Tips for Ford N Tractor Owners

By: Bruce Haynes (aka Bruce (VA))

I first began collecting these tips and writing them in the margins of my manuals when I purchased my first 8N in 1999. Over the years of owning 8N's and other Ford tractors, I have managed to refresh what little mechanical knowledge I had and add a little more, thanks to the wisdom and helpfulness of many fellow N owners on this and other tractor boards. The original “50 Tips” first appeared in the N-Newsletter, Vol. 21, Number 3, Summer 2006. With the assistance of Chris Britton (aka Soundguy), the original 50 Tips were revised and 25 more were added in 2012. These tips appeared in volume 27, number 3 and volume 27, number 4 of the N-Newsletter in July and October, 2012.

1. The governor has a long bolt and a short bolt; make sure that you put the short bolt on the top. If you put the long bolt on top, your next project will be to replace the timing gear. Or, replace the top bolt with a stud.

2. Front wheel dust seals are installed with the rubber toward the spindle and the metal toward the bearings. That’s because they are dust seals, not grease seals.

3. The N tractors have a common sump for the rear end, hydraulic pump and transmission. There are three drain plugs under the tractor and one filler cap behind the gear shift. To change the fluid, start by removing the pipe plug under the rear end (results in a more controlled drain, rather than a flood if you remove the other plugs before this) and move forward to the hydraulic pump and then the transmission. Use universal tractor fluid (UTF) that meets Ford spec M2C-134D. (Read the label.) Or you can use SAE 90W gear oil. CNH sells their oil as “Ambra G134”. Get the equivalent oil at TSC as Traveller brand GL1 or NAPA, Part No. 65-205.

4. To add just the right amount of hydraulic fluid, remove the bottom bolt from the inspection plate; unless you just cleaned out the sludge in the pump base, it will only take about 4 ¾ gallons (not 5) of the hydraulic oil. When the oil leaks out of the bolt hole, it has enough in it. If you have old, worn seals, any more fluid will leak past the seals and onto the brakes.

5. It is not necessary to add lead to the gas or use hi-test gas. This is a low compression (6.5:1) low horse power (23 hp) engine with hardened valve seats.

6. Pick the weight of the engine oil by the condition of the engine (oil pressure) and the outside temperature. Many folks use 30w detergent all year. A straight weight oil is probably ok in a hot climate, but you will get excessive engine wear on startup in cold climates. (That’s one reason multi-viscosity oil was invented) A worn engine is going to need a heavier weight oil to maintain oil pressure at operating speed and temp. Many use 10w30, 15w40 or even 20w50. Some like the newer diesel rated oil because of the additives for the flat tappets and highly recommend Shell Rotella T 15-40. Increase the weight if the engine has low oil pressure. Switching to detergent oil is not going to loosen up the sludge in the engine.

7. Use Champion H-12 or Autolite AL437 plugs, as they run hotter than the original spec Champion H-10s. Always blow out the plug wells in the head with your air compressor to keep dirt and debris out of the cylinders when the plugs are removed. If you do not have a spark plug thread chaser, you can cut grooves in an old plug like a tap and use that to clean the threads. The spark plug thread size is 14mm x 1.25mm pitch.

8. The exhaust pipe clamp has a big side and a small side. The big side goes to the bottom.

9. Henry Ford was a frugal man and would never install anything on a tractor that was not essential to its operation. The fuel shut-off valve on the sediment bowl is there for a reason; shut the gas off when you turn off the ignition key every time! If you
forget and leave it on, and the needle valve or float in your carb is bad and the intake hose from the air filter is secured tightly to the carb, gas will flow from the carb into the intake manifold and into the engine, filling your oil pan with gasoline.

10. The NAPA part number for the sediment bowl gasket is 730-9506, but I have stopped using them because NAPA reduced the thickness. I use TSC part number 0237144. It’s cork, so soak it in gas first.

11. Safety first! N’s have only two safety features: the starter switch and common sense.

- If your tractor is sitting on frozen ground, BACK UP before trying to go forward. If the wheels are frozen to the ground and you let the clutch out in a forward gear, the tractor can flip over.

- Carry (mount) a fire extinguisher and make sure you shake or tap the powder loose about every two months. A fire extinguisher can be easily mounted with radiator clamps or Velcro to the left side lift arm (the one without the leveling box).

- If you leave equipment attached to the three-point, lower it to the ground.

