

# Big Bear Choppers

Big Bear Lake, Ca

Phone 909.878.4340 + Fax 909.878.4341 + [www.BigBearChoppers.com](http://www.BigBearChoppers.com)  
Shipping 41922 Fox Farm Road + Mailing PO Box 1741 + Big Bear Lake, California 92315



March 20, 2008

Associate Administrator for Safety Assurance (NSA-01)  
National Highway Traffic Safety Administration  
400 7<sup>th</sup> Street, SW  
Washington, DC 20590

RECEIVED  
2008 MAR 21 - 10:00 AM  
OFFICE OF RECALL  
MANAGEMENT DIVISION

08V-129  
(37 Pages)

Re: Title 49 U.S.C. Chapter 301 Safety Recall; Big Bear American Made Choppers, Inc.

Dear National Highway Traffic Safety Administration:

Pursuant to Title 49 of United States Code Chapter 301 and the NHTSA Office of Defects Investigation Safety Recall Compendium, Big Bear American Made Choppers, Inc. is providing the following documents for your review:

1. Draft notification letter to purchasers of affected Big Bear American Made Choppers, Inc. 2004 and 2005 chopper models
2. Draft Safety Bulletin to Dealers of Big Bear American Made Chopper products
3. Letters to purchasers of affected Big Bear American Made Choppers, Inc. 2004 and 2005 models related to this recall
4. VIN number listing of affected Big Bear American Made Choppers, Inc., 2004 and 2005 models

It is our intent that, immediately following conclusion of your review, we proceed with recall of the vehicles identified under this campaign.

Please address any questions and/or comments to Ms. Dena Valenzuela at [dena@bigbearchoppers.com](mailto:dena@bigbearchoppers.com) (909) 878-4340, extension 119, and Ms. Valenzuela will coordinate response to NHTSA on behalf of our organization.

Sincerely,

David Ryan  
General Manager  
Big Bear American Made Choppers, Inc.  
41922 Fox Farm Road  
Big Bear Lake, CA 92315

**PART 573 Defect and Noncompliance Report**

On March 17<sup>th</sup>, 2008, Big Bear American Made Choppers decided that a defect which relates to motor vehicle safety exists in the motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

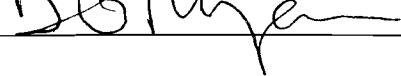
Date this report was prepared: March 17, 2008

Manufacturer's Identification Code 1B9/631

**1. Big Bear American Made Choppers**

David Ryan, General Manager  
Phone: 909-878-4340  
Fax: 909-878-4341

Name of person who prepared this report: David Ryan

Signed: 

**I. Identify the Vehicle Models Involved in the Recall**

**2. Vehicles involved in recall.**

Make: Big Bear Chopper      Model Years Involved: 2004  
Models: Venom Choppers  
Production Dates: Beginning: 01-01-2004 Ending: 12-31-2004  
VIN Range Beginning: SEE ATTACHED      Ending: SEE ATTACHED  
Vehicle Type: Motorcycle      Body style: Soft Tail

Make: Big Bear Chopper      Model Years Involved: 2004  
Models: Devil's Advocate Choppers  
Production Dates: Beginning: 01-01-2004 Ending: 12-31-2004  
VIN Range Beginning: SEE ATTACHED      Ending: SEE ATTACHED  
Vehicle Type: Motorcycle      Body style: Soft Tail

Make: Big Bear Chopper      Model Years Involved: 2005  
Models: Venom Choppers  
Production Dates: Beginning: 01-01-2005 Ending: 12-31-2005  
VIN Range Beginning: SEE ATTACHED      Ending: SEE ATTACHED  
Vehicle Type: Motorcycle      Body style: Soft Tail

**Make: Big Bear Chopper      Model Years Involved: 2005**  
**Models: Devil's Advocate Choppers**  
**Production Dates: Beginning: 01-01-2005      Ending: 12-31-2005**  
**VIN Range Beginning: SEE ATTACHED      Ending: SEE ATTACHED**  
**Vehicle Type: Motorcycle      Body Style: Soft Tail**

**Make: Big Bear Chopper      Model Years Involved: 2005**  
**Models: Sled Chopper**  
**Production Dates: Beginning: 01-01-2005      Ending: 12-31-2005**  
**VIN Range Beginning: SEE ATTACHED      Ending: SEE ATTACHED**  
**Vehicle Type: Motorcycle      Body Style: Soft Tail**

**Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:**

*The recall was limited to a vehicle type called "Chopper" as opposed to a "ProStreet" model. The frame geometry between "Chopper" and "ProStreet" model vehicles manufactured by Big Bear American Made Choppers, Inc. is quite different*

*The frame on Choppers is up stretched this is accomplished by lengthening the down tube(s) to raise the neck height, resulting in a taller, shorter appearance. This design places more stresses on frame in the area of the neck tube as identified in our recall.*

*The frame on ProStreets is elongated, "stretched", by lengthening the backbone and lowering the neck height resulting in a very low and long appearance*

**II.      Identify the Recall Population**

**3. Total Number of Vehicles Recalled Potentially Containing Defect.**

**Model: Venom Chopper      Year: 2004**  
**Number of Vehicles Potentially Involved: 208**  
**Total Number Potentially Affected by the Recall: 208**

**Model: Devil's Advocate Chopper      Year: 2004**  
**Number of Vehicles Potentially Involved: 18**  
**Total Number Potentially Affected by the Recall: 18**

**Model: Venom Chopper      Year: 2005**  
**Number of Vehicles Potentially Involved: 93**  
**Total Number Potentially Affected by the Recall: 93**

**Model: Devil's Advocate Chopper      Year: 2005**

**Number of Vehicles Potentially Involved: 20**  
**Total Number Potentially Affected by the Recall: 20**

**Model: Sled Chopper      Year: 2005**  
**Number of Vehicles Potentially Involved: 12**  
**Total Number Potentially Affected by the Recall: 12**

**4. Approximate percentage of the total number of vehicles estimated to actually contain the defect: 41%**

Identify and describe how the recall population was determined. In particular how the recalled models we selected and the basis for the beginning and final dates of manufacture for the recalled vehicles

*The beginning and final dates of manufacture for the recalled vehicles were determined by reviewing the dates we implemented changes to our welding processes.*

