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Sep 28, 2012 / 66 Ford 3000 Voltage Regulator #1 Hey y'all! Is there any way to check a voltage regulator to see if it is good or not? I have a 66 Ford 3000 diesel and the previous owner has by-passed the voltage regulator and none of the instruments work and I'm thinking that could be the culprit? Y'all got any advice? Or should I just go ahead and buy a $25.00 regulator! Lol! Thanks! Brad Sep 28, 2012 / 66 Ford 3000 Voltage Regulator #2 Why would they bypass the regulator?? If they did that, it either means that the battery isnt charging, or can be overcharging and potentially explode. Not good. Personally, I would just drop the $25 for peice of mind. I dont remember exactally how to test them, but if it is working properly....it sould be buzzing/humming Soundguy is about an expert on these. I am sure he will be along shortly. Sep 28, 2012 / 66 Ford 3000 Voltage Regulator #3 can you describe what you mean with the regulator was by passed what did they do to accomplish this. your tractor should have come with a lucas generator with 6 terminal hook ups 2 which were b+ hook ups the rest are battery field and generator hook ups. by some chance has it been converted to the alternator type set up. if it still generator it should have a tach drive worm gear coming out of back Sep 28, 2012 / 66 Ford 3000 Voltage Regulator #4 regulator.. or stabalizer? and hows the fuse inthe wire harness to the cluster? Oct 1, 2012 / 66 Ford 3000 Voltage Regulator #5 It still has the generator system. Not sure about the fuse? I'm going to get into it soon. Haven't been able to play around with my tractor as of late due to some personal issues. As soon as I get the personal stuff under control I'll be back on the tractor! And the votage regulator/instrument cluster is on the top of my list! Guys, I can't thank y'all enough for the wise counsel and advice! Thanks and God bless! Brad Oct 1, 2012 / 66 Ford 3000 Voltage Regulator #6 again.. stabilizer or regulator.. makes a big difference.... Oct 1, 2012 / 66 Ford 3000 Voltage Regulator #7 Don't know Soundguy? I'll have to look at the part and see if I can read anything on it. Oct 1, 2012 / 66 Ford 3000 Voltage Regulator #8 forget that.. just see how it's hooekd up.. vstab is for the cluster.. vreg is for the genny. 2 completely different parts different jobs.. cause different issues... Oct 1, 2012 / 66 Ford 3000 Voltage Regulator #9 This is what it looks like. Oct 1, 2012 / 66 Ford 3000 Voltage Regulator #10 never mind.. you didn't read any of my replies obviously... Page 2 Oct 1, 2012 / 66 Ford 3000 Voltage Regulator #11 I'm sorry soundguy! I'm at work and cannot physically look at the tractor. I am reading every reply you post! I'll look at it when I get home this evening! Thanks, Brad Oct 2, 2012 / 66 Ford 3000 Voltage Regulator #12 Oct 2, 2012 / 66 Ford 3000 Voltage Regulator #13 I did see that the genny has the cable coming from the back for the tach. Have not located the fuse as of yet. I did notice a single wire running from the harness at the back of the genny across the front of the engine on top right in front of the cylinder cover. Never did locate its destination? I will dig deeper. Oct 2, 2012 / 66 Ford 3000 Voltage Regulator #14 fuses is in near the connector for the plug in for the cluster. wire to the front? i'd look for the water temp sender.. or see if someone scabbed in an electric fuel pump vs the mechanical one up there for the gassers anyway.... yep.. genny runs tach... voltage stabilizer, not regulator runs power to the gauges... Oct 2, 2012 / 66 Ford 3000 Voltage Regulator #15 Alot of wires taped together in the area of the plug for the cluster. I'll remove the tape and see what's underneath! I figured it was the two wires he disconnected from the vstab/vreg? I need to see what it is anyway! I reckon I'll just disconnect the tach cable from the back of the genny to see if I can see what's wrong with the tach? I don't have anything on my instument cluster working. Lights, fuel gauge, tach. Oct 2, 2012 / 66 Ford 3000 Voltage Regulator #16 (sigh) first. the voltage stabilizer and voltage regulator are 2 different things. for the cluster to have power.. vstab and fuse have to be present. tach is 100% mechanical Location North West Wales Have you got an old fashion analog ampmeter/gauge at all? Start tractor, remove battery earth cable and fit the gauge inbetween battery and the earth cable. Rev engine to test for output. DO NOT DO THIS WITH AN ALTERNATOR. If no output you need a voltmeter, again an analog one really. Conect a heavy cable from the output of the dynamo to the field wire. Connect the positive of the voltmeter to the cable you have just looped and the other to earth. Be carefull now as the dynamo will give full output and can burn out. Start tractor with hand ready on the stop lever. Gently rev engine up, once you see the