



RevTech

**Engine Installation Guide
& Owner's Manual**

125" • 115" • 110" • 100" • 88"
including EPA-Certified Engines

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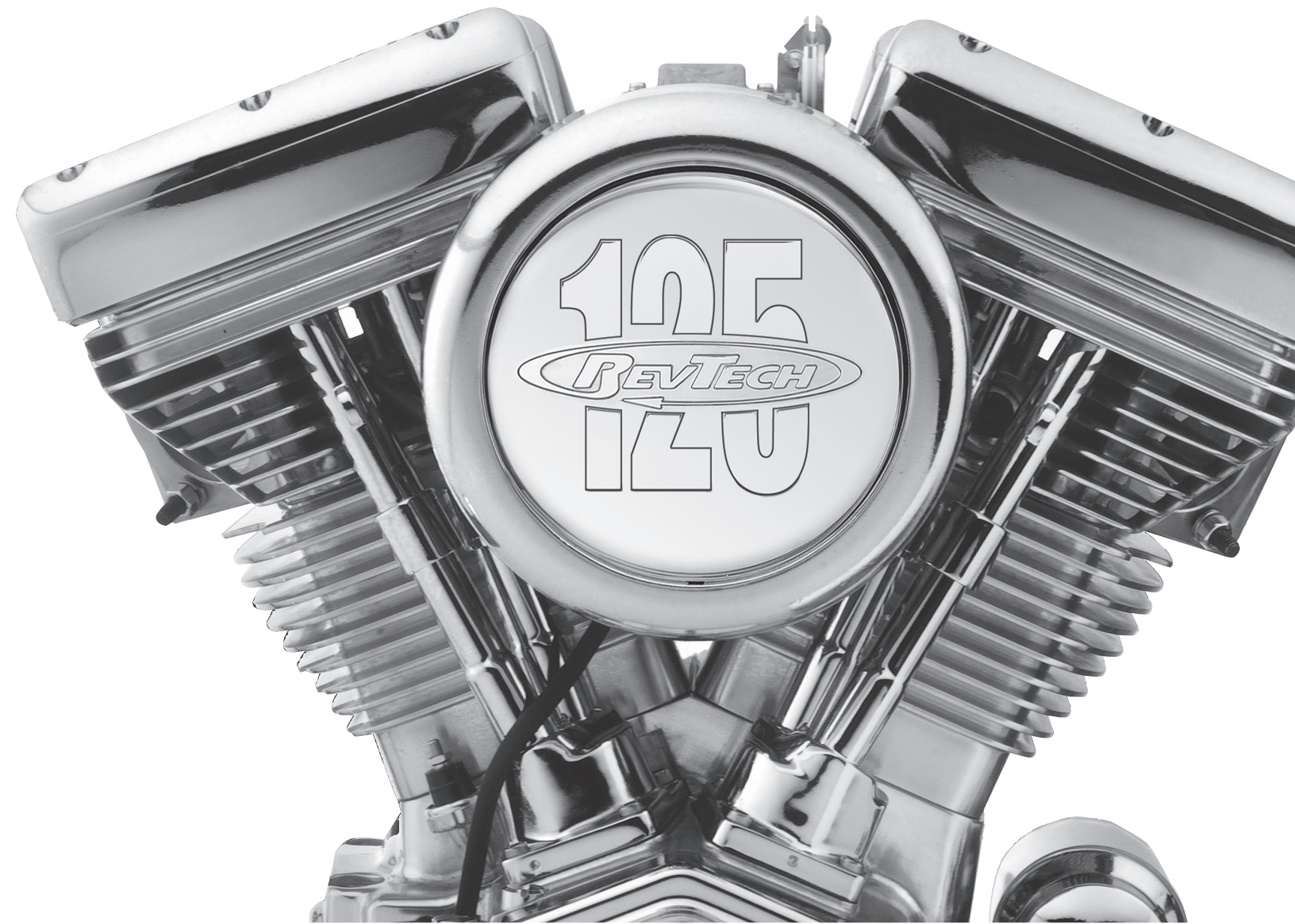
Congratulations on Making a Powerful Choice!

Thank you for purchasing a RevTech engine. We know that you have numerous options available to you when choosing an engine for your motorcycle, and by selecting RevTech, you have shown that you are part of a growing number of enthusiasts who demand quality. Quality in design, in function, and in performance is what makes the RevTech engine the right choice for your motorcycle.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Casarez', with a long horizontal stroke extending to the right.

Louis Casarez
CEO / President
Custom Chrome
A Division of DAE-IL USA, Inc.
Morgan Hill, California



SECTION 1

The RevTech® Engine

- 1.1 Limited Engine Warranty**
- 1.2 Engine Components**
- 1.3 Engine Specifications**

1.1 Limited Engine Warranty



LIMITED ENGINE WARRANTY (Non-Emission)¹

Please detach, complete and return the warranty card in this manual.

Who does the limited RevTech® engine warranty cover?

Only the original retail customer of this RevTech 88, 100, 110, 115 and 125 inch engine is entitled to warranty service. Coverage terminates if you sell or otherwise transfer the engine to another user.

What does the warranty cover?

Custom Chrome warrants that the engine is free from defects in workmanship and material. If a warranty claim occurs, Custom Chrome will repair or replace all parts necessary to restore the engine to accepted factory specifications. All warranty work must be performed by a Custom Chrome RevTech Repair Center.

How long is the warranty coverage?

The warranty extends for two years from the date of the original retail customer's purchase of the engine or 20,000 miles, whichever comes first. For valid warranty claims arising during the first 12 months of coverage, Custom Chrome will reimburse a dealer, with a merchandise credit, for its labor charges in removing and reinstalling the engine. [Dealer: Please contact Custom Chrome for details.] After the first 12 months, this warranty covers only parts and labor provided by a RevTech Repair Center. Any other parts, labor charges (including removal and reinstallation of the engine), and freight costs are the sole responsibility of the retail customer.

What is not covered under your warranty?

Your warranty does not cover any of the following:

1. Any work performed in the field, unless specifically authorized and directed in writing by a RevTech Repair Center. Any such work will void your warranty.
2. Piston failure caused by excessive heat, fuel in the oil due to a non-vacuum petcock being left in the 'ON' position when the vehicle is not being operated, or incorrect tuning (as determined by a RevTech Repair Center Technical Support Specialist).
3. Any sign of owner abuse or negligence (as determined by a RevTech Repair Center Technical Support Specialist).
4. A failure caused by improper or incorrectly performed maintenance (as determined by a RevTech Repair Center Technical Support Specialist).
5. Oil weeps and seeps (as determined by a RevTech Repair Center Technical Support Specialist).
6. A failure due to non-compliance with recommended break-in procedures (**page 3-2** of this manual).

1.1 Limited Engine Warranty

7. Incidental and consequential damages, including loss of time, inconvenience, or loss of use of your motorcycle during warranty repair.
8. Incidental damage to any other component of your motorcycle or to the paint on your motorcycle, as the result of the removal or reinstallation of the engine.
9. Any charges for towing, hauling, or storing your motorcycle or any accommodation costs.
10. Damages resulting from improper crating or packaging of the engine.

Additional notes:

Disassembly of any part or any physical modification to the engine without prior approval of a RevTech Repair Center voids the entire warranty.

Custom Chrome will make the arrangements to have the engine picked up for warranty service via truck (ground freight only). Freight charges will not be covered if Custom Chrome determines that the warranty claim is invalid.

Troubleshooting, diagnosis, and technical issues:

1. The biggest enemy of an air-cooled engine is heat. Sufficient airflow must be present at all times. To ensure sufficient airflow, avoid slow-moving traffic and do not allow the engine to idle for extended periods of time. This is owner abuse (see 3 above). **YOUR WARRANTY DOES NOT COVER PISTON SEIZURE CAUSED BY OVERHEATING.**
2. If the engine begins making strange or unusual noises, turn off the engine as soon as it is safe to do so and take the engine to an authorized Custom Chrome dealer for service. Continued use of an engine making noise can create a serious safety risk and could lead to an engine failure that is not covered under your warranty.
3. Turn off the motorcycle's fuel supply valve (petcock) when the engine is not operating. Failure to do so may result in fuel draining into the engine, causing pollution of the engine oil or engine damage not covered by your warranty.
4. If you discover an oil leak, please provide photographs (preferably digital) clearly showing where the leak is coming from and the volume of the leak. Do not assume that the engine is leaking – check the primary transmission, oil tank, and all related hoses and connectors first.
5. If, after careful cleaning and checking, you determine that the leak is coming from the engine (that is, if there are oil spots on the horizontal floor directly under the engine during a 24-hour period), contact an authorized Custom Chrome dealer for warranty service.
6. Our technicians will perform an extensive bench test, including running the engine at full operating temperature. If the leak cannot be duplicated, the warranty claim will be denied, and we will return the engine, freight collect, as received. No credit for labor will be given.
7. Weeps and seeps may occur. They are not considered warranty issues and we will not reimburse labor charges to repair them.

1.1 Limited Engine Warranty

How to obtain warranty service:

1. **To obtain warranty consideration, the original retail customer must contact an authorized Custom Chrome dealer, preferably the dealer where you purchased the engine.**
2. The dealer must contact RevTech Customer Service and Technical Support. Together, they will make an initial determination if the problem is covered by the warranty. The dealer, not the customer, must make this contact.
3. Custom Chrome and RevTech Customer Service and Technical Support will not accept calls from retail customers relating to warranty claims.
4. If Custom Chrome and the dealer determine that the problem may be covered by warranty, they will arrange to have the engine shipped to a RevTech Repair Center. For the first 18 months after original retail purchase, Custom Chrome will cover the freight charges for valid warranty claims.
5. Only a RevTech Repair Center can perform warranty service. Custom Chrome will not reimburse the cost of parts or labor for warranty service performed anywhere other than a RevTech Repair Center.

What you must do to maintain the RevTech engine warranty:

1. Adhere to the break-in procedure prescribed in this manual (**page 3-2**).
2. Do not abuse or misuse your engine in any way.
3. Use premium unleaded fuel, with an octane rating of 91 or higher.
4. Wash and oil air filter element as needed.
5. Perform oil and oil filter changes according to the maintenance schedule in this manual (**page 3-3**).
6. Do not remove or modify any engine component, including those listed below. Altering these or any other emission-related component will make your engine illegal to use in the U.S.
 - Carburetor
 - Ignition Module
 - Camshaft
 - Heads

FAILURE TO FOLLOW ANY OF THE THESE PROCEDURES MAY RESULT IN THE DENIAL OF YOUR WARRANTY CLAIM OR CANCELLATION OF YOUR WARRANTY, OR BOTH.

1.1 Limited Engine Warranty

Your rights under state law: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Any implied warranty, including any warranty of merchantability or fitness for a particular purpose, is limited to the express terms of this Limited Engine Warranty. Some states do not permit limitations on the duration of an implied warranty, so this limitation may not apply to you.

Custom Chrome cannot accept warranty claims directly from retail customers. To make a warranty claim, you must return the engine to an authorized Custom Chrome dealer. For the location of the nearest authorized Custom Chrome dealer and RevTech Repair Center, call the number listed below.

When submitting a warranty claim be sure to supply a legible copy of your receipt, showing the dealer name, date of purchase and engine serial number, to:

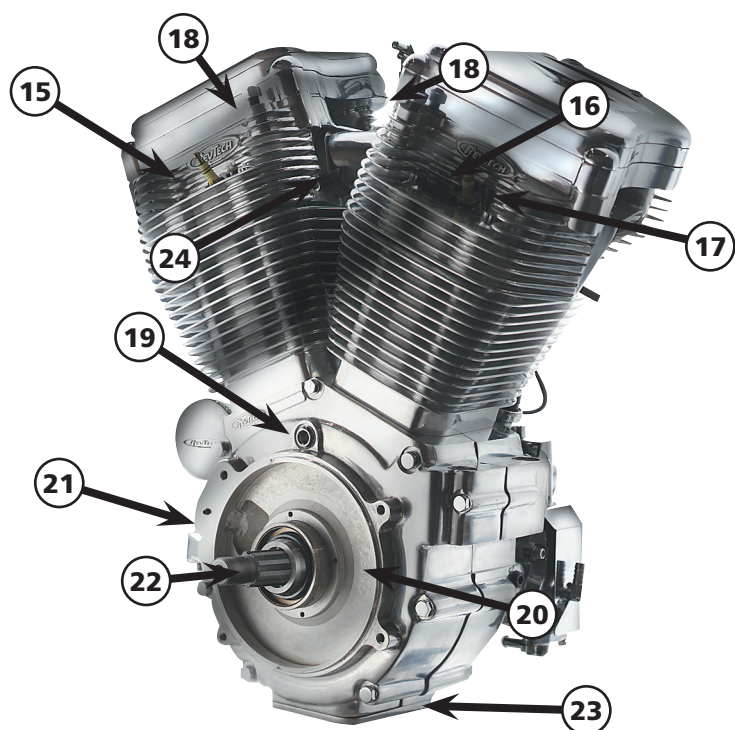
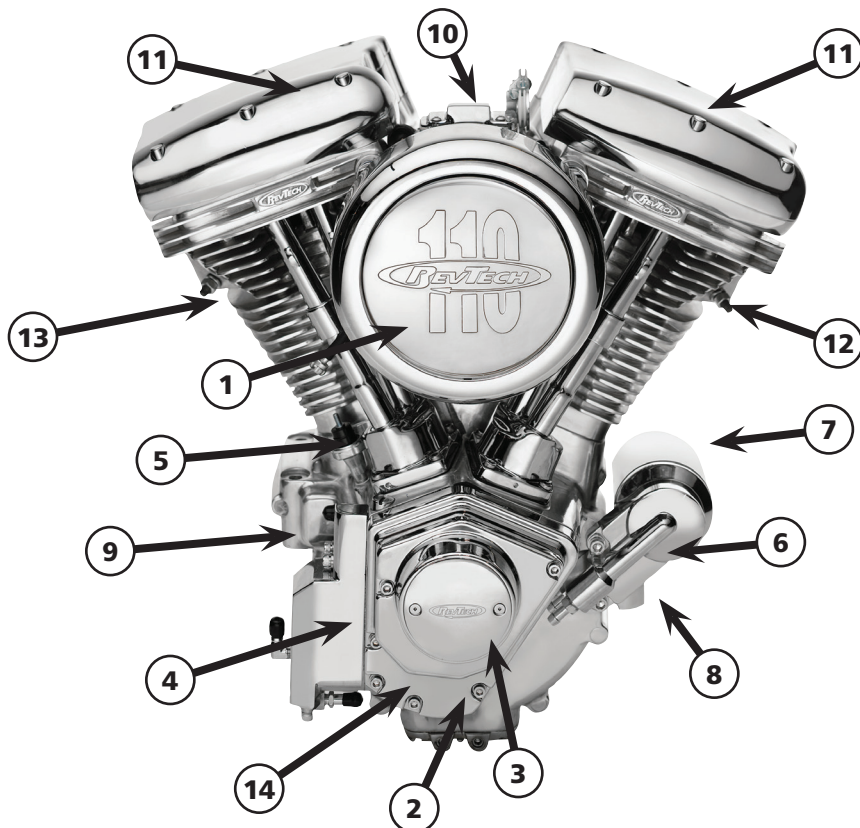
Custom Chrome
Customer Service and Technical Support
155 East Main Ave., Suite 150
Morgan Hill, CA 95037
866-888-5980
408-778-6190 fax
TechnicalWarrantyServices@customchrome.com

1.2 Engine Components

Listed below are callouts of basic engine components to help you install and maintain your RevTech engine. For further information on these and other components, see **SECTION 2 - Installation in Chassis** and **SECTION 3 - Owner's Manual**.

RIGHT/CAM SIDE VIEW

1. Air cleaner cover
2. Cam cover
3. Ignition cover
4. Oil pump
5. Oil pressure sender
6. Oil filter mount
7. Oil filter
8. Front engine mount
9. Rear engine mount
10. Carburetor
11. Rocker box
12. Front exhaust port
13. Rear exhaust port
14. Ignition wiring



LEFT/PRIMARY SIDE VIEW

15. Front spark plug
16. Rear spark plug
17. Compression Release
18. Top engine mount pads
19. Timing plug
20. Alternator location
21. Alternator wiring port
22. Sprocket shaft
23. Bottom inspection plate
24. Intake manifold

1.3 RevTech Engine Specifications

RevTech Engine Specifications					
Generation	Gen 2 88"	Gen 3 100"	Gen 3 110"	Gen 4 115"	Gen 4 125"
Engine Type	4-cycle, 45-deg. V	4-cycle, 45-deg. V	4-cycle, 45-deg. V	4-cycle, 45-deg. V	4-cycle, 45-deg. V
Number of Cylinders	2	2	2	2	2
Bore and Stroke	3.623" x 4.25"	4" x 4"	4" x 4.375"	4.125" x 4.30"	4.25" x 4.41"
Displacement	88 cu-in / 1440cc	100 cu-in / 1636cc	110 cu-in / 1800cc	115 cu-in / 1880cc	125 cu-in / 2050cc
Compression Ratio	9.5:1	10:01	10:01	9.5:1	9.5:1
Connecting Rod Length	7.440 in	7.440 in	7.440 in	7.667 in	7.667 in
Horsepower	82 hp @ 5700	96 hp @ 5000	106 hp @ 5500	108 hp @ 5700	115 hp @ 5500
Torque	88 ft/lbs @ 4500	109 ft/lbs @ 4250	112 ft/lbs @ 4100	115 ft/lbs @ 3750	135 ft @ 3700

Rocker Box Assembly		
Item	Standard Fit	Wear Limits
Rocker arm to bushing (press fit)	0.002~0.004	Less than 0.002
Rocker arm shaft to bushing	0.0005~0.002	Exceeds 0.0035
Rocker arm end play	0.005~0.015	Exceeds 0.020