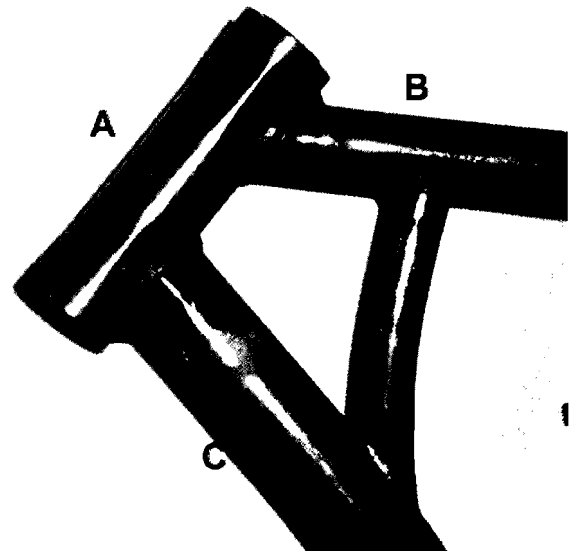
**III. Describe the Defect of Noncompliance**

5. Describe the defect of noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate

*The defect is a potential failure of a motorcycle frame at the point where frame tubes (B) and (C) connect to the Neck (A) as identified in illustration #1*

Legend

- A Neck Stem:** A machined steel piece that is fit with bearings or bearing cups that will be used to support the frontend
- B Top Tube/Backbone:** A frame member that fits the space between the steering neck and the wishbone tubes.
- C Down tubes:** (there is either one or two of them) are welded to the neck stem at the front.



Describe the cause(s) of the defect or noncompliance.

The primary cause is insufficient penetration of the weld joint where tubes (B and C connect to the Neck A) as identified in illustration #1

A secondary concern is, failure to maintain frame and engine bolts to the correct torque can cause excessive vibration in the frame which can contribute to advancement of the weld failure in the identified areas

Describe the consequence(s) of the defect or noncompliance condition.

- *If the weld joint cracks and this failure continues a separation of the neck from the backbone and down tubes can occur resulting in frame failure and a possible loss of control of the motorcycle if it is being driven.*

Identify any warning which can (a) Precede or (b) occur.

1. *Visual inspection of the weld might indicate the onset of a weld failure. This would be in the form of a visible crack either along the edges of the weld or on the weld bead itself.*
2. *If the top motor mount is loose, vibration from the engine could be more apparent than normal, this vibration is not a direct indicator of a weld joint failure. It is however a factor that can contribute to accelerated weld joint failure. If the top motor mount is left loose the frame will inevitably fail.*

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address

*Not Applicable*

Identify and name the CEO or knowledgeable representative of the supplier.

*Not Applicable*

#### **IV. Provide the Chronology in Determining the Defect/Noncompliance**

*If the recall is for a defect, complete item 6, otherwise item 7.*

6. With respect to the defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.

*January 28<sup>th</sup> 2008*

*We were alerted by an email from an owner who indicated that on August 31<sup>st</sup> 2007 he was traveling on highway when the neck stem (A) separated from the backbone (B) and the down tube (C) resulting in a non injury single vehicle accident.*

*January 29<sup>th</sup> 2008*

*We received a package from the same owner that included photographs of his vehicle with the frame tubes separated from the neck. Based on this information we decided to launch an investigation that resulted in this recall.*

#### **NUMBER OF REPORTS, ACCIDENTS, INJURIES, FATALITIES, AND WARRANTY CLAIMS**

<i>Reports</i>	<i>2</i>
<i>Accidents</i>	<i>1 – The one described above</i>
<i>Injuries</i>	<i>0</i>
<i>Fatalities</i>	<i>0</i>
<i>Warranty claims</i>	<i>1 (the second listed in the reports above)</i>

7. With respect to the noncompliance identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

#### **REVIEW OF OWNER PHOTOGRAHPS – FRAME FAILURE**

*The photographs revealed:*

1. *Inadequate weld penetration*
2. *Varying levels of oxidization (rust) on and around the weld joints that finally failed, suggesting the failure was progressive and not sudden.*

*We pulled service records for this motorcycle and learned that this owner had:*

- *Modified his frame by drilling holes in the backbone (a structural member)*

- Was operating the motorcycle for over 10,000 miles without the top motor mount being torqued to the factory specification. This condition would allow the transfer of excessive vibration energy from the engine to the frame. Proper torque of the top motor mount is a critical structural component required in the engineering design of this frame
- Our records show we advised him of both these conditions in an email prior to the failure.

### **SOFTWARE TESTING**

Our investigation continued with Finite Element Analysis (FEA) of the existing frame design and other conditions that could contribute to frame or weld failure

Scenarios included:

1. Analysis of the frame as designed – Results verified proof of design
2. Analysis of a frame with a top motor mount loose – Allowed compounded flex in the frame and transferred additional stresses to the area that failed.
3. Analysis of additional gusseting – Results varied depending on the loads and type of gusset. The information confirmed that our existing tube gusset has design integrity.

### **PHYSICAL EVALUATION -Hard Test**

March 12, 2008

We acquired a 2005 motorcycle model of similar configuration built using the same techniques/processes as the one that triggered our investigation.

We inspected the weld by:

1. Removing the coating
2. Inspecting the weld joint for visible signs of failure at the surface and along the edges of which there were none.
3. Grinding into the weld joints to understand the depth of penetration of each joint, this resulted in a sound weld between the neck (A) and the backbone (B). However the joint between the neck (A) and the down tube (C) had insufficient penetration and is inadequate.

### **MANUFACTURING PROCESS REVIEW**

Based on our investigation of our methods, processes and dates when new process improvements were implemented we were able to identify those years, and models of motorcycles that we believe need to be recalled.

## **V. Identify the Remedy**

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the difference between the recall condition and the remedy.

Initial remedies were a series of mailings to customers as our investigation evolved.