needle on gauge start to move cut engine off. This will prove that the dynamo generates and that the problem is either control box or wiring. Are you familiar with polarising the dynamo and regulator? They need to know if tractor is positive or negative earth. Disconnect field wire from dynamo and run a cable from the whaterver side your battery feed is and flash it onto the field terminal to polarise the dynamo and onto the wire to polarise the control box. You should see a slight spark. If you look at control box, whatever type they will need an earth, a field wire from dynamo, a feed from starter solenoid or battery and a heavy cable from the dynamo, check all these for continuity. Only on Friday I had a 4000 that had burned the wire from dynamo to control box. Reactions: Mursal How do you know its not charging, warning light not going out? We would disconnect the dynamo including the belt (just flick it off) Connect a jump lead to the battery lead going to the starter (should be the positive +) Connect the other end of the jump lead to the large terminal on the dynamo, D It should run as a motor, but flick the pulley to help it get going? If it runs, you need to look at the wiring or regulator, if no go, you need to strip the dynamo, probably needs brushes. To check regulator or wiring: Up at the regulator (big black box with E, F,D,and B terminals) disconnect D and B wires from the regulator. Dont let them touch the steel bodywork. With the tractor running, connect D to B using a light jumper wire, it should start charging, if it does you need a regulator, if not you have a wiring problem. If you need to spend a bit to get it working, consider fitting an alternator, cheaper and better for light yard work. Something like a Lucas ACR35 would be ideal. Just watch belt width/alignment. Easy to convert wiring loom for the alternator, just ask. Jan 3, 2009 / Need help to test charging system on Ford 3000 #1 Hello everybody and Happy new year 2009 !!! My grand father has a ford 3000 since 1971 but this is now not working anymore... Problem is always the battery... i would like to change regulator but before I would like to test all the electrical circuit... Could someone help me or send me tuto explaining how to test it ? Thank you in advance for him. Robby Belgium Jan 3, 2009 / Need help to test charging system on Ford 3000 #2 Hopefully you have a voltage tester. Check voltage of battery at battery terminals while engine is not running, key off. Should be 12 volts. Start tractor and while someone is starting tractor see what the voltage drop is while starting. After tractor is running, you should see an increase in voltage. Rev engine up and voltage should increase to 13 - 14 volts. If it does; regulator is working. If it does not , regulator is not working. If it is the original regulator, points may be stuck. You may want to just change it out. You may want to have battery tested also to rule out battery. Take it to auto store to have it tested. Clean all terminals well; including where ground wire connects to frame. Jan 3, 2009 / Need help to test charging system on Ford 3000 #3 Your service manual should have a section on testing that OEM lucas generator and regulator.. In any case.. the advice to test bat votls before and after start are a good one. Checking the battery with a specific gravity tester is a good idea too. a battery that, after being charged sets at less than 12.6v may be bad.. and if it's votls drop lower than about 9-10 when starting.. she's bad as well.. then you can full field the genny by jumping bat to field blade. (arm and field blade are the only ones back there.. field is the small wire. set throttle to mid idle.. jumping full field should make max charge.. so have meter ready on battery.. if no increase, then jump from arm to battery and full field.. this will rule out bad field circuit on the regulator and bad cutout. if volts comes up on either test.. get a new reg.. I've seen them as low as 10$-20 on the net.. and for about 50$ at your local CNH dealer. this is a B-circuit regulator. soundguy Jan 3, 2009 / Need help to test charging system on Ford 3000 #4 Jan 4, 2009 / Need help to test charging system on Ford 3000 #5 That might be great if he had an ALTERNATOR! Those fords came stock with GENNIES... (even so.. if you know enough about electronics.. you can get some alternator regs to make gennies work.. B circuit gennies anyway...) soundguy Jan 4, 2009 / Need help to test charging system on Ford 3000 #6 Hey Soundguy, Maybe a Alt site but the basics are the same for checking out a Generator on a tractor. Just thought the pictures would help him. Jan 5, 2009 / Need help to test charging system on Ford 3000 #7 The basics of an alt and generator are miles apart electrically. Tell me how I would test the diode trio on a generator? soundguy Jan 5, 2009 / Need help to test charging system on Ford 3000 #8 