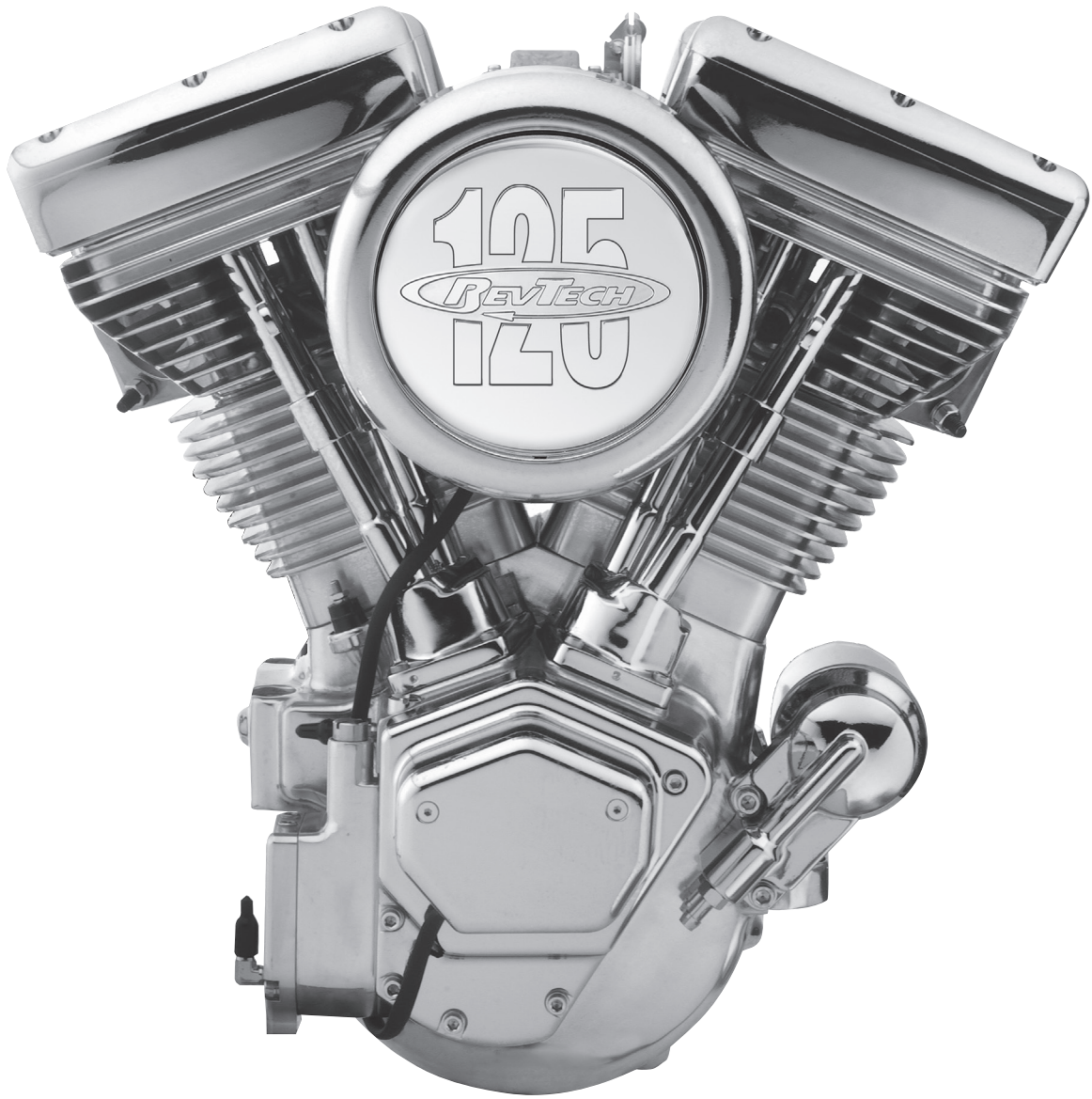
Cylinder Head		
Item	Standard Fit	Wear Limits
Valve Guide fit into head	0.002~0.0035	Less than 0.002
Valve Seat fit into head	0.004~0.006	Less than 0.004
Intake Valve fit in guide	0.0012~0.0020	0.0035
Exhaust Valve fit in guide	0.0015~0.0025	0.0040
Valve seat width	0.040~0.060	0.090
Valve stem protrusion, Gen 2 engines	1.800~1.900	1.900
Valve stem protrusion, Gen 3&4 engines	1.900~2.025	2.035
Valve face runout	0.002	0.002

Piston		
Item	Standard Fit	Wear Limits
Fit into cylinder	0.0025~0.0030	0.0050
Wrist pin to piston	0.0004~0.0007	0.0010
Wrist pin to rod bushing	0.0005~0.0010	0.0015
Compression ring end gap	0.015~0.025	0.030
Oil control ring end gap	0.010~0.040	0.050

Flywheels		
Item	Standard Fit	Wear Limits
Runout at shafts	0.000~0.002	0.004
Connecting rod side play, Gen 2&3 engines	0.030~0.045	0.050
Connecting rod side play, Gen 4 engines	0.010~0.030	0.040
Timken endplay, Gen 2&4 engines	0.001~0.005	0.006
Timken endplay, Gen 3 engines	0.002~0.006	0.007
Crank pin running clearance	0.0008~0.0012	0.0020
Pinion bearing running clearance	0.0004~0.0010	0.0015

Gearcase		
Item	Standard Fit	Wear Limits
Breather gear endplay	0.005~0.015	0.016
Camshaft endplay	0.005~0.020	0.021
Camshaft in bushing	0.0007~0.0020	0.0030
Pinion shaft in bushing	0.001~0.0025	0.0035
Bushing fit into cover	0.0007~0.0025	Less than 0.0006
Lifter fit in guide	0.0008~0.0020	0.0030

Torque Specifications		
Rocker box	1/4" hardware	90-120 in/lbs
	5/16" hardware	18 ft/lbs
Rocker arm support		18 ft/lbs
Head bolts		8ft/lbs, 16ft/lbs, 90deg
Cylinder studs		90-120 in/lbs
Crankcase	1/4" hardware	12 ft/lbs
	5/16" hardware	18 ft/lbs
Cam cover		90-120 in/lbs
Oil pump		90-120 in/lbs
Plugs, oil pump, tappet screen, timing hole		90-120 in/lbs
Tappet guide		90-120 in/lbs
Ignition cup, sensor plate		20-30 in/lbs
Intake manifold flanges		16 ft/lbs
Pinion nut		35-45 ft.lbs
Spark plug		18 ft/lbs
Air cleaner mount to head		120-150 in/lbs





SECTION 2

Installation In Chassis

- 2.1 Pre-Installation Notice**
- 2.2 Engine Installation**
- 2.3 Ignition System Installation**
- 2.4 Installation Diagrams**

2.1 Pre-Installation Notice

Installation in OEM Harley-Davidson® models:

This section covers the installation techniques necessary to install the RevTech engine. For installations in OEM Harley-Davidson® models, a service manual for the year and model of the motorcycle is required. Different models and production years have seen many changes that are impossible to catalog here. Therefore, using this guide in conjunction with an OEM service manual will provide all the information necessary to allow for a seamless installation of the RevTech engine.

Installation in aftermarket custom manufactured models:

Installation of the RevTech engine in aftermarket custom motorcycles can be completed, in most cases, by using an OEM Harley-Davidson® service manual relevant to the chassis style of the motorcycle. Most aftermarket custom motorcycles are built around chassis designs similar to many popular Harley-Davidson® models, so using the OEM manual in conjunction with this guide should provide enough information to assist with the installation. Specific information about your aftermarket custom motorcycle can be obtained by contacting the manufacturer directly and by consulting the owner's manual provided with the motorcycle.

Essential warnings:

WARNING: Health disorders can arise from contact with oil. Although it is extremely unlikely, repeated contact on your skin can cause serious health problems, including cancer. Avoid contact to the extent possible and wear latex or nitrile gloves whenever handling oil or oily parts.

WARNING: Gasoline is extremely flammable and highly explosive. Always stop the engine when refueling or servicing the motorcycle. Do not smoke or allow open flames or sparks near the work site. Inadequate safety precautions could result in death or serious injury.

WARNING: Never start the engine in a closed area. Always operate your motorcycle in an area with adequate ventilation as poisonous exhaust fumes may cause loss of consciousness or death.

WARNING: You may be seriously injured if you attempt to service your engine or motorcycle with improper tools, do not properly know how to use the required tools, or if you do not use appropriate protective equipment. Always follow the instructions in this manual and do not attempt operations you are not competent to undertake.

2.2 Engine Installation

BEFORE YOU BEGIN:

The RevTech engine is designed as a replacement for the Harley-Davidson® Evolution® engine. Any Harley-Davidson® model built with the Evolution® engine can accept the installation of the RevTech engine. Furthermore, any aftermarket chassis designed to accept Evolution® engines can also accept the RevTech engine.

The installation procedures shown in this section are based on the Harley-Davidson® Softail® chassis. Other solid-mount frames such as pre-Softail® FX® 4-speed frames and various rigid (no rear suspension) frames designed to use Evolution® engines will follow the same installation procedures as with the Softail® chassis. Rubbermount chassis such as those found on FXR®, FLT® and Dyna® models require some procedures for engine removal and installation that differ from those of the Softail® chassis. Therefore, it is imperative that the installer/owner use this manual in conjunction with an OEM service manual for the year and model of motorcycle in which the RevTech engine is to be installed. Other than the engine mount and oil line differences between Softail® and rubbermount chassis, the remainder of the engine installation instructions in this section are valid for all chassis types.

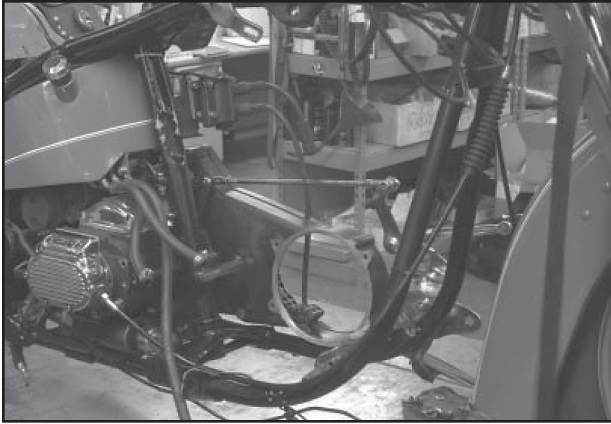
For custom motorcycles built from scratch, and for complete custom motorcycles (either production-custom or one-off individual custom motorcycles), consult the frame manufacturer or the manufacturer of the complete motorcycle for any specific installation questions not covered in this manual or an OEM service manual.

This section:

The installation procedure that follows in the subsequent pages begins with the existing engine and all other relevant components already removed from the motorcycle, as outlined by the manufacturer.

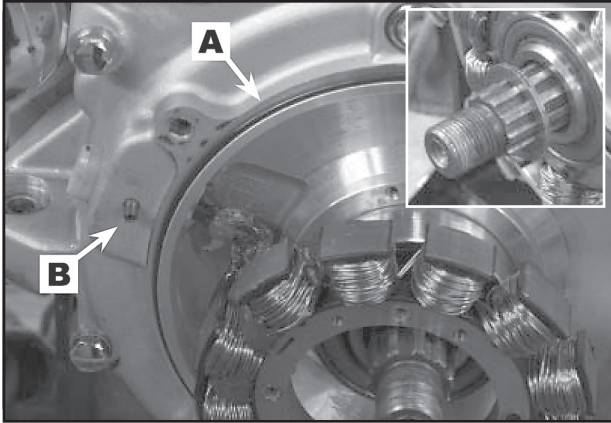
2.2 Engine Installation

INSTALLING ENGINE IN CHASSIS

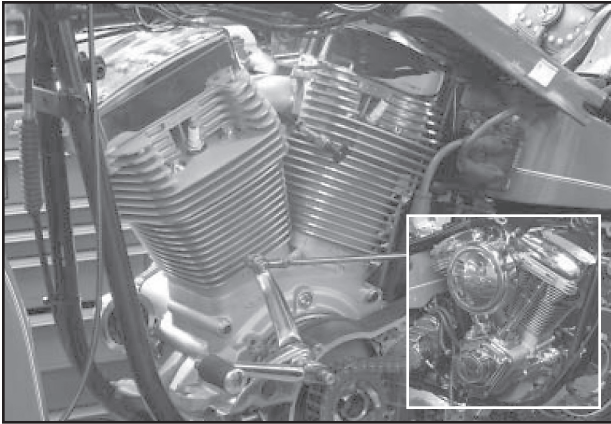


As mentioned, you must have an OEM service manual for the year and model of the motorcycle on which the work is to be performed. Use of the service manual in conjunction with this guide is required for correct installation of the RevTech engine.

To begin, follow the OEM service manual's procedures for 'Stripping Motorcycle for Engine Repair' and 'Removing Complete Engine.' This will leave the motorcycle stripped and ready for installation of the RevTech engine.

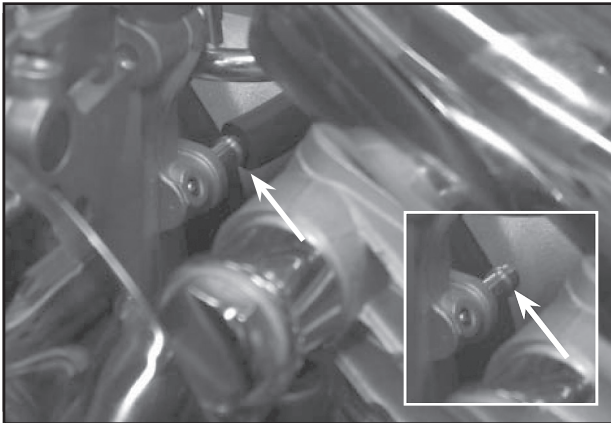


Before installing the engine in the chassis, ensure that the engine-to-primary o-ring is in place (A). Next, the alternator stator must be installed. The set screw (B) holds the stator plug in place, preventing it from slipping back into the engine case. **DO NOT** over-tighten this set screw, or damage to the stator plug may result. Before installing the magnet/rotor, make sure that the appropriate spacer is installed over the sprocket shaft first (INSET).



Before installing the engine, remove the oil filter to avoid damage. Thoroughly clean the front and rear engine mounting surfaces and all other parts of the frame that are dirty. Set the engine in place by installing it from the right side of the motorcycle. Next, follow the OEM service manual's procedures for installing and torquing the front and rear engine mount bolts and also the inner primary mounting bolts.

Install and adjust the compensating sprocket, primary chain, and outer primary following the OEM service manual's instructions. Torque all hardware to the values specified.

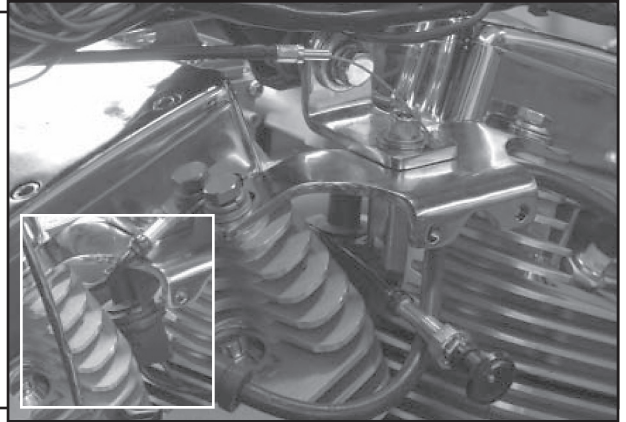


A vacuum fitting is located on the back side of the carburetor (INSET, ARROW) to which the vacuum line for the VOES (Vacuum Operated Electric Switch) must be attached (MAIN IMAGE, ARROW). As this is a vacuum line, no clamp is necessary. Simply push the line over the fitting until it bottoms against the carburetor body.

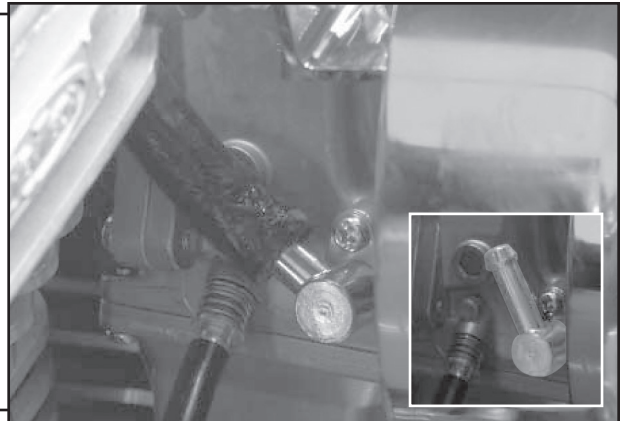
2.2 Engine Installation

FUEL LINES, THROTTLE CABLES AND OIL LINES

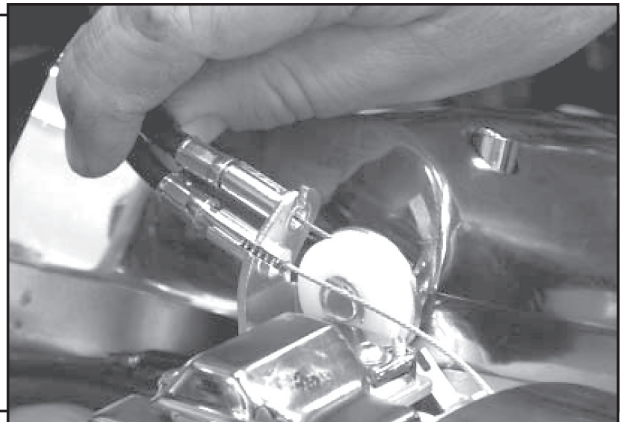
The VOES should be attached to the underside of the top engine mount (INSET). Follow the OEM service manual's procedures for proper wiring of the VOES. Continue following the OEM service manual's procedures for installing and torquing the top engine mount hardware. At this point, the engine is now securely bolted into the frame and attached to the primary drive.



The fuel-in fitting is located on the rearward-facing side of the carburetor (INSET). When hooking up the fuel system, it is recommended to use a new piece of fuel line. Selecting the correct grade of fuel line is important to ensure that your engine installation meets all regulations. Attach a long piece of $\frac{5}{16}$ " fuel line to the fitting on the carburetor and attach with a worm-style or squeeze-type hose clamp.

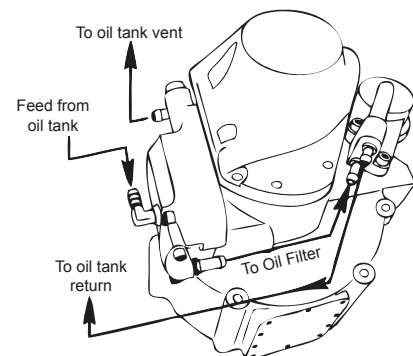


Follow the OEM service manual's procedures for installation and adjustment of the throttle and idle cables to the carburetor. Ensure that the throttle opens the carburetor slide completely, or poor performance may result. This can be checked by removing the air cleaner and watching the slide travel as you open the throttle.



