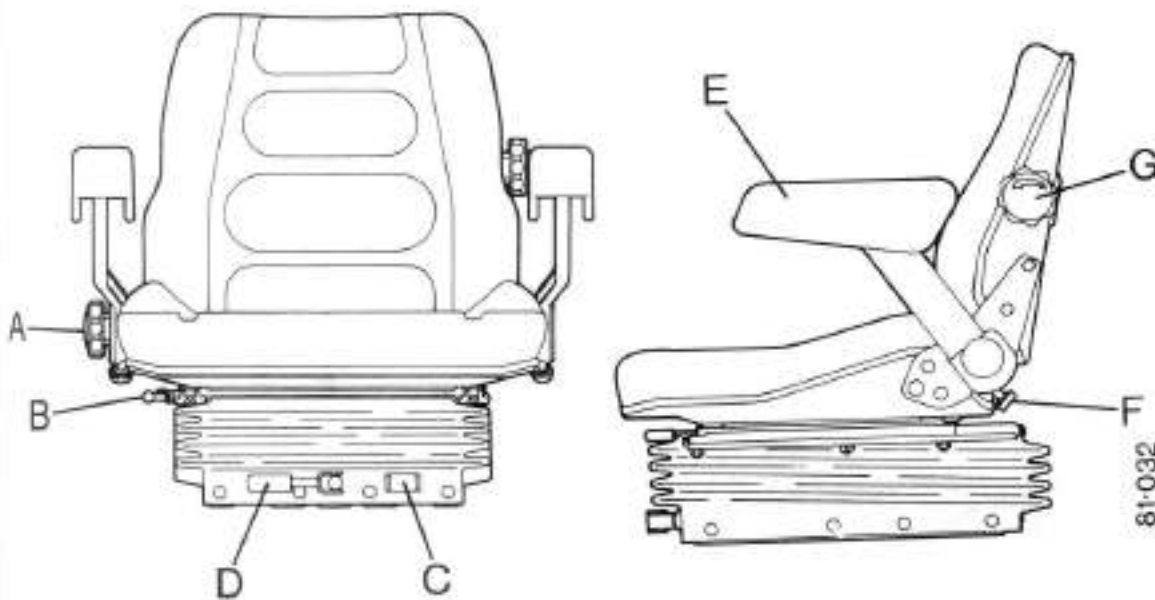


FIGURE 19

A. Back Rest

Turn the large knob on the bottom of the right-hand arm rest to adjust the angle of the back rest.

B. Front to Rear Adjustment

To adjust the seat, move the lever to the right. Slide the seat to the required position then release the lever to keep the seat in the selected position.

C. Weight Indicator

The seat is adjustable for different weights. The scale range is 50 kg (110 lbs) to 130 kg (287 lbs).

D. Weight Adjustment

To adjust the seat for your weight, turn the adjusting handle until the correct weight

shows on the weight indicator. Turn the handle clockwise to increase the weight setting and counterclockwise to decrease the weight setting.

E. Arm Rest

The two arm rests can be tilted rearward for easy access.

F. Arm Rest Height Adjustment

Turn the small knob at the bottom of each arm rest to adjust the height.

G. Lumbar Support

To adjust the lumbar support, turn the large knob on the left-hand side of the back rest.

H. Seat Height Adjustment

Lift the seat assembly to select one of the three height positions.

OPERATING CONTROLS: LOW PROFILE TRACTOR



FIGURE 20

A. Direction Turn Signal Switch

To indicate that you will turn the tractor to the right, move the turn signal to the right. To indicate that you will turn the tractor to the left, move the turn signal switch to the left.

B. Hand Throttle Control Lever

Move the lever to the rear for maximum speed. Move the lever forward for idle speed.

C. Engine Stop Control

To start the engine, pull the stop control handle out of the safety position. Move the handle to the left and push the handle forward.

To stop the engine, pull the stop control handle to the rear. Move the handle to the right and push the handle forward into the safety position.

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D. Ignition Key Switch

Four position switch as follows:
Number 1- OFF Position. The key is in the vertical position.

Number 2- Accessory Position. First position clockwise from OFF. This position energizes the accessories and warning lamps.

Number 3- Heat Position. Second position clockwise from OFF. This position energizes the thermostat.

Number 4- Start Position. Third Position clockwise from OFF. This position energizes the starter motor.

NOTE: *To prevent operation by persons not authorized to operate, and discharge of batteries when you leave the tractor, remove the key.*

IMPORTANT: *While the engine is operating, keep the key switch in ACCESSORY position so that the instruments and warning lamps will function.*

IMPORTANT: *Do not keep the key switch in ACCESSORY position for long periods of time with the engine not operating. Warning lamps will be illuminated which will cause too much heat in the instrument cluster.*

E. Main Lamp Switch

Four position switch as follows:
Number 1- OFF Position (fully counter-clockwise). All lamps are OFF.

Number 2- First position clockwise from OFF. Illuminates from fender lamps, tail lamps and instrument panel lamps.

Number 3- Second position clockwise from OFF, illuminates head lamps (low beam), front fender lamps, tail lamps and instrument panel lamps.

Number 4- Third position clockwise from OFF. Illuminates head lamps (high beam), front fender lamps, tail lamps and instrument panel lamps.

F. Horn

Press the centre of the main lamp switch to operate the horn.

G. Amber Warning Lamps

Pull the knob to operate the amber warning lamps. Push the knob to stop the amber warning lamps.

