

SERVICE UPDATE SEMINAR

2017-2018



KOHLER.
5400 Series
19.5 hp
541 cc
KS595
Rated at 3600 rpm per SAE J1940 Gross
22 1/2 gal.

KOHLER.

KOHLER[®]
IN POWER. SINCE 1920.

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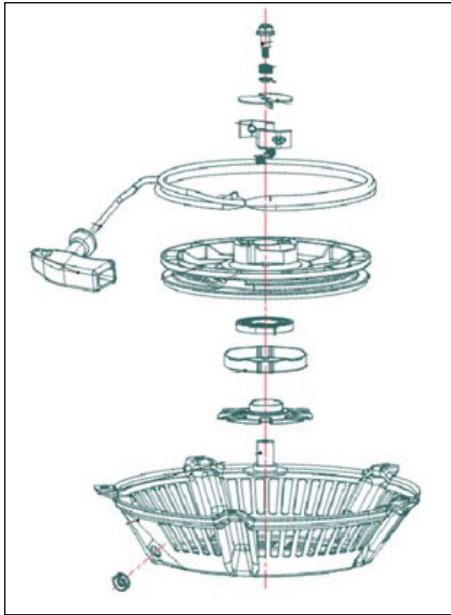
Current Product Updates

Redesigned Recoil Starter for Command PRO Twins

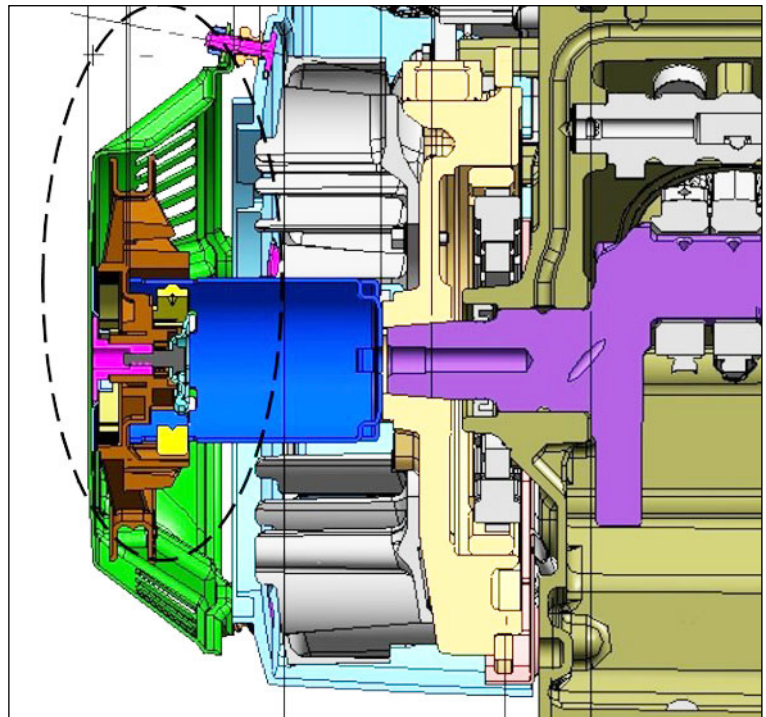
There has been an updated recoil starter released for Command PRO Twins. The new design has stronger, more durable engagement pawls, features a single piece, windowed engagement cup and a recoil pulley made of stronger material.

The previous recoil assembly (24 165 01-S) is superseded in Kohler PLUS to a new kit (24 165 03-S) as the new recoil starter is not compatible with the old engagement cup and requires all the components to be be replaced including a shortened flywheel bolt.

24 165 01 Recoil Design



24 165 03 Recoil Design



Installation Instruction 25 790 16 that is packed with these starters has been revised to cover the new design.

Current Product Updates

824 cc Command PRO EFI ECV850-ECV880

The 824 cc Command PRO EFI has gone through a series of design changes since the 2016 model year to increase durability, reduce oil consumption, and resolve issues that have been reported in the field.

Durability

- Addition of Upper Main Bearing Sleeve

An upper main bearing sleeve has been inserted to the flywheel side of the crankcase for increased durability.

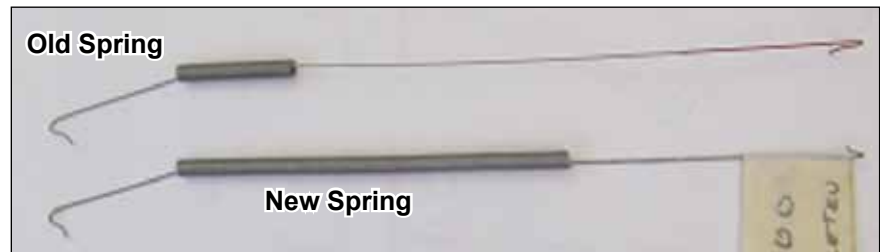


- Updated Governor Linkage Springs for Electronic and Mechanical Governor Controlled Systems

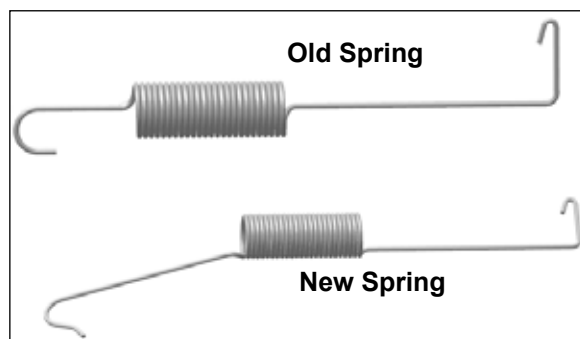
New spring designs have been implemented for both types of governor controls.

Note the longer coil spring body used for mechanical governor systems and the changes in spring arm for the electronic governor linkage spring.

Mechanical Governor



Electronic Governor



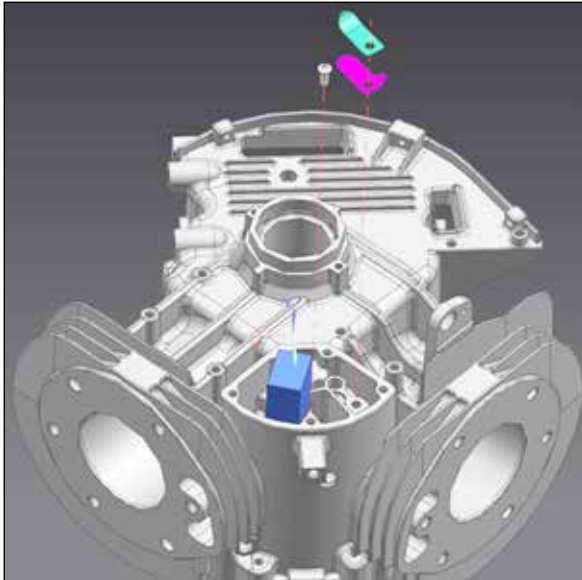
Breather System Changes

Several changes to the breather system have been made to reduce oil consumption. These changes include a change in the breather filter media as well as the addition of a 90° restrictor fitting.

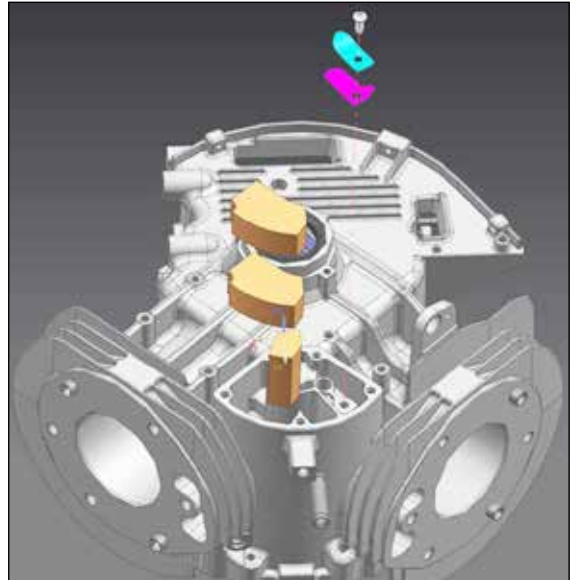
- Changes in Breather Filter Media and Breather Reeds

New production units will come with a new breather filter media and different breather reeds. These changes are designed to reduce the amount of oil making it into the intake stream from the breather system.

Current Design

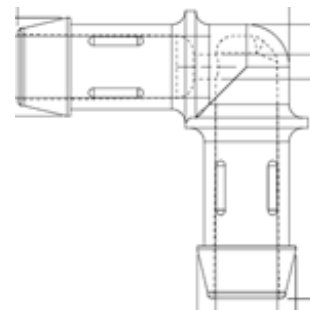


New Design



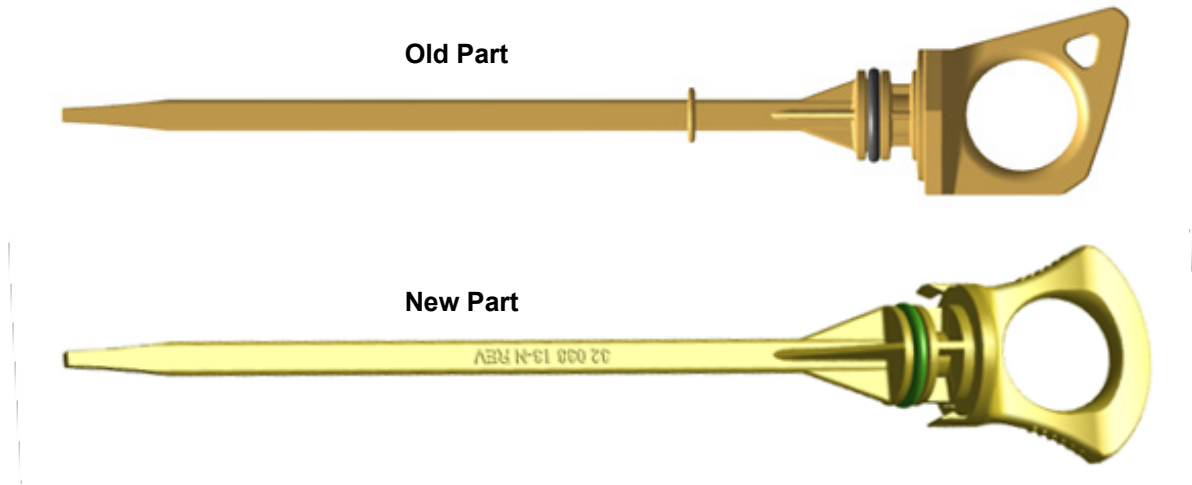
- 90° Fitting Change

The newly designed fitting that gets placed in the breather tube features a restrictor orifice that is molded into the part. This reduces the amount of vacuum being pulled through the breather system and reduces the amount of the oil being consumed. This part is backwards compatible for all 824 cc engines and is available as a service kit, part number 19 755 17-S. This is to be used in situations where excess oil consumption is observed through both cylinders and the breather system is believed to be suspect.