- Don’t wear loose clothing that could get caught up in the PTO.

- If the ramps on your trailer are steep, back onto it to avoid a flip over.

12. When removing the hood from the 8N, first drain all the gas out of the tank and, second, ask the neighbor for help. Disconnect the light wire and the fuel line. Remove the four bolts on the dash and the two on the dog legs and the radiator cap. Have saw horses ready to put it on.

13. If your N won’t start, you need to check for spark and fuel. There are ways to check for spark and fuel that work and ways that don’t. Remove the bolt in the bottom of the carb. As long as the fuel is turned on, you should see a steady flow out of the carb. It’s not the color of the spark but the distance the spark jumps at the plug that gives you the info you want. It takes about 17kv to jump a 3/16” gap and 22kv to jump ¼” in the open air, so that’s why you need to use an old spark plug with the gap opened to ¼ “. Or, use a store-bought spark plug checker. Because it’s 14psi outside of the engine and about 90psi at a 6:1 compression ratio in the cylinders and compressed air creates electrical resistance, you need the 17-22kv to fire the plugs when the engine is running.

14. Think you have governor problems? There are three ways to check to check the operation of the governor. Get the throttle lever at its lowest point (engine idling) Then, start tapping the throttle lever slowly open. How far does the throttle move before the engine speeds up? Lack of low speed throttle response (like about 1/3 of the throttle) is the classic symptom of a bad or out of adjustment governor. Next test, put it in gear at about 1/4 throttle, put your foot on both brakes and let the clutch out. The engine should throttle up as the governor arm opens the throttle plate in the carb to compensate for the load on the engine. Next test, with the tractor running, pull on the rod going to the carb; does the governor pull back? If that does not work, get out the I&T FO4 manual and check out the ‘adjusting governor’ paragraph. Finally, before I paid $200 or more for a governor, I’d pull it off and open it up. It could just need new balls and races.

15. Think your N needs an in-line gas filter? Think again. The three screens the tractor came with will work just fine if you keep them clean. (See tip # 40) These tractors are 60+ years old and they do require maintenance. If you find out that the screens are getting excessively dirty in a short period of time, then reline or replace the gas tank. At some point, 6 in-line filters won’t help a rusty gas tank. A one piece, steel fuel line from the tank to the carb also provides safety and durability. Cutting that steel fuel line and inserting rubber hose around a hot exhaust manifold can be dangerous. And, because this is a gravity fuel supply system, an incorrect in-line filter can restrict fuel flow.

16. Got a problem with the lift arms dropping with the tractor off or the clutch depressed? You probably have a worn lift cylinder or piston (or both), a blown top cover gasket or a leaky pressure relief valve. Take the inspection plate with the
hydraulic dipstick off the rear housing. Lift a heavy implement and look inside with the tractor running and the PTO engaged to see if you notice oil running from the top cover. If oil is running steadily from the top cover the chances are that the lift cylinder needs to be rebuilt. It’s less likely, but a possibility, that the top cover gasket is bad. (It’s very difficult to detect the exact source of the oil leaking inside of the top cover while looking through the inspection port). If no oil is running down from the top cover, look at the rear of the pump in the oil with the load still on it and see if you notice turbulence in the bottom. (Some movement of oil will be normal with the PTO shaft turning). You could have a weak pressure relief valve which will be detected by turbulence in the oil. To check for a slow leak, lift a heavy implement, turn the tractor off and put a ½ inch clear plastic hose on the end of the pressure relief valve and stick the other end of the hose through the inspection port. With pressure in the pump, a bad pressure relief valve will likely show some fluid in the hose.

17. There is a right and a wrong way to put the brake shoes back on. Take pains not to get the springs reversed or the adjusters on up-side down. The adjusters have a "long" side and "short" side. The long side goes up on the left side. The long side goes down on the right side.

18. Always use an Over Running Coupler (ORC). An ORC is a ratchet-like device that fits over the PTO shaft. It prevents the momentum in a heavy piece of turning equipment, like a bush hog, from pushing the tractor forward when you put in the clutch.

19. If you pull stumps or skid logs, hitch to the drawbar as low as possible or you are asking for a flip over. You can pull in reverse, using the front bumper or axle as the anchor point. Better still, hook up your blade to the three-point to avoid a flip over.

