9370, 9380 and 9390 Tractors

Operators Manual

Rac 9-29652

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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. M171B

Safety Decals on this machine use the words **Danger, Warning or Caution,** which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation which, if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- **WARNING:** Indicates a potentially hazardous situation which, if not avoided will result in serious injury. The color associated with Warning is ORANGE.
- **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow Case Corporation instructions on machine operation and maintenance.

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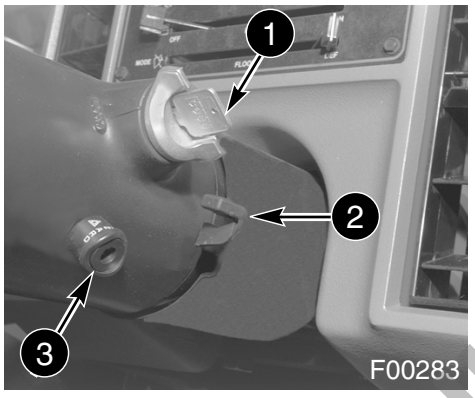
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OPERATING CONTROLS

Steering Column



1 KEY SWITCH - Five position switch described as follows:

LOCK POSITION - Key is in horizontal alignment with the steering column. All switch controlled current is OFF and the steering wheel is locked in position. The key can be removed by pushing the key release lever down.

ACCESSORY POSITION - Counter clockwise from LOCK position. Use this position to operate the radio, etc. Without engaging the instruments or starting the engine.

OFF POSITION - First position clockwise from LOCK position. All switch controlled current is OFF and the steering wheel is not locked in position. The key cannot be removed.

ON POSITION - Second position clockwise from LOCK position. Engine fuel system is energized and all switch controlled current for the electrical system is ON.

START POSITION - Third position clockwise from LOCK position. Engine starter and fuel system is energized. Switch is spring loaded to return to ON position when released. Ether start switch can be activated.

NOTE: *The ether start-aid system (if equipped) can only be activated when the key switch is in the START position.*

NOTE: *The transmission mode selection lever must be in the NEUTRAL position and the PTO lever must be in the OFF position for the starter to engage.*

2. SWITCH KEY RELEASE LEVER - The key release lever is located below the key switch. Push down on the lever to turn the key to ACCESSORY position or to LOCK position for key removal.

3. HAZARD WARNING LAMP SWITCH - The amber warning lamps at the front and rear of the tractor can be operated independently of the road lamps, if desired. Push the switch inward to turn the lamps ON. Pull the switch outward to turn the lamps OFF.

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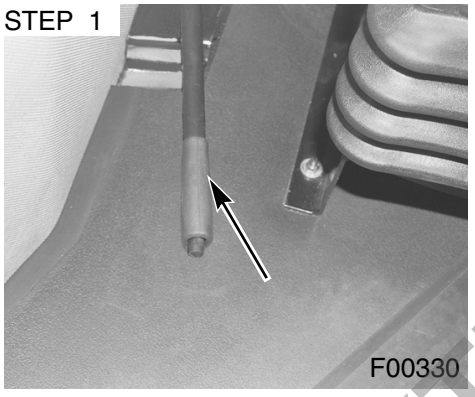
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ENGINE STARTING PROCEDURE

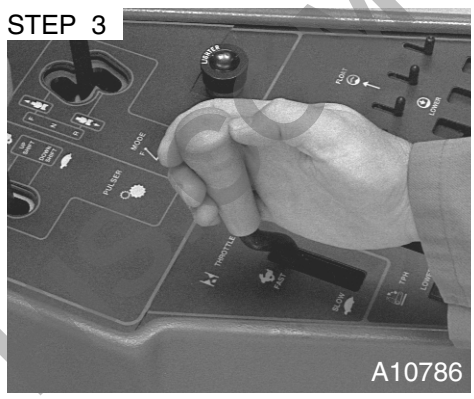
IMPORTANT: *If equipped, the PTO lever must be in the OFF position for the engine to start. If the starter does not energize, check the PTO lever. Make sure the PTO lever returns to the OFF position anytime the engine is turned off. If adjustment is required, see your dealer.*

STEP 1



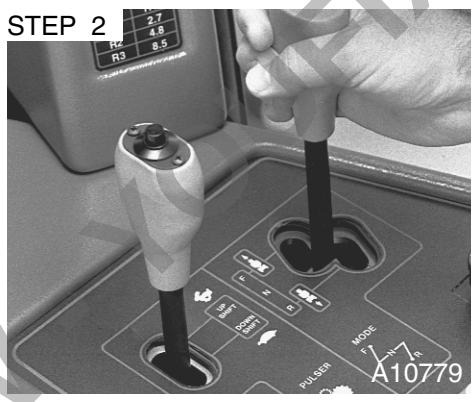
Depress the brake pedal and pull up on the park brake handle to engage the park brake.