Positive Retention Dipstick

824 cc units in production since December 2016 now utilize a positive retention dipstick similar to what is used on the 7000 Series engines. The new dipsticks must use a matching dipstick tube when used in Service to ensure the retaining tabs engage with the outside diameter of the fill tube.



New Products

Electronic Throttle Body (ETB)

Program Overview

- Electronic speed control system.
 - Electronically controlled throttle body.
 - Integrate the governor control unit into the ECU.
- Next generation of EFI
 - ECU will support CAN bus* (SAE J1939 protocol)
- Targeted at the Commercial engines
 - Vertical 999 cc Command PRO® EFI



*A Controller Area Network (CAN bus) is a robust vehicle bus standard designed to allow microcontrollers and devices to communicate with each other in applications without a host computer. It is a message-based protocol, designed originally for multiplex electrical wiring within automobiles to save on copper, but is also used in many other contexts.

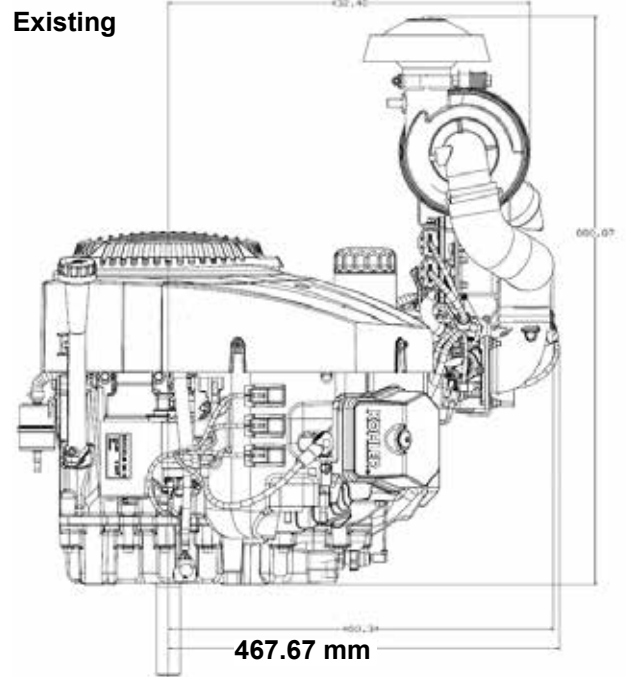
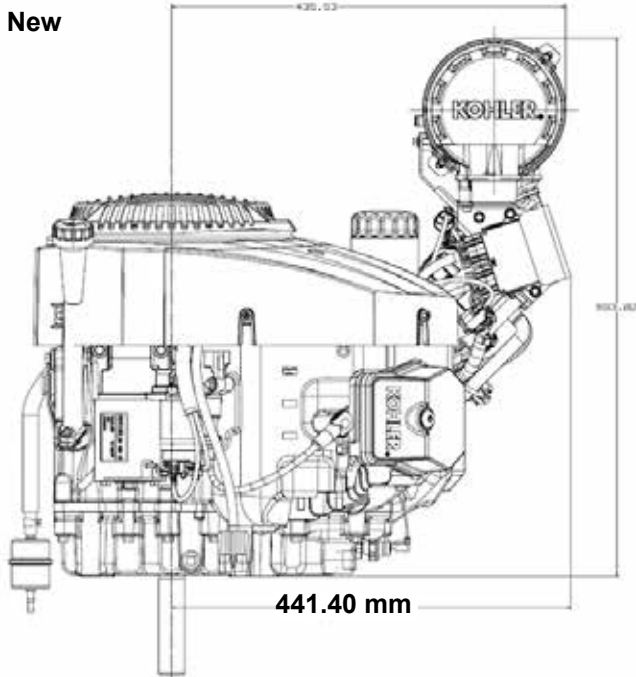
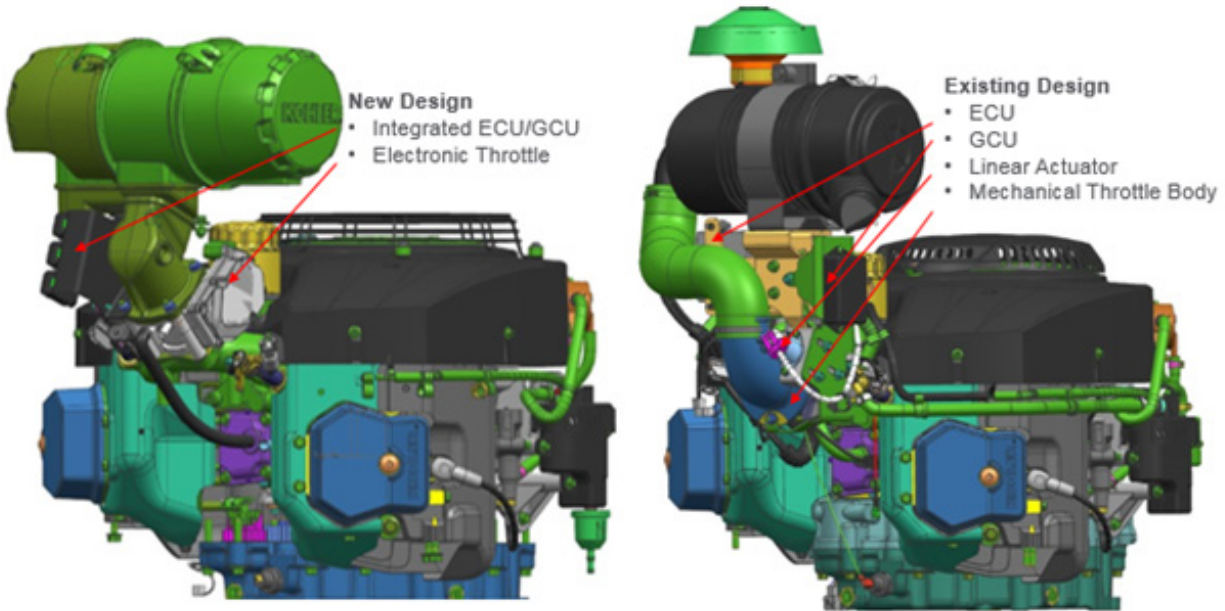
Performance

- Quickly responds when load is placed on an engine.
 - Allows the power of the engine to be used efficiently.
- Increases Productivity
 - Offers the better cut quality by maintain blade tip speed – no need to cut the same grass twice.
 - Maintain higher ground speeds when cutting up hills and when cutting tall or wet grass.

Performance	Target	Current System	ETB Testing
Response Time	Best-in-Class	3.56 sec	1.61 sec
Over/Under Shoot	<100 RPM	250 rpm	150 rpm
Steady State	Better than Current	20 rpm	15 rpm

New Products

Design Comparison – ECV940 & ECV980



Decrease Engine Length by 26.27 mm (1.03")

KOHLER® 5400 Series™



Models

KS530	17 hp
KS540	18 hp
KS590	19 hp
KS595	19.5 hp



Features and Benefits

- Improved user-perceived vibration up to 53% with Kohler exclusive Triple Balance System™
- Preferred more than 3:1 in blind jury testing
- Reduces engine noise up to 57%
- Built to last with commercial engine design specifications
- Replaces KOHLER® Courage for MY18
- Manufactured in Hattiesburg, MS
- Larger bearing areas than competition
- Largest air cleaner in the market
- Tool-free, top-access air filter removal
- 1/4 turn, ergonomic air cleaner knobs
- Inverted oil filter
- Easy-to-grip, ring style dipstick
- Funnel-free oil fill
- Leak-free inverted crankcase joint
- Carburetor moved further from muffler
- Smaller package size (1.5" shorter, 1" narrower)
- Improved net torque throughout working range
- Significantly improved angle of operation through breather system relocation/redesign
- Improved valve cover sealing design
- Improved breathing and sealing on air filter

Exclusive Engine Balance Technology

Courage®

Reciprocating Balance System

5400 Series™

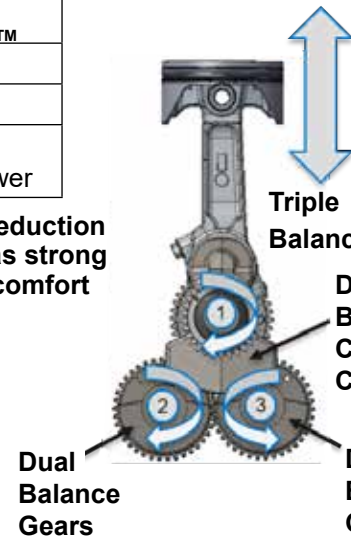
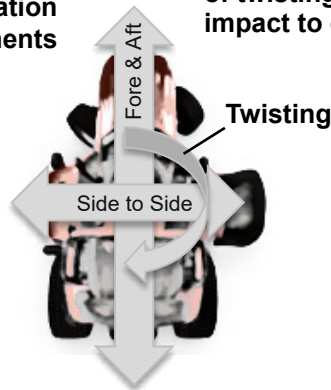
Triple Balance System™

Balance Technology	Courage®	B&S	5400 Series™
Fore & Aft	Yes	Yes	Yes
Side to Side	Yes	Yes	Yes
Twisting	No	No	Yes 70% Lower