20. Adjust third-brush generators to produce no more than 11 amps MAX when starting, and 0-2 amps charge with lights on and running.

21. Open the fuel two full turns for normal operations, all the way out for the one-gallon reserve.

22. Have you adjusted your brake widget lately on your 9N/2N? The 9N and 2N (but not 8N’s) brakes have an adjustment wedge; by turning the wedge with a wrench, you can adjust the brakes.

23. If you ever do any work on the charging system on your N, (remove the battery, disconnect the generator, etc.), you should re-polarize the generator just in case the generator loses its residual magnetism when the battery is removed from the circuit. Unless you have a very early (and rare) 9N with a B circuit generator and voltage regulator; with the engine off, use a set of metal pliers to momentarily jump across the cutout; when it sparks, it is polarized. On the 8N, use a flat-blade screwdriver to momentarily touch the BAT and ARM terminals on the voltage regulator, again with the engine off. If you have the rare B circuit 9N, polarize it BAT to FLD, just like the NAA.

24. The most common reason for an N to “over heat” is over filling the radiator. Only add enough fluid to cover the core. (Check out tips 25 and 35). It is not actually over heating; it is just spewing out the excess water. If the radiator is not overfilled, check for low coolant, a loose fan belt, debris in the radiator fins or a stuck thermostat. A bad water pump will usually squeak or leak. The fan belt should have 1/2" of flex at the mid-point; no more, no less. Unless you have a pusher fan, blowing out the radiator from the engine side is always a good idea.

25. Do use a thermostat. If you don’t, then the engine heats unevenly, which means it wears unevenly. A cool-running engine does not heat the oil sufficiently and you will get sludge build-up in the pan as a result. The tractor came from the factory with a 160-degree thermostat. Sixty years ago, most antifreeze was alcohol based and would evaporate at temps above 160 degrees. You can use a 180-degree thermostat because a hotter-running engine is better on the oil. When installing the 160-degree thermostat in the upper radiator hose, the “pointy” end goes toward the radiator. Don’t worry if you put it in
backwards. As soon as the coolant gets to 212 degrees, it will boil over, because installing the thermostat backwards blocks the upper hose!

26. While a worn shifter boot should be replaced, most moisture gets in the hydraulics from the draft spring, as well as normal condensation from operating.

27. Copper core spark plug wires make a lot of difference in spark quality as compared to automotive resistor wires.

28. Because of safety considerations, a properly functioning OEM starter interlock is worth the time and money to fix, even though it might be cheaper to simply bypass it with a new automotive starter switch. Without a properly functioning starter interlock switch, the tractor will start in gear.

29. Depressing the clutch when starting DOES reduce the starter drag especially when using thick tranny oil or in cold weather.

30. If you are doing a 12-volt conversion, it’s easier to use a “12-volt” coil. That is a front coil with at least 2.5 ohms of internal resistance or a side coil with 3.25 ohms internal resistance. You can use the 6-volt coil with an additional external resistor, but most folks do not have the time or interest to accurately measure coil resistance to determine the necessary value of the additional resistor. (You always need the OEM ballast resistor with a front coil even if you use a 12 volt coil)

31. Periodic lubrication of your 8N steering box is much, much easier than disassembling your steering box to replace the bearings. Look on the right side of the steering box, just above the protractor. Remove the bolt and stick a piece of wire with a “J” hook on the end in the hole. Depending on the model of year steering box, you will find the hole going into the steering box. Get some plastic tubing, stick it on the end of your bottle of 90 W gear oil (or, 140W outboard motor oil) and fill it up. No, you just can’t take the acorn nut off the top of the steering column and fill it from the top. A better solution is to replace the pipe plug on the early 8N steering box or the hex head bolt on the later 8N steering box, both on upper right side of box, with a special piece that has a Zerk fitting screwed on top. This will allow you to pump Cornhead Grease into the box—a better method of lubing. Cornhead grease won’t turn to jelly when temps get hot.

32. More lube tips: Service your air cleaner when you service your oil. Water does collect in there and can block airflow if it freezes. Also, the side mount distributors and the generator have an oil cup that needs a drop or two now and then.

33. If you have a new, round can coil for your 8N that does not show “BAT” and “DIST” on the top of it, just remember, for a POSITIVE GROUND tractor, it’s Positive Plus to Points (PPP) the “+” wire goes to the distributor.