OPERATING PEDALS: LOW PROFILE TRACTOR

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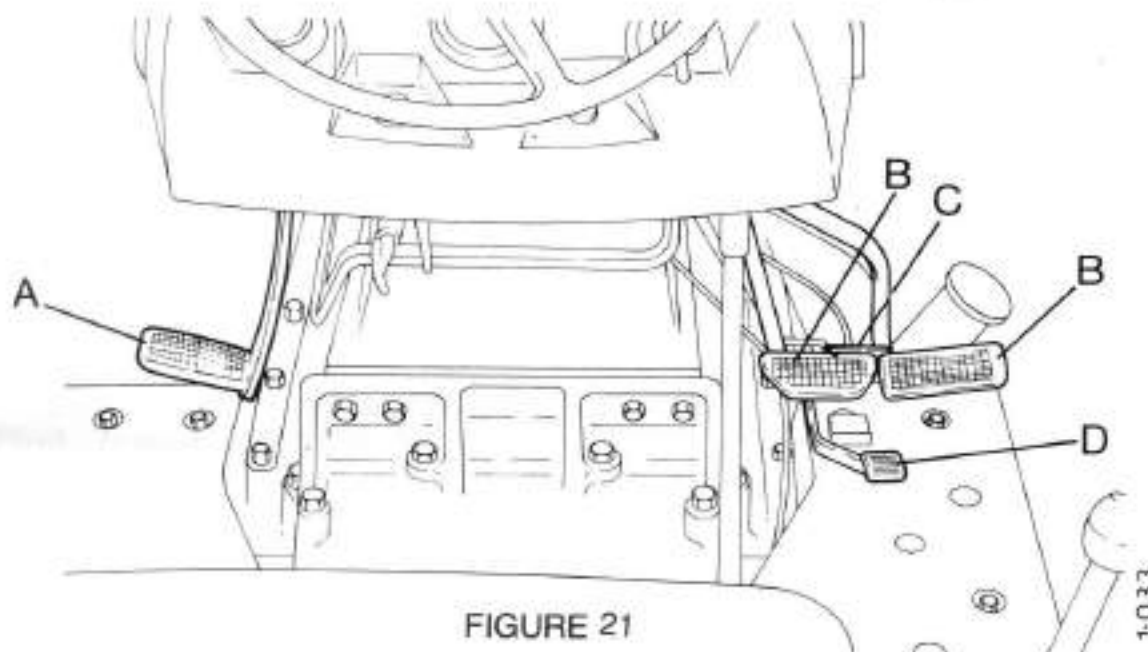


FIGURE 21



DANGER: Before you operate the tractor on a highway, connect the brake pedals with the lock. If this is not done, the tractor will make a sudden turn when the brakes are applied which can cause an accident.

A. Clutch Pedal

Push the pedal down to disengage the clutch. Engage the clutch smoothly using the available gears and the throttle to control the tractor speed.

Remove your foot from the pedal until it is necessary to stop the tractor or select a different gear.

B. Brakes

The left-hand pedal operates the left-hand brake. The right-hand pedal operates the right-hand brake.

C. Brake Pedal Connector

Use the connector to join the brake pedals so that both brakes are applied evenly.

D. Foot Throttle

This pedal is additional to the hand throttle and makes it easier to operate the tractor on road work.

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CONTROL LEVERS: LOW PROFILE TRACTOR

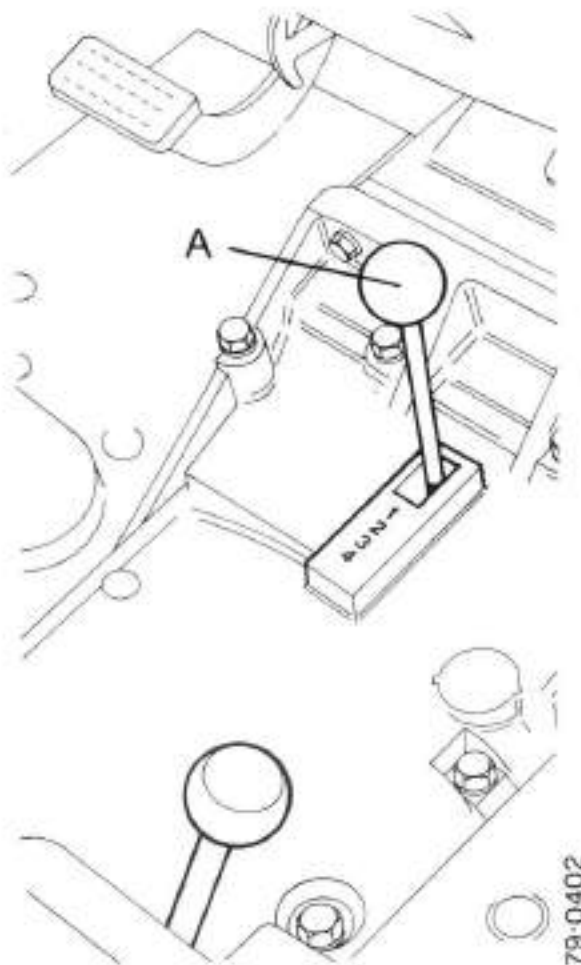


FIGURE 22

A. Power Shift Lever - Power Shift Transmission

There are four power shift positions in each of three forward and one reverse range. Each position can be selected while the tractor is moving without disengaging the transmission clutch. Always start the tractor moving with the power shift lever in the number 1 (top) position. This instruction applies in each range.

NOTE: When shifting down, make sure that the engine speed does not increase to above the safe maximum. Move the power shift lever one position at a time and wait for the speed of the tractor to decrease before moving the shift lever to the next position.