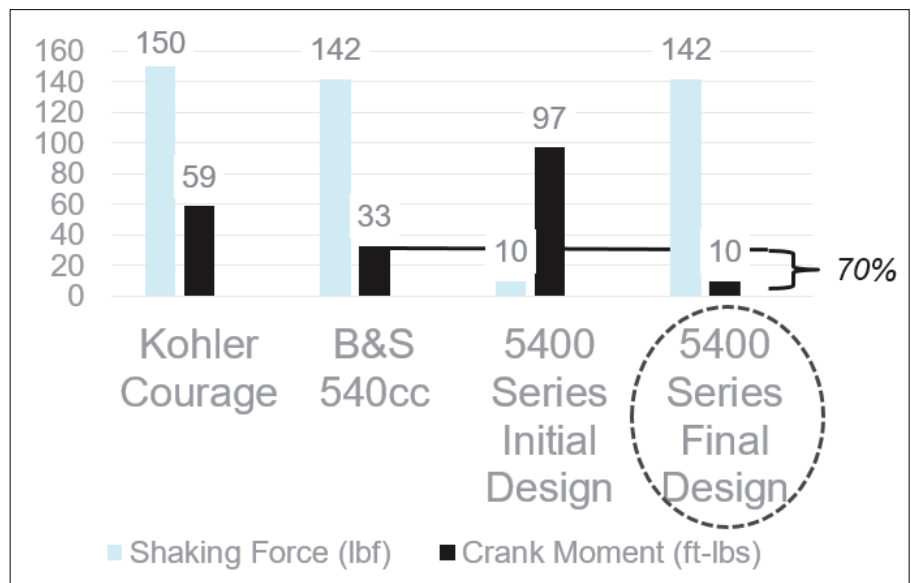
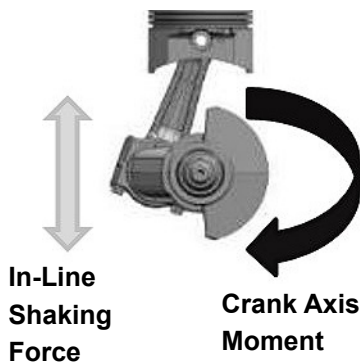
Three
Vibration
Components

Our testing shows reduction
of twisting action has strong
impact to end-user comfort



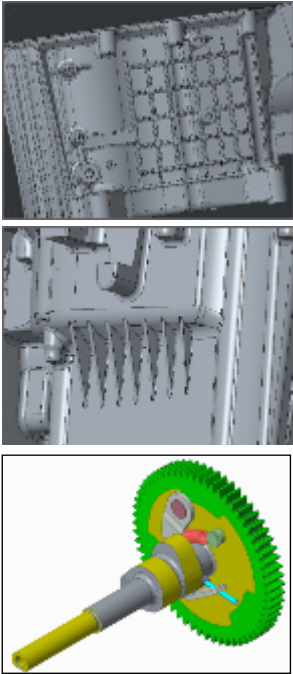
Balance System Shaking Forces

5400 Series™ Balance System was Optimized to Reduce Vibration



- Kohler determined the crank moment was more significant to perceived lawn tractor vibration than the inline shaking force.
- Kohler optimized the design for lawn tractors by minimizing the crank moment.

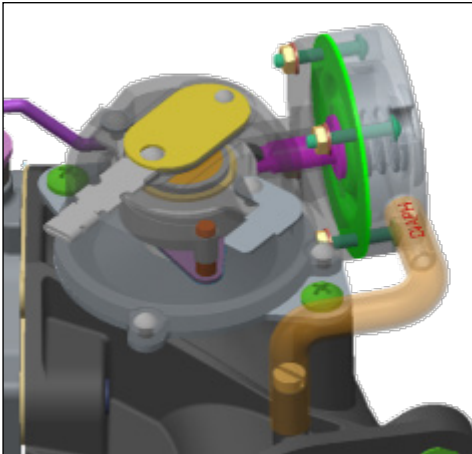
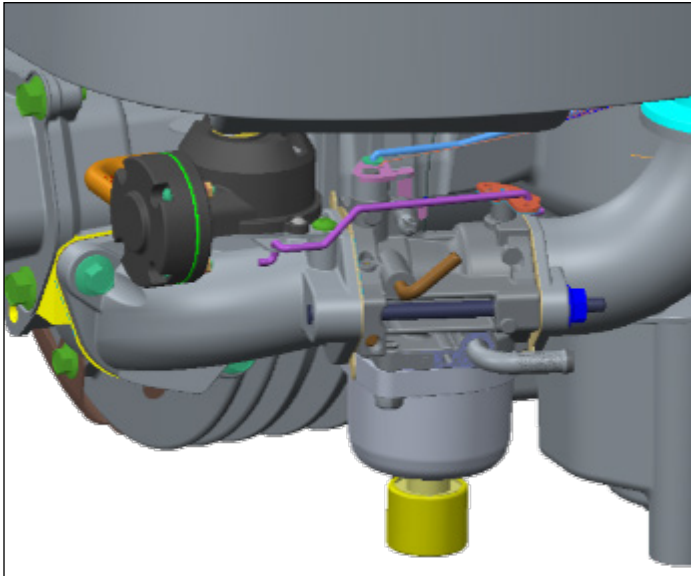
5400 Series™ Noise Improvements
Up to 57% quieter than Courage® Single



Engine Speed (RPM)	Engine Load	Kohler SV600 (597cc) REFERENCE		Kohler 5400 Series DV2 NL <u>Uncoupled to Dyno</u> (541cc)	
		Lw (dBA)	Percent Lower	Lw (dBA)	Percent Lower
2400	No Load	93.8	N/A	92.2	-30.8%
3000	No Load	98.9	N/A	96.3	-45.0%
3600	No Load	103.5	N/A	99.8	-57.3%
<hr/>					
2400	Full Load	102.3	N/A	100.6	-32.4%
3000	Full Load	105.5	N/A	103.3	-39.7%
3600	Full Load	107.2	N/A	105.4	-33.9%

Data shown is exhaust isolated, therefore does not include contribution of muffler design.

Smart-Choke™ – Turn Key Starting



- Targets:
- Cold Start to 0°F (-18°C) with 230 CCA battery
 - Effective load pickup at 40°F (4°C)

Diagnosics & Servicing Tips

Proper Preparation and Diagnosis of Subsequent Valve Cover Failures with RTV Sealant

Field reports concerning subsequent and multiple valve cover leakage on various engines using RTV sealant for the valve cover to cylinder head mating surface have been investigated as to cause and origin. Several causes have been identified for subsequent leaks.

First, it has been determined that in some instances a failed exhaust gasket and the subsequent exhaust gas blowing over the valve cover surfaces may lead to failures. When a valve cover leak appears, start an inspection of the unit by carefully examining the leak and look for signs of exhaust gasket failure and leakage onto the valve cover and cylinder head mating surfaces. High Temp “Room Temperature Vulcanizing” (RTV) sealants in most cases are only good up to 500-700°F (260-371°C), and the prolonged exposure to exhaust gaskets may “bake” or harden the gasket material to the point of failure. If an exhaust gasket failure is indicated, make the appropriate repair to the exhaust manifold to cylinder head connection before proceeding and resealing the gasket surfaces.

Secondly, lack of adhesion by the sealant to the sealing surfaces. The principal factors in these failures were due to the type of sealant used and the cleaning/preparation of the sealing surfaces before its application.

Only oxime-based, oil resistant RTV sealants are approved for use. Loctite® 5900 is the RTV sealant in the 4 oz. aerosol dispenser under Kohler Part No. 25 597 07-S.

Please check Kohler PLUS for proper part number for your application as the sealant(s) may vary between applications and components within applications.

Whenever repairing a failed gasket surface, specifically valve covers, it is best practice to abide by and keep the following procedures in mind.

1. If the valve covers were bent or deformed in the removal process, replace them with new valve covers before attempting repair. The smallest deformity, bend, dent on the mating surface can lead to a repeat failure. This is especially true on stamped steel valve covers such as those found on KT/ZT* model engines.

*KT and ZT engines also have a revised “stamped” surface valve cover that has been superseded in service parts. The new design has added ribs to increase stiffness and improve RTV adhesion.

2. Whenever resealing components with RTV, it is imperative that the sealing surfaces be absolutely clean and dry; free of any oil, debris, or residue. Use aerosol gasket remover, paint stripper, or lacquer thinner to remove any old sealant. Apply the solvent, allow time for it to work. Remove the material by:
 - Brushing the surface with a brass wire brush.
 - Scrubbing the surface with a melamine sponge.
 - Scraping the surface with a non-marring plastic scraper.

Do not scrape the surfaces or use air power abrasive tools, as any scratches, nicks, or burrs can result in subsequent leaks.

3. After the old sealant is entirely removed, clean the surface with isopropyl alcohol, acetone, lacquer thinner, or aerosol electrical contact cleaner. No oil can be present on either of the mating surfaces.
4. Apply a continuous 1/16” diameter bead of approved sealant to valve cover mating surface as outlined in the applicable service manual.
5. Follow the directions precisely as indicated on the packaging of the sealant. Different sealants have different requirements for curing, adhesion, and time-to-service. In most cases, the longer RTV can cure before being put into service (have oil added to the unit) the better.

“Not all RTV is created equally”

Extended Crank to Start on Cold Starts for ECH/ECV630-749

We have received reports of extended crank to start conditions experienced with ECH/ECV630-749 engines. Many of these reports included one or more atypical running conditions, such as:

- Stale Fuel
- Water Contaminated Fuel
- Fuel with low RVP (6 or below)
- Periods of inactivity/storage greater than 3 weeks
- New unsold units over 1 month old with minimal fuel
- High altitude above 4,000 ft (1219 meters)
- Temperatures below 40°F (4°C)
- Use of fuel with an octane rating over 87 at high altitude or temperatures below 40°F (4°C)
- Use of AVGAS, such as 100LL (low lead)

In many of these reports, carbureted engines reportedly started with less cranking time in the same conditions/environment.

We are in the process of testing revised EFI starting calibration with select OEMs. This will require cold weather field testing before results can be known.

Many of the conditions above, especially when combined, will affect start quality of carbureted and EFI engines, and cannot be resolved with calibration.

Remember, ECH/ECV630-749 engines with water contaminated fuel systems will also require purging the Fuel Pump Module (FPM), as water often settles in the FPM. Using an alcohol based additive at no more than 10% concentration may also be necessary to purge water from the fuel system.

Removing Max Adaptation Codes P0171 and P0172 from ECU

There have been calls about the ability to remove/clear Diagnostic Trouble Code P0171 Maximum Adaptation Limit Exceeded & P0172 Minimum Adaptation Limit Exceeded using the Diagnostic Software.

Maximum and Minimum adaptation fault codes P0171 & P0172 are set when the ECU tries to adjust the fuel levels over a period of time to achieve optimal running conditions. It is not a true "fault" like an open or short circuit like other codes, rather it is part of the ECU memory. As such, it cannot be erased with the diagnostic software. In order for the codes to be erased an ECU reset followed by a TPS learn will need to be performed to clear the values and correct the condition. Be certain to make appropriate repairs to the cause of the trouble code before performing the reset and learning procedure.