34. The top hole on the three-point rocker was intended ONLY for light draft tillage equipment. DO NOT use it for plowing, mowing, discing, etc.

35. Always use the fan shroud. It allows the air to flow over the entire radiator.

36. If you need to remove the starter, always remember to have two nuts to place on the two long starter bolts as soon as you loosen them from the block. If you forget and the armature comes out of the starter housing, you will learn how to hold the spring-loaded brushes back with toothpicks while you put the armature back in the housing.

37. The screws holding the points to the plate in the distributor can wear out, causing the points to slip. Replace them with No. 8-32 x 3/16” screws. Make sure they do not extend under the plate and interfere with the advance weights.

38. If you forget and leave the ignition key on and the points just happen to be closed when the engine stopped turning, the chances are about 99 percent that the distributor points are burned up. If you are very unlucky, so is the coil. Turn the key off.
39. At a minimum, you need to have an operator’s manual for your N, as well as the I&T FO-4 shop manual. A parts catalog is a nice addition.

40. The operating to maintenance ratio of these tractors is about 10:1, i.e., for every 10 hours of operation, you can expect to spend about an hour on maintenance.

41. A small gauge 12-volt battery cable will not work properly on a 6-volt tractor. Use a 1 or a 0 gauge cable to go to the starter (negative) and the OEM strap for the positive cable.

42. One of the least expensive and best projects you can perform on an N tractor is to replace the wiring harness. You can also clean all of the grounds properly as you install the harness. Removing the air filter canister and tool box makes rewiring very easy.

43. To jumpstart a 6-volt tractor with a 12-volt battery, put the tractor in neutral, block the wheels and turn the key on. Place one jumper cable on the stud on the starter. Make sure the tractor is in neutral, because when you place the other jumper cable on the frame of the tractor, the starter will engage and turn the engine over. This bypasses the neutral safety switch and the solenoid. The 12-volt battery will not harm the 6-volt starter unless you crank it for three to five minutes. However, if you jump the 12-volt battery directly to the 6-volt battery, you stand a good chance of a battery explosion.

44. The hydraulic pump safety valve is set at about 1,600 psi minimum. The most you can lift is about 1,200 pounds directly over the drawbar, which is reduced even more the further to the rear that the center of gravity of the load is positioned. Typical equipment (discs, bush hogs) center of gravity may place that at around 800 lbs.

45. The OEM fuel system had three fuel screens: one inside the gas tank as part of the sediment bowl stem, one in the top of the sediment bowl, and one in the brass elbow going into the carburetor. The screen in the top of the sediment bowl and the one in the carburetor elbow should be cleaned when you change the oil.

46. Getting a compression gauge screwed into the spark plug hole underneath the gas tank is a tight fit. If your compression gauge has an adapter that screws into the head, then get a brass elbow from the local plumbing supply store, screw the elbow into the adapter and the gauge into the elbow.

47. A digital multi-meter is a handy and usually inexpensive tool to have around the shop. But, most inexpensive digital multi-meters do not like the electrical “noise” produced by the N’s generator brushes. The test leads act as antennas and the meter gives some erratic readings as a result. Stick with the old analog meter for your old N. An analog meter is the kind with a needle that sweeps across printed numbers on the gauge, while the digital type displays numbers on an LCD screen.

48. Parking brakes are an inexpensive and wise investment for your N. If you do not have parking brakes on your N, get in the habit of turning the engine off when you get off the tractor. Under no circumstances should you get off the tractor with the engine running AND the PTO engaged.

49. The cheapest and easiest way to test your battery is with a battery hydrometer. They are available at most auto parts stores for under $10. They work by measuring the specific gravity of the electrolyte in each cell of the battery.

50. Some items you will find handy to have in your N’s toolbox for troubleshooting are an old spark plug to test for spark or a spark checker, a 7/16 box-end wrench to remove the bolt in the bottom of carb to check for fuel flow and a short piece of wire with alligator clips on both ends to jump the easy-to-fail ignition switch.

51. There are two theories regarding the purpose of the hole with the cotter key hanging out of it. Theory-1 says it is a weep hole for excess oil/hydraulic fluid that leaks past the seals. The hole lets it drip out, keeping it off of the clutch plate. The
cotter key is in the hole to keep dirt from packing the hole shut. Theory-2 says the cotter key holds the tractor together. I'm going with Theory-1, but I'm not planning on removing the cotter key to disprove Theory-2!

