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STIHL online instruction manuals are usually for the latest versions of the machine. Your product may be a slightly older production model but the manual will still be appropriate for the relevant model number. Please also read the appropriate safety manual for your STIHL machine. If you cannot find an instruction manual using the search function above, please contact your STIHL Approved Dealer or send us an email at enquiries@stihl.co.uk. The languages contained in the document are also displayed in brackets, for example (GB) = English. Jun 30, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling When I run my Stihl FS-90, the trimmer head spins and it is revving pretty hard while idling. This seems to have started happening after I did a tune-up (spark plug, fuel filter, air filter). Not sure what could have made it happen, I thought maybe I accidentally turned the carb screw. I have tried adjusting the idle screw, and turning it does at affect the idles RPMs at all. Kind of stumped right now. heres a video of it running Jul 11, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling That's weird.I have tried to adjust my FS70r ala "Steves Small Engine Saloon".I can't tell a difference by ear,so i turn both screws in til seated and then 1 1/4 turn out each.Seems to run strong but no idle problems though.Maybe check him out on YouTube.Can't hurt. Jul 11, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling First make sure you adjust the valve clearances to .004". Then make there a little slack in throttle cable at the carburetor. The idle speed adjustment is the LA screw. You do need a tach as you are looking for 2800 rpm idle and the clutch engages at 3700 rpm; unless the clutch spring is broken. IF the limiter caps have been removed, the basic settings after lightly seating the H and L are - Open the high speed screw H 3 1/2 turns counterclockwise. – Open the low speed screw L 1 1/4 turns counterclockwise. Jul 1, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling When I run my Stihl FS-90, the trimmer head spins and it is revving pretty hard while idling. This seems to have started happening after I did a tune-up (spark plug, fuel filter, air filter). Not sure what could have made it happen, I thought maybe I accidentally turned the carb screw. I have tried adjusting the idle screw, and turning it does at affect the idles RPMs at all. That's what it sounds like Jul 1, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling Maybe you turned the wrong screw? Some have high and low mixture screws. Some cheap trimmers like Echo and Stihl, the grip can twist there by shortening the throttle cable just a bit. That results in a fast idle. Something is making the throttle cable get shortened, gently pulling to open the throttle plate. Set the idle down to where the head doesn't turn. Does yours have a fast idle push in button to assist starting? If so, see if that is pushed/locked in. slomo Jul 1, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling There are 3 screws on my trimmer the bottom is supposed to adjust idle speed, but nothing happens regardless of how much I turn it. Set the top two screws function as they should. I followed Steve's Small Engines guide for resetting and tuning the carb. No matter what the bottom idle screw does nothing, but the top two react. Here's a picture of the throttle setup on my trimmer. It definitely feels like there is something that is causing the throttle plate to not close fully, maybe related to the starting buttons. I was planning to try running it without the air filter (safe?) shortly to see if the carb plate is closing. Jul 1, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling Remove that plastic trigger group. Take the throttle cable out and shoot PB Blaster penetrating oil inside the cable housing. Cable might be sticking in a shortened position? Remove air filter and exercise the throttle trigger. You should see a closed then open throttle. slomo Jul 1, 2020 / Stihl Trimmer FS-90 revs hard and spins when idling If is not the cable then you will need a tach to do the following carburetor adjustment after the limiter caps are removed. First lightly seat both mixture screws. – Open the high speed screw H 3 1/2 turns counterclockwise. – Open the low speed screw L 1 1/4 turns counterclockwise. Start the engine and warm it up at varying speeds for 1 minute – if necessary, turn the idle speed screw (LA) slowly clockwise until the engine running soon. ** Updates from trouble shooting