STEP 3



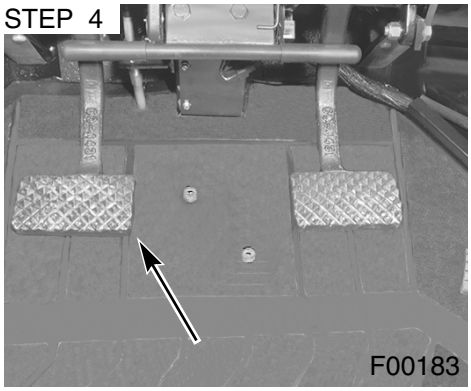
Move the throttle lever forward to 1/4 to 1/2 open position.

STEP 2



Put the transmission mode or gear shift lever in the NEUTRAL position.

STEP 4



Push the inching pedal down completely.

IMPORTANT: *Engine overspeed will cause engine damage. To avoid overspeeding the engine when transporting heavy implements and/or descending grades at transport speeds, throttle back and reduce engine speed before downshifting. Shift down before descending steep grades to a gear that will allow the engine to control the speed.*

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The best method to determine the static axle load under these conditions is to scale weigh the tractor. Use the following procedure to weigh the tractor on a scale to determine correct tire pressure.

1. Front axle weight with rear implement lowered or, front axle weight with front implement raised.

2. Rear axle weight with rear implement raised, or rear axle weight with front implement lowered.

NOTE: *If scale weighing is not possible, estimate the additional implement weight or use the weight stated in the implement operators manual.*

Tire Inflation Procedure

Use the safe tire inflation procedure specified below to add air to a tire.

See Tire and Rim Service on for instructions on recommended tire maintenance and tire or rim repair.

WARNING: A tire can explode during inflation and cause serious injury or death. Never increase air pressure beyond 35 PSI to seat the bead on the rim. Replace a tire if it has a defect. Replace a wheel rim which has cracks, wear or severe rust. Make sure that all the air is removed from a tire before removing the tire from the rim. Never use force on an inflated or partially inflated tire. Make sure the tire is correctly seated before inflating. M170A

DO NOT inflate a tire that has had a complete loss of air. If the tire has lost all air pressure, have a qualified tire mechanic service the tire.

To ADD air to a partly inflated tire, use the following procedure:

1. Use an air hose with a remote shutoff valve and a self-locking air chuck.
2. Stand behind the tread of the tire and make sure all persons are away from the side of the tire before you start to add air.
3. Inflate the tire to the recommended air pressure. DO NOT inflate the tire more than the recommended pressure.

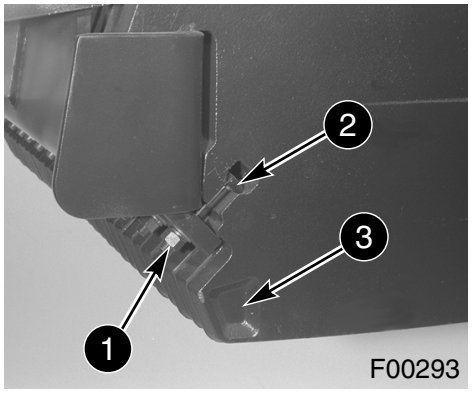
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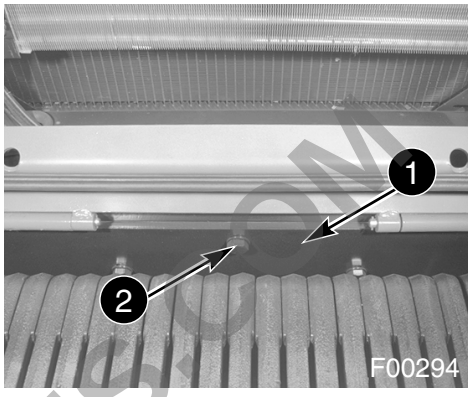
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Front End Weight Mounting (If Equipped)



1. CLAMP
2. CLAMP BOLTS
3. INTERLOCK FEATURE



1. WEIGHT FRAME
2. TORQUE BOLTS TO 460 TO 540 LB FT (610 TO 730 Nm)

Make sure that the weight frame mounting bolts are tightened to a torque of 450 to 540 lb ft (610 to 730 Nm). The weights are interlocking for easy mounting. Each weight interlocks with the next weight. Center the first six weights on the weight frame. Use three mounting clamps for each six weights. Use two additional clamps for each additional six weights. Install a clamp on each end weight.