Hey Sound, I would test the generator at idle, this is when the diode trio is putting out it's best, of course it adds to the voltage with increased rpm's. If there is a loss at idle then there is a problem. Jan 5, 2009 / Need help to test charging system on Ford 3000 #9 News flash.. no diode trio in a generator... no rectifier's whatsoever... good old dirty dc off the armature courtesy of fancy wiring and brushes.. That's my POINT!.. Sending someone to an alternator testing site doesn't send them down the correct road when they need to troubleshoot a DC generator. And as gens go.. that lucas job is a finicky one at that! soundguy Jan 5, 2009 / Need help to test charging system on Ford 3000 #10 He sounded like he had never tested a system, the alt pictures would have helped the average guys some. Maybe this will help, did a little digging but it answers the question better on the old generators. Generators and Charging Systems He gets a little technical for some but it better explains a diode trio better than I can. Page 2 Joined Mar 11, 2002 Messages 51,575 Location Central florida Tractor RK 55HC,ym1700, NH7610S, Ford 8N, 2N, NAA, 660, 850 x2, 541, 950, 941D, 951, 2000, 3000, 4000, 4600, 5000, 740, IH 'C' 'H', CUB, John Deere 'B', allis 'G', case VAC ARGH.. why bring up a diode trio.. there are no diodes in a generator charge system!!!!! just confuses the point! soundguy Jan 3, 2009 / Need help to test charging system on Ford 3000 #1 Hello everybody and Happy new year 2009 !!! My grand father has a ford 3000 since 1971 but this is now not working anymore... Problem is always the battery... i would like to change regulator but before I would like to test all the electrical circuit... Could someone help me or send me tuto explaining how to test it ? Thank you in advance for him. Robby Belgium Jan 3, 2009 / Need help to test charging system on Ford 3000 #2 Hopefully you have a voltage tester. Check voltage of battery at battery terminals while engine is not running, key off. Should be 12 volts. 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Jan 5, 2009 / Need help to test charging system on Ford 3000 #9 News flash.. no diode trio in a generator... no rectifier's whatsoever... good old dirty dc off the armature courtesy of fancy wiring and brushes.. That's my POINT!.. Sending someone to an alternator testing site doesn't send them down the correct road when they need to troubleshoot a DC generator. And as gens go.. that lucas job is a finicky one at that! soundguy Jan 5, 2009 / Need help to test charging system on Ford 3000 #10 He sounded like he had never tested a system, the alt pictures would have helped the average guys some. Maybe this will help, did a little digging but it answers the question better on the old generators. Generators and Charging Systems He gets a little technical for some but it better explains a diode trio better than I can. Page 2 Joined Mar 11, 2002 Messages 51,575 Location Central florida Tractor RK 55HC,ym1700, NH7610S, Ford 8N, 2N, NAA, 660, 850 x2, 541, 950, 941D, 951, 2000, 3000, 4000, 4600, 5000, 740, IH 'C' 'H', CUB, John Deere 'B', allis 'G', case VAC ARGH.. why bring up a diode trio.. there are no diodes in a generator charge system!!!!! just confuses the point! soundguy Dec 30, 2016 / New (to me!) ford 3000, runs great, charging issue? #1 Hey there! I picked up a new to me 73 ford 3000 diesel that has been well taken care of and in great shape. Up here in Montana it's been cold (32 down to -20) so I'm mostly using it to plow snow. I'm a TOTAL newbie when it comes to tractors, despite admiring them from a distance for years and years. My wife and I have started our own little homestead out here on 10 Acres, and I'm using Henry (his name) primarily for snow removal these days to clear our 1 mile road. I love every minute of it! But first an issue. My battery wouldn't crank the engine once or twice without a jump from my truck, so I picked up a new battery from Napa (wow! Huge and expensive!). I figure the cold snap did it in, it was 2 years old. The engine would crank, sometimes slowly, but I always plugged it in (block and radiator heaters) a good long time before I went to start it. New battery, everything is fine. Except today, after driving it for probably 5 hours on and off with the lights on, I hop off and my boy wants a ride. So I boot up, climb on, and he baaaaarely turns just once, then is dead. He's on a charger now, but I wonder what is wrong? Bad generator? Think my first battery wasn't shot after all? I'd love if some people could help me diagnose the issue, but explain like I'm 5. I'm not, but I'm new to tractors. Thanks all! Dec 30, 2016 / New (to me!) ford 3000, runs great, charging issue? #2 Ok so if you want to do a real simple test just hold a metal object like a screwdriver onto the back of the alternator or generator bearing while the engine is running. If there is some