today: - With engine off and air filter removed, it looks like the throttle plate opens and closes properly, and the lever attached to the throttle cable has full range of motion - I tried to run the engine with the whole air filter unit removed so I could examine the throttle plate, but it wouldn't run for more than a few seconds without the housing - With the weedeater fully assembled and engine on, i tried turning the throttle slack adjustment screw in and out. If it's too tight, the engine essentially runs 100% without pressing throttle. Loosening it up would lower it a little, but it still ran like it did in the original video. - Could I potentially have a clutch issue or air leak ? Page 2 You are using an out of date browser. It may not display this or other websites correctly.You should upgrade or use an alternative browser. Thread starter DiyGuy Start date Jul 1, 2020 Reddit and its partners use cookies and similar technologies to provide you with a better experience. By accepting all cookies, you agree to our use of cookies to deliver and maintain our services and site, improve the quality of Reddit, personalize Reddit content and advertising, and measure the effectiveness of advertising. By rejecting non-essential cookies, Reddit may still use certain cookies to ensure the proper functionality of our platform. For more information, please see our Cookie Notice and our Privacy Policy. We may receive a commission on purchases made from links. Stihl is best known for its chainsaws, but the company also manufactures string trimmers, and they're among the best on the market. As far as the engine is concerned, gas-powered Stihl trimmers operate on the same principle as chainsaws, the only difference being the connection to the cutting apparatus. If you can adjust a chainsaw carburetor, you can adjust a Stihl string trimmer carburetor, because the procedure is almost exactly the same. Stihl trimmer carburetors are preset at the factory, but it's common for them to fall out of adjustment after heavy use. When the carburetor isn't adjusted properly, the engine may smoke, due to fuel/air mixture that's too rich, or it may race or stall, which is usually because of a lean mixture. You adjust the fuel/air mixture using three screws located on the side of the carburetor right between the air filter and the fuel tank. If you have a newer model, you'll need a special tool to turn these screws. Set the trimmer on a flat surface with the trimmer head hanging over the edge so it can spin. For safety, it's a good idea to remove the string spool before you start so no one gets hurt. You do this by holding down the tabs on the spool cover, lifting off the cover and then lifting off the spool. Remove the air filter cover and pull out the air filter. If it's dirty, clean or replace it, because a dirty filter prevents proper carburetor adjustment. You can leave the filter out while doing the adjustment, but if it's clean, you can also put it back and replace the cover. Stihl supplies rubber guards on the carburetor screws, and you have to remove them before you can adjust the screws. You can usually pull them off with pliers or pry them off with a flathead screwdriver. Start the trimmer and hold the throttle trigger in all the way to get the trimmer head spinning at maximum speed. Turn the H screw clockwise with a carburetor adjustment tool until the head is spinning as fast as it will go, then back off the screw carefully until the RPMs start to decrease. Turn the screw slowly clockwise again until the engine once again just starts to pick up speed. This is the sweet spot for the H screw — a little on the rich side. Release the throttle and let the trimmer idle. If it stalls, turn the LA screw clockwise until the engine keeps running when the throttle isn't engaged. The trimmer head may be spinning, but you'll correct that after adjusting the L screw. With the engine idling, turn the L screw clockwise until the engine speed just starts to increase, then back it off slowly until you hear the speed just starting to decrease. Leave the screw in this position, because you don't want a rich mixture at low speed. Turn the LA screw clockwise until the trimmer head just starts to spin, then back off the screw slowly. The point at which the head stops spinning is the optimum position for the idle screw. Page 1 STIHl STHL FS 90 Instruction Manual Manual de instrucciones Warning! For safe operation follow all safety precautions in Instruction Manual - improper use can cause serious injury. Advertencia! Para su seguridad durante el manejo de este producto, siga siempre las precauciones de... Metal Cutting Tools ......47 before using your trimmer/brushcutter. Mounting the Loop Handle ..... 