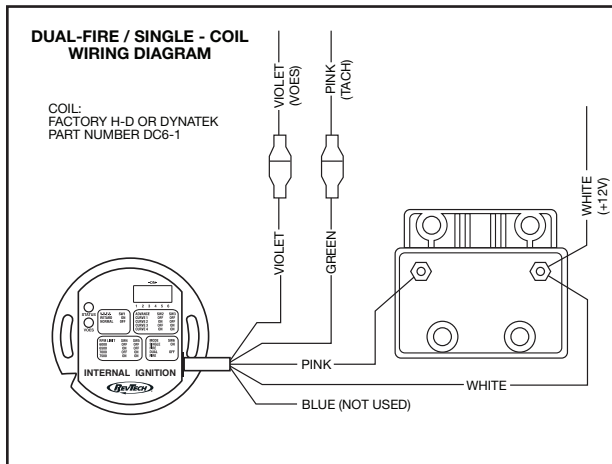
SEE DIAGRAM 1 or 2 (Page 2-12)

Before installing the oil lines, completely flush out the oil tank and lines to ensure they are clean and free of debris (it is recommended to use new $\frac{3}{8}$ " oil line when making an engine change). Use either worm-style or squeeze-type hose clamps to secure the lines to the fittings.



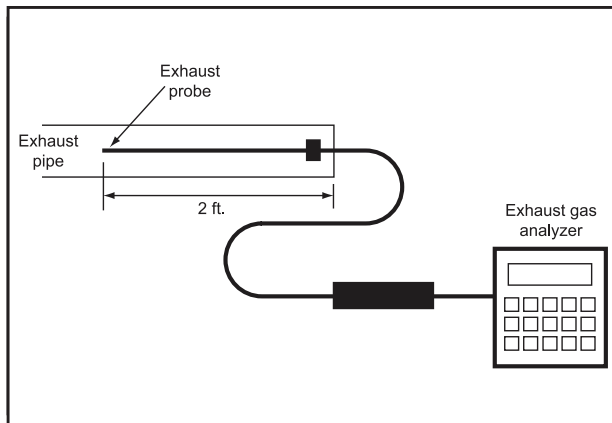
2.2 Engine Installation

IGNITION SYSTEM, EXHAUST SYSTEM AND IDLE SPEED ADJUSTMENT



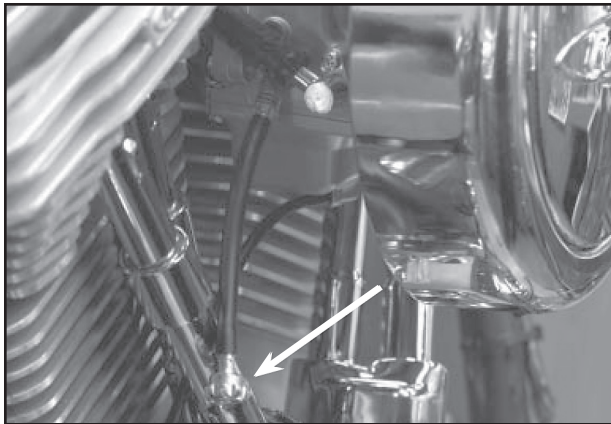
SEE IGNITION SYSTEM INSTALLATION (Pages 2-7 - 2-11)

Follow the detailed instructions in **Ignition System Installation, Pages 2-7 through 2-11**, regarding the installation and wiring of the ignition system into your motorcycle. Using the wiring diagram in your OEM service manual, connect the ignition system to the wiring harness in the motorcycle. The ignition system provided with your RevTech engine is capable of running in Single-Fire or Dual-Fire mode.

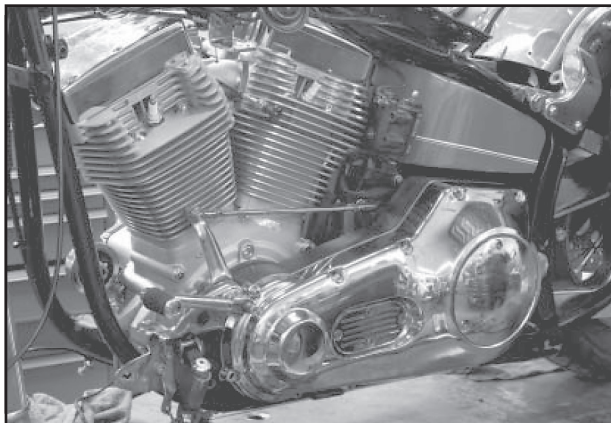


SEE DIAGRAM 2 (Page 2-14)

To comply with regulations, an appropriate exhaust system must be used with your RevTech engine. See **DIAGRAM 3** on **Page 2-12** for details. Following the OEM service manual's procedures, install the exhaust system to the motorcycle. Torque all fasteners as recommended in the OEM manual.



Verify that the engine idle speed is 1,000rpm by use of the tachometer. If your motorcycle is not so equipped, it is recommended to obtain a tachometer for periodically checking idle speed if you choose not to install one on your motorcycle. Adjust the idle screw (ARROW) to achieve the correct idle speed. If further adjustments are necessary, follow the procedures listed in the OEM service manual regarding correct adjustment of the throttle and idle cables.



Complete the installation of the remaining vehicle components by following the OEM service manual's procedures for 'Engine Installation'.

Install the oil pressure switch wire, re-install the oil filter that was included with the engine, and fill the oil tank to the specified level as noted in your service manual.

Follow the instructions in **SECTION 3 - Owner's Manual** for the proper engine break-in procedure and recommended maintenance schedule.

2.3 Ignition System Installation

The 658240 ignition unit offers switch selectable single or dual fire modes. Single fire mode improves starting, reduces the occurrence of backfiring at low RPM, and improves power at high RPM. A red status LED flashes when the engine reaches top dead center (TDC) and allows easy static timing. The status LED also provides diagnostic information. A green VOES LED illuminates when the VOES input is active.

Installation:

1. Route the wire harness along the frame tubing to the ignition coil. Make sure that the harness is clear of hot exhaust areas and cannot chafe against sharp edges. Secure the harness with nylon cable ties.
2. Refer to the appropriate wiring diagrams on **page 2-9** for dual fire and **page 2-10** for single fire. Use appropriate crimp terminals for coil and VOES hookup. With the exception of the tachometer and rear coil section (single fire only), standard H-D[®] wire color codes are used. Tape up any unused wires.
3. Install the supplied connector set on the pink tachometer wire as shown. If a tachometer is not used, seal the end of the mating plug with silicone RTV and use it as a protective cover. Use a proper crimping tool or solder the terminals.
4. Reconnect the battery ground cable.

NOTE: The unit is grounded by means of the gear case housing. The mounting surface must not be anodized or painted.

WARNING: Do not adjust the ignition timing. RevTech engines are delivered from the factory with the ignition timing set. Any attempt to adjust the ignition timing will be considered 'tampering' and may result in penalties imposed by the federal government.

Operating Modes:

Switch 6 is used to select the operating mode. Switch settings are as follows:

Single Fire = ON position (Up)
Dual Fire = OFF position (Down)

CAUTION: Engine damage from excessive timing advance may result if the purple/white VOES wire is inadvertently shorted to ground.

The engine will not run if the mode switch setting does not match the wiring hookup (that is, you cannot select single fire mode with a dual fire coil hookup).

2.3 Ignition System Installation

General Recommendations:

Coil primary resistance must not be less than 3 ohms. Most OE style dual fire and aftermarket single fire coils meet this requirement. Coils for Twin Cam® engines have low primary resistance and are not compatible.

Due to the short lengths involved on motorcycle applications, energy losses in spark plug wires are insignificant. OE carbon core suppression cables will deteriorate after several years. For a more durable replacement, we suggest spiral core spark plug cables.

CAUTION: Do not use solid copper spark plug cables or non-resistor type spark plugs. If used, the unit may misfire.

The 658240 module is compatible with all modern "ground sensing" type tachometers including H-D® OE and Autometer units. The red status LED is internally connected to the tachometer output. If the red status LED blinks, the tachometer output should be functional. Some early tachometers require a high voltage trigger pulse. In this case, you will require a commercially available tachometer adapter.

VOES Considerations:

The VOES is normally open. At low manifold pressure or manifold vacuum greater than about 5 inch-Hg, the VOES grounds the purple wire and causes the 658240 module to generate additional timing advance.

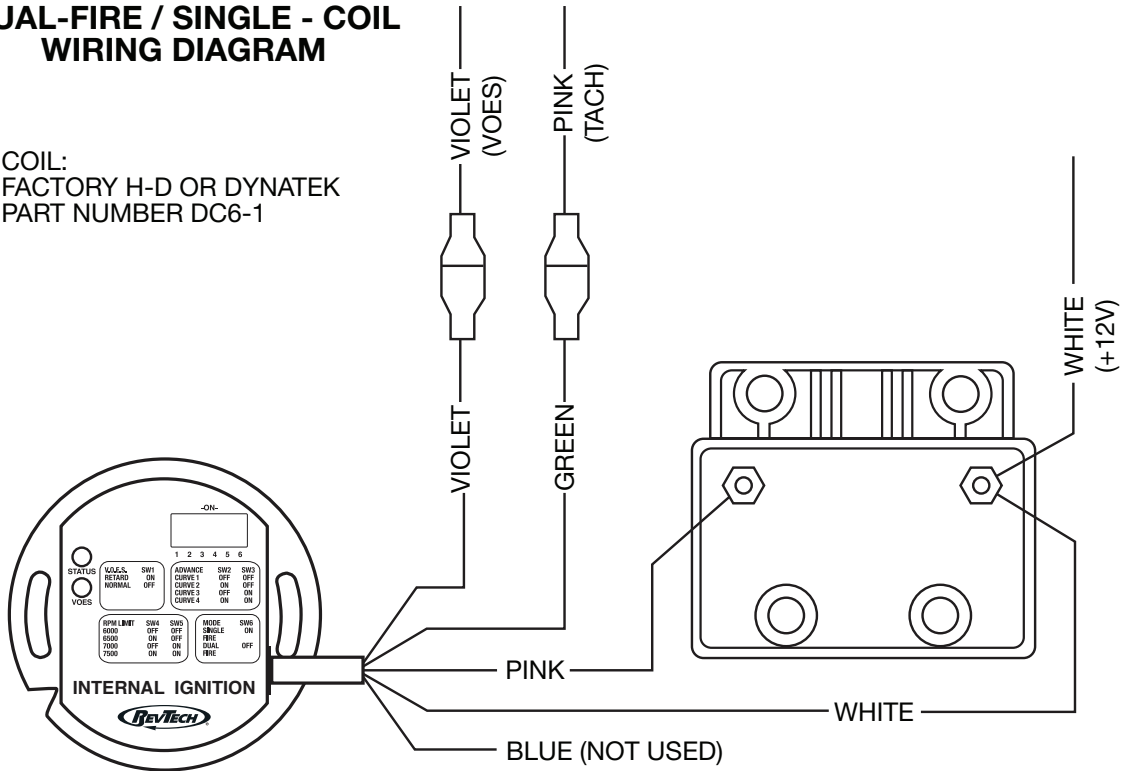
The green VOES LED illuminates whenever the vacuum switch input is active (timing advanced).

2.3 Ignition System Installation

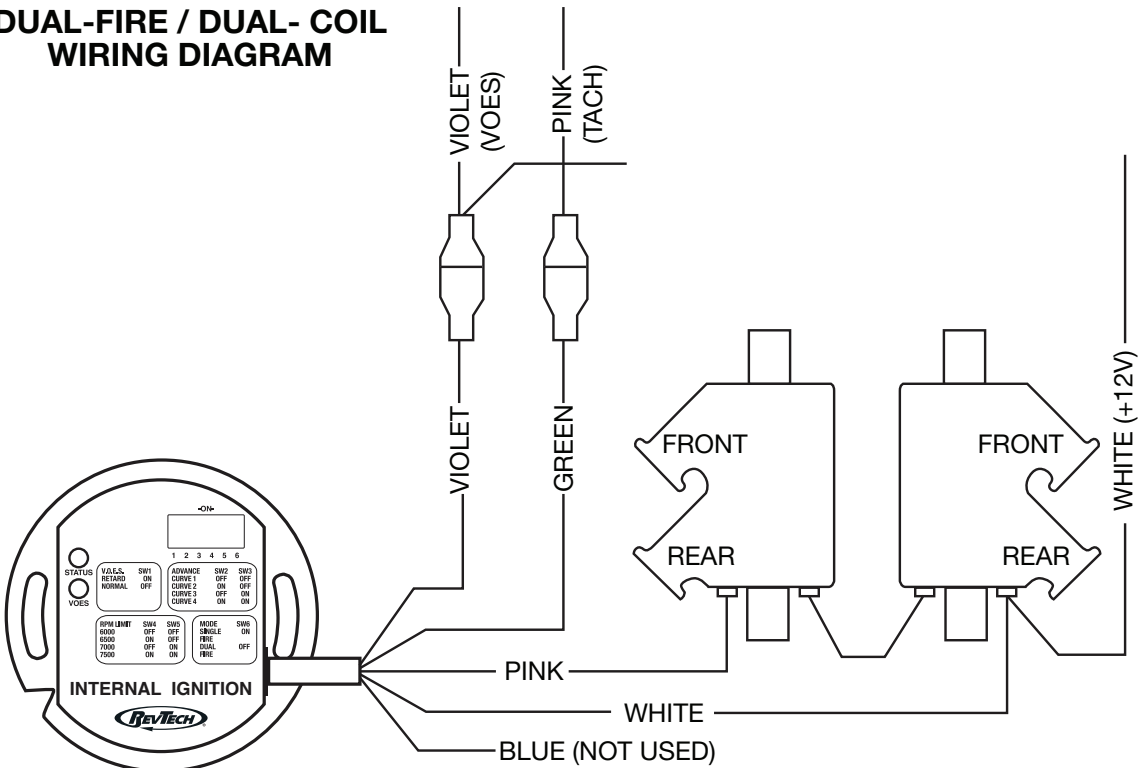
FIGURE 1 - Dual-Fire Ignition Wiring Diagram

DUAL-FIRE / SINGLE - COIL WIRING DIAGRAM

COIL:
FACTORY H-D OR DYNATEK
PART NUMBER DC6-1



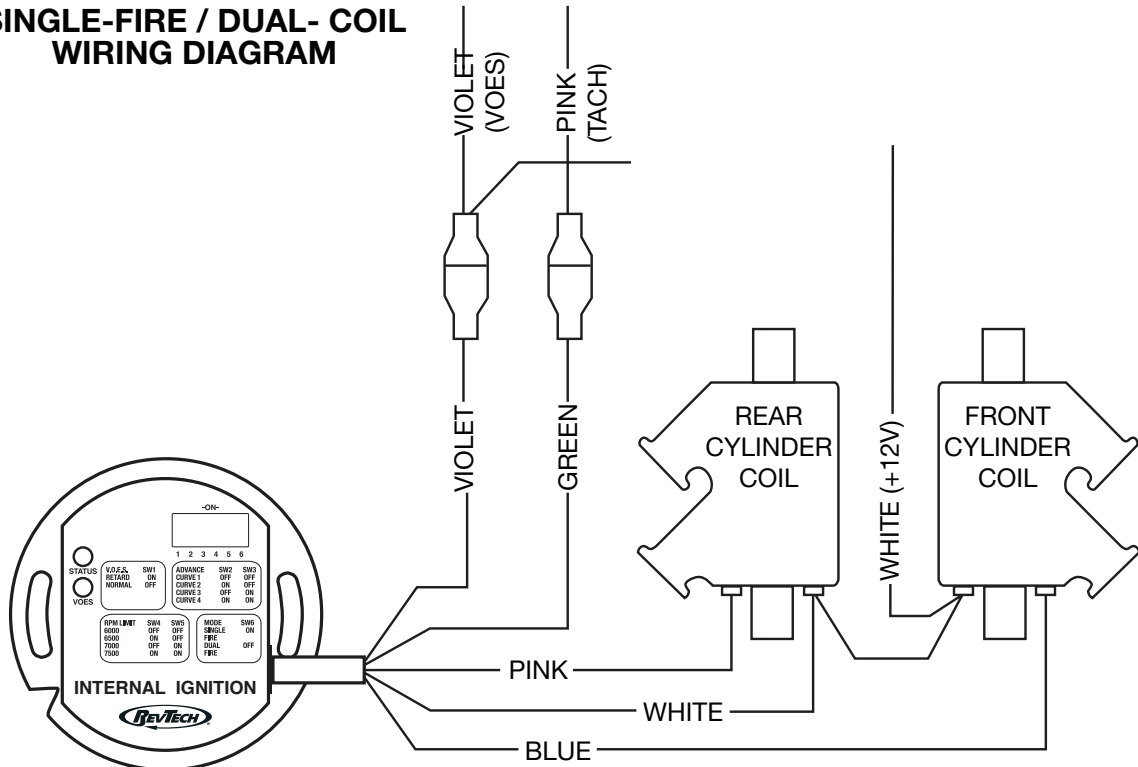
DUAL-FIRE / DUAL - COIL WIRING DIAGRAM



2.3 Ignition System Installation

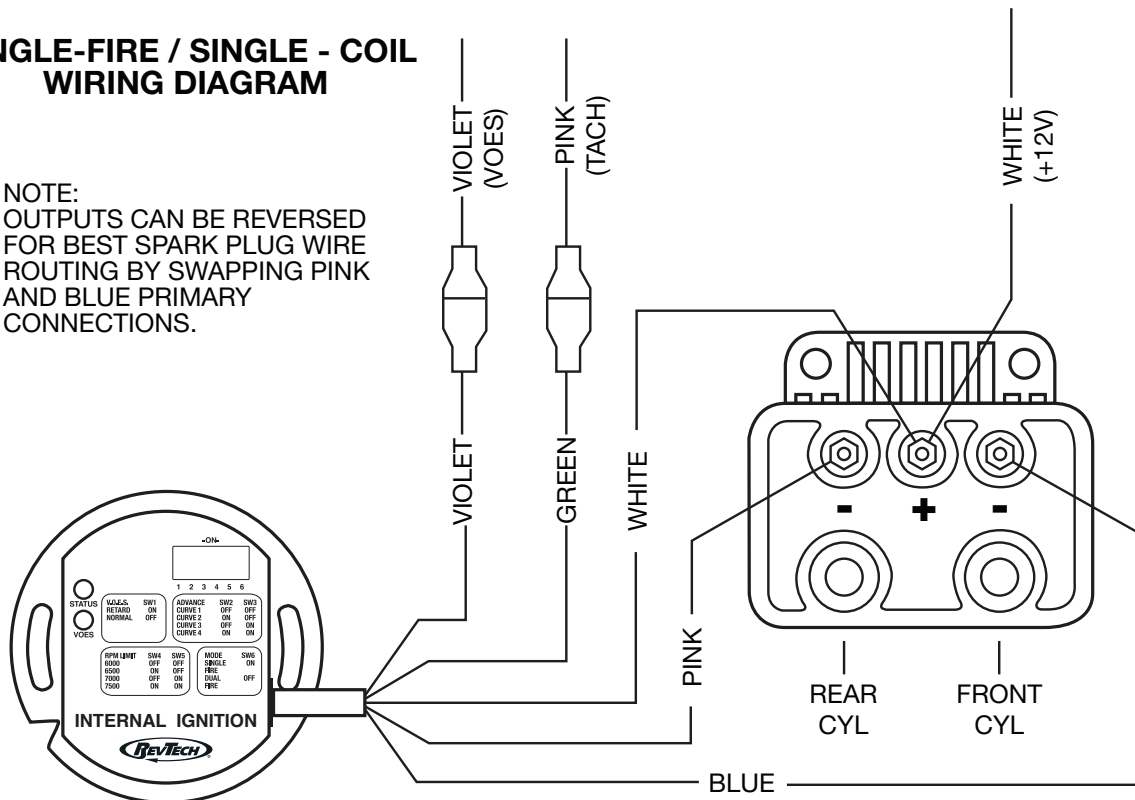
FIGURE 2 - Single-Fire Ignition Wiring Diagram

SINGLE-FIRE / DUAL-COIL WIRING DIAGRAM



SINGLE-FIRE / SINGLE-COIL WIRING DIAGRAM

NOTE:
 OUTPUTS CAN BE REVERSED
 FOR BEST SPARK PLUG WIRE
 ROUTING BY SWAPPING PINK
 AND BLUE PRIMARY
 CONNECTIONS.