February 11, 2008	Service Bulletin – Top Motor Mount	See attachment A
February 25, 2008	Neck Gusset mailing	See attachment B
March 6, 2008	Letter requesting owners not to ride until we complete our investigation	See attachment C

### **PERMANENT REMEDY**

March 13 2008	Preparation of a Service Bulletin that defines the detailed steps of this Safety Recall	See attachment D
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Example of a frame requiring the recall procedure



Example of a frame with recall procedure completed

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

*The remedy frame differentiation from the recalled frame is clearly apparent. The obvious distinction is a 1/4" plate (gusset) that occupies what was previously an open space where the neck, backbone, down tube(s) and original tube gusset are joined. This repair is outlined in attachment D on page 6 "NECK GUSSET UPGRADE"*

*Less obvious are the two completely new welds.*

- The first is common to the neck and the down tube(s). This weld repair is outlined in attachment D on page 4 "REPAIR OF LOWER WELD"*
- The second is common to the neck and the backbone. This weld repair is outlined in attachment D on page 5 "REPAIR OF UPPER WELD"*

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

*The recall procedure is twofold.*

- 1. Remove the old (suspect weld) and add new weld*
- 2. Add gusset upgrade*

*Since 2006 our manufacturing processes have been accomplishing the first requirement of the recall*

- Revised copes (the geometry of how the tubes/parts to be welded are prepared)*
- Increased amperage used in our GTAW (TIG) welding processes*
- Visual inspection of the heat signature that indicated good heat distribution at the weld area*

***NOTE: Our Finite Element Analysis (FEA) support that the present production techniques are more than adequate to prevent a frame failure in this area.***

## **VI. Identify the Recall Schedule**

**Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please identify any foreseeable problems with implementing the recall.**

1. Notification to dealers: Two (2) days following NHTSA response.
2. Notification to purchasers: One (1) day following NHTSA response.

## VII. Furnish Recall Communications

9. **Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. *A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.***

**Note that these documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.**

**SEE ATTACHMENT**

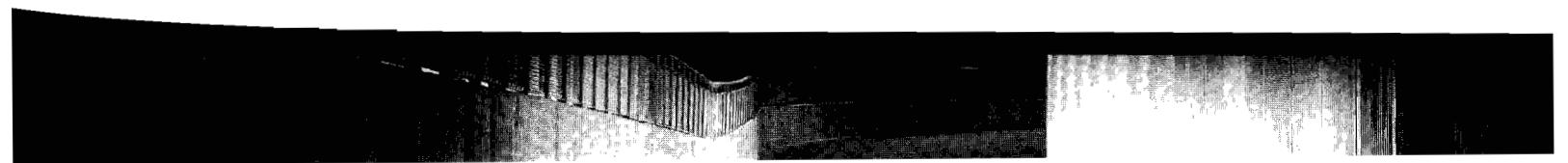
# Big Bear Choppers

Big Bear Lake, Ca

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Shipping 41922 Fox Farm Road • Mailing PO Box 1741 • Big Bear Lake, California 92315



Attached are the letters that we have previously sent to our customers





February 11, 2008

Dear Big Bear Choppers Customer,

We hope you enjoyed building and riding your Big Bear Chopper motorcycle. It has come to our attention that some kit builders have not insured that the top motor mount assembly is properly installed.

If you built your motorcycle from a kit, please perform the following to insure the correct installation: (if you purchased an assembled motorcycle, please read the instructions below "Assembled Motorcycle Customers")

1. Physically inspect the top motor mount for any signs of looseness between both the engine and the frame.
2. Remove each bolt and insure that the threads have been lubricated with anti-seize compound.
3. Install the bolts in the head and frame without the bracket to insure the bolt does not bottom before adequately tightening the bracket.
4. If any bolt will not screw into its hole by hand up to point of final tightening, inspect threads in hole, and if necessary, re-tap holes.
5. Replace any bolt showing signs of thread galling.
6. Re-Install the lubricated bolts through the bracket into their respective holes and tighten to appropriate torque specifications.
7. Please affix the enclosed decal in clear sight on the ignition switch cover / top motor mount assy.

If you do not have the expertise to perform the foregoing operations, consult a qualified mechanic, authorized Big Bear dealer or Big Bear Choppers directly.

**IMPORTANT** – If the frame or swing arm has been modified in anyway the warranty is voided.

**PLEASE BE ADVISED THAT FAILURE TO INSURE AND MAINTAIN ADEQUATE TORQUE ON THE TOP MOTOR MOUNT MAY LEAD TO STRUCTURAL FAILURE OF THE FRAME. SUCH FAILURE MAY LEAD TO A LOSS OF CONTROL OF THE MOTORCYCLE, RESULTING IN SERIOUS INJURY OR DEATH.**

**IF UPON INSPECTION, THE TOP MOTOR MOUNT IS FOUND TO BE LOOSE, AND THE MOTORCYCLE HAS BEEN RIDDEN WITH THAT CONDITION, DO NOT RIDE THE MOTORCYCLE. TRANSPORT IT TO AN AUTHORIZED BIG BEAR DEALER, QUALIFIED MECHANIC OR BIG BEAR'S FACTORY FOR INSPECTION OF THE FRAME.**

**ASSEMBLED MOTORCYCLE CUSTOMERS Only**

If you purchased an assembled motorcycle from either Big Bear Choppers or an authorized Big Bear Choppers dealer, please ensure the top motor mounts are not loose and have the motorcycle inspected at the next scheduled service.

If you have any questions, please call Tech Support at Big Bear Choppers at (909) 878-4340





# Big Bear Choppers

Phone 909.878.4340 • Fax 909.878.3541 • WWW.BigBearChoppers.com  
Shipping 41922 Fox Farm Road • Mailing PO Box 1741 • Big Bear Lake, California 92315

February 25, 2008

Dear Big Bear Chopper Owner,

We have become aware of a failure of one of our frames. The owner has refused to allow us to inspect the frame, so we cannot be certain of the cause. We believe that certain actions taken by that owner may have contributed to the problem. We are aware that the owner;

1. Drilled a hole or holes in main structural part of the frame.
2. Operated the motorcycle with the top motor mount loose for approximately 16,000 miles.
3. Crashed the motorcycle, rode it from the scene and never had it inspected for hidden damage after the crash.

We do not believe that any defect contributed to the failure. But to be extra safe, we are providing the enclosed gusset with instructions for having a certified welder install it on your frame. The installation of this gusset will greatly strengthen the frame in the neck area so that you may enjoy your motorcycle for many thousand miles.

If you have any questions, call Ryan Gore in our Warranty department at: (909) 878-4340, ext 106. We apologize for any inconvenience, but at Big Bear Choppers, we have a policy of customer service for as long as you own your motorcycle.

Thank you for your purchase of a Big Bear American Made Chopper.

Yours truly,

Kevin Alsop, CEO  
Big Bear American Made Choppers, Inc.





## **PLEASE FOLLOW THESE INSTRUCTIONS TO HAVE THE NECK GUSSET INSTALLED IN YOUR FRAME:**

1. A Certified Welder **MUST** install this gusset.
2. The neck gusset must be trimmed to fit your particular model. (Sled, Devil's Advocate, Venom)
3. Use the scribe lines as a guide to get accurate fitment.
4. It must be TIG welded 360 degrees around the gusset on both sides.





