

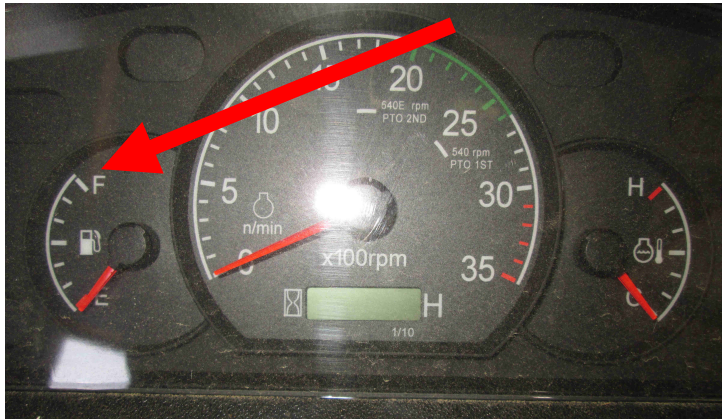
McCormick X1.35 Operating Manual

Maintenance

If the tractor has been used any significant amount of time in the previous start or I'm getting ready to do some major work, I always make the following routine checks. (See my Maintenance Manual for more detailed explanations and additional items to check.)

Fuel

The fuel level is checked using the fuel gage on the dash panel. The key switch must be in the "ON" position for the fuel gage to register. Diesel engines are difficult to start if they're run out of fuel.



Engine Oil Level

The engine oil level is checked with the dipstick on the right, rear of the engine. See my Maintenance Manual for correct reading.



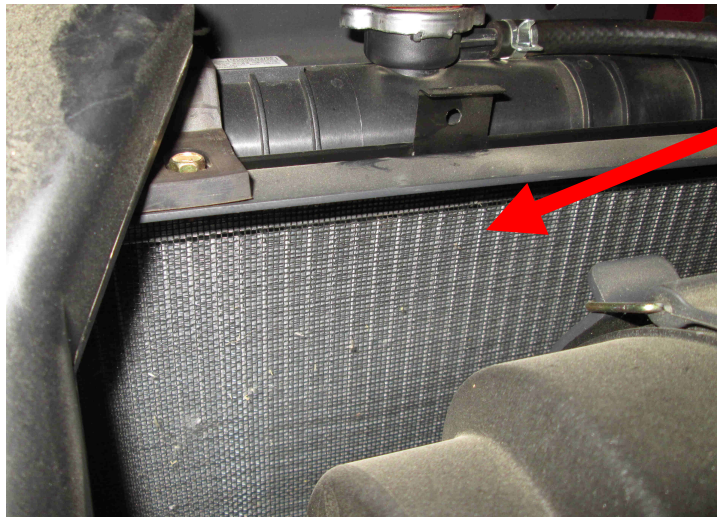
Coolant Level

The coolant level is checked using the overflow reservoir located under the hood on the left, front of the tractor. See my Maintenance Manual for correct level.



Radiator Screen

The radiator screen is located under the hood directly in front of the radiator. Clean as per my Maintenance Manual.



There are several other maintenance items that should be checked periodically as listed in the Maintenance Manual supplied by the manufacturer, but these are the items that I feel should be checked before each major use.

Starting

There are several routine maintenance and safety checks that should be made as suggested by the manufacturer, but the basic starting procedure requires three things.

PTO selector in Off position.



Shuttle Shift in the neutral position

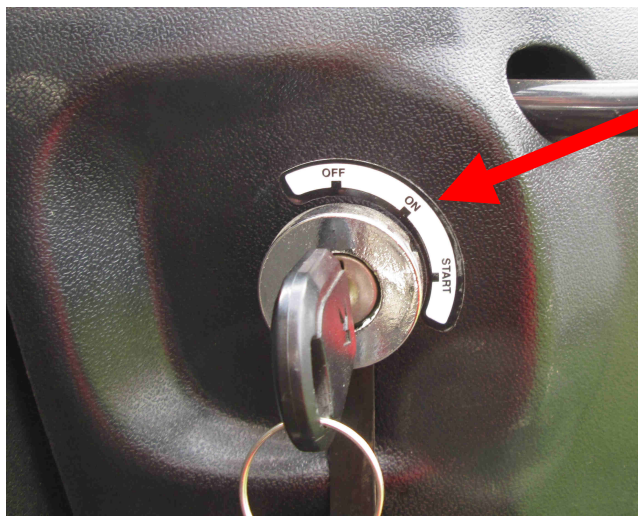
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Clutch Pedal depressed