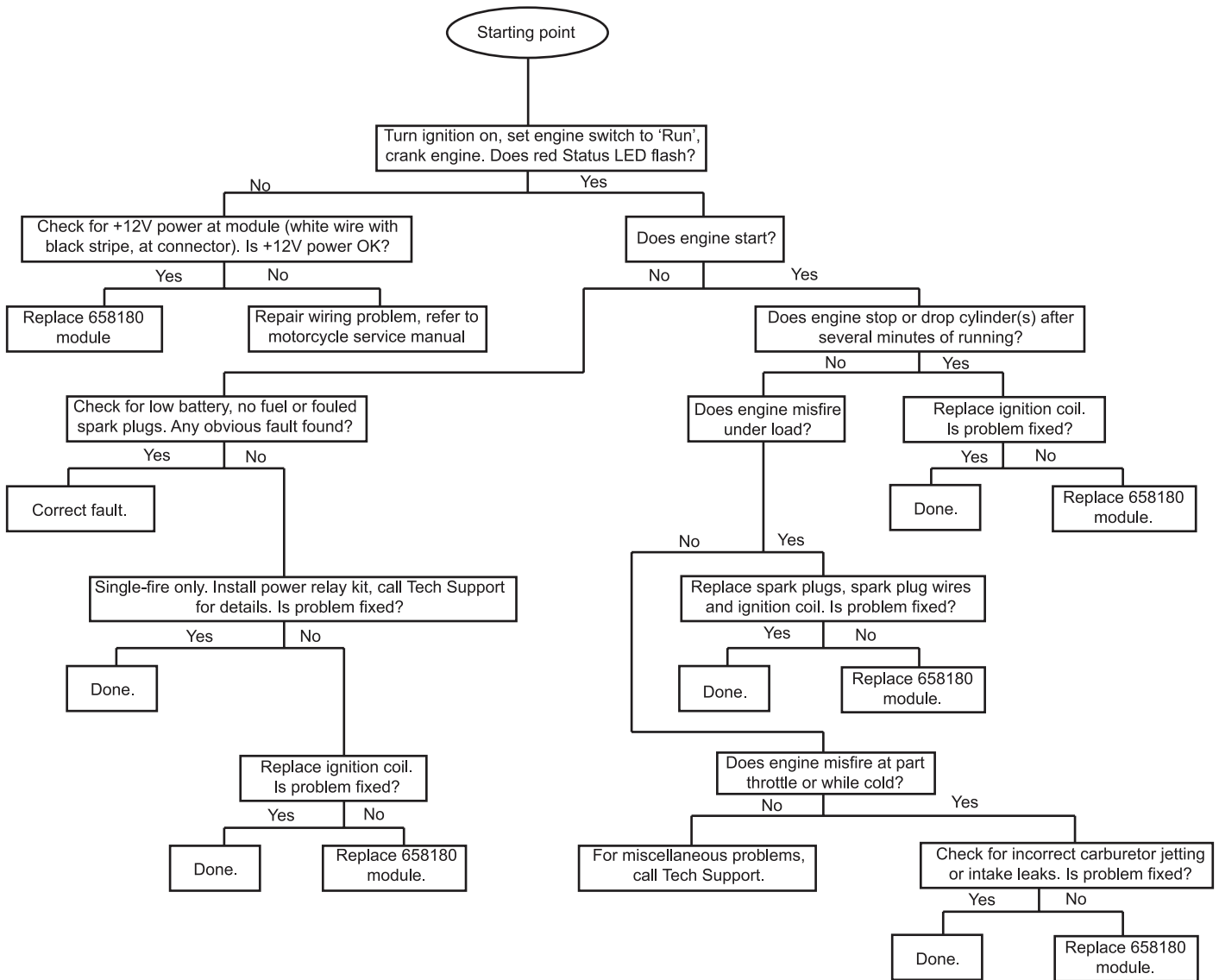


*SUPPLIED WITH DIPK-1 PROGRAMMING KIT OR SEPARATELY IN PH-1 HARNESS KIT.

2.3 Ignition System Installation

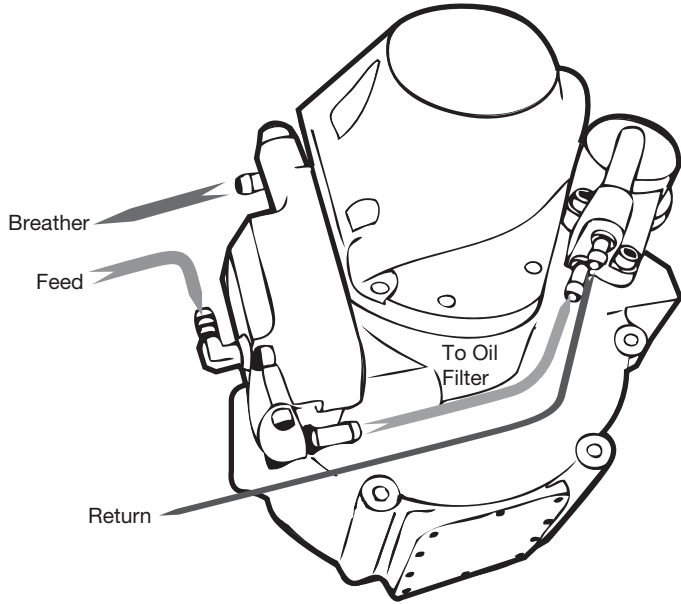
IGNITION SYSTEM TROUBLESHOOTING FLOWCHART

Follow the troubleshooting flowchart shown below. Experience has shown that most units returned for warranty are okay and another problem, such as a defective coil, is later identified.



2.4 Installation Diagrams

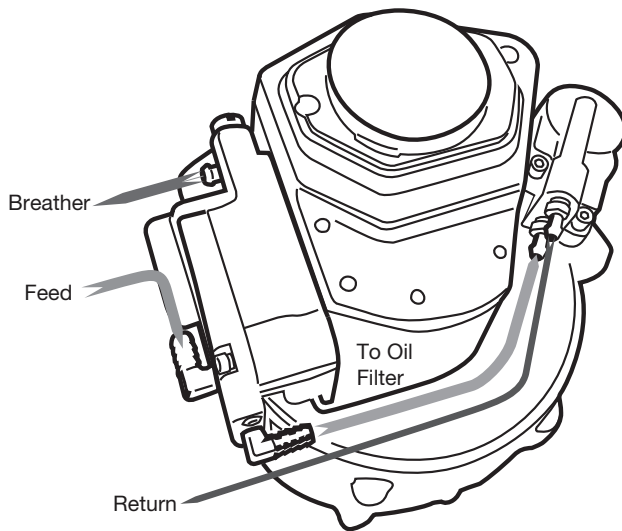
DIAGRAM 1 - Oil Line Routing on Gen 2 & 3 Engines



In this diagram, all connections for the engine's oil lines are shown. As oil tank design will vary from model and manufacturer, it is important to refer to your OEM service manual to familiarize yourself with the correct function of all connections on the oil tank in your motorcycle. Improperly connecting oil lines from the oil tank to your RevTech engine could result in engine damage or failure.

Before installing the oil lines, the oil tank must be flushed out, cleaned and dried to ensure that no debris enters the engine. It is also highly recommended that new oil lines and clamps be used.

DIAGRAM 2 - Oil Line Routing on Gen 4 Engines



Alternative Oil Line Routing

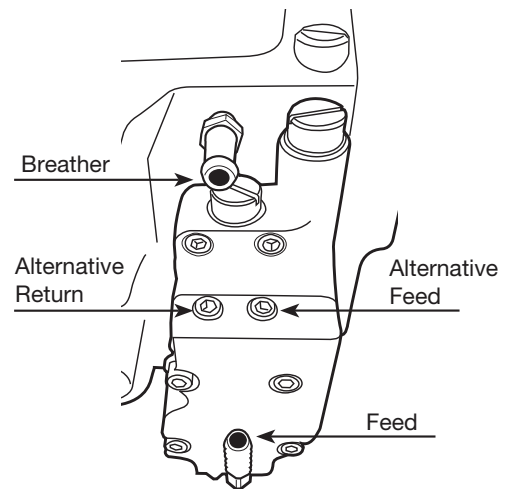
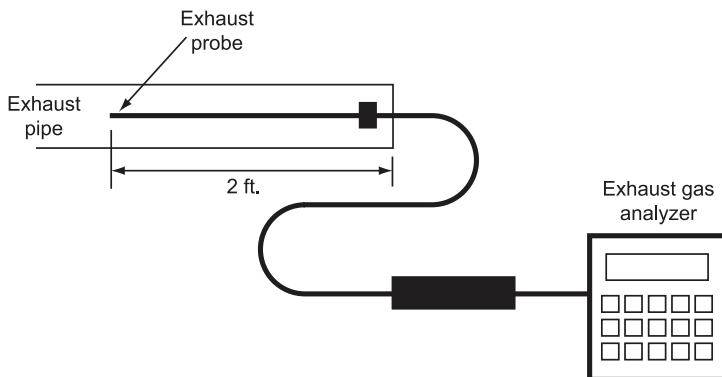


DIAGRAM 3 - Exhaust System Compliance



Federal law states that it must be possible to sample exhaust emissions after a vehicle has been placed in service. In order to comply with this requirement, all RevTech® engines must utilize an exhaust system with at least a two foot straight section before the pipe end (point where exhaust products enter the surrounding atmosphere). If necessary, exhaust sampling can be performed by placing a gas analyzer probe two feet into the exhaust pipe as shown here. If your exhaust system has dual outlets, it must be possible to sample emissions from both pipes.



SECTION 3

Owner's Manual

- 3.1 Engine Break-In Procedure**
- 3.2 Maintenance Schedule**
- 3.3 Maintenance Procedures**
- 3.4 Troubleshooting Guide**

3.1 Engine Break-In Procedure

To ensure long life and optimum performance from your new RevTech engine, the break-in procedures listed below must be strictly followed. Failure to adhere to these procedures may void your warranty, so please review these break-in procedures carefully.

CAUTION: Stop and go traffic, and excessive idling should be avoided during the break-in period (0-2,500 miles). Otherwise, overheating and engine damage could occur. The first 500 miles are the most important for your engine!

Note:

- During break-in, use a high quality, non-synthetic motorcycle oil such as RevTech or RevTech Pure to ensure that all components seat properly. After break-in, change engine oil at least every 2500 miles.
- We recommend 20W50 motorcycle oil for RevTech engines under normal operating conditions, and 25W60 motorcycle oil for use in temperatures above 80°F (27°C).
- The ignition rev-limiter will restrict engine speed to 4500 rpm during the first 10 hours of use. After the initial 10 hour break-in period, the rev-limiter setting will automatically change to 5700 rpm.

0-50 Miles:

After starting the engine, check for oil and fuel leaks. If all is well and the engine is at operating temperature, proceed for the first 50 miles avoiding engine RPMs above 4000 and below 2500 so the piston rings have a chance to seat properly. Vary your speed as much as possible and do not “lug” the engine in higher gears.

Service Requirements (50 miles):

- Change engine oil and oil filter
- Clean tappet screen

50-500 Miles:

Proceed for the next 450 miles avoiding RPMs above 4500. Always let the engine reach proper operating temperature before riding. Do not subject the engine to hard acceleration or “lug” the engine in higher gears.

Service Requirements (500 miles):

- Change engine oil and oil filter
- Clean tappet screen
- Check idle speed and adjust if necessary
- Inspect spark plugs and replace if necessary

500-2500 Miles:

Your engine may now be operated normally. Avoid hard acceleration until you have 2000 miles and always avoid “lugging” the engine in higher gears.

Service Requirements (2500 miles):

- Change engine oil and oil filter
- Inspect air cleaner - clean and re-oil if necessary

3.2 Maintenance Schedule

Your new RevTech engine was designed to provide a long life of service. To ensure that you get the most from your engine, strictly follow the maintenance schedule listed here, and use the recommended service parts whenever possible.

Recommended Service Parts and Fluids

Item	Description	CCI Part #	Quantity
Engine Oil	RevTech 20W50 or equivalent (under 80° F / 27° C)	35052	3-4 quarts*
	RevTech 25W60 or equivalent (above 80° F / 27° C)	35048	3-4 quarts*
Oil Filter	Chrome RevTech 'Long' or equivalent	35078	1
Spark Plugs	Autolite 4265 (set gap to .040" / 1.02mm)	22185	2
Air Filter	RevTech High-Performance	58284	1

* Refer to OEM manual for correct oil requirements.

Recommended Maintenance Schedule

Correct engine idle speed: 1000rpm

500 Mile Required Maintenance

1. Change engine oil and oil filter
2. Clean tappet screen
3. Check idle speed and adjust if necessary
4. Inspect spark plugs and replace if necessary

2,500 Mile Required Maintenance

1. Change engine oil and oil filter
2. Inspect air filter - clean & re-oil if necessary

5,000 Mile Required Maintenance

1. Change engine oil and oil filter
2. Clean tappet screen
3. Inspect air filter - clean & re-oil if necessary
4. Check idle speed and adjust if necessary
5. Inspect spark plugs and replace if necessary

7,500 Mile Required Maintenance

1. Change engine oil and oil filter
2. Inspect air filter - clean & re-oil if necessary

10,000 Mile Required Maintenance

1. Change engine oil and oil filter
2. Clean tappet screen
3. Inspect air filter - clean & re-oil if necessary
4. Check idle speed and adjust if necessary
5. Inspect spark plugs and replace if necessary

12,500 Mile Required Maintenance

Perform 2500 mile required maintenance

15,000 Mile Required Maintenance

Perform 5000 mile required maintenance

17,500 Mile Required Maintenance

Perform 2500 mile required maintenance

20,000 Mile Required Maintenance

Perform 10000 mile required maintenance

22,500 Mile Required Maintenance

Perform 2500 mile required maintenance

25,000 Mile Required Maintenance

Perform 5000 mile required maintenance

27,500 Mile Required Maintenance

Perform 2500 mile required maintenance

30,000 Mile Required Maintenance

Perform 10000 mile required maintenance

WARNING: Improper servicing of your engine can cause seizure or other equipment malfunction which can lead to injury or death. Never attempt a service operation which you do not thoroughly understand.

3.3 Maintenance Procedures

The following six procedures provide a visual step for the five areas of maintenance covered in the Maintenance Schedule, and the most crucial 'every time you ride' step, checking the oil level.

Check oil level - **SERVICE INTERVALS: ALL, BEFORE EACH RIDE**



The oil should be checked only when the engine is at normal operating temperature. If the engine is not at normal operating temperature, the motorcycle should be ridden until the engine reaches that stage. When the engine is sufficiently warmed up, turn the engine off to check the oil level.

Locate the engine oil tank and filler plug on your motorcycle. Following the procedures listed in the appropriate service manual for your year and model of motorcycle, check the oil level. Add oil as necessary, using oil recommended in the **MAINTENANCE SCHEDULE** on **Page 3-3**.

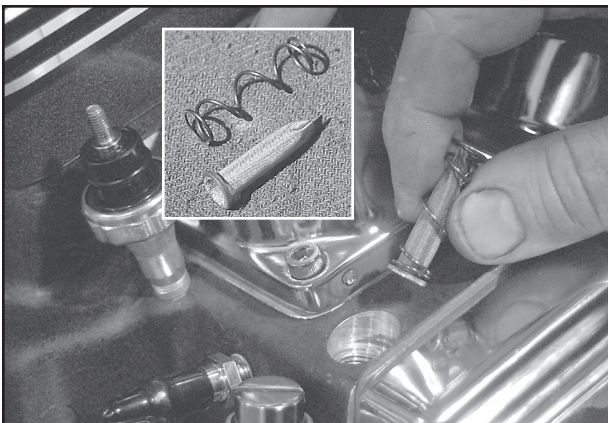
Change engine oil and oil filter - **SERVICE INTERVALS: ALL**



The oil should be changed only when the engine is at normal operating temperature. If the engine is not at normal operating temperature, the motorcycle should be ridden until the engine reaches that stage. When the engine is sufficiently warmed up, turn the engine off to change the oil.

Locate the engine oil tank and drain plug on your motorcycle. Following the procedures listed in the appropriate service manual for your year and model of motorcycle, drain the oil. Use the type and quantity of oil recommended in the **MAINTENANCE SCHEDULE** on **Page 3-3**.

Clean tappet screen - **SERVICE INTERVALS: 500, 5K, 10K, 15K, 20K, 25K, 30K**



All RevTech engines utilize a tappet screen as a preventative measure to keep large debris from entering the oiling system that feeds the lifters. Using a large, broad, flat-blade screwdriver, remove the tappet screen plug. Remove and inspect the tappet screen (INSET), then clean it and the tappet screen plug.