March 6, 2008

Dear Big Bear Chopper Customer:

Recently, we sent you a letter regarding failure on one of our frames, in which the following conditions were present:

1. The owner modified a main structural part of the frame by drilling one or more holes in the frame
2. The owner did not observe proper maintenance procedures, failing to torque the top motor mount at the recommended interval, and, as a result, operated the bike for approximately 16,000 miles with a loose motor mount – subjecting the bike to excessive vibration for a protracted period of time, and,
3. The owner was in an accident which may have subjected the front end to forces contributing to frame failure.

Though the accident and frame modifications occurred over six months ago, the owner only recently disclosed these events to us, and has refused to provide access to the frame to us to conclusively determine the root cause for the frame failure.

We are currently conducting an independent evaluation, and, as the safety of our Customers is of paramount importance to us, believe you must not ride your Big Bear Chopper until we complete our evaluation. We plan to complete our evaluation, and to communicate our findings to you, on/before the 21st of March 2008.

I want to thank you in advance for your prompt attention to this important safety matter, and for your adherence to our instruction pending conclusion of our evaluation of our frames.

Yours Truly,

Dave Ryan  
General Manager  
Big Bear American Made Choppers, Inc



# Big Bear Choppers

Big Bear Lake, Ca

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Attached are the documents that require approval



March 14, 2008

**IMPORTANT SAFETY RECALL NOTICE**

Dear Big Bear Chopper Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

**What is the reason for this notice?**

Big Bear Choppers has decided that a defect, which relates to motor vehicle safety, exists in certain 2004 Venom Choppers and Devil's Advocates Choppers and 2005 Venom, Devil's Advocate, and Sled Choppers. Some vehicles may have inadequate weld penetration between the neck, backbone, and down tubes of the frame. High loads created when riding on rough road surfaces, structural modification made to the frame by owners, and or failure to maintain the specified torque setting of the top motor mount may cause the effected welds to crack. In the worst case the welded area could break without warning resulting in neck separation and front-end collapse. This could result in a crash.

**What should you do?**

Please contact your Big Bear Choppers dealer as soon as possible to arrange a service date. Instructions for making this correction have been sent to your dealer and the parts necessary for the repair are available. Labor time necessary to perform this service correction is approximately 5 hours, excluding paint time. Please ask your dealer if you wish to know how much additional time will be needed to schedule and process your vehicle. The inspection and any necessary repairs will be done *free of charge*. A paint allowance for the area affected by this Safety Recall procedure is included in the dealer Service Bulletin.

**Who to contact if you experience problems.**

Your Big Bear Choppers dealer is best equipped to obtain parts and provide service to ensure that your vehicle is corrected as promptly as possible. If, however, you take your vehicle to your dealer on the agreed service date, and they do not remedy this condition within seven (7) days, we recommend you contact the Big Bear Choppers factory by calling 909-878-4340.

After contacting your dealer and the Big Bear Choppers factory, if you are still not able to have the safety defect remedied without charge and within a reasonable time, you may write to:

Administrator  
National Highway Traffic Safety Administration  
400 Seventh Street, SW  
Washington, DC 20590  
Or call 1-888-DASH-2-DOT (1-888-327-4236)

**What to do if you feel this notice is in error.**

Our records show you are an owner of a model subject to this Safety Recall Notice. If this is not the case, and you have sold or traded your vehicle, please let us know by completing the enclosed postage paid information change card and returning it to us. We will then update our records.

**If you have questions.**

If you have any questions about this notice, or need assistance locating a Big Bear Choppers dealer, please call Customer Service at 909-878-4340. You may also go to our website [www.bigbearchoppers.com](http://www.bigbearchoppers.com) and click on "Dealers" to locate the nearest Big Bear Chopper Dealer.

We apologize for any inconvenience we may have caused you. The safety of our Customers is of paramount importance to us; we have not had any serious injuries or fatalities associated with this defect, and are taking this action in the interest of your safety and continued satisfaction with our product.

Sincerely,

**Big Bear American Made Choppers, Inc.**

---

**IMPORTANT: ENTIRE SERVICE BULLETIN MUST BE READ BEFORE PROCEEDING, ANY QUESTIONS REGARDING THIS PROCEDURE MUST BE DIRECTED TO BIG BEAR AMERICAN MADE CHOPPERS, INC. 909-878-4340**

# Big Bear Choppers

## Service Bulletin

# SAFETY RECALL

### ATTENTION

Big Bear American Made Choppers, Inc. is conducting a Safety Recall on affected 2004 Venom and Devil's Advocate Choppers and 2005 Venom, Devil's Advocate, and SLED Choppers to inspect frame welds. Certain frame welds may not have sufficient strength where the neck is connected to the backbone and the down tube. There have also been instances where kit customers have:

- Modified their frames by adding holes
- Ground down welds for cosmetic purposes
- Not ensured the top motor mount is tight and torqued to the correct specification

In the worst case the weld could fail resulting in a separation of the neck from the frame. This could result in a crash. To date no serious injuries or fatalities have been reported.

### AFFECTED UNITS

All 2004 Devil's Advocate Choppers

All 2004 Venom Choppers

All 2004 SLED Choppers

All 2005 Devil's Advocate Choppers

All 2005 Venom Choppers

All 2005 SLED Choppers

### VIN AND OWNER INFORMATION

VIN Number \_\_\_\_\_

Owners Name \_\_\_\_\_

Owners Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### CUSTOMER NOTIFICATION

Big Bear American Made Choppers, Inc. is sending a letter to the owners of model year 2004 and 2005 Devil's Advocate, Venom and SLED Chopper models advising them to contact a Big Bear American Made Choppers, Inc. dealer and schedule their motorcycle to have this Safety Recall procedure performed.

Your assistance is needed to ensure any of your customers with a 2004 or 2005 Devil's Advocate, Venom, or SLED Chopper are informed of this Safety Recall. A copy of the owner's letter sent is included at the end of this Service Bulletin.

### CAMPAIGN VERIFICATION

Before you begin the recall procedure, check if the repair has been performed on the unit. If there is a 1/4" plate welded in the opening between the neck stem, down tube, and back bone the recall procedure has been performed.

- If the unit has been repaired no further action is required.
- If there is no plate in the opening proceed with the REPAIR PROCEDURE outlined in this Service Bulletin



Example of frame requiring the recall procedure



Example of frame with recall procedure completed

**IMPORTANT: ENTIRE SERVICE BULLETIN MUST BE READ BEFORE PROCEEDING, ANY QUESTIONS REGARDING THIS PROCEDURE MUST BE DIRECTED TO BIG BEAR AMERICAN MADE CHOPPERS, INC. 909-878-4340**

CUSTOMER INFORMATION: The information in this Service Bulletin is intended for use only by skilled technicians who have the proper training, tools and equipment to correctly maintain your Big Bear American Made Choppers, Inc. motorcycle. These procedures should not be attempted by "do it yourselfers" or home kit builders.