52. Did you extend the Bendix when you had the starter off the tractor? You can hold the gear up to a wire brush on your bench grinder and spin it in the direction that the engine turns and it will retract. Or, just put it back on the tractor with the Bendix extended. It will retract when the engine starts.

53. If you have an exhaust leak and find the block is badly pitted, (usually around cylinder #4) you will have leak problems; get out the hi-temp metal epoxy. VersaChem's exhaust manifold repair, or ThermoSteel, said to be good to 2,000 degrees. Clean the area real well with brake cleaner, put a little epoxy on it, put some wax paper over it and bolt down the manifold. After it dries take off the manifold and take a die grinder and clean the epoxy that might squish into the port. Put a new gasket on it. Use Permatex hi-temp copper sealer.

54. There are four ways that I've used to remove the brake drum screws and all four worked for me.

- Soak the screws overnight with PB Blaster. Use a hand-held impact driver and a big hammer. If they don't come out in 2 or 3 whacks, move on to the next method of removal or you will break the bit. They will come out this way only if someone else took them out in the last 10 years or so.

- Get a cold chisel and the hammer. Put the tip of the chisel on one side of the screw slot and hit it with the hammer in a direction that will turn the bolt counter clockwise (unscrewing it).

- Put the chisel in the screw slot and hold it there with vice grips. Have a very good friend swing a hammer and hit the end of the chisel while you apply pressure on the vice grips to back the screw out, counter clockwise (unscrewing it).

- Put a cold chisel in the appropriate size socket, put the socket on your air impact wrench and go to it, using the chisel like a screw driver.

Having used all four methods, I just skip ahead to the last one. I've never had to drill them out, but some folks have.

55. The left and right brake pawls are different. The left side with brake rod, small pawl, teeth down. Right side, large pawl, teeth up. They were designed for one to catch on upstroke, and the other one to catch on down stroke.

56. When you remove the carb elbow, don't honk down on it; it's brass. First, use a flare wrench to remove the fitting. Next, if you do not have another fitting to screw into the elbow then use a crescent wrench on the top and bottom (NOT the sides) of the elbow to remove it. Otherwise, you will distort it and you will never get the fuel line fitting back into it.

57. Set the height of your bush hog correctly. The front of it should be 1/2' inch to 1' inch LOWER than the rear. Otherwise you are cutting the grass and weeds twice - once in the front, then again at the rear.

58. The 9N and 2N models had only draft control, but if you can't figure out what the little lever under the right side of your seat is for on your 8N, it's the draft control lever. The only time the draft control lever needs to be down (in draft mode) is when you are plowing. If the plow hits hard dirt, the tractor slows and the draft spring (the big one behind the seat) engages which in turn causes the internal linkage to raise the plow.....and the tractor keeps moving. In the up position, the internal linkage controls the position of the lift arms. If you set the touch control lever with the lift arms half way up, that is where they will stay. There is no position control lever on the 9N and 2N as they only had draft mode. The only way to get position control on a 9N or 2N is to add an external jig/accessory.
59. Make reattaching the engine to the bell housing easier by cutting the heads off of a couple of bolts and put them in the bell housing to act as pilot studs for the engine when you slide it back. If the main shaft doesn’t align with the clutch, have someone slowly turn the PTO shaft until it does.

60. It does not matter if your N is positive ground or negative ground; always hook up the battery charger positive cable to the positive battery post and the negative cable to the negative post.

There are other "rules" too.

- Clean the posts.
- Remove the vent caps and make sure the electrolyte covers the plates before you hook up the charger! (If not, add distilled water)
- Make sure the vent cap holes are open.
- Clean the grease/dirt off the top of the battery.
- Hook up the cables to the battery BEFORE you turn the charger on.
- When the charge is complete, turn the charger off before you remove the cables.
- Check the specific gravity in each cell after it's fully charged.

61. There are two ways to tell the left spindle from the right spindle:

- Install them on the tractor. 99% of the time, you will do it backwards!
- Hold both with shafts pointing out; look down at top, 5 o’clock key is left, 7 o’clock key way is right.

62. The standard 3-point lift arm "balls" should lower to about 8-1/2" above ground and rise to about 34-1/4". Total lift range is 25-3/4".