24 Inspections and Maintenance Contact your STIHL dealer or the STIHL Adjusting the Throttle Cable ... 26 by Dealer ....47 distributor for your area if you do not Fitting the Carrying Eye .... STIHL dealer for illustration. environment. assistance. Example: Therefore some changes, modifications Loosen the screw (1) and improvements may not be covered Lever (2) ... in this manual. FS 90, FS 90 R... Use STIHL does not recommend the use of Careless or improper use may cause only cutting attachments that are rigid blades when cutting in stony areas. Page 5 These conditions reduce the hand's this machine when you are fatigued. Most of these safety precautions and ability to feel and regulate temperature, warnings apply to the use of all STIHL produce numbness and burning Warning! trimmer/brushcutters. Different models sensations and may cause nerve and Be alert –... Page 6 Warning! your grip and help to and side protection complying with ANSI The ignition system of the STIHL unit protect your hands. Z 87.1 (or your applicable national produces an electromagnetic field of a standard). To reduce the risk of injury to very low intensity. Wear sturdy authorized. Although certain boots with nonslip soles. unauthorized attachments are useable Steel-toed safety boots with STIHL power tools, their use may, in are recommended. fact, be extremely dangerous. For the cutting attachments authorized by Wear an approved safety... Your STIHL power tool uses an oil- pressure build-up in the tank to release Using the grip, turn the cap firmly gasoline mixture for fuel (see the chap- slowly. Page 9 Do not attach any cutting attachment to a unit without proper installation of all required parts. Failure to use the proper parts may cause the blade or head to fly off and seriously injure the operator or bystanders. FS 90, FS 90 R... Page 10 If you cannot set the correct idle speed, specified in your instruction manual for of your harness (see appropriate have your STIHL dealer check your proper control and less fatigue in chapter of this manual). power tool and make proper operation. Page 11 Never hold the accompanied the substance at issue. cutting attachment above waist height. FS 90, FS 90 R... Page 12 (background) level, the operator and any bystanders should wear a respirator approved by NIOSH/ MSHA for the type of dust encountered. FS 90, FS 90 R... Page 13 If the blade or head continues attachment parallel to the ground. Use of injury, always shut off the engine and to loosen, see your STIHL dealer. Never a trimmer/brushcutter above ground remove the spark plug boot before use a trimmer/brushcutter with a loose level or with the cutting attachment replacing the cutting attachment. Page 14 You may also permanently damage the engine. Have your muffler serviced and replace by your STIHL servicing dealer only. FS 90, FS 90 R... FS 90, FS 90 R... Page 15 It achieves a (e.g. clutch, polymer housing "softer" cut with less risk of damaging components). Such damage could, tree bark etc. than polymer blades. among other things, cause the cutting attachment to rotate at idle. FS 90, FS 90 R... Page 16 To reduce the risk of injury, extreme caution should be used when cutting with the shaded area of any rigid blade. FS 90, FS 90 R... Page 17 Resharpen the brush knife the blade can be turned over to utilize regularly (when it has dulled noticeably). the cutting edges on the other side. FS 90, FS 90 R... Page 18 When a trimmer/brushcutter with a circular saw blade is used to cut down Before starting the cut, accelerate the small trees, STIHL recommends that the engine up to full throttle. Perform cut standard deflector be removed and with uniform pressure. STIHL... Page 19 Use of serious injury to the operator or Never test the ignition system with the non-STIHL parts may cause serious or bystanders by a kickout, never use a spark plug boot removed from the spark fatal injury. Page 20 Store the power tool in a dry and high or locked location out of reach of children. Before storing for longer than a few days, always empty the fuel tank. See chapter "Storing the Machine" in the instruction manual. FS 90, FS 90 R... 23 Full harness may be used 9 Brush knife 250-3 Warning! 