With these three criteria met, the engine is ready to start. **Turn the ignition key to the “ON” position.**



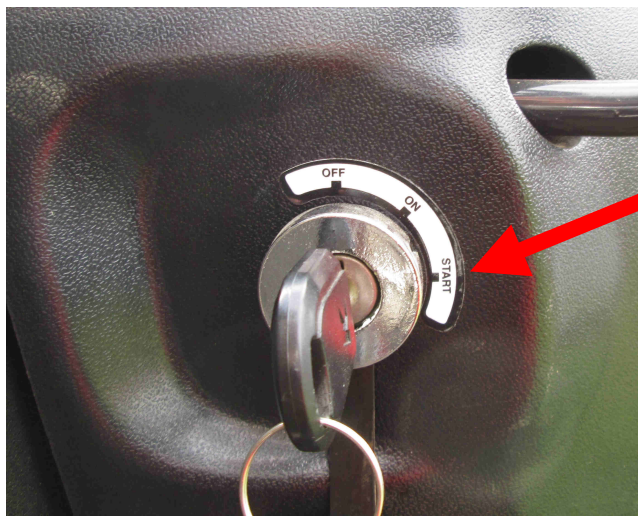
Notice the glow plug light on the bottom, right of the instrument panel.



Leave the ignition key in the “ON” position until the glow plug light disappears.



With the glow plug light extinguished, **turn the key switch to the “START” position.**



When the engine starts, release the key and it will automatically return to the “ON” position.

And, that's the basics of the starting procedure. [The manufacturer recommends several safety checks as well as additional precautions before starting the engine.](https://truckmanualshub.com/) Check the operator's manual supplied by the manufacturer for these checks and precautions. Following are two of those recommendations.

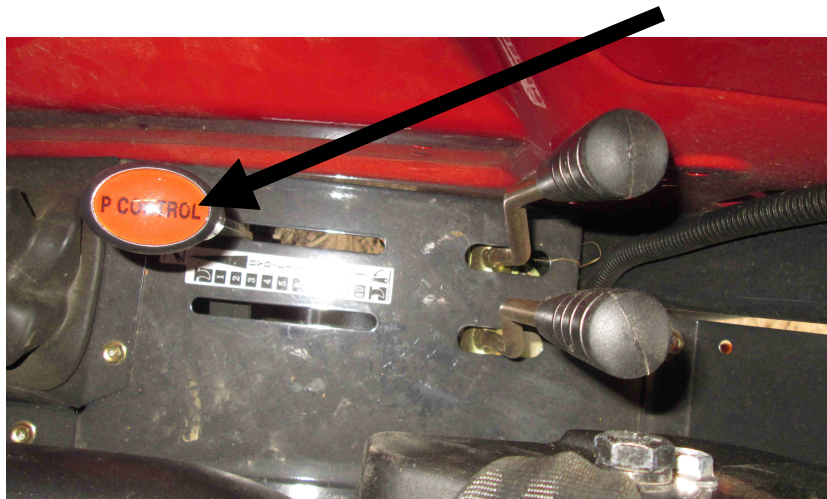
The manufacturer recommends the Throttle Lever be in the minimum (forward most, turtle) position when starting the engine.



Once the engine has started, move the throttle until the engine speed reaches about 1500 rpm and let the engine warm up before any heavy use.

Position Control

The Position Control lever (labeled P Control on the tractor) is located below and along side the operators seat.



As a safety precaution, the manufacturer recommends the Position Control lever be in the lowest (forward) position. If the Position Control is not in the forward position and the rear lift has “drifted” down after setting a while or if someone has moved the lever, it will immediately return to the position determined by the P Control lever once the tractor is started. This unexpected rise of the rear lift could present a safety hazard.