Install the remaining clamps evenly between the end weights. Make sure that the mounting clamps are mounted as shown in the picture above. The clamps must be mounted so that one end of the bracket is up against the lip of the weight and the other end of the bracket is up against the tip of the weight frame.

WARNING: Suit case weights are extremely heavy. To prevent injury, always use an adequate lifting device to install or remove front end or rear end weights. M417

Rear End Weight Mounting

Make sure that all rear weight frame mounting bolts are tightened to a torque of 450 to 540 lb ft (610 to 730 Nm). The weights are interlocking for easy mounting. Center the weights on the weight frame(s) as needed. Use a clamp on every other weight in the same manner as described for the front end weights.

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SYSTEM CAPACITIES

	U.S. Measure	Metric Measure	Imperial Measure
Engine Oil - with Filter	10.2 Gal.	38.6 Litres	8.4 Gal.
Cooling system	18.3 Gal.	69.0 Litres	15.2 Gal.
Powershift Transmission - with Filter			
with PTO	10.5 Gal.	39.7 Litres	8.7 Gal.
without PTO	10.0 Gal.	37.8 Litres	8.3 Gal.
SynchroShift Transmission - with Filter			
with PTO	12.5 Gal.	47.3 Litres	10.4 Gal.
without PTO	12.0 Gal.	45.4 Litres	9.9 Gal.
Hydraulic System - with Filter	18 Gal.	68.1 Litres	14.9 Gal.
Differential and Planetaries Total Capacity			
Front Axle	9.0 Gal.	34.0 Litres	7.5 Gal.
Rear Axle	9.0 Gal.	34.0 Litres	7.5 Gal.
Fuel Tank	270 Gal.	1022 Litres	225 Gal.
Master Cylinder Brake	1 quart	0.946 Litres	0.8 Qt.

ENVIRONMENT

Before you service this machine and before you dispose of the old fluids and lubricants, always remember the environment. DO NOT put oil or fluids into the ground or into containers that can leak.

Check with your local environmental or recycling center or your dealer for correct disposal information.

PLASTIC AND RESIN PARTS

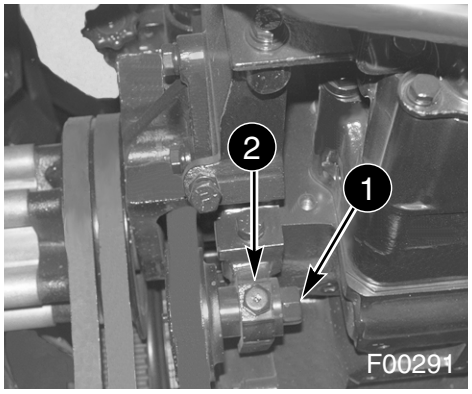
Avoid using gasoline, kerosene, paint thinner, etc., when cleaning plastic windows, console, instrument cluster, monitor, gauges, etc. Use ONLY water, mild soap and a soft cloth when you clean these parts.

Using gasoline, kerosene, thinners, etc., will cause decoloration, cracking or deformation of the part being cleaned.

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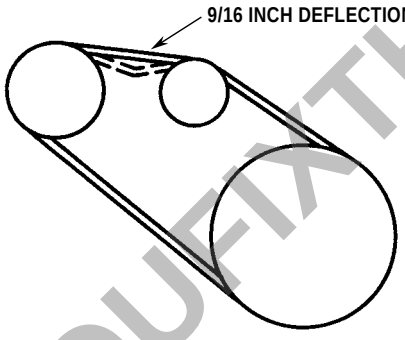
Water Pump Belt Replacement (9370-9380)

1. The fan belt and compressor belt must be removed to replace the water pump belt (See Fan Belt Replacement). Loosen the lock nut (1) that secures the idler pulley to the bracket. Loosen the adjusting bolt (2) and remove the water pump belt.



1. LOCK NUT 2. ADJUSTING BOLT

2. Tighten the adjusting bolt until the belt is at the correct tension. The correct tension is 9/16 inch (14.2 mm) belt deflection with a 25 lb (11.3 Kg) force applied between the pulley centers. Tighten the idler pulley lock nut to a torque of 45 to 55 lb ft (61 to 75 Nm). Reinstall the fan belt(s) and recheck belt tension after a 10 minute run-in.