CONTROL LEVERS: LOW PROFILE TRACTOR

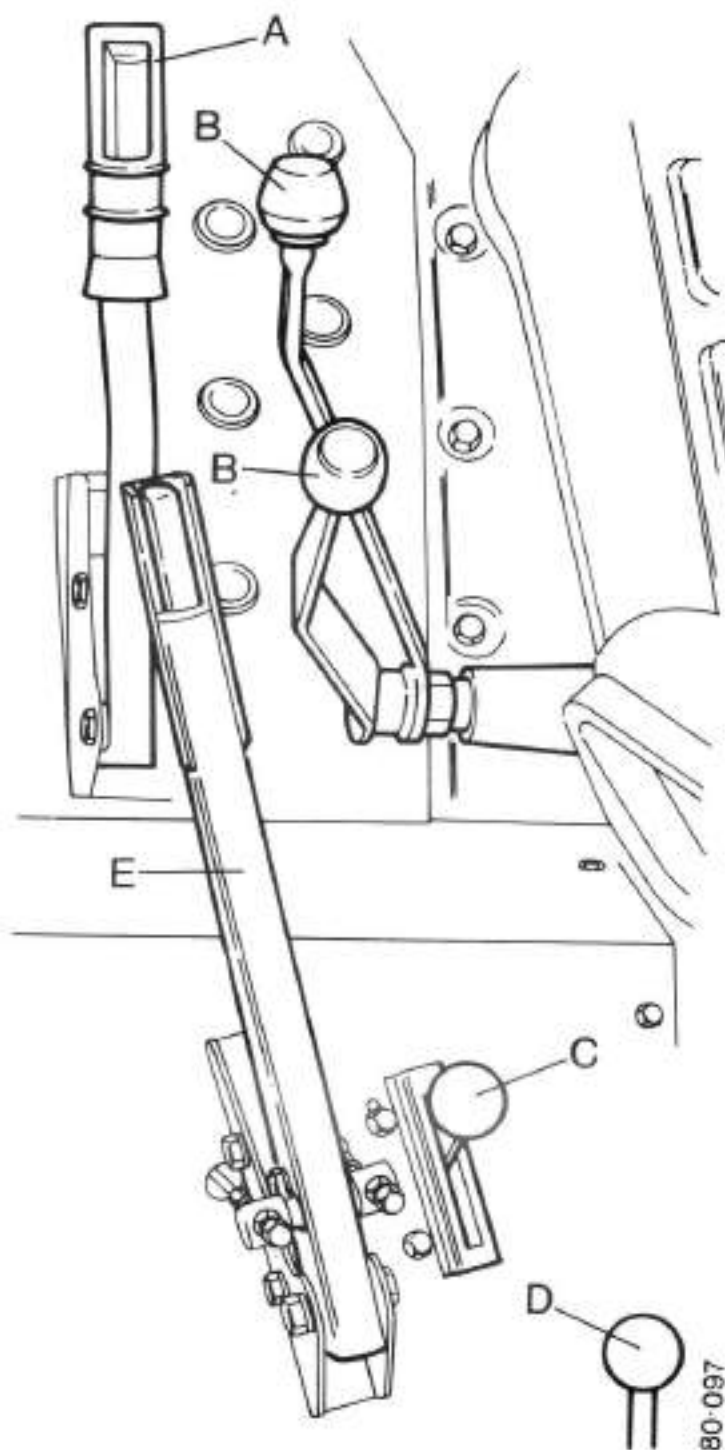


FIGURE 23

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A. **Power Take-Off (PTO) Clutch**

The PTO Clutch is operated by a lever at the left-hand side of the operator's seat. When the lever is in the down position, the PTO clutch is engaged. To disengage the PTO clutch, pull the lever up until the ratchet is engaged. To engage the PTO clutch, pull the lever up, press the ratchet lever inwards and release the hand lever slowly.

B. **Range Levers - Synchromesh Transmission**

Use these levers to select one of four ranges needed for the operating conditions. Stop the tractor then disengage the transmission clutch before moving the range levers to any of the range positions.

C. **Front Wheel Driver Selector - MFD Tractors**

Use this lever to engage or disengage front-wheel drive. Only engage front-wheel drive when the tractor is operating in conditions of little or no load.

D. **PTO Selector Lever**

This lever has two positions, engaged or disengaged.

Before engaging the drive to the PTO, disengage the PTO clutch.

E. **Parking Brake Lever**

Pull the hand lever up to apply the parking brake. To release the parking brake, pull the hand lever up and press the ratchet inwards. Then push the hand lever down.

A. Three Point Hitch Control Lever

This lever controls the position of the three point hitch. Push the lever forward to lower the hitch. Move the lever rearward to raise the hitch.

wheels, that are used in the ground. Position control is used for implements that are used above ground. Turn the control to the left for draft control and to the right for position control.



WARNING: Do not use the dump valve when an implement is installed on the linkage. Do not use this valve when any person is near the linkage.

B. Dump Valve Control Lever

Use this lever for maximum lowering speed of the three point hitch. Pull the lever up then move the hitch control lever fully forward.

NOTE: When the hitch control lever is fully forward, the lowering speed control valve is automatically set to the maximum speed position. Release the hitch control lever to return the lowering speed control valve to its original setting.

C. Lowering Speed Control Valve

The speed of lowering the three point hitch can be adjusted with this control. Turn the knob counterclockwise to slow the lowering speed. Turn the knob clockwise to increase the lowering speed.

D. Draft/Position Control Selector

This lever is used to select either draft control or position control. Draft control is used for implements, without gauge

E. Finger Guide

The finger guide can be moved to any position on the lever quadrant and is held by a thumb screw.

F. Level Screw Control

This lever is used to adjust the height of the RH draft arm to level the hitch and mounted implements as required. Turn the lever counterclockwise to raise the draft arm and clockwise to lower the draft arm.

G. Remote Valve Levers

These levers operate the double acting remote valves. If remote valves are not standard equipment on your tractor, one or two remote valves can be installed by your authorized Case Dealer.