Cooling Fan Engagement Temperature for LH775

There have been calls and field reports regarding the electric cooling fan engagement temperature on LH775 engines equipped with the Bosch EFI System. Specifically, concerns regarding the difference in temperature engagement points of 175°F (79°C) and 195°F (91°C).

The Bosch system has varied temperature engagement points programmed into the ECU. Many early units were programmed to engage at 175°F (79°C) before a logic change took place to engage the fan at 195°F (91°C). The change in programming has no negative performance effect on the engine.

There have been reports of dealers attempting to fix or remedy the change by replacing ECUs in addition to sensors to correct the problem. Be aware that neither temperature is wrong or needs correction. However, if you find a unit where the fan is engaging at temperatures other than those listed, please contact technical support before proceeding with diagnostics.

Fuel Pump Module Testing and Diagnostics

There have been fuel pump modules being returned to the factory with no defects found and testing operationally good, many are being returned with significant amounts of internal debris which is an indication of improper fuel filter usage. We want to discuss proper testing procedures and fuel pump module information to assist with proper diagnosis and servicing of fuel pump modules and help you educate your large fleet customers that may be performing their own preventative maintenance.

Using Fuel Filters with Approved Micron Ratings (10 Micron pre-Fuel Pump Module)

The micron ratings used in different fuel filters and applications is important to maintain through the regular service procedures. Micron ratings before the lift pump will be relatively standard (51-75 micron) and the filter used after the lift pump between the fuel pump module needs to be a 10-micron filter. It is imperative that an approved 10-micron filter is used and replaced following the maintenance schedule indicated in the service manual. Many cross-referenced filters do not meet specification with micron ratings up to 80 or beyond.

If you service customers that perform regular/general maintenance on their equipment, work to educate them on the difference in filters. Be sure the unit you are repairing/troubleshooting has the proper filter installed before the fuel pump module. Kohler has been requesting back fuel filters and lines for returned fuel pump modules. If an improper fuel filter is found this is considered a non-warrantable defect. If it is found to not be using the proper filter it may be denied warranty. Claims may be denied if requested components are not returned.

The fuel pump module internals are NOT serviceable and will not be covered by warranty if they are returned to the factory disassembled, however, we wanted to provide an illustration of what is found inside if the proper filter is not used.

**Filter Inside Fuel Pump Module when
Incorrect Micron Fuel Filter is Used**



New Filter Inside Fuel Pump Module



Fuel Pump Modules WILL NOT hold system operating pressure when the key is OFF

This is a belief that has carried over from the automotive industry applications. The modules used on KOHLER® EFI engines WILL NOT maintain the system operating pressure when the key is OFF on the engine. Using the Key Off fuel pressure reading is not a valid diagnostic test.

We have included a revised Fuel Pump Module troubleshooting chart for Fuel Pump Module testing. This chart was previously included in SB-326 with additional language added to assist with troubleshooting.

KOHLER Engines Fuel Pump Module Test Data Form

Dealer: _____ Serial: _____

Model: _____ Spec: _____

Warranty Claim: _____
(Required if faxing)

Purpose: This form must be filled out each time a warranty claim is submitted for a replacement fuel pump module. Any claims submitted without this form attached will be returned.

Defect Identified	Check All that Apply	Test Required	Test Result	
Incorrect fuel pressure	<input type="checkbox"/>	Fuel pressure test using 24 761 01-S EFI Service Kit with engine running.	PSI: _____	
		Was fuel filter replaced before pump replacement?	Filter replaced first?	X
			YES	<input type="checkbox"/>
		NO	<input type="checkbox"/>	
		If fuel pressure was below spec of 39 +/- 3 PSI, was fuel flow to FPM confirmed by gravity feed or nurse tank direct to FPM?	FPM gravity fed?	X
			YES	<input type="checkbox"/>
		NO	<input type="checkbox"/>	
		Save filter and FPM for possible return analysis.	Filter and pump retained for return?	X
			YES	<input type="checkbox"/>
		NO	<input type="checkbox"/>	
Running condition when fuel pressure test was performed? NOTE: Pump will NOT hold pressure with key off or engine off.	Running Condition:	X		
	Loaded	<input type="checkbox"/>		
	No load	<input type="checkbox"/>		
Inoperative pump	<input type="checkbox"/>	Place test light across FPM connector using suitable probes (less than 0.032") and crank engine.	Light illuminates?	X
			YES	<input type="checkbox"/>
			NO	<input type="checkbox"/>
Fuel exiting the vent fitting	<input type="checkbox"/>	Vent hose removed from FPM and fuel seen exiting vent. NOTE: Fuel drops exiting the hose may be normal. Fuel flow from the hose may be from OEM EVAP system components.	Fuel exiting vent?	X
			YES	<input type="checkbox"/>
			NO	<input type="checkbox"/>
Other	<input type="checkbox"/>	Describe in detail. Returned pumps that pass testing are subject for claim denial.	Description:	

Diagnostic Trouble Code 0563 Battery Charging Voltages High 15-16 Volts in Cold Conditions

There have been observations by technicians in the field regarding higher than normal charging voltages on engines in colder temperatures, specifically, when Diagnostic Trouble Code (DTC) 0563 is set in sustained operating temperatures below 0°C (32°F).

This higher than normal voltage is normal for cold conditions and is a part of voltage regulator design to ensure proper battery charging. This increased charging rate in cold temperatures has been used since the earliest Kohler rectifier-regulator have been in use.

There is an inverse relationship to the temperature of the voltage regulator and the charging voltage it produces. A cold regulator will produce a higher voltage (up to 16 volts) and a warmer regulator will produce a lower voltage.

There is a concept about battery charging that drives us to modify our charge voltages based on temperature. This adjustment is referred to as temperature compensation, a charging feature that helps ensure that a battery is neither undercharged nor overcharged, regardless of battery temperature. This is the same reason that most high end battery chargers and battery testers will ask for the temperature of the battery before performing a test or automatic charging.

Batteries function off of chemical reactions and chemical reactions can be directly impacted by temperature. Cold batteries require a higher charge voltage in order to push current into the battery plates and electrolyte and warm batteries require less voltage.

Using normal target voltages to charge a battery that is colder than approximately 25°C (77°F) will result in an undercharged battery, which will deliver lower performance, reduced battery life and a higher life cycle cost.

Applying normal target voltages to a battery that is hotter than 25°C (77°F) may result in an overcharged battery. This is a short term condition for the most part as the rectifier-regulator tends to warm up with applied load, generally a rate slightly faster than the battery.

The problem occurs in some applications due to the calibrations and preset trigger values in the ECU for DTC 0563. The code is set when a value of 14.5 is recognized by the ECU, and for applications that run in sustained environments below 0°C (32°F) may cause the code to set. When brought in for service and inspected (commonly in a warm, heated environment) the condition cannot be replicated or duplicated as the charging system tests indicate acceptable ranges in a warm shop environment.

Further, the code may be intermittent by the customer as their application may be changing the environment it is working in (temperature), and additionally be varying the temperature of the regulator as the engine warms and is changing/increasing the ambient air temperature surrounding the regulator and decreasing the charging voltage.

When a unit arrives for service with DTC 0563 code check:

1. Attempt to verify with the customer the temperature of operation, in northern climates try to connect the weather and temperature pattern with the failure.
2. Using the Diagnostic Software, check historic data for the maximum charging voltage present. Take notice if the charging voltage is >15.5 volts. If the voltage is >15.5 check for other suspect causes including stator, rectifier-regulator, and condition of battery.
3. If the maximum voltage indicated in historic data is between 14.5-15.5 volts, reset the Trouble Code and return to service/customer. Explain to the customer the problem.

Kohler is working to adjust the ECU calibration and the fault setting values in new production units within the ECU for applications which may have sustained operation in cold climates.

Bulletins, Etc.

Below is a list of all parts and service bulletins released or revised from September 2016 through September 2017.

To be sure you are viewing the most current version, please see Bulletins listed on www.KOHLERPLUS.com.

Parts Bulletins

PB-228	Kohler Special Tools Program (Rev. 8/17)
PB-261	New XT Series Fuel Tank (Rev. 4/17)

Service Bulletins

SB-326	Fuel Pump Module Replacement (Rev. 9/17)
SB-342	Stumble Due to Insufficient Choke Thermostat Heating (Rev. 9/16)
SB-343	Historic Trouble Codes P0337, P0031, & P0032 (Rev. 3/17)
SB-344	New XT Series Fuel Tank (Rev. 4/17)
SB-348	Engine Stall (Rev. 1/17)
SB-350	Diagnostic Trouble Code (DTC) P0131 on Intimidator and Mahindra UTVs (1/17)
SB-351	Inspecting ECH730 Engines for Proper Speed Control Function Intimidator Utility Vehicles (10/16) Complete bulletin on KohlerPLUS.
SB-352	Fuel Hose Abrasion (5/17)
SB-353	ECV860 Governor Response Improvement (5/17)



Parts Bulletin

NO.	228
MODEL	None
DATE ISSUED	2/01
DATE REVISED	8/17

Kohler Special Tools Program

In an effort to better serve our distribution network, Kohler Co., along with two outside suppliers will be the primary sources for most of the special tools offered for engine servicing. Here is the list of tools and their source. Only those tools with Kohler Part Numbers will be available through Kohler Co. The other special tools are available direct from the supplier listed.