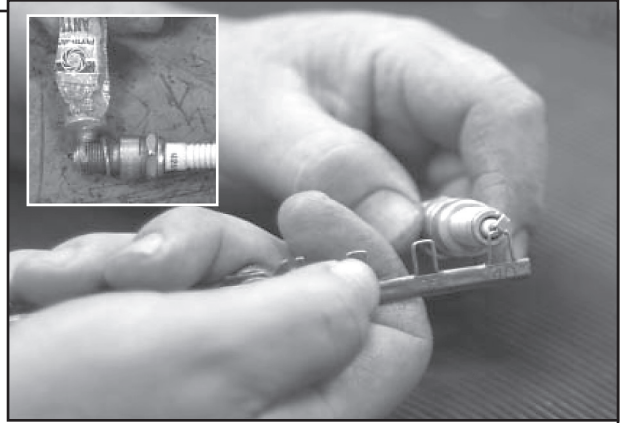
Lightly oil the o-ring on the tappet screen plug, place the tappet screen back into the engine case and tighten the plug securely.

3.3 Maintenance Procedures

Inspect spark plugs - **SERVICE INTERVALS: ALL**

To access the spark plugs, first disconnect the spark plug cables from the plugs by pulling on the molded connector caps. Using a spark plug wrench, remove the spark plugs. Following the procedures listed in the appropriate service manual for your year and model of motorcycle, inspect the spark plugs and replace as necessary.

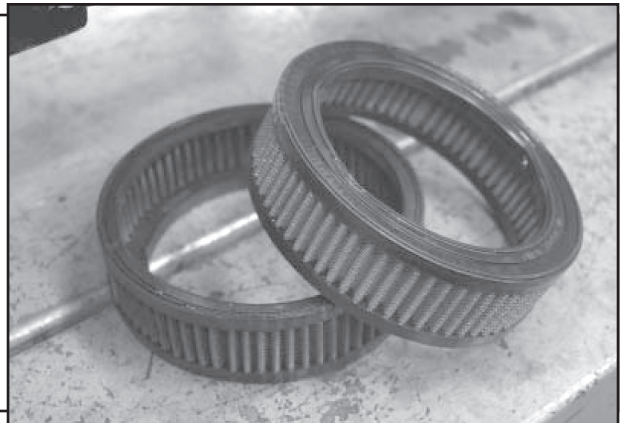
Before installing new spark plugs, the gap should be checked and adjusted if necessary. Apply a small amount of anti-seize compound to the threads as shown (INSET). Once re-installed, the spark plugs must be tightened to the specified torque (11-18 lbs.-ft.) to ensure proper heat transfer. If a torque wrench is not available, tighten the plugs by hand, then tighten them another 1/4-turn with a spark plug wrench.



Inspect air filter - **SERVICE INTERVALS: ALL EXCEPT 500**

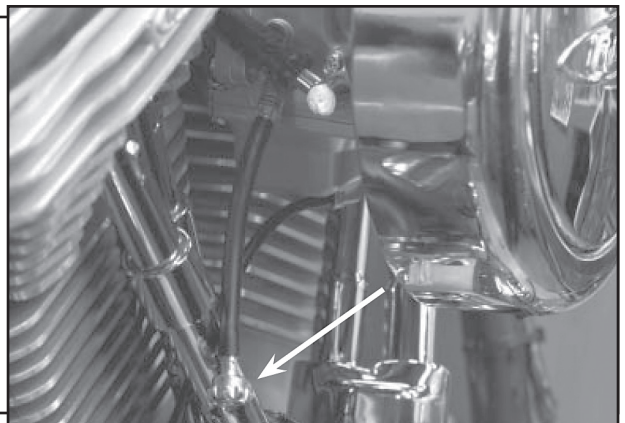
Remove the air cleaner cover and inspect the condition of the element. If the element has a red coloration, it is suitable for continued use. A darker brown color will indicate that the filter is dirty and in need of cleaning. For illustration, a new, clean air filter is placed atop a well-used, dirty filter. Use K&N's cleaning kit (CCI #5561123 or #5561125) for cleaning and re-oiling the air filter following the guidelines included with the kit.

Do not run the engine without the air filter element in place. Dust and debris could be drawn into the engine, thereby causing significant damage.



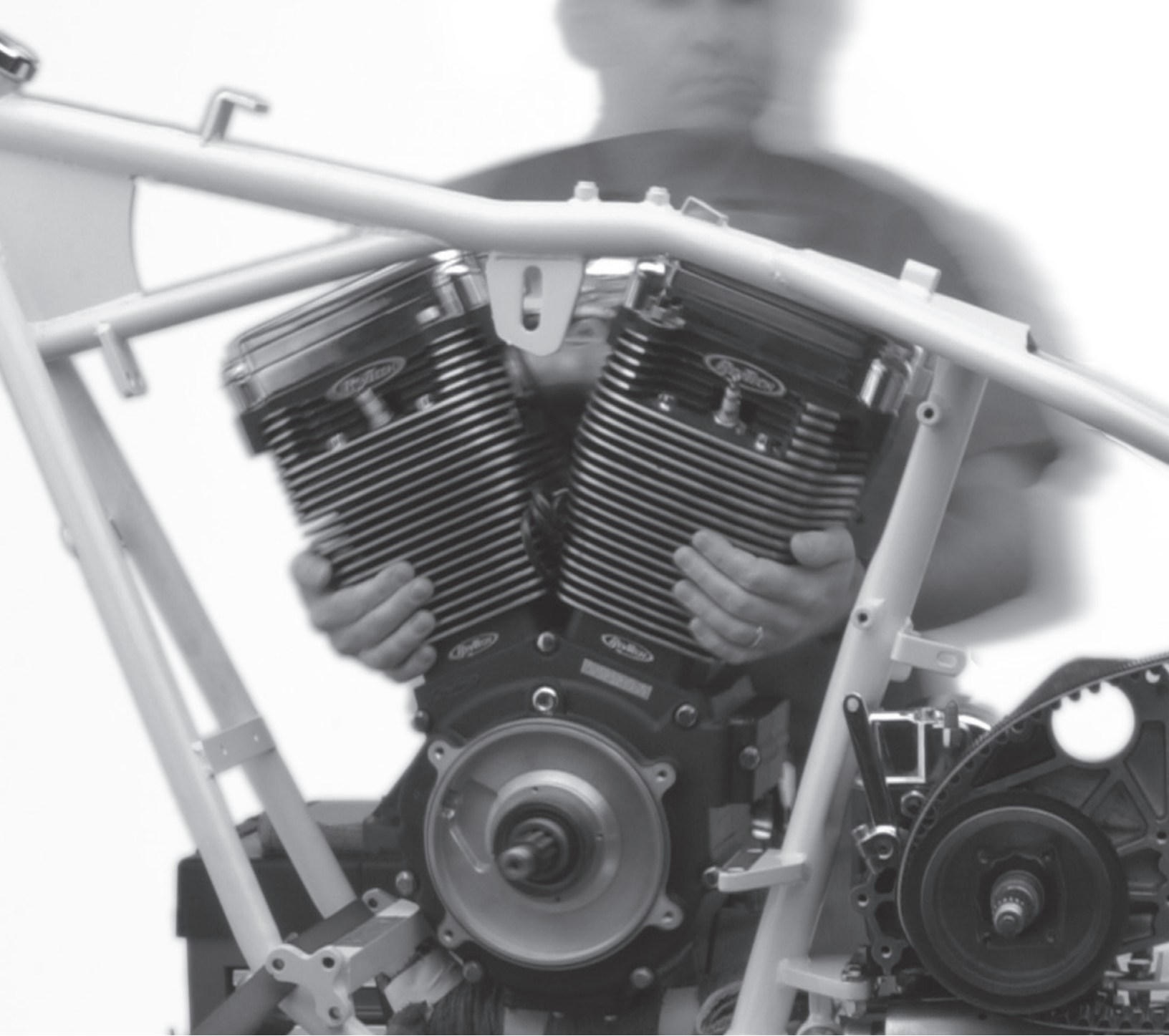
Check idle speed - **SERVICE INTERVALS: 500, 5K, 10K, 15K, 20K, 25K, 30K**

Verify that the engine idle speed is 1,000rpm by use of the tachometer (if your motorcycle is so equipped), or with a suitable timing light. Adjust the idle screw (arrow) to achieve the correct idle speed. If further adjustments are necessary, follow the procedures listed in the appropriate service manual for your year and model of motorcycle to correctly adjust the throttle and idle cables.



3.4 Troubleshooting Guide

Hard Starting	
Check for:	Remedy:
1. Fuel tank empty or fuel supply blocked	1. Check fuel tank, fuel valve and fuel lines
2. Fouled spark plugs or improper gaps	2. Replace spark plugs or adjust gaps
3. Battery discharged	3. Charge battery
4. Intake air leak	4. Check manifold seals
5. Engine flooded	5. Let engine sit for 10 minutes
6. Spark plug cables in poor condition	6. Replace cables
7. Water or dirt in carburetor	7. Clean carburetor
8. Choke not operating correctly	8. Adjust cable
9. Loose wire connection at coil, battery or ignition module	9. Check all connections
Poor Engine Idle	
Check for:	Remedy:
1. Fouled spark plugs or improper gaps	1. Replace spark plugs or adjust gaps
2. Spark plug cables in poor condition	2. Replace cables
3. Idle speed improperly adjusted	3. Adjust idle speed to 1000 RPM
4. Clogged pilot jet	4. Clean jet
5. Faulty ignition coil, module or sensor	5. Inspect and replace as necessary
6. Dirty air or fuel filter	6. Clean or replace as necessary
7. Water or dirt in carburetor	7. Clean carburetor
8. Fuel tank or carburetor vent clogged	8. Clear blockage
9. Choke still in "on" position	9. Turn choke "off"
10. Intake air leak	10. Check manifold seals
11. Loose wire connection at coil, battery or ignition module	11. Check all connections
Poor Fuel Economy	
Check for:	Remedy:
1. Excessive choke use	1. Only use until engine is at operating temp.
2. Idle speed improperly adjusted	2. Adjust idle speed to 1000 RPM
3. Dirty air filter	3. Clean or replace as necessary
4. Loose jets	4. Tighten jets
5. Fuel level too high (overflows)	5. Adjust level
6. Worn or damaged needle or needle jet	6. Replace needle or needle jet
7. Plugged jets or air passages	7. Clean and clear
Poor Acceleration	
Check for:	Remedy:
1. Fuel tank vent clogged	1. Clear blockage
2. Intake air leak	2. Check manifold seals
3. Accelerator system leaking or no output	3. Repair as necessary
4. Fuel supply restricted	4. Check fuel valve and fuel lines
5. Worn or damaged needle or needle jet	5. Replace needle or needle jet
6. Plugged jets or air passages	6. Clean and clear
Poor On-Road Performance	
Check for:	Remedy:
1. Intake air leak	1. Check manifold seals
2. Fuel tank vent clogged	2. Clear blockage
3. Dirty air filter	3. Clean or replace as necessary
4. Accelerator pump inoperative	4. Repair as necessary
5. Fuel supply restricted	5. Check fuel valve and fuel lines
6. Worn or damaged needle or needle jet	6. Replace needle or needle jet
7. Plugged jets or air passages	7. Clean and clear
8. Loose or plugged main jets	8. Tighten or clean as necessary



SECTION 4

Parts Catalog

4.1 Parts Catalog

4.1 Parts Catalog

ALWAYS INSIST ON GENUINE



REPLACEMENT PARTS

The components used to manufacture RevTech® engines are available for sale. This means that your RevTech® engine can be maintained with genuine RevTech® parts to provide extended service and performance.

RevTech® engine components are available only through authorized Custom Chrome dealers and are not directly available for sale from Custom Chrome to the general public. Use this parts catalog to determine the correct part and part number when ordering replacement components for your RevTech® engine.

4.1 Parts Catalog

Engine Assembly, Complete – RevTech® 125" Motor

Part #	Description
680242	Natural aluminum finish
680241	Black wrinkle finish
680240	Polished finish

Engine Assembly, Complete – RevTech® 115" Motor

Part #	Description
680245	Natural aluminum finish
680244	Black wrinkle finish
680243	Polished finish

Engine Assembly, Complete – RevTech® 110" Motor

Part #	Description
658516	Natural aluminum finish
658515	Black wrinkle finish
658517	Polished finish

Engine Assembly, Complete – RevTech® 100" Motor

Part #	Description
658531	Natural aluminum finish
658530	Black wrinkle finish
658532	Polished finish

Engine Assembly, Complete – RevTech® 88" Motor

Part #	Description
58500	Black wrinkle finish
58501	Natural aluminum finish
58503	Polished finish

NOTES:

Regarding the RevTech® 115" & 125" Big Twin Engines:

1. Size = Stroke and Bore
(4.25" x 4.41" = 125 inch)
(4.125" x 4.30" = 115 inch)

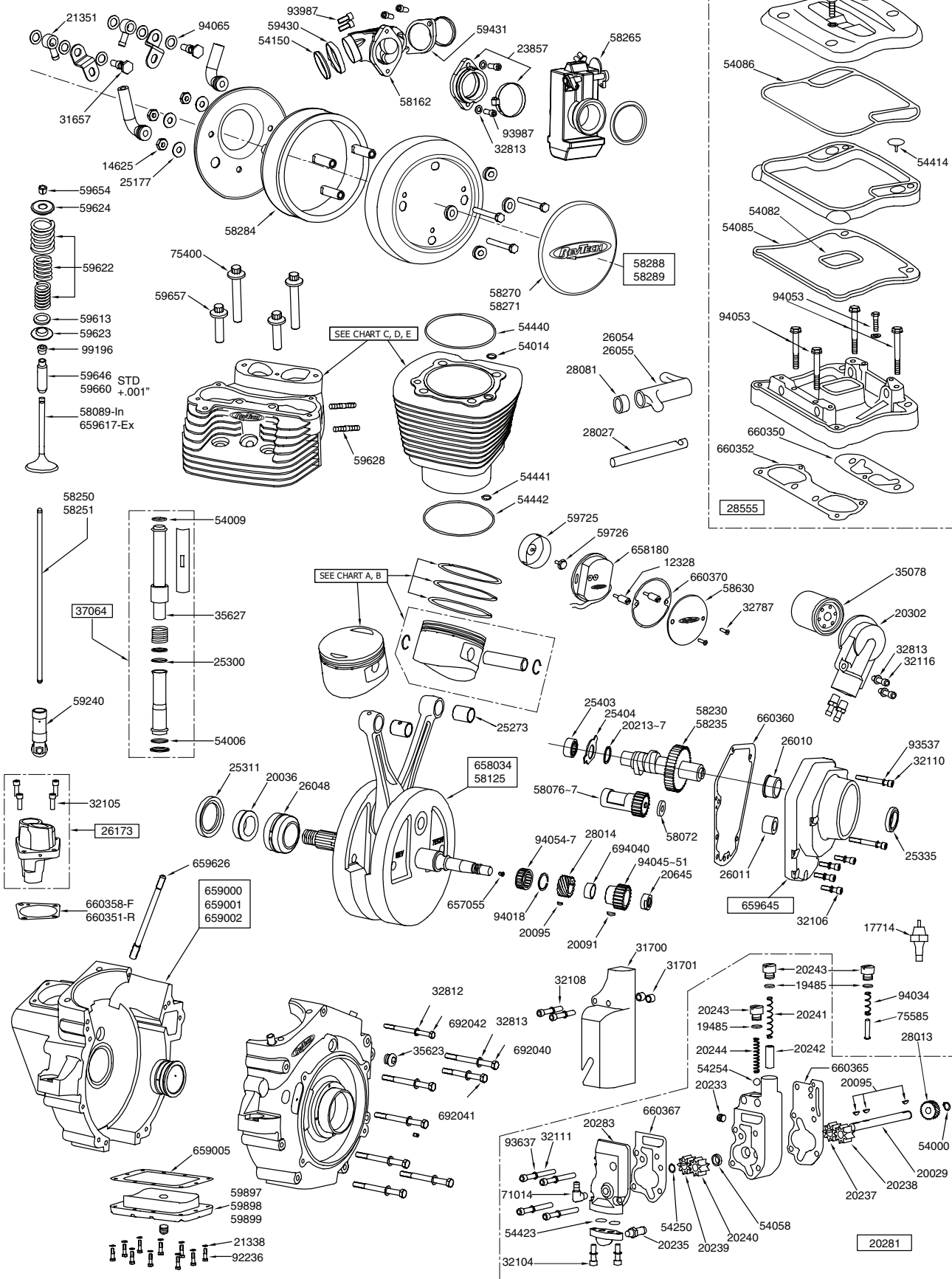
Regarding the RevTech® 110" & 100" 4x4 Big Twin Motors:

1. Size = Stroke and Bore.
(4 3/8" x 4" = 110 inch)
(4" x 4" = 100 inch)
2. Finish or color of cases, cylinders & heads all with chrome covers.
 - a. Black Powder Coated paint, wrinkle finish, the cylinder fins machined.
 - b. Natural (raw) aluminum finish with cylinder fins machined.
 - c. Polished aluminum finish with cylinder fins machined.
3. Engines are completely assembled