General Operating Procedure

Shuttle Shift Lever

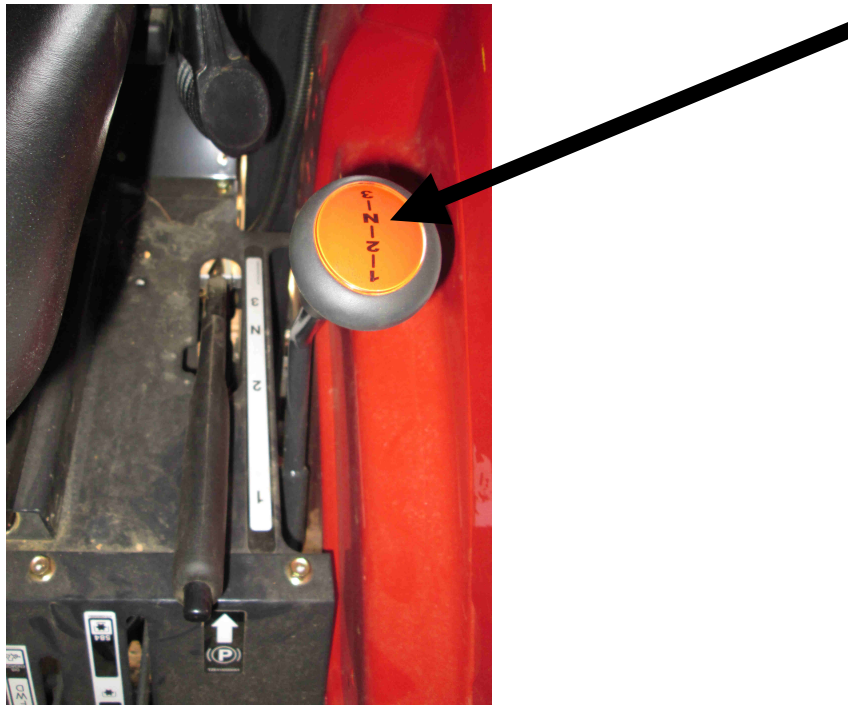
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The shuttle shift lever, located to the left side of the steering wheel, determines if the tractor moves forward or backward. The clutch must be depressed to reposition the lever. Moving the shuttle shift forward allows the tractor to move forward when the clutch pedal is released. With the shuttle shift in the neutral, central position the tractor will not move but is able to coast. It's also the position necessary for starting the tractor. With the shuttle shift in the rear position, the tractor will move backward. With both the range selector, gear selector and shuttle shift in a position other than neutral, the tractor will stay "parked" when the engine is not running.



Range Selector Lever

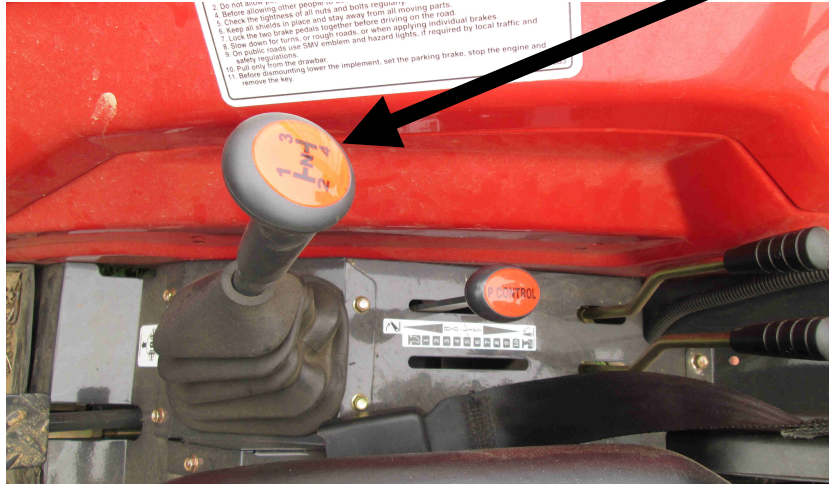
The Range Selector lever is located to the left of the driver's seat.



The range selector has four positions, 1, 2, N (neutral) and 3. The higher number results in a faster speed. The manufacturer recommends the Range Selector be in the N (neutral) position for starting the tractor. That is not necessary but it is a safety precaution. With the engine running, the clutch must be depressed to shift the range selector between ranges.

Gear Shift Lever

The gear shift lever is located to the right side of the driver's seat. It is used in conjunction with the Range Selector Lever to determine the forward or reverse **speed** of the tractor. (The forward or reverse **direction** is determined by the position of the Shuttle Shift Lever.)