Description	Source/Part No.
Alcohol Content Tester For testing the alcohol content (%) in reformulated/oxygenated fuels.	Kohler 25 455 11-S
Camshaft Endplay Plate Used for checking camshaft endplay.	SE Tools KLR-82405
Camshaft Seal Protector (Aegis) To protect seal during camshaft installation.	SE Tools KLR-82417
Cylinder Leakdown Tester Use for checking combustion retention and if cylinder, piston, rings, or valves are worn. Individual Component Available Adapter 12 mm x 14 mm (Required for leakdown test on XT-6 engines)	Kohler 25 761 05-S Design Technology Inc. DTI-731-03
Dealer Tool Kit (Domestic) Complete kit of Kohler required tools. Components of 25 761 39-S Ignition System Tester Cylinder Leakdown Tester Oil Pressure Test Kit Rectifier-Regulator Tester (120 V AC/60Hz)	Kohler 25 761 39-S Kohler 25 455 01-S Kohler 25 761 05-S Kohler 25 761 06-S Kohler 25 761 20-S
Dealer Tool Kit (International) Complete kit of Kohler required tools. Components of 25 761 42-S Ignition System Tester Cylinder Leakdown Tester Oil Pressure Test Kit Rectifier-Regulator Tester (240 V AC/50Hz)	Kohler 25 761 42-S Kohler 25 455 01-S Kohler 25 761 05-S Kohler 25 761 06-S Kohler 25 761 41-S
Electronic Fuel Injection (EFI) Diagnostic Software For use with Laptop or Desktop PC.	Kohler 25 761 23-S
EFI Service Kit Used for troubleshooting and setting up an EFI engine. Components of 24 761 01-S Fuel Pressure Tester Shrader Valve Adapter Hose Noid Light 90° Adapter (Shrader) Code Plug, Red Wire Code Plug, Blue Wire Wire Probe Set (2 pieces regular wire with clip; 1 piece fused wire) Hose Removal Tool, Dual Size/End (also sold as individual Kohler tool on page 2) K-Line Adapter Jumper Lead Wiring Harness	Kohler 24 761 01-S Design Technology Inc. DTI-019 DTI-037 DTI-021 DTI-023 DTI-027 DTI-029 DTI-031 DTI-033 Kohler 25 176 23-S
Kohler Wireless Diagnostic System Module (Bluetooth®) For wireless Android EFI diagnostics. Individual component available: Wireless Diagnostic System Interface Cable	Kohler 25 761 45-S Kohler 25 761 44-S

Description	Source/Part No.
Flywheel Puller Used to properly remove flywheel from engine.	SE Tools KLR-82408
Hose Removal Tool, Dual Size/End (also available in EFI Service Kit on page 1) Used to properly remove fuel hose from engine components.	Kohler 25 455 20-S
Hydraulic Valve Lifter Tool Designed to remove and install hydraulic lifters.	Kohler 25 761 38-S
Ignition System Tester Used for testing output on all systems, including CD.	Kohler 25 455 01-S
Inductive Tachometer (Digital) Used for checking the operating speed (RPM) of an engine.	Design Technology Inc. DTI-110
Offset Wrench (K & M Series) Used to remove and reinstall cylinder barrel retaining nuts.	Kohler 52 455 04-S
Oil Pressure Test Kit Used to test/verify oil pressure on pressure lubricated engines.	Kohler 25 761 06-S
Rectifier-Regulator Tester (120 volt current) Rectifier-Regulator Tester (240 volt current) Used to test rectifier-regulators. Components of 25 761 20-S and 25 761 41-S CS-PRO Regulator Test Harness Special Regulator Test Harness with Diode	Kohler 25 761 20-S Kohler 25 761 41-S Design Technology Inc. DTI-031R DTI-033R
Spark Advance Module (SAM) Tester Used to test the SAM (ASAM and DSAM) on engines with SMART-SPARK™.	Kohler 25 761 40-S
Starter Servicing Kit (All Starters) Used to remove and reinstall drive retaining rings and brushes. Individual Component Available Starter Brush Holding Tool (Solenoid Shift)	SE Tools KLR-82411 SE Tools KLR-82416
Starter Retaining Ring Tool (Inertia Drive) Kohler 25 761 18-S Used to remove and reinstall drive retaining rings (excluding FASCO starters).	Discontinued, no longer available
Stepper Motor Controller Tool For testing operation of stepper motor/Digital Linear Actuator (DLA).	Kohler 25 455 21-S
Jumper Lead Tool For use with Stepper Motor Controller Tool to test rotary stepper motor.	Kohler 25 518 43-S
Balance Gear Timing Tool (K & M Series) Kohler 25 455 06-S (Formerly Y-357) Used to hold balance gears in timed position when assembling engine.	Discontinued, no longer available
Triad/OHC Timing Tool Set Used to hold cam gears and crankshaft in timed position while installing timing belt.	Kohler 28 761 01-S
Digital Vacuum/Pressure Tester Used like a water manometer, but easier to transport and maintain. Individual Component Available Rubber Adapter Plug	Design Technology Inc. DTI-721-01 Design Technology Inc. DTI-721-10
Valve Guide Reamer (K & M Series) Used for properly sizing valve guides after installation.	Design Technology Inc. DTI-K828
Valve Guide Reamer O.S. (Command Series) Used to ream worn valve guides to accept replacement oversize valves. Can be used in low-speed drill press or with handle below for hand reaming.	Kohler 25 455 12-S
Reamer Handle Used with above reamer for hand reaming.	Design Technology Inc. DTI-K830

Design Technology Inc.
768 Burr Oak Drive
Westmont, IL 60559
Phone 630-920-1300
Fax 630-920-0011

SE Tools
415 Howard St.
Lapeer, MI 48446
Phone 810-664-2981
Toll Free 800-664-2981
Fax 810-664-8181

NO.		261
MODEL		XT Series
DATE ISSUED	DATE REVISED	
12/14	4/17	

New XT Series Fuel Tank

The new 14 065 63-S fuel tank utilizes a material that addresses isolated incidents of nylon leaching into the fuel system (previously covered in the 2013-2014 Service Update Book), as well as improved cap installation and fit.

This new tank should be used as the replacement for any such reports and can be identified visually by the round shape of the internal tank neck feature shown below.

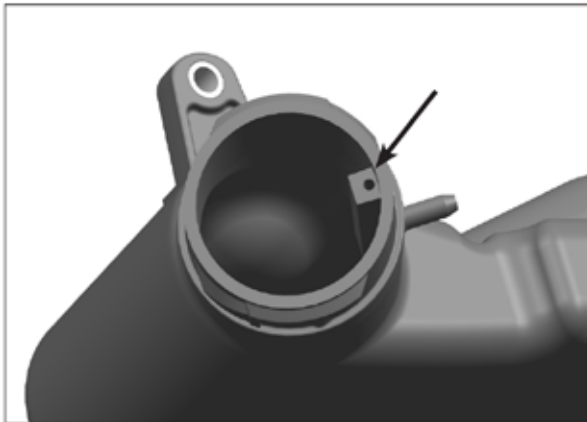


Figure 1. Old Tank 14 065 56-S.

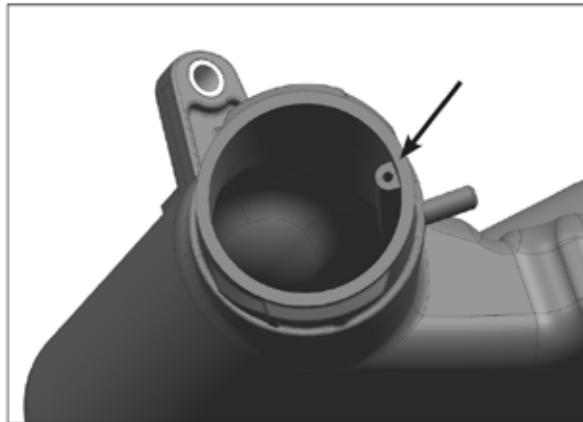


Figure 2. New Tank 14 065 63-S.

If you have inventory of the 14 065 56-S fuel tank, please contact your Central Distributor for a new replacement.

Normal warranty terms apply. For warranty reimbursement, please select **Warranty Repair** and use 14 065 56-S as the **Defective Part Number**. Select the appropriate **Failure Code**. Use **Job Code 4074** for fuel tank replacement. **If the engine is outside of the warranty period, the repair should be done by selecting Policy Adjustment claim type and Policy Adjustment Reason DP-Defect Outside Wrty.**



Service Bulletin

NO.		326
MODEL		All EFI with Kohler Fuel Pump Module
DATE ISSUED	DATE REVISED	
3/14	9/17	

Fuel Pump Module Replacement

Fuel Pump Modules (FPM) replaced during the warranty period now require additional test information. Refer to the last page of this bulletin. Additionally, return of the fuel filter is required when a FPM is requested for return analysis. **Claims filed without the required test information and/or fuel filter and FPM returned, may be denied.**

One suspect cause of unnecessary FPM replacement is restricted fuel flow to the FPM. Verify the correct fuel filter has been used and serviced at the proper intervals. If in doubt, replace the fuel filter before assuming the FPM is defective. **FPM failure that occurs due to improper filter use or service is not a warrantable defect.**

Approved Filter Part Number	Service Interval
25 050 42-S	200 hours
24 050 13-S	600 hours
24 050 03-S	1500 hours Support Bracket Required



Replacement FPMs now include replacement fuel filter 24 050 13-S. When the FPM is replaced, replace the fuel filter and retain the filter removed. **FPMs requested for return to the factory for testing now require the fuel filter to be returned. Please drain all fuel from filter and FPM before returning.**

Review of FPM warranty claims and returned components has revealed damage caused by improper handling of the FPM during servicing. The following issues that occur while in service are not warrantable defects:

- Broken high pressure hose assembly connector to the FPM:** Remove and/or back out FPM fasteners before attempting to remove the high pressure hose from the FPM. Both the red and white button connectors operate by pressing to unhook from the barbed male fitting on the FPM. See Figure 1.



Figure 1.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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2. **Broken FPM vent nipple:** Prying on the FPM to remove the vent hose can result in breaking off the vent nipple. If the hose cannot be removed from the FPM by hand (see Figure 2), remove from the vent tee fitting (see Figure 3). It may be possible to twist the hose free once removed from the vent tee fitting. If risk of damaging the FPM is probable, cut and replace the hose.
3. **Damaged engine wiring harness terminals at the FPM connector:** Forcing a test probe into the electrical connector results in terminal damage and potential intermittent connections. Use a probe with a diameter of 0.032 in. (0.8128 mm) or smaller.
4. **Broken high pressure fuel hose fittings at the #2 injector:** Remove and/or back out FPM fasteners before attempting to remove the high pressure hose from the FPM.



Figure 2.



Figure 3.

KOHLER Engines Fuel Pump Module Test Data Form

Dealer: _____ Serial: _____

Model: _____ Spec: _____

Warranty Claim: _____
(Required if faxing)

Purpose: This form must be filled out each time a warranty claim is submitted for a replacement fuel pump module. Any claims submitted without this form attached will be returned.