## REPAIR PROCEDURE OVERVIEW

The following provides an overview of the repair procedure.

- Pre inspect and document the inspection criteria on the included inspection sheet. (page 3)
- You will have to remove the fuel tank and front end of the motorcycle and roll the handlebars and controls away from the triple tree location and secure them on the seat. (page 4)
- **Gas tungsten arc welding (GTAW) TIG is the ONLY weld process approved for this repair**
- A certified TIG welder must then perform the frame weld repair per the instructions in this Safety Bulletin, (pages 5, 6 and 7)
- Once repaired the affected area of the frame needs to be painted prior to the reassembly (page 7)
- Upon completion of the painting of the affected areas the motorcycle needs to be re assembled, with new bearing races, followed by the installation of the triple tree/handle bar assembly, front end, fuel tank and testing of the motorcycle (page 8)
- Return this completed Service Bulletin to Big Bear Choppers American Made Choppers, Inc. with the PROCEDURE VERIFICATION and motorcycle photographs for warranty claim reimbursement (page 8)

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**IMPORTANT: ENTIRE SERVICE BULLETIN MUST BE READ BEFORE PROCEEDING, ANY QUESTIONS REGARDING THIS PROCEDURE MUST BE DIRECTED TO BIG BEAR AMERICAN MADE CHOPPERS, INC. 909-878-4340**

**IMPORTANT: THIS DOCUMENT NEEDS TO BE RETURNED TO BIG BEAR CHOPPERS**

You will use this Safety Recall Notice as:

1. As a working document to guide you in all the steps of this Safety Recall procedure.
2. As an Inspection log to document all observations and action taken during this procedure.
3. As part of your verification that all the work as been performed in accordance with this procedure.

**PRE-INSPECTION PROCEDURE**

A pre-inspection must be performed prior to any disassembly of the motorcycle to determine whether the owner has maintained the proper torque of the top motor mount or modified the frame in any manner.

1. Write the VIN Number and the customer name and address in the space allocated on the left hand side of page 1 of this Safety Bulletin.
2. Take a photograph of the motorcycle showing the full motorcycle RIGHT HAND SIDE. This photograph along with a second photograph showing the motorcycle after this Safety Recall procedure has been completed will need to be submitted to Big Bear Choppers American Made Choppers, Inc.
3. Using a calibrated torque wrench, test the torque of the single bolt that secures the top motor mount bracket (coil mount) to the frame (This will be on the RHS of the vehicle)  
The requirement is 100 ft lbs. Document your findings below

Did the top motor mount bolt require a torque adjustment to attain the required torque setting?

Please circle

Yes	No
-----	----

Signature \_\_\_\_\_

4. Using a calibrated torque wrench, test the torque of the two lower bolts that secure the top motor mount bracket to the motor. (They are located at the top of the motor on the LHS of the vehicle)  
The requirement is 35 ft lbs. Document your findings below

Did the lower bolts require a torque adjustment to attain the required torque setting?

Please circle

Yes	No
-----	----

Signature \_\_\_\_\_

5. Have any welds been ground down?

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6. Have any holes been drilled in the frame or swing arm?

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7. Visually inspect and note any obvious cracks around the neck, and top motor mount that is welded to the backbone

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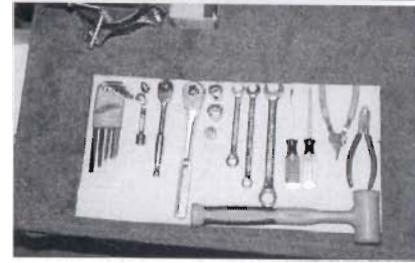


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**IMPORTANT: ENTIRE SERVICE BULLETIN MUST BE READ BEFORE PROCEEDING, ANY QUESTIONS REGARDING THIS PROCEDURE MUST BE DIRECTED TO BIG BEAR AMERICAN MADE CHOPPERS, INC. 909-878-4340**

## DIASSAMBLY PROCEDURE (DETAILED)

- Position and secure the motorcycle on a lift where:
- The front end can be safely removed
- The motorcycle neck is accessible from both sides so the TIG welder can perform the repair on both sides of the frame
- The motorcycle can be transported to and from the location the frame is going to so the repair can be painted.



Recommended hand tools

1. Remove seat and disconnect battery.
2. Disconnect the fuel line from carburetor float bowl, drain the fuel into a gas can.
3. Remove front fender, 4 x 5/16 hex head bolts secure it to lower legs.
4. Remove front wheel.
  - A. Loosen 5/16 socket head pinch bolt, rear of left lower leg.
  - B. Remove axle cap using small pick.
  - C. Remove axle from the right lower leg.
  - D. Wheel is now free to be removed.
5. Disconnect front brake line from caliper, cap end of line or drain fluid.
6. Remove clutch cable from left side hand control.
  - A. Fully compress clutch cable adjustment.
  - B. Remove c-clip from rotation pin on hand control, pull pin, remove clutch lever and cable.
  - C. Pull clutch cable back under frame and secure.
7. Remove headlight and turn signals, pull away from front end and secure.
8. Remove legs.
  - A. On one side of front end loosen the two pinch bolts in rear of tree (do not fully remove pinch bolts).
  - B. With pinch bolts loosened leave hex key or socket in bolt, strike with dead blow hammer to free leg and remove.
  - C. Repeat for other side.
9. Gas tank removal
  - A. Disconnect cross over (if needed).
  - B. Disconnect vent hose from right side of tank.
  - C. Remove the 4 mounting bolts under tank.
  - D. Tank can now be removed.
10. Remove handlebars and trees.
  - A. Loosen neck stem set screw located in rear of lower tree
  - B. Remove stem nut, lower tree, and bearing
  - C. Remove top tree, bearing, and dust cap with handlebars and wiring still attached.
  - D. Pull top tree and bars over backbone and secure.
11. Remove both upper and lower neck race.
12. The motorcycle is now ready to proceed with the repair procedure.



The photograph sequence above shows the method to remove the handlebars, upper triple tree and neck stem as an assembly and secure the assembly on the seat.

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## REPAIR PROCEDURE (DETAILED)



Recommended hand tools and gusset that will need to be trimmed

Take appropriate steps to fully protect ALL engine, frame and control components from grinding sparks, dust, and tools.