CONTROL LEVERS: LOW PROFILE TRACTOR

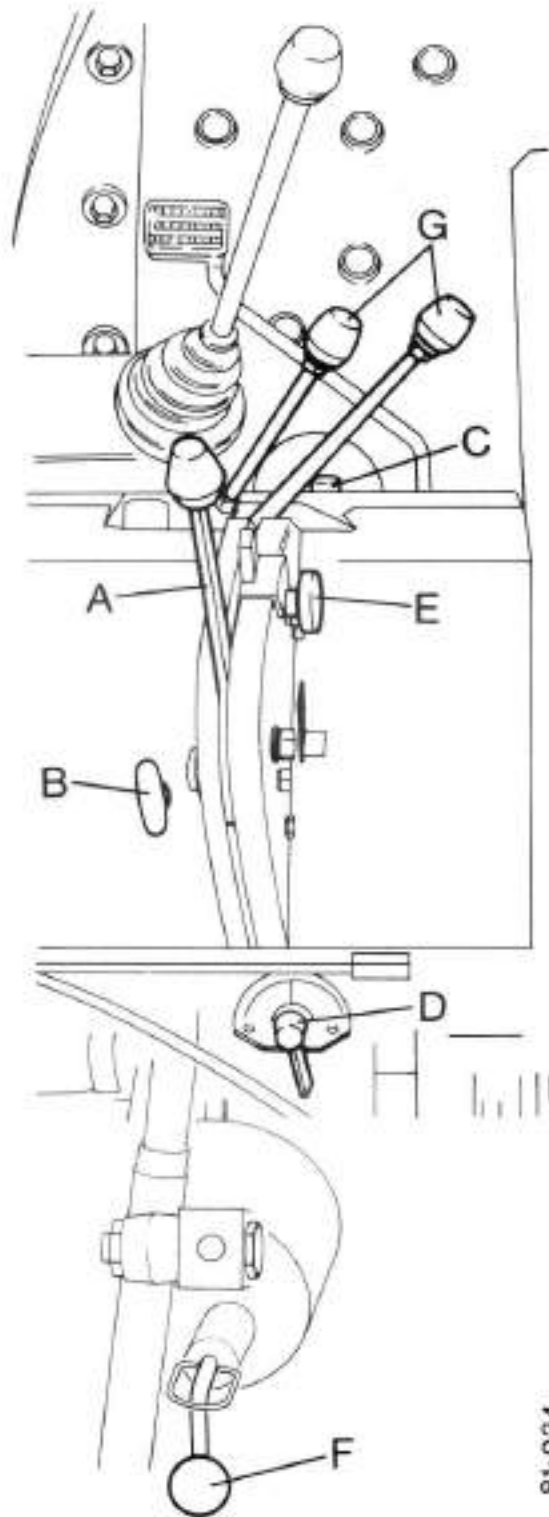


FIGURE 24

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WARNING: When the differential lock is engaged, the tractor will not steer correctly. Do not operate the tractor at high speeds or attempt to turn the tractor with the differential lock engaged. Use the differential lock as an aid to traction only. Before you operate on any road, make sure the differential lock is disengaged. Failure to do this can cause an accident.

H. Differential Lock

Push the pedal down to engage the differential lock. The lock will be engaged until the pressure on the pedal is released. The differential lock is under spring pressure to push it out of engagement when the pedal is released. If the differential lock does not disengage easily, push down on either of the brake pedals. If the tractor is stopped and the differential lock is engaged, reverse the tractor for a short distance.

IMPORTANT: Do not try to engage the differential lock unless:

- (i) Both rear wheels are turning at the same speed.
- (ii) You have disengaged the transmission clutch.

J. Range Lever - Power Shift Transmission

The range lever has a neutral position and can be used to select three forward and one reverse speed. This lever also operates a switch which prevents the starter being actuated unless the lever is in the neutral position.

NOTE: The transmission clutch must be disengaged before selecting any range gear.

K. Gear Shift Lever - Synchromesh Transmission

The shift lever has a neutral position and is used to select three forward speeds or reverse. There is a synchromesh hub between second and third gear which permits gear changes to be made while the tractor is moving. The transmission clutch must be disengaged when changing gear. The tractor must be stopped before selecting reverse gear. This lever also operates a safety switch which prevents the starter being activated unless the lever is in the neutral position.