63. Use CNH part number 87051231 neoprene washer for lift piston instead of the leather washer.

64. Having trouble finding an oil filter for your N because the auto store wants a year and model of your car engine? Just give them a part number:

Baldwin P40Big A 92010
Bosch 72127
Carquest 85010
Fleetguard LF574
Ford CPN 6731B 9N-18649; 9N-6714; 9N-2731
Fram C-3; C-3P *C3 has no handle
Hastings Mighty M3LF-130
Luber-Finer P3
Motorcraft FL144
NAPA Gold 1010
New Holland 86546605
Puralator L20110, L20701
Texaco HSO 100

www.ntractorclub.com
65. If your oil pan plug is frozen on, start with a 6-point socket. If that doesn’t work, try a basin wrench. Or, a pipe wrench held in place with a piece of wood and a bottle jack. That keeps the pipe wrench from slipping off.

66. Quality ignition points are critical to longevity. Having learned the hard way, I most always use Blue Streak brand points. They are made by Standard parts and available at many auto parts stores. Beware of sticker shock: $16-18 a set. My next choices are Wells or Echlin. Look for a brown rubbing block.

67. The next trick to points lasting a long, long time is annual maintenance. (Tip # 40) No matter how well it’s running, pull the distributor (or cap for a sidemount distributor), check the gap and put a dab of points lube on the cam. Not bearing grease or Vaseline; use the correct lube and check the gaskets! Both the side and front distributor caps have gaskets. The gasket under the front coil is important to keep the coil from moving as well as keeping moisture out.

68. You can change points every day and it will not fix bad distributor shaft bushings. If you are having trouble with points failure, check the shaft. If you detect movement, chances are it needs new bushings.

69. You can estimate the speed of the PTO by your throttle setting if your N doesn’t have a tach (proofmeter). Rule of thumb is 3/4 throttle gets you 540 PTO RPM. Or, you can do the math. PTO RPM = Engine RPM divided by 2.75. Max engine speed is supposed to be 2,200 RPM. 3/4's of 2,200 RPM is 1,650 RPM. 1,650 divided by 2.25 = 600 RPM. Close enough for government work.

70. Don’t worry if the sediment bowl doesn’t fill with gas as soon as you turn the fuel on. It won’t fill with the bowl securely on because the float has closed the needle valve in the carb and there is nowhere for the air in the bowl to escape. When the engine is started the needle valve will open and the trapped air will escape through the carb vent. If you loosen the bowl, it will fill.....and leak

71. You can tell what year the engine is by the serial number. The numbers are lightly hand-stamped (not raised) on the left side of the block, below the head and behind the oil filter canister. If the serial number and casting codes on other parts match (or are close) then the entire tractor is probably the same year as the engine.

72. Firing order is 1-2-4-3, CCW. Number 1 is closest to the radiator.

73. There are a number of ways to remove the steering wheel, most of which work and some of which will damage the threads, column or wheel. The best way is a special puller (not a gear puller) that hooks under the spokes; you also need a rod to go inside the hollow steering column to keep the end of it from mushrooming when you screw down on the puller. The acorn nut is not strong enough to let you get away with this. Because I don't have a puller, what I do is remove the acorn nut the night before the wheel needs to come off and soak the column where the wheel attaches with PB Blaster. The next day, I put the nut back on 3 or 4 turns, get up on the tractor and start pulling/tugging on the wheel. 1 out of 3 times, it comes off. If it doesn't, I get out 2 hammers - a 2 lb. and a 4 or 5 lb. I place the head of the heavier hammer on the hub of the wheel just where the spokes attach and then start hitting it from the opposite side with the smaller hammer. I go all the way around the wheel like that 2 or 3 times. It's called "swaging" the metal. Then, back on the seat for a pull and tug session.

74. If you are wondering if an N will pull a tiller, the short answer is no. The longer answer is probably not. The explanation is that the tiller needs 540 RPM to operate. At 540 rpm PTO speed in first gear on an N ground speed is about 3.23 mph. -much too fast for a tiller. The exception would be if the N had a Howard auxiliary transmission to slow the ground speed while maintaining 540 rpm PTO speed. Another exception would be sandy, loose soil and putting the tractor in neutral and letting the tiller push the tractor. Bottom line.....unless you can actually test it on the soil you plan on tilling, I'd stick with the short answer, above.

75. The front distributor fan belt is 45” x 5/8”. Side distributor takes a 41.5” X 5/8” belt.