Defect Identified	Check All that Apply	Test Required	Test Result		
Incorrect fuel pressure	<input type="checkbox"/>	Fuel pressure test using 24 761 01-S EFI Service Kit with engine running.	PSI: _____		
		Was fuel filter replaced before pump replacement?	Filter replaced first? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>		
		If fuel pressure was below spec of 39 +/- 3 PSI, was fuel flow to FPM confirmed by gravity feed or nurse tank direct to FPM?	FPM gravity fed? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>		
		Save filter and FPM for possible return analysis.	Filter and pump retained for return? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>		
		Running condition when fuel pressure test was performed? NOTE: Pump will NOT hold pressure with key off or engine off.	Running Condition: <input checked="" type="checkbox"/> Loaded <input type="checkbox"/> No load <input type="checkbox"/> Cranking <input type="checkbox"/>		
		Inoperative pump	<input type="checkbox"/>	Place test light across FPM connector using suitable probes (less than 0.032") and crank engine.	Light illuminates? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>
					Fuel exiting vent? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>
					Description:
		Other	<input type="checkbox"/>	Describe in detail. Returned pumps that pass testing are subject for claim denial.	



Service Bulletin

NO.		342
MODEL		XT650, XT675
DATE ISSUED	DATE REVISED	
7/15	9/16	

Stumble Due to Insufficient Choke Thermostat Heating/ Possible Difficult Hot Restart

Some XT650 and XT675 engines may exhibit a rich stumble when load is applied. This is a fault that is most likely to occur when new, and is not a fault likely to develop over time. Below is a list of the engine specs that could present this condition.

Engine Specs
XT650-2036
XT650-2037
XT650-3038
XT650-3039
XT675-2087
XT675-3088

This stumble can be duplicated by starting and mowing for about 1 minute under light load conditions. Next, engage the power drive and enter medium (“normal”) load/cutting conditions. This is where the stumble is most pronounced. Continue to mow for 5 seconds, then stop and wait for 5 seconds before engaging the power drive and mowing again. The stumble should be most pronounced when the power drive is engaged and load is encountered.

Observation of choke operation is likely to reveal insufficient choke opening while mowing.

New Baffle Kit 14 755 33-S has been released and is available from your local Central Distributor Technical Support. When installed, it increases the heat directed to the choke thermostat to ensure the choke opens sufficiently.

Submit a warranty claim indicating 14 187 20-S as the Defective Part Number and 0.5 hour of labor to install the kit.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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Service Bulletin

NO. 343	
MODEL All EFI	
DATE ISSUED 7/15	DATE REVISED 3/17

Historic Trouble Codes P0337, P0031, & P0032

Fault codes P0337 (Crankshaft Position/Speed Sensor), P0031 (Oxygen Sensor Heater Circuit High Voltage), and P0032 (Oxygen Sensor Heater Circuit Low Voltage) often do not require repairs or component replacement.

Code	Blink Code	Description	Status	Info.
P0032		Oxygen Sensor Heater Circuit Voltage Low	Historic	?
P0337		Crankshaft Position Sensor No Signal	Historic	?

Code P0337 Crankshaft Position Sensor

If the engine runs, the code can be ignored and cleared. The purpose of P0337 is to indicate a “no signal condition” from the crankshaft position sensor to the ECU. If this is truly the case, the engine will not start because the ECU is not aware the engine is rotating and cannot find TDC or engine speed.

How the P0337 code is activated:

When the key is turned ON the ECU captures and records battery voltage. As the starter is engaged the voltage will drop 2 volts or more. When the ECU picks up this voltage drop it looks for a signal from the speed sensor. If no signal is found the code is activated.

A false code is triggered by a voltage drop with the key ON and engine OFF. It may be caused by a poor or disturbed battery connection, battery charger connected or disconnected, or anything that will interrupt the voltage signal to the ECU like a power interruption or heavy battery load from the vehicle.

Trouble Code	Description
P0337	Crankshaft Position Sensor No Signal

Detailed Information

This Trouble Code sets if No Signal is Detected from the Crankshaft Position Sensor.

Can be caused by a Faulty Crankshaft Position Sensor/Connections, Incorrect Sensor Mounting, Damaged or Incorrectly Routed Wiring or a Faulty ECU.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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P0031 Oxygen Sensor Heater Circuit High Voltage and P0032 Oxygen Sensor Heater Circuit Low Voltage

If the oxygen sensor heater circuit is open or shorted, either code may be set. The oxygen sensor is unlikely to function normally without heater circuit operation, especially during the initial "cold" start. Heater circuit faults have not been common and are unlikely to be intermittent faults. Testing following service manual procedures is likely to identify a heater circuit fault.

Either code may be mistakenly activated by turning the key ON with the oxygen sensor disconnected.

If a code status is historic, the code may have set during assembly or a previous repair and may not be related to the current customer complaint. Clear the code and retest following service manual procedures and/or return to service.

If a code status is current, test following service manual procedures and perform repairs as necessary.



Service Bulletin

NO.		344
MODEL		XT Series
DATE ISSUED	DATE REVISED	
10/15	4/17	

New XT Series Fuel Tank

A new 14 065 63-S fuel tank has been implemented with a material that addresses isolated incidents of nylon leaching into the fuel system (previously covered in the 2013-2014 Service Update Book), as well as poor fuel cap installation and fit.

This new tank should be used as the replacement for any such reports and can be identified visually by the round shape of the internal tank neck feature shown below.

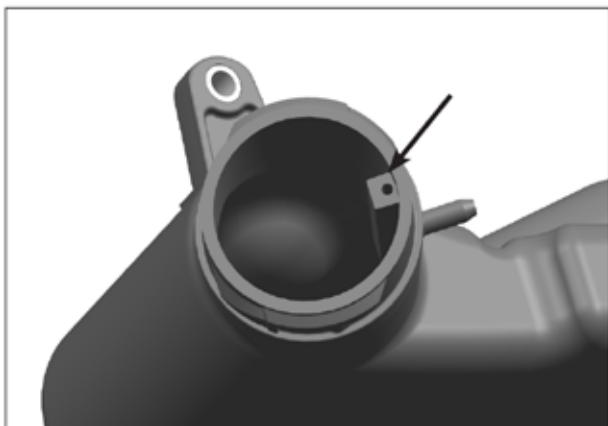


Figure 1. Old Tank 14 065 56-S.

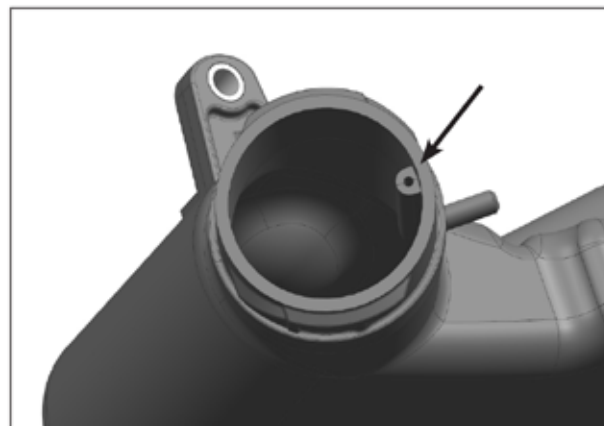


Figure 2. New Tank 14 065 63-S.

If you have inventory of the 14 065 56-S fuel tank, please contact your Central Distributor for a new replacement.

Normal warranty terms apply. For warranty reimbursement, please select **Warranty Repair** and use 14 065 56-S as the **Defective Part Number**. Select the appropriate **Failure Code**. Use **Job Code 4074** for fuel tank replacement. **If the engine is outside of the warranty period, the repair should be done by selecting Policy Adjustment claim type and Policy Adjustment Reason DP-Defect Outside Wrtly.**

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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NO. 348	
MODEL KT715-KT745	
DATE ISSUED 5/16	DATE REVISED 1/17

Engine Stall

The potential exists for these engines to stall for no apparent reason. This issue is limited to KOHLER® 7000 Series engines within the serial number range of 45327xxxx through 4613302464. Not all engines in this serial range will exhibit the condition.

NOTE: This condition often acts similar to a fuel cap vent issue. While a fuel cap replacement may appear to address the issue, the unit is likely to repeat the condition and cause customer frustration.

If a customer experiences a stall condition on engines within this serial range, check for proper fuel flow to the carburetor. If proper fuel flow is present, perform the following fix that involves cutting the existing evap line as shown in Figure 1, inserting a new T-Fitting (25 155 56-S) and a new line (25 326 28-S 14" cut to an 8" length) that will connect to fitting on air cleaner base.

NOTE: Refer to the appropriate service manual disassembly and reassembly procedures as needed.

1. To access the evap line, remove the air cleaner cover, air cleaner element, and air cleaner base.
2. Locate the existing evap line (as shown in Figure 1), remove it from the purge port nipple on the carburetor, and cut it in half.



Figure 1. Cut Existing Evap Line in Half.

3. Install the new T-Fitting at the location of the cut line. Take the new 25 326 28-S 14" long line and cut it to an 8" length. Install and route the new 8" long line as shown in Figure 2.

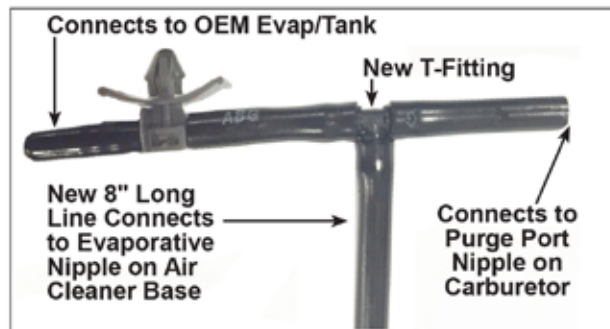


Figure 2. New T-Fitting and New Line Assembly.

4. New T-Fitting and line assembly is shown installed on the engine in Figure 3.



Figure 3. New T-Fitting/Line Assembly Installed.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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5. Route the new 8" long evap line from the T-Fitting to the plugged port on the air cleaner base. Remove and discard the plastic cap at that location. See Figure 4.

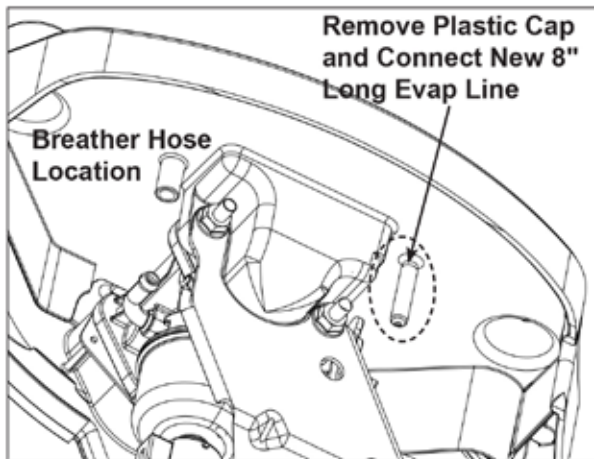
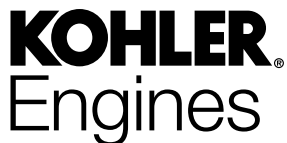


Figure 4. Connect New 8" Long Evap Line to Air Cleaner Base.

