## **Starting Problems - How to Diagnose**

Your tractor will not start and you are unsure where to begin to try and fix it. Experience is the best guide, but you need to start somewhere.

An internal combustion engine needs three things in order to run: compression, fuel and spark at the right time. If you understand each system and its components, you will be able to systematically eliminate potential causes until you find your real problem.

1. Fuel. In order for your motor to function, fuel needs to travel from its container (the fuel tank), down the fuel line to the carburetor, where it will be vaporized and drawn into the cylinders of the engine through the manifold and intake valves.

Start with the simple stuff.

Is the carburetor float bowl filling with fuel?

Is there gas in the gas tank?
Is the gas tank clean or full of sludge that might be stopping up outlets?
Is the tank vented? Are the vents open?
Is the shutoff valve open?
Are the fuel screens clean (there are 3 in an N series tractor)?
Is the fuel line clear of blockages?

An easy and quick test is to remove the drain plug from the bottom of your carburetor and see what happens. You should get a steady flow of gasoline. If your not, work from the top down and figure out the location of the blockage.

Once you have established that fuel is getting into the bowl of the carburetor, you have eliminated most but not all of the potential fuel delivery problems. Don't jump to conclusions yet, but its time to look at other potential causes.

[To be continued]