24 Full harness must be used 10 Scratcher tooth circular STIHL brushcutters with a loop handle saw blade 200 without barrier bar may be used only Equipment 11 Chisel tooth circular... Page 22 English / USA Cutting tool Deflector, Limit Stop Handle Harness/Strap FS 90, FS 90 R... Washer (6) remain at the tommy screw . STIHL power tool attachments are available for converting the single Separate the clamps. purpose FS unit into other power tool Springs (4) and (5) remain in the combinations. lower clamp. FS 90, FS 90 R... Page 24 (13) line up. Line up the handlebar at a right Insert screw and tighten down angle to the drive tube – check firmly. dimension A again. Tighten down the wing screw firmly FS 90, FS 90 R... Throttle Cable Adjustment Tighten down the wing screw firmly. Go to chapter "Adjusting the Working position: Throttle Cable". Reverse the sequence described above to swing the handles up and turn the handlebar counter- clockwise. FS 90, FS 90 R... Page 26 (1) as far as stop. them into the barrier bar as far as and must be located between the stop. Go to "Securing the Loop Handle". loop handle and control handle. Go to "Securing the loop handle". FS 90, FS 90 R... Squeeze the two ends of the clamp together and hold in that position. Insert M 6 x 14 screw (2). Line up the carrying eye. Tighten down the screw firmly. 1) Included as standard or available as special accessory FS 90, FS 90 R... Fit the plate (3) and line it up. guide slot on the skirt and line it up Insert M 5 x 18 screws and tighten with the first hole. down firmly. Fit the screw and tighten it down firmly. FS 90, FS 90 R... Mounting hardware is not packed will need the following additional with the machine parts: Nut (3), rider plate (4) and Only mowing heads may be thrust washer (5) (special mounted. accessories). FS 90, FS 90 R... Page 30 Pull the thrust washer (5) off the counterclockwise onto the shaft (1) shaft (2). as far as stop. Block the output shaft. Tighten down the mowing head. Remove the tool used to block the shaft. FS 90, FS 90 R... Page 31 Block the output shaft. Screw the mounting nut (4) with the combination wrench (5) counterclockwise on to the output shaft and tighten down firmly. Remove the tool used to block the shaft. FS 90, FS 90 R... Page 32 Deflector" Direction of rotation is marked by arrow on inside of cutting head Fit the appropriate limit stop before deflector or limit stop. mounting the circular saw blade 200 (4,5) – see "Mounting the Deflector". FS 90, FS 90 R... 4-MIX Engine Fuel The STIHL 4-MIX engine features gas This engine is certified to operate on Use only STIHL two-stroke engine oil or oil lubrication and must be run on a fuel unleaded gasoline and the STIHL two- equivalent high- quality two-stroke mixture of gasoline and engine oil. In order to reduce the risk of burns or other personal injury from escaping gas vapor and fumes, remove the fuel filler cap carefully so as to allow any pressure build-up in the tank to release slowly. FS 90, FS 90 R... Harness". chapter "Approved Combinations of neck, the cap is not properly seated and Cutting Tool, Deflector, Handle and tightened and you must repeat the Harness". above steps. FS 90, FS 90 R... Adjust the carrying ring – tighten the When the correct floating position has screw moderately – let the unit go been readout: until it is balanced – then check the Tighten down the screw on the floating position. carrying ring. FS 90, FS 90 R... STOP-O (4) – engine off – the ignition is switched off # – normal run position (5) – the engine is running or can start START (6) – the ignition is switched on, the engine can start FS 90, FS 90 R... Page 38 – even if the bulb is already Hold the unit with your left hand and filled with fuel. press it down firmly – your thumb should be under the fan housing. Do not stand or kneel on the drive tube! FS 90, FS 90 R... Page 39 Move the slide control to STOP-O. slide control moves to the normal run position # Pull off the spark plug boot before use a trimmer/brushcutter with a loose level or with the cutting attachment replacing the cutting attachment. Insert M 6 x 14 screw (2). Line up the carrying eye. Tighten down the screw firmly. 