magnetic force holding the screwdriver onto the back of the bearing then there is some charging going on. The more magnetic force the more charging. Now that is real simple but it doesn't give definitive answers other than the charging system is putting something out. Next step would be to buy a multimeter and measure the voltage at the battery while the engine is running. You want the multimeter to be on DC volts while doing this. While the engine is running you should get about 13.5 to 14.7 volts at the battery posts. If you get negative volts the wires are hooked up backwards. No big deal. The next step would be to take the generator/alternator and the voltage regulator off and take it to a rebuilding shop and have them tested. If that checks out ok them you either have a wiring problem. This will give you a start and then we can go from there. If I don't know something I have friends that do. One question? Does the tractor have a charging light and if so is it working? If it isn't working then that could be the reason there is no charging. Dec 31, 2016 / New (to me!) ford 3000, runs great, charging issue? #3 This is great, thanks! I'll go out tomorrow and see what I come up with. I do have a multimeter, so I'll be able to check the voltage at the battery. Regarding the charging light - maybe. The dash panel is pretty cloudy, especially on the sides. I can see my tach and hour meter (tach works, hour meter stopped earlier this year, which is a separate question). The bottom right corner had a red light that would come on when the key was on but the engine wasn't. Come to think of it, that light doesn't come on anymore, regardless of key state or engine state. Is that related to my charging issue? Dec 31, 2016 / New (to me!) ford 3000, runs great, charging issue? #4 If the dash panel is made of plastic a bit of oil rubbed onto it will temporarily let you see everything. The bulb is sometimes used to turn on the alternator/generator. If it's burnt out or the wires are off then there is nothing to turn on the charging system. Dec 31, 2016 / New (to me!) ford 3000, runs great, charging issue? #5 HI! I think Ford England as 3000 and 5000 have Pos to ground battery. When we disconnect the battery we often need polarize the system. How to do. I put a jumper wire at voltage regulator between bat and gen post or lug before start and when engine is running and charge . I cut the jumper with a cutter tool. Good Luck! Oldmech Dec 31, 2016 / New (to me!) ford 3000, runs great, charging issue? #6 HI! I think Ford England as 3000 and 5000 have Pos to ground battery. When we disconnect the battery we often need polarize the system. How to do. I put a jumper wire at voltage regulator between bat and gen post or lug before start and when engine is running and charge . I cut the jumper with a cutter tool. Good Luck! Oldmech This guy is wrong on both counts. 1965 and up Ford tractors are negative ground no matter where in the world the tractor was built. Polarizing this generator style system is accomplished by flashing the field, not the armature. The information posted by oldmech are the two most certain ways to ruin a perfectly good voltage regulator. Jan 4, 2017 / New (to me!) ford 3000, runs great, charging issue? #7 Agreed. Test bat with engine at high idle, if not about 14 v, then time to motor test Genny. To the op, slip your belt off, slip the small and large spade lugs off. Apply 12v+ from your charged and grounded tractor battery to both armature and field. It should spin vigorously. If it dont, take it to the doctor. As a side note, you can yr that test to just armature, and it should try to spin weakly from residual mag in the field. Forget the regulator burning advice and the divining rod magnetic tests. This is a no guess easy situation. A Genny fsiling a motor test needs help. We can go from there. Jan 5, 2017 / New (to me!) ford 3000, runs great, charging issue? #8 This guy is wrong on both counts. 1965 and up Ford tractors are negative ground no matter where in the world the tractor was built. Polarizing this generator style system is accomplished by flashing the field, not the armature. The information posted by oldmech are the two most certain ways to ruin a perfectly good voltage regulator. Thanks for the help guys! I really appreciate it! And the explanations have been excellent, thank you! Sorry I haven't posted back sooner. We're in the middle of a streak of cold. Really cold. - 22*F cold. Not seeing above 0 for days on end cold. Needless to say, I'm not eager to spend lots of time outside looking at cold tractor. But there is one thing I noticed while walking in from my truck today - I see three bundled wires near the generator, but one is just dangling there. Two are connected to the back of the generator, but a third is hanging there. It looks like it might be a yellow wire, but the PO painted everything blue, so it's