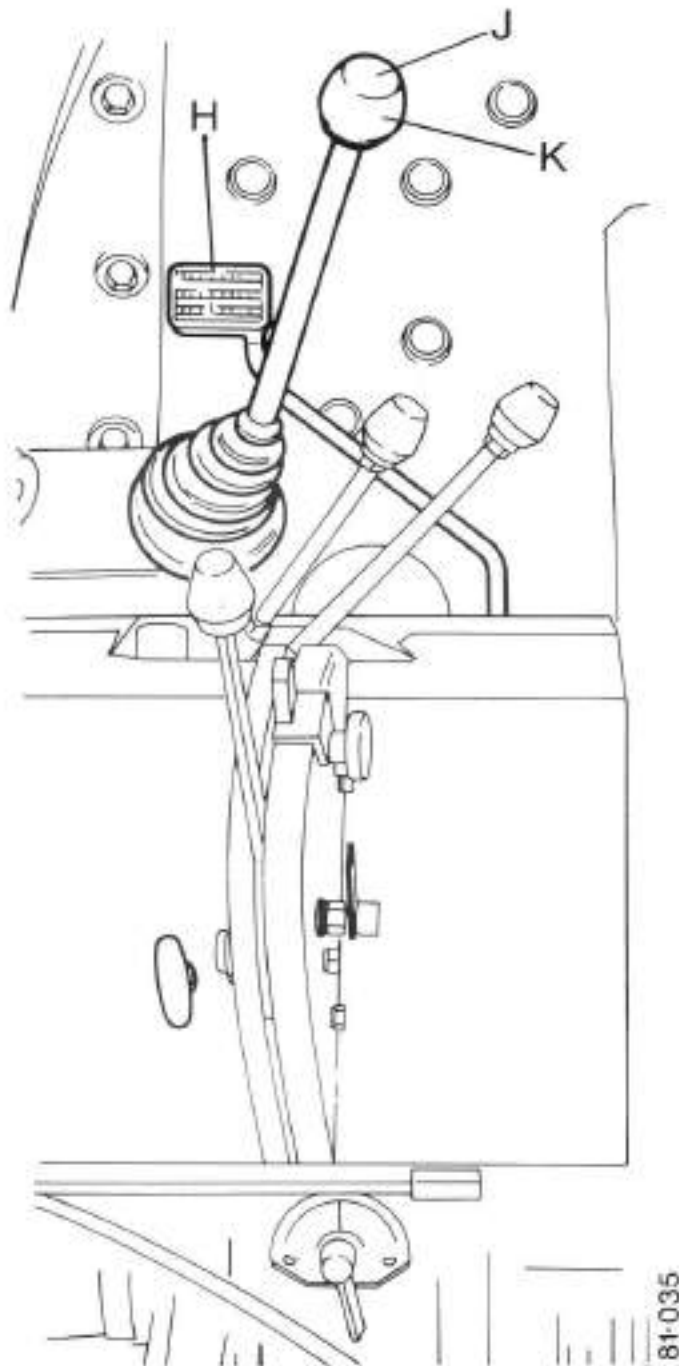
CONTROL LEVERS: LOW PROFILE TRACTOR

FIGURE 25

OPERATOR'S SEAT: LOW PROFILE TRACTOR

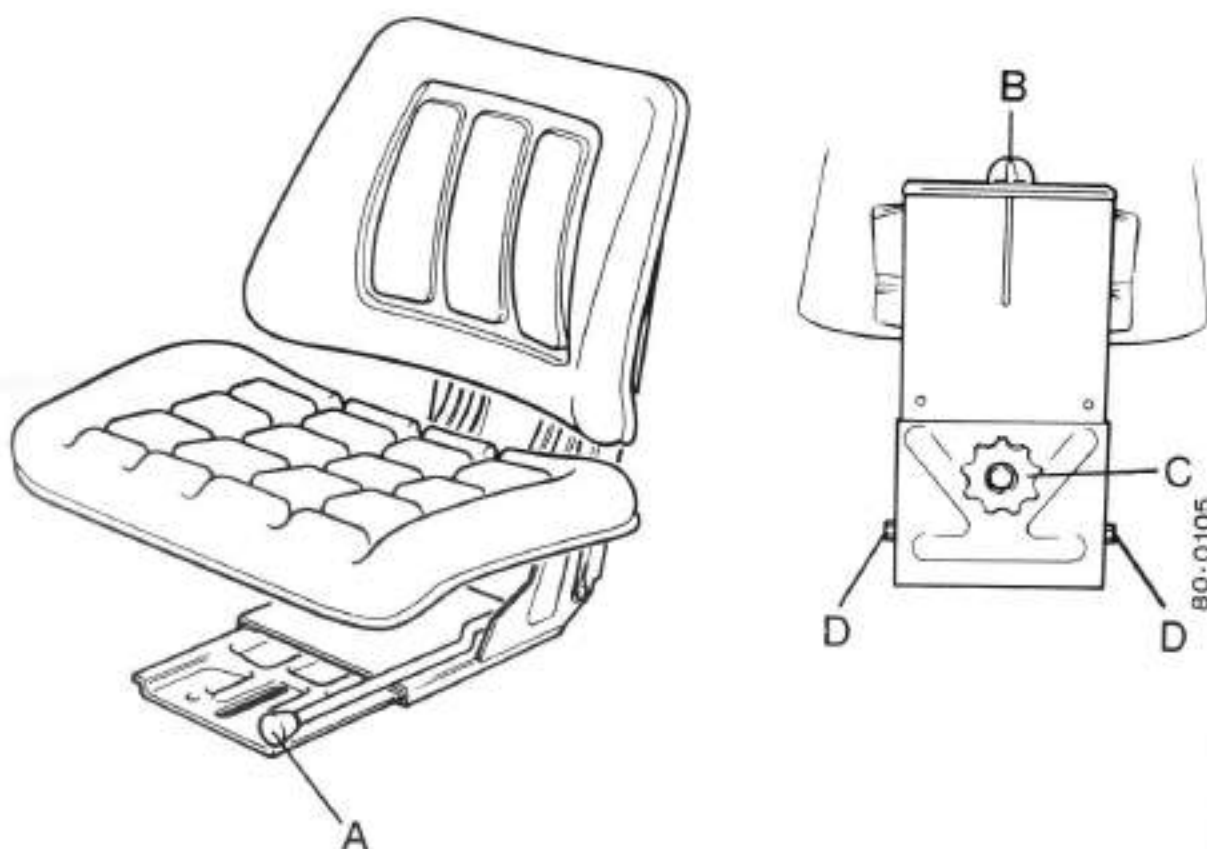


FIGURE 26

A. Front to Rear Adjustment

Pull lever A upward. Move the seat backward or forward to the required position then release the lever. Press the seat backward to make sure that the lock is engaged.

B. Weight Adjustment:

Use knob B to make this adjustment. Turn the knob clockwise for heavier operators or counterclockwise for lighter operators.

C. Height Adjustment:

Turn the knob C counterclockwise. Loosen the two nuts D then lift or lower the seat to the required height. Tighten the nuts then turn the knob clockwise.

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CAB AIR FLOW ARRANGEMENTS

Shown here and on the next pages are arrangements that can be used to heat or cool the cab for different ambient temperatures.

Controlled Pressure and Air Flow Without The Use Of The Air Conditioner or Heater

Pressure is controlled by the use of the three blower speeds and /or the position of the air flow control. For the most inside cab pressure, close the air flow control and run the blower at HI position. This setting is used during field operations in wind or dust.

For minimum cab pressure and air flow, open the air flow control and run the blower at LO position.

NOTE: At any position of the air flow control, new air will be pulled into the cab.