1) Included as standard or available as special accessory FS 90, FS 90 R... Refit the filter cover. Insert the screw and tighten it down firmly. FS 90, FS 90 R... This setting provides an optimum fuel-air screw (LA) so that the tool does not return under most operating rotate. conditions. With this carburetor it is only possible to adjust the engine idle speed within fine limits. FS 90, FS 90 R... 3 minutes. smoothly. Engine stops while idling Turn idle speed screw (LA) slowly clockwise until the engine runs smoothly – the tool must not rotate. Remove the screws (2). Lift away the shroud (3). FS 90, FS 90 R... These factors cause deposits to form on the insulator nose which may result in trouble in operation. FS 90, FS 90 R... Unscrew the filler plug (1). If no grease can be seen on the inside of the filler plug, screw the tube (2) of STIHL gear lubricant for brushcutters - see "Special Accessories" - into the filler hole. Squeeze up to 1/5 oz (5 g) grease into the gear housing. Page 45 Remove the rope rotor with washer (4) and pawl (5). Tie a simple overhand knot in the new rope (see "Specifications") and then thread it through the top of the grip and the rope bushing (6). FS 90, FS 90 R... Page 46 If the spring pops out of the housing Go to "Tensioning the rewind during installation: Refit it in the spring". counterclockwise direction, starting outside and working inward. FS 90, FS 90 R... Let go of rope slowly so that it winds onto the rotor. The starter grip must locate firmly in the rope guide bushing. If the grip droops to one side: Increase spring tension by adding one more turn. FS 90, FS 90 R... STIHL balancer (special accessory) and rebalanced as necessary. Resharpen the cutters (1) uniformly – do not alter the contour of the parent blade (2) in any way. See cutting tool packaging for additional sharpening instructions. FS 90, FS 90 R... Spark arresting screen in muffler* Replace All accessible screws and nuts (not Retighten adjusting screws) * see "Guide to Using this Manual" STIHL recommends that this work be done by a a STIHL servicing dealer FS 90, FS 90 R... Page 50 Antivibration elements (rubber buffers, springs) Replace Visual inspection Replace Metal cutting tools Sharpen Check tightness Check Gearbox lubrication Replenish Safety labels Replace STIHL recommends that this work be done by a a STIHL servicing dealer FS 90, FS 90 R... 12 Fuel Pump 13 Choke Knob 14 Air Filter Cover 15 Fuel Tank 16 Machine Support 17 Handle Support 18 Wing Screw 19 Loop Handle 20 Barrier Bar Serial number see "Guide to Using this Manual" FS 90, FS 90 R... Controls the speed of the engine. 16. Machine Support Slide Control For resting machine on the ground. For starting throttle, run and stop. Keeps the throttle partially open during starting, switches the engine's ignition off to stop the engine. FS 90, FS 90 R... Page 53 Metal mowing tool Deflector The cutting attachment, i. e. blade, (for mowing heads only) made from metal for different Line limiting blade purposes (special accessory). Deflector with skirt (for all cutting tools) Skirt Metal mowing tool FS 90, FS 90 R... FS 90 with bike handle: Bore: 1.50 in (38 mm) 12.8 lbs (5.8 kg) Stroke: 0.98 in (25 mm) FS 90 R with loop handle: 12.1 lbs (5.5 kg) Engine power to ISO 8893: 1.3 bhp (0.95 KW) Idle speed: 2,800 rpm Engine cut-off speed: 10,500 rpm Max. STIHL replacement parts. Original STIHL parts can be identified by the STIHL part number, the STIHl logo and, in some cases, by the STIHL parts symbol (. This symbol may appear alone on small parts. FS 90, FS 90 R... You are responsible for presenting your Obligations Coverage: small off-road equipment engine to a STIHL service center as soon as a The U.S. Environmental Protection In the U.S., 1997 and later model year problem exists. The warranty repairs will Agency (EPA) and STIHL Incorporated... Page 57 This Emission Control Systems explained by STIHL Incorporated at no cost to the owner for any warranty maintenance or Warranty shall not cover any of the cost to the owner. Any warranted part... English / USA For California only: STIHL Incorporated California Exhaust and Evaporative Emissions Control Warranty Statement Manufacturer's Warranty Your Warranty Rights and You are responsible for presenting your Coverage Obligations small off-road equipment engine to a STIHL servicing dealer as soon as the... Page 59 Subsection engines. defective, the part will be replaced by COVERAGE BY STIHL. STIHL Incorporated at no cost to the 6. The owner must not be charged for INCORPORATED. repair and by STIHL. above. A owner. diagnostic labor that leads to the... ® AUTOCUT Where to make a claim for Ematic™ / Stihl-E-Matic™ Warranty Service ® EASYSTART FixCut™ Bring the STIHL product to any ® OILOMATIC HT Plus™ authorized STIHL servicing dealer and ® STIHL Cutquik present the signed STIHL product IntelliCarb™... Page 61 STIHL SuperCut™ STIHL Territory™ TapAction™ TrimCut™ This listing of trademarks is subject to change. Any unauthorized use of these trademarks without the express written consent of ANDREAS STIHL AG & Co. KG, Waiblingen is strictly prohibited. FS 90, FS 90 R...