a little hard to tell. Does that piece of info help anyone diagnose anything? Thanks! Jan 6, 2017 / New (to me!) ford 3000, runs great, charging issue? #9 The oil pressure sender is just aft of the power steering pump, or where it would be located if it had P/S. That wire would be a female spade connector. The coolant temp sender is in the front center of the cylinder head next to the thermostat housing. That wire would have a female bullet connector molded 90 degrees to the wire. Jan 6, 2017 / New (to me!) ford 3000, runs great, charging issue? #10 I have an I&T manual for your tractor I scanned the two wiring diagrams in it. Hope this helps. It's the same wiring diagram for 2000,3000 ans 4000 series tractors. The first diagram is for tractors with a "C" prefix in the serial number and the second one is for tractors with an "A" or a "B" prefix in the serial number. Page 2 Jan 9, 2017 / New (to me!) ford 3000, runs great, charging issue? #11 Hi all, I have an issue with my 3 cyl diesal 4000 fitted a new reg, when tractor is idle 800rpm battery light goes out reading 13.5 at battery and generator arm (D) but when I increase throttle gen light comes back on and stays on, and some times wont come on at all even at low idle, I even replaced the cable from the light to the gen but still no good, I just can't get to the bottom of it, it never done it with the old vr, before I changed it Jan 11, 2017 / New (to me!) ford 3000, runs great, charging issue? #12 motor test her, it could be the vr, or it could be very worn brushes and weak brush springs (charge at low throttle, but not high) Jan 11, 2017 / New (to me!) ford 3000, runs great, charging issue? #13 Hi soundguy, The vr is only brand new? Is it possible it's failed already I'll try a motor test tonight maybe am I correct in saying to do this I take a + from the battery and connect to F and D terminals on the Gen with belt disconnected? I know the gen is roughly 8 years old could be worn out Thanks Jan 11, 2017 / New (to me!) ford 3000, runs great, charging issue? #14 Disconnect arm and field wires from Genny, slip belt off, but re tighten bracket bolts so that Gen is grounded good. Power arm only, first. On good gems it should spin or try to like this. Some will spin if you help them with a flick of the pulley. Next power both arm and field, Gen should spin very good. Jan 11, 2017 / New (to me!) ford 3000, runs great, charging issue? #15 Followed your advice as instructed took belt of touched power arm with + from battery, nothing, even tried to spin it with my hand aswel, but when touched F and power arm it spun no problems, is the Genny at fault? Jan 11, 2017 / New (to me!) ford 3000, runs great, charging issue? #16 Followed your advice as instructed took belt of touched power arm with + from battery, nothing, even tried to spin it with my hand aswel, but when touched F and power arm it spun no problems, is the Genny at fault? No it is not. Jan 12, 2017 / New (to me!) ford 3000, runs great, charging issue? #17 OK OK, then if it's not the gen and the reg is new what else would b causing this problem? Jan 12, 2017 / New (to me!) ford 3000, runs great, charging issue? #18 OK OK, then if it's not the gen and the reg is new what else would b causing this problem? Did you polarize the regulator? Watch this, it doesn't matter if it is J-D, Farmall, Packard, Ford whatever, they all polarize the same. Polarizing Your Delco Remy Generator on a Farmall A,B,C,SA,Super C - YouTube Jan 12, 2017 / New (to me!) ford 3000, runs great, charging issue? #19 I did already try to polarise the gen buy jumping terminal F on reg to terminal b, maybe this method is not correct it seems to b different in this video Jan 12, 2017 / New (to me!) ford 3000, runs great, charging issue? #20 I did already try to polarise the gen buy jumping terminal F on reg to terminal b, maybe this method is not correct it seems to b different in this video You polarized correctly. The advise given above is incorrect for your charging system and if followed is the #1 method for letting the smoke out of a perfectly good VR. Farmalls and almost all Delco charging systems are 'A' circuit systems. Your Ford is a 'B' circuit system. Looking4new would do well to read the comments below the video and educate himself before posting harmful "facts". Page 3 Jan 12, 2017 / New (to me!) ford 3000, runs great, charging issue? #21 Yes that's what I thought the method in the video was totally different from other posts on here, but sadly this leaves me no closer to solving my issue I've seemed to try everything, but just can't get to the bottom of it Jan 12, 2017 / New (to me!) ford 3000, runs great, charging issue? #22 This guy is wrong on both counts. 