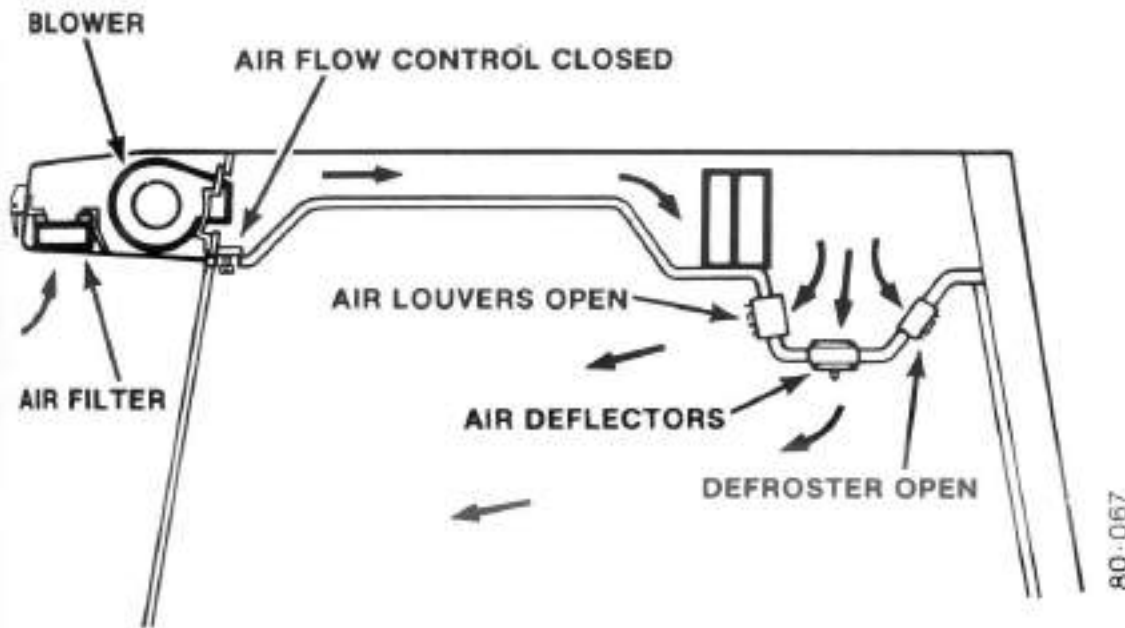


FIGURE 27

CAB AIR FLOW CONTROL

(High Platform Tractor)

The cab air flow control is in the headliner, above the rear window. For maximum movement of air in the cab, turn the flow control knob counterclockwise until

loose, then slide to open. To stop or decrease the movement of air flow, turn the control knob counterclockwise until loose, then slide to close.

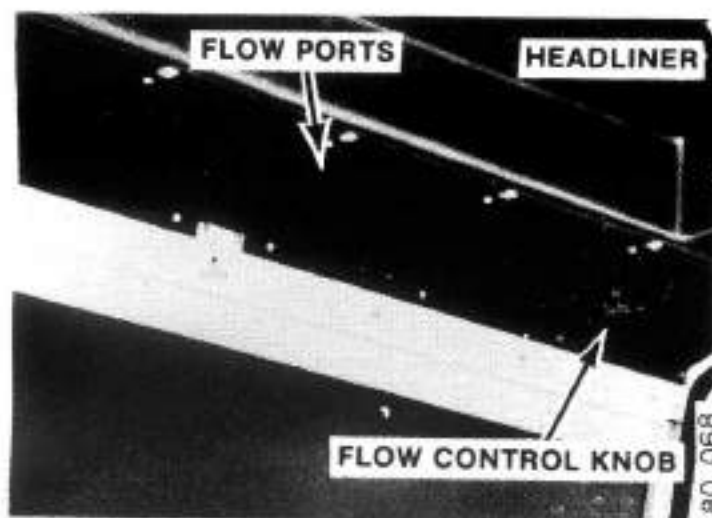


FIGURE 28.

Cab Defroster Control

The cab defroster control is in front of the headliner on the defroster air louvers. To open or close the air louvers and to con-

trol air flow direction, turn the adjusting wheel. The air louvers can also move up or down for added air flow control.

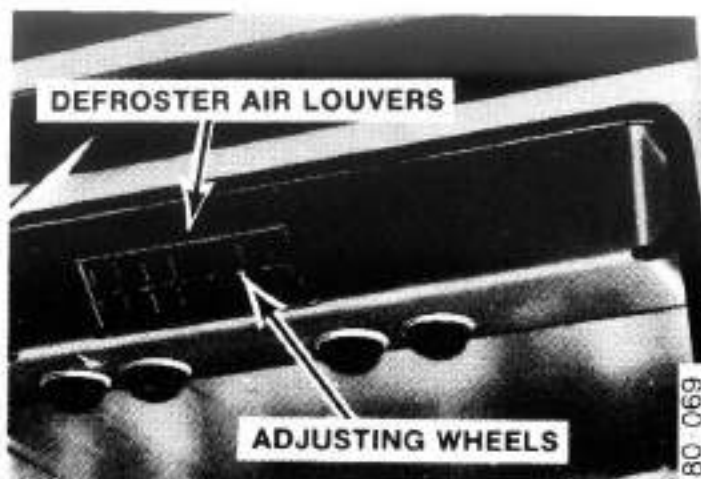


FIGURE 29.

Controlled Pressure and Air Flow With Heater

1. Permit the tractor engine to reach operating temperature. Open the air flow control door, put the heat temperature control to maximum heat, the blower on HI, the louvers closed, defroster and deflectors open.
2. To keep the outside air entering the cab to a minimum which will decrease the time needed to heat the cab, keep the air flow control door open.
3. With the blower on LO, air flow is decreased and so is air speed, so the heated air temperature will be a little higher than with the blower at HI or MED.

NOTE: With the air flow control door open or closed, outside air will be pulled in to keep moisture off the glass.