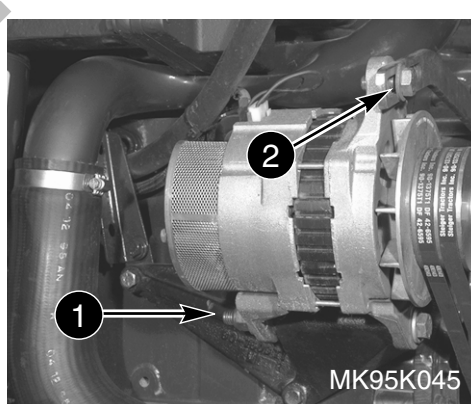


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NOTE: *Also refer to your Cummins Operation and Maintenance Manual supplied with your tractor for additional drive belt information.*

Alternator Belt Replacement (9370-9380)

1. The fan belt must be removed to replace the alternator belt(s) (See Fan Belt Replacement). Loosen the pivot bolt (1). Loosen the strap bolt (2) and push the alternator towards the engine to remove the belts.



1. PIVOT BOLT 2. STRAP BOLT

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DIESEL ENGINE

Model ..... Cummins N14
Type ..... Six Cylinder, Four Stroke Cycle, Turbocharged Aftercooled in Cylinder Head
Timing Order 1-5-3-6-2-4
Bore ..... 5.5 inch (140 mm)
Stroke ..... 6.0 inch (152 mm)
Piston Displacement ..... 855 Cubic Inch (14.0 Litre)
Compression Ratio
- 9370 ..... 18.5 to 1
- 9380 - 9390 ..... 16.5 to 1

Cylinder Sleeves ..... Replaceable Wet Type
Governor Speed without Load ..... 2275 - 2450 RPM
Rated Engine Speed ..... 1700 to 2100 RPM
Engine Idle Speed ..... 825 to 900 RPM

Engine Lubrication System

Oil Pressure at Idle Speed (Minimum) ..... 10 PSI (70 kPa)
Oil Pressure at 1300 RPM ..... 35 to 40 PSI (240 to 310 kPa)
Type of System ..... Pressure and Spray

Fuel System

Fuel Injection Pump ..... Cummins
Fuel Injectors ..... Cummins
Tank Capacity ..... 270 Gallons (1022 Litres)

Air Intake System

Type ..... Dry Type Two Stage Aspirator System with Service Indicator in Instrument Cluster

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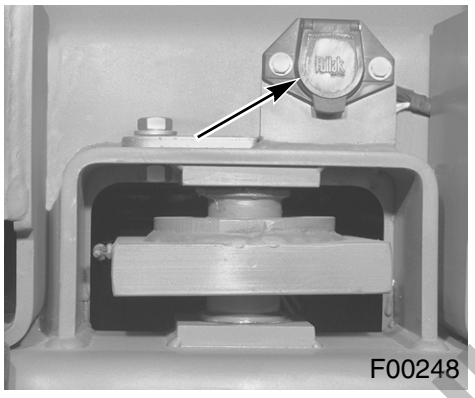
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AUXILIARY POWER CONNECTIONS

Seven Terminal Outlet

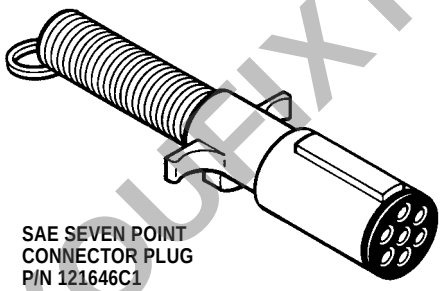
A seven terminal electrical outlet is located on the rear of the tractor. The outlet conforms to SAE J560 for interchangeability. The outlet provides power for auxiliary left turn signal, right turn signal, tail lamp and ignition switch power.



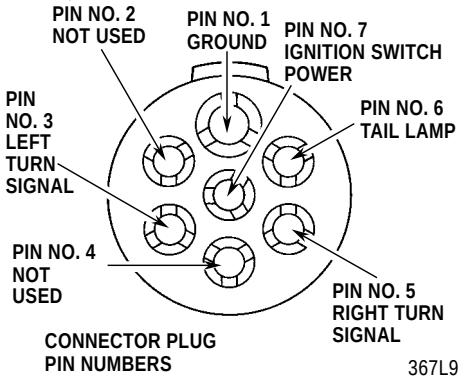
Use a mating seven terminal connector plug for connecting the implement wiring. A connector plug kit is available from your dealer.

The diagram shows the connector plug pin numbers and usage.

NOTE: *If the connector plug on the implement wiring is not a seven point SAE connector plug, the plug must be changed.*



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