1965 and up Ford tractors are negative ground no matter where in the world the tractor was built. Polarizing this generator style system is accomplished by flashing the field, not the armature. The information posted by oldmech are the two most certain ways to ruin a perfectly good voltage regulator. You polarized correctly. The advise given above is incorrect for your charging system and if followed is the #1 method for letting the smoke out of a perfectly good VR. Farmalls and almost all Delco charging systems are 'A' circuit systems. Your Ford is a 'B' circuit system. Looking4new would do well to read the comments below the video and educate himself before posting harmful "facts". I bow down to the know it all from New York. salami, salami, baloney Jan 12, 2017 / New (to me!) ford 3000, runs great, charging issue? #23 I bow down to the know it all from New York. salami, salami, baloney No bowing required. Just be ready to get called out when you post "information" that will cost the uninitiated $$$ if they follow. Have a little contrition for posting garbage on a forum that people rely on. You may chose to be anonymous here, but you are still responsible for what you post. Jan 13, 2017 / New (to me!) ford 3000, runs great, charging issue? #24 Has only one got any more suggestions as to what's causing this problem? It's hardly a dash fault bad ground/ anything like that thanks Jan 13, 2017 / New (to me!) ford 3000, runs great, charging issue? #25 This guy is wrong on both counts. 1965 and up Ford tractors are negative ground no matter where in the world the tractor was built. Polarizing this generator style system is accomplished by flashing the field, not the armature. The information posted by oldmech are the two most certain ways to ruin a perfectly good voltage regulator. No bowing required. Just be ready to get called out when you post "information" that will cost the uninitiated $$$ if they follow. Have a little contrition for posting garbage on a forum that people rely on. You may chose to be anonymous here, but you are still responsible for what you post. Them that need to know who I am, already know who I am. Which by the way is none of your business. The way I have always polorised a generator charging system is B to F. Jan 13, 2017 / New (to me!) ford 3000, runs great, charging issue? #26 Them that need to know who I am, already know who I am. Which by the way is none of your business. The way I have always polorised a generator charging system is B to F. I didn't ask, and have no need to know. What I need to know about you is already known. Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #27 I've noticed when I change back to old regulator witch is a genuine lucas the problem goes away, my new reg is not lucas could this add to the problem Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #28 Just being an aftermarket inferior component could be the entire problem. Does it charge with the Lucas VR? Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #29 That's what I'm thinking, this light is driving me crazy, yes with lucas VR connected and tractor sitting at 1000rpm I'm getting 14+ volts at reg and battery, the only thing the little coils on the back of the reg are a little hot, which is why I changed it in the first place. Or maybe this is normal there not roasting hot, but there is a little heat coming from them, Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #30 I would monitor the charging voltage over a range of ambient AND coolant temperatures and various run times. You do not want to see much over that 14 volts. Page 4 Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #31 Yes I will do, it's roughly about 14.3 at 1000rpm the last time I checked, I'd like to get my hands on a genuine lucas regulator, but I don't think there available anymore Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #32 We have had excellent results selling a VR from Atlantic. Part #1100-0560. We sell a lot of their electrical and rotating electrical stuff. Of course, maybe that is what you have, and you got a dud. Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #33 OK, yes it's possible, parts are hard to get in Ireland, sparex is the only real distributer of tractor parts here, there vr is clearly rubbish Jan 14, 2017 / New (to me!) ford 3000, runs great, charging issue? #34 Jan 16, 2017 / New (to me!) ford 3000, runs great, charging issue? #35 Yes that's what I thought the method in the video was totally different from other posts on here, but sadly this leaves me no closer to solving my issue I've seemed to try everything, but just can't get to the bottom of it motor testing your genny also polarized it. you have a genny, wire harness and a vreg. you know genny is good. what's left... wires or vreg! Jan 16, 2017 / New (to me!) ford 3000, runs great, charging issue? #36 I bow down to the know it all from New York. salami, salami, baloney Rick and I are just trying to keep BAD advice from damaging$$ other peopels stuff. Jan 16, 2017 / New (to me!) ford 3000, runs great, charging issue? #37 That's what