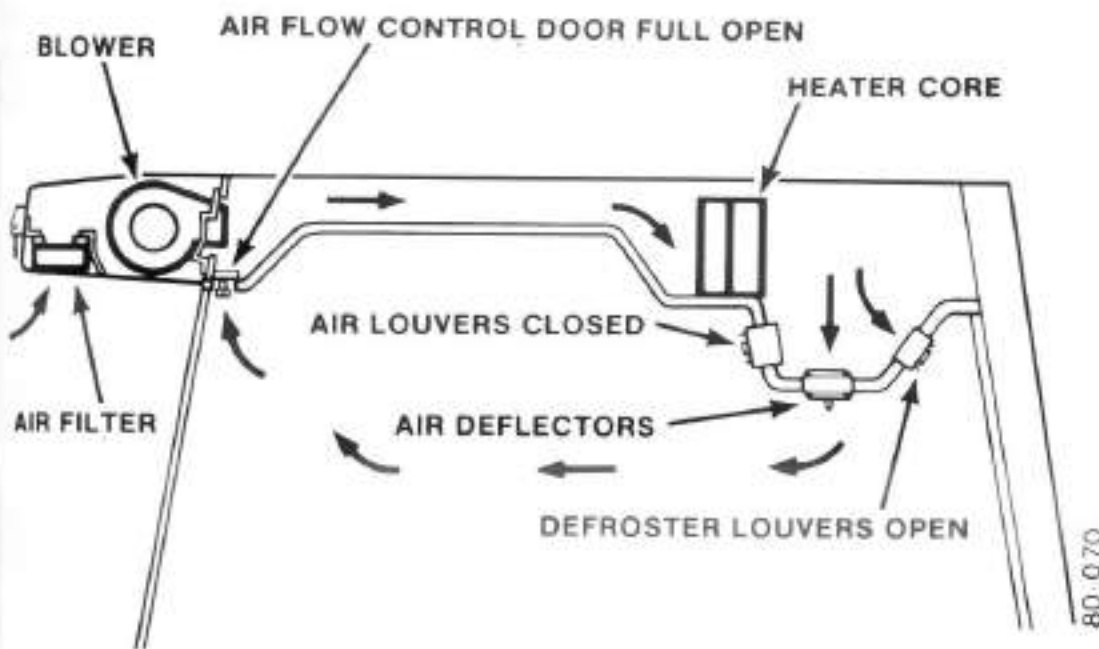


FIGURE 30.

Controlled Pressure and Air Flow With Air Conditioner

For maximum flow of air in the cab (fast cool down):

1. Open flow control door, blower on HI, temperature control on maximum cold and air louvers, defroster and deflectors all open.
2. After the cab temperature is correct, adjust the temperature control, blower speed and air flow control as needed.
3. To increase the temperature level below the belt line (feet and legs), close the defroster. When the defroster is closed, the air flow through the louvers is automatically increased.

4. For maximum air flow at the head level, close the defroster.

NOTE: Under some conditions of humidity and temperatures, it is possible to have ice on the core. This can be caused by operating at LO blower speed and maximum cold setting of the temperature control. It is best to operate at MED or HI blower speeds and center range temperature control settings. If ice occurs, close the air flow control, turn the temperature control to off or set to minimum cool, and run the blower at HI. If ice continues, check the cab air filter and clean or replace the filter.

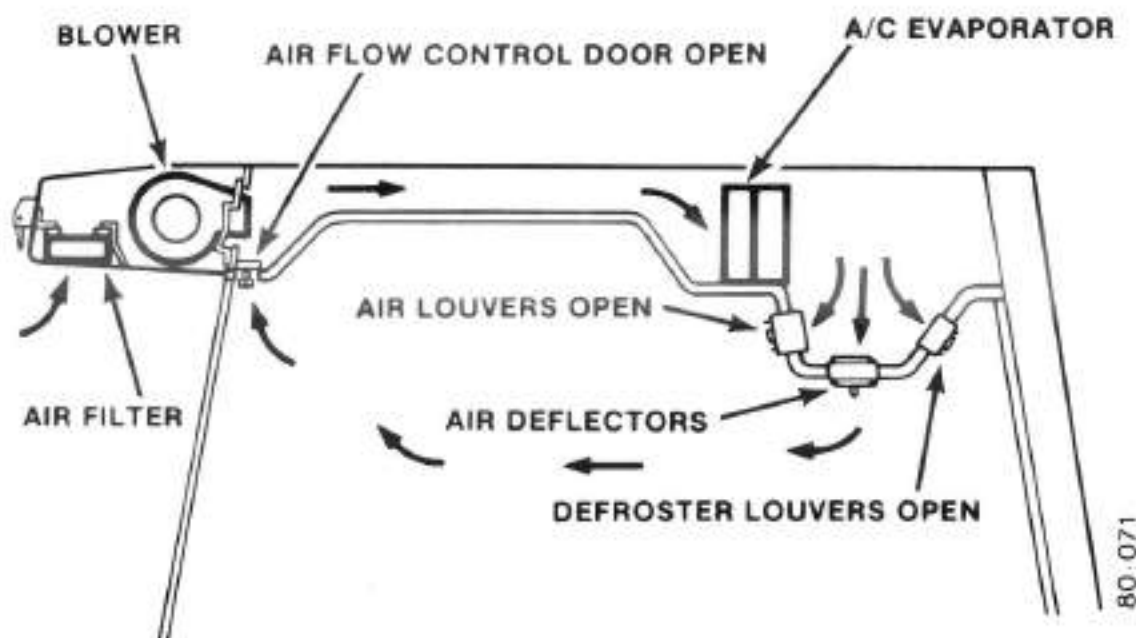


FIGURE 31.

AIR CONDITIONER OPERATION

To operate the air conditioner, the blower must be on. The blower speed and temperature control must be adjusted together to get the best cooling for the ambient temperature. Under normal operating conditions, with the cab sealed correctly, and the windows and door closed, temperatures in the cab of 10° F to 25° F (6° C to 15° C) less than the ambient temperature will occur. When operating the air conditioner system, the humidity is decreased.

NOTE: *The air conditioner system has two safety components for protection of the system from low refrigerant level and high restrictions. If, during tractor operation, the air conditioner stops working, See Refrigerant Check Section.*

IMPORTANT: *The cab air filter does not remove chemicals or fumes. When you use agricultural chemicals, follow the instructions given with the implement and with the chemical.*

CAB DOOR LOCK

The cab door can be held in open position by pushing the door outward until the upper latch takes hold. To lock the cab from the outside use the cab door key in the lock of the door handle.

IMPORTANT: *Do not operate the tractor at any time with the cab door open.*

TOOL COMPARTMENT

For storage of tools and accessories, a tool compartment is behind the seat.