4.1 Parts Catalog

RevTech Gen 2 Complete Motor Assembly

88 Inch & 100 Inch Motors



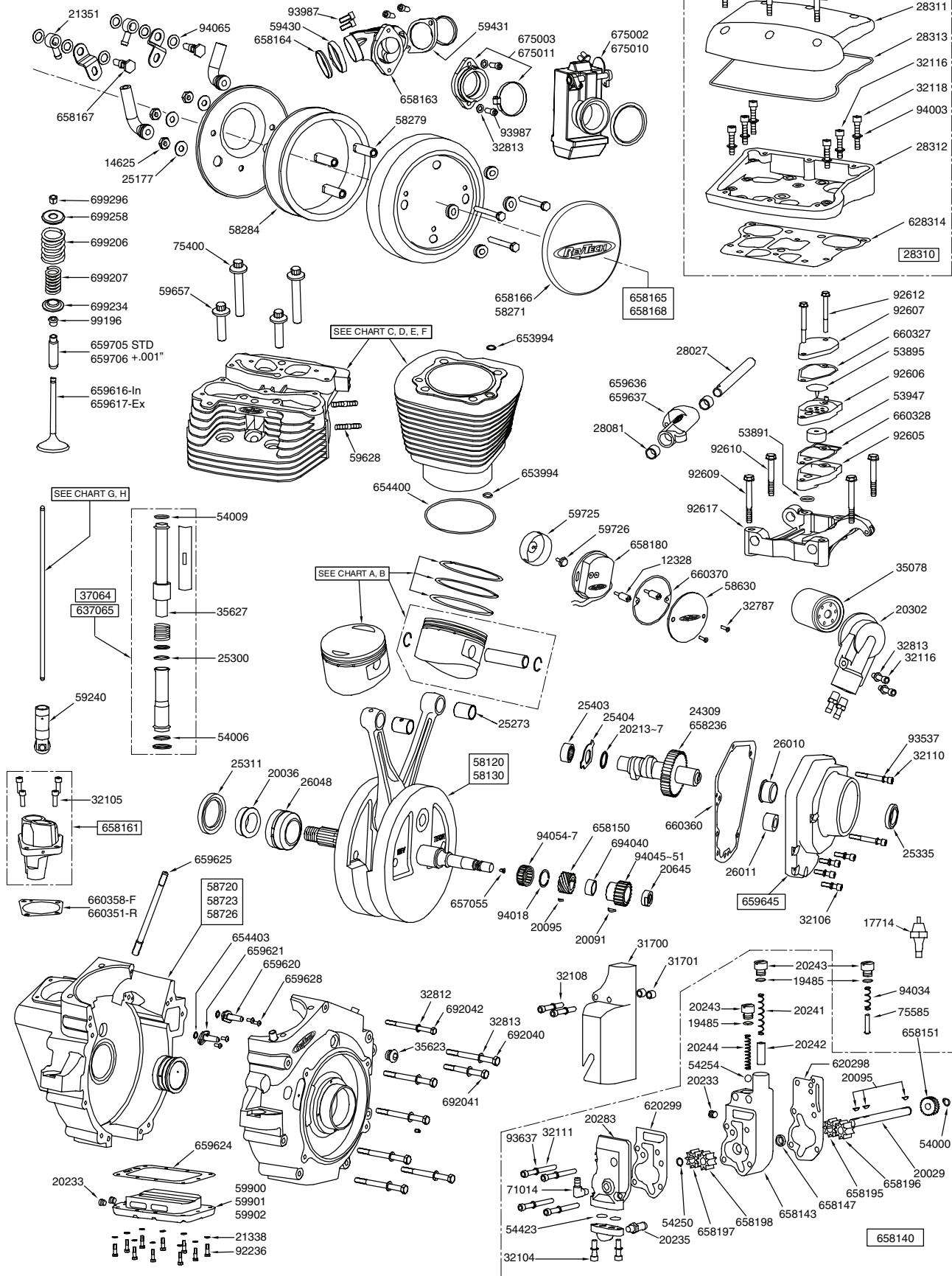
4.1 Parts Catalog

RevTech Gen 2 — 88 & 100 Motor Parts List

CCI #	Description	CCI #	Description
12328	Ignition plate studs and washers. (repl. OEM 32601-78) Pack of 10.	58079	Revtech +.030" oversize breather valve, +10° duration.
14625	Chrome 5/16"-18 nylon-inserted lock nuts. Pack of 10.	58089	Revtech intake valve 1.94" dia. Sold each
17714	Oil pressure switch. (repl. OEM 26561-84)	58125	Press-together flywheel assembly, 4-3/8" stroke for 100" Revtech motors.
19482	O-Ring, tappet oil screen & oil pump plug. (repl. OEM 11105) Pack of 10.	58162	Revtech intake manifold.
20029	Oil pump shaft. (repl. OEM 26346-70)	58230	Revtech EV-50 cam for 88" motor.
20036	Spacer, engine sprocket shaft. (repl. OEM 24002-70)	58235	Revtech EV-100 cam for 100" motor.
20091	Pinion shaft key, pinion gear.(repl. OEM 23985-54) Pack of 10.	58250	Silver pushrods for 2 hole lifters. Set of 4.
20095	Oil pump shaft key.(repl. OEM 26348-15) Pack of 10.	58251	Black pushrods for 1 hole lifters. Set of 4.
20213	Cam shims .060" thick. (repl. OEM25552-36) Pack of 5.	58265	HSR 42mm Mikuni carburetor with chrome top cover & choke cable.
20214	Cam shims .065" thick. (repl. OEM25553-36) Pack of 5.	58270	Chrome Revtech 88" air cleaner insert.
20215	Cam shims .070" thick. (repl. OEM25554-36) Pack of 5.	58271	Chrome Revtech 100" air cleaner insert.
20216	Cam shims .075" thick. (repl. OEM25555-36) Pack of 5.	58284	Revtech replacement air filter element.
20217	Cam shims .080" thick. (repl. OEM25556-79) Pack of 5.	58288	Chrome Revtech 88" complete air cleaner & breather assembly .
20233	Chrome plug, 1/8-27 NPT oil pump body.	58289	Chrome Revtech 100" complete air cleaner & breather assembly.
20235	Chrome hose fitting, 3/8" hose. (repl. OEM 63533-41) Sold each.	58630	Chrome point cover with Revtech logo.
20237	Drive gear-oil return, case side. (repl. OEM 26315-68A)	59240	Revtech hydraulic tappets. (repl. OEM 18523-86A) Sold each.
20238	Idler gear-oil return, case side. (repl. OEM 26317-68A)	59430	Rear intake manifold flange. (repl. OEM 27010-86A) Sold each.
20239	Drive gear-oil supply, cover side (repl. OEM 26328-74)	59431	Front intake manifold flange. (repl. OEM 27009-86A) Sold each.
20240	Idler gear-oil supply, cover side (repl. OEM 26326-62A)	59432	Intake manifold flange set. Sold in pairs.
20241	Spring, oil pump relief valve. (repl. OEM 26207-83) Sold each.	59613	Inner valve spring spacer, (.115" thick)
20242	Plunger, oil pump relief valve. (repl. OEM 26400-82) Sold each.	59622	Revtech valve springs. Sold as a set for one valve.
20243	Chrome plug, tappet oil screen & oil pump. (repl. OEM 26263-80) Sold each.	59623	Valve spring lower collar. Sold each.
20244	Spring, oil pump check valve. (repl. OEM 26262-80) Sold each.	59624	Valve spring upper collar. Sold each.
20281	Revtech polish complete oil pump assembly.	59628	Exhaust studs, Sold each.
20283	Polish Revtech oil pump cover.	59646	Valve guide intake and exhaust standard size.
20302	Chrome oil filter housing. Includes fittings & mounting hardware.	59654	Valve keepers. Sold in pairs.
20645	Pinion shaft nut, left hand thread. (repl. OEM 24023-54) Sold each.	59657	Chrome plated 12 point flanged outer head bolts. (repl. OEM 16480-92A) Sold each.
21338	#10 flatwasher, stainless steel. Sold each.	59660	Valve guide intake and exhaust +.001" oversize.
21351	Chrome banjo fitting, breather. Sold each.	59725	Ignition rotor. (repl. OEM 32402-83)
23857	Rubber intake adapter flange with hose clamp for 42mm Mikuni carbs.	59726	Screw and washer, ignition rotor. (repl. OEM 2611B) pack of 10.
25177	Chrome 5/16" flat washer. Pack of 100.	59897	Natural Gen II sump plate.
25273	Bushing, upper piston rod +.002" oversize. (repl. OEM 24334-36) Sold each.	59898	Black Gen II sump plate.
25300	O-Ring, middle pushrod cover. (repl. OEM 11132) Pack of 10.	59899	Polish Gen II sump plate.
25311	Oil seal, left engine case. (repl. OEM 12026B) Pack of 5.	71014	Chrome 90° hose fitting, 1/8 NPT, 3/8" hose. (repl. OEM 63554-90) Pack of 10.
25335	Seal, cam cover. (repl. OEM 83162-51)	75400	Zinc plated 12 point flanged inner head bolts. (repl. OEM 16478-85A) Sold each.
25403	Cam needle bearing. (repl. OEM 9058)	75585	Tappet oil screen. (repl. OEM 24981-70) Pack of 5.
25404	Thrush washer, cam gear. (repl. OEM 25550-57) Pack of 5.	92236	#10-24 x 5/8" hex screws, stainless steel. Pack of 10.
26010	Cam bushing, cam cover. (repl. OEM 25581-70)	93500	Chrome 12-point flange bolt, rocker box top cover. Pack of 10
26011	Pinion bushing, cam cover.(repl. OEM 25582-73)	93501	Brass 1/4" washer, rocker box top bolts. Pack of 10.
26048	Left engine case Timken bearing set. (repl. OEM 9028)	93537	Chrome 1/4" flatwasher with 7/16" o.d. Pack of 10.
26054	Rocker arm, rear exhaust or front intake. (repl. OEM 17360-83)	93637	Flat washer, Revtech oil pump. Pack of 6.
26055	Rocker arm, front exhaust or rear intake. (repl. OEM 17375-83)	93987	Black oxide 5/16-18 x 3/4" sockethead bolt. Pack of 10.
26173	Chrome Evo front & rear tappet block set. Includes hardware.	94018	Retaining ring, pinion bearing. (repl. OEM 11177A) Pack of 10.
28013	Oil pump driven gear 24 tooth. (repl. OEM 26345-73)	94034	Spring, tappet oil screen. (repl. OEM 24982-70) Pack of 5.
28014	Oil pump drive gear. (repl. OEM 26349-73)	94045	Pinion gear, orange. (repl. OEM 24040-78)
28027	Rocker arm shaft. (repl. OEM 17611-83)	94046	Pinion gear, white. (repl. OEM 24041-78)
28081	Bushing, rocker arms.(repl. OEM 17428-57) Sold each.	94047	Pinion gear, yellow. (repl. OEM 24042-78)
28530	Chrome smooth profile rocker box cover set.	94048	Pinion gear, red. (repl. OEM 24043-78)
31657	Chrome banjo bolt, breather. Sold each.	94049	Pinion gear, blue. (repl. OEM 24044-78)
31700	Chrome oil pump cover with spacers & hardware.	94050	Pinion gear, green. (repl. OEM 24045-78)
31701	Spacers, oil pump cover. Sold in pairs.	94051	Pinion gear, black. (repl. OEM 24046-78)
32104	Chrome 1/4-20 x 3/4" sockethead bolt. Pack of 10.	94053	Complete Evo rocker box hardware kit.
32105	Chrome 1/4-20 x 7/8" sockethead bolt. Pack of 10.	94054	Pinion bearing, green. (repl. OEM 24628-87A)
32106	Chrome 1/4-20 x 1" sockethead bolt. Pack of 10.	94055	Pinion bearing, red. (repl. OEM 24641-87A)
32108	Chrome 1/4-20 x 1-1/2" sockethead bolt. Pack of 10.	94056	Pinion bearing, blue. (repl. OEM 24643-87A)
32110	Chrome 1/4-20 x 2" sockethead bolt. Pack of 10.	94057	Pinion bearing, white/gray. (repl. OEM 24626-87A)
32111	Chrome 1/4-20 x 2-1/4" sockethead bolt. Pack of 10.	94065	Aluminum head breather washers. Pack of 10.
32116	Chrome 5/16-18 x 1-1/4" sockethead bolt. Pack of 10.	99196	Valve guide seals. Set of 4
32787	Chrome 8-32 x 1/2" flathead screws. Pack of 10.	657055	Outer pinion shaft plug .060" hole. Pack of 10
32812	Chrome 1/4" AN flatwasher. Pack of 50.	658034	Press-together flywheel assembly, 4-1/4" stroke for 88" Revtech motors.
32813	Chrome 5/16" AN flat washer. Pack of 50.	658180	Revtech electronic ignition with break-in rev-limiter.
35078	Revtech high performance spin-on oil filter.	658181	Revtech electronic ignition without break-in rev-limiter.
35623	Chrome timing hole plug.	659000	Natural Revtech Gen II cases with studs, sump plate & case hardware.
35627	Inner pushrod cover set. Set of 4.	659001	Black Revtech Gen II cases with studs, sump plate & case hardware.
37064	Chrome complete pushrod cover kit. Set of 4.	659002	Polish Revtech Gen II cases with studs, sump plate & case hardware.
54000	Retaining ring, oil pump driven gear, (repl. OEM 11002) Pack of 10.	659005	Gasket, Gen II sump plate. Pack of 10.
54006	O-Ring, lower pushrod cover. (repl. OEM 11145) Pack of 10.	659617	Revtech exhaust valve 1.61" dia. Sold each.
54009	O-Ring, upper pushrod cover. (repl. OEM 11157) Pack of 10.	659626	Cylinder studs, 3/8" x 7/16" x 6.70". Set of 8.
54014	O-Ring, cylinder dowel. (repl. OEM 26432-76A) Pack of 10	659645	Revtech chrome cam cover.
54058	Oil seal, oil pump shaft. (repl. OEM 2622-58) Pack of 10.	660350	Gasket, lower rocker box cover to head, right side (repl. OEM 16778-84A) Pack of 10
54082	Gasket, silicone inner rocker box.(repl OEM 17358-84A) Pack of 10.	660351	Gasket, rear tappet block.(repl. OEM 18633-48D) Pack of 10.
54085	Gasket, silicone lower rocker box.(repl. OEM 17355-92) Pack of 10	660352	Gasket, lower rocker box cover to head, left side (repl. OEM 16779-84A) Pack of 10
54086	Gasket, silicone upper rocker box. (repl. OEM 17356-92) Pack of 10.	660358	Gasket, front tappet block.(repl. OEM 18634-48C) Pack of 10.
54150	Seal, intake manifold. Pack of 10.	660360	Gasket, cam cover with silicon bead. (repl. OEM 25225-93) Pack of 10.
54250	Retaining ring, oil pump drive shaft. (repl. OEM 26348-36) Pack of 10.	660365	Gasket, oil pump body to case. (repl. OEM 26373-92) Pack of 10.
54254	Check ball, oil pump. (repl. OEM 8873) Pack of 10.	660367	Gasket, oil pump outer cover to body. (repl. OEM 26276-92) Pack of 10.
54414	Umbrella valve. (repl. OEM 26856-89) Pack of 10.	660370	Gasket, point cover. (repl. OEM 32591-80) Pack of 10.
54423	O-Ring, oil pump end cap. (repl. OEM 11241) Pack of 10.	692040	Chrome 5/16-18 x 3-1/2" hex bolt. Pack of 10.
54440	O-Ring, upper cylinder to head. Pack of 10	692041	Chrome 5/16-18 x 3" hex bolt. Pack of 10.
54441	O-Ring, oil control jet. Pack of 10	692042	Chrome 1/4-20 x 3-1/2" hex bolt. Pack of 10.
54442	O-Ring, lower cylinder to case. Pack of 10	694040	Spacer, between pinion & oil drive gear. Pack of 10.
58072	Thrust washer, Revtech breather valve, Pack of 4 with 4 different thickness.		
58076	Revtech breather valve, stock duration.		
58077	Revtech breather valve, +10° duration.		