6. Reassemble the engine following service manual reassembly procedures as needed. Run the engine to confirm engine performance.

Normal warranty terms apply. Submit warranty claim using 25 326 71-S as the Defective Part Number and ZZ (Other) as the Failure Code. Labor Time of up to 0.5 hour using Labor Code 9999 for Misc Labor.



Service Bulletin

NO.		350
MODEL		ECH730
DATE ISSUED	DATE REVISED	
1/17		

Diagnostic Trouble Code (DTC) P0131 on Intimidator and Mahindra UTVs

Certain operating conditions may illuminate the malfunction indicator light (MIL) and set DTC P0131 on Intimidator and Mahindra UTVs equipped with the Kohler ECH730 EFI engine. Extended periods of coasting, or repeated coasting in a short period of time, may illuminate the MIL and set DTC P0131. This condition does not affect vehicle performance. The DTC P0131 will show as a current code when the MIL is illuminated, and a historic code when the light is off.

Units affected are all Intimidator and Mahindra UTVs powered with the Kohler ECH730 EFI engine spec number ECH730-3036 or ECH730-3065, with serial number 46318XXXXX and earlier.

Two new ECUs have been released with a calibration that will prevent this from happening.

If a unit is found to have this condition, please replace the ECU with the following part number based on the engine spec.

Engine Spec Number	New Calibration ECU Part Number
ECH730-3036	24 584 168-S
ECH730-3065	24 584 167-S

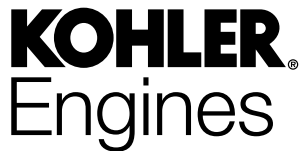
Prior to replacing the ECU, warm up the engine and verify the idle speed is set at 1000 RPM. If adjustment is needed consult the service manual for the vehicle. Shut off the engine. Remove the old ECU and install the new one following the Kohler engine service manual. Start the engine and run for one minute. Turn the ignition key off and wait 10 seconds. TPS Learn Procedure is now complete.

NOTE: When installing a new, unused ECU, there is no need to perform the ECU Reset and TPS Learn Procedures as outlined in the engine service manual, because the new ECU contains no learning/adaptation that needs to be erased. Only the zero percent open position of the throttle needs to be learned at 1000 RPM on a warm engine.

The ECU should only be replaced if the above condition presents itself. If an ECU is replaced, return the used ECU without clearing codes or resetting the ECU, to Kohler for credit.

For reimbursement please submit a warranty claim for the correct ECU part number and up to 0.3 hour of labor. Include Work Unit number ME6440Y in the appropriate field in the claim.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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Service Bulletin

NO.		351
MODEL		ECH730
DATE ISSUED	DATE REVISED	
10/16		

Inspecting ECH730 Engines for Proper Speed Control Function Intimidator Utility Vehicles

Intimidator Model Numbers

A7BCG34G, A7BCG34C, A7BCX34R, A7BCX34M, A7BCX34G, A7BCX34C, A7BDG34G, A7BDG34C, A7BDX34R, A7BDX34M, A7BDX34G, A7BDX34C, A7BTT34G, A7BTT34C, A7BTX34R, A7BTX34M, A7BTX34G, A7BTX34C.

This bulletin applies to new engines/vehicles in dealer inventory, as well as units that have been sold from July 1, 2016, to present, **IF BOTH** the P.I.N. number **AND** the engine serial are **BEFORE** P.I.N. number **A7MSM34CLGB003580** **AND** engine serial **46210XXXXX**.

To perform the inspection, you need to access the top of the engine and the air intake area. This will require:

- Removing the seat cushion.
- Tilting the dump box to maximum open angle on Classic and Crew series units.
- Removing the access door in bottom of dump bed on Truck series units.

Use the log sheet on page 6 to record every vehicle inspected. Fax or email a copy of the log sheet to KOHLER weekly after completing a vehicle or groups of vehicles.

Checking Engine Speed Controls

1. Disconnect the short hook end of the engine governor spring from the governor lever. See Figure 1. Allow the spring to hang. See Figure 2.



Figure 1. Disconnect Governor Spring.

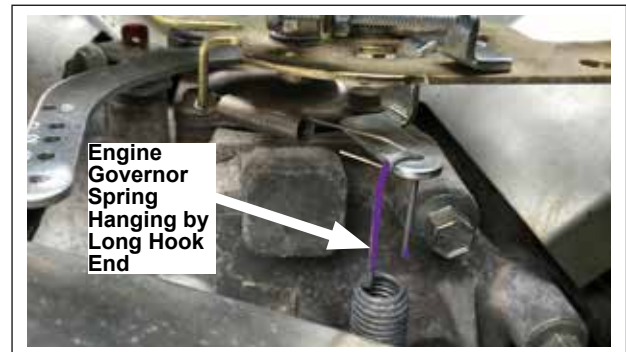
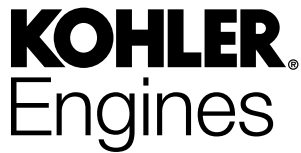


Figure 2. Allow Governor Spring to Hang.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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Service Bulletin

NO. 352	
MODEL PCH680, PCH740 PCV680, PCV740	
DATE ISSUED 5/17	DATE REVISED

Fuel Hose Abrasion

Engines listed have the potential for fuel hose abrasion at the #1 cylinder where the fuel hose contacts the access cover (see Figure 1). Hoses exhibiting abrasion require replacement. A modified access cover is available to prevent abrasion (see Figure 2).

Affected Models/Specifications:

Model PCH680
PCH680-3001
PCH680-3002
PCH680-3003
PCH680-3004
PCH680-3011

Model PCH740
PCH740-3001
PCH740-3002
PCH740-3003
PCH740-3004
PCH740-3005
PCH740-3006
PCH740-3007
PCH740-3008
PCH740-3012
PCH740-3013
PCH740-3014
PCH740-3015

Model PCV680
PCV680-3003
PCV680-3011
PCV680-3012
PCV680-3013

Model PCV740
PCV740-3003
PCV740-3011
PCV740-3012
PCV740-3013
PCV740-3014
PCV740-3015



Figure 1.



Figure 2. Access Cover 24 096 168-S.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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Inspection Procedure

Remove #1 access cover.

- A. If the abrasion sleeve is not worn through and the fuel hose exhibits no wear from contact, simply replace the access cover only. **Order and install access cover 24 096 168-S.**
- B. If the abrasion sleeve is worn through exposing the fuel hose (see Figure 1), the fuel hose assembly AND the access cover both require replacement. **Order and install fuel hose 24 399 31-S and access cover 24 096 168-S.**

The following labor coverage will apply during or beyond the warranty period:

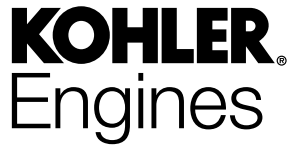
For repair A: Job code 9999 and labor amount of 0.5 hour.

For repair B: Job codes 4082 (0.7), 4077 (1.5), for a total labor amount of 2.2 hours.

Claims will need to be filed as a Policy Adjustment for units repaired beyond the warranty period.

Use 24 399 31-S as the Defective Part Number.

Include Work Unit number ME6496Z in the appropriate field in the claim.



Service Bulletin

NO.		353
MODEL		ECV860
DATE ISSUED	DATE REVISED	
5/17		

ECV860 Governor Response Improvement

There have been isolated reports of low power on the ECV860-3019 engine. It has been determined that the governor droop (reaction to load) is too slow on some of these engines.

Replacing the original (see Figure 1) black governor spring (19 089 08) with an orange governor spring 19 089 05-S and replacing the original governor linkage lever (19 090 01) with a new design (see Figure 2) governor linkage lever 19 090 05-S that moves the governor spring hole location, should correct this situation.

NOTE: This fix has been tested and approved for spec ECV860-3019. If you encounter this condition with a different ECV860 engine, it must be tested and approved by Kohler Engines to ensure that it corrects the condition.

Use the following procedure to replace these two components on an ECV860-3019 engine.

1. Remove the M6 screw (D) securing the governor linkage lever (B). Unhook the speed control linkage (C) and governor spring (A) from the governor linkage lever (B). Save the screw (D) and spacer behind the governor linkage lever (B); discard the governor linkage lever (B). Remove the governor spring (A) from the governor lever (E); discard the governor spring (A). See Figure 1.

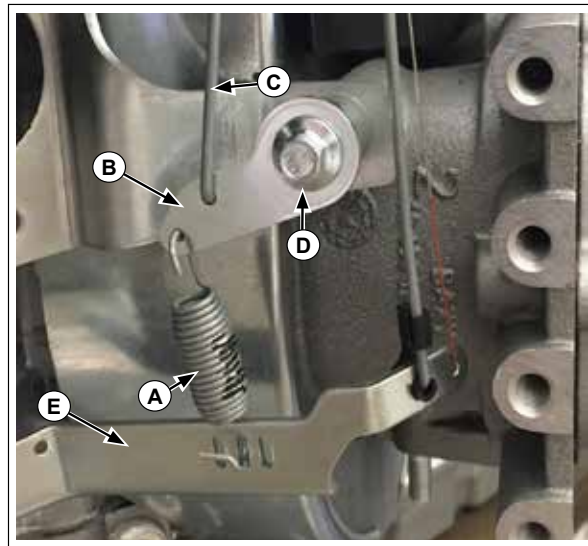


Figure 1. Original Governor Linkage Lever and Governor Spring.

Routing	Service Manager	Sales Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2	Mechanic No. 3	Mechanic No. 4	Return This To
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2. Hook the speed control linkage (C) and the new governor spring (A) into the new governor linkage lever (B). See Figure 2.
3. Hook the new governor spring (A) into the middle slot of the governor lever (F). Orient spring ends as shown in Figure 2. Secure the new governor linkage lever (B) and the spacer (D) with the M6 screw (E). Torque screw (E) to 10.2 N·m (90 in. lb.). See Figure 2.