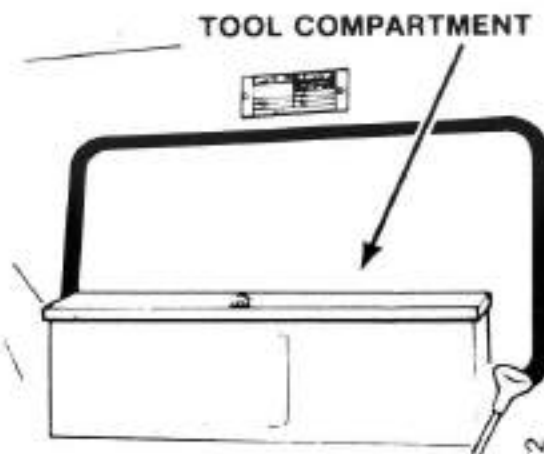


FIGURE 32.

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REAR VIEW MIRRORS

Side mount rear view mirrors are available for your Case tractor from your Authorized Case Dealer. The parabolic mirror gives the operator a clear, two way rear view for distance and an immediate rear view to check implements when working.

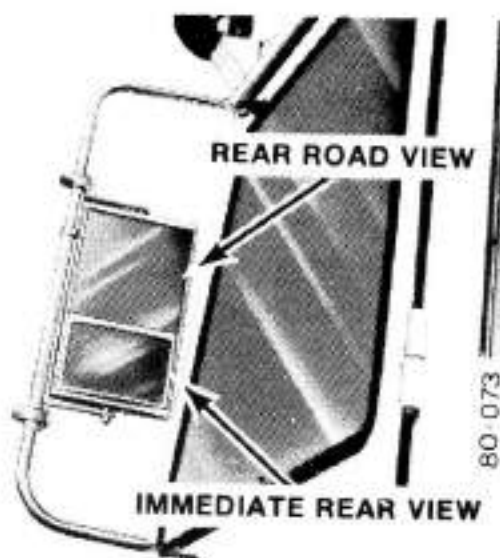


FIGURE 33.

A 4 by 6 inch (101.6 by 152.4 mm) convex side mirror is also available.

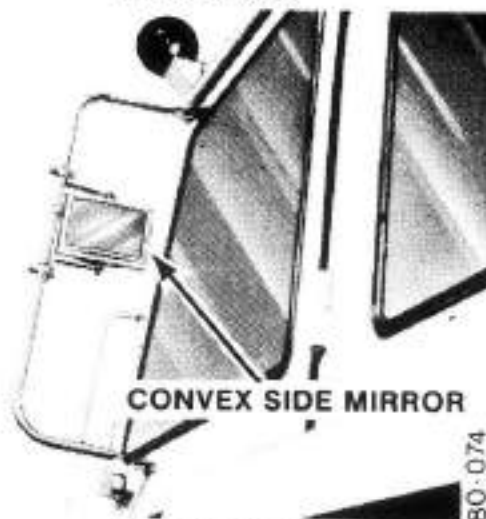


FIGURE 34.

CAB WINDOW LEVER

The rear window and the RH side window can be opened. To open the windows, turn the lock knobs to loosen, pull the slotted arms out from the window and push the window out to the needed position. Tighten the lock knob to keep the window in the selected position.

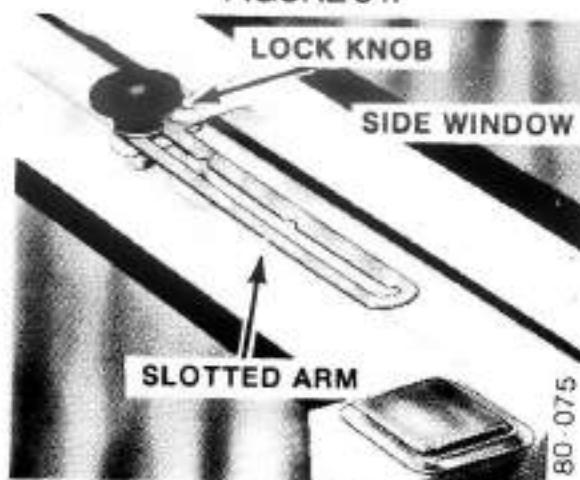


FIGURE 35.

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SEAT BELTS

NOTE: Check the seat belt regularly for worn areas. Replace all parts which are worn.

IMPORTANT: For maximum safety, use the seat belts. During a tractor accident, the ROPS equipment works best when the operator is held in position inside the ROPS.



WARNING: Securely fasten your seat belt as this tractor is equipped with a ROPS cab. The seat belts can help insure your safety if they are used and maintained.

Operate your seat belts using this procedure:

1. Adjust the seat to your need.
2. Keep your back straight in the seat. Hold the buckle of the seat belt in one hand and the eye end in the other hand.
3. Put the belt across your hips as **LOW ON YOUR BODY AS POSSIBLE**.
4. Push the metal eye into the open end of the buckle until you hear the buckle fasten.
5. To prevent sliding under the belt, pull the end of the belt that extends from the buckle until the belt is tight.

NOTE: The low, tight position of the belt is necessary so that the pressure put on the body by the seat belt during an accident will

be held by the strong hip area. Any other belt position will result in injury.

To adjust the seat belt for more length, put the buckle at a right angle to the belt. Slide the belt through the buckle. To release the seat belt, push the button on top of the buckle.

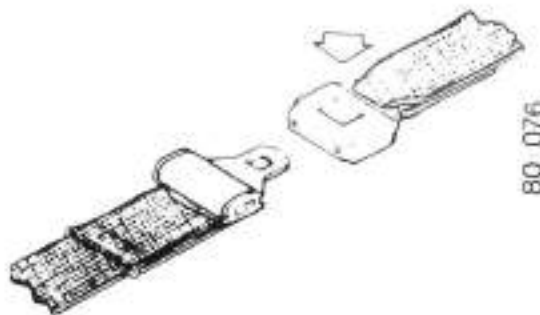


FIGURE 36.



CAUTION: Never wear a seat belt loosely or with slack in the belt system. Never wear the belt in a twisted condition or pinched between the seat structural members.