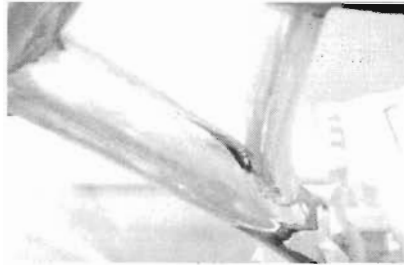
Ensure that the rear of the vehicle, seat, stored handlebars, and the rear fender are also protected.



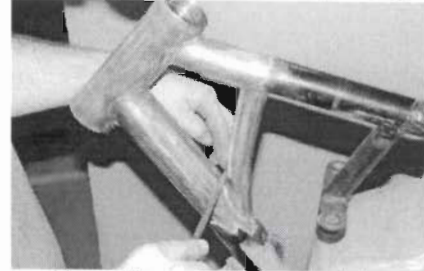
Photograph showing protective covering on the motor and primary



Remove frame paint/powder coating from around the repair area



The grinder might not be able to reach all the areas for paint/powder removal



Use a file or hacksaw blade to remove any residual coating and finish with a stainless steel wire brush

## REPAIR OF LOWER WELD FIRST – WORK ON ONE JOINT AT A TIME

### Removal of weld around the neck and downtube



Using a thin grinding wheel remove the existing weld around the joint



Carefully remove the original weld. And prepare the joint per the illustration to the right

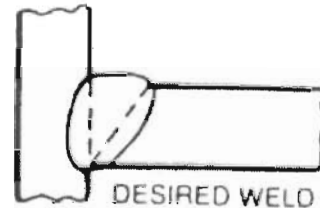


Illustration showing desired joint preparation and weld penetration.

## WELDING OF NEW ROOT PASS



Using TIG process and .045" ER70 rod weld a root pass



Completed root pass weld

The down tube is .156" wall  
The neck is approx .400" thick in the areas of the weld joint

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## WELDING SECOND COVER PASS (MANDATORY)



Using TIG process and 3/32" ER70 rod weld a second pass



Photo of a concave/undercut 2<sup>nd</sup> pass, requiring third weld pass

The second cover pass is mandatory. Upon completion of the second pass inspect the profile of the weld. If the weld profile exhibits a concave form or is undercut, a third pass weld **MUST** be performed.

**ALLOW COOL DOWN PERIODS IN BETWEEN THE WELDS TO PREVENT OVERHEATING**

## WELDING THIRD PASS (IF REQUIRED)



Using TIG process and a .062" ER70 rod to complete the third pass



Finished lower weld with convex form

Upon completion of this weld, the joint must exhibit a convex profile as depicted in the photograph to the left.

**ALLOW COOL DOWN PERIODS IN BETWEEN THE WELDS TO PREVENT OVERHEATING**

## REPAIR OF UPPER WELD

### Removal or weld around the neck and backbone

Complete the same steps for the upper joint (back bone to the neck) as described above in the "Repair of Lower Weld"

Using TIG process and .045" ER70 rod weld a root pass

**ALLOW COOL DOWN PERIODS IN BETWEEN THE WELDS TO PREVENT OVERHEATING**

Continue with welding the second pass with a 3/32" ER70 rod. Inspect the second pass as above. Perform a third pass weld if required using .062" ER70 rod

**ALLOW COOL DOWN PERIODS IN BETWEEN THE WELDS TO PREVENT OVERHEATING**



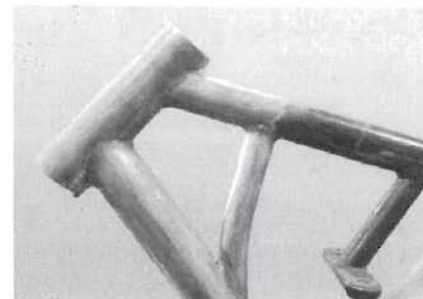
View showing upper joint ready for root weld pass



View of root pass completed



View showing the completion of the 3<sup>rd</sup> and final weld pass



View showing the two new welds

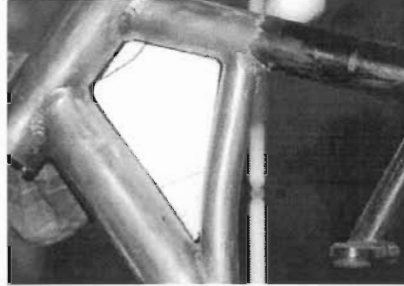
**IMPORTANT: ENTIRE SERVICE BULLETIN MUST BE READ BEFORE PROCEEDING, ANY QUESTIONS REGARDING THIS PROCEDURE MUST BE DIRECTED TO BIG BEAR AMERICAN MADE CHOPPERS, INC. 909-878-4340**

## NECK GUSSET UPGRADE – INSTALLATION – MANDATORY (NOT OPTIONAL)

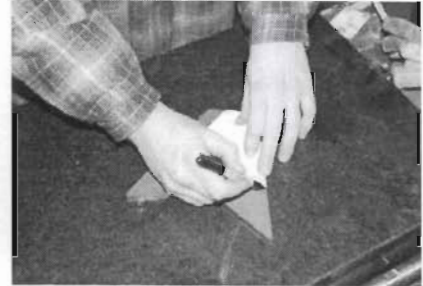
To complete this safety recall procedure you will need to install a 1/4" plate gusset as described below.

Create a poster board template that fits inside the opening inside the frame behind the neck

The template should represent the opening along the centerline of the tubes.

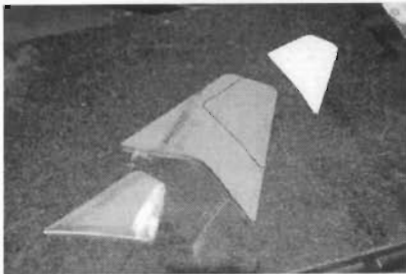


Poster board template trimmed to fit in the frame opening.



Transfer the profile of the template to the 1/4" thick plate using a permanent marker as shown

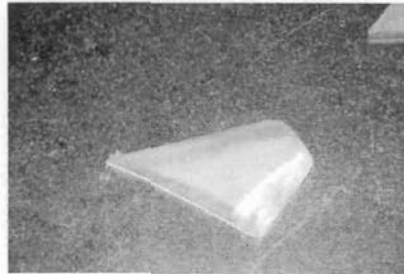
### EACH GUSSET MUST BE CUSTOM FIT TO WITHIN 1/32" (0.032") OF THE OPENING



Cut and grind the 1/4" plate so that it fits inside the frame opening. There should be no more than 1/32" gap all the way around the plate and the opening.