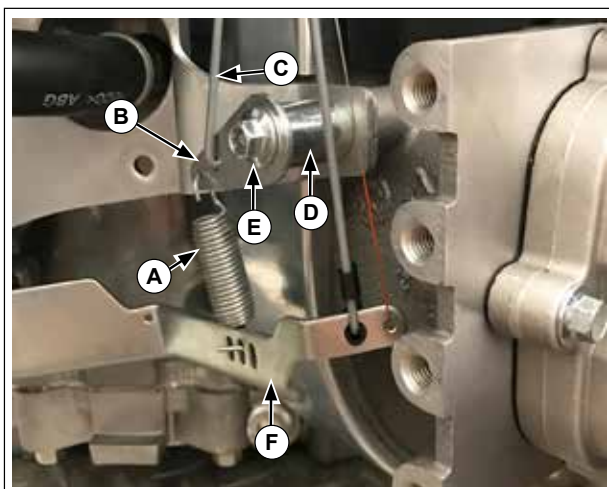


Figure 2. New Governor Linkage Lever and Governor Spring.

4. Start the engine and allow it to warm up for a few minutes.
5. Reset the high speed to 3640 RPM. See Figure 3. First loosen the screw (A) securing the cable clamp that holds the speed control cable from the application. Next move the application lever to high speed position (rabbit), then pull on the cable (C) and turn the adjusting screw (B). When the desired RPM speed is obtained, tighten the screw (A) to secure the cable clamp.



Figure 3. Reset High Speed.

6. Cycle the application lever from slow (turtle) to high speed position (rabbit) a few times, then verify high speed is still at desired RPM, if not repeat step 5.
7. Set the idle speed to 1500 RPM by adjusting the idle speed screw (A) on the throttle body. See Figure 4.

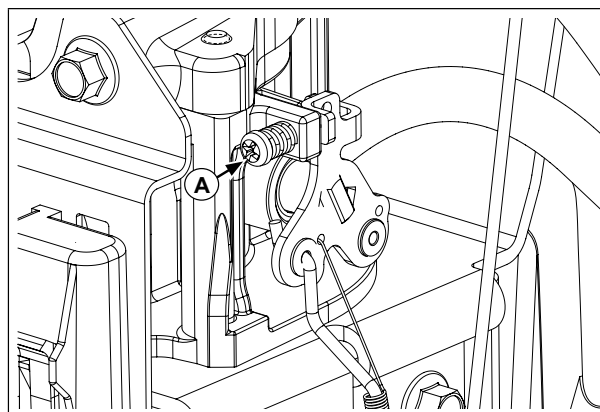


Figure 4. Reset Idle Speed.

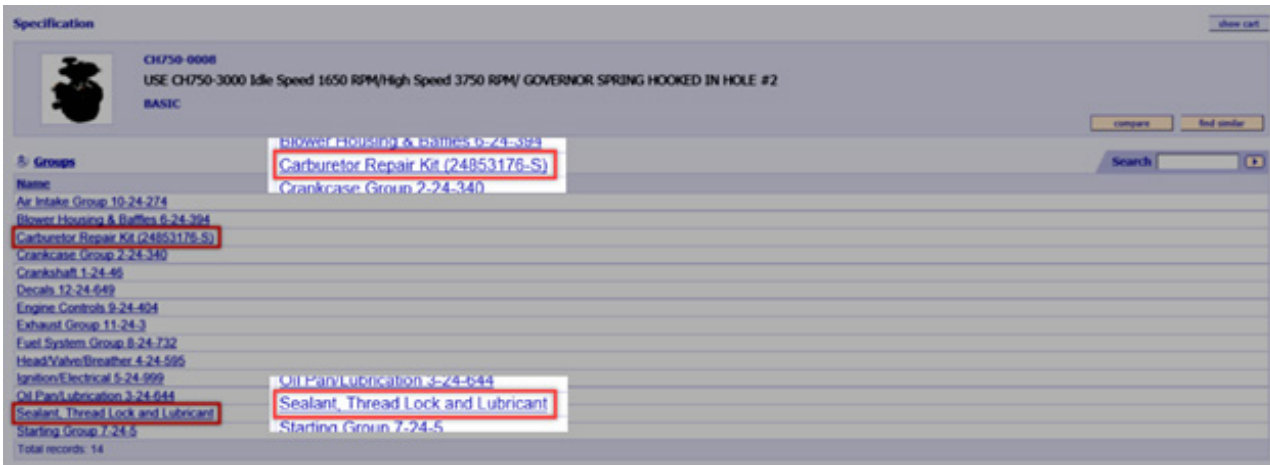
Normal warranty terms apply. Submit warranty claim using 19 089 08 as the Defective Part Number and ZZ (Other) as the Failure Code. Labor Time of up to 0.5 hour using Labor Code 9999 for Misc. Labor.

Kohler PLUS

New Groups Added to Kohler PLUS

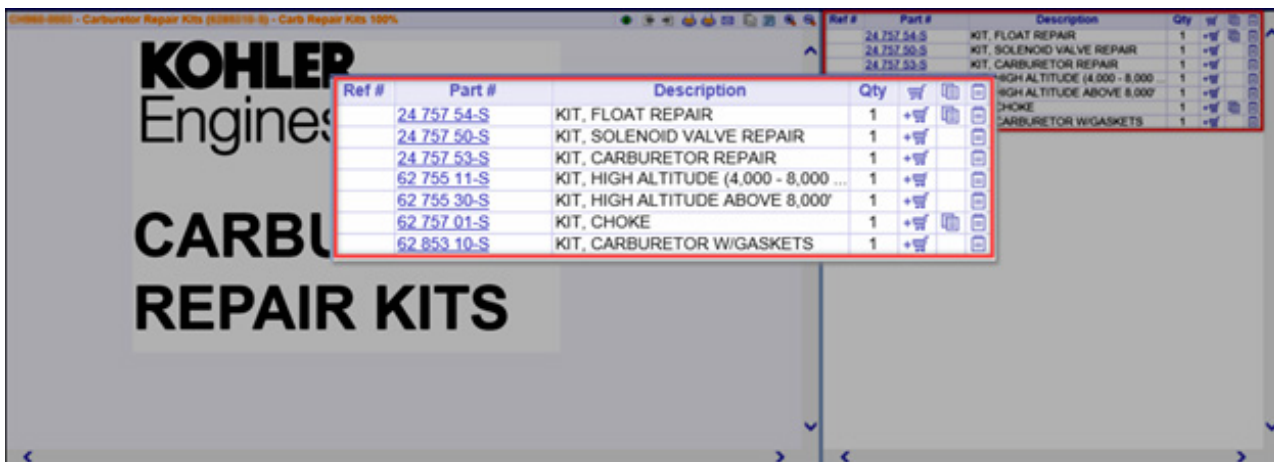
Kohler PLUS has now added several new Groups to help you easily find parts. The Groups that have been added are:

1. Carburetor Repair Kits
2. Sealant, Thread Lock and Lubricant
3. Sensors



Carburetor Repair Kit Group

The Carburetor Repair Kit group provides a single, easier location and listing of all the related carburetor repair kits for any specific engine and spec. This avoids the process of navigating through the Fuel System Group, locating the generic carburetor kit and identifying the parts/kits within the notes field.



The kits will still be listed in the previous location which can be found by navigating to the Fuel System Group, locating the carburetor kit and finding the kit information in the Kohler Notes for the single carburetor kit.

Sealant, Thread Lock and Lubricant Group


The Sealant, Thread Lock and Lubricant group added to Kohler PLUS will quickly provide you with the respective part numbers for the engine you are servicing. Remember, that different engines and specs may require different sealants, thread locks and lubricants. When purchasing lubricant and oil, please reference your Service or Owner's Manual for the proper viscosity for the temperature range and operating conditions for your engine.

Kohler PLUS

Sensors Group

The newly added sensors group provides the part numbers for all the related sensors and related brackets and clips for that engine and spec. Previously, the sensors were located within the various groups of which they are a part of. They can still be located within those groups, but the addition will eliminate the guesswork of which group they are a part of.

Specification



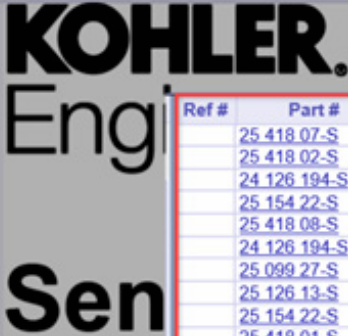
ECH740-3014
 Idle Speed 1500 RPM/High Speed 3800 RPM/GOVERNOR SPRING HOOKED IN HOLE #3 - E3
 MARKET SPEC

Groups

- [Air Intake Group 10-24-445](#)
- [Blower Housing](#)
- [Crankcase Group 2-24-409](#)
- [Crankshaft Group- 1-24-65](#)
- [Engine Controls Group 9-24-549](#)
- [Exhaust Group 11-24-212](#)
- [Fuel System Group 8-24-883](#)
- [Head/Valve Breather](#)
- [Identification](#)
- [Ignition/Charging](#)
- [Lubrication](#)
- [Parts Shipped I](#)
- [Sealant, Threa](#)
- [Sensors](#)
- [Starting Group 7-24-32](#)

Total records: 15

ECH740-3014 - Sensors - Sensor 100%



Ref #	Part #	Description	Qty			
	25 418 07-S	SENSOR, OXYGEN (M18 x 1.5 T...	1	+🛒		
	25 418 02-S	SENSOR, TEMPERATURE	1	+🛒		
	24 126 194-S	BRACKET, OXYGEN SENSOR	1	+🛒		
	25 154 22-S	CLIP, O2 SENSOR	1	+🛒		
	25 418 08-S	SENSOR, THROTTLE POSITION	1	+🛒		
	24 126 194-S	BRACKET, OXYGEN SENSOR	1	+🛒		
	25 099 27-S	SENSOR, OIL PSI	1	+🛒		
	25 126 13-S	BRACKET, SENSOR MOUNT-#...	1	+🛒		
	25 154 22-S	CLIP, O2 SENSOR	1	+🛒		
	25 418 01-S	SENSOR, SPEED	1	+🛒		
	25 418 03-S	SENSOR, AIR TEMPERATURE	1	+🛒		
	25 418 09-S	SENSOR, MAP	1	+🛒		

Active X Control Error

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Remember, Kohler PLUS can only be accessed from Internet Explorer.



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