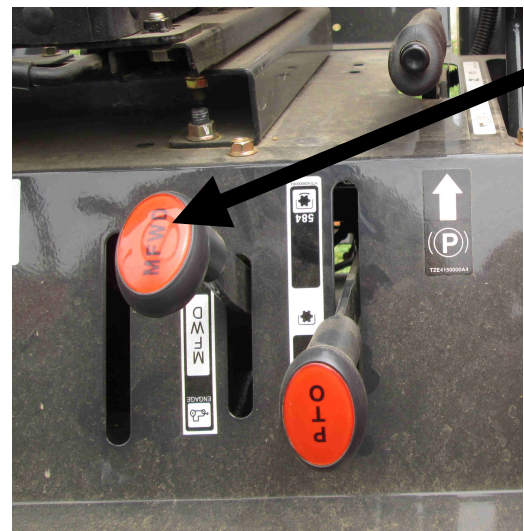
The Gear Shift Lever has 5 positions, 1, 2, 3, 4 and N.



The Gear Shift Lever along with the Range Selector Lever determines the forward or reverse speed of the tractor. The combination of the two allows for 12 speeds in either direction. With the engine running, the clutch must be used to shift the Gear Shift Lever. With the lever in the neutral (N) position, the tractor will not move with the engine running, but can coast.

MFWD Lever

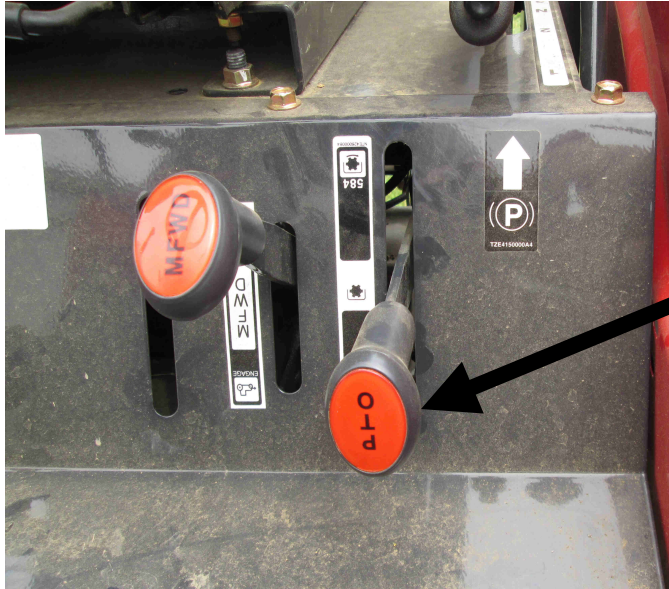
The MFWD Lever determines if the tractor is in 2 or 4 wheel drive.



The lever is located just below the driver's seat on the left side. In the "up" position the tractor operates in 2 wheel drive and in the "down" position the tractor operates in 4 wheel drive. The clutch must be depressed to change the position of the MFWD Lever with the engine running.

PTO Lever

The PTO Lever is located just below the driver's seat on the left side just to the left of the MFWD Lever. The lever has 3 positions. In the "Up" position, the rear PTO operates at 540 rpm with the correct engine speed as indicated on the tachometer. In the "Down" position, the rear PTO operates at 790 (540E) rpm. In the "Center" position, the rear PTO does not operate and allows the PTO shaft to be rotated for alignment when connecting an attachment.

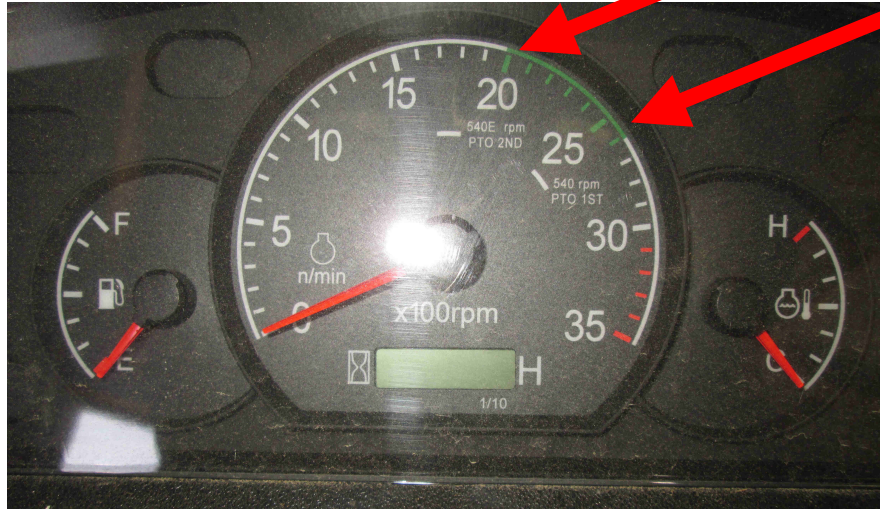


The 790 (540E) position allows the rear PTO to be operated at 540 rpm at a lower engine rpm for fuel efficiency for an implement that requires less power. The PTO is engaged using the switch located directly below the steering wheel.