Proceed to tack weld the plate in place on both sides.

Completely weld the plate 100% of the perimeter on both sides.



Example of a trimmed plate ready to be welded into frame opening.



Position the plate in in the opening along the centerline of the tubes.



Completed weld



This picture shows a frame after the the completion of this safety recall procedure.

**ALLOW COOL DOWN PERIODS IN BETWEEN THE WELDS TO PREVENT OVERHEATING**

### WELDER INFORMATION

- Please complete the following and indicate who performed the weld repair

Name of Welding Company	Name of Welder	TIG (GTAW) Certificate Number

### PAINTER INFORMATION

- Arrange to have the repaired weld area painted.
- Once the vehicle is repainted, proceed with the re-assembly procedure (page 8).
- Please complete the following to indicate who performed the paint repair.

Name of Paint Shop	Name of Painter	Telephone Number of Paint Shop

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## MOTORCYCLE RE-ASSEMBLY PROCEDURE

Signed

Signature or initials is required on all tasks

1. Install new races per standard industry practices
2. Reinstall top tree bearing and dust cap
3. Install lower bearing and tree using red locktite on the nut, (do not torque nut until complete assembly of front end)
4. Install legs into trees and snug pinch bolts
5. Install front wheel using anti-seize and 60 foot pounds of torque on axle
6. Torque axle pinch bolt to 20 ft lbs
7. Install front fender using red locktite on fasteners
8. Connect front brake line to caliper (re-bleed brake as needed)
9. Install clutch cable on left hand control (adjust cable accordingly)
10. Install headlight and turn signals
11. Torque top tree pinch bolts to 20 ft lbs
12. Torque main stem nut, 90 to 100 ft lbs (or until a 2 inch fall away is achieved) tighten stem nut pinch with red locktite applied
13. Torque lower tree pinch bolts to 20 ft lbs
14. Install gas tank using anti-seize on all fasteners
15. Reconnect fuel line, crossover, and vent line
16. Connect battery, torque to 60 inch lbs
17. Install seat using anti-seize on hardware
18. Verify that the top motor mount is properly torque
19. Torque the center bolt to 100 ft lbs & the side bolts to 35 ft lbs
20. Attach warning decal on top of the key housing.
21. Take a photograph of the motorcycle showing the full motorcycle RIGHT HAND SIDE after this Safety Recall procedure has been completed

## PROCEDURE VERIFICATION

Signed

Date

Signature is required on all tasks

1. Verify that the VIN number and owners name and address have been entered on page 1.
2. Verify that the VIN number entered on page 1 matches the VIN number on the motorcycle.
3. Verify that you have a photograph as required in item #2 on page 3.
4. Verify that inspection Item #3 on page 3 has been performed correctly.
5. Verify that inspection Item #4 on page 3 has been performed correctly
6. Verify that inspection Items #5, 6, and 7 on page 3 have been performed correctly.
7. Verify that the welder's information is recorded on page 7.
8. Verify that the painter's information is recorded on page 7.
9. Verify that the motorcycle assembly procedure has been completed and tasks are signed or initialed on page 8
10. Verify that you have a photograph as required in item 21# on page 8

**IMPORTANT: ENTIRE SERVICE BULLETIN MUST BE READ BEFORE PROCEEDING, ANY QUESTIONS REGARDING THIS PROCEDURE MUST BE DIRECTED TO BIG BEAR AMERICAN MADE CHOPPERS, INC. 909-878-4340**

## PARTS INFORMATION

Big Bear American Made Choppers, Inc will be sending you one initial kit, others are available for ordering free of charge.

### P/N Recall 2008-1 kit

This kit includes  
¼" gusset (1)  
Bearing race set (1)  
Warning Decal (1)

## WARRANTY TIMES

Disassembly time	45 minutes
Weld Repair time	2.0 hours
Paint/Transportation allowance	\$300.00
Re-assembly time	2 hours

## WARRANTY CLAIM PROCESS

This Safety Recall will be in effect until all units have been repaired according to this Service Bulletin, regardless of the date of purchase.

Normal warranty claim submission requirements apply. After completion of the repair, submit one warranty claim per unit with the following information only:

Note: If the Big Bear Choppers Warranty department provides you with different claim filing instructions. Please file your claim per those instructions. Do not file two claims for the same unit.

Prior to being reimbursed you must complete and submit this Service Bulletin to Big Bear Choppers Pay special attention to the **PROCEDURE VERIFICATION** of this Safety Recall (page 8).

**This is the end of the Service Bulletin Safety Recall Procedure**

Page 10 is a copy of the letter sent to owners

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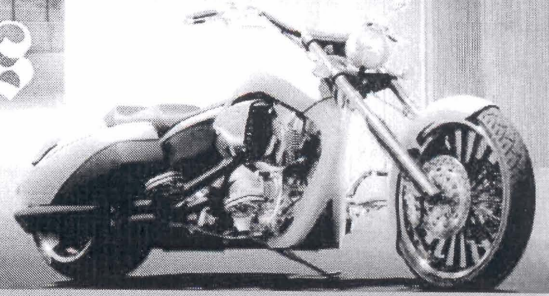




# Big Bear Choppers

Big Bear Lake, Ca

Phone 909.878.4340 • Fax 909.878.4341 • [www.BigBearChoppers.com](http://www.BigBearChoppers.com)  
Shipping 41922 Fox Farm Road • Mailing PO Box 1741 • Big Bear Lake, California 92315