4.1 Parts Catalog

RevTech Gen 3 Complete Motor Assembly 110 Inch & 100 Inch 4x4 Motors



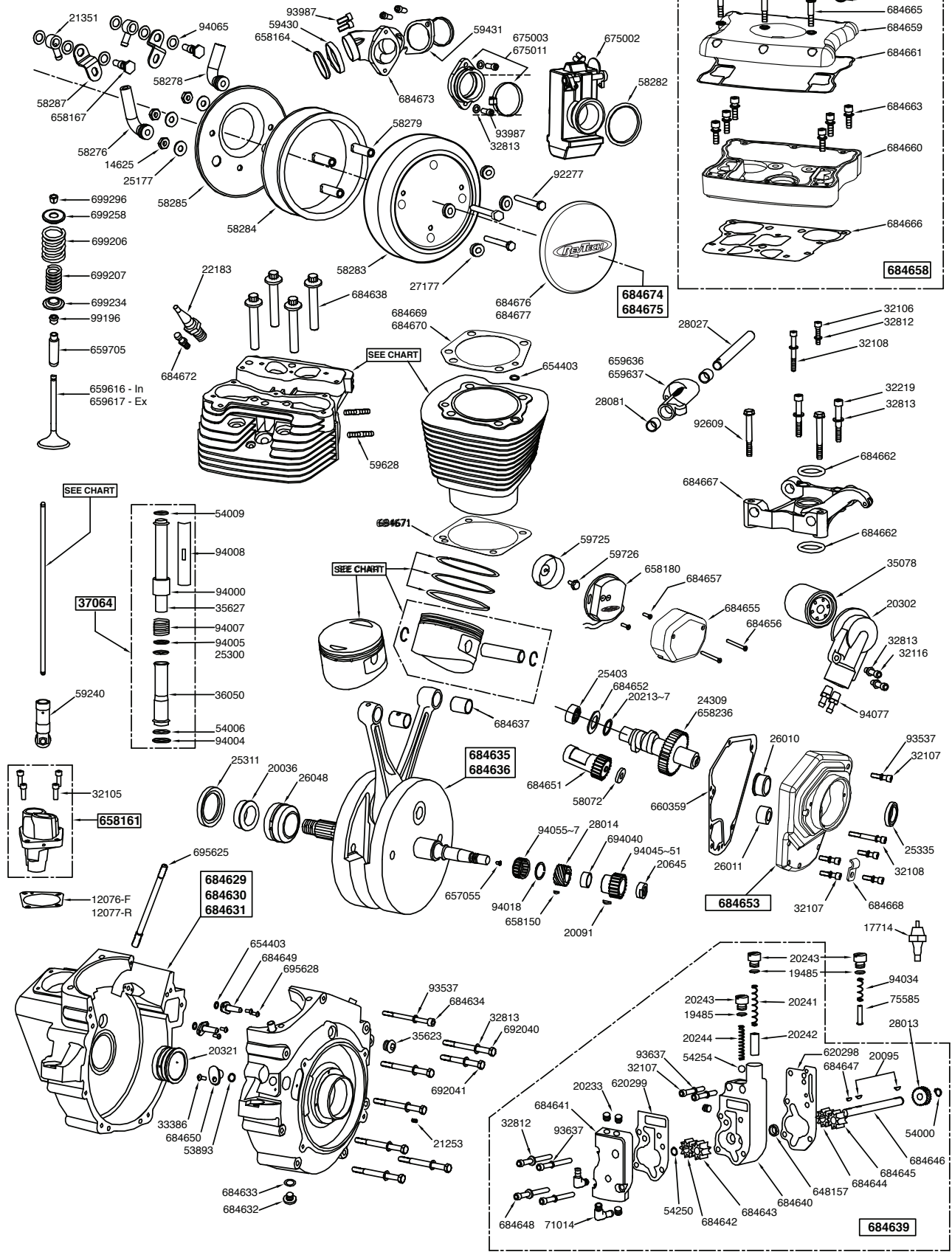
4.1 Parts Catalog

RevTech Gen 3 – 110 & 100 4x4 Motor Parts List

CCI #	Description	CCI #	Description
12328	Ignition plate studs and washers. (repl. OEM 32601-78) Pack of 10.	71014	Chrome 90° hose fitting, 1/8 NPT, 3/8" hose. (repl. OEM 63554-90) Pack of 10.
14625	Chrome 5/16"-18 nylon-inserted lock nuts. Pack of 10.	75400	Zinc plated 12 point flanged inner head bolts. (repl. OEM 16478-85A) Sold each.
17714	Oil pressure switch. (repl. OEM 26561-84)	75585	Tappet oil screen. (repl. OEM 24981-70) Pack of 5.
19482	O-Ring, tappet oil screen & oil pump plug. (repl. OEM 11105) Pack of 10.	92236	#10-24 x 5/8" hex screws, stainless steel. Pack of 10.
20029	Oil pump shaft. (repl. OEM 26346-70)	92605	Breather assembly lower housing.
20036	Spacer, engine sprocket shaft. (repl. OEM 24002-70)	92606	Breather assembly middle housing.
20091	Pinion shaft key, pinion gear.(repl. OEM 23985-54) Pack of 10.	92607	Breather assembly top cover.
20095	Oil pump shaft key.(repl. OEM 26348-15) Pack of 10.	92609	Black oxide 5/16-18 x 2-5/8" hex head flanged bolt. Pack of 10.
20213	Cam shims .060" thick. (repl. OEM25552-36) Pack of 5.	92610	Black oxide 5/16-18 x 2-3/8" hex head flanged bolt. Pack of 10.
20214	Cam shims .065" thick. (repl. OEM25553-36) Pack of 5.	92612	Black oxide 1/4-20 x 2-1/4" hex head flanged bolt, head breather assembly. Pack of 10.
20215	Cam shims .070" thick. (repl. OEM25554-36) Pack of 5.	92617	Support tower, rocker arms.
20216	Cam shims .075" thick. (repl. OEM25555-36) Pack of 5.	93537	Chrome 1/4" flatwasher with 7/16" o.d. Pack of 10.
20217	Cam shims .080" thick. (repl. OEM25556-79) Pack of 5.	93637	Flat washer, Revtech oil pump. Pack of 6.
20233	Chrome plug, 1/8-27 NPT oil pump body & sump plate.	93987	Black oxide 5/16-18 x 3/4" sockethead bolt. Pack of 10.
20235	Chrome hose fitting, 3/8" hose. (repl. OEM 63533-41) Sold each.	94018	Retaining ring, pinion bearing. (repl. OEM 11177A) Pack of 10.
20241	Spring, oil pump relief valve. (repl. OEM 26207-83) Sold each.	94034	Spring, tappet oil screen. (repl. OEM 24982-70) Pack of 5.
20242	Plunger, oil pump relief valve. (repl. OEM 26400-82) Sold each.	94045	Pinion gear, orange. (repl. OEM 24040-78)
20243	Chrome plug, tappet oil screen & oil pump. (repl. OEM 26263-80) Sold each.	94046	Pinion gear, white. (repl. OEM 24041-78)
20244	Spring, oil pump check valve. (repl. OEM 26262-80) Sold each.	94047	Pinion gear, yellow. (repl. OEM 24042-78)
20283	Polish Revtech oil pump cover.	94048	Pinion gear, red. (repl. OEM 24043-78)
20302	Chrome oil filter housing. Includes fittings & mounting hardware.	94049	Pinion gear, blue. (repl. OEM 24044-78)
20645	Pinion shaft nut, left hand thread.(repl. OEM 24023-54) Sold each.	94050	Pinion gear, green. (repl. OEM 24045-78)
21338	#10 flatwasher, stainless steel. Sold each.	94051	Pinion gear, black. (repl. OEM 24046-78)
21351	Chrome banjo fitting, breather. Sold each.	94054	Pinion bearing, green. (repl. OEM 24628-87A)
24309	Revtech EV-72 cam for 110" & 100" 4x4 motor.	94055	Pinion bearing, red. (repl. OEM 24641-87A)
25177	Chrome 5/16" flat washer. Pack of 100.	94056	Pinion bearing, blue. (repl. OEM 24643-87A)
25273	Bushing, upper piston rod +.002" oversize. (repl. OEM 24334-36) Sold each.	94057	Pinion bearing, white/gray. (repl. OEM 24626-87A)
25300	O-Ring, middle pushrod cover. (repl. OEM 11132) Pack of 10.	94065	Aluminum head breather washers. Pack of 10.
25311	Oil seal, left engine case. (repl. OEM 12026B) Pack of 5.	99196	Valve guide seals. Set of 4
25335	Seal, cam cover. (repl. OEM 83162-51)	620298	Gasket, oil pump body to case. Pack of 10.
25403	Cam needle bearing. (repl. OEM 9058)	620299	Gasket, oil pump outer cover to body. Pack of 10.
25404	Thrush washer, cam gear. (repl. OEM 25550-57) Pack of 5.	628314	Metal gasket, rocker box base to head. Pack of 10
26010	Cam bushing, cam cover. (repl. OEM 25581-70)	637065	Chrome complete pushrod cover kit for 100" 4x4 motors only. Set of 4.
26011	Pinion bushing, cam cover.(repl. OEM 25582-73)	653994	O-Ring, cylinder dowel / drain. Sold each.
26048	Left engine case Timken bearing set. (repl. OEM 9028)	654400	O-Ring, lower cylinder to case. Pack of 10
28027	Rocker arm shaft. (repl. OEM 17611-83)	654403	O-Ring, piston oil squirters. Pack of 10
28081	Bushing, rocker arms.(repl. OEM 17428-57) Sold each.	657055	Outer pinion shaft plug .060" hole. Pack of 10
28310	Chrome smooth 2-piece rocker box set, front & rear.	658140	Revtech polish complete hi-flow oil pump assembly.
28311	Chrome smooth rocker box top cover.	658143	Revtech hi-flow oil pump body only.
28312	Chrome smooth rocker box front base.	658147	Oil seal, oil pump shaft. Pack of 10.
28313	Rubber gasket, Smooth rocker boxes. Pack of 10	658150	Oil pump drive gear, 3:1 ratio.
28317	Chrome smooth rocker box rear base.	658151	Oil pump driven gear 21 tooth, 3:1 ratio.
31700	Chrome oil pump cover with spacers & hardware.	658161	Chrome Evo front & rear tappet block set. Includes hardware.
31701	Spacers, oil pump cover. Sold in pairs.	658163	Revtech intake manifold.
32104	Chrome 1/4-20 x 3/4" sockethead bolt. Pack of 10.	658164	Seal, intake manifold. Pack of 10.
32105	Chrome 1/4-20 x 7/8" sockethead bolt. Pack of 10.	658165	Chrome Revtech 110" complete air cleaner & breather assembly .
32106	Chrome 1/4-20 x 1" sockethead bolt. Pack of 10.	658166	Chrome Revtech 110" air cleaner insert.
32108	Chrome 1/4-20 x 1-1/2" sockethead bolt. Pack of 10.	658167	Chrome banjo bolt, breather. Sold in pairs.
32110	Chrome 1/4-20 x 2" sockethead bolt. Pack of 10.	658168	Chrome Revtech 100" 4x4 complete air cleaner & breather assembly.
32111	Chrome 1/4-20 x 2-1/4" sockethead bolt. Pack of 10.	658180	Revtech electronic ignition with break-in rev-limiter.
32116	Chrome 5/16-18 x 1-1/4" sockethead bolt. Pack of 10.	658181	Revtech electronic ignition without break-in rev-limiter.
32118	Chrome 5/16-18 x 1-3/4" sockethead bolt. Pack of 10.	658195	Drive gear-oil return, case side. (repl. OEM 26315-68A)
32213	Chrome 5/16-18 x 3/4" Smooth sockethead bolt. Pack of 10.	658196	Idler gear-oil return, case side. (repl. OEM 26317-68A)
32218	Chrome 5/16-18 x 1-3/4" Smooth sockethead bolt. Pack of 10.	658197	Drive gear-oil supply, cover side (repl. OEM 26328-74)
32352	Chrome 5/16" sockethead plugs. Pack of 100	658198	Idler gear-oil supply, cover side (repl. OEM 26326-62A)
32787	Chrome 8-32 x 1/2" flathead screws. Pack of 10.	658236	Revtech EV-110/100 smog cam for EPA motors.
32812	Chrome 1/4" AN flatwasher. Pack of 50.	659616	Revtech intake valve 2" dia. Sold each
32813	Chrome 5/16" AN flat washer. Pack of 50.	659617	Revtech exhaust valve 1.61" dia. Sold each.
35078	Revtech high performance spin-on oil filter.	659620	Rear piston oil squirter.
35623	Chrome timing hole plug.	659621	Front piston oil squirter.
35627	Inner pushrod cover set. Set of 4.	659624	Gasket, Gen III sump plate. Pack of 10.
37064	Chrome complete pushrod cover kit. Set of 4.	659625	Cylinder studs, 3/8" x 7/16" x 6.30". Set of 8.
53891	O-ring, underneath breather assembly. (repl. OEM 11270). Pack of 10.	659628	Black oxide #8-32 x 3/8" button head screw. Pack of 10.
53895	Umbrella Valve, breather assembly. (repl OEM 8873) Pack of 10.	659635	Revtech roller rocker arm complete set.
53947	Breather assembly filter element. (repl. OEM 63815-99). Pack of 10.	659636	Revtech roller rocker arm, rear exhaust or front intake.
54000	Retaining ring, oil pump driven gear. (repl. OEM 11002) Pack of 10.	659637	Revtech roller rocker arm, front exhaust or rear intake.
54006	O-Ring, lower pushrod cover. (repl. OEM 11145) Pack of 10.	659645	Revtech chrome cam cover.
54009	O-Ring, upper pushrod cover. (repl. OEM 11157) Pack of 10.	659705	Valve guide intake & exhaust standard size.
54250	Retaining ring, oil pump drive shaft. (repl. OEM 26348-36) Pack of 10.	659706	Valve guide intake & exhaust +.001" oversize.
54254	Check ball, oil pump. (repl. OEM 8873) Pack of 10.	660327	Gasket, breather top cover. (repl. OEM 17591-99). Pack of 10.
54423	O-Ring, oil pump end cap. (repl. OEM 11241) Pack of 10.	660328	Gasket, breather baffle. (repl. OEM 17592-99) Pack of 10.
58120	Press-together flywheel assembly, 4-3/8" stroke for 110" Revtech motors.	660351	Gasket, rear tappet block.(repl. OEM 18633-48D) Pack of 10.
58130	Press-together flywheel assembly, 4" stroke for 100" 4x4 Revtech motors.	660358	Gasket, front tappet block.(repl. OEM 18634-48C) Pack of 10.
58271	Chrome Revtech 100" air cleaner insert.	660360	Gasket, cam cover with silicon bead. (repl. OEM 25225-93) Pack of 10.
58284	Revtech replacement air filter element.	660370	Gasket, point cover. (repl. OEM 32591-80) Pack of 10.
58630	Chrome point cover with Revtech logo.	675002	HSR 45mm Mikuni carburetor with chrome top cover & choke cable.
58720	Natural Revtech Gen III cases with studs, sump plate & case hardware.	675003	Oval rubber intake adapter flange with hose clamp for 45mm Mikuni carbs.
58723	Black Revtech Gen III cases with studs, sump plate & case hardware.	675010	HSR 42mm Mikuni carburetor with chrome top cover & choke cable.
58726	Polish Revtech Gen III cases with studs, sump plate & case hardware.	675011	Oval rubber intake adapter flange with hose clamp for 42mm Mikuni carbs.
59240	Revtech hydraulic tappets. (repl. OEM 18523-86A) Sold each.	692040	Chrome 5/16-18 x 3-1/2" hex bolt. Pack of 10.
59430	Rear intake manifold flange. (repl. OEM 27010-86A) Sold each.	692041	Chrome 5/16-18 x 3" hex bolt. Pack of 10.
59431	Front intake manifold flange. (repl. OEM 27009-86A) Sold each.	692042	Chrome 1/4-20 x 3-1/2" hex bolt. Pack of 10.
59432	Intake manifold flange set. Sold in pairs.	694040	Spacer, between pinion & oil drive gear. Pack of 10.
59628	Exhaust studs, Sold each.	699206	Outer valve spring, 600 lift. Sold each.
59657	Chrome plated 12 point flanged outer head bolts. (repl. OEM 16480-92A) Sold each.	699207	Inner valve spring, 600 lift. Sold each.
59725	Ignition rotor. (repl. OEM 32402-83)	699234	Valve spring lower collar. Sold each.
59726	Screw and washer, ignition rotor. (repl. OEM 2611B) pack of 10.	699258	Valve spring upper collar. Sold each.
59900	Natural Gen III sump plate.	699296	Valve keepers. Sold in pairs.
59901	Black Gen III sump plate.		
59902	Polish Gen III sump plate.		

4.1 Parts Catalog

RevTech Gen 4 Complete Motor Assembly 115 Inch & 125 Inch Motors



4.1 Parts Catalog

RevTech Gen 4 – 115 & 125 Motor Parts List

CCI#	Description	CCI#	Description	CCI#	Description
14625	Chrome 5/16" -18 nylon-inserted lock nuts. Pack of 10.	59240	RevTech hydraulic tappets. (repl. OEM 18523-86A) Sold each.	699234	Valve spring lower collar. Sold each.
17714	Oil pressure switch. (repl. OEM 26561-84)	59430	Rear intake manifold flange. (repl. OEM 27010-86A) Sold each.	699258	Valve spring upper collar. Sold each.
19482	O-Ring, tappet oil screen & oil pump plug. (repl. OEM 11105) Pack of 10.	59431	Front intake manifold flange. (repl. OEM 27009-86A) Sold each.	699296	Valve keepers. Sold in pairs.
20036	Spacer, engine sprocket shaft. (repl. OEM 24002-70)	59432	Intake manifold flange set. Sold in pairs.	684629	Natural RevTech Gen IV Cases with studs & case hardware.
20091	Pinion shaft key, pinion gear.(repl. OEM 23985-54) Pack of 10.	59628	Exhaust studs, Sold each.	684630	Black RevTech Gen IV Cases with studs & case hardware.
20095	Oil pump shaft key.(repl. OEM 26348-15) Pack of 10.	59725	Ignition rotor. (repl. OEM 32402-83)	684631	Polish RevTech Gen IV Cases with studs & case hardware.
20213	Cam shims .060" thick. (repl. OEM25552-36) Pack of 5.	59726	Screw and washer, ignition rotor. (repl. OEM 2611B) pack of 10.	684632	Drian Plug
20214	Cam shims .065" thick. (repl. OEM25553-36) Pack of 5.	71014	Chrome 90° hose fitting, 1/8 NPT, 3/8" hose. (repl. OEM 63554-90) Pack of 10.	684633	O-Ring, drain plug
20215	Cam shims .070" thick. (repl. OEM25554-36) Pack of 5.	75585	Tappet oil screen. (repl. OEM 24981-70) Pack of 5.	684634	Chrome 1/4-20 x 3-1/4" cap screw
20216	Cam shims .075" thick. (repl. OEM25555-36) Pack of 5.	92609	Black oxide 5/16-18 x 2-5/8" hex head flanged bolt. Pack of 10.	684635	Press-together flywheel assembly, 4.300" stroke for 115" RevTech motors.
20217	Cam shims .080" thick. (repl. OEM25556-79) Pack of 5.	93537	Chrome 1/4" flatwasher with 7/16" o.d. Pack of 10.	684636	Press-together flywheel assembly, 4.410" stroke for 125" RevTech motors.
20233	Chrome plug, 1/8-27 NPT oil pump body & sump plate.	93637	Flat washer, RevTech oil pump. Pack of 6.	684637	Bushing, upper piston rod
20235	Chrome hose fitting, 3/8" hose. (repl. OEM 63533-41) Sold each.	93987	Black oxide 5/16-18 x 3/4" sockethead bolt. Pack of 10.	684638	Chrome plated 12 point flanged head bolts, long. (repl. OEM 16478-85A) Sold each.
20241	Spring, oil pump relief valve. (repl. OEM 26207-83) Sold each.	94018	Retaining ring, pinion bearing. (repl. OEM 11177A) Pack of 10.	684639	Oil Pump Kit, High Flow Wide Body
20242	Plunger, oil pump relief valve. (repl. OEM 26400-82) Sold each.	94034	Spring, tappet oil screen. (repl. OEM 24982-70) Pack of 5.	684640	Oil pump body
20243	Chrome plug, tappet oil screen & oil pump. (repl. OEM 26263-80) Sold each.	94045	Pinion gear, orange. (repl. OEM 24040-78)	684641	Oil Pump cover
20244	Spring, oil pump check valve. (repl. OEM 26262-80) Sold each.	94046	Pinion gear, white. (repl. OEM 24041-78)	684642	Supply drive gear
20302	Chrome oil filter housing. Includes fittings & mounting hardware.	94047	Pinion gear, yellow. (repl. OEM 24042-78)	684643	Supply driven gear
20645	Pinion shaft nut, left hand thread.(repl. OEM 24023-54) Sold each.	94048	Pinion gear, red. (repl. OEM 24043-78)	684644	Return drive gear
21351	Chrome banjo fitting, breather. Sold each.	94049	Pinion gear, blue. (repl. OEM 24044-78)	684645	Return driven gear
24309	RevTech EV-72 cam for 115" & 125" 4x4 motor.	94050	Pinion gear, green. (repl. OEM 24045-78)	684646	Drive shaft, oil pump
25177	Chrome 5/16" flat washer. Pack of 100.	94051	Pinion gear, black. (repl. OEM 24046-78)	684647	Modified Key
25300	O-Ring, middle pushrod cover. (repl. OEM 11132) Pack of 10.	94054	Pinion bearing, green. (repl. OEM 24628-87A)	28014	Drive gear, oil pump
25311	Oil seal, left engine case. (repl. OEM 12026B) Pack of 5.	94055	Pinion bearing, red. (repl. OEM 24641-87A)	28013	Driven gear, oil pump
25335	Seal, cam cover. (repl. OEM 83162-51)	94056	Pinion bearing, blue. (repl. OEM 24643-87A)	684648	1/4-20x2-1/2" screw
25403	Cam needle bearing. (repl. OEM 9058)	94057	Pinion bearing, white/gray. (repl. OEM 24626-87A)	684649	Squirtor Unit
26010	Cam bushing, cam cover. (repl. OEM 25581-70)	94065	Aluminum head breather washers. Pack of 10.	660359	Gasket, cam cover with silicon bead. (repl. OEM 25225-70B) Pack of 10.
26011	Pinion bushing, cam cover.(repl. OEM 25582-73)	99196	Valve guide seals. Set of 4	684650	Sensor Block off
26048	Left engine case Timken bearing set. (repl. OEM 9028)	620298	Gasket, oil pump body to case. Pack of 10.	53893	O-Ring, Sensor block off
28027	Rocker arm shaft. (repl. OEM 17611-83)	620299	Gasket, oil pump outer cover to body. Pack of 10.	33386	Screw, 1/4-20x5/8", button head
28081	Bushing, rocker arms.(repl. OEM 17428-57) Sold each.	654403	O-Ring, piston oil squirters. Pack of 10	684651	Breather Valve
32105	Chrome 1/4-20 x 7/8" sockethead bolt. Pack of 10.	657055	Outer pinion shaft plug .060" hole. Pack of 10	58072	Shim, breather valve
32106	Chrome 1/4-20 x 1" sockethead bolt. Pack of 10.	658147	Oil seal, oil pump shaft. Pack of 10.	684652	Thrust Washer, Camshaft
32107	Chrome 1/4-20 x 1-1/4" sockethead bolt. Pack of 10.	658161	Chrome Evo front & rear tappet block set. Includes hardware.	684653	Cam Cover Kit
32108	Chrome 1/4-20 x 1-1/2" sockethead bolt. Pack of 10.	658164	Seal, intake manifold. Pack of 10.	684654	Cam Cover
32112	Chrome 1/4-20 x 2-1/2" sockethead bolt. Pack of 10.	658167	Chrome banjo bolt, breather. Sold in pairs.	684655	Ignition Cover
32812	Chrome 1/4" AN flatwasher. Pack of 50.	658180	RevTech electronic ignition with break-in rev-limiter.	684656	Screw, Ignition Cover
32813	Chrome 5/16" AN flat washer. Pack of 50.	658181	RevTech electronic ignition without break-in rev-limiter.	684657	Screw, Ignition Unit, #10-32x1/2"
35078	RevTech high performance spin-on oil filter.	658236	RevTech EV-110/100 smog cam for EPA motors.	684658	Rocker Box Kit
35623	Chrome timing hole plug.	659616	RevTech intake valve 2" dia. Sold each	684659	Rocker Box, top
35627	Inner pushrod cover set. Set of 4.	659617	RevTech exhaust valve 1.61" dia. Sold each.	684660	Rocker Box, base
37064	Chrome complete pushrod cover kit. Set of 4.	659625	Cylinder studs, 3/8" x 7/16" x 6.30". Set of 8.	684661	Rubber gasket, rocker box. Pack of 10
54000	Retaining ring, oil pump driven gear, (repl. OEM 11002) Pack of 10.	659628	#8-32 x 3/8" button head screw. Pack of 10.	684662	O-ring, support
54006	O-Ring, lower pushrod cover. (repl. OEM 11145) Pack of 10.	659636	RevTech roller rocker arm, rear exhaust or front intake.	684663	Screw w/washer, 5/16-18x1
54009	O-Ring, upper pushrod cover. (repl. OEM 11157) Pack of 10.	659637	RevTech roller rocker arm, front exhaust or rear intake.	684664	Screw w/washer, 1/4-20x3/4
54250	Retaining ring, oil pump drive shaft. (repl. OEM 26348-36) Pack of 10.	659705	Valve guide intake & exhaust standard size.	684665	Screw w/washer, 1/4-20x1
54254	Check ball, oil pump. (repl. OEM 8873) Pack of 10.	659706	Valve guide intake & exhaust +.001" oversize.	54227	Sealing washer, 1/4"
58284	RevTech replacement air filter element.	660351	Gasket, rear tappet block.(repl. OEM 18633-48D) Pack of 10.	684666	Metal Gasket, base
		660358	Gasket, front tappet block.(repl. OEM 18634-48C) Pack of 10.	684667	Rocker Support, Gen4
		675002	HSR 45mm Mikuni carburetor with chrome top cover & choke cable.	32219	5/16-18 x 2" sockethead bolt . Pack of 10.
		675003	Oval rubber intake adapter flange with hose clamp for 45mm Mikuni carbs.	32106	1/4-20 x 1-1/2" sockethead bolt . Pack of 10.
		692040	Chrome 5/16-18 x 3-1/2" hex bolt. Pack of 10.	32108	1/4-20 x 1" sockethead bolt . Pack of 10.
		692041	Chrome 5/16-18 x 3" hex bolt. Pack of 10.	684668	Ignition Cable Holder
		694040	Spacer, between pinion & oil drive gear. Pack of 10.	684669	Head Gasket, 115"
		699206	Outer valve spring, 600 lift. Sold each.	684670	Head Gasket, 125"
		699207	Inner valve spring, 600 lift. Sold each.	654403	O-Ring, Cylinder Alignment Dowel
				684671	Base Gasket, Gen4
				22183	Spark Plug
				668230	Compression Release **Use # for Motorway's part**
				684673	Intake Manifold, Gen4
				684674	Air Cleaner Kit, 125"
				684675	Air Cleaner Kit, 115"
				684676	Insert, Air Cleaner 125"
				684677	Insert, Air Cleaner 115"
				93918	Plug, 1/4"npt