I'm thinking, this light is driving me crazy, yes with lucas VR connected and tractor sitting at 1000rpm I'm getting 14+ volts at reg and battery, the only thing the little coils on the back of the reg are a little hot, which is why I changed it in the first place. Or maybe this is normal there not roasting hot, but there is a little heat coming from them, those are bias resistors and WILL disipate SOME heat. they should not get glowing hot.. but they can be warm. Jan 16, 2017 / New (to me!) ford 3000, runs great, charging issue? #38 OK, yes it's possible, parts are hard to get in Ireland, sparex is the only real distributer of tractor parts here, there vr is clearly rubbish I've seen plenty of JUNK Vregs as well. If your OE works, use it. Jan 16, 2017 / New (to me!) ford 3000, runs great, charging issue? #39 Hi, Yes I'm just going to put it down to the new vr being a dud, I've my old one back in and it's working fine, it does raise a little heat as you say but nothing to serious, Genny is good I've also totally rewired the charging system in the new, cables were all brittle and broken etc, all is well for now, many thanks for all your advice Jan 16, 2017 / New (to me!) ford 3000, runs great, charging issue? #40 My first thoughts are that 14.3 volts is a little low but then you mentioned at 1000 rpm, It's probably higher at higher engine speeds. Personally I would like to see 14.5 to 14.7 but your close enough. Hello everyone. I hope this is the right category for this post! I recently bought a 1968 Ford 3000 diesel tractor. The generator wasn't charging when I got it. After troubleshooting it and reading tips on here, I decided the voltage regulator was bad. Replacing it didn't fix it. So I took everything to a shop that has a test fixture for this old stuff and he said the generator was in rough shape. It would make some voltage but just wasn't putting out any amps. So I got a new generator from him and he tested it in combination with my new regulator and said it works. I hooked everything up and the idiot light is still on. Here is what I've done and found so far: Polarized the generator by momentarily connecting the field terminal (smaller of two) to the Batt terminal on regulator. There was a spark when I did this. When the tractor is running at 1500 rpm the battery voltage is 12.9v. When I manually hold in the current regulator and cutout relay, the battery voltage goes down to 12.7v When I jumper the armature tab and field tab on the generator put the red lead on the jumper and black lead on the negative terminal on the battery, I get positive voltage. This should mean the generator is polarized correctly. It will make 20 volts easily. The guy at the shop told me to make sure there is voltage on the WL wire. When I checked it I got that The voltage on the WL wire is 11.5, BUT it reads as -11.5 on my ohmeter, I got that reading by using the red test lead attached to wire and black lead to negative terminal on the battery. This seems odd. I know that the Field wire and the Armature wire are correctly attached. At the regulator, the batt terminal reads the same voltage as the battery. The ground is also good on the regulator. This is the last problem on this tractor and it's starting to really irritate me. Any help would be appreciated! Mar 27, 2008 / Test Generator - 1971 Ford 3000 #1 I am in the process of fixing up a 1971 Ford 3000 Gas tractor. The previous owner had replaced the generator w/ an alternator, that appeared to be overcharging the battery. I purchased a new generator and installed it, but I don't think it is working. Engine off battery voltage 12.9 volts. Engine running 1500 rpms 12.3 volts. ??? Engine running no wires connected to generator - generator voltage 2.9 volts. Any specific steps to check things out? I have also replaced the voltage regulator.. Thanks, JS Last edited: Mar 27, 2008 Mar 27, 2008 / Test Generator - 1971 Ford 3000 #2 When you remove most generators from a tractor and reinstall it may need to be polarized . I cant give you the steps as it has been a while since i have done it . But it has to be done or it wont charge .It is touching a wire to a terminal and i dont want to tell you the wrong ones. You can also do a search on polarize a generator there is some disscusion on the subject. Last edited: Mar 28, 2008 Mar 28, 2008 / Test Generator - 1971 Ford 3000 #3 That did it. Once I figured out how to polarize it, the system seems to be charging now. I am registering 13.8 volts at 1500rpm. To polarize it, I lowered the harness connecting to the VR about 1/2 way and shorted the B and F connectors. Battery to Field. It sparked, and that was it. Thanks, JS Mar 28, 2008 / Test Generator - 1971 Ford 3000 #4 Mar 31, 2008 / Test Generator - 1971 Ford 3000 #5 Yep.. those lucas gens for fords are B circuit.. polarize field to battery.. that will also full field them for a current test too. Older 8n