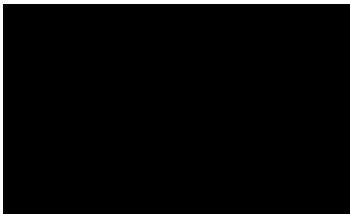


## 2004 VENOM CHOPPER (Cont.)

NAME

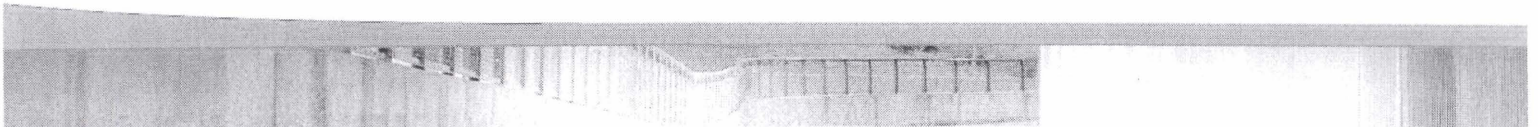
MODEL

VIN



KIT VENOM CHOPPER  
KIT VENOM CHOPPER  
KIT VENOM CHOPPER  
KIT VENOM CHOPPER  
KIT VENOM CHOPPER  
KIT VENOM CHOPPER

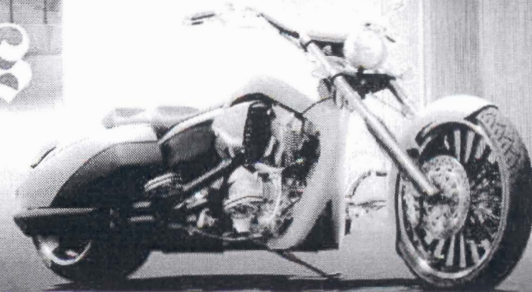
1B9SD210X4B  
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1N9SD21094B



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## 2004 DEVILS ADVOCATE CHOPPER

NAME	MODEL	VIN
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21014B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21024B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21034B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21034B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21044B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21044B
	MANUFACTURED DEVILS ADVOCATE CHOPPER	1B9SD21044B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21054B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21054B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21064B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21064B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21064B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21074B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21074B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21074B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21074B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21084B
	KIT DEVILS ADVOCATE CHOPPER	1B9SD21094B



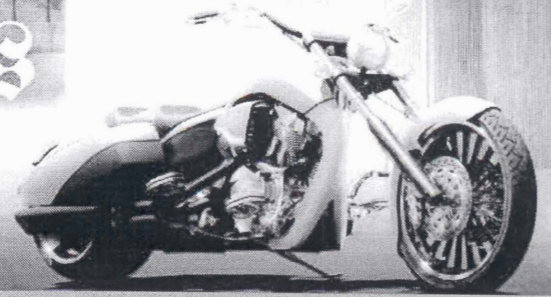




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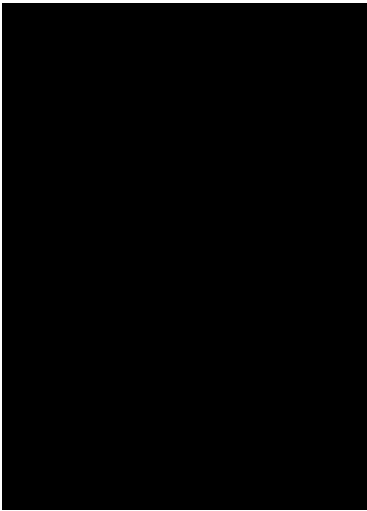


## 2005 VENOM CHOPPER (Cont.)

NAME

MODEL

VIN



KIT VENOM CHOPPER	1B9SD21095B
KIT VENOM CHOPPER	1B9SD210X5E
KIT VENOM CHOPPER	1B9SD210X5E
KIT VENOM CHOPPER	1B9SD210X5E
KIT VENOM CHOPPER	1B9SD210X5E
KIT VENOM CHOPPER	1B9SD210X5E
KIT VENOM CHOPPER	1B9SD210X5B
KIT VENOM CHOPPER	1B9SD210X5B
MANUFACTURED VENOM CHOPPER	1B9SD210X5B
KIT VENOM CHOPPER	1B9SD210X5B
KIT VENOM CHOPPER	1B9SD210X5B
MANUFACTURED VENOM CHOPPER	1B9SD210X5B
KIT VENOM CHOPPER	1B9SD210X5B

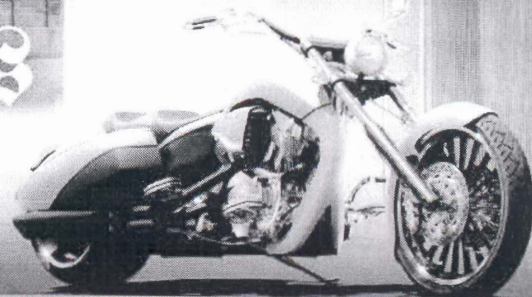


# Big Bear Choppers

Big Bear Lake, Ca

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## 2005 DEVILS ADVOCATE CHOPPER

NAME

MODEL

VIN

[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21005B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21025B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21025B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21025B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21025B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21025B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21025B
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[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21085B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21095B
[REDACTED]	KIT DEVILS ADVOCATE CHOPPER	1B9SD21095B
[REDACTED]	#2 KIT DEVILS ADVOCATE CHOPPER	1B9SD210X5E



# Big Bear Choppers

Big Bear Lake, CA

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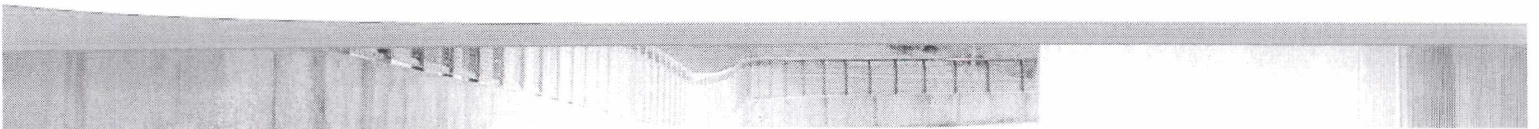
## 2005 SLED CHOPPER

NAME

MODEL

VIN

	KIT SLED CHOPPER	1B9SD21005E
	KIT SLED CHOPPER	1B9SD21005E
	KIT SLED CHOPPER	1B9SD21015B
	KIT SLED CHOPPER	1B9SD21025B
	KIT SLED CHOPPER	1B9SD21035B
	KIT SLED CHOPPER	1B9SD21035B
	KIT SLED CHOPPER	1B9SD21075B
	KIT SLED CHOPPER	1B9SD21085B
	KIT SLED CHOPPER	1B9SD21095B
	KIT SLED CHOPPER	1B9SD21095B
	KIT SLED CHOPPER	1B9SD210X5B
	KIT SLED CHOPPER	1B9SD210X5B





## IMPORTANT

*If you have sold or traded your Big Bear Choppers motorcycle, please fill in the information below and drop it in the mail.*

Please fill in the information of the motorcycle's current owner, if known.

Your Name: \_\_\_\_\_ New Owner's Name: \_\_\_\_\_

New Owner's Address: \_\_\_\_\_ New Owner's Phone: \_\_\_\_\_

Year: \_\_\_\_\_ Model: \_\_\_\_\_

Thank you for your time.



P.O. Box 1741  
Big Bear Lake, CA 92315

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