Since the switch is electrically activated, it's either **Off** or **On**. For that reason, the engine should be at an idle when the switch is engaged and then brought up to speed. The IND position of the switch is used if the PTO is to be operated continuously. The LINK position is used if the operator wants the PTO to stop when the rear implement is raised. In this position, the PTO will stop when the attached implement is raised and start again when the implement is lowered.

The tractor tachometer indicates the correct rpm for the two positions to obtain 540 rpm. With the PTO Lever in the raised position, the tachometer should read about 2600 rpm for the rear PTO to be operating at 540 rpm. With the PTO Lever in the lower position, the tachometer should read about 2000 rpm for the rear PTO to be operating at 540 rpm.



Brakes

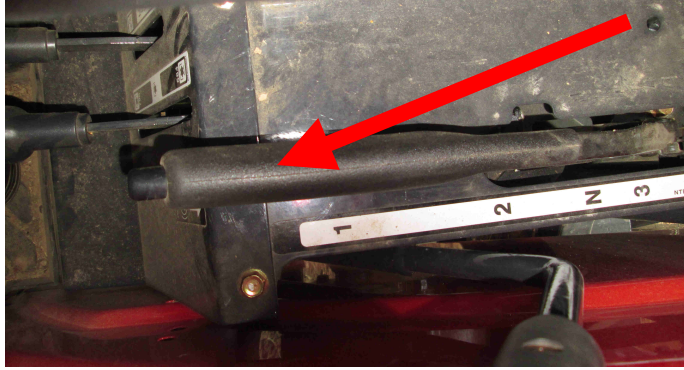
The brake pedals are located on the right side of the tractor. The rear brake lights will glow any time the brakes pedals are used and the ignition switch is on. By locking the two brake pedals together equal braking will be applied to both rear wheels when the brake pedals are depressed. There is a lever which locks the two pedals together.



Flipping the lever to one side allows each rear wheel to be braked independently. For safety, especially at high speeds, the pedals should remain locked together.



The tractor contains a parking brake that can be used to hold the brake pedals in the activated position. The parking brake is located to the left of the driver between the seat and Range Selector Lever.



The brake is set by pulling the parking brake lever up while depressing the brake pedals. To release the brake, depress the brake pedals, push in on the button located on the end of the brake lever and lower the lever. The rear brake lights will remain on until the ignition switch is switched off or the parking brake is released.

Rear Drawbar

In addition to the rear 3 pt lift, the tractor contains a stationary rear drawbar. The drawbar is stored in a forward position.



The drawbar can be extended rearward by removing the retaining pin and sliding the drawbar outward. The drawbar can be maintained in the extended position by reinstalling the retaining pin.



A close-up photograph of a bolt and nut assembly on a dark, heavily textured metal surface. The bolt is silver-colored and passes through a hole in the metal. The nut is also silver-colored and is tightened onto the bolt. The metal surface is dark and appears to be made of a composite or heavily treated material, with some lighter-colored fibers or debris visible. To the left, a vertical metal rod or pipe is visible. Below the main assembly, a series of small, dark, circular holes are visible in a metal plate. The background is a light-colored, sandy or dusty ground.

[illegible]

A close-up photograph of a mechanical assembly, possibly a valve or actuator. The main body is dark, cast metal with various bolts and fittings. A prominent feature is a handle on the right side, which has a silver-colored grip and a white circular end cap. The handle is connected to a central shaft or rod. The assembly is mounted on a base, and there are several other components visible, including a large black pipe or hose on the left and a metal bracket or support structure. The overall appearance is industrial and somewhat worn.

While I found the Operator's Manual supplied with the tractor very difficult to follow and understand, it did contain a lot of useful information involving safety and the identify of various tractor components. For that reason I would suggest that anyone purchasing a McCormick X1.35 thoroughly study the Operator's Manual and use this manual only as a supplement.