gennies were a-circuit and polarized differently. congrats on changing back to a generator system.. not many people are brave enought to do that. soundguy Mar 31, 2008 / Test Generator - 1971 Ford 3000 #6 Did someone mention Lucas??? Mar 31, 2008 / Test Generator - 1971 Ford 3000 #7 Did someone mention Lucas??? Indirectly, yes. If it's a oem gen on a ford from 65 and up.. it's likely a lucas product, and if earlier than 65, it should be a ford gen. soundguy Jul 18, 2013 / Test Generator - 1971 Ford 3000 #8 i just bought a 71 ford 3000 as well mine is not charging. an old timer said to ground the field. i am a 33 year plus mechanic on cars and light trucks. not much experience on gens. Jul 18, 2013 / Test Generator - 1971 Ford 3000 #9 the old timer gave you a good way to cook a 40$ regulator. He's thinking about the older 8n vreg /genny that is A circuit. back 47-52.. all fords 53+ and your 3000 uses a B circuit system. the reg provides POWER to the field post on the genny. to test a B circuit genny. first motor test it. slip belt off. jump battery + to field and armature. genny should spin. if it does.. continue on to next step. slip belt back on.. put meter across battery.. should be 12.6 or so static. start tractor.. get to 2/3 to 3/4 throttle. voltage should be 13.8-14.7 if no increase.. jump bat + to field... that should make charge voltage jump. if not, jump bat to field and arm. if voltage onthe bat comes up.. replace regulator. Jul 20, 2013 / Test Generator - 1971 Ford 3000 #10 hey thanks i did find out that i have about 28 volts unregulated coming in to regulator. if i jumper to the battery plus side i get about 14 volts. this is a lucas system with a 5 wire set up. i have only seen 3 or 4 wire , one is a dedicated ground. these lucas regulators are a bit hard to find. i need the tach drive off of the gen so i want to keep it. otherwise i would put a one wire delco on it. any more help would be great thanks bigmarty Page 2 Jul 20, 2013 / Test Generator - 1971 Ford 3000 #11 the lucas regs are anything but hard to find. most antique tractor parts houses carry them. you can get them on ebay, amazon.. ytmag, steiners, and even.. a CNH dealer. ps.. it is not good for the genny to run it with no load and full field. good way to damage it... soundguy Jul 20, 2013 / Test Generator - 1971 Ford 3000 #12 Aug 27, 2013 / Test Generator - 1971 Ford 3000 #13 I have a 1972 ford 3000 diesel someone told me when I install a new battery I needed to ground it but I don't understand what they were talking about can anyone help me Aug 27, 2013 / Test Generator - 1971 Ford 3000 #14 Of course when you install a battery it will need to be grounded. IE.. in a 12v neg grnd system, the negative post of the battery is hooked to chassis, positive post goes to starter solenoid. You should not have to mess with your generator unless you have changed the system polarity.. or have not run the tractor in months or years. You do not need to do anything to the regulator. Some people mistakenly think you have to polarize a generator if you disconnect the battery.. this is a myth.. the cutout in the regulator disconnects the genny armature from the battery every time you shut the tractor down. And the regulator itself never needs polarization. If you change battery polarity, then you SHOULD repolarize the genny. Keep in mind it is a "B" circuit system, thus you polarize by jumpering BAT to FIELD for a second. Again.. simple bat change? no need to do anything to the genny UNLESS it does not charge after you get her started. if that is the case.. post back. Sep 8, 2022 / Test Generator - 1971 Ford 3000 #15 the old timer gave you a good way to cook a 40$ regulator. He's thinking about the older 8n vreg /genny that is A circuit. back 47-52.. all fords 53+ and your 3000 uses a B circuit system. the reg provides POWER to the field post on the genny. to test a B circuit genny. first motor test it. slip belt off. jump battery + to field and armature. genny should spin. if it does.. continue on to next step. slip belt back on.. put meter across battery.. should be 12.6 or so static. start tractor.. get to 2/3 to 3/4 throttle. voltage should be 13.8-14.7 if no increase.. jump bat + to field... that should make charge voltage jump. if not, jump bat to field and arm. if voltage onthe bat comes up.. replace regulator. I"m sorry to bring back such an old thread, but I have a basic question about troubleshooting these generators. My generator doesn't say which connector is field and which is armature. And I don't find it in the I&T manual either. My generator has 2 wires connected to it. The connector blade on the left is small. The connector blade on the right is big. Which is which? If I jumper from the battery + to the one on the right the wire gets hot real fast. If I jumper from the battery + to both of them at the same time the generator spins. Last edited: Sep 8, 2022