RevTech Gen 2 – 88 & 100 Motor Parts List Charts

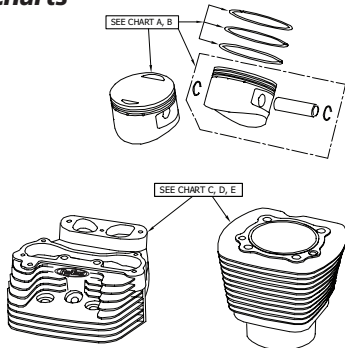


Chart A Piston With Rings For Revtech 88" Motors

- 58807** 88" Piston 3-5/8" bore front & rear, std size with rings, wrist pin & clips
- 58811** 88" Piston 3-5/8" bore front & rear, +.005" os. with rings, wrist pin & clips
- 58808** 88" Piston 3-5/8" bore front & rear, +.010" os. with rings, wrist pin & clips
- 58809** 88" Piston 3-5/8" bore front & rear, +.020" os. with rings, wrist pin & clips
- 58810** 88" Piston 3-5/8" bore front & rear, +.030" os. with rings, wrist pin & clips

Chart A Piston With Rings For Revtech 100" Motors

- 58813** 100" Piston 3-13/16" bore front & rear, std size with rings, wrist pin & clips
- 58814** 100" Piston 3-13/16" bore front & rear, +.005" os with rings, wrist pin & clips
- 58815** 100" Piston 3-13/16" bore front & rear, +.010" os with rings, wrist pin & clips
- 58816** 100" Piston 3-13/16" bore front & rear, +.020" os with rings, wrist pin & clips
- 58817** 100" Piston 3-13/16" bore front & rear, +.030" os with rings, wrist pin & clips

Chart B Rings For Revtech 88" Motors

- 58240** 88" Piston ring set, 3-5/8" standard size. Sold in a set for 1 piston
- 58241** 88" Piston ring set, 3-5/8" +.005" oversize. Sold in a set for 1 piston
- 58242** 88" Piston ring set, 3-5/8" +.010" oversize. Sold in a set for 1 piston
- 58243** 88" Piston ring set, 3-5/8" +.020" oversize. Sold in a set for 1 piston
- 58244** 88" Piston ring set, 3-5/8" +.030" oversize. Sold in a set for 1 piston

Chart B Rings For Revtech 100" Motors

- 58245** 100" Piston ring set, 3-13/16" standard size. Sold in a set for 1 piston
- 58246** 100" Piston ring set, 3-13/16" +.005" oversize. Sold in a set for 1 piston
- 58247** 100" Piston ring set, 3-13/16" +.010" oversize. Sold in a set for 1 piston
- 58248** 100" Piston ring set, 3-13/16" +.020" oversize. Sold in a set for 1 piston
- 58249** 100" Piston ring set, 3-13/16" +.030" oversize. Sold in a set for 1 piston

Chart C Cylinder for Revtech 88" Motors

- 51122** 88" Polish cylinder 3-5/8" bore, front
- 51123** 88" Polish cylinder 3-5/8" bore, rear
- 51124** 88" Natural cylinder 3-5/8" bore, front
- 51125** 88" Natural cylinder 3-5/8" bore, rear
- 51126** 88" Black cylinder 3-5/8" bore, front
- 51127** 88" Black cylinder 3-5/8" bore, rear

Chart D Cylinder for Revtech 100" Motors

- 51128** 100" Polish cylinder 3-13/16" bore, front
- 51129** 100" Polish cylinder 3-13/16" bore, rear
- 51130** 100" Natural cylinder 3-13/16" bore, front
- 51131** 100" Natural cylinder 3-13/16" bore, rear
- 51132** 100" Black cylinder 3-13/16" bore, front
- 51133** 100" Black cylinder 3-13/16" bore, rear

Chart E Cylinder Heads for Revtech 88" & 100" Motors (Valve guides & valve seats installed)

- 59791** Black front head for 88" & 100" motors
- 59792** Black rear head for 88" & 100" motors
- 59793** Polish front head for 88" & 100" motors
- 59794** Polish rear head, for 88" & 100" motors
- 59795** Natural front head, for 88" & 100" motors
- 59796** Natural rear head, for 88" & 100" motors

Gaskets and Seals

- 658510** Complete engine gasket, seal & O-ring kit for RevTech® 100" and 88" engines with 97/98 Casting Marked Rocker Boxes
- 658511** Complete engine gasket, seal & O-ring kit for RevTech® 100" and 88" engines with 99/00 Casting Marked Rocker Boxes
- 59784** Sump-plate gasket
- 54095** Rocker box cover rubber gasket set for rocker box covers with casting marks of '97' or '98'

Note: Rocker box covers with other casting marks use rubber gaskets for late Sportster® models.

RevTech Gen 3 – 110 & 100 4x4 Motor Parts List Charts

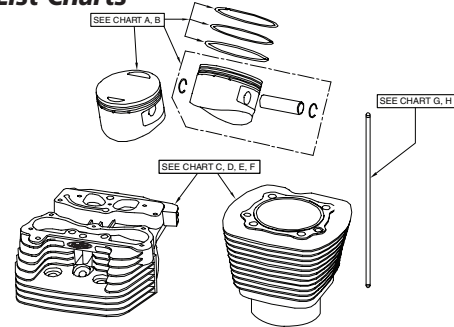


Chart A Piston With Rings For Revtech 110" & 100" 4x4 Motors

- 658840** Piston 4" bore front, standard size with rings, wrist pin & clips
- 658841** Piston 4" bore front, +.005" oversize with rings, wrist pin & clips
- 658842** Piston 4" bore front, +.010" oversize with rings, wrist pin & clips
- 658843** Piston 4" bore front, +.020" oversize with rings, wrist pin & clips
- 658890** Piston 4" bore rear, standard size with rings, wrist pin & clips
- 658891** Piston 4" bore rear, +.005" oversize with rings, wrist pin & clips
- 658892** Piston 4" bore rear, +.010" oversize with rings, wrist pin & clips
- 658893** Piston 4" bore rear, +.020" oversize with rings, wrist pin & clips

Chart B Ring Set For Revtech 110" & 100" 4x4 Motors

- 658930** 4" bore piston ring set, standard size. Sold in a set for 1 piston
- 658931** 4" bore piston ring set, +.005" oversize. Sold in a set for 1 piston
- 658932** 4" bore piston ring set, +.010" oversize. Sold in a set for 1 piston
- 658933** 4" bore piston ring set, +.020" oversize. Sold in a set for 1 piston

Chart C Cylinder for Revtech 110" Motors

- 51161** 110" Natural cylinder 4" bore, front
- 51162** 110" Black cylinder 4" bore, front
- 51163** 110" Polish cylinder 4" bore, front
- 51164** 110" Natural cylinder 4" bore, rear
- 51165** 110" Black cylinder 4" bore, rear
- 51166** 110" Polish cylinder 4" bore, rear

Chart D Cylinder for Revtech 100" 4x4 Motors

- 651167** 100" Natural cylinder 4" bore, front
- 651168** 100" Black cylinder 4" bore, front
- 651169** 100" Polish cylinder 4" bore, front
- 651170** 100" Natural cylinder 4" bore, rear
- 651171** 100" Black cylinder 4" bore, rear
- 651172** 100" Polish cylinder 4" bore, rear

Chart E Cylinder Heads for Revtech 110" Motors (Valve guides & valve seats installed)

- 58471** Black front head for 110" motors
- 58472** Black rear head for 110" motors
- 58473** Natural front head for 110" motors
- 58474** Natural rear head for 110" motors
- 58475** Polish front head for 110" motors
- 58476** Polish rear head for 110" motors

Chart F Cylinder Heads for Revtech 100" 4x4 Motors (Valve guides & valve seats installed)

- 658477** Natural front head for 100" 4x4 motors
- 658478** Black front head for 100" 4x4 motors
- 658479** Polish front head for 100" 4x4 motors
- 658480** Natural rear head for 100" 4x4 motors
- 658481** Black rear head for 100" 4x4 motors
- 658482** Polish rear head for 100" 4x4 motors

Chart G Push rods for Revtech 100" 4x4 Motors

- 694070** Pushrod, rear exhaust. Sold each
- 694071** Pushrod, rear intake. Sold each
- 694072** Pushrod, front exhaust. Sold each
- 694073** Pushrod, front intake. Sold each

Chart H Push rods for Revtech 110" Motors

- 694074** Pushrod, rear exhaust. Sold each
- 694075** Pushrod, rear intake. Sold each
- 694076** Pushrod, front exhaust. Sold each
- 694077** Pushrod, rear intake. Sold each

Gaskets and Seals

- 658512** Complete engine gasket, seal & O-ring kit for RevTech® 110" engines
- 658513** Top end gasket, seal & O-ring kit for RevTech® 110" engines

RevTech Gen 4 – 115 & 125 Motor Parts List Charts

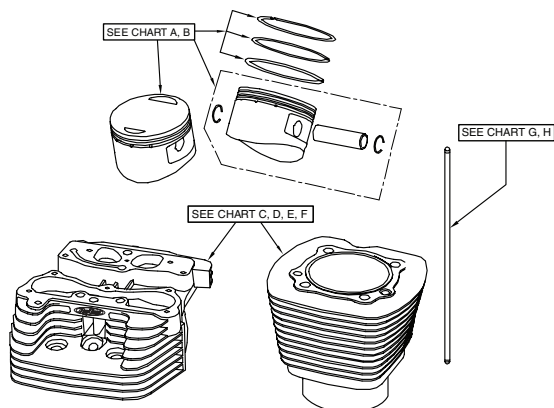


Chart A Piston With Rings For Revtech 125" Motors

- 684678** Piston Set 4-1/4" bore, standard size with rings, wrist pin & clips.
- 684679** Piston Set 4-1/4" bore, +.005" oversize with rings, wrist pin & clips.
- 684680** Piston Set 4-1/4" bore, +.010" oversize with rings, wrist pin & clips.
- 684681** Piston Set 4-1/4" bore, +.020" oversize with rings, wrist pin & clips.
- 684686** Retaining clip, wrist pin. Sold in a pair.

Chart A Piston With Rings For Revtech 115" Motors

- 684687** Piston Set 4-1/8" bore, standard size with rings, wrist pin & clips.
- 684688** Piston 4-1/8" bore front, +.005" oversize with rings, wrist pin & clips.
- 684689** Piston 4-1/8" bore front, +.010" oversize with rings, wrist pin & clips.
- 684690** Piston 4-1/8" bore front, +.020" oversize with rings, wrist pin & clips.
- 684686** Retaining clip, wrist pin. Sold in a pair.

Chart B Ring Set For Revtech 125" Motors

- 684696** 4-1/4" bore piston ring set, standard size. Sold in a set for 1 piston.
- 684697** 4-1/4" bore piston ring set, +.005" oversize. Sold in a set for 1 piston.
- 684698** 4-1/4" bore piston ring set, +.010" oversize. Sold in a set for 1 piston.
- 684699** 4-1/4" bore piston ring set, +.020" oversize. Sold in a set for 1 piston.

Chart B Ring Set For Revtech 115" Motors

- 684700** 4-1/8" bore piston ring set, standard size. Sold in a set for 1 piston.
- 684701** 4-1/8" bore piston ring set, +.005" oversize. Sold in a set for 1 piston.
- 684702** 4-1/8" bore piston ring set, +.010" oversize. Sold in a set for 1 piston.
- 684703** 4-1/8" bore piston ring set, +.020" oversize. Sold in a set for 1 piston.

Chart E Cylinder for Revtech 125" Motors

- 684704** 125" Natural cylinder 4-1/4" bore, front.
- 684705** 125" Natural cylinder 4-1/4" bore, rear.
- 684706** 125" Black cylinder 4-1/4" bore, front.
- 684707** 125" Black cylinder 4-1/4" bore, rear.
- 684708** 125" Polish cylinder 4-1/4" bore, front.
- 684709** 125" Polish cylinder 4-1/4" bore, rear.

Chart E Cylinder for Revtech 115" Motors

- 684710** 115" Natural cylinder 4-1/8" bore, front.
- 684711** 115" Natural cylinder 4-1/8" bore, rear.
- 684712** 115" Black cylinder 4-1/8" bore, front.
- 684713** 115" Black cylinder 4-1/8" bore, rear.
- 684714** 115" Polish cylinder 4-1/8" bore, front.
- 684715** 115" Polish cylinder 4-1/8" bore, rear.

Chart F Cylinder Heads for Revtech 125" & 115"

- 684716** Natural front head for Gen 4 motors. Valve guides & valve seats installed.
- 684717** Natural rear head for Gen 4 motors. Valve guides & valve seats installed.
- 684718** Black front head for Gen 4 motors. Valve guides & valve seats installed.
- 684719** Black rear head for Gen 4 motors. Valve guides & valve seats installed.
- 684720** Polish front head for Gen 4 motors. Valve guides & valve seats installed.
- 684721** Polish rear head for Gen 4 motors. Valve guides & valve seats installed.

Chart H Push rods for Revtech 125" & 115"

- 684722** Pushrod, rear exhaust. Sold each
- 684723** Pushrod, rear intake. Sold each
- 684724** Pushrod, front exhaust. Sold each
- 684725** Pushrod, rear intake. Sold each

Gaskets and Seals

- 684726** Complete engine gasket, seal & O-ring kit for RevTech 125" engines
- 684727** Complete engine gasket, seal & O-ring kit for RevTech 115" engines
- 684728** Tep End gasket, seal & O-ring kit for RevTech 125" engines
- 684729** Tep End gasket, seal & O-ring kit for RevTech 115" engines

